

Thermal Hydraulic Analysis of Hydride Fuels in BWR's

By

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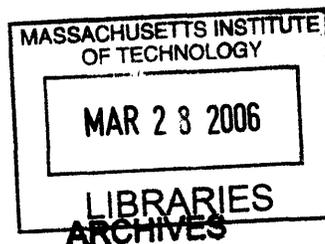
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V.1

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Submitted to the Department of Nuclear Engineering on February 3 2005 in partial fulfillment of the requirements for the degree of Master of Science in Nuclear Engineering

Abstract

This thesis contributes to the hydride nuclear fuel project being completed by UC Berkeley and MIT to assess the possible benefits of using hydride fuel in light water nuclear reactors (LWR's). More specifically, this thesis deals with the thermal hydraulic analysis of BWR reactors. Several papers and theses have already been written for this project, mainly focusing on PWR reactors.

The primary goal of this thesis is to find the optimal fuel rod lattice pitch and diameter such that a reactor can safely operate at the highest possible power. This fuel geometry is found out of hundreds of possible choices by using a script to automate a parametric study. A similar process was completed by an MIT graduate student for PWR reactors.

While this thesis demonstrates the ability to use such a method for thermal hydraulic BWR analysis, there are some shortcomings which are mainly due to the difficulty of obtaining proprietary information about BWR nuclear reactors. All results hold equally for uranium dioxide as well as hydride fuel since the design limits imposed, critical heat flux, maximum flow velocity and pressure drop constrain only pin array geometry and diameter. It is shown that applicable uranium oxide and hydride fuel limits are both met within the constraints imposed by these three limits which were applied.

The final analysis of this report shows a possible reactor power improvement of order 30% but this is based on several analysis selections which introduce error and/or a degree of unrealism into the analysis. First the EPRI critical heat flux correlation was used versus a more appropriate critical power correlation. Second the expedient of using a fixed mass flux was adopted which caused the hot channel exit quality to change with power changes. This was done since the means to keep the ratio of reactor power to mass flowrate constant which would have maintained constant exit quality over the geometry map explored by scripting could not be developed in the time available for this work... Hence definite conclusions on achievable BWR core power over the range of geometries investigated are not available and hence warrant further investigation.

More importantly the accomplishment of this thesis is the demonstration that the scripted methodology described in this paper can be used to assess thousands of different reactor parameters in order to optimize reactor power.

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A friend thought I should include this joke in my thesis:

Q: How do you make holy water?

A: Boil the hell out of it.

It seemed like an appropriate introduction to a thesis on boiling water in nuclear reactor conditions.

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1 INTRODUCTION

1.1 Motivation and Goals

The moderator in LWR reactors comes primarily from Hydrogen atoms in the coolant. Using a solid hydride fuel means that hydrogen atoms will be in the fuel itself, unlike the widely used UO_2 . With moderator in the fuel itself, there is reason to believe that a hydride core can operate at a higher power than an oxide core of the same volume. In other words, a hydride core should have a higher operating power density than an oxide core. This is significant because much of total cost of nuclear energy goes into building and maintaining a reactor with a constant core volume.

The goal of the overall Hydride fuel project is to assess solid hydride fuel in LWR conditions. Some examples include: $\text{UZrH}_{1.6}$, $\text{PuZrH}_{1.6}$, $\text{PuH}_{1.6}\text{-ThH}_{1.6}$, $\text{UH}_2\text{-ThH}_2$, $\text{UZrH}_{1.6}\text{-ThH}_2$, $\text{PuZrH}_{1.6}\text{-ThH}_2$.

This project sees many other possible benefits of using hydride fuel including increased core lifetime, higher discharge burnup, destruction of plutonium, utilization of thorium, and improved core safety in PWR and BWR reactors. It may also be possible to backfit existing reactors to be loaded with hydride fuel.

In order to take advantage of the benefits of hydride fuel, it will be necessary to redesign the core geometry. This thesis will focus on the process of BWR core design based on a thermal hydraulic analysis.

1.2 Scope of This Thesis With Regard to the Hydride Fuel Project

Several other PWR related reports have been written for this project, and this thesis will be followed by a more extensive hydride investigation for BWR reactors.

This thesis is analogous to the thesis written by Jon Malen (Ref 1) on PWRs for this project. Both follow a similar methodology for evaluating steady-state thermal hydraulic performance of square array fuel designs, and both seek to maximize the achievable core power.

This contains very little investigation of Hydride fuel specifically. Most of the investigation involves Oxide fuel as a standard case to develop a methodology that can later be applied to Hydride fuel characteristics for the Hydride Fuel Research Project.

1.3 Organization of this Thesis

Chapter 2 describes the reference BWR core parameters used for this study. Chapter 4 of this thesis explains the methodology that is used to complete the steady-state thermal hydraulic analysis. A simple single channel case is first considered, and results for it are presented in chapter 5. A more complex fuel bundle assessment is made using similar methodology with results presented in chapter 6. Chapter 7 compares the two cases.

2 PARAMETRIC STUDY OVERVIEW

2.1 Reference Core Parameters

It was difficult to decide on what reference core parameters would be suitable for this project for several reasons. First, it was difficult to find a complete set of reference parameters for any BWR plant. Even a current FSAR which I was able to view for the Vermont Yankee BWR contained incomplete and outdated data. There is also a question of which type of BWR the project should focus on, which has not yet been decided.

A unique aspect of this project is that it could benefit existing BWR plants and also plants to be constructed in the future. In order to assess the project's possible impact on future BWR plants, it would make sense to use an ABWR reference core since that is what G.E. is currently building. However, that analysis was not performed in this report because we were able to obtain more complete data for the older reactors. An ABWR analysis may be included in future work.

With regard to assessing the benefit of hydride fuel to existing BWR plants in the United States, one can look at BWR/4, BWR/5, or BWR/6 plants. There are more BWR/4 plants than any other BWR type. However, BWR/6 plants operate at the highest power.

In addition to core-wide plant parameters, one must also take into account the fuel bundle geometry used, in order to complete an accurate thermal hydraulic analysis. Some BWR plants operate with fuel bundles that contain a large central water channel. It is likely that plants operating with fuel bundles that contain large volumes of water channels would experience the most benefit from switching to hydride fuel. These are the latest fuel bundle designs.

Because of the limited reference parameters I was able to obtain, and in order to keep the first simulations simple, but relevant, the reference parameters were created from a mix of both BWR/5 and BWR/6 plants. These parameters were held constant throughout the study. They are listed below in Table 2.1

Table 2.2: BWR Reference Parameters:

Catagory	Parameter	Value	BWR Type	Reference
<i>Geometry</i>	<i>Pitch</i>	<i>16.1544 mm</i>	<i>BWR/6</i>	<i>Lungman PSAR (Ref 4)</i>
	<i>Diameter</i>	<i>12.2682 mm</i>	<i>BWR/6</i>	<i>Lungman PSAR (Ref 4)</i>
	<i>Number of Heated Rods</i>	<i>46376</i>	<i>BWR/6</i>	<i>KAZIMI, TODREAS (Ref 2)</i>
	<i>Channel Length</i>	<i>3.81 m (4.0 m used)</i>	<i>BWR/6</i>	<i>KAZIMI, TODREAS (Ref 2)</i>
	<i>Number of Grid Spacer Axial Points</i>	<i>7</i>	<i>BWR/5</i>	<i>ANSARI (Ref 6)</i>
	<i>Grid Spacer K Value</i>	<i>1.24</i>	<i>BWR/5</i>	<i>ANSARI (Ref 6)</i>
	<i>Fuel Assemblies / Core</i>	<i>748</i>	<i>BWR/6</i>	<i>KAZIMI, TODREAS (Ref 2)</i>
	<i>Fuel Rods / Assembly</i>	<i>62</i>	<i>BWR/6</i>	<i>KAZIMI, TODREAS (Ref 2)</i>
	<i>Clad Thickness</i>	<i>0.8128 mm</i>	<i>BWR/6</i>	<i>Lungman PSAR (Ref 4)</i>
	<i>Pellet Diameter</i>	<i>10.4140 mm</i>	<i>BWR/6</i>	<i>Lungman PSAR (Ref 4)</i>
	<i>Fuel Gap</i>	<i>0.8128 mm</i>	<i>BWR/6</i>	<i>Lungman PSAR (Ref 4)</i>
<i>Operating Conditions</i>	<i>Thermal Power</i>	<i>3833 MWt</i>	<i>BWR/6</i>	<i>Lungman PSAR (Ref 4)</i>
	<i>Inlet Temperature</i>	<i>278 C</i>	<i>BWR/6</i>	<i>KAZIMI, TODREAS (Ref 2)</i>

<i>Inlet Pressure</i>	7.2 MPa	BWR/6	KAZIMI, TODREAS (Ref 2)
<i>Mass Flux</i>	1700	BWR/6	KAZIMI, TODREAS (Ref 2)
<i>Axial Heat Flux shape</i>	BWR Profile (inlet peaked)	BWR/5	
<i>Average Linear heat Rate</i>	5.935 kw/ft	BWR/6	Lungman PSAR (Ref 4)

Table 2.1: Summary of Constraint Limits

MCHFR	Fuel Temperature (degrees)	Pressure Drop (psia)	Flow Velocity (m/s)
1.22	Centerline: 2800 °C (UO ₂) Average: 1400 °C (UO ₂) Centerline 750°C (UZrH _{1,6})	11.2	11.5

2.2 Definition of Constraint Limits

This study assumes four separate thermal hydraulic constraint limits. These limits are assumed to be the major constraining factors on the maximum steady state power output of a reactor. The values for these limits are summarized in Table 2.2 and described in this section.

2.2.1 Minimum Critical Heat Flux Ratio (MCHFR)

It is a design requirement that dryout does not occur in the reactor. Normally, there is at least a film of water that coats the rod. The film of water protects the rods cladding from reaching its melting temperature though heat transfer. When the void fraction becomes high enough, surfaces which are normally cooled by the liquid coolant, overheat. In BWR's the critical condition is a function of the thermal-hydraulic history leading up to a point. Therefore, the

critical power ratio is normally used in BWR design practice instead of the critical flux concept. However, most correlations for the critical power prediction are proprietary, and so the critical heat flux concept was used for this study. The COBRA-EN software has several Critical Heat Flux (CHF) correlations that are relevant to BWR's. Hence, in this study, the critical heat flux concept is used. Typically this approach yields reasonably accurate power predictions of safety limits but not accurate predictions of the critical condition location. For our purpose of estimating the maximum advisable power, use of the critical heat flux condition is satisfactory. I chose to use the EPRI CHF correlation because it seemed to produce results for the broadest range of geometries. The EPRI CHF correlation is further described in Appendix 1 of this thesis.

Unfortunately, it isn't possible to apply the same thermal design procedure that industry uses because many of their methods and correlations are kept proprietary. However, it is reasonable to believe that a steady state evaluation of the minimum critical heat flux ratio of the hot channel for a reactor design provides a fair indicator of the thermal safety acceptability for a reactor.

For this study, a reference value for the minimum critical heat flux ratio is calculated by using COBRA-EN to find the MCHFR for the reference case. That value, 1.22, is then used as a limiting constraint for any test reactor scenario. It is assumed that the MCHFR for the reference reactor is a safety limit that every other reactor geometry must be constrained to. This is a conservative estimate because the MCHFR of the reference reactor may not be the limit which actually constrains the achievable reactor power. The rated limit itself has a built in margin for safety.

2.2.2 Flow Velocity

In Ref. 1, Malen explains:

“Flow velocity is a limiting constraint because it is directly related to rod vibration. Excessive rod vibration leads to reduced bundle lifetime due to deformation of the cladding

where it contacts the grid spacers. Additional grid spacers can improve the ability for an assembly to resist vibration, but they add undesirable pressure loss.”

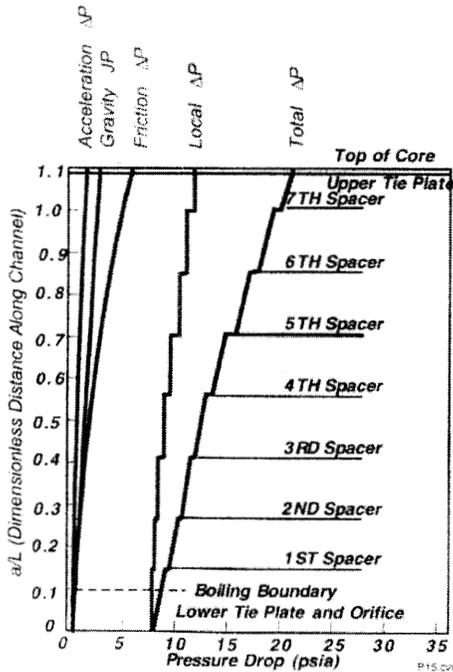
For simplicity, a constant mixture flow velocity limiting constraint was applied to this research, rather than attempting rod vibration analysis. Prof. Todreas suggested that a reasonable velocity limit is 8 m/s. However, for the single channel analysis completed, the flow velocity for the reference case was over 11 m/s. This was because the average core mass flux was fixed as a limit for the single channel, and coolant was not able to leave the channel. The high amount of coolant in the hot channel resulted in a high mixture flow velocity for that analysis. An artificial limit of 11.5 m/s was imposed in the study primarily to assess the feasibility of applying a velocity limit to the more realistic bundle analysis.

The flow velocity is calculated using the Homogeneous Equilibrium Model (HEM). A more refined analysis would assess rod vibrations considering the individual vapor and liquid velocities.

2.2.3 Pressure Drop

The pressure drop across a reactor is due to four components: gravitational, friction, acceleration, and expansion/contraction. Fig 1 shows a typical BWR pressure gradient, and the relevant terms. It is seen that approximately half of the pressure loss is due to grid spacers.

Figure 2.1: A Typical BWR Channel Pressure Drop (Reference 11)



The total pressure drop for a reference core is calculated to be 77.14 kPa (approximately 11.2 psi). This does not include the pressure drop induced by the lower plate boiling boundary. The reference core pressure drop is assumed to be a limiting pressure drop for each considered geometry.

2.2.4 Fuel Temperature

The melting point of Uranium DiOxide is 2840 C. The maximum fuel temperature centerline limit is thus 2840 C. For all cases tested, neither of these limits were exceeded and temperature was never a constraining limit. However, in the case of hydride fuel, it may be. From Malen’s Thesis (Ref 1):

“The fuel temperature limit is based on mitigation of hydrogen release from the fuel, which occurs in excess at temperatures above 700 C *. Hydrogen gas release from the fuel can contribute to clad corrosion and internal pressurization of the fuel rod, as well as introducing an explosive hazard into the core. This limit was established by Westinghouse collaborators on the hydride fuel project”

*later corrected to be 750

2.3 Conversion Between Hydrogen/Heavy Metal Ratio and Pitch/Diameter Ratio

Malen provides an in-depth explanation of this conversion in section 1.1 of his thesis (Ref 1), which I reproduce below in its entirety:

“The relationship between P/D ratio and H/HM ratio is developed below for square and triangular geometries. A complete list of symbol definitions is given in appendix A.

Hydride fuel is an alloy of the hydride matrix and the heavy metal.

$$H_{H_2O} = 2 \frac{N_A \rho_{H_2O} V_{H_2O}}{M_{H_2O}} \quad H_{fuel} = X \frac{N_A \rho_{fuel} (1-w) V_{fuel}}{M_{matrix}} \quad H = H_{H_2O} + H_{fuel} \quad (0.1)$$

Where X is the number of hydrogen atoms per unit of the matrix element, and w is the weight percent heavy metal of the fuel.

$$HM = Y \frac{N_A \rho_{fuel} w V_{fuel}}{M_{HM}} \quad (0.2)$$

Where Y is the number of heavy metal atoms per unit of heavy metal.

Square Array

$$\frac{H}{HM} = \left(\frac{2}{Y}\right) \times \left(\frac{1}{w}\right) \times \left(\frac{M_{HM}}{M_{H_2O}}\right) \times \left(\frac{\rho_{H_2O}}{\rho_{fuel}}\right) \times \left(\frac{V_{H_2O}}{V_{fuel}}\right) + \left(\frac{X}{Y}\right) \times \left(\frac{M_{HM}}{M_{matrix}}\right) \times \left(\frac{1-w}{w}\right) \quad (0.3)$$

$$V_{H_2O} = A_{flow-square} L \quad \& \quad V_{fuel} = A_{rod} L \quad (0.4)$$

$$\frac{H}{HM} = \left(\frac{2}{Y}\right) \times \left(\frac{1}{w}\right) \times \left(\frac{M_{HM}}{M_{H_2O}}\right) \times \left(\frac{\rho_{H_2O}}{\rho_{fuel}}\right) \times \left(\frac{4 \times P_{square}^2 - D_{rod}^2}{\pi D_{pellet}^2}\right) + \left(\frac{X}{Y}\right) \times \left(\frac{M_{HM}}{M_{matrix}}\right) \times \left(\frac{1-w}{w}\right) \quad (0.5)$$

$$\text{if : } \left. \begin{array}{l} a) \text{ gap thickness} = 1.3\% \text{ of the pellet diameter} \\ b) \text{ clad thickness} = 7\% \text{ of the pellet diameter} \end{array} \right\} \quad (0.6)$$

$$\text{then : } D_{rod} = 2D_{pellet} (.013 + .07) + D_{pellet} = 1.166 \times D_{pellet}$$

$$\frac{H}{HM} = \left(\frac{2}{Y}\right) \times \left(\frac{1}{w}\right) \times \left(\frac{M_{HM}}{M_{H_2O}}\right) \times \left(\frac{\rho_{H_2O}}{\rho_{fuel}}\right) \times \left(\frac{4 \times (1.166)^2}{\pi} \times \left(\frac{P_{square}}{D_{rod}}\right)^2 - (1.166)^2\right) + \left(\frac{X}{Y}\right) \times \left(\frac{M_{HM}}{M_{matrix}}\right) \times \left(\frac{1-w}{w}\right) \quad (0.7)$$

$$\frac{P_{square}}{D_{rod}} = \sqrt{\left[\frac{Yw}{2} \times \left(\frac{H}{HM} - \left(\frac{X}{Y}\right) \times \left(\frac{M_{HM}}{M_{matrix}}\right) \times \left(\frac{1-w}{w}\right)\right) \times \left(\frac{M_{H_2O}}{M_{HM}}\right) \times \left(\frac{\rho_{fuel}}{\rho_{H_2O}}\right) + (1.166)^2\right] \times \frac{\pi}{4 \times (1.166)^2}} \quad (0.8)$$

$$\text{Define: } k = \sqrt{\left[\frac{Yw}{2} \times \left(\frac{H}{HM} - \left(\frac{X}{Y}\right) \times \left(\frac{M_{HM}}{M_{matrix}}\right) \times \left(\frac{1-w}{w}\right)\right) \times \left(\frac{M_{H_2O}}{M_{HM}}\right) \times \left(\frac{\rho_{fuel}}{\rho_{H_2O}}\right) + (1.166)^2\right] \times \frac{\pi}{(1.166)^2}} \quad (0.9)$$

$$\text{For future scaling arguments, } k \propto \sqrt{H/HM} \quad (0.10)$$

$$\text{Hence, } \frac{P_{square}}{D_{rod}} = \frac{k}{2} \quad (0.11)$$

Triangular Array

$$\frac{H}{HM} = \left(\frac{2}{Y}\right) \times \left(\frac{1}{w}\right) \times \left(\frac{M_{HM}}{M_{H_2O}}\right) \times \left(\frac{\rho_{H_2O}}{\rho_{fuel}}\right) \times \left(\frac{2\sqrt{3} \times P_{tri}^2 - D_{rod}^2}{\pi D_{pellet}^2}\right) + \left(\frac{X}{Y}\right) \times \left(\frac{M_{HM}}{M_{matrix}}\right) \times \left(\frac{1-w}{w}\right) \quad (0.12)$$

$$\frac{P_{tri}}{D_{rod}} = \sqrt{\left[\frac{Yw}{2} \times \left(\frac{H}{HM} - \left(\frac{X}{Y}\right) \times \left(\frac{M_{HM}}{M_{matrix}}\right) \times \left(\frac{1-w}{w}\right)\right) \times \left(\frac{M_{H_2O}}{M_U}\right) \times \left(\frac{\rho_{fuel}}{\rho_{H_2O}}\right) + (1.166)^2\right] \times \frac{\pi}{2\sqrt{3} \cdot (1.166)^2}} \quad (0.13)$$

$$\therefore \frac{P_{tri}}{D_{rod}} = \frac{k}{\sqrt{2\sqrt{3}}} = \frac{k \times 2^{-5} \times 3^{.75}}{6} \quad (0.14)$$

k is evaluated for the 45 weight percent $UZrH_{1.6}$ fuel,

$$M_{H_2O} = 18.0 \text{ g/mol}, M_U = 237.85 \text{ g/mol}, M_{matrix} = M_{ZrH} = 93.2 \text{ g/mol}, \rho_{fuel} = \rho_{UZrH_{1.6}} = 8.256 \text{ g/cm}^3, \rho_{H_2O} = .667 \text{ g/cm}^3 \text{ (water at 700 F)}, w = .45, X = 1.6, Y = 1 \quad (0.15)$$

$$\text{Hence, } k_{UZrH_{1.6}} = \sqrt{.4868 \frac{H}{HM} + .7118}$$

for reference, k is also evaluated for UO_2 fuel,

$$M_{\text{H}_2\text{O}} = 18.0 \text{ g/mol}, M_{\text{U}} = 237.85 \text{ g/mol}, \rho_{\text{fuel}} = \rho_{\text{UO}_2} = 10.43 \text{ g/cm}^3, \\ \rho_{\text{H}_2\text{O}} = .667 \text{ g/cm}^3 \text{ (water at 700 F)}, w = .8813, X = 0, Y = 1 \quad (0.16)$$

$$\text{Hence, } k_{\text{UO}_2} = \sqrt{1.203 \frac{H}{HM} + \pi}$$

Figure 1: P/D Ratio vs. H/HM Ratio for Square and Triangular Arrays of $\text{UZrH}_{1.6}$ Fuel, and UO_2 Fuel

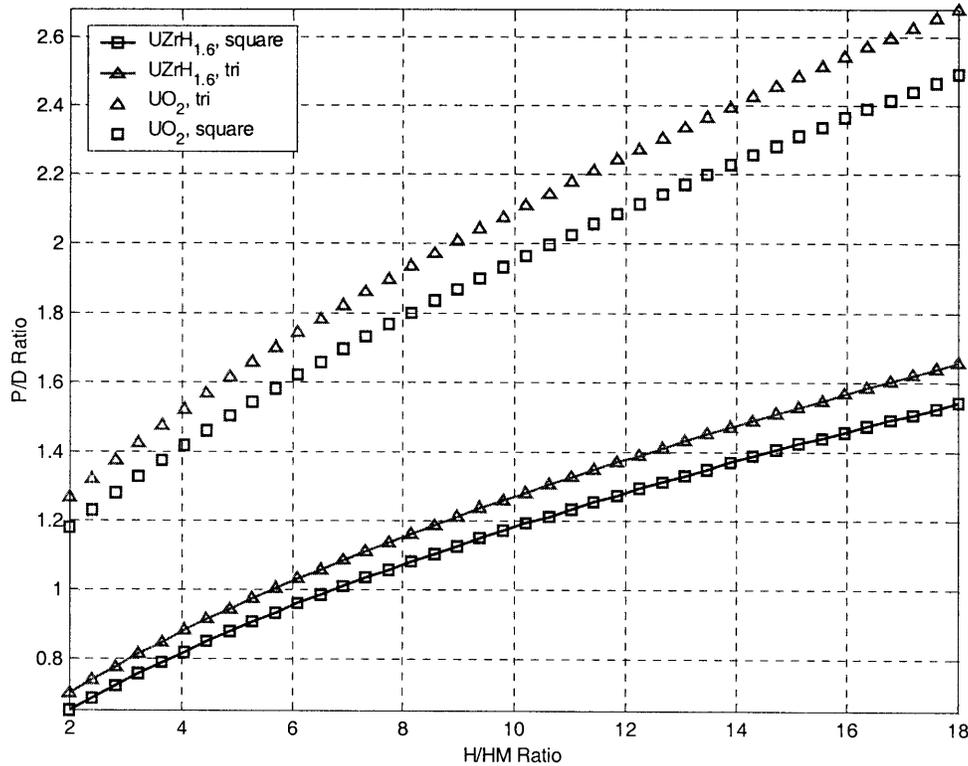
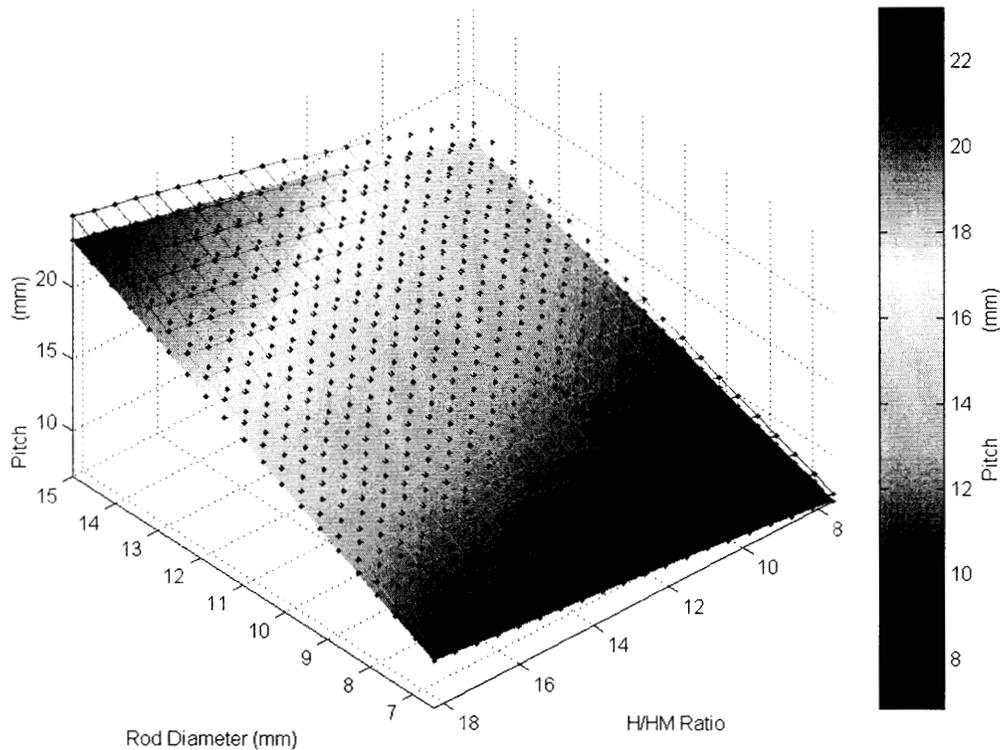


Figure 1 is a plot of P/D ratio vs. H/HM ratio for $\text{UZrH}_{1.6}$ fuel and UO_2 fuel. The P/D ratio increases with H/HM ratio because increasing the hydrogen content of the channel requires increasing the fraction of water in the channel. Since UO_2 does not have hydrogen in the fuel it requires a larger P/D ratio to attain the same H/HM ratio, relative to the $\text{UZrH}_{1.6}$ fuel. The pitch of square and triangular arrays of equivalent H/HM ratio and rod diameter is compared as follows,

$$\frac{P_{\text{square}}}{D_{\text{rod}}} = \frac{k}{2} \quad \frac{P_{\text{tri}}}{D_{\text{rod}}} = \frac{k}{\sqrt{2}\sqrt{3}} \quad \Rightarrow \quad \frac{P_{\text{tri}}}{P_{\text{square}}} = \frac{2}{\sqrt{2}\sqrt{3}} = 1.0746 \quad (0.17)$$

Regardless of the fuel type, for a given rod diameter and H/HM ratio, the pitch of the triangular array is greater than the pitch of the square array by constant multiple. Figure 2 is a plot of pitch vs. H/HM Ratio and Rod Diameter for square and triangular rod arrays of $\text{UZrH}_{1.6}$ fuel. The solid surface with red dots represents the square array and the mesh surface with blue dots represents the triangular array. The pitch for the triangular array is 7% larger than the pitch for the square array at the same rod diameter and H/HM ratio, per equation (0.17).

Figure 2: Pitch vs. H/HM Ratio and Rod Diameter for Square (solid surface) and Triangular (mesh surface) Arrays of $\text{UZrH}_{1.6}$ Fuel



All of the constrained thermal hydraulic parameters depend on the equivalent diameter. It is placed in terms of rod diameter and H/HM ratio for the square geometry as follows,

$$D_{e-square} = \frac{4A_{flow-square}}{P_{w-square}} = D_{rod} \left(\frac{4}{\pi} \left(\frac{P_{square}}{D_{rod}} \right)^2 - 1 \right) = D_{rod} \left(\frac{4}{\pi} \left(\frac{k}{2} \right)^2 - 1 \right) = D_{rod} \left(\frac{k^2}{\pi} - 1 \right) \quad (0.18)$$

where k is substituted from (0.11). For the triangular geometry the equivalent diameter is derived as,

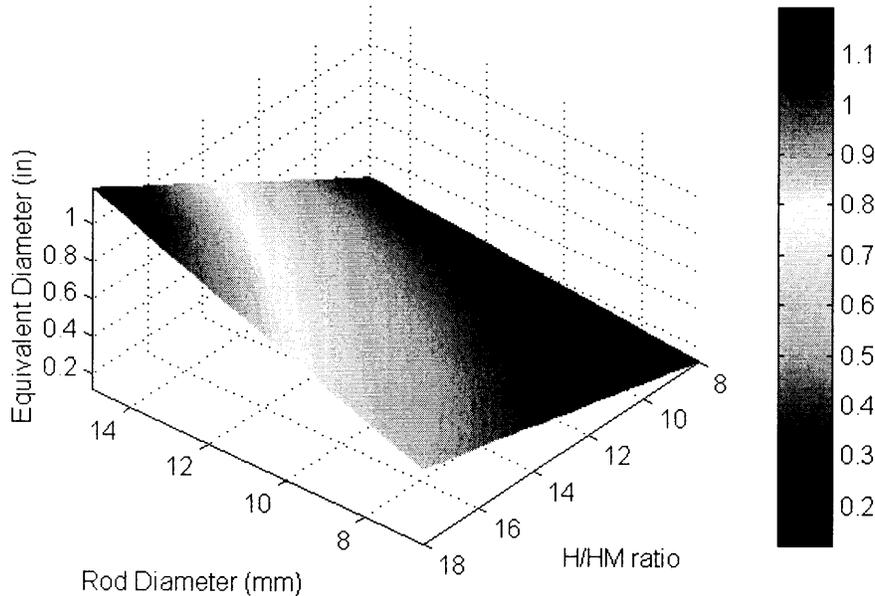
$$D_{e-tri} = \frac{4A_{flow-tri}}{P_{w-tri}} = D_{rod} \left(\frac{2\sqrt{3}}{\pi} \left(\frac{P_{tri}}{D_{rod}} \right)^2 - 1 \right) = D_{rod} \left(\frac{2\sqrt{3}}{\pi} \left(\frac{k}{\sqrt{2\sqrt{3}}} \right)^2 - 1 \right) = D_{rod} \left(\frac{k^2}{\pi} - 1 \right) \quad (0.19)$$

Hence, the equivalent diameter is the same for square and triangular subchannels of equal rod diameter and H/HM ratios. The equivalent diameter scales like,

$$D_e \propto D_{rod} \frac{H}{HM} \quad (0.20)$$

where k^2 has been substituted from equation (0.10). Figure 3 shows the equivalent diameter in inches for the range of geometries examined. As predicted by equation (0.20), equivalent diameter is proportional to rod diameter and H/HM ratio.

Figure 3: Equivalent Diameter vs. Rod Diameter and H/HM ratio for Square and Triangular Arrays of UZrH1.6 Fuel



3 PHYSICAL MODELS

Two-phase thermal-hydraulics in a BWR often involves complicated and chaotic systems which can not be perfectly modeled. Appendix 1 describes the equations that COBRA-EN uses to model two-phase flow and heat transfer, and the physical assumptions upon which the models are based on.

A phenomenon known as “void drift” is known to cause significant effects in operating BWR’s, but is not included in any of the models that COBRA-EN utilizes. We find that the absence of a void drift model does not appear to induce unrealistic results for the cases run in this study. Further research will explore a software package that includes “void drift” effects within its physical models.

Appendix 1 is taken from the manual that comes with the COBRA-EN package (Ref 5).

4 COMPUTATIONAL CALCULATION AND METHODOLOGY

4.1 COBRA-EN Overview

COBRA-EN is a computer program that will automatically solve complex mathematical equations which describe two-phase thermal-hydraulic physical models. This version of COBRA, COBRA-EN, is a revision of the COBRA-3C/MIT Code developed in 1975. COBRA-3C/MIT also evolved out of several other computer codes.

COBRA-EN, and all of the prior codes that it evolved from, were powerful because they employed a subchannel analysis method. The program literally does all of the calculations required to model flow in each channel.

In nuclear reactor safety analysis, the bulk average conditions are not usually as limiting as an extreme local condition. For example, the average rod temperature may be within a safe value, but if even a small section of one rod gets too hot, it can cause damage. Subchannel analysis is particularly useful in allowing one to observe the hot channels in a reactor.

Significant Features of COBRA-EN include the following (from Reference 7):

“It can consider both single and two-phase flow.”

“It considers the effects of turbulent and thermal conduction mixing throughout the bundle by using empirically determined mixing coefficients.”

“It includes mixing which results from the convective transport of enthalpy by diversion crossflow.”

“It includes the momentum transport between adjacent subchannels which results from both turbulent and diversion crossflow.”

“It includes the effect of temporal and spatial acceleration in the transverse momentum equation.”

“It includes the effect of transverse resistance to diversion crossflow.”

“It can consider an arbitrary layout of fuel rods and flow subchannels for analysis of most any rod bundle configuration. “

“It can include arbitrary heat flux distribution by specifying the axial flux distribution, relative rod power, and the fraction of rod power to each of the adjacent subchannels.”

“It can consider variable subchannel area and gap spacing.”

“It can consider non-uniform hydraulic behavior by assigning different single-phase friction factors to selected subchannels.”

“Its subroutines are designed to allow the user to set up correlations through input options.”

“It includes options to select arbitrary subchannel inlet flow and enthalpy.”

The process of using COBRA-EN involves creating an input file, running the COBRA-EN executable, and reading the output file. If an input file is not made correctly, COBRA-EN will usually not produce any results in its output. The cause of an incorrect input file can be as simple as a missing comma. Input files are very difficult and tedious to read. Mainly, they are composed of rows of numbers separated by spaces with no indication of what number corresponds to what variable.

Because input files are so tedious to create, it is often easier to have a tool automatically create the input file. This is one advantage of using a script, which is described further in this chapter.

4.2 Overview of Scripting, and Why it is Needed

A major flaw in COBRA-EN when used for reactor design is that it only lets you set independent variables in order to find dependant variables in a reactor. For example, rod temperature depends, in part, on the power one sets a reactor to operate at. COBRA-EN provides a very straightforward (albeit, tedious) method of altering the input power of the reactor, and determining the resulting rod temperature. However, COBRA-EN does not provide a straightforward way of setting the rod temperature, and determining the reactor power which would cause the rod to be at a certain temperature.

To get around this shortcoming, a method of automating COBRA-EN trials is engaged via a script. A script is a short program that automatically generates a COBRA-EN input file, runs the COBRA-EN executable, and reads the COBRA-EN output file.

This process of using a script in this way is not a new idea. Many students at MIT have employed similar methods, and it has been a standard practice in industry for years. The advantage of using a script in general is that it often allows the engineer to use a piece of code in a much larger variety of ways. An engineer has far greater control over the information he obtains from a software package. A script can be used to obtain information that requires a code to be run thousands of times, because the script literally can run the code thousands of times automatically.

I feel that scripting introduces unsafe uncertainties to any analysis that uses those methods. A script is, in fact, an unregulated piece of code usually written by non-experts in software development, and they are almost never quality-assured.

In the long run, consistently writing scripts for development decreases the productivity of a corporation. If software is written, documented, and quality assured one time, it can be reused thousands of times. Writing a script often requires that the engineer reinvents the wheel by hacking together something which appears to work for a specific case. A script may often not have the same general reusability as regulated software. Some engineers may be inexperienced with script writing and can not develop them fast. Scripts can also

sometimes be easy to write, or deceptively tricky. This uncertainty increases variance in manhours spent on a project.

Often times, one can incorporate a feature not included in a software package with a script. However, it is my feeling that engineers in the field of nuclear engineering depend on their own scripts for needed features rather than requesting new features in their software. Many script functions which have been written hundreds of times could be incorporated as features in future software releases to prevent engineers from writing the same scripts hundreds of times more.

I brought up this concern to managers and engineers at a vendor organization where I spent a summer internship, where scripts are commonly used in research development, and I was told that the NRC considers it an OK practice. The NRC carefully reviews and approves allowable software codes. However, once a code is approved, they do not stipulate whether a person must create an input file by hand, or whether it can be automatically generated. Because it is so hard to get a new code approved, very little effort goes into developing better regulated software. Instead, engineers often add-on features they require through their own scripts.

The scripting language that I opted to use is called Perl. Perl is one of the widest used scripting languages in the world, and I believe it is the most versatile. For my purposes, I will simply use Perl to generate an input file, run the COBRA-EN executable, read the COBRA-EN output, and eventually write to my own output file. These are procedures which Perl is designed to handle particularly well.

4.3 Method of Scripting Cobra for Automated Use

As explained previously, I am trying to determine the independent variable of core power that corresponds to a dependent variable that limits the safety or operating ability of a reactor, such as flow velocity or MCHFR.

The process to do this is to simply keep running COBRA-EN with different values for the variable that I want to solve for until the dependant variable is seen to match my limit within a given tolerance.

Once a channel geometry is defined, the simulation is run with a defined very low operating power. The script then runs the simulation and checks to see if the output indicates that the reactor exceeded a limiting condition. The script then uses a root finding method to quickly converge to the point where the reactor power matches the limiting condition.

Because my range of possible values for power output only spans one order of magnitude, I chose to employ the half step root finding method. The half step root finding method has the advantage of being simpler than other root finding methods, yet still practical in finding roots through a small number of iterations.

Below is a description of the half step root finding method in pseudo-code (From Reference 8):

“Variables: e - the expression

$target$ - the target

$x1$ - lower boundary of search range

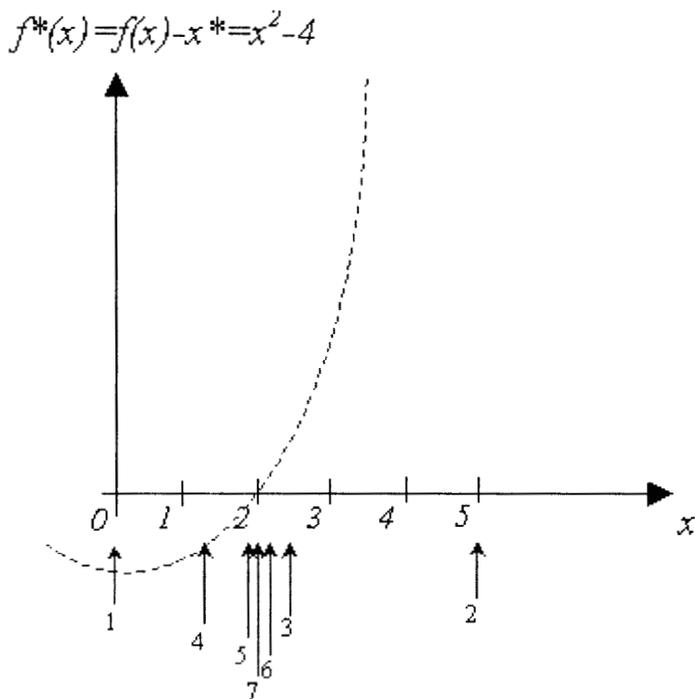
$x2$ - upper boundary of search range

tol - error tolerance within which to accept solution

1. Start at $x = x1$.
2. Set step size = distance between $x1$ and $x2$
3. Store the sign of the value $e(x) - target$ in $initsign$.
4. Initialize the variable $nosol$ with *true* if $|e(x) - target| > tol$ is true. Otherwise *false*.
5. While $nosol$ is true do
6. Add step size to x
7. If $x > x2$ then we have reached the rightmost boundary $x2$ and need to get back to $x1$
8. Reset x to $x1$

9. Reduce step size by half refine the step so we could catch the change of sign
10. End
11. Update *nosol* with *true* if $|e(x) - target| > tol$ is true. Otherwise *false*.
12. If $sign(e(x) - target) \neq initsign$ and *nosol* is true then we have found a change of sign
13. Subtract step size from *x* take one step back
14. Reduce step size by half now we would move forward only half the distance
15. End
16. End''

Figure 4.1: An Illustration of Using the Half Step Root Finding Method to Iterate Until it Finds the Solution to an Equation (From Reference 8).



In the example shown by Figure 4.1, first, upper and lower boundaries are chosen in steps one and two. The midpoint, at step 3, evaluates the function to be greater than zero, so the point at step three is defined to be the new upper boundary. The midpoint between step one and three is now evaluated at step four, and so on.

I set the lower operating power boundary to be 30% of the reference core reactor, and the upper boundary to be 300% of the reference core reactor. These were arbitrarily set, but work well practically. If a reactor can not even operate at 30% the reference power for a given geometry without exceeding a limit, there is no reason to consider its geometry as a feasible design. Conversely, if a reactor can operate at 300% the reference power without being limited by a specific criterion, surely some other criterion will limit it to a lower operating power in that range. For example, there may be some reactor geometries where a reactor could operate at 3 times the reference power before the fuel temperature limit is met. However, another criterion, such as flow velocity, is likely to place a tighter limit on the reactor's maximum power. There is no real reason to determine the unrealistic value a single criterion limits the power to, for that geometry, because searching for it consumes extra computer processing resources.

When a limiting condition is met, the script records the power that the reactor was able to operate at before exceeding a limiting condition. The error tolerance of finding an acceptable solution is set to less than 0.1%.

Each simulation maintains the same axial and radial power profile shape. Calculations are done internally in the script to create the axial power profile, as the input power for a simulation changes.

5 SINGLE CHANNEL ANALYSIS

5.1 Motivation for a Single Channel Analysis

A single-channel analysis models only one subchannel of flow in the core as Figure 5.1 illustrates. The hot channel is modeled, because the hot channel is the most limiting at the core's operating conditions. Modeling just one subchannel is the smallest portion of the core that one can analyze with fairly accurate thermal hydraulic physical representation.

A single channel analysis was first completed to demonstrate the accuracy of the COBRA code and the feasibility of a scripted analysis approach. Once a scripted single channel analysis was complete, a more complicated and more accurate bundle analysis was completed as described in Chapter 6. The major limit of the single channel analysis approach is that mixing effects are ignored. Channel to channel communication is not accounted for because only a single channel is modeled in the analysis. The major advantage of a single channel analysis is its simplicity and ease of modeling compared to multi-channel analyses. One shortcoming of COBRA-EN is that it does not offer the same type of automatic error inspection that many major engineering software packages offer today. It is, therefore, up to the user to carefully inspect any input or output file used, as it would be very easy for a novice user to let a mistake go unnoticed.

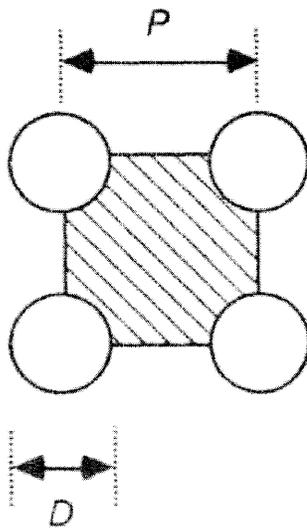
5.2 Parameters of the Channel Simulation

Only square array fuel rod geometries were considered in this analysis. The goal of this analysis was to find the fuel geometry for which the maximum power could be achieved without exceeding any of the imposed safety limits.

Only 8x8 rod bundles were considered. In a BWR, each rod bundle is contained in a "can". This means that intra-bundle mixing effects dominate heat transfer from surrounding regions because there is a steel barrier separating each bundle. The procedure involved picking a rod diameter, and a pitch/diameter ratio to define a given geometry. Bundle size varied depending on the geometry.

A fuel geometry is principally defined by picking a rod Pitch (P) and Diameter (D). Fuel pellet diameters are scaled to be the same relative size to the fuel rod as they were in the reference core. It would physically not make sense to have the fuel pellets with a larger diameter than the rod. Rod cladding is held at a constant thickness. COBRA-EN requires other information, such as the subchannel area. These variables are simply calculated and entered into COBRA-EN based on the values of the pitch and diameter in order to satisfy the requirements of the COBRA-EN input deck. Input parameters for the single channel calculation were the reference BWR core values of Table 2.1

Figure 5.1: The Geometry of a Simple Coolant-Centered Subchannel (Reference 2)



5.3 Calculation of Core Power From a Single Channel Power

Even though, for most cases, larger pitches allow for a channel to output more power, it does not mean that the reactor will output more power for our case of a fixed overall core diameter. The channel area scales with the square of the rod pitch. We assume the reactor height to be constant for all cases, so channel area is directly proportional to a channel core volume.

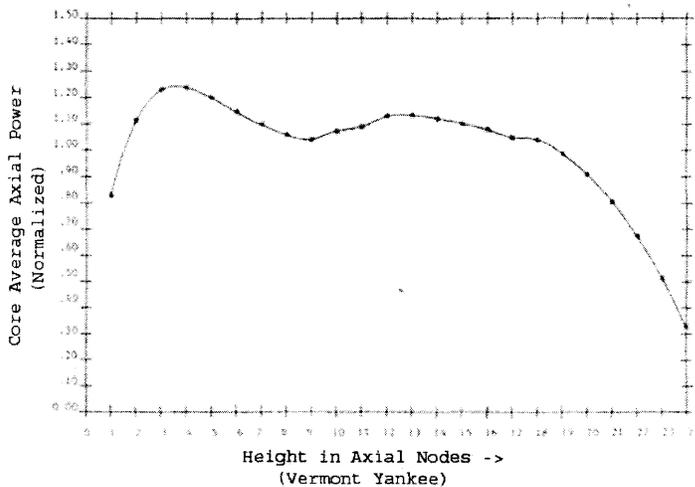
If a channel takes up more of the volume in the core, fewer total rods can fit inside the core. The core power is equal to the number of rods in a core times the power output of each rod.

For some simulations, the power output of a rod is higher, but the number of rods that fit in a core is less. The concern of this project is to find cores that can operate at higher power than the reference core. Therefore, for this analysis, we must take into account the power output of a channel, as well as the number of channels that can fit inside the core.

To model the hot channel, a radial peaking factor of 1.3 was used. This was just an estimate to demonstrate the methodology of this approach. It has now been established that typical reactor radial peaking factors are closer to 1.7. The axial power profile was taken from Reference 6 and is shown in Figure 5.2.

A constant mass flux was imposed for the single channel analysis, which was equal to the average reference bundle mass flux. This artificially created a much higher hot channel flow rate than it would exist in practice. In a more complete physical model, coolant is able to mix between channels.

Figure 5.2: The Axial Power Profile Used in the Analysis. (Reference 6)

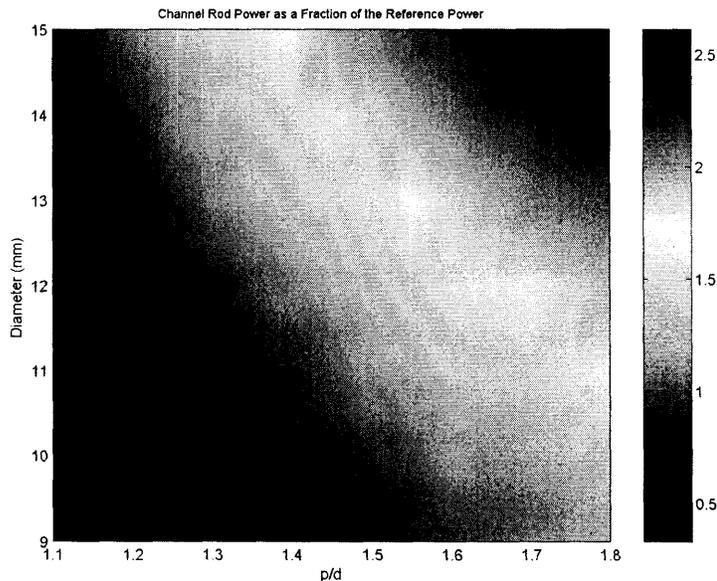


5.4 Results

5.4.1 Effects of Minimum CHF Constraint

Figure 5.3 illustrates the channel power output possible for a range of geometries defined by rod diameter and P/D ratio. Constant channel pitches are diagonal lines (not shown) of negative slope. The figure shows that power increases as channel pitch increases. This behavior results from the limiting critical heat flux condition for our case of constant mass flux. Specifically, the mass flux used is the reference BWR value of $1700 \text{ kg/ (s.m}^2\text{)}$, which is listed in Table 2.2. Critical heat flux occurs at the dryout condition. This is where there is not enough liquid coating the rods due to excessive void generation caused by boiling. Intuitively, it makes sense that as the pitch of a channel increases, the channel is larger and the channel can operate at a higher power for a given rod diameter because there will be more coolant as the pitch increases.

Figure 5.3: The Maximum Possible Power for a Channel with an Imposed CHF Limit in the Units of the Reference Power.



We have assumed that there is a fixed volume in the core. Therefore, as the pitch of the rods increases, the number of rods that can fit in a core decreases. Figure 5.4 illustrates this

relationship, and describes the range of geometries where the number of rods for a given core is fixed.

Figure 5.4: The Number of Total Rods That Can Fit in a Core of the Reference Volume for a Given Geometry.

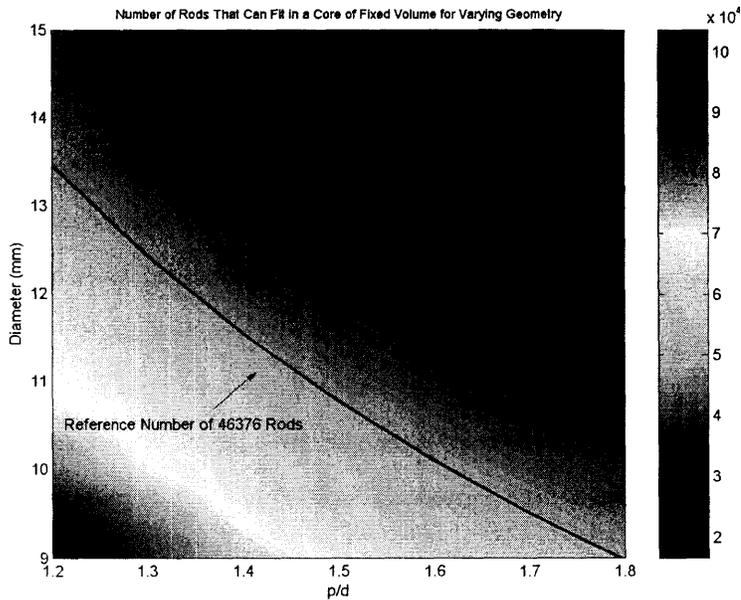
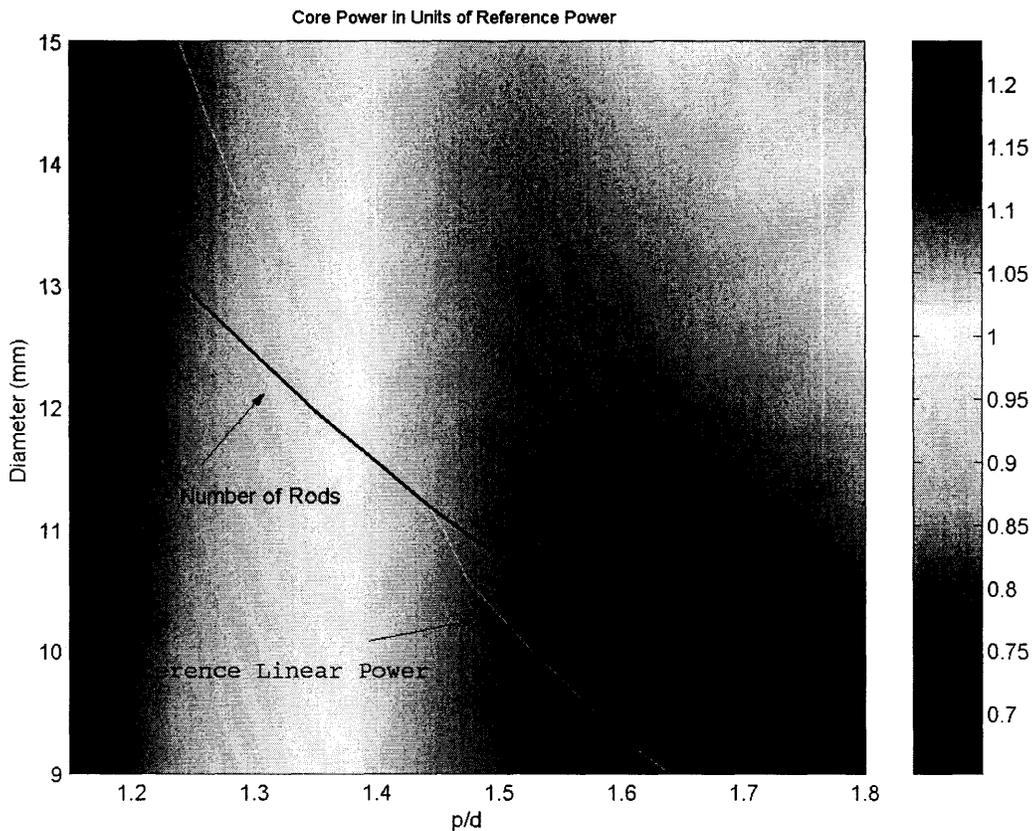


Figure 5.5 illustrates the total reactor power possible with an MCHFR constraint. Maximizing the total reactor power is the focus of this project. Viewing results this way takes into account both the output power of each channel, and the number of channels that can fit in a core of fixed volume. Results of Figure 5.5 are extended from the channel power results of Figure 5.3 by factoring in the number of channels fitting in the fixed volume of the reference core described by Table 2.2. Figure 5.5 also shows the linear power and number of rods relative to the reference core for the same core map as Fig 5.3.

The triangular area between the two lines at the bottom of Figure 5.5 is where a maximum power occurs. In this region, there are more than the reference number of rods in the reactor, and each rod operates at higher than the reference power.

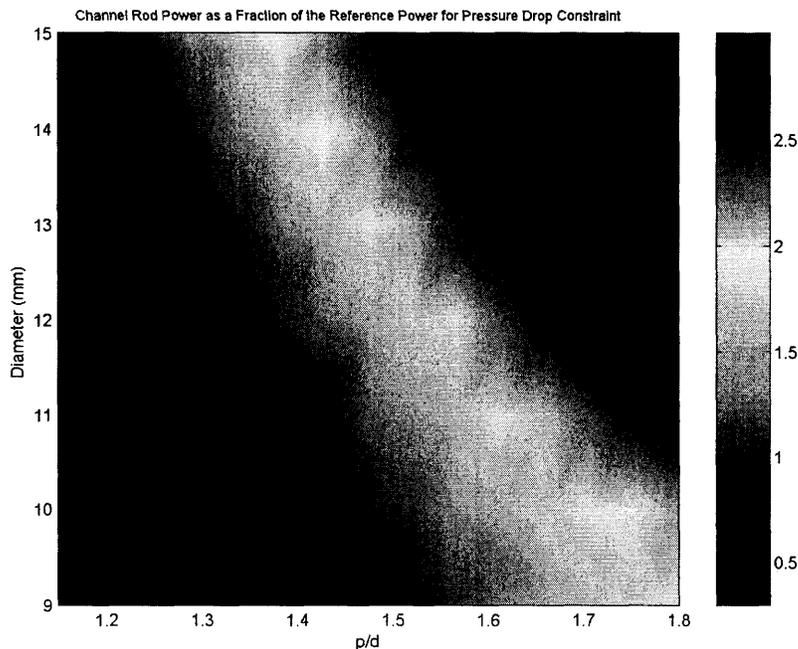
Figure 5.5: The Maximum Possible Power for a Reactor with an Imposed CHF Limit in the Units of the Reference Power.



5.4.2 Effects of Pressure Drop Constraint

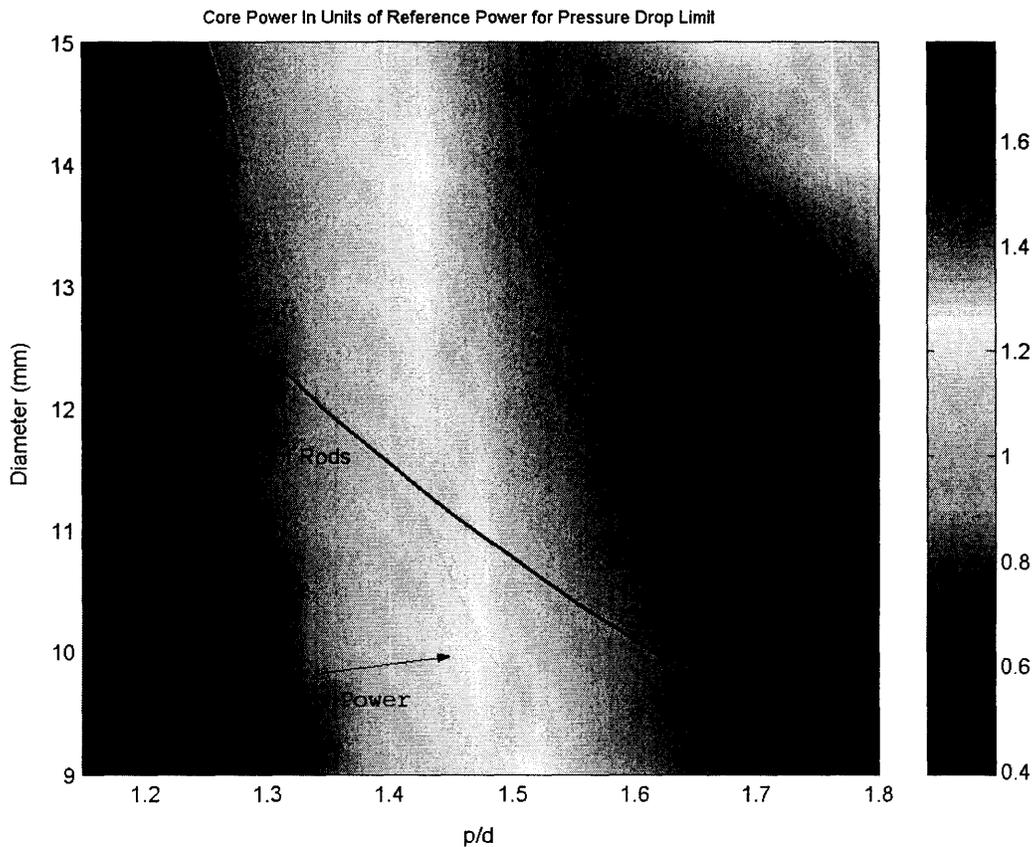
Figure 5.6 shows the maximum channel power with the pressure drop limit imposed. It illustrates that pressure drop is most limiting in small diameter, low P/D (tight) core geometries. In this range, there is a large ratio of wetted rod surface area to volume of coolant in the channel. This means that frictional and expansion/contraction effects due to grid spacers will be dominant for this simulation. At very high diameters and P/D ratios, gravitation and acceleration terms contribute more, because there is a large volume of coolant in the channel for the pressure differential to drive.

Figure 5.6: The Maximum Operating Power of a Channel for Varying Reactor Geometries with an Imposed Pressure Drop Limit.



Once again, this should be put into the perspective of core power for our purposes. Figure 5.7 does this and shows the lines of reference channel power and the reference number of rods that can fit into a core. We see that pressure drop is less limiting for mid to high P/D ratios than the MCHFR constraint was, since the analogous triangular area of higher power is larger in Figure 5.7 than in Figure 5.5. Also, a higher operating power is possible with the pressure drop limit imposed than the MCHFR limit imposed. A reactor power of 1.6 times the reference power is possible without exceeding the pressure limit, compared to only a 1.2 factor increase with the MCHFR limit.

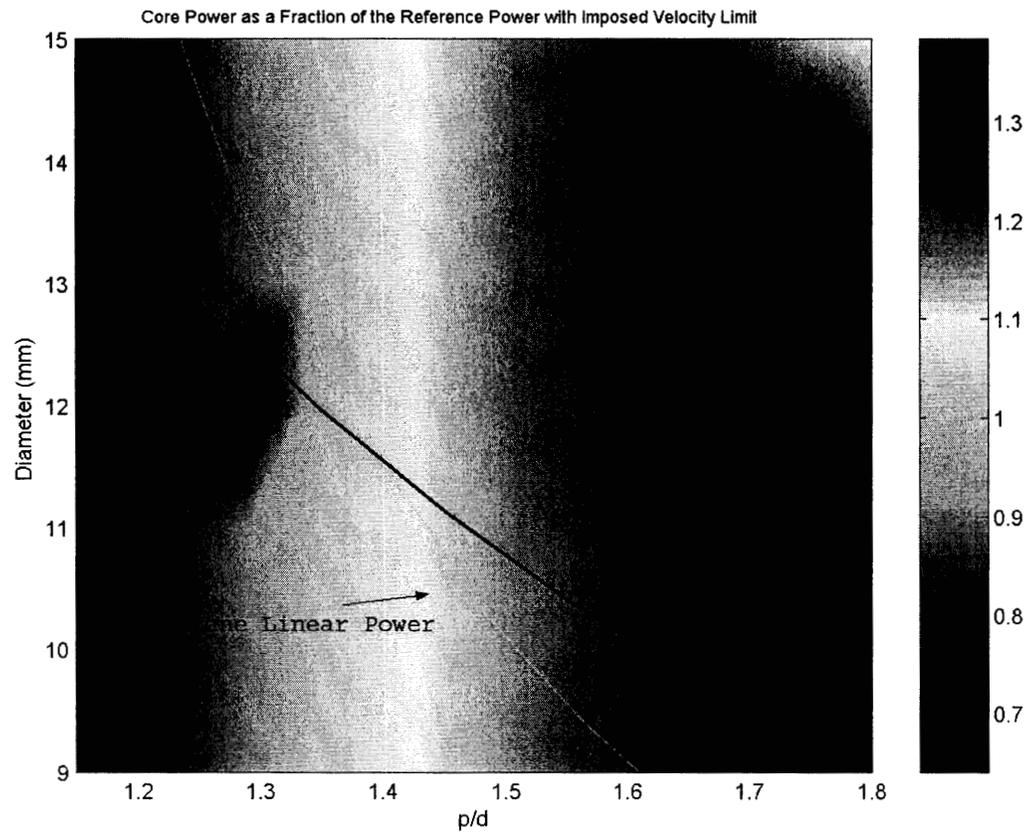
Figure 5.7: The Maximum Operating Power of a Reactor for Varying Reactor Geometries with an Imposed Pressure Drop Limit.



5.4.3 Effects of Flow Velocity Constraint

Figure 5.8 illustrates the effects of a velocity constraint factoring in the number of rods that can fit in a core for a given geometry. The velocity constraint is never limiting in this single channel study with the pressure drop limit and the MCHFR limits already imposed. The velocity constraint is more limiting than the pressure drop constraint only in regions where the MCHFR constraint is most limiting. However, the limit imposed was the artificial one of 11.5 m/s which was chosen because the single channel analysis unrealistically constrained coolant to one channel with no crossflow or mixing. In Chapter 6, we see a more realistic limit of 8.0 m/s.

Figure 5.8: The Maximum Operating Power of Varying Reactor Geometries with an Imposed Velocity Limit.



5.4.4 Effects of Fuel Temperature Constraint

1400 degrees C is the average fuel temperature limit for Uranium Dioxide. The maximum fuel temperature centerline limit is of Uranium Dioxide is 2840 degrees C. For all cases tested, neither of these limits were exceeded and temperature was, therefore, never a constraining limit. More detailed temperature results are presented in Appendix 4. The centerline temperature limit for Hydride fuel is much lower, at 750 degrees C. However, due to the low conductivity of Hydride fuel, the Hydride fuel temperature limit should not be exceeded either.

The Hydride fuel conductivity is approximately 17.6 W/m-k compared to approximately 3.0 W/m-k for oxide fuel (the conductivity varies with temperature) (Reference 12).

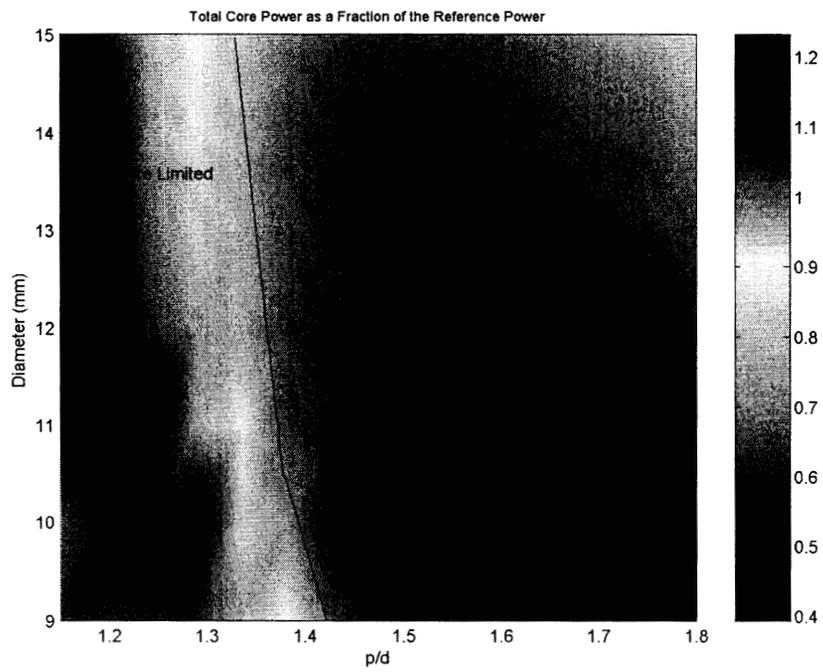
$$\frac{q'}{4\pi} = k(T_{Centerline} - T_{Surface}) \quad (\text{eq 5.1})$$

With a constant surface temperature and linear power, we expect the temperature difference to drop by a factor of 5.8. The highest centerline fuel temperature measured in this study was 2350 degrees K. The single channel study did not exceed a centerline temperature of 2200 degrees K. That implies that for the same linear power, the highest Hydride fuel temperature would be approximately 870 degrees K, well below the 1027 degree limit.

5.5 Interpretation of All Limits

Figure 5.9 shows the composite of all the imposed limits for the single channel analysis. The region where each limit constrains core power is illustrated. It appears that the maximum power, of approximately 1.23 times the reference power occurs with a diameter of 9mm and a pitch/diameter of 1.65, and the associated dominating limit is the MCHFR.

Figure 5.9: The Maximum Operating Power of Varying Reactor Geometries with all Limits Imposed.



6 FUEL BUNDLE ANALYSIS

6.1 Comparison Between a Bundle and the Single Channel Analyses

A simulated fuel bundle was designed to be representative of the same reactor which the single channel model represented. The single channel analysis was designed to model the hottest channel of the reference reactor. The bundle analysis was designed to contain the hottest channel of the reference reactor.

The bundle simulated was a 1/8 symmetry section of an 8x8 hypothetical fuel bundle. The primary difference between the single channel and bundle analysis was that in the bundle analysis, there was coolant flow communication between channels. In the bundle analysis, a radial peaking profile was also imposed to represent physical conditions more accurately than the single channel analysis.

In practice, the bundle analysis took ten times longer to run than the single channel analysis, and it was also less stable. The software unpredictably crash more often in the bundle analysis than it did with just a single channel analysis.

6.1.1 Scaling Assumption

The purpose of this analysis was not to find the highest power a bundle could operate at, but instead the highest power that a reactor could operate at. This analysis assumed that as rod pitch changes, the number of bundles that can fit into a reactor scales according to the relation:

$$\frac{\text{Core Volume}}{\text{Pitch}^2} \propto \text{Number of Bundles in the Core} \quad (\text{eq. 6.1})$$

Rod bundles simulated were always 8x8 arrays similar in geometry, varying in rod pitch and rod diameter. In reality it may not be able to adjust the number of bundles in a reactor by the small increments that this study allows for due to design constraints not considered.

6.2 Parameters of the Bundle Simulation

The parameters of the simulated model for the bundle analysis were the same parameters used for the single channel analysis, except that the velocity limit was constrained tighter to be 8 m/s instead of the 11.5 m/s which was allowed for the single channel analysis. The reason that 11.5 m/s was allowed for the single channel analysis was that 11.5 m/s was the flow velocity calculated for the reference channel at 100% power was approximately 11.5 m/s. Such a high flow velocity occurred because the coolant was constrained to the single hottest channel in the reactor.

The reference core parameters are listed in Table 2.1 of Chapter 2.

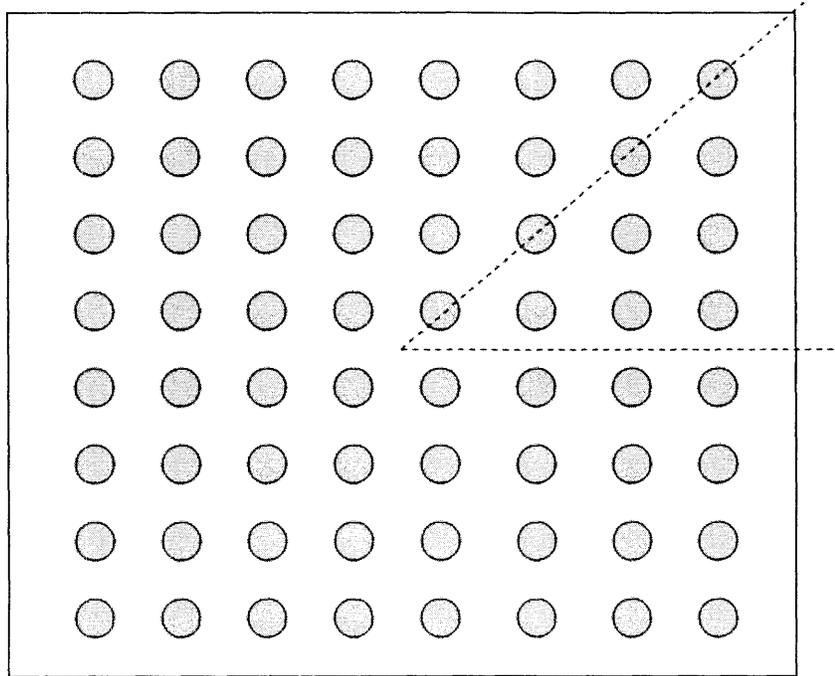
The bundle analysis contained more detailed information about the bundle geometry, which is discussed further in this chapter.

Due to the fact that there is a significant radial peaking factor within a fuel bundle array, the average array power is less than the power modeled in the single channel analysis. In the single channel, I ran a case of 1.7 times the reference power to model a hot, limiting channel. Because a radial power gradient is included in this bundle, the average bundle power is 1.54 times the reference power.

6.2.1 Radial Peaking Profile

The geometry of the fuel bundle simulated is illustrated in Figure 6.1.

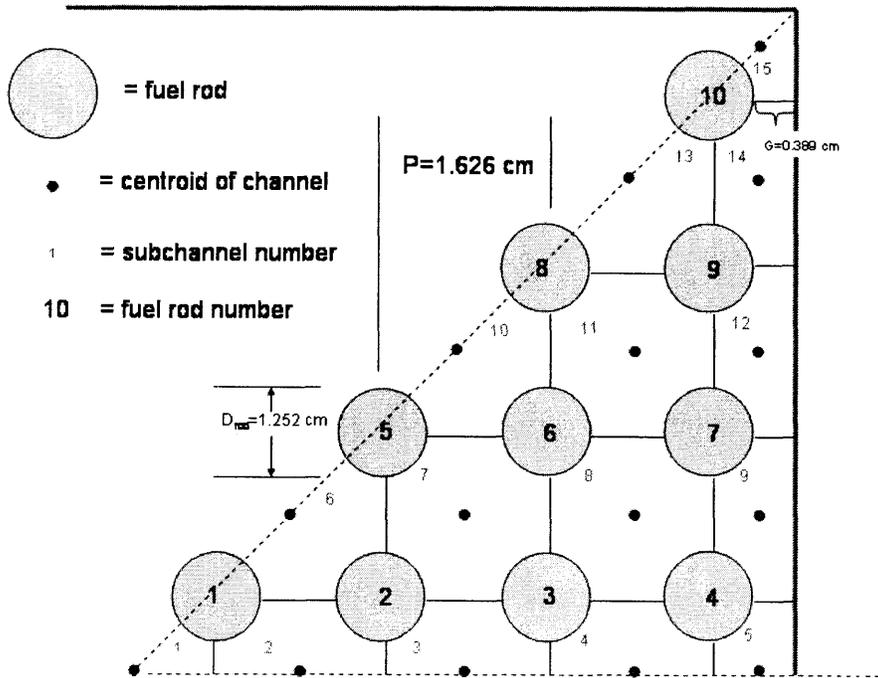
Figure 6.1 Illustration of the Bundle Geometry Simulated (Made by Chris Handwerk)



8x8 BWR assembly

Figure 6.2 better illustrates how the bundle geometry was described in the COBRA simulation input. There were 10 rods, and 15 channels with thermal-hydraulic communication.

Figure 6.2 Detailed Illustration of the Reference Reactor Geometry (Made by Chris Handwerk)



An example of the intra-bundle power profile in a typical GE BWR reactor is illustrated in Figure 6.3. This example illustrates several problems that the overall hydride project will have in determining an accurate radial power profile for the simulation.

First, the power profile is not symmetric. Therefore, a simulation based on a bundle symmetry section can not include the power profiles shown below. The bundles shown are 9x9 arrays. Many BWR's currently operate, or are being designed with 9x9 or 10x10 arrays, while this study only considers an 8x8 array. This study also does not consider the effects of water rods and poisons, which have a dramatic affect on the bundle power profile.

Figure 6.3 A 9x9 GE BWR Sample Intra-Bundle Power Profile (Ref 10)

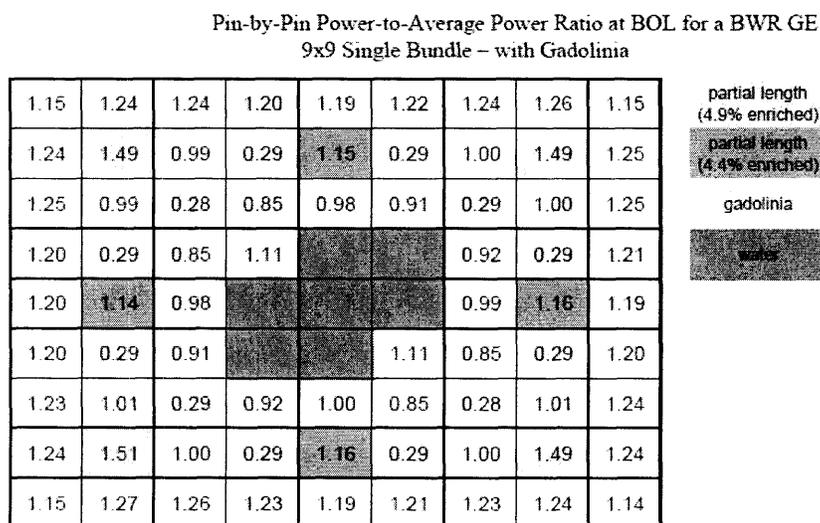
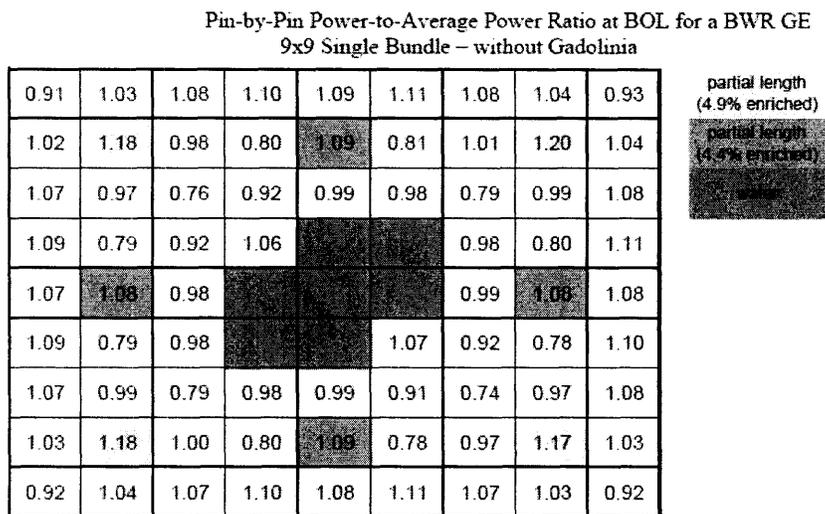
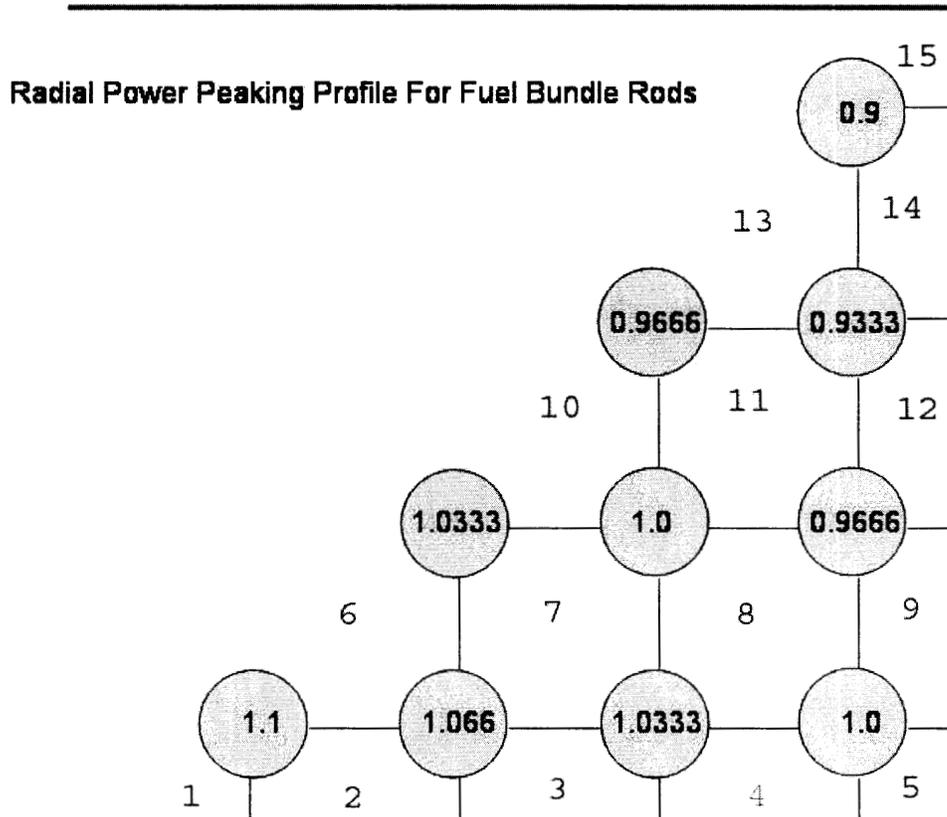


Figure 6.4 shows the radial power profile used for this simulation. It is realistic in the sense that it varies $\pm 10\%$ from the average power, and the hot channel is at the bundle center. This will drive cross-channel coolant flow and provide a good estimate for a broad range of actual bundle profiles. However, it is not representative of any single known operating bundle condition.

Figure 6.4 The Intra-Bundle Radial Power to Average Bundle Power Ratio Profile Used for This Study



6.3 Results

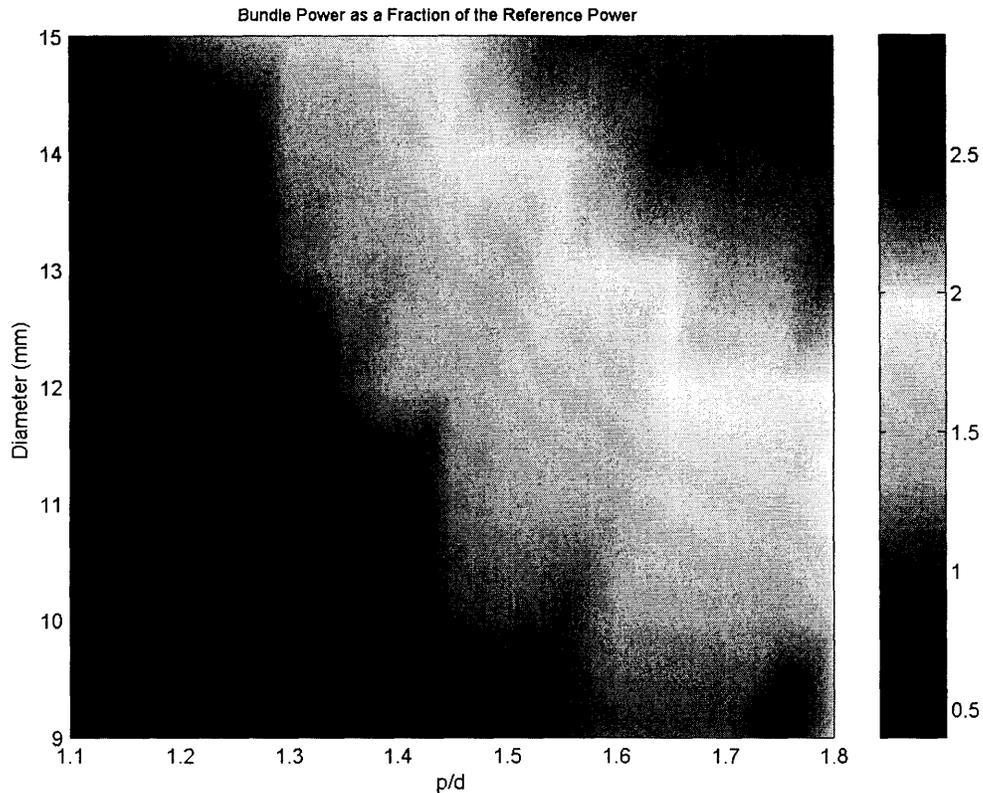
When running a bundle simulation, COBRA-EN calculates results for each channel modeled in the simulation. Table 6.1 shows the exit output results generated by COBRA-EN for the reference reactor described in chapter 2.

Table 6.1 Reference Results By Channel

CHANNEL NO.	DELTA-P (KPA)	TEMP. (DEG-K)	DENSITY (KG/M3)	FLOWING QUALITY	VOID FRACTION	FLOW (KG/SEC)	MASS (KG/M2/SEC)
1	100.12	560.65	135.21	0.35569	0.86059	0.02443	1419.276
2	100.12	560.65	137.8	0.3474	0.85691	0.09886	1435.632
3	100.12	560.65	145.5	0.32424	0.84593	0.10211	1482.805
4	100.12	560.65	158.4	0.2899	0.82754	0.10691	1552.511
5	100.12	560.65	173.67	0.25454	0.80577	0.09861	1961.92
6	100.12	560.65	140.42	0.33928	0.85317	0.09997	1451.837
7	100.12	560.65	148.14	0.31676	0.84216	0.20639	1498.771
8	100.12	560.65	161.08	0.28337	0.82372	0.21594	1568.107
9	100.11	560.65	176.31	0.24913	0.802	0.19889	1978.642
10	100.12	560.65	156.05	0.29574	0.83089	0.10645	1545.898
11	100.12	560.65	168.93	0.26539	0.81253	0.22213	1613.045
12	100.11	560.65	183.85	0.23453	0.79125	0.20353	2024.812
13	100.12	560.65	181.61	0.23944	0.79445	0.11546	1676.699
14	100.11	560.65	194.76	0.21538	0.7757	0.20929	2082.117
15	100.11	560.65	203.89	0.20064	0.76269	0.08252	2359.635

Figure 6.5 illustrates the bundle power output possible for a range of geometries defined by rod diameter and P/D ratio with a minimum CHF limit imposed. Constant channel pitches are diagonal lines (not shown) of negative slope. The figure shows that power increases as channel pitch increases.

Figure 6.5: The Maximum Possible Power of a Bundle for Varying Fuel Array Geometries with an Imposed CHF Limit in the Units of the Reference Power.



6.3.1 Effects of Min. CHF Constraint

Figure 6.6 illustrates the total reactor power possible with an MCHFR constraint.

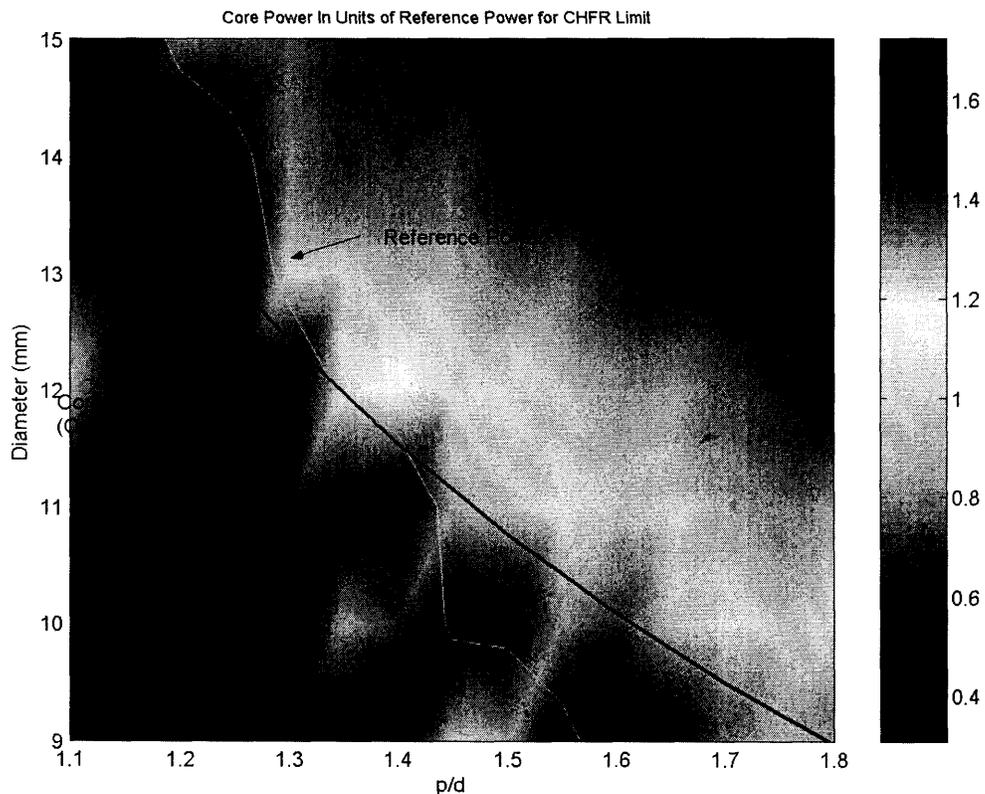
Maximizing the total reactor power is the focus of this project. Viewing results this way takes into account both the output power of each bundle, and the number of bundles that can fit in a core of fixed volume. As explained in section 6.1.1, we assume that the number of bundles that can fit in a reactor of constant volume can vary with the square of the pitch in small increments to calculate total reactor power with the basic equation:

$$(\# \text{ of Fuel Bundles in the Reactor}) \times (\text{Power per Bundle}) = \text{Reactor Power} \quad (\text{eq. 6.2})$$

where the # of fuel bundles is found by eq. 6.1

The triangular area between the two lines at the bottom of Figure 6.6 is where a maximum power occurs. In this area, there are more than the reference number of rods in the reactor, and each rod operates at higher than the reference power. The maximum achievable power, taking into account only this constraint is 1.72 times the Reference Operating Power. It is important however to note that physical interpretation of these results is made difficult by the fact that the exit quality does change over this mapping since the mass flux was held constant. Different results would be obtained if the exit quality were held constant by imposing a fixed ratio of reactor power to mass flowrate. At higher powers this would require higher mass flowrates which would impose further challenges to the flow velocity and pressure drop constraints than the procedure employed.

Figure 6.6: The Maximum Operating Power of a Reactor for Varying Fuel Array Geometries with an Imposed CHF Limit.

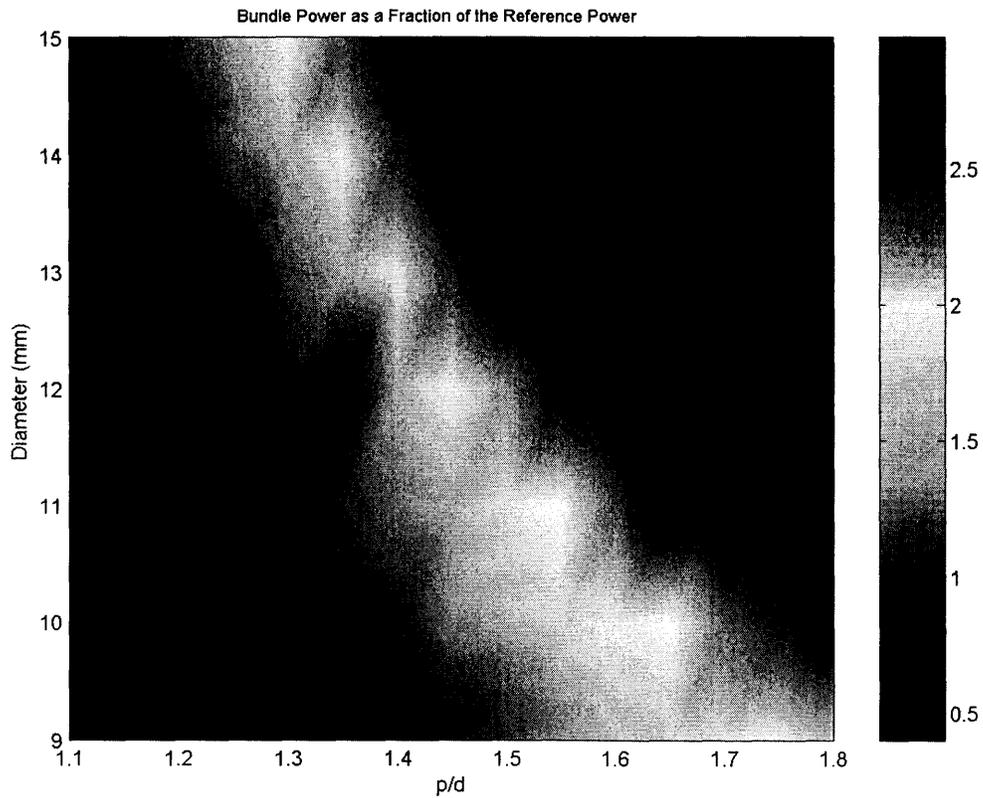


6.3.2 Effects of Pressure Drop Constraint

Figure 6.7 shows the maximum bundle power with the pressure drop limit imposed . It illustrates that pressure drop is most limiting in small diameter, low P/D (tight) core geometries. In this range, there is a large ratio of wetted rod surface area to volume of coolant in the channel. This means that frictional and expansion/contraction effects due to grid spacers will be dominant for this simulation. At very high diameters and P/D ratios, gravitation and acceleration terms contribute more, because there is a large volume of coolant in the channel for the pressure differential to drive.

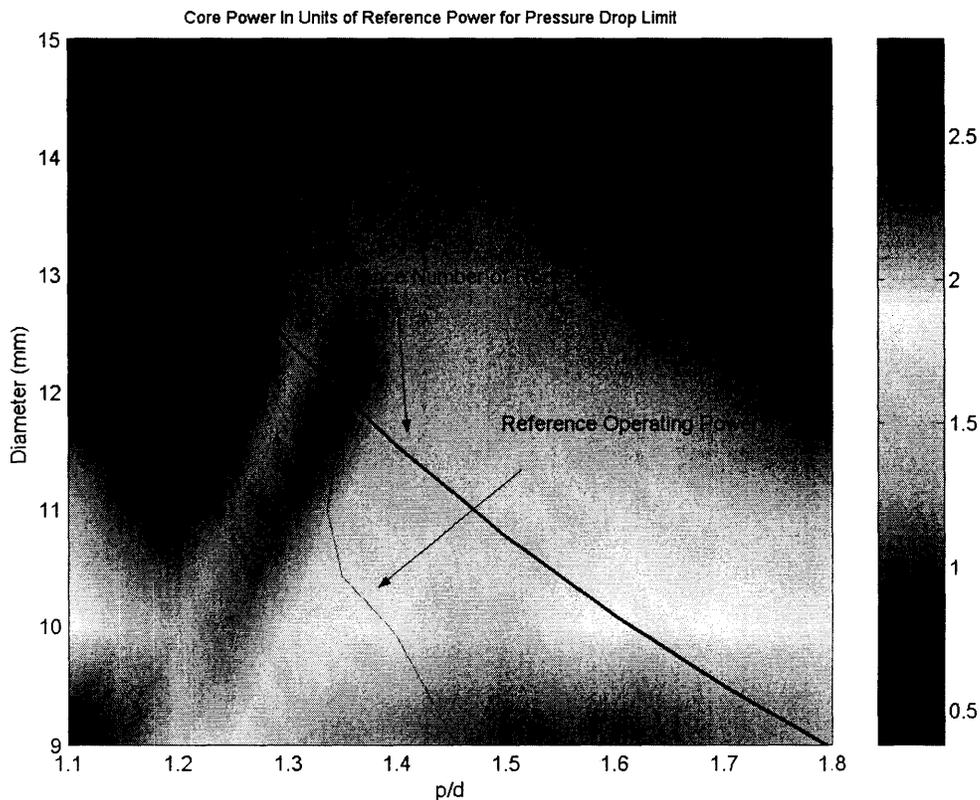
The pressure drop is the same for each channel, as shown in Table 6.1. This is because coolant is free to mix between the channels.

Figure 6.7: The Maximum Possible Power of a Bundle for Varying Fuel Array Geometries with an Imposed Pressure Drop Limit in the Units of the Reference Power.



Once again, this must be put into the perspective of core power for the purpose of this study. Figure 6.8 shows the lines of reference channel power and the reference number of rods that can fit into a core. We see that pressure drop is less limiting for most cases than the MCHFR constraint.

Figure 6.8: The Maximum Operating Power of a Reactor for Varying Fuel Array Geometries with an Imposed Pressure Drop Limit.



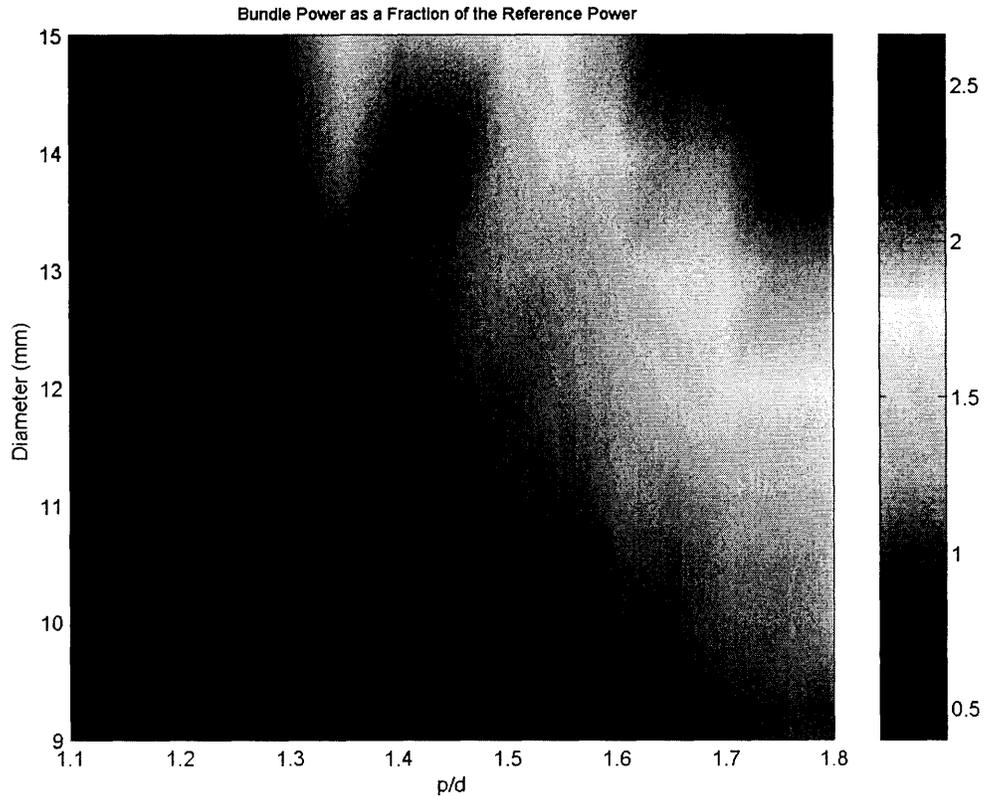
6.3.2 Effects of Flow Velocity Constraint

Figure 6.9 shows the maximum bundle power with a mixture velocity limit imposed. Like the other constraints, this one is also most limiting in tight, small diameter cores. The mass flux is kept constant for all bundles. Constant mass flux is an oversimplified and non-realistic constraint. As flow area changes for different core geometries, exit quality will also change. It would have been more realistic to keep the same power to mass flow rate constant between each trial. This is not a common option available in the COBRA-EN software, but it would be possible to calculate with the script.

Therefore, for tight, small diameter cores, there is less coolant volume per bundle than for bundles of larger pitch. If two bundles operate at equivalent power but one has less coolant

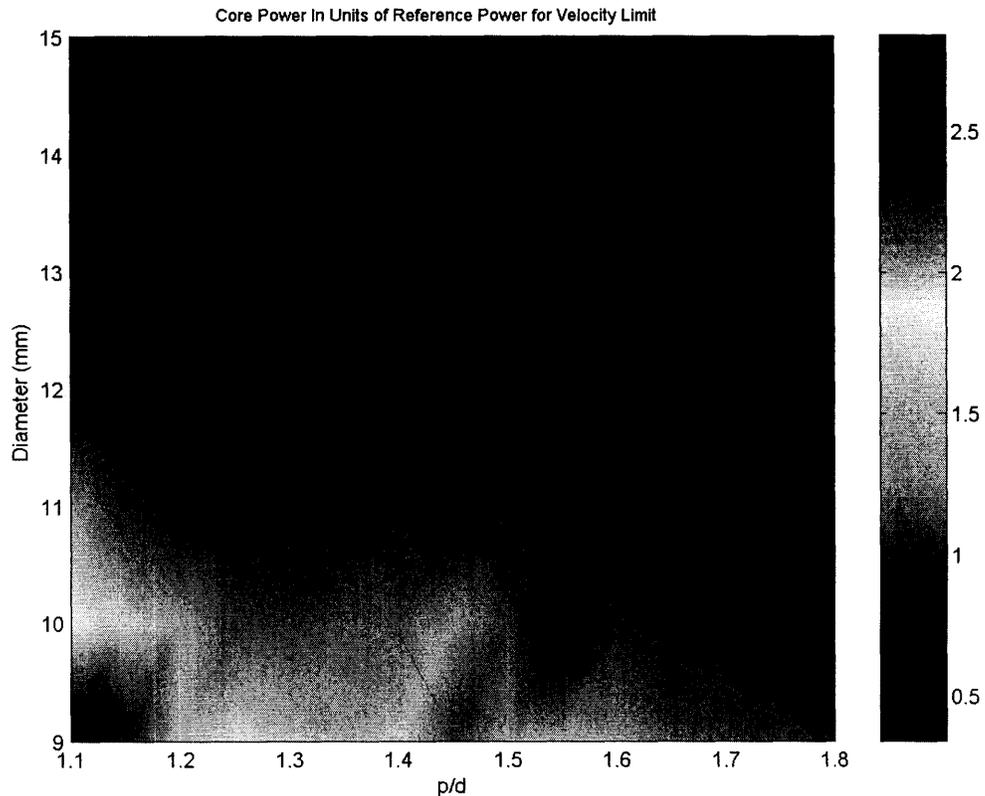
flowing through it, the one with less coolant will have a higher exit quality, and in turn, a higher exit flow velocity. Hence, since the maximum velocity is constrained, the power is more limited at low values of diameter and pitch to diameter rates.

Figure 6.9: The Maximum Possible Power of a Bundle for Varying Fuel Array Geometries with an Imposed Velocity Limit in the Units of the Reference Power.



When put into the perspective of core power, Figure 6.10 shows that a mixture velocity constraint of 8 m/s is actually the most limiting constraint for a large number of the geometries analyzed. Velocity is the most limiting constraint in the optimal region of a low, 9 mm diameter and the mid-high 1.55 p/d ratio. For many other bundle geometries, the reactor core is only able to operate at roughly the core reference power when constrained by the velocity limit. Coolant velocity is a safety concern because of fuel rod vibration.

Figure 6.10: The Maximum Operating Power of a Reactor for Varying Fuel Array Geometries with an Imposed Velocity Limit.



6.3.4 Effects of Fuel Temperature Constraint

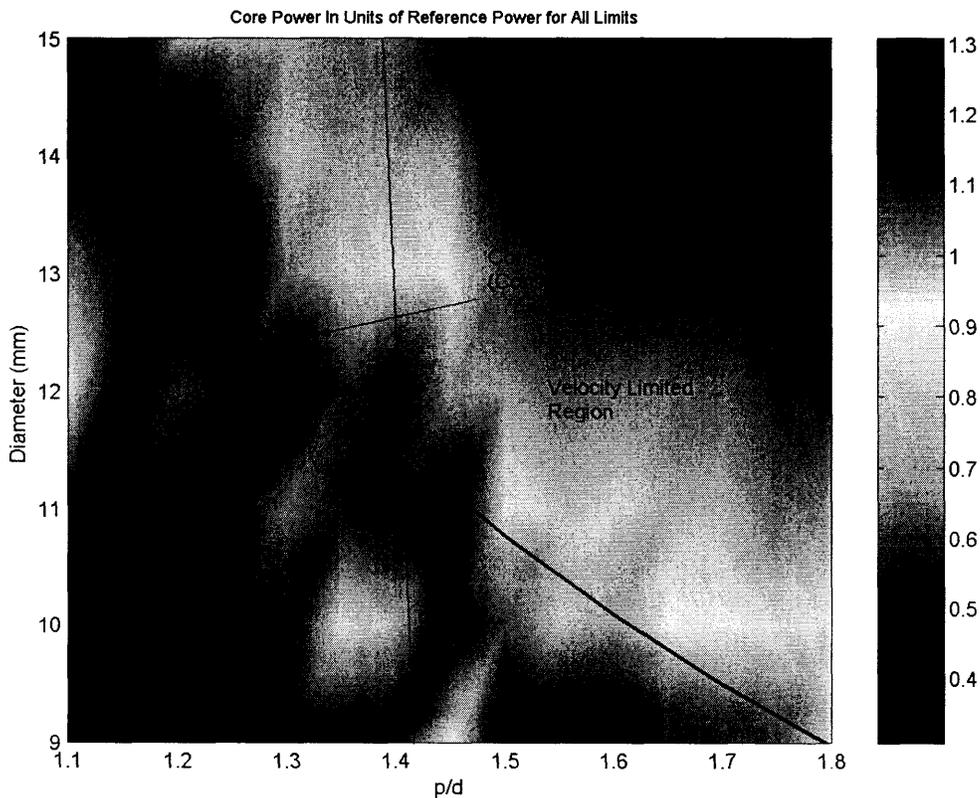
No geometry cases were observed to exceed the temperature limits described in chapter 2. The limits included an average fuel temperature limit of 1400C and a fuel centerline maximum temperature limit of 2800 C. More detailed temperature results are presented in Appendix 4.

Referring back to equation 5.1, we also note that the high conductivity of Hydride fuel implies that the lower centerline temperature limit of 750 degrees C will also not be exceeded.

6.4 Interpretation of All Limits

Figure 6.11 shows the composite of all the imposed limits for the fuel array analysis. The region where each limit constrains core power is illustrated. It appears that the maximum power, of approximately 1.30 times the reference power occurs with a diameter of 9mm and a pitch/diameter of 1.55, and the associated dominating limit is the MCHFR.

Figure 6.11: The Maximum Operating Power of a Reactor for Varying Fuel Array Geometries with all Limits Imposed.



7 COMPARISON BETWEEN BUNDLE AND SINGLE CHANNEL RESULTS

In this chapter, I will compare the results of the two studies presented in chapters 5 and 6. Both studies use the same input parameters and compare the same reactor parameters. In particular, the same average mass flux is used for both studies. Due to the fact that a single channel model is not physically accurate, in that the coolant is artificially constrained to stay

in one channel, more coolant is forced through the hot channel in the single-channel analysis than the bundle analysis. Therefore, a direct comparison is not made between the two studies. I did not go back and adjust the reactor parameters to account for the physical incompleteness of a single channel analysis. A more direct comparison could be made between the bundle and single-channel analyses by decreasing the mass flux of the single channel to coincide with the mass flux in the hot channel of the bundle analysis. However, since this project intends to pursue multi-channel BWR thermal-hydraulic analysis, and the single channel study was intended only to initially orient the writer to the COBRA-EN calculations, further study of a single-channel was not pursued. This argument is discussed further with the conclusions in chapter 8.

Every input parameter and constraint between the two studies were similar, except that a less constrained limit of 11.5 m/s was applied to the single channel analysis. This was because the reference case for the single channel analysis exceeded the limit of 8 m/s which was applied to the bundle analysis. A more realistic velocity limit of 8 m/s was applied to the bundle simulation, and was not applied to the single channel simulation.

Unfortunately, Cobra-EN produced more bugs when running the bundle analysis. Tight pitch geometries seemed to cause the most bugs seemingly due to problems the program had doing calculations for a small channel volume.

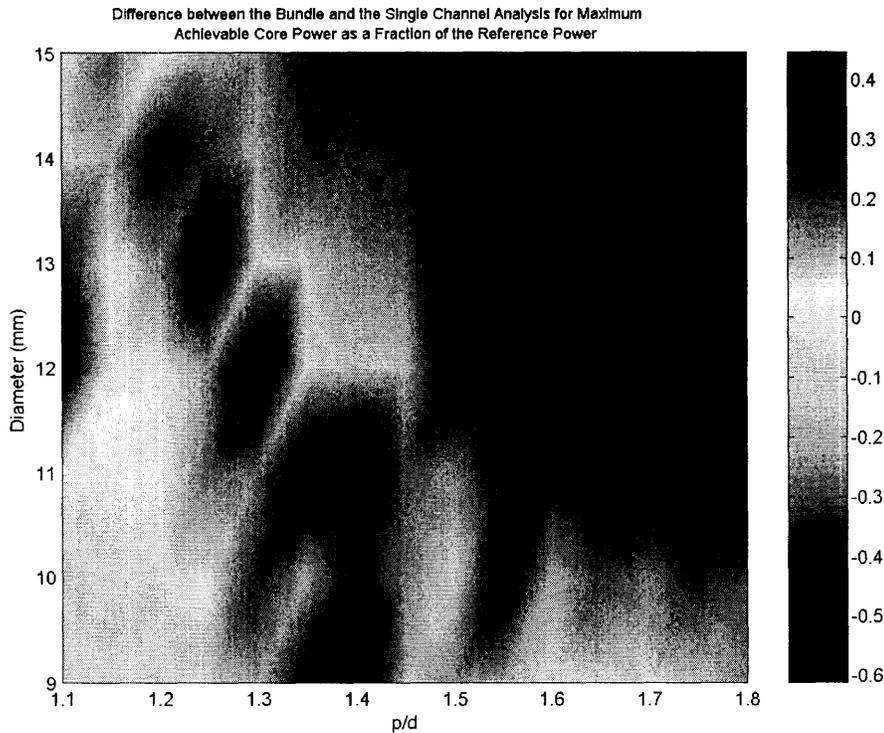
7.1 Comparison of Maximum Power Predicted By the Bundle and the Single Channel Analyses

The bundle analysis found the highest allowable maximum core power of approximately 1.30 times the reference core power at a rod geometry of 9mm diameter and a 1.55 pitch/diameter ratio. This is approximately a 7% greater allowable core operating power than the best result found with the single channel. The best single channel result was 1.23 times the reference core power at a rod diameter of 9mm and a pitch/diameter ratio of 1.65.

Figure 7.1 maps the difference between the maximum allowable core power that the bundle analysis found and the maximum allowable core power that the single channel analysis

found. Interestingly, the bundle analysis does not always allow for a greater operating power for a given geometry. Areas of the graph that are negative show regions where a greater operating power is found through the single channel analysis.

Figure 7.1 The Difference Between the Bundle and The Single Channel Analysis Maximum Achievable Core Power for All Limits as a Fraction of the Reference Power



7.2 Comparison of Constraint Limit Effects For the Bundle the Single Channel Analyses

In the following section, I compare each operating limit, and how it affected the single channel and bundle analysis results.

7.2.1 Pressure Drop Constraint Comparison Between the Bundle and the Single Channel Analyses

Figure 7.2 shows a side-by-side comparison of the maximum bundle power found over the tested geometry and the maximum single-channel power found over the tested geometry for each respective analysis. Both sets of analysis clearly show that as pitch increases, a higher

rod operating power is allowed. Spacing the rods further apart decreases the frictional component of the pressure drop for a given rod geometry and rod power. Larger channels also mean there is more coolant in a channel. At higher pitches, rods can also operate at a higher power to generate the same exit quality and coolant velocity.

Figure 7.2 A Side-By-Side Comparison of Figures 6.7 and 5.6, the Maximum Bundle, and Single Channel Operating Power Mapped Over the Tested Geometries with a Pressure Drop Limit Imposed

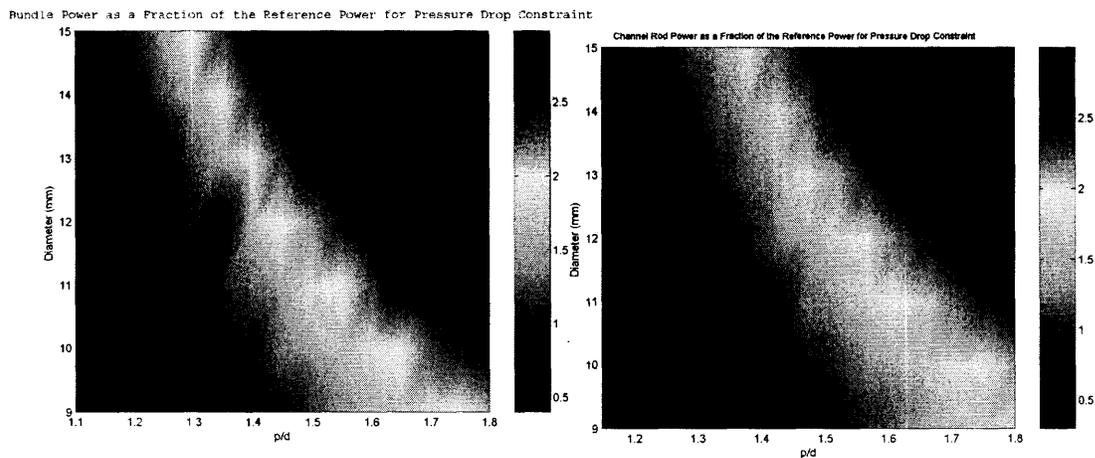
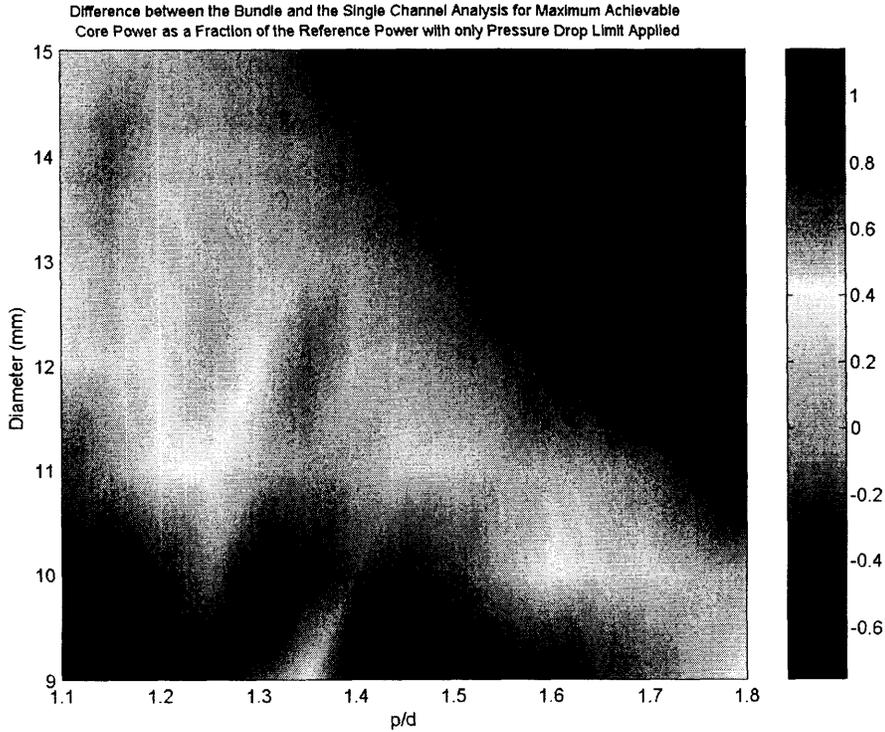


Figure 7.3 is similar to figure 7.1, except that it focuses on the difference in allowable power with only the pressure drop limit considered. It is clear that the pressure drop is much less limiting for the bundle analysis for regions with pitch less than the reference pitch. Because cross-channel flow is allowed, the pressure drop is the same across all channels for any axial position in the bundle analysis. Cross-flow allows less coolant to be constrained to the hottest channel in the bundle analysis for a given rod power and geometry.

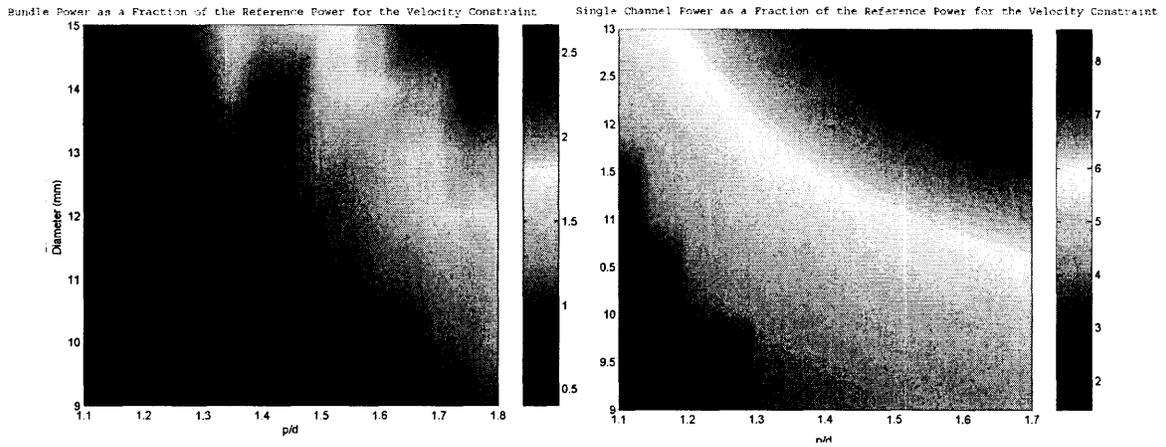
**Figure 7.3 The Difference Between the Bundle and The Single Channel Analysis
Maximum Achievable Core Power with the Pressure Drop Limit Applied, as a Fraction
of the Reference Power**



7.2.2 Flow Velocity Constraint Comparison Between the Bundle and the Single Channel Analyses

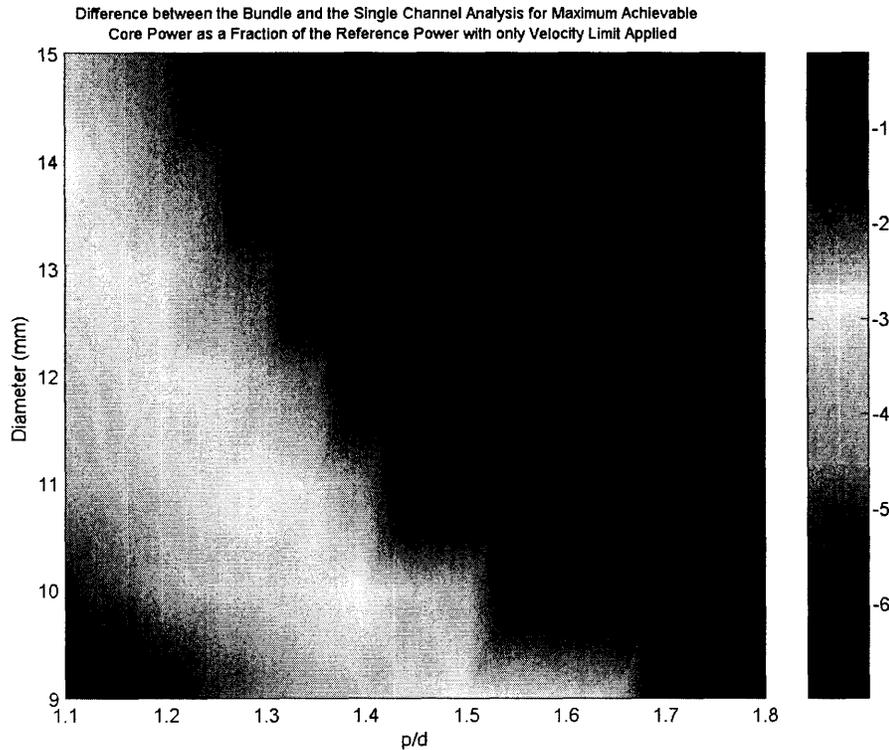
From Figure 7.4, we can see that the velocity limit was far less constraining for the single channel analysis, as a higher value was used. These limits also increase with pitch as expected from physical intuition.

Figure 7.4 A Side-By-Side Comparison of the Maximum Bundle and Single Channel Operating Power Mapped Over the Tested Geometries with a Velocity Limit Imposed



In terms of actual core operating power, the single channel analysis is always less constraining for the velocity limit, with the whole map of Figure 7.5 being negative (meaning the maximum allowable power given by the single channel analysis is always greater than the value given by the bundle analysis).

**Figure 7.5 The Difference Between the Bundle and The Single Channel Analysis
Maximum Achievable Core Power with a Velocity Limit Applied, as a Fraction of the
Reference Power**



7.2.3 Min. CHF Constraint Comparison Between the Bundle and the Single Channel Analyses

Figure 7.6 is a side-by-side comparison of the maximum bundle and channel power found by each respective study. Like the other limits, rods are able to operate at higher powers as pitch increases. For the case of CHF, increasing pitch increases the rod surface area and the channel coolant volume, so one expects rods to be able to operate at a higher power at a higher pitch.

One note is that the bundle analysis appears to be more choppy. This refers back to the code being less stable for scripted runs of the bundle analysis. While the physical model is better, it does not produce results as smooth as the scripted single channel analysis.

Figure 7.6 A Side-By-Side Comparison of the Maximum Bundle and Single Channel Operating Power Mapped Over the Tested Geometries with a CHF Limit Imposed

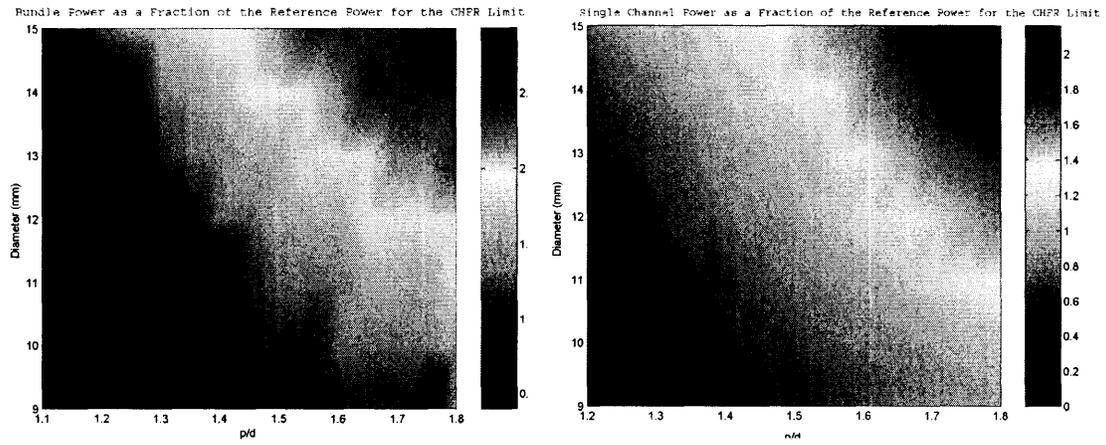
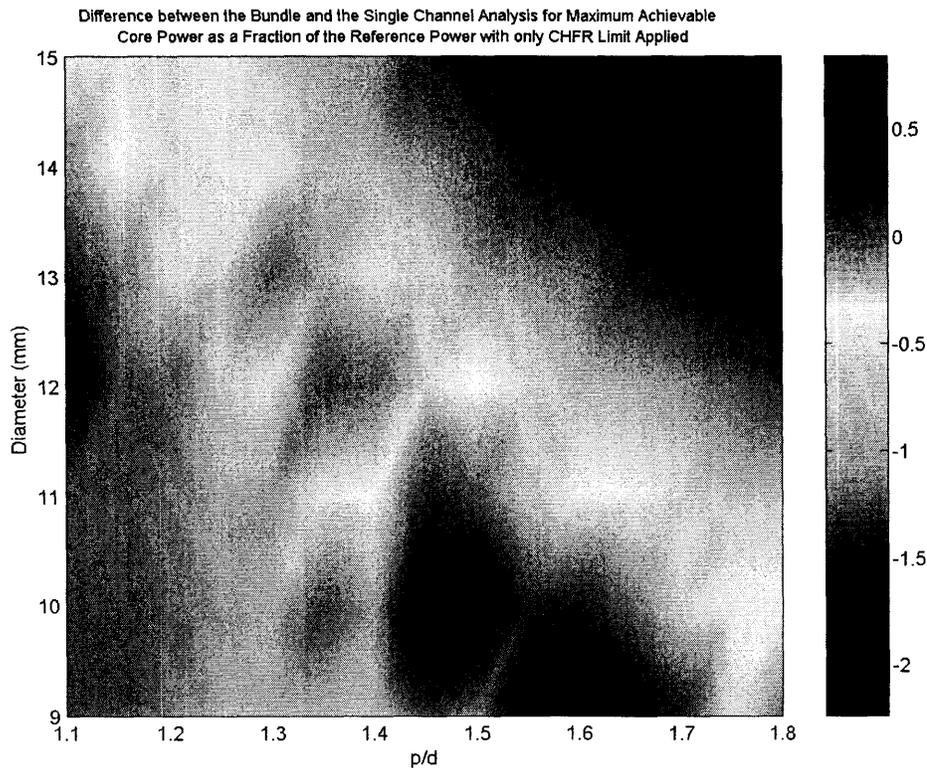


Figure 7.7 shows that the bundle analysis is less constraining for the CHF limit in the region of maximum core power

**Figure 7.7 The Difference Between the Bundle and The Single Channel Analysis
Maximum Achievable Core Power with a MCHFR Limit Applied, as a Fraction of the
Reference Power**



7.2.4 Fuel Temperature Constraints Comparison Between the Bundle and the Single Channel Analyses

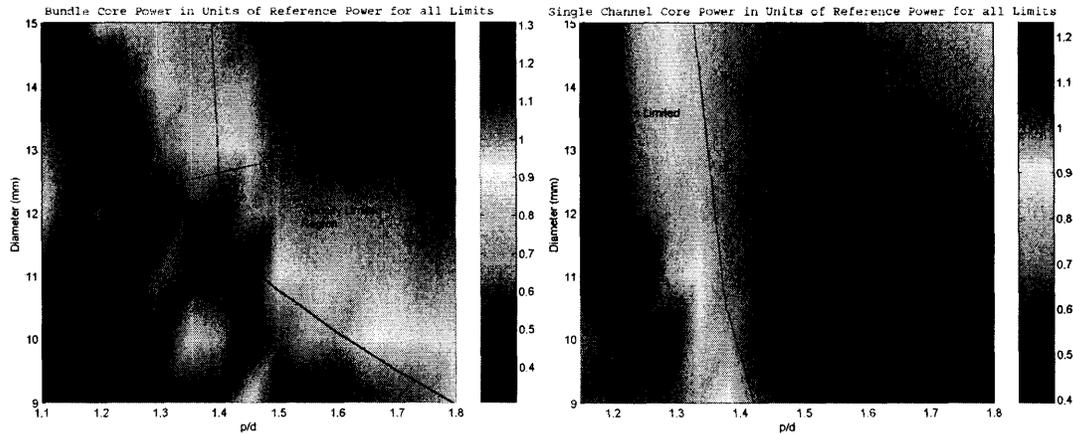
Fuel temperature did not appear to constrain the maximum allowable power for either analysis through inspection. A detailed power map profile was not completed for either as it appeared they would not constrain the maximum power either study found.

7.3 Final Core Power Comparison

In the bundle analysis, velocity constrains the maximum allowable power. This is a stark difference from the single channel analysis where velocity was never a constraint. It was pleasing to see that MCHFR was less of a constraint in the bundle analysis. One expects that cross-flow between channels will allow rods to operate at a higher power due to a radial

power gradient in the bundle. Figure 7.8 compares the final results from the bundle analysis side-by-side with the single channel analysis.

Figure 7.8: A Side-By-Side Comparison of the Maximum Core Operating Power Mapped Over the Tested Geometries with a All Limits Imposed



It is surprising to see that the single channel analysis indicates a higher power is achievable at higher P/D and D than the reference design. One thing to note is that the color scales are different on each chart. On the single channel analysis, the red-orange color indicates that only a few percent gain in power is achievable at high D and P/D. It is also important to remember that an unrealistic flow velocity was allowed for the single channel case. A lower flow velocity would impose an even tighter MCHFR constraint. The margin of error for this simulation is likely to be higher than the apparent gain in some areas of a few percent.

8 CONCLUSION

This thesis illustrates that a scripted computational methodology can be employed to run thousands of unique computer simulations automatically for a BWR thermal hydraulic analysis.

The single channel and bundle analyses in this report both suggest that a reactor with a smaller rod diameter than the one modeled could operate at a higher reactor power. This is not too much of a surprise, as newer rod bundles are designed with smaller rod diameters and 10x10 arrays.

The bundle analysis showed a possible reactor power improvement of 30%. This result warrants further investigation, but I expect it to contain a large margin of error. In addition, this entire report was based on hypothetical reactor conditions.

One major flaw in this study which could have been corrected was imposing a constant mass flux of coolant flow across each simulation. This makes sense as a logical constraint based on the capabilities of COBRA-EN. However, a more accurate constraint would have been to keep the exit quality constant by maintaining a constant power to mass flow rate. Keeping the exit quality constant as BWR power is uprated is a prudent approach since potential flow instability situations are avoided. Usually, it is not possible to run COBRA-EN with that constraint, but it would have been possible to calculate it with the script.

In order to pursue a more accurate assessment, it would be necessary to complete an analysis using the proprietary software and methodology that the commercial reactor designers use. It would also be necessary to know proprietary reactor parameters and other proprietary data. On top of any computational methodology, a scripted approach can be applied to find the optimal geometry out of thousands of cases.

9 FUTURE WORK

An MIT graduate student, Chris Handwerk, will follow this thesis with a more in-depth BWR assessment with Professor Todreas. His research should help to close some of the gaps discussed in the conclusion. To start, he expects to use more current BWR bundle and reactor data. His computational model will include void drift, a BWR thermal-hydraulic effect. Finally, his assessment will be based on Critical Power Ratio (CPR) calculations, rather than Critical Heat Flux Ratio (CHFR) calculations, which are more relevant in BWR reactors.

Future work will also include more analysis into the thermal-hydraulic and neutronic characteristics of Hydride fuel. From there, the project hopes to ascertain cost, safety, and other high level assessments regarding the use of Hydride fuel in LWR reactors.

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Appendix 1

The physical models employed by the COBRA-EN package are found in a manual that comes with the software package (Ref 5). The following relevant sections are included in this appendix:

- 3.2 Two-Phase Friction Multiplier
- 4.2.1 Single-Phase Forced Convection
- 4.2.2 Subcooled and Saturated Nucleate Boiling
- 4.2.3 Transition Boiling
- 4.2.4 Film Boiling
- 4.3 Critical Heat Flux (CHF) Correlations
- 4.1 Fuel Rod Heat Conduction Model

3.2 Two-Phase Friction Multiplier

A multiplier, formally defined as the ratio between friction pressure drop in two-phase flow and friction pressure drop with the two-phase flow assumed to be all liquid, is applied to the all-liquid friction pressure drop (3.1) to get the actual two-phase pressure drop.

The following options for the two-phase friction multiplier are available:

- homogeneous model,
- Armand correlation,
- EPRI correlation (default),
- a polynomial in quality up to sixth degree, specified in input.

The homogeneous two-phase friction multiplier as a function of the flowing quality turns out to be:

$$\phi^2 = \frac{\rho_l}{\rho_m} \left[\frac{\mu_f}{x\mu_g + (1-x)\mu_f} \right]^b \quad (3.7)$$

The Armand correlation is:

$$\begin{aligned} \phi^2 &= \frac{(1-x)^2}{(1-\alpha)^{1.42}} && \text{if } 0 < \alpha < 0.6 \\ \phi^2 &= 0.478 \frac{(1-x)^2}{(1-\alpha)^{2.2}} && \text{if } 0.6 < \alpha < 0.9 \\ \phi^2 &= 1.73 \frac{(1-x)^2}{(1-\alpha)^{1.64}} && \text{if } 0.9 < \alpha < 1.0 \end{aligned} \quad (3.8)$$

The EPRI correlation [Reddy 1982] to be usually combined with the EPRI correlations for subcooled boiling (3.14) and void fraction (3.26), is represented as a function of the flowing quality, mass flux and pressure by:

$$\phi^2 = 1.0 + \left(\frac{v_g}{v_f} - 1 \right) x C_F \quad (3.9)$$

$$C_F = 1.02x^{-0.175} (0.0036 \cdot G)^{-0.45} \quad \text{if } P \geq 600 \text{ psi}$$

$$C_F = 0.357x^{-0.175} (0.0036 \cdot G)^{-0.45} (1 + 10P/P_c) \quad \text{if } P < 600 \text{ psi}$$

The meaning of the symbols used previously is as follows:

- x = flowing vapor quality,
- α = vapor volume (or void) fraction,
- $\rho_m = \alpha\rho_v + (1-\alpha)\rho_l$ = two-phase mixture density (lbm/ft³),
- ρ_l = liquid phase density (lbm/ft³),
- ρ_v = vapor phase density (lbm/ft³),
- μ_f = dynamic viscosity of saturated liquid (lbm/ft/s),
- μ_g = dynamic viscosity of saturated vapor (lbm/ft/s),
- v_f = specific volume of saturated liquid (ft³/lbm),
- v_g = specific volume of saturated vapor (ft³/lbm),
- G = coolant mass flux (lbm/ft²/s),
- P = pressure (psi),
- P_c = critical pressure (=3208 psi).

Once the true or flowing vapor quality has been determined, a void model must be applied to compute the vapor volume fraction or void fraction, also accounting for vapor slip or drift.

When no slip between the liquid and vapor phases is allowed, the void fraction is easily computed as:

$$\alpha = \frac{xv_g}{(1-x)v_f + xv_g} \quad (3.20)$$

The simplest way to account for the effects of phase slip on the void fraction, is to include a slip ratio S defined as the ratio of vapor to liquid phase velocity, in the strictly homogeneous void model represented by the previous equation:

$$\alpha = \frac{xv_g}{(1-x)v_f S + xv_g} \quad (3.21)$$

where S can be computed as a polynomial in quality supplied in input or by the Smith correlation:

$$s = 0.4 + 0.6 \frac{0.4 + x \frac{v_g}{v_f} - 0.4}{(0.4 + 0.6x)^{1/2}} \quad (3.22)$$

Three other void/quality correlations which appear as modifications of the homogeneous void equation (3.20) are available in COBRA-EN. The first is the Armand-Messena correlation:

$$\alpha = xv_g \frac{(0.833 + 0.167x)}{(1-x)v_f + xv_g} \quad (3.23)$$

while the other two are recommended for use in connection with the subcooled boiling models of the previous paragraph and are based on the addition of a drift flux term. The Zuber-Findlay relation [Zuber 1965] which should be combined with the Levy subcooled boiling model is:

$$\alpha = \frac{x}{1.13 \left[x + \frac{\rho_g}{\rho_f} (1-x) \right] + \frac{\rho_g V_{gj}}{G}} \quad (3.24)$$

where the drift velocity V_{gj} , i.e., the vapor velocity relative to two-phase mixture mean velocity, is computed in ft/s as:

$$V_{gj} = 1.18 \frac{\sigma g g_c (\rho_f - \rho_g)^{1/4}}{\rho_f^2} \quad (3.25)$$

and, as usual, G (lbm/ft²/s) is the coolant mass flux, $g=32.2$ ft/s² is the acceleration of gravity, $g_c=32.2$ is the conversion factor from lbf to lbm-ft/s² force unit and σ (lbf/ft) is the water surface tension. The EPRI void/quality correlation [Lellouche 1982] which was developed in the same context as the subcooled boiling correlation, appears to be of the same form as the Zuber-Findlay correlation, i.e.,

$$\alpha = \frac{x}{C_0 x + \frac{\rho_g}{\rho_f} (1-x) + \frac{\rho_g V_{gj}}{G}} \quad (3.26)$$

but the drift velocity V_{gj} has been corrected so that it becomes zero if $\alpha=1$:

$$V_{gj} = 1.41 \frac{\sigma g g_c (\rho_f - \rho_g)^{1/4}}{\rho_f^2} \frac{(1-\alpha)^{1/2}}{1+\alpha} \cos \theta \quad (3.27)$$

where θ is the inclination angle of the fuel bundle (or of the z axis) from the upwards oriented vertical. Moreover, the fixed value of 1.13 in (3.24) has been replaced by the coefficient C_0 that is a function of pressure and void fraction itself as follows:

$$C_0 = \frac{L(\alpha, P)}{K_0 + (1-K_0)\alpha^f} \quad (3.28)$$

$$L(\alpha, P) = \frac{1 - e^{-C_1 \alpha}}{1 - e^{-C_1}}$$

$$K_0 = K_1 + (1 - K_1) \frac{\rho_g}{\rho_f}^{\frac{1}{4}}$$

$$r = \frac{1 + 1.57 \frac{\rho_g}{\rho_f}}{(1 - K_1)}$$

$$C_1 = \frac{4}{\frac{P}{P_c} - 1 - \frac{P}{P_c}}$$

$$K_1 = \min(0.8, K_1^F)$$

$$K_1^F = \frac{1}{1 + e^{-Re/10^5}}$$

where P is the system (exit) pressure (psi), P_c is the critical pressure (=3208 psi) and Re is the liquid Reynolds number at the channel inlet. Notice that $C_0=1$ when $\alpha=1$ and, thus, equation (3.26) becomes coincident with the homogeneous void relation and is expected to yield the correct limit of 1.0 when $x=1$. However, differing from the Zuber-Findlay relation (3.24) which is an explicit function of the quality, the EPRI relation is an implicit nonlinear function which must be solved for the void fraction α in each control volume. Such an implicit dependence is too strong to rely only on the external iterations as it is done for other nonlinear terms of the flow model. Therefore, inner iterations based on the fast converging Newton-Raphson technique with internally computed derivatives, are performed separately in each control volume. In the unlikely case of convergence failure after 100 inner iterations, the program stops with some useful information concerning the failing node.

Even if all the possible combinations of friction multiplier, subcooled boiling and quality/void correlations are allowed, a consistent set of correlations should be preferred as a rule, e.g.,

- ◆ all the EPRI correlations making up together the EPRI void model (default option of the code),
- ◆ the homogeneous void model with the possible inclusion of the Smith correlation,
- ◆ the Armand correlation for two-phase friction multiplier with no subcooled boiling and Armand-Messena correlation for void fraction,
- ◆ the matching of the Levy subcooled boiling and Zuber-Findlay void relations with the addition of the EPRI correlation for the two-phase friction multiplier.

The slip ratio, i.e., the ratio of vapor phase to liquid phase velocity, which is required by the four-equation model of § 2.3, is supplied by either a polynomial in void fraction specified in input (see card 21b) or by the Bankoff-Jones correlation:

$$S = \frac{1 - \alpha}{K - \alpha} \tag{3.30}$$

$$K = K_0 + (1 - K_0) \alpha^r \tag{3.31}$$

with K_0 and r already defined for equation (3.28) in § 3.4.

To model the heat transfer from the fuel rods to the flowing coolant, a full boiling curve can be defined with five heat transfer regimes, viz., single-phase liquid forced convection, subcooled nucleate boiling, saturated nucleate boiling, transition and film boiling (post-CHF boiling), single-phase vapor forced convection (see figs. 4.2 and 4.3).

For each heat transfer regime, the heat flux from a heated surface is featured by the usual concept of heat transfer coefficient as follows:

$$q'' = H(T_w - T_b) \quad (4.9)$$

where T_w is the surface temperature and T_b is the bulk fluid temperature. The heat transfer model supplies either the coefficient H or the heat flux q'' by a generally distinct correlation for each regime and it can be considered as the interface between the fuel heating model which supplies T_w and the flow model which supplies T_b . In their turn, the fuel heating and flow models depend on q'' and, thus, all of the three models are involved in the iterative loop of solution.

The heat transfer regime for each fuel rod and axial interval is determined on the basis of the local fluid conditions and rod surface temperature. The regime selection logic is taken essentially from VIPRE documentation [Stewart 1983]. In particular:

- a. the onset of nucleate boiling is determined indirectly by always taking the maximum of the liquid phase forced convection and subcooled or saturated nucleate boiling heat transfer coefficients,
- b. the possible transition from nucleate boiling to single-phase vapor is dealt with by linear interpolation between the correspondent heat transfer coefficients, after a quality of 0.98 has been attained,
- c. if the selected correlation does not provide for the explicit calculation of the minimum film boiling temperature, the transition and film boiling heat transfer coefficients are always summed up so that the minimum point turns out to be determined implicitly,
- d. the possible transition from film boiling to vapor phase forced convection is smoothed by taking the minimum of the correspondent coefficients, also beyond a quality of 1.0,
- e. the Critical Heat Flux (CHF) point is characterized by the critical heat flux (q''_{CHF}) and the critical heat flux temperature (T_{CHF}) which is defined as the wall temperature correspondent to q''_{CHF} and is computed from the selected nucleate boiling and critical heat flux correlations,
- f. the transition from pre-CHF to post-CHF conditions is assumed to occur at steady state when the local heat flux exceeds q''_{CHF} , and in transient, when the local wall temperature exceeds T_{CHF} .

Although a lot of heat transfer coefficient correlations for each of the aforementioned heat transfer regimes can be found in the literature, only a limited number of correlations is available presently, viz.,

- Dittus-Boelter correlation in standard form or with user-supplied coefficients for single-phase (liquid or vapor) forced convection in laminar and turbulent flow conditions,
- Thom, Jens-Lottes and Rohsenow correlations for subcooled nucleate boiling,
- Thom and Rohsenow correlations for saturated nucleate boiling,
- BAW-2, W-3, EPRI, Macbeth (12 coefficients), Macbeth (6 coefficients), Biasi and modified Barnett correlations for critical heat flux,

- modified Condie-Bengtson, interpolated Berenson and McDonough-Milich-King correlations for transition boiling,
- Groeneveld 5.7, Berenson and Dougall-Rohsenow correlations for film boiling.

Moreover, for consistency with the EPRI subcooled boiling model (see 3.3), the option of summing the Thom and liquid phase forced convection correlations is available.

Finally, as numerical troubles could arise from using a full boiling curve, particularly in fast transients, two simplified heat transfer models can be activated at user's choice, viz.,

1. only single-phase (liquid or vapor) heat transfer correlations are applied throughout the whole calculation, thus omitting boiling heat transfer (this approximation could be enough in very fast transient where only the fuel temperature feedback on nuclear reactions is important),
2. the boiling curve is used only up to the CHF point, omitting post-CHF heat transfer (in this case, the heat transfer coefficient is kept constant when the CHF point is exceeded).

As a matter of fact, the heat transfer coefficient appearing in equation (4.9) can depend both on the wall temperature T_w and bulk fluid temperature T_b . The nonlinear dependence on the fluid temperature, generally limited to the single-phase forced convection, and the non-linear dependence of the film boiling coefficient on the wall temperature are weak enough to be resolved in the external (flow) iterations. On the contrary, fig. 4.2 shows that the dependence of the heat transfer coefficient on the wall temperature from the onset of nucleate boiling to the minimum film boiling temperature is quite strong and, thus, could risk the convergence of the external iterations.

Thus, internal iterations between wall temperature and heat transfer coefficient for each fuel rod and axial interval can be activated and the relative change of the heat transfer coefficient and, possibly, the absolute change of the rod temperatures are tested with user-supplied criteria. (see card 27) In this way, if the EPRI correlation for critical heat flux has been selected (see § 4.3), also the dependence of the critical heat flux on the actual local heat flux is allowed for. The maximum number of internal iterations for all rods and axial intervals is provided in the short edit. Generally speaking, only a few iterations are needed to converge the heat transfer coefficient below 1% but, sometimes, the internal iterations for some rod and axial interval do not converge within the user-supplied maximum number of iterations mainly because the heat transfer coefficient tends to swing from a regime to a next one, e.g., from forced convection to nucleate boiling. In most cases, this inconvenience tends to disappear as the external iterations progress but, anyhow, if the maximum number is exceeded, the internal iterations for the failing rod and axial interval are stopped but the calculation is continued.

Only the default correlations provided in the input data (see card 22a) have been extensively used and are documented here, viz., Dittus-Boelter correlation for single-phase forced convection, Thom correlation for subcooled and saturated nucleate boiling heat transfer, EPRI correlation for critical heat flux, Condie-Bengtson and Groeneveld 5.7 correlations for transition and film boiling heat transfer. For the other correlations, the user is referred to the subroutine HTCOR (for the heat transfer coefficients) and to the function subprograms CHF1÷CHF7 (for the critical heat flux). Figs. 4.2 and 4.3 which emphasizes the portion of the boiling curve up to the minimum film boiling heat flux, illustrate the behavior of the aforementioned default correlations in typical flow conditions exemplified by the following data:

Coolant mass flux	=	3323 kg/m ² /s
Equivalent hydraulic diameter	=	0.0131 m
Pressure	=	14.9 MPa
Coolant enthalpy	=	1.5915 MJ/kg
Inlet coolant enthalpy	=	1.2994 MJ/kg
Local heat flux	=	1.047 MW/m ²
Critical heat flux temperature	=	620.21 K
Critical heat flux	=	1.5302 MW/m ²

Saturation temperature	=	615.49 K
Saturated liquid enthalpy	=	1.6063 MJ/kg
Saturated vapor enthalpy	=	2.6159 MJ/kg
Vaporization enthalpy	=	1.0096 MJ/kg

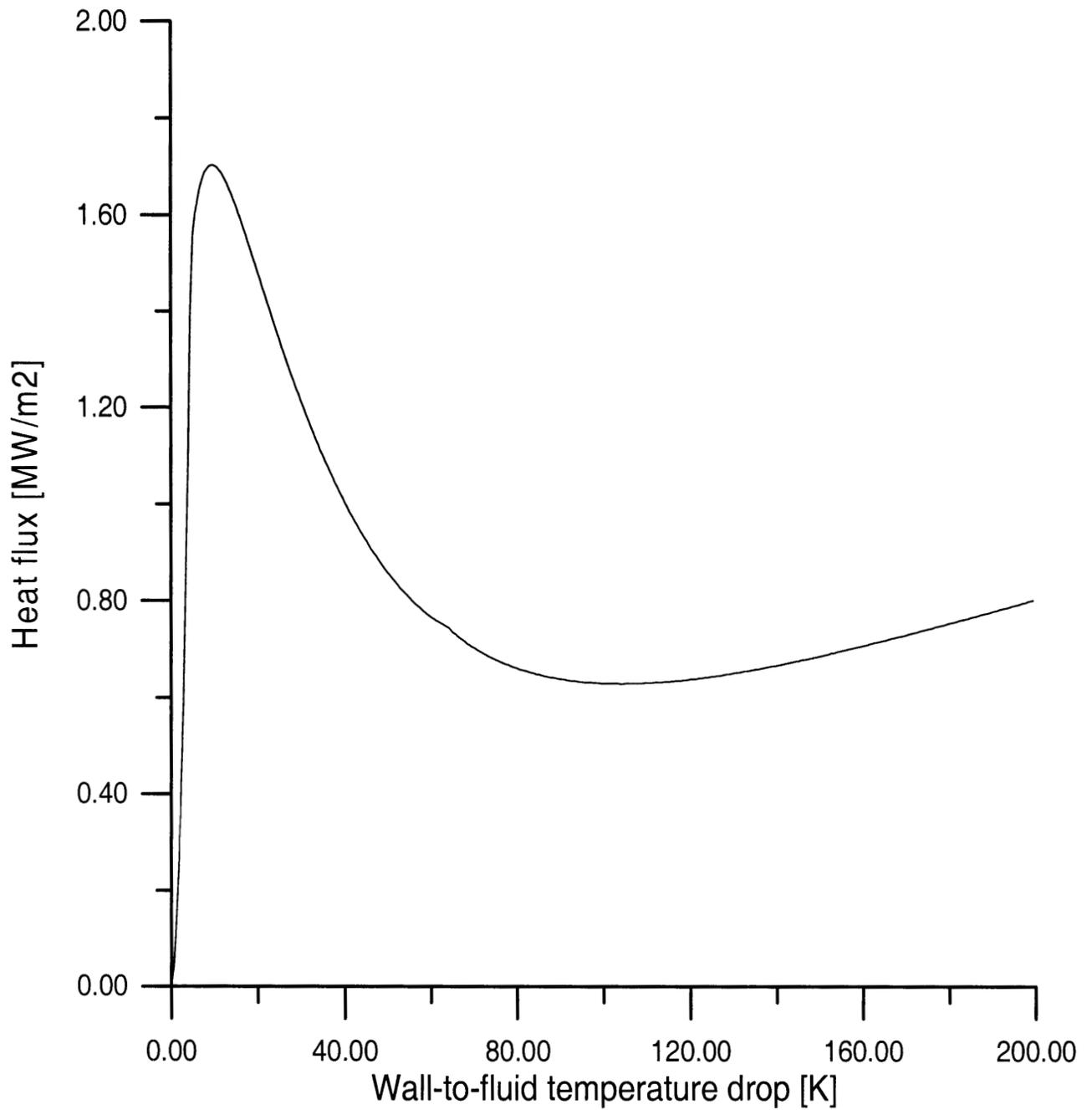


Fig 4.2 - Example of boiling curve drawn by using the default correlations for the heat transfer coefficients (linear scale)

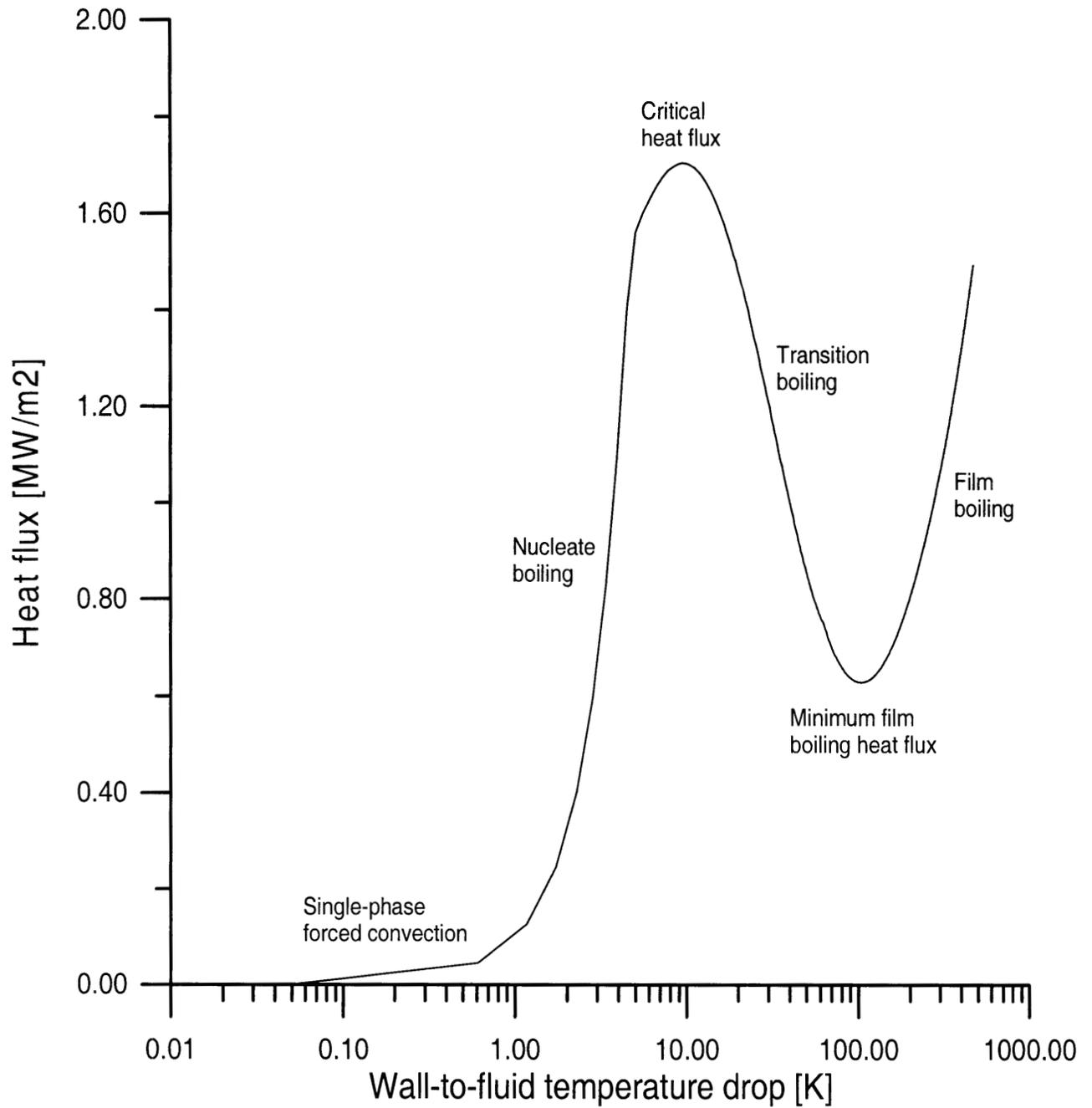


Fig 4.3 - Example of boiling curve drawn by using the default correlations for the heat transfer coefficients (semilogarithmic scale)

4.2.1 Single-Phase Forced Convection

The Dittus-Boelter correlation for single-phase forced-convection heat transfer coefficient in turbulent flow conditions is:

$$H_T = 0.023Re^{0.8}Pr^{0.4} \left(\frac{k}{D_h} \right) \quad (4.10)$$

For laminar flow the following correlation is assumed:

$$H_L = 8.0 \frac{k}{D_h} \quad (4.11)$$

i.e., a Nusselt number (HD_h/k) of 8.0 is assumed. The single-phase forced convection heat transfer coefficient is the maximum of the turbulent and laminar correlations:

$$H_{SPFC} = \max(H_T, H_L) \quad (4.12)$$

- k = coolant thermal conductivity (Btu/s/ft/F),
- D_h = equivalent hydraulic diameter (ft),
- Re = Reynolds number ($=GD_h/\mu$),
- Pr = Prandtl number ($=C_p\mu/k$),
- G = coolant mass flux (lbm/s/ft²),
- μ = dynamic viscosity (lbm/s/ft),
- C_p = specific heat (Btu/lbm/F).

All properties are evaluated at the bulk coolant temperature in all-liquid or all-vapor conditions.

4.2.2 Subcooled and Saturated Nucleate Boiling

The Thom correlation can be written as:

$$q''_{Thom} = 0.05358 \cdot e^{P/630} \cdot (T_w - T_{sat})^2 \quad (4.13)$$

- P = system pressure (psi),
- T_w = temperature of the fuel rod surface (F),
- T_{sat} = coolant saturation temperature (F),
- T_b = bulk coolant temperature (F),
- q'' = boiling heat flux (Btu/s/ft²).

The default option in COBRA-EN for the nucleate boiling heat transfer coefficient is the sum of the liquid phase forced-convection and Thom heat transfer coefficients:

$$H_{NB} = H_{SPFC} + q''_{Thom} / (T_w - T_b) \quad (4.14)$$

which in terms of heat fluxes can be written as:

$$q'' = H_{SPFC} (T_w - T_b) + 0.05358 e^{P/630} \Delta (T_w - T_{sat})^2$$

or:

$$0.05358e^{P/630} \Delta T_w^2 + H_{SPFC} \Delta T_w + H_{SPFC} (T_{sat} - T_b) - q'' = 0 \quad (4.15)$$

with $\Delta T_w = T_w - T_{sat}$.

Now, it would be sufficient to derive, at each iteration, a new heat transfer coefficient from (4.13) or (4.14) but, to prevent the swing from nucleate boiling to forced convection heat transfer regime or, in general, to improve the convergence rate of the heat transfer coefficient/wall temperature iterations, it is preferable to solve, at each iteration, either equation (4.13) or (4.15) for ΔT_w with q'' equal to the heat flux resulting from the calculation of the temperatures in the fuel rod and, then, to define a new heat transfer coefficient as:

$$H_{NB} = q'' / \Delta T_w \quad (4.16)$$

to be used in the next iteration.

4.2.3 Transition Boiling

The modified Condie-Bengtson for high flowrate transition boiling is as follows:
:

$$q''_{TB} = C_1 e^{-\frac{1}{2} \sqrt{T_w - T_{sat}}} (T_w - T_{sat}) \quad (4.17)$$

where:

$$C_1 = \frac{q''_{CHF} - q''_{FB}}{T_{CHF} - T_{sat}} e^{\frac{1}{2} \sqrt{T_{CHF} - T_{sat}}} \quad (4.18)$$

q''_{CHF} = critical heat flux (Btu/s/ft²),

q''_{FB} = $h_{FB}(T_{CHF} - T_{sat})$ = film boiling heat flux at Critical Heat Flux temperature (Btu/s/ft²),

q''_{TB} = transition boiling heat flux (Btu/s/ft²).

Therefore, for $T_w = T_{CHF}$:

$$q''_{TB} = q''_{CHF} - q''_{FB} \quad (4.19)$$

Since the film boiling flux will be added to the transition boiling component, the boiling curve turns out to be continuous at the CHF temperature.

4.2.4 Film Boiling

The Groeneveld 5.7 correlation:[Groeneveld 1973] for the film boiling heat transfer coefficient is:

$$q''_{FB} = H_{FB} (T_w - T_{sat}) \quad (4.20)$$

$$H_{FB} = 0.052 \frac{k_g}{D_h} Re_{hom}^{0.688} Pr_f^{1.26} / \gamma^{1.06} \quad (4.21)$$

$$\gamma = 1.0 - 0.1 (1 - x) \frac{\rho_f}{\rho_g} - 1^{0.4}$$

$$Pr_f = \frac{C_{pv} \mu_v}{k_v}$$

$$Re_{hom} = \frac{GD_h x}{\mu_g \alpha} = \frac{GD_h}{\mu_g} \left[x + \frac{\rho_g}{\rho_f} (1 - x) \right]$$

Vapor properties are evaluated at the film temperature $T_f = 1/2(T_w + T_{sat})$ and the homogeneous void correlation (3.20) is used for x/α .

- α = void fraction,
- x = flowing vapor quality,
- k_g = thermal conductivity of saturated vapor (Btu/s/ft/F),
- ρ_f = saturated liquid density (lbm/ft³),
- ρ_g = saturated vapor density (lbm/ft³),
- μ_g = dynamic viscosity of saturated vapor (lbm/s/ft),
- G = coolant mass flux (lbm/s/ft²),
- C_{pv} = specific heat of superheated vapor (Btu/lbm/F),
- μ_v = dynamic viscosity of superheated vapor (lbm/s/ft),
- k_v = thermal conductivity of superheated vapor (Btu/s/ft/F).

4.3 Critical Heat Flux (CHF) Correlations

The critical heat flux correlations can be used either in the heart of the calculations as a part of the surface heat transfer model (see § 4.2) to determine the CHF point (q''_{CHF} , T_{CHF}) ending the nucleate boiling heat transfer, or, after the fluid flow field solution has been completed and only when a long edit is required, to predict the critical heat flux ratio (CHFR) or departure from nucleate boiling ratio (DNBR).

The EPRI correlation [Columbia University 1982] can be written as:

$$q''_{CHF} = \frac{1}{0.0036} \frac{AF_A - x_{in}}{CF_C F_g F_{nu} + \frac{h - h_{in}}{0.0036 \cdot q'' \cdot h_{fg}}} \quad (4.22)$$

with:

$$A = 0.5328 \cdot P_r^{0.1212} \cdot (0.0036 \cdot G)^{(-0.3040 - 0.3285 \cdot P_r)}$$

$$C = 1.6151 \cdot P_r^{1.4066} \cdot (0.0036 \cdot G)^{(0.4843 - 2.0749 P_r)}$$

and:

$$q''_{CHF} = \text{critical heat flux (Btu/s/ft}^2\text{),}$$

q'' = local heat flux (Btu/s/ft²),
 G = coolant mass flux (lbm/s/ft²),
 P_r = critical pressure ratio (= system reference pressure/critical pressure),
 h = local enthalpy (Btu/lbm),
 h_{in} = inlet enthalpy (Btu/lbm),
 h_{fg} = vaporization enthalpy (Btu/lbm).

F_A , F_C , F_g and F_{nu} are optional factors which correct the critical heat flux for various effects; otherwise they are assigned to the value of 1.0.

The correction for cold wall that can be applied to subchannels adjacent to BWR canister walls, is represented as a function of the coolant mass flux in the following way:

$$F_A = (0.0036 \cdot G)^{0.1}$$

$$F_C = 1.183 (0.0036 \cdot G)^{0.1}$$

The correction for grid spacers is related to the grid pressure loss coefficient C_g which is supplied in input (see CGRID on card 26b) as follows:

$$F_g = 1.3 - 0.3C_g$$

Finally, the correction for nonuniform axial heat flux at axial level X is written as:

$$F_{nu} = 1.0 + \frac{Y - 1}{1 + 0.0036 \cdot G}$$

$$Y = \frac{\int_0^X q''(X) dX}{q''(X)X}$$

with $Y=1$ for an axially uniform heat flux.

4.1 Fuel Rod Heat Conduction Model

Three fuel heating models are available in COBRA-EN: the CRTN model presented in Appendix A that was used for special applications with steady-state core simulators, the TWIGL fuel rod model mentioned in § 2.4 that has been used only for test purposes and a modified version of the COBRA-3C model which is presented here and, as a rule, should be preferred.

At each axial interval, the heat conduction equation in a fuel rod is solved only in the radial direction by a finite-difference technique which, following VIPRE [Stewart 1983], slightly differs from that of COBRA-3C [Rowe 1973]. Another difference is that the properties of the fuel rod materials (density, conductivity and specific heat of uranium dioxide and zircaloy) can be either input constant values or temperature-dependent correlations which have been taken from MATPRO-11 [Hagrman 1980] and implemented in the code.

As shown by fig. 4.1, the fuel pellet is divided into radial intervals or nodes of equal thickness (see NODESF on card 3). Inside an interior node i , bounded by the radial coordinates r_{i-1} and r_i , the temperature T_i is computed at the radial location \bar{r}_i which is the volume-averaged radius of the node, i.e.,

$$\bar{r}_i = \frac{1}{\pi(r_i^2 - r_{i-1}^2)} \int_{r_{i-1}}^{r_i} 2\pi r dr = \frac{2}{3} \frac{r_i^2 + r_i r_{i-1} + r_{i-1}^2}{r_i + r_{i-1}} \quad (4.1)$$

On the contrary, in the node bordering on the pellet-to-clad gap the computational point is the outer surface of the pellet. Likewise, in the two fixed radial nodes dividing the clad, the computational points are respectively the clad inner and outer face. So, if N is the total number of radial nodes or computational points, T_N is the temperature on the outer clad (or rod) surface and T_{N-1} and T_{N-2} are the temperatures at the clad inner surface and at the pellet outer surface. In any case, the heat balance equation to be solved is:

$$(\rho C_p V)_i \frac{\partial T_i}{\partial t} = Q_{i-1,i} + Q_{i+1,i} + Q_i''' V_i \quad (4.2)$$

where:

- ρ = fuel or clad density (lb/ft³),
- C_p = fuel or clad specific heat (Btu/lb/F),
- V = node volume,
- T = temperature (F) at the computational point,
- $Q_{i-1,i}$ = $-k \partial T / \partial r|_{r=r_{i-1}}$ = heat flow from node (i-1) to i (Btu/s),
- $Q_{i+1,i}$ = $+k \partial T / \partial r|_{r=r_i}$ = heat flow from node (i+1) to i (Btu/s),
- k = thermal conductivity (Btu/s/ft/F),
- Q_i''' = volumetric heat generation rate (Btu/s/ft³) or, in practice, the fission power which is divided between fuel pellet and clad (see GAMMA on card 12b) except a fraction which is directly released to the coolant (see CQ and CQIN on card 29).

While the power fraction pertaining to the clad is assumed to be uniformly distributed, a parabolic radial shape is allowed for the power distribution in the fuel pellet:

$$Q_i''' = \frac{Q_F}{V_F} \left(1 + \eta \frac{\bar{r}_i^2}{R_F^2} - \frac{1}{2} \right)$$

where:

- Q_F = power generated in the fuel per unit axial length (Btu(ft/s)),
- V_F = πR_F^2 = fuel volume per unit axial length (ft³/ft),
- R_F = radius of a fuel pellet (ft),
- η = a user-supplied fitting parameter; for $\eta=0$, a uniform power distribution in the fuel is assumed but other values up to $\eta=2$ can be specified (see card 12b).

The continuity of the heat flow at an interior nodal interface allows to write:

$$Q_{i-1,i} = K_{i-1,i} (T_{i-1} - T_i) \quad (4.3)$$

$$Q_{i+1,i} = K_{i+1,i} (T_{i+1} - T_i) \quad (4.4)$$

where the conductances $K_{i-1,i}$ from node (i-1) to i and $K_{i+1,i}$ from node (i+1) to i are computed as functions of thermal conductivity k and fuel rod geometric data:

$$K_{i-1,i} = K_{i,j-1} = \frac{2\pi r_{i-1} \Delta X_j k_i k_{i-1}}{k_i (r_{i-1} - \bar{r}_{i-1}) + k_{i-1} (\bar{r}_i - r_{i-1})} \quad (4.5)$$

$$K_{i+1,i} = K_{i,j+1} = \frac{2\pi r_i \Delta X_j k_i k_{i+1}}{k_{i+1} (r_i - \bar{r}_{i-1}) + k_i (\bar{r}_{i+1} - r_i)} \quad (4.6)$$

and ΔX_j is the thickness of the same axial interval where both the fluid flow equations and the fuel rod heat conduction equations are solved. At the rod center the adiabatic or symmetry boundary condition is applied and, thus, in node 1 equation, $Q_{i-1,i} \equiv Q_{0,1} = 0$. In node N-2 equation, $Q_{i+1,i} \equiv Q_{N-1,N-2}$ is replaced by $H_{\text{gap}}(T_{N-1} - T_{N-2})$ where H_{gap} is the pellet-to-gap heat transfer coefficient (or gap conductance, see § 4.5). In node N-1 equation, $Q_{i-1,i} \equiv Q_{N-2,N-1}$ is replaced by $H_{\text{gap}}(T_{N-2} - T_{N-1})$ and, finally, in the equation for node N, $Q_{i+1,i} \equiv Q_{N+1,N}$ is replaced by $H(T_b - T_N)$ where H is the rod-to-coolant heat transfer coefficient and T_b is the bulk fluid temperature.

For a rod n facing more than one channel, which can occur only for "subchannel" analysis (see fig. C.1) because in a "core analysis" the "average" rod representative of the rod bundle belonging to a channel (see fig. B.3) is assumed to lie inside the channel, the heat flux to the coolant can be written as:

$$\begin{aligned} q''_n &= \frac{1}{\sum_{l \in n} \Phi_{nl}} \sum_{l \in n} \Phi_{nl} H_{nl} (T_n - T_{bl}) = \frac{1}{\sum_{l \in n} \Phi_{nl}} T_n \sum_{l \in n} (\Phi_{nl} H_{nl}) - \sum_{l \in n} (\Phi_{nl} H_{nl} T_{bl}) = \\ &= \frac{\sum_{l \in n} (\Phi_{nl} H_{nl})}{\sum_{l \in n} \Phi_{nl}} \left[T_n - \frac{\sum_{l \in n} (\Phi_{nl} H_{nl} T_{bl})}{\sum_{l \in n} (\Phi_{nl} H_{nl})} \right] \end{aligned} \quad (4.7)$$

where the summation spans all channel l surrounding rod n , T_n is the temperature of the node n wall, H_{nl} is rod n -to-channel l heat transfer coefficient, T_{bl} is the bulk coolant temperature of channel l and Φ_{nl} is the fraction of rod n external circumference (or wetted perimeter) facing channel l . Notice that $\sum_{l \in n} \Phi_{nl} = 1$

for a rod interior to the computational domain but could be different for a rod lying on a symmetry boundary or at a corner point. Thus, consistent expressions for the circumferentially-averaged rod-to-coolant heat transfer coefficient H_n and bulk coolant temperature T_b , which are required by the rod heat transfer model, are:

$$H_n = \frac{\sum_{l \in n} (\Phi_{nl} H_{nl})}{\sum_{l \in n} \Phi_{nl}} \quad \text{and} \quad T_b = \frac{\sum_{l \in n} (\Phi_{nl} H_{nl} T_{bl})}{\sum_{l \in n} (\Phi_{nl} H_{nl})} \quad (4.8)$$

To conclude, the temperatures at the computational points associated to the radial nodes, are found by solving a linear system with a symmetric diagonally-dominant tridiagonal matrix for every fuel rod and axial interval. The actual calculations are carried out by the same subprogram GAUSS also used to solve some one-dimensional problems in axial direction with regard to fluid flow model (see § 2.2).

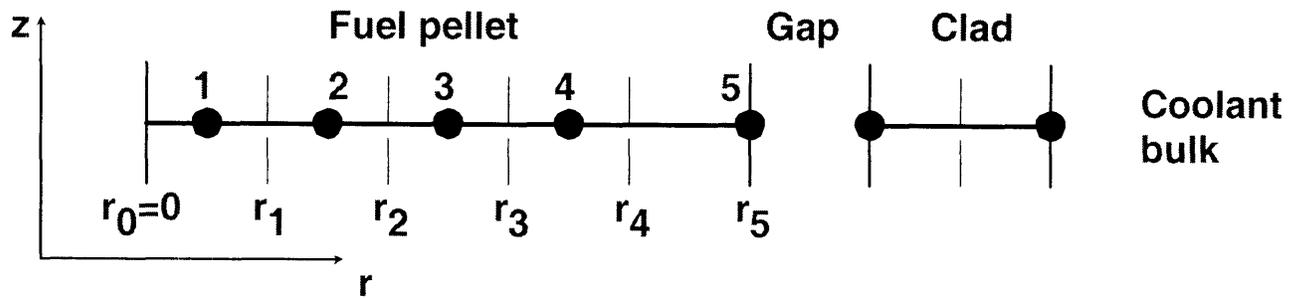


Fig. 4.1 - Sketch of radial mesh for temperatures in a fuel rod

As regards the thermophysical properties ρ , C_p and k of the fuel rod materials (uranium dioxide as fuel and zircaloy as clad), they are only listed here (for more detail the user is referred to the quoted subprograms):

- fuel density (lbm/ft^3) as a fixed value supplied in input or by default,
- fuel thermal conductivity ($\text{Btu}/\text{ft}/\text{s}/\text{F}$) as a function of temperature (function subprogram UCONDU),
- fuel specific heat ($\text{Btu}/\text{lbm}/\text{F}$) as a function of temperature (function subprogram USPEHT),
- clad density (lbm/ft^3) as a fixed value supplied in input or by default,
- clad thermal conductivity ($\text{Btu}/\text{ft}/\text{s}/\text{F}$) as a function of temperature (function subprogram ZCONDU),
- clad fuel specific heat ($\text{Btu}/\text{lbm}/\text{F}$) as a function of temperature (function subprogram ZSPEHT).

APPENDIX 2: COBRA Sample Problem

The following Input and Output is for the reference reactor described by chapter 2 of this thesis at 100% power.

Input Deck:

```
$CARD 1 LIST
BWR FUEL BUNDLE
$CARD 2
$IQP3 ISIN ISOUT JTHMOD
  1  2  2  0
$CARD 3
$NCHANL = 15 since there are 15 coolant channels
$NCTYP = 7 since there are 7 different channel types per 1/8th assembly
$IPILE NCHANL NROD/NBCH  NDX NCTYP NGRID NGRIDT NODESF
  1  15  10  400  7  7  1  5
  0 $IGCON
$ UNUSED INT  IVEC2 NFUELT
  0      0  1
$CARD 4
$uniform axial nodes at 0.01 m
-0.01 /
$ CARD 5
  24 $ at least two axial levels must be supplied
0.
11776 11419 11062 10706 11062 10706 10349 10349 9992 9635
0.325
18442 17883 17324 16766 17324 16766 16207 16207 15648 15089
0.4875
22220 21546 20873 20200 20873 20200 19526 19526 18853 18180
0.65
25997 25209 24421 23634 24421 23634 22846 22846 22058 21270
0.8125
28441 27579 26717 25856 26717 25856 24994 24994 24132 23270
0.975
29774 28872 27970 27068 27970 27068 26165 26165 25263 24361
1.1375
30441 29518 28596 27674 28596 27674 26751 26751 25829 24906
1.3
30885 29949 29013 28078 29013 28078 27142 27142 26206 25270
1.4625
31108 30165 29222 28280 29222 28280 27337 27337 26394 25452
1.625
30885 29949 29013 28078 29013 28078 27142 27142 26206 25270
1.7875
30441 29518 28596 27674 28596 27674 26751 26751 25829 24906
1.95
29774 28872 27970 27068 27970 27068 26165 26165 25263 24361
2.1125
28441 27579 26717 25856 26717 25856 24994 24994 24132 23270
2.275
26886 26071 25256 24442 25256 24442 23627 23627 22812 21997
2.4375
24442 23701 22960 22220 22960 22220 21479 21479 20738 19998
2.6
22220 21546 20873 20200 20873 20200 19526 19526 18853 18180
2.7625
19775 19176 18577 17978 18577 17978 17378 17378 16779 16180
2.925
17553 17021 16489 15958 16489 15958 15426 15426 14894 14362
3.0875
15776 15298 14820 14342 14820 14342 13863 13863 13385 12907
```

3.25
14220 13789 13358 12928 13358 12928 12497 12497 12066 11635
3.4125
12887 12497 12106 11716 12106 11716 11325 11325 10934 10544
3.575
11776 11419 11062 10706 11062 10706 10349 10349 9992 9635
3.7375
10221 9911 9601 9292 9601 9292 8982 8982 8672 8362
3.9
8888 8618 8349 8080 8349 8080 7810 7810 7541 7272

\$cards 7

\$GAPC

\$ NCN NCC(L) GAPC(L) DISTC(L)

1 -2 0.00363 0.01615/
2 -3 0.00363 0.01615
6 0.00363 0.01615/
3 -4 0.00363 0.01615
7 0.00363 0.01615/
4 -5 0.00363 0.0130927941176471
8 0.00363 0.01615/
5 9 0.00377558823529412 0.01615/
6 7 0.00363 0.01615/
7 8 0.00363 0.01615
10 0.00363 0.01615/
8 9 0.00363 0.0130927941176471
11 0.00363 0.01615/
9 12 0.00377558823529412 0.01615/
10 11 0.00363 0.01615/
11 12 0.00363 0.0130927941176471
13 0.00363 0.01615/
12 14 0.00377558823529412 0.01615/
13 14 0.00363 0.0130927941176471/
14 15 0.00377558823529412 0.0130927941176471/
15 /

/

\$card 8

\$NRN IDFUEL LR(L) PHI(L)

1 1 1 0.125
2 0.25
6 0.125/
2 1 2 0.25
3 0.25
6 0.25
7 0.25/
3 1 3 0.25
4 0.25
7 0.25
8 0.25/
4 1 4 0.25
5 0.25
8 0.25
9 0.25/
5 1 6 0.125
7 0.25
10 0.125/
6 1 7 0.25
8 0.25
10 0.25
11 0.25/
7 1 8 0.25
9 0.25
11 0.25

12 0.25/
8 1 10 0.125
11 0.25
13 0.125/
9 1 11 0.25
12 0.25
13 0.25
14 0.25/
10 1 13 0.125
14 0.25
15 0.125/
/

\$card 10a

\$N FRAC CHAR CHPW CHPH
1 1.0 0.00001721 0.00491659 0.00491659 /

\$card 10b

\$CDG(L)

1.24

\$card 10c omitted for the 1st subchannel type

1 1.0 0.00006886 0.01966635 0.01966635 /
1.24

2 3 4/

1 1.0 0.00005026 0.00983318 0.00983318 /
1.24

5/

1 1.0 0.00006886 0.01966635 0.01966635 /
1.24

6 10 13/

1 1.0 0.00013771 0.03933271 0.03933271 /
1.24

7 8 11/

1 1.0 0.00010052 0.01966635 0.01966635 /
1.24

9 12 14/

1 1.0 0.00003497 0.00491659 0.00491659 /
1.24

15/

\$card 11

0.1 1 0.2 1 0.3 1 0.4 1 0.5 1 0.6 1 0.7 1

\$card 12a

\$DFUEL TCLAD RFUEL RCLAD DROD ETA
0.011268 .000335 2*0. 0.01252 0.

\$card 12b

\$KFUEL CFUEL KCLAD CCLAD HGAP GAMMA
4*0. 5000. 0.

\$card 14

\$N1 N2 N3 N4 N5 N6 N7 N8 NHTC ISAT

0 1 1 1 0 1 0 0 2 1

\$card 17

0

/

/

\$card 18 use epri

/

\$card 20

/

\$card 22

/

\$card 26

/

\$NCHF

3

```

/
$card 29
$IH HIN GIN PEXIT DPS IPS FNORM CQ GINBP BORIN CQIN
 1 548.150 1700.0 7.2 0.0 0 1.54 0. 0. 0. 1./
$card 30 no input means steady state only
/
$card 32 no input means steady state only
/
$card 36
$NSKIPX NSKIPT NOUT
 0 0 2 /
$EOD

```

Corresponding Output:

FIXED CORE ALLOCATION 1000000 WORDS (4 BYTES) OF STORAGE REQUIRED

```

COBRA-EN PROBLEM
EXECUTED ON: 12/ 1/2005 AT TIME: 16:27:36
1      *** INPUT ECHO ***

      1   2   3   4   5   6   7   8
123456789012345678901234567890123456789012345678901234567890
-----

```

=====

THERMAL-HYDRAULICS USING 8-BYTE LONG REALS AND 4-BYTE LONG INTEGERS

=====

```

1

COBRA-EN THERMAL-HYDRAULIC
RUN IDENTIFICATION
PROBLEM TITLE: BWR FUEL BUNDLE
RUN DATE: 12/ 1/2005
RUN DAY TIME: 16:27:36

```

STREAM OF TH INPUT DATA

```

-----
TH CARD NO.  2
start reading
end reading
TH CARD NO.  3
start reading
end reading
TH CARD NO.  4
start reading
end reading
TH CARDS NO.  5
start reading:
card 5.a
card 5.b( 1)
card 5.c( 1)
card 5.b( 2)
card 5.c( 2)
card 5.b( 3)
card 5.c( 3)
card 5.b( 4)
card 5.c( 4)

```

card 5.b(5)
card 5.c(5)
card 5.b(6)
card 5.c(6)
card 5.b(7)
card 5.c(7)
card 5.b(8)
card 5.c(8)
card 5.b(9)
card 5.c(9)
card 5.b(10)
card 5.c(10)
card 5.b(11)
card 5.c(11)
card 5.b(12)
card 5.c(12)
card 5.b(13)
card 5.c(13)
card 5.b(14)
card 5.c(14)
card 5.b(15)
card 5.c(15)
card 5.b(16)
card 5.c(16)
card 5.b(17)
card 5.c(17)
card 5.b(18)
card 5.c(18)
card 5.b(19)
card 5.c(19)
card 5.b(20)
card 5.c(20)
card 5.b(21)
card 5.c(21)
card 5.b(22)
card 5.c(22)
card 5.b(23)
card 5.c(23)
card 5.b(24)
card 5.c(24)
end reading

TH CARDS NO. 7

start reading:
card 7(1)
card 7(2)
card 7(3)
card 7(4)
card 7(5)
card 7(6)
card 7(7)
card 7(8)
card 7(9)
card 7(10)
card 7(11)
card 7(12)
card 7(13)
card 7(14)
card 7(15)
card 7(16)
end reading

TH CARDS NO. 8

start reading:

card 8(1)
card 8(2)
card 8(3)
card 8(4)
card 8(5)
card 8(6)
card 8(7)
card 8(8)
card 8(9)
card 8(10)
card 8(11)
end reading
TH CARDS NO. 10
start reading
card 10.a(1)
card 10.b(1)
card 10.a(2)
card 10.b(2)
card 10.c(2)
card 10.a(3)
card 10.b(3)
card 10.c(3)
card 10.a(4)
card 10.b(4)
card 10.c(4)
card 10.a(5)
card 10.b(5)
card 10.c(5)
card 10.a(6)
card 10.b(6)
card 10.c(6)
card 10.a(7)
card 10.b(7)
card 10.c(7)
end reading
TH CARD NO. 11
start reading
end reading
TH CARDS NO. 12
start reading
card 12.a(1)
card 12.b(1)
card 12.c
end reading
T-H CARD NO. 14
start reading
end reading
T-H CARDS NO. 17
start reading:
card 17.a
card 17.b
card 17.c
end reading
T-H CARD NO. 18
start reading
end reading
T-H CARD NO. 20
start reading
end reading
T-H CARDS NO. 22
start reading:
card 22.a

end reading
 T-H CARDS NO. 26
 start reading:
 card 26.a
 card 26.b
 end reading
 T-H CARD NO. 29
 start reading
 end reading
 T-H CARDS NO. 30
 start reading:
 card 30.a
 end reading
 T-H CARD NO. 32
 start reading
 end reading
 T-H CARD NO. 36
 start reading
 end reading

1

PROCESSED THERMAL-HYDRAULIC INPUT DATA

VAPOR CONTINUITY EQUATION INCLUDED IN THERMAL-HYDRAULIC MODEL? 0 (0=NO, 1=YES
 FOR COBRA MODEL, 2=YES FOR TWIGL MODEL)

CHANNEL, ROD AND GRID DATA

TYPE OF ANALYSIS = 1 (=0 CORE, =1 SUBCHANNELS)
 INPUT UNIT SYSTEM = 2 (=1 AE, =2 SI)
 OUTPUT UNIT SYSTEM = 2 (=1 AE, =2 SI)
 CONNECTION FLAG = 1 (=1 OPEN CHANNELS, =2 CLOSED CHANNELS)
 TOTAL NO. OF CHANNELS = 15
 NO. OF BYPASS CHANNELS = 0
 NO. OF FUEL RODS = 10
 NO. OF CHANNEL TYPES = 7
 NO. OF GRIDS = 7
 NO. OF GRID TYPES = 1
 NO. OF FUEL NODES = 5
 NO. OF FUEL TYPES = 1
 FUEL PIN MODEL = 1 (=0 NO, =1 COBRA, =2 CRTN, =3 TWIGL)
 FLAG FOR SPECIAL VECTORIZED VERSION = 1(1=NO, 2=YES)

1

BOUNDARY BETWEEN CHANNELS

BD. NO.	CHANNELS (M)	GAP WIDTH DISTANCE (M)	CENTROID
1	1 AND 2	0.0036	0.0161
2	2 AND 3	0.0036	0.0161

3	2 AND 6	0.0036	0.0161
4	3 AND 4	0.0036	0.0161
5	3 AND 7	0.0036	0.0161
6	4 AND 5	0.0036	0.0131
7	4 AND 8	0.0036	0.0161
8	5 AND 9	0.0038	0.0161
9	6 AND 7	0.0036	0.0161
10	7 AND 8	0.0036	0.0161
11	7 AND 10	0.0036	0.0161
12	8 AND 9	0.0036	0.0131
13	8 AND 11	0.0036	0.0161
14	9 AND 12	0.0038	0.0161
15	10 AND 11	0.0036	0.0161
16	11 AND 12	0.0036	0.0131
17	11 AND 13	0.0036	0.0161
18	12 AND 14	0.0038	0.0161
19	13 AND 14	0.0036	0.0131
20	14 AND 15	0.0038	0.0131

1

ROD DATA AND CONNECTIONS WITH CHANNELS

ROD NO. FUEL TYPE CHANNELS AND RELEASED POWER FRACTION

1	1	1 0.125	2 0.250	6 0.125	0 0.000	0 0.000	0 0.000
2	1	2 0.250	3 0.250	6 0.250	7 0.250	0 0.000	0 0.000
3	1	3 0.250	4 0.250	7 0.250	8 0.250	0 0.000	0 0.000
4	1	4 0.250	5 0.250	8 0.250	9 0.250	0 0.000	0 0.000
5	1	6 0.125	7 0.250	10 0.125	0 0.000	0 0.000	0 0.000
6	1	7 0.250	8 0.250	10 0.250	11 0.250	0 0.000	0 0.000
7	1	8 0.250	9 0.250	11 0.250	12 0.250	0 0.000	0 0.000
8	1	10 0.125	11 0.250	13 0.125	0 0.000	0 0.000	0 0.000
9	1	11 0.250	12 0.250	13 0.250	14 0.250	0 0.000	0 0.000
10	1	13 0.125	14 0.250	15 0.125	0 0.000	0 0.000	0 0.000

TYPE CHANNEL NUMBERS

2	2 3 4
3	5
4	6 10 13
5	7 8 11
6	9 12 14
7	15

TYPE FRIC AREA WT PER HT PER

		SQ M	M	M
1	1	0.000017	0.004917	0.004917
2	1	0.000069	0.019666	0.019666
3	1	0.000050	0.009833	0.009833
4	1	0.000069	0.019666	0.019666
5	1	0.000138	0.039333	0.039333
6	1	0.000101	0.019666	0.019666
7	1	0.000035	0.004917	0.004917

GRID DATA

NO. GRIDS = 7
 NO. GRID TYPES = 1
 TYPE AT X/L = 1 0.1000 1 0.2000 1 0.3000 1 0.4000 1 0.5000 1 0.6000 1 0.7000

CHANNEL TYPE GRID COEFF FOR GRID TYPES 1 - 1

1 1.2400
 2 1.2400
 3 1.2400
 4 1.2400
 5 1.2400
 6 1.2400
 7 1.2400

THERMAL PROPERTIES FOR FUEL MATERIAL 5 RADIAL FUEL NODES

FUEL PROPERTIES				CLAD PROPERTIES							
TYPE	COND.	SP. HEAT	DENSITY	DIA.	COND.	SP. HEAT	DENSITY	THICK.	GAP COND.		
ROD DIA.	NO.	(W/M/K)	(J/KG/K)	(KG/M3)	(M)	(W/M/K)	(J/KG/K)	(KG/M3)	(M)	(W/M2/K)	(M)
	1	0.00	0.0000	10970.4	0.0113	0.00	0.0000	6551.5	0.335E-03	5000.00	0.0125

TYPE FRACTION OF POWER FIT
 NO. FISSION POWER PARAMETER
 IN CLAD IN FUEL PELLETT

1 0.0000 0.0000

GAP BOUNDARIES CROSSED BY LINE OF SYMMETRY, IE FACTOR(K) = 0.5

1 2 4 6

OPERATING CONDITIONS

PRESSURE (MPA) = 7.2000
 AV. INLET MASS FLUX FOR FUEL CHANNELS (KG/M2/SEC) = 0.17000E+04
 AV. INLET MASS FLUX FOR BYPASS CHANNELS (KG/M2/SEC) = 0.17000E+04
 EXIT ENTHALPY (MJ/KG) = 0.0000 (IF 0.0, INLET ENTHALPY ASSUMED)
 UNIFORM PRESSURE DROP (MPA) = 0.00000
 + (=0.0 NO UNIFORM PRESSURE DROP REQUIRED,
 <0.0 UNSPECIFIED UNIFORM PRESSURE DROP REQUIRED)
 POWER NORMALIZATION FACTOR = 1.54000E+00
 FRACTION OF FISSION POWER IN COOLANT = 0.000000 (100.00% INSIDE CHANNEL,
 REMAINING PART IN BYPASS CHANNEL)
 INLET BORON CONCENTRATION (PPM) = 0.00

DILUTE BORON CONCENTRATION (PPM) ASSUMED TO BE ZERO OR TAKEN FROM NEUTRONIC SECTION (IF ANY)

CHANNEL LENGTH (M) = 4.00
 NO. OF AXIAL INTERVALS = 400
 IH= 1 INLET TEMPERATURE (K) = 548.150
 NO TRANSIENT CALCULATION OR TIME STEP SUPPLIED BY NEUTRONICS

THERMAL - HYDRAULIC MODEL

(1) MIXING

MIXING CORRELATIONS OPTION (NSCBC) = 0 (=0 W/GS=A, =1 W/GS=A*RE**B, =2 W/GD=A*RE**B, =3 W/GS=D/ZII*A*RE**B)
MIXING COEFFICIENT (BETA) = 0.020* (RE** 0.00)
TWO-PHASE MIXING OPTION (NBBC) = 0 (<2 SAME AS SUBCOOLED LIQUID, >1 TABLE IN QUALITY)
THERMAL CONDUCTION GEOMETRY FACTOR (GK) = 0.000

(2) SINGLE-PHASE FRICTION $F = A*(RE**B) + C$

NVISCW = 0 (=0 FOR NO WALL VISCOSITY CORRECTION, =1 FOR INCLUSION)

FRIC TYPE	A	B	C	REGIME
1	0.1840	-0.2000	0.0000	TURBULENT
2	0.1840	-0.2000	0.0000	TURBULENT
3	0.1840	-0.2000	0.0000	TURBULENT
4	0.1840	-0.2000	0.0000	TURBULENT
1	64.0000	-1.0000	0.0000	LAMINAR
2	64.0000	-1.0000	0.0000	LAMINAR
3	64.0000	-1.0000	0.0000	LAMINAR
4	64.0000	-1.0000	0.0000	LAMINAR

(3) TWO-PHASE FRICTION

J4 = 1 (=1 EPRI, =2 HOMOGENEOUS, =3 ARMAND, =4 BAROCZY, =5 POLYNOMIAL IN QUALITY)

(4) SUBCOOLED BOILING MODEL

J2 = 1 (=1 EPRI, =2 LEVY, =3 HOMOGENEOUS)

(5) VOID FRACTION

J3 = 1 (=1 EPRI, =2 ZUBER-FINDLAY, =3 HOMOGENEOUS, =4 ARMAND, =5 SMITH, =6 SLIP POLYNOMIAL IN QUALITY, =7 VOID POLYNOMIAL IN QUALITY)

(6) HEAT TRANSFER MODEL

SINGLE PHASE OPTION (IBC1) = 1 (=1,2 DITTUS-BOELTER, I.E., $NU = 0.02300*RE**0.8000*PR**0.4000 + 0.0000$)
SUBCOOLED NUCLEATE BOILING OPTION (IBC2) = 2 (=1 THOM, =2 THOM+SINGLE-PHASE, =3 JENS-LOTTE, =4 ROHSENOW)
SATURATED NUCLEATE BOILING OPTION (IBC3) = 2 (=1 THOM, =2 THOM+SINGLE-PHASE, =4 ROHSENOW)
CRITICAL HEAT FLUX OPTION (IBC4) = 3 (=1 BA&W, =2 W-3, =3 EPRI, =4 MACBETH-1, =5 MACBETH-2, =6 BIASI, =7 MODIFIED BARNETT)
TRANSITION BOILING OPTION (IBC5) = 1 (=1 CONDIE-BENGTSON, =2 INTERPOLATED, =3 MCDONOUGH-MILICH)
FILM BOILING OPTION (IBC6) = 1 (=1 GROENVELD 5.7, =2 BERENSON, =3 DOUGALL-ROHSENOW)
COEFFICIENTS REQUIRED BY EPRI SUBCOOLED BOILING MODEL:
HANCOX-NICOLL CONDENSATION FACTOR = 0.20000
DITTUS-BOELTER LEADING COEFFICIENT = 0.02300

(7) FLOW DIVISION AT INLET

IG = 0 (IG=0 SAME G, =1 SAME DP/DX, =2 GIN/GAV GIVEN)

(7) BORON DIVISION AT INLET

IBOR = 0 (IBOR=0,1 SAME BORON CONC., =2 REL. BORON CONC. GIVEN)

(8) CONSTANTS

CROSS-FLOW RESISTANCE (KIJ) = 0.500
MOMENTUM TURBULENT FACTOR (FTM) = 0.000
TRANSVERSE MOMENTUM FACTOR (S/L) = 0.500
CHANNEL ANGLE FROM VERTICAL = 0.000 DEGREES

(9) CRITICAL HEAT FLUX

NCHF = 3 (=0 NO, =1 BAW-2, =2 W-3, =3 EPRI, =4 MACBETH-1,
=5 MACBETH-2, =6 BIASI, =7 MODIFIED BARNETT)
COLD WALL CORRECTION OPTION (NCWC) = 0 (=0 NO, =1 YES)
NONUNIFORM AXIAL FLUX CORRECTION OPTION (NUFC) = 0 (=0 NO, =1 YES)
GRID LOSS COEFFICIENT (CGRID) = 1.00000

(10) CRITICAL POWER

NCPR = 0 (=0 NO, =1 GE-XL, =3 CISE-3, =2 BOTH)

(11) ITERATION

MINIMUM NUMBER OF ITERATIONS = 2
MAXIMUM NUMBER OF ITERATIONS = 20
AXIAL FLOW CONVERGENCE CRITERION = 0.001000
CROSSFLOW CONVERGENCE CRITERION = 0.010000
CROSSFLOW DAMPING FACTOR = 0.800000
AXIAL FLOW DAMPING FACTOR = 0.800000
WEIGHTING FACTOR FOR UPWARD DONOR ENTHALPY= 1.000000 (FOR NEGATIVE MASS
FLOWRATE)
H.T. COEFFICIENT CONVERGENCE CRITERION = 0.010000 (IF NEGATIVE, USED FOR INTERNAL
ITERATIONS)
ROD TEMPERATURE CONVERGENCE CRITERION (F) = -1.000000 (IF NEGATIVE, USED FOR
INTERNAL ITERATIONS)
MAXIMUM NUMBER OF INTERNAL ITERATIONS = 10
PRESSURE DROP CONVERGENCE CRITERION = 0.001000
MAX. RELATIVE CONTINUITY ERROR = 0.001000
PRESSURE ITERATION CONVERGENCE CRITERION = 0.000100
FLAG FOR ROD TEMPERATURE CALCULATION = 1 (1=AT EACH FLUID FLOW ITERATION,
2=ONLY ONCE)
FLAG FOR ITERATIVE SOLUTION SCHEME = 1 (1=PRESSURE GRADIENT, 2=NEWTON-
RAPHSON)
FLAG FOR CALCULATION OF COOLANT PROPERTIES= 1 (0=AT SYSTEM PRESSURE, 1=AT
LAST UPDATED LOCAL PRESSURE,
2=AT PREVIOUS STEP LOCAL PRESSURE (ONLY IN TRANSIENT))
BANDWIDTH FOR CHANNEL LAYOUT = 9

OUTPUT OPTIONS

DETAILED OUTPUT EVERY 1 AXIAL STEPS
SHORT OUTPUT EVERY 1 TIME STEPS
OUTPUT INDEX 2 (0=CHANNELS RESULTS, 1=CHANNEL RESULTS + CROSSFLOW TABLE,
2=CHANNEL & FUEL ROD RESULTS, 3=CHANNEL & FUEL ROD RESULTS + CROSSFLOW
TABLE)

DETAILED PRINTED OUTPUT REQUIRED FOR CHANNELS: 1 2 3 4 5 6 7 8
9 10 11 12 13 14 15
DETAILED PRINTED OUTPUT REQUIRED FOR FUEL RODS: 1 2 3 4 5 6 7 8
9 10

DETAILED PRINTED OUTPUT REQUIRED FOR FUEL NODES: 1 2 3 4 5 6 7

133 BLOCKS

NAME ORIGIN LENGTH

```

-----
FRST 0 1 2
A 0 3 16
ALFP 0 19 12060
ALFO 0 12079 12060
B 0 24139 12060
BINL 0 36199 16
BORC 0 36215 12060
BORO 0 48275 12060
BWGH 0 60335 16
CCHA 0 60351 4020
CD 0 64371 76
CHFR 0 64447 4020
CON 0 68467 30
CP 0 68497 30
CSAV 0 68527 12060
D 0 80587 10
DELP 0 80597 12060
DFDP 0 92657 12060
DFDX 0 104717 30
DGVA 0 104747 12060
DGVM 0 116807 12060
DHDX 0 128867 30
DHYD 0 128897 16
DIST 0 128913 60
DPDX 0 128973 30
DPK 0 129003 30
DPSA 0 129033 804
DQVA 0 129837 12060
DSL1 0 141897 12060
EPRK 0 153957 30
ERRC 0 153987 12060
ESAV 0 166047 12060
F 0 178107 12060
FINL 0 190167 16
FLUX 0 190183 4020
FLXO 0 194203 4020
FMUL 0 198223 30
FOLD 0 198253 12060
FSP 0 210313 30
FSAV 0 210343 12060
GAMV 0 222403 12060
GAPS 0 234463 60
H 0 234523 12060
HBOR 0 246583 16
HFL2 0 246599 16
HGAP 0 246615 4020
HINL 0 250635 16
HOLD 0 250651 12060
HPER 0 262711 16
HSUR 0 262727 4020
IDFU 0 266747 10
IFBO 0 266757 16
JBOI 0 266773 16
JBST 0 266789 26
JSAT 0 266815 16
KMAT 0 266831 14
KNOD 0 266845 14

```

LC	0	266859	60
MASN	0	266919	8
LR	0	266927	60
MCHF	0	266987	402
MCFC	0	267389	402
MCFR	0	267791	402
MODE	0	268193	4020
NBYP	0	272213	16
NTYP	0	272229	16
P	0	272245	12060
PERI	0	284305	16
PHI	0	284321	60
PLTC	0	284381	6834
PLTN	0	291215	8
PLTR	0	291223	120
POLD	0	291343	12060
PPK	0	303403	4020
PRNC	0	307423	18
PRNN	0	307441	8
PRNR	0	307449	12
QCHF	0	307461	6030
QF	0	313491	4020
QFB	0	317511	16
QPRI	0	317527	30
QVAP	0	317557	12060
RBOU	0	329617	8
RHO	0	329625	12060
RHOQ	0	341685	12060
RHOQ	0	353745	12060
RTEM	0	365805	8
SATQ	0	365813	90
SLIP	0	365903	12060
T	0	377963	12060
TCHF	0	390023	6030
TDU1	0	396053	14
TDU2	0	396067	14
TDU3	0	396081	14
TFLU	0	396095	4020
TINL	0	400115	16
TROD	0	400131	56280
TROL	0	456411	56280
U	0	512691	30
UH	0	512721	12060
V	0	524781	30
VISC	0	524811	30
VISW	0	524841	30
VOLN	0	524871	8
VP	0	524879	12060
VXOL	0	536939	90
X	0	537029	402
X\$A	0	537431	2412
X\$B	0	539843	804
AXLB	0	540647	30
CPR	0	540677	30
ITCP	0	540707	30
PC	0	540737	16
PCRI	0	540753	30
QINT	0	540783	402
XC	0	541185	402
XE	0	541587	402
COND	0	541989	20
DWDP	0	542009	16080

FACT 0 558089 20
 GAP 0 558109 20
 IK 0 558129 20
 JK 0 558149 20
 LENG 0 558169 20
 SP 0 558189 16080
 USAV 0 574269 40
 USTA 0 574309 40
 W 0 574349 16080
 WOLD 0 590429 16080
 WP 0 606509 40
 WSAV 0 606549 16080
 AAA 0 622629 270
 LAST 0 622899 2

UNUSED CORE - 377100 WORDS (4 BYTES)

1

===== SUMMARY OUTPUT FROM POWER DISTRIBUTION (COBRA-EN) =====

CHANNEL FISSION POWER = 3.375986E+06 BTU/HR IE 9.887424E+05 W

CHANNEL AVERAGE HEAT FLUX = 2.491895E+05 BTU/FT2/HR IE 7.855651E+05 W/M2

MAX. RADIAL FORM FACTOR = 1.100 AT AXIAL INTERVAL 400

MAX. AXIAL FORM FACTOR = 1.409 IN FUEL ROD 1

MAXIMUM RATED FUEL ROD IS NO. 1 WITH AVERAGE HEAT FLUX = 0.86411E+06 W/M2 IE 1.1000
TIMES AVERAGE

AVERAGE RATED FUEL ROD WITH AVERAGE HEAT FLUX = 0.78557E+06 W/M2

MINIMUM RATED FUEL ROD IS NO. 10 WITH AVERAGE HEAT FLUX = 0.70700E+06 W/M2 IE 0.9000
TIMES AVERAGE

I C O B R A - E N BWR FUEL BUNDLE

AT TIME (SEC) = 0.0000 PAGE

1

LINEAR FISSION POWER (W/M)

COLUMN

	1	2	3	4	5	6	7	8	9	0
1	1.8293E+04	1.7738E+04	1.7184E+04	1.6631E+04	1.7184E+04	1.6631E+04	1.6076E+04	1.6076E+04	1.5522E+04	1.4967E+04
2	1.8609E+04	1.8045E+04	1.7481E+04	1.6918E+04	1.7481E+04	1.6918E+04	1.6354E+04	1.6354E+04	1.5790E+04	1.5226E+04
3	1.8925E+04	1.8351E+04	1.7777E+04	1.7205E+04	1.7777E+04	1.7205E+04	1.6631E+04	1.6631E+04	1.6058E+04	1.5484E+04
4	1.9241E+04	1.8657E+04	1.8074E+04	1.7492E+04	1.8074E+04	1.7492E+04	1.6909E+04	1.6909E+04	1.6326E+04	1.5742E+04
5	1.9556E+04	1.8964E+04	1.8371E+04	1.7779E+04	1.8371E+04	1.7779E+04	1.7187E+04	1.7187E+04	1.6594E+04	1.6001E+04

6 1.9872E+04 1.9270E+04 1.8667E+04 1.8067E+04 1.8667E+04 1.8067E+04 1.7464E+04 1.7464E+04
1.6862E+04 1.6259E+04

7 2.0188E+04 1.9576E+04 1.8964E+04 1.8354E+04 1.8964E+04 1.8354E+04 1.7742E+04 1.7742E+04
1.7130E+04 1.6518E+04

8 2.0504E+04 1.9882E+04 1.9261E+04 1.8641E+04 1.9261E+04 1.8641E+04 1.8019E+04 1.8019E+04
1.7398E+04 1.6776E+04

9 2.0820E+04 2.0189E+04 1.9558E+04 1.8928E+04 1.9558E+04 1.8928E+04 1.8297E+04 1.8297E+04
1.7666E+04 1.7035E+04

10 2.1136E+04 2.0495E+04 1.9854E+04 1.9215E+04 1.9854E+04 1.9215E+04 1.8574E+04 1.8574E+04
1.7934E+04 1.7293E+04

11 2.1452E+04 2.0801E+04 2.0151E+04 1.9502E+04 2.0151E+04 1.9502E+04 1.8852E+04 1.8852E+04
1.8202E+04 1.7551E+04

12 2.1767E+04 2.1108E+04 2.0448E+04 1.9789E+04 2.0448E+04 1.9789E+04 1.9130E+04 1.9130E+04
1.8470E+04 1.7810E+04

13 2.2083E+04 2.1414E+04 2.0745E+04 2.0077E+04 2.0745E+04 2.0077E+04 1.9407E+04 1.9407E+04
1.8738E+04 1.8068E+04

14 2.2399E+04 2.1720E+04 2.1041E+04 2.0364E+04 2.1041E+04 2.0364E+04 1.9685E+04 1.9685E+04
1.9006E+04 1.8327E+04

15 2.2715E+04 2.2027E+04 2.1338E+04 2.0651E+04 2.1338E+04 2.0651E+04 1.9962E+04 1.9962E+04
1.9274E+04 1.8585E+04

16 2.3031E+04 2.2333E+04 2.1635E+04 2.0938E+04 2.1635E+04 2.0938E+04 2.0240E+04 2.0240E+04
1.9542E+04 1.8844E+04

17 2.3347E+04 2.2639E+04 2.1931E+04 2.1225E+04 2.1931E+04 2.1225E+04 2.0518E+04 2.0518E+04
1.9810E+04 1.9102E+04

18 2.3663E+04 2.2945E+04 2.2228E+04 2.1512E+04 2.2228E+04 2.1512E+04 2.0795E+04 2.0795E+04
2.0078E+04 1.9361E+04

19 2.3979E+04 2.3252E+04 2.2525E+04 2.1800E+04 2.2525E+04 2.1800E+04 2.1073E+04 2.1073E+04
2.0346E+04 1.9619E+04

20 2.4294E+04 2.3558E+04 2.2822E+04 2.2087E+04 2.2822E+04 2.2087E+04 2.1350E+04 2.1350E+04
2.0614E+04 1.9877E+04

21 2.4610E+04 2.3864E+04 2.3118E+04 2.2374E+04 2.3118E+04 2.2374E+04 2.1628E+04 2.1628E+04
2.0882E+04 2.0136E+04

22 2.4926E+04 2.4171E+04 2.3415E+04 2.2661E+04 2.3415E+04 2.2661E+04 2.1905E+04 2.1905E+04
2.1150E+04 2.0394E+04

23 2.5242E+04 2.4477E+04 2.3712E+04 2.2948E+04 2.3712E+04 2.2948E+04 2.2183E+04 2.2183E+04
2.1418E+04 2.0653E+04

24 2.5558E+04 2.4783E+04 2.4008E+04 2.3235E+04 2.4008E+04 2.3235E+04 2.2461E+04 2.2461E+04
2.1686E+04 2.0911E+04

25 2.5874E+04 2.5089E+04 2.4305E+04 2.3522E+04 2.4305E+04 2.3522E+04 2.2738E+04 2.2738E+04
2.1954E+04 2.1170E+04

44 3.2339E+04 3.1358E+04 3.0379E+04 2.9399E+04 3.0379E+04 2.9399E+04 2.8419E+04 2.8419E+04
2.7439E+04 2.6459E+04

45 3.2697E+04 3.1705E+04 3.0715E+04 2.9725E+04 3.0715E+04 2.9725E+04 2.8733E+04 2.8733E+04
2.7743E+04 2.6752E+04

46 3.3055E+04 3.2053E+04 3.1051E+04 3.0050E+04 3.1051E+04 3.0050E+04 2.9048E+04 2.9048E+04
2.8046E+04 2.7045E+04

47 3.3413E+04 3.2400E+04 3.1388E+04 3.0376E+04 3.1388E+04 3.0376E+04 2.9362E+04 2.9362E+04
2.8350E+04 2.7338E+04

48 3.3771E+04 3.2747E+04 3.1724E+04 3.0701E+04 3.1724E+04 3.0701E+04 2.9677E+04 2.9677E+04
2.8654E+04 2.7631E+04

49 3.4129E+04 3.3094E+04 3.2060E+04 3.1027E+04 3.2060E+04 3.1027E+04 2.9991E+04 2.9991E+04
2.8958E+04 2.7924E+04

50 3.4487E+04 3.3441E+04 3.2397E+04 3.1352E+04 3.2397E+04 3.1352E+04 3.0306E+04 3.0306E+04
2.9261E+04 2.8217E+04

I C O B R A - E N B W R F U E L B U N D L E
3

AT TIME (SEC) = 0.0000 PAGE

LINEAR FISSION POWER (W/M)

COLUMN

1 2 3 4 5 6 7 8 9 0

51 3.4845E+04 3.3788E+04 3.2733E+04 3.1678E+04 3.2733E+04 3.1678E+04 3.0621E+04 3.0621E+04
2.9565E+04 2.8510E+04

52 3.5203E+04 3.4135E+04 3.3069E+04 3.2003E+04 3.3069E+04 3.2003E+04 3.0935E+04 3.0935E+04
2.9869E+04 2.8802E+04

53 3.5561E+04 3.4483E+04 3.3405E+04 3.2328E+04 3.3405E+04 3.2328E+04 3.1250E+04 3.1250E+04
3.0173E+04 2.9095E+04

54 3.5919E+04 3.4830E+04 3.3742E+04 3.2654E+04 3.3742E+04 3.2654E+04 3.1565E+04 3.1565E+04
3.0476E+04 2.9388E+04

55 3.6277E+04 3.5177E+04 3.4078E+04 3.2979E+04 3.4078E+04 3.2979E+04 3.1879E+04 3.1879E+04
3.0780E+04 2.9681E+04

56 3.6635E+04 3.5524E+04 3.4414E+04 3.3305E+04 3.4414E+04 3.3305E+04 3.2194E+04 3.2194E+04
3.1084E+04 2.9974E+04

57 3.6993E+04 3.5871E+04 3.4750E+04 3.3630E+04 3.4750E+04 3.3630E+04 3.2508E+04 3.2508E+04
3.1388E+04 3.0267E+04

58 3.7351E+04 3.6218E+04 3.5087E+04 3.3956E+04 3.5087E+04 3.3956E+04 3.2823E+04 3.2823E+04
3.1691E+04 3.0560E+04

59 3.7709E+04 3.6565E+04 3.5423E+04 3.4281E+04 3.5423E+04 3.4281E+04 3.3138E+04 3.3138E+04
3.1995E+04 3.0852E+04

60 3.8067E+04 3.6913E+04 3.5759E+04 3.4606E+04 3.5759E+04 3.4606E+04 3.3452E+04 3.3452E+04
3.2299E+04 3.1145E+04

61 3.8425E+04 3.7260E+04 3.6095E+04 3.4932E+04 3.6095E+04 3.4932E+04 3.3767E+04 3.3767E+04
3.2603E+04 3.1438E+04

62 3.8783E+04 3.7607E+04 3.6431E+04 3.5257E+04 3.6431E+04 3.5257E+04 3.4082E+04 3.4082E+04
3.2906E+04 3.1731E+04

63 3.9141E+04 3.7954E+04 3.6768E+04 3.5583E+04 3.6768E+04 3.5583E+04 3.4396E+04 3.4396E+04
3.3210E+04 3.2024E+04

64 3.9498E+04 3.8301E+04 3.7104E+04 3.5908E+04 3.7104E+04 3.5908E+04 3.4711E+04 3.4711E+04
3.3514E+04 3.2317E+04

65 3.9856E+04 3.8648E+04 3.7440E+04 3.6234E+04 3.7440E+04 3.6234E+04 3.5026E+04 3.5026E+04
3.3817E+04 3.2609E+04

66 4.0151E+04 3.8934E+04 3.7717E+04 3.6502E+04 3.7717E+04 3.6502E+04 3.5285E+04 3.5285E+04
3.4068E+04 3.2851E+04

67 4.0383E+04 3.9159E+04 3.7935E+04 3.6712E+04 3.7935E+04 3.6712E+04 3.5488E+04 3.5488E+04
3.4264E+04 3.3040E+04

68 4.0614E+04 3.9383E+04 3.8152E+04 3.6923E+04 3.8152E+04 3.6923E+04 3.5692E+04 3.5692E+04
3.4461E+04 3.3230E+04

69 4.0846E+04 3.9608E+04 3.8370E+04 3.7133E+04 3.8370E+04 3.7133E+04 3.5895E+04 3.5895E+04
3.4657E+04 3.3419E+04

70 4.1078E+04 3.9833E+04 3.8587E+04 3.7344E+04 3.8587E+04 3.7344E+04 3.6099E+04 3.6099E+04
3.4854E+04 3.3609E+04

71 4.1309E+04 4.0057E+04 3.8805E+04 3.7555E+04 3.8805E+04 3.7555E+04 3.6302E+04 3.6302E+04
3.5050E+04 3.3798E+04

72 4.1541E+04 4.0282E+04 3.9023E+04 3.7765E+04 3.9023E+04 3.7765E+04 3.6506E+04 3.6506E+04
3.5247E+04 3.3988E+04

73 4.1772E+04 4.0506E+04 3.9240E+04 3.7976E+04 3.9240E+04 3.7976E+04 3.6710E+04 3.6710E+04
3.5443E+04 3.4177E+04

74 4.2004E+04 4.0731E+04 3.9458E+04 3.8186E+04 3.9458E+04 3.8186E+04 3.6913E+04 3.6913E+04
3.5640E+04 3.4367E+04

75 4.2236E+04 4.0956E+04 3.9675E+04 3.8397E+04 3.9675E+04 3.8397E+04 3.7117E+04 3.7117E+04
3.5837E+04 3.4556E+04

1 C O B R A - E N B W R FUEL BUNDLE
4

AT TIME (SEC) = 0.0000 PAGE

LINEAR FISSION POWER (W/M)

COLUMN

1 2 3 4 5 6 7 8 9 0

ROW

76 4.2467E+04 4.1180E+04 3.9893E+04 3.8607E+04 3.9893E+04 3.8607E+04 3.7320E+04 3.7320E+04
3.6033E+04 3.4746E+04

77 4.2699E+04 4.1405E+04 4.0111E+04 3.8818E+04 4.0111E+04 3.8818E+04 3.7524E+04 3.7524E+04
3.6230E+04 3.4935E+04

78 4.2931E+04 4.1629E+04 4.0328E+04 3.9029E+04 4.0328E+04 3.9029E+04 3.7727E+04 3.7727E+04
3.6426E+04 3.5125E+04

79 4.3162E+04 4.1854E+04 4.0546E+04 3.9239E+04 4.0546E+04 3.9239E+04 3.7931E+04 3.7931E+04
3.6623E+04 3.5315E+04

80 4.3394E+04 4.2079E+04 4.0763E+04 3.9450E+04 4.0763E+04 3.9450E+04 3.8135E+04 3.8135E+04
3.6819E+04 3.5504E+04

81 4.3625E+04 4.2303E+04 4.0981E+04 3.9660E+04 4.0981E+04 3.9660E+04 3.8338E+04 3.8338E+04
3.7016E+04 3.5694E+04

82 4.3831E+04 4.2502E+04 4.1174E+04 3.9847E+04 4.1174E+04 3.9847E+04 3.8518E+04 3.8518E+04
3.7190E+04 3.5862E+04

83 4.3957E+04 4.2625E+04 4.1293E+04 3.9962E+04 4.1293E+04 3.9962E+04 3.8629E+04 3.8629E+04
3.7297E+04 3.5965E+04

84 4.4083E+04 4.2747E+04 4.1411E+04 4.0077E+04 4.1411E+04 4.0077E+04 3.8740E+04 3.8740E+04
3.7404E+04 3.6068E+04

85 4.4210E+04 4.2870E+04 4.1530E+04 4.0192E+04 4.1530E+04 4.0192E+04 3.8851E+04 3.8851E+04
3.7512E+04 3.6172E+04

86 4.4336E+04 4.2992E+04 4.1649E+04 4.0306E+04 4.1649E+04 4.0306E+04 3.8962E+04 3.8962E+04
3.7619E+04 3.6275E+04

87 4.4462E+04 4.3115E+04 4.1768E+04 4.0421E+04 4.1768E+04 4.0421E+04 3.9073E+04 3.9073E+04
3.7726E+04 3.6379E+04

88 4.4589E+04 4.3238E+04 4.1886E+04 4.0536E+04 4.1886E+04 4.0536E+04 3.9184E+04 3.9184E+04
3.7833E+04 3.6482E+04

89 4.4715E+04 4.3360E+04 4.2005E+04 4.0651E+04 4.2005E+04 4.0651E+04 3.9295E+04 3.9295E+04
3.7940E+04 3.6585E+04

90 4.4841E+04 4.3483E+04 4.2124E+04 4.0766E+04 4.2124E+04 4.0766E+04 3.9406E+04 3.9406E+04
3.8048E+04 3.6689E+04

91 4.4968E+04 4.3605E+04 4.2243E+04 4.0881E+04 4.2243E+04 4.0881E+04 3.9517E+04 3.9517E+04
3.8155E+04 3.6792E+04

92 4.5094E+04 4.3728E+04 4.2361E+04 4.0996E+04 4.2361E+04 4.0996E+04 3.9628E+04 3.9628E+04
3.8262E+04 3.6896E+04

93 4.5220E+04 4.3850E+04 4.2480E+04 4.1110E+04 4.2480E+04 4.1110E+04 3.9739E+04 3.9739E+04
3.8369E+04 3.6999E+04

94 4.5347E+04 4.3973E+04 4.2599E+04 4.1225E+04 4.2599E+04 4.1225E+04 3.9850E+04 3.9850E+04
3.8476E+04 3.7102E+04

95 4.5473E+04 4.4095E+04 4.2718E+04 4.1340E+04 4.2718E+04 4.1340E+04 3.9961E+04 3.9961E+04
3.8583E+04 3.7206E+04

96 4.5599E+04 4.4218E+04 4.2836E+04 4.1455E+04 4.2836E+04 4.1455E+04 4.0072E+04 4.0072E+04
3.8691E+04 3.7309E+04

97 4.5726E+04 4.4340E+04 4.2955E+04 4.1570E+04 4.2955E+04 4.1570E+04 4.0183E+04 4.0183E+04
3.8798E+04 3.7413E+04

98 4.5852E+04 4.4463E+04 4.3074E+04 4.1685E+04 4.3074E+04 4.1685E+04 4.0294E+04 4.0294E+04
3.8905E+04 3.7516E+04

99 4.5915E+04 4.4524E+04 4.3133E+04 4.1742E+04 4.3133E+04 4.1742E+04 4.0350E+04 4.0350E+04
3.8959E+04 3.7568E+04

100 4.5978E+04 4.4585E+04 4.3192E+04 4.1800E+04 4.3192E+04 4.1800E+04 4.0405E+04 4.0405E+04
3.9012E+04 3.7619E+04

1 C O B R A - E N BWR FUEL BUNDLE
5

AT TIME (SEC) = 0.0000 PAGE

LINEAR FISSION POWER (W/M)

COLUMN

1 2 3 4 5 6 7 8 9 0

101 4.6042E+04 4.4647E+04 4.3252E+04 4.1857E+04 4.3252E+04 4.1857E+04 4.0461E+04 4.0461E+04
3.9066E+04 3.7671E+04

102 4.6105E+04 4.4708E+04 4.3311E+04 4.1914E+04 4.3311E+04 4.1914E+04 4.0516E+04 4.0516E+04
3.9120E+04 3.7723E+04

103 4.6168E+04 4.4769E+04 4.3370E+04 4.1972E+04 4.3370E+04 4.1972E+04 4.0572E+04 4.0572E+04
3.9173E+04 3.7774E+04

104 4.6231E+04 4.4830E+04 4.3430E+04 4.2029E+04 4.3430E+04 4.2029E+04 4.0627E+04 4.0627E+04
3.9227E+04 3.7826E+04

105 4.6294E+04 4.4891E+04 4.3489E+04 4.2087E+04 4.3489E+04 4.2087E+04 4.0683E+04 4.0683E+04
3.9280E+04 3.7877E+04

106 4.6358E+04 4.4953E+04 4.3548E+04 4.2144E+04 4.3548E+04 4.2144E+04 4.0738E+04 4.0738E+04
3.9334E+04 3.7929E+04

107 4.6421E+04 4.5014E+04 4.3608E+04 4.2202E+04 4.3608E+04 4.2202E+04 4.0794E+04 4.0794E+04
3.9388E+04 3.7981E+04

108 4.6484E+04 4.5075E+04 4.3667E+04 4.2259E+04 4.3667E+04 4.2259E+04 4.0849E+04 4.0849E+04
3.9441E+04 3.8032E+04

109 4.6547E+04 4.5136E+04 4.3726E+04 4.2316E+04 4.3726E+04 4.2316E+04 4.0905E+04 4.0905E+04
3.9495E+04 3.8084E+04

110 4.6610E+04 4.5198E+04 4.3786E+04 4.2374E+04 4.3786E+04 4.2374E+04 4.0961E+04 4.0961E+04
3.9549E+04 3.8136E+04

111 4.6674E+04 4.5259E+04 4.3845E+04 4.2431E+04 4.3845E+04 4.2431E+04 4.1016E+04 4.1016E+04
3.9602E+04 3.8187E+04

112 4.6737E+04 4.5320E+04 4.3904E+04 4.2489E+04 4.3904E+04 4.2489E+04 4.1072E+04 4.1072E+04
3.9656E+04 3.8239E+04

113 4.6800E+04 4.5381E+04 4.3964E+04 4.2546E+04 4.3964E+04 4.2546E+04 4.1127E+04 4.1127E+04
3.9710E+04 3.8291E+04

114 4.6863E+04 4.5442E+04 4.4023E+04 4.2604E+04 4.4023E+04 4.2604E+04 4.1183E+04 4.1183E+04
3.9763E+04 3.8342E+04

115 4.6911E+04 4.5488E+04 4.4067E+04 4.2647E+04 4.4067E+04 4.2647E+04 4.1224E+04 4.1224E+04
3.9803E+04 3.8381E+04

116 4.6953E+04 4.5529E+04 4.4107E+04 4.2685E+04 4.4107E+04 4.2685E+04 4.1261E+04 4.1261E+04
3.9839E+04 3.8416E+04

117 4.6995E+04 4.5570E+04 4.4147E+04 4.2723E+04 4.4147E+04 4.2723E+04 4.1298E+04 4.1298E+04
3.9875E+04 3.8450E+04

118 4.7037E+04 4.5611E+04 4.4186E+04 4.2762E+04 4.4186E+04 4.2762E+04 4.1335E+04 4.1335E+04
3.9911E+04 3.8485E+04

119 4.7079E+04 4.5652E+04 4.4226E+04 4.2800E+04 4.4226E+04 4.2800E+04 4.1373E+04 4.1373E+04
3.9946E+04 3.8519E+04

120 4.7121E+04 4.5693E+04 4.4265E+04 4.2838E+04 4.4265E+04 4.2838E+04 4.1410E+04 4.1410E+04
3.9982E+04 3.8554E+04

121 4.7163E+04 4.5733E+04 4.4305E+04 4.2876E+04 4.4305E+04 4.2876E+04 4.1447E+04 4.1447E+04
4.0018E+04 3.8588E+04

122 4.7205E+04 4.5774E+04 4.4344E+04 4.2915E+04 4.4344E+04 4.2915E+04 4.1484E+04 4.1484E+04
4.0054E+04 3.8623E+04

123 4.7247E+04 4.5815E+04 4.4384E+04 4.2953E+04 4.4384E+04 4.2953E+04 4.1521E+04 4.1521E+04
4.0089E+04 3.8657E+04

124 4.7289E+04 4.5856E+04 4.4423E+04 4.2991E+04 4.4423E+04 4.2991E+04 4.1558E+04 4.1558E+04
4.0125E+04 3.8692E+04

125 4.7331E+04 4.5897E+04 4.4463E+04 4.3030E+04 4.4463E+04 4.3030E+04 4.1595E+04 4.1595E+04
4.0161E+04 3.8726E+04

I C O B R A - E N B W R FUEL BUNDLE
6

AT TIME (SEC) = 0.0000 PAGE

LINEAR FISSION POWER (W/M)

COLUMN

1 2 3 4 5 6 7 8 9 0

ROW

126 4.7374E+04 4.5938E+04 4.4502E+04 4.3068E+04 4.4502E+04 4.3068E+04 4.1632E+04 4.1632E+04
4.0196E+04 3.8761E+04

127 4.7416E+04 4.5978E+04 4.4542E+04 4.3106E+04 4.4542E+04 4.3106E+04 4.1669E+04 4.1669E+04
4.0232E+04 3.8795E+04

128 4.7458E+04 4.6019E+04 4.4581E+04 4.3144E+04 4.4581E+04 4.3144E+04 4.1706E+04 4.1706E+04
4.0268E+04 3.8830E+04

129 4.7500E+04 4.6060E+04 4.4621E+04 4.3183E+04 4.4621E+04 4.3183E+04 4.1743E+04 4.1743E+04
4.0304E+04 3.8864E+04

130 4.7542E+04 4.6101E+04 4.4660E+04 4.3221E+04 4.4660E+04 4.3221E+04 4.1780E+04 4.1780E+04
4.0339E+04 3.8899E+04

131 4.7573E+04 4.6132E+04 4.4690E+04 4.3250E+04 4.4690E+04 4.3250E+04 4.1808E+04 4.1808E+04
4.0366E+04 3.8924E+04

132 4.7595E+04 4.6152E+04 4.4710E+04 4.3269E+04 4.4710E+04 4.3269E+04 4.1826E+04 4.1826E+04
4.0384E+04 3.8942E+04

133 4.7616E+04 4.6173E+04 4.4730E+04 4.3288E+04 4.4730E+04 4.3288E+04 4.1845E+04 4.1845E+04
4.0402E+04 3.8959E+04

134 4.7637E+04 4.6193E+04 4.4749E+04 4.3307E+04 4.4749E+04 4.3307E+04 4.1863E+04 4.1863E+04
4.0420E+04 3.8976E+04

135 4.7658E+04 4.6214E+04 4.4769E+04 4.3326E+04 4.4769E+04 4.3326E+04 4.1882E+04 4.1882E+04
4.0437E+04 3.8993E+04

136 4.7679E+04 4.6234E+04 4.4789E+04 4.3345E+04 4.4789E+04 4.3345E+04 4.1900E+04 4.1900E+04
4.0455E+04 3.9011E+04

137 4.7700E+04 4.6255E+04 4.4809E+04 4.3365E+04 4.4809E+04 4.3365E+04 4.1919E+04 4.1919E+04
4.0473E+04 3.9028E+04

138 4.7721E+04 4.6275E+04 4.4829E+04 4.3384E+04 4.4829E+04 4.3384E+04 4.1937E+04 4.1937E+04
4.0491E+04 3.9045E+04

139 4.7743E+04 4.6295E+04 4.4848E+04 4.3403E+04 4.4848E+04 4.3403E+04 4.1956E+04 4.1956E+04
4.0509E+04 3.9062E+04

140 4.7764E+04 4.6316E+04 4.4868E+04 4.3422E+04 4.4868E+04 4.3422E+04 4.1974E+04 4.1974E+04
4.0526E+04 3.9080E+04

141 4.7785E+04 4.6336E+04 4.4888E+04 4.3441E+04 4.4888E+04 4.3441E+04 4.1993E+04 4.1993E+04
4.0544E+04 3.9097E+04

142 4.7806E+04 4.6357E+04 4.4908E+04 4.3460E+04 4.4908E+04 4.3460E+04 4.2011E+04 4.2011E+04
4.0562E+04 3.9114E+04

143 4.7827E+04 4.6377E+04 4.4928E+04 4.3479E+04 4.4928E+04 4.3479E+04 4.2030E+04 4.2030E+04
4.0580E+04 3.9131E+04

144 4.7848E+04 4.6398E+04 4.4947E+04 4.3499E+04 4.4947E+04 4.3499E+04 4.2048E+04 4.2048E+04
4.0598E+04 3.9149E+04

145 4.7869E+04 4.6418E+04 4.4967E+04 4.3518E+04 4.4967E+04 4.3518E+04 4.2067E+04 4.2067E+04
4.0616E+04 3.9166E+04

146 4.7890E+04 4.6439E+04 4.4987E+04 4.3537E+04 4.4987E+04 4.3537E+04 4.2085E+04 4.2085E+04
4.0633E+04 3.9183E+04

147 4.7901E+04 4.6449E+04 4.4997E+04 4.3546E+04 4.4997E+04 4.3546E+04 4.2094E+04 4.2094E+04
4.0642E+04 3.9192E+04

148 4.7880E+04 4.6429E+04 4.4977E+04 4.3527E+04 4.4977E+04 4.3527E+04 4.2076E+04 4.2076E+04
4.0624E+04 3.9175E+04

149 4.7859E+04 4.6408E+04 4.4957E+04 4.3508E+04 4.4957E+04 4.3508E+04 4.2057E+04 4.2057E+04
4.0607E+04 3.9157E+04

150 4.7838E+04 4.6388E+04 4.4938E+04 4.3489E+04 4.4938E+04 4.3489E+04 4.2039E+04 4.2039E+04
4.0589E+04 3.9140E+04

1 C O B R A - E N B W R FUEL BUNDLE AT TIME (SEC) = 0.0000 PAGE
7

LINEAR FISSION POWER (W/M)

COLUMN

ROW	1	2	3	4	5	6	7	8	9	0
151	4.7816E+04	4.6367E+04	4.4918E+04	4.3470E+04	4.4918E+04	4.3470E+04	4.2020E+04	4.2020E+04	4.0571E+04	3.9123E+04
152	4.7795E+04	4.6347E+04	4.4898E+04	4.3451E+04	4.4898E+04	4.3451E+04	4.2002E+04	4.2002E+04	4.0553E+04	3.9106E+04
153	4.7774E+04	4.6326E+04	4.4878E+04	4.3432E+04	4.4878E+04	4.3432E+04	4.1983E+04	4.1983E+04	4.0535E+04	3.9088E+04
154	4.7753E+04	4.6306E+04	4.4858E+04	4.3412E+04	4.4858E+04	4.3412E+04	4.1965E+04	4.1965E+04	4.0518E+04	3.9071E+04
155	4.7732E+04	4.6285E+04	4.4838E+04	4.3393E+04	4.4838E+04	4.3393E+04	4.1947E+04	4.1947E+04	4.0500E+04	3.9054E+04
156	4.7711E+04	4.6265E+04	4.4819E+04	4.3374E+04	4.4819E+04	4.3374E+04	4.1928E+04	4.1928E+04	4.0482E+04	3.9037E+04
157	4.7690E+04	4.6244E+04	4.4799E+04	4.3355E+04	4.4799E+04	4.3355E+04	4.1910E+04	4.1910E+04	4.0464E+04	3.9019E+04
158	4.7669E+04	4.6224E+04	4.4779E+04	4.3336E+04	4.4779E+04	4.3336E+04	4.1891E+04	4.1891E+04	4.0446E+04	3.9002E+04
159	4.7647E+04	4.6203E+04	4.4759E+04	4.3317E+04	4.4759E+04	4.3317E+04	4.1873E+04	4.1873E+04	4.0429E+04	3.8985E+04
160	4.7626E+04	4.6183E+04	4.4739E+04	4.3298E+04	4.4739E+04	4.3298E+04	4.1854E+04	4.1854E+04	4.0411E+04	3.8968E+04
161	4.7605E+04	4.6162E+04	4.4720E+04	4.3278E+04	4.4720E+04	4.3278E+04	4.1836E+04	4.1836E+04	4.0393E+04	3.8950E+04
162	4.7584E+04	4.6142E+04	4.4700E+04	4.3259E+04	4.4700E+04	4.3259E+04	4.1817E+04	4.1817E+04	4.0375E+04	3.8933E+04
163	4.7563E+04	4.6121E+04	4.4680E+04	4.3240E+04	4.4680E+04	4.3240E+04	4.1799E+04	4.1799E+04	4.0357E+04	3.8916E+04
164	4.7521E+04	4.6081E+04	4.4641E+04	4.3202E+04	4.4641E+04	4.3202E+04	4.1762E+04	4.1762E+04	4.0322E+04	3.8881E+04
165	4.7479E+04	4.6040E+04	4.4601E+04	4.3164E+04	4.4601E+04	4.3164E+04	4.1725E+04	4.1725E+04	4.0286E+04	3.8847E+04
166	4.7437E+04	4.5999E+04	4.4561E+04	4.3125E+04	4.4561E+04	4.3125E+04	4.1688E+04	4.1688E+04	4.0250E+04	3.8812E+04
167	4.7395E+04	4.5958E+04	4.4522E+04	4.3087E+04	4.4522E+04	4.3087E+04	4.1650E+04	4.1650E+04	4.0214E+04	3.8778E+04
168	4.7353E+04	4.5917E+04	4.4482E+04	4.3049E+04	4.4482E+04	4.3049E+04	4.1613E+04	4.1613E+04	4.0179E+04	3.8743E+04
169	4.7310E+04	4.5876E+04	4.4443E+04	4.3010E+04	4.4443E+04	4.3010E+04	4.1576E+04	4.1576E+04	4.0143E+04	3.8709E+04
170	4.7268E+04	4.5836E+04	4.4403E+04	4.2972E+04	4.4403E+04	4.2972E+04	4.1539E+04	4.1539E+04	4.0107E+04	3.8674E+04

171 4.7226E+04 4.5795E+04 4.4364E+04 4.2934E+04 4.4364E+04 4.2934E+04 4.1502E+04 4.1502E+04
4.0071E+04 3.8640E+04

172 4.7184E+04 4.5754E+04 4.4324E+04 4.2896E+04 4.4324E+04 4.2896E+04 4.1465E+04 4.1465E+04
4.0036E+04 3.8605E+04

173 4.7142E+04 4.5713E+04 4.4285E+04 4.2857E+04 4.4285E+04 4.2857E+04 4.1428E+04 4.1428E+04
4.0000E+04 3.8571E+04

174 4.7100E+04 4.5672E+04 4.4245E+04 4.2819E+04 4.4245E+04 4.2819E+04 4.1391E+04 4.1391E+04
3.9964E+04 3.8536E+04

175 4.7058E+04 4.5631E+04 4.4206E+04 4.2781E+04 4.4206E+04 4.2781E+04 4.1354E+04 4.1354E+04
3.9929E+04 3.8502E+04

1 C O B R A - E N B W R FUEL BUNDLE
8

AT TIME (SEC) = 0.0000 PAGE

LINEAR FISSION POWER (W/M)

COLUMN

1 2 3 4 5 6 7 8 9 0

ROW

176 4.7016E+04 4.5590E+04 4.4166E+04 4.2742E+04 4.4166E+04 4.2742E+04 4.1317E+04 4.1317E+04
3.9893E+04 3.8467E+04

177 4.6974E+04 4.5550E+04 4.4127E+04 4.2704E+04 4.4127E+04 4.2704E+04 4.1280E+04 4.1280E+04
3.9857E+04 3.8433E+04

178 4.6932E+04 4.5509E+04 4.4087E+04 4.2666E+04 4.4087E+04 4.2666E+04 4.1243E+04 4.1243E+04
3.9821E+04 3.8398E+04

179 4.6890E+04 4.5468E+04 4.4048E+04 4.2628E+04 4.4048E+04 4.2628E+04 4.1206E+04 4.1206E+04
3.9786E+04 3.8364E+04

180 4.6832E+04 4.5412E+04 4.3993E+04 4.2575E+04 4.3993E+04 4.2575E+04 4.1155E+04 4.1155E+04
3.9736E+04 3.8317E+04

181 4.6769E+04 4.5351E+04 4.3934E+04 4.2517E+04 4.3934E+04 4.2517E+04 4.1099E+04 4.1099E+04
3.9683E+04 3.8265E+04

182 4.6705E+04 4.5289E+04 4.3875E+04 4.2460E+04 4.3875E+04 4.2460E+04 4.1044E+04 4.1044E+04
3.9629E+04 3.8213E+04

183 4.6642E+04 4.5228E+04 4.3815E+04 4.2403E+04 4.3815E+04 4.2403E+04 4.0988E+04 4.0988E+04
3.9576E+04 3.8162E+04

184 4.6579E+04 4.5167E+04 4.3756E+04 4.2345E+04 4.3756E+04 4.2345E+04 4.0933E+04 4.0933E+04
3.9522E+04 3.8110E+04

185 4.6516E+04 4.5106E+04 4.3697E+04 4.2288E+04 4.3697E+04 4.2288E+04 4.0877E+04 4.0877E+04
3.9468E+04 3.8058E+04

186 4.6452E+04 4.5044E+04 4.3637E+04 4.2230E+04 4.3637E+04 4.2230E+04 4.0822E+04 4.0822E+04
3.9415E+04 3.8007E+04

187 4.6389E+04 4.4983E+04 4.3578E+04 4.2173E+04 4.3578E+04 4.2173E+04 4.0766E+04 4.0766E+04
3.9361E+04 3.7955E+04

188 4.6326E+04 4.4922E+04 4.3519E+04 4.2115E+04 4.3519E+04 4.2115E+04 4.0711E+04 4.0711E+04
3.9307E+04 3.7903E+04

189 4.6263E+04 4.4861E+04 4.3459E+04 4.2058E+04 4.3459E+04 4.2058E+04 4.0655E+04 4.0655E+04
3.9254E+04 3.7852E+04

190 4.6200E+04 4.4800E+04 4.3400E+04 4.2001E+04 4.3400E+04 4.2001E+04 4.0600E+04 4.0600E+04
3.9200E+04 3.7800E+04

191 4.6136E+04 4.4738E+04 4.3341E+04 4.1943E+04 4.3341E+04 4.1943E+04 4.0544E+04 4.0544E+04
3.9146E+04 3.7748E+04

192 4.6073E+04 4.4677E+04 4.3281E+04 4.1886E+04 4.3281E+04 4.1886E+04 4.0488E+04 4.0488E+04
3.9093E+04 3.7697E+04

193 4.6010E+04 4.4616E+04 4.3222E+04 4.1828E+04 4.3222E+04 4.1828E+04 4.0433E+04 4.0433E+04
3.9039E+04 3.7645E+04

194 4.5947E+04 4.4555E+04 4.3163E+04 4.1771E+04 4.3163E+04 4.1771E+04 4.0377E+04 4.0377E+04
3.8985E+04 3.7593E+04

195 4.5884E+04 4.4494E+04 4.3103E+04 4.1713E+04 4.3103E+04 4.1713E+04 4.0322E+04 4.0322E+04
3.8932E+04 3.7542E+04

196 4.5789E+04 4.4402E+04 4.3014E+04 4.1627E+04 4.3014E+04 4.1627E+04 4.0239E+04 4.0239E+04
3.8851E+04 3.7464E+04

197 4.5662E+04 4.4279E+04 4.2896E+04 4.1512E+04 4.2896E+04 4.1512E+04 4.0128E+04 4.0128E+04
3.8744E+04 3.7361E+04

198 4.5536E+04 4.4157E+04 4.2777E+04 4.1398E+04 4.2777E+04 4.1398E+04 4.0017E+04 4.0017E+04
3.8637E+04 3.7257E+04

199 4.5410E+04 4.4034E+04 4.2658E+04 4.1283E+04 4.2658E+04 4.1283E+04 3.9906E+04 3.9906E+04
3.8530E+04 3.7154E+04

200 4.5284E+04 4.3911E+04 4.2539E+04 4.1168E+04 4.2539E+04 4.1168E+04 3.9795E+04 3.9795E+04
3.8423E+04 3.7051E+04

1 C O B R A - E N B W R F U E L B U N D L E AT TIME (SEC) = 0.0000 PAGE
9

LINEAR FISSION POWER (W/M)

COLUMN

1 2 3 4 5 6 7 8 9 0

ROW

201 4.5157E+04 4.3789E+04 4.2421E+04 4.1053E+04 4.2421E+04 4.1053E+04 3.9684E+04 3.9684E+04
3.8316E+04 3.6947E+04

202 4.5031E+04 4.3666E+04 4.2302E+04 4.0938E+04 4.2302E+04 4.0938E+04 3.9573E+04 3.9573E+04
3.8208E+04 3.6844E+04

203 4.4905E+04 4.3544E+04 4.2183E+04 4.0823E+04 4.2183E+04 4.0823E+04 3.9462E+04 3.9462E+04
3.8101E+04 3.6741E+04

204 4.4778E+04 4.3421E+04 4.2064E+04 4.0708E+04 4.2064E+04 4.0708E+04 3.9351E+04 3.9351E+04
3.7994E+04 3.6637E+04

205 4.4652E+04 4.3299E+04 4.1946E+04 4.0594E+04 4.1946E+04 4.0594E+04 3.9240E+04 3.9240E+04
3.7887E+04 3.6534E+04

206 4.4526E+04 4.3176E+04 4.1827E+04 4.0479E+04 4.1827E+04 4.0479E+04 3.9129E+04 3.9129E+04
3.7780E+04 3.6430E+04

207 4.4399E+04 4.3054E+04 4.1708E+04 4.0364E+04 4.1708E+04 4.0364E+04 3.9018E+04 3.9018E+04
3.7672E+04 3.6327E+04

208 4.4273E+04 4.2931E+04 4.1589E+04 4.0249E+04 4.1589E+04 4.0249E+04 3.8907E+04 3.8907E+04
3.7565E+04 3.6224E+04

209 4.4147E+04 4.2809E+04 4.1471E+04 4.0134E+04 4.1471E+04 4.0134E+04 3.8796E+04 3.8796E+04
3.7458E+04 3.6120E+04

210 4.4020E+04 4.2686E+04 4.1352E+04 4.0019E+04 4.1352E+04 4.0019E+04 3.8685E+04 3.8685E+04
3.7351E+04 3.6017E+04

211 4.3894E+04 4.2564E+04 4.1233E+04 3.9904E+04 4.1233E+04 3.9904E+04 3.8574E+04 3.8574E+04
3.7244E+04 3.5913E+04

212 4.3762E+04 4.2436E+04 4.1110E+04 3.9785E+04 4.1110E+04 3.9785E+04 3.8458E+04 3.8458E+04
3.7132E+04 3.5806E+04

213 4.3615E+04 4.2293E+04 4.0971E+04 3.9651E+04 4.0971E+04 3.9651E+04 3.8329E+04 3.8329E+04
3.7007E+04 3.5685E+04

214 4.3468E+04 4.2150E+04 4.0833E+04 3.9517E+04 4.0833E+04 3.9517E+04 3.8199E+04 3.8199E+04
3.6882E+04 3.5564E+04

215 4.3320E+04 4.2007E+04 4.0694E+04 3.9383E+04 4.0694E+04 3.9383E+04 3.8070E+04 3.8070E+04
3.6757E+04 3.5444E+04

216 4.3173E+04 4.1864E+04 4.0556E+04 3.9249E+04 4.0556E+04 3.9249E+04 3.7940E+04 3.7940E+04
3.6632E+04 3.5323E+04

217 4.3025E+04 4.1721E+04 4.0417E+04 3.9115E+04 4.0417E+04 3.9115E+04 3.7811E+04 3.7811E+04
3.6507E+04 3.5202E+04

218 4.2878E+04 4.1578E+04 4.0279E+04 3.8981E+04 4.0279E+04 3.8981E+04 3.7681E+04 3.7681E+04
3.6381E+04 3.5082E+04

219 4.2731E+04 4.1436E+04 4.0140E+04 3.8847E+04 4.0140E+04 3.8847E+04 3.7552E+04 3.7552E+04
3.6256E+04 3.4961E+04

220 4.2583E+04 4.1293E+04 4.0002E+04 3.8713E+04 4.0002E+04 3.8713E+04 3.7422E+04 3.7422E+04
3.6131E+04 3.4841E+04

221 4.2436E+04 4.1150E+04 3.9863E+04 3.8579E+04 3.9863E+04 3.8579E+04 3.7292E+04 3.7292E+04
3.6006E+04 3.4720E+04

222 4.2289E+04 4.1007E+04 3.9725E+04 3.8445E+04 3.9725E+04 3.8445E+04 3.7163E+04 3.7163E+04
3.5881E+04 3.4599E+04

223 4.2141E+04 4.0864E+04 3.9587E+04 3.8311E+04 3.9587E+04 3.8311E+04 3.7033E+04 3.7033E+04
3.5756E+04 3.4479E+04

224 4.1994E+04 4.0721E+04 3.9448E+04 3.8177E+04 3.9448E+04 3.8177E+04 3.6904E+04 3.6904E+04
3.5631E+04 3.4358E+04

225 4.1847E+04 4.0578E+04 3.9310E+04 3.8043E+04 3.9310E+04 3.8043E+04 3.6774E+04 3.6774E+04
3.5506E+04 3.4237E+04

LINEAR FISSION POWER (W/M)

COLUMN

	1	2	3	4	5	6	7	8	9	0
ROW										
226	4.1699E+04	4.0435E+04	3.9171E+04	3.7909E+04	3.9171E+04	3.7909E+04	3.6645E+04	3.6645E+04	3.5381E+04	3.4117E+04
227	4.1552E+04	4.0292E+04	3.9033E+04	3.7775E+04	3.9033E+04	3.7775E+04	3.6515E+04	3.6515E+04	3.5256E+04	3.3996E+04
228	4.1404E+04	4.0149E+04	3.8894E+04	3.7641E+04	3.8894E+04	3.7641E+04	3.6386E+04	3.6386E+04	3.5131E+04	3.3875E+04
229	4.1173E+04	3.9925E+04	3.8677E+04	3.7430E+04	3.8677E+04	3.7430E+04	3.6182E+04	3.6182E+04	3.4934E+04	3.3686E+04
230	4.0941E+04	3.9700E+04	3.8459E+04	3.7220E+04	3.8459E+04	3.7220E+04	3.5978E+04	3.5978E+04	3.4737E+04	3.3497E+04
231	4.0710E+04	3.9476E+04	3.8242E+04	3.7009E+04	3.8242E+04	3.7009E+04	3.5775E+04	3.5775E+04	3.4541E+04	3.3307E+04
232	4.0478E+04	3.9251E+04	3.8024E+04	3.6798E+04	3.8024E+04	3.6798E+04	3.5571E+04	3.5571E+04	3.4344E+04	3.3118E+04
233	4.0246E+04	3.9026E+04	3.7806E+04	3.6588E+04	3.7806E+04	3.6588E+04	3.5368E+04	3.5368E+04	3.4148E+04	3.2928E+04
234	4.0015E+04	3.8802E+04	3.7589E+04	3.6377E+04	3.7589E+04	3.6377E+04	3.5164E+04	3.5164E+04	3.3951E+04	3.2739E+04
235	3.9783E+04	3.8577E+04	3.7371E+04	3.6167E+04	3.7371E+04	3.6167E+04	3.4961E+04	3.4961E+04	3.3755E+04	3.2549E+04
236	3.9552E+04	3.8353E+04	3.7154E+04	3.5956E+04	3.7154E+04	3.5956E+04	3.4757E+04	3.4757E+04	3.3558E+04	3.2360E+04
237	3.9320E+04	3.8128E+04	3.6936E+04	3.5746E+04	3.6936E+04	3.5746E+04	3.4554E+04	3.4554E+04	3.3362E+04	3.2170E+04
238	3.9088E+04	3.7903E+04	3.6718E+04	3.5535E+04	3.6718E+04	3.5535E+04	3.4350E+04	3.4350E+04	3.3165E+04	3.1981E+04
239	3.8857E+04	3.7679E+04	3.6501E+04	3.5324E+04	3.6501E+04	3.5324E+04	3.4146E+04	3.4146E+04	3.2968E+04	3.1792E+04
240	3.8625E+04	3.7454E+04	3.6283E+04	3.5114E+04	3.6283E+04	3.5114E+04	3.3943E+04	3.3943E+04	3.2772E+04	3.1602E+04
241	3.8393E+04	3.7230E+04	3.6066E+04	3.4903E+04	3.6066E+04	3.4903E+04	3.3739E+04	3.3739E+04	3.2575E+04	3.1413E+04
242	3.8162E+04	3.7005E+04	3.5848E+04	3.4693E+04	3.5848E+04	3.4693E+04	3.3536E+04	3.3536E+04	3.2379E+04	3.1223E+04

243 3.7930E+04 3.6780E+04 3.5630E+04 3.4482E+04 3.5630E+04 3.4482E+04 3.3332E+04 3.3332E+04
3.2182E+04 3.1034E+04

244 3.7699E+04 3.6556E+04 3.5413E+04 3.4271E+04 3.5413E+04 3.4271E+04 3.3129E+04 3.3129E+04
3.1986E+04 3.0844E+04

245 3.7483E+04 3.6346E+04 3.5210E+04 3.4075E+04 3.5210E+04 3.4075E+04 3.2939E+04 3.2939E+04
3.1803E+04 3.0668E+04

246 3.7272E+04 3.6142E+04 3.5012E+04 3.3884E+04 3.5012E+04 3.3884E+04 3.2754E+04 3.2754E+04
3.1624E+04 3.0495E+04

247 3.7062E+04 3.5938E+04 3.4815E+04 3.3692E+04 3.4815E+04 3.3692E+04 3.2569E+04 3.2569E+04
3.1445E+04 3.0323E+04

248 3.6851E+04 3.5734E+04 3.4617E+04 3.3501E+04 3.4617E+04 3.3501E+04 3.2384E+04 3.2384E+04
3.1267E+04 3.0151E+04

249 3.6640E+04 3.5529E+04 3.4419E+04 3.3310E+04 3.4419E+04 3.3310E+04 3.2199E+04 3.2199E+04
3.1088E+04 2.9979E+04

250 3.6430E+04 3.5325E+04 3.4221E+04 3.3118E+04 3.4221E+04 3.3118E+04 3.2013E+04 3.2013E+04
3.0909E+04 2.9806E+04

1 C O B R A - E N BWR FUEL BUNDLE
11

AT TIME (SEC) = 0.0000 PAGE

LINEAR FISSION POWER (W/M)

COLUMN

1 2 3 4 5 6 7 8 9 0

ROW

251 3.6219E+04 3.5121E+04 3.4023E+04 3.2927E+04 3.4023E+04 3.2927E+04 3.1828E+04 3.1828E+04
3.0731E+04 2.9634E+04

252 3.6009E+04 3.4917E+04 3.3826E+04 3.2735E+04 3.3826E+04 3.2735E+04 3.1643E+04 3.1643E+04
3.0552E+04 2.9462E+04

253 3.5798E+04 3.4713E+04 3.3628E+04 3.2544E+04 3.3628E+04 3.2544E+04 3.1458E+04 3.1458E+04
3.0373E+04 2.9289E+04

254 3.5588E+04 3.4508E+04 3.3430E+04 3.2352E+04 3.3430E+04 3.2352E+04 3.1273E+04 3.1273E+04
3.0195E+04 2.9117E+04

255 3.5377E+04 3.4304E+04 3.3232E+04 3.2161E+04 3.3232E+04 3.2161E+04 3.1088E+04 3.1088E+04
3.0016E+04 2.8945E+04

256 3.5166E+04 3.4100E+04 3.3034E+04 3.1969E+04 3.3034E+04 3.1969E+04 3.0903E+04 3.0903E+04
2.9838E+04 2.8773E+04

257 3.4956E+04 3.3896E+04 3.2837E+04 3.1778E+04 3.2837E+04 3.1778E+04 3.0718E+04 3.0718E+04
2.9659E+04 2.8600E+04

258 3.4745E+04 3.3691E+04 3.2639E+04 3.1587E+04 3.2639E+04 3.1587E+04 3.0533E+04 3.0533E+04
2.9480E+04 2.8428E+04

259 3.4535E+04 3.3487E+04 3.2441E+04 3.1395E+04 3.2441E+04 3.1395E+04 3.0348E+04 3.0348E+04
2.9302E+04 2.8256E+04

260 3.4324E+04 3.3283E+04 3.2243E+04 3.1204E+04 3.2243E+04 3.1204E+04 3.0163E+04 3.0163E+04
2.9123E+04 2.8083E+04

261 3.4103E+04 3.3069E+04 3.2036E+04 3.1003E+04 3.2036E+04 3.1003E+04 2.9968E+04 2.9968E+04
2.8935E+04 2.7902E+04

262 3.3871E+04 3.2844E+04 3.1818E+04 3.0792E+04 3.1818E+04 3.0792E+04 2.9765E+04 2.9765E+04
2.8739E+04 2.7713E+04

263 3.3640E+04 3.2619E+04 3.1600E+04 3.0582E+04 3.1600E+04 3.0582E+04 2.9561E+04 2.9561E+04
2.8542E+04 2.7523E+04

264 3.3408E+04 3.2395E+04 3.1383E+04 3.0371E+04 3.1383E+04 3.0371E+04 2.9358E+04 2.9358E+04
2.8346E+04 2.7334E+04

265 3.3176E+04 3.2170E+04 3.1165E+04 3.0160E+04 3.1165E+04 3.0160E+04 2.9154E+04 2.9154E+04
2.8149E+04 2.7144E+04

266 3.2944E+04 3.1946E+04 3.0948E+04 2.9950E+04 3.0948E+04 2.9950E+04 2.8950E+04 2.8950E+04
2.7953E+04 2.6955E+04

267 3.2713E+04 3.1721E+04 3.0730E+04 2.9739E+04 3.0730E+04 2.9739E+04 2.8747E+04 2.8747E+04
2.7756E+04 2.6765E+04

268 3.2481E+04 3.1496E+04 3.0513E+04 2.9529E+04 3.0513E+04 2.9529E+04 2.8543E+04 2.8543E+04
2.7560E+04 2.6576E+04

269 3.2249E+04 3.1272E+04 3.0295E+04 2.9318E+04 3.0295E+04 2.9318E+04 2.8340E+04 2.8340E+04
2.7363E+04 2.6386E+04

270 3.2018E+04 3.1047E+04 3.0077E+04 2.9108E+04 3.0077E+04 2.9108E+04 2.8136E+04 2.8136E+04
2.7166E+04 2.6197E+04

271 3.1786E+04 3.0823E+04 2.9860E+04 2.8897E+04 2.9860E+04 2.8897E+04 2.7933E+04 2.7933E+04
2.6970E+04 2.6007E+04

272 3.1554E+04 3.0598E+04 2.9642E+04 2.8686E+04 2.9642E+04 2.8686E+04 2.7729E+04 2.7729E+04
2.6773E+04 2.5818E+04

273 3.1322E+04 3.0373E+04 2.9425E+04 2.8476E+04 2.9425E+04 2.8476E+04 2.7526E+04 2.7526E+04
2.6577E+04 2.5628E+04

274 3.1091E+04 3.0149E+04 2.9207E+04 2.8265E+04 2.9207E+04 2.8265E+04 2.7322E+04 2.7322E+04
2.6380E+04 2.5438E+04

275 3.0859E+04 2.9924E+04 2.8989E+04 2.8055E+04 2.8989E+04 2.8055E+04 2.7118E+04 2.7118E+04
2.6184E+04 2.5249E+04

1 C O B R A - E N BWR FUEL BUNDLE
12

AT TIME (SEC) = 0.0000 PAGE

LINEAR FISSION POWER (W/M)

COLUMN

1 2 3 4 5 6 7 8 9 0

ROW

276 3.0627E+04 2.9700E+04 2.8772E+04 2.7844E+04 2.8772E+04 2.7844E+04 2.6915E+04 2.6915E+04
2.5987E+04 2.5059E+04

277 3.0401E+04 2.9480E+04 2.8559E+04 2.7638E+04 2.8559E+04 2.7638E+04 2.6716E+04 2.6716E+04
2.5795E+04 2.4874E+04

278 3.0190E+04 2.9276E+04 2.8361E+04 2.7447E+04 2.8361E+04 2.7447E+04 2.6531E+04 2.6531E+04
2.5616E+04 2.4702E+04

279 2.9980E+04 2.9072E+04 2.8163E+04 2.7255E+04 2.8163E+04 2.7255E+04 2.6346E+04 2.6346E+04
2.5438E+04 2.4530E+04

280 2.9769E+04 2.8867E+04 2.7966E+04 2.7064E+04 2.7966E+04 2.7064E+04 2.6161E+04 2.6161E+04
2.5259E+04 2.4357E+04

281 2.9559E+04 2.8663E+04 2.7768E+04 2.6873E+04 2.7768E+04 2.6873E+04 2.5976E+04 2.5976E+04
2.5080E+04 2.4185E+04

282 2.9348E+04 2.8459E+04 2.7570E+04 2.6681E+04 2.7570E+04 2.6681E+04 2.5791E+04 2.5791E+04
2.4902E+04 2.4013E+04

283 2.9137E+04 2.8255E+04 2.7372E+04 2.6490E+04 2.7372E+04 2.6490E+04 2.5606E+04 2.5606E+04
2.4723E+04 2.3840E+04

284 2.8927E+04 2.8050E+04 2.7174E+04 2.6298E+04 2.7174E+04 2.6298E+04 2.5421E+04 2.5421E+04
2.4545E+04 2.3668E+04

285 2.8716E+04 2.7846E+04 2.6976E+04 2.6107E+04 2.6976E+04 2.6107E+04 2.5236E+04 2.5236E+04
2.4366E+04 2.3496E+04

286 2.8506E+04 2.7642E+04 2.6778E+04 2.5915E+04 2.6778E+04 2.5915E+04 2.5051E+04 2.5051E+04
2.4187E+04 2.3324E+04

287 2.8295E+04 2.7438E+04 2.6580E+04 2.5724E+04 2.6580E+04 2.5724E+04 2.4866E+04 2.4866E+04
2.4009E+04 2.3151E+04

288 2.8085E+04 2.7234E+04 2.6382E+04 2.5533E+04 2.6382E+04 2.5533E+04 2.4681E+04 2.4681E+04
2.3830E+04 2.2979E+04

289 2.7874E+04 2.7029E+04 2.6185E+04 2.5341E+04 2.6185E+04 2.5341E+04 2.4496E+04 2.4496E+04
2.3651E+04 2.2807E+04

290 2.7663E+04 2.6825E+04 2.5987E+04 2.5150E+04 2.5987E+04 2.5150E+04 2.4311E+04 2.4311E+04
2.3473E+04 2.2634E+04

291 2.7453E+04 2.6621E+04 2.5789E+04 2.4958E+04 2.5789E+04 2.4958E+04 2.4126E+04 2.4126E+04
2.3294E+04 2.2462E+04

292 2.7242E+04 2.6417E+04 2.5591E+04 2.4767E+04 2.5591E+04 2.4767E+04 2.3941E+04 2.3941E+04
2.3115E+04 2.2290E+04

293 2.7032E+04 2.6212E+04 2.5393E+04 2.4575E+04 2.5393E+04 2.4575E+04 2.3756E+04 2.3756E+04
2.2937E+04 2.2118E+04

294 2.6863E+04 2.6049E+04 2.5235E+04 2.4422E+04 2.5235E+04 2.4422E+04 2.3608E+04 2.3608E+04
2.2794E+04 2.1980E+04

295 2.6695E+04 2.5886E+04 2.5077E+04 2.4269E+04 2.5077E+04 2.4269E+04 2.3460E+04 2.3460E+04
2.2651E+04 2.1842E+04

296 2.6526E+04 2.5723E+04 2.4919E+04 2.4116E+04 2.4919E+04 2.4116E+04 2.3312E+04 2.3312E+04
2.2508E+04 2.1704E+04

297 2.6358E+04 2.5559E+04 2.4760E+04 2.3963E+04 2.4760E+04 2.3963E+04 2.3164E+04 2.3164E+04
2.2365E+04 2.1566E+04

298 2.6190E+04 2.5396E+04 2.4602E+04 2.3810E+04 2.4602E+04 2.3810E+04 2.3015E+04 2.3015E+04
2.2222E+04 2.1428E+04

299 2.6021E+04 2.5233E+04 2.4444E+04 2.3656E+04 2.4444E+04 2.3656E+04 2.2867E+04 2.2867E+04
2.2079E+04 2.1290E+04

300 2.5853E+04 2.5069E+04 2.4286E+04 2.3503E+04 2.4286E+04 2.3503E+04 2.2719E+04 2.2719E+04
2.1936E+04 2.1152E+04

1 C O B R A - E N B W R FUEL BUNDLE
13

AT TIME (SEC) = 0.0000 PAGE

LINEAR FISSION POWER (W/M)

COLUMN

1 2 3 4 5 6 7 8 9 0

ROW

301 2.5684E+04 2.4906E+04 2.4128E+04 2.3350E+04 2.4128E+04 2.3350E+04 2.2571E+04 2.2571E+04
2.1793E+04 2.1014E+04

302 2.5516E+04 2.4743E+04 2.3970E+04 2.3197E+04 2.3970E+04 2.3197E+04 2.2423E+04 2.2423E+04
2.1650E+04 2.0877E+04

303 2.5348E+04 2.4580E+04 2.3811E+04 2.3044E+04 2.3811E+04 2.3044E+04 2.2275E+04 2.2275E+04
2.1507E+04 2.0739E+04

304 2.5179E+04 2.4416E+04 2.3653E+04 2.2891E+04 2.3653E+04 2.2891E+04 2.2127E+04 2.2127E+04
2.1364E+04 2.0601E+04

305 2.5011E+04 2.4253E+04 2.3495E+04 2.2738E+04 2.3495E+04 2.2738E+04 2.1979E+04 2.1979E+04
2.1221E+04 2.0463E+04

306 2.4842E+04 2.4090E+04 2.3337E+04 2.2584E+04 2.3337E+04 2.2584E+04 2.1830E+04 2.1830E+04
2.1078E+04 2.0325E+04

307 2.4674E+04 2.3926E+04 2.3179E+04 2.2431E+04 2.3179E+04 2.2431E+04 2.1682E+04 2.1682E+04
2.0935E+04 2.0187E+04

308 2.4506E+04 2.3763E+04 2.3021E+04 2.2278E+04 2.3021E+04 2.2278E+04 2.1534E+04 2.1534E+04
2.0792E+04 2.0049E+04

309 2.4337E+04 2.3600E+04 2.2862E+04 2.2125E+04 2.2862E+04 2.2125E+04 2.1386E+04 2.1386E+04
2.0649E+04 1.9911E+04

310 2.4184E+04 2.3452E+04 2.2719E+04 2.1986E+04 2.2719E+04 2.1986E+04 2.1252E+04 2.1252E+04
2.0519E+04 1.9786E+04

311 2.4037E+04 2.3309E+04 2.2580E+04 2.1852E+04 2.2580E+04 2.1852E+04 2.1123E+04 2.1123E+04
2.0394E+04 1.9666E+04

312 2.3890E+04 2.3166E+04 2.2442E+04 2.1718E+04 2.2442E+04 2.1718E+04 2.0993E+04 2.0993E+04
2.0269E+04 1.9545E+04

313 2.3742E+04 2.3023E+04 2.2303E+04 2.1584E+04 2.2303E+04 2.1584E+04 2.0864E+04 2.0864E+04
2.0144E+04 1.9425E+04

314 2.3595E+04 2.2880E+04 2.2165E+04 2.1450E+04 2.2165E+04 2.1450E+04 2.0734E+04 2.0734E+04
2.0019E+04 1.9304E+04

315 2.3447E+04 2.2737E+04 2.2026E+04 2.1316E+04 2.2026E+04 2.1316E+04 2.0605E+04 2.0605E+04
1.9894E+04 1.9184E+04

316 2.3300E+04 2.2594E+04 2.1888E+04 2.1182E+04 2.1888E+04 2.1182E+04 2.0475E+04 2.0475E+04
1.9769E+04 1.9063E+04

317 2.3152E+04 2.2451E+04 2.1749E+04 2.1048E+04 2.1749E+04 2.1048E+04 2.0346E+04 2.0346E+04
1.9644E+04 1.8943E+04

318 2.3005E+04 2.2308E+04 2.1611E+04 2.0914E+04 2.1611E+04 2.0914E+04 2.0216E+04 2.0216E+04
1.9519E+04 1.8822E+04

319 2.2857E+04 2.2165E+04 2.1472E+04 2.0780E+04 2.1472E+04 2.0780E+04 2.0087E+04 2.0087E+04
1.9394E+04 1.8701E+04

320 2.2710E+04 2.2022E+04 2.1333E+04 2.0646E+04 2.1333E+04 2.0646E+04 1.9957E+04 1.9957E+04
1.9269E+04 1.8581E+04

321 2.2562E+04 2.1879E+04 2.1195E+04 2.0512E+04 2.1195E+04 2.0512E+04 1.9828E+04 1.9828E+04
1.9144E+04 1.8460E+04

322 2.2415E+04 2.1736E+04 2.1056E+04 2.0378E+04 2.1056E+04 2.0378E+04 1.9699E+04 1.9699E+04
1.9019E+04 1.8340E+04

323 2.2267E+04 2.1593E+04 2.0918E+04 2.0244E+04 2.0918E+04 2.0244E+04 1.9569E+04 1.9569E+04
1.8894E+04 1.8219E+04

324 2.2120E+04 2.1450E+04 2.0779E+04 2.0110E+04 2.0779E+04 2.0110E+04 1.9440E+04 1.9440E+04
1.8769E+04 1.8099E+04

325 2.1973E+04 2.1307E+04 2.0641E+04 1.9976E+04 2.0641E+04 1.9976E+04 1.9310E+04 1.9310E+04
1.8644E+04 1.7978E+04

1 C O B R A - E N B W R F U E L B U N D L E
14

A T T I M E (S E C) = 0.0000 P A G E

L I N E A R F I S S I O N P O W E R (W / M)

C O L U M N

1 2 3 4 5 6 7 8 9 0

R O W

326 2.1836E+04 2.1174E+04 2.0512E+04 1.9852E+04 2.0512E+04 1.9852E+04 1.9190E+04 1.9190E+04
1.8528E+04 1.7866E+04

327 2.1709E+04 2.1051E+04 2.0393E+04 1.9737E+04 2.0393E+04 1.9737E+04 1.9079E+04 1.9079E+04
1.8421E+04 1.7763E+04

328 2.1583E+04 2.0929E+04 2.0275E+04 1.9622E+04 2.0275E+04 1.9622E+04 1.8968E+04 1.8968E+04
1.8313E+04 1.7659E+04

329 2.1457E+04 2.0807E+04 2.0156E+04 1.9507E+04 2.0156E+04 1.9507E+04 1.8857E+04 1.8857E+04
1.8206E+04 1.7556E+04

330 2.1330E+04 2.0684E+04 2.0037E+04 1.9392E+04 2.0037E+04 1.9392E+04 1.8746E+04 1.8746E+04
1.8099E+04 1.7453E+04

331 2.1204E+04 2.0562E+04 1.9919E+04 1.9277E+04 1.9919E+04 1.9277E+04 1.8635E+04 1.8635E+04
1.7992E+04 1.7349E+04

332 2.1078E+04 2.0439E+04 1.9800E+04 1.9163E+04 1.9800E+04 1.9163E+04 1.8523E+04 1.8523E+04
1.7884E+04 1.7246E+04

333 2.0951E+04 2.0317E+04 1.9681E+04 1.9048E+04 1.9681E+04 1.9048E+04 1.8412E+04 1.8412E+04
1.7777E+04 1.7142E+04

334 2.0825E+04 2.0194E+04 1.9563E+04 1.8933E+04 1.9563E+04 1.8933E+04 1.8301E+04 1.8301E+04
1.7670E+04 1.7039E+04

335 2.0699E+04 2.0072E+04 1.9444E+04 1.8818E+04 1.9444E+04 1.8818E+04 1.8190E+04 1.8190E+04
1.7563E+04 1.6936E+04

336 2.0572E+04 1.9949E+04 1.9326E+04 1.8703E+04 1.9326E+04 1.8703E+04 1.8079E+04 1.8079E+04
1.7455E+04 1.6832E+04

337 2.0446E+04 1.9827E+04 1.9207E+04 1.8588E+04 1.9207E+04 1.8588E+04 1.7968E+04 1.7968E+04
1.7348E+04 1.6729E+04

338 2.0320E+04 1.9705E+04 1.9088E+04 1.8473E+04 1.9088E+04 1.8473E+04 1.7857E+04 1.7857E+04
1.7241E+04 1.6626E+04

339 2.0193E+04 1.9582E+04 1.8970E+04 1.8359E+04 1.8970E+04 1.8359E+04 1.7746E+04 1.7746E+04
1.7133E+04 1.6522E+04

340 2.0067E+04 1.9460E+04 1.8851E+04 1.8244E+04 1.8851E+04 1.8244E+04 1.7635E+04 1.7635E+04
1.7026E+04 1.6419E+04

341 1.9941E+04 1.9337E+04 1.8732E+04 1.8129E+04 1.8732E+04 1.8129E+04 1.7524E+04 1.7524E+04
1.6919E+04 1.6315E+04

342 1.9820E+04 1.9220E+04 1.8619E+04 1.8019E+04 1.8619E+04 1.8019E+04 1.7417E+04 1.7417E+04
1.6816E+04 1.6216E+04

343 1.9714E+04 1.9118E+04 1.8520E+04 1.7923E+04 1.8520E+04 1.7923E+04 1.7325E+04 1.7325E+04
1.6727E+04 1.6130E+04

344 1.9609E+04 1.9016E+04 1.8421E+04 1.7827E+04 1.8421E+04 1.7827E+04 1.7232E+04 1.7232E+04
1.6638E+04 1.6044E+04

345 1.9504E+04 1.8913E+04 1.8322E+04 1.7732E+04 1.8322E+04 1.7732E+04 1.7140E+04 1.7140E+04
1.6548E+04 1.5958E+04

346 1.9399E+04 1.8811E+04 1.8223E+04 1.7636E+04 1.8223E+04 1.7636E+04 1.7047E+04 1.7047E+04
1.6459E+04 1.5872E+04

347 1.9293E+04 1.8709E+04 1.8124E+04 1.7540E+04 1.8124E+04 1.7540E+04 1.6955E+04 1.6955E+04
1.6370E+04 1.5786E+04

348 1.9188E+04 1.8607E+04 1.8025E+04 1.7444E+04 1.8025E+04 1.7444E+04 1.6862E+04 1.6862E+04
1.6280E+04 1.5699E+04

349 1.9083E+04 1.8505E+04 1.7926E+04 1.7349E+04 1.7926E+04 1.7349E+04 1.6770E+04 1.6770E+04
1.6191E+04 1.5613E+04

350 1.8977E+04 1.8403E+04 1.7827E+04 1.7253E+04 1.7827E+04 1.7253E+04 1.6677E+04 1.6677E+04
1.6102E+04 1.5527E+04

I C O B R A - E N BWR FUEL BUNDLE
15

AT TIME (SEC) = 0.0000 PAGE

LINEAR FISSION POWER (W/M)

COLUMN

	1	2	3	4	5	6	7	8	9	0
ROW										
351	1.8872E+04	1.8300E+04	1.7728E+04	1.7157E+04	1.7728E+04	1.7157E+04	1.6585E+04	1.6585E+04	1.6013E+04	1.5441E+04
352	1.8767E+04	1.8198E+04	1.7629E+04	1.7062E+04	1.7629E+04	1.7062E+04	1.6492E+04	1.6492E+04	1.5923E+04	1.5355E+04
353	1.8662E+04	1.8096E+04	1.7530E+04	1.6966E+04	1.7530E+04	1.6966E+04	1.6400E+04	1.6400E+04	1.5834E+04	1.5269E+04
354	1.8556E+04	1.7994E+04	1.7431E+04	1.6870E+04	1.7431E+04	1.6870E+04	1.6307E+04	1.6307E+04	1.5745E+04	1.5183E+04
355	1.8451E+04	1.7892E+04	1.7332E+04	1.6774E+04	1.7332E+04	1.6774E+04	1.6215E+04	1.6215E+04	1.5656E+04	1.5096E+04
356	1.8346E+04	1.7790E+04	1.7233E+04	1.6679E+04	1.7233E+04	1.6679E+04	1.6122E+04	1.6122E+04	1.5566E+04	1.5010E+04
357	1.8240E+04	1.7687E+04	1.7134E+04	1.6583E+04	1.7134E+04	1.6583E+04	1.6030E+04	1.6030E+04	1.5477E+04	1.4924E+04
358	1.8135E+04	1.7585E+04	1.7036E+04	1.6487E+04	1.7036E+04	1.6487E+04	1.5937E+04	1.5937E+04	1.5388E+04	1.4838E+04
359	1.7988E+04	1.7442E+04	1.6897E+04	1.6353E+04	1.6897E+04	1.6353E+04	1.5808E+04	1.5808E+04	1.5263E+04	1.4717E+04
360	1.7840E+04	1.7299E+04	1.6759E+04	1.6219E+04	1.6759E+04	1.6219E+04	1.5678E+04	1.5678E+04	1.5138E+04	1.4597E+04
361	1.7693E+04	1.7157E+04	1.6620E+04	1.6085E+04	1.6620E+04	1.6085E+04	1.5549E+04	1.5549E+04	1.5012E+04	1.4476E+04
362	1.7546E+04	1.7014E+04	1.6482E+04	1.5951E+04	1.6482E+04	1.5951E+04	1.5419E+04	1.5419E+04	1.4887E+04	1.4355E+04
363	1.7398E+04	1.6871E+04	1.6343E+04	1.5817E+04	1.6343E+04	1.5817E+04	1.5290E+04	1.5290E+04	1.4762E+04	1.4235E+04
364	1.7251E+04	1.6728E+04	1.6205E+04	1.5683E+04	1.6205E+04	1.5683E+04	1.5160E+04	1.5160E+04	1.4637E+04	1.4114E+04
365	1.7104E+04	1.6585E+04	1.6066E+04	1.5549E+04	1.6066E+04	1.5549E+04	1.5031E+04	1.5031E+04	1.4512E+04	1.3993E+04
366	1.6956E+04	1.6442E+04	1.5928E+04	1.5415E+04	1.5928E+04	1.5415E+04	1.4901E+04	1.4901E+04	1.4387E+04	1.3873E+04
367	1.6809E+04	1.6299E+04	1.5789E+04	1.5281E+04	1.5789E+04	1.5281E+04	1.4772E+04	1.4772E+04	1.4262E+04	1.3752E+04
368	1.6661E+04	1.6156E+04	1.5651E+04	1.5147E+04	1.5651E+04	1.5147E+04	1.4642E+04	1.4642E+04	1.4137E+04	1.3632E+04
369	1.6514E+04	1.6013E+04	1.5512E+04	1.5013E+04	1.5512E+04	1.5013E+04	1.4512E+04	1.4512E+04	1.4012E+04	1.3511E+04

370 1.6367E+04 1.5870E+04 1.5374E+04 1.4879E+04 1.5374E+04 1.4879E+04 1.4383E+04 1.4383E+04
1.3887E+04 1.3390E+04

371 1.6219E+04 1.5727E+04 1.5236E+04 1.4745E+04 1.5236E+04 1.4745E+04 1.4253E+04 1.4253E+04
1.3761E+04 1.3270E+04

372 1.6072E+04 1.5585E+04 1.5097E+04 1.4611E+04 1.5097E+04 1.4611E+04 1.4124E+04 1.4124E+04
1.3636E+04 1.3149E+04

373 1.5925E+04 1.5442E+04 1.4959E+04 1.4477E+04 1.4959E+04 1.4477E+04 1.3994E+04 1.3994E+04
1.3511E+04 1.3028E+04

374 1.5777E+04 1.5299E+04 1.4820E+04 1.4343E+04 1.4820E+04 1.4343E+04 1.3865E+04 1.3865E+04
1.3386E+04 1.2908E+04

375 1.5646E+04 1.5171E+04 1.4697E+04 1.4224E+04 1.4697E+04 1.4224E+04 1.3749E+04 1.3749E+04
1.3275E+04 1.2800E+04

1 C O B R A - E N B W R FUEL BUNDLE AT TIME (SEC) = 0.0000 PAGE
16

LINEAR FISSION POWER (W/M)

COLUMN

1 2 3 4 5 6 7 8 9 0

ROW

376 1.5519E+04 1.5049E+04 1.4578E+04 1.4109E+04 1.4578E+04 1.4109E+04 1.3638E+04 1.3638E+04
1.3167E+04 1.2697E+04

377 1.5393E+04 1.4926E+04 1.4459E+04 1.3994E+04 1.4459E+04 1.3994E+04 1.3527E+04 1.3527E+04
1.3060E+04 1.2593E+04

378 1.5267E+04 1.4803E+04 1.4341E+04 1.3879E+04 1.4341E+04 1.3879E+04 1.3416E+04 1.3416E+04
1.2953E+04 1.2490E+04

379 1.5140E+04 1.4681E+04 1.4222E+04 1.3764E+04 1.4222E+04 1.3764E+04 1.3305E+04 1.3305E+04
1.2846E+04 1.2387E+04

380 1.5014E+04 1.4558E+04 1.4103E+04 1.3649E+04 1.4103E+04 1.3649E+04 1.3194E+04 1.3194E+04
1.2739E+04 1.2284E+04

381 1.4888E+04 1.4436E+04 1.3985E+04 1.3534E+04 1.3985E+04 1.3534E+04 1.3083E+04 1.3083E+04
1.2631E+04 1.2180E+04

382 1.4761E+04 1.4313E+04 1.3866E+04 1.3420E+04 1.3866E+04 1.3420E+04 1.2972E+04 1.2972E+04
1.2524E+04 1.2077E+04

383 1.4635E+04 1.4191E+04 1.3747E+04 1.3305E+04 1.3747E+04 1.3305E+04 1.2860E+04 1.2860E+04
1.2417E+04 1.1974E+04

384 1.4509E+04 1.4068E+04 1.3629E+04 1.3190E+04 1.3629E+04 1.3190E+04 1.2749E+04 1.2749E+04
1.2310E+04 1.1870E+04

385 1.4382E+04 1.3946E+04 1.3510E+04 1.3075E+04 1.3510E+04 1.3075E+04 1.2638E+04 1.2638E+04
1.2203E+04 1.1767E+04

386 1.4256E+04 1.3823E+04 1.3391E+04 1.2960E+04 1.3391E+04 1.2960E+04 1.2527E+04 1.2527E+04
1.2096E+04 1.1664E+04

387 1.4130E+04 1.3701E+04 1.3273E+04 1.2845E+04 1.3273E+04 1.2845E+04 1.2416E+04 1.2416E+04
1.1988E+04 1.1560E+04

388 1.4003E+04 1.3578E+04 1.3154E+04 1.2730E+04 1.3154E+04 1.2730E+04 1.2305E+04 1.2305E+04
1.1881E+04 1.1457E+04

389 1.3877E+04 1.3456E+04 1.3035E+04 1.2616E+04 1.3035E+04 1.2616E+04 1.2194E+04 1.2194E+04
1.1774E+04 1.1354E+04

390 1.3751E+04 1.3333E+04 1.2917E+04 1.2501E+04 1.2917E+04 1.2501E+04 1.2083E+04 1.2083E+04
1.1667E+04 1.1251E+04

391 1.3624E+04 1.3210E+04 1.2798E+04 1.2386E+04 1.2798E+04 1.2386E+04 1.1972E+04 1.1972E+04
1.1560E+04 1.1147E+04

392 1.3498E+04 1.3088E+04 1.2680E+04 1.2271E+04 1.2680E+04 1.2271E+04 1.1861E+04 1.1861E+04
1.1452E+04 1.1044E+04

393 1.3372E+04 1.2965E+04 1.2561E+04 1.2156E+04 1.2561E+04 1.2156E+04 1.1750E+04 1.1750E+04
1.1345E+04 1.0941E+04

394 1.3245E+04 1.2843E+04 1.2442E+04 1.2041E+04 1.2442E+04 1.2041E+04 1.1639E+04 1.1639E+04
1.1238E+04 1.0837E+04

395 1.3119E+04 1.2720E+04 1.2324E+04 1.1926E+04 1.2324E+04 1.1926E+04 1.1528E+04 1.1528E+04
1.1131E+04 1.0734E+04

396 1.2993E+04 1.2598E+04 1.2205E+04 1.1812E+04 1.2205E+04 1.1812E+04 1.1417E+04 1.1417E+04
1.1024E+04 1.0631E+04

397 1.2866E+04 1.2475E+04 1.2086E+04 1.1697E+04 1.2086E+04 1.1697E+04 1.1305E+04 1.1305E+04
1.0916E+04 1.0527E+04

398 1.2740E+04 1.2353E+04 1.1968E+04 1.1582E+04 1.1968E+04 1.1582E+04 1.1194E+04 1.1194E+04
1.0809E+04 1.0424E+04

399 1.2614E+04 1.2230E+04 1.1849E+04 1.1467E+04 1.1849E+04 1.1467E+04 1.1083E+04 1.1083E+04
1.0702E+04 1.0321E+04

400 1.2487E+04 1.2108E+04 1.1730E+04 1.1352E+04 1.1730E+04 1.1352E+04 1.0972E+04 1.0972E+04
1.0595E+04 1.0218E+04

1 PROBLEM TITLE: BWR FUEL BUNDLE
1 PROBLEM TITLE:

FUEL ROD INTEGRATED POWER (W/M)

1 - 7 1.35952E+05 1.31831E+05 1.27711E+05 1.23595E+05 1.27711E+05 1.23595E+05 1.19473E+05
8 - 10 1.19473E+05 1.15353E+05 1.11234E+05

TIME STEP NO. 0

THE PHYSICAL PROPERTIES OF LIQUID WATER ARE DIRECTLY COMPUTED AT EACH NODE

THE PHYSICAL PROPERTIES OF WATER VAPOR ARE DIRECTLY COMPUTED AT EACH NODE

SATURATED WATER PROPERTIES AT PRESSURE = 7.200000 MPA

TEMPERATURE (K) = 560.65
 LIQUID ENTHALPY (MJ/KG) = 1.2768 VAPOR ENTHALPY (MJ/KG) = 2.7691
 LIQUID SPECIFIC VOLUME (M3/KG) = 0.13534E-02 VAPOR SPECIFIC VOLUME (M3/KG) = 0.26718E-01
 LIQUID VISCOSITY (KG/M/S) = 0.90973E-04 VAPOR VISCOSITY (KG/M/S) = 0.19159E-04
 LIQUID THERMAL CONDUCTIVITY (W/M/K) = 0.56804 VAPOR THERMAL CONDUCTIVITY (W/M/K) = 0.64975E-01
 LIQUID SPECIFIC HEAT (KJ/KG/K) = 5.4182 VAPOR SPECIFIC HEAT (KJ/KG/K) = 6.7305
 EVAPORATION ENTHALPY (MJ/KG) = 1.4923 LIQUID SURFACE TENSION (N/M) = 0.17299E-01

START HYDRAULIC CALCULATIONS AT STEADY STATE (TIME = 0.00000)

#-----#-CORE CONVERGENCE (AT ALL AXIAL LEVELS)-#-----#

IT.	INT	IT.S	EPRI (PSI)	(PSI)	DROP	CONV	CONVERG.	CONV.(F)	CONVERG.	ERROR	CONVERG.
EXT MAX PRES MAX. PMIN PMAX PRESSURE AXIAL FLOW ROD TEMP. HEAT T.C. MAX.CONT. CROSSFLOW REV. VOID FRAC ENTHALPY POST											
FLOW CONVERG. CONVERG. CHF											
1	1	17	14.24	14.25	0.000000	0.385269	634.062	1.000000	0.843631	0.074369	0.491090 NO
2	1	14	14.52	14.53	0.020293	0.021967	141.029	0.688564	0.479877	0.018070	0.004705 NO
3	1	8	14.52	14.52	0.000319	0.014527	19.363	0.017530	0.244265	0.003022	0.000891 NO
4	1	7	14.52	14.52	0.000448	0.015969	2.007	0.003074	0.170786	0.001790	0.001213 NO
5	1	7	14.51	14.52	0.000221	0.011720	0.176	0.002384	0.134809	0.001194	0.000718 NO
6	1	7	14.52	14.52	0.000037	0.006568	0.026	0.002252	0.119898	0.000663	0.000369 NO
7	1	7	14.52	14.52	0.000107	0.007752	0.009	0.000953	0.097796	0.000795	0.000396 NO
8	1	7	14.52	14.52	0.000096	0.006989	0.009	0.000760	0.078108	0.000770	0.000327 NO
9	1	7	14.52	14.52	0.000083	0.004762	0.008	0.001226	0.063827	0.000508	0.000194 NO
10	1	7	14.52	14.52	0.000058	0.002563	0.006	0.000902	0.054364	0.000287	0.000111 NO
11	1	7	14.52	14.52	0.000023	0.002924	0.004	0.000421	0.046552	0.000309	0.000135 NO
12	1	6	14.52	14.52	0.000022	0.002642	0.004	0.000277	0.039369	0.000332	0.000147 NO
13	1	6	14.52	14.52	0.000041	0.002035	0.004	0.000528	0.033617	0.000260	0.000100 NO
14	1	6	14.52	14.52	0.000040	0.001480	0.003	0.000474	0.029654	0.000162	0.000071 NO
15	1	6	14.52	14.52	0.000024	0.001010	0.002	0.000260	0.026039	0.000199	0.000052 NO
16	1	6	14.52	14.52	0.000007	0.001219	0.002	0.000133	0.023279	0.000152	0.000067 NO
17	1	6	14.52	14.52	0.000016	0.001179	0.002	0.000204	0.019998	0.000138	0.000075 NO
18	1	6	14.52	14.52	0.000025	0.000939	0.002	0.000232	0.016561	0.000100	0.000051 NO
19	1	6	14.52	14.52	0.000021	0.000636	0.001	0.000158	0.014095	0.000249	0.000029 NO
20	1	6	14.52	14.52	0.000009	0.000588	0.001	0.000100	0.012685	0.000068	0.000041 NO

FUEL VOLUME (m3) = 0.003 AVERAGE FUEL ENTHALPY (J/kg) = 244077.
 MAXIMUM FUEL ENTHALPY (J/kg) = 372045. -----> AT FUEL ROD 1 & AXIAL INTERVAL 148
 MEAN FUEL TEMPERATURE (K) = 1126.06 MAXIMUM FUEL TEMPERATURE (K) = 1522.03
 COOLANT VOLUME (m3) = 0.005
 EXIT COOLANT MASS FLOWRATE (kg/s) = 2.09148 EXIT COOLANT ENERGY FLOWRATE (W) = 0.352068E+07
 AVERAGE VOID FRACTION = 0.566513 EXIT MEAN VOID FRACTION = 0.817954
 MAXIMUM VOID FRACTION = 0.860595 -----> AT CHANNEL 1 & AXIAL INTERVAL 401
 AVERAGE BORON CONCENTRATION (PPM) = 0.000
 MEAN COOLANT TEMPERATURE (K) = 559.82 EXIT MEAN COOLANT TEMPERATURE (K) = 560.65
 MEAN COOLANT DENSITY (kg/m3) = 343.681 EXIT MEAN COOLANT DENSITY (kg/m3) = 165.123

AVERAGE PRESSURE DROP (Pa) = 1.001188E+05 AVERAGE HYDROSTATIC HEAD (Pa) = 1.348154E+04

RELATIVE MASS UNBALANCE = 0.000000
 MAXIMUM COURANT NUMBER = 0.000000
 OFAURE INTEGRATION IN 20 ITERATIONS
 IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - CHANNEL EXIT SUMMARY RESULTS

MASS BALANCE -- (KG/SEC)	ENERGY BALANCE -- (MW)	BORON MASS BALANCE -- (KG/SEC)
MASS FLOW IN 2.09148	ENERGY FLOW IN 2.53193	BORON FLOW IN 0.000000
ENERGY ADDED 0.98874		
MASS FLOW OUT 2.09148	ENERGY FLOW OUT 3.52068	BORON FLOW OUT
0.000000		
MASS STORED 0.00000	ENERGY STORED 0.00000	BORON STORED 0.000000
MASS FLOW ERROR 0.00000	ENERGY ERROR 0.00000	BORON MASS ERROR
0.000000		

CHANNEL DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS
FLUX	BORON						
NO.	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)
(PPM)							

1	100.12	1.8076	560.65	135.21	0.35569	0.86059	0.02443	1419.27625	0.0
2	100.12	1.7953	560.65	137.80	0.34740	0.85691	0.09886	1435.63220	0.0
3	100.12	1.7607	560.65	145.50	0.32424	0.84593	0.10211	1482.80481	0.0
4	100.12	1.7094	560.65	158.40	0.28990	0.82754	0.10691	1552.51050	0.0
5	100.12	1.6567	560.65	173.67	0.25454	0.80577	0.09861	1961.91992	0.0
6	100.12	1.7831	560.65	140.42	0.33928	0.85317	0.09997	1451.83679	0.0
7	100.12	1.7495	560.65	148.14	0.31676	0.84216	0.20639	1498.77100	0.0
8	100.12	1.6997	560.65	161.08	0.28337	0.82372	0.21594	1568.10706	0.0
9	100.11	1.6486	560.65	176.31	0.24913	0.80200	0.19889	1978.64221	0.0
10	100.12	1.7182	560.65	156.05	0.29574	0.83089	0.10645	1545.89807	0.0
11	100.12	1.6729	560.65	168.93	0.26539	0.81253	0.22213	1613.04529	0.0
12	100.11	1.6268	560.65	183.85	0.23453	0.79125	0.20353	2024.81152	0.0
13	100.12	1.6342	560.65	181.61	0.23944	0.79445	0.11546	1676.69885	0.0
14	100.11	1.5983	560.65	194.76	0.21538	0.77570	0.20929	2082.11743	0.0
15	100.11	1.5762	560.65	203.89	0.20064	0.76269	0.08252	2359.63452	0.0

IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - ASSEMBLY AVERAGED RESULTS

DISTANCE DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS
FLUX	BORON	CHF	CHF TEMP.				
(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)
(MW/M2)	(DEG-K)						(PPM)

0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	2.09148	1700.00012	0.0
0.010	100.02	1.2112	548.28	763.96	0.00000	0.00000	2.09148	1700.00049	0.0
0.020	99.93	1.2119	548.41	763.73	0.00000	0.00000	2.09148	1700.00024	0.0
0.030	99.84	1.2125	548.54	763.49	0.00000	0.00000	2.09148	1700.00012	0.0
0.040	99.74	1.2132	548.66	763.25	0.00000	0.00000	2.09148	1700.00049	0.0
0.050	99.65	1.2139	548.80	763.00	0.00000	0.00000	2.09148	1700.00024	0.0
0.060	99.55	1.2146	548.93	762.75	0.00000	0.00000	2.09148	1700.00024	0.0
0.070	99.46	1.2153	549.06	762.49	0.00000	0.00000	2.09148	1700.00012	0.0
0.080	99.36	1.2160	549.20	762.23	0.00000	0.00000	2.09148	1700.00024	0.0
0.090	99.27	1.2167	549.34	761.97	0.00000	0.00000	2.09148	1700.00049	0.0

0.100	99.18	1.2174	549.48	761.70	0.00000	0.00000	2.09148	1700.00049	0.0
0.110	99.08	1.2182	549.63	761.42	0.00000	0.00000	2.09148	1700.00012	0.0
0.120	98.99	1.2189	549.77	761.15	0.00000	0.00000	2.09148	1700.00024	0.0
0.130	98.89	1.2197	549.92	760.86	0.00000	0.00000	2.09148	1700.00024	0.0
0.140	98.80	1.2205	550.07	760.58	0.00000	0.00000	2.09148	1700.00024	0.0
0.150	98.70	1.2213	550.22	760.27	0.00000	0.00002	2.09148	1700.00049	0.0
0.160	98.61	1.2221	550.38	759.92	0.00000	0.00009	2.09148	1700.00024	0.0
0.170	98.51	1.2229	550.53	759.48	0.00000	0.00028	2.09148	1700.00024	0.0
0.180	98.42	1.2237	550.69	758.91	0.00000	0.00065	2.09148	1700.00024	0.0
0.190	98.32	1.2246	550.85	758.16	0.00000	0.00127	2.09148	1700.00012	0.0
0.200	98.23	1.2254	551.01	757.21	0.00000	0.00215	2.09148	1700.00012	0.0
0.210	98.13	1.2263	551.18	756.07	0.00003	0.00330	2.09148	1700.00024	0.0
0.220	98.03	1.2271	551.34	754.74	0.00005	0.00469	2.09148	1700.00024	0.0
0.230	97.93	1.2280	551.51	753.24	0.00008	0.00632	2.09148	1700.00024	0.0
0.240	97.83	1.2289	551.68	751.59	0.00012	0.00816	2.09148	1700.00024	0.0
0.250	97.73	1.2298	551.86	749.80	0.00016	0.01018	2.09148	1700.00012	0.0
0.260	97.62	1.2307	552.03	747.90	0.00022	0.01236	2.09148	1700.00024	0.0
0.270	97.52	1.2316	552.21	745.88	0.00029	0.01468	2.09148	1700.00024	0.0
0.280	97.42	1.2325	552.39	743.77	0.00037	0.01715	2.09148	1700.00024	0.0
0.290	97.32	1.2335	552.57	741.55	0.00046	0.01975	2.09148	1700.00024	0.0
0.300	97.21	1.2344	552.75	739.24	0.00056	0.02248	2.09148	1700.00012	0.0
0.310	97.11	1.2354	552.94	736.84	0.00068	0.02533	2.09148	1700.00024	0.0
0.320	97.00	1.2364	553.13	734.35	0.00082	0.02830	2.09148	1700.00024	0.0
0.330	96.90	1.2374	553.32	731.77	0.00097	0.03140	2.09148	1700.00012	0.0
0.340	96.79	1.2384	553.51	728.99	0.00114	0.03477	2.09148	1700.00024	0.0
0.350	96.69	1.2394	553.70	726.11	0.00132	0.03827	2.09148	1700.00012	0.0
0.360	96.58	1.2404	553.90	723.14	0.00153	0.04190	2.09148	1700.00012	0.0
0.370	96.47	1.2415	554.09	720.09	0.00175	0.04565	2.09148	1700.00024	0.0
0.380	96.36	1.2425	554.29	716.96	0.00198	0.04950	2.09148	1700.00012	0.0
0.390	96.26	1.2436	554.49	713.76	0.00223	0.05345	2.09148	1700.00024	0.0
0.400	93.63	1.2446	554.69	710.32	0.00252	0.05775	2.09148	1700.00012	0.0
0.410	93.52	1.2457	554.89	706.97	0.00280	0.06190	2.09148	1700.00024	0.0
0.420	93.41	1.2468	555.10	703.50	0.00310	0.06622	2.09148	1700.00049	0.0
0.430	93.30	1.2479	555.31	699.92	0.00342	0.07070	2.09148	1700.00049	0.0
0.440	93.19	1.2491	555.52	696.23	0.00376	0.07531	2.09148	1700.00024	0.0
0.450	93.07	1.2502	555.74	692.45	0.00412	0.08006	2.09148	1700.00012	0.0
0.460	92.96	1.2513	555.96	688.58	0.00449	0.08493	2.09148	1700.00012	0.0
0.470	92.85	1.2525	556.18	684.61	0.00488	0.08994	2.09148	1700.00024	0.0
0.480	92.73	1.2537	556.41	680.55	0.00528	0.09506	2.09148	1700.00012	0.0
0.490	92.62	1.2549	556.63	676.41	0.00571	0.10032	2.09148	1700.00012	0.0
0.500	92.50	1.2561	556.86	672.18	0.00614	0.10569	2.09148	1700.00024	0.0
0.510	92.38	1.2573	557.09	667.87	0.00660	0.11118	2.09148	1700.00024	0.0
0.520	92.27	1.2585	557.33	663.48	0.00707	0.11678	2.09148	1700.00024	0.0
0.530	92.15	1.2597	557.56	659.00	0.00756	0.12250	2.09148	1700.00012	0.0
0.540	92.03	1.2610	557.80	654.46	0.00806	0.12832	2.09148	1700.00024	0.0
0.550	91.91	1.2623	558.04	649.84	0.00857	0.13425	2.09148	1700.00012	0.0
0.560	91.79	1.2635	558.28	645.15	0.00911	0.14027	2.09148	1700.00012	0.0
0.570	91.67	1.2648	558.53	640.40	0.00965	0.14639	2.09148	1700.00049	0.0
0.580	91.55	1.2661	558.78	635.59	0.01022	0.15259	2.09148	1700.00049	0.0
0.590	91.42	1.2674	559.02	630.73	0.01079	0.15886	2.09148	1700.00024	0.0
0.600	91.30	1.2687	559.26	625.85	0.01139	0.16520	2.09148	1700.00024	0.0
0.610	91.18	1.2701	559.47	620.99	0.01199	0.17159	2.09148	1700.00012	0.0
0.620	91.05	1.2714	559.66	616.13	0.01260	0.17803	2.09148	1700.00012	0.0
0.630	90.93	1.2728	559.83	611.27	0.01324	0.18454	2.09148	1700.00012	0.0
0.640	90.80	1.2742	559.98	606.40	0.01388	0.19107	2.09148	1700.00049	0.0
0.650	90.68	1.2756	560.11	601.57	0.01454	0.19764	2.09148	1700.00049	0.0
0.660	90.55	1.2769	560.22	596.91	0.01518	0.20400	2.09148	1700.00024	0.0
0.670	90.43	1.2784	560.31	592.46	0.01581	0.21012	2.09148	1700.00024	0.0
0.680	90.30	1.2798	560.39	588.01	0.01646	0.21628	2.09148	1700.00024	0.0
0.690	90.18	1.2812	560.47	583.54	0.01711	0.22245	2.09148	1700.00012	0.0
0.700	90.05	1.2826	560.54	579.07	0.01778	0.22864	2.09148	1700.00024	0.0
0.710	89.93	1.2841	560.61	574.62	0.01845	0.23481	2.09148	1700.00024	0.0

0.720	89.80	1.2855	560.67	570.18	0.01914	0.24100	2.09148	1700.00012	0.0
0.730	89.68	1.2869	560.74	565.73	0.01984	0.24718	2.09148	1700.00024	0.0
0.740	89.55	1.2884	560.80	561.29	0.02055	0.25336	2.09148	1700.00012	0.0
0.750	89.42	1.2899	560.86	556.87	0.02127	0.25952	2.09148	1700.00049	0.0
0.760	89.29	1.2914	560.93	552.45	0.02200	0.26567	2.09148	1700.00024	0.0
0.770	89.17	1.2928	560.99	548.07	0.02274	0.27177	2.09148	1700.00024	0.0
0.780	89.04	1.2943	561.05	543.75	0.02349	0.27779	2.09148	1700.00012	0.0
0.790	88.91	1.2958	561.11	539.52	0.02426	0.28367	2.09148	1700.00012	0.0
0.800	85.42	1.2973	561.15	535.01	0.02510	0.28995	2.09148	1700.00024	0.0
0.810	85.29	1.2989	561.20	530.84	0.02588	0.29583	2.09148	1700.00012	0.0
0.820	85.16	1.3004	561.24	526.67	0.02666	0.30171	2.09148	1700.00012	0.0
0.830	85.04	1.3019	561.28	522.65	0.02742	0.30736	2.09148	1700.00024	0.0
0.840	84.91	1.3034	561.30	518.67	0.02819	0.31298	2.09148	1700.00024	0.0
0.850	84.78	1.3050	561.32	514.70	0.02896	0.31860	2.09148	1700.00024	0.0
0.860	84.65	1.3065	561.34	510.75	0.02975	0.32419	2.09148	1700.00024	0.0
0.870	84.52	1.3081	561.36	506.82	0.03054	0.32976	2.09148	1700.00024	0.0
0.880	84.39	1.3096	561.38	502.93	0.03133	0.33527	2.09148	1700.00012	0.0
0.890	84.25	1.3112	561.39	499.08	0.03214	0.34077	2.09148	1700.00024	0.0
0.900	84.12	1.3127	561.39	495.25	0.03295	0.34623	2.09148	1700.00024	0.0
0.910	83.99	1.3143	561.40	491.45	0.03378	0.35165	2.09148	1700.00012	0.0
0.920	83.86	1.3159	561.40	487.68	0.03461	0.35703	2.09148	1700.00012	0.0
0.930	83.73	1.3174	561.40	483.94	0.03544	0.36237	2.09148	1700.00024	0.0
0.940	83.59	1.3190	561.41	480.23	0.03629	0.36766	2.09148	1700.00012	0.0
0.950	83.46	1.3206	561.41	476.55	0.03714	0.37292	2.09148	1700.00012	0.0
0.960	83.33	1.3222	561.42	472.90	0.03800	0.37812	2.09148	1700.00012	0.0
0.970	83.19	1.3238	561.42	469.28	0.03887	0.38329	2.09148	1700.00024	0.0
0.980	83.06	1.3254	561.42	465.69	0.03974	0.38840	2.09148	1700.00012	0.0
0.990	82.93	1.3270	561.43	462.23	0.04060	0.39334	2.09148	1700.00049	0.0
1.000	82.79	1.3286	561.43	458.81	0.04146	0.39823	2.09148	1700.00024	0.0
1.010	82.66	1.3302	561.44	455.41	0.04234	0.40307	2.09148	1700.00012	0.0
1.020	82.52	1.3318	561.43	452.07	0.04321	0.40785	2.09148	1700.00024	0.0
1.030	82.39	1.3334	561.43	448.75	0.04409	0.41260	2.09148	1700.00024	0.0
1.040	82.25	1.3350	561.43	445.47	0.04498	0.41729	2.09148	1700.00024	0.0
1.050	82.12	1.3366	561.43	442.22	0.04588	0.42194	2.09148	1700.00024	0.0
1.060	81.98	1.3382	561.43	439.00	0.04678	0.42654	2.09148	1700.00024	0.0
1.070	81.85	1.3398	561.43	435.81	0.04768	0.43110	2.09148	1700.00012	0.0
1.080	81.71	1.3414	561.43	432.66	0.04859	0.43561	2.09148	1700.00024	0.0
1.090	81.58	1.3431	561.43	429.54	0.04951	0.44007	2.09148	1700.00024	0.0
1.100	81.44	1.3447	561.42	426.46	0.05043	0.44448	2.09148	1700.00024	0.0
1.110	81.30	1.3463	561.42	423.41	0.05136	0.44884	2.09148	1700.00024	0.0
1.120	81.17	1.3479	561.42	420.40	0.05229	0.45315	2.09148	1700.00024	0.0
1.130	81.03	1.3495	561.42	417.42	0.05323	0.45740	2.09148	1700.00012	0.0
1.140	80.89	1.3512	561.42	414.48	0.05417	0.46161	2.09148	1700.00024	0.0
1.150	80.75	1.3528	561.42	411.59	0.05511	0.46575	2.09148	1700.00024	0.0
1.160	80.61	1.3544	561.42	408.74	0.05606	0.46981	2.09148	1700.00024	0.0
1.170	80.48	1.3561	561.42	405.96	0.05701	0.47380	2.09148	1700.00012	0.0
1.180	80.34	1.3577	561.41	403.24	0.05797	0.47768	2.09148	1700.00024	0.0
1.190	80.20	1.3593	561.41	400.64	0.05893	0.48141	2.09148	1700.00024	0.0
1.200	75.53	1.3610	561.37	397.74	0.06003	0.48553	2.09148	1700.00024	0.0
1.210	75.39	1.3626	561.37	395.16	0.06101	0.48928	2.09148	1700.00012	0.0
1.220	75.25	1.3643	561.37	392.53	0.06199	0.49304	2.09148	1700.00024	0.0
1.230	75.11	1.3659	561.36	389.90	0.06297	0.49680	2.09148	1700.00012	0.0
1.240	74.96	1.3676	561.36	387.29	0.06395	0.50054	2.09148	1700.00049	0.0
1.250	74.82	1.3692	561.36	384.69	0.06494	0.50425	2.09148	1700.00024	0.0
1.260	74.68	1.3709	561.36	382.12	0.06592	0.50793	2.09148	1700.00024	0.0
1.270	74.54	1.3725	561.36	379.57	0.06691	0.51157	2.09148	1700.00049	0.0
1.280	74.40	1.3741	561.36	377.05	0.06791	0.51518	2.09148	1700.00024	0.0
1.290	74.26	1.3758	561.36	374.55	0.06891	0.51875	2.09148	1700.00024	0.0
1.300	74.11	1.3774	561.35	372.08	0.06991	0.52229	2.09148	1700.00024	0.0
1.310	73.97	1.3791	561.35	369.64	0.07091	0.52578	2.09148	1700.00024	0.0
1.320	73.83	1.3808	561.35	367.23	0.07191	0.52922	2.09148	1700.00012	0.0
1.330	73.68	1.3824	561.35	364.85	0.07292	0.53262	2.09148	1700.00024	0.0

1.340	73.54	1.3841	561.35	362.50	0.07393	0.53598	2.09148	1699.99988	0.0
1.350	73.40	1.3857	561.35	360.18	0.07494	0.53930	2.09148	1700.00012	0.0
1.360	73.25	1.3874	561.35	357.88	0.07595	0.54259	2.09148	1700.00024	0.0
1.370	73.11	1.3890	561.35	355.61	0.07697	0.54584	2.09148	1700.00024	0.0
1.380	72.96	1.3907	561.34	353.36	0.07799	0.54905	2.09148	1700.00024	0.0
1.390	72.82	1.3924	561.34	351.14	0.07902	0.55222	2.09148	1700.00024	0.0
1.400	72.67	1.3940	561.34	348.95	0.08005	0.55536	2.09148	1700.00024	0.0
1.410	72.53	1.3957	561.34	346.78	0.08108	0.55846	2.09148	1700.00024	0.0
1.420	72.38	1.3974	561.34	344.63	0.08211	0.56153	2.09148	1700.00012	0.0
1.430	72.24	1.3990	561.34	342.51	0.08314	0.56456	2.09148	1700.00024	0.0
1.440	72.09	1.4007	561.34	340.42	0.08418	0.56756	2.09148	1700.00024	0.0
1.450	71.94	1.4023	561.33	338.34	0.08522	0.57052	2.09148	1700.00024	0.0
1.460	71.80	1.4040	561.33	336.30	0.08626	0.57345	2.09148	1700.00024	0.0
1.470	71.65	1.4057	561.33	334.27	0.08730	0.57634	2.09148	1700.00012	0.0
1.480	71.50	1.4073	561.33	332.28	0.08834	0.57919	2.09148	1700.00049	0.0
1.490	71.35	1.4090	561.33	330.32	0.08939	0.58200	2.09148	1700.00024	0.0
1.500	71.21	1.4107	561.33	328.38	0.09043	0.58477	2.09148	1699.99988	0.0
1.510	71.06	1.4123	561.33	326.46	0.09147	0.58750	2.09148	1700.00024	0.0
1.520	70.91	1.4140	561.32	324.57	0.09252	0.59020	2.09148	1700.00024	0.0
1.530	70.76	1.4156	561.32	322.71	0.09356	0.59287	2.09148	1700.00024	0.0
1.540	70.61	1.4173	561.32	320.87	0.09461	0.59550	2.09148	1700.00024	0.0
1.550	70.47	1.4190	561.32	319.05	0.09566	0.59810	2.09148	1700.00024	0.0
1.560	70.32	1.4206	561.32	317.27	0.09671	0.60065	2.09148	1700.00012	0.0
1.570	70.17	1.4223	561.32	315.52	0.09776	0.60315	2.09148	1700.00024	0.0
1.580	70.02	1.4239	561.32	313.84	0.09882	0.60556	2.09148	1700.00024	0.0
1.590	69.87	1.4256	561.31	312.24	0.09988	0.60783	2.09148	1700.00012	0.0
1.600	63.87	1.4273	561.26	310.37	0.10111	0.61049	2.09148	1700.00012	0.0
1.610	63.72	1.4289	561.26	308.81	0.10218	0.61277	2.09148	1700.00024	0.0
1.620	63.57	1.4306	561.26	307.18	0.10325	0.61510	2.09148	1700.00012	0.0
1.630	63.42	1.4322	561.25	305.54	0.10431	0.61745	2.09148	1700.00012	0.0
1.640	63.27	1.4339	561.25	303.90	0.10537	0.61979	2.09148	1700.00049	0.0
1.650	63.11	1.4355	561.25	302.27	0.10642	0.62212	2.09148	1700.00012	0.0
1.660	62.96	1.4372	561.25	300.65	0.10748	0.62443	2.09148	1700.00024	0.0
1.670	62.81	1.4388	561.25	299.05	0.10854	0.62673	2.09148	1700.00024	0.0
1.680	62.66	1.4405	561.25	297.45	0.10959	0.62900	2.09148	1700.00024	0.0
1.690	62.51	1.4421	561.25	295.88	0.11065	0.63126	2.09148	1700.00024	0.0
1.700	62.35	1.4438	561.24	294.32	0.11171	0.63349	2.09148	1700.00024	0.0
1.710	62.20	1.4454	561.24	292.77	0.11276	0.63570	2.09148	1700.00012	0.0
1.720	62.05	1.4470	561.24	291.24	0.11382	0.63788	2.09148	1700.00024	0.0
1.730	61.89	1.4487	561.24	289.73	0.11488	0.64004	2.09148	1700.00049	0.0
1.740	61.74	1.4503	561.24	288.24	0.11594	0.64218	2.09148	1700.00024	0.0
1.750	61.58	1.4520	561.24	286.76	0.11700	0.64429	2.09148	1700.00012	0.0
1.760	61.43	1.4536	561.23	285.29	0.11806	0.64638	2.09148	1700.00024	0.0
1.770	61.27	1.4552	561.23	283.85	0.11912	0.64845	2.09148	1700.00024	0.0
1.780	61.12	1.4569	561.23	282.42	0.12019	0.65049	2.09148	1700.00024	0.0
1.790	60.96	1.4585	561.23	281.00	0.12125	0.65251	2.09148	1700.00024	0.0
1.800	60.81	1.4601	561.23	279.61	0.12231	0.65451	2.09148	1700.00012	0.0
1.810	60.65	1.4617	561.23	278.23	0.12336	0.65648	2.09148	1700.00012	0.0
1.820	60.49	1.4634	561.23	276.87	0.12442	0.65843	2.09148	1700.00024	0.0
1.830	60.34	1.4650	561.22	275.52	0.12548	0.66035	2.09148	1700.00012	0.0
1.840	60.18	1.4666	561.22	274.18	0.12654	0.66226	2.09148	1700.00012	0.0
1.850	60.03	1.4682	561.22	272.87	0.12759	0.66414	2.09148	1700.00049	0.0
1.860	59.87	1.4698	561.22	271.56	0.12865	0.66601	2.09148	1700.00012	0.0
1.870	59.71	1.4715	561.22	270.27	0.12970	0.66786	2.09148	1700.00012	0.0
1.880	59.55	1.4731	561.22	268.99	0.13076	0.66969	2.09148	1700.00024	0.0
1.890	59.40	1.4747	561.22	267.72	0.13181	0.67150	2.09148	1700.00024	0.0
1.900	59.24	1.4763	561.21	266.47	0.13287	0.67328	2.09148	1700.00024	0.0
1.910	59.08	1.4779	561.21	265.24	0.13392	0.67504	2.09148	1700.00024	0.0
1.920	58.92	1.4795	561.21	264.02	0.13497	0.67678	2.09148	1700.00012	0.0
1.930	58.76	1.4811	561.21	262.82	0.13602	0.67849	2.09148	1700.00012	0.0
1.940	58.61	1.4827	561.21	261.64	0.13707	0.68019	2.09148	1700.00024	0.0
1.950	58.45	1.4843	561.21	260.47	0.13812	0.68186	2.09148	1700.00024	0.0

1.960	58.29	1.4859	561.21	259.32	0.13917	0.68350	2.09148	1700.00024	0.0
1.970	58.13	1.4874	561.20	258.21	0.14021	0.68509	2.09148	1700.00024	0.0
1.980	57.97	1.4890	561.20	257.14	0.14126	0.68661	2.09148	1700.00024	0.0
1.990	57.82	1.4906	561.20	256.16	0.14230	0.68802	2.09148	1700.00024	0.0
2.000	50.47	1.4922	561.13	254.91	0.14354	0.68976	2.09148	1700.00024	0.0
2.010	50.32	1.4938	561.13	253.97	0.14459	0.69116	2.09148	1700.00012	0.0
2.020	50.16	1.4953	561.13	252.95	0.14563	0.69262	2.09148	1700.00024	0.0
2.030	50.00	1.4969	561.13	251.90	0.14666	0.69412	2.09148	1700.00012	0.0
2.040	49.84	1.4985	561.12	250.85	0.14769	0.69562	2.09148	1700.00012	0.0
2.050	49.68	1.5000	561.12	249.80	0.14871	0.69712	2.09148	1700.00024	0.0
2.060	49.51	1.5016	561.12	248.75	0.14973	0.69862	2.09148	1700.00024	0.0
2.070	49.35	1.5031	561.12	247.71	0.15075	0.70010	2.09148	1700.00012	0.0
2.080	49.19	1.5046	561.12	246.68	0.15177	0.70158	2.09148	1700.00024	0.0
2.090	49.03	1.5062	561.12	245.65	0.15279	0.70304	2.09148	1700.00024	0.0
2.100	48.87	1.5077	561.12	244.64	0.15380	0.70449	2.09148	1700.00024	0.0
2.110	48.71	1.5092	561.11	243.63	0.15481	0.70593	2.09148	1700.00012	0.0
2.120	48.54	1.5107	561.11	242.64	0.15582	0.70735	2.09148	1700.00012	0.0
2.130	48.38	1.5123	561.11	241.66	0.15682	0.70875	2.09148	1700.00024	0.0
2.140	48.22	1.5138	561.11	240.69	0.15783	0.71014	2.09148	1700.00012	0.0
2.150	48.06	1.5153	561.11	239.73	0.15883	0.71151	2.09148	1700.00024	0.0
2.160	47.89	1.5168	561.11	238.78	0.15983	0.71286	2.09148	1700.00024	0.0
2.170	47.73	1.5183	561.10	237.84	0.16082	0.71420	2.09148	1700.00024	0.0
2.180	47.57	1.5198	561.10	236.91	0.16181	0.71553	2.09148	1700.00024	0.0
2.190	47.40	1.5213	561.10	236.00	0.16280	0.71684	2.09148	1700.00049	0.0
2.200	47.24	1.5227	561.10	235.09	0.16379	0.71813	2.09148	1700.00012	0.0
2.210	47.08	1.5242	561.10	234.19	0.16477	0.71941	2.09148	1700.00024	0.0
2.220	46.91	1.5257	561.10	233.31	0.16575	0.72068	2.09148	1700.00024	0.0
2.230	46.75	1.5272	561.10	232.43	0.16673	0.72193	2.09148	1700.00049	0.0
2.240	46.59	1.5286	561.09	231.57	0.16770	0.72316	2.09148	1700.00012	0.0
2.250	46.42	1.5301	561.09	230.71	0.16867	0.72439	2.09148	1700.00024	0.0
2.260	46.26	1.5315	561.09	229.86	0.16964	0.72560	2.09148	1700.00024	0.0
2.270	46.09	1.5330	561.09	229.02	0.17060	0.72680	2.09148	1700.00012	0.0
2.280	45.93	1.5344	561.09	228.19	0.17156	0.72799	2.09148	1700.00024	0.0
2.290	45.77	1.5358	561.09	227.37	0.17252	0.72916	2.09148	1700.00024	0.0
2.300	45.60	1.5373	561.08	226.56	0.17347	0.73031	2.09148	1700.00024	0.0
2.310	45.44	1.5387	561.08	225.77	0.17442	0.73144	2.09148	1700.00024	0.0
2.320	45.27	1.5401	561.08	224.99	0.17535	0.73255	2.09148	1700.00012	0.0
2.330	45.11	1.5415	561.08	224.22	0.17629	0.73365	2.09148	1700.00024	0.0
2.340	44.95	1.5429	561.08	223.47	0.17721	0.73473	2.09148	1700.00012	0.0
2.350	44.78	1.5442	561.08	222.72	0.17814	0.73580	2.09148	1700.00024	0.0
2.360	44.62	1.5456	561.08	221.99	0.17905	0.73683	2.09148	1700.00012	0.0
2.370	44.46	1.5470	561.07	221.29	0.17997	0.73783	2.09148	1700.00024	0.0
2.380	44.29	1.5483	561.07	220.63	0.18088	0.73878	2.09148	1700.00012	0.0
2.390	44.13	1.5497	561.07	220.04	0.18179	0.73963	2.09148	1700.00024	0.0
2.400	35.54	1.5511	560.99	219.18	0.18292	0.74079	2.09148	1700.00012	0.0
2.410	35.38	1.5524	560.99	218.64	0.18382	0.74163	2.09148	1700.00012	0.0
2.420	35.22	1.5537	560.99	218.01	0.18471	0.74253	2.09148	1700.00024	0.0
2.430	35.06	1.5550	560.98	217.35	0.18560	0.74347	2.09148	1700.00024	0.0
2.440	34.89	1.5564	560.98	216.69	0.18647	0.74442	2.09148	1700.00024	0.0
2.450	34.73	1.5577	560.98	216.02	0.18735	0.74537	2.09148	1700.00049	0.0
2.460	34.56	1.5589	560.98	215.36	0.18821	0.74632	2.09148	1700.00049	0.0
2.470	34.40	1.5602	560.98	214.70	0.18908	0.74726	2.09148	1700.00012	0.0
2.480	34.23	1.5615	560.98	214.04	0.18993	0.74820	2.09148	1700.00012	0.0
2.490	34.07	1.5628	560.98	213.39	0.19079	0.74913	2.09148	1700.00024	0.0
2.500	33.90	1.5640	560.97	212.74	0.19164	0.75005	2.09148	1700.00012	0.0
2.510	33.74	1.5653	560.97	212.10	0.19248	0.75097	2.09148	1700.00024	0.0
2.520	33.57	1.5666	560.97	211.47	0.19332	0.75187	2.09148	1700.00024	0.0
2.530	33.41	1.5678	560.97	210.84	0.19416	0.75276	2.09148	1700.00024	0.0
2.540	33.24	1.5690	560.97	210.22	0.19499	0.75365	2.09148	1700.00024	0.0
2.550	33.08	1.5703	560.97	209.61	0.19582	0.75452	2.09148	1700.00024	0.0
2.560	32.91	1.5715	560.96	209.01	0.19664	0.75538	2.09148	1700.00024	0.0
2.570	32.75	1.5727	560.96	208.41	0.19746	0.75623	2.09148	1700.00024	0.0

2.580	32.58	1.5739	560.96	207.82	0.19828	0.75707	2.09148	1700.00012	0.0
2.590	32.42	1.5751	560.96	207.24	0.19909	0.75791	2.09148	1700.00024	0.0
2.600	32.25	1.5763	560.96	206.66	0.19989	0.75873	2.09148	1700.00024	0.0
2.610	32.08	1.5775	560.96	206.10	0.20069	0.75954	2.09148	1700.00024	0.0
2.620	31.92	1.5787	560.95	205.53	0.20148	0.76034	2.09148	1700.00024	0.0
2.630	31.75	1.5799	560.95	204.98	0.20227	0.76113	2.09148	1700.00049	0.0
2.640	31.59	1.5810	560.95	204.43	0.20305	0.76191	2.09148	1700.00012	0.0
2.650	31.43	1.5822	560.95	203.89	0.20382	0.76268	2.09148	1700.00024	0.0
2.660	31.26	1.5833	560.95	203.36	0.20459	0.76344	2.09148	1700.00024	0.0
2.670	31.10	1.5844	560.95	202.83	0.20536	0.76420	2.09148	1700.00024	0.0
2.680	30.93	1.5856	560.95	202.31	0.20612	0.76494	2.09148	1700.00024	0.0
2.690	30.77	1.5867	560.94	201.79	0.20688	0.76568	2.09148	1700.00012	0.0
2.700	30.60	1.5878	560.94	201.28	0.20763	0.76640	2.09148	1700.00024	0.0
2.710	30.44	1.5889	560.94	200.79	0.20838	0.76712	2.09148	1700.00024	0.0
2.720	30.27	1.5900	560.94	200.29	0.20912	0.76782	2.09148	1700.00049	0.0
2.730	30.11	1.5911	560.94	199.81	0.20985	0.76850	2.09148	1700.00024	0.0
2.740	29.94	1.5922	560.94	199.34	0.21057	0.76918	2.09148	1700.00024	0.0
2.750	29.78	1.5932	560.93	198.87	0.21129	0.76985	2.09148	1700.00012	0.0
2.760	29.62	1.5943	560.93	198.42	0.21201	0.77049	2.09148	1700.00012	0.0
2.770	29.45	1.5954	560.93	197.99	0.21272	0.77111	2.09148	1700.00024	0.0
2.780	29.29	1.5964	560.93	197.58	0.21343	0.77168	2.09148	1700.00012	0.0
2.790	29.14	1.5975	560.93	197.24	0.21414	0.77218	2.09148	1700.00049	0.0
2.800	19.51	1.5985	560.84	196.63	0.21508	0.77298	2.09148	1700.00024	0.0
2.810	19.35	1.5995	560.84	196.33	0.21577	0.77347	2.09148	1700.00012	0.0
2.820	19.18	1.6006	560.83	195.95	0.21646	0.77402	2.09148	1700.00012	0.0
2.830	19.02	1.6016	560.83	195.54	0.21715	0.77460	2.09148	1700.00012	0.0
2.840	18.86	1.6026	560.83	195.12	0.21783	0.77519	2.09148	1700.00024	0.0
2.850	18.69	1.6036	560.83	194.70	0.21850	0.77579	2.09148	1700.00012	0.0
2.860	18.53	1.6046	560.83	194.28	0.21916	0.77639	2.09148	1700.00024	0.0
2.870	18.36	1.6056	560.83	193.86	0.21983	0.77699	2.09148	1700.00012	0.0
2.880	18.20	1.6065	560.82	193.44	0.22048	0.77759	2.09148	1700.00012	0.0
2.890	18.03	1.6075	560.82	193.03	0.22113	0.77818	2.09148	1700.00024	0.0
2.900	17.87	1.6085	560.82	192.62	0.22178	0.77877	2.09148	1700.00012	0.0
2.910	17.71	1.6094	560.82	192.21	0.22242	0.77935	2.09148	1700.00012	0.0
2.920	17.54	1.6104	560.82	191.81	0.22306	0.77992	2.09148	1700.00012	0.0
2.930	17.38	1.6113	560.82	191.41	0.22370	0.78049	2.09148	1700.00024	0.0
2.940	17.21	1.6122	560.81	191.01	0.22433	0.78106	2.09148	1700.00024	0.0
2.950	17.05	1.6132	560.81	190.62	0.22496	0.78161	2.09148	1700.00049	0.0
2.960	16.89	1.6141	560.81	190.24	0.22558	0.78216	2.09148	1700.00012	0.0
2.970	16.72	1.6150	560.81	189.85	0.22620	0.78271	2.09148	1700.00024	0.0
2.980	16.56	1.6159	560.81	189.47	0.22681	0.78325	2.09148	1700.00024	0.0
2.990	16.39	1.6168	560.81	189.10	0.22743	0.78378	2.09148	1700.00024	0.0
3.000	16.23	1.6177	560.81	188.73	0.22803	0.78431	2.09148	1700.00024	0.0
3.010	16.07	1.6186	560.80	188.37	0.22864	0.78483	2.09148	1700.00049	0.0
3.020	15.90	1.6195	560.80	188.00	0.22924	0.78535	2.09148	1700.00012	0.0
3.030	15.74	1.6204	560.80	187.65	0.22983	0.78586	2.09148	1700.00012	0.0
3.040	15.57	1.6213	560.80	187.29	0.23042	0.78636	2.09148	1700.00012	0.0
3.050	15.41	1.6221	560.80	186.94	0.23101	0.78686	2.09148	1700.00012	0.0
3.060	15.25	1.6230	560.80	186.60	0.23159	0.78735	2.09148	1699.99988	0.0
3.070	15.08	1.6238	560.79	186.25	0.23217	0.78784	2.09148	1700.00012	0.0
3.080	14.92	1.6247	560.79	185.91	0.23274	0.78833	2.09148	1700.00024	0.0
3.090	14.76	1.6255	560.79	185.58	0.23332	0.78881	2.09148	1700.00012	0.0
3.100	14.59	1.6264	560.79	185.24	0.23388	0.78928	2.09148	1700.00024	0.0
3.110	14.43	1.6272	560.79	184.91	0.23445	0.78975	2.09148	1700.00024	0.0
3.120	14.26	1.6280	560.79	184.59	0.23501	0.79022	2.09148	1700.00024	0.0
3.130	14.10	1.6289	560.79	184.26	0.23556	0.79068	2.09148	1700.00012	0.0
3.140	13.94	1.6297	560.78	183.94	0.23612	0.79114	2.09148	1700.00012	0.0
3.150	13.77	1.6305	560.78	183.62	0.23667	0.79159	2.09148	1700.00024	0.0
3.160	13.61	1.6313	560.78	183.31	0.23722	0.79204	2.09148	1700.00024	0.0
3.170	13.45	1.6321	560.78	183.00	0.23776	0.79248	2.09148	1700.00012	0.0
3.180	13.28	1.6329	560.78	182.69	0.23830	0.79292	2.09148	1700.00012	0.0
3.190	13.12	1.6337	560.78	182.39	0.23884	0.79336	2.09148	1700.00024	0.0

3.200	12.96	1.6345	560.77	182.08	0.23937	0.79379	2.09148	1700.00024	0.0
3.210	12.79	1.6353	560.77	181.78	0.23990	0.79421	2.09148	1700.00024	0.0
3.220	12.63	1.6361	560.77	181.49	0.24043	0.79464	2.09148	1700.00012	0.0
3.230	12.47	1.6368	560.77	181.19	0.24095	0.79505	2.09148	1700.00024	0.0
3.240	12.30	1.6376	560.77	180.90	0.24147	0.79547	2.09148	1700.00024	0.0
3.250	12.14	1.6384	560.77	180.62	0.24199	0.79588	2.09148	1700.00024	0.0
3.260	11.98	1.6391	560.77	180.33	0.24250	0.79628	2.09148	1700.00024	0.0
3.270	11.81	1.6399	560.76	180.05	0.24301	0.79669	2.09148	1700.00024	0.0
3.280	11.65	1.6406	560.76	179.77	0.24352	0.79709	2.09148	1700.00012	0.0
3.290	11.49	1.6414	560.76	179.49	0.24402	0.79748	2.09148	1700.00024	0.0
3.300	11.32	1.6421	560.76	179.22	0.24452	0.79787	2.09148	1700.00024	0.0
3.310	11.16	1.6429	560.76	178.95	0.24502	0.79826	2.09148	1700.00012	0.0
3.320	11.00	1.6436	560.76	178.68	0.24552	0.79865	2.09148	1700.00024	0.0
3.330	10.84	1.6443	560.75	178.41	0.24601	0.79903	2.09148	1700.00024	0.0
3.340	10.67	1.6451	560.75	178.14	0.24650	0.79940	2.09148	1700.00024	0.0
3.350	10.51	1.6458	560.75	177.88	0.24698	0.79978	2.09148	1700.00012	0.0
3.360	10.35	1.6465	560.75	177.62	0.24747	0.80015	2.09148	1700.00024	0.0
3.370	10.18	1.6472	560.75	177.36	0.24795	0.80052	2.09148	1700.00024	0.0
3.380	10.02	1.6479	560.75	177.11	0.24843	0.80088	2.09148	1700.00012	0.0
3.390	9.86	1.6486	560.74	176.85	0.24890	0.80124	2.09148	1700.00024	0.0
3.400	9.69	1.6493	560.74	176.60	0.24937	0.80160	2.09148	1700.00024	0.0
3.410	9.53	1.6500	560.74	176.35	0.24984	0.80196	2.09148	1700.00024	0.0
3.420	9.37	1.6507	560.74	176.11	0.25031	0.80231	2.09148	1700.00024	0.0
3.430	9.21	1.6514	560.74	175.86	0.25077	0.80266	2.09148	1700.00012	0.0
3.440	9.04	1.6521	560.74	175.62	0.25123	0.80300	2.09148	1700.00012	0.0
3.450	8.88	1.6527	560.74	175.38	0.25169	0.80335	2.09148	1700.00024	0.0
3.460	8.72	1.6534	560.73	175.14	0.25214	0.80369	2.09148	1700.00024	0.0
3.470	8.56	1.6541	560.73	174.90	0.25260	0.80402	2.09148	1700.00024	0.0
3.480	8.39	1.6548	560.73	174.67	0.25305	0.80436	2.09148	1700.00024	0.0
3.490	8.23	1.6554	560.73	174.43	0.25350	0.80469	2.09148	1700.00012	0.0
3.500	8.07	1.6561	560.73	174.20	0.25394	0.80502	2.09148	1700.00012	0.0
3.510	7.90	1.6567	560.73	173.97	0.25439	0.80535	2.09148	1700.00024	0.0
3.520	7.74	1.6574	560.72	173.75	0.25483	0.80567	2.09148	1700.00012	0.0
3.530	7.58	1.6580	560.72	173.52	0.25527	0.80599	2.09148	1700.00012	0.0
3.540	7.42	1.6587	560.72	173.30	0.25570	0.80631	2.09148	1700.00024	0.0
3.550	7.25	1.6593	560.72	173.07	0.25614	0.80663	2.09148	1700.00024	0.0
3.560	7.09	1.6600	560.72	172.85	0.25657	0.80694	2.09148	1700.00024	0.0
3.570	6.93	1.6606	560.72	172.64	0.25700	0.80725	2.09148	1700.00024	0.0
3.580	6.77	1.6612	560.72	172.42	0.25743	0.80756	2.09148	1700.00024	0.0
3.590	6.60	1.6618	560.71	172.21	0.25785	0.80787	2.09148	1700.00012	0.0
3.600	6.44	1.6625	560.71	171.99	0.25827	0.80817	2.09148	1700.00024	0.0
3.610	6.28	1.6631	560.71	171.78	0.25868	0.80847	2.09148	1700.00024	0.0
3.620	6.12	1.6637	560.71	171.58	0.25910	0.80876	2.09148	1700.00024	0.0
3.630	5.95	1.6643	560.71	171.37	0.25951	0.80906	2.09148	1700.00024	0.0
3.640	5.79	1.6649	560.71	171.17	0.25991	0.80935	2.09148	1700.00024	0.0
3.650	5.63	1.6655	560.70	170.97	0.26031	0.80963	2.09148	1700.00024	0.0
3.660	5.47	1.6661	560.70	170.77	0.26071	0.80991	2.09148	1700.00024	0.0
3.670	5.30	1.6667	560.70	170.57	0.26111	0.81020	2.09148	1700.00012	0.0
3.680	5.14	1.6672	560.70	170.38	0.26150	0.81047	2.09148	1700.00012	0.0
3.690	4.98	1.6678	560.70	170.18	0.26189	0.81075	2.09148	1700.00012	0.0
3.700	4.82	1.6684	560.70	169.99	0.26227	0.81102	2.09148	1700.00012	0.0
3.710	4.66	1.6690	560.70	169.81	0.26266	0.81129	2.09148	1700.00049	0.0
3.720	4.50	1.6695	560.69	169.62	0.26303	0.81155	2.09148	1700.00024	0.0
3.730	4.33	1.6701	560.69	169.43	0.26341	0.81181	2.09148	1700.00024	0.0
3.740	4.17	1.6706	560.69	169.25	0.26378	0.81207	2.09148	1700.00024	0.0
3.750	4.01	1.6712	560.69	169.07	0.26415	0.81233	2.09148	1700.00049	0.0
3.760	3.85	1.6717	560.69	168.89	0.26451	0.81258	2.09148	1700.00012	0.0
3.770	3.69	1.6722	560.69	168.72	0.26488	0.81284	2.09148	1700.00012	0.0
3.780	3.53	1.6728	560.68	168.54	0.26524	0.81309	2.09148	1700.00012	0.0
3.790	3.37	1.6733	560.68	168.37	0.26559	0.81333	2.09148	1700.00024	0.0
3.800	3.21	1.6738	560.68	168.20	0.26595	0.81358	2.09148	1700.00012	0.0
3.810	3.04	1.6743	560.68	168.03	0.26630	0.81382	2.09148	1700.00012	0.0

3.820	2.88	1.6748	560.68	167.86	0.26664	0.81406	2.09148	1700.00012	0.0
3.830	2.72	1.6754	560.68	167.69	0.26699	0.81429	2.09148	1700.00012	0.0
3.840	2.56	1.6759	560.68	167.53	0.26733	0.81453	2.09148	1700.00012	0.0
3.850	2.40	1.6764	560.67	167.37	0.26767	0.81476	2.09148	1700.00024	0.0
3.860	2.24	1.6769	560.67	167.20	0.26801	0.81499	2.09148	1700.00012	0.0
3.870	2.08	1.6773	560.67	167.05	0.26834	0.81522	2.09148	1700.00024	0.0
3.880	1.92	1.6778	560.67	166.89	0.26867	0.81544	2.09148	1700.00012	0.0
3.890	1.76	1.6783	560.67	166.73	0.26899	0.81566	2.09148	1700.00024	0.0
3.900	1.60	1.6788	560.67	166.58	0.26932	0.81588	2.09148	1700.00012	0.0
3.910	1.44	1.6793	560.66	166.42	0.26964	0.81610	2.09148	1700.00024	0.0
3.920	1.28	1.6797	560.66	166.27	0.26996	0.81632	2.09148	1700.00024	0.0
3.930	1.12	1.6802	560.66	166.12	0.27027	0.81653	2.09148	1700.00024	0.0
3.940	0.96	1.6807	560.66	165.98	0.27059	0.81674	2.09148	1700.00024	0.0
3.950	0.80	1.6811	560.66	165.83	0.27089	0.81695	2.09148	1700.00024	0.0
3.960	0.64	1.6816	560.66	165.69	0.27120	0.81715	2.09148	1700.00049	0.0
3.970	0.48	1.6820	560.66	165.54	0.27150	0.81736	2.09148	1700.00024	0.0
3.980	0.32	1.6825	560.65	165.40	0.27181	0.81756	2.09148	1700.00012	0.0
3.990	0.16	1.6829	560.65	165.26	0.27210	0.81776	2.09148	1700.00024	0.0
4.000	0.00	1.6833	560.65	165.12	0.27240	0.81795	2.09148	1700.00049	0.0

I PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 1

DISTANCE DELTA-P ENTHALPY TEMPERATURE DENSITY FLOWING VOID FLOW MASS
 FLUX BORON CHF CHFTEMP.
 (M) (KPA) (MJ/KG) (DEG-K) (KG/M3) QUALITY FRACTION (KG/SEC) (KG/M2/SEC) (PPM)
 (MW/M2) (DEG-K)

0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.02926	1699.99988	0.0	0.000000	255.37
0.010	100.03	1.2114	548.31	763.91	0.00000	0.00000	0.02925	1699.71423	0.0	4.575985	580.27
0.020	99.93	1.2122	548.47	763.62	0.00000	0.00000	0.02924	1699.18201	0.0	4.527236	580.16
0.030	99.84	1.2130	548.62	763.33	0.00000	0.00000	0.02923	1698.45264	0.0	4.480401	580.06
0.040	99.74	1.2138	548.78	763.03	0.00000	0.00000	0.02922	1697.57605	0.0	4.435347	579.96
0.050	99.65	1.2146	548.94	762.73	0.00000	0.00000	0.02920	1696.59497	0.0	4.391930	579.86
0.060	99.55	1.2155	549.10	762.42	0.00000	0.00000	0.02918	1695.54285	0.0	4.350041	579.77
0.070	99.46	1.2163	549.27	762.10	0.00000	0.00000	0.02916	1694.44360	0.0	4.309561	579.68
0.080	99.36	1.2172	549.44	761.78	0.00000	0.00000	0.02914	1693.31226	0.0	4.270406	579.59
0.090	99.27	1.2181	549.61	761.46	0.00000	0.00000	0.02912	1692.15393	0.0	4.232490	579.50
0.100	99.17	1.2190	549.78	761.13	0.00000	0.00000	0.02910	1690.96594	0.0	4.195744	579.42
0.110	99.08	1.2199	549.96	760.79	0.00000	0.00000	0.02908	1689.73462	0.0	4.160106	579.34
0.120	98.99	1.2209	550.14	760.45	0.00000	0.00000	0.02906	1688.43066	0.0	4.125532	579.27
0.130	98.89	1.2218	550.32	760.10	0.00000	0.00000	0.02903	1686.99390	0.0	4.091982	579.19
0.140	98.80	1.2228	550.50	759.72	0.00000	0.00004	0.02900	1685.29199	0.0	4.059455	579.12
0.150	98.71	1.2237	550.69	759.03	0.00000	0.00050	0.02897	1683.11609	0.0	4.027971	579.05
0.160	98.61	1.2247	550.88	757.92	0.00001	0.00154	0.02892	1680.55042	0.0	3.997519	578.98
0.170	98.52	1.2257	551.07	756.47	0.00002	0.00303	0.02887	1677.80530	0.0	3.967978	578.92
0.180	98.42	1.2268	551.26	754.79	0.00004	0.00484	0.02883	1675.01550	0.0	3.939209	578.86
0.190	98.32	1.2278	551.46	752.92	0.00007	0.00691	0.02878	1672.25098	0.0	3.911137	578.80
0.200	98.22	1.2288	551.66	750.89	0.00012	0.00919	0.02873	1669.54468	0.0	3.883704	578.74
0.210	98.13	1.2299	551.86	748.71	0.00017	0.01168	0.02869	1666.91199	0.0	3.856867	578.68
0.220	98.03	1.2310	552.07	746.39	0.00025	0.01435	0.02864	1664.36829	0.0	3.830600	578.62
0.230	97.93	1.2321	552.28	743.95	0.00033	0.01719	0.02860	1661.92041	0.0	3.804864	578.57
0.240	97.82	1.2332	552.49	741.38	0.00044	0.02020	0.02856	1659.53479	0.0	3.779639	578.51
0.250	97.72	1.2343	552.70	738.69	0.00056	0.02337	0.02852	1657.12280	0.0	3.754922	578.46
0.260	97.62	1.2355	552.92	735.88	0.00070	0.02671	0.02848	1654.60950	0.0	3.730742	578.41
0.270	97.52	1.2366	553.14	732.95	0.00086	0.03021	0.02843	1652.02429	0.0	3.707114	578.36
0.280	97.42	1.2378	553.36	729.91	0.00104	0.03387	0.02839	1649.51025	0.0	3.684002	578.31
0.290	97.31	1.2390	553.58	726.75	0.00124	0.03768	0.02835	1647.21619	0.0	3.661302	578.27
0.300	97.21	1.2402	553.81	723.48	0.00146	0.04165	0.02831	1645.20300	0.0	3.638915	578.22
0.310	97.11	1.2414	554.04	720.10	0.00171	0.04575	0.02828	1643.38647	0.0	3.616797	578.17
0.320	97.00	1.2426	554.27	716.63	0.00197	0.04999	0.02825	1641.60999	0.0	3.594980	578.13

0.330	96.89	1.2439	554.51	713.04	0.00225	0.05439	0.02822	1639.76001	0.0	3.573534	578.08
0.340	96.79	1.2451	554.75	709.19	0.00257	0.05914	0.02819	1637.85486	0.0	3.553698	578.04
0.350	96.68	1.2464	554.99	705.23	0.00291	0.06406	0.02816	1636.07312	0.0	3.534205	578.00
0.360	96.57	1.2477	555.23	701.15	0.00327	0.06914	0.02813	1634.70227	0.0	3.514957	577.96
0.370	96.45	1.2490	555.48	696.97	0.00365	0.07435	0.02812	1634.05554	0.0	3.495788	577.93
0.380	96.34	1.2503	555.73	692.70	0.00406	0.07969	0.02813	1634.38354	0.0	3.476553	577.89
0.390	96.22	1.2517	555.98	688.37	0.00448	0.08512	0.02815	1635.80286	0.0	3.457144	577.85
0.400	93.67	1.2530	556.24	683.71	0.00494	0.09099	0.02819	1638.29419	0.0	3.437537	577.81
0.410	93.55	1.2544	556.49	679.26	0.00539	0.09659	0.02822	1639.63892	0.0	3.418278	577.76
0.420	93.43	1.2558	556.75	674.65	0.00587	0.10241	0.02822	1639.90125	0.0	3.399851	577.73
0.430	93.31	1.2572	557.01	669.88	0.00637	0.10844	0.02821	1639.19312	0.0	3.382190	577.69
0.440	93.19	1.2586	557.28	664.96	0.00690	0.11470	0.02818	1637.65833	0.0	3.365213	577.66
0.450	93.08	1.2601	557.55	659.90	0.00746	0.12116	0.02815	1635.44800	0.0	3.348820	577.63
0.460	92.96	1.2615	557.82	654.69	0.00804	0.12782	0.02810	1632.70032	0.0	3.332932	577.60
0.470	92.85	1.2630	558.09	649.35	0.00865	0.13466	0.02804	1629.53259	0.0	3.317475	577.57
0.480	92.73	1.2645	558.37	643.89	0.00928	0.14168	0.02798	1626.04236	0.0	3.302389	577.55
0.490	92.62	1.2660	558.65	638.32	0.00994	0.14887	0.02792	1622.30884	0.0	3.287624	577.52
0.500	92.50	1.2675	558.93	632.64	0.01062	0.15620	0.02785	1618.40002	0.0	3.273138	577.50
0.510	92.38	1.2690	559.22	626.86	0.01132	0.16368	0.02778	1614.37561	0.0	3.258896	577.47
0.520	92.27	1.2706	559.51	620.99	0.01204	0.17129	0.02771	1610.28906	0.0	3.244867	577.45
0.530	92.15	1.2722	559.80	615.04	0.01279	0.17901	0.02764	1606.19031	0.0	3.231021	577.43
0.540	92.03	1.2738	560.10	609.03	0.01356	0.18684	0.02757	1602.12378	0.0	3.217329	577.41
0.550	91.91	1.2754	560.40	602.95	0.01435	0.19475	0.02750	1598.13098	0.0	3.203764	577.39
0.560	91.79	1.2770	560.70	596.82	0.01516	0.20274	0.02744	1594.26001	0.0	3.190303	577.37
0.570	91.67	1.2787	561.01	590.65	0.01599	0.21080	0.02737	1590.58264	0.0	3.176908	577.35
0.580	91.54	1.2804	561.32	584.45	0.01684	0.21889	0.02732	1587.23938	0.0	3.163531	577.33
0.590	91.42	1.2821	561.52	578.61	0.01768	0.22675	0.02727	1584.57751	0.0	3.150053	577.30
0.600	91.30	1.2838	561.52	573.01	0.01855	0.23476	0.02723	1582.05310	0.0	3.136520	577.26
0.610	91.17	1.2856	561.52	567.40	0.01943	0.24279	0.02718	1579.51526	0.0	3.123103	577.23
0.620	91.05	1.2873	561.52	561.78	0.02034	0.25084	0.02714	1577.01880	0.0	3.109828	577.19
0.630	90.92	1.2891	561.51	556.15	0.02126	0.25889	0.02710	1574.59180	0.0	3.096670	577.16
0.640	90.80	1.2909	561.51	550.53	0.02221	0.26693	0.02706	1572.19617	0.0	3.083609	577.12
0.650	90.67	1.2927	561.51	544.92	0.02317	0.27496	0.02701	1569.72742	0.0	3.070671	577.09
0.660	90.55	1.2945	561.51	539.49	0.02412	0.28273	0.02697	1567.11133	0.0	3.056266	577.05
0.670	90.43	1.2964	561.51	534.24	0.02505	0.29024	0.02692	1564.41553	0.0	3.040483	577.00
0.680	90.30	1.2982	561.51	529.00	0.02601	0.29773	0.02688	1561.84729	0.0	3.024951	576.96
0.690	90.18	1.3001	561.51	523.79	0.02698	0.30518	0.02684	1559.62036	0.0	3.009552	576.92
0.700	90.05	1.3020	561.51	518.63	0.02796	0.31256	0.02681	1557.80835	0.0	2.994173	576.88
0.710	89.92	1.3039	561.50	513.51	0.02895	0.31988	0.02678	1556.31323	0.0	2.978774	576.83
0.720	89.79	1.3058	561.50	508.45	0.02995	0.32713	0.02676	1554.96497	0.0	2.963409	576.79
0.730	89.67	1.3077	561.50	503.42	0.03097	0.33432	0.02674	1553.65552	0.0	2.948165	576.75
0.740	89.54	1.3096	561.50	498.44	0.03200	0.34145	0.02672	1552.41589	0.0	2.933094	576.70
0.750	89.40	1.3116	561.50	493.50	0.03305	0.34852	0.02670	1551.42078	0.0	2.918174	576.66
0.760	89.27	1.3135	561.50	488.61	0.03410	0.35551	0.02669	1550.94055	0.0	2.903316	576.62
0.770	89.13	1.3155	561.50	483.79	0.03517	0.36240	0.02670	1551.27112	0.0	2.888399	576.58
0.780	88.99	1.3174	561.50	479.04	0.03624	0.36919	0.02672	1552.64819	0.0	2.873301	576.53
0.790	88.85	1.3194	561.49	474.39	0.03731	0.37584	0.02676	1555.14160	0.0	2.857946	576.49
0.800	85.49	1.3214	561.46	469.42	0.03846	0.38295	0.02682	1558.54370	0.0	2.842361	576.44
0.810	85.34	1.3234	561.46	464.99	0.03953	0.38935	0.02687	1561.22546	0.0	2.826958	576.39
0.820	85.20	1.3254	561.46	460.59	0.04061	0.39564	0.02690	1563.02356	0.0	2.811466	576.35
0.830	85.06	1.3274	561.46	456.34	0.04168	0.40171	0.02692	1563.93860	0.0	2.794585	576.30
0.840	84.92	1.3294	561.46	452.12	0.04276	0.40774	0.02692	1564.06030	0.0	2.778310	576.25
0.850	84.79	1.3314	561.46	447.93	0.04386	0.41374	0.02691	1563.51550	0.0	2.762580	576.20
0.860	84.65	1.3334	561.45	443.77	0.04498	0.41969	0.02689	1562.43506	0.0	2.747324	576.16
0.870	84.52	1.3354	561.45	439.65	0.04611	0.42559	0.02686	1560.93811	0.0	2.732478	576.11
0.880	84.38	1.3375	561.45	435.56	0.04726	0.43143	0.02683	1559.12805	0.0	2.717986	576.07
0.890	84.25	1.3395	561.45	431.52	0.04841	0.43721	0.02680	1557.09070	0.0	2.703801	576.03
0.900	84.12	1.3415	561.45	427.52	0.04959	0.44292	0.02676	1554.89990	0.0	2.689884	575.99
0.910	83.99	1.3436	561.45	423.57	0.05077	0.44858	0.02672	1552.61682	0.0	2.676202	575.95
0.920	83.86	1.3457	561.45	419.67	0.05196	0.45416	0.02668	1550.29175	0.0	2.662727	575.91
0.930	83.73	1.3477	561.45	415.81	0.05316	0.45967	0.02664	1547.96545	0.0	2.649435	575.87
0.940	83.59	1.3498	561.44	412.01	0.05438	0.46512	0.02660	1545.67078	0.0	2.636304	575.83

0.950	83.46	1.3519	561.44	408.25	0.05560	0.47049	0.02656	1543.43201	0.0	2.623319	575.79
0.960	83.33	1.3540	561.44	404.54	0.05684	0.47579	0.02653	1541.26526	0.0	2.610465	575.76
0.970	83.19	1.3561	561.44	400.88	0.05808	0.48103	0.02649	1539.17969	0.0	2.597732	575.72
0.980	83.06	1.3582	561.44	397.27	0.05933	0.48619	0.02645	1537.17664	0.0	2.585114	575.68
0.990	82.93	1.3603	561.44	393.78	0.06057	0.49119	0.02642	1535.25183	0.0	2.571025	575.64
1.000	82.79	1.3624	561.44	390.33	0.06181	0.49612	0.02639	1533.39990	0.0	2.557070	575.60
1.010	82.66	1.3646	561.44	386.93	0.06307	0.50098	0.02636	1531.61853	0.0	2.543249	575.55
1.020	82.52	1.3667	561.43	383.58	0.06433	0.50577	0.02633	1529.91650	0.0	2.529557	575.51
1.030	82.39	1.3688	561.43	380.28	0.06560	0.51049	0.02630	1528.29614	0.0	2.515989	575.47
1.040	82.25	1.3710	561.43	377.02	0.06687	0.51515	0.02627	1526.71411	0.0	2.502540	575.43
1.050	82.12	1.3731	561.43	373.81	0.06815	0.51974	0.02625	1525.08093	0.0	2.489229	575.39
1.060	81.98	1.3752	561.43	370.65	0.06944	0.52427	0.02622	1523.34131	0.0	2.476103	575.35
1.070	81.85	1.3774	561.43	367.52	0.07074	0.52873	0.02619	1521.55396	0.0	2.463183	575.31
1.080	81.71	1.3796	561.43	364.44	0.07204	0.53314	0.02616	1519.88184	0.0	2.450435	575.27
1.090	81.57	1.3817	561.43	361.40	0.07336	0.53749	0.02613	1518.47717	0.0	2.437773	575.23
1.100	81.43	1.3839	561.42	358.41	0.07467	0.54176	0.02611	1517.37219	0.0	2.425126	575.19
1.110	81.30	1.3860	561.42	355.46	0.07599	0.54598	0.02610	1516.46948	0.0	2.412476	575.15
1.120	81.15	1.3882	561.42	352.56	0.07732	0.55013	0.02608	1515.63293	0.0	2.399872	575.11
1.130	81.01	1.3904	561.42	349.70	0.07865	0.55422	0.02607	1514.79163	0.0	2.387375	575.07
1.140	80.87	1.3926	561.42	346.88	0.07999	0.55826	0.02606	1513.99048	0.0	2.375015	575.03
1.150	80.73	1.3948	561.42	344.10	0.08133	0.56222	0.02605	1513.38416	0.0	2.362375	574.99
1.160	80.59	1.3969	561.42	341.38	0.08267	0.56612	0.02604	1513.20276	0.0	2.349656	574.95
1.170	80.44	1.3991	561.41	338.69	0.08401	0.56996	0.02605	1513.69556	0.0	2.336896	574.91
1.180	80.29	1.4013	561.41	336.06	0.08535	0.57373	0.02607	1515.05603	0.0	2.324003	574.87
1.190	80.13	1.4035	561.41	333.47	0.08669	0.57743	0.02611	1517.29797	0.0	2.310929	574.83
1.200	75.60	1.4057	561.37	330.58	0.08815	0.58154	0.02616	1520.11401	0.0	2.297722	574.78
1.210	75.44	1.4079	561.37	328.12	0.08949	0.58511	0.02620	1522.60083	0.0	2.284625	574.74
1.220	75.29	1.4100	561.37	325.66	0.09083	0.58862	0.02624	1524.45203	0.0	2.271879	574.70
1.230	75.13	1.4122	561.36	323.24	0.09217	0.59209	0.02626	1525.58325	0.0	2.259550	574.66
1.240	74.98	1.4144	561.36	320.84	0.09353	0.59552	0.02626	1526.03540	0.0	2.247636	574.62
1.250	74.83	1.4165	561.36	318.47	0.09489	0.59891	0.02626	1525.90149	0.0	2.236104	574.58
1.260	74.69	1.4187	561.36	316.13	0.09626	0.60225	0.02625	1525.29065	0.0	2.224908	574.54
1.270	74.54	1.4209	561.36	313.82	0.09763	0.60555	0.02623	1524.30847	0.0	2.214002	574.51
1.280	74.40	1.4231	561.36	311.54	0.09902	0.60881	0.02621	1523.04785	0.0	2.203345	574.47
1.290	74.25	1.4253	561.36	309.29	0.10040	0.61203	0.02619	1521.58838	0.0	2.192900	574.44
1.300	74.11	1.4275	561.35	307.06	0.10180	0.61521	0.02616	1519.99670	0.0	2.182636	574.40
1.310	73.97	1.4296	561.35	304.87	0.10319	0.61835	0.02613	1518.32776	0.0	2.172271	574.37
1.320	73.83	1.4318	561.35	302.71	0.10459	0.62143	0.02610	1516.62659	0.0	2.161788	574.34
1.330	73.68	1.4340	561.35	300.58	0.10599	0.62448	0.02607	1514.92786	0.0	2.151425	574.30
1.340	73.54	1.4362	561.35	298.48	0.10740	0.62749	0.02604	1513.25708	0.0	2.141169	574.27
1.350	73.40	1.4384	561.35	296.40	0.10881	0.63046	0.02602	1511.63159	0.0	2.131005	574.24
1.360	73.25	1.4406	561.35	294.35	0.11022	0.63339	0.02599	1510.06042	0.0	2.120926	574.20
1.370	73.11	1.4428	561.35	292.33	0.11164	0.63628	0.02596	1508.54651	0.0	2.110927	574.17
1.380	72.96	1.4451	561.34	290.33	0.11306	0.63914	0.02594	1507.08643	0.0	2.101004	574.14
1.390	72.82	1.4473	561.34	288.36	0.11448	0.64196	0.02591	1505.67468	0.0	2.091157	574.10
1.400	72.67	1.4495	561.34	286.41	0.11591	0.64474	0.02589	1504.30286	0.0	2.081387	574.07
1.410	72.53	1.4517	561.34	284.49	0.11734	0.64749	0.02587	1502.96680	0.0	2.071695	574.04
1.420	72.38	1.4539	561.34	282.59	0.11877	0.65020	0.02584	1501.67395	0.0	2.062082	574.01
1.430	72.23	1.4561	561.34	280.71	0.12021	0.65288	0.02582	1500.42712	0.0	2.052542	573.97
1.440	72.09	1.4584	561.34	278.86	0.12165	0.65553	0.02580	1499.18384	0.0	2.043072	573.94
1.450	71.94	1.4606	561.33	277.04	0.12309	0.65814	0.02578	1497.85925	0.0	2.033692	573.91
1.460	71.79	1.4628	561.33	275.23	0.12453	0.66072	0.02575	1496.40796	0.0	2.024439	573.88
1.470	71.65	1.4650	561.33	273.45	0.12598	0.66327	0.02573	1494.90356	0.0	2.015079	573.85
1.480	71.50	1.4673	561.33	271.70	0.12743	0.66577	0.02570	1493.51343	0.0	2.005071	573.81
1.490	71.35	1.4695	561.33	269.97	0.12887	0.66825	0.02568	1492.37854	0.0	1.995108	573.78
1.500	71.20	1.4717	561.33	268.26	0.13032	0.67069	0.02567	1491.51331	0.0	1.985127	573.74
1.510	71.05	1.4740	561.33	266.57	0.13177	0.67310	0.02566	1490.81445	0.0	1.975125	573.71
1.520	70.90	1.4762	561.32	264.91	0.13321	0.67548	0.02565	1490.15186	0.0	1.965146	573.68
1.530	70.75	1.4784	561.32	263.27	0.13466	0.67783	0.02563	1489.46387	0.0	1.955240	573.64
1.540	70.59	1.4806	561.32	261.64	0.13611	0.68014	0.02562	1488.81152	0.0	1.945432	573.61
1.550	70.44	1.4829	561.32	260.04	0.13756	0.68243	0.02561	1488.37561	0.0	1.935695	573.57
1.560	70.28	1.4851	561.32	258.46	0.13902	0.68469	0.02562	1488.42200	0.0	1.925958	573.54

1.570	70.12	1.4873	561.32	256.90	0.14046	0.68692	0.02563	1489.23523	0.0	1.916122	573.50
1.580	69.95	1.4895	561.32	255.37	0.14191	0.68911	0.02566	1491.03748	0.0	1.906090	573.47
1.590	69.78	1.4917	561.31	253.86	0.14335	0.69127	0.02571	1493.87976	0.0	1.895802	573.43
1.600	63.97	1.4939	561.26	252.07	0.14493	0.69379	0.02577	1497.53857	0.0	1.885287	573.39
1.610	63.80	1.4961	561.26	250.65	0.14635	0.69588	0.02582	1500.54480	0.0	1.874848	573.35
1.620	63.62	1.4983	561.26	249.20	0.14778	0.69795	0.02586	1502.71106	0.0	1.864780	573.31
1.630	63.45	1.5005	561.25	247.77	0.14921	0.69999	0.02588	1504.02759	0.0	1.855109	573.28
1.640	63.29	1.5026	561.25	246.37	0.15063	0.70200	0.02589	1504.58508	0.0	1.845317	573.24
1.650	63.13	1.5048	561.25	244.98	0.15206	0.70398	0.02589	1504.51086	0.0	1.835858	573.21
1.660	62.97	1.5070	561.25	243.60	0.15349	0.70594	0.02588	1503.93616	0.0	1.826687	573.17
1.670	62.81	1.5092	561.25	242.25	0.15492	0.70788	0.02587	1502.98364	0.0	1.817757	573.14
1.680	62.66	1.5113	561.25	240.91	0.15635	0.70979	0.02585	1501.75879	0.0	1.809027	573.11
1.690	62.50	1.5135	561.25	239.59	0.15778	0.71168	0.02582	1500.34924	0.0	1.800461	573.08
1.700	62.35	1.5157	561.24	238.28	0.15922	0.71355	0.02579	1498.82678	0.0	1.792030	573.05
1.710	62.20	1.5178	561.24	236.99	0.16065	0.71540	0.02577	1497.24829	0.0	1.783711	573.02
1.720	62.04	1.5200	561.24	235.71	0.16208	0.71723	0.02574	1495.65674	0.0	1.775483	572.99
1.730	61.89	1.5222	561.24	234.44	0.16352	0.71903	0.02571	1494.08337	0.0	1.767331	572.96
1.740	61.74	1.5243	561.24	233.19	0.16495	0.72082	0.02569	1492.54907	0.0	1.759243	572.93
1.750	61.58	1.5265	561.24	231.95	0.16639	0.72259	0.02566	1491.06555	0.0	1.751210	572.90
1.760	61.43	1.5287	561.23	230.73	0.16782	0.72434	0.02564	1489.63660	0.0	1.743227	572.87
1.770	61.27	1.5308	561.23	229.52	0.16926	0.72607	0.02561	1488.26038	0.0	1.735292	572.84
1.780	61.12	1.5330	561.23	228.32	0.17069	0.72778	0.02559	1486.93079	0.0	1.727404	572.81
1.790	60.96	1.5352	561.23	227.14	0.17213	0.72947	0.02557	1485.63965	0.0	1.719564	572.78
1.800	60.81	1.5373	561.23	225.97	0.17356	0.73114	0.02555	1484.37695	0.0	1.711406	572.75
1.810	60.65	1.5395	561.23	224.81	0.17499	0.73279	0.02552	1483.13892	0.0	1.703182	572.72
1.820	60.49	1.5416	561.23	223.67	0.17643	0.73443	0.02550	1481.93457	0.0	1.695014	572.69
1.830	60.34	1.5438	561.22	222.54	0.17786	0.73605	0.02548	1480.76807	0.0	1.686898	572.66
1.840	60.18	1.5459	561.22	221.42	0.17929	0.73764	0.02546	1479.59778	0.0	1.678832	572.63
1.850	60.02	1.5481	561.22	220.31	0.18072	0.73923	0.02544	1478.33972	0.0	1.670832	572.60
1.860	59.87	1.5502	561.22	219.22	0.18214	0.74079	0.02542	1476.95117	0.0	1.662933	572.57
1.870	59.71	1.5524	561.22	218.13	0.18357	0.74234	0.02539	1475.51331	0.0	1.655148	572.55
1.880	59.55	1.5545	561.22	217.06	0.18500	0.74387	0.02537	1474.20447	0.0	1.647443	572.52
1.890	59.39	1.5567	561.22	216.00	0.18643	0.74538	0.02535	1473.16980	0.0	1.639749	572.49
1.900	59.23	1.5588	561.21	214.95	0.18785	0.74688	0.02534	1472.41833	0.0	1.632012	572.46
1.910	59.07	1.5609	561.21	213.91	0.18927	0.74836	0.02533	1471.83557	0.0	1.624228	572.43
1.920	58.91	1.5631	561.21	212.89	0.19070	0.74983	0.02532	1471.28687	0.0	1.616440	572.40
1.930	58.74	1.5652	561.21	211.87	0.19212	0.75128	0.02531	1470.71484	0.0	1.608695	572.37
1.940	58.58	1.5673	561.21	210.87	0.19353	0.75272	0.02530	1470.19165	0.0	1.601014	572.34
1.950	58.41	1.5694	561.21	209.87	0.19495	0.75414	0.02530	1469.91809	0.0	1.593370	572.31
1.960	58.24	1.5716	561.20	208.89	0.19636	0.75554	0.02530	1470.18506	0.0	1.584968	572.28
1.970	58.07	1.5737	561.20	207.92	0.19776	0.75692	0.02532	1471.31104	0.0	1.575720	572.24
1.980	57.88	1.5758	561.20	206.97	0.19916	0.75828	0.02536	1473.55872	0.0	1.566257	572.20
1.990	57.69	1.5778	561.20	206.03	0.20054	0.75963	0.02542	1477.03101	0.0	1.556517	572.16
2.000	50.62	1.5799	561.13	204.84	0.20208	0.76128	0.02550	1481.58447	0.0	1.546502	572.12
2.010	50.42	1.5819	561.13	203.96	0.20344	0.76259	0.02556	1485.21008	0.0	1.536546	572.08
2.020	50.23	1.5840	561.13	203.06	0.20480	0.76387	0.02561	1487.80908	0.0	1.526978	572.04
2.030	50.04	1.5860	561.13	202.17	0.20616	0.76514	0.02563	1489.42859	0.0	1.517794	572.00
2.040	49.86	1.5880	561.13	201.30	0.20751	0.76639	0.02565	1490.20044	0.0	1.508958	571.97
2.050	49.69	1.5900	561.12	200.43	0.20886	0.76763	0.02565	1490.28162	0.0	1.500420	571.93
2.060	49.52	1.5921	561.12	199.57	0.21020	0.76885	0.02564	1489.82227	0.0	1.492134	571.90
2.070	49.36	1.5941	561.12	198.73	0.21154	0.77005	0.02562	1488.96021	0.0	1.484055	571.87
2.080	49.19	1.5961	561.12	197.90	0.21288	0.77124	0.02561	1487.81262	0.0	1.476145	571.83
2.090	49.03	1.5981	561.12	197.07	0.21422	0.77242	0.02558	1486.47571	0.0	1.468370	571.80
2.100	48.87	1.6000	561.12	196.26	0.21555	0.77359	0.02556	1485.02661	0.0	1.460703	571.77
2.110	48.70	1.6020	561.11	195.45	0.21688	0.77474	0.02553	1483.52466	0.0	1.453123	571.74
2.120	48.54	1.6040	561.11	194.65	0.21820	0.77588	0.02551	1482.01514	0.0	1.445490	571.71
2.130	48.38	1.6060	561.11	193.86	0.21953	0.77701	0.02548	1480.52917	0.0	1.437552	571.68
2.140	48.22	1.6079	561.11	193.08	0.22084	0.77812	0.02545	1479.08667	0.0	1.429661	571.65
2.150	48.06	1.6099	561.11	192.31	0.22216	0.77923	0.02543	1477.69812	0.0	1.421809	571.62
2.160	47.89	1.6119	561.11	191.54	0.22347	0.78032	0.02541	1476.36597	0.0	1.413994	571.58
2.170	47.73	1.6138	561.10	190.79	0.22478	0.78140	0.02539	1475.08728	0.0	1.406212	571.55
2.180	47.57	1.6158	561.10	190.04	0.22608	0.78247	0.02536	1473.85559	0.0	1.398465	571.52

2.190	47.40	1.6177	561.10	189.30	0.22738	0.78352	0.02534	1472.66089	0.0	1.390753	571.49
2.200	47.24	1.6196	561.10	188.56	0.22867	0.78457	0.02532	1471.49365	0.0	1.383079	571.46
2.210	47.08	1.6215	561.10	187.84	0.22996	0.78560	0.02530	1470.34985	0.0	1.375443	571.43
2.220	46.91	1.6235	561.10	187.12	0.23125	0.78663	0.02529	1469.23865	0.0	1.367849	571.40
2.230	46.75	1.6254	561.10	186.41	0.23253	0.78764	0.02527	1468.16492	0.0	1.360289	571.36
2.240	46.58	1.6273	561.09	185.71	0.23381	0.78864	0.02525	1467.08813	0.0	1.352765	571.33
2.250	46.42	1.6292	561.09	185.02	0.23508	0.78963	0.02523	1465.92395	0.0	1.345288	571.30
2.260	46.26	1.6311	561.09	184.33	0.23635	0.79061	0.02521	1464.62878	0.0	1.337888	571.27
2.270	46.09	1.6329	561.09	183.65	0.23761	0.79159	0.02518	1463.28271	0.0	1.330577	571.24
2.280	45.93	1.6348	561.09	182.98	0.23887	0.79255	0.02516	1462.06409	0.0	1.323328	571.21
2.290	45.76	1.6367	561.09	182.31	0.24013	0.79349	0.02515	1461.12390	0.0	1.314146	571.17
2.300	45.60	1.6385	561.08	181.66	0.24137	0.79443	0.02513	1460.47791	0.0	1.304925	571.13
2.310	45.43	1.6404	561.08	181.01	0.24261	0.79536	0.02513	1460.01758	0.0	1.295660	571.09
2.320	45.26	1.6422	561.08	180.37	0.24384	0.79627	0.02512	1459.60889	0.0	1.286385	571.05
2.330	45.09	1.6440	561.08	179.74	0.24506	0.79717	0.02511	1459.19434	0.0	1.277141	571.01
2.340	44.92	1.6459	561.08	179.11	0.24628	0.79806	0.02511	1458.84631	0.0	1.267945	570.97
2.350	44.74	1.6477	561.08	178.50	0.24749	0.79894	0.02511	1458.76733	0.0	1.258773	570.93
2.360	44.56	1.6494	561.07	177.89	0.24868	0.79981	0.02511	1459.25037	0.0	1.249568	570.89
2.370	44.38	1.6512	561.07	177.29	0.24987	0.80066	0.02514	1460.62500	0.0	1.240249	570.85
2.380	44.18	1.6529	561.07	176.70	0.25104	0.80150	0.02518	1463.17334	0.0	1.230736	570.81
2.390	43.97	1.6547	561.07	176.12	0.25220	0.80233	0.02525	1467.02539	0.0	1.220973	570.76
2.400	35.72	1.6564	560.99	175.30	0.25352	0.80345	0.02533	1472.07275	0.0	1.210955	570.71
2.410	35.51	1.6580	560.99	174.77	0.25465	0.80425	0.02540	1476.10461	0.0	1.200973	570.67
2.420	35.31	1.6597	560.99	174.22	0.25577	0.80504	0.02545	1479.05042	0.0	1.191322	570.62
2.430	35.11	1.6614	560.99	173.67	0.25688	0.80582	0.02549	1480.97095	0.0	1.181992	570.58
2.440	34.93	1.6630	560.98	173.13	0.25799	0.80659	0.02551	1482.00916	0.0	1.172948	570.54
2.450	34.75	1.6646	560.98	172.60	0.25909	0.80734	0.02551	1482.33057	0.0	1.164515	570.50
2.460	34.57	1.6663	560.98	172.08	0.26019	0.80809	0.02551	1482.09155	0.0	1.156404	570.46
2.470	34.40	1.6679	560.98	171.56	0.26127	0.80883	0.02550	1481.43274	0.0	1.148458	570.42
2.480	34.23	1.6695	560.98	171.05	0.26236	0.80955	0.02548	1480.47534	0.0	1.140644	570.39
2.490	34.07	1.6711	560.98	170.55	0.26343	0.81027	0.02546	1479.31848	0.0	1.132933	570.35
2.500	33.90	1.6727	560.97	170.05	0.26450	0.81098	0.02544	1478.04150	0.0	1.125305	570.32
2.510	33.74	1.6743	560.97	169.56	0.26556	0.81168	0.02541	1476.70581	0.0	1.117738	570.28
2.520	33.57	1.6758	560.97	169.08	0.26662	0.81237	0.02539	1475.35803	0.0	1.110220	570.25
2.530	33.41	1.6774	560.97	168.60	0.26767	0.81306	0.02537	1474.03027	0.0	1.102739	570.22
2.540	33.24	1.6789	560.97	168.12	0.26871	0.81373	0.02535	1472.74304	0.0	1.095286	570.18
2.550	33.08	1.6805	560.97	167.65	0.26975	0.81440	0.02532	1471.50769	0.0	1.087856	570.15
2.560	32.91	1.6820	560.96	167.19	0.27078	0.81506	0.02530	1470.32715	0.0	1.080446	570.11
2.570	32.75	1.6835	560.96	166.73	0.27180	0.81572	0.02528	1469.19897	0.0	1.073054	570.08
2.580	32.58	1.6850	560.96	166.28	0.27282	0.81637	0.02527	1468.11670	0.0	1.065680	570.04
2.590	32.42	1.6865	560.96	165.83	0.27383	0.81701	0.02525	1467.07153	0.0	1.058324	570.01
2.600	32.25	1.6880	560.96	165.39	0.27483	0.81764	0.02523	1466.05420	0.0	1.050990	569.97
2.610	32.08	1.6895	560.96	164.95	0.27583	0.81826	0.02521	1465.06042	0.0	1.043426	569.94
2.620	31.92	1.6910	560.95	164.52	0.27682	0.81888	0.02520	1464.09949	0.0	1.035633	569.90
2.630	31.75	1.6924	560.95	164.09	0.27780	0.81949	0.02518	1463.17664	0.0	1.027860	569.86
2.640	31.59	1.6939	560.95	163.67	0.27877	0.82009	0.02517	1462.25403	0.0	1.020105	569.83
2.650	31.42	1.6953	560.95	163.25	0.27974	0.82069	0.02515	1461.25073	0.0	1.012379	569.79
2.660	31.26	1.6967	560.95	162.84	0.28070	0.82128	0.02513	1460.12048	0.0	1.004702	569.75
2.670	31.09	1.6982	560.95	162.43	0.28165	0.82186	0.02511	1458.93518	0.0	0.9970867	569.72
2.680	30.93	1.6996	560.95	162.03	0.28260	0.82243	0.02509	1457.86560	0.0	0.9895116	569.68
2.690	30.76	1.7010	560.94	161.63	0.28354	0.82300	0.02508	1457.06287	0.0	0.9819328	569.64
2.700	30.59	1.7023	560.94	161.24	0.28447	0.82356	0.02507	1456.55359	0.0	0.9743138	569.60
2.710	30.42	1.7037	560.94	160.85	0.28539	0.82411	0.02506	1456.24451	0.0	0.9666474	569.57
2.720	30.25	1.7051	560.94	160.47	0.28630	0.82466	0.02506	1456.01135	0.0	0.9589570	569.53
2.730	30.08	1.7064	560.94	160.09	0.28721	0.82520	0.02505	1455.79553	0.0	0.9512734	569.49
2.740	29.91	1.7077	560.94	159.71	0.28811	0.82573	0.02505	1455.65955	0.0	0.9436101	569.45
2.750	29.73	1.7091	560.93	159.35	0.28900	0.82625	0.02505	1455.79114	0.0	0.9359502	569.41
2.760	29.55	1.7104	560.93	158.98	0.28987	0.82677	0.02507	1456.46863	0.0	0.9282528	569.37
2.770	29.37	1.7117	560.93	158.62	0.29074	0.82728	0.02509	1458.00854	0.0	0.9205883	569.33
2.780	29.16	1.7129	560.93	158.27	0.29159	0.82778	0.02514	1460.68384	0.0	0.9131562	569.29
2.790	28.95	1.7142	560.93	157.93	0.29243	0.82828	0.02521	1464.62097	0.0	0.9055278	569.25
2.800	19.71	1.7154	560.84	157.34	0.29345	0.82905	0.02529	1469.71204	0.0	0.8977019	569.20

2.810	19.49	1.7166	560.84	157.04	0.29426	0.82953	0.02536	1473.85522	0.0	0.8898888	569.16
2.820	19.29	1.7178	560.83	156.71	0.29507	0.83000	0.02542	1476.95923	0.0	0.8823065	569.12
2.830	19.09	1.7190	560.83	156.38	0.29587	0.83046	0.02545	1479.06799	0.0	0.8749511	569.08
2.840	18.90	1.7201	560.83	156.06	0.29666	0.83092	0.02548	1480.31116	0.0	0.8677998	569.04
2.850	18.72	1.7213	560.83	155.74	0.29746	0.83137	0.02549	1480.84705	0.0	0.8608208	569.01
2.860	18.54	1.7225	560.83	155.43	0.29824	0.83182	0.02548	1480.82861	0.0	0.8539826	568.97
2.870	18.37	1.7236	560.83	155.12	0.29902	0.83226	0.02548	1480.38916	0.0	0.8472579	568.93
2.880	18.20	1.7248	560.82	154.81	0.29979	0.83269	0.02546	1479.64648	0.0	0.8406248	568.90
2.890	18.03	1.7259	560.82	154.51	0.30056	0.83312	0.02545	1478.69739	0.0	0.8340619	568.86
2.900	17.87	1.7271	560.82	154.22	0.30132	0.83354	0.02543	1477.61987	0.0	0.8275524	568.83
2.910	17.71	1.7282	560.82	153.93	0.30207	0.83396	0.02541	1476.47510	0.0	0.8210823	568.79
2.920	17.54	1.7293	560.82	153.64	0.30281	0.83437	0.02539	1475.30823	0.0	0.8146416	568.76
2.930	17.38	1.7304	560.82	153.35	0.30355	0.83478	0.02537	1474.15234	0.0	0.8082206	568.72
2.940	17.22	1.7315	560.81	153.07	0.30429	0.83518	0.02535	1473.02893	0.0	0.8028586	568.70
2.950	17.05	1.7325	560.81	152.79	0.30501	0.83558	0.02533	1471.95007	0.0	0.7975067	568.67
2.960	16.89	1.7336	560.81	152.52	0.30574	0.83597	0.02531	1470.92029	0.0	0.7921619	568.64
2.970	16.72	1.7347	560.81	152.24	0.30645	0.83636	0.02530	1469.93872	0.0	0.7868226	568.61
2.980	16.56	1.7357	560.81	151.97	0.30717	0.83675	0.02528	1468.99988	0.0	0.7814893	568.58
2.990	16.39	1.7368	560.81	151.70	0.30787	0.83713	0.02527	1468.09644	0.0	0.7761620	568.55
3.000	16.23	1.7378	560.81	151.44	0.30858	0.83750	0.02525	1467.21985	0.0	0.7708418	568.52
3.010	16.07	1.7389	560.80	151.18	0.30927	0.83788	0.02524	1466.36182	0.0	0.7655303	568.49
3.020	15.90	1.7399	560.80	150.92	0.30996	0.83825	0.02522	1465.51477	0.0	0.7602291	568.46
3.030	15.74	1.7409	560.80	150.66	0.31065	0.83861	0.02521	1464.67200	0.0	0.7549384	568.43
3.040	15.57	1.7419	560.80	150.41	0.31133	0.83898	0.02519	1463.82983	0.0	0.7496602	568.40
3.050	15.41	1.7429	560.80	150.15	0.31200	0.83933	0.02518	1462.98535	0.0	0.7443947	568.37
3.060	15.24	1.7439	560.80	149.91	0.31267	0.83969	0.02516	1462.13733	0.0	0.7391428	568.34
3.070	15.08	1.7449	560.79	149.66	0.31334	0.84004	0.02515	1461.28650	0.0	0.7339040	568.31
3.080	14.92	1.7459	560.79	149.42	0.31399	0.84038	0.02513	1460.43433	0.0	0.7286790	568.28
3.090	14.75	1.7468	560.79	149.18	0.31465	0.84073	0.02512	1459.58276	0.0	0.7234667	568.25
3.100	14.59	1.7478	560.79	148.94	0.31530	0.84107	0.02510	1458.73499	0.0	0.7186626	568.23
3.110	14.43	1.7487	560.79	148.70	0.31594	0.84140	0.02509	1457.89355	0.0	0.7140021	568.20
3.120	14.26	1.7497	560.79	148.47	0.31658	0.84173	0.02508	1457.06165	0.0	0.7093533	568.17
3.130	14.10	1.7506	560.79	148.24	0.31721	0.84206	0.02506	1456.24170	0.0	0.7047150	568.15
3.140	13.94	1.7516	560.78	148.01	0.31784	0.84239	0.02505	1455.43579	0.0	0.7000868	568.12
3.150	13.77	1.7525	560.78	147.78	0.31846	0.84271	0.02503	1454.64563	0.0	0.6954680	568.09
3.160	13.61	1.7534	560.78	147.56	0.31908	0.84303	0.02502	1453.87231	0.0	0.6908585	568.07
3.170	13.45	1.7543	560.78	147.34	0.31970	0.84335	0.02501	1453.11646	0.0	0.6862575	568.04
3.180	13.28	1.7552	560.78	147.12	0.32031	0.84366	0.02500	1452.37817	0.0	0.6816654	568.01
3.190	13.12	1.7561	560.78	146.90	0.32091	0.84397	0.02498	1451.65698	0.0	0.6770811	567.99
3.200	12.96	1.7570	560.77	146.69	0.32151	0.84427	0.02497	1450.95227	0.0	0.6725051	567.96
3.210	12.79	1.7579	560.77	146.47	0.32211	0.84458	0.02496	1450.26294	0.0	0.6679369	567.93
3.220	12.63	1.7588	560.77	146.26	0.32270	0.84488	0.02495	1449.58838	0.0	0.6633769	567.90
3.230	12.47	1.7596	560.77	146.05	0.32329	0.84517	0.02494	1448.92700	0.0	0.6588247	567.88
3.240	12.30	1.7605	560.77	145.85	0.32387	0.84547	0.02492	1448.27759	0.0	0.6542808	567.85
3.250	12.14	1.7614	560.77	145.64	0.32444	0.84576	0.02491	1447.63879	0.0	0.6497447	567.82
3.260	11.98	1.7622	560.77	145.44	0.32501	0.84604	0.02490	1447.01001	0.0	0.6454863	567.80
3.270	11.81	1.7631	560.76	145.24	0.32558	0.84633	0.02489	1446.39001	0.0	0.6415058	567.77
3.280	11.65	1.7639	560.76	145.05	0.32614	0.84661	0.02488	1445.77808	0.0	0.6375332	567.75
3.290	11.49	1.7647	560.76	144.85	0.32670	0.84689	0.02487	1445.17371	0.0	0.6335687	567.72
3.300	11.32	1.7655	560.76	144.65	0.32726	0.84717	0.02486	1444.57605	0.0	0.6296123	567.70
3.310	11.16	1.7664	560.76	144.46	0.32781	0.84744	0.02485	1443.98523	0.0	0.6256636	567.68
3.320	11.00	1.7672	560.76	144.27	0.32836	0.84771	0.02484	1443.40088	0.0	0.6217228	567.65
3.330	10.83	1.7680	560.75	144.08	0.32890	0.84798	0.02483	1442.82288	0.0	0.6177900	567.63
3.340	10.67	1.7688	560.75	143.90	0.32944	0.84825	0.02482	1442.25134	0.0	0.6138651	567.60
3.350	10.51	1.7696	560.75	143.71	0.32997	0.84851	0.02481	1441.68652	0.0	0.6099478	567.58
3.360	10.35	1.7703	560.75	143.53	0.33050	0.84877	0.02480	1441.12842	0.0	0.6060382	567.55
3.370	10.18	1.7711	560.75	143.35	0.33102	0.84903	0.02479	1440.57727	0.0	0.6021361	567.53
3.380	10.02	1.7719	560.75	143.17	0.33155	0.84928	0.02478	1440.03345	0.0	0.5982415	567.50
3.390	9.86	1.7727	560.74	142.99	0.33206	0.84954	0.02477	1439.49695	0.0	0.5943539	567.48
3.400	9.69	1.7734	560.74	142.81	0.33257	0.84979	0.02476	1438.96838	0.0	0.5904737	567.46
3.410	9.53	1.7742	560.74	142.64	0.33308	0.85003	0.02476	1438.44727	0.0	0.5866002	567.43
3.420	9.37	1.7749	560.74	142.47	0.33359	0.85028	0.02475	1437.93408	0.0	0.5828693	567.41

3.430	9.21	1.7757	560.74	142.30	0.33409	0.85052	0.02474	1437.42871	0.0	0.5795518	567.39
3.440	9.04	1.7764	560.74	142.13	0.33459	0.85076	0.02473	1436.93152	0.0	0.5762407	567.36
3.450	8.88	1.7771	560.74	141.96	0.33508	0.85100	0.02472	1436.44214	0.0	0.5729360	567.34
3.460	8.72	1.7779	560.73	141.79	0.33557	0.85124	0.02471	1435.96069	0.0	0.5696374	567.32
3.470	8.55	1.7786	560.73	141.63	0.33606	0.85147	0.02470	1435.48694	0.0	0.5663449	567.30
3.480	8.39	1.7793	560.73	141.47	0.33654	0.85170	0.02470	1435.02112	0.0	0.5630584	567.28
3.490	8.23	1.7800	560.73	141.31	0.33702	0.85193	0.02469	1434.56287	0.0	0.5597777	567.26
3.500	8.07	1.7807	560.73	141.14	0.33750	0.85216	0.02468	1434.11230	0.0	0.5565031	567.24
3.510	7.90	1.7814	560.73	140.99	0.33797	0.85239	0.02467	1433.66907	0.0	0.5532342	567.22
3.520	7.74	1.7821	560.72	140.83	0.33844	0.85261	0.02467	1433.23303	0.0	0.5499711	567.19
3.530	7.58	1.7828	560.72	140.67	0.33890	0.85283	0.02466	1432.80420	0.0	0.5467138	567.17
3.540	7.42	1.7835	560.72	140.52	0.33936	0.85305	0.02465	1432.38220	0.0	0.5434621	567.15
3.550	7.25	1.7842	560.72	140.37	0.33982	0.85327	0.02464	1431.96704	0.0	0.5402159	567.13
3.560	7.09	1.7848	560.72	140.21	0.34028	0.85349	0.02464	1431.55872	0.0	0.5369754	567.11
3.570	6.93	1.7855	560.72	140.06	0.34073	0.85370	0.02463	1431.15686	0.0	0.5337402	567.09
3.580	6.76	1.7862	560.72	139.92	0.34118	0.85391	0.02462	1430.76147	0.0	0.5305106	567.06
3.590	6.60	1.7868	560.71	139.77	0.34162	0.85412	0.02462	1430.37268	0.0	0.5261934	567.04
3.600	6.44	1.7875	560.71	139.62	0.34206	0.85433	0.02461	1429.99036	0.0	0.5218813	567.01
3.610	6.28	1.7881	560.71	139.48	0.34249	0.85453	0.02460	1429.61438	0.0	0.5175742	566.98
3.620	6.11	1.7887	560.71	139.34	0.34292	0.85473	0.02460	1429.24463	0.0	0.5132723	566.95
3.630	5.95	1.7894	560.71	139.20	0.34334	0.85493	0.02459	1428.88135	0.0	0.5089753	566.92
3.640	5.79	1.7900	560.71	139.06	0.34376	0.85512	0.02458	1428.52405	0.0	0.5046832	566.89
3.650	5.63	1.7906	560.70	138.93	0.34417	0.85532	0.02458	1428.17322	0.0	0.5003958	566.86
3.660	5.47	1.7912	560.70	138.79	0.34458	0.85551	0.02457	1427.82837	0.0	0.4961131	566.83
3.670	5.30	1.7918	560.70	138.66	0.34498	0.85569	0.02457	1427.48926	0.0	0.4918348	566.80
3.680	5.14	1.7924	560.70	138.53	0.34538	0.85588	0.02456	1427.15637	0.0	0.4875609	566.77
3.690	4.98	1.7930	560.70	138.40	0.34577	0.85606	0.02456	1426.82947	0.0	0.4832912	566.74
3.700	4.82	1.7935	560.70	138.28	0.34616	0.85624	0.02455	1426.50818	0.0	0.4790258	566.71
3.710	4.66	1.7941	560.70	138.15	0.34654	0.85642	0.02454	1426.19275	0.0	0.4747641	566.68
3.720	4.50	1.7947	560.69	138.03	0.34692	0.85659	0.02454	1425.88318	0.0	0.4705066	566.65
3.730	4.33	1.7952	560.69	137.91	0.34729	0.85677	0.02453	1425.57910	0.0	0.4662526	566.62
3.740	4.17	1.7958	560.69	137.79	0.34766	0.85694	0.02453	1425.28064	0.0	0.4620023	566.59
3.750	4.01	1.7963	560.69	137.67	0.34802	0.85710	0.02452	1424.98767	0.0	0.4581726	566.56
3.760	3.85	1.7968	560.69	137.56	0.34838	0.85727	0.02452	1424.70032	0.0	0.4544860	566.53
3.770	3.69	1.7973	560.69	137.44	0.34873	0.85743	0.02451	1424.41846	0.0	0.4508031	566.51
3.780	3.53	1.7979	560.68	137.33	0.34908	0.85759	0.02451	1424.14160	0.0	0.4471239	566.48
3.790	3.37	1.7984	560.68	137.22	0.34943	0.85775	0.02450	1423.87000	0.0	0.4434480	566.45
3.800	3.21	1.7989	560.68	137.11	0.34977	0.85791	0.02450	1423.60388	0.0	0.4397757	566.43
3.810	3.04	1.7994	560.68	137.00	0.35011	0.85806	0.02450	1423.34302	0.0	0.4361066	566.40
3.820	2.88	1.7999	560.68	136.89	0.35044	0.85821	0.02449	1423.08691	0.0	0.4324408	566.37
3.830	2.72	1.8004	560.68	136.78	0.35077	0.85836	0.02449	1422.83606	0.0	0.4287781	566.35
3.840	2.56	1.8008	560.68	136.68	0.35109	0.85851	0.02448	1422.59021	0.0	0.4251185	566.32
3.850	2.40	1.8013	560.67	136.58	0.35141	0.85866	0.02448	1422.34937	0.0	0.4214619	566.29
3.860	2.24	1.8018	560.67	136.48	0.35172	0.85880	0.02447	1422.11340	0.0	0.4178082	566.26
3.870	2.08	1.8022	560.67	136.38	0.35204	0.85894	0.02447	1421.88220	0.0	0.4141571	566.24
3.880	1.92	1.8027	560.67	136.28	0.35234	0.85908	0.02447	1421.65588	0.0	0.4105089	566.21
3.890	1.76	1.8031	560.67	136.18	0.35265	0.85922	0.02446	1421.43445	0.0	0.4068632	566.18
3.900	1.60	1.8036	560.67	136.09	0.35294	0.85935	0.02446	1421.21753	0.0	0.4032201	566.15
3.910	1.44	1.8040	560.66	135.99	0.35324	0.85949	0.02446	1421.00525	0.0	0.3995793	566.12
3.920	1.28	1.8044	560.66	135.90	0.35353	0.85962	0.02445	1420.79736	0.0	0.3959409	566.10
3.930	1.12	1.8049	560.66	135.81	0.35381	0.85975	0.02445	1420.59412	0.0	0.3923047	566.07
3.940	0.96	1.8053	560.66	135.72	0.35409	0.85988	0.02444	1420.39514	0.0	0.3886708	566.04
3.950	0.80	1.8057	560.66	135.63	0.35437	0.86000	0.02444	1420.20056	0.0	0.3850388	566.01
3.960	0.64	1.8061	560.66	135.54	0.35464	0.86012	0.02444	1420.00964	0.0	0.3814090	565.98
3.970	0.48	1.8065	560.66	135.46	0.35491	0.86024	0.02443	1419.82251	0.0	0.3777808	565.95
3.980	0.32	1.8069	560.65	135.38	0.35517	0.86036	0.02443	1419.63843	0.0	0.3741548	565.92
3.990	0.16	1.8072	560.65	135.29	0.35543	0.86048	0.02443	1419.45667	0.0	0.3705304	565.89
4.000	0.00	1.8076	560.65	135.21	0.35569	0.86059	0.02443	1419.27625	0.0	0.3669080	565.86

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 1

DISTANCE D(SLIP) (M)	VAP.GEN. WRT VAPOR FLOW RATE(KG/S)	EFF. ENTHALPY DENS.(KG/M3)	EFF. MOMENTUM DENS.(KG/M3)	SLIP RATIO ALPHA(KG/S)	D(VGR) WRT FLOW RATE	D(VGR) WRT ALPHA
0.005	763.909	763.909			0.0000	
0.015	763.621	763.621			0.0000	
0.025	763.328	763.328			0.0000	
0.035	763.030	763.030			0.0000	
0.045	762.727	762.727			0.0000	
0.055	762.418	762.418			0.0000	
0.065	762.103	762.103			0.0000	
0.075	761.784	761.784			0.0000	
0.085	761.458	761.458			0.0000	
0.095	761.128	761.128			0.0000	
0.105	760.791	760.791			0.0000	
0.115	760.450	760.450			0.0000	
0.125	760.102	760.102			0.0000	
0.135	763.846	759.715			0.0000	
0.145	780.407	759.015			0.0000	
0.155	787.562	757.870			0.0000	
0.165	798.999	756.389			0.0000	
0.175	804.872	754.668			0.0000	
0.185	788.347	752.760			0.0000	
0.195	800.020	750.694			0.0000	
0.205	798.026	748.489			0.0000	
0.215	775.721	746.154			0.0000	
0.225	768.531	743.698			0.0000	
0.235	760.998	741.126			0.0000	
0.245	753.643	738.440			0.0000	
0.255	746.522	735.638			0.0000	
0.265	739.324	732.720			0.0000	
0.275	737.080	729.692			0.0000	
0.285	728.116	726.550			0.0000	
0.295	719.050	723.303			0.0000	
0.305	709.954	719.953			0.0000	
0.315	700.881	716.499			0.0001	
0.325	691.865	712.933			0.0001	
0.335	682.596	709.113			0.0001	
0.345	673.475	705.168			0.0001	
0.355	664.555	701.107			0.0001	
0.365	655.887	696.941			0.0001	
0.375	647.519	692.688			0.0001	
0.385	639.479	688.362			0.0001	
0.395	631.285	683.708			0.0001	
0.405	623.931	679.257			0.0002	
0.415	616.733	674.646			0.0002	
0.425	609.710	669.876			0.0002	
0.435	602.861	664.949			0.0002	
0.445	596.196	659.874			0.0002	
0.455	589.710	654.656			0.0002	
0.465	583.397	649.305			0.0002	
0.475	577.242	643.828			0.0003	
0.485	571.229	638.235			0.0003	
0.495	565.333	632.534			0.0003	
0.505	559.531	626.734			0.0003	
0.515	553.806	620.844			0.0003	
0.525	548.136	614.873			0.0004	
0.535	542.499	608.832			0.0004	
0.545	536.876	602.730			0.0004	
0.555	531.254	596.578			0.0004	

0.565	525.625	590.385	0.0004
0.575	519.971	584.165	0.0005
0.585	514.626	578.305	0.0005
0.595	509.521	572.678	0.0005
0.605	504.382	567.040	0.0005
0.615	499.213	561.390	0.0006
0.625	493.992	555.737	0.0006
0.635	488.743	550.089	0.0006
0.645	483.459	544.450	0.0006
0.655	478.279	538.993	0.0007
0.665	473.207	533.716	0.0007
0.675	468.129	528.454	0.0007
0.685	463.041	523.221	0.0007
0.695	457.979	518.030	0.0007
0.705	452.929	512.888	0.0008
0.715	447.905	507.792	0.0008
0.725	442.894	502.740	0.0008
0.735	437.930	497.727	0.0009
0.745	432.986	492.759	0.0009
0.755	428.078	487.843	0.0009
0.765	423.228	482.992	0.0009
0.775	418.447	478.221	0.0010
0.785	413.739	473.539	0.0010
0.795	408.689	468.535	0.0010
0.805	404.195	464.073	0.0011
0.815	399.718	459.643	0.0011
0.825	395.367	455.370	0.0011
0.835	391.065	451.120	0.0012
0.845	386.785	446.897	0.0012
0.855	382.565	442.705	0.0012
0.865	378.381	438.549	0.0012
0.875	374.243	434.432	0.0013
0.885	370.159	430.356	0.0013
0.895	366.131	426.324	0.0013
0.905	362.163	422.338	0.0014
0.915	358.256	418.398	0.0014
0.925	354.394	414.506	0.0014
0.935	350.600	410.662	0.0014
0.945	346.867	406.867	0.0015
0.955	343.184	403.121	0.0015
0.965	339.564	399.424	0.0015
0.975	335.998	395.776	0.0016
0.985	332.531	392.241	0.0016
0.995	329.133	388.756	0.0016
1.005	325.787	385.317	0.0017
1.015	322.529	381.927	0.0017
1.025	319.268	378.583	0.0017
1.035	316.112	375.286	0.0018
1.045	312.982	372.034	0.0018
1.055	309.912	368.825	0.0018
1.065	306.920	365.659	0.0019
1.075	303.936	362.534	0.0019
1.085	301.042	359.453	0.0019
1.095	298.169	356.417	0.0020
1.105	295.366	353.425	0.0020
1.115	292.637	350.478	0.0020
1.125	289.966	347.571	0.0021
1.135	287.302	344.704	0.0021
1.145	284.691	341.887	0.0021
1.155	282.116	339.113	0.0022
1.165	279.619	336.384	0.0022
1.175	277.173	333.702	0.0022

1.185	274.784	331.068	0.0023
1.195	272.096	328.130	0.0023
1.205	269.802	325.628	0.0023
1.215	267.575	323.124	0.0024
1.225	265.358	320.650	0.0024
1.235	263.173	318.206	0.0025
1.245	261.036	315.790	0.0025
1.255	258.968	313.403	0.0025
1.265	256.891	311.045	0.0026
1.275	254.827	308.716	0.0026
1.285	252.860	306.416	0.0026
1.295	250.922	304.143	0.0027
1.305	249.009	301.903	0.0027
1.315	247.121	299.693	0.0027
1.325	245.248	297.512	0.0028
1.335	243.433	295.357	0.0028
1.345	241.648	293.230	0.0028
1.355	239.864	291.130	0.0029
1.365	238.156	289.055	0.0029
1.375	236.437	287.007	0.0029
1.385	234.749	284.984	0.0030
1.395	233.112	282.986	0.0030
1.405	231.495	281.013	0.0030
1.415	229.912	279.064	0.0031
1.425	228.336	277.139	0.0031
1.435	226.768	275.237	0.0031
1.445	225.282	273.358	0.0032
1.455	223.795	271.501	0.0032
1.465	222.343	269.669	0.0032
1.475	220.849	267.864	0.0033
1.485	219.438	266.082	0.0033
1.495	218.065	264.323	0.0033
1.505	216.705	262.586	0.0034
1.515	215.359	260.871	0.0034
1.525	214.029	259.178	0.0035
1.535	212.740	257.505	0.0035
1.545	211.418	255.853	0.0035
1.555	210.137	254.222	0.0036
1.565	208.898	252.613	0.0036
1.575	207.724	251.027	0.0036
1.585	206.486	249.466	0.0037
1.595	205.102	247.631	0.0037
1.605	203.960	246.151	0.0038
1.615	202.853	244.657	0.0038
1.625	201.749	243.182	0.0039
1.635	200.664	241.727	0.0039
1.645	199.497	240.289	0.0039
1.655	198.523	238.868	0.0040
1.665	197.435	237.464	0.0040
1.675	196.454	236.076	0.0040
1.685	195.424	234.704	0.0041
1.695	194.447	233.347	0.0041
1.705	193.444	232.005	0.0041
1.715	192.508	230.677	0.0042
1.725	191.535	229.364	0.0042
1.735	190.594	228.065	0.0042
1.745	189.723	226.779	0.0043
1.755	188.792	225.507	0.0043
1.765	187.895	224.249	0.0043
1.775	187.035	223.004	0.0044
1.785	186.152	221.772	0.0044
1.795	185.265	220.554	0.0044

1.805	184.455	219.350	0.0045
1.815	183.645	218.159	0.0045
1.825	182.790	216.981	0.0045
1.835	181.997	215.815	0.0046
1.845	181.181	214.662	0.0046
1.855	180.408	213.521	0.0046
1.865	179.592	212.393	0.0047
1.875	178.797	211.276	0.0047
1.885	178.089	210.170	0.0047
1.895	177.317	209.076	0.0048
1.905	176.653	207.993	0.0048
1.915	175.885	206.922	0.0048
1.925	175.116	205.862	0.0049
1.935	174.460	204.813	0.0049
1.945	173.765	203.775	0.0049
1.955	173.088	202.750	0.0050
1.965	172.416	201.740	0.0050
1.975	171.741	200.744	0.0050
1.985	171.022	199.763	0.0051
1.995	170.198	198.530	0.0051
2.005	169.624	197.607	0.0052
2.015	168.996	196.667	0.0052
2.025	168.352	195.740	0.0053
2.035	167.711	194.825	0.0053
2.045	167.195	193.920	0.0054
2.055	166.573	193.026	0.0054
2.065	166.025	192.143	0.0054
2.075	165.462	191.269	0.0055
2.085	164.812	190.406	0.0055
2.095	164.309	189.551	0.0055
2.105	163.845	188.706	0.0055
2.115	163.222	187.869	0.0056
2.125	162.675	187.042	0.0056
2.135	162.169	186.223	0.0056
2.145	161.648	185.413	0.0057
2.155	161.207	184.612	0.0057
2.165	160.733	183.819	0.0057
2.175	160.115	183.034	0.0057
2.185	159.708	182.258	0.0058
2.195	159.213	181.490	0.0058
2.205	158.762	180.729	0.0058
2.215	158.335	179.977	0.0058
2.225	157.801	179.233	0.0059
2.235	157.390	178.497	0.0059
2.245	156.925	177.768	0.0059
2.255	156.430	177.047	0.0060
2.265	156.001	176.334	0.0060
2.275	155.560	175.628	0.0060
2.285	155.185	174.931	0.0060
2.295	154.718	174.243	0.0061
2.305	154.238	173.563	0.0061
2.315	153.825	172.891	0.0061
2.325	153.496	172.228	0.0062
2.335	153.122	171.574	0.0062
2.345	152.689	170.928	0.0062
2.355	152.307	170.291	0.0062
2.365	151.911	169.663	0.0063
2.375	151.535	169.045	0.0063
2.385	151.092	168.438	0.0064
2.395	150.625	167.591	0.0064
2.405	150.270	167.029	0.0065
2.415	149.987	166.450	0.0065

2.425	149.611	165.879	0.0065
2.435	149.226	165.316	0.0066
2.445	148.832	164.761	0.0066
2.455	148.564	164.212	0.0066
2.465	148.235	163.671	0.0067
2.475	147.983	163.136	0.0067
2.485	147.637	162.608	0.0067
2.495	147.368	162.087	0.0067
2.505	147.005	161.571	0.0068
2.515	146.773	161.061	0.0068
2.525	146.340	160.558	0.0068
2.535	146.125	160.059	0.0068
2.545	145.902	159.567	0.0068
2.555	145.553	159.079	0.0069
2.565	145.260	158.598	0.0069
2.575	144.983	158.121	0.0069
2.585	144.731	157.651	0.0069
2.595	144.383	157.185	0.0069
2.605	144.204	156.725	0.0070
2.615	143.929	156.271	0.0070
2.625	143.647	155.822	0.0070
2.635	143.358	155.378	0.0070
2.645	143.150	154.941	0.0070
2.655	142.847	154.508	0.0071
2.665	142.625	154.081	0.0071
2.675	142.397	153.659	0.0071
2.685	142.163	153.243	0.0071
2.695	141.921	152.831	0.0071
2.705	141.673	152.424	0.0072
2.715	141.419	152.022	0.0072
2.725	141.248	151.625	0.0072
2.735	140.949	151.234	0.0072
2.745	140.705	150.848	0.0072
2.755	140.606	150.468	0.0073
2.765	140.315	150.093	0.0073
2.775	140.200	149.725	0.0073
2.785	139.984	149.364	0.0074
2.795	139.589	148.768	0.0074
2.805	139.328	148.441	0.0075
2.815	139.153	148.096	0.0075
2.825	138.911	147.755	0.0075
2.835	138.759	147.419	0.0076
2.845	138.602	147.088	0.0076
2.855	138.376	146.761	0.0076
2.865	138.211	146.438	0.0076
2.875	138.105	146.119	0.0076
2.885	137.835	145.805	0.0077
2.895	137.655	145.495	0.0077
2.905	137.471	145.189	0.0077
2.915	137.406	144.887	0.0077
2.925	137.213	144.588	0.0077
2.935	137.016	144.292	0.0077
2.945	136.785	144.000	0.0077
2.955	136.676	143.710	0.0077
2.965	136.496	143.423	0.0078
2.975	136.283	143.140	0.0078
2.985	136.260	142.859	0.0078
2.995	136.010	142.581	0.0078
3.005	135.883	142.307	0.0078
3.015	135.684	142.035	0.0078
3.025	135.648	141.766	0.0078
3.035	135.383	141.500	0.0078

3.045	135.271	141.237	0.0079
3.055	135.126	140.977	0.0079
3.065	134.978	140.719	0.0079
3.075	134.827	140.465	0.0079
3.085	134.672	140.213	0.0079
3.095	134.612	139.964	0.0079
3.105	134.451	139.718	0.0079
3.115	134.287	139.474	0.0079
3.125	134.219	139.232	0.0080
3.135	134.049	138.993	0.0080
3.145	133.976	138.756	0.0080
3.155	133.799	138.522	0.0080
3.165	133.720	138.290	0.0080
3.175	133.538	138.061	0.0080
3.185	133.353	137.834	0.0080
3.195	133.266	137.609	0.0080
3.205	133.176	137.387	0.0080
3.215	133.010	137.167	0.0081
3.225	132.914	136.949	0.0081
3.235	132.816	136.734	0.0081
3.245	132.687	136.521	0.0081
3.255	132.611	136.310	0.0081
3.265	132.477	136.101	0.0081
3.275	132.397	135.895	0.0081
3.285	132.286	135.690	0.0081
3.295	132.173	135.487	0.0081
3.305	131.956	135.286	0.0081
3.315	131.838	135.087	0.0082
3.325	131.820	134.891	0.0082
3.335	131.698	134.696	0.0082
3.345	131.573	134.503	0.0082
3.355	131.549	134.312	0.0082
3.365	131.420	134.123	0.0082
3.375	131.289	133.935	0.0082
3.385	131.155	133.750	0.0082
3.395	131.047	133.567	0.0082
3.405	130.909	133.385	0.0082
3.415	130.845	133.206	0.0083
3.425	130.730	133.028	0.0083
3.435	130.690	132.851	0.0083
3.445	130.516	132.676	0.0083
3.455	130.473	132.503	0.0083
3.465	130.427	132.331	0.0083
3.475	130.276	132.161	0.0083
3.485	130.227	131.993	0.0083
3.495	130.098	131.826	0.0083
3.505	130.019	131.660	0.0083
3.515	129.992	131.496	0.0083
3.525	129.831	131.334	0.0084
3.535	129.668	131.173	0.0084
3.545	129.714	131.014	0.0084
3.555	129.547	130.856	0.0084
3.565	129.484	130.700	0.0084
3.575	129.393	130.545	0.0084
3.585	129.327	130.392	0.0084
3.595	129.285	130.242	0.0084
3.605	129.214	130.093	0.0084
3.615	129.141	129.946	0.0084
3.625	129.066	129.801	0.0084
3.635	128.883	129.658	0.0085
3.645	128.803	129.517	0.0085
3.655	128.722	129.378	0.0085

3.665	128.746	129.241	0.0085
3.675	128.660	129.105	0.0085
3.685	128.492	128.972	0.0085
3.695	128.484	128.840	0.0085
3.705	128.392	128.711	0.0085
3.715	128.325	128.583	0.0085
3.725	128.311	128.457	0.0085
3.735	128.240	128.333	0.0085
3.745	128.115	128.211	0.0085
3.755	128.148	128.090	0.0085
3.765	128.045	127.971	0.0085
3.775	127.914	127.853	0.0086
3.785	127.943	127.737	0.0086
3.795	127.809	127.623	0.0086
3.805	127.726	127.510	0.0086
3.815	127.723	127.399	0.0086
3.825	127.610	127.289	0.0086
3.835	127.604	127.181	0.0086
3.845	127.488	127.074	0.0086
3.855	127.478	126.969	0.0086
3.865	127.359	126.866	0.0086
3.875	127.347	126.764	0.0086
3.885	127.224	126.663	0.0086
3.895	127.208	126.564	0.0086
3.905	127.192	126.467	0.0086
3.915	127.173	126.371	0.0086
3.925	127.044	126.276	0.0087
3.935	127.022	126.183	0.0087
3.945	126.999	126.092	0.0087
3.955	126.975	126.002	0.0087
3.965	126.949	125.914	0.0087
3.975	126.921	125.827	0.0087
3.985	126.809	125.741	0.0087
3.995	126.752	125.657	0.0087

I PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 2

	DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
	FLUX	BORON	CHF	CHF TEMP.		QUALITY	FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)	
	(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)						
	(MW/M2)		(DEG-K)								
0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.11706	1700.00012	0.0	0.000000	255.37
0.010	100.03	1.2114	548.31	763.91	0.00000	0.00000	0.11704	1699.69971	0.0	4.575207	580.27
0.020	99.93	1.2121	548.46	763.63	0.00000	0.00000	0.11700	1699.14514	0.0	4.525735	580.16
0.030	99.84	1.2129	548.61	763.34	0.00000	0.00000	0.11695	1698.39453	0.0	4.478220	580.05
0.040	99.74	1.2137	548.77	763.05	0.00000	0.00000	0.11689	1697.50195	0.0	4.432511	579.95
0.050	99.65	1.2146	548.93	762.75	0.00000	0.00000	0.11682	1696.51208	0.0	4.388468	579.85
0.060	99.55	1.2154	549.09	762.44	0.00000	0.00000	0.11675	1695.45789	0.0	4.345981	579.76
0.070	99.46	1.2163	549.25	762.14	0.00000	0.00000	0.11667	1694.36255	0.0	4.304934	579.66
0.080	99.36	1.2171	549.42	761.82	0.00000	0.00000	0.11660	1693.23999	0.0	4.265229	579.57
0.090	99.27	1.2180	549.59	761.50	0.00000	0.00000	0.11652	1692.09583	0.0	4.226792	579.49
0.100	99.17	1.2189	549.76	761.17	0.00000	0.00000	0.11644	1690.92883	0.0	4.189543	579.41
0.110	99.08	1.2198	549.93	760.84	0.00000	0.00000	0.11635	1689.72986	0.0	4.153414	579.32
0.120	98.99	1.2207	550.11	760.51	0.00000	0.00000	0.11627	1688.48083	0.0	4.118366	579.25
0.130	98.89	1.2216	550.29	760.16	0.00000	0.00000	0.11618	1687.14868	0.0	4.084342	579.17
0.140	98.80	1.2226	550.47	759.82	0.00000	0.00000	0.11607	1685.67578	0.0	4.051315	579.10
0.150	98.71	1.2235	550.65	759.35	0.00000	0.00016	0.11596	1683.93860	0.0	4.019276	579.03
0.160	98.61	1.2245	550.84	758.50	0.00000	0.00084	0.11581	1681.79590	0.0	3.988236	578.96
0.170	98.52	1.2255	551.03	757.25	0.00001	0.00207	0.11564	1679.36511	0.0	3.958166	578.89

0.180	98.42	1.2265	551.22	755.72	0.00003	0.00367	0.11547	1676.82007	0.0	3.928929	578.83
0.190	98.32	1.2275	551.41	753.98	0.00005	0.00557	0.11529	1674.26514	0.0	3.900434	578.77
0.200	98.22	1.2286	551.61	752.06	0.00009	0.00770	0.11512	1671.75024	0.0	3.872602	578.71
0.210	98.13	1.2296	551.81	749.99	0.00014	0.01004	0.11495	1669.29834	0.0	3.845392	578.65
0.220	98.03	1.2307	552.01	747.78	0.00020	0.01257	0.11478	1666.92664	0.0	3.818768	578.59
0.230	97.93	1.2318	552.22	745.44	0.00027	0.01528	0.11463	1664.64355	0.0	3.792692	578.53
0.240	97.82	1.2329	552.42	742.98	0.00037	0.01815	0.11447	1662.41919	0.0	3.767142	578.48
0.250	97.72	1.2340	552.63	740.39	0.00047	0.02119	0.11432	1660.17712	0.0	3.742112	578.42
0.260	97.62	1.2351	552.85	737.68	0.00060	0.02439	0.11416	1657.85291	0.0	3.717624	578.37
0.270	97.52	1.2362	553.06	734.85	0.00075	0.02776	0.11399	1655.47021	0.0	3.693688	578.32
0.280	97.42	1.2374	553.28	731.91	0.00091	0.03128	0.11384	1653.15051	0.0	3.670265	578.27
0.290	97.31	1.2385	553.50	728.86	0.00110	0.03495	0.11369	1651.02832	0.0	3.647273	578.22
0.300	97.21	1.2397	553.73	725.70	0.00130	0.03877	0.11356	1649.14587	0.0	3.624618	578.17
0.310	97.11	1.2409	553.95	722.43	0.00153	0.04273	0.11344	1647.43323	0.0	3.602259	578.13
0.320	97.00	1.2421	554.18	719.06	0.00177	0.04684	0.11333	1645.75818	0.0	3.580231	578.08
0.330	96.89	1.2434	554.41	715.58	0.00204	0.05109	0.11321	1644.02917	0.0	3.558579	578.04
0.340	96.79	1.2446	554.65	711.85	0.00233	0.05569	0.11309	1642.26965	0.0	3.538542	577.99
0.350	96.68	1.2459	554.88	708.00	0.00266	0.06045	0.11297	1640.64893	0.0	3.518843	577.95
0.360	96.57	1.2471	555.12	704.04	0.00300	0.06537	0.11289	1639.43872	0.0	3.499381	577.92
0.370	96.46	1.2484	555.37	699.98	0.00336	0.07042	0.11286	1638.94910	0.0	3.480007	577.88
0.380	96.34	1.2497	555.61	695.83	0.00375	0.07559	0.11289	1639.44568	0.0	3.460571	577.84
0.390	96.22	1.2511	555.86	691.62	0.00415	0.08085	0.11300	1641.05334	0.0	3.440973	577.79
0.400	93.66	1.2524	556.11	687.09	0.00459	0.08656	0.11318	1643.65454	0.0	3.421215	577.75
0.410	93.54	1.2537	556.37	682.76	0.00502	0.09199	0.11329	1645.16248	0.0	3.401807	577.71
0.420	93.43	1.2551	556.62	678.28	0.00547	0.09764	0.11331	1645.56152	0.0	3.383218	577.67
0.430	93.31	1.2565	556.88	673.63	0.00596	0.10351	0.11327	1644.97083	0.0	3.365408	577.64
0.440	93.19	1.2579	557.14	668.84	0.00647	0.10959	0.11317	1643.55896	0.0	3.348285	577.60
0.450	93.08	1.2593	557.40	663.90	0.00700	0.11588	0.11303	1641.49414	0.0	3.331742	577.57
0.460	92.96	1.2607	557.67	658.82	0.00756	0.12237	0.11286	1638.92200	0.0	3.315694	577.54
0.470	92.85	1.2621	557.94	653.61	0.00815	0.12904	0.11265	1635.96106	0.0	3.300067	577.51
0.480	92.73	1.2636	558.21	648.27	0.00876	0.13589	0.11243	1632.70386	0.0	3.284798	577.49
0.490	92.62	1.2651	558.49	642.82	0.00939	0.14290	0.11219	1629.22461	0.0	3.269843	577.46
0.500	92.50	1.2666	558.77	637.27	0.01005	0.15006	0.11194	1625.58386	0.0	3.255160	577.44
0.510	92.38	1.2681	559.05	631.61	0.01072	0.15737	0.11168	1621.83398	0.0	3.240724	577.41
0.520	92.27	1.2696	559.33	625.86	0.01143	0.16482	0.11142	1618.02185	0.0	3.226499	577.39
0.530	92.15	1.2712	559.62	620.02	0.01215	0.17238	0.11115	1614.18994	0.0	3.212462	577.37
0.540	92.03	1.2728	559.91	614.12	0.01289	0.18006	0.11089	1610.37610	0.0	3.198590	577.34
0.550	91.91	1.2744	560.21	608.14	0.01366	0.18783	0.11063	1606.61340	0.0	3.184856	577.32
0.560	91.79	1.2760	560.51	602.11	0.01444	0.19568	0.11038	1602.93628	0.0	3.171243	577.30
0.570	91.67	1.2776	560.81	596.03	0.01525	0.20361	0.11013	1599.38501	0.0	3.157728	577.28
0.580	91.54	1.2793	561.11	589.91	0.01607	0.21160	0.10990	1596.01416	0.0	3.144283	577.26
0.590	91.42	1.2809	561.42	583.77	0.01691	0.21962	0.10969	1592.89783	0.0	3.130881	577.24
0.600	91.30	1.2826	561.52	578.17	0.01774	0.22739	0.10952	1590.47449	0.0	3.117394	577.21
0.610	91.17	1.2843	561.52	572.61	0.01860	0.23534	0.10935	1588.06226	0.0	3.103884	577.17
0.620	91.05	1.2861	561.52	567.04	0.01949	0.24331	0.10919	1585.69104	0.0	3.090513	577.14
0.630	90.92	1.2878	561.51	561.46	0.02039	0.25129	0.10903	1583.37927	0.0	3.077263	577.10
0.640	90.80	1.2896	561.51	555.88	0.02131	0.25927	0.10887	1581.08801	0.0	3.064125	577.06
0.650	90.67	1.2914	561.51	550.31	0.02224	0.26725	0.10871	1578.71741	0.0	3.051115	577.03
0.660	90.55	1.2931	561.51	544.91	0.02317	0.27498	0.10854	1576.20862	0.0	3.036638	576.99
0.670	90.43	1.2950	561.51	539.68	0.02408	0.28245	0.10836	1573.62292	0.0	3.020768	576.94
0.680	90.30	1.2968	561.51	534.47	0.02501	0.28991	0.10819	1571.14355	0.0	3.005150	576.90
0.690	90.18	1.2986	561.51	529.28	0.02595	0.29733	0.10804	1568.95740	0.0	2.989681	576.86
0.700	90.05	1.3005	561.51	524.13	0.02691	0.30470	0.10791	1567.12903	0.0	2.974259	576.82
0.710	89.92	1.3023	561.50	519.02	0.02788	0.31201	0.10780	1565.57751	0.0	2.958852	576.77
0.720	89.80	1.3042	561.50	513.95	0.02886	0.31926	0.10771	1564.16125	0.0	2.943506	576.73
0.730	89.67	1.3061	561.50	508.92	0.02985	0.32645	0.10761	1562.79504	0.0	2.928292	576.69
0.740	89.54	1.3080	561.50	503.93	0.03086	0.33359	0.10753	1561.51831	0.0	2.913243	576.64
0.750	89.41	1.3099	561.50	498.99	0.03188	0.34066	0.10746	1560.50195	0.0	2.898333	576.60
0.760	89.27	1.3118	561.50	494.09	0.03291	0.34767	0.10742	1560.01526	0.0	2.883477	576.56
0.770	89.14	1.3137	561.50	489.26	0.03395	0.35458	0.10745	1560.37256	0.0	2.868555	576.52
0.780	89.00	1.3156	561.50	484.51	0.03500	0.36137	0.10755	1561.85339	0.0	2.853439	576.47
0.790	88.85	1.3176	561.49	479.85	0.03604	0.36803	0.10774	1564.58154	0.0	2.838041	576.43

0.800	85.48	1.3195	561.46	474.88	0.03716	0.37514	0.10799	1568.33606	0.0	2.822381	576.38
0.810	85.34	1.3215	561.46	470.45	0.03821	0.38153	0.10819	1571.18713	0.0	2.806909	576.33
0.820	85.20	1.3234	561.46	466.04	0.03926	0.38783	0.10832	1572.99316	0.0	2.791411	576.28
0.830	85.06	1.3254	561.46	461.79	0.04030	0.39392	0.10837	1573.81824	0.0	2.774563	576.23
0.840	84.92	1.3274	561.46	457.54	0.04136	0.39999	0.10837	1573.80933	0.0	2.758345	576.19
0.850	84.78	1.3293	561.46	453.33	0.04244	0.40602	0.10833	1573.13281	0.0	2.742675	576.14
0.860	84.65	1.3313	561.45	449.14	0.04353	0.41201	0.10824	1571.94299	0.0	2.727475	576.09
0.870	84.52	1.3333	561.45	444.99	0.04464	0.41795	0.10813	1570.36780	0.0	2.712669	576.05
0.880	84.38	1.3353	561.45	440.87	0.04576	0.42383	0.10801	1568.51038	0.0	2.698200	576.01
0.890	84.25	1.3373	561.45	436.80	0.04690	0.42965	0.10787	1566.45398	0.0	2.684022	575.97
0.900	84.12	1.3393	561.45	432.78	0.04804	0.43541	0.10771	1564.26611	0.0	2.670100	575.93
0.910	83.99	1.3413	561.45	428.80	0.04920	0.44111	0.10756	1562.00256	0.0	2.656404	575.89
0.920	83.86	1.3433	561.45	424.86	0.05037	0.44673	0.10740	1559.70837	0.0	2.642906	575.85
0.930	83.73	1.3454	561.45	420.98	0.05155	0.45229	0.10724	1557.41943	0.0	2.629587	575.81
0.940	83.59	1.3474	561.44	417.14	0.05274	0.45778	0.10709	1555.16370	0.0	2.616428	575.77
0.950	83.46	1.3495	561.44	413.35	0.05394	0.46319	0.10694	1552.96252	0.0	2.603415	575.73
0.960	83.33	1.3515	561.44	409.61	0.05515	0.46854	0.10679	1550.82983	0.0	2.590534	575.69
0.970	83.19	1.3536	561.44	405.92	0.05636	0.47382	0.10665	1548.77283	0.0	2.577778	575.65
0.980	83.06	1.3557	561.44	402.28	0.05759	0.47902	0.10651	1546.79199	0.0	2.565141	575.61
0.990	82.93	1.3577	561.44	398.76	0.05880	0.48407	0.10638	1544.88208	0.0	2.551035	575.57
1.000	82.79	1.3598	561.44	395.28	0.06002	0.48904	0.10625	1543.03943	0.0	2.537066	575.53
1.010	82.66	1.3619	561.44	391.85	0.06125	0.49394	0.10613	1541.26233	0.0	2.523237	575.49
1.020	82.52	1.3640	561.43	388.47	0.06249	0.49878	0.10601	1539.55872	0.0	2.509542	575.45
1.030	82.39	1.3661	561.43	385.14	0.06373	0.50355	0.10590	1537.93103	0.0	2.495976	575.41
1.040	82.25	1.3682	561.43	381.85	0.06498	0.50825	0.10579	1536.34155	0.0	2.482533	575.36
1.050	82.12	1.3703	561.43	378.61	0.06623	0.51288	0.10568	1534.71375	0.0	2.469232	575.32
1.060	81.98	1.3724	561.43	375.41	0.06750	0.51745	0.10556	1533.99866	0.0	2.456110	575.28
1.070	81.85	1.3745	561.43	372.26	0.06877	0.52197	0.10544	1531.24792	0.0	2.443184	575.24
1.080	81.71	1.3766	561.43	369.15	0.07005	0.52642	0.10533	1529.60193	0.0	2.430425	575.20
1.090	81.57	1.3788	561.43	366.08	0.07134	0.53080	0.10523	1528.19202	0.0	2.417761	575.16
1.100	81.44	1.3809	561.42	363.06	0.07263	0.53513	0.10515	1527.04565	0.0	2.405130	575.13
1.110	81.30	1.3830	561.42	360.08	0.07392	0.53938	0.10509	1526.08069	0.0	2.392518	575.09
1.120	81.16	1.3851	561.42	357.14	0.07522	0.54358	0.10502	1525.18359	0.0	2.379965	575.05
1.130	81.02	1.3873	561.42	354.25	0.07653	0.54771	0.10496	1524.29810	0.0	2.367520	575.01
1.140	80.88	1.3894	561.42	351.40	0.07784	0.55179	0.10491	1523.47217	0.0	2.355205	574.97
1.150	80.73	1.3916	561.42	348.60	0.07915	0.55580	0.10486	1522.85767	0.0	2.342602	574.93
1.160	80.59	1.3937	561.42	345.84	0.08047	0.55974	0.10485	1522.68652	0.0	2.329916	574.89
1.170	80.44	1.3959	561.41	343.14	0.08178	0.56361	0.10489	1523.23157	0.0	2.317183	574.85
1.180	80.29	1.3980	561.41	340.48	0.08310	0.56741	0.10499	1524.73486	0.0	2.304306	574.80
1.190	80.13	1.4001	561.41	337.87	0.08441	0.57114	0.10517	1527.27722	0.0	2.291217	574.76
1.200	75.60	1.4023	561.37	334.96	0.08583	0.57527	0.10539	1530.57886	0.0	2.277949	574.72
1.210	75.44	1.4044	561.37	332.50	0.08713	0.57885	0.10558	1533.31750	0.0	2.264796	574.67
1.220	75.28	1.4065	561.37	330.02	0.08844	0.58239	0.10572	1535.23120	0.0	2.252066	574.63
1.230	75.13	1.4086	561.36	327.57	0.08975	0.58589	0.10579	1536.31604	0.0	2.239799	574.59
1.240	74.98	1.4108	561.36	325.15	0.09108	0.58936	0.10581	1536.67761	0.0	2.227963	574.55
1.250	74.83	1.4129	561.36	322.76	0.09242	0.59278	0.10580	1536.45007	0.0	2.216513	574.51
1.260	74.69	1.4150	561.36	320.39	0.09376	0.59616	0.10575	1535.76599	0.0	2.205393	574.47
1.270	74.54	1.4172	561.36	318.06	0.09511	0.59950	0.10568	1534.73938	0.0	2.194549	574.44
1.280	74.40	1.4193	561.36	315.75	0.09646	0.60279	0.10559	1533.46265	0.0	2.183941	574.40
1.290	74.25	1.4215	561.36	313.48	0.09782	0.60605	0.10549	1532.01160	0.0	2.173530	574.37
1.300	74.11	1.4236	561.35	311.23	0.09919	0.60926	0.10539	1530.44727	0.0	2.163291	574.34
1.310	73.97	1.4258	561.35	309.01	0.10056	0.61243	0.10527	1528.81812	0.0	2.152943	574.30
1.320	73.83	1.4279	561.35	306.83	0.10193	0.61555	0.10516	1527.16345	0.0	2.142471	574.27
1.330	73.68	1.4301	561.35	304.67	0.10330	0.61863	0.10505	1525.51392	0.0	2.132117	574.23
1.340	73.54	1.4322	561.35	302.54	0.10468	0.62168	0.10493	1523.89209	0.0	2.121867	574.20
1.350	73.40	1.4344	561.35	300.44	0.10606	0.62468	0.10483	1522.31262	0.0	2.111713	574.17
1.360	73.25	1.4365	561.35	298.37	0.10745	0.62764	0.10472	1520.78320	0.0	2.101644	574.13
1.370	73.11	1.4387	561.35	296.33	0.10884	0.63057	0.10462	1519.30615	0.0	2.091659	574.10
1.380	72.96	1.4409	561.34	294.31	0.11023	0.63345	0.10452	1517.87939	0.0	2.081752	574.07
1.390	72.82	1.4430	561.34	292.31	0.11163	0.63630	0.10443	1516.49719	0.0	2.071924	574.03
1.400	72.67	1.4452	561.34	290.34	0.11303	0.63912	0.10433	1515.15234	0.0	2.062175	574.00
1.410	72.53	1.4474	561.34	288.40	0.11443	0.64190	0.10424	1513.84119	0.0	2.052507	573.97

1.420	72.38	1.4496	561.34	286.48	0.11583	0.64464	0.10415	1512.57031	0.0	2.042921	573.94
1.430	72.23	1.4517	561.34	284.59	0.11724	0.64735	0.10407	1511.34155	0.0	2.033409	573.90
1.440	72.09	1.4539	561.34	282.72	0.11865	0.65002	0.10399	1510.11816	0.0	2.023971	573.87
1.450	71.94	1.4561	561.33	280.87	0.12007	0.65266	0.10390	1508.82690	0.0	2.014623	573.84
1.460	71.79	1.4583	561.33	279.04	0.12148	0.65527	0.10380	1507.42834	0.0	2.005396	573.81
1.470	71.65	1.4605	561.33	277.24	0.12290	0.65785	0.10370	1505.98633	0.0	1.996054	573.78
1.480	71.50	1.4627	561.33	275.47	0.12432	0.66038	0.10361	1504.64514	0.0	1.986064	573.74
1.490	71.35	1.4649	561.33	273.72	0.12574	0.66288	0.10353	1503.52612	0.0	1.976126	573.71
1.500	71.20	1.4670	561.33	272.00	0.12715	0.66535	0.10347	1502.64197	0.0	1.966188	573.67
1.510	71.05	1.4692	561.33	270.29	0.12857	0.66778	0.10342	1501.90503	0.0	1.956247	573.64
1.520	70.90	1.4714	561.32	268.61	0.12999	0.67019	0.10337	1501.20691	0.0	1.946338	573.61
1.530	70.75	1.4736	561.32	266.95	0.13141	0.67256	0.10332	1500.50073	0.0	1.936505	573.57
1.540	70.60	1.4758	561.32	265.31	0.13283	0.67490	0.10328	1499.84680	0.0	1.926762	573.54
1.550	70.44	1.4780	561.32	263.69	0.13426	0.67721	0.10325	1499.41931	0.0	1.917083	573.50
1.560	70.29	1.4801	561.32	262.10	0.13568	0.67950	0.10325	1499.48059	0.0	1.907405	573.47
1.570	70.12	1.4823	561.32	260.53	0.13709	0.68174	0.10331	1500.33203	0.0	1.897632	573.43
1.580	69.95	1.4845	561.32	258.98	0.13850	0.68395	0.10344	1502.23901	0.0	1.887666	573.40
1.590	69.78	1.4866	561.31	257.46	0.13990	0.68612	0.10366	1505.31323	0.0	1.877439	573.36
1.600	63.97	1.4887	561.26	255.67	0.14144	0.68864	0.10393	1509.34277	0.0	1.866967	573.32
1.610	63.79	1.4909	561.26	254.24	0.14282	0.69074	0.10415	1512.54565	0.0	1.856563	573.28
1.620	63.62	1.4930	561.26	252.79	0.14421	0.69281	0.10431	1514.75378	0.0	1.846567	573.24
1.630	63.45	1.4951	561.25	251.36	0.14560	0.69487	0.10439	1516.02380	0.0	1.836990	573.21
1.640	63.29	1.4972	561.25	249.94	0.14700	0.69689	0.10443	1516.50403	0.0	1.827296	573.17
1.650	63.13	1.4994	561.25	248.53	0.14840	0.69890	0.10442	1516.35803	0.0	1.817927	573.14
1.660	62.97	1.5015	561.25	247.15	0.14980	0.70088	0.10437	1515.73804	0.0	1.808837	573.10
1.670	62.81	1.5036	561.25	245.78	0.15120	0.70284	0.10431	1514.77173	0.0	1.799974	573.07
1.680	62.66	1.5058	561.25	244.42	0.15260	0.70477	0.10422	1513.56201	0.0	1.791297	573.04
1.690	62.50	1.5079	561.25	243.09	0.15401	0.70668	0.10413	1512.19092	0.0	1.782772	573.01
1.700	62.35	1.5100	561.24	241.76	0.15541	0.70857	0.10403	1510.72241	0.0	1.774373	572.98
1.710	62.20	1.5121	561.24	240.46	0.15681	0.71044	0.10392	1509.20679	0.0	1.766079	572.95
1.720	62.04	1.5143	561.24	239.16	0.15822	0.71229	0.10382	1507.68188	0.0	1.757873	572.92
1.730	61.89	1.5164	561.24	237.88	0.15962	0.71411	0.10371	1506.17493	0.0	1.749741	572.89
1.740	61.74	1.5185	561.24	236.62	0.16103	0.71592	0.10361	1504.70410	0.0	1.741673	572.86
1.750	61.58	1.5206	561.24	235.37	0.16243	0.71771	0.10352	1503.27905	0.0	1.733662	572.83
1.760	61.43	1.5227	561.23	234.13	0.16384	0.71947	0.10342	1501.90356	0.0	1.725704	572.80
1.770	61.27	1.5249	561.23	232.91	0.16525	0.72122	0.10333	1500.57532	0.0	1.717796	572.77
1.780	61.12	1.5270	561.23	231.70	0.16665	0.72295	0.10324	1499.28894	0.0	1.709937	572.74
1.790	60.96	1.5291	561.23	230.50	0.16806	0.72466	0.10315	1498.03748	0.0	1.702129	572.71
1.800	60.81	1.5312	561.23	229.32	0.16946	0.72635	0.10307	1496.81238	0.0	1.694009	572.68
1.810	60.65	1.5333	561.23	228.15	0.17086	0.72802	0.10299	1495.61047	0.0	1.685826	572.65
1.820	60.49	1.5354	561.23	227.00	0.17227	0.72967	0.10291	1494.43921	0.0	1.677700	572.62
1.830	60.34	1.5376	561.22	225.85	0.17367	0.73130	0.10283	1493.30212	0.0	1.669629	572.59
1.840	60.18	1.5397	561.22	224.72	0.17507	0.73292	0.10275	1492.16345	0.0	1.661610	572.56
1.850	60.02	1.5418	561.22	223.61	0.17647	0.73452	0.10267	1490.95081	0.0	1.653658	572.53
1.860	59.87	1.5439	561.22	222.50	0.17786	0.73610	0.10258	1489.62744	0.0	1.645799	572.50
1.870	59.71	1.5460	561.22	221.41	0.17926	0.73766	0.10248	1488.26440	0.0	1.638047	572.48
1.880	59.55	1.5481	561.22	220.33	0.18066	0.73920	0.10240	1487.01489	0.0	1.630371	572.45
1.890	59.39	1.5502	561.22	219.26	0.18206	0.74073	0.10233	1486.00378	0.0	1.622712	572.42
1.900	59.23	1.5523	561.21	218.20	0.18345	0.74225	0.10227	1485.23804	0.0	1.615027	572.39
1.910	59.07	1.5543	561.21	217.15	0.18484	0.74374	0.10223	1484.62097	0.0	1.607312	572.36
1.920	58.91	1.5564	561.21	216.11	0.18624	0.74522	0.10219	1484.04028	0.0	1.599603	572.33
1.930	58.75	1.5585	561.21	215.09	0.18763	0.74669	0.10215	1483.45288	0.0	1.591938	572.30
1.940	58.58	1.5606	561.21	214.07	0.18901	0.74814	0.10211	1482.93005	0.0	1.584331	572.27
1.950	58.42	1.5627	561.21	213.07	0.19040	0.74957	0.10210	1482.66272	0.0	1.576758	572.24
1.960	58.25	1.5647	561.20	212.08	0.19178	0.75098	0.10211	1482.93787	0.0	1.568434	572.21
1.970	58.07	1.5668	561.20	211.11	0.19315	0.75237	0.10219	1484.08936	0.0	1.559276	572.17
1.980	57.89	1.5688	561.20	210.15	0.19450	0.75374	0.10235	1486.42163	0.0	1.549915	572.13
1.990	57.69	1.5708	561.20	209.21	0.19583	0.75508	0.10261	1490.09192	0.0	1.540282	572.10
2.000	50.61	1.5728	561.13	208.03	0.19732	0.75673	0.10294	1494.94885	0.0	1.530378	572.05
2.010	50.41	1.5748	561.13	207.15	0.19863	0.75803	0.10320	1498.74097	0.0	1.520515	572.01
2.020	50.22	1.5767	561.13	206.25	0.19995	0.75931	0.10338	1501.36560	0.0	1.511055	571.97
2.030	50.04	1.5787	561.13	205.36	0.20126	0.76058	0.10349	1502.92920	0.0	1.501988	571.93

2.040	49.86	1.5807	561.13	204.48	0.20258	0.76184	0.10354	1503.61877	0.0	1.493264	571.90
2.050	49.69	1.5827	561.12	203.61	0.20390	0.76309	0.10354	1503.62646	0.0	1.484825	571.86
2.060	49.52	1.5846	561.12	202.74	0.20521	0.76432	0.10350	1503.12268	0.0	1.476626	571.83
2.070	49.36	1.5866	561.12	201.89	0.20653	0.76554	0.10344	1502.24988	0.0	1.468621	571.80
2.080	49.19	1.5886	561.12	201.05	0.20784	0.76674	0.10337	1501.12256	0.0	1.460772	571.77
2.090	49.03	1.5905	561.12	200.21	0.20914	0.76793	0.10328	1499.82922	0.0	1.453047	571.74
2.100	48.87	1.5924	561.12	199.39	0.21045	0.76911	0.10318	1498.43909	0.0	1.445421	571.70
2.110	48.70	1.5944	561.11	198.58	0.21175	0.77027	0.10308	1497.00488	0.0	1.437876	571.67
2.120	48.54	1.5963	561.11	197.77	0.21305	0.77143	0.10298	1495.56555	0.0	1.430276	571.64
2.130	48.38	1.5983	561.11	196.97	0.21434	0.77257	0.10289	1494.14795	0.0	1.422373	571.61
2.140	48.22	1.6002	561.11	196.18	0.21563	0.77369	0.10279	1492.76990	0.0	1.414518	571.58
2.150	48.06	1.6021	561.11	195.40	0.21692	0.77481	0.10270	1491.44006	0.0	1.406703	571.55
2.160	47.89	1.6040	561.11	194.63	0.21820	0.77591	0.10261	1490.16077	0.0	1.398927	571.52
2.170	47.73	1.6059	561.10	193.86	0.21948	0.77700	0.10253	1488.92932	0.0	1.391187	571.49
2.180	47.57	1.6078	561.10	193.11	0.22075	0.77808	0.10245	1487.73962	0.0	1.383484	571.45
2.190	47.40	1.6097	561.10	192.36	0.22202	0.77915	0.10237	1486.58374	0.0	1.375818	571.42
2.200	47.24	1.6116	561.10	191.62	0.22329	0.78020	0.10229	1485.45337	0.0	1.368191	571.39
2.210	47.08	1.6135	561.10	190.89	0.22455	0.78125	0.10221	1484.34460	0.0	1.360605	571.36
2.220	46.91	1.6154	561.10	190.17	0.22581	0.78228	0.10214	1483.26575	0.0	1.353060	571.33
2.230	46.75	1.6172	561.10	189.45	0.22706	0.78331	0.10207	1482.22058	0.0	1.345553	571.30
2.240	46.58	1.6191	561.09	188.74	0.22831	0.78432	0.10199	1481.17407	0.0	1.338082	571.27
2.250	46.42	1.6209	561.09	188.04	0.22956	0.78532	0.10192	1480.05383	0.0	1.330659	571.23
2.260	46.26	1.6228	561.09	187.35	0.23080	0.78631	0.10183	1478.82251	0.0	1.323308	571.20
2.270	46.09	1.6246	561.09	186.66	0.23203	0.78729	0.10174	1477.54944	0.0	1.316039	571.17
2.280	45.93	1.6265	561.09	185.98	0.23327	0.78826	0.10166	1476.38879	0.0	1.308827	571.14
2.290	45.76	1.6283	561.09	185.31	0.23449	0.78922	0.10160	1475.46912	0.0	1.299703	571.10
2.300	45.60	1.6301	561.08	184.65	0.23571	0.79016	0.10155	1474.80383	0.0	1.290554	571.06
2.310	45.43	1.6319	561.08	183.99	0.23692	0.79110	0.10152	1474.30188	0.0	1.281377	571.02
2.320	45.26	1.6337	561.08	183.35	0.23812	0.79202	0.10149	1473.85229	0.0	1.272199	570.99
2.330	45.09	1.6355	561.08	182.71	0.23932	0.79293	0.10146	1473.41309	0.0	1.263052	570.95
2.340	44.92	1.6373	561.08	182.08	0.24051	0.79383	0.10143	1473.05505	0.0	1.253953	570.91
2.350	44.75	1.6390	561.08	181.46	0.24168	0.79471	0.10143	1472.97278	0.0	1.244877	570.87
2.360	44.57	1.6407	561.07	180.85	0.24285	0.79558	0.10146	1473.45752	0.0	1.235771	570.83
2.370	44.38	1.6425	561.07	180.25	0.24400	0.79644	0.10156	1474.85461	0.0	1.226562	570.79
2.380	44.19	1.6441	561.07	179.66	0.24513	0.79728	0.10174	1477.48840	0.0	1.217170	570.74
2.390	43.98	1.6458	561.07	179.09	0.24623	0.79809	0.10202	1481.53857	0.0	1.207537	570.70
2.400	35.71	1.6474	560.99	178.28	0.24750	0.79920	0.10239	1486.86987	0.0	1.197658	570.65
2.410	35.50	1.6490	560.99	177.76	0.24857	0.79999	0.10267	1491.06897	0.0	1.187799	570.60
2.420	35.30	1.6506	560.99	177.21	0.24965	0.80077	0.10288	1494.03992	0.0	1.178273	570.56
2.430	35.11	1.6522	560.99	176.66	0.25072	0.80155	0.10301	1495.89990	0.0	1.169072	570.51
2.440	34.92	1.6538	560.98	176.12	0.25180	0.80232	0.10307	1496.84766	0.0	1.160151	570.47
2.450	34.74	1.6554	560.98	175.59	0.25287	0.80308	0.10309	1497.08533	0.0	1.151825	570.43
2.460	34.57	1.6570	560.98	175.06	0.25394	0.80384	0.10307	1496.78821	0.0	1.143807	570.40
2.470	34.40	1.6585	560.98	174.54	0.25501	0.80458	0.10302	1496.10498	0.0	1.135944	570.36
2.480	34.23	1.6601	560.98	174.02	0.25606	0.80531	0.10296	1495.15442	0.0	1.128201	570.33
2.490	34.07	1.6617	560.98	173.52	0.25711	0.80604	0.10288	1494.02856	0.0	1.120552	570.29
2.500	33.90	1.6632	560.97	173.01	0.25816	0.80675	0.10279	1492.79883	0.0	1.112978	570.26
2.510	33.74	1.6648	560.97	172.52	0.25920	0.80746	0.10271	1491.51990	0.0	1.105461	570.22
2.520	33.57	1.6663	560.97	172.03	0.26023	0.80816	0.10262	1490.23169	0.0	1.097990	570.19
2.530	33.41	1.6678	560.97	171.54	0.26126	0.80885	0.10253	1488.96204	0.0	1.090554	570.15
2.540	33.24	1.6693	560.97	171.06	0.26228	0.80954	0.10244	1487.72925	0.0	1.083148	570.12
2.550	33.08	1.6709	560.97	170.59	0.26329	0.81022	0.10236	1486.54260	0.0	1.075765	570.08
2.560	32.91	1.6724	560.96	170.12	0.26430	0.81088	0.10228	1485.40503	0.0	1.068403	570.05
2.570	32.75	1.6738	560.96	169.66	0.26530	0.81155	0.10221	1484.31396	0.0	1.061062	570.01
2.580	32.58	1.6753	560.96	169.20	0.26630	0.81220	0.10214	1483.26392	0.0	1.053741	569.98
2.590	32.42	1.6768	560.96	168.74	0.26729	0.81285	0.10207	1482.24731	0.0	1.046440	569.95
2.600	32.25	1.6782	560.96	168.30	0.26827	0.81349	0.10200	1481.25635	0.0	1.039161	569.91
2.610	32.08	1.6797	560.96	167.85	0.26924	0.81412	0.10193	1480.28723	0.0	1.031658	569.88
2.620	31.92	1.6811	560.95	167.42	0.27021	0.81474	0.10187	1479.34753	0.0	1.023930	569.84
2.630	31.75	1.6826	560.95	166.98	0.27117	0.81536	0.10180	1478.44226	0.0	1.016224	569.80
2.640	31.59	1.6840	560.95	166.56	0.27212	0.81597	0.10174	1477.53857	0.0	1.008537	569.76
2.650	31.42	1.6854	560.95	166.14	0.27307	0.81657	0.10168	1476.56665	0.0	1.000880	569.73

2.660	31.26	1.6868	560.95	165.72	0.27401	0.81716	0.10160	1475.48730	0.0	0.9932680	569.69
2.670	31.09	1.6882	560.95	165.31	0.27494	0.81775	0.10152	1474.36230	0.0	0.9857112	569.65
2.680	30.93	1.6895	560.95	164.90	0.27586	0.81833	0.10145	1473.33911	0.0	0.9781924	569.62
2.690	30.76	1.6909	560.94	164.50	0.27678	0.81890	0.10140	1472.54749	0.0	0.9706741	569.58
2.700	30.60	1.6922	560.94	164.10	0.27769	0.81946	0.10136	1472.00977	0.0	0.9631259	569.54
2.710	30.43	1.6936	560.94	163.71	0.27859	0.82002	0.10134	1471.64795	0.0	0.9555428	569.50
2.720	30.26	1.6949	560.94	163.33	0.27949	0.82058	0.10132	1471.36060	0.0	0.9479440	569.47
2.730	30.09	1.6962	560.94	162.94	0.28037	0.82112	0.10130	1471.10425	0.0	0.9403543	569.43
2.740	29.91	1.6975	560.94	162.57	0.28125	0.82166	0.10129	1470.94324	0.0	0.9327852	569.39
2.750	29.74	1.6988	560.93	162.20	0.28211	0.82219	0.10130	1471.05933	0.0	0.9252198	569.35
2.760	29.56	1.7001	560.93	161.83	0.28297	0.82270	0.10134	1471.73218	0.0	0.9176200	569.31
2.770	29.37	1.7013	560.93	161.48	0.28380	0.82321	0.10145	1473.29761	0.0	0.9100587	569.27
2.780	29.17	1.7025	560.93	161.13	0.28462	0.82371	0.10164	1476.07227	0.0	0.9027321	569.24
2.790	28.96	1.7037	560.93	160.79	0.28540	0.82419	0.10193	1480.22729	0.0	0.8952160	569.20
2.800	19.70	1.7048	560.84	160.22	0.28636	0.82494	0.10230	1485.61169	0.0	0.8875099	569.15
2.810	19.48	1.7059	560.84	159.92	0.28712	0.82541	0.10260	1489.94092	0.0	0.8798016	569.10
2.820	19.28	1.7071	560.83	159.60	0.28788	0.82587	0.10281	1493.08325	0.0	0.8723252	569.06
2.830	19.08	1.7082	560.83	159.27	0.28865	0.82633	0.10295	1495.13403	0.0	0.8650780	569.02
2.840	18.89	1.7093	560.83	158.95	0.28942	0.82679	0.10303	1496.28186	0.0	0.8580311	568.99
2.850	18.71	1.7105	560.83	158.63	0.29019	0.82725	0.10306	1496.72241	0.0	0.8511466	568.95
2.860	18.54	1.7116	560.83	158.32	0.29096	0.82770	0.10306	1496.62781	0.0	0.8443918	568.91
2.870	18.37	1.7128	560.83	158.01	0.29172	0.82814	0.10302	1496.14429	0.0	0.8377435	568.88
2.880	18.20	1.7139	560.82	157.70	0.29248	0.82858	0.10297	1495.38818	0.0	0.8311780	568.84
2.890	18.03	1.7150	560.82	157.39	0.29323	0.82901	0.10291	1494.45068	0.0	0.8246757	568.81
2.900	17.87	1.7161	560.82	157.09	0.29397	0.82944	0.10283	1493.40149	0.0	0.8182212	568.77
2.910	17.71	1.7172	560.82	156.80	0.29471	0.82986	0.10276	1492.29443	0.0	0.8118022	568.74
2.920	17.54	1.7183	560.82	156.51	0.29544	0.83028	0.10268	1491.17004	0.0	0.8054103	568.70
2.930	17.38	1.7193	560.82	156.22	0.29616	0.83069	0.10260	1490.05615	0.0	0.7990372	568.67
2.940	17.21	1.7204	560.81	155.93	0.29688	0.83110	0.10253	1488.97156	0.0	0.7937144	568.64
2.950	17.05	1.7215	560.81	155.65	0.29759	0.83150	0.10246	1487.92688	0.0	0.7884018	568.61
2.960	16.89	1.7225	560.81	155.37	0.29830	0.83190	0.10239	1486.92603	0.0	0.7830980	568.58
2.970	16.72	1.7236	560.81	155.09	0.29900	0.83229	0.10232	1485.96790	0.0	0.7778009	568.55
2.980	16.56	1.7246	560.81	154.82	0.29970	0.83268	0.10226	1485.04797	0.0	0.7725109	568.52
2.990	16.39	1.7256	560.81	154.55	0.30040	0.83307	0.10220	1484.16003	0.0	0.7672279	568.49
3.000	16.23	1.7267	560.81	154.28	0.30108	0.83345	0.10214	1483.29639	0.0	0.7619538	568.47
3.010	16.07	1.7277	560.80	154.01	0.30177	0.83383	0.10208	1482.45007	0.0	0.7566885	568.44
3.020	15.90	1.7287	560.80	153.75	0.30244	0.83421	0.10202	1481.61475	0.0	0.7514343	568.41
3.030	15.74	1.7297	560.80	153.49	0.30311	0.83458	0.10197	1480.78430	0.0	0.7461907	568.38
3.040	15.57	1.7307	560.80	153.23	0.30378	0.83494	0.10191	1479.95581	0.0	0.7409600	568.35
3.050	15.41	1.7316	560.80	152.98	0.30444	0.83531	0.10185	1479.12646	0.0	0.7357417	568.32
3.060	15.24	1.7326	560.80	152.73	0.30510	0.83567	0.10179	1478.29553	0.0	0.7305370	568.29
3.070	15.08	1.7336	560.79	152.48	0.30575	0.83602	0.10174	1477.46326	0.0	0.7253454	568.26
3.080	14.92	1.7345	560.79	152.23	0.30639	0.83637	0.10168	1476.63110	0.0	0.7201669	568.23
3.090	14.75	1.7355	560.79	151.99	0.30703	0.83672	0.10162	1475.80090	0.0	0.7150011	568.20
3.100	14.59	1.7364	560.79	151.75	0.30767	0.83706	0.10157	1474.97498	0.0	0.7102387	568.17
3.110	14.43	1.7374	560.79	151.51	0.30830	0.83740	0.10151	1474.15576	0.0	0.7056184	568.15
3.120	14.26	1.7383	560.79	151.27	0.30893	0.83774	0.10145	1473.34583	0.0	0.7010095	568.12
3.130	14.10	1.7392	560.79	151.04	0.30955	0.83807	0.10140	1472.54700	0.0	0.6964112	568.09
3.140	13.94	1.7401	560.78	150.80	0.31016	0.83840	0.10134	1471.76184	0.0	0.6918230	568.07
3.150	13.77	1.7410	560.78	150.58	0.31078	0.83873	0.10129	1470.99121	0.0	0.6872445	568.04
3.160	13.61	1.7419	560.78	150.35	0.31138	0.83905	0.10124	1470.23596	0.0	0.6826752	568.01
3.170	13.45	1.7428	560.78	150.12	0.31199	0.83937	0.10119	1469.49695	0.0	0.6781150	567.98
3.180	13.28	1.7437	560.78	149.90	0.31258	0.83969	0.10114	1468.77393	0.0	0.6735635	567.96
3.190	13.12	1.7446	560.78	149.68	0.31318	0.84000	0.10109	1468.06665	0.0	0.6690205	567.93
3.200	12.96	1.7455	560.77	149.46	0.31377	0.84031	0.10104	1467.37463	0.0	0.6644860	567.90
3.210	12.79	1.7463	560.77	149.25	0.31435	0.84062	0.10100	1466.69690	0.0	0.6599596	567.88
3.220	12.63	1.7472	560.77	149.03	0.31493	0.84092	0.10095	1466.03259	0.0	0.6554415	567.85
3.230	12.47	1.7480	560.77	148.82	0.31550	0.84122	0.10091	1465.38086	0.0	0.6509317	567.82
3.240	12.30	1.7489	560.77	148.61	0.31607	0.84152	0.10086	1464.74036	0.0	0.6464303	567.80
3.250	12.14	1.7497	560.77	148.41	0.31664	0.84182	0.10082	1464.10999	0.0	0.6419370	567.77
3.260	11.98	1.7506	560.77	148.20	0.31720	0.84211	0.10078	1463.48926	0.0	0.6377197	567.74
3.270	11.81	1.7514	560.76	148.00	0.31776	0.84240	0.10073	1462.87671	0.0	0.6337783	567.72

3.280	11.65	1.7522	560.76	147.80	0.31831	0.84268	0.10069	1462.27222	0.0	0.6298451	567.69
3.290	11.49	1.7530	560.76	147.60	0.31886	0.84297	0.10065	1461.67493	0.0	0.6259198	567.67
3.300	11.32	1.7538	560.76	147.40	0.31940	0.84325	0.10061	1461.08447	0.0	0.6220028	567.65
3.310	11.16	1.7546	560.76	147.21	0.31994	0.84352	0.10057	1460.50061	0.0	0.6180936	567.62
3.320	11.00	1.7554	560.76	147.02	0.32048	0.84380	0.10053	1459.92322	0.0	0.6141925	567.60
3.330	10.83	1.7562	560.75	146.82	0.32101	0.84407	0.10049	1459.35217	0.0	0.6102994	567.57
3.340	10.67	1.7570	560.75	146.64	0.32154	0.84434	0.10045	1458.78748	0.0	0.6064140	567.55
3.350	10.51	1.7578	560.75	146.45	0.32206	0.84461	0.10041	1458.22937	0.0	0.6025364	567.53
3.360	10.35	1.7585	560.75	146.26	0.32258	0.84487	0.10038	1457.67810	0.0	0.5986665	567.50
3.370	10.18	1.7593	560.75	146.08	0.32310	0.84513	0.10034	1457.13342	0.0	0.5948040	567.48
3.380	10.02	1.7601	560.75	145.90	0.32361	0.84539	0.10030	1456.59583	0.0	0.5909491	567.45
3.390	9.86	1.7608	560.74	145.72	0.32412	0.84565	0.10026	1456.06519	0.0	0.5871012	567.43
3.400	9.69	1.7616	560.74	145.54	0.32462	0.84590	0.10023	1455.54224	0.0	0.5832607	567.40
3.410	9.53	1.7623	560.74	145.36	0.32512	0.84615	0.10019	1455.02649	0.0	0.5794272	567.38
3.420	9.37	1.7630	560.74	145.19	0.32561	0.84640	0.10016	1454.51843	0.0	0.5757338	567.35
3.430	9.21	1.7638	560.74	145.01	0.32611	0.84665	0.10012	1454.01782	0.0	0.5720473	567.33
3.440	9.04	1.7645	560.74	144.84	0.32659	0.84689	0.10009	1453.52466	0.0	0.5691671	567.31
3.450	8.88	1.7652	560.74	144.67	0.32708	0.84714	0.10006	1453.03906	0.0	0.5658931	567.29
3.460	8.72	1.7659	560.73	144.50	0.32756	0.84738	0.10002	1452.56116	0.0	0.5626256	567.27
3.470	8.55	1.7666	560.73	144.34	0.32804	0.84761	0.09999	1452.09058	0.0	0.5593640	567.25
3.480	8.39	1.7673	560.73	144.17	0.32851	0.84785	0.09996	1451.62744	0.0	0.5561087	567.23
3.490	8.23	1.7680	560.73	144.01	0.32899	0.84808	0.09993	1451.17139	0.0	0.5528593	567.21
3.500	8.07	1.7687	560.73	143.84	0.32945	0.84832	0.09990	1450.72290	0.0	0.5496157	567.18
3.510	7.90	1.7694	560.73	143.68	0.32992	0.84854	0.09987	1450.28101	0.0	0.5463781	567.16
3.520	7.74	1.7701	560.72	143.52	0.33038	0.84877	0.09984	1449.84644	0.0	0.5431463	567.14
3.530	7.58	1.7708	560.72	143.36	0.33084	0.84900	0.09981	1449.41833	0.0	0.5399202	567.12
3.540	7.42	1.7714	560.72	143.21	0.33129	0.84922	0.09978	1448.99683	0.0	0.5366997	567.10
3.550	7.25	1.7721	560.72	143.05	0.33174	0.84944	0.09975	1448.58191	0.0	0.5334851	567.08
3.560	7.09	1.7728	560.72	142.90	0.33219	0.84966	0.09972	1448.17334	0.0	0.5302760	567.06
3.570	6.93	1.7734	560.72	142.74	0.33263	0.84988	0.09969	1447.77124	0.0	0.5270722	567.04
3.580	6.76	1.7741	560.72	142.59	0.33307	0.85009	0.09967	1447.37512	0.0	0.5238742	567.01
3.590	6.60	1.7747	560.71	142.44	0.33351	0.85030	0.09964	1446.98523	0.0	0.5196019	566.98
3.600	6.44	1.7754	560.71	142.30	0.33394	0.85051	0.09961	1446.60156	0.0	0.5153351	566.96
3.610	6.28	1.7760	560.71	142.15	0.33437	0.85072	0.09959	1446.22412	0.0	0.5110735	566.93
3.620	6.11	1.7766	560.71	142.01	0.33479	0.85092	0.09956	1445.85266	0.0	0.5068170	566.90
3.630	5.95	1.7772	560.71	141.87	0.33520	0.85113	0.09954	1445.48718	0.0	0.5025654	566.87
3.640	5.79	1.7778	560.71	141.73	0.33561	0.85132	0.09951	1445.12756	0.0	0.4983191	566.84
3.650	5.63	1.7784	560.70	141.59	0.33602	0.85152	0.09949	1444.77393	0.0	0.4940772	566.81
3.660	5.47	1.7790	560.70	141.45	0.33642	0.85171	0.09946	1444.42603	0.0	0.4898403	566.78
3.670	5.30	1.7796	560.70	141.32	0.33682	0.85190	0.09944	1444.08398	0.0	0.4856077	566.75
3.680	5.14	1.7802	560.70	141.19	0.33721	0.85209	0.09942	1443.74756	0.0	0.4813799	566.72
3.690	4.98	1.7808	560.70	141.06	0.33760	0.85228	0.09939	1443.41687	0.0	0.4771561	566.69
3.700	4.82	1.7813	560.70	140.93	0.33798	0.85246	0.09937	1443.09155	0.0	0.4729367	566.66
3.710	4.66	1.7819	560.70	140.80	0.33835	0.85264	0.09935	1442.77197	0.0	0.4687212	566.63
3.720	4.50	1.7824	560.69	140.68	0.33873	0.85282	0.09933	1442.45764	0.0	0.4645098	566.60
3.730	4.33	1.7830	560.69	140.55	0.33909	0.85300	0.09931	1442.14880	0.0	0.4603022	566.57
3.740	4.17	1.7835	560.69	140.43	0.33946	0.85317	0.09928	1441.84534	0.0	0.4560984	566.54
3.750	4.01	1.7841	560.69	140.31	0.33981	0.85334	0.09926	1441.54712	0.0	0.4523098	566.51
3.760	3.85	1.7846	560.69	140.19	0.34017	0.85351	0.09924	1441.25415	0.0	0.4486625	566.49
3.770	3.69	1.7851	560.69	140.08	0.34052	0.85367	0.09922	1440.96631	0.0	0.4450189	566.46
3.780	3.53	1.7856	560.68	139.96	0.34086	0.85384	0.09920	1440.68359	0.0	0.4413791	566.43
3.790	3.37	1.7861	560.68	139.85	0.34120	0.85400	0.09919	1440.40601	0.0	0.4377429	566.41
3.800	3.21	1.7866	560.68	139.73	0.34154	0.85416	0.09917	1440.13330	0.0	0.4341101	566.38
3.810	3.04	1.7871	560.68	139.62	0.34187	0.85432	0.09915	1439.86560	0.0	0.4304806	566.35
3.820	2.88	1.7876	560.68	139.51	0.34220	0.85447	0.09913	1439.60266	0.0	0.4268546	566.32
3.830	2.72	1.7881	560.68	139.41	0.34253	0.85462	0.09911	1439.34460	0.0	0.4232316	566.30
3.840	2.56	1.7885	560.68	139.30	0.34285	0.85478	0.09910	1439.09119	0.0	0.4196120	566.27
3.850	2.40	1.7890	560.67	139.20	0.34316	0.85492	0.09908	1438.84265	0.0	0.4159951	566.24
3.860	2.24	1.7895	560.67	139.09	0.34348	0.85507	0.09906	1438.59888	0.0	0.4123815	566.22
3.870	2.08	1.7899	560.67	138.99	0.34378	0.85522	0.09904	1438.35962	0.0	0.4087704	566.19
3.880	1.92	1.7904	560.67	138.89	0.34409	0.85536	0.09903	1438.12512	0.0	0.4051623	566.16
3.890	1.76	1.7908	560.67	138.79	0.34439	0.85550	0.09901	1437.89514	0.0	0.4015566	566.13

3.900	1.60	1.7912	560.67	138.69	0.34468	0.85564	0.09900	1437.66943	0.0	0.3979537	566.10
3.910	1.44	1.7917	560.66	138.60	0.34497	0.85577	0.09898	1437.44824	0.0	0.3943532	566.08
3.920	1.28	1.7921	560.66	138.50	0.34526	0.85591	0.09897	1437.23145	0.0	0.3907553	566.05
3.930	1.12	1.7925	560.66	138.41	0.34554	0.85604	0.09895	1437.01880	0.0	0.3871595	566.02
3.940	0.96	1.7929	560.66	138.32	0.34582	0.85617	0.09894	1436.81042	0.0	0.3835661	565.99
3.950	0.80	1.7933	560.66	138.23	0.34610	0.85630	0.09892	1436.60608	0.0	0.3799746	565.96
3.960	0.64	1.7937	560.66	138.14	0.34637	0.85642	0.09891	1436.40564	0.0	0.3763853	565.93
3.970	0.48	1.7941	560.66	138.05	0.34663	0.85655	0.09890	1436.20862	0.0	0.3727979	565.91
3.980	0.32	1.7945	560.65	137.97	0.34689	0.85667	0.09888	1436.01453	0.0	0.3692125	565.88
3.990	0.16	1.7949	560.65	137.88	0.34715	0.85679	0.09887	1435.82263	0.0	0.3656290	565.85
4.000	0.00	1.7953	560.65	137.80	0.34740	0.85691	0.09886	1435.63220	0.0	0.3620474	565.82

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 2

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	763.913	763.913	0.0000
0.015	763.630	763.630	0.0000
0.025	763.341	763.341	0.0000
0.035	763.048	763.048	0.0000
0.045	762.749	762.749	0.0000
0.055	762.445	762.445	0.0000
0.065	762.135	762.135	0.0000
0.075	761.820	761.820	0.0000
0.085	761.500	761.500	0.0000
0.095	761.174	761.174	0.0000
0.105	760.843	760.843	0.0000
0.115	760.506	760.506	0.0000
0.125	760.163	760.163	0.0000
0.135	759.911	759.815	0.0000
0.145	769.274	759.345	0.0000
0.155	783.036	758.469	0.0000
0.165	788.453	757.188	0.0000
0.175	801.487	755.619	0.0000
0.185	791.598	753.839	0.0000
0.195	786.176	751.887	0.0000
0.205	799.608	749.787	0.0000
0.215	780.259	747.553	0.0000
0.225	773.326	745.197	0.0000
0.235	766.033	742.722	0.0000
0.245	758.784	740.134	0.0001
0.255	751.707	737.430	0.0001
0.265	744.534	734.612	0.0001
0.275	736.694	731.683	0.0001
0.285	734.403	728.648	0.0001
0.295	725.460	725.505	0.0001
0.305	716.439	722.261	0.0002
0.315	707.397	718.913	0.0002
0.325	698.376	715.455	0.0002
0.335	689.064	711.749	0.0003
0.345	679.874	707.923	0.0003
0.355	670.858	703.982	0.0003
0.365	662.076	699.938	0.0004
0.375	653.579	695.808	0.0004
0.385	645.404	691.609	0.0005
0.395	637.057	687.088	0.0005
0.405	629.554	682.761	0.0006

0.415	622.208	678.276	0.0006
0.425	615.027	673.632	0.0007
0.435	608.029	668.832	0.0007
0.445	601.217	663.883	0.0008
0.455	594.597	658.793	0.0009
0.465	588.167	653.569	0.0009
0.475	581.913	648.220	0.0010
0.485	575.813	642.754	0.0011
0.495	569.859	637.178	0.0011
0.505	564.022	631.500	0.0012
0.515	558.275	625.729	0.0013
0.525	552.608	619.874	0.0014
0.535	546.996	613.943	0.0014
0.545	541.408	607.944	0.0015
0.555	535.840	601.889	0.0016
0.565	530.275	595.787	0.0017
0.575	524.688	589.647	0.0018
0.585	519.089	583.481	0.0019
0.595	513.972	577.859	0.0019
0.605	508.910	572.278	0.0020
0.615	503.816	566.681	0.0021
0.625	498.682	561.075	0.0022
0.635	493.499	555.469	0.0023
0.645	488.294	549.865	0.0024
0.655	483.177	544.439	0.0025
0.665	478.169	539.189	0.0026
0.675	473.142	533.951	0.0027
0.685	468.114	528.736	0.0028
0.695	463.078	523.557	0.0029
0.705	458.075	518.422	0.0030
0.715	453.071	513.328	0.0031
0.725	448.088	508.274	0.0032
0.735	443.133	503.257	0.0033
0.745	438.211	498.282	0.0034
0.755	433.310	493.358	0.0035
0.765	428.461	488.499	0.0036
0.775	423.673	483.721	0.0038
0.785	418.983	479.038	0.0039
0.795	413.929	474.033	0.0040
0.805	409.447	469.577	0.0041
0.815	404.954	465.140	0.0043
0.825	400.605	460.854	0.0044
0.835	396.276	456.582	0.0045
0.845	391.965	452.335	0.0046
0.855	387.706	448.117	0.0047
0.865	383.499	443.934	0.0048
0.875	379.342	439.789	0.0049
0.885	375.235	435.685	0.0051
0.895	371.173	431.625	0.0052
0.905	367.157	427.610	0.0053
0.915	363.197	423.642	0.0054
0.925	359.310	419.721	0.0055
0.935	355.476	415.848	0.0057
0.945	351.687	412.024	0.0058
0.955	347.973	408.248	0.0059
0.965	344.313	404.521	0.0060
0.975	340.701	400.843	0.0061
0.985	337.194	397.279	0.0063
0.995	333.757	393.764	0.0064
1.005	330.376	390.296	0.0065
1.015	327.042	386.876	0.0066
1.025	323.760	383.503	0.0068

1.035	320.532	380.176	0.0069
1.045	317.410	376.894	0.0070
1.055	314.284	373.656	0.0071
1.065	311.218	370.460	0.0073
1.075	308.228	367.306	0.0074
1.085	305.260	364.196	0.0075
1.095	302.399	361.131	0.0076
1.105	299.540	358.111	0.0078
1.115	296.754	355.134	0.0079
1.125	293.991	352.199	0.0080
1.135	291.338	349.304	0.0082
1.145	288.666	346.459	0.0083
1.155	286.121	343.658	0.0084
1.165	283.541	340.905	0.0086
1.175	281.084	338.202	0.0087
1.185	278.637	335.553	0.0089
1.195	275.936	332.598	0.0090
1.205	273.616	330.087	0.0092
1.215	271.350	327.567	0.0093
1.225	269.137	325.074	0.0095
1.235	266.899	322.607	0.0096
1.245	264.733	320.167	0.0098
1.255	262.598	317.756	0.0099
1.265	260.492	315.374	0.0101
1.275	258.399	313.021	0.0102
1.285	256.391	310.697	0.0103
1.295	254.422	308.401	0.0105
1.305	252.437	306.137	0.0106
1.315	250.557	303.904	0.0107
1.325	248.664	301.700	0.0109
1.335	246.829	299.524	0.0110
1.345	245.008	297.374	0.0111
1.355	243.203	295.252	0.0113
1.365	241.399	293.157	0.0114
1.375	239.713	291.088	0.0115
1.385	237.986	289.044	0.0117
1.395	236.278	287.026	0.0118
1.405	234.677	285.033	0.0119
1.415	233.051	283.064	0.0121
1.425	231.477	281.119	0.0122
1.435	229.891	279.198	0.0123
1.445	228.346	277.300	0.0125
1.455	226.838	275.425	0.0126
1.465	225.338	273.574	0.0128
1.475	223.877	271.752	0.0129
1.485	222.427	269.952	0.0130
1.495	220.966	268.176	0.0132
1.505	219.613	266.422	0.0133
1.515	218.251	264.690	0.0134
1.525	216.902	262.981	0.0136
1.535	215.568	261.292	0.0137
1.545	214.250	259.624	0.0139
1.555	212.948	257.978	0.0140
1.565	211.733	256.357	0.0142
1.575	210.477	254.763	0.0143
1.585	209.308	253.199	0.0145
1.595	207.787	251.357	0.0147
1.605	206.653	249.876	0.0149
1.615	205.511	248.378	0.0150
1.625	204.422	246.894	0.0152
1.635	203.307	245.427	0.0153
1.645	202.222	243.975	0.0155

1.655	201.126	242.541	0.0156
1.665	200.064	241.123	0.0158
1.675	199.030	239.722	0.0159
1.685	198.017	238.336	0.0160
1.695	197.010	236.965	0.0162
1.705	196.023	235.610	0.0163
1.715	195.043	234.269	0.0164
1.725	194.095	232.943	0.0166
1.735	193.144	231.631	0.0167
1.745	192.203	230.333	0.0168
1.755	191.260	229.049	0.0170
1.765	190.351	227.778	0.0171
1.775	189.476	226.521	0.0172
1.785	188.519	225.278	0.0173
1.795	187.715	224.049	0.0175
1.805	186.828	222.833	0.0176
1.815	186.000	221.631	0.0177
1.825	185.127	220.441	0.0179
1.835	184.376	219.265	0.0180
1.845	183.458	218.101	0.0181
1.855	182.685	216.950	0.0183
1.865	181.931	215.811	0.0184
1.875	181.157	214.683	0.0185
1.885	180.321	213.568	0.0186
1.895	179.568	212.464	0.0188
1.905	178.878	211.372	0.0189
1.915	178.085	210.291	0.0190
1.925	177.355	209.222	0.0192
1.935	176.671	208.164	0.0193
1.945	175.968	207.117	0.0194
1.955	175.287	206.085	0.0196
1.965	174.601	205.070	0.0197
1.975	173.889	204.074	0.0199
1.985	173.260	203.097	0.0201
1.995	172.328	201.867	0.0203
2.005	171.775	200.950	0.0205
2.015	171.172	200.012	0.0207
2.025	170.538	199.082	0.0208
2.035	169.949	198.161	0.0210
2.045	169.289	197.249	0.0211
2.055	168.670	196.347	0.0212
2.065	168.136	195.455	0.0214
2.075	167.555	194.574	0.0215
2.085	166.991	193.702	0.0216
2.095	166.450	192.839	0.0217
2.105	165.876	191.985	0.0218
2.115	165.358	191.140	0.0220
2.125	164.773	190.305	0.0221
2.135	164.244	189.478	0.0222
2.145	163.754	188.660	0.0223
2.155	163.251	187.851	0.0224
2.165	162.680	187.051	0.0225
2.175	162.223	186.259	0.0226
2.185	161.715	185.475	0.0227
2.195	161.157	184.699	0.0228
2.205	160.678	183.932	0.0230
2.215	160.186	183.173	0.0231
2.225	159.757	182.422	0.0232
2.235	159.297	181.679	0.0233
2.245	158.860	180.944	0.0234
2.255	158.394	180.216	0.0235
2.265	157.992	179.496	0.0236

2.275	157.443	178.783	0.0237
2.285	157.093	178.080	0.0238
2.295	156.635	177.386	0.0239
2.305	156.182	176.700	0.0241
2.315	155.794	176.023	0.0242
2.325	155.333	175.354	0.0243
2.335	154.999	174.694	0.0244
2.345	154.573	174.043	0.0245
2.355	154.151	173.403	0.0246
2.365	153.757	172.774	0.0248
2.375	153.380	172.160	0.0249
2.385	153.045	171.561	0.0251
2.395	152.493	170.721	0.0253
2.405	152.181	170.169	0.0255
2.415	151.746	169.595	0.0257
2.425	151.452	169.025	0.0258
2.435	151.087	168.460	0.0259
2.445	150.763	167.901	0.0261
2.455	150.466	167.347	0.0262
2.465	150.111	166.800	0.0263
2.475	149.762	166.260	0.0264
2.485	149.522	165.727	0.0265
2.495	149.157	165.200	0.0265
2.505	148.849	164.679	0.0266
2.515	148.551	164.163	0.0267
2.525	148.227	163.654	0.0268
2.535	147.946	163.150	0.0269
2.545	147.625	162.652	0.0270
2.555	147.361	162.160	0.0270
2.565	147.024	161.673	0.0271
2.575	146.797	161.191	0.0272
2.585	146.478	160.715	0.0273
2.595	146.151	160.245	0.0274
2.605	145.902	159.780	0.0275
2.615	145.646	159.321	0.0275
2.625	145.382	158.867	0.0276
2.635	145.111	158.419	0.0277
2.645	144.833	157.977	0.0278
2.655	144.635	157.540	0.0278
2.665	144.343	157.108	0.0279
2.675	144.131	156.682	0.0280
2.685	143.825	156.261	0.0281
2.695	143.600	155.844	0.0282
2.705	143.368	155.434	0.0282
2.715	143.130	155.028	0.0283
2.725	142.884	154.627	0.0284
2.735	142.721	154.233	0.0285
2.745	142.551	153.844	0.0286
2.755	142.283	153.462	0.0287
2.765	142.094	153.090	0.0288
2.775	141.802	152.727	0.0289
2.785	141.678	152.376	0.0290
2.795	141.288	151.787	0.0292
2.805	141.091	151.472	0.0294
2.815	140.889	151.133	0.0296
2.825	140.716	150.796	0.0297
2.835	140.481	150.460	0.0298
2.845	140.244	150.127	0.0299
2.855	140.096	149.796	0.0300
2.865	139.851	149.469	0.0301
2.875	139.724	149.147	0.0301
2.885	139.532	148.829	0.0302

2.895	139.366	148.514	0.0302
2.905	139.225	148.204	0.0303
2.915	139.019	147.897	0.0303
2.925	138.869	147.594	0.0304
2.935	138.685	147.295	0.0305
2.945	138.498	146.998	0.0305
2.955	138.370	146.704	0.0306
2.965	138.204	146.414	0.0306
2.975	138.005	146.126	0.0307
2.985	137.896	145.842	0.0307
2.995	137.660	145.560	0.0308
3.005	137.574	145.282	0.0308
3.015	137.359	145.006	0.0309
3.025	137.236	144.734	0.0309
3.035	137.110	144.464	0.0310
3.045	136.980	144.197	0.0310
3.055	136.846	143.934	0.0311
3.065	136.710	143.673	0.0311
3.075	136.473	143.415	0.0312
3.085	136.330	143.160	0.0312
3.095	136.280	142.907	0.0313
3.105	136.033	142.657	0.0313
3.115	135.880	142.409	0.0314
3.125	135.821	142.164	0.0314
3.135	135.691	141.922	0.0314
3.145	135.529	141.682	0.0315
3.155	135.462	141.444	0.0315
3.165	135.294	141.209	0.0316
3.175	135.221	140.976	0.0316
3.185	135.018	140.746	0.0317
3.195	134.870	140.518	0.0317
3.205	134.789	140.292	0.0318
3.215	134.578	140.069	0.0318
3.225	134.491	139.848	0.0318
3.235	134.402	139.630	0.0319
3.245	134.239	139.414	0.0319
3.255	134.145	139.200	0.0320
3.265	134.019	138.988	0.0320
3.275	133.948	138.778	0.0321
3.285	133.747	138.570	0.0321
3.295	133.614	138.364	0.0321
3.305	133.536	138.160	0.0322
3.315	133.527	137.958	0.0322
3.325	133.316	137.759	0.0323
3.335	133.203	137.561	0.0323
3.345	133.087	137.365	0.0323
3.355	132.969	137.171	0.0324
3.365	132.949	136.979	0.0324
3.375	132.827	136.789	0.0325
3.385	132.702	136.600	0.0325
3.395	132.575	136.414	0.0325
3.405	132.548	136.230	0.0326
3.415	132.416	136.047	0.0326
3.425	132.283	135.866	0.0327
3.435	132.250	135.687	0.0327
3.445	132.140	135.509	0.0327
3.455	132.001	135.333	0.0328
3.465	131.963	135.158	0.0328
3.475	131.895	134.985	0.0328
3.485	131.778	134.814	0.0329
3.495	131.603	134.644	0.0329
3.505	131.585	134.476	0.0330

3.515	131.435	134.309	0.0330
3.525	131.255	134.144	0.0330
3.535	131.335	133.981	0.0331
3.545	131.179	133.819	0.0331
3.555	131.124	133.658	0.0331
3.565	130.965	133.499	0.0332
3.575	130.907	133.342	0.0332
3.585	130.847	133.186	0.0332
3.595	130.785	133.033	0.0333
3.605	130.721	132.881	0.0333
3.615	130.551	132.732	0.0333
3.625	130.587	132.584	0.0334
3.635	130.412	132.438	0.0334
3.645	130.340	132.295	0.0334
3.655	130.265	132.153	0.0335
3.665	130.188	132.013	0.0335
3.675	130.110	131.875	0.0335
3.685	129.951	131.739	0.0336
3.695	129.946	131.605	0.0336
3.705	129.888	131.473	0.0336
3.715	129.802	131.343	0.0336
3.725	129.791	131.214	0.0337
3.735	129.700	131.088	0.0337
3.745	129.635	130.963	0.0337
3.755	129.540	130.840	0.0338
3.765	129.550	130.718	0.0338
3.775	129.425	130.598	0.0338
3.785	129.326	130.479	0.0338
3.795	129.251	130.362	0.0339
3.805	129.255	130.247	0.0339
3.815	129.150	130.133	0.0339
3.825	129.150	130.021	0.0340
3.835	129.042	129.911	0.0340
3.845	128.906	129.802	0.0340
3.855	128.927	129.694	0.0340
3.865	128.815	129.588	0.0341
3.875	128.807	129.484	0.0341
3.885	128.797	129.381	0.0341
3.895	128.679	129.280	0.0341
3.905	128.667	129.180	0.0341
3.915	128.546	129.082	0.0342
3.925	128.530	128.985	0.0342
3.935	128.432	128.890	0.0342
3.945	128.494	128.796	0.0342
3.955	128.367	128.704	0.0343
3.965	128.237	128.613	0.0343
3.975	128.214	128.523	0.0343
3.985	128.216	128.436	0.0343
3.995	128.163	128.349	0.0343

PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 3

	DISTANCE (M)	DELTA-P (KPA)	ENTHALPY (MJ/KG)	TEMPERATURE (DEG-K)	DENSITY (KG/M3)	FLOWING QUALITY FRACTION	VOID (KG/SEC)	FLOW (KG/M2/SEC)	MASS (PPM)		
			CHF	CHF TEMP.							
			(DEG-K)	(DEG-K)							
0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.11706	1700.00012	0.0	0.000000	255.37
0.010	100.03	1.2113	548.31	763.92	0.00000	0.00000	0.11703	1699.61523	0.0	4.575203	580.27
0.020	99.93	1.2121	548.45	763.65	0.00000	0.00000	0.11699	1698.95203	0.0	4.525739	580.16

0.030	99.84	1.2129	548.60	763.37	0.00000	0.00000	0.11693	1698.10522	0.0	4.478237	580.05
0.040	99.74	1.2136	548.75	763.08	0.00000	0.00000	0.11686	1697.14233	0.0	4.432527	579.95
0.050	99.65	1.2144	548.90	762.79	0.00000	0.00000	0.11679	1696.10840	0.0	4.388482	579.85
0.060	99.55	1.2153	549.06	762.50	0.00000	0.00000	0.11672	1695.03259	0.0	4.345957	579.75
0.070	99.46	1.2161	549.22	762.20	0.00000	0.00000	0.11664	1693.93323	0.0	4.304876	579.66
0.080	99.36	1.2169	549.38	761.89	0.00000	0.00000	0.11657	1692.82068	0.0	4.265123	579.57
0.090	99.27	1.2178	549.54	761.58	0.00000	0.00000	0.11649	1691.69983	0.0	4.226635	579.49
0.100	99.18	1.2186	549.71	761.27	0.00000	0.00000	0.11641	1690.57104	0.0	4.189331	579.40
0.110	99.08	1.2195	549.88	760.94	0.00000	0.00000	0.11633	1689.43152	0.0	4.153146	579.32
0.120	98.99	1.2204	550.05	760.62	0.00000	0.00000	0.11625	1688.27612	0.0	4.118018	579.24
0.130	98.89	1.2213	550.22	760.29	0.00000	0.00000	0.11617	1687.09741	0.0	4.083907	579.17
0.140	98.80	1.2222	550.40	759.95	0.00000	0.00000	0.11609	1685.88684	0.0	4.050746	579.09
0.150	98.70	1.2232	550.57	759.61	0.00000	0.00000	0.11600	1684.64221	0.0	4.018503	579.02
0.160	98.61	1.2241	550.76	759.20	0.00000	0.00008	0.11591	1683.30420	0.0	3.987136	578.95
0.170	98.52	1.2251	550.94	758.47	0.00000	0.00060	0.11580	1681.66284	0.0	3.956672	578.88
0.180	98.42	1.2260	551.12	757.34	0.00001	0.00167	0.11567	1679.73181	0.0	3.927115	578.82
0.190	98.32	1.2270	551.31	755.91	0.00002	0.00316	0.11552	1677.67297	0.0	3.898381	578.75
0.200	98.22	1.2280	551.50	754.26	0.00004	0.00494	0.11538	1675.59424	0.0	3.870372	578.69
0.210	98.13	1.2290	551.70	752.43	0.00007	0.00696	0.11524	1673.54431	0.0	3.843008	578.63
0.220	98.03	1.2301	551.89	750.44	0.00012	0.00919	0.11510	1671.54761	0.0	3.816251	578.57
0.230	97.93	1.2311	552.09	748.32	0.00017	0.01161	0.11497	1669.61560	0.0	3.790065	578.52
0.240	97.83	1.2322	552.29	746.07	0.00024	0.01420	0.11484	1667.73157	0.0	3.764422	578.46
0.250	97.72	1.2332	552.50	743.70	0.00033	0.01696	0.11471	1665.84924	0.0	3.739312	578.41
0.260	97.62	1.2343	552.70	741.20	0.00043	0.01988	0.11458	1663.92847	0.0	3.714732	578.35
0.270	97.52	1.2354	552.91	738.59	0.00054	0.02296	0.11444	1661.98193	0.0	3.690691	578.30
0.280	97.42	1.2365	553.12	735.87	0.00068	0.02619	0.11431	1660.07996	0.0	3.667147	578.25
0.290	97.31	1.2377	553.33	733.03	0.00083	0.02957	0.11419	1658.29944	0.0	3.644048	578.20
0.300	97.21	1.2388	553.55	730.09	0.00100	0.03310	0.11408	1656.66296	0.0	3.621334	578.15
0.310	97.11	1.2400	553.77	727.04	0.00119	0.03677	0.11397	1655.12695	0.0	3.598979	578.11
0.320	97.00	1.2411	553.99	723.89	0.00140	0.04058	0.11387	1653.61621	0.0	3.576997	578.06
0.330	96.90	1.2423	554.21	720.63	0.00163	0.04454	0.11376	1652.08386	0.0	3.555409	578.01
0.340	96.79	1.2435	554.44	717.14	0.00189	0.04883	0.11366	1650.56042	0.0	3.535418	577.97
0.350	96.68	1.2447	554.67	713.53	0.00218	0.05327	0.11356	1649.17859	0.0	3.515749	577.93
0.360	96.57	1.2459	554.90	709.81	0.00248	0.05786	0.11349	1648.16675	0.0	3.496313	577.89
0.370	96.46	1.2472	555.14	706.00	0.00280	0.06258	0.11347	1647.83960	0.0	3.476977	577.85
0.380	96.35	1.2484	555.37	702.11	0.00314	0.06742	0.11352	1648.59009	0.0	3.457582	577.81
0.390	96.23	1.2497	555.61	698.16	0.00350	0.07233	0.11368	1650.82715	0.0	3.437968	577.77
0.400	93.66	1.2510	555.85	693.92	0.00390	0.07764	0.11394	1654.65479	0.0	3.418033	577.73
0.410	93.54	1.2523	556.09	689.90	0.00428	0.08265	0.11408	1656.76831	0.0	3.398438	577.68
0.420	93.42	1.2536	556.34	685.70	0.00469	0.08791	0.11413	1657.38684	0.0	3.379868	577.64
0.430	93.31	1.2549	556.59	681.33	0.00513	0.09342	0.11409	1656.88538	0.0	3.362170	577.61
0.440	93.19	1.2563	556.84	676.80	0.00559	0.09914	0.11400	1655.58716	0.0	3.345176	577.57
0.450	93.08	1.2576	557.09	672.13	0.00608	0.10506	0.11388	1653.72864	0.0	3.328727	577.54
0.460	92.96	1.2590	557.35	667.33	0.00660	0.11118	0.11372	1651.47290	0.0	3.312717	577.51
0.470	92.85	1.2604	557.61	662.40	0.00714	0.11747	0.11354	1648.93079	0.0	3.297074	577.48
0.480	92.73	1.2618	557.87	657.35	0.00770	0.12392	0.11336	1646.17834	0.0	3.281745	577.46
0.490	92.62	1.2632	558.14	652.18	0.00828	0.13054	0.11315	1643.26978	0.0	3.266690	577.43
0.500	92.50	1.2646	558.40	646.91	0.00888	0.13732	0.11295	1640.24622	0.0	3.251884	577.40
0.510	92.38	1.2661	558.68	641.54	0.00951	0.14423	0.11273	1637.14087	0.0	3.237299	577.38
0.520	92.27	1.2676	558.95	636.07	0.01016	0.15129	0.11252	1633.98279	0.0	3.222922	577.35
0.530	92.15	1.2691	559.23	630.51	0.01082	0.15847	0.11230	1630.79797	0.0	3.208735	577.33
0.540	92.03	1.2706	559.51	624.87	0.01151	0.16578	0.11208	1627.60779	0.0	3.194720	577.31
0.550	91.91	1.2721	559.79	619.16	0.01222	0.17319	0.11186	1624.43152	0.0	3.180861	577.28
0.560	91.79	1.2737	560.08	613.37	0.01295	0.18071	0.11164	1621.28540	0.0	3.167149	577.26
0.570	91.67	1.2752	560.37	607.52	0.01370	0.18831	0.11143	1618.18323	0.0	3.153573	577.24
0.580	91.54	1.2768	560.66	601.63	0.01447	0.19599	0.11122	1615.13647	0.0	3.140124	577.22
0.590	91.42	1.2784	560.95	595.69	0.01525	0.20374	0.11101	1612.15308	0.0	3.126796	577.20
0.600	91.30	1.2800	561.25	589.71	0.01606	0.21154	0.11081	1609.20715	0.0	3.113593	577.18
0.610	91.17	1.2817	561.52	583.92	0.01686	0.21916	0.11063	1606.62378	0.0	3.100438	577.15
0.620	91.05	1.2833	561.52	578.48	0.01769	0.22694	0.11049	1604.49817	0.0	3.087229	577.12
0.630	90.92	1.2850	561.51	573.05	0.01853	0.23473	0.11035	1602.53064	0.0	3.074023	577.08
0.640	90.80	1.2867	561.51	567.60	0.01939	0.24252	0.11022	1600.58411	0.0	3.060911	577.05

0.650	90.67	1.2884	561.51	562.14	0.02027	0.25032	0.11007	1598.51721	0.0	3.047951	577.01
0.660	90.55	1.2901	561.51	556.86	0.02113	0.25789	0.10992	1596.33252	0.0	3.033539	576.97
0.670	90.43	1.2918	561.51	551.73	0.02199	0.26521	0.10977	1594.08679	0.0	3.017724	576.93
0.680	90.30	1.2936	561.51	546.61	0.02286	0.27254	0.10962	1591.90002	0.0	3.002147	576.88
0.690	90.18	1.2953	561.51	541.51	0.02375	0.27984	0.10948	1589.89209	0.0	2.986746	576.84
0.700	90.05	1.2971	561.51	536.43	0.02465	0.28711	0.10936	1588.10510	0.0	2.971459	576.80
0.710	89.93	1.2988	561.50	531.38	0.02556	0.29434	0.10925	1586.49524	0.0	2.956269	576.76
0.720	89.80	1.3006	561.50	526.35	0.02648	0.30152	0.10914	1584.98682	0.0	2.941200	576.71
0.730	89.67	1.3024	561.50	521.36	0.02742	0.30866	0.10904	1583.54102	0.0	2.926283	576.67
0.740	89.54	1.3042	561.50	516.41	0.02837	0.31575	0.10895	1582.20557	0.0	2.911529	576.63
0.750	89.41	1.3061	561.50	511.49	0.02933	0.32279	0.10888	1581.12866	0.0	2.896903	576.59
0.760	89.28	1.3079	561.50	506.61	0.03030	0.32977	0.10884	1580.56323	0.0	2.882320	576.55
0.770	89.14	1.3097	561.50	501.80	0.03128	0.33665	0.10886	1580.87524	0.0	2.867675	576.50
0.780	89.00	1.3116	561.50	497.08	0.03226	0.34340	0.10897	1582.53455	0.0	2.852823	576.46
0.790	88.86	1.3134	561.49	492.47	0.03324	0.34999	0.10922	1586.05664	0.0	2.837587	576.42
0.800	85.48	1.3152	561.46	487.58	0.03427	0.35698	0.10960	1591.59827	0.0	2.821859	576.37
0.810	85.33	1.3170	561.46	483.25	0.03524	0.36322	0.10984	1595.11975	0.0	2.806268	576.32
0.820	85.19	1.3189	561.46	478.89	0.03622	0.36946	0.10996	1596.92078	0.0	2.790972	576.27
0.830	85.05	1.3207	561.46	474.64	0.03719	0.37554	0.11000	1597.44055	0.0	2.774481	576.22
0.840	84.92	1.3226	561.46	470.39	0.03819	0.38163	0.10997	1597.05371	0.0	2.758675	576.18
0.850	84.78	1.3245	561.46	466.15	0.03921	0.38769	0.10990	1596.05005	0.0	2.743402	576.13
0.860	84.65	1.3264	561.45	461.94	0.04024	0.39371	0.10981	1594.63098	0.0	2.728547	576.09
0.870	84.52	1.3283	561.45	457.76	0.04129	0.39969	0.10969	1592.93127	0.0	2.714029	576.05
0.880	84.39	1.3302	561.45	453.61	0.04235	0.40562	0.10956	1591.04407	0.0	2.699792	576.00
0.890	84.25	1.3321	561.45	449.51	0.04342	0.41148	0.10942	1589.03564	0.0	2.685800	575.96
0.900	84.12	1.3340	561.45	445.45	0.04450	0.41729	0.10928	1586.95520	0.0	2.672024	575.92
0.910	83.99	1.3359	561.45	441.44	0.04559	0.42303	0.10913	1584.84082	0.0	2.658443	575.88
0.920	83.86	1.3378	561.45	437.47	0.04669	0.42871	0.10899	1582.72278	0.0	2.645039	575.84
0.930	83.73	1.3398	561.45	433.54	0.04780	0.43432	0.10884	1580.62451	0.0	2.631798	575.80
0.940	83.59	1.3417	561.44	429.67	0.04893	0.43987	0.10870	1578.56335	0.0	2.618709	575.77
0.950	83.46	1.3436	561.44	425.84	0.05006	0.44534	0.10856	1576.55261	0.0	2.605761	575.73
0.960	83.33	1.3456	561.44	422.06	0.05120	0.45075	0.10843	1574.60010	0.0	2.592948	575.69
0.970	83.19	1.3476	561.44	418.33	0.05235	0.45608	0.10830	1572.70959	0.0	2.580263	575.65
0.980	83.06	1.3495	561.44	414.64	0.05350	0.46135	0.10817	1570.87708	0.0	2.567703	575.61
0.990	82.93	1.3515	561.44	411.08	0.05465	0.46646	0.10805	1569.09668	0.0	2.5553689	575.57
1.000	82.79	1.3535	561.44	407.56	0.05580	0.47149	0.10793	1567.36816	0.0	2.539822	575.53
1.010	82.66	1.3555	561.44	404.08	0.05696	0.47645	0.10781	1565.69238	0.0	2.526101	575.49
1.020	82.52	1.3575	561.43	400.66	0.05812	0.48135	0.10770	1564.07507	0.0	2.512522	575.45
1.030	82.39	1.3595	561.43	397.28	0.05929	0.48619	0.10759	1562.51831	0.0	2.499079	575.41
1.040	82.25	1.3614	561.43	393.95	0.06047	0.49095	0.10749	1560.99939	0.0	2.485773	575.36
1.050	82.12	1.3634	561.43	390.66	0.06166	0.49565	0.10738	1559.47205	0.0	2.472609	575.32
1.060	81.98	1.3654	561.43	387.42	0.06285	0.50029	0.10728	1557.90540	0.0	2.459607	575.28
1.070	81.85	1.3675	561.43	384.22	0.06405	0.50487	0.10717	1556.33020	0.0	2.446778	575.24
1.080	81.71	1.3695	561.43	381.06	0.06525	0.50938	0.10706	1554.83032	0.0	2.434099	575.21
1.090	81.57	1.3715	561.43	377.94	0.06647	0.51384	0.10697	1553.48621	0.0	2.421531	575.17
1.100	81.44	1.3735	561.42	374.87	0.06768	0.51823	0.10689	1552.31689	0.0	2.409039	575.13
1.110	81.30	1.3755	561.42	371.85	0.06890	0.52255	0.10682	1551.27649	0.0	2.396617	575.09
1.120	81.16	1.3775	561.42	368.87	0.07013	0.52681	0.10675	1550.29956	0.0	2.384289	575.05
1.130	81.02	1.3796	561.42	365.93	0.07136	0.53101	0.10669	1549.35852	0.0	2.372077	575.01
1.140	80.88	1.3816	561.42	363.04	0.07260	0.53515	0.10663	1548.50012	0.0	2.359987	574.97
1.150	80.74	1.3836	561.42	360.19	0.07383	0.53922	0.10658	1547.85474	0.0	2.347597	574.93
1.160	80.60	1.3856	561.42	357.39	0.07507	0.54322	0.10657	1547.64746	0.0	2.335113	574.89
1.170	80.45	1.3877	561.41	354.65	0.07631	0.54715	0.10661	1548.21362	0.0	2.322600	574.85
1.180	80.30	1.3897	561.41	351.97	0.07753	0.55098	0.10673	1549.98730	0.0	2.309942	574.81
1.190	80.14	1.3916	561.41	349.37	0.07874	0.55469	0.10697	1553.43213	0.0	2.297000	574.77
1.200	75.59	1.3936	561.37	346.49	0.08004	0.55880	0.10733	1558.62158	0.0	2.283698	574.72
1.210	75.43	1.3956	561.37	344.05	0.08123	0.56234	0.10757	1562.16187	0.0	2.270434	574.68
1.220	75.28	1.3975	561.37	341.57	0.08244	0.56589	0.10771	1564.17847	0.0	2.257856	574.64
1.230	75.12	1.3995	561.36	339.10	0.08367	0.56942	0.10777	1565.05615	0.0	2.245862	574.60
1.240	74.98	1.4015	561.36	336.64	0.08492	0.57294	0.10777	1565.13074	0.0	2.234325	574.56
1.250	74.83	1.4036	561.36	334.20	0.08617	0.57642	0.10774	1564.66553	0.0	2.223171	574.52
1.260	74.68	1.4056	561.36	331.80	0.08743	0.57986	0.10769	1563.83704	0.0	2.212303	574.49

1.270	74.54	1.4076	561.36	329.42	0.08870	0.58326	0.10761	1562.76196	0.0	2.201662	574.45
1.280	74.40	1.4096	561.36	327.07	0.08998	0.58662	0.10753	1561.52148	0.0	2.191211	574.42
1.290	74.25	1.4116	561.36	324.74	0.09126	0.58994	0.10743	1560.17273	0.0	2.180918	574.38
1.300	74.11	1.4137	561.35	322.45	0.09254	0.59322	0.10734	1558.75745	0.0	2.170766	574.35
1.310	73.97	1.4157	561.35	320.19	0.09383	0.59645	0.10724	1557.30774	0.0	2.160485	574.32
1.320	73.83	1.4177	561.35	317.96	0.09512	0.59964	0.10714	1555.84827	0.0	2.150064	574.28
1.330	73.68	1.4198	561.35	315.76	0.09641	0.60278	0.10704	1554.39941	0.0	2.139752	574.25
1.340	73.54	1.4218	561.35	313.59	0.09771	0.60589	0.10694	1552.97571	0.0	2.129541	574.21
1.350	73.40	1.4238	561.35	311.45	0.09901	0.60895	0.10684	1551.58606	0.0	2.119423	574.18
1.360	73.25	1.4259	561.35	309.33	0.10031	0.61198	0.10675	1550.23547	0.0	2.109396	574.15
1.370	73.11	1.4279	561.35	307.24	0.10162	0.61496	0.10666	1548.92480	0.0	2.099454	574.11
1.380	72.96	1.4300	561.34	305.18	0.10293	0.61791	0.10657	1547.65283	0.0	2.089597	574.08
1.390	72.82	1.4320	561.34	303.15	0.10424	0.62082	0.10649	1546.41614	0.0	2.079824	574.05
1.400	72.67	1.4341	561.34	301.14	0.10555	0.62369	0.10640	1545.20996	0.0	2.070136	574.02
1.410	72.53	1.4361	561.34	299.16	0.10687	0.62652	0.10632	1544.03174	0.0	2.060532	573.98
1.420	72.38	1.4382	561.34	297.20	0.10819	0.62932	0.10624	1542.88489	0.0	2.051012	573.95
1.430	72.23	1.4402	561.34	295.26	0.10951	0.63209	0.10617	1541.77039	0.0	2.041573	573.92
1.440	72.09	1.4423	561.34	293.35	0.11084	0.63482	0.10609	1540.66589	0.0	2.032214	573.89
1.450	71.94	1.4443	561.33	291.47	0.11217	0.63751	0.10601	1539.52649	0.0	2.022944	573.86
1.460	71.79	1.4464	561.33	289.61	0.11350	0.64018	0.10593	1538.32629	0.0	2.013782	573.83
1.470	71.65	1.4484	561.33	287.77	0.11483	0.64280	0.10584	1537.10327	0.0	2.004480	573.79
1.480	71.50	1.4505	561.33	285.96	0.11616	0.64539	0.10576	1535.94373	0.0	1.994519	573.76
1.490	71.35	1.4525	561.33	284.17	0.11749	0.64794	0.10569	1534.92371	0.0	1.984626	573.73
1.500	71.20	1.4546	561.33	282.41	0.11882	0.65046	0.10563	1534.05383	0.0	1.974775	573.69
1.510	71.05	1.4567	561.33	280.68	0.12015	0.65294	0.10558	1533.28442	0.0	1.964964	573.66
1.520	70.90	1.4587	561.32	278.96	0.12148	0.65539	0.10553	1532.55347	0.0	1.955216	573.62
1.530	70.75	1.4608	561.32	277.27	0.12281	0.65781	0.10548	1531.84009	0.0	1.945549	573.59
1.540	70.60	1.4628	561.32	275.60	0.12414	0.66020	0.10544	1531.19702	0.0	1.935964	573.56
1.550	70.45	1.4648	561.32	273.95	0.12548	0.66255	0.10541	1530.76855	0.0	1.926434	573.52
1.560	70.29	1.4669	561.32	272.33	0.12680	0.66487	0.10541	1530.79651	0.0	1.916915	573.49
1.570	70.13	1.4689	561.32	270.74	0.12812	0.66715	0.10547	1531.63049	0.0	1.907339	573.46
1.580	69.97	1.4709	561.32	269.19	0.12942	0.66936	0.10561	1533.71545	0.0	1.897604	573.42
1.590	69.79	1.4729	561.31	267.69	0.13069	0.67150	0.10587	1537.52173	0.0	1.887596	573.38
1.600	63.96	1.4748	561.26	265.93	0.13207	0.67399	0.10626	1543.13477	0.0	1.877251	573.34
1.610	63.78	1.4767	561.26	264.52	0.13332	0.67605	0.10653	1546.99329	0.0	1.866868	573.30
1.620	63.61	1.4786	561.26	263.07	0.13459	0.67812	0.10668	1549.22815	0.0	1.857052	573.27
1.630	63.44	1.4806	561.25	261.62	0.13588	0.68020	0.10675	1550.26770	0.0	1.847723	573.23
1.640	63.28	1.4826	561.25	260.18	0.13718	0.68226	0.10677	1550.47827	0.0	1.838271	573.20
1.650	63.12	1.4846	561.25	258.75	0.13848	0.68430	0.10674	1550.13562	0.0	1.829124	573.16
1.660	62.97	1.4866	561.25	257.34	0.13979	0.68632	0.10669	1549.42493	0.0	1.820207	573.13
1.670	62.81	1.4886	561.25	255.94	0.14110	0.68832	0.10663	1548.46936	0.0	1.811469	573.10
1.680	62.66	1.4906	561.25	254.55	0.14241	0.69030	0.10655	1547.35229	0.0	1.802873	573.07
1.690	62.50	1.4926	561.25	253.19	0.14373	0.69225	0.10647	1546.13403	0.0	1.794396	573.04
1.700	62.35	1.4945	561.24	251.83	0.14504	0.69419	0.10638	1544.85815	0.0	1.786019	573.01
1.710	62.20	1.4965	561.24	250.49	0.14636	0.69610	0.10629	1543.55725	0.0	1.777729	572.98
1.720	62.04	1.4985	561.24	249.17	0.14768	0.69799	0.10620	1542.25513	0.0	1.769517	572.95
1.730	61.89	1.5005	561.24	247.86	0.14899	0.69986	0.10611	1540.96924	0.0	1.761374	572.92
1.740	61.74	1.5025	561.24	246.57	0.15031	0.70171	0.10602	1539.71033	0.0	1.753293	572.89
1.750	61.58	1.5045	561.24	245.29	0.15163	0.70354	0.10594	1538.48462	0.0	1.745272	572.86
1.760	61.43	1.5065	561.23	244.02	0.15294	0.70535	0.10586	1537.29395	0.0	1.737308	572.83
1.770	61.27	1.5085	561.23	242.77	0.15426	0.70714	0.10578	1536.13770	0.0	1.729398	572.80
1.780	61.12	1.5105	561.23	241.53	0.15558	0.70891	0.10570	1535.01184	0.0	1.721545	572.77
1.790	60.96	1.5125	561.23	240.31	0.15689	0.71066	0.10562	1533.91187	0.0	1.713746	572.74
1.800	60.81	1.5144	561.23	239.10	0.15821	0.71239	0.10555	1532.83240	0.0	1.705640	572.71
1.810	60.65	1.5164	561.23	237.90	0.15952	0.71409	0.10548	1531.77087	0.0	1.697472	572.68
1.820	60.49	1.5184	561.23	236.72	0.16083	0.71578	0.10541	1530.73291	0.0	1.689365	572.65
1.830	60.34	1.5204	561.22	235.55	0.16214	0.71745	0.10534	1529.72046	0.0	1.681316	572.62
1.840	60.18	1.5223	561.22	234.39	0.16345	0.71911	0.10527	1528.71179	0.0	1.673326	572.59
1.850	60.02	1.5243	561.22	233.25	0.16476	0.72074	0.10519	1527.66260	0.0	1.665400	572.56
1.860	59.87	1.5263	561.22	232.12	0.16607	0.72235	0.10512	1526.55042	0.0	1.657555	572.53
1.870	59.71	1.5283	561.22	231.00	0.16738	0.72395	0.10504	1525.41736	0.0	1.649794	572.51
1.880	59.55	1.5302	561.22	229.89	0.16868	0.72554	0.10497	1524.35645	0.0	1.642099	572.48

1.890	59.39	1.5322	561.22	228.80	0.16999	0.72710	0.10490	1523.44458	0.0	1.634436	572.45
1.900	59.23	1.5341	561.21	227.72	0.17129	0.72865	0.10485	1522.68811	0.0	1.626785	572.42
1.910	59.07	1.5361	561.21	226.65	0.17259	0.73017	0.10481	1522.03162	0.0	1.619149	572.39
1.920	58.91	1.5380	561.21	225.59	0.17389	0.73168	0.10476	1521.41052	0.0	1.611546	572.36
1.930	58.75	1.5400	561.21	224.55	0.17519	0.73318	0.10472	1520.80664	0.0	1.603995	572.33
1.940	58.59	1.5419	561.21	223.51	0.17648	0.73465	0.10469	1520.28040	0.0	1.596495	572.30
1.950	58.43	1.5439	561.21	222.49	0.17777	0.73611	0.10467	1519.98816	0.0	1.589021	572.27
1.960	58.26	1.5458	561.20	221.49	0.17905	0.73755	0.10468	1520.19446	0.0	1.580819	572.24
1.970	58.09	1.5477	561.20	220.51	0.18031	0.73895	0.10475	1521.27588	0.0	1.571826	572.21
1.980	57.90	1.5495	561.20	219.56	0.18153	0.74030	0.10492	1523.72083	0.0	1.562679	572.17
1.990	57.71	1.5513	561.20	218.65	0.18271	0.74160	0.10522	1528.05078	0.0	1.553274	572.13
2.000	50.59	1.5530	561.13	217.50	0.18402	0.74320	0.10566	1534.38416	0.0	1.543548	572.09
2.010	50.39	1.5547	561.13	216.65	0.18517	0.74446	0.10596	1538.76147	0.0	1.533744	572.05
2.020	50.21	1.5565	561.13	215.77	0.18635	0.74573	0.10614	1541.34314	0.0	1.524451	572.01
2.030	50.03	1.5583	561.13	214.87	0.18756	0.74700	0.10622	1542.61670	0.0	1.515592	571.97
2.040	49.85	1.5601	561.13	213.98	0.18878	0.74828	0.10625	1542.99390	0.0	1.507056	571.94
2.050	49.68	1.5620	561.12	213.09	0.19000	0.74955	0.10623	1542.77197	0.0	1.498771	571.90
2.060	49.52	1.5638	561.12	212.20	0.19123	0.75081	0.10619	1542.15759	0.0	1.490684	571.87
2.070	49.35	1.5656	561.12	211.33	0.19245	0.75206	0.10613	1541.28430	0.0	1.482744	571.84
2.080	49.19	1.5674	561.12	210.47	0.19367	0.75329	0.10606	1540.24243	0.0	1.474919	571.81
2.090	49.03	1.5693	561.12	209.61	0.19489	0.75451	0.10598	1539.09595	0.0	1.467187	571.78
2.100	48.87	1.5711	561.12	208.77	0.19611	0.75572	0.10590	1537.89111	0.0	1.459531	571.75
2.110	48.71	1.5729	561.11	207.93	0.19733	0.75692	0.10581	1536.66162	0.0	1.451941	571.72
2.120	48.54	1.5747	561.11	207.10	0.19854	0.75810	0.10573	1535.43274	0.0	1.444287	571.69
2.130	48.38	1.5765	561.11	206.28	0.19976	0.75927	0.10565	1534.22131	0.0	1.436325	571.65
2.140	48.22	1.5783	561.11	205.47	0.20096	0.76043	0.10556	1533.03821	0.0	1.428411	571.62
2.150	48.06	1.5801	561.11	204.67	0.20217	0.76157	0.10549	1531.88855	0.0	1.420542	571.59
2.160	47.89	1.5819	561.11	203.87	0.20336	0.76271	0.10541	1530.77466	0.0	1.412714	571.56
2.170	47.73	1.5837	561.10	203.09	0.20456	0.76383	0.10533	1529.69470	0.0	1.404928	571.53
2.180	47.57	1.5855	561.10	202.31	0.20575	0.76493	0.10526	1528.64502	0.0	1.397183	571.49
2.190	47.40	1.5872	561.10	201.55	0.20694	0.76603	0.10519	1527.62048	0.0	1.389480	571.46
2.200	47.24	1.5890	561.10	200.79	0.20812	0.76711	0.10512	1526.61584	0.0	1.381821	571.43
2.210	47.08	1.5908	561.10	200.04	0.20930	0.76819	0.10505	1525.62903	0.0	1.374204	571.40
2.220	46.91	1.5925	561.10	199.29	0.21047	0.76925	0.10499	1524.66467	0.0	1.366632	571.37
2.230	46.75	1.5943	561.10	198.56	0.21164	0.77029	0.10492	1523.72510	0.0	1.359101	571.34
2.240	46.58	1.5960	561.09	197.83	0.21281	0.77133	0.10486	1522.78943	0.0	1.351611	571.31
2.250	46.42	1.5977	561.09	197.12	0.21397	0.77236	0.10479	1521.81299	0.0	1.344169	571.27
2.260	46.26	1.5995	561.09	196.40	0.21513	0.77337	0.10472	1520.77246	0.0	1.336787	571.24
2.270	46.09	1.6012	561.09	195.70	0.21629	0.77438	0.10465	1519.70862	0.0	1.329468	571.21
2.280	45.93	1.6029	561.09	195.00	0.21744	0.77538	0.10458	1518.71521	0.0	1.322197	571.18
2.290	45.76	1.6046	561.09	194.31	0.21858	0.77636	0.10452	1517.87146	0.0	1.313019	571.14
2.300	45.60	1.6063	561.08	193.64	0.21972	0.77733	0.10447	1517.18909	0.0	1.303848	571.10
2.310	45.43	1.6080	561.08	192.97	0.22084	0.77828	0.10443	1516.61597	0.0	1.294688	571.07
2.320	45.26	1.6096	561.08	192.31	0.22196	0.77922	0.10440	1516.08923	0.0	1.285554	571.03
2.330	45.10	1.6113	561.08	191.66	0.22307	0.78015	0.10436	1515.59106	0.0	1.276461	570.99
2.340	44.93	1.6129	561.08	191.02	0.22417	0.78106	0.10434	1515.18542	0.0	1.267402	570.95
2.350	44.76	1.6146	561.08	190.39	0.22527	0.78197	0.10432	1515.03137	0.0	1.258372	570.91
2.360	44.58	1.6162	561.08	189.77	0.22634	0.78285	0.10435	1515.40723	0.0	1.249335	570.87
2.370	44.40	1.6177	561.07	189.17	0.22739	0.78370	0.10444	1516.70435	0.0	1.240234	570.83
2.380	44.21	1.6192	561.07	188.60	0.22839	0.78452	0.10463	1519.44031	0.0	1.230994	570.79
2.390	44.00	1.6206	561.07	188.06	0.22933	0.78529	0.10495	1524.17041	0.0	1.221526	570.74
2.400	35.69	1.6219	560.99	187.28	0.23041	0.78634	0.10542	1531.00793	0.0	1.211776	570.69
2.410	35.48	1.6233	560.99	186.80	0.23132	0.78709	0.10575	1535.80591	0.0	1.201936	570.65
2.420	35.28	1.6247	560.99	186.26	0.23226	0.78785	0.10595	1538.70911	0.0	1.192511	570.60
2.430	35.09	1.6261	560.99	185.72	0.23323	0.78862	0.10606	1540.23193	0.0	1.183444	570.56
2.440	34.91	1.6276	560.98	185.17	0.23422	0.78940	0.10610	1540.81091	0.0	1.174639	570.52
2.450	34.74	1.6291	560.98	184.63	0.23522	0.79018	0.10610	1540.75513	0.0	1.166392	570.48
2.460	34.57	1.6305	560.98	184.09	0.23621	0.79095	0.10606	1540.28955	0.0	1.158430	570.45
2.470	34.40	1.6320	560.98	183.56	0.23720	0.79171	0.10601	1539.55249	0.0	1.150581	570.41
2.480	34.23	1.6335	560.98	183.03	0.23819	0.79246	0.10595	1538.63745	0.0	1.142818	570.38
2.490	34.07	1.6349	560.98	182.50	0.23917	0.79321	0.10588	1537.61084	0.0	1.135122	570.34
2.500	33.90	1.6364	560.97	181.99	0.24015	0.79395	0.10580	1536.52039	0.0	1.127481	570.31

2.510	33.74	1.6378	560.97	181.47	0.24112	0.79468	0.10573	1535.40173	0.0	1.119885	570.27
2.520	33.57	1.6393	560.97	180.97	0.24209	0.79540	0.10565	1534.28040	0.0	1.112327	570.24
2.530	33.41	1.6407	560.97	180.47	0.24305	0.79612	0.10557	1533.17407	0.0	1.104801	570.20
2.540	33.24	1.6421	560.97	179.97	0.24401	0.79683	0.10550	1532.09424	0.0	1.097304	570.17
2.550	33.08	1.6435	560.97	179.48	0.24496	0.79752	0.10543	1531.04639	0.0	1.089832	570.13
2.560	32.91	1.6449	560.96	179.00	0.24590	0.79821	0.10536	1530.03308	0.0	1.082386	570.10
2.570	32.75	1.6463	560.96	178.52	0.24684	0.79890	0.10529	1529.05237	0.0	1.074962	570.06
2.580	32.58	1.6477	560.96	178.05	0.24777	0.79957	0.10522	1528.10095	0.0	1.067564	570.03
2.590	32.42	1.6491	560.96	177.58	0.24870	0.80024	0.10516	1527.17432	0.0	1.060189	569.99
2.600	32.25	1.6505	560.96	177.12	0.24962	0.80090	0.10510	1526.26770	0.0	1.052840	569.96
2.610	32.08	1.6518	560.96	176.66	0.25053	0.80155	0.10504	1525.37854	0.0	1.045265	569.92
2.620	31.92	1.6531	560.95	176.21	0.25143	0.80219	0.10498	1524.51123	0.0	1.037465	569.89
2.630	31.75	1.6545	560.95	175.76	0.25233	0.80283	0.10492	1523.66895	0.0	1.029690	569.85
2.640	31.59	1.6558	560.95	175.32	0.25322	0.80345	0.10486	1522.83240	0.0	1.021938	569.81
2.650	31.42	1.6571	560.95	174.89	0.25411	0.80407	0.10480	1521.95813	0.0	1.014215	569.77
2.660	31.26	1.6584	560.95	174.46	0.25499	0.80469	0.10474	1521.02161	0.0	1.006530	569.74
2.670	31.09	1.6597	560.95	174.04	0.25586	0.80529	0.10467	1520.05957	0.0	0.9988858	569.70
2.680	30.93	1.6610	560.95	173.62	0.25672	0.80589	0.10461	1519.16101	0.0	0.9912705	569.66
2.690	30.76	1.6623	560.94	173.20	0.25758	0.80648	0.10456	1518.40649	0.0	0.9836644	569.63
2.700	30.60	1.6635	560.94	172.80	0.25843	0.80706	0.10452	1517.81384	0.0	0.9760538	569.59
2.710	30.43	1.6648	560.94	172.39	0.25927	0.80763	0.10448	1517.33862	0.0	0.9684386	569.55
2.720	30.26	1.6660	560.94	172.00	0.26010	0.80820	0.10445	1516.92346	0.0	0.9608300	569.51
2.730	30.09	1.6672	560.94	171.61	0.26092	0.80876	0.10443	1516.55115	0.0	0.9532355	569.48
2.740	29.92	1.6684	560.94	171.22	0.26174	0.80930	0.10441	1516.28113	0.0	0.9456591	569.44
2.750	29.75	1.6696	560.93	170.84	0.26254	0.80984	0.10441	1516.27112	0.0	0.9380935	569.40
2.760	29.58	1.6708	560.93	170.48	0.26332	0.81037	0.10445	1516.79492	0.0	0.9305113	569.36
2.770	29.39	1.6719	560.93	170.12	0.26407	0.81087	0.10455	1518.24475	0.0	0.9229961	569.32
2.780	29.19	1.6729	560.93	169.79	0.26478	0.81134	0.10475	1521.14417	0.0	0.9157474	569.28
2.790	28.98	1.6739	560.93	169.49	0.26542	0.81177	0.10508	1526.05444	0.0	0.9083129	569.24
2.800	19.67	1.6747	560.84	168.95	0.26619	0.81248	0.10556	1533.04590	0.0	0.9006485	569.20
2.810	19.46	1.6756	560.84	168.69	0.26680	0.81290	0.10591	1538.04211	0.0	0.8928972	569.15
2.820	19.25	1.6766	560.83	168.38	0.26746	0.81334	0.10612	1541.12903	0.0	0.8854469	569.11
2.830	19.06	1.6776	560.83	168.06	0.26814	0.81379	0.10624	1542.81616	0.0	0.8782582	569.07
2.840	18.88	1.6787	560.83	167.74	0.26884	0.81426	0.10629	1543.54822	0.0	0.8712611	569.04
2.850	18.71	1.6797	560.83	167.41	0.26956	0.81472	0.10629	1543.63831	0.0	0.8643982	569.00
2.860	18.53	1.6808	560.83	167.09	0.27028	0.81518	0.10627	1543.31091	0.0	0.8576457	568.96
2.870	18.37	1.6818	560.83	166.77	0.27099	0.81564	0.10623	1542.70569	0.0	0.8509697	568.93
2.880	18.20	1.6829	560.82	166.45	0.27170	0.81610	0.10618	1541.91675	0.0	0.8443506	568.89
2.890	18.03	1.6839	560.82	166.13	0.27240	0.81655	0.10611	1541.01025	0.0	0.8377742	568.86
2.900	17.87	1.6850	560.82	165.82	0.27310	0.81699	0.10605	1540.03406	0.0	0.8312306	568.82
2.910	17.71	1.6860	560.82	165.51	0.27380	0.81743	0.10598	1539.02356	0.0	0.8247124	568.79
2.920	17.54	1.6870	560.82	165.21	0.27449	0.81787	0.10591	1538.00415	0.0	0.8182150	568.75
2.930	17.38	1.6881	560.82	164.91	0.27517	0.81830	0.10584	1536.99438	0.0	0.8117331	568.72
2.940	17.21	1.6891	560.81	164.61	0.27585	0.81872	0.10577	1536.00586	0.0	0.8063141	568.69
2.950	17.05	1.6901	560.81	164.31	0.27653	0.81914	0.10570	1535.04553	0.0	0.8009063	568.66
2.960	16.89	1.6911	560.81	164.02	0.27720	0.81956	0.10564	1534.11548	0.0	0.7955090	568.63
2.970	16.72	1.6920	560.81	163.73	0.27786	0.81997	0.10558	1533.21570	0.0	0.7901214	568.60
2.980	16.56	1.6930	560.81	163.44	0.27852	0.82038	0.10552	1532.34338	0.0	0.7847438	568.57
2.990	16.39	1.6940	560.81	163.16	0.27918	0.82078	0.10546	1531.49463	0.0	0.7793762	568.54
3.000	16.23	1.6950	560.81	162.88	0.27983	0.82118	0.10540	1530.66455	0.0	0.7740193	568.51
3.010	16.07	1.6959	560.80	162.60	0.28047	0.82158	0.10534	1529.84900	0.0	0.7686734	568.48
3.020	15.90	1.6969	560.80	162.33	0.28111	0.82197	0.10529	1529.04358	0.0	0.7633395	568.45
3.030	15.74	1.6978	560.80	162.06	0.28175	0.82236	0.10523	1528.24512	0.0	0.7580173	568.42
3.040	15.57	1.6987	560.80	161.79	0.28238	0.82274	0.10518	1527.45068	0.0	0.7527081	568.40
3.050	15.41	1.6997	560.80	161.52	0.28300	0.82312	0.10513	1526.65918	0.0	0.7474112	568.37
3.060	15.24	1.7006	560.80	161.26	0.28362	0.82349	0.10507	1525.87000	0.0	0.7421272	568.34
3.070	15.08	1.7015	560.79	161.00	0.28424	0.82386	0.10502	1525.08301	0.0	0.7368560	568.31
3.080	14.92	1.7024	560.79	160.74	0.28485	0.82423	0.10496	1524.29895	0.0	0.7315971	568.28
3.090	14.75	1.7033	560.79	160.49	0.28546	0.82459	0.10491	1523.51892	0.0	0.7263502	568.25
3.100	14.59	1.7042	560.79	160.24	0.28606	0.82495	0.10486	1522.74414	0.0	0.7211501	568.22
3.110	14.43	1.7051	560.79	159.99	0.28666	0.82531	0.10480	1521.97644	0.0	0.7168133	568.19
3.120	14.26	1.7060	560.79	159.74	0.28725	0.82566	0.10475	1521.21680	0.0	0.7121272	568.16

3.130	14.10	1.7068	560.79	159.49	0.28784	0.82601	0.10470	1520.46704	0.0	0.7074517	568.14
3.140	13.94	1.7077	560.78	159.25	0.28842	0.82635	0.10465	1519.72778	0.0	0.7027865	568.11
3.150	13.77	1.7086	560.78	159.01	0.28900	0.82669	0.10460	1519.00049	0.0	0.6981311	568.08
3.160	13.61	1.7094	560.78	158.77	0.28958	0.82703	0.10455	1518.28503	0.0	0.6934853	568.06
3.170	13.45	1.7103	560.78	158.54	0.29015	0.82737	0.10450	1517.58240	0.0	0.6888489	568.03
3.180	13.28	1.7111	560.78	158.31	0.29072	0.82770	0.10445	1516.89185	0.0	0.6842216	568.00
3.190	13.12	1.7119	560.78	158.08	0.29128	0.82803	0.10441	1516.21375	0.0	0.6796036	567.98
3.200	12.96	1.7128	560.77	157.85	0.29184	0.82835	0.10436	1515.54773	0.0	0.6749945	567.95
3.210	12.79	1.7136	560.77	157.62	0.29240	0.82868	0.10431	1514.89294	0.0	0.6703942	567.92
3.220	12.63	1.7144	560.77	157.40	0.29295	0.82899	0.10427	1514.24890	0.0	0.6658030	567.89
3.230	12.47	1.7152	560.77	157.18	0.29349	0.82931	0.10423	1513.61511	0.0	0.6612204	567.87
3.240	12.30	1.7160	560.77	156.96	0.29404	0.82962	0.10418	1512.99060	0.0	0.6566465	567.84
3.250	12.14	1.7168	560.77	156.74	0.29457	0.82993	0.10414	1512.37476	0.0	0.6520813	567.81
3.260	11.98	1.7176	560.77	156.53	0.29511	0.83023	0.10410	1511.76733	0.0	0.6477954	567.79
3.270	11.81	1.7184	560.76	156.32	0.29564	0.83054	0.10406	1511.16724	0.0	0.6437888	567.76
3.280	11.65	1.7192	560.76	156.11	0.29616	0.83084	0.10402	1510.57458	0.0	0.6397907	567.74
3.290	11.49	1.7199	560.76	155.90	0.29668	0.83113	0.10398	1509.98840	0.0	0.6358006	567.71
3.300	11.32	1.7207	560.76	155.69	0.29720	0.83143	0.10394	1509.40857	0.0	0.6318190	567.69
3.310	11.16	1.7215	560.76	155.49	0.29772	0.83172	0.10390	1508.83521	0.0	0.6278453	567.66
3.320	11.00	1.7222	560.76	155.28	0.29823	0.83201	0.10386	1508.26794	0.0	0.6238800	567.64
3.330	10.83	1.7230	560.75	155.08	0.29873	0.83229	0.10382	1507.70654	0.0	0.6199223	567.61
3.340	10.67	1.7237	560.75	154.88	0.29924	0.83258	0.10378	1507.15125	0.0	0.6159729	567.59
3.350	10.51	1.7245	560.75	154.69	0.29974	0.83286	0.10374	1506.60217	0.0	0.6120311	567.57
3.360	10.35	1.7252	560.75	154.49	0.30023	0.83313	0.10371	1506.05920	0.0	0.6080970	567.54
3.370	10.18	1.7259	560.75	154.30	0.30072	0.83341	0.10367	1505.52234	0.0	0.6041703	567.52
3.380	10.02	1.7266	560.75	154.11	0.30121	0.83368	0.10363	1504.99146	0.0	0.6002514	567.49
3.390	9.86	1.7274	560.74	153.92	0.30170	0.83395	0.10360	1504.46729	0.0	0.5963397	567.47
3.400	9.69	1.7281	560.74	153.73	0.30218	0.83422	0.10356	1503.94946	0.0	0.5924354	567.44
3.410	9.53	1.7288	560.74	153.54	0.30265	0.83448	0.10353	1503.43799	0.0	0.5885379	567.42
3.420	9.37	1.7295	560.74	153.36	0.30313	0.83475	0.10349	1502.93311	0.0	0.5847831	567.39
3.430	9.21	1.7302	560.74	153.18	0.30360	0.83501	0.10346	1502.43445	0.0	0.5814415	567.37
3.440	9.04	1.7309	560.74	153.00	0.30407	0.83526	0.10342	1501.94250	0.0	0.5781065	567.35
3.450	8.88	1.7316	560.74	152.82	0.30453	0.83552	0.10339	1501.45703	0.0	0.5747778	567.33
3.460	8.72	1.7322	560.73	152.64	0.30499	0.83577	0.10336	1500.97778	0.0	0.5714557	567.31
3.470	8.55	1.7329	560.73	152.46	0.30545	0.83602	0.10332	1500.50476	0.0	0.5681397	567.29
3.480	8.39	1.7336	560.73	152.29	0.30590	0.83627	0.10329	1500.03809	0.0	0.5648299	567.27
3.490	8.23	1.7343	560.73	152.12	0.30636	0.83652	0.10326	1499.57776	0.0	0.5615264	567.24
3.500	8.07	1.7349	560.73	151.94	0.30680	0.83676	0.10323	1499.12329	0.0	0.5582291	567.22
3.510	7.90	1.7356	560.73	151.77	0.30725	0.83700	0.10320	1498.67493	0.0	0.5549374	567.20
3.520	7.74	1.7362	560.72	151.61	0.30769	0.83724	0.10317	1498.23242	0.0	0.5516521	567.18
3.530	7.58	1.7369	560.72	151.44	0.30813	0.83748	0.10314	1497.79565	0.0	0.5483723	567.16
3.540	7.42	1.7375	560.72	151.27	0.30857	0.83772	0.10311	1497.36475	0.0	0.5450987	567.14
3.550	7.25	1.7382	560.72	151.11	0.30900	0.83795	0.10308	1496.93958	0.0	0.5418307	567.11
3.560	7.09	1.7388	560.72	150.95	0.30943	0.83818	0.10305	1496.51965	0.0	0.5385683	567.09
3.570	6.93	1.7394	560.72	150.79	0.30986	0.83841	0.10302	1496.10535	0.0	0.5353118	567.07
3.580	6.76	1.7401	560.72	150.63	0.31028	0.83864	0.10299	1495.69629	0.0	0.5320607	567.05
3.590	6.60	1.7407	560.71	150.47	0.31070	0.83886	0.10297	1495.29272	0.0	0.5277207	567.02
3.600	6.44	1.7413	560.71	150.31	0.31111	0.83909	0.10294	1494.89453	0.0	0.5233862	566.99
3.610	6.28	1.7419	560.71	150.16	0.31152	0.83930	0.10291	1494.50195	0.0	0.5190567	566.96
3.620	6.11	1.7425	560.71	150.01	0.31193	0.83952	0.10288	1494.11438	0.0	0.5147328	566.93
3.630	5.95	1.7431	560.71	149.86	0.31233	0.83973	0.10286	1493.73242	0.0	0.5104136	566.90
3.640	5.79	1.7437	560.71	149.71	0.31273	0.83994	0.10283	1493.35535	0.0	0.5060998	566.87
3.650	5.63	1.7443	560.70	149.56	0.31312	0.84015	0.10281	1492.98364	0.0	0.5017905	566.84
3.660	5.47	1.7448	560.70	149.42	0.31351	0.84036	0.10278	1492.61694	0.0	0.4974863	566.81
3.670	5.30	1.7454	560.70	149.28	0.31389	0.84056	0.10276	1492.25513	0.0	0.4931864	566.78
3.680	5.14	1.7460	560.70	149.13	0.31427	0.84076	0.10273	1491.89844	0.0	0.4888911	566.75
3.690	4.98	1.7465	560.70	149.00	0.31464	0.84096	0.10271	1491.54688	0.0	0.4846004	566.72
3.700	4.82	1.7471	560.70	148.86	0.31501	0.84115	0.10268	1491.19995	0.0	0.4803137	566.69
3.710	4.66	1.7476	560.70	148.72	0.31538	0.84135	0.10266	1490.85803	0.0	0.4760310	566.66
3.720	4.50	1.7481	560.69	148.59	0.31574	0.84153	0.10264	1490.52087	0.0	0.4717526	566.63
3.730	4.33	1.7487	560.69	148.46	0.31609	0.84172	0.10261	1490.18823	0.0	0.4674779	566.60
3.740	4.17	1.7492	560.69	148.33	0.31644	0.84191	0.10259	1489.86035	0.0	0.4632071	566.57

3.750	4.01	1.7497	560.69	148.20	0.31679	0.84209	0.10257	1489.53748	0.0	0.4593585	566.54
3.760	3.85	1.7502	560.69	148.08	0.31714	0.84227	0.10255	1489.21887	0.0	0.4556536	566.52
3.770	3.69	1.7507	560.69	147.95	0.31748	0.84245	0.10253	1488.90491	0.0	0.4519525	566.49
3.780	3.53	1.7512	560.68	147.83	0.31781	0.84262	0.10250	1488.59521	0.0	0.4482551	566.46
3.790	3.37	1.7517	560.68	147.71	0.31815	0.84279	0.10248	1488.29004	0.0	0.4445613	566.44
3.800	3.21	1.7522	560.68	147.59	0.31847	0.84296	0.10246	1487.98901	0.0	0.4408713	566.41
3.810	3.04	1.7527	560.68	147.47	0.31880	0.84313	0.10244	1487.69226	0.0	0.4371843	566.38
3.820	2.88	1.7531	560.68	147.35	0.31912	0.84330	0.10242	1487.40002	0.0	0.4335011	566.36
3.830	2.72	1.7536	560.68	147.23	0.31944	0.84346	0.10240	1487.11169	0.0	0.4298208	566.33
3.840	2.56	1.7541	560.68	147.12	0.31975	0.84363	0.10238	1486.82788	0.0	0.4261440	566.30
3.850	2.40	1.7545	560.67	147.01	0.32006	0.84379	0.10236	1486.54797	0.0	0.4224700	566.27
3.860	2.24	1.7550	560.67	146.90	0.32036	0.84394	0.10234	1486.27209	0.0	0.4187991	566.25
3.870	2.08	1.7554	560.67	146.79	0.32067	0.84410	0.10233	1486.00037	0.0	0.4151312	566.22
3.880	1.92	1.7559	560.67	146.68	0.32096	0.84425	0.10231	1485.73267	0.0	0.4114661	566.19
3.890	1.76	1.7563	560.67	146.57	0.32126	0.84440	0.10229	1485.46912	0.0	0.4078035	566.16
3.900	1.60	1.7567	560.67	146.47	0.32155	0.84455	0.10227	1485.20923	0.0	0.4041438	566.13
3.910	1.44	1.7572	560.66	146.36	0.32184	0.84470	0.10225	1484.95325	0.0	0.4004864	566.11
3.920	1.28	1.7576	560.66	146.26	0.32212	0.84485	0.10224	1484.70117	0.0	0.3968316	566.08
3.930	1.12	1.7580	560.66	146.16	0.32240	0.84499	0.10222	1484.45264	0.0	0.3931789	566.05
3.940	0.96	1.7584	560.66	146.06	0.32267	0.84513	0.10220	1484.20776	0.0	0.3895289	566.02
3.950	0.80	1.7588	560.66	145.96	0.32294	0.84527	0.10219	1483.96667	0.0	0.3858806	565.99
3.960	0.64	1.7592	560.66	145.87	0.32321	0.84541	0.10217	1483.72888	0.0	0.3822348	565.96
3.970	0.48	1.7596	560.66	145.77	0.32347	0.84554	0.10215	1483.49426	0.0	0.3785908	565.93
3.980	0.32	1.7599	560.65	145.68	0.32373	0.84567	0.10214	1483.26245	0.0	0.3749489	565.90
3.990	0.16	1.7603	560.65	145.59	0.32399	0.84580	0.10212	1483.03284	0.0	0.3713086	565.88
4.000	0.00	1.7607	560.65	145.50	0.32424	0.84593	0.10211	1482.80481	0.0	0.3676703	565.85

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 3

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	763.922	763.922	0.0000
0.015	763.647	763.647	0.0000
0.025	763.367	763.367	0.0000
0.035	763.083	763.083	0.0000
0.045	762.793	762.793	0.0000
0.055	762.498	762.498	0.0000
0.065	762.198	762.198	0.0000
0.075	761.892	761.892	0.0000
0.085	761.582	761.582	0.0000
0.095	761.266	761.266	0.0000
0.105	760.945	760.945	0.0000
0.115	760.618	760.618	0.0000
0.125	760.286	760.286	0.0000
0.135	759.949	759.949	0.0000
0.145	759.606	759.606	0.0000
0.155	765.338	759.200	0.0000
0.165	779.741	758.452	0.0000
0.175	787.899	757.289	0.0000
0.185	799.655	755.819	0.0000
0.195	805.383	754.128	0.0000
0.205	788.287	752.262	0.0000
0.215	800.313	750.247	0.0000
0.225	798.376	748.101	0.0000
0.235	776.111	745.831	0.0000
0.245	769.185	743.446	0.0000
0.255	762.211	740.947	0.0000

0.265	755.107	738.336	0.0001
0.275	747.501	735.618	0.0001
0.285	739.367	732.795	0.0001
0.295	731.317	729.868	0.0001
0.305	729.857	726.841	0.0001
0.315	720.988	723.711	0.0002
0.325	712.052	720.476	0.0002
0.335	702.742	717.006	0.0002
0.345	693.485	713.421	0.0002
0.355	684.343	709.727	0.0003
0.365	675.382	705.934	0.0003
0.375	666.669	702.059	0.0004
0.385	658.265	698.125	0.0004
0.395	649.677	693.902	0.0004
0.405	641.995	689.891	0.0005
0.415	634.384	685.698	0.0005
0.425	626.893	681.331	0.0006
0.435	619.564	676.804	0.0006
0.445	612.431	672.130	0.0007
0.455	605.508	667.319	0.0008
0.465	598.797	662.380	0.0008
0.475	592.300	657.320	0.0009
0.485	585.998	652.144	0.0009
0.495	579.875	646.858	0.0010
0.505	573.915	641.468	0.0011
0.515	568.095	635.981	0.0011
0.525	562.389	630.403	0.0012
0.535	556.781	624.741	0.0013
0.545	551.247	619.004	0.0014
0.555	545.764	613.197	0.0014
0.565	540.307	607.330	0.0015
0.575	534.870	601.411	0.0016
0.585	529.437	595.447	0.0017
0.595	523.993	589.448	0.0018
0.605	518.699	583.642	0.0019
0.615	513.773	578.177	0.0020
0.625	508.828	572.712	0.0020
0.635	503.853	567.241	0.0021
0.645	498.834	561.761	0.0022
0.655	493.918	556.447	0.0023
0.665	489.070	551.302	0.0024
0.675	484.215	546.158	0.0025
0.685	479.335	541.028	0.0026
0.695	474.438	535.922	0.0027
0.705	469.563	530.845	0.0028
0.715	464.674	525.799	0.0029
0.725	459.792	520.784	0.0030
0.735	454.932	515.800	0.0031
0.745	450.062	510.852	0.0032
0.755	445.242	505.951	0.0033
0.765	440.455	501.112	0.0034
0.775	435.744	496.364	0.0035
0.785	431.110	491.734	0.0036
0.795	426.167	486.811	0.0037
0.805	421.792	482.464	0.0039
0.815	417.365	478.076	0.0040
0.825	413.032	473.799	0.0041
0.835	408.691	469.518	0.0042
0.845	404.386	465.252	0.0043
0.855	400.107	461.011	0.0044
0.865	395.858	456.801	0.0045
0.875	391.666	452.629	0.0046

0.885	387.500	448.496	0.0048
0.895	383.398	444.405	0.0049
0.905	379.335	440.359	0.0050
0.915	375.338	436.357	0.0051
0.925	371.377	432.401	0.0052
0.935	367.490	428.492	0.0053
0.945	363.649	424.631	0.0054
0.955	359.872	420.816	0.0056
0.965	356.131	417.050	0.0057
0.975	352.462	413.331	0.0058
0.985	348.893	409.729	0.0059
0.995	345.378	406.174	0.0060
1.005	341.909	402.666	0.0061
1.015	338.526	399.204	0.0063
1.025	335.172	395.789	0.0064
1.035	331.890	392.420	0.0065
1.045	328.639	389.096	0.0066
1.055	325.473	385.815	0.0067
1.065	322.325	382.576	0.0069
1.075	319.251	379.379	0.0070
1.085	316.236	376.226	0.0071
1.095	313.277	373.118	0.0072
1.105	310.342	370.055	0.0074
1.115	307.461	367.036	0.0075
1.125	304.640	364.058	0.0076
1.135	301.909	361.121	0.0077
1.145	299.161	358.235	0.0079
1.155	296.499	355.396	0.0080
1.165	293.901	352.610	0.0081
1.175	291.392	349.892	0.0083
1.185	288.927	347.254	0.0084
1.195	286.160	344.324	0.0086
1.205	283.841	341.846	0.0087
1.215	281.562	339.328	0.0089
1.225	279.250	336.814	0.0090
1.235	276.982	334.312	0.0092
1.245	274.751	331.835	0.0093
1.255	272.552	329.385	0.0094
1.265	270.368	326.962	0.0095
1.275	268.214	324.568	0.0097
1.285	266.167	322.202	0.0098
1.295	264.094	319.864	0.0099
1.305	262.069	317.558	0.0101
1.315	260.064	315.285	0.0102
1.325	258.088	313.040	0.0103
1.335	256.206	310.823	0.0105
1.345	254.273	308.634	0.0106
1.355	252.446	306.473	0.0107
1.365	250.568	304.338	0.0108
1.375	248.773	302.231	0.0110
1.385	247.023	300.150	0.0111
1.395	245.304	298.094	0.0112
1.405	243.532	296.064	0.0114
1.415	241.848	294.059	0.0115
1.425	240.227	292.079	0.0116
1.435	238.582	290.123	0.0118
1.445	236.987	288.190	0.0119
1.455	235.428	286.280	0.0120
1.465	233.831	284.395	0.0122
1.475	232.344	282.539	0.0123
1.485	230.848	280.706	0.0124
1.495	229.373	278.898	0.0126

1.505	227.907	277.114	0.0127
1.515	226.498	275.354	0.0128
1.525	225.094	273.615	0.0130
1.535	223.723	271.898	0.0131
1.545	222.356	270.204	0.0132
1.555	220.988	268.532	0.0134
1.565	219.718	266.895	0.0135
1.575	218.442	265.301	0.0137
1.585	217.275	263.760	0.0138
1.595	215.813	261.948	0.0140
1.605	214.600	260.499	0.0142
1.615	213.498	259.006	0.0143
1.625	212.315	257.512	0.0145
1.635	211.115	256.025	0.0146
1.645	210.047	254.550	0.0148
1.655	208.927	253.091	0.0149
1.665	207.805	251.646	0.0150
1.675	206.738	250.216	0.0152
1.685	205.669	248.802	0.0153
1.695	204.574	247.403	0.0154
1.705	203.559	246.018	0.0156
1.715	202.542	244.648	0.0157
1.725	201.553	243.294	0.0158
1.735	200.485	241.953	0.0159
1.745	199.555	240.628	0.0161
1.755	198.568	239.316	0.0162
1.765	197.611	238.019	0.0163
1.775	196.663	236.736	0.0165
1.785	195.713	235.466	0.0166
1.795	194.829	234.212	0.0167
1.805	193.966	232.972	0.0168
1.815	193.057	231.745	0.0170
1.825	192.125	230.532	0.0171
1.835	191.285	229.332	0.0172
1.845	190.481	228.145	0.0173
1.855	189.621	226.970	0.0175
1.865	188.798	225.807	0.0176
1.875	187.954	224.656	0.0177
1.885	187.170	223.517	0.0178
1.895	186.379	222.392	0.0180
1.905	185.589	221.280	0.0181
1.915	184.859	220.181	0.0182
1.925	184.110	219.094	0.0183
1.935	183.319	218.018	0.0185
1.945	182.590	216.954	0.0186
1.955	181.877	215.908	0.0187
1.965	181.151	214.888	0.0189
1.975	180.426	213.902	0.0190
1.985	179.798	212.958	0.0192
1.995	178.916	211.765	0.0194
2.005	178.318	210.884	0.0196
2.015	177.712	209.960	0.0198
2.025	177.089	209.028	0.0199
2.035	176.439	208.096	0.0201
2.045	175.844	207.168	0.0202
2.055	175.214	206.249	0.0203
2.065	174.591	205.338	0.0204
2.075	174.019	204.436	0.0205
2.085	173.365	203.544	0.0207
2.095	172.764	202.659	0.0208
2.105	172.214	201.784	0.0209
2.115	171.650	200.918	0.0210

2.125	171.071	200.061	0.0211
2.135	170.497	199.213	0.0212
2.145	169.936	198.374	0.0213
2.155	169.469	197.545	0.0214
2.165	168.850	196.725	0.0216
2.175	168.335	195.913	0.0217
2.185	167.826	195.110	0.0218
2.195	167.354	194.316	0.0219
2.205	166.747	193.531	0.0220
2.215	166.337	192.753	0.0221
2.225	165.825	191.985	0.0222
2.235	165.267	191.224	0.0223
2.245	164.800	190.472	0.0224
2.255	164.360	189.726	0.0225
2.265	163.870	188.989	0.0226
2.275	163.388	188.258	0.0227
2.285	162.963	187.538	0.0229
2.295	162.451	186.828	0.0230
2.305	162.071	186.128	0.0231
2.315	161.604	185.438	0.0232
2.325	161.197	184.757	0.0233
2.335	160.796	184.085	0.0234
2.345	160.290	183.422	0.0235
2.355	159.896	182.774	0.0236
2.365	159.514	182.147	0.0237
2.375	159.158	181.548	0.0239
2.385	158.837	180.985	0.0240
2.395	158.230	180.184	0.0242
2.405	157.934	179.671	0.0244
2.415	157.520	179.114	0.0246
2.425	157.192	178.547	0.0247
2.435	156.885	177.977	0.0248
2.445	156.482	177.405	0.0250
2.455	156.166	176.839	0.0251
2.465	155.843	176.279	0.0252
2.475	155.512	175.725	0.0252
2.485	155.156	175.176	0.0253
2.495	154.809	174.632	0.0254
2.505	154.453	174.094	0.0255
2.515	154.168	173.563	0.0256
2.525	153.858	173.037	0.0257
2.535	153.495	172.517	0.0258
2.545	153.168	172.002	0.0258
2.555	152.850	171.494	0.0259
2.565	152.605	170.992	0.0260
2.575	152.271	170.496	0.0261
2.585	151.993	170.005	0.0262
2.595	151.643	169.520	0.0262
2.605	151.366	169.041	0.0263
2.615	151.163	168.568	0.0264
2.625	150.823	168.101	0.0265
2.635	150.571	167.639	0.0266
2.645	150.264	167.183	0.0266
2.655	150.031	166.733	0.0267
2.665	149.710	166.287	0.0268
2.675	149.465	165.847	0.0269
2.685	149.212	165.412	0.0269
2.695	149.034	164.984	0.0270
2.705	148.765	164.563	0.0271
2.715	148.488	164.147	0.0272
2.725	148.203	163.738	0.0273
2.735	147.996	163.334	0.0273

2.745	147.780	162.937	0.0274
2.755	147.467	162.552	0.0275
2.765	147.305	162.182	0.0276
2.775	147.120	161.836	0.0277
2.785	146.903	161.520	0.0278
2.795	146.516	160.967	0.0280
2.805	146.436	160.690	0.0282
2.815	146.131	160.369	0.0284
2.825	145.979	160.036	0.0285
2.835	145.781	159.697	0.0286
2.845	145.498	159.355	0.0287
2.855	145.418	159.015	0.0287
2.865	145.185	158.677	0.0288
2.875	144.979	158.343	0.0289
2.885	144.801	158.012	0.0289
2.895	144.588	157.685	0.0290
2.905	144.369	157.360	0.0290
2.915	144.203	157.040	0.0291
2.925	144.095	156.723	0.0291
2.935	143.864	156.410	0.0292
2.945	143.628	156.099	0.0292
2.955	143.565	155.792	0.0293
2.965	143.322	155.488	0.0293
2.975	143.131	155.188	0.0294
2.985	142.999	154.890	0.0294
2.995	142.832	154.596	0.0295
3.005	142.661	154.305	0.0296
3.015	142.486	154.017	0.0296
3.025	142.307	153.732	0.0297
3.035	142.184	153.451	0.0297
3.045	142.028	153.172	0.0298
3.055	141.839	152.896	0.0298
3.065	141.645	152.623	0.0299
3.075	141.448	152.353	0.0299
3.085	141.338	152.086	0.0300
3.095	141.225	151.822	0.0300
3.105	141.018	151.560	0.0300
3.115	140.899	151.300	0.0301
3.125	140.777	151.043	0.0301
3.135	140.652	150.789	0.0302
3.145	140.432	150.537	0.0302
3.155	140.393	150.288	0.0303
3.165	140.259	150.041	0.0303
3.175	140.121	149.797	0.0304
3.185	139.889	149.555	0.0304
3.195	139.838	149.316	0.0305
3.205	139.630	149.079	0.0305
3.215	139.573	148.845	0.0306
3.225	139.328	148.613	0.0306
3.235	139.236	148.384	0.0306
3.245	139.172	148.157	0.0307
3.255	138.948	147.932	0.0307
3.265	138.848	147.709	0.0308
3.275	138.713	147.489	0.0308
3.285	138.638	147.270	0.0309
3.295	138.532	147.054	0.0309
3.305	138.452	146.839	0.0309
3.315	138.307	146.627	0.0310
3.325	138.128	146.417	0.0310
3.335	138.042	146.208	0.0311
3.345	137.859	146.002	0.0311
3.355	137.768	145.797	0.0311

3.365	137.675	145.595	0.0312
3.375	137.580	145.395	0.0312
3.385	137.387	145.196	0.0313
3.395	137.287	145.000	0.0313
3.405	137.185	144.805	0.0313
3.415	137.081	144.612	0.0314
3.425	136.975	144.421	0.0314
3.435	136.867	144.232	0.0315
3.445	136.757	144.044	0.0315
3.455	136.674	143.858	0.0315
3.465	136.627	143.673	0.0316
3.475	136.415	143.491	0.0316
3.485	136.326	143.309	0.0316
3.495	136.303	143.130	0.0317
3.505	136.181	142.952	0.0317
3.515	136.058	142.775	0.0317
3.525	135.904	142.600	0.0318
3.535	135.902	142.427	0.0318
3.545	135.773	142.255	0.0319
3.555	135.711	142.085	0.0319
3.565	135.607	141.916	0.0319
3.575	135.570	141.749	0.0320
3.585	135.434	141.584	0.0320
3.595	135.295	141.421	0.0320
3.605	135.251	141.260	0.0321
3.615	135.206	141.101	0.0321
3.625	135.060	140.944	0.0321
3.635	135.010	140.789	0.0322
3.645	134.860	140.636	0.0322
3.655	134.806	140.485	0.0322
3.665	134.750	140.336	0.0323
3.675	134.593	140.189	0.0323
3.685	134.561	140.044	0.0323
3.695	134.499	139.901	0.0324
3.705	134.434	139.759	0.0324
3.715	134.340	139.620	0.0324
3.725	134.271	139.483	0.0324
3.735	134.201	139.347	0.0325
3.745	134.157	139.213	0.0325
3.755	134.083	139.081	0.0325
3.765	133.907	138.951	0.0326
3.775	133.830	138.822	0.0326
3.785	133.751	138.695	0.0326
3.795	133.769	138.569	0.0326
3.805	133.686	138.445	0.0327
3.815	133.602	138.323	0.0327
3.825	133.616	138.202	0.0327
3.835	133.428	138.083	0.0327
3.845	133.338	137.965	0.0328
3.855	133.347	137.849	0.0328
3.865	133.254	137.735	0.0328
3.875	133.260	137.622	0.0328
3.885	133.164	137.511	0.0329
3.895	133.066	137.401	0.0329
3.905	132.967	137.293	0.0329
3.915	132.966	137.186	0.0329
3.925	132.964	137.081	0.0330
3.935	132.860	136.978	0.0330
3.945	132.754	136.876	0.0330
3.955	132.747	136.775	0.0330
3.965	132.638	136.676	0.0330
3.975	132.628	136.579	0.0331

3.985 132.516 136.483 0.0331
 3.995 132.605 136.388 0.0331
 IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 4

	DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
	FLUX	BORON	CHF	CHFTEMP.							
(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)			
(MW/M2)	(DEG-K)										
0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.11706	1700.00012	0.0	0.000000	255.37
0.010	100.03	1.2113	548.30	763.93	0.00000	0.00000	0.11701	1699.29028	0.0	4.575332	580.27
0.020	99.93	1.2120	548.44	763.67	0.00000	0.00000	0.11695	1698.32495	0.0	4.526136	580.16
0.030	99.84	1.2128	548.58	763.40	0.00000	0.00000	0.11687	1697.26404	0.0	4.478931	580.05
0.040	99.74	1.2135	548.73	763.12	0.00000	0.00000	0.11680	1696.16589	0.0	4.433519	579.95
0.050	99.65	1.2143	548.88	762.84	0.00000	0.00000	0.11672	1695.05371	0.0	4.389784	579.85
0.060	99.55	1.2151	549.03	762.56	0.00000	0.00000	0.11664	1693.93811	0.0	4.347593	579.76
0.070	99.46	1.2159	549.18	762.27	0.00000	0.00000	0.11657	1692.82446	0.0	4.306858	579.67
0.080	99.36	1.2167	549.33	761.98	0.00000	0.00000	0.11649	1691.71521	0.0	4.267487	579.58
0.090	99.27	1.2175	549.49	761.68	0.00000	0.00000	0.11641	1690.61182	0.0	4.229399	579.49
0.100	99.18	1.2183	549.65	761.38	0.00000	0.00000	0.11634	1689.51440	0.0	4.192512	579.41
0.110	99.08	1.2192	549.81	761.07	0.00000	0.00000	0.11626	1688.42371	0.0	4.156765	579.33
0.120	98.99	1.2200	549.97	760.76	0.00000	0.00000	0.11619	1687.34070	0.0	4.122089	579.25
0.130	98.89	1.2209	550.14	760.45	0.00000	0.00000	0.11612	1686.26843	0.0	4.088424	579.18
0.140	98.80	1.2217	550.31	760.12	0.00000	0.00000	0.11604	1685.21143	0.0	4.055721	579.10
0.150	98.70	1.2226	550.48	759.80	0.00000	0.00000	0.11597	1684.17883	0.0	4.023921	579.03
0.160	98.61	1.2235	550.65	759.47	0.00000	0.00000	0.11590	1683.18469	0.0	3.992966	578.96
0.170	98.52	1.2244	550.82	759.12	0.00000	0.00001	0.11584	1682.22742	0.0	3.962816	578.89
0.180	98.42	1.2254	551.00	758.77	0.00000	0.00031	0.11576	1681.15393	0.0	3.933469	578.83
0.190	98.32	1.2263	551.18	757.64	0.00001	0.00112	0.11567	1679.86401	0.0	3.904950	578.76
0.200	98.23	1.2272	551.36	756.38	0.00002	0.00239	0.11558	1678.42883	0.0	3.877220	578.70
0.210	98.13	1.2282	551.54	754.88	0.00003	0.00397	0.11547	1676.93298	0.0	3.850210	578.64
0.220	98.03	1.2292	551.72	753.20	0.00006	0.00581	0.11537	1675.43054	0.0	3.823860	578.58
0.230	97.93	1.2302	551.91	751.37	0.00009	0.00785	0.11527	1673.94971	0.0	3.798114	578.53
0.240	97.83	1.2312	552.10	749.40	0.00014	0.01008	0.11517	1672.49744	0.0	3.772938	578.47
0.250	97.73	1.2322	552.29	747.31	0.00019	0.01247	0.11507	1671.06482	0.0	3.748303	578.42
0.260	97.62	1.2332	552.49	745.10	0.00027	0.01503	0.11497	1669.63989	0.0	3.724203	578.37
0.270	97.52	1.2342	552.68	742.78	0.00035	0.01774	0.11487	1668.22473	0.0	3.700612	578.31
0.280	97.42	1.2353	552.88	740.35	0.00045	0.02059	0.11478	1666.83569	0.0	3.677509	578.26
0.290	97.32	1.2363	553.08	737.81	0.00057	0.02359	0.11469	1665.49182	0.0	3.654861	578.21
0.300	97.21	1.2374	553.28	735.17	0.00070	0.02672	0.11460	1664.19629	0.0	3.632649	578.17
0.310	97.11	1.2385	553.49	732.43	0.00085	0.02999	0.11451	1662.93152	0.0	3.610859	578.12
0.320	97.00	1.2396	553.69	729.60	0.00102	0.03340	0.11442	1661.67236	0.0	3.589482	578.07
0.330	96.90	1.2407	553.90	726.66	0.00120	0.03694	0.11433	1660.40698	0.0	3.568512	578.03
0.340	96.79	1.2418	554.11	723.51	0.00141	0.04079	0.11425	1659.14673	0.0	3.549127	577.99
0.350	96.69	1.2429	554.33	720.25	0.00165	0.04478	0.11416	1657.93762	0.0	3.530075	577.95
0.360	96.58	1.2441	554.54	716.88	0.00190	0.04890	0.11409	1656.88257	0.0	3.511317	577.91
0.370	96.47	1.2452	554.76	713.43	0.00217	0.05316	0.11405	1656.21375	0.0	3.492775	577.87
0.380	96.36	1.2464	554.98	709.90	0.00246	0.05752	0.11407	1656.53247	0.0	3.474376	577.83
0.390	96.24	1.2475	555.20	706.36	0.00275	0.06190	0.11427	1659.48340	0.0	3.456035	577.79
0.400	93.64	1.2486	555.41	702.73	0.00307	0.06645	0.11497	1669.60718	0.0	3.437001	577.75
0.410	93.53	1.2498	555.63	699.43	0.00336	0.07050	0.11519	1672.78467	0.0	3.417034	577.70
0.420	93.41	1.2510	555.85	695.70	0.00370	0.07514	0.11521	1673.14392	0.0	3.399067	577.66
0.430	93.30	1.2522	556.09	691.74	0.00408	0.08009	0.11516	1672.33032	0.0	3.382149	577.63
0.440	93.19	1.2535	556.32	687.63	0.00448	0.08526	0.11506	1671.00171	0.0	3.365840	577.60
0.450	93.07	1.2547	556.55	683.39	0.00490	0.09060	0.11496	1669.42200	0.0	3.349913	577.57
0.460	92.96	1.2560	556.79	679.04	0.00534	0.09610	0.11484	1667.70215	0.0	3.334282	577.54
0.470	92.85	1.2573	557.03	674.59	0.00581	0.10176	0.11471	1665.89124	0.0	3.318900	577.51
0.480	92.73	1.2586	557.28	670.02	0.00629	0.10756	0.11458	1664.01477	0.0	3.303749	577.48
0.490	92.62	1.2599	557.52	665.36	0.00679	0.11350	0.11445	1662.08728	0.0	3.288816	577.45

0.500	92.50	1.2613	557.77	660.60	0.00732	0.11959	0.11432	1660.11902	0.0	3.274090	577.42
0.510	92.38	1.2626	558.02	655.74	0.00786	0.12581	0.11418	1658.11768	0.0	3.259562	577.40
0.520	92.27	1.2640	558.28	650.78	0.00842	0.13216	0.11404	1656.09106	0.0	3.245224	577.37
0.530	92.15	1.2653	558.53	645.74	0.00900	0.13864	0.11390	1654.04480	0.0	3.231068	577.35
0.540	92.03	1.2667	558.79	640.61	0.00960	0.14525	0.11375	1651.98486	0.0	3.217093	577.32
0.550	91.91	1.2681	559.05	635.41	0.01021	0.15196	0.11361	1649.91577	0.0	3.203286	577.30
0.560	91.79	1.2696	559.32	630.12	0.01085	0.15879	0.11347	1647.84021	0.0	3.189643	577.27
0.570	91.67	1.2710	559.59	624.77	0.01150	0.16572	0.11333	1645.75818	0.0	3.176168	577.25
0.580	91.55	1.2725	559.85	619.35	0.01217	0.17275	0.11318	1643.66418	0.0	3.162850	577.23
0.590	91.42	1.2739	560.13	613.88	0.01286	0.17986	0.11304	1641.55054	0.0	3.149700	577.21
0.600	91.30	1.2754	560.40	608.35	0.01356	0.18705	0.11289	1639.39001	0.0	3.136719	577.19
0.610	91.18	1.2769	560.68	602.77	0.01429	0.19431	0.11273	1637.13599	0.0	3.123924	577.17
0.620	91.05	1.2784	560.96	597.15	0.01503	0.20164	0.11257	1634.78296	0.0	3.111329	577.14
0.630	90.93	1.2799	561.24	591.49	0.01578	0.20903	0.11241	1632.49731	0.0	3.098882	577.13
0.640	90.80	1.2815	561.51	585.97	0.01654	0.21624	0.11228	1630.55896	0.0	3.086471	577.11
0.650	90.67	1.2830	561.51	580.83	0.01731	0.22360	0.11218	1629.06763	0.0	3.074003	577.07
0.660	90.55	1.2846	561.51	575.86	0.01808	0.23071	0.11208	1627.63342	0.0	3.059936	577.03
0.670	90.43	1.2862	561.51	571.06	0.01883	0.23758	0.11198	1626.21094	0.0	3.044421	576.99
0.680	90.30	1.2878	561.51	566.25	0.01959	0.24446	0.11188	1624.81702	0.0	3.029117	576.95
0.690	90.18	1.2894	561.51	561.44	0.02037	0.25134	0.11179	1623.48474	0.0	3.014011	576.91
0.700	90.05	1.2910	561.51	556.63	0.02116	0.25822	0.11171	1622.22681	0.0	2.999093	576.86
0.710	89.93	1.2926	561.50	551.84	0.02196	0.26507	0.11162	1621.02930	0.0	2.984363	576.82
0.720	89.80	1.2942	561.50	547.06	0.02277	0.27191	0.11154	1619.87109	0.0	2.969828	576.78
0.730	89.67	1.2958	561.50	542.29	0.02359	0.27873	0.11147	1618.74304	0.0	2.955489	576.74
0.740	89.55	1.2975	561.50	537.55	0.02443	0.28551	0.11139	1617.66382	0.0	2.941344	576.70
0.750	89.42	1.2991	561.50	532.83	0.02527	0.29227	0.11132	1616.69531	0.0	2.927371	576.66
0.760	89.29	1.3008	561.50	528.14	0.02613	0.29898	0.11128	1615.97217	0.0	2.913540	576.62
0.770	89.16	1.3024	561.50	523.50	0.02699	0.30562	0.11126	1615.81519	0.0	2.899794	576.58
0.780	89.02	1.3041	561.50	519.00	0.02784	0.31205	0.11135	1617.06421	0.0	2.886234	576.54
0.790	88.88	1.3056	561.49	514.77	0.02865	0.31809	0.11168	1621.78650	0.0	2.872675	576.50
0.800	88.74	1.3070	561.46	510.65	0.02944	0.32399	0.11261	1635.36292	0.0	2.858443	576.46
0.810	88.60	1.3085	561.46	506.99	0.03017	0.32928	0.11296	1640.41956	0.0	2.842538	576.41
0.820	88.46	1.3102	561.46	502.87	0.03100	0.33518	0.11305	1641.73071	0.0	2.827966	576.36
0.830	88.32	1.3118	561.46	498.70	0.03186	0.34114	0.11302	1641.36926	0.0	2.812380	576.32
0.840	88.18	1.3135	561.46	494.51	0.03274	0.34714	0.11295	1640.29675	0.0	2.797479	576.27
0.850	88.04	1.3152	561.46	490.32	0.03364	0.35313	0.11285	1638.90723	0.0	2.782956	576.23
0.860	87.90	1.3169	561.45	486.14	0.03455	0.35910	0.11275	1637.36792	0.0	2.768693	576.19
0.870	87.76	1.3186	561.45	482.00	0.03547	0.36503	0.11264	1635.75098	0.0	2.754643	576.15
0.880	87.62	1.3204	561.45	477.89	0.03641	0.37091	0.11252	1634.09265	0.0	2.740784	576.11
0.890	87.48	1.3221	561.45	473.81	0.03735	0.37673	0.11241	1632.41309	0.0	2.727105	576.07
0.900	87.34	1.3238	561.45	469.78	0.03830	0.38251	0.11229	1630.72998	0.0	2.713596	576.03
0.910	87.20	1.3255	561.45	465.78	0.03926	0.38823	0.11218	1629.05750	0.0	2.700248	575.99
0.920	87.06	1.3273	561.45	461.82	0.04024	0.39389	0.11206	1627.40625	0.0	2.687057	575.95
0.930	86.92	1.3290	561.45	457.90	0.04121	0.39949	0.11195	1625.78503	0.0	2.674016	575.91
0.940	86.78	1.3308	561.44	454.03	0.04220	0.40503	0.11184	1624.20093	0.0	2.661119	575.88
0.950	86.64	1.3325	561.44	450.20	0.04320	0.41051	0.11174	1622.65808	0.0	2.648363	575.84
0.960	86.50	1.3343	561.44	446.41	0.04420	0.41592	0.11163	1621.16052	0.0	2.635744	575.80
0.970	86.36	1.3361	561.44	442.67	0.04521	0.42128	0.11153	1619.70691	0.0	2.623260	575.76
0.980	86.22	1.3379	561.44	438.97	0.04623	0.42657	0.11143	1618.29211	0.0	2.610909	575.73
0.990	86.08	1.3396	561.44	435.40	0.04723	0.43168	0.11134	1616.90002	0.0	2.597131	575.69
1.000	85.94	1.3414	561.44	431.86	0.04824	0.43673	0.11125	1615.54211	0.0	2.583513	575.64
1.010	85.80	1.3432	561.44	428.38	0.04926	0.44172	0.11115	1614.22253	0.0	2.570051	575.60
1.020	85.66	1.3450	561.43	424.93	0.05028	0.44665	0.11107	1612.94348	0.0	2.556737	575.56
1.030	85.52	1.3468	561.43	421.53	0.05131	0.45151	0.11098	1611.70618	0.0	2.543571	575.52
1.040	85.38	1.3485	561.43	418.18	0.05234	0.45631	0.11090	1610.50464	0.0	2.530551	575.48
1.050	85.24	1.3503	561.43	414.86	0.05338	0.46105	0.11082	1609.32397	0.0	2.517678	575.44
1.060	85.10	1.3521	561.43	411.59	0.05443	0.46572	0.11074	1608.15210	0.0	2.504952	575.41
1.070	84.96	1.3539	561.43	408.36	0.05548	0.47035	0.11066	1606.99451	0.0	2.492371	575.37
1.080	84.82	1.3557	561.43	405.17	0.05654	0.47491	0.11058	1605.87732	0.0	2.479925	575.33
1.090	84.68	1.3575	561.43	402.02	0.05760	0.47941	0.11051	1604.82825	0.0	2.467607	575.29
1.100	84.54	1.3593	561.42	398.92	0.05866	0.48385	0.11044	1603.85828	0.0	2.455411	575.25
1.110	84.40	1.3611	561.42	395.86	0.05973	0.48823	0.11038	1602.95496	0.0	2.443342	575.22

1.120	81.16	1.3629	561.42	392.84	0.06081	0.49254	0.11032	1602.09326	0.0	2.431406	575.18
1.130	81.03	1.3647	561.42	389.87	0.06188	0.49679	0.11026	1601.25793	0.0	2.419609	575.14
1.140	80.89	1.3665	561.42	386.93	0.06296	0.50099	0.11021	1600.45776	0.0	2.407949	575.11
1.150	80.75	1.3683	561.42	384.05	0.06404	0.50511	0.11016	1599.73999	0.0	2.396033	575.07
1.160	80.61	1.3701	561.42	381.22	0.06512	0.50916	0.11012	1599.23193	0.0	2.384093	575.03
1.170	80.47	1.3719	561.42	378.45	0.06620	0.51312	0.11012	1599.24939	0.0	2.372267	574.99
1.180	80.32	1.3736	561.41	375.82	0.06723	0.51689	0.11022	1600.61499	0.0	2.360625	574.96
1.190	80.16	1.3752	561.41	373.42	0.06819	0.52032	0.11055	1605.37109	0.0	2.349041	574.92
1.200	75.57	1.3766	561.37	371.04	0.06910	0.52370	0.11148	1618.89087	0.0	2.337008	574.88
1.210	75.41	1.3781	561.37	368.87	0.06999	0.52686	0.11181	1623.76160	0.0	2.323292	574.83
1.220	75.26	1.3798	561.37	366.42	0.07100	0.53036	0.11191	1625.12659	0.0	2.311267	574.78
1.230	75.11	1.3816	561.36	363.88	0.07208	0.53399	0.11190	1625.04077	0.0	2.299914	574.75
1.240	74.97	1.3834	561.36	361.34	0.07317	0.53762	0.11185	1624.37842	0.0	2.289012	574.71
1.250	74.83	1.3852	561.36	358.82	0.07427	0.54123	0.11179	1623.46960	0.0	2.278338	574.68
1.260	74.68	1.3870	561.36	356.33	0.07539	0.54480	0.11172	1622.44177	0.0	2.267815	574.64
1.270	74.54	1.3888	561.36	353.85	0.07651	0.54833	0.11165	1621.34863	0.0	2.257416	574.61
1.280	74.40	1.3906	561.36	351.41	0.07763	0.55183	0.11157	1620.21790	0.0	2.247130	574.58
1.290	74.26	1.3924	561.36	348.99	0.07876	0.55528	0.11149	1619.06714	0.0	2.236950	574.54
1.300	74.11	1.3942	561.35	346.60	0.07989	0.55870	0.11141	1617.90845	0.0	2.226873	574.51
1.310	73.97	1.3960	561.35	344.25	0.08103	0.56207	0.11133	1616.74963	0.0	2.216638	574.48
1.320	73.83	1.3978	561.35	341.93	0.08217	0.56538	0.11125	1615.59949	0.0	2.206248	574.44
1.330	73.68	1.3997	561.35	339.63	0.08331	0.56866	0.11117	1614.46619	0.0	2.195956	574.41
1.340	73.54	1.4015	561.35	337.37	0.08445	0.57190	0.11109	1613.35535	0.0	2.185760	574.38
1.350	73.40	1.4033	561.35	335.14	0.08560	0.57510	0.11102	1612.26978	0.0	2.175657	574.34
1.360	73.25	1.4051	561.35	332.93	0.08675	0.57825	0.11095	1611.21155	0.0	2.165646	574.31
1.370	73.11	1.4070	561.35	330.75	0.08790	0.58136	0.11088	1610.18066	0.0	2.155726	574.28
1.380	72.96	1.4088	561.34	328.60	0.08905	0.58444	0.11081	1609.17688	0.0	2.145898	574.25
1.390	72.82	1.4106	561.34	326.48	0.09021	0.58747	0.11074	1608.19812	0.0	2.136158	574.21
1.400	72.67	1.4124	561.34	324.38	0.09136	0.59047	0.11067	1607.24304	0.0	2.126508	574.18
1.410	72.53	1.4142	561.34	322.31	0.09252	0.59343	0.11061	1606.31006	0.0	2.116947	574.15
1.420	72.38	1.4161	561.34	320.27	0.09369	0.59635	0.11055	1605.39954	0.0	2.107475	574.12
1.430	72.24	1.4179	561.34	318.25	0.09485	0.59923	0.11049	1604.51196	0.0	2.098088	574.09
1.440	72.09	1.4197	561.34	316.26	0.09602	0.60208	0.11043	1603.64026	0.0	2.088789	574.06
1.450	71.94	1.4215	561.33	314.29	0.09719	0.60490	0.11037	1602.76868	0.0	2.079577	574.03
1.460	71.80	1.4234	561.33	312.35	0.09836	0.60768	0.11031	1601.88623	0.0	2.070458	573.99
1.470	71.65	1.4252	561.33	310.43	0.09953	0.61042	0.11024	1600.99915	0.0	2.061173	573.96
1.480	71.50	1.4270	561.33	308.54	0.10070	0.61312	0.11018	1600.13367	0.0	2.051217	573.93
1.490	71.35	1.4289	561.33	306.67	0.10187	0.61578	0.11013	1599.32202	0.0	2.041346	573.90
1.500	71.21	1.4307	561.33	304.84	0.10304	0.61841	0.11008	1598.57397	0.0	2.031557	573.86
1.510	71.06	1.4325	561.33	303.03	0.10420	0.62100	0.11003	1597.87402	0.0	2.021859	573.83
1.520	70.91	1.4343	561.32	301.24	0.10537	0.62355	0.10998	1597.19763	0.0	2.012257	573.80
1.530	70.76	1.4361	561.32	299.48	0.10653	0.62606	0.10994	1596.53064	0.0	2.002756	573.76
1.540	70.61	1.4379	561.32	297.75	0.10770	0.62855	0.10989	1595.88696	0.0	1.993355	573.73
1.550	70.46	1.4397	561.32	296.03	0.10886	0.63100	0.10985	1595.31946	0.0	1.984048	573.70
1.560	70.31	1.4415	561.32	294.35	0.11002	0.63341	0.10983	1594.95898	0.0	1.974794	573.67
1.570	70.16	1.4433	561.32	292.71	0.11117	0.63575	0.10984	1595.13135	0.0	1.965650	573.64
1.580	70.00	1.4450	561.32	291.16	0.11225	0.63796	0.10994	1596.64087	0.0	1.956639	573.60
1.590	69.82	1.4465	561.31	289.79	0.11323	0.63992	0.11028	1601.52991	0.0	1.947662	573.57
1.600	63.92	1.4477	561.26	288.37	0.11413	0.64192	0.11122	1615.24219	0.0	1.938269	573.53
1.610	63.74	1.4492	561.26	287.08	0.11507	0.64382	0.11155	1619.96338	0.0	1.927328	573.49
1.620	63.58	1.4508	561.26	285.61	0.11615	0.64593	0.11164	1621.24744	0.0	1.917884	573.45
1.630	63.42	1.4526	561.25	284.08	0.11728	0.64811	0.11163	1621.17554	0.0	1.908980	573.42
1.640	63.27	1.4544	561.25	282.55	0.11843	0.65029	0.11159	1620.57385	0.0	1.899897	573.39
1.650	63.12	1.4561	561.25	281.04	0.11958	0.65246	0.11154	1619.75574	0.0	1.890986	573.36
1.660	62.96	1.4579	561.25	279.54	0.12075	0.65460	0.11147	1618.82715	0.0	1.882175	573.33
1.670	62.81	1.4597	561.25	278.04	0.12191	0.65673	0.11140	1617.83386	0.0	1.873448	573.30
1.680	62.66	1.4615	561.25	276.57	0.12308	0.65884	0.11133	1616.80176	0.0	1.864798	573.27
1.690	62.50	1.4633	561.25	275.11	0.12425	0.66093	0.11126	1615.74731	0.0	1.856221	573.24
1.700	62.35	1.4650	561.24	273.66	0.12542	0.66300	0.11119	1614.68396	0.0	1.847715	573.20
1.710	62.20	1.4668	561.24	272.23	0.12659	0.66505	0.11111	1613.62183	0.0	1.839277	573.17
1.720	62.04	1.4686	561.24	270.81	0.12776	0.66707	0.11104	1612.56897	0.0	1.830904	573.14
1.730	61.89	1.4704	561.24	269.41	0.12894	0.66907	0.11097	1611.53052	0.0	1.822596	573.12

1.740	61.74	1.4722	561.24	268.03	0.13011	0.67105	0.11090	1610.51099	0.0	1.814350	573.09
1.750	61.58	1.4740	561.24	266.66	0.13128	0.67301	0.11083	1609.51270	0.0	1.806168	573.06
1.760	61.43	1.4758	561.23	265.31	0.13245	0.67494	0.11076	1608.53589	0.0	1.798048	573.03
1.770	61.27	1.4775	561.23	263.97	0.13363	0.67685	0.11070	1607.58044	0.0	1.789990	573.00
1.780	61.12	1.4793	561.23	262.65	0.13480	0.67874	0.11063	1606.64490	0.0	1.781994	572.97
1.790	60.96	1.4811	561.23	261.34	0.13597	0.68061	0.11057	1605.72729	0.0	1.774059	572.94
1.800	60.81	1.4829	561.23	260.05	0.13714	0.68245	0.11051	1604.82458	0.0	1.765819	572.91
1.810	60.65	1.4846	561.23	258.77	0.13830	0.68427	0.11045	1603.93640	0.0	1.757521	572.88
1.820	60.49	1.4864	561.23	257.51	0.13947	0.68607	0.11039	1603.06482	0.0	1.749289	572.85
1.830	60.34	1.4882	561.22	256.27	0.14063	0.68785	0.11033	1602.21094	0.0	1.741120	572.82
1.840	60.18	1.4899	561.22	255.04	0.14179	0.68961	0.11027	1601.36804	0.0	1.733015	572.79
1.850	60.02	1.4917	561.22	253.82	0.14296	0.69135	0.11021	1600.52087	0.0	1.724977	572.76
1.860	59.87	1.4934	561.22	252.62	0.14412	0.69307	0.11015	1599.65967	0.0	1.717006	572.73
1.870	59.71	1.4952	561.22	251.42	0.14528	0.69478	0.11009	1598.79529	0.0	1.709098	572.70
1.880	59.55	1.4969	561.22	250.24	0.14644	0.69647	0.11003	1597.95874	0.0	1.701244	572.67
1.890	59.40	1.4987	561.22	249.08	0.14760	0.69813	0.10998	1597.17932	0.0	1.693439	572.64
1.900	59.24	1.5004	561.21	247.93	0.14876	0.69978	0.10993	1596.46375	0.0	1.685688	572.61
1.910	59.08	1.5022	561.21	246.79	0.14991	0.70140	0.10989	1595.79321	0.0	1.677999	572.58
1.920	58.92	1.5039	561.21	245.67	0.15105	0.70300	0.10984	1595.14160	0.0	1.670380	572.56
1.930	58.76	1.5056	561.21	244.56	0.15220	0.70458	0.10980	1594.49561	0.0	1.662833	572.53
1.940	58.60	1.5073	561.21	243.47	0.15334	0.70614	0.10975	1593.87195	0.0	1.655358	572.50
1.950	58.44	1.5090	561.21	242.39	0.15448	0.70768	0.10972	1593.2739	0.0	1.647945	572.47
1.960	58.28	1.5107	561.21	241.33	0.15560	0.70920	0.10969	1592.99536	0.0	1.639820	572.44
1.970	58.12	1.5124	561.20	240.31	0.15670	0.71066	0.10971	1593.23364	0.0	1.631068	572.41
1.980	57.94	1.5139	561.20	239.36	0.15773	0.71202	0.10982	1594.89417	0.0	1.622414	572.37
1.990	57.75	1.5153	561.20	238.54	0.15861	0.71318	0.11019	1600.17029	0.0	1.613753	572.34
2.000	50.54	1.5162	561.13	237.66	0.15938	0.71440	0.11120	1614.94153	0.0	1.604628	572.30
2.010	50.35	1.5175	561.13	236.88	0.16025	0.71557	0.11155	1619.92688	0.0	1.594106	572.25
2.020	50.17	1.5190	561.13	235.96	0.16126	0.71688	0.11164	1621.27441	0.0	1.585010	572.21
2.030	50.01	1.5206	561.13	235.00	0.16234	0.71825	0.11164	1621.22266	0.0	1.576408	572.18
2.040	49.84	1.5223	561.12	234.04	0.16343	0.71963	0.11160	1620.62939	0.0	1.568058	572.15
2.050	49.68	1.5239	561.12	233.08	0.16452	0.72100	0.11154	1619.82288	0.0	1.559858	572.11
2.060	49.52	1.5256	561.12	232.13	0.16562	0.72236	0.11148	1618.90356	0.0	1.551728	572.08
2.070	49.35	1.5272	561.12	231.18	0.16673	0.72371	0.11141	1617.91565	0.0	1.543657	572.05
2.080	49.19	1.5289	561.12	230.24	0.16783	0.72505	0.11134	1616.88550	0.0	1.535643	572.02
2.090	49.03	1.5305	561.12	229.31	0.16893	0.72638	0.11127	1615.83032	0.0	1.527681	571.99
2.100	48.87	1.5322	561.12	228.39	0.17004	0.72770	0.11119	1614.76428	0.0	1.519771	571.96
2.110	48.71	1.5338	561.11	227.47	0.17114	0.72901	0.11112	1613.69885	0.0	1.511910	571.93
2.120	48.54	1.5355	561.11	226.57	0.17224	0.73030	0.11105	1612.64111	0.0	1.503976	571.90
2.130	48.38	1.5371	561.11	225.68	0.17333	0.73157	0.11097	1611.59741	0.0	1.495723	571.86
2.140	48.22	1.5387	561.11	224.79	0.17442	0.73284	0.11090	1610.57190	0.0	1.487519	571.83
2.150	48.06	1.5404	561.11	223.92	0.17551	0.73408	0.11083	1609.56653	0.0	1.479364	571.80
2.160	47.89	1.5420	561.11	223.05	0.17660	0.73532	0.11077	1608.58301	0.0	1.471257	571.77
2.170	47.73	1.5436	561.10	222.20	0.17768	0.73654	0.11070	1607.62024	0.0	1.463199	571.73
2.180	47.57	1.5452	561.10	221.36	0.17875	0.73774	0.11064	1606.67651	0.0	1.455189	571.70
2.190	47.40	1.5468	561.10	220.52	0.17982	0.73893	0.11057	1605.75049	0.0	1.447228	571.67
2.200	47.24	1.5484	561.10	219.70	0.18089	0.74011	0.11051	1604.84033	0.0	1.439315	571.64
2.210	47.08	1.5500	561.10	218.88	0.18196	0.74127	0.11045	1603.94470	0.0	1.431450	571.61
2.220	46.91	1.5516	561.10	218.08	0.18302	0.74242	0.11039	1603.06482	0.0	1.423634	571.57
2.230	46.75	1.5531	561.10	217.28	0.18407	0.74356	0.11033	1602.20190	0.0	1.415865	571.54
2.240	46.59	1.5547	561.09	216.50	0.18512	0.74468	0.11027	1601.34900	0.0	1.408143	571.51
2.250	46.42	1.5563	561.09	215.72	0.18617	0.74580	0.11021	1600.49084	0.0	1.400470	571.48
2.260	46.26	1.5578	561.09	214.95	0.18722	0.74690	0.11015	1599.61694	0.0	1.392849	571.45
2.270	46.09	1.5594	561.09	214.18	0.18826	0.74799	0.11009	1598.73840	0.0	1.385272	571.42
2.280	45.93	1.5609	561.09	213.42	0.18930	0.74907	0.11003	1597.88660	0.0	1.377733	571.39
2.290	45.77	1.5625	561.09	212.68	0.19033	0.75013	0.10998	1597.09131	0.0	1.368261	571.35
2.300	45.60	1.5640	561.08	211.95	0.19135	0.75118	0.10992	1596.36206	0.0	1.358833	571.31
2.310	45.44	1.5655	561.08	211.23	0.19236	0.75221	0.10988	1595.68164	0.0	1.349457	571.27
2.320	45.27	1.5670	561.08	210.52	0.19336	0.75322	0.10983	1595.02344	0.0	1.340140	571.23
2.330	45.11	1.5685	561.08	209.82	0.19436	0.75421	0.10979	1594.37500	0.0	1.330885	571.19
2.340	44.94	1.5700	561.08	209.13	0.19534	0.75520	0.10975	1593.75488	0.0	1.321692	571.15
2.350	44.78	1.5714	561.08	208.46	0.19632	0.75616	0.10971	1593.22693	0.0	1.312537	571.11

2.360	44.61	1.5728	561.08	207.79	0.19728	0.75711	0.10969	1592.92249	0.0	1.303407	571.07
2.370	44.44	1.5742	561.07	207.16	0.19820	0.75801	0.10971	1593.22815	0.0	1.294352	571.03
2.380	44.26	1.5755	561.07	206.59	0.19904	0.75883	0.10983	1595.04138	0.0	1.285352	570.99
2.390	44.05	1.5765	561.07	206.12	0.19972	0.75950	0.11022	1600.71350	0.0	1.276292	570.95
2.400	35.63	1.5770	560.99	205.56	0.20027	0.76025	0.11132	1616.57190	0.0	1.266720	570.90
2.410	35.42	1.5780	560.99	205.12	0.20095	0.76093	0.11168	1621.90979	0.0	1.255991	570.85
2.420	35.24	1.5792	560.99	204.56	0.20177	0.76173	0.11179	1623.38770	0.0	1.246555	570.81
2.430	35.07	1.5805	560.98	203.97	0.20266	0.76258	0.11179	1623.39844	0.0	1.237557	570.77
2.440	34.90	1.5819	560.98	203.36	0.20357	0.76344	0.11175	1622.83679	0.0	1.228752	570.73
2.450	34.73	1.5832	560.98	202.77	0.20447	0.76429	0.11169	1622.05798	0.0	1.220455	570.69
2.460	34.56	1.5846	560.98	202.17	0.20538	0.76513	0.11163	1621.16138	0.0	1.212331	570.66
2.470	34.40	1.5859	560.98	201.58	0.20630	0.76598	0.11157	1620.19141	0.0	1.204244	570.62
2.480	34.23	1.5873	560.98	201.00	0.20721	0.76682	0.11150	1619.17432	0.0	1.196194	570.59
2.490	34.07	1.5886	560.98	200.41	0.20812	0.76765	0.11142	1618.12915	0.0	1.188179	570.55
2.500	33.90	1.5900	560.97	199.84	0.20902	0.76847	0.11135	1617.07031	0.0	1.180198	570.51
2.510	33.74	1.5913	560.97	199.26	0.20992	0.76929	0.11128	1616.00879	0.0	1.172248	570.48
2.520	33.57	1.5927	560.97	198.70	0.21082	0.77009	0.11121	1614.95398	0.0	1.164329	570.44
2.530	33.41	1.5940	560.97	198.14	0.21172	0.77089	0.11113	1613.91211	0.0	1.156440	570.41
2.540	33.24	1.5953	560.97	197.59	0.21260	0.77168	0.11106	1612.88733	0.0	1.148581	570.37
2.550	33.08	1.5966	560.97	197.04	0.21349	0.77246	0.11099	1611.88184	0.0	1.140751	570.34
2.560	32.91	1.5979	560.96	196.50	0.21436	0.77323	0.11093	1610.89648	0.0	1.132951	570.30
2.570	32.75	1.5992	560.96	195.97	0.21523	0.77399	0.11086	1609.93079	0.0	1.125181	570.27
2.580	32.58	1.6005	560.96	195.44	0.21609	0.77474	0.11079	1608.98340	0.0	1.117440	570.23
2.590	32.42	1.6018	560.96	194.92	0.21695	0.77548	0.11073	1608.05298	0.0	1.109729	570.19
2.600	32.25	1.6030	560.96	194.41	0.21780	0.77622	0.11067	1607.13745	0.0	1.102047	570.16
2.610	32.08	1.6043	560.96	193.90	0.21865	0.77694	0.11060	1606.23584	0.0	1.094138	570.12
2.620	31.92	1.6055	560.95	193.40	0.21949	0.77766	0.11054	1605.34973	0.0	1.086000	570.08
2.630	31.75	1.6068	560.95	192.91	0.22032	0.77836	0.11048	1604.47986	0.0	1.077890	570.05
2.640	31.59	1.6080	560.95	192.42	0.22114	0.77906	0.11042	1603.62036	0.0	1.069810	570.01
2.650	31.42	1.6092	560.95	191.94	0.22196	0.77974	0.11037	1602.75623	0.0	1.061760	569.97
2.660	31.26	1.6104	560.95	191.46	0.22278	0.78042	0.11030	1601.87646	0.0	1.053741	569.93
2.670	31.10	1.6116	560.95	190.99	0.22359	0.78110	0.11024	1600.99084	0.0	1.045750	569.90
2.680	30.93	1.6128	560.95	190.52	0.22439	0.78176	0.11018	1600.13000	0.0	1.037780	569.86
2.690	30.77	1.6140	560.94	190.06	0.22519	0.78242	0.11013	1599.32532	0.0	1.029829	569.82
2.700	30.60	1.6152	560.94	189.61	0.22598	0.78306	0.11008	1598.58704	0.0	1.021900	569.78
2.710	30.43	1.6163	560.94	189.17	0.22675	0.78370	0.11003	1597.90002	0.0	1.014000	569.74
2.720	30.27	1.6174	560.94	188.73	0.22752	0.78432	0.10999	1597.23828	0.0	1.006133	569.70
2.730	30.10	1.6186	560.94	188.30	0.22827	0.78493	0.10994	1596.58899	0.0	0.9983041	569.67
2.740	29.94	1.6197	560.94	187.88	0.22902	0.78553	0.10990	1595.97119	0.0	0.9905068	569.63
2.750	29.77	1.6208	560.93	187.47	0.22975	0.78612	0.10986	1595.44592	0.0	0.9827238	569.59
2.760	29.61	1.6218	560.93	187.06	0.23048	0.78670	0.10984	1595.15405	0.0	0.9749554	569.55
2.770	29.43	1.6229	560.93	186.68	0.23116	0.78725	0.10986	1595.48657	0.0	0.9673573	569.51
2.780	29.25	1.6237	560.93	186.34	0.23177	0.78772	0.10999	1597.37817	0.0	0.9601688	569.48
2.790	29.04	1.6244	560.93	186.09	0.23220	0.78808	0.11040	1603.30994	0.0	0.9528733	569.44
2.800	19.61	1.6245	560.84	185.72	0.23252	0.78856	0.11155	1619.99341	0.0	0.9450470	569.39
2.810	19.39	1.6252	560.84	185.49	0.23297	0.78894	0.11194	1625.58826	0.0	0.9363633	569.34
2.820	19.21	1.6261	560.83	185.15	0.23355	0.78942	0.11204	1627.14709	0.0	0.9287684	569.30
2.830	19.03	1.6270	560.83	184.79	0.23421	0.78993	0.11205	1627.18640	0.0	0.9215358	569.26
2.840	18.86	1.6280	560.83	184.42	0.23489	0.79046	0.11201	1626.63135	0.0	0.9144469	569.23
2.850	18.70	1.6290	560.83	184.05	0.23557	0.79099	0.11196	1625.84924	0.0	0.9074518	569.19
2.860	18.53	1.6301	560.83	183.68	0.23625	0.79152	0.11189	1624.95178	0.0	0.9004897	569.15
2.870	18.36	1.6311	560.83	183.31	0.23693	0.79204	0.11183	1623.97961	0.0	0.8935460	569.12
2.880	18.20	1.6321	560.82	182.95	0.23762	0.79256	0.11176	1622.95837	0.0	0.8866211	569.08
2.890	18.03	1.6331	560.82	182.58	0.23830	0.79308	0.11168	1621.90613	0.0	0.8797134	569.05
2.900	17.87	1.6341	560.82	182.22	0.23898	0.79360	0.11161	1620.83740	0.0	0.8728222	569.01
2.910	17.71	1.6351	560.82	181.86	0.23965	0.79411	0.11154	1619.76404	0.0	0.8659465	568.98
2.920	17.54	1.6361	560.82	181.51	0.24032	0.79461	0.11146	1618.69434	0.0	0.8590857	568.94
2.930	17.38	1.6371	560.82	181.16	0.24098	0.79511	0.11139	1617.63501	0.0	0.8522389	568.90
2.940	17.21	1.6380	560.81	180.81	0.24164	0.79560	0.11132	1616.58997	0.0	0.8464902	568.87
2.950	17.05	1.6390	560.81	180.47	0.24230	0.79609	0.11125	1615.56250	0.0	0.8407550	568.84
2.960	16.89	1.6400	560.81	180.13	0.24295	0.79657	0.11118	1614.55298	0.0	0.8350341	568.81
2.970	16.72	1.6409	560.81	179.80	0.24360	0.79705	0.11111	1613.56189	0.0	0.8293267	568.78

2.980	16.56	1.6419	560.81	179.47	0.24424	0.79753	0.11104	1612.58826	0.0	0.8236341	568.75
2.990	16.39	1.6428	560.81	179.14	0.24488	0.79799	0.11098	1611.63013	0.0	0.8179556	568.72
3.000	16.23	1.6438	560.81	178.81	0.24551	0.79846	0.11091	1610.68628	0.0	0.8122915	568.69
3.010	16.07	1.6447	560.80	178.49	0.24613	0.79891	0.11085	1609.75513	0.0	0.8066420	568.66
3.020	15.90	1.6456	560.80	178.18	0.24676	0.79937	0.11078	1608.83472	0.0	0.8010067	568.63
3.030	15.74	1.6465	560.80	177.86	0.24737	0.79981	0.11072	1607.92371	0.0	0.7953858	568.60
3.040	15.57	1.6474	560.80	177.55	0.24799	0.80026	0.11066	1607.02100	0.0	0.7897792	568.57
3.050	15.41	1.6483	560.80	177.24	0.24859	0.80069	0.11060	1606.12561	0.0	0.7841861	568.54
3.060	15.25	1.6492	560.80	176.94	0.24920	0.80113	0.11054	1605.23767	0.0	0.7786071	568.51
3.070	15.08	1.6501	560.79	176.64	0.24980	0.80156	0.11048	1604.35681	0.0	0.7730409	568.48
3.080	14.92	1.6510	560.79	176.34	0.25039	0.80198	0.11042	1603.48303	0.0	0.7674883	568.45
3.090	14.75	1.6519	560.79	176.05	0.25098	0.80240	0.11036	1602.61682	0.0	0.7619479	568.42
3.100	14.59	1.6528	560.79	175.75	0.25157	0.80282	0.11030	1601.75806	0.0	0.7568331	568.39
3.110	14.43	1.6536	560.79	175.46	0.25215	0.80323	0.11024	1600.90759	0.0	0.7518684	568.36
3.120	14.26	1.6545	560.79	175.18	0.25273	0.80364	0.11018	1600.06592	0.0	0.7469156	568.33
3.130	14.10	1.6553	560.79	174.89	0.25331	0.80404	0.11012	1599.23315	0.0	0.7419742	568.31
3.140	13.94	1.6562	560.78	174.61	0.25388	0.80444	0.11007	1598.40979	0.0	0.7370442	568.28
3.150	13.77	1.6570	560.78	174.34	0.25445	0.80484	0.11001	1597.59595	0.0	0.7321252	568.25
3.160	13.61	1.6579	560.78	174.06	0.25501	0.80523	0.10995	1596.79211	0.0	0.7272173	568.22
3.170	13.45	1.6587	560.78	173.79	0.25557	0.80562	0.10990	1595.99841	0.0	0.7223200	568.19
3.180	13.28	1.6595	560.78	173.52	0.25613	0.80601	0.10985	1595.21448	0.0	0.7174339	568.17
3.190	13.12	1.6603	560.78	173.25	0.25668	0.80639	0.10979	1594.44043	0.0	0.7125582	568.14
3.200	12.96	1.6611	560.77	172.99	0.25723	0.80676	0.10974	1593.67603	0.0	0.7076933	568.11
3.210	12.79	1.6619	560.77	172.72	0.25777	0.80714	0.10969	1592.92114	0.0	0.7028384	568.08
3.220	12.63	1.6627	560.77	172.46	0.25831	0.80751	0.10964	1592.17529	0.0	0.6979943	568.05
3.230	12.47	1.6635	560.77	172.21	0.25885	0.80787	0.10959	1591.43835	0.0	0.6931604	568.03
3.240	12.30	1.6643	560.77	171.95	0.25938	0.80823	0.10954	1590.71008	0.0	0.6883365	568.00
3.250	12.14	1.6651	560.77	171.70	0.25991	0.80859	0.10949	1589.99011	0.0	0.6835225	567.97
3.260	11.98	1.6659	560.77	171.45	0.26043	0.80895	0.10944	1589.27795	0.0	0.6789978	567.94
3.270	11.81	1.6667	560.76	171.21	0.26095	0.80930	0.10939	1588.57336	0.0	0.6747625	567.92
3.280	11.65	1.6674	560.76	170.96	0.26147	0.80965	0.10934	1587.87610	0.0	0.6705366	567.89
3.290	11.49	1.6682	560.76	170.72	0.26198	0.80999	0.10929	1587.18616	0.0	0.6663200	567.87
3.300	11.32	1.6689	560.76	170.48	0.26249	0.81033	0.10925	1586.50293	0.0	0.6621127	567.84
3.310	11.16	1.6697	560.76	170.24	0.26300	0.81067	0.10920	1585.82666	0.0	0.6579143	567.82
3.320	11.00	1.6704	560.76	170.01	0.26350	0.81101	0.10915	1585.15698	0.0	0.6537251	567.79
3.330	10.84	1.6712	560.75	169.77	0.26400	0.81134	0.10911	1584.49414	0.0	0.6495447	567.77
3.340	10.67	1.6719	560.75	169.54	0.26450	0.81167	0.10906	1583.83777	0.0	0.6453732	567.74
3.350	10.51	1.6726	560.75	169.31	0.26499	0.81200	0.10902	1583.18799	0.0	0.6412102	567.72
3.360	10.35	1.6734	560.75	169.09	0.26548	0.81232	0.10897	1582.54456	0.0	0.6370558	567.69
3.370	10.18	1.6741	560.75	168.86	0.26597	0.81264	0.10893	1581.90771	0.0	0.6329098	567.67
3.380	10.02	1.6748	560.75	168.64	0.26645	0.81296	0.10889	1581.27734	0.0	0.6287719	567.64
3.390	9.86	1.6755	560.74	168.42	0.26693	0.81327	0.10884	1580.65332	0.0	0.6246425	567.61
3.400	9.69	1.6762	560.74	168.20	0.26741	0.81359	0.10880	1580.03577	0.0	0.6205210	567.59
3.410	9.53	1.6769	560.74	167.98	0.26788	0.81389	0.10876	1579.42456	0.0	0.6164073	567.56
3.420	9.37	1.6776	560.74	167.77	0.26835	0.81420	0.10872	1578.81958	0.0	0.6124426	567.54
3.430	9.21	1.6783	560.74	167.55	0.26882	0.81450	0.10868	1578.22070	0.0	0.6089095	567.52
3.440	9.04	1.6790	560.74	167.34	0.26928	0.81481	0.10863	1577.62805	0.0	0.6053838	567.49
3.450	8.88	1.6797	560.74	167.13	0.26974	0.81510	0.10859	1577.04163	0.0	0.6018650	567.47
3.460	8.72	1.6803	560.73	166.93	0.27020	0.81540	0.10855	1576.46118	0.0	0.5983537	567.45
3.470	8.56	1.6810	560.73	166.72	0.27065	0.81569	0.10851	1575.88684	0.0	0.5948493	567.43
3.480	8.39	1.6817	560.73	166.52	0.27111	0.81598	0.10848	1575.31812	0.0	0.5913519	567.41
3.490	8.23	1.6824	560.73	166.31	0.27156	0.81627	0.10844	1574.75525	0.0	0.5878613	567.38
3.500	8.07	1.6830	560.73	166.11	0.27200	0.81656	0.10840	1574.19812	0.0	0.5843776	567.36
3.510	7.90	1.6837	560.73	165.91	0.27245	0.81684	0.10836	1573.64709	0.0	0.5809007	567.34
3.520	7.74	1.6843	560.72	165.72	0.27289	0.81712	0.10832	1573.10144	0.0	0.5774307	567.32
3.530	7.58	1.6850	560.72	165.52	0.27333	0.81740	0.10829	1572.56140	0.0	0.5739671	567.30
3.540	7.42	1.6856	560.72	165.32	0.27377	0.81768	0.10825	1572.02698	0.0	0.5705103	567.27
3.550	7.25	1.6863	560.72	165.13	0.27420	0.81795	0.10821	1571.49792	0.0	0.5670599	567.25
3.560	7.09	1.6869	560.72	164.94	0.27463	0.81823	0.10818	1570.97424	0.0	0.5636159	567.23
3.570	6.93	1.6875	560.72	164.75	0.27506	0.81850	0.10814	1570.45605	0.0	0.5601783	567.21
3.580	6.77	1.6882	560.72	164.56	0.27548	0.81876	0.10811	1569.94287	0.0	0.5567470	567.18
3.590	6.60	1.6888	560.71	164.38	0.27590	0.81903	0.10807	1569.43506	0.0	0.5521836	567.15

3.600	6.44	1.6894	560.71	164.20	0.27632	0.81929	0.10804	1568.93274	0.0	0.5476260	567.12
3.610	6.28	1.6900	560.71	164.01	0.27673	0.81955	0.10800	1568.43591	0.0	0.5430743	567.09
3.620	6.12	1.6906	560.71	163.84	0.27714	0.81980	0.10797	1567.94421	0.0	0.5385289	567.06
3.630	5.95	1.6912	560.71	163.66	0.27754	0.82005	0.10793	1567.45776	0.0	0.5339889	567.03
3.640	5.79	1.6918	560.71	163.48	0.27794	0.82030	0.10790	1566.97620	0.0	0.5294546	567.00
3.650	5.63	1.6924	560.70	163.31	0.27834	0.82055	0.10787	1566.49988	0.0	0.5249257	566.97
3.660	5.47	1.6930	560.70	163.14	0.27873	0.82079	0.10784	1566.02844	0.0	0.5204023	566.94
3.670	5.30	1.6935	560.70	162.97	0.27912	0.82103	0.10780	1565.56201	0.0	0.5158839	566.91
3.680	5.14	1.6941	560.70	162.80	0.27951	0.82127	0.10777	1565.10022	0.0	0.5113708	566.88
3.690	4.98	1.6947	560.70	162.64	0.27989	0.82150	0.10774	1564.64355	0.0	0.5068625	566.85
3.700	4.82	1.6952	560.70	162.48	0.28026	0.82174	0.10771	1564.19153	0.0	0.5023590	566.82
3.710	4.66	1.6958	560.70	162.32	0.28063	0.82196	0.10768	1563.74402	0.0	0.4978600	566.79
3.720	4.50	1.6963	560.69	162.16	0.28100	0.82219	0.10765	1563.30127	0.0	0.4933659	566.76
3.730	4.33	1.6969	560.69	162.00	0.28137	0.82241	0.10762	1562.86316	0.0	0.4888758	566.73
3.740	4.17	1.6974	560.69	161.85	0.28173	0.82263	0.10759	1562.42944	0.0	0.4843902	566.69
3.750	4.01	1.6979	560.69	161.69	0.28208	0.82285	0.10756	1562.00012	0.0	0.4803432	566.67
3.760	3.85	1.6984	560.69	161.54	0.28244	0.82307	0.10753	1561.57471	0.0	0.4764458	566.64
3.770	3.69	1.6990	560.69	161.39	0.28279	0.82328	0.10750	1561.15381	0.0	0.4725527	566.61
3.780	3.53	1.6995	560.68	161.24	0.28313	0.82349	0.10747	1560.73694	0.0	0.4686639	566.58
3.790	3.37	1.7000	560.68	161.10	0.28348	0.82370	0.10744	1560.32410	0.0	0.4647790	566.56
3.800	3.21	1.7005	560.68	160.95	0.28382	0.82391	0.10742	1559.91541	0.0	0.4608984	566.53
3.810	3.04	1.7010	560.68	160.81	0.28415	0.82411	0.10739	1559.51050	0.0	0.4570215	566.50
3.820	2.88	1.7015	560.68	160.67	0.28448	0.82431	0.10736	1559.10974	0.0	0.4531486	566.47
3.830	2.72	1.7020	560.68	160.53	0.28481	0.82451	0.10733	1558.71289	0.0	0.4492793	566.44
3.840	2.56	1.7024	560.68	160.39	0.28514	0.82471	0.10731	1558.31982	0.0	0.4454137	566.42
3.850	2.40	1.7029	560.67	160.25	0.28546	0.82490	0.10728	1557.93054	0.0	0.4415515	566.39
3.860	2.24	1.7034	560.67	160.12	0.28578	0.82509	0.10725	1557.54492	0.0	0.4376930	566.36
3.870	2.08	1.7038	560.67	159.99	0.28610	0.82528	0.10723	1557.16296	0.0	0.4338376	566.33
3.880	1.92	1.7043	560.67	159.85	0.28641	0.82547	0.10720	1556.78467	0.0	0.4299856	566.30
3.890	1.76	1.7048	560.67	159.72	0.28672	0.82565	0.10717	1556.41016	0.0	0.4261366	566.27
3.900	1.60	1.7052	560.67	159.60	0.28703	0.82584	0.10715	1556.03931	0.0	0.4222909	566.24
3.910	1.44	1.7057	560.66	159.47	0.28733	0.82602	0.10712	1555.67175	0.0	0.4184479	566.22
3.920	1.28	1.7061	560.66	159.34	0.28763	0.82620	0.10710	1555.30774	0.0	0.4146079	566.19
3.930	1.12	1.7065	560.66	159.22	0.28792	0.82637	0.10707	1554.94714	0.0	0.4107706	566.16
3.940	0.96	1.7070	560.66	159.10	0.28822	0.82655	0.10705	1554.58984	0.0	0.4069360	566.13
3.950	0.80	1.7074	560.66	158.98	0.28850	0.82672	0.10702	1554.23596	0.0	0.4031040	566.10
3.960	0.64	1.7078	560.66	158.86	0.28879	0.82689	0.10700	1553.88513	0.0	0.3992745	566.07
3.970	0.48	1.7082	560.66	158.74	0.28907	0.82705	0.10698	1553.53760	0.0	0.3954472	566.04
3.980	0.32	1.7086	560.65	158.62	0.28935	0.82722	0.10695	1553.19275	0.0	0.3916223	566.01
3.990	0.16	1.7090	560.65	158.51	0.28963	0.82738	0.10693	1552.85083	0.0	0.3877996	565.98
4.000	0.00	1.7094	560.65	158.40	0.28990	0.82754	0.10691	1552.51050	0.0	0.3839790	565.95

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 4

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	763.930	763.930	0.0000
0.015	763.665	763.665	0.0000
0.025	763.396	763.396	0.0000
0.035	763.122	763.122	0.0000
0.045	762.843	762.843	0.0000
0.055	762.559	762.559	0.0000
0.065	762.271	762.271	0.0000
0.075	761.979	761.979	0.0000
0.085	761.681	761.681	0.0000
0.095	761.379	761.379	0.0000
0.105	761.073	761.073	0.0000

0.115	760.761	760.761	0.0000
0.125	760.445	760.445	0.0000
0.135	760.124	760.124	0.0000
0.145	759.798	759.798	0.0000
0.155	759.468	759.468	0.0000
0.165	760.950	759.121	0.0000
0.175	774.441	758.562	0.0000
0.185	785.408	757.603	0.0000
0.195	788.408	756.307	0.0000
0.205	802.780	754.773	0.0000
0.215	791.206	753.057	0.0000
0.225	800.890	751.192	0.0000
0.235	799.995	749.196	0.0000
0.245	780.615	747.081	0.0000
0.255	774.164	744.855	0.0000
0.265	767.301	742.523	0.0000
0.275	760.259	740.089	0.0001
0.285	752.851	737.555	0.0001
0.295	745.275	734.925	0.0001
0.305	737.676	732.200	0.0001
0.315	730.408	729.378	0.0001
0.325	729.263	726.461	0.0001
0.335	720.309	723.327	0.0002
0.345	711.308	720.089	0.0002
0.355	702.322	716.751	0.0002
0.365	693.415	713.316	0.0002
0.375	684.682	709.808	0.0003
0.385	676.310	706.292	0.0003
0.395	668.040	702.674	0.0004
0.405	660.934	699.387	0.0004
0.415	653.212	695.670	0.0004
0.425	645.416	691.723	0.0005
0.435	637.738	687.621	0.0005
0.445	630.253	683.391	0.0006
0.455	622.992	679.044	0.0006
0.465	615.958	674.586	0.0007
0.475	609.156	670.020	0.0007
0.485	602.581	665.349	0.0008
0.495	596.224	660.577	0.0008
0.505	590.069	655.707	0.0009
0.515	584.100	650.741	0.0010
0.525	578.304	645.685	0.0010
0.535	572.657	640.541	0.0011
0.545	567.143	635.317	0.0012
0.555	561.737	630.015	0.0012
0.565	556.416	624.643	0.0013
0.575	551.166	619.205	0.0014
0.585	545.971	613.708	0.0015
0.595	540.802	608.158	0.0015
0.605	535.657	602.560	0.0016
0.615	530.515	596.919	0.0017
0.625	525.359	591.239	0.0018
0.635	520.305	585.702	0.0019
0.645	515.658	580.532	0.0019
0.655	511.121	575.542	0.0020
0.665	506.678	570.719	0.0021
0.675	502.210	565.887	0.0022
0.685	497.732	561.054	0.0023
0.695	493.220	556.227	0.0024
0.705	488.699	551.410	0.0025
0.715	484.160	546.608	0.0025
0.725	479.622	541.822	0.0026

0.735	475.076	537.053	0.0027
0.745	470.511	532.309	0.0028
0.755	465.964	527.595	0.0029
0.765	461.433	522.931	0.0030
0.775	457.032	518.410	0.0031
0.785	452.878	514.165	0.0032
0.795	448.774	510.017	0.0033
0.805	445.077	506.346	0.0034
0.815	440.928	502.200	0.0035
0.825	436.716	498.012	0.0036
0.835	432.489	493.794	0.0037
0.845	428.256	489.578	0.0038
0.855	424.049	485.381	0.0039
0.865	419.857	481.212	0.0040
0.875	415.696	477.076	0.0041
0.885	411.562	472.975	0.0042
0.895	407.471	468.911	0.0043
0.905	403.420	464.887	0.0044
0.915	399.414	460.902	0.0045
0.925	395.452	456.959	0.0046
0.935	391.529	453.057	0.0047
0.945	387.656	449.198	0.0048
0.955	383.823	445.383	0.0049
0.965	380.047	441.611	0.0050
0.975	376.311	437.883	0.0052
0.985	372.697	434.278	0.0053
0.995	369.120	430.717	0.0054
1.005	365.594	427.199	0.0055
1.015	362.126	423.726	0.0056
1.025	358.706	420.296	0.0057
1.035	355.340	416.909	0.0058
1.045	352.018	413.565	0.0059
1.055	348.748	410.262	0.0060
1.065	345.530	406.999	0.0061
1.075	342.357	403.776	0.0063
1.085	339.231	400.595	0.0064
1.095	336.174	397.458	0.0065
1.105	333.155	394.366	0.0066
1.115	330.174	391.316	0.0067
1.125	327.256	388.308	0.0068
1.135	324.393	385.339	0.0069
1.145	321.583	382.424	0.0071
1.155	318.806	379.558	0.0072
1.165	316.110	376.755	0.0073
1.175	313.564	374.087	0.0074
1.185	311.222	371.656	0.0075
1.195	308.921	369.254	0.0077
1.205	306.763	367.059	0.0078
1.215	304.370	364.577	0.0079
1.225	301.943	362.001	0.0081
1.235	299.510	359.427	0.0082
1.245	297.156	356.870	0.0083
1.255	294.772	354.336	0.0084
1.265	292.441	351.827	0.0085
1.275	290.180	349.345	0.0087
1.285	287.899	346.890	0.0088
1.295	285.668	344.463	0.0089
1.305	283.468	342.069	0.0090
1.315	281.351	339.709	0.0091
1.325	279.213	337.378	0.0093
1.335	277.126	335.075	0.0094
1.345	275.107	332.801	0.0095

1.365	271.099	328.337	0.0097
1.375	269.125	326.147	0.0099
1.385	267.243	323.984	0.0100
1.395	265.363	321.848	0.0101
1.405	263.515	319.739	0.0102
1.415	261.629	317.655	0.0104
1.425	259.855	315.597	0.0105
1.435	258.084	313.564	0.0106
1.445	256.373	311.556	0.0107
1.455	254.601	309.570	0.0109
1.465	252.956	307.609	0.0110
1.475	251.268	305.679	0.0111
1.485	249.653	303.775	0.0112
1.495	248.045	301.898	0.0113
1.505	246.483	300.048	0.0115
1.515	244.942	298.223	0.0116
1.525	243.424	296.421	0.0117
1.535	241.913	294.642	0.0118
1.545	240.468	292.888	0.0120
1.555	239.044	291.162	0.0121
1.565	237.620	289.483	0.0122
1.575	236.287	287.900	0.0123
1.585	235.153	286.490	0.0125
1.595	233.910	285.043	0.0126
1.605	232.779	283.720	0.0128
1.615	231.529	282.212	0.0130
1.625	230.294	280.644	0.0131
1.635	229.003	279.078	0.0132
1.645	227.718	277.523	0.0133
1.655	226.491	275.978	0.0135
1.665	225.253	274.446	0.0136
1.675	224.051	272.928	0.0137
1.685	222.824	271.425	0.0138
1.695	221.705	269.936	0.0139
1.705	220.472	268.463	0.0141
1.715	219.336	267.006	0.0142
1.725	218.221	265.565	0.0143
1.735	217.129	264.139	0.0144
1.745	216.013	262.729	0.0146
1.755	214.918	261.335	0.0147
1.765	213.873	259.957	0.0148
1.775	212.827	258.594	0.0149
1.785	211.782	257.246	0.0150
1.795	210.734	255.915	0.0152
1.805	209.763	254.599	0.0153
1.815	208.795	253.298	0.0154
1.825	207.776	252.012	0.0155
1.835	206.836	250.740	0.0156
1.845	205.874	249.482	0.0158
1.855	204.967	248.237	0.0159
1.865	204.014	247.003	0.0160
1.875	203.064	245.782	0.0161
1.885	202.251	244.576	0.0162
1.895	201.305	243.386	0.0164
1.905	200.413	242.212	0.0165
1.915	199.582	241.052	0.0166
1.925	198.753	239.906	0.0167
1.935	197.935	238.774	0.0168
1.945	197.061	237.656	0.0170

1.975	194.782	234.513	0.0173
1.985	194.234	233.669	0.0174
1.995	193.523	232.758	0.0176
2.005	192.884	231.953	0.0178
2.015	192.246	231.004	0.0180
2.025	191.479	230.009	0.0181
2.035	190.794	229.007	0.0182
2.045	190.072	228.014	0.0184
2.055	189.363	227.024	0.0185
2.065	188.641	226.040	0.0186
2.075	187.963	225.063	0.0187
2.085	187.271	224.095	0.0188
2.095	186.563	223.136	0.0189
2.105	185.922	222.185	0.0190
2.115	185.324	221.245	0.0191
2.125	184.627	220.315	0.0192
2.135	183.975	219.395	0.0194
2.145	183.389	218.486	0.0195
2.155	182.725	217.587	0.0196
2.165	182.107	216.698	0.0197
2.175	181.513	215.820	0.0198
2.185	180.925	214.951	0.0199
2.195	180.385	214.093	0.0200
2.205	179.788	213.243	0.0201
2.215	179.218	212.404	0.0202
2.225	178.590	211.574	0.0203
2.235	178.118	210.753	0.0204
2.245	177.505	209.941	0.0205
2.255	177.027	209.136	0.0206
2.265	176.453	208.339	0.0207
2.275	175.887	207.549	0.0208
2.285	175.348	206.772	0.0209
2.295	174.877	206.008	0.0210
2.305	174.369	205.257	0.0211
2.315	173.865	204.518	0.0212
2.325	173.412	203.789	0.0213
2.335	172.944	203.072	0.0214
2.345	172.440	202.367	0.0215
2.355	172.009	201.671	0.0216
2.365	171.541	201.011	0.0217
2.375	171.145	200.411	0.0218
2.385	170.836	199.927	0.0220
2.395	170.393	199.349	0.0222
2.405	170.096	198.888	0.0224
2.415	169.684	198.306	0.0225
2.425	169.292	197.687	0.0227
2.435	168.927	197.058	0.0228
2.445	168.465	196.436	0.0228
2.455	168.068	195.814	0.0229
2.465	167.685	195.196	0.0230
2.475	167.275	194.581	0.0231
2.485	166.927	193.971	0.0232
2.495	166.520	193.367	0.0233
2.505	166.104	192.769	0.0234
2.515	165.730	192.177	0.0235
2.525	165.365	191.592	0.0235
2.535	164.991	191.013	0.0236
2.545	164.660	190.441	0.0237
2.555	164.195	189.876	0.0238
2.565	163.936	189.318	0.0239
2.575	163.596	188.767	0.0239
2.585	163.174	188.222	0.0240

2.595	162.869	187.684	0.0241
2.605	162.501	187.153	0.0242
2.615	162.179	186.628	0.0243
2.625	161.866	186.111	0.0243
2.635	161.563	185.600	0.0244
2.645	161.214	185.095	0.0245
2.655	160.894	184.595	0.0246
2.665	160.605	184.101	0.0247
2.675	160.327	183.612	0.0247
2.685	160.040	183.130	0.0248
2.695	159.650	182.656	0.0249
2.705	159.342	182.192	0.0250
2.715	159.117	181.735	0.0250
2.725	158.865	181.286	0.0251
2.735	158.604	180.845	0.0252
2.745	158.259	180.410	0.0252
2.755	157.962	179.983	0.0253
2.765	157.732	179.583	0.0254
2.775	157.530	179.231	0.0255
2.785	157.465	178.972	0.0256
2.795	157.068	178.590	0.0258
2.805	156.950	178.347	0.0260
2.815	156.733	178.000	0.0262
2.825	156.491	177.620	0.0262
2.835	156.304	177.229	0.0263
2.845	156.069	176.842	0.0264
2.855	155.815	176.456	0.0264
2.865	155.560	176.070	0.0265
2.875	155.301	175.685	0.0266
2.885	155.117	175.304	0.0266
2.895	154.929	174.925	0.0267
2.905	154.657	174.550	0.0267
2.915	154.381	174.178	0.0268
2.925	154.178	173.811	0.0269
2.935	153.970	173.447	0.0269
2.945	153.678	173.087	0.0270
2.955	153.540	172.731	0.0270
2.965	153.317	172.379	0.0271
2.975	153.090	172.031	0.0271
2.985	152.937	171.687	0.0272
2.995	152.637	171.346	0.0272
3.005	152.458	171.010	0.0273
3.015	152.212	170.676	0.0273
3.025	152.058	170.347	0.0274
3.035	151.883	170.021	0.0274
3.045	151.703	169.698	0.0275
3.055	151.439	169.379	0.0276
3.065	151.332	169.063	0.0276
3.075	151.141	168.750	0.0277
3.085	150.897	168.440	0.0277
3.095	150.746	168.134	0.0278
3.105	150.543	167.830	0.0278
3.115	150.336	167.529	0.0279
3.125	150.207	167.231	0.0279
3.135	150.026	166.936	0.0280
3.145	149.808	166.644	0.0280
3.155	149.718	166.355	0.0280
3.165	149.493	166.068	0.0281
3.175	149.380	165.785	0.0281
3.185	149.198	165.504	0.0282
3.195	148.995	165.226	0.0282
3.205	148.838	164.951	0.0283

3.215	148.646	164.679	0.0283
3.225	148.483	164.409	0.0284
3.235	148.349	164.142	0.0284
3.245	148.146	163.878	0.0285
3.255	148.006	163.617	0.0285
3.265	147.914	163.358	0.0286
3.275	147.735	163.101	0.0286
3.285	147.554	162.847	0.0286
3.295	147.453	162.595	0.0287
3.305	147.351	162.345	0.0287
3.315	147.160	162.098	0.0288
3.325	146.967	161.852	0.0288
3.335	146.856	161.610	0.0289
3.345	146.742	161.369	0.0289
3.355	146.626	161.130	0.0289
3.365	146.422	160.894	0.0290
3.375	146.214	160.660	0.0290
3.385	146.176	160.428	0.0291
3.395	146.049	160.199	0.0291
3.405	145.920	159.971	0.0291
3.415	145.788	159.746	0.0292
3.425	145.568	159.522	0.0292
3.435	145.518	159.300	0.0293
3.445	145.411	159.080	0.0293
3.455	145.271	158.862	0.0293
3.465	145.128	158.646	0.0294
3.475	144.950	158.431	0.0294
3.485	144.922	158.219	0.0295
3.495	144.741	158.008	0.0295
3.505	144.589	157.799	0.0295
3.515	144.467	157.591	0.0296
3.525	144.310	157.386	0.0296
3.535	144.296	157.182	0.0296
3.545	144.223	156.980	0.0297
3.555	144.005	156.779	0.0297
3.565	143.928	156.581	0.0297
3.575	143.850	156.384	0.0298
3.585	143.680	156.189	0.0298
3.595	143.597	155.996	0.0299
3.605	143.422	155.806	0.0299
3.615	143.334	155.618	0.0299
3.625	143.243	155.432	0.0300
3.635	143.150	155.249	0.0300
3.645	142.996	155.067	0.0300
3.655	142.956	154.888	0.0301
3.665	142.767	154.711	0.0301
3.675	142.753	154.536	0.0301
3.685	142.679	154.363	0.0302
3.695	142.572	154.192	0.0302
3.705	142.431	154.023	0.0302
3.715	142.319	153.857	0.0303
3.725	142.236	153.692	0.0303
3.735	142.119	153.530	0.0303
3.745	142.001	153.369	0.0303
3.755	141.939	153.211	0.0304
3.765	141.816	153.054	0.0304
3.775	141.723	152.898	0.0304
3.785	141.777	152.745	0.0305
3.795	141.558	152.593	0.0305
3.805	141.518	152.443	0.0305
3.815	141.386	152.295	0.0305
3.825	141.343	152.148	0.0306

3.835	141.176	152.003	0.0306
3.845	141.159	151.860	0.0306
3.855	141.080	151.719	0.0307
3.865	141.060	151.579	0.0307
3.875	140.916	151.441	0.0307
3.885	140.862	151.304	0.0307
3.895	140.806	151.169	0.0308
3.905	140.657	151.036	0.0308
3.915	140.598	150.905	0.0308
3.925	140.628	150.775	0.0308
3.935	140.504	150.647	0.0309
3.945	140.409	150.520	0.0309
3.955	140.343	150.395	0.0309
3.965	140.213	150.272	0.0309
3.975	140.205	150.150	0.0310
3.985	140.164	150.030	0.0310
3.995	140.061	149.911	0.0310

IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 5

	DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
	FLUX	BORON	CHF	CHF TEMP.		QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)		
(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)							
(MW/M2)	(DEG-K)										
0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.08544	1700.00012	0.0	0.000000	255.37
0.010	100.02	1.2111	548.26	764.01	0.00000	0.00000	0.08551	1701.31018	0.0	4.591380	580.41
0.020	99.93	1.2116	548.35	763.83	0.00000	0.00000	0.08560	1703.18127	0.0	4.556478	580.33
0.030	99.84	1.2121	548.45	763.65	0.00000	0.00000	0.08571	1705.29114	0.0	4.522342	580.25
0.040	99.74	1.2126	548.55	763.46	0.00000	0.00000	0.08582	1707.49854	0.0	4.489034	580.17
0.050	99.65	1.2131	548.65	763.27	0.00000	0.00000	0.08593	1709.74109	0.0	4.456555	580.10
0.060	99.55	1.2137	548.75	763.08	0.00000	0.00000	0.08604	1711.98987	0.0	4.424891	580.02
0.070	99.46	1.2142	548.86	762.88	0.00000	0.00000	0.08616	1714.23218	0.0	4.394010	579.95
0.080	99.37	1.2148	548.97	762.68	0.00000	0.00000	0.08627	1716.46167	0.0	4.363877	579.88
0.090	99.27	1.2153	549.08	762.47	0.00000	0.00000	0.08638	1718.67566	0.0	4.334450	579.82
0.100	99.18	1.2159	549.19	762.26	0.00000	0.00000	0.08649	1720.87366	0.0	4.305712	579.75
0.110	99.08	1.2165	549.30	762.05	0.00000	0.00000	0.08660	1723.05713	0.0	4.277622	579.68
0.120	98.99	1.2171	549.41	761.83	0.00000	0.00000	0.08671	1725.22949	0.0	4.250143	579.62
0.130	98.89	1.2177	549.53	761.61	0.00000	0.00000	0.08682	1727.39612	0.0	4.223260	579.56
0.140	98.80	1.2183	549.65	761.38	0.00000	0.00000	0.08693	1729.56372	0.0	4.196930	579.50
0.150	98.70	1.2189	549.77	761.15	0.00000	0.00000	0.08704	1731.73938	0.0	4.171124	579.44
0.160	98.61	1.2196	549.89	760.92	0.00000	0.00000	0.08715	1733.92517	0.0	4.145813	579.38
0.170	98.52	1.2202	550.01	760.67	0.00000	0.00002	0.08726	1736.09778	0.0	4.120982	579.32
0.180	98.42	1.2209	550.14	760.29	0.00000	0.00022	0.08736	1738.18726	0.0	4.096626	579.26
0.190	98.32	1.2215	550.26	759.66	0.00000	0.00075	0.08746	1740.19702	0.0	4.072746	579.21
0.200	98.23	1.2222	550.39	758.80	0.00001	0.00160	0.08756	1742.18530	0.0	4.049307	579.16
0.210	98.13	1.2229	550.52	757.76	0.00002	0.00269	0.08766	1744.19958	0.0	4.026278	579.10
0.220	98.03	1.2236	550.66	756.59	0.00003	0.00396	0.08777	1746.26331	0.0	4.003630	579.05
0.230	97.93	1.2243	550.79	755.31	0.00005	0.00537	0.08787	1748.38342	0.0	3.981342	579.00
0.240	97.83	1.2250	550.93	753.94	0.00007	0.00691	0.08798	1750.56165	0.0	3.959417	578.95
0.250	97.73	1.2257	551.07	752.48	0.00010	0.00857	0.08810	1752.79895	0.0	3.937828	578.90
0.260	97.62	1.2265	551.21	750.95	0.00014	0.01033	0.08821	1755.09229	0.0	3.916569	578.85
0.270	97.52	1.2272	551.35	749.34	0.00018	0.01218	0.08833	1757.43152	0.0	3.895612	578.80
0.280	97.42	1.2280	551.49	747.66	0.00024	0.01414	0.08845	1759.79907	0.0	3.874949	578.75
0.290	97.32	1.2287	551.64	745.91	0.00030	0.01618	0.08857	1762.17944	0.0	3.854586	578.71
0.300	97.21	1.2295	551.78	744.10	0.00037	0.01830	0.08869	1764.56372	0.0	3.834531	578.66
0.310	97.11	1.2303	551.93	742.22	0.00044	0.02051	0.08881	1766.95239	0.0	3.814806	578.61
0.320	97.00	1.2311	552.08	740.29	0.00053	0.02281	0.08893	1769.34631	0.0	3.795410	578.57
0.330	96.90	1.2319	552.23	738.29	0.00063	0.02518	0.08905	1771.73425	0.0	3.776334	578.53
0.340	96.79	1.2327	552.39	736.12	0.00074	0.02780	0.08916	1774.07263	0.0	3.758529	578.49

0.350	96.69	1.2335	552.54	733.88	0.00087	0.03050	0.08927	1776.26257	0.0	3.741039	578.45
0.360	96.58	1.2343	552.70	731.58	0.00100	0.03329	0.08937	1778.06958	0.0	3.723969	578.41
0.370	96.48	1.2351	552.86	729.21	0.00115	0.03617	0.08941	1778.96838	0.0	3.707580	578.37
0.380	96.38	1.2360	553.01	726.76	0.00131	0.03917	0.08935	1777.76233	0.0	3.692257	578.34
0.390	96.30	1.2368	553.18	724.17	0.00149	0.04236	0.08905	1771.71289	0.0	3.678665	578.31
0.400	93.59	1.2377	553.34	721.13	0.00172	0.04618	0.08818	1754.53455	0.0	3.668808	578.30
0.410	93.50	1.2386	553.50	717.77	0.00198	0.05043	0.08787	1748.32153	0.0	3.658965	578.29
0.420	93.40	1.2394	553.67	714.72	0.00223	0.05424	0.08782	1747.22668	0.0	3.645531	578.26
0.430	93.29	1.2404	553.85	711.78	0.00247	0.05789	0.08788	1748.55542	0.0	3.630233	578.23
0.440	93.18	1.2413	554.02	708.84	0.00271	0.06154	0.08801	1751.05261	0.0	3.614028	578.20
0.450	93.07	1.2422	554.20	705.87	0.00297	0.06522	0.08816	1754.13184	0.0	3.597478	578.16
0.460	92.96	1.2432	554.39	702.86	0.00324	0.06896	0.08833	1757.51477	0.0	3.580847	578.12
0.470	92.85	1.2442	554.57	699.78	0.00352	0.07278	0.08851	1761.06580	0.0	3.564264	578.08
0.480	92.73	1.2452	554.76	696.65	0.00381	0.07668	0.08869	1764.71692	0.0	3.547789	578.05
0.490	92.62	1.2462	554.95	693.45	0.00411	0.08067	0.08888	1768.43140	0.0	3.531456	578.01
0.500	92.50	1.2472	555.14	690.19	0.00442	0.08475	0.08907	1772.18774	0.0	3.515278	577.98
0.510	92.38	1.2482	555.33	686.87	0.00475	0.08891	0.08926	1775.97180	0.0	3.499261	577.94
0.520	92.27	1.2493	555.53	683.48	0.00508	0.09316	0.08945	1779.77234	0.0	3.483413	577.91
0.530	92.15	1.2503	555.72	680.03	0.00543	0.09750	0.08964	1783.58057	0.0	3.467738	577.87
0.540	92.03	1.2514	555.92	676.52	0.00580	0.10192	0.08983	1787.38855	0.0	3.452238	577.84
0.550	91.91	1.2524	556.12	672.95	0.00617	0.10643	0.09002	1791.18799	0.0	3.436921	577.80
0.560	91.79	1.2535	556.33	669.31	0.00655	0.11102	0.09021	1794.96973	0.0	3.421786	577.77
0.570	91.67	1.2546	556.53	665.62	0.00695	0.11570	0.09040	1798.72241	0.0	3.406841	577.74
0.580	91.55	1.2557	556.73	661.87	0.00736	0.12047	0.09059	1802.43152	0.0	3.392089	577.71
0.590	91.42	1.2568	556.94	658.06	0.00778	0.12531	0.09077	1806.08057	0.0	3.377543	577.68
0.600	91.30	1.2579	557.15	654.19	0.00821	0.13023	0.09095	1809.64575	0.0	3.363210	577.65
0.610	91.18	1.2591	557.36	650.27	0.00865	0.13524	0.09113	1813.10278	0.0	3.349101	577.62
0.620	91.05	1.2602	557.57	646.29	0.00910	0.14031	0.09129	1816.43823	0.0	3.335224	577.59
0.630	90.93	1.2613	557.78	642.26	0.00957	0.14547	0.09146	1819.65662	0.0	3.321577	577.56
0.640	90.80	1.2625	558.00	638.19	0.01004	0.15070	0.09161	1822.71289	0.0	3.308180	577.53
0.650	90.68	1.2636	558.21	634.07	0.01053	0.15599	0.09175	1825.53931	0.0	3.295064	577.51
0.660	90.55	1.2648	558.43	630.09	0.01100	0.16108	0.09189	1828.23682	0.0	3.2820754	577.48
0.670	90.43	1.2660	558.65	626.27	0.01146	0.16596	0.09202	1830.84387	0.0	3.265214	577.44
0.680	90.30	1.2671	558.87	622.40	0.01193	0.17089	0.09214	1833.34668	0.0	3.249873	577.41
0.690	90.18	1.2683	559.08	618.50	0.01240	0.17589	0.09226	1835.74451	0.0	3.234750	577.38
0.700	90.06	1.2695	559.31	614.56	0.01289	0.18093	0.09238	1838.04492	0.0	3.219871	577.35
0.710	89.93	1.2707	559.53	610.60	0.01338	0.18601	0.09249	1840.25891	0.0	3.205263	577.32
0.720	89.80	1.2719	559.75	606.62	0.01389	0.19112	0.09260	1842.38904	0.0	3.190922	577.29
0.730	89.68	1.2731	559.97	602.62	0.01440	0.19628	0.09270	1844.41309	0.0	3.176842	577.26
0.740	89.55	1.2743	560.19	598.59	0.01492	0.20147	0.09279	1846.27246	0.0	3.163027	577.23
0.750	89.43	1.2755	560.41	594.55	0.01545	0.20668	0.09287	1847.83630	0.0	3.149524	577.21
0.760	89.30	1.2767	560.63	590.50	0.01599	0.21191	0.09292	1848.81543	0.0	3.136480	577.18
0.770	89.18	1.2779	560.85	586.46	0.01653	0.21715	0.09291	1848.53516	0.0	3.124148	577.16
0.780	89.07	1.2791	561.08	582.34	0.01709	0.22249	0.09275	1845.43091	0.0	3.112749	577.14
0.790	88.97	1.2803	561.30	578.08	0.01768	0.22804	0.09228	1836.11023	0.0	3.103268	577.12
0.800	85.36	1.2815	561.46	573.23	0.01837	0.23449	0.09113	1813.10352	0.0	3.097903	577.12
0.810	85.26	1.2828	561.46	568.48	0.01914	0.24136	0.09067	1804.06287	0.0	3.092428	577.11
0.820	85.15	1.2840	561.46	564.36	0.01980	0.24725	0.09055	1801.73206	0.0	3.082126	577.09
0.830	85.03	1.2853	561.46	560.75	0.02038	0.25242	0.09060	1802.69116	0.0	3.067961	577.05
0.840	84.90	1.2866	561.46	557.20	0.02096	0.25749	0.09072	1805.12292	0.0	3.052573	577.01
0.850	84.78	1.2879	561.46	553.68	0.02154	0.26253	0.09088	1808.21545	0.0	3.036723	576.96
0.860	84.65	1.2892	561.45	550.17	0.02213	0.26756	0.09105	1811.57080	0.0	3.020763	576.91
0.870	84.52	1.2906	561.45	546.65	0.02272	0.27259	0.09122	1814.99377	0.0	3.004870	576.87
0.880	84.39	1.2919	561.45	543.13	0.02332	0.27762	0.09139	1818.38672	0.0	2.989127	576.82
0.890	84.26	1.2933	561.45	539.61	0.02393	0.28265	0.09156	1821.70471	0.0	2.973573	576.78
0.900	84.12	1.2947	561.45	536.10	0.02455	0.28768	0.09172	1824.93298	0.0	2.958226	576.73
0.910	83.99	1.2960	561.45	532.58	0.02518	0.29271	0.09188	1828.06726	0.0	2.943087	576.69
0.920	83.86	1.2974	561.45	529.07	0.02581	0.29774	0.09203	1831.10950	0.0	2.928160	576.64
0.930	83.73	1.2988	561.45	525.56	0.02646	0.30275	0.09218	1834.06262	0.0	2.913441	576.60
0.940	83.60	1.3001	561.44	522.07	0.02711	0.30775	0.09232	1836.93091	0.0	2.898926	576.56
0.950	83.46	1.3015	561.44	518.58	0.02776	0.31273	0.09246	1839.71887	0.0	2.884611	576.52
0.960	83.33	1.3029	561.44	515.11	0.02843	0.31770	0.09260	1842.43225	0.0	2.870494	576.47

0.970	83.19	1.3043	561.44	511.65	0.02910	0.32265	0.09273	1845.07886	0.0	2.856567	576.43
0.980	83.06	1.3057	561.44	508.21	0.02978	0.32757	0.09286	1847.67053	0.0	2.842825	576.39
0.990	82.93	1.3070	561.44	504.91	0.03044	0.33229	0.09299	1850.23328	0.0	2.827794	576.35
1.000	82.79	1.3084	561.44	501.63	0.03110	0.33698	0.09312	1852.74341	0.0	2.812950	576.30
1.010	82.66	1.3098	561.44	498.37	0.03178	0.34165	0.09324	1855.18945	0.0	2.798298	576.26
1.020	82.53	1.3112	561.43	495.12	0.03245	0.34629	0.09336	1857.56799	0.0	2.783839	576.22
1.030	82.39	1.3126	561.43	491.90	0.03314	0.35091	0.09348	1859.88135	0.0	2.769574	576.17
1.040	82.26	1.3140	561.43	488.69	0.03383	0.35550	0.09359	1862.13647	0.0	2.755499	576.13
1.050	82.12	1.3154	561.43	485.50	0.03452	0.36005	0.09370	1864.33838	0.0	2.741610	576.09
1.060	81.99	1.3168	561.43	482.33	0.03522	0.36459	0.09381	1866.48450	0.0	2.727893	576.05
1.070	81.85	1.3182	561.43	479.18	0.03593	0.36910	0.09391	1868.56445	0.0	2.714330	576.01
1.080	81.71	1.3196	561.43	476.04	0.03665	0.37359	0.09401	1870.57214	0.0	2.700917	575.96
1.090	81.58	1.3210	561.43	472.93	0.03736	0.37804	0.09411	1872.51685	0.0	2.687664	575.92
1.100	81.44	1.3224	561.42	469.85	0.03809	0.38245	0.09421	1874.41516	0.0	2.674594	575.88
1.110	81.30	1.3237	561.42	466.79	0.03882	0.38681	0.09430	1876.27832	0.0	2.661720	575.85
1.120	81.17	1.3251	561.42	463.77	0.03955	0.39114	0.09439	1878.09827	0.0	2.649043	575.81
1.130	81.03	1.3265	561.42	460.77	0.04028	0.39543	0.09448	1879.84265	0.0	2.636557	575.77
1.140	80.89	1.3279	561.42	457.80	0.04102	0.39968	0.09456	1881.44873	0.0	2.624271	575.73
1.150	80.76	1.3293	561.42	454.88	0.04176	0.40385	0.09463	1882.79333	0.0	2.611866	575.69
1.160	80.62	1.3307	561.42	452.02	0.04249	0.40795	0.09467	1883.57825	0.0	2.599732	575.65
1.170	80.50	1.3320	561.42	449.20	0.04323	0.41198	0.09464	1883.09692	0.0	2.588151	575.62
1.180	80.38	1.3334	561.41	446.37	0.04398	0.41602	0.09447	1879.72693	0.0	2.577407	575.59
1.190	80.29	1.3348	561.41	443.51	0.04475	0.42011	0.09398	1869.91968	0.0	2.568419	575.56
1.200	75.44	1.3361	561.37	439.96	0.04568	0.42517	0.09277	1845.75659	0.0	2.563246	575.55
1.210	75.34	1.3375	561.37	436.75	0.04661	0.42983	0.09228	1835.97278	0.0	2.558051	575.54
1.220	75.23	1.3389	561.37	433.80	0.04745	0.43406	0.09212	1832.86328	0.0	2.549050	575.51
1.230	75.10	1.3403	561.36	430.99	0.04825	0.43807	0.09212	1832.85327	0.0	2.538323	575.48
1.240	74.96	1.3418	561.36	428.23	0.04906	0.44202	0.09219	1834.21851	0.0	2.526639	575.45
1.250	74.82	1.3432	561.36	425.47	0.04987	0.44596	0.09229	1836.16736	0.0	2.514542	575.41
1.260	74.68	1.3447	561.36	422.73	0.05069	0.44988	0.09239	1838.34668	0.0	2.502326	575.37
1.270	74.54	1.3462	561.36	420.01	0.05151	0.45377	0.09251	1840.59973	0.0	2.490129	575.33
1.280	74.40	1.3477	561.36	417.30	0.05234	0.45764	0.09262	1842.85571	0.0	2.478006	575.29
1.290	74.26	1.3492	561.36	414.62	0.05318	0.46148	0.09273	1845.08594	0.0	2.465987	575.25
1.300	74.11	1.3507	561.35	411.96	0.05402	0.46528	0.09284	1847.27893	0.0	2.454084	575.22
1.310	73.97	1.3522	561.35	409.34	0.05487	0.46904	0.09295	1849.43469	0.0	2.442050	575.18
1.320	73.83	1.3537	561.35	406.74	0.05571	0.47274	0.09306	1851.55237	0.0	2.429890	575.14
1.330	73.69	1.3552	561.35	404.17	0.05657	0.47641	0.09316	1853.62903	0.0	2.417856	575.10
1.340	73.54	1.3567	561.35	401.63	0.05742	0.48005	0.09327	1855.66467	0.0	2.405951	575.06
1.350	73.40	1.3581	561.35	399.12	0.05828	0.48365	0.09337	1857.66089	0.0	2.394177	575.02
1.360	73.25	1.3596	561.35	396.63	0.05914	0.48721	0.09346	1859.61890	0.0	2.382530	574.99
1.370	73.11	1.3611	561.35	394.16	0.06000	0.49073	0.09356	1861.54102	0.0	2.371011	574.95
1.380	72.96	1.3626	561.34	391.72	0.06087	0.49422	0.09366	1863.42834	0.0	2.359619	574.91
1.390	72.82	1.3641	561.34	389.31	0.06174	0.49767	0.09375	1865.28284	0.0	2.348351	574.87
1.400	72.67	1.3656	561.34	386.93	0.06262	0.50108	0.09384	1867.10498	0.0	2.337208	574.84
1.410	72.53	1.3671	561.34	384.56	0.06349	0.50445	0.09393	1868.89575	0.0	2.326185	574.80
1.420	72.38	1.3686	561.34	382.23	0.06438	0.50779	0.09402	1870.65503	0.0	2.315280	574.77
1.430	72.24	1.3701	561.34	379.92	0.06526	0.51110	0.09411	1872.38525	0.0	2.304492	574.73
1.440	72.09	1.3716	561.34	377.63	0.06614	0.51437	0.09419	1874.09070	0.0	2.293823	574.70
1.450	71.94	1.3731	561.33	375.37	0.06703	0.51760	0.09428	1875.77417	0.0	2.283266	574.66
1.460	71.80	1.3746	561.33	373.13	0.06793	0.52081	0.09436	1877.43213	0.0	2.272813	574.63
1.470	71.65	1.3761	561.33	370.91	0.06882	0.52397	0.09444	1879.05933	0.0	2.262197	574.59
1.480	71.50	1.3776	561.33	368.74	0.06971	0.52708	0.09452	1880.65576	0.0	2.250922	574.55
1.490	71.36	1.3791	561.33	366.59	0.07061	0.53016	0.09460	1882.22339	0.0	2.239753	574.52
1.500	71.21	1.3806	561.33	364.47	0.07150	0.53319	0.09468	1883.77283	0.0	2.228713	574.48
1.510	71.06	1.3821	561.33	362.37	0.07239	0.53618	0.09475	1885.30798	0.0	2.217815	574.44
1.520	70.91	1.3835	561.32	360.31	0.07328	0.53913	0.09483	1886.81458	0.0	2.207062	574.41
1.530	70.76	1.3850	561.32	358.27	0.07417	0.54205	0.09490	1888.25891	0.0	2.196451	574.37
1.540	70.62	1.3865	561.32	356.25	0.07507	0.54493	0.09497	1889.57935	0.0	2.185994	574.34
1.550	70.47	1.3880	561.32	354.27	0.07596	0.54777	0.09502	1890.64929	0.0	2.175739	574.30
1.560	70.33	1.3894	561.32	352.33	0.07684	0.55054	0.09505	1891.16943	0.0	2.165810	574.27
1.570	70.19	1.3908	561.32	350.42	0.07772	0.55327	0.09501	1890.41479	0.0	2.156290	574.24
1.580	70.07	1.3923	561.32	348.53	0.07861	0.55598	0.09483	1886.76685	0.0	2.147503	574.21

1.590	69.99	1.3937	561.32	346.64	0.07951	0.55868	0.09432	1876.65063	0.0	2.140266	574.18
1.600	63.75	1.3952	561.26	344.19	0.08061	0.56214	0.09308	1852.03247	0.0	2.136439	574.17
1.610	63.67	1.3966	561.26	342.26	0.08160	0.56498	0.09259	1842.31189	0.0	2.132542	574.17
1.620	63.54	1.3981	561.25	340.36	0.08255	0.56769	0.09244	1839.23499	0.0	2.125185	574.15
1.630	63.41	1.3996	561.25	338.51	0.08347	0.57033	0.09243	1839.14526	0.0	2.116314	574.12
1.640	63.26	1.4011	561.25	336.68	0.08440	0.57295	0.09250	1840.35901	0.0	2.106162	574.08
1.650	63.11	1.4026	561.25	334.84	0.08534	0.57558	0.09258	1842.10950	0.0	2.095656	574.05
1.660	62.96	1.4041	561.25	333.01	0.08629	0.57820	0.09268	1844.06909	0.0	2.085041	574.01
1.670	62.81	1.4057	561.25	331.18	0.08724	0.58081	0.09278	1846.09705	0.0	2.074429	573.97
1.680	62.66	1.4072	561.25	329.38	0.08820	0.58339	0.09289	1848.13306	0.0	2.063869	573.94
1.690	62.51	1.4088	561.25	327.58	0.08916	0.58596	0.09299	1850.15112	0.0	2.053382	573.90
1.700	62.35	1.4103	561.24	325.81	0.09013	0.58850	0.09309	1852.14136	0.0	2.042979	573.86
1.710	62.20	1.4119	561.24	324.05	0.09110	0.59101	0.09319	1854.10046	0.0	2.032665	573.83
1.720	62.05	1.4134	561.24	322.31	0.09206	0.59349	0.09328	1856.02783	0.0	2.022443	573.79
1.730	61.89	1.4149	561.24	320.59	0.09303	0.59595	0.09338	1857.92468	0.0	2.012314	573.76
1.740	61.74	1.4165	561.24	318.89	0.09400	0.59838	0.09347	1859.79187	0.0	2.002280	573.72
1.750	61.58	1.4180	561.24	317.21	0.09498	0.60079	0.09356	1861.63074	0.0	1.992341	573.69
1.760	61.43	1.4196	561.23	315.55	0.09595	0.60316	0.09366	1863.44312	0.0	1.982497	573.65
1.770	61.27	1.4211	561.23	313.90	0.09692	0.60551	0.09375	1865.22986	0.0	1.972748	573.62
1.780	61.12	1.4226	561.23	312.28	0.09789	0.60783	0.09383	1866.99243	0.0	1.963092	573.58
1.790	60.96	1.4242	561.23	310.68	0.09886	0.61012	0.09392	1868.73157	0.0	1.953531	573.55
1.800	60.81	1.4257	561.23	309.09	0.09983	0.61238	0.09401	1870.45032	0.0	1.943685	573.51
1.810	60.65	1.4272	561.23	307.53	0.10080	0.61461	0.09409	1872.14722	0.0	1.933807	573.48
1.820	60.50	1.4287	561.23	305.99	0.10177	0.61682	0.09418	1873.82056	0.0	1.924020	573.44
1.830	60.34	1.4303	561.22	304.46	0.10274	0.61901	0.09426	1875.47070	0.0	1.914323	573.41
1.840	60.18	1.4318	561.22	302.95	0.10370	0.62116	0.09434	1877.10156	0.0	1.904719	573.37
1.850	60.03	1.4333	561.22	301.46	0.10467	0.62330	0.09442	1878.71423	0.0	1.895204	573.34
1.860	59.87	1.4348	561.22	299.98	0.10564	0.62541	0.09450	1880.30396	0.0	1.885771	573.30
1.870	59.71	1.4363	561.22	298.51	0.10661	0.62750	0.09458	1881.86157	0.0	1.876406	573.27
1.880	59.55	1.4378	561.22	297.06	0.10758	0.62958	0.09466	1883.38367	0.0	1.867108	573.24
1.890	59.40	1.4393	561.22	295.63	0.10855	0.63162	0.09473	1884.87891	0.0	1.857889	573.20
1.900	59.24	1.4408	561.21	294.22	0.10952	0.63364	0.09481	1886.35779	0.0	1.848770	573.17
1.910	59.08	1.4423	561.21	292.83	0.11048	0.63563	0.09488	1887.82336	0.0	1.839762	573.14
1.920	58.92	1.4438	561.21	291.46	0.11144	0.63759	0.09495	1889.26208	0.0	1.830868	573.10
1.930	58.77	1.4453	561.21	290.10	0.11240	0.63952	0.09502	1890.64014	0.0	1.822086	573.07
1.940	58.61	1.4468	561.21	288.77	0.11335	0.64143	0.09509	1891.89587	0.0	1.813428	573.04
1.950	58.45	1.4482	561.21	287.45	0.11430	0.64331	0.09514	1892.90100	0.0	1.804936	573.01
1.960	58.30	1.4497	561.21	286.18	0.11523	0.64513	0.09516	1893.34009	0.0	1.795977	572.97
1.970	58.16	1.4511	561.20	284.93	0.11615	0.64692	0.09511	1892.43188	0.0	1.786603	572.94
1.980	58.04	1.4525	561.20	283.69	0.11707	0.64869	0.09491	1888.47046	0.0	1.777898	572.91
1.990	57.97	1.4539	561.20	282.47	0.11800	0.65043	0.09437	1877.66675	0.0	1.770619	572.88
2.000	50.32	1.4553	561.13	280.78	0.11915	0.65281	0.09305	1851.48218	0.0	1.766489	572.87
2.010	50.24	1.4568	561.13	279.61	0.12012	0.65454	0.09254	1841.23865	0.0	1.762280	572.86
2.020	50.12	1.4582	561.13	278.40	0.12107	0.65627	0.09238	1837.96033	0.0	1.754859	572.84
2.030	49.98	1.4597	561.13	277.21	0.12201	0.65798	0.09237	1837.76257	0.0	1.746052	572.80
2.040	49.83	1.4611	561.12	276.00	0.12297	0.65970	0.09242	1838.90063	0.0	1.736578	572.77
2.050	49.67	1.4626	561.12	274.79	0.12394	0.66144	0.09251	1840.58386	0.0	1.726781	572.73
2.060	49.51	1.4641	561.12	273.57	0.12491	0.66317	0.09260	1842.48267	0.0	1.716880	572.69
2.070	49.35	1.4656	561.12	272.36	0.12590	0.66490	0.09270	1844.45618	0.0	1.706971	572.66
2.080	49.19	1.4671	561.12	271.16	0.12688	0.66662	0.09280	1846.44312	0.0	1.697098	572.62
2.090	49.03	1.4686	561.12	269.96	0.12787	0.66832	0.09290	1848.41846	0.0	1.687279	572.58
2.100	48.87	1.4702	561.12	268.78	0.12886	0.67001	0.09300	1850.37109	0.0	1.677524	572.54
2.110	48.71	1.4717	561.11	267.61	0.12984	0.67168	0.09310	1852.29749	0.0	1.667838	572.51
2.120	48.54	1.4732	561.11	266.46	0.13083	0.67333	0.09319	1854.19690	0.0	1.658098	572.47
2.130	48.38	1.4747	561.11	265.32	0.13181	0.67496	0.09329	1856.07007	0.0	1.648051	572.43
2.140	48.22	1.4762	561.11	264.19	0.13279	0.67657	0.09338	1857.91650	0.0	1.638082	572.39
2.150	48.06	1.4776	561.11	263.08	0.13376	0.67816	0.09347	1859.73706	0.0	1.628190	572.35
2.160	47.89	1.4791	561.11	261.98	0.13474	0.67974	0.09356	1861.53223	0.0	1.618375	572.31
2.170	47.73	1.4806	561.10	260.89	0.13570	0.68129	0.09365	1863.30310	0.0	1.608638	572.27
2.180	47.57	1.4821	561.10	259.82	0.13667	0.68282	0.09374	1865.05029	0.0	1.598978	572.24
2.190	47.40	1.4835	561.10	258.76	0.13763	0.68434	0.09382	1866.77417	0.0	1.589395	572.20
2.200	47.24	1.4850	561.10	257.71	0.13859	0.68583	0.09391	1868.47583	0.0	1.579887	572.16

2.210	47.08	1.4864	561.10	256.67	0.13955	0.68731	0.09399	1870.15479	0.0	1.570452	572.12
2.220	46.91	1.4879	561.10	255.65	0.14051	0.68877	0.09408	1871.81128	0.0	1.561090	572.09
2.230	46.75	1.4893	561.10	254.64	0.14146	0.69022	0.09416	1873.44617	0.0	1.551799	572.05
2.240	46.59	1.4907	561.09	253.64	0.14240	0.69164	0.09424	1875.06226	0.0	1.542581	572.01
2.250	46.42	1.4922	561.09	252.65	0.14335	0.69305	0.09432	1876.66187	0.0	1.533434	571.98
2.260	46.26	1.4936	561.09	251.67	0.14429	0.69445	0.09440	1878.24084	0.0	1.524351	571.94
2.270	46.09	1.4950	561.09	250.71	0.14524	0.69584	0.09448	1879.79272	0.0	1.515322	571.90
2.280	45.93	1.4964	561.09	249.75	0.14618	0.69721	0.09455	1881.31396	0.0	1.506345	571.87
2.290	45.77	1.4978	561.09	248.80	0.14711	0.69855	0.09463	1882.81116	0.0	1.495385	571.82
2.300	45.60	1.4992	561.08	247.88	0.14803	0.69988	0.09470	1884.28870	0.0	1.484505	571.78
2.310	45.44	1.5006	561.08	246.96	0.14895	0.70118	0.09478	1885.74683	0.0	1.473717	571.73
2.320	45.28	1.5020	561.08	246.07	0.14986	0.70246	0.09485	1887.17236	0.0	1.463025	571.69
2.330	45.11	1.5033	561.08	245.19	0.15076	0.70372	0.09492	1888.53369	0.0	1.452428	571.65
2.340	44.95	1.5047	561.08	244.32	0.15165	0.70496	0.09498	1889.76770	0.0	1.441938	571.60
2.350	44.79	1.5060	561.08	243.47	0.15253	0.70618	0.09503	1890.73450	0.0	1.431589	571.56
2.360	44.64	1.5073	561.08	242.64	0.15339	0.70735	0.09505	1891.10645	0.0	1.421457	571.52
2.370	44.50	1.5086	561.07	241.83	0.15425	0.70851	0.09499	1890.05664	0.0	1.411605	571.48
2.380	44.38	1.5099	561.07	241.03	0.15510	0.70965	0.09478	1885.80383	0.0	1.402329	571.44
2.390	44.32	1.5111	561.07	240.25	0.15594	0.71077	0.09420	1874.35193	0.0	1.394289	571.41
2.400	35.35	1.5124	560.99	239.05	0.15703	0.71244	0.09281	1846.66418	0.0	1.388998	571.38
2.410	35.29	1.5137	560.99	238.35	0.15789	0.71350	0.09227	1835.81946	0.0	1.383628	571.37
2.420	35.18	1.5149	560.99	237.58	0.15875	0.71460	0.09209	1832.26172	0.0	1.375437	571.34
2.430	35.04	1.5162	560.98	236.81	0.15960	0.71569	0.09207	1831.90479	0.0	1.366037	571.30
2.440	34.88	1.5175	560.98	236.04	0.16046	0.71680	0.09212	1832.94348	0.0	1.356084	571.26
2.450	34.72	1.5188	560.98	235.25	0.16134	0.71793	0.09220	1834.55237	0.0	1.346247	571.22
2.460	34.56	1.5202	560.98	234.46	0.16222	0.71906	0.09230	1836.39246	0.0	1.336449	571.18
2.470	34.40	1.5215	560.98	233.67	0.16312	0.72018	0.09239	1838.31702	0.0	1.326635	571.13
2.480	34.23	1.5228	560.98	232.88	0.16401	0.72130	0.09249	1840.26270	0.0	1.316842	571.09
2.490	34.07	1.5241	560.98	232.11	0.16490	0.72241	0.09259	1842.20239	0.0	1.307087	571.05
2.500	33.90	1.5255	560.97	231.33	0.16578	0.72351	0.09269	1844.12439	0.0	1.297377	571.01
2.510	33.74	1.5268	560.97	230.57	0.16667	0.72460	0.09278	1846.02344	0.0	1.287716	570.96
2.520	33.57	1.5281	560.97	229.82	0.16755	0.72568	0.09287	1847.89795	0.0	1.278108	570.92
2.530	33.41	1.5294	560.97	229.07	0.16843	0.72674	0.09297	1849.74707	0.0	1.268552	570.88
2.540	33.24	1.5307	560.97	228.34	0.16930	0.72779	0.09306	1851.57227	0.0	1.259050	570.84
2.550	33.08	1.5320	560.97	227.61	0.17016	0.72883	0.09315	1853.37354	0.0	1.249604	570.80
2.560	32.91	1.5333	560.96	226.90	0.17102	0.72985	0.09324	1855.15063	0.0	1.240213	570.75
2.570	32.75	1.5346	560.96	226.19	0.17188	0.73086	0.09333	1856.90540	0.0	1.230878	570.71
2.580	32.58	1.5358	560.96	225.49	0.17273	0.73186	0.09341	1858.63806	0.0	1.221596	570.67
2.590	32.42	1.5371	560.96	224.80	0.17357	0.73284	0.09350	1860.34924	0.0	1.212369	570.63
2.600	32.25	1.5383	560.96	224.12	0.17441	0.73381	0.09359	1862.03943	0.0	1.203196	570.59
2.610	32.09	1.5396	560.96	223.45	0.17525	0.73478	0.09367	1863.70911	0.0	1.193803	570.54
2.620	31.92	1.5408	560.95	222.78	0.17607	0.73572	0.09375	1865.35779	0.0	1.184190	570.50
2.630	31.76	1.5420	560.95	222.13	0.17690	0.73666	0.09383	1866.98560	0.0	1.174627	570.46
2.640	31.59	1.5432	560.95	221.48	0.17771	0.73758	0.09392	1868.59509	0.0	1.165115	570.41
2.650	31.43	1.5444	560.95	220.84	0.17852	0.73849	0.09400	1870.18884	0.0	1.155653	570.37
2.660	31.26	1.5456	560.95	220.21	0.17933	0.73940	0.09407	1871.76428	0.0	1.146235	570.33
2.670	31.10	1.5468	560.95	219.58	0.18014	0.74029	0.09415	1873.31689	0.0	1.136856	570.28
2.680	30.93	1.5480	560.95	218.96	0.18094	0.74118	0.09423	1874.84143	0.0	1.127512	570.24
2.690	30.77	1.5492	560.94	218.35	0.18173	0.74205	0.09430	1876.33923	0.0	1.118209	570.20
2.700	30.60	1.5504	560.94	217.75	0.18252	0.74290	0.09438	1877.81421	0.0	1.108960	570.15
2.710	30.44	1.5515	560.94	217.16	0.18329	0.74374	0.09445	1879.26648	0.0	1.099773	570.11
2.720	30.27	1.5527	560.94	216.58	0.18406	0.74457	0.09452	1880.68433	0.0	1.090652	570.07
2.730	30.11	1.5538	560.94	216.01	0.18481	0.74538	0.09459	1882.03906	0.0	1.081599	570.02
2.740	29.95	1.5549	560.94	215.45	0.18556	0.74618	0.09465	1883.26514	0.0	1.072622	569.98
2.750	29.79	1.5560	560.93	214.91	0.18630	0.74696	0.09470	1884.21802	0.0	1.063747	569.94
2.760	29.64	1.5571	560.93	214.38	0.18701	0.74772	0.09472	1884.55334	0.0	1.055024	569.89
2.770	29.50	1.5581	560.93	213.86	0.18772	0.74846	0.09466	1883.43079	0.0	1.046657	569.85
2.780	29.40	1.5591	560.93	213.35	0.18842	0.74919	0.09444	1879.00940	0.0	1.039162	569.82
2.790	29.36	1.5602	560.93	212.85	0.18912	0.74990	0.09384	1867.12988	0.0	1.032658	569.79
2.800	19.28	1.5612	560.83	211.95	0.19007	0.75111	0.09239	1838.34375	0.0	1.028373	569.76
2.810	19.24	1.5622	560.83	211.54	0.19077	0.75177	0.09183	1827.05859	0.0	1.024028	569.75
2.820	19.13	1.5633	560.83	211.05	0.19147	0.75247	0.09164	1823.30579	0.0	1.017395	569.73

2.830	19.00	1.5643	560.83	210.56	0.19216	0.75317	0.09162	1822.84949	0.0	1.009779	569.69
2.840	18.84	1.5654	560.83	210.06	0.19287	0.75388	0.09167	1823.83630	0.0	1.001725	569.65
2.850	18.69	1.5664	560.83	209.55	0.19359	0.75461	0.09175	1825.41919	0.0	0.9934453	569.61
2.860	18.53	1.5675	560.83	209.04	0.19432	0.75534	0.09184	1827.24731	0.0	0.9850834	569.57
2.870	18.36	1.5686	560.83	208.52	0.19505	0.75607	0.09193	1829.16956	0.0	0.9767025	569.53
2.880	18.20	1.5697	560.82	208.01	0.19578	0.75680	0.09203	1831.12012	0.0	0.9683315	569.48
2.890	18.03	1.5708	560.82	207.50	0.19651	0.75753	0.09213	1833.07056	0.0	0.9599822	569.44
2.900	17.87	1.5719	560.82	207.00	0.19724	0.75825	0.09223	1835.00830	0.0	0.9516616	569.40
2.910	17.71	1.5729	560.82	206.50	0.19797	0.75896	0.09232	1836.92700	0.0	0.9433719	569.36
2.920	17.54	1.5740	560.82	206.01	0.19869	0.75966	0.09242	1838.82434	0.0	0.9351150	569.31
2.930	17.38	1.5751	560.82	205.52	0.19940	0.76036	0.09251	1840.69971	0.0	0.9268926	569.27
2.940	17.21	1.5761	560.81	205.04	0.20011	0.76104	0.09261	1842.55310	0.0	0.9198538	569.23
2.950	17.05	1.5772	560.81	204.56	0.20082	0.76172	0.09270	1844.38440	0.0	0.9128500	569.20
2.960	16.89	1.5782	560.81	204.09	0.20152	0.76239	0.09279	1846.19446	0.0	0.9058819	569.16
2.970	16.72	1.5792	560.81	203.63	0.20221	0.76306	0.09288	1847.98364	0.0	0.8989484	569.12
2.980	16.56	1.5802	560.81	203.17	0.20290	0.76371	0.09297	1849.75293	0.0	0.8920501	569.09
2.990	16.39	1.5813	560.81	202.72	0.20359	0.76436	0.09306	1851.50220	0.0	0.8851864	569.05
3.000	16.23	1.5823	560.81	202.27	0.20427	0.76500	0.09314	1853.23242	0.0	0.8783566	569.02
3.010	16.07	1.5833	560.80	201.82	0.20494	0.76563	0.09323	1854.94373	0.0	0.8715605	568.98
3.020	15.90	1.5843	560.80	201.38	0.20561	0.76626	0.09331	1856.63623	0.0	0.8647969	568.94
3.030	15.74	1.5853	560.80	200.95	0.20628	0.76688	0.09340	1858.31079	0.0	0.8580651	568.91
3.040	15.57	1.5862	560.80	200.52	0.20694	0.76749	0.09348	1859.96753	0.0	0.8513646	568.87
3.050	15.41	1.5872	560.80	200.10	0.20759	0.76810	0.09356	1861.60632	0.0	0.8446943	568.83
3.060	15.25	1.5882	560.80	199.68	0.20825	0.76870	0.09365	1863.22766	0.0	0.8380536	568.80
3.070	15.08	1.5891	560.79	199.26	0.20889	0.76929	0.09373	1864.83179	0.0	0.8314414	568.76
3.080	14.92	1.5901	560.79	198.85	0.20954	0.76987	0.09381	1866.41833	0.0	0.8248577	568.73
3.090	14.76	1.5910	560.79	198.44	0.21018	0.77045	0.09388	1867.98840	0.0	0.8183014	568.69
3.100	14.59	1.5920	560.79	198.04	0.21081	0.77103	0.09396	1869.54138	0.0	0.8122072	568.66
3.110	14.43	1.5929	560.79	197.64	0.21145	0.77160	0.09404	1871.07800	0.0	0.8062841	568.62
3.120	14.26	1.5938	560.79	197.25	0.21207	0.77216	0.09412	1872.59802	0.0	0.8003873	568.59
3.130	14.10	1.5948	560.79	196.86	0.21270	0.77272	0.09419	1874.10181	0.0	0.7945154	568.56
3.140	13.94	1.5957	560.78	196.47	0.21332	0.77327	0.09427	1875.58972	0.0	0.7886689	568.53
3.150	13.77	1.5966	560.78	196.09	0.21394	0.77382	0.09434	1877.06189	0.0	0.7828469	568.49
3.160	13.61	1.5975	560.78	195.71	0.21455	0.77436	0.09441	1878.51843	0.0	0.7770489	568.46
3.170	13.45	1.5984	560.78	195.33	0.21516	0.77489	0.09449	1879.95959	0.0	0.7712750	568.43
3.180	13.28	1.5993	560.78	194.96	0.21576	0.77542	0.09456	1881.38550	0.0	0.7655250	568.39
3.190	13.12	1.6002	560.78	194.59	0.21636	0.77594	0.09463	1882.79675	0.0	0.7597984	568.36
3.200	12.96	1.6011	560.77	194.23	0.21696	0.77646	0.09470	1884.19312	0.0	0.7540949	568.33
3.210	12.79	1.6020	560.77	193.87	0.21755	0.77698	0.09477	1885.57495	0.0	0.7484138	568.30
3.220	12.63	1.6028	560.77	193.51	0.21814	0.77749	0.09484	1886.94238	0.0	0.7427553	568.26
3.230	12.47	1.6037	560.77	193.16	0.21873	0.77799	0.09491	1888.29590	0.0	0.7371186	568.23
3.240	12.30	1.6046	560.77	192.81	0.21931	0.77849	0.09497	1889.63586	0.0	0.7315039	568.20
3.250	12.14	1.6054	560.77	192.46	0.21989	0.77898	0.09504	1890.96191	0.0	0.7259101	568.17
3.260	11.98	1.6063	560.77	192.12	0.22046	0.77947	0.09511	1892.27466	0.0	0.7206293	568.14
3.270	11.81	1.6071	560.76	191.78	0.22103	0.77996	0.09517	1893.57446	0.0	0.7156610	568.11
3.280	11.65	1.6080	560.76	191.44	0.22160	0.78043	0.09524	1894.86133	0.0	0.7107128	568.08
3.290	11.49	1.6088	560.76	191.11	0.22217	0.78091	0.09530	1896.13562	0.0	0.7057838	568.05
3.300	11.32	1.6096	560.76	190.78	0.22273	0.78138	0.09536	1897.39758	0.0	0.7008746	568.02
3.310	11.16	1.6105	560.76	190.45	0.22328	0.78185	0.09543	1898.64697	0.0	0.6959841	567.99
3.320	11.00	1.6113	560.76	190.13	0.22384	0.78231	0.09549	1899.88416	0.0	0.6911122	567.96
3.330	10.84	1.6121	560.75	189.81	0.22439	0.78277	0.09555	1901.10938	0.0	0.6862586	567.93
3.340	10.67	1.6129	560.75	189.49	0.22494	0.78322	0.09561	1902.32263	0.0	0.6814234	567.90
3.350	10.51	1.6137	560.75	189.17	0.22548	0.78367	0.09567	1903.52393	0.0	0.6766056	567.87
3.360	10.35	1.6145	560.75	188.86	0.22603	0.78412	0.09573	1904.71387	0.0	0.6718059	567.84
3.370	10.18	1.6153	560.75	188.55	0.22656	0.78456	0.09579	1905.89233	0.0	0.6670231	567.81
3.380	10.02	1.6161	560.75	188.24	0.22710	0.78500	0.09585	1907.05884	0.0	0.6622575	567.79
3.390	9.86	1.6169	560.74	187.94	0.22763	0.78543	0.09591	1908.21448	0.0	0.6575086	567.76
3.400	9.70	1.6177	560.74	187.64	0.22816	0.78586	0.09596	1909.35901	0.0	0.6527763	567.73
3.410	9.53	1.6185	560.74	187.34	0.22869	0.78629	0.09602	1910.49243	0.0	0.6480603	567.70
3.420	9.37	1.6192	560.74	187.04	0.22921	0.78671	0.09608	1911.61499	0.0	0.6433067	567.67
3.430	9.21	1.6200	560.74	186.75	0.22973	0.78713	0.09613	1912.72729	0.0	0.6394083	567.64
3.440	9.04	1.6208	560.74	186.46	0.23025	0.78755	0.09619	1913.82898	0.0	0.6353251	567.62

3.450	8.88	1.6215	560.74	186.17	0.23076	0.78796	0.09624	1914.92041	0.0	0.6312568	567.59
3.460	8.72	1.6223	560.73	185.88	0.23127	0.78837	0.09630	1916.00159	0.0	0.6272030	567.57
3.470	8.56	1.6230	560.73	185.60	0.23178	0.78877	0.09635	1917.07300	0.0	0.6231639	567.54
3.480	8.39	1.6238	560.73	185.32	0.23229	0.78917	0.09640	1918.13464	0.0	0.6191391	567.52
3.490	8.23	1.6245	560.73	185.04	0.23279	0.78957	0.09646	1919.18616	0.0	0.6151283	567.49
3.500	8.07	1.6253	560.73	184.76	0.23329	0.78997	0.09651	1920.22852	0.0	0.6111315	567.47
3.510	7.90	1.6260	560.73	184.48	0.23379	0.79036	0.09656	1921.26074	0.0	0.6071482	567.44
3.520	7.74	1.6267	560.72	184.21	0.23429	0.79075	0.09661	1922.28381	0.0	0.6031789	567.42
3.530	7.58	1.6275	560.72	183.94	0.23478	0.79113	0.09666	1923.29761	0.0	0.5992227	567.39
3.540	7.42	1.6282	560.72	183.67	0.23527	0.79152	0.09671	1924.30188	0.0	0.5952800	567.36
3.550	7.25	1.6289	560.72	183.41	0.23576	0.79190	0.09676	1925.29724	0.0	0.5913500	567.34
3.560	7.09	1.6296	560.72	183.14	0.23624	0.79227	0.09681	1926.28357	0.0	0.5874333	567.31
3.570	6.93	1.6303	560.72	182.88	0.23673	0.79264	0.09686	1927.26099	0.0	0.5835289	567.29
3.580	6.77	1.6311	560.72	182.62	0.23721	0.79302	0.09691	1928.22925	0.0	0.5796374	567.26
3.590	6.60	1.6318	560.71	182.36	0.23768	0.79338	0.09696	1929.18860	0.0	0.5745856	567.23
3.600	6.44	1.6325	560.71	182.11	0.23816	0.79374	0.09701	1930.13879	0.0	0.5695462	567.20
3.610	6.28	1.6332	560.71	181.86	0.23862	0.79410	0.09706	1931.08020	0.0	0.5645190	567.16
3.620	6.12	1.6338	560.71	181.61	0.23909	0.79446	0.09710	1932.01257	0.0	0.5595042	567.13
3.630	5.95	1.6345	560.71	181.36	0.23955	0.79481	0.09715	1932.93616	0.0	0.5545010	567.10
3.640	5.79	1.6352	560.71	181.11	0.24001	0.79516	0.09719	1933.85132	0.0	0.5495098	567.06
3.650	5.63	1.6359	560.70	180.87	0.24047	0.79551	0.09724	1934.75757	0.0	0.5445299	567.03
3.660	5.47	1.6366	560.70	180.63	0.24092	0.79585	0.09729	1935.65552	0.0	0.5395617	567.00
3.670	5.30	1.6372	560.70	180.39	0.24137	0.79619	0.09733	1936.54529	0.0	0.5346042	566.96
3.680	5.14	1.6379	560.70	180.16	0.24182	0.79653	0.09737	1937.42676	0.0	0.5296578	566.93
3.690	4.98	1.6385	560.70	179.92	0.24226	0.79686	0.09742	1938.30005	0.0	0.5247220	566.90
3.700	4.82	1.6392	560.70	179.69	0.24270	0.79719	0.09746	1939.16528	0.0	0.5197968	566.86
3.710	4.66	1.6398	560.70	179.46	0.24314	0.79752	0.09750	1940.02283	0.0	0.5148820	566.83
3.720	4.50	1.6405	560.69	179.24	0.24357	0.79784	0.09755	1940.87207	0.0	0.5099773	566.80
3.730	4.33	1.6411	560.69	179.01	0.24401	0.79816	0.09759	1941.71399	0.0	0.5050825	566.76
3.740	4.17	1.6417	560.69	178.79	0.24443	0.79848	0.09763	1942.54846	0.0	0.5001975	566.73
3.750	4.01	1.6424	560.69	178.57	0.24486	0.79879	0.09767	1943.37524	0.0	0.4957671	566.70
3.760	3.85	1.6430	560.69	178.35	0.24528	0.79910	0.09771	1944.19507	0.0	0.4914948	566.67
3.770	3.69	1.6436	560.69	178.13	0.24570	0.79941	0.09776	1945.00745	0.0	0.4872321	566.64
3.780	3.53	1.6442	560.68	177.92	0.24611	0.79972	0.09780	1945.81299	0.0	0.4829788	566.61
3.790	3.37	1.6448	560.68	177.71	0.24653	0.80002	0.09784	1946.61169	0.0	0.4787344	566.58
3.800	3.21	1.6454	560.68	177.50	0.24694	0.80032	0.09788	1947.40344	0.0	0.4744995	566.55
3.810	3.04	1.6461	560.68	177.29	0.24734	0.80062	0.09792	1948.18811	0.0	0.4702731	566.52
3.820	2.88	1.6466	560.68	177.08	0.24775	0.80091	0.09795	1948.96631	0.0	0.4660556	566.48
3.830	2.72	1.6472	560.68	176.88	0.24815	0.80120	0.09799	1949.73779	0.0	0.4618467	566.45
3.840	2.56	1.6478	560.68	176.67	0.24855	0.80149	0.09803	1950.50293	0.0	0.4576463	566.42
3.850	2.40	1.6484	560.67	176.47	0.24894	0.80178	0.09807	1951.26147	0.0	0.4534540	566.39
3.860	2.24	1.6490	560.67	176.27	0.24933	0.80206	0.09811	1952.01367	0.0	0.4492701	566.36
3.870	2.08	1.6496	560.67	176.07	0.24972	0.80234	0.09815	1952.75964	0.0	0.4450940	566.33
3.880	1.92	1.6501	560.67	175.88	0.25011	0.80262	0.09818	1953.49915	0.0	0.4409260	566.30
3.890	1.76	1.6507	560.67	175.69	0.25050	0.80290	0.09822	1954.23267	0.0	0.4367654	566.27
3.900	1.60	1.6513	560.67	175.49	0.25088	0.80317	0.09826	1954.96008	0.0	0.4326127	566.24
3.910	1.44	1.6518	560.66	175.30	0.25126	0.80344	0.09829	1955.68164	0.0	0.4284675	566.21
3.920	1.28	1.6524	560.66	175.11	0.25163	0.80371	0.09833	1956.39709	0.0	0.4243295	566.18
3.930	1.12	1.6529	560.66	174.93	0.25201	0.80398	0.09836	1957.10669	0.0	0.4201987	566.14
3.940	0.96	1.6535	560.66	174.74	0.25238	0.80424	0.09840	1957.81030	0.0	0.4160750	566.11
3.950	0.80	1.6540	560.66	174.56	0.25274	0.80450	0.09843	1958.50842	0.0	0.4119582	566.08
3.960	0.64	1.6546	560.66	174.38	0.25311	0.80476	0.09847	1959.20068	0.0	0.4078484	566.05
3.970	0.48	1.6551	560.66	174.20	0.25347	0.80501	0.09850	1959.88745	0.0	0.4037449	566.02
3.980	0.32	1.6556	560.65	174.02	0.25383	0.80527	0.09854	1960.56934	0.0	0.3996482	565.99
3.990	0.16	1.6562	560.65	173.84	0.25418	0.80552	0.09857	1961.24646	0.0	0.3955576	565.95
4.000	0.00	1.6567	560.65	173.67	0.25454	0.80577	0.09861	1961.91992	0.0	0.3914734	565.92

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 5

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	764.015	764.015	0.0000
0.015	763.834	763.834	0.0000
0.025	763.650	763.650	0.0000
0.035	763.463	763.463	0.0000
0.045	763.271	763.271	0.0000
0.055	763.076	763.076	0.0000
0.065	762.878	762.878	0.0000
0.075	762.675	762.675	0.0000
0.085	762.469	762.469	0.0000
0.095	762.259	762.259	0.0000
0.105	762.046	762.046	0.0000
0.115	761.829	761.829	0.0000
0.125	761.608	761.608	0.0000
0.135	761.383	761.383	0.0000
0.145	761.155	761.155	0.0000
0.155	760.923	760.923	0.0000
0.165	762.635	760.674	0.0000
0.175	772.530	760.282	0.0000
0.185	782.474	759.635	0.0000
0.195	787.883	758.750	0.0000
0.205	787.988	757.685	0.0000
0.215	802.475	756.485	0.0000
0.225	791.703	755.177	0.0000
0.235	788.012	753.776	0.0000
0.245	800.534	752.293	0.0000
0.255	799.656	750.736	0.0000
0.265	781.065	749.109	0.0000
0.275	776.279	747.416	0.0000
0.285	771.180	745.659	0.0000
0.295	765.924	743.841	0.0000
0.305	760.622	741.964	0.0000
0.315	755.342	740.029	0.0000
0.325	750.026	738.035	0.0001
0.335	744.381	735.872	0.0001
0.345	738.552	733.647	0.0001
0.355	732.644	731.359	0.0001
0.365	733.238	729.006	0.0001
0.375	726.493	726.572	0.0001
0.385	719.485	724.000	0.0001
0.395	711.362	720.974	0.0002
0.405	702.665	717.640	0.0002
0.415	695.158	714.616	0.0002
0.425	688.197	711.691	0.0002
0.435	681.508	708.770	0.0002
0.445	674.994	705.816	0.0003
0.455	668.613	702.812	0.0003
0.465	662.357	699.750	0.0003
0.475	656.221	696.625	0.0003
0.485	650.205	693.437	0.0004
0.495	644.315	690.184	0.0004
0.505	638.551	686.865	0.0004
0.515	632.918	683.482	0.0005
0.525	627.410	680.033	0.0005
0.535	622.035	676.521	0.0005
0.545	616.785	672.945	0.0006
0.555	611.659	669.307	0.0006
0.565	606.653	665.607	0.0006

0.575	601.763	661.847	0.0007
0.585	596.984	658.029	0.0007
0.595	592.304	654.153	0.0007
0.605	587.718	650.221	0.0008
0.615	583.225	646.234	0.0008
0.625	578.805	642.194	0.0009
0.635	574.457	638.105	0.0009
0.645	570.172	633.970	0.0010
0.655	566.089	629.981	0.0010
0.665	562.203	626.143	0.0011
0.675	558.337	622.262	0.0011
0.685	554.486	618.345	0.0011
0.695	550.657	614.398	0.0012
0.705	546.846	610.425	0.0012
0.715	543.046	606.430	0.0013
0.725	539.248	602.411	0.0013
0.735	535.452	598.370	0.0014
0.745	531.654	594.314	0.0014
0.755	527.867	590.253	0.0015
0.765	524.098	586.197	0.0015
0.775	520.265	582.067	0.0016
0.785	516.311	577.794	0.0016
0.795	511.782	572.926	0.0017
0.805	507.491	568.151	0.0017
0.815	503.668	564.015	0.0018
0.825	500.218	560.383	0.0018
0.835	496.805	556.821	0.0019
0.845	493.383	553.284	0.0020
0.855	489.944	549.753	0.0020
0.865	486.503	546.222	0.0021
0.875	483.045	542.689	0.0021
0.885	479.579	539.155	0.0022
0.895	476.094	535.621	0.0022
0.905	472.601	532.088	0.0023
0.915	469.103	528.560	0.0024
0.925	465.604	525.039	0.0024
0.935	462.088	521.527	0.0025
0.945	458.584	518.026	0.0026
0.955	455.088	514.538	0.0026
0.965	451.596	511.063	0.0027
0.975	448.115	507.604	0.0028
0.985	444.727	504.289	0.0028
0.995	441.361	500.991	0.0029
1.005	438.022	497.710	0.0030
1.015	434.682	494.446	0.0030
1.025	431.350	491.202	0.0031
1.035	428.058	487.977	0.0032
1.045	424.768	484.772	0.0032
1.055	421.490	481.583	0.0033
1.065	418.235	478.411	0.0034
1.075	414.998	475.256	0.0034
1.085	411.787	472.126	0.0035
1.095	408.610	469.024	0.0036
1.105	405.437	465.951	0.0037
1.115	402.330	462.907	0.0037
1.125	399.236	459.890	0.0038
1.135	396.171	456.898	0.0039
1.145	393.153	453.961	0.0040
1.155	390.201	451.077	0.0040
1.165	387.309	448.238	0.0041
1.175	384.406	445.393	0.0042
1.185	381.483	442.510	0.0042

1.195	377.897	438.929	0.0043
1.205	374.774	435.692	0.0043
1.215	371.817	432.712	0.0044
1.225	368.980	429.885	0.0044
1.235	366.152	427.096	0.0045
1.245	363.336	424.317	0.0046
1.255	360.546	421.554	0.0047
1.265	357.769	418.807	0.0048
1.275	355.017	416.080	0.0048
1.285	352.307	413.373	0.0049
1.295	349.594	410.688	0.0050
1.305	346.932	408.037	0.0051
1.315	344.320	405.419	0.0052
1.325	341.720	402.826	0.0053
1.335	339.164	400.259	0.0054
1.345	336.637	397.717	0.0054
1.355	334.144	395.201	0.0055
1.365	331.686	392.711	0.0056
1.375	329.259	390.246	0.0057
1.385	326.852	387.808	0.0058
1.395	324.490	385.396	0.0059
1.405	322.158	383.008	0.0060
1.415	319.853	380.645	0.0060
1.425	317.576	378.307	0.0061
1.435	315.341	375.994	0.0062
1.445	313.122	373.703	0.0063
1.455	310.919	371.434	0.0064
1.465	308.757	369.190	0.0065
1.475	306.674	366.986	0.0066
1.485	304.552	364.808	0.0067
1.495	302.522	362.659	0.0068
1.505	300.499	360.539	0.0069
1.515	298.517	358.446	0.0069
1.525	296.563	356.378	0.0070
1.535	294.584	354.334	0.0071
1.545	292.712	352.321	0.0072
1.555	290.885	350.353	0.0073
1.565	289.059	348.417	0.0074
1.575	287.307	346.492	0.0075
1.585	285.511	344.571	0.0075
1.595	283.255	342.089	0.0076
1.605	281.550	340.113	0.0076
1.615	279.822	338.183	0.0076
1.625	278.151	336.305	0.0077
1.635	276.432	334.440	0.0078
1.645	274.725	332.570	0.0079
1.655	273.026	330.704	0.0080
1.665	271.326	328.849	0.0081
1.675	269.682	327.008	0.0082
1.685	268.033	325.183	0.0083
1.695	266.430	323.374	0.0084
1.705	264.789	321.584	0.0085
1.715	263.192	319.812	0.0086
1.725	261.640	318.060	0.0087
1.735	260.102	316.327	0.0088
1.745	258.618	314.613	0.0089
1.755	257.099	312.918	0.0090
1.765	255.663	311.243	0.0091
1.775	254.213	309.587	0.0092
1.785	252.782	307.950	0.0093
1.795	251.390	306.335	0.0094
1.805	250.027	304.739	0.0095

1.815	248.655	303.160	0.0096
1.825	247.314	301.600	0.0097
1.835	245.990	300.058	0.0098
1.845	244.685	298.531	0.0099
1.855	243.430	297.019	0.0100
1.865	242.155	295.520	0.0101
1.875	240.871	294.036	0.0102
1.885	239.633	292.571	0.0103
1.895	238.439	291.126	0.0104
1.905	237.262	289.702	0.0105
1.915	236.057	288.298	0.0106
1.925	234.946	286.910	0.0107
1.935	233.779	285.541	0.0108
1.945	232.686	284.194	0.0109
1.955	231.626	282.887	0.0110
1.965	230.549	281.605	0.0111
1.975	229.560	280.337	0.0111
1.985	228.492	279.082	0.0112
1.995	227.138	277.349	0.0112
2.005	226.197	276.139	0.0111
2.015	225.195	274.894	0.0112
2.025	224.229	273.662	0.0113
2.035	223.262	272.426	0.0114
2.045	222.238	271.177	0.0115
2.055	221.232	269.926	0.0116
2.065	220.199	268.681	0.0117
2.075	219.233	267.445	0.0118
2.085	218.302	266.219	0.0119
2.095	217.327	265.004	0.0120
2.105	216.407	263.801	0.0121
2.115	215.441	262.612	0.0122
2.125	214.529	261.437	0.0123
2.135	213.621	260.276	0.0124
2.145	212.742	259.129	0.0125
2.155	211.869	257.995	0.0126
2.165	211.001	256.876	0.0127
2.175	210.137	255.769	0.0128
2.185	209.279	254.676	0.0129
2.195	208.478	253.596	0.0130
2.205	207.661	252.528	0.0131
2.215	206.822	251.472	0.0132
2.225	206.041	250.429	0.0133
2.235	205.270	249.398	0.0134
2.245	204.533	248.379	0.0135
2.255	203.753	247.368	0.0136
2.265	203.011	246.367	0.0137
2.275	202.282	245.375	0.0138
2.285	201.554	244.401	0.0139
2.295	200.835	243.443	0.0140
2.305	200.087	242.502	0.0141
2.315	199.435	241.575	0.0142
2.325	198.757	240.661	0.0143
2.335	198.091	239.762	0.0144
2.345	197.457	238.882	0.0145
2.355	196.814	238.031	0.0146
2.365	196.245	237.190	0.0147
2.375	195.618	236.363	0.0147
2.385	195.043	235.550	0.0147
2.395	194.117	234.307	0.0147
2.405	193.593	233.566	0.0146
2.415	193.095	232.767	0.0146
2.425	192.505	231.968	0.0147

2.435	191.909	231.165	0.0148
2.445	191.299	230.347	0.0149
2.455	190.708	229.527	0.0150
2.465	190.168	228.708	0.0151
2.475	189.559	227.895	0.0152
2.485	188.998	227.088	0.0153
2.495	188.424	226.289	0.0154
2.505	187.837	225.498	0.0155
2.515	187.378	224.716	0.0156
2.525	186.764	223.944	0.0157
2.535	186.256	223.180	0.0157
2.545	185.696	222.426	0.0158
2.555	185.183	221.681	0.0159
2.565	184.656	220.946	0.0160
2.575	184.155	220.220	0.0161
2.585	183.723	219.503	0.0162
2.595	183.218	218.795	0.0163
2.605	182.722	218.096	0.0164
2.615	182.191	217.406	0.0165
2.625	181.771	216.725	0.0166
2.635	181.278	216.052	0.0167
2.645	180.855	215.387	0.0168
2.655	180.402	214.729	0.0169
2.665	180.002	214.078	0.0170
2.675	179.529	213.433	0.0170
2.685	179.107	212.798	0.0171
2.695	178.691	212.173	0.0172
2.705	178.262	211.560	0.0173
2.715	177.862	210.957	0.0174
2.725	177.471	210.364	0.0175
2.735	177.110	209.780	0.0176
2.745	176.690	209.211	0.0176
2.755	176.313	208.661	0.0177
2.765	175.907	208.118	0.0178
2.775	175.641	207.585	0.0178
2.785	175.235	207.064	0.0178
2.795	174.578	206.139	0.0177
2.805	174.321	205.687	0.0176
2.815	173.966	205.176	0.0176
2.825	173.672	204.660	0.0176
2.835	173.310	204.141	0.0177
2.845	172.936	203.609	0.0178
2.855	172.604	203.072	0.0178
2.865	172.228	202.536	0.0179
2.875	171.887	202.003	0.0180
2.885	171.567	201.473	0.0181
2.895	171.212	200.948	0.0182
2.905	170.811	200.429	0.0183
2.915	170.556	199.914	0.0184
2.925	170.226	199.406	0.0184
2.935	169.820	198.904	0.0185
2.945	169.542	198.407	0.0186
2.955	169.189	197.916	0.0187
2.965	168.896	197.430	0.0188
2.975	168.596	196.951	0.0189
2.985	168.289	196.477	0.0189
2.995	167.974	196.008	0.0190
3.005	167.652	195.545	0.0191
3.015	167.392	195.087	0.0192
3.025	167.056	194.634	0.0193
3.035	166.784	194.186	0.0193
3.045	166.504	193.743	0.0194

3.055	166.219	193.304	0.0195
3.065	165.927	192.870	0.0196
3.075	165.700	192.441	0.0196
3.085	165.396	192.016	0.0197
3.095	165.106	191.596	0.0198
3.105	164.843	191.179	0.0199
3.115	164.612	190.767	0.0200
3.125	164.338	190.359	0.0200
3.135	164.096	189.955	0.0201
3.145	163.830	189.555	0.0202
3.155	163.487	189.159	0.0202
3.165	163.282	188.767	0.0203
3.175	163.001	188.379	0.0204
3.185	162.786	187.994	0.0205
3.195	162.548	187.614	0.0205
3.205	162.269	187.237	0.0206
3.215	162.112	186.864	0.0207
3.225	161.805	186.495	0.0208
3.235	161.585	186.130	0.0208
3.245	161.396	185.768	0.0209
3.255	161.166	185.409	0.0210
3.265	160.968	185.054	0.0210
3.275	160.730	184.702	0.0211
3.285	160.542	184.354	0.0212
3.295	160.259	184.008	0.0212
3.305	160.007	183.666	0.0213
3.315	159.882	183.327	0.0214
3.325	159.604	182.991	0.0214
3.335	159.396	182.658	0.0215
3.345	159.259	182.327	0.0216
3.355	159.044	182.000	0.0216
3.365	158.843	181.676	0.0217
3.375	158.603	181.355	0.0218
3.385	158.376	181.036	0.0218
3.395	158.164	180.721	0.0219
3.405	157.987	180.408	0.0220
3.415	157.825	180.098	0.0220
3.425	157.584	179.790	0.0221
3.435	157.416	179.485	0.0221
3.445	157.262	179.183	0.0222
3.455	157.087	178.883	0.0223
3.465	156.833	178.586	0.0223
3.475	156.728	178.291	0.0224
3.485	156.544	177.998	0.0224
3.495	156.357	177.708	0.0225
3.505	156.166	177.420	0.0226
3.515	155.973	177.134	0.0226
3.525	155.776	176.851	0.0227
3.535	155.595	176.570	0.0227
3.545	155.469	176.292	0.0228
3.555	155.342	176.015	0.0229
3.565	155.056	175.741	0.0229
3.575	154.983	175.470	0.0230
3.585	154.786	175.200	0.0230
3.595	154.646	174.934	0.0231
3.605	154.504	174.669	0.0232
3.615	154.280	174.408	0.0232
3.625	154.131	174.149	0.0233
3.635	153.918	173.892	0.0233
3.645	153.825	173.638	0.0234
3.655	153.685	173.386	0.0234
3.665	153.508	173.137	0.0235

3.675	153.362	172.890	0.0235
3.685	153.257	172.645	0.0236
3.695	153.089	172.403	0.0236
3.705	152.917	172.163	0.0237
3.715	152.760	171.926	0.0238
3.725	152.582	171.690	0.0238
3.735	152.465	171.457	0.0239
3.745	152.299	171.227	0.0239
3.755	152.194	170.998	0.0240
3.765	152.086	170.771	0.0240
3.775	151.896	170.547	0.0241
3.785	151.783	170.324	0.0241
3.795	151.669	170.104	0.0242
3.805	151.568	169.885	0.0242
3.815	151.368	169.669	0.0243
3.825	151.327	169.454	0.0243
3.835	151.122	169.241	0.0244
3.845	151.077	169.031	0.0244
3.855	150.867	168.822	0.0245
3.865	150.736	168.615	0.0245
3.875	150.668	168.410	0.0246
3.885	150.468	168.207	0.0246
3.895	150.330	168.006	0.0246
3.905	150.272	167.807	0.0247
3.915	150.130	167.610	0.0247
3.925	150.020	167.414	0.0248
3.935	149.955	167.221	0.0248
3.945	149.774	167.029	0.0249
3.955	149.705	166.839	0.0249
3.965	149.553	166.651	0.0250
3.975	149.514	166.464	0.0250
3.985	149.406	166.280	0.0251
3.995	149.248	166.097	0.0251

1PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 6

	DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
	FLUX	BORON	CHF	CHF TEMP.							
(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)			
(MW/M2)	(DEG-K)										
0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.11706	1700.00012	0.0	0.000000	255.37
0.010	100.03	1.2113	548.31	763.92	0.00000	0.00000	0.11704	1699.68286	0.0	4.574379	580.26
0.020	99.93	1.2121	548.46	763.64	0.00000	0.00000	0.11700	1699.10327	0.0	4.524114	580.15
0.030	99.84	1.2129	548.61	763.35	0.00000	0.00000	0.11695	1698.32837	0.0	4.475858	580.04
0.040	99.74	1.2137	548.76	763.07	0.00000	0.00000	0.11688	1697.41711	0.0	4.429447	579.94
0.050	99.65	1.2145	548.92	762.77	0.00000	0.00000	0.11681	1696.41565	0.0	4.384734	579.84
0.060	99.55	1.2153	549.07	762.47	0.00000	0.00000	0.11674	1695.35632	0.0	4.341607	579.74
0.070	99.46	1.2162	549.24	762.17	0.00000	0.00000	0.11667	1694.26160	0.0	4.299941	579.65
0.080	99.36	1.2170	549.40	761.86	0.00000	0.00000	0.11659	1693.14453	0.0	4.259651	579.56
0.090	99.27	1.2179	549.56	761.54	0.00000	0.00000	0.11651	1692.01086	0.0	4.220652	579.47
0.100	99.17	1.2188	549.73	761.22	0.00000	0.00000	0.11643	1690.86047	0.0	4.182864	579.39
0.110	99.08	1.2197	549.90	760.89	0.00000	0.00000	0.11635	1689.68738	0.0	4.146214	579.31
0.120	98.99	1.2206	550.08	760.56	0.00000	0.00000	0.11627	1688.48010	0.0	4.110661	579.23
0.130	98.89	1.2215	550.25	760.22	0.00000	0.00000	0.11618	1687.22070	0.0	4.076149	579.15
0.140	98.80	1.2224	550.43	759.88	0.00000	0.00000	0.11609	1685.88367	0.0	4.042621	579.07
0.150	98.71	1.2234	550.61	759.52	0.00000	0.00002	0.11599	1684.43872	0.0	4.010052	579.00
0.160	98.61	1.2243	550.80	758.93	0.00000	0.00035	0.11587	1682.74805	0.0	3.978435	578.93
0.170	98.52	1.2253	550.98	757.92	0.00001	0.00124	0.11573	1680.70483	0.0	3.947775	578.86
0.180	98.42	1.2263	551.17	756.57	0.00002	0.00261	0.11558	1678.44897	0.0	3.918023	578.80

0.190	98.32	1.2273	551.36	754.97	0.00004	0.00432	0.11542	1676.12622	0.0	3.889063	578.73
0.200	98.22	1.2283	551.56	753.18	0.00006	0.00629	0.11526	1673.81433	0.0	3.860802	578.67
0.210	98.13	1.2293	551.75	751.23	0.00010	0.00847	0.11510	1671.54980	0.0	3.833195	578.61
0.220	98.03	1.2304	551.95	749.12	0.00015	0.01086	0.11495	1669.35413	0.0	3.806189	578.55
0.230	97.93	1.2314	552.16	746.89	0.00022	0.01343	0.11481	1667.23718	0.0	3.779755	578.50
0.240	97.82	1.2325	552.36	744.53	0.00030	0.01616	0.11466	1665.17432	0.0	3.753863	578.44
0.250	97.72	1.2336	552.57	742.04	0.00040	0.01907	0.11452	1663.10168	0.0	3.728502	578.38
0.260	97.62	1.2347	552.78	739.44	0.00051	0.02213	0.11437	1660.96399	0.0	3.703693	578.33
0.270	97.52	1.2358	552.99	736.71	0.00064	0.02536	0.11422	1658.78076	0.0	3.679437	578.28
0.280	97.42	1.2370	553.20	733.88	0.00079	0.02874	0.11408	1656.65405	0.0	3.655701	578.23
0.290	97.31	1.2381	553.42	730.93	0.00096	0.03228	0.11394	1654.69495	0.0	3.632401	578.18
0.300	97.21	1.2393	553.64	727.87	0.00115	0.03595	0.11382	1652.93970	0.0	3.609466	578.13
0.310	97.11	1.2405	553.87	724.71	0.00136	0.03978	0.11371	1651.32739	0.0	3.586865	578.08
0.320	97.00	1.2417	554.09	721.44	0.00159	0.04374	0.11360	1649.75061	0.0	3.564611	578.03
0.330	96.89	1.2429	554.32	718.07	0.00183	0.04785	0.11349	1648.13770	0.0	3.542750	577.99
0.340	96.79	1.2441	554.55	714.45	0.00211	0.05230	0.11338	1646.51892	0.0	3.522506	577.95
0.350	96.68	1.2453	554.78	710.72	0.00242	0.05691	0.11328	1645.05237	0.0	3.502596	577.90
0.360	96.57	1.2466	555.02	706.87	0.00274	0.06167	0.11320	1643.99622	0.0	3.482920	577.86
0.370	96.46	1.2478	555.26	702.93	0.00308	0.06656	0.11318	1643.65759	0.0	3.463333	577.82
0.380	96.34	1.2491	555.50	698.91	0.00345	0.07157	0.11323	1644.31946	0.0	3.443692	577.78
0.390	96.22	1.2504	555.75	694.82	0.00383	0.07667	0.11335	1646.12122	0.0	3.423905	577.74
0.400	93.66	1.2517	555.99	690.42	0.00425	0.08220	0.11354	1648.86841	0.0	3.403983	577.70
0.410	93.54	1.2531	556.24	686.21	0.00466	0.08747	0.11366	1650.54810	0.0	3.384411	577.66
0.420	93.42	1.2544	556.49	681.85	0.00509	0.09295	0.11369	1651.08386	0.0	3.365659	577.62
0.430	93.31	1.2558	556.75	677.33	0.00556	0.09865	0.11366	1650.60864	0.0	3.347697	577.58
0.440	93.19	1.2571	557.00	672.66	0.00604	0.10456	0.11357	1649.31702	0.0	3.330427	577.55
0.450	93.08	1.2585	557.26	667.84	0.00656	0.11069	0.11344	1647.39551	0.0	3.313736	577.51
0.460	92.96	1.2599	557.52	662.88	0.00710	0.11700	0.11327	1644.99805	0.0	3.297526	577.48
0.470	92.85	1.2613	557.79	657.80	0.00766	0.12350	0.11308	1642.24304	0.0	3.281728	577.45
0.480	92.73	1.2628	558.06	652.59	0.00825	0.13017	0.11288	1639.21924	0.0	3.266276	577.43
0.490	92.62	1.2642	558.33	647.27	0.00886	0.13701	0.11265	1635.99438	0.0	3.251128	577.40
0.500	92.50	1.2657	558.60	641.84	0.00949	0.14400	0.11242	1632.62280	0.0	3.236248	577.37
0.510	92.38	1.2672	558.88	636.30	0.01014	0.15114	0.11218	1629.15002	0.0	3.221607	577.35
0.520	92.27	1.2687	559.16	630.68	0.01082	0.15841	0.11194	1625.61584	0.0	3.207184	577.32
0.530	92.15	1.2702	559.44	624.96	0.01152	0.16582	0.11169	1622.05591	0.0	3.192949	577.30
0.540	92.03	1.2718	559.73	619.16	0.01224	0.17333	0.11145	1618.50195	0.0	3.178888	577.28
0.550	91.91	1.2734	560.02	613.30	0.01298	0.18095	0.11121	1614.98071	0.0	3.164977	577.26
0.560	91.79	1.2749	560.31	607.37	0.01374	0.18867	0.11097	1611.51685	0.0	3.151202	577.23
0.570	91.67	1.2765	560.61	601.38	0.01452	0.19646	0.11074	1608.13818	0.0	3.137545	577.21
0.580	91.54	1.2782	560.91	595.35	0.01532	0.20433	0.11051	1604.87659	0.0	3.123988	577.19
0.590	91.42	1.2798	561.21	589.29	0.01613	0.21224	0.11029	1601.71667	0.0	3.110515	577.17
0.600	91.30	1.2815	561.52	583.19	0.01697	0.22021	0.11008	1598.65540	0.0	3.097156	577.15
0.610	91.17	1.2831	561.82	577.04	0.01779	0.22790	0.10993	1596.45520	0.0	3.083718	577.11
0.620	91.05	1.2848	562.12	570.84	0.01865	0.23578	0.10978	1594.28540	0.0	3.070211	577.08
0.630	90.92	1.2866	562.42	564.59	0.01952	0.24368	0.10963	1592.14475	0.0	3.056843	577.04
0.640	90.80	1.2883	562.72	558.29	0.02042	0.25160	0.10948	1589.93665	0.0	3.043608	577.00
0.650	90.67	1.2900	563.02	551.94	0.02133	0.25952	0.10933	1587.67639	0.0	3.030521	576.97
0.660	90.55	1.2918	563.32	545.54	0.02223	0.26719	0.10916	1585.28210	0.0	3.015962	576.93
0.670	90.43	1.2936	563.62	539.09	0.02312	0.27462	0.10899	1582.81238	0.0	3.000003	576.88
0.680	90.30	1.2954	563.92	532.59	0.02402	0.28204	0.10883	1580.26603	0.0	2.984297	576.84
0.690	90.18	1.2972	564.22	526.04	0.02494	0.28943	0.10868	1578.28503	0.0	2.968753	576.80
0.700	90.05	1.2990	564.52	519.44	0.02588	0.29678	0.10855	1576.44580	0.0	2.953285	576.75
0.710	89.92	1.3008	564.82	512.79	0.02682	0.30408	0.10844	1574.84253	0.0	2.937872	576.71
0.720	89.80	1.3026	565.12	506.09	0.02778	0.31132	0.10834	1573.36243	0.0	2.922542	576.67
0.730	89.67	1.3045	565.42	499.34	0.02875	0.31851	0.10824	1571.94177	0.0	2.907351	576.62
0.740	89.54	1.3063	565.72	492.54	0.02973	0.32565	0.10815	1570.62891	0.0	2.892323	576.58
0.750	89.41	1.3082	566.02	485.69	0.03073	0.33274	0.10808	1569.59106	0.0	2.877425	576.54
0.760	89.27	1.3101	566.32	478.79	0.03174	0.33975	0.10805	1569.09717	0.0	2.862570	576.49
0.770	89.14	1.3120	566.62	471.84	0.03275	0.34667	0.10807	1569.47949	0.0	2.847643	576.45
0.780	89.00	1.3139	566.92	464.84	0.03377	0.35347	0.10818	1571.06287	0.0	2.832513	576.41
0.790	88.85	1.3158	567.22	457.79	0.03479	0.36013	0.10839	1574.03040	0.0	2.817073	576.36
0.800	88.70	1.3177	567.52	450.69	0.03588	0.36724	0.10867	1578.16418	0.0	2.801334	576.31

0.810	85.34	1.3196	561.46	475.98	0.03690	0.37362	0.10888	1581.19141	0.0	2.785790	576.27
0.820	85.19	1.3215	561.46	471.57	0.03793	0.37993	0.10901	1583.00671	0.0	2.770288	576.22
0.830	85.05	1.3234	561.46	467.30	0.03895	0.38604	0.10906	1583.74146	0.0	2.753476	576.17
0.840	84.92	1.3254	561.46	463.04	0.03998	0.39214	0.10905	1583.59973	0.0	2.737314	576.12
0.850	84.78	1.3273	561.46	458.79	0.04104	0.39820	0.10899	1582.79102	0.0	2.721708	576.07
0.860	84.65	1.3292	561.45	454.58	0.04211	0.40423	0.10890	1581.49084	0.0	2.706562	576.03
0.870	84.52	1.3312	561.45	450.40	0.04319	0.41021	0.10879	1579.83569	0.0	2.691796	575.99
0.880	84.38	1.3332	561.45	446.26	0.04429	0.41613	0.10866	1577.92896	0.0	2.677351	575.94
0.890	84.25	1.3351	561.45	442.16	0.04540	0.42199	0.10851	1575.85071	0.0	2.663184	575.90
0.900	84.12	1.3371	561.45	438.11	0.04652	0.42779	0.10836	1573.66333	0.0	2.649260	575.86
0.910	83.99	1.3391	561.45	434.10	0.04766	0.43352	0.10821	1571.41687	0.0	2.635551	575.82
0.920	83.86	1.3411	561.45	430.14	0.04880	0.43919	0.10805	1569.15076	0.0	2.622034	575.78
0.930	83.73	1.3431	561.45	426.22	0.04995	0.44479	0.10790	1566.89624	0.0	2.608692	575.74
0.940	83.59	1.3451	561.44	422.35	0.05112	0.45032	0.10774	1564.67749	0.0	2.595507	575.70
0.950	83.46	1.3471	561.44	418.54	0.05229	0.45578	0.10759	1562.51172	0.0	2.582467	575.66
0.960	83.33	1.3491	561.44	414.77	0.05348	0.46117	0.10745	1560.41077	0.0	2.569564	575.62
0.970	83.19	1.3511	561.44	411.05	0.05467	0.46649	0.10731	1558.38000	0.0	2.556788	575.58
0.980	83.06	1.3531	561.44	407.38	0.05587	0.47174	0.10717	1556.41858	0.0	2.544135	575.55
0.990	82.93	1.3552	561.44	403.82	0.05706	0.47683	0.10704	1554.52161	0.0	2.530016	575.50
1.000	82.79	1.3572	561.44	400.31	0.05825	0.48185	0.10692	1552.68640	0.0	2.516041	575.46
1.010	82.66	1.3593	561.44	396.85	0.05946	0.48679	0.10680	1550.91125	0.0	2.502208	575.42
1.020	82.52	1.3613	561.43	393.44	0.06067	0.49167	0.10668	1549.20386	0.0	2.488515	575.38
1.030	82.39	1.3634	561.43	390.08	0.06189	0.49649	0.10656	1547.56641	0.0	2.474956	575.34
1.040	82.25	1.3655	561.43	386.76	0.06311	0.50123	0.10645	1545.96704	0.0	2.461524	575.29
1.050	82.12	1.3675	561.43	383.49	0.06434	0.50591	0.10634	1544.34119	0.0	2.448237	575.25
1.060	81.98	1.3696	561.43	380.26	0.06558	0.51053	0.10623	1542.64783	0.0	2.435126	575.21
1.070	81.85	1.3717	561.43	377.07	0.06683	0.51508	0.10611	1540.93091	0.0	2.422200	575.17
1.080	81.71	1.3738	561.43	373.93	0.06808	0.51958	0.10600	1539.30872	0.0	2.409436	575.13
1.090	81.57	1.3758	561.43	370.83	0.06934	0.52401	0.10590	1537.89136	0.0	2.396775	575.09
1.100	81.44	1.3779	561.42	367.78	0.07061	0.52837	0.10582	1536.70215	0.0	2.384163	575.05
1.110	81.30	1.3800	561.42	364.77	0.07188	0.53267	0.10575	1535.67334	0.0	2.371593	575.02
1.120	81.16	1.3821	561.42	361.81	0.07315	0.53691	0.10568	1534.71277	0.0	2.359095	574.98
1.130	81.02	1.3842	561.42	358.89	0.07443	0.54109	0.10562	1533.78003	0.0	2.346709	574.94
1.140	80.88	1.3863	561.42	356.00	0.07572	0.54521	0.10556	1532.92590	0.0	2.334444	574.90
1.150	80.74	1.3884	561.42	353.17	0.07701	0.54926	0.10551	1532.30005	0.0	2.321879	574.86
1.160	80.59	1.3905	561.42	350.39	0.07830	0.55324	0.10550	1532.13733	0.0	2.309226	574.82
1.170	80.44	1.3926	561.41	347.65	0.07959	0.55715	0.10554	1532.73364	0.0	2.296521	574.78
1.180	80.29	1.3947	561.41	344.97	0.08087	0.56098	0.10566	1534.38196	0.0	2.283658	574.73
1.190	80.13	1.3968	561.41	342.35	0.08215	0.56473	0.10585	1537.23853	0.0	2.270553	574.69
1.200	75.60	1.3989	561.37	339.42	0.08353	0.56890	0.10612	1541.07263	0.0	2.257216	574.64
1.210	75.44	1.4010	561.37	336.95	0.08480	0.57249	0.10632	1544.07520	0.0	2.243998	574.60
1.220	75.28	1.4030	561.37	334.46	0.08608	0.57605	0.10646	1546.05383	0.0	2.231284	574.56
1.230	75.13	1.4051	561.36	331.99	0.08737	0.57958	0.10653	1547.09009	0.0	2.219078	574.52
1.240	74.98	1.4072	561.36	329.54	0.08867	0.58308	0.10655	1547.35767	0.0	2.207320	574.48
1.250	74.83	1.4093	561.36	327.12	0.08998	0.58654	0.10653	1547.03271	0.0	2.195953	574.44
1.260	74.69	1.4114	561.36	324.73	0.09129	0.58996	0.10648	1546.27173	0.0	2.184909	574.40
1.270	74.54	1.4135	561.36	322.37	0.09262	0.59333	0.10640	1545.19690	0.0	2.174129	574.37
1.280	74.40	1.4156	561.36	320.04	0.09394	0.59667	0.10631	1543.90137	0.0	2.163570	574.33
1.290	74.25	1.4177	561.36	317.74	0.09528	0.59996	0.10621	1542.45581	0.0	2.153197	574.30
1.300	74.11	1.4198	561.35	315.46	0.09662	0.60321	0.10611	1540.91528	0.0	2.142984	574.26
1.310	73.97	1.4219	561.35	313.22	0.09796	0.60641	0.10600	1539.32239	0.0	2.132656	574.23
1.320	73.83	1.4240	561.35	311.02	0.09930	0.60957	0.10589	1537.71106	0.0	2.122200	574.20
1.330	73.68	1.4261	561.35	308.84	0.10065	0.61268	0.10578	1536.10779	0.0	2.111858	574.16
1.340	73.54	1.4283	561.35	306.68	0.10200	0.61576	0.10567	1534.53198	0.0	2.101621	574.13
1.350	73.40	1.4304	561.35	304.56	0.10336	0.61879	0.10556	1532.99561	0.0	2.091480	574.09
1.360	73.25	1.4325	561.35	302.47	0.10472	0.62179	0.10546	1531.50549	0.0	2.081425	574.06
1.370	73.11	1.4346	561.35	300.40	0.10608	0.62475	0.10536	1530.06311	0.0	2.071457	574.03
1.380	72.96	1.4368	561.34	298.35	0.10744	0.62767	0.10526	1528.66650	0.0	2.061570	573.99
1.390	72.82	1.4389	561.34	296.34	0.10881	0.63055	0.10517	1527.31152	0.0	2.051765	573.96
1.400	72.67	1.4410	561.34	294.35	0.11018	0.63339	0.10508	1525.99121	0.0	2.042042	573.93
1.410	72.53	1.4431	561.34	292.38	0.11156	0.63620	0.10499	1524.70276	0.0	2.032402	573.90
1.420	72.38	1.4453	561.34	290.44	0.11293	0.63898	0.10490	1523.45129	0.0	2.022845	573.86

1.430	72.23	1.4474	561.34	288.53	0.11431	0.64172	0.10482	1522.23853	0.0	2.013365	573.83
1.440	72.09	1.4496	561.34	286.64	0.11570	0.64442	0.10474	1521.03284	0.0	2.003963	573.80
1.450	71.94	1.4517	561.33	284.77	0.11708	0.64709	0.10465	1519.77234	0.0	1.994650	573.77
1.460	71.79	1.4538	561.33	282.92	0.11847	0.64973	0.10456	1518.42407	0.0	1.985454	573.73
1.470	71.65	1.4560	561.33	281.10	0.11986	0.65233	0.10446	1517.04211	0.0	1.976135	573.70
1.480	71.50	1.4581	561.33	279.31	0.12125	0.65489	0.10437	1515.74792	0.0	1.966167	573.67
1.490	71.35	1.4603	561.33	277.55	0.12264	0.65742	0.10430	1514.64331	0.0	1.956257	573.63
1.500	71.20	1.4624	561.33	275.80	0.12403	0.65991	0.10424	1513.73901	0.0	1.946365	573.60
1.510	71.05	1.4646	561.33	274.08	0.12542	0.66237	0.10418	1512.96289	0.0	1.936487	573.57
1.520	70.90	1.4667	561.32	272.38	0.12681	0.66480	0.10413	1512.22729	0.0	1.926653	573.53
1.530	70.75	1.4688	561.32	270.70	0.12820	0.66720	0.10408	1511.50000	0.0	1.916894	573.50
1.540	70.60	1.4710	561.32	269.05	0.12960	0.66957	0.10404	1510.84277	0.0	1.907218	573.46
1.550	70.45	1.4731	561.32	267.41	0.13099	0.67190	0.10401	1510.42151	0.0	1.897602	573.43
1.560	70.29	1.4752	561.32	265.80	0.13238	0.67421	0.10401	1510.49683	0.0	1.887985	573.40
1.570	70.13	1.4774	561.32	264.21	0.13377	0.67647	0.10407	1511.38647	0.0	1.878277	573.36
1.580	69.96	1.4795	561.32	262.66	0.13514	0.67870	0.10421	1513.40234	0.0	1.868379	573.32
1.590	69.78	1.4816	561.31	261.14	0.13650	0.68087	0.10444	1516.72217	0.0	1.858212	573.29
1.600	63.97	1.4836	561.26	259.34	0.13800	0.68341	0.10475	1521.16821	0.0	1.847775	573.24
1.610	63.79	1.4857	561.26	257.91	0.13934	0.68551	0.10498	1524.58057	0.0	1.837399	573.21
1.620	63.62	1.4878	561.26	256.45	0.14069	0.68759	0.10514	1526.83215	0.0	1.827475	573.17
1.630	63.45	1.4898	561.25	255.00	0.14205	0.68966	0.10522	1528.05469	0.0	1.817994	573.13
1.640	63.28	1.4919	561.25	253.57	0.14342	0.69170	0.10525	1528.45618	0.0	1.808403	573.10
1.650	63.12	1.4940	561.25	252.15	0.14479	0.69373	0.10523	1528.23596	0.0	1.799130	573.06
1.660	62.97	1.4961	561.25	250.75	0.14616	0.69573	0.10519	1527.56775	0.0	1.790127	573.03
1.670	62.81	1.4982	561.25	249.37	0.14753	0.69771	0.10512	1526.58508	0.0	1.781336	573.00
1.680	62.66	1.5003	561.25	248.00	0.14891	0.69966	0.10504	1525.38745	0.0	1.772718	572.97
1.690	62.50	1.5024	561.25	246.65	0.15028	0.70160	0.10495	1524.05127	0.0	1.764240	572.94
1.700	62.35	1.5044	561.24	245.31	0.15165	0.70351	0.10485	1522.63379	0.0	1.755880	572.91
1.710	62.20	1.5065	561.24	243.99	0.15303	0.70539	0.10475	1521.17847	0.0	1.747619	572.88
1.720	62.04	1.5086	561.24	242.68	0.15441	0.70726	0.10465	1519.71777	0.0	1.739441	572.85
1.730	61.89	1.5107	561.24	241.39	0.15578	0.70911	0.10455	1518.27515	0.0	1.731336	572.82
1.740	61.74	1.5128	561.24	240.11	0.15716	0.71093	0.10445	1516.86511	0.0	1.723295	572.79
1.750	61.58	1.5148	561.24	238.85	0.15854	0.71274	0.10436	1515.49634	0.0	1.715313	572.76
1.760	61.43	1.5169	561.23	237.60	0.15991	0.71453	0.10427	1514.17114	0.0	1.707386	572.73
1.770	61.27	1.5190	561.23	236.36	0.16129	0.71629	0.10418	1512.88867	0.0	1.699511	572.70
1.780	61.12	1.5211	561.23	235.14	0.16267	0.71804	0.10409	1511.64368	0.0	1.691688	572.67
1.790	60.96	1.5231	561.23	233.93	0.16404	0.71977	0.10401	1510.42981	0.0	1.683918	572.64
1.800	60.81	1.5252	561.23	232.74	0.16542	0.72147	0.10393	1509.24060	0.0	1.675840	572.61
1.810	60.65	1.5273	561.23	231.56	0.16679	0.72316	0.10385	1508.07239	0.0	1.667699	572.58
1.820	60.49	1.5293	561.23	230.39	0.16816	0.72483	0.10377	1506.93225	0.0	1.659618	572.55
1.830	60.34	1.5314	561.22	229.23	0.16953	0.72648	0.10369	1505.82300	0.0	1.651593	572.52
1.840	60.18	1.5335	561.22	228.09	0.17091	0.72811	0.10361	1504.71436	0.0	1.643622	572.49
1.850	60.02	1.5355	561.22	226.96	0.17227	0.72972	0.10353	1503.54492	0.0	1.635718	572.46
1.860	59.87	1.5376	561.22	225.85	0.17364	0.73132	0.10345	1502.28503	0.0	1.627902	572.43
1.870	59.71	1.5396	561.22	224.74	0.17501	0.73290	0.10336	1500.99451	0.0	1.620184	572.40
1.880	59.55	1.5417	561.22	223.65	0.17638	0.73446	0.10328	1499.80286	0.0	1.612538	572.37
1.890	59.39	1.5438	561.22	222.57	0.17775	0.73600	0.10321	1498.81384	0.0	1.604917	572.34
1.900	59.23	1.5458	561.21	221.50	0.17911	0.73753	0.10315	1498.03308	0.0	1.597284	572.31
1.910	59.07	1.5479	561.21	220.44	0.18048	0.73904	0.10311	1497.38086	0.0	1.589639	572.29
1.920	58.91	1.5499	561.21	219.39	0.18184	0.74054	0.10307	1496.76733	0.0	1.582010	572.26
1.930	58.75	1.5519	561.21	218.36	0.18320	0.74202	0.10303	1496.16296	0.0	1.574424	572.23
1.940	58.59	1.5540	561.21	217.33	0.18455	0.74348	0.10299	1495.63879	0.0	1.566892	572.20
1.950	58.42	1.5560	561.21	216.32	0.18591	0.74492	0.10297	1495.37585	0.0	1.559390	572.17
1.960	58.25	1.5580	561.20	215.32	0.18726	0.74635	0.10299	1495.65845	0.0	1.551145	572.14
1.970	58.08	1.5600	561.20	214.35	0.18859	0.74775	0.10307	1496.83496	0.0	1.542079	572.10
1.980	57.89	1.5620	561.20	213.39	0.18990	0.74911	0.10324	1499.25488	0.0	1.532820	572.06
1.990	57.69	1.5639	561.20	212.46	0.19119	0.75045	0.10351	1503.13452	0.0	1.523295	572.02
2.000	50.61	1.5658	561.13	211.27	0.19263	0.75210	0.10386	1508.33765	0.0	1.513492	571.98
2.010	50.41	1.5677	561.13	210.40	0.19389	0.75339	0.10414	1512.30688	0.0	1.503717	571.94
2.020	50.22	1.5696	561.13	209.50	0.19516	0.75467	0.10432	1514.95789	0.0	1.494365	571.90
2.030	50.04	1.5715	561.13	208.61	0.19644	0.75595	0.10442	1516.46423	0.0	1.485416	571.86
2.040	49.86	1.5735	561.13	207.72	0.19773	0.75722	0.10446	1517.06995	0.0	1.476807	571.83

2.050	49.69	1.5754	561.12	206.84	0.19902	0.75848	0.10446	1517.00159	0.0	1.468470	571.79
2.060	49.52	1.5773	561.12	205.97	0.20030	0.75972	0.10442	1516.45093	0.0	1.460362	571.76
2.070	49.35	1.5792	561.12	205.11	0.20159	0.76095	0.10436	1515.56580	0.0	1.452435	571.73
2.080	49.19	1.5812	561.12	204.25	0.20287	0.76216	0.10428	1514.45630	0.0	1.444649	571.70
2.090	49.03	1.5831	561.12	203.41	0.20415	0.76337	0.10420	1513.20398	0.0	1.436978	571.66
2.100	48.87	1.5850	561.12	202.58	0.20542	0.76456	0.10411	1511.87048	0.0	1.429397	571.63
2.110	48.70	1.5869	561.11	201.76	0.20670	0.76573	0.10401	1510.50122	0.0	1.421892	571.60
2.120	48.54	1.5888	561.11	200.94	0.20797	0.76690	0.10392	1509.12964	0.0	1.414331	571.57
2.130	48.38	1.5907	561.11	200.13	0.20923	0.76805	0.10382	1507.77869	0.0	1.406467	571.54
2.140	48.22	1.5925	561.11	199.34	0.21049	0.76919	0.10373	1506.46301	0.0	1.398652	571.51
2.150	48.06	1.5944	561.11	198.55	0.21175	0.77031	0.10365	1505.18982	0.0	1.390880	571.48
2.160	47.89	1.5963	561.11	197.77	0.21301	0.77143	0.10356	1503.96143	0.0	1.383147	571.45
2.170	47.73	1.5982	561.10	197.00	0.21426	0.77253	0.10348	1502.77515	0.0	1.375453	571.41
2.180	47.57	1.6000	561.10	196.23	0.21550	0.77362	0.10340	1501.62585	0.0	1.367798	571.38
2.190	47.40	1.6019	561.10	195.48	0.21675	0.77470	0.10332	1500.50696	0.0	1.360182	571.35
2.200	47.24	1.6037	561.10	194.73	0.21798	0.77576	0.10325	1499.41162	0.0	1.352607	571.32
2.210	47.08	1.6056	561.10	193.99	0.21922	0.77682	0.10317	1498.33618	0.0	1.345074	571.29
2.220	46.91	1.6074	561.10	193.26	0.22045	0.77786	0.10310	1497.28809	0.0	1.337583	571.26
2.230	46.75	1.6092	561.10	192.54	0.22167	0.77890	0.10303	1496.27026	0.0	1.330132	571.23
2.240	46.58	1.6110	561.09	191.82	0.22290	0.77992	0.10296	1495.25256	0.0	1.322719	571.19
2.250	46.42	1.6128	561.09	191.11	0.22411	0.78093	0.10289	1494.17468	0.0	1.315353	571.16
2.260	46.26	1.6147	561.09	190.41	0.22533	0.78193	0.10281	1493.00537	0.0	1.308055	571.13
2.270	46.09	1.6165	561.09	189.72	0.22654	0.78292	0.10272	1491.80359	0.0	1.300831	571.10
2.280	45.93	1.6183	561.09	189.03	0.22774	0.78390	0.10265	1490.69910	0.0	1.293661	571.07
2.290	45.76	1.6200	561.09	188.36	0.22894	0.78487	0.10259	1489.79871	0.0	1.284599	571.03
2.300	45.60	1.6218	561.08	187.69	0.23013	0.78582	0.10254	1489.11377	0.0	1.275527	570.99
2.310	45.43	1.6236	561.08	187.03	0.23132	0.78676	0.10250	1488.56946	0.0	1.266441	570.95
2.320	45.26	1.6253	561.08	186.38	0.23249	0.78769	0.10247	1488.07812	0.0	1.257364	570.92
2.330	45.09	1.6271	561.08	185.73	0.23366	0.78861	0.10244	1487.61206	0.0	1.248318	570.88
2.340	44.92	1.6288	561.08	185.10	0.23482	0.78951	0.10241	1487.24255	0.0	1.239318	570.84
2.350	44.75	1.6305	561.08	184.47	0.23597	0.79041	0.10240	1487.15527	0.0	1.230341	570.80
2.360	44.57	1.6322	561.08	183.86	0.23710	0.79129	0.10244	1487.63989	0.0	1.221338	570.76
2.370	44.39	1.6339	561.07	183.26	0.23822	0.79214	0.10254	1489.05847	0.0	1.212240	570.72
2.380	44.19	1.6355	561.07	182.67	0.23931	0.79298	0.10272	1491.77966	0.0	1.202971	570.67
2.390	43.98	1.6370	561.07	182.11	0.24036	0.79378	0.10302	1496.03796	0.0	1.193468	570.63
2.400	35.71	1.6385	560.99	181.30	0.24157	0.79488	0.10341	1501.69568	0.0	1.183723	570.58
2.410	35.50	1.6401	560.99	180.79	0.24259	0.79566	0.10371	1506.07007	0.0	1.173981	570.53
2.420	35.30	1.6416	560.99	180.25	0.24362	0.79644	0.10391	1509.06628	0.0	1.164582	570.49
2.430	35.10	1.6431	560.99	179.70	0.24466	0.79721	0.10404	1510.86316	0.0	1.155511	570.45
2.440	34.92	1.6447	560.98	179.16	0.24571	0.79798	0.10410	1511.71790	0.0	1.146716	570.41
2.450	34.74	1.6463	560.98	178.62	0.24676	0.79875	0.10411	1511.86951	0.0	1.138502	570.37
2.460	34.57	1.6478	560.98	178.09	0.24780	0.79951	0.10408	1511.51160	0.0	1.130583	570.33
2.470	34.40	1.6494	560.98	177.56	0.24884	0.80026	0.10403	1510.80176	0.0	1.122808	570.29
2.480	34.23	1.6509	560.98	177.04	0.24987	0.80100	0.10397	1509.85583	0.0	1.115142	570.26
2.490	34.07	1.6524	560.98	176.53	0.25090	0.80174	0.10389	1508.75879	0.0	1.107562	570.22
2.500	33.90	1.6539	560.97	176.02	0.25193	0.80246	0.10381	1507.57446	0.0	1.100049	570.19
2.510	33.74	1.6554	560.97	175.52	0.25294	0.80318	0.10373	1506.34949	0.0	1.092589	570.16
2.520	33.57	1.6569	560.97	175.02	0.25395	0.80388	0.10364	1505.11853	0.0	1.085171	570.12
2.530	33.41	1.6584	560.97	174.53	0.25496	0.80458	0.10356	1503.90515	0.0	1.077789	570.09
2.540	33.24	1.6599	560.97	174.05	0.25595	0.80528	0.10348	1502.72473	0.0	1.070435	570.05
2.550	33.08	1.6614	560.97	173.57	0.25695	0.80596	0.10340	1501.58496	0.0	1.063107	570.02
2.560	32.91	1.6629	560.96	173.10	0.25793	0.80664	0.10332	1500.48792	0.0	1.055801	569.98
2.570	32.75	1.6643	560.96	172.63	0.25891	0.80730	0.10325	1499.43237	0.0	1.048517	569.95
2.580	32.58	1.6658	560.96	172.16	0.25989	0.80797	0.10318	1498.41272	0.0	1.041255	569.91
2.590	32.42	1.6672	560.96	171.71	0.26085	0.80862	0.10311	1497.42310	0.0	1.034016	569.88
2.600	32.25	1.6686	560.96	171.25	0.26181	0.80926	0.10305	1496.45654	0.0	1.026799	569.85
2.610	32.08	1.6700	560.96	170.81	0.26277	0.80990	0.10298	1495.51025	0.0	1.019361	569.81
2.620	31.92	1.6714	560.95	170.36	0.26371	0.81053	0.10292	1494.59058	0.0	1.011700	569.77
2.630	31.75	1.6728	560.95	169.93	0.26465	0.81116	0.10286	1493.70105	0.0	1.004062	569.74
2.640	31.59	1.6742	560.95	169.50	0.26558	0.81177	0.10279	1492.81482	0.0	0.9964461	569.70
2.650	31.42	1.6756	560.95	169.07	0.26651	0.81238	0.10273	1491.87231	0.0	0.9888583	569.66
2.660	31.26	1.6770	560.95	168.65	0.26743	0.81298	0.10266	1490.84167	0.0	0.9813138	569.63

2.670	31.09	1.6783	560.95	168.23	0.26834	0.81357	0.10259	1489.77551	0.0	0.9738184	569.59
2.680	30.93	1.6797	560.95	167.82	0.26924	0.81416	0.10252	1488.79724	0.0	0.9663580	569.55
2.690	30.76	1.6810	560.94	167.42	0.27014	0.81474	0.10246	1488.01514	0.0	0.9589019	569.51
2.700	30.60	1.6823	560.94	167.02	0.27103	0.81531	0.10243	1487.44800	0.0	0.9514263	569.48
2.710	30.43	1.6836	560.94	166.62	0.27191	0.81587	0.10240	1487.03247	0.0	0.9439280	569.44
2.720	30.26	1.6849	560.94	166.23	0.27278	0.81643	0.10237	1486.68970	0.0	0.9364213	569.40
2.730	30.09	1.6862	560.94	165.85	0.27365	0.81698	0.10235	1486.39087	0.0	0.9289259	569.36
2.740	29.92	1.6875	560.94	165.47	0.27450	0.81752	0.10234	1486.20227	0.0	0.9214518	569.33
2.750	29.74	1.6887	560.93	165.09	0.27535	0.81805	0.10235	1486.30103	0.0	0.9139817	569.29
2.760	29.56	1.6899	560.93	164.73	0.27617	0.81857	0.10239	1486.96741	0.0	0.9064805	569.25
2.770	29.38	1.6911	560.93	164.37	0.27698	0.81908	0.10250	1488.55640	0.0	0.8990225	569.21
2.780	29.18	1.6923	560.93	164.03	0.27775	0.81957	0.10270	1491.43079	0.0	0.8918030	569.17
2.790	28.96	1.6934	560.93	163.70	0.27849	0.82003	0.10300	1495.81409	0.0	0.8843989	569.13
2.800	19.69	1.6944	560.84	163.14	0.27939	0.82078	0.10340	1501.53479	0.0	0.8768073	569.08
2.810	19.48	1.6955	560.84	162.85	0.28011	0.82123	0.10371	1506.05908	0.0	0.8692004	569.04
2.820	19.27	1.6965	560.83	162.53	0.28083	0.82168	0.10393	1509.23816	0.0	0.8618308	569.00
2.830	19.08	1.6976	560.83	162.21	0.28157	0.82214	0.10406	1511.22778	0.0	0.8546937	568.96
2.840	18.89	1.6987	560.83	161.89	0.28231	0.82260	0.10413	1512.27637	0.0	0.8477531	568.92
2.850	18.71	1.6999	560.83	161.57	0.28306	0.82306	0.10416	1512.61877	0.0	0.8409665	568.89
2.860	18.54	1.7010	560.83	161.25	0.28381	0.82351	0.10415	1512.44556	0.0	0.8342983	568.85
2.870	18.37	1.7021	560.83	160.94	0.28456	0.82396	0.10411	1511.91553	0.0	0.8277293	568.82
2.880	18.20	1.7032	560.82	160.62	0.28530	0.82440	0.10406	1511.14392	0.0	0.8212353	568.78
2.890	18.03	1.7043	560.82	160.32	0.28603	0.82484	0.10399	1510.21484	0.0	0.8147971	568.75
2.900	17.87	1.7053	560.82	160.01	0.28676	0.82527	0.10392	1509.19153	0.0	0.8084017	568.71
2.910	17.71	1.7064	560.82	159.71	0.28748	0.82570	0.10385	1508.12048	0.0	0.8020380	568.68
2.920	17.54	1.7075	560.82	159.42	0.28819	0.82612	0.10377	1507.03564	0.0	0.7956991	568.64
2.930	17.38	1.7085	560.82	159.13	0.28890	0.82654	0.10370	1505.96167	0.0	0.7893781	568.61
2.940	17.21	1.7096	560.81	158.84	0.28961	0.82695	0.10363	1504.91418	0.0	0.7840983	568.58
2.950	17.05	1.7106	560.81	158.55	0.29031	0.82736	0.10356	1503.90161	0.0	0.7788292	568.55
2.960	16.89	1.7116	560.81	158.27	0.29100	0.82777	0.10349	1502.92737	0.0	0.7735695	568.52
2.970	16.72	1.7127	560.81	157.99	0.29169	0.82817	0.10343	1501.99084	0.0	0.7683181	568.49
2.980	16.56	1.7137	560.81	157.71	0.29237	0.82856	0.10336	1501.08813	0.0	0.7630749	568.46
2.990	16.39	1.7147	560.81	157.43	0.29305	0.82895	0.10330	1500.21362	0.0	0.7578401	568.44
3.000	16.23	1.7157	560.81	157.16	0.29373	0.82934	0.10325	1499.36145	0.0	0.7526149	568.41
3.010	16.07	1.7167	560.80	156.89	0.29439	0.82973	0.10319	1498.52502	0.0	0.7473994	568.38
3.020	15.90	1.7177	560.80	156.62	0.29506	0.83011	0.10313	1497.69910	0.0	0.7421951	568.35
3.030	15.74	1.7186	560.80	156.36	0.29572	0.83048	0.10307	1496.87939	0.0	0.7370023	568.32
3.040	15.57	1.7196	560.80	156.10	0.29637	0.83085	0.10302	1496.06238	0.0	0.7318220	568.29
3.050	15.41	1.7206	560.80	155.84	0.29702	0.83122	0.10296	1495.24646	0.0	0.7266544	568.26
3.060	15.24	1.7215	560.80	155.59	0.29766	0.83158	0.10291	1494.43054	0.0	0.7214999	568.23
3.070	15.08	1.7225	560.79	155.34	0.29830	0.83194	0.10285	1493.61511	0.0	0.7163584	568.20
3.080	14.92	1.7234	560.79	155.09	0.29893	0.83230	0.10279	1492.80090	0.0	0.7112300	568.17
3.090	14.75	1.7243	560.79	154.84	0.29956	0.83265	0.10274	1491.98999	0.0	0.7061138	568.14
3.100	14.59	1.7253	560.79	154.59	0.30018	0.83300	0.10268	1491.18408	0.0	0.7013961	568.11
3.110	14.43	1.7262	560.79	154.35	0.30080	0.83334	0.10263	1490.38525	0.0	0.6968189	568.09
3.120	14.26	1.7271	560.79	154.11	0.30141	0.83368	0.10257	1489.59521	0.0	0.6922529	568.06
3.130	14.10	1.7280	560.79	153.88	0.30202	0.83402	0.10252	1488.81665	0.0	0.6876974	568.03
3.140	13.94	1.7289	560.78	153.64	0.30262	0.83436	0.10247	1488.05005	0.0	0.6831521	568.01
3.150	13.77	1.7298	560.78	153.41	0.30322	0.83469	0.10241	1487.29712	0.0	0.6786165	567.98
3.160	13.61	1.7306	560.78	153.18	0.30382	0.83502	0.10236	1486.55872	0.0	0.6740907	567.95
3.170	13.45	1.7315	560.78	152.95	0.30441	0.83534	0.10231	1485.83459	0.0	0.6695738	567.93
3.180	13.28	1.7324	560.78	152.73	0.30500	0.83566	0.10227	1485.12524	0.0	0.6650660	567.90
3.190	13.12	1.7333	560.78	152.50	0.30558	0.83598	0.10222	1484.43042	0.0	0.6605668	567.87
3.200	12.96	1.7341	560.77	152.28	0.30616	0.83629	0.10217	1483.74939	0.0	0.6560766	567.85
3.210	12.79	1.7350	560.77	152.06	0.30673	0.83660	0.10212	1483.08179	0.0	0.6515946	567.82
3.220	12.63	1.7358	560.77	151.85	0.30730	0.83691	0.10208	1482.42639	0.0	0.6471214	567.79
3.230	12.47	1.7366	560.77	151.63	0.30786	0.83722	0.10203	1481.78271	0.0	0.6426566	567.77
3.240	12.30	1.7375	560.77	151.42	0.30842	0.83752	0.10199	1481.14954	0.0	0.6382003	567.74
3.250	12.14	1.7383	560.77	151.21	0.30897	0.83782	0.10195	1480.52600	0.0	0.6337522	567.71
3.260	11.98	1.7391	560.77	151.00	0.30952	0.83811	0.10191	1479.91150	0.0	0.6295772	567.69
3.270	11.81	1.7399	560.76	150.80	0.31007	0.83841	0.10186	1479.30505	0.0	0.6256750	567.66
3.280	11.65	1.7407	560.76	150.60	0.31061	0.83870	0.10182	1478.70642	0.0	0.6217811	567.64

3.290	11.49	1.7415	560.76	150.39	0.31115	0.83898	0.10178	1478.11475	0.0	0.6178949	567.61
3.300	11.32	1.7423	560.76	150.19	0.31168	0.83927	0.10174	1477.53003	0.0	0.6140172	567.59
3.310	11.16	1.7431	560.76	150.00	0.31221	0.83955	0.10170	1476.95178	0.0	0.6101474	567.57
3.320	11.00	1.7439	560.76	149.80	0.31274	0.83983	0.10166	1476.38000	0.0	0.6062858	567.54
3.330	10.83	1.7446	560.75	149.61	0.31326	0.84010	0.10162	1475.81445	0.0	0.6024318	567.52
3.340	10.67	1.7454	560.75	149.41	0.31378	0.84038	0.10159	1475.25513	0.0	0.5985861	567.49
3.350	10.51	1.7462	560.75	149.22	0.31430	0.84065	0.10155	1474.70251	0.0	0.5947478	567.47
3.360	10.35	1.7469	560.75	149.04	0.31481	0.84092	0.10151	1474.15625	0.0	0.5909172	567.45
3.370	10.18	1.7477	560.75	148.85	0.31531	0.84118	0.10147	1473.61682	0.0	0.5870942	567.42
3.380	10.02	1.7484	560.75	148.66	0.31581	0.84144	0.10144	1473.08398	0.0	0.5832787	567.40
3.390	9.86	1.7492	560.74	148.48	0.31631	0.84170	0.10140	1472.55835	0.0	0.5794704	567.37
3.400	9.69	1.7499	560.74	148.30	0.31681	0.84196	0.10136	1472.03955	0.0	0.5756695	567.35
3.410	9.53	1.7506	560.74	148.12	0.31730	0.84222	0.10133	1471.52771	0.0	0.5718754	567.32
3.420	9.37	1.7513	560.74	147.94	0.31778	0.84247	0.10129	1471.02319	0.0	0.5682204	567.30
3.430	9.21	1.7521	560.74	147.77	0.31827	0.84272	0.10126	1470.52600	0.0	0.5649692	567.28
3.440	9.04	1.7528	560.74	147.59	0.31875	0.84297	0.10123	1470.03577	0.0	0.5617244	567.26
3.450	8.88	1.7535	560.74	147.42	0.31922	0.84321	0.10119	1469.55273	0.0	0.5584856	567.24
3.460	8.72	1.7542	560.73	147.25	0.31970	0.84346	0.10116	1469.07703	0.0	0.5552533	567.22
3.470	8.55	1.7549	560.73	147.08	0.32017	0.84370	0.10113	1468.60840	0.0	0.5520272	567.19
3.480	8.39	1.7556	560.73	146.91	0.32063	0.84394	0.10110	1468.14648	0.0	0.5488071	567.17
3.490	8.23	1.7563	560.73	146.74	0.32110	0.84418	0.10106	1467.69153	0.0	0.5455931	567.15
3.500	8.07	1.7569	560.73	146.58	0.32156	0.84441	0.10103	1467.24341	0.0	0.5423852	567.13
3.510	7.90	1.7576	560.73	146.42	0.32201	0.84465	0.10100	1466.80200	0.0	0.5391830	567.11
3.520	7.74	1.7583	560.72	146.25	0.32247	0.84488	0.10097	1466.36707	0.0	0.5359869	567.09
3.530	7.58	1.7590	560.72	146.09	0.32292	0.84511	0.10094	1465.93872	0.0	0.5327963	567.07
3.540	7.42	1.7596	560.72	145.93	0.32336	0.84533	0.10091	1465.51648	0.0	0.5296116	567.05
3.550	7.25	1.7603	560.72	145.78	0.32381	0.84556	0.10089	1465.10034	0.0	0.5264326	567.02
3.560	7.09	1.7609	560.72	145.62	0.32425	0.84578	0.10086	1464.69043	0.0	0.5232591	567.00
3.570	6.93	1.7616	560.72	145.46	0.32468	0.84600	0.10083	1464.28650	0.0	0.5200912	566.98
3.580	6.76	1.7622	560.72	145.31	0.32512	0.84622	0.10080	1463.88879	0.0	0.5169289	566.96
3.590	6.60	1.7628	560.71	145.16	0.32555	0.84643	0.10078	1463.49670	0.0	0.5137043	566.93
3.600	6.44	1.7635	560.71	145.01	0.32597	0.84665	0.10075	1463.11035	0.0	0.5084850	566.90
3.610	6.28	1.7641	560.71	144.86	0.32639	0.84686	0.10072	1462.73010	0.0	0.5042710	566.87
3.620	6.11	1.7647	560.71	144.72	0.32680	0.84706	0.10070	1462.35559	0.0	0.5000624	566.84
3.630	5.95	1.7653	560.71	144.57	0.32721	0.84727	0.10067	1461.98669	0.0	0.4958588	566.82
3.640	5.79	1.7659	560.71	144.43	0.32762	0.84747	0.10065	1461.62354	0.0	0.4916602	566.79
3.650	5.63	1.7665	560.70	144.29	0.32802	0.84767	0.10062	1461.26599	0.0	0.4874664	566.76
3.660	5.47	1.7671	560.70	144.15	0.32841	0.84787	0.10060	1460.91394	0.0	0.4832774	566.73
3.670	5.30	1.7677	560.70	144.01	0.32880	0.84806	0.10057	1460.56726	0.0	0.4790932	566.70
3.680	5.14	1.7682	560.70	143.88	0.32919	0.84825	0.10055	1460.22632	0.0	0.4749133	566.67
3.690	4.98	1.7688	560.70	143.75	0.32957	0.84844	0.10053	1459.89050	0.0	0.4707380	566.64
3.700	4.82	1.7694	560.70	143.62	0.32995	0.84863	0.10050	1459.55981	0.0	0.4665669	566.61
3.710	4.66	1.7699	560.70	143.49	0.33032	0.84881	0.10048	1459.23474	0.0	0.4623999	566.58
3.720	4.50	1.7705	560.69	143.36	0.33069	0.84899	0.10046	1458.91467	0.0	0.4582370	566.55
3.730	4.33	1.7710	560.69	143.23	0.33105	0.84917	0.10044	1458.59998	0.0	0.4540780	566.52
3.740	4.17	1.7715	560.69	143.11	0.33141	0.84935	0.10042	1458.29028	0.0	0.4499227	566.49
3.750	4.01	1.7720	560.69	142.99	0.33176	0.84952	0.10040	1457.98560	0.0	0.4461794	566.46
3.760	3.85	1.7726	560.69	142.87	0.33211	0.84969	0.10038	1457.68591	0.0	0.4425761	566.44
3.770	3.69	1.7731	560.69	142.75	0.33246	0.84986	0.10036	1457.39111	0.0	0.4389765	566.41
3.780	3.53	1.7736	560.68	142.63	0.33280	0.85003	0.10034	1457.10120	0.0	0.4353807	566.38
3.790	3.37	1.7741	560.68	142.51	0.33313	0.85020	0.10032	1456.81604	0.0	0.4317886	566.36
3.800	3.21	1.7746	560.68	142.40	0.33347	0.85036	0.10030	1456.53552	0.0	0.4282000	566.33
3.810	3.04	1.7750	560.68	142.29	0.33380	0.85052	0.10028	1456.25977	0.0	0.4246148	566.30
3.820	2.88	1.7755	560.68	142.17	0.33412	0.85068	0.10026	1455.98877	0.0	0.4210332	566.27
3.830	2.72	1.7760	560.68	142.06	0.33444	0.85084	0.10024	1455.72229	0.0	0.4174545	566.25
3.840	2.56	1.7765	560.68	141.96	0.33476	0.85099	0.10022	1455.46045	0.0	0.4138793	566.22
3.850	2.40	1.7769	560.67	141.85	0.33507	0.85114	0.10020	1455.20312	0.0	0.4103070	566.19
3.860	2.24	1.7774	560.67	141.74	0.33538	0.85129	0.10019	1454.95020	0.0	0.4067378	566.17
3.870	2.08	1.7778	560.67	141.64	0.33569	0.85144	0.10017	1454.70190	0.0	0.4031715	566.14
3.880	1.92	1.7783	560.67	141.54	0.33599	0.85159	0.10015	1454.45776	0.0	0.3996080	566.11
3.890	1.76	1.7787	560.67	141.44	0.33628	0.85173	0.10014	1454.21790	0.0	0.3960472	566.08
3.900	1.60	1.7792	560.67	141.34	0.33658	0.85187	0.10012	1453.98242	0.0	0.3924892	566.06

3.910	1.44	1.7796	560.66	141.24	0.33686	0.85201	0.10010	1453.75110	0.0	0.3889336	566.03
3.920	1.28	1.7800	560.66	141.14	0.33715	0.85215	0.10009	1453.52393	0.0	0.3853806	566.00
3.930	1.12	1.7804	560.66	141.05	0.33743	0.85228	0.10007	1453.30090	0.0	0.3818298	565.97
3.940	0.96	1.7808	560.66	140.95	0.33771	0.85242	0.10006	1453.08179	0.0	0.3782814	565.94
3.950	0.80	1.7812	560.66	140.86	0.33798	0.85255	0.10004	1452.86658	0.0	0.3747352	565.92
3.960	0.64	1.7816	560.66	140.77	0.33825	0.85268	0.10003	1452.65515	0.0	0.3711912	565.89
3.970	0.48	1.7820	560.66	140.68	0.33851	0.85280	0.10001	1452.44690	0.0	0.3676491	565.86
3.980	0.32	1.7824	560.65	140.59	0.33877	0.85293	0.10000	1452.24146	0.0	0.3641092	565.83
3.990	0.16	1.7828	560.65	140.50	0.33903	0.85305	0.09999	1452.03845	0.0	0.3605712	565.80
4.000	0.00	1.7831	560.65	140.42	0.33928	0.85317	0.09997	1451.83679	0.0	0.3570351	565.77

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 6

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	763.917	763.917	0.0000
0.015	763.638	763.638	0.0000
0.025	763.354	763.354	0.0000
0.035	763.065	763.065	0.0000
0.045	762.771	762.771	0.0000
0.055	762.471	762.471	0.0000
0.065	762.166	762.166	0.0000
0.075	761.856	761.856	0.0000
0.085	761.540	761.540	0.0000
0.095	761.219	761.219	0.0000
0.105	760.893	760.893	0.0000
0.115	760.561	760.561	0.0000
0.125	760.224	760.224	0.0000
0.135	759.881	759.881	0.0000
0.145	761.585	759.520	0.0000
0.155	775.948	758.918	0.0000
0.165	786.234	757.884	0.0000
0.175	788.162	756.496	0.0000
0.185	803.614	754.858	0.0000
0.195	789.968	753.028	0.0000
0.205	800.489	751.039	0.0000
0.215	799.029	748.910	0.0000
0.225	778.063	746.654	0.0000
0.235	771.028	744.279	0.0000
0.245	763.917	741.788	0.0000
0.255	756.898	739.183	0.0001
0.265	749.762	736.465	0.0001
0.275	742.056	733.637	0.0001
0.285	733.581	730.702	0.0001
0.295	731.905	727.664	0.0001
0.305	722.991	724.524	0.0002
0.315	714.008	721.280	0.0002
0.325	705.003	717.929	0.0002
0.335	695.670	714.336	0.0002
0.345	686.426	710.625	0.0003
0.355	677.330	706.802	0.0003
0.365	668.445	702.879	0.0003
0.375	659.830	698.871	0.0004
0.385	651.524	694.796	0.0004
0.395	643.027	690.406	0.0005
0.405	635.381	686.203	0.0005
0.415	627.882	681.846	0.0006

0.425	620.543	677.328	0.0006
0.435	613.378	672.653	0.0007
0.445	606.412	667.831	0.0007
0.455	599.645	662.868	0.0008
0.465	593.079	657.773	0.0009
0.475	586.708	652.552	0.0009
0.485	580.511	647.215	0.0010
0.495	574.473	641.766	0.0011
0.505	568.582	636.214	0.0011
0.515	562.804	630.565	0.0012
0.525	557.119	624.828	0.0013
0.535	551.505	619.011	0.0014
0.545	545.946	613.122	0.0014
0.555	540.411	607.169	0.0015
0.565	534.897	601.162	0.0016
0.575	529.381	595.110	0.0017
0.585	523.851	589.023	0.0018
0.595	518.301	582.906	0.0019
0.605	513.397	577.505	0.0020
0.615	508.383	571.970	0.0020
0.625	503.324	566.420	0.0021
0.635	498.224	560.860	0.0022
0.645	493.098	555.298	0.0023
0.655	488.054	549.907	0.0024
0.665	483.118	544.689	0.0025
0.675	478.144	539.478	0.0026
0.685	473.164	534.286	0.0027
0.695	468.181	529.123	0.0028
0.705	463.211	523.998	0.0029
0.715	458.249	518.910	0.0030
0.725	453.293	513.856	0.0031
0.735	448.355	508.838	0.0032
0.745	443.446	503.859	0.0033
0.755	438.549	498.929	0.0034
0.765	433.718	494.064	0.0035
0.775	428.951	489.282	0.0037
0.785	424.261	484.600	0.0038
0.795	419.219	479.595	0.0039
0.805	414.742	475.147	0.0040
0.815	410.266	470.707	0.0041
0.825	405.889	466.407	0.0042
0.835	401.543	462.116	0.0044
0.845	397.222	457.845	0.0045
0.855	392.942	453.602	0.0046
0.865	388.697	449.393	0.0047
0.875	384.503	445.221	0.0048
0.885	380.359	441.090	0.0049
0.895	376.254	437.003	0.0050
0.905	372.225	432.960	0.0052
0.915	368.231	428.963	0.0053
0.925	364.300	425.014	0.0054
0.935	360.430	421.113	0.0055
0.945	356.601	417.259	0.0056
0.955	352.850	413.454	0.0057
0.965	349.150	409.698	0.0059
0.975	345.500	405.989	0.0060
0.985	341.952	402.396	0.0061
0.995	338.461	398.852	0.0062
1.005	335.042	395.354	0.0064
1.015	331.666	391.904	0.0065
1.025	328.341	388.501	0.0066
1.035	325.111	385.144	0.0067

1.045	321.883	381.833	0.0068
1.055	318.752	378.565	0.0070
1.065	315.645	375.339	0.0071
1.075	312.615	372.156	0.0072
1.085	309.610	369.017	0.0073
1.095	306.693	365.923	0.0075
1.105	303.780	362.873	0.0076
1.115	300.955	359.868	0.0077
1.125	298.188	356.904	0.0079
1.135	295.444	353.980	0.0080
1.145	292.785	351.107	0.0081
1.155	290.146	348.279	0.0083
1.165	287.575	345.500	0.0084
1.175	285.068	342.777	0.0085
1.185	282.606	340.113	0.0087
1.195	279.830	337.141	0.0089
1.205	277.547	334.620	0.0090
1.215	275.244	332.086	0.0092
1.225	272.961	329.573	0.0093
1.235	270.672	327.083	0.0094
1.245	268.494	324.619	0.0096
1.255	266.332	322.183	0.0097
1.265	264.175	319.776	0.0099
1.275	262.111	317.399	0.0100
1.285	260.059	315.050	0.0101
1.295	258.011	312.730	0.0103
1.305	256.063	310.443	0.0104
1.315	254.100	308.187	0.0105
1.325	252.176	305.960	0.0107
1.335	250.265	303.761	0.0108
1.345	248.411	301.590	0.0109
1.355	246.586	299.446	0.0110
1.365	244.832	297.328	0.0112
1.375	243.023	295.238	0.0113
1.385	241.317	293.174	0.0114
1.395	239.570	291.135	0.0116
1.405	237.944	289.121	0.0117
1.415	236.247	287.132	0.0119
1.425	234.630	285.168	0.0120
1.435	233.048	283.227	0.0121
1.445	231.486	281.310	0.0123
1.455	229.933	279.416	0.0124
1.465	228.400	277.547	0.0125
1.475	226.951	275.706	0.0127
1.485	225.465	273.888	0.0128
1.495	224.015	272.094	0.0129
1.505	222.623	270.323	0.0131
1.515	221.173	268.575	0.0132
1.525	219.829	266.848	0.0133
1.535	218.479	265.143	0.0135
1.545	217.118	263.459	0.0136
1.555	215.869	261.798	0.0138
1.565	214.605	260.164	0.0139
1.575	213.296	258.562	0.0141
1.585	212.090	256.994	0.0142
1.595	210.669	255.146	0.0144
1.605	209.472	253.664	0.0146
1.615	208.319	252.160	0.0148
1.625	207.147	250.667	0.0149
1.635	206.081	249.188	0.0151
1.645	204.934	247.723	0.0152
1.655	203.842	246.275	0.0154

1.665	202.776	244.843	0.0155
1.675	201.762	243.428	0.0156
1.685	200.690	242.029	0.0158
1.695	199.645	240.644	0.0159
1.705	198.661	239.275	0.0160
1.715	197.674	237.921	0.0162
1.725	196.662	236.582	0.0163
1.735	195.680	235.257	0.0164
1.745	194.752	233.946	0.0166
1.755	193.833	232.649	0.0167
1.765	192.878	231.367	0.0168
1.775	191.969	230.098	0.0169
1.785	191.022	228.842	0.0171
1.795	190.122	227.601	0.0172
1.805	189.302	226.374	0.0173
1.815	188.436	225.161	0.0175
1.825	187.548	223.960	0.0176
1.835	186.718	222.773	0.0177
1.845	185.866	221.599	0.0178
1.855	185.052	220.436	0.0180
1.865	184.279	219.287	0.0181
1.875	183.484	218.149	0.0182
1.885	182.669	217.023	0.0184
1.895	181.977	215.909	0.0185
1.905	181.202	214.807	0.0186
1.915	180.448	213.717	0.0187
1.925	179.695	212.639	0.0189
1.935	178.965	211.572	0.0190
1.945	178.236	210.516	0.0191
1.955	177.568	209.476	0.0193
1.965	176.830	208.456	0.0194
1.975	176.127	207.459	0.0196
1.985	175.475	206.487	0.0198
1.995	174.638	205.258	0.0200
2.005	173.974	204.347	0.0202
2.015	173.376	203.410	0.0203
2.025	172.724	202.478	0.0205
2.035	172.080	201.552	0.0207
2.045	171.473	200.632	0.0208
2.055	170.871	199.722	0.0209
2.065	170.320	198.822	0.0210
2.075	169.755	197.932	0.0212
2.085	169.105	197.052	0.0213
2.095	168.598	196.181	0.0214
2.105	167.987	195.318	0.0215
2.115	167.431	194.465	0.0216
2.125	166.930	193.621	0.0217
2.135	166.363	192.787	0.0218
2.145	165.782	191.961	0.0220
2.155	165.290	191.144	0.0221
2.165	164.823	190.336	0.0222
2.175	164.269	189.536	0.0223
2.185	163.775	188.745	0.0224
2.195	163.247	187.963	0.0225
2.205	162.744	187.188	0.0226
2.215	162.263	186.422	0.0227
2.225	161.788	185.664	0.0228
2.235	161.374	184.914	0.0230
2.245	160.800	184.172	0.0231
2.255	160.362	183.438	0.0232
2.265	159.986	182.711	0.0233
2.275	159.468	181.992	0.0234

2.285	159.049	181.282	0.0235
2.295	158.654	180.581	0.0236
2.305	158.210	179.889	0.0237
2.315	157.712	179.206	0.0238
2.325	157.259	178.532	0.0239
2.335	156.948	177.867	0.0241
2.345	156.548	177.211	0.0242
2.355	156.071	176.567	0.0243
2.365	155.714	175.937	0.0244
2.375	155.334	175.326	0.0246
2.385	154.930	174.736	0.0247
2.395	154.392	173.902	0.0249
2.405	154.010	173.360	0.0251
2.415	153.652	172.790	0.0253
2.425	153.373	172.221	0.0254
2.435	153.027	171.655	0.0256
2.445	152.678	171.091	0.0257
2.455	152.402	170.532	0.0258
2.465	151.955	169.980	0.0259
2.475	151.645	169.435	0.0260
2.485	151.343	168.896	0.0261
2.495	150.951	168.363	0.0262
2.505	150.681	167.836	0.0262
2.515	150.388	167.315	0.0263
2.525	150.102	166.800	0.0264
2.535	149.758	166.291	0.0265
2.545	149.523	165.788	0.0266
2.555	149.214	165.290	0.0267
2.565	148.930	164.798	0.0267
2.575	148.554	164.311	0.0268
2.585	148.339	163.830	0.0269
2.595	148.032	163.355	0.0270
2.605	147.717	162.885	0.0271
2.615	147.479	162.421	0.0271
2.625	147.234	161.963	0.0272
2.635	146.982	161.510	0.0273
2.645	146.722	161.063	0.0274
2.655	146.369	160.621	0.0275
2.665	146.095	160.185	0.0275
2.675	145.900	159.754	0.0276
2.685	145.612	159.328	0.0277
2.695	145.404	158.908	0.0278
2.705	145.188	158.493	0.0278
2.715	144.966	158.084	0.0279
2.725	144.649	157.679	0.0280
2.735	144.413	157.281	0.0281
2.745	144.256	156.890	0.0282
2.755	144.001	156.507	0.0283
2.765	143.821	156.135	0.0284
2.775	143.537	155.778	0.0285
2.785	143.412	155.436	0.0286
2.795	143.029	154.855	0.0288
2.805	142.833	154.552	0.0290
2.815	142.605	154.219	0.0292
2.825	142.379	153.885	0.0293
2.835	142.245	153.549	0.0294
2.845	142.022	153.213	0.0295
2.855	141.918	152.878	0.0296
2.865	141.657	152.548	0.0296
2.875	141.453	152.222	0.0297
2.885	141.274	151.899	0.0298
2.895	141.121	151.581	0.0298

2.905	140.902	151.267	0.0299
2.915	140.710	150.956	0.0299
2.925	140.574	150.649	0.0300
2.935	140.311	150.345	0.0300
2.945	140.198	150.044	0.0301
2.955	140.050	149.746	0.0301
2.965	139.868	149.452	0.0302
2.975	139.682	149.160	0.0302
2.985	139.462	148.872	0.0303
2.995	139.391	148.587	0.0303
3.005	139.193	148.304	0.0304
3.015	139.085	148.025	0.0304
3.025	138.880	147.749	0.0305
3.035	138.671	147.475	0.0305
3.045	138.646	147.205	0.0306
3.055	138.430	146.938	0.0306
3.065	138.210	146.673	0.0307
3.075	138.175	146.412	0.0307
3.085	138.042	146.153	0.0308
3.095	137.907	145.897	0.0308
3.105	137.768	145.643	0.0309
3.115	137.626	145.392	0.0309
3.125	137.482	145.144	0.0310
3.135	137.334	144.898	0.0310
3.145	137.183	144.654	0.0311
3.155	137.059	144.413	0.0311
3.165	136.902	144.174	0.0312
3.175	136.838	143.938	0.0312
3.185	136.646	143.704	0.0312
3.195	136.509	143.473	0.0313
3.205	136.408	143.244	0.0313
3.215	136.266	143.018	0.0314
3.225	136.062	142.794	0.0314
3.235	136.011	142.572	0.0315
3.245	135.830	142.353	0.0315
3.255	135.745	142.135	0.0315
3.265	135.559	141.920	0.0316
3.275	135.537	141.707	0.0316
3.285	135.474	141.496	0.0317
3.295	135.281	141.287	0.0317
3.305	135.183	141.080	0.0318
3.315	135.055	140.875	0.0318
3.325	134.981	140.672	0.0318
3.335	134.778	140.471	0.0319
3.345	134.770	140.272	0.0319
3.355	134.562	140.075	0.0320
3.365	134.451	139.880	0.0320
3.375	134.337	139.687	0.0320
3.385	134.221	139.496	0.0321
3.395	134.202	139.307	0.0321
3.405	134.082	139.119	0.0322
3.415	133.960	138.934	0.0322
3.425	133.835	138.750	0.0322
3.435	133.809	138.567	0.0323
3.445	133.680	138.387	0.0323
3.455	133.579	138.208	0.0323
3.465	133.446	138.030	0.0324
3.475	133.384	137.854	0.0324
3.485	133.249	137.680	0.0325
3.495	133.211	137.508	0.0325
3.505	133.100	137.336	0.0325
3.515	132.958	137.167	0.0326

3.525	132.916	136.999	0.0326
3.535	132.770	136.832	0.0326
3.545	132.697	136.668	0.0327
3.555	132.677	136.504	0.0327
3.565	132.526	136.342	0.0327
3.575	132.475	136.182	0.0328
3.585	132.320	136.024	0.0328
3.595	132.339	135.868	0.0328
3.605	132.208	135.713	0.0329
3.615	132.148	135.561	0.0329
3.625	132.086	135.411	0.0329
3.635	131.921	135.262	0.0330
3.645	131.855	135.116	0.0330
3.655	131.787	134.971	0.0330
3.665	131.744	134.829	0.0331
3.675	131.542	134.688	0.0331
3.685	131.598	134.550	0.0331
3.695	131.522	134.413	0.0332
3.705	131.417	134.278	0.0332
3.715	131.364	134.145	0.0332
3.725	131.282	134.014	0.0333
3.735	131.273	133.885	0.0333
3.745	131.084	133.757	0.0333
3.755	131.024	133.631	0.0333
3.765	131.038	133.507	0.0334
3.775	130.919	133.384	0.0334
3.785	130.854	133.263	0.0334
3.795	130.759	133.144	0.0334
3.805	130.663	133.026	0.0335
3.815	130.669	132.910	0.0335
3.825	130.646	132.795	0.0335
3.835	130.572	132.682	0.0336
3.845	130.441	132.570	0.0336
3.855	130.364	132.460	0.0336
3.865	130.362	132.352	0.0336
3.875	130.358	132.245	0.0337
3.885	130.249	132.140	0.0337
3.895	130.242	132.036	0.0337
3.905	130.129	131.934	0.0337
3.915	130.015	131.833	0.0337
3.925	130.030	131.734	0.0338
3.935	129.913	131.636	0.0338
3.945	129.871	131.540	0.0338
3.955	129.855	131.445	0.0338
3.965	129.760	131.352	0.0339
3.975	129.819	131.260	0.0339
3.985	129.799	131.170	0.0339
3.995	129.671	131.081	0.0339

1PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 7

	DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
	FLUX	BORON	CHF	CHF TEMP.							
	(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)		
	(MW/M2)	(DEG-K)									
0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.23411	1700.00012	0.0	0.000000	255.37
0.010	100.03	1.2113	548.30	763.93	0.00000	0.00000	0.23405	1699.59863	0.0	4.574341	580.26
0.020	99.93	1.2121	548.45	763.66	0.00000	0.00000	0.23396	1698.91089	0.0	4.524060	580.15
0.030	99.84	1.2128	548.59	763.38	0.00000	0.00000	0.23384	1698.04041	0.0	4.475786	580.04

0.040	99.74	1.2136	548.74	763.10	0.00000	0.00000	0.23370	1697.05933	0.0	4.429352	579.94
0.050	99.65	1.2144	548.89	762.81	0.00000	0.00000	0.23356	1696.01404	0.0	4.384609	579.84
0.060	99.55	1.2152	549.05	762.52	0.00000	0.00000	0.23341	1694.93286	0.0	4.341426	579.74
0.070	99.46	1.2160	549.20	762.23	0.00000	0.00000	0.23326	1693.83350	0.0	4.299707	579.65
0.080	99.36	1.2168	549.36	761.93	0.00000	0.00000	0.23310	1692.72534	0.0	4.259352	579.56
0.090	99.27	1.2177	549.52	761.62	0.00000	0.00000	0.23295	1691.61279	0.0	4.220278	579.47
0.100	99.18	1.2185	549.69	761.31	0.00000	0.00000	0.23280	1690.49731	0.0	4.182420	579.39
0.110	99.08	1.2194	549.85	760.99	0.00000	0.00000	0.23264	1689.37744	0.0	4.145697	579.30
0.120	98.99	1.2203	550.02	760.67	0.00000	0.00000	0.23249	1688.25061	0.0	4.110054	579.22
0.130	98.89	1.2211	550.19	760.35	0.00000	0.00000	0.23233	1687.11475	0.0	4.075438	579.14
0.140	98.80	1.2220	550.36	760.01	0.00000	0.00000	0.23217	1685.97009	0.0	4.041794	579.07
0.150	98.70	1.2230	550.54	759.68	0.00000	0.00000	0.23202	1684.82532	0.0	4.009067	579.00
0.160	98.61	1.2239	550.72	759.33	0.00000	0.00000	0.23186	1683.70032	0.0	3.977203	578.92
0.170	98.52	1.2248	550.90	758.85	0.00000	0.00019	0.23169	1682.49268	0.0	3.946180	578.85
0.180	98.42	1.2258	551.08	757.98	0.00000	0.00091	0.23149	1680.99304	0.0	3.916032	578.79
0.190	98.32	1.2268	551.27	756.74	0.00001	0.00212	0.23125	1679.25830	0.0	3.886758	578.72
0.200	98.22	1.2278	551.45	755.24	0.00003	0.00370	0.23100	1677.43311	0.0	3.858263	578.66
0.210	98.13	1.2288	551.64	753.55	0.00005	0.00555	0.23075	1675.60071	0.0	3.830469	578.60
0.220	98.03	1.2298	551.84	751.68	0.00009	0.00762	0.23050	1673.80078	0.0	3.803309	578.54
0.230	97.93	1.2308	552.03	749.67	0.00013	0.00988	0.23026	1672.05005	0.0	3.776744	578.48
0.240	97.83	1.2318	552.23	747.53	0.00019	0.01233	0.23002	1670.33887	0.0	3.750741	578.42
0.250	97.72	1.2329	552.43	745.26	0.00026	0.01495	0.22979	1668.63330	0.0	3.725284	578.37
0.260	97.62	1.2340	552.63	742.87	0.00035	0.01773	0.22955	1666.90234	0.0	3.700370	578.31
0.270	97.52	1.2350	552.84	740.37	0.00045	0.02067	0.22931	1665.15540	0.0	3.675995	578.26
0.280	97.42	1.2361	553.05	737.75	0.00058	0.02377	0.22907	1663.44385	0.0	3.652127	578.21
0.290	97.31	1.2372	553.26	735.02	0.00071	0.02701	0.22885	1661.82410	0.0	3.628718	578.16
0.300	97.21	1.2384	553.47	732.18	0.00087	0.03040	0.22864	1660.31348	0.0	3.605719	578.11
0.310	97.11	1.2395	553.68	729.24	0.00104	0.03393	0.22844	1658.87683	0.0	3.583109	578.06
0.320	97.00	1.2406	553.90	726.19	0.00124	0.03760	0.22825	1657.46350	0.0	3.560899	578.01
0.330	96.90	1.2418	554.12	723.04	0.00145	0.04142	0.22805	1656.04553	0.0	3.539085	577.96
0.340	96.79	1.2430	554.34	719.66	0.00169	0.04556	0.22786	1654.65820	0.0	3.518880	577.92
0.350	96.68	1.2442	554.57	716.16	0.00196	0.04985	0.22769	1653.42358	0.0	3.498992	577.88
0.360	96.57	1.2454	554.80	712.56	0.00224	0.05428	0.22757	1652.55737	0.0	3.479336	577.84
0.370	96.46	1.2466	555.03	708.86	0.00255	0.05885	0.22755	1652.37329	0.0	3.459785	577.80
0.380	96.35	1.2479	555.26	705.09	0.00287	0.06353	0.22767	1653.28162	0.0	3.440183	577.76
0.390	96.23	1.2491	555.50	701.26	0.00321	0.06828	0.22801	1655.70764	0.0	3.420371	577.71
0.400	93.66	1.2504	555.73	697.15	0.00358	0.07342	0.22855	1659.68469	0.0	3.400268	577.67
0.410	93.54	1.2516	555.97	693.25	0.00394	0.07827	0.22887	1661.96887	0.0	3.380499	577.63
0.420	93.42	1.2529	556.21	689.17	0.00433	0.08337	0.22897	1662.72192	0.0	3.361758	577.59
0.430	93.30	1.2542	556.46	684.92	0.00475	0.08871	0.22892	1662.33545	0.0	3.343901	577.55
0.440	93.19	1.2555	556.70	680.52	0.00520	0.09426	0.22876	1661.15918	0.0	3.326750	577.52
0.450	93.08	1.2569	556.95	675.97	0.00567	0.10002	0.22852	1659.44763	0.0	3.310141	577.48
0.460	92.96	1.2582	557.21	671.29	0.00616	0.10596	0.22824	1657.37024	0.0	3.293960	577.45
0.470	92.85	1.2596	557.46	666.49	0.00667	0.11207	0.22791	1655.03809	0.0	3.278136	577.42
0.480	92.73	1.2610	557.72	661.57	0.00721	0.11835	0.22757	1652.52307	0.0	3.262612	577.39
0.490	92.62	1.2624	557.98	656.53	0.00777	0.12479	0.22720	1649.87439	0.0	3.247358	577.37
0.500	92.50	1.2638	558.24	651.39	0.00835	0.13139	0.22682	1647.12646	0.0	3.232349	577.34
0.510	92.38	1.2652	558.51	646.15	0.00895	0.13813	0.22644	1644.30627	0.0	3.217559	577.31
0.520	92.27	1.2667	558.78	640.81	0.00958	0.14500	0.22604	1641.43640	0.0	3.202979	577.29
0.530	92.15	1.2681	559.05	635.37	0.01022	0.15202	0.22564	1638.53687	0.0	3.188591	577.26
0.540	92.03	1.2696	559.33	629.85	0.01089	0.15915	0.22524	1635.62329	0.0	3.174380	577.24
0.550	91.91	1.2711	559.61	624.26	0.01157	0.16640	0.22484	1632.71008	0.0	3.160339	577.21
0.560	91.79	1.2726	559.89	618.58	0.01227	0.17376	0.22444	1629.80859	0.0	3.146454	577.19
0.570	91.67	1.2742	560.17	612.85	0.01300	0.18122	0.22404	1626.92773	0.0	3.132720	577.17
0.580	91.54	1.2757	560.46	607.05	0.01374	0.18876	0.22365	1624.07129	0.0	3.119128	577.15
0.590	91.42	1.2773	560.75	601.20	0.01450	0.19638	0.22326	1621.23694	0.0	3.105677	577.12
0.600	91.30	1.2789	561.04	595.31	0.01528	0.20406	0.22287	1618.41296	0.0	3.092371	577.10
0.610	91.17	1.2805	561.34	589.38	0.01608	0.21180	0.22248	1615.57520	0.0	3.079212	577.08
0.620	91.05	1.2821	561.52	583.80	0.01687	0.21934	0.22216	1613.24109	0.0	3.066082	577.06
0.630	90.92	1.2838	561.51	578.41	0.01769	0.22706	0.22190	1611.33545	0.0	3.052876	577.02
0.640	90.80	1.2854	561.51	573.02	0.01853	0.23477	0.22164	1609.48608	0.0	3.039695	576.98
0.650	90.67	1.2871	561.51	567.61	0.01938	0.24250	0.22138	1607.56543	0.0	3.026655	576.95

0.660	90.55	1.2888	561.51	562.37	0.02023	0.25000	0.22110	1605.52661	0.0	3.012150	576.91
0.670	90.43	1.2905	561.51	557.29	0.02106	0.25727	0.22081	1603.41919	0.0	2.996232	576.86
0.680	90.30	1.2922	561.51	552.21	0.02191	0.26454	0.22052	1601.34277	0.0	2.980557	576.82
0.690	90.18	1.2939	561.51	547.14	0.02277	0.27179	0.22025	1599.39807	0.0	2.965072	576.78
0.700	90.05	1.2956	561.51	542.08	0.02364	0.27903	0.22001	1597.61926	0.0	2.949731	576.73
0.710	89.93	1.2974	561.50	537.05	0.02453	0.28623	0.21978	1595.97510	0.0	2.934521	576.69
0.720	89.80	1.2991	561.50	532.04	0.02543	0.29339	0.21957	1594.41699	0.0	2.919456	576.65
0.730	89.67	1.3009	561.50	527.06	0.02634	0.30052	0.21936	1592.92944	0.0	2.904554	576.61
0.740	89.54	1.3027	561.50	522.10	0.02727	0.30760	0.21917	1591.56567	0.0	2.889811	576.56
0.750	89.41	1.3044	561.50	517.18	0.02821	0.31464	0.21902	1590.47119	0.0	2.875188	576.52
0.760	89.28	1.3062	561.50	512.31	0.02916	0.32162	0.21894	1589.89819	0.0	2.860605	576.48
0.770	89.15	1.3080	561.50	507.49	0.03011	0.32850	0.21899	1590.22998	0.0	2.845953	576.44
0.780	89.01	1.3098	561.50	502.77	0.03107	0.33526	0.21923	1591.98364	0.0	2.831088	576.39
0.790	88.86	1.3116	561.49	498.17	0.03202	0.34184	0.21975	1595.73767	0.0	2.815819	576.35
0.800	85.47	1.3134	561.46	493.28	0.03303	0.34882	0.22056	1601.65649	0.0	2.800023	576.30
0.810	85.33	1.3152	561.46	488.97	0.03396	0.35505	0.22107	1605.35486	0.0	2.784367	576.25
0.820	85.19	1.3170	561.46	484.61	0.03492	0.36129	0.22132	1607.16687	0.0	2.769065	576.21
0.830	85.05	1.3188	561.46	480.35	0.03587	0.36738	0.22138	1607.59937	0.0	2.752602	576.16
0.840	84.91	1.3207	561.46	476.08	0.03685	0.37349	0.22131	1607.08301	0.0	2.736842	576.11
0.850	84.78	1.3225	561.46	471.82	0.03784	0.37958	0.22115	1605.95032	0.0	2.721623	576.06
0.860	84.65	1.3244	561.45	467.58	0.03885	0.38564	0.22094	1604.42456	0.0	2.706813	576.02
0.870	84.52	1.3262	561.45	463.38	0.03988	0.39165	0.22070	1602.64880	0.0	2.692326	575.98
0.880	84.39	1.3281	561.45	459.21	0.04091	0.39762	0.22043	1600.71484	0.0	2.678108	575.94
0.890	84.25	1.3299	561.45	455.08	0.04196	0.40352	0.22015	1598.68518	0.0	2.664119	575.89
0.900	84.12	1.3318	561.45	451.00	0.04302	0.40936	0.21987	1596.60474	0.0	2.650337	575.85
0.910	83.99	1.3337	561.45	446.95	0.04409	0.41515	0.21958	1594.50671	0.0	2.636740	575.81
0.920	83.86	1.3356	561.45	442.96	0.04517	0.42086	0.21929	1592.41589	0.0	2.623314	575.77
0.930	83.73	1.3375	561.45	439.00	0.04625	0.42651	0.21901	1590.35120	0.0	2.610048	575.73
0.940	83.59	1.3394	561.44	435.10	0.04735	0.43210	0.21873	1588.32581	0.0	2.596931	575.70
0.950	83.46	1.3413	561.44	431.24	0.04846	0.43761	0.21845	1586.34985	0.0	2.583956	575.66
0.960	83.33	1.3432	561.44	427.43	0.04957	0.44306	0.21819	1584.42871	0.0	2.571116	575.62
0.970	83.19	1.3452	561.44	423.67	0.05070	0.44844	0.21793	1582.56360	0.0	2.558408	575.58
0.980	83.06	1.3471	561.44	419.96	0.05183	0.45376	0.21768	1580.75049	0.0	2.545829	575.54
0.990	82.93	1.3490	561.44	416.36	0.05295	0.45890	0.21744	1578.98206	0.0	2.533802	575.50
1.000	82.79	1.3510	561.44	412.81	0.05408	0.46398	0.21720	1577.25989	0.0	2.5217928	575.46
1.010	82.66	1.3529	561.44	409.31	0.05521	0.46899	0.21697	1575.58496	0.0	2.504203	575.42
1.020	82.52	1.3549	561.43	405.85	0.05635	0.47393	0.21675	1573.96240	0.0	2.490626	575.37
1.030	82.39	1.3568	561.43	402.44	0.05750	0.47881	0.21653	1572.39404	0.0	2.477190	575.33
1.040	82.25	1.3588	561.43	399.08	0.05865	0.48362	0.21632	1570.86304	0.0	2.463892	575.29
1.050	82.12	1.3608	561.43	395.76	0.05982	0.48836	0.21611	1569.33435	0.0	2.450742	575.25
1.060	81.98	1.3627	561.43	392.48	0.06098	0.49305	0.21590	1567.78577	0.0	2.437750	575.21
1.070	81.85	1.3647	561.43	389.25	0.06216	0.49767	0.21569	1566.24048	0.0	2.424921	575.17
1.080	81.71	1.3667	561.43	386.06	0.06334	0.50223	0.21548	1564.76147	0.0	2.412239	575.13
1.090	81.57	1.3686	561.43	382.92	0.06453	0.50673	0.21530	1563.40869	0.0	2.399673	575.09
1.100	81.44	1.3706	561.42	379.82	0.06572	0.51116	0.21513	1562.19568	0.0	2.387200	575.05
1.110	81.30	1.3726	561.42	376.76	0.06692	0.51553	0.21498	1561.08972	0.0	2.374819	575.02
1.120	81.16	1.3746	561.42	373.75	0.06812	0.51983	0.21483	1560.04639	0.0	2.362542	574.98
1.130	81.02	1.3766	561.42	370.78	0.06933	0.52408	0.21470	1559.05371	0.0	2.350385	574.94
1.140	80.88	1.3786	561.42	367.86	0.07054	0.52826	0.21457	1558.16223	0.0	2.338344	574.90
1.150	80.74	1.3806	561.42	364.98	0.07175	0.53238	0.21448	1557.50012	0.0	2.325994	574.86
1.160	80.60	1.3825	561.42	362.15	0.07296	0.53642	0.21445	1557.29639	0.0	2.313545	574.82
1.170	80.45	1.3845	561.41	359.38	0.07417	0.54038	0.21454	1557.91077	0.0	2.301061	574.78
1.180	80.30	1.3865	561.41	356.68	0.07537	0.54424	0.21480	1559.83057	0.0	2.288418	574.74
1.190	80.14	1.3884	561.41	354.07	0.07655	0.54798	0.21532	1563.60022	0.0	2.275462	574.70
1.200	75.59	1.3903	561.37	351.16	0.07782	0.55212	0.21611	1569.35168	0.0	2.262090	574.65
1.210	75.43	1.3923	561.37	348.71	0.07898	0.55568	0.21664	1573.16455	0.0	2.248761	574.60
1.220	75.27	1.3942	561.37	346.22	0.08016	0.55925	0.21693	1575.24536	0.0	2.236196	574.56
1.230	75.12	1.3961	561.36	343.72	0.08136	0.56281	0.21704	1576.07092	0.0	2.224263	574.52
1.240	74.97	1.3981	561.36	341.24	0.08258	0.56637	0.21704	1576.04736	0.0	2.212804	574.48
1.250	74.83	1.4001	561.36	338.77	0.08381	0.56988	0.21696	1575.48083	0.0	2.201730	574.45
1.260	74.68	1.4021	561.36	336.34	0.08505	0.57336	0.21683	1574.57068	0.0	2.190939	574.41
1.270	74.54	1.4040	561.36	333.93	0.08629	0.57680	0.21668	1573.44324	0.0	2.180363	574.38

1.280	74.40	1.4060	561.36	331.56	0.08754	0.58020	0.21650	1572.17908	0.0	2.169962	574.34
1.290	74.26	1.4080	561.36	329.21	0.08880	0.58356	0.21632	1570.83081	0.0	2.159709	574.31
1.300	74.11	1.4100	561.35	326.89	0.09006	0.58688	0.21613	1569.43481	0.0	2.149587	574.28
1.310	73.97	1.4120	561.35	324.60	0.09132	0.59014	0.21593	1568.01648	0.0	2.139327	574.24
1.320	73.83	1.4140	561.35	322.35	0.09258	0.59337	0.21573	1566.59583	0.0	2.128924	574.21
1.330	73.68	1.4160	561.35	320.12	0.09385	0.59655	0.21554	1565.18909	0.0	2.118627	574.17
1.340	73.54	1.4180	561.35	317.93	0.09512	0.59969	0.21535	1563.80688	0.0	2.108429	574.14
1.350	73.40	1.4200	561.35	315.76	0.09639	0.60279	0.21516	1562.45667	0.0	2.098326	574.11
1.360	73.25	1.4220	561.35	313.62	0.09767	0.60585	0.21498	1561.14136	0.0	2.088314	574.07
1.370	73.11	1.4240	561.35	311.51	0.09895	0.60887	0.21481	1559.86194	0.0	2.078391	574.04
1.380	72.96	1.4260	561.34	309.42	0.10024	0.61185	0.21464	1558.61719	0.0	2.068555	574.01
1.390	72.82	1.4280	561.34	307.37	0.10152	0.61479	0.21447	1557.40393	0.0	2.058805	573.97
1.400	72.67	1.4300	561.34	305.33	0.10281	0.61769	0.21431	1556.21936	0.0	2.049143	573.94
1.410	72.53	1.4320	561.34	303.33	0.10410	0.62056	0.21415	1555.06042	0.0	2.039566	573.91
1.420	72.38	1.4340	561.34	301.35	0.10540	0.62339	0.21399	1553.93005	0.0	2.030077	573.88
1.430	72.23	1.4360	561.34	299.39	0.10669	0.62619	0.21384	1552.82874	0.0	2.020669	573.84
1.440	72.09	1.4381	561.34	297.46	0.10799	0.62895	0.21369	1551.73889	0.0	2.011346	573.81
1.450	71.94	1.4401	561.33	295.55	0.10929	0.63167	0.21354	1550.62622	0.0	2.002112	573.78
1.460	71.79	1.4421	561.33	293.67	0.11060	0.63437	0.21338	1549.47278	0.0	1.992979	573.75
1.470	71.65	1.4441	561.33	291.81	0.11190	0.63702	0.21322	1548.30579	0.0	1.983700	573.72
1.480	71.50	1.4461	561.33	289.98	0.11321	0.63964	0.21306	1547.19043	0.0	1.973763	573.68
1.490	71.35	1.4481	561.33	288.18	0.11451	0.64222	0.21292	1546.18323	0.0	1.963900	573.65
1.500	71.20	1.4502	561.33	286.40	0.11581	0.64477	0.21280	1545.29199	0.0	1.954093	573.61
1.510	71.06	1.4522	561.33	284.64	0.11712	0.64728	0.21269	1544.48145	0.0	1.944344	573.58
1.520	70.91	1.4542	561.32	282.91	0.11842	0.64975	0.21258	1543.71118	0.0	1.934667	573.55
1.530	70.76	1.4562	561.32	281.20	0.11973	0.65220	0.21248	1542.97339	0.0	1.925071	573.51
1.540	70.60	1.4582	561.32	279.51	0.12103	0.65461	0.21239	1542.32312	0.0	1.915553	573.48
1.550	70.45	1.4602	561.32	277.84	0.12233	0.65699	0.21233	1541.89807	0.0	1.906083	573.45
1.560	70.30	1.4622	561.32	276.20	0.12364	0.65934	0.21234	1541.93811	0.0	1.896624	573.41
1.570	70.14	1.4642	561.32	274.60	0.12493	0.66163	0.21246	1542.81091	0.0	1.887109	573.38
1.580	69.97	1.4661	561.32	273.04	0.12619	0.66386	0.21276	1545.00891	0.0	1.877437	573.34
1.590	69.79	1.4680	561.31	271.53	0.12743	0.66601	0.21332	1549.07129	0.0	1.867482	573.31
1.600	63.95	1.4699	561.26	269.76	0.12877	0.66852	0.21415	1555.12537	0.0	1.857163	573.27
1.610	63.77	1.4717	561.26	268.35	0.12998	0.67058	0.21472	1559.20154	0.0	1.846800	573.23
1.620	63.60	1.4736	561.26	266.89	0.13122	0.67267	0.21503	1561.48218	0.0	1.837050	573.19
1.630	63.44	1.4756	561.25	265.43	0.13248	0.67475	0.21517	1562.47339	0.0	1.827811	573.15
1.640	63.28	1.4775	561.25	263.98	0.13375	0.67683	0.21518	1562.60242	0.0	1.818454	573.12
1.650	63.12	1.4795	561.25	262.53	0.13503	0.67890	0.21513	1562.18250	0.0	1.809397	573.09
1.660	62.97	1.4814	561.25	261.10	0.13631	0.68094	0.21502	1561.42041	0.0	1.800562	573.06
1.670	62.81	1.4834	561.25	259.69	0.13759	0.68296	0.21489	1560.44446	0.0	1.791892	573.02
1.680	62.66	1.4853	561.25	258.29	0.13888	0.68496	0.21473	1559.33594	0.0	1.783353	572.99
1.690	62.50	1.4873	561.25	256.90	0.14017	0.68694	0.21457	1558.14868	0.0	1.774922	572.96
1.700	62.35	1.4892	561.24	255.54	0.14146	0.68890	0.21440	1556.91931	0.0	1.766583	572.93
1.710	62.20	1.4912	561.24	254.18	0.14274	0.69083	0.21423	1555.67444	0.0	1.758325	572.90
1.720	62.04	1.4931	561.24	252.84	0.14403	0.69274	0.21406	1554.43286	0.0	1.750142	572.87
1.730	61.89	1.4951	561.24	251.52	0.14532	0.69464	0.21389	1553.20715	0.0	1.742025	572.84
1.740	61.74	1.4970	561.24	250.21	0.14661	0.69651	0.21373	1552.00574	0.0	1.733972	572.81
1.750	61.58	1.4990	561.24	248.92	0.14790	0.69836	0.21356	1550.83289	0.0	1.725979	572.78
1.760	61.43	1.5009	561.23	247.64	0.14919	0.70019	0.21341	1549.68994	0.0	1.718045	572.75
1.770	61.27	1.5029	561.23	246.37	0.15048	0.70199	0.21325	1548.57629	0.0	1.710169	572.73
1.780	61.12	1.5048	561.23	245.12	0.15177	0.70378	0.21310	1547.48914	0.0	1.702350	572.70
1.790	60.96	1.5068	561.23	243.88	0.15306	0.70555	0.21296	1546.42432	0.0	1.694589	572.67
1.800	60.81	1.5087	561.23	242.66	0.15435	0.70730	0.21281	1545.37744	0.0	1.686523	572.64
1.810	60.65	1.5106	561.23	241.45	0.15563	0.70903	0.21267	1544.34778	0.0	1.678400	572.61
1.820	60.49	1.5126	561.23	240.25	0.15692	0.71073	0.21253	1543.33850	0.0	1.670337	572.58
1.830	60.34	1.5145	561.22	239.07	0.15820	0.71242	0.21240	1542.35156	0.0	1.662335	572.55
1.840	60.18	1.5164	561.22	237.90	0.15948	0.71409	0.21226	1541.37000	0.0	1.654393	572.52
1.850	60.02	1.5184	561.22	236.75	0.16076	0.71574	0.21212	1540.36096	0.0	1.646517	572.49
1.860	59.87	1.5203	561.22	235.61	0.16205	0.71737	0.21198	1539.30847	0.0	1.638716	572.46
1.870	59.71	1.5222	561.22	234.47	0.16333	0.71899	0.21183	1538.24487	0.0	1.630991	572.43
1.880	59.55	1.5242	561.22	233.36	0.16461	0.72059	0.21169	1537.23975	0.0	1.623328	572.40
1.890	59.39	1.5261	561.22	232.25	0.16588	0.72217	0.21157	1536.34900	0.0	1.615703	572.37

1.900	59.24	1.5280	561.21	231.16	0.16716	0.72373	0.21146	1535.57751	0.0	1.608105	572.34
1.910	59.08	1.5299	561.21	230.08	0.16843	0.72527	0.21137	1534.88501	0.0	1.600537	572.31
1.920	58.92	1.5318	561.21	229.01	0.16970	0.72680	0.21128	1534.22876	0.0	1.593011	572.28
1.930	58.76	1.5337	561.21	227.95	0.17097	0.72831	0.21119	1533.60522	0.0	1.585537	572.25
1.940	58.59	1.5356	561.21	226.91	0.17223	0.72980	0.21112	1533.07446	0.0	1.578109	572.23
1.950	58.43	1.5375	561.21	225.88	0.17350	0.73127	0.21108	1532.78418	0.0	1.570706	572.20
1.960	58.26	1.5394	561.20	224.86	0.17475	0.73272	0.21111	1532.99609	0.0	1.562583	572.17
1.970	58.09	1.5412	561.20	223.88	0.17598	0.73413	0.21126	1534.10229	0.0	1.553681	572.13
1.980	57.91	1.5430	561.20	222.93	0.17717	0.73549	0.21161	1536.63586	0.0	1.544633	572.09
1.990	57.71	1.5447	561.20	222.02	0.17831	0.73678	0.21223	1541.18042	0.0	1.535330	572.06
2.000	50.59	1.5464	561.13	220.87	0.17957	0.73839	0.21316	1547.87463	0.0	1.525697	572.01
2.010	50.39	1.5480	561.13	220.03	0.18068	0.73964	0.21378	1552.43176	0.0	1.515976	571.97
2.020	50.20	1.5497	561.13	219.14	0.18182	0.74091	0.21414	1555.03833	0.0	1.506787	571.93
2.030	50.02	1.5515	561.13	218.24	0.18299	0.74219	0.21431	1556.25159	0.0	1.498042	571.90
2.040	49.85	1.5533	561.13	217.34	0.18418	0.74348	0.21435	1556.54126	0.0	1.489619	571.86
2.050	49.68	1.5551	561.12	216.44	0.18538	0.74476	0.21431	1556.24121	0.0	1.481435	571.83
2.060	49.52	1.5569	561.12	215.55	0.18658	0.74603	0.21422	1555.57751	0.0	1.473440	571.80
2.070	49.35	1.5587	561.12	214.67	0.18778	0.74729	0.21409	1554.68835	0.0	1.465579	571.77
2.080	49.19	1.5604	561.12	213.80	0.18897	0.74854	0.21395	1553.66077	0.0	1.457821	571.73
2.090	49.03	1.5622	561.12	212.93	0.19017	0.74977	0.21380	1552.55188	0.0	1.450147	571.70
2.100	48.87	1.5640	561.12	212.08	0.19136	0.75099	0.21364	1551.40015	0.0	1.442541	571.67
2.110	48.71	1.5658	561.11	211.23	0.19255	0.75220	0.21348	1550.23254	0.0	1.434995	571.64
2.120	48.54	1.5676	561.11	210.39	0.19374	0.75340	0.21332	1549.06824	0.0	1.427385	571.61
2.130	48.38	1.5693	561.11	209.56	0.19493	0.75458	0.21316	1547.92041	0.0	1.419466	571.58
2.140	48.22	1.5711	561.11	208.74	0.19611	0.75575	0.21301	1546.79675	0.0	1.411596	571.55
2.150	48.06	1.5729	561.11	207.93	0.19729	0.75691	0.21286	1545.70154	0.0	1.403770	571.52
2.160	47.89	1.5746	561.11	207.13	0.19846	0.75806	0.21271	1544.63623	0.0	1.395989	571.48
2.170	47.73	1.5764	561.10	206.34	0.19963	0.75919	0.21257	1543.59949	0.0	1.388251	571.45
2.180	47.57	1.5781	561.10	205.55	0.20079	0.76031	0.21243	1542.58765	0.0	1.380557	571.42
2.190	47.40	1.5798	561.10	204.78	0.20196	0.76142	0.21229	1541.59827	0.0	1.372907	571.39
2.200	47.24	1.5816	561.10	204.01	0.20311	0.76251	0.21216	1540.62659	0.0	1.365301	571.36
2.210	47.08	1.5833	561.10	203.25	0.20427	0.76359	0.21203	1539.67126	0.0	1.357740	571.33
2.220	46.91	1.5850	561.10	202.50	0.20542	0.76467	0.21190	1538.73584	0.0	1.350224	571.29
2.230	46.75	1.5867	561.10	201.76	0.20656	0.76572	0.21177	1537.82141	0.0	1.342750	571.26
2.240	46.58	1.5884	561.09	201.03	0.20770	0.76677	0.21165	1536.91235	0.0	1.335319	571.23
2.250	46.42	1.5901	561.09	200.30	0.20884	0.76781	0.21152	1535.97534	0.0	1.327936	571.20
2.260	46.26	1.5918	561.09	199.58	0.20997	0.76884	0.21138	1534.99353	0.0	1.320609	571.17
2.270	46.09	1.5935	561.09	198.87	0.21110	0.76985	0.21125	1533.99854	0.0	1.313338	571.14
2.280	45.93	1.5951	561.09	198.17	0.21223	0.77086	0.21112	1533.05945	0.0	1.306112	571.11
2.290	45.76	1.5968	561.09	197.47	0.21335	0.77185	0.21100	1532.23462	0.0	1.296999	571.07
2.300	45.60	1.5985	561.08	196.79	0.21446	0.77283	0.21091	1531.53223	0.0	1.287906	571.03
2.310	45.43	1.6001	561.08	196.11	0.21556	0.77379	0.21082	1530.91577	0.0	1.278838	570.99
2.320	45.27	1.6017	561.08	195.45	0.21665	0.77474	0.21074	1530.34558	0.0	1.269804	570.95
2.330	45.10	1.6033	561.08	194.79	0.21774	0.77568	0.21067	1529.81799	0.0	1.260810	570.91
2.340	44.93	1.6049	561.08	194.14	0.21881	0.77660	0.21061	1529.39722	0.0	1.251852	570.87
2.350	44.76	1.6065	561.08	193.50	0.21988	0.77751	0.21059	1529.23462	0.0	1.242921	570.84
2.360	44.59	1.6081	561.08	192.88	0.22093	0.77840	0.21064	1529.60718	0.0	1.233987	570.80
2.370	44.41	1.6096	561.07	192.28	0.22195	0.77926	0.21082	1530.92310	0.0	1.224996	570.76
2.380	44.21	1.6110	561.07	191.71	0.22292	0.78007	0.21121	1533.74390	0.0	1.215875	570.72
2.390	44.00	1.6124	561.07	191.18	0.22382	0.78083	0.21189	1538.68396	0.0	1.206532	570.67
2.400	35.68	1.6136	560.99	190.41	0.22484	0.78188	0.21288	1545.85913	0.0	1.196908	570.62
2.410	35.47	1.6149	560.99	189.93	0.22571	0.78261	0.21356	1550.83154	0.0	1.187180	570.58
2.420	35.27	1.6163	560.99	189.40	0.22662	0.78337	0.21397	1553.75439	0.0	1.177878	570.53
2.430	35.09	1.6177	560.98	188.86	0.22756	0.78414	0.21417	1555.20776	0.0	1.168938	570.49
2.440	34.91	1.6191	560.98	188.31	0.22852	0.78492	0.21423	1555.68823	0.0	1.160257	570.45
2.450	34.74	1.6205	560.98	187.76	0.22949	0.78571	0.21421	1555.54260	0.0	1.152119	570.41
2.460	34.57	1.6220	560.98	187.21	0.23046	0.78649	0.21414	1555.01318	0.0	1.144253	570.38
2.470	34.40	1.6234	560.98	186.67	0.23143	0.78726	0.21403	1554.24634	0.0	1.136491	570.34
2.480	34.23	1.6248	560.98	186.14	0.23240	0.78802	0.21391	1553.33313	0.0	1.128805	570.31
2.490	34.07	1.6263	560.98	185.61	0.23336	0.78878	0.21377	1552.33215	0.0	1.121178	570.27
2.500	33.90	1.6277	560.97	185.09	0.23432	0.78952	0.21363	1551.28406	0.0	1.113600	570.24
2.510	33.74	1.6291	560.97	184.57	0.23527	0.79026	0.21348	1550.21680	0.0	1.106062	570.20

2.520	33.57	1.6305	560.97	184.06	0.23622	0.79099	0.21333	1549.15027	0.0	1.098560	570.17
2.530	33.41	1.6319	560.97	183.55	0.23716	0.79172	0.21319	1548.09802	0.0	1.091089	570.13
2.540	33.24	1.6333	560.97	183.05	0.23809	0.79243	0.21305	1547.06836	0.0	1.083646	570.10
2.550	33.08	1.6347	560.97	182.55	0.23902	0.79314	0.21291	1546.06555	0.0	1.076231	570.06
2.560	32.91	1.6361	560.96	182.06	0.23995	0.79384	0.21277	1545.09094	0.0	1.068841	570.03
2.570	32.75	1.6374	560.96	181.58	0.24087	0.79453	0.21264	1544.14380	0.0	1.061477	569.99
2.580	32.58	1.6388	560.96	181.10	0.24178	0.79521	0.21252	1543.22119	0.0	1.054139	569.96
2.590	32.42	1.6401	560.96	180.63	0.24268	0.79589	0.21239	1542.32019	0.0	1.046827	569.92
2.600	32.25	1.6415	560.96	180.16	0.24358	0.79655	0.21227	1541.43640	0.0	1.039541	569.89
2.610	32.08	1.6428	560.96	179.70	0.24447	0.79721	0.21215	1540.56824	0.0	1.032033	569.85
2.620	31.92	1.6441	560.95	179.24	0.24536	0.79786	0.21203	1539.71924	0.0	1.024304	569.82
2.630	31.75	1.6454	560.95	178.79	0.24624	0.79850	0.21192	1538.89160	0.0	1.016601	569.78
2.640	31.59	1.6467	560.95	178.35	0.24711	0.79914	0.21181	1538.07007	0.0	1.008922	569.74
2.650	31.42	1.6480	560.95	177.91	0.24798	0.79976	0.21169	1537.22351	0.0	1.001273	569.71
2.660	31.26	1.6493	560.95	177.48	0.24883	0.80038	0.21157	1536.33325	0.0	0.9936590	569.67
2.670	31.09	1.6505	560.95	177.05	0.24969	0.80099	0.21144	1535.42712	0.0	0.9860802	569.63
2.680	30.93	1.6518	560.95	176.62	0.25054	0.80160	0.21132	1534.57202	0.0	0.9785281	569.59
2.690	30.76	1.6530	560.94	176.20	0.25138	0.80220	0.21122	1533.82666	0.0	0.9709885	569.56
2.700	30.60	1.6543	560.94	175.79	0.25221	0.80278	0.21114	1533.20447	0.0	0.9634539	569.52
2.710	30.43	1.6555	560.94	175.39	0.25303	0.80336	0.21106	1532.67517	0.0	0.9559251	569.48
2.720	30.26	1.6567	560.94	174.99	0.25384	0.80393	0.21100	1532.20239	0.0	0.9484100	569.44
2.730	30.10	1.6579	560.94	174.59	0.25465	0.80450	0.21094	1531.78467	0.0	0.9409116	569.41
2.740	29.93	1.6591	560.94	174.20	0.25544	0.80505	0.21090	1531.48352	0.0	0.9334317	569.37
2.750	29.76	1.6602	560.93	173.82	0.25622	0.80559	0.21089	1531.45154	0.0	0.9259632	569.33
2.760	29.58	1.6613	560.93	173.45	0.25698	0.80612	0.21097	1531.96350	0.0	0.9184807	569.29
2.770	29.40	1.6624	560.93	173.10	0.25771	0.80662	0.21117	1533.43140	0.0	0.9110701	569.26
2.780	29.20	1.6634	560.93	172.77	0.25838	0.80709	0.21158	1536.42651	0.0	0.9039304	569.22
2.790	28.98	1.6643	560.93	172.48	0.25898	0.80751	0.21229	1541.56494	0.0	0.8966081	569.18
2.800	19.66	1.6651	560.84	171.95	0.25971	0.80821	0.21330	1548.90540	0.0	0.8890566	569.13
2.810	19.45	1.6659	560.84	171.70	0.26028	0.80861	0.21401	1554.09375	0.0	0.8814077	569.09
2.820	19.25	1.6668	560.83	171.39	0.26090	0.80904	0.21444	1557.20923	0.0	0.8740656	569.05
2.830	19.06	1.6678	560.83	171.08	0.26156	0.80950	0.21466	1558.82617	0.0	0.8669887	569.01
2.840	18.88	1.6688	560.83	170.75	0.26224	0.80996	0.21475	1559.45117	0.0	0.8601003	568.97
2.850	18.70	1.6699	560.83	170.42	0.26294	0.81043	0.21475	1559.43762	0.0	0.8533385	568.93
2.860	18.53	1.6709	560.83	170.09	0.26364	0.81090	0.21469	1559.02808	0.0	0.8466766	568.90
2.870	18.37	1.6719	560.83	169.77	0.26434	0.81136	0.21460	1558.37354	0.0	0.8400851	568.86
2.880	18.20	1.6730	560.82	169.45	0.26503	0.81182	0.21449	1557.56628	0.0	0.8335432	568.83
2.890	18.03	1.6740	560.82	169.13	0.26573	0.81228	0.21437	1556.66589	0.0	0.8270374	568.79
2.900	17.87	1.6750	560.82	168.81	0.26641	0.81273	0.21424	1555.71289	0.0	0.8205597	568.76
2.910	17.71	1.6760	560.82	168.50	0.26709	0.81317	0.21410	1554.73572	0.0	0.8141041	568.73
2.920	17.54	1.6770	560.82	168.19	0.26777	0.81361	0.21397	1553.75476	0.0	0.8076670	568.69
2.930	17.38	1.6780	560.82	167.88	0.26844	0.81405	0.21383	1552.78296	0.0	0.8012449	568.66
2.940	17.21	1.6790	560.81	167.58	0.26911	0.81448	0.21370	1551.82959	0.0	0.7958704	568.63
2.950	17.05	1.6800	560.81	167.28	0.26977	0.81491	0.21357	1550.89990	0.0	0.7905078	568.60
2.960	16.89	1.6810	560.81	166.98	0.27043	0.81533	0.21345	1549.99536	0.0	0.7851566	568.57
2.970	16.72	1.6819	560.81	166.69	0.27108	0.81575	0.21333	1549.11584	0.0	0.7798160	568.54
2.980	16.56	1.6829	560.81	166.40	0.27173	0.81616	0.21321	1548.25928	0.0	0.7744864	568.51
2.990	16.39	1.6838	560.81	166.11	0.27237	0.81657	0.21309	1547.42249	0.0	0.7691681	568.48
3.000	16.23	1.6848	560.81	165.83	0.27301	0.81698	0.21298	1546.60242	0.0	0.7638617	568.45
3.010	16.07	1.6857	560.80	165.55	0.27364	0.81738	0.21287	1545.79529	0.0	0.7585666	568.42
3.020	15.90	1.6867	560.80	165.27	0.27427	0.81777	0.21276	1544.99841	0.0	0.7532840	568.39
3.030	15.74	1.6876	560.80	164.99	0.27489	0.81817	0.21265	1544.20874	0.0	0.7480136	568.36
3.040	15.57	1.6885	560.80	164.72	0.27551	0.81855	0.21254	1543.42444	0.0	0.7427560	568.33
3.050	15.41	1.6894	560.80	164.45	0.27612	0.81894	0.21244	1542.64502	0.0	0.7375107	568.30
3.060	15.25	1.6903	560.80	164.19	0.27673	0.81932	0.21233	1541.86926	0.0	0.7322786	568.27
3.070	15.08	1.6912	560.79	163.92	0.27734	0.81969	0.21222	1541.09741	0.0	0.7270585	568.24
3.080	14.92	1.6921	560.79	163.66	0.27794	0.82007	0.21212	1540.32996	0.0	0.7218508	568.21
3.090	14.75	1.6930	560.79	163.40	0.27853	0.82043	0.21201	1539.56750	0.0	0.7166549	568.18
3.100	14.59	1.6938	560.79	163.15	0.27912	0.82080	0.21191	1538.81128	0.0	0.7114864	568.16
3.110	14.43	1.6947	560.79	162.89	0.27971	0.82116	0.21181	1538.06250	0.0	0.7072167	568.13
3.120	14.26	1.6956	560.79	162.64	0.28029	0.82152	0.21170	1537.32178	0.0	0.7025797	568.10
3.130	14.10	1.6964	560.79	162.40	0.28087	0.82187	0.21160	1536.59045	0.0	0.6979530	568.08

3.140	13.94	1.6973	560.78	162.15	0.28144	0.82222	0.21150	1535.86890	0.0	0.6933370	568.05
3.150	13.77	1.6981	560.78	161.91	0.28201	0.82257	0.21141	1535.15796	0.0	0.6887307	568.02
3.160	13.61	1.6990	560.78	161.66	0.28258	0.82291	0.21131	1534.45801	0.0	0.6841342	568.00
3.170	13.45	1.6998	560.78	161.43	0.28314	0.82325	0.21121	1533.76917	0.0	0.6795473	567.97
3.180	13.28	1.7006	560.78	161.19	0.28370	0.82359	0.21112	1533.09119	0.0	0.6749701	567.94
3.190	13.12	1.7014	560.78	160.96	0.28425	0.82392	0.21103	1532.42444	0.0	0.6704020	567.91
3.200	12.96	1.7023	560.77	160.72	0.28480	0.82425	0.21094	1531.76819	0.0	0.6658435	567.89
3.210	12.79	1.7031	560.77	160.50	0.28535	0.82458	0.21085	1531.12219	0.0	0.6612937	567.86
3.220	12.63	1.7039	560.77	160.27	0.28589	0.82490	0.21076	1530.48608	0.0	0.6567531	567.83
3.230	12.47	1.7047	560.77	160.04	0.28642	0.82522	0.21068	1529.85913	0.0	0.6522216	567.81
3.240	12.30	1.7055	560.77	159.82	0.28695	0.82554	0.21059	1529.24084	0.0	0.6476991	567.78
3.250	12.14	1.7062	560.77	159.60	0.28748	0.82585	0.21051	1528.63086	0.0	0.6431853	567.75
3.260	11.98	1.7070	560.77	159.38	0.28800	0.82616	0.21042	1528.02856	0.0	0.6389462	567.72
3.270	11.81	1.7078	560.76	159.17	0.28852	0.82647	0.21034	1527.43372	0.0	0.6349817	567.70
3.280	11.65	1.7085	560.76	158.96	0.28904	0.82677	0.21026	1526.84558	0.0	0.6310257	567.68
3.290	11.49	1.7093	560.76	158.74	0.28955	0.82707	0.21018	1526.26416	0.0	0.6270778	567.65
3.300	11.32	1.7101	560.76	158.53	0.29006	0.82737	0.21010	1525.68872	0.0	0.6231385	567.63
3.310	11.16	1.7108	560.76	158.33	0.29057	0.82767	0.21002	1525.11975	0.0	0.6192071	567.60
3.320	11.00	1.7116	560.76	158.12	0.29107	0.82796	0.20995	1524.55701	0.0	0.6152842	567.58
3.330	10.84	1.7123	560.75	157.92	0.29157	0.82825	0.20987	1524.00012	0.0	0.6113690	567.56
3.340	10.67	1.7130	560.75	157.71	0.29206	0.82854	0.20979	1523.44922	0.0	0.6074619	567.53
3.350	10.51	1.7138	560.75	157.51	0.29256	0.82882	0.20972	1522.90442	0.0	0.6035624	567.51
3.360	10.35	1.7145	560.75	157.32	0.29304	0.82911	0.20964	1522.36548	0.0	0.5996708	567.48
3.370	10.18	1.7152	560.75	157.12	0.29353	0.82939	0.20957	1521.83252	0.0	0.5957866	567.46
3.380	10.02	1.7159	560.75	156.93	0.29401	0.82966	0.20950	1521.30554	0.0	0.5919102	567.43
3.390	9.86	1.7166	560.74	156.73	0.29448	0.82994	0.20943	1520.78491	0.0	0.5880412	567.41
3.400	9.69	1.7173	560.74	156.54	0.29496	0.83021	0.20936	1520.27039	0.0	0.5841792	567.38
3.410	9.53	1.7180	560.74	156.35	0.29543	0.83048	0.20929	1519.76196	0.0	0.5803245	567.36
3.420	9.37	1.7187	560.74	156.17	0.29589	0.83074	0.20922	1519.25989	0.0	0.5766111	567.34
3.430	9.21	1.7194	560.74	155.98	0.29635	0.83101	0.20915	1518.76367	0.0	0.5733075	567.31
3.440	9.04	1.7201	560.74	155.80	0.29681	0.83127	0.20908	1518.27356	0.0	0.5700105	567.29
3.450	8.88	1.7207	560.74	155.62	0.29727	0.83153	0.20901	1517.78955	0.0	0.5667198	567.27
3.460	8.72	1.7214	560.73	155.43	0.29772	0.83179	0.20895	1517.31152	0.0	0.5634357	567.25
3.470	8.55	1.7221	560.73	155.26	0.29818	0.83204	0.20888	1516.83936	0.0	0.5601577	567.23
3.480	8.39	1.7227	560.73	155.08	0.29862	0.83229	0.20882	1516.37317	0.0	0.5568862	567.21
3.490	8.23	1.7234	560.73	154.90	0.29907	0.83254	0.20876	1515.91272	0.0	0.5536207	567.19
3.500	8.07	1.7240	560.73	154.73	0.29951	0.83279	0.20869	1515.45801	0.0	0.5503616	567.16
3.510	7.90	1.7247	560.73	154.55	0.29995	0.83304	0.20863	1515.00879	0.0	0.5471081	567.14
3.520	7.74	1.7253	560.72	154.38	0.30038	0.83328	0.20857	1514.56531	0.0	0.5438611	567.12
3.530	7.58	1.7260	560.72	154.21	0.30082	0.83353	0.20851	1514.12720	0.0	0.5406197	567.10
3.540	7.42	1.7266	560.72	154.04	0.30125	0.83377	0.20845	1513.69446	0.0	0.5373843	567.08
3.550	7.25	1.7272	560.72	153.88	0.30167	0.83400	0.20839	1513.26709	0.0	0.5341547	567.06
3.560	7.09	1.7279	560.72	153.71	0.30210	0.83424	0.20833	1512.84497	0.0	0.5309311	567.04
3.570	6.93	1.7285	560.72	153.55	0.30252	0.83447	0.20828	1512.42786	0.0	0.5277128	567.01
3.580	6.76	1.7291	560.72	153.39	0.30293	0.83470	0.20822	1512.01587	0.0	0.5245004	566.99
3.590	6.60	1.7297	560.71	153.22	0.30335	0.83493	0.20816	1511.60925	0.0	0.5202119	566.96
3.600	6.44	1.7303	560.71	153.07	0.30376	0.83516	0.20811	1511.20740	0.0	0.5159286	566.93
3.610	6.28	1.7309	560.71	152.91	0.30416	0.83538	0.20805	1510.81091	0.0	0.5116506	566.91
3.620	6.11	1.7315	560.71	152.75	0.30456	0.83560	0.20800	1510.41943	0.0	0.5073783	566.88
3.630	5.95	1.7321	560.71	152.60	0.30496	0.83582	0.20795	1510.03308	0.0	0.5031109	566.85
3.640	5.79	1.7327	560.71	152.45	0.30535	0.83603	0.20789	1509.65149	0.0	0.4988488	566.82
3.650	5.63	1.7333	560.70	152.30	0.30573	0.83625	0.20784	1509.27466	0.0	0.4945915	566.79
3.660	5.47	1.7338	560.70	152.15	0.30612	0.83646	0.20779	1508.90271	0.0	0.4903393	566.76
3.670	5.30	1.7344	560.70	152.01	0.30649	0.83666	0.20774	1508.53552	0.0	0.4860915	566.73
3.680	5.14	1.7349	560.70	151.87	0.30687	0.83687	0.20769	1508.17310	0.0	0.4818484	566.70
3.690	4.98	1.7355	560.70	151.72	0.30724	0.83707	0.20764	1507.81531	0.0	0.4776099	566.67
3.700	4.82	1.7360	560.70	151.58	0.30760	0.83727	0.20759	1507.46216	0.0	0.4733756	566.64
3.710	4.66	1.7366	560.70	151.45	0.30796	0.83746	0.20754	1507.11389	0.0	0.4691455	566.61
3.720	4.50	1.7371	560.69	151.31	0.30832	0.83766	0.20750	1506.76990	0.0	0.4649197	566.58
3.730	4.33	1.7376	560.69	151.18	0.30867	0.83785	0.20745	1506.43042	0.0	0.4606977	566.55
3.740	4.17	1.7381	560.69	151.04	0.30902	0.83803	0.20740	1506.09546	0.0	0.4564796	566.52
3.750	4.01	1.7386	560.69	150.91	0.30936	0.83822	0.20736	1505.76477	0.0	0.4522677	566.49

3.760	3.85	1.7391	560.69	150.79	0.30970	0.83840	0.20731	1505.43835	0.0	0.4490178	566.46
3.770	3.69	1.7396	560.69	150.66	0.31004	0.83859	0.20727	1505.11633	0.0	0.4453615	566.44
3.780	3.53	1.7401	560.68	150.53	0.31037	0.83876	0.20722	1504.79822	0.0	0.4417092	566.41
3.790	3.37	1.7406	560.68	150.41	0.31070	0.83894	0.20718	1504.48462	0.0	0.4380604	566.38
3.800	3.21	1.7411	560.68	150.28	0.31103	0.83912	0.20714	1504.17493	0.0	0.4344154	566.36
3.810	3.04	1.7416	560.68	150.16	0.31135	0.83929	0.20710	1503.86926	0.0	0.4307737	566.33
3.820	2.88	1.7420	560.68	150.04	0.31167	0.83946	0.20706	1503.56763	0.0	0.4271357	566.30
3.830	2.72	1.7425	560.68	149.93	0.31198	0.83963	0.20701	1503.27014	0.0	0.4235007	566.27
3.840	2.56	1.7429	560.68	149.81	0.31229	0.83979	0.20697	1502.97632	0.0	0.4198693	566.25
3.850	2.40	1.7434	560.67	149.69	0.31260	0.83996	0.20693	1502.68640	0.0	0.4162408	566.22
3.860	2.24	1.7438	560.67	149.58	0.31290	0.84012	0.20689	1502.40063	0.0	0.4126156	566.19
3.870	2.08	1.7443	560.67	149.47	0.31320	0.84028	0.20686	1502.11829	0.0	0.4089932	566.16
3.880	1.92	1.7447	560.67	149.36	0.31350	0.84044	0.20682	1501.84009	0.0	0.4053738	566.14
3.890	1.76	1.7452	560.67	149.25	0.31379	0.84059	0.20678	1501.56567	0.0	0.4017571	566.11
3.900	1.60	1.7456	560.67	149.14	0.31408	0.84074	0.20674	1501.29480	0.0	0.3981432	566.08
3.910	1.44	1.7460	560.66	149.03	0.31436	0.84089	0.20671	1501.02759	0.0	0.3945317	566.05
3.920	1.28	1.7464	560.66	148.93	0.31464	0.84104	0.20667	1500.76392	0.0	0.3909230	566.03
3.930	1.12	1.7468	560.66	148.83	0.31492	0.84119	0.20663	1500.50403	0.0	0.3873166	566.00
3.940	0.96	1.7472	560.66	148.72	0.31519	0.84133	0.20660	1500.24744	0.0	0.3837126	565.97
3.950	0.80	1.7476	560.66	148.62	0.31546	0.84148	0.20656	1499.99426	0.0	0.3801108	565.94
3.960	0.64	1.7480	560.66	148.53	0.31573	0.84162	0.20653	1499.74438	0.0	0.3765113	565.91
3.970	0.48	1.7484	560.66	148.43	0.31599	0.84176	0.20649	1499.49744	0.0	0.3729138	565.88
3.980	0.32	1.7488	560.65	148.33	0.31625	0.84189	0.20646	1499.25330	0.0	0.3693184	565.85
3.990	0.16	1.7492	560.65	148.24	0.31651	0.84203	0.20643	1499.01135	0.0	0.3657248	565.82
4.000	0.00	1.7495	560.65	148.14	0.31676	0.84216	0.20639	1498.77100	0.0	0.3621332	565.80

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 7

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	763.926	763.926	0.0000
0.015	763.656	763.656	0.0000
0.025	763.380	763.380	0.0000
0.035	763.100	763.100	0.0000
0.045	762.815	762.815	0.0000
0.055	762.524	762.524	0.0000
0.065	762.229	762.229	0.0000
0.075	761.928	761.928	0.0000
0.085	761.622	761.622	0.0000
0.095	761.311	761.311	0.0000
0.105	760.995	760.995	0.0000
0.115	760.673	760.673	0.0000
0.125	760.346	760.346	0.0000
0.135	760.014	760.014	0.0000
0.145	759.677	759.677	0.0000
0.155	759.745	759.332	0.0000
0.165	770.508	758.840	0.0000
0.175	783.624	757.948	0.0000
0.185	788.451	756.680	0.0000
0.195	801.780	755.143	0.0000
0.205	791.772	753.407	0.0000
0.215	786.509	751.509	0.0000
0.225	800.011	749.471	0.0000
0.235	780.914	747.305	0.0000
0.245	774.259	745.020	0.0001
0.255	767.403	742.621	0.0001
0.265	760.356	740.111	0.0001

0.275	752.915	737.494	0.0001
0.285	745.003	734.772	0.0002
0.295	736.793	731.949	0.0002
0.305	736.503	729.022	0.0002
0.315	727.761	725.995	0.0003
0.325	718.905	722.865	0.0003
0.335	709.630	719.505	0.0004
0.345	700.368	716.033	0.0004
0.355	691.190	712.455	0.0005
0.365	682.159	708.780	0.0006
0.375	673.351	705.024	0.0007
0.385	664.842	701.211	0.0007
0.395	656.122	697.118	0.0008
0.405	648.308	693.228	0.0009
0.415	640.547	689.159	0.0010
0.425	632.892	684.917	0.0011
0.435	625.391	680.516	0.0012
0.445	618.083	675.970	0.0013
0.455	610.992	671.288	0.0014
0.465	604.120	666.479	0.0015
0.475	597.472	661.550	0.0016
0.485	591.036	656.506	0.0018
0.495	584.800	651.352	0.0019
0.505	578.743	646.093	0.0020
0.515	572.841	640.734	0.0022
0.525	567.083	635.283	0.0023
0.535	561.439	629.744	0.0025
0.545	555.887	624.124	0.0026
0.555	550.403	618.431	0.0028
0.565	544.978	612.672	0.0029
0.575	539.574	606.853	0.0031
0.585	534.190	600.983	0.0032
0.595	528.803	595.069	0.0034
0.605	523.409	589.118	0.0036
0.615	518.311	583.518	0.0038
0.625	513.432	578.101	0.0039
0.635	508.533	572.684	0.0041
0.645	503.601	567.255	0.0043
0.655	498.746	561.989	0.0045
0.665	493.991	556.886	0.0047
0.675	489.194	551.780	0.0048
0.685	484.388	546.682	0.0050
0.695	479.560	541.601	0.0052
0.705	474.719	536.544	0.0054
0.715	469.882	531.511	0.0056
0.725	465.044	526.505	0.0058
0.735	460.208	521.527	0.0060
0.745	455.393	516.582	0.0062
0.755	450.573	511.681	0.0064
0.765	445.819	506.841	0.0066
0.775	441.123	502.094	0.0068
0.785	436.519	497.470	0.0070
0.795	431.605	492.552	0.0073
0.805	427.241	488.219	0.0075
0.815	422.826	483.831	0.0077
0.825	418.488	479.544	0.0079
0.835	414.142	475.247	0.0082
0.845	409.815	470.960	0.0084
0.855	405.520	466.697	0.0086
0.865	401.247	462.464	0.0088
0.875	397.023	458.267	0.0090
0.885	392.845	454.109	0.0092

0.895	388.704	449.993	0.0095
0.905	384.612	445.920	0.0097
0.915	380.587	441.892	0.0099
0.925	376.591	437.909	0.0101
0.935	372.679	433.973	0.0104
0.945	368.789	430.083	0.0106
0.955	364.969	426.240	0.0108
0.965	361.202	422.445	0.0111
0.975	357.490	418.696	0.0113
0.985	353.891	415.065	0.0115
0.995	350.338	411.481	0.0118
1.005	346.829	407.944	0.0120
1.015	343.387	404.453	0.0122
1.025	339.995	401.008	0.0125
1.035	336.677	397.608	0.0127
1.045	333.397	394.254	0.0129
1.055	330.160	390.943	0.0132
1.065	326.995	387.674	0.0134
1.075	323.873	384.447	0.0137
1.085	320.822	381.264	0.0139
1.095	317.824	378.126	0.0141
1.105	314.837	375.033	0.0144
1.115	311.920	371.984	0.0146
1.125	309.061	368.976	0.0149
1.135	306.261	366.010	0.0151
1.145	303.508	363.095	0.0154
1.155	300.807	360.227	0.0156
1.165	298.133	357.416	0.0159
1.175	295.561	354.677	0.0162
1.185	293.095	352.023	0.0165
1.195	290.346	349.074	0.0168
1.205	288.003	346.588	0.0171
1.215	285.652	344.054	0.0174
1.225	283.310	341.519	0.0177
1.235	281.033	338.992	0.0179
1.245	278.740	336.490	0.0182
1.255	276.481	334.014	0.0184
1.265	274.290	331.566	0.0187
1.275	272.128	329.146	0.0190
1.285	270.002	326.754	0.0192
1.295	267.920	324.391	0.0195
1.305	265.831	322.061	0.0197
1.315	263.814	319.763	0.0200
1.325	261.811	317.494	0.0202
1.335	259.860	315.254	0.0205
1.345	257.938	313.042	0.0207
1.355	256.055	310.857	0.0210
1.365	254.161	308.700	0.0213
1.375	252.349	306.570	0.0215
1.385	250.552	304.466	0.0218
1.395	248.730	302.389	0.0220
1.405	247.050	300.338	0.0223
1.415	245.303	298.312	0.0226
1.425	243.603	296.310	0.0228
1.435	241.934	294.334	0.0231
1.445	240.315	292.381	0.0233
1.455	238.716	290.451	0.0236
1.465	237.137	288.545	0.0239
1.475	235.620	286.670	0.0241
1.485	234.081	284.818	0.0244
1.495	232.575	282.991	0.0247
1.505	231.109	281.189	0.0249

1.515	229.634	279.411	0.0252
1.525	228.215	277.654	0.0254
1.535	226.821	275.920	0.0257
1.545	225.452	274.208	0.0260
1.555	224.093	272.520	0.0263
1.565	222.779	270.870	0.0265
1.575	221.504	269.266	0.0268
1.585	220.233	267.719	0.0271
1.595	218.743	265.900	0.0275
1.605	217.619	264.448	0.0279
1.615	216.436	262.948	0.0282
1.625	215.225	261.444	0.0285
1.635	214.077	259.944	0.0288
1.645	212.908	258.455	0.0291
1.655	211.789	256.980	0.0293
1.665	210.669	255.521	0.0296
1.675	209.549	254.077	0.0298
1.685	208.480	252.648	0.0301
1.695	207.384	251.234	0.0303
1.705	206.366	249.835	0.0306
1.715	205.294	248.451	0.0308
1.725	204.278	247.082	0.0311
1.735	203.260	245.728	0.0313
1.745	202.270	244.389	0.0316
1.755	201.278	243.064	0.0319
1.765	200.292	241.754	0.0321
1.775	199.336	240.458	0.0324
1.785	198.402	239.176	0.0326
1.795	197.452	237.909	0.0329
1.805	196.556	236.656	0.0331
1.815	195.637	235.417	0.0334
1.825	194.751	234.192	0.0336
1.835	193.898	232.981	0.0339
1.845	193.046	231.782	0.0341
1.855	192.172	230.596	0.0344
1.865	191.312	229.421	0.0346
1.875	190.512	228.259	0.0349
1.885	189.653	227.109	0.0351
1.895	188.904	225.974	0.0354
1.905	188.059	224.851	0.0356
1.915	187.288	223.742	0.0359
1.925	186.459	222.645	0.0361
1.935	185.708	221.559	0.0364
1.945	184.958	220.486	0.0366
1.955	184.242	219.431	0.0369
1.965	183.530	218.405	0.0372
1.975	182.834	217.417	0.0375
1.985	182.168	216.476	0.0378
1.995	181.294	215.283	0.0382
2.005	180.718	214.408	0.0386
2.015	180.033	213.483	0.0389
2.025	179.460	212.548	0.0392
2.035	178.759	211.609	0.0395
2.045	178.115	210.673	0.0397
2.055	177.477	209.745	0.0400
2.065	176.868	208.826	0.0402
2.075	176.266	207.915	0.0404
2.085	175.649	207.013	0.0407
2.095	175.082	206.120	0.0409
2.105	174.501	205.236	0.0411
2.115	173.905	204.361	0.0413
2.125	173.360	203.495	0.0416

2.135	172.800	202.639	0.0418
2.145	172.178	201.792	0.0420
2.155	171.607	200.954	0.0422
2.165	171.070	200.125	0.0424
2.175	170.538	199.306	0.0427
2.185	170.041	198.495	0.0429
2.195	169.481	197.693	0.0431
2.205	168.956	196.900	0.0433
2.215	168.437	196.115	0.0435
2.225	167.905	195.339	0.0438
2.235	167.499	194.571	0.0440
2.245	167.010	193.811	0.0442
2.255	166.420	193.059	0.0444
2.265	165.926	192.314	0.0446
2.275	165.524	191.576	0.0448
2.285	165.056	190.849	0.0450
2.295	164.573	190.132	0.0452
2.305	164.147	189.426	0.0455
2.315	163.654	188.729	0.0457
2.325	163.254	188.043	0.0459
2.335	162.788	187.365	0.0461
2.345	162.381	186.696	0.0463
2.355	161.973	186.044	0.0465
2.365	161.520	185.415	0.0468
2.375	161.197	184.818	0.0470
2.385	160.811	184.263	0.0473
2.395	160.276	183.467	0.0478
2.405	159.989	182.962	0.0481
2.415	159.608	182.409	0.0484
2.425	159.221	181.843	0.0487
2.435	158.915	181.269	0.0489
2.445	158.477	180.693	0.0492
2.455	158.184	180.122	0.0494
2.465	157.789	179.556	0.0495
2.475	157.481	178.996	0.0497
2.485	157.070	178.440	0.0499
2.495	156.746	177.891	0.0501
2.505	156.490	177.347	0.0502
2.515	156.072	176.809	0.0504
2.525	155.800	176.278	0.0506
2.535	155.521	175.752	0.0507
2.545	155.215	175.232	0.0509
2.555	154.858	174.718	0.0511
2.565	154.536	174.210	0.0512
2.575	154.224	173.708	0.0514
2.585	153.903	173.212	0.0516
2.595	153.654	172.722	0.0517
2.605	153.317	172.237	0.0519
2.615	153.052	171.759	0.0520
2.625	152.699	171.287	0.0522
2.635	152.482	170.820	0.0524
2.645	152.194	170.360	0.0525
2.655	151.899	169.904	0.0527
2.665	151.614	169.453	0.0528
2.675	151.369	169.008	0.0530
2.685	151.134	168.568	0.0531
2.695	150.891	168.136	0.0533
2.705	150.640	167.710	0.0534
2.715	150.298	167.290	0.0536
2.725	150.113	166.877	0.0537
2.735	149.838	166.469	0.0539
2.745	149.637	166.069	0.0540

2.755	149.339	165.682	0.0542
2.765	149.187	165.313	0.0544
2.775	148.924	164.971	0.0546
2.785	148.792	164.664	0.0549
2.795	148.412	164.117	0.0553
2.805	148.215	163.851	0.0556
2.815	148.034	163.535	0.0559
2.825	147.804	163.205	0.0561
2.835	147.701	162.865	0.0563
2.845	147.434	162.519	0.0565
2.855	147.250	162.175	0.0566
2.865	147.063	161.834	0.0567
2.875	146.787	161.495	0.0569
2.885	146.625	161.160	0.0570
2.895	146.426	160.828	0.0571
2.905	146.223	160.499	0.0572
2.915	146.015	160.174	0.0573
2.925	145.857	159.853	0.0574
2.935	145.640	159.535	0.0575
2.945	145.452	159.220	0.0576
2.955	145.314	158.908	0.0577
2.965	145.084	158.600	0.0578
2.975	144.938	158.295	0.0580
2.985	144.788	157.994	0.0581
2.995	144.634	157.696	0.0582
3.005	144.475	157.400	0.0583
3.015	144.226	157.108	0.0584
3.025	144.148	156.820	0.0585
3.035	143.890	156.534	0.0586
3.045	143.717	156.251	0.0587
3.055	143.540	155.971	0.0588
3.065	143.448	155.694	0.0589
3.075	143.206	155.421	0.0590
3.085	143.165	155.149	0.0591
3.095	143.005	154.881	0.0592
3.105	142.780	154.615	0.0593
3.115	142.671	154.352	0.0594
3.125	142.560	154.091	0.0594
3.135	142.356	153.833	0.0595
3.145	142.180	153.578	0.0596
3.155	142.060	153.325	0.0597
3.165	141.846	153.074	0.0598
3.175	141.810	152.826	0.0599
3.185	141.559	152.581	0.0600
3.195	141.518	152.338	0.0601
3.205	141.382	152.098	0.0602
3.215	141.275	151.860	0.0603
3.225	141.103	151.624	0.0604
3.235	140.959	151.391	0.0604
3.245	140.843	151.161	0.0605
3.255	140.693	150.932	0.0606
3.265	140.540	150.706	0.0607
3.275	140.447	150.482	0.0608
3.285	140.320	150.260	0.0609
3.295	140.160	150.040	0.0610
3.305	140.090	149.822	0.0610
3.315	139.925	149.606	0.0611
3.325	139.757	149.393	0.0612
3.335	139.680	149.181	0.0613
3.345	139.507	148.971	0.0614
3.355	139.425	148.763	0.0614
3.365	139.341	148.558	0.0615

3.375	139.161	148.354	0.0616
3.385	139.073	148.152	0.0617
3.395	139.012	147.952	0.0618
3.405	138.888	147.754	0.0618
3.415	138.699	147.558	0.0619
3.425	138.602	147.364	0.0620
3.435	138.502	147.171	0.0621
3.445	138.431	146.980	0.0621
3.455	138.328	146.791	0.0622
3.465	138.193	146.603	0.0623
3.475	138.086	146.417	0.0624
3.485	138.006	146.232	0.0624
3.495	137.895	146.049	0.0625
3.505	137.848	145.868	0.0626
3.515	137.763	145.689	0.0627
3.525	137.646	145.510	0.0627
3.535	137.528	145.334	0.0628
3.545	137.378	145.159	0.0629
3.555	137.286	144.986	0.0629
3.565	137.257	144.814	0.0630
3.575	137.102	144.644	0.0631
3.585	137.099	144.475	0.0632
3.595	136.969	144.309	0.0632
3.605	136.836	144.145	0.0633
3.615	136.702	143.983	0.0634
3.625	136.661	143.823	0.0634
3.635	136.521	143.665	0.0635
3.645	136.476	143.509	0.0636
3.655	136.429	143.355	0.0636
3.665	136.379	143.203	0.0637
3.675	136.231	143.053	0.0637
3.685	136.178	142.905	0.0638
3.695	136.122	142.758	0.0639
3.705	135.996	142.614	0.0639
3.715	135.937	142.472	0.0640
3.725	135.749	142.331	0.0640
3.735	135.714	142.193	0.0641
3.745	135.619	142.056	0.0642
3.755	135.581	141.921	0.0642
3.765	135.511	141.788	0.0643
3.775	135.441	141.656	0.0643
3.785	135.339	141.526	0.0644
3.795	135.293	141.397	0.0644
3.805	135.217	141.270	0.0645
3.815	135.139	141.145	0.0645
3.825	135.060	141.022	0.0646
3.835	135.048	140.899	0.0646
3.845	134.994	140.779	0.0647
3.855	134.811	140.660	0.0647
3.865	134.893	140.543	0.0648
3.875	134.735	140.427	0.0648
3.885	134.744	140.313	0.0649
3.895	134.652	140.200	0.0649
3.905	134.560	140.089	0.0650
3.915	134.465	139.980	0.0650
3.925	134.397	139.872	0.0651
3.935	134.370	139.766	0.0651
3.945	134.369	139.661	0.0652
3.955	134.268	139.558	0.0652
3.965	134.265	139.456	0.0653
3.975	134.160	139.356	0.0653
3.985	134.154	139.257	0.0653

3.995 134.046 139.160
IPROBLEM TITLE : BWR FUEL BUNDLE

0.0654

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 8

	DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
	FLUX	BORON	CHF	CHTEMP.							
(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)			
(MW/M2)	(DEG-K)										
0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.23411	1700.00012	0.0	0.000000	255.37
0.010	100.03	1.2113	548.30	763.93	0.00000	0.00000	0.23401	1699.27502	0.0	4.574436	580.26
0.020	99.93	1.2120	548.44	763.67	0.00000	0.00000	0.23387	1698.28748	0.0	4.524393	580.15
0.030	99.84	1.2127	548.58	763.41	0.00000	0.00000	0.23372	1697.20544	0.0	4.476390	580.04
0.040	99.74	1.2135	548.72	763.14	0.00000	0.00000	0.23357	1696.09106	0.0	4.430223	579.94
0.050	99.65	1.2142	548.87	762.86	0.00000	0.00000	0.23341	1694.96899	0.0	4.385759	579.84
0.060	99.55	1.2150	549.01	762.59	0.00000	0.00000	0.23326	1693.84912	0.0	4.342895	579.75
0.070	99.46	1.2158	549.16	762.30	0.00000	0.00000	0.23311	1692.73584	0.0	4.301499	579.65
0.080	99.36	1.2166	549.32	762.01	0.00000	0.00000	0.23295	1691.63086	0.0	4.261506	579.56
0.090	99.27	1.2174	549.47	761.72	0.00000	0.00000	0.23280	1690.53503	0.0	4.222816	579.47
0.100	99.18	1.2182	549.63	761.42	0.00000	0.00000	0.23265	1689.44897	0.0	4.185354	579.39
0.110	99.08	1.2190	549.78	761.12	0.00000	0.00000	0.23250	1688.37378	0.0	4.149057	579.31
0.120	98.99	1.2199	549.94	760.82	0.00000	0.00000	0.23236	1687.31213	0.0	4.113858	579.23
0.130	98.89	1.2207	550.11	760.50	0.00000	0.00000	0.23221	1686.26831	0.0	4.079683	579.15
0.140	98.80	1.2216	550.27	760.19	0.00000	0.00000	0.23207	1685.25049	0.0	4.046489	579.08
0.150	98.70	1.2224	550.44	759.87	0.00000	0.00000	0.23194	1684.27246	0.0	4.014209	579.00
0.160	98.61	1.2233	550.61	759.54	0.00000	0.00000	0.23181	1683.35608	0.0	3.982790	578.93
0.170	98.51	1.2242	550.78	759.21	0.00000	0.00000	0.23170	1682.53528	0.0	3.952174	578.86
0.180	98.42	1.2251	550.95	758.84	0.00000	0.00005	0.23160	1681.80103	0.0	3.922313	578.80
0.190	98.32	1.2261	551.13	758.18	0.00000	0.00049	0.23148	1680.95813	0.0	3.893225	578.73
0.200	98.23	1.2270	551.31	757.15	0.00001	0.00145	0.23134	1679.89966	0.0	3.864943	578.67
0.210	98.13	1.2279	551.49	755.83	0.00002	0.00280	0.23117	1678.70020	0.0	3.837435	578.61
0.220	98.03	1.2289	551.67	754.29	0.00004	0.00444	0.23100	1677.44385	0.0	3.810637	578.55
0.230	97.93	1.2299	551.85	752.59	0.00006	0.00631	0.23082	1676.17712	0.0	3.784477	578.49
0.240	97.83	1.2308	552.04	750.74	0.00010	0.00839	0.23065	1674.92078	0.0	3.758922	578.43
0.250	97.73	1.2318	552.23	748.76	0.00015	0.01063	0.23048	1673.67957	0.0	3.733930	578.38
0.260	97.62	1.2328	552.42	746.65	0.00021	0.01305	0.23031	1672.45227	0.0	3.709482	578.32
0.270	97.52	1.2338	552.61	744.44	0.00028	0.01561	0.23014	1671.23804	0.0	3.685547	578.27
0.280	97.42	1.2349	552.81	742.11	0.00037	0.01833	0.22998	1670.03784	0.0	3.662114	578.22
0.290	97.32	1.2359	553.00	739.68	0.00047	0.02119	0.22982	1668.85193	0.0	3.639153	578.17
0.300	97.21	1.2370	553.20	737.14	0.00059	0.02419	0.22965	1667.67834	0.0	3.616654	578.12
0.310	97.11	1.2380	553.40	734.51	0.00073	0.02732	0.22949	1666.51257	0.0	3.594605	578.07
0.320	97.00	1.2391	553.61	731.77	0.00088	0.03059	0.22933	1665.35083	0.0	3.572989	578.02
0.330	96.90	1.2402	553.81	728.94	0.00105	0.03400	0.22917	1664.19580	0.0	3.551798	577.98
0.340	96.79	1.2413	554.02	725.89	0.00124	0.03770	0.22902	1663.06372	0.0	3.532192	577.94
0.350	96.69	1.2424	554.23	722.74	0.00146	0.04154	0.22887	1661.99060	0.0	3.512922	577.90
0.360	96.58	1.2435	554.44	719.49	0.00169	0.04552	0.22874	1661.06738	0.0	3.493944	577.86
0.370	96.47	1.2447	554.66	716.15	0.00194	0.04963	0.22867	1660.52637	0.0	3.475183	577.82
0.380	96.36	1.2458	554.88	712.73	0.00221	0.05384	0.22873	1660.98608	0.0	3.456586	577.78
0.390	96.24	1.2469	555.09	709.31	0.00249	0.05807	0.22916	1664.10583	0.0	3.438050	577.74
0.400	93.64	1.2480	555.29	705.79	0.00279	0.06246	0.23057	1674.35547	0.0	3.418864	577.69
0.410	93.52	1.2492	555.51	702.59	0.00306	0.06637	0.23103	1677.67505	0.0	3.398749	577.65
0.420	93.41	1.2504	555.73	698.97	0.00339	0.07085	0.23110	1678.15173	0.0	3.380615	577.61
0.430	93.30	1.2516	555.96	695.13	0.00374	0.07565	0.23100	1677.44434	0.0	3.363533	577.57
0.440	93.19	1.2528	556.19	691.14	0.00412	0.08066	0.23083	1676.23303	0.0	3.347064	577.54
0.450	93.07	1.2540	556.42	687.03	0.00452	0.08583	0.23063	1674.79626	0.0	3.330971	577.51
0.460	92.96	1.2553	556.65	682.80	0.00495	0.09117	0.23042	1673.25049	0.0	3.315163	577.47
0.470	92.85	1.2565	556.89	678.47	0.00539	0.09665	0.23020	1671.64539	0.0	3.299596	577.44
0.480	92.73	1.2578	557.13	674.04	0.00585	0.10228	0.22997	1670.00232	0.0	3.284249	577.42
0.490	92.62	1.2591	557.37	669.50	0.00633	0.10805	0.22974	1668.33118	0.0	3.269114	577.39
0.500	92.50	1.2604	557.62	664.87	0.00683	0.11395	0.22951	1666.63623	0.0	3.254181	577.36

0.510	92.38	1.2618	557.86	660.14	0.00735	0.11999	0.22927	1664.92017	0.0	3.239446	577.33
0.520	92.27	1.2631	558.11	655.31	0.00789	0.12617	0.22904	1663.18445	0.0	3.224904	577.30
0.530	92.15	1.2644	558.37	650.40	0.00844	0.13247	0.22879	1661.42993	0.0	3.210545	577.28
0.540	92.03	1.2658	558.62	645.40	0.00902	0.13890	0.22855	1659.65771	0.0	3.196368	577.25
0.550	91.91	1.2672	558.88	640.32	0.00961	0.14545	0.22830	1657.86902	0.0	3.182371	577.23
0.560	91.79	1.2686	559.14	635.16	0.01022	0.15211	0.22805	1656.06250	0.0	3.168548	577.20
0.570	91.67	1.2700	559.40	629.92	0.01085	0.15887	0.22780	1654.23572	0.0	3.154897	577.18
0.580	91.55	1.2714	559.66	624.62	0.01150	0.16574	0.22755	1652.38184	0.0	3.141419	577.16
0.590	91.42	1.2729	559.93	619.25	0.01216	0.17270	0.22729	1650.49280	0.0	3.128117	577.13
0.600	91.30	1.2743	560.20	613.83	0.01284	0.17975	0.22702	1648.54834	0.0	3.114991	577.11
0.610	91.18	1.2758	560.47	608.35	0.01354	0.18687	0.22674	1646.51733	0.0	3.102057	577.09
0.620	91.05	1.2773	560.75	602.82	0.01426	0.19407	0.22644	1644.35840	0.0	3.089326	577.07
0.630	90.93	1.2788	561.02	597.25	0.01499	0.20134	0.22614	1642.14783	0.0	3.076786	577.05
0.640	90.80	1.2803	561.30	591.64	0.01574	0.20866	0.22584	1639.99023	0.0	3.064385	577.03
0.650	90.67	1.2818	561.51	586.29	0.01648	0.21579	0.22560	1638.20081	0.0	3.052020	577.01
0.660	90.55	1.2834	561.51	581.37	0.01723	0.22283	0.22541	1636.83228	0.0	3.037978	576.97
0.670	90.43	1.2849	561.51	576.62	0.01796	0.22962	0.22523	1635.54443	0.0	3.022378	576.92
0.680	90.30	1.2865	561.51	571.86	0.01870	0.23643	0.22505	1634.27441	0.0	3.006971	576.88
0.690	90.18	1.2880	561.51	567.10	0.01945	0.24324	0.22488	1633.03479	0.0	2.991773	576.84
0.700	90.05	1.2896	561.51	562.34	0.02022	0.25005	0.22472	1631.82129	0.0	2.976781	576.80
0.710	89.93	1.2912	561.50	557.58	0.02099	0.25686	0.22455	1630.62207	0.0	2.962010	576.76
0.720	89.80	1.2928	561.50	552.83	0.02178	0.26366	0.22439	1629.44385	0.0	2.947456	576.71
0.730	89.68	1.2944	561.50	548.09	0.02259	0.27044	0.22423	1628.29895	0.0	2.933112	576.67
0.740	89.55	1.2960	561.50	543.36	0.02340	0.27720	0.22408	1627.21313	0.0	2.918957	576.63
0.750	89.42	1.2976	561.50	538.66	0.02422	0.28393	0.22395	1626.24207	0.0	2.904976	576.59
0.760	89.29	1.2992	561.50	533.98	0.02506	0.29062	0.22385	1625.51782	0.0	2.891129	576.55
0.770	89.16	1.3008	561.50	529.35	0.02590	0.29724	0.22383	1625.37524	0.0	2.877361	576.52
0.780	89.02	1.3024	561.50	524.86	0.02673	0.30367	0.22401	1626.69763	0.0	2.863780	576.48
0.790	88.88	1.3039	561.49	520.65	0.02752	0.30969	0.22469	1631.62512	0.0	2.850188	576.44
0.800	85.45	1.3053	561.46	516.54	0.02828	0.31556	0.22661	1645.60327	0.0	2.835917	576.39
0.810	85.31	1.3068	561.46	512.91	0.02899	0.32081	0.22734	1650.85889	0.0	2.819964	576.34
0.820	85.17	1.3084	561.46	508.80	0.02980	0.32670	0.22752	1652.18994	0.0	2.805380	576.29
0.830	85.04	1.3101	561.46	504.64	0.03063	0.33265	0.22746	1651.75635	0.0	2.789802	576.25
0.840	84.91	1.3117	561.46	500.43	0.03149	0.33866	0.22730	1650.56250	0.0	2.774930	576.20
0.850	84.78	1.3134	561.46	496.23	0.03237	0.34468	0.22709	1649.05713	0.0	2.760441	576.16
0.860	84.65	1.3150	561.45	492.04	0.03326	0.35066	0.22687	1647.42627	0.0	2.746208	576.12
0.870	84.52	1.3167	561.45	487.88	0.03416	0.35661	0.22663	1645.74744	0.0	2.732173	576.08
0.880	84.39	1.3184	561.45	483.76	0.03507	0.36252	0.22640	1644.05273	0.0	2.718319	576.04
0.890	84.25	1.3201	561.45	479.66	0.03599	0.36837	0.22617	1642.35999	0.0	2.704633	576.00
0.900	84.12	1.3218	561.45	475.61	0.03693	0.37417	0.22594	1640.68323	0.0	2.691110	575.96
0.910	83.99	1.3235	561.45	471.59	0.03787	0.37992	0.22571	1639.03235	0.0	2.677740	575.92
0.920	83.86	1.3252	561.45	467.61	0.03881	0.38561	0.22549	1637.41370	0.0	2.664520	575.88
0.930	83.73	1.3269	561.45	463.67	0.03977	0.39125	0.22527	1635.83154	0.0	2.651447	575.84
0.940	83.59	1.3287	561.44	459.77	0.04074	0.39682	0.22506	1634.28845	0.0	2.638517	575.80
0.950	83.46	1.3304	561.44	455.92	0.04171	0.40233	0.22485	1632.78540	0.0	2.625728	575.77
0.960	83.33	1.3321	561.44	452.11	0.04269	0.40778	0.22465	1631.32361	0.0	2.613078	575.73
0.970	83.19	1.3338	561.44	448.34	0.04368	0.41317	0.22445	1629.90002	0.0	2.600565	575.69
0.980	83.06	1.3356	561.44	444.61	0.04468	0.41850	0.22426	1628.50854	0.0	2.588190	575.65
0.990	82.93	1.3373	561.44	441.01	0.04566	0.42365	0.22407	1627.13245	0.0	2.574394	575.61
1.000	82.79	1.3391	561.44	437.45	0.04665	0.42874	0.22389	1625.78442	0.0	2.560762	575.57
1.010	82.66	1.3408	561.44	433.94	0.04764	0.43377	0.22370	1624.46838	0.0	2.547289	575.53
1.020	82.52	1.3426	561.43	430.47	0.04864	0.43873	0.22353	1623.18530	0.0	2.533971	575.49
1.030	82.39	1.3443	561.43	427.04	0.04964	0.44364	0.22336	1621.93713	0.0	2.520805	575.45
1.040	82.25	1.3461	561.43	423.66	0.05066	0.44848	0.22319	1620.72290	0.0	2.507789	575.41
1.050	82.12	1.3478	561.43	420.31	0.05167	0.45326	0.22303	1619.53943	0.0	2.494923	575.37
1.060	81.98	1.3496	561.43	417.01	0.05270	0.45798	0.22287	1618.38281	0.0	2.482202	575.33
1.070	81.85	1.3514	561.43	413.75	0.05373	0.46264	0.22271	1617.25269	0.0	2.469619	575.29
1.080	81.71	1.3531	561.43	410.53	0.05476	0.46725	0.22256	1616.15527	0.0	2.457167	575.25
1.090	81.58	1.3549	561.43	407.35	0.05580	0.47179	0.22241	1615.09778	0.0	2.444846	575.22
1.100	81.44	1.3567	561.42	404.22	0.05684	0.47627	0.22227	1614.08508	0.0	2.432663	575.18
1.110	81.30	1.3584	561.42	401.13	0.05789	0.48069	0.22214	1613.11511	0.0	2.420626	575.14
1.120	81.16	1.3602	561.42	398.08	0.05894	0.48505	0.22201	1612.18372	0.0	2.408735	575.10

1.130	81.03	1.3620	561.42	395.08	0.06000	0.48935	0.22189	1611.29102	0.0	2.396985	575.07
1.140	80.89	1.3637	561.42	392.11	0.06106	0.49359	0.22177	1610.45068	0.0	2.385367	575.03
1.150	80.75	1.3655	561.42	389.20	0.06211	0.49775	0.22167	1609.70776	0.0	2.373485	574.99
1.160	80.61	1.3673	561.42	386.34	0.06317	0.50184	0.22160	1609.19385	0.0	2.361574	574.95
1.170	80.47	1.3690	561.42	383.55	0.06422	0.50584	0.22161	1609.24817	0.0	2.349769	574.92
1.180	80.32	1.3707	561.41	380.89	0.06524	0.50964	0.22182	1610.75171	0.0	2.338130	574.88
1.190	80.16	1.3723	561.41	378.47	0.06617	0.51310	0.22252	1615.84070	0.0	2.326518	574.84
1.200	75.56	1.3736	561.37	376.08	0.06705	0.51650	0.22446	1629.97998	0.0	2.314399	574.80
1.210	75.40	1.3751	561.37	373.90	0.06792	0.51967	0.22517	1635.13184	0.0	2.300614	574.75
1.220	75.25	1.3768	561.37	371.44	0.06891	0.52320	0.22537	1636.55347	0.0	2.288592	574.71
1.230	75.11	1.3785	561.36	368.87	0.06996	0.52686	0.22535	1636.40564	0.0	2.277287	574.67
1.240	74.97	1.3802	561.36	366.31	0.07103	0.53053	0.22524	1635.63721	0.0	2.266454	574.63
1.250	74.82	1.3820	561.36	363.76	0.07211	0.53417	0.22510	1634.62085	0.0	2.255852	574.60
1.260	74.68	1.3838	561.36	361.23	0.07320	0.53778	0.22495	1633.50537	0.0	2.245398	574.57
1.270	74.54	1.3855	561.36	358.73	0.07430	0.54136	0.22479	1632.35425	0.0	2.235057	574.53
1.280	74.40	1.3873	561.36	356.26	0.07540	0.54489	0.22463	1631.19421	0.0	2.224818	574.50
1.290	74.26	1.3891	561.36	353.82	0.07651	0.54839	0.22447	1630.03796	0.0	2.214675	574.47
1.300	74.11	1.3909	561.35	351.40	0.07762	0.55184	0.22431	1628.89282	0.0	2.204625	574.43
1.310	73.97	1.3926	561.35	349.02	0.07873	0.55525	0.22416	1627.76086	0.0	2.194411	574.40
1.320	73.83	1.3944	561.35	346.67	0.07985	0.55860	0.22400	1626.64441	0.0	2.184036	574.37
1.330	73.68	1.3962	561.35	344.35	0.08096	0.56192	0.22385	1625.54785	0.0	2.173758	574.33
1.340	73.54	1.3980	561.35	342.06	0.08208	0.56519	0.22370	1624.47388	0.0	2.163574	574.30
1.350	73.40	1.3998	561.35	339.80	0.08321	0.56842	0.22356	1623.42297	0.0	2.153483	574.27
1.360	73.25	1.4016	561.35	337.57	0.08433	0.57162	0.22342	1622.39600	0.0	2.143488	574.23
1.370	73.11	1.4034	561.35	335.37	0.08546	0.57477	0.22328	1621.39221	0.0	2.133584	574.20
1.380	72.96	1.4051	561.34	333.19	0.08659	0.57788	0.22315	1620.41150	0.0	2.123774	574.17
1.390	72.82	1.4069	561.34	331.04	0.08772	0.58095	0.22301	1619.45251	0.0	2.114056	574.14
1.400	72.67	1.4087	561.34	328.92	0.08886	0.58398	0.22288	1618.51477	0.0	2.104430	574.10
1.410	72.53	1.4105	561.34	326.83	0.08999	0.58697	0.22276	1617.59717	0.0	2.094894	574.07
1.420	72.38	1.4123	561.34	324.76	0.09113	0.58993	0.22263	1616.69922	0.0	2.085449	574.04
1.430	72.24	1.4141	561.34	322.72	0.09227	0.59284	0.22251	1615.82068	0.0	2.076091	574.01
1.440	72.09	1.4159	561.34	320.71	0.09342	0.59572	0.22239	1614.95935	0.0	2.066824	573.98
1.450	71.94	1.4177	561.33	318.72	0.09456	0.59857	0.22228	1614.10999	0.0	2.057645	573.95
1.460	71.80	1.4195	561.33	316.75	0.09571	0.60138	0.22216	1613.26819	0.0	2.048553	573.92
1.470	71.65	1.4213	561.33	314.81	0.09686	0.60416	0.22205	1612.43262	0.0	2.039290	573.88
1.480	71.50	1.4231	561.33	312.90	0.09800	0.60689	0.22193	1611.60803	0.0	2.029356	573.85
1.490	71.35	1.4248	561.33	311.01	0.09915	0.60959	0.22182	1610.80737	0.0	2.019511	573.82
1.500	71.21	1.4266	561.33	309.15	0.10029	0.61224	0.22172	1610.03638	0.0	2.009763	573.78
1.510	71.06	1.4284	561.33	307.32	0.10144	0.61486	0.22161	1609.29248	0.0	2.000120	573.75
1.520	70.91	1.4302	561.32	305.52	0.10258	0.61744	0.22151	1608.57166	0.0	1.990583	573.72
1.530	70.76	1.4320	561.32	303.74	0.10372	0.61998	0.22142	1607.87463	0.0	1.981148	573.68
1.540	70.61	1.4337	561.32	301.98	0.10486	0.62250	0.22133	1607.21729	0.0	1.971807	573.65
1.550	70.46	1.4355	561.32	300.25	0.10600	0.62497	0.22125	1606.64746	0.0	1.962554	573.62
1.560	70.31	1.4373	561.32	298.54	0.10714	0.62741	0.22120	1606.29407	0.0	1.953353	573.59
1.570	70.16	1.4390	561.32	296.89	0.10826	0.62978	0.22123	1606.50085	0.0	1.944260	573.56
1.580	70.00	1.4406	561.32	295.33	0.10932	0.63200	0.22145	1608.12256	0.0	1.935293	573.52
1.590	69.82	1.4421	561.31	293.95	0.11027	0.63398	0.22216	1613.28210	0.0	1.926343	573.49
1.600	63.92	1.4432	561.26	292.52	0.11115	0.63599	0.22412	1627.48608	0.0	1.916945	573.45
1.610	63.74	1.4447	561.26	291.22	0.11207	0.63791	0.22480	1632.43774	0.0	1.906015	573.41
1.620	63.58	1.4463	561.26	289.74	0.11311	0.64002	0.22498	1633.76526	0.0	1.896620	573.37
1.630	63.42	1.4480	561.25	288.20	0.11422	0.64223	0.22497	1633.63892	0.0	1.887792	573.34
1.640	63.27	1.4498	561.25	286.66	0.11535	0.64443	0.22487	1632.95117	0.0	1.878795	573.31
1.650	63.12	1.4515	561.25	285.12	0.11648	0.64662	0.22475	1632.05078	0.0	1.869966	573.28
1.660	62.96	1.4533	561.25	283.60	0.11761	0.64879	0.22461	1631.06531	0.0	1.861230	573.25
1.670	62.81	1.4550	561.25	282.10	0.11875	0.65095	0.22447	1630.04688	0.0	1.852569	573.22
1.680	62.66	1.4568	561.25	280.60	0.11990	0.65308	0.22433	1629.01758	0.0	1.843974	573.19
1.690	62.51	1.4585	561.25	279.12	0.12104	0.65519	0.22419	1627.98889	0.0	1.835443	573.16
1.700	62.35	1.4603	561.24	277.66	0.12219	0.65729	0.22405	1626.96716	0.0	1.826975	573.13
1.710	62.20	1.4620	561.24	276.21	0.12334	0.65936	0.22391	1625.95642	0.0	1.818570	573.10
1.720	62.04	1.4638	561.24	274.78	0.12449	0.66140	0.22377	1624.95911	0.0	1.810227	573.07
1.730	61.89	1.4655	561.24	273.36	0.12564	0.66343	0.22364	1623.97705	0.0	1.801947	573.04
1.740	61.74	1.4673	561.24	271.96	0.12678	0.66543	0.22350	1623.01111	0.0	1.793730	573.01

1.750	61.58	1.4690	561.24	270.58	0.12793	0.66741	0.22337	1622.06201	0.0	1.785577	572.98
1.760	61.43	1.4707	561.23	269.21	0.12908	0.66936	0.22324	1621.12976	0.0	1.777488	572.95
1.770	61.27	1.4725	561.23	267.86	0.13023	0.67129	0.22312	1620.21387	0.0	1.769463	572.92
1.780	61.12	1.4742	561.23	266.52	0.13137	0.67320	0.22299	1619.31360	0.0	1.761502	572.89
1.790	60.96	1.4760	561.23	265.20	0.13252	0.67509	0.22287	1618.42822	0.0	1.753604	572.86
1.800	60.81	1.4777	561.23	263.89	0.13366	0.67696	0.22275	1617.55530	0.0	1.745406	572.83
1.810	60.65	1.4794	561.23	262.60	0.13481	0.67880	0.22263	1616.69543	0.0	1.737151	572.80
1.820	60.49	1.4812	561.23	261.33	0.13595	0.68062	0.22252	1615.84949	0.0	1.728962	572.77
1.830	60.34	1.4829	561.22	260.07	0.13709	0.68242	0.22240	1615.01794	0.0	1.720839	572.74
1.840	60.18	1.4846	561.22	258.83	0.13823	0.68420	0.22229	1614.19910	0.0	1.712783	572.71
1.850	60.03	1.4863	561.22	257.59	0.13936	0.68596	0.22218	1613.38806	0.0	1.704792	572.68
1.860	59.87	1.4881	561.22	256.38	0.14050	0.68770	0.22207	1612.58228	0.0	1.696865	572.65
1.870	59.71	1.4898	561.22	255.17	0.14164	0.68943	0.22196	1611.78369	0.0	1.688993	572.62
1.880	59.55	1.4915	561.22	253.98	0.14278	0.69113	0.22185	1611.00049	0.0	1.681172	572.59
1.890	59.40	1.4932	561.22	252.80	0.14391	0.69282	0.22174	1610.24133	0.0	1.673406	572.56
1.900	59.24	1.4949	561.21	251.63	0.14504	0.69448	0.22164	1609.50916	0.0	1.665705	572.53
1.910	59.08	1.4966	561.21	250.49	0.14617	0.69612	0.22155	1608.80078	0.0	1.658080	572.50
1.920	58.92	1.4983	561.21	249.35	0.14729	0.69774	0.22145	1608.11072	0.0	1.650532	572.48
1.930	58.76	1.5000	561.21	248.24	0.14841	0.69933	0.22136	1607.44031	0.0	1.643058	572.45
1.940	58.60	1.5017	561.21	247.13	0.14953	0.70091	0.22127	1606.80750	0.0	1.635652	572.42
1.950	58.44	1.5033	561.21	246.04	0.15064	0.70247	0.22120	1606.26013	0.0	1.628305	572.39
1.960	58.28	1.5050	561.21	244.97	0.15175	0.70400	0.22115	1605.92822	0.0	1.620253	572.36
1.970	58.12	1.5066	561.20	243.94	0.15282	0.70548	0.22119	1606.18555	0.0	1.611581	572.33
1.980	57.95	1.5081	561.20	242.98	0.15381	0.70684	0.22143	1607.92896	0.0	1.603009	572.29
1.990	57.75	1.5094	561.20	242.17	0.15467	0.70800	0.22218	1613.42236	0.0	1.594424	572.26
2.000	50.54	1.5103	561.13	241.28	0.15542	0.70923	0.22427	1628.58130	0.0	1.585363	572.22
2.010	50.34	1.5115	561.13	240.50	0.15626	0.71040	0.22498	1633.74609	0.0	1.574919	572.17
2.020	50.17	1.5130	561.13	239.58	0.15724	0.71171	0.22517	1635.11145	0.0	1.565913	572.13
2.030	50.00	1.5146	561.13	238.62	0.15829	0.71309	0.22515	1634.99231	0.0	1.557413	572.10
2.040	49.84	1.5162	561.12	237.64	0.15935	0.71448	0.22506	1634.30737	0.0	1.549167	572.07
2.050	49.68	1.5178	561.12	236.68	0.16042	0.71586	0.22494	1633.41943	0.0	1.541062	572.04
2.060	49.51	1.5194	561.12	235.71	0.16150	0.71724	0.22480	1632.44775	0.0	1.533020	572.00
2.070	49.35	1.5210	561.12	234.75	0.16258	0.71861	0.22466	1631.44104	0.0	1.525027	571.97
2.080	49.19	1.5227	561.12	233.80	0.16366	0.71996	0.22452	1630.42163	0.0	1.517080	571.94
2.090	49.03	1.5243	561.12	232.86	0.16474	0.72131	0.22438	1629.40039	0.0	1.509177	571.91
2.100	48.87	1.5259	561.12	231.93	0.16582	0.72264	0.22424	1628.38477	0.0	1.501319	571.88
2.110	48.71	1.5275	561.11	231.00	0.16690	0.72396	0.22410	1627.37756	0.0	1.493507	571.85
2.120	48.54	1.5291	561.11	230.09	0.16797	0.72527	0.22397	1626.38159	0.0	1.485618	571.82
2.130	48.38	1.5307	561.11	229.19	0.16905	0.72656	0.22383	1625.39868	0.0	1.477411	571.78
2.140	48.22	1.5323	561.11	228.29	0.17011	0.72784	0.22370	1624.43030	0.0	1.469254	571.75
2.150	48.06	1.5339	561.11	227.41	0.17118	0.72910	0.22357	1623.47729	0.0	1.461146	571.72
2.160	47.89	1.5355	561.11	226.54	0.17224	0.73035	0.22344	1622.54016	0.0	1.453088	571.69
2.170	47.73	1.5371	561.10	225.67	0.17330	0.73158	0.22331	1621.61841	0.0	1.445080	571.65
2.180	47.57	1.5387	561.10	224.82	0.17435	0.73280	0.22319	1620.71155	0.0	1.437123	571.62
2.190	47.40	1.5402	561.10	223.98	0.17540	0.73400	0.22306	1619.81885	0.0	1.429216	571.59
2.200	47.24	1.5418	561.10	223.14	0.17645	0.73519	0.22294	1618.93982	0.0	1.421358	571.56
2.210	47.08	1.5433	561.10	222.32	0.17749	0.73637	0.22282	1618.07373	0.0	1.413550	571.53
2.220	46.91	1.5449	561.10	221.50	0.17852	0.73753	0.22271	1617.22058	0.0	1.405791	571.49
2.230	46.75	1.5464	561.10	220.70	0.17956	0.73868	0.22259	1616.38074	0.0	1.398080	571.46
2.240	46.59	1.5480	561.09	219.90	0.18059	0.73982	0.22248	1615.55249	0.0	1.390418	571.43
2.250	46.42	1.5495	561.09	219.12	0.18161	0.74094	0.22236	1614.73096	0.0	1.382805	571.40
2.260	46.26	1.5510	561.09	218.34	0.18263	0.74206	0.22225	1613.91284	0.0	1.375239	571.37
2.270	46.09	1.5525	561.09	217.56	0.18366	0.74316	0.22214	1613.10022	0.0	1.367714	571.34
2.280	45.93	1.5541	561.09	216.80	0.18467	0.74425	0.22203	1612.30127	0.0	1.360223	571.31
2.290	45.77	1.5556	561.09	216.05	0.18568	0.74533	0.22192	1611.52429	0.0	1.350818	571.27
2.300	45.60	1.5571	561.08	215.31	0.18668	0.74638	0.22182	1610.77454	0.0	1.341469	571.23
2.310	45.44	1.5585	561.08	214.58	0.18767	0.74742	0.22172	1610.04993	0.0	1.332183	571.19
2.320	45.27	1.5600	561.08	213.86	0.18865	0.74845	0.22162	1609.34534	0.0	1.322964	571.15
2.330	45.11	1.5614	561.08	213.16	0.18962	0.74945	0.22153	1608.66345	0.0	1.313808	571.11
2.340	44.94	1.5629	561.08	212.46	0.19059	0.75044	0.22144	1608.02319	0.0	1.304713	571.07
2.350	44.78	1.5643	561.08	211.78	0.19154	0.75142	0.22136	1607.48059	0.0	1.295655	571.03
2.360	44.61	1.5657	561.08	211.11	0.19248	0.75238	0.22132	1607.16492	0.0	1.286624	571.00

2.370	44.44	1.5670	561.07	210.47	0.19338	0.75328	0.22136	1607.47839	0.0	1.277672	570.96
2.380	44.26	1.5682	561.07	209.90	0.19419	0.75410	0.22162	1609.36438	0.0	1.268778	570.92
2.390	44.06	1.5692	561.07	209.44	0.19484	0.75476	0.22243	1615.23889	0.0	1.259825	570.88
2.400	35.62	1.5697	560.99	208.87	0.19537	0.75551	0.22467	1631.45312	0.0	1.250359	570.83
2.410	35.42	1.5706	560.99	208.44	0.19602	0.75619	0.22542	1636.95532	0.0	1.239745	570.77
2.420	35.23	1.5718	560.99	207.88	0.19681	0.75699	0.22563	1638.43787	0.0	1.230423	570.73
2.430	35.06	1.5731	560.98	207.29	0.19767	0.75784	0.22562	1638.36731	0.0	1.221544	570.69
2.440	34.89	1.5744	560.98	206.68	0.19856	0.75870	0.22553	1637.70142	0.0	1.212858	570.65
2.450	34.73	1.5757	560.98	206.08	0.19944	0.75956	0.22541	1636.82898	0.0	1.204668	570.62
2.460	34.56	1.5771	560.98	205.48	0.20033	0.76042	0.22527	1635.86609	0.0	1.196639	570.58
2.470	34.40	1.5784	560.98	204.88	0.20123	0.76127	0.22514	1634.86438	0.0	1.188641	570.55
2.480	34.23	1.5797	560.98	204.29	0.20212	0.76212	0.22500	1633.84668	0.0	1.180671	570.51
2.490	34.07	1.5810	560.98	203.70	0.20301	0.76296	0.22485	1632.82507	0.0	1.172728	570.47
2.500	33.90	1.5824	560.97	203.11	0.20390	0.76379	0.22471	1631.80640	0.0	1.164813	570.44
2.510	33.74	1.5837	560.97	202.54	0.20478	0.76462	0.22458	1630.79492	0.0	1.156926	570.40
2.520	33.57	1.5850	560.97	201.96	0.20566	0.76543	0.22444	1629.79370	0.0	1.149068	570.37
2.530	33.41	1.5863	560.97	201.40	0.20654	0.76624	0.22430	1628.80469	0.0	1.141239	570.33
2.540	33.24	1.5876	560.97	200.84	0.20740	0.76704	0.22417	1627.82886	0.0	1.133440	570.30
2.550	33.08	1.5889	560.97	200.29	0.20827	0.76783	0.22403	1626.86743	0.0	1.125671	570.26
2.560	32.91	1.5901	560.96	199.74	0.20913	0.76861	0.22390	1625.92029	0.0	1.117933	570.23
2.570	32.75	1.5914	560.96	199.20	0.20998	0.76938	0.22378	1624.98743	0.0	1.110226	570.19
2.580	32.58	1.5926	560.96	198.67	0.21082	0.77014	0.22365	1624.06812	0.0	1.102550	570.16
2.590	32.42	1.5939	560.96	198.14	0.21166	0.77089	0.22352	1623.16211	0.0	1.094905	570.12
2.600	32.25	1.5951	560.96	197.62	0.21250	0.77163	0.22340	1622.26868	0.0	1.087292	570.08
2.610	32.08	1.5964	560.96	197.11	0.21333	0.77236	0.22328	1621.38708	0.0	1.079454	570.05
2.620	31.92	1.5976	560.95	196.60	0.21415	0.77309	0.22316	1620.51794	0.0	1.071391	570.01
2.630	31.75	1.5988	560.95	196.10	0.21496	0.77380	0.22304	1619.66150	0.0	1.063357	569.97
2.640	31.59	1.6000	560.95	195.61	0.21577	0.77451	0.22293	1618.81592	0.0	1.055354	569.93
2.650	31.42	1.6012	560.95	195.12	0.21657	0.77520	0.22281	1617.97693	0.0	1.047382	569.90
2.660	31.26	1.6024	560.95	194.64	0.21737	0.77589	0.22270	1617.14075	0.0	1.039439	569.86
2.670	31.10	1.6035	560.95	194.16	0.21816	0.77657	0.22258	1616.30957	0.0	1.031518	569.82
2.680	30.93	1.6047	560.95	193.69	0.21895	0.77724	0.22247	1615.49158	0.0	1.023617	569.78
2.690	30.77	1.6059	560.94	193.22	0.21973	0.77791	0.22236	1614.69617	0.0	1.015737	569.75
2.700	30.60	1.6070	560.94	192.77	0.22050	0.77856	0.22225	1613.92822	0.0	1.007889	569.71
2.710	30.44	1.6081	560.94	192.32	0.22126	0.77920	0.22215	1613.18591	0.0	1.000077	569.67
2.720	30.27	1.6092	560.94	191.88	0.22201	0.77983	0.22205	1612.46484	0.0	0.9923062	569.63
2.730	30.11	1.6103	560.94	191.44	0.22275	0.78045	0.22195	1611.76624	0.0	0.9845752	569.59
2.740	29.94	1.6114	560.94	191.02	0.22348	0.78106	0.22186	1611.11218	0.0	0.9768766	569.56
2.750	29.78	1.6125	560.93	190.60	0.22420	0.78165	0.22179	1610.55737	0.0	0.9691929	569.52
2.760	29.61	1.6135	560.93	190.19	0.22491	0.78224	0.22175	1610.24231	0.0	0.9615241	569.48
2.770	29.44	1.6145	560.93	189.81	0.22557	0.78278	0.22179	1610.57764	0.0	0.9540288	569.44
2.780	29.26	1.6154	560.93	189.47	0.22615	0.78326	0.22206	1612.54590	0.0	0.9469429	569.41
2.790	29.04	1.6160	560.93	189.23	0.22656	0.78360	0.22291	1618.69202	0.0	0.9397497	569.37
2.800	19.60	1.6161	560.84	188.85	0.22686	0.78408	0.22526	1635.74316	0.0	0.9320279	569.32
2.810	19.38	1.6167	560.84	188.63	0.22728	0.78445	0.22605	1641.51379	0.0	0.9234564	569.27
2.820	19.20	1.6175	560.83	188.30	0.22784	0.78492	0.22627	1643.08032	0.0	0.9159674	569.23
2.830	19.03	1.6185	560.83	187.94	0.22848	0.78544	0.22626	1643.03369	0.0	0.9088441	569.19
2.840	18.86	1.6195	560.83	187.56	0.22914	0.78598	0.22617	1642.36365	0.0	0.9018649	569.16
2.850	18.69	1.6204	560.83	187.19	0.22980	0.78651	0.22605	1641.47388	0.0	0.8949720	569.12
2.860	18.53	1.6214	560.83	186.82	0.23047	0.78704	0.22591	1640.49194	0.0	0.8881032	569.08
2.870	18.36	1.6224	560.83	186.45	0.23114	0.78757	0.22577	1639.46875	0.0	0.8812478	569.05
2.880	18.20	1.6234	560.82	186.08	0.23181	0.78810	0.22563	1638.42749	0.0	0.8744051	569.01
2.890	18.03	1.6244	560.82	185.71	0.23248	0.78862	0.22548	1637.38013	0.0	0.8675737	568.98
2.900	17.87	1.6254	560.82	185.34	0.23314	0.78915	0.22534	1636.33362	0.0	0.8607550	568.94
2.910	17.71	1.6264	560.82	184.98	0.23380	0.78966	0.22519	1635.29285	0.0	0.8539486	568.91
2.920	17.54	1.6273	560.82	184.62	0.23446	0.79018	0.22505	1634.26025	0.0	0.8471554	568.87
2.930	17.38	1.6283	560.82	184.26	0.23511	0.79068	0.22491	1633.23840	0.0	0.8403755	568.84
2.940	17.21	1.6293	560.81	183.91	0.23576	0.79118	0.22477	1632.22852	0.0	0.8346770	568.81
2.950	17.05	1.6302	560.81	183.57	0.23640	0.79168	0.22464	1631.23132	0.0	0.8289927	568.78
2.960	16.89	1.6312	560.81	183.22	0.23704	0.79217	0.22450	1630.24719	0.0	0.8233233	568.75
2.970	16.72	1.6321	560.81	182.88	0.23768	0.79265	0.22437	1629.27600	0.0	0.8176688	568.71
2.980	16.56	1.6330	560.81	182.54	0.23831	0.79313	0.22423	1628.31763	0.0	0.8120298	568.68

2.990	16.39	1.6340	560.81	182.21	0.23893	0.79361	0.22410	1627.37170	0.0	0.8064059	568.65
3.000	16.23	1.6349	560.81	181.88	0.23955	0.79408	0.22398	1626.43726	0.0	0.8007975	568.62
3.010	16.07	1.6358	560.80	181.56	0.24017	0.79454	0.22385	1625.51392	0.0	0.7952038	568.59
3.020	15.90	1.6367	560.80	181.24	0.24078	0.79500	0.22372	1624.60107	0.0	0.7896255	568.56
3.030	15.74	1.6376	560.80	180.92	0.24138	0.79545	0.22360	1623.69812	0.0	0.7840612	568.53
3.040	15.57	1.6385	560.80	180.60	0.24199	0.79590	0.22348	1622.80457	0.0	0.7785114	568.50
3.050	15.41	1.6394	560.80	180.29	0.24258	0.79635	0.22335	1621.92029	0.0	0.7729754	568.47
3.060	15.25	1.6403	560.80	179.98	0.24318	0.79679	0.22323	1621.04456	0.0	0.7674530	568.44
3.070	15.08	1.6411	560.79	179.68	0.24377	0.79722	0.22311	1620.17786	0.0	0.7619435	568.41
3.080	14.92	1.6420	560.79	179.37	0.24435	0.79766	0.22300	1619.31958	0.0	0.7564473	568.38
3.090	14.75	1.6429	560.79	179.07	0.24493	0.79808	0.22288	1618.46973	0.0	0.7509632	568.35
3.100	14.59	1.6437	560.79	178.78	0.24551	0.79851	0.22276	1617.62854	0.0	0.7459035	568.32
3.110	14.43	1.6446	560.79	178.48	0.24608	0.79892	0.22265	1616.79565	0.0	0.7409933	568.29
3.120	14.26	1.6454	560.79	178.19	0.24665	0.79934	0.22253	1615.97156	0.0	0.7360946	568.27
3.130	14.10	1.6462	560.79	177.90	0.24722	0.79975	0.22242	1615.15601	0.0	0.7312074	568.24
3.140	13.94	1.6471	560.78	177.62	0.24778	0.80016	0.22231	1614.34900	0.0	0.7263317	568.21
3.150	13.77	1.6479	560.78	177.34	0.24834	0.80056	0.22220	1613.55066	0.0	0.7214672	568.18
3.160	13.61	1.6487	560.78	177.06	0.24889	0.80096	0.22209	1612.76123	0.0	0.7166138	568.15
3.170	13.45	1.6495	560.78	176.78	0.24944	0.80135	0.22198	1611.97998	0.0	0.7117716	568.13
3.180	13.28	1.6504	560.78	176.51	0.24999	0.80174	0.22188	1611.20764	0.0	0.7069406	568.10
3.190	13.12	1.6512	560.78	176.23	0.25053	0.80213	0.22177	1610.44373	0.0	0.7021202	568.07
3.200	12.96	1.6520	560.77	175.97	0.25107	0.80251	0.22167	1609.68811	0.0	0.6973107	568.04
3.210	12.79	1.6527	560.77	175.70	0.25160	0.80289	0.22157	1608.94092	0.0	0.6925119	568.01
3.220	12.63	1.6535	560.77	175.44	0.25214	0.80327	0.22146	1608.20166	0.0	0.6877237	567.99
3.230	12.47	1.6543	560.77	175.17	0.25266	0.80364	0.22136	1607.47058	0.0	0.6829460	567.96
3.240	12.30	1.6551	560.77	174.92	0.25319	0.80401	0.22126	1606.74695	0.0	0.6781787	567.93
3.250	12.14	1.6559	560.77	174.66	0.25370	0.80437	0.22117	1606.03125	0.0	0.6734214	567.90
3.260	11.98	1.6566	560.77	174.41	0.25422	0.80473	0.22107	1605.32312	0.0	0.6689484	567.88
3.270	11.81	1.6574	560.76	174.16	0.25473	0.80509	0.22097	1604.62207	0.0	0.6647593	567.85
3.280	11.65	1.6581	560.76	173.91	0.25524	0.80545	0.22088	1603.92822	0.0	0.6605799	567.83
3.290	11.49	1.6589	560.76	173.66	0.25575	0.80580	0.22078	1603.24109	0.0	0.6564097	567.80
3.300	11.32	1.6596	560.76	173.42	0.25625	0.80614	0.22069	1602.56104	0.0	0.6522492	567.78
3.310	11.16	1.6604	560.76	173.18	0.25675	0.80649	0.22059	1601.88757	0.0	0.6480975	567.75
3.320	11.00	1.6611	560.76	172.94	0.25724	0.80683	0.22050	1601.22107	0.0	0.6439550	567.73
3.330	10.84	1.6618	560.75	172.70	0.25774	0.80717	0.22041	1600.56091	0.0	0.6398213	567.70
3.340	10.67	1.6625	560.75	172.46	0.25822	0.80750	0.22032	1599.90723	0.0	0.6356965	567.68
3.350	10.51	1.6633	560.75	172.23	0.25871	0.80784	0.22023	1599.25989	0.0	0.6315803	567.65
3.360	10.35	1.6640	560.75	172.00	0.25919	0.80817	0.22014	1598.61914	0.0	0.6274729	567.63
3.370	10.18	1.6647	560.75	171.77	0.25967	0.80849	0.22006	1597.98438	0.0	0.6233736	567.60
3.380	10.02	1.6654	560.75	171.54	0.26015	0.80881	0.21997	1597.35608	0.0	0.6192829	567.58
3.390	9.86	1.6661	560.74	171.32	0.26062	0.80913	0.21988	1596.73401	0.0	0.6152002	567.55
3.400	9.69	1.6668	560.74	171.10	0.26109	0.80945	0.21980	1596.11804	0.0	0.6111257	567.52
3.410	9.53	1.6675	560.74	170.88	0.26156	0.80977	0.21972	1595.50806	0.0	0.6070592	567.50
3.420	9.37	1.6682	560.74	170.66	0.26202	0.81008	0.21963	1594.90405	0.0	0.6031406	567.47
3.430	9.21	1.6688	560.74	170.44	0.26248	0.81039	0.21955	1594.30579	0.0	0.5996492	567.45
3.440	9.04	1.6695	560.74	170.23	0.26294	0.81069	0.21947	1593.71350	0.0	0.5961653	567.43
3.450	8.88	1.6702	560.74	170.01	0.26339	0.81100	0.21939	1593.12671	0.0	0.5926886	567.41
3.460	8.72	1.6709	560.73	169.80	0.26385	0.81130	0.21931	1592.54553	0.0	0.5892192	567.39
3.470	8.56	1.6715	560.73	169.59	0.26430	0.81160	0.21923	1591.96997	0.0	0.5857567	567.36
3.480	8.39	1.6722	560.73	169.38	0.26474	0.81189	0.21915	1591.40002	0.0	0.5823014	567.34
3.490	8.23	1.6728	560.73	169.18	0.26519	0.81219	0.21907	1590.83533	0.0	0.5788531	567.32
3.500	8.07	1.6735	560.73	168.97	0.26563	0.81248	0.21900	1590.27625	0.0	0.5754118	567.30
3.510	7.90	1.6742	560.73	168.77	0.26607	0.81277	0.21892	1589.72241	0.0	0.5719771	567.28
3.520	7.74	1.6748	560.72	168.57	0.26650	0.81306	0.21884	1589.17383	0.0	0.5685493	567.25
3.530	7.58	1.6754	560.72	168.37	0.26693	0.81334	0.21877	1588.63037	0.0	0.5651282	567.23
3.540	7.42	1.6761	560.72	168.17	0.26737	0.81362	0.21869	1588.09229	0.0	0.5617137	567.21
3.550	7.25	1.6767	560.72	167.97	0.26779	0.81390	0.21862	1587.55920	0.0	0.5583057	567.19
3.560	7.09	1.6773	560.72	167.78	0.26822	0.81418	0.21855	1587.03101	0.0	0.5549042	567.17
3.570	6.93	1.6780	560.72	167.59	0.26864	0.81445	0.21848	1586.50793	0.0	0.5515092	567.14
3.580	6.77	1.6786	560.72	167.40	0.26906	0.81473	0.21841	1585.98987	0.0	0.5481206	567.12
3.590	6.60	1.6792	560.71	167.21	0.26948	0.81500	0.21833	1585.47705	0.0	0.5446140	567.09
3.600	6.44	1.6798	560.71	167.02	0.26989	0.81526	0.21826	1584.96936	0.0	0.5391135	567.06

3.610	6.28	1.6804	560.71	166.83	0.27029	0.81552	0.21820	1584.46655	0.0	0.5346190	567.03
3.620	6.12	1.6810	560.71	166.65	0.27070	0.81579	0.21813	1583.96863	0.0	0.5301307	567.00
3.630	5.95	1.6816	560.71	166.47	0.27110	0.81604	0.21806	1583.47546	0.0	0.5256481	566.97
3.640	5.79	1.6822	560.71	166.29	0.27149	0.81630	0.21799	1582.98718	0.0	0.5211715	566.94
3.650	5.63	1.6828	560.70	166.12	0.27189	0.81655	0.21793	1582.50366	0.0	0.5167001	566.91
3.660	5.47	1.6833	560.70	165.94	0.27227	0.81680	0.21786	1582.02502	0.0	0.5122346	566.88
3.670	5.30	1.6839	560.70	165.77	0.27266	0.81704	0.21779	1581.55103	0.0	0.5077741	566.85
3.680	5.14	1.6845	560.70	165.60	0.27304	0.81728	0.21773	1581.08142	0.0	0.5033190	566.82
3.690	4.98	1.6850	560.70	165.43	0.27342	0.81752	0.21767	1580.61633	0.0	0.4988688	566.79
3.700	4.82	1.6856	560.70	165.26	0.27379	0.81776	0.21760	1580.15576	0.0	0.4944236	566.76
3.710	4.66	1.6861	560.70	165.10	0.27416	0.81800	0.21754	1579.69971	0.0	0.4899830	566.73
3.720	4.50	1.6867	560.69	164.94	0.27452	0.81823	0.21748	1579.24792	0.0	0.4855473	566.70
3.730	4.33	1.6872	560.69	164.78	0.27488	0.81845	0.21742	1578.80054	0.0	0.4811160	566.67
3.740	4.17	1.6877	560.69	164.62	0.27524	0.81868	0.21735	1578.35718	0.0	0.4766891	566.63
3.750	4.01	1.6882	560.69	164.46	0.27559	0.81890	0.21729	1577.91785	0.0	0.4726942	566.61
3.760	3.85	1.6888	560.69	164.31	0.27594	0.81912	0.21723	1577.48242	0.0	0.4688469	566.58
3.770	3.69	1.6893	560.69	164.15	0.27629	0.81934	0.21717	1577.05115	0.0	0.4650038	566.55
3.780	3.53	1.6898	560.68	164.00	0.27664	0.81956	0.21712	1576.62366	0.0	0.4611650	566.52
3.790	3.37	1.6903	560.68	163.85	0.27698	0.81977	0.21706	1576.20020	0.0	0.4573304	566.50
3.800	3.21	1.6908	560.68	163.71	0.27731	0.81998	0.21700	1575.78027	0.0	0.4535001	566.47
3.810	3.04	1.6913	560.68	163.56	0.27765	0.82019	0.21694	1575.36414	0.0	0.4496737	566.44
3.820	2.88	1.6918	560.68	163.41	0.27798	0.82040	0.21689	1574.95178	0.0	0.4458513	566.41
3.830	2.72	1.6922	560.68	163.27	0.27831	0.82060	0.21683	1574.54285	0.0	0.4420326	566.38
3.840	2.56	1.6927	560.68	163.13	0.27863	0.82080	0.21677	1574.13782	0.0	0.4382178	566.36
3.850	2.40	1.6932	560.67	162.99	0.27895	0.82100	0.21672	1573.73621	0.0	0.4344065	566.33
3.860	2.24	1.6937	560.67	162.85	0.27927	0.82120	0.21666	1573.33813	0.0	0.4305988	566.30
3.870	2.08	1.6941	560.67	162.71	0.27958	0.82139	0.21661	1572.94360	0.0	0.4267945	566.27
3.880	1.92	1.6946	560.67	162.58	0.27989	0.82158	0.21655	1572.55237	0.0	0.4229936	566.24
3.890	1.76	1.6950	560.67	162.45	0.28020	0.82177	0.21650	1572.16455	0.0	0.4191960	566.21
3.900	1.60	1.6955	560.67	162.31	0.28051	0.82196	0.21645	1571.78003	0.0	0.4154015	566.19
3.910	1.44	1.6959	560.66	162.18	0.28081	0.82215	0.21640	1571.39880	0.0	0.4116100	566.16
3.920	1.28	1.6964	560.66	162.06	0.28110	0.82233	0.21634	1571.02087	0.0	0.4078217	566.13
3.930	1.12	1.6968	560.66	161.93	0.28140	0.82251	0.21629	1570.64600	0.0	0.4040360	566.10
3.940	0.96	1.6972	560.66	161.80	0.28169	0.82269	0.21624	1570.27466	0.0	0.4002533	566.07
3.950	0.80	1.6977	560.66	161.68	0.28198	0.82287	0.21619	1569.90601	0.0	0.3964731	566.04
3.960	0.64	1.6981	560.66	161.56	0.28226	0.82304	0.21614	1569.54077	0.0	0.3926956	566.01
3.970	0.48	1.6985	560.66	161.43	0.28254	0.82321	0.21609	1569.17822	0.0	0.3889206	565.98
3.980	0.32	1.6989	560.65	161.32	0.28282	0.82338	0.21604	1568.81873	0.0	0.3851479	565.95
3.990	0.16	1.6993	560.65	161.20	0.28310	0.82355	0.21599	1568.46179	0.0	0.3813775	565.92
4.000	0.00	1.6997	560.65	161.08	0.28337	0.82372	0.21594	1568.10706	0.0	0.3776094	565.89

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 8

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	763.935	763.935	0.0000
0.015	763.674	763.674	0.0000
0.025	763.409	763.409	0.0000
0.035	763.139	763.139	0.0000
0.045	762.864	762.864	0.0000
0.055	762.586	762.586	0.0000
0.065	762.302	762.302	0.0000
0.075	762.014	762.014	0.0000
0.085	761.721	761.721	0.0000
0.095	761.424	761.424	0.0000
0.105	761.122	761.122	0.0000
0.115	760.816	760.816	0.0000

0.125	760.504	760.504	0.0000
0.135	760.188	760.188	0.0000
0.145	759.868	759.868	0.0000
0.155	759.542	759.542	0.0000
0.165	759.212	759.212	0.0000
0.175	763.697	758.836	0.0000
0.185	779.919	758.167	0.0000
0.195	787.167	757.108	0.0000
0.205	798.279	755.750	0.0000
0.215	804.303	754.176	0.0000
0.225	790.082	752.435	0.0000
0.235	800.925	750.552	0.0000
0.245	799.678	748.544	0.0000
0.255	779.239	746.421	0.0000
0.265	772.588	744.190	0.0001
0.275	765.674	741.856	0.0001
0.285	758.536	739.422	0.0001
0.295	751.257	736.891	0.0001
0.305	743.891	734.264	0.0002
0.315	736.439	731.543	0.0002
0.325	736.191	728.726	0.0002
0.335	727.361	725.698	0.0003
0.345	718.436	722.569	0.0003
0.355	709.485	719.340	0.0004
0.365	700.572	716.018	0.0004
0.375	691.800	712.622	0.0005
0.385	683.365	709.221	0.0006
0.395	675.008	705.717	0.0006
0.405	667.821	702.536	0.0007
0.415	659.983	698.936	0.0008
0.425	652.039	695.108	0.0009
0.435	644.199	691.128	0.0010
0.445	636.542	687.022	0.0010
0.455	629.102	682.800	0.0011
0.465	621.897	678.470	0.0012
0.475	614.925	674.034	0.0013
0.485	608.188	669.495	0.0015
0.495	601.676	664.855	0.0016
0.505	595.379	660.117	0.0017
0.515	589.289	655.284	0.0018
0.525	583.377	650.358	0.0019
0.535	577.639	645.344	0.0021
0.545	572.047	640.245	0.0022
0.555	566.583	635.067	0.0023
0.565	561.228	629.814	0.0025
0.575	555.961	624.491	0.0026
0.585	550.763	619.104	0.0028
0.595	545.617	613.659	0.0029
0.605	540.500	608.159	0.0031
0.615	535.398	602.612	0.0032
0.625	530.302	597.020	0.0034
0.635	525.195	591.391	0.0036
0.645	520.312	586.021	0.0037
0.655	515.831	581.076	0.0039
0.665	511.461	576.308	0.0040
0.675	507.065	571.530	0.0042
0.685	502.656	566.745	0.0044
0.695	498.215	561.961	0.0045
0.705	493.775	557.180	0.0047
0.715	489.294	552.408	0.0049
0.725	484.814	547.646	0.0051
0.735	480.322	542.898	0.0052

0.745	475.817	538.170	0.0054
0.755	471.310	533.471	0.0056
0.765	466.828	528.817	0.0058
0.775	462.460	524.306	0.0060
0.785	458.337	520.075	0.0062
0.795	454.279	515.943	0.0064
0.805	450.617	512.300	0.0066
0.815	446.508	508.167	0.0068
0.825	442.318	503.980	0.0070
0.835	438.102	499.754	0.0072
0.845	433.876	495.527	0.0074
0.855	429.648	491.317	0.0075
0.865	425.452	487.133	0.0077
0.875	421.294	482.980	0.0079
0.885	417.156	478.862	0.0081
0.895	413.043	474.780	0.0083
0.905	408.985	470.735	0.0086
0.915	404.954	466.730	0.0088
0.925	400.971	462.766	0.0090
0.935	397.030	458.843	0.0092
0.945	393.141	454.961	0.0094
0.955	389.275	451.122	0.0096
0.965	385.480	447.326	0.0098
0.975	381.715	443.572	0.0100
0.985	378.055	439.942	0.0102
0.995	374.454	436.355	0.0104
1.005	370.901	432.811	0.0107
1.015	367.386	429.311	0.0109
1.025	363.940	425.853	0.0111
1.035	360.530	422.439	0.0113
1.045	357.177	419.067	0.0115
1.055	353.858	415.736	0.0117
1.065	350.603	412.444	0.0120
1.075	347.394	409.192	0.0122
1.085	344.223	405.983	0.0124
1.095	341.133	402.818	0.0126
1.105	338.062	399.696	0.0129
1.115	335.065	396.617	0.0131
1.125	332.098	393.578	0.0133
1.135	329.188	390.580	0.0135
1.145	326.341	387.636	0.0138
1.155	323.550	384.742	0.0140
1.165	320.777	381.913	0.0142
1.175	318.231	379.223	0.0145
1.185	315.880	376.776	0.0147
1.195	313.501	374.359	0.0150
1.205	311.313	372.158	0.0153
1.215	308.915	369.660	0.0155
1.225	306.474	367.062	0.0158
1.235	304.017	364.463	0.0160
1.245	301.590	361.880	0.0162
1.255	299.168	359.318	0.0165
1.265	296.799	356.783	0.0167
1.275	294.463	354.274	0.0169
1.285	292.213	351.792	0.0172
1.295	289.925	349.339	0.0174
1.305	287.719	346.920	0.0177
1.315	285.522	344.535	0.0179
1.325	283.360	342.178	0.0181
1.335	281.284	339.851	0.0184
1.345	279.203	337.552	0.0186
1.355	277.100	335.282	0.0188

1.365	275.122	333.040	0.0191
1.375	273.144	330.826	0.0193
1.385	271.175	328.640	0.0196
1.395	269.244	326.481	0.0198
1.405	267.367	324.348	0.0201
1.415	265.491	322.241	0.0203
1.425	263.648	320.161	0.0205
1.435	261.861	318.106	0.0208
1.445	260.133	316.076	0.0210
1.455	258.370	314.068	0.0213
1.465	256.665	312.086	0.0215
1.475	254.969	310.136	0.0218
1.485	253.306	308.211	0.0220
1.495	251.662	306.314	0.0222
1.505	250.035	304.443	0.0225
1.515	248.497	302.598	0.0227
1.525	246.953	300.777	0.0230
1.535	245.417	298.979	0.0232
1.545	243.902	297.206	0.0235
1.555	242.477	295.461	0.0237
1.565	241.007	293.766	0.0239
1.575	239.679	292.172	0.0242
1.585	238.553	290.756	0.0245
1.595	237.275	289.298	0.0248
1.605	236.146	287.971	0.0252
1.615	234.880	286.453	0.0254
1.625	233.560	284.873	0.0257
1.635	232.263	283.293	0.0259
1.645	230.974	281.721	0.0262
1.655	229.755	280.160	0.0264
1.665	228.493	278.612	0.0267
1.675	227.286	277.078	0.0269
1.685	226.033	275.558	0.0271
1.695	224.833	274.054	0.0274
1.705	223.634	272.565	0.0276
1.715	222.454	271.093	0.0279
1.725	221.283	269.636	0.0281
1.735	220.172	268.195	0.0283
1.745	219.082	266.770	0.0286
1.755	217.940	265.362	0.0288
1.765	216.896	263.969	0.0291
1.775	215.826	262.591	0.0293
1.785	214.756	261.229	0.0295
1.795	213.683	259.884	0.0298
1.805	212.711	258.555	0.0300
1.815	211.688	257.240	0.0303
1.825	210.667	255.941	0.0305
1.835	209.671	254.656	0.0307
1.845	208.756	253.385	0.0310
1.855	207.791	252.127	0.0312
1.865	206.833	250.881	0.0314
1.875	205.876	249.647	0.0317
1.885	205.002	248.428	0.0319
1.895	204.102	247.226	0.0322
1.905	203.177	246.040	0.0324
1.915	202.360	244.869	0.0326
1.925	201.497	243.711	0.0329
1.935	200.636	242.567	0.0331
1.945	199.805	241.439	0.0333
1.955	198.980	240.329	0.0336
1.965	198.238	239.262	0.0338
1.975	197.469	238.274	0.0340

1.985	196.831	237.431	0.0343
1.995	196.175	236.517	0.0347
2.005	195.559	235.713	0.0351
2.015	194.813	234.762	0.0354
2.025	194.103	233.762	0.0356
2.035	193.374	232.753	0.0359
2.045	192.714	231.749	0.0361
2.055	191.986	230.749	0.0363
2.065	191.303	229.756	0.0365
2.075	190.548	228.769	0.0368
2.085	189.835	227.791	0.0370
2.095	189.166	226.821	0.0372
2.105	188.481	225.861	0.0374
2.115	187.824	224.911	0.0376
2.125	187.164	223.971	0.0378
2.135	186.489	223.042	0.0381
2.145	185.878	222.123	0.0383
2.155	185.251	221.215	0.0385
2.165	184.607	220.317	0.0387
2.175	184.008	219.429	0.0389
2.185	183.372	218.552	0.0391
2.195	182.804	217.684	0.0393
2.205	182.220	216.826	0.0396
2.215	181.559	215.978	0.0398
2.225	181.029	215.140	0.0400
2.235	180.462	214.310	0.0402
2.245	179.903	213.490	0.0404
2.255	179.373	212.677	0.0406
2.265	178.789	211.872	0.0408
2.275	178.298	211.074	0.0410
2.285	177.746	210.289	0.0412
2.295	177.221	209.517	0.0414
2.305	176.699	208.758	0.0416
2.315	176.204	208.011	0.0418
2.325	175.650	207.276	0.0420
2.335	175.190	206.551	0.0422
2.345	174.734	205.840	0.0424
2.355	174.263	205.139	0.0426
2.365	173.839	204.475	0.0428
2.375	173.374	203.876	0.0430
2.385	173.094	203.397	0.0433
2.395	172.642	202.820	0.0437
2.405	172.375	202.365	0.0441
2.415	171.940	201.785	0.0444
2.425	171.521	201.164	0.0446
2.435	171.111	200.531	0.0448
2.445	170.723	199.904	0.0450
2.455	170.303	199.276	0.0451
2.465	169.877	198.650	0.0453
2.475	169.561	198.029	0.0455
2.485	169.120	197.413	0.0457
2.495	168.651	196.802	0.0458
2.505	168.329	196.197	0.0460
2.515	167.930	195.598	0.0462
2.525	167.570	195.006	0.0463
2.535	167.202	194.421	0.0465
2.545	166.863	193.842	0.0467
2.555	166.405	193.271	0.0468
2.565	166.026	192.706	0.0470
2.575	165.709	192.149	0.0472
2.585	165.312	191.598	0.0473
2.595	164.957	191.054	0.0475

2.605	164.612	190.516	0.0476
2.615	164.330	189.986	0.0478
2.625	163.948	189.462	0.0480
2.635	163.648	188.945	0.0481
2.645	163.339	188.435	0.0483
2.655	163.023	187.929	0.0484
2.665	162.627	187.429	0.0486
2.675	162.369	186.934	0.0487
2.685	162.029	186.447	0.0489
2.695	161.807	185.968	0.0490
2.705	161.463	185.498	0.0492
2.715	161.165	185.036	0.0493
2.725	160.913	184.582	0.0495
2.735	160.615	184.136	0.0496
2.745	160.363	183.697	0.0497
2.755	160.101	183.267	0.0499
2.765	159.791	182.866	0.0500
2.775	159.614	182.517	0.0502
2.785	159.474	182.265	0.0504
2.795	159.122	181.885	0.0508
2.805	159.041	181.650	0.0513
2.815	158.756	181.307	0.0515
2.825	158.584	180.927	0.0517
2.835	158.351	180.534	0.0518
2.845	158.115	180.144	0.0520
2.855	157.860	179.753	0.0521
2.865	157.564	179.362	0.0522
2.875	157.399	178.972	0.0523
2.885	157.078	178.585	0.0524
2.895	156.906	178.201	0.0526
2.905	156.652	177.821	0.0527
2.915	156.393	177.444	0.0528
2.925	156.129	177.072	0.0529
2.935	155.937	176.703	0.0530
2.945	155.663	176.338	0.0531
2.955	155.478	175.977	0.0532
2.965	155.272	175.620	0.0533
2.975	155.043	175.267	0.0535
2.985	154.826	174.917	0.0536
2.995	154.622	174.572	0.0537
3.005	154.396	174.230	0.0538
3.015	154.226	173.892	0.0539
3.025	153.991	173.558	0.0540
3.035	153.847	173.227	0.0541
3.045	153.603	172.900	0.0542
3.055	153.434	172.575	0.0543
3.065	153.181	172.255	0.0544
3.075	153.020	171.937	0.0545
3.085	152.822	171.623	0.0546
3.095	152.636	171.312	0.0547
3.105	152.464	171.003	0.0548
3.115	152.271	170.698	0.0549
3.125	152.138	170.396	0.0550
3.135	151.875	170.096	0.0551
3.145	151.752	169.799	0.0552
3.155	151.608	169.505	0.0553
3.165	151.414	169.214	0.0554
3.175	151.199	168.926	0.0555
3.185	151.079	168.641	0.0556
3.195	150.857	168.359	0.0557
3.205	150.679	168.079	0.0558
3.215	150.532	167.803	0.0559

3.225	150.333	167.529	0.0559
3.235	150.261	167.258	0.0560
3.245	150.104	166.990	0.0561
3.255	149.827	166.724	0.0562
3.265	149.697	166.460	0.0563
3.275	149.530	166.200	0.0564
3.285	149.444	165.941	0.0565
3.295	149.188	165.685	0.0566
3.305	149.063	165.431	0.0566
3.315	148.918	165.179	0.0567
3.325	148.737	164.930	0.0568
3.335	148.636	164.683	0.0569
3.345	148.450	164.438	0.0570
3.355	148.428	164.195	0.0571
3.365	148.236	163.955	0.0572
3.375	148.158	163.717	0.0572
3.385	147.927	163.481	0.0573
3.395	147.844	163.247	0.0574
3.405	147.692	163.015	0.0575
3.415	147.519	162.786	0.0576
3.425	147.396	162.558	0.0576
3.435	147.237	162.332	0.0577
3.445	147.194	162.108	0.0578
3.455	146.979	161.886	0.0579
3.465	146.847	161.666	0.0580
3.475	146.744	161.447	0.0580
3.485	146.661	161.231	0.0581
3.495	146.468	161.016	0.0582
3.505	146.380	160.803	0.0583
3.515	146.269	160.591	0.0583
3.525	146.092	160.382	0.0584
3.535	145.944	160.174	0.0585
3.545	145.912	159.968	0.0586
3.555	145.728	159.763	0.0586
3.565	145.693	159.561	0.0587
3.575	145.536	159.360	0.0588
3.585	145.378	159.161	0.0588
3.595	145.216	158.965	0.0589
3.605	145.139	158.771	0.0590
3.615	144.972	158.579	0.0591
3.625	144.890	158.389	0.0591
3.635	144.893	158.202	0.0592
3.645	144.719	158.017	0.0593
3.655	144.630	157.833	0.0593
3.665	144.538	157.653	0.0594
3.675	144.444	157.474	0.0595
3.685	144.348	157.297	0.0595
3.695	144.249	157.122	0.0596
3.705	144.092	156.950	0.0596
3.715	143.989	156.780	0.0597
3.725	143.883	156.611	0.0598
3.735	143.863	156.445	0.0598
3.745	143.722	156.281	0.0599
3.755	143.641	156.118	0.0600
3.765	143.527	155.958	0.0600
3.775	143.469	155.799	0.0601
3.785	143.351	155.642	0.0601
3.795	143.231	155.486	0.0602
3.805	143.198	155.332	0.0602
3.815	143.075	155.180	0.0603
3.825	142.981	155.030	0.0604
3.835	142.853	154.882	0.0604

3.845	142.813	154.735	0.0605
3.855	142.682	154.590	0.0605
3.865	142.638	154.446	0.0606
3.875	142.503	154.304	0.0606
3.885	142.545	154.164	0.0607
3.895	142.407	154.026	0.0607
3.905	142.356	153.889	0.0608
3.915	142.214	153.754	0.0608
3.925	142.190	153.621	0.0609
3.935	142.103	153.489	0.0609
3.945	142.046	153.359	0.0610
3.955	141.986	153.230	0.0610
3.965	141.925	153.103	0.0611
3.975	141.772	152.978	0.0611
3.985	141.798	152.854	0.0612
3.995	141.672	152.732	0.0612

1PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 9

	DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
	FLUX	BORON	CHF	CHF TEMP.							
(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)			
(MW/M2)	(DEG-K)										
0.000	100.11	1.2106	548.16	764.19	0.00000	0.00000	0.17088	1700.00012	0.0	0.000000	255.37
0.010	100.02	1.2111	548.25	764.02	0.00000	0.00000	0.17101	1701.29431	0.0	4.590779	580.40
0.020	99.93	1.2116	548.35	763.84	0.00000	0.00000	0.17120	1703.14270	0.0	4.555306	580.32
0.030	99.84	1.2121	548.44	763.66	0.00000	0.00000	0.17141	1705.23120	0.0	4.520614	580.24
0.040	99.74	1.2126	548.54	763.47	0.00000	0.00000	0.17163	1707.42273	0.0	4.486771	580.17
0.050	99.65	1.2131	548.64	763.29	0.00000	0.00000	0.17185	1709.65515	0.0	4.453775	580.09
0.060	99.55	1.2136	548.74	763.09	0.00000	0.00000	0.17208	1711.89929	0.0	4.421611	580.02
0.070	99.46	1.2142	548.85	762.90	0.00000	0.00000	0.17230	1714.14099	0.0	4.390239	579.94
0.080	99.37	1.2147	548.95	762.70	0.00000	0.00000	0.17253	1716.37305	0.0	4.359624	579.87
0.090	99.27	1.2153	549.06	762.50	0.00000	0.00000	0.17275	1718.59277	0.0	4.329739	579.80
0.100	99.18	1.2158	549.17	762.29	0.00000	0.00000	0.17297	1720.79956	0.0	4.300550	579.74
0.110	99.08	1.2164	549.28	762.08	0.00000	0.00000	0.17319	1722.99512	0.0	4.272024	579.67
0.120	98.99	1.2170	549.39	761.87	0.00000	0.00000	0.17341	1725.18359	0.0	4.244130	579.61
0.130	98.89	1.2176	549.51	761.65	0.00000	0.00000	0.17363	1727.37122	0.0	4.216828	579.54
0.140	98.80	1.2182	549.62	761.43	0.00000	0.00000	0.17385	1729.56689	0.0	4.190090	579.48
0.150	98.70	1.2188	549.74	761.20	0.00000	0.00000	0.17408	1731.78320	0.0	4.163892	579.42
0.160	98.61	1.2194	549.86	760.97	0.00000	0.00000	0.17430	1734.03552	0.0	4.138192	579.36
0.170	98.51	1.2201	549.98	760.74	0.00000	0.00000	0.17454	1736.34314	0.0	4.112960	579.30
0.180	98.42	1.2207	550.11	760.48	0.00000	0.00003	0.17478	1738.72180	0.0	4.088162	579.24
0.190	98.32	1.2214	550.23	760.07	0.00000	0.00027	0.17502	1741.11353	0.0	4.063797	579.19
0.200	98.23	1.2220	550.36	759.41	0.00000	0.00085	0.17525	1743.44739	0.0	4.039872	579.13
0.210	98.13	1.2227	550.49	758.53	0.00001	0.00172	0.17548	1745.73804	0.0	4.016391	579.08
0.220	98.03	1.2234	550.62	757.49	0.00002	0.00281	0.17571	1748.02759	0.0	3.993335	579.02
0.230	97.93	1.2241	550.75	756.32	0.00003	0.00408	0.17594	1750.34143	0.0	3.970667	578.97
0.240	97.83	1.2248	550.88	755.05	0.00005	0.00549	0.17618	1752.69434	0.0	3.948383	578.92
0.250	97.73	1.2255	551.02	753.68	0.00007	0.00703	0.17642	1755.09900	0.0	3.926453	578.87
0.260	97.62	1.2262	551.16	752.23	0.00010	0.00867	0.17667	1757.56116	0.0	3.904869	578.82
0.270	97.52	1.2269	551.30	750.70	0.00014	0.01042	0.17692	1760.06799	0.0	3.883592	578.77
0.280	97.42	1.2277	551.44	749.11	0.00019	0.01226	0.17717	1762.58826	0.0	3.862619	578.72
0.290	97.32	1.2284	551.58	747.44	0.00024	0.01420	0.17743	1765.09082	0.0	3.841962	578.67
0.300	97.21	1.2292	551.73	745.70	0.00030	0.01622	0.17767	1767.56372	0.0	3.821638	578.62
0.310	97.11	1.2300	551.87	743.90	0.00037	0.01833	0.17792	1770.01782	0.0	3.801664	578.58
0.320	97.00	1.2307	552.02	742.04	0.00045	0.02053	0.17817	1772.47119	0.0	3.782037	578.53
0.330	96.90	1.2315	552.17	740.12	0.00053	0.02281	0.17841	1774.92749	0.0	3.762730	578.49
0.340	96.80	1.2323	552.32	738.03	0.00063	0.02531	0.17866	1777.34607	0.0	3.744714	578.45
0.350	96.69	1.2331	552.47	735.87	0.00075	0.02791	0.17889	1779.61768	0.0	3.727012	578.40

0.360	96.58	1.2339	552.63	733.65	0.00087	0.03060	0.17907	1781.49731	0.0	3.709730	578.37
0.370	96.48	1.2347	552.78	731.36	0.00101	0.03337	0.17917	1782.46069	0.0	3.693137	578.33
0.380	96.38	1.2356	552.94	728.99	0.00116	0.03626	0.17906	1781.33557	0.0	3.677608	578.29
0.390	96.30	1.2364	553.10	726.48	0.00132	0.03934	0.17846	1775.41443	0.0	3.663800	578.27
0.400	93.59	1.2372	553.26	723.53	0.00153	0.04303	0.17675	1758.36621	0.0	3.653720	578.25
0.410	93.50	1.2381	553.42	720.28	0.00178	0.04714	0.17614	1752.28516	0.0	3.643650	578.24
0.420	93.40	1.2390	553.59	717.33	0.00201	0.05082	0.17604	1751.26611	0.0	3.630007	578.22
0.430	93.29	1.2399	553.76	714.47	0.00223	0.05436	0.17617	1752.64075	0.0	3.614534	578.18
0.440	93.18	1.2408	553.93	711.62	0.00247	0.05789	0.17643	1755.18604	0.0	3.598169	578.15
0.450	93.07	1.2417	554.11	708.74	0.00271	0.06145	0.17675	1758.33472	0.0	3.581460	578.11
0.460	92.96	1.2427	554.29	705.81	0.00296	0.06508	0.17710	1761.81567	0.0	3.564667	578.07
0.470	92.85	1.2437	554.47	702.83	0.00322	0.06878	0.17747	1765.49414	0.0	3.547911	578.03
0.480	92.73	1.2446	554.65	699.79	0.00350	0.07256	0.17785	1769.29968	0.0	3.531260	578.00
0.490	92.62	1.2456	554.84	696.68	0.00379	0.07642	0.17824	1773.19177	0.0	3.514738	577.96
0.500	92.50	1.2466	555.03	693.52	0.00408	0.08037	0.17864	1777.14478	0.0	3.498373	577.92
0.510	92.38	1.2476	555.22	690.30	0.00439	0.08440	0.17904	1781.14026	0.0	3.482167	577.89
0.520	92.27	1.2487	555.41	687.01	0.00471	0.08851	0.17944	1785.16345	0.0	3.466126	577.85
0.530	92.15	1.2497	555.60	683.66	0.00505	0.09271	0.17985	1789.20129	0.0	3.450259	577.82
0.540	92.03	1.2507	555.80	680.25	0.00539	0.09700	0.18026	1793.24243	0.0	3.434569	577.78
0.550	91.91	1.2518	556.00	676.78	0.00575	0.10137	0.18066	1797.27551	0.0	3.419062	577.75
0.560	91.79	1.2528	556.20	673.25	0.00612	0.10582	0.18106	1801.29004	0.0	3.403744	577.71
0.570	91.67	1.2539	556.40	669.66	0.00649	0.11036	0.18146	1805.27295	0.0	3.388615	577.68
0.580	91.55	1.2550	556.60	666.00	0.00688	0.11498	0.18186	1809.20911	0.0	3.373689	577.65
0.590	91.42	1.2561	556.80	662.30	0.00729	0.11969	0.18225	1813.08252	0.0	3.358968	577.62
0.600	91.30	1.2572	557.01	658.53	0.00770	0.12448	0.18263	1816.87036	0.0	3.344463	577.58
0.610	91.18	1.2583	557.21	654.71	0.00812	0.12934	0.18300	1820.54968	0.0	3.330183	577.55
0.620	91.05	1.2594	557.42	650.83	0.00856	0.13429	0.18336	1824.09900	0.0	3.316139	577.52
0.630	90.93	1.2605	557.63	646.90	0.00901	0.13931	0.18370	1827.51465	0.0	3.302328	577.50
0.640	90.80	1.2616	557.84	642.91	0.00947	0.14441	0.18403	1830.78784	0.0	3.288763	577.47
0.650	90.68	1.2628	558.05	638.88	0.00994	0.14958	0.18434	1833.86987	0.0	3.275466	577.44
0.660	90.55	1.2639	558.27	634.99	0.01039	0.15455	0.18463	1836.80969	0.0	3.260974	577.41
0.670	90.43	1.2651	558.48	631.25	0.01083	0.15931	0.18492	1839.65027	0.0	3.245259	577.38
0.680	90.30	1.2662	558.69	627.47	0.01128	0.16413	0.18519	1842.36707	0.0	3.229751	577.34
0.690	90.18	1.2674	558.91	623.65	0.01174	0.16901	0.18545	1844.94177	0.0	3.214474	577.31
0.700	90.06	1.2685	559.13	619.79	0.01221	0.17395	0.18570	1847.37305	0.0	3.199462	577.28
0.710	89.93	1.2697	559.34	615.90	0.01269	0.17892	0.18593	1849.67688	0.0	3.184742	577.25
0.720	89.81	1.2709	559.56	611.99	0.01318	0.18395	0.18615	1851.87744	0.0	3.170312	577.22
0.730	89.68	1.2721	559.78	608.05	0.01367	0.18902	0.18636	1853.97229	0.0	3.156149	577.19
0.740	89.55	1.2732	560.00	604.08	0.01418	0.19412	0.18655	1855.90808	0.0	3.142252	577.16
0.750	89.43	1.2744	560.22	600.10	0.01469	0.19926	0.18672	1857.54944	0.0	3.128669	577.13
0.760	89.30	1.2756	560.43	596.10	0.01521	0.20441	0.18682	1858.59668	0.0	3.115542	577.11
0.770	89.18	1.2768	560.65	592.11	0.01574	0.20957	0.18680	1858.37939	0.0	3.103140	577.08
0.780	89.07	1.2779	560.87	588.05	0.01629	0.21484	0.18650	1855.34302	0.0	3.091674	577.06
0.790	88.98	1.2791	561.09	583.85	0.01686	0.22031	0.18557	1846.07056	0.0	3.082130	577.05
0.800	85.36	1.2803	561.31	578.84	0.01755	0.22693	0.18323	1822.82727	0.0	3.076747	577.05
0.810	85.26	1.2815	561.46	573.93	0.01828	0.23357	0.18229	1813.48425	0.0	3.071310	577.05
0.820	85.15	1.2828	561.46	569.84	0.01892	0.23942	0.18205	1811.08643	0.0	3.061036	577.03
0.830	85.03	1.2840	561.46	566.26	0.01949	0.24454	0.18214	1812.02527	0.0	3.046845	576.99
0.840	84.90	1.2853	561.46	562.74	0.02005	0.24958	0.18238	1814.36230	0.0	3.031428	576.94
0.850	84.77	1.2866	561.46	559.24	0.02062	0.25458	0.18268	1817.39392	0.0	3.015561	576.90
0.860	84.65	1.2879	561.45	555.74	0.02119	0.25958	0.18302	1820.72888	0.0	2.999576	576.85
0.870	84.52	1.2892	561.45	552.25	0.02177	0.26458	0.18336	1824.16809	0.0	2.983645	576.80
0.880	84.39	1.2906	561.45	548.75	0.02236	0.26958	0.18371	1827.60266	0.0	2.967852	576.76
0.890	84.26	1.2919	561.45	545.25	0.02295	0.27459	0.18405	1830.97913	0.0	2.952241	576.71
0.900	84.12	1.2932	561.45	541.75	0.02355	0.27960	0.18438	1834.28479	0.0	2.936832	576.67
0.910	83.99	1.2946	561.45	538.25	0.02416	0.28461	0.18471	1837.51257	0.0	2.921626	576.62
0.920	83.86	1.2959	561.45	534.75	0.02478	0.28961	0.18502	1840.65833	0.0	2.906627	576.58
0.930	83.73	1.2973	561.45	531.26	0.02541	0.29461	0.18533	1843.71997	0.0	2.891834	576.53
0.940	83.60	1.2986	561.44	527.77	0.02604	0.29959	0.18563	1846.69763	0.0	2.877246	576.49
0.950	83.46	1.3000	561.44	524.30	0.02668	0.30456	0.18592	1849.59204	0.0	2.862859	576.45
0.960	83.33	1.3013	561.44	520.83	0.02733	0.30952	0.18620	1852.40564	0.0	2.848672	576.41
0.970	83.19	1.3027	561.44	517.38	0.02799	0.31446	0.18648	1855.14417	0.0	2.834683	576.37

0.980	83.06	1.3041	561.44	513.94	0.02865	0.31938	0.18675	1857.81848	0.0	2.820881	576.32
0.990	82.93	1.3054	561.44	510.64	0.02929	0.32410	0.18701	1860.45386	0.0	2.805794	576.28
1.000	82.79	1.3068	561.44	507.36	0.02994	0.32879	0.18727	1863.02710	0.0	2.790899	576.23
1.010	82.66	1.3081	561.44	504.09	0.03059	0.33346	0.18752	1865.52686	0.0	2.776200	576.19
1.020	82.53	1.3095	561.43	500.84	0.03126	0.33811	0.18776	1867.94666	0.0	2.761703	576.15
1.030	82.39	1.3109	561.43	497.61	0.03192	0.34273	0.18800	1870.29163	0.0	2.747403	576.10
1.040	82.26	1.3122	561.43	494.40	0.03260	0.34733	0.18823	1872.57385	0.0	2.733300	576.06
1.050	82.12	1.3136	561.43	491.20	0.03328	0.35190	0.18845	1874.80920	0.0	2.719385	576.02
1.060	81.99	1.3150	561.43	488.02	0.03396	0.35645	0.18868	1877.00403	0.0	2.705642	575.98
1.070	81.85	1.3163	561.43	484.86	0.03465	0.36098	0.18889	1879.14441	0.0	2.692050	575.94
1.080	81.71	1.3177	561.43	481.71	0.03535	0.36548	0.18910	1881.20581	0.0	2.678602	575.89
1.090	81.58	1.3191	561.43	478.59	0.03605	0.36995	0.18930	1883.17590	0.0	2.665322	575.85
1.100	81.44	1.3204	561.42	475.49	0.03676	0.37437	0.18949	1885.06250	0.0	2.652237	575.81
1.110	81.30	1.3218	561.42	472.42	0.03747	0.37876	0.18967	1886.88501	0.0	2.639363	575.77
1.120	81.17	1.3232	561.42	469.38	0.03819	0.38311	0.18985	1888.65479	0.0	2.626696	575.74
1.130	81.03	1.3245	561.42	466.36	0.03891	0.38743	0.19002	1890.35620	0.0	2.614226	575.70
1.140	80.89	1.3259	561.42	463.37	0.03963	0.39170	0.19018	1891.93323	0.0	2.601954	575.66
1.150	80.76	1.3273	561.42	460.44	0.04035	0.39590	0.19031	1893.25916	0.0	2.589557	575.62
1.160	80.63	1.3286	561.42	457.56	0.04107	0.40002	0.19039	1894.03528	0.0	2.577426	575.58
1.170	80.50	1.3300	561.42	454.72	0.04179	0.40408	0.19034	1893.57434	0.0	2.565846	575.55
1.180	80.38	1.3313	561.41	451.88	0.04252	0.40814	0.19001	1890.30310	0.0	2.555088	575.51
1.190	80.29	1.3326	561.41	449.02	0.04327	0.41224	0.18905	1880.76123	0.0	2.546040	575.49
1.200	75.44	1.3340	561.37	445.45	0.04419	0.41732	0.18668	1857.11877	0.0	2.540703	575.47
1.210	75.34	1.3353	561.37	442.24	0.04508	0.42199	0.18572	1847.56726	0.0	2.535341	575.46
1.220	75.22	1.3367	561.37	439.27	0.04590	0.42623	0.18541	1844.48975	0.0	2.526294	575.44
1.230	75.09	1.3381	561.36	436.46	0.04669	0.43026	0.18540	1844.40613	0.0	2.515588	575.41
1.240	74.96	1.3395	561.36	433.67	0.04748	0.43425	0.18552	1845.65771	0.0	2.503946	575.37
1.250	74.82	1.3409	561.36	430.89	0.04827	0.43822	0.18571	1847.49622	0.0	2.491905	575.33
1.260	74.68	1.3424	561.36	428.13	0.04907	0.44217	0.18592	1849.59216	0.0	2.479746	575.30
1.270	74.54	1.3438	561.36	425.38	0.04988	0.44610	0.18614	1851.79309	0.0	2.467594	575.26
1.280	74.40	1.3453	561.36	422.65	0.05069	0.44999	0.18637	1854.02942	0.0	2.455509	575.22
1.290	74.26	1.3468	561.36	419.95	0.05151	0.45386	0.18659	1856.26562	0.0	2.443518	575.18
1.300	74.11	1.3482	561.35	417.27	0.05234	0.45770	0.18681	1858.48425	0.0	2.431634	575.14
1.310	73.97	1.3497	561.35	414.62	0.05317	0.46148	0.18703	1860.67920	0.0	2.419613	575.10
1.320	73.83	1.3512	561.35	412.00	0.05399	0.46522	0.18725	1862.84375	0.0	2.407461	575.06
1.330	73.69	1.3526	561.35	409.42	0.05483	0.46892	0.18747	1864.97046	0.0	2.395434	575.03
1.340	73.54	1.3541	561.35	406.85	0.05566	0.47259	0.18768	1867.05566	0.0	2.383536	574.99
1.350	73.40	1.3556	561.35	404.31	0.05650	0.47622	0.18788	1869.09827	0.0	2.371766	574.95
1.360	73.25	1.3570	561.35	401.80	0.05735	0.47981	0.18808	1871.09839	0.0	2.360128	574.91
1.370	73.11	1.3585	561.35	399.32	0.05819	0.48337	0.18828	1873.05786	0.0	2.348618	574.87
1.380	72.96	1.3600	561.34	396.86	0.05904	0.48688	0.18847	1874.97742	0.0	2.337240	574.84
1.390	72.82	1.3614	561.34	394.42	0.05990	0.49036	0.18866	1876.85986	0.0	2.325987	574.80
1.400	72.67	1.3629	561.34	392.01	0.06075	0.49381	0.18885	1878.70667	0.0	2.314860	574.76
1.410	72.53	1.3644	561.34	389.63	0.06161	0.49722	0.18903	1880.51929	0.0	2.303856	574.73
1.420	72.38	1.3658	561.34	387.27	0.06247	0.50059	0.18921	1882.29749	0.0	2.292971	574.69
1.430	72.24	1.3673	561.34	384.94	0.06334	0.50392	0.18938	1884.04211	0.0	2.282206	574.65
1.440	72.09	1.3688	561.34	382.63	0.06421	0.50722	0.18956	1885.76245	0.0	2.271560	574.62
1.450	71.94	1.3702	561.33	380.34	0.06508	0.51049	0.18973	1887.47144	0.0	2.261029	574.58
1.460	71.80	1.3717	561.33	378.08	0.06595	0.51373	0.18990	1889.17285	0.0	2.250596	574.55
1.470	71.65	1.3732	561.33	375.84	0.06683	0.51693	0.19007	1890.85510	0.0	2.239999	574.51
1.480	71.50	1.3746	561.33	373.65	0.06770	0.52007	0.19023	1892.49805	0.0	2.228740	574.48
1.490	71.36	1.3761	561.33	371.47	0.06858	0.52317	0.19039	1894.08313	0.0	2.217592	574.44
1.500	71.21	1.3776	561.33	369.33	0.06945	0.52624	0.19055	1895.61475	0.0	2.206582	574.40
1.510	71.06	1.3790	561.33	367.22	0.07032	0.52926	0.19070	1897.10889	0.0	2.195726	574.37
1.520	70.91	1.3805	561.32	365.13	0.07120	0.53224	0.19084	1898.57019	0.0	2.185023	574.33
1.530	70.77	1.3819	561.32	363.07	0.07207	0.53519	0.19098	1899.98083	0.0	2.174464	574.30
1.540	70.62	1.3834	561.32	361.03	0.07295	0.53810	0.19112	1901.28333	0.0	2.164054	574.26
1.550	70.47	1.3848	561.32	359.03	0.07382	0.54097	0.19122	1902.34290	0.0	2.153841	574.23
1.560	70.33	1.3862	561.32	357.07	0.07469	0.54377	0.19127	1902.85742	0.0	2.143952	574.19
1.570	70.20	1.3876	561.32	355.14	0.07555	0.54652	0.19120	1902.11902	0.0	2.134471	574.16
1.580	70.08	1.3890	561.32	353.23	0.07641	0.54925	0.19084	1898.56030	0.0	2.125713	574.13
1.590	69.99	1.3905	561.32	351.33	0.07729	0.55197	0.18985	1888.69580	0.0	2.118467	574.11

1.600	63.75	1.3919	561.26	348.87	0.07836	0.55546	0.18743	1864.58972	0.0	2.114534	574.09
1.610	63.66	1.3933	561.26	346.93	0.07933	0.55831	0.18647	1855.09729	0.0	2.110526	574.09
1.620	63.54	1.3947	561.25	345.02	0.08025	0.56104	0.18617	1852.05322	0.0	2.103169	574.07
1.630	63.40	1.3962	561.25	343.16	0.08116	0.56370	0.18615	1851.89722	0.0	2.094353	574.04
1.640	63.26	1.3976	561.25	341.31	0.08206	0.56634	0.18626	1853.01184	0.0	2.084275	574.00
1.650	63.11	1.3991	561.25	339.45	0.08298	0.56900	0.18643	1854.67017	0.0	2.073844	573.97
1.660	62.96	1.4006	561.25	337.59	0.08391	0.57165	0.18662	1856.56812	0.0	2.063305	573.93
1.670	62.81	1.4021	561.25	335.75	0.08485	0.57429	0.18682	1858.56873	0.0	2.052760	573.90
1.680	62.66	1.4036	561.25	333.92	0.08579	0.57690	0.18703	1860.60779	0.0	2.042257	573.86
1.690	62.51	1.4052	561.25	332.11	0.08673	0.57949	0.18723	1862.65332	0.0	2.031818	573.82
1.700	62.35	1.4067	561.24	330.31	0.08768	0.58206	0.18744	1864.68787	0.0	2.021457	573.79
1.710	62.20	1.4082	561.24	328.54	0.08862	0.58460	0.18764	1866.70129	0.0	2.011180	573.75
1.720	62.05	1.4097	561.24	326.78	0.08957	0.58711	0.18784	1868.68823	0.0	2.000992	573.71
1.730	61.89	1.4112	561.24	325.04	0.09052	0.58959	0.18804	1870.64478	0.0	1.990897	573.68
1.740	61.74	1.4128	561.24	323.32	0.09147	0.59205	0.18823	1872.56958	0.0	1.980895	573.64
1.750	61.58	1.4143	561.24	321.62	0.09242	0.59448	0.18842	1874.46179	0.0	1.970990	573.61
1.760	61.43	1.4158	561.23	319.94	0.09338	0.59688	0.18861	1876.32263	0.0	1.961181	573.57
1.770	61.27	1.4173	561.23	318.28	0.09433	0.59925	0.18879	1878.15259	0.0	1.951468	573.54
1.780	61.12	1.4188	561.23	316.64	0.09528	0.60160	0.18897	1879.95422	0.0	1.941851	573.50
1.790	60.96	1.4203	561.23	315.02	0.09623	0.60392	0.18915	1881.72864	0.0	1.932328	573.47
1.800	60.81	1.4218	561.23	313.42	0.09718	0.60620	0.18933	1883.48047	0.0	1.922525	573.43
1.810	60.65	1.4233	561.23	311.84	0.09813	0.60846	0.18950	1885.20862	0.0	1.912691	573.40
1.820	60.50	1.4248	561.23	310.28	0.09908	0.61069	0.18967	1886.91064	0.0	1.902949	573.36
1.830	60.34	1.4263	561.22	308.73	0.10003	0.61290	0.18984	1888.58667	0.0	1.893299	573.33
1.840	60.18	1.4277	561.22	307.21	0.10097	0.61508	0.19001	1890.24414	0.0	1.883741	573.29
1.850	60.03	1.4292	561.22	305.70	0.10192	0.61724	0.19017	1891.89502	0.0	1.874274	573.26
1.860	59.87	1.4307	561.22	304.20	0.10287	0.61938	0.19034	1893.54114	0.0	1.864884	573.22
1.870	59.71	1.4322	561.22	302.72	0.10382	0.62150	0.19050	1895.16638	0.0	1.855558	573.19
1.880	59.55	1.4337	561.22	301.25	0.10478	0.62359	0.19066	1896.74573	0.0	1.846295	573.16
1.890	59.40	1.4352	561.22	299.80	0.10573	0.62566	0.19081	1898.26672	0.0	1.837116	573.12
1.900	59.24	1.4366	561.21	298.38	0.10668	0.62770	0.19096	1899.73511	0.0	1.828045	573.09
1.910	59.08	1.4381	561.21	296.97	0.10762	0.62971	0.19110	1901.16711	0.0	1.819096	573.06
1.920	58.93	1.4395	561.21	295.58	0.10856	0.63170	0.19125	1902.56934	0.0	1.810267	573.02
1.930	58.77	1.4410	561.21	294.21	0.10950	0.63365	0.19138	1903.92322	0.0	1.801550	572.99
1.940	58.61	1.4424	561.21	292.86	0.11043	0.63559	0.19151	1905.16858	0.0	1.792954	572.96
1.950	58.46	1.4439	561.21	291.53	0.11136	0.63749	0.19161	1906.16589	0.0	1.784522	572.93
1.960	58.31	1.4453	561.21	290.24	0.11227	0.63933	0.19165	1906.59705	0.0	1.775626	572.89
1.970	58.17	1.4467	561.20	288.98	0.11317	0.64113	0.19156	1905.69629	0.0	1.766322	572.86
1.980	58.05	1.4481	561.20	287.74	0.11407	0.64291	0.19117	1901.80310	0.0	1.757683	572.83
1.990	57.97	1.4494	561.20	286.51	0.11497	0.64466	0.19010	1891.19751	0.0	1.750442	572.80
2.000	50.32	1.4508	561.13	284.81	0.11609	0.64704	0.18751	1865.37598	0.0	1.746280	572.79
2.010	50.24	1.4522	561.13	283.65	0.11703	0.64878	0.18649	1855.30591	0.0	1.742030	572.78
2.020	50.12	1.4536	561.13	282.43	0.11795	0.65052	0.18617	1852.03894	0.0	1.734652	572.76
2.030	49.98	1.4550	561.13	281.23	0.11887	0.65224	0.18614	1851.76855	0.0	1.725929	572.72
2.040	49.83	1.4564	561.12	280.01	0.11980	0.65398	0.18624	1852.80884	0.0	1.716550	572.69
2.050	49.67	1.4579	561.12	278.78	0.12075	0.65573	0.18640	1854.40698	0.0	1.706847	572.65
2.060	49.51	1.4594	561.12	277.55	0.12171	0.65749	0.18659	1856.25232	0.0	1.697036	572.61
2.070	49.35	1.4608	561.12	276.32	0.12268	0.65924	0.18679	1858.20862	0.0	1.687209	572.58
2.080	49.19	1.4623	561.12	275.11	0.12364	0.66098	0.18699	1860.20996	0.0	1.677409	572.54
2.090	49.03	1.4638	561.12	273.90	0.12461	0.66270	0.18719	1862.22339	0.0	1.667656	572.50
2.100	48.87	1.4653	561.12	272.71	0.12558	0.66441	0.18739	1864.23059	0.0	1.657961	572.46
2.110	48.71	1.4668	561.11	271.52	0.12654	0.66610	0.18759	1866.22058	0.0	1.648332	572.43
2.120	48.54	1.4682	561.11	270.35	0.12751	0.66777	0.18779	1868.18713	0.0	1.638645	572.39
2.130	48.38	1.4697	561.11	269.20	0.12847	0.66942	0.18798	1870.12683	0.0	1.628652	572.35
2.140	48.22	1.4712	561.11	268.06	0.12943	0.67105	0.18818	1872.03662	0.0	1.618737	572.31
2.150	48.06	1.4726	561.11	266.93	0.13038	0.67266	0.18836	1873.91541	0.0	1.608899	572.27
2.160	47.89	1.4741	561.11	265.82	0.13134	0.67425	0.18855	1875.76343	0.0	1.599141	572.23
2.170	47.73	1.4755	561.10	264.72	0.13229	0.67582	0.18873	1877.58154	0.0	1.589461	572.20
2.180	47.57	1.4769	561.10	263.63	0.13323	0.67737	0.18891	1879.37170	0.0	1.579860	572.16
2.190	47.40	1.4784	561.10	262.56	0.13418	0.67890	0.18909	1881.13550	0.0	1.570336	572.12
2.200	47.24	1.4798	561.10	261.50	0.13512	0.68042	0.18927	1882.87451	0.0	1.560888	572.08
2.210	47.08	1.4812	561.10	260.45	0.13606	0.68191	0.18944	1884.58948	0.0	1.551515	572.04

2.220	46.91	1.4826	561.10	259.42	0.13699	0.68339	0.18961	1886.27917	0.0	1.542214	572.01
2.230	46.75	1.4841	561.10	258.39	0.13792	0.68485	0.18977	1887.94397	0.0	1.532986	571.97
2.240	46.59	1.4855	561.09	257.38	0.13885	0.68630	0.18994	1889.59094	0.0	1.523832	571.93
2.250	46.42	1.4869	561.09	256.38	0.13978	0.68773	0.19011	1891.23267	0.0	1.514748	571.90
2.260	46.26	1.4882	561.09	255.39	0.14070	0.68914	0.19027	1892.87195	0.0	1.505725	571.86
2.270	46.09	1.4896	561.09	254.41	0.14163	0.69054	0.19043	1894.49475	0.0	1.496752	571.82
2.280	45.93	1.4910	561.09	253.44	0.14255	0.69193	0.19059	1896.07568	0.0	1.487828	571.79
2.290	45.77	1.4924	561.09	252.49	0.14347	0.69329	0.19075	1897.59998	0.0	1.476939	571.74
2.300	45.60	1.4938	561.08	251.55	0.14437	0.69463	0.19089	1899.06775	0.0	1.466138	571.70
2.310	45.44	1.4951	561.08	250.63	0.14527	0.69595	0.19104	1900.49146	0.0	1.455438	571.65
2.320	45.28	1.4965	561.08	249.72	0.14616	0.69724	0.19118	1901.87854	0.0	1.444840	571.61
2.330	45.11	1.4978	561.08	248.83	0.14704	0.69852	0.19131	1903.21252	0.0	1.434338	571.57
2.340	44.95	1.4991	561.08	247.95	0.14792	0.69978	0.19143	1904.42920	0.0	1.423941	571.52
2.350	44.79	1.5004	561.08	247.09	0.14878	0.70101	0.19153	1905.38220	0.0	1.413684	571.48
2.360	44.64	1.5017	561.08	246.25	0.14963	0.70219	0.19156	1905.73901	0.0	1.403649	571.44
2.370	44.50	1.5029	561.07	245.44	0.15046	0.70336	0.19146	1904.68799	0.0	1.393894	571.40
2.380	44.39	1.5042	561.07	244.64	0.15129	0.70451	0.19104	1900.48718	0.0	1.384713	571.36
2.390	44.33	1.5054	561.07	243.86	0.15210	0.70562	0.18990	1889.19238	0.0	1.376749	571.33
2.400	35.35	1.5066	560.99	242.65	0.15316	0.70729	0.18714	1861.73853	0.0	1.371482	571.31
2.410	35.29	1.5078	560.99	241.95	0.15398	0.70836	0.18606	1851.02429	0.0	1.366127	571.29
2.420	35.17	1.5091	560.99	241.19	0.15481	0.70945	0.18571	1847.45984	0.0	1.358013	571.26
2.430	35.03	1.5103	560.98	240.41	0.15564	0.71055	0.18566	1847.01953	0.0	1.348719	571.22
2.440	34.88	1.5116	560.98	239.63	0.15648	0.71167	0.18576	1847.95300	0.0	1.338880	571.18
2.450	34.72	1.5129	560.98	238.83	0.15734	0.71281	0.18591	1849.47046	0.0	1.329152	571.14
2.460	34.56	1.5142	560.98	238.03	0.15822	0.71395	0.18609	1851.24927	0.0	1.319455	571.10
2.470	34.40	1.5155	560.98	237.23	0.15909	0.71509	0.18628	1853.14905	0.0	1.309736	571.06
2.480	34.23	1.5168	560.98	236.44	0.15996	0.71623	0.18647	1855.10229	0.0	1.300031	571.01
2.490	34.07	1.5181	560.98	235.65	0.16084	0.71735	0.18667	1857.07397	0.0	1.290358	570.97
2.500	33.90	1.5194	560.97	234.87	0.16171	0.71847	0.18687	1859.04443	0.0	1.280725	570.93
2.510	33.74	1.5207	560.97	234.10	0.16257	0.71957	0.18707	1861.00159	0.0	1.271138	570.89
2.520	33.57	1.5220	560.97	233.33	0.16344	0.72066	0.18726	1862.93799	0.0	1.261601	570.85
2.530	33.41	1.5233	560.97	232.58	0.16430	0.72174	0.18745	1864.84900	0.0	1.252116	570.80
2.540	33.24	1.5245	560.97	231.83	0.16515	0.72280	0.18764	1866.73230	0.0	1.242686	570.76
2.550	33.08	1.5258	560.97	231.10	0.16600	0.72385	0.18783	1868.58630	0.0	1.233312	570.72
2.560	32.91	1.5271	560.96	230.37	0.16685	0.72489	0.18801	1870.41174	0.0	1.223994	570.68
2.570	32.75	1.5283	560.96	229.65	0.16769	0.72591	0.18819	1872.20935	0.0	1.214731	570.64
2.580	32.58	1.5296	560.96	228.95	0.16852	0.72692	0.18837	1873.98022	0.0	1.205525	570.59
2.590	32.42	1.5308	560.96	228.25	0.16935	0.72792	0.18855	1875.72620	0.0	1.196373	570.55
2.600	32.25	1.5320	560.96	227.56	0.17017	0.72891	0.18872	1877.44861	0.0	1.187276	570.51
2.610	32.09	1.5332	560.96	226.88	0.17099	0.72988	0.18889	1879.14844	0.0	1.177963	570.47
2.620	31.92	1.5344	560.95	226.20	0.17180	0.73084	0.18906	1880.82422	0.0	1.168434	570.42
2.630	31.76	1.5356	560.95	225.54	0.17261	0.73179	0.18923	1882.47583	0.0	1.158955	570.38
2.640	31.59	1.5368	560.95	224.88	0.17341	0.73272	0.18939	1884.10950	0.0	1.149528	570.34
2.650	31.43	1.5380	560.95	224.24	0.17421	0.73365	0.18955	1885.73730	0.0	1.140151	570.29
2.660	31.26	1.5392	560.95	223.59	0.17500	0.73456	0.18972	1887.36511	0.0	1.130817	570.25
2.670	31.10	1.5404	560.95	222.96	0.17579	0.73547	0.18988	1888.97937	0.0	1.121518	570.21
2.680	30.93	1.5415	560.95	222.33	0.17658	0.73637	0.19004	1890.55554	0.0	1.112251	570.16
2.690	30.77	1.5427	560.94	221.71	0.17736	0.73725	0.19019	1892.07483	0.0	1.103029	570.12
2.700	30.60	1.5438	560.94	221.10	0.17813	0.73812	0.19034	1893.53479	0.0	1.093866	570.08
2.710	30.44	1.5450	560.94	220.51	0.17889	0.73897	0.19048	1894.94629	0.0	1.084773	570.03
2.720	30.28	1.5461	560.94	219.92	0.17964	0.73981	0.19062	1896.31775	0.0	1.075751	569.99
2.730	30.11	1.5472	560.94	219.34	0.18038	0.74063	0.19075	1897.63330	0.0	1.066798	569.95
2.740	29.95	1.5483	560.94	218.77	0.18112	0.74144	0.19087	1898.83044	0.0	1.057921	569.90
2.750	29.80	1.5493	560.93	218.22	0.18184	0.74223	0.19096	1899.75793	0.0	1.049147	569.86
2.760	29.64	1.5504	560.93	217.69	0.18254	0.74299	0.19099	1900.06970	0.0	1.040527	569.82
2.770	29.51	1.5514	560.93	217.16	0.18323	0.74374	0.19088	1898.93921	0.0	1.032263	569.78
2.780	29.40	1.5524	560.93	216.65	0.18391	0.74447	0.19044	1894.56506	0.0	1.024868	569.75
2.790	29.36	1.5534	560.93	216.16	0.18457	0.74517	0.18926	1882.82532	0.0	1.018446	569.72
2.800	19.28	1.5544	560.83	215.26	0.18549	0.74639	0.18638	1854.19861	0.0	1.014204	569.69
2.810	19.24	1.5554	560.83	214.86	0.18616	0.74704	0.18526	1843.02661	0.0	1.009893	569.68
2.820	19.13	1.5564	560.83	214.37	0.18684	0.74773	0.18488	1839.26245	0.0	1.003339	569.65
2.830	18.99	1.5574	560.83	213.88	0.18752	0.74844	0.18483	1838.71741	0.0	0.9958276	569.62

2.840	18.84	1.5584	560.83	213.38	0.18820	0.74915	0.18491	1839.59167	0.0	0.9878841	569.58
2.850	18.68	1.5595	560.83	212.86	0.18891	0.74989	0.18506	1841.07336	0.0	0.9797124	569.54
2.860	18.52	1.5605	560.83	212.34	0.18963	0.75063	0.18524	1842.82629	0.0	0.9714532	569.49
2.870	18.36	1.5616	560.83	211.82	0.19035	0.75138	0.18543	1844.70874	0.0	0.9631712	569.45
2.880	18.20	1.5627	560.82	211.30	0.19107	0.75212	0.18562	1846.65173	0.0	0.9548937	569.41
2.890	18.03	1.5637	560.82	210.78	0.19179	0.75286	0.18582	1848.61926	0.0	0.9466334	569.37
2.900	17.87	1.5648	560.82	210.27	0.19250	0.75358	0.18602	1850.59082	0.0	0.9383979	569.33
2.910	17.71	1.5658	560.82	209.76	0.19321	0.75431	0.18622	1852.55347	0.0	0.9301903	569.28
2.920	17.54	1.5669	560.82	209.26	0.19392	0.75502	0.18641	1854.49951	0.0	0.9220148	569.24
2.930	17.38	1.5679	560.82	208.77	0.19462	0.75573	0.18661	1856.42395	0.0	0.9138723	569.20
2.940	17.21	1.5690	560.81	208.28	0.19532	0.75642	0.18680	1858.32373	0.0	0.9068970	569.16
2.950	17.05	1.5700	560.81	207.80	0.19602	0.75711	0.18699	1860.19751	0.0	0.8999566	569.13
2.960	16.88	1.5710	560.81	207.32	0.19671	0.75780	0.18717	1862.04541	0.0	0.8930522	569.09
2.970	16.72	1.5720	560.81	206.84	0.19739	0.75847	0.18735	1863.86731	0.0	0.8861836	569.05
2.980	16.56	1.5730	560.81	206.38	0.19807	0.75914	0.18754	1865.66443	0.0	0.8793508	569.02
2.990	16.39	1.5740	560.81	205.92	0.19874	0.75979	0.18771	1867.43872	0.0	0.8725528	568.98
3.000	16.23	1.5750	560.81	205.46	0.19941	0.76045	0.18789	1869.19080	0.0	0.8657898	568.94
3.010	16.07	1.5760	560.80	205.01	0.20008	0.76109	0.18806	1870.92297	0.0	0.8590606	568.91
3.020	15.90	1.5770	560.80	204.56	0.20074	0.76172	0.18824	1872.63599	0.0	0.8523641	568.87
3.030	15.74	1.5780	560.80	204.12	0.20139	0.76235	0.18841	1874.33093	0.0	0.8456994	568.84
3.040	15.57	1.5789	560.80	203.69	0.20204	0.76298	0.18858	1876.00928	0.0	0.8390663	568.80
3.050	15.41	1.5799	560.80	203.26	0.20269	0.76359	0.18874	1877.67102	0.0	0.8324629	568.76
3.060	15.25	1.5808	560.80	202.83	0.20333	0.76420	0.18891	1879.31665	0.0	0.8258889	568.73
3.070	15.08	1.5818	560.79	202.41	0.20397	0.76480	0.18907	1880.94653	0.0	0.8193437	568.69
3.080	14.92	1.5827	560.79	201.99	0.20460	0.76540	0.18923	1882.56018	0.0	0.8128266	568.66
3.090	14.76	1.5837	560.79	201.58	0.20523	0.76599	0.18939	1884.15820	0.0	0.8063364	568.62
3.100	14.59	1.5846	560.79	201.17	0.20586	0.76657	0.18955	1885.73987	0.0	0.80003072	568.59
3.110	14.43	1.5855	560.79	200.76	0.20648	0.76715	0.18971	1887.30530	0.0	0.7944484	568.55
3.120	14.26	1.5864	560.79	200.36	0.20710	0.76772	0.18987	1888.85413	0.0	0.7886155	568.52
3.130	14.10	1.5873	560.79	199.96	0.20771	0.76829	0.19002	1890.38635	0.0	0.7828076	568.49
3.140	13.94	1.5882	560.78	199.57	0.20833	0.76885	0.19017	1891.90198	0.0	0.7770249	568.46
3.150	13.77	1.5891	560.78	199.18	0.20893	0.76940	0.19032	1893.40076	0.0	0.7712667	568.42
3.160	13.61	1.5900	560.78	198.79	0.20954	0.76995	0.19047	1894.88269	0.0	0.7655330	568.39
3.170	13.45	1.5909	560.78	198.41	0.21014	0.77050	0.19062	1896.34814	0.0	0.7598234	568.36
3.180	13.28	1.5918	560.78	198.04	0.21073	0.77104	0.19077	1897.79700	0.0	0.7541378	568.33
3.190	13.12	1.5927	560.78	197.66	0.21133	0.77157	0.19091	1899.22961	0.0	0.7484753	568.29
3.200	12.96	1.5936	560.77	197.29	0.21191	0.77210	0.19105	1900.64636	0.0	0.7428361	568.26
3.210	12.79	1.5944	560.77	196.93	0.21250	0.77262	0.19119	1902.04736	0.0	0.7372196	568.23
3.220	12.63	1.5953	560.77	196.56	0.21308	0.77314	0.19133	1903.43323	0.0	0.7316260	568.20
3.230	12.47	1.5961	560.77	196.20	0.21366	0.77365	0.19147	1904.80396	0.0	0.7260542	568.16
3.240	12.30	1.5970	560.77	195.85	0.21423	0.77416	0.19161	1906.16016	0.0	0.7205042	568.13
3.250	12.14	1.5978	560.77	195.50	0.21480	0.77466	0.19174	1907.50208	0.0	0.7149754	568.10
3.260	11.98	1.5987	560.77	195.15	0.21537	0.77516	0.19187	1908.83020	0.0	0.7097543	568.07
3.270	11.81	1.5995	560.76	194.80	0.21593	0.77565	0.19201	1910.14478	0.0	0.7048400	568.04
3.280	11.65	1.6003	560.76	194.46	0.21649	0.77614	0.19214	1911.44617	0.0	0.6999458	568.01
3.290	11.49	1.6012	560.76	194.12	0.21705	0.77662	0.19227	1912.73474	0.0	0.6950710	567.98
3.300	11.32	1.6020	560.76	193.78	0.21760	0.77710	0.19240	1914.01062	0.0	0.6902156	567.95
3.310	11.16	1.6028	560.76	193.45	0.21815	0.77758	0.19252	1915.27405	0.0	0.6853788	567.92
3.320	11.00	1.6036	560.76	193.12	0.21870	0.77805	0.19265	1916.52490	0.0	0.6805611	567.89
3.330	10.84	1.6044	560.75	192.79	0.21925	0.77851	0.19277	1917.76355	0.0	0.6757616	567.86
3.340	10.67	1.6052	560.75	192.47	0.21979	0.77897	0.19290	1918.99023	0.0	0.6709800	567.83
3.350	10.51	1.6060	560.75	192.15	0.22032	0.77943	0.19302	1920.20496	0.0	0.6662163	567.81
3.360	10.35	1.6068	560.75	191.83	0.22086	0.77989	0.19314	1921.40771	0.0	0.6614704	567.78
3.370	10.18	1.6076	560.75	191.51	0.22139	0.78034	0.19326	1922.59863	0.0	0.6567414	567.75
3.380	10.02	1.6084	560.75	191.20	0.22192	0.78078	0.19338	1923.77783	0.0	0.6520297	567.72
3.390	9.86	1.6092	560.74	190.89	0.22245	0.78123	0.19349	1924.94556	0.0	0.6473343	567.69
3.400	9.70	1.6099	560.74	190.58	0.22297	0.78166	0.19361	1926.10181	0.0	0.6426560	567.66
3.410	9.53	1.6107	560.74	190.28	0.22349	0.78210	0.19373	1927.24658	0.0	0.6379939	567.63
3.420	9.37	1.6115	560.74	189.98	0.22401	0.78253	0.19384	1928.38025	0.0	0.6334926	567.60
3.430	9.21	1.6122	560.74	189.68	0.22452	0.78295	0.19395	1929.50281	0.0	0.6294425	567.58
3.440	9.04	1.6130	560.74	189.38	0.22503	0.78338	0.19406	1930.61462	0.0	0.6254078	567.55
3.450	8.88	1.6137	560.74	189.09	0.22554	0.78380	0.19417	1931.71570	0.0	0.6213873	567.53

3.460	8.72	1.6145	560.73	188.79	0.22605	0.78421	0.19428	1932.80627	0.0	0.6173819	567.50
3.470	8.56	1.6152	560.73	188.50	0.22655	0.78463	0.19439	1933.88635	0.0	0.6133908	567.48
3.480	8.39	1.6160	560.73	188.22	0.22705	0.78504	0.19450	1934.95605	0.0	0.6094141	567.45
3.490	8.23	1.6167	560.73	187.93	0.22755	0.78544	0.19461	1936.01562	0.0	0.6054515	567.43
3.500	8.07	1.6174	560.73	187.65	0.22804	0.78585	0.19471	1937.06482	0.0	0.6015028	567.40
3.510	7.90	1.6182	560.73	187.37	0.22854	0.78625	0.19482	1938.10413	0.0	0.5975678	567.37
3.520	7.74	1.6189	560.72	187.09	0.22903	0.78664	0.19492	1939.13367	0.0	0.5936464	567.35
3.530	7.58	1.6196	560.72	186.81	0.22951	0.78704	0.19502	1940.15332	0.0	0.5897382	567.32
3.540	7.42	1.6203	560.72	186.54	0.23000	0.78743	0.19512	1941.16321	0.0	0.5858436	567.30
3.550	7.25	1.6210	560.72	186.27	0.23048	0.78781	0.19523	1942.16382	0.0	0.5819618	567.27
3.560	7.09	1.6218	560.72	186.00	0.23096	0.78820	0.19532	1943.15466	0.0	0.5780931	567.25
3.570	6.93	1.6225	560.72	185.73	0.23144	0.78858	0.19542	1944.13623	0.0	0.5742369	567.22
3.580	6.77	1.6232	560.72	185.47	0.23191	0.78895	0.19552	1945.10864	0.0	0.5703934	567.20
3.590	6.60	1.6239	560.71	185.21	0.23238	0.78933	0.19562	1946.07153	0.0	0.5654047	567.16
3.600	6.44	1.6246	560.71	184.95	0.23285	0.78970	0.19571	1947.02502	0.0	0.5604284	567.13
3.610	6.28	1.6252	560.71	184.69	0.23332	0.79007	0.19581	1947.96899	0.0	0.5554646	567.10
3.620	6.12	1.6259	560.71	184.43	0.23378	0.79043	0.19590	1948.90369	0.0	0.5505130	567.07
3.630	5.95	1.6266	560.71	184.18	0.23424	0.79079	0.19600	1949.82922	0.0	0.5455731	567.03
3.640	5.79	1.6273	560.71	183.93	0.23469	0.79115	0.19609	1950.74585	0.0	0.5406454	567.00
3.650	5.63	1.6279	560.70	183.68	0.23515	0.79150	0.19618	1951.65369	0.0	0.5357290	566.97
3.660	5.47	1.6286	560.70	183.44	0.23560	0.79185	0.19627	1952.55249	0.0	0.5308242	566.93
3.670	5.30	1.6293	560.70	183.19	0.23604	0.79220	0.19636	1953.44263	0.0	0.5259307	566.90
3.680	5.14	1.6299	560.70	182.95	0.23649	0.79254	0.19645	1954.32422	0.0	0.5210482	566.87
3.690	4.98	1.6306	560.70	182.71	0.23693	0.79288	0.19654	1955.19727	0.0	0.5161765	566.83
3.700	4.82	1.6312	560.70	182.48	0.23736	0.79322	0.19662	1956.06189	0.0	0.5113154	566.80
3.710	4.66	1.6319	560.70	182.24	0.23780	0.79355	0.19671	1956.91833	0.0	0.5064647	566.77
3.720	4.50	1.6325	560.69	182.01	0.23823	0.79388	0.19679	1957.76672	0.0	0.5016242	566.73
3.730	4.33	1.6331	560.69	181.78	0.23865	0.79421	0.19688	1958.60657	0.0	0.4967937	566.70
3.740	4.17	1.6338	560.69	181.56	0.23908	0.79453	0.19696	1959.43872	0.0	0.4919734	566.67
3.750	4.01	1.6344	560.69	181.33	0.23950	0.79485	0.19704	1960.26331	0.0	0.4876004	566.63
3.760	3.85	1.6350	560.69	181.11	0.23992	0.79517	0.19713	1961.08032	0.0	0.4833835	566.60
3.770	3.69	1.6356	560.69	180.89	0.24033	0.79549	0.19721	1961.88965	0.0	0.4791760	566.57
3.780	3.53	1.6362	560.68	180.67	0.24074	0.79580	0.19729	1962.69165	0.0	0.4749781	566.54
3.790	3.37	1.6368	560.68	180.45	0.24116	0.79611	0.19737	1963.48645	0.0	0.4707893	566.51
3.800	3.21	1.6374	560.68	180.23	0.24156	0.79641	0.19745	1964.27405	0.0	0.4666097	566.48
3.810	3.04	1.6380	560.68	180.02	0.24197	0.79672	0.19753	1965.05432	0.0	0.4624391	566.45
3.820	2.88	1.6386	560.68	179.81	0.24237	0.79702	0.19760	1965.82776	0.0	0.4582775	566.42
3.830	2.72	1.6392	560.68	179.60	0.24277	0.79732	0.19768	1966.59424	0.0	0.4541241	566.39
3.840	2.56	1.6398	560.68	179.39	0.24316	0.79762	0.19776	1967.35364	0.0	0.4499795	566.36
3.850	2.40	1.6404	560.67	179.19	0.24356	0.79791	0.19783	1968.10657	0.0	0.4458432	566.33
3.860	2.24	1.6410	560.67	178.98	0.24395	0.79820	0.19791	1968.85254	0.0	0.4417153	566.30
3.870	2.08	1.6415	560.67	178.78	0.24434	0.79849	0.19798	1969.59216	0.0	0.4375954	566.27
3.880	1.92	1.6421	560.67	178.58	0.24472	0.79877	0.19806	1970.32507	0.0	0.4334835	566.24
3.890	1.76	1.6427	560.67	178.38	0.24510	0.79906	0.19813	1971.05127	0.0	0.4293793	566.21
3.900	1.60	1.6432	560.67	178.18	0.24548	0.79934	0.19820	1971.77124	0.0	0.4252830	566.18
3.910	1.44	1.6438	560.66	177.99	0.24586	0.79961	0.19827	1972.48499	0.0	0.4211941	566.15
3.920	1.28	1.6443	560.66	177.80	0.24623	0.79989	0.19834	1973.19226	0.0	0.4171129	566.12
3.930	1.12	1.6449	560.66	177.60	0.24661	0.80016	0.19841	1973.89343	0.0	0.4130387	566.08
3.940	0.96	1.6454	560.66	177.41	0.24697	0.80043	0.19848	1974.58862	0.0	0.4089719	566.05
3.950	0.80	1.6460	560.66	177.23	0.24734	0.80070	0.19855	1975.27783	0.0	0.4049119	566.02
3.960	0.64	1.6465	560.66	177.04	0.24770	0.80096	0.19862	1975.96118	0.0	0.4008589	565.99
3.970	0.48	1.6470	560.66	176.86	0.24806	0.80123	0.19869	1976.63879	0.0	0.3968126	565.96
3.980	0.32	1.6476	560.65	176.67	0.24842	0.80149	0.19876	1977.31116	0.0	0.3927731	565.93
3.990	0.16	1.6481	560.65	176.49	0.24878	0.80174	0.19883	1977.97852	0.0	0.3887398	565.90
4.000	0.00	1.6486	560.65	176.31	0.24913	0.80200	0.19889	1978.64221	0.0	0.3847128	565.86

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 9

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW

(M) RATE(KG/S)	RATE(KG/S)	DENS.(KG/M3)	DENS.(KG/M3)	ALPHA(KG/S)	FLOW RATE	ALPHA
0.005	764.018	764.018		0.0000		
0.015	763.840	763.840		0.0000		
0.025	763.659	763.659		0.0000		
0.035	763.475	763.475		0.0000		
0.045	763.286	763.286		0.0000		
0.055	763.094	763.094		0.0000		
0.065	762.899	762.899		0.0000		
0.075	762.700	762.700		0.0000		
0.085	762.497	762.497		0.0000		
0.095	762.290	762.290		0.0000		
0.105	762.080	762.080		0.0000		
0.115	761.867	761.867		0.0000		
0.125	761.649	761.649		0.0000		
0.135	761.428	761.428		0.0000		
0.145	761.203	761.203		0.0000		
0.155	760.974	760.974		0.0000		
0.165	760.742	760.742		0.0000		
0.175	763.503	760.484		0.0000		
0.185	774.346	760.060		0.0000		
0.195	783.487	759.384		0.0000		
0.205	788.123	758.482		0.0000		
0.215	798.267	757.412		0.0000		
0.225	802.984	756.212		0.0000		
0.235	791.472	754.907		0.0000		
0.245	787.705	753.513		0.0000		
0.255	800.587	752.039		0.0000		
0.265	799.603	750.493		0.0000		
0.275	780.797	748.877		0.0000		
0.285	776.023	747.196		0.0000		
0.295	771.005	745.452		0.0001		
0.305	765.909	743.647		0.0001		
0.315	760.740	741.784		0.0001		
0.325	755.390	739.862		0.0001		
0.335	749.694	737.775		0.0001		
0.345	743.820	735.626		0.0001		
0.355	738.039	733.415		0.0002		
0.365	732.289	731.139		0.0002		
0.375	732.915	728.784		0.0002		
0.385	725.979	726.294		0.0002		
0.395	717.902	723.363		0.0003		
0.405	709.207	720.133		0.0003		
0.415	701.686	717.203		0.0004		
0.425	694.691	714.367		0.0004		
0.435	687.953	711.533		0.0004		
0.445	681.377	708.667		0.0005		
0.455	674.927	705.753		0.0005		
0.465	668.594	702.782		0.0006		
0.475	662.374	699.752		0.0006		
0.485	656.269	696.660		0.0007		
0.495	650.286	693.505		0.0007		
0.505	644.425	690.286		0.0008		
0.515	638.691	687.004		0.0008		
0.525	633.084	683.659		0.0009		
0.535	627.605	680.250		0.0010		
0.545	622.254	676.778		0.0010		
0.555	617.029	673.244		0.0011		
0.565	611.927	669.649		0.0012		
0.575	606.942	665.993		0.0013		
0.585	602.072	662.278		0.0013		

0.595	597.314	658.503	0.0014
0.605	592.655	654.672	0.0015
0.615	588.090	650.784	0.0016
0.625	583.611	646.840	0.0017
0.635	579.215	642.844	0.0017
0.645	574.889	638.799	0.0018
0.655	570.780	634.900	0.0019
0.665	566.880	631.148	0.0020
0.675	563.010	627.352	0.0021
0.685	559.167	623.516	0.0022
0.695	555.346	619.646	0.0023
0.705	551.550	615.746	0.0024
0.715	547.766	611.818	0.0025
0.725	543.998	607.862	0.0025
0.735	540.238	603.883	0.0026
0.745	536.478	599.884	0.0027
0.755	532.727	595.878	0.0028
0.765	529.005	591.875	0.0029
0.775	525.221	587.799	0.0030
0.785	521.327	583.581	0.0031
0.795	516.701	578.551	0.0032
0.805	512.241	573.624	0.0033
0.815	508.470	569.516	0.0034
0.825	505.070	565.915	0.0035
0.835	501.699	562.382	0.0037
0.845	498.325	558.866	0.0038
0.855	494.947	555.357	0.0039
0.865	491.547	551.847	0.0040
0.875	488.124	548.334	0.0041
0.885	484.695	544.818	0.0042
0.895	481.260	541.301	0.0043
0.905	477.803	537.784	0.0045
0.915	474.331	534.270	0.0046
0.925	470.869	530.762	0.0047
0.935	467.383	527.261	0.0048
0.945	463.915	523.769	0.0050
0.955	460.438	520.287	0.0051
0.965	456.975	516.817	0.0052
0.975	453.512	513.361	0.0053
0.985	450.148	510.048	0.0055
0.995	446.785	506.750	0.0056
1.005	443.452	503.468	0.0057
1.015	440.122	500.201	0.0059
1.025	436.800	496.951	0.0060
1.035	433.492	493.720	0.0061
1.045	430.214	490.506	0.0063
1.055	426.928	487.309	0.0064
1.065	423.679	484.127	0.0065
1.075	420.429	480.963	0.0067
1.085	417.209	477.821	0.0068
1.095	414.013	474.706	0.0070
1.105	410.862	471.618	0.0071
1.115	407.719	468.558	0.0072
1.125	404.606	465.523	0.0074
1.135	401.521	462.514	0.0075
1.145	398.498	459.560	0.0077
1.155	395.532	456.658	0.0078
1.165	392.614	453.803	0.0080
1.175	389.689	450.946	0.0081
1.185	386.767	448.056	0.0082
1.195	383.155	444.463	0.0083
1.205	380.024	441.225	0.0084

1.215	377.044	438.235	0.0085
1.225	374.197	435.394	0.0087
1.235	371.354	432.583	0.0088
1.245	368.504	429.783	0.0090
1.255	365.687	426.997	0.0091
1.265	362.878	424.228	0.0093
1.275	360.099	421.479	0.0094
1.285	357.349	418.751	0.0096
1.295	354.621	416.045	0.0098
1.305	351.925	413.372	0.0099
1.315	349.275	410.734	0.0101
1.325	346.648	408.121	0.0103
1.335	344.067	405.532	0.0104
1.345	341.500	402.970	0.0106
1.355	338.987	400.432	0.0108
1.365	336.501	397.921	0.0110
1.375	334.033	395.436	0.0111
1.385	331.605	392.976	0.0113
1.395	329.203	390.542	0.0115
1.405	326.834	388.133	0.0116
1.415	324.496	385.748	0.0118
1.425	322.202	383.389	0.0120
1.435	319.947	381.054	0.0122
1.445	317.690	378.742	0.0123
1.455	315.482	376.451	0.0125
1.465	313.296	374.186	0.0127
1.475	311.141	371.962	0.0129
1.485	308.998	369.763	0.0131
1.495	306.895	367.593	0.0132
1.505	304.866	365.452	0.0134
1.515	302.864	363.337	0.0136
1.525	300.872	361.247	0.0138
1.535	298.905	359.183	0.0139
1.545	296.977	357.150	0.0141
1.555	295.110	355.162	0.0143
1.565	293.261	353.208	0.0144
1.575	291.465	351.271	0.0146
1.585	289.691	349.341	0.0147
1.595	287.370	346.843	0.0148
1.605	285.702	344.862	0.0148
1.615	283.934	342.922	0.0150
1.625	282.185	341.031	0.0151
1.635	280.493	339.148	0.0153
1.645	278.767	337.258	0.0155
1.655	277.044	335.373	0.0157
1.665	275.283	333.498	0.0158
1.675	273.597	331.638	0.0160
1.685	271.922	329.794	0.0162
1.695	270.278	327.968	0.0164
1.705	268.648	326.160	0.0166
1.715	267.025	324.370	0.0168
1.725	265.453	322.600	0.0170
1.735	263.887	320.849	0.0172
1.745	262.389	319.117	0.0174
1.755	260.826	317.406	0.0176
1.765	259.331	315.713	0.0178
1.775	257.905	314.040	0.0180
1.785	256.469	312.386	0.0182
1.795	255.005	310.753	0.0184
1.805	253.635	309.141	0.0186
1.815	252.256	307.546	0.0188
1.825	250.841	305.970	0.0190

1.835	249.510	304.411	0.0192
1.845	248.185	302.868	0.0194
1.855	246.879	301.340	0.0196
1.865	245.609	299.825	0.0198
1.875	244.332	298.326	0.0200
1.885	243.085	296.845	0.0202
1.895	241.839	295.384	0.0204
1.905	240.608	293.945	0.0206
1.915	239.422	292.525	0.0208
1.925	238.270	291.123	0.0209
1.935	237.107	289.738	0.0211
1.945	235.972	288.377	0.0213
1.955	234.910	287.057	0.0215
1.965	233.816	285.765	0.0217
1.975	232.773	284.490	0.0218
1.985	231.783	283.234	0.0219
1.995	230.328	281.492	0.0219
2.005	229.379	280.283	0.0219
2.015	228.428	279.035	0.0220
2.025	227.395	277.795	0.0221
2.035	226.411	276.547	0.0223
2.045	225.397	275.284	0.0225
2.055	224.363	274.020	0.0227
2.065	223.389	272.762	0.0229
2.075	222.338	271.512	0.0231
2.085	221.377	270.272	0.0233
2.095	220.398	269.044	0.0235
2.105	219.425	267.828	0.0237
2.115	218.502	266.626	0.0239
2.125	217.535	265.439	0.0241
2.135	216.596	264.265	0.0243
2.145	215.686	263.105	0.0245
2.155	214.804	261.960	0.0248
2.165	213.903	260.827	0.0250
2.175	213.081	259.709	0.0252
2.185	212.214	258.604	0.0254
2.195	211.378	257.511	0.0256
2.205	210.574	256.432	0.0258
2.215	209.751	255.364	0.0260
2.225	208.935	254.310	0.0262
2.235	208.151	253.267	0.0264
2.245	207.298	252.236	0.0266
2.255	206.557	251.215	0.0268
2.265	205.829	250.202	0.0270
2.275	205.081	249.199	0.0272
2.285	204.314	248.214	0.0274
2.295	203.579	247.246	0.0275
2.305	202.899	246.293	0.0277
2.315	202.199	245.356	0.0279
2.325	201.480	244.432	0.0281
2.335	200.795	243.523	0.0283
2.345	200.165	242.632	0.0285
2.355	199.477	241.773	0.0287
2.365	198.872	240.927	0.0288
2.375	198.281	240.098	0.0289
2.385	197.694	239.289	0.0290
2.395	196.746	238.042	0.0289
2.405	196.299	237.307	0.0287
2.415	195.712	236.509	0.0288
2.425	195.126	235.706	0.0289
2.435	194.506	234.896	0.0291
2.445	193.928	234.070	0.0292

2.455	193.338	233.239	0.0294
2.465	192.751	232.411	0.0296
2.475	192.120	231.588	0.0298
2.485	191.591	230.771	0.0300
2.495	190.993	229.962	0.0302
2.505	190.382	229.162	0.0304
2.515	189.896	228.371	0.0306
2.525	189.257	227.588	0.0308
2.535	188.780	226.816	0.0310
2.545	188.253	226.052	0.0312
2.555	187.712	225.298	0.0314
2.565	187.157	224.554	0.0315
2.575	186.648	223.819	0.0317
2.585	186.126	223.093	0.0319
2.595	185.651	222.376	0.0321
2.605	185.142	221.669	0.0323
2.615	184.724	220.970	0.0325
2.625	184.211	220.280	0.0326
2.635	183.746	219.599	0.0328
2.645	183.270	218.926	0.0330
2.655	182.784	218.260	0.0332
2.665	182.370	217.600	0.0334
2.675	181.925	216.947	0.0335
2.685	181.406	216.303	0.0337
2.695	181.017	215.671	0.0339
2.705	180.552	215.049	0.0341
2.715	180.178	214.439	0.0342
2.725	179.729	213.837	0.0344
2.735	179.413	213.247	0.0346
2.745	178.954	212.671	0.0347
2.755	178.599	212.116	0.0349
2.765	178.212	211.571	0.0350
2.775	177.896	211.038	0.0351
2.785	177.503	210.523	0.0350
2.795	176.869	209.596	0.0348
2.805	176.622	209.152	0.0346
2.815	176.281	208.644	0.0346
2.825	175.959	208.127	0.0347
2.835	175.598	207.603	0.0348
2.845	175.247	207.064	0.0349
2.855	174.874	206.520	0.0351
2.865	174.542	205.976	0.0353
2.875	174.185	205.435	0.0354
2.885	173.776	204.898	0.0356
2.895	173.426	204.365	0.0358
2.905	173.068	203.838	0.0360
2.915	172.703	203.316	0.0361
2.925	172.395	202.801	0.0363
2.935	172.080	202.291	0.0365
2.945	171.757	201.786	0.0366
2.955	171.360	201.288	0.0368
2.965	171.088	200.795	0.0370
2.975	170.742	200.308	0.0371
2.985	170.388	199.827	0.0373
2.995	170.095	199.351	0.0374
3.005	169.862	198.881	0.0376
3.015	169.554	198.416	0.0378
3.025	169.240	197.956	0.0379
3.035	168.919	197.501	0.0381
3.045	168.591	197.051	0.0382
3.055	168.325	196.606	0.0384
3.065	168.054	196.165	0.0385

3.075	167.726	195.729	0.0387
3.085	167.442	195.297	0.0389
3.095	167.202	194.870	0.0390
3.105	166.907	194.447	0.0392
3.115	166.625	194.028	0.0393
3.125	166.369	193.614	0.0395
3.135	166.146	193.203	0.0396
3.145	165.898	192.797	0.0397
3.155	165.645	192.394	0.0399
3.165	165.317	191.996	0.0400
3.175	165.124	191.601	0.0402
3.185	164.855	191.210	0.0403
3.195	164.582	190.824	0.0405
3.205	164.374	190.441	0.0406
3.215	164.090	190.062	0.0408
3.225	163.801	189.686	0.0409
3.235	163.579	189.315	0.0410
3.245	163.424	188.947	0.0412
3.255	163.139	188.582	0.0413
3.265	162.957	188.221	0.0414
3.275	162.717	187.863	0.0416
3.285	162.419	187.508	0.0417
3.295	162.243	187.157	0.0419
3.305	162.044	186.809	0.0420
3.315	161.805	186.464	0.0421
3.325	161.617	186.122	0.0423
3.335	161.352	185.783	0.0424
3.345	161.156	185.447	0.0425
3.355	160.956	185.114	0.0426
3.365	160.770	184.784	0.0428
3.375	160.545	184.456	0.0429
3.385	160.333	184.132	0.0430
3.395	160.137	183.811	0.0432
3.405	159.974	183.492	0.0433
3.415	159.752	183.177	0.0434
3.425	159.544	182.864	0.0435
3.435	159.297	182.553	0.0437
3.445	159.139	182.245	0.0438
3.455	158.921	181.939	0.0439
3.465	158.757	181.636	0.0440
3.475	158.514	181.336	0.0441
3.485	158.344	181.038	0.0443
3.495	158.246	180.742	0.0444
3.505	157.993	180.448	0.0445
3.515	157.814	180.158	0.0446
3.525	157.631	179.869	0.0447
3.535	157.521	179.582	0.0449
3.545	157.332	179.299	0.0450
3.555	157.159	179.017	0.0451
3.565	156.964	178.737	0.0452
3.575	156.767	178.460	0.0453
3.585	156.625	178.185	0.0454
3.595	156.421	177.913	0.0456
3.605	156.308	177.644	0.0457
3.615	156.175	177.377	0.0458
3.625	155.962	177.112	0.0459
3.635	155.822	176.851	0.0460
3.645	155.603	176.591	0.0461
3.655	155.475	176.334	0.0462
3.665	155.309	176.079	0.0463
3.675	155.098	175.827	0.0464
3.685	155.022	175.578	0.0466

3.695	154.865	175.330	0.0467
3.705	154.705	175.085	0.0468
3.715	154.525	174.842	0.0469
3.725	154.456	174.602	0.0470
3.735	154.270	174.364	0.0471
3.745	154.117	174.128	0.0472
3.755	153.944	173.894	0.0473
3.765	153.768	173.663	0.0474
3.775	153.669	173.433	0.0475
3.785	153.567	173.205	0.0476
3.795	153.383	172.980	0.0477
3.805	153.277	172.756	0.0478
3.815	153.185	172.535	0.0479
3.825	152.978	172.315	0.0480
3.835	152.864	172.098	0.0481
3.845	152.765	171.882	0.0482
3.855	152.568	171.668	0.0483
3.865	152.447	171.457	0.0484
3.875	152.324	171.247	0.0485
3.885	152.200	171.039	0.0486
3.895	152.073	170.833	0.0486
3.905	152.023	170.629	0.0487
3.915	151.812	170.427	0.0488
3.925	151.678	170.226	0.0489
3.935	151.623	170.028	0.0490
3.945	151.485	169.831	0.0491
3.955	151.345	169.636	0.0492
3.965	151.220	169.443	0.0493
3.975	151.075	169.252	0.0494
3.985	150.993	169.062	0.0495
3.995	150.845	168.875	0.0495

PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 10

DISTANCE DELTA-P ENTHALPY TEMPERATURE DENSITY FLOWING VOID FLOW MASS
 FLUX BORON CHF CHF TEMP.
 (M) (KPA) (MJ/KG) (DEG-K) (KG/M3) QUALITY FRACTION (KG/SEC) (KG/M2/SEC) (PPM)
 (MW/M2) (DEG-K)

0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.11706	1700.00012	0.0	0.000000	255.37
0.010	100.03	1.2113	548.30	763.93	0.00000	0.00000	0.11703	1699.51868	0.0	4.574293	580.26
0.020	99.93	1.2120	548.44	763.67	0.00000	0.00000	0.11697	1698.72876	0.0	4.524004	580.15
0.030	99.84	1.2128	548.58	763.41	0.00000	0.00000	0.11691	1697.76929	0.0	4.475710	580.04
0.040	99.74	1.2135	548.72	763.14	0.00000	0.00000	0.11684	1696.72424	0.0	4.429242	579.94
0.050	99.65	1.2143	548.87	762.86	0.00000	0.00000	0.11676	1695.64001	0.0	4.384456	579.84
0.060	99.55	1.2150	549.02	762.58	0.00000	0.00000	0.11669	1694.54077	0.0	4.341223	579.74
0.070	99.46	1.2158	549.17	762.29	0.00000	0.00000	0.11661	1693.43884	0.0	4.299433	579.65
0.080	99.36	1.2166	549.32	762.00	0.00000	0.00000	0.11653	1692.34045	0.0	4.259012	579.56
0.090	99.27	1.2174	549.48	761.70	0.00000	0.00000	0.11646	1691.24841	0.0	4.219872	579.47
0.100	99.18	1.2183	549.64	761.40	0.00000	0.00000	0.11638	1690.16443	0.0	4.181930	579.38
0.110	99.08	1.2191	549.80	761.10	0.00000	0.00000	0.11631	1689.08960	0.0	4.145134	579.30
0.120	98.99	1.2199	549.96	760.79	0.00000	0.00000	0.11624	1688.02576	0.0	4.109416	579.22
0.130	98.89	1.2208	550.13	760.47	0.00000	0.00000	0.11616	1686.97705	0.0	4.074708	579.14
0.140	98.80	1.2217	550.29	760.15	0.00000	0.00000	0.11609	1685.95178	0.0	4.040962	579.06
0.150	98.70	1.2226	550.46	759.82	0.00000	0.00000	0.11603	1684.96680	0.0	4.008123	578.99
0.160	98.61	1.2235	550.64	759.49	0.00000	0.00000	0.11596	1684.05225	0.0	3.976128	578.92
0.170	98.51	1.2244	550.81	759.15	0.00000	0.00000	0.11591	1683.25781	0.0	3.944920	578.85
0.180	98.42	1.2253	550.99	758.76	0.00000	0.00007	0.11586	1682.54956	0.0	3.914451	578.78
0.190	98.32	1.2263	551.17	758.05	0.00000	0.00057	0.11580	1681.66406	0.0	3.884768	578.71
0.200	98.23	1.2272	551.35	756.97	0.00001	0.00159	0.11572	1680.51331	0.0	3.855916	578.65

0.210	98.13	1.2282	551.53	755.59	0.00002	0.00300	0.11563	1679.22229	0.0	3.827842	578.58
0.220	98.03	1.2292	551.72	754.00	0.00004	0.00471	0.11554	1677.88989	0.0	3.800474	578.52
0.230	97.93	1.2301	551.91	752.24	0.00007	0.00664	0.11545	1676.55798	0.0	3.773737	578.46
0.240	97.83	1.2311	552.10	750.34	0.00011	0.00878	0.11536	1675.23926	0.0	3.747591	578.41
0.250	97.73	1.2322	552.29	748.30	0.00016	0.01110	0.11527	1673.92981	0.0	3.722015	578.35
0.260	97.62	1.2332	552.49	746.13	0.00022	0.01358	0.11518	1672.62390	0.0	3.696987	578.29
0.270	97.52	1.2342	552.69	743.85	0.00030	0.01623	0.11509	1671.32080	0.0	3.672481	578.24
0.280	97.42	1.2353	552.89	741.45	0.00040	0.01903	0.11500	1670.02673	0.0	3.648474	578.19
0.290	97.32	1.2364	553.09	738.94	0.00050	0.02198	0.11491	1668.74756	0.0	3.624950	578.14
0.300	97.21	1.2374	553.30	736.32	0.00063	0.02508	0.11482	1667.48450	0.0	3.601887	578.08
0.310	97.11	1.2385	553.50	733.60	0.00077	0.02832	0.11474	1666.23413	0.0	3.579273	578.04
0.320	97.00	1.2397	553.71	730.77	0.00093	0.03170	0.11465	1664.99377	0.0	3.557093	577.99
0.330	96.90	1.2408	553.93	727.84	0.00111	0.03523	0.11457	1663.77454	0.0	3.535326	577.94
0.340	96.79	1.2419	554.14	724.69	0.00132	0.03906	0.11449	1662.61536	0.0	3.515155	577.90
0.350	96.68	1.2431	554.36	721.44	0.00154	0.04303	0.11442	1661.60413	0.0	3.495286	577.86
0.360	96.58	1.2442	554.58	718.08	0.00179	0.04715	0.11437	1660.91516	0.0	3.475651	577.81
0.370	96.47	1.2454	554.80	714.62	0.00205	0.05139	0.11437	1660.87000	0.0	3.456136	577.77
0.380	96.35	1.2466	555.02	711.09	0.00234	0.05574	0.11444	1662.00427	0.0	3.436583	577.73
0.390	96.23	1.2478	555.25	707.51	0.00263	0.06016	0.11465	1665.02478	0.0	3.416757	577.69
0.400	93.65	1.2490	555.48	703.69	0.00296	0.06492	0.11501	1670.18225	0.0	3.396489	577.64
0.410	93.53	1.2502	555.70	700.09	0.00328	0.06937	0.11521	1673.04675	0.0	3.376543	577.60
0.420	93.42	1.2514	555.94	696.29	0.00363	0.07409	0.11527	1674.00769	0.0	3.357817	577.56
0.430	93.30	1.2527	556.17	692.31	0.00400	0.07907	0.11525	1673.71265	0.0	3.340061	577.52
0.440	93.19	1.2540	556.41	688.17	0.00440	0.08426	0.11518	1672.66174	0.0	3.323019	577.48
0.450	93.07	1.2552	556.65	683.89	0.00482	0.08965	0.11508	1671.17212	0.0	3.306483	577.45
0.460	92.96	1.2565	556.89	679.49	0.00527	0.09521	0.11496	1669.42810	0.0	3.290323	577.42
0.470	92.85	1.2579	557.14	674.97	0.00574	0.10094	0.11483	1667.53113	0.0	3.274464	577.39
0.480	92.73	1.2592	557.38	670.34	0.00623	0.10682	0.11469	1665.53674	0.0	3.258865	577.36
0.490	92.62	1.2605	557.64	665.61	0.00674	0.11286	0.11455	1663.47546	0.0	3.243498	577.33
0.500	92.50	1.2619	557.89	660.76	0.00727	0.11905	0.11440	1661.36401	0.0	3.228354	577.30
0.510	92.38	1.2633	558.15	655.82	0.00782	0.12538	0.11425	1659.21216	0.0	3.213417	577.28
0.520	92.27	1.2646	558.40	650.78	0.00839	0.13184	0.11410	1657.02771	0.0	3.198675	577.25
0.530	92.15	1.2661	558.67	645.64	0.00898	0.13845	0.11395	1654.81409	0.0	3.184127	577.22
0.540	92.03	1.2675	558.93	640.41	0.00959	0.14518	0.11380	1652.57544	0.0	3.169761	577.20
0.550	91.91	1.2689	559.20	635.10	0.01022	0.15204	0.11364	1650.31555	0.0	3.155575	577.17
0.560	91.79	1.2704	559.47	629.71	0.01087	0.15901	0.11348	1648.03540	0.0	3.141564	577.15
0.570	91.67	1.2718	559.74	624.24	0.01153	0.16609	0.11332	1645.73499	0.0	3.127724	577.12
0.580	91.55	1.2733	560.01	618.70	0.01222	0.17327	0.11316	1643.41077	0.0	3.114053	577.10
0.590	91.42	1.2748	560.29	613.10	0.01293	0.18055	0.11300	1641.05835	0.0	3.100553	577.08
0.600	91.30	1.2763	560.57	607.44	0.01365	0.18791	0.11284	1638.65894	0.0	3.087223	577.06
0.610	91.17	1.2779	560.86	601.74	0.01439	0.19535	0.11267	1636.18274	0.0	3.074078	577.04
0.620	91.05	1.2794	561.14	595.98	0.01515	0.20285	0.11249	1633.58240	0.0	3.061128	577.01
0.630	90.92	1.2810	561.43	590.19	0.01593	0.21042	0.11232	1631.09045	0.0	3.048326	576.99
0.640	90.80	1.2826	561.51	584.91	0.01670	0.21776	0.11219	1629.28735	0.0	3.035472	576.96
0.650	90.67	1.2842	561.51	579.65	0.01749	0.22528	0.11208	1627.70886	0.0	3.022549	576.93
0.660	90.55	1.2858	561.51	574.56	0.01828	0.23257	0.11198	1626.16394	0.0	3.008066	576.89
0.670	90.43	1.2874	561.51	569.63	0.01905	0.23963	0.11186	1624.50049	0.0	2.992148	576.84
0.680	90.30	1.2890	561.51	564.68	0.01984	0.24671	0.11174	1622.77588	0.0	2.976487	576.80
0.690	90.18	1.2907	561.51	559.72	0.02065	0.25379	0.11163	1621.07678	0.0	2.961051	576.76
0.700	90.05	1.2923	561.51	554.77	0.02147	0.26088	0.11151	1619.41638	0.0	2.945815	576.71
0.710	89.93	1.2940	561.50	549.83	0.02230	0.26795	0.11140	1617.78003	0.0	2.930789	576.67
0.720	89.80	1.2957	561.50	544.90	0.02314	0.27500	0.11129	1616.18665	0.0	2.915967	576.63
0.730	89.67	1.2973	561.50	539.98	0.02400	0.28203	0.11119	1614.66675	0.0	2.901332	576.59
0.740	89.55	1.2990	561.50	535.09	0.02487	0.28903	0.11109	1613.28027	0.0	2.886859	576.55
0.750	89.42	1.3007	561.50	530.22	0.02575	0.29599	0.11101	1612.14856	0.0	2.872502	576.51
0.760	89.29	1.3024	561.50	525.39	0.02664	0.30290	0.11097	1611.50464	0.0	2.858186	576.47
0.770	89.15	1.3041	561.50	520.62	0.02754	0.30973	0.11099	1611.77966	0.0	2.843807	576.42
0.780	89.01	1.3058	561.50	515.94	0.02843	0.31642	0.11112	1613.68018	0.0	2.829214	576.38
0.790	88.87	1.3075	561.49	511.41	0.02932	0.32290	0.11143	1618.18054	0.0	2.814129	576.34
0.800	85.47	1.3092	561.46	506.62	0.03025	0.32975	0.11195	1625.81677	0.0	2.798312	576.29
0.810	85.32	1.3109	561.46	502.43	0.03110	0.33580	0.11225	1630.16699	0.0	2.782579	576.24
0.820	85.18	1.3126	561.46	498.13	0.03199	0.34196	0.11238	1631.98706	0.0	2.767483	576.19

0.830	85.04	1.3143	561.46	493.89	0.03288	0.34801	0.11239	1632.14514	0.0	2.751361	576.14
0.840	84.91	1.3161	561.46	489.63	0.03380	0.35412	0.11233	1631.27747	0.0	2.735990	576.10
0.850	84.78	1.3178	561.46	485.36	0.03473	0.36022	0.11223	1629.84766	0.0	2.721143	576.05
0.860	84.65	1.3196	561.45	481.11	0.03568	0.36629	0.11211	1628.12317	0.0	2.706659	576.01
0.870	84.52	1.3213	561.45	476.89	0.03664	0.37233	0.11198	1626.25012	0.0	2.692440	575.97
0.880	84.39	1.3231	561.45	472.70	0.03762	0.37832	0.11185	1624.30591	0.0	2.678441	575.93
0.890	84.25	1.3249	561.45	468.56	0.03860	0.38425	0.11171	1622.33521	0.0	2.664629	575.89
0.900	84.12	1.3267	561.45	464.45	0.03960	0.39013	0.11158	1620.36816	0.0	2.650990	575.85
0.910	83.99	1.3285	561.45	460.38	0.04060	0.39595	0.11144	1618.42432	0.0	2.637509	575.81
0.920	83.86	1.3303	561.45	456.35	0.04162	0.40170	0.11131	1616.51489	0.0	2.624178	575.77
0.930	83.73	1.3321	561.45	452.37	0.04264	0.40740	0.11118	1614.64636	0.0	2.610991	575.73
0.940	83.59	1.3339	561.44	448.44	0.04367	0.41303	0.11106	1612.82153	0.0	2.597947	575.69
0.950	83.46	1.3357	561.44	444.55	0.04471	0.41859	0.11094	1611.04236	0.0	2.585039	575.65
0.960	83.33	1.3375	561.44	440.70	0.04576	0.42409	0.11082	1609.30835	0.0	2.572269	575.61
0.970	83.19	1.3393	561.44	436.90	0.04682	0.42952	0.11070	1607.61584	0.0	2.559634	575.57
0.980	83.06	1.3412	561.44	433.15	0.04789	0.43489	0.11059	1605.95789	0.0	2.547134	575.54
0.990	82.93	1.3430	561.44	429.52	0.04894	0.44009	0.11047	1604.32544	0.0	2.533202	575.49
1.000	82.79	1.3449	561.44	425.93	0.05000	0.44522	0.11036	1602.72351	0.0	2.519431	575.45
1.010	82.66	1.3467	561.44	422.38	0.05106	0.45029	0.11025	1601.15527	0.0	2.505816	575.41
1.020	82.52	1.3486	561.43	418.89	0.05214	0.45529	0.11015	1599.62207	0.0	2.492356	575.37
1.030	82.39	1.3504	561.43	415.43	0.05322	0.46023	0.11005	1598.12634	0.0	2.479046	575.33
1.040	82.25	1.3523	561.43	412.03	0.05430	0.46510	0.10995	1596.66565	0.0	2.465885	575.29
1.050	82.12	1.3541	561.43	408.66	0.05539	0.46991	0.10985	1595.23401	0.0	2.452873	575.25
1.060	81.98	1.3560	561.43	405.34	0.05649	0.47466	0.10975	1593.82739	0.0	2.440006	575.21
1.070	81.85	1.3579	561.43	402.07	0.05760	0.47934	0.10966	1592.45129	0.0	2.427280	575.17
1.080	81.71	1.3597	561.43	398.83	0.05871	0.48397	0.10956	1591.11682	0.0	2.414685	575.13
1.090	81.58	1.3616	561.43	395.64	0.05983	0.48853	0.10948	1589.83276	0.0	2.402220	575.09
1.100	81.44	1.3635	561.42	392.50	0.06095	0.49303	0.10939	1588.60229	0.0	2.389886	575.05
1.110	81.30	1.3653	561.42	389.39	0.06208	0.49747	0.10931	1587.42358	0.0	2.377690	575.01
1.120	81.16	1.3672	561.42	386.34	0.06321	0.50184	0.10923	1586.29712	0.0	2.365632	574.98
1.130	81.03	1.3691	561.42	383.32	0.06434	0.50615	0.10916	1585.24158	0.0	2.353703	574.94
1.140	80.89	1.3710	561.42	380.35	0.06548	0.51041	0.10909	1584.30750	0.0	2.341885	574.90
1.150	80.75	1.3729	561.42	377.43	0.06662	0.51458	0.10905	1583.60229	0.0	2.329753	574.86
1.160	80.61	1.3747	561.42	374.56	0.06776	0.51869	0.10903	1583.35046	0.0	2.317510	574.82
1.170	80.46	1.3766	561.41	371.75	0.06889	0.52270	0.10907	1583.97705	0.0	2.305248	574.78
1.180	80.31	1.3785	561.41	369.03	0.07001	0.52660	0.10922	1586.16504	0.0	2.292821	574.74
1.190	80.14	1.3803	561.41	366.42	0.07110	0.53033	0.10955	1590.85046	0.0	2.280006	574.70
1.200	75.58	1.3820	561.37	363.52	0.07226	0.53444	0.11007	1598.51904	0.0	2.266595	574.65
1.210	75.42	1.3838	561.37	361.11	0.07331	0.53796	0.11039	1603.14233	0.0	2.253157	574.61
1.220	75.26	1.3856	561.37	358.61	0.07440	0.54153	0.11054	1605.32385	0.0	2.240737	574.56
1.230	75.12	1.3874	561.36	356.08	0.07552	0.54514	0.11058	1605.93811	0.0	2.229072	574.53
1.240	74.97	1.3893	561.36	353.56	0.07667	0.54875	0.11056	1605.62317	0.0	2.217908	574.49
1.250	74.83	1.3911	561.36	351.05	0.07782	0.55233	0.11051	1604.81482	0.0	2.207125	574.45
1.260	74.68	1.3930	561.36	348.58	0.07898	0.55588	0.11043	1603.75549	0.0	2.196583	574.42
1.270	74.54	1.3948	561.36	346.12	0.08015	0.55938	0.11035	1602.57471	0.0	2.186210	574.38
1.280	74.40	1.3967	561.36	343.70	0.08132	0.56285	0.11027	1601.33887	0.0	2.175969	574.35
1.290	74.26	1.3986	561.36	341.30	0.08250	0.56627	0.11018	1600.08398	0.0	2.165841	574.32
1.300	74.11	1.4005	561.35	338.94	0.08368	0.56966	0.11009	1598.82812	0.0	2.155815	574.28
1.310	73.97	1.4023	561.35	336.60	0.08487	0.57299	0.11001	1597.58044	0.0	2.145630	574.25
1.320	73.83	1.4042	561.35	334.30	0.08606	0.57628	0.10992	1596.34705	0.0	2.135286	574.22
1.330	73.68	1.4061	561.35	332.03	0.08725	0.57953	0.10984	1595.13306	0.0	2.125040	574.18
1.340	73.54	1.4080	561.35	329.79	0.08844	0.58274	0.10976	1593.94202	0.0	2.114887	574.15
1.350	73.40	1.4099	561.35	327.58	0.08964	0.58590	0.10968	1592.77466	0.0	2.104830	574.12
1.360	73.25	1.4118	561.35	325.39	0.09084	0.58902	0.10960	1591.63220	0.0	2.094865	574.08
1.370	73.11	1.4136	561.35	323.23	0.09204	0.59211	0.10952	1590.51379	0.0	2.084993	574.05
1.380	72.96	1.4155	561.34	321.10	0.09324	0.59515	0.10945	1589.41919	0.0	2.075212	574.02
1.390	72.82	1.4174	561.34	319.00	0.09445	0.59816	0.10937	1588.34705	0.0	2.065524	573.98
1.400	72.67	1.4193	561.34	316.93	0.09566	0.60113	0.10930	1587.29614	0.0	2.055926	573.95
1.410	72.53	1.4212	561.34	314.88	0.09687	0.60405	0.10923	1586.26587	0.0	2.046418	573.92
1.420	72.38	1.4231	561.34	312.85	0.09808	0.60695	0.10916	1585.25562	0.0	2.036998	573.89
1.430	72.24	1.4250	561.34	310.86	0.09930	0.60980	0.10909	1584.26489	0.0	2.027667	573.86
1.440	72.09	1.4269	561.34	308.88	0.10052	0.61262	0.10902	1583.28943	0.0	2.018425	573.82

1.450	71.94	1.4288	561.33	306.94	0.10174	0.61541	0.10896	1582.32227	0.0	2.009271	573.79
1.460	71.80	1.4307	561.33	305.01	0.10296	0.61816	0.10889	1581.35889	0.0	2.000206	573.76
1.470	71.65	1.4326	561.33	303.11	0.10419	0.62087	0.10883	1580.40320	0.0	1.990973	573.73
1.480	71.50	1.4345	561.33	301.24	0.10541	0.62355	0.10876	1579.46631	0.0	1.981074	573.70
1.490	71.35	1.4364	561.33	299.40	0.10663	0.62618	0.10870	1578.55945	0.0	1.971261	573.66
1.500	71.21	1.4383	561.33	297.58	0.10785	0.62878	0.10864	1577.68628	0.0	1.961539	573.63
1.510	71.06	1.4402	561.33	295.79	0.10907	0.63134	0.10858	1576.84448	0.0	1.951916	573.59
1.520	70.91	1.4420	561.32	294.02	0.11029	0.63387	0.10853	1576.03857	0.0	1.942393	573.56
1.530	70.76	1.4439	561.32	292.28	0.11151	0.63637	0.10847	1575.28821	0.0	1.932959	573.53
1.540	70.61	1.4458	561.32	290.55	0.11273	0.63883	0.10843	1574.64221	0.0	1.923596	573.50
1.550	70.46	1.4477	561.32	288.85	0.11395	0.64126	0.10840	1574.21155	0.0	1.914271	573.46
1.560	70.31	1.4496	561.32	287.18	0.11517	0.64365	0.10840	1574.21851	0.0	1.904967	573.43
1.570	70.15	1.4514	561.32	285.55	0.11637	0.64598	0.10846	1575.07849	0.0	1.895637	573.40
1.580	69.98	1.4532	561.32	283.98	0.11754	0.64822	0.10862	1577.46326	0.0	1.886174	573.36
1.590	69.80	1.4549	561.31	282.49	0.11865	0.65035	0.10895	1582.27197	0.0	1.876407	573.33
1.600	63.94	1.4566	561.26	280.73	0.11987	0.65283	0.10948	1589.90564	0.0	1.866178	573.29
1.610	63.76	1.4583	561.26	279.35	0.12096	0.65487	0.10981	1594.64758	0.0	1.855818	573.24
1.620	63.59	1.4600	561.26	277.89	0.12209	0.65695	0.10997	1596.96265	0.0	1.846227	573.21
1.630	63.43	1.4618	561.25	276.41	0.12325	0.65907	0.11002	1597.72717	0.0	1.837218	573.17
1.640	63.27	1.4636	561.25	274.93	0.12444	0.66119	0.11001	1597.58936	0.0	1.828089	573.14
1.650	63.12	1.4654	561.25	273.46	0.12563	0.66329	0.10997	1596.97400	0.0	1.819241	573.11
1.660	62.96	1.4673	561.25	272.00	0.12683	0.66538	0.10991	1596.11963	0.0	1.810571	573.08
1.670	62.81	1.4691	561.25	270.55	0.12803	0.66744	0.10984	1595.14990	0.0	1.802023	573.05
1.680	62.66	1.4709	561.25	269.12	0.12923	0.66949	0.10977	1594.12793	0.0	1.793566	573.02
1.690	62.50	1.4727	561.25	267.70	0.13044	0.67152	0.10970	1593.08643	0.0	1.785185	572.99
1.700	62.35	1.4746	561.24	266.30	0.13164	0.67352	0.10963	1592.04236	0.0	1.776874	572.96
1.710	62.20	1.4764	561.24	264.91	0.13285	0.67550	0.10956	1591.00476	0.0	1.768627	572.93
1.720	62.04	1.4782	561.24	263.54	0.13406	0.67746	0.10949	1589.97876	0.0	1.760444	572.90
1.730	61.89	1.4801	561.24	262.18	0.13526	0.67940	0.10942	1588.96753	0.0	1.752323	572.87
1.740	61.74	1.4819	561.24	260.84	0.13647	0.68132	0.10935	1587.97241	0.0	1.744264	572.84
1.750	61.58	1.4837	561.24	259.51	0.13768	0.68322	0.10928	1586.99414	0.0	1.736268	572.81
1.760	61.43	1.4856	561.23	258.20	0.13888	0.68509	0.10921	1586.03308	0.0	1.728333	572.78
1.770	61.27	1.4874	561.23	256.90	0.14009	0.68695	0.10915	1585.08838	0.0	1.720461	572.75
1.780	61.12	1.4892	561.23	255.62	0.14130	0.68878	0.10908	1584.15845	0.0	1.712651	572.72
1.790	60.96	1.4910	561.23	254.35	0.14250	0.69059	0.10902	1583.24255	0.0	1.704904	572.69
1.800	60.81	1.4928	561.23	253.10	0.14370	0.69238	0.10896	1582.33899	0.0	1.696855	572.66
1.810	60.65	1.4947	561.23	251.86	0.14491	0.69415	0.10890	1581.44727	0.0	1.688751	572.63
1.820	60.49	1.4965	561.23	250.64	0.14611	0.69590	0.10884	1580.56921	0.0	1.680712	572.60
1.830	60.34	1.4983	561.22	249.43	0.14731	0.69763	0.10878	1579.70447	0.0	1.672737	572.57
1.840	60.18	1.5001	561.22	248.23	0.14850	0.69934	0.10872	1578.85022	0.0	1.664826	572.54
1.850	60.02	1.5019	561.22	247.05	0.14970	0.70103	0.10866	1578.00024	0.0	1.656980	572.51
1.860	59.87	1.5037	561.22	245.88	0.15090	0.70270	0.10860	1577.15234	0.0	1.649198	572.48
1.870	59.71	1.5055	561.22	244.72	0.15210	0.70436	0.10854	1576.31323	0.0	1.641472	572.45
1.880	59.55	1.5073	561.22	243.57	0.15329	0.70600	0.10849	1575.49512	0.0	1.633797	572.42
1.890	59.40	1.5091	561.22	242.44	0.15449	0.70761	0.10843	1574.70679	0.0	1.626173	572.40
1.900	59.24	1.5109	561.21	241.32	0.15568	0.70921	0.10838	1573.94934	0.0	1.618610	572.37
1.910	59.08	1.5127	561.21	240.21	0.15686	0.71079	0.10833	1573.22021	0.0	1.611115	572.34
1.920	58.92	1.5144	561.21	239.12	0.15805	0.71235	0.10828	1572.52356	0.0	1.603689	572.31
1.930	58.76	1.5162	561.21	238.05	0.15923	0.71389	0.10824	1571.87988	0.0	1.596324	572.28
1.940	58.60	1.5180	561.21	236.98	0.16041	0.71541	0.10820	1571.34143	0.0	1.588998	572.25
1.950	58.44	1.5197	561.21	235.93	0.16158	0.71692	0.10818	1571.02380	0.0	1.581691	572.23
1.960	58.27	1.5215	561.20	234.90	0.16274	0.71839	0.10819	1571.16614	0.0	1.573684	572.19
1.970	58.10	1.5232	561.20	233.90	0.16387	0.71981	0.10826	1572.20203	0.0	1.564935	572.16
1.980	57.92	1.5248	561.20	232.95	0.16496	0.72117	0.10844	1574.84497	0.0	1.556079	572.12
1.990	57.72	1.5263	561.20	232.07	0.16597	0.72243	0.10880	1580.03772	0.0	1.546970	572.09
2.000	50.57	1.5277	561.13	230.94	0.16708	0.72400	0.10936	1588.15662	0.0	1.537476	572.04
2.010	50.37	1.5292	561.13	230.13	0.16806	0.72522	0.10971	1593.28442	0.0	1.527796	572.00
2.020	50.19	1.5308	561.13	229.24	0.16909	0.72648	0.10989	1595.84106	0.0	1.518753	571.96
2.030	50.01	1.5324	561.13	228.34	0.17017	0.72777	0.10995	1596.76111	0.0	1.510200	571.93
2.040	49.84	1.5340	561.13	227.42	0.17127	0.72908	0.10995	1596.73755	0.0	1.501954	571.90
2.050	49.68	1.5357	561.12	226.50	0.17238	0.73039	0.10991	1596.20911	0.0	1.493919	571.86
2.060	49.52	1.5374	561.12	225.59	0.17350	0.73169	0.10986	1595.43506	0.0	1.486033	571.83

2.070	49.35	1.5390	561.12	224.69	0.17461	0.73298	0.10980	1594.54346	0.0	1.478239	571.80
2.080	49.19	1.5407	561.12	223.79	0.17573	0.73426	0.10973	1593.59790	0.0	1.470510	571.77
2.090	49.03	1.5424	561.12	222.90	0.17685	0.73553	0.10967	1592.63086	0.0	1.462836	571.74
2.100	48.87	1.5440	561.12	222.03	0.17796	0.73679	0.10960	1591.65942	0.0	1.455211	571.71
2.110	48.71	1.5457	561.11	221.15	0.17908	0.73803	0.10953	1590.69263	0.0	1.447632	571.68
2.120	48.54	1.5474	561.11	220.29	0.18019	0.73926	0.10947	1589.73499	0.0	1.439979	571.65
2.130	48.38	1.5490	561.11	219.44	0.18130	0.74048	0.10940	1588.78931	0.0	1.432011	571.61
2.140	48.22	1.5507	561.11	218.60	0.18240	0.74168	0.10934	1587.85779	0.0	1.424092	571.58
2.150	48.06	1.5523	561.11	217.76	0.18350	0.74287	0.10928	1586.94128	0.0	1.416220	571.55
2.160	47.89	1.5540	561.11	216.94	0.18460	0.74405	0.10921	1586.04004	0.0	1.408395	571.52
2.170	47.73	1.5556	561.10	216.12	0.18569	0.74522	0.10915	1585.15381	0.0	1.400618	571.49
2.180	47.57	1.5572	561.10	215.32	0.18678	0.74637	0.10909	1584.28174	0.0	1.392890	571.45
2.190	47.40	1.5588	561.10	214.52	0.18786	0.74750	0.10903	1583.42322	0.0	1.385209	571.42
2.200	47.24	1.5604	561.10	213.73	0.18894	0.74863	0.10898	1582.57715	0.0	1.377576	571.39
2.210	47.08	1.5621	561.10	212.95	0.19002	0.74974	0.10892	1581.74304	0.0	1.369990	571.36
2.220	46.91	1.5637	561.10	212.18	0.19109	0.75084	0.10886	1580.92139	0.0	1.362451	571.33
2.230	46.75	1.5652	561.10	211.42	0.19216	0.75193	0.10881	1580.11206	0.0	1.354958	571.30
2.240	46.59	1.5668	561.09	210.67	0.19323	0.75301	0.10875	1579.31238	0.0	1.347512	571.27
2.250	46.42	1.5684	561.09	209.92	0.19429	0.75407	0.10870	1578.51575	0.0	1.340114	571.24
2.260	46.26	1.5700	561.09	209.18	0.19535	0.75513	0.10864	1577.71985	0.0	1.332761	571.20
2.270	46.09	1.5716	561.09	208.45	0.19640	0.75617	0.10859	1576.93030	0.0	1.325448	571.17
2.280	45.93	1.5731	561.09	207.73	0.19746	0.75721	0.10853	1576.15857	0.0	1.318170	571.14
2.290	45.77	1.5747	561.09	207.01	0.19850	0.75823	0.10848	1575.41370	0.0	1.309009	571.10
2.300	45.60	1.5762	561.08	206.31	0.19954	0.75923	0.10843	1574.69934	0.0	1.299899	571.07
2.310	45.44	1.5778	561.08	205.62	0.20056	0.76022	0.10839	1574.01562	0.0	1.290846	571.03
2.320	45.27	1.5793	561.08	204.94	0.20158	0.76119	0.10834	1573.36816	0.0	1.281852	570.99
2.330	45.11	1.5808	561.08	204.27	0.20258	0.76214	0.10830	1572.77820	0.0	1.272909	570.95
2.340	44.94	1.5823	561.08	203.61	0.20358	0.76309	0.10827	1572.30383	0.0	1.263989	570.91
2.350	44.77	1.5837	561.08	202.95	0.20458	0.76402	0.10825	1572.06189	0.0	1.255102	570.87
2.360	44.60	1.5852	561.08	202.32	0.20555	0.76492	0.10827	1572.31726	0.0	1.246231	570.83
2.370	44.42	1.5866	561.07	201.72	0.20647	0.76578	0.10835	1573.52051	0.0	1.237337	570.79
2.380	44.23	1.5878	561.07	201.16	0.20734	0.76659	0.10855	1576.42493	0.0	1.228346	570.75
2.390	44.02	1.5890	561.07	200.65	0.20811	0.76730	0.10894	1582.01562	0.0	1.219139	570.71
2.400	35.66	1.5900	560.99	199.91	0.20899	0.76832	0.10953	1590.62903	0.0	1.209608	570.66
2.410	35.45	1.5911	560.99	199.46	0.20973	0.76901	0.10991	1596.16760	0.0	1.199882	570.61
2.420	35.25	1.5923	560.99	198.94	0.21053	0.76975	0.11011	1598.99780	0.0	1.190664	570.57
2.430	35.07	1.5936	560.98	198.40	0.21139	0.77052	0.11018	1600.09741	0.0	1.181843	570.53
2.440	34.90	1.5949	560.98	197.84	0.21227	0.77132	0.11019	1600.20007	0.0	1.173269	570.49
2.450	34.73	1.5962	560.98	197.28	0.21318	0.77212	0.11016	1599.75916	0.0	1.165206	570.45
2.460	34.56	1.5976	560.98	196.72	0.21408	0.77292	0.11011	1599.06128	0.0	1.157391	570.42
2.470	34.40	1.5989	560.98	196.17	0.21498	0.77371	0.11005	1598.23938	0.0	1.149642	570.38
2.480	34.23	1.6002	560.98	195.61	0.21589	0.77450	0.10999	1597.35962	0.0	1.141937	570.35
2.490	34.07	1.6016	560.98	195.07	0.21679	0.77528	0.10993	1596.45557	0.0	1.134267	570.31
2.500	33.90	1.6029	560.97	194.53	0.21768	0.77605	0.10987	1595.54419	0.0	1.126627	570.28
2.510	33.74	1.6042	560.97	193.99	0.21857	0.77681	0.10981	1594.63550	0.0	1.119017	570.24
2.520	33.57	1.6055	560.97	193.46	0.21946	0.77757	0.10974	1593.73425	0.0	1.111435	570.21
2.530	33.41	1.6069	560.97	192.94	0.22034	0.77832	0.10968	1592.84424	0.0	1.103880	570.17
2.540	33.24	1.6082	560.97	192.42	0.22122	0.77906	0.10962	1591.96692	0.0	1.096354	570.14
2.550	33.08	1.6095	560.97	191.91	0.22209	0.77979	0.10956	1591.10376	0.0	1.088856	570.10
2.560	32.91	1.6107	560.96	191.40	0.22296	0.78051	0.10950	1590.25427	0.0	1.081387	570.07
2.570	32.75	1.6120	560.96	190.90	0.22382	0.78122	0.10945	1589.41846	0.0	1.073947	570.03
2.580	32.58	1.6133	560.96	190.41	0.22467	0.78193	0.10939	1588.59570	0.0	1.066537	570.00
2.590	32.42	1.6145	560.96	189.92	0.22552	0.78263	0.10933	1587.78540	0.0	1.059155	569.97
2.600	32.25	1.6158	560.96	189.44	0.22636	0.78331	0.10928	1586.98657	0.0	1.051802	569.93
2.610	32.08	1.6170	560.96	188.96	0.22720	0.78399	0.10922	1586.19910	0.0	1.044229	569.89
2.620	31.92	1.6183	560.95	188.49	0.22803	0.78467	0.10917	1585.42285	0.0	1.036434	569.86
2.630	31.75	1.6195	560.95	188.02	0.22885	0.78533	0.10912	1584.65881	0.0	1.028667	569.82
2.640	31.59	1.6207	560.95	187.57	0.22966	0.78598	0.10907	1583.90381	0.0	1.020930	569.78
2.650	31.42	1.6219	560.95	187.11	0.23047	0.78663	0.10902	1583.15247	0.0	1.013221	569.75
2.660	31.26	1.6231	560.95	186.66	0.23128	0.78727	0.10896	1582.40137	0.0	1.005540	569.71
2.670	31.10	1.6243	560.95	186.22	0.23208	0.78790	0.10891	1581.65552	0.0	0.9978818	569.67
2.680	30.93	1.6255	560.95	185.78	0.23288	0.78853	0.10886	1580.92554	0.0	0.9902425	569.63

2.690	30.77	1.6266	560.94	185.35	0.23366	0.78915	0.10881	1580.22205	0.0	0.9826226	569.60
2.700	30.60	1.6278	560.94	184.92	0.23444	0.78975	0.10877	1579.54968	0.0	0.9750299	569.56
2.710	30.44	1.6289	560.94	184.51	0.23521	0.79035	0.10872	1578.91040	0.0	0.9674703	569.52
2.720	30.27	1.6300	560.94	184.10	0.23596	0.79093	0.10868	1578.30945	0.0	0.9599449	569.48
2.730	30.10	1.6311	560.94	183.69	0.23671	0.79151	0.10864	1577.77148	0.0	0.9524413	569.45
2.740	29.94	1.6322	560.94	183.29	0.23745	0.79208	0.10862	1577.35229	0.0	0.9449536	569.41
2.750	29.77	1.6333	560.93	182.90	0.23818	0.79264	0.10860	1577.18176	0.0	0.9374845	569.37
2.760	29.60	1.6344	560.93	182.53	0.23888	0.79317	0.10863	1577.52722	0.0	0.9300162	569.33
2.770	29.42	1.6353	560.93	182.18	0.23954	0.79367	0.10872	1578.85498	0.0	0.9226453	569.30
2.780	29.22	1.6362	560.93	181.86	0.24012	0.79412	0.10893	1581.94275	0.0	0.9155722	569.26
2.790	29.00	1.6369	560.93	181.59	0.24061	0.79450	0.10934	1587.79773	0.0	0.9083130	569.22
2.800	19.64	1.6375	560.84	181.08	0.24121	0.79517	0.10995	1596.68042	0.0	0.9007813	569.17
2.810	19.42	1.6382	560.84	180.87	0.24167	0.79553	0.11035	1602.49280	0.0	0.8930811	569.13
2.820	19.22	1.6390	560.83	180.57	0.24221	0.79595	0.11056	1605.51465	0.0	0.8857572	569.09
2.830	19.04	1.6398	560.83	180.26	0.24280	0.79640	0.11064	1606.73999	0.0	0.8787338	569.05
2.840	18.87	1.6408	560.83	179.93	0.24343	0.79687	0.11065	1606.93225	0.0	0.8718935	569.01
2.850	18.70	1.6417	560.83	179.59	0.24409	0.79735	0.11063	1606.56079	0.0	0.8651552	568.98
2.860	18.53	1.6427	560.83	179.25	0.24474	0.79783	0.11058	1605.91541	0.0	0.8584984	568.94
2.870	18.36	1.6437	560.83	178.91	0.24539	0.79831	0.11053	1605.13660	0.0	0.8518845	568.91
2.880	18.20	1.6446	560.82	178.58	0.24605	0.79879	0.11047	1604.29480	0.0	0.8452962	568.87
2.890	18.03	1.6456	560.82	178.25	0.24670	0.79927	0.11041	1603.42407	0.0	0.8387252	568.84
2.900	17.87	1.6466	560.82	177.92	0.24735	0.79974	0.11035	1602.54297	0.0	0.8321688	568.80
2.910	17.71	1.6475	560.82	177.59	0.24799	0.80020	0.11029	1601.66187	0.0	0.8256251	568.77
2.920	17.54	1.6485	560.82	177.27	0.24863	0.80066	0.11023	1600.78589	0.0	0.8190939	568.73
2.930	17.38	1.6494	560.82	176.95	0.24927	0.80112	0.11017	1599.91858	0.0	0.8125749	568.70
2.940	17.21	1.6504	560.81	176.63	0.24990	0.80157	0.11011	1599.06238	0.0	0.8071088	568.67
2.950	17.05	1.6513	560.81	176.32	0.25053	0.80202	0.11005	1598.21838	0.0	0.8016555	568.64
2.960	16.89	1.6522	560.81	176.01	0.25115	0.80246	0.11000	1597.38647	0.0	0.7962153	568.61
2.970	16.72	1.6531	560.81	175.70	0.25177	0.80290	0.10994	1596.56714	0.0	0.7907884	568.58
2.980	16.56	1.6540	560.81	175.39	0.25238	0.80333	0.10988	1595.75964	0.0	0.7853749	568.55
2.990	16.39	1.6549	560.81	175.09	0.25299	0.80376	0.10983	1594.96387	0.0	0.7799751	568.52
3.000	16.23	1.6558	560.81	174.80	0.25359	0.80419	0.10977	1594.17847	0.0	0.7745892	568.49
3.010	16.07	1.6567	560.80	174.50	0.25419	0.80460	0.10972	1593.40283	0.0	0.7692164	568.46
3.020	15.90	1.6576	560.80	174.21	0.25479	0.80502	0.10967	1592.63647	0.0	0.7638571	568.43
3.030	15.74	1.6585	560.80	173.92	0.25538	0.80543	0.10962	1591.87866	0.0	0.7585107	568.40
3.040	15.57	1.6593	560.80	173.64	0.25596	0.80583	0.10956	1591.12903	0.0	0.7531775	568.37
3.050	15.41	1.6602	560.80	173.36	0.25654	0.80624	0.10951	1590.38684	0.0	0.7478566	568.34
3.060	15.25	1.6611	560.80	173.08	0.25712	0.80663	0.10946	1589.65210	0.0	0.7425478	568.31
3.070	15.08	1.6619	560.79	172.80	0.25769	0.80703	0.10941	1588.92480	0.0	0.7372509	568.28
3.080	14.92	1.6628	560.79	172.53	0.25826	0.80742	0.10936	1588.20459	0.0	0.7319659	568.25
3.090	14.75	1.6636	560.79	172.26	0.25883	0.80780	0.10931	1587.49170	0.0	0.7266917	568.22
3.100	14.59	1.6644	560.79	171.99	0.25939	0.80819	0.10927	1586.78638	0.0	0.72148302	568.20
3.110	14.43	1.6652	560.79	171.73	0.25994	0.80856	0.10922	1586.08801	0.0	0.7171137	568.17
3.120	14.26	1.6661	560.79	171.46	0.26050	0.80894	0.10917	1585.39758	0.0	0.7124074	568.14
3.130	14.10	1.6669	560.79	171.20	0.26105	0.80931	0.10912	1584.71436	0.0	0.7077114	568.11
3.140	13.94	1.6677	560.78	170.94	0.26159	0.80968	0.10908	1584.03845	0.0	0.7030260	568.09
3.150	13.77	1.6685	560.78	170.69	0.26214	0.81004	0.10903	1583.37036	0.0	0.6983505	568.06
3.160	13.61	1.6693	560.78	170.43	0.26268	0.81040	0.10898	1582.70984	0.0	0.6936852	568.03
3.170	13.45	1.6701	560.78	170.18	0.26321	0.81076	0.10894	1582.05688	0.0	0.6890299	568.01
3.180	13.28	1.6709	560.78	169.94	0.26374	0.81111	0.10890	1581.41125	0.0	0.6843846	567.98
3.190	13.12	1.6716	560.78	169.69	0.26427	0.81146	0.10885	1580.77332	0.0	0.6797490	567.95
3.200	12.96	1.6724	560.77	169.45	0.26479	0.81181	0.10881	1580.14270	0.0	0.6751235	567.92
3.210	12.79	1.6732	560.77	169.21	0.26531	0.81215	0.10877	1579.51929	0.0	0.6705072	567.90
3.220	12.63	1.6740	560.77	168.97	0.26583	0.81249	0.10872	1578.90271	0.0	0.6659008	567.87
3.230	12.47	1.6747	560.77	168.73	0.26634	0.81283	0.10868	1578.29309	0.0	0.6613037	567.84
3.240	12.30	1.6755	560.77	168.50	0.26684	0.81316	0.10864	1577.69006	0.0	0.6567161	567.81
3.250	12.14	1.6762	560.77	168.27	0.26735	0.81349	0.10860	1577.09387	0.0	0.6521376	567.79
3.260	11.98	1.6769	560.77	168.04	0.26785	0.81382	0.10856	1576.50415	0.0	0.6478354	567.76
3.270	11.81	1.6777	560.76	167.81	0.26834	0.81414	0.10852	1575.92029	0.0	0.6438091	567.74
3.280	11.65	1.6784	560.76	167.59	0.26884	0.81446	0.10848	1575.34277	0.0	0.6397915	567.71
3.290	11.49	1.6791	560.76	167.36	0.26933	0.81478	0.10844	1574.77112	0.0	0.6357824	567.69
3.300	11.32	1.6799	560.76	167.14	0.26981	0.81509	0.10840	1574.20532	0.0	0.6317818	567.66

3.310	11.16	1.6806	560.76	166.92	0.27030	0.81541	0.10836	1573.64514	0.0	0.6277895	567.64
3.320	11.00	1.6813	560.76	166.71	0.27078	0.81572	0.10832	1573.09094	0.0	0.6238055	567.61
3.330	10.84	1.6820	560.75	166.49	0.27125	0.81602	0.10828	1572.54224	0.0	0.6198294	567.59
3.340	10.67	1.6827	560.75	166.28	0.27173	0.81633	0.10825	1571.99902	0.0	0.6158614	567.56
3.350	10.51	1.6834	560.75	166.07	0.27220	0.81663	0.10821	1571.46143	0.0	0.6119011	567.54
3.360	10.35	1.6841	560.75	165.86	0.27266	0.81692	0.10817	1570.92896	0.0	0.6079489	567.52
3.370	10.18	1.6848	560.75	165.65	0.27313	0.81722	0.10814	1570.40198	0.0	0.6040043	567.49
3.380	10.02	1.6854	560.75	165.45	0.27359	0.81751	0.10810	1569.88025	0.0	0.6000673	567.47
3.390	9.86	1.6861	560.74	165.24	0.27404	0.81780	0.10807	1569.36389	0.0	0.5961375	567.44
3.400	9.69	1.6868	560.74	165.04	0.27450	0.81809	0.10803	1568.85291	0.0	0.5922154	567.42
3.410	9.53	1.6875	560.74	164.84	0.27495	0.81837	0.10800	1568.34668	0.0	0.5883003	567.39
3.420	9.37	1.6881	560.74	164.64	0.27540	0.81865	0.10796	1567.84558	0.0	0.5845287	567.37
3.430	9.21	1.6888	560.74	164.45	0.27584	0.81893	0.10793	1567.34961	0.0	0.5811729	567.35
3.440	9.04	1.6894	560.74	164.25	0.27628	0.81921	0.10789	1566.85840	0.0	0.5778240	567.32
3.450	8.88	1.6901	560.74	164.06	0.27672	0.81948	0.10786	1566.37219	0.0	0.5744814	567.30
3.460	8.72	1.6907	560.73	163.87	0.27716	0.81976	0.10783	1565.89087	0.0	0.5711456	567.28
3.470	8.56	1.6914	560.73	163.68	0.27759	0.82003	0.10779	1565.41418	0.0	0.5678160	567.26
3.480	8.39	1.6920	560.73	163.49	0.27802	0.82030	0.10776	1564.94226	0.0	0.5644931	567.24
3.490	8.23	1.6926	560.73	163.31	0.27845	0.82056	0.10773	1564.47485	0.0	0.5611764	567.22
3.500	8.07	1.6933	560.73	163.12	0.27888	0.82082	0.10770	1564.01208	0.0	0.5578660	567.20
3.510	7.90	1.6939	560.73	162.94	0.27930	0.82109	0.10767	1563.55383	0.0	0.5545619	567.17
3.520	7.74	1.6945	560.72	162.75	0.27972	0.82135	0.10763	1563.10010	0.0	0.5512639	567.15
3.530	7.58	1.6951	560.72	162.57	0.28014	0.82160	0.10760	1562.65076	0.0	0.5479718	567.13
3.540	7.42	1.6957	560.72	162.40	0.28055	0.82186	0.10757	1562.20593	0.0	0.5446860	567.11
3.550	7.25	1.6964	560.72	162.22	0.28096	0.82211	0.10754	1561.76550	0.0	0.5414060	567.09
3.560	7.09	1.6970	560.72	162.04	0.28137	0.82236	0.10751	1561.32886	0.0	0.5381320	567.07
3.570	6.93	1.6976	560.72	161.87	0.28178	0.82261	0.10748	1560.89709	0.0	0.5348638	567.04
3.580	6.76	1.6982	560.72	161.70	0.28218	0.82285	0.10745	1560.46936	0.0	0.5316014	567.02
3.590	6.60	1.6987	560.71	161.52	0.28258	0.82310	0.10742	1560.04590	0.0	0.5272496	566.99
3.600	6.44	1.6993	560.71	161.36	0.28298	0.82334	0.10740	1559.62671	0.0	0.5229034	566.96
3.610	6.28	1.6999	560.71	161.19	0.28337	0.82358	0.10737	1559.21179	0.0	0.5185625	566.93
3.620	6.12	1.7005	560.71	161.02	0.28376	0.82381	0.10734	1558.80103	0.0	0.5142273	566.90
3.630	5.95	1.7010	560.71	160.86	0.28414	0.82404	0.10731	1558.39453	0.0	0.5098972	566.87
3.640	5.79	1.7016	560.71	160.70	0.28452	0.82427	0.10728	1557.99231	0.0	0.5055725	566.84
3.650	5.63	1.7022	560.70	160.54	0.28489	0.82450	0.10726	1557.59399	0.0	0.5012526	566.82
3.660	5.47	1.7027	560.70	160.38	0.28527	0.82472	0.10723	1557.19971	0.0	0.4969377	566.79
3.670	5.30	1.7033	560.70	160.23	0.28563	0.82494	0.10720	1556.80945	0.0	0.4926278	566.76
3.680	5.14	1.7038	560.70	160.08	0.28600	0.82516	0.10717	1556.42322	0.0	0.4883224	566.73
3.690	4.98	1.7043	560.70	159.92	0.28636	0.82538	0.10715	1556.04102	0.0	0.4840216	566.70
3.700	4.82	1.7049	560.70	159.77	0.28671	0.82559	0.10712	1555.66260	0.0	0.4797254	566.67
3.710	4.66	1.7054	560.70	159.63	0.28706	0.82580	0.10710	1555.28809	0.0	0.4754331	566.63
3.720	4.50	1.7059	560.69	159.48	0.28741	0.82601	0.10707	1554.91736	0.0	0.4711454	566.60
3.730	4.33	1.7064	560.69	159.34	0.28776	0.82621	0.10705	1554.55029	0.0	0.4668615	566.57
3.740	4.17	1.7069	560.69	159.20	0.28810	0.82641	0.10702	1554.18701	0.0	0.4625818	566.54
3.750	4.01	1.7074	560.69	159.06	0.28843	0.82661	0.10700	1553.82739	0.0	0.4587222	566.52
3.760	3.85	1.7079	560.69	158.92	0.28877	0.82681	0.10697	1553.47131	0.0	0.4550062	566.49
3.770	3.69	1.7084	560.69	158.78	0.28910	0.82701	0.10695	1553.11902	0.0	0.4512938	566.46
3.780	3.53	1.7089	560.68	158.64	0.28942	0.82720	0.10692	1552.76990	0.0	0.4475856	566.43
3.790	3.37	1.7093	560.68	158.51	0.28975	0.82739	0.10690	1552.42419	0.0	0.4438810	566.41
3.800	3.21	1.7098	560.68	158.38	0.29006	0.82758	0.10688	1552.08203	0.0	0.4401802	566.38
3.810	3.04	1.7103	560.68	158.25	0.29038	0.82776	0.10685	1551.74329	0.0	0.4364829	566.35
3.820	2.88	1.7107	560.68	158.12	0.29069	0.82795	0.10683	1551.40771	0.0	0.4327893	566.33
3.830	2.72	1.7112	560.68	157.99	0.29100	0.82813	0.10681	1551.07568	0.0	0.4290989	566.30
3.840	2.56	1.7116	560.68	157.86	0.29131	0.82831	0.10678	1550.74683	0.0	0.4254121	566.27
3.850	2.40	1.7121	560.67	157.74	0.29161	0.82849	0.10676	1550.42114	0.0	0.4217283	566.24
3.860	2.24	1.7125	560.67	157.62	0.29191	0.82866	0.10674	1550.09851	0.0	0.4180478	566.22
3.870	2.08	1.7130	560.67	157.49	0.29221	0.82883	0.10672	1549.77905	0.0	0.4143701	566.19
3.880	1.92	1.7134	560.67	157.37	0.29250	0.82900	0.10670	1549.46313	0.0	0.4106958	566.16
3.890	1.76	1.7138	560.67	157.26	0.29279	0.82917	0.10667	1549.15002	0.0	0.4070241	566.13
3.900	1.60	1.7142	560.67	157.14	0.29307	0.82934	0.10665	1548.84009	0.0	0.4033554	566.10
3.910	1.44	1.7147	560.66	157.02	0.29336	0.82950	0.10663	1548.53320	0.0	0.3996891	566.07
3.920	1.28	1.7151	560.66	156.91	0.29363	0.82967	0.10661	1548.22925	0.0	0.3960257	566.05

3.930	1.12	1.7155	560.66	156.80	0.29391	0.82982	0.10659	1547.92834	0.0	0.3923645	566.02
3.940	0.96	1.7159	560.66	156.69	0.29418	0.82998	0.10657	1547.63049	0.0	0.3887060	565.99
3.950	0.80	1.7163	560.66	156.58	0.29445	0.83014	0.10655	1547.33533	0.0	0.3850497	565.96
3.960	0.64	1.7167	560.66	156.47	0.29472	0.83029	0.10653	1547.04285	0.0	0.3813958	565.93
3.970	0.48	1.7170	560.66	156.36	0.29498	0.83044	0.10651	1546.75354	0.0	0.3777440	565.90
3.980	0.32	1.7174	560.65	156.26	0.29524	0.83059	0.10649	1546.46655	0.0	0.3740942	565.87
3.990	0.16	1.7178	560.65	156.15	0.29549	0.83074	0.10647	1546.18176	0.0	0.3704463	565.84
4.000	0.00	1.7182	560.65	156.05	0.29574	0.83089	0.10645	1545.89807	0.0	0.3668005	565.82

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 10

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	763.934	763.934	0.0000
0.015	763.673	763.673	0.0000
0.025	763.406	763.406	0.0000
0.035	763.135	763.135	0.0000
0.045	762.859	762.859	0.0000
0.055	762.578	762.578	0.0000
0.065	762.291	762.291	0.0000
0.075	762.000	762.000	0.0000
0.085	761.704	761.704	0.0000
0.095	761.403	761.403	0.0000
0.105	761.097	761.097	0.0000
0.115	760.785	760.785	0.0000
0.125	760.469	760.469	0.0000
0.135	760.147	760.147	0.0000
0.145	759.821	759.821	0.0000
0.155	759.489	759.489	0.0000
0.165	759.152	759.152	0.0000
0.175	764.824	758.754	0.0000
0.185	779.083	758.033	0.0000
0.195	787.669	756.918	0.0000
0.205	799.209	755.506	0.0000
0.215	805.087	753.880	0.0000
0.225	789.221	752.085	0.0000
0.235	800.815	750.146	0.0000
0.245	799.305	748.080	0.0000
0.255	777.829	745.895	0.0000
0.265	771.071	743.597	0.0000
0.275	763.931	741.192	0.0000
0.285	756.643	738.682	0.0001
0.295	749.051	736.071	0.0001
0.305	741.466	733.359	0.0001
0.315	733.803	730.547	0.0001
0.325	733.163	727.635	0.0001
0.335	724.089	724.505	0.0002
0.345	714.939	721.270	0.0002
0.355	705.786	717.932	0.0002
0.365	696.704	714.500	0.0002
0.375	687.785	710.992	0.0003
0.385	679.129	707.436	0.0003
0.395	670.243	703.630	0.0003
0.405	662.310	700.042	0.0004
0.415	654.322	696.257	0.0004
0.425	646.357	692.287	0.0005
0.435	638.514	688.159	0.0005

0.445	630.852	683.889	0.0006
0.455	623.403	679.492	0.0006
0.465	616.188	674.974	0.0007
0.475	609.212	670.340	0.0007
0.485	602.472	665.596	0.0008
0.495	595.959	660.745	0.0008
0.505	589.658	655.790	0.0009
0.515	583.555	650.734	0.0010
0.525	577.632	645.583	0.0010
0.535	571.867	640.339	0.0011
0.545	566.241	635.009	0.0012
0.555	560.723	629.597	0.0012
0.565	555.299	624.109	0.0013
0.575	549.942	618.552	0.0014
0.585	544.643	612.931	0.0015
0.595	539.373	607.253	0.0015
0.605	534.113	601.524	0.0016
0.615	528.861	595.749	0.0017
0.625	523.587	589.932	0.0018
0.635	518.789	584.634	0.0019
0.645	514.041	579.352	0.0020
0.655	509.388	574.236	0.0020
0.665	504.829	569.280	0.0021
0.675	500.236	564.308	0.0022
0.685	495.607	559.331	0.0023
0.695	490.969	554.356	0.0024
0.705	486.304	549.391	0.0025
0.715	481.622	544.437	0.0026
0.725	476.926	539.499	0.0027
0.735	472.227	534.582	0.0028
0.745	467.520	529.690	0.0029
0.755	462.831	524.836	0.0030
0.765	458.159	520.037	0.0031
0.775	453.561	515.338	0.0032
0.785	449.093	510.784	0.0033
0.795	444.301	505.965	0.0034
0.805	440.091	501.758	0.0035
0.815	435.783	497.433	0.0036
0.825	431.480	493.174	0.0037
0.835	427.171	488.882	0.0038
0.845	422.866	484.591	0.0039
0.855	418.560	480.317	0.0040
0.865	414.300	476.070	0.0041
0.875	410.067	471.857	0.0042
0.885	405.866	467.681	0.0043
0.895	401.713	463.544	0.0044
0.905	397.594	459.449	0.0045
0.915	393.527	455.396	0.0046
0.925	389.510	451.386	0.0047
0.935	385.525	447.421	0.0049
0.945	381.618	443.501	0.0050
0.955	377.726	439.626	0.0051
0.965	373.919	435.795	0.0052
0.975	370.151	432.010	0.0053
0.985	366.474	428.345	0.0054
0.995	362.869	424.725	0.0055
1.005	359.296	421.151	0.0056
1.015	355.790	417.621	0.0057
1.025	352.325	414.137	0.0059
1.035	348.934	410.697	0.0060
1.045	345.586	407.302	0.0061
1.055	342.305	403.948	0.0062

1.065	339.055	400.637	0.0063
1.075	335.854	397.368	0.0064
1.085	332.700	394.142	0.0066
1.095	329.612	390.961	0.0067
1.105	326.592	387.825	0.0068
1.115	323.607	384.731	0.0069
1.125	320.657	381.680	0.0070
1.135	317.784	378.670	0.0071
1.145	314.956	375.714	0.0073
1.155	312.195	372.805	0.0074
1.165	309.456	369.961	0.0075
1.175	306.853	367.203	0.0076
1.185	304.316	364.558	0.0078
1.195	301.516	361.631	0.0079
1.205	299.191	359.178	0.0081
1.215	296.775	356.643	0.0082
1.225	294.392	354.085	0.0084
1.235	292.024	351.521	0.0085
1.245	289.678	348.979	0.0086
1.255	287.387	346.461	0.0087
1.265	285.074	343.970	0.0088
1.275	282.847	341.506	0.0090
1.285	280.616	339.071	0.0091
1.295	278.468	336.664	0.0092
1.305	276.313	334.289	0.0093
1.315	274.225	331.948	0.0095
1.325	272.150	329.636	0.0096
1.335	270.127	327.353	0.0097
1.345	268.132	325.098	0.0098
1.355	266.151	322.871	0.0100
1.365	264.230	320.672	0.0101
1.375	262.292	318.501	0.0102
1.385	260.455	316.357	0.0103
1.395	258.594	314.240	0.0105
1.405	256.805	312.149	0.0106
1.415	255.016	310.083	0.0107
1.425	253.286	308.043	0.0108
1.435	251.558	306.028	0.0110
1.445	249.837	304.038	0.0111
1.455	248.189	302.070	0.0112
1.465	246.518	300.127	0.0113
1.475	244.916	298.215	0.0115
1.485	243.334	296.327	0.0116
1.495	241.727	294.466	0.0117
1.505	240.227	292.630	0.0118
1.515	238.689	290.820	0.0120
1.525	237.217	289.032	0.0121
1.535	235.755	287.266	0.0122
1.545	234.329	285.524	0.0124
1.555	232.955	283.808	0.0125
1.565	231.538	282.138	0.0126
1.575	230.264	280.529	0.0128
1.585	229.007	278.999	0.0129
1.595	227.509	277.200	0.0131
1.605	226.361	275.774	0.0133
1.615	225.130	274.277	0.0134
1.625	223.927	272.759	0.0136
1.635	222.700	271.235	0.0137
1.645	221.493	269.720	0.0138
1.655	220.285	268.218	0.0139
1.665	219.149	266.729	0.0141
1.675	217.992	265.255	0.0142

1.685	216.857	263.795	0.0143
1.695	215.719	262.350	0.0144
1.705	214.631	260.920	0.0146
1.715	213.517	259.505	0.0147
1.725	212.477	258.105	0.0148
1.735	211.360	256.720	0.0149
1.745	210.344	255.351	0.0151
1.755	209.303	253.997	0.0152
1.765	208.235	252.657	0.0153
1.775	207.246	251.333	0.0154
1.785	206.309	250.022	0.0155
1.795	205.322	248.728	0.0157
1.805	204.364	247.448	0.0158
1.815	203.405	246.183	0.0159
1.825	202.476	244.931	0.0160
1.835	201.554	243.694	0.0161
1.845	200.656	242.470	0.0163
1.855	199.737	241.258	0.0164
1.865	198.882	240.058	0.0165
1.875	197.975	238.869	0.0166
1.885	197.132	237.695	0.0168
1.895	196.289	236.536	0.0169
1.905	195.478	235.391	0.0170
1.915	194.645	234.261	0.0171
1.925	193.848	233.143	0.0172
1.935	193.052	232.037	0.0174
1.945	192.270	230.945	0.0175
1.955	191.481	229.874	0.0176
1.965	190.800	228.840	0.0177
1.975	190.061	227.857	0.0179
1.985	189.387	226.942	0.0180
1.995	188.507	225.776	0.0182
2.005	187.916	224.930	0.0184
2.015	187.259	224.014	0.0186
2.025	186.644	223.074	0.0187
2.035	185.978	222.121	0.0188
2.045	185.270	221.167	0.0190
2.055	184.587	220.220	0.0191
2.065	183.951	219.280	0.0192
2.075	183.324	218.348	0.0193
2.085	182.661	217.424	0.0194
2.095	182.088	216.508	0.0195
2.105	181.396	215.600	0.0196
2.115	180.834	214.702	0.0197
2.125	180.194	213.814	0.0198
2.135	179.622	212.935	0.0199
2.145	178.993	212.066	0.0201
2.155	178.433	211.206	0.0202
2.165	177.815	210.356	0.0203
2.175	177.289	209.516	0.0204
2.185	176.684	208.685	0.0205
2.195	176.150	207.863	0.0206
2.205	175.647	207.049	0.0207
2.215	175.020	206.245	0.0208
2.225	174.575	205.449	0.0209
2.235	174.031	204.663	0.0210
2.245	173.493	203.884	0.0211
2.255	173.011	203.113	0.0212
2.265	172.469	202.349	0.0213
2.275	171.943	201.591	0.0214
2.285	171.488	200.846	0.0215
2.295	170.930	200.112	0.0216

2.305	170.510	199.390	0.0217
2.315	170.076	198.679	0.0218
2.325	169.580	197.979	0.0219
2.335	169.118	197.287	0.0220
2.345	168.694	196.605	0.0221
2.355	168.215	195.944	0.0223
2.365	167.891	195.313	0.0224
2.375	167.449	194.726	0.0225
2.385	167.155	194.201	0.0226
2.395	166.573	193.433	0.0228
2.405	166.235	192.962	0.0230
2.415	165.893	192.421	0.0232
2.425	165.557	191.854	0.0233
2.435	165.165	191.273	0.0234
2.445	164.798	190.683	0.0235
2.455	164.476	190.099	0.0236
2.465	164.095	189.518	0.0237
2.475	163.707	188.942	0.0238
2.485	163.366	188.370	0.0238
2.495	162.962	187.803	0.0239
2.505	162.550	187.242	0.0240
2.515	162.257	186.687	0.0241
2.525	161.920	186.138	0.0242
2.535	161.610	185.594	0.0243
2.545	161.237	185.057	0.0243
2.555	160.928	184.527	0.0244
2.565	160.537	184.003	0.0245
2.575	160.193	183.484	0.0246
2.585	159.933	182.973	0.0247
2.595	159.591	182.467	0.0247
2.605	159.240	181.967	0.0248
2.615	159.032	181.474	0.0249
2.625	158.664	180.987	0.0250
2.635	158.364	180.506	0.0251
2.645	158.055	180.031	0.0251
2.655	157.799	179.560	0.0252
2.665	157.554	179.095	0.0253
2.675	157.226	178.634	0.0254
2.685	156.983	178.180	0.0254
2.695	156.696	177.734	0.0255
2.705	156.340	177.297	0.0256
2.715	156.069	176.866	0.0256
2.725	155.910	176.442	0.0257
2.735	155.546	176.024	0.0258
2.745	155.371	175.614	0.0259
2.755	155.118	175.221	0.0259
2.765	154.838	174.853	0.0260
2.775	154.676	174.523	0.0261
2.785	154.478	174.246	0.0263
2.795	154.167	173.725	0.0264
2.805	154.052	173.490	0.0266
2.815	153.794	173.187	0.0268
2.825	153.608	172.858	0.0269
2.835	153.394	172.512	0.0269
2.845	153.156	172.157	0.0270
2.855	152.932	171.802	0.0271
2.865	152.787	171.449	0.0271
2.875	152.496	171.097	0.0272
2.885	152.345	170.748	0.0272
2.895	152.110	170.402	0.0273
2.905	151.870	170.059	0.0274
2.915	151.707	169.719	0.0274

2.925	151.540	169.383	0.0275
2.935	151.287	169.050	0.0275
2.945	151.128	168.720	0.0276
2.955	150.948	168.394	0.0276
2.965	150.681	168.072	0.0277
2.975	150.574	167.753	0.0277
2.985	150.299	167.438	0.0278
2.995	150.101	167.125	0.0278
3.005	149.981	166.817	0.0279
3.015	149.776	166.511	0.0279
3.025	149.566	166.209	0.0280
3.035	149.352	165.910	0.0281
3.045	149.217	165.614	0.0281
3.055	149.078	165.321	0.0282
3.065	148.936	165.031	0.0282
3.075	148.707	164.744	0.0283
3.085	148.475	164.460	0.0283
3.095	148.406	164.179	0.0283
3.105	148.166	163.900	0.0284
3.115	148.007	163.624	0.0284
3.125	147.845	163.350	0.0285
3.135	147.764	163.079	0.0285
3.145	147.596	162.811	0.0286
3.155	147.424	162.545	0.0286
3.165	147.281	162.282	0.0287
3.175	147.156	162.021	0.0287
3.185	146.889	161.763	0.0288
3.195	146.790	161.508	0.0288
3.205	146.602	161.255	0.0289
3.215	146.444	161.005	0.0289
3.225	146.421	160.757	0.0290
3.235	146.224	160.511	0.0290
3.245	146.077	160.269	0.0290
3.255	145.907	160.028	0.0291
3.265	145.787	159.790	0.0291
3.275	145.665	159.554	0.0292
3.285	145.508	159.320	0.0292
3.295	145.413	159.088	0.0293
3.305	145.251	158.858	0.0293
3.315	145.151	158.631	0.0293
3.325	145.016	158.405	0.0294
3.335	144.792	158.182	0.0294
3.345	144.739	157.960	0.0295
3.355	144.597	157.741	0.0295
3.365	144.453	157.523	0.0295
3.375	144.306	157.308	0.0296
3.385	144.156	157.095	0.0296
3.395	144.004	156.883	0.0297
3.405	144.026	156.674	0.0297
3.415	143.870	156.466	0.0297
3.425	143.711	156.260	0.0298
3.435	143.639	156.056	0.0298
3.445	143.476	155.854	0.0299
3.455	143.311	155.653	0.0299
3.465	143.233	155.454	0.0299
3.475	143.064	155.256	0.0300
3.485	142.982	155.061	0.0300
3.495	142.898	154.866	0.0300
3.505	142.754	154.674	0.0301
3.515	142.635	154.483	0.0301
3.525	142.577	154.294	0.0301
3.535	142.396	154.106	0.0302

3.545	142.361	153.920	0.0302
3.555	142.266	153.735	0.0303
3.565	142.110	153.552	0.0303
3.575	142.011	153.371	0.0303
3.585	141.910	153.192	0.0304
3.595	141.807	153.015	0.0304
3.605	141.791	152.840	0.0304
3.615	141.683	152.667	0.0305
3.625	141.573	152.496	0.0305
3.635	141.370	152.327	0.0305
3.645	141.345	152.160	0.0306
3.655	141.319	151.995	0.0306
3.665	141.109	151.832	0.0306
3.675	141.078	151.672	0.0307
3.685	140.955	151.513	0.0307
3.695	140.859	151.356	0.0307
3.705	140.731	151.201	0.0307
3.715	140.662	151.048	0.0308
3.725	140.621	150.898	0.0308
3.735	140.517	150.749	0.0308
3.745	140.441	150.602	0.0309
3.755	140.333	150.456	0.0309
3.765	140.193	150.312	0.0309
3.775	140.204	150.170	0.0309
3.785	140.091	150.030	0.0310
3.795	140.006	149.891	0.0310
3.805	139.981	149.754	0.0310
3.815	139.924	149.618	0.0311
3.825	139.773	149.484	0.0311
3.835	139.712	149.352	0.0311
3.845	139.650	149.222	0.0311
3.855	139.555	149.093	0.0312
3.865	139.613	148.965	0.0312
3.875	139.452	148.839	0.0312
3.885	139.383	148.715	0.0312
3.895	139.313	148.593	0.0313
3.905	139.240	148.472	0.0313
3.915	139.166	148.352	0.0313
3.925	139.090	148.234	0.0313
3.935	139.106	148.118	0.0314
3.945	139.027	148.003	0.0314
3.955	138.946	147.890	0.0314
3.965	138.771	147.779	0.0314
3.975	138.780	147.668	0.0314
3.985	138.725	147.560	0.0315
3.995	138.701	147.453	0.0315

I PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 11

DISTANCE DELTA-P ENTHALPY TEMPERATURE DENSITY FLOWING VOID FLOW MASS
 FLUX BORON CHF CHF TEMP.
 (M) (KPA) (MJ/KG) (DEG-K) (KG/M3) QUALITY FRACTION (KG/SEC) (KG/M2/SEC) (PPM)
 (MW/M2) (DEG-K)

0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.23411	1700.00012	0.0	0.000000	255.37
0.010	100.02	1.2113	548.29	763.94	0.00000	0.00000	0.23400	1699.20117	0.0	4.574385	580.26
0.020	99.93	1.2120	548.43	763.69	0.00000	0.00000	0.23385	1698.12024	0.0	4.524311	580.15
0.030	99.84	1.2127	548.56	763.43	0.00000	0.00000	0.23369	1696.95752	0.0	4.476276	580.04
0.040	99.74	1.2134	548.70	763.17	0.00000	0.00000	0.23353	1695.78650	0.0	4.430075	579.94
0.050	99.65	1.2141	548.84	762.91	0.00000	0.00000	0.23337	1694.63062	0.0	4.385565	579.84

0.060	99.55	1.2149	548.99	762.64	0.00000	0.00000	0.23321	1693.49561	0.0	4.342630	579.74
0.070	99.46	1.2156	549.13	762.36	0.00000	0.00000	0.23306	1692.38086	0.0	4.301173	579.65
0.080	99.36	1.2164	549.28	762.09	0.00000	0.00000	0.23291	1691.28479	0.0	4.261102	579.56
0.090	99.27	1.2172	549.43	761.80	0.00000	0.00000	0.23276	1690.20691	0.0	4.222344	579.47
0.100	99.18	1.2180	549.58	761.52	0.00000	0.00000	0.23261	1689.14795	0.0	4.184806	579.39
0.110	99.08	1.2187	549.73	761.22	0.00000	0.00000	0.23247	1688.10986	0.0	4.148428	579.30
0.120	98.99	1.2196	549.89	760.93	0.00000	0.00000	0.23233	1687.09717	0.0	4.113149	579.22
0.130	98.89	1.2204	550.04	760.63	0.00000	0.00000	0.23219	1686.11694	0.0	4.078897	579.15
0.140	98.80	1.2212	550.20	760.32	0.00000	0.00000	0.23206	1685.18005	0.0	4.045609	579.07
0.150	98.70	1.2221	550.36	760.01	0.00000	0.00000	0.23194	1684.30518	0.0	4.013237	579.00
0.160	98.61	1.2229	550.53	759.70	0.00000	0.00000	0.23184	1683.51892	0.0	3.981718	578.93
0.170	98.51	1.2238	550.69	759.38	0.00000	0.00000	0.23175	1682.85986	0.0	3.950997	578.86
0.180	98.42	1.2247	550.86	759.05	0.00000	0.00000	0.23168	1682.37842	0.0	3.920998	578.79
0.190	98.32	1.2255	551.03	758.72	0.00000	0.00001	0.23164	1682.11450	0.0	3.891675	578.72
0.200	98.23	1.2264	551.20	758.23	0.00000	0.00022	0.23161	1681.90002	0.0	3.863027	578.66
0.210	98.13	1.2274	551.38	757.40	0.00000	0.00091	0.23156	1681.49304	0.0	3.835126	578.59
0.220	98.03	1.2283	551.55	756.23	0.00001	0.00205	0.23147	1680.87964	0.0	3.807991	578.53
0.230	97.93	1.2292	551.73	754.83	0.00003	0.00352	0.23137	1680.14868	0.0	3.781579	578.47
0.240	97.83	1.2302	551.91	753.25	0.00005	0.00524	0.23126	1679.36560	0.0	3.755821	578.42
0.250	97.73	1.2311	552.09	751.51	0.00008	0.00716	0.23116	1678.57593	0.0	3.730666	578.36
0.260	97.62	1.2321	552.28	749.65	0.00012	0.00926	0.23105	1677.80627	0.0	3.706070	578.30
0.270	97.52	1.2331	552.46	747.66	0.00017	0.01152	0.23095	1677.05115	0.0	3.681993	578.25
0.280	97.42	1.2341	552.65	745.56	0.00023	0.01394	0.23084	1676.27307	0.0	3.658415	578.20
0.290	97.32	1.2351	552.84	743.35	0.00031	0.01651	0.23072	1675.42993	0.0	3.635340	578.15
0.300	97.21	1.2361	553.03	741.03	0.00040	0.01922	0.23060	1674.50842	0.0	3.612775	578.10
0.310	97.11	1.2371	553.23	738.61	0.00051	0.02207	0.23046	1673.53247	0.0	3.590709	578.05
0.320	97.00	1.2381	553.42	736.09	0.00063	0.02505	0.23033	1672.54749	0.0	3.569124	578.00
0.330	96.90	1.2392	553.62	733.48	0.00077	0.02817	0.23019	1671.59180	0.0	3.547962	577.96
0.340	96.79	1.2402	553.82	730.66	0.00093	0.03157	0.23007	1670.68030	0.0	3.528390	577.91
0.350	96.69	1.2413	554.02	727.74	0.00110	0.03511	0.22995	1669.81458	0.0	3.509142	577.87
0.360	96.58	1.2424	554.23	724.72	0.00130	0.03878	0.22984	1669.04822	0.0	3.490192	577.83
0.370	96.47	1.2435	554.44	721.61	0.00152	0.04258	0.22978	1668.62073	0.0	3.471478	577.79
0.380	96.36	1.2446	554.64	718.42	0.00175	0.04648	0.22987	1669.26501	0.0	3.452939	577.75
0.390	96.24	1.2457	554.85	715.24	0.00199	0.05039	0.23037	1672.90759	0.0	3.434402	577.71
0.400	93.64	1.2467	555.05	711.97	0.00225	0.05444	0.23193	1684.23511	0.0	3.415068	577.67
0.410	93.52	1.2478	555.25	709.03	0.00248	0.05801	0.23246	1688.04578	0.0	3.394805	577.62
0.420	93.41	1.2489	555.47	705.68	0.00276	0.06214	0.23255	1688.68408	0.0	3.376711	577.58
0.430	93.30	1.2501	555.68	702.09	0.00308	0.06660	0.23246	1688.05103	0.0	3.359730	577.54
0.440	93.18	1.2513	555.90	698.36	0.00342	0.07126	0.23231	1686.95923	0.0	3.343363	577.51
0.450	93.07	1.2525	556.13	694.50	0.00377	0.07609	0.23214	1685.74036	0.0	3.327338	577.48
0.460	92.96	1.2537	556.35	690.54	0.00415	0.08106	0.23197	1684.51965	0.0	3.311545	577.44
0.470	92.85	1.2549	556.58	686.49	0.00455	0.08617	0.23181	1683.33691	0.0	3.295948	577.41
0.480	92.73	1.2561	556.81	682.33	0.00496	0.09142	0.23165	1682.19861	0.0	3.280532	577.38
0.490	92.62	1.2573	557.04	678.09	0.00540	0.09679	0.23150	1681.09729	0.0	3.265294	577.35
0.500	92.50	1.2586	557.28	673.75	0.00585	0.10230	0.23135	1680.02222	0.0	3.250232	577.32
0.510	92.38	1.2599	557.51	669.31	0.00632	0.10794	0.23121	1678.96130	0.0	3.235352	577.30
0.520	92.27	1.2612	557.75	664.79	0.00681	0.11370	0.23106	1677.90222	0.0	3.220649	577.27
0.530	92.15	1.2625	558.00	660.17	0.00731	0.11960	0.23092	1676.83423	0.0	3.206131	577.24
0.540	92.03	1.2638	558.24	655.47	0.00783	0.12562	0.23077	1675.74683	0.0	3.191797	577.21
0.550	91.91	1.2651	558.49	650.69	0.00838	0.13176	0.23061	1674.63220	0.0	3.177648	577.19
0.560	91.79	1.2664	558.74	645.82	0.00893	0.13801	0.23045	1673.48242	0.0	3.163683	577.16
0.570	91.67	1.2678	558.99	640.87	0.00951	0.14438	0.23029	1672.28979	0.0	3.149905	577.14
0.580	91.55	1.2691	559.24	635.85	0.01010	0.15086	0.23012	1671.04492	0.0	3.136317	577.11
0.590	91.42	1.2705	559.50	630.76	0.01071	0.15744	0.22994	1669.73877	0.0	3.122920	577.09
0.600	91.30	1.2719	559.75	625.60	0.01134	0.16412	0.22975	1668.35437	0.0	3.109717	577.07
0.610	91.18	1.2733	560.01	620.37	0.01198	0.17089	0.22954	1666.87231	0.0	3.096711	577.04
0.620	91.05	1.2747	560.28	615.09	0.01264	0.17775	0.22932	1665.27271	0.0	3.083910	577.02
0.630	90.93	1.2762	560.54	609.76	0.01332	0.18469	0.22909	1663.56140	0.0	3.071316	577.00
0.640	90.80	1.2776	560.81	604.38	0.01401	0.19170	0.22883	1661.68274	0.0	3.058941	576.98
0.650	90.68	1.2791	561.07	598.95	0.01472	0.19878	0.22856	1659.73328	0.0	3.046773	576.96
0.660	90.55	1.2805	561.34	593.66	0.01543	0.20566	0.22830	1657.87512	0.0	3.033118	576.94
0.670	90.43	1.2820	561.51	588.88	0.01609	0.21209	0.22812	1656.51941	0.0	3.017866	576.90

0.680	90.30	1.2835	561.51	584.27	0.01678	0.21868	0.22798	1655.51550	0.0	3.002614	576.86
0.690	90.18	1.2850	561.51	579.66	0.01748	0.22528	0.22785	1654.57556	0.0	2.987470	576.82
0.700	90.05	1.2865	561.51	575.04	0.01819	0.23189	0.22771	1653.58313	0.0	2.972549	576.78
0.710	89.93	1.2880	561.50	570.41	0.01891	0.23851	0.22756	1652.45374	0.0	2.957916	576.74
0.720	89.80	1.2895	561.50	565.78	0.01965	0.24514	0.22740	1651.29980	0.0	2.943564	576.70
0.730	89.68	1.2910	561.50	561.14	0.02040	0.25178	0.22725	1650.18188	0.0	2.929445	576.66
0.740	89.55	1.2926	561.50	556.51	0.02116	0.25840	0.22710	1649.12671	0.0	2.915519	576.62
0.750	89.43	1.2941	561.50	551.89	0.02193	0.26501	0.22697	1648.16125	0.0	2.901764	576.58
0.760	89.30	1.2956	561.50	547.29	0.02271	0.27159	0.22686	1647.39026	0.0	2.888154	576.54
0.770	89.17	1.2972	561.50	542.72	0.02350	0.27812	0.22683	1647.18164	0.0	2.874621	576.50
0.780	89.03	1.2987	561.50	538.30	0.02427	0.28444	0.22703	1648.59937	0.0	2.861281	576.46
0.790	88.89	1.3001	561.49	534.18	0.02501	0.29035	0.22780	1654.19141	0.0	2.847854	576.42
0.800	85.44	1.3014	561.46	530.17	0.02571	0.29607	0.22996	1669.88354	0.0	2.833552	576.38
0.810	85.30	1.3028	561.46	526.70	0.02635	0.30110	0.23077	1675.78247	0.0	2.817530	576.32
0.820	85.16	1.3043	561.46	522.68	0.02709	0.30686	0.23096	1677.16516	0.0	2.803146	576.28
0.830	85.03	1.3059	561.46	518.56	0.02787	0.31274	0.23087	1676.52734	0.0	2.787860	576.23
0.840	84.90	1.3074	561.46	514.39	0.02868	0.31871	0.23066	1675.01343	0.0	2.773335	576.19
0.850	84.77	1.3090	561.46	510.20	0.02950	0.32470	0.23042	1673.25598	0.0	2.759188	576.15
0.860	84.65	1.3106	561.45	506.02	0.03033	0.33067	0.23018	1671.47693	0.0	2.745249	576.11
0.870	84.52	1.3122	561.45	501.87	0.03118	0.33661	0.22994	1669.75049	0.0	2.731459	576.07
0.880	84.39	1.3138	561.45	497.75	0.03203	0.34251	0.22971	1668.08057	0.0	2.717803	576.03
0.890	84.25	1.3154	561.45	493.66	0.03290	0.34836	0.22949	1666.46533	0.0	2.704283	575.99
0.900	84.12	1.3170	561.45	489.60	0.03377	0.35417	0.22927	1664.91614	0.0	2.690897	575.95
0.910	83.99	1.3186	561.45	485.58	0.03465	0.35992	0.22907	1663.43347	0.0	2.677640	575.91
0.920	83.86	1.3203	561.45	481.59	0.03554	0.36562	0.22887	1662.01074	0.0	2.664515	575.87
0.930	83.73	1.3219	561.45	477.64	0.03644	0.37127	0.22869	1660.64014	0.0	2.651520	575.83
0.940	83.59	1.3235	561.44	473.73	0.03734	0.37686	0.22850	1659.31311	0.0	2.638661	575.79
0.950	83.46	1.3252	561.44	469.86	0.03826	0.38240	0.22832	1658.02209	0.0	2.625939	575.76
0.960	83.33	1.3268	561.44	466.03	0.03918	0.38788	0.22815	1656.76135	0.0	2.613358	575.72
0.970	83.19	1.3285	561.44	462.24	0.04010	0.39330	0.22798	1655.52429	0.0	2.600916	575.68
0.980	83.06	1.3301	561.44	458.49	0.04104	0.39867	0.22781	1654.30176	0.0	2.588619	575.64
0.990	82.93	1.3318	561.44	454.86	0.04196	0.40385	0.22764	1653.07666	0.0	2.574915	575.60
1.000	82.79	1.3334	561.44	451.28	0.04289	0.40898	0.22748	1651.86328	0.0	2.561381	575.56
1.010	82.66	1.3351	561.44	447.73	0.04382	0.41405	0.22731	1650.66443	0.0	2.548014	575.52
1.020	82.52	1.3367	561.43	444.23	0.04476	0.41906	0.22715	1649.47571	0.0	2.534809	575.48
1.030	82.39	1.3384	561.43	440.77	0.04570	0.42401	0.22699	1648.30334	0.0	2.521766	575.44
1.040	82.26	1.3401	561.43	437.35	0.04665	0.42889	0.22683	1647.16125	0.0	2.508883	575.40
1.050	82.12	1.3417	561.43	433.97	0.04760	0.43373	0.22668	1646.07324	0.0	2.496151	575.36
1.060	81.98	1.3434	561.43	430.64	0.04857	0.43850	0.22654	1645.05481	0.0	2.483554	575.32
1.070	81.85	1.3451	561.43	427.34	0.04953	0.44322	0.22641	1644.09058	0.0	2.471074	575.29
1.080	81.71	1.3467	561.43	424.08	0.05050	0.44788	0.22628	1643.13782	0.0	2.458711	575.25
1.090	81.58	1.3484	561.43	420.86	0.05148	0.45248	0.22614	1642.15405	0.0	2.446489	575.21
1.100	81.44	1.3501	561.42	417.69	0.05246	0.45702	0.22600	1641.12891	0.0	2.434440	575.17
1.110	81.30	1.3517	561.42	414.56	0.05344	0.46150	0.22585	1640.08704	0.0	2.422580	575.14
1.120	81.17	1.3534	561.42	411.47	0.05443	0.46591	0.22571	1639.06909	0.0	2.410896	575.10
1.130	81.03	1.3551	561.42	408.42	0.05542	0.47027	0.22558	1638.10474	0.0	2.399366	575.06
1.140	80.89	1.3568	561.42	405.41	0.05642	0.47458	0.22546	1637.20959	0.0	2.387965	575.03
1.150	80.76	1.3584	561.42	402.46	0.05741	0.47880	0.22535	1636.41028	0.0	2.376291	574.99
1.160	80.62	1.3601	561.42	399.55	0.05840	0.48295	0.22527	1635.82983	0.0	2.364580	574.95
1.170	80.48	1.3617	561.42	396.72	0.05939	0.48700	0.22527	1635.86731	0.0	2.352975	574.92
1.180	80.33	1.3633	561.41	394.04	0.06033	0.49083	0.22551	1637.60278	0.0	2.341525	574.88
1.190	80.17	1.3648	561.41	391.63	0.06119	0.49428	0.22634	1643.59424	0.0	2.330013	574.84
1.200	75.56	1.3660	561.37	389.26	0.06200	0.49766	0.22856	1659.76062	0.0	2.317790	574.80
1.210	75.39	1.3674	561.37	387.12	0.06278	0.50078	0.22938	1665.71436	0.0	2.303857	574.75
1.220	75.25	1.3690	561.37	384.65	0.06370	0.50431	0.22959	1667.20654	0.0	2.291948	574.71
1.230	75.10	1.3706	561.36	382.05	0.06468	0.50802	0.22954	1666.82031	0.0	2.280885	574.67
1.240	74.96	1.3722	561.36	379.45	0.06568	0.51175	0.22939	1665.74365	0.0	2.270329	574.64
1.250	74.82	1.3739	561.36	376.86	0.06669	0.51545	0.22921	1664.47131	0.0	2.260003	574.60
1.260	74.68	1.3755	561.36	374.28	0.06772	0.51913	0.22904	1663.19250	0.0	2.249789	574.57
1.270	74.54	1.3772	561.36	371.74	0.06875	0.52277	0.22887	1661.97144	0.0	2.239647	574.54
1.280	74.40	1.3789	561.36	369.22	0.06978	0.52637	0.22871	1660.82446	0.0	2.229567	574.50
1.290	74.26	1.3805	561.36	366.73	0.07082	0.52994	0.22856	1659.74634	0.0	2.219548	574.47

1.300	74.11	1.3822	561.35	364.26	0.07186	0.53346	0.22842	1658.72668	0.0	2.209597	574.44
1.310	73.97	1.3839	561.35	361.83	0.07290	0.53693	0.22829	1657.75012	0.0	2.199463	574.41
1.320	73.83	1.3856	561.35	359.44	0.07395	0.54036	0.22816	1656.80627	0.0	2.189155	574.37
1.330	73.68	1.3873	561.35	357.07	0.07500	0.54374	0.22803	1655.88928	0.0	2.178934	574.34
1.340	73.54	1.3890	561.35	354.74	0.07605	0.54708	0.22791	1654.99329	0.0	2.168803	574.31
1.350	73.40	1.3906	561.35	352.43	0.07710	0.55038	0.22779	1654.11340	0.0	2.158767	574.27
1.360	73.25	1.3923	561.35	350.15	0.07816	0.55363	0.22767	1653.24731	0.0	2.148824	574.24
1.370	73.11	1.3940	561.35	347.90	0.07922	0.55685	0.22755	1652.39319	0.0	2.138977	574.21
1.380	72.96	1.3957	561.34	345.68	0.08028	0.56003	0.22743	1651.55139	0.0	2.129228	574.17
1.390	72.82	1.3974	561.34	343.49	0.08134	0.56316	0.22732	1650.72205	0.0	2.119576	574.14
1.400	72.67	1.3991	561.34	341.32	0.08240	0.56626	0.22721	1649.90637	0.0	2.110018	574.11
1.410	72.53	1.4008	561.34	339.18	0.08347	0.56931	0.22710	1649.10559	0.0	2.100554	574.08
1.420	72.38	1.4024	561.34	337.07	0.08454	0.57233	0.22699	1648.31641	0.0	2.091182	574.05
1.430	72.24	1.4041	561.34	334.99	0.08561	0.57531	0.22688	1647.53760	0.0	2.081903	574.02
1.440	72.09	1.4058	561.34	332.93	0.08668	0.57826	0.22678	1646.77844	0.0	2.072718	573.99
1.450	71.94	1.4075	561.33	330.89	0.08775	0.58117	0.22668	1646.05981	0.0	2.063622	573.95
1.460	71.80	1.4092	561.33	328.88	0.08883	0.58404	0.22659	1645.39307	0.0	2.054601	573.92
1.470	71.65	1.4109	561.33	326.90	0.08991	0.58688	0.22650	1644.75562	0.0	2.045390	573.89
1.480	71.50	1.4126	561.33	324.95	0.09098	0.58967	0.22641	1644.09973	0.0	2.035500	573.86
1.490	71.35	1.4142	561.33	323.02	0.09205	0.59242	0.22631	1643.39319	0.0	2.025708	573.83
1.500	71.21	1.4159	561.33	321.12	0.09313	0.59514	0.22621	1642.63367	0.0	2.016045	573.79
1.510	71.06	1.4176	561.33	319.25	0.09420	0.59781	0.22610	1641.85022	0.0	2.006523	573.76
1.520	70.91	1.4193	561.32	317.41	0.09527	0.60045	0.22599	1641.08179	0.0	1.997133	573.73
1.530	70.77	1.4209	561.32	315.59	0.09634	0.60305	0.22589	1640.35742	0.0	1.987853	573.70
1.540	70.62	1.4226	561.32	313.79	0.09741	0.60561	0.22580	1639.68982	0.0	1.978663	573.66
1.550	70.47	1.4243	561.32	312.03	0.09847	0.60814	0.22572	1639.10120	0.0	1.969548	573.63
1.560	70.32	1.4259	561.32	310.28	0.09954	0.61063	0.22566	1638.70105	0.0	1.960492	573.60
1.570	70.17	1.4275	561.32	308.60	0.10058	0.61304	0.22569	1638.88049	0.0	1.951561	573.57
1.580	70.01	1.4291	561.32	307.03	0.10156	0.61528	0.22594	1640.67664	0.0	1.942766	573.54
1.590	69.83	1.4304	561.31	305.65	0.10243	0.61725	0.22675	1646.59705	0.0	1.933940	573.51
1.600	63.91	1.4314	561.26	304.23	0.10322	0.61925	0.22894	1662.49646	0.0	1.924530	573.47
1.610	63.73	1.4327	561.26	302.95	0.10405	0.62115	0.22972	1668.12231	0.0	1.913546	573.42
1.620	63.57	1.4342	561.26	301.46	0.10501	0.62328	0.22990	1669.46558	0.0	1.904269	573.39
1.630	63.41	1.4358	561.25	299.90	0.10604	0.62551	0.22985	1669.09253	0.0	1.895644	573.36
1.640	63.26	1.4374	561.25	298.32	0.10709	0.62776	0.22972	1668.12122	0.0	1.886863	573.32
1.650	63.11	1.4391	561.25	296.76	0.10814	0.62999	0.22956	1667.00879	0.0	1.878237	573.29
1.660	62.96	1.4407	561.25	295.20	0.10921	0.63222	0.22941	1665.91333	0.0	1.869668	573.26
1.670	62.81	1.4423	561.25	293.66	0.11028	0.63442	0.22927	1664.88208	0.0	1.861132	573.23
1.680	62.66	1.4440	561.25	292.13	0.11135	0.63661	0.22914	1663.91980	0.0	1.852627	573.20
1.690	62.51	1.4456	561.25	290.61	0.11242	0.63878	0.22901	1663.01721	0.0	1.844157	573.17
1.700	62.35	1.4473	561.24	289.11	0.11349	0.64092	0.22889	1662.16138	0.0	1.835729	573.14
1.710	62.20	1.4489	561.24	287.63	0.11457	0.64304	0.22878	1661.33923	0.0	1.827347	573.11
1.720	62.05	1.4506	561.24	286.16	0.11564	0.64514	0.22867	1660.54016	0.0	1.819019	573.08
1.730	61.89	1.4522	561.24	284.71	0.11672	0.64722	0.22856	1659.75610	0.0	1.810748	573.05
1.740	61.74	1.4538	561.24	283.27	0.11780	0.64927	0.22846	1658.98132	0.0	1.802539	573.02
1.750	61.58	1.4555	561.24	281.85	0.11887	0.65130	0.22835	1658.21216	0.0	1.794394	572.99
1.760	61.43	1.4571	561.23	280.45	0.11995	0.65331	0.22825	1657.44702	0.0	1.786317	572.96
1.770	61.27	1.4587	561.23	279.06	0.12102	0.65529	0.22814	1656.68591	0.0	1.778307	572.94
1.780	61.12	1.4604	561.23	277.69	0.12210	0.65725	0.22804	1655.92981	0.0	1.770364	572.91
1.790	60.96	1.4620	561.23	276.33	0.12317	0.65919	0.22793	1655.17957	0.0	1.762490	572.88
1.800	60.81	1.4636	561.23	275.00	0.12424	0.66110	0.22783	1654.43591	0.0	1.754315	572.85
1.810	60.65	1.4653	561.23	273.67	0.12531	0.66299	0.22773	1653.70081	0.0	1.746087	572.82
1.820	60.49	1.4669	561.23	272.37	0.12638	0.66486	0.22763	1652.97266	0.0	1.737927	572.79
1.830	60.34	1.4685	561.22	271.07	0.12744	0.66670	0.22753	1652.25073	0.0	1.729835	572.76
1.840	60.18	1.4701	561.22	269.80	0.12851	0.66853	0.22743	1651.54480	0.0	1.721813	572.73
1.850	60.03	1.4717	561.22	268.54	0.12957	0.67033	0.22734	1650.87695	0.0	1.713858	572.70
1.860	59.87	1.4733	561.22	267.29	0.13064	0.67212	0.22726	1650.25928	0.0	1.705953	572.67
1.870	59.71	1.4750	561.22	266.05	0.13170	0.67388	0.22717	1649.67078	0.0	1.698088	572.64
1.880	59.55	1.4766	561.22	264.82	0.13277	0.67563	0.22709	1649.06433	0.0	1.690262	572.61
1.890	59.40	1.4782	561.22	263.61	0.13383	0.67736	0.22700	1648.40015	0.0	1.682502	572.58
1.900	59.24	1.4798	561.21	262.42	0.13489	0.67907	0.22690	1647.67493	0.0	1.674837	572.55
1.910	59.08	1.4814	561.21	261.25	0.13594	0.68075	0.22680	1646.92004	0.0	1.667283	572.52

1.920	58.93	1.4829	561.21	260.09	0.13699	0.68240	0.22669	1646.17590	0.0	1.659831	572.50
1.930	58.77	1.4845	561.21	258.94	0.13804	0.68404	0.22660	1645.47034	0.0	1.652460	572.47
1.940	58.61	1.4861	561.21	257.81	0.13908	0.68566	0.22651	1644.81433	0.0	1.645148	572.44
1.950	58.45	1.4876	561.21	256.69	0.14012	0.68725	0.22642	1644.22522	0.0	1.637890	572.41
1.960	58.29	1.4892	561.21	255.60	0.14115	0.68882	0.22637	1643.80969	0.0	1.629945	572.38
1.970	58.13	1.4907	561.20	254.55	0.14214	0.69031	0.22639	1643.97791	0.0	1.621402	572.35
1.980	57.96	1.4921	561.20	253.59	0.14305	0.69168	0.22664	1645.80859	0.0	1.612979	572.32
1.990	57.77	1.4932	561.20	252.79	0.14382	0.69282	0.22749	1651.94177	0.0	1.604522	572.28
2.000	50.52	1.4940	561.13	251.91	0.14449	0.69404	0.22978	1668.59998	0.0	1.595495	572.24
2.010	50.33	1.4951	561.13	251.15	0.14523	0.69519	0.23057	1674.31567	0.0	1.585040	572.19
2.020	50.15	1.4965	561.13	250.23	0.14613	0.69651	0.23075	1675.59729	0.0	1.576139	572.16
2.030	49.99	1.4979	561.13	249.25	0.14709	0.69790	0.23068	1675.15808	0.0	1.567804	572.12
2.040	49.83	1.4994	561.12	248.26	0.14809	0.69932	0.23054	1674.14392	0.0	1.559722	572.09
2.050	49.67	1.5009	561.12	247.27	0.14909	0.70074	0.23039	1673.01270	0.0	1.551755	572.06
2.060	49.51	1.5024	561.12	246.28	0.15009	0.70215	0.23024	1671.91467	0.0	1.543818	572.03
2.070	49.35	1.5039	561.12	245.30	0.15110	0.70355	0.23010	1670.88904	0.0	1.535891	572.00
2.080	49.19	1.5054	561.12	244.32	0.15211	0.70495	0.22997	1669.93518	0.0	1.527978	571.97
2.090	49.03	1.5070	561.12	243.35	0.15312	0.70633	0.22984	1669.04041	0.0	1.520083	571.94
2.100	48.87	1.5085	561.12	242.39	0.15413	0.70770	0.22972	1668.18909	0.0	1.512213	571.91
2.110	48.71	1.5100	561.11	241.44	0.15514	0.70906	0.22961	1667.36719	0.0	1.504375	571.88
2.120	48.54	1.5115	561.11	240.50	0.15615	0.71041	0.22950	1666.56384	0.0	1.496454	571.85
2.130	48.38	1.5130	561.11	239.57	0.15715	0.71174	0.22939	1665.76990	0.0	1.488210	571.81
2.140	48.22	1.5145	561.11	238.65	0.15815	0.71305	0.22928	1664.98157	0.0	1.480015	571.78
2.150	48.06	1.5160	561.11	237.74	0.15915	0.71435	0.22917	1664.19568	0.0	1.471871	571.75
2.160	47.89	1.5175	561.11	236.84	0.16015	0.71564	0.22907	1663.41138	0.0	1.463780	571.71
2.170	47.73	1.5190	561.10	235.95	0.16114	0.71691	0.22896	1662.62927	0.0	1.455744	571.68
2.180	47.57	1.5204	561.10	235.07	0.16212	0.71816	0.22885	1661.85071	0.0	1.447761	571.65
2.190	47.40	1.5219	561.10	234.20	0.16311	0.71940	0.22875	1661.07800	0.0	1.439831	571.62
2.200	47.24	1.5234	561.10	233.34	0.16408	0.72062	0.22864	1660.31299	0.0	1.431955	571.59
2.210	47.08	1.5248	561.10	232.50	0.16506	0.72184	0.22854	1659.55688	0.0	1.424129	571.55
2.220	46.91	1.5263	561.10	231.66	0.16603	0.72303	0.22843	1658.80664	0.0	1.416354	571.52
2.230	46.75	1.5277	561.10	230.83	0.16700	0.72422	0.22833	1658.06116	0.0	1.408630	571.49
2.240	46.59	1.5292	561.09	230.01	0.16796	0.72539	0.22823	1657.33008	0.0	1.400959	571.46
2.250	46.42	1.5306	561.09	229.20	0.16892	0.72654	0.22813	1656.63574	0.0	1.393336	571.43
2.260	46.26	1.5320	561.09	228.40	0.16988	0.72769	0.22804	1655.98962	0.0	1.385752	571.40
2.270	46.09	1.5334	561.09	227.60	0.17083	0.72883	0.22796	1655.37085	0.0	1.378191	571.37
2.280	45.93	1.5349	561.09	226.81	0.17179	0.72995	0.22787	1654.73120	0.0	1.370657	571.33
2.290	45.77	1.5363	561.09	226.04	0.17273	0.73106	0.22777	1654.02832	0.0	1.363123	571.29
2.300	45.60	1.5377	561.08	225.28	0.17367	0.73214	0.22767	1653.26086	0.0	1.355185	571.26
2.310	45.44	1.5390	561.08	224.53	0.17459	0.73321	0.22756	1652.45947	0.0	1.342583	571.22
2.320	45.28	1.5404	561.08	223.80	0.17551	0.73426	0.22745	1651.66541	0.0	1.333405	571.18
2.330	45.11	1.5418	561.08	223.07	0.17642	0.73529	0.22735	1650.90735	0.0	1.324296	571.14
2.340	44.95	1.5431	561.08	222.36	0.17731	0.73631	0.22725	1650.19739	0.0	1.315238	571.10
2.350	44.79	1.5444	561.08	221.66	0.17820	0.73731	0.22716	1649.55823	0.0	1.306223	571.06
2.360	44.62	1.5457	561.08	220.98	0.17908	0.73829	0.22710	1649.10461	0.0	1.297249	571.02
2.370	44.46	1.5470	561.07	220.33	0.17991	0.73921	0.22712	1649.27527	0.0	1.288379	570.99
2.380	44.28	1.5481	561.07	219.76	0.18065	0.74002	0.22739	1651.20251	0.0	1.279589	570.95
2.390	44.07	1.5489	561.07	219.32	0.18121	0.74065	0.22828	1657.69556	0.0	1.270724	570.91
2.400	35.60	1.5493	560.99	218.77	0.18167	0.74139	0.23072	1675.41443	0.0	1.261270	570.86
2.410	35.40	1.5501	560.99	218.35	0.18223	0.74204	0.23155	1681.43518	0.0	1.250623	570.81
2.420	35.22	1.5512	560.99	217.80	0.18294	0.74284	0.23173	1682.77039	0.0	1.241360	570.76
2.430	35.05	1.5523	560.98	217.19	0.18373	0.74370	0.23167	1682.30859	0.0	1.232585	570.72
2.440	34.88	1.5536	560.98	216.57	0.18456	0.74458	0.23152	1681.24536	0.0	1.224004	570.69
2.450	34.72	1.5548	560.98	215.96	0.18538	0.74546	0.23136	1680.06433	0.0	1.215887	570.65
2.460	34.56	1.5560	560.98	215.34	0.18622	0.74634	0.23120	1678.91968	0.0	1.207911	570.61
2.470	34.40	1.5573	560.98	214.72	0.18705	0.74722	0.23106	1677.84998	0.0	1.199932	570.58
2.480	34.23	1.5585	560.98	214.11	0.18789	0.74810	0.23092	1676.85352	0.0	1.191953	570.54
2.490	34.07	1.5598	560.98	213.50	0.18873	0.74897	0.23079	1675.91650	0.0	1.183979	570.51
2.500	33.90	1.5610	560.97	212.90	0.18956	0.74983	0.23067	1675.02332	0.0	1.176017	570.47
2.510	33.74	1.5622	560.97	212.30	0.19039	0.75068	0.23055	1674.15955	0.0	1.168071	570.44
2.520	33.57	1.5635	560.97	211.71	0.19122	0.75153	0.23043	1673.31396	0.0	1.160147	570.40
2.530	33.41	1.5647	560.97	211.12	0.19204	0.75237	0.23032	1672.47827	0.0	1.152249	570.37

2.540	33.24	1.5659	560.97	210.54	0.19286	0.75319	0.23020	1671.64709	0.0	1.144381	570.33
2.550	33.08	1.5671	560.97	209.97	0.19367	0.75401	0.23009	1670.81714	0.0	1.136543	570.29
2.560	32.91	1.5683	560.96	209.40	0.19447	0.75482	0.22997	1669.98730	0.0	1.128739	570.26
2.570	32.74	1.5695	560.96	208.84	0.19527	0.75561	0.22986	1669.15808	0.0	1.120970	570.22
2.580	32.58	1.5707	560.96	208.29	0.19607	0.75640	0.22974	1668.33118	0.0	1.113234	570.19
2.590	32.41	1.5718	560.96	207.75	0.19686	0.75718	0.22963	1667.50854	0.0	1.105532	570.15
2.600	32.25	1.5730	560.96	207.21	0.19764	0.75794	0.22952	1666.69226	0.0	1.097863	570.12
2.610	32.08	1.5741	560.96	206.68	0.19842	0.75870	0.22941	1665.88330	0.0	1.089970	570.08
2.620	31.92	1.5753	560.95	206.16	0.19919	0.75945	0.22930	1665.07910	0.0	1.081850	570.04
2.630	31.76	1.5764	560.95	205.64	0.19996	0.76019	0.22919	1664.27808	0.0	1.073762	570.00
2.640	31.59	1.5776	560.95	205.13	0.20072	0.76092	0.22908	1663.48987	0.0	1.065708	569.97
2.650	31.43	1.5787	560.95	204.62	0.20147	0.76164	0.22897	1662.73621	0.0	1.057685	569.93
2.660	31.26	1.5798	560.95	204.12	0.20222	0.76235	0.22888	1662.02930	0.0	1.049684	569.89
2.670	31.10	1.5809	560.95	203.63	0.20297	0.76306	0.22878	1661.34949	0.0	1.041693	569.85
2.680	30.93	1.5820	560.95	203.14	0.20371	0.76376	0.22869	1660.65063	0.0	1.033715	569.81
2.690	30.77	1.5831	560.94	202.66	0.20445	0.76444	0.22858	1659.89331	0.0	1.025765	569.78
2.700	30.60	1.5842	560.94	202.18	0.20517	0.76512	0.22847	1659.07153	0.0	1.017865	569.74
2.710	30.44	1.5852	560.94	201.72	0.20588	0.76578	0.22835	1658.21143	0.0	1.010027	569.70
2.720	30.28	1.5863	560.94	201.27	0.20659	0.76643	0.22823	1657.35107	0.0	1.002248	569.66
2.730	30.11	1.5873	560.94	200.82	0.20728	0.76707	0.22812	1656.51904	0.0	0.9945135	569.63
2.740	29.95	1.5883	560.94	200.38	0.20797	0.76769	0.22801	1655.73096	0.0	0.9868102	569.59
2.750	29.79	1.5893	560.93	199.95	0.20864	0.76831	0.22791	1655.01685	0.0	0.9791287	569.55
2.760	29.62	1.5903	560.93	199.53	0.20930	0.76891	0.22784	1654.50537	0.0	0.9714732	569.51
2.770	29.46	1.5912	560.93	199.14	0.20991	0.76946	0.22786	1654.65649	0.0	0.9640104	569.48
2.780	29.28	1.5919	560.93	198.81	0.21043	0.76993	0.22814	1656.65808	0.0	0.9569733	569.44
2.790	29.06	1.5924	560.93	198.59	0.21077	0.77024	0.22908	1663.47192	0.0	0.9498112	569.40
2.800	19.58	1.5925	560.84	198.23	0.21101	0.77071	0.23165	1682.14062	0.0	0.9420497	569.35
2.810	19.36	1.5930	560.84	198.02	0.21136	0.77106	0.23252	1688.47180	0.0	0.9334005	569.30
2.820	19.18	1.5937	560.83	197.70	0.21186	0.77152	0.23271	1689.87598	0.0	0.9259145	569.26
2.830	19.01	1.5946	560.83	197.33	0.21245	0.77204	0.23264	1689.39185	0.0	0.9188355	569.22
2.840	18.85	1.5955	560.83	196.95	0.21306	0.77259	0.23249	1688.26721	0.0	0.9119032	569.19
2.850	18.69	1.5964	560.83	196.56	0.21369	0.77314	0.23232	1687.00708	0.0	0.9050323	569.15
2.860	18.52	1.5973	560.83	196.17	0.21432	0.77369	0.23215	1685.77783	0.0	0.8981679	569.12
2.870	18.36	1.5983	560.83	195.79	0.21495	0.77424	0.23199	1684.62109	0.0	0.8912931	569.08
2.880	18.20	1.5992	560.82	195.40	0.21558	0.77479	0.23184	1683.53662	0.0	0.8844087	569.05
2.890	18.03	1.6002	560.82	195.02	0.21621	0.77534	0.23170	1682.51135	0.0	0.8775189	569.01
2.900	17.87	1.6011	560.82	194.64	0.21684	0.77589	0.23156	1681.53027	0.0	0.8706288	568.98
2.910	17.71	1.6020	560.82	194.26	0.21747	0.77643	0.23143	1680.57910	0.0	0.8637422	568.94
2.920	17.54	1.6029	560.82	193.88	0.21809	0.77696	0.23130	1679.64685	0.0	0.8568633	568.91
2.930	17.38	1.6039	560.82	193.51	0.21871	0.77749	0.23118	1678.72559	0.0	0.8499946	568.87
2.940	17.21	1.6048	560.81	193.14	0.21933	0.77802	0.23105	1677.80920	0.0	0.8442160	568.84
2.950	17.05	1.6057	560.81	192.78	0.21994	0.77854	0.23092	1676.89404	0.0	0.8384525	568.81
2.960	16.88	1.6066	560.81	192.42	0.22055	0.77905	0.23080	1675.97925	0.0	0.8327057	568.78
2.970	16.72	1.6075	560.81	192.06	0.22115	0.77956	0.23067	1675.06494	0.0	0.8269756	568.75
2.980	16.56	1.6084	560.81	191.71	0.22175	0.78006	0.23055	1674.15222	0.0	0.8212632	568.72
2.990	16.39	1.6092	560.81	191.36	0.22234	0.78056	0.23042	1673.24304	0.0	0.8155684	568.69
3.000	16.23	1.6101	560.81	191.02	0.22293	0.78105	0.23030	1672.33936	0.0	0.8098907	568.66
3.010	16.06	1.6110	560.80	190.68	0.22352	0.78153	0.23017	1671.44324	0.0	0.8042293	568.63
3.020	15.90	1.6118	560.80	190.34	0.22410	0.78202	0.23005	1670.55652	0.0	0.7985841	568.59
3.030	15.74	1.6127	560.80	190.01	0.22468	0.78249	0.22993	1669.68054	0.0	0.7929540	568.56
3.040	15.57	1.6135	560.80	189.68	0.22525	0.78296	0.22981	1668.81653	0.0	0.7873383	568.53
3.050	15.41	1.6144	560.80	189.35	0.22582	0.78343	0.22969	1667.96460	0.0	0.7817360	568.50
3.060	15.25	1.6152	560.80	189.02	0.22638	0.78389	0.22958	1667.12524	0.0	0.7761471	568.47
3.070	15.08	1.6161	560.79	188.70	0.22694	0.78435	0.22946	1666.29810	0.0	0.7705706	568.44
3.080	14.92	1.6169	560.79	188.39	0.22750	0.78480	0.22935	1665.48242	0.0	0.7650064	568.41
3.090	14.76	1.6177	560.79	188.07	0.22806	0.78525	0.22924	1664.67761	0.0	0.7594540	568.38
3.100	14.59	1.6185	560.79	187.76	0.22861	0.78569	0.22913	1663.88232	0.0	0.7543283	568.35
3.110	14.43	1.6193	560.79	187.45	0.22915	0.78613	0.22902	1663.09607	0.0	0.7493523	568.32
3.120	14.26	1.6201	560.79	187.15	0.22970	0.78656	0.22892	1662.31750	0.0	0.7443881	568.29
3.130	14.10	1.6209	560.79	186.85	0.23024	0.78700	0.22881	1661.54590	0.0	0.7394350	568.27
3.140	13.94	1.6217	560.78	186.55	0.23077	0.78742	0.22870	1660.78088	0.0	0.7344936	568.24
3.150	13.77	1.6225	560.78	186.25	0.23131	0.78785	0.22860	1660.02148	0.0	0.7295632	568.21

3.160	13.61	1.6233	560.78	185.96	0.23184	0.78827	0.22850	1659.26758	0.0	0.7246444	568.18
3.170	13.45	1.6241	560.78	185.66	0.23236	0.78868	0.22839	1658.51904	0.0	0.7197369	568.15
3.180	13.28	1.6248	560.78	185.38	0.23289	0.78909	0.22829	1657.77515	0.0	0.7148409	568.13
3.190	13.12	1.6256	560.78	185.09	0.23341	0.78950	0.22819	1657.03625	0.0	0.7099562	568.10
3.200	12.96	1.6264	560.77	184.81	0.23392	0.78990	0.22809	1656.30225	0.0	0.7050832	568.07
3.210	12.79	1.6271	560.77	184.53	0.23443	0.79030	0.22799	1655.57349	0.0	0.7002208	568.04
3.220	12.63	1.6279	560.77	184.25	0.23494	0.79070	0.22789	1654.85022	0.0	0.6953697	568.01
3.230	12.47	1.6286	560.77	183.97	0.23545	0.79109	0.22779	1654.13245	0.0	0.6905296	567.99
3.240	12.30	1.6294	560.77	183.70	0.23595	0.79148	0.22769	1653.42041	0.0	0.6857003	567.96
3.250	12.14	1.6301	560.77	183.43	0.23645	0.79186	0.22759	1652.71436	0.0	0.6808813	567.93
3.260	11.98	1.6308	560.77	183.17	0.23694	0.79224	0.22750	1652.01440	0.0	0.6763487	567.90
3.270	11.81	1.6316	560.76	182.90	0.23743	0.79262	0.22740	1651.32043	0.0	0.6721024	567.88
3.280	11.65	1.6323	560.76	182.64	0.23792	0.79299	0.22731	1650.63281	0.0	0.6678656	567.85
3.290	11.49	1.6330	560.76	182.38	0.23840	0.79336	0.22721	1649.95142	0.0	0.6636385	567.83
3.300	11.32	1.6337	560.76	182.12	0.23889	0.79373	0.22712	1649.27649	0.0	0.6594210	567.80
3.310	11.16	1.6344	560.76	181.87	0.23937	0.79409	0.22703	1648.60779	0.0	0.6552126	567.78
3.320	11.00	1.6351	560.76	181.62	0.23984	0.79445	0.22694	1647.94531	0.0	0.6510133	567.75
3.330	10.84	1.6358	560.75	181.36	0.24032	0.79481	0.22685	1647.28894	0.0	0.6468231	567.73
3.340	10.67	1.6365	560.75	181.12	0.24079	0.79517	0.22676	1646.63855	0.0	0.6426419	567.70
3.350	10.51	1.6372	560.75	180.87	0.24125	0.79552	0.22667	1645.99402	0.0	0.6384693	567.68
3.360	10.35	1.6379	560.75	180.63	0.24172	0.79586	0.22658	1645.35522	0.0	0.6343054	567.65
3.370	10.18	1.6386	560.75	180.38	0.24218	0.79621	0.22649	1644.72229	0.0	0.6301499	567.62
3.380	10.02	1.6393	560.75	180.14	0.24264	0.79655	0.22641	1644.09460	0.0	0.6260030	567.60
3.390	9.86	1.6400	560.74	179.91	0.24310	0.79689	0.22632	1643.47253	0.0	0.6218643	567.57
3.400	9.69	1.6406	560.74	179.67	0.24355	0.79723	0.22624	1642.85522	0.0	0.6177337	567.55
3.410	9.53	1.6413	560.74	179.44	0.24400	0.79756	0.22615	1642.24304	0.0	0.6136113	567.52
3.420	9.37	1.6420	560.74	179.20	0.24445	0.79789	0.22607	1641.63586	0.0	0.6096383	567.50
3.430	9.21	1.6426	560.74	178.98	0.24489	0.79822	0.22599	1641.03333	0.0	0.6060984	567.48
3.440	9.04	1.6433	560.74	178.75	0.24533	0.79854	0.22590	1640.43518	0.0	0.6025659	567.45
3.450	8.88	1.6439	560.74	178.52	0.24577	0.79886	0.22582	1639.84167	0.0	0.5990408	567.43
3.460	8.72	1.6446	560.73	178.30	0.24621	0.79918	0.22574	1639.25256	0.0	0.5955231	567.41
3.470	8.56	1.6452	560.73	178.07	0.24664	0.79950	0.22566	1638.66785	0.0	0.5920126	567.39
3.480	8.39	1.6458	560.73	177.85	0.24708	0.79982	0.22558	1638.08740	0.0	0.5885094	567.36
3.490	8.23	1.6465	560.73	177.63	0.24751	0.80013	0.22550	1637.51123	0.0	0.5850132	567.34
3.500	8.07	1.6471	560.73	177.42	0.24793	0.80044	0.22542	1636.93921	0.0	0.5815241	567.32
3.510	7.90	1.6477	560.73	177.20	0.24836	0.80075	0.22534	1636.37146	0.0	0.5780421	567.30
3.520	7.74	1.6484	560.72	176.99	0.24878	0.80105	0.22527	1635.80774	0.0	0.5745670	567.28
3.530	7.58	1.6490	560.72	176.77	0.24920	0.80135	0.22519	1635.24829	0.0	0.5710987	567.25
3.540	7.42	1.6496	560.72	176.56	0.24962	0.80165	0.22511	1634.69299	0.0	0.5676373	567.23
3.550	7.25	1.6502	560.72	176.36	0.25004	0.80195	0.22504	1634.14148	0.0	0.5641825	567.21
3.560	7.09	1.6508	560.72	176.15	0.25045	0.80225	0.22496	1633.59436	0.0	0.5607343	567.19
3.570	6.93	1.6514	560.72	175.94	0.25086	0.80254	0.22489	1633.05127	0.0	0.5572928	567.16
3.580	6.77	1.6520	560.72	175.74	0.25127	0.80283	0.22481	1632.51233	0.0	0.5538577	567.14
3.590	6.60	1.6526	560.71	175.54	0.25167	0.80312	0.22474	1631.97742	0.0	0.5492941	567.11
3.600	6.44	1.6532	560.71	175.34	0.25207	0.80340	0.22467	1631.44666	0.0	0.5447367	567.08
3.610	6.28	1.6538	560.71	175.14	0.25247	0.80368	0.22459	1630.92004	0.0	0.5401856	567.05
3.620	6.12	1.6544	560.71	174.95	0.25286	0.80396	0.22452	1630.39758	0.0	0.5356405	567.02
3.630	5.95	1.6550	560.71	174.75	0.25325	0.80423	0.22445	1629.87915	0.0	0.5311015	566.99
3.640	5.79	1.6555	560.71	174.56	0.25364	0.80451	0.22438	1629.36487	0.0	0.5265684	566.96
3.650	5.63	1.6561	560.70	174.37	0.25402	0.80477	0.22431	1628.85425	0.0	0.5220409	566.93
3.660	5.47	1.6567	560.70	174.19	0.25440	0.80504	0.22424	1628.34766	0.0	0.5175192	566.90
3.670	5.30	1.6572	560.70	174.00	0.25478	0.80530	0.22417	1627.84497	0.0	0.5130028	566.87
3.680	5.14	1.6578	560.70	173.82	0.25515	0.80556	0.22410	1627.34607	0.0	0.5084918	566.84
3.690	4.98	1.6583	560.70	173.64	0.25552	0.80582	0.22403	1626.85071	0.0	0.5039858	566.81
3.700	4.82	1.6589	560.70	173.46	0.25588	0.80607	0.22396	1626.35913	0.0	0.4994850	566.78
3.710	4.66	1.6594	560.70	173.28	0.25625	0.80633	0.22390	1625.87122	0.0	0.4949891	566.74
3.720	4.50	1.6599	560.69	173.11	0.25660	0.80657	0.22383	1625.38684	0.0	0.4904982	566.71
3.730	4.33	1.6604	560.69	172.94	0.25696	0.80682	0.22376	1624.90588	0.0	0.4860116	566.68
3.740	4.17	1.6610	560.69	172.77	0.25731	0.80706	0.22370	1624.42834	0.0	0.4815297	566.65
3.750	4.01	1.6615	560.69	172.60	0.25766	0.80730	0.22363	1623.95398	0.0	0.4774852	566.62
3.760	3.85	1.6620	560.69	172.43	0.25800	0.80754	0.22357	1623.48291	0.0	0.4735900	566.59
3.770	3.69	1.6625	560.69	172.27	0.25834	0.80777	0.22350	1623.01514	0.0	0.4696993	566.57

3.780	3.53	1.6630	560.68	172.10	0.25868	0.80801	0.22344	1622.55042	0.0	0.4658133	566.54
3.790	3.37	1.6635	560.68	171.94	0.25902	0.80824	0.22338	1622.08899	0.0	0.4619313	566.51
3.800	3.21	1.6640	560.68	171.78	0.25935	0.80846	0.22331	1621.63037	0.0	0.4580538	566.48
3.810	3.04	1.6645	560.68	171.62	0.25968	0.80869	0.22325	1621.17468	0.0	0.4541803	566.46
3.820	2.88	1.6649	560.68	171.47	0.26001	0.80891	0.22319	1620.72229	0.0	0.4503110	566.43
3.830	2.72	1.6654	560.68	171.31	0.26033	0.80913	0.22313	1620.27271	0.0	0.4464455	566.40
3.840	2.56	1.6659	560.68	171.16	0.26065	0.80935	0.22306	1619.82593	0.0	0.4425842	566.37
3.850	2.40	1.6664	560.67	171.01	0.26097	0.80957	0.22300	1619.38208	0.0	0.4387263	566.34
3.860	2.24	1.6668	560.67	170.86	0.26129	0.80978	0.22294	1618.94104	0.0	0.4348723	566.31
3.870	2.08	1.6673	560.67	170.71	0.26160	0.80999	0.22288	1618.50281	0.0	0.4310219	566.29
3.880	1.92	1.6677	560.67	170.56	0.26191	0.81020	0.22282	1618.06714	0.0	0.4271750	566.26
3.890	1.76	1.6682	560.67	170.42	0.26221	0.81041	0.22276	1617.63416	0.0	0.4233313	566.23
3.900	1.60	1.6686	560.67	170.28	0.26252	0.81061	0.22270	1617.20398	0.0	0.4194913	566.20
3.910	1.44	1.6691	560.66	170.13	0.26282	0.81081	0.22264	1616.77649	0.0	0.4156541	566.17
3.920	1.28	1.6695	560.66	169.99	0.26312	0.81101	0.22259	1616.35168	0.0	0.4118204	566.14
3.930	1.12	1.6700	560.66	169.85	0.26341	0.81121	0.22253	1615.92932	0.0	0.4079893	566.11
3.940	0.96	1.6704	560.66	169.72	0.26370	0.81141	0.22247	1615.50977	0.0	0.4041615	566.08
3.950	0.80	1.6708	560.66	169.58	0.26399	0.81160	0.22241	1615.09277	0.0	0.4003361	566.05
3.960	0.64	1.6712	560.66	169.45	0.26427	0.81179	0.22236	1614.67822	0.0	0.3965138	566.02
3.970	0.48	1.6716	560.66	169.32	0.26456	0.81198	0.22230	1614.26611	0.0	0.3926939	565.99
3.980	0.32	1.6721	560.65	169.18	0.26484	0.81216	0.22224	1613.85681	0.0	0.3888768	565.96
3.990	0.16	1.6725	560.65	169.06	0.26511	0.81235	0.22219	1613.44995	0.0	0.3850618	565.93
4.000	0.00	1.6729	560.65	168.93	0.26539	0.81253	0.22213	1613.04529	0.0	0.3812493	565.90

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 11

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW

(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	763.943	763.943	0.0000
0.015	763.691	763.691	0.0000
0.025	763.435	763.435	0.0000
0.035	763.174	763.174	0.0000
0.045	762.908	762.908	0.0000
0.055	762.639	762.639	0.0000
0.065	762.364	762.364	0.0000
0.075	762.086	762.086	0.0000
0.085	761.803	761.803	0.0000
0.095	761.515	761.515	0.0000
0.105	761.223	761.223	0.0000
0.115	760.927	760.927	0.0000
0.125	760.626	760.626	0.0000
0.135	760.320	760.320	0.0000
0.145	760.010	760.010	0.0000
0.155	759.696	759.696	0.0000
0.165	759.376	759.376	0.0000
0.175	759.053	759.053	0.0000
0.185	758.720	758.720	0.0000
0.195	771.087	758.227	0.0000
0.205	783.563	757.368	0.0000
0.215	788.481	756.173	0.0000
0.225	801.469	754.734	0.0000
0.235	792.637	753.114	0.0000
0.245	787.926	751.345	0.0000
0.255	800.811	749.449	0.0000
0.265	798.927	747.437	0.0000
0.275	776.671	745.318	0.0001
0.285	770.166	743.096	0.0001

0.295	763.487	740.774	0.0001
0.305	756.691	738.355	0.0001
0.315	749.507	735.842	0.0001
0.325	742.002	733.237	0.0002
0.335	734.073	730.431	0.0002
0.345	733.313	727.527	0.0003
0.355	724.565	724.528	0.0003
0.365	715.759	721.437	0.0003
0.375	707.012	718.277	0.0004
0.385	698.548	715.113	0.0005
0.395	690.134	711.865	0.0005
0.405	682.956	708.946	0.0006
0.415	674.974	705.607	0.0006
0.425	666.787	702.037	0.0007
0.435	658.653	698.318	0.0008
0.445	650.672	694.477	0.0009
0.455	642.896	690.530	0.0010
0.465	635.345	686.480	0.0011
0.475	628.027	682.332	0.0012
0.485	620.949	678.087	0.0012
0.495	614.109	673.745	0.0014
0.505	607.501	669.308	0.0015
0.515	601.117	664.777	0.0016
0.525	594.943	660.155	0.0017
0.535	588.969	655.444	0.0018
0.545	583.178	650.646	0.0019
0.555	577.550	645.764	0.0021
0.565	572.071	640.802	0.0022
0.575	566.723	635.764	0.0023
0.585	561.479	630.654	0.0025
0.595	556.326	625.476	0.0026
0.605	551.242	620.234	0.0028
0.615	546.212	614.934	0.0029
0.625	541.220	609.580	0.0031
0.635	536.249	604.179	0.0032
0.645	531.281	598.732	0.0034
0.655	526.429	593.427	0.0035
0.665	521.984	588.626	0.0037
0.675	517.762	583.995	0.0038
0.685	513.529	579.362	0.0040
0.695	509.284	574.722	0.0041
0.705	505.015	570.073	0.0043
0.715	500.725	565.416	0.0045
0.725	496.415	560.758	0.0046
0.735	492.086	556.105	0.0048
0.745	487.747	551.465	0.0050
0.755	483.398	546.844	0.0052
0.765	479.062	542.258	0.0053
0.775	474.830	537.815	0.0055
0.785	470.861	533.668	0.0057
0.795	466.966	529.646	0.0059
0.805	463.499	526.158	0.0061
0.815	459.538	522.116	0.0063
0.825	455.452	517.980	0.0064
0.835	451.298	513.786	0.0066
0.845	447.146	509.576	0.0068
0.855	442.972	505.379	0.0070
0.865	438.822	501.205	0.0072
0.875	434.694	497.059	0.0074
0.885	430.582	492.944	0.0076
0.895	426.508	488.862	0.0077
0.905	422.456	484.815	0.0079

0.915	418.431	480.804	0.0081
0.925	414.440	476.831	0.0083
0.935	410.491	472.896	0.0085
0.945	406.581	469.000	0.0087
0.955	402.716	465.143	0.0089
0.965	398.883	461.326	0.0091
0.975	395.087	457.550	0.0094
0.985	391.411	453.899	0.0096
0.995	387.769	450.288	0.0098
1.005	384.174	446.718	0.0100
1.015	380.611	443.190	0.0102
1.025	377.112	439.702	0.0104
1.035	373.669	436.256	0.0106
1.045	370.259	432.850	0.0108
1.055	366.885	429.485	0.0110
1.065	363.578	426.158	0.0112
1.075	360.300	422.871	0.0114
1.085	357.076	419.625	0.0116
1.095	353.893	416.422	0.0119
1.105	350.783	413.261	0.0121
1.115	347.707	410.142	0.0123
1.125	344.679	407.063	0.0125
1.135	341.707	404.025	0.0127
1.145	338.775	401.041	0.0129
1.155	335.911	398.109	0.0132
1.165	333.124	395.246	0.0134
1.175	330.471	392.536	0.0136
1.185	328.103	390.097	0.0138
1.195	325.729	387.703	0.0141
1.205	323.575	385.545	0.0144
1.215	321.109	383.045	0.0146
1.225	318.576	380.420	0.0148
1.235	316.060	377.782	0.0151
1.245	313.595	375.158	0.0153
1.255	311.090	372.554	0.0155
1.265	308.669	369.974	0.0157
1.275	306.285	367.421	0.0160
1.285	303.884	364.895	0.0162
1.295	301.531	362.397	0.0164
1.305	299.274	359.934	0.0166
1.315	296.994	357.504	0.0169
1.325	294.746	355.104	0.0171
1.335	292.582	352.732	0.0173
1.345	290.381	350.390	0.0176
1.355	288.317	348.077	0.0178
1.365	286.197	345.792	0.0180
1.375	284.128	343.535	0.0183
1.385	282.093	341.307	0.0185
1.395	280.107	339.106	0.0187
1.405	278.194	336.931	0.0190
1.415	276.261	334.784	0.0192
1.425	274.328	332.662	0.0194
1.435	272.466	330.567	0.0197
1.445	270.637	328.496	0.0199
1.455	268.834	326.448	0.0201
1.465	267.065	324.426	0.0204
1.475	265.245	322.437	0.0206
1.485	263.536	320.474	0.0208
1.495	261.844	318.539	0.0211
1.505	260.185	316.632	0.0213
1.515	258.568	314.751	0.0215
1.525	256.957	312.895	0.0218

1.535	255.357	311.062	0.0220
1.545	253.811	309.256	0.0222
1.555	252.313	307.479	0.0225
1.565	250.806	305.759	0.0227
1.575	249.473	304.152	0.0229
1.585	248.240	302.746	0.0232
1.595	246.967	301.299	0.0235
1.605	245.847	299.992	0.0239
1.615	244.535	298.469	0.0241
1.625	243.152	296.869	0.0244
1.635	241.841	295.260	0.0246
1.645	240.512	293.658	0.0248
1.655	239.192	292.066	0.0251
1.665	237.878	290.485	0.0253
1.675	236.569	288.917	0.0255
1.685	235.351	287.363	0.0258
1.695	234.049	285.825	0.0260
1.705	232.779	284.302	0.0262
1.715	231.617	282.795	0.0265
1.725	230.411	281.304	0.0267
1.735	229.210	279.830	0.0269
1.745	228.042	278.372	0.0272
1.755	226.846	276.931	0.0274
1.765	225.731	275.505	0.0276
1.775	224.602	274.096	0.0278
1.785	223.529	272.703	0.0281
1.795	222.408	271.326	0.0283
1.805	221.356	269.967	0.0285
1.815	220.287	268.622	0.0288
1.825	219.247	267.293	0.0290
1.835	218.204	265.979	0.0292
1.845	217.188	264.679	0.0295
1.855	216.198	263.392	0.0297
1.865	215.212	262.117	0.0299
1.875	214.230	260.854	0.0302
1.885	213.247	259.607	0.0304
1.895	212.314	258.377	0.0306
1.905	211.406	257.165	0.0308
1.915	210.498	255.969	0.0311
1.925	209.569	254.788	0.0313
1.935	208.718	253.620	0.0315
1.945	207.871	252.468	0.0317
1.955	207.020	251.337	0.0320
1.965	206.193	250.256	0.0322
1.975	205.452	249.266	0.0324
1.985	204.811	248.439	0.0327
1.995	204.086	247.538	0.0330
2.005	203.489	246.755	0.0334
2.015	202.789	245.803	0.0337
2.025	202.017	244.791	0.0339
2.035	201.280	243.762	0.0342
2.045	200.504	242.737	0.0344
2.055	199.772	241.715	0.0346
2.065	199.005	240.697	0.0348
2.075	198.271	239.686	0.0350
2.085	197.554	238.682	0.0352
2.095	196.854	237.687	0.0354
2.105	196.105	236.701	0.0356
2.115	195.419	235.725	0.0358
2.125	194.693	234.760	0.0361
2.135	194.005	233.806	0.0363
2.145	193.358	232.862	0.0365

2.155	192.660	231.929	0.0367
2.165	192.001	231.007	0.0369
2.175	191.361	230.096	0.0371
2.185	190.728	229.195	0.0373
2.195	190.078	228.305	0.0375
2.205	189.471	227.424	0.0377
2.215	188.849	226.553	0.0379
2.225	188.270	225.693	0.0381
2.235	187.676	224.842	0.0383
2.245	187.068	224.000	0.0385
2.255	186.469	223.165	0.0387
2.265	185.896	222.338	0.0390
2.275	185.331	221.518	0.0392
2.285	184.787	220.712	0.0394
2.295	184.163	219.920	0.0395
2.305	183.726	219.142	0.0397
2.315	183.127	218.378	0.0399
2.325	182.595	217.625	0.0401
2.335	182.149	216.884	0.0403
2.345	181.647	216.155	0.0405
2.355	181.125	215.442	0.0407
2.365	180.683	214.770	0.0409
2.375	180.268	214.175	0.0411
2.385	179.925	213.717	0.0413
2.395	179.512	213.154	0.0417
2.405	179.245	212.721	0.0421
2.415	178.815	212.145	0.0424
2.425	178.395	211.518	0.0426
2.435	177.950	210.873	0.0427
2.445	177.543	210.228	0.0429
2.455	177.113	209.584	0.0431
2.465	176.698	208.941	0.0432
2.475	176.211	208.301	0.0434
2.485	175.826	207.666	0.0436
2.495	175.368	207.036	0.0437
2.505	174.986	206.411	0.0439
2.515	174.574	205.793	0.0441
2.525	174.153	205.181	0.0442
2.535	173.762	204.576	0.0444
2.545	173.340	203.979	0.0446
2.555	172.955	203.388	0.0447
2.565	172.580	202.805	0.0449
2.575	172.242	202.229	0.0451
2.585	171.780	201.660	0.0452
2.595	171.443	201.098	0.0454
2.605	171.076	200.543	0.0455
2.615	170.720	199.995	0.0457
2.625	170.354	199.454	0.0458
2.635	170.047	198.921	0.0460
2.645	169.731	198.393	0.0461
2.655	169.340	197.871	0.0463
2.665	169.059	197.354	0.0464
2.675	168.721	196.842	0.0466
2.685	168.374	196.337	0.0467
2.695	168.015	195.843	0.0469
2.705	167.713	195.358	0.0470
2.715	167.451	194.883	0.0472
2.725	167.128	194.416	0.0473
2.735	166.867	193.956	0.0474
2.745	166.525	193.504	0.0476
2.755	166.260	193.064	0.0477
2.765	165.991	192.659	0.0478

2.775	165.770	192.316	0.0480
2.785	165.559	192.085	0.0482
2.795	165.374	191.717	0.0486
2.805	165.208	191.503	0.0491
2.815	164.933	191.165	0.0493
2.825	164.744	190.781	0.0494
2.835	164.483	190.379	0.0496
2.845	164.223	189.975	0.0497
2.855	163.963	189.570	0.0498
2.865	163.702	189.165	0.0499
2.875	163.439	188.761	0.0500
2.885	163.172	188.358	0.0501
2.895	162.902	187.958	0.0502
2.905	162.699	187.561	0.0503
2.915	162.491	187.167	0.0505
2.925	162.206	186.778	0.0506
2.935	161.915	186.393	0.0507
2.945	161.692	186.011	0.0508
2.955	161.463	185.634	0.0509
2.965	161.230	185.260	0.0510
2.975	160.991	184.891	0.0511
2.985	160.821	184.526	0.0512
2.995	160.591	184.165	0.0514
3.005	160.318	183.808	0.0515
3.015	160.078	183.454	0.0516
3.025	159.814	183.105	0.0517
3.035	159.695	182.758	0.0518
3.045	159.496	182.416	0.0519
3.055	159.219	182.076	0.0520
3.065	159.012	181.741	0.0521
3.075	158.801	181.408	0.0522
3.085	158.586	181.079	0.0523
3.095	158.442	180.752	0.0524
3.105	158.219	180.429	0.0525
3.115	157.992	180.109	0.0526
3.125	157.761	179.791	0.0527
3.135	157.620	179.477	0.0528
3.145	157.382	179.165	0.0529
3.155	157.216	178.857	0.0530
3.165	157.046	178.551	0.0531
3.175	156.873	178.248	0.0532
3.185	156.696	177.949	0.0533
3.195	156.438	177.652	0.0534
3.205	156.331	177.358	0.0535
3.215	156.143	177.067	0.0536
3.225	155.952	176.779	0.0536
3.235	155.757	176.493	0.0537
3.245	155.636	176.211	0.0538
3.255	155.452	175.931	0.0539
3.265	155.308	175.654	0.0540
3.275	155.117	175.379	0.0541
3.285	154.967	175.106	0.0542
3.295	154.770	174.836	0.0543
3.305	154.553	174.568	0.0544
3.315	154.394	174.302	0.0544
3.325	154.267	174.039	0.0545
3.335	154.120	173.778	0.0546
3.345	153.970	173.520	0.0547
3.355	153.817	173.263	0.0548
3.365	153.661	173.009	0.0549
3.375	153.440	172.757	0.0549
3.385	153.341	172.508	0.0550

3.395	153.177	172.260	0.0551
3.405	153.028	172.015	0.0552
3.415	152.858	171.772	0.0553
3.425	152.750	171.531	0.0554
3.435	152.575	171.292	0.0554
3.445	152.496	171.054	0.0555
3.455	152.317	170.819	0.0556
3.465	152.136	170.585	0.0557
3.475	152.033	170.353	0.0557
3.485	151.928	170.123	0.0558
3.495	151.740	169.895	0.0559
3.505	151.630	169.668	0.0560
3.515	151.518	169.444	0.0561
3.525	151.323	169.221	0.0561
3.535	151.207	169.000	0.0562
3.545	151.106	168.781	0.0563
3.555	150.904	168.563	0.0564
3.565	150.781	168.347	0.0564
3.575	150.656	168.133	0.0565
3.585	150.529	167.921	0.0566
3.595	150.399	167.712	0.0566
3.605	150.349	167.505	0.0567
3.615	150.131	167.300	0.0568
3.625	150.076	167.097	0.0569
3.635	149.936	166.897	0.0569
3.645	149.875	166.699	0.0570
3.655	149.730	166.503	0.0571
3.665	149.582	166.309	0.0571
3.675	149.465	166.117	0.0572
3.685	149.362	165.928	0.0573
3.695	149.290	165.741	0.0573
3.705	149.132	165.556	0.0574
3.715	148.972	165.373	0.0574
3.725	148.926	165.192	0.0575
3.735	148.844	165.013	0.0576
3.745	148.677	164.836	0.0576
3.755	148.642	164.661	0.0577
3.765	148.471	164.488	0.0577
3.775	148.414	164.317	0.0578
3.785	148.290	164.147	0.0579
3.795	148.145	163.979	0.0579
3.805	148.133	163.813	0.0580
3.815	148.036	163.648	0.0580
3.825	147.936	163.486	0.0581
3.835	147.751	163.325	0.0582
3.845	147.732	163.166	0.0582
3.855	147.627	163.008	0.0583
3.865	147.520	162.853	0.0583
3.875	147.463	162.699	0.0584
3.885	147.385	162.546	0.0584
3.895	147.272	162.396	0.0585
3.905	147.157	162.247	0.0585
3.915	147.126	162.100	0.0586
3.925	147.008	161.954	0.0586
3.935	146.920	161.810	0.0587
3.945	146.766	161.668	0.0587
3.955	146.760	161.527	0.0588
3.965	146.687	161.388	0.0588
3.975	146.646	161.251	0.0589
3.985	146.517	161.115	0.0589
3.995	146.386	160.981	0.0590

IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 12

DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
FLUX	BORON	CHF	CHF TEMP.							
(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)		
(MW/M2)	(DEG-K)									
0.000	100.11	1.2106	548.16	764.19	0.00000	0.00000	0.17088 1700.00012	0.0	0.000000	255.37
0.010	100.02	1.2111	548.25	764.02	0.00000	0.00000	0.17101 1701.22375	0.0	4.590766	580.40
0.020	99.93	1.2115	548.34	763.85	0.00000	0.00000	0.17118 1702.98438	0.0	4.555299	580.32
0.030	99.84	1.2120	548.44	763.68	0.00000	0.00000	0.17139 1704.99744	0.0	4.520623	580.24
0.040	99.74	1.2125	548.53	763.50	0.00000	0.00000	0.17160 1707.13538	0.0	4.486776	580.17
0.050	99.65	1.2130	548.63	763.32	0.00000	0.00000	0.17182 1709.33508	0.0	4.453765	580.09
0.060	99.55	1.2135	548.73	763.13	0.00000	0.00000	0.17205 1711.56274	0.0	4.421576	580.02
0.070	99.46	1.2140	548.83	762.94	0.00000	0.00000	0.17227 1713.80005	0.0	4.390170	579.94
0.080	99.37	1.2146	548.93	762.75	0.00000	0.00000	0.17249 1716.03687	0.0	4.359524	579.87
0.090	99.27	1.2151	549.03	762.55	0.00000	0.00000	0.17272 1718.26868	0.0	4.329603	579.80
0.100	99.18	1.2157	549.14	762.35	0.00000	0.00000	0.17294 1720.49524	0.0	4.300374	579.73
0.110	99.08	1.2162	549.24	762.15	0.00000	0.00000	0.17317 1722.71875	0.0	4.271804	579.67
0.120	98.99	1.2168	549.35	761.94	0.00000	0.00000	0.17339 1724.94421	0.0	4.243860	579.60
0.130	98.89	1.2174	549.46	761.73	0.00000	0.00000	0.17361 1727.17908	0.0	4.216511	579.54
0.140	98.80	1.2179	549.57	761.52	0.00000	0.00000	0.17384 1729.43518	0.0	4.189727	579.48
0.150	98.70	1.2185	549.69	761.30	0.00000	0.00000	0.17407 1731.72888	0.0	4.163475	579.42
0.160	98.61	1.2191	549.80	761.08	0.00000	0.00000	0.17431 1734.08435	0.0	4.137722	579.36
0.170	98.51	1.2197	549.92	760.86	0.00000	0.00000	0.17456 1736.53455	0.0	4.112421	579.30
0.180	98.42	1.2204	550.04	760.63	0.00000	0.00000	0.17482 1739.12769	0.0	4.087545	579.24
0.190	98.32	1.2210	550.16	760.40	0.00000	0.00000	0.17510 1741.92114	0.0	4.063046	579.18
0.200	98.23	1.2216	550.28	760.12	0.00000	0.00005	0.17540 1744.89502	0.0	4.038890	579.12
0.210	98.13	1.2223	550.41	759.67	0.00000	0.00035	0.17570 1747.90112	0.0	4.015108	579.07
0.220	98.03	1.2230	550.54	758.99	0.00000	0.00096	0.17599 1750.82324	0.0	3.991752	579.01
0.230	97.93	1.2236	550.66	758.10	0.00001	0.00184	0.17628 1753.66541	0.0	3.968851	578.96
0.240	97.83	1.2243	550.79	757.07	0.00002	0.00293	0.17656 1756.47656	0.0	3.946377	578.91
0.250	97.73	1.2250	550.92	755.92	0.00003	0.00418	0.17684 1759.30615	0.0	3.924298	578.85
0.260	97.62	1.2257	551.06	754.66	0.00005	0.00557	0.17713 1762.18384	0.0	3.902581	578.80
0.270	97.52	1.2264	551.19	753.32	0.00008	0.00707	0.17743 1765.09399	0.0	3.881192	578.75
0.280	97.42	1.2271	551.33	751.91	0.00010	0.00867	0.17772 1767.97400	0.0	3.860111	578.70
0.290	97.32	1.2278	551.46	750.41	0.00014	0.01038	0.17800 1770.75879	0.0	3.839372	578.65
0.300	97.21	1.2285	551.60	748.85	0.00018	0.01218	0.17826 1773.42822	0.0	3.819011	578.61
0.310	97.11	1.2293	551.75	747.21	0.00023	0.01407	0.17852 1776.01807	0.0	3.799049	578.56
0.320	97.01	1.2300	551.89	745.51	0.00029	0.01606	0.17878 1778.58850	0.0	3.779458	578.51
0.330	96.90	1.2308	552.03	743.75	0.00036	0.01812	0.17904 1781.17212	0.0	3.760202	578.47
0.340	96.80	1.2316	552.18	741.83	0.00044	0.02041	0.17930 1783.72998	0.0	3.742229	578.43
0.350	96.69	1.2323	552.32	739.85	0.00053	0.02278	0.17954 1786.12048	0.0	3.724572	578.39
0.360	96.59	1.2331	552.47	737.79	0.00063	0.02524	0.17974 1788.06348	0.0	3.707341	578.35
0.370	96.49	1.2339	552.62	735.67	0.00074	0.02779	0.17983 1789.03809	0.0	3.690811	578.31
0.380	96.39	1.2347	552.77	733.47	0.00086	0.03046	0.17973 1787.97778	0.0	3.675337	578.28
0.390	96.30	1.2355	552.92	731.14	0.00100	0.03331	0.17917 1782.44250	0.0	3.661530	578.25
0.400	93.58	1.2363	553.08	728.40	0.00118	0.03671	0.17756 1766.38257	0.0	3.651281	578.23
0.410	93.49	1.2371	553.23	725.40	0.00139	0.04049	0.17699 1760.71777	0.0	3.641002	578.22
0.420	93.39	1.2380	553.39	722.66	0.00158	0.04389	0.17689 1759.76746	0.0	3.627363	578.20
0.430	93.29	1.2388	553.56	720.00	0.00178	0.04718	0.17703 1761.10681	0.0	3.612005	578.16
0.440	93.18	1.2397	553.72	717.33	0.00198	0.05046	0.17728 1763.64575	0.0	3.595787	578.13
0.450	93.07	1.2406	553.89	714.64	0.00219	0.05377	0.17760 1766.86963	0.0	3.579205	578.09
0.460	92.96	1.2415	554.07	711.90	0.00241	0.05714	0.17797 1770.51978	0.0	3.562502	578.05
0.470	92.85	1.2424	554.24	709.12	0.00265	0.06058	0.17837 1774.45422	0.0	3.545804	578.01
0.480	92.73	1.2434	554.42	706.28	0.00289	0.06409	0.17878 1778.59021	0.0	3.529172	577.98
0.490	92.62	1.2443	554.60	703.39	0.00314	0.06767	0.17921 1782.87488	0.0	3.512651	577.94
0.500	92.50	1.2453	554.78	700.44	0.00341	0.07132	0.17966 1787.27051	0.0	3.496255	577.90
0.510	92.38	1.2463	554.96	697.44	0.00368	0.07505	0.18011 1791.74744	0.0	3.480004	577.86
0.520	92.27	1.2472	555.14	694.38	0.00397	0.07887	0.18056 1796.28101	0.0	3.463907	577.83

0.530	92.15	1.2482	555.33	691.26	0.00426	0.08276	0.18102	1800.84863	0.0	3.447971	577.79
0.540	92.03	1.2492	555.52	688.08	0.00457	0.08673	0.18148	1805.43115	0.0	3.432208	577.76
0.550	91.91	1.2502	555.70	684.85	0.00489	0.09078	0.18194	1810.01135	0.0	3.416626	577.72
0.560	91.79	1.2512	555.89	681.55	0.00522	0.09491	0.18240	1814.57361	0.0	3.401233	577.69
0.570	91.67	1.2523	556.09	678.20	0.00556	0.09913	0.18286	1819.10315	0.0	3.386032	577.65
0.580	91.55	1.2533	556.28	674.79	0.00591	0.10342	0.18331	1823.58374	0.0	3.371034	577.62
0.590	91.42	1.2543	556.48	671.33	0.00627	0.10780	0.18375	1827.99927	0.0	3.356239	577.59
0.600	91.30	1.2554	556.67	667.80	0.00665	0.11226	0.18418	1832.32996	0.0	3.341660	577.55
0.610	91.18	1.2564	556.87	664.22	0.00703	0.11680	0.18461	1836.55371	0.0	3.327304	577.52
0.620	91.05	1.2575	557.07	660.58	0.00743	0.12142	0.18502	1840.64441	0.0	3.313175	577.49
0.630	90.93	1.2586	557.27	656.89	0.00784	0.12611	0.18542	1844.58203	0.0	3.299285	577.46
0.640	90.80	1.2596	557.47	653.14	0.00825	0.13089	0.18580	1848.36377	0.0	3.285643	577.43
0.650	90.68	1.2607	557.67	649.34	0.00868	0.13575	0.18617	1852.03137	0.0	3.272247	577.40
0.660	90.55	1.2618	557.88	645.67	0.00910	0.14041	0.18653	1855.63892	0.0	3.257623	577.37
0.670	90.43	1.2629	558.08	642.16	0.00950	0.14486	0.18688	1859.11157	0.0	3.241788	577.34
0.680	90.30	1.2640	558.29	638.60	0.00991	0.14938	0.18721	1862.40112	0.0	3.226200	577.30
0.690	90.18	1.2651	558.50	634.99	0.01033	0.15397	0.18752	1865.46973	0.0	3.210865	577.27
0.700	90.06	1.2663	558.70	631.35	0.01076	0.15861	0.18780	1868.28833	0.0	3.195838	577.24
0.710	89.93	1.2674	558.91	627.66	0.01120	0.16332	0.18806	1870.87207	0.0	3.181157	577.21
0.720	89.81	1.2685	559.12	623.94	0.01165	0.16808	0.18830	1873.30750	0.0	3.166808	577.18
0.730	89.68	1.2696	559.33	620.18	0.01210	0.17289	0.18854	1875.63452	0.0	3.152745	577.15
0.740	89.56	1.2707	559.54	616.40	0.01257	0.17774	0.18876	1877.80286	0.0	3.138951	577.12
0.750	89.43	1.2719	559.74	612.59	0.01304	0.18264	0.18894	1879.64685	0.0	3.125470	577.09
0.760	89.31	1.2730	559.95	608.77	0.01352	0.18756	0.18906	1880.83374	0.0	3.112453	577.07
0.770	89.19	1.2741	560.16	604.94	0.01401	0.19250	0.18905	1880.69934	0.0	3.100199	577.04
0.780	89.08	1.2752	560.36	601.04	0.01451	0.19754	0.18876	1877.79871	0.0	3.088902	577.02
0.790	88.98	1.2763	560.57	597.02	0.01504	0.20277	0.18787	1868.98743	0.0	3.079489	577.01
0.800	85.35	1.2775	560.78	592.21	0.01568	0.20911	0.18564	1846.77869	0.0	3.074090	577.01
0.810	85.25	1.2786	560.99	587.24	0.01637	0.21569	0.18468	1837.20984	0.0	3.068697	577.01
0.820	85.14	1.2798	561.21	582.86	0.01697	0.22142	0.18433	1833.75635	0.0	3.058884	577.00
0.830	85.02	1.2810	561.42	578.93	0.01751	0.22650	0.18431	1833.55493	0.0	3.045376	576.97
0.840	84.90	1.2822	561.46	575.56	0.01802	0.23124	0.18451	1835.56116	0.0	3.030469	576.93
0.850	84.77	1.2834	561.46	572.16	0.01855	0.23611	0.18480	1838.48511	0.0	3.014904	576.89
0.860	84.64	1.2847	561.45	568.76	0.01908	0.24097	0.18514	1841.87622	0.0	2.999140	576.84
0.870	84.52	1.2859	561.45	565.37	0.01962	0.24582	0.18551	1845.49976	0.0	2.983371	576.80
0.880	84.39	1.2872	561.45	561.97	0.02016	0.25068	0.18588	1849.17322	0.0	2.967697	576.75
0.890	84.26	1.2885	561.45	558.56	0.02071	0.25556	0.18624	1852.81055	0.0	2.952186	576.71
0.900	84.12	1.2897	561.45	555.15	0.02127	0.26044	0.18661	1856.43042	0.0	2.936857	576.66
0.910	83.99	1.2910	561.45	551.74	0.02184	0.26532	0.18697	1860.01904	0.0	2.921705	576.62
0.920	83.86	1.2923	561.45	548.32	0.02241	0.27020	0.18732	1863.55640	0.0	2.906744	576.57
0.930	83.73	1.2936	561.45	544.91	0.02299	0.27509	0.18767	1867.02612	0.0	2.891976	576.53
0.940	83.60	1.2949	561.44	541.50	0.02358	0.27996	0.18801	1870.41382	0.0	2.877408	576.48
0.950	83.46	1.2961	561.44	538.10	0.02417	0.28484	0.18834	1873.71167	0.0	2.863042	576.44
0.960	83.33	1.2974	561.44	534.69	0.02477	0.28970	0.18867	1876.91406	0.0	2.848877	576.40
0.970	83.19	1.2987	561.44	531.30	0.02538	0.29455	0.18898	1880.02222	0.0	2.834912	576.36
0.980	83.06	1.3000	561.44	527.92	0.02600	0.29940	0.18928	1883.04529	0.0	2.821146	576.32
0.990	82.93	1.3013	561.44	524.67	0.02659	0.30404	0.18958	1886.00586	0.0	2.806106	576.27
1.000	82.79	1.3026	561.44	521.44	0.02719	0.30866	0.18987	1888.88318	0.0	2.791268	576.23
1.010	82.66	1.3039	561.44	518.22	0.02780	0.31327	0.19015	1891.66187	0.0	2.776635	576.18
1.020	82.52	1.3052	561.43	515.00	0.02842	0.31787	0.19042	1894.31885	0.0	2.762212	576.14
1.030	82.39	1.3065	561.43	511.80	0.02904	0.32244	0.19067	1896.87793	0.0	2.747998	576.10
1.040	82.26	1.3078	561.43	508.62	0.02967	0.32700	0.19092	1899.36462	0.0	2.733988	576.05
1.050	82.12	1.3091	561.43	505.45	0.03030	0.33154	0.19117	1901.82056	0.0	2.720171	576.01
1.060	81.99	1.3104	561.43	502.29	0.03094	0.33605	0.19142	1904.27222	0.0	2.706520	575.97
1.070	81.85	1.3117	561.43	499.15	0.03158	0.34055	0.19166	1906.69531	0.0	2.693005	575.93
1.080	81.71	1.3130	561.43	496.02	0.03223	0.34502	0.19189	1909.02039	0.0	2.679627	575.89
1.090	81.58	1.3143	561.43	492.91	0.03289	0.34947	0.19211	1911.18372	0.0	2.666422	575.85
1.100	81.44	1.3156	561.42	489.82	0.03355	0.35389	0.19231	1913.17163	0.0	2.653440	575.81
1.110	81.31	1.3169	561.42	486.76	0.03421	0.35827	0.19250	1915.02478	0.0	2.640704	575.77
1.120	81.17	1.3182	561.42	483.72	0.03488	0.36262	0.19268	1916.79614	0.0	2.628204	575.73
1.130	81.03	1.3195	561.42	480.70	0.03555	0.36694	0.19285	1918.50305	0.0	2.615911	575.69
1.140	80.90	1.3208	561.42	477.70	0.03623	0.37122	0.19301	1920.09436	0.0	2.603820	575.65

1.150	80.76	1.3220	561.42	474.76	0.03690	0.37542	0.19314	1921.42297	0.0	2.591597	575.62
1.160	80.63	1.3233	561.42	471.88	0.03757	0.37955	0.19322	1922.17529	0.0	2.579628	575.58
1.170	80.50	1.3246	561.42	469.04	0.03824	0.38362	0.19317	1921.70117	0.0	2.568231	575.55
1.180	80.39	1.3258	561.41	466.20	0.03892	0.38767	0.19285	1918.58374	0.0	2.557650	575.51
1.190	80.29	1.3271	561.41	463.36	0.03962	0.39174	0.19196	1909.72412	0.0	2.548699	575.49
1.200	75.43	1.3283	561.37	459.81	0.04046	0.39679	0.18975	1887.68494	0.0	2.543245	575.47
1.210	75.33	1.3296	561.37	456.64	0.04128	0.40140	0.18885	1878.73511	0.0	2.537699	575.46
1.220	75.22	1.3309	561.37	453.69	0.04204	0.40563	0.18854	1875.64697	0.0	2.528745	575.44
1.230	75.09	1.3322	561.36	450.85	0.04278	0.40968	0.18850	1875.30383	0.0	2.518263	575.41
1.240	74.96	1.3335	561.36	448.04	0.04351	0.41370	0.18860	1876.25208	0.0	2.506880	575.37
1.250	74.82	1.3349	561.36	445.23	0.04426	0.41771	0.18876	1877.85608	0.0	2.495104	575.33
1.260	74.68	1.3362	561.36	442.44	0.04501	0.42170	0.18896	1879.81958	0.0	2.483181	575.30
1.270	74.54	1.3376	561.36	439.67	0.04576	0.42567	0.18918	1881.99072	0.0	2.471228	575.26
1.280	74.40	1.3390	561.36	436.92	0.04653	0.42960	0.18941	1884.28418	0.0	2.459305	575.22
1.290	74.26	1.3404	561.36	434.19	0.04729	0.43351	0.18964	1886.64551	0.0	2.447447	575.18
1.300	74.11	1.3418	561.35	431.48	0.04806	0.43738	0.18988	1889.03845	0.0	2.435672	575.14
1.310	73.97	1.3431	561.35	428.80	0.04884	0.44121	0.19013	1891.43909	0.0	2.423742	575.11
1.320	73.83	1.3445	561.35	426.16	0.04961	0.44498	0.19037	1893.82690	0.0	2.411669	575.07
1.330	73.69	1.3459	561.35	423.55	0.05039	0.44873	0.19060	1896.18286	0.0	2.399715	575.03
1.340	73.54	1.3473	561.35	420.95	0.05117	0.45243	0.19084	1898.49475	0.0	2.387885	574.99
1.350	73.40	1.3487	561.35	418.39	0.05195	0.45610	0.19106	1900.75537	0.0	2.376184	574.95
1.360	73.25	1.3501	561.35	415.84	0.05274	0.45974	0.19128	1902.96143	0.0	2.364613	574.91
1.370	73.11	1.3515	561.35	413.33	0.05353	0.46334	0.19150	1905.11279	0.0	2.353174	574.88
1.380	72.96	1.3529	561.34	410.83	0.05433	0.46690	0.19171	1907.21106	0.0	2.341869	574.84
1.390	72.82	1.3542	561.34	408.37	0.05513	0.47043	0.19192	1909.26013	0.0	2.330695	574.80
1.400	72.67	1.3556	561.34	405.92	0.05593	0.47393	0.19212	1911.26501	0.0	2.319648	574.77
1.410	72.53	1.3570	561.34	403.50	0.05673	0.47738	0.19232	1913.22742	0.0	2.308727	574.73
1.420	72.38	1.3584	561.34	401.11	0.05754	0.48081	0.19251	1915.14551	0.0	2.297926	574.70
1.430	72.24	1.3598	561.34	398.74	0.05835	0.48419	0.19270	1917.01892	0.0	2.287250	574.66
1.440	72.09	1.3612	561.34	396.40	0.05916	0.48755	0.19288	1918.86804	0.0	2.276695	574.62
1.450	71.94	1.3625	561.33	394.07	0.05997	0.49087	0.19307	1920.73059	0.0	2.266253	574.59
1.460	71.80	1.3639	561.33	391.77	0.06079	0.49416	0.19326	1922.62708	0.0	2.255902	574.56
1.470	71.65	1.3653	561.33	389.50	0.06161	0.49741	0.19345	1924.52954	0.0	2.245371	574.52
1.480	71.50	1.3667	561.33	387.27	0.06243	0.50060	0.19364	1926.36841	0.0	2.234172	574.48
1.490	71.36	1.3681	561.33	385.06	0.06325	0.50376	0.19381	1928.07812	0.0	2.223090	574.45
1.500	71.21	1.3695	561.33	382.88	0.06407	0.50688	0.19397	1929.64966	0.0	2.212169	574.41
1.510	71.06	1.3708	561.33	380.73	0.06488	0.50995	0.19412	1931.12537	0.0	2.201432	574.37
1.520	70.92	1.3722	561.32	378.60	0.06570	0.51299	0.19426	1932.55469	0.0	2.190869	574.34
1.530	70.77	1.3736	561.32	376.50	0.06652	0.51599	0.19440	1933.94824	0.0	2.180455	574.30
1.540	70.62	1.3750	561.32	374.43	0.06734	0.51896	0.19453	1935.24646	0.0	2.170187	574.27
1.550	70.48	1.3763	561.32	372.38	0.06816	0.52188	0.19463	1936.28992	0.0	2.160101	574.23
1.560	70.34	1.3776	561.32	370.38	0.06897	0.52474	0.19468	1936.75134	0.0	2.150342	574.20
1.570	70.20	1.3790	561.32	368.43	0.06977	0.52754	0.19460	1935.95923	0.0	2.141010	574.17
1.580	70.08	1.3803	561.32	366.50	0.07058	0.53030	0.19425	1932.50842	0.0	2.132404	574.14
1.590	69.99	1.3816	561.32	364.59	0.07138	0.53302	0.19333	1923.27942	0.0	2.125252	574.12
1.600	63.74	1.3829	561.26	362.11	0.07238	0.53654	0.19106	1900.68091	0.0	2.121229	574.10
1.610	63.65	1.3842	561.26	360.17	0.07326	0.53939	0.19016	1891.75122	0.0	2.117067	574.10
1.620	63.53	1.3855	561.25	358.24	0.07412	0.54215	0.18985	1888.65601	0.0	2.109789	574.08
1.630	63.40	1.3869	561.25	356.35	0.07496	0.54485	0.18980	1888.21484	0.0	2.101159	574.05
1.640	63.25	1.3882	561.25	354.46	0.07581	0.54756	0.18988	1889.02075	0.0	2.091288	574.02
1.650	63.11	1.3896	561.25	352.56	0.07667	0.55027	0.19003	1890.45312	0.0	2.081064	573.98
1.660	62.96	1.3911	561.25	350.66	0.07754	0.55298	0.19021	1892.23474	0.0	2.070699	573.94
1.670	62.81	1.3925	561.25	348.78	0.07842	0.55567	0.19041	1894.22192	0.0	2.060293	573.91
1.680	62.66	1.3939	561.25	346.91	0.07930	0.55835	0.19062	1896.33069	0.0	2.049897	573.87
1.690	62.51	1.3953	561.25	345.05	0.08018	0.56100	0.19084	1898.50745	0.0	2.039540	573.84
1.700	62.35	1.3968	561.24	343.22	0.08107	0.56362	0.19106	1900.71423	0.0	2.029239	573.80
1.710	62.20	1.3982	561.24	341.40	0.08195	0.56622	0.19128	1902.92432	0.0	2.019009	573.76
1.720	62.05	1.3996	561.24	339.60	0.08284	0.56879	0.19150	1905.11804	0.0	2.008859	573.73
1.730	61.89	1.4011	561.24	337.82	0.08373	0.57134	0.19172	1907.28162	0.0	1.998795	573.69
1.740	61.74	1.4025	561.24	336.06	0.08462	0.57385	0.19193	1909.40576	0.0	1.988823	573.66
1.750	61.58	1.4039	561.24	334.32	0.08552	0.57634	0.19214	1911.48706	0.0	1.978948	573.62
1.760	61.43	1.4053	561.23	332.60	0.08641	0.57880	0.19235	1913.52356	0.0	1.969170	573.59

1.770	61.27	1.4068	561.23	330.90	0.08730	0.58123	0.19255	1915.51746	0.0	1.959491	573.55
1.780	61.12	1.4082	561.23	329.21	0.08819	0.58364	0.19274	1917.47058	0.0	1.949910	573.52
1.790	60.96	1.4096	561.23	327.55	0.08908	0.58601	0.19294	1919.38916	0.0	1.940425	573.48
1.800	60.81	1.4110	561.23	325.91	0.08997	0.58836	0.19313	1921.27832	0.0	1.930662	573.45
1.810	60.65	1.4124	561.23	324.29	0.09086	0.59067	0.19331	1923.13940	0.0	1.920868	573.41
1.820	60.50	1.4138	561.23	322.69	0.09175	0.59296	0.19350	1924.96729	0.0	1.911167	573.38
1.830	60.34	1.4152	561.22	321.10	0.09264	0.59523	0.19368	1926.76062	0.0	1.901559	573.34
1.840	60.18	1.4166	561.22	319.54	0.09353	0.59747	0.19386	1928.53772	0.0	1.892047	573.31
1.850	60.03	1.4180	561.22	317.99	0.09442	0.59968	0.19404	1930.33521	0.0	1.882622	573.27
1.860	59.87	1.4194	561.22	316.45	0.09531	0.60187	0.19422	1932.17139	0.0	1.873266	573.24
1.870	59.71	1.4208	561.22	314.93	0.09621	0.60405	0.19441	1934.01001	0.0	1.863959	573.21
1.880	59.55	1.4222	561.22	313.43	0.09710	0.60620	0.19458	1935.77405	0.0	1.854708	573.17
1.890	59.40	1.4236	561.22	311.94	0.09799	0.60833	0.19475	1937.40271	0.0	1.845545	573.14
1.900	59.24	1.4250	561.21	310.47	0.09888	0.61042	0.19490	1938.89294	0.0	1.836515	573.11
1.910	59.08	1.4264	561.21	309.03	0.09977	0.61249	0.19504	1940.29065	0.0	1.827633	573.07
1.920	58.93	1.4277	561.21	307.60	0.10065	0.61452	0.19517	1941.64685	0.0	1.818889	573.04
1.930	58.77	1.4291	561.21	306.20	0.10153	0.61653	0.19531	1942.97070	0.0	1.810264	573.01
1.940	58.62	1.4304	561.21	304.81	0.10241	0.61852	0.19543	1944.19604	0.0	1.801749	572.98
1.950	58.46	1.4318	561.21	303.44	0.10328	0.62047	0.19553	1945.15234	0.0	1.793393	572.95
1.960	58.32	1.4331	561.21	302.12	0.10413	0.62236	0.19556	1945.49402	0.0	1.784579	572.91
1.970	58.18	1.4344	561.20	300.83	0.10497	0.62420	0.19546	1944.48669	0.0	1.775385	572.88
1.980	58.06	1.4357	561.20	299.57	0.10581	0.62600	0.19507	1940.62976	0.0	1.766867	572.85
1.990	57.98	1.4370	561.20	298.35	0.10663	0.62775	0.19406	1930.55005	0.0	1.759708	572.82
2.000	50.31	1.4382	561.13	296.62	0.10766	0.63017	0.19159	1905.99585	0.0	1.755490	572.81
2.010	50.23	1.4395	561.13	295.46	0.10852	0.63191	0.19062	1896.37439	0.0	1.751123	572.80
2.020	50.11	1.4408	561.13	294.23	0.10937	0.63367	0.19028	1892.97388	0.0	1.743805	572.78
2.030	49.97	1.4421	561.13	293.00	0.11023	0.63543	0.19022	1892.36121	0.0	1.735223	572.74
2.040	49.82	1.4434	561.12	291.75	0.11110	0.63721	0.19029	1893.05774	0.0	1.725989	572.71
2.050	49.67	1.4448	561.12	290.48	0.11199	0.63902	0.19042	1894.40637	0.0	1.716419	572.67
2.060	49.51	1.4462	561.12	289.22	0.11289	0.64083	0.19060	1896.12561	0.0	1.706717	572.64
2.070	49.35	1.4476	561.12	287.96	0.11380	0.64263	0.19079	1898.06396	0.0	1.696965	572.60
2.080	49.19	1.4490	561.12	286.70	0.11471	0.64442	0.19100	1900.13318	0.0	1.687209	572.56
2.090	49.03	1.4504	561.12	285.46	0.11561	0.64620	0.19122	1902.27502	0.0	1.677478	572.52
2.100	48.87	1.4518	561.12	284.23	0.11652	0.64796	0.19143	1904.44958	0.0	1.667787	572.49
2.110	48.71	1.4532	561.11	283.01	0.11743	0.64970	0.19165	1906.62842	0.0	1.658149	572.45
2.120	48.54	1.4545	561.11	281.80	0.11834	0.65142	0.19187	1908.79175	0.0	1.648447	572.41
2.130	48.38	1.4559	561.11	280.61	0.11924	0.65312	0.19209	1910.92615	0.0	1.638435	572.37
2.140	48.22	1.4573	561.11	279.44	0.12014	0.65480	0.19230	1913.02185	0.0	1.628499	572.33
2.150	48.06	1.4587	561.11	278.27	0.12104	0.65646	0.19250	1915.07483	0.0	1.618642	572.30
2.160	47.89	1.4600	561.11	277.12	0.12194	0.65810	0.19270	1917.08337	0.0	1.608866	572.26
2.170	47.73	1.4614	561.10	275.99	0.12283	0.65972	0.19290	1919.04968	0.0	1.599170	572.22
2.180	47.57	1.4628	561.10	274.87	0.12373	0.66133	0.19310	1920.97705	0.0	1.589556	572.18
2.190	47.40	1.4641	561.10	273.76	0.12461	0.66291	0.19329	1922.86987	0.0	1.580021	572.14
2.200	47.24	1.4655	561.10	272.67	0.12550	0.66447	0.19347	1924.73230	0.0	1.570564	572.11
2.210	47.08	1.4668	561.10	271.59	0.12638	0.66602	0.19366	1926.56702	0.0	1.561182	572.07
2.220	46.91	1.4681	561.10	270.52	0.12726	0.66754	0.19384	1928.36951	0.0	1.551873	572.03
2.230	46.75	1.4695	561.10	269.46	0.12814	0.66905	0.19402	1930.13892	0.0	1.542639	571.99
2.240	46.59	1.4708	561.09	268.42	0.12901	0.67054	0.19419	1931.89282	0.0	1.533479	571.96
2.250	46.42	1.4721	561.09	267.39	0.12989	0.67202	0.19437	1933.66833	0.0	1.524390	571.92
2.260	46.26	1.4734	561.09	266.36	0.13076	0.67348	0.19455	1935.48413	0.0	1.515355	571.88
2.270	46.10	1.4747	561.09	265.35	0.13163	0.67492	0.19474	1937.30505	0.0	1.506356	571.85
2.280	45.93	1.4760	561.09	264.35	0.13250	0.67636	0.19491	1939.05481	0.0	1.497398	571.81
2.290	45.77	1.4773	561.09	263.36	0.13336	0.67777	0.19507	1940.66992	0.0	1.488480	571.77
2.300	45.60	1.4786	561.08	262.39	0.13421	0.67915	0.19522	1942.14099	0.0	1.475669	571.72
2.310	45.44	1.4799	561.08	261.44	0.13506	0.68051	0.19536	1943.51123	0.0	1.464983	571.68
2.320	45.28	1.4812	561.08	260.50	0.13589	0.68185	0.19549	1944.82959	0.0	1.454416	571.63
2.330	45.12	1.4824	561.08	259.58	0.13673	0.68316	0.19562	1946.10339	0.0	1.443948	571.59
2.340	44.96	1.4837	561.08	258.67	0.13755	0.68446	0.19574	1947.26440	0.0	1.433578	571.55
2.350	44.80	1.4849	561.08	257.78	0.13837	0.68573	0.19583	1948.13232	0.0	1.423348	571.51
2.360	44.65	1.4861	561.08	256.93	0.13916	0.68695	0.19585	1948.35193	0.0	1.413353	571.47
2.370	44.51	1.4873	561.07	256.09	0.13994	0.68815	0.19573	1947.14026	0.0	1.403661	571.43
2.380	44.40	1.4884	561.07	255.28	0.14070	0.68931	0.19530	1942.91260	0.0	1.394557	571.39

2.390	44.34	1.4895	561.07	254.50	0.14144	0.69042	0.19421	1932.05676	0.0	1.386644	571.36
2.400	35.33	1.4906	560.99	253.28	0.14241	0.69211	0.19156	1905.69092	0.0	1.381330	571.33
2.410	35.27	1.4917	560.99	252.59	0.14315	0.69317	0.19052	1895.33594	0.0	1.375869	571.32
2.420	35.16	1.4928	560.99	251.82	0.14392	0.69427	0.19014	1891.56335	0.0	1.367779	571.29
2.430	35.02	1.4940	560.98	251.03	0.14469	0.69540	0.19005	1890.71741	0.0	1.358571	571.25
2.440	34.87	1.4952	560.98	250.22	0.14548	0.69655	0.19011	1891.25378	0.0	1.348814	571.21
2.450	34.72	1.4964	560.98	249.39	0.14630	0.69773	0.19023	1892.47498	0.0	1.339152	571.17
2.460	34.56	1.4976	560.98	248.57	0.14712	0.69892	0.19039	1894.08752	0.0	1.329505	571.13
2.470	34.40	1.4989	560.98	247.74	0.14794	0.70010	0.19058	1895.93347	0.0	1.319807	571.08
2.480	34.23	1.5001	560.98	246.91	0.14877	0.70127	0.19078	1897.92041	0.0	1.310098	571.04
2.490	34.07	1.5013	560.98	246.10	0.14959	0.70244	0.19099	1899.98755	0.0	1.300400	571.00
2.500	33.90	1.5026	560.97	245.29	0.15042	0.70360	0.19120	1902.09314	0.0	1.290727	570.96
2.510	33.74	1.5038	560.97	244.49	0.15124	0.70474	0.19141	1904.20764	0.0	1.281091	570.92
2.520	33.57	1.5050	560.97	243.69	0.15205	0.70587	0.19162	1906.30994	0.0	1.271499	570.87
2.530	33.41	1.5062	560.97	242.91	0.15287	0.70699	0.19183	1908.38574	0.0	1.261956	570.83
2.540	33.24	1.5074	560.97	242.14	0.15367	0.70810	0.19203	1910.42542	0.0	1.252466	570.79
2.550	33.08	1.5086	560.97	241.37	0.15448	0.70919	0.19224	1912.42444	0.0	1.243032	570.75
2.560	32.91	1.5098	560.96	240.62	0.15528	0.71026	0.19243	1914.38159	0.0	1.233657	570.70
2.570	32.74	1.5110	560.96	239.87	0.15607	0.71133	0.19263	1916.29846	0.0	1.224339	570.66
2.580	32.58	1.5122	560.96	239.14	0.15686	0.71238	0.19281	1918.17786	0.0	1.215080	570.62
2.590	32.41	1.5133	560.96	238.41	0.15765	0.71341	0.19300	1920.02368	0.0	1.205877	570.58
2.600	32.25	1.5145	560.96	237.69	0.15843	0.71444	0.19318	1921.84070	0.0	1.196730	570.54
2.610	32.09	1.5157	560.96	236.99	0.15920	0.71545	0.19336	1923.63037	0.0	1.187367	570.49
2.620	31.92	1.5168	560.95	236.29	0.15997	0.71645	0.19354	1925.38940	0.0	1.177785	570.45
2.630	31.76	1.5179	560.95	235.60	0.16074	0.71743	0.19371	1927.11523	0.0	1.168256	570.41
2.640	31.59	1.5191	560.95	234.92	0.16150	0.71841	0.19388	1928.82471	0.0	1.158780	570.36
2.650	31.43	1.5202	560.95	234.24	0.16225	0.71937	0.19406	1930.55347	0.0	1.149354	570.32
2.660	31.26	1.5213	560.95	233.58	0.16300	0.72032	0.19424	1932.32117	0.0	1.139966	570.28
2.670	31.10	1.5224	560.95	232.92	0.16375	0.72126	0.19441	1934.09705	0.0	1.130601	570.23
2.680	30.93	1.5235	560.95	232.26	0.16450	0.72219	0.19459	1935.80798	0.0	1.121265	570.19
2.690	30.77	1.5246	560.94	231.62	0.16524	0.72311	0.19475	1937.38818	0.0	1.111977	570.15
2.700	30.60	1.5257	560.94	230.99	0.16597	0.72402	0.19489	1938.82385	0.0	1.102764	570.10
2.710	30.44	1.5268	560.94	230.36	0.16669	0.72490	0.19502	1940.15186	0.0	1.093639	570.06
2.720	30.28	1.5278	560.94	229.76	0.16740	0.72577	0.19515	1941.41687	0.0	1.084600	570.02
2.730	30.12	1.5289	560.94	229.16	0.16811	0.72663	0.19527	1942.62744	0.0	1.075632	569.97
2.740	29.96	1.5299	560.94	228.57	0.16880	0.72747	0.19538	1943.71448	0.0	1.066738	569.93
2.750	29.81	1.5309	560.93	227.99	0.16949	0.72829	0.19546	1944.50305	0.0	1.057950	569.89
2.760	29.66	1.5319	560.93	227.44	0.17015	0.72908	0.19547	1944.62866	0.0	1.049330	569.85
2.770	29.52	1.5329	560.93	226.90	0.17079	0.72985	0.19534	1943.29504	0.0	1.041082	569.81
2.780	29.42	1.5338	560.93	226.38	0.17142	0.73058	0.19489	1938.85999	0.0	1.033715	569.77
2.790	29.37	1.5347	560.93	225.90	0.17202	0.73128	0.19375	1927.53174	0.0	1.027302	569.74
2.800	19.26	1.5356	560.83	224.99	0.17286	0.73251	0.19098	1899.92517	0.0	1.022995	569.72
2.810	19.22	1.5364	560.83	224.59	0.17346	0.73315	0.18989	1889.08679	0.0	1.018571	569.71
2.820	19.11	1.5374	560.83	224.11	0.17408	0.73385	0.18949	1885.08093	0.0	1.011999	569.68
2.830	18.98	1.5383	560.83	223.60	0.17472	0.73457	0.18939	1884.08936	0.0	1.004518	569.64
2.840	18.83	1.5393	560.83	223.08	0.17537	0.73532	0.18943	1884.52197	0.0	0.9966012	569.60
2.850	18.68	1.5403	560.83	222.54	0.17605	0.73609	0.18955	1885.66101	0.0	0.9884429	569.56
2.860	18.52	1.5413	560.83	221.99	0.17673	0.73686	0.18970	1887.20056	0.0	0.9801840	569.52
2.870	18.36	1.5423	560.83	221.45	0.17741	0.73764	0.18988	1888.98047	0.0	0.9718797	569.48
2.880	18.20	1.5433	560.82	220.91	0.17810	0.73841	0.19007	1890.90747	0.0	0.9635606	569.44
2.890	18.03	1.5443	560.82	220.37	0.17879	0.73918	0.19028	1892.92102	0.0	0.9552435	569.40
2.900	17.87	1.5454	560.82	219.83	0.17947	0.73994	0.19048	1894.97937	0.0	0.9469405	569.35
2.910	17.71	1.5464	560.82	219.30	0.18015	0.74070	0.19069	1897.05273	0.0	0.9386575	569.31
2.920	17.54	1.5474	560.82	218.78	0.18082	0.74145	0.19090	1899.12000	0.0	0.9304020	569.27
2.930	17.38	1.5484	560.82	218.26	0.18150	0.74219	0.19110	1901.16577	0.0	0.9221771	569.23
2.940	17.21	1.5494	560.81	217.75	0.18216	0.74292	0.19131	1903.18115	0.0	0.9151258	569.19
2.950	17.05	1.5503	560.81	217.24	0.18283	0.74364	0.19151	1905.16040	0.0	0.9081103	569.15
2.960	16.88	1.5513	560.81	216.74	0.18349	0.74436	0.19170	1907.10205	0.0	0.9011322	569.12
2.970	16.72	1.5523	560.81	216.24	0.18414	0.74506	0.19189	1909.00598	0.0	0.8941908	569.08
2.980	16.56	1.5532	560.81	215.75	0.18479	0.74576	0.19208	1910.87524	0.0	0.8872880	569.04
2.990	16.39	1.5542	560.81	215.27	0.18544	0.74645	0.19226	1912.71277	0.0	0.8804215	569.01
3.000	16.23	1.5551	560.81	214.79	0.18608	0.74714	0.19245	1914.52283	0.0	0.8735915	568.97

3.010	16.07	1.5561	560.80	214.32	0.18671	0.74781	0.19263	1916.30933	0.0	0.8667962	568.93
3.020	15.90	1.5570	560.80	213.85	0.18734	0.74848	0.19280	1918.07544	0.0	0.8600347	568.90
3.030	15.74	1.5580	560.80	213.39	0.18797	0.74914	0.19298	1919.82446	0.0	0.8533056	568.86
3.040	15.57	1.5589	560.80	212.93	0.18860	0.74979	0.19315	1921.55859	0.0	0.8466076	568.82
3.050	15.41	1.5598	560.80	212.48	0.18922	0.75044	0.19333	1923.27881	0.0	0.8399397	568.79
3.060	15.25	1.5607	560.80	212.03	0.18983	0.75107	0.19350	1924.98596	0.0	0.8333008	568.75
3.070	15.08	1.5616	560.79	211.59	0.19044	0.75171	0.19367	1926.68005	0.0	0.8266897	568.72
3.080	14.92	1.5625	560.79	211.15	0.19105	0.75233	0.19384	1928.36096	0.0	0.8201063	568.68
3.090	14.76	1.5634	560.79	210.71	0.19166	0.75295	0.19401	1930.02771	0.0	0.8135497	568.64
3.100	14.59	1.5643	560.79	210.28	0.19226	0.75357	0.19417	1931.67908	0.0	0.8074552	568.61
3.110	14.43	1.5652	560.79	209.86	0.19286	0.75417	0.19434	1933.31458	0.0	0.8015321	568.58
3.120	14.27	1.5661	560.79	209.44	0.19345	0.75478	0.19450	1934.93286	0.0	0.7956343	568.54
3.130	14.10	1.5669	560.79	209.02	0.19404	0.75537	0.19466	1936.53308	0.0	0.7897617	568.51
3.140	13.94	1.5678	560.78	208.60	0.19463	0.75596	0.19482	1938.11426	0.0	0.7839140	568.48
3.150	13.77	1.5687	560.78	208.19	0.19522	0.75655	0.19497	1939.67554	0.0	0.7780910	568.44
3.160	13.61	1.5695	560.78	207.79	0.19580	0.75712	0.19513	1941.21716	0.0	0.7722929	568.41
3.170	13.45	1.5704	560.78	207.39	0.19637	0.75770	0.19528	1942.73877	0.0	0.7665189	568.38
3.180	13.28	1.5713	560.78	206.99	0.19695	0.75826	0.19543	1944.24084	0.0	0.7607693	568.35
3.190	13.12	1.5721	560.78	206.60	0.19752	0.75883	0.19558	1945.72290	0.0	0.7550431	568.31
3.200	12.96	1.5729	560.77	206.21	0.19809	0.75938	0.19573	1947.18591	0.0	0.7493410	568.28
3.210	12.79	1.5738	560.77	205.82	0.19865	0.75993	0.19588	1948.63013	0.0	0.7436617	568.25
3.220	12.63	1.5746	560.77	205.44	0.19921	0.76048	0.19602	1950.05640	0.0	0.7380055	568.22
3.230	12.47	1.5754	560.77	205.06	0.19977	0.76102	0.19616	1951.46497	0.0	0.7323717	568.18
3.240	12.30	1.5762	560.77	204.68	0.20032	0.76155	0.19630	1952.85693	0.0	0.7267601	568.15
3.250	12.14	1.5771	560.77	204.31	0.20087	0.76208	0.19644	1954.23267	0.0	0.7211702	568.12
3.260	11.98	1.5779	560.77	203.94	0.20142	0.76261	0.19658	1955.59314	0.0	0.7158893	568.09
3.270	11.81	1.5787	560.76	203.58	0.20196	0.76313	0.19671	1956.93884	0.0	0.7109168	568.06
3.280	11.65	1.5795	560.76	203.22	0.20251	0.76364	0.19684	1958.27014	0.0	0.7059644	568.03
3.290	11.49	1.5803	560.76	202.86	0.20304	0.76416	0.19698	1959.58777	0.0	0.7010317	568.00
3.300	11.33	1.5811	560.76	202.50	0.20358	0.76466	0.19711	1960.89160	0.0	0.6961187	567.97
3.310	11.16	1.5819	560.76	202.15	0.20411	0.76516	0.19724	1962.18237	0.0	0.6912249	567.94
3.320	11.00	1.5826	560.76	201.80	0.20464	0.76566	0.19737	1963.45996	0.0	0.6863496	567.91
3.330	10.84	1.5834	560.75	201.46	0.20517	0.76616	0.19749	1964.72461	0.0	0.6814926	567.88
3.340	10.67	1.5842	560.75	201.11	0.20569	0.76664	0.19762	1965.97632	0.0	0.6766543	567.85
3.350	10.51	1.5850	560.75	200.77	0.20622	0.76713	0.19774	1967.21521	0.0	0.6718337	567.82
3.360	10.35	1.5857	560.75	200.44	0.20673	0.76761	0.19787	1968.44153	0.0	0.6670308	567.79
3.370	10.18	1.5865	560.75	200.10	0.20725	0.76809	0.19799	1969.65503	0.0	0.6622452	567.76
3.380	10.02	1.5873	560.75	199.77	0.20776	0.76856	0.19811	1970.85596	0.0	0.6574768	567.73
3.390	9.86	1.5880	560.74	199.44	0.20827	0.76903	0.19823	1972.04382	0.0	0.6527253	567.71
3.400	9.70	1.5888	560.74	199.12	0.20878	0.76949	0.19835	1973.21936	0.0	0.6479905	567.68
3.410	9.53	1.5895	560.74	198.80	0.20929	0.76995	0.19846	1974.38220	0.0	0.6432722	567.65
3.420	9.37	1.5903	560.74	198.48	0.20979	0.77041	0.19858	1975.53259	0.0	0.6387165	567.62
3.430	9.21	1.5910	560.74	198.16	0.21029	0.77086	0.19869	1976.67053	0.0	0.6346166	567.59
3.440	9.04	1.5917	560.74	197.84	0.21079	0.77131	0.19881	1977.79651	0.0	0.6305320	567.57
3.450	8.88	1.5925	560.74	197.53	0.21128	0.77175	0.19892	1978.91028	0.0	0.6264624	567.54
3.460	8.72	1.5932	560.73	197.22	0.21177	0.77220	0.19903	1980.01208	0.0	0.6224077	567.52
3.470	8.56	1.5939	560.73	196.91	0.21226	0.77264	0.19914	1981.10181	0.0	0.6183674	567.49
3.480	8.39	1.5946	560.73	196.61	0.21275	0.77307	0.19925	1982.17993	0.0	0.6143420	567.47
3.490	8.23	1.5954	560.73	196.31	0.21324	0.77350	0.19935	1983.24670	0.0	0.6103306	567.44
3.500	8.07	1.5961	560.73	196.01	0.21372	0.77393	0.19946	1984.30164	0.0	0.6063336	567.41
3.510	7.90	1.5968	560.73	195.71	0.21420	0.77435	0.19957	1985.34546	0.0	0.6023504	567.39
3.520	7.74	1.5975	560.72	195.41	0.21468	0.77478	0.19967	1986.37805	0.0	0.5983810	567.36
3.530	7.58	1.5982	560.72	195.12	0.21516	0.77519	0.19977	1987.39941	0.0	0.5944253	567.34
3.540	7.42	1.5989	560.72	194.83	0.21563	0.77561	0.19987	1988.41003	0.0	0.5904831	567.31
3.550	7.25	1.5996	560.72	194.54	0.21610	0.77602	0.19997	1989.40991	0.0	0.5865538	567.29
3.560	7.09	1.6003	560.72	194.25	0.21657	0.77643	0.20007	1990.39905	0.0	0.5826377	567.26
3.570	6.93	1.6010	560.72	193.97	0.21704	0.77684	0.20017	1991.37756	0.0	0.5787347	567.24
3.580	6.77	1.6017	560.72	193.69	0.21750	0.77724	0.20027	1992.34595	0.0	0.5748445	567.21
3.590	6.60	1.6023	560.71	193.41	0.21796	0.77764	0.20037	1993.30359	0.0	0.5698009	567.18
3.600	6.44	1.6030	560.71	193.13	0.21842	0.77803	0.20046	1994.25073	0.0	0.5647698	567.14
3.610	6.28	1.6037	560.71	192.85	0.21888	0.77842	0.20055	1995.18738	0.0	0.5597513	567.11
3.620	6.12	1.6044	560.71	192.58	0.21933	0.77881	0.20065	1996.11353	0.0	0.5547453	567.08

3.630	5.95	1.6050	560.71	192.31	0.21978	0.77920	0.20074	1997.02966	0.0	0.5497515	567.04
3.640	5.79	1.6057	560.71	192.04	0.22023	0.77958	0.20083	1997.93567	0.0	0.5447699	567.01
3.650	5.63	1.6064	560.70	191.78	0.22067	0.77995	0.20092	1998.83154	0.0	0.5398000	566.98
3.660	5.47	1.6070	560.70	191.52	0.22111	0.78033	0.20101	1999.71777	0.0	0.5348420	566.94
3.670	5.30	1.6077	560.70	191.26	0.22155	0.78070	0.20110	2000.59399	0.0	0.5298954	566.91
3.680	5.14	1.6083	560.70	191.00	0.22199	0.78106	0.20119	2001.46082	0.0	0.5249599	566.88
3.690	4.98	1.6089	560.70	190.75	0.22242	0.78143	0.20127	2002.31812	0.0	0.5200356	566.84
3.700	4.82	1.6096	560.70	190.49	0.22285	0.78179	0.20136	2003.16589	0.0	0.5151222	566.81
3.710	4.66	1.6102	560.70	190.24	0.22328	0.78215	0.20144	2004.00439	0.0	0.5102193	566.78
3.720	4.50	1.6108	560.69	189.99	0.22370	0.78250	0.20152	2004.83374	0.0	0.5053272	566.74
3.730	4.33	1.6115	560.69	189.75	0.22412	0.78285	0.20161	2005.65393	0.0	0.5004451	566.71
3.740	4.17	1.6121	560.69	189.50	0.22454	0.78320	0.20169	2006.46545	0.0	0.4955734	566.67
3.750	4.01	1.6127	560.69	189.26	0.22496	0.78354	0.20177	2007.26807	0.0	0.4911535	566.64
3.760	3.85	1.6133	560.69	189.02	0.22537	0.78388	0.20185	2008.06226	0.0	0.4868915	566.61
3.770	3.69	1.6139	560.69	188.79	0.22578	0.78422	0.20193	2008.84802	0.0	0.4826392	566.58
3.780	3.53	1.6145	560.68	188.55	0.22619	0.78456	0.20201	2009.62549	0.0	0.4783965	566.55
3.790	3.37	1.6151	560.68	188.32	0.22659	0.78489	0.20208	2010.39441	0.0	0.4741635	566.52
3.800	3.21	1.6157	560.68	188.08	0.22700	0.78522	0.20216	2011.15527	0.0	0.4699398	566.49
3.810	3.04	1.6163	560.68	187.86	0.22740	0.78555	0.20224	2011.90833	0.0	0.4657252	566.46
3.820	2.88	1.6169	560.68	187.63	0.22780	0.78587	0.20231	2012.65308	0.0	0.4615198	566.43
3.830	2.72	1.6175	560.68	187.40	0.22819	0.78619	0.20238	2013.39026	0.0	0.4573231	566.40
3.840	2.56	1.6180	560.68	187.18	0.22859	0.78651	0.20246	2014.11951	0.0	0.4531356	566.37
3.850	2.40	1.6186	560.67	186.96	0.22898	0.78683	0.20253	2014.84131	0.0	0.4489563	566.34
3.860	2.24	1.6192	560.67	186.74	0.22936	0.78714	0.20260	2015.55530	0.0	0.4447859	566.31
3.870	2.08	1.6198	560.67	186.52	0.22975	0.78745	0.20267	2016.26172	0.0	0.4406235	566.28
3.880	1.92	1.6203	560.67	186.30	0.23013	0.78776	0.20274	2016.96045	0.0	0.4364696	566.25
3.890	1.76	1.6209	560.67	186.09	0.23051	0.78807	0.20281	2017.65234	0.0	0.4323236	566.22
3.900	1.60	1.6215	560.67	185.88	0.23089	0.78837	0.20288	2018.33667	0.0	0.4281857	566.18
3.910	1.44	1.6220	560.66	185.67	0.23127	0.78867	0.20295	2019.01392	0.0	0.4240556	566.15
3.920	1.28	1.6226	560.66	185.46	0.23164	0.78897	0.20302	2019.68396	0.0	0.4199332	566.12
3.930	1.12	1.6231	560.66	185.25	0.23201	0.78926	0.20308	2020.34717	0.0	0.4158183	566.09
3.940	0.96	1.6236	560.66	185.05	0.23238	0.78955	0.20315	2021.00354	0.0	0.4117110	566.06
3.950	0.80	1.6242	560.66	184.84	0.23274	0.78984	0.20322	2021.65308	0.0	0.4076106	566.03
3.960	0.64	1.6247	560.66	184.64	0.23311	0.79013	0.20328	2022.29602	0.0	0.4035178	566.00
3.970	0.48	1.6253	560.66	184.44	0.23347	0.79041	0.20334	2022.93274	0.0	0.3994319	565.96
3.980	0.32	1.6258	560.65	184.24	0.23383	0.79070	0.20341	2023.56384	0.0	0.3953528	565.93
3.990	0.16	1.6263	560.65	184.05	0.23418	0.79098	0.20347	2024.18945	0.0	0.3912802	565.90
4.000	0.00	1.6268	560.65	183.85	0.23453	0.79125	0.20353	2024.81152	0.0	0.3872144	565.87

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 12

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW

(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	764.023	764.023	0.0000
0.015	763.852	763.852	0.0000
0.025	763.677	763.677	0.0000
0.035	763.499	763.499	0.0000
0.045	763.317	763.317	0.0000
0.055	763.131	763.131	0.0000
0.065	762.942	762.942	0.0000
0.075	762.750	762.750	0.0000
0.085	762.554	762.554	0.0000
0.095	762.354	762.354	0.0000
0.105	762.151	762.151	0.0000
0.115	761.944	761.944	0.0000
0.125	761.734	761.734	0.0000
0.135	761.521	761.521	0.0000

0.145	761.303	761.303	0.0000
0.155	761.083	761.083	0.0000
0.165	760.858	760.858	0.0000
0.175	760.630	760.630	0.0000
0.185	760.405	760.398	0.0000
0.195	764.884	760.122	0.0000
0.205	776.661	759.661	0.0000
0.215	784.508	758.958	0.0000
0.225	788.305	758.050	0.0000
0.235	798.934	756.987	0.0000
0.245	803.483	755.804	0.0000
0.255	791.216	754.523	0.0000
0.265	787.276	753.157	0.0000
0.275	800.669	751.715	0.0000
0.285	799.950	750.201	0.0000
0.295	781.295	748.618	0.0000
0.305	776.754	746.971	0.0000
0.315	771.867	745.263	0.0001
0.325	766.602	743.496	0.0001
0.335	760.661	741.573	0.0001
0.345	754.723	739.588	0.0001
0.355	748.849	737.540	0.0001
0.365	743.395	735.428	0.0001
0.375	737.930	733.236	0.0002
0.385	732.183	730.920	0.0002
0.395	731.702	728.199	0.0002
0.405	723.217	725.217	0.0002
0.415	715.783	722.496	0.0003
0.425	708.802	719.850	0.0003
0.435	702.033	717.203	0.0004
0.445	695.396	714.527	0.0004
0.455	688.867	711.807	0.0004
0.465	682.435	709.038	0.0005
0.475	676.098	706.215	0.0005
0.485	669.864	703.337	0.0006
0.495	663.737	700.402	0.0006
0.505	657.719	697.409	0.0007
0.515	651.818	694.357	0.0007
0.525	646.033	691.246	0.0008
0.535	640.370	688.075	0.0008
0.545	634.831	684.844	0.0009
0.555	629.413	681.554	0.0010
0.565	624.118	678.203	0.0010
0.575	618.945	674.793	0.0011
0.585	613.895	671.324	0.0012
0.595	608.956	667.795	0.0012
0.605	604.132	664.209	0.0013
0.615	599.414	660.564	0.0014
0.625	594.799	656.862	0.0015
0.635	590.274	653.105	0.0015
0.645	585.841	649.292	0.0016
0.655	581.662	645.619	0.0017
0.665	577.722	642.092	0.0018
0.675	573.831	638.520	0.0019
0.685	569.980	634.903	0.0019
0.695	566.166	631.246	0.0020
0.705	562.395	627.549	0.0021
0.715	558.650	623.814	0.0022
0.725	554.925	620.046	0.0023
0.735	551.229	616.248	0.0024
0.745	547.546	612.426	0.0025
0.755	543.894	608.589	0.0026

0.765	540.272	604.750	0.0026
0.775	536.619	600.838	0.0027
0.785	532.877	596.798	0.0028
0.795	528.445	591.975	0.0029
0.805	523.975	586.984	0.0030
0.815	519.947	582.587	0.0031
0.825	516.259	578.650	0.0032
0.835	513.040	575.267	0.0033
0.845	509.802	571.847	0.0034
0.855	506.559	568.436	0.0035
0.865	503.301	565.027	0.0036
0.875	500.042	561.614	0.0037
0.885	496.746	558.194	0.0039
0.895	493.457	554.767	0.0040
0.905	490.131	551.338	0.0041
0.915	486.804	547.909	0.0042
0.925	483.470	544.481	0.0043
0.935	480.128	541.056	0.0044
0.945	476.768	537.635	0.0045
0.955	473.410	534.219	0.0047
0.965	470.044	530.811	0.0048
0.975	466.686	527.410	0.0049
0.985	463.411	524.151	0.0050
0.995	460.151	520.903	0.0052
1.005	456.883	517.664	0.0053
1.015	453.629	514.437	0.0054
1.025	450.370	511.221	0.0055
1.035	447.131	508.020	0.0057
1.045	443.890	504.832	0.0058
1.055	440.669	501.659	0.0059
1.065	437.465	498.499	0.0060
1.075	434.245	495.354	0.0062
1.085	431.063	492.229	0.0063
1.095	427.893	489.124	0.0064
1.105	424.743	486.043	0.0066
1.115	421.622	482.984	0.0067
1.125	418.527	479.949	0.0069
1.135	415.443	476.937	0.0070
1.145	412.415	473.980	0.0071
1.155	409.426	471.074	0.0073
1.165	406.522	468.217	0.0074
1.175	403.607	465.367	0.0075
1.185	400.705	462.501	0.0076
1.195	397.122	458.931	0.0077
1.205	393.997	455.735	0.0078
1.215	391.022	452.757	0.0079
1.225	388.136	449.905	0.0081
1.235	385.251	447.070	0.0082
1.245	382.388	444.245	0.0084
1.255	379.516	441.434	0.0085
1.265	376.668	438.641	0.0087
1.275	373.854	435.867	0.0088
1.285	371.055	433.115	0.0090
1.295	368.285	430.385	0.0091
1.305	365.551	427.688	0.0093
1.315	362.869	425.025	0.0094
1.325	360.199	422.386	0.0096
1.335	357.561	419.772	0.0098
1.345	354.939	417.182	0.0099
1.355	352.354	414.616	0.0101
1.365	349.814	412.076	0.0102
1.375	347.301	409.560	0.0104

1.385	344.818	407.070	0.0106
1.395	342.353	404.604	0.0107
1.405	339.931	402.162	0.0109
1.415	337.536	399.744	0.0111
1.425	335.168	397.351	0.0112
1.435	332.850	394.981	0.0114
1.445	330.544	392.635	0.0116
1.455	328.244	390.309	0.0117
1.465	326.009	388.010	0.0119
1.475	323.789	385.752	0.0121
1.485	321.599	383.519	0.0123
1.495	319.473	381.314	0.0124
1.505	317.323	379.137	0.0126
1.515	315.249	376.986	0.0128
1.525	313.189	374.860	0.0129
1.535	311.202	372.760	0.0131
1.545	309.190	370.691	0.0133
1.555	307.272	368.668	0.0134
1.565	305.352	366.685	0.0136
1.575	303.512	364.729	0.0137
1.585	301.703	362.798	0.0138
1.595	299.367	360.283	0.0139
1.605	297.599	358.306	0.0140
1.615	295.822	356.351	0.0141
1.625	294.012	354.431	0.0142
1.635	292.225	352.510	0.0144
1.645	290.453	350.582	0.0146
1.655	288.636	348.658	0.0147
1.665	286.853	346.745	0.0149
1.675	285.088	344.847	0.0151
1.685	283.389	342.964	0.0153
1.695	281.669	341.098	0.0155
1.705	279.943	339.251	0.0157
1.715	278.262	337.423	0.0159
1.725	276.630	335.613	0.0160
1.735	275.007	333.823	0.0162
1.745	273.374	332.053	0.0164
1.755	271.812	330.303	0.0166
1.765	270.273	328.572	0.0168
1.775	268.747	326.860	0.0170
1.785	267.228	325.167	0.0172
1.795	265.703	323.497	0.0174
1.805	264.267	321.847	0.0176
1.815	262.823	320.215	0.0177
1.825	261.386	318.601	0.0179
1.835	259.964	317.004	0.0181
1.845	258.628	315.425	0.0183
1.855	257.255	313.860	0.0185
1.865	255.892	312.309	0.0187
1.875	254.532	310.772	0.0189
1.885	253.232	309.254	0.0191
1.895	251.930	307.758	0.0193
1.905	250.655	306.283	0.0195
1.915	249.452	304.828	0.0196
1.925	248.212	303.391	0.0198
1.935	246.989	301.973	0.0200
1.945	245.819	300.577	0.0202
1.955	244.686	299.226	0.0204
1.965	243.557	297.909	0.0205
1.975	242.512	296.620	0.0207
1.985	241.433	295.366	0.0207
1.995	239.944	293.607	0.0208

2.005	239.043	292.402	0.0207
2.015	238.005	291.142	0.0208
2.025	236.937	289.879	0.0210
2.035	235.890	288.599	0.0211
2.045	234.848	287.302	0.0213
2.055	233.754	286.005	0.0215
2.065	232.678	284.713	0.0217
2.075	231.645	283.428	0.0219
2.085	230.608	282.154	0.0221
2.095	229.598	280.891	0.0223
2.105	228.536	279.640	0.0225
2.115	227.545	278.404	0.0227
2.125	226.545	277.182	0.0229
2.135	225.617	275.974	0.0231
2.145	224.622	274.781	0.0233
2.155	223.714	273.601	0.0235
2.165	222.737	272.436	0.0237
2.175	221.848	271.285	0.0239
2.185	220.939	270.147	0.0241
2.195	220.084	269.022	0.0243
2.205	219.148	267.911	0.0245
2.215	218.338	266.812	0.0247
2.225	217.487	265.726	0.0248
2.235	216.639	264.652	0.0250
2.245	215.800	263.590	0.0252
2.255	214.993	262.538	0.0254
2.265	214.222	261.494	0.0256
2.275	213.409	260.461	0.0258
2.285	212.597	259.446	0.0260
2.295	211.813	258.448	0.0262
2.305	211.082	257.467	0.0264
2.315	210.355	256.502	0.0266
2.325	209.635	255.551	0.0267
2.335	208.945	254.616	0.0269
2.345	208.232	253.699	0.0271
2.355	207.507	252.815	0.0273
2.365	206.889	251.951	0.0274
2.375	206.267	251.114	0.0275
2.385	205.637	250.311	0.0275
2.395	204.703	249.053	0.0275
2.405	204.213	248.329	0.0273
2.415	203.625	247.524	0.0274
2.425	203.015	246.705	0.0275
2.435	202.382	245.870	0.0277
2.445	201.790	245.017	0.0278
2.455	201.112	244.160	0.0280
2.465	200.511	243.304	0.0282
2.475	199.869	242.454	0.0284
2.485	199.216	241.609	0.0286
2.495	198.659	240.772	0.0287
2.505	198.089	239.943	0.0289
2.515	197.451	239.124	0.0291
2.525	196.853	238.313	0.0293
2.535	196.320	237.513	0.0295
2.545	195.750	236.722	0.0297
2.555	195.133	235.941	0.0299
2.565	194.591	235.169	0.0300
2.575	194.001	234.408	0.0302
2.585	193.488	233.656	0.0304
2.595	192.928	232.913	0.0306
2.605	192.434	232.179	0.0308
2.615	191.882	231.455	0.0309

2.625	191.419	230.740	0.0311
2.635	190.956	230.033	0.0313
2.645	190.446	229.336	0.0315
2.655	189.948	228.645	0.0316
2.665	189.475	227.960	0.0318
2.675	188.992	227.283	0.0320
2.685	188.519	226.615	0.0322
2.695	188.067	225.958	0.0323
2.705	187.622	225.314	0.0325
2.715	187.200	224.681	0.0327
2.725	186.705	224.059	0.0328
2.735	186.280	223.446	0.0330
2.745	185.934	222.849	0.0331
2.755	185.486	222.275	0.0333
2.765	185.099	221.717	0.0334
2.775	184.750	221.180	0.0334
2.785	184.337	220.673	0.0334
2.795	183.712	219.737	0.0333
2.805	183.460	219.305	0.0330
2.815	183.085	218.793	0.0330
2.825	182.740	218.264	0.0331
2.835	182.342	217.720	0.0332
2.845	182.017	217.159	0.0334
2.855	181.571	216.594	0.0335
2.865	181.224	216.028	0.0337
2.875	180.831	215.464	0.0338
2.885	180.453	214.903	0.0340
2.895	180.089	214.347	0.0342
2.905	179.675	213.796	0.0343
2.915	179.315	213.251	0.0345
2.925	179.011	212.712	0.0347
2.935	178.593	212.179	0.0348
2.945	178.251	211.651	0.0350
2.955	177.859	211.130	0.0352
2.965	177.522	210.614	0.0353
2.975	177.198	210.105	0.0355
2.985	176.888	209.601	0.0356
2.995	176.528	209.103	0.0358
3.005	176.224	208.611	0.0359
3.015	175.913	208.124	0.0361
3.025	175.530	207.642	0.0363
3.035	175.205	207.166	0.0364
3.045	174.873	206.694	0.0366
3.055	174.600	206.228	0.0367
3.065	174.320	205.766	0.0369
3.075	173.988	205.309	0.0370
3.085	173.741	204.856	0.0372
3.095	173.377	204.408	0.0373
3.105	173.139	203.964	0.0375
3.115	172.763	203.525	0.0376
3.125	172.513	203.089	0.0378
3.135	172.211	202.658	0.0379
3.145	171.950	202.231	0.0380
3.155	171.664	201.808	0.0382
3.165	171.392	201.389	0.0383
3.175	171.135	200.974	0.0385
3.185	170.919	200.563	0.0386
3.195	170.631	200.157	0.0388
3.205	170.270	199.754	0.0389
3.215	170.039	199.355	0.0390
3.225	169.803	198.960	0.0392
3.235	169.494	198.568	0.0393

3.245	169.268	198.181	0.0394
3.255	168.998	197.797	0.0396
3.265	168.811	197.416	0.0397
3.275	168.571	197.039	0.0398
3.285	168.287	196.665	0.0400
3.295	168.106	196.294	0.0401
3.305	167.814	195.927	0.0402
3.315	167.625	195.562	0.0404
3.325	167.324	195.201	0.0405
3.335	167.127	194.843	0.0406
3.345	166.836	194.488	0.0408
3.355	166.681	194.136	0.0409
3.365	166.453	193.788	0.0410
3.375	166.220	193.442	0.0411
3.385	165.983	193.099	0.0413
3.395	165.813	192.759	0.0414
3.405	165.569	192.422	0.0415
3.415	165.340	192.088	0.0416
3.425	165.159	191.756	0.0418
3.435	164.903	191.427	0.0419
3.445	164.715	191.100	0.0420
3.455	164.453	190.777	0.0421
3.465	164.329	190.455	0.0423
3.475	164.131	190.136	0.0424
3.485	163.859	189.820	0.0425
3.495	163.726	189.506	0.0426
3.505	163.518	189.195	0.0427
3.515	163.235	188.886	0.0429
3.525	163.093	188.579	0.0430
3.535	162.875	188.275	0.0431
3.545	162.727	187.973	0.0432
3.555	162.504	187.673	0.0433
3.565	162.368	187.376	0.0434
3.575	162.120	187.081	0.0435
3.585	161.978	186.789	0.0437
3.595	161.814	186.499	0.0438
3.605	161.574	186.212	0.0439
3.615	161.404	185.927	0.0440
3.625	161.231	185.645	0.0441
3.635	161.054	185.366	0.0442
3.645	160.875	185.089	0.0443
3.655	160.710	184.815	0.0444
3.665	160.580	184.543	0.0445
3.675	160.317	184.273	0.0447
3.685	160.217	184.007	0.0448
3.695	160.022	183.742	0.0449
3.705	159.880	183.480	0.0450
3.715	159.680	183.220	0.0451
3.725	159.568	182.963	0.0452
3.735	159.362	182.708	0.0453
3.745	159.227	182.455	0.0454
3.755	159.089	182.204	0.0455
3.765	158.874	181.956	0.0456
3.775	158.731	181.710	0.0457
3.785	158.586	181.465	0.0458
3.795	158.438	181.223	0.0459
3.805	158.288	180.983	0.0460
3.815	158.153	180.745	0.0461
3.825	158.056	180.509	0.0462
3.835	157.823	180.274	0.0463
3.845	157.662	180.042	0.0464
3.855	157.576	179.812	0.0465

3.865	157.411	179.584	0.0466
3.875	157.319	179.358	0.0466
3.885	157.168	179.134	0.0467
3.895	156.996	178.912	0.0468
3.905	156.897	178.691	0.0469
3.915	156.721	178.473	0.0470
3.925	156.542	178.256	0.0471
3.935	156.455	178.042	0.0472
3.945	156.330	177.829	0.0473
3.955	156.221	177.618	0.0474
3.965	156.051	177.409	0.0475
3.975	155.937	177.202	0.0476
3.985	155.822	176.996	0.0476
3.995	155.704	176.793	0.0477

I PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 13

	DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
	FLUX	BORON	CHF	CHF TEMP.							
(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)			
(MW/M2)	(DEG-K)										
0.000	100.12	1.2106	548.16	764.19	0.00000	0.00000	0.11706	1700.00012	0.0	0.000000	255.37
0.010	100.02	1.2112	548.29	763.95	0.00000	0.00000	0.11699	1698.90991	0.0	4.574471	580.26
0.020	99.93	1.2119	548.42	763.71	0.00000	0.00000	0.11689	1697.56885	0.0	4.524614	580.15
0.030	99.84	1.2126	548.55	763.46	0.00000	0.00000	0.11680	1696.22888	0.0	4.476826	580.05
0.040	99.74	1.2133	548.68	763.21	0.00000	0.00000	0.11671	1694.95081	0.0	4.430874	579.94
0.050	99.65	1.2140	548.82	762.96	0.00000	0.00000	0.11663	1693.73706	0.0	4.386638	579.84
0.060	99.55	1.2147	548.95	762.70	0.00000	0.00000	0.11655	1692.57556	0.0	4.344009	579.75
0.070	99.46	1.2154	549.09	762.44	0.00000	0.00000	0.11647	1691.45435	0.0	4.302878	579.65
0.080	99.37	1.2162	549.23	762.17	0.00000	0.00000	0.11640	1690.36475	0.0	4.263165	579.56
0.090	99.27	1.2169	549.38	761.90	0.00000	0.00000	0.11632	1689.30322	0.0	4.224779	579.48
0.100	99.18	1.2176	549.52	761.63	0.00000	0.00000	0.11625	1688.26941	0.0	4.187658	579.39
0.110	99.08	1.2184	549.67	761.35	0.00000	0.00000	0.11618	1687.26599	0.0	4.151710	579.31
0.120	98.99	1.2192	549.81	761.07	0.00000	0.00000	0.11612	1686.29797	0.0	4.116874	579.23
0.130	98.89	1.2200	549.96	760.78	0.00000	0.00000	0.11605	1685.37329	0.0	4.083077	579.15
0.140	98.80	1.2207	550.11	760.49	0.00000	0.00000	0.11599	1684.50464	0.0	4.050271	579.08
0.150	98.70	1.2215	550.27	760.20	0.00000	0.00000	0.11594	1683.71094	0.0	4.018386	579.01
0.160	98.61	1.2224	550.42	759.90	0.00000	0.00000	0.11589	1683.01855	0.0	3.987356	578.94
0.170	98.51	1.2232	550.58	759.60	0.00000	0.00000	0.11585	1682.46289	0.0	3.957133	578.87
0.180	98.42	1.2240	550.74	759.29	0.00000	0.00000	0.11583	1682.08716	0.0	3.927649	578.80
0.190	98.32	1.2249	550.90	758.98	0.00000	0.00000	0.11582	1681.93787	0.0	3.898847	578.74
0.200	98.23	1.2257	551.06	758.67	0.00000	0.00000	0.11583	1682.06262	0.0	3.870674	578.67
0.210	98.13	1.2266	551.23	758.33	0.00000	0.00003	0.11585	1682.42932	0.0	3.843085	578.61
0.220	98.03	1.2274	551.39	757.77	0.00000	0.00036	0.11588	1682.78088	0.0	3.816133	578.55
0.230	97.93	1.2283	551.56	756.88	0.00001	0.00114	0.11589	1682.92993	0.0	3.789902	578.49
0.240	97.83	1.2292	551.73	755.71	0.00001	0.00232	0.11588	1682.89368	0.0	3.764401	578.43
0.250	97.73	1.2301	551.90	754.33	0.00003	0.00377	0.11587	1682.76611	0.0	3.739582	578.37
0.260	97.63	1.2310	552.07	752.78	0.00005	0.00545	0.11586	1682.62280	0.0	3.715359	578.32
0.270	97.52	1.2319	552.25	751.11	0.00008	0.00731	0.11585	1682.46741	0.0	3.691679	578.26
0.280	97.42	1.2328	552.42	749.31	0.00012	0.00934	0.11584	1682.23560	0.0	3.668517	578.21
0.290	97.32	1.2338	552.60	747.40	0.00017	0.01152	0.11581	1681.84985	0.0	3.645884	578.16
0.300	97.21	1.2347	552.78	745.38	0.00023	0.01384	0.11577	1681.28992	0.0	3.623817	578.11
0.310	97.11	1.2357	552.96	743.27	0.00030	0.01630	0.11573	1680.60876	0.0	3.602305	578.06
0.320	97.01	1.2366	553.14	741.05	0.00039	0.01890	0.11568	1679.89465	0.0	3.581306	578.02
0.330	96.90	1.2376	553.33	738.74	0.00049	0.02162	0.11563	1679.21069	0.0	3.560755	577.97
0.340	96.80	1.2386	553.51	736.24	0.00061	0.02461	0.11558	1678.55188	0.0	3.541782	577.93
0.350	96.69	1.2396	553.70	733.65	0.00074	0.02772	0.11554	1677.83948	0.0	3.523150	577.89
0.360	96.59	1.2406	553.89	730.96	0.00090	0.03096	0.11548	1677.00574	0.0	3.504884	577.85
0.370	96.48	1.2416	554.08	728.17	0.00106	0.03434	0.11542	1676.19604	0.0	3.486972	577.81

0.380	96.37	1.2426	554.28	725.32	0.00125	0.03782	0.11543	1676.30359	0.0	3.469425	577.77
0.390	96.26	1.2436	554.46	722.49	0.00144	0.04128	0.11571	1680.36389	0.0	3.452111	577.74
0.400	93.63	1.2445	554.63	719.69	0.00164	0.04473	0.11688	1697.36719	0.0	3.433623	577.69
0.410	93.51	1.2455	554.82	717.33	0.00181	0.04753	0.11719	1701.86255	0.0	3.413081	577.64
0.420	93.40	1.2466	555.02	714.37	0.00203	0.05115	0.11721	1702.09766	0.0	3.395642	577.60
0.430	93.29	1.2476	555.22	711.14	0.00229	0.05513	0.11714	1701.12097	0.0	3.379437	577.56
0.440	93.18	1.2487	555.42	707.79	0.00257	0.05930	0.11706	1699.99573	0.0	3.363725	577.53
0.450	93.07	1.2498	555.63	704.33	0.00286	0.06360	0.11700	1699.04175	0.0	3.348198	577.50
0.460	92.96	1.2509	555.84	700.79	0.00318	0.06802	0.11695	1698.32178	0.0	3.332777	577.47
0.470	92.85	1.2520	556.05	697.16	0.00351	0.07255	0.11691	1697.81543	0.0	3.317454	577.44
0.480	92.73	1.2532	556.26	693.46	0.00385	0.07720	0.11689	1697.48450	0.0	3.302244	577.41
0.490	92.62	1.2543	556.48	689.67	0.00422	0.08195	0.11687	1697.28967	0.0	3.287161	577.38
0.500	92.50	1.2555	556.70	685.81	0.00460	0.08682	0.11687	1697.19641	0.0	3.272220	577.35
0.510	92.38	1.2567	556.91	681.86	0.00499	0.09180	0.11687	1697.17419	0.0	3.257430	577.32
0.520	92.27	1.2578	557.14	677.84	0.00540	0.09690	0.11687	1697.19543	0.0	3.242808	577.29
0.530	92.15	1.2590	557.36	673.73	0.00583	0.10211	0.11687	1697.23572	0.0	3.228355	577.26
0.540	92.03	1.2602	557.58	669.54	0.00627	0.10743	0.11687	1697.27429	0.0	3.214082	577.23
0.550	91.91	1.2615	557.81	665.27	0.00673	0.11287	0.11687	1697.29309	0.0	3.199997	577.21
0.560	91.79	1.2627	558.04	660.93	0.00720	0.11842	0.11687	1697.27783	0.0	3.186102	577.18
0.570	91.67	1.2639	558.27	656.51	0.00769	0.12407	0.11687	1697.21558	0.0	3.172404	577.15
0.580	91.55	1.2652	558.50	652.01	0.00820	0.12984	0.11686	1697.09424	0.0	3.158904	577.13
0.590	91.42	1.2664	558.74	647.44	0.00872	0.13570	0.11685	1696.90198	0.0	3.145606	577.10
0.600	91.30	1.2677	558.97	642.80	0.00926	0.14167	0.11683	1696.62341	0.0	3.132512	577.08
0.610	91.18	1.2690	559.21	638.10	0.00981	0.14774	0.11680	1696.24109	0.0	3.119627	577.05
0.620	91.05	1.2703	559.45	633.33	0.01037	0.15390	0.11677	1695.73047	0.0	3.106952	577.03
0.630	90.93	1.2716	559.69	628.49	0.01096	0.16015	0.11672	1695.07202	0.0	3.094501	577.01
0.640	90.80	1.2729	559.94	623.61	0.01155	0.16649	0.11667	1694.27039	0.0	3.082277	576.99
0.650	90.68	1.2742	560.18	618.66	0.01217	0.17291	0.11661	1693.39270	0.0	3.070270	576.97
0.660	90.55	1.2756	560.43	613.85	0.01277	0.17914	0.11654	1692.48035	0.0	3.056845	576.94
0.670	90.43	1.2769	560.67	609.17	0.01336	0.18518	0.11647	1691.41553	0.0	3.042041	576.91
0.680	90.30	1.2782	560.92	604.46	0.01396	0.19128	0.11639	1690.19104	0.0	3.027492	576.89
0.690	90.18	1.2796	561.17	599.72	0.01458	0.19743	0.11629	1688.83203	0.0	3.013186	576.86
0.700	90.05	1.2810	561.42	594.95	0.01520	0.20362	0.11620	1687.45654	0.0	2.999127	576.83
0.710	89.93	1.2823	561.50	590.63	0.01582	0.20959	0.11614	1686.55652	0.0	2.985197	576.80
0.720	89.81	1.2837	561.50	586.34	0.01645	0.21574	0.11609	1685.83960	0.0	2.971384	576.76
0.730	89.68	1.2851	561.50	582.03	0.01710	0.22189	0.11604	1685.21045	0.0	2.957758	576.72
0.740	89.56	1.2864	561.50	577.73	0.01776	0.22805	0.11600	1684.60046	0.0	2.944330	576.68
0.750	89.43	1.2878	561.50	573.42	0.01843	0.23422	0.11595	1683.91968	0.0	2.931119	576.65
0.760	89.31	1.2892	561.50	569.11	0.01910	0.24038	0.11590	1683.12964	0.0	2.918154	576.61
0.770	89.18	1.2906	561.50	564.81	0.01979	0.24653	0.11586	1682.49622	0.0	2.905377	576.57
0.780	89.05	1.2920	561.50	560.67	0.02046	0.25246	0.11591	1683.34583	0.0	2.893140	576.54
0.790	88.91	1.2932	561.49	556.92	0.02107	0.25782	0.11635	1689.72119	0.0	2.881169	576.50
0.800	85.42	1.2941	561.46	553.62	0.02160	0.26254	0.11796	1713.05273	0.0	2.868085	576.46
0.810	85.28	1.2953	561.46	550.85	0.02206	0.26657	0.11846	1720.25366	0.0	2.851698	576.40
0.820	85.15	1.2967	561.46	547.13	0.02269	0.27189	0.11852	1721.14966	0.0	2.837958	576.36
0.830	85.02	1.2981	561.46	543.18	0.02337	0.27753	0.11842	1719.78271	0.0	2.823471	576.32
0.840	84.90	1.2995	561.46	539.16	0.02407	0.28329	0.11829	1717.83838	0.0	2.809715	576.28
0.850	84.77	1.3009	561.46	535.11	0.02479	0.28908	0.11816	1715.94836	0.0	2.796181	576.24
0.860	84.64	1.3023	561.45	531.08	0.02551	0.29485	0.11805	1714.29456	0.0	2.782719	576.20
0.870	84.52	1.3038	561.45	527.06	0.02625	0.30060	0.11795	1712.88770	0.0	2.769300	576.16
0.880	84.39	1.3052	561.45	523.06	0.02700	0.30632	0.11786	1711.61572	0.0	2.755951	576.12
0.890	84.26	1.3067	561.45	519.08	0.02775	0.31200	0.11778	1710.41748	0.0	2.742710	576.09
0.900	84.12	1.3081	561.45	515.13	0.02851	0.31766	0.11771	1709.34863	0.0	2.729577	576.05
0.910	83.99	1.3096	561.45	511.21	0.02927	0.32327	0.11764	1708.39636	0.0	2.716548	576.01
0.920	83.86	1.3111	561.45	507.32	0.03005	0.32884	0.11758	1707.53430	0.0	2.703626	575.97
0.930	83.73	1.3125	561.45	503.45	0.03083	0.33436	0.11753	1706.73718	0.0	2.690827	575.93
0.940	83.60	1.3140	561.44	499.62	0.03162	0.33985	0.11747	1705.98315	0.0	2.678158	575.90
0.950	83.46	1.3155	561.44	495.82	0.03241	0.34528	0.11742	1705.25562	0.0	2.665625	575.86
0.960	83.33	1.3169	561.44	492.05	0.03321	0.35067	0.11737	1704.54126	0.0	2.653237	575.82
0.970	83.19	1.3184	561.44	488.32	0.03402	0.35601	0.11733	1703.83142	0.0	2.640997	575.78
0.980	83.06	1.3199	561.44	484.62	0.03483	0.36131	0.11728	1703.11694	0.0	2.628909	575.75
0.990	82.93	1.3214	561.44	481.04	0.03563	0.36641	0.11722	1702.37415	0.0	2.615437	575.71

1.000	82.79	1.3229	561.44	477.51	0.03643	0.37147	0.11717	1701.62476	0.0	2.602145	575.67
1.010	82.66	1.3244	561.44	474.01	0.03724	0.37648	0.11712	1700.86389	0.0	2.589026	575.63
1.020	82.52	1.3258	561.43	470.54	0.03806	0.38144	0.11707	1700.06543	0.0	2.576085	575.59
1.030	82.39	1.3273	561.43	467.11	0.03888	0.38635	0.11701	1699.26147	0.0	2.563320	575.55
1.040	82.26	1.3288	561.43	463.71	0.03970	0.39120	0.11696	1698.48132	0.0	2.550723	575.51
1.050	82.12	1.3303	561.43	460.36	0.04053	0.39601	0.11691	1697.77673	0.0	2.538281	575.47
1.060	81.99	1.3318	561.43	457.03	0.04136	0.40076	0.11687	1697.18250	0.0	2.525964	575.44
1.070	81.85	1.3333	561.43	453.75	0.04220	0.40546	0.11683	1696.66748	0.0	2.513744	575.40
1.080	81.71	1.3348	561.43	450.50	0.04304	0.41011	0.11680	1696.13721	0.0	2.501628	575.36
1.090	81.58	1.3363	561.43	447.28	0.04389	0.41470	0.11675	1695.49780	0.0	2.489664	575.32
1.100	81.44	1.3378	561.42	444.11	0.04474	0.41924	0.11670	1694.72034	0.0	2.477907	575.29
1.110	81.31	1.3392	561.42	440.98	0.04560	0.42372	0.11664	1693.85303	0.0	2.466383	575.25
1.120	81.17	1.3407	561.42	437.88	0.04645	0.42815	0.11658	1692.97266	0.0	2.455076	575.22
1.130	81.04	1.3422	561.42	434.82	0.04731	0.43253	0.11652	1692.12488	0.0	2.443943	575.18
1.140	80.90	1.3437	561.42	431.80	0.04818	0.43685	0.11646	1691.29346	0.0	2.432959	575.15
1.150	80.76	1.3452	561.42	428.84	0.04904	0.44109	0.11640	1690.42480	0.0	2.421744	575.11
1.160	80.63	1.3467	561.42	425.92	0.04990	0.44525	0.11634	1689.53064	0.0	2.410566	575.08
1.170	80.49	1.3481	561.42	423.07	0.05075	0.44933	0.11630	1688.94788	0.0	2.399576	575.04
1.180	80.35	1.3495	561.41	420.42	0.05156	0.45312	0.11638	1690.09790	0.0	2.388996	575.01
1.190	80.19	1.3507	561.41	418.17	0.05225	0.45634	0.11686	1697.12732	0.0	2.378583	574.98
1.200	75.53	1.3514	561.37	416.25	0.05280	0.45907	0.11854	1721.53906	0.0	2.367174	574.94
1.210	75.37	1.3526	561.37	414.40	0.05337	0.46178	0.11903	1728.65466	0.0	2.352627	574.88
1.220	75.23	1.3540	561.37	411.95	0.05414	0.46528	0.11908	1729.38550	0.0	2.341159	574.84
1.230	75.09	1.3554	561.36	409.29	0.05500	0.46909	0.11899	1727.98657	0.0	2.330672	574.81
1.240	74.96	1.3569	561.36	406.61	0.05588	0.47292	0.11886	1726.15723	0.0	2.320706	574.77
1.250	74.82	1.3584	561.36	403.94	0.05677	0.47674	0.11874	1724.42896	0.0	2.310831	574.74
1.260	74.68	1.3598	561.36	401.28	0.05767	0.48054	0.11864	1722.93408	0.0	2.300950	574.71
1.270	74.54	1.3613	561.36	398.65	0.05858	0.48430	0.11855	1721.67432	0.0	2.291054	574.68
1.280	74.40	1.3628	561.36	396.05	0.05948	0.48802	0.11848	1720.61450	0.0	2.281155	574.65
1.290	74.26	1.3643	561.36	393.47	0.06040	0.49171	0.11842	1719.71240	0.0	2.271274	574.62
1.300	74.11	1.3658	561.35	390.92	0.06131	0.49535	0.11836	1718.92761	0.0	2.261425	574.59
1.310	73.97	1.3673	561.35	388.41	0.06223	0.49895	0.11832	1718.22253	0.0	2.251372	574.55
1.320	73.83	1.3688	561.35	385.93	0.06315	0.50249	0.11827	1717.56982	0.0	2.241131	574.52
1.330	73.69	1.3703	561.35	383.48	0.06407	0.50599	0.11823	1716.95264	0.0	2.230970	574.49
1.340	73.54	1.3718	561.35	381.06	0.06499	0.50945	0.11819	1716.35583	0.0	2.220892	574.45
1.350	73.40	1.3734	561.35	378.67	0.06591	0.51287	0.11815	1715.76880	0.0	2.210907	574.42
1.360	73.25	1.3749	561.35	376.31	0.06684	0.51625	0.11811	1715.18408	0.0	2.201018	574.39
1.370	73.11	1.3764	561.35	373.97	0.06777	0.51959	0.11807	1714.59912	0.0	2.191229	574.36
1.380	72.96	1.3779	561.34	371.67	0.06870	0.52288	0.11803	1714.01465	0.0	2.181541	574.32
1.390	72.82	1.3794	561.34	369.39	0.06963	0.52614	0.11799	1713.43274	0.0	2.171954	574.29
1.400	72.67	1.3809	561.34	367.14	0.07056	0.52935	0.11795	1712.85681	0.0	2.162466	574.26
1.410	72.53	1.3824	561.34	364.92	0.07150	0.53253	0.11791	1712.28906	0.0	2.153074	574.23
1.420	72.38	1.3839	561.34	362.73	0.07244	0.53566	0.11787	1711.72424	0.0	2.143777	574.20
1.430	72.24	1.3854	561.34	360.56	0.07338	0.53876	0.11783	1711.15967	0.0	2.134577	574.17
1.440	72.09	1.3869	561.34	358.42	0.07432	0.54182	0.11779	1710.61804	0.0	2.125477	574.14
1.450	71.94	1.3884	561.33	356.30	0.07526	0.54485	0.11776	1710.14771	0.0	2.116463	574.11
1.460	71.80	1.3899	561.33	354.21	0.07620	0.54784	0.11773	1709.77551	0.0	2.107512	574.08
1.470	71.65	1.3914	561.33	352.15	0.07715	0.55079	0.11771	1709.45642	0.0	2.098351	574.05
1.480	71.50	1.3929	561.33	350.12	0.07809	0.55370	0.11769	1709.08704	0.0	2.088495	574.01
1.490	71.36	1.3944	561.33	348.11	0.07903	0.55656	0.11765	1708.59058	0.0	2.078748	573.98
1.500	71.21	1.3959	561.33	346.14	0.07997	0.55939	0.11761	1707.95325	0.0	2.069159	573.95
1.510	71.06	1.3973	561.33	344.19	0.08090	0.56217	0.11756	1707.23157	0.0	2.059750	573.92
1.520	70.92	1.3988	561.32	342.27	0.08184	0.56491	0.11751	1706.50134	0.0	2.050503	573.89
1.530	70.77	1.4003	561.32	340.38	0.08278	0.56761	0.11746	1705.80200	0.0	2.041384	573.85
1.540	70.62	1.4018	561.32	338.51	0.08371	0.57028	0.11741	1705.11414	0.0	2.032369	573.82
1.550	70.48	1.4032	561.32	336.67	0.08464	0.57292	0.11736	1704.37451	0.0	2.023463	573.79
1.560	70.33	1.4047	561.32	334.86	0.08557	0.57550	0.11731	1703.57397	0.0	2.014649	573.76
1.570	70.19	1.4061	561.32	333.12	0.08648	0.57800	0.11727	1703.04724	0.0	2.006066	573.73
1.580	70.03	1.4074	561.32	331.52	0.08732	0.58029	0.11735	1704.15881	0.0	1.997818	573.71
1.590	69.86	1.4085	561.31	330.21	0.08801	0.58215	0.11782	1711.00781	0.0	1.989694	573.68
1.600	63.88	1.4091	561.26	329.05	0.08853	0.58378	0.11948	1735.06555	0.0	1.980641	573.64
1.610	63.70	1.4102	561.26	327.86	0.08917	0.58556	0.11991	1741.44202	0.0	1.968866	573.59

1.620	63.55	1.4115	561.25	326.31	0.09000	0.58777	0.11994	1741.75098	0.0	1.959819	573.55
1.630	63.40	1.4129	561.25	324.65	0.09091	0.59014	0.11983	1740.22412	0.0	1.951548	573.53
1.640	63.26	1.4144	561.25	322.98	0.09185	0.59253	0.11971	1738.41785	0.0	1.943101	573.50
1.650	63.11	1.4158	561.25	321.32	0.09278	0.59490	0.11960	1736.80017	0.0	1.934695	573.47
1.660	62.96	1.4173	561.25	319.67	0.09373	0.59726	0.11950	1735.44934	0.0	1.926239	573.44
1.670	62.81	1.4188	561.25	318.02	0.09468	0.59961	0.11943	1734.33875	0.0	1.917736	573.41
1.680	62.66	1.4202	561.25	316.39	0.09563	0.60194	0.11936	1733.41711	0.0	1.909210	573.38
1.690	62.51	1.4217	561.25	314.78	0.09658	0.60425	0.11931	1732.63525	0.0	1.900681	573.35
1.700	62.35	1.4232	561.24	313.18	0.09754	0.60654	0.11926	1731.95032	0.0	1.892167	573.32
1.710	62.20	1.4247	561.24	311.59	0.09850	0.60880	0.11922	1731.32837	0.0	1.883685	573.29
1.720	62.05	1.4261	561.24	310.03	0.09945	0.61104	0.11918	1730.74280	0.0	1.875244	573.26
1.730	61.89	1.4276	561.24	308.48	0.10041	0.61326	0.11914	1730.17395	0.0	1.866857	573.23
1.740	61.74	1.4291	561.24	306.94	0.10137	0.61545	0.11910	1729.60828	0.0	1.858530	573.20
1.750	61.58	1.4306	561.24	305.43	0.10233	0.61761	0.11906	1729.03882	0.0	1.850269	573.17
1.760	61.43	1.4320	561.23	303.93	0.10328	0.61975	0.11902	1728.46179	0.0	1.842078	573.14
1.770	61.27	1.4335	561.23	302.45	0.10424	0.62187	0.11898	1727.87708	0.0	1.833959	573.11
1.780	61.12	1.4350	561.23	300.99	0.10519	0.62396	0.11894	1727.28748	0.0	1.825913	573.08
1.790	60.96	1.4364	561.23	299.55	0.10615	0.62602	0.11890	1726.69629	0.0	1.817939	573.05
1.800	60.81	1.4379	561.23	298.12	0.10710	0.62806	0.11886	1726.10620	0.0	1.809669	573.02
1.810	60.65	1.4393	561.23	296.71	0.10805	0.63008	0.11882	1725.52112	0.0	1.801349	572.99
1.820	60.50	1.4408	561.23	295.32	0.10900	0.63207	0.11878	1724.93713	0.0	1.793098	572.96
1.830	60.34	1.4422	561.22	293.94	0.10995	0.63403	0.11874	1724.35156	0.0	1.784920	572.93
1.840	60.18	1.4437	561.22	292.58	0.11090	0.63598	0.11870	1723.78748	0.0	1.776816	572.90
1.850	60.03	1.4451	561.22	291.24	0.11185	0.63790	0.11867	1723.29321	0.0	1.768778	572.87
1.860	59.87	1.4466	561.22	289.90	0.11279	0.63980	0.11864	1722.89648	0.0	1.760781	572.85
1.870	59.71	1.4480	561.22	288.58	0.11374	0.64169	0.11861	1722.55249	0.0	1.752804	572.82
1.880	59.55	1.4494	561.22	287.28	0.11469	0.64355	0.11859	1722.15662	0.0	1.744859	572.79
1.890	59.40	1.4509	561.22	285.99	0.11563	0.64540	0.11855	1721.61816	0.0	1.736988	572.76
1.900	59.24	1.4523	561.21	284.72	0.11657	0.64721	0.11850	1720.92603	0.0	1.729245	572.73
1.910	59.09	1.4537	561.21	283.47	0.11751	0.64900	0.11845	1720.14209	0.0	1.721650	572.70
1.920	58.93	1.4551	561.21	282.24	0.11844	0.65076	0.11839	1719.34558	0.0	1.714185	572.67
1.930	58.77	1.4565	561.21	281.02	0.11937	0.65250	0.11834	1718.52725	0.0	1.706818	572.65
1.940	58.62	1.4579	561.21	279.82	0.12029	0.65422	0.11829	1717.79590	0.0	1.699529	572.62
1.950	58.46	1.4593	561.21	278.63	0.12121	0.65591	0.11823	1716.93823	0.0	1.692317	572.59
1.960	58.31	1.4607	561.21	277.47	0.12212	0.65758	0.11816	1715.97009	0.0	1.684434	572.56
1.970	58.16	1.4620	561.20	276.36	0.12300	0.65916	0.11811	1715.24365	0.0	1.676049	572.53
1.980	57.99	1.4632	561.20	275.36	0.12380	0.66058	0.11817	1716.15759	0.0	1.667948	572.50
1.990	57.80	1.4642	561.20	274.60	0.12441	0.66167	0.11865	1723.01892	0.0	1.659916	572.47
2.000	50.48	1.4645	561.13	273.89	0.12482	0.66265	0.12037	1748.02197	0.0	1.650910	572.43
2.010	50.29	1.4654	561.13	273.14	0.12542	0.66378	0.12079	1754.13196	0.0	1.639532	572.37
2.020	50.13	1.4667	561.13	272.16	0.12621	0.66519	0.12078	1754.05798	0.0	1.630708	572.34
2.030	49.97	1.4680	561.13	271.09	0.12709	0.66671	0.12066	1752.24792	0.0	1.622568	572.31
2.040	49.82	1.4693	561.12	270.01	0.12799	0.66825	0.12052	1750.25513	0.0	1.614647	572.28
2.050	49.67	1.4707	561.12	268.94	0.12889	0.66978	0.12040	1748.52441	0.0	1.606749	572.25
2.060	49.51	1.4721	561.12	267.87	0.12979	0.67131	0.12030	1747.09717	0.0	1.598774	572.22
2.070	49.35	1.4734	561.12	266.81	0.13071	0.67284	0.12022	1745.92688	0.0	1.590739	572.19
2.080	49.19	1.4748	561.12	265.74	0.13162	0.67435	0.12016	1744.95203	0.0	1.582668	572.16
2.090	49.03	1.4762	561.12	264.69	0.13254	0.67586	0.12010	1744.11633	0.0	1.574583	572.12
2.100	48.87	1.4776	561.12	263.64	0.13345	0.67735	0.12005	1743.37378	0.0	1.566502	572.09
2.110	48.71	1.4789	561.11	262.61	0.13437	0.67883	0.12000	1742.68787	0.0	1.558439	572.06
2.120	48.54	1.4803	561.11	261.58	0.13528	0.68029	0.11996	1742.03101	0.0	1.550285	572.03
2.130	48.38	1.4817	561.11	260.57	0.13619	0.68174	0.11991	1741.38293	0.0	1.541800	572.00
2.140	48.22	1.4830	561.11	259.57	0.13710	0.68317	0.11987	1740.73279	0.0	1.533364	571.96
2.150	48.05	1.4844	561.11	258.58	0.13800	0.68458	0.11982	1740.07410	0.0	1.524983	571.93
2.160	47.89	1.4858	561.11	257.60	0.13891	0.68598	0.11977	1739.40369	0.0	1.516658	571.90
2.170	47.73	1.4871	561.10	256.64	0.13980	0.68736	0.11973	1738.72351	0.0	1.508393	571.86
2.180	47.57	1.4884	561.10	255.68	0.14070	0.68872	0.11968	1738.03687	0.0	1.500187	571.83
2.190	47.40	1.4898	561.10	254.74	0.14159	0.69007	0.11963	1737.34827	0.0	1.492038	571.80
2.200	47.24	1.4911	561.10	253.81	0.14247	0.69140	0.11959	1736.66333	0.0	1.483946	571.77
2.210	47.08	1.4924	561.10	252.89	0.14336	0.69271	0.11954	1735.98389	0.0	1.475909	571.74
2.220	46.91	1.4937	561.10	251.98	0.14424	0.69401	0.11949	1735.30444	0.0	1.467924	571.70
2.230	46.75	1.4951	561.10	251.08	0.14511	0.69530	0.11945	1734.62146	0.0	1.459995	571.67

2.240	46.59	1.4964	561.09	250.19	0.14598	0.69656	0.11940	1733.95715	0.0	1.452122	571.64
2.250	46.42	1.4977	561.09	249.32	0.14685	0.69782	0.11936	1733.36133	0.0	1.444300	571.61
2.260	46.26	1.4990	561.09	248.44	0.14772	0.69906	0.11932	1732.86133	0.0	1.436506	571.58
2.270	46.09	1.5003	561.09	247.58	0.14859	0.70030	0.11929	1732.41211	0.0	1.428723	571.54
2.280	45.93	1.5015	561.09	246.73	0.14945	0.70152	0.11926	1731.90747	0.0	1.420958	571.51
2.290	45.77	1.5028	561.09	245.89	0.15031	0.70272	0.11921	1731.25183	0.0	1.411262	571.47
2.300	45.60	1.5041	561.08	245.06	0.15116	0.70390	0.11916	1730.43494	0.0	1.401675	571.43
2.310	45.44	1.5053	561.08	244.25	0.15199	0.70505	0.11909	1729.51746	0.0	1.392215	571.39
2.320	45.28	1.5066	561.08	243.46	0.15282	0.70618	0.11903	1728.57605	0.0	1.382870	571.36
2.330	45.12	1.5078	561.08	242.68	0.15364	0.70730	0.11897	1727.64771	0.0	1.373613	571.32
2.340	44.96	1.5090	561.08	241.91	0.15445	0.70840	0.11890	1726.70166	0.0	1.364429	571.28
2.350	44.80	1.5102	561.08	241.16	0.15525	0.70947	0.11883	1725.66333	0.0	1.355293	571.24
2.360	44.65	1.5114	561.08	240.41	0.15605	0.71053	0.11875	1724.50073	0.0	1.346217	571.20
2.370	44.49	1.5125	561.07	239.71	0.15680	0.71153	0.11869	1723.59766	0.0	1.337342	571.17
2.380	44.32	1.5135	561.07	239.11	0.15746	0.71240	0.11874	1724.41455	0.0	1.328672	571.13
2.390	44.12	1.5142	561.07	238.69	0.15791	0.71299	0.11923	1731.54480	0.0	1.319975	571.09
2.400	35.55	1.5142	560.99	238.25	0.15815	0.71357	0.12106	1758.10938	0.0	1.310232	571.04
2.410	35.35	1.5149	560.99	237.83	0.15861	0.71424	0.12149	1764.34949	0.0	1.298560	570.98
2.420	35.18	1.5159	560.99	237.22	0.15927	0.71511	0.12147	1764.07971	0.0	1.289217	570.94
2.430	35.03	1.5170	560.98	236.54	0.16001	0.71608	0.12133	1762.04114	0.0	1.280484	570.90
2.440	34.87	1.5181	560.98	235.86	0.16078	0.71706	0.12118	1759.83374	0.0	1.271906	570.86
2.450	34.72	1.5192	560.98	235.18	0.16154	0.71803	0.12105	1757.92041	0.0	1.263731	570.83
2.460	34.56	1.5204	560.98	234.50	0.16232	0.71900	0.12094	1756.33240	0.0	1.255606	570.80
2.470	34.39	1.5215	560.98	233.81	0.16309	0.71997	0.12085	1755.01440	0.0	1.247416	570.76
2.480	34.23	1.5227	560.98	233.13	0.16387	0.72094	0.12077	1753.89905	0.0	1.239186	570.72
2.490	34.07	1.5238	560.98	232.46	0.16464	0.72191	0.12071	1752.92725	0.0	1.230932	570.69
2.500	33.90	1.5250	560.97	231.79	0.16542	0.72287	0.12065	1752.05103	0.0	1.222673	570.65
2.510	33.74	1.5261	560.97	231.12	0.16619	0.72382	0.12059	1751.23267	0.0	1.214419	570.62
2.520	33.57	1.5273	560.97	230.46	0.16696	0.72475	0.12053	1750.44458	0.0	1.206181	570.58
2.530	33.41	1.5284	560.97	229.81	0.16772	0.72568	0.12048	1749.66650	0.0	1.197966	570.54
2.540	33.24	1.5296	560.97	229.17	0.16848	0.72660	0.12043	1748.88538	0.0	1.189781	570.51
2.550	33.07	1.5307	560.97	228.53	0.16924	0.72751	0.12037	1748.09387	0.0	1.181631	570.47
2.560	32.91	1.5318	560.96	227.91	0.16999	0.72841	0.12032	1747.28955	0.0	1.173517	570.43
2.570	32.74	1.5329	560.96	227.29	0.17074	0.72929	0.12026	1746.47314	0.0	1.165441	570.40
2.580	32.58	1.5340	560.96	226.68	0.17148	0.73016	0.12020	1745.64807	0.0	1.157403	570.36
2.590	32.41	1.5351	560.96	226.07	0.17221	0.73103	0.12015	1744.81885	0.0	1.149404	570.32
2.600	32.25	1.5362	560.96	225.48	0.17294	0.73188	0.12009	1743.99097	0.0	1.141441	570.29
2.610	32.09	1.5372	560.96	224.89	0.17367	0.73272	0.12003	1743.16602	0.0	1.133250	570.25
2.620	31.92	1.5383	560.95	224.31	0.17438	0.73355	0.11998	1742.33936	0.0	1.124830	570.21
2.630	31.76	1.5394	560.95	223.73	0.17510	0.73437	0.11992	1741.50720	0.0	1.116445	570.17
2.640	31.59	1.5404	560.95	223.17	0.17581	0.73517	0.11986	1740.69055	0.0	1.108098	570.14
2.650	31.43	1.5415	560.95	222.61	0.17651	0.73597	0.11981	1739.93750	0.0	1.099782	570.10
2.660	31.26	1.5425	560.95	222.05	0.17721	0.73676	0.11977	1739.27649	0.0	1.091483	570.06
2.670	31.10	1.5435	560.95	221.50	0.17790	0.73755	0.11972	1738.66687	0.0	1.083183	570.02
2.680	30.93	1.5446	560.95	220.96	0.17860	0.73832	0.11968	1738.00769	0.0	1.074889	569.98
2.690	30.77	1.5456	560.94	220.42	0.17928	0.73909	0.11962	1737.20642	0.0	1.066631	569.94
2.700	30.60	1.5466	560.94	219.90	0.17996	0.73984	0.11956	1736.24292	0.0	1.058444	569.90
2.710	30.44	1.5476	560.94	219.39	0.18062	0.74057	0.11948	1735.16809	0.0	1.050345	569.86
2.720	30.28	1.5485	560.94	218.88	0.18128	0.74129	0.11941	1734.05200	0.0	1.042326	569.83
2.730	30.12	1.5495	560.94	218.39	0.18193	0.74199	0.11933	1732.92798	0.0	1.034372	569.79
2.740	29.96	1.5504	560.94	217.91	0.18256	0.74268	0.11925	1731.77344	0.0	1.026457	569.75
2.750	29.81	1.5514	560.93	217.43	0.18319	0.74336	0.11916	1730.51538	0.0	1.018571	569.71
2.760	29.65	1.5523	560.93	216.96	0.18382	0.74404	0.11907	1729.13770	0.0	1.010731	569.68
2.770	29.49	1.5532	560.93	216.52	0.18440	0.74466	0.11899	1728.05627	0.0	1.003158	569.64
2.780	29.32	1.5539	560.93	216.16	0.18488	0.74517	0.11905	1728.81262	0.0	0.9961026	569.61
2.790	29.11	1.5543	560.93	215.95	0.18516	0.74548	0.11956	1736.28601	0.0	0.9889167	569.57
2.800	19.52	1.5540	560.84	215.65	0.18525	0.74584	0.12150	1764.46692	0.0	0.9806480	569.52
2.810	19.31	1.5545	560.83	215.43	0.18555	0.74622	0.12195	1771.01599	0.0	0.9709775	569.46
2.820	19.14	1.5552	560.83	215.05	0.18605	0.74676	0.12193	1770.67639	0.0	0.9633137	569.42
2.830	18.99	1.5561	560.83	214.62	0.18663	0.74737	0.12178	1768.46802	0.0	0.9561803	569.38
2.840	18.83	1.5570	560.83	214.18	0.18723	0.74800	0.12161	1766.05762	0.0	0.9491684	569.35
2.850	18.68	1.5579	560.83	213.74	0.18783	0.74863	0.12146	1763.93054	0.0	0.9421672	569.31

2.860	18.52	1.5588	560.83	213.31	0.18843	0.74925	0.12134	1762.13367	0.0	0.9351071	569.28
2.870	18.36	1.5597	560.83	212.87	0.18904	0.74988	0.12123	1760.60986	0.0	0.9279872	569.24
2.880	18.20	1.5606	560.82	212.43	0.18965	0.75051	0.12114	1759.29150	0.0	0.9208261	569.21
2.890	18.03	1.5615	560.82	211.99	0.19026	0.75114	0.12106	1758.12000	0.0	0.9136385	569.17
2.900	17.87	1.5624	560.82	211.55	0.19087	0.75176	0.12099	1757.04736	0.0	0.9064371	569.13
2.910	17.71	1.5633	560.82	211.12	0.19148	0.75238	0.12092	1756.03638	0.0	0.8992307	569.10
2.920	17.54	1.5642	560.82	210.69	0.19208	0.75299	0.12085	1755.05945	0.0	0.8920274	569.06
2.930	17.38	1.5650	560.82	210.26	0.19268	0.75360	0.12079	1754.09570	0.0	0.8848329	569.02
2.940	17.21	1.5659	560.81	209.84	0.19328	0.75420	0.12072	1753.13171	0.0	0.8787617	568.99
2.950	17.05	1.5668	560.81	209.42	0.19387	0.75479	0.12065	1752.15942	0.0	0.8727075	568.96
2.960	16.88	1.5677	560.81	209.01	0.19446	0.75538	0.12059	1751.17566	0.0	0.8666728	568.93
2.970	16.72	1.5685	560.81	208.60	0.19505	0.75596	0.12052	1750.18042	0.0	0.8606583	568.90
2.980	16.56	1.5694	560.81	208.20	0.19563	0.75654	0.12045	1749.17627	0.0	0.8546655	568.87
2.990	16.39	1.5703	560.81	207.80	0.19620	0.75711	0.12038	1748.16748	0.0	0.8486929	568.84
3.000	16.23	1.5711	560.81	207.41	0.19677	0.75767	0.12031	1747.15894	0.0	0.8427411	568.80
3.010	16.06	1.5719	560.80	207.02	0.19734	0.75823	0.12024	1746.15515	0.0	0.8368086	568.77
3.020	15.90	1.5728	560.80	206.63	0.19791	0.75878	0.12017	1745.16064	0.0	0.8308940	568.74
3.030	15.74	1.5736	560.80	206.25	0.19847	0.75932	0.12010	1744.17908	0.0	0.8249961	568.71
3.040	15.57	1.5744	560.80	205.87	0.19903	0.75986	0.12004	1743.21240	0.0	0.8191142	568.68
3.050	15.41	1.5753	560.80	205.50	0.19958	0.76039	0.11997	1742.26270	0.0	0.8132467	568.65
3.060	15.25	1.5761	560.80	205.13	0.20013	0.76092	0.11991	1741.32996	0.0	0.8073933	568.61
3.070	15.08	1.5769	560.79	204.76	0.20068	0.76145	0.11984	1740.41443	0.0	0.8015523	568.58
3.080	14.92	1.5777	560.79	204.39	0.20122	0.76197	0.11978	1739.51416	0.0	0.7957245	568.55
3.090	14.76	1.5785	560.79	204.03	0.20176	0.76248	0.11972	1738.62817	0.0	0.7899088	568.52
3.100	14.59	1.5793	560.79	203.68	0.20230	0.76299	0.11966	1737.75464	0.0	0.7845324	568.49
3.110	14.43	1.5801	560.79	203.32	0.20283	0.76349	0.11960	1736.89087	0.0	0.7793102	568.46
3.120	14.27	1.5809	560.79	202.97	0.20336	0.76399	0.11954	1736.03564	0.0	0.7741003	568.43
3.130	14.10	1.5816	560.79	202.63	0.20389	0.76449	0.11948	1735.18665	0.0	0.7689025	568.40
3.140	13.94	1.5824	560.78	202.28	0.20441	0.76498	0.11943	1734.34290	0.0	0.7637172	568.38
3.150	13.77	1.5832	560.78	201.94	0.20494	0.76547	0.11937	1733.50269	0.0	0.7585441	568.35
3.160	13.61	1.5839	560.78	201.60	0.20545	0.76595	0.11931	1732.66553	0.0	0.7533838	568.32
3.170	13.45	1.5847	560.78	201.27	0.20597	0.76643	0.11925	1731.83093	0.0	0.7482360	568.29
3.180	13.28	1.5855	560.78	200.94	0.20648	0.76690	0.11920	1730.99854	0.0	0.7431011	568.26
3.190	13.12	1.5862	560.78	200.61	0.20699	0.76737	0.11914	1730.16846	0.0	0.7379786	568.23
3.200	12.96	1.5870	560.77	200.28	0.20750	0.76783	0.11908	1729.34045	0.0	0.7328690	568.20
3.210	12.79	1.5877	560.77	199.96	0.20800	0.76829	0.11902	1728.51550	0.0	0.7277718	568.17
3.220	12.63	1.5885	560.77	199.64	0.20850	0.76875	0.11897	1727.69360	0.0	0.7226871	568.14
3.230	12.47	1.5892	560.77	199.32	0.20900	0.76920	0.11891	1726.87549	0.0	0.7176141	568.12
3.240	12.30	1.5899	560.77	199.01	0.20949	0.76965	0.11886	1726.06189	0.0	0.7125536	568.09
3.250	12.14	1.5906	560.77	198.70	0.20998	0.77009	0.11880	1725.25305	0.0	0.7075046	568.06
3.260	11.98	1.5914	560.77	198.39	0.21047	0.77053	0.11874	1724.44971	0.0	0.7027525	568.03
3.270	11.81	1.5921	560.76	198.09	0.21095	0.77096	0.11869	1723.65173	0.0	0.6982969	568.00
3.280	11.65	1.5928	560.76	197.78	0.21144	0.77139	0.11864	1722.85974	0.0	0.6938522	567.98
3.290	11.49	1.5935	560.76	197.48	0.21192	0.77182	0.11858	1722.07397	0.0	0.6894181	567.95
3.300	11.33	1.5942	560.76	197.19	0.21239	0.77224	0.11853	1721.29443	0.0	0.6849944	567.93
3.310	11.16	1.5949	560.76	196.89	0.21287	0.77267	0.11847	1720.52148	0.0	0.6805807	567.90
3.320	11.00	1.5956	560.76	196.60	0.21334	0.77308	0.11842	1719.75488	0.0	0.6761769	567.87
3.330	10.84	1.5963	560.75	196.31	0.21381	0.77350	0.11837	1718.99463	0.0	0.6717830	567.85
3.340	10.67	1.5970	560.75	196.02	0.21427	0.77391	0.11832	1718.24036	0.0	0.6673989	567.82
3.350	10.51	1.5977	560.75	195.74	0.21474	0.77431	0.11827	1717.49207	0.0	0.6630241	567.80
3.360	10.35	1.5984	560.75	195.45	0.21520	0.77472	0.11821	1716.74976	0.0	0.6586587	567.77
3.370	10.18	1.5990	560.75	195.17	0.21566	0.77512	0.11816	1716.01257	0.0	0.6543026	567.74
3.380	10.02	1.5997	560.75	194.90	0.21611	0.77551	0.11811	1715.28088	0.0	0.6499557	567.72
3.390	9.86	1.6004	560.74	194.62	0.21657	0.77591	0.11806	1714.55408	0.0	0.6456178	567.69
3.400	9.70	1.6011	560.74	194.35	0.21702	0.77630	0.11801	1713.83215	0.0	0.6412890	567.67
3.410	9.53	1.6017	560.74	194.08	0.21747	0.77668	0.11796	1713.11450	0.0	0.6369689	567.64
3.420	9.37	1.6024	560.74	193.81	0.21791	0.77707	0.11792	1712.40149	0.0	0.6328026	567.61
3.430	9.21	1.6030	560.74	193.54	0.21836	0.77745	0.11787	1711.69238	0.0	0.6290801	567.59
3.440	9.04	1.6037	560.74	193.27	0.21880	0.77782	0.11782	1710.98706	0.0	0.6253657	567.57
3.450	8.88	1.6043	560.74	193.01	0.21924	0.77820	0.11777	1710.28552	0.0	0.6216596	567.55
3.460	8.72	1.6050	560.73	192.75	0.21968	0.77857	0.11772	1709.58765	0.0	0.6179615	567.52
3.470	8.56	1.6056	560.73	192.49	0.22011	0.77894	0.11767	1708.89319	0.0	0.6142713	567.50

3.480	8.39	1.6063	560.73	192.23	0.22055	0.77931	0.11763	1708.20264	0.0	0.6105894	567.48
3.490	8.23	1.6069	560.73	191.98	0.22098	0.77967	0.11758	1707.51550	0.0	0.6069150	567.45
3.500	8.07	1.6075	560.73	191.72	0.22141	0.78003	0.11753	1706.83179	0.0	0.6032488	567.43
3.510	7.90	1.6082	560.73	191.47	0.22183	0.78039	0.11748	1706.15161	0.0	0.5995901	567.41
3.520	7.74	1.6088	560.72	191.22	0.22226	0.78075	0.11744	1705.47498	0.0	0.5959390	567.39
3.530	7.58	1.6094	560.72	190.98	0.22268	0.78110	0.11739	1704.80200	0.0	0.5922955	567.36
3.540	7.42	1.6100	560.72	190.73	0.22310	0.78145	0.11735	1704.13232	0.0	0.5886597	567.34
3.550	7.25	1.6107	560.72	190.49	0.22352	0.78180	0.11730	1703.46643	0.0	0.5850312	567.32
3.560	7.09	1.6113	560.72	190.24	0.22394	0.78215	0.11725	1702.80371	0.0	0.5814101	567.29
3.570	6.93	1.6119	560.72	190.00	0.22435	0.78249	0.11721	1702.14478	0.0	0.5777960	567.27
3.580	6.77	1.6125	560.72	189.76	0.22476	0.78283	0.11716	1701.48938	0.0	0.5741894	567.25
3.590	6.60	1.6131	560.71	189.53	0.22517	0.78317	0.11712	1700.83777	0.0	0.5694220	567.22
3.600	6.44	1.6137	560.71	189.29	0.22558	0.78350	0.11707	1700.18982	0.0	0.5646615	567.19
3.610	6.28	1.6143	560.71	189.06	0.22598	0.78383	0.11703	1699.54578	0.0	0.5599077	567.15
3.620	6.12	1.6149	560.71	188.83	0.22638	0.78416	0.11699	1698.90552	0.0	0.5551611	567.12
3.630	5.95	1.6155	560.71	188.61	0.22678	0.78448	0.11694	1698.26868	0.0	0.5504209	567.09
3.640	5.79	1.6161	560.71	188.38	0.22717	0.78480	0.11690	1697.63550	0.0	0.5456876	567.06
3.650	5.63	1.6166	560.70	188.16	0.22756	0.78512	0.11686	1697.00586	0.0	0.5409604	567.03
3.660	5.47	1.6172	560.70	187.94	0.22795	0.78543	0.11681	1696.37952	0.0	0.5362398	567.00
3.670	5.30	1.6178	560.70	187.72	0.22833	0.78574	0.11677	1695.75659	0.0	0.5315251	566.97
3.680	5.14	1.6183	560.70	187.50	0.22871	0.78605	0.11673	1695.13696	0.0	0.5268165	566.94
3.690	4.98	1.6189	560.70	187.29	0.22909	0.78635	0.11668	1694.52063	0.0	0.5221137	566.90
3.700	4.82	1.6194	560.70	187.08	0.22947	0.78666	0.11664	1693.90759	0.0	0.5174168	566.87
3.710	4.66	1.6200	560.70	186.87	0.22984	0.78695	0.11660	1693.29749	0.0	0.5127253	566.84
3.720	4.50	1.6205	560.69	186.66	0.23021	0.78725	0.11656	1692.69043	0.0	0.5080394	566.81
3.730	4.33	1.6211	560.69	186.46	0.23057	0.78754	0.11652	1692.08618	0.0	0.5033587	566.78
3.740	4.17	1.6216	560.69	186.26	0.23093	0.78783	0.11647	1691.48523	0.0	0.4986832	566.74
3.750	4.01	1.6221	560.69	186.06	0.23129	0.78812	0.11643	1690.88672	0.0	0.4944606	566.72
3.760	3.85	1.6227	560.69	185.86	0.23165	0.78840	0.11639	1690.29126	0.0	0.4903930	566.69
3.770	3.69	1.6232	560.69	185.66	0.23200	0.78868	0.11635	1689.69800	0.0	0.4863307	566.66
3.780	3.53	1.6237	560.68	185.46	0.23236	0.78896	0.11631	1689.10754	0.0	0.4822735	566.63
3.790	3.37	1.6242	560.68	185.27	0.23271	0.78923	0.11627	1688.51941	0.0	0.4782211	566.60
3.800	3.21	1.6247	560.68	185.08	0.23305	0.78951	0.11623	1687.93396	0.0	0.4741737	566.57
3.810	3.04	1.6252	560.68	184.89	0.23340	0.78978	0.11619	1687.35071	0.0	0.4701310	566.55
3.820	2.88	1.6257	560.68	184.70	0.23374	0.79004	0.11615	1686.76990	0.0	0.4660932	566.52
3.830	2.72	1.6262	560.68	184.52	0.23408	0.79031	0.11611	1686.19165	0.0	0.4620598	566.49
3.840	2.56	1.6267	560.68	184.33	0.23441	0.79057	0.11607	1685.61560	0.0	0.4580309	566.46
3.850	2.40	1.6272	560.67	184.15	0.23475	0.79083	0.11603	1685.04187	0.0	0.4540064	566.43
3.860	2.24	1.6277	560.67	183.97	0.23508	0.79109	0.11599	1684.47046	0.0	0.4499862	566.40
3.870	2.08	1.6282	560.67	183.79	0.23541	0.79135	0.11595	1683.90112	0.0	0.4459702	566.37
3.880	1.92	1.6287	560.67	183.61	0.23573	0.79160	0.11591	1683.33386	0.0	0.4419583	566.34
3.890	1.76	1.6292	560.67	183.43	0.23606	0.79185	0.11587	1682.76904	0.0	0.4379503	566.31
3.900	1.60	1.6296	560.67	183.26	0.23638	0.79210	0.11584	1682.20618	0.0	0.4339464	566.28
3.910	1.44	1.6301	560.66	183.09	0.23669	0.79234	0.11580	1681.64575	0.0	0.4299462	566.25
3.920	1.28	1.6306	560.66	182.92	0.23701	0.79259	0.11576	1681.08704	0.0	0.4259497	566.22
3.930	1.12	1.6310	560.66	182.75	0.23732	0.79283	0.11572	1680.53040	0.0	0.4219568	566.19
3.940	0.96	1.6315	560.66	182.58	0.23763	0.79307	0.11568	1679.97595	0.0	0.4179674	566.16
3.950	0.80	1.6319	560.66	182.41	0.23794	0.79330	0.11564	1679.42371	0.0	0.4139814	566.13
3.960	0.64	1.6324	560.66	182.25	0.23825	0.79354	0.11561	1678.87366	0.0	0.4099988	566.10
3.970	0.48	1.6328	560.66	182.09	0.23855	0.79377	0.11557	1678.32605	0.0	0.4060192	566.07
3.980	0.32	1.6333	560.65	181.93	0.23885	0.79400	0.11553	1677.78101	0.0	0.4020428	566.04
3.990	0.16	1.6337	560.65	181.77	0.23915	0.79422	0.11549	1677.23865	0.0	0.3980692	566.01
4.000	0.00	1.6342	560.65	181.61	0.23944	0.79445	0.11546	1676.69885	0.0	0.3940987	565.98

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 13

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	763.952	763.952	0.0000
0.015	763.709	763.709	0.0000
0.025	763.463	763.463	0.0000
0.035	763.212	763.212	0.0000
0.045	762.958	762.958	0.0000
0.055	762.699	762.699	0.0000
0.065	762.437	762.437	0.0000
0.075	762.171	762.171	0.0000
0.085	761.901	761.901	0.0000
0.095	761.627	761.627	0.0000
0.105	761.349	761.349	0.0000
0.115	761.067	761.067	0.0000
0.125	760.781	760.781	0.0000
0.135	760.491	760.491	0.0000
0.145	760.197	760.197	0.0000
0.155	759.899	759.899	0.0000
0.165	759.597	759.597	0.0000
0.175	759.292	759.292	0.0000
0.185	758.982	758.982	0.0000
0.195	758.668	758.668	0.0000
0.205	761.555	758.327	0.0000
0.215	775.690	757.761	0.0000
0.225	785.509	756.844	0.0000
0.235	788.551	755.638	0.0000
0.245	802.547	754.222	0.0000
0.255	792.079	752.646	0.0000
0.265	787.123	750.938	0.0000
0.275	800.757	749.113	0.0000
0.285	783.128	747.181	0.0000
0.295	777.583	745.147	0.0000
0.305	771.587	743.016	0.0000
0.315	765.032	740.793	0.0000
0.325	757.808	738.484	0.0001
0.335	749.793	735.989	0.0001
0.345	741.815	733.403	0.0001
0.355	734.104	730.727	0.0001
0.365	735.042	727.956	0.0001
0.375	726.684	725.120	0.0001
0.385	718.571	722.308	0.0002
0.395	710.735	719.533	0.0002
0.405	704.475	717.184	0.0002
0.415	696.657	714.242	0.0002
0.425	688.398	711.041	0.0003
0.435	680.110	707.702	0.0003
0.445	671.937	704.263	0.0003
0.455	663.935	700.737	0.0004
0.465	656.131	697.128	0.0004
0.475	648.538	693.436	0.0005
0.485	641.164	689.661	0.0005
0.495	634.009	685.803	0.0005
0.505	627.081	681.862	0.0006
0.515	620.376	677.836	0.0006
0.525	613.889	673.728	0.0007
0.535	607.615	669.537	0.0007
0.545	601.547	665.265	0.0008
0.555	595.673	660.912	0.0008
0.565	589.984	656.481	0.0009
0.575	584.465	651.974	0.0010
0.585	579.104	647.393	0.0010
0.595	573.877	642.741	0.0011
0.605	568.780	638.021	0.0011

0.615	563.790	633.235	0.0012
0.625	558.890	628.387	0.0013
0.635	554.062	623.480	0.0013
0.645	549.295	618.518	0.0014
0.655	544.696	613.688	0.0015
0.665	540.251	608.998	0.0016
0.675	535.824	604.270	0.0016
0.685	531.412	599.510	0.0017
0.695	527.004	594.724	0.0018
0.705	523.005	590.388	0.0018
0.715	519.077	586.072	0.0019
0.725	515.143	581.751	0.0020
0.735	511.203	577.425	0.0021
0.745	507.255	573.097	0.0021
0.755	503.290	568.771	0.0022
0.765	499.329	564.454	0.0023
0.775	495.486	560.291	0.0024
0.785	492.001	556.524	0.0024
0.795	488.881	553.208	0.0025
0.805	486.143	550.429	0.0026
0.815	482.568	546.692	0.0027
0.825	478.762	542.729	0.0028
0.835	474.888	538.686	0.0028
0.845	470.966	534.620	0.0029
0.855	467.037	530.562	0.0030
0.865	463.110	526.523	0.0031
0.875	459.197	522.507	0.0032
0.885	455.270	518.513	0.0033
0.895	451.369	514.542	0.0034
0.905	447.476	510.598	0.0034
0.915	443.596	506.683	0.0035
0.925	439.741	502.799	0.0036
0.935	435.918	498.946	0.0037
0.945	432.103	495.124	0.0038
0.955	428.324	491.335	0.0039
0.965	424.574	487.579	0.0040
0.975	420.849	483.856	0.0041
0.985	417.217	480.264	0.0042
0.995	413.619	476.705	0.0043
1.005	410.072	473.181	0.0044
1.015	406.541	469.692	0.0045
1.025	403.056	466.239	0.0045
1.035	399.603	462.821	0.0046
1.045	396.203	459.440	0.0047
1.055	392.828	456.095	0.0048
1.065	389.479	452.786	0.0049
1.075	386.192	449.512	0.0050
1.085	382.932	446.276	0.0051
1.095	379.729	443.078	0.0052
1.105	376.576	439.919	0.0053
1.115	373.447	436.798	0.0054
1.125	370.365	433.715	0.0055
1.135	367.331	430.670	0.0056
1.145	364.345	427.680	0.0057
1.155	361.417	424.741	0.0058
1.165	358.562	421.865	0.0059
1.175	355.908	419.190	0.0060
1.185	353.659	416.919	0.0061
1.195	351.695	414.987	0.0062
1.205	349.713	413.125	0.0063
1.215	347.236	410.655	0.0064
1.225	344.572	407.964	0.0065

1.235	341.928	405.258	0.0066
1.245	339.290	402.558	0.0067
1.255	336.692	399.877	0.0068
1.265	334.108	397.218	0.0069
1.275	331.553	394.586	0.0070
1.285	329.037	391.981	0.0072
1.295	326.570	389.404	0.0073
1.305	324.117	386.861	0.0074
1.315	321.709	384.354	0.0075
1.325	319.343	381.876	0.0076
1.335	316.996	379.426	0.0077
1.345	314.672	377.006	0.0078
1.355	312.426	374.614	0.0079
1.365	310.202	372.252	0.0080
1.375	307.996	369.917	0.0081
1.385	305.790	367.611	0.0082
1.395	303.670	365.332	0.0083
1.405	301.550	363.081	0.0084
1.415	299.482	360.856	0.0085
1.425	297.467	358.658	0.0086
1.435	295.436	356.487	0.0088
1.445	293.459	354.340	0.0089
1.455	291.485	352.216	0.0090
1.465	289.581	350.119	0.0091
1.475	287.673	348.057	0.0092
1.485	285.820	346.022	0.0093
1.495	283.981	344.016	0.0094
1.505	282.178	342.039	0.0095
1.515	280.429	340.090	0.0096
1.525	278.680	338.166	0.0097
1.535	276.993	336.267	0.0098
1.545	275.319	334.395	0.0099
1.555	273.665	332.555	0.0100
1.565	272.107	330.775	0.0101
1.575	270.625	329.147	0.0102
1.585	269.458	327.818	0.0103
1.595	268.374	326.645	0.0105
1.605	267.185	325.430	0.0107
1.615	265.779	323.860	0.0108
1.625	264.338	322.165	0.0109
1.635	262.818	320.465	0.0110
1.645	261.351	318.772	0.0111
1.655	259.929	317.085	0.0112
1.665	258.477	315.409	0.0113
1.675	257.026	313.746	0.0114
1.685	255.606	312.097	0.0115
1.695	254.200	310.463	0.0116
1.705	252.823	308.846	0.0117
1.715	251.475	307.246	0.0119
1.725	250.127	305.663	0.0120
1.735	248.780	304.097	0.0121
1.745	247.505	302.549	0.0122
1.755	246.187	301.019	0.0123
1.765	244.941	299.506	0.0124
1.775	243.655	298.010	0.0125
1.785	242.484	296.531	0.0126
1.795	241.228	295.071	0.0127
1.805	240.018	293.629	0.0128
1.815	238.882	292.203	0.0129
1.825	237.692	290.793	0.0131
1.835	236.565	289.400	0.0132
1.845	235.471	288.022	0.0133

1.855	234.311	286.656	0.0134
1.865	233.219	285.303	0.0135
1.875	232.162	283.964	0.0136
1.885	231.095	282.641	0.0137
1.895	230.031	281.338	0.0138
1.905	229.000	280.055	0.0139
1.915	227.988	278.789	0.0140
1.925	226.980	277.538	0.0141
1.935	225.981	276.303	0.0142
1.945	225.063	275.087	0.0143
1.955	224.105	273.889	0.0144
1.965	223.193	272.748	0.0145
1.975	222.351	271.726	0.0146
1.985	221.777	270.941	0.0147
1.995	221.115	270.218	0.0149
2.005	220.492	269.456	0.0151
2.015	219.719	268.445	0.0152
2.025	218.863	267.348	0.0153
2.035	217.968	266.238	0.0154
2.045	217.108	265.136	0.0155
2.055	216.240	264.033	0.0156
2.065	215.433	262.933	0.0157
2.075	214.639	261.839	0.0158
2.085	213.779	260.753	0.0159
2.095	212.903	259.676	0.0160
2.105	212.110	258.608	0.0161
2.115	211.350	257.552	0.0162
2.125	210.545	256.507	0.0163
2.135	209.748	255.474	0.0164
2.145	208.956	254.454	0.0165
2.155	208.225	253.445	0.0166
2.165	207.475	252.448	0.0167
2.175	206.731	251.463	0.0168
2.185	206.023	250.490	0.0169
2.195	205.268	249.528	0.0170
2.205	204.577	248.577	0.0171
2.215	203.869	247.637	0.0172
2.225	203.198	246.707	0.0173
2.235	202.535	245.789	0.0174
2.245	201.802	244.880	0.0175
2.255	201.192	243.980	0.0176
2.265	200.540	243.086	0.0177
2.275	199.874	242.201	0.0178
2.285	199.242	241.332	0.0179
2.295	198.620	240.478	0.0180
2.305	198.024	239.641	0.0181
2.315	197.417	238.819	0.0182
2.325	196.816	238.010	0.0183
2.335	196.253	237.214	0.0184
2.345	195.727	236.433	0.0185
2.355	195.098	235.662	0.0185
2.365	194.621	234.938	0.0186
2.375	194.183	234.310	0.0187
2.385	193.868	233.876	0.0188
2.395	193.480	233.436	0.0190
2.405	193.145	232.998	0.0192
2.415	192.693	232.366	0.0193
2.425	192.196	231.667	0.0194
2.435	191.712	230.954	0.0195
2.445	191.160	230.248	0.0196
2.455	190.663	229.540	0.0196
2.465	190.162	228.831	0.0197

2.475	189.713	228.125	0.0198
2.485	189.219	227.423	0.0199
2.495	188.694	226.726	0.0200
2.505	188.276	226.036	0.0200
2.515	187.789	225.352	0.0201
2.525	187.312	224.676	0.0202
2.535	186.862	224.007	0.0203
2.545	186.423	223.347	0.0204
2.555	185.950	222.694	0.0205
2.565	185.488	222.050	0.0205
2.575	185.052	221.414	0.0206
2.585	184.606	220.785	0.0207
2.595	184.171	220.165	0.0208
2.605	183.786	219.552	0.0209
2.615	183.329	218.947	0.0209
2.625	182.962	218.350	0.0210
2.635	182.483	217.761	0.0211
2.645	182.117	217.178	0.0212
2.655	181.721	216.602	0.0212
2.665	181.340	216.030	0.0213
2.675	180.991	215.464	0.0214
2.685	180.611	214.906	0.0215
2.695	180.259	214.360	0.0215
2.705	179.810	213.826	0.0216
2.715	179.494	213.302	0.0217
2.725	179.105	212.788	0.0217
2.735	178.830	212.282	0.0218
2.745	178.483	211.784	0.0218
2.755	178.171	211.292	0.0219
2.765	177.841	210.839	0.0219
2.775	177.647	210.461	0.0220
2.785	177.451	210.238	0.0221
2.795	177.204	209.947	0.0223
2.805	177.095	209.716	0.0226
2.815	176.754	209.323	0.0227
2.825	176.472	208.877	0.0227
2.835	176.205	208.415	0.0228
2.845	175.868	207.959	0.0228
2.855	175.594	207.501	0.0229
2.865	175.255	207.041	0.0229
2.875	174.914	206.580	0.0230
2.885	174.635	206.122	0.0230
2.895	174.351	205.666	0.0231
2.905	174.061	205.213	0.0232
2.915	173.721	204.764	0.0232
2.925	173.399	204.321	0.0233
2.935	173.224	203.881	0.0233
2.945	172.911	203.445	0.0234
2.955	172.592	203.015	0.0235
2.965	172.333	202.589	0.0235
2.975	172.068	202.167	0.0236
2.985	171.817	201.750	0.0236
2.995	171.520	201.338	0.0237
3.005	171.237	200.931	0.0237
3.015	170.969	200.527	0.0238
3.025	170.742	200.128	0.0238
3.035	170.443	199.732	0.0239
3.045	170.138	199.341	0.0240
3.055	169.896	198.953	0.0240
3.065	169.717	198.569	0.0241
3.075	169.397	198.189	0.0241
3.085	169.209	197.812	0.0242

3.095	168.948	197.439	0.0242
3.105	168.702	197.069	0.0243
3.115	168.481	196.702	0.0243
3.125	168.276	196.339	0.0244
3.135	168.016	195.979	0.0244
3.145	167.733	195.622	0.0245
3.155	167.584	195.268	0.0245
3.165	167.342	194.918	0.0246
3.175	167.134	194.570	0.0246
3.185	166.903	194.227	0.0247
3.195	166.668	193.886	0.0247
3.205	166.428	193.548	0.0248
3.215	166.255	193.214	0.0248
3.225	166.007	192.883	0.0249
3.235	165.826	192.555	0.0249
3.245	165.640	192.230	0.0250
3.255	165.381	191.908	0.0250
3.265	165.188	191.589	0.0250
3.275	164.992	191.272	0.0251
3.285	164.793	190.958	0.0251
3.295	164.609	190.647	0.0252
3.305	164.384	190.338	0.0252
3.315	164.174	190.032	0.0253
3.325	163.980	189.728	0.0253
3.335	163.836	189.427	0.0254
3.345	163.616	189.128	0.0254
3.355	163.393	188.832	0.0254
3.365	163.239	188.538	0.0255
3.375	163.082	188.246	0.0255
3.385	162.923	187.957	0.0256
3.395	162.706	187.671	0.0256
3.405	162.521	187.387	0.0257
3.415	162.298	187.105	0.0257
3.425	162.199	186.825	0.0257
3.435	162.024	186.547	0.0258
3.445	161.756	186.272	0.0258
3.455	161.668	185.998	0.0259
3.465	161.485	185.726	0.0259
3.475	161.300	185.456	0.0259
3.485	161.113	185.189	0.0260
3.495	160.996	184.923	0.0260
3.505	160.803	184.659	0.0261
3.515	160.682	184.397	0.0261
3.525	160.502	184.137	0.0261
3.535	160.302	183.879	0.0262
3.545	160.099	183.623	0.0262
3.555	160.042	183.369	0.0263
3.565	159.834	183.117	0.0263
3.575	159.699	182.867	0.0263
3.585	159.485	182.619	0.0264
3.595	159.400	182.373	0.0264
3.605	159.199	182.130	0.0265
3.615	159.051	181.890	0.0265
3.625	158.901	181.652	0.0265
3.635	158.748	181.416	0.0266
3.645	158.610	181.183	0.0266
3.655	158.526	180.952	0.0266
3.665	158.347	180.723	0.0267
3.675	158.183	180.497	0.0267
3.685	158.033	180.273	0.0267
3.695	157.939	180.051	0.0268
3.705	157.767	179.832	0.0268

3.715	157.650	179.615	0.0268
3.725	157.566	179.400	0.0269
3.735	157.386	179.187	0.0269
3.745	157.279	178.977	0.0269
3.755	157.094	178.768	0.0270
3.765	156.983	178.561	0.0270
3.775	156.870	178.357	0.0270
3.785	156.755	178.154	0.0271
3.795	156.561	177.953	0.0271
3.805	156.518	177.753	0.0271
3.815	156.396	177.556	0.0272
3.825	156.195	177.361	0.0272
3.835	156.164	177.167	0.0272
3.845	156.018	176.975	0.0272
3.855	155.888	176.785	0.0273
3.865	155.773	176.597	0.0273
3.875	155.639	176.411	0.0273
3.885	155.580	176.226	0.0274
3.895	155.441	176.043	0.0274
3.905	155.301	175.862	0.0274
3.915	155.236	175.683	0.0274
3.925	155.091	175.505	0.0275
3.935	155.023	175.330	0.0275
3.945	154.874	175.156	0.0275
3.955	154.819	174.983	0.0275
3.965	154.727	174.813	0.0276
3.975	154.573	174.644	0.0276
3.985	154.434	174.476	0.0276
3.995	154.354	174.311	0.0276

IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 14

	DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
	FLUX	BORON	CHF	CHF TEMP.							
(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)			
(MW/M2)	(DEG-K)										
0.000	100.11	1.2106	548.16	764.19	0.00000	0.00000	0.17088	1700.00012	0.0	0.000000	255.37
0.010	100.02	1.2110	548.25	764.03	0.00000	0.00000	0.17098	1700.99658	0.0	4.590868	580.40
0.020	99.93	1.2115	548.34	763.86	0.00000	0.00000	0.17114	1702.55200	0.0	4.555613	580.32
0.030	99.84	1.2120	548.42	763.70	0.00000	0.00000	0.17133	1704.42358	0.0	4.521169	580.24
0.040	99.74	1.2124	548.52	763.53	0.00000	0.00000	0.17153	1706.47485	0.0	4.487582	580.17
0.050	99.65	1.2129	548.61	763.35	0.00000	0.00000	0.17175	1708.62708	0.0	4.454852	580.09
0.060	99.55	1.2134	548.70	763.17	0.00000	0.00000	0.17197	1710.83276	0.0	4.422958	580.02
0.070	99.46	1.2139	548.80	762.99	0.00000	0.00000	0.17220	1713.06482	0.0	4.391873	579.95
0.080	99.37	1.2144	548.89	762.81	0.00000	0.00000	0.17242	1715.30737	0.0	4.361575	579.88
0.090	99.27	1.2149	548.99	762.62	0.00000	0.00000	0.17265	1717.55383	0.0	4.332027	579.81
0.100	99.18	1.2154	549.09	762.43	0.00000	0.00000	0.17287	1719.80261	0.0	4.303195	579.74
0.110	99.08	1.2160	549.20	762.24	0.00000	0.00000	0.17310	1722.05640	0.0	4.275033	579.67
0.120	98.99	1.2165	549.30	762.05	0.00000	0.00000	0.17333	1724.32068	0.0	4.247518	579.61
0.130	98.89	1.2170	549.40	761.85	0.00000	0.00000	0.17356	1726.60339	0.0	4.220613	579.55
0.140	98.80	1.2176	549.51	761.65	0.00000	0.00000	0.17379	1728.91699	0.0	4.194278	579.49
0.150	98.70	1.2182	549.62	761.44	0.00000	0.00000	0.17403	1731.27930	0.0	4.168488	579.43
0.160	98.61	1.2187	549.73	761.23	0.00000	0.00000	0.17427	1733.71545	0.0	4.143200	579.37
0.170	98.51	1.2193	549.84	761.02	0.00000	0.00000	0.17453	1736.25867	0.0	4.118378	579.31
0.180	98.42	1.2199	549.95	760.81	0.00000	0.00000	0.17480	1738.94934	0.0	4.093991	579.25
0.190	98.32	1.2205	550.06	760.59	0.00000	0.00000	0.17509	1741.83081	0.0	4.069985	579.19
0.200	98.22	1.2211	550.18	760.37	0.00000	0.00000	0.17540	1744.94653	0.0	4.046337	579.14
0.210	98.13	1.2217	550.30	760.14	0.00000	0.00000	0.17574	1748.32886	0.0	4.022996	579.08
0.220	98.03	1.2223	550.41	759.88	0.00000	0.00004	0.17610	1751.94385	0.0	3.999959	579.03

0.230	97.93	1.2229	550.53	759.47	0.00000	0.00030	0.17647	1755.62585	0.0	3.977266	578.97
0.240	97.83	1.2236	550.66	758.84	0.00000	0.00085	0.17684	1759.23865	0.0	3.954984	578.92
0.250	97.73	1.2242	550.78	758.02	0.00001	0.00165	0.17719	1762.77722	0.0	3.933149	578.87
0.260	97.63	1.2249	550.90	757.06	0.00002	0.00265	0.17755	1766.29053	0.0	3.911729	578.82
0.270	97.52	1.2255	551.03	755.99	0.00003	0.00381	0.17790	1769.77576	0.0	3.890668	578.77
0.280	97.42	1.2262	551.16	754.81	0.00004	0.00509	0.17824	1773.15674	0.0	3.869954	578.72
0.290	97.32	1.2269	551.28	753.56	0.00007	0.00649	0.17856	1776.34680	0.0	3.849616	578.67
0.300	97.21	1.2275	551.41	752.22	0.00009	0.00800	0.17886	1779.32361	0.0	3.829710	578.62
0.310	97.11	1.2282	551.54	750.81	0.00012	0.00961	0.17914	1782.15015	0.0	3.810238	578.58
0.320	97.01	1.2289	551.68	749.34	0.00016	0.01130	0.17942	1784.92578	0.0	3.791178	578.53
0.330	96.90	1.2296	551.81	747.80	0.00021	0.01308	0.17970	1787.70544	0.0	3.772455	578.49
0.340	96.80	1.2303	551.95	746.11	0.00026	0.01507	0.17997	1790.43750	0.0	3.755006	578.45
0.350	96.69	1.2311	552.08	744.36	0.00033	0.01714	0.18022	1792.91516	0.0	3.737881	578.41
0.360	96.59	1.2318	552.22	742.54	0.00040	0.01931	0.18041	1794.76477	0.0	3.721226	578.37
0.370	96.49	1.2325	552.36	740.64	0.00048	0.02157	0.18047	1795.39075	0.0	3.705338	578.33
0.380	96.40	1.2333	552.50	738.67	0.00058	0.02395	0.18031	1793.82373	0.0	3.690617	578.30
0.390	96.31	1.2340	552.64	736.57	0.00068	0.02649	0.17977	1788.42468	0.0	3.677657	578.27
0.400	93.57	1.2347	552.78	734.15	0.00082	0.02950	0.17858	1776.55786	0.0	3.667744	578.26
0.410	93.49	1.2355	552.92	731.59	0.00097	0.03269	0.17805	1771.28296	0.0	3.657215	578.24
0.420	93.39	1.2362	553.07	729.14	0.00113	0.03571	0.17791	1769.91748	0.0	3.644136	578.22
0.430	93.28	1.2370	553.22	726.73	0.00129	0.03867	0.17801	1770.87915	0.0	3.629494	578.19
0.440	93.18	1.2379	553.37	724.32	0.00145	0.04162	0.17825	1773.26831	0.0	3.613945	578.15
0.450	93.07	1.2387	553.53	721.89	0.00162	0.04459	0.17858	1776.56750	0.0	3.597945	578.12
0.460	92.96	1.2395	553.69	719.44	0.00180	0.04759	0.17897	1780.47241	0.0	3.581732	578.08
0.470	92.85	1.2404	553.85	716.95	0.00199	0.05065	0.17941	1784.79968	0.0	3.565456	578.04
0.480	92.73	1.2413	554.02	714.41	0.00219	0.05376	0.17987	1789.43408	0.0	3.549193	578.01
0.490	92.62	1.2421	554.18	711.84	0.00240	0.05693	0.18036	1794.29834	0.0	3.532997	577.97
0.500	92.50	1.2430	554.35	709.21	0.00261	0.06016	0.18087	1799.33850	0.0	3.516891	577.93
0.510	92.38	1.2439	554.52	706.54	0.00284	0.06345	0.18139	1804.51111	0.0	3.500901	577.89
0.520	92.27	1.2448	554.69	703.83	0.00308	0.06681	0.18192	1809.78027	0.0	3.485047	577.86
0.530	92.15	1.2457	554.86	701.06	0.00332	0.07024	0.18245	1815.11450	0.0	3.469336	577.82
0.540	92.03	1.2466	555.03	698.24	0.00358	0.07374	0.18299	1820.48682	0.0	3.453786	577.78
0.550	91.91	1.2476	555.20	695.37	0.00384	0.07731	0.18354	1825.87439	0.0	3.438404	577.75
0.560	91.79	1.2485	555.38	692.45	0.00412	0.08095	0.18408	1831.25793	0.0	3.423199	577.71
0.570	91.67	1.2494	555.56	689.48	0.00440	0.08466	0.18462	1836.62048	0.0	3.408182	577.68
0.580	91.55	1.2504	555.73	686.45	0.00470	0.08844	0.18515	1841.94592	0.0	3.393359	577.64
0.590	91.42	1.2513	555.91	683.37	0.00500	0.09230	0.18568	1847.21790	0.0	3.378733	577.61
0.600	91.30	1.2523	556.10	680.24	0.00532	0.09623	0.18620	1852.41882	0.0	3.364311	577.58
0.610	91.18	1.2533	556.28	677.06	0.00564	0.10024	0.18672	1857.52710	0.0	3.350098	577.55
0.620	91.05	1.2542	556.46	673.83	0.00598	0.10432	0.18722	1862.51111	0.0	3.336103	577.51
0.630	90.93	1.2552	556.65	670.54	0.00632	0.10847	0.18770	1867.34229	0.0	3.322334	577.48
0.640	90.80	1.2562	556.83	667.20	0.00668	0.11270	0.18818	1872.03186	0.0	3.308805	577.45
0.650	90.68	1.2572	557.02	663.80	0.00704	0.11701	0.18864	1876.64294	0.0	3.295505	577.42
0.660	90.55	1.2582	557.21	660.54	0.00739	0.12112	0.18910	1881.22607	0.0	3.280988	577.39
0.670	90.43	1.2592	557.39	657.42	0.00773	0.12504	0.18955	1885.72717	0.0	3.265249	577.36
0.680	90.30	1.2602	557.58	654.26	0.00808	0.12903	0.18999	1890.03894	0.0	3.249724	577.32
0.690	90.18	1.2613	557.77	651.05	0.00844	0.13308	0.19039	1894.05347	0.0	3.234463	577.29
0.700	90.06	1.2623	557.96	647.79	0.00880	0.13719	0.19076	1897.71948	0.0	3.219548	577.25
0.710	89.93	1.2633	558.15	644.50	0.00917	0.14136	0.19109	1900.99609	0.0	3.205066	577.22
0.720	89.81	1.2643	558.35	641.16	0.00955	0.14560	0.19140	1904.07947	0.0	3.190969	577.19
0.730	89.68	1.2654	558.54	637.78	0.00994	0.14990	0.19169	1907.04077	0.0	3.177173	577.16
0.740	89.56	1.2664	558.73	634.37	0.01034	0.15425	0.19197	1909.80164	0.0	3.163653	577.13
0.750	89.44	1.2674	558.92	630.93	0.01075	0.15865	0.19220	1912.11316	0.0	3.150466	577.11
0.760	89.32	1.2684	559.11	627.46	0.01116	0.16310	0.19235	1913.51636	0.0	3.137794	577.08
0.770	89.20	1.2695	559.30	623.97	0.01158	0.16758	0.19232	1913.23267	0.0	3.125995	577.06
0.780	89.09	1.2705	559.49	620.40	0.01202	0.17217	0.19198	1909.90247	0.0	3.115343	577.04
0.790	89.00	1.2715	559.67	616.74	0.01248	0.17691	0.19112	1901.32825	0.0	3.106762	577.02
0.800	85.34	1.2724	559.85	612.48	0.01301	0.18252	0.18941	1884.34558	0.0	3.101814	577.02
0.810	85.24	1.2734	560.04	608.14	0.01358	0.18823	0.18853	1875.52295	0.0	3.096008	577.02
0.820	85.13	1.2745	560.23	604.11	0.01410	0.19348	0.18814	1871.66711	0.0	3.086632	577.01
0.830	85.01	1.2756	560.43	600.45	0.01457	0.19820	0.18805	1870.77002	0.0	3.073781	576.99
0.840	84.89	1.2767	560.63	596.85	0.01504	0.20284	0.18812	1871.47852	0.0	3.059833	576.96

0.850	84.77	1.2778	560.84	593.25	0.01551	0.20746	0.18830	1873.25122	0.0	3.045329	576.93
0.860	84.64	1.2789	561.05	589.67	0.01598	0.21206	0.18855	1875.71765	0.0	3.030540	576.90
0.870	84.51	1.2801	561.26	586.10	0.01646	0.21665	0.18885	1878.70361	0.0	3.015621	576.86
0.880	84.38	1.2812	561.45	582.70	0.01691	0.22104	0.18921	1882.28784	0.0	3.000595	576.83
0.890	84.26	1.2824	561.45	579.53	0.01739	0.22557	0.18962	1886.41882	0.0	2.985472	576.79
0.900	84.13	1.2835	561.45	576.37	0.01787	0.23009	0.19006	1890.77100	0.0	2.970353	576.74
0.910	83.99	1.2847	561.45	573.21	0.01836	0.23462	0.19050	1895.19824	0.0	2.955340	576.70
0.920	83.86	1.2859	561.45	570.05	0.01885	0.23914	0.19095	1899.62341	0.0	2.940479	576.66
0.930	83.73	1.2870	561.45	566.88	0.01935	0.24368	0.19139	1903.99878	0.0	2.925795	576.61
0.940	83.60	1.2882	561.44	563.70	0.01986	0.24823	0.19182	1908.29333	0.0	2.911303	576.57
0.950	83.46	1.2894	561.44	560.52	0.02037	0.25278	0.19224	1912.48462	0.0	2.897007	576.53
0.960	83.33	1.2905	561.44	557.33	0.02088	0.25733	0.19265	1916.55884	0.0	2.882916	576.48
0.970	83.19	1.2917	561.44	554.14	0.02141	0.26189	0.19305	1920.51428	0.0	2.869031	576.44
0.980	83.06	1.2929	561.44	550.96	0.02194	0.26646	0.19344	1924.36023	0.0	2.855350	576.40
0.990	82.93	1.2941	561.44	547.91	0.02245	0.27082	0.19381	1928.11633	0.0	2.840420	576.36
1.000	82.79	1.2952	561.44	544.86	0.02297	0.27518	0.19418	1931.77368	0.0	2.825694	576.31
1.010	82.66	1.2964	561.44	541.81	0.02349	0.27954	0.19454	1935.30615	0.0	2.811172	576.27
1.020	82.53	1.2976	561.43	538.76	0.02402	0.28390	0.19486	1938.56519	0.0	2.796880	576.23
1.030	82.39	1.2988	561.43	535.71	0.02456	0.28826	0.19518	1941.72046	0.0	2.782819	576.18
1.040	82.26	1.2999	561.43	532.67	0.02510	0.29261	0.19549	1944.79553	0.0	2.768963	576.14
1.050	82.12	1.3011	561.43	529.63	0.02565	0.29696	0.19580	1947.85217	0.0	2.755302	576.10
1.060	81.99	1.3023	561.43	526.60	0.02620	0.30129	0.19611	1950.93518	0.0	2.741796	576.06
1.070	81.85	1.3035	561.43	523.58	0.02676	0.30561	0.19642	1954.00854	0.0	2.728414	576.02
1.080	81.71	1.3047	561.43	520.57	0.02732	0.30992	0.19671	1956.95667	0.0	2.715160	575.98
1.090	81.58	1.3058	561.43	517.57	0.02789	0.31421	0.19698	1959.66187	0.0	2.702088	575.94
1.100	81.44	1.3070	561.42	514.58	0.02846	0.31849	0.19723	1962.08557	0.0	2.689262	575.90
1.110	81.31	1.3082	561.42	511.60	0.02904	0.32275	0.19745	1964.28418	0.0	2.676718	575.86
1.120	81.17	1.3094	561.42	508.64	0.02962	0.32699	0.19766	1966.34705	0.0	2.664439	575.82
1.130	81.04	1.3105	561.42	505.69	0.03021	0.33120	0.19785	1968.31323	0.0	2.652389	575.78
1.140	80.90	1.3117	561.42	502.76	0.03080	0.33539	0.19803	1970.11072	0.0	2.640551	575.75
1.150	80.77	1.3129	561.42	499.88	0.03139	0.33951	0.19818	1971.52209	0.0	2.628610	575.71
1.160	80.64	1.3140	561.42	497.05	0.03198	0.34357	0.19824	1972.12402	0.0	2.616965	575.68
1.170	80.52	1.3152	561.42	494.24	0.03256	0.34758	0.19814	1971.17627	0.0	2.605949	575.64
1.180	80.40	1.3163	561.41	491.45	0.03316	0.35157	0.19776	1967.42212	0.0	2.595906	575.61
1.190	80.31	1.3174	561.41	488.70	0.03375	0.35551	0.19690	1958.86230	0.0	2.587596	575.59
1.200	75.41	1.3184	561.37	485.37	0.03445	0.36025	0.19529	1942.83594	0.0	2.582326	575.57
1.210	75.32	1.3195	561.37	482.41	0.03513	0.36457	0.19445	1934.45496	0.0	2.576176	575.56
1.220	75.20	1.3207	561.37	479.48	0.03579	0.36876	0.19406	1930.58154	0.0	2.567562	575.54
1.230	75.08	1.3219	561.36	476.63	0.03645	0.37284	0.19394	1929.37488	0.0	2.557573	575.51
1.240	74.95	1.3231	561.36	473.80	0.03710	0.37688	0.19398	1929.73560	0.0	2.546698	575.47
1.250	74.82	1.3243	561.36	470.98	0.03776	0.38091	0.19411	1931.04834	0.0	2.535335	575.44
1.260	74.68	1.3255	561.36	468.19	0.03842	0.38490	0.19430	1932.95715	0.0	2.523731	575.40
1.270	74.54	1.3268	561.36	465.41	0.03908	0.38887	0.19453	1935.24841	0.0	2.512023	575.37
1.280	74.40	1.3280	561.36	462.66	0.03975	0.39282	0.19478	1937.78418	0.0	2.500292	575.33
1.290	74.26	1.3293	561.36	459.92	0.04042	0.39673	0.19506	1940.47217	0.0	2.488583	575.29
1.300	74.12	1.3305	561.35	457.20	0.04110	0.40061	0.19533	1943.24719	0.0	2.476927	575.25
1.310	73.97	1.3318	561.35	454.52	0.04178	0.40445	0.19562	1946.06189	0.0	2.465097	575.22
1.320	73.83	1.3330	561.35	451.87	0.04246	0.40824	0.19590	1948.87793	0.0	2.453113	575.18
1.330	73.69	1.3343	561.35	449.24	0.04314	0.41201	0.19618	1951.66394	0.0	2.441236	575.14
1.340	73.54	1.3356	561.35	446.63	0.04383	0.41574	0.19645	1954.39795	0.0	2.429477	575.10
1.350	73.40	1.3368	561.35	444.04	0.04452	0.41944	0.19672	1957.06567	0.0	2.417845	575.06
1.360	73.25	1.3381	561.35	441.47	0.04521	0.42311	0.19698	1959.65942	0.0	2.406343	575.03
1.370	73.11	1.3393	561.35	438.92	0.04591	0.42675	0.19724	1962.17798	0.0	2.394976	574.99
1.380	72.96	1.3406	561.34	436.40	0.04661	0.43036	0.19748	1964.62305	0.0	2.383741	574.95
1.390	72.82	1.3418	561.34	433.90	0.04731	0.43394	0.19772	1967.00024	0.0	2.372641	574.92
1.400	72.67	1.3431	561.34	431.42	0.04801	0.43749	0.19795	1969.31677	0.0	2.361670	574.88
1.410	72.53	1.3443	561.34	428.96	0.04872	0.44100	0.19818	1971.57764	0.0	2.350826	574.85
1.420	72.38	1.3456	561.34	426.52	0.04944	0.44449	0.19840	1973.77832	0.0	2.340103	574.81
1.430	72.24	1.3469	561.34	424.11	0.05015	0.44794	0.19862	1975.91760	0.0	2.329505	574.78
1.440	72.09	1.3481	561.34	421.71	0.05087	0.45136	0.19883	1978.02673	0.0	2.319031	574.74
1.450	71.95	1.3494	561.33	419.34	0.05159	0.45475	0.19905	1980.17053	0.0	2.308669	574.71
1.460	71.80	1.3506	561.33	416.99	0.05231	0.45812	0.19927	1982.39001	0.0	2.298387	574.67

1.470	71.65	1.3519	561.33	414.66	0.05304	0.46144	0.19949	1984.63953	0.0	2.287907	574.64
1.480	71.50	1.3531	561.33	412.38	0.05376	0.46471	0.19971	1986.79858	0.0	2.276751	574.60
1.490	71.36	1.3544	561.33	410.12	0.05448	0.46794	0.19991	1988.75195	0.0	2.265714	574.56
1.500	71.21	1.3556	561.33	407.89	0.05521	0.47113	0.20008	1990.47363	0.0	2.254859	574.53
1.510	71.06	1.3569	561.33	405.68	0.05593	0.47429	0.20024	1992.02734	0.0	2.244216	574.49
1.520	70.92	1.3581	561.32	403.49	0.05666	0.47742	0.20039	1993.49963	0.0	2.233767	574.46
1.530	70.77	1.3594	561.32	401.33	0.05739	0.48051	0.20053	1994.92053	0.0	2.223480	574.42
1.540	70.63	1.3606	561.32	399.20	0.05811	0.48356	0.20066	1996.20630	0.0	2.213343	574.39
1.550	70.49	1.3618	561.32	397.09	0.05884	0.48657	0.20075	1997.11853	0.0	2.203405	574.36
1.560	70.35	1.3630	561.32	395.02	0.05956	0.48953	0.20076	1997.22107	0.0	2.193791	574.32
1.570	70.22	1.3642	561.32	392.99	0.06028	0.49243	0.20061	1995.76978	0.0	2.184679	574.29
1.580	70.10	1.3654	561.32	391.00	0.06100	0.49527	0.20019	1991.55054	0.0	2.176405	574.27
1.590	70.01	1.3666	561.32	389.08	0.06169	0.49802	0.19929	1982.63928	0.0	2.169622	574.25
1.600	63.72	1.3676	561.26	386.66	0.06252	0.50146	0.19767	1966.44946	0.0	2.165451	574.23
1.610	63.63	1.3688	561.26	384.73	0.06328	0.50430	0.19680	1957.85620	0.0	2.160492	574.22
1.620	63.51	1.3700	561.25	382.73	0.06404	0.50715	0.19639	1953.73682	0.0	2.153384	574.20
1.630	63.39	1.3712	561.25	380.74	0.06480	0.51000	0.19624	1952.25281	0.0	2.145077	574.17
1.640	63.25	1.3724	561.25	378.76	0.06556	0.51283	0.19625	1952.31836	0.0	2.135526	574.14
1.650	63.11	1.3737	561.25	376.78	0.06633	0.51566	0.19635	1953.32910	0.0	2.125554	574.11
1.660	62.96	1.3750	561.25	374.81	0.06711	0.51848	0.19651	1954.93030	0.0	2.115356	574.07
1.670	62.81	1.3763	561.25	372.85	0.06789	0.52129	0.19671	1956.90735	0.0	2.105052	574.04
1.680	62.66	1.3776	561.25	370.90	0.06868	0.52407	0.19693	1959.12268	0.0	2.094709	574.00
1.690	62.51	1.3789	561.25	368.97	0.06947	0.52683	0.19717	1961.48206	0.0	2.084370	573.97
1.700	62.35	1.3802	561.24	367.05	0.07026	0.52957	0.19741	1963.91870	0.0	2.074063	573.93
1.710	62.20	1.3815	561.24	365.15	0.07105	0.53228	0.19766	1966.38379	0.0	2.063808	573.90
1.720	62.05	1.3828	561.24	363.27	0.07184	0.53497	0.19791	1968.84119	0.0	2.053622	573.86
1.730	61.89	1.3841	561.24	361.41	0.07264	0.53763	0.19815	1971.26611	0.0	2.043515	573.82
1.740	61.74	1.3854	561.24	359.57	0.07344	0.54026	0.19839	1973.64233	0.0	2.033497	573.79
1.750	61.58	1.3867	561.24	357.75	0.07424	0.54287	0.19862	1975.95947	0.0	2.023574	573.75
1.760	61.43	1.3880	561.23	355.95	0.07504	0.54544	0.19885	1978.21570	0.0	2.013747	573.72
1.770	61.27	1.3893	561.23	354.16	0.07584	0.54799	0.19907	1980.41248	0.0	2.004021	573.68
1.780	61.12	1.3906	561.23	352.40	0.07664	0.55052	0.19929	1982.55493	0.0	1.994394	573.65
1.790	60.96	1.3918	561.23	350.65	0.07744	0.55301	0.19950	1984.65063	0.0	1.984864	573.62
1.800	60.81	1.3931	561.23	348.93	0.07824	0.55548	0.19970	1986.70776	0.0	1.975058	573.58
1.810	60.65	1.3944	561.23	347.22	0.07904	0.55791	0.19991	1988.72974	0.0	1.965221	573.55
1.820	60.50	1.3957	561.23	345.54	0.07984	0.56032	0.20010	1990.70898	0.0	1.955476	573.51
1.830	60.34	1.3970	561.22	343.87	0.08064	0.56270	0.20030	1992.64246	0.0	1.945825	573.48
1.840	60.18	1.3982	561.22	342.22	0.08144	0.56506	0.20049	1994.55933	0.0	1.936270	573.44
1.850	60.03	1.3995	561.22	340.59	0.08224	0.56739	0.20069	1996.52258	0.0	1.926801	573.41
1.860	59.87	1.4008	561.22	338.97	0.08304	0.56970	0.20089	1998.56714	0.0	1.917389	573.37
1.870	59.71	1.4021	561.22	337.37	0.08384	0.57200	0.20110	2000.63708	0.0	1.908011	573.34
1.880	59.55	1.4033	561.22	335.78	0.08465	0.57427	0.20130	2002.60254	0.0	1.898679	573.31
1.890	59.40	1.4046	561.22	334.21	0.08545	0.57652	0.20148	2004.35046	0.0	1.889443	573.27
1.900	59.24	1.4059	561.21	332.66	0.08626	0.57873	0.20163	2005.86377	0.0	1.880358	573.24
1.910	59.09	1.4071	561.21	331.13	0.08706	0.58091	0.20176	2007.21765	0.0	1.871448	573.21
1.920	58.93	1.4084	561.21	329.62	0.08785	0.58307	0.20189	2008.50134	0.0	1.862695	573.18
1.930	58.78	1.4096	561.21	328.13	0.08865	0.58520	0.20202	2009.73816	0.0	1.854070	573.14
1.940	58.62	1.4109	561.21	326.66	0.08945	0.58730	0.20213	2010.83301	0.0	1.845563	573.11
1.950	58.47	1.4121	561.21	325.21	0.09024	0.58937	0.20220	2011.53223	0.0	1.837216	573.08
1.960	58.33	1.4133	561.21	323.80	0.09101	0.59138	0.20218	2011.36658	0.0	1.828402	573.05
1.970	58.20	1.4145	561.20	322.43	0.09178	0.59335	0.20200	2009.54480	0.0	1.819281	573.02
1.980	58.08	1.4157	561.20	321.10	0.09253	0.59525	0.20152	2004.76880	0.0	1.810924	572.99
1.990	58.00	1.4168	561.20	319.83	0.09325	0.59705	0.20053	1994.93274	0.0	1.803931	572.96
2.000	50.28	1.4178	561.13	318.12	0.09413	0.59947	0.19873	1977.02612	0.0	1.799345	572.94
2.010	50.20	1.4189	561.13	316.91	0.09488	0.60127	0.19777	1967.50964	0.0	1.794084	572.93
2.020	50.09	1.4201	561.13	315.60	0.09565	0.60314	0.19731	1962.87439	0.0	1.786800	572.91
2.030	49.95	1.4213	561.13	314.28	0.09644	0.60504	0.19713	1961.07385	0.0	1.778396	572.88
2.040	49.81	1.4226	561.12	312.94	0.09724	0.60695	0.19711	1960.92346	0.0	1.769315	572.85
2.050	49.66	1.4238	561.12	311.59	0.09805	0.60887	0.19720	1961.77454	0.0	1.759855	572.81
2.060	49.51	1.4251	561.12	310.25	0.09887	0.61080	0.19734	1963.24487	0.0	1.750180	572.78
2.070	49.35	1.4264	561.12	308.91	0.09969	0.61271	0.19753	1965.10596	0.0	1.740398	572.74
2.080	49.19	1.4276	561.12	307.57	0.10052	0.61462	0.19774	1967.21216	0.0	1.730571	572.70

2.090	49.03	1.4289	561.12	306.25	0.10134	0.61651	0.19797	1969.46619	0.0	1.720738	572.66
2.100	48.87	1.4302	561.12	304.93	0.10217	0.61838	0.19820	1971.79810	0.0	1.710925	572.63
2.110	48.71	1.4315	561.11	303.64	0.10300	0.62024	0.19844	1974.15845	0.0	1.701151	572.59
2.120	48.54	1.4327	561.11	302.35	0.10382	0.62208	0.19868	1976.51062	0.0	1.691305	572.55
2.130	48.38	1.4340	561.11	301.08	0.10465	0.62389	0.19891	1978.82996	0.0	1.681140	572.51
2.140	48.22	1.4353	561.11	299.82	0.10547	0.62569	0.19914	1981.10022	0.0	1.671048	572.47
2.150	48.06	1.4365	561.11	298.58	0.10629	0.62746	0.19936	1983.31299	0.0	1.661035	572.43
2.160	47.89	1.4378	561.11	297.35	0.10711	0.62922	0.19958	1985.46594	0.0	1.651104	572.40
2.170	47.73	1.4390	561.10	296.14	0.10792	0.63095	0.19979	1987.56079	0.0	1.641253	572.36
2.180	47.57	1.4403	561.10	294.94	0.10874	0.63267	0.19999	1989.60315	0.0	1.631487	572.32
2.190	47.40	1.4415	561.10	293.75	0.10955	0.63436	0.20019	1991.59973	0.0	1.621800	572.28
2.200	47.24	1.4428	561.10	292.58	0.11036	0.63603	0.20039	1993.55872	0.0	1.612191	572.24
2.210	47.08	1.4440	561.10	291.42	0.11117	0.63769	0.20058	1995.48340	0.0	1.602658	572.21
2.220	46.91	1.4452	561.10	290.28	0.11198	0.63933	0.20077	1997.36755	0.0	1.593197	572.17
2.230	46.75	1.4465	561.10	289.14	0.11278	0.64094	0.20096	1999.20764	0.0	1.583812	572.13
2.240	46.59	1.4477	561.09	288.02	0.11358	0.64254	0.20114	2001.03296	0.0	1.574503	572.09
2.250	46.43	1.4489	561.09	286.92	0.11438	0.64413	0.20133	2002.90515	0.0	1.565262	572.06
2.260	46.26	1.4501	561.09	285.82	0.11518	0.64569	0.20153	2004.86108	0.0	1.556066	572.02
2.270	46.10	1.4513	561.09	284.73	0.11598	0.64725	0.20173	2006.84558	0.0	1.546894	571.98
2.280	45.93	1.4525	561.09	283.65	0.11678	0.64879	0.20192	2008.72937	0.0	1.537757	571.95
2.290	45.77	1.4537	561.09	282.59	0.11757	0.65030	0.20208	2010.39685	0.0	1.528646	571.90
2.300	45.61	1.4549	561.08	281.55	0.11836	0.65179	0.20223	2011.82593	0.0	1.519560	571.86
2.310	45.45	1.4561	561.08	280.53	0.11914	0.65325	0.20235	2013.08521	0.0	1.504821	571.81
2.320	45.29	1.4573	561.08	279.52	0.11991	0.65469	0.20247	2014.25854	0.0	1.494116	571.77
2.330	45.13	1.4584	561.08	278.53	0.12067	0.65611	0.20258	2015.36646	0.0	1.483522	571.73
2.340	44.97	1.4596	561.08	277.55	0.12143	0.65751	0.20268	2016.30664	0.0	1.473033	571.69
2.350	44.82	1.4607	561.08	276.59	0.12219	0.65888	0.20273	2016.81641	0.0	1.462677	571.64
2.360	44.67	1.4618	561.08	275.66	0.12293	0.66021	0.20269	2016.40479	0.0	1.452566	571.60
2.370	44.54	1.4629	561.07	274.75	0.12365	0.66151	0.20247	2014.23645	0.0	1.442819	571.56
2.380	44.43	1.4640	561.07	273.87	0.12436	0.66276	0.20194	2008.92859	0.0	1.433731	571.53
2.390	44.37	1.4650	561.07	273.06	0.12502	0.66392	0.20086	1998.19031	0.0	1.425822	571.50
2.400	35.30	1.4659	560.99	271.82	0.12586	0.66564	0.19889	1978.66943	0.0	1.420014	571.47
2.410	35.24	1.4669	560.99	271.09	0.12653	0.66677	0.19784	1968.22046	0.0	1.413644	571.45
2.420	35.13	1.4679	560.99	270.24	0.12724	0.66797	0.19732	1963.02258	0.0	1.405473	571.42
2.430	35.00	1.4690	560.98	269.38	0.12797	0.66921	0.19710	1960.84705	0.0	1.396307	571.38
2.440	34.86	1.4702	560.98	268.49	0.12871	0.67047	0.19706	1960.42236	0.0	1.386557	571.34
2.450	34.71	1.4713	560.98	267.60	0.12947	0.67174	0.19712	1961.05151	0.0	1.376878	571.30
2.460	34.55	1.4724	560.98	266.71	0.13023	0.67302	0.19725	1962.32983	0.0	1.367143	571.26
2.470	34.39	1.4736	560.98	265.81	0.13099	0.67430	0.19742	1964.01782	0.0	1.357307	571.22
2.480	34.23	1.4747	560.98	264.92	0.13176	0.67557	0.19762	1965.96375	0.0	1.347425	571.18
2.490	34.07	1.4759	560.98	264.04	0.13252	0.67683	0.19783	1968.06616	0.0	1.337530	571.13
2.500	33.90	1.4770	560.97	263.16	0.13329	0.67808	0.19805	1970.25378	0.0	1.327646	571.09
2.510	33.74	1.4781	560.97	262.30	0.13405	0.67932	0.19827	1972.47485	0.0	1.317785	571.05
2.520	33.57	1.4793	560.97	261.44	0.13481	0.68055	0.19849	1974.69177	0.0	1.307962	571.01
2.530	33.41	1.4804	560.97	260.59	0.13557	0.68176	0.19871	1976.87927	0.0	1.298183	570.96
2.540	33.24	1.4815	560.97	259.75	0.13632	0.68296	0.19893	1979.02161	0.0	1.288457	570.92
2.550	33.07	1.4827	560.97	258.92	0.13707	0.68414	0.19914	1981.10974	0.0	1.278786	570.88
2.560	32.91	1.4838	560.96	258.10	0.13782	0.68531	0.19934	1983.14038	0.0	1.269175	570.84
2.570	32.74	1.4849	560.96	257.29	0.13856	0.68647	0.19954	1985.11572	0.0	1.259622	570.79
2.580	32.58	1.4860	560.96	256.49	0.13930	0.68761	0.19974	1987.04041	0.0	1.250130	570.75
2.590	32.41	1.4871	560.96	255.70	0.14003	0.68874	0.19993	1988.92090	0.0	1.240695	570.71
2.600	32.25	1.4882	560.96	254.92	0.14076	0.68986	0.20011	1990.76453	0.0	1.231317	570.67
2.610	32.09	1.4892	560.96	254.15	0.14149	0.69096	0.20029	1992.57483	0.0	1.221720	570.62
2.620	31.92	1.4903	560.95	253.39	0.14221	0.69204	0.20047	1994.34570	0.0	1.211899	570.58
2.630	31.76	1.4914	560.95	252.63	0.14293	0.69312	0.20064	1996.07263	0.0	1.202132	570.54
2.640	31.59	1.4924	560.95	251.89	0.14364	0.69418	0.20082	1997.78284	0.0	1.192421	570.49
2.650	31.43	1.4935	560.95	251.16	0.14435	0.69523	0.20099	1999.53564	0.0	1.182758	570.45
2.660	31.26	1.4946	560.95	250.43	0.14506	0.69627	0.20118	2001.36792	0.0	1.173127	570.40
2.670	31.10	1.4956	560.95	249.71	0.14576	0.69730	0.20136	2003.23169	0.0	1.163510	570.36
2.680	30.93	1.4966	560.95	248.99	0.14646	0.69831	0.20154	2005.00305	0.0	1.153916	570.31
2.690	30.77	1.4977	560.94	248.29	0.14716	0.69932	0.20170	2006.56702	0.0	1.144374	570.27
2.700	30.61	1.4987	560.94	247.60	0.14785	0.70031	0.20183	2007.89355	0.0	1.134922	570.23

2.710	30.45	1.4997	560.94	246.92	0.14853	0.70128	0.20195	2009.03979	0.0	1.125576	570.18
2.720	30.29	1.5007	560.94	246.25	0.14921	0.70223	0.20205	2010.08167	0.0	1.116330	570.14
2.730	30.13	1.5017	560.94	245.59	0.14987	0.70317	0.20215	2011.03711	0.0	1.107167	570.10
2.740	29.97	1.5027	560.94	244.95	0.15053	0.70409	0.20223	2011.80786	0.0	1.098080	570.05
2.750	29.82	1.5037	560.93	244.31	0.15118	0.70500	0.20226	2012.13049	0.0	1.089095	570.01
2.760	29.68	1.5046	560.93	243.70	0.15182	0.70587	0.20220	2011.51807	0.0	1.080290	569.97
2.770	29.55	1.5055	560.93	243.10	0.15244	0.70673	0.20195	2009.11133	0.0	1.071908	569.93
2.780	29.45	1.5064	560.93	242.53	0.15304	0.70754	0.20139	2003.47815	0.0	1.064465	569.90
2.790	29.41	1.5072	560.93	242.01	0.15360	0.70829	0.20026	1992.20813	0.0	1.057951	569.87
2.800	19.22	1.5079	560.83	241.08	0.15434	0.70956	0.19820	1971.75818	0.0	1.053100	569.84
2.810	19.18	1.5088	560.83	240.64	0.15490	0.71027	0.19709	1960.76074	0.0	1.047830	569.82
2.820	19.08	1.5097	560.83	240.09	0.15550	0.71105	0.19654	1955.21777	0.0	1.041107	569.79
2.830	18.96	1.5106	560.83	239.52	0.15612	0.71186	0.19629	1952.79700	0.0	1.033580	569.76
2.840	18.82	1.5115	560.83	238.93	0.15675	0.71270	0.19623	1952.17700	0.0	1.025589	569.72
2.850	18.67	1.5125	560.83	238.34	0.15739	0.71354	0.19628	1952.63464	0.0	1.017334	569.68
2.860	18.52	1.5134	560.83	237.74	0.15804	0.71439	0.19639	1953.75513	0.0	1.008928	569.64
2.870	18.36	1.5144	560.83	237.15	0.15870	0.71525	0.19654	1955.29395	0.0	1.000439	569.60
2.880	18.20	1.5154	560.82	236.55	0.15935	0.71610	0.19673	1957.09827	0.0	0.9919085	569.56
2.890	18.04	1.5163	560.82	235.96	0.16000	0.71694	0.19692	1959.06702	0.0	0.9833618	569.51
2.900	17.87	1.5173	560.82	235.37	0.16065	0.71778	0.19713	1961.12842	0.0	0.9748164	569.47
2.910	17.71	1.5183	560.82	234.78	0.16130	0.71861	0.19734	1963.23242	0.0	0.9662837	569.43
2.920	17.54	1.5192	560.82	234.21	0.16195	0.71944	0.19755	1965.34106	0.0	0.9577736	569.38
2.930	17.38	1.5202	560.82	233.64	0.16259	0.72025	0.19776	1967.42883	0.0	0.9492908	569.34
2.940	17.21	1.5211	560.81	233.07	0.16323	0.72106	0.19797	1969.47852	0.0	0.9420059	569.30
2.950	17.05	1.5221	560.81	232.51	0.16386	0.72186	0.19817	1971.48071	0.0	0.9347568	569.26
2.960	16.88	1.5230	560.81	231.96	0.16450	0.72265	0.19837	1973.43127	0.0	0.9275468	569.23
2.970	16.72	1.5239	560.81	231.41	0.16512	0.72343	0.19856	1975.33081	0.0	0.9203758	569.19
2.980	16.56	1.5248	560.81	230.87	0.16575	0.72421	0.19875	1977.18311	0.0	0.9132442	569.15
2.990	16.39	1.5258	560.81	230.33	0.16637	0.72497	0.19893	1978.99365	0.0	0.9061513	569.12
3.000	16.23	1.5267	560.81	229.80	0.16699	0.72573	0.19911	1980.76917	0.0	0.8990965	569.08
3.010	16.07	1.5276	560.80	229.28	0.16760	0.72647	0.19928	1982.51562	0.0	0.8920778	569.04
3.020	15.90	1.5285	560.80	228.76	0.16821	0.72721	0.19945	1984.23962	0.0	0.8850937	569.00
3.030	15.74	1.5294	560.80	228.24	0.16882	0.72795	0.19963	1985.94568	0.0	0.8781428	568.97
3.040	15.57	1.5303	560.80	227.74	0.16942	0.72867	0.19980	1987.63757	0.0	0.8712230	568.93
3.050	15.41	1.5312	560.80	227.23	0.17002	0.72939	0.19996	1989.31787	0.0	0.8643335	568.89
3.060	15.25	1.5321	560.80	226.73	0.17061	0.73010	0.20013	1990.98767	0.0	0.8574730	568.86
3.070	15.08	1.5329	560.79	226.24	0.17121	0.73080	0.20030	1992.64648	0.0	0.8506406	568.82
3.080	14.92	1.5338	560.79	225.75	0.17180	0.73150	0.20047	1994.29431	0.0	0.8438355	568.78
3.090	14.76	1.5347	560.79	225.27	0.17238	0.73219	0.20063	1995.92908	0.0	0.8370569	568.75
3.100	14.59	1.5355	560.79	224.79	0.17297	0.73288	0.20079	1997.54980	0.0	0.8307492	568.71
3.110	14.43	1.5364	560.79	224.31	0.17355	0.73355	0.20095	1999.15405	0.0	0.8246159	568.68
3.120	14.27	1.5373	560.79	223.84	0.17413	0.73422	0.20111	2000.73999	0.0	0.8185084	568.65
3.130	14.10	1.5381	560.79	223.38	0.17470	0.73489	0.20127	2002.30603	0.0	0.8124259	568.61
3.140	13.94	1.5390	560.78	222.92	0.17528	0.73555	0.20143	2003.85071	0.0	0.8063695	568.58
3.150	13.77	1.5398	560.78	222.46	0.17585	0.73620	0.20158	2005.37268	0.0	0.8003381	568.54
3.160	13.61	1.5406	560.78	222.00	0.17641	0.73685	0.20173	2006.87134	0.0	0.7943325	568.51
3.170	13.45	1.5415	560.78	221.55	0.17698	0.73749	0.20188	2008.34619	0.0	0.7883515	568.48
3.180	13.28	1.5423	560.78	221.11	0.17754	0.73813	0.20202	2009.79736	0.0	0.7823959	568.44
3.190	13.12	1.5431	560.78	220.67	0.17810	0.73876	0.20217	2011.22534	0.0	0.7764650	568.41
3.200	12.96	1.5440	560.77	220.23	0.17865	0.73938	0.20231	2012.63037	0.0	0.7705585	568.38
3.210	12.79	1.5448	560.77	219.80	0.17921	0.74000	0.20245	2014.01343	0.0	0.7646763	568.34
3.220	12.63	1.5456	560.77	219.37	0.17976	0.74061	0.20258	2015.37537	0.0	0.7588181	568.31
3.230	12.47	1.5464	560.77	218.94	0.18030	0.74121	0.20272	2016.71716	0.0	0.7529831	568.28
3.240	12.30	1.5472	560.77	218.52	0.18085	0.74182	0.20285	2018.03992	0.0	0.7471712	568.24
3.250	12.14	1.5480	560.77	218.11	0.18139	0.74241	0.20298	2019.34436	0.0	0.7413818	568.21
3.260	11.98	1.5488	560.77	217.69	0.18193	0.74300	0.20311	2020.63196	0.0	0.7359099	568.18
3.270	11.81	1.5496	560.76	217.28	0.18246	0.74359	0.20324	2021.90320	0.0	0.7307540	568.15
3.280	11.65	1.5504	560.76	216.87	0.18300	0.74417	0.20337	2023.15894	0.0	0.7256194	568.12
3.290	11.49	1.5512	560.76	216.47	0.18353	0.74474	0.20349	2024.39990	0.0	0.7205052	568.09
3.300	11.33	1.5519	560.76	216.07	0.18406	0.74531	0.20361	2025.62622	0.0	0.7154117	568.06
3.310	11.16	1.5527	560.76	215.67	0.18458	0.74588	0.20374	2026.83875	0.0	0.7103376	568.03
3.320	11.00	1.5535	560.76	215.28	0.18511	0.74644	0.20386	2028.03735	0.0	0.7052829	568.00

3.330	10.84	1.5543	560.75	214.89	0.18563	0.74700	0.20398	2029.22253	0.0	0.7002478	567.97
3.340	10.67	1.5550	560.75	214.50	0.18615	0.74755	0.20409	2030.39429	0.0	0.6952317	567.94
3.350	10.51	1.5558	560.75	214.12	0.18666	0.74809	0.20421	2031.55249	0.0	0.6902340	567.91
3.360	10.35	1.5566	560.75	213.74	0.18718	0.74864	0.20433	2032.69714	0.0	0.6852549	567.88
3.370	10.18	1.5573	560.75	213.36	0.18769	0.74918	0.20444	2033.82825	0.0	0.6802937	567.85
3.380	10.02	1.5581	560.75	212.99	0.18820	0.74971	0.20455	2034.94604	0.0	0.6753510	567.82
3.390	9.86	1.5588	560.74	212.62	0.18871	0.75024	0.20466	2036.05005	0.0	0.6704255	567.79
3.400	9.70	1.5596	560.74	212.25	0.18921	0.75076	0.20477	2037.14062	0.0	0.6655177	567.76
3.410	9.53	1.5603	560.74	211.88	0.18971	0.75128	0.20488	2038.21765	0.0	0.6606272	567.73
3.420	9.37	1.5611	560.74	211.52	0.19021	0.75180	0.20499	2039.28113	0.0	0.6559022	567.70
3.430	9.21	1.5618	560.74	211.16	0.19071	0.75231	0.20509	2040.33118	0.0	0.6516401	567.68
3.440	9.04	1.5625	560.74	210.81	0.19121	0.75282	0.20520	2041.36780	0.0	0.6473943	567.65
3.450	8.88	1.5633	560.74	210.45	0.19170	0.75333	0.20530	2042.39124	0.0	0.6431642	567.62
3.460	8.72	1.5640	560.73	210.10	0.19220	0.75383	0.20540	2043.40186	0.0	0.6389498	567.60
3.470	8.56	1.5647	560.73	209.75	0.19269	0.75433	0.20550	2044.39905	0.0	0.6347509	567.57
3.480	8.39	1.5654	560.73	209.41	0.19317	0.75482	0.20560	2045.38379	0.0	0.6305674	567.54
3.490	8.23	1.5661	560.73	209.06	0.19366	0.75531	0.20570	2046.35571	0.0	0.6263988	567.52
3.500	8.07	1.5669	560.73	208.72	0.19414	0.75580	0.20579	2047.31506	0.0	0.6222454	567.49
3.510	7.90	1.5676	560.73	208.38	0.19462	0.75628	0.20589	2048.26196	0.0	0.6181067	567.47
3.520	7.74	1.5683	560.72	208.05	0.19510	0.75676	0.20598	2049.19702	0.0	0.6139827	567.44
3.530	7.58	1.5690	560.72	207.71	0.19558	0.75723	0.20608	2050.12012	0.0	0.6098731	567.41
3.540	7.42	1.5697	560.72	207.38	0.19606	0.75771	0.20617	2051.03125	0.0	0.6057777	567.39
3.550	7.25	1.5704	560.72	207.05	0.19653	0.75818	0.20626	2051.93091	0.0	0.6016965	567.36
3.560	7.09	1.5711	560.72	206.73	0.19700	0.75864	0.20635	2052.81909	0.0	0.5976294	567.34
3.570	6.93	1.5718	560.72	206.40	0.19747	0.75910	0.20644	2053.69580	0.0	0.5935757	567.31
3.580	6.77	1.5725	560.72	206.08	0.19794	0.75956	0.20652	2054.56079	0.0	0.5895359	567.28
3.590	6.60	1.5732	560.71	205.76	0.19841	0.76002	0.20661	2055.41504	0.0	0.5843206	567.25
3.600	6.44	1.5739	560.71	205.45	0.19887	0.76047	0.20669	2056.25806	0.0	0.5791191	567.22
3.610	6.28	1.5745	560.71	205.13	0.19933	0.76091	0.20678	2057.08984	0.0	0.5739308	567.18
3.620	6.12	1.5752	560.71	204.82	0.19979	0.76135	0.20686	2057.91040	0.0	0.5687561	567.15
3.630	5.95	1.5759	560.71	204.52	0.20024	0.76179	0.20694	2058.72021	0.0	0.5635943	567.11
3.640	5.79	1.5765	560.71	204.21	0.20069	0.76223	0.20702	2059.51904	0.0	0.5584458	567.08
3.650	5.63	1.5772	560.70	203.91	0.20114	0.76266	0.20710	2060.30762	0.0	0.5533098	567.05
3.660	5.47	1.5779	560.70	203.61	0.20159	0.76309	0.20718	2061.08545	0.0	0.5481864	567.01
3.670	5.30	1.5785	560.70	203.31	0.20203	0.76351	0.20726	2061.85278	0.0	0.5430753	566.98
3.680	5.14	1.5792	560.70	203.02	0.20248	0.76393	0.20733	2062.60986	0.0	0.5379764	566.94
3.690	4.98	1.5798	560.70	202.72	0.20292	0.76435	0.20741	2063.35645	0.0	0.5328894	566.91
3.700	4.82	1.5805	560.70	202.43	0.20335	0.76476	0.20748	2064.09326	0.0	0.5278144	566.88
3.710	4.66	1.5811	560.70	202.15	0.20379	0.76517	0.20755	2064.82007	0.0	0.5227508	566.84
3.720	4.50	1.5818	560.69	201.86	0.20422	0.76558	0.20763	2065.53711	0.0	0.5176986	566.81
3.730	4.33	1.5824	560.69	201.58	0.20465	0.76598	0.20770	2066.24438	0.0	0.5126573	566.77
3.740	4.17	1.5830	560.69	201.30	0.20507	0.76638	0.20777	2066.94214	0.0	0.5076272	566.74
3.750	4.01	1.5837	560.69	201.02	0.20550	0.76678	0.20784	2067.63037	0.0	0.5030611	566.71
3.760	3.85	1.5843	560.69	200.75	0.20592	0.76717	0.20791	2068.30957	0.0	0.4986572	566.67
3.770	3.69	1.5849	560.69	200.47	0.20634	0.76756	0.20797	2068.97949	0.0	0.4942638	566.64
3.780	3.53	1.5855	560.68	200.20	0.20676	0.76794	0.20804	2069.64038	0.0	0.4898809	566.61
3.790	3.37	1.5861	560.68	199.93	0.20717	0.76833	0.20810	2070.29224	0.0	0.4855082	566.58
3.800	3.21	1.5867	560.68	199.67	0.20759	0.76871	0.20817	2070.93579	0.0	0.4811460	566.55
3.810	3.04	1.5873	560.68	199.40	0.20800	0.76909	0.20823	2071.57031	0.0	0.4767936	566.52
3.820	2.88	1.5880	560.68	199.14	0.20841	0.76946	0.20830	2072.19653	0.0	0.4724512	566.49
3.830	2.72	1.5886	560.68	198.88	0.20881	0.76983	0.20836	2072.81396	0.0	0.4681184	566.46
3.840	2.56	1.5891	560.68	198.62	0.20922	0.77020	0.20842	2073.42285	0.0	0.4637956	566.43
3.850	2.40	1.5897	560.67	198.36	0.20962	0.77056	0.20848	2074.02368	0.0	0.4594819	566.40
3.860	2.24	1.5903	560.67	198.11	0.21002	0.77093	0.20854	2074.61621	0.0	0.4551775	566.36
3.870	2.08	1.5909	560.67	197.86	0.21042	0.77129	0.20860	2075.20044	0.0	0.4508825	566.33
3.880	1.92	1.5915	560.67	197.61	0.21081	0.77164	0.20866	2075.77661	0.0	0.4465965	566.30
3.890	1.76	1.5921	560.67	197.36	0.21121	0.77200	0.20871	2076.34521	0.0	0.4423193	566.27
3.900	1.60	1.5927	560.67	197.11	0.21160	0.77235	0.20877	2076.90576	0.0	0.4380509	566.24
3.910	1.44	1.5932	560.66	196.87	0.21199	0.77270	0.20882	2077.45874	0.0	0.4337911	566.21
3.920	1.28	1.5938	560.66	196.63	0.21237	0.77304	0.20888	2078.00366	0.0	0.4295401	566.17
3.930	1.12	1.5944	560.66	196.39	0.21276	0.77338	0.20893	2078.54150	0.0	0.4252971	566.14
3.940	0.96	1.5949	560.66	196.15	0.21314	0.77372	0.20899	2079.07178	0.0	0.4210624	566.11

3.950	0.80	1.5955	560.66	195.91	0.21352	0.77406	0.20904	2079.59473	0.0	0.4168358	566.08
3.960	0.64	1.5961	560.66	195.68	0.21390	0.77439	0.20909	2080.11084	0.0	0.4126174	566.05
3.970	0.48	1.5966	560.66	195.45	0.21427	0.77472	0.20914	2080.62061	0.0	0.4084065	566.01
3.980	0.32	1.5972	560.65	195.22	0.21464	0.77505	0.20919	2081.12378	0.0	0.4042034	565.98
3.990	0.16	1.5977	560.65	194.99	0.21501	0.77538	0.20924	2081.62231	0.0	0.4000077	565.95
4.000	0.00	1.5983	560.65	194.76	0.21538	0.77570	0.20929	2082.11743	0.0	0.3958193	565.92

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 14

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	764.030	764.030	0.0000
0.015	763.865	763.865	0.0000
0.025	763.697	763.697	0.0000
0.035	763.526	763.526	0.0000
0.045	763.352	763.352	0.0000
0.055	763.175	763.175	0.0000
0.065	762.994	762.994	0.0000
0.075	762.811	762.811	0.0000
0.085	762.624	762.624	0.0000
0.095	762.435	762.435	0.0000
0.105	762.242	762.242	0.0000
0.115	762.046	762.046	0.0000
0.125	761.847	761.847	0.0000
0.135	761.645	761.645	0.0000
0.145	761.440	761.440	0.0000
0.155	761.232	761.232	0.0000
0.165	761.020	761.020	0.0000
0.175	760.805	760.805	0.0000
0.185	760.587	760.587	0.0000
0.195	760.366	760.366	0.0000
0.205	760.144	760.142	0.0000
0.215	764.029	759.881	0.0000
0.225	774.967	759.458	0.0000
0.235	783.377	758.813	0.0000
0.245	787.951	757.973	0.0000
0.255	797.691	756.985	0.0000
0.265	802.252	755.881	0.0000
0.275	791.960	754.682	0.0000
0.285	788.947	753.399	0.0000
0.295	801.499	752.040	0.0000
0.305	801.318	750.610	0.0000
0.315	800.074	749.116	0.0000
0.325	779.249	747.562	0.0000
0.335	773.440	745.862	0.0000
0.345	767.660	744.100	0.0001
0.355	762.031	742.276	0.0001
0.365	756.845	740.383	0.0001
0.375	751.927	738.408	0.0001
0.385	746.966	736.323	0.0001
0.395	741.010	733.910	0.0001
0.405	734.560	731.360	0.0002
0.415	733.882	728.927	0.0002
0.425	727.139	726.533	0.0002
0.435	720.559	724.142	0.0003
0.445	714.089	721.733	0.0003
0.455	707.700	719.295	0.0003

0.465	701.384	716.820	0.0004
0.475	695.137	714.303	0.0004
0.485	688.963	711.742	0.0004
0.495	682.867	709.134	0.0005
0.505	676.855	706.478	0.0005
0.515	670.928	703.772	0.0006
0.525	665.098	701.015	0.0006
0.535	659.362	698.207	0.0007
0.545	653.730	695.347	0.0007
0.555	648.202	692.433	0.0008
0.565	642.781	689.467	0.0008
0.575	637.468	686.446	0.0009
0.585	632.268	683.372	0.0009
0.595	627.175	680.244	0.0010
0.605	622.193	677.062	0.0011
0.615	617.320	673.826	0.0011
0.625	612.551	670.535	0.0012
0.635	607.884	667.189	0.0013
0.645	603.318	663.790	0.0013
0.655	599.051	660.523	0.0014
0.665	595.057	657.396	0.0015
0.675	591.126	654.225	0.0015
0.685	587.257	651.008	0.0016
0.695	583.439	647.747	0.0017
0.705	579.679	644.445	0.0018
0.715	575.961	641.096	0.0018
0.725	572.289	637.709	0.0019
0.735	568.662	634.287	0.0020
0.745	565.079	630.834	0.0021
0.755	561.529	627.352	0.0021
0.765	558.034	623.849	0.0022
0.775	554.522	620.270	0.0023
0.785	550.997	616.599	0.0024
0.795	546.954	612.320	0.0025
0.805	542.950	607.961	0.0026
0.815	539.200	603.919	0.0027
0.825	535.743	600.249	0.0027
0.835	532.320	596.628	0.0028
0.845	528.909	593.025	0.0029
0.855	525.508	589.433	0.0030
0.865	522.117	585.845	0.0031
0.875	518.856	582.439	0.0032
0.885	515.851	579.257	0.0033
0.895	512.847	576.084	0.0034
0.905	509.838	572.910	0.0035
0.915	506.818	569.730	0.0036
0.925	503.781	566.546	0.0037
0.935	500.737	563.356	0.0038
0.945	497.682	560.161	0.0039
0.955	494.612	556.962	0.0040
0.965	491.526	553.761	0.0041
0.975	488.443	550.558	0.0042
0.985	485.440	547.496	0.0043
0.995	482.425	544.434	0.0045
1.005	479.415	541.373	0.0046
1.015	476.389	538.312	0.0047
1.025	473.357	535.249	0.0048
1.035	470.329	532.192	0.0049
1.045	467.280	529.142	0.0050
1.055	464.247	526.099	0.0051
1.065	461.212	523.063	0.0053
1.075	458.177	520.037	0.0054

1.085	455.147	517.021	0.0055
1.095	452.119	514.017	0.0056
1.105	449.096	511.026	0.0057
1.115	446.096	508.049	0.0059
1.125	443.104	505.087	0.0060
1.135	440.122	502.144	0.0061
1.145	437.179	499.249	0.0062
1.155	434.283	496.395	0.0063
1.165	431.413	493.577	0.0065
1.175	428.577	490.773	0.0066
1.185	425.787	488.002	0.0067
1.195	422.434	484.658	0.0068
1.205	419.493	481.672	0.0068
1.215	416.548	478.727	0.0070
1.225	413.647	475.856	0.0071
1.235	410.750	473.010	0.0072
1.245	407.876	470.178	0.0073
1.255	404.996	467.365	0.0075
1.265	402.145	464.572	0.0076
1.275	399.299	461.798	0.0077
1.285	396.480	459.043	0.0079
1.295	393.688	456.309	0.0080
1.305	390.924	453.607	0.0082
1.315	388.182	450.937	0.0083
1.325	385.471	448.288	0.0085
1.335	382.770	445.659	0.0086
1.345	380.122	443.052	0.0088
1.355	377.470	440.465	0.0089
1.365	374.866	437.901	0.0090
1.375	372.279	435.357	0.0092
1.385	369.715	432.836	0.0093
1.395	367.188	430.336	0.0095
1.405	364.675	427.858	0.0097
1.415	362.207	425.401	0.0098
1.425	359.747	422.966	0.0100
1.435	357.324	420.553	0.0101
1.445	354.917	418.160	0.0103
1.455	352.551	415.787	0.0104
1.465	350.194	413.440	0.0106
1.475	347.878	411.136	0.0107
1.485	345.603	408.855	0.0109
1.495	343.361	406.600	0.0110
1.505	341.137	404.370	0.0112
1.515	338.939	402.164	0.0113
1.525	336.788	399.982	0.0115
1.535	334.648	397.824	0.0117
1.545	332.558	395.695	0.0118
1.555	330.506	393.607	0.0120
1.565	328.481	391.556	0.0121
1.575	326.547	389.544	0.0122
1.585	324.663	387.602	0.0123
1.595	322.334	385.154	0.0124
1.605	320.514	383.197	0.0125
1.615	318.614	381.173	0.0126
1.625	316.660	379.160	0.0127
1.635	314.744	377.154	0.0129
1.645	312.815	375.150	0.0130
1.655	310.904	373.152	0.0132
1.665	308.997	371.165	0.0133
1.675	307.108	369.192	0.0135
1.685	305.232	367.235	0.0137
1.695	303.391	365.295	0.0139

1.705	301.563	363.373	0.0140
1.715	299.765	361.469	0.0142
1.725	297.999	359.583	0.0144
1.735	296.194	357.716	0.0146
1.745	294.487	355.868	0.0147
1.755	292.792	354.039	0.0149
1.765	291.109	352.229	0.0151
1.775	289.404	350.438	0.0153
1.785	287.762	348.666	0.0154
1.795	286.182	346.917	0.0156
1.805	284.579	345.188	0.0158
1.815	282.987	343.477	0.0160
1.825	281.425	341.784	0.0161
1.835	279.948	340.108	0.0163
1.845	278.411	338.449	0.0165
1.855	276.926	336.805	0.0167
1.865	275.439	335.174	0.0169
1.875	273.983	333.558	0.0170
1.885	272.541	331.960	0.0172
1.895	271.126	330.384	0.0174
1.905	269.754	328.829	0.0176
1.915	268.410	327.295	0.0177
1.925	267.043	325.779	0.0179
1.935	265.705	324.281	0.0181
1.945	264.430	322.807	0.0182
1.955	263.176	321.371	0.0184
1.965	261.937	319.973	0.0185
1.975	260.727	318.614	0.0187
1.985	259.616	317.327	0.0187
1.995	258.097	315.578	0.0188
2.005	257.076	314.342	0.0188
2.015	255.932	313.003	0.0189
2.025	254.766	311.650	0.0190
2.035	253.611	310.283	0.0192
2.045	252.410	308.910	0.0193
2.055	251.243	307.535	0.0195
2.065	250.062	306.165	0.0197
2.075	248.934	304.803	0.0199
2.085	247.762	303.451	0.0201
2.095	246.586	302.111	0.0202
2.105	245.488	300.783	0.0204
2.115	244.371	299.468	0.0206
2.125	243.301	298.170	0.0208
2.135	242.197	296.885	0.0210
2.145	241.144	295.615	0.0212
2.155	240.069	294.360	0.0214
2.165	239.046	293.118	0.0216
2.175	238.060	291.891	0.0217
2.185	237.068	290.678	0.0219
2.195	236.056	289.478	0.0221
2.205	235.068	288.292	0.0223
2.215	234.119	287.118	0.0225
2.225	233.209	285.958	0.0227
2.235	232.235	284.811	0.0228
2.245	231.301	283.675	0.0230
2.255	230.382	282.550	0.0232
2.265	229.520	281.433	0.0234
2.275	228.596	280.327	0.0236
2.285	227.756	279.241	0.0237
2.295	226.908	278.172	0.0239
2.305	226.036	277.122	0.0241
2.315	225.216	276.088	0.0243

2.325	224.408	275.069	0.0244
2.335	223.641	274.065	0.0246
2.345	222.849	273.081	0.0248
2.355	222.089	272.121	0.0249
2.365	221.328	271.186	0.0250
2.375	220.661	270.286	0.0251
2.385	219.946	269.449	0.0252
2.395	218.937	268.182	0.0252
2.405	218.430	267.416	0.0251
2.415	217.727	266.543	0.0251
2.425	217.056	265.649	0.0252
2.435	216.365	264.740	0.0254
2.445	215.676	263.822	0.0255
2.455	214.932	262.901	0.0257
2.465	214.232	261.981	0.0258
2.475	213.521	261.064	0.0260
2.485	212.848	260.155	0.0262
2.495	212.187	259.252	0.0264
2.505	211.487	258.358	0.0266
2.515	210.798	257.474	0.0267
2.525	210.170	256.598	0.0269
2.535	209.451	255.733	0.0271
2.545	208.844	254.878	0.0273
2.555	208.223	254.033	0.0275
2.565	207.559	253.198	0.0276
2.575	206.960	252.373	0.0278
2.585	206.370	251.558	0.0280
2.595	205.742	250.753	0.0282
2.605	205.204	249.957	0.0283
2.615	204.573	249.171	0.0285
2.625	204.032	248.394	0.0287
2.635	203.477	247.627	0.0288
2.645	202.886	246.869	0.0290
2.655	202.361	246.118	0.0292
2.665	201.801	245.373	0.0293
2.675	201.277	244.635	0.0295
2.685	200.717	243.908	0.0297
2.695	200.194	243.193	0.0298
2.705	199.732	242.490	0.0300
2.715	199.209	241.800	0.0301
2.725	198.718	241.121	0.0303
2.735	198.190	240.452	0.0304
2.745	197.724	239.797	0.0306
2.755	197.323	239.160	0.0307
2.765	196.873	238.541	0.0308
2.775	196.428	237.948	0.0309
2.785	196.014	237.406	0.0308
2.795	195.309	236.451	0.0307
2.805	194.998	235.978	0.0306
2.815	194.664	235.406	0.0306
2.825	194.229	234.813	0.0307
2.835	193.801	234.207	0.0308
2.845	193.352	233.593	0.0309
2.855	192.926	232.975	0.0310
2.865	192.440	232.355	0.0312
2.875	192.040	231.738	0.0313
2.885	191.599	231.124	0.0315
2.895	191.150	230.514	0.0317
2.905	190.750	229.910	0.0318
2.915	190.319	229.311	0.0320
2.925	189.925	228.718	0.0321
2.935	189.499	228.132	0.0323

2.945	189.100	227.551	0.0325
2.955	188.657	226.977	0.0326
2.965	188.263	226.408	0.0328
2.975	187.860	225.847	0.0329
2.985	187.530	225.291	0.0331
2.995	187.088	224.741	0.0332
3.005	186.779	224.197	0.0334
3.015	186.365	223.659	0.0335
3.025	185.980	223.126	0.0337
3.035	185.686	222.598	0.0338
3.045	185.287	222.076	0.0340
3.055	184.880	221.559	0.0341
3.065	184.586	221.047	0.0343
3.075	184.225	220.539	0.0344
3.085	183.879	220.037	0.0346
3.095	183.484	219.539	0.0347
3.105	183.164	219.045	0.0349
3.115	182.859	218.556	0.0350
3.125	182.526	218.072	0.0351
3.135	182.248	217.591	0.0353
3.145	181.903	217.116	0.0354
3.155	181.531	216.644	0.0356
3.165	181.195	216.177	0.0357
3.175	180.893	215.714	0.0359
3.185	180.647	215.255	0.0360
3.195	180.272	214.801	0.0361
3.205	179.953	214.350	0.0363
3.215	179.648	213.904	0.0364
3.225	179.359	213.462	0.0365
3.235	179.086	213.024	0.0367
3.245	178.807	212.589	0.0368
3.255	178.481	212.159	0.0369
3.265	178.191	211.732	0.0371
3.275	177.876	211.309	0.0372
3.285	177.598	210.889	0.0373
3.295	177.400	210.473	0.0375
3.305	177.112	210.060	0.0376
3.315	176.862	209.650	0.0377
3.325	176.544	209.244	0.0379
3.335	176.220	208.842	0.0380
3.345	176.021	208.442	0.0381
3.355	175.753	208.046	0.0382
3.365	175.480	207.653	0.0384
3.375	175.203	207.263	0.0385
3.385	174.986	206.876	0.0386
3.395	174.700	206.493	0.0387
3.405	174.410	206.112	0.0389
3.415	174.181	205.735	0.0390
3.425	173.948	205.360	0.0391
3.435	173.731	204.988	0.0392
3.445	173.424	204.619	0.0393
3.455	173.179	204.252	0.0395
3.465	172.997	203.889	0.0396
3.475	172.744	203.528	0.0397
3.485	172.488	203.169	0.0398
3.495	172.229	202.814	0.0399
3.505	172.032	202.461	0.0401
3.515	171.851	202.110	0.0402
3.525	171.560	201.762	0.0403
3.535	171.353	201.417	0.0404
3.545	171.075	201.074	0.0405
3.555	170.880	200.734	0.0406

3.565	170.662	200.396	0.0408
3.575	170.508	200.061	0.0409
3.585	170.284	199.728	0.0410
3.595	169.968	199.399	0.0411
3.605	169.823	199.072	0.0412
3.615	169.655	198.748	0.0413
3.625	169.347	198.427	0.0414
3.635	169.172	198.108	0.0415
3.645	168.993	197.792	0.0416
3.655	168.763	197.479	0.0418
3.665	168.558	197.169	0.0419
3.675	168.369	196.861	0.0420
3.685	168.177	196.556	0.0421
3.695	167.981	196.253	0.0422
3.705	167.783	195.953	0.0423
3.715	167.600	195.655	0.0424
3.725	167.395	195.361	0.0425
3.735	167.167	195.068	0.0426
3.745	166.974	194.778	0.0427
3.755	166.829	194.491	0.0428
3.765	166.612	194.205	0.0429
3.775	166.461	193.922	0.0430
3.785	166.307	193.641	0.0431
3.795	166.081	193.362	0.0432
3.805	165.922	193.086	0.0433
3.815	165.779	192.812	0.0434
3.825	165.525	192.540	0.0435
3.835	165.376	192.270	0.0436
3.845	165.206	192.002	0.0437
3.855	165.085	191.736	0.0438
3.865	164.857	191.473	0.0439
3.875	164.679	191.211	0.0440
3.885	164.550	190.952	0.0441
3.895	164.315	190.695	0.0442
3.905	164.271	190.440	0.0443
3.915	164.082	190.187	0.0444
3.925	163.891	189.935	0.0444
3.935	163.769	189.686	0.0445
3.945	163.572	189.439	0.0446
3.955	163.374	189.194	0.0447
3.965	163.263	188.951	0.0448
3.975	163.131	188.710	0.0449
3.985	162.924	188.471	0.0450
3.995	162.860	188.234	0.0451

IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 15

	DISTANCE	DELTA-P	ENTHALPY	TEMPERATURE	DENSITY	FLOWING	VOID	FLOW	MASS		
	FLUX	BORON	CHF	CHF TEMP.							
(M)	(KPA)	(MJ/KG)	(DEG-K)	(KG/M3)	QUALITY FRACTION	(KG/SEC)	(KG/M2/SEC)	(PPM)			
	(MW/M2)	(DEG-K)									
0.000	100.11	1.2106	548.16	764.19	0.00000	0.00000	0.05945	1700.00012	0.0	0.000000	255.37
0.010	100.02	1.2109	548.22	764.08	0.00000	0.00000	0.05953	1702.20276	0.0	4.600841	580.51
0.020	99.93	1.2112	548.29	763.96	0.00000	0.00000	0.05964	1705.42004	0.0	4.574574	580.45
0.030	99.84	1.2116	548.35	763.84	0.00000	0.00000	0.05977	1709.13342	0.0	4.548419	580.39
0.040	99.74	1.2119	548.42	763.71	0.00000	0.00000	0.05991	1713.09851	0.0	4.522562	580.33
0.050	99.65	1.2123	548.48	763.59	0.00000	0.00000	0.06005	1717.19238	0.0	4.497074	580.27
0.060	99.55	1.2126	548.55	763.46	0.00000	0.00000	0.06020	1721.34778	0.0	4.471993	580.21
0.070	99.46	1.2130	548.62	763.33	0.00000	0.00000	0.06034	1725.52808	0.0	4.447315	580.15

0.080	99.37	1.2133	548.69	763.19	0.00000	0.00000	0.06049	1729.71301	0.0	4.423047	580.09
0.090	99.27	1.2137	548.77	763.05	0.00000	0.00000	0.06063	1733.89441	0.0	4.399188	580.04
0.100	99.18	1.2141	548.84	762.91	0.00000	0.00000	0.06078	1738.07031	0.0	4.375706	579.98
0.110	99.08	1.2145	548.92	762.77	0.00000	0.00000	0.06093	1742.24292	0.0	4.352604	579.92
0.120	98.99	1.2149	548.99	762.62	0.00000	0.00000	0.06107	1746.41772	0.0	4.329866	579.87
0.130	98.89	1.2153	549.07	762.47	0.00000	0.00000	0.06122	1750.60266	0.0	4.307467	579.82
0.140	98.80	1.2157	549.15	762.32	0.00000	0.00000	0.06137	1754.81006	0.0	4.285389	579.76
0.150	98.70	1.2162	549.24	762.16	0.00000	0.00000	0.06151	1759.05811	0.0	4.263619	579.71
0.160	98.61	1.2166	549.32	762.01	0.00000	0.00000	0.06166	1763.37122	0.0	4.242133	579.66
0.170	98.51	1.2170	549.40	761.85	0.00000	0.00000	0.06182	1767.78088	0.0	4.220905	579.61
0.180	98.42	1.2175	549.49	761.68	0.00000	0.00000	0.06198	1772.32324	0.0	4.199912	579.56
0.190	98.32	1.2179	549.58	761.51	0.00000	0.00000	0.06214	1777.03455	0.0	4.179126	579.51
0.200	98.22	1.2184	549.67	761.35	0.00000	0.00000	0.06231	1781.93970	0.0	4.158527	579.46
0.210	98.13	1.2189	549.76	761.16	0.00000	0.00002	0.06249	1787.02368	0.0	4.138105	579.41
0.220	98.03	1.2194	549.85	760.88	0.00000	0.00016	0.06267	1792.20447	0.0	4.117880	579.36
0.230	97.93	1.2199	549.94	760.45	0.00000	0.00051	0.06286	1797.43225	0.0	4.097884	579.31
0.240	97.83	1.2203	550.04	759.86	0.00001	0.00108	0.06304	1802.69617	0.0	4.078129	579.26
0.250	97.73	1.2208	550.13	759.14	0.00001	0.00181	0.06323	1808.01733	0.0	4.058626	579.22
0.260	97.63	1.2214	550.23	758.33	0.00002	0.00268	0.06341	1813.41760	0.0	4.039343	579.17
0.270	97.52	1.2219	550.33	757.43	0.00003	0.00366	0.06361	1818.85632	0.0	4.020260	579.12
0.280	97.42	1.2224	550.43	756.47	0.00004	0.00474	0.06379	1824.22083	0.0	4.001374	579.08
0.290	97.32	1.2229	550.53	755.44	0.00006	0.00589	0.06397	1829.39636	0.0	3.982751	579.03
0.300	97.21	1.2235	550.63	754.35	0.00008	0.00713	0.06415	1834.34888	0.0	3.964451	578.99
0.310	97.11	1.2240	550.74	753.21	0.00010	0.00844	0.06431	1839.14221	0.0	3.946507	578.94
0.320	97.01	1.2246	550.84	752.01	0.00013	0.00981	0.06448	1843.88110	0.0	3.928876	578.90
0.330	96.90	1.2251	550.95	750.77	0.00016	0.01125	0.06465	1848.61548	0.0	3.911509	578.86
0.340	96.80	1.2257	551.06	749.40	0.00020	0.01287	0.06481	1853.25989	0.0	3.895194	578.82
0.350	96.70	1.2262	551.16	747.97	0.00025	0.01456	0.06496	1857.53833	0.0	3.879157	578.78
0.360	96.59	1.2268	551.28	746.49	0.00030	0.01632	0.06508	1860.90784	0.0	3.863599	578.74
0.370	96.50	1.2274	551.39	744.95	0.00036	0.01817	0.06513	1862.37671	0.0	3.848930	578.71
0.380	96.41	1.2280	551.50	743.31	0.00043	0.02015	0.06504	1859.97986	0.0	3.835764	578.68
0.390	96.34	1.2286	551.61	741.52	0.00051	0.02234	0.06467	1849.36902	0.0	3.825304	578.66
0.400	93.54	1.2292	551.73	739.26	0.00062	0.02518	0.06364	1819.83936	0.0	3.820814	578.66
0.410	93.47	1.2298	551.84	736.49	0.00078	0.02872	0.06325	1808.77173	0.0	3.816362	578.66
0.420	93.38	1.2304	551.96	734.19	0.00092	0.03159	0.06317	1806.32520	0.0	3.805956	578.65
0.430	93.28	1.2311	552.09	732.10	0.00105	0.03417	0.06323	1808.19141	0.0	3.792555	578.62
0.440	93.18	1.2318	552.22	730.09	0.00117	0.03664	0.06338	1812.35803	0.0	3.777585	578.59
0.450	93.07	1.2324	552.34	728.11	0.00130	0.03906	0.06357	1817.84814	0.0	3.761836	578.55
0.460	92.96	1.2331	552.48	726.12	0.00144	0.04148	0.06379	1824.15796	0.0	3.745716	578.51
0.470	92.85	1.2338	552.61	724.12	0.00158	0.04391	0.06403	1831.01245	0.0	3.729423	578.47
0.480	92.73	1.2345	552.74	722.10	0.00172	0.04638	0.06428	1838.25269	0.0	3.713072	578.43
0.490	92.62	1.2353	552.88	720.06	0.00188	0.04887	0.06455	1845.77991	0.0	3.696735	578.39
0.500	92.50	1.2360	553.02	717.98	0.00203	0.05141	0.06482	1853.52832	0.0	3.680440	578.35
0.510	92.38	1.2367	553.15	715.88	0.00220	0.05398	0.06509	1861.44714	0.0	3.664217	578.31
0.520	92.27	1.2375	553.30	713.74	0.00237	0.05660	0.06538	1869.49597	0.0	3.648090	578.27
0.530	92.15	1.2382	553.44	711.57	0.00255	0.05926	0.06566	1877.64014	0.0	3.632078	578.23
0.540	92.03	1.2390	553.58	709.36	0.00273	0.06196	0.06595	1885.84937	0.0	3.616187	578.19
0.550	91.91	1.2397	553.72	707.12	0.00292	0.06472	0.06624	1894.09973	0.0	3.600437	578.15
0.560	91.79	1.2405	553.87	704.85	0.00312	0.06752	0.06653	1902.37085	0.0	3.584840	578.11
0.570	91.67	1.2413	554.02	702.53	0.00332	0.07038	0.06681	1910.64563	0.0	3.569397	578.08
0.580	91.55	1.2420	554.16	700.18	0.00353	0.07328	0.06710	1918.90820	0.0	3.554123	578.04
0.590	91.42	1.2428	554.31	697.79	0.00375	0.07624	0.06739	1927.14319	0.0	3.539024	578.00
0.600	91.30	1.2436	554.46	695.36	0.00398	0.07925	0.06768	1935.33411	0.0	3.524100	577.96
0.610	91.18	1.2444	554.62	692.90	0.00421	0.08231	0.06796	1943.45959	0.0	3.509362	577.93
0.620	91.05	1.2452	554.77	690.39	0.00445	0.08543	0.06824	1951.48633	0.0	3.494813	577.89
0.630	90.93	1.2461	554.92	687.84	0.00469	0.08861	0.06852	1959.38416	0.0	3.480470	577.86
0.640	90.80	1.2469	555.08	685.25	0.00495	0.09184	0.06879	1967.16858	0.0	3.466345	577.82
0.650	90.68	1.2477	555.23	682.62	0.00521	0.09513	0.06906	1974.91345	0.0	3.452426	577.79
0.660	90.55	1.2485	555.39	680.13	0.00546	0.09821	0.06933	1982.68616	0.0	3.437410	577.75
0.670	90.43	1.2494	555.55	677.80	0.00569	0.10109	0.06961	1990.43860	0.0	3.421277	577.72
0.680	90.30	1.2502	555.71	675.43	0.00593	0.10401	0.06987	1998.01733	0.0	3.405305	577.68
0.690	90.18	1.2511	555.86	673.02	0.00617	0.10699	0.07012	2005.26660	0.0	3.389571	577.64

0.700	90.06	1.2519	556.02	670.56	0.00643	0.11003	0.07036	2012.11157	0.0	3.374165	577.60
0.710	89.93	1.2528	556.19	668.07	0.00669	0.11313	0.07059	2018.57654	0.0	3.359147	577.57
0.720	89.81	1.2536	556.35	665.53	0.00695	0.11629	0.07081	2024.81201	0.0	3.344494	577.53
0.730	89.69	1.2545	556.51	662.96	0.00723	0.11951	0.07102	2030.88171	0.0	3.330143	577.50
0.740	89.56	1.2553	556.67	660.35	0.00751	0.12277	0.07122	2036.67224	0.0	3.316073	577.46
0.750	89.44	1.2562	556.83	657.70	0.00779	0.12609	0.07140	2041.82910	0.0	3.302364	577.43
0.760	89.32	1.2571	556.99	655.02	0.00808	0.12947	0.07154	2045.63928	0.0	3.289241	577.40
0.770	89.21	1.2579	557.15	652.28	0.00839	0.13293	0.07157	2046.72668	0.0	3.277201	577.38
0.780	89.12	1.2588	557.31	649.41	0.00871	0.13658	0.07142	2042.27563	0.0	3.266822	577.36
0.790	89.06	1.2596	557.47	646.26	0.00907	0.14061	0.07085	2025.99817	0.0	3.259672	577.35
0.800	85.28	1.2605	557.63	642.07	0.00956	0.14611	0.06933	1982.55090	0.0	3.259803	577.36
0.810	85.21	1.2614	557.80	637.03	0.01018	0.15281	0.06869	1964.24536	0.0	3.260305	577.39
0.820	85.12	1.2623	557.97	633.13	0.01066	0.15791	0.06848	1958.18384	0.0	3.253202	577.38
0.830	85.01	1.2632	558.14	629.97	0.01104	0.16195	0.06848	1958.32703	0.0	3.240945	577.36
0.840	84.89	1.2642	558.32	627.02	0.01139	0.16569	0.06860	1961.65527	0.0	3.226662	577.33
0.850	84.77	1.2651	558.49	624.17	0.01172	0.16929	0.06878	1966.74597	0.0	3.211390	577.30
0.860	84.64	1.2661	558.67	621.36	0.01206	0.17283	0.06899	1972.84949	0.0	3.195652	577.26
0.870	84.51	1.2671	558.85	618.56	0.01239	0.17635	0.06922	1979.53528	0.0	3.179723	577.22
0.880	84.39	1.2680	559.04	615.76	0.01273	0.17987	0.06946	1986.40698	0.0	3.163799	577.19
0.890	84.26	1.2690	559.22	612.95	0.01307	0.18341	0.06970	1993.26904	0.0	3.148000	577.15
0.900	84.13	1.2700	559.40	610.12	0.01342	0.18699	0.06995	2000.19031	0.0	3.132335	577.11
0.910	83.99	1.2710	559.58	607.26	0.01377	0.19059	0.07019	2007.13293	0.0	3.116796	577.07
0.920	83.86	1.2720	559.77	604.39	0.01413	0.19423	0.07043	2014.04260	0.0	3.101399	577.04
0.930	83.73	1.2730	559.95	601.50	0.01449	0.19789	0.07067	2020.87061	0.0	3.086161	577.00
0.940	83.60	1.2740	560.13	598.58	0.01486	0.20159	0.07090	2027.58093	0.0	3.071101	576.97
0.950	83.46	1.2750	560.32	595.65	0.01523	0.20532	0.07113	2034.14514	0.0	3.056228	576.93
0.960	83.33	1.2760	560.50	592.70	0.01562	0.20907	0.07136	2040.54517	0.0	3.041551	576.90
0.970	83.19	1.2770	560.69	589.72	0.01600	0.21286	0.07158	2046.77966	0.0	3.027072	576.87
0.980	83.06	1.2780	560.88	586.73	0.01640	0.21668	0.07179	2052.87183	0.0	3.012791	576.83
0.990	82.93	1.2790	561.06	583.89	0.01677	0.22029	0.07200	2058.88037	0.0	2.997337	576.80
1.000	82.79	1.2800	561.25	581.03	0.01715	0.22392	0.07221	2064.82153	0.0	2.982049	576.76
1.010	82.66	1.2810	561.43	578.15	0.01754	0.22758	0.07242	2070.83472	0.0	2.966886	576.73
1.020	82.53	1.2821	561.43	575.76	0.01790	0.23101	0.07265	2077.42725	0.0	2.951682	576.68
1.030	82.39	1.2831	561.43	573.23	0.01829	0.23462	0.07287	2083.90161	0.0	2.936556	576.64
1.040	82.26	1.2841	561.43	570.69	0.01868	0.23826	0.07310	2090.24878	0.0	2.921640	576.59
1.050	82.12	1.2851	561.43	568.14	0.01908	0.24191	0.07332	2096.52759	0.0	2.906932	576.55
1.060	81.99	1.2861	561.43	565.57	0.01948	0.24557	0.07353	2102.78833	0.0	2.892395	576.50
1.070	81.85	1.2872	561.43	563.00	0.01989	0.24926	0.07375	2108.99219	0.0	2.877998	576.46
1.080	81.71	1.2882	561.43	560.42	0.02030	0.25295	0.07396	2115.00391	0.0	2.863743	576.42
1.090	81.58	1.2892	561.43	557.82	0.02072	0.25666	0.07416	2120.67700	0.0	2.849688	576.37
1.100	81.44	1.2903	561.42	555.22	0.02115	0.26039	0.07434	2125.95581	0.0	2.835902	576.33
1.110	81.31	1.2913	561.42	552.60	0.02158	0.26413	0.07452	2130.89600	0.0	2.822424	576.29
1.120	81.17	1.2923	561.42	549.98	0.02201	0.26788	0.07468	2135.59888	0.0	2.809243	576.25
1.130	81.04	1.2933	561.42	547.36	0.02245	0.27164	0.07484	2140.10571	0.0	2.796318	576.21
1.140	80.91	1.2944	561.42	544.73	0.02290	0.27540	0.07499	2144.31152	0.0	2.783638	576.17
1.150	80.77	1.2954	561.42	542.13	0.02334	0.27911	0.07511	2147.89771	0.0	2.770917	576.13
1.160	80.65	1.2964	561.42	539.55	0.02379	0.28281	0.07519	2150.16943	0.0	2.758582	576.10
1.170	80.53	1.2974	561.42	536.97	0.02424	0.28650	0.07518	2149.76758	0.0	2.747117	576.06
1.180	80.44	1.2984	561.41	534.31	0.02471	0.29030	0.07497	2143.82056	0.0	2.737009	576.03
1.190	80.39	1.2994	561.41	531.48	0.02522	0.29435	0.07435	2125.98462	0.0	2.729725	576.01
1.200	75.34	1.3004	561.37	527.55	0.02592	0.29995	0.07276	2080.65186	0.0	2.728861	576.01
1.210	75.28	1.3014	561.37	523.55	0.02669	0.30577	0.07207	2061.03125	0.0	2.728329	576.03
1.220	75.19	1.3025	561.37	520.26	0.02731	0.31047	0.07182	2053.71899	0.0	2.721571	576.01
1.230	75.07	1.3035	561.36	517.36	0.02787	0.31461	0.07178	2052.53345	0.0	2.711797	575.99
1.240	74.94	1.3046	561.36	514.61	0.02839	0.31855	0.07185	2054.48828	0.0	2.700330	575.95
1.250	74.81	1.3057	561.36	511.93	0.02891	0.32239	0.07197	2058.11621	0.0	2.688011	575.91
1.260	74.68	1.3068	561.36	509.28	0.02943	0.32618	0.07213	2062.67236	0.0	2.675293	575.88
1.270	74.54	1.3079	561.36	506.65	0.02995	0.32993	0.07231	2067.75830	0.0	2.662404	575.84
1.280	74.40	1.3090	561.36	504.04	0.03047	0.33367	0.07250	2073.14624	0.0	2.649472	575.79
1.290	74.26	1.3101	561.36	501.44	0.03100	0.33739	0.07269	2078.69629	0.0	2.636557	575.75
1.300	74.12	1.3112	561.35	498.85	0.03153	0.34109	0.07289	2084.31836	0.0	2.623704	575.71
1.310	73.97	1.3124	561.35	496.28	0.03206	0.34476	0.07309	2089.95679	0.0	2.610697	575.67

1.320	73.83	1.3135	561.35	493.74	0.03259	0.34839	0.07328	2095.56055	0.0	2.597557	575.63
1.330	73.69	1.3146	561.35	491.21	0.03312	0.35202	0.07347	2101.08228	0.0	2.584539	575.59
1.340	73.54	1.3157	561.35	488.68	0.03366	0.35563	0.07366	2106.49097	0.0	2.571657	575.55
1.350	73.40	1.3168	561.35	486.16	0.03421	0.35923	0.07385	2111.76831	0.0	2.558923	575.51
1.360	73.25	1.3180	561.35	483.65	0.03476	0.36282	0.07403	2116.90527	0.0	2.546342	575.47
1.370	73.11	1.3191	561.35	481.15	0.03531	0.36639	0.07420	2121.89990	0.0	2.533915	575.43
1.380	72.96	1.3202	561.34	478.66	0.03587	0.36996	0.07437	2126.75537	0.0	2.521641	575.39
1.390	72.82	1.3213	561.34	476.18	0.03643	0.37351	0.07454	2131.47949	0.0	2.509523	575.35
1.400	72.67	1.3224	561.34	473.71	0.03700	0.37704	0.07470	2136.08203	0.0	2.497553	575.31
1.410	72.53	1.3236	561.34	471.25	0.03757	0.38056	0.07486	2140.57056	0.0	2.485726	575.27
1.420	72.38	1.3247	561.34	468.80	0.03814	0.38406	0.07501	2144.94189	0.0	2.474040	575.23
1.430	72.24	1.3258	561.34	466.36	0.03872	0.38755	0.07516	2149.19531	0.0	2.462495	575.20
1.440	72.09	1.3269	561.34	463.94	0.03930	0.39102	0.07530	2153.36890	0.0	2.451091	575.16
1.450	71.95	1.3281	561.33	461.52	0.03989	0.39447	0.07545	2157.54272	0.0	2.439812	575.12
1.460	71.80	1.3292	561.33	459.12	0.04048	0.39790	0.07560	2161.77466	0.0	2.428624	575.09
1.470	71.65	1.3303	561.33	456.75	0.04107	0.40130	0.07575	2166.02905	0.0	2.417252	575.05
1.480	71.50	1.3314	561.33	454.42	0.04166	0.40463	0.07589	2170.17529	0.0	2.405219	575.01
1.490	71.36	1.3326	561.33	452.10	0.04225	0.40794	0.07603	2174.04614	0.0	2.393312	574.97
1.500	71.21	1.3337	561.33	449.80	0.04284	0.41123	0.07615	2177.59424	0.0	2.381601	574.93
1.510	71.07	1.3348	561.33	447.52	0.04344	0.41450	0.07627	2180.88574	0.0	2.370116	574.89
1.520	70.92	1.3359	561.32	445.25	0.04404	0.41774	0.07637	2184.02319	0.0	2.358844	574.86
1.530	70.78	1.3370	561.32	443.00	0.04464	0.42096	0.07648	2187.03931	0.0	2.347751	574.82
1.540	70.63	1.3382	561.32	440.76	0.04525	0.42416	0.07658	2189.81299	0.0	2.336827	574.78
1.550	70.49	1.3393	561.32	438.54	0.04585	0.42733	0.07665	2191.99463	0.0	2.326134	574.75
1.560	70.36	1.3404	561.32	436.36	0.04646	0.43046	0.07668	2192.88086	0.0	2.315853	574.72
1.570	70.24	1.3415	561.32	434.18	0.04707	0.43357	0.07662	2191.11377	0.0	2.306209	574.68
1.580	70.14	1.3426	561.32	431.99	0.04769	0.43670	0.07637	2183.94360	0.0	2.297735	574.66
1.590	70.11	1.3437	561.32	429.74	0.04834	0.43991	0.07572	2165.28467	0.0	2.291688	574.64
1.600	63.63	1.3448	561.26	426.59	0.04922	0.44439	0.07414	2120.12012	0.0	2.291129	574.64
1.610	63.59	1.3459	561.26	423.94	0.05005	0.44828	0.07346	2100.74707	0.0	2.290732	574.65
1.620	63.49	1.3470	561.25	421.55	0.05078	0.45169	0.07320	2093.21411	0.0	2.284901	574.64
1.630	63.38	1.3482	561.25	419.33	0.05146	0.45487	0.07314	2091.42920	0.0	2.276531	574.62
1.640	63.24	1.3493	561.25	417.18	0.05212	0.45793	0.07318	2092.58789	0.0	2.266342	574.58
1.650	63.10	1.3505	561.25	415.06	0.05278	0.46097	0.07327	2095.30273	0.0	2.255447	574.55
1.660	62.96	1.3517	561.25	412.95	0.05345	0.46398	0.07340	2098.89233	0.0	2.244216	574.51
1.670	62.81	1.3529	561.25	410.86	0.05411	0.46697	0.07354	2102.98926	0.0	2.232830	574.47
1.680	62.66	1.3540	561.25	408.78	0.05478	0.46994	0.07369	2107.38086	0.0	2.221391	574.43
1.690	62.51	1.3552	561.25	406.72	0.05545	0.47289	0.07385	2111.93286	0.0	2.209953	574.39
1.700	62.35	1.3564	561.24	404.67	0.05612	0.47582	0.07402	2116.55469	0.0	2.198554	574.35
1.710	62.20	1.3576	561.24	402.64	0.05680	0.47873	0.07418	2121.18066	0.0	2.187217	574.31
1.720	62.05	1.3588	561.24	400.62	0.05748	0.48161	0.07434	2125.76660	0.0	2.175961	574.28
1.730	61.89	1.3600	561.24	398.61	0.05816	0.48448	0.07450	2130.27979	0.0	2.164798	574.24
1.740	61.74	1.3612	561.24	396.62	0.05884	0.48732	0.07465	2134.70068	0.0	2.153738	574.20
1.750	61.58	1.3624	561.24	394.65	0.05953	0.49014	0.07480	2139.01807	0.0	2.142787	574.16
1.760	61.43	1.3636	561.23	392.69	0.06022	0.49294	0.07495	2143.22754	0.0	2.131949	574.12
1.770	61.27	1.3648	561.23	390.75	0.06091	0.49572	0.07509	2147.33301	0.0	2.121226	574.09
1.780	61.12	1.3659	561.23	388.82	0.06161	0.49847	0.07523	2151.34229	0.0	2.110616	574.05
1.790	60.96	1.3671	561.23	386.91	0.06230	0.50120	0.07537	2155.26709	0.0	2.100115	574.01
1.800	60.81	1.3683	561.23	385.03	0.06300	0.50390	0.07550	2159.12524	0.0	2.089350	573.97
1.810	60.65	1.3695	561.23	383.16	0.06369	0.50657	0.07564	2162.91724	0.0	2.078565	573.94
1.820	60.50	1.3707	561.23	381.31	0.06439	0.50921	0.07577	2166.63159	0.0	2.067881	573.90
1.830	60.34	1.3719	561.22	379.47	0.06509	0.51184	0.07589	2170.26343	0.0	2.057302	573.86
1.840	60.18	1.3730	561.22	377.65	0.06579	0.51444	0.07602	2173.84741	0.0	2.046829	573.82
1.850	60.03	1.3742	561.22	375.85	0.06650	0.51702	0.07615	2177.45972	0.0	2.036452	573.79
1.860	59.87	1.3754	561.22	374.06	0.06720	0.51958	0.07627	2181.14648	0.0	2.026141	573.75
1.870	59.71	1.3766	561.22	372.28	0.06791	0.52212	0.07640	2184.84790	0.0	2.015871	573.71
1.880	59.55	1.3778	561.22	370.51	0.06862	0.52464	0.07653	2188.40771	0.0	2.005655	573.68
1.890	59.40	1.3789	561.22	368.76	0.06934	0.52714	0.07664	2191.68457	0.0	1.995546	573.64
1.900	59.24	1.3801	561.21	367.04	0.07005	0.52962	0.07675	2194.64966	0.0	1.985600	573.61
1.910	59.09	1.3813	561.21	365.33	0.07076	0.53206	0.07684	2197.38599	0.0	1.975843	573.57
1.920	58.93	1.3824	561.21	363.63	0.07147	0.53448	0.07693	2200.00024	0.0	1.966254	573.54
1.930	58.78	1.3836	561.21	361.96	0.07219	0.53687	0.07702	2202.51831	0.0	1.956804	573.50

1.940	58.63	1.3848	561.21	360.30	0.07290	0.53924	0.07710	2204.80396	0.0	1.947487	573.47
1.950	58.48	1.3859	561.21	358.67	0.07361	0.54158	0.07716	2206.49365	0.0	1.938364	573.44
1.960	58.34	1.3871	561.21	357.07	0.07431	0.54386	0.07717	2206.87109	0.0	1.928844	573.40
1.970	58.22	1.3882	561.20	355.50	0.07501	0.54610	0.07709	2204.51855	0.0	1.919108	573.37
1.980	58.13	1.3893	561.20	353.94	0.07572	0.54833	0.07682	2196.61426	0.0	1.910425	573.34
1.990	58.12	1.3905	561.20	352.38	0.07643	0.55056	0.07613	2176.96509	0.0	1.903921	573.32
2.000	50.16	1.3916	561.13	350.07	0.07741	0.55383	0.07450	2130.39062	0.0	1.902317	573.31
2.010	50.15	1.3928	561.13	348.46	0.07822	0.55622	0.07381	2110.64526	0.0	1.900792	573.32
2.020	50.06	1.3939	561.13	346.87	0.07899	0.55849	0.07354	2102.86450	0.0	1.894355	573.30
2.030	49.94	1.3951	561.13	345.33	0.07973	0.56068	0.07346	2100.78882	0.0	1.885685	573.28
2.040	49.81	1.3963	561.12	343.81	0.08046	0.56286	0.07349	2101.60840	0.0	1.875897	573.24
2.050	49.66	1.3975	561.12	342.29	0.08120	0.56504	0.07357	2103.95874	0.0	1.865503	573.20
2.060	49.51	1.3987	561.12	340.76	0.08194	0.56722	0.07369	2107.17969	0.0	1.854817	573.17
2.070	49.35	1.3999	561.12	339.25	0.08269	0.56938	0.07382	2110.91357	0.0	1.843993	573.13
2.080	49.19	1.4011	561.12	337.74	0.08344	0.57153	0.07396	2114.95044	0.0	1.833113	573.08
2.090	49.03	1.4023	561.12	336.25	0.08419	0.57367	0.07411	2119.15503	0.0	1.822229	573.04
2.100	48.87	1.4035	561.12	334.77	0.08495	0.57578	0.07426	2123.43726	0.0	1.811369	573.00
2.110	48.71	1.4047	561.11	333.30	0.08570	0.57788	0.07441	2127.73364	0.0	1.800558	572.96
2.120	48.54	1.4059	561.11	331.84	0.08645	0.57996	0.07456	2132.00098	0.0	1.789682	572.92
2.130	48.38	1.4071	561.11	330.40	0.08721	0.58202	0.07470	2136.21094	0.0	1.778493	572.88
2.140	48.22	1.4083	561.11	328.98	0.08796	0.58406	0.07485	2140.33887	0.0	1.767388	572.84
2.150	48.06	1.4095	561.11	327.57	0.08871	0.58607	0.07499	2144.37354	0.0	1.756372	572.79
2.160	47.89	1.4107	561.11	326.17	0.08947	0.58807	0.07513	2148.31226	0.0	1.745449	572.75
2.170	47.73	1.4119	561.10	324.79	0.09022	0.59004	0.07526	2152.15747	0.0	1.734620	572.71
2.180	47.57	1.4131	561.10	323.42	0.09097	0.59200	0.07539	2155.91626	0.0	1.723886	572.67
2.190	47.40	1.4142	561.10	322.06	0.09172	0.59394	0.07552	2159.59766	0.0	1.713241	572.63
2.200	47.24	1.4154	561.10	320.72	0.09248	0.59585	0.07565	2163.21191	0.0	1.702685	572.59
2.210	47.08	1.4166	561.10	319.39	0.09323	0.59775	0.07577	2166.76440	0.0	1.692214	572.55
2.220	46.92	1.4178	561.10	318.08	0.09398	0.59963	0.07589	2170.24902	0.0	1.681826	572.51
2.230	46.75	1.4189	561.10	316.77	0.09473	0.60149	0.07601	2173.66138	0.0	1.671522	572.47
2.240	46.59	1.4201	561.09	315.49	0.09548	0.60333	0.07613	2177.03589	0.0	1.661303	572.43
2.250	46.43	1.4213	561.09	314.21	0.09623	0.60515	0.07625	2180.44775	0.0	1.651161	572.39
2.260	46.26	1.4224	561.09	312.94	0.09698	0.60696	0.07637	2183.94312	0.0	1.641069	572.35
2.270	46.10	1.4236	561.09	311.69	0.09773	0.60876	0.07650	2187.46411	0.0	1.631009	572.31
2.280	45.93	1.4248	561.09	310.44	0.09848	0.61053	0.07661	2190.85962	0.0	1.620991	572.27
2.290	45.77	1.4259	561.09	309.22	0.09922	0.61228	0.07672	2193.99780	0.0	1.608973	572.22
2.300	45.61	1.4271	561.08	308.02	0.09996	0.61400	0.07682	2196.83057	0.0	1.597087	572.17
2.310	45.45	1.4282	561.08	306.83	0.10070	0.61569	0.07691	2199.42920	0.0	1.585355	572.13
2.320	45.29	1.4293	561.08	305.66	0.10143	0.61737	0.07700	2201.89307	0.0	1.573765	572.08
2.330	45.13	1.4305	561.08	304.50	0.10216	0.61902	0.07708	2204.23926	0.0	1.562291	572.04
2.340	44.97	1.4316	561.08	303.36	0.10289	0.62065	0.07715	2206.32349	0.0	1.550935	571.99
2.350	44.82	1.4327	561.08	302.24	0.10361	0.62225	0.07721	2207.76514	0.0	1.539747	571.95
2.360	44.68	1.4338	561.08	301.14	0.10432	0.62382	0.07721	2207.81860	0.0	1.528850	571.90
2.370	44.57	1.4349	561.08	300.06	0.10503	0.62537	0.07711	2205.00781	0.0	1.518416	571.86
2.380	44.49	1.4360	561.07	298.99	0.10574	0.62690	0.07681	2196.39502	0.0	1.508899	571.82
2.390	44.51	1.4370	561.07	297.94	0.10645	0.62840	0.07607	2175.44775	0.0	1.501282	571.80
2.400	35.15	1.4381	560.99	296.24	0.10744	0.63077	0.07435	2126.09106	0.0	1.497972	571.78
2.410	35.17	1.4392	560.99	295.28	0.10819	0.63224	0.07362	2105.29907	0.0	1.494698	571.78
2.420	35.10	1.4403	560.98	294.24	0.10892	0.63372	0.07333	2096.96753	0.0	1.487068	571.76
2.430	34.99	1.4414	560.98	293.20	0.10964	0.63520	0.07324	2094.48877	0.0	1.477493	571.72
2.440	34.85	1.4425	560.98	292.17	0.11036	0.63668	0.07326	2094.95874	0.0	1.466978	571.68
2.450	34.71	1.4436	560.98	291.12	0.11110	0.63818	0.07333	2096.98047	0.0	1.456361	571.64
2.460	34.55	1.4448	560.98	290.06	0.11184	0.63968	0.07343	2099.88696	0.0	1.445633	571.60
2.470	34.39	1.4459	560.98	289.02	0.11258	0.64118	0.07355	2103.32153	0.0	1.434785	571.55
2.480	34.23	1.4470	560.98	287.97	0.11332	0.64267	0.07368	2107.07275	0.0	1.423886	571.50
2.490	34.07	1.4481	560.98	286.94	0.11407	0.64415	0.07382	2111.00610	0.0	1.412977	571.46
2.500	33.90	1.4493	560.97	285.91	0.11481	0.64561	0.07396	2115.03052	0.0	1.402084	571.41
2.510	33.74	1.4504	560.97	284.90	0.11555	0.64706	0.07410	2119.08154	0.0	1.391224	571.37
2.520	33.57	1.4515	560.97	283.89	0.11629	0.64850	0.07424	2123.11328	0.0	1.380412	571.32
2.530	33.41	1.4526	560.97	282.90	0.11703	0.64992	0.07438	2127.09351	0.0	1.369654	571.27
2.540	33.24	1.4537	560.97	281.91	0.11777	0.65133	0.07452	2131.00317	0.0	1.358959	571.23
2.550	33.07	1.4548	560.97	280.94	0.11850	0.65272	0.07465	2134.83130	0.0	1.348332	571.18

2.560	32.91	1.4559	560.96	279.97	0.11923	0.65409	0.07479	2138.57495	0.0	1.337774	571.14
2.570	32.74	1.4570	560.96	279.02	0.11996	0.65545	0.07491	2142.23608	0.0	1.327286	571.09
2.580	32.58	1.4581	560.96	278.08	0.12069	0.65680	0.07504	2145.82080	0.0	1.316868	571.04
2.590	32.41	1.4592	560.96	277.15	0.12141	0.65813	0.07516	2149.33716	0.0	1.306518	571.00
2.600	32.25	1.4603	560.96	276.22	0.12213	0.65945	0.07528	2152.79468	0.0	1.296235	570.95
2.610	32.09	1.4614	560.96	275.31	0.12285	0.66075	0.07540	2156.19849	0.0	1.285734	570.91
2.620	31.92	1.4624	560.95	274.41	0.12356	0.66203	0.07552	2159.54199	0.0	1.275011	570.86
2.630	31.76	1.4635	560.95	273.52	0.12428	0.66330	0.07563	2162.81909	0.0	1.264351	570.81
2.640	31.59	1.4646	560.95	272.64	0.12498	0.66456	0.07575	2166.06104	0.0	1.253755	570.76
2.650	31.43	1.4656	560.95	271.77	0.12569	0.66580	0.07586	2169.33862	0.0	1.243215	570.72
2.660	31.26	1.4667	560.95	270.91	0.12639	0.66703	0.07598	2172.69873	0.0	1.232714	570.67
2.670	31.10	1.4677	560.95	270.05	0.12710	0.66826	0.07610	2176.08911	0.0	1.222235	570.62
2.680	30.93	1.4688	560.95	269.21	0.12780	0.66946	0.07621	2179.36450	0.0	1.211787	570.57
2.690	30.77	1.4698	560.94	268.37	0.12849	0.67066	0.07632	2182.38477	0.0	1.201402	570.53
2.700	30.61	1.4708	560.94	267.55	0.12919	0.67184	0.07641	2185.10718	0.0	1.191116	570.48
2.710	30.45	1.4719	560.94	266.74	0.12987	0.67299	0.07650	2187.59204	0.0	1.180944	570.43
2.720	30.29	1.4729	560.94	265.94	0.13055	0.67414	0.07658	2189.92725	0.0	1.170880	570.39
2.730	30.13	1.4739	560.94	265.15	0.13123	0.67526	0.07666	2192.12842	0.0	1.160908	570.34
2.740	29.98	1.4749	560.94	264.37	0.13190	0.67637	0.07673	2194.05322	0.0	1.151027	570.30
2.750	29.83	1.4759	560.93	263.61	0.13256	0.67746	0.07677	2195.32593	0.0	1.141278	570.25
2.760	29.69	1.4768	560.93	262.86	0.13322	0.67853	0.07677	2195.18848	0.0	1.131748	570.21
2.770	29.58	1.4778	560.93	262.13	0.13386	0.67957	0.07666	2192.14453	0.0	1.122732	570.16
2.780	29.53	1.4788	560.93	261.41	0.13451	0.68060	0.07634	2183.14160	0.0	1.114885	570.13
2.790	29.58	1.4797	560.93	260.70	0.13515	0.68161	0.07558	2161.30322	0.0	1.108580	570.10
2.800	19.04	1.4807	560.83	259.42	0.13609	0.68337	0.07377	2109.55591	0.0	1.105816	570.09
2.810	19.10	1.4817	560.83	258.84	0.13674	0.68430	0.07301	2087.89917	0.0	1.103083	570.09
2.820	19.04	1.4826	560.83	258.15	0.13739	0.68527	0.07271	2079.18726	0.0	1.096758	570.07
2.830	18.94	1.4836	560.83	257.46	0.13804	0.68627	0.07261	2076.48340	0.0	1.088846	570.03
2.840	18.81	1.4846	560.83	256.76	0.13869	0.68727	0.07262	2076.78003	0.0	1.080183	569.99
2.850	18.67	1.4855	560.83	256.04	0.13935	0.68829	0.07269	2078.65186	0.0	1.071116	569.95
2.860	18.51	1.4865	560.83	255.33	0.14002	0.68931	0.07279	2081.41748	0.0	1.061852	569.91
2.870	18.36	1.4875	560.83	254.61	0.14068	0.69033	0.07290	2084.71924	0.0	1.052493	569.86
2.880	18.20	1.4885	560.82	253.90	0.14135	0.69134	0.07303	2088.34766	0.0	1.043092	569.82
2.890	18.04	1.4895	560.82	253.19	0.14202	0.69235	0.07316	2092.17017	0.0	1.033680	569.77
2.900	17.87	1.4905	560.82	252.49	0.14268	0.69335	0.07330	2096.09741	0.0	1.024277	569.72
2.910	17.71	1.4915	560.82	251.80	0.14335	0.69434	0.07344	2100.06494	0.0	1.014896	569.68
2.920	17.54	1.4925	560.82	251.11	0.14401	0.69532	0.07358	2104.02808	0.0	1.005547	569.63
2.930	17.38	1.4934	560.82	250.43	0.14466	0.69630	0.07371	2107.95508	0.0	0.9962364	569.58
2.940	17.21	1.4944	560.81	249.76	0.14532	0.69726	0.07385	2111.82495	0.0	0.9881721	569.54
2.950	17.05	1.4954	560.81	249.09	0.14597	0.69821	0.07398	2115.62671	0.0	0.9801542	569.50
2.960	16.88	1.4963	560.81	248.43	0.14662	0.69915	0.07411	2119.35547	0.0	0.9721861	569.46
2.970	16.72	1.4973	560.81	247.78	0.14726	0.70008	0.07424	2123.01196	0.0	0.9642673	569.42
2.980	16.56	1.4982	560.81	247.13	0.14791	0.70100	0.07437	2126.60034	0.0	0.9563985	569.38
2.990	16.39	1.4992	560.81	246.49	0.14854	0.70192	0.07449	2130.12769	0.0	0.9485776	569.34
3.000	16.23	1.5001	560.81	245.86	0.14918	0.70282	0.07461	2133.60132	0.0	0.9408045	569.30
3.010	16.07	1.5011	560.80	245.23	0.14981	0.70371	0.07473	2137.03003	0.0	0.9330771	569.26
3.020	15.90	1.5020	560.80	244.61	0.15044	0.70460	0.07485	2140.42065	0.0	0.9253935	569.22
3.030	15.74	1.5029	560.80	244.00	0.15107	0.70547	0.07497	2143.77979	0.0	0.9177517	569.18
3.040	15.58	1.5038	560.80	243.39	0.15169	0.70634	0.07508	2147.11206	0.0	0.9101502	569.14
3.050	15.41	1.5048	560.80	242.79	0.15231	0.70720	0.07520	2150.42065	0.0	0.9025870	569.10
3.060	15.25	1.5057	560.80	242.20	0.15293	0.70805	0.07531	2153.70752	0.0	0.8950616	569.06
3.070	15.08	1.5066	560.79	241.61	0.15355	0.70889	0.07543	2156.97266	0.0	0.8875725	569.02
3.080	14.92	1.5075	560.79	241.02	0.15416	0.70972	0.07554	2160.21558	0.0	0.8801192	568.98
3.090	14.76	1.5084	560.79	240.44	0.15477	0.71055	0.07565	2163.43481	0.0	0.8727005	568.94
3.100	14.59	1.5093	560.79	239.87	0.15538	0.71137	0.07577	2166.62891	0.0	0.8657737	568.90
3.110	14.43	1.5102	560.79	239.30	0.15598	0.71218	0.07588	2169.79565	0.0	0.8590336	568.86
3.120	14.27	1.5111	560.79	238.74	0.15658	0.71298	0.07599	2172.93335	0.0	0.8523271	568.83
3.130	14.10	1.5120	560.79	238.18	0.15718	0.71377	0.07610	2176.03955	0.0	0.8456540	568.79
3.140	13.94	1.5129	560.78	237.63	0.15778	0.71456	0.07620	2179.11328	0.0	0.8390139	568.75
3.150	13.77	1.5137	560.78	237.08	0.15837	0.71534	0.07631	2182.15283	0.0	0.8324070	568.72
3.160	13.61	1.5146	560.78	236.54	0.15897	0.71612	0.07641	2185.15747	0.0	0.8258331	568.68
3.170	13.45	1.5155	560.78	236.00	0.15956	0.71688	0.07652	2188.12720	0.0	0.8192914	568.64

3.180	13.28	1.5164	560.78	235.47	0.16014	0.71764	0.07662	2191.06152	0.0	0.8127826	568.61
3.190	13.12	1.5172	560.78	234.94	0.16073	0.71840	0.07672	2193.96118	0.0	0.8063053	568.57
3.200	12.96	1.5181	560.77	234.42	0.16131	0.71914	0.07682	2196.82666	0.0	0.7998598	568.54
3.210	12.79	1.5189	560.77	233.90	0.16189	0.71988	0.07692	2199.65918	0.0	0.7934452	568.50
3.220	12.63	1.5198	560.77	233.39	0.16246	0.72061	0.07702	2202.45996	0.0	0.7870613	568.46
3.230	12.47	1.5206	560.77	232.88	0.16304	0.72134	0.07712	2205.23022	0.0	0.7807077	568.43
3.240	12.30	1.5215	560.77	232.38	0.16361	0.72206	0.07721	2207.97119	0.0	0.7743841	568.39
3.250	12.14	1.5223	560.77	231.88	0.16418	0.72277	0.07731	2210.68433	0.0	0.7680891	568.36
3.260	11.98	1.5232	560.77	231.38	0.16474	0.72348	0.07740	2213.37061	0.0	0.7621256	568.32
3.270	11.81	1.5240	560.76	230.89	0.16531	0.72418	0.07749	2216.03174	0.0	0.7564921	568.29
3.280	11.65	1.5248	560.76	230.40	0.16587	0.72487	0.07759	2218.66870	0.0	0.7508859	568.26
3.290	11.49	1.5257	560.76	229.92	0.16643	0.72556	0.07768	2221.28223	0.0	0.7453063	568.22
3.300	11.33	1.5265	560.76	229.44	0.16699	0.72624	0.07777	2223.87280	0.0	0.7397531	568.19
3.310	11.16	1.5273	560.76	228.97	0.16754	0.72692	0.07786	2226.44092	0.0	0.7342255	568.16
3.320	11.00	1.5281	560.76	228.50	0.16809	0.72759	0.07795	2228.98730	0.0	0.7287233	568.13
3.330	10.84	1.5289	560.75	228.03	0.16864	0.72826	0.07804	2231.51245	0.0	0.7232460	568.09
3.340	10.67	1.5297	560.75	227.57	0.16919	0.72892	0.07812	2234.01587	0.0	0.7177939	568.06
3.350	10.51	1.5306	560.75	227.11	0.16974	0.72957	0.07821	2236.49805	0.0	0.7123658	568.03
3.360	10.35	1.5314	560.75	226.65	0.17028	0.73022	0.07830	2238.95898	0.0	0.7069620	568.00
3.370	10.18	1.5322	560.75	226.20	0.17082	0.73087	0.07838	2241.39917	0.0	0.7015816	567.97
3.380	10.02	1.5330	560.75	225.75	0.17136	0.73150	0.07847	2243.81812	0.0	0.6962246	567.93
3.390	9.86	1.5338	560.74	225.31	0.17190	0.73214	0.07855	2246.21582	0.0	0.6908908	567.90
3.400	9.70	1.5345	560.74	224.87	0.17243	0.73277	0.07863	2248.59229	0.0	0.6855797	567.87
3.410	9.53	1.5353	560.74	224.43	0.17296	0.73339	0.07872	2250.94800	0.0	0.6802911	567.84
3.420	9.37	1.5361	560.74	224.00	0.17349	0.73401	0.07880	2253.28320	0.0	0.6751767	567.81
3.430	9.21	1.5369	560.74	223.57	0.17402	0.73462	0.07888	2255.59814	0.0	0.6705395	567.78
3.440	9.04	1.5377	560.74	223.14	0.17455	0.73523	0.07896	2257.89258	0.0	0.6659232	567.75
3.450	8.88	1.5384	560.74	222.72	0.17507	0.73583	0.07904	2260.16724	0.0	0.6613278	567.72
3.460	8.72	1.5392	560.73	222.30	0.17559	0.73643	0.07912	2262.42188	0.0	0.6567529	567.69
3.470	8.56	1.5400	560.73	221.88	0.17611	0.73702	0.07919	2264.65747	0.0	0.6521981	567.66
3.480	8.39	1.5408	560.73	221.47	0.17663	0.73761	0.07927	2266.87280	0.0	0.6476637	567.64
3.490	8.23	1.5415	560.73	221.06	0.17715	0.73820	0.07935	2269.06909	0.0	0.6431484	567.61
3.500	8.07	1.5423	560.73	220.65	0.17766	0.73878	0.07942	2271.24658	0.0	0.6386531	567.58
3.510	7.90	1.5430	560.73	220.25	0.17817	0.73936	0.07950	2273.40527	0.0	0.6341769	567.55
3.520	7.74	1.5438	560.72	219.85	0.17868	0.73993	0.07958	2275.54541	0.0	0.6297198	567.52
3.530	7.58	1.5445	560.72	219.45	0.17919	0.74050	0.07965	2277.66748	0.0	0.6252815	567.49
3.540	7.42	1.5453	560.72	219.05	0.17970	0.74106	0.07972	2279.77173	0.0	0.6208619	567.47
3.550	7.25	1.5460	560.72	218.66	0.18020	0.74162	0.07980	2281.85767	0.0	0.6164604	567.44
3.560	7.09	1.5468	560.72	218.27	0.18070	0.74217	0.07987	2283.92627	0.0	0.6120776	567.41
3.570	6.93	1.5475	560.72	217.89	0.18120	0.74273	0.07994	2285.97754	0.0	0.6077121	567.38
3.580	6.77	1.5483	560.72	217.50	0.18170	0.74327	0.08001	2288.01123	0.0	0.6033648	567.35
3.590	6.60	1.5490	560.71	217.12	0.18220	0.74381	0.08008	2290.02710	0.0	0.5978261	567.32
3.600	6.44	1.5497	560.71	216.75	0.18269	0.74435	0.08015	2292.02515	0.0	0.5923053	567.28
3.610	6.28	1.5504	560.71	216.37	0.18318	0.74489	0.08022	2294.00586	0.0	0.5868021	567.25
3.620	6.12	1.5512	560.71	216.00	0.18367	0.74542	0.08029	2295.96899	0.0	0.5813165	567.21
3.630	5.95	1.5519	560.71	215.63	0.18416	0.74594	0.08036	2297.91479	0.0	0.5758483	567.18
3.640	5.79	1.5526	560.71	215.27	0.18465	0.74646	0.08043	2299.84399	0.0	0.5703975	567.14
3.650	5.63	1.5533	560.70	214.91	0.18513	0.74698	0.08049	2301.75562	0.0	0.5649631	567.10
3.660	5.47	1.5540	560.70	214.55	0.18561	0.74749	0.08056	2303.65088	0.0	0.5595456	567.07
3.670	5.30	1.5547	560.70	214.19	0.18609	0.74800	0.08062	2305.53003	0.0	0.5541445	567.03
3.680	5.14	1.5554	560.70	213.84	0.18656	0.74850	0.08069	2307.39258	0.0	0.5487596	567.00
3.690	4.98	1.5561	560.70	213.49	0.18703	0.74900	0.08075	2309.23926	0.0	0.5433903	566.96
3.700	4.82	1.5568	560.70	213.14	0.18750	0.74950	0.08082	2311.06982	0.0	0.5380371	566.92
3.710	4.66	1.5575	560.70	212.80	0.18797	0.74999	0.08088	2312.88501	0.0	0.5326993	566.89
3.720	4.50	1.5582	560.69	212.45	0.18844	0.75047	0.08094	2314.68457	0.0	0.5273768	566.85
3.730	4.33	1.5589	560.69	212.11	0.18890	0.75096	0.08101	2316.46899	0.0	0.5220693	566.81
3.740	4.17	1.5596	560.69	211.78	0.18937	0.75144	0.08107	2318.23804	0.0	0.5167767	566.78
3.750	4.01	1.5603	560.69	211.44	0.18983	0.75191	0.08113	2319.99316	0.0	0.5114957	566.74
3.760	3.85	1.5609	560.69	211.11	0.19028	0.75239	0.08119	2321.73340	0.0	0.5073063	566.71
3.770	3.69	1.5616	560.69	210.79	0.19074	0.75285	0.08125	2323.45947	0.0	0.5026693	566.68
3.780	3.53	1.5623	560.68	210.46	0.19119	0.75332	0.08131	2325.17188	0.0	0.4980462	566.65
3.790	3.37	1.5630	560.68	210.14	0.19164	0.75378	0.08137	2326.87061	0.0	0.4934371	566.61

3.800	3.21	1.5636	560.68	209.81	0.19209	0.75424	0.08143	2328.55566	0.0	0.4888416	566.58
3.810	3.04	1.5643	560.68	209.50	0.19254	0.75469	0.08149	2330.22705	0.0	0.4842597	566.55
3.820	2.88	1.5649	560.68	209.18	0.19298	0.75514	0.08155	2331.88525	0.0	0.4796911	566.52
3.830	2.72	1.5656	560.68	208.87	0.19343	0.75559	0.08160	2333.53027	0.0	0.4751357	566.48
3.840	2.56	1.5662	560.68	208.55	0.19387	0.75604	0.08166	2335.16235	0.0	0.4705933	566.45
3.850	2.40	1.5669	560.67	208.25	0.19431	0.75648	0.08172	2336.78125	0.0	0.4660637	566.42
3.860	2.24	1.5675	560.67	207.94	0.19474	0.75691	0.08177	2338.38745	0.0	0.4615468	566.38
3.870	2.08	1.5682	560.67	207.63	0.19518	0.75735	0.08183	2339.98096	0.0	0.4570423	566.35
3.880	1.92	1.5688	560.67	207.33	0.19561	0.75778	0.08188	2341.56201	0.0	0.4525502	566.32
3.890	1.76	1.5695	560.67	207.03	0.19604	0.75820	0.08194	2343.13110	0.0	0.4480702	566.29
3.900	1.60	1.5701	560.67	206.74	0.19647	0.75863	0.08199	2344.68750	0.0	0.4436023	566.25
3.910	1.44	1.5707	560.66	206.44	0.19689	0.75905	0.08205	2346.23193	0.0	0.4391462	566.22
3.920	1.28	1.5713	560.66	206.15	0.19732	0.75947	0.08210	2347.76465	0.0	0.4347017	566.19
3.930	1.12	1.5720	560.66	205.86	0.19774	0.75988	0.08215	2349.28564	0.0	0.4302689	566.15
3.940	0.96	1.5726	560.66	205.57	0.19816	0.76029	0.08221	2350.79517	0.0	0.4258474	566.12
3.950	0.80	1.5732	560.66	205.28	0.19858	0.76070	0.08226	2352.29321	0.0	0.4214368	566.09
3.960	0.64	1.5738	560.66	205.00	0.19899	0.76110	0.08231	2353.78027	0.0	0.4170378	566.05
3.970	0.48	1.5744	560.66	204.72	0.19941	0.76151	0.08236	2355.25708	0.0	0.4126492	566.02
3.980	0.32	1.5750	560.65	204.44	0.19982	0.76190	0.08241	2356.72388	0.0	0.4082716	565.98
3.990	0.16	1.5756	560.65	204.16	0.20023	0.76230	0.08247	2358.18237	0.0	0.4039043	565.95
4.000	0.00	1.5762	560.65	203.89	0.20064	0.76269	0.08252	2359.63452	0.0	0.3995474	565.92

TIME = 0.00000 SEC - RESULTS FOR CHANNEL 15

DISTANCE VAP.GEN. EFF. ENTHALPY EFF. MOMENTUM SLIP RATIO D(VGR) WRT D(VGR) WRT
D(SLIP) WRT VAPOR FLOW
(M) RATE(KG/S) DENS.(KG/M3) DENS.(KG/M3) ALPHA(KG/S) FLOW RATE ALPHA
RATE(KG/S)

0.005	764.076	764.076	0.0000
0.015	763.958	763.958	0.0000
0.025	763.838	763.838	0.0000
0.035	763.714	763.714	0.0000
0.045	763.587	763.587	0.0000
0.055	763.458	763.458	0.0000
0.065	763.326	763.326	0.0000
0.075	763.190	763.190	0.0000
0.085	763.052	763.052	0.0000
0.095	762.911	762.911	0.0000
0.105	762.768	762.768	0.0000
0.115	762.621	762.621	0.0000
0.125	762.472	762.472	0.0000
0.135	762.319	762.319	0.0000
0.145	762.164	762.164	0.0000
0.155	762.006	762.006	0.0000
0.165	761.845	761.845	0.0000
0.175	761.681	761.681	0.0000
0.185	761.515	761.515	0.0000
0.195	761.345	761.345	0.0000
0.205	763.291	761.159	0.0000
0.215	770.866	760.875	0.0000
0.225	781.852	760.431	0.0000
0.235	785.777	759.826	0.0000
0.245	788.366	759.089	0.0000
0.255	797.831	758.250	0.0000
0.265	801.598	757.331	0.0000
0.275	804.848	756.342	0.0000
0.285	790.144	755.291	0.0000
0.295	787.546	754.181	0.0000
0.305	801.638	753.018	0.0000

0.315	801.133	751.806	0.0000
0.325	799.789	750.550	0.0000
0.335	778.848	749.163	0.0000
0.345	774.032	747.727	0.0000
0.355	769.358	746.240	0.0000
0.365	764.985	744.691	0.0000
0.375	761.137	743.052	0.0000
0.385	757.037	741.258	0.0000
0.395	751.656	738.999	0.0000
0.405	744.563	736.244	0.0000
0.415	738.905	733.958	0.0001
0.425	738.914	731.884	0.0001
0.435	733.422	729.885	0.0001
0.445	728.108	727.914	0.0001
0.455	722.892	725.943	0.0001
0.465	717.736	723.959	0.0001
0.475	712.625	721.953	0.0001
0.485	707.551	719.920	0.0001
0.495	702.515	717.859	0.0001
0.505	697.517	715.767	0.0001
0.515	692.557	713.642	0.0002
0.525	687.642	711.484	0.0002
0.535	682.769	709.290	0.0002
0.545	677.946	707.060	0.0002
0.555	673.172	704.793	0.0002
0.565	668.451	702.488	0.0002
0.575	663.784	700.145	0.0002
0.585	659.177	697.764	0.0003
0.595	654.628	695.342	0.0003
0.605	650.141	692.881	0.0003
0.615	645.716	690.379	0.0003
0.625	641.354	687.835	0.0003
0.635	637.052	685.248	0.0003
0.645	632.818	682.619	0.0004
0.655	628.910	680.134	0.0004
0.665	625.316	677.796	0.0004
0.675	621.758	675.424	0.0004
0.685	618.232	673.013	0.0004
0.695	614.735	670.560	0.0005
0.705	611.268	668.063	0.0005
0.715	607.829	665.522	0.0005
0.725	604.423	662.943	0.0005
0.735	601.058	660.328	0.0005
0.745	597.728	657.678	0.0006
0.755	594.431	654.985	0.0006
0.765	591.153	652.240	0.0006
0.775	587.808	649.361	0.0006
0.785	584.270	646.208	0.0006
0.795	579.698	642.006	0.0007
0.805	574.556	636.950	0.0007
0.815	570.583	633.030	0.0007
0.825	567.333	629.865	0.0008
0.835	564.298	626.907	0.0008
0.845	561.375	624.043	0.0008
0.855	558.510	621.221	0.0008
0.865	555.679	618.413	0.0009
0.875	552.871	615.607	0.0009
0.885	550.062	612.788	0.0009
0.895	547.257	609.945	0.0009
0.905	544.445	607.082	0.0010
0.915	541.631	604.201	0.0010
0.925	538.814	601.299	0.0010

0.935	535.981	598.377	0.0011
0.945	533.140	595.434	0.0011
0.955	530.288	592.471	0.0011
0.965	527.427	589.488	0.0011
0.975	524.545	586.487	0.0012
0.985	521.772	583.635	0.0012
0.995	518.989	580.767	0.0012
1.005	516.194	577.883	0.0013
1.015	513.821	575.477	0.0013
1.025	511.355	572.940	0.0013
1.035	508.868	570.390	0.0014
1.045	506.372	567.828	0.0014
1.055	503.859	565.254	0.0014
1.065	501.334	562.670	0.0015
1.075	498.790	560.076	0.0015
1.085	496.245	557.473	0.0015
1.095	493.675	554.858	0.0016
1.105	491.092	552.233	0.0016
1.115	488.499	549.600	0.0016
1.125	485.894	546.961	0.0017
1.135	483.288	544.320	0.0017
1.145	480.698	541.713	0.0018
1.155	478.118	539.121	0.0018
1.165	475.531	536.529	0.0018
1.175	472.884	533.855	0.0019
1.185	470.107	531.014	0.0019
1.195	466.264	527.070	0.0019
1.205	462.536	523.041	0.0019
1.215	459.349	519.738	0.0020
1.225	456.457	516.823	0.0020
1.235	453.678	514.058	0.0020
1.245	450.935	511.360	0.0021
1.255	448.212	508.699	0.0021
1.265	445.510	506.060	0.0022
1.275	442.810	503.435	0.0022
1.285	440.123	500.822	0.0023
1.295	437.422	498.218	0.0023
1.305	434.762	495.640	0.0023
1.315	432.117	493.086	0.0024
1.325	429.475	490.540	0.0024
1.335	426.832	488.001	0.0025
1.345	424.210	485.470	0.0025
1.355	421.586	482.947	0.0026
1.365	418.968	480.432	0.0026
1.375	416.378	477.927	0.0027
1.385	413.780	475.431	0.0027
1.395	411.195	472.945	0.0028
1.405	408.622	470.471	0.0028
1.415	406.071	468.007	0.0029
1.425	403.529	465.555	0.0029
1.435	401.007	463.115	0.0030
1.445	398.490	460.687	0.0030
1.455	395.992	458.270	0.0031
1.465	393.517	455.877	0.0031
1.475	391.095	453.534	0.0032
1.485	388.665	451.203	0.0032
1.495	386.259	448.888	0.0033
1.505	383.884	446.587	0.0033
1.515	381.522	444.302	0.0034
1.525	379.178	442.033	0.0034
1.535	376.853	439.780	0.0035
1.545	374.570	437.548	0.0035

1.555	372.316	435.345	0.0036
1.565	370.073	433.154	0.0036
1.575	367.841	430.943	0.0036
1.585	365.581	428.680	0.0037
1.595	362.445	425.500	0.0037
1.605	359.976	422.817	0.0037
1.615	357.655	420.407	0.0037
1.625	355.442	418.162	0.0038
1.635	353.253	416.000	0.0038
1.645	351.088	413.858	0.0039
1.655	348.939	411.733	0.0039
1.665	346.799	409.622	0.0040
1.675	344.680	407.525	0.0040
1.685	342.580	405.443	0.0041
1.695	340.494	403.374	0.0041
1.705	338.419	401.320	0.0042
1.715	336.377	399.281	0.0043
1.725	334.349	397.256	0.0043
1.735	332.347	395.247	0.0044
1.745	330.355	393.253	0.0044
1.755	328.395	391.275	0.0045
1.765	326.443	389.312	0.0046
1.775	324.523	387.366	0.0046
1.785	322.609	385.435	0.0047
1.795	320.754	383.528	0.0048
1.805	318.893	381.641	0.0048
1.815	317.056	379.768	0.0049
1.825	315.256	377.911	0.0049
1.835	313.442	376.070	0.0050
1.845	311.682	374.244	0.0051
1.855	309.910	372.431	0.0051
1.865	308.194	370.630	0.0052
1.875	306.463	368.844	0.0052
1.885	304.785	367.073	0.0053
1.895	303.089	365.322	0.0054
1.905	301.459	363.589	0.0054
1.915	299.795	361.875	0.0055
1.925	298.213	360.178	0.0056
1.935	296.596	358.498	0.0056
1.945	295.076	356.840	0.0057
1.955	293.534	355.224	0.0057
1.965	292.053	353.634	0.0058
1.975	290.534	352.050	0.0058
1.985	289.105	350.464	0.0058
1.995	286.952	348.119	0.0058
2.005	285.608	346.473	0.0058
2.015	284.153	344.858	0.0058
2.025	282.764	343.293	0.0059
2.035	281.334	341.745	0.0059
2.045	279.899	340.195	0.0060
2.055	278.473	338.648	0.0060
2.065	277.071	337.109	0.0061
2.075	275.671	335.580	0.0062
2.085	274.256	334.061	0.0062
2.095	272.915	332.554	0.0063
2.105	271.558	331.060	0.0064
2.115	270.199	329.580	0.0064
2.125	268.894	328.117	0.0065
2.135	267.589	326.667	0.0066
2.145	266.281	325.231	0.0066
2.155	265.031	323.810	0.0067
2.165	263.734	322.402	0.0068

2.175	262.495	321.008	0.0069
2.185	261.277	319.628	0.0069
2.195	260.095	318.261	0.0070
2.205	258.925	316.908	0.0071
2.215	257.723	315.568	0.0071
2.225	256.547	314.241	0.0072
2.235	255.418	312.927	0.0073
2.245	254.286	311.626	0.0073
2.255	253.193	310.335	0.0074
2.265	252.059	309.054	0.0075
2.275	250.974	307.785	0.0075
2.285	249.927	306.539	0.0076
2.295	248.834	305.311	0.0077
2.305	247.816	304.099	0.0077
2.315	246.779	302.903	0.0078
2.325	245.792	301.721	0.0079
2.335	244.828	300.555	0.0079
2.345	243.799	299.407	0.0080
2.355	242.852	298.287	0.0081
2.365	241.934	297.178	0.0081
2.375	241.044	296.083	0.0081
2.385	240.143	295.005	0.0081
2.395	238.742	293.273	0.0081
2.405	237.988	292.273	0.0080
2.415	237.118	291.205	0.0080
2.425	236.253	290.141	0.0080
2.435	235.390	289.077	0.0081
2.445	234.513	288.001	0.0081
2.455	233.644	286.924	0.0082
2.465	232.764	285.851	0.0083
2.475	231.872	284.784	0.0083
2.485	231.024	283.724	0.0084
2.495	230.161	282.674	0.0085
2.505	229.328	281.632	0.0086
2.515	228.538	280.601	0.0086
2.525	227.687	279.580	0.0087
2.535	226.879	278.570	0.0088
2.545	226.101	277.571	0.0088
2.555	225.320	276.583	0.0089
2.565	224.523	275.605	0.0090
2.575	223.769	274.639	0.0090
2.585	222.987	273.683	0.0091
2.595	222.309	272.737	0.0092
2.605	221.508	271.802	0.0093
2.615	220.799	270.877	0.0093
2.625	220.122	269.962	0.0094
2.635	219.430	269.058	0.0095
2.645	218.724	268.163	0.0095
2.655	218.031	267.277	0.0096
2.665	217.324	266.398	0.0097
2.675	216.675	265.528	0.0097
2.685	215.988	264.668	0.0098
2.695	215.382	263.820	0.0099
2.705	214.736	262.986	0.0099
2.715	214.097	262.163	0.0100
2.725	213.492	261.351	0.0101
2.735	212.848	260.550	0.0101
2.745	212.309	259.764	0.0102
2.755	211.724	258.998	0.0102
2.765	211.177	258.241	0.0103
2.775	210.618	257.497	0.0103
2.785	210.071	256.770	0.0103

2.795	209.030	255.455	0.0102
2.805	208.608	254.831	0.0100
2.815	208.092	254.119	0.0100
2.825	207.541	253.398	0.0100
2.835	207.035	252.673	0.0101
2.845	206.481	251.937	0.0101
2.855	205.948	251.199	0.0102
2.865	205.412	250.461	0.0102
2.875	204.864	249.728	0.0103
2.885	204.358	248.999	0.0104
2.895	203.766	248.276	0.0104
2.905	203.269	247.560	0.0105
2.915	202.732	246.851	0.0106
2.925	202.267	246.148	0.0107
2.935	201.709	245.453	0.0107
2.945	201.247	244.764	0.0108
2.955	200.750	244.083	0.0109
2.965	200.213	243.409	0.0109
2.975	199.774	242.742	0.0110
2.985	199.270	242.081	0.0111
2.995	198.841	241.428	0.0111
3.005	198.372	240.781	0.0112
3.015	197.892	240.141	0.0113
3.025	197.459	239.507	0.0113
3.035	196.937	238.879	0.0114
3.045	196.563	238.257	0.0114
3.055	196.047	237.642	0.0115
3.065	195.665	237.032	0.0116
3.075	195.186	236.428	0.0116
3.085	194.777	235.829	0.0117
3.095	194.371	235.236	0.0118
3.105	193.979	234.649	0.0118
3.115	193.523	234.066	0.0119
3.125	193.115	233.489	0.0120
3.135	192.700	232.918	0.0120
3.145	192.333	232.351	0.0121
3.155	191.960	231.789	0.0121
3.165	191.521	231.233	0.0122
3.175	191.133	230.682	0.0123
3.185	190.736	230.135	0.0123
3.195	190.391	229.594	0.0124
3.205	190.002	229.057	0.0124
3.215	189.585	228.525	0.0125
3.225	189.253	227.998	0.0126
3.235	188.880	227.476	0.0126
3.245	188.522	226.958	0.0127
3.255	188.193	226.444	0.0127
3.265	187.800	225.935	0.0128
3.275	187.458	225.431	0.0129
3.285	187.111	224.930	0.0129
3.295	186.817	224.434	0.0130
3.305	186.398	223.942	0.0130
3.315	186.091	223.453	0.0131
3.325	185.779	222.969	0.0132
3.335	185.402	222.489	0.0132
3.345	185.138	222.013	0.0133
3.355	184.809	221.541	0.0133
3.365	184.436	221.072	0.0134
3.375	184.155	220.608	0.0134
3.385	183.810	220.147	0.0135
3.395	183.497	219.690	0.0136
3.405	183.140	219.236	0.0136

3.415	182.921	218.786	0.0137
3.425	182.554	218.340	0.0137
3.435	182.242	217.897	0.0138
3.445	181.987	217.457	0.0138
3.455	181.666	217.021	0.0139
3.465	181.340	216.588	0.0139
3.475	181.111	216.158	0.0140
3.485	180.796	215.731	0.0140
3.495	180.456	215.308	0.0141
3.505	180.193	214.888	0.0142
3.515	179.947	214.471	0.0142
3.525	179.675	214.057	0.0143
3.535	179.358	213.646	0.0143
3.545	179.077	213.239	0.0144
3.555	178.834	212.834	0.0144
3.565	178.566	212.432	0.0145
3.575	178.273	212.033	0.0145
3.585	178.017	211.638	0.0146
3.595	177.757	211.246	0.0146
3.605	177.492	210.856	0.0147
3.615	177.224	210.470	0.0147
3.625	176.950	210.087	0.0148
3.635	176.737	209.708	0.0148
3.645	176.455	209.331	0.0149
3.655	176.189	208.957	0.0149
3.665	175.943	208.587	0.0150
3.675	175.733	208.219	0.0150
3.685	175.414	207.854	0.0151
3.695	175.261	207.492	0.0151
3.705	174.999	207.133	0.0152
3.715	174.709	206.777	0.0152
3.725	174.524	206.424	0.0153
3.735	174.315	206.074	0.0153
3.745	174.078	205.726	0.0154
3.755	173.817	205.381	0.0154
3.765	173.638	205.039	0.0155
3.775	173.415	204.699	0.0155
3.785	173.144	204.362	0.0156
3.795	172.868	204.028	0.0156
3.805	172.721	203.695	0.0157
3.815	172.439	203.366	0.0157
3.825	172.219	203.039	0.0158
3.835	172.016	202.715	0.0158
3.845	171.856	202.393	0.0159
3.855	171.626	202.073	0.0159
3.865	171.460	201.756	0.0160
3.875	171.224	201.441	0.0160
3.885	170.984	201.129	0.0161
3.895	170.809	200.819	0.0161
3.905	170.563	200.511	0.0161
3.915	170.381	200.206	0.0162
3.925	170.196	199.903	0.0162
3.935	170.008	199.602	0.0163
3.945	169.818	199.304	0.0163
3.955	169.644	199.008	0.0164
3.965	169.427	198.714	0.0164
3.975	169.247	198.422	0.0165
3.985	169.045	198.133	0.0165
3.995	168.820	197.846	0.0166

1PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - TEMPERATURE DATA FOR ROD 1 (FUEL TYPE 1)

DISTANCE (M)	FLUX (MW/M2)	DNBR	CHANNEL	AV FUEL T (DEG-K)	T (1)	T (2)	T (3)	T (4)	T (5)	T (6)	T (7)
0.005	0.46508	9.839	1	852.7	1032.6	995.1	916.5	806.5	677.9	574.5	564.6
0.015	0.47311	9.569	1	858.5	1042.6	1004.3	923.7	811.3	679.9	574.8	564.7
0.025	0.48114	9.312	1	864.4	1052.8	1013.5	931.0	816.0	682.0	575.1	564.8
0.035	0.48917	9.067	1	870.4	1063.1	1022.8	938.4	820.8	684.1	575.3	564.9
0.045	0.49720	8.833	1	876.3	1073.4	1032.1	945.7	825.6	686.1	575.6	565.0
0.055	0.50524	8.610	1	882.3	1083.7	1041.5	953.1	830.4	688.2	575.9	565.1
0.065	0.51327	8.396	1	888.3	1094.2	1051.0	960.6	835.2	690.2	576.2	565.2
0.075	0.52130	8.192	1	894.3	1104.7	1060.5	968.1	840.0	692.3	576.4	565.3
0.085	0.52933	7.996	1	900.4	1115.3	1070.1	975.6	844.9	694.3	576.7	565.4
0.095	0.53736	7.808	1	906.5	1126.0	1079.7	983.2	849.8	696.4	577.0	565.5
0.105	0.54539	7.628	1	912.6	1136.7	1089.4	990.8	854.7	698.4	577.2	565.6
0.115	0.55342	7.455	1	918.7	1147.5	1099.2	998.4	859.6	700.5	577.5	565.7
0.125	0.56145	7.288	1	924.9	1158.4	1109.0	1006.1	864.5	702.5	577.8	565.8
0.135	0.56948	7.128	1	931.1	1169.4	1118.9	1013.8	869.4	704.6	578.0	565.9
0.145	0.57751	6.975	1	937.3	1180.4	1128.8	1021.6	874.3	706.6	578.3	566.0
0.155	0.58554	6.827	1	943.6	1191.5	1138.8	1029.4	879.3	708.7	578.5	566.1
0.165	0.59357	6.685	1	949.9	1202.7	1148.9	1037.3	884.3	710.7	578.8	566.1
0.175	0.60160	6.548	1	956.2	1213.9	1159.1	1045.1	889.3	712.7	579.1	566.2
0.185	0.60963	6.416	1	962.6	1225.3	1169.3	1053.1	894.3	714.8	579.3	566.3
0.195	0.61766	6.288	1	968.9	1236.7	1179.5	1061.0	899.3	716.8	579.6	566.4
0.205	0.62569	6.164	1	975.3	1248.2	1189.9	1069.1	904.4	718.9	579.8	566.5
0.215	0.63373	6.045	1	981.8	1259.7	1200.3	1077.1	909.4	720.9	580.1	566.6
0.225	0.64176	5.929	1	988.3	1271.4	1210.7	1085.2	914.5	722.9	580.3	566.7
0.235	0.64979	5.817	1	994.7	1283.1	1221.2	1093.3	919.6	725.0	580.6	566.8
0.245	0.65782	5.708	1	1001.3	1294.8	1231.8	1101.5	924.7	727.0	580.8	566.8
0.255	0.66585	5.603	1	1007.8	1306.7	1242.5	1109.7	929.8	729.1	581.1	566.9
0.265	0.67388	5.501	1	1014.4	1318.6	1253.2	1118.0	935.0	731.1	581.3	567.0
0.275	0.68191	5.403	1	1021.0	1330.6	1263.9	1126.3	940.1	733.1	581.6	567.1
0.285	0.68994	5.307	1	1027.7	1342.7	1274.8	1134.6	945.3	735.2	581.8	567.2
0.295	0.69797	5.213	1	1034.4	1354.9	1285.7	1143.0	950.5	737.2	582.1	567.2
0.305	0.70600	5.123	1	1041.1	1367.1	1296.7	1151.5	955.7	739.2	582.3	567.3
0.315	0.71403	5.035	1	1047.8	1379.4	1307.7	1159.9	961.0	741.3	582.6	567.4
0.325	0.72206	4.949	1	1054.6	1391.8	1318.8	1168.4	966.2	743.3	582.8	567.5
0.335	0.73116	4.860	1	1062.3	1405.9	1331.4	1178.1	972.2	745.6	583.1	567.6
0.345	0.74027	4.774	1	1070.0	1420.1	1344.2	1187.9	978.2	747.9	583.4	567.6
0.355	0.74937	4.691	1	1077.8	1434.5	1357.0	1197.7	984.2	750.2	583.7	567.7
0.365	0.75847	4.609	1	1085.6	1448.9	1369.9	1207.6	990.2	752.5	583.9	567.8
0.375	0.76758	4.529	1	1093.5	1463.4	1382.9	1217.5	996.2	754.8	584.2	567.9
0.385	0.77668	4.451	1	1101.4	1478.0	1395.9	1227.4	1002.3	757.1	584.5	568.0
0.395	0.78578	4.375	1	1109.4	1492.7	1409.1	1237.5	1008.4	759.4	584.7	568.1
0.405	0.79488	4.300	1	1117.3	1507.4	1422.3	1247.5	1014.5	761.7	585.0	568.1
0.415	0.80399	4.229	1	1125.3	1522.3	1435.6	1257.7	1020.7	763.9	585.3	568.2
0.425	0.81309	4.160	1	1133.4	1537.3	1449.0	1267.9	1026.8	766.2	585.6	568.3
0.435	0.82219	4.093	1	1141.5	1552.3	1462.4	1278.1	1033.0	768.5	585.8	568.4
0.445	0.83130	4.028	1	1149.6	1567.5	1476.0	1288.4	1039.2	770.8	586.1	568.4
0.455	0.84040	3.966	1	1157.8	1582.7	1489.6	1298.8	1045.5	773.1	586.4	568.5
0.465	0.84950	3.905	1	1166.0	1598.0	1503.3	1309.2	1051.7	775.4	586.6	568.6
0.475	0.85860	3.846	1	1174.3	1613.5	1517.1	1319.6	1058.0	777.7	586.9	568.7
0.485	0.86771	3.789	1	1182.6	1629.0	1531.0	1330.2	1064.3	780.0	587.2	568.8
0.495	0.87681	3.733	1	1190.9	1644.5	1544.9	1340.7	1070.6	782.3	587.4	568.8
0.505	0.88591	3.679	1	1199.3	1660.2	1558.9	1351.4	1077.0	784.6	587.7	568.9
0.515	0.89501	3.626	1	1207.7	1675.9	1573.0	1362.0	1083.3	786.9	588.0	569.0
0.525	0.90411	3.574	1	1216.1	1691.7	1587.2	1372.8	1089.7	789.2	588.2	569.1
0.535	0.91321	3.523	1	1224.6	1707.6	1601.4	1383.6	1096.1	791.4	588.5	569.1
0.545	0.92231	3.474	1	1233.1	1723.6	1615.7	1394.4	1102.6	793.7	588.8	569.2
0.555	0.93141	3.425	1	1241.6	1739.7	1630.1	1405.3	1109.0	796.0	589.0	569.3
0.565	0.94051	3.378	1	1250.2	1755.8	1644.5	1416.3	1115.5	798.3	589.3	569.4

0.575	0.94961	3.331	1	1258.9	1772.0	1659.0	1427.3	1122.0	800.6	589.6	569.4
0.585	0.95871	3.286	1	1267.5	1788.2	1673.6	1438.3	1128.5	802.9	589.8	569.5
0.595	0.96781	3.241	1	1276.2	1804.5	1688.2	1449.4	1135.1	805.1	590.1	569.6
0.605	0.97691	3.197	1	1284.9	1820.8	1702.9	1460.5	1141.6	807.4	590.3	569.6
0.615	0.98601	3.154	1	1293.6	1837.2	1717.6	1471.7	1148.2	809.7	590.6	569.7
0.625	0.99511	3.112	1	1302.3	1853.6	1732.4	1482.9	1154.8	811.9	590.8	569.7
0.635	1.00421	3.071	1	1311.1	1870.1	1747.2	1494.2	1161.4	814.2	591.0	569.8
0.645	1.01331	3.030	1	1319.9	1886.6	1762.1	1505.5	1168.0	816.4	591.3	569.8
0.655	1.02081	2.994	1	1327.2	1900.1	1774.4	1514.8	1173.5	818.3	591.5	569.8
0.665	1.02670	2.961	1	1332.9	1910.7	1784.1	1522.2	1177.8	819.8	591.6	569.9
0.675	1.03258	2.929	1	1338.7	1921.2	1793.8	1529.6	1182.1	821.2	591.8	569.9
0.685	1.03847	2.898	1	1344.4	1931.8	1803.5	1537.0	1186.5	822.7	591.9	569.9
0.695	1.04436	2.867	1	1350.2	1942.4	1813.3	1544.5	1190.8	824.1	592.1	569.9
0.705	1.05025	2.836	1	1356.0	1953.0	1823.1	1551.9	1195.1	825.6	592.2	570.0
0.715	1.05614	2.806	1	1361.8	1963.6	1832.9	1559.4	1199.5	827.1	592.4	570.0
0.725	1.06203	2.776	1	1367.6	1974.2	1842.7	1566.9	1203.9	828.5	592.5	570.0
0.735	1.06792	2.747	1	1373.4	1984.8	1852.5	1574.4	1208.3	830.0	592.7	570.1
0.745	1.07381	2.718	1	1379.2	1995.5	1862.4	1581.9	1212.7	831.4	592.8	570.1
0.755	1.07969	2.689	1	1385.1	2006.1	1872.2	1589.5	1217.1	832.9	593.0	570.1
0.765	1.08558	2.661	1	1390.9	2016.8	1882.1	1597.0	1221.5	834.4	593.1	570.1
0.775	1.09147	2.633	1	1396.8	2027.4	1892.0	1604.6	1225.9	835.8	593.3	570.2
0.785	1.09736	2.604	1	1402.5	2037.2	1901.3	1612.2	1230.3	837.3	593.4	570.2
0.795	1.10325	2.576	1	1408.3	2047.0	1910.7	1619.9	1234.8	838.7	593.6	570.2
0.805	1.10914	2.549	1	1414.0	2056.7	1920.1	1627.5	1239.2	840.2	593.7	570.2
0.815	1.11436	2.523	1	1419.1	2065.4	1928.4	1634.3	1243.1	841.5	593.8	570.3
0.825	1.11757	2.500	1	1422.3	2070.8	1933.5	1638.5	1245.6	842.3	593.9	570.3
0.835	1.12078	2.479	1	1425.4	2076.1	1938.6	1642.7	1248.0	843.1	594.0	570.3
0.845	1.12399	2.458	1	1428.6	2081.4	1943.8	1646.8	1250.5	843.9	594.1	570.3
0.855	1.12720	2.437	1	1431.8	2086.8	1948.9	1651.0	1252.9	844.7	594.2	570.3
0.865	1.13042	2.417	1	1434.9	2092.1	1954.0	1655.2	1255.3	845.5	594.3	570.3
0.875	1.13363	2.398	1	1438.1	2097.5	1959.2	1659.5	1257.8	846.3	594.3	570.4
0.885	1.13684	2.378	1	1441.3	2102.8	1964.3	1663.7	1260.2	847.1	594.4	570.4
0.895	1.14005	2.359	1	1444.4	2108.2	1969.5	1667.9	1262.7	847.8	594.5	570.4
0.905	1.14326	2.341	1	1447.6	2113.5	1974.6	1672.1	1265.2	848.6	594.6	570.4
0.915	1.14647	2.323	1	1450.8	2118.9	1979.8	1676.3	1267.6	849.4	594.7	570.4
0.925	1.14969	2.305	1	1454.0	2124.2	1984.9	1680.6	1270.1	850.2	594.8	570.4
0.935	1.15290	2.287	1	1457.2	2129.6	1990.1	1684.8	1272.6	851.0	594.8	570.5
0.945	1.15611	2.269	1	1460.3	2134.9	1995.2	1689.1	1275.0	851.8	594.9	570.5
0.955	1.15932	2.252	1	1463.5	2140.2	2000.4	1693.3	1277.5	852.6	595.0	570.5
0.965	1.16253	2.235	1	1466.7	2145.6	2005.5	1697.6	1280.0	853.4	595.1	570.5
0.975	1.16574	2.218	1	1469.9	2150.9	2010.7	1701.8	1282.4	854.2	595.2	570.5
0.985	1.16735	2.202	1	1471.5	2153.6	2013.3	1703.9	1283.7	854.6	595.2	570.5
0.995	1.16896	2.187	1	1473.1	2156.3	2015.9	1706.1	1284.9	855.0	595.2	570.5
1.005	1.17057	2.173	1	1474.7	2159.0	2018.5	1708.2	1286.2	855.4	595.3	570.5
1.015	1.17217	2.158	1	1476.3	2161.6	2021.1	1710.4	1287.4	855.8	595.3	570.5
1.025	1.17378	2.143	1	1477.9	2164.3	2023.6	1712.5	1288.7	856.2	595.4	570.6
1.035	1.17539	2.129	1	1479.5	2167.0	2026.2	1714.6	1289.9	856.6	595.4	570.6
1.045	1.17699	2.115	1	1481.1	2169.7	2028.8	1716.8	1291.1	857.0	595.5	570.6
1.055	1.17860	2.101	1	1482.7	2172.3	2031.4	1718.9	1292.4	857.4	595.5	570.6
1.065	1.18021	2.087	1	1484.3	2175.0	2034.0	1721.0	1293.6	857.8	595.5	570.6
1.075	1.18182	2.073	1	1485.9	2177.7	2036.6	1723.2	1294.9	858.2	595.6	570.6
1.085	1.18342	2.060	1	1487.5	2180.3	2039.2	1725.3	1296.1	858.6	595.6	570.6
1.095	1.18503	2.046	1	1489.1	2183.0	2041.8	1727.5	1297.4	859.0	595.7	570.6
1.105	1.18664	2.033	1	1490.8	2185.7	2044.3	1729.6	1298.6	859.4	595.7	570.6
1.115	1.18824	2.020	1	1492.4	2188.4	2046.9	1731.8	1299.9	859.8	595.7	570.6
1.125	1.18985	2.006	1	1494.0	2191.0	2049.5	1733.9	1301.1	860.2	595.8	570.6
1.135	1.19146	1.993	1	1495.6	2193.7	2052.1	1736.1	1302.4	860.6	595.8	570.6
1.145	1.19266	1.981	1	1496.8	2195.7	2054.1	1737.7	1303.3	860.9	595.9	570.6
1.155	1.19373	1.968	1	1497.8	2197.5	2055.8	1739.1	1304.1	861.2	595.9	570.6
1.165	1.19480	1.956	1	1498.9	2199.3	2057.5	1740.5	1305.0	861.4	595.9	570.7
1.175	1.19587	1.943	1	1500.0	2201.0	2059.2	1742.0	1305.8	861.7	595.9	570.7
1.185	1.19694	1.931	1	1501.1	2202.8	2061.0	1743.4	1306.6	861.9	596.0	570.7

1.195	1.19801	1.918	1	1502.1	2204.6	2062.7	1744.8	1307.5	862.2	596.0	570.7
1.205	1.19908	1.905	1	1503.2	2206.3	2064.4	1746.2	1308.3	862.5	596.0	570.7
1.215	1.20015	1.893	1	1504.3	2208.1	2066.1	1747.7	1309.1	862.7	596.0	570.7
1.225	1.20122	1.881	1	1505.3	2209.9	2067.8	1749.1	1310.0	863.0	596.1	570.7
1.235	1.20229	1.869	1	1506.4	2211.7	2069.6	1750.5	1310.8	863.3	596.1	570.7
1.245	1.20336	1.858	1	1507.5	2213.4	2071.3	1752.0	1311.6	863.5	596.1	570.7
1.255	1.20443	1.847	1	1508.6	2215.2	2073.0	1753.4	1312.5	863.8	596.1	570.7
1.265	1.20550	1.837	1	1509.6	2217.0	2074.7	1754.8	1313.3	864.1	596.2	570.7
1.275	1.20657	1.826	1	1510.7	2218.8	2076.5	1756.3	1314.2	864.3	596.2	570.7
1.285	1.20764	1.816	1	1511.8	2220.5	2078.2	1757.7	1315.0	864.6	596.2	570.7
1.295	1.20871	1.806	1	1512.8	2222.3	2079.9	1759.1	1315.8	864.9	596.3	570.7
1.305	1.20951	1.796	1	1513.7	2223.6	2081.2	1760.2	1316.5	865.1	596.3	570.7
1.315	1.21005	1.787	1	1514.2	2224.5	2082.1	1760.9	1316.9	865.2	596.3	570.7
1.325	1.21059	1.777	1	1514.7	2225.4	2083.0	1761.7	1317.3	865.3	596.3	570.7
1.335	1.21112	1.768	1	1515.3	2226.3	2083.8	1762.4	1317.7	865.5	596.3	570.7
1.345	1.21166	1.759	1	1515.8	2227.2	2084.7	1763.1	1318.1	865.6	596.3	570.7
1.355	1.21220	1.750	1	1516.4	2228.1	2085.6	1763.8	1318.6	865.7	596.3	570.7
1.365	1.21274	1.741	1	1516.9	2229.0	2086.4	1764.6	1319.0	865.9	596.4	570.7
1.375	1.21327	1.732	1	1517.4	2229.9	2087.3	1765.3	1319.4	866.0	596.4	570.7
1.385	1.21381	1.723	1	1518.0	2230.8	2088.2	1766.0	1319.8	866.1	596.4	570.7
1.395	1.21435	1.714	1	1518.5	2231.7	2089.0	1766.7	1320.3	866.3	596.4	570.7
1.405	1.21489	1.705	1	1519.1	2232.6	2089.9	1767.4	1320.7	866.4	596.4	570.7
1.415	1.21542	1.697	1	1519.6	2233.5	2090.8	1768.2	1321.1	866.5	596.4	570.7
1.425	1.21596	1.688	1	1520.1	2234.3	2091.6	1768.9	1321.5	866.7	596.4	570.7
1.435	1.21650	1.679	1	1520.7	2235.2	2092.5	1769.6	1321.9	866.8	596.5	570.7
1.445	1.21703	1.671	1	1521.2	2236.1	2093.4	1770.3	1322.4	866.9	596.5	570.7
1.455	1.21757	1.663	1	1521.8	2237.0	2094.2	1771.1	1322.8	867.1	596.5	570.8
1.465	1.21784	1.655	1	1522.0	2237.5	2094.7	1771.4	1323.0	867.1	596.5	570.8
1.475	1.21730	1.647	1	1521.5	2236.6	2093.8	1770.7	1322.6	867.0	596.5	570.8
1.485	1.21677	1.640	1	1520.9	2235.7	2092.9	1770.0	1322.2	866.9	596.5	570.7
1.495	1.21623	1.632	1	1520.4	2234.8	2092.1	1769.3	1321.7	866.7	596.5	570.7
1.505	1.21569	1.625	1	1519.9	2233.9	2091.2	1768.5	1321.3	866.6	596.4	570.7
1.515	1.21515	1.617	1	1519.3	2233.0	2090.3	1767.8	1320.9	866.5	596.4	570.7
1.525	1.21462	1.610	1	1518.8	2232.1	2089.5	1767.1	1320.5	866.3	596.4	570.7
1.535	1.21408	1.602	1	1518.3	2231.2	2088.6	1766.4	1320.1	866.2	596.4	570.7
1.545	1.21354	1.595	1	1517.7	2230.3	2087.7	1765.7	1319.6	866.1	596.4	570.7
1.555	1.21301	1.588	1	1517.2	2229.5	2086.9	1764.9	1319.2	865.9	596.4	570.7
1.565	1.21247	1.580	1	1516.6	2228.6	2086.0	1764.2	1318.8	865.8	596.4	570.7
1.575	1.21193	1.573	1	1516.1	2227.7	2085.1	1763.5	1318.4	865.7	596.3	570.7
1.585	1.21139	1.565	1	1515.6	2226.8	2084.3	1762.8	1317.9	865.5	596.3	570.7
1.595	1.21086	1.557	1	1515.0	2225.9	2083.4	1762.0	1317.5	865.4	596.3	570.7
1.605	1.21032	1.549	1	1514.5	2225.0	2082.5	1761.3	1317.1	865.3	596.3	570.7
1.615	1.20978	1.541	1	1513.9	2224.1	2081.7	1760.6	1316.7	865.1	596.3	570.7
1.625	1.20924	1.534	1	1513.4	2223.2	2080.8	1759.9	1316.2	865.0	596.3	570.7
1.635	1.20817	1.527	1	1512.3	2221.4	2079.1	1758.4	1315.4	864.7	596.2	570.7
1.645	1.20710	1.521	1	1511.2	2219.7	2077.3	1757.0	1314.6	864.5	596.2	570.7
1.655	1.20603	1.515	1	1510.2	2217.9	2075.6	1755.5	1313.7	864.2	596.2	570.7
1.665	1.20497	1.509	1	1509.1	2216.1	2073.9	1754.1	1312.9	863.9	596.2	570.7
1.675	1.20390	1.503	1	1508.0	2214.3	2072.2	1752.7	1312.1	863.7	596.1	570.7
1.685	1.20283	1.497	1	1506.9	2212.6	2070.4	1751.2	1311.2	863.4	596.1	570.7
1.695	1.20176	1.491	1	1505.9	2210.8	2068.7	1749.8	1310.4	863.1	596.1	570.7
1.705	1.20069	1.486	1	1504.8	2209.0	2067.0	1748.4	1309.6	862.9	596.0	570.7
1.715	1.19962	1.480	1	1503.7	2207.2	2065.3	1746.9	1308.7	862.6	596.0	570.7
1.725	1.19855	1.475	1	1502.7	2205.5	2063.5	1745.5	1307.9	862.3	596.0	570.7
1.735	1.19748	1.469	1	1501.6	2203.7	2061.8	1744.1	1307.1	862.1	596.0	570.7
1.745	1.19641	1.464	1	1500.5	2201.9	2060.1	1742.7	1306.2	861.8	595.9	570.7
1.755	1.19534	1.458	1	1499.4	2200.1	2058.4	1741.2	1305.4	861.5	595.9	570.6
1.765	1.19427	1.453	1	1498.4	2198.4	2056.6	1739.8	1304.6	861.3	595.9	570.6
1.775	1.19320	1.448	1	1497.3	2196.6	2054.9	1738.4	1303.7	861.0	595.9	570.6
1.785	1.19213	1.442	1	1496.2	2194.8	2053.2	1736.9	1302.9	860.8	595.8	570.6
1.795	1.19065	1.437	1	1494.8	2192.4	2050.8	1735.0	1301.7	860.4	595.8	570.6
1.805	1.18905	1.432	1	1493.2	2189.7	2048.2	1732.8	1300.5	860.0	595.8	570.6

1.815	1.18744	1.427	1	1491.5	2187.0	2045.6	1730.7	1299.2	859.6	595.7	570.6
1.825	1.18583	1.423	1	1489.9	2184.3	2043.0	1728.5	1298.0	859.2	595.7	570.6
1.835	1.18423	1.418	1	1488.3	2181.7	2040.5	1726.4	1296.8	858.8	595.6	570.6
1.845	1.18262	1.413	1	1486.7	2179.0	2037.9	1724.3	1295.5	858.4	595.6	570.6
1.855	1.18101	1.408	1	1485.1	2176.3	2035.3	1722.1	1294.3	858.0	595.6	570.6
1.865	1.17941	1.403	1	1483.5	2173.7	2032.7	1720.0	1293.0	857.6	595.5	570.6
1.875	1.17780	1.399	1	1481.9	2171.0	2030.1	1717.8	1291.8	857.2	595.5	570.6
1.885	1.17619	1.394	1	1480.3	2168.3	2027.5	1715.7	1290.5	856.8	595.4	570.6
1.895	1.17458	1.389	1	1478.7	2165.6	2024.9	1713.6	1289.3	856.4	595.4	570.6
1.905	1.17298	1.385	1	1477.1	2163.0	2022.4	1711.4	1288.0	856.0	595.4	570.6
1.915	1.17137	1.380	1	1475.5	2160.3	2019.8	1709.3	1286.8	855.6	595.3	570.5
1.925	1.16976	1.375	1	1473.9	2157.6	2017.2	1707.2	1285.6	855.2	595.3	570.5
1.935	1.16816	1.371	1	1472.3	2155.0	2014.6	1705.0	1284.3	854.8	595.2	570.5
1.945	1.16655	1.366	1	1470.7	2152.3	2012.0	1702.9	1283.1	854.4	595.2	570.5
1.955	1.16414	1.362	1	1468.3	2148.3	2008.1	1699.7	1281.2	853.8	595.1	570.5
1.965	1.16093	1.357	1	1465.1	2142.9	2003.0	1695.4	1278.7	853.0	595.0	570.5
1.975	1.15772	1.353	1	1461.9	2137.6	1997.8	1691.2	1276.3	852.2	595.0	570.5
1.985	1.15450	1.348	1	1458.8	2132.2	1992.7	1687.0	1273.8	851.4	594.9	570.5
1.995	1.15129	1.343	1	1455.6	2126.9	1987.5	1682.7	1271.3	850.6	594.8	570.4
2.005	1.14808	1.338	1	1452.4	2121.5	1982.3	1678.5	1268.9	849.8	594.7	570.4
2.015	1.14487	1.334	1	1449.2	2116.2	1977.2	1674.2	1266.4	849.0	594.6	570.4
2.025	1.14166	1.329	1	1446.0	2110.8	1972.0	1670.0	1263.9	848.2	594.5	570.4
2.035	1.13845	1.325	1	1442.8	2105.5	1966.9	1665.8	1261.5	847.4	594.5	570.4
2.045	1.13523	1.322	1	1439.7	2100.1	1961.7	1661.6	1259.0	846.7	594.4	570.4
2.055	1.13202	1.318	1	1436.5	2094.8	1956.6	1657.4	1256.6	845.9	594.3	570.4
2.065	1.12881	1.315	1	1433.3	2089.5	1951.5	1653.1	1254.1	845.1	594.2	570.3
2.075	1.12560	1.311	1	1430.2	2084.1	1946.3	1648.9	1251.7	844.3	594.1	570.3
2.085	1.12239	1.308	1	1427.0	2078.8	1941.2	1644.7	1249.2	843.5	594.1	570.3
2.095	1.11917	1.305	1	1423.9	2073.4	1936.1	1640.6	1246.8	842.7	594.0	570.3
2.105	1.11596	1.302	1	1420.7	2068.1	1930.9	1636.4	1244.4	841.9	593.9	570.3
2.115	1.11262	1.299	1	1417.4	2062.5	1925.6	1632.0	1241.8	841.1	593.8	570.3
2.125	1.10887	1.296	1	1413.8	2056.3	1919.6	1627.1	1239.0	840.1	593.7	570.2
2.135	1.10512	1.294	1	1410.1	2050.1	1913.7	1622.3	1236.2	839.2	593.6	570.2
2.145	1.10138	1.291	1	1406.4	2043.8	1907.7	1617.4	1233.3	838.3	593.5	570.2
2.155	1.09763	1.288	1	1402.8	2037.6	1901.8	1612.6	1230.5	837.3	593.4	570.2
2.165	1.09388	1.286	1	1399.1	2031.4	1895.8	1607.7	1227.7	836.4	593.3	570.2
2.175	1.09014	1.283	1	1395.4	2025.0	1889.8	1602.9	1224.9	835.5	593.2	570.2
2.185	1.08639	1.280	1	1391.7	2018.2	1883.5	1598.1	1222.1	834.6	593.1	570.1
2.195	1.08264	1.278	1	1388.0	2011.4	1877.2	1593.3	1219.3	833.6	593.0	570.1
2.205	1.07890	1.275	1	1384.3	2004.7	1870.9	1588.4	1216.5	832.7	592.9	570.1
2.215	1.07515	1.272	1	1380.6	1997.9	1864.6	1583.6	1213.7	831.8	592.8	570.1
2.225	1.07140	1.270	1	1376.8	1991.1	1858.3	1578.8	1210.9	830.8	592.8	570.1
2.235	1.06766	1.267	1	1373.1	1984.3	1852.1	1574.1	1208.1	829.9	592.7	570.1
2.245	1.06391	1.264	1	1369.4	1977.6	1845.8	1569.3	1205.3	829.0	592.6	570.0
2.255	1.06016	1.262	1	1365.7	1970.8	1839.6	1564.5	1202.5	828.1	592.5	570.0
2.265	1.05642	1.260	1	1362.1	1964.1	1833.3	1559.7	1199.7	827.1	592.4	570.0
2.275	1.05267	1.257	1	1358.4	1957.3	1827.1	1555.0	1196.9	826.2	592.3	570.0
2.285	1.04678	1.255	1	1352.6	1946.7	1817.3	1547.5	1192.6	824.7	592.1	570.0
2.295	1.04089	1.254	1	1346.8	1936.1	1807.6	1540.1	1188.2	823.3	592.0	569.9
2.305	1.03501	1.252	1	1341.1	1925.6	1797.8	1532.6	1183.9	821.8	591.8	569.9
2.315	1.02912	1.250	1	1335.3	1915.0	1788.1	1525.2	1179.6	820.4	591.7	569.9
2.325	1.02323	1.248	1	1329.6	1904.5	1778.4	1517.9	1175.3	818.9	591.5	569.8
2.335	1.01734	1.246	1	1323.9	1893.9	1768.7	1510.5	1170.9	817.4	591.4	569.8
2.345	1.01145	1.245	1	1318.1	1883.3	1759.0	1503.2	1166.6	816.0	591.2	569.8
2.355	1.00556	1.243	1	1312.4	1872.6	1749.4	1495.8	1162.4	814.5	591.1	569.8
2.365	0.99967	1.241	1	1306.7	1861.9	1739.8	1488.5	1158.1	813.1	590.9	569.7
2.375	0.99379	1.238	1	1301.1	1851.2	1730.2	1481.3	1153.8	811.6	590.8	569.7
2.385	0.98790	1.236	1	1295.4	1840.6	1720.6	1474.0	1149.5	810.1	590.6	569.7
2.395	0.98201	1.233	1	1289.7	1830.0	1711.1	1466.7	1145.3	808.7	590.4	569.6
2.405	0.97612	1.230	1	1284.1	1819.4	1701.6	1459.5	1141.0	807.2	590.3	569.6
2.415	0.97023	1.228	1	1278.5	1808.8	1692.1	1452.3	1136.8	805.7	590.1	569.6
2.425	0.96434	1.226	1	1272.9	1798.3	1682.6	1445.2	1132.6	804.3	590.0	569.5

2.435	0.95845	1.224	1	1267.3	1787.7	1673.2	1438.0	1128.4	802.8	589.8	569.5
2.445	0.95297	1.222	1	1262.1	1778.0	1664.4	1431.4	1124.4	801.5	589.7	569.5
2.455	0.94761	1.220	1	1257.0	1768.5	1655.9	1424.9	1120.6	800.1	589.5	569.5
2.465	0.94226	1.219	1	1252.0	1759.0	1647.4	1418.4	1116.8	798.8	589.4	569.4
2.475	0.93690	1.218	1	1246.9	1749.5	1638.9	1412.0	1113.0	797.5	589.3	569.4
2.485	0.93155	1.216	1	1241.9	1740.1	1630.4	1405.6	1109.2	796.1	589.1	569.4
2.495	0.92620	1.215	1	1236.9	1730.6	1622.0	1399.2	1105.5	794.8	589.0	569.4
2.505	0.92084	1.214	1	1231.9	1721.3	1613.6	1392.8	1101.7	793.5	588.8	569.3
2.515	0.91549	1.213	1	1226.9	1711.9	1605.2	1386.5	1097.9	792.2	588.7	569.3
2.525	0.91014	1.212	1	1221.9	1702.5	1596.8	1380.2	1094.2	790.8	588.6	569.3
2.535	0.90478	1.211	1	1217.0	1693.2	1588.5	1373.8	1090.4	789.5	588.4	569.2
2.545	0.89943	1.210	1	1212.0	1683.9	1580.2	1367.5	1086.7	788.2	588.3	569.2
2.555	0.89408	1.209	1	1207.1	1674.7	1571.9	1361.3	1082.9	786.8	588.2	569.2
2.565	0.88872	1.207	1	1202.2	1665.4	1563.6	1355.0	1079.2	785.5	588.0	569.2
2.575	0.88337	1.206	1	1197.3	1656.2	1555.4	1348.8	1075.5	784.2	587.9	569.1
2.585	0.87801	1.205	1	1192.4	1647.1	1547.2	1342.5	1071.8	782.8	587.7	569.1
2.595	0.87266	1.204	1	1187.5	1637.9	1539.0	1336.3	1068.1	781.5	587.6	569.1
2.605	0.86704	1.203	1	1182.4	1628.3	1530.4	1329.8	1064.2	780.1	587.4	569.0
2.615	0.86115	1.203	1	1177.0	1618.3	1521.5	1323.0	1060.1	778.7	587.3	569.0
2.625	0.85526	1.202	1	1171.7	1608.4	1512.6	1316.3	1056.1	777.2	587.1	569.0
2.635	0.84936	1.201	1	1166.4	1598.4	1503.7	1309.5	1052.1	775.7	587.0	569.0
2.645	0.84347	1.200	1	1161.1	1588.5	1494.9	1302.8	1048.0	774.3	586.8	568.9
2.655	0.83758	1.200	1	1155.8	1578.7	1486.0	1296.1	1044.0	772.8	586.7	568.9
2.665	0.83169	1.199	1	1150.6	1568.9	1477.3	1289.5	1040.0	771.3	586.5	568.9
2.675	0.82580	1.198	1	1145.3	1559.1	1468.5	1282.8	1036.0	769.9	586.4	568.8
2.685	0.81991	1.198	1	1140.1	1549.3	1459.8	1276.2	1032.0	768.4	586.2	568.8
2.695	0.81402	1.197	1	1134.9	1539.6	1451.1	1269.6	1028.0	766.9	586.0	568.8
2.705	0.80813	1.196	1	1129.7	1529.9	1442.5	1263.0	1024.1	765.5	585.9	568.7
2.715	0.80224	1.195	1	1124.5	1520.3	1433.9	1256.5	1020.1	764.0	585.7	568.7
2.725	0.79635	1.195	1	1119.3	1510.7	1425.3	1249.9	1016.2	762.5	585.6	568.7
2.735	0.79045	1.194	1	1114.2	1501.1	1416.7	1243.4	1012.2	761.1	585.4	568.6
2.745	0.78456	1.193	1	1109.0	1491.6	1408.2	1236.9	1008.3	759.6	585.3	568.6
2.755	0.77867	1.192	1	1103.9	1482.1	1399.7	1230.5	1004.4	758.2	585.1	568.6
2.765	0.77292	1.191	1	1098.9	1472.9	1391.5	1224.2	1000.5	756.7	585.0	568.5
2.775	0.76756	1.190	1	1094.3	1464.4	1383.8	1218.3	997.0	755.4	584.8	568.5
2.785	0.76221	1.188	1	1089.7	1455.9	1376.2	1212.5	993.5	754.1	584.7	568.5
2.795	0.75685	1.186	1	1085.1	1447.4	1368.6	1206.7	989.9	752.7	584.5	568.4
2.805	0.75150	1.184	1	1080.5	1438.9	1361.0	1200.9	986.4	751.4	584.4	568.4
2.815	0.74615	1.182	1	1076.0	1430.5	1353.5	1195.2	982.9	750.0	584.2	568.4
2.825	0.74079	1.181	1	1071.4	1422.1	1346.0	1189.4	979.3	748.7	584.1	568.3
2.835	0.73544	1.180	1	1066.9	1413.8	1338.5	1183.7	975.8	747.4	583.9	568.3
2.845	0.73009	1.179	1	1062.3	1405.4	1331.1	1178.0	972.4	746.0	583.8	568.3
2.855	0.72473	1.178	1	1057.8	1397.2	1323.7	1172.3	968.9	744.7	583.7	568.3
2.865	0.71938	1.178	1	1053.3	1388.9	1316.3	1166.7	965.4	743.4	583.5	568.2
2.875	0.71402	1.177	1	1048.8	1380.7	1308.9	1161.0	961.9	742.0	583.4	568.2
2.885	0.70867	1.177	1	1044.4	1372.5	1301.6	1155.4	958.5	740.7	583.2	568.2
2.895	0.70332	1.177	1	1039.9	1364.4	1294.3	1149.8	955.0	739.4	583.1	568.1
2.905	0.69796	1.176	1	1035.5	1356.2	1287.0	1144.2	951.6	738.0	582.9	568.1
2.915	0.69261	1.176	1	1031.0	1348.2	1279.7	1138.7	948.1	736.7	582.8	568.1
2.925	0.68726	1.176	1	1026.6	1340.1	1272.5	1133.1	944.7	735.4	582.6	568.0
2.935	0.68297	1.176	1	1023.1	1333.7	1266.8	1128.7	941.9	734.3	582.5	568.0
2.945	0.67869	1.175	1	1019.6	1327.3	1261.0	1124.3	939.2	733.2	582.4	568.0
2.955	0.67441	1.175	1	1016.1	1320.9	1255.3	1119.9	936.5	732.2	582.3	568.0
2.965	0.67013	1.174	1	1012.6	1314.6	1249.6	1115.5	933.8	731.1	582.2	567.9
2.975	0.66585	1.174	1	1009.1	1308.3	1244.0	1111.1	931.0	730.0	582.1	567.9
2.985	0.66157	1.173	1	1005.6	1301.9	1238.3	1106.7	928.3	729.0	582.0	567.9
2.995	0.65728	1.173	1	1002.2	1295.7	1232.7	1102.4	925.6	727.9	581.8	567.9
3.005	0.65300	1.172	1	998.7	1289.4	1227.0	1098.1	922.9	726.8	581.7	567.8
3.015	0.64872	1.172	1	995.2	1283.2	1221.4	1093.7	920.2	725.8	581.6	567.8
3.025	0.64444	1.171	1	991.8	1276.9	1215.8	1089.4	917.5	724.7	581.5	567.8
3.035	0.64016	1.171	1	988.4	1270.7	1210.3	1085.1	914.8	723.6	581.4	567.8
3.045	0.63588	1.171	1	984.9	1264.6	1204.7	1080.8	912.1	722.6	581.3	567.7

3.055	0.63160	1.170	1	981.5	1258.4	1199.2	1076.5	909.4	721.5	581.1	567.7
3.065	0.62731	1.170	1	978.1	1252.3	1193.7	1072.3	906.8	720.4	581.0	567.7
3.075	0.62303	1.170	1	974.7	1246.2	1188.2	1068.0	904.1	719.4	580.9	567.7
3.085	0.61875	1.169	1	971.3	1240.1	1182.7	1063.8	901.4	718.3	580.8	567.6
3.095	0.61487	1.169	1	968.2	1234.6	1177.7	1059.9	899.0	717.3	580.7	567.6
3.105	0.61112	1.168	1	965.3	1229.3	1173.0	1056.2	896.7	716.4	580.6	567.6
3.115	0.60737	1.168	1	962.3	1224.0	1168.2	1052.5	894.4	715.4	580.5	567.6
3.125	0.60362	1.168	1	959.4	1218.7	1163.5	1048.8	892.0	714.5	580.4	567.5
3.135	0.59987	1.167	1	956.4	1213.5	1158.8	1045.2	889.7	713.6	580.3	567.5
3.145	0.59612	1.167	1	953.5	1208.2	1154.0	1041.5	887.4	712.6	580.2	567.5
3.155	0.59237	1.166	1	950.6	1203.0	1149.3	1037.9	885.1	711.7	580.1	567.5
3.165	0.58863	1.166	1	947.7	1197.8	1144.7	1034.2	882.8	710.8	580.0	567.4
3.175	0.58488	1.166	1	944.8	1192.6	1140.0	1030.6	880.5	709.8	579.9	567.4
3.185	0.58113	1.165	1	941.9	1187.5	1135.3	1027.0	878.2	708.9	579.8	567.4
3.195	0.57738	1.165	1	939.0	1182.3	1130.7	1023.3	875.9	708.0	579.7	567.4
3.205	0.57363	1.164	1	936.1	1177.2	1126.1	1019.7	873.6	707.0	579.6	567.3
3.215	0.56988	1.164	1	933.2	1172.0	1121.4	1016.1	871.3	706.1	579.4	567.3
3.225	0.56613	1.164	1	930.3	1166.9	1116.8	1012.5	869.0	705.2	579.3	567.3
3.235	0.56238	1.163	1	927.4	1161.8	1112.2	1008.9	866.8	704.2	579.2	567.3
3.245	0.55863	1.163	1	924.6	1156.8	1107.7	1005.4	864.5	703.3	579.1	567.2
3.255	0.55515	1.163	1	921.9	1152.1	1103.4	1002.1	862.4	702.4	579.0	567.2
3.265	0.55194	1.162	1	919.5	1147.8	1099.5	999.0	860.4	701.6	579.0	567.2
3.275	0.54873	1.162	1	917.0	1143.5	1095.6	996.0	858.5	700.8	578.9	567.2
3.285	0.54552	1.161	1	914.6	1139.2	1091.8	992.9	856.5	700.0	578.8	567.2
3.295	0.54231	1.161	1	912.2	1134.9	1087.9	989.9	854.6	699.2	578.7	567.1
3.305	0.53909	1.161	1	909.7	1130.6	1084.0	986.9	852.7	698.4	578.6	567.1
3.315	0.53588	1.160	1	907.3	1126.3	1080.2	983.9	850.7	697.6	578.5	567.1
3.325	0.53267	1.160	1	904.9	1122.1	1076.3	980.9	848.8	696.8	578.4	567.1
3.335	0.52946	1.159	1	902.5	1117.9	1072.5	977.9	846.9	696.0	578.3	567.1
3.345	0.52625	1.159	1	900.1	1113.6	1068.7	974.9	845.0	695.2	578.2	567.0
3.355	0.52303	1.159	1	897.7	1109.4	1064.9	971.9	843.0	694.4	578.1	567.0
3.365	0.51982	1.158	1	895.3	1105.2	1061.1	968.9	841.1	693.6	578.1	567.0
3.375	0.51661	1.158	1	892.9	1101.0	1057.3	965.9	839.2	692.8	578.0	567.0
3.385	0.51340	1.158	1	890.5	1096.8	1053.5	962.9	837.3	692.0	577.9	566.9
3.395	0.51019	1.157	1	888.1	1092.7	1049.7	960.0	835.4	691.2	577.8	566.9
3.405	0.50698	1.157	1	885.7	1088.5	1046.0	957.0	833.5	690.4	577.7	566.9
3.415	0.50390	1.157	1	883.4	1084.5	1042.4	954.2	831.6	689.6	577.6	566.9
3.425	0.50122	1.156	1	881.5	1081.1	1039.3	951.7	830.0	688.9	577.5	566.9
3.435	0.49854	1.156	1	879.5	1077.7	1036.2	949.3	828.5	688.3	577.5	566.8
3.445	0.49587	1.155	1	877.5	1074.2	1033.0	946.8	826.9	687.6	577.4	566.8
3.455	0.49319	1.155	1	875.5	1070.8	1029.9	944.4	825.3	686.9	577.3	566.8
3.465	0.49051	1.155	1	873.6	1067.4	1026.9	942.0	823.7	686.2	577.2	566.8
3.475	0.48784	1.154	1	871.6	1064.0	1023.8	939.5	822.1	685.6	577.2	566.8
3.485	0.48516	1.154	1	869.7	1060.6	1020.7	937.1	820.6	684.9	577.1	566.7
3.495	0.48248	1.153	1	867.7	1057.2	1017.6	934.7	819.0	684.2	577.0	566.7
3.505	0.47981	1.153	1	865.7	1053.8	1014.6	932.2	817.4	683.6	576.9	566.7
3.515	0.47713	1.153	1	863.8	1050.4	1011.5	929.8	815.8	682.9	576.9	566.7
3.525	0.47445	1.152	1	861.9	1047.1	1008.4	927.4	814.3	682.2	576.8	566.7
3.535	0.47178	1.152	1	859.9	1043.7	1005.4	925.0	812.7	681.5	576.7	566.7
3.545	0.46910	1.152	1	858.0	1040.4	1002.4	922.6	811.1	680.9	576.6	566.6
3.555	0.46642	1.151	1	856.0	1037.0	999.3	920.2	809.6	680.2	576.6	566.6
3.565	0.46374	1.151	1	854.1	1033.7	996.3	917.8	808.0	679.5	576.5	566.6
3.575	0.46107	1.151	1	852.2	1030.3	993.3	915.4	806.5	678.9	576.4	566.6
3.585	0.45732	1.151	1	849.5	1025.7	989.1	912.1	804.3	677.9	576.3	566.5
3.595	0.45357	1.151	1	846.8	1021.1	984.9	908.7	802.1	677.0	576.2	566.5
3.605	0.44983	1.151	1	844.1	1016.5	980.7	905.4	799.9	676.0	576.1	566.5
3.615	0.44608	1.151	1	841.4	1011.9	976.5	902.1	797.8	675.1	576.0	566.5
3.625	0.44233	1.151	1	838.8	1007.3	972.3	898.8	795.6	674.2	575.9	566.4
3.635	0.43859	1.151	1	836.1	1002.7	968.2	895.5	793.4	673.2	575.8	566.4
3.645	0.43484	1.151	1	833.4	998.2	964.0	892.2	791.3	672.3	575.7	566.4
3.655	0.43110	1.151	1	830.8	993.6	959.9	888.9	789.1	671.4	575.6	566.4
3.665	0.42735	1.151	1	828.1	989.1	955.8	885.7	786.9	670.4	575.4	566.3

3.675	0.42360	1.151	1	825.5	984.6	951.7	882.4	784.8	669.5	575.3	566.3
3.685	0.41986	1.151	1	822.8	980.1	947.6	879.1	782.6	668.5	575.2	566.3
3.695	0.41611	1.151	1	820.2	975.6	943.5	875.9	780.5	667.6	575.1	566.2
3.705	0.41236	1.151	1	817.6	971.1	939.5	872.7	778.4	666.6	575.0	566.2
3.715	0.40862	1.152	1	815.0	966.7	935.4	869.4	776.2	665.7	574.9	566.2
3.725	0.40487	1.152	1	812.4	962.3	931.4	866.2	774.1	664.8	574.8	566.2
3.735	0.40112	1.152	1	809.8	957.8	927.4	863.0	772.0	663.8	574.7	566.1
3.745	0.39778	1.152	1	807.4	953.9	923.8	860.1	770.1	663.0	574.6	566.1
3.755	0.39456	1.152	1	805.2	950.1	920.3	857.4	768.2	662.2	574.5	566.1
3.765	0.39135	1.152	1	803.0	946.4	916.9	854.6	766.4	661.4	574.4	566.1
3.775	0.38814	1.152	1	800.8	942.6	913.5	851.9	764.6	660.6	574.3	566.0
3.785	0.38493	1.152	1	798.6	938.9	910.1	849.2	762.8	659.8	574.2	566.0
3.795	0.38172	1.152	1	796.3	935.2	906.7	846.5	761.0	659.0	574.1	566.0
3.805	0.37851	1.152	1	794.1	931.5	903.3	843.7	759.2	658.1	574.0	566.0
3.815	0.37529	1.152	1	791.9	927.8	899.9	841.0	757.4	657.3	573.9	565.9
3.825	0.37208	1.152	1	789.7	924.1	896.6	838.3	755.6	656.5	573.8	565.9
3.835	0.36887	1.153	1	787.6	920.4	893.2	835.6	753.8	655.7	573.7	565.9
3.845	0.36566	1.153	1	785.4	916.7	889.9	832.9	752.0	654.9	573.7	565.9
3.855	0.36245	1.153	1	783.2	913.1	886.5	830.3	750.2	654.1	573.6	565.8
3.865	0.35924	1.153	1	781.0	909.4	883.2	827.6	748.4	653.3	573.5	565.8
3.875	0.35602	1.153	1	778.8	905.8	879.9	824.9	746.6	652.5	573.4	565.8
3.885	0.35281	1.153	1	776.7	902.2	876.6	822.2	744.8	651.7	573.3	565.7
3.895	0.34960	1.153	1	774.5	898.5	873.3	819.6	743.0	650.9	573.2	565.7
3.905	0.34639	1.154	1	772.3	894.9	870.0	816.9	741.2	650.1	573.1	565.7
3.915	0.34318	1.154	1	770.2	891.3	866.7	814.3	739.4	649.3	573.0	565.7
3.925	0.33996	1.154	1	768.0	887.8	863.4	811.6	737.7	648.4	572.9	565.6
3.935	0.33675	1.154	1	765.9	884.2	860.1	809.0	735.9	647.6	572.8	565.6
3.945	0.33354	1.154	1	763.7	880.6	856.9	806.3	734.1	646.8	572.7	565.6
3.955	0.33033	1.155	1	761.6	877.1	853.6	803.7	732.3	646.0	572.6	565.6
3.965	0.32712	1.155	1	759.5	873.5	850.4	801.1	730.6	645.2	572.5	565.5
3.975	0.32391	1.155	1	757.3	870.0	847.1	798.5	728.8	644.4	572.4	565.5
3.985	0.32069	1.155	1	755.2	866.5	843.9	795.9	727.0	643.6	572.3	565.5
3.995	0.31748	1.156	1	753.1	862.9	840.7	793.3	725.3	642.8	572.2	565.4

TIME = 0.00000 SEC - HEAT TRANSFER DATA FOR ROD 1 (FUEL TYPE 1)

DISTANCE (M)	H.T.MODE (W/M2/K)	HSURF (W/M2/K)	HGAP (K)	TFLUID
0.005	2	28564.000	5000.000	548.31
0.015	2	29135.590	5000.000	548.46
0.025	2	29717.598	5000.000	548.61
0.035	2	30310.490	5000.000	548.77
0.045	2	30914.863	5000.000	548.93
0.055	2	31531.174	5000.000	549.09
0.065	2	32160.025	5000.000	549.25
0.075	2	32801.938	5000.000	549.42
0.085	2	33457.352	5000.000	549.59
0.095	2	34126.906	5000.000	549.76
0.105	2	34811.160	5000.000	549.93
0.115	2	35510.594	5000.000	550.11
0.125	2	36225.812	5000.000	550.29
0.135	2	36957.469	5000.000	550.47
0.145	2	37706.012	5000.000	550.65
0.155	2	38472.004	5000.000	550.84
0.165	2	39256.012	5000.000	551.03
0.175	2	40059.211	5000.000	551.22
0.185	2	40882.934	5000.000	551.41
0.195	2	41728.391	5000.000	551.61
0.205	2	42596.656	5000.000	551.81
0.215	2	43488.941	5000.000	552.01

0.225	2	44406.398	5000.000	552.22
0.235	2	45350.211	5000.000	552.42
0.245	2	46321.586	5000.000	552.63
0.255	2	47321.602	5000.000	552.85
0.265	2	48351.598	5000.000	553.06
0.275	2	49413.180	5000.000	553.28
0.285	2	50508.430	5000.000	553.50
0.295	2	51639.492	5000.000	553.73
0.305	2	52808.250	5000.000	553.95
0.315	2	54016.301	5000.000	554.18
0.325	2	55265.539	5000.000	554.41
0.335	2	56612.852	5000.000	554.65
0.345	2	58007.766	5000.000	554.89
0.355	2	59453.301	5000.000	555.13
0.365	2	60953.586	5000.000	555.37
0.375	2	62512.051	5000.000	555.61
0.385	2	64132.219	5000.000	555.86
0.395	2	65815.375	5000.000	556.11
0.405	2	67569.164	5000.000	556.37
0.415	2	69389.805	5000.000	556.62
0.425	2	71281.828	5000.000	556.88
0.435	2	73251.133	5000.000	557.14
0.445	2	75304.570	5000.000	557.40
0.455	2	77449.578	5000.000	557.67
0.465	2	79693.641	5000.000	557.94
0.475	2	82045.484	5000.000	558.21
0.485	2	84514.289	5000.000	558.49
0.495	2	87109.703	5000.000	558.77
0.505	2	89843.070	5000.000	559.05
0.515	2	92726.781	5000.000	559.34
0.525	2	95773.914	5000.000	559.62
0.535	2	98999.852	5000.000	559.92
0.545	2	102421.750	5000.000	560.21
0.555	3	106057.945	5000.000	560.51
0.565	3	109930.211	5000.000	560.81
0.575	3	114062.773	5000.000	561.12
0.585	3	118088.820	5000.000	561.39
0.595	3	120186.820	5000.000	561.52
0.605	3	120614.391	5000.000	561.52
0.615	3	121042.156	5000.000	561.52
0.625	3	121467.758	5000.000	561.51
0.635	3	121891.680	5000.000	561.51
0.645	3	122314.039	5000.000	561.51
0.655	3	122655.125	5000.000	561.51
0.665	3	122915.180	5000.000	561.51
0.675	3	123174.508	5000.000	561.51
0.685	3	123433.219	5000.000	561.51
0.695	3	123692.758	5000.000	561.51
0.705	3	123953.484	5000.000	561.50
0.715	3	124214.625	5000.000	561.50
0.725	3	124475.531	5000.000	561.50
0.735	3	124735.992	5000.000	561.50
0.745	3	124995.875	5000.000	561.50
0.755	3	125256.203	5000.000	561.50
0.765	3	125518.789	5000.000	561.50
0.775	3	125784.281	5000.000	561.50
0.785	3	126054.727	5000.000	561.49
0.795	3	125928.398	5000.000	561.46
0.805	3	126209.469	5000.000	561.46
0.815	3	126453.938	5000.000	561.46
0.825	3	126598.195	5000.000	561.46
0.835	3	126737.062	5000.000	561.46

0.845	3	126871.656	5000.000	561.46
0.855	3	127002.273	5000.000	561.45
0.865	3	127130.328	5000.000	561.45
0.875	3	127256.398	5000.000	561.45
0.885	3	127380.547	5000.000	561.45
0.895	3	127503.555	5000.000	561.45
0.905	3	127625.711	5000.000	561.45
0.915	3	127747.727	5000.000	561.45
0.925	3	127868.922	5000.000	561.45
0.935	3	127989.992	5000.000	561.44
0.945	3	128111.047	5000.000	561.44
0.955	3	128232.219	5000.000	561.44
0.965	3	128353.562	5000.000	561.44
0.975	3	128475.031	5000.000	561.44
0.985	3	128522.258	5000.000	561.44
0.995	3	128570.609	5000.000	561.44
1.005	3	128618.391	5000.000	561.44
1.015	3	128666.477	5000.000	561.43
1.025	3	128715.367	5000.000	561.43
1.035	3	128764.164	5000.000	561.43
1.045	3	128813.477	5000.000	561.43
1.055	3	128861.875	5000.000	561.43
1.065	3	128910.547	5000.000	561.43
1.075	3	128958.547	5000.000	561.43
1.085	3	129007.070	5000.000	561.43
1.095	3	129056.375	5000.000	561.42
1.105	3	129107.016	5000.000	561.42
1.115	3	129158.695	5000.000	561.42
1.125	3	129210.508	5000.000	561.42
1.135	3	129262.320	5000.000	561.42
1.145	3	129295.727	5000.000	561.42
1.155	3	129323.523	5000.000	561.42
1.165	3	129353.766	5000.000	561.41
1.175	3	129387.008	5000.000	561.41
1.185	3	129424.773	5000.000	561.41
1.195	3	128936.430	5000.000	561.37
1.205	3	128983.727	5000.000	561.37
1.215	3	129028.438	5000.000	561.37
1.225	3	129068.758	5000.000	561.36
1.235	3	129105.180	5000.000	561.36
1.245	3	129138.078	5000.000	561.36
1.255	3	129168.328	5000.000	561.36
1.265	3	129195.844	5000.000	561.36
1.275	3	129221.648	5000.000	561.36
1.285	3	129246.453	5000.000	561.36
1.295	3	129270.344	5000.000	561.35
1.305	3	129281.484	5000.000	561.35
1.315	3	129280.156	5000.000	561.35
1.325	3	129278.680	5000.000	561.35
1.335	3	129277.250	5000.000	561.35
1.345	3	129275.953	5000.000	561.35
1.355	3	129275.312	5000.000	561.35
1.365	3	129274.188	5000.000	561.35
1.375	3	129273.547	5000.000	561.34
1.385	3	129273.281	5000.000	561.34
1.395	3	129272.836	5000.000	561.34
1.405	3	129272.586	5000.000	561.34
1.415	3	129272.930	5000.000	561.34
1.425	3	129272.641	5000.000	561.34
1.435	3	129273.094	5000.000	561.34
1.445	3	129273.805	5000.000	561.33
1.455	3	129273.430	5000.000	561.33

1.465	3	129261.125	5000.000	561.33
1.475	3	129211.508	5000.000	561.33
1.485	3	129162.000	5000.000	561.33
1.495	3	129114.086	5000.000	561.33
1.505	3	129066.641	5000.000	561.33
1.515	3	129020.172	5000.000	561.32
1.525	3	128973.922	5000.000	561.32
1.535	3	128927.406	5000.000	561.32
1.545	3	128880.945	5000.000	561.32
1.555	3	128835.359	5000.000	561.32
1.565	3	128791.688	5000.000	561.32
1.575	3	128751.523	5000.000	561.32
1.585	3	128716.352	5000.000	561.31
1.595	3	128016.961	5000.000	561.26
1.605	3	127992.617	5000.000	561.26
1.615	3	127964.422	5000.000	561.26
1.625	3	127931.445	5000.000	561.25
1.635	3	127869.672	5000.000	561.25
1.645	3	127804.109	5000.000	561.25
1.655	3	127735.844	5000.000	561.25
1.665	3	127665.023	5000.000	561.25
1.675	3	127592.352	5000.000	561.25
1.685	3	127519.172	5000.000	561.25
1.695	3	127444.477	5000.000	561.24
1.705	3	127369.586	5000.000	561.24
1.715	3	127294.422	5000.000	561.24
1.725	3	127219.305	5000.000	561.24
1.735	3	127144.469	5000.000	561.24
1.745	3	127069.484	5000.000	561.24
1.755	3	126994.719	5000.000	561.23
1.765	3	126920.188	5000.000	561.23
1.775	3	126845.461	5000.000	561.23
1.785	3	126771.375	5000.000	561.23
1.795	3	126678.445	5000.000	561.23
1.805	3	126579.836	5000.000	561.23
1.815	3	126480.891	5000.000	561.23
1.825	3	126382.039	5000.000	561.22
1.835	3	126283.336	5000.000	561.22
1.845	3	126184.555	5000.000	561.22
1.855	3	126085.359	5000.000	561.22
1.865	3	125985.547	5000.000	561.22
1.875	3	125885.883	5000.000	561.22
1.885	3	125786.336	5000.000	561.22
1.895	3	125687.570	5000.000	561.21
1.905	3	125589.922	5000.000	561.21
1.915	3	125492.914	5000.000	561.21
1.925	3	125395.812	5000.000	561.21
1.935	3	125298.516	5000.000	561.21
1.945	3	125201.312	5000.000	561.21
1.955	3	125067.805	5000.000	561.20
1.965	3	124898.680	5000.000	561.20
1.975	3	124732.992	5000.000	561.20
1.985	3	124572.086	5000.000	561.20
1.995	3	123614.156	5000.000	561.13
2.005	3	123465.852	5000.000	561.13
2.015	3	123312.188	5000.000	561.13
2.025	3	123153.219	5000.000	561.13
2.035	3	122989.055	5000.000	561.13
2.045	3	122820.875	5000.000	561.12
2.055	3	122649.508	5000.000	561.12
2.065	3	122475.359	5000.000	561.12
2.075	3	122298.977	5000.000	561.12

2.085	3	122121.805	5000.000	561.12
2.095	3	121943.336	5000.000	561.12
2.105	3	121764.359	5000.000	561.11
2.115	3	121578.359	5000.000	561.11
2.125	3	121373.203	5000.000	561.11
2.135	3	121167.875	5000.000	561.11
2.145	3	120962.406	5000.000	561.11
2.155	3	120756.500	5000.000	561.11
2.165	3	120550.930	5000.000	561.10
2.175	3	120345.305	5000.000	561.10
2.185	3	120139.086	5000.000	561.10
2.195	3	119932.945	5000.000	561.10
2.205	3	119726.500	5000.000	561.10
2.215	3	119519.875	5000.000	561.10
2.225	3	119313.031	5000.000	561.10
2.235	3	119106.102	5000.000	561.09
2.245	3	118898.508	5000.000	561.09
2.255	3	118690.836	5000.000	561.09
2.265	3	118481.945	5000.000	561.09
2.275	3	118272.945	5000.000	561.09
2.285	3	117958.375	5000.000	561.09
2.295	3	117643.852	5000.000	561.08
2.305	3	117329.805	5000.000	561.08
2.315	3	117015.359	5000.000	561.08
2.325	3	116700.375	5000.000	561.08
2.335	3	116384.383	5000.000	561.08
2.345	3	116067.945	5000.000	561.08
2.355	3	115751.609	5000.000	561.07
2.365	3	115436.594	5000.000	561.07
2.375	3	115124.016	5000.000	561.07
2.385	3	114815.742	5000.000	561.07
2.395	3	113586.164	5000.000	560.99
2.405	3	113289.789	5000.000	560.99
2.415	3	112987.477	5000.000	560.99
2.425	3	112678.727	5000.000	560.99
2.435	3	112364.227	5000.000	560.98
2.445	3	112065.453	5000.000	560.98
2.455	3	111769.672	5000.000	560.98
2.465	3	111470.828	5000.000	560.98
2.475	3	111169.641	5000.000	560.98
2.485	3	110866.258	5000.000	560.98
2.495	3	110561.289	5000.000	560.97
2.505	3	110254.867	5000.000	560.97
2.515	3	109947.781	5000.000	560.97
2.525	3	109640.141	5000.000	560.97
2.535	3	109331.047	5000.000	560.97
2.545	3	109021.812	5000.000	560.97
2.555	3	108712.180	5000.000	560.96
2.565	3	108401.211	5000.000	560.96
2.575	3	108090.047	5000.000	560.96
2.585	3	107778.227	5000.000	560.96
2.595	3	107465.688	5000.000	560.96
2.605	3	107137.469	5000.000	560.96
2.615	3	106793.781	5000.000	560.95
2.625	3	106449.562	5000.000	560.95
2.635	3	106104.102	5000.000	560.95
2.645	3	105757.766	5000.000	560.95
2.655	3	105410.023	5000.000	560.95
2.665	3	105060.602	5000.000	560.95
2.675	3	104709.797	5000.000	560.95
2.685	3	104358.344	5000.000	560.94
2.695	3	104006.523	5000.000	560.94

2.705	3	103654.422	5000.000	560.94
2.715	3	103302.352	5000.000	560.94
2.725	3	102948.828	5000.000	560.94
2.735	3	102594.148	5000.000	560.94
2.745	3	102238.594	5000.000	560.93
2.755	3	101882.656	5000.000	560.93
2.765	3	101535.188	5000.000	560.93
2.775	3	101213.211	5000.000	560.93
2.785	3	100894.797	5000.000	560.93
2.795	3	99553.297	5000.000	560.84
2.805	3	99245.844	5000.000	560.84
2.815	3	98932.742	5000.000	560.83
2.825	3	98613.688	5000.000	560.83
2.835	3	98288.602	5000.000	560.83
2.845	3	97958.445	5000.000	560.83
2.855	3	97624.195	5000.000	560.83
2.865	3	97286.320	5000.000	560.83
2.875	3	96945.781	5000.000	560.82
2.885	3	96602.734	5000.000	560.82
2.895	3	96257.867	5000.000	560.82
2.905	3	95910.977	5000.000	560.82
2.915	3	95562.883	5000.000	560.82
2.925	3	95213.422	5000.000	560.82
2.935	3	94928.219	5000.000	560.81
2.945	3	94642.766	5000.000	560.81
2.955	3	94356.188	5000.000	560.81
2.965	3	94069.227	5000.000	560.81
2.975	3	93781.523	5000.000	560.81
2.985	3	93493.180	5000.000	560.81
2.995	3	93204.141	5000.000	560.81
3.005	3	92914.359	5000.000	560.80
3.015	3	92623.406	5000.000	560.80
3.025	3	92332.000	5000.000	560.80
3.035	3	92039.766	5000.000	560.80
3.045	3	91746.617	5000.000	560.80
3.055	3	91452.578	5000.000	560.80
3.065	3	91157.594	5000.000	560.79
3.075	3	90861.289	5000.000	560.79
3.085	3	90564.820	5000.000	560.79
3.095	3	90292.734	5000.000	560.79
3.105	3	90028.367	5000.000	560.79
3.115	3	89763.484	5000.000	560.79
3.125	3	89497.516	5000.000	560.79
3.135	3	89231.461	5000.000	560.78
3.145	3	88964.398	5000.000	560.78
3.155	3	88696.664	5000.000	560.78
3.165	3	88428.617	5000.000	560.78
3.175	3	88159.094	5000.000	560.78
3.185	3	87889.641	5000.000	560.78
3.195	3	87619.086	5000.000	560.77
3.205	3	87347.805	5000.000	560.77
3.215	3	87076.203	5000.000	560.77
3.225	3	86803.016	5000.000	560.77
3.235	3	86529.891	5000.000	560.77
3.245	3	86255.570	5000.000	560.77
3.255	3	85998.648	5000.000	560.77
3.265	3	85759.281	5000.000	560.76
3.275	3	85519.336	5000.000	560.76
3.285	3	85279.188	5000.000	560.76
3.295	3	85037.633	5000.000	560.76
3.305	3	84796.266	5000.000	560.76
3.315	3	84553.867	5000.000	560.76

3.325	3	84310.852	5000.000	560.75
3.335	3	84067.617	5000.000	560.75
3.345	3	83822.922	5000.000	560.75
3.355	3	83578.406	5000.000	560.75
3.365	3	83332.836	5000.000	560.75
3.375	3	83086.617	5000.000	560.75
3.385	3	82839.719	5000.000	560.74
3.395	3	82592.164	5000.000	560.74
3.405	3	82344.336	5000.000	560.74
3.415	3	82104.922	5000.000	560.74
3.425	3	81893.477	5000.000	560.74
3.435	3	81681.555	5000.000	560.74
3.445	3	81469.562	5000.000	560.74
3.455	3	81256.695	5000.000	560.73
3.465	3	81043.344	5000.000	560.73
3.475	3	80829.914	5000.000	560.73
3.485	3	80615.195	5000.000	560.73
3.495	3	80400.789	5000.000	560.73
3.505	3	80185.484	5000.000	560.73
3.515	3	79970.070	5000.000	560.72
3.525	3	79753.352	5000.000	560.72
3.535	3	79536.938	5000.000	560.72
3.545	3	79319.578	5000.000	560.72
3.555	3	79102.117	5000.000	560.72
3.565	3	78883.703	5000.000	560.72
3.575	3	78664.766	5000.000	560.72
3.585	3	78366.023	5000.000	560.71
3.595	3	78065.367	5000.000	560.71
3.605	3	77764.383	5000.000	560.71
3.615	3	77461.867	5000.000	560.71
3.625	3	77158.602	5000.000	560.71
3.635	3	76853.797	5000.000	560.71
3.645	3	76548.195	5000.000	560.70
3.655	3	76241.000	5000.000	560.70
3.665	3	75932.992	5000.000	560.70
3.675	3	75623.367	5000.000	560.70
3.685	3	75312.891	5000.000	560.70
3.695	3	75000.773	5000.000	560.70
3.705	3	74687.766	5000.000	560.70
3.715	3	74373.070	5000.000	560.69
3.725	3	74057.438	5000.000	560.69
3.735	3	73740.094	5000.000	560.69
3.745	3	73453.828	5000.000	560.69
3.755	3	73177.219	5000.000	560.69
3.765	3	72899.188	5000.000	560.69
3.775	3	72620.547	5000.000	560.68
3.785	3	72340.453	5000.000	560.68
3.795	3	72060.117	5000.000	560.68
3.805	3	71777.906	5000.000	560.68
3.815	3	71495.023	5000.000	560.68
3.825	3	71211.039	5000.000	560.68
3.835	3	70925.555	5000.000	560.68
3.845	3	70639.742	5000.000	560.67
3.855	3	70352.000	5000.000	560.67
3.865	3	70063.492	5000.000	560.67
3.875	3	69773.820	5000.000	560.67
3.885	3	69482.555	5000.000	560.67
3.895	3	69190.906	5000.000	560.67
3.905	3	68897.219	5000.000	560.66
3.915	3	68602.711	5000.000	560.66
3.925	3	68307.336	5000.000	560.66
3.935	3	68009.898	5000.000	560.66

3.945	3	67711.547	5000.000	560.66
3.955	3	67412.305	5000.000	560.66
3.965	3	67111.312	5000.000	560.66
3.975	3	66808.578	5000.000	560.65
3.985	3	66505.266	5000.000	560.65
3.995	3	66200.164	5000.000	560.65

1PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - TEMPERATURE DATA FOR ROD 2 (FUEL TYPE 1)

DISTANCE (M)	FLUX (MW/M2)	DNBR	CHANNEL (DEG-K)	AV FUEL T		TEMPERATURE					
				T (1)	T (2)	T (3)	T (4)	T (5)	T (6)	T (7)	
0.005	0.45098	0.000	0	842.5	1015.1	979.2	903.9	798.3	674.3	574.1	564.4
0.015	0.45877	9.865	2	848.1	1024.7	988.0	910.9	802.8	676.3	574.4	564.6
0.025	0.46656	9.598	2	853.8	1034.5	996.8	917.9	807.4	678.3	574.6	564.7
0.035	0.47434	9.344	2	859.5	1044.3	1005.7	924.9	812.0	680.3	574.9	564.8
0.045	0.48213	9.102	2	865.2	1054.1	1014.7	932.0	816.7	682.3	575.2	564.9
0.055	0.48992	8.871	2	871.0	1064.1	1023.7	939.1	821.3	684.3	575.4	565.0
0.065	0.49771	8.650	2	876.7	1074.1	1032.8	946.3	825.9	686.3	575.7	565.1
0.075	0.50549	8.438	2	882.5	1084.1	1041.9	953.4	830.6	688.3	576.0	565.2
0.085	0.51328	8.235	2	888.4	1094.3	1051.1	960.7	835.3	690.3	576.2	565.3
0.095	0.52107	8.040	2	894.2	1104.5	1060.3	967.9	840.0	692.3	576.5	565.4
0.105	0.52886	7.854	2	900.1	1114.8	1069.6	975.2	844.7	694.3	576.7	565.5
0.115	0.53664	7.674	2	906.0	1125.1	1078.9	982.6	849.4	696.2	577.0	565.5
0.125	0.54443	7.502	2	911.9	1135.5	1088.3	989.9	854.1	698.2	577.2	565.6
0.135	0.55222	7.336	2	917.9	1146.0	1097.8	997.4	858.9	700.2	577.5	565.7
0.145	0.56000	7.177	2	923.9	1156.5	1107.3	1004.8	863.6	702.2	577.8	565.8
0.155	0.56779	7.024	2	929.9	1167.1	1116.9	1012.3	868.4	704.2	578.0	565.9
0.165	0.57558	6.877	2	935.9	1177.8	1126.5	1019.8	873.2	706.2	578.3	566.0
0.175	0.58337	6.735	2	942.0	1188.6	1136.2	1027.4	878.0	708.2	578.5	566.1
0.185	0.59115	6.598	2	948.1	1199.4	1146.0	1035.0	882.8	710.1	578.8	566.2
0.195	0.59894	6.466	2	954.2	1210.3	1155.8	1042.6	887.7	712.1	579.0	566.3
0.205	0.60673	6.338	2	960.3	1221.3	1165.6	1050.3	892.5	714.1	579.3	566.3
0.215	0.61452	6.214	2	966.5	1232.3	1175.6	1058.0	897.4	716.1	579.5	566.4
0.225	0.62230	6.095	2	972.7	1243.4	1185.6	1065.7	902.3	718.1	579.8	566.5
0.235	0.63009	5.979	2	978.9	1254.6	1195.6	1073.5	907.2	720.0	580.0	566.6
0.245	0.63788	5.867	2	985.2	1265.8	1205.7	1081.4	912.1	722.0	580.3	566.7
0.255	0.64566	5.758	2	991.5	1277.1	1215.9	1089.2	917.1	724.0	580.5	566.8
0.265	0.65345	5.653	2	997.8	1288.5	1226.1	1097.1	922.0	726.0	580.8	566.8
0.275	0.66124	5.551	2	1004.1	1300.0	1236.4	1105.1	927.0	727.9	581.0	566.9
0.285	0.66903	5.452	2	1010.5	1311.5	1246.8	1113.1	931.9	729.9	581.2	567.0
0.295	0.67681	5.355	2	1016.9	1323.1	1257.2	1121.1	936.9	731.9	581.5	567.1
0.305	0.68460	5.262	2	1023.3	1334.8	1267.7	1129.2	941.9	733.9	581.7	567.2
0.315	0.69239	5.171	2	1029.8	1346.5	1278.2	1137.3	947.0	735.8	582.0	567.2
0.325	0.70018	5.082	2	1036.3	1358.3	1288.8	1145.4	952.0	737.8	582.2	567.3
0.335	0.70900	4.991	2	1043.7	1371.8	1300.9	1154.7	957.7	740.0	582.5	567.4
0.345	0.71783	4.902	2	1051.1	1385.3	1313.0	1164.0	963.5	742.3	582.7	567.5
0.355	0.72665	4.816	2	1058.5	1399.0	1325.2	1173.4	969.3	744.5	583.0	567.6
0.365	0.73548	4.732	2	1066.0	1412.7	1337.5	1182.8	975.1	746.7	583.3	567.6
0.375	0.74430	4.649	2	1073.5	1426.6	1349.9	1192.3	980.9	749.0	583.6	567.7
0.385	0.75313	4.569	2	1081.1	1440.5	1362.4	1201.8	986.7	751.2	583.8	567.8
0.395	0.76196	4.490	2	1088.7	1454.5	1374.9	1211.4	992.6	753.4	584.1	567.9
0.405	0.77078	4.413	2	1096.3	1468.6	1387.5	1221.0	998.4	755.6	584.3	568.0
0.415	0.77961	4.340	2	1104.0	1482.7	1400.2	1230.7	1004.3	757.8	584.6	568.0
0.425	0.78843	4.268	2	1111.7	1497.0	1413.0	1240.5	1010.2	760.1	584.9	568.1
0.435	0.79726	4.200	2	1119.5	1511.4	1425.8	1250.2	1016.2	762.3	585.1	568.2
0.445	0.80608	4.133	2	1127.3	1525.8	1438.7	1260.1	1022.1	764.5	585.4	568.3
0.455	0.81491	4.069	2	1135.1	1540.4	1451.7	1270.0	1028.1	766.7	585.7	568.4
0.465	0.82374	4.006	2	1142.9	1555.0	1464.8	1279.9	1034.1	769.0	585.9	568.4
0.475	0.83256	3.946	2	1150.8	1569.7	1478.0	1289.9	1040.1	771.2	586.2	568.5

0.485	0.84139	3.886	2	1158.8	1584.5	1491.2	1300.0	1046.2	773.4	586.4	568.6
0.495	0.85021	3.829	2	1166.7	1599.3	1504.5	1310.1	1052.3	775.6	586.7	568.7
0.505	0.85904	3.773	2	1174.7	1614.3	1517.9	1320.2	1058.4	777.9	587.0	568.7
0.515	0.86786	3.718	2	1182.8	1629.3	1531.3	1330.4	1064.5	780.1	587.2	568.8
0.525	0.87669	3.664	2	1190.9	1644.4	1544.8	1340.7	1070.6	782.3	587.5	568.9
0.535	0.88552	3.612	2	1199.0	1659.6	1558.4	1351.0	1076.7	784.5	587.7	569.0
0.545	0.89434	3.561	2	1207.1	1674.9	1572.1	1361.3	1082.9	786.8	588.0	569.0
0.555	0.90317	3.511	2	1215.3	1690.2	1585.8	1371.7	1089.1	789.0	588.3	569.1
0.565	0.91199	3.463	2	1223.5	1705.6	1599.6	1382.2	1095.3	791.2	588.5	569.2
0.575	0.92082	3.415	2	1231.8	1721.1	1613.4	1392.7	1101.6	793.4	588.8	569.3
0.585	0.92964	3.368	2	1240.1	1736.6	1627.4	1403.3	1107.8	795.6	589.0	569.3
0.595	0.93847	3.322	2	1248.4	1752.2	1641.3	1413.9	1114.1	797.8	589.3	569.4
0.605	0.94729	3.277	2	1256.7	1767.9	1655.4	1424.5	1120.4	800.0	589.5	569.5
0.615	0.95612	3.232	2	1265.1	1783.6	1669.5	1435.2	1126.7	802.2	589.8	569.5
0.625	0.96495	3.189	2	1273.4	1799.4	1683.6	1445.9	1133.0	804.4	590.0	569.6
0.635	0.97377	3.147	2	1281.9	1815.2	1697.8	1456.7	1139.3	806.6	590.2	569.6
0.645	0.98260	3.105	2	1290.3	1831.0	1712.0	1467.5	1145.7	808.8	590.5	569.6
0.655	0.98987	3.068	2	1297.3	1844.1	1723.8	1476.4	1151.0	810.6	590.6	569.7
0.665	0.99558	3.034	2	1302.8	1854.5	1733.1	1483.5	1155.1	812.0	590.8	569.7
0.675	1.00129	3.001	2	1308.3	1864.8	1742.4	1490.5	1159.2	813.5	590.9	569.7
0.685	1.00700	2.969	2	1313.8	1875.2	1751.7	1497.6	1163.4	814.9	591.1	569.8
0.695	1.01271	2.937	2	1319.3	1885.5	1761.1	1504.7	1167.6	816.3	591.2	569.8
0.705	1.01842	2.905	2	1324.9	1895.9	1770.5	1511.8	1171.7	817.7	591.4	569.8
0.715	1.02413	2.874	2	1330.4	1906.1	1779.9	1519.0	1175.9	819.1	591.5	569.8
0.725	1.02984	2.843	2	1336.0	1916.3	1789.3	1526.1	1180.1	820.5	591.7	569.9
0.735	1.03555	2.813	2	1341.6	1926.5	1798.7	1533.3	1184.3	822.0	591.8	569.9
0.745	1.04126	2.784	2	1347.2	1936.8	1808.1	1540.5	1188.5	823.4	592.0	569.9
0.755	1.04697	2.754	2	1352.8	1947.0	1817.6	1547.7	1192.7	824.8	592.1	570.0
0.765	1.05268	2.725	2	1358.4	1957.3	1827.1	1555.0	1196.9	826.2	592.3	570.0
0.775	1.05839	2.696	2	1364.0	1967.6	1836.6	1562.2	1201.2	827.6	592.4	570.0
0.785	1.06410	2.667	2	1369.6	1977.9	1846.1	1569.5	1205.4	829.0	592.6	570.0
0.795	1.06981	2.638	2	1375.3	1988.2	1855.7	1576.8	1209.7	830.4	592.7	570.1
0.805	1.07552	2.610	2	1380.9	1998.5	1865.2	1584.1	1213.9	831.9	592.9	570.1
0.815	1.08058	2.583	2	1385.9	2007.7	1873.7	1590.6	1217.7	833.1	593.0	570.1
0.825	1.08370	2.560	2	1389.0	2013.3	1878.9	1594.6	1220.0	833.9	593.1	570.1
0.835	1.08681	2.538	2	1392.1	2019.0	1884.2	1598.6	1222.4	834.7	593.1	570.1
0.845	1.08993	2.516	2	1395.2	2024.6	1889.4	1602.6	1224.7	835.4	593.2	570.2
0.855	1.09304	2.495	2	1398.3	2030.0	1894.5	1606.6	1227.1	836.2	593.3	570.2
0.865	1.09616	2.475	2	1401.3	2035.2	1899.4	1610.7	1229.4	837.0	593.4	570.2
0.875	1.09927	2.454	2	1404.4	2040.3	1904.4	1614.7	1231.7	837.7	593.5	570.2
0.885	1.10239	2.435	2	1407.4	2045.5	1909.3	1618.7	1234.1	838.5	593.5	570.2
0.895	1.10551	2.415	2	1410.5	2050.7	1914.3	1622.8	1236.4	839.3	593.6	570.2
0.905	1.10862	2.396	2	1413.5	2055.9	1919.2	1626.8	1238.8	840.1	593.7	570.2
0.915	1.11174	2.377	2	1416.6	2061.1	1924.2	1630.9	1241.2	840.8	593.8	570.3
0.925	1.11485	2.359	2	1419.6	2066.2	1929.2	1634.9	1243.5	841.6	593.9	570.3
0.935	1.11797	2.340	2	1422.7	2071.4	1934.1	1639.0	1245.9	842.4	593.9	570.3
0.945	1.12108	2.322	2	1425.7	2076.6	1939.1	1643.0	1248.2	843.1	594.0	570.3
0.955	1.12420	2.304	2	1428.8	2081.8	1944.1	1647.1	1250.6	843.9	594.1	570.3
0.965	1.12731	2.287	2	1431.9	2087.0	1949.1	1651.2	1253.0	844.7	594.2	570.3
0.975	1.13043	2.269	2	1434.9	2092.2	1954.0	1655.3	1255.4	845.5	594.3	570.3
0.985	1.13199	2.254	2	1436.5	2094.7	1956.5	1657.3	1256.5	845.9	594.3	570.4
0.995	1.13354	2.238	2	1438.0	2097.3	1959.0	1659.3	1257.7	846.2	594.3	570.4
1.005	1.13510	2.223	2	1439.5	2099.9	1961.5	1661.4	1258.9	846.6	594.4	570.4
1.015	1.13665	2.208	2	1441.1	2102.5	1964.0	1663.4	1260.1	847.0	594.4	570.4
1.025	1.13821	2.193	2	1442.6	2105.1	1966.5	1665.5	1261.3	847.4	594.5	570.4
1.035	1.13977	2.178	2	1444.2	2107.7	1969.0	1667.5	1262.5	847.8	594.5	570.4
1.045	1.14132	2.163	2	1445.7	2110.3	1971.5	1669.6	1263.7	848.2	594.5	570.4
1.055	1.14288	2.149	2	1447.2	2112.9	1974.0	1671.6	1264.9	848.6	594.6	570.4
1.065	1.14444	2.135	2	1448.8	2115.5	1976.5	1673.7	1266.1	848.9	594.6	570.4
1.075	1.14599	2.121	2	1450.3	2118.1	1979.0	1675.7	1267.3	849.3	594.7	570.4
1.085	1.14755	2.107	2	1451.9	2120.7	1981.5	1677.8	1268.5	849.7	594.7	570.4
1.095	1.14911	2.093	2	1453.4	2123.2	1984.0	1679.8	1269.6	850.1	594.7	570.4

1.105	1.15066	2.079	2	1454.9	2125.8	1986.5	1681.9	1270.8	850.5	594.8	570.4
1.115	1.15222	2.065	2	1456.5	2128.4	1989.0	1683.9	1272.0	850.9	594.8	570.5
1.125	1.15378	2.052	2	1458.0	2131.0	1991.5	1686.0	1273.2	851.3	594.9	570.5
1.135	1.15533	2.039	2	1459.6	2133.6	1994.0	1688.0	1274.4	851.6	594.9	570.5
1.145	1.15650	2.026	2	1460.7	2135.6	1995.9	1689.6	1275.3	851.9	594.9	570.5
1.155	1.15754	2.013	2	1461.8	2137.3	1997.5	1691.0	1276.1	852.2	595.0	570.5
1.165	1.15858	2.000	2	1462.8	2139.0	1999.2	1692.3	1276.9	852.4	595.0	570.5
1.175	1.15962	1.987	2	1463.8	2140.7	2000.9	1693.7	1277.7	852.7	595.0	570.5
1.185	1.16065	1.974	2	1464.9	2142.5	2002.5	1695.1	1278.5	853.0	595.0	570.5
1.195	1.16169	1.961	2	1465.9	2144.2	2004.2	1696.4	1279.3	853.2	595.1	570.5
1.205	1.16273	1.948	2	1466.9	2145.9	2005.9	1697.8	1280.1	853.5	595.1	570.5
1.215	1.16377	1.935	2	1467.9	2147.6	2007.5	1699.2	1280.9	853.7	595.1	570.5
1.225	1.16481	1.923	2	1469.0	2149.4	2009.2	1700.6	1281.7	854.0	595.1	570.5
1.235	1.16585	1.911	2	1470.0	2151.1	2010.9	1701.9	1282.5	854.2	595.2	570.5
1.245	1.16689	1.899	2	1471.0	2152.8	2012.5	1703.3	1283.3	854.5	595.2	570.5
1.255	1.16792	1.888	2	1472.1	2154.5	2014.2	1704.7	1284.1	854.7	595.2	570.5
1.265	1.16896	1.877	2	1473.1	2156.3	2015.9	1706.1	1284.9	855.0	595.2	570.5
1.275	1.17000	1.867	2	1474.1	2158.0	2017.5	1707.4	1285.7	855.3	595.3	570.5
1.285	1.17104	1.856	2	1475.2	2159.7	2019.2	1708.8	1286.5	855.5	595.3	570.5
1.295	1.17208	1.846	2	1476.2	2161.5	2020.9	1710.2	1287.3	855.8	595.3	570.5
1.305	1.17286	1.836	2	1477.0	2162.8	2022.1	1711.2	1287.9	856.0	595.3	570.5
1.315	1.17338	1.826	2	1477.5	2163.6	2023.0	1711.9	1288.3	856.1	595.4	570.5
1.325	1.17390	1.816	2	1478.0	2164.5	2023.8	1712.6	1288.7	856.2	595.4	570.5
1.335	1.17442	1.807	2	1478.5	2165.4	2024.6	1713.3	1289.1	856.4	595.4	570.5
1.345	1.17494	1.797	2	1479.1	2166.2	2025.5	1714.0	1289.5	856.5	595.4	570.5
1.355	1.17546	1.788	2	1479.6	2167.1	2026.3	1714.7	1289.9	856.6	595.4	570.6
1.365	1.17598	1.779	2	1480.1	2168.0	2027.2	1715.4	1290.3	856.7	595.4	570.6
1.375	1.17650	1.769	2	1480.6	2168.8	2028.0	1716.1	1290.8	856.9	595.4	570.6
1.385	1.17702	1.760	2	1481.1	2169.7	2028.8	1716.8	1291.2	857.0	595.4	570.6
1.395	1.17754	1.751	2	1481.7	2170.6	2029.7	1717.5	1291.6	857.1	595.5	570.6
1.405	1.17806	1.742	2	1482.2	2171.4	2030.5	1718.2	1292.0	857.3	595.5	570.6
1.415	1.17858	1.733	2	1482.7	2172.3	2031.4	1718.9	1292.4	857.4	595.5	570.6
1.425	1.17910	1.725	2	1483.2	2173.1	2032.2	1719.6	1292.8	857.5	595.5	570.6
1.435	1.17962	1.716	2	1483.7	2174.0	2033.0	1720.2	1293.2	857.7	595.5	570.6
1.445	1.18014	1.707	2	1484.3	2174.9	2033.9	1720.9	1293.6	857.8	595.5	570.6
1.455	1.18066	1.699	2	1484.8	2175.7	2034.7	1721.6	1294.0	857.9	595.5	570.6
1.465	1.18092	1.690	2	1485.0	2176.2	2035.1	1722.0	1294.2	858.0	595.5	570.6
1.475	1.18040	1.683	2	1484.5	2175.3	2034.3	1721.3	1293.8	857.8	595.5	570.6
1.485	1.17988	1.675	2	1484.0	2174.4	2033.5	1720.6	1293.4	857.7	595.5	570.6
1.495	1.17936	1.667	2	1483.5	2173.6	2032.6	1719.9	1293.0	857.6	595.5	570.6
1.505	1.17884	1.659	2	1483.0	2172.7	2031.8	1719.2	1292.6	857.5	595.5	570.6
1.515	1.17832	1.652	2	1482.4	2171.9	2030.9	1718.5	1292.2	857.3	595.5	570.6
1.525	1.17780	1.644	2	1481.9	2171.0	2030.1	1717.8	1291.8	857.2	595.5	570.6
1.535	1.17728	1.637	2	1481.4	2170.1	2029.3	1717.1	1291.4	857.1	595.5	570.6
1.545	1.17676	1.629	2	1480.9	2169.3	2028.4	1716.4	1291.0	856.9	595.4	570.6
1.555	1.17624	1.622	2	1480.4	2168.4	2027.6	1715.8	1290.6	856.8	595.4	570.6
1.565	1.17572	1.614	2	1479.8	2167.5	2026.8	1715.1	1290.2	856.7	595.4	570.6
1.575	1.17520	1.606	2	1479.3	2166.7	2025.9	1714.4	1289.8	856.6	595.4	570.6
1.585	1.17468	1.598	2	1478.8	2165.8	2025.1	1713.7	1289.3	856.4	595.4	570.6
1.595	1.17416	1.590	2	1478.3	2164.9	2024.2	1713.0	1288.9	856.3	595.4	570.5
1.605	1.17364	1.582	2	1477.8	2164.1	2023.4	1712.3	1288.5	856.2	595.4	570.5
1.615	1.17312	1.574	2	1477.2	2163.2	2022.5	1711.6	1288.1	856.0	595.3	570.5
1.625	1.17260	1.567	2	1476.7	2162.3	2021.7	1710.9	1287.7	855.9	595.3	570.5
1.635	1.17156	1.560	2	1475.7	2160.6	2020.0	1709.5	1286.9	855.6	595.3	570.5
1.645	1.17052	1.553	2	1474.6	2158.9	2018.4	1708.1	1286.1	855.4	595.3	570.5
1.655	1.16948	1.547	2	1473.6	2157.1	2016.7	1706.8	1285.3	855.1	595.2	570.5
1.665	1.16844	1.541	2	1472.6	2155.4	2015.0	1705.4	1284.5	854.9	595.2	570.5
1.675	1.16740	1.534	2	1471.5	2153.7	2013.4	1704.0	1283.7	854.6	595.2	570.5
1.685	1.16637	1.529	2	1470.5	2152.0	2011.7	1702.6	1282.9	854.4	595.2	570.5
1.695	1.16533	1.523	2	1469.5	2150.2	2010.0	1701.2	1282.1	854.1	595.1	570.5
1.705	1.16429	1.517	2	1468.5	2148.5	2008.3	1699.9	1281.3	853.8	595.1	570.5
1.715	1.16325	1.511	2	1467.4	2146.8	2006.7	1698.5	1280.5	853.6	595.1	570.5

1.725	1.16221	1.506	2	1466.4	2145.0	2005.0	1697.1	1279.7	853.3	595.1	570.5
1.735	1.16117	1.500	2	1465.4	2143.3	2003.3	1695.7	1278.9	853.1	595.0	570.5
1.745	1.16014	1.494	2	1464.3	2141.6	2001.7	1694.4	1278.1	852.8	595.0	570.5
1.755	1.15910	1.489	2	1463.3	2139.9	2000.0	1693.0	1277.3	852.6	595.0	570.5
1.765	1.15806	1.483	2	1462.3	2138.1	1998.3	1691.6	1276.5	852.3	595.0	570.5
1.775	1.15702	1.478	2	1461.2	2136.4	1996.7	1690.3	1275.7	852.1	594.9	570.5
1.785	1.15598	1.472	2	1460.2	2134.7	1995.0	1688.9	1274.9	851.8	594.9	570.5
1.795	1.15455	1.467	2	1458.8	2132.3	1992.7	1687.0	1273.8	851.4	594.9	570.5
1.805	1.15300	1.462	2	1457.2	2129.7	1990.2	1684.9	1272.6	851.1	594.8	570.4
1.815	1.15144	1.457	2	1455.7	2127.1	1987.7	1682.9	1271.4	850.7	594.8	570.4
1.825	1.14989	1.452	2	1454.2	2124.5	1985.2	1680.8	1270.2	850.3	594.8	570.4
1.835	1.14833	1.447	2	1452.6	2121.9	1982.7	1678.8	1269.0	849.9	594.7	570.4
1.845	1.14677	1.442	2	1451.1	2119.4	1980.2	1676.7	1267.8	849.5	594.7	570.4
1.855	1.14522	1.437	2	1449.5	2116.8	1977.7	1674.7	1266.7	849.1	594.6	570.4
1.865	1.14366	1.432	2	1448.0	2114.2	1975.2	1672.6	1265.5	848.7	594.6	570.4
1.875	1.14210	1.428	2	1446.5	2111.6	1972.7	1670.6	1264.3	848.4	594.6	570.4
1.885	1.14055	1.423	2	1444.9	2109.0	1970.2	1668.5	1263.1	848.0	594.5	570.4
1.895	1.13899	1.418	2	1443.4	2106.4	1967.8	1666.5	1261.9	847.6	594.5	570.4
1.905	1.13743	1.413	2	1441.9	2103.8	1965.3	1664.5	1260.7	847.2	594.4	570.4
1.915	1.13588	1.408	2	1440.3	2101.2	1962.8	1662.4	1259.5	846.8	594.4	570.4
1.925	1.13432	1.403	2	1438.8	2098.6	1960.3	1660.4	1258.3	846.4	594.4	570.4
1.935	1.13276	1.399	2	1437.2	2096.0	1957.8	1658.3	1257.1	846.0	594.3	570.4
1.945	1.13121	1.394	2	1435.7	2093.5	1955.3	1656.3	1256.0	845.7	594.3	570.4
1.955	1.12887	1.389	2	1433.4	2089.6	1951.6	1653.2	1254.2	845.1	594.2	570.3
1.965	1.12576	1.385	2	1430.3	2084.4	1946.6	1649.2	1251.8	844.3	594.1	570.3
1.975	1.12264	1.381	2	1427.3	2079.2	1941.6	1645.1	1249.4	843.5	594.1	570.3
1.985	1.11953	1.376	2	1424.2	2074.0	1936.6	1641.0	1247.1	842.8	594.0	570.3
1.995	1.11641	1.371	2	1421.1	2068.8	1931.6	1636.9	1244.7	842.0	593.9	570.3
2.005	1.11329	1.366	2	1418.1	2063.6	1926.7	1632.9	1242.3	841.2	593.8	570.3
2.015	1.11018	1.361	2	1415.0	2058.5	1921.7	1628.8	1240.0	840.4	593.7	570.2
2.025	1.10706	1.357	2	1412.0	2053.3	1916.7	1624.8	1237.6	839.7	593.7	570.2
2.035	1.10395	1.353	2	1408.9	2048.1	1911.8	1620.7	1235.3	838.9	593.6	570.2
2.045	1.10083	1.349	2	1405.9	2042.9	1906.8	1616.7	1232.9	838.1	593.5	570.2
2.055	1.09772	1.345	2	1402.8	2037.7	1901.9	1612.7	1230.6	837.3	593.4	570.2
2.065	1.09460	1.342	2	1399.8	2032.6	1896.9	1608.6	1228.2	836.6	593.3	570.2
2.075	1.09149	1.338	2	1396.8	2027.4	1892.0	1604.6	1225.9	835.8	593.3	570.2
2.085	1.08837	1.335	2	1393.7	2021.8	1886.8	1600.6	1223.5	835.0	593.2	570.1
2.095	1.08526	1.332	2	1390.6	2016.1	1881.5	1596.6	1221.2	834.3	593.1	570.1
2.105	1.08214	1.329	2	1387.5	2010.5	1876.3	1592.6	1218.9	833.5	593.0	570.1
2.115	1.07890	1.326	2	1384.2	2004.6	1870.9	1588.4	1216.4	832.7	592.9	570.1
2.125	1.07526	1.323	2	1380.6	1998.1	1864.8	1583.8	1213.7	831.8	592.8	570.1
2.135	1.07163	1.320	2	1377.0	1991.5	1858.7	1579.1	1211.0	830.9	592.7	570.1
2.145	1.06800	1.317	2	1373.5	1984.9	1852.6	1574.5	1208.3	830.0	592.7	570.0
2.155	1.06436	1.314	2	1369.9	1978.4	1846.6	1569.8	1205.6	829.1	592.6	570.0
2.165	1.06073	1.312	2	1366.3	1971.8	1840.5	1565.2	1202.9	828.2	592.5	570.0
2.175	1.05710	1.309	2	1362.7	1965.3	1834.4	1560.6	1200.2	827.3	592.4	570.0
2.185	1.05346	1.306	2	1359.1	1958.7	1828.4	1556.0	1197.5	826.4	592.3	570.0
2.195	1.04983	1.303	2	1355.6	1952.2	1822.3	1551.4	1194.8	825.5	592.2	570.0
2.205	1.04620	1.301	2	1352.0	1945.6	1816.3	1546.8	1192.1	824.6	592.1	569.9
2.215	1.04256	1.298	2	1348.4	1939.1	1810.3	1542.2	1189.4	823.7	592.0	569.9
2.225	1.03893	1.295	2	1344.9	1932.6	1804.3	1537.6	1186.8	822.8	591.9	569.9
2.235	1.03530	1.292	2	1341.3	1926.1	1798.3	1533.0	1184.1	821.9	591.8	569.9
2.245	1.03166	1.290	2	1337.8	1919.5	1792.3	1528.4	1181.4	821.0	591.7	569.9
2.255	1.02803	1.287	2	1334.2	1913.0	1786.3	1523.9	1178.8	820.1	591.6	569.9
2.265	1.02439	1.285	2	1330.7	1906.5	1780.3	1519.3	1176.1	819.2	591.5	569.8
2.275	1.02076	1.282	2	1327.2	1900.0	1774.3	1514.8	1173.4	818.3	591.4	569.8
2.285	1.01505	1.280	2	1321.6	1889.8	1764.9	1507.6	1169.3	816.9	591.3	569.8
2.295	1.00934	1.279	2	1316.1	1879.4	1755.6	1500.5	1165.1	815.4	591.1	569.8
2.305	1.00363	1.277	2	1310.5	1869.0	1746.2	1493.4	1160.9	814.0	591.0	569.7
2.315	0.99792	1.275	2	1305.0	1858.7	1736.9	1486.3	1156.8	812.6	590.9	569.7
2.325	0.99221	1.273	2	1299.5	1848.4	1727.6	1479.3	1152.6	811.2	590.7	569.7
2.335	0.98650	1.271	2	1294.0	1838.1	1718.4	1472.3	1148.5	809.8	590.6	569.7

2.345	0.98079	1.269	2	1288.6	1827.8	1709.1	1465.2	1144.4	808.4	590.4	569.6
2.355	0.97508	1.267	2	1283.1	1817.5	1699.9	1458.3	1140.3	806.9	590.3	569.6
2.365	0.96937	1.265	2	1277.7	1807.3	1690.7	1451.3	1136.2	805.5	590.1	569.6
2.375	0.96366	1.263	2	1272.2	1797.0	1681.5	1444.3	1132.1	804.1	590.0	569.5
2.385	0.95795	1.261	2	1266.8	1786.8	1672.4	1437.4	1128.0	802.7	589.8	569.5
2.395	0.95224	1.258	2	1261.4	1776.7	1663.2	1430.5	1123.9	801.3	589.7	569.5
2.405	0.94653	1.255	2	1256.0	1766.5	1654.1	1423.6	1119.8	799.8	589.5	569.4
2.415	0.94082	1.252	2	1250.6	1756.4	1645.1	1416.7	1115.8	798.4	589.4	569.4
2.425	0.93511	1.250	2	1245.2	1746.3	1636.0	1409.8	1111.7	797.0	589.2	569.4
2.435	0.92940	1.248	2	1239.9	1736.2	1627.0	1403.0	1107.7	795.6	589.1	569.4
2.445	0.92407	1.246	2	1234.9	1726.9	1618.6	1396.7	1103.9	794.3	588.9	569.3
2.455	0.91888	1.245	2	1230.0	1717.8	1610.5	1390.5	1100.3	793.0	588.8	569.3
2.465	0.91369	1.243	2	1225.2	1708.7	1602.4	1384.3	1096.6	791.7	588.6	569.3
2.475	0.90850	1.242	2	1220.4	1699.7	1594.3	1378.2	1093.0	790.4	588.5	569.2
2.485	0.90331	1.241	2	1215.6	1690.6	1586.2	1372.1	1089.4	789.1	588.4	569.2
2.495	0.89811	1.239	2	1210.8	1681.6	1578.1	1366.0	1085.7	787.8	588.2	569.2
2.505	0.89292	1.238	2	1206.0	1672.7	1570.1	1359.9	1082.1	786.5	588.1	569.2
2.515	0.88773	1.237	2	1201.2	1663.7	1562.1	1353.8	1078.5	785.2	588.0	569.1
2.525	0.88254	1.236	2	1196.5	1654.8	1554.1	1347.8	1074.9	784.0	587.8	569.1
2.535	0.87734	1.235	2	1191.7	1645.9	1546.1	1341.7	1071.3	782.7	587.7	569.1
2.545	0.87215	1.234	2	1187.0	1637.0	1538.2	1335.7	1067.7	781.4	587.6	569.1
2.555	0.86696	1.232	2	1182.3	1628.2	1530.3	1329.7	1064.1	780.1	587.4	569.0
2.565	0.86177	1.231	2	1177.6	1619.4	1522.4	1323.7	1060.6	778.8	587.3	569.0
2.575	0.85657	1.230	2	1172.9	1610.6	1514.6	1317.8	1057.0	777.5	587.2	569.0
2.585	0.85138	1.229	2	1168.2	1601.8	1506.7	1311.8	1053.4	776.2	587.0	569.0
2.595	0.84619	1.228	2	1163.5	1593.1	1498.9	1305.9	1049.9	774.9	586.9	568.9
2.605	0.84074	1.227	2	1158.8	1583.9	1490.7	1299.7	1046.2	773.6	586.7	568.9
2.615	0.83503	1.226	2	1153.5	1574.4	1482.2	1293.2	1042.3	772.2	586.6	568.9
2.625	0.82932	1.225	2	1148.4	1564.9	1473.7	1286.8	1038.4	770.7	586.4	568.8
2.635	0.82361	1.225	2	1143.3	1555.4	1465.2	1280.3	1034.5	769.3	586.3	568.8
2.645	0.81790	1.224	2	1138.3	1546.0	1456.8	1273.9	1030.6	767.9	586.1	568.8
2.655	0.81219	1.223	2	1133.2	1536.6	1448.4	1267.5	1026.8	766.5	586.0	568.7
2.665	0.80648	1.222	2	1128.2	1527.2	1440.0	1261.2	1022.9	765.1	585.8	568.7
2.675	0.80077	1.222	2	1123.2	1517.9	1431.7	1254.8	1019.1	763.6	585.7	568.7
2.685	0.79506	1.221	2	1118.2	1508.6	1423.4	1248.5	1015.3	762.2	585.5	568.7
2.695	0.78935	1.220	2	1113.2	1499.3	1415.1	1242.2	1011.5	760.8	585.4	568.6
2.705	0.78364	1.219	2	1108.2	1490.1	1406.9	1235.9	1007.7	759.4	585.2	568.6
2.715	0.77793	1.219	2	1103.3	1480.9	1398.6	1229.6	1003.9	758.0	585.1	568.5
2.725	0.77222	1.218	2	1098.3	1471.8	1390.5	1223.4	1000.1	756.5	584.9	568.5
2.735	0.76650	1.217	2	1093.4	1462.7	1382.3	1217.2	996.3	755.1	584.8	568.5
2.745	0.76079	1.216	2	1088.5	1453.6	1374.2	1211.0	992.5	753.7	584.6	568.5
2.755	0.75508	1.215	2	1083.6	1444.6	1366.1	1204.8	988.7	752.3	584.5	568.4
2.765	0.74950	1.214	2	1078.8	1435.8	1358.2	1198.8	985.1	750.9	584.3	568.4
2.775	0.74431	1.213	2	1074.4	1427.6	1350.9	1193.2	981.7	749.6	584.2	568.4
2.785	0.73912	1.211	2	1070.0	1419.5	1343.7	1187.7	978.3	748.3	584.0	568.3
2.795	0.73393	1.209	2	1065.6	1411.4	1336.4	1182.1	974.9	747.0	583.9	568.3
2.805	0.72873	1.207	2	1061.2	1403.3	1329.2	1176.6	971.5	745.7	583.8	568.3
2.815	0.72354	1.206	2	1056.8	1395.3	1322.0	1171.1	968.1	744.4	583.6	568.2
2.825	0.71835	1.204	2	1052.4	1387.3	1314.8	1165.6	964.7	743.1	583.5	568.2
2.835	0.71316	1.203	2	1048.1	1379.3	1307.7	1160.1	961.3	741.8	583.3	568.2
2.845	0.70796	1.202	2	1043.8	1371.4	1300.6	1154.7	958.0	740.5	583.2	568.1
2.855	0.70277	1.202	2	1039.4	1363.5	1293.5	1149.2	954.6	739.2	583.1	568.1
2.865	0.69758	1.201	2	1035.1	1355.6	1286.5	1143.8	951.3	737.9	582.9	568.1
2.875	0.69239	1.201	2	1030.8	1347.8	1279.4	1138.4	948.0	736.6	582.8	568.1
2.885	0.68720	1.200	2	1026.6	1340.0	1272.4	1133.0	944.6	735.3	582.6	568.0
2.895	0.68200	1.200	2	1022.3	1332.2	1265.5	1127.7	941.3	734.0	582.5	568.0
2.905	0.67681	1.200	2	1018.0	1324.5	1258.5	1122.3	938.0	732.8	582.4	568.0
2.915	0.67162	1.199	2	1013.8	1316.8	1251.6	1117.0	934.7	731.5	582.2	567.9
2.925	0.66643	1.199	2	1009.6	1309.1	1244.7	1111.7	931.4	730.2	582.1	567.9
2.935	0.66227	1.199	2	1006.2	1303.0	1239.2	1107.4	928.7	729.1	582.0	567.9
2.945	0.65812	1.198	2	1002.8	1296.9	1233.7	1103.2	926.1	728.1	581.8	567.8
2.955	0.65397	1.198	2	999.5	1290.8	1228.3	1099.0	923.5	727.1	581.7	567.8

2.965	0.64982	1.197	2	996.1	1284.7	1222.8	1094.8	920.9	726.0	581.6	567.8
2.975	0.64567	1.197	2	992.8	1278.7	1217.4	1090.6	918.3	725.0	581.5	567.8
2.985	0.64152	1.196	2	989.4	1272.7	1212.0	1086.4	915.7	724.0	581.4	567.7
2.995	0.63737	1.196	2	986.1	1266.7	1206.6	1082.3	913.0	722.9	581.3	567.7
3.005	0.63321	1.195	2	982.8	1260.7	1201.3	1078.1	910.4	721.9	581.2	567.7
3.015	0.62906	1.195	2	979.5	1254.8	1195.9	1074.0	907.8	720.8	581.1	567.7
3.025	0.62491	1.194	2	976.2	1248.8	1190.6	1069.9	905.3	719.8	580.9	567.6
3.035	0.62076	1.194	2	972.9	1242.9	1185.2	1065.7	902.7	718.8	580.8	567.6
3.045	0.61661	1.193	2	969.6	1237.0	1179.9	1061.6	900.1	717.7	580.7	567.6
3.055	0.61246	1.193	2	966.3	1231.1	1174.7	1057.5	897.5	716.7	580.6	567.6
3.065	0.60831	1.192	2	963.1	1225.3	1169.4	1053.4	894.9	715.7	580.5	567.5
3.075	0.60415	1.192	2	959.8	1219.4	1164.1	1049.4	892.4	714.6	580.4	567.5
3.085	0.60000	1.192	2	956.5	1213.6	1158.9	1045.3	889.8	713.6	580.3	567.5
3.095	0.59624	1.191	2	953.6	1208.4	1154.2	1041.6	887.5	712.7	580.2	567.5
3.105	0.59260	1.191	2	950.8	1203.3	1149.6	1038.1	885.2	711.8	580.1	567.4
3.115	0.58897	1.190	2	947.9	1198.3	1145.1	1034.5	883.0	710.8	580.0	567.4
3.125	0.58533	1.190	2	945.1	1193.2	1140.5	1031.0	880.8	709.9	579.9	567.4
3.135	0.58170	1.189	2	942.3	1188.2	1136.0	1027.5	878.5	709.0	579.8	567.4
3.145	0.57806	1.189	2	939.5	1183.2	1131.5	1024.0	876.3	708.1	579.7	567.4
3.155	0.57442	1.189	2	936.7	1178.2	1127.0	1020.5	874.1	707.2	579.6	567.3
3.165	0.57079	1.188	2	933.9	1173.3	1122.5	1017.0	871.9	706.3	579.5	567.3
3.175	0.56715	1.188	2	931.1	1168.3	1118.1	1013.5	869.6	705.4	579.4	567.3
3.185	0.56352	1.187	2	928.3	1163.4	1113.6	1010.0	867.4	704.5	579.3	567.3
3.195	0.55988	1.187	2	925.5	1158.4	1109.2	1006.5	865.2	703.6	579.2	567.2
3.205	0.55624	1.187	2	922.7	1153.5	1104.7	1003.1	863.0	702.7	579.1	567.2
3.215	0.55261	1.186	2	920.0	1148.6	1100.3	999.6	860.8	701.8	579.0	567.2
3.225	0.54897	1.186	2	917.2	1143.8	1095.9	996.2	858.6	700.9	578.9	567.2
3.235	0.54534	1.185	2	914.4	1138.9	1091.5	992.8	856.4	699.9	578.8	567.1
3.245	0.54170	1.185	2	911.7	1134.0	1087.1	989.3	854.2	699.0	578.7	567.1
3.255	0.53833	1.185	2	909.1	1129.6	1083.1	986.2	852.2	698.2	578.6	567.1
3.265	0.53521	1.184	2	906.8	1125.4	1079.4	983.2	850.3	697.4	578.5	567.1
3.275	0.53210	1.184	2	904.4	1121.3	1075.6	980.3	848.4	696.6	578.4	567.1
3.285	0.52899	1.183	2	902.1	1117.2	1071.9	977.4	846.6	695.9	578.3	567.0
3.295	0.52587	1.183	2	899.8	1113.1	1068.2	974.5	844.7	695.1	578.2	567.0
3.305	0.52276	1.182	2	897.4	1109.0	1064.5	971.6	842.9	694.3	578.1	567.0
3.315	0.51965	1.182	2	895.1	1105.0	1060.9	968.7	841.0	693.5	578.0	567.0
3.325	0.51654	1.182	2	892.8	1100.9	1057.2	965.8	839.1	692.7	578.0	567.0
3.335	0.51342	1.181	2	890.5	1096.8	1053.5	962.9	837.3	692.0	577.9	566.9
3.345	0.51031	1.181	2	888.2	1092.8	1049.9	960.1	835.4	691.2	577.8	566.9
3.355	0.50720	1.180	2	885.9	1088.8	1046.2	957.2	833.6	690.4	577.7	566.9
3.365	0.50408	1.180	2	883.6	1084.8	1042.6	954.3	831.7	689.6	577.6	566.9
3.375	0.50097	1.180	2	881.3	1080.8	1039.0	951.5	829.9	688.8	577.5	566.8
3.385	0.49786	1.179	2	879.0	1076.8	1035.3	948.6	828.0	688.1	577.4	566.8
3.395	0.49475	1.179	2	876.7	1072.8	1031.7	945.8	826.2	687.3	577.3	566.8
3.405	0.49163	1.179	2	874.4	1068.8	1028.1	943.0	824.4	686.5	577.3	566.8
3.415	0.48865	1.178	2	872.2	1065.0	1024.7	940.2	822.6	685.8	577.2	566.8
3.425	0.48605	1.178	2	870.3	1061.7	1021.7	937.9	821.1	685.1	577.1	566.7
3.435	0.48345	1.177	2	868.4	1058.4	1018.7	935.5	819.5	684.5	577.0	566.7
3.445	0.48086	1.177	2	866.5	1055.1	1015.7	933.2	818.0	683.8	577.0	566.7
3.455	0.47826	1.176	2	864.6	1051.8	1012.8	930.8	816.5	683.2	576.9	566.7
3.465	0.47566	1.176	2	862.7	1048.6	1009.8	928.5	815.0	682.5	576.8	566.7
3.475	0.47306	1.176	2	860.8	1045.3	1006.8	926.1	813.4	681.9	576.7	566.6
3.485	0.47047	1.175	2	858.9	1042.0	1003.9	923.8	811.9	681.2	576.7	566.6
3.495	0.46787	1.175	2	857.1	1038.8	1000.9	921.5	810.4	680.6	576.6	566.6
3.505	0.46527	1.174	2	855.2	1035.6	998.0	919.2	808.9	679.9	576.5	566.6
3.515	0.46267	1.174	2	853.3	1032.3	995.1	916.8	807.4	679.3	576.4	566.6
3.525	0.46008	1.174	2	851.4	1029.1	992.1	914.5	805.9	678.6	576.4	566.6
3.535	0.45748	1.173	2	849.6	1025.9	989.2	912.2	804.4	678.0	576.3	566.5
3.545	0.45488	1.173	2	847.7	1022.7	986.3	909.9	802.8	677.3	576.2	566.5
3.555	0.45228	1.172	2	845.8	1019.5	983.4	907.6	801.3	676.7	576.1	566.5
3.565	0.44969	1.172	2	844.0	1016.3	980.5	905.3	799.8	676.0	576.1	566.5
3.575	0.44709	1.172	2	842.1	1013.1	977.6	903.0	798.3	675.3	576.0	566.5

3.585	0.44346	1.172	2	839.5	1008.6	973.6	899.8	796.2	674.4	575.9	566.4
3.595	0.43982	1.172	2	836.9	1004.2	969.5	896.6	794.1	673.5	575.8	566.4
3.605	0.43619	1.172	2	834.4	999.8	965.5	893.4	792.0	672.6	575.7	566.4
3.615	0.43256	1.172	2	831.8	995.4	961.5	890.2	789.9	671.7	575.6	566.4
3.625	0.42892	1.172	2	829.2	991.0	957.5	887.0	787.8	670.8	575.5	566.3
3.635	0.42529	1.172	2	826.7	986.6	953.5	883.9	785.8	669.9	575.4	566.3
3.645	0.42166	1.172	2	824.1	982.2	949.6	880.7	783.7	669.0	575.3	566.3
3.655	0.41802	1.172	2	821.5	977.9	945.6	877.5	781.6	668.1	575.2	566.2
3.665	0.41439	1.172	2	819.0	973.5	941.7	874.4	779.5	667.1	575.1	566.2
3.675	0.41076	1.172	2	816.5	969.2	937.7	871.2	777.4	666.2	575.0	566.2
3.685	0.40712	1.172	2	813.9	964.9	933.8	868.1	775.4	665.3	574.9	566.2
3.695	0.40349	1.172	2	811.4	960.6	929.9	865.0	773.3	664.4	574.7	566.1
3.705	0.39986	1.172	2	808.9	956.3	926.0	861.9	771.2	663.5	574.6	566.1
3.715	0.39622	1.172	2	806.3	952.1	922.1	858.8	769.2	662.6	574.5	566.1
3.725	0.39259	1.173	2	803.8	947.8	918.2	855.7	767.1	661.7	574.4	566.1
3.735	0.38896	1.173	2	801.3	943.6	914.4	852.6	765.1	660.8	574.3	566.0
3.745	0.38571	1.173	2	799.1	939.8	910.9	849.8	763.2	659.9	574.2	566.0
3.755	0.38260	1.173	2	796.9	936.2	907.6	847.2	761.5	659.2	574.1	566.0
3.765	0.37948	1.173	2	794.8	932.6	904.3	844.5	759.7	658.4	574.0	565.9
3.775	0.37636	1.173	2	792.7	929.0	901.1	841.9	758.0	657.6	574.0	565.9
3.785	0.37325	1.173	2	790.5	925.4	897.8	839.3	756.2	656.8	573.9	565.9
3.795	0.37013	1.173	2	788.4	921.8	894.5	836.7	754.5	656.0	573.8	565.9
3.805	0.36702	1.173	2	786.3	918.3	891.3	834.1	752.7	655.2	573.7	565.8
3.815	0.36390	1.173	2	784.2	914.7	888.0	831.5	751.0	654.5	573.6	565.8
3.825	0.36079	1.173	2	782.0	911.2	884.8	828.9	749.2	653.7	573.5	565.8
3.835	0.35767	1.173	2	779.9	907.6	881.6	826.3	747.5	652.9	573.4	565.8
3.845	0.35456	1.173	2	777.8	904.1	878.3	823.7	745.7	652.1	573.3	565.7
3.855	0.35144	1.173	2	775.7	900.6	875.1	821.1	744.0	651.3	573.2	565.7
3.865	0.34833	1.174	2	773.6	897.1	871.9	818.5	742.3	650.5	573.1	565.7
3.875	0.34521	1.174	2	771.5	893.6	868.7	815.9	740.5	649.8	573.0	565.7
3.885	0.34210	1.174	2	769.4	890.1	865.5	813.4	738.8	649.0	572.9	565.6
3.895	0.33898	1.174	2	767.4	886.6	862.4	810.8	737.1	648.2	572.9	565.6
3.905	0.33586	1.174	2	765.3	883.2	859.2	808.2	735.4	647.4	572.8	565.6
3.915	0.33275	1.174	2	763.2	879.7	856.0	805.7	733.6	646.6	572.7	565.6
3.925	0.32963	1.175	2	761.1	876.3	852.9	803.1	731.9	645.8	572.6	565.5
3.935	0.32652	1.175	2	759.0	872.8	849.7	800.6	730.2	645.0	572.5	565.5
3.945	0.32340	1.175	2	757.0	869.4	846.6	798.1	728.5	644.3	572.4	565.5
3.955	0.32029	1.175	2	754.9	866.0	843.5	795.5	726.8	643.5	572.3	565.5
3.965	0.31717	1.175	2	752.9	862.6	840.3	793.0	725.1	642.7	572.2	565.4
3.975	0.31406	1.176	2	750.8	859.2	837.2	790.5	723.4	641.9	572.1	565.4
3.985	0.31094	1.176	2	748.7	855.8	834.1	788.0	721.7	641.1	572.0	565.4
3.995	0.30783	1.176	2	746.7	852.4	831.0	785.4	720.0	640.3	571.9	565.4

TIME = 0.00000 SEC - HEAT TRANSFER DATA FOR ROD 2 (FUEL TYPE 1)

DISTANCE (M)	H.T.MODE (W/M2/K)	HSURF (W/M2/K)	HGAP (K)	TFLUID
0.005	2	27938.340	5000.000	548.31
0.015	2	28491.646	5000.000	548.45
0.025	2	29054.932	5000.000	548.60
0.035	2	29628.734	5000.000	548.76
0.045	2	30213.568	5000.000	548.91
0.055	2	30809.957	5000.000	549.07
0.065	2	31418.355	5000.000	549.23
0.075	2	32039.330	5000.000	549.39
0.085	2	32673.254	5000.000	549.55
0.095	2	33320.676	5000.000	549.72
0.105	2	33982.203	5000.000	549.89
0.115	2	34658.262	5000.000	550.06
0.125	2	35349.438	5000.000	550.24

0.135	2	36056.363	5000.000	550.41
0.145	2	36779.547	5000.000	550.59
0.155	2	37519.707	5000.000	550.78
0.165	2	38277.332	5000.000	550.96
0.175	2	39053.090	5000.000	551.15
0.185	2	39847.906	5000.000	551.34
0.195	2	40663.020	5000.000	551.53
0.205	2	41499.496	5000.000	551.73
0.215	2	42358.543	5000.000	551.92
0.225	2	43241.254	5000.000	552.12
0.235	2	44148.715	5000.000	552.33
0.245	2	45082.090	5000.000	552.53
0.255	2	46042.383	5000.000	552.74
0.265	2	47030.871	5000.000	552.95
0.275	2	48049.035	5000.000	553.16
0.285	2	49098.691	5000.000	553.38
0.295	2	50181.605	5000.000	553.60
0.305	2	51299.625	5000.000	553.82
0.315	2	52454.105	5000.000	554.04
0.325	2	53646.941	5000.000	554.27
0.335	2	54933.520	5000.000	554.50
0.345	2	56264.453	5000.000	554.73
0.355	2	57642.500	5000.000	554.96
0.365	2	59071.215	5000.000	555.20
0.375	2	60553.496	5000.000	555.44
0.385	2	62092.004	5000.000	555.68
0.395	2	63687.914	5000.000	555.92
0.405	2	65350.488	5000.000	556.17
0.415	2	67074.156	5000.000	556.42
0.425	2	68862.945	5000.000	556.67
0.435	2	70722.438	5000.000	556.92
0.445	2	72658.969	5000.000	557.18
0.455	2	74679.312	5000.000	557.44
0.465	2	76790.250	5000.000	557.70
0.475	2	78999.469	5000.000	557.97
0.485	2	81315.031	5000.000	558.24
0.495	2	83745.289	5000.000	558.51
0.505	2	86300.242	5000.000	558.78
0.515	2	88990.359	5000.000	559.06
0.525	2	91827.055	5000.000	559.34
0.535	2	94823.547	5000.000	559.62
0.545	2	97994.531	5000.000	559.91
0.555	2	101355.648	5000.000	560.20
0.565	3	104925.289	5000.000	560.49
0.575	3	108723.977	5000.000	560.79
0.585	3	112774.320	5000.000	561.09
0.595	3	116352.500	5000.000	561.34
0.605	3	118594.578	5000.000	561.47
0.615	3	119609.258	5000.000	561.52
0.625	3	120028.023	5000.000	561.51
0.635	3	120445.797	5000.000	561.51
0.645	3	120862.148	5000.000	561.51
0.655	3	121198.242	5000.000	561.51
0.665	3	121454.742	5000.000	561.51
0.675	3	121710.602	5000.000	561.51
0.685	3	121965.648	5000.000	561.51
0.695	3	122221.086	5000.000	561.51
0.705	3	122477.219	5000.000	561.50
0.715	3	122733.641	5000.000	561.50
0.725	3	122989.500	5000.000	561.50
0.735	3	123245.094	5000.000	561.50
0.745	3	123500.320	5000.000	561.50

0.755	3	123755.938	5000.000	561.50
0.765	3	124013.570	5000.000	561.50
0.775	3	124274.422	5000.000	561.50
0.785	3	124540.914	5000.000	561.49
0.795	3	124409.719	5000.000	561.46
0.805	3	124692.094	5000.000	561.46
0.815	3	124934.906	5000.000	561.46
0.825	3	125076.617	5000.000	561.46
0.835	3	125212.336	5000.000	561.46
0.845	3	125343.008	5000.000	561.46
0.855	3	125470.219	5000.000	561.45
0.865	3	125595.156	5000.000	561.45
0.875	3	125718.117	5000.000	561.45
0.885	3	125839.953	5000.000	561.45
0.895	3	125960.617	5000.000	561.45
0.905	3	126080.617	5000.000	561.45
0.915	3	126200.414	5000.000	561.45
0.925	3	126319.953	5000.000	561.45
0.935	3	126439.000	5000.000	561.44
0.945	3	126558.242	5000.000	561.44
0.955	3	126677.594	5000.000	561.44
0.965	3	126797.102	5000.000	561.44
0.975	3	126916.438	5000.000	561.44
0.985	3	126963.000	5000.000	561.44
0.995	3	127010.148	5000.000	561.44
1.005	3	127057.141	5000.000	561.44
1.015	3	127104.133	5000.000	561.43
1.025	3	127151.906	5000.000	561.43
1.035	3	127199.523	5000.000	561.43
1.045	3	127247.742	5000.000	561.43
1.055	3	127294.969	5000.000	561.43
1.065	3	127342.742	5000.000	561.43
1.075	3	127389.969	5000.000	561.43
1.085	3	127437.594	5000.000	561.43
1.095	3	127485.711	5000.000	561.42
1.105	3	127533.070	5000.000	561.42
1.115	3	127585.172	5000.000	561.42
1.125	3	127635.344	5000.000	561.42
1.135	3	127685.438	5000.000	561.42
1.145	3	127717.859	5000.000	561.42
1.155	3	127745.078	5000.000	561.42
1.165	3	127774.445	5000.000	561.41
1.175	3	127807.078	5000.000	561.41
1.185	3	127844.781	5000.000	561.41
1.195	3	127355.703	5000.000	561.37
1.205	3	127408.297	5000.000	561.37
1.215	3	127454.883	5000.000	561.37
1.225	3	127495.102	5000.000	561.36
1.235	3	127530.125	5000.000	561.36
1.245	3	127561.578	5000.000	561.36
1.255	3	127590.039	5000.000	561.36
1.265	3	127616.258	5000.000	561.36
1.275	3	127641.250	5000.000	561.36
1.285	3	127665.305	5000.000	561.36
1.295	3	127688.688	5000.000	561.35
1.305	3	127699.641	5000.000	561.35
1.315	3	127698.359	5000.000	561.35
1.325	3	127697.031	5000.000	561.35
1.335	3	127695.758	5000.000	561.35
1.345	3	127694.617	5000.000	561.35
1.355	3	127694.109	5000.000	561.35
1.365	3	127692.953	5000.000	561.35

1.375	3	127692.477	5000.000	561.34
1.385	3	127692.016	5000.000	561.34
1.395	3	127691.727	5000.000	561.34
1.405	3	127691.414	5000.000	561.34
1.415	3	127691.688	5000.000	561.34
1.425	3	127691.289	5000.000	561.34
1.435	3	127691.836	5000.000	561.34
1.445	3	127692.188	5000.000	561.33
1.455	3	127691.898	5000.000	561.33
1.465	3	127679.875	5000.000	561.33
1.475	3	127631.336	5000.000	561.33
1.485	3	127582.758	5000.000	561.33
1.495	3	127535.469	5000.000	561.33
1.505	3	127488.562	5000.000	561.33
1.515	3	127442.383	5000.000	561.32
1.525	3	127396.273	5000.000	561.32
1.535	3	127350.148	5000.000	561.32
1.545	3	127304.242	5000.000	561.32
1.555	3	127259.125	5000.000	561.32
1.565	3	127215.844	5000.000	561.32
1.575	3	127176.172	5000.000	561.32
1.585	3	127141.867	5000.000	561.31
1.595	3	126440.969	5000.000	561.26
1.605	3	126422.000	5000.000	561.26
1.615	3	126396.508	5000.000	561.26
1.625	3	126364.266	5000.000	561.25
1.635	3	126302.609	5000.000	561.25
1.645	3	126237.078	5000.000	561.25
1.655	3	126168.875	5000.000	561.25
1.665	3	126098.453	5000.000	561.25
1.675	3	126026.555	5000.000	561.25
1.685	3	125954.398	5000.000	561.25
1.695	3	125880.742	5000.000	561.24
1.705	3	125807.117	5000.000	561.24
1.715	3	125733.438	5000.000	561.24
1.725	3	125659.836	5000.000	561.24
1.735	3	125586.180	5000.000	561.24
1.745	3	125512.562	5000.000	561.24
1.755	3	125439.109	5000.000	561.23
1.765	3	125365.836	5000.000	561.23
1.775	3	125292.344	5000.000	561.23
1.785	3	125219.430	5000.000	561.23
1.795	3	125128.039	5000.000	561.23
1.805	3	125031.109	5000.000	561.23
1.815	3	124933.789	5000.000	561.23
1.825	3	124836.570	5000.000	561.22
1.835	3	124739.438	5000.000	561.22
1.845	3	124642.297	5000.000	561.22
1.855	3	124544.812	5000.000	561.22
1.865	3	124446.883	5000.000	561.22
1.875	3	124349.195	5000.000	561.22
1.885	3	124251.492	5000.000	561.22
1.895	3	124154.336	5000.000	561.21
1.905	3	124057.984	5000.000	561.21
1.915	3	123962.172	5000.000	561.21
1.925	3	123866.203	5000.000	561.21
1.935	3	123770.344	5000.000	561.21
1.945	3	123674.227	5000.000	561.21
1.955	3	123542.461	5000.000	561.20
1.965	3	123375.742	5000.000	561.20
1.975	3	123212.375	5000.000	561.20
1.985	3	123053.992	5000.000	561.20

1.995	3	122094.836	5000.000	561.13
2.005	3	121953.320	5000.000	561.13
2.015	3	121804.070	5000.000	561.13
2.025	3	121647.695	5000.000	561.13
2.035	3	121485.211	5000.000	561.13
2.045	3	121318.469	5000.000	561.12
2.055	3	121148.664	5000.000	561.12
2.065	3	120976.711	5000.000	561.12
2.075	3	120802.688	5000.000	561.12
2.085	3	120628.164	5000.000	561.12
2.095	3	120452.383	5000.000	561.12
2.105	3	120276.430	5000.000	561.11
2.115	3	120093.414	5000.000	561.11
2.125	3	119891.930	5000.000	561.11
2.135	3	119689.805	5000.000	561.11
2.145	3	119487.766	5000.000	561.11
2.155	3	119285.211	5000.000	561.11
2.165	3	119082.969	5000.000	561.10
2.175	3	118880.523	5000.000	561.10
2.185	3	118677.422	5000.000	561.10
2.195	3	118474.672	5000.000	561.10
2.205	3	118271.414	5000.000	561.10
2.215	3	118067.953	5000.000	561.10
2.225	3	117864.305	5000.000	561.10
2.235	3	117660.484	5000.000	561.09
2.245	3	117456.250	5000.000	561.09
2.255	3	117251.648	5000.000	561.09
2.265	3	117046.227	5000.000	561.09
2.275	3	116840.750	5000.000	561.09
2.285	3	116531.258	5000.000	561.09
2.295	3	116221.453	5000.000	561.08
2.305	3	115911.898	5000.000	561.08
2.315	3	115602.016	5000.000	561.08
2.325	3	115291.422	5000.000	561.08
2.335	3	114979.969	5000.000	561.08
2.345	3	114668.141	5000.000	561.08
2.355	3	114356.242	5000.000	561.08
2.365	3	114045.828	5000.000	561.07
2.375	3	113737.836	5000.000	561.07
2.385	3	113434.406	5000.000	561.07
2.395	3	112205.008	5000.000	560.99
2.405	3	111917.688	5000.000	560.99
2.415	3	111622.156	5000.000	560.99
2.425	3	111318.531	5000.000	560.99
2.435	3	111007.898	5000.000	560.98
2.445	3	110712.750	5000.000	560.98
2.455	3	110420.523	5000.000	560.98
2.465	3	110125.453	5000.000	560.98
2.475	3	109828.391	5000.000	560.98
2.485	3	109529.391	5000.000	560.98
2.495	3	109229.258	5000.000	560.97
2.505	3	108927.617	5000.000	560.97
2.515	3	108625.398	5000.000	560.97
2.525	3	108322.445	5000.000	560.97
2.535	3	108018.273	5000.000	560.97
2.545	3	107713.789	5000.000	560.97
2.555	3	107409.008	5000.000	560.96
2.565	3	107102.969	5000.000	560.96
2.575	3	106796.469	5000.000	560.96
2.585	3	106489.281	5000.000	560.96
2.595	3	106181.688	5000.000	560.96
2.605	3	105858.484	5000.000	560.96

2.615	3	105520.133	5000.000	560.95
2.625	3	105181.242	5000.000	560.95
2.635	3	104841.305	5000.000	560.95
2.645	3	104500.195	5000.000	560.95
2.655	3	104157.844	5000.000	560.95
2.665	3	103814.078	5000.000	560.95
2.675	3	103469.023	5000.000	560.95
2.685	3	103123.234	5000.000	560.94
2.695	3	102776.766	5000.000	560.94
2.705	3	102429.977	5000.000	560.94
2.715	3	102082.750	5000.000	560.94
2.725	3	101734.312	5000.000	560.94
2.735	3	101384.734	5000.000	560.94
2.745	3	101034.469	5000.000	560.93
2.755	3	100683.781	5000.000	560.93
2.765	3	100341.297	5000.000	560.93
2.775	3	100023.891	5000.000	560.93
2.785	3	99710.555	5000.000	560.93
2.795	3	98368.969	5000.000	560.84
2.805	3	98071.086	5000.000	560.84
2.815	3	97765.133	5000.000	560.83
2.825	3	97451.211	5000.000	560.83
2.835	3	97130.125	5000.000	560.83
2.845	3	96804.062	5000.000	560.83
2.855	3	96473.625	5000.000	560.83
2.865	3	96140.031	5000.000	560.83
2.875	3	95804.250	5000.000	560.82
2.885	3	95466.008	5000.000	560.82
2.895	3	95126.273	5000.000	560.82
2.905	3	94784.500	5000.000	560.82
2.915	3	94441.812	5000.000	560.82
2.925	3	94097.633	5000.000	560.82
2.935	3	93816.867	5000.000	560.81
2.945	3	93535.836	5000.000	560.81
2.955	3	93253.445	5000.000	560.81
2.965	3	92971.031	5000.000	560.81
2.975	3	92687.664	5000.000	560.81
2.985	3	92403.398	5000.000	560.81
2.995	3	92118.852	5000.000	560.81
3.005	3	91833.328	5000.000	560.80
3.015	3	91546.648	5000.000	560.80
3.025	3	91259.539	5000.000	560.80
3.035	3	90971.625	5000.000	560.80
3.045	3	90682.805	5000.000	560.80
3.055	3	90393.117	5000.000	560.80
3.065	3	90102.531	5000.000	560.79
3.075	3	89810.836	5000.000	560.79
3.085	3	89518.633	5000.000	560.79
3.095	3	89250.578	5000.000	560.79
3.105	3	88990.195	5000.000	560.79
3.115	3	88729.141	5000.000	560.79
3.125	3	88467.297	5000.000	560.79
3.135	3	88205.062	5000.000	560.78
3.145	3	87941.828	5000.000	560.78
3.155	3	87678.016	5000.000	560.78
3.165	3	87413.914	5000.000	560.78
3.175	3	87148.312	5000.000	560.78
3.185	3	86882.789	5000.000	560.78
3.195	3	86616.180	5000.000	560.77
3.205	3	86348.828	5000.000	560.77
3.215	3	86081.156	5000.000	560.77
3.225	3	85811.914	5000.000	560.77

3.235	3	85542.734	5000.000	560.77
3.245	3	85272.367	5000.000	560.77
3.255	3	85019.188	5000.000	560.77
3.265	3	84783.320	5000.000	560.76
3.275	3	84546.898	5000.000	560.76
3.285	3	84310.281	5000.000	560.76
3.295	3	84072.273	5000.000	560.76
3.305	3	83834.461	5000.000	560.76
3.315	3	83595.633	5000.000	560.76
3.325	3	83356.203	5000.000	560.75
3.335	3	83116.547	5000.000	560.75
3.345	3	82875.453	5000.000	560.75
3.355	3	82634.539	5000.000	560.75
3.365	3	82392.570	5000.000	560.75
3.375	3	82149.969	5000.000	560.75
3.385	3	81906.711	5000.000	560.74
3.395	3	81662.805	5000.000	560.74
3.405	3	81418.633	5000.000	560.74
3.415	3	81182.672	5000.000	560.74
3.425	3	80974.062	5000.000	560.74
3.435	3	80764.984	5000.000	560.74
3.445	3	80555.844	5000.000	560.74
3.455	3	80345.844	5000.000	560.73
3.465	3	80135.336	5000.000	560.73
3.475	3	79924.789	5000.000	560.73
3.485	3	79713.141	5000.000	560.73
3.495	3	79501.406	5000.000	560.73
3.505	3	79288.969	5000.000	560.73
3.515	3	79076.445	5000.000	560.72
3.525	3	78862.602	5000.000	560.72
3.535	3	78649.070	5000.000	560.72
3.545	3	78434.617	5000.000	560.72
3.555	3	78220.047	5000.000	560.72
3.565	3	78004.547	5000.000	560.72
3.575	3	77788.523	5000.000	560.72
3.585	3	77494.062	5000.000	560.71
3.595	3	77197.695	5000.000	560.71
3.605	3	76901.016	5000.000	560.71
3.615	3	76602.820	5000.000	560.71
3.625	3	76303.898	5000.000	560.71
3.635	3	76003.445	5000.000	560.71
3.645	3	75702.219	5000.000	560.70
3.655	3	75399.422	5000.000	560.70
3.665	3	75095.820	5000.000	560.70
3.675	3	74790.625	5000.000	560.70
3.685	3	74484.594	5000.000	560.70
3.695	3	74176.930	5000.000	560.70
3.705	3	73868.406	5000.000	560.70
3.715	3	73558.203	5000.000	560.69
3.725	3	73247.109	5000.000	560.69
3.735	3	72934.312	5000.000	560.69
3.745	3	72652.055	5000.000	560.69
3.755	3	72379.281	5000.000	560.69
3.765	3	72105.109	5000.000	560.69
3.775	3	71830.344	5000.000	560.68
3.785	3	71554.133	5000.000	560.68
3.795	3	71277.703	5000.000	560.68
3.805	3	70999.398	5000.000	560.68
3.815	3	70720.453	5000.000	560.68
3.825	3	70440.414	5000.000	560.68
3.835	3	70158.898	5000.000	560.68
3.845	3	69877.062	5000.000	560.67

3.855	3	69593.312	5000.000	560.67
3.865	3	69308.812	5000.000	560.67
3.875	3	69023.180	5000.000	560.67
3.885	3	68735.969	5000.000	560.67
3.895	3	68448.383	5000.000	560.67
3.905	3	68158.773	5000.000	560.66
3.915	3	67868.359	5000.000	560.66
3.925	3	67577.094	5000.000	560.66
3.935	3	67283.992	5000.000	560.66
3.945	3	66989.602	5000.000	560.66
3.955	3	66694.531	5000.000	560.66
3.965	3	66397.750	5000.000	560.66
3.975	3	66099.234	5000.000	560.65
3.985	3	65800.156	5000.000	560.65
3.995	3	65499.309	5000.000	560.65

IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - TEMPERATURE DATA FOR ROD 3 (FUEL TYPE 1)

DISTANCE (M)	FLUX (MW/M2)	DNBR	CHANNEL (DEG-K)	TEMPERATURE							
				AV FUEL T T (1)	T (2)	T (3)	T (4)	T (5)	T (6)	T (7)	
0.005	0.43688	0.000	0	832.4	997.8	963.5	891.4	790.1	670.7	573.6	564.3
0.015	0.44443	0.000	0	837.8	1007.0	971.9	898.1	794.5	672.7	573.9	564.4
0.025	0.45197	9.908	3	843.3	1016.4	980.4	904.8	798.9	674.6	574.2	564.5
0.035	0.45952	9.646	3	848.7	1025.7	988.9	911.6	803.3	676.5	574.4	564.6
0.045	0.46706	9.396	3	854.2	1035.2	997.5	918.4	807.8	678.5	574.7	564.7
0.055	0.47460	9.157	3	859.8	1044.7	1006.1	925.2	812.3	680.4	575.0	564.8
0.065	0.48215	8.929	3	865.3	1054.2	1014.8	932.1	816.7	682.4	575.2	564.9
0.075	0.48969	8.710	3	870.9	1063.9	1023.5	939.0	821.2	684.3	575.5	565.0
0.085	0.49723	8.500	3	876.5	1073.5	1032.3	945.9	825.7	686.2	575.7	565.1
0.095	0.50478	8.299	3	882.1	1083.3	1041.1	952.9	830.2	688.2	576.0	565.2
0.105	0.51232	8.107	3	887.7	1093.1	1050.0	959.8	834.8	690.1	576.2	565.3
0.115	0.51987	7.921	3	893.4	1103.0	1058.9	966.9	839.3	692.0	576.5	565.4
0.125	0.52741	7.743	3	899.1	1112.9	1067.9	973.9	843.9	693.9	576.7	565.5
0.135	0.53495	7.572	3	904.8	1122.9	1077.0	981.0	848.4	695.9	577.0	565.6
0.145	0.54250	7.407	3	910.5	1133.0	1086.1	988.2	853.0	697.8	577.2	565.7
0.155	0.55004	7.249	3	916.3	1143.1	1095.2	995.3	857.6	699.7	577.5	565.8
0.165	0.55759	7.096	3	922.1	1153.3	1104.4	1002.5	862.2	701.6	577.7	565.8
0.175	0.56513	6.949	3	927.9	1163.6	1113.7	1009.8	866.8	703.6	578.0	565.9
0.185	0.57267	6.807	3	933.7	1173.9	1123.0	1017.1	871.5	705.5	578.2	566.0
0.195	0.58022	6.671	3	939.6	1184.3	1132.4	1024.4	876.1	707.4	578.5	566.1
0.205	0.58776	6.538	3	945.5	1194.7	1141.8	1031.7	880.8	709.3	578.7	566.2
0.215	0.59531	6.411	3	951.4	1205.3	1151.3	1039.1	885.5	711.2	578.9	566.3
0.225	0.60285	6.287	3	957.3	1215.9	1160.8	1046.5	890.2	713.2	579.2	566.4
0.235	0.61039	6.167	3	963.3	1226.5	1170.4	1054.0	894.9	715.1	579.4	566.4
0.245	0.61794	6.051	3	969.3	1237.2	1180.0	1061.5	899.6	717.0	579.7	566.5
0.255	0.62548	5.939	3	975.3	1248.0	1189.7	1069.0	904.4	718.9	579.9	566.6
0.265	0.63303	5.830	3	981.3	1258.9	1199.5	1076.5	909.1	720.8	580.2	566.7
0.275	0.64057	5.725	3	987.4	1269.8	1209.3	1084.1	913.9	722.7	580.4	566.8
0.285	0.64811	5.623	3	993.5	1280.8	1219.2	1091.8	918.7	724.7	580.6	566.8
0.295	0.65566	5.523	3	999.6	1291.8	1229.1	1099.5	923.5	726.6	580.9	566.9
0.305	0.66320	5.427	3	1005.8	1302.9	1239.1	1107.2	928.3	728.5	581.1	567.0
0.315	0.67074	5.333	3	1012.0	1314.1	1249.1	1114.9	933.1	730.4	581.3	567.1
0.325	0.67829	5.242	3	1018.2	1325.4	1259.2	1122.7	937.9	732.3	581.6	567.1
0.335	0.68684	5.147	3	1025.2	1338.2	1270.7	1131.5	943.4	734.5	581.8	567.2
0.345	0.69539	5.056	3	1032.3	1351.1	1282.3	1140.5	949.0	736.6	582.1	567.3
0.355	0.70394	4.967	3	1039.5	1364.1	1294.0	1149.4	954.5	738.8	582.4	567.4
0.365	0.71249	4.880	3	1046.6	1377.2	1305.7	1158.4	960.1	741.0	582.6	567.5
0.375	0.72104	4.795	3	1053.8	1390.4	1317.5	1167.5	965.6	743.1	582.9	567.5
0.385	0.72959	4.712	3	1061.1	1403.6	1329.4	1176.6	971.2	745.3	583.1	567.6

0.395	0.73815	4.631	3	1068.3	1416.9	1341.3	1185.7	976.8	747.4	583.4	567.7
0.405	0.74670	4.551	3	1075.6	1430.4	1353.3	1194.9	982.5	749.6	583.6	567.8
0.415	0.75525	4.475	3	1083.0	1443.9	1365.4	1204.1	988.1	751.7	583.9	567.8
0.425	0.76380	4.402	3	1090.3	1457.4	1377.6	1213.4	993.8	753.9	584.2	567.9
0.435	0.77235	4.331	3	1097.7	1471.1	1389.8	1222.8	999.5	756.0	584.4	568.0
0.445	0.78090	4.263	3	1105.2	1484.9	1402.1	1232.2	1005.2	758.2	584.7	568.1
0.455	0.78945	4.196	3	1112.7	1498.7	1414.5	1241.6	1011.0	760.4	584.9	568.2
0.465	0.79800	4.132	3	1120.2	1512.6	1427.0	1251.1	1016.7	762.5	585.2	568.2
0.475	0.80655	4.069	3	1127.7	1526.6	1439.5	1260.6	1022.5	764.7	585.4	568.3
0.485	0.81511	4.008	3	1135.3	1540.7	1452.1	1270.2	1028.3	766.8	585.7	568.4
0.495	0.82365	3.948	3	1142.9	1554.9	1464.7	1279.9	1034.1	769.0	585.9	568.5
0.505	0.83220	3.890	3	1150.6	1569.1	1477.5	1289.6	1039.9	771.1	586.2	568.5
0.515	0.84075	3.833	3	1158.2	1583.4	1490.3	1299.3	1045.8	773.3	586.5	568.6
0.525	0.84930	3.778	3	1166.0	1597.8	1503.1	1309.1	1051.7	775.4	586.7	568.7
0.535	0.85785	3.724	3	1173.7	1612.3	1516.1	1318.9	1057.6	777.6	587.0	568.8
0.545	0.86640	3.671	3	1181.5	1626.9	1529.1	1328.8	1063.5	779.7	587.2	568.8
0.555	0.87495	3.620	3	1189.3	1641.5	1542.2	1338.7	1069.4	781.9	587.5	568.9
0.565	0.88349	3.569	3	1197.2	1656.2	1555.3	1348.7	1075.4	784.0	587.7	569.0
0.575	0.89204	3.520	3	1205.0	1670.9	1568.5	1358.7	1081.3	786.2	588.0	569.0
0.585	0.90059	3.472	3	1213.0	1685.8	1581.8	1368.7	1087.3	788.3	588.2	569.1
0.595	0.90914	3.425	3	1220.9	1700.7	1595.2	1378.9	1093.4	790.5	588.5	569.2
0.605	0.91769	3.379	3	1228.9	1715.6	1608.6	1389.0	1099.4	792.6	588.7	569.3
0.615	0.92624	3.333	3	1236.9	1730.7	1622.0	1399.2	1105.4	794.8	589.0	569.3
0.625	0.93479	3.288	3	1244.9	1745.7	1635.5	1409.5	1111.5	796.9	589.2	569.4
0.635	0.94334	3.245	3	1253.0	1760.9	1649.1	1419.7	1117.6	799.1	589.4	569.4
0.645	0.95188	3.202	3	1261.0	1776.0	1662.7	1430.0	1123.7	801.2	589.7	569.5
0.655	0.95892	3.163	3	1267.7	1788.6	1673.9	1438.6	1128.7	802.9	589.8	569.5
0.665	0.96446	3.129	3	1273.0	1798.5	1682.8	1445.3	1132.7	804.3	590.0	569.5
0.675	0.96999	3.095	3	1278.2	1808.4	1691.7	1452.0	1136.6	805.7	590.1	569.6
0.685	0.97552	3.062	3	1283.5	1818.3	1700.6	1458.8	1140.6	807.1	590.3	569.6
0.695	0.98105	3.029	3	1288.8	1828.2	1709.5	1465.6	1144.6	808.4	590.4	569.6
0.705	0.98658	2.996	3	1294.1	1838.2	1718.5	1472.4	1148.6	809.8	590.6	569.7
0.715	0.99212	2.965	3	1299.4	1848.2	1727.5	1479.2	1152.6	811.2	590.7	569.7
0.725	0.99765	2.933	3	1304.8	1858.2	1736.5	1486.0	1156.6	812.5	590.8	569.7
0.735	1.00318	2.902	3	1310.1	1868.2	1745.5	1492.9	1160.6	813.9	591.0	569.7
0.745	1.00871	2.872	3	1315.5	1878.3	1754.5	1499.7	1164.6	815.3	591.1	569.8
0.755	1.01424	2.842	3	1320.8	1888.3	1763.6	1506.6	1168.7	816.7	591.3	569.8
0.765	1.01978	2.812	3	1326.2	1898.3	1772.7	1513.5	1172.7	818.0	591.4	569.8
0.775	1.02531	2.782	3	1331.6	1908.2	1781.8	1520.4	1176.8	819.4	591.6	569.8
0.785	1.03084	2.753	3	1337.0	1918.1	1790.9	1527.4	1180.8	820.8	591.7	569.9
0.795	1.03637	2.723	3	1342.4	1928.0	1800.0	1534.3	1184.9	822.1	591.8	569.9
0.805	1.04190	2.693	3	1347.8	1937.9	1809.2	1541.3	1189.0	823.5	592.0	569.9
0.815	1.04681	2.663	3	1352.6	1946.7	1817.3	1547.5	1192.6	824.7	592.1	569.9
0.825	1.04983	2.643	3	1355.5	1952.1	1822.3	1551.3	1194.8	825.5	592.2	570.0
0.835	1.05285	2.620	3	1358.5	1957.6	1827.3	1555.2	1197.0	826.2	592.3	570.0
0.845	1.05587	2.598	3	1361.5	1963.0	1832.4	1559.0	1199.3	827.0	592.3	570.0
0.855	1.05888	2.577	3	1364.4	1968.5	1837.4	1562.8	1201.5	827.7	592.4	570.0
0.865	1.06190	2.556	3	1367.4	1973.9	1842.4	1566.7	1203.8	828.5	592.5	570.0
0.875	1.06492	2.535	3	1370.4	1979.4	1847.5	1570.5	1206.0	829.2	592.6	570.0
0.885	1.06794	2.515	3	1373.4	1984.8	1852.5	1574.4	1208.3	830.0	592.6	570.0
0.895	1.07096	2.495	3	1376.4	1990.3	1857.6	1578.2	1210.5	830.7	592.7	570.1
0.905	1.07398	2.475	3	1379.4	1995.7	1862.6	1582.1	1212.8	831.5	592.8	570.1
0.915	1.07700	2.456	3	1382.4	2001.2	1867.7	1586.0	1215.0	832.2	592.9	570.1
0.925	1.08002	2.437	3	1385.4	2006.7	1872.7	1589.9	1217.3	833.0	593.0	570.1
0.935	1.08304	2.418	3	1388.4	2012.1	1877.8	1593.7	1219.5	833.7	593.0	570.1
0.945	1.08606	2.399	3	1391.4	2017.6	1882.9	1597.6	1221.8	834.5	593.1	570.1
0.955	1.08907	2.381	3	1394.4	2023.1	1887.9	1601.5	1224.1	835.2	593.2	570.1
0.965	1.09209	2.363	3	1397.3	2028.4	1892.9	1605.4	1226.3	836.0	593.3	570.2
0.975	1.09511	2.345	3	1400.3	2033.4	1897.7	1609.3	1228.6	836.7	593.3	570.2
0.985	1.09662	2.329	3	1401.8	2035.9	1900.1	1611.3	1229.7	837.1	593.4	570.2
0.995	1.09813	2.313	3	1403.2	2038.4	1902.5	1613.2	1230.9	837.5	593.4	570.2
1.005	1.09964	2.297	3	1404.7	2040.9	1904.9	1615.2	1232.0	837.8	593.5	570.2

1.015	1.10115	2.282	3	1406.2	2043.4	1907.3	1617.1	1233.1	838.2	593.5	570.2
1.025	1.10265	2.266	3	1407.7	2045.9	1909.7	1619.1	1234.3	838.6	593.5	570.2
1.035	1.10416	2.251	3	1409.1	2048.5	1912.1	1621.0	1235.4	838.9	593.6	570.2
1.045	1.10567	2.236	3	1410.6	2051.0	1914.5	1623.0	1236.6	839.3	593.6	570.2
1.055	1.10718	2.222	3	1412.1	2053.5	1916.9	1624.9	1237.7	839.7	593.7	570.2
1.065	1.10869	2.207	3	1413.6	2056.0	1919.3	1626.9	1238.8	840.1	593.7	570.2
1.075	1.11020	2.192	3	1415.0	2058.5	1921.7	1628.9	1240.0	840.4	593.7	570.2
1.085	1.11170	2.178	3	1416.5	2061.0	1924.1	1630.8	1241.1	840.8	593.8	570.3
1.095	1.11321	2.164	3	1418.0	2063.5	1926.5	1632.8	1242.3	841.2	593.8	570.3
1.105	1.11472	2.150	3	1419.5	2066.0	1928.9	1634.7	1243.4	841.6	593.9	570.3
1.115	1.11623	2.136	3	1421.0	2068.5	1931.4	1636.7	1244.6	841.9	593.9	570.3
1.125	1.11774	2.122	3	1422.4	2071.0	1933.8	1638.7	1245.7	842.3	593.9	570.3
1.135	1.11925	2.109	3	1423.9	2073.5	1936.2	1640.6	1246.8	842.7	594.0	570.3
1.145	1.12038	2.095	3	1425.0	2075.4	1938.0	1642.1	1247.7	843.0	594.0	570.3
1.155	1.12138	2.082	3	1426.0	2077.1	1939.6	1643.4	1248.5	843.2	594.0	570.3
1.165	1.12239	2.069	3	1427.0	2078.8	1941.2	1644.7	1249.2	843.5	594.0	570.3
1.175	1.12339	2.056	3	1428.0	2080.4	1942.8	1646.0	1250.0	843.7	594.1	570.3
1.185	1.12440	2.043	3	1429.0	2082.1	1944.4	1647.4	1250.8	844.0	594.1	570.3
1.195	1.12540	2.029	3	1430.0	2083.8	1946.0	1648.7	1251.5	844.2	594.1	570.3
1.205	1.12640	2.016	3	1431.0	2085.4	1947.6	1650.0	1252.3	844.5	594.1	570.3
1.215	1.12741	2.003	3	1431.9	2087.1	1949.2	1651.3	1253.0	844.7	594.2	570.3
1.225	1.12841	1.990	3	1432.9	2088.8	1950.8	1652.6	1253.8	844.9	594.2	570.3
1.235	1.12942	1.978	3	1433.9	2090.4	1952.4	1653.9	1254.6	845.2	594.2	570.3
1.245	1.13042	1.967	3	1434.9	2092.1	1954.0	1655.2	1255.3	845.4	594.2	570.3
1.255	1.13143	1.955	3	1435.9	2093.8	1955.6	1656.5	1256.1	845.7	594.3	570.3
1.265	1.13243	1.944	3	1436.9	2095.5	1957.2	1657.9	1256.9	845.9	594.3	570.3
1.275	1.13344	1.933	3	1437.9	2097.1	1958.8	1659.2	1257.6	846.2	594.3	570.3
1.285	1.13444	1.923	3	1438.9	2098.8	1960.4	1660.5	1258.4	846.4	594.3	570.3
1.295	1.13545	1.912	3	1439.9	2100.5	1962.0	1661.8	1259.2	846.7	594.4	570.4
1.305	1.13620	1.902	3	1440.6	2101.7	1963.3	1662.8	1259.7	846.9	594.4	570.4
1.315	1.13670	1.892	3	1441.1	2102.6	1964.1	1663.5	1260.1	847.0	594.4	570.4
1.325	1.13721	1.882	3	1441.6	2103.4	1964.9	1664.1	1260.5	847.1	594.4	570.4
1.335	1.13771	1.872	3	1442.1	2104.2	1965.7	1664.8	1260.9	847.3	594.4	570.4
1.345	1.13822	1.862	3	1442.6	2105.1	1966.5	1665.5	1261.3	847.4	594.4	570.4
1.355	1.13872	1.852	3	1443.1	2105.9	1967.3	1666.1	1261.7	847.5	594.5	570.4
1.365	1.13922	1.843	3	1443.6	2106.8	1968.1	1666.8	1262.0	847.6	594.5	570.4
1.375	1.13973	1.833	3	1444.1	2107.6	1968.9	1667.4	1262.4	847.8	594.5	570.4
1.385	1.14023	1.824	3	1444.6	2108.4	1969.7	1668.1	1262.8	847.9	594.5	570.4
1.395	1.14073	1.815	3	1445.1	2109.3	1970.5	1668.8	1263.2	848.0	594.5	570.4
1.405	1.14124	1.806	3	1445.6	2110.1	1971.3	1669.4	1263.6	848.1	594.5	570.4
1.415	1.14174	1.796	3	1446.1	2111.0	1972.1	1670.1	1264.0	848.3	594.5	570.4
1.425	1.14224	1.787	3	1446.6	2111.8	1972.9	1670.8	1264.4	848.4	594.5	570.4
1.435	1.14275	1.778	3	1447.1	2112.6	1973.7	1671.4	1264.7	848.5	594.6	570.4
1.445	1.14325	1.769	3	1447.6	2113.5	1974.6	1672.1	1265.1	848.6	594.6	570.4
1.455	1.14375	1.761	3	1448.1	2114.3	1975.4	1672.7	1265.5	848.8	594.6	570.4
1.465	1.14401	1.752	3	1448.3	2114.7	1975.8	1673.1	1265.7	848.8	594.6	570.4
1.475	1.14350	1.744	3	1447.8	2113.9	1975.0	1672.4	1265.3	848.7	594.6	570.4
1.485	1.14300	1.736	3	1447.3	2113.1	1974.2	1671.7	1264.9	848.6	594.6	570.4
1.495	1.14250	1.728	3	1446.8	2112.2	1973.3	1671.1	1264.6	848.4	594.6	570.4
1.505	1.14199	1.721	3	1446.3	2111.4	1972.5	1670.4	1264.2	848.3	594.5	570.4
1.515	1.14149	1.713	3	1445.8	2110.5	1971.7	1669.8	1263.8	848.2	594.5	570.4
1.525	1.14099	1.705	3	1445.3	2109.7	1970.9	1669.1	1263.4	848.1	594.5	570.4
1.535	1.14048	1.698	3	1444.8	2108.9	1970.1	1668.4	1263.0	847.9	594.5	570.4
1.545	1.13998	1.690	3	1444.3	2108.0	1969.3	1667.8	1262.6	847.8	594.5	570.4
1.555	1.13947	1.682	3	1443.8	2107.2	1968.5	1667.1	1262.2	847.7	594.5	570.4
1.565	1.13897	1.675	3	1443.4	2106.3	1967.7	1666.5	1261.9	847.6	594.5	570.4
1.575	1.13847	1.667	3	1442.9	2105.5	1966.9	1665.8	1261.5	847.4	594.5	570.4
1.585	1.13796	1.659	3	1442.4	2104.7	1966.1	1665.1	1261.1	847.3	594.4	570.4
1.595	1.13746	1.650	3	1441.8	2103.8	1965.3	1664.5	1260.7	847.2	594.4	570.4
1.605	1.13696	1.642	3	1441.3	2103.0	1964.5	1663.8	1260.3	847.1	594.4	570.4
1.615	1.13645	1.634	3	1440.8	2102.1	1963.6	1663.1	1259.9	846.9	594.4	570.3
1.625	1.13595	1.627	3	1440.3	2101.3	1962.8	1662.5	1259.5	846.8	594.4	570.3

1.635	1.13494	1.620	3	1439.4	2099.6	1961.2	1661.1	1258.8	846.6	594.3	570.3
1.645	1.13394	1.613	3	1438.4	2098.0	1959.6	1659.8	1258.0	846.3	594.3	570.3
1.655	1.13294	1.607	3	1437.4	2096.3	1958.0	1658.5	1257.2	846.1	594.3	570.3
1.665	1.13193	1.600	3	1436.4	2094.6	1956.4	1657.2	1256.5	845.8	594.3	570.3
1.675	1.13093	1.594	3	1435.4	2092.9	1954.8	1655.9	1255.7	845.6	594.2	570.3
1.685	1.12992	1.588	3	1434.4	2091.3	1953.2	1654.6	1254.9	845.3	594.2	570.3
1.695	1.12892	1.582	3	1433.4	2089.6	1951.6	1653.2	1254.2	845.1	594.2	570.3
1.705	1.12791	1.576	3	1432.4	2087.9	1950.0	1651.9	1253.4	844.8	594.2	570.3
1.715	1.12691	1.570	3	1431.4	2086.3	1948.4	1650.6	1252.6	844.6	594.1	570.3
1.725	1.12590	1.564	3	1430.4	2084.6	1946.8	1649.3	1251.9	844.3	594.1	570.3
1.735	1.12490	1.559	3	1429.5	2082.9	1945.2	1648.0	1251.1	844.1	594.1	570.3
1.745	1.12389	1.553	3	1428.5	2081.2	1943.6	1646.7	1250.4	843.8	594.1	570.3
1.755	1.12289	1.547	3	1427.5	2079.6	1942.0	1645.4	1249.6	843.6	594.0	570.3
1.765	1.12188	1.542	3	1426.5	2077.9	1940.4	1644.1	1248.8	843.3	594.0	570.3
1.775	1.12088	1.536	3	1425.5	2076.2	1938.7	1642.7	1248.1	843.1	594.0	570.3
1.785	1.11987	1.530	3	1424.5	2074.6	1937.1	1641.4	1247.3	842.8	594.0	570.3
1.795	1.11849	1.525	3	1423.2	2072.3	1934.9	1639.6	1246.3	842.5	593.9	570.3
1.805	1.11698	1.520	3	1421.7	2069.8	1932.5	1637.7	1245.1	842.1	593.9	570.3
1.815	1.11547	1.515	3	1420.2	2067.2	1930.1	1635.7	1244.0	841.7	593.9	570.3
1.825	1.11397	1.509	3	1418.7	2064.7	1927.7	1633.7	1242.8	841.4	593.8	570.3
1.835	1.11246	1.504	3	1417.2	2062.2	1925.3	1631.8	1241.7	841.0	593.8	570.2
1.845	1.11095	1.499	3	1415.8	2059.7	1922.9	1629.8	1240.5	840.6	593.7	570.2
1.855	1.10944	1.494	3	1414.3	2057.2	1920.5	1627.9	1239.4	840.2	593.7	570.2
1.865	1.10793	1.489	3	1412.8	2054.7	1918.1	1625.9	1238.3	839.9	593.7	570.2
1.875	1.10643	1.484	3	1411.3	2052.2	1915.7	1623.9	1237.1	839.5	593.6	570.2
1.885	1.10492	1.479	3	1409.9	2049.7	1913.3	1622.0	1236.0	839.1	593.6	570.2
1.895	1.10341	1.474	3	1408.4	2047.2	1910.9	1620.0	1234.8	838.8	593.6	570.2
1.905	1.10190	1.469	3	1406.9	2044.7	1908.5	1618.1	1233.7	838.4	593.5	570.2
1.915	1.10039	1.465	3	1405.4	2042.2	1906.1	1616.1	1232.6	838.0	593.5	570.2
1.925	1.09888	1.460	3	1404.0	2039.7	1903.7	1614.2	1231.4	837.6	593.4	570.2
1.935	1.09738	1.455	3	1402.5	2037.2	1901.3	1612.2	1230.3	837.3	593.4	570.2
1.945	1.09587	1.450	3	1401.0	2034.7	1898.9	1610.3	1229.2	836.9	593.4	570.2
1.955	1.09360	1.446	3	1398.8	2030.9	1895.3	1607.3	1227.5	836.3	593.3	570.2
1.965	1.09058	1.441	3	1395.9	2025.8	1890.5	1603.4	1225.2	835.6	593.2	570.1
1.975	1.08757	1.437	3	1392.8	2020.3	1885.4	1599.6	1222.9	834.8	593.1	570.1
1.985	1.08455	1.432	3	1389.8	2014.9	1880.3	1595.7	1220.7	834.1	593.1	570.1
1.995	1.08153	1.427	3	1386.8	2009.4	1875.2	1591.8	1218.4	833.3	593.0	570.1
2.005	1.07851	1.422	3	1383.8	2003.9	1870.2	1587.9	1216.1	832.6	592.9	570.1
2.015	1.07549	1.417	3	1380.8	1998.4	1865.1	1584.0	1213.9	831.8	592.8	570.1
2.025	1.07247	1.413	3	1377.8	1993.0	1860.1	1580.1	1211.6	831.1	592.7	570.0
2.035	1.06945	1.409	3	1374.9	1987.5	1855.0	1576.3	1209.4	830.3	592.7	570.0
2.045	1.06643	1.405	3	1371.9	1982.1	1850.0	1572.4	1207.1	829.6	592.6	570.0
2.055	1.06341	1.402	3	1368.9	1976.6	1844.9	1568.6	1204.9	828.8	592.5	570.0
2.065	1.06039	1.398	3	1365.9	1971.2	1839.9	1564.7	1202.6	828.1	592.4	570.0
2.075	1.05738	1.395	3	1362.9	1965.7	1834.9	1560.9	1200.4	827.3	592.4	570.0
2.085	1.05436	1.392	3	1360.0	1960.3	1829.8	1557.1	1198.1	826.6	592.3	570.0
2.095	1.05134	1.388	3	1357.0	1954.8	1824.8	1553.2	1195.9	825.8	592.2	569.9
2.105	1.04832	1.385	3	1354.0	1949.4	1819.8	1549.4	1193.7	825.1	592.1	569.9
2.115	1.04517	1.382	3	1351.0	1943.8	1814.6	1545.4	1191.3	824.3	592.0	569.9
2.125	1.04165	1.379	3	1347.5	1937.4	1808.7	1541.0	1188.7	823.4	592.0	569.9
2.135	1.03813	1.376	3	1344.1	1931.1	1802.9	1536.5	1186.2	822.6	591.9	569.9
2.145	1.03461	1.373	3	1340.6	1924.8	1797.1	1532.1	1183.6	821.7	591.8	569.9
2.155	1.03109	1.370	3	1337.2	1918.5	1791.3	1527.7	1181.0	820.8	591.7	569.8
2.165	1.02757	1.367	3	1333.8	1912.2	1785.5	1523.2	1178.4	819.9	591.6	569.8
2.175	1.02405	1.364	3	1330.3	1905.9	1779.7	1518.8	1175.8	819.1	591.5	569.8
2.185	1.02053	1.362	3	1326.9	1899.6	1773.9	1514.4	1173.2	818.2	591.4	569.8
2.195	1.01701	1.359	3	1323.5	1893.3	1768.1	1510.0	1170.7	817.3	591.3	569.8
2.205	1.01349	1.356	3	1320.1	1886.9	1762.3	1505.6	1168.1	816.5	591.2	569.8
2.215	1.00997	1.353	3	1316.7	1880.5	1756.6	1501.3	1165.5	815.6	591.1	569.7
2.225	1.00645	1.350	3	1313.2	1874.1	1750.8	1496.9	1163.0	814.7	591.0	569.7
2.235	1.00293	1.348	3	1309.8	1867.7	1745.0	1492.5	1160.4	813.8	591.0	569.7
2.245	0.99941	1.345	3	1306.4	1861.3	1739.3	1488.2	1157.8	813.0	590.9	569.7

2.255	0.99589	1.342	3	1303.0	1855.0	1733.6	1483.8	1155.3	812.1	590.8	569.7
2.265	0.99237	1.340	3	1299.7	1848.6	1727.8	1479.5	1152.7	811.2	590.7	569.7
2.275	0.98885	1.337	3	1296.3	1842.3	1722.1	1475.1	1150.2	810.3	590.6	569.6
2.285	0.98332	1.335	3	1291.0	1832.3	1713.2	1468.3	1146.2	809.0	590.5	569.6
2.295	0.97779	1.334	3	1285.7	1822.3	1704.2	1461.5	1142.2	807.6	590.3	569.6
2.305	0.97226	1.332	3	1280.4	1812.4	1695.3	1454.8	1138.2	806.2	590.2	569.6
2.315	0.96672	1.330	3	1275.1	1802.5	1686.4	1448.0	1134.3	804.9	590.0	569.5
2.325	0.96119	1.328	3	1269.8	1792.6	1677.5	1441.3	1130.3	803.5	589.9	569.5
2.335	0.95566	1.326	3	1264.6	1782.7	1668.7	1434.6	1126.3	802.1	589.7	569.5
2.345	0.95013	1.325	3	1259.4	1772.9	1659.9	1427.9	1122.4	800.7	589.6	569.5
2.355	0.94460	1.323	3	1254.1	1763.1	1651.1	1421.2	1118.5	799.4	589.4	569.4
2.365	0.93906	1.321	3	1248.9	1753.3	1642.3	1414.6	1114.5	798.0	589.3	569.4
2.375	0.93353	1.319	3	1243.7	1743.5	1633.5	1407.9	1110.6	796.6	589.2	569.4
2.385	0.92800	1.316	3	1238.5	1733.8	1624.8	1401.3	1106.7	795.2	589.0	569.3
2.395	0.92247	1.314	3	1233.4	1724.0	1616.1	1394.7	1102.8	793.9	588.9	569.3
2.405	0.91694	1.311	3	1228.2	1714.4	1607.4	1388.2	1098.9	792.5	588.7	569.3
2.415	0.91140	1.308	3	1223.1	1704.7	1598.8	1381.6	1095.0	791.1	588.6	569.2
2.425	0.90587	1.306	3	1217.9	1695.1	1590.1	1375.1	1091.1	789.7	588.4	569.2
2.435	0.90034	1.305	3	1212.8	1685.5	1581.5	1368.6	1087.3	788.4	588.3	569.2
2.445	0.89519	1.303	3	1208.1	1676.5	1573.5	1362.5	1083.7	787.1	588.1	569.2
2.455	0.89016	1.301	3	1203.4	1667.9	1565.8	1356.6	1080.2	785.8	588.0	569.1
2.465	0.88513	1.300	3	1198.8	1659.2	1558.0	1350.7	1076.7	784.6	587.9	569.1
2.475	0.88010	1.299	3	1194.2	1650.6	1550.3	1344.9	1073.2	783.3	587.7	569.1
2.485	0.87507	1.297	3	1189.6	1642.0	1542.6	1339.1	1069.7	782.1	587.6	569.1
2.495	0.87004	1.296	3	1185.0	1633.4	1535.0	1333.2	1066.2	780.8	587.5	569.0
2.505	0.86501	1.295	3	1180.5	1624.8	1527.3	1327.4	1062.8	779.6	587.4	569.0
2.515	0.85999	1.294	3	1175.9	1616.3	1519.7	1321.7	1059.3	778.3	587.2	569.0
2.525	0.85496	1.292	3	1171.4	1607.8	1512.1	1315.9	1055.8	777.1	587.1	568.9
2.535	0.84993	1.291	3	1166.8	1599.3	1504.5	1310.1	1052.4	775.8	587.0	568.9
2.545	0.84490	1.290	3	1162.3	1590.9	1496.9	1304.4	1049.0	774.6	586.8	568.9
2.555	0.83987	1.289	3	1157.8	1582.4	1489.4	1298.7	1045.5	773.3	586.7	568.9
2.565	0.83484	1.288	3	1153.3	1574.0	1481.9	1293.0	1042.1	772.1	586.6	568.8
2.575	0.82982	1.287	3	1148.8	1565.7	1474.4	1287.3	1038.7	770.8	586.4	568.8
2.585	0.82479	1.285	3	1144.4	1557.3	1466.9	1281.6	1035.3	769.6	586.3	568.8
2.595	0.81976	1.284	3	1139.9	1549.0	1459.5	1276.0	1031.9	768.3	586.2	568.8
2.605	0.81448	1.283	3	1135.2	1540.3	1451.7	1270.1	1028.3	767.0	586.0	568.7
2.615	0.80895	1.283	3	1130.3	1531.2	1443.6	1263.9	1024.6	765.6	585.9	568.7
2.625	0.80341	1.282	3	1125.5	1522.2	1435.5	1257.7	1020.9	764.3	585.7	568.7
2.635	0.79788	1.281	3	1120.6	1513.1	1427.4	1251.6	1017.1	762.9	585.6	568.6
2.645	0.79235	1.280	3	1115.8	1504.2	1419.4	1245.5	1013.4	761.5	585.4	568.6
2.655	0.78682	1.279	3	1111.0	1495.2	1411.4	1239.4	1009.7	760.1	585.3	568.6
2.665	0.78129	1.279	3	1106.1	1486.3	1403.4	1233.3	1006.1	758.8	585.1	568.6
2.675	0.77575	1.278	3	1101.3	1477.4	1395.5	1227.2	1002.4	757.4	585.0	568.5
2.685	0.77022	1.277	3	1096.6	1468.6	1387.6	1221.2	998.7	756.0	584.9	568.5
2.695	0.76469	1.276	3	1091.8	1459.7	1379.7	1215.2	995.1	754.6	584.7	568.5
2.705	0.75916	1.276	3	1087.0	1451.0	1371.8	1209.2	991.4	753.3	584.6	568.4
2.715	0.75363	1.275	3	1082.3	1442.2	1364.0	1203.2	987.8	751.9	584.4	568.4
2.725	0.74809	1.274	3	1077.6	1433.5	1356.2	1197.2	984.1	750.5	584.3	568.4
2.735	0.74256	1.274	3	1072.9	1424.8	1348.4	1191.3	980.5	749.1	584.1	568.3
2.745	0.73703	1.273	3	1068.2	1416.2	1340.7	1185.4	976.9	747.8	584.0	568.3
2.755	0.73150	1.272	3	1063.5	1407.6	1333.0	1179.5	973.3	746.4	583.8	568.3
2.765	0.72609	1.271	3	1058.9	1399.2	1325.5	1173.8	969.7	745.0	583.7	568.2
2.775	0.72106	1.270	3	1054.7	1391.5	1318.6	1168.4	966.5	743.8	583.5	568.2
2.785	0.71603	1.269	3	1050.5	1383.7	1311.6	1163.1	963.2	742.5	583.4	568.2
2.795	0.71100	1.267	3	1046.3	1376.0	1304.7	1157.8	959.9	741.3	583.3	568.1
2.805	0.70597	1.265	3	1042.1	1368.3	1297.8	1152.5	956.7	740.0	583.1	568.1
2.815	0.70094	1.263	3	1037.9	1360.7	1291.0	1147.3	953.4	738.7	583.0	568.1
2.825	0.69591	1.262	3	1033.7	1353.1	1284.1	1142.0	950.2	737.5	582.8	568.0
2.835	0.69087	1.261	3	1029.6	1345.5	1277.3	1136.8	947.0	736.2	582.7	568.0
2.845	0.68584	1.260	3	1025.4	1337.9	1270.6	1131.6	943.7	735.0	582.6	568.0
2.855	0.68081	1.260	3	1021.3	1330.4	1263.8	1126.4	940.5	733.7	582.4	568.0
2.865	0.67578	1.259	3	1017.2	1322.9	1257.1	1121.2	937.3	732.5	582.3	567.9

2.875	0.67075	1.259	3	1013.0	1315.4	1250.4	1116.1	934.1	731.2	582.2	567.9
2.885	0.66572	1.259	3	1008.9	1308.0	1243.7	1110.9	930.9	730.0	582.0	567.9
2.895	0.66069	1.258	3	1004.9	1300.6	1237.1	1105.8	927.7	728.7	581.9	567.8
2.905	0.65566	1.258	3	1000.8	1293.2	1230.5	1100.7	924.5	727.5	581.8	567.8
2.915	0.65063	1.258	3	996.7	1285.9	1223.9	1095.6	921.4	726.2	581.6	567.8
2.925	0.64560	1.257	3	992.7	1278.6	1217.3	1090.5	918.2	724.9	581.5	567.7
2.935	0.64158	1.257	3	989.4	1272.7	1212.0	1086.5	915.7	723.9	581.4	567.7
2.945	0.63755	1.256	3	986.2	1266.9	1206.8	1082.4	913.1	722.9	581.3	567.7
2.955	0.63353	1.256	3	983.0	1261.1	1201.6	1078.4	910.6	721.9	581.2	567.7
2.965	0.62951	1.255	3	979.8	1255.4	1196.4	1074.4	908.1	720.9	581.0	567.7
2.975	0.62549	1.255	3	976.6	1249.6	1191.3	1070.4	905.6	719.9	580.9	567.6
2.985	0.62147	1.254	3	973.4	1243.9	1186.1	1066.4	903.1	718.9	580.8	567.6
2.995	0.61745	1.254	3	970.2	1238.2	1181.0	1062.4	900.6	717.9	580.7	567.6
3.005	0.61343	1.253	3	967.1	1232.5	1175.8	1058.4	898.1	716.9	580.6	567.6
3.015	0.60940	1.253	3	963.9	1226.8	1170.7	1054.5	895.6	715.9	580.5	567.5
3.025	0.60538	1.252	3	960.7	1221.1	1165.6	1050.5	893.1	714.9	580.4	567.5
3.035	0.60136	1.252	3	957.6	1215.5	1160.6	1046.6	890.6	713.9	580.3	567.5
3.045	0.59734	1.251	3	954.4	1209.9	1155.5	1042.7	888.1	712.9	580.2	567.5
3.055	0.59332	1.251	3	951.3	1204.3	1150.5	1038.7	885.6	711.9	580.1	567.4
3.065	0.58930	1.250	3	948.2	1198.7	1145.4	1034.8	883.2	710.9	579.9	567.4
3.075	0.58528	1.250	3	945.0	1193.1	1140.4	1030.9	880.7	709.9	579.8	567.4
3.085	0.58126	1.250	3	941.9	1187.6	1135.4	1027.0	878.2	708.9	579.7	567.4
3.095	0.57761	1.249	3	939.1	1182.6	1130.9	1023.5	876.0	708.0	579.6	567.3
3.105	0.57409	1.249	3	936.4	1177.7	1126.6	1020.1	873.8	707.1	579.5	567.3
3.115	0.57056	1.248	3	933.7	1172.9	1122.2	1016.7	871.7	706.2	579.4	567.3
3.125	0.56704	1.248	3	931.0	1168.1	1117.9	1013.4	869.5	705.3	579.3	567.3
3.135	0.56352	1.247	3	928.3	1163.3	1113.6	1010.0	867.4	704.5	579.2	567.2
3.145	0.56000	1.247	3	925.6	1158.6	1109.3	1006.6	865.3	703.6	579.1	567.2
3.155	0.55647	1.246	3	922.9	1153.8	1105.0	1003.3	863.1	702.7	579.0	567.2
3.165	0.55295	1.246	3	920.2	1149.1	1100.7	999.9	861.0	701.8	578.9	567.2
3.175	0.54943	1.245	3	917.5	1144.3	1096.4	996.6	858.9	700.9	578.8	567.1
3.185	0.54590	1.245	3	914.8	1139.6	1092.2	993.3	856.7	700.1	578.7	567.1
3.195	0.54238	1.245	3	912.2	1134.9	1087.9	989.9	854.6	699.2	578.7	567.1
3.205	0.53886	1.244	3	909.5	1130.2	1083.7	986.6	852.5	698.3	578.6	567.1
3.215	0.53534	1.244	3	906.8	1125.6	1079.5	983.3	850.4	697.4	578.5	567.1
3.225	0.53181	1.243	3	904.2	1120.9	1075.3	980.0	848.2	696.5	578.4	567.0
3.235	0.52829	1.243	3	901.6	1116.3	1071.1	976.7	846.1	695.7	578.3	567.0
3.245	0.52477	1.243	3	898.9	1111.6	1066.9	973.4	844.0	694.8	578.2	567.0
3.255	0.52150	1.242	3	896.5	1107.3	1063.0	970.4	842.1	694.0	578.1	567.0
3.265	0.51848	1.242	3	894.2	1103.4	1059.5	967.6	840.3	693.2	578.0	566.9
3.275	0.51547	1.241	3	892.0	1099.5	1055.9	964.8	838.5	692.4	577.9	566.9
3.285	0.51245	1.241	3	889.7	1095.5	1052.3	962.0	836.7	691.7	577.8	566.9
3.295	0.50943	1.240	3	887.5	1091.6	1048.8	959.2	834.9	690.9	577.7	566.9
3.305	0.50642	1.240	3	885.2	1087.7	1045.3	956.5	833.1	690.2	577.6	566.9
3.315	0.50340	1.239	3	883.0	1083.8	1041.8	953.7	831.3	689.4	577.6	566.8
3.325	0.50038	1.239	3	880.8	1080.0	1038.2	950.9	829.5	688.7	577.5	566.8
3.335	0.49737	1.239	3	878.6	1076.1	1034.7	948.2	827.7	687.9	577.4	566.8
3.345	0.49435	1.238	3	876.3	1072.2	1031.2	945.4	825.9	687.2	577.3	566.8
3.355	0.49133	1.238	3	874.1	1068.4	1027.8	942.7	824.2	686.4	577.2	566.8
3.365	0.48832	1.237	3	871.9	1064.5	1024.3	939.9	822.4	685.7	577.1	566.7
3.375	0.48530	1.237	3	869.7	1060.7	1020.8	937.2	820.6	684.9	577.1	566.7
3.385	0.48228	1.237	3	867.5	1056.9	1017.3	934.4	818.8	684.1	577.0	566.7
3.395	0.47927	1.236	3	865.3	1053.1	1013.9	931.7	817.1	683.4	576.9	566.7
3.405	0.47625	1.236	3	863.1	1049.3	1010.4	929.0	815.3	682.6	576.8	566.6
3.415	0.47336	1.235	3	861.0	1045.6	1007.1	926.4	813.6	681.9	576.7	566.6
3.425	0.47084	1.235	3	859.2	1042.5	1004.3	924.1	812.1	681.3	576.6	566.6
3.435	0.46833	1.234	3	857.4	1039.3	1001.4	921.9	810.7	680.6	576.6	566.6
3.445	0.46581	1.234	3	855.6	1036.2	998.6	919.6	809.2	680.0	576.5	566.6
3.455	0.46330	1.234	3	853.7	1033.1	995.7	917.4	807.7	679.4	576.4	566.6
3.465	0.46078	1.233	3	851.9	1029.9	992.9	915.1	806.2	678.8	576.4	566.5
3.475	0.45827	1.233	3	850.1	1026.8	990.1	912.9	804.8	678.1	576.3	566.5
3.485	0.45575	1.232	3	848.3	1023.7	987.3	910.6	803.3	677.5	576.2	566.5

3.495	0.45324	1.232	3	846.5	1020.6	984.4	908.4	801.9	676.9	576.1	566.5
3.505	0.45072	1.231	3	844.7	1017.5	981.6	906.2	800.4	676.2	576.1	566.5
3.515	0.44821	1.231	3	842.9	1014.4	978.8	903.9	798.9	675.6	576.0	566.4
3.525	0.44569	1.230	3	841.1	1011.3	976.0	901.7	797.5	675.0	575.9	566.4
3.535	0.44317	1.230	3	839.3	1008.3	973.2	899.5	796.0	674.3	575.9	566.4
3.545	0.44066	1.230	3	837.5	1005.2	970.4	897.3	794.6	673.7	575.8	566.4
3.555	0.43814	1.229	3	835.7	1002.1	967.6	895.1	793.1	673.1	575.7	566.4
3.565	0.43563	1.229	3	833.9	999.1	964.9	892.9	791.7	672.5	575.6	566.4
3.575	0.43311	1.229	3	832.2	996.0	962.1	890.7	790.2	671.8	575.6	566.3
3.585	0.42959	1.228	3	829.7	991.7	958.2	887.6	788.2	670.9	575.5	566.3
3.595	0.42607	1.228	3	827.2	987.5	954.4	884.5	786.2	670.1	575.4	566.3
3.605	0.42255	1.228	3	824.7	983.3	950.5	881.4	784.2	669.2	575.3	566.3
3.615	0.41903	1.228	3	822.2	979.1	946.7	878.4	782.1	668.3	575.2	566.2
3.625	0.41551	1.228	3	819.8	974.8	942.8	875.3	780.1	667.4	575.1	566.2
3.635	0.41199	1.228	3	817.3	970.7	939.0	872.3	778.1	666.5	575.0	566.2
3.645	0.40847	1.229	3	814.8	966.5	935.2	869.3	776.1	665.6	574.9	566.2
3.655	0.40495	1.229	3	812.4	962.3	931.4	866.2	774.1	664.8	574.8	566.1
3.665	0.40143	1.229	3	809.9	958.2	927.6	863.2	772.1	663.9	574.7	566.1
3.675	0.39791	1.229	3	807.5	954.0	923.9	860.2	770.1	663.0	574.6	566.1
3.685	0.39439	1.229	3	805.0	949.9	920.1	857.2	768.1	662.1	574.5	566.0
3.695	0.39087	1.229	3	802.6	945.8	916.4	854.2	766.1	661.2	574.4	566.0
3.705	0.38735	1.229	3	800.2	941.7	912.6	851.2	764.1	660.3	574.3	566.0
3.715	0.38383	1.229	3	797.8	937.6	908.9	848.2	762.1	659.4	574.2	566.0
3.725	0.38031	1.229	3	795.3	933.5	905.2	845.2	760.2	658.6	574.0	565.9
3.735	0.37679	1.229	3	792.9	929.4	901.5	842.2	758.2	657.7	573.9	565.9
3.745	0.37327	1.229	3	790.4	925.3	897.8	839.2	756.2	656.8	573.8	565.9
3.755	0.36975	1.229	3	787.9	921.2	894.1	836.2	754.2	655.9	573.7	565.8
3.765	0.36623	1.229	3	785.4	917.1	890.4	833.2	752.2	655.0	573.6	565.8
3.775	0.36271	1.229	3	782.9	913.0	886.7	830.2	750.2	654.1	573.5	565.7
3.785	0.35919	1.230	3	780.4	908.9	883.0	827.2	748.2	653.2	573.4	565.7
3.795	0.35567	1.230	3	777.9	904.8	879.3	824.2	746.2	652.3	573.3	565.7
3.805	0.35215	1.230	3	775.4	900.7	875.6	821.2	744.2	651.4	573.2	565.6
3.815	0.34863	1.230	3	772.9	896.6	871.9	818.2	742.2	650.5	573.1	565.6
3.825	0.34511	1.230	3	770.4	892.5	868.2	815.2	740.2	649.6	573.0	565.5
3.835	0.34159	1.230	3	767.9	888.4	864.5	812.2	738.2	648.7	572.9	565.5
3.845	0.33807	1.230	3	765.4	884.3	860.8	809.2	736.2	647.8	572.8	565.4
3.855	0.33455	1.230	3	762.9	880.2	857.1	806.2	734.2	646.9	572.7	565.4
3.865	0.33103	1.231	3	760.4	876.1	853.4	803.2	732.2	646.0	572.6	565.3
3.875	0.32751	1.231	3	757.9	872.0	849.7	800.2	730.2	645.1	572.5	565.3
3.885	0.32399	1.231	3	755.4	867.9	846.0	797.2	728.2	644.2	572.4	565.2
3.895	0.32047	1.231	3	752.9	863.8	842.3	794.2	726.2	643.3	572.3	565.2
3.905	0.31695	1.231	3	750.4	859.7	838.6	791.2	724.2	642.4	572.2	565.1
3.915	0.31343	1.232	3	747.9	855.6	834.9	788.2	722.2	641.5	572.1	565.1
3.925	0.30991	1.232	3	745.4	851.5	831.2	785.2	720.2	640.6	572.0	565.0
3.935	0.30639	1.232	3	742.9	847.4	827.5	782.2	718.2	639.7	571.9	565.0
3.945	0.30287	1.232	3	740.4	843.3	823.8	779.2	716.2	638.8	571.8	564.9
3.955	0.29935	1.233	3	737.9	839.2	820.1	776.2	714.2	637.9	571.7	564.9
3.965	0.29583	1.233	3	735.4	835.1	816.4	773.2	712.2	637.0	571.6	564.8
3.975	0.29231	1.233	3	732.9	831.0	812.7	770.2	710.2	636.1	571.5	564.8
3.985	0.28879	1.233	3	730.4	826.9	809.0	767.2	708.2	635.2	571.4	564.7
3.995	0.28527	1.233	3	727.9	822.8	805.3	764.2	706.2	634.3	571.3	564.7

TIME = 0.00000 SEC - HEAT TRANSFER DATA FOR ROD 3 (FUEL TYPE 1)

DISTANCE (M)	H.T.MODE (W/M2/K)	HSURF (W/M2/K)	HGAP (K)	TFLUID
0.005	2	27307.801	5000.000	548.30
0.015	2	27840.422	5000.000	548.44
0.025	2	28382.338	5000.000	548.59
0.035	2	28934.227	5000.000	548.74

0.045	2	29496.521	5000.000	548.89
0.055	2	30069.672	5000.000	549.04
0.065	2	30654.059	5000.000	549.19
0.075	2	31250.133	5000.000	549.35
0.085	2	31858.240	5000.000	549.51
0.095	2	32478.846	5000.000	549.67
0.105	2	33112.449	5000.000	549.83
0.115	2	33759.473	5000.000	550.00
0.125	2	34420.449	5000.000	550.16
0.135	2	35095.906	5000.000	550.33
0.145	2	35786.410	5000.000	550.51
0.155	2	36492.570	5000.000	550.68
0.165	2	37215.055	5000.000	550.86
0.175	2	37954.375	5000.000	551.04
0.185	2	38710.953	5000.000	551.22
0.195	2	39485.613	5000.000	551.40
0.205	2	40279.203	5000.000	551.59
0.215	2	41092.816	5000.000	551.78
0.225	2	41927.445	5000.000	551.97
0.235	2	42784.117	5000.000	552.17
0.245	2	43663.832	5000.000	552.36
0.255	2	44567.535	5000.000	552.56
0.265	2	45496.336	5000.000	552.76
0.275	2	46451.484	5000.000	552.96
0.285	2	47434.398	5000.000	553.17
0.295	2	48446.344	5000.000	553.38
0.305	2	49488.816	5000.000	553.59
0.315	2	50563.039	5000.000	553.80
0.325	2	51670.668	5000.000	554.01
0.335	2	52865.332	5000.000	554.23
0.345	2	54098.574	5000.000	554.45
0.355	2	55372.664	5000.000	554.67
0.365	2	56690.016	5000.000	554.90
0.375	2	58050.941	5000.000	555.13
0.385	2	59450.727	5000.000	555.35
0.395	2	60878.699	5000.000	555.58
0.405	2	62392.688	5000.000	555.80
0.415	2	63958.621	5000.000	556.04
0.425	2	65579.148	5000.000	556.28
0.435	2	67259.211	5000.000	556.52
0.445	2	69004.727	5000.000	556.76
0.455	2	70821.062	5000.000	557.01
0.465	2	72713.523	5000.000	557.26
0.475	2	74687.883	5000.000	557.51
0.485	2	76750.148	5000.000	557.76
0.495	2	78906.438	5000.000	558.02
0.505	2	81164.352	5000.000	558.28
0.515	2	83531.438	5000.000	558.54
0.525	2	86016.398	5000.000	558.81
0.535	2	88628.586	5000.000	559.07
0.545	2	91378.633	5000.000	559.35
0.555	2	94277.922	5000.000	559.62
0.565	2	97339.352	5000.000	559.90
0.575	2	100577.141	5000.000	560.18
0.585	3	104007.156	5000.000	560.46
0.595	3	107647.086	5000.000	560.74
0.605	3	111389.734	5000.000	561.02
0.615	3	113999.391	5000.000	561.20
0.625	3	116120.938	5000.000	561.33
0.635	3	118331.641	5000.000	561.46
0.645	3	119445.250	5000.000	561.51
0.655	3	119776.953	5000.000	561.51

0.665	3	120031.648	5000.000	561.51
0.675	3	120285.578	5000.000	561.51
0.685	3	120538.750	5000.000	561.51
0.695	3	120791.977	5000.000	561.51
0.705	3	121044.922	5000.000	561.50
0.715	3	121297.445	5000.000	561.50
0.725	3	121549.617	5000.000	561.50
0.735	3	121801.242	5000.000	561.50
0.745	3	122052.648	5000.000	561.50
0.755	3	122304.016	5000.000	561.50
0.765	3	122556.430	5000.000	561.50
0.775	3	122811.406	5000.000	561.50
0.785	3	123072.664	5000.000	561.49
0.795	3	122936.211	5000.000	561.46
0.805	3	123240.227	5000.000	561.46
0.815	3	123485.125	5000.000	561.46
0.825	3	123623.344	5000.000	561.46
0.835	3	123753.625	5000.000	561.46
0.845	3	123879.203	5000.000	561.46
0.855	3	124002.469	5000.000	561.45
0.865	3	124124.227	5000.000	561.45
0.875	3	124244.719	5000.000	561.45
0.885	3	124364.727	5000.000	561.45
0.895	3	124483.914	5000.000	561.45
0.905	3	124602.750	5000.000	561.45
0.915	3	124721.406	5000.000	561.45
0.925	3	124840.406	5000.000	561.45
0.935	3	124958.727	5000.000	561.44
0.945	3	125077.062	5000.000	561.44
0.955	3	125195.703	5000.000	561.44
0.965	3	125314.414	5000.000	561.44
0.975	3	125433.000	5000.000	561.44
0.985	3	125479.656	5000.000	561.44
0.995	3	125526.719	5000.000	561.44
1.005	3	125573.922	5000.000	561.44
1.015	3	125620.867	5000.000	561.43
1.025	3	125668.492	5000.000	561.43
1.035	3	125715.867	5000.000	561.43
1.045	3	125763.859	5000.000	561.43
1.055	3	125811.203	5000.000	561.43
1.065	3	125858.930	5000.000	561.43
1.075	3	125906.430	5000.000	561.43
1.085	3	125954.195	5000.000	561.43
1.095	3	126002.094	5000.000	561.42
1.105	3	126051.008	5000.000	561.42
1.115	3	126099.883	5000.000	561.42
1.125	3	126149.000	5000.000	561.42
1.135	3	126198.273	5000.000	561.42
1.145	3	126229.938	5000.000	561.42
1.155	3	126256.242	5000.000	561.42
1.165	3	126283.969	5000.000	561.41
1.175	3	126314.789	5000.000	561.41
1.185	3	126351.062	5000.000	561.41
1.195	3	125860.039	5000.000	561.37
1.205	3	125938.305	5000.000	561.37
1.215	3	125989.961	5000.000	561.37
1.225	3	126028.164	5000.000	561.36
1.235	3	126059.594	5000.000	561.36
1.245	3	126087.727	5000.000	561.36
1.255	3	126113.680	5000.000	561.36
1.265	3	126138.375	5000.000	561.36
1.275	3	126162.344	5000.000	561.36

1.285	3	126185.844	5000.000	561.36
1.295	3	126209.062	5000.000	561.35
1.305	3	126220.445	5000.000	561.35
1.315	3	126220.031	5000.000	561.35
1.325	3	126219.477	5000.000	561.35
1.335	3	126219.047	5000.000	561.35
1.345	3	126218.516	5000.000	561.35
1.355	3	126218.805	5000.000	561.35
1.365	3	126218.359	5000.000	561.35
1.375	3	126218.523	5000.000	561.34
1.385	3	126218.438	5000.000	561.34
1.395	3	126218.914	5000.000	561.34
1.405	3	126219.109	5000.000	561.34
1.415	3	126219.875	5000.000	561.34
1.425	3	126220.102	5000.000	561.34
1.435	3	126220.922	5000.000	561.34
1.445	3	126221.586	5000.000	561.33
1.455	3	126222.102	5000.000	561.33
1.465	3	126210.891	5000.000	561.33
1.475	3	126164.141	5000.000	561.33
1.485	3	126117.141	5000.000	561.33
1.495	3	126071.234	5000.000	561.33
1.505	3	126025.125	5000.000	561.33
1.515	3	125979.680	5000.000	561.32
1.525	3	125933.984	5000.000	561.32
1.535	3	125888.375	5000.000	561.32
1.545	3	125843.266	5000.000	561.32
1.555	3	125798.422	5000.000	561.32
1.565	3	125755.117	5000.000	561.32
1.575	3	125714.516	5000.000	561.32
1.585	3	125679.148	5000.000	561.31
1.595	3	124974.383	5000.000	561.26
1.605	3	124980.867	5000.000	561.26
1.615	3	124960.125	5000.000	561.26
1.625	3	124926.445	5000.000	561.25
1.635	3	124862.680	5000.000	561.25
1.645	3	124795.508	5000.000	561.25
1.655	3	124726.562	5000.000	561.25
1.665	3	124656.414	5000.000	561.25
1.675	3	124585.617	5000.000	561.25
1.685	3	124514.477	5000.000	561.25
1.695	3	124442.617	5000.000	561.24
1.705	3	124370.820	5000.000	561.24
1.715	3	124299.094	5000.000	561.24
1.725	3	124227.375	5000.000	561.24
1.735	3	124155.602	5000.000	561.24
1.745	3	124083.930	5000.000	561.24
1.755	3	124012.375	5000.000	561.23
1.765	3	123940.914	5000.000	561.23
1.775	3	123869.164	5000.000	561.23
1.785	3	123797.922	5000.000	561.23
1.795	3	123708.430	5000.000	561.23
1.805	3	123613.414	5000.000	561.23
1.815	3	123518.008	5000.000	561.23
1.825	3	123422.867	5000.000	561.22
1.835	3	123327.570	5000.000	561.22
1.845	3	123232.250	5000.000	561.22
1.855	3	123136.836	5000.000	561.22
1.865	3	123041.203	5000.000	561.22
1.875	3	122945.695	5000.000	561.22
1.885	3	122850.172	5000.000	561.22
1.895	3	122754.938	5000.000	561.21

1.905	3	122659.914	5000.000	561.21
1.915	3	122565.141	5000.000	561.21
1.925	3	122470.617	5000.000	561.21
1.935	3	122376.016	5000.000	561.21
1.945	3	122281.133	5000.000	561.21
1.955	3	122150.766	5000.000	561.20
1.965	3	121985.359	5000.000	561.20
1.975	3	121822.633	5000.000	561.20
1.985	3	121664.844	5000.000	561.20
1.995	3	120700.188	5000.000	561.13
2.005	3	120586.375	5000.000	561.13
2.015	3	120443.438	5000.000	561.13
2.025	3	120286.969	5000.000	561.13
2.035	3	120123.297	5000.000	561.13
2.045	3	119956.195	5000.000	561.12
2.055	3	119786.938	5000.000	561.12
2.065	3	119616.523	5000.000	561.12
2.075	3	119444.750	5000.000	561.12
2.085	3	119272.789	5000.000	561.12
2.095	3	119100.062	5000.000	561.12
2.105	3	118927.391	5000.000	561.11
2.115	3	118747.781	5000.000	561.11
2.125	3	118550.062	5000.000	561.11
2.135	3	118351.500	5000.000	561.11
2.145	3	118153.188	5000.000	561.11
2.155	3	117954.273	5000.000	561.11
2.165	3	117755.500	5000.000	561.10
2.175	3	117556.461	5000.000	561.10
2.185	3	117356.922	5000.000	561.10
2.195	3	117157.719	5000.000	561.10
2.205	3	116957.859	5000.000	561.10
2.215	3	116757.781	5000.000	561.10
2.225	3	116557.688	5000.000	561.10
2.235	3	116356.992	5000.000	561.09
2.245	3	116156.211	5000.000	561.09
2.255	3	115955.242	5000.000	561.09
2.265	3	115753.391	5000.000	561.09
2.275	3	115551.812	5000.000	561.09
2.285	3	115247.695	5000.000	561.09
2.295	3	114943.047	5000.000	561.08
2.305	3	114638.039	5000.000	561.08
2.315	3	114332.602	5000.000	561.08
2.325	3	114026.547	5000.000	561.08
2.335	3	113719.695	5000.000	561.08
2.345	3	113412.250	5000.000	561.08
2.355	3	113104.398	5000.000	561.08
2.365	3	112797.422	5000.000	561.07
2.375	3	112492.188	5000.000	561.07
2.385	3	112191.484	5000.000	561.07
2.395	3	110956.648	5000.000	560.99
2.405	3	110700.891	5000.000	560.99
2.415	3	110414.039	5000.000	560.99
2.425	3	110112.297	5000.000	560.98
2.435	3	109802.656	5000.000	560.98
2.445	3	109508.883	5000.000	560.98
2.455	3	109218.898	5000.000	560.98
2.465	3	108927.172	5000.000	560.98
2.475	3	108633.906	5000.000	560.98
2.485	3	108339.445	5000.000	560.98
2.495	3	108044.133	5000.000	560.97
2.505	3	107747.547	5000.000	560.97
2.515	3	107450.469	5000.000	560.97

2.525	3	107152.586	5000.000	560.97
2.535	3	106853.453	5000.000	560.97
2.545	3	106554.125	5000.000	560.97
2.555	3	106254.234	5000.000	560.96
2.565	3	105953.398	5000.000	560.96
2.575	3	105651.664	5000.000	560.96
2.585	3	105349.375	5000.000	560.96
2.595	3	105046.695	5000.000	560.96
2.605	3	104728.766	5000.000	560.96
2.615	3	104395.672	5000.000	560.95
2.625	3	104061.992	5000.000	560.95
2.635	3	103727.383	5000.000	560.95
2.645	3	103391.609	5000.000	560.95
2.655	3	103054.477	5000.000	560.95
2.665	3	102716.383	5000.000	560.95
2.675	3	102377.156	5000.000	560.95
2.685	3	102036.984	5000.000	560.94
2.695	3	101695.688	5000.000	560.94
2.705	3	101354.141	5000.000	560.94
2.715	3	101011.445	5000.000	560.94
2.725	3	100667.742	5000.000	560.94
2.735	3	100323.039	5000.000	560.94
2.745	3	99977.414	5000.000	560.93
2.755	3	99631.125	5000.000	560.93
2.765	3	99292.359	5000.000	560.93
2.775	3	98977.477	5000.000	560.93
2.785	3	98666.523	5000.000	560.93
2.795	3	97318.656	5000.000	560.84
2.805	3	97054.414	5000.000	560.84
2.815	3	96757.570	5000.000	560.83
2.825	3	96445.633	5000.000	560.83
2.835	3	96125.312	5000.000	560.83
2.845	3	95800.602	5000.000	560.83
2.855	3	95472.516	5000.000	560.83
2.865	3	95142.156	5000.000	560.83
2.875	3	94810.352	5000.000	560.82
2.885	3	94476.672	5000.000	560.82
2.895	3	94141.719	5000.000	560.82
2.905	3	93805.164	5000.000	560.82
2.915	3	93467.688	5000.000	560.82
2.925	3	93128.570	5000.000	560.82
2.935	3	92852.117	5000.000	560.81
2.945	3	92575.367	5000.000	560.81
2.955	3	92297.125	5000.000	560.81
2.965	3	92018.875	5000.000	560.81
2.975	3	91739.656	5000.000	560.81
2.985	3	91459.391	5000.000	560.81
2.995	3	91178.906	5000.000	560.81
3.005	3	90897.656	5000.000	560.80
3.015	3	90615.031	5000.000	560.80
3.025	3	90332.000	5000.000	560.80
3.035	3	90048.164	5000.000	560.80
3.045	3	89763.484	5000.000	560.80
3.055	3	89477.961	5000.000	560.80
3.065	3	89191.586	5000.000	560.79
3.075	3	88904.344	5000.000	560.79
3.085	3	88616.211	5000.000	560.79
3.095	3	88351.984	5000.000	560.79
3.105	3	88095.344	5000.000	560.79
3.115	3	87838.234	5000.000	560.79
3.125	3	87580.016	5000.000	560.79
3.135	3	87321.664	5000.000	560.78

3.145	3	87061.977	5000.000	560.78
3.155	3	86802.133	5000.000	560.78
3.165	3	86541.586	5000.000	560.78
3.175	3	86279.930	5000.000	560.78
3.185	3	86017.961	5000.000	560.78
3.195	3	85755.078	5000.000	560.77
3.205	3	85491.484	5000.000	560.77
3.215	3	85227.555	5000.000	560.77
3.225	3	84962.070	5000.000	560.77
3.235	3	84696.648	5000.000	560.77
3.245	3	84430.047	5000.000	560.77
3.255	3	84180.305	5000.000	560.77
3.265	3	83947.609	5000.000	560.76
3.275	3	83714.336	5000.000	560.76
3.285	3	83480.859	5000.000	560.76
3.295	3	83246.031	5000.000	560.76
3.305	3	83011.391	5000.000	560.76
3.315	3	82775.773	5000.000	560.76
3.325	3	82539.539	5000.000	560.75
3.335	3	82303.102	5000.000	560.75
3.345	3	82065.227	5000.000	560.75
3.355	3	81827.555	5000.000	560.75
3.365	3	81588.828	5000.000	560.75
3.375	3	81349.500	5000.000	560.75
3.385	3	81109.508	5000.000	560.74
3.395	3	80869.070	5000.000	560.74
3.405	3	80627.992	5000.000	560.74
3.415	3	80395.203	5000.000	560.74
3.425	3	80189.406	5000.000	560.74
3.435	3	79983.141	5000.000	560.74
3.445	3	79776.812	5000.000	560.74
3.455	3	79569.633	5000.000	560.73
3.465	3	79361.977	5000.000	560.73
3.475	3	79154.242	5000.000	560.73
3.485	3	78945.633	5000.000	560.73
3.495	3	78736.648	5000.000	560.73
3.505	3	78526.953	5000.000	560.73
3.515	3	78317.289	5000.000	560.72
3.525	3	78106.297	5000.000	560.72
3.535	3	77895.648	5000.000	560.72
3.545	3	77684.055	5000.000	560.72
3.555	3	77472.367	5000.000	560.72
3.565	3	77259.758	5000.000	560.72
3.575	3	77046.641	5000.000	560.72
3.585	3	76756.289	5000.000	560.71
3.595	3	76464.266	5000.000	560.71
3.605	3	76171.742	5000.000	560.71
3.615	3	75877.531	5000.000	560.71
3.625	3	75582.805	5000.000	560.71
3.635	3	75286.547	5000.000	560.71
3.645	3	74989.547	5000.000	560.70
3.655	3	74691.000	5000.000	560.70
3.665	3	74391.664	5000.000	560.70
3.675	3	74090.750	5000.000	560.70
3.685	3	73789.031	5000.000	560.70
3.695	3	73485.688	5000.000	560.70
3.705	3	73181.500	5000.000	560.70
3.715	3	72875.672	5000.000	560.69
3.725	3	72568.961	5000.000	560.69
3.735	3	72260.555	5000.000	560.69
3.745	3	71982.312	5000.000	560.69
3.755	3	71713.430	5000.000	560.69

3.765	3	71443.148	5000.000	560.69
3.775	3	71172.297	5000.000	560.68
3.785	3	70900.023	5000.000	560.68
3.795	3	70627.547	5000.000	560.68
3.805	3	70353.219	5000.000	560.68
3.815	3	70078.266	5000.000	560.68
3.825	3	69802.227	5000.000	560.68
3.835	3	69524.727	5000.000	560.68
3.845	3	69246.945	5000.000	560.67
3.855	3	68967.250	5000.000	560.67
3.865	3	68686.836	5000.000	560.67
3.875	3	68405.297	5000.000	560.67
3.885	3	68122.195	5000.000	560.67
3.895	3	67838.750	5000.000	560.67
3.905	3	67553.289	5000.000	560.66
3.915	3	67267.070	5000.000	560.66
3.925	3	66980.000	5000.000	560.66
3.935	3	66691.328	5000.000	560.66
3.945	3	66400.977	5000.000	560.66
3.955	3	66110.180	5000.000	560.66
3.965	3	65817.688	5000.000	560.66
3.975	3	65523.480	5000.000	560.65
3.985	3	65228.746	5000.000	560.65
3.995	3	64932.270	5000.000	560.65

IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - TEMPERATURE DATA FOR ROD 4 (FUEL TYPE 1)

DISTANCE (M)	FLUX (MW/M2)	DNBR	CHANNEL	AV FUEL T		TEMPERATURE						
				(DEG-K)	T(1)	T(2)	T(3)	T(4)	T(5)	T(6)	T(7)	
0.005	0.42282	0.000	0	822.6	980.9	948.2	879.2	782.1	667.3	573.3	564.3	
0.015	0.43012	0.000	0	827.8	989.7	956.2	885.6	786.3	669.1	573.5	564.4	
0.025	0.43742	0.000	0	833.0	998.6	964.3	892.1	790.6	671.0	573.8	564.5	
0.035	0.44473	9.969	4	838.2	1007.6	972.5	898.5	794.8	672.9	574.1	564.6	
0.045	0.45203	9.711	4	843.5	1016.6	980.6	905.0	799.1	674.8	574.3	564.6	
0.055	0.45933	9.465	4	848.8	1025.7	988.9	911.6	803.4	676.6	574.5	564.7	
0.065	0.46663	9.230	4	854.1	1034.8	997.2	918.1	807.7	678.5	574.8	564.8	
0.075	0.47393	9.005	4	859.4	1044.0	1005.5	924.7	812.0	680.4	575.0	564.9	
0.085	0.48123	8.789	4	864.7	1053.2	1013.9	931.4	816.3	682.2	575.3	565.0	
0.095	0.48853	8.582	4	870.1	1062.5	1022.3	938.0	820.6	684.1	575.5	565.1	
0.105	0.49583	8.383	4	875.5	1071.9	1030.8	944.7	825.0	686.0	575.8	565.2	
0.115	0.50313	8.193	4	880.9	1081.3	1039.3	951.4	829.3	687.8	576.0	565.3	
0.125	0.51043	8.010	4	886.4	1090.8	1047.9	958.2	833.7	689.7	576.2	565.4	
0.135	0.51773	7.834	4	891.8	1100.3	1056.5	965.0	838.1	691.5	576.5	565.4	
0.145	0.52503	7.664	4	897.3	1109.9	1065.2	971.8	842.5	693.4	576.7	565.5	
0.155	0.53233	7.501	4	902.9	1119.5	1073.9	978.7	846.9	695.3	577.0	565.6	
0.165	0.53963	7.344	4	908.4	1129.2	1082.7	985.5	851.3	697.1	577.2	565.7	
0.175	0.54693	7.192	4	913.9	1139.0	1091.5	992.5	855.8	699.0	577.4	565.8	
0.185	0.55423	7.046	4	919.5	1148.8	1100.4	999.4	860.2	700.8	577.7	565.8	
0.195	0.56153	6.905	4	925.1	1158.7	1109.3	1006.4	864.7	702.7	577.9	565.9	
0.205	0.56883	6.769	4	930.8	1168.7	1118.3	1013.4	869.2	704.5	578.1	566.0	
0.215	0.57614	6.637	4	936.4	1178.7	1127.3	1020.5	873.7	706.4	578.4	566.1	
0.225	0.58344	6.510	4	942.1	1188.8	1136.4	1027.5	878.2	708.2	578.6	566.2	
0.235	0.59074	6.387	4	947.8	1198.9	1145.5	1034.6	882.7	710.1	578.8	566.2	
0.245	0.59804	6.268	4	953.5	1209.1	1154.7	1041.8	887.2	712.0	579.1	566.3	
0.255	0.60534	6.152	4	959.3	1219.4	1164.0	1049.0	891.7	713.8	579.3	566.4	
0.265	0.61264	6.040	4	965.1	1229.7	1173.3	1056.2	896.3	715.7	579.5	566.5	
0.275	0.61994	5.932	4	970.9	1240.1	1182.6	1063.5	900.9	717.5	579.7	566.5	
0.285	0.62724	5.827	4	976.7	1250.5	1192.0	1070.7	905.5	719.4	580.0	566.6	
0.295	0.63454	5.725	4	982.6	1261.0	1201.4	1078.1	910.1	721.2	580.2	566.7	

0.305	0.64184	5.626	4	988.4	1271.6	1210.9	1085.4	914.7	723.1	580.4	566.8
0.315	0.64914	5.530	4	994.3	1282.2	1220.5	1092.8	919.3	724.9	580.6	566.8
0.325	0.65644	5.436	4	1000.3	1292.9	1230.1	1100.2	923.9	726.7	580.9	566.9
0.335	0.66472	5.339	4	1007.0	1305.1	1241.1	1108.7	929.2	728.8	581.1	567.0
0.345	0.67299	5.245	4	1013.8	1317.4	1252.1	1117.2	934.5	730.9	581.4	567.1
0.355	0.68126	5.154	4	1020.6	1329.8	1263.2	1125.7	939.8	733.0	581.6	567.1
0.365	0.68954	5.065	4	1027.4	1342.2	1274.3	1134.3	945.1	735.1	581.9	567.2
0.375	0.69781	4.979	4	1034.3	1354.7	1285.5	1142.9	950.5	737.2	582.1	567.3
0.385	0.70608	4.895	4	1041.2	1367.3	1296.8	1151.6	955.8	739.3	582.4	567.4
0.395	0.71436	4.811	4	1048.1	1380.0	1308.2	1160.3	961.2	741.4	582.6	567.4
0.405	0.72263	4.729	4	1055.1	1392.7	1319.6	1169.1	966.6	743.5	582.9	567.5
0.415	0.73091	4.651	4	1062.1	1405.6	1331.1	1177.9	972.0	745.5	583.1	567.6
0.425	0.73918	4.576	4	1069.1	1418.5	1342.7	1186.8	977.5	747.6	583.4	567.7
0.435	0.74745	4.503	4	1076.2	1431.5	1354.3	1195.7	982.9	749.7	583.6	567.7
0.445	0.75573	4.433	4	1083.3	1444.5	1366.0	1204.6	988.4	751.8	583.9	567.8
0.455	0.76400	4.364	4	1090.4	1457.7	1377.8	1213.6	993.9	753.9	584.1	567.9
0.465	0.77228	4.298	4	1097.6	1470.9	1389.6	1222.6	999.4	756.0	584.4	567.9
0.475	0.78055	4.233	4	1104.8	1484.2	1401.5	1231.7	1004.9	758.1	584.6	568.0
0.485	0.78882	4.169	4	1112.0	1497.6	1413.5	1240.8	1010.5	760.1	584.8	568.1
0.495	0.79710	4.108	4	1119.3	1511.1	1425.5	1250.0	1016.0	762.2	585.1	568.2
0.505	0.80537	4.047	4	1126.6	1524.6	1437.6	1259.2	1021.6	764.3	585.3	568.2
0.515	0.81365	3.989	4	1133.9	1538.2	1449.8	1268.5	1027.2	766.4	585.6	568.3
0.525	0.82192	3.931	4	1141.3	1551.9	1462.1	1277.8	1032.8	768.5	585.8	568.4
0.535	0.83019	3.875	4	1148.7	1565.7	1474.4	1287.2	1038.5	770.6	586.1	568.4
0.545	0.83847	3.820	4	1156.1	1579.5	1486.7	1296.6	1044.1	772.6	586.3	568.5
0.555	0.84674	3.767	4	1163.5	1593.4	1499.2	1306.0	1049.8	774.7	586.6	568.6
0.565	0.85502	3.715	4	1171.0	1607.4	1511.7	1315.5	1055.5	776.8	586.8	568.7
0.575	0.86329	3.664	4	1178.5	1621.4	1524.2	1325.0	1061.2	778.9	587.0	568.7
0.585	0.87156	3.614	4	1186.1	1635.5	1536.9	1334.6	1067.0	781.0	587.3	568.8
0.595	0.87984	3.565	4	1193.7	1649.7	1549.5	1344.3	1072.7	783.0	587.5	568.9
0.605	0.88811	3.518	4	1201.3	1664.0	1562.3	1353.9	1078.5	785.1	587.8	568.9
0.615	0.89639	3.471	4	1208.9	1678.3	1575.1	1363.7	1084.3	787.2	588.0	569.0
0.625	0.90466	3.425	4	1216.6	1692.7	1588.0	1373.4	1090.1	789.3	588.2	569.1
0.635	0.91293	3.381	4	1224.3	1707.1	1600.9	1383.2	1095.9	791.4	588.5	569.1
0.645	0.92121	3.337	4	1232.0	1721.6	1613.9	1393.1	1101.8	793.4	588.7	569.2
0.655	0.92802	3.297	4	1238.4	1733.6	1624.6	1401.2	1106.6	795.1	588.9	569.2
0.665	0.93338	3.262	4	1243.4	1743.0	1633.1	1407.6	1110.4	796.5	589.0	569.3
0.675	0.93873	3.227	4	1248.5	1752.5	1641.6	1414.0	1114.2	797.8	589.2	569.3
0.685	0.94408	3.193	4	1253.5	1762.0	1650.1	1420.5	1118.0	799.1	589.3	569.3
0.695	0.94944	3.159	4	1258.6	1771.5	1658.6	1426.9	1121.8	800.5	589.5	569.4
0.705	0.95479	3.126	4	1263.7	1781.0	1667.2	1433.4	1125.6	801.8	589.6	569.4
0.715	0.96014	3.093	4	1268.7	1790.6	1675.7	1439.9	1129.5	803.1	589.8	569.4
0.725	0.96550	3.061	4	1273.8	1800.2	1684.3	1446.4	1133.3	804.5	589.9	569.5
0.735	0.97085	3.030	4	1279.0	1809.8	1692.9	1453.0	1137.1	805.8	590.1	569.5
0.745	0.97620	2.999	4	1284.1	1819.4	1701.6	1459.5	1141.0	807.2	590.2	569.5
0.755	0.98156	2.968	4	1289.2	1829.0	1710.2	1466.1	1144.9	808.5	590.4	569.6
0.765	0.98691	2.938	4	1294.4	1838.7	1718.9	1472.7	1148.7	809.8	590.5	569.6
0.775	0.99227	2.909	4	1299.5	1848.4	1727.6	1479.3	1152.6	811.2	590.7	569.6
0.785	0.99762	2.880	4	1304.7	1858.1	1736.4	1485.9	1156.5	812.5	590.8	569.7
0.795	1.00297	2.850	4	1309.9	1867.8	1745.1	1492.6	1160.4	813.8	591.0	569.7
0.805	1.00833	2.819	4	1315.1	1877.5	1753.9	1499.2	1164.3	815.2	591.1	569.7
0.815	1.01307	2.791	4	1319.7	1886.2	1761.6	1505.1	1167.8	816.4	591.2	569.8
0.825	1.01599	2.768	4	1322.5	1891.5	1766.4	1508.8	1169.9	817.1	591.3	569.8
0.835	1.01891	2.746	4	1325.3	1896.7	1771.2	1512.4	1172.1	817.8	591.4	569.8
0.845	1.02183	2.724	4	1328.2	1901.9	1776.0	1516.1	1174.2	818.5	591.4	569.8
0.855	1.02475	2.702	4	1331.0	1907.1	1780.8	1519.7	1176.3	819.2	591.5	569.8
0.865	1.02767	2.681	4	1333.9	1912.4	1785.6	1523.4	1178.5	820.0	591.6	569.8
0.875	1.03059	2.659	4	1336.7	1917.6	1790.5	1527.0	1180.6	820.7	591.7	569.8
0.885	1.03351	2.639	4	1339.5	1922.8	1795.3	1530.7	1182.8	821.4	591.7	569.9
0.895	1.03643	2.618	4	1342.4	1928.1	1800.1	1534.4	1184.9	822.1	591.8	569.9
0.905	1.03935	2.598	4	1345.3	1933.3	1804.9	1538.1	1187.1	822.9	591.9	569.9
0.915	1.04227	2.578	4	1348.1	1938.5	1809.8	1541.8	1189.2	823.6	592.0	569.9

0.925	1.04520	2.558	4	1351.0	1943.8	1814.6	1545.4	1191.4	824.3	592.0	569.9
0.935	1.04812	2.539	4	1353.8	1949.0	1819.5	1549.1	1193.5	825.0	592.1	569.9
0.945	1.05104	2.520	4	1356.7	1954.3	1824.3	1552.8	1195.7	825.8	592.2	569.9
0.955	1.05396	2.501	4	1359.6	1959.6	1829.2	1556.5	1197.8	826.5	592.3	570.0
0.965	1.05688	2.482	4	1362.5	1964.8	1834.0	1560.3	1200.0	827.2	592.3	570.0
0.975	1.05980	2.464	4	1365.3	1970.1	1838.9	1564.0	1202.2	827.9	592.4	570.0
0.985	1.06126	2.447	4	1366.8	1972.7	1841.3	1565.8	1203.3	828.3	592.5	570.0
0.995	1.06272	2.431	4	1368.2	1975.4	1843.8	1567.7	1204.3	828.7	592.5	570.0
1.005	1.06418	2.415	4	1369.6	1978.0	1846.2	1569.6	1205.4	829.0	592.5	570.0
1.015	1.06564	2.399	4	1371.1	1980.6	1848.6	1571.4	1206.5	829.4	592.6	570.0
1.025	1.06710	2.384	4	1372.5	1983.3	1851.1	1573.3	1207.6	829.7	592.6	570.0
1.035	1.06856	2.368	4	1374.0	1985.9	1853.5	1575.1	1208.7	830.1	592.6	570.0
1.045	1.07002	2.353	4	1375.4	1988.5	1856.0	1577.0	1209.8	830.5	592.7	570.0
1.055	1.07148	2.338	4	1376.9	1991.2	1858.4	1578.9	1210.9	830.8	592.7	570.0
1.065	1.07294	2.323	4	1378.3	1993.8	1860.8	1580.7	1212.0	831.2	592.8	570.0
1.075	1.07440	2.308	4	1379.8	1996.5	1863.3	1582.6	1213.0	831.5	592.8	570.1
1.085	1.07586	2.294	4	1381.2	1999.1	1865.7	1584.5	1214.1	831.9	592.8	570.1
1.095	1.07732	2.279	4	1382.6	2001.7	1868.2	1586.4	1215.2	832.3	592.9	570.1
1.105	1.07878	2.265	4	1384.1	2004.4	1870.6	1588.2	1216.3	832.6	592.9	570.1
1.115	1.08024	2.251	4	1385.5	2007.0	1873.1	1590.1	1217.4	833.0	592.9	570.1
1.125	1.08170	2.237	4	1387.0	2009.7	1875.5	1592.0	1218.5	833.4	593.0	570.1
1.135	1.08316	2.223	4	1388.4	2012.3	1878.0	1593.9	1219.6	833.7	593.0	570.1
1.145	1.08425	2.210	4	1389.5	2014.3	1879.8	1595.3	1220.4	834.0	593.0	570.1
1.155	1.08523	2.197	4	1390.5	2016.1	1881.4	1596.5	1221.1	834.2	593.1	570.1
1.165	1.08620	2.184	4	1391.5	2017.8	1883.1	1597.8	1221.9	834.5	593.1	570.1
1.175	1.08717	2.171	4	1392.4	2019.6	1884.7	1599.0	1222.6	834.7	593.1	570.1
1.185	1.08815	2.159	4	1393.4	2021.3	1886.3	1600.3	1223.3	835.0	593.1	570.1
1.195	1.08912	2.146	4	1394.4	2023.1	1888.0	1601.5	1224.1	835.2	593.2	570.1
1.205	1.09009	2.131	4	1395.3	2024.9	1889.6	1602.8	1224.8	835.4	593.2	570.1
1.215	1.09107	2.118	4	1396.3	2026.6	1891.2	1604.0	1225.5	835.7	593.2	570.1
1.225	1.09204	2.106	4	1397.3	2028.3	1892.8	1605.3	1226.3	835.9	593.2	570.1
1.235	1.09301	2.094	4	1398.2	2029.9	1894.4	1606.6	1227.0	836.2	593.3	570.1
1.245	1.09399	2.083	4	1399.2	2031.5	1895.9	1607.8	1227.7	836.4	593.3	570.1
1.255	1.09496	2.071	4	1400.1	2033.1	1897.4	1609.1	1228.5	836.6	593.3	570.1
1.265	1.09593	2.060	4	1401.1	2034.7	1899.0	1610.3	1229.2	836.9	593.3	570.1
1.275	1.09691	2.049	4	1402.0	2036.4	1900.5	1611.6	1229.9	837.1	593.4	570.2
1.285	1.09788	2.038	4	1403.0	2038.0	1902.1	1612.8	1230.6	837.4	593.4	570.2
1.295	1.09885	2.027	4	1403.9	2039.6	1903.6	1614.1	1231.4	837.6	593.4	570.2
1.305	1.09958	2.016	4	1404.6	2040.8	1904.8	1615.0	1231.9	837.8	593.4	570.2
1.315	1.10007	2.006	4	1405.1	2041.6	1905.6	1615.7	1232.3	837.9	593.4	570.2
1.325	1.10056	1.995	4	1405.6	2042.4	1906.3	1616.3	1232.7	838.0	593.5	570.2
1.335	1.10104	1.985	4	1406.0	2043.2	1907.1	1616.9	1233.0	838.1	593.5	570.2
1.345	1.10153	1.975	4	1406.5	2044.0	1907.9	1617.6	1233.4	838.3	593.5	570.2
1.355	1.10202	1.965	4	1407.0	2044.8	1908.7	1618.2	1233.8	838.4	593.5	570.2
1.365	1.10250	1.955	4	1407.5	2045.7	1909.4	1618.8	1234.1	838.5	593.5	570.2
1.375	1.10299	1.946	4	1407.9	2046.5	1910.2	1619.5	1234.5	838.6	593.5	570.2
1.385	1.10348	1.936	4	1408.4	2047.3	1911.0	1620.1	1234.9	838.7	593.5	570.2
1.395	1.10396	1.926	4	1408.9	2048.1	1911.8	1620.7	1235.2	838.9	593.5	570.2
1.405	1.10445	1.917	4	1409.4	2048.9	1912.5	1621.3	1235.6	839.0	593.6	570.2
1.415	1.10494	1.907	4	1409.8	2049.7	1913.3	1622.0	1236.0	839.1	593.6	570.2
1.425	1.10542	1.898	4	1410.3	2050.5	1914.1	1622.6	1236.3	839.2	593.6	570.2
1.435	1.10591	1.889	4	1410.8	2051.3	1914.9	1623.2	1236.7	839.3	593.6	570.2
1.445	1.10640	1.880	4	1411.3	2052.1	1915.6	1623.9	1237.1	839.5	593.6	570.2
1.455	1.10689	1.871	4	1411.7	2052.9	1916.4	1624.5	1237.4	839.6	593.6	570.2
1.465	1.10713	1.862	4	1412.0	2053.3	1916.8	1624.8	1237.6	839.6	593.6	570.2
1.475	1.10664	1.854	4	1411.5	2052.5	1916.0	1624.2	1237.3	839.5	593.6	570.2
1.485	1.10616	1.845	4	1411.0	2051.7	1915.2	1623.5	1236.9	839.4	593.6	570.2
1.495	1.10567	1.837	4	1410.6	2050.9	1914.5	1622.9	1236.5	839.3	593.6	570.2
1.505	1.10518	1.829	4	1410.1	2050.1	1913.7	1622.3	1236.1	839.2	593.6	570.2
1.515	1.10469	1.822	4	1409.6	2049.3	1912.9	1621.7	1235.8	839.0	593.6	570.2
1.525	1.10421	1.814	4	1409.1	2048.5	1912.1	1621.0	1235.4	838.9	593.5	570.2
1.535	1.10372	1.806	4	1408.7	2047.7	1911.4	1620.4	1235.0	838.8	593.5	570.2

1.545	1.10323	1.798	4	1408.2	2046.9	1910.6	1619.8	1234.7	838.7	593.5	570.2
1.555	1.10275	1.791	4	1407.7	2046.0	1909.8	1619.1	1234.3	838.6	593.5	570.2
1.565	1.10226	1.783	4	1407.2	2045.2	1909.0	1618.5	1233.9	838.4	593.5	570.2
1.575	1.10177	1.776	4	1406.7	2044.4	1908.3	1617.9	1233.6	838.3	593.5	570.2
1.585	1.10129	1.769	4	1406.3	2043.6	1907.5	1617.2	1233.2	838.2	593.5	570.2
1.595	1.10080	1.761	4	1405.8	2042.8	1906.7	1616.6	1232.8	838.1	593.5	570.2
1.605	1.10031	1.752	4	1405.3	2042.0	1905.9	1616.0	1232.5	838.0	593.4	570.2
1.615	1.09983	1.744	4	1404.8	2041.2	1905.2	1615.3	1232.1	837.8	593.4	570.2
1.625	1.09934	1.737	4	1404.4	2040.4	1904.4	1614.7	1231.7	837.7	593.4	570.2
1.635	1.09887	1.730	4	1403.4	2038.8	1902.8	1613.5	1231.0	837.5	593.4	570.2
1.645	1.09739	1.723	4	1402.5	2037.2	1901.3	1612.2	1230.3	837.2	593.4	570.1
1.655	1.09642	1.717	4	1401.5	2035.5	1899.8	1610.9	1229.5	837.0	593.3	570.1
1.665	1.09545	1.710	4	1400.6	2033.9	1898.2	1609.7	1228.8	836.8	593.3	570.1
1.675	1.09447	1.704	4	1399.6	2032.3	1896.7	1608.4	1228.1	836.5	593.3	570.1
1.685	1.09350	1.698	4	1398.7	2030.7	1895.1	1607.2	1227.3	836.3	593.3	570.1
1.695	1.09253	1.691	4	1397.7	2029.1	1893.6	1605.9	1226.6	836.0	593.2	570.1
1.705	1.09155	1.685	4	1396.8	2027.5	1892.0	1604.6	1225.9	835.8	593.2	570.1
1.715	1.09058	1.679	4	1395.8	2025.7	1890.4	1603.4	1225.1	835.5	593.2	570.1
1.725	1.08961	1.673	4	1394.8	2024.0	1888.8	1602.1	1224.4	835.3	593.2	570.1
1.735	1.08863	1.667	4	1393.9	2022.2	1887.1	1600.9	1223.7	835.1	593.1	570.1
1.745	1.08766	1.661	4	1392.9	2020.4	1885.5	1599.6	1223.0	834.8	593.1	570.1
1.755	1.08669	1.655	4	1391.9	2018.7	1883.9	1598.4	1222.2	834.6	593.1	570.1
1.765	1.08571	1.649	4	1391.0	2016.9	1882.2	1597.1	1221.5	834.3	593.1	570.1
1.775	1.08474	1.643	4	1390.0	2015.1	1880.6	1595.9	1220.8	834.1	593.0	570.1
1.785	1.08377	1.637	4	1389.0	2013.4	1879.0	1594.6	1220.0	833.9	593.0	570.1
1.795	1.08243	1.631	4	1387.7	2011.0	1876.7	1592.9	1219.0	833.5	593.0	570.1
1.805	1.08097	1.626	4	1386.2	2008.3	1874.3	1591.0	1217.9	833.2	592.9	570.1
1.815	1.07951	1.620	4	1384.8	2005.7	1871.8	1589.1	1216.8	832.8	592.9	570.1
1.825	1.07805	1.615	4	1383.3	2003.0	1869.4	1587.3	1215.7	832.4	592.9	570.1
1.835	1.07659	1.610	4	1381.9	2000.4	1866.9	1585.4	1214.7	832.1	592.8	570.0
1.845	1.07513	1.604	4	1380.5	1997.7	1864.5	1583.5	1213.6	831.7	592.8	570.0
1.855	1.07367	1.599	4	1379.0	1995.1	1862.0	1581.6	1212.5	831.3	592.8	570.0
1.865	1.07221	1.594	4	1377.6	1992.5	1859.6	1579.8	1211.4	831.0	592.7	570.0
1.875	1.07075	1.589	4	1376.1	1989.8	1857.1	1577.9	1210.3	830.6	592.7	570.0
1.885	1.06929	1.584	4	1374.7	1987.2	1854.7	1576.0	1209.2	830.3	592.6	570.0
1.895	1.06783	1.579	4	1373.2	1984.5	1852.3	1574.2	1208.1	829.9	592.6	570.0
1.905	1.06637	1.574	4	1371.8	1981.9	1849.8	1572.3	1207.0	829.5	592.6	570.0
1.915	1.06491	1.569	4	1370.3	1979.3	1847.4	1570.4	1205.9	829.2	592.5	570.0
1.925	1.06345	1.564	4	1368.9	1976.6	1844.9	1568.6	1204.9	828.8	592.5	570.0
1.935	1.06199	1.559	4	1367.5	1974.0	1842.5	1566.7	1203.8	828.5	592.5	570.0
1.945	1.06053	1.554	4	1366.0	1971.4	1840.1	1564.9	1202.7	828.1	592.4	570.0
1.955	1.05834	1.549	4	1363.9	1967.4	1836.4	1562.1	1201.1	827.5	592.4	570.0
1.965	1.05542	1.545	4	1361.0	1962.1	1831.6	1558.4	1198.9	826.8	592.3	569.9
1.975	1.05250	1.541	4	1358.1	1956.9	1826.7	1554.7	1196.7	826.1	592.2	569.9
1.985	1.04958	1.538	4	1355.2	1951.6	1821.8	1551.0	1194.6	825.4	592.1	569.9
1.995	1.04666	1.533	4	1352.4	1946.4	1817.0	1547.2	1192.4	824.6	592.1	569.9
2.005	1.04374	1.527	4	1349.5	1941.1	1812.1	1543.6	1190.2	823.9	592.0	569.9
2.015	1.04082	1.523	4	1346.6	1935.9	1807.3	1539.9	1188.1	823.2	591.9	569.9
2.025	1.03790	1.519	4	1343.8	1930.6	1802.5	1536.2	1185.9	822.5	591.8	569.9
2.035	1.03498	1.515	4	1340.9	1925.4	1797.6	1532.5	1183.8	821.8	591.8	569.8
2.045	1.03205	1.511	4	1338.1	1920.1	1792.8	1528.8	1181.6	821.0	591.7	569.8
2.055	1.02913	1.508	4	1335.2	1914.9	1788.0	1525.2	1179.5	820.3	591.6	569.8
2.065	1.02621	1.504	4	1332.4	1909.7	1783.2	1521.5	1177.4	819.6	591.5	569.8
2.075	1.02329	1.501	4	1329.5	1904.5	1778.4	1517.8	1175.2	818.9	591.5	569.8
2.085	1.02037	1.497	4	1326.7	1899.2	1773.6	1514.2	1173.1	818.1	591.4	569.8
2.095	1.01745	1.494	4	1323.9	1894.0	1768.8	1510.5	1170.9	817.4	591.3	569.8
2.105	1.01453	1.490	4	1321.0	1888.8	1764.0	1506.9	1168.8	816.7	591.2	569.7
2.115	1.01149	1.487	4	1318.1	1883.2	1759.0	1503.1	1166.6	815.9	591.1	569.7
2.125	1.00808	1.484	4	1314.8	1877.0	1753.4	1498.9	1164.1	815.1	591.1	569.7
2.135	1.00468	1.481	4	1311.5	1870.8	1747.8	1494.6	1161.6	814.2	591.0	569.7
2.145	1.00127	1.477	4	1308.2	1864.7	1742.3	1490.4	1159.1	813.4	590.9	569.7
2.155	0.99786	1.474	4	1304.9	1858.5	1736.7	1486.2	1156.7	812.5	590.8	569.7

2.165	0.99446	1.471	4	1301.6	1852.3	1731.2	1482.0	1154.2	811.7	590.7	569.6
2.175	0.99105	1.468	4	1298.3	1846.2	1725.6	1477.8	1151.7	810.9	590.6	569.6
2.185	0.98764	1.465	4	1295.1	1840.0	1720.1	1473.6	1149.3	810.0	590.5	569.6
2.195	0.98424	1.462	4	1291.8	1833.9	1714.6	1469.4	1146.8	809.2	590.4	569.6
2.205	0.98083	1.459	4	1288.5	1827.7	1709.1	1465.2	1144.4	808.3	590.4	569.6
2.215	0.97742	1.457	4	1285.3	1821.6	1703.6	1461.0	1141.9	807.5	590.3	569.6
2.225	0.97402	1.454	4	1282.0	1815.5	1698.1	1456.9	1139.4	806.6	590.2	569.5
2.235	0.97061	1.451	4	1278.8	1809.4	1692.6	1452.7	1137.0	805.8	590.1	569.5
2.245	0.96720	1.448	4	1275.5	1803.3	1687.1	1448.5	1134.6	804.9	590.0	569.5
2.255	0.96379	1.445	4	1272.3	1797.2	1681.6	1444.4	1132.1	804.1	589.9	569.5
2.265	0.96039	1.442	4	1269.0	1791.1	1676.2	1440.3	1129.7	803.2	589.8	569.5
2.275	0.95698	1.440	4	1265.8	1785.0	1670.7	1436.1	1127.2	802.4	589.7	569.5
2.285	0.95357	1.438	4	1262.7	1778.9	1665.2	1431.9	1124.7	801.5	589.6	569.4
2.295	0.95016	1.436	4	1259.5	1772.8	1660.0	1427.7	1122.2	800.6	589.5	569.4
2.305	0.94675	1.434	4	1256.4	1766.7	1654.8	1423.5	1119.6	799.7	589.4	569.4
2.315	0.94334	1.432	4	1253.2	1760.6	1649.6	1419.3	1117.0	798.8	589.3	569.3
2.325	0.93993	1.430	4	1250.1	1754.5	1644.4	1415.1	1114.4	797.9	589.2	569.3
2.335	0.93652	1.428	4	1246.9	1748.4	1639.2	1410.9	1111.8	797.0	589.1	569.2
2.345	0.93311	1.426	4	1243.8	1742.3	1634.0	1406.7	1109.2	796.1	589.0	569.2
2.355	0.92970	1.424	4	1240.6	1736.2	1628.8	1402.5	1106.6	795.2	588.9	569.1
2.365	0.92629	1.422	4	1237.5	1730.1	1623.6	1398.3	1104.0	794.3	588.8	569.1
2.375	0.92288	1.420	4	1234.3	1724.0	1618.4	1394.1	1101.4	793.4	588.7	569.0
2.385	0.91947	1.418	4	1231.2	1717.9	1613.2	1389.9	1098.8	792.5	588.6	569.0
2.395	0.91606	1.416	4	1228.0	1711.8	1608.0	1385.7	1096.2	791.6	588.5	568.9
2.405	0.91265	1.414	4	1224.9	1705.7	1602.8	1381.5	1093.6	790.7	588.4	568.9
2.415	0.90924	1.412	4	1221.7	1700.0	1597.6	1377.3	1091.0	789.8	588.3	568.8
2.425	0.90583	1.410	4	1218.6	1694.0	1592.4	1373.1	1088.4	788.9	588.2	568.8
2.435	0.90242	1.408	4	1215.4	1687.9	1587.2	1368.9	1085.8	788.0	588.1	568.7
2.445	0.89901	1.406	4	1212.3	1681.8	1582.0	1364.7	1083.2	787.1	588.0	568.7
2.455	0.89560	1.404	4	1209.1	1675.7	1576.8	1360.5	1080.6	786.2	587.9	568.6
2.465	0.89219	1.402	4	1206.0	1669.6	1571.6	1356.3	1078.0	785.3	587.8	568.6
2.475	0.88878	1.400	4	1202.8	1663.5	1566.4	1352.1	1075.4	784.4	587.7	568.5
2.485	0.88537	1.398	4	1200.0	1657.4	1561.2	1347.9	1072.8	783.5	587.6	568.5
2.495	0.88196	1.396	4	1196.8	1651.3	1556.0	1343.7	1070.2	782.6	587.5	568.4
2.505	0.87855	1.394	4	1193.7	1645.2	1550.8	1339.5	1067.6	781.7	587.4	568.4
2.515	0.87514	1.392	4	1190.5	1639.1	1545.6	1335.3	1065.0	780.8	587.3	568.3
2.525	0.87173	1.390	4	1187.4	1633.0	1540.4	1331.1	1062.4	779.9	587.2	568.3
2.535	0.86832	1.388	4	1184.2	1626.9	1535.2	1326.9	1059.8	779.0	587.1	568.2
2.545	0.86491	1.386	4	1181.1	1620.8	1530.0	1322.7	1057.2	778.1	587.0	568.2
2.555	0.86150	1.384	4	1177.9	1614.7	1524.8	1318.5	1054.6	777.2	586.9	568.1
2.565	0.85809	1.382	4	1174.8	1608.6	1519.6	1314.3	1052.0	776.3	586.8	568.1
2.575	0.85468	1.380	4	1171.6	1602.5	1514.4	1310.1	1049.4	775.4	586.7	568.0
2.585	0.85127	1.378	4	1168.5	1596.4	1509.2	1305.9	1046.8	774.5	586.6	568.0
2.595	0.84786	1.376	4	1165.3	1590.3	1504.0	1301.7	1044.2	773.6	586.5	567.9
2.605	0.84445	1.374	4	1162.2	1584.2	1498.8	1297.5	1041.6	772.7	586.4	567.9
2.615	0.84104	1.372	4	1159.0	1578.1	1493.6	1293.3	1039.0	771.8	586.3	567.8
2.625	0.83763	1.370	4	1155.9	1572.0	1488.4	1289.1	1036.4	770.9	586.2	567.8
2.635	0.83422	1.368	4	1152.7	1565.9	1483.2	1284.9	1033.8	770.0	586.1	567.7
2.645	0.83081	1.366	4	1149.6	1559.8	1478.0	1280.7	1031.2	769.1	586.0	567.7
2.655	0.82740	1.364	4	1146.4	1553.7	1472.8	1276.5	1028.6	768.2	585.9	567.6
2.665	0.82399	1.362	4	1143.3	1547.6	1467.6	1272.3	1026.0	767.3	585.8	567.6
2.675	0.82058	1.360	4	1140.1	1541.5	1462.4	1268.1	1023.4	766.4	585.7	567.5
2.685	0.81717	1.358	4	1137.0	1535.4	1457.2	1263.9	1020.8	765.5	585.6	567.5
2.695	0.81376	1.356	4	1133.8	1529.3	1452.0	1259.7	1018.2	764.6	585.5	567.4
2.705	0.81035	1.354	4	1130.7	1523.2	1446.8	1255.5	1015.6	763.7	585.4	567.4
2.715	0.80694	1.352	4	1127.5	1517.1	1441.6	1251.3	1013.0	762.8	585.3	567.3
2.725	0.80353	1.350	4	1124.4	1511.0	1436.4	1247.1	1010.4	761.9	585.2	567.3
2.735	0.79999	1.348	4	1121.2	1504.9	1431.2	1242.9	1007.8	761.0	585.1	567.2
2.745	0.79658	1.346	4	1118.1	1498.8	1426.0	1238.7	1005.2	760.1	585.0	567.2
2.755	0.79317	1.344	4	1114.9	1492.7	1420.8	1234.5	1002.6	759.2	584.9	567.1
2.765	0.78976	1.342	4	1111.8	1486.6	1415.6	1230.3	1000.0	758.3	584.8	567.1
2.775	0.78635	1.340	4	1108.6	1480.5	1410.4	1226.1	997.4	757.4	584.7	567.0
2.785	0.78294	1.338	4	1105.5	1474.4	1405.2	1221.9	994.8	756.5	584.6	567.0
2.795	0.77953	1.336	4	1102.3	1468.3	1400.0	1217.7	992.2	755.6	584.5	566.9
2.805	0.77612	1.334	4	1099.2	1462.2	1394.8	1213.5	989.6	754.7	584.4	566.9
2.815	0.77271	1.332	4	1096.0	1456.1	1389.6	1209.3	987.0	753.8	584.3	566.8
2.825	0.76930	1.330	4	1092.9	1450.0	1384.4	1205.1	984.4	752.9	584.2	566.8
2.835	0.76589	1.328	4	1089.7	1443.9	1379.2	1200.9	981.8	752.0	584.1	566.7
2.845	0.76248	1.326	4	1086.6	1437.8	1374.0	1196.7	979.2	751.1	584.0	566.7
2.855	0.75907	1.324	4	1083.4	1431.7	1368.8	1192.5	976.6	750.2	583.9	566.6
2.865	0.75566	1.322	4	1080.3	1425.6	1363.6	1188.3	974.0	749.3	583.8	566.6
2.875	0.75225	1.320	4	1077.1	1419.5	1358.4	1184.1	971.4	748.4	583.7	566.5
2.885	0.74884	1.318	4	1074.0	1413.4	1353.2	1179.9	968.8	747.5	583.6	566.5
2.895	0.74543	1.316	4	1070.8	1407.3	1348.0	1175.7	966.2	746.6	583.5	566.4
2.905	0.74202	1.314	4	1067.7	1401.2	1342.8	1171.5	963.6	745.7	583.4	566.4
2.915	0.73861	1.312	4	1064.5	1395.1	1337.6	1167.3	961.0	744.8	583.3	566.3
2.925	0.73520	1.310	4	1061.4	1389.0	1332.4	1163.1	958.4	743.9	583.2	566.3
2.935	0.73179	1.308	4	1058.2	1382.9	1327.2	1158.9	955.8	743.0	583.1	566.2
2.945	0.72838	1.306	4	1055.1	1376.8	1322.0	1154.7	953.2	742.1	583.0	566.2
2.955	0.72497	1.304	4	1051.9	1370.7	1316.8	1150.5	950.6	741.2	582.9	566.1
2.965	0.72156	1.302	4	1048.8	1364.6	1311.6	1146.3	948.0	740.3	582.8	566.1
2.975	0.71815	1.300	4	1045.6	1358.5	1306.4	1142.1	945.4	739.4	582.7	566.0
2.985	0.71474	1.298	4	1042.5	1352.4	1301.2	1137.9	942.8	738.5	582.6	566.0
2.995	0.71133	1.296	4	1039.3	1346.3	1296.0	1133.7	940.2	737.6	582.5	565.9
3.005	0.70792	1.294	4	1036.2	1340.2	1290.8	1129.5	937.6	736.7	582.4	565.9
3.015	0.70451	1.292	4	1033.0	1334.1	1285.6	1125.3	935.0	735.8	582.3	565.8
3.025	0.70110	1.290	4	1029.9	1328.0	1280.4	1121.1	932.4	734.9	582.2	565.8
3.035	0.69769	1.288	4	1026.7	1321.9	1275.2	1116.9	929.8	734.0	582.1	565.7
3.045	0.69428	1.286	4	1023.6	1315.8	1270.0	1112.7	927.2	733.1	582.0	565.7
3.055	0.69087	1.284	4	1020.4	1309.7	1264.8	1108.5	924.6	732.2	581.9	565.6
3.065	0.68746	1.282	4	1017.3	1303.6	1259.6	1104.3	922.0	731.3	581.8	565.6
3.075	0.68405	1.280	4	1014.1	1297.5	1254.4	1100.1	919.4	730.4	581.7	565.5
3.085	0.68064	1.278	4	1011.0	1291.4	1249.2	1095.9	916.8	729.5	581.6	565.5
3.095	0.67723	1.276	4	1007.8	1285.3	1244.0	1091.7	914.2	728.6	581.5	565.4
3.105	0.67382	1.274	4	1004.7	1279.2	1238.8	1087.5	911.6	727.7	581.4	565.4
3.115	0.67041	1.272	4	1001.5	1273.1	1233.6	1083.3	909.0	726.8	581.3	565.3
3.125	0.66700	1.270	4	998.4	1267.0	1228.4	1079.1	906.4			

2.785	0.69295	1.375	4	1031.2	1348.6	1280.1	1138.9	948.3	736.7	582.7	568.0
2.795	0.68808	1.373	4	1027.2	1341.2	1273.5	1133.9	945.1	735.5	582.6	568.0
2.805	0.68321	1.371	4	1023.2	1333.9	1267.0	1128.8	942.0	734.3	582.5	568.0
2.815	0.67834	1.369	4	1019.2	1326.7	1260.5	1123.8	938.9	733.1	582.3	567.9
2.825	0.67348	1.368	4	1015.2	1319.4	1254.0	1118.8	935.8	731.9	582.2	567.9
2.835	0.66861	1.368	4	1011.3	1312.2	1247.5	1113.8	932.7	730.7	582.1	567.9
2.845	0.66374	1.367	4	1007.3	1305.1	1241.1	1108.9	929.6	729.4	582.0	567.8
2.855	0.65888	1.367	4	1003.4	1297.9	1234.7	1103.9	926.5	728.2	581.8	567.8
2.865	0.65401	1.366	4	999.4	1290.8	1228.3	1099.0	923.5	727.0	581.7	567.8
2.875	0.64914	1.366	4	995.5	1283.7	1221.9	1094.1	920.4	725.8	581.6	567.7
2.885	0.64427	1.365	4	991.6	1276.6	1215.5	1089.2	917.3	724.6	581.4	567.7
2.895	0.63941	1.365	4	987.7	1269.6	1209.2	1084.3	914.3	723.4	581.3	567.7
2.905	0.63454	1.365	4	983.8	1262.5	1202.9	1079.4	911.2	722.2	581.2	567.7
2.915	0.62967	1.364	4	979.9	1255.6	1196.6	1074.5	908.2	721.0	581.0	567.6
2.925	0.62481	1.364	4	976.0	1248.6	1190.4	1069.7	905.1	719.7	580.9	567.6
2.935	0.62091	1.363	4	972.9	1243.0	1185.4	1065.8	902.7	718.8	580.8	567.6
2.945	0.61702	1.363	4	969.9	1237.5	1180.4	1062.0	900.3	717.8	580.7	567.5
2.955	0.61313	1.362	4	966.8	1232.0	1175.4	1058.1	897.9	716.8	580.6	567.5
2.965	0.60923	1.361	4	963.7	1226.5	1170.5	1054.3	895.4	715.8	580.5	567.5
2.975	0.60534	1.361	4	960.7	1221.0	1165.5	1050.4	893.0	714.9	580.4	567.5
2.985	0.60144	1.360	4	957.6	1215.6	1160.6	1046.6	890.6	713.9	580.2	567.4
2.995	0.59755	1.359	4	954.5	1210.1	1155.7	1042.8	888.2	712.9	580.1	567.4
3.005	0.59366	1.359	4	951.5	1204.7	1150.8	1039.0	885.8	712.0	580.0	567.4
3.015	0.58976	1.358	4	948.5	1199.3	1146.0	1035.2	883.4	711.0	579.9	567.4
3.025	0.58587	1.358	4	945.4	1193.9	1141.1	1031.5	881.0	710.0	579.8	567.3
3.035	0.58198	1.357	4	942.4	1188.5	1136.3	1027.7	878.6	709.0	579.7	567.3
3.045	0.57808	1.357	4	939.4	1183.2	1131.5	1023.9	876.2	708.1	579.6	567.3
3.055	0.57419	1.356	4	936.4	1177.8	1126.6	1020.2	873.9	707.1	579.5	567.3
3.065	0.57030	1.356	4	933.4	1172.5	1121.8	1016.4	871.5	706.1	579.4	567.2
3.075	0.56640	1.355	4	930.4	1167.2	1117.1	1012.7	869.1	705.1	579.3	567.2
3.085	0.56251	1.355	4	927.4	1161.9	1112.3	1009.0	866.7	704.2	579.2	567.2
3.095	0.55862	1.354	4	924.7	1157.1	1108.0	1005.6	864.6	703.3	579.1	567.2
3.105	0.55473	1.353	4	922.1	1152.5	1103.8	1002.4	862.5	702.4	579.0	567.2
3.115	0.55084	1.353	4	919.5	1148.0	1099.7	999.1	860.5	701.6	578.9	567.1
3.125	0.54695	1.352	4	917.0	1143.4	1095.6	995.9	858.4	700.7	578.8	567.1
3.135	0.54306	1.352	4	914.4	1138.8	1091.5	992.7	856.4	699.9	578.7	567.1
3.145	0.53917	1.351	4	911.8	1134.3	1087.4	989.5	854.3	699.0	578.6	567.1
3.155	0.53528	1.350	4	909.2	1129.8	1083.3	986.3	852.2	698.2	578.5	567.0
3.165	0.53139	1.350	4	906.6	1125.2	1079.2	983.1	850.2	697.3	578.4	567.0
3.175	0.52750	1.349	4	904.1	1120.7	1075.1	979.9	848.2	696.5	578.3	567.0
3.185	0.52361	1.349	4	901.5	1116.2	1071.1	976.7	846.1	695.6	578.2	567.0
3.195	0.51972	1.348	4	899.0	1111.8	1067.0	973.5	844.1	694.8	578.1	566.9
3.205	0.51583	1.348	4	896.4	1107.3	1063.0	970.4	842.0	693.9	578.0	566.9
3.215	0.51194	1.347	4	893.9	1102.8	1058.9	967.2	840.0	693.1	577.9	566.9
3.225	0.50805	1.347	4	891.3	1098.4	1054.9	964.0	838.0	692.2	577.8	566.9
3.235	0.50416	1.346	4	888.8	1094.0	1050.9	960.9	835.9	691.4	577.7	566.9
3.245	0.50027	1.346	4	886.3	1089.6	1046.9	957.8	833.9	690.5	577.7	566.8
3.255	0.49638	1.345	4	883.9	1085.5	1043.2	954.8	832.0	689.7	577.6	566.8
3.265	0.49249	1.345	4	881.8	1081.7	1039.8	952.2	830.3	689.0	577.5	566.8
3.275	0.48860	1.344	4	879.6	1078.0	1036.4	949.5	828.6	688.3	577.4	566.8
3.285	0.48471	1.344	4	877.5	1074.2	1033.0	946.8	826.8	687.5	577.3	566.7
3.295	0.48082	1.343	4	875.3	1070.5	1029.7	944.1	825.1	686.8	577.2	566.7
3.305	0.47693	1.342	4	873.2	1066.8	1026.3	941.5	823.4	686.1	577.2	566.7
3.315	0.47304	1.342	4	871.0	1063.0	1022.9	938.8	821.7	685.3	577.1	566.7
3.325	0.46915	1.341	4	868.9	1059.3	1019.6	936.2	820.0	684.6	577.0	566.7
3.335	0.46526	1.341	4	866.8	1055.6	1016.2	933.5	818.2	683.9	576.9	566.6
3.345	0.46137	1.340	4	864.7	1052.0	1012.9	930.9	816.5	683.1	576.8	566.6
3.355	0.45748	1.340	4	862.5	1048.3	1009.5	928.3	814.8	682.4	576.7	566.6
3.365	0.45359	1.339	4	860.4	1044.6	1006.2	925.6	813.1	681.7	576.7	566.6
3.375	0.44970	1.339	4	858.3	1041.0	1002.9	923.0	811.4	680.9	576.6	566.6
3.385	0.44581	1.338	4	856.2	1037.3	999.6	920.4	809.7	680.2	576.5	566.5
3.395	0.44192	1.338	4	854.1	1033.7	996.3	917.8	808.0	679.5	576.4	566.5

3.405	0.46091	1.337	4	852.0	1030.0	993.0	915.2	806.3	678.7	576.3	566.5
3.415	0.45811	1.337	4	849.9	1026.6	989.8	912.7	804.6	678.0	576.2	566.5
3.425	0.45568	1.336	4	848.2	1023.6	987.1	910.5	803.2	677.4	576.2	566.5
3.435	0.45324	1.336	4	846.5	1020.6	984.4	908.4	801.8	676.8	576.1	566.4
3.445	0.45081	1.335	4	844.7	1017.6	981.7	906.2	800.4	676.2	576.0	566.4
3.455	0.44838	1.334	4	843.0	1014.6	978.9	904.0	799.0	675.6	576.0	566.4
3.465	0.44594	1.334	4	841.2	1011.6	976.2	901.9	797.6	675.0	575.9	566.4
3.475	0.44351	1.333	4	839.5	1008.6	973.5	899.7	796.2	674.4	575.8	566.4
3.485	0.44108	1.333	4	837.8	1005.6	970.8	897.6	794.8	673.8	575.8	566.3
3.495	0.43864	1.332	4	836.0	1002.7	968.1	895.5	793.4	673.2	575.7	566.3
3.505	0.43621	1.332	4	834.3	999.7	965.4	893.3	792.0	672.6	575.6	566.3
3.515	0.43378	1.331	4	832.6	996.7	962.8	891.2	790.6	671.9	575.5	566.3
3.525	0.43134	1.331	4	830.8	993.8	960.1	889.0	789.2	671.3	575.5	566.3
3.535	0.42891	1.330	4	829.1	990.9	957.4	886.9	787.8	670.7	575.4	566.3
3.545	0.42647	1.330	4	827.4	987.9	954.7	884.8	786.4	670.1	575.3	566.2
3.555	0.42404	1.329	4	825.7	985.0	952.1	882.7	785.0	669.5	575.3	566.2
3.565	0.42161	1.329	4	824.0	982.1	949.4	880.6	783.6	668.9	575.2	566.2
3.575	0.41917	1.328	4	822.3	979.2	946.8	878.4	782.2	668.3	575.1	566.2
3.585	0.41577	1.328	4	819.9	975.1	943.1	875.5	780.2	667.4	575.0	566.2
3.595	0.41236	1.328	4	817.5	971.0	939.4	872.5	778.3	666.6	574.9	566.1
3.605	0.40895	1.328	4	815.1	967.0	935.7	869.6	776.3	665.7	574.8	566.1
3.615	0.40555	1.328	4	812.7	962.9	932.0	866.7	774.4	664.9	574.7	566.1
3.625	0.40214	1.328	4	810.4	958.9	928.3	863.7	772.4	664.0	574.6	566.1
3.635	0.39873	1.328	4	808.0	954.9	924.7	860.8	770.5	663.1	574.5	566.0
3.645	0.39533	1.328	4	805.6	950.9	921.0	857.9	768.6	662.3	574.4	566.0
3.655	0.39192	1.328	4	803.3	946.9	917.4	855.0	766.7	661.4	574.3	566.0
3.665	0.38851	1.328	4	800.9	943.0	913.8	852.1	764.7	660.6	574.2	565.9
3.675	0.38511	1.328	4	798.6	939.0	910.2	849.2	762.8	659.7	574.1	565.9
3.685	0.38170	1.328	4	796.2	935.1	906.6	846.3	760.9	658.9	574.0	565.9
3.695	0.37829	1.328	4	793.9	931.1	903.0	843.5	759.0	658.0	573.9	565.9
3.705	0.37488	1.328	4	791.6	927.2	899.4	840.6	757.0	657.1	573.8	565.8
3.715	0.37148	1.328	4	789.2	923.3	895.8	837.7	755.1	656.3	573.7	565.8
3.725	0.36807	1.328	4	786.9	919.4	892.3	834.9	753.2	655.4	573.6	565.8
3.735	0.36466	1.328	4	784.6	915.5	888.7	832.0	751.3	654.6	573.5	565.8
3.745	0.36126	1.328	4	782.5	912.0	885.6	829.5	749.6	653.8	573.5	565.7
3.755	0.35870	1.328	4	780.6	908.7	882.5	827.0	748.0	653.1	573.4	565.7
3.765	0.35578	1.328	4	778.6	905.4	879.5	824.6	746.3	652.3	573.3	565.7
3.775	0.35286	1.328	4	776.6	902.1	876.5	822.2	744.7	651.6	573.2	565.7
3.785	0.34994	1.328	4	774.6	898.8	873.5	819.7	743.1	650.9	573.1	565.6
3.795	0.34702	1.328	4	772.7	895.5	870.5	817.3	741.5	650.1	573.0	565.6
3.805	0.34410	1.328	4	770.7	892.3	867.5	814.9	739.9	649.4	572.9	565.6
3.815	0.34118	1.328	4	768.7	889.0	864.5	812.5	738.2	648.7	572.8	565.6
3.825	0.33826	1.328	4	766.8	885.7	861.5	810.1	736.6	647.9	572.8	565.5
3.835	0.33534	1.328	4	764.8	882.5	858.6	807.7	735.0	647.2	572.7	565.5
3.845	0.33242	1.328	4	762.9	879.3	855.6	805.3	733.4	646.5	572.6	565.5
3.855	0.32950	1.328	4	760.9	876.0	852.7	802.9	731.8	645.7	572.5	565.5
3.865	0.32658	1.328	4	759.0	872.8	849.7	800.6	730.2	645.0	572.4	565.4
3.875	0.32366	1.329	4	757.1	869.6	846.8	798.2	728.6	644.3	572.3	565.4
3.885	0.32074	1.329	4	755.1	866.4	843.8	795.8	726.9	643.5	572.2	565.4
3.895	0.31782	1.329	4	753.2	863.2	840.9	793.4	725.3	642.8	572.2	565.4
3.905	0.31490	1.329	4	751.3	860.0	838.0	791.1	723.7	642.0	572.1	565.3
3.915	0.31198	1.329	4	749.3	856.8	835.1	788.7	722.1	641.3	572.0	565.3
3.925	0.30906	1.329	4	747.4	853.7	832.2	786.4	720.5	640.6	571.9	565.3
3.935	0.30614	1.329	4	745.5	850.5	829.3	784.0	718.9	639.8	571.8	565.3
3.945	0.30322	1.329	4	743.6	847.3	826.4	781.7	717.4	639.1	571.7	565.2
3.955	0.30030	1.330	4	741.7	844.2	823.5	779.3	715.8	638.4	571.6	565.2
3.965	0.29738	1.330	4	739.8	841.1	820.6	777.0	714.2	637.6	571.5	565.2
3.975	0.29446	1.330	4	737.9	837.9	817.7	774.6	712.6	636.9	571.4	565.2
3.985	0.29154	1.330	4	736.0	834.8	814.9	772.3	711.0	636.1	571.4	565.1
3.995	0.28862	1.330	4	734.1	831.7	812.0	770.0	709.4	635.4	571.3	565.1

TIME = 0.00000 SEC - HEAT TRANSFER DATA FOR ROD 4 (FUEL TYPE 1)

DISTANCE (M)	H.T.MODE (W/M2/K)	HSURF (W/M2/K)	HGAP (K)	TFLUID
0.005	2	26454.678	5000.000	548.28
0.015	2	26941.633	5000.000	548.40
0.025	2	27436.533	5000.000	548.52
0.035	2	27939.488	5000.000	548.64
0.045	2	28450.609	5000.000	548.76
0.055	2	28970.059	5000.000	548.89
0.065	2	29498.104	5000.000	549.02
0.075	2	30034.955	5000.000	549.15
0.085	2	30580.895	5000.000	549.28
0.095	2	31136.217	5000.000	549.41
0.105	2	31701.230	5000.000	549.55
0.115	2	32276.262	5000.000	549.69
0.125	2	32861.695	5000.000	549.83
0.135	2	33457.879	5000.000	549.97
0.145	2	34065.207	5000.000	550.11
0.155	2	34684.168	5000.000	550.26
0.165	2	35315.195	5000.000	550.41
0.175	2	35958.805	5000.000	550.56
0.185	2	36615.273	5000.000	550.71
0.195	2	37284.945	5000.000	550.87
0.205	2	37968.242	5000.000	551.03
0.215	2	38665.812	5000.000	551.18
0.225	2	39378.398	5000.000	551.35
0.235	2	40106.559	5000.000	551.51
0.245	2	40851.023	5000.000	551.67
0.255	2	41612.383	5000.000	551.84
0.265	2	42391.492	5000.000	552.01
0.275	2	43189.066	5000.000	552.18
0.285	2	44005.883	5000.000	552.36
0.295	2	44842.543	5000.000	552.53
0.305	2	45699.754	5000.000	552.71
0.315	2	46578.230	5000.000	552.89
0.325	2	47478.973	5000.000	553.07
0.335	2	48451.656	5000.000	553.26
0.345	2	49449.820	5000.000	553.45
0.355	2	50474.164	5000.000	553.63
0.365	2	51524.578	5000.000	553.83
0.375	2	52599.453	5000.000	554.02
0.385	2	53693.965	5000.000	554.21
0.395	2	54793.730	5000.000	554.40
0.405	2	55945.508	5000.000	554.59
0.415	2	57147.250	5000.000	554.79
0.425	2	58395.250	5000.000	555.00
0.435	2	59688.555	5000.000	555.21
0.445	2	61027.582	5000.000	555.42
0.455	2	62413.621	5000.000	555.64
0.465	2	63848.582	5000.000	555.85
0.475	2	65335.043	5000.000	556.07
0.485	2	66875.836	5000.000	556.30
0.495	2	68473.992	5000.000	556.52
0.505	2	70133.219	5000.000	556.75
0.515	2	71857.219	5000.000	556.98
0.525	2	73650.172	5000.000	557.21
0.535	2	75516.523	5000.000	557.45
0.545	2	77461.312	5000.000	557.69
0.555	2	79489.719	5000.000	557.93
0.565	2	81607.742	5000.000	558.17

0.575	2	83821.703	5000.000	558.42
0.585	2	86138.406	5000.000	558.67
0.595	2	88565.656	5000.000	558.92
0.605	3	91111.797	5000.000	559.18
0.615	3	93786.117	5000.000	559.43
0.625	3	96599.961	5000.000	559.69
0.635	3	99534.766	5000.000	559.96
0.645	3	101399.820	5000.000	560.10
0.655	3	102514.625	5000.000	560.17
0.665	3	103588.555	5000.000	560.25
0.675	3	104698.586	5000.000	560.33
0.685	3	105846.367	5000.000	560.41
0.695	3	107033.125	5000.000	560.49
0.705	3	108258.883	5000.000	560.58
0.715	3	109525.609	5000.000	560.67
0.725	3	110836.219	5000.000	560.76
0.735	3	112193.383	5000.000	560.85
0.745	3	113598.766	5000.000	560.94
0.755	3	115050.797	5000.000	561.04
0.765	3	116546.133	5000.000	561.14
0.775	3	118102.656	5000.000	561.24
0.785	3	119724.555	5000.000	561.35
0.795	3	120995.023	5000.000	561.42
0.805	3	121736.516	5000.000	561.46
0.815	3	121947.125	5000.000	561.46
0.825	3	122073.203	5000.000	561.46
0.835	3	122202.398	5000.000	561.46
0.845	3	122332.945	5000.000	561.46
0.855	3	122463.992	5000.000	561.45
0.865	3	122595.156	5000.000	561.45
0.875	3	122726.070	5000.000	561.45
0.885	3	122856.469	5000.000	561.45
0.895	3	122986.609	5000.000	561.45
0.905	3	123116.047	5000.000	561.45
0.915	3	123245.258	5000.000	561.45
0.925	3	123374.508	5000.000	561.45
0.935	3	123503.078	5000.000	561.44
0.945	3	123631.180	5000.000	561.44
0.955	3	123759.008	5000.000	561.44
0.965	3	123886.805	5000.000	561.44
0.975	3	124014.383	5000.000	561.44
0.985	3	124070.641	5000.000	561.44
0.995	3	124127.469	5000.000	561.44
1.005	3	124183.781	5000.000	561.44
1.015	3	124239.742	5000.000	561.43
1.025	3	124296.047	5000.000	561.43
1.035	3	124351.805	5000.000	561.43
1.045	3	124407.914	5000.000	561.43
1.055	3	124463.461	5000.000	561.43
1.065	3	124519.141	5000.000	561.43
1.075	3	124574.258	5000.000	561.43
1.085	3	124629.695	5000.000	561.43
1.095	3	124684.500	5000.000	561.42
1.105	3	124739.703	5000.000	561.42
1.115	3	124794.586	5000.000	561.42
1.125	3	124849.516	5000.000	561.42
1.135	3	124904.445	5000.000	561.42
1.145	3	124941.656	5000.000	561.42
1.155	3	124972.289	5000.000	561.42
1.165	3	125002.734	5000.000	561.42
1.175	3	125032.188	5000.000	561.41
1.185	3	125059.227	5000.000	561.41

1.195	3	124512.352	5000.000	561.37
1.205	3	124522.602	5000.000	561.37
1.215	3	124543.125	5000.000	561.37
1.225	3	124568.977	5000.000	561.36
1.235	3	124598.062	5000.000	561.36
1.245	3	124628.695	5000.000	561.36
1.255	3	124659.961	5000.000	561.36
1.265	3	124691.375	5000.000	561.36
1.275	3	124722.750	5000.000	561.36
1.285	3	124754.203	5000.000	561.36
1.295	3	124785.375	5000.000	561.36
1.305	3	124804.984	5000.000	561.35
1.315	3	124812.906	5000.000	561.35
1.325	3	124820.680	5000.000	561.35
1.335	3	124828.414	5000.000	561.35
1.345	3	124835.883	5000.000	561.35
1.355	3	124843.766	5000.000	561.35
1.365	3	124851.164	5000.000	561.35
1.375	3	124858.547	5000.000	561.34
1.385	3	124865.906	5000.000	561.34
1.395	3	124873.258	5000.000	561.34
1.405	3	124880.352	5000.000	561.34
1.415	3	124887.859	5000.000	561.34
1.425	3	124894.914	5000.000	561.34
1.435	3	124901.961	5000.000	561.34
1.445	3	124908.984	5000.000	561.33
1.455	3	124915.992	5000.000	561.33
1.465	3	124911.383	5000.000	561.33
1.475	3	124871.945	5000.000	561.33
1.485	3	124832.305	5000.000	561.33
1.495	3	124793.047	5000.000	561.33
1.505	3	124753.438	5000.000	561.33
1.515	3	124713.812	5000.000	561.32
1.525	3	124674.430	5000.000	561.32
1.535	3	124634.609	5000.000	561.32
1.545	3	124594.805	5000.000	561.32
1.555	3	124554.766	5000.000	561.32
1.565	3	124514.531	5000.000	561.32
1.575	3	124472.969	5000.000	561.32
1.585	3	124429.492	5000.000	561.32
1.595	3	123662.180	5000.000	561.26
1.605	3	123602.266	5000.000	561.26
1.615	3	123551.789	5000.000	561.26
1.625	3	123506.984	5000.000	561.25
1.635	3	123442.023	5000.000	561.25
1.645	3	123378.453	5000.000	561.25
1.655	3	123315.352	5000.000	561.25
1.665	3	123252.594	5000.000	561.25
1.675	3	123190.008	5000.000	561.25
1.685	3	123126.992	5000.000	561.25
1.695	3	123063.867	5000.000	561.24
1.705	3	123000.711	5000.000	561.24
1.715	3	122937.484	5000.000	561.24
1.725	3	122874.195	5000.000	561.24
1.735	3	122810.844	5000.000	561.24
1.745	3	122747.461	5000.000	561.24
1.755	3	122684.031	5000.000	561.23
1.765	3	122620.555	5000.000	561.23
1.775	3	122556.617	5000.000	561.23
1.785	3	122493.086	5000.000	561.23
1.795	3	122411.492	5000.000	561.23
1.805	3	122324.398	5000.000	561.23

1.815	3	122236.789	5000.000	561.23
1.825	3	122149.547	5000.000	561.22
1.835	3	122061.836	5000.000	561.22
1.845	3	121974.055	5000.000	561.22
1.855	3	121886.203	5000.000	561.22
1.865	3	121798.250	5000.000	561.22
1.875	3	121710.195	5000.000	561.22
1.885	3	121622.086	5000.000	561.22
1.895	3	121533.898	5000.000	561.21
1.905	3	121445.609	5000.000	561.21
1.915	3	121357.195	5000.000	561.21
1.925	3	121269.039	5000.000	561.21
1.935	3	121180.617	5000.000	561.21
1.945	3	121091.984	5000.000	561.21
1.955	3	120967.539	5000.000	561.21
1.965	3	120806.859	5000.000	561.20
1.975	3	120645.234	5000.000	561.20
1.985	3	120481.625	5000.000	561.20
1.995	3	119445.609	5000.000	561.13
2.005	3	119264.242	5000.000	561.13
2.015	3	119092.500	5000.000	561.13
2.025	3	118926.281	5000.000	561.13
2.035	3	118762.609	5000.000	561.12
2.045	3	118600.367	5000.000	561.12
2.055	3	118438.453	5000.000	561.12
2.065	3	118276.844	5000.000	561.12
2.075	3	118114.500	5000.000	561.12
2.085	3	117952.547	5000.000	561.12
2.095	3	117789.844	5000.000	561.12
2.105	3	117627.297	5000.000	561.11
2.115	3	117457.922	5000.000	561.11
2.125	3	117270.414	5000.000	561.11
2.135	3	117082.156	5000.000	561.11
2.145	3	116894.023	5000.000	561.11
2.155	3	116705.172	5000.000	561.11
2.165	3	116516.188	5000.000	561.10
2.175	3	116326.930	5000.000	561.10
2.185	3	116137.117	5000.000	561.10
2.195	3	115947.445	5000.000	561.10
2.205	3	115757.016	5000.000	561.10
2.215	3	115566.273	5000.000	561.10
2.225	3	115375.617	5000.000	561.10
2.235	3	115183.836	5000.000	561.09
2.245	3	114992.336	5000.000	561.09
2.255	3	114800.531	5000.000	561.09
2.265	3	114607.836	5000.000	561.09
2.275	3	114415.422	5000.000	561.09
2.285	3	114122.078	5000.000	561.09
2.295	3	113828.008	5000.000	561.08
2.305	3	113533.055	5000.000	561.08
2.315	3	113237.664	5000.000	561.08
2.325	3	112941.336	5000.000	561.08
2.335	3	112644.141	5000.000	561.08
2.345	3	112346.242	5000.000	561.08
2.355	3	112047.078	5000.000	561.08
2.365	3	111747.008	5000.000	561.07
2.375	3	111445.297	5000.000	561.07
2.385	3	111141.531	5000.000	561.07
2.395	3	109827.023	5000.000	560.99
2.405	3	109503.164	5000.000	560.99
2.415	3	109188.375	5000.000	560.99
2.425	3	108878.211	5000.000	560.98

2.435	3	108570.461	5000.000	560.98
2.445	3	108282.820	5000.000	560.98
2.455	3	108001.758	5000.000	560.98
2.465	3	107720.133	5000.000	560.98
2.475	3	107437.758	5000.000	560.98
2.485	3	107155.047	5000.000	560.98
2.495	3	106871.141	5000.000	560.97
2.505	3	106586.523	5000.000	560.97
2.515	3	106301.219	5000.000	560.97
2.525	3	106015.078	5000.000	560.97
2.535	3	105727.617	5000.000	560.97
2.545	3	105439.750	5000.000	560.97
2.555	3	105151.062	5000.000	560.96
2.565	3	104861.664	5000.000	560.96
2.575	3	104571.023	5000.000	560.96
2.585	3	104279.938	5000.000	560.96
2.595	3	103988.031	5000.000	560.96
2.605	3	103681.477	5000.000	560.96
2.615	3	103359.727	5000.000	560.95
2.625	3	103037.336	5000.000	560.95
2.635	3	102713.875	5000.000	560.95
2.645	3	102389.367	5000.000	560.95
2.655	3	102063.453	5000.000	560.95
2.665	3	101736.828	5000.000	560.95
2.675	3	101408.984	5000.000	560.95
2.685	3	101079.805	5000.000	560.94
2.695	3	100749.516	5000.000	560.94
2.705	3	100418.422	5000.000	560.94
2.715	3	100086.031	5000.000	560.94
2.725	3	99752.758	5000.000	560.94
2.735	3	99418.055	5000.000	560.94
2.745	3	99082.266	5000.000	560.93
2.755	3	98745.156	5000.000	560.93
2.765	3	98413.883	5000.000	560.93
2.775	3	98103.016	5000.000	560.93
2.785	3	97789.594	5000.000	560.93
2.795	3	96354.664	5000.000	560.84
2.805	3	96020.797	5000.000	560.83
2.815	3	95695.391	5000.000	560.83
2.825	3	95374.875	5000.000	560.83
2.835	3	95056.031	5000.000	560.83
2.845	3	94737.859	5000.000	560.83
2.855	3	94419.117	5000.000	560.83
2.865	3	94099.492	5000.000	560.83
2.875	3	93778.961	5000.000	560.82
2.885	3	93457.336	5000.000	560.82
2.895	3	93134.539	5000.000	560.82
2.905	3	92810.539	5000.000	560.82
2.915	3	92485.359	5000.000	560.82
2.925	3	92158.742	5000.000	560.82
2.935	3	91893.328	5000.000	560.81
2.945	3	91627.320	5000.000	560.81
2.955	3	91359.922	5000.000	560.81
2.965	3	91092.203	5000.000	560.81
2.975	3	90823.602	5000.000	560.81
2.985	3	90554.055	5000.000	560.81
2.995	3	90283.812	5000.000	560.81
3.005	3	90013.109	5000.000	560.80
3.015	3	89740.773	5000.000	560.80
3.025	3	89467.984	5000.000	560.80
3.035	3	89194.336	5000.000	560.80
3.045	3	88919.812	5000.000	560.80

3.055	3	88644.430	5000.000	560.80
3.065	3	88368.125	5000.000	560.79
3.075	3	88090.961	5000.000	560.79
3.085	3	87813.078	5000.000	560.79
3.095	3	87558.445	5000.000	560.79
3.105	3	87311.656	5000.000	560.79
3.115	3	87064.180	5000.000	560.79
3.125	3	86815.336	5000.000	560.79
3.135	3	86566.625	5000.000	560.78
3.145	3	86316.336	5000.000	560.78
3.155	3	86066.133	5000.000	560.78
3.165	3	85814.758	5000.000	560.78
3.175	3	85562.664	5000.000	560.78
3.185	3	85309.781	5000.000	560.78
3.195	3	85056.156	5000.000	560.77
3.205	3	84801.734	5000.000	560.77
3.215	3	84546.953	5000.000	560.77
3.225	3	84290.562	5000.000	560.77
3.235	3	84034.203	5000.000	560.77
3.245	3	83776.617	5000.000	560.77
3.255	3	83535.453	5000.000	560.77
3.265	3	83310.852	5000.000	560.76
3.275	3	83085.664	5000.000	560.76
3.285	3	82860.258	5000.000	560.76
3.295	3	82633.422	5000.000	560.76
3.305	3	82406.773	5000.000	560.76
3.315	3	82179.086	5000.000	560.76
3.325	3	81950.766	5000.000	560.75
3.335	3	81722.227	5000.000	560.75
3.345	3	81492.203	5000.000	560.75
3.355	3	81262.352	5000.000	560.75
3.365	3	81031.438	5000.000	560.75
3.375	3	80799.852	5000.000	560.75
3.385	3	80567.602	5000.000	560.74
3.395	3	80335.078	5000.000	560.74
3.405	3	80101.469	5000.000	560.74
3.415	3	79876.195	5000.000	560.74
3.425	3	79677.688	5000.000	560.74
3.435	3	79478.289	5000.000	560.74
3.445	3	79279.008	5000.000	560.74
3.455	3	79078.828	5000.000	560.73
3.465	3	78878.141	5000.000	560.73
3.475	3	78677.375	5000.000	560.73
3.485	3	78475.680	5000.000	560.73
3.495	3	78273.781	5000.000	560.73
3.505	3	78070.742	5000.000	560.73
3.515	3	77867.930	5000.000	560.72
3.525	3	77663.953	5000.000	560.72
3.535	3	77459.875	5000.000	560.72
3.545	3	77255.047	5000.000	560.72
3.555	3	77050.109	5000.000	560.72
3.565	3	76844.211	5000.000	560.72
3.575	3	76637.773	5000.000	560.72
3.585	3	76355.398	5000.000	560.71
3.595	3	76071.516	5000.000	560.71
3.605	3	75786.945	5000.000	560.71
3.615	3	75500.453	5000.000	560.71
3.625	3	75213.648	5000.000	560.71
3.635	3	74925.305	5000.000	560.71
3.645	3	74636.203	5000.000	560.70
3.655	3	74345.547	5000.000	560.70
3.665	3	74054.102	5000.000	560.70

3.675	3	73761.070	5000.000	560.70
3.685	3	73467.227	5000.000	560.70
3.695	3	73171.750	5000.000	560.70
3.705	3	72875.438	5000.000	560.70
3.715	3	72577.469	5000.000	560.69
3.725	3	72278.609	5000.000	560.69
3.735	3	71978.070	5000.000	560.69
3.745	3	71707.078	5000.000	560.69
3.755	3	71445.250	5000.000	560.69
3.765	3	71182.008	5000.000	560.69
3.775	3	70918.195	5000.000	560.68
3.785	3	70652.945	5000.000	560.68
3.795	3	70387.492	5000.000	560.68
3.805	3	70120.172	5000.000	560.68
3.815	3	69852.227	5000.000	560.68
3.825	3	69583.211	5000.000	560.68
3.835	3	69312.719	5000.000	560.68
3.845	3	69041.938	5000.000	560.67
3.855	3	68769.242	5000.000	560.67
3.865	3	68495.836	5000.000	560.67
3.875	3	68221.305	5000.000	560.67
3.885	3	67945.195	5000.000	560.67
3.895	3	67668.758	5000.000	560.67
3.905	3	67390.516	5000.000	560.66
3.915	3	67111.094	5000.000	560.66
3.925	3	66831.055	5000.000	560.66
3.935	3	66549.383	5000.000	560.66
3.945	3	66266.062	5000.000	560.66
3.955	3	65982.305	5000.000	560.66
3.965	3	65696.828	5000.000	560.66
3.975	3	65409.664	5000.000	560.65
3.985	3	65121.996	5000.000	560.65
3.995	3	64832.582	5000.000	560.65

IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - TEMPERATURE DATA FOR ROD 5 (FUEL TYPE 1)

DISTANCE (M)	FLUX (MW/M2)	DNBR	CHANNEL	AV FUEL T		TEMPERATURE					
				(DEG-K)	T(1)	T(2)	T(3)	T(4)	T(5)	T(6)	T(7)
0.005	0.43688	0.000	0	832.4	997.8	963.5	891.4	790.1	670.7	573.6	564.3
0.015	0.44443	0.000	0	837.8	1007.0	971.9	898.1	794.5	672.7	573.9	564.4
0.025	0.45197	9.903	6	843.3	1016.4	980.4	904.8	798.9	674.6	574.2	564.5
0.035	0.45952	9.639	6	848.7	1025.7	988.9	911.6	803.3	676.5	574.4	564.6
0.045	0.46706	9.388	6	854.2	1035.2	997.5	918.4	807.8	678.5	574.7	564.7
0.055	0.47460	9.148	6	859.8	1044.7	1006.1	925.2	812.3	680.4	575.0	564.8
0.065	0.48215	8.918	6	865.3	1054.2	1014.8	932.1	816.7	682.4	575.2	564.9
0.075	0.48969	8.699	6	870.9	1063.9	1023.5	939.0	821.2	684.3	575.5	565.0
0.085	0.49723	8.488	6	876.5	1073.5	1032.3	945.9	825.7	686.2	575.7	565.1
0.095	0.50478	8.287	6	882.1	1083.3	1041.1	952.9	830.2	688.2	576.0	565.2
0.105	0.51232	8.093	6	887.7	1093.1	1050.0	959.9	834.8	690.1	576.2	565.3
0.115	0.51987	7.907	6	893.4	1103.0	1058.9	966.9	839.3	692.0	576.5	565.4
0.125	0.52741	7.729	6	899.1	1112.9	1067.9	973.9	843.9	693.9	576.7	565.5
0.135	0.53495	7.557	6	904.8	1122.9	1077.0	981.0	848.4	695.9	577.0	565.6
0.145	0.54250	7.392	6	910.5	1133.0	1086.1	988.2	853.0	697.8	577.2	565.7
0.155	0.55004	7.233	6	916.3	1143.1	1095.2	995.3	857.6	699.7	577.5	565.8
0.165	0.55759	7.080	6	922.1	1153.3	1104.4	1002.6	862.2	701.6	577.7	565.8
0.175	0.56513	6.933	6	927.9	1163.6	1113.7	1009.8	866.8	703.6	578.0	565.9
0.185	0.57267	6.791	6	933.7	1173.9	1123.0	1017.1	871.5	705.5	578.2	566.0
0.195	0.58022	6.654	6	939.6	1184.3	1132.4	1024.4	876.1	707.4	578.5	566.1
0.205	0.58776	6.522	6	945.5	1194.8	1141.8	1031.7	880.8	709.3	578.7	566.2

0.215	0.59531	6.394	6	951.4	1205.3	1151.3	1039.1	885.5	711.2	579.0	566.3
0.225	0.60285	6.270	6	957.3	1215.9	1160.8	1046.5	890.2	713.2	579.2	566.4
0.235	0.61039	6.150	6	963.3	1226.5	1170.4	1054.0	894.9	715.1	579.4	566.4
0.245	0.61794	6.034	6	969.3	1237.2	1180.0	1061.5	899.6	717.0	579.7	566.5
0.255	0.62548	5.921	6	975.3	1248.0	1189.7	1069.0	904.4	718.9	579.9	566.6
0.265	0.63303	5.813	6	981.4	1258.9	1199.5	1076.6	909.1	720.8	580.2	566.7
0.275	0.64057	5.707	6	987.4	1269.8	1209.3	1084.2	913.9	722.8	580.4	566.8
0.285	0.64811	5.605	6	993.5	1280.8	1219.2	1091.8	918.7	724.7	580.6	566.8
0.295	0.65566	5.505	6	999.7	1291.8	1229.1	1099.5	923.5	726.6	580.9	566.9
0.305	0.66320	5.408	6	1005.8	1303.0	1239.1	1107.2	928.3	728.5	581.1	567.0
0.315	0.67074	5.314	6	1012.0	1314.1	1249.2	1114.9	933.1	730.4	581.4	567.1
0.325	0.67829	5.223	6	1018.2	1325.4	1259.2	1122.7	938.0	732.3	581.6	567.2
0.335	0.68684	5.129	6	1025.3	1338.2	1270.8	1131.6	943.5	734.5	581.8	567.2
0.345	0.69539	5.037	6	1032.4	1351.1	1282.3	1140.5	949.0	736.6	582.1	567.3
0.355	0.70394	4.948	6	1039.5	1364.1	1294.0	1149.4	954.5	738.8	582.4	567.4
0.365	0.71249	4.861	6	1046.7	1377.2	1305.7	1158.4	960.1	741.0	582.6	567.5
0.375	0.72104	4.776	6	1053.9	1390.4	1317.5	1167.5	965.7	743.1	582.9	567.6
0.385	0.72959	4.693	6	1061.1	1403.6	1329.4	1176.6	971.3	745.3	583.2	567.6
0.395	0.73815	4.611	6	1068.4	1417.0	1341.3	1185.7	976.9	747.4	583.4	567.7
0.405	0.74670	4.532	6	1075.7	1430.4	1353.4	1194.9	982.5	749.6	583.7	567.8
0.415	0.75525	4.456	6	1083.0	1443.9	1365.4	1204.2	988.2	751.8	583.9	567.9
0.425	0.76380	4.383	6	1090.4	1457.5	1377.6	1213.5	993.8	753.9	584.2	567.9
0.435	0.77235	4.312	6	1097.8	1471.2	1389.8	1222.8	999.5	756.1	584.4	568.0
0.445	0.78090	4.243	6	1105.2	1484.9	1402.2	1232.2	1005.3	758.2	584.7	568.1
0.455	0.78945	4.177	6	1112.7	1498.8	1414.5	1241.7	1011.0	760.4	584.9	568.2
0.465	0.79800	4.112	6	1120.2	1512.7	1427.0	1251.1	1016.7	762.5	585.2	568.3
0.475	0.80655	4.050	6	1127.7	1526.7	1439.5	1260.7	1022.5	764.7	585.5	568.3
0.485	0.81511	3.989	6	1135.3	1540.8	1452.1	1270.3	1028.3	766.8	585.7	568.4
0.495	0.82365	3.929	6	1142.9	1554.9	1464.8	1279.9	1034.1	769.0	586.0	568.5
0.505	0.83220	3.871	6	1150.6	1569.2	1477.5	1289.6	1040.0	771.2	586.2	568.6
0.515	0.84075	3.815	6	1158.3	1583.5	1490.3	1299.3	1045.8	773.3	586.5	568.6
0.525	0.84930	3.760	6	1166.0	1597.9	1503.2	1309.1	1051.7	775.5	586.7	568.7
0.535	0.85785	3.706	6	1173.7	1612.4	1516.1	1318.9	1057.6	777.6	587.0	568.8
0.545	0.86640	3.653	6	1181.5	1626.9	1529.2	1328.8	1063.5	779.8	587.2	568.9
0.555	0.87495	3.602	6	1189.3	1641.5	1542.2	1338.7	1069.5	781.9	587.5	568.9
0.565	0.88349	3.551	6	1197.2	1656.2	1555.4	1348.7	1075.4	784.1	587.7	569.0
0.575	0.89204	3.502	6	1205.1	1671.0	1568.6	1358.7	1081.4	786.2	588.0	569.1
0.585	0.90059	3.454	6	1213.0	1685.8	1581.9	1368.8	1087.4	788.4	588.2	569.1
0.595	0.90914	3.407	6	1220.9	1700.7	1595.2	1378.9	1093.4	790.5	588.5	569.2
0.605	0.91769	3.360	6	1228.9	1715.7	1608.6	1389.1	1099.4	792.7	588.7	569.3
0.615	0.92624	3.315	6	1236.9	1730.7	1622.0	1399.3	1105.5	794.8	589.0	569.3
0.625	0.93479	3.270	6	1244.9	1745.8	1635.5	1409.5	1111.5	796.9	589.2	569.4
0.635	0.94334	3.226	6	1253.0	1760.9	1649.1	1419.7	1117.6	799.1	589.4	569.4
0.645	0.95188	3.184	6	1261.0	1776.1	1662.7	1430.1	1123.7	801.2	589.7	569.5
0.655	0.95892	3.145	6	1267.7	1788.6	1673.9	1438.6	1128.7	802.9	589.8	569.5
0.665	0.96446	3.111	6	1273.0	1798.5	1682.8	1445.3	1132.7	804.3	590.0	569.5
0.675	0.96999	3.077	6	1278.2	1808.4	1691.7	1452.0	1136.6	805.7	590.1	569.6
0.685	0.97552	3.043	6	1283.5	1818.3	1700.6	1458.8	1140.6	807.1	590.3	569.6
0.695	0.98105	3.010	6	1288.8	1828.2	1709.5	1465.6	1144.6	808.4	590.4	569.6
0.705	0.98658	2.978	6	1294.1	1838.2	1718.5	1472.4	1148.6	809.8	590.6	569.7
0.715	0.99212	2.946	6	1299.4	1848.2	1727.5	1479.2	1152.6	811.2	590.7	569.7
0.725	0.99765	2.914	6	1304.8	1858.2	1736.5	1486.0	1156.6	812.5	590.8	569.7
0.735	1.00318	2.883	6	1310.1	1868.2	1745.5	1492.9	1160.6	813.9	591.0	569.7
0.745	1.00871	2.853	6	1315.5	1878.3	1754.5	1499.7	1164.6	815.3	591.1	569.8
0.755	1.01424	2.822	6	1320.8	1888.3	1763.6	1506.6	1168.7	816.7	591.3	569.8
0.765	1.01978	2.793	6	1326.2	1898.3	1772.7	1513.5	1172.7	818.0	591.4	569.8
0.775	1.02531	2.763	6	1331.6	1908.2	1781.8	1520.5	1176.8	819.4	591.6	569.8
0.785	1.03084	2.733	6	1337.0	1918.1	1790.9	1527.4	1180.8	820.8	591.7	569.9
0.795	1.03637	2.703	6	1342.4	1928.0	1800.0	1534.3	1184.9	822.1	591.8	569.9
0.805	1.04190	2.674	6	1347.8	1937.9	1809.2	1541.3	1189.0	823.5	592.0	569.9
0.815	1.04681	2.646	6	1352.6	1946.7	1817.3	1547.5	1192.6	824.7	592.1	569.9
0.825	1.04983	2.623	6	1355.5	1952.2	1822.3	1551.3	1194.8	825.5	592.2	570.0

0.835	1.05285	2.600	6	1358.5	1957.6	1827.4	1555.2	1197.0	826.2	592.3	570.0
0.845	1.05587	2.578	6	1361.5	1963.0	1832.4	1559.0	1199.3	827.0	592.3	570.0
0.855	1.05888	2.556	6	1364.5	1968.5	1837.4	1562.8	1201.5	827.7	592.4	570.0
0.865	1.06190	2.535	6	1367.4	1973.9	1842.4	1566.7	1203.8	828.5	592.5	570.0
0.875	1.06492	2.514	6	1370.4	1979.4	1847.5	1570.5	1206.0	829.2	592.6	570.0
0.885	1.06794	2.494	6	1373.4	1984.8	1852.5	1574.4	1208.3	830.0	592.7	570.0
0.895	1.07096	2.474	6	1376.4	1990.3	1857.6	1578.3	1210.5	830.7	592.7	570.1
0.905	1.07398	2.454	6	1379.4	1995.7	1862.6	1582.1	1212.8	831.5	592.8	570.1
0.915	1.07700	2.435	6	1382.4	2001.2	1867.7	1586.0	1215.0	832.2	592.9	570.1
0.925	1.08002	2.415	6	1385.4	2006.7	1872.7	1589.9	1217.3	833.0	593.0	570.1
0.935	1.08304	2.397	6	1388.4	2012.1	1877.8	1593.7	1219.5	833.7	593.0	570.1
0.945	1.08606	2.378	6	1391.4	2017.6	1882.9	1597.6	1221.8	834.5	593.1	570.1
0.955	1.08907	2.359	6	1394.4	2023.1	1888.0	1601.5	1224.1	835.2	593.2	570.1
0.965	1.09209	2.341	6	1397.4	2028.4	1893.0	1605.4	1226.3	836.0	593.3	570.2
0.975	1.09511	2.323	6	1400.3	2033.4	1897.7	1609.3	1228.6	836.7	593.4	570.2
0.985	1.09662	2.307	6	1401.8	2035.9	1900.1	1611.3	1229.7	837.1	593.4	570.2
0.995	1.09813	2.291	6	1403.2	2038.4	1902.5	1613.2	1230.9	837.5	593.4	570.2
1.005	1.09964	2.275	6	1404.7	2040.9	1904.9	1615.2	1232.0	837.8	593.5	570.2
1.015	1.10115	2.260	6	1406.2	2043.5	1907.3	1617.1	1233.2	838.2	593.5	570.2
1.025	1.10265	2.244	6	1407.7	2046.0	1909.7	1619.1	1234.3	838.6	593.5	570.2
1.035	1.10416	2.229	6	1409.1	2048.5	1912.1	1621.0	1235.4	839.0	593.6	570.2
1.045	1.10567	2.214	6	1410.6	2051.0	1914.5	1623.0	1236.6	839.3	593.6	570.2
1.055	1.10718	2.199	6	1412.1	2053.5	1916.9	1624.9	1237.7	839.7	593.7	570.2
1.065	1.10869	2.185	6	1413.6	2056.0	1919.3	1626.9	1238.9	840.1	593.7	570.2
1.075	1.11020	2.170	6	1415.1	2058.5	1921.7	1628.9	1240.0	840.5	593.7	570.3
1.085	1.11170	2.156	6	1416.5	2061.0	1924.1	1630.8	1241.1	840.8	593.8	570.3
1.095	1.11321	2.142	6	1418.0	2063.5	1926.6	1632.8	1242.3	841.2	593.8	570.3
1.105	1.11472	2.127	6	1419.5	2066.0	1929.0	1634.8	1243.4	841.6	593.9	570.3
1.115	1.11623	2.113	6	1421.0	2068.5	1931.4	1636.7	1244.6	841.9	593.9	570.3
1.125	1.11774	2.100	6	1422.5	2071.0	1933.8	1638.7	1245.7	842.3	593.9	570.3
1.135	1.11925	2.086	6	1423.9	2073.5	1936.2	1640.7	1246.9	842.7	594.0	570.3
1.145	1.12038	2.073	6	1425.0	2075.4	1938.0	1642.1	1247.7	843.0	594.0	570.3
1.155	1.12138	2.059	6	1426.0	2077.1	1939.6	1643.4	1248.5	843.2	594.0	570.3
1.165	1.12239	2.046	6	1427.0	2078.8	1941.2	1644.8	1249.2	843.5	594.1	570.3
1.175	1.12339	2.033	6	1428.0	2080.4	1942.8	1646.1	1250.0	843.7	594.1	570.3
1.185	1.12440	2.019	6	1429.0	2082.1	1944.4	1647.4	1250.8	844.0	594.1	570.3
1.195	1.12540	2.006	6	1430.0	2083.8	1946.0	1648.7	1251.5	844.2	594.1	570.3
1.205	1.12640	1.992	6	1431.0	2085.4	1947.6	1650.0	1252.3	844.5	594.1	570.3
1.215	1.12741	1.979	6	1432.0	2087.1	1949.2	1651.3	1253.0	844.7	594.2	570.3
1.225	1.12841	1.966	6	1432.9	2088.8	1950.8	1652.6	1253.8	845.0	594.2	570.3
1.235	1.12942	1.954	6	1433.9	2090.5	1952.4	1653.9	1254.6	845.2	594.2	570.3
1.245	1.13042	1.943	6	1434.9	2092.1	1954.0	1655.2	1255.3	845.5	594.2	570.3
1.255	1.13143	1.931	6	1435.9	2093.8	1955.6	1656.6	1256.1	845.7	594.3	570.3
1.265	1.13243	1.920	6	1436.9	2095.5	1957.2	1657.9	1256.9	846.0	594.3	570.3
1.275	1.13344	1.909	6	1437.9	2097.1	1958.8	1659.2	1257.6	846.2	594.3	570.4
1.285	1.13444	1.898	6	1438.9	2098.8	1960.5	1660.5	1258.4	846.5	594.4	570.4
1.295	1.13545	1.887	6	1439.9	2100.5	1962.1	1661.8	1259.2	846.7	594.4	570.4
1.305	1.13620	1.877	6	1440.6	2101.7	1963.3	1662.8	1259.7	846.9	594.4	570.4
1.315	1.13670	1.867	6	1441.1	2102.6	1964.1	1663.5	1260.1	847.0	594.4	570.4
1.325	1.13721	1.857	6	1441.6	2103.4	1964.9	1664.1	1260.5	847.1	594.4	570.4
1.335	1.13771	1.847	6	1442.1	2104.3	1965.7	1664.8	1260.9	847.3	594.4	570.4
1.345	1.13822	1.838	6	1442.6	2105.1	1966.5	1665.5	1261.3	847.4	594.5	570.4
1.355	1.13872	1.828	6	1443.1	2105.9	1967.3	1666.1	1261.7	847.5	594.5	570.4
1.365	1.13922	1.818	6	1443.6	2106.8	1968.1	1666.8	1262.1	847.6	594.5	570.4
1.375	1.13973	1.809	6	1444.1	2107.6	1968.9	1667.5	1262.4	847.8	594.5	570.4
1.385	1.14023	1.799	6	1444.6	2108.5	1969.7	1668.1	1262.8	847.9	594.5	570.4
1.395	1.14073	1.790	6	1445.1	2109.3	1970.5	1668.8	1263.2	848.0	594.5	570.4
1.405	1.14124	1.781	6	1445.6	2110.1	1971.3	1669.4	1263.6	848.1	594.5	570.4
1.415	1.14174	1.772	6	1446.1	2111.0	1972.2	1670.1	1264.0	848.3	594.5	570.4
1.425	1.14224	1.763	6	1446.6	2111.8	1973.0	1670.8	1264.4	848.4	594.6	570.4
1.435	1.14275	1.754	6	1447.1	2112.6	1973.8	1671.4	1264.8	848.5	594.6	570.4
1.445	1.14325	1.745	6	1447.6	2113.5	1974.6	1672.1	1265.1	848.6	594.6	570.4

1.455	1.14375	1.736	6	1448.1	2114.3	1975.4	1672.8	1265.5	848.8	594.6	570.4
1.465	1.14401	1.727	6	1448.3	2114.7	1975.8	1673.1	1265.7	848.8	594.6	570.4
1.475	1.14350	1.719	6	1447.8	2113.9	1975.0	1672.4	1265.3	848.7	594.6	570.4
1.485	1.14300	1.712	6	1447.3	2113.1	1974.2	1671.8	1265.0	848.6	594.6	570.4
1.495	1.14250	1.704	6	1446.8	2112.2	1973.4	1671.1	1264.6	848.5	594.6	570.4
1.505	1.14199	1.696	6	1446.3	2111.4	1972.6	1670.4	1264.2	848.3	594.6	570.4
1.515	1.14149	1.688	6	1445.9	2110.6	1971.8	1669.8	1263.8	848.2	594.5	570.4
1.525	1.14099	1.680	6	1445.4	2109.7	1970.9	1669.1	1263.4	848.1	594.5	570.4
1.535	1.14048	1.672	6	1444.9	2108.9	1970.1	1668.5	1263.0	848.0	594.5	570.4
1.545	1.13998	1.665	6	1444.4	2108.0	1969.3	1667.8	1262.6	847.8	594.5	570.4
1.555	1.13947	1.657	6	1443.9	2107.2	1968.5	1667.1	1262.3	847.7	594.5	570.4
1.565	1.13897	1.649	6	1443.4	2106.4	1967.7	1666.5	1261.9	847.6	594.5	570.4
1.575	1.13847	1.641	6	1442.9	2105.5	1966.9	1665.8	1261.5	847.5	594.5	570.4
1.585	1.13796	1.633	6	1442.4	2104.7	1966.1	1665.1	1261.1	847.3	594.4	570.4
1.595	1.13746	1.624	6	1441.9	2103.8	1965.3	1664.5	1260.7	847.2	594.4	570.4
1.605	1.13696	1.616	6	1441.4	2103.0	1964.5	1663.8	1260.3	847.1	594.4	570.4
1.615	1.13645	1.608	6	1440.9	2102.2	1963.7	1663.1	1259.9	846.9	594.4	570.4
1.625	1.13595	1.600	6	1440.4	2101.3	1962.9	1662.5	1259.6	846.8	594.4	570.4
1.635	1.13494	1.593	6	1439.4	2099.6	1961.2	1661.2	1258.8	846.6	594.4	570.4
1.645	1.13394	1.587	6	1438.4	2098.0	1959.6	1659.8	1258.0	846.3	594.3	570.3
1.655	1.13294	1.580	6	1437.4	2096.3	1958.0	1658.5	1257.2	846.1	594.3	570.3
1.665	1.13193	1.574	6	1436.4	2094.6	1956.4	1657.2	1256.5	845.8	594.3	570.3
1.675	1.13093	1.568	6	1435.4	2093.0	1954.8	1655.9	1255.7	845.6	594.3	570.3
1.685	1.12992	1.561	6	1434.4	2091.3	1953.2	1654.6	1255.0	845.3	594.2	570.3
1.695	1.12892	1.555	6	1433.4	2089.6	1951.6	1653.3	1254.2	845.1	594.2	570.3
1.705	1.12791	1.550	6	1432.4	2087.9	1950.0	1652.0	1253.4	844.8	594.2	570.3
1.715	1.12691	1.544	6	1431.5	2086.3	1948.4	1650.6	1252.7	844.6	594.2	570.3
1.725	1.12590	1.538	6	1430.5	2084.6	1946.8	1649.3	1251.9	844.3	594.1	570.3
1.735	1.12490	1.532	6	1429.5	2082.9	1945.2	1648.0	1251.1	844.1	594.1	570.3
1.745	1.12389	1.526	6	1428.5	2081.3	1943.6	1646.7	1250.4	843.8	594.1	570.3
1.755	1.12289	1.521	6	1427.5	2079.6	1942.0	1645.4	1249.6	843.6	594.1	570.3
1.765	1.12188	1.515	6	1426.5	2077.9	1940.4	1644.1	1248.8	843.3	594.0	570.3
1.775	1.12088	1.509	6	1425.5	2076.2	1938.8	1642.8	1248.1	843.1	594.0	570.3
1.785	1.11987	1.504	6	1424.5	2074.6	1937.2	1641.5	1247.3	842.8	594.0	570.3
1.795	1.11849	1.498	6	1423.2	2072.3	1935.0	1639.7	1246.3	842.5	593.9	570.3
1.805	1.11698	1.493	6	1421.7	2069.8	1932.6	1637.7	1245.1	842.1	593.9	570.3
1.815	1.11547	1.488	6	1420.2	2067.3	1930.1	1635.7	1244.0	841.8	593.9	570.3
1.825	1.11397	1.483	6	1418.7	2064.8	1927.7	1633.8	1242.8	841.4	593.8	570.3
1.835	1.11246	1.477	6	1417.3	2062.2	1925.3	1631.8	1241.7	841.0	593.8	570.3
1.845	1.11095	1.472	6	1415.8	2059.7	1922.9	1629.8	1240.6	840.6	593.8	570.2
1.855	1.10944	1.467	6	1414.3	2057.2	1920.5	1627.9	1239.4	840.3	593.7	570.2
1.865	1.10793	1.462	6	1412.8	2054.7	1918.1	1625.9	1238.3	839.9	593.7	570.2
1.875	1.10643	1.457	6	1411.4	2052.2	1915.7	1624.0	1237.1	839.5	593.6	570.2
1.885	1.10492	1.453	6	1409.9	2049.7	1913.3	1622.0	1236.0	839.1	593.6	570.2
1.895	1.10341	1.448	6	1408.4	2047.2	1910.9	1620.0	1234.9	838.8	593.6	570.2
1.905	1.10190	1.443	6	1406.9	2044.7	1908.5	1618.1	1233.7	838.4	593.5	570.2
1.915	1.10039	1.438	6	1405.5	2042.2	1906.1	1616.1	1232.6	838.0	593.5	570.2
1.925	1.09888	1.433	6	1404.0	2039.7	1903.7	1614.2	1231.4	837.6	593.4	570.2
1.935	1.09738	1.428	6	1402.5	2037.2	1901.3	1612.2	1230.3	837.3	593.4	570.2
1.945	1.09587	1.423	6	1401.0	2034.7	1898.9	1610.3	1229.2	836.9	593.4	570.2
1.955	1.09360	1.418	6	1398.8	2030.9	1895.3	1607.4	1227.5	836.3	593.3	570.2
1.965	1.09058	1.414	6	1395.9	2025.8	1890.5	1603.5	1225.2	835.6	593.2	570.2
1.975	1.08757	1.409	6	1392.9	2020.3	1885.4	1599.6	1222.9	834.8	593.2	570.1
1.985	1.08455	1.405	6	1389.9	2014.9	1880.3	1595.7	1220.7	834.1	593.1	570.1
1.995	1.08153	1.399	6	1386.9	2009.4	1875.3	1591.8	1218.4	833.3	593.0	570.1
2.005	1.07851	1.394	6	1383.9	2003.9	1870.2	1587.9	1216.1	832.6	592.9	570.1
2.015	1.07549	1.389	6	1380.9	1998.5	1865.1	1584.0	1213.9	831.8	592.8	570.1
2.025	1.07247	1.385	6	1377.9	1993.0	1860.1	1580.2	1211.6	831.1	592.8	570.1
2.035	1.06945	1.381	6	1374.9	1987.5	1855.0	1576.3	1209.4	830.3	592.7	570.0
2.045	1.06643	1.377	6	1371.9	1982.1	1850.0	1572.4	1207.1	829.6	592.6	570.0
2.055	1.06341	1.373	6	1368.9	1976.6	1844.9	1568.6	1204.9	828.8	592.5	570.0
2.065	1.06039	1.370	6	1365.9	1971.2	1839.9	1564.8	1202.6	828.1	592.4	570.0

2.075	1.05738	1.366	6	1363.0	1965.7	1834.9	1560.9	1200.4	827.3	592.4	570.0
2.085	1.05436	1.363	6	1360.0	1960.3	1829.9	1557.1	1198.2	826.6	592.3	570.0
2.095	1.05134	1.360	6	1357.0	1954.9	1824.8	1553.2	1195.9	825.8	592.2	570.0
2.105	1.04832	1.356	6	1354.1	1949.4	1819.8	1549.4	1193.7	825.1	592.1	569.9
2.115	1.04517	1.353	6	1351.0	1943.8	1814.6	1545.4	1191.4	824.3	592.1	569.9
2.125	1.04165	1.350	6	1347.5	1937.4	1808.8	1541.0	1188.8	823.4	592.0	569.9
2.135	1.03813	1.347	6	1344.1	1931.1	1802.9	1536.5	1186.2	822.6	591.9	569.9
2.145	1.03461	1.344	6	1340.6	1924.8	1797.1	1532.1	1183.6	821.7	591.8	569.9
2.155	1.03109	1.342	6	1337.2	1918.5	1791.3	1527.7	1181.0	820.8	591.7	569.9
2.165	1.02757	1.339	6	1333.8	1912.2	1785.5	1523.3	1178.4	820.0	591.6	569.8
2.175	1.02405	1.336	6	1330.3	1905.9	1779.7	1518.9	1175.8	819.1	591.5	569.8
2.185	1.02053	1.333	6	1326.9	1899.6	1773.9	1514.5	1173.2	818.2	591.4	569.8
2.195	1.01701	1.330	6	1323.5	1893.3	1768.1	1510.1	1170.7	817.3	591.3	569.8
2.205	1.01349	1.327	6	1320.1	1886.9	1762.3	1505.7	1168.1	816.5	591.2	569.8
2.215	1.00997	1.324	6	1316.7	1880.5	1756.6	1501.3	1165.5	815.6	591.2	569.8
2.225	1.00645	1.322	6	1313.3	1874.1	1750.8	1496.9	1163.0	814.7	591.1	569.7
2.235	1.00293	1.319	6	1309.9	1867.8	1745.1	1492.5	1160.4	813.8	591.0	569.7
2.245	0.99941	1.316	6	1306.5	1861.4	1739.3	1488.2	1157.9	813.0	590.9	569.7
2.255	0.99589	1.314	6	1303.1	1855.0	1733.6	1483.8	1155.3	812.1	590.8	569.7
2.265	0.99237	1.311	6	1299.7	1848.6	1727.9	1479.5	1152.7	811.2	590.7	569.7
2.275	0.98885	1.308	6	1296.3	1842.3	1722.2	1475.1	1150.2	810.4	590.6	569.7
2.285	0.98532	1.306	6	1291.0	1832.3	1713.2	1468.3	1146.2	809.0	590.5	569.6
2.295	0.98179	1.305	6	1285.7	1822.3	1704.2	1461.6	1142.2	807.6	590.3	569.6
2.305	0.97826	1.303	6	1280.4	1812.4	1695.3	1454.8	1138.2	806.2	590.2	569.6
2.315	0.96672	1.301	6	1275.1	1802.5	1686.4	1448.0	1134.3	804.9	590.0	569.5
2.325	0.96119	1.299	6	1269.9	1792.6	1677.6	1441.3	1130.3	803.5	589.9	569.5
2.335	0.95566	1.297	6	1264.6	1782.8	1668.7	1434.6	1126.4	802.1	589.7	569.5
2.345	0.95013	1.295	6	1259.4	1772.9	1659.9	1427.9	1122.4	800.7	589.6	569.5
2.355	0.94460	1.293	6	1254.2	1763.1	1651.1	1421.2	1118.5	799.4	589.5	569.4
2.365	0.93906	1.291	6	1248.9	1753.3	1642.3	1414.6	1114.5	798.0	589.3	569.4
2.375	0.93353	1.289	6	1243.7	1743.5	1633.5	1408.0	1110.6	796.6	589.2	569.4
2.385	0.92800	1.286	6	1238.6	1733.8	1624.8	1401.4	1106.7	795.2	589.0	569.4
2.395	0.92247	1.283	6	1233.4	1724.1	1616.1	1394.8	1102.8	793.9	588.9	569.3
2.405	0.91694	1.280	6	1228.2	1714.4	1607.4	1388.2	1098.9	792.5	588.7	569.3
2.415	0.91140	1.278	6	1223.1	1704.7	1598.8	1381.6	1095.0	791.1	588.6	569.3
2.425	0.90587	1.276	6	1217.9	1695.1	1590.2	1375.1	1091.1	789.7	588.4	569.2
2.435	0.90034	1.274	6	1212.8	1685.5	1581.6	1368.6	1087.3	788.4	588.3	569.2
2.445	0.89519	1.272	6	1208.1	1676.6	1573.6	1362.5	1083.7	787.1	588.2	569.2
2.455	0.89016	1.270	6	1203.4	1667.9	1565.8	1356.6	1080.2	785.8	588.0	569.1
2.465	0.88513	1.269	6	1198.8	1659.2	1558.1	1350.8	1076.7	784.6	587.9	569.1
2.475	0.88010	1.267	6	1194.2	1650.6	1550.3	1344.9	1073.2	783.3	587.8	569.1
2.485	0.87507	1.266	6	1189.6	1642.0	1542.6	1339.1	1069.7	782.1	587.6	569.1
2.495	0.87004	1.264	6	1185.1	1633.4	1535.0	1333.3	1066.2	780.8	587.5	569.0
2.505	0.86501	1.263	6	1180.5	1624.8	1527.3	1327.5	1062.8	779.6	587.4	569.0
2.515	0.85999	1.262	6	1175.9	1616.3	1519.7	1321.7	1059.3	778.3	587.2	569.0
2.525	0.85496	1.261	6	1171.4	1607.8	1512.1	1315.9	1055.9	777.1	587.1	569.0
2.535	0.84993	1.260	6	1166.9	1599.3	1504.5	1310.2	1052.4	775.8	587.0	568.9
2.545	0.84490	1.258	6	1162.3	1590.9	1497.0	1304.4	1049.0	774.6	586.8	568.9
2.555	0.83987	1.257	6	1157.8	1582.5	1489.4	1298.7	1045.5	773.3	586.7	568.9
2.565	0.83484	1.256	6	1153.3	1574.1	1481.9	1293.0	1042.1	772.1	586.6	568.9
2.575	0.82982	1.255	6	1148.8	1565.7	1474.4	1287.3	1038.7	770.8	586.4	568.8
2.585	0.82479	1.254	6	1144.4	1557.3	1467.0	1281.6	1035.3	769.6	586.3	568.8
2.595	0.81976	1.253	6	1139.9	1549.0	1459.5	1276.0	1031.9	768.3	586.2	568.8
2.605	0.81448	1.252	6	1135.2	1540.3	1451.8	1270.1	1028.3	767.0	586.0	568.7
2.615	0.80895	1.251	6	1130.4	1531.2	1443.6	1263.9	1024.6	765.7	585.9	568.7
2.625	0.80341	1.250	6	1125.5	1522.2	1435.5	1257.7	1020.9	764.3	585.7	568.7
2.635	0.79788	1.249	6	1120.6	1513.2	1427.5	1251.6	1017.2	762.9	585.6	568.7
2.645	0.79235	1.248	6	1115.8	1504.2	1419.4	1245.5	1013.5	761.5	585.5	568.6
2.655	0.78682	1.247	6	1111.0	1495.2	1411.4	1239.4	1009.8	760.2	585.3	568.6
2.665	0.78129	1.247	6	1106.2	1486.3	1403.4	1233.3	1006.1	758.8	585.2	568.6
2.675	0.77575	1.246	6	1101.4	1477.4	1395.5	1227.2	1002.4	757.4	585.0	568.5
2.685	0.77022	1.245	6	1096.6	1468.6	1387.6	1221.2	998.7	756.0	584.9	568.5

2.695	0.76469	1.244	6	1091.8	1459.8	1379.7	1215.2	995.1	754.6	584.7	568.5
2.705	0.75916	1.243	6	1087.1	1451.0	1371.8	1209.2	991.4	753.3	584.6	568.4
2.715	0.75363	1.243	6	1082.3	1442.2	1364.0	1203.2	987.8	751.9	584.4	568.4
2.725	0.74809	1.242	6	1077.6	1433.5	1356.2	1197.3	984.1	750.5	584.3	568.4
2.735	0.74256	1.241	6	1072.9	1424.9	1348.5	1191.3	980.5	749.1	584.1	568.3
2.745	0.73703	1.240	6	1068.2	1416.2	1340.7	1185.4	976.9	747.8	584.0	568.3
2.755	0.73150	1.239	6	1063.5	1407.6	1333.0	1179.5	973.3	746.4	583.8	568.3
2.765	0.72609	1.238	6	1059.0	1399.2	1325.5	1173.8	969.7	745.0	583.7	568.3
2.775	0.72106	1.237	6	1054.7	1391.5	1318.6	1168.5	966.5	743.8	583.5	568.2
2.785	0.71603	1.235	6	1050.5	1383.7	1311.6	1163.1	963.2	742.5	583.4	568.2
2.795	0.71100	1.233	6	1046.3	1376.0	1304.7	1157.8	959.9	741.3	583.3	568.2
2.805	0.70597	1.231	6	1042.1	1368.4	1297.9	1152.6	956.7	740.0	583.1	568.1
2.815	0.70094	1.230	6	1037.9	1360.7	1291.0	1147.3	953.4	738.8	583.0	568.1
2.825	0.69591	1.228	6	1033.7	1353.1	1284.2	1142.0	950.2	737.5	582.9	568.1
2.835	0.69087	1.227	6	1029.6	1345.5	1277.4	1136.8	947.0	736.2	582.7	568.0
2.845	0.68584	1.226	6	1025.4	1337.9	1270.6	1131.6	943.7	735.0	582.6	568.0
2.855	0.68081	1.225	6	1021.3	1330.4	1263.8	1126.4	940.5	733.7	582.4	568.0
2.865	0.67578	1.225	6	1017.2	1322.9	1257.1	1121.2	937.3	732.5	582.3	567.9
2.875	0.67075	1.224	6	1013.1	1315.5	1250.4	1116.1	934.1	731.2	582.2	567.9
2.885	0.66572	1.224	6	1009.0	1308.0	1243.7	1110.9	930.9	730.0	582.0	567.9
2.895	0.66069	1.224	6	1004.9	1300.6	1237.1	1105.8	927.7	728.7	581.9	567.9
2.905	0.65566	1.223	6	1000.8	1293.2	1230.5	1100.7	924.5	727.5	581.8	567.8
2.915	0.65063	1.223	6	996.7	1285.9	1223.9	1095.6	921.4	726.2	581.6	567.8
2.925	0.64560	1.223	6	992.7	1278.6	1217.3	1090.5	918.2	725.0	581.5	567.8
2.935	0.64158	1.222	6	988.5	1272.7	1212.1	1086.5	915.7	724.0	581.4	567.7
2.945	0.63755	1.222	6	986.2	1266.9	1206.8	1082.5	913.1	723.0	581.3	567.7
2.955	0.63353	1.221	6	983.0	1261.1	1201.6	1078.4	910.6	722.0	581.2	567.7
2.965	0.62951	1.221	6	979.8	1255.4	1196.5	1074.4	908.1	720.9	581.1	567.7
2.975	0.62549	1.220	6	976.6	1249.6	1191.3	1070.4	905.6	719.9	580.9	567.6
2.985	0.62147	1.219	6	973.4	1243.9	1186.1	1066.4	903.1	718.9	580.8	567.6
2.995	0.61745	1.219	6	970.2	1238.2	1181.0	1062.4	900.6	717.9	580.7	567.6
3.005	0.61343	1.218	6	967.1	1232.5	1175.9	1058.5	898.1	716.9	580.6	567.6
3.015	0.60940	1.218	6	963.9	1226.8	1170.8	1054.5	895.6	715.9	580.5	567.5
3.025	0.60538	1.217	6	960.7	1221.1	1165.7	1050.5	893.1	714.9	580.4	567.5
3.035	0.60136	1.217	6	957.6	1215.5	1160.6	1046.6	890.6	713.9	580.3	567.5
3.045	0.59734	1.217	6	954.4	1209.9	1155.5	1042.7	888.1	712.9	580.2	567.5
3.055	0.59332	1.216	6	951.3	1204.3	1150.5	1038.7	885.7	711.9	580.1	567.4
3.065	0.58930	1.216	6	948.2	1198.7	1145.5	1034.8	883.2	710.9	580.0	567.4
3.075	0.58528	1.215	6	945.0	1193.1	1140.4	1030.9	880.7	709.9	579.8	567.4
3.085	0.58126	1.215	6	941.9	1187.6	1135.4	1027.0	878.2	708.9	579.7	567.4
3.095	0.57761	1.214	6	939.1	1182.6	1130.9	1023.5	876.0	708.0	579.6	567.3
3.105	0.57409	1.214	6	936.4	1177.7	1126.6	1020.1	873.9	707.1	579.5	567.3
3.115	0.57056	1.213	6	933.7	1172.9	1122.2	1016.7	871.7	706.2	579.4	567.3
3.125	0.56704	1.213	6	931.0	1168.1	1117.9	1013.4	869.6	705.4	579.3	567.3
3.135	0.56352	1.212	6	928.3	1163.4	1113.6	1010.0	867.4	704.5	579.2	567.2
3.145	0.56000	1.212	6	925.6	1158.6	1109.3	1006.6	865.3	703.6	579.2	567.2
3.155	0.55647	1.211	6	922.9	1153.8	1105.0	1003.3	863.1	702.7	579.1	567.2
3.165	0.55295	1.211	6	920.2	1149.1	1100.7	999.9	861.0	701.8	579.0	567.2
3.175	0.54943	1.211	6	917.5	1144.4	1096.4	996.6	858.9	701.0	578.9	567.2
3.185	0.54590	1.210	6	914.8	1139.6	1092.2	993.3	856.7	700.1	578.8	567.1
3.195	0.54238	1.210	6	912.2	1134.9	1087.9	990.0	854.6	699.2	578.7	567.1
3.205	0.53886	1.209	6	909.5	1130.3	1083.7	986.6	852.5	698.3	578.6	567.1
3.215	0.53534	1.209	6	906.9	1125.6	1079.5	983.3	850.4	697.4	578.5	567.1
3.225	0.53181	1.208	6	904.2	1120.9	1075.3	980.0	848.3	696.5	578.4	567.0
3.235	0.52829	1.208	6	901.6	1116.3	1071.1	976.7	846.1	695.7	578.3	567.0
3.245	0.52477	1.208	6	898.9	1111.6	1066.9	973.5	844.0	694.8	578.2	567.0
3.255	0.52150	1.207	6	896.5	1107.4	1063.0	970.4	842.1	694.0	578.1	567.0
3.265	0.51848	1.207	6	894.2	1103.4	1059.5	967.6	840.3	693.2	578.0	567.0
3.275	0.51547	1.206	6	892.0	1099.5	1055.9	964.8	838.5	692.5	577.9	566.9
3.285	0.51245	1.206	6	889.7	1095.6	1052.4	962.0	836.7	691.7	577.8	566.9
3.295	0.50943	1.205	6	887.5	1091.7	1048.8	959.3	834.9	691.0	577.7	566.9
3.305	0.50642	1.205	6	885.3	1087.8	1045.3	956.5	833.1	690.2	577.7	566.9

3.315	0.50340	1.204	6	883.0	1083.9	1041.8	953.7	831.3	689.4	577.6	566.8
3.325	0.50038	1.204	6	880.8	1080.0	1038.3	950.9	829.5	688.7	577.5	566.8
3.335	0.49737	1.204	6	878.6	1076.1	1034.8	948.2	827.7	687.9	577.4	566.8
3.345	0.49435	1.203	6	876.4	1072.2	1031.3	945.4	826.0	687.2	577.3	566.8
3.355	0.49133	1.203	6	874.1	1068.4	1027.8	942.7	824.2	686.4	577.2	566.8
3.365	0.48832	1.202	6	871.9	1064.6	1024.3	939.9	822.4	685.7	577.2	566.7
3.375	0.48530	1.202	6	869.7	1060.7	1020.8	937.2	820.6	684.9	577.1	566.7
3.385	0.48228	1.202	6	867.5	1056.9	1017.4	934.5	818.8	684.2	577.0	566.7
3.395	0.47927	1.201	6	865.3	1053.1	1013.9	931.7	817.1	683.4	576.9	566.7
3.405	0.47625	1.201	6	863.1	1049.3	1010.5	929.0	815.3	682.6	576.8	566.7
3.415	0.47336	1.200	6	861.0	1045.7	1007.2	926.4	813.6	681.9	576.7	566.6
3.425	0.47084	1.200	6	859.2	1042.5	1004.3	924.1	812.1	681.3	576.7	566.6
3.435	0.46833	1.199	6	857.4	1039.4	1001.4	921.9	810.7	680.7	576.6	566.6
3.445	0.46581	1.199	6	855.6	1036.2	998.6	919.6	809.2	680.0	576.5	566.6
3.455	0.46330	1.199	6	853.8	1033.1	995.8	917.4	807.7	679.4	576.4	566.6
3.465	0.46078	1.198	6	851.9	1030.0	992.9	915.1	806.3	678.8	576.4	566.5
3.475	0.45827	1.198	6	850.1	1026.8	990.1	912.9	804.8	678.1	576.3	566.5
3.485	0.45575	1.197	6	848.3	1023.7	987.3	910.6	803.3	677.5	576.2	566.5
3.495	0.45324	1.197	6	846.5	1020.6	984.4	908.4	801.9	676.9	576.2	566.5
3.505	0.45072	1.196	6	844.7	1017.5	981.6	906.2	800.4	676.2	576.1	566.5
3.515	0.44821	1.196	6	842.9	1014.4	978.8	904.0	799.0	675.6	576.0	566.5
3.525	0.44569	1.196	6	841.1	1011.3	976.0	901.7	797.5	675.0	575.9	566.4
3.535	0.44317	1.195	6	839.3	1008.3	973.2	899.5	796.0	674.4	575.9	566.4
3.545	0.44066	1.195	6	837.5	1005.2	970.4	897.3	794.6	673.7	575.8	566.4
3.555	0.43814	1.194	6	835.7	1002.1	967.7	895.1	793.1	673.1	575.7	566.4
3.565	0.43563	1.194	6	834.0	999.1	964.9	892.9	791.7	672.5	575.7	566.4
3.575	0.43311	1.194	6	832.2	996.0	962.1	890.7	790.2	671.8	575.6	566.3
3.585	0.42959	1.194	6	829.7	991.8	958.2	887.6	788.2	670.9	575.5	566.3
3.595	0.42607	1.193	6	827.2	987.5	954.4	884.5	786.2	670.1	575.4	566.3
3.605	0.42255	1.193	6	824.7	983.3	950.5	881.5	784.2	669.2	575.3	566.3
3.615	0.41903	1.193	6	822.2	979.1	946.7	878.4	782.2	668.3	575.2	566.2
3.625	0.41551	1.193	6	819.8	974.9	942.9	875.3	780.1	667.4	575.1	566.2
3.635	0.41199	1.193	6	817.3	970.7	939.0	872.3	778.1	666.5	575.0	566.2
3.645	0.40847	1.193	6	814.8	966.5	935.2	869.3	776.1	665.6	574.9	566.2
3.655	0.40495	1.193	6	812.4	962.3	931.4	866.2	774.1	664.8	574.8	566.1
3.665	0.40143	1.194	6	809.9	958.2	927.7	863.2	772.1	663.9	574.7	566.1
3.675	0.39791	1.194	6	807.5	954.0	923.9	860.2	770.1	663.0	574.6	566.1
3.685	0.39439	1.194	6	805.1	949.9	920.1	857.2	768.1	662.1	574.5	566.1
3.695	0.39087	1.194	6	802.6	945.8	916.4	854.2	766.1	661.2	574.4	566.0
3.705	0.38735	1.194	6	800.2	941.7	912.6	851.2	764.1	660.3	574.3	566.0
3.715	0.38383	1.194	6	797.8	937.6	908.9	848.2	762.1	659.5	574.2	566.0
3.725	0.38031	1.194	6	795.4	933.5	905.2	845.2	760.2	658.6	574.1	565.9
3.735	0.37679	1.194	6	792.9	929.5	901.5	842.3	758.2	657.7	574.0	565.9
3.745	0.37327	1.194	6	790.8	925.8	898.2	839.6	756.4	656.9	573.9	565.9
3.755	0.37063	1.194	6	788.7	922.4	895.0	837.1	754.7	656.1	573.8	565.9
3.765	0.36761	1.194	6	786.7	918.9	891.9	834.5	753.0	655.4	573.7	565.8
3.775	0.36460	1.194	6	784.6	915.5	888.7	832.0	751.3	654.6	573.6	565.8
3.785	0.36158	1.194	6	782.6	912.1	885.6	829.5	749.7	653.9	573.5	565.8
3.795	0.35856	1.194	6	780.5	908.6	882.5	827.0	748.0	653.1	573.4	565.8
3.805	0.35555	1.194	6	778.5	905.2	879.3	824.5	746.3	652.3	573.3	565.7
3.815	0.35253	1.194	6	776.4	901.8	876.2	822.0	744.6	651.6	573.2	565.7
3.825	0.34951	1.194	6	774.4	898.4	873.1	819.5	742.9	650.8	573.2	565.7
3.835	0.34650	1.195	6	772.4	895.0	870.0	817.0	741.3	650.1	573.1	565.7
3.845	0.34348	1.195	6	770.4	891.6	866.9	814.5	739.6	649.3	573.0	565.6
3.855	0.34047	1.195	6	768.3	888.3	863.9	812.0	737.9	648.5	572.9	565.6
3.865	0.33745	1.195	6	766.3	884.9	860.8	809.5	736.2	647.8	572.8	565.6
3.875	0.33443	1.195	6	764.3	881.6	857.7	807.0	734.6	647.0	572.7	565.6
3.885	0.33142	1.195	6	762.3	878.2	854.7	804.6	732.9	646.3	572.6	565.5
3.895	0.32840	1.195	6	760.3	874.9	851.6	802.1	731.2	645.5	572.5	565.5
3.905	0.32538	1.195	6	758.3	871.6	848.6	799.7	729.6	644.7	572.4	565.5
3.915	0.32237	1.196	6	756.3	868.3	845.5	797.2	727.9	644.0	572.4	565.5
3.925	0.31935	1.196	6	754.3	864.9	842.5	794.7	726.3	643.2	572.3	565.4

3.935	0.31633	1.196	6	752.3	861.7	839.5	792.3	724.6	642.5	572.2	565.4
3.945	0.31332	1.196	6	750.3	858.4	836.5	789.9	722.9	641.7	572.1	565.4
3.955	0.31030	1.196	6	748.3	855.1	833.5	787.4	721.3	640.9	572.0	565.4
3.965	0.30728	1.197	6	746.3	851.8	830.5	785.0	719.6	640.2	571.9	565.3
3.975	0.30427	1.197	6	744.3	848.6	827.5	782.6	718.0	639.4	571.8	565.3
3.985	0.30125	1.197	6	742.4	845.3	824.5	780.2	716.4	638.7	571.7	565.3
3.995	0.29823	1.197	6	740.4	842.1	821.5	777.7	714.7	637.9	571.6	565.3

TIME = 0.00000 SEC - HEAT TRANSFER DATA FOR ROD 5 (FUEL TYPE 1)

DISTANCE (M)	H.T.MODE (W/M2/K)	HSURF (W/M2/K)	HGAP (K)	TFLUID
0.005	2	27309.523	5000.000	548.30
0.015	2	27844.494	5000.000	548.45
0.025	2	28389.043	5000.000	548.59
0.035	2	28943.703	5000.000	548.74
0.045	2	29509.002	5000.000	548.89
0.055	2	30085.459	5000.000	549.05
0.065	2	30673.488	5000.000	549.20
0.075	2	31273.545	5000.000	549.36
0.085	2	31886.064	5000.000	549.52
0.095	2	32511.500	5000.000	549.69
0.105	2	33150.410	5000.000	549.85
0.115	2	33803.219	5000.000	550.02
0.125	2	34470.484	5000.000	550.19
0.135	2	35152.801	5000.000	550.36
0.145	2	35850.711	5000.000	550.54
0.155	2	36564.898	5000.000	550.72
0.165	2	37296.023	5000.000	550.90
0.175	2	38044.645	5000.000	551.08
0.185	2	38811.340	5000.000	551.27
0.195	2	39596.938	5000.000	551.45
0.205	2	40402.445	5000.000	551.64
0.215	2	41229.023	5000.000	551.84
0.225	2	42077.809	5000.000	552.03
0.235	2	42949.746	5000.000	552.23
0.245	2	43846.051	5000.000	552.43
0.255	2	44767.594	5000.000	552.63
0.265	2	45715.660	5000.000	552.84
0.275	2	46691.551	5000.000	553.05
0.285	2	47696.820	5000.000	553.26
0.295	2	48733.051	5000.000	553.47
0.305	2	49801.785	5000.000	553.69
0.315	2	50904.426	5000.000	553.90
0.325	2	52042.750	5000.000	554.12
0.335	2	53270.746	5000.000	554.35
0.345	2	54540.066	5000.000	554.57
0.355	2	55853.250	5000.000	554.80
0.365	2	57213.242	5000.000	555.03
0.375	2	58622.492	5000.000	555.26
0.385	2	60083.031	5000.000	555.50
0.395	2	61595.883	5000.000	555.74
0.405	2	63171.883	5000.000	555.97
0.415	2	64803.461	5000.000	556.22
0.425	2	66494.414	5000.000	556.46
0.435	2	68249.969	5000.000	556.71
0.445	2	70076.023	5000.000	556.96
0.455	2	71978.883	5000.000	557.21
0.465	2	73964.609	5000.000	557.47
0.475	2	76040.055	5000.000	557.72

0.485	2	78212.094	5000.000	557.99
0.495	2	80488.023	5000.000	558.25
0.505	2	82876.633	5000.000	558.52
0.515	2	85386.734	5000.000	558.79
0.525	2	88028.445	5000.000	559.06
0.535	2	90813.086	5000.000	559.34
0.545	2	93753.094	5000.000	559.62
0.555	2	96862.008	5000.000	559.90
0.565	2	100155.312	5000.000	560.18
0.575	3	103650.383	5000.000	560.47
0.585	3	107366.570	5000.000	560.76
0.595	3	111325.094	5000.000	561.06
0.605	3	114450.016	5000.000	561.27
0.615	3	116934.023	5000.000	561.42
0.625	3	118286.375	5000.000	561.49
0.635	3	118978.617	5000.000	561.51
0.645	3	119388.344	5000.000	561.51
0.655	3	119719.391	5000.000	561.51
0.665	3	119972.555	5000.000	561.51
0.675	3	120225.016	5000.000	561.51
0.685	3	120476.406	5000.000	561.51
0.695	3	120727.938	5000.000	561.51
0.705	3	120979.539	5000.000	561.50
0.715	3	121231.031	5000.000	561.50
0.725	3	121481.953	5000.000	561.50
0.735	3	121732.547	5000.000	561.50
0.745	3	121983.000	5000.000	561.50
0.755	3	122233.961	5000.000	561.50
0.765	3	122486.602	5000.000	561.50
0.775	3	122742.680	5000.000	561.50
0.785	3	123005.328	5000.000	561.49
0.795	3	122869.039	5000.000	561.46
0.805	3	123152.461	5000.000	561.46
0.815	3	123393.562	5000.000	561.46
0.825	3	123532.820	5000.000	561.46
0.835	3	123665.016	5000.000	561.46
0.845	3	123792.000	5000.000	561.46
0.855	3	123915.766	5000.000	561.45
0.865	3	124037.602	5000.000	561.45
0.875	3	124157.586	5000.000	561.45
0.885	3	124276.883	5000.000	561.45
0.895	3	124395.156	5000.000	561.45
0.905	3	124512.961	5000.000	561.45
0.915	3	124630.617	5000.000	561.45
0.925	3	124748.375	5000.000	561.45
0.935	3	124865.406	5000.000	561.44
0.945	3	124982.820	5000.000	561.44
0.955	3	125100.320	5000.000	561.44
0.965	3	125217.945	5000.000	561.44
0.975	3	125335.250	5000.000	561.44
0.985	3	125381.094	5000.000	561.44
0.995	3	125427.258	5000.000	561.44
1.005	3	125473.406	5000.000	561.44
1.015	3	125519.438	5000.000	561.43
1.025	3	125566.164	5000.000	561.43
1.035	3	125612.672	5000.000	561.43
1.045	3	125659.797	5000.000	561.43
1.055	3	125706.016	5000.000	561.43
1.065	3	125752.977	5000.000	561.43
1.075	3	125799.477	5000.000	561.43
1.085	3	125846.289	5000.000	561.43
1.095	3	125893.305	5000.000	561.42

1.105	3	125941.477	5000.000	561.42
1.115	3	125990.047	5000.000	561.42
1.125	3	126038.617	5000.000	561.42
1.135	3	126087.156	5000.000	561.42
1.145	3	126118.602	5000.000	561.42
1.155	3	126144.734	5000.000	561.42
1.165	3	126173.273	5000.000	561.41
1.175	3	126204.938	5000.000	561.41
1.185	3	126242.609	5000.000	561.41
1.195	3	125752.750	5000.000	561.37
1.205	3	125810.703	5000.000	561.37
1.215	3	125859.094	5000.000	561.37
1.225	3	125899.000	5000.000	561.36
1.235	3	125932.648	5000.000	561.36
1.245	3	125962.164	5000.000	561.36
1.255	3	125988.688	5000.000	561.36
1.265	3	126013.734	5000.000	561.36
1.275	3	126037.617	5000.000	561.36
1.285	3	126060.781	5000.000	561.36
1.295	3	126083.500	5000.000	561.35
1.305	3	126094.172	5000.000	561.35
1.315	3	126093.078	5000.000	561.35
1.325	3	126091.836	5000.000	561.35
1.335	3	126090.680	5000.000	561.35
1.345	3	126089.562	5000.000	561.35
1.355	3	126089.156	5000.000	561.35
1.365	3	126088.055	5000.000	561.35
1.375	3	126087.570	5000.000	561.34
1.385	3	126086.969	5000.000	561.34
1.395	3	126086.648	5000.000	561.34
1.405	3	126086.352	5000.000	561.34
1.415	3	126086.523	5000.000	561.34
1.425	3	126085.984	5000.000	561.34
1.435	3	126086.484	5000.000	561.34
1.445	3	126086.586	5000.000	561.33
1.455	3	126086.469	5000.000	561.33
1.465	3	126074.570	5000.000	561.33
1.475	3	126027.078	5000.000	561.33
1.485	3	125979.430	5000.000	561.33
1.495	3	125932.906	5000.000	561.33
1.505	3	125886.445	5000.000	561.33
1.515	3	125840.609	5000.000	561.32
1.525	3	125794.570	5000.000	561.32
1.535	3	125748.898	5000.000	561.32
1.545	3	125703.359	5000.000	561.32
1.555	3	125658.805	5000.000	561.32
1.565	3	125615.789	5000.000	561.32
1.575	3	125576.742	5000.000	561.32
1.585	3	125543.211	5000.000	561.31
1.595	3	124841.000	5000.000	561.26
1.605	3	124827.312	5000.000	561.26
1.615	3	124804.539	5000.000	561.26
1.625	3	124773.062	5000.000	561.25
1.635	3	124711.680	5000.000	561.25
1.645	3	124646.195	5000.000	561.25
1.655	3	124578.297	5000.000	561.25
1.665	3	124508.273	5000.000	561.25
1.675	3	124437.305	5000.000	561.25
1.685	3	124366.195	5000.000	561.25
1.695	3	124293.883	5000.000	561.24
1.705	3	124221.656	5000.000	561.24
1.715	3	124149.562	5000.000	561.24

1.755	3	124003.080	5000.000	5000.000	561.24
1.745	3	123932.922	5000.000	5000.000	561.24
1.755	3	123860.914	5000.000	5000.000	561.23
1.765	3	123789.031	5000.000	5000.000	561.23
1.775	3	123716.875	5000.000	5000.000	561.23
1.785	3	123645.242	5000.000	5000.000	561.23
1.795	3	123555.359	5000.000	5000.000	561.23
1.805	3	123459.961	5000.000	5000.000	561.23
1.815	3	123364.188	5000.000	5000.000	561.23
1.825	3	123268.477	5000.000	5000.000	561.22
1.835	3	123172.844	5000.000	5000.000	561.22
1.845	3	123077.273	5000.000	5000.000	561.22
1.855	3	122981.422	5000.000	5000.000	561.22
1.865	3	122885.297	5000.000	5000.000	561.22
1.875	3	122789.375	5000.000	5000.000	561.22
1.885	3	122693.406	5000.000	5000.000	561.22
1.895	3	122597.883	5000.000	5000.000	561.21
1.905	3	122502.625	5000.000	5000.000	561.21
1.915	3	122407.797	5000.000	5000.000	561.21
1.925	3	122313.062	5000.000	5000.000	561.21
1.935	3	122218.312	5000.000	5000.000	561.21
1.945	3	122123.352	5000.000	5000.000	561.21
1.955	3	121993.328	5000.000	5000.000	561.20
1.965	3	121828.812	5000.000	5000.000	561.20
1.975	3	121667.812	5000.000	5000.000	561.20
1.985	3	121512.219	5000.000	5000.000	561.20
1.995	3	120551.695	5000.000	5000.000	561.13
2.005	3	120417.000	5000.000	5000.000	561.13
2.015	3	120272.195	5000.000	5000.000	561.13
2.025	3	120118.359	5000.000	5000.000	561.13
2.035	3	119957.461	5000.000	5000.000	561.13
2.045	3	119792.312	5000.000	5000.000	561.12
2.055	3	119624.242	5000.000	5000.000	561.12
2.065	3	119454.273	5000.000	5000.000	561.12
2.075	3	119282.742	5000.000	5000.000	561.12
2.085	3	119110.781	5000.000	5000.000	561.12
2.095	3	118937.898	5000.000	5000.000	561.12
2.105	3	118764.867	5000.000	5000.000	561.11
2.115	3	118584.992	5000.000	5000.000	561.11
2.125	3	118386.961	5000.000	5000.000	561.11
2.135	3	118188.227	5000.000	5000.000	561.11
2.145	3	117989.625	5000.000	5000.000	561.11
2.155	3	117790.469	5000.000	5000.000	561.11
2.165	3	117591.477	5000.000	5000.000	561.10
2.175	3	117392.211	5000.000	5000.000	561.10
2.185	3	117192.484	5000.000	5000.000	561.10
2.195	3	116993.086	5000.000	5000.000	561.10
2.205	3	116793.047	5000.000	5000.000	561.10
2.215	3	116592.805	5000.000	5000.000	561.10
2.225	3	116392.352	5000.000	5000.000	561.10
2.235	3	116191.688	5000.000	5000.000	561.09
2.245	3	115990.750	5000.000	5000.000	561.09
2.255	3	115789.469	5000.000	5000.000	561.09
2.265	3	115587.398	5000.000	5000.000	561.09
2.275	3	115385.500	5000.000	5000.000	561.09
2.285	3	115081.133	5000.000	5000.000	561.09
2.295	3	114776.141	5000.000	5000.000	561.08
2.305	3	114471.281	5000.000	5000.000	561.08
2.315	3	114165.992	5000.000	5000.000	561.08

2.345	3	113245.641	5000.000	561.08
2.355	3	112938.578	5000.000	561.08
2.365	3	112632.508	5000.000	561.07
2.375	3	112329.148	5000.000	561.07
2.385	3	112030.719	5000.000	561.07
2.395	3	110801.562	5000.000	560.99
2.405	3	110523.148	5000.000	560.99
2.415	3	110234.562	5000.000	560.99
2.425	3	109936.008	5000.000	560.98
2.435	3	109629.336	5000.000	560.98
2.445	3	109337.898	5000.000	560.98
2.455	3	109049.305	5000.000	560.98
2.465	3	108758.172	5000.000	560.98
2.475	3	108465.484	5000.000	560.98
2.485	3	108171.148	5000.000	560.98
2.495	3	107875.914	5000.000	560.97
2.505	3	107579.336	5000.000	560.97
2.515	3	107282.078	5000.000	560.97
2.525	3	106984.109	5000.000	560.97
2.535	3	106685.016	5000.000	560.97
2.545	3	106385.648	5000.000	560.97
2.555	3	106085.711	5000.000	560.96
2.565	3	105784.875	5000.000	560.96
2.575	3	105483.141	5000.000	560.96
2.585	3	105180.992	5000.000	560.96
2.595	3	104878.328	5000.000	560.96
2.605	3	104560.328	5000.000	560.96
2.615	3	104227.273	5000.000	560.95
2.625	3	103893.648	5000.000	560.95
2.635	3	103559.094	5000.000	560.95
2.645	3	103223.359	5000.000	560.95
2.655	3	102886.227	5000.000	560.95
2.665	3	102548.062	5000.000	560.95
2.675	3	102208.727	5000.000	560.95
2.685	3	101868.516	5000.000	560.94
2.695	3	101527.328	5000.000	560.94
2.705	3	101185.836	5000.000	560.94
2.715	3	100843.391	5000.000	560.94
2.725	3	100500.023	5000.000	560.94
2.735	3	100155.477	5000.000	560.94
2.745	3	99810.305	5000.000	560.93
2.755	3	99464.922	5000.000	560.93
2.765	3	99127.367	5000.000	560.93
2.775	3	98814.453	5000.000	560.93
2.785	3	98506.352	5000.000	560.93
2.795	3	97164.617	5000.000	560.84
2.805	3	96876.367	5000.000	560.84
2.815	3	96577.570	5000.000	560.83
2.825	3	96268.680	5000.000	560.83
2.835	3	95951.766	5000.000	560.83
2.845	3	95629.648	5000.000	560.83
2.855	3	95303.172	5000.000	560.83
2.865	3	94974.016	5000.000	560.83
2.875	3	94642.883	5000.000	560.82
2.885	3	94309.594	5000.000	560.82
2.895	3	93974.977	5000.000	560.82
2.905	3	93638.578	5000.000	560.82
2.915	3	93301.391	5000.000	560.82
2.925	3	92962.445	5000.000	560.82
2.935	3	92686.172	5000.000	560.81
2.945	3	92409.625	5000.000	560.81
2.955	3	92131.594	5000.000	560.81

2.965	3	91853.586	5000.000	560.81
2.975	3	91574.602	5000.000	560.81
2.985	3	91294.695	5000.000	560.81
2.995	3	91014.492	5000.000	560.81
3.005	3	90733.414	5000.000	560.80
3.015	3	90451.078	5000.000	560.80
3.025	3	90168.328	5000.000	560.80
3.035	3	89884.750	5000.000	560.80
3.045	3	89600.328	5000.000	560.80
3.055	3	89315.078	5000.000	560.80
3.065	3	89028.938	5000.000	560.79
3.075	3	88741.828	5000.000	560.79
3.085	3	88454.023	5000.000	560.79
3.095	3	88190.047	5000.000	560.79
3.105	3	87933.625	5000.000	560.79
3.115	3	87676.648	5000.000	560.79
3.125	3	87418.766	5000.000	560.79
3.135	3	87160.617	5000.000	560.78
3.145	3	86901.172	5000.000	560.78
3.155	3	86641.453	5000.000	560.78
3.165	3	86381.242	5000.000	560.78
3.175	3	86119.617	5000.000	560.78
3.185	3	85858.094	5000.000	560.78
3.195	3	85595.461	5000.000	560.77
3.205	3	85332.094	5000.000	560.77
3.215	3	85068.422	5000.000	560.77
3.225	3	84803.180	5000.000	560.77
3.235	3	84538.000	5000.000	560.77
3.245	3	84271.633	5000.000	560.77
3.255	3	84022.164	5000.000	560.77
3.265	3	83789.695	5000.000	560.76
3.275	3	83556.672	5000.000	560.76
3.285	3	83323.477	5000.000	560.76
3.295	3	83088.891	5000.000	560.76
3.305	3	82854.508	5000.000	560.76
3.315	3	82619.133	5000.000	560.76
3.325	3	82383.133	5000.000	560.75
3.335	3	82146.953	5000.000	560.75
3.345	3	81909.312	5000.000	560.75
3.355	3	81671.891	5000.000	560.75
3.365	3	81433.406	5000.000	560.75
3.375	3	81194.305	5000.000	560.75
3.385	3	80954.547	5000.000	560.74
3.395	3	80714.258	5000.000	560.74
3.405	3	80473.508	5000.000	560.74
3.415	3	80240.961	5000.000	560.74
3.425	3	80035.398	5000.000	560.74
3.435	3	79829.375	5000.000	560.74
3.445	3	79623.297	5000.000	560.74
3.455	3	79416.352	5000.000	560.73
3.465	3	79208.938	5000.000	560.73
3.475	3	79001.461	5000.000	560.73
3.485	3	78792.977	5000.000	560.73
3.495	3	78584.234	5000.000	560.73
3.505	3	78374.891	5000.000	560.73
3.515	3	78165.469	5000.000	560.72
3.525	3	77954.727	5000.000	560.72
3.535	3	77744.305	5000.000	560.72
3.545	3	77532.961	5000.000	560.72
3.555	3	77321.508	5000.000	560.72
3.565	3	77109.133	5000.000	560.72
3.575	3	76896.250	5000.000	560.72

3.585	3	76606.117	5000.000	560.71
3.595	3	76314.211	5000.000	560.71
3.605	3	76021.891	5000.000	560.71
3.615	3	75728.000	5000.000	560.71
3.625	3	75433.477	5000.000	560.71
3.635	3	75137.438	5000.000	560.71
3.645	3	74840.648	5000.000	560.70
3.655	3	74542.312	5000.000	560.70
3.665	3	74243.180	5000.000	560.70
3.675	3	73942.484	5000.000	560.70
3.685	3	73640.953	5000.000	560.70
3.695	3	73337.812	5000.000	560.70
3.705	3	73033.836	5000.000	560.70
3.715	3	72728.211	5000.000	560.69
3.725	3	72421.695	5000.000	560.69
3.735	3	72113.500	5000.000	560.69
3.745	3	71835.461	5000.000	560.69
3.755	3	71566.797	5000.000	560.69
3.765	3	71296.727	5000.000	560.69
3.775	3	71026.094	5000.000	560.68
3.785	3	70754.023	5000.000	560.68
3.795	3	70481.766	5000.000	560.68
3.805	3	70207.641	5000.000	560.68
3.815	3	69932.898	5000.000	560.68
3.825	3	69657.078	5000.000	560.68
3.835	3	69379.781	5000.000	560.68
3.845	3	69102.211	5000.000	560.67
3.855	3	68822.719	5000.000	560.67
3.865	3	68542.516	5000.000	560.67
3.875	3	68261.188	5000.000	560.67
3.885	3	67978.289	5000.000	560.67
3.895	3	67695.047	5000.000	560.67
3.905	3	67409.805	5000.000	560.66
3.915	3	67123.789	5000.000	560.66
3.925	3	66836.930	5000.000	560.66
3.935	3	66548.352	5000.000	560.66
3.945	3	66258.312	5000.000	560.66
3.955	3	65967.727	5000.000	560.66
3.965	3	65675.430	5000.000	560.66
3.975	3	65381.430	5000.000	560.65
3.985	3	65086.902	5000.000	560.65
3.995	3	64790.621	5000.000	560.65

1PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - TEMPERATURE DATA FOR ROD 6 (FUEL TYPE 1)

DISTANCE (M)	FLUX (MW/M2)	DNBR	CHANNEL (DEG-K)	TEMPERATURE							
				AV FUEL T T(1)	T(2)	T(3)	T(4)	T(5)	T(6)	T(7)	
0.005	0.42282	0.000	0	822.4	980.8	948.0	879.1	781.9	667.1	573.2	564.1
0.015	0.43012	0.000	0	827.6	989.6	956.1	885.5	786.2	669.0	573.4	564.3
0.025	0.43742	0.000	0	832.9	998.5	964.2	891.9	790.4	670.9	573.7	564.4
0.035	0.44473	9.960	7	838.1	1007.5	972.3	898.4	794.7	672.8	574.0	564.5
0.045	0.45203	9.700	7	843.4	1016.5	980.5	904.9	799.0	674.7	574.2	564.6
0.055	0.45933	9.452	7	848.7	1025.6	988.8	911.5	803.3	676.5	574.5	564.7
0.065	0.46663	9.214	7	854.0	1034.7	997.1	918.1	807.6	678.4	574.7	564.8
0.075	0.47393	8.987	7	859.3	1043.9	1005.4	924.7	811.9	680.3	575.0	564.9
0.085	0.48123	8.770	7	864.7	1053.1	1013.8	931.3	816.2	682.2	575.2	565.0
0.095	0.48853	8.561	7	870.1	1062.4	1022.2	938.0	820.6	684.0	575.5	565.1
0.105	0.49583	8.361	7	875.5	1071.8	1030.7	944.7	824.9	685.9	575.7	565.2
0.115	0.50313	8.169	7	880.9	1081.2	1039.3	951.4	829.3	687.8	576.0	565.2

0.125	0.51043	7.984	7	886.4	1090.7	1047.8	958.2	833.7	689.7	576.2	565.3
0.135	0.51773	7.807	7	891.8	1100.3	1056.5	965.0	838.1	691.5	576.5	565.4
0.145	0.52503	7.636	7	897.3	1109.9	1065.2	971.8	842.5	693.4	576.7	565.5
0.155	0.53233	7.471	7	902.8	1119.5	1073.9	978.6	846.9	695.2	577.0	565.6
0.165	0.53963	7.313	7	908.4	1129.2	1082.7	985.5	851.3	697.1	577.2	565.7
0.175	0.54693	7.160	7	914.0	1139.0	1091.5	992.5	855.8	699.0	577.4	565.8
0.185	0.55423	7.013	7	919.5	1148.9	1100.4	999.4	860.2	700.8	577.7	565.9
0.195	0.56153	6.871	7	925.2	1158.8	1109.3	1006.4	864.7	702.7	577.9	565.9
0.205	0.56883	6.734	7	930.8	1168.7	1118.3	1013.4	869.2	704.6	578.1	566.0
0.215	0.57614	6.601	7	936.5	1178.7	1127.4	1020.5	873.7	706.4	578.4	566.1
0.225	0.58344	6.473	7	942.1	1188.8	1136.4	1027.6	878.2	708.3	578.6	566.2
0.235	0.59074	6.349	7	947.9	1199.0	1145.6	1034.7	882.7	710.1	578.9	566.3
0.245	0.59804	6.229	7	953.6	1209.2	1154.8	1041.9	887.2	712.0	579.1	566.4
0.255	0.60534	6.113	7	959.4	1219.4	1164.0	1049.0	891.8	713.8	579.3	566.4
0.265	0.61264	6.000	7	965.1	1229.8	1173.3	1056.3	896.4	715.7	579.6	566.5
0.275	0.61994	5.891	7	970.9	1240.2	1182.7	1063.5	900.9	717.6	579.8	566.6
0.285	0.62724	5.785	7	976.8	1250.6	1192.1	1070.8	905.5	719.4	580.0	566.7
0.295	0.63454	5.682	7	982.6	1261.1	1201.5	1078.1	910.1	721.3	580.3	566.7
0.305	0.64184	5.583	7	988.5	1271.7	1211.0	1085.5	914.7	723.1	580.5	566.8
0.315	0.64914	5.486	7	994.4	1282.4	1220.6	1092.9	919.4	725.0	580.7	566.9
0.325	0.65644	5.391	7	1000.4	1293.1	1230.2	1100.3	924.0	726.8	580.9	567.0
0.335	0.66472	5.294	7	1007.1	1303.3	1241.2	1108.8	929.3	728.9	581.2	567.1
0.345	0.67299	5.199	7	1013.9	1317.5	1252.2	1117.3	934.6	731.0	581.5	567.1
0.355	0.68126	5.107	7	1020.7	1329.9	1263.3	1125.8	939.9	733.1	581.7	567.2
0.365	0.68954	5.018	7	1027.5	1342.3	1274.5	1134.4	945.2	735.2	582.0	567.3
0.375	0.69781	4.930	7	1034.4	1354.9	1285.7	1143.1	950.6	737.3	582.2	567.4
0.385	0.70608	4.844	7	1041.3	1367.5	1297.0	1151.7	955.9	739.4	582.5	567.5
0.395	0.71436	4.760	7	1048.3	1380.1	1308.3	1160.5	961.3	741.5	582.7	567.5
0.405	0.72263	4.678	7	1055.2	1392.9	1319.8	1169.2	966.7	743.5	583.0	567.6
0.415	0.73091	4.599	7	1062.2	1405.7	1331.3	1178.0	972.1	745.6	583.2	567.7
0.425	0.73918	4.524	7	1069.3	1418.6	1342.8	1186.9	977.6	747.7	583.5	567.7
0.435	0.74745	4.451	7	1076.3	1431.6	1354.5	1195.8	983.0	749.8	583.7	567.8
0.445	0.75573	4.380	7	1083.4	1444.7	1366.2	1204.7	988.5	751.9	584.0	567.9
0.455	0.76400	4.311	7	1090.6	1457.9	1377.9	1213.7	994.0	754.0	584.2	568.0
0.465	0.77228	4.245	7	1097.7	1471.1	1389.8	1222.8	999.5	756.1	584.5	568.1
0.475	0.78055	4.180	7	1104.9	1484.4	1401.7	1231.9	1005.1	758.2	584.7	568.1
0.485	0.78882	4.117	7	1112.2	1497.8	1413.7	1241.0	1010.6	760.3	585.0	568.2
0.495	0.79710	4.055	7	1119.4	1511.3	1425.7	1250.2	1016.2	762.3	585.2	568.3
0.505	0.80537	3.995	7	1126.7	1524.8	1437.8	1259.4	1021.8	764.4	585.5	568.4
0.515	0.81365	3.937	7	1134.1	1538.4	1450.0	1268.7	1027.4	766.5	585.7	568.4
0.525	0.82192	3.880	7	1141.4	1552.1	1462.3	1278.0	1033.0	768.6	585.9	568.5
0.535	0.83019	3.824	7	1148.8	1565.9	1474.6	1287.4	1038.6	770.7	586.2	568.6
0.545	0.83847	3.769	7	1156.3	1579.7	1486.9	1296.8	1044.3	772.8	586.4	568.6
0.555	0.84674	3.716	7	1163.7	1593.6	1499.4	1306.2	1050.0	774.9	586.7	568.7
0.565	0.85502	3.664	7	1171.2	1607.6	1511.9	1315.7	1055.7	776.9	586.9	568.8
0.575	0.86329	3.613	7	1178.7	1621.7	1524.5	1325.3	1061.4	779.0	587.2	568.9
0.585	0.87156	3.563	7	1186.3	1635.8	1537.1	1334.8	1067.1	781.1	587.4	568.9
0.595	0.87984	3.515	7	1193.9	1650.0	1549.8	1344.5	1072.9	783.2	587.7	569.0
0.605	0.88811	3.467	7	1201.5	1664.2	1562.6	1354.2	1078.7	785.3	587.9	569.1
0.615	0.89639	3.420	7	1209.1	1678.6	1575.4	1363.9	1084.5	787.3	588.2	569.1
0.625	0.90466	3.375	7	1216.8	1692.9	1588.2	1373.6	1090.3	789.4	588.4	569.2
0.635	0.91293	3.330	7	1224.5	1707.4	1601.2	1383.4	1096.1	791.5	588.6	569.3
0.645	0.92121	3.286	7	1232.2	1721.9	1614.1	1393.3	1101.9	793.6	588.8	569.3
0.655	0.92948	3.246	7	1238.6	1733.8	1624.9	1401.4	1106.7	795.3	589.0	569.4
0.665	0.93338	3.210	7	1243.6	1743.3	1633.3	1407.8	1110.5	796.6	589.2	569.4
0.675	0.93873	3.175	7	1248.6	1752.7	1641.8	1414.2	1114.3	797.9	589.3	569.4
0.685	0.94408	3.141	7	1253.7	1762.2	1650.3	1420.6	1118.1	799.2	589.5	569.4
0.695	0.94944	3.107	7	1258.7	1771.7	1658.8	1427.1	1121.9	800.6	589.6	569.5
0.705	0.95479	3.073	7	1263.8	1781.2	1667.3	1433.6	1125.7	801.9	589.7	569.5
0.715	0.96014	3.041	7	1268.9	1790.8	1675.9	1440.0	1129.6	803.2	589.9	569.5
0.725	0.96550	3.008	7	1274.0	1800.3	1684.5	1446.6	1133.4	804.6	590.0	569.5
0.735	0.97085	2.977	7	1279.1	1809.9	1693.1	1453.1	1137.2	805.9	590.1	569.6

0.745	0.97620	2.945	7	1284.2	1819.5	1701.7	1459.6	1141.1	807.2	590.3	569.6
0.755	0.98156	2.914	7	1289.3	1829.1	1710.3	1466.2	1144.9	808.5	590.4	569.6
0.765	0.98691	2.884	7	1294.4	1838.8	1719.0	1472.8	1148.8	809.9	590.6	569.7
0.775	0.99227	2.853	7	1299.6	1848.5	1727.7	1479.4	1152.7	811.2	590.7	569.7
0.785	0.99762	2.823	7	1304.7	1858.1	1736.4	1486.0	1156.6	812.5	590.8	569.7
0.795	1.00297	2.792	7	1309.9	1867.8	1745.1	1492.6	1160.4	813.9	591.0	569.7
0.805	1.00833	2.761	7	1315.1	1877.5	1753.9	1499.2	1164.3	815.2	591.1	569.7
0.815	1.01307	2.733	7	1319.7	1886.2	1761.6	1505.1	1167.8	816.4	591.2	569.8
0.825	1.01599	2.709	7	1322.5	1891.5	1766.4	1508.8	1169.9	817.1	591.3	569.8
0.835	1.01891	2.686	7	1325.3	1896.7	1771.2	1512.4	1172.1	817.8	591.4	569.8
0.845	1.02183	2.663	7	1328.2	1901.9	1776.0	1516.1	1174.2	818.5	591.5	569.8
0.855	1.02475	2.641	7	1331.0	1907.1	1780.8	1519.7	1176.3	819.3	591.5	569.8
0.865	1.02767	2.620	7	1333.9	1912.4	1785.6	1523.4	1178.5	820.0	591.6	569.8
0.875	1.03059	2.599	7	1336.7	1917.6	1790.5	1527.1	1180.6	820.7	591.7	569.9
0.885	1.03351	2.578	7	1339.6	1922.8	1795.3	1530.7	1182.8	821.4	591.8	569.9
0.895	1.03643	2.557	7	1342.4	1928.1	1800.1	1534.4	1184.9	822.1	591.8	569.9
0.905	1.03935	2.537	7	1345.3	1933.3	1805.0	1538.1	1187.1	822.9	591.9	569.9
0.915	1.04227	2.517	7	1348.1	1938.6	1809.8	1541.8	1189.2	823.6	592.0	569.9
0.925	1.04520	2.497	7	1351.0	1943.8	1814.6	1545.5	1191.4	824.3	592.1	569.9
0.935	1.04812	2.478	7	1353.9	1949.1	1819.5	1549.2	1193.5	825.0	592.1	569.9
0.945	1.05104	2.459	7	1356.7	1954.3	1824.3	1552.9	1195.7	825.8	592.2	570.0
0.955	1.05396	2.440	7	1359.6	1959.6	1829.2	1556.6	1197.9	826.5	592.3	570.0
0.965	1.05688	2.421	7	1362.5	1964.8	1834.1	1560.3	1200.0	827.2	592.4	570.0
0.975	1.05980	2.402	7	1365.3	1970.1	1838.9	1564.0	1202.2	827.9	592.4	570.0
0.985	1.06126	2.386	7	1366.8	1972.7	1841.4	1565.9	1203.3	828.3	592.5	570.0
0.995	1.06272	2.369	7	1368.2	1975.4	1843.8	1567.7	1204.4	828.7	592.5	570.0
1.005	1.06418	2.353	7	1369.7	1978.0	1846.2	1569.6	1205.5	829.0	592.5	570.0
1.015	1.06564	2.337	7	1371.1	1980.7	1848.7	1571.4	1206.5	829.4	592.6	570.0
1.025	1.06710	2.321	7	1372.6	1983.3	1851.1	1573.3	1207.6	829.8	592.6	570.0
1.035	1.06856	2.306	7	1374.0	1985.9	1853.5	1575.2	1208.7	830.1	592.7	570.0
1.045	1.07002	2.290	7	1375.4	1988.6	1856.0	1577.0	1209.8	830.5	592.7	570.0
1.055	1.07148	2.275	7	1376.9	1991.2	1858.4	1578.9	1210.9	830.8	592.7	570.1
1.065	1.07294	2.260	7	1378.3	1993.9	1860.9	1580.8	1212.0	831.2	592.8	570.1
1.075	1.07440	2.245	7	1379.8	1996.5	1863.3	1582.6	1213.1	831.6	592.8	570.1
1.085	1.07586	2.230	7	1381.2	1999.1	1865.8	1584.5	1214.2	831.9	592.8	570.1
1.095	1.07732	2.216	7	1382.7	2001.8	1868.2	1586.4	1215.3	832.3	592.9	570.1
1.105	1.07878	2.201	7	1384.1	2004.4	1870.7	1588.3	1216.3	832.7	592.9	570.1
1.115	1.08024	2.187	7	1385.6	2007.1	1873.1	1590.1	1217.4	833.0	593.0	570.1
1.125	1.08170	2.173	7	1387.0	2009.7	1875.6	1592.0	1218.5	833.4	593.0	570.1
1.135	1.08316	2.159	7	1388.5	2012.3	1878.0	1593.9	1219.6	833.7	593.0	570.1
1.145	1.08425	2.145	7	1389.6	2014.3	1879.8	1595.3	1220.4	834.0	593.1	570.1
1.155	1.08523	2.132	7	1390.5	2016.1	1881.5	1596.6	1221.2	834.3	593.1	570.1
1.165	1.08620	2.118	7	1391.5	2017.9	1883.1	1597.8	1221.9	834.5	593.1	570.1
1.175	1.08717	2.105	7	1392.5	2019.6	1884.7	1599.1	1222.6	834.7	593.1	570.1
1.185	1.08815	2.091	7	1393.4	2021.4	1886.4	1600.3	1223.4	835.0	593.2	570.1
1.195	1.08912	2.077	7	1394.4	2023.1	1888.0	1601.6	1224.1	835.2	593.2	570.1
1.205	1.09009	2.063	7	1395.4	2024.9	1889.6	1602.8	1224.8	835.4	593.2	570.1
1.215	1.09107	2.050	7	1396.3	2026.7	1891.3	1604.1	1225.5	835.7	593.2	570.1
1.225	1.09204	2.037	7	1397.3	2028.3	1892.8	1605.3	1226.3	835.9	593.3	570.1
1.235	1.09301	2.025	7	1398.2	2029.9	1894.4	1606.6	1227.0	836.2	593.3	570.1
1.245	1.09399	2.013	7	1399.2	2031.5	1895.9	1607.8	1227.7	836.4	593.3	570.2
1.255	1.09496	2.001	7	1400.1	2033.1	1897.5	1609.1	1228.5	836.7	593.3	570.2
1.265	1.09593	1.990	7	1401.1	2034.8	1899.0	1610.3	1229.2	836.9	593.4	570.2
1.275	1.09691	1.978	7	1402.0	2036.4	1900.6	1611.6	1229.9	837.1	593.4	570.2
1.285	1.09788	1.967	7	1403.0	2038.0	1902.1	1612.9	1230.7	837.4	593.4	570.2
1.295	1.09885	1.956	7	1403.9	2039.6	1903.7	1614.1	1231.4	837.6	593.4	570.2
1.305	1.09958	1.946	7	1404.6	2040.8	1904.8	1615.1	1232.0	837.8	593.4	570.2
1.315	1.10007	1.935	7	1405.1	2041.6	1905.6	1615.7	1232.3	837.9	593.5	570.2
1.325	1.10056	1.925	7	1405.6	2042.4	1906.4	1616.3	1232.7	838.0	593.5	570.2
1.335	1.10104	1.915	7	1406.1	2043.3	1907.1	1617.0	1233.1	838.2	593.5	570.2
1.345	1.10153	1.905	7	1406.5	2044.1	1907.9	1617.6	1233.4	838.3	593.5	570.2
1.355	1.10202	1.895	7	1407.0	2044.9	1908.7	1618.2	1233.8	838.4	593.5	570.2

1.365	1.10250	1.885	7	1407.5	2045.7	1909.5	1618.8	1234.2	838.5	593.5	570.2
1.375	1.10299	1.875	7	1408.0	2046.5	1910.2	1619.5	1234.5	838.6	593.5	570.2
1.385	1.10348	1.866	7	1408.4	2047.3	1911.0	1620.1	1234.9	838.8	593.5	570.2
1.395	1.10396	1.856	7	1408.9	2048.1	1911.8	1620.7	1235.3	838.9	593.6	570.2
1.405	1.10445	1.847	7	1409.4	2048.9	1912.6	1621.4	1235.6	839.0	593.6	570.2
1.415	1.10494	1.837	7	1409.9	2049.7	1913.3	1622.0	1236.0	839.1	593.6	570.2
1.425	1.10542	1.828	7	1410.4	2050.5	1914.1	1622.6	1236.4	839.2	593.6	570.2
1.435	1.10591	1.819	7	1410.8	2051.3	1914.9	1623.3	1236.7	839.4	593.6	570.2
1.445	1.10640	1.810	7	1411.3	2052.2	1915.7	1623.9	1237.1	839.5	593.6	570.2
1.455	1.10689	1.801	7	1411.8	2053.0	1916.4	1624.5	1237.5	839.6	593.6	570.2
1.465	1.10713	1.792	7	1412.0	2053.4	1916.8	1624.9	1237.7	839.7	593.6	570.2
1.475	1.10664	1.784	7	1411.5	2052.6	1916.1	1624.2	1237.3	839.6	593.6	570.2
1.485	1.10616	1.775	7	1411.1	2051.8	1915.3	1623.6	1236.9	839.4	593.6	570.2
1.495	1.10567	1.767	7	1410.6	2050.9	1914.5	1623.0	1236.5	839.3	593.6	570.2
1.505	1.10518	1.759	7	1410.1	2050.1	1913.7	1622.3	1236.2	839.2	593.6	570.2
1.515	1.10469	1.751	7	1409.6	2049.3	1913.0	1621.7	1235.8	839.1	593.6	570.2
1.525	1.10421	1.743	7	1409.2	2048.5	1912.2	1621.1	1235.4	839.0	593.6	570.2
1.535	1.10372	1.736	7	1408.7	2047.7	1911.4	1620.4	1235.1	838.8	593.6	570.2
1.545	1.10323	1.728	7	1408.2	2046.9	1910.6	1619.8	1234.7	838.7	593.5	570.2
1.555	1.10275	1.720	7	1407.7	2046.1	1909.9	1619.2	1234.3	838.6	593.5	570.2
1.565	1.10226	1.712	7	1407.3	2045.3	1909.1	1618.5	1234.0	838.5	593.5	570.2
1.575	1.10177	1.704	7	1406.8	2044.5	1908.3	1617.9	1233.6	838.3	593.5	570.2
1.585	1.10129	1.696	7	1406.3	2043.7	1907.5	1617.3	1233.2	838.2	593.5	570.2
1.595	1.10080	1.687	7	1405.8	2042.8	1906.7	1616.6	1232.9	838.1	593.5	570.2
1.605	1.10031	1.678	7	1405.3	2042.0	1906.0	1616.0	1232.5	838.0	593.5	570.2
1.615	1.09983	1.670	7	1404.9	2041.2	1905.2	1615.4	1232.1	837.9	593.4	570.2
1.625	1.09934	1.663	7	1404.4	2040.4	1904.4	1614.7	1231.8	837.7	593.4	570.2
1.635	1.09887	1.656	7	1403.4	2038.8	1902.9	1613.5	1231.0	837.5	593.4	570.2
1.645	1.09739	1.649	7	1402.5	2037.2	1901.3	1612.2	1230.3	837.2	593.4	570.2
1.655	1.09642	1.642	7	1401.5	2035.6	1899.8	1611.0	1229.6	837.0	593.4	570.2
1.665	1.09545	1.636	7	1400.6	2033.9	1898.2	1609.7	1228.8	836.8	593.3	570.2
1.675	1.09447	1.630	7	1399.6	2032.3	1896.7	1608.4	1228.1	836.5	593.3	570.1
1.685	1.09350	1.623	7	1398.7	2030.7	1895.1	1607.2	1227.4	836.3	593.3	570.1
1.695	1.09253	1.617	7	1397.7	2029.1	1893.6	1605.9	1226.6	836.0	593.3	570.1
1.705	1.09155	1.611	7	1396.8	2027.5	1892.1	1604.7	1225.9	835.8	593.2	570.1
1.715	1.09058	1.605	7	1395.8	2025.8	1890.4	1603.4	1225.2	835.6	593.2	570.1
1.725	1.08961	1.599	7	1394.9	2024.0	1888.8	1602.2	1224.4	835.3	593.2	570.1
1.735	1.08863	1.593	7	1393.9	2022.2	1887.2	1600.9	1223.7	835.1	593.2	570.1
1.745	1.08766	1.587	7	1392.9	2020.5	1885.5	1599.7	1223.0	834.8	593.1	570.1
1.755	1.08669	1.581	7	1392.0	2018.7	1883.9	1598.4	1222.2	834.6	593.1	570.1
1.765	1.08571	1.575	7	1391.0	2016.9	1882.3	1597.2	1221.5	834.4	593.1	570.1
1.775	1.08474	1.569	7	1390.0	2015.2	1880.6	1595.9	1220.8	834.1	593.1	570.1
1.785	1.08377	1.564	7	1389.1	2013.4	1879.0	1594.6	1220.1	833.9	593.0	570.1
1.795	1.08243	1.558	7	1387.7	2011.0	1876.8	1592.9	1219.1	833.5	593.0	570.1
1.805	1.08097	1.553	7	1386.3	2008.4	1874.3	1591.1	1218.0	833.2	593.0	570.1
1.815	1.07951	1.547	7	1384.8	2005.7	1871.9	1589.2	1216.9	832.8	592.9	570.1
1.825	1.07805	1.542	7	1383.4	2003.1	1869.4	1587.3	1215.8	832.5	592.9	570.1
1.835	1.07659	1.537	7	1381.9	2000.4	1867.0	1585.4	1214.7	832.1	592.9	570.1
1.845	1.07513	1.532	7	1380.5	1997.8	1864.5	1583.6	1213.6	831.7	592.8	570.1
1.855	1.07367	1.526	7	1379.0	1995.1	1862.1	1581.7	1212.5	831.4	592.8	570.1
1.865	1.07221	1.521	7	1377.6	1992.5	1859.6	1579.8	1211.4	831.0	592.7	570.0
1.875	1.07075	1.516	7	1376.1	1989.9	1857.2	1578.0	1210.3	830.6	592.7	570.0
1.885	1.06929	1.511	7	1374.7	1987.2	1854.7	1576.1	1209.2	830.3	592.7	570.0
1.895	1.06783	1.506	7	1373.3	1984.6	1852.3	1574.2	1208.2	829.9	592.6	570.0
1.905	1.06637	1.501	7	1371.8	1982.0	1849.9	1572.4	1207.1	829.6	592.6	570.0
1.915	1.06491	1.496	7	1370.4	1979.3	1847.4	1570.5	1206.0	829.2	592.6	570.0
1.925	1.06345	1.491	7	1368.9	1976.7	1845.0	1568.6	1204.9	828.8	592.5	570.0
1.935	1.06199	1.486	7	1367.5	1974.0	1842.6	1566.8	1203.8	828.5	592.5	570.0
1.945	1.06053	1.481	7	1366.1	1971.4	1840.1	1564.9	1202.7	828.1	592.4	570.0
1.955	1.05834	1.477	7	1363.9	1967.5	1836.5	1562.1	1201.1	827.6	592.4	570.0
1.965	1.05542	1.472	7	1361.0	1962.2	1831.6	1558.4	1198.9	826.8	592.3	570.0
1.975	1.05250	1.468	7	1358.1	1956.9	1826.7	1554.7	1196.8	826.1	592.2	570.0

1.985	1.04958	1.463	7	1355.3	1951.7	1821.9	1551.0	1194.6	825.4	592.2	569.9
1.995	1.04666	1.458	7	1352.4	1946.4	1817.0	1547.3	1192.4	824.7	592.1	569.9
2.005	1.04374	1.452	7	1349.5	1941.1	1812.2	1543.6	1190.3	823.9	592.0	569.9
2.015	1.04082	1.448	7	1346.7	1935.9	1807.3	1539.9	1188.1	823.2	591.9	569.9
2.025	1.03790	1.443	7	1343.8	1930.7	1802.5	1536.2	1186.0	822.5	591.8	569.9
2.035	1.03498	1.439	7	1341.0	1925.4	1797.7	1532.5	1183.8	821.8	591.8	569.9
2.045	1.03205	1.436	7	1338.1	1920.2	1792.8	1528.9	1181.7	821.0	591.7	569.8
2.055	1.02913	1.432	7	1335.3	1914.9	1788.0	1525.2	1179.5	820.3	591.6	569.8
2.065	1.02621	1.428	7	1332.4	1909.7	1783.2	1521.5	1177.4	819.6	591.5	569.8
2.075	1.02329	1.425	7	1329.6	1904.5	1778.4	1517.9	1175.2	818.9	591.5	569.8
2.085	1.02037	1.421	7	1326.7	1899.3	1773.6	1514.2	1173.1	818.1	591.4	569.8
2.095	1.01745	1.418	7	1323.9	1894.1	1768.8	1510.6	1171.0	817.4	591.3	569.8
2.105	1.01453	1.415	7	1321.1	1888.8	1764.0	1506.9	1168.8	816.7	591.2	569.8
2.115	1.01149	1.411	7	1318.1	1883.3	1759.0	1503.1	1166.6	815.9	591.2	569.7
2.125	1.00808	1.408	7	1314.8	1877.1	1753.4	1498.9	1164.1	815.1	591.1	569.7
2.135	1.00468	1.405	7	1311.5	1870.9	1747.9	1494.7	1161.6	814.3	591.0	569.7
2.145	1.00127	1.402	7	1308.2	1864.7	1742.3	1490.4	1159.2	813.4	590.9	569.7
2.155	0.99786	1.399	7	1304.9	1858.5	1736.8	1486.2	1156.7	812.6	590.8	569.7
2.165	0.99446	1.396	7	1301.6	1852.4	1731.2	1482.0	1154.2	811.7	590.7	569.7
2.175	0.99105	1.393	7	1298.4	1846.2	1725.7	1477.8	1151.8	810.9	590.6	569.6
2.185	0.98764	1.390	7	1295.1	1840.1	1720.1	1473.6	1149.3	810.0	590.6	569.6
2.195	0.98424	1.387	7	1291.8	1833.9	1714.6	1469.4	1146.8	809.2	590.5	569.6
2.205	0.98083	1.384	7	1288.6	1827.8	1709.1	1465.2	1144.4	808.3	590.4	569.6
2.215	0.97742	1.381	7	1285.3	1821.6	1703.6	1461.1	1141.9	807.5	590.3	569.6
2.225	0.97402	1.379	7	1282.0	1815.5	1698.1	1456.9	1139.5	806.6	590.2	569.6
2.235	0.97061	1.376	7	1278.8	1809.4	1692.6	1452.7	1137.0	805.8	590.1	569.5
2.245	0.96720	1.373	7	1275.5	1803.3	1687.2	1448.6	1134.6	805.0	590.0	569.5
2.255	0.96379	1.370	7	1272.3	1797.2	1681.7	1444.4	1132.1	804.1	589.9	569.5
2.265	0.96039	1.368	7	1269.1	1791.1	1676.2	1440.3	1129.7	803.3	589.8	569.5
2.275	0.95698	1.365	7	1265.8	1785.1	1670.8	1436.2	1127.3	802.4	589.8	569.5
2.285	0.95357	1.363	7	1262.6	1779.0	1665.3	1432.1	1124.9	801.5	589.7	569.5
2.295	0.95016	1.361	7	1259.4	1772.9	1660.4	1428.0	1122.5	800.6	589.6	569.5
2.305	0.94675	1.359	7	1256.2	1766.8	1655.5	1423.9	1120.1	799.7	589.5	569.4
2.315	0.94334	1.357	7	1253.0	1760.7	1650.6	1419.8	1117.7	798.8	589.4	569.4
2.325	0.93993	1.355	7	1249.8	1754.6	1645.7	1415.7	1115.3	797.9	589.3	569.4
2.335	0.93652	1.354	7	1246.6	1748.5	1640.8	1411.6	1112.9	797.0	589.2	569.4
2.345	0.93311	1.352	7	1243.4	1742.4	1635.9	1407.5	1110.5	796.1	589.1	569.3
2.355	0.92970	1.350	7	1240.2	1736.3	1631.0	1403.4	1108.1	795.2	589.0	569.3
2.365	0.92629	1.348	7	1237.0	1730.2	1626.1	1399.3	1105.7	794.3	588.9	569.3
2.375	0.92288	1.346	7	1233.8	1724.1	1621.2	1395.2	1103.3	793.4	588.8	569.3
2.385	0.91947	1.344	7	1230.6	1718.0	1616.3	1391.1	1100.9	792.5	588.7	569.3
2.395	0.91606	1.342	7	1227.4	1711.9	1611.4	1387.0	1098.5	791.6	588.6	569.3
2.405	0.91265	1.340	7	1224.2	1705.8	1606.5	1382.9	1096.1	790.7	588.5	569.2
2.415	0.90924	1.338	7	1221.0	1700.0	1601.6	1378.8	1093.7	789.8	588.4	569.2
2.425	0.90583	1.336	7	1217.8	1694.1	1596.7	1374.7	1091.3	788.9	588.3	569.2
2.435	0.90242	1.334	7	1214.6	1688.2	1591.8	1370.6	1088.9	788.0	588.2	569.2
2.445	0.89901	1.332	7	1211.4	1682.3	1586.9	1366.5	1086.5	787.1	588.1	569.1
2.455	0.89560	1.330	7	1208.2	1676.4	1582.0	1362.4	1084.1	786.2	588.0	569.1
2.465	0.89219	1.328	7	1205.0	1670.5	1577.1	1358.3	1081.7	785.3	587.9	569.1
2.475	0.88878	1.326	7	1201.8	1664.6	1572.2	1354.2	1079.3	784.4	587.8	569.1
2.485	0.88537	1.324	7	1198.6	1658.7	1567.3	1350.1	1076.9	783.5	587.7	569.1
2.495	0.88196	1.322	7	1195.4	1652.8	1562.4	1346.0	1074.5	782.6	587.6	569.1
2.505	0.87855	1.320	7	1192.2	1646.9	1557.5	1341.9	1072.1	781.7	587.5	569.0
2.515	0.87514	1.318	7	1189.0	1641.0	1552.6	1337.8	1069.7	780.8	587.4	569.0
2.525	0.87173	1.316	7	1185.8	1635.1	1547.7	1333.7	1067.3	779.9	587.3	569.0
2.535	0.86832	1.314	7	1182.6	1629.2	1542.8	1329.6	1064.9	779.0	587.2	569.0
2.545	0.86491	1.312	7	1179.4	1623.3	1537.9	1325.5	1062.5	778.1	587.1	568.9
2.555	0.86150	1.310	7	1176.2	1617.4	1533.0	1321.4	1060.1	777.2	587.0	568.9
2.565	0.85809	1.308	7	1173.0	1611.5	1528.1	1317.3	1057.7	776.3	586.9	568.9
2.575	0.85468	1.306	7	1169.8	1605.6	1523.2	1313.2	1055.3	775.4	586.8	568.9
2.585	0.85127	1.304	7	1166.6	1599.7	1518.3	1309.1	1052.9	774.5	586.7	568.9
2.595	0.84786	1.302	7	1163.4	1593.8	1513.4	1305.0	1050.5	773.6	586.6	568.8
2.605	0.84445	1.300	7	1160.2	1587.9	1508.5	1300.9	1048.1	772.7	586.5	568.8
2.615	0.84104	1.298	7	1157.0	1582.0	1503.6	1296.8	1045.7	771.8	586.4	568.8
2.625	0.83763	1.296	7	1153.8	1576.1	1498.7	1292.7	1043.3	770.9	586.3	568.8
2.635	0.83422	1.294	7	1150.6	1570.2	1493.8	1288.6	1040.9	770.0	586.2	568.8
2.645	0.83081	1.292	7	1147.4	1564.3	1488.9	1284.5	1038.5	769.1	586.1	568.7
2.655	0.82740	1.290	7	1144.2	1558.4	1484.0	1280.4	1036.1	768.2	586.0	568.7
2.665	0.82399	1.288	7	1141.0	1552.5	1479.1	1276.3	1033.7	767.3	585.9	568.7
2.675	0.82058	1.286	7	1137.8	1546.6	1474.2	1272.2	1031.3	766.4	585.8	568.7
2.685	0.81717	1.284	7	1134.6	1540.7	1469.3	1268.1	1028.9	765.5	585.7	568.7
2.695	0.81376	1.282	7	1131.4	1534.8	1464.4	1264.0	1026.5	764.6	585.6	568.7
2.705	0.81035	1.280	7	1128.2	1528.9	1459.5	1259.9	1024.1	763.7	585.5	568.6
2.715	0.80694	1.278	7	1125.0	1523.0	1454.6	1255.8	1021.7	762.8	585.4	568.6
2.725	0.80353	1.276	7	1121.8	1517.1	1449.7	1251.7	1019.3	761.9	585.3	568.6
2.735	0.80012	1.274	7	1118.6	1511.2	1444.8	1247.6	1016.9	761.0	585.2	568.6
2.745	0.79671	1.272	7	1115.4	1505.3	1439.9	1243.5	1014.5	760.1	585.1	568.6
2.755	0.79330	1.270	7	1112.2	1499.4	1435.0	1239.4	1012.1	759.2	585.0	568.6
2.765	0.78989	1.268	7	1109.0	1493.5	1430.1	1235.3	1009.7	758.3	584.9	568.6
2.775	0.78648	1.266	7	1105.8	1487.6	1425.2	1231.2	1007.3	757.4	584.8	568.6
2.785	0.78307	1.264	7	1102.6	1481.7	1420.3	1227.1	1004.9	756.5	584.7	568.6
2.795	0.77966	1.262	7	1099.4	1475.8	1415.4	1223.0	1002.5	755.6	584.6	568.6
2.805	0.77625	1.260	7	1096.2	1469.9	1410.5	1218.9	1000.1	754.7	584.5	568.6
2.815	0.77284	1.258	7	1093.0	1464.0	1405.6	1214.8	997.7	753.8	584.4	568.6
2.825	0.76943	1.256	7	1089.8	1458.1	1400.7	1210.7	995.3	752.9	584.3	568.6
2.835	0.76602	1.254	7	1086.6	1452.2	1395.8	1206.6	992.9	752.0	584.2	568.6
2.845	0.76261	1.252	7	1083.4	1446.3	1390.9	1202.5	990.5	751.1	584.1	568.6
2.855	0.75920	1.250	7	1080.2	1440.4	1386.0	1198.4	988.1	750.2	584.0	568.6
2.865	0.75579	1.248	7	1077.0	1434.5	1381.1	1194.3	985.7	749.3	583.9	568.6
2.875	0.75238	1.246	7	1073.8	1428.6	1376.2	1190.2	983.3	748.4	583.8	568.6
2.885	0.74897	1.244	7	1070.6	1422.7	1371.3	1186.1	980.9	747.5	583.7	568.6
2.895	0.74556	1.242	7	1067.4	1416.8	1366.4	1182.0	978.5	746.6	583.6	568.6
2.905	0.74215	1.240	7	1064.2	1410.9	1361.5	1177.9	976.1	745.7	583.5	568.6
2.915	0.73874	1.238	7	1061.0	1405.0	1356.6	1173.8	973.7	744.8	583.4	568.6
2.925	0.73533	1.236	7	1057.8	1399.1	1351.7	1169.7	971.3	743.9	583.3	568.6
2.935	0.73192	1.234	7	1054.6	1393.2	1346.8	1165.6	968.9	743.0	583.2	568.6
2.945	0.72851	1.232	7	1051.4	1387.3	1341.9					

2.605	0.78822	1.309	7	1112.2	1497.4	1413.4	1240.9	1010.7	760.5	585.3	568.6
2.615	0.78286	1.308	7	1107.5	1488.8	1405.7	1235.0	1007.1	759.1	585.2	568.5
2.625	0.77751	1.308	7	1102.9	1480.2	1398.0	1229.1	1003.5	757.8	585.0	568.5
2.635	0.77216	1.307	7	1098.2	1471.6	1390.3	1223.3	1000.0	756.5	584.9	568.5
2.645	0.76680	1.306	7	1093.6	1463.1	1382.7	1217.5	996.4	755.1	584.7	568.5
2.655	0.76145	1.305	7	1089.0	1454.6	1375.1	1211.6	992.9	753.8	584.6	568.4
2.665	0.75609	1.304	7	1084.4	1446.1	1367.5	1205.9	989.4	752.5	584.5	568.4
2.675	0.75074	1.304	7	1079.8	1437.7	1359.9	1200.1	985.8	751.2	584.3	568.4
2.685	0.74539	1.303	7	1075.3	1429.2	1352.4	1194.3	982.3	749.8	584.2	568.3
2.695	0.74003	1.302	7	1070.7	1420.9	1344.9	1188.6	978.8	748.5	584.0	568.3
2.705	0.73468	1.301	7	1066.2	1412.5	1337.4	1182.9	975.3	747.2	583.9	568.3
2.715	0.72933	1.300	7	1061.7	1404.2	1330.0	1177.2	971.8	745.8	583.7	568.3
2.725	0.72397	1.300	7	1057.1	1395.9	1322.6	1171.5	968.3	744.5	583.6	568.2
2.735	0.71862	1.299	7	1052.7	1387.7	1315.2	1165.8	964.9	743.2	583.5	568.2
2.745	0.71326	1.298	7	1048.2	1379.5	1307.8	1160.2	961.4	741.8	583.3	568.2
2.755	0.70791	1.298	7	1043.7	1371.3	1300.5	1154.6	957.9	740.5	583.2	568.1
2.765	0.70268	1.297	7	1039.3	1363.3	1293.4	1149.1	954.6	739.2	583.0	568.1
2.775	0.69781	1.295	7	1035.3	1356.0	1286.7	1144.0	951.4	738.0	582.9	568.1
2.785	0.69295	1.294	7	1031.3	1348.6	1280.2	1139.0	948.3	736.8	582.8	568.0
2.795	0.68808	1.292	7	1027.2	1341.3	1273.6	1133.9	945.2	735.5	582.6	568.0
2.805	0.68321	1.290	7	1023.2	1334.0	1267.0	1128.9	942.0	734.3	582.5	568.0
2.815	0.67834	1.289	7	1019.2	1326.7	1260.5	1123.8	938.9	733.1	582.4	567.9
2.825	0.67348	1.287	7	1015.3	1319.5	1254.0	1118.8	935.8	731.9	582.2	567.9
2.835	0.66861	1.286	7	1011.3	1312.3	1247.5	1113.9	932.7	730.7	582.1	567.9
2.845	0.66374	1.286	7	1007.3	1305.1	1241.1	1108.9	929.6	729.5	582.0	567.8
2.855	0.65888	1.285	7	1003.4	1297.9	1234.7	1103.9	926.6	728.2	581.8	567.8
2.865	0.65401	1.285	7	999.4	1290.8	1228.3	1099.0	923.5	727.0	581.7	567.8
2.875	0.64914	1.284	7	995.5	1283.7	1221.9	1094.1	920.4	725.8	581.6	567.8
2.885	0.64427	1.284	7	991.6	1276.6	1215.5	1089.2	917.3	724.6	581.4	567.7
2.895	0.63941	1.283	7	987.7	1269.6	1209.2	1084.3	914.3	723.4	581.3	567.7
2.905	0.63454	1.283	7	983.8	1262.6	1202.9	1079.4	911.2	722.2	581.2	567.7
2.915	0.62967	1.283	7	979.9	1255.6	1196.6	1074.5	908.2	721.0	581.0	567.6
2.925	0.62481	1.282	7	976.0	1248.6	1190.4	1069.7	905.1	719.7	580.9	567.6
2.935	0.62091	1.282	7	973.0	1243.1	1185.4	1065.8	902.7	718.8	580.8	567.6
2.945	0.61702	1.281	7	969.9	1237.5	1180.4	1062.0	900.3	717.8	580.7	567.6
2.955	0.61313	1.281	7	966.8	1232.0	1175.4	1058.1	897.9	716.8	580.6	567.5
2.965	0.60923	1.280	7	963.7	1226.5	1170.5	1054.3	895.5	715.9	580.5	567.5
2.975	0.60534	1.280	7	960.7	1221.0	1165.6	1050.5	893.0	714.9	580.4	567.5
2.985	0.60144	1.279	7	957.6	1215.6	1160.7	1046.6	890.6	713.9	580.3	567.5
2.995	0.59755	1.278	7	954.6	1210.1	1155.8	1042.8	888.2	712.9	580.2	567.4
3.005	0.59366	1.278	7	951.5	1204.7	1150.9	1039.0	885.8	712.0	580.1	567.4
3.015	0.58976	1.277	7	948.5	1199.3	1146.0	1035.3	883.4	711.0	579.9	567.4
3.025	0.58587	1.277	7	945.5	1193.9	1141.1	1031.5	881.0	710.0	579.8	567.4
3.035	0.58198	1.276	7	942.5	1188.5	1136.3	1027.7	878.7	709.1	579.7	567.3
3.045	0.57808	1.276	7	939.4	1183.2	1131.5	1023.9	876.3	708.1	579.6	567.3
3.055	0.57419	1.275	7	936.4	1177.9	1126.7	1020.2	873.9	707.1	579.5	567.3
3.065	0.57030	1.275	7	933.4	1172.5	1121.9	1016.5	871.5	706.1	579.4	567.3
3.075	0.56640	1.275	7	930.4	1167.2	1117.1	1012.7	869.1	705.2	579.3	567.2
3.085	0.56251	1.274	7	927.5	1161.9	1112.3	1009.0	866.8	704.2	579.2	567.2
3.095	0.55862	1.274	7	924.8	1157.2	1108.0	1005.6	864.6	703.3	579.1	567.2
3.105	0.55473	1.273	7	922.2	1152.6	1103.9	1002.4	862.6	702.5	579.0	567.2
3.115	0.55084	1.272	7	919.6	1148.0	1099.7	999.2	860.5	701.6	578.9	567.2
3.125	0.54695	1.272	7	917.0	1143.4	1095.6	995.9	858.4	700.8	578.8	567.1
3.135	0.54306	1.271	7	914.4	1138.9	1091.5	992.7	856.4	699.9	578.7	567.1
3.145	0.53917	1.271	7	911.8	1134.3	1087.4	989.5	854.3	699.1	578.6	567.1
3.155	0.53528	1.270	7	909.2	1129.8	1083.3	986.3	852.3	698.2	578.5	567.1
3.165	0.53139	1.270	7	906.7	1125.3	1079.2	983.1	850.2	697.4	578.4	567.0
3.175	0.52750	1.269	7	904.1	1120.8	1075.1	979.9	848.2	696.5	578.3	567.0
3.185	0.52361	1.269	7	901.6	1116.3	1071.1	976.7	846.1	695.7	578.2	567.0
3.195	0.51972	1.269	7	899.0	1111.8	1067.0	973.6	844.1	694.8	578.2	567.0
3.205	0.51583	1.268	7	896.5	1107.3	1063.0	970.4	842.1	693.9	578.1	566.9
3.215	0.51194	1.268	7	893.9	1102.9	1059.0	967.2	840.0	693.1	578.0	566.9

3.225	0.51469	1.267	7	891.4	1098.4	1055.0	964.1	838.0	692.2	577.9	566.9
3.235	0.51128	1.267	7	888.8	1094.0	1051.0	960.9	836.0	691.4	577.8	566.9
3.245	0.50788	1.266	7	886.3	1089.6	1047.0	957.8	833.9	690.5	577.7	566.9
3.255	0.50471	1.266	7	884.0	1085.5	1043.3	954.9	832.1	689.7	577.6	566.8
3.265	0.50179	1.266	7	881.8	1081.8	1039.9	952.2	830.3	689.0	577.5	566.8
3.275	0.49887	1.265	7	879.7	1078.0	1036.5	949.5	828.6	688.3	577.4	566.8
3.285	0.49595	1.264	7	877.5	1074.3	1033.1	946.9	826.9	687.6	577.3	566.8
3.295	0.49303	1.264	7	875.4	1070.5	1029.7	944.2	825.1	686.8	577.3	566.8
3.305	0.49011	1.263	7	873.2	1066.8	1026.3	941.5	823.4	686.1	577.2	566.7
3.315	0.48719	1.263	7	871.1	1063.1	1023.0	938.9	821.7	685.4	577.1	566.7
3.325	0.48427	1.263	7	868.9	1059.4	1019.6	936.2	820.0	684.6	577.0	566.7
3.335	0.48135	1.262	7	866.8	1055.7	1016.3	933.6	818.3	683.9	576.9	566.7
3.345	0.47843	1.262	7	864.7	1052.0	1012.9	930.9	816.6	683.2	576.8	566.7
3.355	0.47551	1.261	7	862.6	1048.3	1009.6	928.3	814.8	682.4	576.8	566.6
3.365	0.47259	1.261	7	860.4	1044.7	1006.3	925.7	813.1	681.7	576.7	566.6
3.375	0.46967	1.260	7	858.3	1041.0	1002.9	923.1	811.4	681.0	576.6	566.6
3.385	0.46675	1.260	7	856.2	1037.4	999.6	920.4	809.7	680.2	576.5	566.6
3.395	0.46383	1.260	7	854.1	1033.7	996.3	917.8	808.0	679.5	576.4	566.5
3.405	0.46091	1.259	7	852.0	1030.1	993.0	915.2	806.3	678.8	576.4	566.5
3.415	0.45811	1.259	7	850.0	1026.6	989.9	912.7	804.7	678.1	576.3	566.5
3.425	0.45568	1.258	7	848.2	1023.6	987.2	910.6	803.3	677.5	576.2	566.5
3.435	0.45324	1.258	7	846.5	1020.6	984.4	908.4	801.8	676.9	576.1	566.5
3.445	0.45081	1.257	7	844.7	1017.6	981.7	906.2	800.4	676.2	576.1	566.5
3.455	0.44838	1.257	7	843.0	1014.6	979.0	904.1	799.0	675.6	576.0	566.4
3.465	0.44594	1.256	7	841.3	1011.6	976.3	901.9	797.6	675.0	575.9	566.4
3.475	0.44351	1.256	7	839.5	1008.6	973.6	899.8	796.2	674.4	575.9	566.4
3.485	0.44108	1.255	7	837.8	1005.7	970.9	897.6	794.8	673.8	575.8	566.4
3.495	0.43864	1.255	7	836.1	1002.7	968.2	895.5	793.4	673.2	575.7	566.4
3.505	0.43621	1.254	7	834.3	999.7	965.5	893.4	792.0	672.6	575.7	566.3
3.515	0.43378	1.254	7	832.6	996.8	962.8	891.2	790.6	672.0	575.6	566.3
3.525	0.43134	1.253	7	830.9	993.8	960.1	889.1	789.2	671.4	575.5	566.3
3.535	0.42891	1.253	7	829.2	990.9	957.4	887.0	787.8	670.8	575.4	566.3
3.545	0.42647	1.253	7	827.5	988.0	954.8	884.8	786.4	670.1	575.4	566.3
3.555	0.42404	1.252	7	825.7	985.0	952.1	882.7	785.0	669.5	575.3	566.3
3.565	0.42161	1.252	7	824.0	982.1	949.5	880.6	783.6	668.9	575.2	566.2
3.575	0.41917	1.251	7	822.3	979.2	946.8	878.5	782.2	668.3	575.2	566.2
3.585	0.41577	1.251	7	819.9	975.1	943.1	875.5	780.3	667.5	575.1	566.2
3.595	0.41236	1.251	7	817.5	971.1	939.4	872.6	778.3	666.6	575.0	566.2
3.605	0.40895	1.251	7	815.2	967.0	935.7	869.7	776.4	665.7	574.9	566.1
3.615	0.40555	1.251	7	812.8	963.0	932.1	866.7	774.4	664.9	574.8	566.1
3.625	0.40214	1.251	7	810.4	959.0	928.4	863.8	772.5	664.0	574.7	566.1
3.635	0.39873	1.251	7	808.0	955.0	924.7	860.9	770.6	663.2	574.6	566.1
3.645	0.39533	1.251	7	805.7	951.0	921.1	858.0	768.6	662.3	574.5	566.0
3.655	0.39192	1.251	7	803.3	947.0	917.5	855.1	766.7	661.5	574.4	566.0
3.665	0.38851	1.251	7	801.0	943.0	913.8	852.2	764.8	660.6	574.3	566.0
3.675	0.38511	1.251	7	798.6	939.1	910.2	849.3	762.8	659.8	574.2	566.0
3.685	0.38170	1.251	7	796.3	935.1	906.6	846.4	760.9	658.9	574.1	565.9
3.695	0.37829	1.251	7	793.9	931.2	903.0	843.5	759.0	658.0	574.0	565.9
3.705	0.37488	1.251	7	791.6	927.2	899.5	840.6	757.1	657.2	573.9	565.9
3.715	0.37148	1.252	7	789.3	923.3	895.9	837.8	755.2	656.3	573.8	565.9
3.725	0.36807	1.252	7	787.0	919.4	892.3	834.9	753.3	655.5	573.7	565.8
3.735	0.36466	1.252	7	784.6	915.5	888.8	832.0	751.4	654.6	573.6	565.8
3.745	0.36162	1.252	7	782.6	912.1	885.6	829.5	749.7	653.9	573.5	565.8
3.755	0.35870	1.252	7	780.6	908.8	882.6	827.1	748.0	653.1	573.4	565.7
3.765	0.35578	1.252	7	778.6	905.5	879.6	824.6	746.4	652.4	573.3	565.7
3.775	0.35286	1.252	7	776.6	902.2	876.5	822.2	744.8	651.6	573.2	565.7
3.785	0.34994	1.252	7	774.7	898.9	873.5	819.8	743.1	650.9	573.1	565.7
3.795	0.34702	1.252	7	772.7	895.6	870.5	817.4	741.5	650.2	573.1	565.7
3.805	0.34410	1.252	7	770.7	892.3	867.6	815.0	739.9	649.4	573.0	565.6
3.815	0.34118	1.252	7	768.8	889.0	864.6	812.6	738.3	648.7	572.9	565.6
3.825	0.33826	1.252	7	766.8	885.8	861.6	810.2	736.7	648.0	572.8	565.6
3.835	0.33534	1.252	7	764.9	882.5	858.6	807.8	735.0	647.2	572.7	565.6

3.845	0.33242	1.252	7	762.9	879.3	855.7	805.4	733.4	646.5	572.6	565.5
3.855	0.32950	1.252	7	761.0	876.1	852.7	803.0	731.8	645.8	572.5	565.5
3.865	0.32658	1.252	7	759.0	872.9	849.8	800.6	730.2	645.0	572.5	565.5
3.875	0.32366	1.253	7	757.1	869.6	846.8	798.2	728.6	644.3	572.4	565.5
3.885	0.32074	1.253	7	755.2	866.4	843.9	795.8	727.0	643.6	572.3	565.4
3.895	0.31782	1.253	7	753.2	863.2	841.0	793.5	725.4	642.8	572.2	565.4
3.905	0.31490	1.253	7	751.3	860.1	838.0	791.1	723.8	642.1	572.1	565.4
3.915	0.31198	1.253	7	749.4	856.9	835.1	788.8	722.2	641.3	572.0	565.4
3.925	0.30906	1.253	7	747.5	853.7	832.2	786.4	720.6	640.6	571.9	565.3
3.935	0.30614	1.253	7	745.5	850.6	829.3	784.1	719.0	639.9	571.8	565.3
3.945	0.30322	1.254	7	743.6	847.4	826.4	781.7	717.4	639.1	571.8	565.3
3.955	0.30030	1.254	7	741.7	844.3	823.5	779.4	715.8	638.4	571.7	565.3
3.965	0.29738	1.254	7	739.8	841.1	820.7	777.0	714.2	637.7	571.6	565.2
3.975	0.29446	1.254	7	737.9	838.0	817.8	774.7	712.6	636.9	571.5	565.2
3.985	0.29154	1.255	7	736.0	834.9	814.9	772.4	711.0	636.2	571.4	565.2
3.995	0.28862	1.255	7	734.1	831.8	812.1	770.0	709.5	635.5	571.3	565.1

TIME = 0.00000 SEC - HEAT TRANSFER DATA FOR ROD 6 (FUEL TYPE 1)

DISTANCE (M)	H.T.MODE (W/M2/K)	HSURF (W/M2/K)	HGAP (K)	TFLUID
0.005	2	26677.678	5000.000	548.30
0.015	2	27191.908	5000.000	548.44
0.025	2	27715.084	5000.000	548.58
0.035	2	28247.842	5000.000	548.72
0.045	2	28790.664	5000.000	548.87
0.055	2	29343.967	5000.000	549.02
0.065	2	29908.107	5000.000	549.17
0.075	2	30483.438	5000.000	549.32
0.085	2	31070.305	5000.000	549.47
0.095	2	31669.170	5000.000	549.63
0.105	2	32280.439	5000.000	549.79
0.115	2	32904.496	5000.000	549.95
0.125	2	33541.891	5000.000	550.12
0.135	2	34193.109	5000.000	550.28
0.145	2	34858.668	5000.000	550.45
0.155	2	35539.184	5000.000	550.62
0.165	2	36235.293	5000.000	550.80
0.175	2	36947.672	5000.000	550.97
0.185	2	37676.773	5000.000	551.15
0.195	2	38423.062	5000.000	551.33
0.205	2	39187.160	5000.000	551.51
0.215	2	39969.820	5000.000	551.70
0.225	2	40772.066	5000.000	551.88
0.235	2	41594.840	5000.000	552.07
0.245	2	42439.156	5000.000	552.26
0.255	2	43305.902	5000.000	552.46
0.265	2	44196.242	5000.000	552.65
0.275	2	45111.254	5000.000	552.85
0.285	2	46052.043	5000.000	553.05
0.295	2	47019.855	5000.000	553.25
0.305	2	48015.852	5000.000	553.46
0.315	2	49041.352	5000.000	553.66
0.325	2	50097.855	5000.000	553.87
0.335	2	51237.535	5000.000	554.08
0.345	2	52413.176	5000.000	554.30
0.355	2	53626.758	5000.000	554.51
0.365	2	54880.332	5000.000	554.73
0.375	2	56173.703	5000.000	554.95
0.385	2	57502.508	5000.000	555.17

0.395	2	58856.730	5000.000	555.39
0.405	2	60292.715	5000.000	555.61
0.415	2	61775.320	5000.000	555.84
0.425	2	63307.602	5000.000	556.07
0.435	2	64894.207	5000.000	556.31
0.445	2	66540.781	5000.000	556.54
0.455	2	68252.383	5000.000	556.78
0.465	2	70033.680	5000.000	557.03
0.475	2	71889.844	5000.000	557.27
0.485	2	73825.906	5000.000	557.52
0.495	2	75847.641	5000.000	557.77
0.505	2	77961.156	5000.000	558.02
0.515	2	80173.133	5000.000	558.28
0.525	2	82491.039	5000.000	558.53
0.535	2	84923.016	5000.000	558.79
0.545	2	87477.969	5000.000	559.06
0.555	2	90165.789	5000.000	559.32
0.565	2	92997.438	5000.000	559.59
0.575	2	95985.023	5000.000	559.86
0.585	3	99142.000	5000.000	560.14
0.595	3	102483.242	5000.000	560.42
0.605	3	106026.016	5000.000	560.69
0.615	3	109364.133	5000.000	560.94
0.625	3	112262.188	5000.000	561.14
0.635	3	114602.062	5000.000	561.29
0.645	3	116526.945	5000.000	561.41
0.655	3	117722.062	5000.000	561.47
0.665	3	118528.914	5000.000	561.51
0.675	3	118778.922	5000.000	561.51
0.685	3	119028.320	5000.000	561.51
0.695	3	119277.734	5000.000	561.51
0.705	3	119526.336	5000.000	561.50
0.715	3	119774.086	5000.000	561.50
0.725	3	120021.422	5000.000	561.50
0.735	3	120268.258	5000.000	561.50
0.745	3	120514.703	5000.000	561.50
0.755	3	120761.352	5000.000	561.50
0.765	3	121008.930	5000.000	561.50
0.775	3	121259.141	5000.000	561.50
0.785	3	121516.234	5000.000	561.49
0.795	3	121374.234	5000.000	561.46
0.805	3	121679.188	5000.000	561.46
0.815	3	121922.125	5000.000	561.46
0.825	3	122058.031	5000.000	561.46
0.835	3	122184.812	5000.000	561.46
0.845	3	122306.734	5000.000	561.46
0.855	3	122426.406	5000.000	561.45
0.865	3	122544.883	5000.000	561.45
0.875	3	122662.242	5000.000	561.45
0.885	3	122779.617	5000.000	561.45
0.895	3	122896.289	5000.000	561.45
0.905	3	123012.828	5000.000	561.45
0.915	3	123129.320	5000.000	561.45
0.925	3	123246.281	5000.000	561.45
0.935	3	123362.594	5000.000	561.44
0.945	3	123478.953	5000.000	561.44
0.955	3	123595.602	5000.000	561.44
0.965	3	123712.320	5000.000	561.44
0.975	3	123828.734	5000.000	561.44
0.985	3	123874.719	5000.000	561.44
0.995	3	123920.875	5000.000	561.44
1.005	3	123967.156	5000.000	561.44

1.015	3	124013.141	5000.000	561.43
1.025	3	124059.688	5000.000	561.43
1.035	3	124105.969	5000.000	561.43
1.045	3	124152.820	5000.000	561.43
1.055	3	124199.125	5000.000	561.43
1.065	3	124245.992	5000.000	561.43
1.075	3	124292.727	5000.000	561.43
1.085	3	124339.656	5000.000	561.43
1.095	3	124386.555	5000.000	561.42
1.105	3	124434.023	5000.000	561.42
1.115	3	124481.383	5000.000	561.42
1.125	3	124528.930	5000.000	561.42
1.135	3	124576.719	5000.000	561.42
1.145	3	124607.234	5000.000	561.42
1.155	3	124632.625	5000.000	561.42
1.165	3	124659.578	5000.000	561.42
1.175	3	124689.430	5000.000	561.41
1.185	3	124725.562	5000.000	561.41
1.195	3	124233.867	5000.000	561.37
1.205	3	124317.836	5000.000	561.37
1.215	3	124371.508	5000.000	561.37
1.225	3	124409.477	5000.000	561.36
1.235	3	124439.570	5000.000	561.36
1.245	3	124465.703	5000.000	561.36
1.255	3	124489.898	5000.000	561.36
1.265	3	124513.367	5000.000	561.36
1.275	3	124536.312	5000.000	561.36
1.285	3	124558.953	5000.000	561.36
1.295	3	124581.664	5000.000	561.35
1.305	3	124592.789	5000.000	561.35
1.315	3	124592.336	5000.000	561.35
1.325	3	124591.867	5000.000	561.35
1.335	3	124591.516	5000.000	561.35
1.345	3	124590.938	5000.000	561.35
1.355	3	124591.273	5000.000	561.35
1.365	3	124590.852	5000.000	561.35
1.375	3	124591.008	5000.000	561.34
1.385	3	124590.836	5000.000	561.34
1.395	3	124591.008	5000.000	561.34
1.405	3	124591.297	5000.000	561.34
1.415	3	124591.914	5000.000	561.34
1.425	3	124591.969	5000.000	561.34
1.435	3	124592.578	5000.000	561.34
1.445	3	124593.055	5000.000	561.33
1.455	3	124593.602	5000.000	561.33
1.465	3	124582.586	5000.000	561.33
1.475	3	124536.844	5000.000	561.33
1.485	3	124490.758	5000.000	561.33
1.495	3	124445.586	5000.000	561.33
1.505	3	124399.922	5000.000	561.33
1.515	3	124354.641	5000.000	561.32
1.525	3	124309.258	5000.000	561.32
1.535	3	124264.000	5000.000	561.32
1.545	3	124219.219	5000.000	561.32
1.555	3	124174.906	5000.000	561.32
1.565	3	124131.766	5000.000	561.32
1.575	3	124091.656	5000.000	561.32
1.585	3	124057.281	5000.000	561.31
1.595	3	123351.109	5000.000	561.26
1.605	3	123363.281	5000.000	561.26
1.615	3	123345.180	5000.000	561.26
1.625	3	123312.258	5000.000	561.25

1.635	3	123248.641	5000.000	561.25
1.645	3	123181.547	5000.000	561.25
1.655	3	123112.516	5000.000	561.25
1.665	3	123042.719	5000.000	561.25
1.675	3	122972.641	5000.000	561.25
1.685	3	122902.383	5000.000	561.25
1.695	3	122831.734	5000.000	561.24
1.705	3	122761.180	5000.000	561.24
1.715	3	122690.781	5000.000	561.24
1.725	3	122620.312	5000.000	561.24
1.735	3	122549.891	5000.000	561.24
1.745	3	122479.539	5000.000	561.24
1.755	3	122409.281	5000.000	561.23
1.765	3	122338.961	5000.000	561.23
1.775	3	122268.508	5000.000	561.23
1.785	3	122198.422	5000.000	561.23
1.795	3	122110.391	5000.000	561.23
1.805	3	122016.930	5000.000	561.23
1.815	3	121923.031	5000.000	561.23
1.825	3	121829.391	5000.000	561.22
1.835	3	121735.562	5000.000	561.22
1.845	3	121641.867	5000.000	561.22
1.855	3	121548.039	5000.000	561.22
1.865	3	121454.164	5000.000	561.22
1.875	3	121360.414	5000.000	561.22
1.885	3	121266.625	5000.000	561.22
1.895	3	121172.914	5000.000	561.21
1.905	3	121079.086	5000.000	561.21
1.915	3	120985.359	5000.000	561.21
1.925	3	120891.805	5000.000	561.21
1.935	3	120798.312	5000.000	561.21
1.945	3	120704.695	5000.000	561.21
1.955	3	120576.219	5000.000	561.21
1.965	3	120413.055	5000.000	561.20
1.975	3	120252.695	5000.000	561.20
1.985	3	120097.812	5000.000	561.20
1.995	3	119132.148	5000.000	561.13
2.005	3	119025.352	5000.000	561.13
2.015	3	118886.852	5000.000	561.13
2.025	3	118733.031	5000.000	561.13
2.035	3	118571.086	5000.000	561.12
2.045	3	118405.594	5000.000	561.12
2.055	3	118238.289	5000.000	561.12
2.065	3	118069.914	5000.000	561.12
2.075	3	117900.758	5000.000	561.12
2.085	3	117731.609	5000.000	561.12
2.095	3	117561.891	5000.000	561.12
2.105	3	117392.180	5000.000	561.11
2.115	3	117215.797	5000.000	561.11
2.125	3	117021.469	5000.000	561.11
2.135	3	116826.406	5000.000	561.11
2.145	3	116631.547	5000.000	561.11
2.155	3	116436.047	5000.000	561.11
2.165	3	116240.438	5000.000	561.10
2.175	3	116044.836	5000.000	561.10
2.185	3	115848.695	5000.000	561.10
2.195	3	115652.648	5000.000	561.10
2.205	3	115456.148	5000.000	561.10
2.215	3	115259.312	5000.000	561.10
2.225	3	115062.445	5000.000	561.10
2.235	3	114864.945	5000.000	561.09
2.245	3	114667.469	5000.000	561.09

2.255	3	114469.852	5000.000	561.09
2.265	3	114271.398	5000.000	561.09
2.275	3	114073.406	5000.000	561.09
2.285	3	113774.477	5000.000	561.09
2.295	3	113474.680	5000.000	561.08
2.305	3	113174.469	5000.000	561.08
2.315	3	112873.719	5000.000	561.08
2.325	3	112572.195	5000.000	561.08
2.335	3	112269.797	5000.000	561.08
2.345	3	111967.070	5000.000	561.08
2.355	3	111664.086	5000.000	561.08
2.365	3	111361.406	5000.000	561.07
2.375	3	111060.820	5000.000	561.07
2.385	3	110765.102	5000.000	561.07
2.395	3	109530.492	5000.000	560.99
2.405	3	109283.812	5000.000	560.99
2.415	3	109003.867	5000.000	560.99
2.425	3	108707.055	5000.000	560.98
2.435	3	108401.445	5000.000	560.98
2.445	3	108111.094	5000.000	560.98
2.455	3	107824.789	5000.000	560.98
2.465	3	107536.953	5000.000	560.98
2.475	3	107247.930	5000.000	560.98
2.485	3	106958.188	5000.000	560.98
2.495	3	106667.484	5000.000	560.97
2.505	3	106376.016	5000.000	560.97
2.515	3	106083.805	5000.000	560.97
2.525	3	105790.945	5000.000	560.97
2.535	3	105496.836	5000.000	560.97
2.545	3	105202.430	5000.000	560.97
2.555	3	104907.391	5000.000	560.96
2.565	3	104611.609	5000.000	560.96
2.575	3	104314.664	5000.000	560.96
2.585	3	104017.375	5000.000	560.96
2.595	3	103719.430	5000.000	560.96
2.605	3	103406.719	5000.000	560.96
2.615	3	103078.984	5000.000	560.95
2.625	3	102750.664	5000.000	560.95
2.635	3	102421.375	5000.000	560.95
2.645	3	102091.062	5000.000	560.95
2.655	3	101759.406	5000.000	560.95
2.665	3	101427.000	5000.000	560.95
2.675	3	101093.422	5000.000	560.95
2.685	3	100758.914	5000.000	560.94
2.695	3	100423.109	5000.000	560.94
2.705	3	100086.758	5000.000	560.94
2.715	3	99748.992	5000.000	560.94
2.725	3	99410.531	5000.000	560.94
2.735	3	99070.828	5000.000	560.94
2.745	3	98730.461	5000.000	560.93
2.755	3	98389.305	5000.000	560.93
2.765	3	98055.516	5000.000	560.93
2.775	3	97745.250	5000.000	560.93
2.785	3	97439.383	5000.000	560.93
2.795	3	96091.898	5000.000	560.84
2.805	3	95837.312	5000.000	560.84
2.815	3	95547.711	5000.000	560.83
2.825	3	95240.891	5000.000	560.83
2.835	3	94924.844	5000.000	560.83
2.845	3	94604.188	5000.000	560.83
2.855	3	94280.359	5000.000	560.83
2.865	3	93954.672	5000.000	560.83

2.875	3	93627.625	5000.000	560.82
2.885	3	93299.125	5000.000	560.82
2.895	3	92969.500	5000.000	560.82
2.905	3	92638.586	5000.000	560.82
2.915	3	92306.727	5000.000	560.82
2.925	3	91973.297	5000.000	560.82
2.935	3	91701.227	5000.000	560.81
2.945	3	91428.773	5000.000	560.81
2.955	3	91154.914	5000.000	560.81
2.965	3	90880.797	5000.000	560.81
2.975	3	90605.859	5000.000	560.81
2.985	3	90330.078	5000.000	560.81
2.995	3	90053.750	5000.000	560.81
3.005	3	89776.750	5000.000	560.80
3.015	3	89498.469	5000.000	560.80
3.025	3	89219.695	5000.000	560.80
3.035	3	88940.141	5000.000	560.80
3.045	3	88659.758	5000.000	560.80
3.055	3	88378.578	5000.000	560.80
3.065	3	88096.539	5000.000	560.79
3.075	3	87813.680	5000.000	560.79
3.085	3	87530.062	5000.000	560.79
3.095	3	87269.961	5000.000	560.79
3.105	3	87017.578	5000.000	560.79
3.115	3	86764.656	5000.000	560.79
3.125	3	86510.539	5000.000	560.79
3.135	3	86256.477	5000.000	560.78
3.145	3	86000.906	5000.000	560.78
3.155	3	85745.359	5000.000	560.78
3.165	3	85488.922	5000.000	560.78
3.175	3	85231.492	5000.000	560.78
3.185	3	84973.750	5000.000	560.78
3.195	3	84715.102	5000.000	560.77
3.205	3	84455.703	5000.000	560.77
3.215	3	84196.008	5000.000	560.77
3.225	3	83934.742	5000.000	560.77
3.235	3	83673.555	5000.000	560.77
3.245	3	83411.188	5000.000	560.77
3.255	3	83165.305	5000.000	560.77
3.265	3	82936.047	5000.000	560.76
3.275	3	82706.234	5000.000	560.76
3.285	3	82476.250	5000.000	560.76
3.295	3	82244.883	5000.000	560.76
3.305	3	82013.750	5000.000	560.76
3.315	3	81781.609	5000.000	560.76
3.325	3	81548.875	5000.000	560.75
3.335	3	81315.961	5000.000	560.75
3.345	3	81081.602	5000.000	560.75
3.355	3	80847.461	5000.000	560.75
3.365	3	80612.297	5000.000	560.75
3.375	3	80376.500	5000.000	560.75
3.385	3	80140.078	5000.000	560.74
3.395	3	79903.312	5000.000	560.74
3.405	3	79665.703	5000.000	560.74
3.415	3	79436.383	5000.000	560.74
3.425	3	79233.773	5000.000	560.74
3.435	3	79030.516	5000.000	560.74
3.445	3	78827.297	5000.000	560.74
3.455	3	78623.234	5000.000	560.73
3.465	3	78418.688	5000.000	560.73
3.475	3	78214.086	5000.000	560.73
3.485	3	78008.602	5000.000	560.73

3.495	3	77802.844	5000.000	560.73
3.505	3	77596.188	5000.000	560.73
3.515	3	77389.680	5000.000	560.72
3.525	3	77181.945	5000.000	560.72
3.535	3	76974.336	5000.000	560.72
3.545	3	76765.906	5000.000	560.72
3.555	3	76557.406	5000.000	560.72
3.565	3	76347.961	5000.000	560.72
3.575	3	76138.016	5000.000	560.72
3.585	3	75852.086	5000.000	560.71
3.595	3	75564.578	5000.000	560.71
3.605	3	75276.500	5000.000	560.71
3.615	3	74986.648	5000.000	560.71
3.625	3	74696.398	5000.000	560.71
3.635	3	74404.641	5000.000	560.71
3.645	3	74112.148	5000.000	560.70
3.655	3	73818.125	5000.000	560.70
3.665	3	73523.352	5000.000	560.70
3.675	3	73226.992	5000.000	560.70
3.685	3	72929.859	5000.000	560.70
3.695	3	72631.125	5000.000	560.70
3.705	3	72331.562	5000.000	560.70
3.715	3	72030.367	5000.000	560.69
3.725	3	71728.320	5000.000	560.69
3.735	3	71424.602	5000.000	560.69
3.745	3	71150.500	5000.000	560.69
3.755	3	70885.578	5000.000	560.69
3.765	3	70619.281	5000.000	560.69
3.775	3	70352.422	5000.000	560.68
3.785	3	70084.148	5000.000	560.68
3.795	3	69815.703	5000.000	560.68
3.805	3	69545.406	5000.000	560.68
3.815	3	69274.508	5000.000	560.68
3.825	3	69002.547	5000.000	560.68
3.835	3	68729.141	5000.000	560.68
3.845	3	68455.453	5000.000	560.67
3.855	3	68179.883	5000.000	560.67
3.865	3	67903.602	5000.000	560.67
3.875	3	67626.227	5000.000	560.67
3.885	3	67347.289	5000.000	560.67
3.895	3	67068.039	5000.000	560.67
3.905	3	66786.797	5000.000	560.66
3.915	3	66504.797	5000.000	560.66
3.925	3	66221.992	5000.000	560.66
3.935	3	65937.578	5000.000	560.66
3.945	3	65651.516	5000.000	560.66
3.955	3	65365.035	5000.000	560.66
3.965	3	65076.859	5000.000	560.66
3.975	3	64787.004	5000.000	560.65
3.985	3	64496.652	5000.000	560.65
3.995	3	64204.562	5000.000	560.65

I PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - TEMPERATURE DATA FOR ROD 7 (FUEL TYPE 1)

DISTANCE (M)	FLUX (MW/M2)	DNBR	CHANNEL (DEG-K)	TEMPERATURE							
				AV FUEL T T (1)	T (2)	T (3)	T (4)	T (5)	T (6)	T (7)	
0.005	0.40872	0.000	0	812.6	964.0	932.8	867.0	774.0	663.7	572.8	564.1
0.015	0.41578	0.000	0	817.6	972.5	940.5	873.1	778.0	665.5	573.1	564.2
0.025	0.42284	0.000	0	822.6	981.0	948.3	879.3	782.1	667.3	573.3	564.3

0.035	0.42990	0.000	0	827.6	989.5	956.0	885.5	786.2	669.1	573.6	564.4
0.045	0.43695	0.000	0	832.7	998.1	963.9	891.7	790.3	670.9	573.8	564.5
0.055	0.44401	9.781	8	837.7	1006.8	971.7	898.0	794.4	672.7	574.1	564.6
0.065	0.45107	9.536	8	842.8	1015.5	979.6	904.2	798.6	674.5	574.3	564.7
0.075	0.45812	9.302	8	847.9	1024.2	987.6	910.6	802.7	676.4	574.6	564.8
0.085	0.46518	9.078	8	853.1	1033.0	995.6	916.9	806.9	678.2	574.8	564.9
0.095	0.47224	8.863	8	858.2	1041.9	1003.6	923.3	811.0	680.0	575.0	564.9
0.105	0.47930	8.657	8	863.4	1050.8	1011.7	929.7	815.2	681.8	575.3	565.0
0.115	0.48635	8.459	8	868.6	1059.8	1019.8	936.1	819.4	683.6	575.5	565.1
0.125	0.49341	8.268	8	873.8	1068.8	1028.0	942.6	823.6	685.4	575.7	565.2
0.135	0.50047	8.085	8	879.0	1077.9	1036.2	949.0	827.8	687.2	576.0	565.3
0.145	0.50752	7.909	8	884.3	1087.0	1044.5	955.6	832.0	689.0	576.2	565.4
0.155	0.51458	7.740	8	889.5	1096.2	1052.8	962.1	836.3	690.8	576.4	565.5
0.165	0.52164	7.576	8	894.8	1105.5	1061.2	968.7	840.5	692.6	576.7	565.5
0.175	0.52870	7.419	8	900.2	1114.8	1069.6	975.3	844.8	694.4	576.9	565.6
0.185	0.53575	7.267	8	905.5	1124.1	1078.1	981.9	849.0	696.2	577.1	565.7
0.195	0.54281	7.120	8	910.9	1133.5	1086.6	988.6	853.3	698.0	577.3	565.8
0.205	0.54987	6.979	8	916.2	1143.0	1095.1	995.3	857.6	699.8	577.6	565.8
0.215	0.55693	6.842	8	921.7	1152.5	1103.7	1002.0	861.9	701.6	577.8	565.9
0.225	0.56398	6.710	8	927.1	1162.1	1112.4	1008.8	866.2	703.3	578.0	566.0
0.235	0.57104	6.583	8	932.5	1171.8	1121.1	1015.6	870.6	705.1	578.2	566.1
0.245	0.57810	6.459	8	938.0	1181.5	1129.8	1022.4	874.9	706.9	578.5	566.2
0.255	0.58515	6.339	8	943.5	1191.2	1138.6	1029.3	879.3	708.7	578.7	566.2
0.265	0.59221	6.223	8	949.0	1201.0	1147.5	1036.2	883.6	710.5	578.9	566.3
0.275	0.59927	6.111	8	954.6	1210.9	1156.3	1043.1	888.0	712.3	579.1	566.4
0.285	0.60633	6.002	8	960.1	1220.8	1165.3	1050.0	892.4	714.1	579.4	566.4
0.295	0.61338	5.896	8	965.7	1230.8	1174.3	1057.0	896.8	715.9	579.6	566.5
0.305	0.62044	5.794	8	971.3	1240.9	1183.3	1064.0	901.2	717.7	579.8	566.6
0.315	0.62750	5.694	8	977.0	1251.0	1192.4	1071.1	905.7	719.5	580.0	566.7
0.325	0.63455	5.597	8	982.6	1261.1	1201.5	1078.1	910.1	721.3	580.2	566.7
0.335	0.64255	5.497	8	989.1	1272.7	1211.9	1086.2	915.2	723.3	580.5	566.8
0.345	0.65055	5.400	8	995.5	1284.4	1222.4	1094.3	920.2	725.3	580.7	566.9
0.355	0.65855	5.306	8	1002.0	1296.1	1233.0	1102.4	925.3	727.3	581.0	567.0
0.365	0.66654	5.214	8	1008.5	1307.9	1243.5	1110.6	930.4	729.3	581.2	567.0
0.375	0.67454	5.124	8	1015.1	1319.8	1254.2	1118.8	935.5	731.4	581.5	567.1
0.385	0.68254	5.037	8	1021.7	1331.7	1264.9	1127.1	940.7	733.4	581.7	567.2
0.395	0.69053	4.951	8	1028.3	1343.8	1275.7	1135.4	945.8	735.4	581.9	567.3
0.405	0.69853	4.866	8	1034.9	1355.9	1286.6	1143.7	951.0	737.4	582.2	567.3
0.415	0.70653	4.785	8	1041.6	1368.0	1297.5	1152.1	956.2	739.4	582.4	567.4
0.425	0.71452	4.707	8	1048.3	1380.3	1308.5	1160.6	961.4	741.5	582.7	567.5
0.435	0.72252	4.633	8	1055.1	1392.6	1319.5	1169.0	966.6	743.5	582.9	567.6
0.445	0.73052	4.560	8	1061.8	1405.0	1330.6	1177.5	971.8	745.5	583.2	567.6
0.455	0.73851	4.489	8	1068.6	1417.5	1341.8	1186.1	977.1	747.5	583.4	567.7
0.465	0.74651	4.420	8	1075.5	1430.1	1353.1	1194.7	982.4	749.5	583.6	567.8
0.475	0.75451	4.353	8	1082.3	1442.7	1364.4	1203.3	987.6	751.5	583.9	567.8
0.485	0.76250	4.287	8	1089.2	1455.4	1375.7	1212.0	992.9	753.6	584.1	567.9
0.495	0.77050	4.223	8	1096.1	1468.2	1387.1	1220.8	998.3	755.6	584.4	568.0
0.505	0.77850	4.161	8	1103.1	1481.0	1398.6	1229.5	1003.6	757.6	584.6	568.0
0.515	0.78650	4.100	8	1110.1	1493.9	1410.2	1238.3	1009.0	759.6	584.8	568.1
0.525	0.79450	4.041	8	1117.1	1506.9	1421.8	1247.2	1014.3	761.6	585.1	568.2
0.535	0.80250	3.983	8	1124.1	1520.0	1433.5	1256.1	1019.7	763.6	585.3	568.3
0.545	0.81050	3.926	8	1131.2	1533.1	1445.3	1265.0	1025.1	765.6	585.5	568.3
0.555	0.81850	3.871	8	1138.3	1546.3	1457.1	1274.0	1030.6	767.7	585.8	568.4
0.565	0.82650	3.817	8	1145.4	1559.6	1468.9	1283.1	1036.0	769.7	586.0	568.5
0.575	0.83450	3.764	8	1152.6	1572.9	1480.9	1292.1	1041.5	771.7	586.2	568.5
0.585	0.84250	3.713	8	1159.8	1586.3	1492.9	1301.2	1047.0	773.7	586.5	568.6
0.595	0.85050	3.663	8	1167.0	1599.8	1504.9	1310.4	1052.5	775.7	586.7	568.7
0.605	0.85850	3.613	8	1174.3	1613.4	1517.0	1319.6	1058.0	777.7	586.9	568.7
0.615	0.86649	3.565	8	1181.5	1627.0	1529.2	1328.8	1063.5	779.7	587.2	568.8
0.625	0.87449	3.518	8	1188.8	1640.6	1541.4	1338.1	1069.1	781.8	587.4	568.9
0.635	0.88249	3.472	8	1196.2	1654.4	1553.7	1347.4	1074.6	783.8	587.7	568.9
0.645	0.89049	3.427	8	1203.6	1668.2	1566.1	1356.8	1080.2	785.8	587.9	569.0

0.655	0.89708	3.387	8	1209.6	1679.6	1576.3	1364.5	1084.8	787.4	588.1	569.0
0.665	0.90226	3.350	8	1214.4	1688.6	1584.3	1370.6	1088.5	788.7	588.2	569.1
0.675	0.90743	3.314	8	1219.2	1697.6	1592.4	1376.7	1092.1	790.0	588.4	569.1
0.685	0.91261	3.278	8	1224.0	1706.6	1600.5	1382.9	1095.7	791.3	588.5	569.2
0.695	0.91778	3.243	8	1228.9	1715.7	1608.6	1389.0	1099.4	792.6	588.6	569.2
0.705	0.92296	3.209	8	1233.7	1724.7	1616.7	1395.2	1103.0	793.9	588.8	569.2
0.715	0.92813	3.176	8	1238.5	1733.9	1624.9	1401.4	1106.7	795.2	588.9	569.3
0.725	0.93331	3.143	8	1243.4	1743.0	1633.0	1407.6	1110.4	796.5	589.1	569.3
0.735	0.93848	3.110	8	1248.3	1752.1	1641.2	1413.8	1114.0	797.8	589.2	569.3
0.745	0.94366	3.078	8	1253.2	1761.3	1649.5	1420.0	1117.7	799.1	589.4	569.4
0.755	0.94883	3.047	8	1258.1	1770.5	1657.7	1426.2	1121.4	800.4	589.5	569.4
0.765	0.95401	3.016	8	1263.0	1779.7	1666.0	1432.5	1125.1	801.6	589.6	569.4
0.775	0.95918	2.986	8	1267.9	1788.9	1674.2	1438.8	1128.8	802.9	589.8	569.5
0.785	0.96436	2.956	8	1272.8	1798.2	1682.6	1445.1	1132.5	804.2	589.9	569.5
0.795	0.96954	2.925	8	1277.7	1807.5	1690.9	1451.4	1136.2	805.5	590.1	569.5
0.805	0.97471	2.893	8	1282.7	1816.8	1699.2	1457.7	1140.0	806.8	590.2	569.6
0.815	0.97930	2.865	8	1287.1	1825.0	1706.6	1463.4	1143.3	808.0	590.3	569.6
0.825	0.98212	2.841	8	1289.8	1830.1	1711.2	1466.8	1145.3	808.7	590.4	569.6
0.835	0.98494	2.817	8	1292.5	1835.2	1715.8	1470.3	1147.4	809.4	590.5	569.6
0.845	0.98776	2.795	8	1295.2	1840.3	1720.4	1473.8	1149.4	810.1	590.6	569.6
0.855	0.99058	2.772	8	1297.9	1845.4	1724.9	1477.2	1151.4	810.8	590.6	569.7
0.865	0.99341	2.750	8	1300.6	1850.5	1729.5	1480.7	1153.5	811.5	590.7	569.7
0.875	0.99623	2.729	8	1303.4	1855.6	1734.1	1484.2	1155.5	812.2	590.8	569.7
0.885	0.99905	2.707	8	1306.1	1860.7	1738.7	1487.7	1157.6	812.9	590.9	569.7
0.895	1.00187	2.686	8	1308.8	1865.8	1743.3	1491.2	1159.6	813.6	590.9	569.7
0.905	1.00469	2.665	8	1311.5	1870.9	1747.9	1494.7	1161.7	814.3	591.0	569.7
0.915	1.00751	2.645	8	1314.3	1876.0	1752.5	1498.2	1163.7	815.0	591.1	569.7
0.925	1.01033	2.624	8	1317.0	1881.2	1757.1	1501.7	1165.8	815.7	591.1	569.7
0.935	1.01316	2.604	8	1319.7	1886.3	1761.8	1505.2	1167.8	816.4	591.2	569.8
0.945	1.01598	2.584	8	1322.5	1891.4	1766.4	1508.7	1169.9	817.1	591.3	569.8
0.955	1.01880	2.565	8	1325.2	1896.5	1771.0	1512.3	1172.0	817.8	591.4	569.8
0.965	1.02162	2.546	8	1327.9	1901.5	1775.7	1515.8	1174.0	818.5	591.4	569.8
0.975	1.02444	2.526	8	1330.7	1906.6	1780.3	1519.3	1176.1	819.2	591.5	569.8
0.985	1.02585	2.510	8	1332.1	1909.1	1782.6	1521.1	1177.1	819.5	591.5	569.8
0.995	1.02726	2.493	8	1333.4	1911.6	1785.0	1522.9	1178.2	819.9	591.6	569.8
1.005	1.02868	2.476	8	1334.8	1914.1	1787.3	1524.6	1179.2	820.2	591.6	569.8
1.015	1.03009	2.460	8	1336.2	1916.7	1789.6	1526.4	1180.2	820.6	591.7	569.8
1.025	1.03150	2.444	8	1337.6	1919.2	1791.9	1528.2	1181.3	820.9	591.7	569.8
1.035	1.03291	2.428	8	1338.9	1921.7	1794.3	1529.9	1182.3	821.3	591.7	569.8
1.045	1.03432	2.412	8	1340.3	1924.3	1796.6	1531.7	1183.3	821.6	591.8	569.9
1.055	1.03574	2.397	8	1341.7	1926.8	1798.9	1533.5	1184.4	822.0	591.8	569.9
1.065	1.03715	2.381	8	1343.1	1929.3	1801.3	1535.3	1185.4	822.3	591.8	569.9
1.075	1.03856	2.366	8	1344.5	1931.9	1803.6	1537.1	1186.5	822.7	591.9	569.9
1.085	1.03997	2.351	8	1345.8	1934.4	1805.9	1538.8	1187.5	823.0	591.9	569.9
1.095	1.04138	2.336	8	1347.2	1936.9	1808.3	1540.6	1188.5	823.4	591.9	569.9
1.105	1.04280	2.321	8	1348.6	1939.5	1810.6	1542.4	1189.6	823.7	592.0	569.9
1.115	1.04421	2.307	8	1350.0	1942.0	1813.0	1544.2	1190.6	824.1	592.0	569.9
1.125	1.04562	2.292	8	1351.4	1944.5	1815.3	1546.0	1191.7	824.4	592.0	569.9
1.135	1.04703	2.278	8	1352.8	1947.1	1817.6	1547.8	1192.7	824.8	592.1	569.9
1.145	1.04809	2.265	8	1353.8	1949.0	1819.4	1549.1	1193.5	825.0	592.1	569.9
1.155	1.04903	2.251	8	1354.7	1950.7	1821.0	1550.3	1194.2	825.3	592.1	569.9
1.165	1.04998	2.238	8	1355.7	1952.4	1822.5	1551.5	1194.9	825.5	592.2	569.9
1.175	1.05092	2.225	8	1356.6	1954.1	1824.1	1552.7	1195.6	825.7	592.2	569.9
1.185	1.05186	2.212	8	1357.5	1955.8	1825.7	1553.9	1196.3	826.0	592.2	569.9
1.195	1.05280	2.198	8	1358.4	1957.5	1827.2	1555.1	1197.0	826.2	592.2	569.9
1.205	1.05374	2.183	8	1359.4	1959.2	1828.8	1556.3	1197.7	826.4	592.3	569.9
1.215	1.05469	2.170	8	1360.3	1960.9	1830.4	1557.5	1198.4	826.7	592.3	569.9
1.225	1.05563	2.157	8	1361.2	1962.6	1831.9	1558.7	1199.1	826.9	592.3	570.0
1.235	1.05657	2.145	8	1362.1	1964.2	1833.5	1559.8	1199.8	827.1	592.3	570.0
1.245	1.05751	2.133	8	1363.1	1965.9	1835.1	1561.0	1200.5	827.4	592.3	570.0
1.255	1.05845	2.121	8	1364.0	1967.6	1836.6	1562.2	1201.2	827.6	592.4	570.0
1.265	1.05940	2.110	8	1364.9	1969.3	1838.2	1563.4	1201.9	827.8	592.4	570.0

1.275	1.06034	2.098	8	1365.8	1971.0	1839.8	1564.6	1202.6	828.1	592.4	570.0
1.285	1.06128	2.087	8	1366.8	1972.7	1841.3	1565.8	1203.3	828.3	592.4	570.0
1.295	1.06222	2.076	8	1367.7	1974.4	1842.9	1567.0	1204.0	828.5	592.5	570.0
1.305	1.06293	2.065	8	1368.4	1975.7	1844.1	1567.9	1204.5	828.7	592.5	570.0
1.315	1.06340	2.054	8	1368.9	1976.6	1844.9	1568.5	1204.8	828.8	592.5	570.0
1.325	1.06387	2.043	8	1369.3	1977.4	1845.7	1569.1	1205.2	828.9	592.5	570.0
1.335	1.06434	2.033	8	1369.8	1978.3	1846.4	1569.7	1205.5	829.0	592.5	570.0
1.345	1.06481	2.022	8	1370.3	1979.1	1847.2	1570.3	1205.9	829.2	592.5	570.0
1.355	1.06528	2.012	8	1370.7	1980.0	1848.0	1570.9	1206.2	829.3	592.5	570.0
1.365	1.06575	2.002	8	1371.2	1980.8	1848.8	1571.5	1206.6	829.4	592.6	570.0
1.375	1.06622	1.992	8	1371.6	1981.6	1849.6	1572.1	1206.9	829.5	592.6	570.0
1.385	1.06669	1.982	8	1372.1	1982.5	1850.4	1572.7	1207.3	829.6	592.6	570.0
1.395	1.06716	1.972	8	1372.6	1983.3	1851.1	1573.3	1207.6	829.7	592.6	570.0
1.405	1.06763	1.962	8	1373.0	1984.2	1851.9	1573.9	1208.0	829.9	592.6	570.0
1.415	1.06810	1.953	8	1373.5	1985.0	1852.7	1574.5	1208.3	830.0	592.6	570.0
1.425	1.06857	1.943	8	1374.0	1985.9	1853.5	1575.1	1208.7	830.1	592.6	570.0
1.435	1.06904	1.933	8	1374.4	1986.7	1854.3	1575.7	1209.0	830.2	592.6	570.0
1.445	1.06951	1.924	8	1374.9	1987.6	1855.1	1576.3	1209.4	830.3	592.7	570.0
1.455	1.06998	1.915	8	1375.4	1988.4	1855.9	1576.9	1209.7	830.4	592.7	570.0
1.465	1.07021	1.906	8	1375.6	1988.9	1856.3	1577.2	1209.9	830.5	592.7	570.0
1.475	1.06974	1.897	8	1375.1	1988.0	1855.5	1576.6	1209.5	830.4	592.7	570.0
1.485	1.06927	1.889	8	1374.7	1987.2	1854.7	1576.0	1209.2	830.3	592.6	570.0
1.495	1.06880	1.880	8	1374.2	1986.3	1853.9	1575.4	1208.8	830.1	592.6	570.0
1.505	1.06833	1.872	8	1373.7	1985.5	1853.1	1574.8	1208.5	830.0	592.6	570.0
1.515	1.06786	1.864	8	1373.3	1984.6	1852.3	1574.2	1208.1	829.9	592.6	570.0
1.525	1.06739	1.856	8	1372.8	1983.8	1851.5	1573.6	1207.8	829.8	592.6	570.0
1.535	1.06692	1.848	8	1372.3	1982.9	1850.8	1573.0	1207.4	829.7	592.6	570.0
1.545	1.06645	1.840	8	1371.9	1982.1	1850.0	1572.4	1207.1	829.6	592.6	570.0
1.555	1.06598	1.832	8	1371.4	1981.2	1849.2	1571.8	1206.7	829.4	592.6	570.0
1.565	1.06551	1.825	8	1370.9	1980.4	1848.4	1571.2	1206.4	829.3	592.5	570.0
1.575	1.06504	1.817	8	1370.5	1979.5	1847.6	1570.6	1206.0	829.2	592.5	570.0
1.585	1.06457	1.809	8	1370.0	1978.7	1846.8	1570.0	1205.7	829.1	592.5	570.0
1.595	1.06410	1.801	8	1369.5	1977.8	1846.0	1569.4	1205.3	829.0	592.5	570.0
1.605	1.06363	1.792	8	1369.1	1977.0	1845.3	1568.8	1205.0	828.9	592.5	570.0
1.615	1.06316	1.784	8	1368.6	1976.1	1844.5	1568.2	1204.6	828.7	592.5	570.0
1.625	1.06269	1.776	8	1368.2	1975.3	1843.7	1567.6	1204.3	828.6	592.5	570.0
1.635	1.06175	1.770	8	1367.2	1973.6	1842.1	1566.4	1203.6	828.4	592.4	570.0
1.645	1.06081	1.763	8	1366.3	1971.9	1840.5	1565.2	1202.9	828.2	592.4	570.0
1.655	1.05987	1.756	8	1365.4	1970.2	1839.0	1564.0	1202.2	827.9	592.4	570.0
1.665	1.05893	1.750	8	1364.4	1968.5	1837.4	1562.8	1201.5	827.7	592.4	570.0
1.675	1.05798	1.743	8	1363.5	1966.8	1835.8	1561.6	1200.8	827.5	592.3	570.0
1.685	1.05704	1.736	8	1362.6	1965.1	1834.3	1560.4	1200.1	827.2	592.3	569.9
1.695	1.05610	1.730	8	1361.7	1963.4	1832.7	1559.2	1199.4	827.0	592.3	569.9
1.705	1.05516	1.724	8	1360.7	1961.7	1831.1	1558.0	1198.7	826.8	592.3	569.9
1.715	1.05422	1.717	8	1359.8	1960.0	1829.6	1556.8	1198.0	826.5	592.3	569.9
1.725	1.05327	1.711	8	1358.9	1958.3	1828.0	1555.6	1197.3	826.3	592.2	569.9
1.735	1.05233	1.705	8	1357.9	1956.6	1826.4	1554.4	1196.6	826.1	592.2	569.9
1.745	1.05139	1.698	8	1357.0	1954.9	1824.9	1553.2	1195.9	825.8	592.2	569.9
1.755	1.05045	1.692	8	1356.1	1953.2	1823.3	1552.1	1195.2	825.6	592.2	569.9
1.765	1.04950	1.686	8	1355.2	1951.5	1821.7	1550.9	1194.5	825.4	592.1	569.9
1.775	1.04856	1.680	8	1354.2	1949.8	1820.2	1549.7	1193.8	825.1	592.1	569.9
1.785	1.04762	1.674	8	1353.3	1948.1	1818.6	1548.5	1193.1	824.9	592.1	569.9
1.795	1.04633	1.668	8	1352.0	1945.8	1816.4	1546.8	1192.2	824.6	592.0	569.9
1.805	1.04491	1.663	8	1350.7	1943.2	1814.1	1545.0	1191.1	824.2	592.0	569.9
1.815	1.04350	1.657	8	1349.3	1940.7	1811.8	1543.3	1190.1	823.9	592.0	569.9
1.825	1.04209	1.651	8	1347.9	1938.2	1809.4	1541.5	1189.0	823.5	591.9	569.9
1.835	1.04068	1.646	8	1346.5	1935.6	1807.1	1539.7	1188.0	823.2	591.9	569.9
1.845	1.03927	1.640	8	1345.1	1933.1	1804.7	1537.9	1186.9	822.8	591.9	569.9
1.855	1.03785	1.635	8	1343.7	1930.5	1802.4	1536.1	1185.9	822.5	591.8	569.8
1.865	1.03644	1.630	8	1342.4	1928.0	1800.1	1534.3	1184.9	822.1	591.8	569.8
1.875	1.03503	1.624	8	1341.0	1925.5	1797.7	1532.6	1183.8	821.8	591.8	569.8
1.885	1.03362	1.619	8	1339.6	1922.9	1795.4	1530.8	1182.8	821.4	591.7	569.8

1.895	1.03221	1.614	8	1338.2	1920.4	1793.1	1529.0	1181.7	821.1	591.7	569.8
1.905	1.03080	1.609	8	1336.8	1917.9	1790.7	1527.2	1180.7	820.7	591.6	569.8
1.915	1.02938	1.603	8	1335.5	1915.4	1788.4	1525.5	1179.7	820.4	591.6	569.8
1.925	1.02797	1.598	8	1334.1	1912.8	1786.1	1523.7	1178.6	820.0	591.6	569.8
1.935	1.02656	1.593	8	1332.7	1910.3	1783.7	1521.9	1177.6	819.7	591.5	569.8
1.945	1.02515	1.588	8	1331.3	1907.8	1781.4	1520.2	1176.6	819.3	591.5	569.8
1.955	1.02303	1.584	8	1329.3	1904.0	1777.9	1517.5	1175.0	818.8	591.4	569.8
1.965	1.02021	1.580	8	1326.5	1898.9	1773.3	1514.0	1172.9	818.1	591.4	569.8
1.975	1.01739	1.576	8	1323.8	1893.9	1768.7	1510.4	1170.9	817.4	591.3	569.7
1.985	1.01457	1.572	8	1321.1	1888.8	1764.0	1506.9	1168.8	816.7	591.2	569.7
1.995	1.01175	1.567	8	1318.3	1883.7	1759.4	1503.4	1166.8	816.0	591.1	569.7
2.005	1.00892	1.561	8	1315.6	1878.5	1754.8	1499.9	1164.7	815.3	591.1	569.7
2.015	1.00610	1.556	8	1312.8	1873.4	1750.2	1496.4	1162.6	814.6	591.0	569.7
2.025	1.00328	1.552	8	1310.1	1868.3	1745.5	1492.9	1160.6	813.9	590.9	569.7
2.035	1.00046	1.549	8	1307.4	1863.2	1740.9	1489.4	1158.5	813.2	590.9	569.7
2.045	0.99764	1.545	8	1304.7	1858.1	1736.3	1485.9	1156.5	812.5	590.8	569.6
2.055	0.99482	1.541	8	1302.0	1853.0	1731.8	1482.4	1154.5	811.8	590.7	569.6
2.065	0.99200	1.537	8	1299.2	1847.9	1727.2	1478.9	1152.4	811.1	590.6	569.6
2.075	0.98917	1.534	8	1296.5	1842.8	1722.6	1475.5	1150.4	810.4	590.6	569.6
2.085	0.98635	1.530	8	1293.8	1837.7	1718.0	1472.0	1148.3	809.7	590.5	569.6
2.095	0.98353	1.526	8	1291.1	1832.6	1713.4	1468.5	1146.3	809.0	590.4	569.6
2.105	0.98071	1.523	8	1288.4	1827.5	1708.9	1465.0	1144.3	808.3	590.3	569.6
2.115	0.97777	1.519	8	1285.6	1822.2	1704.1	1461.4	1142.1	807.6	590.3	569.5
2.125	0.97448	1.516	8	1282.4	1816.3	1698.8	1457.4	1139.8	806.7	590.2	569.5
2.135	0.97118	1.513	8	1279.3	1810.4	1693.5	1453.4	1137.4	805.9	590.1	569.5
2.145	0.96789	1.510	8	1276.1	1804.5	1688.2	1449.4	1135.0	805.1	590.0	569.5
2.155	0.96460	1.506	8	1273.0	1798.6	1682.9	1445.4	1132.7	804.3	589.9	569.5
2.165	0.96130	1.503	8	1269.9	1792.7	1677.6	1441.4	1130.3	803.5	589.8	569.5
2.175	0.95801	1.500	8	1266.8	1786.8	1672.4	1437.4	1128.0	802.6	589.8	569.4
2.185	0.95471	1.497	8	1263.6	1781.0	1667.1	1433.4	1125.6	801.8	589.7	569.4
2.195	0.95142	1.494	8	1260.5	1775.1	1661.8	1429.4	1123.3	801.0	589.6	569.4
2.205	0.94813	1.491	8	1257.4	1769.3	1656.6	1425.4	1120.9	800.2	589.5	569.4
2.215	0.94483	1.488	8	1254.3	1763.4	1651.4	1421.4	1118.6	799.4	589.4	569.4
2.225	0.94154	1.485	8	1251.2	1757.6	1646.1	1417.5	1116.2	798.6	589.3	569.4
2.235	0.93825	1.482	8	1248.1	1751.8	1640.9	1413.5	1113.9	797.7	589.2	569.3
2.245	0.93495	1.479	8	1245.0	1745.9	1635.7	1409.6	1111.6	796.9	589.2	569.3
2.255	0.93166	1.476	8	1241.9	1740.1	1630.5	1405.6	1109.2	796.1	589.1	569.3
2.265	0.92836	1.473	8	1238.8	1734.3	1625.3	1401.7	1106.9	795.3	589.0	569.3
2.275	0.92507	1.470	8	1235.7	1728.6	1620.1	1397.8	1104.6	794.5	588.9	569.3
2.285	0.91990	1.468	8	1230.9	1719.5	1612.0	1391.6	1100.9	793.2	588.8	569.3
2.295	0.91472	1.467	8	1226.1	1710.4	1603.9	1385.5	1097.3	791.9	588.6	569.2
2.305	0.90955	1.465	8	1221.3	1701.4	1595.8	1379.4	1093.7	790.6	588.5	569.2
2.315	0.90437	1.463	8	1216.5	1692.4	1587.7	1373.3	1090.0	789.3	588.4	569.2
2.325	0.89919	1.461	8	1211.7	1683.4	1579.7	1367.2	1086.4	788.0	588.2	569.1
2.335	0.89402	1.459	8	1206.9	1674.5	1571.7	1361.1	1082.8	786.8	588.1	569.1
2.345	0.88884	1.458	8	1202.2	1665.5	1563.7	1355.0	1079.2	785.5	587.9	569.1
2.355	0.88367	1.456	8	1197.4	1656.6	1555.7	1349.0	1075.6	784.2	587.8	569.1
2.365	0.87849	1.454	8	1192.7	1647.8	1547.8	1343.0	1072.0	782.9	587.7	569.0
2.375	0.87332	1.453	8	1188.0	1638.9	1539.9	1337.0	1068.4	781.6	587.5	569.0
2.385	0.86814	1.451	8	1183.3	1630.1	1532.0	1331.0	1064.9	780.3	587.4	569.0
2.395	0.86297	1.449	8	1178.6	1621.3	1524.1	1325.0	1061.3	779.0	587.3	569.0
2.405	0.85779	1.448	8	1173.9	1612.5	1516.3	1319.1	1057.7	777.7	587.1	568.9
2.415	0.85262	1.443	8	1169.2	1603.8	1508.5	1313.2	1054.2	776.5	587.0	568.9
2.425	0.84744	1.442	8	1164.6	1595.1	1500.7	1307.2	1050.7	775.2	586.9	568.9
2.435	0.84226	1.440	8	1159.9	1586.4	1492.9	1301.3	1047.1	773.9	586.7	568.8
2.445	0.83744	1.439	8	1155.6	1578.3	1485.7	1295.9	1043.8	772.7	586.6	568.8
2.455	0.83274	1.437	8	1151.4	1570.5	1478.7	1290.5	1040.6	771.5	586.5	568.8
2.465	0.82803	1.436	8	1147.2	1562.6	1471.7	1285.2	1037.4	770.4	586.3	568.8
2.475	0.82332	1.434	8	1143.0	1554.8	1464.7	1279.9	1034.2	769.2	586.2	568.7
2.485	0.81862	1.433	8	1138.8	1547.1	1457.8	1274.6	1031.1	768.0	586.1	568.7
2.495	0.81391	1.431	8	1134.7	1539.3	1450.8	1269.4	1027.9	766.8	586.0	568.7
2.505	0.80921	1.430	8	1130.5	1531.6	1443.9	1264.1	1024.7	765.7	585.8	568.7

2.515	0.80450	1.428	8	1126.4	1523.9	1437.0	1258.9	1021.5	764.5	585.7	568.6
2.525	0.79980	1.427	8	1122.2	1516.2	1430.2	1253.6	1018.4	763.3	585.6	568.6
2.535	0.79509	1.426	8	1118.1	1508.5	1423.3	1248.4	1015.2	762.2	585.5	568.6
2.545	0.79039	1.424	8	1114.0	1500.9	1416.5	1243.2	1012.1	761.0	585.3	568.6
2.555	0.78568	1.423	8	1109.9	1493.3	1409.7	1238.1	1008.9	759.8	585.2	568.5
2.565	0.78097	1.422	8	1105.8	1485.7	1402.9	1232.9	1005.8	758.6	585.1	568.5
2.575	0.77627	1.420	8	1101.7	1478.2	1396.2	1227.7	1002.7	757.5	585.0	568.5
2.585	0.77156	1.419	8	1097.7	1470.6	1389.4	1222.6	999.5	756.3	584.8	568.5
2.595	0.76686	1.418	8	1093.6	1463.1	1382.7	1217.5	996.4	755.1	584.7	568.4
2.605	0.76192	1.417	8	1089.4	1455.3	1375.7	1212.1	993.2	753.9	584.6	568.4
2.615	0.75674	1.416	8	1084.9	1447.1	1368.3	1206.5	989.8	752.6	584.4	568.4
2.625	0.75157	1.415	8	1080.5	1438.9	1361.0	1200.9	986.3	751.3	584.3	568.3
2.635	0.74639	1.414	8	1076.1	1430.8	1353.7	1195.4	982.9	750.0	584.2	568.3
2.645	0.74122	1.413	8	1071.7	1422.7	1346.5	1189.8	979.6	748.7	584.0	568.3
2.655	0.73604	1.412	8	1067.3	1414.6	1339.3	1184.3	976.2	747.5	583.9	568.3
2.665	0.73086	1.411	8	1062.9	1406.5	1332.1	1178.8	972.8	746.2	583.8	568.2
2.675	0.72569	1.411	8	1058.5	1398.5	1324.9	1173.3	969.4	744.9	583.6	568.2
2.685	0.72051	1.410	8	1054.2	1390.5	1317.7	1167.8	966.0	743.6	583.5	568.2
2.695	0.71534	1.409	8	1049.9	1382.6	1310.6	1162.3	962.7	742.3	583.3	568.1
2.705	0.71016	1.408	8	1045.5	1374.7	1303.5	1156.9	959.3	741.0	583.2	568.1
2.715	0.70499	1.408	8	1041.2	1366.8	1296.4	1151.5	956.0	739.7	583.1	568.1
2.725	0.69981	1.407	8	1036.9	1358.9	1289.4	1146.1	952.7	738.4	582.9	568.0
2.735	0.69464	1.406	8	1032.6	1351.1	1282.4	1140.7	949.3	737.1	582.8	568.0
2.745	0.68946	1.406	8	1028.4	1343.3	1275.4	1135.3	946.0	735.9	582.6	568.0
2.755	0.68429	1.405	8	1024.1	1335.6	1268.4	1129.9	942.7	734.6	582.5	568.0
2.765	0.67923	1.405	8	1019.9	1328.0	1261.7	1124.7	939.5	733.3	582.4	567.9
2.775	0.67453	1.404	8	1016.1	1321.0	1255.4	1119.9	936.5	732.1	582.2	567.9
2.785	0.66982	1.403	8	1012.3	1314.0	1249.1	1115.1	933.5	731.0	582.1	567.9
2.795	0.66512	1.401	8	1008.4	1307.1	1242.9	1110.3	930.5	729.8	582.0	567.8
2.805	0.66042	1.398	8	1004.6	1300.1	1236.7	1105.5	927.5	728.6	581.8	567.8
2.815	0.65571	1.397	8	1000.8	1293.2	1230.5	1100.7	924.5	727.4	581.7	567.8
2.825	0.65101	1.396	8	997.0	1286.4	1224.3	1095.9	921.6	726.3	581.6	567.7
2.835	0.64631	1.395	8	993.2	1279.5	1218.2	1091.2	918.6	725.1	581.5	567.7
2.845	0.64160	1.395	8	989.4	1272.7	1212.0	1086.5	915.6	723.9	581.3	567.7
2.855	0.63690	1.394	8	985.7	1265.9	1205.9	1081.7	912.7	722.7	581.2	567.7
2.865	0.63220	1.394	8	981.9	1259.2	1199.8	1077.0	909.7	721.6	581.1	567.6
2.875	0.62749	1.394	8	978.2	1252.4	1193.8	1072.3	906.8	720.4	581.0	567.6
2.885	0.62279	1.393	8	974.4	1245.7	1187.8	1067.7	903.9	719.2	580.8	567.6
2.895	0.61809	1.393	8	970.7	1239.0	1181.7	1063.0	900.9	718.0	580.7	567.5
2.905	0.61338	1.392	8	967.0	1232.3	1175.7	1058.3	898.0	716.9	580.6	567.5
2.915	0.60868	1.392	8	963.3	1225.7	1169.8	1053.7	895.1	715.7	580.4	567.5
2.925	0.60398	1.391	8	959.6	1219.1	1163.8	1049.1	892.2	714.5	580.3	567.5
2.935	0.60021	1.391	8	956.6	1213.8	1159.1	1045.4	889.8	713.6	580.2	567.4
2.945	0.59644	1.390	8	953.7	1208.6	1154.3	1041.7	887.5	712.6	580.1	567.4
2.955	0.59268	1.389	8	950.7	1203.3	1149.6	1038.1	885.2	711.7	580.0	567.4
2.965	0.58891	1.388	8	947.8	1198.1	1144.9	1034.4	882.9	710.8	579.9	567.4
2.975	0.58515	1.388	8	944.9	1192.9	1140.2	1030.7	880.6	709.8	579.8	567.3
2.985	0.58138	1.387	8	942.0	1187.7	1135.5	1027.1	878.3	708.9	579.7	567.3
2.995	0.57762	1.386	8	939.0	1182.5	1130.9	1023.5	876.0	707.9	579.6	567.3
3.005	0.57385	1.386	8	936.1	1177.3	1126.2	1019.8	873.7	707.0	579.5	567.3
3.015	0.57008	1.385	8	933.2	1172.2	1121.6	1016.2	871.4	706.1	579.4	567.2
3.025	0.56632	1.385	8	930.3	1167.1	1116.9	1012.6	869.1	705.1	579.3	567.2
3.035	0.56255	1.384	8	927.5	1162.0	1112.3	1009.0	866.8	704.2	579.2	567.2
3.045	0.55879	1.383	8	924.6	1156.9	1107.7	1005.4	864.5	703.2	579.1	567.2
3.055	0.55502	1.383	8	921.7	1151.8	1103.2	1001.8	862.2	702.3	579.0	567.1
3.065	0.55125	1.382	8	918.8	1146.7	1098.6	998.3	859.9	701.4	578.9	567.1
3.075	0.54749	1.382	8	916.0	1141.7	1094.0	994.7	857.6	700.4	578.7	567.1
3.085	0.54372	1.381	8	913.1	1136.6	1089.5	991.1	855.4	699.5	578.6	567.1
3.095	0.54031	1.381	8	910.5	1132.1	1085.4	987.9	853.3	698.6	578.5	567.0
3.105	0.53702	1.380	8	908.1	1127.7	1081.4	984.8	851.3	697.8	578.5	567.0
3.115	0.53373	1.379	8	905.6	1123.4	1077.5	981.7	849.3	697.0	578.4	567.0
3.125	0.53044	1.379	8	903.1	1119.0	1073.6	978.7	847.4	696.1	578.3	567.0

3.135	0.52715	1.378	8	900.6	1114.7	1069.6	975.6	845.4	695.3	578.2	567.0
3.145	0.52386	1.377	8	898.2	1110.4	1065.7	972.5	843.4	694.5	578.1	566.9
3.155	0.52056	1.377	8	895.7	1106.1	1061.8	969.5	841.5	693.7	578.0	566.9
3.165	0.51727	1.376	8	893.3	1101.8	1058.0	966.4	839.5	692.9	577.9	566.9
3.175	0.51398	1.375	8	890.8	1097.5	1054.1	963.4	837.5	692.0	577.8	566.9
3.185	0.51069	1.375	8	888.4	1093.2	1050.2	960.3	835.6	691.2	577.7	566.8
3.195	0.50740	1.374	8	885.9	1088.9	1046.4	957.3	833.6	690.4	577.6	566.8
3.205	0.50411	1.374	8	883.5	1084.7	1042.5	954.3	831.7	689.6	577.5	566.8
3.215	0.50082	1.373	8	881.1	1080.4	1038.7	951.3	829.7	688.7	577.4	566.8
3.225	0.49753	1.373	8	878.6	1076.2	1034.9	948.2	827.8	687.9	577.3	566.7
3.235	0.49423	1.372	8	876.2	1072.0	1031.0	945.2	825.8	687.1	577.3	566.7
3.245	0.49094	1.372	8	873.8	1067.8	1027.2	942.2	823.9	686.3	577.2	566.7
3.255	0.48789	1.371	8	871.5	1063.9	1023.7	939.5	822.1	685.5	577.1	566.7
3.265	0.48506	1.370	8	869.5	1060.3	1020.5	936.9	820.4	684.8	577.0	566.7
3.275	0.48224	1.370	8	867.4	1056.8	1017.2	934.3	818.7	684.1	576.9	566.6
3.285	0.47941	1.369	8	865.4	1053.2	1014.0	931.8	817.1	683.4	576.8	566.6
3.295	0.47659	1.369	8	863.3	1049.6	1010.8	929.2	815.4	682.7	576.8	566.6
3.305	0.47377	1.368	8	861.3	1046.1	1007.5	926.7	813.8	682.0	576.7	566.6
3.315	0.47094	1.367	8	859.2	1042.5	1004.3	924.1	812.1	681.3	576.6	566.6
3.325	0.46812	1.367	8	857.2	1039.0	1001.1	921.6	810.5	680.5	576.5	566.5
3.335	0.46529	1.366	8	855.1	1035.5	997.9	919.1	808.8	679.8	576.4	566.5
3.345	0.46247	1.366	8	853.1	1032.0	994.7	916.6	807.2	679.1	576.4	566.5
3.355	0.45965	1.365	8	851.0	1028.5	991.6	914.0	805.5	678.4	576.3	566.5
3.365	0.45682	1.365	8	849.0	1025.0	988.4	911.5	803.9	677.7	576.2	566.5
3.375	0.45400	1.364	8	847.0	1021.5	985.2	909.0	802.2	677.0	576.1	566.4
3.385	0.45118	1.364	8	845.0	1018.0	982.1	906.5	800.6	676.3	576.0	566.4
3.395	0.44835	1.363	8	842.9	1014.5	978.9	904.0	799.0	675.6	576.0	566.4
3.405	0.44553	1.363	8	840.9	1011.1	975.8	901.5	797.3	674.9	575.9	566.4
3.415	0.44282	1.362	8	839.0	1007.7	972.7	899.1	795.8	674.2	575.8	566.4
3.425	0.44047	1.361	8	837.3	1004.9	970.1	897.0	794.4	673.6	575.7	566.3
3.435	0.43812	1.361	8	835.6	1002.0	967.5	895.0	793.0	673.0	575.7	566.3
3.445	0.43577	1.360	8	834.0	999.2	964.9	892.9	791.7	672.4	575.6	566.3
3.455	0.43342	1.359	8	832.3	996.3	962.3	890.9	790.3	671.8	575.5	566.3
3.465	0.43106	1.359	8	830.6	993.5	959.8	888.8	789.0	671.3	575.5	566.3
3.475	0.42871	1.358	8	829.0	990.6	957.2	886.7	787.6	670.7	575.4	566.2
3.485	0.42636	1.358	8	827.3	987.8	954.6	884.7	786.3	670.1	575.3	566.2
3.495	0.42401	1.357	8	825.7	984.9	952.0	882.6	784.9	669.5	575.3	566.2
3.505	0.42166	1.357	8	824.0	982.1	949.5	880.6	783.6	668.9	575.2	566.2
3.515	0.41931	1.356	8	822.4	979.3	946.9	878.5	782.2	668.3	575.1	566.2
3.525	0.41695	1.355	8	820.7	976.5	944.3	876.5	780.9	667.7	575.1	566.2
3.535	0.41460	1.355	8	819.1	973.7	941.8	874.5	779.5	667.1	575.0	566.1
3.545	0.41225	1.354	8	817.4	970.9	939.2	872.4	778.2	666.5	574.9	566.1
3.555	0.40990	1.354	8	815.8	968.1	936.7	870.4	776.9	665.9	574.8	566.1
3.565	0.40755	1.353	8	814.1	965.3	934.1	868.4	775.5	665.3	574.8	566.1
3.575	0.40520	1.353	8	812.5	962.5	931.6	866.4	774.2	664.8	574.7	566.1
3.585	0.40190	1.353	8	810.2	958.6	928.1	863.5	772.3	663.9	574.6	566.0
3.595	0.39861	1.352	8	807.9	954.8	924.5	860.7	770.4	663.1	574.5	566.0
3.605	0.39532	1.352	8	805.6	950.9	921.0	857.9	768.6	662.3	574.4	566.0
3.615	0.39202	1.352	8	803.3	947.0	917.5	855.1	766.7	661.4	574.3	566.0
3.625	0.38873	1.352	8	801.1	943.2	914.0	852.3	764.8	660.6	574.2	565.9
3.635	0.38543	1.352	8	798.8	939.4	910.5	849.5	763.0	659.8	574.1	565.9
3.645	0.38214	1.352	8	796.5	935.6	907.0	846.7	761.1	659.0	574.0	565.9
3.655	0.37885	1.352	8	794.3	931.7	903.6	843.9	759.3	658.1	573.9	565.9
3.665	0.37555	1.352	8	792.0	927.9	900.1	841.1	757.4	657.3	573.9	565.8
3.675	0.37226	1.352	8	789.8	924.2	896.6	838.4	755.6	656.5	573.8	565.8
3.685	0.36897	1.352	8	787.5	920.4	893.2	835.6	753.7	655.7	573.7	565.8
3.695	0.36567	1.352	8	785.3	916.6	889.8	832.8	751.9	654.8	573.6	565.8
3.705	0.36238	1.352	8	783.0	912.9	886.3	830.1	750.0	654.0	573.5	565.7
3.715	0.35909	1.352	8	780.8	909.1	882.9	827.3	748.2	653.2	573.4	565.7
3.725	0.35579	1.352	8	778.6	905.4	879.5	824.6	746.3	652.3	573.3	565.7
3.735	0.35250	1.352	8	776.3	901.7	876.1	821.9	744.5	651.5	573.2	565.6
3.745	0.34956	1.352	8	774.4	898.4	873.1	819.4	742.9	650.8	573.1	565.6

3.755	0.34673	1.352	8	772.5	895.2	870.2	817.1	741.3	650.1	573.0	565.6
3.765	0.34391	1.352	8	770.6	892.0	867.3	814.8	739.7	649.3	572.9	565.6
3.775	0.34108	1.352	8	768.7	888.9	864.4	812.4	738.2	648.6	572.8	565.6
3.785	0.33826	1.352	8	766.8	885.7	861.5	810.1	736.6	647.9	572.8	565.5
3.795	0.33544	1.352	8	764.9	882.6	858.7	807.8	735.0	647.2	572.7	565.5
3.805	0.33261	1.352	8	763.0	879.5	855.8	805.5	733.5	646.5	572.6	565.5
3.815	0.32979	1.352	8	761.1	876.3	852.9	803.2	731.9	645.8	572.5	565.5
3.825	0.32697	1.352	8	759.2	873.2	850.1	800.9	730.4	645.1	572.4	565.4
3.835	0.32414	1.352	8	757.4	870.1	847.2	798.6	728.8	644.4	572.3	565.4
3.845	0.32132	1.352	8	755.5	867.0	844.4	796.3	727.3	643.7	572.2	565.4
3.855	0.31849	1.352	8	753.6	863.9	841.6	794.0	725.7	642.9	572.2	565.4
3.865	0.31567	1.352	8	751.8	860.8	838.7	791.7	724.2	642.2	572.1	565.3
3.875	0.31285	1.352	8	749.9	857.8	835.9	789.4	722.6	641.5	572.0	565.3
3.885	0.31002	1.352	8	748.0	854.7	833.1	787.1	721.1	640.8	571.9	565.3
3.895	0.30720	1.352	8	746.2	851.6	830.3	784.8	719.5	640.1	571.8	565.3
3.905	0.30437	1.352	8	744.3	848.6	827.5	782.6	718.0	639.4	571.7	565.2
3.915	0.30155	1.352	8	742.5	845.5	824.7	780.3	716.4	638.7	571.7	565.2
3.925	0.29873	1.353	8	740.6	842.5	821.9	778.0	714.9	638.0	571.6	565.2
3.935	0.29590	1.353	8	738.8	839.5	819.2	775.8	713.4	637.2	571.5	565.2
3.945	0.29308	1.353	8	737.0	836.4	816.4	773.5	711.8	636.5	571.4	565.1
3.955	0.29026	1.353	8	735.1	833.4	813.6	771.3	710.3	635.8	571.3	565.1
3.965	0.28743	1.353	8	733.3	830.4	810.9	769.0	708.8	635.1	571.2	565.1
3.975	0.28461	1.353	8	731.4	827.4	808.1	766.8	707.2	634.4	571.1	565.1
3.985	0.28178	1.353	8	729.6	824.4	805.4	764.6	705.7	633.7	571.1	565.0
3.995	0.27896	1.354	8	727.8	821.5	802.6	762.3	704.2	633.0	571.0	565.0

TIME = 0.00000 SEC - HEAT TRANSFER DATA FOR ROD 7 (FUEL TYPE 1)

DISTANCE (M)	H.T.MODE (W/M2/K)	HSURF (W/M2/K)	HGAP (K)	TFLUID
0.005	2	25819.143	5000.000	548.27
0.015	2	26289.221	5000.000	548.39
0.025	2	26766.986	5000.000	548.51
0.035	2	27252.535	5000.000	548.63
0.045	2	27746.020	5000.000	548.75
0.055	2	28247.537	5000.000	548.87
0.065	2	28757.350	5000.000	548.99
0.075	2	29275.643	5000.000	549.12
0.085	2	29802.604	5000.000	549.25
0.095	2	30338.588	5000.000	549.38
0.105	2	30883.854	5000.000	549.51
0.115	2	31438.631	5000.000	549.65
0.125	2	32003.379	5000.000	549.79
0.135	2	32578.383	5000.000	549.93
0.145	2	33163.988	5000.000	550.07
0.155	2	33760.695	5000.000	550.21
0.165	2	34368.891	5000.000	550.35
0.175	2	34989.137	5000.000	550.50
0.185	2	35621.852	5000.000	550.65
0.195	2	36267.465	5000.000	550.80
0.205	2	36926.133	5000.000	550.96
0.215	2	37598.133	5000.000	551.11
0.225	2	38284.039	5000.000	551.27
0.235	2	38984.398	5000.000	551.43
0.245	2	39699.973	5000.000	551.59
0.255	2	40431.328	5000.000	551.75
0.265	2	41179.316	5000.000	551.92
0.275	2	41944.570	5000.000	552.09
0.285	2	42727.742	5000.000	552.25
0.295	2	43529.328	5000.000	552.43

0.305	2	44349.914	5000.000	552.60
0.315	2	45190.270	5000.000	552.77
0.325	2	46051.340	5000.000	552.95
0.335	2	46981.449	5000.000	553.13
0.345	2	47935.285	5000.000	553.31
0.355	2	48913.473	5000.000	553.50
0.365	2	49915.797	5000.000	553.68
0.375	2	50940.379	5000.000	553.87
0.385	2	51982.613	5000.000	554.06
0.395	2	53029.066	5000.000	554.24
0.405	2	54124.715	5000.000	554.43
0.415	2	55266.496	5000.000	554.62
0.425	2	56450.980	5000.000	554.82
0.435	2	57677.219	5000.000	555.03
0.445	2	58945.734	5000.000	555.23
0.455	2	60257.672	5000.000	555.44
0.465	2	61614.750	5000.000	555.65
0.475	2	63019.168	5000.000	555.87
0.485	2	64473.340	5000.000	556.08
0.495	2	65980.180	5000.000	556.30
0.505	2	67542.492	5000.000	556.52
0.515	2	69163.703	5000.000	556.75
0.525	2	70847.453	5000.000	556.97
0.535	2	72597.422	5000.000	557.20
0.545	2	74418.039	5000.000	557.43
0.555	2	76313.727	5000.000	557.67
0.565	2	78289.703	5000.000	557.90
0.575	2	80351.312	5000.000	558.14
0.585	2	82504.516	5000.000	558.38
0.595	2	84755.852	5000.000	558.63
0.605	2	87112.688	5000.000	558.88
0.615	3	89582.789	5000.000	559.13
0.625	3	92175.422	5000.000	559.38
0.635	3	94900.758	5000.000	559.63
0.645	3	97523.141	5000.000	559.86
0.655	3	99445.109	5000.000	560.02
0.665	3	101010.383	5000.000	560.15
0.675	3	102048.875	5000.000	560.23
0.685	3	103121.062	5000.000	560.30
0.695	3	104227.844	5000.000	560.38
0.705	3	105368.906	5000.000	560.46
0.715	3	106545.828	5000.000	560.54
0.725	3	107761.469	5000.000	560.63
0.735	3	109018.188	5000.000	560.71
0.745	3	110317.109	5000.000	560.80
0.755	3	111656.711	5000.000	560.89
0.765	3	113032.297	5000.000	560.98
0.775	3	114459.211	5000.000	561.08
0.785	3	115939.797	5000.000	561.18
0.795	3	117264.734	5000.000	561.26
0.805	3	118643.742	5000.000	561.35
0.815	3	119525.273	5000.000	561.40
0.825	3	120361.438	5000.000	561.45
0.835	3	120596.656	5000.000	561.46
0.845	3	120723.625	5000.000	561.46
0.855	3	120851.289	5000.000	561.45
0.865	3	120979.609	5000.000	561.45
0.875	3	121107.727	5000.000	561.45
0.885	3	121235.977	5000.000	561.45
0.895	3	121363.922	5000.000	561.45
0.905	3	121491.438	5000.000	561.45
0.915	3	121618.781	5000.000	561.45

0.925	3	121746.148	5000.000	561.45
0.935	3	121873.023	5000.000	561.44
0.945	3	121999.430	5000.000	561.44
0.955	3	122125.570	5000.000	561.44
0.965	3	122251.617	5000.000	561.44
0.975	3	122377.266	5000.000	561.44
0.985	3	122433.102	5000.000	561.44
0.995	3	122489.227	5000.000	561.44
1.005	3	122544.969	5000.000	561.44
1.015	3	122600.195	5000.000	561.43
1.025	3	122655.648	5000.000	561.43
1.035	3	122710.484	5000.000	561.43
1.045	3	122765.648	5000.000	561.43
1.055	3	122820.336	5000.000	561.43
1.065	3	122875.297	5000.000	561.43
1.075	3	122929.773	5000.000	561.43
1.085	3	122984.500	5000.000	561.43
1.095	3	123038.477	5000.000	561.42
1.105	3	123092.422	5000.000	561.42
1.115	3	123145.938	5000.000	561.42
1.125	3	123199.422	5000.000	561.42
1.135	3	123252.844	5000.000	561.42
1.145	3	123288.945	5000.000	561.42
1.155	3	123318.953	5000.000	561.42
1.165	3	123348.422	5000.000	561.42
1.175	3	123376.961	5000.000	561.41
1.185	3	123403.594	5000.000	561.41
1.195	3	122855.227	5000.000	561.37
1.205	3	122870.414	5000.000	561.37
1.215	3	122892.477	5000.000	561.37
1.225	3	122917.891	5000.000	561.36
1.235	3	122945.469	5000.000	561.36
1.245	3	122974.336	5000.000	561.36
1.255	3	123003.852	5000.000	561.36
1.265	3	123033.867	5000.000	561.36
1.275	3	123064.344	5000.000	561.36
1.285	3	123094.984	5000.000	561.36
1.295	3	123125.688	5000.000	561.35
1.305	3	123145.023	5000.000	561.35
1.315	3	123152.859	5000.000	561.35
1.325	3	123160.719	5000.000	561.35
1.335	3	123168.523	5000.000	561.35
1.345	3	123176.078	5000.000	561.35
1.355	3	123184.023	5000.000	561.35
1.365	3	123191.461	5000.000	561.35
1.375	3	123198.836	5000.000	561.34
1.385	3	123206.016	5000.000	561.34
1.395	3	123213.273	5000.000	561.34
1.405	3	123220.344	5000.000	561.34
1.415	3	123227.727	5000.000	561.34
1.425	3	123234.633	5000.000	561.34
1.435	3	123241.461	5000.000	561.34
1.445	3	123248.383	5000.000	561.33
1.455	3	123255.164	5000.000	561.33
1.465	3	123250.812	5000.000	561.33
1.475	3	123212.422	5000.000	561.33
1.485	3	123173.664	5000.000	561.33
1.495	3	123135.094	5000.000	561.33
1.505	3	123095.938	5000.000	561.33
1.515	3	123056.516	5000.000	561.32
1.525	3	123017.375	5000.000	561.32
1.535	3	122977.992	5000.000	561.32

1.545	3	122938.719	5000.000	561.32
1.555	3	122899.086	5000.000	561.32
1.565	3	122858.961	5000.000	561.32
1.575	3	122817.734	5000.000	561.32
1.585	3	122774.984	5000.000	561.32
1.595	3	122006.141	5000.000	561.26
1.605	3	121951.547	5000.000	561.26
1.615	3	121903.523	5000.000	561.26
1.625	3	121859.352	5000.000	561.25
1.635	3	121794.500	5000.000	561.25
1.645	3	121730.852	5000.000	561.25
1.655	3	121667.656	5000.000	561.25
1.665	3	121605.406	5000.000	561.25
1.675	3	121543.406	5000.000	561.25
1.685	3	121481.234	5000.000	561.25
1.695	3	121419.180	5000.000	561.24
1.705	3	121357.328	5000.000	561.24
1.715	3	121295.367	5000.000	561.24
1.725	3	121233.406	5000.000	561.24
1.735	3	121171.273	5000.000	561.24
1.745	3	121109.180	5000.000	561.24
1.755	3	121047.023	5000.000	561.23
1.765	3	120984.672	5000.000	561.23
1.775	3	120922.008	5000.000	561.23
1.785	3	120859.609	5000.000	561.23
1.795	3	120779.445	5000.000	561.23
1.805	3	120693.875	5000.000	561.23
1.815	3	120607.797	5000.000	561.23
1.825	3	120522.062	5000.000	561.22
1.835	3	120435.797	5000.000	561.22
1.845	3	120349.477	5000.000	561.22
1.855	3	120263.219	5000.000	561.22
1.865	3	120177.000	5000.000	561.22
1.875	3	120090.766	5000.000	561.22
1.885	3	120004.344	5000.000	561.22
1.895	3	119917.703	5000.000	561.21
1.905	3	119830.648	5000.000	561.21
1.915	3	119743.273	5000.000	561.21
1.925	3	119656.047	5000.000	561.21
1.935	3	119568.836	5000.000	561.21
1.945	3	119481.359	5000.000	561.21
1.955	3	119358.828	5000.000	561.21
1.965	3	119200.398	5000.000	561.20
1.975	3	119041.156	5000.000	561.20
1.985	3	118880.062	5000.000	561.20
1.995	3	117843.211	5000.000	561.13
2.005	3	117668.422	5000.000	561.13
2.015	3	117500.836	5000.000	561.13
2.025	3	117337.211	5000.000	561.13
2.035	3	117175.258	5000.000	561.12
2.045	3	117014.562	5000.000	561.12
2.055	3	116854.789	5000.000	561.12
2.065	3	116695.141	5000.000	561.12
2.075	3	116535.414	5000.000	561.12
2.085	3	116376.281	5000.000	561.12
2.095	3	116216.500	5000.000	561.12
2.105	3	116056.922	5000.000	561.11
2.115	3	115890.727	5000.000	561.11
2.125	3	115706.734	5000.000	561.11
2.135	3	115521.977	5000.000	561.11
2.145	3	115337.312	5000.000	561.11
2.155	3	115151.875	5000.000	561.11

2.165	3	114966.094	5000.000	561.10
2.175	3	114780.398	5000.000	561.10
2.185	3	114593.891	5000.000	561.10
2.195	3	114407.297	5000.000	561.10
2.205	3	114220.352	5000.000	561.10
2.215	3	114032.883	5000.000	561.10
2.225	3	113845.492	5000.000	561.10
2.235	3	113656.922	5000.000	561.09
2.245	3	113468.773	5000.000	561.09
2.255	3	113280.195	5000.000	561.09
2.265	3	113091.125	5000.000	561.09
2.275	3	112902.180	5000.000	561.09
2.285	3	112614.102	5000.000	561.09
2.295	3	112324.984	5000.000	561.08
2.305	3	112034.898	5000.000	561.08
2.315	3	111744.102	5000.000	561.08
2.325	3	111452.445	5000.000	561.08
2.335	3	111159.875	5000.000	561.08
2.345	3	110866.773	5000.000	561.08
2.355	3	110572.352	5000.000	561.08
2.365	3	110276.844	5000.000	561.07
2.375	3	109979.602	5000.000	561.07
2.385	3	109680.656	5000.000	561.07
2.395	3	108366.430	5000.000	560.99
2.405	3	108051.109	5000.000	560.99
2.415	3	107742.641	5000.000	560.99
2.425	3	107437.273	5000.000	560.98
2.435	3	107133.562	5000.000	560.98
2.445	3	106849.602	5000.000	560.98
2.455	3	106572.227	5000.000	560.98
2.465	3	106294.680	5000.000	560.98
2.475	3	106016.664	5000.000	560.98
2.485	3	105738.609	5000.000	560.98
2.495	3	105459.375	5000.000	560.97
2.505	3	105179.797	5000.000	560.97
2.515	3	104899.523	5000.000	560.97
2.525	3	104618.445	5000.000	560.97
2.535	3	104336.062	5000.000	560.97
2.545	3	104053.062	5000.000	560.97
2.555	3	103769.531	5000.000	560.96
2.565	3	103485.117	5000.000	560.96
2.575	3	103199.445	5000.000	560.96
2.585	3	102913.328	5000.000	560.96
2.595	3	102626.344	5000.000	560.96
2.605	3	102324.969	5000.000	560.96
2.615	3	102008.672	5000.000	560.95
2.625	3	101691.695	5000.000	560.95
2.635	3	101373.797	5000.000	560.95
2.645	3	101054.617	5000.000	560.95
2.655	3	100734.477	5000.000	560.95
2.665	3	100413.477	5000.000	560.95
2.675	3	100091.367	5000.000	560.95
2.685	3	99767.906	5000.000	560.94
2.695	3	99443.227	5000.000	560.94
2.705	3	99117.453	5000.000	560.94
2.715	3	98790.172	5000.000	560.94
2.725	3	98462.188	5000.000	560.94
2.735	3	98132.578	5000.000	560.94
2.745	3	97802.180	5000.000	560.93
2.755	3	97470.297	5000.000	560.93
2.765	3	97144.016	5000.000	560.93
2.775	3	96837.781	5000.000	560.93

2.785	3	96529.297	5000.000	560.93
2.795	3	95094.414	5000.000	560.84
2.805	3	94769.281	5000.000	560.83
2.815	3	94450.609	5000.000	560.83
2.825	3	94135.008	5000.000	560.83
2.835	3	93820.500	5000.000	560.83
2.845	3	93506.492	5000.000	560.83
2.855	3	93192.086	5000.000	560.83
2.865	3	92877.383	5000.000	560.83
2.875	3	92561.758	5000.000	560.82
2.885	3	92245.320	5000.000	560.82
2.895	3	91927.969	5000.000	560.82
2.905	3	91609.586	5000.000	560.82
2.915	3	91290.211	5000.000	560.82
2.925	3	90969.367	5000.000	560.82
2.935	3	90708.438	5000.000	560.81
2.945	3	90446.805	5000.000	560.81
2.955	3	90183.836	5000.000	560.81
2.965	3	89920.453	5000.000	560.81
2.975	3	89656.219	5000.000	560.81
2.985	3	89391.156	5000.000	560.81
2.995	3	89125.250	5000.000	560.81
3.005	3	88858.695	5000.000	560.80
3.015	3	88590.914	5000.000	560.80
3.025	3	88322.469	5000.000	560.80
3.035	3	88053.195	5000.000	560.80
3.045	3	87783.070	5000.000	560.80
3.055	3	87512.102	5000.000	560.80
3.065	3	87240.258	5000.000	560.79
3.075	3	86967.547	5000.000	560.79
3.085	3	86694.258	5000.000	560.79
3.095	3	86443.828	5000.000	560.79
3.105	3	86201.406	5000.000	560.79
3.115	3	85958.094	5000.000	560.79
3.125	3	85713.648	5000.000	560.79
3.135	3	85469.117	5000.000	560.78
3.145	3	85223.117	5000.000	560.78
3.155	3	84977.219	5000.000	560.78
3.165	3	84730.156	5000.000	560.78
3.175	3	84482.359	5000.000	560.78
3.185	3	84233.789	5000.000	560.78
3.195	3	83984.469	5000.000	560.77
3.205	3	83734.359	5000.000	560.77
3.215	3	83483.906	5000.000	560.77
3.225	3	83231.836	5000.000	560.77
3.235	3	82979.812	5000.000	560.77
3.245	3	82726.570	5000.000	560.77
3.255	3	82489.344	5000.000	560.77
3.265	3	82268.281	5000.000	560.76
3.275	3	82046.641	5000.000	560.76
3.285	3	81824.781	5000.000	560.76
3.295	3	81601.500	5000.000	560.76
3.305	3	81378.422	5000.000	560.76
3.315	3	81154.320	5000.000	560.76
3.325	3	80929.578	5000.000	560.75
3.335	3	80704.625	5000.000	560.75
3.345	3	80478.203	5000.000	560.75
3.355	3	80251.977	5000.000	560.75
3.365	3	80024.672	5000.000	560.75
3.375	3	79796.828	5000.000	560.75
3.385	3	79568.109	5000.000	560.74
3.395	3	79339.242	5000.000	560.74

3.405	3	79109.297	5000.000	560.74
3.415	3	78887.578	5000.000	560.74
3.425	3	78692.336	5000.000	560.74
3.435	3	78496.109	5000.000	560.74
3.445	3	78299.914	5000.000	560.74
3.455	3	78102.922	5000.000	560.73
3.465	3	77905.430	5000.000	560.73
3.475	3	77707.852	5000.000	560.73
3.485	3	77509.359	5000.000	560.73
3.495	3	77310.781	5000.000	560.73
3.505	3	77110.867	5000.000	560.73
3.515	3	76911.258	5000.000	560.72
3.525	3	76710.609	5000.000	560.72
3.535	3	76509.664	5000.000	560.72
3.545	3	76308.078	5000.000	560.72
3.555	3	76106.375	5000.000	560.72
3.565	3	75903.734	5000.000	560.72
3.575	3	75700.547	5000.000	560.72
3.585	3	75422.680	5000.000	560.71
3.595	3	75143.312	5000.000	560.71
3.605	3	74863.281	5000.000	560.71
3.615	3	74581.336	5000.000	560.71
3.625	3	74299.094	5000.000	560.71
3.635	3	74015.344	5000.000	560.71
3.645	3	73730.844	5000.000	560.70
3.655	3	73444.812	5000.000	560.70
3.665	3	73158.008	5000.000	560.70
3.675	3	72869.617	5000.000	560.70
3.685	3	72580.461	5000.000	560.70
3.695	3	72289.688	5000.000	560.70
3.705	3	71998.078	5000.000	560.70
3.715	3	71704.852	5000.000	560.69
3.725	3	71410.750	5000.000	560.69
3.735	3	71114.992	5000.000	560.69
3.745	3	70848.211	5000.000	560.69
3.755	3	70590.438	5000.000	560.69
3.765	3	70331.242	5000.000	560.69
3.775	3	70071.508	5000.000	560.68
3.785	3	69810.336	5000.000	560.68
3.795	3	69549.000	5000.000	560.68
3.805	3	69285.805	5000.000	560.68
3.815	3	69021.992	5000.000	560.68
3.825	3	68757.117	5000.000	560.68
3.835	3	68490.789	5000.000	560.68
3.845	3	68224.195	5000.000	560.67
3.855	3	67955.703	5000.000	560.67
3.865	3	67686.516	5000.000	560.67
3.875	3	67416.219	5000.000	560.67
3.885	3	67144.469	5000.000	560.67
3.895	3	66872.211	5000.000	560.67
3.905	3	66598.250	5000.000	560.66
3.915	3	66323.133	5000.000	560.66
3.925	3	66047.422	5000.000	560.66
3.935	3	65770.109	5000.000	560.66
3.945	3	65491.148	5000.000	560.66
3.955	3	65211.773	5000.000	560.66
3.965	3	64930.715	5000.000	560.66
3.975	3	64647.980	5000.000	560.65
3.985	3	64364.762	5000.000	560.65
3.995	3	64079.824	5000.000	560.65

I PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - TEMPERATURE DATA FOR ROD 8 (FUEL TYPE 1)

DISTANCE (M)	FLUX (MW/M2)	DNBR	CHANNEL	AV FUEL T		TEMPERATURE					
				(DEG-K)	T (1)	T (2)	T (3)	T (4)	T (5)	T (6)	T (7)
0.005	0.40872	0.000	0	812.5	963.9	932.7	866.8	773.8	663.6	572.7	564.0
0.015	0.41578	0.000	0	817.5	972.3	940.4	873.0	777.9	665.4	573.0	564.1
0.025	0.42284	0.000	0	822.5	980.8	948.1	879.2	782.0	667.2	573.2	564.2
0.035	0.42990	0.000	0	827.5	989.4	955.9	885.4	786.1	669.0	573.5	564.3
0.045	0.43695	0.000	0	832.6	998.0	963.7	891.6	790.2	670.8	573.7	564.4
0.055	0.44401	9.777	10	837.7	1006.7	971.6	897.9	794.4	672.7	574.0	564.5
0.065	0.45107	9.532	10	842.8	1015.4	979.5	904.2	798.5	674.5	574.2	564.6
0.075	0.45812	9.297	10	847.9	1024.1	987.5	910.5	802.6	676.3	574.5	564.7
0.085	0.46518	9.071	10	853.0	1033.0	995.5	916.8	806.8	678.1	574.7	564.8
0.095	0.47224	8.856	10	858.2	1041.8	1003.5	923.2	811.0	679.9	575.0	564.9
0.105	0.47930	8.648	10	863.3	1050.8	1011.6	929.6	815.2	681.7	575.2	565.0
0.115	0.48635	8.449	10	868.5	1059.7	1019.8	936.0	819.4	683.5	575.5	565.1
0.125	0.49341	8.258	10	873.7	1068.8	1028.0	942.5	823.6	685.3	575.7	565.2
0.135	0.50047	8.074	10	879.0	1077.9	1036.2	949.0	827.8	687.2	575.9	565.3
0.145	0.50752	7.897	10	884.2	1087.0	1044.5	955.5	832.0	689.0	576.2	565.4
0.155	0.51458	7.727	10	889.5	1096.2	1052.8	962.1	836.2	690.8	576.4	565.4
0.165	0.52164	7.563	10	894.8	1105.5	1061.2	968.7	840.5	692.6	576.6	565.5
0.175	0.52870	7.404	10	900.2	1114.8	1069.6	975.3	844.8	694.4	576.9	565.6
0.185	0.53575	7.251	10	905.5	1124.1	1078.1	981.9	849.0	696.2	577.1	565.7
0.195	0.54281	7.104	10	910.9	1133.6	1086.6	988.6	853.3	698.0	577.3	565.8
0.205	0.54987	6.961	10	916.3	1143.0	1095.1	995.3	857.6	699.8	577.6	565.9
0.215	0.55693	6.824	10	921.7	1152.6	1103.7	1002.1	861.9	701.6	577.8	565.9
0.225	0.56398	6.691	10	927.1	1162.2	1112.4	1008.8	866.3	703.4	578.0	566.0
0.235	0.57104	6.563	10	932.6	1171.8	1121.1	1015.6	870.6	705.2	578.3	566.1
0.245	0.57810	6.438	10	938.0	1181.5	1129.9	1022.4	874.9	707.0	578.5	566.2
0.255	0.58515	6.318	10	943.5	1191.3	1138.7	1029.3	879.3	708.8	578.7	566.3
0.265	0.59221	6.201	10	949.1	1201.1	1147.5	1036.2	883.7	710.6	579.0	566.3
0.275	0.59927	6.088	10	954.6	1211.0	1156.4	1043.1	888.1	712.3	579.2	566.4
0.285	0.60633	5.979	10	960.2	1220.9	1165.4	1050.1	892.5	714.1	579.4	566.5
0.295	0.61338	5.872	10	965.8	1230.9	1174.3	1057.1	896.9	715.9	579.6	566.6
0.305	0.62044	5.769	10	971.4	1240.9	1183.4	1064.1	901.3	717.7	579.9	566.6
0.315	0.62750	5.669	10	977.0	1251.1	1192.5	1071.1	905.7	719.5	580.1	566.7
0.325	0.63455	5.571	10	982.7	1261.2	1201.6	1078.2	910.2	721.3	580.3	566.8
0.335	0.64255	5.471	10	989.1	1272.8	1212.0	1086.3	915.2	723.3	580.5	566.9
0.345	0.65055	5.373	10	995.6	1284.5	1222.5	1094.4	920.3	725.4	580.8	567.0
0.355	0.65855	5.278	10	1002.1	1296.2	1233.1	1102.5	925.4	727.4	581.0	567.0
0.365	0.66654	5.185	10	1008.6	1308.0	1243.7	1110.7	930.5	729.4	581.3	567.1
0.375	0.67454	5.095	10	1015.2	1319.9	1254.3	1118.9	935.6	731.4	581.5	567.2
0.385	0.68254	5.006	10	1021.8	1331.9	1265.1	1127.2	940.8	733.5	581.8	567.3
0.395	0.69053	4.919	10	1028.4	1343.9	1275.8	1135.5	945.9	735.5	582.0	567.3
0.405	0.69853	4.834	10	1035.0	1356.0	1286.7	1143.8	951.1	737.5	582.3	567.4
0.415	0.70653	4.753	10	1041.7	1368.2	1297.6	1152.2	956.3	739.5	582.5	567.5
0.425	0.71452	4.675	10	1048.4	1380.4	1308.6	1160.7	961.5	741.5	582.7	567.5
0.435	0.72252	4.599	10	1055.2	1392.7	1319.6	1169.1	966.7	743.5	583.0	567.6
0.445	0.73052	4.526	10	1061.9	1405.1	1330.8	1177.6	971.9	745.6	583.2	567.7
0.455	0.73851	4.455	10	1068.7	1417.6	1341.9	1186.2	977.2	747.6	583.5	567.8
0.465	0.74651	4.386	10	1075.6	1430.2	1353.2	1194.8	982.4	749.6	583.7	567.8
0.475	0.75451	4.319	10	1082.4	1442.8	1364.5	1203.5	987.7	751.6	584.0	567.9
0.485	0.76250	4.254	10	1089.3	1455.5	1375.9	1212.1	993.0	753.6	584.2	568.0
0.495	0.77050	4.190	10	1096.2	1468.3	1387.3	1220.9	998.4	755.7	584.4	568.1
0.505	0.77850	4.128	10	1103.2	1481.1	1398.8	1229.7	1003.7	757.7	584.7	568.1
0.515	0.78650	4.067	10	1110.2	1494.1	1410.4	1238.5	1009.1	759.7	584.9	568.2
0.525	0.79450	4.008	10	1117.2	1507.1	1422.0	1247.3	1014.5	761.7	585.2	568.3
0.535	0.80250	3.950	10	1124.2	1520.1	1433.7	1256.2	1019.9	763.7	585.4	568.4
0.545	0.81050	3.893	10	1131.3	1533.3	1445.4	1265.2	1025.3	765.7	585.6	568.4
0.555	0.81850	3.838	10	1138.4	1546.5	1457.2	1274.2	1030.7	767.8	585.9	568.5

0.565	0.82650	3.784	10	1145.6	1559.8	1469.1	1283.2	1036.1	769.8	586.1	568.6
0.575	0.83450	3.732	10	1152.7	1573.1	1481.0	1292.3	1041.6	771.8	586.3	568.6
0.585	0.84250	3.680	10	1159.9	1586.5	1493.0	1301.4	1047.1	773.8	586.6	568.7
0.595	0.85050	3.630	10	1167.1	1600.0	1505.1	1310.6	1052.6	775.8	586.8	568.8
0.605	0.85850	3.581	10	1174.4	1613.6	1517.2	1319.8	1058.1	777.8	587.1	568.8
0.615	0.86649	3.533	10	1181.7	1627.2	1529.4	1329.0	1063.7	779.9	587.3	568.9
0.625	0.87449	3.486	10	1189.0	1640.9	1541.6	1338.3	1069.2	781.9	587.5	569.0
0.635	0.88249	3.440	10	1196.3	1654.6	1553.9	1347.6	1074.8	783.9	587.8	569.0
0.645	0.89049	3.394	10	1203.7	1668.4	1566.3	1357.0	1080.4	785.9	588.0	569.1
0.655	0.89708	3.353	10	1209.8	1679.8	1576.5	1364.7	1085.0	787.5	588.2	569.2
0.665	0.90226	3.316	10	1214.6	1688.8	1584.5	1370.8	1088.6	788.8	588.3	569.2
0.675	0.90743	3.280	10	1219.4	1697.8	1592.6	1376.9	1092.2	790.1	588.5	569.2
0.685	0.91261	3.245	10	1224.2	1706.8	1600.7	1383.0	1095.9	791.4	588.6	569.3
0.695	0.91778	3.210	10	1229.0	1715.9	1608.8	1389.2	1099.5	792.7	588.8	569.3
0.705	0.92296	3.175	10	1233.8	1724.9	1616.9	1395.3	1103.2	794.0	588.9	569.3
0.715	0.92813	3.142	10	1238.7	1734.0	1625.0	1401.5	1106.8	795.3	589.0	569.3
0.725	0.93331	3.109	10	1243.5	1743.1	1633.2	1407.7	1110.5	796.6	589.2	569.4
0.735	0.93848	3.076	10	1248.4	1752.3	1641.4	1413.9	1114.1	797.8	589.3	569.4
0.745	0.94366	3.044	10	1253.3	1761.4	1649.6	1420.1	1117.8	799.1	589.4	569.4
0.755	0.94883	3.012	10	1258.1	1770.6	1657.8	1426.3	1121.5	800.4	589.6	569.5
0.765	0.95401	2.981	10	1263.0	1779.8	1666.1	1432.6	1125.2	801.7	589.7	569.5
0.775	0.95918	2.950	10	1267.9	1789.0	1674.3	1438.9	1128.9	803.0	589.8	569.5
0.785	0.96436	2.918	10	1272.9	1798.3	1682.6	1445.2	1132.6	804.3	590.0	569.5
0.795	0.96954	2.886	10	1277.8	1807.5	1690.9	1451.4	1136.3	805.5	590.1	569.6
0.805	0.97471	2.855	10	1282.7	1816.8	1699.2	1457.8	1140.0	806.8	590.2	569.6
0.815	0.97930	2.826	10	1287.1	1825.0	1706.6	1463.4	1143.3	808.0	590.3	569.6
0.825	0.98212	2.801	10	1289.8	1830.1	1711.2	1466.8	1145.3	808.7	590.4	569.6
0.835	0.98494	2.778	10	1292.5	1835.2	1715.8	1470.3	1147.4	809.4	590.5	569.6
0.845	0.98776	2.755	10	1295.2	1840.3	1720.3	1473.8	1149.4	810.1	590.6	569.6
0.855	0.99058	2.732	10	1297.9	1845.4	1724.9	1477.2	1151.4	810.8	590.6	569.6
0.865	0.99341	2.710	10	1300.6	1850.5	1729.5	1480.7	1153.5	811.5	590.7	569.7
0.875	0.99623	2.689	10	1303.4	1855.6	1734.1	1484.2	1155.5	812.2	590.8	569.7
0.885	0.99905	2.667	10	1306.1	1860.7	1738.7	1487.7	1157.6	812.9	590.9	569.7
0.895	1.00187	2.646	10	1308.8	1865.8	1743.3	1491.2	1159.6	813.6	590.9	569.7
0.905	1.00469	2.625	10	1311.5	1870.9	1747.9	1494.7	1161.7	814.3	591.0	569.7
0.915	1.00751	2.605	10	1314.3	1876.0	1752.5	1498.2	1163.7	815.0	591.1	569.7
0.925	1.01033	2.584	10	1317.0	1881.2	1757.1	1501.7	1165.8	815.7	591.1	569.7
0.935	1.01316	2.564	10	1319.7	1886.3	1761.8	1505.2	1167.8	816.4	591.2	569.8
0.945	1.01598	2.544	10	1322.5	1891.4	1766.4	1508.7	1169.9	817.1	591.3	569.8
0.955	1.01880	2.525	10	1325.2	1896.5	1771.0	1512.3	1172.0	817.8	591.4	569.8
0.965	1.02162	2.505	10	1328.0	1901.5	1775.7	1515.8	1174.0	818.5	591.4	569.8
0.975	1.02444	2.486	10	1330.7	1906.6	1780.3	1519.3	1176.1	819.2	591.5	569.8
0.985	1.02585	2.469	10	1332.1	1909.1	1782.6	1521.1	1177.1	819.5	591.5	569.8
0.995	1.02726	2.453	10	1333.5	1911.6	1785.0	1522.9	1178.2	819.9	591.6	569.8
1.005	1.02868	2.436	10	1334.8	1914.1	1787.3	1524.6	1179.2	820.2	591.6	569.8
1.015	1.03009	2.420	10	1336.2	1916.7	1789.6	1526.4	1180.2	820.6	591.7	569.8
1.025	1.03150	2.403	10	1337.6	1919.2	1792.0	1528.2	1181.3	820.9	591.7	569.9
1.035	1.03291	2.387	10	1339.0	1921.7	1794.3	1530.0	1182.3	821.3	591.7	569.9
1.045	1.03432	2.372	10	1340.3	1924.3	1796.6	1531.7	1183.4	821.6	591.8	569.9
1.055	1.03574	2.356	10	1341.7	1926.8	1799.0	1533.5	1184.4	822.0	591.8	569.9
1.065	1.03715	2.340	10	1343.1	1929.3	1801.3	1535.3	1185.4	822.3	591.8	569.9
1.075	1.03856	2.325	10	1344.5	1931.9	1803.6	1537.1	1186.5	822.7	591.9	569.9
1.085	1.03997	2.310	10	1345.9	1934.4	1806.0	1538.9	1187.5	823.0	591.9	569.9
1.095	1.04138	2.295	10	1347.2	1936.9	1808.3	1540.6	1188.6	823.4	592.0	569.9
1.105	1.04280	2.280	10	1348.6	1939.5	1810.6	1542.4	1189.6	823.7	592.0	569.9
1.115	1.04421	2.266	10	1350.0	1942.0	1813.0	1544.2	1190.6	824.1	592.0	569.9
1.125	1.04562	2.251	10	1351.4	1944.6	1815.3	1546.0	1191.7	824.4	592.1	569.9
1.135	1.04703	2.237	10	1352.8	1947.1	1817.7	1547.8	1192.7	824.8	592.1	569.9
1.145	1.04809	2.223	10	1353.8	1949.0	1819.4	1549.1	1193.5	825.0	592.1	569.9
1.155	1.04903	2.209	10	1354.7	1950.7	1821.0	1550.3	1194.2	825.3	592.1	569.9
1.165	1.04998	2.196	10	1355.7	1952.4	1822.6	1551.5	1194.9	825.5	592.2	569.9
1.175	1.05092	2.182	10	1356.6	1954.1	1824.1	1552.7	1195.6	825.7	592.2	569.9

1.195	1.05280	2.153	10	1358.4	1957.5	1827.2	1555.1	1197.0	826.2	592.2	569.9
1.205	1.05374	2.138	10	1359.2	1959.2	1828.8	1556.3	1197.7	826.4	592.3	569.9
1.215	1.05469	2.125	10	1360.3	1960.9	1830.4	1557.5	1198.4	826.7	592.3	570.0
1.225	1.05563	2.112	10	1361.2	1962.6	1831.9	1558.7	1199.1	826.9	592.3	570.0
1.235	1.05657	2.099	10	1362.1	1964.3	1833.5	1559.9	1199.8	827.1	592.3	570.0
1.245	1.05751	2.087	10	1363.1	1966.0	1835.1	1561.0	1200.5	827.4	592.4	570.0
1.255	1.05845	2.075	10	1364.0	1967.6	1836.6	1562.2	1201.2	827.6	592.4	570.0
1.265	1.05940	2.064	10	1364.9	1969.3	1838.2	1563.4	1201.9	827.8	592.4	570.0
1.275	1.06034	2.052	10	1365.8	1971.0	1839.8	1564.6	1202.6	828.1	592.4	570.0
1.285	1.06128	2.041	10	1366.8	1972.7	1841.4	1565.8	1203.3	828.3	592.4	570.0
1.295	1.06222	2.030	10	1367.7	1974.5	1842.9	1567.0	1204.0	828.5	592.5	570.0
1.305	1.06293	2.019	10	1368.4	1975.7	1844.1	1567.9	1204.5	828.7	592.5	570.0
1.315	1.06340	2.008	10	1368.9	1976.6	1844.9	1568.5	1204.8	828.8	592.5	570.0
1.325	1.06387	1.998	10	1369.3	1977.4	1845.7	1569.1	1205.2	828.9	592.5	570.0
1.335	1.06434	1.987	10	1369.8	1978.3	1846.5	1569.7	1205.5	829.0	592.5	570.0
1.345	1.06481	1.977	10	1370.3	1979.1	1847.2	1570.3	1205.9	829.2	592.5	570.0
1.355	1.06528	1.967	10	1370.7	1980.0	1848.0	1570.9	1206.6	829.3	592.6	570.0
1.365	1.06575	1.956	10	1371.2	1980.8	1848.8	1571.5	1206.6	829.4	592.6	570.0
1.375	1.06622	1.946	10	1371.7	1981.7	1849.6	1572.1	1206.9	829.5	592.6	570.0
1.385	1.06669	1.936	10	1372.1	1982.5	1850.4	1572.7	1207.3	829.6	592.6	570.0
1.395	1.06716	1.927	10	1372.6	1983.4	1851.2	1573.3	1207.6	829.7	592.6	570.0
1.405	1.06763	1.917	10	1373.0	1984.2	1852.0	1573.9	1208.0	829.9	592.6	570.0
1.415	1.06810	1.907	10	1373.5	1985.1	1852.7	1574.5	1208.3	830.0	592.6	570.0
1.425	1.06857	1.898	10	1374.0	1985.9	1853.5	1575.1	1208.7	830.1	592.6	570.0
1.435	1.06904	1.888	10	1374.4	1986.8	1854.3	1575.7	1209.0	830.2	592.7	570.0
1.445	1.06951	1.879	10	1374.9	1987.6	1855.1	1576.3	1209.4	830.3	592.7	570.0
1.455	1.06998	1.869	10	1375.4	1988.5	1855.9	1577.0	1209.7	830.4	592.7	570.0
1.465	1.07021	1.860	10	1375.6	1988.9	1856.3	1577.3	1209.9	830.5	592.7	570.0
1.475	1.06974	1.852	10	1375.1	1988.0	1855.5	1576.7	1209.6	830.4	592.7	570.0
1.485	1.06927	1.844	10	1374.7	1987.2	1854.7	1576.1	1209.2	830.3	592.7	570.0
1.495	1.06880	1.835	10	1374.2	1986.3	1853.9	1575.5	1208.9	830.2	592.6	570.0
1.505	1.06833	1.827	10	1373.7	1985.5	1853.1	1574.9	1208.5	830.0	592.6	570.0
1.515	1.06786	1.819	10	1373.3	1984.6	1852.3	1574.3	1208.2	829.9	592.6	570.0
1.525	1.06739	1.811	10	1372.8	1983.8	1851.6	1573.7	1207.8	829.8	592.6	570.0
1.535	1.06692	1.803	10	1372.4	1982.9	1850.8	1573.1	1207.5	829.7	592.6	570.0
1.545	1.06645	1.795	10	1371.9	1982.1	1850.0	1572.5	1207.1	829.6	592.6	570.0
1.555	1.06598	1.787	10	1371.4	1981.2	1849.2	1571.9	1206.8	829.5	592.6	570.0
1.565	1.06551	1.779	10	1371.0	1980.4	1848.4	1571.3	1206.4	829.3	592.6	570.0
1.575	1.06504	1.771	10	1370.5	1979.5	1847.6	1570.7	1206.1	829.2	592.6	570.0
1.585	1.06457	1.763	10	1370.0	1978.7	1846.9	1570.1	1205.7	829.1	592.5	570.0
1.595	1.06410	1.754	10	1369.6	1977.8	1846.1	1569.4	1205.4	829.0	592.5	570.0
1.605	1.06363	1.745	10	1369.1	1977.0	1845.3	1568.8	1205.0	828.9	592.5	570.0
1.615	1.06316	1.737	10	1368.6	1976.1	1844.5	1568.2	1204.6	828.7	592.5	570.0
1.625	1.06269	1.729	10	1368.2	1975.3	1843.7	1567.6	1204.3	828.6	592.5	570.0
1.635	1.06175	1.722	10	1367.2	1973.6	1842.1	1566.4	1203.6	828.4	592.4	570.0
1.645	1.06081	1.715	10	1366.3	1971.9	1840.5	1565.2	1202.9	828.2	592.4	570.0
1.655	1.05987	1.708	10	1365.4	1970.2	1839.0	1564.0	1202.2	827.9	592.4	570.0
1.665	1.05893	1.702	10	1364.4	1968.5	1837.4	1562.8	1201.5	827.7	592.4	570.0
1.675	1.05798	1.695	10	1363.5	1966.8	1835.8	1561.6	1200.8	827.5	592.4	570.0
1.685	1.05704	1.689	10	1362.6	1965.1	1834.3	1560.4	1200.1	827.2	592.3	570.0
1.695	1.05610	1.683	10	1361.7	1963.4	1832.7	1559.2	1199.4	827.0	592.3	569.9
1.705	1.05516	1.676	10	1360.7	1961.7	1831.1	1558.0	1198.7	826.8	592.3	569.9
1.715	1.05422	1.670	10	1359.8	1960.0	1829.6	1556.8	1198.0	826.5	592.3	569.9
1.725	1.05327	1.664	10	1358.9	1958.3	1828.0	1555.6	1197.3	826.3	592.2	569.9
1.735	1.05233	1.658	10	1358.0	1956.6	1826.4	1554.5	1196.6	826.1	592.2	569.9
1.745	1.05139	1.651	10	1357.0	1954.9	1824.9	1553.3	1195.9	825.8	592.2	569.9
1.755	1.05045	1.645	10	1356.1	1953.2	1823.3	1552.1	1195.2	825.6	592.2	569.9
1.765	1.04950	1.639	10	1355.2	1951.5	1821.7	1550.9	1194.5	825.4	592.1	569.9
1.775	1.04856	1.633	10	1354.3	1949.8	1820.2	1549.7	1193.8	825.1	592.1	569.9

1.805	1.04491	1.616	10	1350.7	1943.3	1814.1	1545.1	1191.1	824.2	592.0	569.9
1.815	1.04350	1.611	10	1349.3	1940.7	1811.8	1543.3	1190.1	823.9	592.0	569.9
1.825	1.04209	1.605	10	1347.9	1938.2	1809.4	1541.5	1189.0	823.5	591.9	569.9
1.835	1.04068	1.600	10	1346.5	1935.6	1807.1	1539.7	1188.0	823.2	591.9	569.9
1.845	1.03927	1.594	10	1345.1	1933.1	1804.8	1537.9	1187.0	822.8	591.9	569.9
1.855	1.03785	1.589	10	1343.8	1930.6	1802.4	1536.1	1185.9	822.5	591.8	569.9
1.865	1.03644	1.584	10	1342.4	1928.0	1800.1	1534.4	1184.9	822.1	591.8	569.9
1.875	1.03503	1.579	10	1341.0	1925.5	1797.8	1532.6	1183.8	821.8	591.8	569.8
1.885	1.03362	1.573	10	1339.6	1923.0	1795.4	1530.8	1182.8	821.4	591.7	569.8
1.895	1.03221	1.568	10	1338.2	1920.4	1793.1	1529.0	1181.8	821.1	591.7	569.8
1.905	1.03080	1.563	10	1336.9	1917.9	1790.8	1527.3	1180.7	820.7	591.7	569.8
1.915	1.02938	1.558	10	1335.5	1915.4	1788.4	1525.5	1179.7	820.4	591.6	569.8
1.925	1.02797	1.553	10	1334.1	1912.9	1786.1	1523.7	1178.7	820.0	591.6	569.8
1.935	1.02656	1.548	10	1332.7	1910.3	1783.8	1522.0	1177.6	819.7	591.6	569.8
1.945	1.02515	1.543	10	1331.4	1907.8	1781.4	1520.2	1176.6	819.3	591.5	569.8
1.955	1.02373	1.538	10	1329.3	1904.0	1778.0	1517.5	1175.0	818.8	591.5	569.8
1.965	1.02231	1.534	10	1326.6	1899.0	1773.3	1514.0	1173.0	818.1	591.4	569.8
1.975	1.01739	1.530	10	1323.8	1893.9	1768.7	1510.5	1170.9	817.4	591.3	569.8
1.985	1.01457	1.525	10	1321.1	1888.8	1764.1	1507.0	1168.8	816.7	591.2	569.8
1.995	1.01175	1.520	10	1318.3	1883.7	1759.4	1503.4	1166.8	816.0	591.2	569.7
2.005	1.00892	1.514	10	1315.6	1878.5	1754.8	1499.9	1164.7	815.3	591.1	569.7
2.015	1.00610	1.510	10	1312.9	1873.4	1750.2	1496.4	1162.7	814.6	591.0	569.7
2.025	1.00328	1.505	10	1310.1	1868.3	1745.6	1492.9	1160.6	813.9	590.9	569.7
2.035	1.00046	1.501	10	1307.4	1863.2	1740.9	1489.4	1158.5	813.2	590.9	569.7
2.045	0.99764	1.498	10	1304.7	1858.1	1736.3	1485.9	1156.5	812.5	590.8	569.7
2.055	0.99482	1.494	10	1302.0	1853.0	1731.8	1482.4	1154.5	811.8	590.7	569.6
2.065	0.99200	1.490	10	1299.2	1847.9	1727.2	1478.9	1152.4	811.1	590.6	569.6
2.075	0.98917	1.487	10	1296.5	1842.8	1722.6	1475.5	1150.4	810.4	590.6	569.6
2.085	0.98635	1.483	10	1293.8	1837.7	1718.0	1472.0	1148.3	809.7	590.5	569.6
2.095	0.98353	1.480	10	1291.1	1832.6	1713.4	1468.5	1146.3	809.0	590.4	569.6
2.105	0.98071	1.476	10	1288.4	1827.5	1708.9	1465.1	1144.3	808.3	590.3	569.6
2.115	0.97789	1.473	10	1285.6	1822.2	1704.1	1461.5	1142.1	807.6	590.3	569.6
2.125	0.97448	1.470	10	1282.4	1816.3	1698.8	1457.4	1139.8	806.7	590.2	569.5
2.135	0.97118	1.466	10	1279.3	1810.4	1693.5	1453.4	1137.4	805.9	590.1	569.5
2.145	0.96789	1.463	10	1276.2	1804.5	1688.2	1449.4	1135.0	805.1	590.0	569.5
2.155	0.96460	1.460	10	1273.0	1798.6	1682.9	1445.4	1132.7	804.3	589.9	569.5
2.165	0.96130	1.457	10	1269.9	1792.7	1677.6	1441.4	1130.3	803.5	589.8	569.5
2.175	0.95801	1.454	10	1266.8	1786.9	1672.4	1437.4	1128.0	802.7	589.8	569.5
2.185	0.95471	1.451	10	1263.6	1781.0	1667.1	1433.4	1125.6	801.8	589.7	569.4
2.195	0.95142	1.448	10	1260.5	1775.1	1661.9	1429.4	1123.3	801.0	589.6	569.4
2.205	0.94813	1.445	10	1257.4	1769.3	1656.6	1425.4	1120.9	800.2	589.5	569.4
2.215	0.94483	1.442	10	1254.3	1763.4	1651.4	1421.5	1118.6	799.4	589.4	569.4
2.225	0.94154	1.439	10	1251.2	1757.6	1646.1	1417.5	1116.2	798.6	589.3	569.4
2.235	0.93825	1.436	10	1248.1	1751.8	1640.9	1413.5	1113.9	797.7	589.3	569.4
2.245	0.93495	1.433	10	1245.0	1746.0	1635.7	1409.6	1111.6	796.9	589.2	569.3
2.255	0.93166	1.431	10	1241.9	1740.2	1630.5	1405.7	1109.2	796.1	589.1	569.3
2.265	0.92836	1.428	10	1238.8	1734.4	1625.3	1401.7	1106.9	795.3	589.0	569.3
2.275	0.92507	1.425	10	1235.8	1728.6	1620.1	1397.8	1104.6	794.5	588.9	569.3
2.285	0.91990	1.423	10	1230.9	1719.5	1612.0	1391.6	1100.9	793.2	588.8	569.3
2.295	0.91472	1.421	10	1226.1	1710.4	1603.9	1385.5	1097.3	791.9	588.6	569.2
2.305	0.90955	1.419	10	1221.3	1701.4	1595.8	1379.4	1093.7	790.6	588.5	569.2
2.315	0.90437	1.418	10	1216.5	1692.4	1587.8	1373.3	1090.1	789.3	588.4	569.2
2.325	0.89919	1.416	10	1211.7	1683.4	1579.7	1367.2	1086.4	788.1	588.2	569.2
2.335	0.89402	1.414	10	1207.0	1674.5	1571.7	1361.1	1082.8	786.8	588.1	569.1
2.345	0.88884	1.412	10	1202.2	1665.6	1563.7	1355.1	1079.2	785.5	588.0	569.1
2.355	0.88367	1.410	10	1197.5	1656.7	1555.8	1349.0	1075.6	784.2	587.8	569.1
2.365	0.87849	1.409	10	1192.7	1647.8	1547.8	1343.0	1072.0	782.9	587.7	569.1
2.375	0.87332	1.407	10	1188.0	1638.9	1539.9	1337.0	1068.5	781.6	587.6	569.0
2.385	0.86814	1.404	10	1183.3	1630.1	1532.0	1331.0	1064.9	780.3	587.4	569.0
2.395	0.86297	1.402	10	1178.6	1621.3	1524.1	1325.0	1061.3	779.0	587.3	569.0
2.405	0.85779	1.399	10	1173.9	1612.5	1516.3	1319.1	1057.7	777.8	587.1	568.9
2.415	0.85262	1.397	10	1169.2	1603.8	1508.5	1313.2	1054.2	776.5	587.0	568.9

2.425	0.84744	1.395	10	1164.6	1595.1	1500.7	1307.2	1050.7	775.2	586.9	568.9
2.435	0.84226	1.393	10	1159.9	1586.4	1492.9	1301.3	1047.1	773.9	586.7	568.8
2.445	0.83744	1.392	10	1155.6	1578.3	1485.7	1295.9	1043.8	772.7	586.6	568.8
2.455	0.83274	1.390	10	1151.4	1570.5	1478.7	1290.5	1040.6	771.5	586.5	568.8
2.465	0.82803	1.389	10	1147.2	1562.6	1471.7	1285.2	1037.4	770.4	586.3	568.8
2.475	0.82332	1.387	10	1143.0	1554.8	1464.7	1279.9	1034.2	769.2	586.2	568.7
2.485	0.81862	1.386	10	1138.8	1547.1	1457.8	1274.6	1031.1	768.0	586.1	568.7
2.495	0.81391	1.384	10	1134.7	1539.3	1450.8	1269.4	1027.9	766.8	586.0	568.7
2.505	0.80921	1.383	10	1130.5	1531.6	1443.9	1264.1	1024.7	765.7	585.8	568.7
2.515	0.80450	1.382	10	1126.4	1523.9	1437.0	1258.9	1021.5	764.5	585.7	568.6
2.525	0.79980	1.380	10	1122.2	1516.2	1430.2	1253.7	1018.4	763.3	585.6	568.6
2.535	0.79509	1.379	10	1118.1	1508.5	1423.3	1248.4	1015.2	762.2	585.5	568.6
2.545	0.79039	1.378	10	1114.0	1500.9	1416.5	1243.2	1012.1	761.0	585.4	568.6
2.555	0.78568	1.376	10	1109.9	1493.3	1409.7	1238.1	1008.9	759.8	585.2	568.5
2.565	0.78097	1.375	10	1105.8	1485.7	1402.9	1232.9	1005.8	758.7	585.1	568.5
2.575	0.77627	1.374	10	1101.7	1478.2	1396.2	1227.7	1002.7	757.5	585.0	568.5
2.585	0.77156	1.373	10	1097.7	1470.6	1389.4	1222.6	999.6	756.3	584.9	568.5
2.595	0.76686	1.372	10	1093.6	1463.1	1382.7	1217.5	996.4	755.1	584.7	568.4
2.605	0.76192	1.371	10	1089.4	1455.3	1375.7	1212.1	993.2	753.9	584.6	568.4
2.615	0.75674	1.370	10	1084.9	1447.1	1368.4	1206.5	989.8	752.6	584.5	568.4
2.625	0.75157	1.369	10	1080.5	1438.9	1361.0	1200.9	986.4	751.3	584.3	568.4
2.635	0.74639	1.368	10	1076.1	1430.8	1353.8	1195.4	983.0	750.0	584.2	568.3
2.645	0.74122	1.367	10	1071.7	1422.7	1346.5	1189.8	979.6	748.8	584.0	568.3
2.655	0.73604	1.366	10	1067.3	1414.6	1339.3	1184.3	976.2	747.5	583.9	568.3
2.665	0.73086	1.365	10	1062.9	1406.6	1332.1	1178.8	972.8	746.2	583.8	568.2
2.675	0.72569	1.365	10	1058.6	1398.5	1324.9	1173.3	969.4	744.9	583.6	568.2
2.685	0.72051	1.364	10	1054.2	1390.6	1317.8	1167.8	966.1	743.6	583.5	568.2
2.695	0.71534	1.363	10	1049.9	1382.6	1310.6	1162.3	962.7	742.3	583.4	568.1
2.705	0.71016	1.362	10	1045.5	1374.7	1303.5	1156.9	959.4	741.0	583.2	568.1
2.715	0.70499	1.362	10	1041.2	1366.8	1296.5	1151.5	956.0	739.7	583.1	568.1
2.725	0.69981	1.361	10	1036.9	1359.0	1289.4	1146.1	952.7	738.4	582.9	568.1
2.735	0.69464	1.360	10	1032.6	1351.1	1282.4	1140.7	949.4	737.2	582.8	568.0
2.745	0.68946	1.360	10	1028.4	1343.3	1275.4	1135.3	946.0	735.9	582.7	568.0
2.755	0.68429	1.359	10	1024.1	1335.6	1268.5	1130.0	942.7	734.6	582.5	568.0
2.765	0.67923	1.358	10	1020.0	1328.0	1261.7	1124.8	939.5	733.3	582.4	567.9
2.775	0.67453	1.357	10	1016.1	1321.0	1255.4	1119.9	936.5	732.1	582.3	567.9
2.785	0.66982	1.356	10	1012.3	1314.0	1249.1	1115.1	933.5	731.0	582.1	567.9
2.795	0.66512	1.354	10	1008.4	1307.1	1242.9	1110.3	930.5	729.8	582.0	567.8
2.805	0.66042	1.352	10	1004.6	1300.1	1236.7	1105.5	927.5	728.6	581.8	567.8
2.815	0.65571	1.351	10	1000.8	1293.2	1230.5	1100.7	924.5	727.4	581.7	567.8
2.825	0.65101	1.350	10	997.0	1286.4	1224.3	1095.9	921.6	726.3	581.6	567.7
2.835	0.64631	1.349	10	993.2	1279.5	1218.2	1091.2	918.6	725.1	581.5	567.7
2.845	0.64160	1.349	10	989.4	1272.7	1212.0	1086.4	915.6	723.9	581.3	567.7
2.855	0.63690	1.348	10	985.7	1265.9	1205.9	1081.7	912.7	722.7	581.2	567.7
2.865	0.63220	1.348	10	981.9	1259.2	1199.8	1077.0	909.7	721.6	581.1	567.6
2.875	0.62749	1.347	10	978.1	1252.4	1193.8	1072.3	906.8	720.4	581.0	567.6
2.885	0.62279	1.347	10	974.4	1245.7	1187.7	1067.7	903.9	719.2	580.8	567.6
2.895	0.61809	1.346	10	970.7	1239.0	1181.7	1063.0	900.9	718.0	580.7	567.5
2.905	0.61338	1.346	10	967.0	1232.3	1175.7	1058.3	898.0	716.9	580.6	567.5
2.915	0.60868	1.346	10	963.3	1225.7	1169.8	1053.7	895.1	715.7	580.4	567.5
2.925	0.60398	1.345	10	959.6	1219.1	1163.8	1049.1	892.2	714.5	580.3	567.5
2.935	0.60021	1.345	10	956.6	1213.8	1159.1	1045.4	889.8	713.6	580.2	567.4
2.945	0.59644	1.344	10	953.7	1208.6	1154.3	1041.7	887.5	712.6	580.1	567.4
2.955	0.59268	1.344	10	950.7	1203.3	1149.6	1038.1	885.2	711.7	580.0	567.4
2.965	0.58891	1.343	10	947.8	1198.1	1144.9	1034.4	882.9	710.8	579.9	567.4
2.975	0.58515	1.342	10	944.9	1192.9	1140.2	1030.7	880.6	709.8	579.8	567.3
2.985	0.58138	1.342	10	942.0	1187.7	1135.5	1027.1	878.3	708.9	579.7	567.3
2.995	0.57762	1.341	10	939.1	1182.5	1130.9	1023.5	876.0	707.9	579.6	567.3
3.005	0.57385	1.341	10	936.1	1177.4	1126.2	1019.8	873.7	707.0	579.5	567.3
3.015	0.57008	1.340	10	933.2	1172.2	1121.6	1016.2	871.4	706.1	579.4	567.2
3.025	0.56632	1.339	10	930.4	1167.1	1117.0	1012.6	869.1	705.1	579.3	567.2
3.035	0.56255	1.339	10	927.5	1162.0	1112.3	1009.0	866.8	704.2	579.2	567.2

3.045	0.55879	1.338	10	924.6	1156.9	1107.7	1005.4	864.5	703.2	579.1	567.2
3.055	0.55502	1.338	10	921.7	1151.8	1103.2	1001.8	862.2	702.3	579.0	567.1
3.065	0.55125	1.338	10	918.8	1146.7	1098.6	998.3	859.9	701.4	578.9	567.1
3.075	0.54749	1.337	10	916.0	1141.7	1094.0	994.7	857.6	700.4	578.8	567.1
3.085	0.54372	1.337	10	913.1	1136.7	1089.5	991.2	855.4	699.5	578.7	567.1
3.095	0.54031	1.336	10	910.6	1132.1	1085.4	987.9	853.3	698.6	578.6	567.0
3.105	0.53702	1.335	10	908.1	1127.7	1081.4	984.8	851.3	697.8	578.5	567.0
3.115	0.53373	1.335	10	905.6	1123.4	1077.5	981.8	849.4	697.0	578.4	567.0
3.125	0.53044	1.334	10	903.1	1119.0	1073.6	978.7	847.4	696.2	578.3	567.0
3.135	0.52715	1.334	10	900.6	1114.7	1069.7	975.6	845.4	695.3	578.2	567.0
3.145	0.52386	1.333	10	898.2	1110.4	1065.8	972.5	843.4	694.5	578.1	566.9
3.155	0.52056	1.333	10	895.7	1106.1	1061.9	969.5	841.5	693.7	578.0	566.9
3.165	0.51727	1.332	10	893.3	1101.8	1058.0	966.4	839.5	692.9	577.9	566.9
3.175	0.51398	1.332	10	890.8	1097.5	1054.1	963.4	837.5	692.0	577.8	566.9
3.185	0.51069	1.331	10	888.4	1093.2	1050.2	960.3	835.6	691.2	577.7	566.9
3.195	0.50740	1.331	10	885.9	1089.0	1046.4	957.3	833.6	690.4	577.6	566.8
3.205	0.50411	1.330	10	883.5	1084.7	1042.5	954.3	831.7	689.6	577.5	566.8
3.215	0.50082	1.330	10	881.1	1080.5	1038.7	951.3	829.7	688.7	577.5	566.8
3.225	0.49753	1.329	10	878.6	1076.2	1034.9	948.3	827.8	687.9	577.4	566.8
3.235	0.49423	1.329	10	876.2	1072.0	1031.1	945.3	825.8	687.1	577.3	566.7
3.245	0.49094	1.328	10	873.8	1067.8	1027.3	942.3	823.9	686.3	577.2	566.7
3.255	0.48789	1.328	10	871.6	1063.9	1023.7	939.5	822.1	685.5	577.1	566.7
3.265	0.48506	1.327	10	869.5	1060.4	1020.5	936.9	820.4	684.8	577.0	566.7
3.275	0.48224	1.327	10	867.4	1056.8	1017.2	934.4	818.8	684.1	576.9	566.7
3.285	0.47941	1.326	10	865.4	1053.2	1014.0	931.8	817.1	683.4	576.9	566.6
3.295	0.47659	1.326	10	863.3	1049.7	1010.8	929.3	815.4	682.7	576.8	566.6
3.305	0.47377	1.325	10	861.3	1046.1	1007.6	926.7	813.8	682.0	576.7	566.6
3.315	0.47094	1.325	10	859.2	1042.6	1004.4	924.2	812.1	681.3	576.6	566.6
3.325	0.46812	1.324	10	857.2	1039.0	1001.1	921.6	810.5	680.6	576.5	566.6
3.335	0.46529	1.324	10	855.1	1035.5	998.0	919.1	808.8	679.9	576.5	566.5
3.345	0.46247	1.323	10	853.1	1032.0	994.8	916.6	807.2	679.1	576.4	566.5
3.355	0.45965	1.323	10	851.1	1028.5	991.6	914.1	805.5	678.4	576.3	566.5
3.365	0.45682	1.322	10	849.0	1025.0	988.4	911.5	803.9	677.7	576.2	566.5
3.375	0.45400	1.322	10	847.0	1021.5	985.2	909.0	802.3	677.0	576.1	566.5
3.385	0.45118	1.321	10	845.0	1018.0	982.1	906.5	800.6	676.3	576.1	566.4
3.395	0.44835	1.321	10	843.0	1014.5	978.9	904.0	799.0	675.6	576.0	566.4
3.405	0.44553	1.321	10	840.9	1011.1	975.8	901.5	797.4	674.9	575.9	566.4
3.415	0.44282	1.320	10	839.0	1007.8	972.8	899.1	795.8	674.2	575.8	566.4
3.425	0.44047	1.320	10	837.3	1004.9	970.2	897.1	794.4	673.6	575.8	566.4
3.435	0.43812	1.319	10	835.7	1002.0	967.6	895.0	793.1	673.0	575.7	566.3
3.445	0.43577	1.318	10	834.0	999.2	965.0	892.9	791.7	672.5	575.6	566.3
3.455	0.43342	1.318	10	832.3	996.3	962.4	890.9	790.4	671.9	575.5	566.3
3.465	0.43106	1.317	10	830.7	993.5	959.8	888.8	789.0	671.3	575.5	566.3
3.475	0.42871	1.317	10	829.0	990.6	957.2	886.8	787.7	670.7	575.4	566.3
3.485	0.42636	1.316	10	827.3	987.8	954.6	884.7	786.3	670.1	575.3	566.3
3.495	0.42401	1.316	10	825.7	985.0	952.1	882.7	785.0	669.5	575.3	566.2
3.505	0.42166	1.315	10	824.0	982.2	949.5	880.6	783.6	668.9	575.2	566.2
3.515	0.41931	1.315	10	822.4	979.3	946.9	878.6	782.3	668.3	575.1	566.2
3.525	0.41695	1.314	10	820.7	976.5	944.4	876.5	780.9	667.7	575.1	566.2
3.535	0.41460	1.314	10	819.1	973.7	941.8	874.5	779.6	667.1	575.0	566.2
3.545	0.41225	1.313	10	817.4	970.9	939.3	872.5	778.2	666.6	574.9	566.1
3.555	0.40990	1.313	10	815.8	968.1	936.7	870.4	776.9	666.0	574.9	566.1
3.565	0.40755	1.312	10	814.1	965.3	934.2	868.4	775.5	665.4	574.8	566.1
3.575	0.40520	1.312	10	812.5	962.6	931.6	866.4	774.2	664.8	574.7	566.1
3.585	0.40190	1.312	10	810.2	958.7	928.1	863.6	772.3	664.0	574.6	566.1
3.595	0.39861	1.312	10	807.9	954.8	924.6	860.7	770.5	663.1	574.5	566.0
3.605	0.39532	1.312	10	805.6	950.9	921.1	857.9	768.6	662.3	574.5	566.0
3.615	0.39202	1.312	10	803.4	947.1	917.5	855.1	766.7	661.5	574.4	566.0
3.625	0.38873	1.312	10	801.1	943.2	914.0	852.3	764.9	660.6	574.3	566.0
3.635	0.38543	1.312	10	798.8	939.4	910.6	849.5	763.0	659.8	574.2	565.9
3.645	0.38214	1.312	10	796.6	935.6	907.1	846.7	761.1	659.0	574.1	565.9
3.655	0.37885	1.312	10	794.3	931.8	903.6	843.9	759.3	658.2	574.0	565.9

3.665	0.37555	1.312	10	792.0	928.0	900.1	841.2	757.4	657.3	573.9	565.9
3.675	0.37226	1.312	10	789.8	924.2	896.7	838.4	755.6	656.5	573.8	565.8
3.685	0.36897	1.312	10	787.5	920.4	893.2	835.6	753.7	655.7	573.7	565.8
3.695	0.36567	1.312	10	785.3	916.7	889.8	832.9	751.9	654.8	573.6	565.8
3.705	0.36238	1.312	10	783.1	912.9	886.4	830.1	750.1	654.0	573.5	565.8
3.715	0.35909	1.312	10	780.8	909.2	883.0	827.4	748.2	653.2	573.4	565.7
3.725	0.35579	1.312	10	778.6	905.4	879.5	824.6	746.4	652.4	573.3	565.7
3.735	0.35250	1.312	10	776.4	901.7	876.1	821.9	744.5	651.5	573.2	565.7
3.745	0.34956	1.312	10	774.4	898.4	873.1	819.5	742.9	650.8	573.1	565.7
3.755	0.34673	1.312	10	772.5	895.2	870.2	817.1	741.3	650.1	573.0	565.6
3.765	0.34391	1.312	10	770.6	892.1	867.3	814.8	739.8	649.4	572.9	565.6
3.775	0.34108	1.312	10	768.7	888.9	864.4	812.5	738.2	648.7	572.9	565.6
3.785	0.33826	1.312	10	766.8	885.8	861.6	810.1	736.6	648.0	572.8	565.6
3.795	0.33544	1.312	10	764.9	882.6	858.7	807.8	735.1	647.2	572.7	565.5
3.805	0.33261	1.312	10	763.0	879.5	855.8	805.5	733.5	646.5	572.6	565.5
3.815	0.32979	1.312	10	761.2	876.4	853.0	803.2	732.0	645.8	572.5	565.5
3.825	0.32697	1.312	10	759.3	873.3	850.1	800.9	730.4	645.1	572.4	565.5
3.835	0.32414	1.312	10	757.4	870.2	847.3	798.6	728.8	644.4	572.4	565.4
3.845	0.32132	1.313	10	755.5	867.1	844.4	796.3	727.3	643.7	572.3	565.4
3.855	0.31849	1.313	10	753.7	864.0	841.6	794.0	725.7	643.0	572.2	565.4
3.865	0.31567	1.313	10	751.8	860.9	838.8	791.7	724.2	642.3	572.1	565.4
3.875	0.31285	1.313	10	749.9	857.8	836.0	789.4	722.6	641.5	572.0	565.3
3.885	0.31002	1.313	10	748.1	854.7	833.1	787.2	721.1	640.8	571.9	565.3
3.895	0.30720	1.313	10	746.2	851.7	830.3	784.9	719.6	640.1	571.9	565.3
3.905	0.30437	1.313	10	744.4	848.6	827.5	782.6	718.0	639.4	571.8	565.3
3.915	0.30155	1.313	10	742.5	845.6	824.8	780.3	716.5	638.7	571.7	565.2
3.925	0.29873	1.314	10	740.7	842.5	822.0	778.1	714.9	638.0	571.6	565.2
3.935	0.29590	1.314	10	738.8	839.5	819.2	775.8	713.4	637.3	571.5	565.2
3.945	0.29308	1.314	10	737.0	836.5	816.4	773.6	711.9	636.6	571.4	565.2
3.955	0.29026	1.314	10	735.1	833.5	813.7	771.3	710.3	635.8	571.3	565.1
3.965	0.28743	1.314	10	733.3	830.5	810.9	769.1	708.8	635.1	571.3	565.1
3.975	0.28461	1.314	10	731.5	827.5	808.1	766.8	707.3	634.4	571.2	565.1
3.985	0.28178	1.315	10	729.7	824.5	805.4	764.6	705.7	633.7	571.1	565.1
3.995	0.27896	1.315	10	727.8	821.5	802.7	762.4	704.2	633.0	571.0	565.0

TIME = 0.00000 SEC - HEAT TRANSFER DATA FOR ROD 8 (FUEL TYPE 1)

DISTANCE (M)	H.T.MODE (W/M2/K)	HSURF (W/M2/K)	HGAP (K)	TFLUID
0.005	2	26041.248	5000.000	548.29
0.015	2	26534.688	5000.000	548.43
0.025	2	27036.518	5000.000	548.56
0.035	2	27547.449	5000.000	548.70
0.045	2	28067.924	5000.000	548.84
0.055	2	28598.246	5000.000	548.99
0.065	2	29138.707	5000.000	549.13
0.075	2	29689.592	5000.000	549.28
0.085	2	30251.150	5000.000	549.43
0.095	2	30823.822	5000.000	549.58
0.105	2	31407.891	5000.000	549.73
0.115	2	32003.734	5000.000	549.89
0.125	2	32611.830	5000.000	550.04
0.135	2	33232.613	5000.000	550.20
0.145	2	33866.496	5000.000	550.37
0.155	2	34514.102	5000.000	550.53
0.165	2	35175.898	5000.000	550.70
0.175	2	35852.617	5000.000	550.86
0.185	2	36544.805	5000.000	551.03
0.195	2	37252.902	5000.000	551.20
0.205	2	37977.359	5000.000	551.38

0.215	2	38718.477	5000.000	551.56
0.225	2	39476.840	5000.000	551.73
0.235	2	40253.215	5000.000	551.91
0.245	2	41048.500	5000.000	552.10
0.255	2	41863.566	5000.000	552.28
0.265	2	42699.461	5000.000	552.47
0.275	2	43557.113	5000.000	552.65
0.285	2	44437.309	5000.000	552.84
0.295	2	45341.000	5000.000	553.04
0.305	2	46269.020	5000.000	553.23
0.315	2	47222.613	5000.000	553.43
0.325	2	48203.098	5000.000	553.63
0.335	2	49260.848	5000.000	553.83
0.345	2	50349.895	5000.000	554.03
0.355	2	51471.590	5000.000	554.24
0.365	2	52627.375	5000.000	554.44
0.375	2	53815.102	5000.000	554.65
0.385	2	55025.746	5000.000	554.86
0.395	2	56241.340	5000.000	555.06
0.405	2	57554.113	5000.000	555.26
0.415	2	58903.770	5000.000	555.48
0.425	2	60294.688	5000.000	555.70
0.435	2	61731.402	5000.000	555.92
0.445	2	63219.254	5000.000	556.14
0.455	2	64762.387	5000.000	556.37
0.465	2	66364.406	5000.000	556.60
0.475	2	68029.078	5000.000	556.83
0.485	2	69760.086	5000.000	557.06
0.495	2	71562.055	5000.000	557.30
0.505	2	73439.047	5000.000	557.54
0.515	2	75396.234	5000.000	557.78
0.525	2	77438.984	5000.000	558.02
0.535	2	79573.234	5000.000	558.27
0.545	2	81805.352	5000.000	558.52
0.555	2	84142.516	5000.000	558.77
0.565	2	86592.539	5000.000	559.02
0.575	2	89164.055	5000.000	559.28
0.585	2	91866.273	5000.000	559.53
0.595	2	94709.945	5000.000	559.79
0.605	3	97706.758	5000.000	560.06
0.615	3	100869.633	5000.000	560.32
0.625	3	104213.211	5000.000	560.59
0.635	3	107016.320	5000.000	560.80
0.645	3	109669.766	5000.000	560.98
0.655	3	112392.484	5000.000	561.18
0.665	3	114450.445	5000.000	561.31
0.675	3	115430.547	5000.000	561.37
0.685	3	116454.102	5000.000	561.43
0.695	3	117524.109	5000.000	561.49
0.705	3	118046.227	5000.000	561.50
0.715	3	118290.219	5000.000	561.50
0.725	3	118534.000	5000.000	561.50
0.735	3	118777.219	5000.000	561.50
0.745	3	119019.898	5000.000	561.50
0.755	3	119262.547	5000.000	561.50
0.765	3	119505.086	5000.000	561.50
0.775	3	119749.633	5000.000	561.50
0.785	3	120000.539	5000.000	561.49
0.795	3	119852.273	5000.000	561.46
0.805	3	120177.922	5000.000	561.46
0.815	3	120422.281	5000.000	561.46
0.825	3	120554.852	5000.000	561.46

0.835	3	120676.562	5000.000	561.46
0.845	3	120793.672	5000.000	561.46
0.855	3	120909.508	5000.000	561.45
0.865	3	121024.891	5000.000	561.45
0.875	3	121140.055	5000.000	561.45
0.885	3	121255.641	5000.000	561.45
0.895	3	121370.914	5000.000	561.45
0.905	3	121486.242	5000.000	561.45
0.915	3	121601.773	5000.000	561.45
0.925	3	121717.797	5000.000	561.45
0.935	3	121833.484	5000.000	561.44
0.945	3	121949.117	5000.000	561.44
0.955	3	122064.914	5000.000	561.44
0.965	3	122180.797	5000.000	561.44
0.975	3	122296.195	5000.000	561.44
0.985	3	122342.633	5000.000	561.44
0.995	3	122389.039	5000.000	561.44
1.005	3	122435.344	5000.000	561.44
1.015	3	122481.469	5000.000	561.43
1.025	3	122527.906	5000.000	561.43
1.035	3	122573.969	5000.000	561.43
1.045	3	122620.602	5000.000	561.43
1.055	3	122666.922	5000.000	561.43
1.065	3	122713.898	5000.000	561.43
1.075	3	122760.789	5000.000	561.43
1.085	3	122807.945	5000.000	561.43
1.095	3	122854.578	5000.000	561.42
1.105	3	122901.414	5000.000	561.42
1.115	3	122947.758	5000.000	561.42
1.125	3	122994.211	5000.000	561.42
1.135	3	123041.016	5000.000	561.42
1.145	3	123070.773	5000.000	561.42
1.155	3	123095.266	5000.000	561.42
1.165	3	123120.695	5000.000	561.42
1.175	3	123148.320	5000.000	561.41
1.185	3	123182.828	5000.000	561.41
1.195	3	122689.008	5000.000	561.37
1.205	3	122798.969	5000.000	561.37
1.215	3	122857.523	5000.000	561.37
1.225	3	122893.523	5000.000	561.36
1.235	3	122919.844	5000.000	561.36
1.245	3	122942.453	5000.000	561.36
1.255	3	122964.266	5000.000	561.36
1.265	3	122985.906	5000.000	561.36
1.275	3	123007.930	5000.000	561.36
1.285	3	123030.125	5000.000	561.36
1.295	3	123052.781	5000.000	561.35
1.305	3	123064.039	5000.000	561.35
1.315	3	123064.219	5000.000	561.35
1.325	3	123064.430	5000.000	561.35
1.335	3	123064.828	5000.000	561.35
1.345	3	123064.977	5000.000	561.35
1.355	3	123065.867	5000.000	561.35
1.365	3	123066.078	5000.000	561.35
1.375	3	123066.812	5000.000	561.34
1.385	3	123067.156	5000.000	561.34
1.395	3	123067.570	5000.000	561.34
1.405	3	123068.500	5000.000	561.34
1.415	3	123069.492	5000.000	561.34
1.425	3	123070.023	5000.000	561.34
1.435	3	123070.836	5000.000	561.34
1.445	3	123071.734	5000.000	561.33

1.455	3	123072.617	5000.000	561.33
1.465	3	123062.547	5000.000	561.33
1.475	3	123018.523	5000.000	561.33
1.485	3	122974.094	5000.000	561.33
1.495	3	122930.070	5000.000	561.33
1.505	3	122885.320	5000.000	561.33
1.515	3	122840.422	5000.000	561.32
1.525	3	122795.836	5000.000	561.32
1.535	3	122751.023	5000.000	561.32
1.545	3	122706.758	5000.000	561.32
1.555	3	122662.797	5000.000	561.32
1.565	3	122619.273	5000.000	561.32
1.575	3	122577.953	5000.000	561.32
1.585	3	122542.930	5000.000	561.31
1.595	3	121832.664	5000.000	561.26
1.605	3	121870.602	5000.000	561.26
1.615	3	121856.953	5000.000	561.26
1.625	3	121822.453	5000.000	561.25
1.635	3	121756.586	5000.000	561.25
1.645	3	121687.695	5000.000	561.25
1.655	3	121617.750	5000.000	561.25
1.665	3	121548.070	5000.000	561.25
1.675	3	121478.586	5000.000	561.25
1.685	3	121409.234	5000.000	561.25
1.695	3	121340.055	5000.000	561.24
1.705	3	121271.219	5000.000	561.24
1.715	3	121202.406	5000.000	561.24
1.725	3	121133.719	5000.000	561.24
1.735	3	121064.992	5000.000	561.24
1.745	3	120996.383	5000.000	561.24
1.755	3	120927.812	5000.000	561.23
1.765	3	120858.922	5000.000	561.23
1.775	3	120790.242	5000.000	561.23
1.785	3	120721.672	5000.000	561.23
1.795	3	120635.438	5000.000	561.23
1.805	3	120543.852	5000.000	561.23
1.815	3	120451.828	5000.000	561.23
1.825	3	120360.117	5000.000	561.22
1.835	3	120268.078	5000.000	561.22
1.845	3	120176.172	5000.000	561.22
1.855	3	120084.328	5000.000	561.22
1.865	3	119992.703	5000.000	561.22
1.875	3	119901.172	5000.000	561.22
1.885	3	119809.500	5000.000	561.22
1.895	3	119717.617	5000.000	561.21
1.905	3	119625.141	5000.000	561.21
1.915	3	119532.672	5000.000	561.21
1.925	3	119440.133	5000.000	561.21
1.935	3	119347.719	5000.000	561.21
1.945	3	119255.445	5000.000	561.21
1.955	3	119128.500	5000.000	561.21
1.965	3	118966.711	5000.000	561.20
1.975	3	118806.977	5000.000	561.20
1.985	3	118652.562	5000.000	561.20
1.995	3	117681.922	5000.000	561.13
2.005	3	117602.898	5000.000	561.13
2.015	3	117470.141	5000.000	561.13
2.025	3	117315.984	5000.000	561.13
2.035	3	117153.195	5000.000	561.12
2.045	3	116987.289	5000.000	561.12
2.055	3	116820.688	5000.000	561.12
2.065	3	116653.914	5000.000	561.12

2.075	3	116487.102	5000.000	561.12
2.085	3	116320.859	5000.000	561.12
2.095	3	116154.086	5000.000	561.12
2.105	3	115987.648	5000.000	561.11
2.115	3	115814.742	5000.000	561.11
2.125	3	115624.094	5000.000	561.11
2.135	3	115432.805	5000.000	561.11
2.145	3	115241.680	5000.000	561.11
2.155	3	115049.867	5000.000	561.11
2.165	3	114857.766	5000.000	561.10
2.175	3	114665.820	5000.000	561.10
2.185	3	114473.070	5000.000	561.10
2.195	3	114280.375	5000.000	561.10
2.205	3	114087.523	5000.000	561.10
2.215	3	113894.117	5000.000	561.10
2.225	3	113700.766	5000.000	561.10
2.235	3	113506.516	5000.000	561.09
2.245	3	113312.641	5000.000	561.09
2.255	3	113118.469	5000.000	561.09
2.265	3	112923.805	5000.000	561.09
2.275	3	112729.617	5000.000	561.09
2.285	3	112436.203	5000.000	561.09
2.295	3	112141.578	5000.000	561.08
2.305	3	111846.062	5000.000	561.08
2.315	3	111549.930	5000.000	561.08
2.325	3	111252.930	5000.000	561.08
2.335	3	110955.227	5000.000	561.08
2.345	3	110657.000	5000.000	561.08
2.355	3	110358.102	5000.000	561.08
2.365	3	110058.852	5000.000	561.07
2.375	3	109760.812	5000.000	561.07
2.385	3	109467.391	5000.000	561.07
2.395	3	108227.586	5000.000	560.99
2.405	3	108012.523	5000.000	560.99
2.415	3	107740.500	5000.000	560.99
2.425	3	107445.281	5000.000	560.98
2.435	3	107140.570	5000.000	560.98
2.445	3	106851.305	5000.000	560.98
2.455	3	106567.469	5000.000	560.98
2.465	3	106282.836	5000.000	560.98
2.475	3	105997.664	5000.000	560.98
2.485	3	105712.531	5000.000	560.98
2.495	3	105426.312	5000.000	560.97
2.505	3	105139.891	5000.000	560.97
2.515	3	104852.742	5000.000	560.97
2.525	3	104565.016	5000.000	560.97
2.535	3	104276.164	5000.000	560.97
2.545	3	103986.656	5000.000	560.97
2.555	3	103696.688	5000.000	560.96
2.565	3	103405.922	5000.000	560.96
2.575	3	103113.930	5000.000	560.96
2.585	3	102821.562	5000.000	560.96
2.595	3	102528.406	5000.000	560.96
2.605	3	102220.906	5000.000	560.96
2.615	3	101898.547	5000.000	560.95
2.625	3	101575.594	5000.000	560.95
2.635	3	101251.773	5000.000	560.95
2.645	3	100926.734	5000.000	560.95
2.655	3	100600.828	5000.000	560.95
2.665	3	100274.203	5000.000	560.95
2.675	3	99946.445	5000.000	560.95
2.685	3	99617.617	5000.000	560.94

2.695	3	99287.406	5000.000	560.94
2.705	3	98955.938	5000.000	560.94
2.715	3	98623.172	5000.000	560.94
2.725	3	98289.688	5000.000	560.94
2.735	3	97954.695	5000.000	560.94
2.745	3	97619.070	5000.000	560.93
2.755	3	97282.250	5000.000	560.93
2.765	3	96952.070	5000.000	560.93
2.775	3	96644.227	5000.000	560.93
2.785	3	96340.602	5000.000	560.93
2.795	3	94987.125	5000.000	560.84
2.805	3	94766.008	5000.000	560.84
2.815	3	94485.102	5000.000	560.83
2.825	3	94179.898	5000.000	560.83
2.835	3	93864.688	5000.000	560.83
2.845	3	93545.383	5000.000	560.83
2.855	3	93224.297	5000.000	560.83
2.865	3	92902.258	5000.000	560.83
2.875	3	92579.398	5000.000	560.82
2.885	3	92255.758	5000.000	560.82
2.895	3	91931.117	5000.000	560.82
2.905	3	91605.742	5000.000	560.82
2.915	3	91279.281	5000.000	560.82
2.925	3	90951.547	5000.000	560.82
2.935	3	90683.773	5000.000	560.81
2.945	3	90415.383	5000.000	560.81
2.955	3	90145.719	5000.000	560.81
2.965	3	89875.695	5000.000	560.81
2.975	3	89604.883	5000.000	560.81
2.985	3	89333.289	5000.000	560.81
2.995	3	89060.898	5000.000	560.81
3.005	3	88787.836	5000.000	560.80
3.015	3	88513.812	5000.000	560.80
3.025	3	88239.086	5000.000	560.80
3.035	3	87963.594	5000.000	560.80
3.045	3	87687.320	5000.000	560.80
3.055	3	87410.266	5000.000	560.80
3.065	3	87132.406	5000.000	560.79
3.075	3	86853.766	5000.000	560.79
3.085	3	86574.578	5000.000	560.79
3.095	3	86318.438	5000.000	560.79
3.105	3	86070.164	5000.000	560.79
3.115	3	85821.148	5000.000	560.79
3.125	3	85571.070	5000.000	560.79
3.135	3	85320.938	5000.000	560.78
3.145	3	85069.422	5000.000	560.78
3.155	3	84818.031	5000.000	560.78
3.165	3	84565.539	5000.000	560.78
3.175	3	84312.258	5000.000	560.78
3.185	3	84058.445	5000.000	560.78
3.195	3	83803.852	5000.000	560.77
3.205	3	83548.492	5000.000	560.77
3.215	3	83292.844	5000.000	560.77
3.225	3	83035.625	5000.000	560.77
3.235	3	82778.492	5000.000	560.77
3.245	3	82520.195	5000.000	560.77
3.255	3	82277.961	5000.000	560.77
3.265	3	82051.945	5000.000	560.76
3.275	3	81825.391	5000.000	560.76
3.285	3	81598.664	5000.000	560.76
3.295	3	81370.570	5000.000	560.76
3.305	3	81142.703	5000.000	560.76

3.315	3	80913.867	5000.000	560.76
3.325	3	80684.430	5000.000	560.75
3.335	3	80454.828	5000.000	560.75
3.345	3	80223.789	5000.000	560.75
3.355	3	79992.992	5000.000	560.75
3.365	3	79761.164	5000.000	560.75
3.375	3	79528.836	5000.000	560.75
3.385	3	79295.656	5000.000	560.74
3.395	3	79062.375	5000.000	560.74
3.405	3	78828.055	5000.000	560.74
3.415	3	78601.992	5000.000	560.74
3.425	3	78402.477	5000.000	560.74
3.435	3	78202.008	5000.000	560.74
3.445	3	78001.586	5000.000	560.74
3.455	3	77800.422	5000.000	560.73
3.465	3	77598.797	5000.000	560.73
3.475	3	77397.102	5000.000	560.73
3.485	3	77194.539	5000.000	560.73
3.495	3	76991.805	5000.000	560.73
3.505	3	76787.977	5000.000	560.73
3.515	3	76584.398	5000.000	560.72
3.525	3	76379.797	5000.000	560.72
3.535	3	76174.930	5000.000	560.72
3.545	3	75969.461	5000.000	560.72
3.555	3	75763.914	5000.000	560.72
3.565	3	75557.438	5000.000	560.72
3.575	3	75350.469	5000.000	560.72
3.585	3	75068.773	5000.000	560.71
3.595	3	74785.625	5000.000	560.71
3.605	3	74501.820	5000.000	560.71
3.615	3	74216.148	5000.000	560.71
3.625	3	73930.195	5000.000	560.71
3.635	3	73642.758	5000.000	560.71
3.645	3	73354.617	5000.000	560.70
3.655	3	73064.961	5000.000	560.70
3.665	3	72774.562	5000.000	560.70
3.675	3	72482.602	5000.000	560.70
3.685	3	72189.883	5000.000	560.70
3.695	3	71895.594	5000.000	560.70
3.705	3	71600.484	5000.000	560.70
3.715	3	71303.766	5000.000	560.69
3.725	3	71006.227	5000.000	560.69
3.735	3	70707.031	5000.000	560.69
3.745	3	70436.867	5000.000	560.69
3.755	3	70175.734	5000.000	560.69
3.765	3	69913.227	5000.000	560.69
3.775	3	69650.180	5000.000	560.68
3.785	3	69385.719	5000.000	560.68
3.795	3	69121.109	5000.000	560.68
3.805	3	68854.680	5000.000	560.68
3.815	3	68587.641	5000.000	560.68
3.825	3	68319.562	5000.000	560.68
3.835	3	68050.047	5000.000	560.68
3.845	3	67780.281	5000.000	560.67
3.855	3	67508.648	5000.000	560.67
3.865	3	67236.320	5000.000	560.67
3.875	3	66962.914	5000.000	560.67
3.885	3	66688.062	5000.000	560.67
3.895	3	66412.719	5000.000	560.67
3.905	3	66135.602	5000.000	560.66
3.915	3	65857.539	5000.000	560.66
3.925	3	65578.797	5000.000	560.66

3.935	3	65298.469	5000.000	560.66
3.945	3	65016.504	5000.000	560.66
3.955	3	64734.145	5000.000	560.66
3.965	3	64450.117	5000.000	560.66
3.975	3	64164.426	5000.000	560.65
3.985	3	63878.258	5000.000	560.65
3.995	3	63590.383	5000.000	560.65

1PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - TEMPERATURE DATA FOR ROD 9 (FUEL TYPE 1)

DISTANCE (M)	FLUX (MW/M2)	DNBR	CHANNEL (DEG-K)	AV FUEL T			TEMPERATURE				
				T (1)	T (2)	T (3)	T (4)	T (5)	T (6)	T (7)	
0.005	0.39462	0.000	0	802.8	947.4	917.7	854.8	765.9	660.1	572.4	563.9
0.015	0.40144	0.000	0	807.6	955.4	925.0	860.7	769.8	661.8	572.6	564.0
0.025	0.40825	0.000	0	812.3	963.5	932.4	866.6	773.7	663.6	572.9	564.1
0.035	0.41507	0.000	0	817.2	971.7	939.8	872.5	777.7	665.3	573.1	564.2
0.045	0.42188	0.000	0	822.0	979.9	947.3	878.5	781.6	667.1	573.3	564.3
0.055	0.42869	0.000	0	826.8	988.1	954.8	884.5	785.6	668.8	573.6	564.4
0.065	0.43551	9.876	11	831.7	996.4	962.3	890.5	789.5	670.6	573.8	564.5
0.075	0.44232	9.633	11	836.6	1004.8	969.9	896.5	793.5	672.3	574.1	564.6
0.085	0.44914	9.401	11	841.5	1013.1	977.5	902.6	797.5	674.1	574.3	564.7
0.095	0.45595	9.178	11	846.4	1021.6	985.2	908.7	801.5	675.8	574.5	564.8
0.105	0.46276	8.964	11	851.4	1030.1	992.9	914.8	805.5	677.6	574.7	564.9
0.115	0.46958	8.759	11	856.3	1038.6	1000.6	920.9	809.5	679.3	575.0	565.0
0.125	0.47639	8.562	11	861.3	1047.2	1008.4	927.1	813.5	681.1	575.2	565.0
0.135	0.48320	8.372	11	866.3	1055.8	1016.3	933.3	817.6	682.8	575.4	565.1
0.145	0.49002	8.190	11	871.3	1064.5	1024.1	939.5	821.6	684.6	575.7	565.2
0.155	0.49683	8.014	11	876.4	1073.3	1032.1	945.7	825.7	686.3	575.9	565.3
0.165	0.50365	7.845	11	881.4	1082.1	1040.0	952.0	829.8	688.0	576.1	565.4
0.175	0.51046	7.681	11	886.5	1090.9	1048.0	958.3	833.8	689.8	576.3	565.4
0.185	0.51727	7.523	11	891.6	1099.8	1056.1	964.7	837.9	691.5	576.6	565.5
0.195	0.52409	7.371	11	896.7	1108.8	1064.2	971.0	842.0	693.2	576.8	565.6
0.205	0.53090	7.224	11	901.9	1117.8	1072.3	977.4	846.1	695.0	577.0	565.7
0.215	0.53772	7.082	11	907.0	1126.8	1080.5	983.8	850.3	696.7	577.2	565.8
0.225	0.54453	6.945	11	912.2	1135.9	1088.7	990.3	854.4	698.4	577.4	565.8
0.235	0.55134	6.812	11	917.4	1145.1	1097.0	996.8	858.6	700.2	577.7	565.9
0.245	0.55816	6.684	11	922.6	1154.3	1105.3	1003.3	862.7	701.9	577.9	566.0
0.255	0.56497	6.560	11	927.9	1163.5	1113.6	1009.8	866.9	703.6	578.1	566.0
0.265	0.57178	6.439	11	933.2	1172.8	1122.0	1016.4	871.1	705.4	578.3	566.1
0.275	0.57860	6.323	11	938.4	1182.2	1130.5	1022.9	875.3	707.1	578.5	566.2
0.285	0.58541	6.210	11	943.8	1191.6	1139.0	1029.6	879.5	708.8	578.7	566.3
0.295	0.59223	6.100	11	949.1	1201.1	1147.5	1036.2	883.7	710.6	578.9	566.3
0.305	0.59904	5.994	11	954.4	1210.6	1156.1	1042.9	887.9	712.3	579.2	566.4
0.315	0.60585	5.891	11	959.8	1220.2	1164.7	1049.6	892.2	714.0	579.4	566.5
0.325	0.61267	5.791	11	965.2	1229.9	1173.4	1056.3	896.4	715.7	579.6	566.5
0.335	0.62039	5.687	11	971.3	1240.8	1183.3	1064.0	901.2	717.7	579.8	566.6
0.345	0.62811	5.587	11	977.5	1251.9	1193.2	1071.7	906.1	719.6	580.1	566.7
0.355	0.63583	5.489	11	983.7	1263.0	1203.2	1079.5	911.0	721.6	580.3	566.8
0.365	0.64356	5.394	11	989.9	1274.2	1213.3	1087.2	915.8	723.6	580.5	566.8
0.375	0.65128	5.302	11	996.2	1285.5	1223.4	1095.1	920.7	725.5	580.8	566.9
0.385	0.65900	5.212	11	1002.4	1296.8	1233.6	1102.9	925.6	727.5	581.0	567.0
0.395	0.66672	5.122	11	1008.7	1308.2	1243.8	1110.8	930.6	729.4	581.3	567.1
0.405	0.67445	5.034	11	1015.1	1319.7	1254.1	1118.8	935.5	731.4	581.5	567.1
0.415	0.68217	4.950	11	1021.4	1331.2	1264.5	1126.7	940.5	733.3	581.7	567.2
0.425	0.68989	4.870	11	1027.8	1342.8	1274.9	1134.8	945.4	735.3	582.0	567.3
0.435	0.69761	4.793	11	1034.2	1354.5	1285.4	1142.8	950.4	737.2	582.2	567.4
0.445	0.70533	4.717	11	1040.7	1366.3	1295.9	1150.9	955.4	739.2	582.4	567.4
0.455	0.71306	4.644	11	1047.1	1378.1	1306.5	1159.0	960.5	741.1	582.7	567.5
0.465	0.72078	4.573	11	1053.6	1390.0	1317.2	1167.2	965.5	743.1	582.9	567.6

0.475	0.72850	4.503	11	1060.2	1401.9	1327.9	1175.4	970.5	745.0	583.1	567.6
0.485	0.73622	4.435	11	1066.7	1414.0	1338.6	1183.7	975.6	747.0	583.4	567.7
0.495	0.74395	4.369	11	1073.3	1426.1	1349.5	1192.0	980.7	748.9	583.6	567.8
0.505	0.75167	4.304	11	1079.9	1438.2	1360.4	1200.3	985.8	750.8	583.8	567.8
0.515	0.75939	4.241	11	1086.6	1450.5	1371.3	1208.7	990.9	752.8	584.0	567.9
0.525	0.76711	4.179	11	1093.2	1462.8	1382.3	1217.1	996.0	754.7	584.3	568.0
0.535	0.77483	4.119	11	1099.9	1475.1	1393.4	1225.5	1001.2	756.7	584.5	568.0
0.545	0.78256	4.061	11	1106.6	1487.6	1404.5	1234.0	1006.3	758.6	584.7	568.1
0.555	0.79028	4.003	11	1113.4	1500.1	1415.7	1242.6	1011.5	760.6	585.0	568.2
0.565	0.79800	3.947	11	1120.2	1512.7	1427.0	1251.1	1016.7	762.5	585.2	568.2
0.575	0.80572	3.893	11	1127.0	1525.3	1438.3	1259.7	1021.9	764.5	585.4	568.3
0.585	0.81344	3.839	11	1133.8	1538.0	1449.6	1268.4	1027.2	766.4	585.6	568.4
0.595	0.82117	3.787	11	1140.7	1550.8	1461.0	1277.1	1032.4	768.4	585.9	568.4
0.605	0.82889	3.736	11	1147.6	1563.6	1472.5	1285.8	1037.7	770.3	586.1	568.5
0.615	0.83661	3.686	11	1154.5	1576.5	1484.1	1294.6	1043.0	772.2	586.3	568.6
0.625	0.84433	3.638	11	1161.5	1589.5	1495.7	1303.4	1048.2	774.2	586.6	568.6
0.635	0.85206	3.590	11	1168.4	1602.5	1507.3	1312.2	1053.6	776.1	586.8	568.7
0.645	0.85978	3.544	11	1175.4	1615.6	1519.0	1321.1	1058.9	778.1	587.0	568.8
0.655	0.86614	3.502	11	1181.2	1626.4	1528.7	1328.5	1063.3	779.7	587.2	568.8
0.665	0.87113	3.464	11	1185.8	1635.0	1536.3	1334.3	1066.8	780.9	587.3	568.9
0.675	0.87613	3.427	11	1190.4	1643.5	1544.0	1340.1	1070.2	782.2	587.5	568.9
0.685	0.88113	3.391	11	1195.0	1652.1	1551.7	1345.9	1073.7	783.4	587.6	568.9
0.695	0.88613	3.355	11	1199.6	1660.7	1559.4	1351.7	1077.2	784.7	587.8	569.0
0.705	0.89112	3.319	11	1204.2	1669.3	1567.1	1357.6	1080.7	786.0	587.9	569.0
0.715	0.89612	3.285	11	1208.8	1678.0	1574.8	1363.4	1084.2	787.2	588.1	569.1
0.725	0.90112	3.251	11	1213.4	1686.6	1582.6	1369.3	1087.7	788.4	588.2	569.1
0.735	0.90611	3.218	11	1218.0	1695.3	1590.4	1375.2	1091.2	789.7	588.3	569.1
0.745	0.91111	3.185	11	1222.7	1704.0	1598.2	1381.1	1094.7	790.9	588.5	569.2
0.755	0.91611	3.153	11	1227.3	1712.8	1606.0	1387.1	1098.2	792.2	588.6	569.2
0.765	0.92111	3.121	11	1232.0	1721.5	1613.8	1393.0	1101.7	793.4	588.8	569.2
0.775	0.92610	3.090	11	1236.7	1730.3	1621.7	1399.0	1105.3	794.7	588.9	569.3
0.785	0.93110	3.059	11	1241.4	1739.1	1629.6	1404.9	1108.8	795.9	589.0	569.3
0.795	0.93610	3.027	11	1246.0	1747.9	1637.5	1410.9	1112.3	797.2	589.2	569.3
0.805	0.94109	2.994	11	1250.8	1756.8	1645.4	1416.9	1115.9	798.4	589.3	569.4
0.815	0.94552	2.965	11	1254.9	1764.6	1652.5	1422.3	1119.1	799.5	589.4	569.4
0.825	0.94825	2.940	11	1257.5	1769.5	1656.8	1425.6	1121.0	800.2	589.5	569.4
0.835	0.95097	2.916	11	1260.1	1774.3	1661.2	1428.9	1123.0	800.9	589.6	569.4
0.845	0.95370	2.893	11	1262.7	1779.2	1665.5	1432.2	1124.9	801.6	589.7	569.4
0.855	0.95642	2.870	11	1265.3	1784.1	1669.9	1435.5	1126.9	802.3	589.7	569.5
0.865	0.95915	2.848	11	1267.9	1788.9	1674.2	1438.8	1128.8	803.0	589.8	569.5
0.875	0.96187	2.826	11	1270.5	1793.8	1678.6	1442.1	1130.8	803.6	589.9	569.5
0.885	0.96460	2.804	11	1273.1	1798.7	1683.0	1445.4	1132.7	804.3	590.0	569.5
0.895	0.96732	2.782	11	1275.6	1803.5	1687.3	1448.7	1134.7	805.0	590.0	569.5
0.905	0.97005	2.760	11	1278.2	1808.4	1691.7	1452.1	1136.6	805.7	590.1	569.5
0.915	0.97277	2.739	11	1280.8	1813.3	1696.1	1455.4	1138.6	806.3	590.2	569.6
0.925	0.97550	2.718	11	1283.4	1818.2	1700.5	1458.7	1140.5	807.0	590.2	569.6
0.935	0.97822	2.697	11	1286.1	1823.1	1704.9	1462.0	1142.5	807.7	590.3	569.6
0.945	0.98095	2.677	11	1288.7	1828.0	1709.3	1465.4	1144.5	808.4	590.4	569.6
0.955	0.98367	2.657	11	1291.3	1832.9	1713.7	1468.7	1146.4	809.0	590.4	569.6
0.965	0.98640	2.637	11	1293.9	1837.8	1718.1	1472.1	1148.4	809.7	590.5	569.6
0.975	0.98913	2.617	11	1296.5	1842.7	1722.5	1475.4	1150.4	810.4	590.6	569.6
0.985	0.99049	2.600	11	1297.8	1845.2	1724.8	1477.1	1151.3	810.7	590.6	569.6
0.995	0.99185	2.582	11	1299.1	1847.6	1727.0	1478.8	1152.3	811.1	590.7	569.6
1.005	0.99322	2.565	11	1300.4	1850.1	1729.2	1480.5	1153.3	811.4	590.7	569.6
1.015	0.99458	2.549	11	1301.7	1852.6	1731.4	1482.1	1154.3	811.7	590.7	569.7
1.025	0.99594	2.532	11	1303.1	1855.0	1733.6	1483.8	1155.3	812.1	590.8	569.7
1.035	0.99731	2.516	11	1304.4	1857.5	1735.8	1485.5	1156.3	812.4	590.8	569.7
1.045	0.99867	2.500	11	1305.7	1860.0	1738.1	1487.2	1157.3	812.8	590.8	569.7
1.055	1.00004	2.484	11	1307.0	1862.4	1740.3	1488.9	1158.3	813.1	590.9	569.7
1.065	1.00140	2.468	11	1308.3	1864.9	1742.5	1490.6	1159.2	813.4	590.9	569.7
1.075	1.00276	2.452	11	1309.6	1867.4	1744.7	1492.3	1160.2	813.8	590.9	569.7
1.085	1.00413	2.437	11	1311.0	1869.9	1747.0	1494.0	1161.2	814.1	591.0	569.7

1.095	1.00549	2.421	11	1312.3	1872.3	1749.2	1495.7	1162.2	814.4	591.0	569.7
1.105	1.00685	2.406	11	1313.6	1874.8	1751.4	1497.3	1163.2	814.8	591.0	569.7
1.115	1.00822	2.391	11	1314.9	1877.3	1753.6	1499.0	1164.2	815.1	591.1	569.7
1.125	1.00958	2.377	11	1316.2	1879.8	1755.9	1500.7	1165.2	815.5	591.1	569.7
1.135	1.01094	2.362	11	1317.6	1882.2	1758.1	1502.4	1166.2	815.8	591.1	569.7
1.145	1.01197	2.348	11	1318.6	1884.1	1759.8	1503.7	1166.9	816.0	591.2	569.7
1.155	1.01288	2.334	11	1319.4	1885.7	1761.3	1504.8	1167.6	816.3	591.2	569.7
1.165	1.01378	2.321	11	1320.3	1887.4	1762.8	1506.0	1168.3	816.5	591.2	569.7
1.175	1.01469	2.308	11	1321.2	1889.1	1764.2	1507.1	1168.9	816.7	591.2	569.7
1.185	1.01560	2.294	11	1322.1	1890.7	1765.7	1508.2	1169.6	816.9	591.3	569.7
1.195	1.01651	2.280	11	1323.0	1892.3	1767.2	1509.4	1170.2	817.2	591.3	569.8
1.205	1.01742	2.264	11	1323.8	1894.0	1768.7	1510.5	1170.9	817.4	591.3	569.8
1.215	1.01833	2.251	11	1324.7	1895.6	1770.2	1511.6	1171.6	817.6	591.3	569.8
1.225	1.01923	2.238	11	1325.6	1897.2	1771.7	1512.8	1172.2	817.8	591.4	569.8
1.235	1.02014	2.226	11	1326.5	1898.8	1773.2	1513.9	1172.9	818.1	591.4	569.8
1.245	1.02105	2.214	11	1327.4	1900.5	1774.7	1515.0	1173.6	818.3	591.4	569.8
1.255	1.02196	2.202	11	1328.2	1902.1	1776.2	1516.2	1174.2	818.5	591.4	569.8
1.265	1.02287	2.190	11	1329.1	1903.7	1777.7	1517.3	1174.9	818.7	591.4	569.8
1.275	1.02378	2.178	11	1330.0	1905.3	1779.2	1518.4	1175.6	819.0	591.5	569.8
1.285	1.02468	2.166	11	1330.9	1906.9	1780.7	1519.6	1176.2	819.2	591.5	569.8
1.295	1.02559	2.155	11	1331.8	1908.6	1782.2	1520.7	1176.9	819.4	591.5	569.8
1.305	1.02627	2.143	11	1332.4	1909.8	1783.3	1521.6	1177.4	819.6	591.5	569.8
1.315	1.02673	2.132	11	1332.9	1910.6	1784.0	1522.1	1177.7	819.7	591.5	569.8
1.325	1.02718	2.121	11	1333.3	1911.4	1784.8	1522.7	1178.1	819.8	591.6	569.8
1.335	1.02763	2.111	11	1333.8	1912.2	1785.5	1523.3	1178.4	819.9	591.6	569.8
1.345	1.02808	2.100	11	1334.2	1913.0	1786.3	1523.8	1178.7	820.0	591.6	569.8
1.355	1.02854	2.089	11	1334.6	1913.8	1787.0	1524.4	1179.1	820.2	591.6	569.8
1.365	1.02899	2.079	11	1335.1	1914.7	1787.8	1525.0	1179.4	820.3	591.6	569.8
1.375	1.02944	2.068	11	1335.5	1915.5	1788.5	1525.5	1179.7	820.4	591.6	569.8
1.385	1.02990	2.058	11	1336.0	1916.3	1789.2	1526.1	1180.1	820.5	591.6	569.8
1.395	1.03035	2.048	11	1336.4	1917.1	1790.0	1526.7	1180.4	820.6	591.6	569.8
1.405	1.03080	2.038	11	1336.9	1917.9	1790.7	1527.2	1180.7	820.7	591.6	569.8
1.415	1.03126	2.028	11	1337.3	1918.7	1791.5	1527.8	1181.0	820.8	591.7	569.8
1.425	1.03171	2.018	11	1337.7	1919.5	1792.2	1528.4	1181.4	820.9	591.7	569.8
1.435	1.03216	2.008	11	1338.2	1920.3	1793.0	1529.0	1181.7	821.0	591.7	569.8
1.445	1.03261	1.999	11	1338.6	1921.1	1793.7	1529.5	1182.0	821.2	591.7	569.8
1.455	1.03307	1.989	11	1339.1	1922.0	1794.5	1530.1	1182.4	821.3	591.7	569.8
1.465	1.03329	1.980	11	1339.3	1922.4	1794.8	1530.4	1182.5	821.3	591.7	569.8
1.475	1.03284	1.971	11	1338.8	1921.5	1794.1	1529.8	1182.2	821.2	591.7	569.8
1.485	1.03239	1.962	11	1338.4	1920.7	1793.4	1529.2	1181.9	821.1	591.7	569.8
1.495	1.03194	1.954	11	1338.0	1919.9	1792.6	1528.7	1181.5	821.0	591.7	569.8
1.505	1.03148	1.945	11	1337.5	1919.1	1791.9	1528.1	1181.2	820.9	591.7	569.8
1.515	1.03103	1.937	11	1337.1	1918.3	1791.1	1527.5	1180.9	820.8	591.6	569.8
1.525	1.03058	1.929	11	1336.6	1917.5	1790.4	1527.0	1180.5	820.7	591.6	569.8
1.535	1.03012	1.921	11	1336.2	1916.7	1789.6	1526.4	1180.2	820.5	591.6	569.8
1.545	1.02967	1.913	11	1335.7	1915.9	1788.9	1525.8	1179.9	820.4	591.6	569.8
1.555	1.02922	1.905	11	1335.3	1915.0	1788.1	1525.3	1179.5	820.3	591.6	569.8
1.565	1.02876	1.897	11	1334.9	1914.2	1787.4	1524.7	1179.2	820.2	591.6	569.8
1.575	1.02831	1.889	11	1334.4	1913.4	1786.6	1524.1	1178.9	820.1	591.6	569.8
1.585	1.02786	1.882	11	1334.0	1912.6	1785.9	1523.5	1178.5	820.0	591.6	569.8
1.595	1.02741	1.873	11	1333.5	1911.8	1785.1	1523.0	1178.2	819.9	591.5	569.8
1.605	1.02695	1.863	11	1333.1	1911.0	1784.4	1522.4	1177.9	819.7	591.5	569.8
1.615	1.02650	1.855	11	1332.6	1910.2	1783.6	1521.8	1177.5	819.6	591.5	569.8
1.625	1.02605	1.848	11	1332.2	1909.4	1782.9	1521.3	1177.2	819.5	591.5	569.8
1.635	1.02514	1.841	11	1331.3	1907.7	1781.4	1520.1	1176.5	819.3	591.5	569.8
1.645	1.02423	1.834	11	1330.4	1906.1	1779.9	1519.0	1175.9	819.1	591.5	569.8
1.655	1.02332	1.827	11	1329.6	1904.5	1778.4	1517.9	1175.2	818.8	591.4	569.8
1.665	1.02241	1.820	11	1328.7	1902.9	1776.9	1516.7	1174.5	818.6	591.4	569.8
1.675	1.02150	1.814	11	1327.8	1901.2	1775.4	1515.6	1173.9	818.4	591.4	569.8
1.685	1.02060	1.807	11	1326.9	1899.6	1773.9	1514.4	1173.2	818.2	591.4	569.8
1.695	1.01969	1.800	11	1326.0	1898.0	1772.4	1513.3	1172.6	817.9	591.3	569.7
1.705	1.01878	1.794	11	1325.1	1896.4	1770.9	1512.2	1171.9	817.7	591.3	569.7

1.715	1.01787	1.787	11	1324.3	1894.7	1769.4	1511.0	1171.2	817.5	591.3	569.7
1.725	1.01696	1.781	11	1323.4	1893.1	1767.9	1509.9	1170.6	817.3	591.3	569.7
1.735	1.01605	1.774	11	1322.5	1891.5	1766.4	1508.8	1169.9	817.0	591.3	569.7
1.745	1.01515	1.768	11	1321.6	1889.8	1765.0	1507.6	1169.2	816.8	591.2	569.7
1.755	1.01424	1.761	11	1320.7	1888.2	1763.5	1506.5	1168.6	816.6	591.2	569.7
1.765	1.01333	1.755	11	1319.8	1886.5	1762.0	1505.4	1167.9	816.4	591.2	569.7
1.775	1.01242	1.749	11	1319.0	1884.9	1760.5	1504.2	1167.2	816.1	591.2	569.7
1.785	1.01151	1.742	11	1318.1	1883.2	1759.0	1503.1	1166.6	815.9	591.1	569.7
1.795	1.01026	1.737	11	1316.9	1881.0	1756.9	1501.5	1165.7	815.6	591.1	569.7
1.805	1.00890	1.731	11	1315.5	1878.5	1754.7	1499.8	1164.7	815.3	591.1	569.7
1.815	1.00754	1.725	11	1314.2	1876.0	1752.5	1498.2	1163.7	814.9	591.0	569.7
1.825	1.00617	1.719	11	1312.9	1873.5	1750.3	1496.5	1162.7	814.6	591.0	569.7
1.835	1.00481	1.714	11	1311.6	1871.0	1748.0	1494.8	1161.7	814.2	591.0	569.7
1.845	1.00344	1.708	11	1310.3	1868.6	1745.8	1493.1	1160.7	813.9	590.9	569.7
1.855	1.00208	1.702	11	1308.9	1866.1	1743.6	1491.4	1159.7	813.6	590.9	569.7
1.865	1.00072	1.697	11	1307.6	1863.6	1741.3	1489.7	1158.7	813.2	590.9	569.7
1.875	0.99935	1.691	11	1306.3	1861.1	1739.1	1488.0	1157.7	812.9	590.8	569.6
1.885	0.99799	1.686	11	1305.0	1858.7	1736.9	1486.3	1156.7	812.6	590.8	569.6
1.895	0.99663	1.681	11	1303.7	1856.2	1734.7	1484.6	1155.7	812.2	590.7	569.6
1.905	0.99526	1.675	11	1302.4	1853.7	1732.5	1482.9	1154.8	811.9	590.7	569.6
1.915	0.99390	1.670	11	1301.0	1851.3	1730.2	1481.3	1153.8	811.5	590.7	569.6
1.925	0.99253	1.665	11	1299.7	1848.8	1728.0	1479.6	1152.8	811.2	590.6	569.6
1.935	0.99117	1.660	11	1298.4	1846.3	1725.8	1477.9	1151.8	810.9	590.6	569.6
1.945	0.98981	1.655	11	1297.1	1843.9	1723.6	1476.2	1150.8	810.5	590.6	569.6
1.955	0.98776	1.650	11	1295.1	1840.2	1720.3	1473.7	1149.3	810.0	590.5	569.6
1.965	0.98504	1.646	11	1292.5	1835.3	1715.9	1470.3	1147.4	809.3	590.4	569.6
1.975	0.98231	1.642	11	1289.9	1830.4	1711.4	1467.0	1145.4	808.7	590.4	569.6
1.985	0.97959	1.638	11	1287.3	1825.5	1707.0	1463.7	1143.4	808.0	590.3	569.5
1.995	0.97686	1.633	11	1284.7	1820.6	1702.6	1460.3	1141.5	807.3	590.2	569.5
2.005	0.97414	1.627	11	1282.1	1815.7	1698.2	1457.0	1139.5	806.6	590.2	569.5
2.015	0.97141	1.623	11	1279.5	1810.8	1693.8	1453.6	1137.5	806.0	590.1	569.5
2.025	0.96869	1.619	11	1276.9	1805.9	1689.5	1450.3	1135.6	805.3	590.0	569.5
2.035	0.96596	1.615	11	1274.3	1801.0	1685.1	1447.0	1133.6	804.6	589.9	569.5
2.045	0.96324	1.611	11	1271.7	1796.1	1680.7	1443.7	1131.7	803.9	589.9	569.5
2.055	0.96051	1.607	11	1269.1	1791.3	1676.3	1440.4	1129.7	803.3	589.8	569.4
2.065	0.95779	1.604	11	1266.5	1786.4	1672.0	1437.1	1127.8	802.6	589.7	569.4
2.075	0.95506	1.600	11	1263.9	1781.6	1667.6	1433.8	1125.8	801.9	589.7	569.4
2.085	0.95234	1.596	11	1261.4	1776.7	1663.3	1430.5	1123.9	801.2	589.6	569.4
2.095	0.94961	1.592	11	1258.8	1771.9	1658.9	1427.2	1122.0	800.5	589.5	569.4
2.105	0.94689	1.589	11	1256.2	1767.0	1654.6	1423.9	1120.0	799.9	589.4	569.4
2.115	0.94405	1.585	11	1253.5	1762.0	1650.1	1420.5	1118.0	799.2	589.4	569.4
2.125	0.94087	1.582	11	1250.5	1756.4	1645.0	1416.7	1115.7	798.4	589.3	569.3
2.135	0.93769	1.578	11	1247.5	1750.7	1640.0	1412.8	1113.5	797.6	589.2	569.3
2.145	0.93451	1.575	11	1244.6	1745.1	1635.0	1409.0	1111.2	796.8	589.1	569.3
2.155	0.93133	1.572	11	1241.6	1739.5	1629.9	1405.2	1109.0	796.0	589.0	569.3
2.165	0.92815	1.568	11	1238.6	1733.9	1624.9	1401.4	1106.7	795.2	589.0	569.3
2.175	0.92497	1.565	11	1235.6	1728.3	1619.9	1397.6	1104.5	794.4	588.9	569.3
2.185	0.92179	1.562	11	1232.7	1722.8	1614.9	1393.8	1102.2	793.6	588.8	569.2
2.195	0.91861	1.559	11	1229.7	1717.2	1609.9	1390.1	1100.0	792.8	588.7	569.2
2.205	0.91542	1.556	11	1226.7	1711.6	1605.0	1386.3	1097.8	792.1	588.6	569.2
2.215	0.91224	1.553	11	1223.8	1706.1	1600.0	1382.5	1095.5	791.3	588.5	569.2
2.225	0.90906	1.550	11	1220.8	1700.5	1595.0	1378.8	1093.3	790.5	588.5	569.2
2.235	0.90588	1.547	11	1217.9	1695.0	1590.1	1375.0	1091.1	789.7	588.4	569.2
2.245	0.90270	1.544	11	1214.9	1689.5	1585.1	1371.3	1088.8	788.9	588.3	569.1
2.255	0.89952	1.541	11	1212.0	1684.0	1580.2	1367.5	1086.6	788.1	588.2	569.1
2.265	0.89634	1.538	11	1209.1	1678.4	1575.3	1363.8	1084.4	787.3	588.1	569.1
2.275	0.89316	1.535	11	1206.1	1673.0	1570.3	1360.1	1082.2	786.5	588.0	569.1
2.285	0.88816	1.533	11	1201.5	1664.3	1562.6	1354.2	1078.7	785.3	587.9	569.1
2.295	0.88317	1.531	11	1197.0	1655.7	1554.9	1348.4	1075.2	784.0	587.8	569.0
2.305	0.87817	1.529	11	1192.4	1647.2	1547.3	1342.6	1071.8	782.8	587.6	569.0
2.315	0.87317	1.527	11	1187.8	1638.6	1539.6	1336.8	1068.3	781.6	587.5	569.0
2.325	0.86818	1.525	11	1183.3	1630.1	1532.0	1331.0	1064.9	780.3	587.4	569.0

2.335	0.86318	1.524	11	1178.7	1621.6	1524.4	1325.3	1061.4	779.1	587.3	568.9
2.345	0.85818	1.522	11	1174.2	1613.2	1516.9	1319.5	1058.0	777.8	587.1	568.9
2.355	0.85318	1.520	11	1169.7	1604.7	1509.3	1313.8	1054.6	776.6	587.0	568.9
2.365	0.84819	1.519	11	1165.2	1596.3	1501.8	1308.1	1051.1	775.3	586.9	568.9
2.375	0.84319	1.518	11	1160.7	1587.9	1494.3	1302.4	1047.7	774.1	586.7	568.8
2.385	0.83819	1.516	11	1156.2	1579.5	1486.8	1296.7	1044.3	772.9	586.6	568.8
2.395	0.83320	1.514	11	1151.8	1571.2	1479.3	1291.0	1040.9	771.6	586.5	568.8
2.405	0.82820	1.510	11	1147.3	1562.9	1471.9	1285.4	1037.5	770.4	586.3	568.7
2.415	0.82320	1.508	11	1142.9	1554.6	1464.5	1279.8	1034.1	769.1	586.2	568.7
2.425	0.81820	1.507	11	1138.4	1546.3	1457.1	1274.1	1030.8	767.9	586.1	568.7
2.435	0.81321	1.505	11	1134.0	1538.1	1449.8	1268.6	1027.4	766.6	585.9	568.7
2.445	0.80855	1.504	11	1129.9	1530.5	1442.9	1263.4	1024.2	765.5	585.8	568.6
2.455	0.80401	1.502	11	1125.9	1523.0	1436.3	1258.3	1021.2	764.4	585.7	568.6
2.465	0.79947	1.501	11	1121.9	1515.6	1429.7	1253.3	1018.1	763.2	585.6	568.6
2.475	0.79493	1.500	11	1117.9	1508.2	1423.1	1248.2	1015.1	762.1	585.4	568.6
2.485	0.79038	1.498	11	1114.0	1500.9	1416.5	1243.2	1012.1	761.0	585.3	568.5
2.495	0.78584	1.497	11	1110.0	1493.5	1409.9	1238.2	1009.0	759.8	585.2	568.5
2.505	0.78130	1.495	11	1106.1	1486.2	1403.4	1233.2	1006.0	758.7	585.1	568.5
2.515	0.77676	1.494	11	1102.1	1478.9	1396.8	1228.2	1003.0	757.6	585.0	568.5
2.525	0.77222	1.492	11	1098.2	1471.6	1390.3	1223.3	1000.0	756.4	584.8	568.4
2.535	0.76768	1.491	11	1094.3	1464.4	1383.8	1218.3	997.0	755.3	584.7	568.4
2.545	0.76313	1.489	11	1090.4	1457.2	1377.4	1213.4	993.9	754.2	584.6	568.4
2.555	0.75859	1.488	11	1086.5	1450.0	1370.9	1208.5	990.9	753.1	584.5	568.4
2.565	0.75405	1.487	11	1082.6	1442.8	1364.5	1203.6	988.0	751.9	584.4	568.3
2.575	0.74951	1.485	11	1078.7	1435.6	1358.1	1198.7	985.0	750.8	584.2	568.3
2.585	0.74497	1.484	11	1074.8	1428.5	1351.7	1193.8	982.0	749.7	584.1	568.3
2.595	0.74043	1.483	11	1071.0	1421.4	1345.4	1188.9	979.0	748.5	584.0	568.3
2.605	0.73589	1.482	11	1066.9	1414.0	1338.7	1183.8	975.9	747.3	583.9	568.2
2.615	0.73066	1.481	11	1062.7	1406.2	1331.7	1178.5	972.6	746.1	583.7	568.2
2.625	0.72566	1.480	11	1058.5	1398.5	1324.8	1173.2	969.4	744.9	583.6	568.2
2.635	0.72066	1.479	11	1054.3	1390.8	1317.9	1167.9	966.1	743.6	583.5	568.1
2.645	0.71567	1.478	11	1050.1	1383.1	1311.0	1162.7	962.9	742.4	583.3	568.1
2.655	0.71067	1.477	11	1045.9	1375.4	1304.2	1157.4	959.6	741.1	583.2	568.1
2.665	0.70567	1.476	11	1041.8	1367.8	1297.4	1152.2	956.4	739.9	583.1	568.1
2.675	0.70068	1.475	11	1037.6	1360.2	1290.6	1146.9	953.2	738.6	582.9	568.0
2.685	0.69568	1.475	11	1033.5	1352.7	1283.8	1141.7	950.0	737.4	582.8	568.0
2.695	0.69068	1.474	11	1029.3	1345.1	1277.0	1136.5	946.8	736.1	582.7	568.0
2.705	0.68568	1.473	11	1025.2	1337.6	1270.3	1131.4	943.6	734.9	582.5	567.9
2.715	0.68069	1.472	11	1021.1	1330.1	1263.6	1126.2	940.4	733.6	582.4	567.9
2.725	0.67569	1.472	11	1017.0	1322.7	1256.9	1121.1	937.2	732.4	582.3	567.9
2.735	0.67069	1.471	11	1012.9	1315.3	1250.3	1115.9	934.0	731.2	582.1	567.9
2.745	0.66570	1.471	11	1008.9	1307.9	1243.6	1110.8	930.8	729.9	582.0	567.8
2.755	0.66070	1.470	11	1004.8	1300.5	1237.0	1105.7	927.7	728.7	581.8	567.8
2.765	0.65582	1.470	11	1000.9	1293.4	1230.6	1100.8	924.6	727.4	581.7	567.8
2.775	0.65127	1.469	11	997.2	1286.7	1224.6	1096.2	921.7	726.3	581.6	567.7
2.785	0.64673	1.469	11	993.5	1280.1	1218.7	1091.6	918.8	725.2	581.5	567.7
2.795	0.64219	1.467	11	989.9	1273.5	1212.8	1087.0	916.0	724.0	581.3	567.7
2.805	0.63765	1.464	11	986.2	1267.0	1206.9	1082.5	913.1	722.9	581.2	567.6
2.815	0.63311	1.463	11	982.6	1260.4	1201.0	1077.9	910.3	721.8	581.1	567.6
2.825	0.62857	1.462	11	979.0	1253.9	1195.1	1073.4	907.4	720.6	581.0	567.6
2.835	0.62402	1.461	11	975.4	1247.4	1189.3	1068.9	904.6	719.5	580.8	567.6
2.845	0.61948	1.461	11	971.8	1241.0	1183.5	1064.4	901.8	718.4	580.7	567.5
2.855	0.61494	1.461	11	968.2	1234.5	1177.7	1059.9	898.9	717.2	580.6	567.5
2.865	0.61040	1.460	11	964.6	1228.1	1171.9	1055.4	896.1	716.1	580.5	567.5
2.875	0.60586	1.460	11	961.0	1221.7	1166.2	1050.9	893.3	715.0	580.3	567.4
2.885	0.60131	1.459	11	957.5	1215.3	1160.4	1046.5	890.5	713.8	580.2	567.4
2.895	0.59677	1.459	11	953.9	1209.0	1154.7	1042.0	887.7	712.7	580.1	567.4
2.905	0.59223	1.458	11	950.4	1202.7	1149.0	1037.6	884.9	711.6	580.0	567.4
2.915	0.58769	1.458	11	946.8	1196.4	1143.3	1033.2	882.1	710.4	579.8	567.3
2.925	0.58315	1.458	11	943.3	1190.1	1137.7	1028.8	879.3	709.3	579.7	567.3
2.935	0.57951	1.457	11	940.5	1185.1	1133.2	1025.3	877.1	708.4	579.6	567.3
2.945	0.57588	1.456	11	937.7	1180.1	1128.7	1021.8	874.9	707.5	579.5	567.3

2.955	0.57224	1.455	11	934.9	1175.1	1124.2	1018.3	872.6	706.6	579.4	567.2
2.965	0.56860	1.454	11	932.1	1170.2	1119.7	1014.8	870.4	705.7	579.3	567.2
2.975	0.56497	1.454	11	929.3	1165.2	1115.3	1011.3	868.2	704.8	579.2	567.2
2.985	0.56133	1.453	11	926.5	1160.3	1110.8	1007.8	866.0	703.9	579.1	567.2
2.995	0.55770	1.452	11	923.7	1155.4	1106.4	1004.4	863.8	702.9	579.0	567.1
3.005	0.55406	1.452	11	921.0	1150.5	1102.0	1000.9	861.6	702.0	578.9	567.1
3.015	0.55043	1.451	11	918.2	1145.6	1097.6	997.5	859.4	701.1	578.8	567.1
3.025	0.54679	1.450	11	915.4	1140.7	1093.2	994.0	857.2	700.2	578.7	567.1
3.035	0.54315	1.450	11	912.7	1135.9	1088.8	990.6	855.0	699.3	578.6	567.0
3.045	0.53952	1.449	11	909.9	1131.0	1084.4	987.2	852.8	698.4	578.5	567.0
3.055	0.53588	1.448	11	907.2	1126.2	1080.0	983.7	850.6	697.5	578.4	567.0
3.065	0.53225	1.448	11	904.4	1121.4	1075.7	980.3	848.4	696.6	578.3	567.0
3.075	0.52861	1.447	11	901.7	1116.6	1071.4	976.9	846.3	695.7	578.2	566.9
3.085	0.52497	1.447	11	899.0	1111.8	1067.0	973.5	844.1	694.8	578.1	566.9
3.095	0.52168	1.446	11	896.5	1107.5	1063.1	970.5	842.1	693.9	578.0	566.9
3.105	0.51850	1.445	11	894.2	1103.3	1059.4	967.5	840.2	693.1	577.9	566.9
3.115	0.51533	1.445	11	891.8	1099.2	1055.6	964.6	838.3	692.3	577.8	566.9
3.125	0.51215	1.444	11	889.4	1095.1	1051.9	961.7	836.4	691.6	577.7	566.8
3.135	0.50897	1.443	11	887.1	1090.9	1048.2	958.7	834.5	690.8	577.7	566.8
3.145	0.50579	1.442	11	884.7	1086.8	1044.5	955.8	832.6	690.0	577.6	566.8
3.155	0.50261	1.442	11	882.4	1082.7	1040.7	952.9	830.8	689.2	577.5	566.8
3.165	0.49944	1.441	11	880.0	1078.6	1037.0	950.0	828.9	688.4	577.4	566.7
3.175	0.49626	1.440	11	877.7	1074.6	1033.4	947.1	827.0	687.6	577.3	566.7
3.185	0.49308	1.440	11	875.3	1070.5	1029.7	944.2	825.1	686.8	577.2	566.7
3.195	0.48990	1.439	11	873.0	1066.5	1026.0	941.3	823.2	686.0	577.1	566.7
3.205	0.48672	1.439	11	870.7	1062.4	1022.3	938.4	821.4	685.2	577.0	566.7
3.215	0.48355	1.438	11	868.4	1058.4	1018.7	935.5	819.5	684.4	576.9	566.6
3.225	0.48037	1.438	11	866.0	1054.4	1015.1	932.6	817.6	683.6	576.8	566.6
3.235	0.47719	1.437	11	863.7	1050.4	1011.4	929.7	815.8	682.8	576.8	566.6
3.245	0.47401	1.436	11	861.4	1046.4	1007.8	926.9	813.9	682.0	576.7	566.6
3.255	0.47106	1.436	11	859.3	1042.7	1004.4	924.2	812.2	681.3	576.6	566.5
3.265	0.46833	1.435	11	857.3	1039.2	1001.3	921.8	810.6	680.6	576.5	566.5
3.275	0.46560	1.434	11	855.3	1035.8	998.3	919.3	809.0	679.9	576.4	566.5
3.285	0.46288	1.434	11	853.3	1032.4	995.2	916.9	807.4	679.2	576.4	566.5
3.295	0.46015	1.433	11	851.4	1029.1	992.1	914.5	805.8	678.5	576.3	566.5
3.305	0.45742	1.432	11	849.4	1025.7	989.0	912.0	804.2	677.8	576.2	566.4
3.315	0.45469	1.432	11	847.5	1022.3	986.0	909.6	802.6	677.2	576.1	566.4
3.325	0.45197	1.431	11	845.5	1018.9	982.9	907.2	801.0	676.5	576.0	566.4
3.335	0.44924	1.431	11	843.6	1015.6	979.9	904.8	799.5	675.8	576.0	566.4
3.345	0.44651	1.430	11	841.6	1012.2	976.8	902.4	797.9	675.1	575.9	566.4
3.355	0.44378	1.429	11	839.7	1008.9	973.8	899.9	796.3	674.4	575.8	566.3
3.365	0.44106	1.429	11	837.7	1005.6	970.8	897.5	794.7	673.7	575.7	566.3
3.375	0.43833	1.428	11	835.8	1002.2	967.7	895.1	793.1	673.1	575.7	566.3
3.385	0.43560	1.428	11	833.8	998.9	964.7	892.7	791.6	672.4	575.6	566.3
3.395	0.43287	1.427	11	831.9	995.6	961.7	890.4	790.0	671.7	575.5	566.3
3.405	0.43015	1.427	11	830.0	992.3	958.7	888.0	788.4	671.0	575.4	566.2
3.415	0.42753	1.426	11	828.1	989.2	955.9	885.7	786.9	670.3	575.3	566.2
3.425	0.42526	1.425	11	826.5	986.4	953.4	883.7	785.6	669.8	575.3	566.2
3.435	0.42299	1.425	11	824.9	983.7	950.9	881.7	784.3	669.2	575.2	566.2
3.445	0.42072	1.424	11	823.3	981.0	948.4	879.8	783.0	668.6	575.1	566.2
3.455	0.41845	1.423	11	821.7	978.3	945.9	877.8	781.7	668.1	575.1	566.2
3.465	0.41618	1.422	11	820.1	975.5	943.5	875.8	780.4	667.5	575.0	566.1
3.475	0.41392	1.422	11	818.5	972.8	941.0	873.9	779.1	666.9	574.9	566.1
3.485	0.41165	1.421	11	817.0	970.1	938.6	871.9	777.8	666.4	574.9	566.1
3.495	0.40938	1.421	11	815.4	967.4	936.1	869.9	776.5	665.8	574.8	566.1
3.505	0.40711	1.420	11	813.8	964.8	933.7	868.0	775.2	665.2	574.8	566.1
3.515	0.40484	1.419	11	812.2	962.1	931.2	866.0	774.0	664.6	574.7	566.0
3.525	0.40257	1.419	11	810.6	959.4	928.8	864.1	772.7	664.1	574.6	566.0
3.535	0.40030	1.418	11	809.1	956.7	926.3	862.1	771.4	663.5	574.6	566.0
3.545	0.39803	1.417	11	807.5	954.1	923.9	860.2	770.1	662.9	574.5	566.0
3.555	0.39576	1.417	11	805.9	951.4	921.5	858.3	768.8	662.4	574.4	566.0
3.565	0.39349	1.416	11	804.3	948.7	919.1	856.3	767.5	661.8	574.4	566.0

3.575	0.39122	1.416	11	802.8	946.1	916.6	854.4	766.2	661.2	574.3	565.9
3.585	0.38804	1.416	11	800.6	942.4	913.3	851.7	764.4	660.4	574.2	565.9
3.595	0.38486	1.415	11	798.4	938.7	909.9	849.0	762.6	659.6	574.1	565.9
3.605	0.38168	1.415	11	796.2	935.0	906.5	846.3	760.8	658.8	574.0	565.9
3.615	0.37850	1.415	11	794.0	931.3	903.2	843.6	759.0	658.0	573.9	565.8
3.625	0.37532	1.415	11	791.8	927.7	899.8	840.9	757.3	657.2	573.8	565.8
3.635	0.37214	1.415	11	789.7	924.0	896.5	838.2	755.5	656.4	573.7	565.8
3.645	0.36896	1.415	11	787.5	920.4	893.2	835.6	753.7	655.6	573.6	565.8
3.655	0.36578	1.415	11	785.3	916.7	889.8	832.9	751.9	654.8	573.5	565.7
3.665	0.36259	1.415	11	783.2	913.1	886.5	830.2	750.1	654.0	573.5	565.7
3.675	0.35941	1.415	11	781.0	909.5	883.2	827.6	748.3	653.2	573.4	565.7
3.685	0.35623	1.415	11	778.8	905.9	879.9	824.9	746.6	652.4	573.3	565.7
3.695	0.35305	1.415	11	776.7	902.3	876.7	822.3	744.8	651.6	573.2	565.6
3.705	0.34987	1.415	11	774.6	898.7	873.4	819.7	743.0	650.8	573.1	565.6
3.715	0.34669	1.415	11	772.4	895.1	870.1	817.0	741.3	650.0	573.0	565.6
3.725	0.34351	1.415	11	770.3	891.6	866.9	814.4	739.5	649.2	572.9	565.6
3.735	0.34033	1.415	11	768.1	888.0	863.6	811.8	737.7	648.4	572.8	565.5
3.745	0.33749	1.415	11	766.2	884.9	860.7	809.4	736.2	647.7	572.7	565.5
3.755	0.33477	1.415	11	764.4	881.8	858.0	807.2	734.7	647.0	572.6	565.5
3.765	0.33204	1.415	11	762.6	878.8	855.2	805.0	733.1	646.3	572.5	565.5
3.775	0.32932	1.414	11	760.8	875.8	852.4	802.8	731.6	645.7	572.5	565.4
3.785	0.32659	1.414	11	759.0	872.8	849.7	800.5	730.1	645.0	572.4	565.4
3.795	0.32387	1.414	11	757.2	869.8	846.9	798.3	728.6	644.3	572.3	565.4
3.805	0.32114	1.414	11	755.4	866.8	844.2	796.1	727.1	643.6	572.2	565.4
3.815	0.31842	1.414	11	753.6	863.8	841.5	793.9	725.6	642.9	572.1	565.3
3.825	0.31569	1.414	11	751.8	860.8	838.7	791.7	724.2	642.2	572.1	565.3
3.835	0.31297	1.414	11	750.0	857.9	836.0	789.5	722.7	641.5	572.0	565.3
3.845	0.31024	1.414	11	748.2	854.9	833.3	787.3	721.2	640.8	571.9	565.3
3.855	0.30752	1.414	11	746.4	852.0	830.6	785.1	719.7	640.2	571.8	565.2
3.865	0.30479	1.414	11	744.6	849.0	827.9	782.9	718.2	639.5	571.7	565.2
3.875	0.30207	1.414	11	742.8	846.1	825.2	780.7	716.7	638.8	571.7	565.2
3.885	0.29934	1.414	11	741.0	843.1	822.5	778.5	715.2	638.1	571.6	565.2
3.895	0.29662	1.414	11	739.2	840.2	819.8	776.3	713.7	637.4	571.5	565.1
3.905	0.29389	1.414	11	737.5	837.3	817.2	774.2	712.2	636.7	571.4	565.1
3.915	0.29117	1.414	11	735.7	834.4	814.5	772.0	710.8	636.0	571.3	565.1
3.925	0.28844	1.414	11	733.9	831.5	811.8	769.8	709.3	635.3	571.2	565.1
3.935	0.28572	1.415	11	732.1	828.6	809.2	767.7	707.8	634.6	571.2	565.0
3.945	0.28299	1.415	11	730.4	825.7	806.5	765.5	706.3	634.0	571.1	565.0
3.955	0.28027	1.415	11	728.6	822.8	803.9	763.4	704.9	633.3	571.0	565.0
3.965	0.27754	1.415	11	726.9	819.9	801.2	761.2	703.4	632.6	570.9	565.0
3.975	0.27482	1.415	11	725.1	817.1	798.6	759.1	701.9	631.9	570.8	564.9
3.985	0.27209	1.415	11	723.3	814.2	796.0	756.9	700.5	631.2	570.7	564.9
3.995	0.26937	1.415	11	721.6	811.4	793.3	754.8	699.0	630.5	570.7	564.9

TIME = 0.00000 SEC - HEAT TRANSFER DATA FOR ROD 9 (FUEL TYPE 1)

DISTANCE (M)	H.T.MODE	HSURF (W/M2/K)	HGAP (K)	TFLUID
0.005	2	25179.160	5000.000	548.27
0.015	2	25630.342	5000.000	548.38
0.025	2	26088.812	5000.000	548.49
0.035	2	26554.684	5000.000	548.61
0.045	2	27028.072	5000.000	548.73
0.055	2	27509.051	5000.000	548.84
0.065	2	27997.770	5000.000	548.96
0.075	2	28494.352	5000.000	549.09
0.085	2	28998.982	5000.000	549.21
0.095	2	29511.926	5000.000	549.34
0.105	2	30033.408	5000.000	549.46
0.115	2	30563.652	5000.000	549.59

0.125	2	31102.992	5000.000	549.72
0.135	2	31651.742	5000.000	549.86
0.145	2	32210.182	5000.000	549.99
0.155	2	32778.746	5000.000	550.13
0.165	2	33357.793	5000.000	550.27
0.175	2	33947.789	5000.000	550.41
0.185	2	34549.188	5000.000	550.55
0.195	2	35162.488	5000.000	550.70
0.205	2	35788.051	5000.000	550.84
0.215	2	36425.938	5000.000	550.99
0.225	2	37076.312	5000.000	551.14
0.235	2	37739.449	5000.000	551.29
0.245	2	38415.871	5000.000	551.44
0.255	2	39106.145	5000.000	551.60
0.265	2	39810.973	5000.000	551.76
0.275	2	40531.023	5000.000	551.92
0.285	2	41266.684	5000.000	552.08
0.295	2	42018.305	5000.000	552.24
0.305	2	42786.285	5000.000	552.40
0.315	2	43571.414	5000.000	552.57
0.325	2	44374.598	5000.000	552.74
0.335	2	45242.609	5000.000	552.91
0.345	2	46131.332	5000.000	553.08
0.355	2	47041.008	5000.000	553.25
0.365	2	47971.168	5000.000	553.43
0.375	2	48919.074	5000.000	553.61
0.385	2	49877.398	5000.000	553.78
0.395	2	50828.836	5000.000	553.95
0.405	2	51839.832	5000.000	554.13
0.415	2	52888.406	5000.000	554.31
0.425	2	53973.371	5000.000	554.50
0.435	2	55094.457	5000.000	554.69
0.445	2	56252.156	5000.000	554.88
0.455	2	57447.387	5000.000	555.08
0.465	2	58681.238	5000.000	555.28
0.475	2	59955.367	5000.000	555.48
0.485	2	61271.344	5000.000	555.68
0.495	2	62631.367	5000.000	555.89
0.505	2	64037.492	5000.000	556.10
0.515	2	65492.238	5000.000	556.31
0.525	2	66998.336	5000.000	556.52
0.535	2	68558.438	5000.000	556.74
0.545	2	70175.805	5000.000	556.95
0.555	2	71853.648	5000.000	557.17
0.565	2	73595.664	5000.000	557.40
0.575	2	75405.844	5000.000	557.62
0.585	2	77288.430	5000.000	557.85
0.595	2	79248.180	5000.000	558.07
0.605	2	81290.141	5000.000	558.31
0.615	2	83420.125	5000.000	558.54
0.625	2	85644.070	5000.000	558.77
0.635	3	87968.875	5000.000	559.01
0.645	3	90401.938	5000.000	559.25
0.655	3	92877.711	5000.000	559.49
0.665	3	95028.570	5000.000	559.70
0.675	3	96684.000	5000.000	559.85
0.685	3	98410.461	5000.000	559.99
0.695	3	100211.203	5000.000	560.15
0.705	3	101488.938	5000.000	560.24
0.715	3	102515.727	5000.000	560.32
0.725	3	103572.477	5000.000	560.39
0.735	3	104660.797	5000.000	560.46

0.745	3	105781.312	5000.000	560.54
0.755	3	106931.945	5000.000	560.62
0.765	3	108106.469	5000.000	560.70
0.775	3	109314.977	5000.000	560.78
0.785	3	110551.812	5000.000	560.87
0.795	3	111592.211	5000.000	560.93
0.805	3	112946.727	5000.000	561.02
0.815	3	114334.859	5000.000	561.12
0.825	3	115703.828	5000.000	561.21
0.835	3	116503.320	5000.000	561.26
0.845	3	117227.180	5000.000	561.31
0.855	3	117985.195	5000.000	561.36
0.865	3	118777.680	5000.000	561.41
0.875	3	119535.258	5000.000	561.45
0.885	3	119661.758	5000.000	561.45
0.895	3	119788.719	5000.000	561.45
0.905	3	119915.703	5000.000	561.45
0.915	3	120042.773	5000.000	561.45
0.925	3	120169.930	5000.000	561.45
0.935	3	120296.945	5000.000	561.44
0.945	3	120423.328	5000.000	561.44
0.955	3	120549.320	5000.000	561.44
0.965	3	120675.258	5000.000	561.44
0.975	3	120800.586	5000.000	561.44
0.985	3	120857.461	5000.000	561.44
0.995	3	120914.320	5000.000	561.44
1.005	3	120970.711	5000.000	561.44
1.015	3	121026.766	5000.000	561.43
1.025	3	121082.516	5000.000	561.43
1.035	3	121137.547	5000.000	561.43
1.045	3	121192.891	5000.000	561.43
1.055	3	121247.844	5000.000	561.43
1.065	3	121303.359	5000.000	561.43
1.075	3	121358.297	5000.000	561.43
1.085	3	121413.617	5000.000	561.43
1.095	3	121467.547	5000.000	561.42
1.105	3	121521.344	5000.000	561.42
1.115	3	121574.188	5000.000	561.42
1.125	3	121626.750	5000.000	561.42
1.135	3	121679.414	5000.000	561.42
1.145	3	121714.938	5000.000	561.42
1.155	3	121744.211	5000.000	561.42
1.165	3	121772.180	5000.000	561.42
1.175	3	121798.523	5000.000	561.41
1.185	3	121823.016	5000.000	561.41
1.195	3	121270.953	5000.000	561.37
1.205	3	121307.586	5000.000	561.37
1.215	3	121332.820	5000.000	561.37
1.225	3	121355.953	5000.000	561.36
1.235	3	121379.875	5000.000	561.36
1.245	3	121405.422	5000.000	561.36
1.255	3	121432.609	5000.000	561.36
1.265	3	121461.008	5000.000	561.36
1.275	3	121490.578	5000.000	561.36
1.285	3	121520.820	5000.000	561.36
1.295	3	121551.375	5000.000	561.35
1.305	3	121570.961	5000.000	561.35
1.315	3	121579.539	5000.000	561.35
1.325	3	121588.203	5000.000	561.35
1.335	3	121596.883	5000.000	561.35
1.345	3	121605.391	5000.000	561.35
1.355	3	121614.016	5000.000	561.35

1.365	3	121622.164	5000.000	561.35
1.375	3	121630.195	5000.000	561.34
1.385	3	121637.867	5000.000	561.34
1.395	3	121645.539	5000.000	561.34
1.405	3	121653.320	5000.000	561.34
1.415	3	121661.133	5000.000	561.34
1.425	3	121668.375	5000.000	561.34
1.435	3	121675.539	5000.000	561.34
1.445	3	121683.016	5000.000	561.33
1.455	3	121690.156	5000.000	561.33
1.465	3	121686.578	5000.000	561.33
1.475	3	121649.867	5000.000	561.33
1.485	3	121612.773	5000.000	561.33
1.495	3	121575.250	5000.000	561.33
1.505	3	121537.070	5000.000	561.33
1.515	3	121498.297	5000.000	561.32
1.525	3	121459.609	5000.000	561.32
1.535	3	121420.805	5000.000	561.32
1.545	3	121382.047	5000.000	561.32
1.555	3	121342.797	5000.000	561.32
1.565	3	121302.086	5000.000	561.32
1.575	3	121259.836	5000.000	561.32
1.585	3	121215.906	5000.000	561.32
1.595	3	120442.734	5000.000	561.26
1.605	3	120410.273	5000.000	561.26
1.615	3	120365.820	5000.000	561.25
1.625	3	120320.086	5000.000	561.25
1.635	3	120253.086	5000.000	561.25
1.645	3	120187.789	5000.000	561.25
1.655	3	120124.156	5000.000	561.25
1.665	3	120061.969	5000.000	561.25
1.675	3	120000.742	5000.000	561.25
1.685	3	119939.680	5000.000	561.25
1.695	3	119879.141	5000.000	561.24
1.705	3	119819.203	5000.000	561.24
1.715	3	119759.086	5000.000	561.24
1.725	3	119698.984	5000.000	561.24
1.735	3	119638.617	5000.000	561.24
1.745	3	119578.281	5000.000	561.24
1.755	3	119517.891	5000.000	561.23
1.765	3	119457.047	5000.000	561.23
1.775	3	119396.250	5000.000	561.23
1.785	3	119335.453	5000.000	561.23
1.795	3	119257.086	5000.000	561.23
1.805	3	119173.375	5000.000	561.23
1.815	3	119089.125	5000.000	561.23
1.825	3	119005.180	5000.000	561.22
1.835	3	118920.672	5000.000	561.22
1.845	3	118836.242	5000.000	561.22
1.855	3	118751.859	5000.000	561.22
1.865	3	118667.672	5000.000	561.22
1.875	3	118583.695	5000.000	561.22
1.885	3	118499.344	5000.000	561.22
1.895	3	118414.625	5000.000	561.21
1.905	3	118328.797	5000.000	561.21
1.915	3	118242.719	5000.000	561.21
1.925	3	118156.438	5000.000	561.21
1.935	3	118070.344	5000.000	561.21
1.945	3	117983.969	5000.000	561.21
1.955	3	117862.883	5000.000	561.21
1.965	3	117705.891	5000.000	561.20
1.975	3	117547.164	5000.000	561.20

1.985	3	117386.172	5000.000	561.20
1.995	3	116344.391	5000.000	561.13
2.005	3	116193.773	5000.000	561.13
2.015	3	116030.906	5000.000	561.13
2.025	3	115866.789	5000.000	561.13
2.035	3	115704.180	5000.000	561.12
2.045	3	115543.305	5000.000	561.12
2.055	3	115384.352	5000.000	561.12
2.065	3	115226.211	5000.000	561.12
2.075	3	115068.805	5000.000	561.12
2.085	3	114912.414	5000.000	561.12
2.095	3	114755.461	5000.000	561.12
2.105	3	114599.172	5000.000	561.11
2.115	3	114436.414	5000.000	561.11
2.125	3	114256.195	5000.000	561.11
2.135	3	114075.133	5000.000	561.11
2.145	3	113894.219	5000.000	561.11
2.155	3	113712.492	5000.000	561.11
2.165	3	113530.352	5000.000	561.10
2.175	3	113348.211	5000.000	561.10
2.185	3	113165.039	5000.000	561.10
2.195	3	112981.922	5000.000	561.10
2.205	3	112798.656	5000.000	561.10
2.215	3	112614.633	5000.000	561.10
2.225	3	112430.672	5000.000	561.10
2.235	3	112245.570	5000.000	561.09
2.245	3	112060.852	5000.000	561.09
2.255	3	111875.727	5000.000	561.09
2.265	3	111690.516	5000.000	561.09
2.275	3	111505.352	5000.000	561.09
2.285	3	111222.820	5000.000	561.09
2.295	3	110938.828	5000.000	561.08
2.305	3	110653.789	5000.000	561.08
2.315	3	110367.500	5000.000	561.08
2.325	3	110080.367	5000.000	561.08
2.335	3	109792.742	5000.000	561.08
2.345	3	109504.039	5000.000	561.08
2.355	3	109213.922	5000.000	561.08
2.365	3	108922.000	5000.000	561.07
2.375	3	108627.477	5000.000	561.07
2.385	3	108330.438	5000.000	561.07
2.395	3	107011.430	5000.000	560.99
2.405	3	106723.531	5000.000	560.99
2.415	3	106421.938	5000.000	560.99
2.425	3	106118.305	5000.000	560.98
2.435	3	105815.859	5000.000	560.98
2.445	3	105533.547	5000.000	560.98
2.455	3	105259.016	5000.000	560.98
2.465	3	104985.117	5000.000	560.98
2.475	3	104711.281	5000.000	560.98
2.485	3	104437.906	5000.000	560.98
2.495	3	104163.648	5000.000	560.97
2.505	3	103889.258	5000.000	560.97
2.515	3	103614.188	5000.000	560.97
2.525	3	103338.516	5000.000	560.97
2.535	3	103061.641	5000.000	560.97
2.545	3	102783.875	5000.000	560.97
2.555	3	102505.648	5000.000	560.96
2.565	3	102226.523	5000.000	560.96
2.575	3	101946.062	5000.000	560.96
2.585	3	101665.117	5000.000	560.96
2.595	3	101383.289	5000.000	560.96

2.605	3	101087.258	5000.000	560.96
2.615	3	100776.469	5000.000	560.95
2.625	3	100465.016	5000.000	560.95
2.635	3	100152.789	5000.000	560.95
2.645	3	99838.906	5000.000	560.95
2.655	3	99524.531	5000.000	560.95
2.665	3	99209.406	5000.000	560.95
2.675	3	98893.289	5000.000	560.95
2.685	3	98575.625	5000.000	560.94
2.695	3	98256.586	5000.000	560.94
2.705	3	97936.023	5000.000	560.94
2.715	3	97613.953	5000.000	560.94
2.725	3	97290.820	5000.000	560.94
2.735	3	96966.250	5000.000	560.94
2.745	3	96640.734	5000.000	560.93
2.755	3	96313.492	5000.000	560.93
2.765	3	95990.898	5000.000	560.93
2.775	3	95687.070	5000.000	560.93
2.785	3	95380.492	5000.000	560.93
2.795	3	93939.531	5000.000	560.84
2.805	3	93643.008	5000.000	560.83
2.815	3	93331.539	5000.000	560.83
2.825	3	93017.469	5000.000	560.83
2.835	3	92704.062	5000.000	560.83
2.845	3	92391.859	5000.000	560.83
2.855	3	92080.539	5000.000	560.83
2.865	3	91769.633	5000.000	560.83
2.875	3	91458.445	5000.000	560.82
2.885	3	91146.992	5000.000	560.82
2.895	3	90834.602	5000.000	560.82
2.905	3	90521.828	5000.000	560.82
2.915	3	90208.023	5000.000	560.82
2.925	3	89892.711	5000.000	560.82
2.935	3	89636.398	5000.000	560.81
2.945	3	89379.273	5000.000	560.81
2.955	3	89120.883	5000.000	560.81
2.965	3	88862.000	5000.000	560.81
2.975	3	88602.258	5000.000	560.81
2.985	3	88341.633	5000.000	560.81
2.995	3	88080.141	5000.000	560.81
3.005	3	87817.781	5000.000	560.80
3.015	3	87554.594	5000.000	560.80
3.025	3	87290.555	5000.000	560.80
3.035	3	87025.703	5000.000	560.80
3.045	3	86760.023	5000.000	560.80
3.055	3	86493.641	5000.000	560.80
3.065	3	86226.211	5000.000	560.79
3.075	3	85958.156	5000.000	560.79
3.085	3	85689.445	5000.000	560.79
3.095	3	85443.258	5000.000	560.79
3.105	3	85204.734	5000.000	560.79
3.115	3	84965.336	5000.000	560.79
3.125	3	84725.125	5000.000	560.79
3.135	3	84484.406	5000.000	560.78
3.145	3	84242.555	5000.000	560.78
3.155	3	84000.594	5000.000	560.78
3.165	3	83757.562	5000.000	560.78
3.175	3	83513.797	5000.000	560.78
3.185	3	83269.258	5000.000	560.78
3.195	3	83023.977	5000.000	560.77
3.205	3	82777.891	5000.000	560.77
3.215	3	82531.461	5000.000	560.77

3.225	3	82283.422	5000.000	560.77
3.235	3	82035.422	5000.000	560.77
3.245	3	81786.219	5000.000	560.77
3.255	3	81552.703	5000.000	560.77
3.265	3	81335.023	5000.000	560.76
3.275	3	81116.766	5000.000	560.76
3.285	3	80898.297	5000.000	560.76
3.295	3	80678.422	5000.000	560.76
3.305	3	80458.750	5000.000	560.76
3.315	3	80238.055	5000.000	560.76
3.325	3	80016.742	5000.000	560.75
3.335	3	79795.227	5000.000	560.75
3.345	3	79572.352	5000.000	560.75
3.355	3	79349.469	5000.000	560.75
3.365	3	79125.633	5000.000	560.75
3.375	3	78901.461	5000.000	560.75
3.385	3	78676.016	5000.000	560.74
3.395	3	78450.633	5000.000	560.74
3.405	3	78224.188	5000.000	560.74
3.415	3	78005.828	5000.000	560.74
3.425	3	77813.695	5000.000	560.74
3.435	3	77620.578	5000.000	560.74
3.445	3	77427.172	5000.000	560.74
3.455	3	77233.188	5000.000	560.73
3.465	3	77038.711	5000.000	560.73
3.475	3	76844.148	5000.000	560.73
3.485	3	76648.672	5000.000	560.73
3.495	3	76453.117	5000.000	560.73
3.505	3	76256.227	5000.000	560.73
3.515	3	76059.656	5000.000	560.72
3.525	3	75862.164	5000.000	560.72
3.535	3	75664.258	5000.000	560.72
3.545	3	75465.625	5000.000	560.72
3.555	3	75266.969	5000.000	560.72
3.565	3	75067.383	5000.000	560.72
3.575	3	74867.273	5000.000	560.72
3.585	3	74593.758	5000.000	560.71
3.595	3	74318.773	5000.000	560.71
3.605	3	74043.117	5000.000	560.71
3.615	3	73765.578	5000.000	560.71
3.625	3	73487.758	5000.000	560.71
3.635	3	73208.438	5000.000	560.71
3.645	3	72928.414	5000.000	560.70
3.655	3	72646.852	5000.000	560.70
3.665	3	72364.539	5000.000	560.70
3.675	3	72080.680	5000.000	560.70
3.685	3	71796.047	5000.000	560.70
3.695	3	71509.812	5000.000	560.70
3.705	3	71222.789	5000.000	560.70
3.715	3	70934.148	5000.000	560.69
3.725	3	70644.656	5000.000	560.69
3.735	3	70353.539	5000.000	560.69
3.745	3	70090.984	5000.000	560.69
3.755	3	69837.281	5000.000	560.69
3.765	3	69582.195	5000.000	560.69
3.775	3	69326.570	5000.000	560.68
3.785	3	69069.547	5000.000	560.68
3.795	3	68812.352	5000.000	560.68
3.805	3	68553.328	5000.000	560.68
3.815	3	68293.695	5000.000	560.68
3.825	3	68033.031	5000.000	560.68
3.835	3	67770.930	5000.000	560.68

3.845	3	67508.578	5000.000	560.67
3.855	3	67244.344	5000.000	560.67
3.865	3	66979.445	5000.000	560.67
3.875	3	66713.438	5000.000	560.67
3.885	3	66446.211	5000.000	560.67
3.895	3	66178.094	5000.000	560.67
3.905	3	65908.594	5000.000	560.66
3.915	3	65637.758	5000.000	560.66
3.925	3	65366.453	5000.000	560.66
3.935	3	65093.562	5000.000	560.66
3.945	3	64819.043	5000.000	560.66
3.955	3	64544.152	5000.000	560.66
3.965	3	64267.590	5000.000	560.66
3.975	3	63989.371	5000.000	560.65
3.985	3	63710.707	5000.000	560.65
3.995	3	63430.348	5000.000	560.65

IPROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - TEMPERATURE DATA FOR ROD 10 (FUEL TYPE 1)

DISTANCE (M)	FLUX (MW/M2)	DNBR	CHANNEL (DEG-K)	AV FUEL T			TEMPERATURE				
				T(1)	T(2)	T(3)	T(4)	T(5)	T(6)	T(7)	
0.005	0.38053	0.000	0	793.1	931.1	902.8	842.9	758.0	656.6	572.0	563.9
0.015	0.38710	0.000	0	797.7	938.7	909.8	848.5	761.7	658.3	572.3	564.0
0.025	0.39367	0.000	0	802.3	946.5	916.8	854.2	765.5	660.0	572.5	564.1
0.035	0.40024	0.000	0	806.9	954.2	923.9	859.8	769.3	661.7	572.7	564.2
0.045	0.40681	0.000	0	811.5	962.0	931.0	865.5	773.0	663.3	572.9	564.3
0.055	0.41338	0.000	0	816.1	969.8	938.1	871.2	776.8	665.0	573.2	564.3
0.065	0.41995	0.000	0	820.8	977.7	945.3	876.9	780.6	666.7	573.4	564.4
0.075	0.42652	9.995	13	825.4	985.6	952.5	882.7	784.4	668.4	573.6	564.5
0.085	0.43309	9.755	13	830.1	993.6	959.8	888.5	788.2	670.1	573.8	564.6
0.095	0.43966	9.525	13	834.8	1001.6	967.1	894.3	792.1	671.8	574.1	564.7
0.105	0.44623	9.304	13	839.5	1009.7	974.4	900.1	795.9	673.4	574.3	564.8
0.115	0.45280	9.092	13	844.2	1017.8	981.7	906.0	799.7	675.1	574.5	564.8
0.125	0.45937	8.888	13	849.0	1026.0	989.2	911.8	803.6	676.8	574.7	564.9
0.135	0.46594	8.693	13	853.8	1034.2	996.6	917.7	807.5	678.5	574.9	565.0
0.145	0.47251	8.504	13	858.6	1042.4	1004.1	923.7	811.3	680.2	575.2	565.1
0.155	0.47908	8.323	13	863.4	1050.7	1011.6	929.6	815.2	681.8	575.4	565.1
0.165	0.48565	8.148	13	868.2	1059.1	1019.2	935.6	819.1	683.5	575.6	565.2
0.175	0.49222	7.979	13	873.0	1067.4	1026.8	941.6	823.0	685.2	575.8	565.3
0.185	0.49879	7.817	13	877.9	1075.9	1034.4	947.6	826.9	686.8	576.0	565.4
0.195	0.50536	7.659	13	882.8	1084.4	1042.1	953.7	830.8	688.5	576.2	565.4
0.205	0.51194	7.507	13	887.7	1092.9	1049.8	959.8	834.8	690.2	576.4	565.5
0.215	0.51851	7.360	13	892.6	1101.5	1057.6	965.9	838.7	691.9	576.6	565.6
0.225	0.52508	7.218	13	897.5	1110.1	1065.4	972.0	842.7	693.5	576.8	565.6
0.235	0.53165	7.081	13	902.5	1118.8	1073.2	978.2	846.6	695.2	577.1	565.7
0.245	0.53822	6.948	13	907.5	1127.5	1081.1	984.3	850.6	696.9	577.3	565.8
0.255	0.54479	6.820	13	912.4	1136.3	1089.1	990.6	854.6	698.5	577.5	565.9
0.265	0.55136	6.696	13	917.5	1145.1	1097.0	996.8	858.6	700.2	577.7	565.9
0.275	0.55793	6.575	13	922.5	1154.0	1105.0	1003.1	862.6	701.9	577.9	566.0
0.285	0.56450	6.459	13	927.5	1162.9	1113.1	1009.4	866.6	703.5	578.1	566.1
0.295	0.57107	6.346	13	932.6	1171.9	1121.2	1015.7	870.6	705.2	578.3	566.1
0.305	0.57764	6.236	13	937.7	1180.9	1129.3	1022.0	874.7	706.9	578.5	566.2
0.315	0.58421	6.130	13	942.8	1190.0	1137.5	1028.4	878.7	708.5	578.7	566.3
0.325	0.59078	6.027	13	948.0	1199.1	1145.7	1034.8	882.8	710.2	578.9	566.3
0.335	0.59823	5.920	13	953.8	1209.5	1155.1	1042.1	887.4	712.1	579.1	566.4
0.345	0.60568	5.817	13	959.7	1220.0	1164.5	1049.4	892.0	714.0	579.4	566.5
0.355	0.61312	5.716	13	965.5	1230.5	1174.0	1056.8	896.7	715.8	579.6	566.5
0.365	0.62057	5.619	13	971.5	1241.1	1183.5	1064.2	901.3	717.7	579.8	566.6
0.375	0.62802	5.524	13	977.4	1251.7	1193.1	1071.6	906.0	719.6	580.0	566.7

0.385	0.63547	5.432	13	983.4	1262.5	1202.7	1079.1	910.7	721.5	580.3	566.7
0.395	0.64291	5.341	13	989.4	1273.3	1212.4	1086.6	915.4	723.4	580.5	566.8
0.405	0.65036	5.248	13	995.4	1284.1	1222.2	1094.1	920.1	725.3	580.7	566.9
0.415	0.65781	5.162	13	1001.4	1295.0	1232.0	1101.7	924.9	727.1	581.0	567.0
0.425	0.66526	5.080	13	1007.5	1306.0	1241.9	1109.3	929.6	729.0	581.2	567.0
0.435	0.67270	5.000	13	1013.6	1317.1	1251.8	1117.0	934.4	730.9	581.4	567.1
0.445	0.68015	4.923	13	1019.7	1328.2	1261.7	1124.6	939.1	732.8	581.6	567.2
0.455	0.68760	4.847	13	1025.9	1339.4	1271.8	1132.3	943.9	734.7	581.9	567.2
0.465	0.69505	4.773	13	1032.1	1350.6	1281.9	1140.1	948.7	736.5	582.1	567.3
0.475	0.70249	4.701	13	1038.3	1361.9	1292.0	1147.9	953.6	738.4	582.3	567.4
0.485	0.70994	4.630	13	1044.5	1373.3	1302.2	1155.7	958.4	740.3	582.5	567.4
0.495	0.71739	4.561	13	1050.7	1384.7	1312.4	1163.6	963.2	742.2	582.8	567.5
0.505	0.72483	4.494	13	1057.0	1396.2	1322.7	1171.5	968.1	744.0	583.0	567.6
0.515	0.73228	4.428	13	1063.3	1407.7	1333.1	1179.4	973.0	745.9	583.2	567.6
0.525	0.73972	4.364	13	1069.6	1419.4	1343.5	1187.4	977.9	747.8	583.4	567.7
0.535	0.74717	4.302	13	1076.0	1431.1	1353.9	1195.4	982.8	749.7	583.6	567.8
0.545	0.75461	4.240	13	1082.4	1442.8	1364.5	1203.4	987.7	751.5	583.9	567.8
0.555	0.76206	4.181	13	1088.8	1454.6	1375.0	1211.5	992.6	753.4	584.1	567.9
0.565	0.76950	4.123	13	1095.2	1466.5	1385.7	1219.6	997.6	755.3	584.3	567.9
0.575	0.77695	4.066	13	1101.7	1478.4	1396.4	1227.8	1002.5	757.2	584.5	568.0
0.585	0.78439	4.010	13	1108.2	1490.4	1407.1	1236.0	1007.5	759.0	584.7	568.1
0.595	0.79184	3.956	13	1114.7	1502.5	1417.9	1244.2	1012.5	760.9	584.9	568.1
0.605	0.79928	3.903	13	1121.2	1514.6	1428.7	1252.5	1017.5	762.8	585.2	568.2
0.615	0.80673	3.851	13	1127.8	1526.8	1439.6	1260.8	1022.5	764.7	585.4	568.2
0.625	0.81417	3.801	13	1134.4	1539.1	1450.6	1269.1	1027.6	766.5	585.6	568.3
0.635	0.82162	3.752	13	1141.0	1551.4	1461.6	1277.5	1032.6	768.4	585.8	568.4
0.645	0.82906	3.703	13	1147.6	1563.8	1472.7	1285.9	1037.7	770.3	586.0	568.4
0.655	0.83520	3.660	13	1153.1	1574.0	1481.8	1292.8	1041.9	771.8	586.2	568.5
0.665	0.84001	3.621	13	1157.5	1582.1	1489.1	1298.3	1045.2	773.0	586.4	568.5
0.675	0.84483	3.584	13	1161.8	1590.2	1496.3	1303.9	1048.5	774.3	586.5	568.6
0.685	0.84965	3.546	13	1166.2	1598.3	1503.6	1309.4	1051.8	775.5	586.7	568.6
0.695	0.85447	3.510	13	1170.6	1606.5	1510.9	1314.9	1055.2	776.7	586.8	568.7
0.705	0.85929	3.474	13	1174.9	1614.7	1518.2	1320.5	1058.5	777.9	586.9	568.7
0.715	0.86411	3.439	13	1179.3	1622.9	1525.5	1326.0	1061.8	779.1	587.1	568.7
0.725	0.86893	3.404	13	1183.7	1631.1	1532.9	1331.6	1065.2	780.3	587.2	568.8
0.735	0.87375	3.370	13	1188.1	1639.3	1540.2	1337.2	1068.5	781.5	587.4	568.8
0.745	0.87857	3.336	13	1192.5	1647.6	1547.6	1342.8	1071.8	782.7	587.5	568.9
0.755	0.88338	3.303	13	1196.9	1655.8	1555.0	1348.4	1075.2	783.9	587.6	568.9
0.765	0.88820	3.271	13	1201.4	1664.1	1562.4	1354.0	1078.6	785.1	587.8	568.9
0.775	0.89302	3.240	13	1205.8	1672.5	1569.9	1359.7	1081.9	786.4	587.9	569.0
0.785	0.89784	3.209	13	1210.3	1680.8	1577.4	1365.4	1085.3	787.6	588.0	569.0
0.795	0.90266	3.177	13	1214.7	1689.2	1584.9	1371.0	1088.7	788.8	588.2	569.0
0.805	0.90748	3.143	13	1219.2	1697.6	1592.4	1376.7	1092.1	790.0	588.3	569.1
0.815	0.91175	3.113	13	1223.2	1705.1	1599.1	1381.8	1095.1	791.1	588.5	569.1
0.825	0.91438	3.088	13	1225.7	1709.7	1603.2	1384.9	1096.9	791.7	588.5	569.1
0.835	0.91701	3.064	13	1228.1	1714.3	1607.3	1388.1	1098.8	792.4	588.6	569.2
0.845	0.91964	3.041	13	1230.6	1718.9	1611.5	1391.2	1100.7	793.1	588.7	569.2
0.855	0.92226	3.017	13	1233.1	1723.6	1615.6	1394.4	1102.5	793.7	588.8	569.2
0.865	0.92489	2.994	13	1235.5	1728.2	1619.8	1397.5	1104.4	794.4	588.9	569.3
0.875	0.92752	2.971	13	1238.0	1732.8	1623.9	1400.7	1106.3	795.1	588.9	569.3
0.885	0.93015	2.949	13	1240.5	1737.5	1628.1	1403.8	1108.1	795.7	589.0	569.3
0.895	0.93278	2.926	13	1242.9	1742.1	1632.2	1407.0	1110.0	796.4	589.1	569.3
0.905	0.93541	2.904	13	1245.4	1746.7	1636.4	1410.1	1111.9	797.0	589.2	569.3
0.915	0.93804	2.882	13	1247.9	1751.4	1640.6	1413.3	1113.7	797.7	589.2	569.3
0.925	0.94067	2.861	13	1250.4	1756.0	1644.7	1416.4	1115.6	798.3	589.3	569.4
0.935	0.94329	2.839	13	1252.8	1760.7	1648.9	1419.6	1117.5	799.0	589.4	569.4
0.945	0.94592	2.818	13	1255.3	1765.3	1653.1	1422.8	1119.3	799.6	589.4	569.4
0.955	0.94855	2.797	13	1257.8	1770.0	1657.3	1425.9	1121.2	800.3	589.5	569.4
0.965	0.95118	2.777	13	1260.3	1774.7	1661.5	1429.1	1123.1	801.0	589.6	569.4
0.975	0.95381	2.756	13	1262.8	1779.4	1665.7	1432.3	1125.0	801.6	589.6	569.4
0.985	0.95512	2.738	13	1264.0	1781.7	1667.8	1433.9	1125.9	801.9	589.7	569.4
0.995	0.95644	2.721	13	1265.3	1784.1	1669.9	1435.5	1126.9	802.3	589.7	569.5

1.005	0.95775	2.703	13	1266.5	1786.4	1672.0	1437.1	1127.8	802.6	589.8	569.5
1.015	0.95906	2.686	13	1267.8	1788.7	1674.1	1438.7	1128.7	802.9	589.8	569.5
1.025	0.96037	2.669	13	1269.0	1791.1	1676.2	1440.3	1129.7	803.2	589.8	569.5
1.035	0.96169	2.652	13	1270.3	1793.4	1678.3	1441.8	1130.6	803.6	589.9	569.5
1.045	0.96300	2.636	13	1271.5	1795.8	1680.4	1443.4	1131.5	803.9	589.9	569.5
1.055	0.96431	2.620	13	1272.8	1798.1	1682.5	1445.0	1132.5	804.2	589.9	569.5
1.065	0.96563	2.603	13	1274.0	1800.5	1684.6	1446.6	1133.4	804.5	590.0	569.5
1.075	0.96694	2.587	13	1275.3	1802.8	1686.7	1448.2	1134.4	804.9	590.0	569.5
1.085	0.96825	2.571	13	1276.5	1805.2	1688.8	1449.8	1135.3	805.2	590.0	569.5
1.095	0.96957	2.556	13	1277.8	1807.5	1690.9	1451.4	1136.2	805.5	590.1	569.5
1.105	0.97088	2.541	13	1279.0	1809.9	1693.0	1453.0	1137.2	805.8	590.1	569.5
1.115	0.97219	2.525	13	1280.3	1812.2	1695.1	1454.6	1138.1	806.2	590.1	569.5
1.125	0.97351	2.511	13	1281.5	1814.6	1697.2	1456.2	1139.1	806.5	590.2	569.5
1.135	0.97482	2.496	13	1282.8	1816.9	1699.4	1457.8	1140.0	806.8	590.2	569.5
1.145	0.97581	2.482	13	1283.7	1818.7	1700.9	1459.0	1140.7	807.1	590.2	569.5
1.155	0.97668	2.468	13	1284.5	1820.3	1702.4	1460.1	1141.4	807.3	590.2	569.5
1.165	0.97756	2.455	13	1285.4	1821.8	1703.8	1461.2	1142.0	807.5	590.3	569.5
1.175	0.97844	2.442	13	1286.2	1823.4	1705.2	1462.3	1142.6	807.7	590.3	569.5
1.185	0.97931	2.429	13	1287.1	1825.0	1706.6	1463.3	1143.2	807.9	590.3	569.6
1.195	0.98019	2.415	13	1287.9	1826.6	1708.0	1464.4	1143.9	808.1	590.3	569.6
1.205	0.98107	2.398	13	1288.7	1828.1	1709.4	1465.5	1144.5	808.4	590.4	569.6
1.215	0.98194	2.384	13	1289.6	1829.7	1710.9	1466.6	1145.1	808.6	590.4	569.6
1.225	0.98282	2.372	13	1290.4	1831.3	1712.3	1467.6	1145.8	808.8	590.4	569.6
1.235	0.98370	2.359	13	1291.3	1832.9	1713.7	1468.7	1146.4	809.0	590.4	569.6
1.245	0.98458	2.347	13	1292.1	1834.5	1715.1	1469.8	1147.0	809.2	590.4	569.6
1.255	0.98545	2.335	13	1292.9	1836.1	1716.5	1470.9	1147.7	809.5	590.5	569.6
1.265	0.98633	2.323	13	1293.8	1837.6	1718.0	1472.0	1148.3	809.7	590.5	569.6
1.275	0.98721	2.311	13	1294.6	1839.2	1719.4	1473.0	1148.9	809.9	590.5	569.6
1.285	0.98808	2.299	13	1295.5	1840.8	1720.8	1474.1	1149.6	810.1	590.5	569.6
1.295	0.98896	2.287	13	1296.3	1842.4	1722.2	1475.2	1150.2	810.3	590.6	569.6
1.305	0.98962	2.275	13	1296.9	1843.6	1723.3	1476.0	1150.7	810.5	590.6	569.6
1.315	0.99006	2.264	13	1297.4	1844.3	1724.0	1476.5	1151.0	810.6	590.6	569.6
1.325	0.99050	2.252	13	1297.8	1845.1	1724.7	1477.1	1151.3	810.7	590.6	569.6
1.335	0.99093	2.241	13	1298.2	1845.9	1725.4	1477.6	1151.6	810.8	590.6	569.6
1.345	0.99137	2.230	13	1298.6	1846.7	1726.1	1478.2	1151.9	810.9	590.6	569.6
1.355	0.99181	2.219	13	1299.0	1847.5	1726.8	1478.7	1152.3	811.0	590.6	569.6
1.365	0.99225	2.208	13	1299.5	1848.3	1727.6	1479.2	1152.6	811.1	590.6	569.6
1.375	0.99269	2.198	13	1299.9	1849.1	1728.3	1479.8	1152.9	811.2	590.6	569.6
1.385	0.99313	2.187	13	1300.3	1849.9	1729.0	1480.3	1153.2	811.4	590.7	569.6
1.395	0.99357	2.177	13	1300.7	1850.7	1729.7	1480.8	1153.5	811.5	590.7	569.6
1.405	0.99400	2.166	13	1301.1	1851.5	1730.4	1481.4	1153.8	811.6	590.7	569.6
1.415	0.99444	2.156	13	1301.6	1852.3	1731.1	1481.9	1154.2	811.7	590.7	569.6
1.425	0.99488	2.146	13	1302.0	1853.0	1731.8	1482.5	1154.5	811.8	590.7	569.6
1.435	0.99532	2.136	13	1302.4	1853.8	1732.5	1483.0	1154.8	811.9	590.7	569.6
1.445	0.99576	2.126	13	1302.8	1854.6	1733.3	1483.5	1155.1	812.0	590.7	569.6
1.455	0.99620	2.116	13	1303.3	1855.4	1734.0	1484.1	1155.4	812.1	590.7	569.6
1.465	0.99642	2.106	13	1303.5	1855.8	1734.3	1484.4	1155.6	812.2	590.7	569.6
1.475	0.99598	2.097	13	1303.0	1855.0	1733.6	1483.8	1155.3	812.1	590.7	569.6
1.485	0.99554	2.088	13	1302.6	1854.2	1732.9	1483.3	1155.0	811.9	590.7	569.6
1.495	0.99510	2.079	13	1302.2	1853.4	1732.2	1482.7	1154.6	811.8	590.7	569.6
1.505	0.99466	2.071	13	1301.8	1852.6	1731.5	1482.2	1154.3	811.7	590.7	569.6
1.515	0.99422	2.062	13	1301.3	1851.8	1730.7	1481.6	1154.0	811.6	590.7	569.6
1.525	0.99378	2.054	13	1300.9	1851.1	1730.0	1481.1	1153.7	811.5	590.7	569.6
1.535	0.99335	2.046	13	1300.5	1850.3	1729.3	1480.6	1153.4	811.4	590.7	569.6
1.545	0.99291	2.038	13	1300.1	1849.5	1728.6	1480.0	1153.0	811.3	590.6	569.6
1.555	0.99247	2.030	13	1299.7	1848.7	1727.9	1479.5	1152.7	811.2	590.6	569.6
1.565	0.99203	2.022	13	1299.2	1847.9	1727.2	1478.9	1152.4	811.1	590.6	569.6
1.575	0.99159	2.015	13	1298.8	1847.1	1726.5	1478.4	1152.1	811.0	590.6	569.6
1.585	0.99115	2.007	13	1298.4	1846.3	1725.8	1477.9	1151.8	810.9	590.6	569.6
1.595	0.99071	1.999	13	1298.0	1845.5	1725.0	1477.3	1151.4	810.7	590.6	569.6
1.605	0.99028	1.988	13	1297.5	1844.7	1724.3	1476.8	1151.1	810.6	590.6	569.6
1.615	0.98984	1.980	13	1297.1	1843.9	1723.6	1476.2	1150.8	810.5	590.6	569.6

2.215	0.87965	1.669	13	1193.7	1649.7	1549.5	1344.3	1072.8	783.2	587.7	569.0
2.205	0.88272	1.672	13	1196.5	1654.9	1554.2	1347.8	1074.9	783.9	587.8	569.0
2.195	0.88579	1.675	13	1199.3	1660.2	1558.9	1351.4	1077.0	784.7	587.8	569.0
2.185	0.88886	1.679	13	1202.2	1665.5	1563.7	1355.0	1079.2	785.4	587.9	569.1
2.175	0.89192	1.682	13	1205.0	1670.8	1568.4	1358.6	1081.3	786.2	588.0	569.1
2.165	0.89499	1.685	13	1207.8	1676.1	1573.1	1362.2	1083.4	787.0	588.1	569.1
2.155	0.89806	1.689	13	1210.6	1681.4	1577.9	1365.8	1085.6	787.7	588.2	569.1
2.145	0.90113	1.692	13	1213.5	1686.7	1582.6	1369.4	1087.7	788.5	588.2	569.1
2.135	0.90419	1.696	13	1216.3	1692.0	1587.4	1373.0	1089.9	789.3	588.3	569.1
2.125	0.90726	1.699	13	1219.1	1697.4	1592.2	1376.6	1092.0	790.0	588.4	569.2
2.115	0.91033	1.703	13	1222.0	1702.7	1597.0	1380.2	1094.2	790.8	588.5	569.2
2.105	0.91306	1.707	13	1224.5	1707.5	1601.2	1383.5	1096.1	791.5	588.6	569.2
2.095	0.91569	1.711	13	1227.0	1712.1	1605.4	1386.6	1097.9	792.1	588.6	569.2
2.085	0.91832	1.715	13	1229.4	1716.7	1609.5	1389.7	1099.8	792.8	588.7	569.2
2.075	0.92095	1.719	13	1231.9	1721.3	1613.6	1392.8	1101.6	793.4	588.8	569.2
2.065	0.92358	1.722	13	1234.3	1725.9	1617.7	1396.0	1103.5	794.1	588.8	569.2
2.055	0.92621	1.726	13	1236.8	1730.5	1621.9	1399.1	1105.3	794.7	588.9	569.3
2.045	0.92884	1.730	13	1239.2	1735.1	1626.0	1402.2	1107.2	795.4	589.0	569.3
2.035	0.93147	1.734	13	1241.7	1739.7	1630.1	1405.4	1109.1	796.0	589.0	569.3
2.025	0.93409	1.737	13	1244.2	1744.4	1634.3	1408.5	1110.9	796.7	589.1	569.3
2.015	0.93672	1.741	13	1246.6	1749.0	1638.4	1411.7	1112.8	797.3	589.2	569.3
2.005	0.93935	1.745	13	1249.1	1753.7	1642.6	1414.8	1114.6	798.0	589.2	569.3
1.995	0.94198	1.753	13	1251.6	1758.3	1646.8	1418.0	1116.5	798.6	589.3	569.3
1.985	0.94461	1.757	13	1254.0	1763.0	1650.9	1421.1	1118.4	799.3	589.4	569.3
1.975	0.94724	1.761	13	1256.5	1767.6	1655.1	1424.3	1120.2	799.9	589.4	569.4
1.965	0.94987	1.764	13	1259.0	1772.3	1659.3	1427.5	1122.1	800.6	589.5	569.4
1.955	0.95250	1.768	13	1261.5	1777.0	1663.5	1430.6	1124.0	801.2	589.6	569.4
1.945	0.95447	1.773	13	1263.4	1780.5	1666.6	1433.0	1125.4	801.7	589.6	569.4
1.935	0.95578	1.778	13	1264.6	1782.8	1668.7	1434.6	1126.3	802.1	589.7	569.4
1.925	0.95709	1.783	13	1265.8	1785.1	1670.8	1436.2	1127.3	802.4	589.7	569.4
1.915	0.95841	1.789	13	1267.1	1787.5	1672.9	1437.8	1128.2	802.7	589.7	569.4
1.905	0.95972	1.794	13	1268.3	1789.8	1675.0	1439.4	1129.1	803.0	589.8	569.4
1.895	0.96103	1.799	13	1269.6	1792.2	1677.1	1441.0	1130.1	803.4	589.8	569.4
1.885	0.96234	1.805	13	1270.8	1794.5	1679.2	1442.6	1131.0	803.7	589.8	569.4
1.875	0.96366	1.811	13	1272.1	1796.9	1681.4	1444.2	1132.9	804.0	589.9	569.5
1.865	0.96497	1.816	13	1273.3	1799.2	1683.5	1445.8	1132.9	804.3	589.9	569.5
1.855	0.96628	1.822	13	1274.6	1801.6	1685.6	1447.4	1133.8	804.7	589.9	569.5
1.845	0.96760	1.828	13	1275.8	1803.9	1687.7	1449.0	1134.8	805.0	590.0	569.5
1.835	0.96891	1.834	13	1277.1	1806.3	1689.8	1450.6	1135.7	805.3	590.0	569.5
1.825	0.97022	1.840	13	1278.3	1808.6	1691.9	1452.2	1136.7	805.6	590.0	569.5
1.815	0.97154	1.846	13	1279.6	1811.0	1694.0	1453.8	1137.6	806.0	590.1	569.5
1.805	0.97285	1.852	13	1280.8	1813.3	1696.1	1455.4	1138.6	806.3	590.1	569.5
1.795	0.97416	1.858	13	1282.1	1815.7	1698.3	1457.0	1139.5	806.6	590.1	569.5
1.785	0.97537	1.864	13	1283.2	1817.9	1700.2	1458.5	1140.4	806.9	590.2	569.5
1.775	0.97624	1.870	13	1284.1	1819.4	1701.6	1459.5	1141.0	807.1	590.2	569.5
1.765	0.97712	1.877	13	1284.9	1821.0	1703.0	1460.6	1141.6	807.4	590.2	569.5
1.755	0.97800	1.883	13	1285.8	1822.6	1704.4	1461.7	1142.3	807.6	590.3	569.5
1.745	0.97888	1.890	13	1286.6	1824.2	1705.9	1462.8	1142.9	807.8	590.3	569.5
1.735	0.97975	1.897	13	1287.4	1825.7	1707.3	1463.8	1143.5	808.0	590.3	569.5
1.725	0.98063	1.904	13	1288.3	1827.3	1708.7	1464.9	1144.2	808.2	590.3	569.5
1.715	0.98151	1.911	13	1289.1	1828.9	1710.1	1466.0	1144.8	808.5	590.3	569.5
1.705	0.98238	1.917	13	1290.0	1830.5	1711.5	1467.1	1145.4	808.7	590.4	569.6
1.695	0.98326	1.924	13	1290.8	1832.1	1713.0	1468.1	1146.1	808.9	590.4	569.6
1.685	0.98414	1.931	13	1291.7	1833.6	1714.4	1469.2	1146.7	809.1	590.4	569.6
1.675	0.98501	1.938	13	1292.5	1835.2	1715.8	1470.3	1147.3	809.3	590.4	569.6
1.665	0.98589	1.945	13	1293.3	1836.8	1717.2	1471.4	1148.0	809.5	590.5	569.6
1.655	0.98677	1.952	13	1294.2	1838.4	1718.6	1472.5	1148.6	809.8	590.5	569.6
1.645	0.98765	1.959	13	1295.0	1840.0	1720.1	1473.5	1149.2	810.0	590.5	569.6
1.635	0.98852	1.966	13	1295.9	1841.6	1721.5	1474.6	1149.9	810.2	590.5	569.6

2.245	0.87045	1.659	13	1185.3	1634.0	1535.5	1333.6	1066.4	780.9	587.4	569.0
2.255	0.86739	1.656	13	1182.5	1628.7	1530.8	1330.1	1064.3	780.1	587.3	568.9
2.265	0.86432	1.653	13	1179.8	1623.5	1526.1	1326.5	1062.2	779.3	587.3	568.9
2.275	0.86125	1.650	13	1177.0	1618.3	1521.5	1323.0	1060.1	778.6	587.2	568.9
2.285	0.85644	1.648	13	1172.6	1610.2	1514.2	1317.5	1056.8	777.4	587.1	568.9
2.295	0.85162	1.646	13	1168.3	1602.0	1506.9	1312.0	1053.5	776.2	586.9	568.9
2.305	0.84680	1.644	13	1163.9	1593.9	1499.7	1306.5	1050.2	775.0	586.8	568.8
2.315	0.84199	1.642	13	1159.6	1585.8	1492.4	1301.0	1046.9	773.8	586.7	568.8
2.325	0.83717	1.641	13	1155.3	1577.8	1485.2	1295.5	1043.6	772.6	586.5	568.8
2.335	0.83235	1.639	13	1151.0	1569.8	1478.1	1290.1	1040.3	771.4	586.4	568.8
2.345	0.82754	1.638	13	1146.7	1561.8	1470.9	1284.6	1037.0	770.2	586.3	568.7
2.355	0.82272	1.636	13	1142.4	1553.8	1463.8	1279.2	1033.8	769.0	586.2	568.7
2.365	0.81790	1.635	13	1138.1	1545.8	1456.7	1273.8	1030.5	767.8	586.0	568.7
2.375	0.81309	1.634	13	1133.9	1537.9	1449.6	1268.4	1027.3	766.6	585.9	568.7
2.385	0.80827	1.633	13	1129.6	1530.0	1442.5	1263.0	1024.0	765.4	585.8	568.6
2.395	0.80345	1.631	13	1125.4	1522.1	1435.4	1257.6	1020.8	764.2	585.7	568.6
2.405	0.79864	1.626	13	1121.2	1514.2	1428.4	1252.3	1017.6	763.0	585.5	568.6
2.415	0.79382	1.624	13	1117.0	1506.4	1421.4	1247.0	1014.3	761.8	585.4	568.5
2.425	0.78901	1.623	13	1112.8	1498.6	1414.5	1241.7	1011.1	760.6	585.3	568.5
2.435	0.78419	1.622	13	1108.6	1490.8	1407.5	1236.4	1007.9	759.4	585.2	568.5
2.445	0.77970	1.621	13	1104.7	1483.6	1401.0	1231.4	1004.9	758.3	585.0	568.5
2.455	0.77532	1.620	13	1100.9	1476.6	1394.7	1226.7	1002.0	757.2	584.9	568.4
2.465	0.77094	1.618	13	1097.1	1469.6	1388.5	1221.9	999.1	756.1	584.8	568.4
2.475	0.76656	1.617	13	1093.3	1462.6	1382.2	1217.1	996.2	755.0	584.7	568.4
2.485	0.76218	1.615	13	1089.5	1455.6	1376.0	1212.3	993.3	753.9	584.6	568.4
2.495	0.75780	1.613	13	1085.8	1448.7	1369.8	1207.6	990.4	752.8	584.4	568.3
2.505	0.75342	1.612	13	1082.0	1441.8	1363.6	1202.9	987.5	751.8	584.3	568.3
2.515	0.74904	1.610	13	1078.3	1434.9	1357.4	1198.2	984.6	750.7	584.2	568.3
2.525	0.74466	1.609	13	1074.6	1428.0	1351.3	1193.4	981.8	749.6	584.1	568.3
2.535	0.74028	1.607	13	1070.8	1421.1	1345.1	1188.8	978.9	748.5	584.0	568.2
2.545	0.73590	1.606	13	1067.1	1414.3	1339.0	1184.1	976.0	747.4	583.9	568.2
2.555	0.73152	1.604	13	1063.4	1407.5	1332.9	1179.4	973.2	746.3	583.7	568.2
2.565	0.72714	1.603	13	1059.7	1400.7	1326.8	1174.8	970.3	745.2	583.6	568.2
2.575	0.72276	1.601	13	1056.0	1393.9	1320.8	1170.1	967.5	744.1	583.5	568.1
2.585	0.71837	1.600	13	1052.4	1387.2	1314.7	1165.5	964.6	743.0	583.4	568.1
2.595	0.71399	1.599	13	1048.7	1380.5	1308.7	1160.9	961.8	741.9	583.3	568.1
2.605	0.70940	1.597	13	1044.8	1373.4	1302.4	1156.0	958.8	740.8	583.1	568.1
2.615	0.70458	1.596	13	1040.8	1366.1	1295.8	1151.0	955.7	739.6	583.0	568.0
2.625	0.69976	1.595	13	1036.8	1358.8	1289.3	1146.0	952.6	738.4	582.9	568.0
2.635	0.69494	1.595	13	1032.8	1351.5	1282.7	1140.9	949.5	737.2	582.8	568.0
2.645	0.69012	1.594	13	1028.9	1344.2	1276.2	1135.9	946.4	736.0	582.6	568.0
2.655	0.68530	1.593	13	1024.9	1337.0	1269.7	1130.9	943.3	734.8	582.5	567.9
2.665	0.68048	1.592	13	1020.9	1329.8	1263.3	1126.0	940.2	733.6	582.4	567.9
2.675	0.67566	1.591	13	1017.0	1322.6	1256.8	1121.0	937.1	732.4	582.2	567.9
2.685	0.67084	1.590	13	1013.0	1315.5	1250.4	1116.1	934.1	731.2	582.1	567.8
2.695	0.66603	1.589	13	1009.1	1308.4	1244.0	1111.1	931.0	730.0	582.0	567.8
2.705	0.66121	1.589	13	1005.2	1301.3	1237.7	1106.2	928.0	728.8	581.8	567.8
2.715	0.65639	1.588	13	1001.3	1294.2	1231.3	1101.3	924.9	727.6	581.7	567.7
2.725	0.65157	1.588	13	997.4	1287.1	1225.0	1096.5	921.9	726.4	581.6	567.7
2.735	0.64675	1.587	13	993.5	1280.1	1218.7	1091.6	918.8	725.2	581.4	567.7
2.745	0.64193	1.587	13	989.6	1273.1	1212.4	1086.7	915.8	724.0	581.3	567.7
2.755	0.63711	1.586	13	985.8	1266.2	1206.2	1081.9	912.8	722.8	581.2	567.6
2.765	0.63240	1.586	13	982.0	1259.4	1200.1	1077.2	909.8	721.6	581.1	567.6
2.775	0.62802	1.586	13	978.5	1253.1	1194.4	1072.8	907.1	720.5	580.9	567.6
2.785	0.62364	1.586	13	975.1	1246.9	1188.8	1068.5	904.4	719.4	580.8	567.5
2.795	0.61926	1.584	13	971.6	1240.6	1183.2	1064.1	901.6	718.3	580.7	567.5
2.805	0.61488	1.579	13	968.1	1234.4	1177.6	1059.8	898.9	717.2	580.6	567.5
2.815	0.61050	1.578	13	964.7	1228.2	1172.0	1055.5	896.2	716.1	580.5	567.5
2.825	0.60612	1.578	13	961.2	1222.1	1166.5	1051.2	893.5	715.0	580.3	567.4
2.835	0.60174	1.577	13	957.8	1215.9	1161.0	1046.9	890.8	713.9	580.2	567.4
2.845	0.59736	1.577	13	954.4	1209.8	1155.4	1042.6	888.1	712.8	580.1	567.4
2.855	0.59298	1.577	13	950.9	1203.7	1149.9	1038.3	885.4	711.8	580.0	567.4

2.865	0.58860	1.577	13	947.5	1197.6	1144.5	1034.0	882.7	710.7	579.9	567.3
2.875	0.58422	1.576	13	944.1	1191.6	1139.0	1029.8	880.0	709.6	579.7	567.3
2.885	0.57984	1.576	13	940.7	1185.5	1133.6	1025.6	877.3	708.5	579.6	567.3
2.895	0.57546	1.575	13	937.3	1179.5	1128.2	1021.3	874.6	707.4	579.5	567.2
2.905	0.57108	1.575	13	934.0	1173.5	1122.8	1017.1	871.9	706.3	579.4	567.2
2.915	0.56670	1.574	13	930.6	1167.5	1117.4	1012.9	869.3	705.2	579.3	567.2
2.925	0.56232	1.573	13	927.2	1161.6	1112.0	1008.7	866.6	704.1	579.1	567.2
2.935	0.55881	1.572	13	924.6	1156.9	1107.7	1005.4	864.5	703.2	579.0	567.1
2.945	0.55531	1.571	13	921.9	1152.1	1103.5	1002.1	862.3	702.3	578.9	567.1
2.955	0.55180	1.571	13	919.2	1147.4	1099.2	998.7	860.2	701.5	578.8	567.1
2.965	0.54829	1.570	13	916.6	1142.7	1095.0	995.4	858.1	700.6	578.7	567.1
2.975	0.54479	1.569	13	913.9	1138.0	1090.7	992.1	856.0	699.7	578.6	567.0
2.985	0.54128	1.568	13	911.2	1133.3	1086.5	988.8	853.9	698.8	578.5	567.0
2.995	0.53778	1.567	13	908.6	1128.7	1082.3	985.5	851.7	698.0	578.4	567.0
3.005	0.53427	1.566	13	905.9	1124.0	1078.1	982.2	849.6	697.1	578.3	567.0
3.015	0.53077	1.565	13	903.3	1119.4	1073.9	978.9	847.5	696.2	578.2	566.9
3.025	0.52726	1.565	13	900.7	1114.8	1069.7	975.7	845.4	695.3	578.2	566.9
3.035	0.52376	1.564	13	898.1	1110.2	1065.6	972.4	843.3	694.4	578.1	566.9
3.045	0.52025	1.563	13	895.4	1105.6	1061.4	969.1	841.2	693.6	578.0	566.9
3.055	0.51674	1.562	13	892.8	1101.0	1057.3	965.9	839.1	692.7	577.9	566.8
3.065	0.51324	1.562	13	890.2	1096.5	1053.2	962.6	837.0	691.8	577.8	566.8
3.075	0.50973	1.561	13	887.6	1091.9	1049.0	959.4	835.0	690.9	577.7	566.8
3.085	0.50623	1.560	13	885.0	1087.4	1044.9	956.2	832.9	690.1	577.6	566.8
3.095	0.50305	1.560	13	882.7	1083.3	1041.2	953.3	831.0	689.3	577.5	566.8
3.105	0.49999	1.559	13	880.4	1079.3	1037.7	950.4	829.2	688.5	577.4	566.7
3.115	0.49692	1.558	13	878.1	1075.4	1034.1	947.6	827.4	687.7	577.3	566.7
3.125	0.49386	1.557	13	875.9	1071.5	1030.6	944.8	825.6	687.0	577.2	566.7
3.135	0.49079	1.556	13	873.6	1067.6	1027.0	942.1	823.7	686.2	577.1	566.7
3.145	0.48773	1.555	13	871.4	1063.7	1023.5	939.3	821.9	685.4	577.0	566.6
3.155	0.48466	1.554	13	869.1	1059.8	1020.0	936.5	820.1	684.7	576.9	566.6
3.165	0.48160	1.554	13	866.9	1055.9	1016.4	933.7	818.3	683.9	576.9	566.6
3.175	0.47853	1.553	13	864.7	1052.0	1012.9	930.9	816.5	683.1	576.8	566.6
3.185	0.47547	1.552	13	862.4	1048.2	1009.4	928.2	814.7	682.3	576.7	566.6
3.195	0.47240	1.551	13	860.2	1044.3	1005.9	925.4	812.9	681.6	576.6	566.5
3.205	0.46934	1.551	13	858.0	1040.5	1002.5	922.7	811.1	680.8	576.5	566.5
3.215	0.46627	1.550	13	855.8	1036.6	999.0	919.9	809.3	680.0	576.4	566.5
3.225	0.46321	1.549	13	853.6	1032.8	995.5	917.2	807.6	679.3	576.3	566.5
3.235	0.46014	1.549	13	851.4	1029.0	992.1	914.4	805.8	678.5	576.3	566.4
3.245	0.45708	1.548	13	849.1	1025.2	988.6	911.7	804.0	677.7	576.2	566.4
3.255	0.45423	1.547	13	847.1	1021.7	985.4	909.2	802.3	677.0	576.1	566.4
3.265	0.45160	1.546	13	845.2	1018.5	982.5	906.8	800.8	676.4	576.0	566.4
3.275	0.44898	1.545	13	843.3	1015.2	979.5	904.5	799.3	675.7	575.9	566.4
3.285	0.44635	1.545	13	841.5	1012.0	976.6	902.2	797.8	675.0	575.9	566.3
3.295	0.44372	1.544	13	839.6	1008.8	973.7	899.9	796.2	674.4	575.8	566.3
3.305	0.44109	1.543	13	837.7	1005.6	970.8	897.5	794.7	673.7	575.7	566.3
3.315	0.43846	1.542	13	835.8	1002.4	967.9	895.2	793.2	673.1	575.6	566.3
3.325	0.43583	1.541	13	834.0	999.2	965.0	892.9	791.7	672.4	575.6	566.3
3.335	0.43320	1.541	13	832.1	996.0	962.1	890.6	790.2	671.7	575.5	566.2
3.345	0.43057	1.540	13	830.2	992.8	959.2	888.3	788.7	671.1	575.4	566.2
3.355	0.42795	1.539	13	828.4	989.6	956.3	886.0	787.1	670.4	575.3	566.2
3.365	0.42532	1.538	13	826.5	986.5	953.4	883.7	785.6	669.8	575.3	566.2
3.375	0.42269	1.538	13	824.7	983.3	950.5	881.4	784.1	669.1	575.2	566.2
3.385	0.42006	1.537	13	822.8	980.1	947.7	879.2	782.6	668.4	575.1	566.1
3.395	0.41743	1.536	13	821.0	977.0	944.8	876.9	781.1	667.8	575.0	566.1
3.405	0.41480	1.536	13	819.1	973.9	941.9	874.6	779.6	667.1	574.9	566.1
3.415	0.41228	1.535	13	817.4	970.9	939.2	872.4	778.2	666.5	574.9	566.1
3.425	0.41009	1.534	13	815.8	968.3	936.8	870.5	776.9	665.9	574.8	566.1
3.435	0.40790	1.533	13	814.3	965.7	934.5	868.6	775.7	665.4	574.7	566.0
3.445	0.40571	1.532	13	812.8	963.1	932.1	866.8	774.4	664.8	574.7	566.0
3.455	0.40352	1.531	13	811.3	960.5	929.8	864.9	773.2	664.3	574.6	566.0
3.465	0.40133	1.531	13	809.7	957.9	927.4	863.0	771.9	663.7	574.6	566.0
3.475	0.39914	1.530	13	808.2	955.3	925.1	861.1	770.7	663.2	574.5	566.0

3.485	0.39695	1.529	13	806.7	952.8	922.7	859.2	769.4	662.6	574.4	566.0
3.495	0.39476	1.528	13	805.2	950.2	920.4	857.4	768.2	662.1	574.4	565.9
3.505	0.39257	1.527	13	803.7	947.6	918.0	855.5	767.0	661.5	574.3	565.9
3.515	0.39038	1.527	13	802.2	945.1	915.7	853.6	765.7	661.0	574.2	565.9
3.525	0.38819	1.526	13	800.6	942.5	913.4	851.8	764.5	660.4	574.2	565.9
3.535	0.38600	1.525	13	799.1	940.0	911.1	849.9	763.2	659.9	574.1	565.9
3.545	0.38381	1.524	13	797.6	937.4	908.7	848.1	762.0	659.3	574.0	565.9
3.555	0.38162	1.523	13	796.1	934.9	906.4	846.2	760.8	658.8	574.0	565.8
3.565	0.37943	1.523	13	794.6	932.4	904.1	844.3	759.5	658.2	573.9	565.8
3.575	0.37724	1.522	13	793.1	929.8	901.8	842.5	758.3	657.7	573.9	565.8
3.585	0.37417	1.522	13	791.0	926.3	898.6	839.9	756.6	656.9	573.8	565.8
3.595	0.37111	1.522	13	788.9	922.8	895.4	837.3	754.9	656.1	573.7	565.8
3.605	0.36804	1.521	13	786.8	919.3	892.2	834.8	753.1	655.4	573.6	565.7
3.615	0.36497	1.521	13	784.7	915.8	889.0	832.2	751.4	654.6	573.5	565.7
3.625	0.36191	1.521	13	782.7	912.3	885.8	829.6	749.7	653.8	573.4	565.7
3.635	0.35884	1.521	13	780.6	908.8	882.6	827.1	748.0	653.1	573.3	565.7
3.645	0.35577	1.520	13	778.5	905.3	879.4	824.5	746.3	652.3	573.2	565.6
3.655	0.35270	1.520	13	776.4	901.9	876.3	822.0	744.6	651.5	573.1	565.6
3.665	0.34964	1.520	13	774.4	898.4	873.1	819.4	742.9	650.7	573.0	565.6
3.675	0.34657	1.520	13	772.3	895.0	870.0	816.9	741.2	650.0	573.0	565.5
3.685	0.34350	1.520	13	770.2	891.5	866.8	814.4	739.5	649.2	572.9	565.5
3.695	0.34043	1.520	13	768.2	888.1	863.7	811.8	737.8	648.4	572.8	565.5
3.705	0.33737	1.520	13	766.1	884.7	860.6	809.3	736.1	647.6	572.7	565.5
3.715	0.33430	1.520	13	764.1	881.3	857.4	806.8	734.4	646.9	572.6	565.4
3.725	0.33123	1.520	13	762.0	877.9	854.3	804.3	732.7	646.1	572.5	565.4
3.735	0.32817	1.520	13	760.0	874.5	851.2	801.8	731.0	645.3	572.4	565.4
3.745	0.32510	1.519	13	758.2	871.5	848.5	799.5	729.5	644.6	572.3	565.4
3.755	0.32280	1.519	13	756.4	868.6	845.8	797.4	728.0	644.0	572.2	565.3
3.765	0.32018	1.519	13	754.7	865.7	843.2	795.3	726.6	643.3	572.2	565.3
3.775	0.31755	1.519	13	752.9	862.8	840.6	793.1	725.1	642.7	572.1	565.3
3.785	0.31492	1.518	13	751.2	860.0	837.9	791.0	723.7	642.0	572.0	565.3
3.795	0.31230	1.518	13	749.5	857.1	835.3	788.9	722.3	641.3	571.9	565.3
3.805	0.30967	1.518	13	747.8	854.3	832.7	786.8	720.8	640.7	571.8	565.2
3.815	0.30705	1.518	13	746.0	851.4	830.1	784.7	719.4	640.0	571.8	565.2
3.825	0.30442	1.518	13	744.3	848.6	827.5	782.6	717.9	639.3	571.7	565.2
3.835	0.30179	1.518	13	742.6	845.7	824.9	780.4	716.5	638.7	571.6	565.2
3.845	0.29917	1.518	13	740.9	842.9	822.3	778.3	715.1	638.0	571.5	565.1
3.855	0.29654	1.517	13	739.2	840.1	819.7	776.2	713.7	637.3	571.5	565.1
3.865	0.29391	1.517	13	737.4	837.3	817.1	774.1	712.2	636.7	571.4	565.1
3.875	0.29129	1.517	13	735.7	834.5	814.6	772.1	710.8	636.0	571.3	565.1
3.885	0.28866	1.517	13	734.0	831.7	812.0	770.0	709.4	635.4	571.2	565.0
3.895	0.28604	1.517	13	732.3	828.9	809.4	767.9	707.9	634.7	571.1	565.0
3.905	0.28341	1.517	13	730.6	826.1	806.9	765.8	706.5	634.0	571.1	565.0
3.915	0.28078	1.517	13	728.9	823.3	804.3	763.7	705.1	633.4	571.0	565.0
3.925	0.27816	1.517	13	727.2	820.5	801.8	761.6	703.7	632.7	570.9	564.9
3.935	0.27553	1.517	13	725.5	817.8	799.2	759.6	702.3	632.0	570.8	564.9
3.945	0.27290	1.517	13	723.8	815.0	796.7	757.5	700.9	631.4	570.7	564.9
3.955	0.27028	1.517	13	722.1	812.3	794.2	755.4	699.4	630.7	570.6	564.9
3.965	0.26765	1.517	13	720.5	809.5	791.6	753.4	698.0	630.0	570.6	564.8
3.975	0.26503	1.517	13	718.8	806.8	789.1	751.3	696.6	629.4	570.5	564.8
3.985	0.26240	1.517	13	717.1	804.1	786.6	749.3	695.2	628.7	570.4	564.8
3.995	0.25977	1.517	13	715.4	801.3	784.1	747.2	693.8	628.1	570.3	564.8

TIME = 0.00000 SEC - HEAT TRANSFER DATA FOR ROD 10 (FUEL TYPE 1)

DISTANCE (M)	H.T.MODE (W/M2/K)	HSURF (W/M2/K)	HGAP (K)	TFLUID
0.005	2	24339.412	5000.000	548.25
0.015	2	24755.598	5000.000	548.34
0.025	2	25178.320	5000.000	548.44

0.035	2	25607.223	5000.000	548.53
0.045	2	26042.158	5000.000	548.63
0.055	2	26483.096	5000.000	548.73
0.065	2	26930.072	5000.000	548.83
0.075	2	27383.115	5000.000	548.93
0.085	2	27842.354	5000.000	549.04
0.095	2	28307.973	5000.000	549.14
0.105	2	28780.100	5000.000	549.25
0.115	2	29258.924	5000.000	549.36
0.125	2	29744.650	5000.000	549.47
0.135	2	30237.545	5000.000	549.58
0.145	2	30737.797	5000.000	549.69
0.155	2	31245.699	5000.000	549.81
0.165	2	31761.572	5000.000	549.93
0.175	2	32285.693	5000.000	550.05
0.185	2	32818.422	5000.000	550.17
0.195	2	33360.133	5000.000	550.29
0.205	2	33911.234	5000.000	550.41
0.215	2	34471.906	5000.000	550.54
0.225	2	35042.148	5000.000	550.66
0.235	2	35621.914	5000.000	550.79
0.245	2	36211.316	5000.000	550.92
0.255	2	36810.801	5000.000	551.06
0.265	2	37420.805	5000.000	551.19
0.275	2	38041.816	5000.000	551.32
0.285	2	38673.973	5000.000	551.46
0.295	2	39317.297	5000.000	551.60
0.305	2	39972.023	5000.000	551.74
0.315	2	40638.641	5000.000	551.88
0.325	2	41317.953	5000.000	552.02
0.335	2	42053.730	5000.000	552.17
0.345	2	42803.879	5000.000	552.31
0.355	2	43568.004	5000.000	552.46
0.365	2	44344.719	5000.000	552.61
0.375	2	45131.316	5000.000	552.76
0.385	2	45921.621	5000.000	552.91
0.395	2	46699.863	5000.000	553.05
0.405	2	47509.590	5000.000	553.21
0.415	2	48358.559	5000.000	553.37
0.425	2	49240.707	5000.000	553.53
0.435	2	50152.820	5000.000	553.69
0.445	2	51092.684	5000.000	553.86
0.455	2	52059.629	5000.000	554.03
0.465	2	53053.453	5000.000	554.20
0.475	2	54074.707	5000.000	554.38
0.485	2	55123.984	5000.000	554.56
0.495	2	56202.223	5000.000	554.73
0.505	2	57310.645	5000.000	554.91
0.515	2	58450.309	5000.000	555.10
0.525	2	59622.750	5000.000	555.28
0.535	2	60829.281	5000.000	555.47
0.545	2	62071.555	5000.000	555.66
0.555	2	63351.098	5000.000	555.85
0.565	2	64669.750	5000.000	556.04
0.575	2	66029.508	5000.000	556.23
0.585	2	67432.383	5000.000	556.43
0.595	2	68880.719	5000.000	556.63
0.605	2	70376.742	5000.000	556.83
0.615	2	71923.344	5000.000	557.03
0.625	2	73523.062	5000.000	557.24
0.635	2	75179.008	5000.000	557.44
0.645	2	76894.367	5000.000	557.65

0.655	2	78603.180	5000.000	557.86
0.665	3	80307.516	5000.000	558.07
0.675	3	82081.000	5000.000	558.29
0.685	3	83927.891	5000.000	558.50
0.695	3	85851.227	5000.000	558.72
0.705	3	87249.945	5000.000	558.86
0.715	3	88397.203	5000.000	558.97
0.725	3	89575.297	5000.000	559.08
0.735	3	90785.812	5000.000	559.19
0.745	3	92029.016	5000.000	559.31
0.755	3	93301.789	5000.000	559.42
0.765	3	94595.312	5000.000	559.54
0.775	3	95916.977	5000.000	559.65
0.785	3	97253.656	5000.000	559.77
0.795	3	98462.758	5000.000	559.87
0.805	3	99872.695	5000.000	559.99
0.815	3	101352.219	5000.000	560.12
0.825	3	102830.445	5000.000	560.25
0.835	3	104405.742	5000.000	560.39
0.845	3	106067.875	5000.000	560.53
0.855	3	107813.625	5000.000	560.67
0.865	3	109642.664	5000.000	560.82
0.875	3	111416.438	5000.000	560.95
0.885	3	111935.242	5000.000	560.98
0.895	3	112469.977	5000.000	561.01
0.905	3	113020.258	5000.000	561.05
0.915	3	113586.664	5000.000	561.08
0.925	3	114169.992	5000.000	561.11
0.935	3	114770.734	5000.000	561.15
0.945	3	115389.234	5000.000	561.19
0.955	3	116026.586	5000.000	561.23
0.965	3	116684.305	5000.000	561.26
0.975	3	117363.008	5000.000	561.31
0.985	3	117996.578	5000.000	561.35
0.995	3	118654.297	5000.000	561.39
1.005	3	119337.703	5000.000	561.44
1.015	3	119401.930	5000.000	561.43
1.025	3	119465.758	5000.000	561.43
1.035	3	119528.727	5000.000	561.43
1.045	3	119591.781	5000.000	561.43
1.055	3	119654.328	5000.000	561.43
1.065	3	119717.492	5000.000	561.43
1.075	3	119779.703	5000.000	561.43
1.085	3	119842.273	5000.000	561.43
1.095	3	119902.766	5000.000	561.42
1.105	3	119962.844	5000.000	561.42
1.115	3	120021.531	5000.000	561.42
1.125	3	120079.438	5000.000	561.42
1.135	3	120137.500	5000.000	561.42
1.145	3	120178.312	5000.000	561.42
1.155	3	120212.211	5000.000	561.42
1.165	3	120243.266	5000.000	561.42
1.175	3	120269.320	5000.000	561.41
1.185	3	120286.820	5000.000	561.41
1.195	3	119688.211	5000.000	561.37
1.205	3	119663.539	5000.000	561.37
1.215	3	119660.938	5000.000	561.37
1.225	3	119673.375	5000.000	561.36
1.235	3	119695.172	5000.000	561.36
1.245	3	119723.000	5000.000	561.36
1.255	3	119754.945	5000.000	561.36
1.265	3	119789.156	5000.000	561.36

1.275	3	119825.164	5000.000	561.36
1.285	3	119862.312	5000.000	561.36
1.295	3	119899.742	5000.000	561.35
1.305	3	119926.719	5000.000	561.35
1.315	3	119942.773	5000.000	561.35
1.325	3	119958.891	5000.000	561.35
1.335	3	119974.750	5000.000	561.35
1.345	3	119990.508	5000.000	561.35
1.355	3	120005.969	5000.000	561.35
1.365	3	120020.984	5000.000	561.35
1.375	3	120035.453	5000.000	561.34
1.385	3	120049.469	5000.000	561.34
1.395	3	120063.195	5000.000	561.34
1.405	3	120077.086	5000.000	561.34
1.415	3	120090.719	5000.000	561.34
1.425	3	120103.656	5000.000	561.34
1.435	3	120116.320	5000.000	561.34
1.445	3	120129.289	5000.000	561.33
1.455	3	120141.867	5000.000	561.33
1.465	3	120143.656	5000.000	561.33
1.475	3	120113.133	5000.000	561.33
1.485	3	120081.992	5000.000	561.33
1.495	3	120049.992	5000.000	561.33
1.505	3	120017.250	5000.000	561.33
1.515	3	119983.625	5000.000	561.32
1.525	3	119949.734	5000.000	561.32
1.535	3	119915.602	5000.000	561.32
1.545	3	119881.141	5000.000	561.32
1.555	3	119845.758	5000.000	561.32
1.565	3	119807.211	5000.000	561.32
1.575	3	119764.586	5000.000	561.32
1.585	3	119713.969	5000.000	561.32
1.595	3	118890.883	5000.000	561.26
1.605	3	118800.914	5000.000	561.26
1.615	3	118731.188	5000.000	561.25
1.625	3	118675.781	5000.000	561.25
1.635	3	118607.367	5000.000	561.25
1.645	3	118544.727	5000.000	561.25
1.655	3	118486.219	5000.000	561.25
1.665	3	118429.688	5000.000	561.25
1.675	3	118375.125	5000.000	561.25
1.685	3	118320.898	5000.000	561.25
1.695	3	118267.438	5000.000	561.24
1.705	3	118214.555	5000.000	561.24
1.715	3	118161.484	5000.000	561.24
1.725	3	118108.383	5000.000	561.24
1.735	3	118055.008	5000.000	561.24
1.745	3	118001.297	5000.000	561.24
1.755	3	117947.422	5000.000	561.23
1.765	3	117892.930	5000.000	561.23
1.775	3	117838.594	5000.000	561.23
1.785	3	117783.992	5000.000	561.23
1.795	3	117712.156	5000.000	561.23
1.805	3	117635.016	5000.000	561.23
1.815	3	117557.258	5000.000	561.23
1.825	3	117479.711	5000.000	561.22
1.835	3	117401.477	5000.000	561.22
1.845	3	117323.469	5000.000	561.22
1.855	3	117245.320	5000.000	561.22
1.865	3	117167.289	5000.000	561.22
1.875	3	117089.461	5000.000	561.22
1.885	3	117011.250	5000.000	561.22

1.895	3	116932.430	5000.000	561.21
1.905	3	116852.039	5000.000	561.21
1.915	3	116771.305	5000.000	561.21
1.925	3	116690.219	5000.000	561.21
1.935	3	116609.234	5000.000	561.21
1.945	3	116527.734	5000.000	561.21
1.955	3	116411.438	5000.000	561.21
1.965	3	116258.664	5000.000	561.20
1.975	3	116101.297	5000.000	561.20
1.985	3	115936.172	5000.000	561.20
1.995	3	114839.914	5000.000	561.13
2.005	3	114633.734	5000.000	561.13
2.015	3	114447.875	5000.000	561.13
2.025	3	114276.203	5000.000	561.13
2.035	3	114113.867	5000.000	561.12
2.045	3	113957.164	5000.000	561.12
2.055	3	113804.398	5000.000	561.12
2.065	3	113653.531	5000.000	561.12
2.075	3	113503.930	5000.000	561.12
2.085	3	113355.617	5000.000	561.12
2.095	3	113207.055	5000.000	561.12
2.105	3	113059.195	5000.000	561.11
2.115	3	112904.898	5000.000	561.11
2.125	3	112733.484	5000.000	561.11
2.135	3	112560.914	5000.000	561.11
2.145	3	112388.617	5000.000	561.11
2.155	3	112215.383	5000.000	561.11
2.165	3	112041.602	5000.000	561.10
2.175	3	111867.734	5000.000	561.10
2.185	3	111692.523	5000.000	561.10
2.195	3	111517.656	5000.000	561.10
2.205	3	111342.391	5000.000	561.10
2.215	3	111166.258	5000.000	561.10
2.225	3	110990.109	5000.000	561.10
2.235	3	110812.945	5000.000	561.09
2.245	3	110635.773	5000.000	561.09
2.255	3	110458.234	5000.000	561.09
2.265	3	110280.891	5000.000	561.09
2.275	3	110103.438	5000.000	561.09
2.285	3	109830.531	5000.000	561.09
2.295	3	109555.922	5000.000	561.08
2.305	3	109280.219	5000.000	561.08
2.315	3	109002.812	5000.000	561.08
2.325	3	108724.477	5000.000	561.08
2.335	3	108445.695	5000.000	561.08
2.345	3	108165.445	5000.000	561.08
2.355	3	107883.375	5000.000	561.08
2.365	3	107598.141	5000.000	561.07
2.375	3	107307.914	5000.000	561.07
2.385	3	107009.766	5000.000	561.07
2.395	3	105630.797	5000.000	560.99
2.405	3	105287.625	5000.000	560.99
2.415	3	104964.664	5000.000	560.99
2.425	3	104656.008	5000.000	560.98
2.435	3	104356.250	5000.000	560.98
2.445	3	104080.070	5000.000	560.98
2.455	3	103813.461	5000.000	560.98
2.465	3	103548.789	5000.000	560.98
2.475	3	103284.461	5000.000	560.98
2.485	3	103020.984	5000.000	560.98
2.495	3	102757.047	5000.000	560.97
2.505	3	102492.883	5000.000	560.97

2.515	3	102228.000	5000.000	560.97
2.525	3	101962.445	5000.000	560.97
2.535	3	101695.750	5000.000	560.97
2.545	3	101428.125	5000.000	560.97
2.555	3	101159.938	5000.000	560.96
2.565	3	100890.734	5000.000	560.96
2.575	3	100620.125	5000.000	560.96
2.585	3	100348.945	5000.000	560.96
2.595	3	100076.805	5000.000	560.96
2.605	3	99790.664	5000.000	560.96
2.615	3	99489.984	5000.000	560.95
2.625	3	99188.578	5000.000	560.95
2.635	3	98886.453	5000.000	560.95
2.645	3	98582.422	5000.000	560.95
2.655	3	98278.039	5000.000	560.95
2.665	3	97973.016	5000.000	560.95
2.675	3	97667.141	5000.000	560.95
2.685	3	97359.406	5000.000	560.94
2.695	3	97050.242	5000.000	560.94
2.705	3	96739.242	5000.000	560.94
2.715	3	96426.555	5000.000	560.94
2.725	3	96112.641	5000.000	560.94
2.735	3	95797.438	5000.000	560.94
2.745	3	95480.836	5000.000	560.93
2.755	3	95162.227	5000.000	560.93
2.765	3	94846.805	5000.000	560.93
2.775	3	94547.500	5000.000	560.93
2.785	3	94240.141	5000.000	560.93
2.795	3	92732.836	5000.000	560.83
2.805	3	92378.914	5000.000	560.83
2.815	3	92045.016	5000.000	560.83
2.825	3	91725.562	5000.000	560.83
2.835	3	91414.609	5000.000	560.83
2.845	3	91108.930	5000.000	560.83
2.855	3	90806.234	5000.000	560.83
2.865	3	90504.883	5000.000	560.83
2.875	3	90203.977	5000.000	560.82
2.885	3	89903.211	5000.000	560.82
2.895	3	89601.430	5000.000	560.82
2.905	3	89299.625	5000.000	560.82
2.915	3	88996.648	5000.000	560.82
2.925	3	88692.172	5000.000	560.82
2.935	3	88445.695	5000.000	560.81
2.945	3	88198.352	5000.000	560.81
2.955	3	87949.680	5000.000	560.81
2.965	3	87700.453	5000.000	560.81
2.975	3	87450.281	5000.000	560.81
2.985	3	87199.125	5000.000	560.81
2.995	3	86947.055	5000.000	560.81
3.005	3	86694.070	5000.000	560.80
3.015	3	86440.203	5000.000	560.80
3.025	3	86185.469	5000.000	560.80
3.035	3	85929.867	5000.000	560.80
3.045	3	85673.414	5000.000	560.80
3.055	3	85416.453	5000.000	560.80
3.065	3	85158.008	5000.000	560.79
3.075	3	84899.336	5000.000	560.79
3.085	3	84639.586	5000.000	560.79
3.095	3	84402.250	5000.000	560.79
3.105	3	84172.008	5000.000	560.79
3.115	3	83941.062	5000.000	560.79
3.125	3	83709.367	5000.000	560.79

3.135	3	83476.953	5000.000	560.78
3.145	3	83243.656	5000.000	560.78
3.155	3	83009.828	5000.000	560.78
3.165	3	82775.078	5000.000	560.78
3.175	3	82539.586	5000.000	560.78
3.185	3	82303.273	5000.000	560.78
3.195	3	82066.180	5000.000	560.77
3.205	3	81828.266	5000.000	560.77
3.215	3	81589.984	5000.000	560.77
3.225	3	81350.047	5000.000	560.77
3.235	3	81110.148	5000.000	560.77
3.245	3	80868.992	5000.000	560.77
3.255	3	80643.266	5000.000	560.77
3.265	3	80433.086	5000.000	560.76
3.275	3	80222.297	5000.000	560.76
3.285	3	80011.297	5000.000	560.76
3.295	3	79798.852	5000.000	560.76
3.305	3	79586.594	5000.000	560.76
3.315	3	79373.305	5000.000	560.76
3.325	3	79159.367	5000.000	560.75
3.335	3	78945.219	5000.000	560.75
3.345	3	78729.898	5000.000	560.75
3.355	3	78514.133	5000.000	560.75
3.365	3	78297.602	5000.000	560.75
3.375	3	78080.836	5000.000	560.75
3.385	3	77862.578	5000.000	560.74
3.395	3	77644.461	5000.000	560.74
3.405	3	77425.250	5000.000	560.74
3.415	3	77213.906	5000.000	560.74
3.425	3	77028.094	5000.000	560.74
3.435	3	76841.367	5000.000	560.74
3.445	3	76654.133	5000.000	560.74
3.455	3	76466.398	5000.000	560.73
3.465	3	76278.250	5000.000	560.73
3.475	3	76089.812	5000.000	560.73
3.485	3	75900.531	5000.000	560.73
3.495	3	75711.164	5000.000	560.73
3.505	3	75520.430	5000.000	560.73
3.515	3	75330.016	5000.000	560.72
3.525	3	75138.648	5000.000	560.72
3.535	3	74947.070	5000.000	560.72
3.545	3	74754.320	5000.000	560.72
3.555	3	74561.773	5000.000	560.72
3.565	3	74368.258	5000.000	560.72
3.575	3	74174.203	5000.000	560.72
3.585	3	73908.258	5000.000	560.71
3.595	3	73640.844	5000.000	560.71
3.605	3	73372.758	5000.000	560.71
3.615	3	73102.781	5000.000	560.71
3.625	3	72832.523	5000.000	560.71
3.635	3	72560.781	5000.000	560.71
3.645	3	72288.328	5000.000	560.70
3.655	3	72014.320	5000.000	560.70
3.665	3	71739.602	5000.000	560.70
3.675	3	71463.305	5000.000	560.70
3.685	3	71186.258	5000.000	560.70
3.695	3	70907.617	5000.000	560.70
3.705	3	70628.180	5000.000	560.70
3.715	3	70347.125	5000.000	560.69
3.725	3	70065.250	5000.000	560.69
3.735	3	69781.719	5000.000	560.69
3.745	3	69526.320	5000.000	560.69

3.755	3	69279.617	5000.000	560.69
3.765	3	69031.539	5000.000	560.69
3.775	3	68782.930	5000.000	560.68
3.785	3	68532.914	5000.000	560.68
3.795	3	68282.742	5000.000	560.68
3.805	3	68030.734	5000.000	560.68
3.815	3	67778.141	5000.000	560.68
3.825	3	67524.516	5000.000	560.68
3.835	3	67269.445	5000.000	560.68
3.845	3	67014.156	5000.000	560.67
3.855	3	66756.977	5000.000	560.67
3.865	3	66499.141	5000.000	560.67
3.875	3	66240.211	5000.000	560.67
3.885	3	65980.180	5000.000	560.67
3.895	3	65719.047	5000.000	560.67
3.905	3	65456.770	5000.000	560.66
3.915	3	65192.945	5000.000	560.66
3.925	3	64928.781	5000.000	560.66
3.935	3	64663.035	5000.000	560.66
3.945	3	64395.676	5000.000	560.66
3.955	3	64127.961	5000.000	560.66
3.965	3	63858.590	5000.000	560.66
3.975	3	63587.578	5000.000	560.65
3.985	3	63316.141	5000.000	560.65
3.995	3	63043.035	5000.000	560.65

1PROBLEM TITLE : BWR FUEL BUNDLE

TIME = 0.00000 SEC - EPRI CRITICAL HEAT FLUX SUMMARY

DISTANCE M	FLUX MW/M2	MDNBR	ROD	CHANNEL
0.005	0.465	9.839	1	1
0.015	0.473	9.569	1	1
0.025	0.481	9.312	1	1
0.035	0.489	9.067	1	1
0.045	0.497	8.833	1	1
0.055	0.505	8.610	1	1
0.065	0.513	8.396	1	1
0.075	0.521	8.192	1	1
0.085	0.529	7.996	1	1
0.095	0.537	7.808	1	1
0.105	0.545	7.628	1	1
0.115	0.553	7.455	1	1
0.125	0.561	7.288	1	1
0.135	0.569	7.128	1	1
0.145	0.578	6.975	1	1
0.155	0.586	6.827	1	1
0.165	0.594	6.685	1	1
0.175	0.602	6.548	1	1
0.185	0.610	6.416	1	1
0.195	0.618	6.288	1	1
0.205	0.626	6.164	1	1
0.215	0.634	6.045	1	1
0.225	0.642	5.929	1	1
0.235	0.650	5.817	1	1
0.245	0.658	5.708	1	1
0.255	0.666	5.603	1	1
0.265	0.674	5.501	1	1
0.275	0.682	5.403	1	1
0.285	0.690	5.307	1	1

0.295	0.698	5.213	1	1
0.305	0.706	5.123	1	1
0.315	0.714	5.035	1	1
0.325	0.722	4.949	1	1
0.335	0.731	4.860	1	1
0.345	0.740	4.774	1	1
0.355	0.749	4.691	1	1
0.365	0.758	4.609	1	1
0.375	0.768	4.529	1	1
0.385	0.777	4.451	1	1
0.395	0.786	4.375	1	1
0.405	0.795	4.300	1	1
0.415	0.804	4.229	1	1
0.425	0.813	4.160	1	1
0.435	0.822	4.093	1	1
0.445	0.831	4.028	1	1
0.455	0.840	3.966	1	1
0.465	0.850	3.905	1	1
0.475	0.859	3.846	1	1
0.485	0.868	3.789	1	1
0.495	0.877	3.733	1	1
0.505	0.886	3.679	1	1
0.515	0.895	3.626	1	1
0.525	0.904	3.574	1	1
0.535	0.913	3.523	1	1
0.545	0.922	3.474	1	1
0.555	0.931	3.425	1	1
0.565	0.941	3.378	1	1
0.575	0.950	3.331	1	1
0.585	0.959	3.286	1	1
0.595	0.968	3.241	1	1
0.605	0.977	3.197	1	1
0.615	0.986	3.154	1	1
0.625	0.995	3.112	1	1
0.635	1.004	3.071	1	1
0.645	1.013	3.030	1	1
0.655	1.021	2.994	1	1
0.665	1.027	2.961	1	1
0.675	1.033	2.929	1	1
0.685	1.038	2.898	1	1
0.695	1.044	2.867	1	1
0.705	1.050	2.836	1	1
0.715	1.056	2.806	1	1
0.725	1.062	2.776	1	1
0.735	1.068	2.747	1	1
0.745	1.074	2.718	1	1
0.755	1.080	2.689	1	1
0.765	1.086	2.661	1	1
0.775	1.091	2.633	1	1
0.785	1.097	2.604	1	1
0.795	1.103	2.576	1	1
0.805	1.109	2.549	1	1
0.815	1.114	2.523	1	1
0.825	1.118	2.500	1	1
0.835	1.121	2.479	1	1
0.845	1.124	2.458	1	1
0.855	1.127	2.437	1	1
0.865	1.130	2.417	1	1
0.875	1.134	2.398	1	1
0.885	1.137	2.378	1	1
0.895	1.140	2.359	1	1
0.905	1.143	2.341	1	1

0.915	1.146	2.323	1	1
0.925	1.150	2.305	1	1
0.935	1.153	2.287	1	1
0.945	1.156	2.269	1	1
0.955	1.159	2.252	1	1
0.965	1.163	2.235	1	1
0.975	1.166	2.218	1	1
0.985	1.167	2.202	1	1
0.995	1.169	2.187	1	1
1.005	1.171	2.173	1	1
1.015	1.172	2.158	1	1
1.025	1.174	2.143	1	1
1.035	1.175	2.129	1	1
1.045	1.177	2.115	1	1
1.055	1.179	2.101	1	1
1.065	1.180	2.087	1	1
1.075	1.182	2.073	1	1
1.085	1.183	2.060	1	1
1.095	1.185	2.046	1	1
1.105	1.187	2.033	1	1
1.115	1.188	2.020	1	1
1.125	1.190	2.006	1	1
1.135	1.191	1.993	1	1
1.145	1.193	1.981	1	1
1.155	1.194	1.968	1	1
1.165	1.195	1.956	1	1
1.175	1.196	1.943	1	1
1.185	1.197	1.931	1	1
1.195	1.198	1.918	1	1
1.205	1.199	1.905	1	1
1.215	1.200	1.893	1	1
1.225	1.201	1.881	1	1
1.235	1.202	1.869	1	1
1.245	1.203	1.858	1	1
1.255	1.204	1.847	1	1
1.265	1.205	1.837	1	1
1.275	1.207	1.826	1	1
1.285	1.208	1.816	1	1
1.295	1.209	1.806	1	1
1.305	1.210	1.796	1	1
1.315	1.210	1.787	1	1
1.325	1.211	1.777	1	1
1.335	1.211	1.768	1	1
1.345	1.212	1.759	1	1
1.355	1.212	1.750	1	1
1.365	1.213	1.741	1	1
1.375	1.213	1.732	1	1
1.385	1.214	1.723	1	1
1.395	1.214	1.714	1	1
1.405	1.215	1.705	1	1
1.415	1.215	1.697	1	1
1.425	1.216	1.688	1	1
1.435	1.216	1.679	1	1
1.445	1.217	1.671	1	1
1.455	1.218	1.663	1	1
1.465	1.218	1.655	1	1
1.475	1.217	1.647	1	1
1.485	1.217	1.640	1	1
1.495	1.216	1.632	1	1
1.505	1.216	1.625	1	1
1.515	1.215	1.617	1	1
1.525	1.215	1.610	1	1

1.535	1.214	1.602	1	1
1.545	1.214	1.595	1	1
1.555	1.213	1.588	1	1
1.565	1.212	1.580	1	1
1.575	1.212	1.573	1	1
1.585	1.211	1.565	1	1
1.595	1.211	1.557	1	1
1.605	1.210	1.549	1	1
1.615	1.210	1.541	1	1
1.625	1.209	1.534	1	1
1.635	1.208	1.527	1	1
1.645	1.207	1.521	1	1
1.655	1.206	1.515	1	1
1.665	1.205	1.509	1	1
1.675	1.204	1.503	1	1
1.685	1.203	1.497	1	1
1.695	1.202	1.491	1	1
1.705	1.201	1.486	1	1
1.715	1.200	1.480	1	1
1.725	1.199	1.475	1	1
1.735	1.197	1.469	1	1
1.745	1.196	1.464	1	1
1.755	1.195	1.458	1	1
1.765	1.194	1.453	1	1
1.775	1.193	1.448	1	1
1.785	1.192	1.442	1	1
1.795	1.191	1.437	1	1
1.805	1.189	1.432	1	1
1.815	1.187	1.427	1	1
1.825	1.186	1.423	1	1
1.835	1.184	1.418	1	1
1.845	1.183	1.413	1	1
1.855	1.181	1.408	1	1
1.865	1.179	1.403	1	1
1.875	1.178	1.399	1	1
1.885	1.176	1.394	1	1
1.895	1.175	1.389	1	1
1.905	1.173	1.385	1	1
1.915	1.171	1.380	1	1
1.925	1.170	1.375	1	1
1.935	1.168	1.371	1	1
1.945	1.167	1.366	1	1
1.955	1.164	1.362	1	1
1.965	1.161	1.357	1	1
1.975	1.158	1.353	1	1
1.985	1.155	1.348	1	1
1.995	1.151	1.343	1	1
2.005	1.148	1.338	1	1
2.015	1.145	1.334	1	1
2.025	1.142	1.329	1	1
2.035	1.138	1.325	1	1
2.045	1.135	1.322	1	1
2.055	1.132	1.318	1	1
2.065	1.129	1.315	1	1
2.075	1.126	1.311	1	1
2.085	1.122	1.308	1	1
2.095	1.119	1.305	1	1
2.105	1.116	1.302	1	1
2.115	1.113	1.299	1	1
2.125	1.109	1.296	1	1
2.135	1.105	1.294	1	1
2.145	1.101	1.291	1	1

2.155	1.098	1.288	1	1
2.165	1.094	1.286	1	1
2.175	1.090	1.283	1	1
2.185	1.086	1.280	1	1
2.195	1.083	1.278	1	1
2.205	1.079	1.275	1	1
2.215	1.075	1.272	1	1
2.225	1.071	1.270	1	1
2.235	1.068	1.267	1	1
2.245	1.064	1.264	1	1
2.255	1.060	1.262	1	1
2.265	1.056	1.260	1	1
2.275	1.053	1.257	1	1
2.285	1.047	1.255	1	1
2.295	1.041	1.254	1	1
2.305	1.035	1.252	1	1
2.315	1.029	1.250	1	1
2.325	1.023	1.248	1	1
2.335	1.017	1.246	1	1
2.345	1.011	1.245	1	1
2.355	1.006	1.243	1	1
2.365	1.000	1.241	1	1
2.375	0.994	1.238	1	1
2.385	0.988	1.236	1	1
2.395	0.982	1.233	1	1
2.405	0.976	1.230	1	1
2.415	0.970	1.228	1	1
2.425	0.964	1.226	1	1
2.435	0.958	1.224	1	1
2.445	0.953	1.222	1	1
2.455	0.948	1.220	1	1
2.465	0.942	1.219	1	1
2.475	0.937	1.218	1	1
2.485	0.932	1.216	1	1
2.495	0.926	1.215	1	1
2.505	0.921	1.214	1	1
2.515	0.915	1.213	1	1
2.525	0.910	1.212	1	1
2.535	0.905	1.211	1	1
2.545	0.899	1.210	1	1
2.555	0.894	1.209	1	1
2.565	0.889	1.207	1	1
2.575	0.883	1.206	1	1
2.585	0.878	1.205	1	1
2.595	0.873	1.204	1	1
2.605	0.867	1.203	1	1
2.615	0.861	1.203	1	1
2.625	0.855	1.202	1	1
2.635	0.849	1.201	1	1
2.645	0.843	1.200	1	1
2.655	0.838	1.200	1	1
2.665	0.832	1.199	1	1
2.675	0.826	1.198	1	1
2.685	0.820	1.198	1	1
2.695	0.814	1.197	1	1
2.705	0.808	1.196	1	1
2.715	0.802	1.195	1	1
2.725	0.796	1.195	1	1
2.735	0.790	1.194	1	1
2.745	0.785	1.193	1	1
2.755	0.779	1.192	1	1
2.765	0.773	1.191	1	1

2.775	0.768	1.190	1	1
2.785	0.762	1.188	1	1
2.795	0.757	1.186	1	1
2.805	0.752	1.184	1	1
2.815	0.746	1.182	1	1
2.825	0.741	1.181	1	1
2.835	0.735	1.180	1	1
2.845	0.730	1.179	1	1
2.855	0.725	1.178	1	1
2.865	0.719	1.178	1	1
2.875	0.714	1.177	1	1
2.885	0.709	1.177	1	1
2.895	0.703	1.177	1	1
2.905	0.698	1.176	1	1
2.915	0.693	1.176	1	1
2.925	0.687	1.176	1	1
2.935	0.683	1.176	1	1
2.945	0.679	1.175	1	1
2.955	0.674	1.175	1	1
2.965	0.670	1.174	1	1
2.975	0.666	1.174	1	1
2.985	0.662	1.173	1	1
2.995	0.657	1.173	1	1
3.005	0.653	1.172	1	1
3.015	0.649	1.172	1	1
3.025	0.644	1.171	1	1
3.035	0.640	1.171	1	1
3.045	0.636	1.171	1	1
3.055	0.632	1.170	1	1
3.065	0.627	1.170	1	1
3.075	0.623	1.170	1	1
3.085	0.619	1.169	1	1
3.095	0.615	1.169	1	1
3.105	0.611	1.168	1	1
3.115	0.607	1.168	1	1
3.125	0.604	1.168	1	1
3.135	0.600	1.167	1	1
3.145	0.596	1.167	1	1
3.155	0.592	1.166	1	1
3.165	0.589	1.166	1	1
3.175	0.585	1.166	1	1
3.185	0.581	1.165	1	1
3.195	0.577	1.165	1	1
3.205	0.574	1.164	1	1
3.215	0.570	1.164	1	1
3.225	0.566	1.164	1	1
3.235	0.562	1.163	1	1
3.245	0.559	1.163	1	1
3.255	0.555	1.163	1	1
3.265	0.552	1.162	1	1
3.275	0.549	1.162	1	1
3.285	0.546	1.161	1	1
3.295	0.542	1.161	1	1
3.305	0.539	1.161	1	1
3.315	0.536	1.160	1	1
3.325	0.533	1.160	1	1
3.335	0.529	1.159	1	1
3.345	0.526	1.159	1	1
3.355	0.523	1.159	1	1
3.365	0.520	1.158	1	1
3.375	0.517	1.158	1	1
3.385	0.513	1.158	1	1

3.395	0.510	1.157	1	1
3.405	0.507	1.157	1	1
3.415	0.504	1.157	1	1
3.425	0.501	1.156	1	1
3.435	0.499	1.156	1	1
3.445	0.496	1.155	1	1
3.455	0.493	1.155	1	1
3.465	0.491	1.155	1	1
3.475	0.488	1.154	1	1
3.485	0.485	1.154	1	1
3.495	0.482	1.153	1	1
3.505	0.480	1.153	1	1
3.515	0.477	1.153	1	1
3.525	0.474	1.152	1	1
3.535	0.472	1.152	1	1
3.545	0.469	1.152	1	1
3.555	0.466	1.151	1	1
3.565	0.464	1.151	1	1
3.575	0.461	1.151	1	1
3.585	0.457	1.151	1	1
3.595	0.454	1.151	1	1
3.605	0.450	1.151	1	1
3.615	0.446	1.151	1	1
3.625	0.442	1.151	1	1
3.635	0.439	1.151	1	1
3.645	0.435	1.151	1	1
3.655	0.431	1.151	1	1
3.665	0.427	1.151	1	1
3.675	0.424	1.151	1	1
3.685	0.420	1.151	1	1
3.695	0.416	1.151	1	1
3.705	0.412	1.151	1	1
3.715	0.409	1.152	1	1
3.725	0.405	1.152	1	1
3.735	0.401	1.152	1	1
3.745	0.398	1.152	1	1
3.755	0.395	1.152	1	1
3.765	0.391	1.152	1	1
3.775	0.388	1.152	1	1
3.785	0.385	1.152	1	1
3.795	0.382	1.152	1	1
3.805	0.379	1.152	1	1
3.815	0.375	1.152	1	1
3.825	0.372	1.152	1	1
3.835	0.369	1.153	1	1
3.845	0.366	1.153	1	1
3.855	0.362	1.153	1	1
3.865	0.359	1.153	1	1
3.875	0.356	1.153	1	1
3.885	0.353	1.153	1	1
3.895	0.350	1.153	1	1
3.905	0.346	1.154	1	1
3.915	0.343	1.154	1	1
3.925	0.340	1.154	1	1
3.935	0.337	1.154	1	1
3.945	0.334	1.154	1	1
3.955	0.330	1.155	1	1
3.965	0.327	1.155	1	1
3.975	0.324	1.155	1	1
3.985	0.321	1.155	1	1
3.995	0.317	1.156	1	1

DISTRIBUTION OF FUEL MASS BY ENTHALPY

ENTHALPY RANGE		MASS	
(MJ/KG)	(CAL/G)	(KG)	(%)
0.00000 - 0.20920	0.00000 - 49.99999	13.47	38.49
0.20920 - 0.41840	49.99999 - 99.99998	21.53	61.52
0.41840 - 0.71128	99.99998 - 169.99997	0.00	0.00
0.71128 - 0.92048	169.99997 - 219.99997	0.00	0.00
0.92048 - 1.12968	219.99997 - 269.99997	0.00	0.00
1.12968 - 1.17152	269.99997 - 279.99997	0.00	0.00
1.17152 - 1.41001	279.99997 - 336.99994	0.00	0.00
1.41001 - 1.77820	336.99994 - 424.99994	0.00	0.00
> 1.77820	> 424.99994	0.00	0.00

MAX. FUEL ENTHALPY = 0.37205 MJ/KG (88.92100 CAL/G), ROD NO. = 1 , AXIAL NODE NO. = 401

ITERATIONS = 20
 AXIAL FLOW CONVERGENCE = 0.000588
 CROSSFLOW CONVERGENCE = 0.012685
 FLUID TEMPERATURE CONVERGENCE = 0.000003
 HT COEFFICIENT CONVERGENCE = 0.000100
 ROD TEMPERATURE CONVERGENCE(F)= 0.000860
 VOID FRACTION CONVERGENCE = 0.000068
 MINIMUM PRESSURE DROP = 100.1089 KPA IN CHANNEL 15
 MAXIMUM PRESSURE DROP = 100.1243 KPA IN CHANNEL 1
 MEAN PRESSURE DROP = 100.1188 KPA
 MEAN HYDROSTATIC HEAD = 13.4815 KPA
 MAX. INLET MASS FLUX = 1700.000122 KG/M2/SEC IN CHANNEL 5
 MIN. INLET MASS FLUX = 1699.999878 KG/M2/SEC IN CHANNEL 1
 MEAN INLET MASS FLUX = 1700.000122 KG/M2/SEC
 SATURATION TEMPERATURE = 560.65 K
 MINIMUM FILM BOILING TEMPERATURE (BERENSON) = 810.93 K
 MINIMUM FILM BOILING HEAT FLUX (BERENSON) = 0.20527211 MW/M2
 MINIMUM FILM BOILING HTC (BERENSON) = 820.18 W/M2/K
 MAX. NO. IT. FOR EPRI VOID MODEL = 6

SUMMARY OF CPU TIME (SEC) FOR T.H. SUBPROGRAMS :

HEAT ----> 2.00
 MIX ----> 0.00
 ENERGY ----> 1.00
 PROP ----> 1.00
 VOID ----> 0.00
 DIFFER(3) ----> 0.00
 DIVERT ----> 0.00
 DIFFER(5) ----> 0.00
 DIFFER(2) ----> 0.00
 SCHEME ----> 4.00

*** THERMAL-HYDRAULICS FAILED TO CONVERGE ***

Appendix 3: Code Sample for Cobra Scripts

The following code completes the velocity parameter test for the bundle simulation:

```
#!/Perl/bin/perl
use POSIX;
use strict;

my $ref_pitch = '0.0161549';
my $diameter = 0.006;
my $pod;
my $pitch_min;
my $zero_switch = 0;
my $pitch = 1;
my $DNBR;

chdir("C:\\ cobra3");

open(LOGFILE, ">> LOGFILE-bundvelocity1");
my $trial = 1;

for ($diameter = 0.009; $diameter < 0.016; $diameter = $diameter + 0.001){
print LOGFILE "\n$diameter ";
$pitch_min = $diameter * 1.1;

my $trial_2 = 0;
for ($pitch = $pitch_min; $pitch < ($diameter * 1.82); $pitch = $pitch_min + (0.05 *
$diameter * $trial_2)){
    $trial_2++;

#### Calculate area and perimeter####
    my $area = ($pitch*$pitch) - (3.14159/4) * $diameter*$diameter ;
    my $perimeter = 3.14159 * $diameter;
#####

    my $power = '0.3';
    my $pressure_drop = 0;
    my $power_low = '0.3';
    my $power_high = '3.0';
```

```

my $trial_3 = 0;
print "pressure = $pressure_drop";
while ( ( ($pressure_drop - 8) * ($pressure_drop - 8)) > 0.2){
    if (($pressure_drop - 8) > 0){
        $power_high = $power;
        $power = ($power_low + $power_high) / 2;
    }
    elsif(($pressure_drop - 8) < 0){
        $power_low = $power;
        $power = ($power_low + $power_high) / 2;
    }
}

#####
##
#####GENERATE POWER
POINTS#####

open(INPFILE, ">INPFILE");

## Define geometry vars
my $gapc_1 = ($pitch - $diameter);
my $gapc_2 = $gapc_1 * (389 / 374);

my $distc_1 = $pitch;
my $distc_2 = ($pitch/2 + ( ($diameter/2)+ $gapc_2 )/2);

#areas
my $area_circle = 3.14159 * ($diameter/2) * ($diameter/2);
my $area_square = $pitch * $pitch ;
my $area_1 = sprintf("%.8f", ($area_square - $area_circle) / 8);
my $area_2 = sprintf("%.8f", ($area_square / 2) - ($area_circle/2));
my $area_5 = sprintf("%.8f", ($gapc_2 + ($diameter / 2)) * ($pitch / 2) - ($area_circle / 4));
my $area_6 = sprintf("%.8f", ($area_square - $area_circle) / 2);
my $area_7 = sprintf("%.8f", $area_square - $area_circle);
my $area_9 = sprintf("%.8f", ($gapc_2 + ($diameter / 2)) * $pitch - ($area_circle / 2));
my $area_15 = sprintf("%.8f", ($gapc_2 + ($diameter / 2)) * ($gapc_2 + ($diameter / 2)) / 2 - $area_circle/8);

###perimeters
my $perimeter_1 = sprintf("%.8f", 2 * 3.14159 * ($diameter/2) / 8);
my $perimeter_2 = sprintf("%.8f", 2 * 3.14159 * ($diameter/2) / 2);
my $perimeter_5 = sprintf("%.8f", 2 * 3.14159 * ($diameter/2) / 4);
my $perimeter_7 = sprintf("%.8f", 2 * 3.14159 * ($diameter/2));

```

```
#print "sq=$area_square\n circ=$area_circle\n";
```

```
my $begin_deck='$CARD 1 LIST
```

```
BWR FUEL BUNDLE
```

```
$CARD 2
```

```
$IQP3 ISIN ISOUT JTHMOD
```

```
1 2 2 0
```

```
$CARD 3
```

```
$NCHANL = 15 since there are 15 coolant channels
```

```
$NCTYP = 7 since there are 7 different channel types per 1/8th assembly
```

```
$ IPILE NCHANL NROD/NBCH NDX NCTYP NGRID NGRIDT NODESF
```

```
1 15 10 400 7 7 1 5
```

```
0 $IGCON
```

```
$ UNUSED INT IVEC2 NFUEL
```

```
0 0 1
```

```
$CARD 4
```

```
$uniform axial nodes at 0.01 m
```

```
-0.01 /
```

```
$ CARD 5
```

```
24 $ at least two axial levels must be supplied
```

```
';
```

```
my @channel_factors = ('1.1', '1.066666',  
                        '1.03333333', '1.0', '1.03333333',  
                        '1.0', '0.966666', '0.966666',  
                        '0.933333',  
                        '0.9');
```

```
my @axial_factors = ('10706', '16766', '20200', '23634',  
                    '25856', '27068', '27674', '28078',  
                    '28280', '28078', '27674', '27068',  
                    '25856', '24442', '22220', '20200',  
                    '17978', '15958', '14342', '12928',  
                    '11716', '10706', '9292', '8080'  
                    );
```

```
my @axial_distances = ( '0.', '0.325', '0.4875', '0.65',  
                       '0.8125', '0.975', '1.1375', '1.3',  
                       '1.4625', '1.625', '1.7875', '1.95',  
                       '2.1125', '2.275', '2.4375', '2.6',  
                       '2.7625', '2.925', '3.0875', '3.25',  
                       '3.4125', '3.575', '3.7375', '3.9');
```

```
#print $bundlefile;
```

```
my $card_5=";
```

```

my $dist_counter = 0;

foreach my $axial_distance (@axial_distances){
  $card_5 = $card_5 . $axial_distance . "\n";
  foreach my $channel_factor (@channel_factors){
    my $card_5_num = sprintf("%u", $channel_factor * @axial_factors[$dist_counter]);
    $card_5 = $card_5 . $card_5_num . " ";
  }
# chop $card_5;
  $card_5 = $card_5 . "\n";
  $dist_counter ++;
}

my $card_7 = "\$cards 7\n\$GAPC \n\$ NCN NCC(L) GAPC(L) DISTC(L) \n 1 -2
$gapc_1 $distc_1\n 2 -3 $gapc_1 $distc_1\n 6 $gapc_1 $distc_1\n 3 -4
$gapc_1 $distc_1\n 7 $gapc_1 $distc_1\n 4 -5 $gapc_1 $distc_2\n 8
$gapc_1 $distc_1\n 5 9 $gapc_2 $distc_1\n 6 7 $gapc_1 $distc_1\n 7 8
$gapc_1 $distc_1\n 10 $gapc_1 $distc_1\n 8 9 $gapc_1 $distc_2\n 11
$gapc_1 $distc_1\n 9 12 $gapc_2 $distc_1\n 10 11 $gapc_1 $distc_1\n 11 12
$gapc_1 $distc_2\n 13 $gapc_1 $distc_1\n 12 14 $gapc_2 $distc_1\n 13 14
$gapc_1 $distc_2\n 14 15 $gapc_2 $distc_2\n 15 \n\n";

my $card_8 ='$card 8
$NRN IDFUEL LR(L) PHI(L)
1 1 1 0.125
 2 0.25
 6 0.125/
2 1 2 0.25
 3 0.25
 6 0.25
 7 0.25/
3 1 3 0.25
 4 0.25
 7 0.25
 8 0.25/
4 1 4 0.25
 5 0.25
 8 0.25
 9 0.25/
5 1 6 0.125
 7 0.25
10 0.125/
6 1 7 0.25
 8 0.25
10 0.25
11 0.25/

```

```
7 1 8 0.25
  9 0.25
 11 0.25
 12 0.25/
8 1 10 0.125
 11 0.25
 13 0.125/
9 1 11 0.25
 12 0.25
 13 0.25
 14 0.25/
10 1 13 0.125
 14 0.25
 15 0.125/
```

```
/
;
```

```
my $card_10 = "\$card 10a\n\$N FRAC CHAR CHPW CHPH\n 1 1.0
$area_1 $perimeter_1 $perimeter_1 \n\$card 10b \n\$CDG(L)\n1.24\n\$card 10c
omitted for the 1st subchannel type\n 1 1.0 $area_2 $perimeter_2 $perimeter_2
\n1.24\n2 3 4\n 1 1.0 $area_5 $perimeter_5 $perimeter_5 \n1.24\n5\n 1 1.0
$area_6 $perimeter_2 $perimeter_2 \n1.24\n6 10 13\n 1 1.0 $area_7 $perimeter_7
$perimeter_7 \n1.24\n7 8 11\n 1 1.0 $area_9 $perimeter_2 $perimeter_2 \n1.24\n9
12 14\n 1 1.0 $area_15 $perimeter_1 $perimeter_1 \n1.24\n15\n";
```

```
my $send_deck = '$card 11
0.1 1 0.2 1 0.3 1 0.4 1 0.5 1 0.6 1 0.7 1
$card 12a
$DFUEL TCLAD RFUEL RCLAD DROD ETA
'. $diameter*0.9 .'.000335 2*0. '. $diameter .' 0.
$card 12b
$KFUEL CFUEL KCLAD CCLAD HGAP GAMMA
4*0.5000. 0.
```

```
$card 14
$N1 N2 N3 N4 N5 N6 N7 N8 NHTC ISAT
0 1 1 1 0 1 0 0 2 1
```

```
$card 17
0
```

```
/
/
```

```
$card 18 use epri
/
```

```
$card 20
/
```

```
$card 22
/
```

```

$card 26
/
$NCHF
  3
/
$card 29
$IH  HIN  GIN PEXIT DPS IPS FNORM CQ GINBP BORIN CQIN
  1 548.150 1700.0 7.2 0.0 0 '.(1.54 * $power).' 0. 0. 0. 1./
$card 30 no input means steady state only
/
$card 32 no input means steady state only
/
$card 36
$NSKIPX NSKIPT NOUT
  0 0 2 /
$EOD';

my $bundle_deck = $begin_deck . $card_5 . $card_7 . $card_8 . $card_10 . $end_deck;

#print $card_5;
#print $card_7;

#print "$area_1\n$area_2\n$area_5\n$area_6\n$area_7\n$area_9\n$area_15\n";

print INPFILE $bundle_deck;

close (INPFILE);

#####
#
### Run COBRA
#####

system "Cobratwg.exe";

#####

#####
## Get values from OUTFILE

    open(OUTFILE, "< OUTFILE");

```

```

print "opening outfile\n";

while (<OUTFILE>){
  if ($_ =~
^s+1\s+\d+\.\d+\s+\d+\.\d+\s+\d+\.\d+\s+(\d+\.\d+)\s+\d+\.\d+\s+\d+\.\d+\s+\d+\.\d+\s+(\d+\.\d+)\s+0\.\d/){
    $pressure_drop = $2 / $1 ;
    print "velocity is: $pressure_drop\n";
  }
}

close (OUTFILE);
#####

$trial_3 ++;
if ($trial_3 > 7){
  $pressure_drop = 8;
}

}
$pod = $pitch / $diameter;
#my $powerperarea =($ref_pitch * $ref_pitch * $power) / ($pitch * $pitch) ;
print LOGFILE "$power ";

print " diam = $diameter || p/d = $pod ||";
print "|| power = $power ||";

}

}
close (LOGFILE);

print "hi rhett";

```

Appendix 4: Fuel Temperature Results

The maximum fuel temperature limits are:

Fuel Type	Average Temp. Limit	Centerline Temp. Limit
UO ₂	1673 K	3073 K
U-ZrH	Not yet certain	1023 K

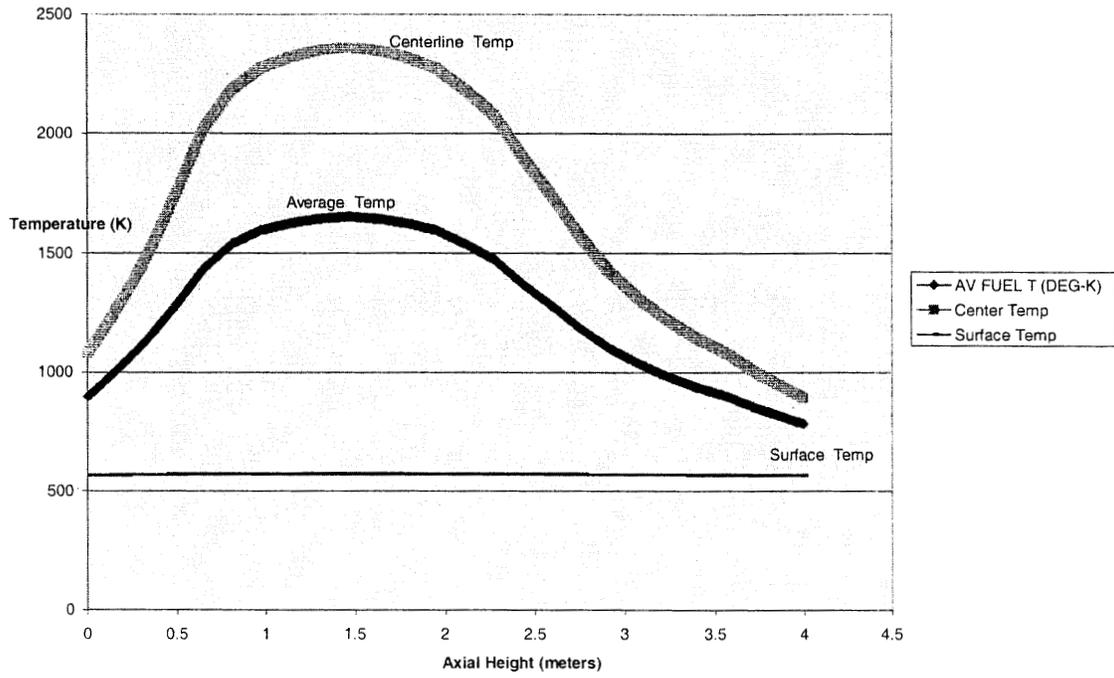
An axial temperature profile for the hottest rod is shown below. The centerline temperature is always well below the limit. The average fuel temperature does peak at 1652.9 K, which is close to the limit at 1673 K.

$$\frac{q'}{4\pi} = k(T_{Centerline} - T_{Surface}) \quad (\text{eq 5.1})$$

$$2360.5 - 572.6 = (T_{Centerline} - T_{Surface}) = 1787.9 \text{ K}$$

With the Hydride fuel conductivity greater by a factor of 17.6 / 3, the expected temperature difference for hydride fuel is: $(T_{Centerline} - T_{Surface}) = 1787.9 \text{ K} * 3 / 17.6 = 304.7 \text{ K}$. With a constant surface temperature, that implies the Hydride centerline temperature would be 877.35 K. This is also well below the limit.

Hottest Rod Temperature Data for U₂ Fuel
(Hottest rod of the hottest bundle analysis)





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