UKTAG RIVER ASSESSMENT METHODS
BENTHIC INVERTEBRATE FAUNA

RIVER INVERTEBRATE CLASSIFICATION TOOL (RICT)

by
Water Framework Directive - United Kingdom Advisory Group (WFD-UKTAG)

Publisher: **Water Framework Directive - United Kingdom Advisory Group (WFD-UKTAG)**
SNIFFER
25 Greenside Place
Edinburgh
EH1 3AA
Scotland
www.wfduk.org

December 2008

ISBN: 978-1-906934-07-1

HEALTH AND SAFETY STATEMENT

WARNING— working in or around water is inherently dangerous; persons using this standard should be familiar with normal laboratory and field practice. This published monitoring system does not purport to address all of the safety problems, if any, associated with its use. It is the responsibility of the user to establish appropriate health and safety practices and to ensure compliance with any national regulatory guidelines.

It is also the responsibility of the user if seeking to practise the method outlined here, to gain appropriate permissions for access to water courses and their biological sampling.

UKTAG RIVERS ASSESSMENTS METHODS
BENTHIC INVERTEBRATE FAUNA

RIVER INVERTEBRATE CLASSIFICATION TOOL (RICT)

1. Introduction

This method statement describes a monitoring system for monitoring, assessing and classifying rivers in accordance with the requirements of Article 8; Section 1.3 of Annex II; and Annex V of the Water Framework Directive (2000/60/EC). The method is known as the River Invertebrate Classification Tools (RICT).

1.1 Geographic application of the method

The method can be applied to rivers in England, Northern Ireland, Scotland and Wales.

1.2 Quality element assessed by the method

The method enables an assessment of the condition of the quality element, "benthic invertebrates", listed in Table 1.2.1 of Annex V to the Water Framework Directive

1.3 Pressures to which the method is known to be sensitive

The method has been designed to detect the impact on the quality element of organic enrichment. It is also known to be sensitive to toxic pollution. It may also detect the impact on the quality element of other pressures or combinations of pressures.

1.4 Parameters used to assess the quality element

The RICT method assesses the condition of the quality element using the parameters:

(i) Number of taxa (NTAXA); and
(ii) Average Score Per Taxon (ASPT).

The parameters are indicative of the impact of organic enrichment on the quality element. They are calculated using information on benthic macro-invertebrate species and groups of species.

2 Sampling and analysis

To apply the method, benthic macro-invertebrates should be collected from shallow flowing waters by disturbing the substratum with the feet ("kick" sampling) upstream of a hand net (nominal mesh size: 1 mm) held vertically on the riverbed

All habitats in the chosen sampling site in the river should be sampled within a 3-minute period. In addition, a manual search, lasting one minute, should be performed and any invertebrates found attached to submerged plant stems, stones, logs or other solid surfaces should be removed and placed in the net.

Rivers that are too deep to be sampled by the kick sampling method described above should be sampled by:

(i) sweeping a long-handled pond net (nominal mesh size: 1 mm) through any aquatic vegetation within reach of the banks of the river; and
(ii) kick sampling in any shallow areas;

or

(iii) sampling using a naturalist's dredge or an air-lift sampler.

The sampling methods used should be compliant with:

(a) BS EN 27828:1994, ISO 7828-1985 Water quality. Methods for biological testing. Methods of biological sampling: guidance on handnet sampling of aquatic benthic macro-invertebrates; or
(b) BS EN ISO 9391:1995, BS 6068-5.15:1995 Water quality. Sampling in deep water for macro-invertebrates. Guidance on the use of colonization, qualitative and quantitative samplers.

Samples should be analysed to identify the presence of the invertebrate taxa listed in Column 1 of Table 1.

3. Procedure for deriving the ecological quality ratio for the parameters

3.1 Calculation of the observed value of each parameter

(i) Number of taxa (NTAXA)

The observed value of the parameter, NTAXA, should be the sum of the number of different taxa listed in Column 1 of Table 2 and present in one or more of the samples obtained from the sampling site in the same calendar year.

Due to sample sorting and identification errors, the calculated observed value for NTAXA may be underestimated. In order to account for this, the observed values should be converted to bias-corrected observed values. This should be done using the following procedure.

An NTAXA bias value should be determined representing an estimate of the average under-estimation of the observed number of taxa listed in Column 1 of Table 2 in a sample. Separate bias values should be determined for each season (i.e. Spring, Summer and Autumn). The values should be based on proper analysis (e.g. an external audit of samples taken and analysed) and determined by the quality systems and procedures in place where the samples were analysed.

The observed value of the parameter should then be calculated using the applicable equation in Column 2 of Table 1.

Table 1: Calculation of bias-corrected observed values for the parameter, NTAXA	
Column 1	Column 2
Data used to calculate observed value	Bias-corrected observed value for NTAXA
Sampling data collected during single season	Observed value + NTAXA bias value for the season
Combined sampling data from two seasons	Observed value + [0.51 x (sum of NTAXA bias values for the two seasons)]
Combined sampling data from three seasons	Observed value + [0.37 x (sum of NTAXA bias values for the three seasons)]

(ii) Average Score Per Taxon (ASPT)

To calculate the observed value of the parameter, ASPT, each taxon listed in Column 1 of Table 2 and identified as present in a sample should be assigned the corresponding pressure sensitivity score in Column 2 of that Table.

The observed value of the parameter should then be calculated using the following equation:

$$\text{Observed value of ASPT} = PS_s \div \text{NTAXA}$$

where:
"PS_s" is the sum of the pressure sensitivity scores assigned to each taxon present in one or more of the samples obtained from the sampling site in the same calendar year and listed in Column 1 of Table 2.

The observed value should then be converted to bias-corrected values as follows:

The value of ASPT for taxa missed because of sample sorting and identification errors should be estimated using the equation:

$$\text{Estimated ASPT of missed taxa} = 4.29 + 0.077 \times \text{observed value of NTAXA}$$

where the observed value of NTAXA is the value prior to bias correction.

The bias-corrected value of ASPT is then given by the following equation:

Bias-corrected observed value of ASPT = [(Observed value of NTAXA x observed value of ASPT) + (NTAXA bias value x estimated ASPT of missed taxa)] ÷ bias-corrected observed value of NTAXA

where the NTAXA bias value depends on the sampling data used to calculate the observed value of the parameter as follows:

Observed value calculated using sampling data collected during single season	NTAXA bias value = NTAXA bias value for the season

Observed value calculated using combined sampling data from two seasons	NTAXA bias value = 0.51 x (sum of NTAXA bias values for the two seasons)
Observed value calculated using combined sampling data from three seasons	NTAXA bias value = 0.37 x (sum of NTAXA bias values for the three seasons)

3.2 Calculation of the reference values for the each parameter

Reference conditions were derived using best available sites with modeling.

The value for the parameters in the reference conditions applicable to the river should be calculated using the procedure set out in Annex I.

3.3 Calculation of the ecological quality ratio (EQR) for each parameter

(i) Number of taxa (NTAXA)

The ecological quality ratio (EQR) for the parameter, NTAXA, should be calculated using the equation:

$$EQR_{N\_TAXA} = (\text{observed value of NTAXA} \div \text{reference value for NTAXA}) \times 0.9573$$

(ii) Average Score Per Taxon (ASPT)

The ecological quality ratio (EQR) for the parameter, ASPT, should be calculated using the equation:

$$EQR_{ASPT} = (\text{observed value of ASPT} \div \text{reference value for ASPT}) \times 0.9643$$

3.4 Application of the method for the purposes of classification

When using the method for the purposes of classifying the ecological status or potential of a water body, the annual mean value of the ecological quality ratio for each parameter should be used.

Table 2: List of benthic invertebrate taxa and associated pressure sensitivity scores

Column 1	Column 2
Benthic invertebrate taxa	**Pressure sensitivity score (PS)**
Aeshnidae	8

Table 2: List of benthic invertebrate taxa and associated pressure sensitivity scores

Column 1	Column 2
Benthic invertebrate taxa	**Pressure sensitivity score (PS)**
Ancylus group (Ancylidae, Acroloxidae, Ferrissia)	6
Aphelocheiridae	10
Asellidae	3
Astacidae	8
Baetidae	4
Beraeidae	10
Brachycentridae	10
Caenidae	7
Calopterygidae	8
Capniidae	10
Chironomidae	2
Chloroperlidae	10
Coenagrionidae	6
Cordulegastridae	8
Corduliidae	8
Corixidae	5
Corophiidae	6
Dendrocoelidae	5
Dryopidae	5
Dytiscidae (incl. Noteridae)	5
Elmidae	5
Ephemerellidae	10
Ephemeridae	10
Erpobdellidae	3
Gammaridae (incl. Crangonyctidae & Niphargidae)	6
Gerridae	5
Glossiphoniidae	3
Goeridae	10
Gomphidae	8
Gyrinidae	5
Haliplidae	5
Heptageniidae	10
Hirudinidae	3
Hydrobiidae (incl. Bithyniidae)	3
Hydrometridae	5
Hydrophilidae (incl. Hydraenidae, Helophoridae, Georissidae & Hydrochidae)	5

Table 2: List of benthic invertebrate taxa and associated pressure sensitivity scores

Column 1	Column 2
Benthic invertebrate taxa	**Pressure sensitivity score (PS)**
Hydropsychidae	5
Hydroptilidae	6
Hygrobiidae	5
Lepidostomatidae	10
Leptoceridae	10
Leptophlebiidae	10
Lestidae	8
Leuctridae	10
Libellulidae	8
Limnephilidae (incl. Apataniidae)	7
Lymnaeidae	3
Mesoveliidae	5
Molannidae	10
Naucoridae	5
Nemouridae	7
Nepidae	5
Neritidae	6
Notonectidae	5
Odontoceridae	10
Oligochaeta	1
Perlidae	10
Perlodidae	10
Philopotamidae	8
Phryganeidae	10
Physidae	3
Piscicolidae	4
Planariidae (incl. Dugesiidae)	5
Planorbidae (excl. Ancylidae)	3
Platycnemididae	6
Pleidae	5
Polycentropodidae	7
Potamanthidae	10
Psychomyiidae (incl. Ecnomidae)	8
Rhyacophilidae (incl. Glossosomatidae)	7
Scirtidae	5
Sericostomatidae	10

Table 2: List of benthic invertebrate taxa and associated pressure sensitivity scores

Column 1	Column 2
Benthic invertebrate taxa	**Pressure sensitivity score (PS)**
Sialidae	4
Simuliidae	5
Siphlonuridae	10
Sphaeriidae	3
Taeniopterygidae	10
Tipulidae	5
Unionidae	6
Valvatidae	3
Viviparidae	6

Further Reading

Wright, J. , Sutcliffe, D. and Furse, M. (eds) 2000. Assessing the biological quality of fresh waters. RIVPACS and other techniques. Freshwater Biological Association, Ambleside Cumbria UK.

Annex I: Procedure for calculating the reference value for each parameter

This Annex provides all the information necessary to be able to calculate the reference values for the two parameters NTAXA and ASPT. Note that NTAXA and ASPT are also commonly known as indices and that is how they are referred to in this Annex.

Acknowledgement

It should be noted that the methodology described in this Annex (and in the main body of the Method Statement) is based upon on RIVPACS methodologies. RIVPACS stands for River Invertebrate Prediction and Classification System and has been developed over a number of years by the Freshwater Biology Association and the Centre for Ecology and Hydrology with support from the UK environmental agencies.

Contents

1.1 Measure the required Environmental Variables (EVs)

In order to be able to predict values for NTAXA and ASPT for a site, values for the 12 Environmental Variables (EVs) detailed below are required. It is not the purpose of this document to specify in detail how these EVs are to be measured. However, summary information has been included in Appendix A, which should enable those with suitable knowledge to be able to measure the EVs correctly.

No.	Name	Unit	Comments
1	National Grid Reference		2 letters followed by up to 6 digit Easting and up to 6 digit Northing. Used to derive Latitude, Longitude, Mean Air Temperature and Air Temperature Range
2	Altitude	M	
3	Slope	m km^{-1}	
4	Discharge Category	numeric (1 to 9)	If not known then a value for water velocity can be used to estimate a value for Discharge Category – see Appendix B
5	Distance from Source	Km	
6	Stream Width	M	
7	Stream Depth	Cm	
8	Alkalinity	mg l^{-1} $CaCo_3$	If not known then values for water hardness, calcium concentration or conductivity can be used to estimate a value for Alkalinity – see Appendix C
9	% cover of boulders & cobbles		
10	% cover of pebbles & gravel		
11	% cover sand		
12	% cover of silt & clay		

1.2 Convert the measured EVs to Predictive Environmental Variables (PEVs)

The prediction process (see 1.3) uses Multiple Discriminant Analysis (MDA), which requires values for 13 Predictive Environmental Variables (PEVs).

These are listed below along with details of how the values are determined from the measured EVs.

Env_v	**Description**	**Form used in MDA**
Env_1	Latitude	Derived from National Grid Reference – see Appendix D
Env_2	Longitude	Derived from National Grid Reference – see Appendix D
Env_3	Altitude	Log_{10}(Altitude)
Env_4	Distance from source	Log_{10}(Distance from source)
Env_5	Stream width	Log_{10}(Stream width)
Env_6	Stream depth	Log_{10}(Stream depth)
Env_7	Mean substratum	Derived from the '% cover' EVs – see Appendix E
Env_8	Discharge Category	Value of Discharge Category
Env_9	Alkalinity	Value of Alkalinity
Env_{10}	Alkalinity (log)	Log_{10}(Alkalinity)
Env_{11}	Slope at site	Log_{10}(Slope at site)
Env_{12}	Mean air temperature	Derived from National Grid Reference – see Appendix D
Env_{13}	Air temperature range	Derived from National Grid Reference – see Appendix D

Notes:

a) The final two PEVs are not required for sites in Northern Ireland.

b) If the values of certain EVs that are used in the predictions in their logarithmic form are zero or < 0.1 then they need to be reset as follows:

IF ALT = 0 THEN ALT = 1
IF DIST <0.1 THEN DIST = 0.1
IF WIDTH < 0.1 THEN WIDTH = 0.1
IF DEPTH < 1 THEN DEPTH = 1
IF DCH = 0 THEN DCH = 0.1
IF ALK < 0.1 THEN ALK = 0.1

1.3 Validate the EVs/PEVs

Although values may be measured for EVs they may not be suitable for use in the prediction process (e.g. due to errors in the measurement process).

Therefore, there are checks that require to be carried out on both EVs and calculated PEVs in order to highlight any issues there might be with the measured data.

Valid Minimum/Maximum Values for EVs/PEVs

There are minimum/maximum values for EVs/PEVs whereby, if any of the EVs/PEVs are outwith their range, then this should result in the prediction process being stopped and the classification process being abandoned. These values are the same for both GB and NI and are included in Appendix F.

'Warning' Minimum/Maximum Values for EVs/PEVs

There are minimum/maximum values for EVs/PEVs whereby, if any of the EVs/PEVs are outwith their range, then this should result in the prediction process continuing but with the resultant classification being treated with caution. These values can be different for GB and NI and are also included in Appendix F.

Note that there is also a calculation of a Suitability Code in order to highlight a situation where there is a very low probability of the site being in any of the end groups based on the data provided. This calculation requires access to the probabilities of end group membership data and can, therefore, only be carried out once the probabilities are determined (see 1.4.3). It is specified in detail in section 1.6.

1.4 Calculate the Predicted Values for NTAXA and ASPT

1.4.1 Overview

The prediction process involves working out the probability of a site belonging to each End Group in the relevant End Group Set (e.g. NI) and then using these probabilities in conjunction with index means for each end group to calculate predicted index values.

The probability of a site belonging to an End Group is determined by the similarity of its Environmental Variables (EVs) to those of the relevant End Group.

Due to the multivariate nature of the EV data, Multiple Discriminant Analysis (MDA) is used to turn the EV data into a format, which can be used to discriminate between the end groups using the Mahalanobis Distance statistical technique.

MDA depends on multiple Discriminant Functions (DF). A Discriminant Function has the general format:-

$$Z = c_1*Env_1 + c_2*Env_2 + c_3*Env_3 \ldots\ldots + c_nEnv_n$$

where Z is the Discriminant Score (DS) for that particular discriminant function, $c_1 \ldots c_n$ are the coefficients of that discriminant function and $Env_1 \ldots Env_n$ are the values of the predictive environmental variables.

A DF is a linear combination of the variables and the coefficients, which maximises the separation in data space of the end groups. Specifically, it finds aspects of the EV variation, which maximise the ratio of the variation between end group means to the variation between sites within end groups.

1.4.2 Reference/Parameter Data Required

In order to carry out the prediction process, a number of datasets are required as outlined below. There are separate datasets for GB and NI.

a) Discriminant Functions (DFs) and their coefficients

There are 13 DFs to be used for GB and 10 DFs to be used for NI. As outlined in section 1.2, there are 13 PEVs for GB and 11 PEVs for NI.

Appendix G contains the relevant coefficients.

b) DF Means per End Group

There are 43 End groups for GB and each of these has a mean DF score for each of the 13 DFs.

There are 11 End groups for NI and each of these has a mean DF score for each of the 10 DFs.

Appendix H contains the relevant DF Means.

c) Index Means per End Group

There are 43 End groups for GB and 11 End Groups for NI with each of these having a mean index value for NTAXA and ASPT. In addition, there are separate mean index values per 'Season Code' where Season Code can be 1 to 7 (1 = Spring, 2 = Summer, 3 = Autumn, 4 = Spring+Summer, 5 = Spring+Autumn, 6 = Summer+Autumn, 7 = Spring+Summer+Autumn). The recommended way of classifying for 2007 is to use combined Spring+Autumn samples and so only values for Season Code 5 are usually required. However, all values are included in Appendix I for completeness.

d) Number of Reference Sites in each End Group

Appendix I also contains the number of reference sites in each of the 43 End Groups for GB and 11 End Groups for NI.

1.4.3 Detailed Algorithms for Calculating Probabilities of End Group Membership

Definitions :

v = id of current predictive environmental variable
vN = number of predictive environmental variables

g = id of current end group
gN = number of end groups in current end group set (set: 1 = GB, 2 =NI)

$NRef_g$ = number of reference sites in end group g

d = id of current discriminant function axis
dN = number of discriminant function axes in current end group set

$DFCoef_{v,d}$ = discriminant function coefficient for predictor variable v on discriminant function d

Env_v = value of predictive environmental variable v for the current test site

$DFScore_d$ = discriminant function score on axis d for the current test site

$DFMean_{g,d}$ = mean discriminant function score of end group g on axis d

$MahDist_g$ = Mahalanobis distance of test site from end group g

$Prob_g$ = Probability test site belongs to end group g

$x_1 + ... + x_n$ = sum of the list of *n* variables x_1, x_2, x_3 ... up to x_n

$b_1 * x_1 + ... b_n * x_n$ = sum of the list of *n* items $(b_1 * x_1)$, $(b_2 * x_2)$, up to $(b_{1n} * x_{1n})$ where $(b_1 * x_1)$ denotes b_1 multiplied by x_1

Algorithms:

$DFScore_d = DFCoef_{1,d} * Env_1 + ... + DFCoef_{vN,d} * Env_{vN}$; for d = 1,...,dN

$MahDist_g = (DFScore_1 - DFMean_{g,1})^2 + ... + (DFScore_{dN} - DFMean_{g,dN})^2$; for g = 1,...,gN

$PDist_g = NRef_g * EXP(-MahDist_g / 2)$; where EXP is the natural exponential function

$PDistTot = PDist_1 + ... + PDist_{gN}$

$Prob_g = PDist_g / PDistTot$

1.4.4 Detailed Algorithm for Calculating Predicted Index Values

Definitions :

g = id of current end group
gN = number of end groups in current end group set (set: 1 = GB, 2 =NI)

$Prob_g$ = Probability test site belongs to end group g

i = id of current biological index

s = id of selected season(s) combination (referred to as 'season *s*');
(1 = spring, 2 = summer, 3 = autumn, 4 = spring+summer,
5 = spring+autumn, 6 = summer+autumn, 7 = all three seasons)

$IDXMean_{i,s,g}$ = Mean value of index *i* for season *s* for reference sites in end group *g*

$ExpIDX_i$ = Expected value of index *i* for selected season *s* for current test site

Algorithm :

$$ExpIDX_i = Prob_1 * IDXmean_{i,s,1,} + ... + Prob_{gN} * IDXmean_{i,s,gN}$$

Note that Season Code should typically be 5 for WFD classification purposes.

1.5 Convert the Predicted Values to Reference Values

1.5.1 Overview

The predicted index values are calculated using index values for reference sites that are considered to be representative of the best quality available for the range of river types found in the UK. However, WFD requires that classifications are based on Reference State and, since not all reference sites are at Reference State, an adjustment has to be carried out to the predicted index values in order to reflect the expected values at Reference State. This adjustment effectively standardises all predictions to a point considered to be equivalent to the High/Good boundary.

1.5.2 Reference/Parameter Data Required

The adjustment calculations require access to the following datasets:

a) Proportion of Reference Sites in each End Group by Assessment Score

All reference sites have been allocated an assessment score of 1 to 5, where 1 is of the highest quality. The algorithm needs to know the proportion of reference sites in each end group by assessment score and this data is included in Appendix J.

b) Adjustment Factors per Index/Assessment Score

The adjustment factors to be used vary per index and assessment score. The values to be used are defined within 1.5.4 below.

1.5.3 Detailed Algorithm for Converting Predicted Values to Reference Values

Definitions

E_{face} = Predicted Index Value

P_i = Probability that test site belongs to end group *i* (as calculated in 1.4.3)

Q_{ij} = Proportion of reference sites in end group *i* with assessment score *j*

A_j = Multiplicative factor to be used for relevant index/assessment score as defined in following table:

		Assessment score				
		1	2	3	4	5
A_j	TAXA	1.220	1.110	1.000	0.890	0.780
	ASPT	1.100	1.050	1.000	0.950	0.900

Algorithm

The expected reference value (E_{adj}) for a test site is estimated by:

$$E_{adj} = E_{face} F_{adj}$$

where $F_{adj} = 1/\sum_{j=1}^{5}(A_j R_j)$ and $R_j = \sum_{i=1}^{g}(P_i Q_{ij})$

Note that, if more than one reference value is calculated for a parameter (e.g. due to data being used for more than one year) then the annual mean of the reference value should be used for the EQR calculation.

1.6 Calculate the Suitability Code

The rules for determining the environmental suitability (codes 1-5) of a test site for prediction based on its multiple discriminant analysis (MDA) distance from each end group are outlined below.

Definitions :

$MahDist_g$ = Mahalanobis distance of test site from end group g (see 1.4.3)

$MahDist_{min}$ = minimum of ($MahDist_1$,...,$MahDist_{gN}$)

SuitCode = suitability code for the test site

SuitText = Upper limit of probability that test site belongs to any end group

Data Table 1 : Chi-square values (CQ_1, CQ_2, CQ_3, CQ_4) used in determining the suitability code for a test site

End group set	CQ_1	CQ_2	CQ_3	CQ_4
1 = GB	21.02606	24.05393	26.21696	32.90923
2 = NI	18.30700	21.16080	23.20930	29.58830

Algorithm :

Use the following order of rules to determine SuitCode and SuitProb:

Range of values for $MahDist_{min}$	SuitCode	SuitText
$MahDist_{min} < CQ_1$	1	'>5%'
$CQ_1 \leq MahDist_{min} < CQ_2$	2	'< 5%'
$CQ_2 \leq MahDist_{min} < CQ_3$	3	'<2%'
$CQ_3 \leq MahDist_{min} < CQ_4$	4	'<1%'
$MahDist_{min} \geq CQ_4$	5	'<0.1%'

If any site has a Suitability Code greater than 1, then the predictions and classifications arising should be carefully reviewed to consider if they are appropriate.

Appendix A How to Measure the Environmental Variables

<table>
<tr><th>EV</th><th>Method of Measuring</th></tr>
<tr><td>Grid Reference</td><td>Obtained from either a field-based GPS, a computer-based GIS or an Ordnance Survey map. The Grid Reference should be recorded to a minimum of six figures</td></tr>
<tr><td>Altitude</td><td>Measured from Ordnance Survey 1:50,000 scale maps in metres above sea level to the nearest five metres</td></tr>
<tr><td>Slope</td><td>Measured from Ordnance Survey 1:50,000 scale maps and recorded to the nearest 0.1 metre km^{-1}.</td></tr>
<tr><td>Discharge Category</td><td>Estimates of naturalised mean annual discharges are obtained (e.g. from Regional hydrometric staff) and converted to discharge categories using the following table:
<table>
<tr><th>Discharge Category</th><th colspan="2">Mean annual discharge (cubic metres per second)</th></tr>
<tr><td>1</td><td colspan="2"><0.31</td></tr>
<tr><td>2</td><td>0.31</td><td>0.62</td></tr>
<tr><td>3</td><td>0.62</td><td>1.25</td></tr>
<tr><td>4</td><td>1.25</td><td>2.50</td></tr>
<tr><td>5</td><td>2.50</td><td>5.00</td></tr>
<tr><td>6</td><td>5.00</td><td>10.00</td></tr>
<tr><td>7</td><td>10.00</td><td>20.00</td></tr>
<tr><td>8</td><td>20.00</td><td>40.00</td></tr>
<tr><td>9</td><td>40.00</td><td>80.00</td></tr>
<tr><td>10</td><td colspan="2">>80.00</td></tr>
</table></td></tr>
<tr><td>Velocity Category</td><td>Current velocity is only measured when information on discharge category is unavailable. Estimates of current velocity are obtained as outlined below and then converted to Velocity Category using the subsequent table.

Measurements (in centimetres per second) should refer to the surface velocity in the main flow channel. The time that it takes for a floating object (e.g. a leaf or a twig) to travel a known distance can be used to measure the velocity. A current meter is not required. Ideally the value used should be the median of three separate values collected in each season. Where two or more values are the same then the modal rather than the median value should be used.</td></tr>
</table>

<table>
<tr><td></td><td>
<table>
<tr><th>Velocity Category</th><th>Current Velocity (centimetres per second)</th></tr>
<tr><td>1</td><td><= 10</td></tr>
<tr><td>2</td><td>>10 25</td></tr>
<tr><td>3</td><td>> 25 50</td></tr>
<tr><td>4</td><td>> 50 100</td></tr>
<tr><td>5</td><td>>100</td></tr>
</table>
</td></tr>
<tr><td>Distance from Source</td><td>This is the distance along the watercourse (in km to the nearest 0.1km) between the site and its furthest source, regardless of whether that source is on a tributary known by a different name. The source is considered to be the beginning of the line marking the watercourse on the Ordnance Survey 1:50,000 scale map.</td></tr>
<tr><td>Stream Width</td><td>The width of the water surface (not the stream channel) is measured at right angles to the channel to the nearest metre.</td></tr>
<tr><td>Stream Depth</td><td>Depth is measured, in centimetres, a quarter, half and three-quarter distances, along a stream width transect, within the sampling area (where the width is the water surface). The average of these three measurements is recorded.</td></tr>
<tr><td>Alkalinity</td><td>Mean annual total alkalinity (mg L^{-1} $CaCO_3$). Currently, predictions in Scotland are based on environmental data collected that year and, in the Environment Agency, they are based on environmental data collected in 1995 (or the first year that the site was sampled). There is no mandatory method for obtaining alkalinity and the aim should be to provide a representative value for the site.</td></tr>
<tr><td>Conductivity</td><td>Measured in :s cm^{-1}</td></tr>
<tr><td>Hardness</td><td>Measured in mg L^{-1} $CaCO_3$</td></tr>
<tr><td>Calcium</td><td>Measured in mg L^{-1} Ca</td></tr>
<tr><td>% cover of boulders & cobbles</td><td>This is part of substrata composition and is the composition of the stream bed over the whole sampling area; that is the full width of the river along the whole length sampled, even if parts are inaccessible, and including equivalent superficial layers under macrophytes. The substratum particle size categories are as follows:
<table>
<tr><th>Category</th><th>Width (mm)</th><th>Description</th></tr>
<tr><td>Silt/clay</td><td><0.06</td><td>Soft in texture and not abrasive to the hands when rubbed.</td></tr>
<tr><td>Sand</td><td>0.06 - 2</td><td>Smaller than instant coffee granules and, unlike silt/clay, abrasive to the hands when rubbed.</td></tr>
<tr><td>Pebbles/gravel</td><td>2 - 64</td><td>Instant coffee granule to half fist size.</td></tr>
<tr><td>Boulders/cobbles</td><td>>64</td><td>Half fist size or larger.</td></tr>
</table>
</td></tr>
</table>

	The percentage of the stream bed covered by each category is recorded (note that bedrock is ignored i.e. the total percentage of all substrate types excluding bedrock must add up to 100%).
% cover of pebbles & gravel	See % cover of boulders & cobbles above
% cover sand	See % cover of boulders & cobbles above
% cover of silt & clay	See % cover of boulders & cobbles above

Appendix B Estimating Discharge Category from Stream Velocity

If Discharge category is not known then it can be estimated using stream velocity category as outlined below. Note that Appendix A identifies how velocity category is to be measured, if required.

Algorithm :

```
DATA cdch / 0.31, 0.62, 1.25, 2.5, 5.0, 10.0, 20.0, 40.0, 80.0 /
CDCH(1) = 0.31
CDCH(2) = 0.62
CDCH(3) = 1.25
CDCH(4) = 2.50
CDCH(5) = 5.0
CDCH(6) = 10.0
CDCH(7) = 20.0
CDCH(8) = 40.0
CDCH(9) = 80.0
VELC(1) = 5.0
VELC(2) = 17.5
VELC(3) = 37.5
VELC(4) = 75.0
VELC(5) = 150.0

RDCH = DEPTH/100. * WIDTH * VELC(VEL)/100
K=10
REPEAT
    DCH=K
    K=K-1
UNTIL RDCH>CDCH(K)
```

Error check:
The value of velocity category (VEL) used must be between 1 and 5. If it has been measured as zero (i.e. no perceived flow) then category 1 should be used.

Appendix C Estimating Alkalinity from Conductivity, Hardness or Calcium

If a value for alkalinity (ALK) is not known, then it can be estimated from, in order of preference, values for either water hardness (HARD), calcium concentration (CALCIUM) or the conductivity (CONDUCT), as outlined below. Appendix A identifies how these values are to be measured, if required.

Note that –9 in the algorithm below means that the value for that variable is not known.

Algorithm :

```
IF (ALK=-9) THEN
    IF (HARD>-9) THEN
       ALK = 4.677 + 0.6393*HARD
    ELSE
       IF (CALCIUM>-9) THEN
          ALK = 14.552 + 1.7606*CALCIUM
       ELSE
          IF (CONDUCT>-9) THEN
             ALK = 0.3201*CONDUCT -8.0593
          ELSE
            “Problem : No value for alkalinity”
          END IF
       ENDIF
   ENDIF
ENDIF

IF ALK < 0.1 ALK = 0.1
```

Error check: If used to determine a value for alkalinity, the value of ALK, HARD, CALCIUM or CONDUCT must be > 0.0

Appendix D Deriving Latitude, Longitude, Mean Air Temperature and Air Temperature Range from National Grid Reference

Deriving Latitude and Longitude from National Grid Reference

National Grid Reference (NGR) consists of:

- two letters indicating the National Grid 100km x 100km grid square
- 3 to 5 digit Easting within the 100km grid square
- 3 to 5 digit Northing within the 100km grid square

Where 3 digits are provided then this identifies the location to the nearest 100m, 4 digits to the nearest 10m and 5 digits to the nearest 1m.

In order to derive Latitude and Longitude, NGR first has to be converted to Easting and Northing, where these values are the full numeric co-ordinates for a location rather than location within a 100km grid square, and then the Easting and Northing has to be converted to Latitude and Longitude. Note that Easting and Northing are also required for the calculation of Mean Air Temperature and Air Temperature Range (see below)

The easiest way to do obtain Easting, Northing, Latitude and Longitude is to use internet sites that provide conversion tools. For example, www.nearby.org.uk provides a facility to type in an NGR and be provided with Easting, Northing, Latitude and Longitude.

Otherwise the calculations are quite complex. For information, an example of how it can be done is provided below which, by necessity, is in pseudo code.

Convert NGR to Easting and Northing

This involves converting the letters to a 'starting' number and then adding on numbers depending on the digits in the NGR. The pseudo-code below is one way of doing this and covers both GB and NI.

```
Calculate Irish or British
    t1 := ascii(substr(tmpngr,1,1)) - 65;

    if (t1 =8 or t1 < 0)  then -- either an I or a space, so Irish
      t1 := 18;    -- S assumed for Irish (83-65)
    end if;

    if (t1 > 8) then
      t1 := t1 -1;
    end if;

    t2 := floor(t1 / 5);
    tmpnorth := tmpnorth + 500000 * (3 - t2);
    tmpeast := tmpeast + 500000 * (t1 - 5 * t2 - 2);

    t1 := ascii(substr(tmpngr,2,1)) - 65;
```

```
if (t1 > 8) then
  t1 := t1 - 1;
end if;
t2 := floor(t1 / 5);
tmpnorth := tmpnorth + 100000 * ( 4 - t2);
tmpeast := tmpeast + 100000 * ( t1 - 5 * t2);

northing := tmpNorth;
easting := tmpEast;
```

Convert Easting and Northing to Latitude and Longitude

Once values for Easting and Northing have been calculated then these can be converted to values for Latitude and Longitude. The pseudo-code below is one way of doing this and covers both GB and NI.

```
deg2rad number := 57.2957795130823;
tmpVar NUMBER;
nX number;
eX number;
a number;
b number;
e0 number;
n0 number;
f0 number;
e2 number;
lam0 number;
phi0 number;
af0 number;
bf0 number;
n number;
Et number;
phid number;
nu number;
rho number;
eta2 number;
tlat2 number;
tlat4 number;
tlat6 number;
clatm1 number;
VII number;
VIII number;
IX number;
phip number;
X number;
XI number;
XII number;
XIIA number;
lambdap number;
geo varchar2(500);
```

```
BEGIN
-- converts NGR easting and northing to lat, lon.
-- input metres, output radians
nX := (north);
eX := (east);
case
when region = 'Irish' then
a := 6377340.189; -- OSGBI semi-major
b := 6356034.447; -- OSGBI semi-minor
e0 := 200000; -- easting of false origin
n0 := 250000; -- northing of false origin
f0 := 1.000035; -- OSGBI scale factor on central meridian
e2 := 0.00667054015; -- OSGBI eccentricity squared
lam0 := -0.139626340159546366153895261479O9; -- OSGBI false east
phi0 := 0.933751149816966323654174561141; -- OSGBI false north
else
a := 6377563.396; -- OSI semi-major
b := 6356256.91; -- OSI semi-minor
e0 := 400000; -- easting of false origin
n0 := -100000; -- northing of false origin
f0 := 0.9996012717; -- OSI scale factor on central meridian
e2 := 0.0066705397616; -- OSI eccentricity squared
lam0 := -0.034906585039886591; -- OSI false east
phi0 := 0.85521133347722145; -- OSI false north
end case;

af0 := a * f0;
bf0 := b * f0;
n := (af0 - bf0) / (af0 + bf0);
Et := east - e0;
phid := geo_InitialLat(north, n0, af0, phi0, n, bf0);
nu := af0 / (sqrt(1 - (e2 * (sin(phid) * sin(phid)))));
rho := (nu * (1 - e2)) / (1 - (e2 * (sin(phid)) * (sin(phid))));
eta2 := (nu / rho) - 1;
tlat2 := tan(phid) * tan(phid);
tlat4 := power(tan(phid), 4);
tlat6 := power(tan(phid), 6);
clatm1 := power(cos(phid), -1);
VII := tan(phid) / (2 * rho * nu);
VIII := (tan(phid) / (24 * rho * (nu * nu * nu))) * (5 + (3 * tlat2) + eta2 - (9 * eta2 * tlat2));
IX := ((tan(phid)) / (720 * rho * power(nu, 5))) * (61 + (90 * tlat2) + (45 * power(tan(phid), 4) ));
phip := (phid - ((Et * Et) * VII) + (power(Et, 4) * VIII) - (power(Et, 6) * IX));
X := power(cos(phid), -1) / nu;
XI := (clatm1 / (6 * (nu * nu * nu))) * ((nu / rho) + (2 * (tlat2)));
XII := (clatm1 / (120 * power(nu, 5))) * (5 + (28 * tlat2) + (24 * tlat4));
XIIA := clatm1 / (5040 * power(nu, 7)) * (61 + (662 * tlat2) + (1320 * tlat4) + (720 * tlat6));
lambdap := (lam0 + (Et * X) - ((Et * Et * Et) * XI) + (power(Et, 5) * XII) - (power(Et, 7) * XIIA));
geo := 'latitude: '|| phip ||' longitude: '||lambdap;
lat := round(phip * deg2rad,6);
lon := round(lambdap * deg2rad,6);
```

Deriving Mean Air Temperature and Air Temperature Range from Easting/Northing

As indicated above, Mean Air Temperature (TEMPR) and Air Temperature Range (TEMPR) are derived from Easting and Northing, which have previously been derived from NGR (see above). Note that this is not required for sites in Northern Ireland as these variables are not used in the DFs for NI.

In order to be able to derive the values, a temperature grid is required which contains previously-derived values for TEMPM and TEMPR for points in the centres of 5km interval grid squares covering the whole of the Great Britain landmass (including the Scottish islands).

An example of the format of such a grid is:

EASTING (to nearest 100m)	NORTHING (to nearest 100m)	TEMPM	TEMPR
1075	9125	8.58	8.40
4315	11775	10.23	12.90
...			

Estimates of TEMPM and TEMPR for a test site are then derived by averaging a sufficient number of surrounding points on the grid weighed inversely by the grid points distance from the test site.

For a single site, it is considered that sufficient precision could be obtained by carrying out this calculation manually. In order to facilitate this, a copy of the required temperature grid data is included in Appendix K. Note, however, that there are more than 40 pages worth of data. Alternatively the data can be obtained via the following URL:

http://www.rict.org.uk/apex/f?p=103:61

Automation of the calculation is rather complex and iterative, but an example of doing this is (in FORTRAN) is provided below.

```
    PROGRAM TEMPGRID
C       PROGRAM TO CALCULATE MEAN TEMPERATURE AND ANNUAL
TEMPERATURE
C       RANGE FROM ARRAY STORED AT 5 KM INTERVALS
      REAL*4 VMEAN(140,260),VRANGE(140,260)
      COMMON VMEAN,VRANGE
C Read in all available values of Temp mean and Temp range
C extracted as non-zero values from a 5km grid:
C Grid Ref read as usual RIVPACS 4 digit easting and Northing
C (to nearest 100km)

      open(1,file='TempVars_GB.dat')
  100 read(1,*,end=200) IVEAST,IVNORTH,VM,VR
```

```
      I=(IVEAST-25)/50
      J=(IVNORTH-25)/50
      VMEAN(I,J)=VM
      VRANGE(I,J)=VR
      goto 100
  200 CONTINUE
      CLOSE(1)

      open(7,file='LatLong_GB.dat')
      open(8,file='TempGrid.out')

  400 read(7,'(20x,i5,i6)',end=500) IGEAST,IGNORTH
      CALL TEMPCAL(IGEAST,IGNORTH,TEMPM,TEMPR)
      write(6,'(i5,i6,2f7.2)') IGEAST,IGNORTH,TEMPM,TEMPR
      write(8,'(i5,i6,2f7.2)') IGEAST,IGNORTH,TEMPM,TEMPR
      goto 400
  500 continue
      end


      SUBROUTINE TEMPCAL(IGEAST,IGNORTH,TMEAN,TRANGE)
C       SUBROUTINE TO OPEN FILES OF TEMPERATURE VALUES AND
INTERPOLATE
C       GIVEN GRID CO-ORDINATES IN TENTHS OF KILOMETRES
      INTEGER*2  ME1,ME2,MN1,MN2,KE,KN,NP,KSQE,KSQN,IREME,IREMN,da
      REAL*4     SMEAN,SRANGE
      COMMON / tc / ME1,ME2,MN1,MN2,KE,KN,NP,SMEAN,SRANGE

C       ROWS ARE VALUES FROM 2.5 KM E TO  702.5 KM E, IN INTERVALS OF 5 KM
C       COLUMNS FROM 2.5 KM N TO 1302.5 KM N, IN INTERVALS OF 5 KM
C       MUST REDUCE TEST SITE CO-ORDINATES BY 2.5 KM IN EACH DIRECTION
C       AS GRID TEMP VALUES ARE AT CENTRES OF 5KM SQUARES, NOT
VERTICES

      KE=IGEAST-25
      KN=IGNORTH-25
C       FIND NEAREST 5KM-POINT TO SW AND DISTANCES E AND N FROM THAT
      KSQE=INT(KE/50)
      KSQN=INT(KN/50)
      IREME=KE-50*KSQE
      IREMN=KN-50*KSQN
C       TEST IF AT A 5-KM POINT OR A VERTICAL OR HORIZONTAL BETWEEN
THEM
      IF (IREME.EQ.0.AND.IREMN.EQ.0) GOTO 120
      IF (IREME.EQ.0) GOTO 130
      IF (IREMN.EQ.0) GOTO 140
C       MUST INTERPOLATE BETWEEN 4 VALUES
      ME1=KSQE
      ME2=ME1+1
      MN1=KSQN
```

```
      MN2=MN1+1
      CALL AVCALL
      IF (NP.GT.2) GOTO 150
C     LESS THAN 3 OF POSSIBLE 4 POINTS KNOWN, SO TAKE MEAN FROM 16
      ME1=ME1-1
      ME2=ME2+1
      MN1=MN1-1
      MN2=MN2+1
      CALL AVCALL
      IF (NP.LT.4) GOTO 160
C     IF LESS THAN 4 OF 16 POINTS KNOWN, NO VALUES POSSIBLE
      GOTO 150

120   ME1=KSQE
      ME2=ME1
      MN1=KSQN
      MN2=MN1
      CALL AVCALL
      IF (NP.EQ.1) GOTO 150
C     EXACT POINT IS NOT KNOWN, SO TAKE MEAN FROM 8
      ME1=ME1-1
      ME2=ME2+1
      MN1=MN1-1
      MN2=MN2+1
      CALL AVCALL
      IF (NP.GT.3) GOTO 150
C     LESS THAN 4 OF POSSIBLE 8 POINTS KNOWN, SO TAKE MEAN FROM 24
      ME1=ME1-1
      ME2=ME2+1
      MN1=MN1-1
      MN2=MN2+1
      CALL AVCALL
      IF (NP.LT.4) GOTO 160
C     IF LESS THAN 4 OF 24 POINTS KNOWN, NO VALUES POSSIBLE
      GOTO 150

C     INTERPOLATE BETWEEN TWO VALUES ON N-S LINE
130   ME1=KSQE
      ME2=ME1
      MN1=KSQN
      MN2=MN1+1
      CALL AVCALL
      IF (NP.EQ.2) GOTO 150
C     LESS THAN 2 OF POSSIBLE 2 POINTS KNOWN, SO TAKE MEAN FROM 6
      ME1=ME1-1
      ME2=ME2+1
      CALL AVCALL
      IF (NP.GT.3) GOTO 150
C     LESS THAN 4 OF POSSIBLE 6 POINTS KNOWN, SO TAKE MEAN FROM 12
      MN1=MN1-1
```

```
      MN2=MN2+1
      CALL AVCALL
      IF (NP.LT.4) GOTO 160
C     IF LESS THAN 4 OF 12 POINTS KNOWN, NO VALUES POSSIBLE
      GOTO 150

C     INTERPOLATE BETWEEN TWO VALUES ON E-W LINE
140   ME1=KSQE
      ME2=ME1+1
      MN1=KSQN
      MN2=MN1
      CALL AVCALL
      IF (NP.EQ.2) GOTO 150
C     LESS THAN 2 OF POSSIBLE 2 POINTS KNOWN, SO TAKE MEAN FROM 6
      MN1=MN1-1
      MN2=MN2+1
      CALL AVCALL
      IF (NP.GT.3) GOTO 150
C     LESS THAN 4 OF POSSIBLE 6 POINTS KNOWN, SO TAKE MEAN FROM 12
      ME1=ME1-1
      ME2=ME2+1
      CALL AVCALL
      IF (NP.LT.4) GOTO 160
C     IF LESS THAN 4 OF 12 POINTS KNOWN, NO VALUES POSSIBLE
      GOTO 150

150   TMEAN=SMEAN
      TRANGE=SRANGE
      RETURN

C     IF VALUES CANNOT BE FOUND, ZERO VALUES ARE RETURNED
160   TMEAN=0.0
      TRANGE=0.0
      RETURN
      END

      SUBROUTINE AVCALL
C     CALCULATE AVERAGE VALUE WEIGHTED INVERSELY BY DISTANCE AND
C     NUMBER OF AVAILABLE VALUES, OVER A PRE-DEFINED GRID OF POINTS
      INTEGER*2 rn,ME1,ME2,MN1,MN2,KE,KN,NP,I,J
      REAL*4    SMEAN,SRANGE,DSUM
      REAL*4 VMEAN(140,260),VRANGE(140,260)
      COMMON VMEAN,VRANGE
      COMMON / tc / ME1,ME2,MN1,MN2,KE,KN,NP,SMEAN,SRANGE
      NP=0
      DSUM=0
      SMEAN=0
      SRANGE=0
      DO 300 I=ME1,ME2
      DO 300 J=MN1,MN2
```

```
      IF (I.LT.1.OR.I.GT.140.OR.J.LT.1.OR.J.GT.260) GOTO 300
      IF (VMEAN(I,J).EQ.0) GOTO 300
      NP=NP+1
      D=(I*50-KE)**2+(J*50-KN)**2
      IF (D.EQ.0) D=0.01
      DSUM=DSUM+1/D
      SMEAN=SMEAN+VMEAN(I,J)/D
      SRANGE=SRANGE+VRANGE(I,J)/D
300   CONTINUE
      IF (NP.EQ.0) GOTO 310
      SMEAN=SMEAN/DSUM
      SRANGE=SRANGE/DSUM
310   RETURN
      END
```

Appendix E Calculating Mean Substratum Composition (MSUBST) in PHI Units

MSUBST is derived from the following user-supplied environmental data for the river bed substratum composition at the test site:

BOLDCOBB = percentage cover of Boulders/Cobbles
PEBBGRAV = percentage cover of Pebbles/Gravel
SAND = percentage cover of sand
SILTCLAY = percentage cover of silt/clay

Algorithm :

TOTSUB = BOLDCOBB + PEBBGRAV + SAND + SILTCLAY

MSUBST = (-7.75*BOLDCOBB - 3.25*PEBBGRAV + 2*SAND + 8*SILTCLAY) / TOTSUB

Error Check: TOTSUB is between 97 and 103

Appendix F Validation of EVs/PEVs

Validity Range Checks for EVs/PEVs

The minimum/maximum validation values that should result in rejection are:

EV/PEV	Min	Max
Latitude	49.0	71.0
Longitude	-11.0	2.0
Altitude	0.0	1345
Distance from source	0.0	
Stream width	0.0	
Stream depth	0.0	
Discharge category	0	10
Alkalinity	0	
% Boulders & cobbles	0	100
% Pebbles & gravel	0	100
% sand	0	100
% silt & clay	0	100
Velocity	1	5
Conductivity	0	
Hardness	0	
Calcium	0	

Warning Range Checks for EVs/ PEVs

The minimum/maximum validation values that should result in warnings are:

	GB		Northern Ireland	
EV/PEV	**MIN**	**MAX**	**MIN**	**MAX**
Latitude	50.8	62.0	54.0	55.2
Longitude	-8.0	1.4	-8.1	-5.7
Altitude	1	590	3	180
Distance from source	0.1	202.8	2.2	75.0
Stream width	0.4	117	2.0	37
Stream depth	1.7	300	15.0	183
Mean substratum	-7.71	8.00	-7.75	6.61
Discharge cat	1	9	1	8
Alkalinity	1.2	366	2.5	194
Slope at site	0.1	150.0	0.1	50.0
Mean air temperature	7.5	11.5	---	---
air temperature range	8.3	13.9	---	---

Appendix G DF Coefficients for GB and NI

DF Co-efficients for GB

PEV Id	PEV Desc	DF1	DF2	DF3	DF4	DF5	DF6	DF7	DF8	DF9	DF10	DF11	DF12	DF13
Env_1	LAT	0.012763	-0.191395	-0.084285	0.308513	-0.106925	0.463682	0.106283	0.34352	0.889641	1.522024	1.176319	1.39325	-0.197737
Env_2	LONG	0.236688	-0.145482	-0.22516	0.538048	-0.168461	0.455094	0.652612	-0.900645	0.128864	-0.028813	0.214224	0.10476	0.204087
Env_3	LGALT	-0.71548	0.521667	0.6904	-0.101293	0.126061	0.310768	1.183853	-0.531303	1.428168	0.857504	-1.413874	0.228596	-0.585111
Env_4	LGDIST	0.248364	1.265096	-0.498978	-0.099961	-1.680036	-0.683688	1.441015	1.305551	0.584206	-2.406807	-0.394901	1.806775	-2.262758
Env_5	LGWIDTH	-0.197251	0.448739	-1.047695	-1.005749	-0.330719	-0.868249	0.121796	-0.03083	-0.154962	1.104548	-1.581578	1.367918	4.797964
Env_6	LGDEPTH	0.982989	-0.144432	-0.803336	-2.360965	0.827054	-2.754445	-0.335577	-2.05626	2.137256	0.37188	2.368753	-2.216045	-0.758561
Env_7	MSUBST	0.181036	-0.114926	-0.066526	-0.018391	0.132821	0.079905	-0.187663	-0.050596	0.061305	-0.078059	-0.279682	0.272026	-0.036515
Env_8	DCH	-0.101154	0.271446	0.220259	0.301543	0.480888	0.825574	-0.293073	-0.183922	0.07683	-0.069807	0.137115	-0.255106	-0.171339
Env_9	ALK	0.006898	-0.00976	-0.013051	-0.010524	0.00273	0.017085	0.014477	0.013022	0.004686	-0.003465	-0.0035	-0.00941	0.002496
Env_{10}	LGALK	0.68052	1.834262	1.5483	2.591706	-0.000452	-2.544872	-2.595735	0.264906	0.9184	0.234801	0.045226	0.185411	0.411581
Env_{11}	LGSLOPE	-0.604114	-0.354279	0.553346	-0.477275	0.897881	0.150417	-0.128772	0.108304	1.199725	-2.364331	0.955281	0.927326	0.894677
Env_{12}	TEMPM	1.144892	-0.354907	0.579377	0.153258	-1.35419	1.841334	0.185381	0.367581	2.46372	4.1732	3.456331	3.654439	-0.19831
Env_{13}	TEMPR	0.358463	0.111235	0.587541	-0.571252	0.703669	-0.519864	-0.087079	0.786031	-0.503458	0.532319	0.797109	0.670014	-0.193198

DF Co-efficients for NI

PEV Id	PEV Desc	DF1	DF2	DF3	DF4	DF5	DF6	DF7	DF8	DF9	DF10
Env_1	LAT	-1.373844	2.33789	0.859116	-0.733299	-2.327628	0.444233	-2.682072	0.716947	-0.484387	0.242808
Env_2	LONG	1.001605	1.949456	-0.43536	-0.2291	0.730565	0.346008	0.591662	-0.247027	-0.10527	0.538459
Env_3	LGALT	0.643343	0.862753	-0.106497	-1.446694	2.576174	-0.19057	-0.753947	1.233263	1.349255	-0.142731
Env_4	LGDIST	3.484063	2.153746	1.960726	-5.240167	1.48973	-5.905105	-0.821808	-1.130536	-1.21524	-3.678016
Env_5	LGWIDTH	-1.092516	-0.235901	0.717204	3.804986	-1.728502	-1.17212	-0.307154	2.460458	4.561608	3.04471
Env_6	LGDEPTH	2.402104	-0.541006	-4.399521	4.131516	-1.174209	0.284452	-0.923998	2.471152	0.016845	-3.326227
Env_7	MSUBST	0.000055	0.07267	0.073201	-0.084691	-0.119851	0.059057	0.056631	-0.14156	0.303945	0.07326
Env_8	DCH	0.07464	-0.120702	0.380956	-0.004859	0.39905	0.848177	0.366693	-0.123155	-0.545395	0.117185
Env_9	ALK	-0.00007	-0.005008	-0.004285	0.00493	0.007705	-0.030555	-0.028177	0.003647	-0.014087	0.030185
Env_{10}	LGALK	0.29065	-1.152873	-0.336156	-1.954173	-1.596751	3.473318	4.967609	1.596999	2.096362	-2.113242
Env_{11}	LGSLOPE	-1.176567	0.316858	0.814152	-0.12075	-0.168927	-1.95271	1.066298	0.892026	0.715397	-0.892292

Appendix H DF Means per End Group for GB and NI

DF Means for GB

	DF1	DF2	DF3	DF4	DF5	DF6	DF7	DF8	DF9	DF10	DF11	DF12	DF13
EG1	12.3668	-8.300426	6.181375	14.16581	-10.14207	30.90548	5.575003	30.68527	73.50163	126.8879	106.4491	116.3054	-14.5714
EG2	13.29815	-8.140805	7.824719	12.7046	-8.643283	29.90421	3.586749	32.87146	75.58878	126.7345	105.041	115.545	-14.54904
EG3	10.81374	-8.618493	7.73142	7.684732	-9.20765	31.48627	4.453598	33.25619	73.96266	126.6717	106.2673	115.7625	-14.54487
EG4	12.22024	-7.35786	8.020502	9.422437	-10.10151	31.00381	4.089832	33.16664	73.70325	127.6937	106.0211	116.2575	-14.57952
EG5	11.39499	-7.189209	7.18932	7.707944	-8.779437	32.07195	4.930158	32.80047	73.67456	127.2467	105.595	115.78	-15.18397
EG6	12.4308	-5.895261	7.843216	9.991287	-9.227718	30.5053	3.599027	32.92746	74.49696	128.2439	105.6242	116.2513	-14.55089
EG7	13.24324	-6.74279	8.756453	10.03103	-10.04114	30.43139	2.087998	33.82774	73.71408	127.6077	106.7257	116.1114	-14.75505
EG8	12.60927	-7.503954	10.36816	9.206949	-7.739178	30.13828	4.578481	32.29994	73.86064	127.1613	106.1302	115.5502	-14.95837
EG9	13.39129	-5.749082	9.192365	9.282746	-8.331858	29.81396	3.799328	31.98514	74.24361	128.4141	105.7403	115.4475	-14.26352
EG10	12.2376	-6.274437	9.158568	9.524513	-7.577812	29.9099	4.186009	32.264	74.3661	127.4161	106.2494	115.5442	-14.63191
EG11	13.19382	-4.308634	9.495161	9.624905	-7.636199	30.78537	4.664363	32.27178	73.98334	127.434	105.5708	116.4629	-14.48253
EG12	13.68643	-4.858369	9.645047	9.55364	-8.037156	30.01306	4.529039	32.68008	73.51592	127.0999	106.1629	116.0971	-14.736
EG13	12.53244	-6.205993	8.782416	9.531874	-8.912782	30.48847	3.037494	33.34771	73.80535	126.9814	106.3688	116.0286	-14.37459
EG14	12.0416	-6.396229	9.748549	8.55161	-7.691475	30.32862	4.754396	32.85159	73.92911	126.6936	105.8921	115.9849	-14.65094
EG15	11.99593	-6.449863	9.227801	8.334188	-7.36218	31.14726	4.647904	32.5414	73.65799	126.8681	105.642	116.3985	-14.10322
EG16	13.6146	-6.557601	11.20168	9.222296	-8.441541	29.3888	4.658973	32.14009	74.22944	126.6715	106.2666	115.8217	-14.46907
EG17	15.5519	-3.592742	10.54902	9.713597	-9.190636	31.50754	3.771712	32.08372	73.87918	126.6247	105.8315	115.6797	-14.68362
EG18	14.61066	-3.489392	9.767669	9.976632	-8.214985	30.67287	3.683769	32.23644	73.97332	126.8914	106.3085	115.7265	-14.60696
EG19	14.93097	-4.432549	9.776233	10.56655	-8.322805	30.8071	4.246693	32.38153	73.88019	127.1121	106.2713	116.1386	-14.31594
EG20	15.46415	-5.457499	9.794715	10.17933	-9.005477	29.48248	4.34562	32.36695	74.39434	126.8159	105.4757	115.6916	-14.87886
EG21	15.73634	-5.216328	10.87379	10.10046	-9.446403	30.67885	4.351398	32.89072	74.25356	126.713	105.7225	115.8819	-14.91156
EG22	14.58907	-3.811956	9.637398	10.39112	-7.704094	30.26964	4.234192	32.60683	73.59367	126.8161	105.8792	116.0396	-14.57862
EG23	14.71598	-6.304846	10.00374	10.65827	-8.522287	29.08109	4.002777	33.55112	73.82385	126.7581	106.3812	116.3514	-14.72675
EG24	16.5647	-5.095488	10.65997	10.0799	-9.020836	30.28435	4.769553	33.28788	74.23851	127.453	106.1694	116.5659	-14.60497
EG25	15.22073	-6.000685	10.69621	8.411059	-10.52614	30.6967	4.232271	31.51484	73.78929	126.9634	105.7248	115.8801	-14.34071
EG26	15.41154	-6.171265	11.52116	9.452631	-9.021454	29.79951	4.418262	32.51652	74.29732	127.3047	106.0132	116.147	-14.52811
EG27	16.36976	-7.725471	11.21709	9.986453	-8.880346	30.31755	3.979733	32.207	73.50174	127.6324	106.3374	115.4331	-14.30107
EG28	15.30519	-7.286974	10.99838	10.93433	-8.852592	29.77329	4.519199	33.20578	73.60894	127.27	106.1237	115.8791	-14.83585
EG29	15.58213	-7.949056	11.37508	8.868223	-10.96896	31.32046	3.416273	31.81903	74.87654	127.036	106.0958	116.3782	-14.98306
EG30	17.07308	-9.462565	12.33196	11.42944	-6.165863	32.70555	3.21467	32.27015	73.71824	127.3027	105.9282	116.0591	-14.59141
EG31	16.33285	-4.645119	9.832728	9.932782	-8.844146	30.69901	3.097891	32.53513	72.86342	127.4774	105.5852	115.8595	-14.94212
EG32	16.26104	-4.241444	9.495559	10.68138	-9.145941	30.64229	4.1482	32.99523	73.8664	126.981	105.8517	115.8945	-14.41
EG33	18.0464	-3.843861	9.836361	9.607805	-8.973383	30.60825	3.860369	32.92504	74.35249	127.4251	106.0519	115.9017	-15.40038
EG34	19.86312	-5.117226	9.268142	9.261663	-8.980768	31.777	4.153528	33.10136	74.72325	126.7051	106.296	115.6591	-14.10848
EG35	18.49559	-5.726057	10.13639	9.934619	-9.079963	30.54994	4.947712	33.2255	73.33446	127.3392	105.4837	115.6005	-14.41718
EG36	19.68883	-5.536629	9.009755	10.14604	-8.60161	30.88464	4.93373	32.48973	73.65807	127.0058	106.2604	115.7846	-14.94959
EG37	19.27693	-6.532085	9.478052	9.719217	-8.765635	30.38554	5.08971	33.08361	74.11244	127.4093	106.203	115.8803	-14.53396
EG38	19.32697	-7.268428	9.671981	9.984199	-8.836798	30.65853	5.065139	33.18247	73.62253	127.4176	105.922	115.8636	-14.46571
EG39	18.8479	-7.903481	10.40562	9.60932	-8.276826	30.43334	4.082777	32.88681	74.35587	126.784	105.7671	116.141	-14.63387
EG40	18.82041	-7.575518	10.49867	9.226462	-9.447593	29.65616	3.798226	32.03839	73.28713	127.1544	105.7538	116.532	-14.65563
EG41	20.69039	-6.125127	8.485485	9.352467	-8.156039	30.47973	4.224261	32.02732	74.09263	127.179	106.109	115.9422	-14.73661
EG42	20.79673	-4.21578	8.489255	8.565739	-7.861696	30.84213	4.399127	32.0205	75.35768	127.7794	106.1943	116.2719	-14.62882
EG43	23.00408	-7.461443	6.409602	8.44342	-7.864633	29.0373	2.912385	32.11206	73.19057	126.5832	105.7733	116.0228	-14.39217

DF Means for NI

	DF1	DF2	DF3	DF4	DF5	DF6	DF7	DF8	DF9	DF10
EG1	-75.462	115.3777	45.98599	-39.8684	-128.607	19.95403	-146.682	51.531	-20.5405	1.174944
EG2	-74.8815	115.1631	47.71166	-39.7144	-130.607	19.95214	-146.227	51.70926	-20.8317	1.002707
EG3	-76.1752	114.6422	46.59405	-38.7528	-130.149	19.39336	-146.002	51.4711	-20.6576	1.351519
EG4	-76.5603	113.0004	45.30941	-39.6212	-130.129	20.79255	-146.175	51.81625	-20.7993	1.326794
EG5	-75.5443	112.1897	46.44466	-40.1346	-129.986	19.69684	-145.918	51.56315	-20.4333	1.147646
EG6	-75.1558	115.0447	45.57505	-41.0843	-130.364	19.54685	-146.037	51.49027	-20.7309	1.261615
EG7	-74.3692	114.5359	46.21352	-39.8798	-129.14	19.68167	-145.522	51.70114	-20.736	1.210288
EG8	-72.407	115.6042	46.30924	-39.8681	-130.332	19.95528	-146.002	51.80971	-20.3818	1.307713
EG9	-73.252	113.6073	47.90663	-40.5534	-129.516	20.27995	-146.051	51.46794	-20.7092	1.386713
EG10	-71.8138	112.5243	46.13618	-39.8404	-129.74	18.92836	-146.533	51.79352	-20.8041	1.284685
EG11	-70.6699	113.8626	45.32951	-39.1556	-130.075	20.2576	-145.943	51.30558	-20.7106	1.144829

Appendix I Index Means and Number of Sites per End Group for GB and NI

Index Means for GB

	NTAXA							ASPT						
	Season 1	Season 2	Season 3	Season 4	Season 5	Season 6	Season 7	Season 1	Season 2	Season 3	Season 4	Season 5	Season 6	Season 7
EG1	10.88889	10.11111	13	14	14.66667	14.88889	16.11111	5.23333	4.31111	5.32667	5.14556	5.44	5.23778	5.35889
EG2	16.72727	17.72727	20.18182	22.09091	23.18182	23.72727	25.36364	6.05636	5.59909	5.88182	6.06182	6.10182	5.99455	6.13273
EG3	13.18182	11.27273	14.45455	16	16.81818	16.72727	18.18182	6.27455	5.35455	6.22818	6.29636	6.36727	6.27182	6.45182
EG4	15	15.77778	17	20	20.44444	20.88889	22.88889	6.66111	6.28444	6.29111	6.67444	6.53444	6.49	6.60444
EG5	17.5	14.1	18.7	20.9	22	21.3	23.6	5.996	5.641	6.36	6.278	6.358	6.416	6.468
EG6	23.5	21.875	20.875	28	27.375	26.75	29.5	6.39125	6.0825	6.09875	6.485	6.39625	6.34375	6.50375
EG7	18.5	21	16.33333	26.16667	22.33333	25.5	28.16667	6.52667	5.96	6.125	6.39667	6.38667	6.17	6.37333
EG8	16.76471	16.0625	16.70588	21.11765	21	21.29412	23.88235	6.52882	6.13313	6.48294	6.55824	6.62176	6.56412	6.69
EG9	22.08333	18.75	22.08333	26.91667	27.25	26.41667	30.08333	6.5425	6.13167	6.4525	6.58917	6.69583	6.58083	6.72333
EG10	16.66667	15.38889	17.38889	21	21.44444	21.83333	24.05556	6.67	6.30222	6.65278	6.70056	6.67778	6.66222	6.72778
EG11	17.42857	18.19048	18.7619	23.38095	22.85714	23.95238	26.19048	6.71476	6.4719	6.57238	6.75381	6.75429	6.7	6.77524
EG12	21.85714	20.85714	20.57143	27.28571	27.5	26.5	30.14286	6.47214	6.17643	6.32357	6.53857	6.55071	6.36714	6.55286
EG13	17.35294	17.17647	18.35294	22.64706	22.05882	22.76471	25.17647	6.62588	6.13647	6.59471	6.60824	6.65471	6.56059	6.65059
EG14	14.85714	14.71429	13.2381	19.7619	18.19048	18.7619	21.42857	6.80381	6.41476	6.84143	6.78857	6.81143	6.71762	6.84857
EG15	15.54545	14.81818	15.90909	20.09091	19.63636	20.27273	22.45455	6.76	6.28091	6.58273	6.71727	6.78	6.69909	6.85273
EG16	19.82353	18.64706	19.11765	23.88235	23.47059	23.29412	25.82353	6.63765	6.35824	6.37059	6.73471	6.63176	6.52353	6.71
EG17	25.53333	22.26667	23.93333	29.86667	31.73333	29.6	33.73333	6.4	6.04933	5.96733	6.402	6.414	6.28	6.42
EG18	18.72727	19.86364	19.63636	24.68182	24.59091	24.90909	27.68182	6.26727	6.01136	6.03636	6.33364	6.29864	6.16727	6.33909
EG19	20.33333	20.27778	20.55556	26.38889	26.72222	25.83333	29.77778	6.23889	5.86611	5.66722	6.24611	6.15389	5.99056	6.24611
EG20	25.4	23.6	24.9	30.3	31	30.4	33.6	6.453	6.103	6.255	6.438	6.492	6.295	6.403
EG21	24.46154	22.23077	25.23077	29.46154	30.61538	28.92308	32.53846	6.25538	5.92769	5.99538	6.27615	6.20692	6.15	6.28385
EG22	24.85	21.25	23.7	28.45	30.3	28.5	31.7	6.518	6.102	6.005	6.4065	6.3175	6.2195	6.3395
EG23	20.9	18.2	21	25.4	25.6	24.7	28.1	6.175	5.71	6.088	6.267	6.25	6.105	6.3
EG24	26.36364	23.54545	26.72727	31.72727	31.54545	31.18182	34	6.40909	6.11636	6.01182	6.40909	6.24818	6.23364	6.34455
EG25	28.21739	25.08696	26.08696	32.78261	33.21739	31.56522	35.47826	6.63304	6.32087	6.26522	6.64348	6.58957	6.44522	6.6287
EG26	24.22222	22.22222	22.92593	29	28.62963	28.07407	31.40741	6.70815	6.27074	6.36741	6.68519	6.62185	6.4737	6.63704
EG27	22.4375	20.5625	22.0625	27.0625	27.5625	27.25	30.0625	6.3175	6.12813	5.93063	6.38125	6.17875	6.22625	6.31938
EG28	21	18.77778	21.44444	24.66667	26	25	27.77778	6.11333	5.94778	5.69556	6.28444	6.06889	5.97556	6.19444
EG29	24	21.55556	22.77778	27.66667	27.66667	26.11111	29.33333	6.33333	6.44333	6.08889	6.59333	6.45111	6.39222	6.56333
EG30	17.57143	13.92857	15.21429	19.85714	20.14286	18.64286	21.85714	5.835	5.26929	5.55286	5.90714	5.98	5.75214	6.01857
EG31	29.46667	28.33333	28.86667	35.33333	35.2	34.66667	38	6.102	5.9	5.87	6.176	6.198	6.10933	6.258
EG32	24.5	24.9375	25.96875	30.71875	30.84375	31.0625	33.71875	5.75344	5.58594	5.48	5.87156	5.8325	5.75563	5.91344
EG33	24.8	24.1	24.7	31.2	31.9	31	35	5.701	5.535	5.486	5.866	5.876	5.697	5.925
EG34	30.52941	30.41176	28.94118	36.52941	36.41176	36.17647	39.47059	5.74176	5.72235	5.39176	5.90706	5.72882	5.82059	5.89353
EG35	23.09524	22.19048	24.14286	27.42857	29.09524	28.52381	31.14286	5.46	5.33429	5.32714	5.66762	5.62238	5.61095	5.73905
EG36	23.35	24.65	26.3	30.2	30.8	31	33.95	5.17	5.2365	5.27	5.3595	5.366	5.4055	5.4405
EG37	25.7	29.25	28.5	33.95	32.4	34.65	36.55	5.4435	5.3585	5.3485	5.5925	5.545	5.558	5.643
EG38	23	24.43478	22.26087	29	27.6087	28.34783	30.95652	5.0613	4.8913	4.75	5.2313	5.14304	5.0913	5.26957
EG39	22.43333	20.63333	21.43333	26.83333	27.06667	26.03333	29.4	5.40633	5.196	5.08533	5.525	5.50633	5.37367	5.59633
EG40	28.45455	27.45455	29.27273	35.72727	34.90909	34.54545	38.72727	5.98	5.66727	5.71364	6.05545	5.99455	5.90727	6.08909
EG41	21.875	23.9375	23.53125	29.21875	28.84375	29.34375	32.34375	4.8475	4.73844	4.70813	5.05094	5.01438	5.00031	5.15281
EG42	26.25	27.08333	25.83333	33.08333	32	31.16667	35	5.25667	5.05	5.0375	5.3775	5.34417	5.265	5.47167
EG43	23.76923	25.61538	23.69231	29.46154	28.38462	29.15385	31.30769	4.54	4.51538	4.44385	4.72846	4.63	4.65615	4.78538

Index Means for NI

	NTAXA							ASPT						
	Season 1	**Season 2**	**Season 3**	**Season 4**	**Season 5**	**Season 6**	**Season 7**	**Season 1**	**Season 2**	**Season 3**	**Season 4**	**Season 5**	**Season 6**	**Season 7**
EG1	22	21.875	19	26.125	26	26.125	28.375	6.535	6.27125	5.98125	6.5875	6.51625	6.35875	6.5625
EG2	18.42857	16.57143	16.71429	22	23.71429	21.71429	24.85714	6.17714	5.72286	5.70571	6.12143	6.09429	5.87571	6.11714
EG3	18.16667	17.16667	18.33333	22.66667	23.41667	22.58333	25.75	6.4725	5.99	6.14	6.4275	6.53	6.27583	6.51167
EG4	20.42857	20.28571	19.57143	25.57143	24.71429	23.71429	27	6.38286	5.81571	5.81143	6.31857	6.23429	5.97429	6.31857
EG5	21.53846	20	23.76923	26.23077	27.84615	27.53846	30.30769	6.21769	5.77538	5.97154	6.27308	6.28615	6.16308	6.34692
EG6	22.25	20.58333	21.25	26.5	27.5	26.08333	29.33333	6.02417	5.61917	5.44417	6.01667	5.98083	5.71583	6.01167
EG7	22.23529	20.41176	21.58824	27.47059	27.64706	26.29412	30.23529	5.99118	5.89235	5.47	6.18353	5.98706	5.88059	6.14765
EG8	25.7	23.2	26.3	30.8	31.9	31.2	34.4	5.321	5.012	5.274	5.469	5.529	5.423	5.601
EG9	26.33333	26.33333	25.66667	32.22222	31.77778	31.55556	34.77778	5.77889	5.57222	5.44444	5.93889	5.84222	5.64889	5.90889
EG10	24.85714	22.42857	22.42857	29	30	28.14286	32.42857	5.78571	5.70571	5.52286	5.96429	5.85857	5.80571	5.99143
EG11	22.5	28	26.66667	32.66667	30.5	33.33333	35.33333	4.98333	5.00333	4.77	5.26667	5.04	5.14167	5.27167

Appendix J Proportion of Sites per End Group by Assessment Score for GB/NI

GB Reference Sites

	Assessment Score										
End Group	1		2		3		4		5		Total sites
	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	
1	0	0.00%	8	88.89%	1	11.11%	0	0.00%	0	0.00%	9
2	4	36.36%	5	45.45%	1	9.09%	1	9.09%	0	0.00%	11
3	6	54.55%	4	36.36%	1	9.09%	0	0.00%	0	0.00%	11
4	5	55.56%	4	44.44%	0	0.00%	0	0.00%	0	0.00%	9
5	8	80.00%	2	20.00%	0	0.00%	0	0.00%	0	0.00%	10
6	3	37.50%	5	62.50%	0	0.00%	0	0.00%	0	0.00%	8
7	2	33.33%	4	66.67%	0	0.00%	0	0.00%	0	0.00%	6
8	10	58.82%	3	17.65%	3	17.65%	1	5.88%	0	0.00%	17
9	7	58.33%	4	33.33%	0	0.00%	1	8.33%	0	0.00%	12
10	8	44.44%	9	50.00%	1	5.56%	0	0.00%	0	0.00%	18
11	3	14.29%	12	57.14%	6	28.57%	0	0.00%	0	0.00%	21
12	3	21.43%	7	50.00%	4	28.57%	0	0.00%	0	0.00%	14
13	8	47.06%	7	41.18%	2	11.76%	0	0.00%	0	0.00%	17
14	13	61.90%	7	33.33%	1	4.76%	0	0.00%	0	0.00%	21
15	6	54.55%	4	36.36%	1	9.09%	0	0.00%	0	0.00%	11
16	7	41.18%	5	29.41%	5	29.41%	0	0.00%	0	0.00%	17
17	0	0.00%	7	46.67%	8	53.33%	0	0.00%	0	0.00%	15
18	2	9.09%	5	22.73%	11	50.00%	4	18.18%	0	0.00%	22
19	0	0.00%	6	33.33%	11	61.11%	1	5.56%	0	0.00%	18
20	1	10.00%	6	60.00%	3	30.00%	0	0.00%	0	0.00%	10
21	1	7.69%	4	30.77%	4	30.77%	4	30.77%	0	0.00%	13
22	1	5.00%	9	45.00%	9	45.00%	1	5.00%	0	0.00%	20
23	2	20.00%	1	10.00%	4	40.00%	3	30.00%	0	0.00%	10
24	0	0.00%	7	63.64%	4	36.36%	0	0.00%	0	0.00%	11
25	1	4.35%	12	52.17%	10	43.48%	0	0.00%	0	0.00%	23
26	8	29.63%	10	37.04%	8	29.63%	1	3.70%	0	0.00%	27
27	2	12.50%	6	37.50%	4	25.00%	4	25.00%	0	0.00%	16
28	0	0.00%	4	44.44%	2	22.22%	3	33.33%	0	0.00%	9
29	1	11.11%	2	22.22%	5	55.56%	1	11.11%	0	0.00%	9
30	5	35.71%	7	50.00%	0	0.00%	1	7.14%	1	7.14%	14
31	0	0.00%	9	60.00%	6	40.00%	0	0.00%	0	0.00%	15
32	0	0.00%	8	25.00%	22	68.75%	2	6.25%	0	0.00%	32
33	0	0.00%	3	30.00%	5	50.00%	2	20.00%	0	0.00%	10
34	0	0.00%	9	52.94%	7	41.18%	1	5.88%	0	0.00%	17
35	0	0.00%	1	4.76%	7	33.33%	10	47.62%	3	14.29%	21
36	0	0.00%	2	10.00%	13	65.00%	4	20.00%	1	5.00%	20
37	2	10.00%	10	50.00%	6	30.00%	1	5.00%	1	5.00%	20
38	0	0.00%	3	13.04%	15	65.22%	3	13.04%	2	8.70%	23
39	0	0.00%	13	43.33%	13	43.33%	3	10.00%	1	3.33%	30
40	0	0.00%	4	36.36%	6	54.55%	0	0.00%	1	9.09%	11
41	0	0.00%	3	9.38%	22	68.75%	3	9.38%	4	12.50%	32
42	1	8.33%	0	0.00%	4	33.33%	6	50.00%	1	8.33%	12
43	0	0.00%	1	7.69%	8	61.54%	3	23.08%	1	7.69%	13
Total											685

NI Reference Sites

	Assessment Score										
End Group	1		2		3		4		5		Total sites
	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	Number	Proportion	
1	2	25.00%	2	25.00%	4	50.00%	0	0.00%	0	0.00%	8
2	1	14.29%	0	0.00%	3	42.86%	1	14.29%	2	28.57%	7
3	2	16.67%	3	25.00%	4	33.33%	1	8.33%	2	16.67%	12
4	2	28.57%	0	0.00%	1	14.29%	4	57.14%	0	0.00%	7
5	2	15.38%	1	7.69%	5	38.46%	4	30.77%	1	7.69%	13
6	0	0.00%	0	0.00%	3	25.00%	6	50.00%	3	25.00%	12
7	2	11.76%	2	11.76%	2	11.76%	9	52.94%	2	11.76%	17
8	0	0.00%	1	10.00%	2	20.00%	2	20.00%	5	50.00%	10
9	0	0.00%	2	22.22%	5	55.56%	1	11.11%	1	11.11%	9
10	1	14.29%	2	28.57%	3	42.86%	1	14.29%	0	0.00%	7
11	0	0.00%	0	0.00%	1	16.67%	3	50.00%	2	33.33%	6
Total											108

Appendix K Temperature Grid Data

Easting,Northing,TEMPM,TEMPR			
1675 175 11.40 8.97	4125 2375 10.33 13.13	3825 4025 9.74 12.40	2525 6925 8.84 12.27
1725 175 11.39 8.94	4175 2375 10.32 13.16	3875 4025 9.74 12.38	2575 6925 8.88 12.39
1675 225 11.39 9.04	4225 2375 10.31 13.20	3925 4025 9.75 12.39	2625 6925 8.93 12.48
1725 225 11.38 9.01	4275 2375 10.30 13.23	3975 4025 9.76 12.42	2675 6925 8.93 12.53
1775 225 11.39 9.03	4325 2375 10.28 13.24	4025 4025 9.77 12.48	2725 6925 8.94 12.60
1375 275 11.51 9.00	4375 2375 10.25 13.23	4075 4025 9.79 12.56	2775 6925 8.93 12.64
1425 275 11.48 9.05	4425 2375 10.20 13.20	4125 4025 9.79 12.62	2825 6925 8.90 12.65
1675 275 11.42 9.32	4475 2375 10.12 13.15	4175 4025 9.80 12.67	2875 6925 8.87 12.63
1725 275 11.39 9.33	4525 2375 10.08 13.13	4225 4025 9.82 12.74	2925 6925 8.81 12.50
1775 275 11.39 9.29	4575 2375 10.05 13.14	4275 4025 9.83 12.76	2975 6925 8.78 12.37
1375 325 11.45 9.13	4625 2375 10.04 13.20	4325 4025 9.84 12.75	3025 6925 8.74 12.23
1425 325 11.43 9.21	4675 2375 10.02 13.25	4375 4025 9.85 12.77	3075 6925 8.70 12.11
1475 325 11.41 9.24	4725 2375 9.99 13.30	4425 4025 9.85 12.80	3125 6925 8.71 12.03
1525 325 11.37 9.35	4775 2375 9.96 13.30	4475 4025 9.84 12.89	3175 6925 8.73 11.91
1575 325 11.35 9.40	4825 2375 9.95 13.29	4525 4025 9.80 12.98	3225 6925 8.76 11.86
1625 325 11.32 9.46	4875 2375 9.92 13.24	4575 4025 9.74 13.05	3275 6925 8.76 11.84
1675 325 11.33 9.46	4925 2375 9.90 13.19	4625 4025 9.69 13.17	3325 6925 8.74 11.77
1725 325 11.34 9.51	4975 2375 9.90 13.19	4675 4025 9.63 13.22	1875 6975 9.02 10.16
1775 325 11.35 9.49	5025 2375 9.91 13.22	4725 4025 9.60 13.24	1925 6975 8.97 10.33
1425 375 11.38 9.18	5075 2375 9.90 13.23	4775 4025 9.58 13.28	1975 6975 8.87 10.75
1475 375 11.36 9.24	5125 2375 9.91 13.29	4825 4025 9.56 13.33	2125 6975 8.55 11.20
1525 375 11.34 9.37	5175 2375 9.90 13.33	4875 4025 9.53 13.38	2175 6975 8.54 11.30
1575 375 11.33 9.42	5225 2375 9.91 13.40	4925 4025 9.51 13.34	2225 6975 8.52 11.40
1625 375 11.31 9.49	5275 2375 9.93 13.47	4975 4025 9.51 13.31	2275 6975 8.49 11.54
1675 375 11.32 9.50	5325 2375 9.94 13.51	5025 4025 9.52 13.29	2325 6975 8.51 11.76
1725 375 11.31 9.51	5375 2375 9.95 13.53	5075 4025 9.52 13.25	2375 6975 8.57 11.98
1775 375 11.32 9.55	5425 2375 9.93 13.53	5125 4025 9.53 13.14	2425 6975 8.60 12.06
1825 375 11.33 9.56	5475 2375 9.93 13.49	5175 4025 9.56 12.97	2475 6975 8.65 12.12
1475 425 11.29 9.15	5525 2375 9.93 13.46	5225 4025 9.61 12.75	2525 6975 8.74 12.30
1525 425 11.26 9.25	5575 2375 9.94 13.47	5275 4025 9.59 12.70	2575 6975 8.79 12.37
1575 425 11.27 9.35	5625 2375 9.94 13.49	5325 4025 9.59 12.56	2625 6975 8.81 12.47
1625 425 11.27 9.40	5675 2375 9.96 13.54	3325 4075 9.78 11.92	2675 6975 8.82 12.56
1675 425 11.29 9.49	5725 2375 9.96 13.63	3375 4075 9.75 12.03	2725 6975 8.85 12.64
1725 425 11.29 9.50	5775 2375 9.99 13.61	3425 4075 9.76 12.19	2775 6975 8.85 12.66
1775 425 11.30 9.56	5825 2375 10.02 13.65	3475 4075 9.76 12.18	2825 6975 8.84 12.63
1825 425 11.31 9.60	5875 2375 10.06 13.70	3525 4075 9.74 12.11	2875 6975 8.80 12.54
1875 425 11.31 9.64	5925 2375 10.09 13.71	3575 4075 9.75 12.18	2925 6975 8.76 12.47
1925 425 11.30 9.70	5975 2375 10.05 13.54	3625 4075 9.75 12.30	2975 6975 8.71 12.40
2725 425 11.13 9.80	6025 2375 9.99 13.60	3675 4075 9.73 12.38	3025 6975 8.69 12.31
2775 425 11.12 9.80	6075 2375 9.98 13.66	3725 4075 9.71 12.40	3075 6975 8.67 12.22
2825 425 11.14 9.77	6125 2375 9.93 13.54	3775 4075 9.71 12.39	3125 6975 8.66 12.13
1675 475 11.24 9.32	6175 2375 10.07 13.51	3825 4075 9.70 12.39	3175 6975 8.67 12.08
1725 475 11.26 9.43	6225 2375 10.06 13.58	3875 4075 9.70 12.41	3225 6975 8.70 11.97

1775 475 11.29 9.54	6275 2375 10.11 13.75	3925 4075 9.72 12.40	3275 6975 8.72 11.90
1825 475 11.28 9.62	2075 2425 10.34 10.19	3975 4075 9.72 12.40	3325 6975 8.72 11.86
1875 475 11.26 9.66	2125 2425 10.29 10.21	4025 4075 9.74 12.43	3375 6975 8.70 11.84
1925 475 11.24 9.68	2175 2425 10.30 10.13	4075 4075 9.75 12.53	3425 6975 8.69 11.55
1975 475 11.25 9.68	2225 2425 10.23 10.25	4125 4075 9.76 12.62	3475 6975 8.72 11.43
2025 475 11.26 9.72	2275 2425 10.17 10.39	4175 4075 9.77 12.70	3525 6975 8.70 11.26
2675 475 11.03 10.10	2325 2425 10.15 10.62	4225 4075 9.78 12.75	1825 7025 9.13 9.65
2725 475 11.04 10.09	2375 2425 10.10 10.62	4275 4075 9.78 12.77	1875 7025 9.04 10.08
2775 475 11.02 10.06	2425 2425 10.03 10.64	4325 4075 9.79 12.76	1925 7025 8.97 10.27
2825 475 11.03 9.95	2475 2425 9.98 10.96	4375 4075 9.79 12.79	1975 7025 8.85 10.66
1725 525 11.22 9.43	2525 2425 9.98 11.03	4425 4075 9.78 12.86	2025 7025 8.75 10.97
1775 525 11.22 9.50	2575 2425 10.04 11.17	4475 4075 9.75 12.96	2075 7025 8.57 11.04
1825 525 11.22 9.56	2625 2425 10.07 11.28	4525 4075 9.71 13.02	2125 7025 8.55 11.13
1875 525 11.19 9.55	2675 2425 10.09 11.34	4575 4075 9.66 13.11	2175 7025 8.53 11.32
1925 525 11.17 9.54	2725 2425 10.11 11.54	4625 4075 9.61 13.21	2225 7025 8.46 11.54
1975 525 11.17 9.52	2775 2425 10.11 11.63	4675 4075 9.56 13.23	2275 7025 8.41 11.69
2025 525 11.16 9.56	2825 2425 10.09 11.70	4725 4075 9.53 13.26	2325 7025 8.41 11.79
2525 525 11.08 10.33	2875 2425 10.10 11.88	4775 4075 9.50 13.31	2375 7025 8.47 11.98
2575 525 11.08 10.44	2925 2425 10.13 12.00	4825 4075 9.46 13.35	2425 7025 8.52 12.09
2625 525 11.04 10.40	2975 2425 10.14 12.06	4875 4075 9.47 13.37	2475 7025 8.56 12.23
2675 525 11.01 10.20	3025 2425 10.14 12.11	4925 4075 9.49 13.34	2525 7025 8.62 12.40
2725 525 10.96 10.16	3075 2425 10.14 12.16	4975 4075 9.50 13.28	2575 7025 8.66 12.48
2775 525 11.01 10.19	3125 2425 10.14 12.27	5025 4075 9.52 13.27	2625 7025 8.70 12.51
2825 525 11.04 10.22	3175 2425 10.15 12.33	5075 4075 9.55 13.19	2675 7025 8.74 12.53
2875 525 11.02 10.25	3225 2425 10.12 12.42	5125 4075 9.60 13.06	2725 7025 8.77 12.56
1775 575 11.17 9.49	3275 2425 10.13 12.57	5175 4075 9.63 12.81	2775 7025 8.76 12.55
1825 575 11.17 9.51	3325 2425 10.13 12.65	5225 4075 9.59 12.74	2825 7025 8.73 12.52
1875 575 11.15 9.43	3375 2425 10.12 12.67	5275 4075 9.63 12.76	2875 7025 8.71 12.51
1925 575 11.13 9.45	3425 2425 10.11 12.68	5325 4075 9.70 12.48	2925 7025 8.70 12.47
1975 575 11.12 9.57	3475 2425 10.11 12.62	3325 4125 9.70 12.02	2975 7025 8.69 12.42
2025 575 11.09 9.69	3525 2425 10.12 12.57	3375 4125 9.64 12.04	3025 7025 8.68 12.37
2075 575 11.09 9.77	3575 2425 10.14 12.56	3425 4125 9.63 12.07	3075 7025 8.65 12.27
2125 575 11.13 9.88	3625 2425 10.22 12.61	3475 4125 9.66 12.12	3125 7025 8.64 12.18
2175 575 11.16 9.98	3675 2425 10.34 12.76	3525 4125 9.70 12.14	3175 7025 8.63 12.15
2225 575 11.18 10.09	3725 2425 10.37 12.82	3575 4125 9.71 12.14	3225 7025 8.64 12.14
2275 575 11.21 10.22	3775 2425 10.39 12.86	3625 4125 9.70 12.26	3275 7025 8.68 11.96
2325 575 11.21 10.31	3825 2425 10.39 12.92	3675 4125 9.70 12.36	3325 7025 8.69 11.90
2375 575 11.18 10.43	3875 2425 10.39 12.98	3725 4125 9.70 12.39	3375 7025 8.70 11.90
2425 575 11.12 10.48	3925 2425 10.38 13.01	3775 4125 9.70 12.39	3425 7025 8.67 11.79
2475 575 11.07 10.50	3975 2425 10.38 13.03	3825 4125 9.69 12.39	3475 7025 8.65 11.46
2525 575 11.03 10.52	4025 2425 10.36 13.03	3875 4125 9.68 12.40	3525 7025 8.69 11.33
2575 575 11.01 10.59	4075 2425 10.35 13.04	3925 4125 9.68 12.41	3575 7025 8.67 11.03
2625 575 10.99 10.51	4125 2425 10.34 13.09	3975 4125 9.68 12.43	1825 7075 9.12 9.66
2675 575 10.94 10.50	4175 2425 10.33 13.12	4025 4125 9.69 12.40	1875 7075 9.04 10.01
2725 575 10.95 10.58	4225 2425 10.31 13.16	4075 4125 9.69 12.47	1925 7075 8.99 10.28
2775 575 10.94 10.49	4275 2425 10.29 13.20	4125 4125 9.71 12.59	1975 7075 8.85 10.55

2825 575 10.99 10.53	4325 2425 10.27 13.22	4175 4125 9.71 12.68	2025 7075 8.75 10.95
2875 575 11.05 10.59	4375 2425 10.23 13.22	4225 4125 9.72 12.75	2075 7075 8.56 11.02
2925 575 11.02 10.24	4425 2425 10.17 13.18	4275 4125 9.73 12.77	2125 7075 8.53 11.07
1825 625 11.15 9.50	4475 2425 10.10 13.15	4325 4125 9.74 12.81	2175 7075 8.51 11.34
1875 625 11.11 9.38	4525 2425 10.07 13.16	4375 4125 9.73 12.86	2225 7075 8.42 11.63
1925 625 11.10 9.40	4575 2425 10.05 13.20	4425 4125 9.71 12.92	2275 7075 8.38 11.72
1975 625 11.06 9.57	4625 2425 10.03 13.27	4475 4125 9.67 12.98	2325 7075 8.39 11.80
2025 625 11.02 9.69	4675 2425 10.02 13.31	4525 4125 9.63 13.04	2375 7075 8.42 11.96
2075 625 11.02 9.67	4725 2425 9.98 13.34	4575 4125 9.58 13.16	2425 7075 8.45 12.02
2125 625 11.06 9.87	4775 2425 9.96 13.34	4625 4125 9.52 13.23	2475 7075 8.49 12.11
2175 625 11.07 10.14	4825 2425 9.93 13.29	4675 4125 9.49 13.24	2525 7075 8.57 12.34
2225 625 11.09 10.11	4875 2425 9.90 13.21	4725 4125 9.46 13.22	2575 7075 8.62 12.48
2275 625 11.07 10.24	4925 2425 9.90 13.22	4775 4125 9.44 13.26	2625 7075 8.64 12.52
2325 625 11.09 10.28	4975 2425 9.89 13.22	4825 4125 9.44 13.32	2675 7075 8.65 12.55
2375 625 11.10 10.56	5025 2425 9.89 13.24	4875 4125 9.46 13.34	2725 7075 8.68 12.57
2425 625 11.08 10.77	5075 2425 9.89 13.27	4925 4125 9.49 13.31	2775 7075 8.69 12.57
2475 625 11.07 10.75	5125 2425 9.90 13.35	4975 4125 9.51 13.29	2825 7075 8.69 12.55
2525 625 11.00 10.71	5175 2425 9.92 13.44	5025 4125 9.55 13.24	2875 7075 8.69 12.53
2575 625 10.95 10.70	5225 2425 9.93 13.47	5075 4125 9.61 13.13	2925 7075 8.68 12.50
2625 625 10.90 10.79	5275 2425 9.94 13.52	5125 4125 9.66 12.89	2975 7075 8.67 12.46
2675 625 10.81 10.67	5325 2425 9.94 13.55	5175 4125 9.60 12.79	3025 7075 8.66 12.40
2725 625 10.78 10.70	5375 2425 9.95 13.56	5225 4125 9.63 12.80	3075 7075 8.65 12.32
2775 625 10.85 10.70	5425 2425 9.94 13.56	5425 4125 9.71 12.22	3125 7075 8.63 12.23
2825 625 10.98 10.73	5475 2425 9.94 13.53	3375 4175 9.57 11.93	3175 7075 8.62 12.18
2875 625 11.03 10.73	5525 2425 9.94 13.51	3425 4175 9.57 11.94	3225 7075 8.62 12.20
1875 675 11.12 9.50	5575 2425 9.95 13.50	3475 4175 9.59 12.11	3275 7075 8.66 12.07
1925 675 11.07 9.39	5625 2425 9.95 13.57	3525 4175 9.64 12.14	3325 7075 8.70 11.93
1975 675 11.03 9.52	5675 2425 9.96 13.62	3575 4175 9.66 12.16	3375 7075 8.70 11.91
2025 675 10.94 9.52	5725 2425 9.96 13.62	3625 4175 9.67 12.22	3425 7075 8.69 11.87
2075 675 10.95 9.67	5775 2425 9.98 13.63	3675 4175 9.67 12.31	3475 7075 8.65 11.50
2125 675 10.93 9.84	5825 2425 10.02 13.65	3725 4175 9.69 12.38	3525 7075 8.68 11.46
2175 675 10.97 10.07	5875 2425 10.07 13.70	3775 4175 9.68 12.42	3575 7075 8.66 11.08
2225 675 10.95 10.14	5925 2425 10.07 13.68	3825 4175 9.68 12.44	3625 7075 8.67 11.03
2275 675 10.97 10.35	5975 2425 10.03 13.63	3875 4175 9.65 12.41	1825 7125 9.12 9.65
2325 675 10.99 10.57	6025 2425 9.98 13.66	3925 4175 9.64 12.40	1875 7125 9.08 9.87
2375 675 11.00 10.69	6075 2425 9.97 13.69	3975 4175 9.64 12.43	1925 7125 8.99 10.24
2425 675 10.99 10.71	6125 2425 9.94 13.56	4025 4175 9.63 12.43	1975 7125 8.88 10.34
2475 675 10.94 10.79	6175 2425 9.96 13.56	4075 4175 9.65 12.43	2025 7125 8.74 10.80
2525 675 10.89 10.75	6225 2425 10.01 13.46	4125 4175 9.64 12.51	2075 7125 8.60 11.00
2575 675 10.80 10.71	6275 2425 10.07 13.57	4175 4175 9.66 12.64	2125 7125 8.54 11.04
2625 675 10.77 10.74	6325 2425 10.08 13.64	4225 4175 9.67 12.73	2175 7125 8.49 11.30
2675 675 10.67 10.69	6375 2425 10.05 13.53	4275 4175 9.68 12.80	2225 7125 8.41 11.65
2725 675 10.68 10.73	2175 2475 10.35 10.27	4325 4175 9.67 12.87	2275 7125 8.37 11.74
2775 675 10.73 10.78	2225 2475 10.33 10.22	4375 4175 9.67 12.93	2325 7125 8.37 11.79
2825 675 10.85 10.86	2275 2475 10.30 10.27	4425 4175 9.65 12.96	2375 7125 8.40 11.93
2875 675 11.00 10.87	2325 2475 10.19 10.38	4475 4175 9.63 13.01	2425 7125 8.43 12.02

2925 675 10.95 10.71	2375 2475 10.18 10.52	4525 4175 9.59 13.10	2475 7125 8.44 12.06
1875 725 11.09 9.51	2425 2475 10.13 10.67	4575 4175 9.52 13.21	2525 7125 8.48 12.19
1925 725 11.07 9.46	2475 2475 10.04 10.64	4625 4175 9.48 13.21	2575 7125 8.55 12.35
1975 725 11.03 9.53	2525 2475 9.99 10.86	4675 4175 9.45 13.19	2625 7125 8.60 12.46
2025 725 10.93 9.50	2575 2475 9.97 11.02	4725 4175 9.42 13.16	2675 7125 8.61 12.55
2075 725 10.89 9.69	2625 2475 10.06 11.20	4775 4175 9.41 13.20	2725 7125 8.62 12.62
2125 725 10.90 9.84	2675 2475 10.07 11.28	4825 4175 9.43 13.30	2775 7125 8.62 12.68
2175 725 10.83 9.97	2725 2475 10.08 11.39	4875 4175 9.46 13.31	2825 7125 8.63 12.66
2225 725 10.81 10.32	2775 2475 10.10 11.57	4925 4175 9.49 13.29	2875 7125 8.63 12.67
2275 725 10.80 10.45	2825 2475 10.09 11.67	4975 4175 9.53 13.27	2925 7125 8.62 12.66
2325 725 10.84 10.68	2875 2475 10.10 11.78	5025 4175 9.60 13.18	2975 7125 8.61 12.63
2375 725 10.84 10.73	2925 2475 10.13 11.98	5075 4175 9.66 12.99	3025 7125 8.61 12.57
2425 725 10.84 10.79	2975 2475 10.13 12.05	5125 4175 9.62 12.82	3075 7125 8.63 12.40
2475 725 10.82 10.79	3025 2475 10.14 12.10	5175 4175 9.60 12.79	3125 7125 8.64 12.28
2525 725 10.78 10.73	3075 2475 10.14 12.15	5225 4175 9.70 12.87	3175 7125 8.62 12.22
2575 725 10.73 10.76	3125 2475 10.14 12.23	5275 4175 9.75 12.76	3225 7125 8.62 12.19
2625 725 10.67 10.76	3175 2475 10.13 12.34	5325 4175 9.74 12.47	3275 7125 8.64 12.11
2675 725 10.67 10.80	3225 2475 10.13 12.48	5375 4175 9.70 12.22	3325 7125 8.70 11.96
2725 725 10.68 10.81	3275 2475 10.12 12.63	3425 4225 9.55 11.92	3375 7125 8.70 11.96
2775 725 10.69 10.80	3325 2475 10.11 12.71	3475 4225 9.56 12.03	3425 7125 8.68 11.94
2825 725 10.79 10.93	3375 2475 10.11 12.74	3525 4225 9.58 12.11	3475 7125 8.67 11.58
2875 725 10.93 11.15	3425 2475 10.10 12.73	3575 4225 9.62 12.13	3525 7125 8.69 11.45
2925 725 10.93 10.89	3475 2475 10.09 12.67	3625 4225 9.65 12.16	3575 7125 8.65 11.11
1925 775 11.08 9.53	3525 2475 10.09 12.58	3675 4225 9.66 12.24	1375 7175 9.30 8.87
1975 775 11.00 9.54	3575 2475 10.11 12.58	3725 4225 9.66 12.32	1425 7175 9.30 8.95
2025 775 10.97 9.61	3625 2475 10.14 12.61	3775 4225 9.67 12.39	1475 7175 9.29 9.08
2075 775 10.84 9.72	3675 2475 10.30 12.77	3825 4225 9.66 12.44	1525 7175 9.26 9.16
2125 775 10.86 9.77	3725 2475 10.36 12.90	3875 4225 9.64 12.40	1825 7175 9.12 9.64
2175 775 10.76 10.07	3775 2475 10.38 12.91	3925 4225 9.62 12.36	1875 7175 9.09 9.77
2225 775 10.75 10.30	3825 2475 10.37 12.97	3975 4225 9.60 12.38	1925 7175 9.00 10.20
2275 775 10.76 10.45	3875 2475 10.37 13.01	4025 4225 9.60 12.40	1975 7175 8.89 10.36
2325 775 10.77 10.56	3925 2475 10.37 13.01	4075 4225 9.60 12.42	2025 7175 8.74 10.68
2375 775 10.80 10.71	3975 2475 10.36 13.03	4125 4225 9.60 12.48	2075 7175 8.66 10.94
2425 775 10.78 10.76	4025 2475 10.36 13.04	4175 4225 9.60 12.54	2125 7175 8.54 11.03
2475 775 10.75 10.79	4075 2475 10.35 13.06	4225 4225 9.61 12.65	2175 7175 8.49 11.21
2525 775 10.70 10.85	4125 2475 10.34 13.08	4275 4225 9.63 12.77	2225 7175 8.43 11.63
2575 775 10.65 10.88	4175 2475 10.32 13.11	4325 4225 9.64 12.88	2275 7175 8.37 11.74
2625 775 10.61 10.94	4225 2475 10.30 13.15	4375 4225 9.63 12.95	2325 7175 8.37 11.77
2675 775 10.61 11.05	4275 2475 10.28 13.18	4425 4225 9.62 12.98	2375 7175 8.38 11.89
2725 775 10.62 11.09	4325 2475 10.25 13.17	4475 4225 9.59 13.03	2425 7175 8.41 12.03
2775 775 10.65 11.02	4375 2475 10.20 13.17	4525 4225 9.53 13.15	2475 7175 8.41 12.13
2825 775 10.70 10.92	4425 2475 10.14 13.16	4575 4225 9.47 13.16	2525 7175 8.41 12.23
2875 775 10.84 11.20	4475 2475 10.09 13.16	4625 4225 9.44 13.13	2575 7175 8.45 12.43
2925 775 10.85 11.24	4525 2475 10.06 13.20	4675 4225 9.42 13.13	2625 7175 8.48 12.52
2975 775 10.87 11.04	4575 2475 10.05 13.24	4725 4225 9.39 13.16	2675 7175 8.51 12.60
3675 775 11.08 10.98	4625 2475 10.03 13.30	4775 4225 9.39 13.20	2725 7175 8.54 12.69

4475 775 10.81 11.14	4675 2475 10.00 13.36	4825 4225 9.43 13.26	2775 7175 8.56 12.79
4525 775 10.78 11.10	4725 2475 9.97 13.36	5125 4225 9.62 12.85	2825 7175 8.56 12.79
1975 825 11.03 9.61	4775 2475 9.95 13.33	5175 4225 9.68 12.85	2875 7175 8.57 12.75
2025 825 10.97 9.61	4825 2475 9.91 13.24	5225 4225 9.74 12.92	2925 7175 8.57 12.72
2075 825 10.84 9.84	4875 2475 9.89 13.23	5275 4225 9.72 12.61	2975 7175 8.56 12.68
2125 825 10.80 9.73	4925 2475 9.89 13.24	5325 4225 9.72 12.37	3025 7175 8.56 12.63
2175 825 10.75 10.08	4975 2475 9.89 13.26	5375 4225 9.69 12.26	3075 7175 8.57 12.55
2225 825 10.71 10.19	5025 2475 9.89 13.30	3475 4275 9.53 11.99	3125 7175 8.63 12.35
2275 825 10.73 10.36	5075 2475 9.88 13.33	3525 4275 9.55 12.04	3325 7175 8.70 12.01
2325 825 10.73 10.48	5125 2475 9.91 13.44	3575 4275 9.56 12.10	3375 7175 8.70 11.99
2375 825 10.70 10.67	5175 2475 9.93 13.51	3625 4275 9.60 12.14	3425 7175 8.66 11.95
2425 825 10.67 10.85	5225 2475 9.95 13.55	3675 4275 9.63 12.20	3475 7175 8.73 11.69
2475 825 10.64 10.94	5275 2475 9.95 13.56	3725 4275 9.64 12.27	1475 7225 9.24 9.05
2525 825 10.63 10.99	5325 2475 9.95 13.57	3775 4275 9.64 12.33	1525 7225 9.23 9.17
2575 825 10.61 11.06	5375 2475 9.94 13.58	3825 4275 9.64 12.40	1575 7225 9.20 9.25
2625 825 10.58 11.15	5425 2475 9.94 13.59	3875 4275 9.63 12.39	1625 7225 9.18 9.35
2675 825 10.57 11.24	5475 2475 9.93 13.57	3925 4275 9.59 12.33	1675 7225 9.15 9.40
2725 825 10.58 11.26	5525 2475 9.93 13.56	3975 4275 9.56 12.32	1725 7225 9.15 9.45
2775 825 10.59 11.30	5575 2475 9.94 13.59	4025 4275 9.54 12.36	1875 7225 9.10 9.71
2825 825 10.62 11.35	5625 2475 9.94 13.62	4075 4275 9.53 12.40	1925 7225 9.02 10.09
2875 825 10.68 11.32	5675 2475 9.94 13.67	4125 4275 9.53 12.44	1975 7225 8.92 10.25
2925 825 10.72 11.29	5725 2475 9.95 13.68	4175 4275 9.54 12.49	2025 7225 8.78 10.57
2975 825 10.76 11.29	5775 2475 9.97 13.66	4225 4275 9.54 12.56	2075 7225 8.68 10.77
3025 825 10.79 11.05	5825 2475 10.00 13.68	4275 4275 9.55 12.64	2125 7225 8.54 10.99
3075 825 10.86 11.02	5875 2475 10.04 13.66	4325 4275 9.56 12.73	2175 7225 8.49 11.11
3625 825 11.04 11.13	5925 2475 10.04 13.68	4375 4275 9.56 12.84	2225 7225 8.45 11.50
3675 825 11.04 11.20	5975 2475 10.03 13.67	4425 4275 9.53 12.89	2275 7225 8.39 11.72
3725 825 11.03 11.27	6025 2475 9.99 13.68	4475 4275 9.49 12.97	2325 7225 8.37 11.77
3775 825 10.99 11.24	6075 2475 9.94 13.68	4525 4275 9.45 13.07	2375 7225 8.37 11.85
3825 825 10.95 11.33	6125 2475 9.91 13.55	4575 4275 9.43 13.10	2425 7225 8.38 12.06
3875 825 10.88 11.45	6175 2475 9.91 13.43	4625 4275 9.41 13.10	2475 7225 8.37 12.24
3925 825 10.81 11.49	6225 2475 10.03 13.45	4675 4275 9.39 13.13	2525 7225 8.37 12.31
3975 825 10.74 11.47	6275 2475 10.03 13.53	4725 4275 9.37 13.16	2575 7225 8.40 12.47
4025 825 10.75 11.44	6325 2475 10.08 13.59	4775 4275 9.38 13.18	2625 7225 8.43 12.56
4425 825 10.77 11.27	6375 2475 10.06 13.52	4825 4275 9.42 13.18	2675 7225 8.46 12.62
4475 825 10.78 11.32	6425 2475 10.06 13.54	4875 4275 9.46 13.22	2725 7225 8.49 12.64
4525 825 10.81 11.39	2225 2525 10.34 10.27	4925 4275 9.51 13.24	2775 7225 8.52 12.69
4575 825 10.82 11.44	2275 2525 10.38 10.28	4975 4275 9.61 13.25	2825 7225 8.54 12.72
2075 875 10.87 9.68	2325 2525 10.35 10.26	5025 4275 9.67 13.08	2875 7225 8.53 12.70
2125 875 10.80 9.81	2375 2525 10.24 10.40	5075 4275 9.69 12.97	2925 7225 8.53 12.69
2175 875 10.71 9.82	2425 2525 10.19 10.50	5125 4275 9.66 12.90	2975 7225 8.52 12.64
2225 875 10.69 10.15	2475 2525 10.12 10.72	5175 4275 9.70 12.82	3025 7225 8.52 12.62
2275 875 10.69 10.26	2525 2525 10.06 10.67	5225 4275 9.76 12.77	3075 7225 8.54 12.57
2325 875 10.67 10.47	2575 2525 9.98 10.83	5275 4275 9.71 12.48	3125 7225 8.59 12.43
2375 875 10.60 10.69	2625 2525 9.98 11.03	5325 4275 9.73 12.38	3175 7225 8.63 12.34
2425 875 10.62 10.91	2675 2525 10.05 11.24	3375 4325 9.49 11.87	3225 7225 8.63 12.30

2475 875 10.61 10.97	2725 2525 10.06 11.30	3425 4325 9.50 11.92	3275 7225 8.65 12.19
2525 875 10.60 11.03	2775 2525 10.08 11.45	3475 4325 9.50 11.96	3425 7225 8.69 11.92
2575 875 10.58 11.15	2825 2525 10.09 11.63	3525 4325 9.52 11.99	3475 7225 8.74 11.70
2625 875 10.56 11.26	2875 2525 10.09 11.72	3575 4325 9.53 12.04	1475 7275 9.21 9.06
2675 875 10.57 11.30	2925 2525 10.12 11.92	3625 4325 9.55 12.12	1525 7275 9.19 9.14
2725 875 10.57 11.35	2975 2525 10.13 12.00	3675 4325 9.58 12.19	1575 7275 9.18 9.26
2775 875 10.58 11.34	3025 2525 10.13 12.07	3725 4325 9.60 12.25	1625 7275 9.16 9.36
2825 875 10.58 11.34	3075 2525 10.13 12.16	3775 4325 9.61 12.31	1675 7275 9.14 9.41
2875 875 10.60 11.33	3125 2525 10.13 12.24	3825 4325 9.61 12.34	1725 7275 9.14 9.45
2925 875 10.60 11.37	3175 2525 10.13 12.38	3875 4325 9.59 12.31	1875 7275 9.10 9.69
2975 875 10.66 11.28	3225 2525 10.15 12.53	3925 4325 9.57 12.29	1925 7275 9.04 9.96
3025 875 10.73 11.17	3275 2525 10.14 12.63	3975 4325 9.54 12.35	1975 7275 8.90 10.25
3075 875 10.72 11.14	3325 2525 10.11 12.72	4025 4325 9.51 12.38	2025 7275 8.84 10.37
3125 875 10.74 11.12	3375 2525 10.12 12.82	4075 4325 9.49 12.41	2075 7275 8.69 10.73
3575 875 10.93 11.25	3425 2525 10.10 12.80	4125 4325 9.48 12.43	2125 7275 8.59 10.90
3625 875 10.95 11.30	3475 2525 10.09 12.70	4175 4325 9.49 12.48	2175 7275 8.51 11.07
3675 875 10.93 11.42	3525 2525 10.09 12.63	4225 4325 9.50 12.56	2225 7275 8.45 11.35
3725 875 10.95 11.56	3575 2525 10.12 12.68	4275 4325 9.50 12.64	2275 7275 8.40 11.68
3775 875 10.92 11.57	3625 2525 10.12 12.68	4325 4325 9.50 12.72	2325 7275 8.37 11.76
3825 875 10.88 11.67	3675 2525 10.18 12.74	4375 4325 9.49 12.78	2375 7275 8.36 11.81
3875 875 10.81 11.70	3725 2525 10.32 12.89	4425 4325 9.47 12.84	2425 7275 8.36 12.04
3925 875 10.77 11.86	3775 2525 10.35 12.96	4475 4325 9.43 12.99	2475 7275 8.36 12.25
3975 875 10.75 11.73	3825 2525 10.35 13.02	4525 4325 9.41 13.06	2525 7275 8.36 12.32
4325 875 10.80 11.75	3875 2525 10.35 13.01	4575 4325 9.40 13.08	2575 7275 8.36 12.43
4375 875 10.79 11.64	3925 2525 10.35 13.01	4625 4325 9.38 13.12	2625 7275 8.39 12.55
4425 875 10.80 11.68	3975 2525 10.35 13.01	4675 4325 9.37 13.15	2675 7275 8.42 12.61
4475 875 10.84 11.66	4025 2525 10.34 13.04	4725 4325 9.37 13.17	2725 7275 8.44 12.64
4525 875 10.89 11.76	4075 2525 10.34 13.06	4775 4325 9.39 13.15	2775 7275 8.49 12.67
4575 875 10.95 11.95	4125 2525 10.34 13.08	4825 4325 9.41 13.12	2825 7275 8.52 12.68
4625 875 10.93 12.01	4175 2525 10.31 13.10	4875 4325 9.44 13.13	2875 7275 8.52 12.67
2125 925 10.79 9.88	4225 2525 10.29 13.13	4925 4325 9.50 13.19	2925 7275 8.51 12.62
2175 925 10.74 9.84	4275 2525 10.26 13.14	4975 4325 9.62 13.23	2975 7275 8.49 12.60
2225 925 10.64 10.02	4325 2525 10.21 13.13	5025 4325 9.67 13.07	3025 7275 8.49 12.60
2275 925 10.69 10.23	4375 2525 10.16 13.14	5075 4325 9.69 12.98	3075 7275 8.51 12.61
2325 925 10.64 10.31	4425 2525 10.12 13.17	5125 4325 9.69 12.96	3125 7275 8.55 12.54
2375 925 10.58 10.64	4475 2525 10.08 13.20	5175 4325 9.70 12.72	3175 7275 8.61 12.38
2425 925 10.56 10.76	4525 2525 10.06 13.25	5225 4325 9.74 12.64	3225 7275 8.62 12.30
2475 925 10.59 10.96	4575 2525 10.04 13.30	5275 4325 9.73 12.39	3275 7275 8.64 12.22
2525 925 10.57 11.11	4625 2525 10.02 13.36	3375 4375 9.44 11.87	3325 7275 8.68 11.97
2575 925 10.57 11.23	4675 2525 9.98 13.37	3425 4375 9.46 11.86	3375 7275 8.70 11.97
2625 925 10.55 11.28	4725 2525 9.95 13.36	3475 4375 9.44 11.76	3425 7275 8.69 11.97
2675 925 10.55 11.32	4775 2525 9.91 13.26	3525 4375 9.46 11.84	1525 7325 9.17 9.13
2725 925 10.56 11.36	4825 2525 9.90 13.23	3575 4375 9.49 11.97	1575 7325 9.14 9.25
2775 925 10.57 11.38	4875 2525 9.88 13.25	3625 4375 9.52 12.09	1625 7325 9.13 9.37
2825 925 10.57 11.38	4925 2525 9.88 13.27	3675 4375 9.52 12.15	1675 7325 9.13 9.42
2875 925 10.57 11.38	4975 2525 9.89 13.32	3725 4375 9.53 12.20	1725 7325 9.13 9.47

2925 925 10.56 11.33	5025 2525 9.89 13.37	3775 4375 9.54 12.23	1775 7325 9.13 9.56
2975 925 10.56 11.36	5075 2525 9.88 13.39	3825 4375 9.54 12.23	2075 7325 8.72 10.61
3025 925 10.59 11.34	5125 2525 9.92 13.49	3875 4375 9.54 12.21	2125 7325 8.63 10.75
3075 925 10.61 11.22	5175 2525 9.95 13.57	3925 4375 9.53 12.27	2175 7325 8.53 11.00
3125 925 10.68 11.09	5225 2525 9.95 13.58	3975 4375 9.52 12.37	2225 7325 8.45 11.20
3175 925 10.69 11.04	5275 2525 9.96 13.62	4025 4375 9.50 12.41	2275 7325 8.42 11.56
3225 925 10.69 11.01	5325 2525 9.94 13.59	4075 4375 9.48 12.44	2325 7325 8.38 11.75
3275 925 10.74 11.11	5375 2525 9.93 13.59	4125 4375 9.48 12.49	2375 7325 8.37 11.80
3325 925 10.72 11.05	5425 2525 9.93 13.60	4175 4375 9.49 12.60	2425 7325 8.36 11.96
3375 925 10.76 11.17	5475 2525 9.92 13.61	4225 4375 9.50 12.68	2475 7325 8.35 12.23
3425 925 10.75 11.13	5525 2525 9.91 13.61	4275 4375 9.50 12.72	2525 7325 8.35 12.29
3475 925 10.79 11.29	5575 2525 9.92 13.65	4325 4375 9.48 12.77	2575 7325 8.34 12.37
3525 925 10.81 11.34	5625 2525 9.91 13.67	4375 4375 9.47 12.81	2625 7325 8.37 12.54
3575 925 10.83 11.36	5675 2525 9.92 13.73	4425 4375 9.45 12.91	2675 7325 8.39 12.59
3625 925 10.83 11.44	5725 2525 9.92 13.74	4475 4375 9.41 13.04	2725 7325 8.42 12.61
3675 925 10.84 11.64	5775 2525 9.94 13.74	4525 4375 9.39 13.08	2775 7325 8.45 12.64
3725 925 10.80 11.71	5825 2525 9.96 13.75	4575 4375 9.39 13.10	2825 7325 8.51 12.67
3775 925 10.73 11.78	5875 2525 10.00 13.70	4625 4375 9.38 13.13	2875 7325 8.51 12.64
3825 925 10.68 11.88	5925 2525 10.02 13.67	4675 4375 9.37 13.14	2925 7325 8.50 12.60
3875 925 10.67 11.93	5975 2525 10.01 13.67	4725 4375 9.39 13.12	2975 7325 8.48 12.60
3925 925 10.68 11.95	6025 2525 9.99 13.65	4775 4375 9.40 13.09	3025 7325 8.48 12.58
3975 925 10.63 12.02	6075 2525 9.92 13.61	4825 4375 9.42 13.07	3075 7325 8.50 12.57
4025 925 10.64 12.05	6125 2525 9.90 13.50	4875 4375 9.44 13.06	3125 7325 8.52 12.56
4075 925 10.63 12.09	6175 2525 9.88 13.51	4925 4375 9.49 13.06	3175 7325 8.57 12.46
4125 925 10.63 11.99	6225 2525 9.91 13.43	4975 4375 9.62 13.11	3225 7325 8.60 12.28
4175 925 10.68 12.09	6275 2525 10.01 13.32	5025 4375 9.66 13.10	3275 7325 8.62 12.24
4225 925 10.67 11.99	6325 2525 10.08 13.49	5075 4375 9.68 12.97	3325 7325 8.67 12.02
4275 925 10.73 12.09	6375 2525 10.06 13.54	5125 4375 9.64 12.88	3375 7325 8.68 11.99
4425 925 10.84 12.00	6425 2525 10.05 13.52	5175 4375 9.68 12.64	3425 7325 8.67 11.96
4475 925 10.86 12.03	6475 2525 10.05 13.53	5225 4375 9.67 12.34	3475 7325 8.69 11.78
4525 925 10.85 12.06	2375 2575 10.35 10.31	3375 4425 9.41 11.85	3525 7325 8.69 11.50
4575 925 10.83 12.09	2425 2575 10.27 10.45	3425 4425 9.38 11.74	3575 7325 8.67 11.42
2175 975 10.76 9.93	2475 2575 10.20 10.50	3475 4425 9.40 11.72	1525 7375 9.15 9.13
2225 975 10.66 9.82	2525 2575 10.12 10.69	3525 4425 9.41 11.74	1575 7375 9.12 9.27
2275 975 10.64 10.12	2575 2575 10.06 10.68	3575 4425 9.41 11.82	1625 7375 9.11 9.35
2325 975 10.66 10.29	2625 2575 9.99 10.89	3625 4425 9.44 11.97	1675 7375 9.11 9.44
2375 975 10.58 10.43	2675 2575 9.99 11.07	3675 4425 9.45 12.05	1975 7375 8.91 10.17
2425 975 10.56 10.76	2725 2575 10.04 11.27	3725 4425 9.45 12.12	2025 7375 8.85 10.23
2475 975 10.54 10.91	2775 2575 10.05 11.34	3775 4425 9.45 12.15	2075 7375 8.81 10.38
2525 975 10.56 11.11	2825 2575 10.07 11.57	3825 4425 9.46 12.14	2125 7375 8.67 10.70
2575 975 10.56 11.23	2875 2575 10.08 11.69	3875 4425 9.47 12.15	2175 7375 8.56 10.89
2625 975 10.55 11.29	2925 2575 10.10 11.82	3925 4425 9.49 12.22	2225 7375 8.46 11.14
2675 975 10.54 11.34	2975 2575 10.13 12.00	3975 4425 9.50 12.38	2275 7375 8.42 11.40
2725 975 10.54 11.35	3025 2575 10.13 12.06	4025 4425 9.48 12.44	2325 7375 8.39 11.69
2775 975 10.54 11.40	3075 2575 10.12 12.16	4075 4425 9.47 12.51	2375 7375 8.37 11.77
2825 975 10.56 11.41	3125 2575 10.12 12.32	4125 4425 9.49 12.66	2425 7375 8.35 11.86

2875 975 10.55 11.39	3175 2575 10.13 12.49	4175 4425 9.49 12.73	2475 7375 8.34 12.15
2925 975 10.56 11.34	3225 2575 10.15 12.61	4225 4425 9.49 12.77	2525 7375 8.34 12.26
2975 975 10.54 11.35	3275 2575 10.15 12.70	4275 4425 9.48 12.79	2575 7375 8.33 12.31
3025 975 10.51 11.27	3325 2575 10.12 12.76	4325 4425 9.47 12.81	2625 7375 8.35 12.41
3075 975 10.51 11.30	3375 2575 10.11 12.81	4375 4425 9.45 12.86	2675 7375 8.39 12.54
3125 975 10.52 11.26	3425 2575 10.09 12.80	4425 4425 9.42 12.95	2725 7375 8.41 12.59
3175 975 10.53 11.26	3475 2575 10.09 12.78	4475 4425 9.40 13.05	2775 7375 8.44 12.62
3225 975 10.59 11.33	3525 2575 10.09 12.72	4525 4425 9.38 13.10	2825 7375 8.48 12.63
3275 975 10.59 11.27	3575 2575 10.10 12.71	4575 4425 9.37 13.12	2875 7375 8.50 12.61
3325 975 10.63 11.41	3625 2575 10.11 12.72	4625 4425 9.37 13.13	2925 7375 8.47 12.62
3375 975 10.61 11.34	3675 2575 10.14 12.72	4675 4425 9.38 13.10	2975 7375 8.49 12.58
3425 975 10.65 11.39	3725 2575 10.21 12.79	4725 4425 9.41 13.06	3025 7375 8.49 12.56
3475 975 10.65 11.41	3775 2575 10.29 12.98	4775 4425 9.43 13.03	3075 7375 8.51 12.53
3525 975 10.69 11.39	3825 2575 10.32 13.01	4825 4425 9.45 13.03	3125 7375 8.51 12.53
3575 975 10.69 11.59	3875 2575 10.32 13.02	4875 4425 9.47 13.04	3175 7375 8.53 12.52
3625 975 10.69 11.67	3925 2575 10.32 13.00	4925 4425 9.51 13.00	3225 7375 8.58 12.34
3675 975 10.67 11.84	3975 2575 10.31 13.03	4975 4425 9.58 13.00	3275 7375 8.61 12.27
3725 975 10.63 11.86	4025 2575 10.31 13.06	5025 4425 9.60 13.01	3325 7375 8.64 12.20
3775 975 10.64 11.95	4075 2575 10.31 13.07	5075 4425 9.65 12.84	3375 7375 8.67 12.01
3825 975 10.62 11.93	4125 2575 10.31 13.10	5125 4425 9.60 12.71	3425 7375 8.66 11.99
3875 975 10.61 12.01	4175 2575 10.30 13.10	5175 4425 9.62 12.62	3475 7375 8.65 11.95
3925 975 10.61 12.04	4225 2575 10.27 13.11	5225 4425 9.62 12.24	3525 7375 8.66 11.60
3975 975 10.59 12.09	4275 2575 10.22 13.09	3375 4475 9.40 11.86	3575 7375 8.65 11.37
4025 975 10.63 12.23	4325 2575 10.18 13.10	3425 4475 9.34 11.69	3625 7375 8.59 11.23
4075 975 10.63 12.31	4375 2575 10.13 13.13	3475 4475 9.33 11.70	3675 7375 8.58 11.29
4125 975 10.61 12.35	4425 2575 10.10 13.17	3525 4475 9.37 11.73	1425 7425 9.20 8.95
4175 975 10.58 12.30	4475 2575 10.08 13.23	3575 4475 9.37 11.80	1475 7425 9.15 9.02
4225 975 10.59 12.24	4525 2575 10.06 13.30	3625 4475 9.37 11.86	1525 7425 9.13 9.14
4275 975 10.70 12.24	4575 2575 10.04 13.36	3675 4475 9.39 11.94	1575 7425 9.10 9.29
4325 975 10.78 12.20	4625 2575 10.01 13.39	3725 4475 9.41 12.03	1625 7425 9.09 9.36
4375 975 10.83 12.29	4675 2575 9.97 13.37	3775 4475 9.41 12.08	1675 7425 9.07 9.48
4825 975 10.62 12.01	4725 2575 9.92 13.28	3825 4475 9.40 12.10	1725 7425 9.03 9.61
5575 975 10.68 12.24	4775 2575 9.90 13.25	3875 4475 9.41 12.13	1775 7425 9.02 9.71
2225 1025 10.72 9.93	4825 2575 9.89 13.28	3925 4475 9.44 12.20	1825 7425 9.04 9.75
2275 1025 10.60 9.83	4875 2575 9.88 13.31	3975 4475 9.48 12.35	1975 7425 8.91 10.15
2325 1025 10.66 10.20	4925 2575 9.89 13.37	4025 4475 9.46 12.45	2025 7425 8.86 10.21
2375 1025 10.60 10.35	4975 2575 9.89 13.40	4075 4475 9.47 12.59	2075 7425 8.84 10.29
2425 1025 10.54 10.63	5025 2575 9.90 13.43	4125 4475 9.49 12.74	2125 7425 8.67 10.64
2475 1025 10.52 10.93	5075 2575 9.89 13.46	4175 4475 9.48 12.77	2175 7425 8.58 10.69
2525 1025 10.54 11.07	5125 2575 9.93 13.54	4225 4475 9.47 12.80	2225 7425 8.48 11.05
2575 1025 10.55 11.17	5175 2575 9.95 13.60	4275 4475 9.46 12.83	2275 7425 8.41 11.28
2625 1025 10.53 11.21	5225 2575 9.96 13.60	4325 4475 9.45 12.86	2325 7425 8.40 11.63
2675 1025 10.53 11.30	5275 2575 9.96 13.61	4375 4475 9.43 12.93	2375 7425 8.36 11.76
2725 1025 10.52 11.38	5325 2575 9.94 13.60	4425 4475 9.41 13.00	2425 7425 8.35 11.83
2775 1025 10.52 11.42	5375 2575 9.92 13.60	4475 4475 9.39 13.07	2475 7425 8.33 12.05
2825 1025 10.53 11.39	5425 2575 9.91 13.61	4525 4475 9.37 13.11	2525 7425 8.34 12.25

2875 1025 10.54 11.39	5475 2575 9.90 13.63	4575 4475 9.37 13.12	2575 7425 8.33 12.27
2925 1025 10.55 11.36	5525 2575 9.89 13.63	4625 4475 9.38 13.12	2625 7425 8.34 12.32
2975 1025 10.55 11.34	5575 2575 9.88 13.67	4675 4475 9.41 13.08	2675 7425 8.38 12.46
3025 1025 10.51 11.31	5625 2575 9.89 13.70	4725 4475 9.43 13.04	2725 7425 8.40 12.54
3075 1025 10.50 11.32	5675 2575 9.90 13.73	4775 4475 9.45 13.02	2775 7425 8.42 12.57
3125 1025 10.48 11.26	5725 2575 9.91 13.76	4825 4475 9.47 13.00	2825 7425 8.45 12.59
3175 1025 10.49 11.28	5775 2575 9.91 13.76	4875 4475 9.48 12.98	2875 7425 8.47 12.60
3225 1025 10.49 11.28	5825 2575 9.91 13.79	4925 4475 9.51 12.97	2925 7425 8.47 12.61
3275 1025 10.49 11.25	5875 2575 9.94 13.80	4975 4475 9.56 12.88	2975 7425 8.49 12.56
3325 1025 10.50 11.27	5925 2575 9.97 13.76	5025 4475 9.57 12.85	3025 7425 8.50 12.54
3375 1025 10.51 11.22	5975 2575 9.99 13.69	5075 4475 9.52 12.55	3075 7425 8.50 12.53
3425 1025 10.55 11.28	6025 2575 9.98 13.65	5125 4475 9.57 12.58	3125 7425 8.50 12.50
3475 1025 10.56 11.29	6075 2575 9.91 13.57	5175 4475 9.54 12.40	3175 7425 8.51 12.48
3525 1025 10.56 11.46	6125 2575 9.87 13.50	3475 4525 9.31 11.69	3225 7425 8.54 12.44
3575 1025 10.59 11.67	6175 2575 9.88 13.51	3525 4525 9.31 11.74	3275 7425 8.59 12.30
3625 1025 10.55 11.86	6225 2575 9.91 13.51	3575 4525 9.34 11.81	3325 7425 8.61 12.28
3675 1025 10.55 11.95	6275 2575 9.95 13.31	3625 4525 9.35 11.87	3375 7425 8.63 12.18
3725 1025 10.52 11.96	6325 2575 10.00 13.36	3675 4525 9.36 11.93	3425 7425 8.66 11.98
3775 1025 10.57 11.98	6375 2575 10.08 13.45	3725 4525 9.37 11.97	3475 7425 8.60 11.91
3825 1025 10.57 11.97	6425 2575 10.05 13.52	3775 4525 9.38 12.06	3525 7425 8.61 11.76
3875 1025 10.59 12.04	6475 2575 10.05 13.53	3825 4525 9.37 12.09	3575 7425 8.64 11.52
3925 1025 10.60 12.11	2475 2625 10.25 10.55	3875 4525 9.38 12.13	3625 7425 8.62 11.30
3975 1025 10.62 12.21	2525 2625 10.19 10.55	3925 4525 9.40 12.16	3675 7425 8.56 11.20
4025 1025 10.62 12.26	2575 2625 10.10 10.61	3975 4525 9.42 12.31	1425 7475 9.18 8.91
4075 1025 10.61 12.28	2625 2625 10.05 10.70	4025 4525 9.44 12.45	1475 7475 9.14 9.00
4125 1025 10.61 12.26	2675 2625 9.99 10.93	4075 4525 9.45 12.58	1525 7475 9.10 9.15
4175 1025 10.61 12.24	2725 2625 9.98 11.13	4125 4525 9.47 12.74	1575 7475 9.08 9.29
4225 1025 10.61 12.40	2775 2625 10.03 11.29	4175 4525 9.46 12.79	1625 7475 9.07 9.38
4275 1025 10.64 12.42	2825 2625 10.04 11.40	4225 4525 9.45 12.83	1675 7475 9.00 9.53
4325 1025 10.74 12.39	2875 2625 10.07 11.61	4275 4525 9.44 12.86	1725 7475 8.96 9.65
4375 1025 10.86 12.44	2925 2625 10.08 11.74	4325 4525 9.43 12.92	1775 7475 8.97 9.74
4425 1025 10.91 12.49	2975 2625 10.11 11.93	4375 4525 9.41 13.01	1825 7475 8.97 9.84
4575 1025 10.89 12.52	3025 2625 10.13 12.06	4425 4525 9.39 13.06	1975 7475 8.88 10.20
4625 1025 10.86 12.60	3075 2625 10.12 12.18	4475 4525 9.39 13.11	2025 7475 8.86 10.21
4675 1025 10.79 12.60	3125 2625 10.13 12.33	4525 4525 9.39 13.12	2075 7475 8.85 10.26
4725 1025 10.74 12.44	3175 2625 10.14 12.47	4575 4525 9.40 13.13	2125 7475 8.71 10.56
4775 1025 10.64 12.40	3225 2625 10.16 12.59	4625 4525 9.42 13.08	2175 7475 8.59 10.64
4825 1025 10.58 12.27	3275 2625 10.16 12.67	4675 4525 9.46 12.98	2225 7475 8.53 10.94
4875 1025 10.49 12.15	3325 2625 10.14 12.73	4725 4525 9.46 12.94	2275 7475 8.40 11.22
4925 1025 10.45 12.12	3375 2625 10.11 12.77	4775 4525 9.47 12.90	2325 7475 8.37 11.48
4975 1025 10.45 12.18	3425 2625 10.09 12.80	4825 4525 9.47 12.88	2375 7475 8.36 11.72
5025 1025 10.47 12.25	3475 2625 10.07 12.76	4875 4525 9.48 12.86	2425 7475 8.34 11.79
5075 1025 10.51 12.34	3525 2625 10.07 12.74	4925 4525 9.50 12.84	2475 7475 8.32 11.93
5375 1025 10.55 12.38	3575 2625 10.07 12.76	4975 4525 9.52 12.76	2525 7475 8.33 12.19
5425 1025 10.56 12.42	3625 2625 10.07 12.73	5025 4525 9.49 12.64	2575 7475 8.33 12.26
5475 1025 10.59 12.41	3675 2625 10.09 12.76	5075 4525 9.50 12.50	2625 7475 8.34 12.26

5525 1025 10.63 12.24	3725 2625 10.12 12.79	5125 4525 9.49 12.29	2675 7475 8.36 12.37
5575 1025 10.64 12.31	3775 2625 10.17 12.85	5175 4525 9.50 12.33	2725 7475 8.39 12.47
5625 1025 10.65 12.19	3825 2625 10.21 12.93	3475 4575 9.28 11.72	2775 7475 8.40 12.50
2225 1075 10.77 9.84	3875 2625 10.25 12.97	3525 4575 9.28 11.78	2825 7475 8.42 12.54
2275 1075 10.66 9.95	3925 2625 10.25 13.00	3575 4575 9.29 11.83	2875 7475 8.43 12.57
2325 1075 10.61 10.00	3975 2625 10.26 13.00	3625 4575 9.32 11.90	2925 7475 8.45 12.58
2375 1075 10.64 10.30	4025 2625 10.26 13.02	3675 4575 9.33 11.94	2975 7475 8.49 12.57
2425 1075 10.55 10.48	4075 2625 10.26 13.05	3725 4575 9.33 11.97	3025 7475 8.50 12.56
2475 1075 10.53 10.80	4125 2625 10.27 13.06	3775 4575 9.34 12.03	3075 7475 8.50 12.55
2525 1075 10.50 10.95	4175 2625 10.26 13.07	3825 4575 9.35 12.07	3125 7475 8.50 12.53
2575 1075 10.52 11.08	4225 2625 10.23 13.05	3875 4575 9.34 12.12	3175 7475 8.50 12.51
2625 1075 10.53 11.20	4275 2625 10.19 13.07	3925 4575 9.36 12.16	3225 7475 8.51 12.47
2675 1075 10.53 11.28	4325 2625 10.16 13.09	3975 4575 9.35 12.24	3275 7475 8.54 12.34
2725 1075 10.52 11.34	4375 2625 10.13 13.14	4025 4575 9.41 12.44	3325 7475 8.57 12.23
2775 1075 10.50 11.38	4425 2625 10.10 13.19	4075 4575 9.42 12.51	3375 7475 8.58 12.18
2825 1075 10.51 11.38	4475 2625 10.08 13.28	4125 4575 9.44 12.70	3425 7475 8.61 12.04
2875 1075 10.52 11.39	4525 2625 10.05 13.36	4175 4575 9.43 12.80	3475 7475 8.61 11.90
2925 1075 10.53 11.38	4575 2625 10.03 13.41	4225 4575 9.43 12.85	3525 7475 8.57 11.85
2975 1075 10.53 11.37	4625 2625 9.99 13.41	4275 4575 9.42 12.95	3575 7475 8.57 11.62
3025 1075 10.52 11.36	4675 2625 9.93 13.32	4325 4575 9.40 13.07	3625 7475 8.60 11.35
3075 1075 10.50 11.35	4725 2625 9.90 13.28	4375 4575 9.39 13.10	3675 7475 8.55 11.21
3125 1075 10.48 11.34	4775 2625 9.89 13.31	4425 4575 9.39 13.13	1475 7525 9.13 8.98
3175 1075 10.47 11.33	4825 2625 9.89 13.37	4475 4575 9.40 13.16	1525 7525 9.09 9.15
3225 1075 10.48 11.38	4875 2625 9.89 13.41	4525 4575 9.41 13.13	1575 7525 9.07 9.27
3275 1075 10.47 11.34	4925 2625 9.88 13.44	4575 4575 9.42 13.08	1625 7525 9.04 9.40
3325 1075 10.48 11.42	4975 2625 9.90 13.46	4625 4575 9.44 13.00	1675 7525 8.96 9.59
3375 1075 10.47 11.42	5025 2625 9.92 13.49	4675 4575 9.46 12.91	1725 7525 8.93 9.71
3425 1075 10.48 11.53	5075 2625 9.92 13.54	4725 4575 9.46 12.87	1775 7525 8.91 9.90
3475 1075 10.51 11.67	5125 2625 9.94 13.58	4775 4575 9.47 12.84	1825 7525 8.87 10.11
3525 1075 10.49 11.83	5175 2625 9.95 13.61	4825 4575 9.46 12.82	1875 7525 8.86 10.21
3575 1075 10.52 11.93	5225 2625 9.95 13.60	4875 4575 9.46 12.76	1925 7525 8.85 10.23
3625 1075 10.50 11.98	5275 2625 9.94 13.59	4925 4575 9.48 12.64	1975 7525 8.86 10.23
3675 1075 10.52 12.05	5325 2625 9.93 13.58	4975 4575 9.48 12.58	2025 7525 8.85 10.22
3725 1075 10.54 12.06	5375 2625 9.90 13.59	5025 4575 9.48 12.57	2075 7525 8.83 10.29
3775 1075 10.55 12.01	5425 2625 9.89 13.60	5075 4575 9.49 12.46	2125 7525 8.72 10.49
3825 1075 10.56 12.04	5475 2625 9.88 13.61	5125 4575 9.43 12.09	2175 7525 8.59 10.60
3875 1075 10.59 12.13	5525 2625 9.87 13.64	5175 4575 9.44 12.17	2225 7525 8.55 10.81
3925 1075 10.59 12.22	5575 2625 9.86 13.68	3475 4625 9.28 11.76	2275 7525 8.43 11.15
3975 1075 10.60 12.29	5625 2625 9.86 13.69	3525 4625 9.26 11.80	2325 7525 8.35 11.34
4025 1075 10.59 12.40	5675 2625 9.87 13.74	3575 4625 9.26 11.85	2375 7525 8.31 11.64
4075 1075 10.57 12.45	5725 2625 9.86 13.74	3625 4625 9.28 11.89	2425 7525 8.33 11.77
4125 1075 10.56 12.41	5775 2625 9.88 13.76	3675 4625 9.29 11.91	2475 7525 8.32 11.86
4175 1075 10.58 12.39	5825 2625 9.88 13.80	3725 4625 9.29 11.95	2525 7525 8.31 12.11
4225 1075 10.60 12.28	5875 2625 9.89 13.85	3775 4625 9.30 12.01	2575 7525 8.33 12.23
4275 1075 10.67 12.45	5925 2625 9.91 13.82	3825 4625 9.32 12.07	2625 7525 8.33 12.23
4325 1075 10.69 12.51	5975 2625 9.95 13.76	3875 4625 9.30 12.08	2675 7525 8.35 12.28

4375 1075 10.83 12.72	6025 2625 9.96 13.65	3925 4625 9.31 12.12	2725 7525 8.37 12.36
4525 1075 10.89 12.63	6075 2625 9.90 13.51	3975 4625 9.30 12.16	2775 7525 8.38 12.44
4575 1075 10.85 12.64	6125 2625 9.87 13.48	4025 4625 9.34 12.36	2825 7525 8.40 12.49
4625 1075 10.81 12.73	6175 2625 9.87 13.50	4075 4625 9.38 12.50	2875 7525 8.41 12.53
4675 1075 10.70 12.77	6225 2625 9.87 13.54	4125 4625 9.38 12.64	2925 7525 8.42 12.55
4725 1075 10.62 12.69	6275 2625 9.90 13.38	4175 4625 9.38 12.85	2975 7525 8.45 12.55
4775 1075 10.53 12.53	6325 2625 10.03 13.27	4225 4625 9.37 12.98	3025 7525 8.48 12.53
4825 1075 10.48 12.49	6375 2625 10.06 13.49	4275 4625 9.37 13.08	3075 7525 8.48 12.52
4875 1075 10.43 12.44	6425 2625 10.05 13.43	4325 4625 9.37 13.15	3125 7525 8.49 12.51
4925 1075 10.38 12.43	6475 2625 10.04 13.49	4375 4625 9.38 13.15	3175 7525 8.50 12.47
4975 1075 10.39 12.40	2575 2675 10.16 10.57	4425 4625 9.39 13.17	3225 7525 8.49 12.43
5025 1075 10.39 12.47	2625 2675 10.08 10.63	4475 4625 9.39 13.16	3275 7525 8.50 12.36
5075 1075 10.41 12.48	2675 2675 10.01 10.78	4525 4625 9.41 13.08	3325 7525 8.53 12.19
5125 1075 10.47 12.50	2725 2675 9.97 11.00	4575 4625 9.42 13.00	3375 7525 8.54 12.11
5175 1075 10.49 12.54	2775 2675 9.99 11.24	4625 4625 9.44 12.91	3425 7525 8.54 12.05
5225 1075 10.53 12.54	2825 2675 10.02 11.31	4675 4625 9.45 12.84	3475 7525 8.57 11.85
5275 1075 10.53 12.57	2875 2675 10.06 11.53	4725 4625 9.46 12.79	3525 7525 8.54 11.79
5325 1075 10.53 12.50	2925 2675 10.07 11.71	4775 4625 9.45 12.71	3575 7525 8.53 11.71
5375 1075 10.52 12.55	2975 2675 10.08 11.86	4825 4625 9.45 12.61	3625 7525 8.55 11.50
5425 1075 10.48 12.43	3025 2675 10.11 12.05	4875 4625 9.44 12.57	3675 7525 8.55 11.25
5475 1075 10.52 12.45	3075 2675 10.12 12.17	4925 4625 9.47 12.53	3725 7525 8.51 11.12
5525 1075 10.50 12.41	3125 2675 10.14 12.35	4975 4625 9.46 12.53	1725 7575 8.89 9.84
5575 1075 10.56 12.40	3175 2675 10.16 12.48	5025 4625 9.47 12.51	1775 7575 8.86 10.10
5625 1075 10.59 12.35	3225 2675 10.16 12.56	5075 4625 9.47 12.19	1825 7575 8.84 10.22
5675 1075 10.63 12.45	3275 2675 10.16 12.63	5125 4625 9.42 12.03	1875 7575 8.84 10.25
5725 1075 10.62 12.43	3325 2675 10.14 12.68	5175 4625 9.38 11.88	1925 7575 8.84 10.26
5775 1075 10.62 12.43	3375 2675 10.13 12.74	2225 4675 9.88 9.94	1975 7575 8.84 10.24
2225 1125 10.78 9.84	3425 2675 10.08 12.74	2275 4675 9.87 9.95	2025 7575 8.83 10.25
2275 1125 10.76 9.83	3475 2675 10.06 12.74	2325 4675 9.85 9.90	2075 7575 8.79 10.31
2325 1125 10.62 10.04	3525 2675 10.03 12.72	3525 4675 9.25 11.83	2125 7575 8.69 10.49
2375 1125 10.63 10.26	3575 2675 10.03 12.73	3575 4675 9.23 11.87	2175 7575 8.59 10.60
2425 1125 10.61 10.47	3625 2675 10.03 12.71	3625 4675 9.22 11.83	2225 7575 8.56 10.71
2475 1125 10.56 10.62	3675 2675 10.05 12.78	3675 4675 9.24 11.84	2275 7575 8.47 11.07
2525 1125 10.54 10.81	3725 2675 10.08 12.82	3725 4675 9.24 11.86	2325 7575 8.34 11.29
2575 1125 10.51 10.96	3775 2675 10.12 12.83	3775 4675 9.24 11.89	2375 7575 8.29 11.56
2625 1125 10.52 11.11	3825 2675 10.15 12.84	3825 4675 9.24 11.95	2425 7575 8.30 11.75
2675 1125 10.53 11.26	3875 2675 10.16 12.87	3875 4675 9.22 11.98	2475 7575 8.31 11.82
2725 1125 10.53 11.29	3925 2675 10.17 12.92	3925 4675 9.25 12.02	2525 7575 8.30 12.02
2775 1125 10.52 11.36	3975 2675 10.17 13.00	3975 4675 9.25 12.10	2575 7575 8.32 12.22
2825 1125 10.52 11.37	4025 2675 10.20 12.96	4025 4675 9.27 12.27	2625 7575 8.33 12.24
2875 1125 10.51 11.39	4075 2675 10.20 13.00	4075 4675 9.32 12.52	2675 7575 8.33 12.23
2925 1125 10.52 11.38	4125 2675 10.21 13.02	4125 4675 9.29 12.68	2725 7575 8.35 12.25
2975 1125 10.52 11.40	4175 2675 10.22 13.03	4175 4675 9.31 12.90	2775 7575 8.37 12.36
3025 1125 10.51 11.41	4225 2675 10.21 13.06	4225 4675 9.32 13.03	2825 7575 8.39 12.43
3075 1125 10.51 11.40	4275 2675 10.18 13.08	4275 4675 9.33 13.10	2875 7575 8.39 12.47
3125 1125 10.46 11.38	4325 2675 10.14 13.12	4325 4675 9.35 13.16	2925 7575 8.40 12.52

3175 1125 10.45 11.39	4375 2675 10.12 13.16	4375 4675 9.37 13.19	2975 7575 8.42 12.52
3225 1125 10.45 11.45	4425 2675 10.10 13.23	4425 4675 9.37 13.18	3025 7575 8.45 12.51
3275 1125 10.44 11.49	4475 2675 10.07 13.33	4475 4675 9.39 13.14	3075 7575 8.48 12.51
3325 1125 10.45 11.59	4525 2675 10.04 13.40	4525 4675 9.40 13.04	3125 7575 8.50 12.50
3375 1125 10.43 11.64	4575 2675 10.01 13.41	4575 4675 9.41 12.91	3175 7575 8.51 12.48
3425 1125 10.45 11.76	4625 2675 9.96 13.37	4625 4675 9.43 12.81	3225 7575 8.49 12.36
3475 1125 10.46 11.84	4675 2675 9.91 13.31	4675 4675 9.42 12.67	3275 7575 8.48 12.31
3525 1125 10.48 11.92	4725 2675 9.91 13.36	4725 4675 9.43 12.57	3325 7575 8.49 12.22
3575 1125 10.50 12.00	4775 2675 9.90 13.40	4775 4675 9.44 12.51	3375 7575 8.51 12.07
3625 1125 10.50 12.03	4825 2675 9.89 13.44	4825 4675 9.45 12.46	3425 7575 8.51 12.00
3675 1125 10.51 12.08	4875 2675 9.88 13.45	4875 4675 9.47 12.47	3475 7575 8.52 11.97
3725 1125 10.54 12.12	4925 2675 9.89 13.47	4925 4675 9.46 12.51	3525 7575 8.55 11.77
3775 1125 10.55 12.17	4975 2675 9.91 13.51	4975 4675 9.46 12.49	3575 7575 8.51 11.72
3825 1125 10.56 12.13	5025 2675 9.94 13.56	5025 4675 9.46 12.28	3625 7575 8.50 11.55
3875 1125 10.56 12.21	5075 2675 9.95 13.60	5075 4675 9.46 12.03	3675 7575 8.53 11.38
3925 1125 10.56 12.30	5125 2675 9.94 13.62	5125 4675 9.42 12.01	3725 7575 8.48 11.17
3975 1125 10.56 12.44	5175 2675 9.94 13.60	5175 4675 9.37 11.81	1475 7625 9.11 8.93
4025 1125 10.55 12.48	5225 2675 9.93 13.58	5225 4675 9.37 11.79	1525 7625 9.06 9.18
4075 1125 10.55 12.53	5275 2675 9.92 13.57	2225 4725 9.87 9.93	1575 7625 9.05 9.28
4125 1125 10.54 12.48	5325 2675 9.91 13.56	2275 4725 9.86 9.93	1625 7625 8.99 9.39
4175 1125 10.54 12.47	5375 2675 9.89 13.55	2325 4725 9.82 9.83	1675 7625 8.90 9.61
4225 1125 10.56 12.42	5425 2675 9.87 13.57	2375 4725 9.75 9.72	1725 7625 8.85 9.93
4275 1125 10.66 12.53	5475 2675 9.86 13.58	3225 4725 9.42 11.62	1775 7625 8.83 10.16
4325 1125 10.70 12.48	5525 2675 9.85 13.61	3275 4725 9.40 11.68	1825 7625 8.82 10.23
4375 1125 10.80 12.55	5575 2675 9.83 13.64	3325 4725 9.35 11.79	1875 7625 8.82 10.29
4425 1125 10.84 12.71	5625 2675 9.83 13.65	3375 4725 9.32 11.81	1925 7625 8.82 10.26
4475 1125 10.80 12.73	5675 2675 9.82 13.68	3425 4725 9.29 11.84	1975 7625 8.81 10.28
4525 1125 10.76 12.81	5725 2675 9.82 13.71	3475 4725 9.26 11.86	2025 7625 8.80 10.29
4575 1125 10.71 12.80	5775 2675 9.83 13.77	3525 4725 9.24 11.88	2075 7625 8.76 10.38
4625 1125 10.66 12.96	5825 2675 9.85 13.81	3575 4725 9.20 11.85	2125 7625 8.66 10.60
4675 1125 10.58 12.82	5875 2675 9.86 13.84	3625 4725 9.20 11.77	2175 7625 8.59 10.59
4725 1125 10.53 12.79	5925 2675 9.87 13.82	3675 4725 9.18 11.78	2225 7625 8.56 10.67
4775 1125 10.44 12.63	5975 2675 9.89 13.75	3725 4725 9.18 11.83	2275 7625 8.50 11.03
4825 1125 10.34 12.46	6025 2675 9.90 13.63	3775 4725 9.20 11.93	2325 7625 8.36 11.26
4875 1125 10.31 12.49	6075 2675 9.87 13.50	3825 4725 9.19 11.97	2375 7625 8.27 11.48
4925 1125 10.31 12.54	6125 2675 9.86 13.47	3875 4725 9.18 12.01	2425 7625 8.27 11.67
4975 1125 10.28 12.43	6175 2675 9.86 13.48	3925 4725 9.21 12.06	2475 7625 8.30 11.80
5025 1125 10.31 12.57	6225 2675 9.87 13.51	3975 4725 9.19 12.15	2525 7625 8.29 11.92
5075 1125 10.29 12.45	6275 2675 9.85 13.44	4025 4725 9.19 12.34	2575 7625 8.31 12.14
5125 1125 10.34 12.66	6325 2675 9.92 13.20	4075 4725 9.23 12.60	2625 7625 8.33 12.22
5175 1125 10.34 12.59	6375 2675 10.00 13.28	4125 4725 9.24 12.78	2675 7625 8.33 12.21
5225 1125 10.37 12.74	6425 2675 10.05 13.31	4175 4725 9.26 12.90	2725 7625 8.33 12.22
5275 1125 10.35 12.59	6475 2675 10.01 13.33	4225 4725 9.29 13.02	2775 7625 8.35 12.31
5325 1125 10.38 12.74	2575 2725 10.22 10.45	4275 4725 9.32 13.10	2825 7625 8.36 12.37
5375 1125 10.39 12.63	2625 2725 10.12 10.56	4325 4725 9.34 13.17	2875 7625 8.37 12.42
5425 1125 10.37 12.71	2675 2725 10.06 10.62	4375 4725 9.36 13.19	2925 7625 8.38 12.48

5475 1125 10.43 12.66	2725 2725 9.98 10.89	4425 4725 9.36 13.19	2975 7625 8.40 12.49
5525 1125 10.39 12.71	2775 2725 9.96 11.07	4475 4725 9.37 13.14	3025 7625 8.41 12.48
5575 1125 10.44 12.56	2825 2725 9.98 11.26	4525 4725 9.37 12.98	3075 7625 8.47 12.47
5625 1125 10.41 12.56	2875 2725 10.00 11.38	4575 4725 9.38 12.79	3125 7625 8.51 12.44
5675 1125 10.43 12.47	2925 2725 10.04 11.68	4625 4725 9.41 12.61	3175 7625 8.50 12.40
5725 1125 10.50 12.44	2975 2725 10.05 11.80	4675 4725 9.43 12.50	3225 7625 8.48 12.33
5775 1125 10.56 12.37	3025 2725 10.08 11.97	4725 4725 9.44 12.44	3275 7625 8.47 12.29
5825 1125 10.63 12.41	3075 2725 10.12 12.19	4775 4725 9.45 12.45	3325 7625 8.47 12.24
2225 1175 10.87 9.72	3125 2725 10.15 12.38	4825 4725 9.45 12.44	3375 7625 8.48 12.14
2275 1175 10.76 9.91	3175 2725 10.15 12.48	4875 4725 9.46 12.44	3425 7625 8.51 12.02
2325 1175 10.73 9.95	3225 2725 10.16 12.57	4925 4725 9.46 12.45	3475 7625 8.51 11.98
2375 1175 10.62 10.15	3275 2725 10.15 12.61	4975 4725 9.44 12.34	3525 7625 8.53 11.87
2425 1175 10.62 10.27	3325 2725 10.14 12.66	5025 4725 9.46 12.10	3575 7625 8.52 11.77
2475 1175 10.62 10.53	3375 2725 10.13 12.69	5075 4725 9.43 12.02	3625 7625 8.47 11.56
2525 1175 10.58 10.70	3425 2725 10.08 12.73	5125 4725 9.37 11.79	3675 7625 8.48 11.49
2575 1175 10.55 10.79	3475 2725 10.04 12.74	5175 4725 9.37 11.80	3725 7625 8.42 11.24
2625 1175 10.53 10.95	3525 2725 10.00 12.67	2275 4775 9.84 9.91	3775 7625 8.42 11.19
2675 1175 10.52 11.17	3575 2725 9.98 12.65	2325 4775 9.78 9.73	1475 7675 9.10 8.90
2725 1175 10.53 11.24	3625 2725 9.98 12.65	2375 4775 9.70 9.65	1525 7675 9.05 9.17
2775 1175 10.54 11.31	3675 2725 9.99 12.67	2425 4775 9.65 9.71	1575 7675 9.04 9.28
2825 1175 10.53 11.34	3725 2725 10.02 12.70	3275 4775 9.36 11.59	1625 7675 8.98 9.40
2875 1175 10.52 11.40	3775 2725 10.10 12.81	3325 4775 9.32 11.73	1675 7675 8.87 9.68
2925 1175 10.53 11.41	3825 2725 10.11 12.84	3375 4775 9.30 11.81	1725 7675 8.80 9.99
2975 1175 10.52 11.45	3875 2725 10.12 12.85	3425 4775 9.26 11.87	1775 7675 8.80 10.18
3025 1175 10.52 11.46	3925 2725 10.13 12.92	3475 4775 9.24 11.92	1825 7675 8.76 10.24
3075 1175 10.50 11.51	3975 2725 10.14 12.94	3525 4775 9.20 11.89	1875 7675 8.74 10.30
3125 1175 10.46 11.49	4025 2725 10.14 12.94	3575 4775 9.18 11.81	1925 7675 8.70 10.37
3175 1175 10.43 11.53	4075 2725 10.15 12.96	3625 4775 9.18 11.81	1975 7675 8.68 10.41
3225 1175 10.43 11.61	4125 2725 10.15 13.01	3675 4775 9.18 11.90	2025 7675 8.66 10.47
3275 1175 10.42 11.65	4175 2725 10.17 13.03	3725 4775 9.18 11.98	2075 7675 8.63 10.53
3325 1175 10.41 11.68	4225 2725 10.17 13.07	3775 4775 9.17 12.05	2125 7675 8.60 10.57
3375 1175 10.42 11.75	4275 2725 10.16 13.09	3825 4775 9.16 12.06	2175 7675 8.58 10.56
3425 1175 10.43 11.83	4325 2725 10.14 13.13	3875 4775 9.16 12.11	2225 7675 8.56 10.69
3475 1175 10.45 11.89	4375 2725 10.11 13.18	3925 4775 9.15 12.16	2275 7675 8.50 10.98
3525 1175 10.47 11.96	4425 2725 10.08 13.29	3975 4775 9.14 12.24	2325 7675 8.37 11.24
3575 1175 10.47 11.98	4475 2725 10.06 13.39	4025 4775 9.16 12.43	2375 7675 8.28 11.49
3625 1175 10.48 12.06	4525 2725 10.03 13.42	4075 4775 9.19 12.65	2425 7675 8.26 11.64
3675 1175 10.49 12.08	4575 2725 9.97 13.40	4125 4775 9.21 12.78	2475 7675 8.26 11.78
3725 1175 10.52 12.15	4625 2725 9.93 13.36	4175 4775 9.22 12.87	2525 7675 8.29 11.86
3775 1175 10.53 12.20	4675 2725 9.92 13.38	4225 4775 9.26 13.00	2575 7675 8.30 12.04
3825 1175 10.54 12.23	4725 2725 9.92 13.43	4275 4775 9.31 13.13	2625 7675 8.33 12.19
3875 1175 10.52 12.31	4775 2725 9.90 13.45	4325 4775 9.33 13.16	2675 7675 8.33 12.21
3925 1175 10.51 12.39	4825 2725 9.90 13.46	4375 4775 9.35 13.16	2725 7675 8.32 12.21
3975 1175 10.50 12.45	4875 2725 9.90 13.49	4425 4775 9.36 13.14	2775 7675 8.34 12.26
4025 1175 10.50 12.50	4925 2725 9.92 13.51	4475 4775 9.35 13.05	2825 7675 8.34 12.31
4075 1175 10.50 12.56	4975 2725 9.94 13.57	4525 4775 9.36 12.92	2875 7675 8.35 12.38

4125 1175 10.50 12.58	5025 2725 9.95 13.60	4575 4775 9.39 12.74	2925 7675 8.36 12.45
4175 1175 10.49 12.52	5075 2725 9.95 13.61	4625 4775 9.42 12.60	2975 7675 8.38 12.44
4225 1175 10.51 12.50	5125 2725 9.94 13.60	4675 4775 9.44 12.42	3025 7675 8.40 12.46
4275 1175 10.58 12.55	5175 2725 9.92 13.57	4725 4775 9.45 12.44	3075 7675 8.45 12.42
4325 1175 10.67 12.62	5225 2725 9.91 13.53	4775 4775 9.45 12.45	3125 7675 8.48 12.41
4375 1175 10.70 12.52	5275 2725 9.90 13.51	4825 4775 9.44 12.44	3175 7675 8.49 12.37
4425 1175 10.70 12.62	5325 2725 9.88 13.51	4875 4775 9.44 12.39	3225 7675 8.45 12.22
4475 1175 10.67 12.73	5375 2725 9.87 13.51	4925 4775 9.44 12.31	3275 7675 8.44 12.16
4525 1175 10.59 12.73	5425 2725 9.85 13.53	4975 4775 9.46 12.11	3325 7675 8.43 12.14
4575 1175 10.53 12.91	5475 2725 9.84 13.55	5025 4775 9.47 12.01	3375 7675 8.43 12.15
4625 1175 10.47 12.88	5525 2725 9.82 13.56	5075 4775 9.41 11.92	3425 7675 8.47 12.07
4675 1175 10.42 12.94	5575 2725 9.80 13.60	5125 4775 9.39 11.82	3475 7675 8.50 11.94
4725 1175 10.41 12.91	5625 2725 9.79 13.61	2275 4825 9.83 9.82	3525 7675 8.50 11.96
4775 1175 10.32 12.79	5675 2725 9.78 13.65	2325 4825 9.75 9.68	3575 7675 8.52 11.79
4825 1175 10.27 12.71	5725 2725 9.78 13.70	2375 4825 9.67 9.66	3625 7675 8.47 11.63
4875 1175 10.23 12.63	5775 2725 9.78 13.72	2425 4825 9.63 9.71	3675 7675 8.45 11.52
4925 1175 10.20 12.58	5825 2725 9.81 13.77	3175 4825 9.39 11.43	3725 7675 8.42 11.37
4975 1175 10.20 12.65	5875 2725 9.83 13.82	3225 4825 9.37 11.53	3775 7675 8.37 11.27
5025 1175 10.18 12.64	5925 2725 9.84 13.82	3275 4825 9.35 11.61	3825 7675 8.39 11.23
5075 1175 10.19 12.69	5975 2725 9.84 13.77	3325 4825 9.29 11.76	1675 7725 8.83 9.79
5125 1175 10.19 12.71	6025 2725 9.83 13.67	3375 4825 9.22 11.84	1725 7725 8.78 10.01
5175 1175 10.22 12.75	6075 2725 9.85 13.52	3425 4825 9.18 11.89	1775 7725 8.76 10.18
5225 1175 10.20 12.76	6125 2725 9.86 13.50	3475 4825 9.17 11.89	1825 7725 8.73 10.28
5275 1175 10.20 12.75	6175 2725 9.86 13.50	3525 4825 9.17 11.82	1875 7725 8.64 10.40
5325 1175 10.22 12.85	6225 2725 9.86 13.52	3575 4825 9.16 11.82	1925 7725 8.60 10.48
5375 1175 10.20 12.74	6275 2725 9.84 13.49	3625 4825 9.17 11.91	1975 7725 8.57 10.53
5425 1175 10.28 12.89	6325 2725 9.89 13.27	3675 4825 9.18 12.00	2025 7725 8.57 10.54
5475 1175 10.22 12.72	6375 2725 10.00 13.26	3725 4825 9.16 12.06	2075 7725 8.58 10.55
5525 1175 10.26 12.88	6425 2725 10.04 13.42	3775 4825 9.13 12.13	2125 7725 8.58 10.55
5575 1175 10.25 12.80	6475 2725 10.04 13.23	3825 4825 9.12 12.16	2175 7725 8.57 10.58
5625 1175 10.29 12.80	2625 2775 10.19 10.45	3875 4825 9.13 12.19	2225 7725 8.54 10.77
5675 1175 10.32 12.68	2675 2775 10.04 10.59	3925 4825 9.12 12.25	2275 7725 8.47 11.05
5725 1175 10.39 12.69	2725 2775 10.02 10.73	3975 4825 9.11 12.32	2325 7725 8.37 11.23
5775 1175 10.39 12.57	2775 2775 9.96 10.96	4025 4825 9.13 12.56	2375 7725 8.28 11.42
5825 1175 10.52 12.58	2825 2775 9.95 11.13	4075 4825 9.17 12.70	2425 7725 8.27 11.59
5875 1175 10.57 12.47	2875 2775 9.96 11.34	4125 4825 9.19 12.78	2475 7725 8.25 11.75
6025 1175 10.59 12.51	2925 2775 9.98 11.55	4175 4825 9.21 12.88	2525 7725 8.26 11.83
6075 1175 10.59 12.53	2975 2775 10.03 11.79	4225 4825 9.24 12.98	2575 7725 8.29 11.93
2275 1225 10.87 9.78	3025 2775 10.05 11.90	4275 4825 9.29 13.09	2625 7725 8.32 12.16
2325 1225 10.77 10.04	3075 2775 10.10 12.19	4325 4825 9.32 13.09	2675 7725 8.34 12.23
2375 1225 10.74 10.07	3125 2775 10.14 12.36	4375 4825 9.33 13.08	2725 7725 8.34 12.24
2425 1225 10.69 10.31	3175 2775 10.14 12.45	4425 4825 9.33 13.04	2775 7725 8.33 12.26
2475 1225 10.61 10.30	3225 2775 10.16 12.53	4475 4825 9.33 12.97	2825 7725 8.33 12.28
2525 1225 10.66 10.57	3275 2775 10.15 12.61	4525 4825 9.37 12.82	2875 7725 8.33 12.33
2575 1225 10.62 10.76	3325 2775 10.13 12.63	4575 4825 9.40 12.65	2925 7725 8.35 12.40
2625 1225 10.58 10.82	3375 2775 10.13 12.67	4625 4825 9.42 12.51	2975 7725 8.36 12.41

2675 1225 10.55 10.95	3425 2775 10.09 12.72	4675 4825 9.43 12.41	3025 7725 8.38 12.45
2725 1225 10.55 11.11	3475 2775 10.03 12.71	4725 4825 9.43 12.39	3075 7725 8.41 12.40
2775 1225 10.55 11.24	3525 2775 9.98 12.65	4775 4825 9.45 12.43	3125 7725 8.43 12.37
2825 1225 10.54 11.30	3575 2775 9.97 12.63	4825 4825 9.43 12.39	3175 7725 8.43 12.25
2875 1225 10.54 11.35	3625 2775 9.96 12.64	4875 4825 9.43 12.26	3225 7725 8.42 12.15
2925 1225 10.53 11.41	3675 2775 9.95 12.64	4925 4825 9.45 12.07	3275 7725 8.43 12.11
2975 1225 10.52 11.44	3725 2775 9.96 12.63	4975 4825 9.48 11.98	3325 7725 8.42 12.11
3025 1225 10.51 11.47	3775 2775 10.02 12.67	5025 4825 9.48 11.99	3375 7725 8.42 12.12
3075 1225 10.50 11.49	3825 2775 10.08 12.83	5075 4825 9.38 11.77	3425 7725 8.42 12.12
3125 1225 10.48 11.57	3875 2775 10.11 12.89	2325 4875 9.71 9.66	3475 7725 8.47 12.01
3175 1225 10.46 11.63	3925 2775 10.11 12.91	2375 4875 9.65 9.65	3525 7725 8.50 11.93
3225 1225 10.45 11.72	3975 2775 10.12 12.93	2425 4875 9.61 9.69	3575 7725 8.51 11.95
3275 1225 10.43 11.74	4025 2775 10.13 12.96	2475 4875 9.60 9.72	3625 7725 8.49 11.76
3325 1225 10.42 11.76	4075 2775 10.13 12.98	3125 4875 9.41 11.26	3675 7725 8.45 11.51
3375 1225 10.43 11.85	4125 2775 10.14 13.01	3175 4875 9.39 11.44	3725 7725 8.42 11.40
3425 1225 10.43 11.90	4175 2775 10.14 13.04	3225 4875 9.36 11.54	3775 7725 8.35 11.30
3475 1225 10.45 11.94	4225 2775 10.14 13.07	3275 4875 9.31 11.57	3825 7725 8.35 11.31
3525 1225 10.44 11.98	4275 2775 10.13 13.11	3325 4875 9.19 11.67	3875 7725 8.36 11.30
3575 1225 10.45 12.01	4325 2775 10.12 13.14	3375 4875 9.14 11.79	1775 7775 8.72 10.12
3625 1225 10.45 12.06	4375 2775 10.09 13.24	3425 4875 9.16 11.81	1825 7775 8.68 10.38
3675 1225 10.46 12.11	4425 2775 10.06 13.35	3475 4875 9.18 11.92	1875 7775 8.61 10.41
3725 1225 10.47 12.17	4475 2775 10.05 13.43	3525 4875 9.18 11.94	1925 7775 8.56 10.52
3775 1225 10.46 12.25	4525 2775 10.00 13.44	3575 4875 9.18 11.98	1975 7775 8.53 10.65
3825 1225 10.46 12.33	4575 2775 9.95 13.39	3625 4875 9.18 12.02	2025 7775 8.54 10.65
3875 1225 10.45 12.35	4625 2775 9.93 13.40	3675 4875 9.15 12.05	2075 7775 8.55 10.63
3925 1225 10.44 12.36	4675 2775 9.93 13.42	3725 4875 9.13 12.10	2125 7775 8.56 10.61
3975 1225 10.44 12.41	4725 2775 9.91 13.45	3775 4875 9.12 12.15	2175 7775 8.55 10.68
4025 1225 10.45 12.51	4775 2775 9.90 13.46	3825 4875 9.12 12.21	2225 7775 8.50 10.87
4075 1225 10.46 12.58	4825 2775 9.91 13.49	3875 4875 9.12 12.26	2275 7775 8.44 11.09
4125 1225 10.47 12.61	4875 2775 9.92 13.51	3925 4875 9.11 12.33	2325 7775 8.37 11.22
4175 1225 10.47 12.60	4925 2775 9.93 13.56	3975 4875 9.11 12.52	2375 7775 8.31 11.38
4225 1225 10.46 12.52	4975 2775 9.95 13.59	4025 4875 9.12 12.65	2425 7775 8.26 11.56
4275 1225 10.49 12.57	5025 2775 9.94 13.58	4075 4875 9.16 12.76	2475 7775 8.25 11.69
4325 1225 10.55 12.70	5075 2775 9.93 13.57	4125 4875 9.19 12.82	2525 7775 8.25 11.80
4375 1225 10.59 12.82	5125 2775 9.92 13.55	4175 4875 9.20 12.88	2575 7775 8.28 11.87
4425 1225 10.58 12.87	5175 2775 9.89 13.50	4225 4875 9.22 12.95	2625 7775 8.31 12.07
4475 1225 10.52 12.99	5225 2775 9.88 13.46	4275 4875 9.28 12.96	2675 7775 8.34 12.21
4525 1225 10.47 13.07	5275 2775 9.87 13.45	4325 4875 9.31 12.96	2725 7775 8.34 12.26
4575 1225 10.39 12.93	5325 2775 9.85 13.46	4375 4875 9.31 12.95	2775 7775 8.33 12.27
4625 1225 10.39 12.90	5375 2775 9.84 13.47	4425 4875 9.30 12.97	2825 7775 8.32 12.28
4675 1225 10.30 12.74	5425 2775 9.82 13.49	4475 4875 9.32 12.92	2875 7775 8.32 12.29
4725 1225 10.28 12.75	5475 2775 9.81 13.52	4525 4875 9.38 12.69	2925 7775 8.33 12.33
4775 1225 10.23 12.75	5525 2775 9.80 13.54	4575 4875 9.41 12.53	2975 7775 8.35 12.36
4825 1225 10.19 12.71	5575 2775 9.78 13.58	4625 4875 9.43 12.42	3025 7775 8.38 12.41
4875 1225 10.13 12.62	5625 2775 9.76 13.62	4675 4875 9.42 12.39	3075 7775 8.41 12.37
4925 1225 10.07 12.58	5675 2775 9.75 13.66	4725 4875 9.44 12.37	3125 7775 8.42 12.30

4975 1225 10.05 12.73	5725 2775 9.75 13.67	4775 4875 9.45 12.26	3175 7775 8.41 12.21
5025 1225 10.03 12.79	5775 2775 9.75 13.69	4825 4875 9.45 12.16	3225 7775 8.39 12.07
5075 1225 10.02 12.76	5825 2775 9.76 13.71	4875 4875 9.47 12.03	3275 7775 8.40 12.06
5125 1225 10.04 12.88	5875 2775 9.79 13.77	4925 4875 9.48 11.98	3325 7775 8.40 12.07
5175 1225 10.03 12.75	5925 2775 9.81 13.80	4975 4875 9.49 12.01	3375 7775 8.41 12.09
5225 1225 10.05 12.93	5975 2775 9.81 13.78	5025 4875 9.41 11.85	3425 7775 8.41 12.12
5275 1225 10.01 12.78	6025 2775 9.79 13.71	2375 4925 9.63 9.65	3475 7775 8.41 12.10
5325 1225 10.05 12.83	6075 2775 9.82 13.61	2425 4925 9.61 9.67	3525 7775 8.46 11.94
5375 1225 10.02 12.77	6125 2775 9.84 13.53	3125 4925 9.42 11.29	3575 7775 8.48 11.94
5425 1225 10.03 12.85	6175 2775 9.86 13.48	3175 4925 9.41 11.47	3625 7775 8.48 11.83
5475 1225 10.02 12.89	6225 2775 9.87 13.51	3225 4925 9.33 11.47	3675 7775 8.43 11.56
5525 1225 10.04 12.74	6275 2775 9.83 13.47	3275 4925 9.25 11.43	3725 7775 8.44 11.48
5575 1225 10.09 12.97	6325 2775 9.81 13.25	3325 4925 9.17 11.71	3775 7775 8.37 11.32
5625 1225 10.08 12.71	6375 2775 9.94 13.13	3375 4925 9.18 11.87	3825 7775 8.34 11.29
5675 1225 10.18 12.90	6425 2775 9.99 13.27	3425 4925 9.19 11.96	3875 7775 8.35 11.31
5725 1225 10.16 12.77	6475 2775 10.04 13.22	3475 4925 9.18 11.98	1675 7825 8.80 9.90
5775 1225 10.26 12.92	2625 2825 10.22 10.46	3525 4925 9.17 12.01	1725 7825 8.75 9.99
5825 1225 10.38 12.77	2675 2825 10.10 10.57	3575 4925 9.16 12.05	1775 7825 8.68 10.15
5875 1225 10.43 12.81	2725 2825 10.04 10.62	3625 4925 9.13 12.06	1825 7825 8.66 10.38
5925 1225 10.53 12.75	2775 2825 9.97 10.93	3675 4925 9.14 12.09	1875 7825 8.58 10.42
5975 1225 10.62 12.65	2825 2825 9.93 11.04	3725 4925 9.13 12.13	1925 7825 8.48 10.72
6025 1225 10.54 12.43	2875 2825 9.95 11.25	3775 4925 9.11 12.20	1975 7825 8.45 10.80
6075 1225 10.59 12.53	2925 2825 9.93 11.45	3825 4925 9.11 12.29	2025 7825 8.45 10.83
2275 1275 10.92 9.90	2975 2825 9.98 11.74	3875 4925 9.12 12.41	2075 7825 8.47 10.81
2325 1275 10.87 9.86	3025 2825 10.03 11.88	3925 4925 9.11 12.54	2125 7825 8.50 10.81
2375 1275 10.79 10.06	3075 2825 10.08 12.12	3975 4925 9.10 12.64	2175 7825 8.48 10.93
2425 1275 10.80 10.23	3125 2825 10.13 12.33	4025 4925 9.11 12.71	2225 7825 8.43 11.04
2475 1275 10.71 10.38	3175 2825 10.14 12.43	4075 4925 9.15 12.77	2275 7825 8.38 11.14
2525 1275 10.64 10.42	3225 2825 10.15 12.50	4125 4925 9.19 12.85	2325 7825 8.35 11.20
2575 1275 10.68 10.55	3275 2825 10.14 12.56	4175 4925 9.20 12.90	2375 7825 8.32 11.33
2625 1275 10.67 10.78	3325 2825 10.12 12.61	4225 4925 9.22 12.93	2425 7825 8.25 11.51
2675 1275 10.63 10.80	3375 2825 10.12 12.66	4275 4925 9.28 12.87	2475 7825 8.25 11.64
2725 1275 10.59 10.84	3425 2825 10.09 12.73	4325 4925 9.30 12.88	2525 7825 8.25 11.77
2775 1275 10.56 11.04	3475 2825 10.02 12.72	4375 4925 9.29 12.91	2575 7825 8.25 11.81
2825 1275 10.55 11.23	3525 2825 9.97 12.62	4425 4925 9.29 12.93	2625 7825 8.29 11.96
2875 1275 10.54 11.29	3575 2825 9.93 12.65	4475 4925 9.31 12.82	2675 7825 8.33 12.18
2925 1275 10.52 11.39	3625 2825 9.92 12.67	4525 4925 9.38 12.56	2725 7825 8.34 12.24
2975 1275 10.49 11.44	3675 2825 9.89 12.65	4575 4925 9.42 12.43	2775 7825 8.33 12.27
3025 1275 10.49 11.48	3725 2825 9.88 12.64	4625 4925 9.43 12.36	2825 7825 8.33 12.29
3075 1275 10.47 11.49	3775 2825 9.95 12.59	4675 4925 9.47 12.35	2875 7825 8.33 12.30
3125 1275 10.48 11.53	3825 2825 10.02 12.68	4725 4925 9.48 12.17	2925 7825 8.33 12.28
3175 1275 10.47 11.62	3875 2825 10.06 12.78	4775 4925 9.49 12.01	2975 7825 8.34 12.30
3225 1275 10.47 11.77	3925 2825 10.10 12.86	4825 4925 9.49 11.99	3025 7825 8.37 12.34
3275 1275 10.45 11.82	3975 2825 10.11 12.88	4875 4925 9.48 11.97	3075 7825 8.38 12.34
3325 1275 10.45 11.87	4025 2825 10.12 12.95	4925 4925 9.49 11.96	3125 7825 8.41 12.27
3375 1275 10.45 11.90	4075 2825 10.13 12.99	4975 4925 9.48 11.88	3175 7825 8.41 12.15

3425 1275 10.45 11.93	4125 2825 10.14 13.03	5025 4925 9.41 11.73	3225 7825 8.38 12.02
3475 1275 10.45 11.96	4175 2825 10.13 13.06	2425 4975 9.60 9.65	3275 7825 8.38 12.01
3525 1275 10.45 12.00	4225 2825 10.12 13.10	3075 4975 9.45 11.04	3325 7825 8.37 12.03
3575 1275 10.44 12.03	4275 2825 10.11 13.15	3125 4975 9.42 11.26	3375 7825 8.37 12.07
3625 1275 10.42 12.09	4325 2825 10.09 13.24	3175 4975 9.41 11.47	3425 7825 8.38 12.11
3675 1275 10.41 12.16	4375 2825 10.06 13.34	3225 4975 9.32 11.44	3475 7825 8.39 12.13
3725 1275 10.39 12.22	4425 2825 10.04 13.38	3275 4975 9.26 11.45	3525 7825 8.41 12.05
3775 1275 10.39 12.29	4475 2825 10.00 13.40	3325 4975 9.21 11.77	3575 7825 8.45 11.94
3825 1275 10.39 12.33	4525 2825 9.96 13.36	3375 4975 9.19 11.92	3625 7825 8.46 11.98
3875 1275 10.38 12.32	4575 2825 9.94 13.37	3425 4975 9.18 11.97	3675 7825 8.42 11.69
3925 1275 10.38 12.33	4625 2825 9.93 13.41	3475 4975 9.17 12.02	3725 7825 8.42 11.51
3975 1275 10.38 12.38	4675 2825 9.92 13.44	3525 4975 9.15 12.05	3775 7825 8.38 11.30
4025 1275 10.39 12.50	4725 2825 9.91 13.47	3575 4975 9.15 12.07	3825 7825 8.34 11.30
4075 1275 10.41 12.61	4775 2825 9.91 13.49	3625 4975 9.14 12.08	3875 7825 8.34 11.30
4125 1275 10.42 12.70	4825 2825 9.92 13.51	3675 4975 9.13 12.12	1675 7875 8.80 9.89
4175 1275 10.44 12.70	4875 2825 9.93 13.54	3725 4975 9.12 12.20	1725 7875 8.75 9.99
4225 1275 10.45 12.74	4925 2825 9.95 13.57	3775 4975 9.12 12.36	1775 7875 8.67 10.17
4275 1275 10.46 12.79	4975 2825 9.94 13.56	3825 4975 9.13 12.49	1825 7875 8.63 10.31
4325 1275 10.46 12.83	5025 2825 9.93 13.55	3875 4975 9.11 12.57	1875 7875 8.53 10.48
4375 1275 10.46 12.91	5075 2825 9.91 13.53	3925 4975 9.10 12.63	1925 7875 8.43 10.74
4425 1275 10.41 12.90	5125 2825 9.89 13.46	3975 4975 9.10 12.69	1975 7875 8.42 10.80
4475 1275 10.40 12.96	5175 2825 9.86 13.41	4025 4975 9.10 12.75	2025 7875 8.43 10.84
4525 1275 10.39 13.01	5225 2825 9.86 13.40	4075 4975 9.15 12.81	2075 7875 8.44 10.85
4575 1275 10.38 13.01	5275 2825 9.84 13.40	4125 4975 9.18 12.89	2125 7875 8.42 10.96
4625 1275 10.38 12.98	5325 2825 9.83 13.41	4175 4975 9.19 12.93	2175 7875 8.40 11.08
4675 1275 10.34 12.87	5375 2825 9.82 13.42	4225 4975 9.20 12.91	2225 7875 8.40 11.10
4725 1275 10.31 12.84	5425 2825 9.80 13.46	4275 4975 9.27 12.85	2275 7875 8.35 11.14
4775 1275 10.24 12.78	5475 2825 9.78 13.49	4325 4975 9.28 12.85	2325 7875 8.33 11.21
4825 1275 10.14 12.66	5525 2825 9.77 13.53	4375 4975 9.28 12.87	2375 7875 8.32 11.31
4875 1275 10.04 12.65	5575 2825 9.76 13.58	4425 4975 9.29 12.88	2425 7875 8.25 11.49
4925 1275 9.99 12.73	5625 2825 9.74 13.62	4475 4975 9.34 12.70	2475 7875 8.24 11.58
4975 1275 9.97 12.79	5675 2825 9.73 13.65	4525 4975 9.40 12.45	2525 7875 8.25 11.67
5025 1275 9.97 12.82	5725 2825 9.73 13.67	4575 4975 9.42 12.33	2575 7875 8.26 11.78
5075 1275 9.97 12.84	5775 2825 9.73 13.69	4625 4975 9.46 12.31	2625 7875 8.25 11.85
5125 1275 9.97 12.86	5825 2825 9.74 13.69	4675 4975 9.51 12.15	2675 7875 8.31 12.04
5175 1275 9.98 12.79	5875 2825 9.76 13.74	4725 4975 9.51 12.04	2725 7875 8.33 12.20
5225 1275 9.98 12.86	5925 2825 9.78 13.77	4775 4975 9.50 11.98	2775 7875 8.34 12.24
5275 1275 9.98 12.79	5975 2825 9.78 13.81	4825 4975 9.49 11.96	2825 7875 8.34 12.27
5325 1275 10.02 12.71	6025 2825 9.77 13.80	4875 4975 9.49 11.92	2875 7875 8.33 12.27
5375 1275 9.99 12.76	6075 2825 9.78 13.72	4925 4975 9.51 11.84	2925 7875 8.34 12.26
5425 1275 10.00 12.78	6125 2825 9.80 13.60	4975 4975 9.45 11.60	2975 7875 8.37 12.25
5475 1275 9.99 12.82	6175 2825 9.85 13.48	3075 5025 9.45 10.95	3025 7875 8.37 12.26
5525 1275 10.00 12.82	6225 2825 9.87 13.47	3125 5025 9.43 11.25	3075 7875 8.38 12.26
5575 1275 10.01 12.82	6275 2825 9.85 13.46	3175 5025 9.41 11.48	3125 7875 8.41 12.17
5625 1275 9.99 12.76	6325 2825 9.78 13.29	3225 5025 9.36 11.47	3175 7875 8.43 12.06
5675 1275 10.01 12.84	6375 2825 9.89 13.13	3275 5025 9.29 11.51	3225 7875 8.39 12.00

5725 1275 10.03 12.84	6425 2825 9.98 13.23	3325 5025 9.21 11.81	3275 7875 8.37 11.96
5775 1275 10.07 12.97	6475 2825 10.01 13.19	3375 5025 9.19 11.95	3325 7875 8.36 11.98
5825 1275 10.18 12.91	2625 2875 10.23 10.38	3425 5025 9.18 12.02	3375 7875 8.36 12.02
5875 1275 10.25 12.88	2675 2875 10.16 10.53	3475 5025 9.17 12.05	3425 7875 8.37 12.07
5925 1275 10.41 12.90	2725 2875 10.03 10.51	3525 5025 9.15 12.08	3475 7875 8.37 12.10
5975 1275 10.52 13.04	2775 2875 9.99 10.80	3575 5025 9.14 12.09	3525 7875 8.39 12.14
6025 1275 10.60 12.72	2825 2875 9.94 11.00	3625 5025 9.13 12.13	3575 7875 8.43 11.99
6075 1275 10.61 12.67	2875 2875 9.93 11.17	3675 5025 9.13 12.23	3625 7875 8.43 11.93
2475 1325 10.82 10.32	2925 2875 9.94 11.41	3725 5025 9.12 12.36	3675 7875 8.36 11.78
2525 1325 10.78 10.36	2975 2875 9.95 11.60	3775 5025 9.10 12.52	3725 7875 8.39 11.63
2575 1325 10.72 10.49	3025 2875 9.99 11.87	3825 5025 9.09 12.61	3775 7875 8.38 11.36
2625 1325 10.69 10.57	3075 2875 10.03 12.08	3875 5025 9.07 12.65	3825 7875 8.34 11.28
2675 1325 10.67 10.72	3125 2875 10.07 12.25	3925 5025 9.06 12.67	3875 7875 8.33 11.28
2725 1325 10.64 10.77	3175 2875 10.10 12.35	3975 5025 9.07 12.73	3925 7875 8.34 11.28
2775 1325 10.63 10.84	3225 2875 10.12 12.44	4025 5025 9.10 12.78	1375 7925 9.02 8.60
2825 1325 10.60 10.94	3275 2875 10.12 12.52	4075 5025 9.16 12.84	1425 7925 9.02 8.70
2875 1325 10.56 11.17	3325 2875 10.12 12.59	4125 5025 9.18 12.89	1725 7925 8.75 9.98
2925 1325 10.52 11.31	3375 2875 10.11 12.65	4175 5025 9.18 12.93	1775 7925 8.65 10.22
2975 1325 10.50 11.41	3425 2875 10.07 12.69	4225 5025 9.19 12.88	1825 7925 8.61 10.25
3025 1325 10.48 11.48	3475 2875 10.02 12.71	4275 5025 9.25 12.85	1875 7925 8.50 10.50
3075 1325 10.48 11.48	3525 2875 9.96 12.64	4325 5025 9.27 12.85	1925 7925 8.42 10.71
3125 1325 10.47 11.53	3575 2875 9.90 12.65	4375 5025 9.28 12.86	1975 7925 8.41 10.79
3175 1325 10.48 11.60	3625 2875 9.86 12.71	4425 5025 9.31 12.78	2025 7925 8.42 10.83
3225 1325 10.48 11.78	3675 2875 9.78 12.64	4475 5025 9.38 12.48	2075 7925 8.41 10.92
3275 1325 10.46 11.84	3725 2875 9.77 12.58	4525 5025 9.41 12.33	2125 7925 8.39 11.07
3325 1325 10.47 11.91	3775 2875 9.82 12.55	4575 5025 9.44 12.24	2175 7925 8.39 11.09
3375 1325 10.46 11.90	3825 2875 9.93 12.61	4625 5025 9.50 12.11	2225 7925 8.39 11.12
3425 1325 10.46 11.97	3875 2875 10.02 12.62	4675 5025 9.52 12.04	2275 7925 8.34 11.17
3475 1325 10.45 11.99	3925 2875 10.06 12.77	4725 5025 9.52 12.01	2325 7925 8.32 11.24
3525 1325 10.45 12.03	3975 2875 10.09 12.84	4775 5025 9.50 11.96	2375 7925 8.30 11.34
3575 1325 10.44 12.07	4025 2875 10.11 12.91	4825 5025 9.51 11.87	2425 7925 8.25 11.47
3625 1325 10.40 12.14	4075 2875 10.12 12.98	4875 5025 9.52 11.77	2475 7925 8.23 11.56
3675 1325 10.36 12.26	4125 2875 10.12 13.05	4925 5025 9.46 11.59	2525 7925 8.24 11.61
3725 1325 10.34 12.36	4175 2875 10.12 13.11	4975 5025 9.44 11.54	2575 7925 8.26 11.72
3775 1325 10.33 12.40	4225 2875 10.12 13.17	3025 5075 9.49 10.70	2625 7925 8.25 11.78
3825 1325 10.32 12.41	4275 2875 10.09 13.27	3075 5075 9.47 10.91	2675 7925 8.28 11.91
3875 1325 10.33 12.44	4325 2875 10.07 13.37	3125 5075 9.44 11.23	2725 7925 8.33 12.13
3925 1325 10.32 12.44	4375 2875 10.04 13.39	3175 5075 9.43 11.46	2775 7925 8.35 12.20
3975 1325 10.33 12.50	4425 2875 9.99 13.36	3225 5075 9.38 11.51	2825 7925 8.34 12.22
4025 1325 10.34 12.58	4475 2875 9.96 13.34	3275 5075 9.31 11.60	2875 7925 8.35 12.23
4075 1325 10.35 12.68	4525 2875 9.94 13.34	3325 5075 9.23 11.85	2925 7925 8.37 12.21
4125 1325 10.36 12.78	4575 2875 9.93 13.37	3375 5075 9.20 11.98	2975 7925 8.39 12.16
4175 1325 10.38 12.84	4625 2875 9.93 13.41	3425 5075 9.21 12.03	3025 7925 8.40 12.14
4225 1325 10.40 12.90	4675 2875 9.93 13.45	3475 5075 9.21 12.09	3075 7925 8.40 12.13
4275 1325 10.41 12.95	4725 2875 9.92 13.47	3525 5075 9.17 12.11	3125 7925 8.42 12.08
4325 1325 10.42 12.97	4775 2875 9.92 13.47	3575 5075 9.14 12.14	3175 7925 8.43 12.01

4375 1325 10.40 12.98	4825 2875 9.93 13.51	3625 5075 9.14 12.25	3225 7925 8.39 12.01
4425 1325 10.38 13.04	4875 2875 9.93 13.53	3675 5075 9.13 12.36	3275 7925 8.36 11.96
4475 1325 10.38 13.03	4925 2875 9.94 13.54	3725 5075 9.07 12.45	3325 7925 8.36 11.96
4525 1325 10.37 13.05	4975 2875 9.93 13.53	3775 5075 9.03 12.51	3375 7925 8.36 11.99
4575 1325 10.37 13.07	5025 2875 9.91 13.50	3825 5075 9.02 12.57	3425 7925 8.36 12.05
4625 1325 10.36 13.04	5075 2875 9.89 13.43	3875 5075 9.02 12.62	3475 7925 8.36 12.09
4675 1325 10.36 12.99	5125 2875 9.86 13.37	3925 5075 9.01 12.69	3525 7925 8.37 12.14
4725 1325 10.31 12.98	5175 2875 9.84 13.37	3975 5075 9.04 12.75	3575 7925 8.40 12.03
4775 1325 10.23 12.86	5225 2875 9.83 13.37	4025 5075 9.10 12.84	3625 7925 8.44 11.94
4825 1325 10.15 12.78	5275 2875 9.82 13.34	4075 5075 9.16 12.87	3675 7925 8.38 11.86
4875 1325 10.08 12.81	5325 2875 9.80 13.37	4125 5075 9.17 12.88	3725 7925 8.33 11.74
4925 1325 10.01 12.83	5375 2875 9.79 13.39	4175 5075 9.18 12.86	3775 7925 8.38 11.41
4975 1325 9.98 12.85	5425 2875 9.77 13.43	4225 5075 9.18 12.84	3825 7925 8.36 11.30
5025 1325 9.97 12.91	5475 2875 9.75 13.48	4275 5075 9.25 12.83	3875 7925 8.32 11.28
5075 1325 9.96 12.92	5525 2875 9.73 13.52	4325 5075 9.27 12.80	3925 7925 8.33 11.25
5125 1325 9.97 12.93	5575 2875 9.73 13.59	4375 5075 9.30 12.72	1375 7975 8.99 8.58
5175 1325 9.98 12.84	5625 2875 9.71 13.62	4425 5075 9.37 12.52	1425 7975 9.00 8.69
5225 1325 10.00 12.77	5675 2875 9.71 13.65	4475 5075 9.40 12.32	1625 7975 8.89 9.52
5275 1325 9.99 12.84	5725 2875 9.71 13.68	4525 5075 9.44 12.26	1775 7975 8.66 10.18
5325 1325 10.03 12.74	5775 2875 9.71 13.69	4575 5075 9.49 12.10	1825 7975 8.60 10.20
5375 1325 10.01 12.80	5825 2875 9.72 13.72	4625 5075 9.51 12.02	1875 7975 8.50 10.45
5425 1325 10.01 12.80	5875 2875 9.75 13.74	4675 5075 9.52 11.96	1925 7975 8.42 10.66
5475 1325 9.99 12.84	5925 2875 9.78 13.84	4725 5075 9.53 11.92	1975 7975 8.40 10.79
5525 1325 9.99 12.85	5975 2875 9.78 13.89	4775 5075 9.55 11.78	2025 7975 8.40 10.82
5575 1325 9.99 12.83	6025 2875 9.76 13.87	4825 5075 9.51 11.67	2075 7975 8.37 10.96
5625 1325 10.00 12.78	6075 2875 9.75 13.84	4875 5075 9.45 11.59	2125 7975 8.35 11.07
5675 1325 9.99 12.80	6125 2875 9.78 13.72	4925 5075 9.44 11.55	2175 7975 8.35 11.11
5725 1325 9.99 12.83	6175 2875 9.85 13.51	2975 5125 9.49 10.62	2225 7975 8.36 11.13
5775 1325 9.99 12.77	6225 2875 9.87 13.47	3025 5125 9.50 10.71	2275 7975 8.33 11.18
5825 1325 10.03 13.04	6275 2875 9.85 13.43	3075 5125 9.47 10.87	2325 7975 8.30 11.27
5875 1325 10.10 13.02	6325 2875 9.76 13.26	3125 5125 9.45 11.23	2375 7975 8.28 11.36
5925 1325 10.22 13.12	6375 2875 9.85 13.07	3175 5125 9.46 11.46	2425 7975 8.24 11.46
5975 1325 10.36 12.85	6425 2875 9.94 13.19	3225 5125 9.40 11.54	2475 7975 8.23 11.52
6025 1325 10.46 13.03	6475 2875 9.99 13.10	3275 5125 9.36 11.68	2525 7975 8.24 11.56
6075 1325 10.54 12.97	2625 2925 10.22 10.36	3325 5125 9.24 11.83	2575 7975 8.26 11.63
6125 1325 10.58 12.84	2675 2925 10.17 10.49	3375 5125 9.21 11.97	2625 7975 8.27 11.76
2475 1375 10.90 10.15	2725 2925 10.02 10.55	3425 5125 9.24 12.03	2675 7975 8.27 11.80
2525 1375 10.85 10.30	2775 2925 10.00 10.68	3475 5125 9.23 12.07	2725 7975 8.34 11.99
2575 1375 10.84 10.39	2825 2925 9.94 10.99	3525 5125 9.18 12.07	2775 7975 8.36 12.16
2625 1375 10.76 10.52	2875 2925 9.92 11.07	3575 5125 9.17 12.19	2825 7975 8.35 12.18
2675 1375 10.75 10.64	2925 2925 9.94 11.31	3625 5125 9.14 12.31	2875 7975 8.36 12.19
2725 1375 10.73 10.78	2975 2925 9.95 11.53	3675 5125 9.09 12.40	2925 7975 8.38 12.14
2775 1375 10.66 10.87	3025 2925 9.99 11.78	3725 5125 9.02 12.44	2975 7975 8.40 12.11
2825 1375 10.63 10.86	3075 2925 10.03 12.05	3775 5125 8.99 12.50	3025 7975 8.40 12.09
2875 1375 10.63 10.96	3125 2925 10.04 12.15	3825 5125 8.99 12.57	3075 7975 8.41 12.06
2925 1375 10.63 11.19	3175 2925 10.07 12.26	3875 5125 9.00 12.64	3125 7975 8.42 12.02

2975 1375 10.60 11.40	3225 2925 10.10 12.40	3925 5125 9.00 12.70	3175 7975 8.42 11.98
3025 1375 10.57 11.50	3275 2925 10.10 12.48	3975 5125 9.03 12.80	3225 7975 8.39 12.01
3075 1375 10.55 11.63	3325 2925 10.11 12.56	4025 5125 9.10 12.88	3275 7975 8.36 12.00
3125 1375 10.53 11.65	3375 2925 10.09 12.63	4075 5125 9.17 12.88	3325 7975 8.36 11.93
3175 1375 10.55 11.78	3425 2925 10.07 12.67	4125 5125 9.18 12.84	3375 7975 8.36 11.96
3225 1375 10.53 11.86	3475 2925 10.02 12.72	4175 5125 9.17 12.81	3425 7975 8.37 12.01
3275 1375 10.52 12.04	3525 2925 9.95 12.71	4225 5125 9.19 12.79	3475 7975 8.36 12.06
3325 1375 10.50 12.09	3575 2925 9.88 12.67	4275 5125 9.25 12.77	3525 7975 8.35 12.10
3375 1375 10.48 12.05	3625 2925 9.80 12.70	4325 5125 9.29 12.69	3575 7975 8.36 12.06
3425 1375 10.48 12.04	3675 2925 9.69 12.53	4375 5125 9.35 12.48	3625 7975 8.43 11.92
3475 1375 10.45 12.03	3725 2925 9.68 12.54	4425 5125 9.38 12.31	3675 7975 8.38 11.81
3525 1375 10.45 12.10	3775 2925 9.70 12.54	4475 5125 9.41 12.27	3725 7975 8.30 11.75
3575 1375 10.42 12.16	3825 2925 9.78 12.58	4525 5125 9.49 12.07	3775 7975 8.33 11.51
3625 1375 10.39 12.23	3875 2925 9.94 12.60	4575 5125 9.51 11.96	3825 7975 8.35 11.29
3675 1375 10.35 12.32	3925 2925 10.01 12.64	4625 5125 9.52 11.92	3875 7975 8.32 11.25
3725 1375 10.31 12.42	3975 2925 10.08 12.84	4675 5125 9.55 11.77	3925 7975 8.31 11.21
3775 1375 10.30 12.44	4025 2925 10.10 12.89	4725 5125 9.54 11.76	3975 7975 8.31 11.15
3825 1375 10.29 12.46	4075 2925 10.11 12.96	4775 5125 9.50 11.69	1625 8025 8.87 9.49
3875 1375 10.30 12.46	4125 2925 10.11 13.05	4825 5125 9.44 11.59	1675 8025 8.79 9.88
3925 1375 10.29 12.47	4175 2925 10.10 13.14	4875 5125 9.43 11.57	1725 8025 8.76 9.96
3975 1375 10.30 12.52	4225 2925 10.09 13.27	3025 5175 9.50 10.70	1775 8025 8.68 10.20
4025 1375 10.31 12.60	4275 2925 10.07 13.37	3075 5175 9.49 10.84	1825 8025 8.60 10.20
4075 1375 10.31 12.67	4325 2925 10.03 13.40	3125 5175 9.45 11.30	1875 8025 8.49 10.45
4125 1375 10.33 12.76	4375 2925 10.00 13.39	3175 5175 9.45 11.49	1925 8025 8.42 10.63
4175 1375 10.35 12.84	4425 2925 9.94 13.27	3225 5175 9.40 11.54	1975 8025 8.41 10.77
4225 1375 10.38 12.91	4475 2925 9.91 13.26	3275 5175 9.39 11.74	2025 8025 8.39 10.82
4275 1375 10.39 12.96	4525 2925 9.90 13.31	3325 5175 9.30 11.97	2075 8025 8.36 10.93
4325 1375 10.39 12.99	4575 2925 9.91 13.37	3375 5175 9.23 11.96	2125 8025 8.32 11.07
4375 1375 10.36 13.00	4625 2925 9.91 13.40	3425 5175 9.26 12.00	2175 8025 8.32 11.12
4425 1375 10.36 13.04	4675 2925 9.93 13.43	3475 5175 9.24 12.04	2225 8025 8.33 11.14
4475 1375 10.35 13.03	4725 2925 9.92 13.44	3525 5175 9.20 12.10	2275 8025 8.30 11.18
4525 1375 10.37 13.08	4775 2925 9.93 13.45	3575 5175 9.19 12.22	2325 8025 8.28 11.26
4575 1375 10.36 13.10	4825 2925 9.93 13.50	3625 5175 9.15 12.31	2375 8025 8.26 11.35
4625 1375 10.36 13.08	4875 2925 9.93 13.52	3675 5175 9.04 12.41	2425 8025 8.24 11.43
4675 1375 10.36 13.02	4925 2925 9.93 13.51	3725 5175 8.99 12.45	2475 8025 8.23 11.48
4725 1375 10.30 13.03	4975 2925 9.91 13.47	3775 5175 8.98 12.51	2525 8025 8.23 11.52
4775 1375 10.21 12.95	5025 2925 9.88 13.41	3825 5175 8.97 12.57	2575 8025 8.25 11.58
4825 1375 10.17 12.96	5075 2925 9.86 13.37	3875 5175 8.98 12.64	2625 8025 8.28 11.68
4875 1375 10.13 12.98	5125 2925 9.85 13.34	3925 5175 8.99 12.72	2675 8025 8.29 11.75
4925 1375 10.10 13.02	5175 2925 9.82 13.36	3975 5175 9.03 12.85	2725 8025 8.33 11.81
4975 1375 10.05 13.06	5225 2925 9.82 13.36	4025 5175 9.10 12.90	2775 8025 8.36 12.02
5025 1375 10.02 13.10	5275 2925 9.79 13.33	4075 5175 9.17 12.87	2825 8025 8.36 12.13
5075 1375 10.02 13.12	5325 2925 9.77 13.34	4125 5175 9.19 12.82	2875 8025 8.38 12.13
5125 1375 10.03 13.12	5375 2925 9.75 13.35	4175 5175 9.19 12.77	2925 8025 8.42 12.07
5175 1375 10.04 13.00	5425 2925 9.73 13.39	4225 5175 9.20 12.75	2975 8025 8.42 12.03
5225 1375 10.05 12.93	5475 2925 9.72 13.46	4275 5175 9.27 12.66	3025 8025 8.42 12.04

5275 1375 10.03 12.97	5525 2925 9.70 13.51	4325 5175 9.33 12.44	3075 8025 8.42 12.02
5325 1375 10.07 12.90	5575 2925 9.70 13.57	4375 5175 9.37 12.28	3125 8025 8.43 12.02
5375 1375 10.05 12.93	5625 2925 9.69 13.61	4425 5175 9.38 12.27	3175 8025 8.41 12.04
5425 1375 10.05 12.95	5675 2925 9.68 13.65	4475 5175 9.49 12.07	3225 8025 8.40 12.06
5475 1375 10.03 12.99	5725 2925 9.69 13.69	4525 5175 9.51 11.98	3275 8025 8.39 12.05
5525 1375 10.03 13.02	5775 2925 9.70 13.72	4575 5175 9.54 11.82	3325 8025 8.37 12.02
5575 1375 10.01 12.98	5825 2925 9.73 13.75	4625 5175 9.54 11.76	3375 8025 8.38 12.03
5625 1375 10.00 12.95	5875 2925 9.75 13.85	4675 5175 9.50 11.68	3425 8025 8.38 12.03
5675 1375 9.99 12.88	5925 2925 9.76 13.92	4725 5175 9.44 11.59	3475 8025 8.37 12.04
5725 1375 9.98 12.89	5975 2925 9.76 13.93	3025 5225 9.49 10.74	3525 8025 8.36 12.09
5775 1375 9.99 12.86	6025 2925 9.75 13.90	3075 5225 9.48 10.83	3575 8025 8.39 11.98
5825 1375 9.98 12.89	6075 2925 9.75 13.85	3125 5225 9.47 11.25	3625 8025 8.44 11.88
5875 1375 9.98 12.97	6125 2925 9.77 13.72	3175 5225 9.43 11.49	3675 8025 8.38 11.78
5925 1375 10.09 13.03	6175 2925 9.82 13.50	3225 5225 9.40 11.56	3725 8025 8.30 11.75
5975 1375 10.20 13.01	6225 2925 9.86 13.41	3275 5225 9.39 11.72	3775 8025 8.28 11.51
6025 1375 10.27 13.05	6275 2925 9.83 13.36	3325 5225 9.33 11.99	3825 8025 8.36 11.26
6075 1375 10.43 13.01	6325 2925 9.75 13.27	3375 5225 9.27 11.99	3875 8025 8.30 11.21
6125 1375 10.53 13.07	6375 2925 9.83 13.09	3425 5225 9.26 12.00	3925 8025 8.29 11.13
6175 1375 10.55 12.93	6425 2925 9.92 13.20	3475 5225 9.25 12.05	1625 8075 8.87 9.43
6225 1375 10.54 12.84	6475 2925 10.01 13.04	3525 5225 9.20 12.11	1675 8075 8.79 9.83
2475 1425 10.94 10.24	2625 2975 10.22 10.36	3575 5225 9.18 12.23	1725 8075 8.76 9.94
2525 1425 10.95 10.19	2675 2975 10.19 10.49	3625 5225 9.12 12.29	1875 8075 8.51 10.37
2575 1425 10.91 10.43	2725 2975 10.03 10.51	3675 5225 9.01 12.38	1925 8075 8.43 10.55
2625 1425 10.89 10.45	2775 2975 10.00 10.62	3725 5225 8.97 12.46	1975 8075 8.42 10.76
2675 1425 10.83 10.57	2825 2975 9.93 10.95	3775 5225 8.96 12.52	2025 8075 8.39 10.81
2725 1425 10.80 10.60	2875 2975 9.93 11.06	3825 5225 8.97 12.58	2075 8075 8.36 10.88
2775 1425 10.78 10.80	2925 2975 9.94 11.29	3875 5225 8.97 12.65	2125 8075 8.32 11.06
2825 1425 10.73 11.01	2975 2975 9.95 11.49	3925 5225 8.98 12.74	2175 8075 8.31 11.11
2875 1425 10.73 11.09	3025 2975 9.97 11.68	3975 5225 9.00 12.82	2225 8075 8.31 11.14
2925 1425 10.69 11.19	3075 2975 10.03 12.02	4025 5225 9.09 12.85	2275 8075 8.28 11.16
2975 1425 10.66 11.44	3125 2975 10.04 12.12	4075 5225 9.16 12.82	2325 8075 8.26 11.24
3025 1425 10.63 11.64	3175 2975 10.05 12.16	4125 5225 9.19 12.80	2375 8075 8.25 11.31
3075 1425 10.62 11.70	3225 2975 10.07 12.28	4175 5225 9.20 12.74	2425 8075 8.25 11.33
3125 1425 10.63 11.75	3275 2975 10.09 12.42	4225 5225 9.23 12.65	2475 8075 8.26 11.39
3175 1425 10.62 11.81	3325 2975 10.09 12.52	4275 5225 9.31 12.40	2525 8075 8.25 11.46
3225 1425 10.58 11.90	3375 2975 10.07 12.59	4325 5225 9.36 12.21	2575 8075 8.25 11.51
3275 1425 10.54 11.99	3425 2975 10.06 12.64	4375 5225 9.35 12.24	2625 8075 8.27 11.60
3325 1425 10.50 12.12	3475 2975 10.03 12.72	4425 5225 9.45 12.14	2675 8075 8.31 11.70
3375 1425 10.50 12.18	3525 2975 9.94 12.81	4475 5225 9.52 11.96	2725 8075 8.33 11.73
3425 1425 10.49 12.20	3575 2975 9.85 12.70	4525 5225 9.56 11.90	2775 8075 8.36 11.82
3475 1425 10.47 12.16	3625 2975 9.74 12.63	4575 5225 9.56 11.84	2825 8075 8.37 12.03
3525 1425 10.43 12.18	3675 2975 9.65 12.53	4625 5225 9.48 11.70	2875 8075 8.39 12.05
3575 1425 10.40 12.24	3725 2975 9.65 12.55	3025 5275 9.47 10.74	2925 8075 8.42 12.03
3625 1425 10.35 12.31	3775 2975 9.66 12.56	3075 5275 9.47 10.88	2975 8075 8.43 12.00
3675 1425 10.31 12.38	3825 2975 9.67 12.55	3125 5275 9.47 11.28	3025 8075 8.43 12.01
3725 1425 10.28 12.45	3875 2975 9.76 12.66	3175 5275 9.43 11.52	3075 8075 8.43 12.02

3775 1425 10.24 12.48	3925 2975 9.91 12.66	3225 5275 9.39 11.57	3125 8075 8.42 12.04
3825 1425 10.25 12.47	3975 2975 10.01 12.74	3275 5275 9.38 11.68	3175 8075 8.41 12.05
3875 1425 10.25 12.47	4025 2975 10.07 12.90	3325 5275 9.35 11.99	3225 8075 8.41 12.09
3925 1425 10.25 12.50	4075 2975 10.09 12.98	3375 5275 9.29 12.06	3275 8075 8.42 12.10
3975 1425 10.26 12.55	4125 2975 10.09 13.10	3425 5275 9.26 12.00	3325 8075 8.41 12.10
4025 1425 10.27 12.62	4175 2975 10.06 13.24	3475 5275 9.25 12.06	3375 8075 8.41 12.08
4075 1425 10.28 12.68	4225 2975 10.03 13.33	3525 5275 9.20 12.14	3425 8075 8.40 12.08
4125 1425 10.30 12.75	4275 2975 10.02 13.38	3575 5275 9.16 12.23	3475 8075 8.38 12.10
4175 1425 10.31 12.82	4325 2975 9.96 13.36	3625 5275 9.09 12.29	3525 8075 8.39 12.09
4225 1425 10.32 12.89	4375 2975 9.92 13.29	3675 5275 8.98 12.38	3575 8075 8.45 11.93
4275 1425 10.33 12.95	4425 2975 9.89 13.22	3725 5275 8.96 12.45	3625 8075 8.48 11.89
4325 1425 10.33 12.99	4475 2975 9.88 13.24	3775 5275 8.95 12.53	3675 8075 8.40 11.72
4375 1425 10.33 13.00	4525 2975 9.87 13.26	3825 5275 8.95 12.61	3725 8075 8.32 11.72
4425 1425 10.34 13.05	4575 2975 9.88 13.31	3875 5275 8.95 12.68	3775 8075 8.28 11.43
4475 1425 10.34 13.05	4625 2975 9.89 13.36	3925 5275 8.96 12.74	3825 8075 8.35 11.23
4525 1425 10.36 13.09	4675 2975 9.92 13.38	3975 5275 8.99 12.79	3875 8075 8.30 11.19
4575 1425 10.35 13.10	4725 2975 9.93 13.42	4025 5275 9.07 12.78	3925 8075 8.27 11.08
4625 1425 10.36 13.10	4775 2975 9.93 13.46	4075 5275 9.17 12.76	825 8125 8.90 8.62
4675 1425 10.35 13.12	4825 2975 9.93 13.50	4125 5275 9.20 12.74	1525 8125 8.91 9.07
4725 1425 10.32 13.10	4875 2975 9.91 13.47	4175 5275 9.23 12.64	1575 8125 8.88 9.17
4775 1425 10.28 13.11	4925 2975 9.90 13.41	4225 5275 9.30 12.43	1725 8125 8.75 9.95
4825 1425 10.23 13.08	4975 2975 9.88 13.38	4275 5275 9.36 12.19	1775 8125 8.70 10.17
4875 1425 10.18 13.08	5025 2975 9.86 13.34	4325 5275 9.33 12.15	1825 8125 8.63 10.22
4925 1425 10.14 13.09	5075 2975 9.84 13.32	4375 5275 9.38 12.21	1875 8125 8.51 10.35
4975 1425 10.10 13.10	5125 2975 9.82 13.30	4425 5275 9.51 11.98	1925 8125 8.44 10.52
5025 1425 10.08 13.17	5175 2975 9.81 13.32	4475 5275 9.57 11.95	1975 8125 8.44 10.71
5075 1425 10.07 13.16	5225 2975 9.79 13.33	4525 5275 9.60 11.90	2025 8125 8.39 10.80
5125 1425 10.10 13.12	5275 2975 9.77 13.30	2125 5325 9.45 9.97	2075 8125 8.36 10.84
5175 1425 10.09 13.04	5325 2975 9.73 13.29	2475 5325 9.40 10.53	2125 8125 8.33 10.99
5225 1425 10.10 13.00	5375 2975 9.71 13.33	3075 5325 9.41 10.96	2175 8125 8.31 11.11
5275 1425 10.09 13.02	5425 2975 9.69 13.39	3125 5325 9.41 11.32	2225 8125 8.31 11.15
5325 1425 10.12 12.98	5475 2975 9.67 13.46	3175 5325 9.40 11.55	2275 8125 8.29 11.16
5375 1425 10.11 12.99	5525 2975 9.66 13.50	3225 5325 9.37 11.61	2325 8125 8.25 11.19
5425 1425 10.10 13.01	5575 2975 9.64 13.55	3275 5325 9.35 11.69	2375 8125 8.25 11.23
5475 1425 10.08 13.03	5625 2975 9.63 13.60	3325 5325 9.34 11.93	2425 8125 8.28 11.26
5525 1425 10.08 13.07	5675 2975 9.63 13.65	3375 5325 9.29 12.08	2475 8125 8.29 11.30
5575 1425 10.06 13.04	5725 2975 9.63 13.69	3425 5325 9.25 11.99	2525 8125 8.30 11.33
5625 1425 10.03 13.09	5775 2975 9.66 13.73	3475 5325 9.24 12.05	2575 8125 8.29 11.41
5675 1425 10.03 13.07	5825 2975 9.69 13.77	3525 5325 9.18 12.13	2625 8125 8.27 11.50
5725 1425 10.01 13.05	5875 2975 9.73 13.91	3575 5325 9.12 12.21	2675 8125 8.29 11.60
5775 1425 10.00 13.01	5925 2975 9.72 13.92	3625 5325 9.04 12.24	2725 8125 8.35 11.70
5825 1425 9.98 12.97	5975 2975 9.75 13.88	3675 5325 8.95 12.38	2775 8125 8.37 11.70
5875 1425 9.96 12.93	6025 2975 9.75 13.88	3725 5325 8.94 12.46	2825 8125 8.39 11.82
5925 1425 9.99 13.04	6075 2975 9.75 13.83	3775 5325 8.94 12.53	2875 8125 8.41 11.95
5975 1425 10.15 13.06	6125 2975 9.75 13.74	3825 5325 8.94 12.60	2925 8125 8.44 11.97
6025 1425 10.19 13.06	6175 2975 9.80 13.47	3875 5325 8.93 12.68	2975 8125 8.43 11.96

6075 1425 10.32 13.18	6225 2975 9.85 13.41	3925 5325 8.95 12.73	3025 8125 8.43 11.99
6125 1425 10.41 12.93	6275 2975 9.83 13.37	3975 5325 8.99 12.73	3075 8125 8.43 12.02
6175 1425 10.49 12.99	6325 2975 9.75 13.25	4025 5325 9.07 12.70	3125 8125 8.42 12.05
6225 1425 10.51 12.94	6375 2975 9.80 13.05	4075 5325 9.17 12.70	3175 8125 8.43 12.09
6275 1425 10.54 12.94	6425 2975 9.89 13.14	4125 5325 9.22 12.63	3225 8125 8.44 12.12
6325 1425 10.50 12.77	6475 2975 10.01 12.92	4175 5325 9.27 12.45	3275 8125 8.44 12.10
2525 1475 10.97 10.21	2625 3025 10.21 10.36	4225 5325 9.35 12.25	3325 8125 8.44 12.10
2575 1475 11.02 10.30	2675 3025 10.18 10.48	4275 5325 9.34 12.11	3375 8125 8.43 12.09
2625 1475 10.93 10.39	2725 3025 10.04 10.52	4325 5325 9.32 12.18	3425 8125 8.43 12.08
2675 1475 10.95 10.54	2775 3025 10.00 10.57	4375 5325 9.46 12.03	3475 8125 8.43 12.06
2725 1475 10.89 10.69	2825 3025 9.94 10.88	4425 5325 9.54 12.02	3525 8125 8.47 11.99
2775 1475 10.87 10.72	2875 3025 9.92 11.04	4475 5325 9.58 11.83	3575 8125 8.50 11.87
2825 1475 10.89 10.96	2925 3025 9.91 11.13	4525 5325 9.56 11.73	3625 8125 8.48 11.85
2875 1475 10.84 11.15	2975 3025 9.94 11.39	2125 5375 9.43 10.01	3675 8125 8.42 11.71
2925 1475 10.77 11.28	3025 3025 9.95 11.56	2425 5375 9.36 10.51	3725 8125 8.33 11.70
3325 1475 10.55 12.19	3075 3025 10.02 11.91	2475 5375 9.36 10.56	3775 8125 8.29 11.32
3375 1475 10.50 12.25	3125 3025 10.03 12.10	3125 5375 9.35 11.35	3825 8125 8.36 11.23
3425 1475 10.49 12.27	3175 3025 10.03 12.14	3175 5375 9.37 11.59	3875 8125 8.29 11.14
3475 1475 10.48 12.32	3225 3025 10.05 12.21	3225 5375 9.36 11.64	3925 8125 8.27 11.01
3525 1475 10.45 12.33	3275 3025 10.06 12.31	3275 5375 9.34 11.72	3975 8125 8.33 10.86
3575 1475 10.39 12.31	3325 3025 10.07 12.42	3325 5375 9.29 11.89	775 8175 8.89 8.64
3625 1475 10.33 12.34	3375 3025 10.06 12.49	3375 5375 9.25 12.01	825 8175 8.89 8.63
3675 1475 10.30 12.40	3425 3025 10.04 12.59	3425 5375 9.24 11.97	1425 8175 8.93 8.64
3725 1475 10.27 12.47	3475 3025 10.01 12.72	3475 5375 9.21 12.02	1475 8175 8.95 8.80
3775 1475 10.23 12.51	3525 3025 9.92 12.86	3525 5375 9.15 12.10	1525 8175 8.92 9.06
3825 1475 10.20 12.48	3575 3025 9.82 12.72	3575 5375 9.06 12.14	1575 8175 8.86 9.15
3875 1475 10.21 12.47	3625 3025 9.73 12.71	3625 5375 8.98 12.20	1625 8175 8.84 9.31
3925 1475 10.22 12.52	3675 3025 9.64 12.57	3675 5375 8.93 12.37	1675 8175 8.78 9.72
3975 1475 10.23 12.56	3725 3025 9.63 12.56	3725 5375 8.92 12.47	1725 8175 8.75 9.90
4025 1475 10.24 12.63	3775 3025 9.64 12.55	3775 5375 8.92 12.54	1775 8175 8.71 10.10
4075 1475 10.24 12.69	3825 3025 9.65 12.56	3825 5375 8.91 12.60	1825 8175 8.65 10.21
4125 1475 10.25 12.75	3875 3025 9.66 12.56	3875 5375 8.92 12.67	1875 8175 8.53 10.29
4175 1475 10.25 12.82	3925 3025 9.75 12.73	3925 5375 8.95 12.67	1925 8175 8.45 10.51
4225 1475 10.26 12.90	3975 3025 9.85 12.79	3975 5375 8.99 12.65	1975 8175 8.45 10.66
4275 1475 10.27 12.91	4025 3025 9.96 13.01	4025 5375 9.07 12.60	2025 8175 8.40 10.78
4325 1475 10.29 12.91	4075 3025 10.00 13.13	4075 5375 9.17 12.53	2075 8175 8.36 10.82
4375 1475 10.30 12.95	4125 3025 10.00 13.22	4125 5375 9.25 12.44	2125 8175 8.34 10.90
4425 1475 10.32 13.01	4175 3025 9.98 13.26	4175 5375 9.31 12.33	2175 8175 8.30 11.08
4475 1475 10.32 13.05	4225 3025 9.95 13.30	4225 5375 9.37 12.20	2225 8175 8.30 11.15
4525 1475 10.34 13.10	4275 3025 9.91 13.26	4275 5375 9.31 12.06	2275 8175 8.30 11.12
4575 1475 10.35 13.14	4325 3025 9.89 13.23	4325 5375 9.39 12.11	2325 8175 8.26 11.13
4625 1475 10.36 13.13	4375 3025 9.87 13.21	4375 5375 9.50 12.03	2375 8175 8.26 11.15
4675 1475 10.36 13.12	4425 3025 9.85 13.20	4425 5375 9.55 11.78	2425 8175 8.29 11.19
4725 1475 10.34 13.17	4475 3025 9.85 13.21	4475 5375 9.59 11.60	2475 8175 8.32 11.20
4775 1475 10.32 13.17	4525 3025 9.84 13.22	2125 5425 9.40 10.02	2525 8175 8.33 11.23
4825 1475 10.30 13.18	4575 3025 9.86 13.24	2375 5425 9.31 10.53	2575 8175 8.34 11.26

4875 1475 10.27 13.23	4625 3025 9.89 13.26	2425 5425 9.28 10.61	2625 8175 8.33 11.35
4925 1475 10.24 13.27	4675 3025 9.92 13.29	2475 5425 9.26 10.67	2675 8175 8.30 11.49
4975 1475 10.18 13.24	4725 3025 9.93 13.40	2675 5425 9.22 10.73	2725 8175 8.33 11.62
5025 1475 10.15 13.32	4775 3025 9.92 13.43	2725 5425 9.21 10.79	2775 8175 8.39 11.65
5075 1475 10.12 13.19	4825 3025 9.90 13.40	3125 5425 9.30 11.40	2825 8175 8.41 11.62
5125 1475 10.16 13.16	4875 3025 9.88 13.33	3175 5425 9.33 11.60	2875 8175 8.42 11.74
5175 1475 10.16 13.04	4925 3025 9.86 13.31	3225 5425 9.34 11.66	2925 8175 8.45 11.88
5225 1475 10.17 13.06	4975 3025 9.85 13.31	3275 5425 9.30 11.73	2975 8175 8.44 11.96
5275 1475 10.18 13.02	5025 3025 9.85 13.29	3325 5425 9.25 11.84	3025 8175 8.44 11.98
5325 1475 10.18 12.99	5075 3025 9.82 13.26	3375 5425 9.21 11.91	3075 8175 8.44 12.02
5375 1475 10.17 13.03	5125 3025 9.80 13.26	3425 5425 9.20 11.94	3125 8175 8.44 12.06
5425 1475 10.16 13.04	5175 3025 9.77 13.27	3475 5425 9.16 11.99	3175 8175 8.44 12.07
5475 1475 10.17 13.06	5225 3025 9.75 13.27	3525 5425 9.07 12.06	3225 8175 8.45 12.09
5525 1475 10.16 13.07	5275 3025 9.71 13.23	3575 5425 9.01 12.05	3275 8175 8.47 12.10
5575 1475 10.13 13.08	5325 3025 9.67 13.26	3625 5425 8.94 12.22	3325 8175 8.47 12.08
5625 1475 10.09 13.14	5375 3025 9.65 13.31	3675 5425 8.89 12.34	3375 8175 8.45 12.08
5675 1475 10.06 13.12	5425 3025 9.62 13.38	3725 5425 8.90 12.45	3425 8175 8.47 12.04
5725 1475 10.05 13.11	5475 3025 9.62 13.44	3775 5425 8.91 12.55	3475 8175 8.50 11.92
5775 1475 10.03 13.13	5525 3025 9.60 13.47	3825 5425 8.90 12.61	3525 8175 8.53 11.86
5825 1475 10.01 13.11	5575 3025 9.60 13.50	3875 5425 8.91 12.62	3575 8175 8.53 11.90
5875 1475 9.98 13.03	5625 3025 9.59 13.56	3925 5425 8.94 12.61	3625 8175 8.47 11.80
5925 1475 9.99 13.11	5675 3025 9.60 13.62	3975 5425 9.00 12.60	3675 8175 8.43 11.67
5975 1475 10.08 13.21	5725 3025 9.61 13.67	4025 5425 9.08 12.52	3725 8175 8.36 11.49
6025 1475 10.18 13.02	5775 3025 9.66 13.69	4075 5425 9.18 12.37	3775 8175 8.32 11.24
6075 1475 10.28 13.18	5825 3025 9.70 13.81	4125 5425 9.26 12.39	3825 8175 8.37 11.21
6125 1475 10.32 13.20	5875 3025 9.71 13.86	4175 5425 9.34 12.27	3875 8175 8.30 11.13
6175 1475 10.41 12.99	5925 3025 9.72 13.86	4225 5425 9.36 12.14	3925 8175 8.30 10.96
6225 1475 10.49 12.92	5975 3025 9.73 13.85	4275 5425 9.30 12.09	3975 8175 8.36 10.75
6275 1475 10.49 12.99	6025 3025 9.74 13.83	4325 5425 9.45 12.02	775 8225 8.88 8.65
6325 1475 10.52 12.86	6075 3025 9.74 13.81	4375 5425 9.51 12.01	825 8225 8.88 8.64
6375 1475 10.50 12.79	6125 3025 9.75 13.72	4425 5425 9.58 11.60	1375 8225 8.92 8.56
3325 1525 10.66 12.22	6175 3025 9.79 13.47	2075 5475 9.40 10.01	1425 8225 8.92 8.65
3375 1525 10.55 12.40	6225 3025 9.84 13.41	2125 5475 9.38 10.05	1475 8225 8.93 8.79
3425 1525 10.49 12.38	6275 3025 9.79 13.33	2325 5475 9.21 10.70	1525 8225 8.91 9.06
3475 1525 10.46 12.39	6325 3025 9.75 13.23	2375 5475 9.17 10.85	1575 8225 8.86 9.16
3525 1525 10.45 12.44	6375 3025 9.79 13.02	2425 5475 9.14 10.94	1925 8225 8.48 10.48
3575 1525 10.41 12.45	6425 3025 9.89 13.12	2475 5475 9.13 10.99	1975 8225 8.46 10.58
3625 1525 10.34 12.36	6475 3025 9.99 12.87	2625 5475 9.09 11.11	2025 8225 8.41 10.75
3675 1525 10.28 12.41	2625 3075 10.21 10.41	2675 5475 9.08 11.23	2075 8225 8.37 10.80
3725 1525 10.26 12.49	2675 3075 10.16 10.49	2725 5475 9.07 11.26	2125 8225 8.36 10.85
3775 1525 10.23 12.57	2725 3075 10.05 10.50	2775 5475 9.08 11.22	2175 8225 8.32 11.01
3825 1525 10.20 12.50	2775 3075 9.99 10.55	2825 5475 9.07 11.21	2225 8225 8.31 11.13
3875 1525 10.18 12.46	2825 3075 9.94 10.82	3125 5475 9.26 11.42	2275 8225 8.32 11.14
3925 1525 10.20 12.52	2875 3075 9.91 11.01	3175 5475 9.28 11.56	2325 8225 8.28 11.10
3975 1525 10.20 12.58	2925 3075 9.91 11.10	3225 5475 9.27 11.66	2375 8225 8.26 11.08
4025 1525 10.21 12.64	2975 3075 9.94 11.39	3275 5475 9.25 11.68	2425 8225 8.29 11.11

4075 1525 10.20 12.69	3025 3075 9.94 11.52	3325 5475 9.19 11.74	2475 8225 8.33 11.14
4125 1525 10.18 12.78	3075 3075 9.98 11.85	3375 5475 9.16 11.84	2525 8225 8.36 11.17
4175 1525 10.20 12.87	3125 3075 10.00 12.11	3425 5475 9.15 11.90	2575 8225 8.39 11.20
4225 1525 10.21 12.93	3175 3075 10.02 12.13	3475 5475 9.07 11.93	2625 8225 8.39 11.26
4275 1525 10.23 12.94	3225 3075 10.03 12.17	3525 5475 8.98 11.97	2675 8225 8.36 11.35
4325 1525 10.25 12.91	3275 3075 10.04 12.26	3575 5475 8.95 12.07	2725 8225 8.33 11.48
4375 1525 10.26 12.92	3325 3075 10.04 12.32	3625 5475 8.89 12.22	2775 8225 8.40 11.53
4425 1525 10.28 12.98	3375 3075 10.04 12.42	3675 5475 8.86 12.30	2825 8225 8.44 11.51
4475 1525 10.29 13.00	3425 3075 10.03 12.56	3725 5475 8.87 12.41	2875 8225 8.44 11.52
4525 1525 10.33 13.09	3475 3075 9.98 12.72	3775 5475 8.89 12.53	2925 8225 8.45 11.68
4575 1525 10.36 13.17	3525 3075 9.89 12.85	3825 5475 8.89 12.57	2975 8225 8.45 11.85
4625 1525 10.39 13.19	3575 3075 9.79 12.73	3875 5475 8.90 12.57	3025 8225 8.44 11.96
4675 1525 10.37 13.18	3625 3075 9.69 12.67	3925 5475 8.94 12.56	3075 8225 8.44 11.99
4725 1525 10.36 13.18	3675 3075 9.62 12.55	3975 5475 9.02 12.56	3125 8225 8.45 12.02
4775 1525 10.34 13.24	3725 3075 9.61 12.55	4025 5475 9.10 12.46	3175 8225 8.46 12.07
4825 1525 10.33 13.24	3775 3075 9.62 12.53	4075 5475 9.17 12.30	3225 8225 8.46 12.06
4875 1525 10.32 13.26	3825 3075 9.63 12.56	4125 5475 9.25 12.33	3275 8225 8.48 12.07
4925 1525 10.31 13.28	3875 3075 9.64 12.58	4175 5475 9.33 12.18	3325 8225 8.48 12.07
4975 1525 10.28 13.37	3925 3075 9.67 12.64	4225 5475 9.31 12.06	3375 8225 8.49 12.02
5025 1525 10.25 13.43	3975 3075 9.73 12.79	4275 5475 9.39 12.05	3425 8225 8.53 11.90
5075 1525 10.25 13.40	4025 3075 9.78 12.86	4325 5475 9.47 12.08	3475 8225 8.56 11.79
5125 1525 10.26 13.36	4075 3075 9.85 13.02	4375 5475 9.51 11.76	3525 8225 8.56 11.80
5175 1525 10.26 13.31	4125 3075 9.89 13.12	4425 5475 9.51 11.51	3575 8225 8.52 11.77
5225 1525 10.25 13.26	4175 3075 9.89 13.14	2025 5525 9.39 9.95	3625 8225 8.46 11.68
5275 1525 10.28 13.22	4225 3075 9.88 13.16	2075 5525 9.38 10.01	3675 8225 8.46 11.58
5325 1525 10.22 13.12	4275 3075 9.86 13.15	2125 5525 9.35 10.09	3725 8225 8.39 11.29
5375 1525 10.25 13.13	4325 3075 9.85 13.17	2175 5525 9.26 10.23	3775 8225 8.39 11.19
5425 1525 10.20 12.99	4375 3075 9.83 13.16	2225 5525 9.21 10.60	3825 8225 8.38 11.19
5475 1525 10.21 13.06	4425 3075 9.82 13.18	2275 5525 9.18 10.82	3875 8225 8.30 11.02
5525 1525 10.20 13.08	4475 3075 9.82 13.18	2325 5525 9.15 10.95	3925 8225 8.34 10.90
5575 1525 10.17 13.05	4525 3075 9.82 13.19	2375 5525 9.13 11.01	3975 8225 8.35 10.70
5625 1525 10.14 13.15	4575 3075 9.84 13.18	2425 5525 9.12 11.03	4025 8225 8.28 10.54
5675 1525 10.11 13.12	4625 3075 9.89 13.21	2475 5525 9.13 11.16	775 8275 8.87 8.68
5725 1525 10.07 13.17	4675 3075 9.90 13.24	2525 5525 9.12 11.26	825 8275 8.87 8.63
5775 1525 10.05 13.18	4725 3075 9.89 13.26	2575 5525 9.08 11.34	875 8275 8.84 8.62
5825 1525 10.03 13.19	4775 3075 9.87 13.28	2625 5525 9.05 11.37	1375 8275 8.92 8.55
5875 1525 10.02 13.21	4825 3075 9.87 13.29	2675 5525 9.04 11.37	1425 8275 8.92 8.63
5925 1525 10.07 13.33	4875 3075 9.86 13.29	2725 5525 9.04 11.41	1475 8275 8.91 8.75
5975 1525 10.13 13.27	4925 3075 9.86 13.30	2775 5525 9.06 11.30	1525 8275 8.91 8.99
6025 1525 10.18 13.02	4975 3075 9.85 13.31	2825 5525 9.05 11.33	1575 8275 8.88 9.13
6075 1525 10.31 13.16	5025 3075 9.84 13.29	2875 5525 9.06 11.26	1825 8275 8.68 10.20
6125 1525 10.31 13.22	5075 3075 9.80 13.25	3175 5525 9.18 11.39	1875 8275 8.59 10.24
6175 1525 10.35 13.09	5125 3075 9.75 13.22	3225 5525 9.20 11.50	1925 8275 8.50 10.48
6225 1525 10.49 13.02	5175 3075 9.72 13.23	3275 5525 9.19 11.56	1975 8275 8.47 10.55
6275 1525 10.50 12.99	5225 3075 9.70 13.23	3325 5525 9.14 11.74	2025 8275 8.43 10.72
6325 1525 10.53 12.90	5275 3075 9.68 13.23	3375 5525 9.13 11.81	2075 8275 8.38 10.81

6375 1525 10.50 12.77	5325 3075 9.65 13.21	3425 5525 9.07 11.84	2125 8275 8.36 10.84
3325 1575 10.69 12.24	5375 3075 9.63 13.25	3475 5525 8.98 11.80	2175 8275 8.34 10.92
3375 1575 10.63 12.38	5425 3075 9.59 13.34	3525 5525 8.92 11.93	2225 8275 8.31 11.06
3425 1575 10.51 12.53	5475 3075 9.60 13.38	3575 5525 8.88 12.12	2275 8275 8.33 11.08
3475 1575 10.46 12.43	5525 3075 9.59 13.41	3625 5525 8.83 12.23	2325 8275 8.31 11.05
3525 1575 10.44 12.46	5575 3075 9.58 13.45	3675 5525 8.80 12.27	2375 8275 8.27 11.03
3575 1575 10.42 12.52	5625 3075 9.58 13.49	3725 5525 8.78 12.27	2425 8275 8.29 11.05
3625 1575 10.37 12.48	5675 3075 9.60 13.54	3775 5525 8.82 12.38	2475 8275 8.33 11.10
3675 1575 10.30 12.42	5725 3075 9.63 13.59	3825 5525 8.86 12.44	2525 8275 8.38 11.14
3725 1575 10.25 12.47	5775 3075 9.67 13.69	3875 5525 8.91 12.52	2575 8275 8.41 11.19
3775 1575 10.23 12.56	5825 3075 9.69 13.75	3925 5525 8.96 12.52	2625 8275 8.44 11.30
3825 1575 10.21 12.58	5875 3075 9.70 13.78	3975 5525 9.03 12.52	2675 8275 8.45 11.36
3875 1575 10.18 12.50	5925 3075 9.71 13.80	4025 5525 9.12 12.38	2725 8275 8.41 11.37
3925 1575 10.18 12.53	5975 3075 9.72 13.79	4075 5525 9.15 12.29	2775 8275 8.41 11.29
3975 1575 10.19 12.62	6025 3075 9.74 13.77	4125 5525 9.25 12.30	2825 8275 8.44 11.44
4025 1575 10.15 12.70	6075 3075 9.74 13.75	4175 5525 9.33 12.13	2875 8275 8.46 11.49
4075 1575 10.14 12.78	6125 3075 9.77 13.61	4225 5525 9.32 12.05	2925 8275 8.46 11.53
4125 1575 10.14 12.90	6175 3075 9.80 13.45	4275 5525 9.45 12.04	2975 8275 8.46 11.60
4175 1575 10.16 13.02	6225 3075 9.82 13.37	4325 5525 9.44 11.90	3025 8275 8.47 11.73
4225 1575 10.16 13.07	6275 3075 9.75 13.26	4375 5525 9.43 11.51	3075 8275 8.48 11.79
4275 1575 10.19 13.04	6325 3075 9.75 13.14	4425 5525 9.42 11.34	3125 8275 8.48 11.86
4325 1575 10.19 13.05	6375 3075 9.80 13.02	2025 5575 9.39 9.96	3175 8275 8.48 11.92
4375 1575 10.22 13.05	6425 3075 9.90 13.09	2075 5575 9.36 10.03	3225 8275 8.49 11.93
4425 1575 10.24 13.07	6475 3075 10.00 12.89	2125 5575 9.27 10.17	3275 8275 8.52 11.91
4475 1575 10.25 13.08	2625 3125 10.19 10.42	2175 5575 9.17 10.50	3325 8275 8.54 11.89
4525 1575 10.31 13.16	2675 3125 10.13 10.48	2225 5575 9.17 10.71	3375 8275 8.57 11.81
4575 1575 10.36 13.26	2725 3125 10.04 10.50	2275 5575 9.15 10.90	3425 8275 8.58 11.78
4625 1575 10.36 13.24	2775 3125 9.98 10.54	2325 5575 9.13 10.97	3475 8275 8.58 11.76
4675 1575 10.37 13.25	2825 3125 9.91 10.75	2375 5575 9.11 11.06	3525 8275 8.56 11.74
4725 1575 10.37 13.22	2875 3125 9.88 10.92	2425 5575 9.08 11.23	3575 8275 8.53 11.57
4775 1575 10.35 13.26	2925 3125 9.89 11.04	2475 5575 9.04 11.37	3625 8275 8.52 11.48
4825 1575 10.38 13.28	2975 3125 9.89 11.28	2525 5575 9.01 11.50	3675 8275 8.47 11.38
4875 1575 10.40 13.27	3025 3125 9.90 11.57	2575 5575 8.98 11.62	3725 8275 8.45 11.20
4925 1575 10.42 13.29	3075 3125 9.94 11.80	2625 5575 8.95 11.60	3775 8275 8.44 11.21
4975 1575 10.43 13.41	3125 3125 9.98 12.01	2675 5575 8.93 11.63	3825 8275 8.37 11.11
5025 1575 10.42 13.48	3175 3125 9.99 12.09	2725 5575 8.93 11.62	3875 8275 8.32 10.91
5075 1575 10.41 13.59	3225 3125 10.01 12.14	2775 5575 8.95 11.56	3925 8275 8.40 10.74
5125 1575 10.42 13.56	3275 3125 10.02 12.21	2825 5575 8.96 11.55	3975 8275 8.31 10.61
5175 1575 10.45 13.51	3325 3125 10.03 12.28	2875 5575 9.02 11.40	4025 8275 8.29 10.39
5225 1575 10.46 13.36	3375 3125 10.02 12.34	2925 5575 9.04 11.32	4075 8275 8.31 10.17
5275 1575 10.47 13.21	3425 3125 10.02 12.47	2975 5575 9.06 11.26	775 8325 8.83 8.68
5325 1575 10.46 13.17	3475 3125 9.96 12.66	3225 5575 9.15 11.40	825 8325 8.83 8.64
5375 1575 10.42 13.14	3525 3125 9.88 12.86	3275 5575 9.13 11.60	875 8325 8.83 8.63
5425 1575 10.37 13.16	3575 3125 9.77 12.72	3325 5575 9.11 11.73	1425 8325 8.91 8.64
5475 1575 10.37 13.15	3625 3125 9.68 12.69	3375 5575 9.06 11.78	1475 8325 8.91 8.73
5525 1575 10.32 13.15	3675 3125 9.61 12.54	3425 5575 8.99 11.76	1525 8325 8.91 8.92

5575 1575 10.26 13.01	3725 3125 9.59 12.55	3475 5575 8.90 11.76	1875 8325 8.62 10.22
5625 1575 10.21 13.16	3775 3125 9.60 12.54	3525 5575 8.85 11.92	1925 8325 8.52 10.42
5675 1575 10.14 13.09	3825 3125 9.60 12.57	3575 5575 8.83 12.07	1975 8325 8.48 10.53
5725 1575 10.12 13.22	3875 3125 9.61 12.58	3625 5575 8.79 12.15	2025 8325 8.47 10.66
5775 1575 10.10 13.17	3925 3125 9.61 12.58	3675 5575 8.74 12.14	2075 8325 8.39 10.81
5825 1575 10.10 13.29	3975 3125 9.65 12.68	3725 5575 8.71 12.20	2125 8325 8.36 10.86
5875 1575 10.16 13.44	4025 3125 9.71 12.81	3775 5575 8.74 12.26	2175 8325 8.34 10.91
5925 1575 10.19 13.44	4075 3125 9.74 12.86	3825 5575 8.82 12.33	2225 8325 8.30 11.06
5975 1575 10.21 13.22	4125 3125 9.78 12.89	3875 5575 8.89 12.38	2275 8325 8.30 11.13
6025 1575 10.30 13.19	4175 3125 9.82 12.99	3925 5575 8.96 12.47	2325 8325 8.30 11.12
6075 1575 10.34 13.23	4225 3125 9.83 13.06	3975 5575 9.03 12.47	2375 8325 8.26 11.06
6125 1575 10.32 13.23	4275 3125 9.82 13.09	4025 5575 9.12 12.32	2425 8325 8.25 11.03
6175 1575 10.43 13.27	4325 3125 9.81 13.12	4075 5575 9.15 12.29	2475 8325 8.31 11.07
6225 1575 10.51 13.07	4375 3125 9.81 13.15	4125 5575 9.22 12.24	2525 8325 8.39 11.11
6275 1575 10.55 13.16	4425 3125 9.80 13.17	4175 5575 9.31 12.06	2575 8325 8.42 11.20
6325 1575 10.56 13.05	4475 3125 9.80 13.16	4225 5575 9.31 12.03	2625 8325 8.45 11.38
3375 1625 10.66 12.40	4525 3125 9.82 13.17	4275 5575 9.43 11.88	2675 8325 8.48 11.43
3425 1625 10.56 12.57	4575 3125 9.86 13.17	4325 5575 9.45 11.75	2725 8325 8.50 11.42
3475 1625 10.49 12.52	4625 3125 9.88 13.19	4375 5575 9.37 11.43	2775 8325 8.53 11.21
3525 1625 10.45 12.46	4675 3125 9.88 13.22	4425 5575 9.34 11.23	2825 8325 8.44 11.25
3575 1625 10.43 12.51	4725 3125 9.88 13.23	2025 5625 9.37 9.96	2875 8325 8.45 11.47
3625 1625 10.39 12.54	4775 3125 9.87 13.26	2075 5625 9.33 10.02	2925 8325 8.47 11.50
3675 1625 10.34 12.50	4825 3125 9.87 13.27	2125 5625 9.17 10.38	2975 8325 8.47 11.52
3725 1625 10.28 12.47	4875 3125 9.86 13.28	2175 5625 9.15 10.56	3025 8325 8.46 11.56
3775 1625 10.25 12.54	4925 3125 9.85 13.30	2225 5625 9.17 10.74	3075 8325 8.49 11.63
3825 1625 10.22 12.65	4975 3125 9.83 13.29	2275 5625 9.10 10.88	3125 8325 8.51 11.70
3875 1625 10.19 12.70	5025 3125 9.79 13.27	2325 5625 9.03 10.95	3175 8325 8.53 11.74
3925 1625 10.14 12.68	5075 3125 9.75 13.22	2375 5625 9.00 11.16	3225 8325 8.56 11.76
3975 1625 10.12 12.72	5125 3125 9.71 13.19	2425 5625 9.00 11.28	3275 8325 8.57 11.76
4025 1625 10.12 12.79	5175 3125 9.69 13.20	2475 5625 8.98 11.36	3325 8325 8.58 11.78
4075 1625 10.12 12.84	5225 3125 9.68 13.19	2525 5625 8.95 11.49	3375 8325 8.58 11.77
4125 1625 10.13 12.95	5275 3125 9.66 13.20	2575 5625 8.93 11.57	3425 8325 8.57 11.76
4175 1625 10.14 13.07	5325 3125 9.63 13.23	2625 5625 8.91 11.67	3475 8325 8.58 11.70
4225 1625 10.15 13.10	5375 3125 9.61 13.22	2675 5625 8.92 11.68	3525 8325 8.59 11.48
4275 1625 10.15 13.14	5425 3125 9.59 13.24	2725 5625 8.91 11.68	3575 8325 8.60 11.29
4325 1625 10.16 13.14	5475 3125 9.58 13.32	2775 5625 8.91 11.65	3625 8325 8.59 11.34
4375 1625 10.19 13.17	5525 3125 9.58 13.34	2825 5625 8.91 11.63	3675 8325 8.52 11.26
4425 1625 10.22 13.16	5575 3125 9.57 13.39	2875 5625 8.93 11.58	3725 8325 8.48 11.21
4475 1625 10.25 13.14	5625 3125 9.58 13.44	2925 5625 8.94 11.52	3775 8325 8.43 11.18
4525 1625 10.30 13.19	5675 3125 9.62 13.51	2975 5625 8.98 11.48	3825 8325 8.36 10.92
4575 1625 10.35 13.26	5725 3125 9.65 13.58	3325 5625 9.04 11.71	3875 8325 8.39 10.82
4625 1625 10.36 13.28	5775 3125 9.68 13.69	3375 5625 8.97 11.70	3925 8325 8.39 10.76
4675 1625 10.37 13.28	5825 3125 9.69 13.73	3425 5625 8.90 11.70	3975 8325 8.30 10.51
4725 1625 10.37 13.25	5875 3125 9.70 13.74	3475 5625 8.85 11.87	4025 8325 8.34 10.25
4775 1625 10.37 13.24	5925 3125 9.71 13.76	3525 5625 8.81 11.95	4075 8325 8.34 10.13
4825 1625 10.40 13.28	5975 3125 9.71 13.75	3575 5625 8.76 11.96	4125 8325 8.30 10.13

4875 1625 10.49 13.40	6025 3125 9.72 13.72	3625 5625 8.70 11.99	825 8375 8.79 8.76
4925 1625 10.52 13.46	6075 3125 9.76 13.61	3675 5625 8.65 12.18	1225 8375 8.90 8.44
4975 1625 10.52 13.48	6125 3125 9.81 13.47	3725 5625 8.64 12.21	1275 8375 8.92 8.49
5025 1625 10.52 13.49	6175 3125 9.82 13.39	3775 5625 8.67 12.23	1325 8375 8.90 8.53
5075 1625 10.56 13.51	6225 3125 9.77 13.30	3825 5625 8.76 12.31	1375 8375 8.90 8.58
5125 1625 10.63 13.54	6275 3125 9.74 13.22	3875 5625 8.87 12.31	1425 8375 8.90 8.64
5175 1625 10.63 13.49	6325 3125 9.78 13.06	3925 5625 8.93 12.39	1475 8375 8.90 8.69
5225 1625 10.68 13.41	6375 3125 9.79 12.94	3975 5625 9.02 12.39	1525 8375 8.90 8.83
5275 1625 10.66 13.36	6425 3125 9.90 12.82	4025 5625 9.10 12.32	1725 8375 8.75 9.73
5325 1625 10.66 13.31	6475 3125 10.01 12.93	4075 5625 9.13 12.28	1775 8375 8.75 9.92
5375 1625 10.56 13.38	2675 3175 10.10 10.45	4125 5625 9.21 12.19	1825 8375 8.69 10.14
5425 1625 10.56 13.47	2725 3175 10.01 10.49	4175 5625 9.27 11.98	1875 8375 8.67 10.21
5475 1625 10.48 13.38	2775 3175 9.95 10.52	4225 5625 9.31 12.02	1925 8375 8.54 10.45
5525 1625 10.45 13.33	2825 3175 9.85 10.62	4275 5625 9.37 11.74	1975 8375 8.52 10.53
5575 1625 10.42 13.28	2875 3175 9.82 10.79	4325 5625 9.43 11.56	2025 8375 8.50 10.60
5625 1625 10.34 13.22	2925 3175 9.84 10.99	4375 5625 9.31 11.20	2075 8375 8.41 10.78
5675 1625 10.30 13.30	2975 3175 9.85 11.28	2025 5675 9.37 9.95	2125 8375 8.37 10.87
5725 1625 10.26 13.28	3025 3175 9.87 11.58	2075 5675 9.30 10.07	2175 8375 8.35 10.89
5775 1625 10.26 13.29	3075 3175 9.91 11.75	2125 5675 9.16 10.41	2225 8375 8.31 10.94
5825 1625 10.26 13.31	3125 3175 9.94 11.95	2175 5675 9.15 10.56	2275 8375 8.29 11.08
5875 1625 10.29 13.39	3175 3175 9.96 12.04	2225 5675 9.15 10.67	2325 8375 8.29 11.09
5925 1625 10.34 13.47	3225 3175 9.99 12.11	2275 5675 9.02 10.83	2375 8375 8.26 11.05
5975 1625 10.39 13.49	3275 3175 10.01 12.17	2325 5675 8.96 11.02	2425 8375 8.25 11.04
6025 1625 10.35 13.16	3325 3175 10.03 12.25	2375 5675 8.99 11.25	2475 8375 8.28 11.04
6075 1625 10.41 13.22	3375 3175 10.02 12.31	2425 5675 8.98 11.31	2525 8375 8.37 11.07
6125 1625 10.49 13.22	3425 3175 10.00 12.43	2475 5675 8.93 11.46	2575 8375 8.44 11.26
6175 1625 10.55 13.26	3475 3175 9.93 12.62	2525 5675 8.84 11.65	2625 8375 8.48 11.33
6225 1625 10.64 13.45	3525 3175 9.83 12.77	2575 5675 8.82 11.75	2675 8375 8.52 11.37
6275 1625 10.59 13.25	3575 3175 9.74 12.70	2625 5675 8.82 11.80	2725 8375 8.52 11.41
6325 1625 10.64 13.22	3625 3175 9.64 12.59	2675 5675 8.82 11.79	2775 8375 8.57 11.26
3025 1675 10.77 11.73	3675 3175 9.59 12.48	2725 5675 8.84 11.79	2825 8375 8.54 11.19
3075 1675 10.74 11.94	3725 3175 9.58 12.50	2775 5675 8.85 11.77	2875 8375 8.46 11.23
3125 1675 10.73 12.06	3775 3175 9.58 12.57	2825 5675 8.87 11.70	2925 8375 8.45 11.41
3425 1675 10.60 12.55	3825 3175 9.59 12.59	2875 5675 8.90 11.64	2975 8375 8.48 11.48
3475 1675 10.49 12.53	3875 3175 9.58 12.61	2925 5675 8.90 11.58	3025 8375 8.50 11.47
3525 1675 10.44 12.43	3925 3175 9.58 12.59	2975 5675 8.92 11.53	3075 8375 8.50 11.50
3575 1675 10.43 12.48	3975 3175 9.60 12.60	3025 5675 8.93 11.51	3125 8375 8.52 11.57
3625 1675 10.42 12.52	4025 3175 9.65 12.73	3075 5675 8.97 11.54	3175 8375 8.55 11.63
3675 1675 10.37 12.55	4075 3175 9.68 12.83	3125 5675 9.00 11.53	3225 8375 8.56 11.69
3725 1675 10.34 12.55	4125 3175 9.70 12.85	3175 5675 9.01 11.56	3275 8375 8.57 11.71
3775 1675 10.29 12.53	4175 3175 9.74 12.87	3225 5675 8.99 11.61	3325 8375 8.57 11.70
3825 1675 10.24 12.68	4225 3175 9.77 12.94	3275 5675 8.97 11.63	3375 8375 8.58 11.64
3875 1675 10.20 12.80	4275 3175 9.78 13.02	3325 5675 8.93 11.65	3425 8375 8.60 11.52
3925 1675 10.19 12.86	4325 3175 9.79 13.08	3375 5675 8.88 11.68	3475 8375 8.62 11.34
3975 1675 10.13 12.77	4375 3175 9.80 13.13	3425 5675 8.83 11.84	3525 8375 8.62 11.26
4025 1675 10.11 12.78	4425 3175 9.80 13.14	3475 5675 8.81 11.92	3575 8375 8.63 11.26

4075 1675 10.12 12.86	4475 3175 9.81 13.15	3525 5675 8.77 11.92	3625 8375 8.61 11.18
4125 1675 10.13 12.98	4525 3175 9.85 13.19	3575 5675 8.67 11.86	3675 8375 8.52 11.15
4175 1675 10.15 13.06	4575 3175 9.88 13.19	3625 5675 8.60 11.99	3725 8375 8.46 11.23
4225 1675 10.14 13.10	4625 3175 9.88 13.19	3675 5675 8.61 12.18	3775 8375 8.43 11.01
4275 1675 10.15 13.11	4675 3175 9.88 13.22	3725 5675 8.62 12.22	3825 8375 8.43 10.75
4325 1675 10.16 13.16	4725 3175 9.88 13.23	3775 5675 8.65 12.22	3875 8375 8.44 10.80
4375 1675 10.19 13.21	4775 3175 9.88 13.26	3825 5675 8.72 12.27	3925 8375 8.37 10.55
4425 1675 10.22 13.17	4825 3175 9.88 13.28	3875 5675 8.83 12.27	3975 8375 8.37 10.35
4475 1675 10.24 13.16	4875 3175 9.87 13.28	3925 5675 8.92 12.27	4025 8375 8.38 10.20
4525 1675 10.27 13.15	4925 3175 9.84 13.27	3975 5675 9.01 12.34	4075 8375 8.31 10.15
4575 1675 10.31 13.25	4975 3175 9.80 13.22	4025 5675 9.08 12.30	4125 8375 8.27 10.04
4625 1675 10.33 13.30	5025 3175 9.74 13.19	4075 5675 9.11 12.24	1175 8425 8.86 8.46
4675 1675 10.34 13.30	5075 3175 9.71 13.17	4125 5675 9.15 12.00	1225 8425 8.87 8.47
4725 1675 10.35 13.27	5125 3175 9.69 13.16	4175 5675 9.19 12.00	1275 8425 8.89 8.50
4775 1675 10.35 13.26	5175 3175 9.67 13.15	4225 5675 9.25 11.83	1325 8425 8.89 8.57
4825 1675 10.42 13.30	5225 3175 9.66 13.14	4275 5675 9.31 11.69	1375 8425 8.90 8.62
4875 1675 10.51 13.52	5275 3175 9.64 13.16	4325 5675 9.38 11.46	1425 8425 8.90 8.65
4925 1675 10.52 13.52	5325 3175 9.61 13.18	4375 5675 9.32 11.25	1475 8425 8.91 8.68
4975 1675 10.53 13.48	5375 3175 9.61 13.16	2125 5725 9.17 10.42	1525 8425 8.91 8.76
5025 1675 10.59 13.57	5425 3175 9.59 13.15	2175 5725 9.14 10.49	1775 8425 8.77 9.87
5075 1675 10.66 13.76	5475 3175 9.59 13.16	2225 5725 9.12 10.59	1825 8425 8.71 10.01
5125 1675 10.77 13.61	5525 3175 9.59 13.19	2275 5725 8.99 10.83	1875 8425 8.69 10.19
5175 1675 10.81 13.61	5575 3175 9.59 13.24	2325 5725 8.96 11.07	1925 8425 8.58 10.36
5225 1675 10.85 13.52	5625 3175 9.63 13.31	2375 5725 8.98 11.26	1975 8425 8.53 10.50
5275 1675 10.86 13.48	5675 3175 9.66 13.43	2425 5725 8.94 11.33	2025 8425 8.51 10.57
5325 1675 10.80 13.42	5725 3175 9.69 13.50	2475 5725 8.86 11.55	2075 8425 8.44 10.70
5375 1675 10.74 13.33	5775 3175 9.70 13.59	2525 5725 8.81 11.72	2125 8425 8.38 10.86
5425 1675 10.65 13.38	5825 3175 9.70 13.62	2575 5725 8.79 11.76	2175 8425 8.35 10.88
5475 1675 10.60 13.45	5875 3175 9.71 13.66	2625 5725 8.78 11.82	2225 8425 8.31 10.87
5525 1675 10.54 13.48	5925 3175 9.72 13.68	2675 5725 8.78 11.82	2275 8425 8.27 10.99
5575 1675 10.49 13.45	5975 3175 9.73 13.68	2725 5725 8.79 11.82	2325 8425 8.27 11.06
5625 1675 10.47 13.46	6025 3175 9.76 13.59	2775 5725 8.80 11.82	2375 8425 8.26 11.03
5675 1675 10.43 13.52	6075 3175 9.80 13.44	2825 5725 8.80 11.81	2425 8425 8.22 10.99
5725 1675 10.37 13.48	6125 3175 9.80 13.36	2875 5725 8.83 11.76	2475 8425 8.28 11.12
5775 1675 10.39 13.52	6175 3175 9.76 13.31	2925 5725 8.84 11.69	2525 8425 8.36 11.15
5825 1675 10.41 13.62	6225 3175 9.73 13.24	2975 5725 8.87 11.58	2575 8425 8.45 11.23
5875 1675 10.42 13.55	6275 3175 9.77 13.09	3025 5725 8.88 11.52	2625 8425 8.54 11.25
5925 1675 10.48 13.61	6325 3175 9.80 12.94	3075 5725 8.89 11.51	2775 8425 8.57 11.29
5975 1675 10.49 13.41	6375 3175 9.87 12.86	3125 5725 8.92 11.54	2825 8425 8.59 11.25
6175 1675 10.69 13.49	6425 3175 9.91 12.82	3175 5725 8.93 11.60	2875 8425 8.53 11.24
6225 1675 10.72 13.57	6475 3175 9.99 12.87	3225 5725 8.91 11.60	2925 8425 8.49 11.20
6275 1675 10.71 13.42	2625 3225 10.11 10.32	3275 5725 8.88 11.60	2975 8425 8.47 11.23
6325 1675 10.65 13.36	2675 3225 10.06 10.43	3325 5725 8.85 11.65	3025 8425 8.50 11.34
6375 1675 10.67 13.33	2725 3225 9.99 10.50	3375 5725 8.82 11.79	3075 8425 8.52 11.38
2925 1725 10.79 11.53	2775 3225 9.89 10.48	3425 5725 8.80 11.89	3125 8425 8.53 11.39
2975 1725 10.75 11.61	2825 3225 9.79 10.57	3475 5725 8.76 11.89	3175 8425 8.54 11.38

3025 1725 10.73 11.85	2875 3225 9.78 10.75	3525 5725 8.68 11.86	3225 8425 8.54 11.39
3075 1725 10.72 12.01	2925 3225 9.75 10.93	3575 5725 8.59 11.96	3275 8425 8.56 11.37
3125 1725 10.68 12.15	2975 3225 9.79 11.23	3625 5725 8.56 12.03	3325 8425 8.58 11.34
3175 1725 10.66 12.26	3025 3225 9.84 11.57	3675 5725 8.58 12.13	3375 8425 8.61 11.29
3425 1725 10.59 12.53	3075 3225 9.87 11.70	3725 5725 8.61 12.22	3425 8425 8.63 11.26
3475 1725 10.50 12.51	3125 3225 9.92 11.89	3775 5725 8.63 12.19	3475 8425 8.63 11.24
3525 1725 10.45 12.44	3175 3225 9.94 12.00	3825 5725 8.69 12.25	3525 8425 8.68 11.26
3575 1725 10.44 12.48	3225 3225 9.98 12.05	3875 5725 8.81 12.24	3575 8425 8.66 11.19
3625 1725 10.43 12.53	3275 3225 10.01 12.14	3925 5725 8.88 12.21	3625 8425 8.57 11.03
3675 1725 10.40 12.56	3325 3225 10.02 12.19	3975 5725 8.98 12.28	3675 8425 8.53 11.17
3725 1725 10.38 12.59	3375 3225 10.01 12.27	4025 5725 9.05 12.29	3725 8425 8.52 11.12
3775 1725 10.33 12.63	3425 3225 9.99 12.37	4075 5725 9.07 12.16	3775 8425 8.48 10.86
3825 1725 10.28 12.69	3475 3225 9.91 12.53	4125 5725 9.11 11.90	3825 8425 8.49 10.79
3875 1725 10.24 12.79	3525 3225 9.81 12.64	4175 5725 9.11 11.96	3875 8425 8.44 10.59
3925 1725 10.22 12.85	3575 3225 9.71 12.61	4225 5725 9.18 11.70	3925 8425 8.40 10.40
3975 1725 10.20 12.94	3625 3225 9.61 12.49	4275 5725 9.29 11.66	3975 8425 8.41 10.24
4025 1725 10.15 12.85	3675 3225 9.57 12.42	4325 5725 9.32 11.33	4025 8425 8.36 10.23
4075 1725 10.11 12.80	3725 3225 9.55 12.42	2125 5775 9.19 10.31	4075 8425 8.28 10.06
4125 1725 10.13 12.90	3775 3225 9.55 12.45	2175 5775 9.13 10.48	4125 8425 8.27 10.08
4175 1725 10.16 13.07	3825 3225 9.55 12.51	2225 5775 9.12 10.56	825 8475 8.75 8.84
4225 1725 10.16 13.09	3875 3225 9.56 12.56	2275 5775 9.03 10.78	875 8475 8.73 8.85
4275 1725 10.16 13.12	3925 3225 9.56 12.58	2325 5775 8.95 11.03	1175 8475 8.83 8.47
4325 1725 10.17 13.17	3975 3225 9.57 12.57	2375 5775 8.98 11.24	1225 8475 8.85 8.50
4375 1725 10.19 13.18	4025 3225 9.60 12.63	2425 5775 8.91 11.25	1275 8475 8.87 8.52
4425 1725 10.21 13.18	4075 3225 9.63 12.76	2475 5775 8.79 11.43	1325 8475 8.89 8.56
4475 1725 10.23 13.13	4125 3225 9.65 12.83	2525 5775 8.73 11.55	1375 8475 8.90 8.61
4525 1725 10.25 13.13	4175 3225 9.67 12.84	2575 5775 8.73 11.65	1425 8475 8.91 8.64
4575 1725 10.26 13.14	4225 3225 9.71 12.88	2625 5775 8.74 11.76	1475 8475 8.91 8.66
4625 1725 10.29 13.26	4275 3225 9.74 12.93	2675 5775 8.76 11.82	1525 8475 8.92 8.66
4675 1725 10.30 13.30	4325 3225 9.74 12.95	2725 5775 8.76 11.85	1725 8475 8.76 9.55
4725 1725 10.31 13.28	4375 3225 9.76 13.01	2775 5775 8.76 11.83	1775 8475 8.76 9.82
4775 1725 10.32 13.27	4425 3225 9.78 13.09	2825 5775 8.77 11.82	1825 8475 8.72 9.95
4825 1725 10.37 13.32	4475 3225 9.84 13.14	2875 5775 8.80 11.78	1875 8475 8.69 10.19
4875 1725 10.48 13.47	4525 3225 9.88 13.18	2925 5775 8.81 11.77	1925 8475 8.66 10.31
4925 1725 10.53 13.43	4575 3225 9.89 13.18	2975 5775 8.84 11.72	1975 8475 8.53 10.48
4975 1725 10.57 13.34	4625 3225 9.89 13.18	3025 5775 8.85 11.69	2025 8475 8.56 10.54
5025 1725 10.73 13.58	4675 3225 9.91 13.19	3075 5775 8.85 11.66	2075 8475 8.48 10.62
5075 1725 10.76 13.69	4725 3225 9.91 13.22	3125 5775 8.87 11.65	2125 8475 8.40 10.78
5125 1725 10.85 13.68	4775 3225 9.91 13.23	3175 5775 8.87 11.69	2175 8475 8.36 10.81
5175 1725 10.89 13.61	4825 3225 9.89 13.21	3225 5775 8.86 11.78	2225 8475 8.32 10.77
5225 1725 10.92 13.53	4875 3225 9.86 13.19	3275 5775 8.83 11.84	2275 8475 8.28 10.86
5275 1725 10.93 13.49	4925 3225 9.82 13.17	3325 5775 8.81 11.85	2325 8475 8.27 11.00
5325 1725 10.92 13.50	4975 3225 9.75 13.15	3375 5775 8.79 11.88	2375 8475 8.26 10.97
5375 1725 10.85 13.49	5025 3225 9.72 13.14	3425 5775 8.75 11.87	2425 8475 8.24 11.01
5425 1725 10.74 13.39	5075 3225 9.69 13.13	3475 5775 8.68 11.85	2475 8475 8.25 11.06
5475 1725 10.66 13.40	5125 3225 9.67 13.13	3525 5775 8.59 11.93	2525 8475 8.33 11.14

5525 1725 10.62 13.48	5175 3225 9.65 13.12	3575 5775 8.55 12.00	2575 8475 8.46 11.26
5575 1725 10.60 13.53	5225 3225 9.63 13.11	3625 5775 8.55 12.01	2625 8475 8.53 11.16
5625 1725 10.58 13.62	5275 3225 9.62 13.12	3675 5775 8.56 12.10	2675 8475 8.56 11.14
5675 1725 10.55 13.74	5325 3225 9.61 13.10	3725 5775 8.60 12.19	2725 8475 8.57 11.12
5725 1725 10.45 13.68	5375 3225 9.60 13.12	3775 5775 8.63 12.21	2775 8475 8.57 11.17
5775 1725 10.48 13.73	5425 3225 9.60 13.10	3825 5775 8.67 12.26	2825 8475 8.53 11.18
5825 1725 10.45 13.69	5475 3225 9.60 13.03	3875 5775 8.76 12.25	2875 8475 8.57 11.24
5875 1725 10.46 13.64	5525 3225 9.61 13.04	3925 5775 8.85 12.16	2925 8475 8.53 11.30
5925 1725 10.52 13.55	5575 3225 9.64 13.09	3975 5775 8.93 12.20	2975 8475 8.50 11.22
5975 1725 10.56 13.54	5625 3225 9.70 13.11	4025 5775 8.99 12.20	3025 8475 8.48 11.18
2875 1775 10.77 11.50	5675 3225 9.75 13.15	4075 5775 9.03 12.08	3075 8475 8.50 11.22
2925 1775 10.75 11.52	5725 3225 9.78 13.21	4125 5775 9.07 11.90	3125 8475 8.55 11.24
2975 1775 10.75 11.74	5775 3225 9.79 13.25	4175 5775 9.05 11.89	3175 8475 8.58 11.24
3025 1775 10.70 11.96	5825 3225 9.80 13.28	4225 5775 9.10 11.60	3225 8475 8.61 11.26
3075 1775 10.66 12.04	5875 3225 9.78 13.38	4275 5775 9.17 11.49	3275 8475 8.63 11.25
3125 1775 10.64 12.16	5925 3225 9.79 13.39	4325 5775 9.29 11.25	3325 8475 8.66 11.26
3175 1775 10.61 12.25	5975 3225 9.78 13.37	2125 5825 9.22 10.19	3375 8475 8.67 11.26
3225 1775 10.56 12.39	6025 3225 9.77 13.30	2175 5825 9.14 10.48	3425 8475 8.69 11.27
3525 1775 10.46 12.46	6075 3225 9.75 13.28	2225 5825 9.11 10.55	3475 8475 8.69 11.27
3575 1775 10.45 12.50	6125 3225 9.73 13.24	2275 5825 9.06 10.76	3525 8475 8.69 11.18
3625 1775 10.44 12.54	6175 3225 9.73 13.21	2325 5825 8.96 10.97	3575 8475 8.68 11.02
3675 1775 10.43 12.57	6225 3225 9.77 13.05	2375 5825 8.95 11.14	3625 8475 8.69 11.02
3725 1775 10.41 12.61	6275 3225 9.83 12.81	2425 5825 8.90 11.11	3675 8475 8.63 11.18
3775 1775 10.36 12.73	6325 3225 9.86 12.83	2475 5825 8.79 11.31	3725 8475 8.55 10.98
3825 1775 10.31 12.81	6375 3225 9.91 12.84	2525 5825 8.71 11.44	3775 8475 8.55 10.87
3875 1775 10.27 12.80	6425 3225 9.90 12.78	2575 5825 8.70 11.55	3825 8475 8.54 10.70
3925 1775 10.23 12.85	6475 3225 9.97 12.84	2625 5825 8.69 11.66	3875 8475 8.46 10.52
3975 1775 10.23 12.90	2225 3275 10.06 10.07	2675 5825 8.69 11.88	3925 8475 8.44 10.33
4025 1775 10.21 12.97	2275 3275 10.05 10.09	2725 5825 8.71 11.91	3975 8475 8.40 10.28
4075 1775 10.17 12.91	2325 3275 10.04 10.09	2775 5825 8.73 11.90	4025 8475 8.29 10.09
4125 1775 10.14 12.87	2625 3275 10.07 10.35	2825 5825 8.74 11.84	4075 8475 8.28 10.09
4175 1775 10.14 12.97	2675 3275 10.03 10.44	2875 5825 8.76 11.79	4125 8475 8.27 10.13
4225 1775 10.16 13.06	2725 3275 9.96 10.42	2925 5825 8.77 11.78	1275 8525 8.85 8.55
4275 1775 10.17 13.13	2775 3275 9.84 10.44	2975 5825 8.79 11.77	1325 8525 8.88 8.56
4325 1775 10.18 13.15	2825 3275 9.75 10.60	3025 5825 8.82 11.75	1475 8525 8.92 8.62
4375 1775 10.19 13.17	2875 3275 9.71 10.85	3075 5825 8.84 11.76	1525 8525 8.92 8.63
4425 1775 10.19 13.15	2925 3275 9.67 11.01	3125 5825 8.84 11.81	1725 8525 8.79 9.37
4475 1775 10.21 13.11	2975 3275 9.69 11.11	3175 5825 8.83 11.88	1775 8525 8.74 9.74
4525 1775 10.22 13.08	3025 3275 9.79 11.55	3225 5825 8.82 11.90	1825 8525 8.73 9.91
4575 1775 10.23 13.09	3075 3275 9.83 11.68	3275 5825 8.81 11.93	1875 8525 8.72 10.08
4625 1775 10.26 13.20	3125 3275 9.88 11.83	3325 5825 8.79 11.93	1925 8525 8.69 10.28
4675 1775 10.27 13.27	3175 3275 9.94 11.95	3375 5825 8.75 11.92	1975 8525 8.57 10.37
4725 1775 10.28 13.28	3225 3275 9.97 12.01	3425 5825 8.69 11.85	2025 8525 8.57 10.52
4775 1775 10.27 13.28	3275 3275 10.02 12.11	3475 5825 8.58 11.88	2075 8525 8.51 10.57
4825 1775 10.30 13.29	3325 3275 10.03 12.19	3525 5825 8.55 11.97	2125 8525 8.43 10.70
4875 1775 10.42 13.44	3375 3275 10.01 12.24	3575 5825 8.54 12.00	2175 8525 8.37 10.76

4925 1775 10.53 13.29	3425 3275 9.98 12.33	3625 5825 8.53 11.98	2225 8525 8.33 10.73
4975 1775 10.56 13.34	3475 3275 9.88 12.47	3675 5825 8.55 12.07	2275 8525 8.29 10.80
5025 1775 10.73 13.61	3525 3275 9.77 12.53	3725 5825 8.60 12.18	2325 8525 8.25 10.93
5075 1775 10.78 13.68	3575 3275 9.71 12.56	3775 5825 8.62 12.22	2375 8525 8.24 10.92
5125 1775 10.84 13.70	3625 3275 9.64 12.52	3825 5825 8.67 12.26	2425 8525 8.23 10.92
5175 1775 10.89 13.64	3675 3275 9.57 12.38	3875 5825 8.74 12.23	2475 8525 8.24 11.02
5225 1775 10.92 13.54	3725 3275 9.55 12.39	3925 5825 8.82 12.09	2525 8525 8.29 11.06
5275 1775 10.94 13.52	3775 3275 9.53 12.38	3975 5825 8.86 12.04	2575 8525 8.44 11.16
5325 1775 10.95 13.51	3825 3275 9.53 12.40	4025 5825 8.92 12.08	2625 8525 8.50 11.12
5375 1775 10.89 13.53	3875 3275 9.53 12.42	4075 5825 8.99 12.03	2675 8525 8.52 11.12
5425 1775 10.81 13.51	3925 3275 9.53 12.46	4125 5825 9.03 11.84	2725 8525 8.55 11.13
5475 1775 10.71 13.51	3975 3275 9.54 12.52	4175 5825 9.00 11.69	2925 8525 8.54 11.17
5525 1775 10.68 13.59	4025 3275 9.57 12.59	4225 5825 8.99 11.69	2975 8525 8.56 11.22
5575 1775 10.68 13.67	4075 3275 9.59 12.68	4275 5825 9.08 11.37	3025 8525 8.53 11.27
5625 1775 10.64 13.74	4125 3275 9.63 12.82	4325 5825 9.16 11.11	3075 8525 8.52 11.24
5675 1775 10.55 13.75	4175 3275 9.64 12.85	2175 5875 9.15 10.37	3125 8525 8.51 11.22
5725 1775 10.49 13.72	4225 3275 9.66 12.86	2225 5875 9.08 10.59	3175 8525 8.55 11.27
5775 1775 10.44 13.71	4275 3275 9.70 12.87	2275 5875 9.10 10.72	3225 8525 8.61 11.34
5825 1775 10.44 13.67	4325 3275 9.72 12.89	2325 5875 9.02 10.86	3275 8525 8.65 11.38
5875 1775 10.48 13.66	4375 3275 9.75 12.93	2375 5875 8.93 11.02	3325 8525 8.68 11.37
2825 1825 10.76 11.47	4425 3275 9.77 12.96	2425 5875 8.91 11.06	3375 8525 8.68 11.39
2875 1825 10.75 11.50	4475 3275 9.84 12.99	2475 5875 8.83 11.27	3425 8525 8.68 11.36
2925 1825 10.70 11.58	4525 3275 9.86 13.01	2525 5875 8.73 11.41	3475 8525 8.67 11.23
2975 1825 10.63 11.78	4575 3275 9.90 13.04	2575 5875 8.69 11.52	3525 8525 8.73 11.11
3025 1825 10.61 11.83	4625 3275 9.91 13.04	2625 5875 8.67 11.70	3575 8525 8.74 11.04
3075 1825 10.57 11.96	4675 3275 9.91 13.05	2675 5875 8.66 11.87	3625 8525 8.66 11.13
3125 1825 10.52 12.11	4725 3275 9.89 13.06	2725 5875 8.67 11.92	3675 8525 8.59 11.03
3175 1825 10.44 12.27	4775 3275 9.88 13.08	2775 5875 8.68 11.94	3725 8525 8.62 10.87
3225 1825 10.43 12.37	4825 3275 9.85 13.07	2825 5875 8.69 11.90	3775 8525 8.62 10.73
3275 1825 10.42 12.43	4875 3275 9.82 13.11	2875 5875 8.72 11.80	3825 8525 8.52 10.53
3425 1825 10.43 12.47	4925 3275 9.78 13.12	2925 5875 8.74 11.77	3875 8525 8.46 10.43
3575 1825 10.46 12.53	4975 3275 9.73 13.13	2975 5875 8.75 11.77	3925 8525 8.41 10.32
3625 1825 10.46 12.55	5025 3275 9.69 13.11	3025 5875 8.76 11.77	3975 8525 8.32 10.19
3675 1825 10.45 12.57	5075 3275 9.66 13.12	3075 5875 8.77 11.77	4025 8525 8.28 10.13
3725 1825 10.44 12.61	5125 3275 9.64 13.11	3125 5875 8.81 11.81	4075 8525 8.27 10.14
3775 1825 10.40 12.76	5175 3275 9.63 13.10	3175 5875 8.80 11.91	875 8575 8.70 8.83
3825 1825 10.37 12.85	5225 3275 9.61 13.09	3225 5875 8.78 11.94	925 8575 8.69 8.85
3875 1825 10.32 12.92	5275 3275 9.59 13.08	3275 5875 8.76 11.91	1275 8575 8.84 8.55
3925 1825 10.26 12.91	5325 3275 9.61 13.05	3325 5875 8.72 11.90	1425 8575 8.91 8.58
3975 1825 10.23 12.90	5375 3275 9.60 13.05	3375 5875 8.66 11.90	1475 8575 8.91 8.62
4025 1825 10.23 12.93	5425 3275 9.60 13.04	3425 5875 8.58 11.91	1525 8575 8.92 8.62
4075 1825 10.22 12.97	5475 3275 9.61 13.02	3475 5875 8.55 11.96	1775 8575 8.75 9.56
4125 1825 10.23 13.02	5675 3275 9.76 13.05	3525 5875 8.54 11.99	1825 8575 8.73 9.84
4175 1825 10.16 12.96	5725 3275 9.76 13.06	3575 5875 8.53 12.00	1875 8575 8.73 9.93
4225 1825 10.16 13.01	5775 3275 9.76 13.08	3625 5875 8.53 12.02	1925 8575 8.69 10.13
4275 1825 10.18 13.07	5825 3275 9.76 13.06	3675 5875 8.56 12.09	1975 8575 8.62 10.25

4325 1825 10.18 13.08	5875 3275 9.75 13.11	3725 5875 8.60 12.18	2025 8575 8.59 10.43
4375 1825 10.19 13.11	5925 3275 9.74 13.14	3775 5875 8.62 12.22	2075 8575 8.56 10.54
4425 1825 10.19 13.12	5975 3275 9.74 13.13	3825 5875 8.66 12.24	2125 8575 8.46 10.62
4475 1825 10.19 13.09	6025 3275 9.75 13.09	3875 5875 8.73 12.17	2175 8575 8.38 10.68
4525 1825 10.19 13.06	6075 3275 9.76 13.06	3925 5875 8.80 11.97	2225 8575 8.32 10.66
4575 1825 10.20 13.09	6125 3275 9.76 13.05	3975 5875 8.82 11.91	2275 8575 8.29 10.69
4625 1825 10.22 13.16	6175 3275 9.82 12.89	4025 5875 8.88 12.02	2325 8575 8.26 10.82
4675 1825 10.25 13.29	6225 3275 9.85 12.74	4075 5875 8.97 12.00	2375 8575 8.23 10.89
4725 1825 10.25 13.30	6275 3275 9.89 12.76	4125 5875 9.00 11.85	2425 8575 8.22 10.83
4775 1825 10.25 13.28	6325 3275 9.90 12.80	4175 5875 8.95 11.53	2475 8575 8.23 10.97
4825 1825 10.27 13.29	6375 3275 9.90 12.76	4225 5875 8.95 11.58	2525 8575 8.25 11.04
4875 1825 10.33 13.33	6425 3275 9.96 12.81	4275 5875 9.03 11.27	2575 8575 8.34 11.03
4925 1825 10.51 13.32	2225 3325 10.04 10.06	4325 5875 9.01 11.13	2625 8575 8.46 11.03
4975 1825 10.53 13.30	2275 3325 10.03 10.07	2225 5925 9.08 10.63	2675 8575 8.50 11.08
5025 1825 10.65 13.46	2325 3325 10.02 10.08	2275 5925 9.08 10.67	2725 8575 8.54 11.18
5075 1825 10.75 13.62	2625 3325 10.05 10.43	2325 5925 9.07 10.81	2775 8575 8.57 11.29
5125 1825 10.78 13.68	2675 3325 9.97 10.46	2375 5925 8.96 10.95	3025 8575 8.53 11.11
5175 1825 10.85 13.70	2725 3325 9.90 10.42	2425 5925 8.89 11.01	3075 8575 8.56 11.19
5225 1825 10.89 13.62	2775 3325 9.79 10.55	2475 5925 8.87 11.20	3125 8575 8.55 11.24
5275 1825 10.93 13.51	2825 3325 9.71 10.71	2525 5925 8.79 11.35	3175 8575 8.56 11.23
5325 1825 10.94 13.50	2875 3325 9.62 10.97	2575 5925 8.69 11.49	3225 8575 8.57 11.23
5375 1825 10.87 13.53	2925 3325 9.63 11.04	2625 5925 8.65 11.72	3275 8575 8.58 11.21
5425 1825 10.79 13.59	2975 3325 9.64 11.18	2675 5925 8.65 11.84	3325 8575 8.59 11.19
5475 1825 10.69 13.62	3025 3325 9.69 11.43	2725 5925 8.66 11.89	3375 8575 8.63 11.16
5525 1825 10.68 13.65	3075 3325 9.78 11.68	2775 5925 8.66 11.90	3425 8575 8.69 11.19
5575 1825 10.66 13.70	3125 3325 9.85 11.74	2825 5925 8.66 11.92	3475 8575 8.69 11.21
5625 1825 10.57 13.74	3175 3325 9.93 11.91	2875 5925 8.66 11.84	3525 8575 8.69 11.17
5675 1825 10.50 13.75	3225 3325 9.97 11.99	2925 5925 8.69 11.75	3575 8575 8.63 11.09
5725 1825 10.45 13.75	3275 3325 10.02 12.11	2975 5925 8.70 11.72	3625 8575 8.62 11.01
2475 1875 10.99 10.98	3325 3325 10.03 12.19	3025 5925 8.72 11.69	3675 8575 8.63 10.91
2525 1875 10.95 10.99	3375 3325 10.02 12.23	3075 5925 8.73 11.72	3725 8575 8.60 10.69
2775 1875 10.76 11.46	3425 3325 9.98 12.29	3125 5925 8.73 11.77	3775 8575 8.51 10.53
2825 1875 10.73 11.46	3475 3325 9.88 12.37	3175 5925 8.69 11.80	3825 8575 8.48 10.49
2875 1875 10.66 11.43	3525 3325 9.76 12.48	3225 5925 8.66 11.85	3875 8575 8.41 10.34
2925 1875 10.59 11.61	3575 3325 9.73 12.51	3275 5925 8.63 11.85	3925 8575 8.33 10.27
2975 1875 10.59 11.70	3625 3325 9.69 12.53	3325 5925 8.60 11.92	3975 8575 8.27 10.10
3025 1875 10.54 11.86	3675 3325 9.66 12.53	3375 5925 8.58 11.95	4025 8575 8.27 10.14
3075 1875 10.43 11.94	3725 3325 9.61 12.51	3425 5925 8.56 11.98	4075 8575 8.26 10.17
3125 1875 10.39 12.09	3775 3325 9.59 12.47	3475 5925 8.54 11.99	775 8625 8.75 8.68
3175 1875 10.36 12.12	3825 3325 9.56 12.45	3525 5925 8.53 12.01	825 8625 8.70 8.83
3225 1875 10.36 12.21	3875 3325 9.54 12.37	3575 5925 8.52 12.03	875 8625 8.68 8.85
3275 1875 10.34 12.25	3925 3325 9.53 12.42	3625 5925 8.53 12.07	925 8625 8.67 8.85
3325 1875 10.34 12.28	3975 3325 9.53 12.45	3675 5925 8.56 12.16	1275 8625 8.82 8.56
3375 1875 10.38 12.43	4025 3325 9.54 12.53	3725 5925 8.60 12.19	1425 8625 8.88 8.61
3425 1875 10.41 12.46	4075 3325 9.56 12.62	3775 5925 8.63 12.21	1475 8625 8.90 8.62
3475 1875 10.43 12.48	4125 3325 9.60 12.73	3825 5925 8.67 12.18	1525 8625 8.90 8.66

3525 1875 10.45 12.52	4175 3325 9.64 12.81	3875 5925 8.75 12.03	1775 8625 8.79 9.38
3575 1875 10.46 12.54	4225 3325 9.66 12.82	3925 5925 8.80 11.91	1825 8625 8.74 9.76
3625 1875 10.47 12.55	4275 3325 9.67 12.85	3975 5925 8.81 11.88	1875 8625 8.72 9.91
3675 1875 10.47 12.57	4325 3325 9.70 12.88	4025 5925 8.86 11.98	1925 8625 8.71 9.96
3725 1875 10.45 12.60	4375 3325 9.72 12.91	4075 5925 8.96 12.01	1975 8625 8.65 10.19
3775 1875 10.43 12.72	4425 3325 9.79 12.93	4125 5925 8.95 11.70	2025 8625 8.59 10.34
3825 1875 10.40 12.86	4475 3325 9.83 12.94	4175 5925 8.94 11.47	2075 8625 8.56 10.52
3875 1875 10.37 12.90	4525 3325 9.89 12.96	4225 5925 8.88 11.46	2125 8625 8.48 10.58
3925 1875 10.35 12.97	4575 3325 9.93 12.96	4275 5925 8.96 11.29	2175 8625 8.40 10.64
3975 1875 10.30 13.04	4625 3325 9.93 13.01	2225 5975 9.10 10.58	2225 8625 8.33 10.64
4025 1875 10.25 13.01	4675 3325 9.93 13.03	2275 5975 9.06 10.63	2275 8625 8.31 10.68
4075 1875 10.23 12.99	4725 3325 9.91 13.06	2325 5975 9.09 10.74	2325 8625 8.28 10.74
4125 1875 10.24 13.01	4775 3325 9.89 13.08	2375 5975 9.02 10.90	2375 8625 8.23 10.85
4175 1875 10.26 13.04	4825 3325 9.84 13.07	2425 5975 8.91 10.99	2425 8625 8.22 10.85
4225 1875 10.22 13.09	4875 3325 9.80 13.09	2475 5975 8.87 11.14	2475 8625 8.22 10.88
4275 1875 10.18 13.07	4925 3325 9.76 13.09	2525 5975 8.81 11.34	2525 8625 8.24 11.03
4325 1875 10.18 13.05	4975 3325 9.72 13.10	2575 5975 8.70 11.49	2575 8625 8.28 11.02
4375 1875 10.18 13.09	5025 3325 9.67 13.10	2625 5975 8.63 11.74	2625 8625 8.42 11.04
4425 1875 10.18 13.10	5075 3325 9.64 13.10	2675 5975 8.63 11.81	2675 8625 8.45 11.02
4475 1875 10.18 13.09	5125 3325 9.62 13.10	2725 5975 8.64 11.84	2725 8625 8.51 11.12
4525 1875 10.18 13.10	5175 3325 9.60 13.08	2775 5975 8.65 11.87	2775 8625 8.57 11.26
4575 1875 10.19 13.11	5225 3325 9.59 13.07	2825 5975 8.65 11.91	3175 8625 8.55 11.12
4625 1875 10.21 13.16	5275 3325 9.58 13.08	2875 5975 8.66 11.86	3225 8625 8.59 11.13
4675 1875 10.23 13.30	5325 3325 9.57 13.06	2925 5975 8.66 11.85	3275 8625 8.64 11.22
4725 1875 10.24 13.30	5675 3325 9.74 13.03	2975 5975 8.66 11.83	3975 8625 8.27 10.13
4775 1875 10.24 13.28	5725 3325 9.79 12.98	3025 5975 8.66 11.79	775 8675 8.75 8.65
4825 1875 10.25 13.28	5775 3325 9.79 13.03	3075 5975 8.66 11.79	825 8675 8.71 8.77
4875 1875 10.28 13.26	5825 3325 9.81 12.97	3125 5975 8.66 11.81	875 8675 8.66 8.81
4925 1875 10.42 13.39	5875 3325 9.81 13.01	3175 5975 8.63 11.81	925 8675 8.65 8.84
4975 1875 10.51 13.33	5925 3325 9.82 13.00	3225 5975 8.60 11.90	1475 8675 8.88 8.67
5025 1875 10.55 13.35	5975 3325 9.82 13.00	3275 5975 8.58 11.93	1775 8675 8.83 9.19
5075 1875 10.66 13.49	6025 3325 9.83 12.99	3325 5975 8.57 11.97	1825 8675 8.75 9.52
5125 1875 10.71 13.58	6075 3325 9.83 12.98	3375 5975 8.56 11.99	1875 8675 8.70 9.85
5175 1875 10.73 13.64	6125 3325 9.86 12.86	3425 5975 8.55 12.02	1925 8675 8.71 9.88
5225 1875 10.77 13.66	6175 3325 9.89 12.75	3475 5975 8.53 12.04	1975 8675 8.66 9.99
5275 1875 10.81 13.59	6225 3325 9.90 12.75	3525 5975 8.52 12.04	2025 8675 8.60 10.19
5325 1875 10.82 13.51	6275 3325 9.90 12.77	3575 5975 8.52 12.06	2075 8675 8.58 10.36
5375 1875 10.75 13.55	6325 3325 9.94 12.78	3625 5975 8.55 12.13	2125 8675 8.54 10.53
5425 1875 10.68 13.56	6375 3325 9.95 12.79	3675 5975 8.59 12.15	2175 8675 8.43 10.60
5475 1875 10.62 13.53	2275 3375 10.01 10.07	3725 5975 8.62 12.16	2225 8675 8.35 10.61
5525 1875 10.59 13.56	2325 3375 10.00 10.08	3775 5975 8.65 12.14	2275 8675 8.32 10.65
5575 1875 10.54 13.65	2375 3375 9.98 10.14	3825 5975 8.71 12.07	2325 8675 8.29 10.71
5625 1875 10.45 13.69	2425 3375 9.97 10.27	3875 5975 8.78 11.95	2375 8675 8.25 10.81
5675 1875 10.44 13.74	2475 3375 10.01 10.38	3925 5975 8.82 11.89	2425 8675 8.22 10.88
5725 1875 10.40 13.75	2525 3375 10.04 10.44	3975 5975 8.82 11.86	2475 8675 8.22 10.87
5775 1875 10.37 13.84	2575 3375 10.03 10.47	4025 5975 8.87 11.97	2525 8675 8.23 10.99

5825 1875 10.34 13.78	2625 3375 9.98 10.47	4075 5975 8.94 11.96	2575 8675 8.26 11.04
5875 1875 10.33 13.73	2675 3375 9.92 10.39	4125 5975 8.94 11.61	2625 8675 8.34 11.03
5925 1875 10.40 13.79	2725 3375 9.84 10.43	4175 5975 8.92 11.44	2675 8675 8.43 11.06
2475 1925 10.89 11.01	2775 3375 9.73 10.63	4225 5975 8.83 11.24	2725 8675 8.45 11.02
2525 1925 10.88 11.11	2825 3375 9.62 10.87	4275 5975 8.90 11.09	2775 8675 8.53 11.17
2575 1925 10.89 11.28	2875 3375 9.57 11.14	2275 6025 9.07 10.68	2825 8675 8.51 11.02
2625 1925 10.84 11.38	2925 3375 9.57 11.23	2325 6025 9.08 10.70	875 8725 8.65 8.80
2775 1925 10.69 11.38	2975 3375 9.60 11.28	2375 6025 9.06 10.90	925 8725 8.63 8.82
2825 1925 10.61 11.34	3025 3375 9.61 11.47	2425 6025 8.95 10.95	1825 8725 8.80 9.31
2875 1925 10.56 11.53	3075 3375 9.69 11.74	2475 6025 8.88 11.08	1875 8725 8.69 9.65
2925 1925 10.52 11.57	3125 3375 9.79 11.74	2525 6025 8.83 11.32	1925 8725 8.68 9.82
2975 1925 10.48 11.60	3175 3375 9.89 11.77	2575 6025 8.76 11.46	1975 8725 8.67 9.78
3025 1925 10.40 11.79	3225 3375 9.95 11.96	2625 6025 8.61 11.72	2025 8725 8.62 10.14
3075 1925 10.36 11.98	3275 3375 10.00 12.12	2675 6025 8.61 11.77	2075 8725 8.59 10.26
3125 1925 10.35 12.10	3325 3375 10.02 12.20	2725 6025 8.63 11.80	2125 8725 8.56 10.45
3175 1925 10.32 12.18	3375 3375 10.02 12.25	2775 6025 8.64 11.86	2175 8725 8.49 10.56
3225 1925 10.30 12.22	3425 3375 9.99 12.30	2825 6025 8.64 11.89	2225 8725 8.37 10.56
3275 1925 10.29 12.27	3475 3375 9.90 12.37	2875 6025 8.65 11.90	2275 8725 8.34 10.61
3325 1925 10.30 12.29	3525 3375 9.78 12.48	2925 6025 8.66 11.90	2325 8725 8.32 10.66
3375 1925 10.31 12.31	3575 3375 9.75 12.50	2975 6025 8.65 11.88	2375 8725 8.28 10.73
3425 1925 10.32 12.34	3625 3375 9.73 12.53	3025 6025 8.64 11.84	2425 8725 8.23 10.84
3475 1925 10.38 12.47	3675 3375 9.70 12.54	3075 6025 8.64 11.82	2475 8725 8.22 10.85
3525 1925 10.44 12.52	3725 3375 9.69 12.57	3125 6025 8.63 11.81	2525 8725 8.22 10.87
3575 1925 10.45 12.53	3775 3375 9.66 12.58	3175 6025 8.62 11.84	2575 8725 8.23 10.98
3625 1925 10.47 12.56	3825 3375 9.67 12.59	3225 6025 8.59 11.87	2625 8725 8.26 11.00
3675 1925 10.48 12.58	3875 3375 9.65 12.58	3275 6025 8.58 11.94	2675 8725 8.36 11.02
3725 1925 10.47 12.59	3925 3375 9.62 12.54	3325 6025 8.56 11.98	2725 8725 8.43 11.03
3775 1925 10.45 12.65	3975 3375 9.58 12.55	3375 6025 8.55 12.02	2775 8725 8.41 10.89
3825 1925 10.41 12.81	4025 3375 9.56 12.57	3425 6025 8.54 12.07	2825 8725 8.46 11.02
3875 1925 10.38 12.91	4075 3375 9.57 12.60	3475 6025 8.53 12.08	2875 8725 8.44 10.95
3925 1925 10.38 12.97	4125 3375 9.60 12.64	3525 6025 8.54 12.11	1825 8775 8.82 9.14
3975 1925 10.36 13.04	4175 3375 9.64 12.75	3575 6025 8.56 12.15	1875 8775 8.71 9.45
4025 1925 10.33 13.14	4225 3375 9.65 12.77	3625 6025 8.58 12.18	1925 8775 8.62 9.67
4075 1925 10.27 13.12	4275 3375 9.65 12.81	3675 6025 8.61 12.16	1975 8775 8.66 9.75
4125 1925 10.25 13.04	4325 3375 9.66 12.85	3725 6025 8.64 12.16	2025 8775 8.64 9.86
4175 1925 10.25 13.03	4375 3375 9.70 12.89	3775 6025 8.68 12.08	2075 8775 8.59 10.17
4225 1925 10.29 13.07	4425 3375 9.78 12.90	3825 6025 8.75 11.98	2125 8775 8.58 10.37
4275 1925 10.24 13.15	4475 3375 9.85 12.90	3875 6025 8.80 11.96	2175 8775 8.52 10.51
4325 1925 10.22 13.18	4525 3375 9.92 12.93	3925 6025 8.82 11.91	2225 8775 8.41 10.47
4375 1925 10.22 13.21	4575 3375 9.94 13.01	3975 6025 8.85 11.95	2275 8775 8.34 10.55
4425 1925 10.22 13.20	4625 3375 9.94 13.06	4025 6025 8.88 12.03	2325 8775 8.32 10.62
4475 1925 10.20 13.18	4675 3375 9.93 13.09	4075 6025 8.92 11.81	2375 8775 8.29 10.68
4525 1925 10.20 13.21	4725 3375 9.91 13.11	4125 6025 8.94 11.49	2425 8775 8.24 10.82
4575 1925 10.20 13.22	4775 3375 9.90 13.13	4175 6025 8.85 11.27	2475 8775 8.22 10.86
4625 1925 10.21 13.26	4825 3375 9.86 13.13	4225 6025 8.79 11.18	2525 8775 8.22 10.86
4675 1925 10.22 13.29	4875 3375 9.79 13.13	4275 6025 8.86 11.08	2575 8775 8.23 10.96

4725 1925 10.22 13.30	4925 3375 9.75 13.13	1625 6075 9.41 9.64	2625 8775 8.25 11.04
4775 1925 10.22 13.30	4975 3375 9.70 13.12	1675 6075 9.38 9.65	2675 8775 8.29 10.99
4825 1925 10.23 13.29	5025 3375 9.64 13.11	1725 6075 9.37 9.66	2725 8775 8.37 11.02
4875 1925 10.25 13.28	5075 3375 9.62 13.09	2275 6075 9.09 10.69	2775 8775 8.35 10.83
4925 1925 10.35 13.37	5125 3375 9.59 13.09	2325 6075 9.07 10.67	2825 8775 8.38 10.95
4975 1925 10.44 13.48	5175 3375 9.57 13.05	2375 6075 9.06 10.88	2875 8775 8.38 10.77
5025 1925 10.48 13.46	5225 3375 9.56 13.06	2425 6075 9.00 11.00	2925 8775 8.38 10.74
5075 1925 10.51 13.47	5275 3375 9.55 13.05	2475 6075 8.90 11.09	1075 8825 8.58 8.85
5125 1925 10.56 13.52	5325 3375 9.53 13.04	2525 6075 8.83 11.32	1125 8825 8.60 8.85
5175 1925 10.56 13.57	5375 3375 9.52 13.00	2575 6075 8.79 11.47	1775 8825 8.77 8.87
5225 1925 10.58 13.66	5725 3375 9.85 12.88	2625 6075 8.66 11.70	1825 8825 8.78 8.97
5275 1925 10.60 13.65	5775 3375 9.88 12.93	2675 6075 8.60 11.78	1875 8825 8.75 9.18
5325 1925 10.59 13.68	5825 3375 9.93 12.94	2725 6075 8.61 11.80	1925 8825 8.60 9.43
5375 1925 10.57 13.63	5875 3375 9.92 12.97	2775 6075 8.62 11.83	1975 8825 8.62 9.60
5425 1925 10.53 13.61	5925 3375 9.94 12.94	2825 6075 8.63 11.89	2025 8825 8.65 9.74
5475 1925 10.50 13.63	5975 3375 9.92 12.98	2875 6075 8.64 11.89	2075 8825 8.59 9.96
5525 1925 10.43 13.60	6025 3375 9.95 12.87	2925 6075 8.64 11.90	2125 8825 8.59 10.15
5575 1925 10.36 13.55	6075 3375 9.97 12.82	2975 6075 8.65 11.90	2175 8825 8.57 10.40
5625 1925 10.33 13.56	6125 3375 9.97 12.81	3025 6075 8.64 11.85	2225 8825 8.45 10.44
5675 1925 10.34 13.60	6175 3375 9.97 12.78	3075 6075 8.63 11.85	2275 8825 8.35 10.51
5725 1925 10.33 13.70	6225 3375 9.95 12.80	3125 6075 8.62 11.83	2325 8825 8.33 10.58
5775 1925 10.24 13.73	6275 3375 9.95 12.80	3175 6075 8.61 11.86	2375 8825 8.31 10.64
5825 1925 10.26 13.75	2375 3425 9.93 10.23	3225 6075 8.59 11.89	2425 8825 8.27 10.75
5875 1925 10.29 13.75	2425 3425 9.93 10.37	3275 6075 8.57 11.95	2475 8825 8.21 10.86
5925 1925 10.31 13.75	2475 3425 9.95 10.46	3325 6075 8.56 12.01	2525 8825 8.21 10.85
1975 1975 10.83 9.98	2525 3425 9.98 10.49	3375 6075 8.55 12.05	2575 8825 8.21 10.86
2575 1975 10.77 11.37	2575 3425 9.95 10.49	3425 6075 8.54 12.09	2625 8825 8.23 11.00
2625 1975 10.75 11.45	2625 3425 9.91 10.40	3475 6075 8.56 12.15	2675 8825 8.26 11.01
2675 1975 10.68 11.36	2675 3425 9.86 10.37	3525 6075 8.57 12.17	2725 8825 8.29 10.99
2725 1975 10.63 11.33	2725 3425 9.76 10.52	3575 6075 8.58 12.19	1075 8875 8.54 8.88
2775 1975 10.57 11.37	2775 3425 9.68 10.70	3625 6075 8.60 12.20	1125 8875 8.47 8.93
2825 1975 10.47 11.35	2825 3425 9.61 10.92	3675 6075 8.63 12.21	1175 8875 8.46 8.90
2875 1975 10.47 11.48	2875 3425 9.56 11.19	3725 6075 8.67 12.13	1775 8875 8.77 8.84
2925 1975 10.42 11.54	2925 3425 9.56 11.23	3775 6075 8.71 12.03	1825 8875 8.76 8.84
2975 1975 10.36 11.65	2975 3425 9.58 11.26	3825 6075 8.77 11.97	1875 8875 8.74 8.97
3025 1975 10.32 11.88	3025 3425 9.60 11.39	3875 6075 8.81 11.97	1925 8875 8.64 9.26
3075 1975 10.30 12.02	3075 3425 9.62 11.58	3925 6075 8.84 11.98	1975 8875 8.57 9.44
3125 1975 10.27 12.11	3125 3425 9.72 11.80	3975 6075 8.86 12.00	2025 8875 8.62 9.57
3175 1975 10.27 12.19	3175 3425 9.82 11.77	4025 6075 8.86 11.92	2075 8875 8.62 9.76
3225 1975 10.27 12.23	3225 3425 9.89 11.79	4075 6075 8.91 11.64	2125 8875 8.55 10.05
3275 1975 10.28 12.28	3275 3425 9.97 12.06	4125 6075 8.91 11.39	2175 8875 8.58 10.26
3325 1975 10.29 12.32	3325 3425 10.00 12.18	4175 6075 8.81 11.21	2225 8875 8.51 10.41
3375 1975 10.30 12.31	3375 3425 10.02 12.26	4225 6075 8.77 11.07	2275 8875 8.38 10.41
3425 1975 10.30 12.31	3425 3425 10.00 12.32	4275 6075 8.87 11.02	2325 8875 8.33 10.56
3475 1975 10.34 12.39	3475 3425 9.93 12.42	1625 6125 9.40 9.61	2375 8875 8.32 10.62
3525 1975 10.38 12.53	3525 3425 9.85 12.53	1675 6125 9.38 9.63	2425 8875 8.28 10.69

3575 1975 10.44 12.54	3575 3425 9.81 12.59	1725 6125 9.37 9.66	2475 8875 8.23 10.86
3625 1975 10.46 12.57	3625 3425 9.83 12.66	1775 6125 9.37 9.64	2525 8875 8.21 10.86
3675 1975 10.48 12.57	3675 3425 9.83 12.70	2325 6125 9.07 10.71	2575 8875 8.22 10.84
3725 1975 10.48 12.58	3725 3425 9.85 12.77	2375 6125 9.05 10.91	2625 8875 8.21 10.89
3775 1975 10.46 12.62	3775 3425 9.83 12.77	2425 6125 9.02 11.08	2675 8875 8.23 11.00
3825 1975 10.44 12.73	3825 3425 9.82 12.76	2475 6125 8.96 11.19	2725 8875 8.24 11.01
3875 1975 10.41 12.90	3875 3425 9.72 12.59	2525 6125 8.83 11.36	2775 8875 8.26 10.85
3925 1975 10.40 12.97	3925 3425 9.66 12.56	2575 6125 8.81 11.45	2825 8875 8.30 10.78
3975 1975 10.39 13.03	3975 3425 9.65 12.56	2625 6125 8.72 11.65	1125 8925 8.39 8.92
4025 1975 10.36 13.14	4025 3425 9.63 12.58	2675 6125 8.62 11.76	1175 8925 8.33 8.88
4075 1975 10.35 13.17	4075 3425 9.60 12.59	2725 6125 8.61 11.81	1875 8925 8.70 8.80
4125 1975 10.32 13.18	4125 3425 9.60 12.61	2775 6125 8.61 11.83	2175 8925 8.56 10.06
4175 1975 10.27 13.13	4175 3425 9.62 12.67	2825 6125 8.61 11.86	2225 8925 8.55 10.35
4225 1975 10.25 13.06	4225 3425 9.63 12.68	2875 6125 8.62 11.91	2275 8925 8.43 10.36
4275 1975 10.27 13.07	4275 3425 9.64 12.77	2925 6125 8.63 11.90	2325 8925 8.34 10.49
4325 1975 10.24 13.15	4325 3425 9.65 12.82	2975 6125 8.63 11.92	2375 8925 8.32 10.60
4375 1975 10.24 13.24	4375 3425 9.69 12.86	3025 6125 8.63 11.87	2425 8925 8.30 10.65
4425 1975 10.23 13.28	4425 3425 9.77 12.85	3075 6125 8.62 11.87	2475 8925 8.25 10.77
4475 1975 10.23 13.30	4475 3425 9.87 12.90	3125 6125 8.61 11.85	2525 8925 8.21 10.89
4525 1975 10.23 13.28	4525 3425 9.94 12.99	3175 6125 8.60 11.88	2575 8925 8.21 10.87
4575 1975 10.21 13.27	4575 3425 9.98 13.10	3225 6125 8.58 11.92	2625 8925 8.22 10.87
4625 1975 10.21 13.29	4625 3425 9.97 13.14	3275 6125 8.57 11.99	2675 8925 8.22 10.94
4675 1975 10.21 13.27	4675 3425 9.94 13.18	3325 6125 8.56 12.02	2725 8925 8.23 10.96
4725 1975 10.21 13.28	4725 3425 9.91 13.19	3375 6125 8.56 12.06	2775 8925 8.20 10.82
4775 1975 10.21 13.30	4775 3425 9.88 13.19	3425 6125 8.56 12.13	1075 8975 8.50 8.81
4825 1975 10.21 13.29	4825 3425 9.85 13.20	3475 6125 8.58 12.17	1125 8975 8.35 8.88
4875 1975 10.22 13.31	4875 3425 9.78 13.20	3525 6125 8.59 12.18	1175 8975 8.29 8.85
4925 1975 10.28 13.31	4925 3425 9.74 13.16	3575 6125 8.60 12.21	1225 8975 8.31 8.89
4975 1975 10.38 13.45	4975 3425 9.67 13.14	3625 6125 8.61 12.22	1275 8975 8.32 8.92
5025 1975 10.43 13.50	5025 3425 9.62 13.12	3675 6125 8.65 12.21	1325 8975 8.36 8.93
5075 1975 10.44 13.50	5075 3425 9.60 13.09	3725 6125 8.70 12.15	2125 8975 8.57 9.67
5125 1975 10.45 13.52	5125 3425 9.57 13.09	3775 6125 8.75 12.03	2175 8975 8.54 9.92
5175 1975 10.44 13.53	5175 3425 9.55 13.07	3825 6125 8.79 11.99	2225 8975 8.55 10.10
5225 1975 10.44 13.57	5225 3425 9.52 13.07	3875 6125 8.82 12.00	2275 8975 8.47 10.32
5275 1975 10.42 13.59	5275 3425 9.51 13.02	3925 6125 8.85 12.03	2325 8975 8.36 10.43
5325 1975 10.41 13.57	5325 3425 9.50 12.98	3975 6125 8.86 12.03	2375 8975 8.33 10.55
5375 1975 10.41 13.60	5375 3425 9.52 12.96	4025 6125 8.86 11.81	2425 8975 8.32 10.60
5425 1975 10.39 13.59	5725 3425 9.86 12.83	4075 6125 8.94 11.51	2475 8975 8.28 10.68
5475 1975 10.34 13.63	5775 3425 9.91 12.85	4125 6125 8.82 11.24	2525 8975 8.22 10.84
5525 1975 10.32 13.61	5825 3425 9.94 12.83	4175 6125 8.75 11.06	2575 8975 8.20 10.89
5575 1975 10.25 13.58	5875 3425 9.96 12.85	4225 6125 8.80 11.20	2625 8975 8.20 10.83
5625 1975 10.25 13.57	5925 3425 9.99 12.82	4275 6125 8.84 10.93	2675 8975 8.19 10.82
5675 1975 10.22 13.53	5975 3425 9.97 12.83	1675 6175 9.38 9.59	2725 8975 8.22 10.98
5725 1975 10.21 13.60	6025 3425 9.97 12.80	1725 6175 9.37 9.62	2775 8975 8.17 10.87
5775 1975 10.15 13.52	6075 3425 9.94 12.79	2025 6175 9.34 9.93	2825 8975 8.19 10.78
5825 1975 10.16 13.59	2425 3475 9.92 10.39	2375 6175 9.05 11.00	2875 8975 8.20 10.55

5875 1975 10.23 13.73	2475 3475 9.94 10.49	2425 6175 9.02 11.08	1075 9025 8.52 8.79
5925 1975 10.22 13.69	2525 3475 9.98 10.54	2475 6175 9.00 11.33	1125 9025 8.34 8.81
5975 1975 10.26 13.60	2575 3475 9.94 10.54	2525 6175 8.86 11.47	1175 9025 8.28 8.84
1925 2025 10.72 9.99	2625 3475 9.87 10.37	2575 6175 8.81 11.47	1225 9025 8.28 8.87
1975 2025 10.75 10.09	2675 3475 9.77 10.48	2625 6175 8.76 11.56	1275 9025 8.30 8.88
2025 2025 10.74 10.19	2725 3475 9.71 10.54	2675 6175 8.65 11.76	1325 9025 8.31 8.91
2075 2025 10.73 10.32	2775 3475 9.62 10.73	2725 6175 8.62 11.81	1375 9025 8.36 8.93
2125 2025 10.70 10.40	2825 3475 9.60 10.99	2775 6175 8.61 11.85	2075 9025 8.54 9.43
2425 2025 10.72 11.11	2875 3475 9.57 11.23	2825 6175 8.61 11.88	2125 9025 8.57 9.49
2475 2025 10.75 11.33	2925 3475 9.57 11.25	2875 6175 8.61 11.90	2175 9025 8.53 9.72
2525 2025 10.70 11.33	2975 3475 9.57 11.25	2925 6175 8.62 11.94	2225 9025 8.53 9.98
2575 2025 10.63 11.34	3025 3475 9.58 11.36	2975 6175 8.62 11.95	2275 9025 8.50 10.10
2625 2025 10.58 11.36	3075 3475 9.59 11.48	3025 6175 8.61 11.89	2325 9025 8.41 10.23
2675 2025 10.53 11.40	3125 3475 9.64 11.67	3075 6175 8.61 11.88	2375 9025 8.33 10.48
2725 2025 10.49 11.35	3175 3475 9.75 11.82	3125 6175 8.60 11.86	2425 9025 8.32 10.55
2775 2025 10.45 11.39	3225 3475 9.85 11.80	3175 6175 8.59 11.88	2475 9025 8.30 10.63
2825 2025 10.40 11.44	3275 3475 9.91 11.91	3225 6175 8.58 11.90	2525 9025 8.24 10.77
2875 2025 10.33 11.42	3325 3475 9.95 12.04	3275 6175 8.58 11.99	2575 9025 8.20 10.89
2925 2025 10.28 11.46	3375 3475 9.98 12.16	3325 6175 8.58 12.01	2625 9025 8.20 10.87
2975 2025 10.24 11.66	3425 3475 9.99 12.30	3375 6175 8.59 12.08	2675 9025 8.18 10.78
3025 2025 10.20 11.80	3475 3475 9.96 12.50	3425 6175 8.59 12.16	2725 9025 8.18 10.84
3075 2025 10.20 11.96	3525 3475 9.93 12.63	3475 6175 8.60 12.18	2775 9025 8.19 10.88
3125 2025 10.21 12.09	3575 3475 9.89 12.73	3525 6175 8.61 12.19	2825 9025 8.13 10.80
3175 2025 10.23 12.17	3625 3475 9.88 12.74	3575 6175 8.62 12.22	2875 9025 8.16 10.57
3225 2025 10.24 12.25	3675 3475 9.87 12.76	3625 6175 8.64 12.24	2925 9025 8.16 10.46
3275 2025 10.26 12.31	3725 3475 9.87 12.77	3675 6175 8.68 12.19	1075 9075 8.54 8.79
3325 2025 10.28 12.32	3775 3475 9.87 12.76	3725 6175 8.74 12.11	1125 9075 8.43 8.77
3375 2025 10.29 12.31	3825 3475 9.86 12.76	3775 6175 8.80 12.02	1175 9075 8.27 8.81
3425 2025 10.30 12.33	3875 3475 9.84 12.72	3825 6175 8.83 12.05	1225 9075 8.27 8.85
3475 2025 10.33 12.37	3925 3475 9.77 12.59	3875 6175 8.85 12.08	1275 9075 8.27 8.89
3525 2025 10.36 12.48	3975 3475 9.67 12.51	3925 6175 8.86 12.09	1325 9075 8.29 8.89
3575 2025 10.40 12.58	4025 3475 9.65 12.51	3975 6175 8.83 11.84	1375 9075 8.32 8.92
3625 2025 10.46 12.60	4075 3475 9.65 12.54	4025 6175 8.88 11.61	1425 9075 8.35 8.90
3675 2025 10.48 12.61	4125 3475 9.64 12.57	4075 6175 8.86 11.31	2025 9075 8.53 8.95
3725 2025 10.49 12.62	4175 3475 9.61 12.62	4125 6175 8.80 11.22	2075 9075 8.51 9.31
3775 2025 10.47 12.62	4225 3475 9.61 12.64	4175 6175 8.78 11.12	2125 9075 8.55 9.45
3825 2025 10.47 12.69	4275 3475 9.62 12.69	4225 6175 8.80 10.85	2175 9075 8.53 9.54
3875 2025 10.44 12.86	4325 3475 9.62 12.73	4275 6175 8.81 10.78	2225 9075 8.51 9.78
3925 2025 10.42 12.98	4375 3475 9.71 12.80	1725 6225 9.37 9.60	2275 9075 8.52 9.97
3975 2025 10.40 13.03	4425 3475 9.79 12.84	1775 6225 9.36 9.63	2325 9075 8.44 10.07
4025 2025 10.38 13.10	4475 3475 9.91 12.89	1975 6225 9.34 9.85	2375 9075 8.35 10.35
4075 2025 10.38 13.18	4525 3475 9.97 12.96	2025 6225 9.31 10.01	2425 9075 8.32 10.49
4125 2025 10.36 13.20	4575 3475 9.99 13.01	2075 6225 9.29 10.13	2475 9075 8.30 10.57
4175 2025 10.34 13.21	4625 3475 9.96 13.08	2375 6225 9.08 11.07	2525 9075 8.28 10.67
4225 2025 10.28 13.20	4675 3475 9.92 13.18	2425 6225 9.01 11.13	2575 9075 8.21 10.86
4275 2025 10.27 13.18	4725 3475 9.89 13.23	2475 6225 9.01 11.37	2625 9075 8.19 10.89

4325 2025 10.26 13.12	4775 3475 9.87 13.24	2525 6225 8.89 11.56	2675 9075 8.19 10.84
4375 2025 10.22 13.13	4825 3475 9.83 13.25	2575 6225 8.82 11.56	2725 9075 8.18 10.83
4425 2025 10.22 13.21	4875 3475 9.77 13.24	2625 6225 8.79 11.53	2775 9075 8.18 10.87
4475 2025 10.23 13.26	4925 3475 9.72 13.19	2675 6225 8.71 11.69	2825 9075 8.13 10.74
4525 2025 10.22 13.28	4975 3475 9.65 13.15	2725 6225 8.62 11.80	2875 9075 8.12 10.69
4575 2025 10.20 13.29	5025 3475 9.61 13.12	2775 6225 8.61 11.84	2925 9075 8.14 10.46
4625 2025 10.19 13.29	5075 3475 9.59 13.11	2825 6225 8.61 11.89	2975 9075 8.16 10.41
4675 2025 10.19 13.27	5125 3475 9.56 13.12	2875 6225 8.61 11.95	1025 9125 8.58 8.40
4725 2025 10.18 13.30	5175 3475 9.53 13.09	2925 6225 8.61 11.96	1075 9125 8.53 8.65
4775 2025 10.19 13.30	5225 3475 9.49 13.06	2975 6225 8.60 11.90	1125 9125 8.53 8.77
4825 2025 10.19 13.30	5275 3475 9.47 13.04	3025 6225 8.60 11.91	1175 9125 8.37 8.71
4875 2025 10.19 13.32	5325 3475 9.48 12.97	3075 6225 8.61 11.88	1225 9125 8.27 8.78
4925 2025 10.23 13.30	5375 3475 9.52 13.04	3125 6225 8.59 11.83	1275 9125 8.27 8.84
4975 2025 10.28 13.29	5425 3475 9.55 13.03	3175 6225 8.58 11.85	1325 9125 8.28 8.89
5025 2025 10.32 13.38	2475 3525 9.95 10.50	3225 6225 8.59 11.86	1375 9125 8.29 8.90
5075 2025 10.34 13.42	2525 3525 9.99 10.50	3275 6225 8.60 11.92	1425 9125 8.31 8.91
5125 2025 10.33 13.40	2575 3525 9.96 10.52	3325 6225 8.60 11.97	2125 9125 8.51 9.36
5175 2025 10.30 13.42	2625 3525 9.87 10.46	3375 6225 8.61 12.04	2175 9125 8.55 9.47
5225 2025 10.28 13.45	2675 3525 9.79 10.50	3425 6225 8.61 12.14	2225 9125 8.48 9.56
5275 2025 10.24 13.51	2725 3525 9.68 10.57	3475 6225 8.63 12.15	2275 9125 8.48 9.82
5325 2025 10.20 13.56	2775 3525 9.66 10.69	3525 6225 8.64 12.18	2325 9125 8.48 9.86
5375 2025 10.15 13.52	2825 3525 9.63 10.97	3575 6225 8.65 12.24	2375 9125 8.39 10.08
5425 2025 10.18 13.58	2875 3525 9.61 11.16	3625 6225 8.68 12.22	2425 9125 8.31 10.43
5475 2025 10.15 13.51	2925 3525 9.60 11.29	3675 6225 8.73 12.15	2475 9125 8.31 10.52
5525 2025 10.15 13.53	2975 3525 9.59 11.28	3725 6225 8.80 12.08	2525 9125 8.29 10.60
5575 2025 10.09 13.49	3025 3525 9.57 11.34	3775 6225 8.86 12.09	2575 9125 8.24 10.74
5625 2025 10.09 13.49	3075 3525 9.57 11.42	3825 6225 8.88 12.10	2625 9125 8.20 10.85
5675 2025 10.06 13.52	3125 3525 9.61 11.57	3875 6225 8.86 12.07	2675 9125 8.18 10.88
5725 2025 10.06 13.58	3175 3525 9.69 11.76	3925 6225 8.82 11.89	2725 9125 8.19 10.82
5775 2025 10.08 13.54	3225 3525 9.79 11.83	3975 6225 8.85 11.66	2775 9125 8.16 10.80
5825 2025 10.11 13.51	3275 3525 9.88 11.85	4025 6225 8.90 11.39	2825 9125 8.13 10.67
5875 2025 10.12 13.53	3325 3525 9.92 11.99	4075 6225 8.84 11.28	2875 9125 8.11 10.70
5925 2025 10.18 13.66	3375 3525 9.94 12.08	4125 6225 8.81 11.14	2925 9125 8.09 10.52
5975 2025 10.19 13.53	3425 3525 9.98 12.30	4175 6225 8.80 11.09	2975 9125 8.12 10.38
1825 2075 10.74 9.74	3475 3525 9.98 12.51	4225 6225 8.80 10.81	3025 9125 8.13 10.18
1875 2075 10.65 9.88	3525 3525 9.97 12.60	1725 6275 9.37 9.60	1075 9175 8.57 8.37
1925 2075 10.66 10.07	3575 3525 9.95 12.62	1775 6275 9.36 9.63	1125 9175 8.52 8.65
1975 2075 10.61 10.19	3625 3525 9.93 12.64	1975 6275 9.31 9.85	1175 9175 8.50 8.73
2025 2075 10.59 10.33	3675 3525 9.91 12.68	2025 6275 9.27 10.02	1225 9175 8.33 8.70
2075 2075 10.56 10.53	3725 3525 9.90 12.72	2375 6275 9.11 11.13	1275 9175 8.27 8.78
2125 2075 10.56 10.63	3775 3525 9.89 12.72	2425 6275 9.02 11.24	1325 9175 8.27 8.84
2425 2075 10.60 11.27	3825 3525 9.88 12.71	2475 6275 9.02 11.40	1375 9175 8.27 8.88
2475 2075 10.55 11.36	3875 3525 9.88 12.71	2525 6275 8.92 11.57	2125 9175 8.48 9.22
2525 2075 10.51 11.44	3925 3525 9.86 12.67	2575 6275 8.85 11.67	2175 9175 8.50 9.40
2575 2075 10.44 11.39	3975 3525 9.77 12.53	2625 6275 8.81 11.58	2225 9175 8.52 9.49
2625 2075 10.44 11.38	4025 3525 9.66 12.47	2675 6275 8.75 11.64	2275 9175 8.46 9.54

2675 2075 10.44 11.35	4075 3525 9.66 12.51	2725 6275 8.65 11.78	2325 9175 8.46 9.86
2725 2075 10.38 11.45	4125 3525 9.66 12.56	2775 6275 8.62 11.83	2375 9175 8.42 9.86
2775 2075 10.34 11.42	4175 3525 9.65 12.58	2825 6275 8.61 11.87	2425 9175 8.32 10.14
2825 2075 10.28 11.44	4225 3525 9.63 12.62	2875 6275 8.61 11.91	2475 9175 8.29 10.40
2875 2075 10.24 11.53	4275 3525 9.62 12.65	2925 6275 8.61 11.96	2525 9175 8.29 10.51
2925 2075 10.20 11.61	4325 3525 9.67 12.71	2975 6275 8.59 11.94	2575 9175 8.26 10.63
2975 2075 10.18 11.73	4375 3525 9.75 12.70	3025 6275 8.62 11.95	2625 9175 8.20 10.82
3025 2075 10.16 11.86	4425 3525 9.87 12.79	3075 6275 8.64 11.92	2675 9175 8.18 10.87
3075 2075 10.16 11.94	4475 3525 9.93 12.87	3125 6275 8.62 11.90	2725 9175 8.18 10.84
3125 2075 10.16 12.01	4525 3525 9.95 12.91	3175 6275 8.61 11.89	2775 9175 8.16 10.81
3175 2075 10.18 12.11	4575 3525 9.96 12.97	3225 6275 8.61 11.86	2825 9175 8.13 10.65
3225 2075 10.20 12.25	4625 3525 9.94 13.06	3275 6275 8.61 11.90	2875 9175 8.09 10.57
3275 2075 10.23 12.33	4675 3525 9.90 13.18	3325 6275 8.62 11.95	2925 9175 8.07 10.56
3325 2075 10.27 12.33	4725 3525 9.88 13.25	3375 6275 8.64 11.99	2975 9175 8.07 10.45
3375 2075 10.28 12.35	4775 3525 9.85 13.26	3425 6275 8.65 12.05	3025 9175 8.12 10.28
3425 2075 10.30 12.34	4825 3525 9.80 13.28	3475 6275 8.67 12.04	3075 9175 8.11 10.07
3475 2075 10.31 12.35	4875 3525 9.75 13.26	3525 6275 8.70 12.09	3125 9175 8.07 10.00
3525 2075 10.34 12.45	4925 3525 9.69 13.24	3575 6275 8.73 12.02	1025 9225 8.56 8.26
3575 2075 10.37 12.57	4975 3525 9.63 13.18	3625 6275 8.78 12.03	1075 9225 8.58 8.26
3625 2075 10.43 12.61	5025 3525 9.61 13.17	3675 6275 8.81 12.12	1125 9225 8.55 8.37
3675 2075 10.47 12.63	5075 3525 9.58 13.15	3725 6275 8.86 12.13	1175 9225 8.51 8.63
3725 2075 10.48 12.64	5125 3525 9.55 13.13	3775 6275 8.88 12.08	1225 9225 8.49 8.73
3775 2075 10.47 12.67	5175 3525 9.50 13.09	3825 6275 8.86 11.99	1275 9225 8.33 8.74
3825 2075 10.46 12.71	5225 3525 9.47 13.04	3875 6275 8.83 11.88	1325 9225 8.26 8.79
3875 2075 10.45 12.78	5275 3525 9.46 13.02	3925 6275 8.85 11.69	1375 9225 8.27 8.81
3925 2075 10.42 12.96	5325 3525 9.48 13.03	3975 6275 8.91 11.45	1425 9225 8.26 8.85
3975 2075 10.41 13.04	5375 3525 9.50 13.05	4025 6275 8.88 11.34	2075 9225 8.52 8.95
4025 2075 10.40 13.11	5425 3525 9.53 12.96	4075 6275 8.83 11.25	2125 9225 8.47 9.13
4075 2075 10.37 13.18	5475 3525 9.58 12.83	4125 6275 8.79 11.25	2175 9225 8.47 9.23
4125 2075 10.36 13.21	2475 3575 10.00 10.56	4175 6275 8.80 10.82	2225 9225 8.49 9.41
4175 2075 10.35 13.23	2525 3575 9.99 10.55	4225 6275 8.80 10.76	2275 9225 8.47 9.50
4225 2075 10.34 13.25	2575 3575 10.01 10.46	1725 6325 9.36 9.59	2325 9225 8.43 9.55
4275 2075 10.30 13.26	2625 3575 9.97 10.49	1775 6325 9.35 9.64	2375 9225 8.42 9.78
4325 2075 10.29 13.24	2675 3575 9.89 10.55	1925 6325 9.31 9.78	2425 9225 8.38 9.94
4375 2075 10.25 13.17	2725 3575 9.81 10.64	1975 6325 9.26 9.91	2475 9225 8.28 10.22
4425 2075 10.17 13.13	2775 3575 9.74 10.67	2025 6325 9.25 10.05	2525 9225 8.27 10.36
4475 2075 10.16 13.14	2825 3575 9.70 10.77	2375 6325 9.14 11.15	2575 9225 8.27 10.52
4525 2075 10.16 13.18	2875 3575 9.65 11.00	2425 6325 9.06 11.38	2625 9225 8.22 10.69
4575 2075 10.16 13.17	2925 3575 9.64 11.13	2475 6325 9.03 11.45	2675 9225 8.18 10.81
4625 2075 10.14 13.19	2975 3575 9.60 11.33	2525 6325 8.96 11.52	2725 9225 8.16 10.83
4675 2075 10.13 13.22	3025 3575 9.57 11.35	2575 6325 8.86 11.71	2775 9225 8.15 10.76
4725 2075 10.12 13.23	3075 3575 9.57 11.40	2625 6325 8.84 11.73	2825 9225 8.11 10.62
4775 2075 10.12 13.23	3125 3575 9.60 11.47	2675 6325 8.79 11.65	2875 9225 8.09 10.54
4825 2075 10.11 13.24	3175 3575 9.68 11.62	2725 6325 8.71 11.71	2925 9225 8.05 10.55
4875 2075 10.13 13.24	3225 3575 9.79 11.80	2775 6325 8.64 11.81	2975 9225 8.04 10.34
4925 2075 10.15 13.26	3275 3575 9.85 11.77	2825 6325 8.62 11.86	3025 9225 8.05 10.31

4975 2075 10.22 13.25	3325 3575 9.90 11.89	2875 6325 8.62 11.87	3075 9225 8.09 10.11
5025 2075 10.23 13.24	3375 3575 9.95 12.10	2925 6325 8.61 11.88	3125 9225 8.07 9.97
5075 2075 10.23 13.29	3425 3575 9.98 12.29	2975 6325 8.61 11.90	1075 9275 8.56 8.17
5125 2075 10.20 13.32	3475 3575 10.00 12.48	3025 6325 8.62 11.90	1125 9275 8.57 8.25
5175 2075 10.17 13.41	3525 3575 10.01 12.55	3075 6325 8.65 11.84	1175 9275 8.54 8.37
5225 2075 10.15 13.47	3575 3575 10.02 12.66	3125 6325 8.64 11.82	1225 9275 8.51 8.57
5275 2075 10.13 13.51	3625 3575 10.05 12.75	3175 6325 8.63 11.88	1275 9275 8.51 8.71
5325 2075 10.11 13.50	3675 3575 10.05 12.79	3225 6325 8.63 11.86	1325 9275 8.35 8.72
5375 2075 10.11 13.47	3725 3575 10.03 12.81	3275 6325 8.63 11.90	1375 9275 8.26 8.78
5425 2075 10.10 13.41	3775 3575 9.99 12.75	3325 6325 8.65 11.93	1425 9275 8.26 8.79
5475 2075 10.08 13.37	3825 3575 9.94 12.64	3375 6325 8.66 11.94	1475 9275 8.27 8.85
5525 2075 10.04 13.31	3875 3575 9.91 12.60	3425 6325 8.69 11.98	1525 9275 8.28 8.87
5575 2075 10.02 13.32	3925 3575 9.90 12.63	3475 6325 8.74 11.92	2075 9275 8.52 8.76
5625 2075 10.03 13.43	3975 3575 9.87 12.61	3525 6325 8.79 11.88	2125 9275 8.50 8.98
5675 2075 10.03 13.55	4025 3575 9.74 12.46	3575 6325 8.84 11.89	2175 9275 8.47 9.10
5725 2075 10.01 13.64	4075 3575 9.66 12.49	3625 6325 8.87 11.97	2225 9275 8.45 9.21
5775 2075 10.00 13.61	4125 3575 9.65 12.54	3675 6325 8.88 12.05	2275 9275 8.49 9.42
5825 2075 10.01 13.55	4175 3575 9.65 12.57	3725 6325 8.87 12.07	2325 9275 8.44 9.49
5875 2075 10.10 13.54	4225 3575 9.65 12.61	3775 6325 8.86 11.98	2375 9275 8.40 9.55
5925 2075 10.11 13.51	4275 3575 9.67 12.65	3825 6325 8.84 11.87	2425 9275 8.39 9.76
5975 2075 10.15 13.49	4325 3575 9.74 12.66	3875 6325 8.88 11.73	2475 9275 8.33 10.06
1875 2125 10.51 9.95	4375 3575 9.84 12.70	3925 6325 8.92 11.44	2525 9275 8.25 10.28
1925 2125 10.46 9.99	4425 3575 9.90 12.77	3975 6325 8.89 11.38	2575 9275 8.25 10.37
1975 2125 10.37 10.29	4475 3575 9.94 12.86	4025 6325 8.83 11.26	2625 9275 8.24 10.53
2025 2125 10.34 10.48	4525 3575 9.95 12.91	4075 6325 8.80 11.20	2675 9275 8.20 10.69
2075 2125 10.34 10.54	4575 3575 9.95 12.95	4125 6325 8.82 10.88	2725 9275 8.17 10.76
2125 2125 10.34 10.68	4625 3575 9.95 13.06	4175 6325 8.83 10.80	2775 9275 8.14 10.72
2175 2125 10.37 10.84	4675 3575 9.90 13.17	1325 6375 9.46 9.23	2825 9275 8.10 10.55
2225 2125 10.43 10.93	4725 3575 9.87 13.26	1725 6375 9.35 9.59	2875 9275 8.08 10.50
2275 2125 10.42 11.00	4775 3575 9.83 13.27	1775 6375 9.34 9.64	2925 9275 8.05 10.50
2325 2125 10.41 11.03	4825 3575 9.76 13.29	1825 6375 9.32 9.69	2975 9275 8.03 10.42
2375 2125 10.39 11.15	4875 3575 9.72 13.28	1875 6375 9.32 9.73	3025 9275 8.00 10.27
2425 2125 10.41 11.24	4925 3575 9.66 13.26	1925 6375 9.30 9.82	3075 9275 8.05 10.17
2475 2125 10.36 11.28	4975 3575 9.62 13.22	1975 6375 9.26 9.97	3125 9275 8.07 9.99
2525 2125 10.37 11.33	5025 3575 9.59 13.17	2025 6375 9.24 10.03	3175 9275 8.02 9.97
2575 2125 10.36 11.39	5075 3575 9.55 13.12	2325 6375 9.18 11.09	1275 9325 8.50 8.53
2625 2125 10.29 11.50	5125 3575 9.53 13.12	2375 6375 9.16 11.19	1325 9325 8.50 8.66
2675 2125 10.28 11.42	5175 3575 9.49 13.06	2425 6375 9.11 11.46	1375 9325 8.42 8.78
2725 2125 10.26 11.55	5225 3575 9.46 13.04	2475 6375 9.07 11.65	1425 9325 8.29 8.90
2775 2125 10.24 11.50	5275 3575 9.46 13.02	2525 6375 9.01 11.56	1475 9325 8.28 8.88
2825 2125 10.21 11.61	5325 3575 9.48 13.06	2575 6375 8.90 11.66	2225 9325 8.47 9.09
2875 2125 10.19 11.63	5375 3575 9.48 13.01	2625 6375 8.85 11.77	2275 9325 8.44 9.23
2925 2125 10.17 11.73	5425 3575 9.52 12.92	2675 6375 8.82 11.76	2325 9325 8.44 9.38
2975 2125 10.16 11.83	5475 3575 9.55 12.81	2725 6375 8.77 11.66	2375 9325 8.43 9.46
3025 2125 10.16 11.93	5525 3575 9.63 12.72	2775 6375 8.66 11.76	2425 9325 8.36 9.57
3075 2125 10.15 11.99	2425 3625 10.08 10.37	2825 6375 8.63 11.82	2475 9325 8.31 9.85

3125 2125 10.15 12.06	2475 3625 10.07 10.48	2875 6375 8.62 11.84	2525 9325 8.27 10.14
3175 2125 10.15 12.09	2525 3625 10.10 10.52	2925 6375 8.62 11.88	2575 9325 8.24 10.26
3225 2125 10.16 12.16	2575 3625 10.10 10.58	2975 6375 8.61 11.85	2625 9325 8.23 10.31
3275 2125 10.21 12.33	2625 3625 10.08 10.52	3025 6375 8.63 11.82	2675 9325 8.20 10.50
3325 2125 10.26 12.37	2675 3625 10.03 10.51	3075 6375 8.64 11.81	2725 9325 8.17 10.63
3375 2125 10.29 12.37	2725 3625 9.98 10.54	3125 6375 8.65 11.82	2775 9325 8.14 10.61
3425 2125 10.30 12.36	2775 3625 9.93 10.70	3175 6375 8.63 11.82	2825 9325 8.08 10.45
3475 2125 10.31 12.39	2825 3625 9.85 10.81	3225 6375 8.63 11.81	2875 9325 8.08 10.46
3525 2125 10.32 12.43	2875 3625 9.78 10.75	3275 6375 8.64 11.85	2925 9325 8.06 10.47
3575 2125 10.37 12.60	2925 3625 9.77 10.96	3325 6375 8.65 11.86	2975 9325 8.03 10.45
3625 2125 10.40 12.64	2975 3625 9.70 11.07	3375 6375 8.69 11.89	3025 9325 8.00 10.26
3675 2125 10.47 12.65	3025 3625 9.65 11.17	3425 6375 8.76 11.85	3075 9325 7.99 10.19
3725 2125 10.48 12.67	3075 3625 9.65 11.28	3475 6375 8.82 11.85	3125 9325 8.04 9.98
3775 2125 10.47 12.70	3125 3625 9.66 11.31	3525 6375 8.86 11.86	3175 9325 8.04 9.91
3825 2125 10.47 12.72	3175 3625 9.74 11.47	3575 6375 8.89 11.94	3225 9325 7.99 9.94
3875 2125 10.46 12.76	3225 3625 9.84 11.71	3625 6375 8.90 11.96	3275 9325 7.99 9.98
3925 2125 10.43 12.91	3275 3625 9.88 11.74	3675 6375 8.90 11.92	1225 9375 8.56 8.17
3975 2125 10.42 13.05	3325 3625 9.89 11.82	3725 6375 8.87 11.90	1275 9375 8.57 8.28
4025 2125 10.41 13.12	3375 3625 9.96 12.09	3775 6375 8.87 11.78	1325 9375 8.50 8.47
4075 2125 10.39 13.20	3425 3625 10.01 12.31	3825 6375 8.93 11.73	1375 9375 8.48 8.57
4125 2125 10.36 13.22	3475 3625 10.02 12.49	3875 6375 8.95 11.48	1425 9375 8.45 8.68
4175 2125 10.35 13.23	3525 3625 10.04 12.59	3925 6375 8.91 11.41	1475 9375 8.35 8.81
4225 2125 10.35 13.25	3575 3625 10.08 12.76	3975 6375 8.84 11.32	1525 9375 8.30 8.94
4275 2125 10.33 13.26	3625 3625 10.09 12.81	4025 6375 8.83 11.13	2225 9375 8.48 8.80
4325 2125 10.29 13.29	3675 3625 10.08 12.83	4075 6375 8.86 10.97	2275 9375 8.48 9.05
4375 2125 10.28 13.28	3725 3625 10.07 12.82	1325 6425 9.45 9.20	2325 9375 8.44 9.24
4425 2125 10.22 13.19	3775 3625 10.06 12.80	1375 6425 9.44 9.23	2375 9375 8.40 9.36
4475 2125 10.15 13.13	3825 3625 10.02 12.75	1775 6425 9.32 9.64	2425 9375 8.39 9.42
4525 2125 10.13 13.10	3875 3625 9.94 12.60	1825 6425 9.31 9.70	2475 9375 8.31 9.60
4575 2125 10.12 13.10	3925 3625 9.91 12.60	1875 6425 9.30 9.76	2525 9375 8.26 9.95
4625 2125 10.10 13.14	3975 3625 9.90 12.61	1925 6425 9.28 9.89	2575 9375 8.21 10.19
4675 2125 10.09 13.17	4025 3625 9.85 12.54	1975 6425 9.25 10.00	2625 9375 8.21 10.21
4725 2125 10.08 13.20	4075 3625 9.74 12.37	2025 6425 9.24 10.05	2675 9375 8.19 10.29
4775 2125 10.07 13.26	4125 3625 9.69 12.37	2275 6425 9.20 10.86	2725 9375 8.14 10.42
4825 2125 10.08 13.24	4175 3625 9.69 12.44	2325 6425 9.21 11.17	2775 9375 8.11 10.49
4875 2125 10.09 13.22	4225 3625 9.71 12.57	2375 6425 9.19 11.27	2825 9375 8.08 10.46
4925 2125 10.10 13.20	4275 3625 9.77 12.62	2425 6425 9.17 11.46	2875 9375 8.08 10.44
4975 2125 10.13 13.21	4325 3625 9.87 12.69	2475 6425 9.10 11.67	2925 9375 8.06 10.44
5025 2125 10.14 13.23	4375 3625 9.90 12.73	2525 6425 9.05 11.68	2975 9375 8.04 10.44
5075 2125 10.14 13.30	4425 3625 9.91 12.78	2575 6425 8.96 11.66	3025 9375 8.00 10.30
5125 2125 10.13 13.35	4475 3625 9.92 12.82	2625 6425 8.88 11.78	3075 9375 7.99 10.22
5175 2125 10.10 13.38	4525 3625 9.94 12.88	2675 6425 8.84 11.84	3125 9375 8.00 10.09
5225 2125 10.08 13.41	4575 3625 9.96 12.96	2725 6425 8.82 11.81	3175 9375 8.02 9.88
5275 2125 10.06 13.35	4625 3625 9.95 13.05	2775 6425 8.75 11.79	3225 9375 7.97 9.83
5325 2125 10.05 13.32	4675 3625 9.89 13.19	2825 6425 8.67 11.87	3275 9375 7.97 9.94
5375 2125 10.04 13.30	4725 3625 9.85 13.25	2875 6425 8.64 11.88	3325 9375 7.98 9.99

5425 2125 10.04 13.28	4775 3625 9.78 13.26	2925 6425 8.62 11.89	1275 9425 8.50 8.11
5475 2125 10.02 13.25	4825 3625 9.74 13.28	2975 6425 8.63 11.82	1325 9425 8.52 8.19
5525 2125 10.00 13.27	4875 3625 9.68 13.30	3025 6425 8.63 11.80	1375 9425 8.52 8.36
5575 2125 9.99 13.28	4925 3625 9.64 13.30	3075 6425 8.63 11.76	1425 9425 8.47 8.49
5625 2125 9.99 13.35	4975 3625 9.61 13.26	3125 6425 8.64 11.79	1475 9425 8.46 8.53
5675 2125 9.99 13.48	5025 3625 9.57 13.16	3175 6425 8.64 11.80	1525 9425 8.41 8.55
5725 2125 9.99 13.63	5075 3625 9.55 13.12	3225 6425 8.64 11.80	1575 9425 8.38 8.58
5775 2125 9.99 13.67	5125 3625 9.52 13.12	3275 6425 8.66 11.85	2175 9425 8.54 8.59
5825 2125 9.99 13.62	5175 3625 9.47 13.08	3325 6425 8.70 11.86	2225 9425 8.47 8.57
5875 2125 10.01 13.53	5225 3625 9.45 13.02	3375 6425 8.77 11.84	2275 9425 8.45 8.66
5925 2125 10.08 13.62	5275 3625 9.46 13.04	3425 6425 8.83 11.83	2325 9425 8.47 9.02
1925 2175 10.28 10.22	5325 3625 9.47 13.03	3475 6425 8.87 11.91	2375 9425 8.43 9.24
1975 2175 10.23 10.36	5375 3625 9.48 12.99	3525 6425 8.89 11.90	2425 9425 8.37 9.31
2025 2175 10.21 10.47	5425 3625 9.51 12.89	3575 6425 8.89 11.90	2475 9425 8.33 9.43
2075 2175 10.18 10.69	5475 3625 9.54 12.81	3625 6425 8.90 11.86	2525 9425 8.26 9.69
2125 2175 10.20 10.77	5525 3625 9.64 12.64	3675 6425 8.91 11.78	2575 9425 8.20 9.96
2175 2175 10.24 10.82	5575 3625 9.67 12.54	3725 6425 8.94 11.66	2625 9425 8.15 10.22
2225 2175 10.25 10.91	2375 3675 10.08 10.26	3775 6425 8.96 11.62	2675 9425 8.17 10.23
2275 2175 10.26 10.96	2425 3675 10.10 10.28	3825 6425 8.97 11.49	2725 9425 8.16 10.30
2325 2175 10.24 11.15	2475 3675 10.12 10.30	3875 6425 8.92 11.45	2775 9425 8.11 10.46
2375 2175 10.23 11.24	2525 3675 10.14 10.32	3925 6425 8.88 11.35	2825 9425 8.08 10.47
2425 2175 10.26 11.35	2575 3675 10.17 10.37	3975 6425 8.88 11.11	2875 9425 8.06 10.46
2475 2175 10.19 11.35	2625 3675 10.25 10.25	4025 6425 8.87 10.90	2925 9425 8.04 10.42
2525 2175 10.19 11.32	2675 3675 10.23 10.46	4075 6425 8.85 10.80	2975 9425 8.03 10.42
2575 2175 10.20 11.34	2725 3675 10.23 10.54	1375 6475 9.43 9.20	3025 9425 8.00 10.30
2625 2175 10.23 11.50	2775 3675 10.16 10.68	1425 6475 9.42 9.24	3075 9425 7.99 10.23
2675 2175 10.21 11.50	2825 3675 10.09 10.74	1475 6475 9.40 9.27	3125 9425 7.97 10.16
2725 2175 10.18 11.55	2875 3675 9.98 10.80	1775 6475 9.30 9.64	3175 9425 8.03 9.93
2775 2175 10.17 11.57	2925 3675 9.95 10.88	1825 6475 9.29 9.71	3225 9425 7.99 9.81
2825 2175 10.17 11.65	2975 3675 9.84 10.83	1975 6475 9.24 10.00	3275 9425 7.96 9.84
2875 2175 10.16 11.74	3025 3675 9.80 11.21	2225 6475 9.23 10.52	3325 9425 7.96 9.90
2925 2175 10.15 11.83	3075 3675 9.77 11.29	2275 6475 9.22 10.90	3375 9425 7.97 9.95
2975 2175 10.15 11.92	3125 3675 9.78 11.44	2325 6475 9.22 11.21	1425 9475 8.51 8.19
3025 2175 10.15 11.98	3175 3675 9.78 11.50	2375 6475 9.24 11.36	1475 9475 8.47 8.27
3075 2175 10.14 12.05	3225 3675 9.81 11.63	2425 6475 9.19 11.49	1525 9475 8.45 8.40
3125 2175 10.14 12.08	3275 3675 9.86 11.74	2475 6475 9.13 11.63	1575 9475 8.43 8.43
3175 2175 10.14 12.13	3325 3675 9.92 11.94	2525 6475 9.07 11.76	2275 9475 8.49 8.55
3225 2175 10.15 12.19	3375 3675 9.97 12.06	2575 6475 9.01 11.75	2325 9475 8.43 8.60
3275 2175 10.19 12.31	3425 3675 10.03 12.23	2625 6475 8.93 11.81	2375 9475 8.44 8.99
3325 2175 10.24 12.42	3475 3675 10.06 12.50	2675 6475 8.86 11.88	2425 9475 8.41 9.23
3375 2175 10.28 12.42	3525 3675 10.11 12.69	2725 6475 8.84 11.92	2475 9475 8.34 9.29
3425 2175 10.29 12.40	3575 3675 10.11 12.72	2775 6475 8.83 11.94	2525 9475 8.27 9.57
3475 2175 10.31 12.42	3625 3675 10.10 12.77	2825 6475 8.74 11.90	2575 9475 8.22 9.74
3525 2175 10.31 12.43	3675 3675 10.11 12.79	2875 6475 8.67 11.88	2625 9475 8.15 9.93
3575 2175 10.35 12.56	3725 3675 10.10 12.80	2925 6475 8.62 11.81	2675 9475 8.13 10.18
3625 2175 10.38 12.65	3775 3675 10.08 12.79	2975 6475 8.62 11.80	2725 9475 8.12 10.27

3675 2175 10.43 12.67	3825 3675 10.06 12.77	3025 6475 8.62 11.80	2775 9475 8.10 10.32
3725 2175 10.47 12.67	3875 3675 9.98 12.61	3075 6475 8.62 11.76	2825 9475 8.06 10.43
3775 2175 10.47 12.71	3925 3675 9.93 12.56	3125 6475 8.63 11.79	2875 9475 8.04 10.43
3825 2175 10.47 12.74	3975 3675 9.91 12.58	3175 6475 8.63 11.79	2925 9475 8.04 10.44
3875 2175 10.46 12.78	4025 3675 9.89 12.53	3225 6475 8.65 11.81	2975 9475 8.03 10.40
3925 2175 10.45 12.88	4075 3675 9.86 12.48	3275 6475 8.71 11.85	3025 9475 8.00 10.29
3975 2175 10.42 13.07	4125 3675 9.80 12.46	3325 6475 8.80 11.86	3075 9475 7.97 10.24
4025 2175 10.41 13.13	4175 3675 9.80 12.53	3375 6475 8.83 11.84	3125 9475 7.94 10.20
4075 2175 10.40 13.19	4225 3675 9.83 12.60	3425 6475 8.85 11.83	3175 9475 7.99 9.99
4125 2175 10.38 13.26	4275 3675 9.88 12.66	3475 6475 8.88 11.86	3225 9475 7.99 9.84
4175 2175 10.36 13.24	4325 3675 9.90 12.71	3525 6475 8.92 11.84	3275 9475 7.94 9.80
4225 2175 10.35 13.23	4375 3675 9.90 12.75	3575 6475 8.94 11.78	3325 9475 7.95 9.82
4275 2175 10.33 13.25	4425 3675 9.91 12.79	3625 6475 8.95 11.73	3375 9475 7.95 9.86
4325 2175 10.28 13.26	4475 3675 9.92 12.80	3675 6475 8.96 11.63	1475 9525 8.48 8.02
4375 2175 10.28 13.26	4525 3675 9.96 12.89	3725 6475 8.98 11.54	1525 9525 8.49 8.08
4425 2175 10.25 13.22	4575 3675 9.96 12.97	3775 6475 8.99 11.47	1575 9525 8.48 8.06
4475 2175 10.16 13.15	4625 3675 9.94 13.03	3825 6475 8.94 11.46	2275 9525 8.54 8.47
4525 2175 10.13 13.11	4675 3675 9.87 13.15	3875 6475 8.95 11.31	2325 9525 8.51 8.54
4575 2175 10.11 13.09	4725 3675 9.81 13.23	3925 6475 8.93 11.08	2375 9525 8.44 8.59
4625 2175 10.09 13.12	4775 3675 9.75 13.27	3975 6475 8.87 10.82	2425 9525 8.40 8.95
4675 2175 10.08 13.13	4825 3675 9.70 13.30	4025 6475 8.86 10.80	2475 9525 8.39 9.23
4725 2175 10.06 13.24	4875 3675 9.64 13.27	1225 6525 9.45 9.04	2525 9525 8.29 9.28
4775 2175 10.05 13.28	4925 3675 9.61 13.29	1375 6525 9.43 9.15	2575 9525 8.22 9.57
4825 2175 10.05 13.28	4975 3675 9.58 13.21	1425 6525 9.41 9.19	2625 9525 8.18 9.76
4875 2175 10.06 13.26	5025 3675 9.55 13.14	1475 6525 9.40 9.21	2675 9525 8.12 9.92
4925 2175 10.07 13.22	5075 3675 9.52 13.13	1825 6525 9.28 9.72	2725 9525 8.12 10.12
4975 2175 10.08 13.23	5125 3675 9.50 13.15	1875 6525 9.27 9.83	2775 9525 8.10 10.28
5025 2175 10.08 13.24	5175 3675 9.46 13.10	2125 6525 9.22 10.24	2825 9525 8.08 10.35
5075 2175 10.07 13.26	5225 3675 9.45 13.09	2275 6525 9.23 10.91	2875 9525 8.06 10.41
5125 2175 10.04 13.27	5275 3675 9.46 13.07	2325 6525 9.23 11.21	2925 9525 8.05 10.43
5175 2175 10.02 13.26	5325 3675 9.45 12.98	2375 6525 9.25 11.43	2975 9525 8.03 10.37
5225 2175 10.01 13.23	5375 3675 9.46 12.95	2425 6525 9.22 11.52	3025 9525 7.98 10.25
5275 2175 10.01 13.24	5425 3675 9.48 12.86	2475 6525 9.18 11.57	3075 9525 7.93 10.22
5325 2175 10.00 13.25	5475 3675 9.53 12.71	2525 6525 9.09 11.78	3125 9525 7.93 10.19
5375 2175 10.01 13.26	5525 3675 9.63 12.50	2575 6525 9.05 11.85	3175 9525 7.98 10.03
5425 2175 10.02 13.26	5575 3675 9.66 12.47	2625 6525 9.00 11.91	3225 9525 8.00 9.84
5475 2175 10.00 13.26	2325 3725 10.06 10.18	2675 6525 8.92 11.95	3275 9525 7.93 9.79
5525 2175 9.98 13.28	2375 3725 10.08 10.23	2725 6525 8.88 12.01	3325 9525 7.94 9.79
5575 2175 9.99 13.31	2425 3725 10.11 10.23	2775 6525 8.86 12.01	3375 9525 7.94 9.82
5625 2175 9.97 13.40	2475 3725 10.17 10.26	2825 6525 8.81 12.02	1525 9575 8.47 8.02
5675 2175 9.96 13.44	2525 3725 10.21 10.19	2875 6525 8.74 11.99	1575 9575 8.47 8.02
5725 2175 9.97 13.53	2675 3725 10.30 10.38	2925 6525 8.65 11.85	2225 9575 8.51 8.29
5775 2175 9.98 13.66	2725 3725 10.32 10.45	2975 6525 8.62 11.80	2275 9575 8.50 8.39
5825 2175 10.00 13.71	2775 3725 10.31 10.48	3025 6525 8.62 11.79	2325 9575 8.51 8.43
5875 2175 10.01 13.60	2825 3725 10.27 10.54	3075 6525 8.61 11.75	2375 9575 8.52 8.52
5925 2175 10.02 13.57	2875 3725 10.24 10.85	3125 6525 8.63 11.77	2425 9575 8.44 8.60

5975 2175 10.07 13.61	2925 3725 10.10 10.79	3175 6525 8.65 11.76	2475 9575 8.37 8.92
6025 2175 10.13 13.45	2975 3725 10.02 11.02	3225 6525 8.74 11.79	2525 9575 8.33 9.22
6075 2175 10.18 13.56	3025 3725 9.99 11.13	3275 6525 8.82 11.81	2575 9575 8.22 9.30
6125 2175 10.18 13.47	3075 3725 9.92 11.33	3325 6525 8.87 11.81	2625 9575 8.20 9.57
6175 2175 10.22 13.55	3125 3725 9.84 11.53	3375 6525 8.88 11.80	2675 9575 8.12 9.75
1875 2225 10.33 9.88	3175 3725 9.84 11.64	3425 6525 8.89 11.79	2725 9575 8.09 9.84
1925 2225 10.24 10.25	3225 3725 9.81 11.67	3475 6525 8.91 11.76	2775 9575 8.10 10.02
1975 2225 10.17 10.33	3275 3725 9.89 11.85	3525 6525 8.94 11.73	2825 9575 8.08 10.24
2025 2225 10.13 10.47	3325 3725 9.97 11.97	3575 6525 8.95 11.64	2875 9575 8.05 10.38
2075 2225 10.11 10.68	3375 3725 10.04 11.99	3625 6525 8.97 11.57	2925 9575 8.04 10.39
2125 2225 10.15 10.72	3425 3725 10.13 12.19	3675 6525 9.02 11.49	2975 9575 7.99 10.34
2175 2225 10.17 10.69	3475 3725 10.14 12.26	3725 6525 9.03 11.48	3025 9575 7.94 10.22
2225 2225 10.15 10.69	3525 3725 10.16 12.48	3775 6525 9.00 11.44	3075 9575 7.93 10.16
2275 2225 10.12 10.95	3575 3725 10.15 12.60	3825 6525 9.00 11.28	3125 9575 7.95 10.08
2325 2225 10.06 11.02	3625 3725 10.12 12.72	3875 6525 8.94 11.07	3175 9575 7.97 10.05
2375 2225 10.06 11.12	3675 3725 10.10 12.76	3925 6525 8.89 10.82	3225 9575 7.97 9.88
2425 2225 10.10 11.27	3725 3725 10.09 12.77	3975 6525 8.90 10.68	3275 9575 7.93 9.79
2475 2225 10.14 11.31	3775 3725 10.07 12.76	1275 6575 9.44 9.03	3325 9575 7.91 9.78
2525 2225 10.14 11.32	3825 3725 10.06 12.75	1325 6575 9.43 9.06	3375 9575 7.93 9.78
2575 2225 10.13 11.37	3875 3725 10.01 12.63	1375 6575 9.42 9.09	2275 9625 8.54 8.08
2625 2225 10.16 11.50	3925 3725 9.94 12.53	1425 6575 9.40 9.13	2325 9625 8.51 8.38
2675 2225 10.15 11.53	3975 3725 9.92 12.53	1475 6575 9.39 9.16	2375 9625 8.49 8.41
2725 2225 10.16 11.55	4025 3725 9.90 12.51	1775 6575 9.26 9.66	2425 9625 8.49 8.46
2775 2225 10.14 11.61	4075 3725 9.88 12.49	1825 6575 9.26 9.72	2475 9625 8.42 8.60
2825 2225 10.14 11.67	4125 3725 9.87 12.52	1875 6575 9.23 9.88	2525 9625 8.33 8.99
2875 2225 10.14 11.81	4175 3725 9.88 12.55	1925 6575 9.22 9.96	2575 9625 8.22 9.19
2925 2225 10.15 11.90	4225 3725 9.89 12.59	2075 6575 9.19 10.11	3025 9625 7.99 10.10
2975 2225 10.15 11.97	4275 3725 9.90 12.66	2125 6575 9.20 10.27	3075 9625 7.98 10.06
3025 2225 10.14 12.02	4325 3725 9.90 12.71	2275 6575 9.22 10.92	3125 9625 7.98 10.02
3075 2225 10.14 12.09	4375 3725 9.90 12.75	2325 6575 9.21 11.23	3175 9625 7.95 10.05
3125 2225 10.14 12.14	4425 3725 9.91 12.77	2375 6575 9.24 11.42	3225 9625 7.93 9.87
3175 2225 10.14 12.16	4475 3725 9.93 12.80	2425 6575 9.24 11.54	3275 9625 7.90 9.75
3225 2225 10.14 12.24	4525 3725 9.94 12.88	2475 6575 9.19 11.59	3325 9625 7.93 9.76
3275 2225 10.17 12.38	4575 3725 9.94 12.89	2525 6575 9.14 11.69	3375 9625 7.92 9.75
3325 2225 10.22 12.46	4625 3725 9.88 12.96	2575 6575 9.06 11.90	2275 9675 8.56 8.02
3375 2225 10.24 12.48	4675 3725 9.82 13.09	2625 6575 9.02 11.97	2325 9675 8.55 8.02
3425 2225 10.28 12.44	4725 3725 9.74 13.17	2675 6575 8.97 12.13	2375 9675 8.53 8.31
3475 2225 10.29 12.42	4775 3725 9.70 13.20	2725 6575 8.92 12.12	2425 9675 8.45 8.38
3525 2225 10.30 12.44	4825 3725 9.64 13.24	2775 6575 8.86 12.07	3075 9675 7.97 10.05
3575 2225 10.32 12.49	4875 3725 9.61 13.23	2825 6575 8.84 12.07	3125 9675 7.93 10.02
3625 2225 10.37 12.65	4925 3725 9.59 13.24	2875 6575 8.78 12.00	3175 9675 7.93 9.90
3675 2225 10.40 12.67	4975 3725 9.57 13.22	2925 6575 8.74 11.99	3225 9675 7.92 9.80
3725 2225 10.45 12.69	5025 3725 9.55 13.14	2975 6575 8.70 11.93	3275 9675 7.90 9.75
3775 2225 10.46 12.72	5075 3725 9.54 13.14	3025 6575 8.67 11.84	3325 9675 7.90 9.74
3825 2225 10.46 12.78	5125 3725 9.51 13.20	3075 6575 8.68 11.76	3375 9675 7.92 9.72
3875 2225 10.47 12.84	5175 3725 9.47 13.15	3125 6575 8.74 11.75	3425 9675 7.91 9.72

3925 2225 10.48 12.90	5225 3725 9.48 13.17	3175 6575 8.80 11.75	3175 9725 7.94 9.80
3975 2225 10.44 13.02	5275 3725 9.46 13.07	3225 6575 8.87 11.76	3225 9725 7.94 9.80
4025 2225 10.42 13.09	5325 3725 9.45 12.98	3275 6575 8.88 11.79	3275 9725 7.94 9.70
4075 2225 10.40 13.17	5375 3725 9.46 12.92	3325 6575 8.89 11.78	3325 9725 7.94 9.60
4125 2225 10.38 13.24	5425 3725 9.50 12.84	3375 6575 8.91 11.77	3375 9725 7.94 9.60
4175 2225 10.36 13.26	5475 3725 9.52 12.63	3425 6575 8.93 11.76	3425 9725 7.94 9.60
4225 2225 10.35 13.23	5525 3725 9.61 12.37	3475 6575 8.93 11.69	3175 9775 7.94 9.80
4275 2225 10.32 13.24	2325 3775 10.10 10.17	3525 6575 8.96 11.62	3225 9775 7.94 9.80
4325 2225 10.27 13.24	2375 3775 10.11 10.21	3575 6575 9.00 11.48	3325 9775 7.94 9.50
4375 2225 10.26 13.25	2425 3775 10.10 10.17	3625 6575 9.05 11.52	3375 9775 7.94 9.50
4425 2225 10.24 13.26	2475 3775 10.15 10.19	3675 6575 9.01 11.44	3475 9775 7.94 9.20
4475 2225 10.17 13.23	2525 3775 10.21 10.15	3725 6575 9.03 11.38	3375 9825 7.94 8.88
4525 2225 10.13 13.16	2575 3775 10.25 10.14	3775 6575 9.02 11.14	3425 9825 7.94 8.88
4575 2225 10.10 13.09	2775 3775 10.32 10.44	3825 6575 8.98 10.99	3475 9825 7.94 8.88
4625 2225 10.08 13.10	2825 3775 10.31 10.49	3875 6575 8.91 10.85	3225 9875 7.94 8.88
4675 2225 10.06 13.12	2875 3775 10.26 10.65	3925 6575 8.92 10.76	3275 9875 7.94 8.88
4725 2225 10.03 13.22	2925 3775 10.23 10.80	3975 6575 8.92 10.55	3325 9875 7.94 8.88
4775 2225 10.02 13.27	2975 3775 10.16 11.03	1275 6625 9.43 8.97	3375 9875 7.94 8.88
4825 2225 10.01 13.31	3025 3775 10.02 11.13	1325 6625 9.43 9.01	3425 9875 7.94 8.88
4875 2225 10.02 13.27	3075 3775 9.96 11.28	1375 6625 9.42 9.05	3475 9875 7.94 8.88
4925 2225 10.02 13.26	3125 3775 9.95 11.40	1425 6625 9.40 9.08	3225 9925 7.94 8.88
4975 2225 10.00 13.23	3175 3775 9.96 11.49	1475 6625 9.38 9.11	3275 9925 7.94 8.88
5025 2225 9.99 13.20	3225 3775 9.95 11.63	1525 6625 9.37 9.15	3325 9925 7.94 8.88
5075 2225 9.98 13.16	3275 3775 9.96 11.69	1775 6625 9.25 9.64	3375 9925 7.94 8.88
5125 2225 9.97 13.17	3325 3775 10.02 11.90	1825 6625 9.24 9.71	3425 9925 7.94 8.88
5175 2225 9.97 13.17	3375 3775 10.06 11.99	1875 6625 9.21 9.89	3475 9925 7.94 8.88
5225 2225 9.97 13.19	3425 3775 10.12 12.15	1925 6625 9.20 9.97	3175 9975 7.94 8.88
5275 2225 9.98 13.21	3475 3775 10.14 12.19	1975 6625 9.19 10.02	3225 9975 7.94 8.88
5325 2225 9.97 13.24	3525 3775 10.14 12.27	2025 6625 9.15 10.02	3275 9975 7.94 8.88
5375 2225 9.98 13.24	3575 3775 10.17 12.47	2075 6625 9.14 10.12	3325 9975 7.94 8.88
5425 2225 9.99 13.27	3625 3775 10.13 12.65	2225 6625 9.16 10.91	3375 9975 7.94 8.88
5475 2225 9.97 13.28	3675 3775 10.08 12.74	2275 6625 9.15 11.13	3425 9975 7.94 8.88
5525 2225 9.96 13.30	3725 3775 10.07 12.76	2325 6625 9.18 11.24	3475 9975 7.94 8.88
5575 2225 9.97 13.31	3775 3775 10.05 12.75	2375 6625 9.23 11.40	3525 9975 7.94 8.88
5625 2225 9.96 13.37	3825 3775 10.02 12.70	2425 6625 9.24 11.53	3175 10025 7.94 8.88
5675 2225 9.95 13.44	3875 3775 9.98 12.59	2475 6625 9.19 11.63	3225 10025 7.94 8.88
5725 2225 9.95 13.53	3925 3775 9.95 12.56	2525 6625 9.15 11.68	3275 10025 7.94 8.88
5775 2225 9.97 13.62	3975 3775 9.92 12.52	2575 6625 9.07 11.92	3325 10025 7.94 8.88
5825 2225 9.99 13.72	4025 3775 9.90 12.51	2625 6625 9.03 12.02	3375 10025 7.94 8.88
5875 2225 10.03 13.72	4075 3775 9.89 12.50	2675 6625 9.00 12.22	3425 10025 7.94 8.88
5925 2225 10.03 13.53	4125 3775 9.89 12.52	2725 6625 8.97 12.27	3475 10025 7.94 8.88
5975 2225 10.01 13.55	4175 3775 9.90 12.55	2775 6625 8.91 12.20	3525 10025 7.94 8.88
6025 2225 10.06 13.64	4225 3775 9.90 12.58	2825 6625 8.86 12.10	3575 10025 7.94 8.88
6075 2225 10.12 13.39	4275 3775 9.90 12.63	2875 6625 8.83 12.00	3625 10025 7.94 8.88
6125 2225 10.16 13.53	4325 3775 9.90 12.68	2925 6625 8.79 11.97	3225 10075 7.94 8.88
6175 2225 10.20 13.60	4375 3775 9.90 12.71	2975 6625 8.79 11.92	3275 10075 7.94 8.88

6225 2225 10.19 13.69	4425 3775 9.92 12.74	3025 6625 8.79 11.86	3325 10075 7.94 8.88
1775 2275 10.66 9.75	4475 3775 9.93 12.79	3075 6625 8.82 11.78	3375 10075 7.94 8.88
1825 2275 10.52 9.83	4525 3775 9.93 12.84	3125 6625 8.85 11.77	3425 10075 7.94 8.88
1875 2275 10.36 9.89	4575 3775 9.91 12.88	3175 6625 8.87 11.77	3475 10075 7.94 8.88
1925 2275 10.26 10.06	4625 3775 9.85 12.99	3225 6625 8.88 11.76	3525 10075 7.94 8.88
1975 2275 10.21 10.25	4675 3775 9.77 13.09	3275 6625 8.89 11.78	3575 10075 7.94 8.88
2025 2275 10.14 10.32	4725 3775 9.71 13.19	3325 6625 8.93 11.76	3225 10125 7.94 8.88
2075 2275 10.10 10.57	4775 3775 9.66 13.25	3375 6625 8.94 11.72	3275 10125 7.94 8.88
2125 2275 10.11 10.68	4825 3775 9.62 13.27	3425 6625 8.95 11.64	3325 10125 7.94 8.88
2175 2275 10.12 10.58	4875 3775 9.59 13.29	3475 6625 8.97 11.53	3375 10125 7.94 8.88
2225 2275 10.10 10.55	4925 3775 9.57 13.31	3525 6625 9.01 11.48	3425 10125 7.94 8.88
2275 2275 10.01 10.78	4975 3775 9.57 13.24	3575 6625 9.02 11.48	3475 10125 7.94 8.88
2325 2275 10.01 11.00	5025 3775 9.56 13.20	3625 6625 8.99 11.46	3525 10125 7.94 8.88
2375 2275 10.01 11.06	5075 3775 9.55 13.19	3675 6625 9.03 11.30	2575 10175 7.94 8.88
2425 2275 10.03 11.21	5125 3775 9.53 13.27	3725 6625 9.00 11.11	3225 10175 7.94 8.88
2475 2275 10.05 11.33	5175 3775 9.49 13.26	3775 6625 8.98 10.96	3275 10175 7.94 8.88
2525 2275 10.06 11.34	5225 3775 9.49 13.18	3825 6625 8.94 10.79	3325 10175 7.94 8.88
2575 2275 10.08 11.39	5275 3775 9.45 13.04	3875 6625 8.95 10.66	3375 10175 7.94 8.88
2625 2275 10.13 11.49	5325 3775 9.46 12.99	3925 6625 8.86 10.55	3425 10175 7.94 8.88
2675 2275 10.13 11.56	5375 3775 9.44 12.93	1275 6675 9.43 8.92	3475 10175 7.94 8.88
2725 2275 10.14 11.55	5425 3775 9.50 12.76	1325 6675 9.42 8.96	3525 10175 7.94 8.88
2775 2275 10.12 11.63	5475 3775 9.54 12.46	1375 6675 9.40 9.01	3675 10175 7.94 8.88
2825 2275 10.12 11.71	5525 3775 9.59 12.36	1425 6675 9.39 9.05	2625 10225 7.94 8.88
2875 2275 10.13 11.84	2325 3825 10.09 10.18	1475 6675 9.38 9.08	3225 10225 7.94 8.88
2925 2275 10.14 11.95	2375 3825 10.09 10.20	1525 6675 9.37 9.13	3275 10225 7.94 8.88
2975 2275 10.14 12.02	2425 3825 10.08 10.17	1575 6675 9.34 9.18	3325 10225 7.94 8.88
3025 2275 10.14 12.07	2475 3825 10.12 10.17	1775 6675 9.24 9.62	3375 10225 7.94 8.88
3075 2275 10.13 12.13	3075 3825 9.97 11.32	1825 6675 9.21 9.72	3425 10225 7.94 8.88
3125 2275 10.13 12.18	3125 3825 9.98 11.32	1875 6675 9.18 9.89	3475 10225 7.94 8.88
3175 2275 10.13 12.23	3275 3825 10.03 11.85	1925 6675 9.18 9.96	3525 10225 7.94 8.88
3225 2275 10.14 12.29	3325 3825 10.00 11.89	1975 6675 9.14 10.04	3625 10225 7.94 8.88
3275 2275 10.16 12.41	3375 3825 10.01 11.96	2025 6675 9.09 10.13	3675 10225 7.94 8.88
3325 2275 10.19 12.54	3425 3825 10.03 12.01	2075 6675 9.04 10.35	3225 10275 7.94 8.88
3375 2275 10.21 12.54	3475 3825 10.11 12.20	2125 6675 9.00 10.66	3275 10275 7.94 8.88
3425 2275 10.22 12.52	3525 3825 10.13 12.26	2175 6675 9.00 10.91	3325 10275 7.94 8.88
3475 2275 10.24 12.48	3575 3825 10.13 12.37	2225 6675 9.03 11.02	3375 10275 7.94 8.88
3525 2275 10.27 12.46	3625 3825 10.10 12.59	2275 6675 9.09 11.15	3425 10275 7.94 8.88
3575 2275 10.30 12.50	3675 3825 10.06 12.68	2325 6675 9.14 11.26	3475 10275 7.94 8.88
3625 2275 10.35 12.65	3725 3825 10.04 12.69	2375 6675 9.21 11.41	3525 10275 7.94 8.88
3675 2275 10.38 12.69	3775 3825 10.01 12.61	2425 6675 9.20 11.53	3575 10275 7.94 8.88
3725 2275 10.41 12.70	3825 3825 9.97 12.55	2475 6675 9.16 11.63	3625 10275 7.94 8.88
3775 2275 10.44 12.74	3875 3825 9.95 12.52	2525 6675 9.12 11.78	3675 10275 7.94 8.88
3825 2275 10.45 12.81	3925 3825 9.93 12.53	2575 6675 9.06 12.00	3525 10325 7.94 8.88
3875 2275 10.46 12.89	3975 3825 9.90 12.55	2625 6675 9.03 12.11	3575 10325 7.94 8.88
3925 2275 10.46 12.95	4025 3825 9.89 12.55	2675 6675 9.00 12.28	3625 10325 7.94 8.88
3975 2275 10.44 13.00	4075 3825 9.89 12.54	2725 6675 8.98 12.33	3675 10325 7.94 8.88

4025 2275 10.42 13.06	4125 3825 9.90 12.55	2775 6675 8.97 12.33	3375 10375 7.94 8.88
4075 2275 10.40 13.12	4175 3825 9.91 12.57	2825 6675 8.90 12.20	3425 10375 7.94 8.88
4125 2275 10.38 13.19	4225 3825 9.91 12.57	2875 6675 8.85 12.03	3475 10375 7.94 8.88
4175 2275 10.37 13.23	4275 3825 9.91 12.60	2925 6675 8.83 11.97	3525 10375 7.94 8.88
4225 2275 10.36 13.24	4325 3825 9.90 12.63	2975 6675 8.82 11.89	3575 10375 7.94 8.88
4275 2275 10.32 13.24	4375 3825 9.90 12.67	3025 6675 8.83 11.83	3625 10375 7.94 8.88
4325 2275 10.27 13.22	4425 3825 9.92 12.73	3075 6675 8.85 11.77	3675 10375 7.94 8.88
4375 2275 10.25 13.22	4475 3825 9.93 12.78	3125 6675 8.86 11.75	3725 10375 7.94 8.88
4425 2275 10.22 13.22	4525 3825 9.91 12.81	3175 6675 8.87 11.74	3425 10425 7.94 8.88
4475 2275 10.16 13.23	4575 3825 9.88 12.88	3225 6675 8.89 11.73	3475 10425 7.94 8.88
4525 2275 10.10 13.19	4625 3825 9.81 13.02	3275 6675 8.92 11.76	3525 10425 7.94 8.88
4575 2275 10.08 13.10	4675 3825 9.74 13.13	3325 6675 8.95 11.70	3575 10425 7.94 8.88
4625 2275 10.06 13.11	4725 3825 9.69 13.22	3375 6675 8.96 11.57	3625 10425 7.94 8.88
4675 2275 10.04 13.16	4775 3825 9.63 13.26	3425 6675 8.96 11.46	3675 10425 7.94 8.88
4725 2275 10.01 13.23	4825 3825 9.60 13.29	3475 6675 8.99 11.43	3725 10425 7.94 8.88
4775 2275 9.99 13.29	4875 3825 9.58 13.30	3525 6675 8.98 11.40	3775 10425 7.94 8.88
4825 2275 9.98 13.30	4925 3825 9.57 13.30	3575 6675 8.97 11.39	3425 10475 7.94 8.88
4875 2275 9.98 13.31	4975 3825 9.56 13.27	3625 6675 9.02 11.32	3475 10475 7.94 8.88
4925 2275 9.97 13.26	5025 3825 9.58 13.20	3675 6675 8.98 11.12	3525 10475 7.94 8.88
4975 2275 9.94 13.18	5075 3825 9.58 13.26	3725 6675 8.98 11.00	3625 10475 7.94 8.88
5025 2275 9.94 13.16	5125 3825 9.54 13.30	3775 6675 8.97 10.74	3675 10475 7.94 8.88
5075 2275 9.94 13.17	5175 3825 9.52 13.28	1375 6725 9.40 8.97	3725 10475 7.94 8.88
5125 2275 9.93 13.19	5225 3825 9.49 13.17	1425 6725 9.39 9.01	3775 10475 7.94 8.88
5175 2275 9.92 13.20	5275 3825 9.46 12.98	1475 6725 9.38 9.04	3425 10525 7.94 8.88
5225 2275 9.92 13.22	5325 3825 9.47 12.93	1525 6725 9.37 9.08	3475 10525 7.94 8.88
5275 2275 9.94 13.26	5375 3825 9.46 12.86	1575 6725 9.34 9.15	3525 10525 7.94 8.88
5325 2275 9.95 13.29	5425 3825 9.49 12.58	1775 6725 9.22 9.55	3725 10525 7.94 8.88
5375 2275 9.97 13.31	5475 3825 9.57 12.39	1825 6725 9.19 9.68	3775 10525 7.94 8.88
5425 2275 9.97 13.34	5525 3825 9.61 12.38	1875 6725 9.15 9.84	3475 10575 7.94 8.88
5475 2275 9.97 13.32	2325 3875 10.08 10.16	1925 6725 9.12 10.01	3525 10575 7.94 8.88
5525 2275 9.95 13.35	2375 3875 10.08 10.19	1975 6725 9.07 10.26	3775 10575 7.94 8.88
5575 2275 9.94 13.35	2425 3875 10.07 10.15	2025 6725 8.99 10.50	4175 10675 7.53 8.88
5625 2275 9.95 13.40	2475 3875 10.13 10.18	2075 6725 8.90 10.70	4225 10675 7.53 8.88
5675 2275 9.95 13.44	3275 3875 9.93 11.69	2125 6725 8.89 10.86	4175 10725 7.53 8.88
5725 2275 9.95 13.54	3325 3875 9.96 11.79	2175 6725 8.90 11.01	4225 10725 7.53 8.88
5775 2275 9.96 13.60	3375 3875 10.01 11.95	2225 6725 8.95 11.04	4375 11075 7.53 8.88
5825 2275 9.99 13.71	3425 3875 10.03 12.01	2275 6725 8.99 11.10	4425 11075 7.53 8.88
5875 2275 10.06 13.74	3475 3875 10.05 12.14	2425 6725 9.12 11.57	4325 11125 7.53 8.88
5925 2275 10.10 13.67	3525 3875 10.09 12.27	2475 6725 9.11 11.64	4375 11125 7.53 8.88
5975 2275 10.01 13.52	3575 3875 10.08 12.40	2525 6725 9.06 11.89	4425 11125 7.53 8.88
6025 2275 10.02 13.52	3625 3875 10.02 12.49	2575 6725 9.06 12.09	4325 11175 7.53 8.88
6075 2275 10.05 13.71	3675 3875 10.00 12.52	2625 6725 9.04 12.21	4375 11175 7.53 8.88
6125 2275 10.10 13.48	3725 3875 9.98 12.50	2675 6725 8.99 12.32	4425 11175 7.53 8.88
6175 2275 10.11 13.50	3775 3875 9.96 12.49	2725 6725 8.97 12.37	4375 11225 7.53 8.88
1825 2325 10.57 9.79	3825 3875 9.93 12.48	2775 6725 8.96 12.38	4425 11225 7.53 8.88
1875 2325 10.47 9.94	3875 3875 9.91 12.49	2825 6725 8.95 12.35	4475 11225 7.53 8.88

1925 2325 10.35 9.95	3925 3875 9.88 12.50	2875 6725 8.90 12.23	4325 11275 7.53 8.88
1975 2325 10.26 10.06	3975 3875 9.87 12.54	2925 6725 8.85 12.05	4375 11275 7.53 8.88
2025 2325 10.22 10.20	4025 3875 9.88 12.59	2975 6725 8.83 11.90	4425 11275 7.53 8.88
2075 2325 10.16 10.26	4075 3875 9.88 12.61	3025 6725 8.84 11.84	4475 11275 7.53 8.88
2125 2325 10.14 10.36	4125 3875 9.90 12.59	3075 6725 8.85 11.77	4375 11325 7.53 8.88
2175 2325 10.11 10.59	4175 3875 9.91 12.58	3125 6725 8.86 11.73	4425 11325 7.53 8.88
2225 2325 10.12 10.57	4225 3875 9.92 12.55	3175 6725 8.87 11.69	3925 11375 7.53 8.88
2275 2325 10.06 10.55	4275 3875 9.91 12.59	3225 6725 8.89 11.68	3975 11375 7.53 8.88
2325 2325 9.98 10.83	4325 3875 9.91 12.63	3275 6725 8.94 11.70	4325 11375 7.53 8.88
2375 2325 10.00 10.99	4375 3875 9.90 12.68	3325 6725 8.96 11.56	4375 11375 7.53 8.88
2425 2325 9.95 11.08	4425 3875 9.91 12.73	3475 6725 8.95 11.34	4425 11375 7.53 8.88
2475 2325 10.00 11.26	4475 3875 9.90 12.77	3525 6725 8.95 11.35	4475 11375 7.53 8.88
2525 2325 10.04 11.35	4525 3875 9.88 12.82	3575 6725 8.99 11.27	4525 11375 7.53 8.88
2575 2325 10.06 11.36	4575 3875 9.84 12.94	3625 6725 8.98 11.08	4575 11375 7.53 8.88
2625 2325 10.08 11.44	4625 3875 9.76 13.04	3675 6725 8.94 11.02	3925 11425 7.53 8.88
2675 2325 10.11 11.53	4675 3875 9.71 13.16	3725 6725 8.99 10.97	3975 11425 7.53 8.88
2725 2325 10.11 11.59	4725 3875 9.66 13.23	1625 6775 9.27 9.33	4275 11425 7.53 8.88
2775 2325 10.10 11.64	4775 3875 9.62 13.27	1675 6775 9.25 9.40	4325 11425 7.53 8.88
2825 2325 10.11 11.75	4825 3875 9.59 13.31	1725 6775 9.20 9.43	4375 11425 7.53 8.88
2875 2325 10.13 11.91	4875 3875 9.57 13.34	1775 6775 9.19 9.50	4425 11425 7.53 8.88
2925 2325 10.13 11.99	4925 3875 9.56 13.30	1825 6775 9.16 9.68	4475 11425 7.53 8.88
2975 2325 10.14 12.06	4975 3875 9.55 13.26	1875 6775 9.13 9.85	4525 11425 7.53 8.88
3025 2325 10.15 12.10	5025 3875 9.57 13.24	1925 6775 9.04 10.20	4575 11425 7.53 8.88
3075 2325 10.15 12.13	5075 3875 9.56 13.23	1975 6775 8.98 10.51	4225 11475 7.53 8.88
3125 2325 10.14 12.23	5125 3875 9.51 13.28	2025 6775 8.88 10.63	4275 11475 7.53 8.88
3175 2325 10.13 12.27	5175 3875 9.51 13.24	2075 6775 8.82 10.74	4325 11475 7.53 8.88
3225 2325 10.12 12.32	5225 3875 9.49 13.09	2125 6775 8.83 10.98	4375 11475 7.53 8.88
3275 2325 10.14 12.43	5275 3875 9.47 12.94	2175 6775 8.83 11.11	4425 11475 7.53 8.88
3325 2325 10.17 12.57	5325 3875 9.50 12.88	2375 6775 9.05 11.44	4475 11475 7.53 8.88
3375 2325 10.18 12.60	5375 3875 9.52 12.62	2425 6775 9.05 11.67	4525 11475 7.53 8.88
3425 2325 10.18 12.57	5425 3875 9.53 12.39	2475 6775 9.02 11.86	4175 11525 7.53 8.88
3475 2325 10.18 12.53	5475 3875 9.60 12.37	2525 6775 9.02 11.95	4225 11525 7.53 8.88
3525 2325 10.21 12.50	3325 3925 9.90 11.74	2575 6775 9.05 12.17	4275 11525 7.53 8.88
3575 2325 10.27 12.49	3375 3925 9.96 11.85	2625 6775 9.01 12.33	4325 11525 7.53 8.88
3625 2325 10.33 12.65	3425 3925 10.00 12.03	2675 6775 8.97 12.40	4375 11525 7.53 8.88
3675 2325 10.36 12.72	3475 3925 10.00 12.09	2725 6775 8.97 12.40	4425 11525 7.53 8.88
3725 2325 10.38 12.74	3525 3925 10.02 12.26	2775 6775 8.96 12.41	4475 11525 7.53 8.88
3775 2325 10.40 12.78	3575 3925 9.99 12.41	2825 6775 8.96 12.42	4525 11525 7.53 8.88
3825 2325 10.42 12.86	3625 3925 9.94 12.38	2875 6775 8.95 12.39	4175 11575 7.53 8.88
3875 2325 10.45 12.92	3675 3925 9.93 12.35	2925 6775 8.90 12.26	4225 11575 7.53 8.88
3925 2325 10.44 12.98	3725 3925 9.92 12.38	2975 6775 8.84 11.99	4275 11575 7.53 8.88
3975 2325 10.40 13.05	3775 3925 9.89 12.40	3025 6775 8.84 11.88	4325 11575 7.53 8.88
4025 2325 10.37 13.08	3825 3925 9.86 12.40	3075 6775 8.85 11.80	4375 11575 7.53 8.88
4075 2325 10.36 13.14	3875 3925 9.84 12.42	3525 6775 8.93 11.34	4425 11575 7.53 8.88
4125 2325 10.35 13.15	3925 3925 9.83 12.44	3575 6775 8.96 11.07	4475 11575 7.53 8.88
4175 2325 10.33 13.18	3975 3925 9.83 12.52	3625 6775 8.92 11.01	4525 11575 7.53 8.88

4225 2325 10.32 13.21	4025 3925 9.83 12.58	1575 6825 9.34 9.11	4075 11625 7.53 8.88
4275 2325 10.30 13.23	4075 3925 9.84 12.61	1625 6825 9.26 9.28	4125 11625 7.53 8.88
4325 2325 10.28 13.23	4125 3925 9.86 12.63	1775 6825 9.18 9.47	4175 11625 7.53 8.88
4375 2325 10.25 13.22	4175 3925 9.87 12.61	1825 6825 9.14 9.68	4275 11625 7.53 8.88
4425 2325 10.21 13.21	4225 3925 9.90 12.61	1875 6825 9.09 9.95	4325 11625 7.53 8.88
4475 2325 10.15 13.18	4275 3925 9.90 12.66	1925 6825 8.99 10.36	4375 11625 7.53 8.88
4525 2325 10.09 13.14	4325 3925 9.91 12.69	1975 6825 8.97 10.54	4425 11625 7.53 8.88
4575 2325 10.06 13.14	4375 3925 9.90 12.72	2025 6825 8.81 10.80	4475 11625 7.53 8.88
4625 2325 10.04 13.17	4425 3925 9.90 12.75	2075 6825 8.73 11.01	4525 11625 7.53 8.88
4675 2325 10.02 13.20	4475 3925 9.89 12.79	2125 6825 8.69 11.32	4575 11625 7.53 8.88
4725 2325 9.99 13.26	4525 3925 9.86 12.86	2175 6825 8.69 11.39	4625 11625 7.53 8.88
4775 2325 9.97 13.28	4575 3925 9.81 12.99	2225 6825 8.76 11.32	4075 11675 7.53 8.88
4825 2325 9.96 13.28	4625 3925 9.74 13.08	2275 6825 8.82 11.31	4125 11675 7.53 8.88
4875 2325 9.94 13.26	4675 3925 9.69 13.20	2325 6825 8.86 11.42	4275 11675 7.53 8.88
4925 2325 9.92 13.21	4725 3925 9.63 13.24	2375 6825 8.92 11.61	4325 11675 7.53 8.88
4975 2325 9.92 13.17	4775 3925 9.61 13.27	2425 6825 8.95 11.78	4375 11675 7.53 8.88
5025 2325 9.92 13.18	4825 3925 9.59 13.31	2475 6825 8.97 11.93	4425 11675 7.53 8.88
5075 2325 9.91 13.20	4875 3925 9.57 13.35	2525 6825 8.96 12.17	4475 11675 7.53 8.88
5125 2325 9.91 13.25	4925 3925 9.57 13.40	2575 6825 8.98 12.37	4525 11675 7.53 8.88
5175 2325 9.90 13.27	4975 3925 9.56 13.32	2625 6825 8.97 12.44	4575 11675 7.53 8.88
5225 2325 9.91 13.30	5025 3925 9.56 13.28	2675 6825 8.97 12.45	4625 11675 7.53 8.88
5275 2325 9.92 13.36	5075 3925 9.52 13.25	2725 6825 8.97 12.45	4675 11675 7.53 8.88
5325 2325 9.93 13.42	5125 3925 9.52 13.22	2775 6825 8.96 12.47	4275 11725 7.53 8.88
5375 2325 9.96 13.46	5175 3925 9.51 13.20	2825 6825 8.95 12.48	4325 11725 7.53 8.88
5425 2325 9.95 13.48	5225 3925 9.49 13.04	2875 6825 8.94 12.48	4375 11725 7.53 8.88
5475 2325 9.95 13.40	5275 3925 9.50 12.86	2925 6825 8.93 12.42	4425 11725 7.53 8.88
5525 2325 9.94 13.41	5325 3925 9.56 12.68	2975 6825 8.87 12.16	4475 11725 7.53 8.88
5575 2325 9.94 13.41	5375 3925 9.53 12.43	3025 6825 8.83 11.95	4525 11725 7.53 8.88
5625 2325 9.94 13.45	5425 3925 9.59 12.38	3075 6825 8.83 11.86	4625 11725 7.53 8.88
5675 2325 9.95 13.47	5475 3925 9.63 12.39	3125 6825 8.84 11.78	4675 11725 7.53 8.88
5725 2325 9.96 13.56	3375 3975 9.88 11.83	3175 6825 8.85 11.75	4725 11725 7.53 8.88
5775 2325 9.97 13.62	3425 3975 9.95 12.02	3225 6825 8.87 11.77	4225 11775 7.53 8.88
5825 2325 9.99 13.68	3475 3975 9.96 12.08	3625 6825 8.88 11.02	4275 11775 7.53 8.88
5875 2325 10.06 13.73	3525 3975 9.93 12.19	1625 6875 9.25 9.26	4325 11775 7.53 8.88
5925 2325 10.10 13.75	3575 3975 9.88 12.29	1675 6875 9.22 9.31	4375 11775 7.53 8.88
5975 2325 10.03 13.56	3625 3975 9.87 12.31	1825 6875 9.13 9.71	4425 11775 7.53 8.88
6025 2325 10.00 13.57	3675 3975 9.87 12.37	1875 6875 9.05 10.07	4475 11775 7.53 8.88
6075 2325 10.00 13.59	3725 3975 9.86 12.39	1925 6875 8.97 10.37	4525 11775 7.53 8.88
1925 2375 10.48 9.99	3775 3975 9.81 12.39	1975 6875 8.92 10.64	4225 11825 7.53 8.88
1975 2375 10.39 10.09	3825 3975 9.79 12.38	2025 6875 8.77 10.94	4275 11825 7.53 8.88
2025 2375 10.31 10.11	3875 3975 9.79 12.39	2075 6875 8.64 11.21	4325 11825 7.53 8.88
2075 2375 10.27 10.14	3925 3975 9.78 12.41	2125 6875 8.60 11.34	4375 11825 7.53 8.88
2125 2375 10.23 10.19	3975 3975 9.80 12.45	2175 6875 8.62 11.34	4425 11825 7.53 8.88
2175 2375 10.16 10.31	4025 3975 9.81 12.53	2225 6875 8.65 11.45	4475 11825 7.53 8.88
2225 2375 10.15 10.47	4075 3975 9.81 12.59	2275 6875 8.68 11.51	4525 11825 7.53 8.88
2275 2375 10.14 10.60	4125 3975 9.82 12.63	2325 6875 8.72 11.71	4325 11875 7.53 8.88

2325 2375 10.07 10.61	4175 3975 9.84 12.64	2375 6875 8.76 11.84	4375 11875 7.53 8.88
2375 2375 10.03 10.73	4225 3975 9.86 12.68	2425 6875 8.79 11.93	4425 11875 7.53 8.88
2425 2375 9.99 11.00	4275 3975 9.88 12.73	2475 6875 8.83 12.04	4475 11875 7.53 8.88
2475 2375 9.96 11.07	4325 3975 9.88 12.73	2525 6875 8.92 12.34	4525 11875 7.53 8.88
2525 2375 10.02 11.23	4375 3975 9.90 12.75	2575 6875 8.94 12.44	4575 11875 7.53 8.88
2575 2375 10.06 11.32	4425 3975 9.89 12.77	2625 6875 8.96 12.47	4625 11875 7.53 8.88
2625 2375 10.07 11.33	4475 3975 9.87 12.83	2675 6875 8.97 12.50	4675 11875 7.53 8.88
2675 2375 10.11 11.46	4525 3975 9.83 12.93	2725 6875 8.96 12.49	4325 11925 7.53 8.88
2725 2375 10.11 11.59	4575 3975 9.76 13.02	2775 6875 8.95 12.53	4375 11925 7.53 8.88
2775 2375 10.10 11.65	4625 3975 9.72 13.11	2825 6875 8.93 12.57	4425 11925 7.53 8.88
2825 2375 10.09 11.75	4675 3975 9.66 13.20	2875 6875 8.91 12.59	4475 11925 7.53 8.88
2875 2375 10.12 11.93	4725 3975 9.62 13.24	2925 6875 8.89 12.53	4525 11925 7.53 8.88
2925 2375 10.14 12.02	4775 3975 9.60 13.28	2975 6875 8.82 12.28	4575 11925 7.53 8.88
2975 2375 10.14 12.07	4825 3975 9.58 13.31	3025 6875 8.79 12.08	4625 11925 7.53 8.88
3025 2375 10.15 12.13	4875 3975 9.57 13.35	3075 6875 8.79 11.97	4675 11925 7.53 8.88
3075 2375 10.14 12.15	4925 3975 9.56 13.38	3125 6875 8.82 11.86	4375 11975 7.53 8.88
3125 2375 10.15 12.25	4975 3975 9.53 13.35	3175 6875 8.81 11.82	4425 11975 7.53 8.88
3175 2375 10.14 12.30	5025 3975 9.53 13.30	3225 6875 8.83 11.82	4475 11975 7.53 8.88
3225 2375 10.12 12.34	5075 3975 9.51 13.25	3275 6875 8.83 11.77	4525 11975 7.53 8.88
3275 2375 10.12 12.43	5125 3975 9.51 13.19	1675 6925 9.20 9.30	4575 11975 7.53 8.88
3325 2375 10.15 12.61	5175 3975 9.50 13.18	1725 6925 9.18 9.37	4625 11975 7.53 8.88
3375 2375 10.15 12.64	5225 3975 9.52 12.88	1775 6925 9.17 9.45	4475 12025 7.53 8.88
3425 2375 10.14 12.62	5275 3975 9.59 12.73	1825 6925 9.12 9.68	4525 12025 7.53 8.88
3475 2375 10.14 12.58	5325 3975 9.56 12.63	1875 6925 9.02 10.17	4575 12025 7.53 8.88
3525 2375 10.15 12.54	5375 3975 9.57 12.44	1925 6925 8.97 10.34	4625 12025 7.53 8.88
3575 2375 10.20 12.54	5425 3975 9.64 12.42	1975 6925 8.90 10.70	4475 12075 7.53 8.88
3625 2375 10.29 12.62	3325 4025 9.84 11.84	2025 6925 8.76 10.99	4525 12075 7.53 8.88
3675 2375 10.36 12.76	3375 4025 9.83 11.89	2075 6925 8.62 11.20	4575 12075 7.53 8.88
3725 2375 10.38 12.78	3425 4025 9.87 12.10	2125 6925 8.61 11.25	4625 12075 7.53 8.88
3775 2375 10.39 12.82	3475 4025 9.87 12.12	2175 6925 8.60 11.27	4675 12075 7.53 8.88
3825 2375 10.40 12.88	3525 4025 9.80 12.12	2225 6925 8.59 11.34	4575 12125 7.53 8.88
3875 2375 10.41 12.95	3575 4025 9.81 12.24	2275 6925 8.60 11.48	4625 12125 7.53 8.88
3925 2375 10.41 13.00	3625 4025 9.80 12.33	2325 6925 8.64 11.75	4675 12125 7.53 8.88
3975 2375 10.39 13.02	3675 4025 9.77 12.39	2375 6925 8.69 11.93	4575 12175 7.53 8.88
4025 2375 10.37 13.03	3725 4025 9.75 12.39	2425 6925 8.73 11.98	4625 12175 7.53 8.88
4075 2375 10.34 13.10	3775 4025 9.74 12.39	2475 6925 8.77 12.03	4675 12175 7.53 8.88