

## IES Report

# ZipTwo® | 707 | Square 3519, Diffuse | 90 CRI | HO

707-Z2-4-48-XX-XX-X-0-Z-HO-359-F6-X-WH-0

|  | 2700K | 3000K | 3500K | 4000K |
|--|-------|-------|-------|-------|
| Efficacy - Lumens per Watt               | 117   | 120   | 123   | 124   |
| Total Lumens, 4' rail length (1219mm)    | 4600  | 4745  | 4842  | 4890  |
| Lumens per foot (305mm)                  | 1150  | 1186  | 1211  | 1223  |
| Input Power (W), 4' rail length (1219mm) | 39.6  | 39.6  | 39.6  | 39.6  |
| Watts per foot (305mm)                   | 9.9   | 9.9   | 9.9   | 9.9   |
| CRI                                      | 95    | 95    | 95    | 95    |

Due to the large number of options in Vode's product offering, most Vode IES reports are factored reports prepared from source reports. Source reports are the IES test reports prepared for Vode by an NVLAP accredited photometric test laboratory. Factored reports are based on data from the Vode source reports.

If the data above is in black, it is directly from a Vode source report. If it is in grey, it is factored from Vode source reports. Reference details on Vode source reports can be found on the [IES File Finder](#) page on [vode.com](#).



## IES INDOOR REPORT

PHOTOMETRIC FILENAME : VODE\_707\_Z2\_HO\_359\_F6\_WH.IES

### DESCRIPTION INFORMATION (From Photometric File)

IESNA:LM-63-2002

[TEST] L082011211 (SOURCE REPORT FOR REFERENCE)

[TESTLAB] REPORT BASED ON DATA FROM NVLAP ACCREDITED LAB

[ISSUE DATE] 9/9/2020

[MANUFAC] Vode Lighting

[LUMCAT] 707-Z2-48-Z-HO-359-F6-WH

[LUMINAIRE] ZipTwo LED, 48", 3500K, 90 CRI, zipper board,

[MORE] square 3519, diffuse lens, high output

[TEST PROCEDURE] IESNA:LM-79-08

### CHARACTERISTICS

|                                 |                     |
|---------------------------------|---------------------|
| Lumens Per Lamp                 | N.A. (absolute)     |
| Total Lamp Lumens               | N.A. (absolute)     |
| Luminaire Lumens                | 4842                |
| Total Luminaire Efficiency      | N.A.                |
| Luminaire Efficacy Rating (LER) | 122                 |
| Total Luminaire Watts           | 39.55               |
| Ballast Factor                  | 1.00                |
| CIE Type                        | Semi-Direct         |
| Spacing Criterion (0-180)       | 1.34                |
| Spacing Criterion (90-270)      | 1.26                |
| Spacing Criterion (Diagonal)    | 1.44                |
| Basic Luminous Shape            | Rectangular w/Sides |
| Luminous Length (0-180)         | 0.13 ft             |
| Luminous Width (90-270)         | 4.00 ft             |
| Luminous Height                 | 0.06 ft             |

### LUMINANCE DATA (cd/sq.m)

| Angle In<br>Degrees | Average<br>0-Deg | Average<br>45-Deg | Average<br>90-Deg |
|---------------------|------------------|-------------------|-------------------|
| 45                  | 18687            | 19210             | 22854             |
| 55                  | 17468            | 17736             | 21873             |
| 65                  | 16222            | 16098             | 20732             |
| 75                  | 14713            | 14221             | 19485             |
| 85                  | 12975            | 12069             | 19178             |

**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : VODE\_707\_Z2\_HO\_359\_F6\_WH.IES**

**CANDELA TABULATION**

|            | <u>0</u> | <u>5</u> | <u>10</u> | <u>15</u> | <u>20</u> | <u>25</u> | <u>30</u> | <u>35</u> | <u>40</u> | <u>45</u> |
|------------|----------|----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>0</b>   | 1217.340 | 1217.340 | 1217.340  | 1217.340  | 1217.340  | 1217.340  | 1217.340  | 1217.340  | 1217.340  | 1217.340  |
| <b>5</b>   | 1216.365 | 1216.185 | 1216.305  | 1215.990  | 1215.930  | 1215.870  | 1215.360  | 1215.240  | 1215.120  | 1214.805  |
| <b>10</b>  | 1211.970 | 1211.850 | 1212.030  | 1211.400  | 1210.650  | 1210.020  | 1209.135  | 1208.010  | 1206.885  | 1205.625  |
| <b>15</b>  | 1197.765 | 1197.390 | 1196.700  | 1196.250  | 1195.065  | 1193.925  | 1192.350  | 1190.400  | 1188.390  | 1186.125  |
| <b>20</b>  | 1172.610 | 1172.295 | 1171.545  | 1170.600  | 1169.160  | 1167.210  | 1164.885  | 1162.110  | 1159.230  | 1156.140  |
| <b>25</b>  | 1138.290 | 1137.975 | 1137.030  | 1135.530  | 1133.505  | 1130.745  | 1127.535  | 1124.025  | 1119.930  | 1115.535  |
| <b>30</b>  | 1096.290 | 1095.795 | 1094.655  | 1092.900  | 1090.065  | 1086.300  | 1082.280  | 1077.375  | 1072.155  | 1066.305  |
| <b>35</b>  | 1047.510 | 1046.760 | 1045.245  | 1042.725  | 1039.275  | 1034.865  | 1029.660  | 1023.870  | 1017.210  | 1010.160  |
| <b>40</b>  | 992.685  | 992.310  | 990.360   | 986.970   | 982.695   | 977.040   | 970.740   | 963.390   | 955.350   | 946.860   |
| <b>45</b>  | 933.840  | 932.835  | 930.510   | 926.550   | 921.015   | 914.235   | 906.495   | 897.825   | 888.135   | 878.145   |
| <b>50</b>  | 870.600  | 869.340  | 866.580   | 861.855   | 855.390   | 847.455   | 838.095   | 827.850   | 816.405   | 804.900   |
| <b>55</b>  | 803.835  | 802.830  | 799.500   | 793.830   | 786.285   | 777.180   | 766.365   | 754.725   | 741.840   | 728.640   |
| <b>60</b>  | 733.800  | 732.480  | 728.895   | 722.670   | 714.000   | 703.680   | 691.485   | 678.030   | 663.255   | 648.675   |
| <b>65</b>  | 659.610  | 658.230  | 654.015   | 647.475   | 637.980   | 626.475   | 613.590   | 598.755   | 582.660   | 566.700   |
| <b>70</b>  | 581.400  | 579.960  | 575.745   | 568.575   | 558.900   | 546.825   | 533.115   | 517.530   | 501.000   | 484.155   |
| <b>75</b>  | 501.315  | 499.935  | 495.720   | 488.610   | 478.680   | 466.485   | 452.655   | 436.500   | 419.265   | 401.790   |
| <b>80</b>  | 420.210  | 418.635  | 414.555   | 407.760   | 397.890   | 386.010   | 372.300   | 356.400   | 339.105   | 321.570   |
| <b>85</b>  | 343.140  | 341.820  | 337.980   | 331.320   | 321.945   | 310.440   | 296.925   | 281.400   | 264.240   | 246.765   |
| <b>90</b>  | 270.330  | 269.145  | 265.305   | 259.080   | 250.020   | 238.905   | 225.765   | 210.420   | 193.515   | 176.025   |
| <b>95</b>  | 242.415  | 241.350  | 237.960   | 232.230   | 224.130   | 214.005   | 201.990   | 187.920   | 172.320   | 156.225   |
| <b>100</b> | 234.000  | 232.920  | 229.665   | 224.505   | 216.900   | 207.465   | 196.155   | 183.015   | 168.360   | 153.015   |
| <b>105</b> | 226.830  | 225.765  | 222.810   | 217.710   | 210.480   | 201.435   | 190.800   | 178.230   | 164.400   | 149.505   |
| <b>110</b> | 218.535  | 217.530  | 214.695   | 209.910   | 203.070   | 194.520   | 184.335   | 172.455   | 159.315   | 145.035   |
| <b>115</b> | 209.100  | 208.155  | 205.455   | 201.060   | 194.325   | 186.345   | 176.730   | 165.465   | 153.090   | 139.950   |
| <b>120</b> | 198.405  | 197.535  | 194.955   | 190.680   | 184.770   | 176.970   | 167.985   | 157.545   | 146.040   | 133.470   |
| <b>125</b> | 186.210  | 185.400  | 183.015   | 179.055   | 173.520   | 166.410   | 158.115   | 148.425   | 137.625   | 125.925   |
| <b>130</b> | 172.755  | 172.005  | 169.800   | 166.230   | 161.130   | 154.590   | 146.925   | 137.865   | 126.870   | 113.670   |
| <b>135</b> | 157.800  | 157.230  | 155.220   | 151.890   | 147.180   | 141.075   | 133.905   | 122.910   | 111.585   | 100.785   |
| <b>140</b> | 141.450  | 140.760  | 139.065   | 136.170   | 132.030   | 126.615   | 116.625   | 106.815   | 97.380    | 88.080    |
| <b>145</b> | 125.115  | 124.605  | 123.165   | 120.705   | 116.565   | 107.625   | 99.330    | 91.530    | 84.120    | 77.325    |
| <b>150</b> | 108.255  | 107.700  | 106.440   | 104.040   | 96.435    | 89.520    | 83.490    | 77.700    | 73.365    | 68.520    |
| <b>155</b> | 91.155   | 90.660   | 89.460    | 84.435    | 78.015    | 73.050    | 69.090    | 66.450    | 62.430    | 57.270    |
| <b>160</b> | 72.795   | 72.420   | 69.915    | 63.870    | 59.910    | 56.715    | 54.945    | 52.050    | 47.715    | 43.500    |
| <b>165</b> | 51.420   | 50.865   | 46.140    | 44.010    | 42.375    | 42.255    | 40.860    | 38.280    | 35.715    | 33.570    |
| <b>170</b> | 35.085   | 32.070   | 30.180    | 29.430    | 30.675    | 30.615    | 29.925    | 29.115    | 28.110    | 26.910    |
| <b>175</b> | 21.630   | 20.055   | 20.625    | 22.005    | 22.260    | 22.065    | 21.750    | 21.690    | 21.375    | 21.000    |
| <b>180</b> | 0.000    | 0.000    | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |

**Vert. Angles**      **Horizontal Angles**

|           | <u>50</u> | <u>55</u> | <u>60</u> | <u>65</u> | <u>70</u> | <u>75</u> | <u>80</u> | <u>85</u> | <u>90</u> |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| <b>0</b>  | 1217.340  | 1217.340  | 1217.340  | 1217.340  | 1217.340  | 1217.340  | 1217.340  | 1217.340  | 1217.340  |
| <b>5</b>  | 1214.490  | 1214.430  | 1214.040  | 1213.725  | 1213.665  | 1213.860  | 1213.665  | 1213.410  | 1213.605  |
| <b>10</b> | 1204.305  | 1202.535  | 1201.155  | 1199.835  | 1198.950  | 1198.080  | 1197.630  | 1197.195  | 1197.510  |
| <b>15</b> | 1183.800  | 1181.160  | 1178.775  | 1176.075  | 1173.300  | 1171.050  | 1169.535  | 1169.025  | 1168.590  |
| <b>20</b> | 1152.240  | 1148.790  | 1145.205  | 1141.245  | 1137.465  | 1133.760  | 1130.430  | 1129.050  | 1128.615  |
| <b>25</b> | 1110.750  | 1105.845  | 1100.700  | 1095.660  | 1090.755  | 1085.730  | 1080.885  | 1078.185  | 1077.435  |
| <b>30</b> | 1060.140  | 1054.110  | 1047.825  | 1041.345  | 1035.255  | 1028.895  | 1023.045  | 1018.710  | 1017.705  |
| <b>35</b> | 1002.870  | 995.070   | 987.345   | 979.230   | 971.565   | 964.020   | 957.045   | 950.880   | 949.305   |
| <b>40</b> | 937.620   | 928.440   | 919.380   | 909.705   | 900.840   | 892.035   | 883.680   | 876.375   | 874.245   |
| <b>45</b> | 867.450   | 856.515   | 845.895   | 834.885   | 824.760   | 814.455   | 804.960   | 796.545   | 793.140   |
| <b>50</b> | 792.585   | 780.000   | 768.120   | 755.865   | 744.105   | 732.855   | 722.475   | 712.740   | 708.150   |
| <b>55</b> | 714.495   | 700.605   | 687.150   | 673.320   | 660.240   | 647.790   | 636.030   | 625.470   | 619.635   |
| <b>60</b> | 633.210   | 617.745   | 603.030   | 588.000   | 573.540   | 559.845   | 547.080   | 535.635   | 528.720   |

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**CANDELA TABULATION - (Cont.)**

|            |         |         |         |         |         |         |         |         |         |
|------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>65</b>  | 549.975 | 533.250 | 517.275 | 501.375 | 486.345 | 471.330 | 458.115 | 445.605 | 437.310 |
| <b>70</b>  | 466.350 | 448.755 | 431.775 | 414.420 | 398.205 | 382.860 | 368.535 | 355.575 | 345.780 |
| <b>75</b>  | 383.430 | 365.070 | 347.280 | 329.430 | 312.525 | 296.355 | 281.460 | 268.200 | 257.505 |
| <b>80</b>  | 302.775 | 284.220 | 265.800 | 247.770 | 230.730 | 214.185 | 198.855 | 185.085 | 173.010 |
| <b>85</b>  | 228.150 | 209.355 | 191.055 | 172.455 | 155.040 | 137.550 | 122.085 | 107.625 | 94.680  |
| <b>90</b>  | 157.170 | 138.255 | 119.520 | 100.275 | 81.795  | 63.945  | 47.460  | 32.760  | 19.110  |
| <b>95</b>  | 138.690 | 120.960 | 103.485 | 85.380  | 68.025  | 51.105  | 35.265  | 20.805  | 7.800   |
| <b>100</b> | 136.680 | 119.385 | 102.420 | 84.750  | 67.710  | 51.105  | 35.340  | 20.175  | 8.430   |
| <b>105</b> | 133.785 | 117.255 | 100.785 | 83.685  | 67.080  | 50.355  | 34.140  | 19.860  | 9.180   |
| <b>110</b> | 130.080 | 114.165 | 98.385  | 81.915  | 65.385  | 48.855  | 33.825  | 18.420  | 9.810   |
| <b>115</b> | 125.490 | 110.520 | 95.115  | 78.645  | 63.060  | 47.400  | 33.075  | 17.295  | 10.695  |
| <b>120</b> | 119.895 | 105.675 | 90.600  | 75.375  | 60.225  | 45.960  | 29.925  | 16.155  | 11.190  |
| <b>125</b> | 112.410 | 97.830  | 83.550  | 68.655  | 55.455  | 42.060  | 27.225  | 15.030  | 11.820  |
| <b>130</b> | 100.650 | 87.960  | 75.000  | 62.490  | 50.985  | 37.275  | 25.020  | 14.715  | 12.450  |
| <b>135</b> | 89.460  | 78.330  | 67.650  | 56.835  | 45.645  | 32.940  | 22.380  | 14.340  | 13.080  |
| <b>140</b> | 78.900  | 70.155  | 60.795  | 50.490  | 38.670  | 29.295  | 20.745  | 14.265  | 13.575  |
| <b>145</b> | 70.920  | 63.120  | 52.935  | 42.060  | 33.765  | 25.395  | 19.425  | 14.265  | 13.950  |
| <b>150</b> | 62.235  | 53.130  | 44.010  | 37.035  | 29.670  | 24.270  | 18.990  | 15.405  | 15.090  |
| <b>155</b> | 49.410  | 43.065  | 37.905  | 31.815  | 27.285  | 22.890  | 18.540  | 16.470  | 16.350  |
| <b>160</b> | 39.615  | 34.830  | 31.185  | 28.110  | 24.900  | 21.060  | 18.105  | 17.295  | 17.220  |
| <b>165</b> | 31.365  | 29.295  | 27.090  | 24.585  | 21.945  | 19.560  | 18.300  | 17.985  | 17.985  |
| <b>170</b> | 25.710  | 24.270  | 22.695  | 21.180  | 19.860  | 19.110  | 18.855  | 18.930  | 18.990  |
| <b>175</b> | 20.625  | 20.370  | 19.935  | 19.620  | 19.485  | 19.485  | 19.620  | 19.620  | 19.620  |
| <b>180</b> | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   | 0.000   |

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**ZONAL LUMEN SUMMARY**

| Zone    | Lumens  | %Lamp | %Fixt  |
|---------|---------|-------|--------|
| 0-20    | 450.08  | N.A.  | 9.30   |
| 0-30    | 962.89  | N.A.  | 19.90  |
| 0-40    | 1592.2  | N.A.  | 32.90  |
| 0-60    | 2912.43 | N.A.  | 60.20  |
| 0-80    | 3885.46 | N.A.  | 80.20  |
| 0-90    | 4145.41 | N.A.  | 85.60  |
| 10-90   | 4029.76 | N.A.  | 83.20  |
| 20-40   | 1142.13 | N.A.  | 23.60  |
| 20-50   | 1815.8  | N.A.  | 37.50  |
| 40-70   | 1875.86 | N.A.  | 38.70  |
| 60-80   | 973.02  | N.A.  | 20.10  |
| 70-80   | 417.39  | N.A.  | 8.60   |
| 80-90   | 259.95  | N.A.  | 5.40   |
| 90-110  | 308.97  | N.A.  | 6.40   |
| 90-120  | 436.23  | N.A.  | 9.00   |
| 90-130  | 538.67  | N.A.  | 11.10  |
| 90-150  | 659.41  | N.A.  | 13.60  |
| 90-180  | 696.31  | N.A.  | 14.40  |
| 110-180 | 387.33  | N.A.  | 8.00   |
| 0-180   | 4841.71 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 115.64 |
| 10-20   | 334.43 |
| 20-30   | 512.81 |
| 30-40   | 629.32 |
| 40-50   | 673.67 |
| 50-60   | 646.56 |
| 60-70   | 555.63 |
| 70-80   | 417.39 |
| 80-90   | 259.95 |
| 90-100  | 163.06 |
| 100-110 | 145.91 |
| 110-120 | 127.26 |
| 120-130 | 102.44 |
| 130-140 | 73.85  |
| 140-150 | 46.89  |
| 150-160 | 25.16  |
| 160-170 | 9.82   |
| 170-180 | 1.91   |

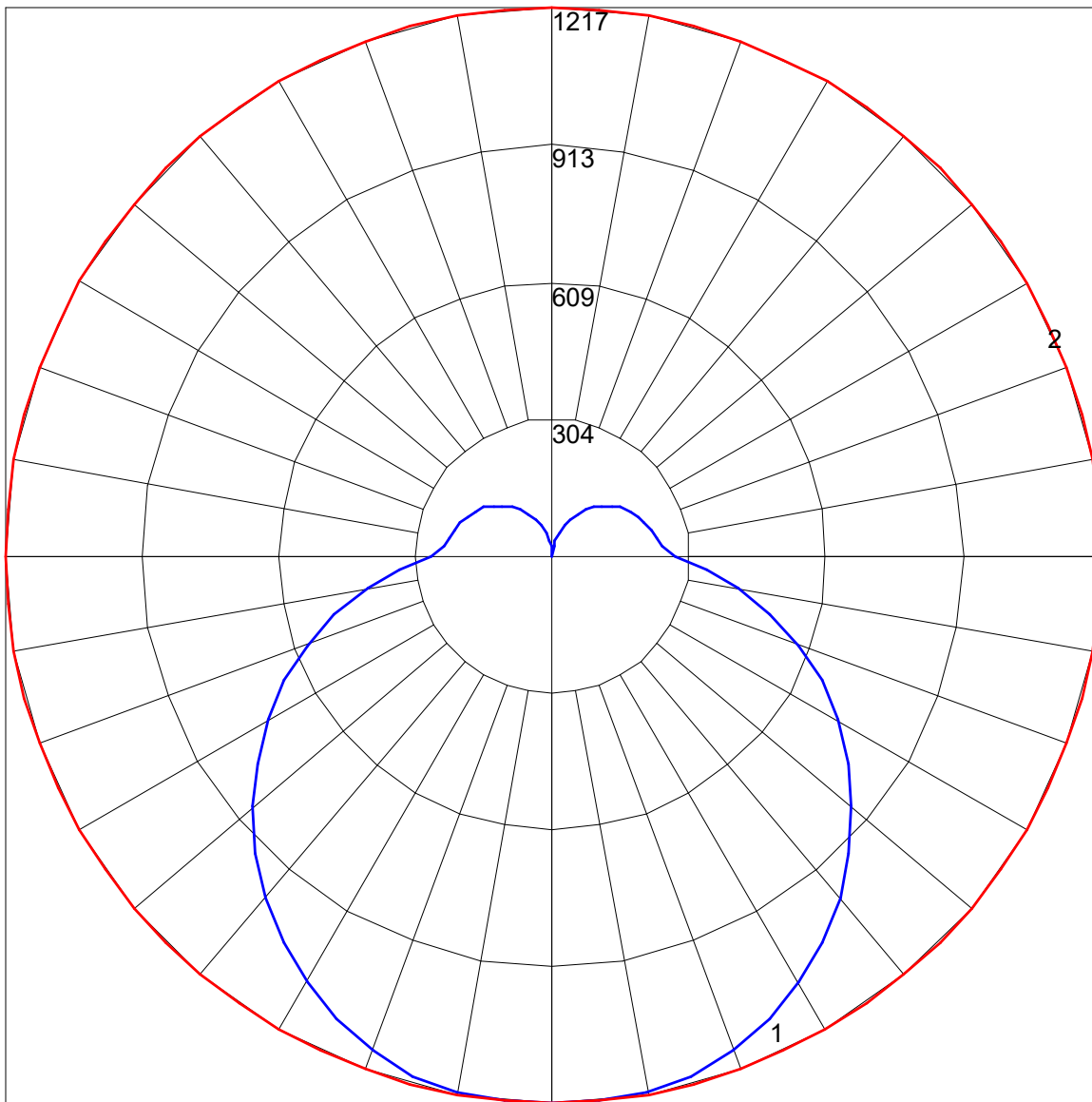
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

Effective Floor Cavity Reflectance 0.20

| RC | 80  |     |     |     | 70  |     |     |     | 50  |     |     | 30 |    |    | 10 |    |    | 0  |
|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| RW | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50 | 30 | 10 | 50 | 30 | 10 | 0  |
| 0  | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 111 | 103 | 103 | 103 | 96 | 96 | 96 | 89 | 89 | 89 | 86 |
| 1  | 103 | 98  | 93  | 88  | 99  | 94  | 90  | 86  | 87  | 84  | 80  | 81 | 78 | 75 | 75 | 73 | 71 | 67 |
| 2  | 93  | 84  | 77  | 70  | 89  | 81  | 74  | 68  | 75  | 70  | 65  | 70 | 65 | 61 | 65 | 61 | 58 | 55 |
| 3  | 85  | 73  | 65  | 58  | 81  | 71  | 63  | 56  | 66  | 59  | 53  | 61 | 55 | 51 | 56 | 52 | 48 | 45 |
| 4  | 77  | 65  | 55  | 48  | 74  | 62  | 54  | 47  | 58  | 51  | 45  | 54 | 48 | 43 | 50 | 45 | 41 | 38 |
| 5  | 71  | 57  | 48  | 41  | 68  | 55  | 47  | 40  | 52  | 44  | 39  | 48 | 42 | 37 | 45 | 39 | 35 | 33 |
| 6  | 65  | 51  | 42  | 36  | 62  | 50  | 41  | 35  | 46  | 39  | 33  | 43 | 37 | 32 | 41 | 35 | 31 | 28 |
| 7  | 60  | 46  | 38  | 31  | 58  | 45  | 37  | 31  | 42  | 35  | 29  | 39 | 33 | 28 | 37 | 31 | 27 | 25 |
| 8  | 56  | 42  | 34  | 28  | 54  | 41  | 33  | 27  | 38  | 31  | 26  | 36 | 30 | 25 | 34 | 28 | 24 | 22 |
| 9  | 52  | 39  | 30  | 25  | 50  | 38  | 30  | 24  | 35  | 28  | 23  | 33 | 27 | 23 | 31 | 26 | 22 | 20 |
| 10 | 49  | 36  | 28  | 22  | 47  | 35  | 27  | 22  | 33  | 26  | 21  | 31 | 25 | 20 | 29 | 24 | 20 | 18 |

POLAR GRAPH



Maximum Candela = 1217.34 Located At Horizontal Angle = 0, Vertical Angle = 0  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180)  
# 2 - Horizontal Cone Through Vertical Angle (0) (Through Max. Cd.)