

IES Report

ZipTwo® | 707 | Square, Side Diffuse | 90 CRI | LO

707-Z2-4-48-XX-XX-X-0-Z-LO-359-S9-X-WH-0

|  | 2700K | 3000K | 3500K | 4000K |
|--|-------|-------|-------|-------|
| Efficacy - Lumens per Watt               | 68    | 71    | 72    | 74    |
| Total Lumens, 4' rail length (1219mm)    | 1105  | 1140  | 1163  | 1186  |
| Lumens per foot (305mm)                  | 276   | 285   | 291   | 297   |
| Input Power (W), 4' rail length (1219mm) | 16.3  | 16.3  | 16.3  | 16.3  |
| Watts per foot (305mm)                   | 4.1   | 4.1   | 4.1   | 4.1   |
| 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\_LO\_359\_S9.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] L031905301 (SOURCE REPORT FOR REFERENCE)  
 [TESTLAB] REPORT BASED ON DATA PRODUCED BY NVLAP ACCREDITED LAB  
 [ISSUEDATE] 3/25/2019  
 [MANUFAC] Vode Lighting  
 [LUMCAT] 707-Z2-48-Z-LO-359-S9-AL  
 [LUMINAIRE] ZipTwo LED, 48", 3500K, 90 CRI, zipper board,  
 [MORE] square profile side diffuse lens, low output  
 [TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

|                                 |                     |
|---------------------------------|---------------------|
| Lumens Per Lamp                 | N.A. (absolute)     |
| Total Lamp Lumens               | N.A. (absolute)     |
| Luminaire Lumens                | 1163                |
| Total Luminaire Efficiency      | N.A.                |
| Luminaire Efficacy Rating (LER) | 72                  |
| Total Luminaire Watts           | 16.25               |
| Ballast Factor                  | 1.00                |
| CIE Type                        | General Diffuse     |
| Spacing Criterion (0-180)       | N.A.                |
| Spacing Criterion (90-270)      | N.A.                |
| Spacing Criterion (Diagonal)    | N.A.                |
| Basic Luminous Shape            | Rectangular w/Sides |
| Luminous Length (0-180)         | 0.12 ft             |
| Luminous Width (90-270)         | 4.00 ft             |
| Luminous Height                 | 0.12 ft             |

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

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45               | 2927          | 2008           | 39             |
| 55               | 3451          | 2469           | 44             |
| 65               | 3676          | 2852           | 59             |
| 75               | 3704          | 3151           | 75             |
| 85               | 3797          | 3525           | 168            |

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>   | 0.000    | 0.000    | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>5</b>   | 12.365   | 12.345   | 12.220    | 11.985    | 11.650    | 11.210    | 10.730    | 10.165    | 9.470     | 8.760     |
| <b>10</b>  | 27.580   | 27.475   | 27.160    | 26.570    | 25.775    | 24.730    | 23.535    | 22.090    | 20.515    | 18.840    |
| <b>15</b>  | 45.515   | 45.285   | 44.635    | 43.675    | 42.185    | 40.320    | 38.180    | 35.645    | 32.900    | 29.990    |
| <b>20</b>  | 66.010   | 65.655   | 64.690    | 63.100    | 60.855    | 57.985    | 54.695    | 50.860    | 46.730    | 42.270    |
| <b>25</b>  | 88.645   | 88.160   | 86.780    | 84.515    | 81.395    | 77.305    | 72.720    | 67.415    | 61.630    | 55.490    |
| <b>30</b>  | 112.910  | 112.305  | 110.395   | 107.360   | 103.190   | 97.800    | 91.725    | 84.830    | 77.265    | 69.430    |
| <b>35</b>  | 137.975  | 137.200  | 134.725   | 130.830   | 125.630   | 118.865   | 111.235   | 102.620   | 93.170    | 83.425    |
| <b>40</b>  | 162.535  | 161.510  | 158.595   | 153.945   | 147.490   | 139.545   | 130.305   | 119.930   | 108.720   | 97.090    |
| <b>45</b>  | 184.790  | 183.680  | 180.285   | 174.985   | 167.650   | 158.555   | 147.910   | 136.005   | 123.095   | 109.560   |
| <b>50</b>  | 202.730  | 201.430  | 197.890   | 192.165   | 184.265   | 174.395   | 162.935   | 149.690   | 135.440   | 120.455   |
| <b>55</b>  | 214.505  | 213.335  | 209.705   | 203.945   | 195.875   | 185.690   | 173.640   | 160.190   | 144.930   | 128.985   |
| <b>60</b>  | 219.450  | 218.405  | 214.965   | 209.455   | 201.725   | 191.645   | 179.950   | 166.265   | 151.070   | 135.085   |
| <b>65</b>  | 218.025  | 217.000  | 213.940   | 208.995   | 201.785   | 192.440   | 181.355   | 168.275   | 153.525   | 137.805   |
| <b>70</b>  | 211.655  | 210.840  | 208.155   | 203.715   | 197.175   | 189.045   | 178.820   | 166.645   | 152.810   | 137.765   |
| <b>75</b>  | 202.475  | 201.680  | 199.335   | 195.500   | 189.820   | 182.445   | 173.305   | 162.325   | 149.585   | 135.355   |
| <b>80</b>  | 192.585  | 191.895  | 189.820   | 186.445   | 181.375   | 174.815   | 166.705   | 156.625   | 145.015   | 131.875   |
| <b>85</b>  | 183.615  | 183.010  | 181.080   | 177.980   | 173.390   | 167.420   | 160.040   | 150.965   | 139.880   | 127.875   |
| <b>90</b>  | 176.490  | 175.905  | 174.165   | 171.170   | 166.810   | 161.235   | 154.300   | 145.605   | 135.395   | 124.020   |
| <b>95</b>  | 171.335  | 170.730  | 169.010   | 166.140   | 161.905   | 156.415   | 149.730   | 141.370   | 131.540   | 120.625   |
| <b>100</b> | 167.690  | 167.145  | 165.385   | 162.515   | 158.260   | 152.810   | 146.125   | 137.850   | 128.190   | 117.565   |
| <b>105</b> | 164.675  | 164.150  | 162.390   | 159.390   | 155.200   | 149.605   | 142.900   | 134.600   | 125.025   | 114.485   |
| <b>110</b> | 161.530  | 160.900  | 159.100   | 156.060   | 151.765   | 146.065   | 139.295   | 130.995   | 121.440   | 111.045   |
| <b>115</b> | 157.340  | 156.670  | 154.720   | 151.720   | 147.365   | 141.600   | 134.810   | 126.555   | 117.105   | 106.960   |
| <b>120</b> | 151.470  | 150.820  | 148.935   | 145.855   | 141.495   | 135.775   | 129.045   | 120.960   | 111.760   | 101.930   |
| <b>125</b> | 143.800  | 143.195  | 141.285   | 138.270   | 133.995   | 128.440   | 121.945   | 114.125   | 105.515   | 95.980    |
| <b>130</b> | 134.205  | 133.615  | 131.770   | 128.920   | 124.815   | 119.555   | 113.290   | 106.060   | 97.550    | 87.050    |
| <b>135</b> | 122.930  | 122.385  | 120.705   | 117.985   | 114.210   | 109.225   | 103.500   | 95.120    | 85.670    | 76.510    |
| <b>140</b> | 110.315  | 109.810  | 108.300   | 105.785   | 102.370   | 97.845    | 90.005    | 81.790    | 73.935    | 66.265    |
| <b>145</b> | 96.735   | 96.250   | 94.890    | 92.750    | 89.610    | 82.610    | 75.670    | 69.090    | 62.680    | 56.625    |
| <b>150</b> | 82.440   | 82.065   | 80.910    | 79.005    | 73.325    | 67.415    | 62.135    | 56.915    | 52.620    | 48.470    |
| <b>155</b> | 67.690   | 67.355   | 66.345    | 62.535    | 57.085    | 52.830    | 49.080    | 46.775    | 43.675    | 39.735    |
| <b>160</b> | 52.475   | 52.200   | 50.610    | 45.475    | 41.995    | 39.315    | 38.100    | 35.920    | 32.735    | 28.625    |
| <b>165</b> | 35.960   | 35.585   | 31.475    | 28.880    | 27.200    | 26.910    | 25.965    | 24.165    | 21.985    | 20.160    |
| <b>170</b> | 20.370   | 18.255   | 16.410    | 15.925    | 16.850    | 17.120    | 16.555    | 15.970    | 15.195    | 14.230    |
| <b>175</b> | 10.100   | 8.150    | 8.320     | 9.160     | 9.660     | 9.680     | 9.515     | 9.220     | 8.845     | 8.340     |
| <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>  | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     | 0.000     |
| <b>5</b>  | 7.965     | 7.105     | 6.225     | 5.325     | 4.360     | 3.415     | 2.515     | 1.845     | 1.635     |
| <b>10</b> | 16.975    | 15.070    | 13.035    | 11.000    | 8.885     | 6.750     | 4.610     | 2.580     | 1.595     |
| <b>15</b> | 26.825    | 23.595    | 20.265    | 16.910    | 13.580    | 10.205    | 6.810     | 3.625     | 1.550     |
| <b>20</b> | 37.450    | 32.735    | 27.895    | 23.050    | 18.295    | 13.645    | 9.010     | 4.695     | 1.550     |
| <b>25</b> | 48.995    | 42.455    | 35.920    | 29.295    | 23.135    | 17.080    | 11.190    | 5.740     | 1.465     |
| <b>30</b> | 60.920    | 52.620    | 44.115    | 35.750    | 27.975    | 20.475    | 13.330    | 6.750     | 1.465     |
| <b>35</b> | 73.055    | 62.720    | 52.325    | 42.185    | 32.755    | 23.805    | 15.360    | 7.710     | 1.465     |
| <b>40</b> | 84.705    | 72.530    | 60.415    | 48.365    | 37.365    | 26.950    | 17.245    | 8.510     | 1.260     |
| <b>45</b> | 95.580    | 81.605    | 67.815    | 54.090    | 41.640    | 29.885    | 18.775    | 9.285     | 1.260     |
| <b>50</b> | 105.010   | 89.525    | 74.310    | 59.160    | 45.390    | 32.315    | 20.330    | 10.015    | 1.175     |
| <b>55</b> | 112.535   | 95.980    | 79.590    | 63.310    | 48.575    | 34.475    | 21.815    | 10.585    | 1.175     |
| <b>60</b> | 117.855   | 100.675   | 83.595    | 66.535    | 51.070    | 36.190    | 22.865    | 11.045    | 1.175     |

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**CANDELA TABULATION - (Cont.)**

|            |         |         |        |        |        |        |        |        |       |
|------------|---------|---------|--------|--------|--------|--------|--------|--------|-------|
| <b>65</b>  | 120.625 | 103.395 | 86.090 | 68.630 | 52.705 | 37.430 | 23.660 | 11.610 | 1.175 |
| <b>70</b>  | 121.190 | 104.045 | 87.155 | 69.785 | 53.710 | 38.160 | 24.140 | 11.840 | 1.005 |
| <b>75</b>  | 119.930 | 103.420 | 87.075 | 70.225 | 54.045 | 38.515 | 24.435 | 11.985 | 0.965 |
| <b>80</b>  | 117.185 | 101.785 | 86.110 | 69.740 | 53.900 | 38.540 | 24.500 | 12.010 | 0.920 |
| <b>85</b>  | 114.125 | 99.605  | 84.560 | 68.800 | 53.565 | 38.285 | 24.435 | 12.030 | 0.880 |
| <b>90</b>  | 111.065 | 97.175  | 82.800 | 67.520 | 52.515 | 37.765 | 24.350 | 11.905 | 0.840 |
| <b>95</b>  | 108.155 | 94.785  | 80.660 | 66.160 | 51.550 | 37.385 | 24.035 | 11.985 | 0.965 |
| <b>100</b> | 105.600 | 92.415  | 78.710 | 64.375 | 50.420 | 36.675 | 23.640 | 11.840 | 1.005 |
| <b>105</b> | 102.725 | 89.900  | 76.320 | 62.660 | 49.140 | 35.795 | 23.155 | 11.130 | 1.050 |
| <b>110</b> | 99.355  | 87.030  | 74.080 | 60.815 | 47.610 | 34.745 | 22.530 | 9.620  | 1.130 |
| <b>115</b> | 95.520  | 83.595  | 71.125 | 58.425 | 45.935 | 33.445 | 21.125 | 8.740  | 1.215 |
| <b>120</b> | 90.950  | 79.530  | 67.645 | 55.555 | 43.420 | 31.350 | 18.860 | 7.480  | 1.340 |
| <b>125</b> | 85.250  | 73.805  | 61.965 | 50.460 | 39.165 | 28.080 | 15.635 | 6.350  | 1.425 |
| <b>130</b> | 76.195  | 65.695  | 55.305 | 44.930 | 34.620 | 24.245 | 13.205 | 5.660  | 1.595 |
| <b>135</b> | 67.040  | 58.070  | 48.830 | 39.210 | 30.405 | 19.930 | 11.630 | 5.070  | 1.720 |
| <b>140</b> | 58.320  | 50.735  | 42.310 | 34.075 | 25.170 | 17.060 | 10.355 | 4.650  | 1.760 |
| <b>145</b> | 50.715  | 44.365  | 36.065 | 27.915 | 20.600 | 14.420 | 8.905  | 4.275  | 1.845 |
| <b>150</b> | 43.545  | 36.485  | 29.465 | 22.925 | 17.415 | 12.890 | 8.175  | 4.295  | 2.140 |
| <b>155</b> | 33.800  | 28.290  | 23.535 | 18.650 | 14.920 | 11.235 | 7.355  | 4.380  | 2.430 |
| <b>160</b> | 25.105  | 21.585  | 18.255 | 15.405 | 12.720 | 9.810  | 6.770  | 4.340  | 2.725 |
| <b>165</b> | 18.275  | 16.430  | 14.585 | 12.490 | 10.395 | 8.110  | 6.080  | 4.130  | 2.975 |
| <b>170</b> | 13.120  | 11.925  | 10.605 | 9.220  | 7.755  | 6.370  | 4.965  | 3.710  | 3.145 |
| <b>175</b> | 7.775   | 7.165   | 6.475  | 5.805  | 5.115  | 4.445  | 3.770  | 3.355  | 3.185 |
| <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    | 9.18    | N.A.  | 0.80   |
| 0-30    | 33.57   | N.A.  | 2.90   |
| 0-40    | 83.24   | N.A.  | 7.20   |
| 0-60    | 272.23  | N.A.  | 23.40  |
| 0-80    | 526.89  | N.A.  | 45.30  |
| 0-90    | 651.24  | N.A.  | 56.00  |
| 10-90   | 650.24  | N.A.  | 55.90  |
| 20-40   | 74.06   | N.A.  | 6.40   |
| 20-50   | 154.47  | N.A.  | 13.30  |
| 40-70   | 314.56  | N.A.  | 27.10  |
| 60-80   | 254.66  | N.A.  | 21.90  |
| 70-80   | 129.10  | N.A.  | 11.10  |
| 80-90   | 124.34  | N.A.  | 10.70  |
| 90-110  | 225.20  | N.A.  | 19.40  |
| 90-120  | 320.65  | N.A.  | 27.60  |
| 90-130  | 398.00  | N.A.  | 34.20  |
| 90-150  | 487.71  | N.A.  | 41.90  |
| 90-180  | 511.58  | N.A.  | 44.00  |
| 110-180 | 286.38  | N.A.  | 24.60  |
| 0-180   | 1162.82 | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A.%

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens |
|---------|--------|
| 0-10    | 1.00   |
| 10-20   | 8.18   |
| 20-30   | 24.38  |
| 30-40   | 49.67  |
| 40-50   | 80.42  |
| 50-60   | 108.58 |
| 60-70   | 125.56 |
| 70-80   | 129.10 |
| 80-90   | 124.34 |
| 90-100  | 117.04 |
| 100-110 | 108.17 |
| 110-120 | 95.45  |
| 120-130 | 77.35  |
| 130-140 | 55.43  |
| 140-150 | 34.27  |
| 150-160 | 17.24  |
| 160-170 | 5.84   |
| 170-180 | 0.80   |

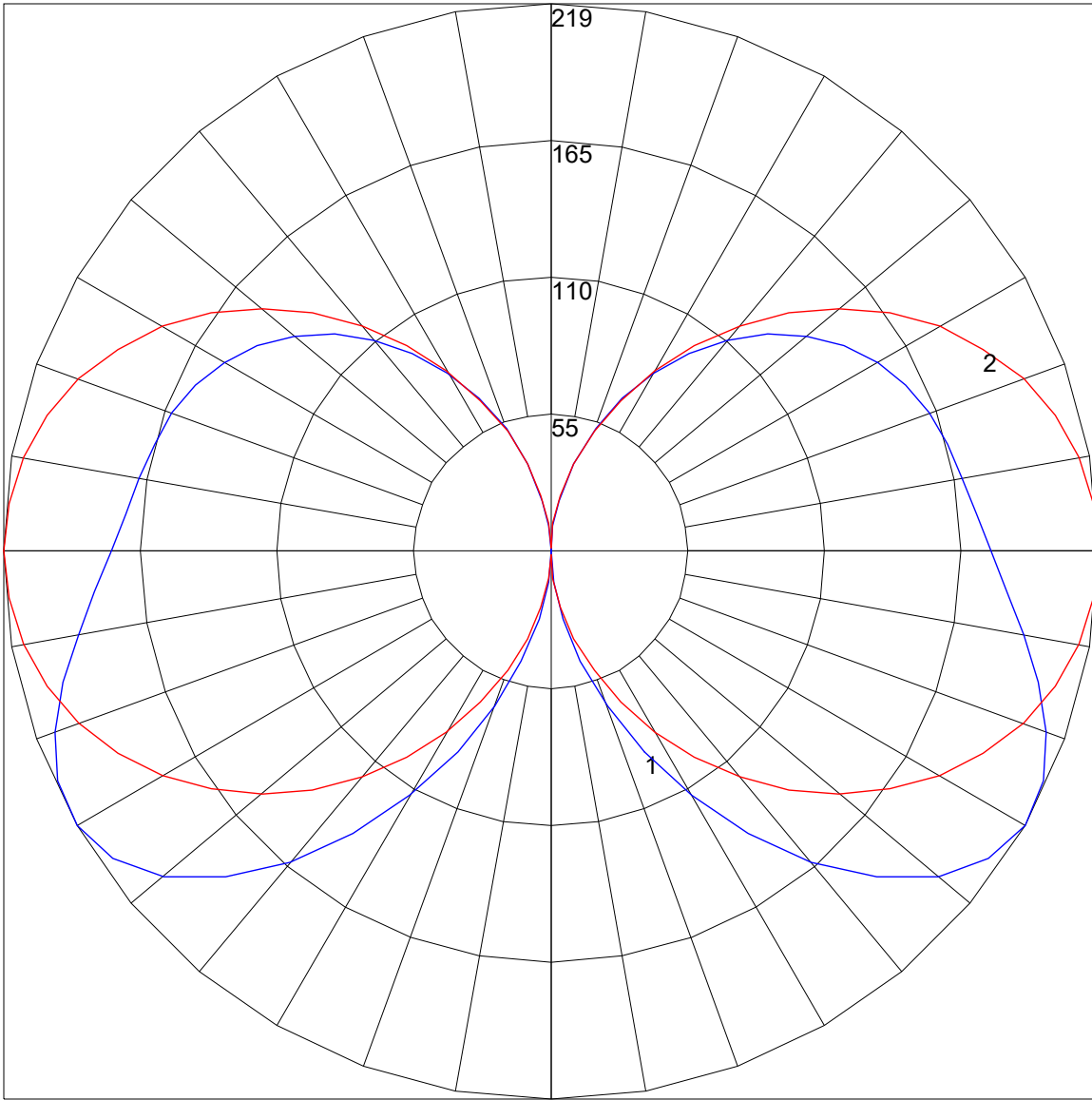
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**COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD**

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  | 109 | 109 | 109 | 109 | 101 | 101 | 101 | 101 | 87 | 87 | 87 | 74 | 74 | 74 | 62 | 62 | 62 | 56 |
| 1  | 93  | 87  | 80  | 75  | 86  | 80  | 74  | 70  | 67 | 63 | 59 | 56 | 53 | 50 | 45 | 43 | 41 | 35 |
| 2  | 83  | 72  | 64  | 56  | 76  | 66  | 59  | 52  | 56 | 50 | 44 | 46 | 41 | 37 | 36 | 33 | 30 | 25 |
| 3  | 74  | 61  | 52  | 44  | 67  | 56  | 48  | 41  | 47 | 40 | 34 | 38 | 33 | 28 | 30 | 26 | 22 | 18 |
| 4  | 67  | 53  | 43  | 35  | 61  | 49  | 40  | 33  | 40 | 33 | 28 | 33 | 27 | 22 | 26 | 21 | 18 | 14 |
| 5  | 60  | 46  | 36  | 29  | 55  | 42  | 33  | 27  | 35 | 28 | 22 | 29 | 23 | 18 | 22 | 18 | 14 | 11 |
| 6  | 55  | 41  | 31  | 24  | 50  | 37  | 29  | 22  | 31 | 24 | 19 | 25 | 20 | 15 | 20 | 15 | 12 | 8  |
| 7  | 51  | 36  | 27  | 20  | 46  | 33  | 25  | 19  | 28 | 21 | 16 | 23 | 17 | 13 | 18 | 13 | 10 | 7  |
| 8  | 47  | 33  | 24  | 18  | 43  | 30  | 22  | 16  | 25 | 18 | 13 | 20 | 15 | 11 | 16 | 12 | 8  | 6  |
| 9  | 43  | 29  | 21  | 15  | 40  | 27  | 19  | 14  | 23 | 16 | 12 | 19 | 13 | 9  | 15 | 10 | 7  | 5  |
| 10 | 40  | 27  | 19  | 13  | 37  | 25  | 17  | 12  | 21 | 14 | 10 | 17 | 12 | 8  | 13 | 9  | 6  | 4  |

POLAR GRAPH



Maximum Candela = 219.45 Located At Horizontal Angle = 0, Vertical Angle = 60  
# 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)  
# 2 - Horizontal Cone Through Vertical Angle (60) (Through Max. Cd.)