



**IES INDOOR REPORT**  
**PHOTOMETRIC FILENAME : E-12-XX-850-4-X-CA HO5.IES**

**DESCRIPTION INFORMATION (From Photometric File)**

IESNA:LM-63-2002  
 [TEST] L072111038  
 [TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)  
 [ISSUE DATE] 9/7/2021  
 [MANUFAC] LUX DYNAMICS  
 [LUMCAT] E-12-DA-850-4-U10 HO5  
 [LUMINAIRE] LED LUMINAIRE  
 [BALLASTCAT] SIGNIFY ADVANCE XJ180C180V144BSF2 (3 DRIVER)  
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND  
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.  
 [INPUT] 277VAC  
 [TEST PROCEDURE] IESNA:LM-79-08

**CHARACTERISTICS**

|                                 |                     |
|---------------------------------|---------------------|
| Lumens Per Lamp                 | N.A. (absolute)     |
| Total Lamp Lumens               | N.A. (absolute)     |
| Luminaire Lumens                | 150099              |
| Total Luminaire Efficiency      | N.A.                |
| Luminaire Efficacy Rating (LER) | 165                 |
| Total Luminaire Watts           | 910.02              |
| Ballast Factor                  | 1.00                |
| CIE Type                        | Direct              |
| Spacing Criterion (0-180)       | 1.20                |
| Spacing Criterion (90-270)      | 1.34                |
| Spacing Criterion (Diagonal)    | 1.42                |
| Basic Luminous Shape            | Rectangular w/Sides |
| Luminous Length (0-180)         | 3.83 ft             |
| Luminous Width (90-270)         | 3.04 ft             |
| Luminous Height                 | 0.06 ft             |

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

| Angle In Degrees | Average 0-Deg | Average 45-Deg | Average 90-Deg |
|------------------|---------------|----------------|----------------|
| 45               | 33275         | 42238          | 46379          |
| 55               | 27831         | 42900          | 52960          |
| 65               | 21309         | 46390          | 52674          |
| 75               | 13128         | 40019          | 38303          |
| 85               | 5429          | 19923          | 9788           |

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**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>   | 47676    | 47676    | 47676     | 47676     | 47676     | 47676     | 47676     | 47676     | 47676     | 47676     |
| <b>5</b>   | 47570    | 47554    | 47554     | 47528     | 47494     | 47484     | 47506     | 47562     | 47658     | 47746     |
| <b>10</b>  | 46742    | 46694    | 46704     | 46818     | 47014     | 47218     | 47488     | 47746     | 47934     | 48050     |
| <b>15</b>  | 45500    | 45430    | 45442     | 45636     | 46060     | 46492     | 46752     | 46894     | 46916     | 46878     |
| <b>20</b>  | 43652    | 43588    | 43632     | 43964     | 44286     | 44446     | 44664     | 44808     | 45008     | 45164     |
| <b>25</b>  | 41350    | 41266    | 41402     | 41626     | 41760     | 41890     | 42098     | 42418     | 42738     | 42922     |
| <b>30</b>  | 38328    | 38214    | 38312     | 38594     | 38770     | 39018     | 39394     | 39574     | 40000     | 40822     |
| <b>35</b>  | 34604    | 34546    | 34792     | 35252     | 35418     | 35730     | 36066     | 36776     | 37740     | 38600     |
| <b>40</b>  | 30294    | 30416    | 31026     | 31456     | 31666     | 32112     | 33004     | 34144     | 35162     | 36042     |
| <b>45</b>  | 25874    | 26178    | 26822     | 27340     | 27780     | 28608     | 29930     | 31210     | 32190     | 33146     |
| <b>50</b>  | 21670    | 21958    | 22478     | 23072     | 23888     | 25208     | 26712     | 27908     | 28940     | 30008     |
| <b>55</b>  | 17670    | 17868    | 18260     | 18998     | 20116     | 21634     | 23058     | 24376     | 25960     | 27594     |
| <b>60</b>  | 13800    | 13924    | 14290     | 15152     | 16392     | 17922     | 19626     | 21700     | 23882     | 25560     |
| <b>65</b>  | 10078    | 10170    | 10572     | 11528     | 12776     | 14530     | 16744     | 18942     | 20850     | 22366     |
| <b>70</b>  | 6678     | 6802     | 7326      | 8226      | 9588      | 11404     | 13466     | 15410     | 17028     | 18188     |
| <b>75</b>  | 3894     | 4040     | 4552      | 5418      | 6626      | 8106      | 9638      | 11030     | 12004     | 12262     |
| <b>80</b>  | 1878     | 2010     | 2382      | 2996      | 3736      | 4478      | 5228      | 6158      | 6902      | 7392      |
| <b>85</b>  | 604      | 664      | 802       | 962       | 1188      | 1472      | 1832      | 2188      | 2386      | 2418      |
| <b>90</b>  | 218      | 218      | 216       | 220       | 226       | 234       | 242       | 252       | 260       | 268       |
| <b>95</b>  | 338      | 352      | 280       | 234       | 234       | 238       | 244       | 250       | 256       | 260       |
| <b>100</b> | 468      | 570      | 672       | 522       | 274       | 234       | 234       | 236       | 238       | 242       |
| <b>105</b> | 602      | 768      | 986       | 1130      | 992       | 484       | 242       | 210       | 208       | 208       |
| <b>110</b> | 742      | 942      | 1310      | 1418      | 1580      | 1610      | 1006      | 460       | 238       | 184       |
| <b>115</b> | 888      | 1066     | 1512      | 1770      | 1792      | 1946      | 2078      | 1672      | 1022      | 560       |
| <b>120</b> | 1040     | 1186     | 1622      | 1996      | 2110      | 2050      | 2140      | 2306      | 2266      | 1874      |
| <b>125</b> | 1156     | 1282     | 1670      | 2094      | 2268      | 2300      | 2206      | 2208      | 2314      | 2432      |
| <b>130</b> | 1248     | 1346     | 1656      | 2038      | 2300      | 2358      | 2358      | 2302      | 2232      | 2276      |
| <b>135</b> | 1308     | 1376     | 1624      | 1912      | 2222      | 2358      | 2360      | 2376      | 2344      | 2292      |
| <b>140</b> | 1312     | 1358     | 1568      | 1808      | 2024      | 2246      | 2344      | 2340      | 2368      | 2344      |
| <b>145</b> | 1304     | 1326     | 1494      | 1686      | 1882      | 2056      | 2234      | 2298      | 2382      | 2320      |
| <b>150</b> | 1300     | 1296     | 1424      | 1568      | 1726      | 1864      | 1994      | 2154      | 2198      | 2272      |
| <b>155</b> | 1298     | 1298     | 1358      | 1462      | 1552      | 1682      | 1776      | 1836      | 1950      | 2058      |
| <b>160</b> | 1274     | 1270     | 1286      | 1348      | 1412      | 1474      | 1546      | 1620      | 1682      | 1726      |
| <b>165</b> | 1216     | 1216     | 1226      | 1254      | 1294      | 1344      | 1378      | 1416      | 1452      | 1494      |
| <b>170</b> | 1200     | 1200     | 1208      | 1218      | 1232      | 1258      | 1282      | 1310      | 1334      | 1354      |
| <b>175</b> | 1240     | 1240     | 1238      | 1236      | 1236      | 1240      | 1246      | 1250      | 1258      | 1268      |
| <b>180</b> | 1284     | 1284     | 1284      | 1284      | 1284      | 1284      | 1284      | 1284      | 1284      | 1284      |

**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>  | 47676     | 47676     | 47676     | 47676     | 47676     | 47676     | 47676     | 47676     | 47676     |
| <b>5</b>  | 47826     | 47956     | 48076     | 48174     | 48254     | 48308     | 48348     | 48354     | 48350     |
| <b>10</b> | 48110     | 48166     | 48200     | 48206     | 48218     | 48200     | 48180     | 48168     | 48180     |
| <b>15</b> | 46784     | 46808     | 46878     | 46942     | 47024     | 47066     | 47082     | 47108     | 47116     |
| <b>20</b> | 45268     | 45380     | 45426     | 45464     | 45550     | 45666     | 45742     | 45772     | 45808     |
| <b>25</b> | 43156     | 43534     | 43980     | 44386     | 44694     | 44904     | 45002     | 45086     | 45118     |
| <b>30</b> | 41564     | 42076     | 42548     | 43026     | 43324     | 43482     | 43572     | 43592     | 43602     |
| <b>35</b> | 39464     | 40192     | 40530     | 40690     | 40768     | 40784     | 40754     | 40702     | 40668     |
| <b>40</b> | 36878     | 37518     | 37730     | 37804     | 37890     | 37974     | 38094     | 38176     | 38190     |
| <b>45</b> | 33948     | 34516     | 34842     | 35068     | 35372     | 35656     | 35966     | 36154     | 36208     |
| <b>50</b> | 30906     | 31664     | 32726     | 33978     | 35188     | 36004     | 36414     | 36640     | 36746     |
| <b>55</b> | 29070     | 30654     | 31786     | 32364     | 32982     | 33416     | 33678     | 33804     | 33816     |
| <b>60</b> | 26728     | 27792     | 28878     | 29736     | 30290     | 30632     | 30566     | 30532     | 30524     |

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**CANDELA TABULATION - (Cont.)**

|            |       |       |       |       |       |       |       |       |       |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| <b>65</b>  | 23752 | 24682 | 25026 | 24942 | 24950 | 25146 | 25198 | 25144 | 25122 |
| <b>70</b>  | 18766 | 19038 | 19102 | 18854 | 18570 | 18334 | 18138 | 17868 | 17738 |
| <b>75</b>  | 12404 | 12578 | 12800 | 12958 | 12786 | 12364 | 11956 | 11640 | 11524 |
| <b>80</b>  | 7502  | 7316  | 6982  | 6458  | 5868  | 5424  | 5132  | 4962  | 4884  |
| <b>85</b>  | 2316  | 2122  | 1892  | 1634  | 1460  | 1278  | 1194  | 1150  | 1132  |
| <b>90</b>  | 276   | 280   | 286   | 292   | 296   | 298   | 302   | 304   | 304   |
| <b>95</b>  | 266   | 270   | 274   | 280   | 282   | 286   | 288   | 290   | 292   |
| <b>100</b> | 244   | 248   | 250   | 254   | 256   | 258   | 262   | 262   | 264   |
| <b>105</b> | 208   | 210   | 210   | 212   | 212   | 214   | 216   | 218   | 218   |
| <b>110</b> | 180   | 178   | 178   | 178   | 180   | 180   | 184   | 186   | 186   |
| <b>115</b> | 308   | 206   | 160   | 156   | 158   | 158   | 162   | 164   | 162   |
| <b>120</b> | 1336  | 884   | 560   | 390   | 316   | 256   | 226   | 214   | 210   |
| <b>125</b> | 2384  | 2176  | 1876  | 1570  | 1304  | 1098  | 968   | 890   | 874   |
| <b>130</b> | 2346  | 2438  | 2484  | 2454  | 2364  | 2260  | 2192  | 2142  | 2144  |
| <b>135</b> | 2240  | 2258  | 2300  | 2336  | 2366  | 2404  | 2442  | 2472  | 2494  |
| <b>140</b> | 2344  | 2342  | 2302  | 2248  | 2234  | 2234  | 2248  | 2266  | 2284  |
| <b>145</b> | 2366  | 2406  | 2360  | 2344  | 2360  | 2362  | 2362  | 2370  | 2380  |
| <b>150</b> | 2348  | 2336  | 2298  | 2324  | 2350  | 2410  | 2422  | 2430  | 2446  |
| <b>155</b> | 2104  | 2106  | 2164  | 2196  | 2240  | 2284  | 2302  | 2320  | 2322  |
| <b>160</b> | 1748  | 1820  | 1858  | 1908  | 1950  | 1974  | 2000  | 2014  | 2020  |
| <b>165</b> | 1536  | 1572  | 1602  | 1622  | 1640  | 1664  | 1688  | 1696  | 1706  |
| <b>170</b> | 1372  | 1386  | 1408  | 1432  | 1446  | 1460  | 1476  | 1488  | 1496  |
| <b>175</b> | 1280  | 1290  | 1300  | 1312  | 1322  | 1332  | 1342  | 1346  | 1344  |
| <b>180</b> | 1284  | 1284  | 1284  | 1284  | 1284  | 1284  | 1284  | 1284  | 1284  |

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**ZONAL LUMEN SUMMARY**

| Zone    | Lumens    | %Lamp | %Fixt  |
|---------|-----------|-------|--------|
| 0-20    | 17694.06  | N.A.  | 11.80  |
| 0-30    | 37564.35  | N.A.  | 25.00  |
| 0-40    | 61422.66  | N.A.  | 40.90  |
| 0-60    | 110186.00 | N.A.  | 73.40  |
| 0-80    | 140110.00 | N.A.  | 93.30  |
| 0-90    | 142449.00 | N.A.  | 94.90  |
| 10-90   | 137888.8  | N.A.  | 91.90  |
| 20-40   | 43728.6   | N.A.  | 29.10  |
| 20-50   | 68591.21  | N.A.  | 45.70  |
| 40-70   | 68074.04  | N.A.  | 45.40  |
| 60-80   | 29924.02  | N.A.  | 19.90  |
| 70-80   | 10613.35  | N.A.  | 7.10   |
| 80-90   | 2338.93   | N.A.  | 1.60   |
| 90-110  | 759.26    | N.A.  | 0.50   |
| 90-120  | 1636.14   | N.A.  | 1.10   |
| 90-130  | 3196.11   | N.A.  | 2.10   |
| 90-150  | 6215.4    | N.A.  | 4.10   |
| 90-180  | 7649.62   | N.A.  | 5.10   |
| 110-180 | 6890.36   | N.A.  | 4.60   |
| 0-180   | 150098.6  | N.A.  | 100.00 |

Total Luminaire Efficiency = N.A. %

**ZONAL LUMEN SUMMARY**

| Zone    | Lumens   |
|---------|----------|
| 0-10    | 4560.17  |
| 10-20   | 13133.89 |
| 20-30   | 19870.29 |
| 30-40   | 23858.32 |
| 40-50   | 24862.61 |
| 50-60   | 23900.75 |
| 60-70   | 19310.67 |
| 70-80   | 10613.35 |
| 80-90   | 2338.94  |
| 90-100  | 305.31   |
| 100-110 | 453.95   |
| 110-120 | 876.88   |
| 120-130 | 1559.97  |
| 130-140 | 1687.22  |
| 140-150 | 1332.07  |
| 150-160 | 882.15   |
| 160-170 | 427.54   |
| 170-180 | 124.53   |

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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 |    |
| 0  | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 108 | 108 | 108 | 103 | 103 | 103 | 97 | 97 | 97 | 95 |
| 1  | 107 | 103 | 98  | 94  | 104 | 100 | 96  | 92  | 95  | 91  | 89  | 90  | 87  | 85  | 85 | 83 | 82 | 79 |
| 2  | 97  | 89  | 82  | 76  | 94  | 87  | 80  | 75  | 82  | 77  | 73  | 78  | 74  | 70  | 75 | 71 | 68 | 65 |
| 3  | 89  | 78  | 70  | 63  | 86  | 76  | 68  | 62  | 72  | 66  | 60  | 69  | 63  | 59  | 66 | 61 | 57 | 55 |
| 4  | 81  | 69  | 60  | 53  | 78  | 67  | 59  | 52  | 64  | 57  | 51  | 61  | 55  | 50  | 58 | 53 | 49 | 46 |
| 5  | 74  | 61  | 52  | 46  | 72  | 60  | 51  | 45  | 57  | 50  | 44  | 55  | 48  | 43  | 52 | 47 | 42 | 40 |
| 6  | 69  | 55  | 46  | 40  | 66  | 54  | 45  | 39  | 52  | 44  | 38  | 49  | 43  | 38  | 47 | 42 | 37 | 35 |
| 7  | 63  | 50  | 41  | 35  | 61  | 49  | 40  | 35  | 47  | 39  | 34  | 45  | 38  | 33  | 43 | 37 | 33 | 31 |
| 8  | 59  | 45  | 37  | 31  | 57  | 45  | 36  | 31  | 43  | 35  | 30  | 41  | 35  | 30  | 40 | 34 | 29 | 27 |
| 9  | 55  | 42  | 33  | 28  | 53  | 41  | 33  | 28  | 39  | 32  | 27  | 38  | 31  | 27  | 37 | 31 | 26 | 24 |
| 10 | 52  | 38  | 30  | 25  | 50  | 38  | 30  | 25  | 36  | 29  | 25  | 35  | 29  | 24  | 34 | 28 | 24 | 22 |

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**UGR TABLE - CORRECTED**

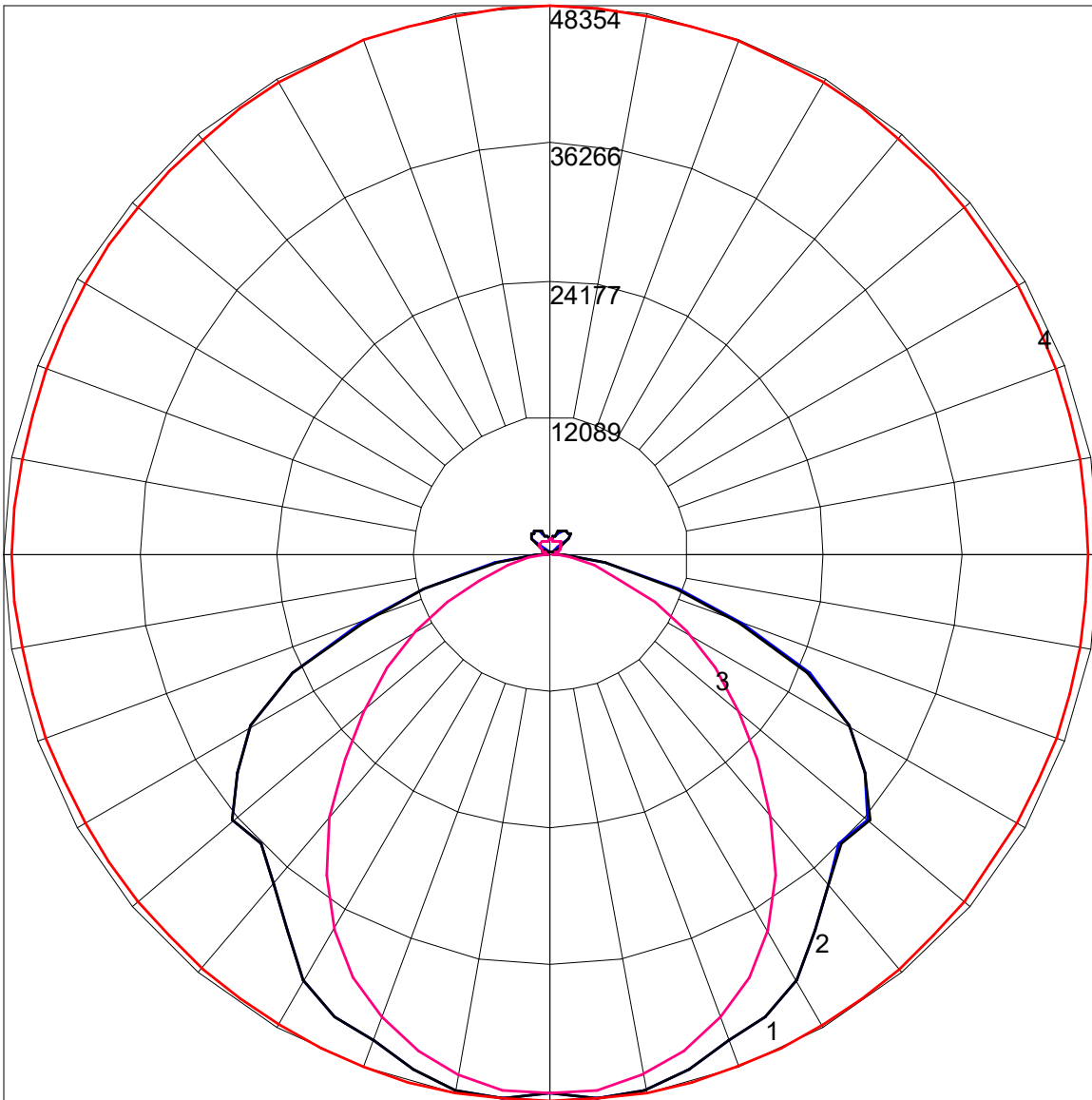
Reflectances

|                |    |    |    |    |    |    |    |    |    |    |
|----------------|----|----|----|----|----|----|----|----|----|----|
| Ceiling Cavity | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Walls          | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Floor Cavity   | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |

| Room Size |      | UGR Viewed Crosswise |      |      |      |      | UGR Viewed Endwise |      |      |      |      |
|-----------|------|----------------------|------|------|------|------|--------------------|------|------|------|------|
| X=2H      | Y=2H | 22.6                 | 24.1 | 23.0 | 24.6 | 25.0 | 26.6               | 28.2 | 27.1 | 28.6 | 29.0 |
|           | 3H   | 23.7                 | 25.1 | 24.2 | 25.5 | 26.0 | 28.5               | 29.9 | 28.9 | 30.3 | 30.8 |
|           | 4H   | 24.0                 | 25.3 | 24.5 | 25.8 | 26.3 | 29.0               | 30.4 | 29.5 | 30.8 | 31.3 |
|           | 6H   | 24.2                 | 25.4 | 24.6 | 25.8 | 26.3 | 29.3               | 30.5 | 29.8 | 31.0 | 31.5 |
|           | 8H   | 24.2                 | 25.3 | 24.7 | 25.8 | 26.3 | 29.3               | 30.5 | 29.8 | 31.0 | 31.5 |
|           | 12H  | 24.2                 | 25.3 | 24.7 | 25.8 | 26.3 | 29.4               | 30.5 | 29.9 | 30.9 | 31.5 |
| 4H        | 2H   | 24.3                 | 25.6 | 24.8 | 26.1 | 26.6 | 27.1               | 28.5 | 27.6 | 28.9 | 29.4 |
|           | 3H   | 25.8                 | 26.9 | 26.3 | 27.4 | 27.9 | 29.3               | 30.4 | 29.8 | 30.9 | 31.4 |
|           | 4H   | 26.3                 | 27.3 | 26.8 | 27.8 | 28.3 | 30.0               | 31.0 | 30.5 | 31.5 | 32.1 |
|           | 6H   | 26.5                 | 27.3 | 27.0 | 27.9 | 28.5 | 30.4               | 31.3 | 30.9 | 31.8 | 32.4 |
|           | 8H   | 26.5                 | 27.3 | 27.0 | 27.9 | 28.4 | 30.4               | 31.3 | 31.0 | 31.8 | 32.4 |
|           | 12H  | 26.5                 | 27.2 | 27.1 | 27.8 | 28.4 | 30.4               | 31.2 | 31.0 | 31.7 | 32.3 |
| 8H        | 4H   | 27.1                 | 27.9 | 27.7 | 28.5 | 29.1 | 30.3               | 31.1 | 30.8 | 31.6 | 32.2 |
|           | 6H   | 27.5                 | 28.2 | 28.1 | 28.8 | 29.4 | 30.7               | 31.4 | 31.3 | 32.0 | 32.6 |
|           | 8H   | 27.6                 | 28.2 | 28.2 | 28.8 | 29.4 | 30.8               | 31.4 | 31.4 | 32.0 | 32.6 |
|           | 12H  | 27.6                 | 28.2 | 28.2 | 28.8 | 29.4 | 30.9               | 31.4 | 31.5 | 32.0 | 32.7 |
| 12H       | 4H   | 27.2                 | 28.0 | 27.8 | 28.5 | 29.1 | 30.3               | 31.0 | 30.8 | 31.5 | 32.1 |
|           | 6H   | 27.7                 | 28.3 | 28.3 | 28.9 | 29.5 | 30.8               | 31.4 | 31.4 | 31.9 | 32.6 |
|           | 8H   | 27.9                 | 28.4 | 28.4 | 29.0 | 29.6 | 30.9               | 31.4 | 31.5 | 32.0 | 32.7 |

Maximum UGR = 32.7

POLAR GRAPH



Maximum Candela = 48354 Located At Horizontal Angle = 85, Vertical Angle = 5  
# 1 - Vertical Plane Through Horizontal Angles (85 - 265) (Through Max. Cd.)  
# 2 - Vertical Plane Through Horizontal Angles (90 - 270)  
# 3 - Vertical Plane Through Horizontal Angles (0 - 180)  
# 4 - Horizontal Cone Through Vertical Angle (5) (Through Max. Cd.)