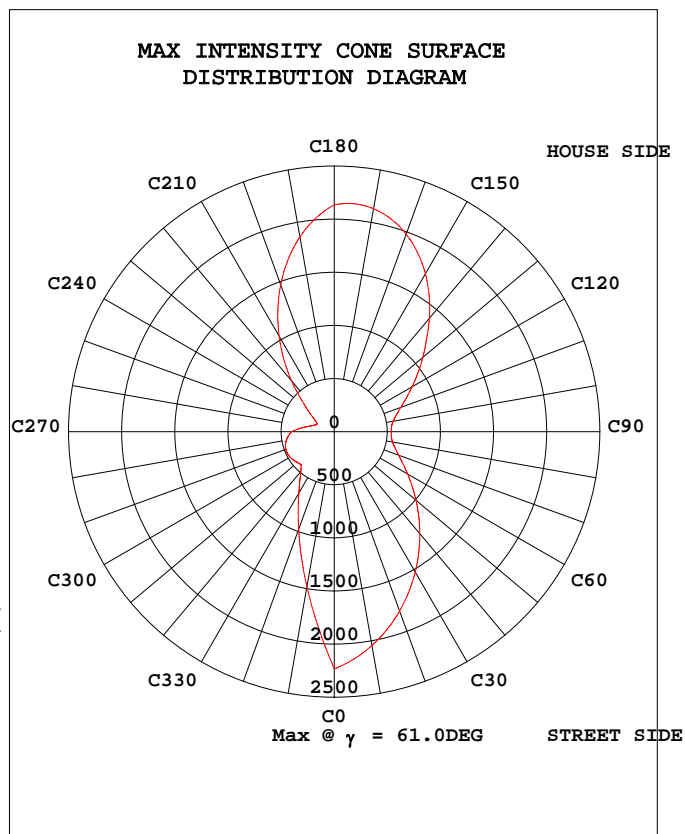
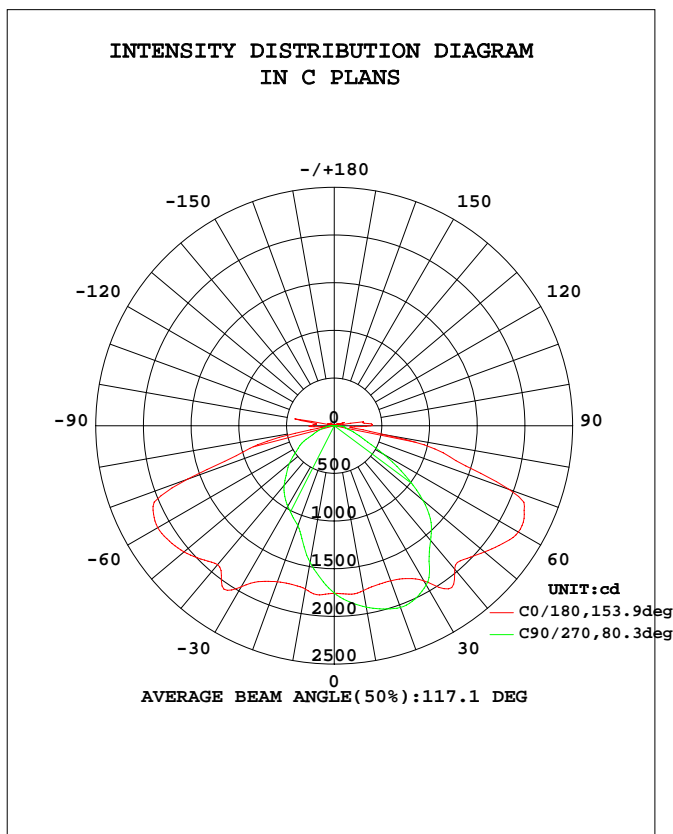


## STREETLIGHT PHOTOMETRIC TEST REPORT

|  |          |                  |
|--|----------|------------------|
| Test:U:219.9V I:0.2356A P:50.10W PF:0.9671 Lamp Flux:6236x1 lm |          |                  |
| NAME: LED GARDEN LIGHTING                                      | TYPE:LED | WEIGHT:5         |
| SPEC.:   | DIM.:    | SERIAL No.:1     |
| MFR.:  | SUR.:    | Shielding Angle: |

| DATA OF LAMP     |                 | PHOTOMETRIC DATA Eff: 124.46 lm/W |        |                       |         |
|------------------|-----------------|-----------------------------------|--------|-----------------------|---------|
| MODEL            | DLG-LED-045-50W | Imax(cd)                          | 2232   | $\eta$ street_up(%)   | 1.3     |
| NOMINAL POWER(W) | 50              | LOR(%)                            | 100.0  | $\eta$ street_down(%) | 57.6    |
| RATED VOLTAGE(V) | 220             | TOTAL FLUX(lm)                    | 6236   | $\eta$ house_up(%)    | 1.1     |
| NOMINAL FLUX(lm) | 6236            | MAXIMUM @(C, $\gamma$ )           | 0,61.0 | $\eta$ house_down(%)  | 40.0    |
| LAMPS INSIDE     | 1               | $\eta$ up(%)                      | 2.3    | 76 FLASHAREA(m2)      | 0.00100 |
| TEST VOLTAGE(V)  | 220             | $\eta$ down(%)                    | 97.6   | SLI                   | 19.612  |



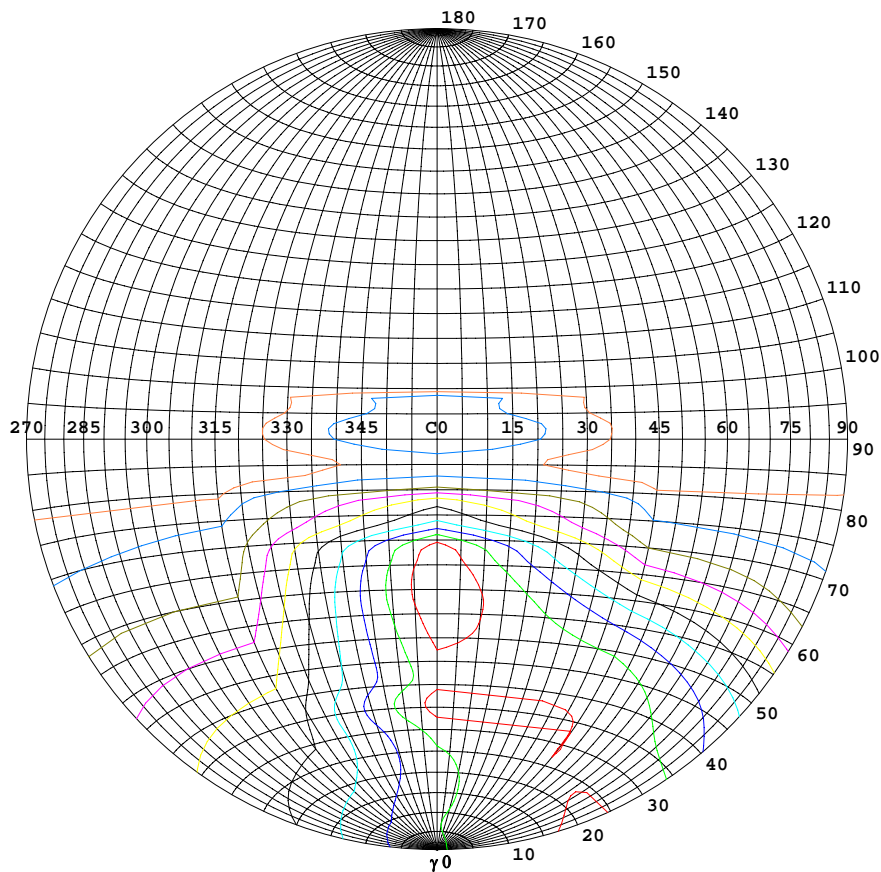
C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:GLY  
Test Date:12 October 2019

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.293  
Humidity:65.0%  
Test Distance:9.390m [K=1.0000]  
Remarks:

Note: SLI:Specific Luminaire Index

STREETLIGHT ISOCANDELA DIAGRAM

|  |          |                  |
|--|----------|------------------|
| Test:U:219.9V I:0.2356A P:50.10W PF:0.9671 Lamp Flux:6236x1 lm |          |                  |
| NAME: LED GARDEN LIGHTING                                      | TYPE:LED | WEIGHT:5         |
| SPEC.:   | DIM.:    | SERIAL No.:1     |
| MFR.:  | SUR.:    | Shielding Angle: |



Classification:

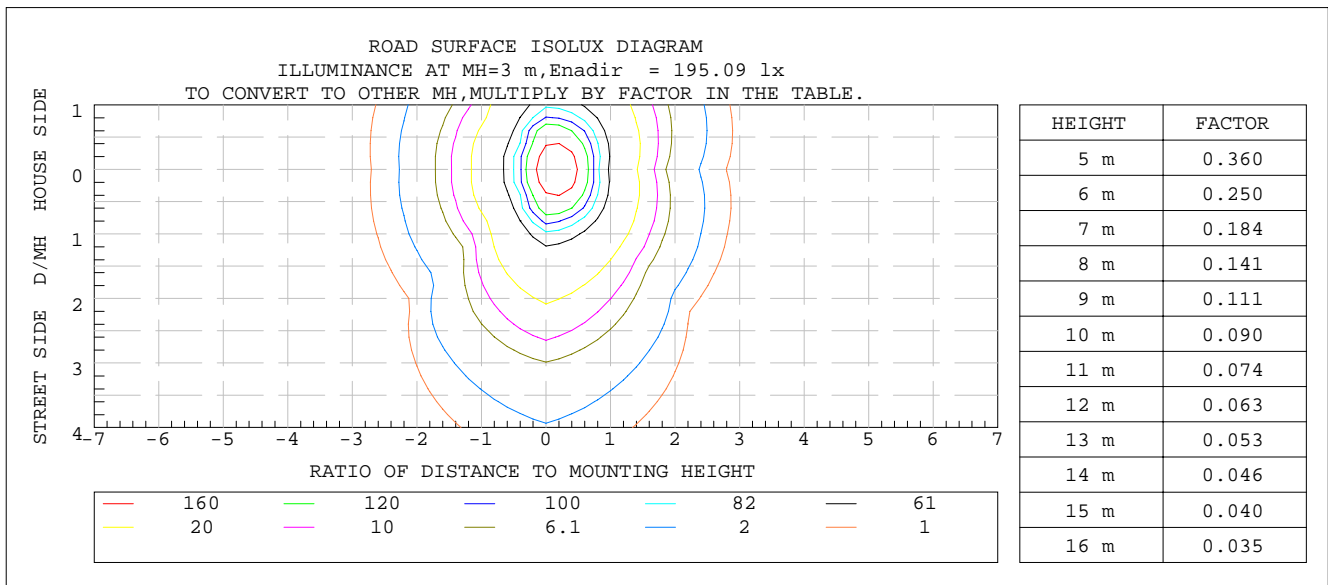
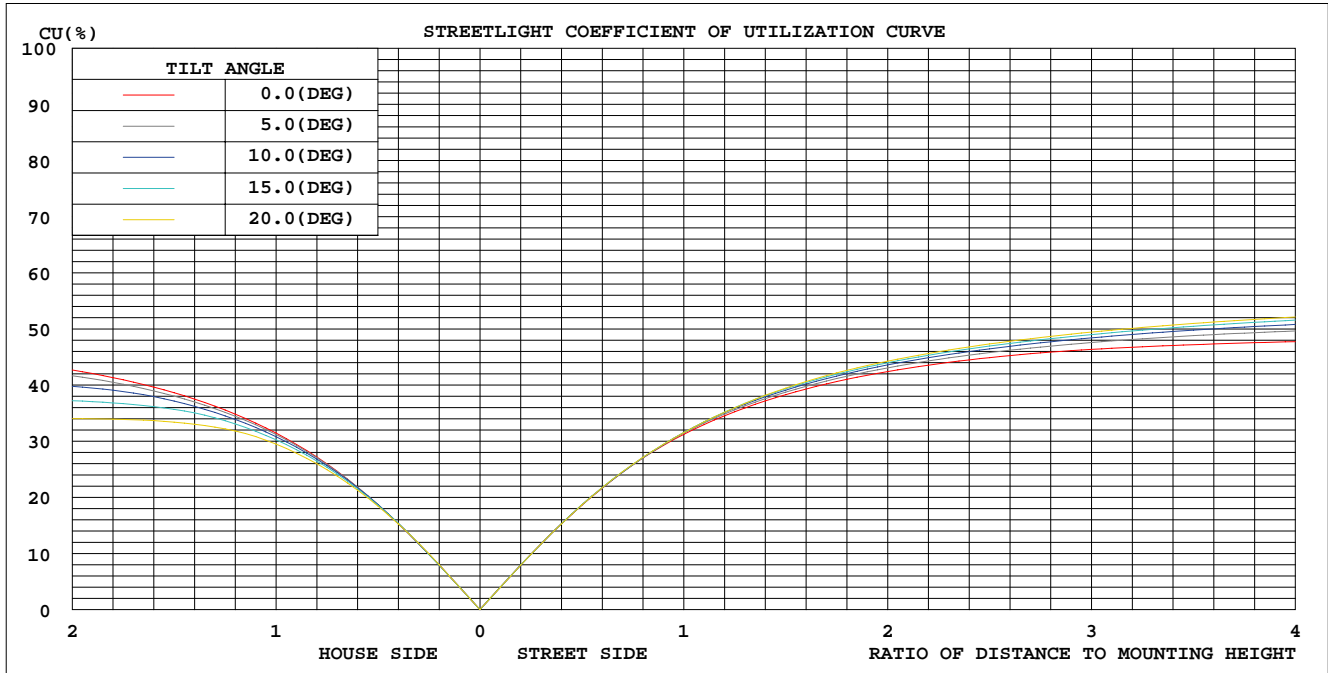
IES:Type IV - Short  
 CIE:Broad - Intermediate  
 IES:None cut-off  
 CIE:Non-cut-off  
 Max.At80:83.73cd/klm  
 Max.At90:61.66cd/klm  
 Max.80-90:83.73cd/klm

| ISOCANDELA DIAGRAM |      |
|--------------------|------|
| UNIT               | cd   |
| Imax=100%          | 2232 |
| 90%                | 2009 |
| 80%                | 1786 |
| 70%                | 1563 |
| 60%                | 1339 |
| 50%                | 1116 |
| 40%                | 893  |
| 30%                | 670  |
| 20%                | 446  |
| 10%                | 223  |
| 5%                 | 112  |

C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:GLY  
 Test Date:12 October 2019

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.293  
 Humidity:65.0%  
 Test Distance:9.390m [K=1.0000]  
 Remarks:

# COEFFICIENT OF UTILIZATION CURVE AND ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: GLY  
Test Date: 12 October 2019

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.293  
Humidity: 65.0%  
Test Distance: 9.390m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

|  |          |                  |
|--|----------|------------------|
| Test:U:219.9V I:0.2356A P:50.10W PF:0.9671 Lamp Flux:6236x1 lm |          |                  |
| NAME: LED GARDEN LIGHTING                                      | TYPE:LED | WEIGHT:5         |
| SPEC.:   | DIM.:    | SERIAL No.:1     |
| MFR.:  | SUR.:    | Shielding Angle: |

| $\gamma$ | C0                    | C45   | C90   | C135  | C180  | C225  | C270  | C315  | $\gamma$ | $\Phi$ zone | $\Phi$ total | \$lum,lamp |
|----------|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|-------------|--------------|------------|
| 10       | 1756                  | 1912  | 1931  | 1907  | 1740  | 1560  | 1458  | 1553  | 0- 10    | 166.6       | 166.6        | 2.67,2.67  |
| 20       | 1731                  | 1975  | 2028  | 1944  | 1742  | 1295  | 1117  | 1296  | 10- 20   | 475.0       | 641.6        | 10.3,10.3  |
| 30       | 1878                  | 2010  | 1929  | 1991  | 1951  | 1119  | 976.2 | 1102  | 20- 30   | 750.8       | 1392         | 22.3,22.3  |
| 40       | 1965                  | 1974  | 1572  | 2010  | 1902  | 963.9 | 817.9 | 940.7 | 30- 40   | 999.5       | 2392         | 38.4,38.4  |
| 50       | 2058                  | 1752  | 1213  | 1822  | 2057  | 729.8 | 615.3 | 715.7 | 40- 50   | 1121        | 3513         | 56.3,56.3  |
| 60       | 2229                  | 1198  | 596.2 | 1296  | 2138  | 473.2 | 418.3 | 462.7 | 50- 60   | 1114        | 4627         | 74.2,74.2  |
| 70       | 1951                  | 445.7 | 239.0 | 498.5 | 1634  | 289.0 | 209.2 | 280.2 | 60- 70   | 911.3       | 5538         | 88.8,88.8  |
| 80       | 522.1                 | 120.2 | 116.3 | 113.5 | 249.4 | 93.74 | 98.84 | 99.47 | 70- 80   | 444.4       | 5982         | 95.9,95.9  |
| 90       | 384.5                 | 30.94 | 16.07 | 30.68 | 246.1 | 25.78 | 13.80 | 29.51 | 80- 90   | 106.5       | 6089         | 97.6,97.6  |
| 100      | 7.267                 | 2.384 | 17.31 | 1.978 | 420.2 | 2.212 | 11.83 | 3.419 | 90-100   | 89.22       | 6178         | 99.1,99.1  |
| 110      | 77.47                 | 14.79 | 1.552 | 10.56 | 51.43 | 11.68 | 1.470 | 10.67 | 100-110  | 19.71       | 6198         | 99.4,99.4  |
| 120      | 45.98                 | 8.055 | 1.938 | 9.334 | 48.17 | 7.135 | 2.258 | 8.255 | 110-120  | 16.57       | 6215         | 99.7,99.7  |
| 130      | 16.85                 | 3.070 | 2.024 | 5.826 | 22.26 | 3.703 | 2.533 | 3.588 | 120-130  | 11.37       | 6226         | 99.8,99.8  |
| 140      | 4.123                 | 2.442 | 2.024 | 3.395 | 10.19 | 3.158 | 2.984 | 4.444 | 130-140  | 4.539       | 6230         | 99.9,99.9  |
| 150      | 3.403                 | 2.647 | 2.081 | 2.704 | 3.020 | 3.036 | 2.979 | 3.316 | 140-150  | 2.447       | 6233         | 100,100    |
| 160      | 3.794                 | 3.842 | 2.195 | 3.277 | 3.443 | 3.567 | 2.784 | 3.482 | 150-160  | 1.433       | 6234         | 100,100    |
| 170      | 4.327                 | 3.110 | 2.424 | 2.853 | 3.390 | 2.796 | 2.693 | 2.797 | 160-170  | 0.9825      | 6235         | 100,100    |
| 180      | 2.647                 | 2.636 | 2.567 | 2.573 | 2.601 | 2.641 | 2.601 | 2.613 | 170-180  | 0.2716      | 6236         | 100,100    |
| DEG      | LUMINOUS INTENSITY:cd |       |       |       |       |       |       |       |          | UNIT:lm     |              |            |

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:GLY  
Test Date:12 October 2019

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.293  
Humidity:65.0%  
Test Distance:9.390m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

|  |          |                  |
|--|----------|------------------|
| Test:U:219.9V I:0.2356A P:50.10W PF:0.9671 Lamp Flux:6236x1 lm |          |                  |
| NAME: LED GARDEN LIGHTING                                      | TYPE:LED | WEIGHT:5         |
| SPEC.:   | DIM.:    | SERIAL No.:1     |
| MFR.:  | SUR.:    | Shielding Angle: |

Conical surface Flux(90deg):

2941.3 lm

%lum = 47.2%

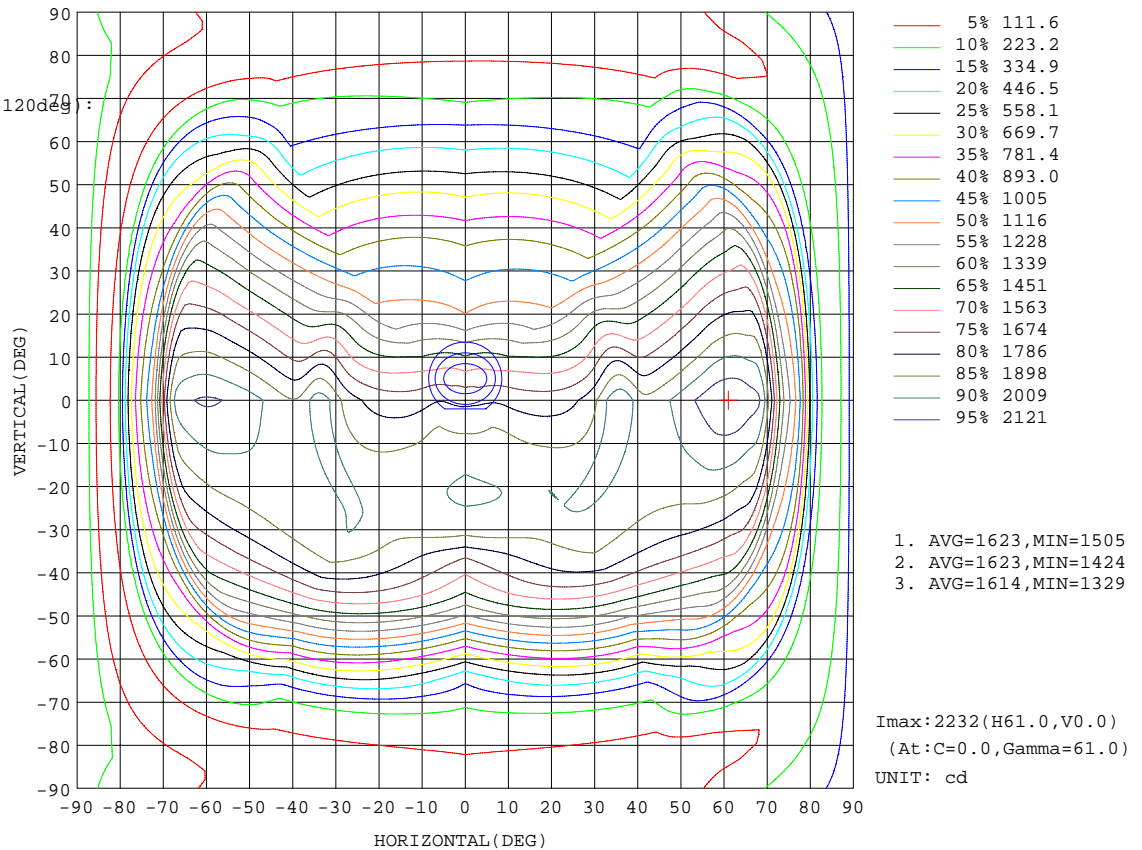
%lamp = 47.2%

Conical surface Flux(120deg):

4626.8 lm

%lum = 74.2%

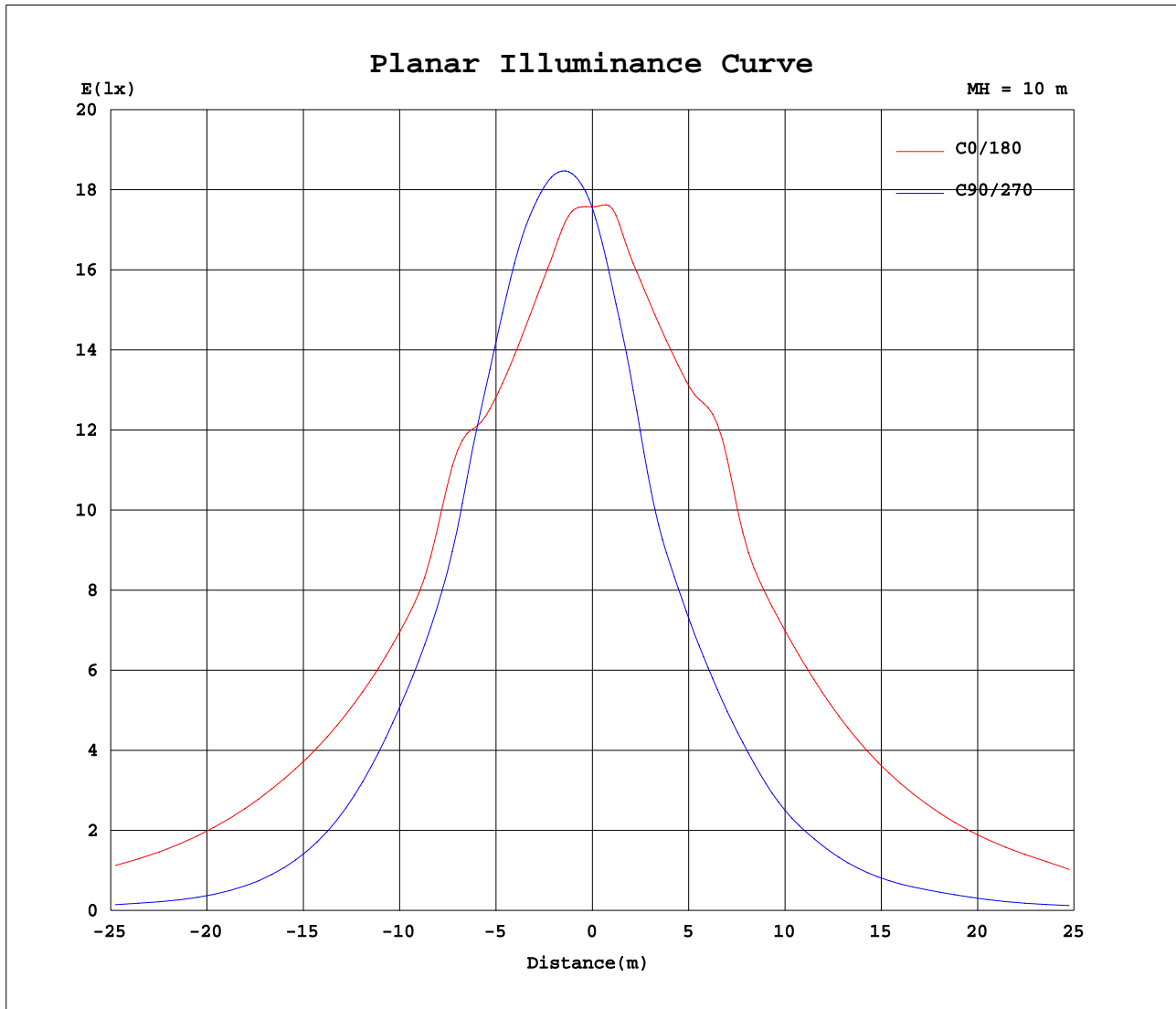
%lamp = 74.2%



C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:GLY  
Test Date:12 October 2019

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.293  
Humidity:65.0%  
Test Distance:9.390m [K=1.0000]  
Remarks:

### Planar Illuminance Curve

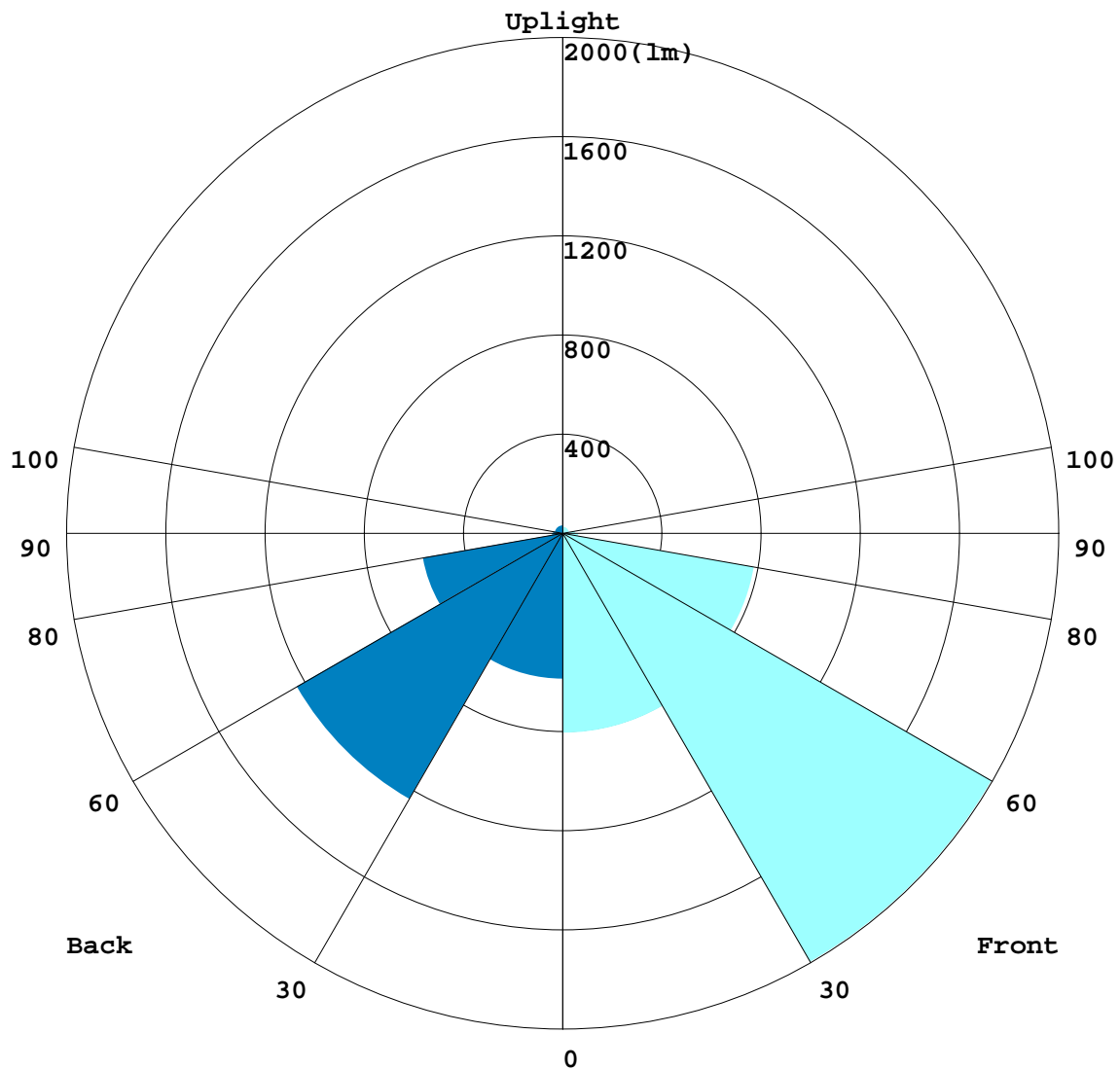


C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature: 25.3DEG  
 Operators: GLY  
 Test Date: 12 October 2019

$\gamma$  Range: 0 - 180DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.293  
 Humidity: 65.0%  
 Test Distance: 9.390m [K=1.0000]  
 Remarks:

**LCS REPORT**

|  |          |                  |
|--|----------|------------------|
| Test:U:219.9V I:0.2356A P:50.10W PF:0.9671 Lamp Flux:6236x1 lm |          |                  |
| NAME: LED GARDEN LIGHTING                                      | TYPE:LED | WEIGHT:5         |
| SPEC.:   | DIM.:    | SERIAL No.:1     |
| MFR.:  | SUR.:    | Shielding Angle: |

**LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH**


C Range: 0 - 360DEG  
 C Interval: 45.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:GLY  
 Test Date:12 October 2019

γ Range: 0 - 180DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.293  
 Humidity:65.0%  
 Test Distance:9.390m [K=1.0000]  
 Remarks:

### BUG REPORT

|  |          |                  |
|--|----------|------------------|
| Test:U:219.9V I:0.2356A P:50.10W PF:0.9671 Lamp Flux:6236x1 lm |          |                  |
| NAME: LED GARDEN LIGHTING                                      | TYPE:LED | WEIGHT:5         |
| SPEC.:   | DIM.:    | SERIAL No.:1     |
| MFR.:  | SUR.:    | Shielding Angle: |

#### IESNA Luminaire Flux Distribution Table:

| Zone                         | Lumens | Luminaire % |
|------------------------------|--------|-------------|
| FL - Front-Low(0-30)         | 805.32 | 12.9        |
| FM - Front-Medium(30-60)     | 1996.8 | 32.0        |
| FH - Front-High(60-80)       | 783.65 | 12.6        |
| FVH - Front-Very High(80-90) | 63.696 | 1.0         |
| Total Forward Light          | 3726.5 | 59.8        |

|                             |        |      |
|-----------------------------|--------|------|
| BL - Back-Low(0-30)         | 587.04 | 9.4  |
| BM - Back-Medium(30-60)     | 1237.7 | 19.8 |
| BH - Back-High(60-80)       | 572.01 | 9.2  |
| BVH - Back-Very High(80-90) | 42.842 | 0.7  |
| Total Back Light            | 2509   | 40.2 |

|                            |        |     |
|----------------------------|--------|-----|
| UL - Uplight-Low(90-100)   | 89.219 | 1.4 |
| UH - Uplight-High(100-180) | 57.325 | 0.9 |
| Total Up Light             | 146.54 | 2.4 |

|                           |          |
|---------------------------|----------|
| BUG(Back,Up,Glare) Rating | B2-U2-G2 |
|---------------------------|----------|

| Zone        | Downward<br>Lumens | Upward<br>Lumens | Total<br>Lumens |
|-------------|--------------------|------------------|-----------------|
| House Side  | 3649.5             | 77.058           | 3726.5          |
| Street Side | 2439.6             | 69.485           | 2509            |

C Range: 0 - 360DEG  
C Interval: 45.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:GLY  
Test Date:12 October 2019

γ Range: 0 - 180DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.293  
Humidity:65.0%  
Test Distance:9.390m [K=1.0000]  
Remarks:



## LUMINOUS DISTRIBUTION INTENSITY DATA

|  |  |  |  |  |          |  |  |                  |  |
|--|--|--|--|--|----------|--|--|------------------|--|
| Test:U:219.9V I:0.2356A P:50.10W PF:0.9671 Lamp Flux:6236x1 lm |  |  |  |  |          |  |  |                  |  |
| NAME: LED GARDEN LIGHTING                                      |  |  |  |  | TYPE:LED |  |  | WEIGHT:5         |  |
| SPEC.:   |  |  |  |  | DIM.:    |  |  | SERIAL No.:1     |  |
| MFR.:  |  |  |  |  | SUR.:    |  |  | Shielding Angle: |  |

Table--1

UNIT: cd

| C(DEG)<br>γ (DEG) | 0    | 45   | 90   | 135  | 180  | 225  | 270  | 315  |  |  |  |  |  |  |  |  |  |  |
|-------------------|------|------|------|------|------|------|------|------|--|--|--|--|--|--|--|--|--|--|
| 0                 | 1757 | 1754 | 1754 | 1751 | 1757 | 1754 | 1754 | 1751 |  |  |  |  |  |  |  |  |  |  |
| 5                 | 1773 | 1839 | 1854 | 1844 | 1781 | 1669 | 1611 | 1659 |  |  |  |  |  |  |  |  |  |  |
| 10                | 1756 | 1912 | 1931 | 1907 | 1740 | 1560 | 1458 | 1553 |  |  |  |  |  |  |  |  |  |  |
| 15                | 1729 | 1941 | 1989 | 1913 | 1723 | 1430 | 1270 | 1432 |  |  |  |  |  |  |  |  |  |  |
| 20                | 1731 | 1975 | 2028 | 1944 | 1742 | 1295 | 1117 | 1296 |  |  |  |  |  |  |  |  |  |  |
| 25                | 1769 | 2005 | 2005 | 1970 | 1802 | 1184 | 1043 | 1177 |  |  |  |  |  |  |  |  |  |  |
| 30                | 1878 | 2010 | 1929 | 1991 | 1951 | 1119 | 976  | 1102 |  |  |  |  |  |  |  |  |  |  |
| 35                | 2089 | 2006 | 1734 | 2011 | 2052 | 1051 | 904  | 1027 |  |  |  |  |  |  |  |  |  |  |
| 40                | 1965 | 1974 | 1572 | 2010 | 1902 | 964  | 818  | 941  |  |  |  |  |  |  |  |  |  |  |
| 45                | 1967 | 1901 | 1436 | 1948 | 1977 | 854  | 708  | 836  |  |  |  |  |  |  |  |  |  |  |
| 50                | 2058 | 1752 | 1213 | 1822 | 2057 | 730  | 615  | 716  |  |  |  |  |  |  |  |  |  |  |
| 55                | 2155 | 1519 | 909  | 1601 | 2109 | 601  | 502  | 587  |  |  |  |  |  |  |  |  |  |  |
| 60                | 2229 | 1198 | 596  | 1296 | 2138 | 473  | 418  | 463  |  |  |  |  |  |  |  |  |  |  |
| 65                | 2198 | 815  | 354  | 921  | 2096 | 366  | 300  | 358  |  |  |  |  |  |  |  |  |  |  |
| 70                | 1951 | 446  | 239  | 499  | 1634 | 289  | 209  | 280  |  |  |  |  |  |  |  |  |  |  |
| 75                | 1254 | 228  | 162  | 219  | 916  | 198  | 149  | 198  |  |  |  |  |  |  |  |  |  |  |
| 80                | 522  | 120  | 116  | 114  | 249  | 93.7 | 98.8 | 99.5 |  |  |  |  |  |  |  |  |  |  |
| 85                | 165  | 52.0 | 90.0 | 48.3 | 77.7 | 37.8 | 53.1 | 40.1 |  |  |  |  |  |  |  |  |  |  |
| 90                | 384  | 30.9 | 16.1 | 30.7 | 246  | 25.8 | 13.8 | 29.5 |  |  |  |  |  |  |  |  |  |  |
| 95                | 317  | 14.6 | 23.1 | 21.5 | 192  | 14.1 | 14.9 | 14.0 |  |  |  |  |  |  |  |  |  |  |
| 100               | 7.27 | 2.38 | 17.3 | 1.98 | 420  | 2.21 | 11.8 | 3.42 |  |  |  |  |  |  |  |  |  |  |
| 105               | 6.58 | 5.07 | 1.07 | 10.4 | 6.59 | 4.56 | 4.98 | 6.27 |  |  |  |  |  |  |  |  |  |  |
| 110               | 77.5 | 14.8 | 1.55 | 10.6 | 51.4 | 11.7 | 1.47 | 10.7 |  |  |  |  |  |  |  |  |  |  |
| 115               | 43.9 | 8.43 | 3.11 | 9.94 | 34.5 | 7.86 | 2.44 | 8.44 |  |  |  |  |  |  |  |  |  |  |
| 120               | 46.0 | 8.05 | 1.94 | 9.33 | 48.2 | 7.13 | 2.26 | 8.26 |  |  |  |  |  |  |  |  |  |  |
| 125               | 28.3 | 6.56 | 1.97 | 7.51 | 47.4 | 3.84 | 2.53 | 7.97 |  |  |  |  |  |  |  |  |  |  |
| 130               | 16.9 | 3.07 | 2.02 | 5.83 | 22.3 | 3.70 | 2.53 | 3.59 |  |  |  |  |  |  |  |  |  |  |
| 135               | 14.4 | 3.34 | 1.82 | 4.32 | 13.0 | 3.53 | 2.56 | 4.77 |  |  |  |  |  |  |  |  |  |  |
| 140               | 4.12 | 2.44 | 2.02 | 3.39 | 10.2 | 3.16 | 2.98 | 4.44 |  |  |  |  |  |  |  |  |  |  |
| 145               | 7.99 | 2.83 | 2.14 | 2.70 | 6.38 | 3.13 | 3.10 | 3.29 |  |  |  |  |  |  |  |  |  |  |
| 150               | 3.40 | 2.65 | 2.08 | 2.70 | 3.02 | 3.04 | 2.98 | 3.32 |  |  |  |  |  |  |  |  |  |  |
| 155               | 3.76 | 2.76 | 2.08 | 3.06 | 3.17 | 3.37 | 2.86 | 3.38 |  |  |  |  |  |  |  |  |  |  |
| 160               | 3.79 | 3.84 | 2.19 | 3.28 | 3.44 | 3.57 | 2.78 | 3.48 |  |  |  |  |  |  |  |  |  |  |
| 165               | 3.71 | 4.01 | 2.33 | 3.56 | 3.83 | 3.29 | 2.75 | 4.12 |  |  |  |  |  |  |  |  |  |  |
| 170               | 4.33 | 3.11 | 2.42 | 2.85 | 3.39 | 2.80 | 2.69 | 2.80 |  |  |  |  |  |  |  |  |  |  |
| 175               | 3.31 | 2.69 | 2.49 | 2.70 | 3.05 | 2.81 | 2.65 | 2.86 |  |  |  |  |  |  |  |  |  |  |
| 180               | 2.65 | 2.64 | 2.57 | 2.57 | 2.60 | 2.64 | 2.60 | 2.61 |  |  |  |  |  |  |  |  |  |  |

C Range: 0 - 360DEG

C Interval: 45.0DEG

Test Speed: HIGH

Temperature:25.3DEG

Operators:GLY

Test Date:12 October 2019

γ Range: 0 - 180DEG

γ Interval: 1.0DEG

Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.293

Humidity:65.0%

Test Distance:9.390m [K=1.0000]

Remarks: