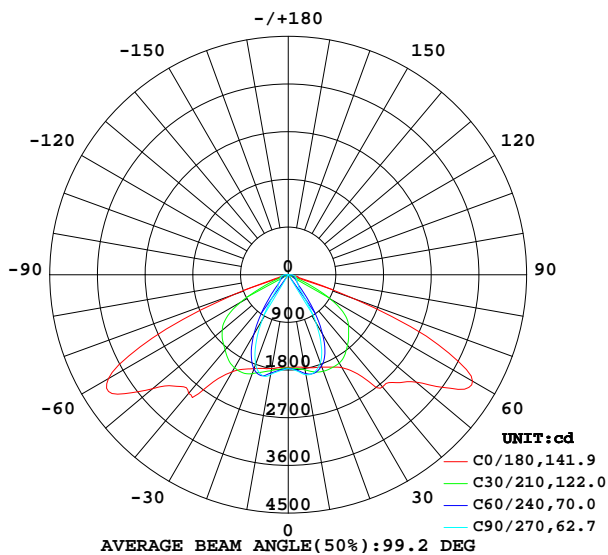
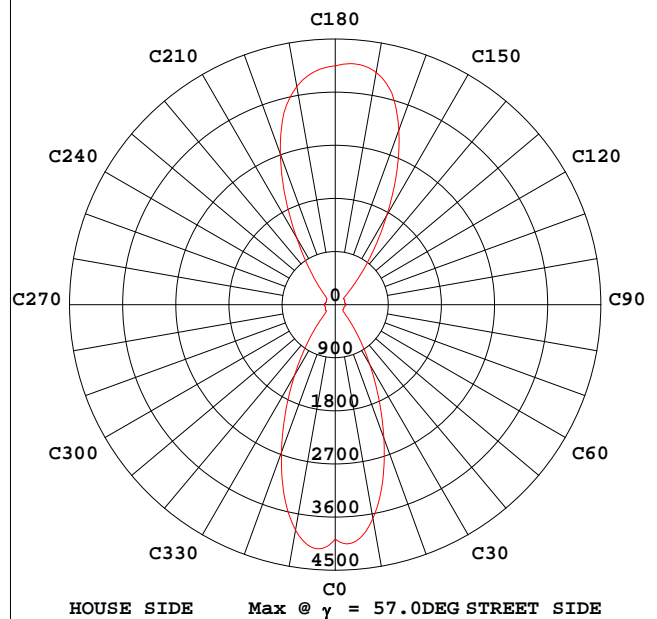


## STREETLIGHT PHOTOMETRIC TEST REPORT

|                               |                |                  |
|-------------------------------|----------------|------------------|
| NAME: LED SOLAR STREET LIGHTS | TYPE:          | WEIGHT:          |
| SPEC.:                        | DIM.:          | SERIAL No.:      |
| MFR.: ZGSM                    | SUR.:21cm*16cm | Shielding Angle: |

| DATA OF LAMP     |              | PHOTOMETRIC DATA      |          |                  |         | Eff: 140.00 lm/W |
|------------------|--------------|-----------------------|----------|------------------|---------|------------------|
| MODEL            | ZGSM-PV10040 | I <sub>max</sub> (cd) | 4045     | η street_up(%)   | 0.0     |                  |
| NOMINAL POWER(W) | 40           | LOR(%)                | 100.0    | η street_down(%) | 50.3    |                  |
| RATED VOLTAGE(V) | 12           | TOTAL FLUX(lm)        | 5601     | η house_up(%)    | 0.0     |                  |
| NOMINAL FLUX(lm) | 5600         | MAXIMUM @(C,γ )       | 180,57.0 | η house_down(%)  | 49.8    |                  |
| LAMPS INSIDE     | 1            | η up(%)               | 0.0      | 76 FLASHAREA(m2) | 0.05000 |                  |
| TEST VOLTAGE(V)  | 220.1        | η down(%)             | 100.0    | SLI              | 20.204  |                  |

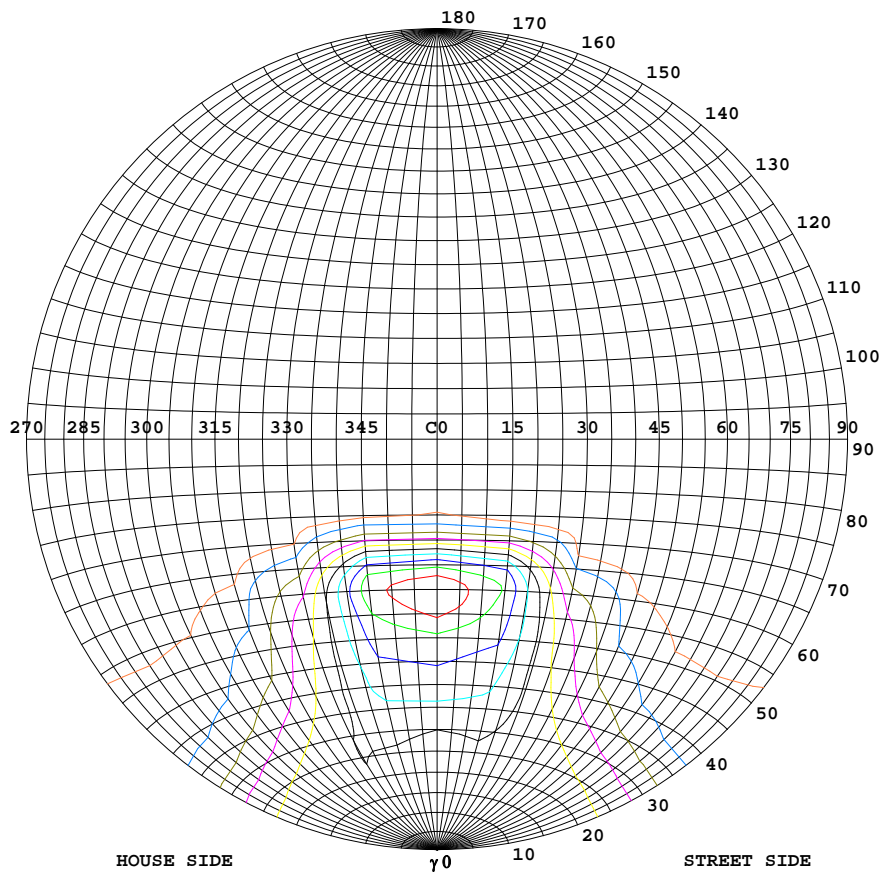
INTENSITY DISTRIBUTION DIAGRAM  
IN C PLANSMAX INTENSITY CONE SURFACE  
DISTRIBUTION DIAGRAM

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2018

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.480m [K=1.0000]  
Remarks:

STREETLIGHT ISOCANDELA DIAGRAM

|                               |                |                  |
|-------------------------------|----------------|------------------|
| NAME: LED SOLAR STREET LIGHTS | TYPE:          | WEIGHT:          |
| SPEC.:                        | DIM.:          | SERIAL No.:      |
| MFR.: ZGSM                    | SUR.:21cm*16cm | Shielding Angle: |



Classification:

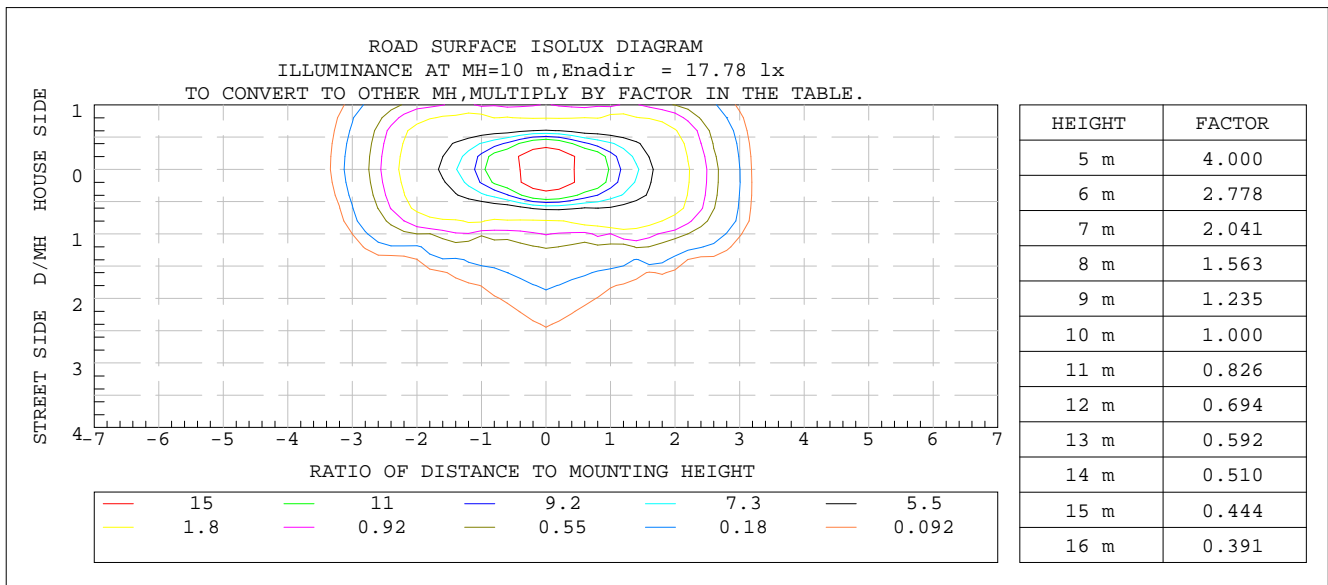
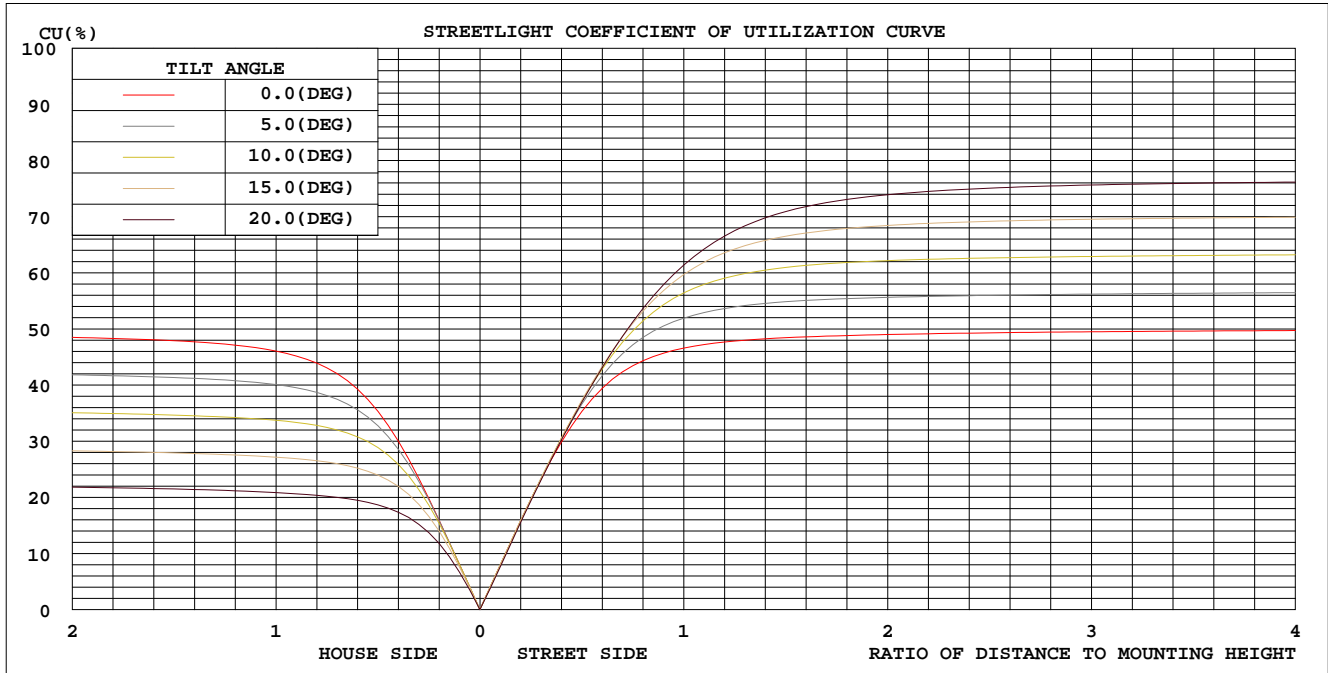
IES:Type I - Short  
 CIE:Narrow - Short  
 IES:Full cut-off  
 CIE:Full cut-off  
 Max.At80:23.92cd/klm  
 Max.At90:0cd/klm  
 Max.80-90:23.92cd/klm

| ISOCANDELA DIAGRAM |      |
|--------------------|------|
| UNIT               | cd   |
| Imax=100%          | 4045 |
| 90%                | 3641 |
| 80%                | 3236 |
| 70%                | 2832 |
| 60%                | 2427 |
| 50%                | 2023 |
| 40%                | 1618 |
| 30%                | 1214 |
| 20%                | 809  |
| 10%                | 405  |
| 5%                 | 202  |

C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2018

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.480m [K=1.0000]  
 Remarks:

# COEFFICIENT OF UTILIZATION CURVE AND ISOLUX DIAGRAM



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2018

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 10.480m [K=1.0000]  
Remarks:

## ZONAL FLUX DIAGRAM

|                               |                |                  |
|-------------------------------|----------------|------------------|
| NAME: LED SOLAR STREET LIGHTS | TYPE:          | WEIGHT:          |
| SPEC.:                        | DIM.:          | SERIAL No.:      |
| MFR.: ZGSM                    | SUR.:21cm*16cm | Shielding Angle: |

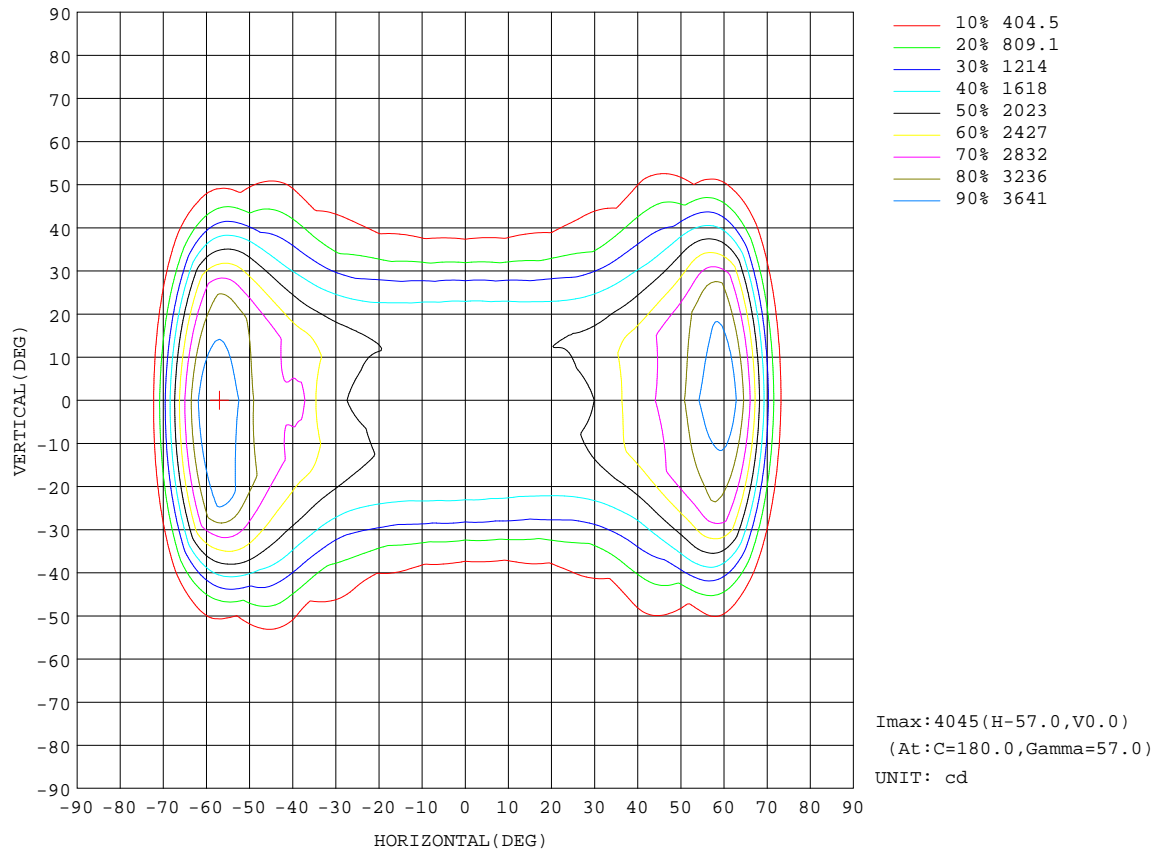
| $\gamma$ | C0                    | C45   | C90   | C135  | C180  | C225  | C270  | C315  | $\gamma$ | $\Phi$ zone | $\Phi$ total | $\Phi$ lum,lamp |
|----------|-----------------------|-------|-------|-------|-------|-------|-------|-------|----------|-------------|--------------|-----------------|
| 10       | 1776                  | 1864  | 1916  | 1878  | 1799  | 1862  | 1911  | 1863  | 0- 10    | 173.8       | 173.8        | 3.1,3.1         |
| 20       | 1856                  | 1901  | 1774  | 1946  | 1888  | 1972  | 1799  | 1976  | 10- 20   | 539.5       | 713.2        | 12.7,12.7       |
| 30       | 2026                  | 1615  | 1049  | 1736  | 2116  | 1648  | 989.7 | 1667  | 20- 30   | 821.3       | 1535         | 27.4,27.4       |
| 40       | 2767                  | 991.0 | 316.4 | 1243  | 2926  | 1033  | 300.6 | 1057  | 30- 40   | 920.3       | 2455         | 43.8,43.8       |
| 50       | 3155                  | 444.8 | 220.0 | 708.5 | 3346  | 522.2 | 238.3 | 548.1 | 40- 50   | 981.9       | 3437         | 61.4,61.4       |
| 60       | 4017                  | 224.0 | 173.3 | 268.7 | 3917  | 241.5 | 176.5 | 256.4 | 50- 60   | 1120        | 4556         | 81.4,81.4       |
| 70       | 1318                  | 96.46 | 160.7 | 96.32 | 1075  | 103.3 | 161.6 | 106.8 | 60- 70   | 827.9       | 5384         | 96.1,96.1       |
| 80       | 121.3                 | 58.68 | 132.9 | 56.10 | 72.63 | 63.22 | 134.0 | 60.33 | 70- 80   | 159.2       | 5543         | 99,99           |
| 90       | 0                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 80- 90   | 57.24       | 5601         | 100,100         |
| 100      |                       |       |       |       |       |       |       |       | 90-100   |             |              |                 |
| 110      |                       |       |       |       |       |       |       |       | 100-110  |             |              |                 |
| 120      |                       |       |       |       |       |       |       |       | 110-120  |             |              |                 |
| 130      |                       |       |       |       |       |       |       |       | 120-130  |             |              |                 |
| 140      |                       |       |       |       |       |       |       |       | 130-140  |             |              |                 |
| 150      |                       |       |       |       |       |       |       |       | 140-150  |             |              |                 |
| 160      |                       |       |       |       |       |       |       |       | 150-160  |             |              |                 |
| 170      |                       |       |       |       |       |       |       |       | 160-170  |             |              |                 |
| 180      |                       |       |       |       |       |       |       |       | 170-180  |             |              |                 |
| DEG      | LUMINOUS INTENSITY:cd |       |       |       |       |       |       |       |          | UNIT:lm     |              |                 |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2018

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.480m [K=1.0000]  
Remarks:

# ISOCANDELA DIAGRAM

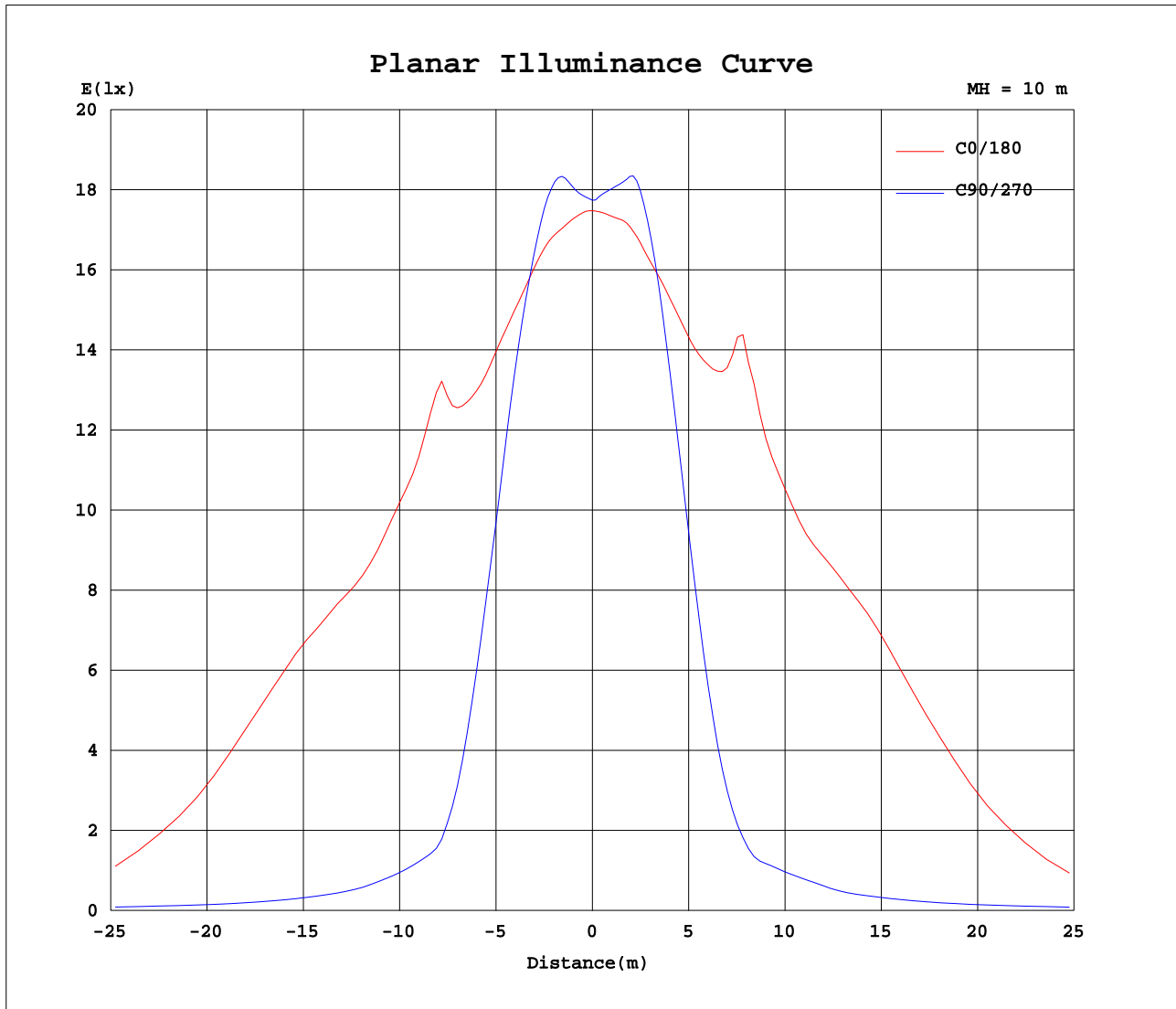
|                               |                |                  |
|-------------------------------|----------------|------------------|
| NAME: LED SOLAR STREET LIGHTS | TYPE:          | WEIGHT:          |
| SPEC.:                        | DIM.:          | SERIAL No.:      |
| MFR.: ZGSM                    | SUR.:21cm*16cm | Shielding Angle: |



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2018

γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.480m [K=1.0000]  
Remarks:

## Planar Illuminance Curve

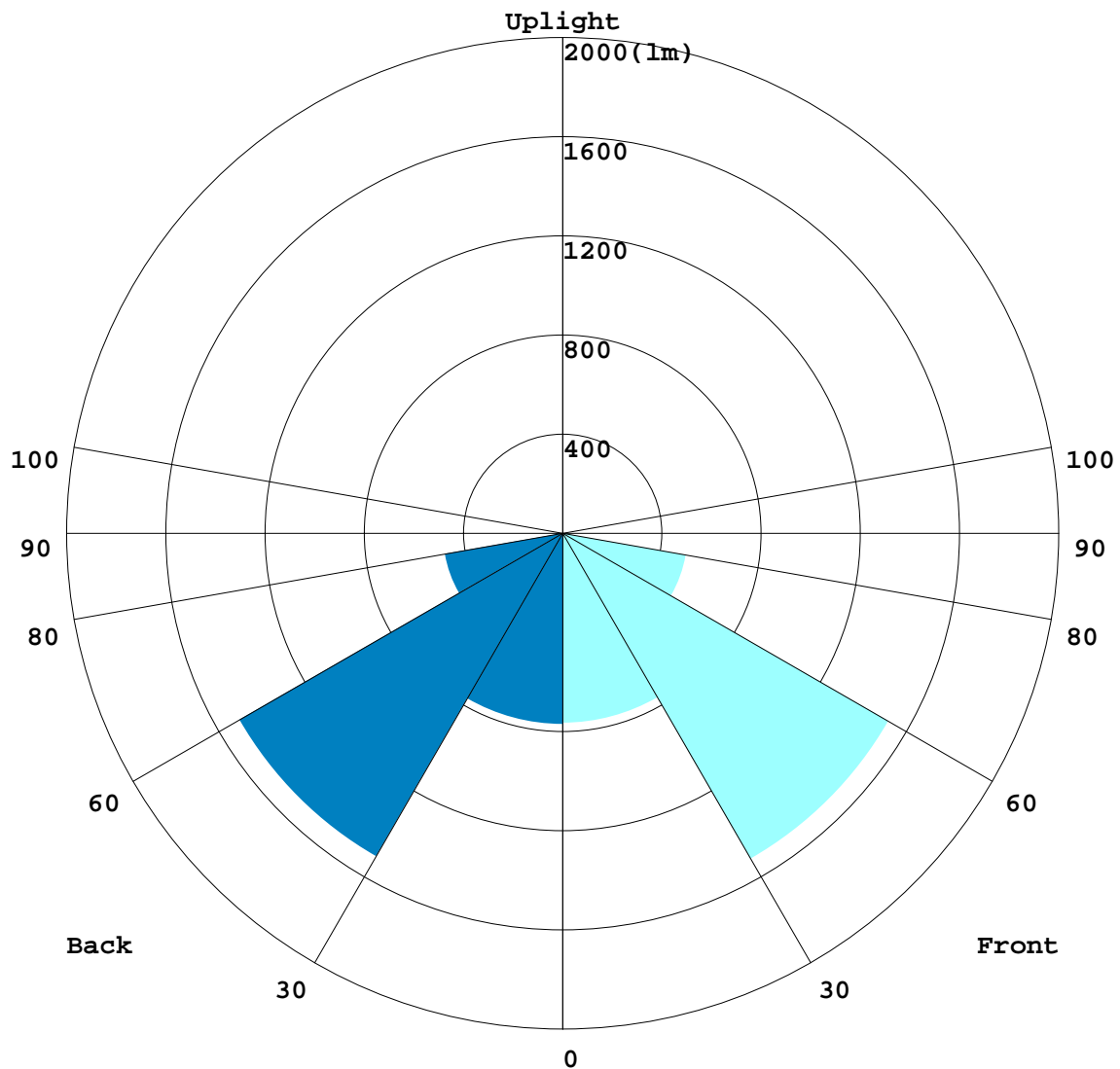


C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature: 25.3DEG  
Operators: DAMIN  
Test Date: 2018

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System: EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity: 65.0%  
Test Distance: 10.480m [K=1.0000]  
Remarks:

**LCS REPORT**

|                               |                |                  |
|-------------------------------|----------------|------------------|
| NAME: LED SOLAR STREET LIGHTS | TYPE:          | WEIGHT:          |
| SPEC.:                        | DIM.:          | SERIAL No.:      |
| MFR.: ZGSM                    | SUR.:21cm*16cm | Shielding Angle: |

**LUMINAIRE CLASSIFICATION SYSTEM(LCS) GRAPH**


C Range: 0 - 360DEG  
 C Interval: 15.0DEG  
 Test Speed: HIGH  
 Temperature:25.3DEG  
 Operators:DAMIN  
 Test Date:2018

γ Range: 0 - 90DEG  
 γ Interval: 1.0DEG  
 Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
 Humidity:65.0%  
 Test Distance:10.480m [K=1.0000]  
 Remarks:

### BUG REPORT

|                               |                |                  |
|-------------------------------|----------------|------------------|
| NAME: LED SOLAR STREET LIGHTS | TYPE:          | WEIGHT:          |
| SPEC.:                        | DIM.:          | SERIAL No.:      |
| MFR.: ZGSM                    | SUR.:21cm*16cm | Shielding Angle: |

#### IESNA Luminaire Flux Distribution Table:

| Zone                         | Lumens | Luminaire % |
|------------------------------|--------|-------------|
| FL - Front-Low(0-30)         | 764.94 | 13.7        |
| FM - Front-Medium(30-60)     | 1516.3 | 27.1        |
| FH - Front-High(60-80)       | 504.72 | 9.0         |
| FVH - Front-Very High(80-90) | 28.455 | 0.5         |
| Total Forward Light          | 2814.4 | 50.3        |

|                             |        |      |
|-----------------------------|--------|------|
| BL - Back-Low(0-30)         | 769.65 | 13.7 |
| BM - Back-Medium(30-60)     | 1505.3 | 26.9 |
| BH - Back-High(60-80)       | 482.36 | 8.6  |
| BVH - Back-Very High(80-90) | 28.787 | 0.5  |
| Total Back Light            | 2786.1 | 49.7 |

|                            |   |     |
|----------------------------|---|-----|
| UL - Uplight-Low(90-100)   | 0 | 0.0 |
| UH - Uplight-High(100-180) | 0 | 0.0 |
| Total Up Light             | 0 | 0.0 |

|                           |          |
|---------------------------|----------|
| BUG(Back,Up,Glare) Rating | B2-U0-G1 |
|---------------------------|----------|

| Zone        | Downward<br>Lumens | Upward<br>Lumens | Total<br>Lumens |
|-------------|--------------------|------------------|-----------------|
| House Side  | 2786.1             | 0                | 2786.1          |
| Street Side | 2814.4             | 0                | 2814.4          |

C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2018

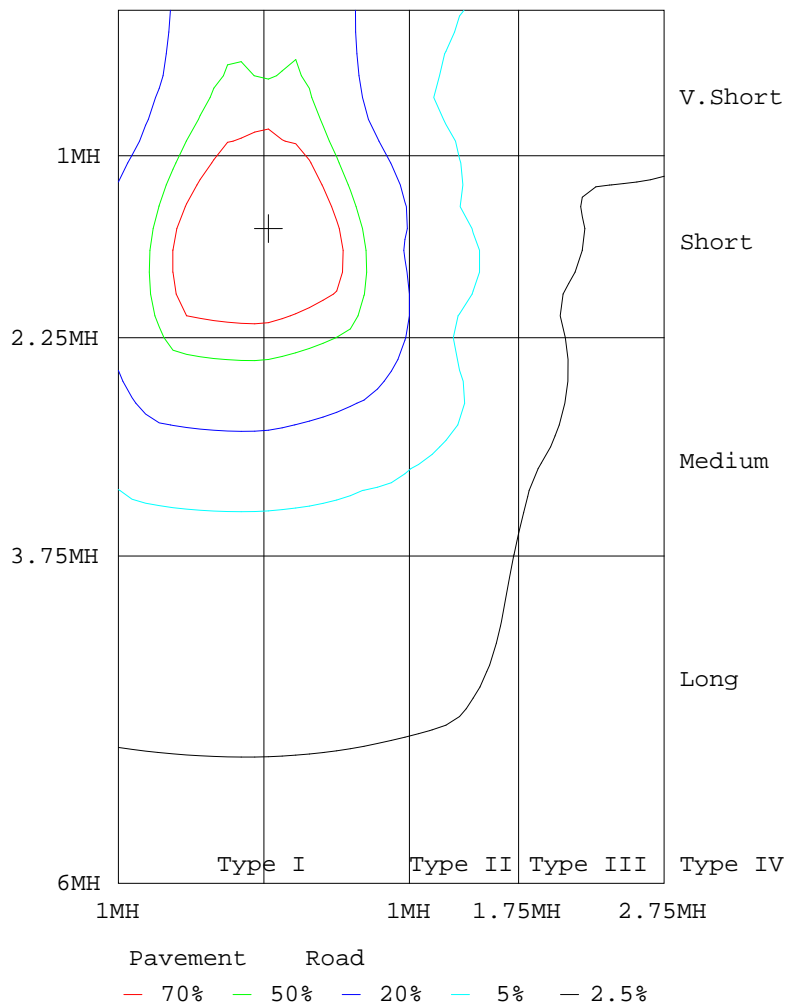
γ Range: 0 - 90DEG  
γ Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.480m [K=1.0000]  
Remarks:



ROAD ISOCANDELA REPORT

|                               |                |                  |
|-------------------------------|----------------|------------------|
| NAME: LED SOLAR STREET LIGHTS | TYPE:          | WEIGHT:          |
| SPEC.:                        | DIM.:          | SERIAL No.:      |
| MFR.: ZGSM                    | SUR.:21cm*16cm | Shielding Angle: |

ROAD SURFACE ISOCANDELA DIAGRAM



C Range: 0 - 360DEG  
C Interval: 15.0DEG  
Test Speed: HIGH  
Temperature:25.3DEG  
Operators:DAMIN  
Test Date:2018

$\gamma$  Range: 0 - 90DEG  
 $\gamma$  Interval: 1.0DEG  
Test System:EVERFINE GO-2000A\_V1 SYSTEM V2.0.362  
Humidity:65.0%  
Test Distance:10.480m [K=1.0000]  
Remarks:

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.480m [K=1.0000]
Remarks:

```

```

γ Range: 0 - 90DEG
γ Interval: 1.0DEG
Test System:EVERFINE GO-2000A_V1 SYSTEM V2.0.362
Humidity:65.0%
Test Distance:10.480m [K=1.0000]
Remarks:

```