

Report No.: MSTLAB250607003

Test Time: 2025-06-07 11:03:06

## Luminaire Property

Luminaire Manufacturer: MESTER

Luminaire Category:

Luminaire Description: ALL054F40W27V35K DOWN100%

Lamp Catalog: L128-ETSP2-YKCIE-SC(2790)+L128-ETSP2-YHCIE-SC(5090)

Lamp Description: BQ-40-0820-47-AD

Number of Lamps: 1

Lumens per Lamp:

Luminous Length (mm): 1200

Luminous Width (mm): 63

Luminous Height (mm):

Voltage: 120.0 V

Current: 0.315 A

Power: 37.61 W

Power Factor: 0.997

## Photometric Results

CIE Class: Direct

Measurement Flux: 4468 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(10%,50%,75%,100%): H170.4,H119.8,H83.4,H0

Vertical Diffuse Angle(10%,50%,75%,100%): V161,V114.4,V79,V0

Luminous Efficacy (lm/w): 118.80

C0r0 Intensity: 1462.87 cd

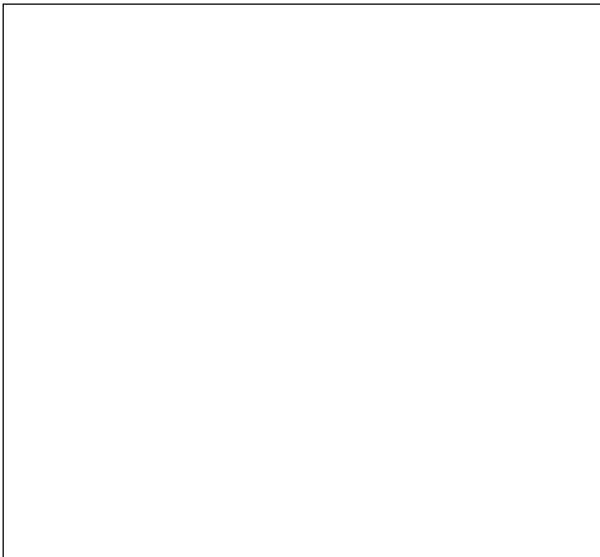
Max. Intensity: 1463.51 cd

Pos of Max. Intensity: H150 V1

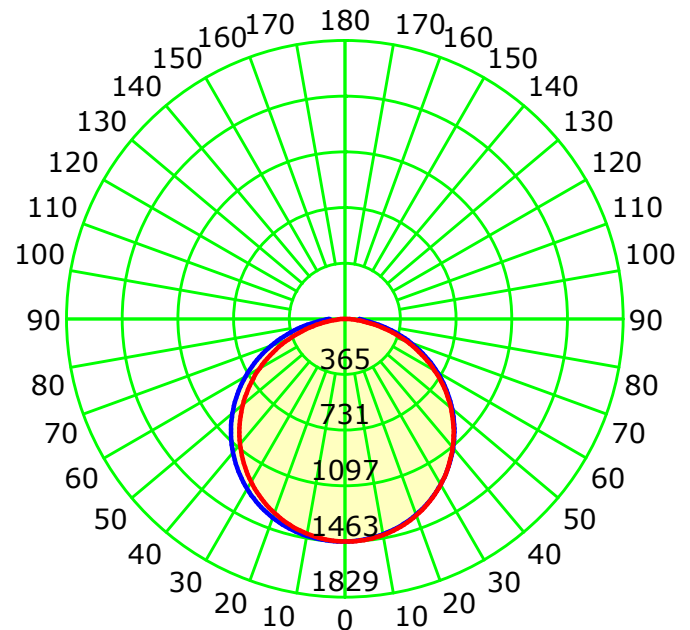
S/MH(C0/C180): 1.29

S/MH(C90/C270): 1.27

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd

Average Diffuse Angle(50%): 117.1°

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 30.0

Test Lab: EVERFINE

Test Type: TYPE C

Temperature: 25.3℃

Operator:

Gamma Plane (°):0.0-90.0:1.0

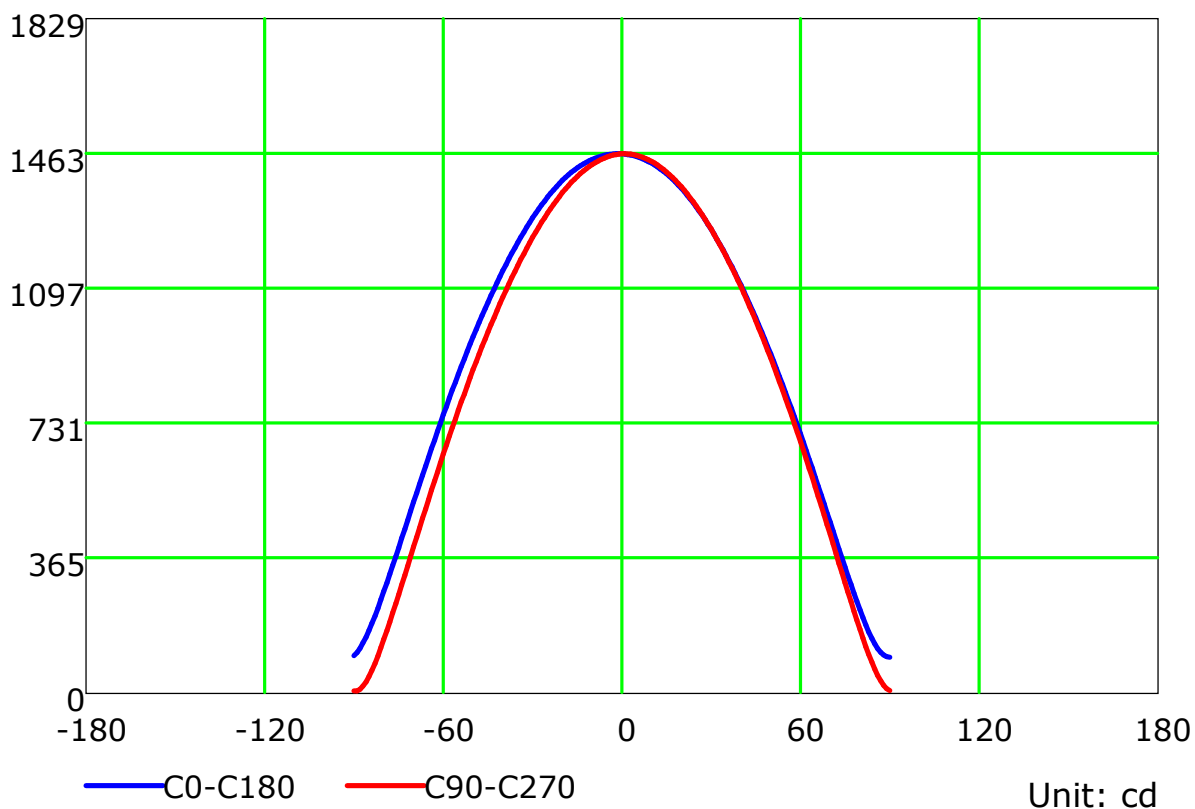
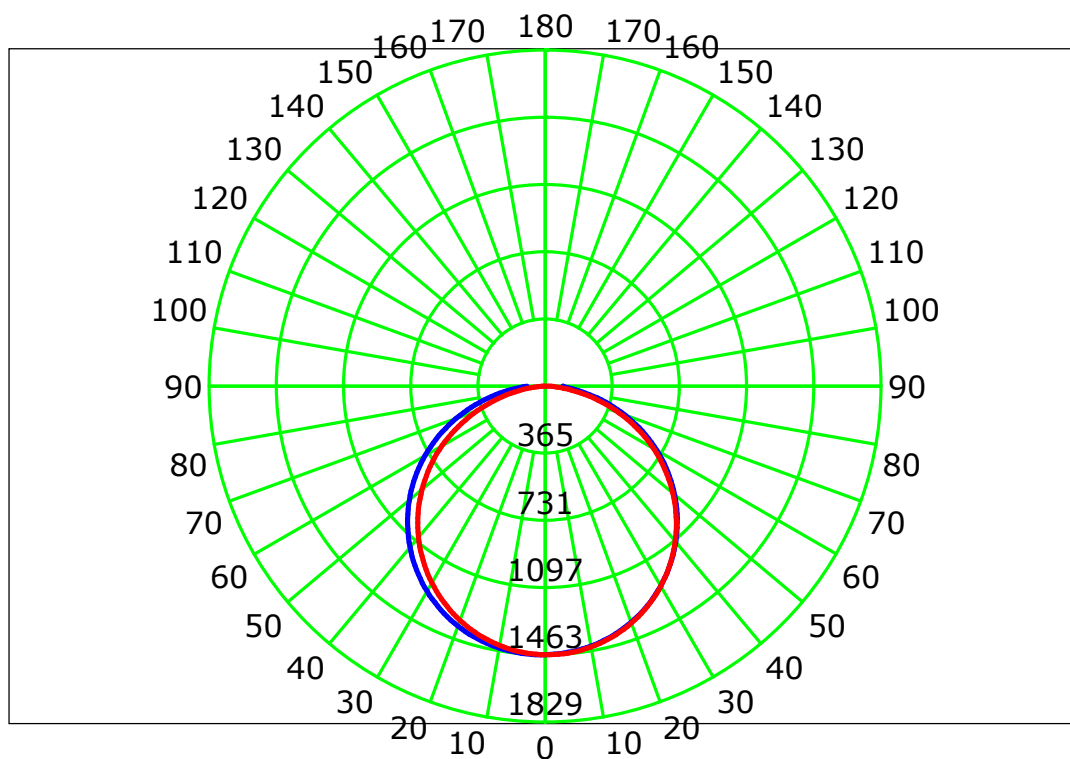
Test Device:

Distance: 11.655m [K=1.0000]

Humidity: 45% R.H

Inspector:

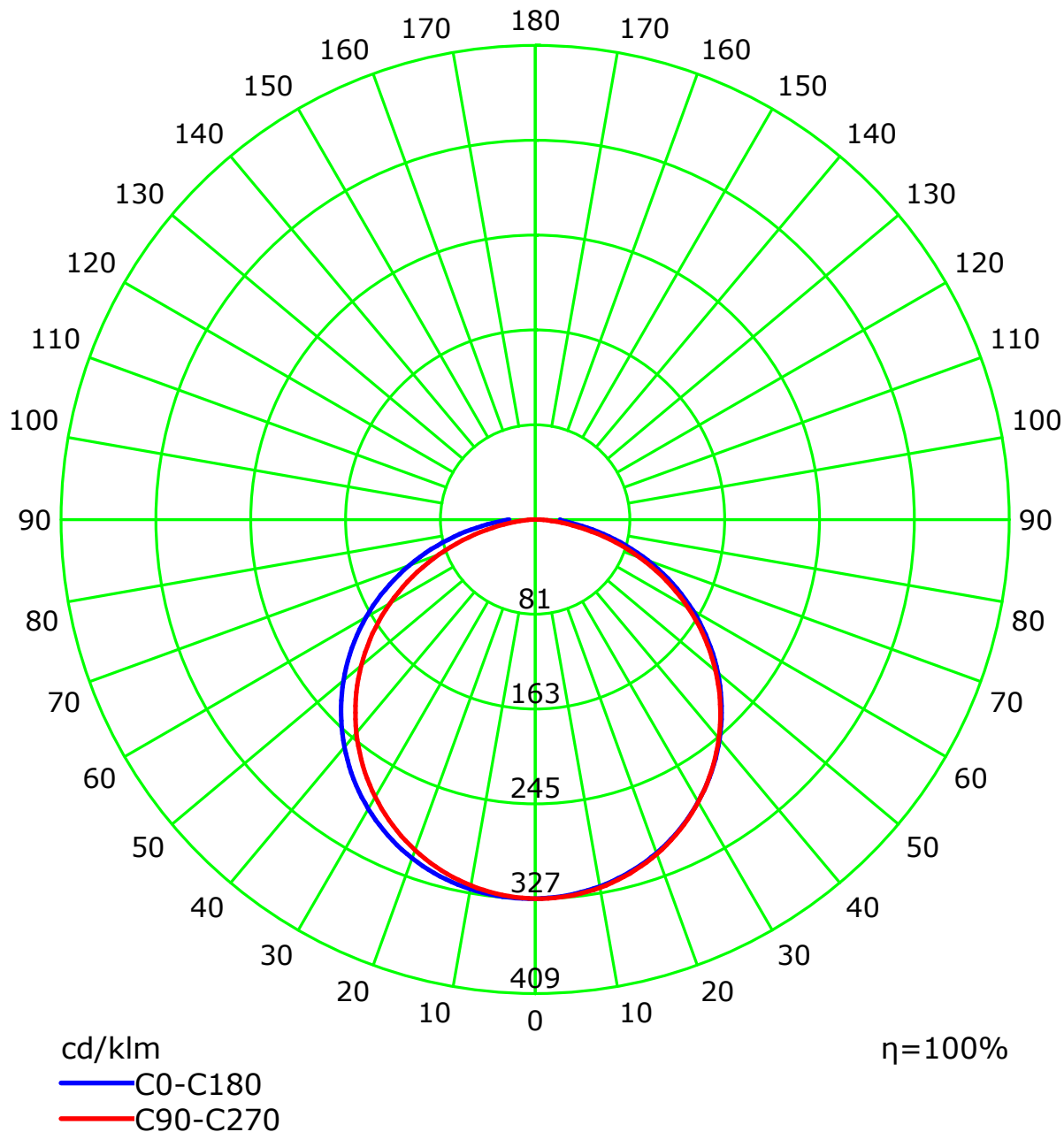
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

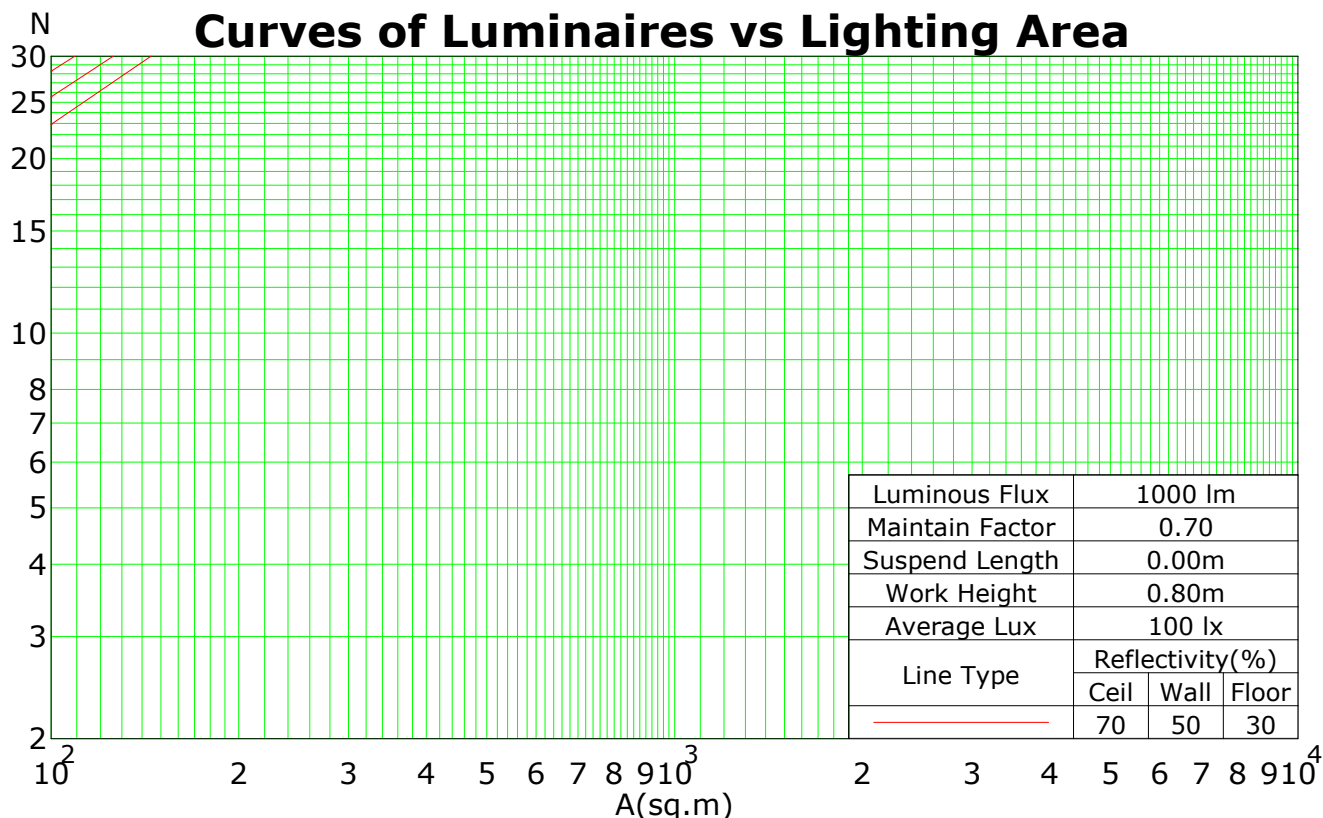
## Coefficients Of Utilization - Zonal Cavity Method

|     |          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| RC  | 0.8      | 0.8  | 0.8  | 0.8  | 0.7  | 0.7  | 0.7  | 0.7  | 0.5  | 0.5  | 0.5  | 0.3  | 0.3  | 0.3  | 0.1  | 0.1  | 0.1  | 0    |
| RW  | 0.7      | 0.5  | 0.3  | 0.1  | 0.7  | 0.5  | 0.3  | 0.1  | 0.5  | 0.3  | 0.1  | 0.5  | 0.3  | 0.1  | 0.5  | 0.3  | 0.1  | 0    |
| RCR | RF = 0.2 |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0   | 1.19     | 1.19 | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.16 | 1.11 | 1.11 | 1.11 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | 1.00 |
| 1   | 1.08     | 1.03 | 0.98 | 0.94 | 1.05 | 1.01 | 0.97 | 0.93 | 0.96 | 0.93 | 0.90 | 0.92 | 0.90 | 0.87 | 0.89 | 0.87 | 0.84 | 0.82 |
| 2   | 0.98     | 0.89 | 0.82 | 0.76 | 0.95 | 0.87 | 0.81 | 0.75 | 0.84 | 0.78 | 0.73 | 0.80 | 0.76 | 0.72 | 0.77 | 0.73 | 0.70 | 0.68 |
| 3   | 0.89     | 0.78 | 0.70 | 0.63 | 0.86 | 0.76 | 0.69 | 0.62 | 0.73 | 0.67 | 0.61 | 0.71 | 0.65 | 0.60 | 0.68 | 0.63 | 0.59 | 0.57 |
| 4   | 0.81     | 0.69 | 0.60 | 0.53 | 0.79 | 0.68 | 0.59 | 0.53 | 0.65 | 0.58 | 0.52 | 0.63 | 0.56 | 0.51 | 0.60 | 0.55 | 0.50 | 0.48 |
| 5   | 0.75     | 0.61 | 0.52 | 0.45 | 0.73 | 0.60 | 0.52 | 0.45 | 0.58 | 0.50 | 0.45 | 0.56 | 0.49 | 0.44 | 0.54 | 0.48 | 0.44 | 0.41 |
| 6   | 0.69     | 0.55 | 0.46 | 0.39 | 0.67 | 0.54 | 0.46 | 0.39 | 0.52 | 0.45 | 0.39 | 0.51 | 0.44 | 0.39 | 0.49 | 0.43 | 0.38 | 0.36 |
| 7   | 0.64     | 0.50 | 0.41 | 0.35 | 0.62 | 0.49 | 0.41 | 0.35 | 0.48 | 0.40 | 0.34 | 0.46 | 0.39 | 0.34 | 0.45 | 0.39 | 0.34 | 0.32 |
| 8   | 0.59     | 0.46 | 0.37 | 0.31 | 0.58 | 0.45 | 0.37 | 0.31 | 0.44 | 0.36 | 0.31 | 0.42 | 0.35 | 0.30 | 0.41 | 0.35 | 0.30 | 0.28 |
| 9   | 0.55     | 0.42 | 0.33 | 0.28 | 0.54 | 0.41 | 0.33 | 0.28 | 0.40 | 0.33 | 0.28 | 0.39 | 0.32 | 0.27 | 0.38 | 0.32 | 0.27 | 0.25 |
| 10  | 0.52     | 0.39 | 0.30 | 0.25 | 0.51 | 0.38 | 0.30 | 0.25 | 0.37 | 0.30 | 0.25 | 0.36 | 0.29 | 0.25 | 0.35 | 0.29 | 0.25 | 0.23 |

Spacing Criteria (0-180): 1.29

Spacing Criteria (90-270): 1.27

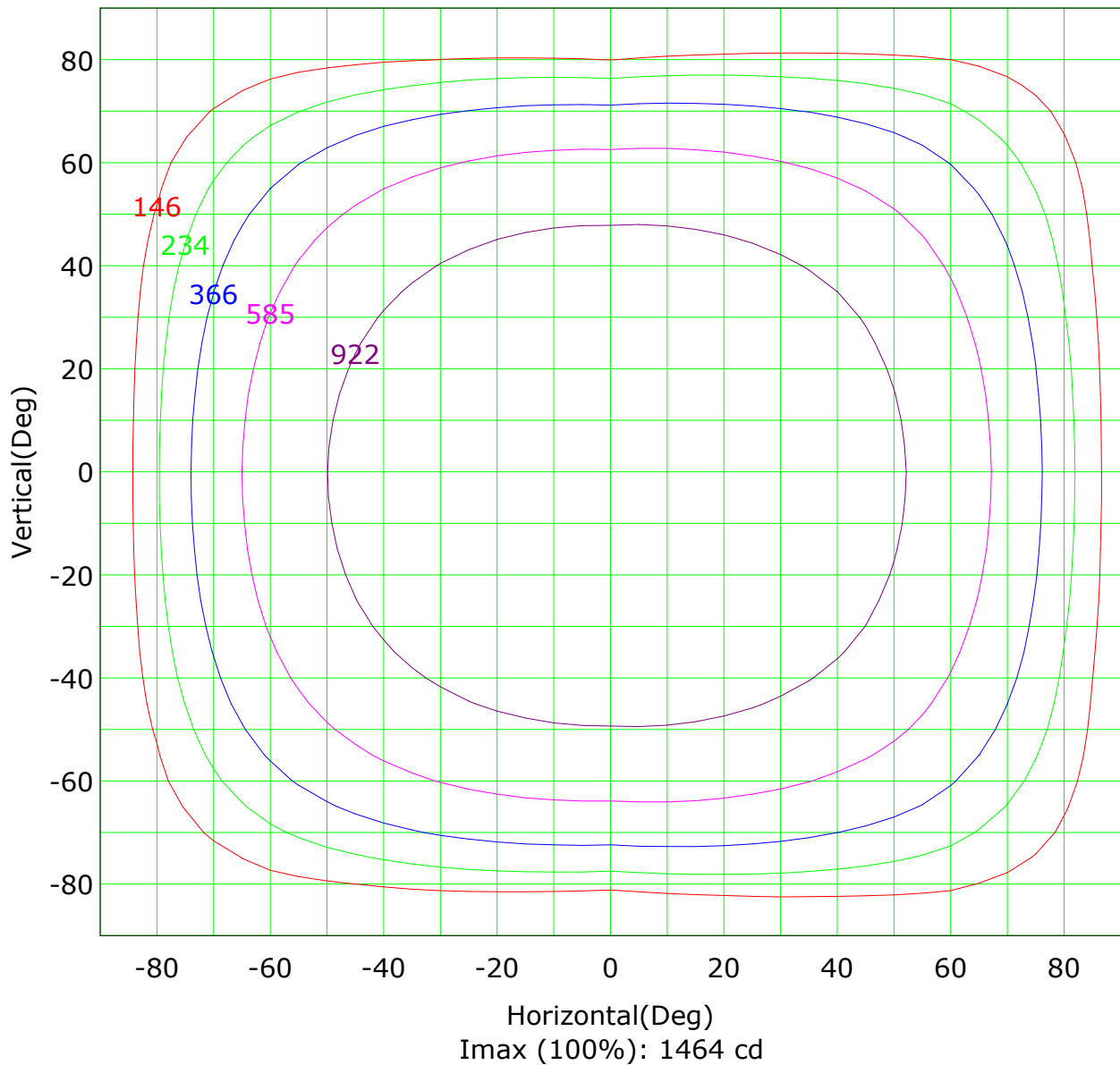
Spacing Criteria (Diagonal): 1.41



C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

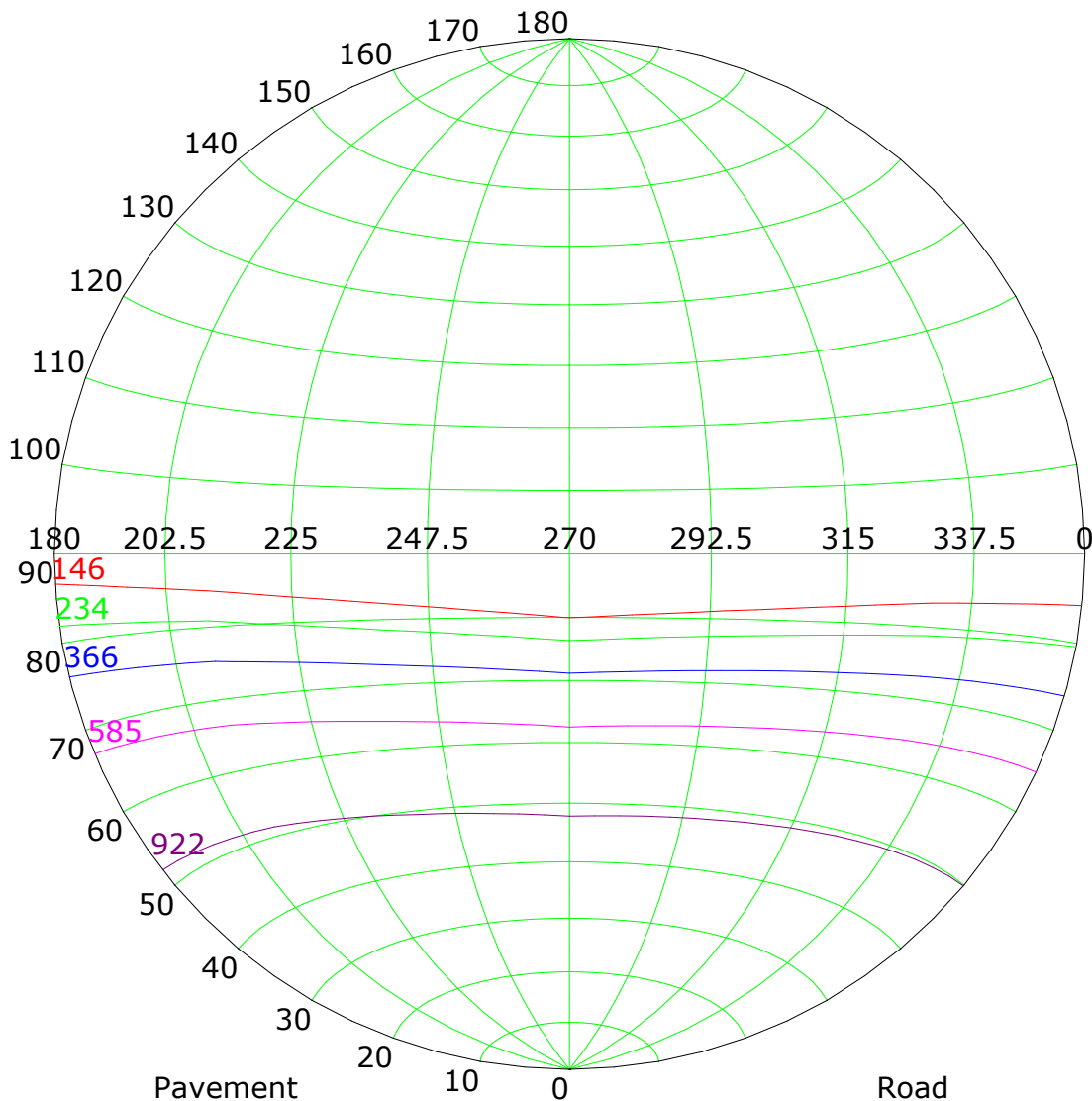
## Isocandela (rectangle)



( 10%): 146 cd  
( 25%): 366 cd  
( 63%): 922 cd

( 16%): 234 cd  
( 40%): 585 cd  
(100%): 1464 cd

## Isocandela (sphere)



Imax (100%): 1464 cd

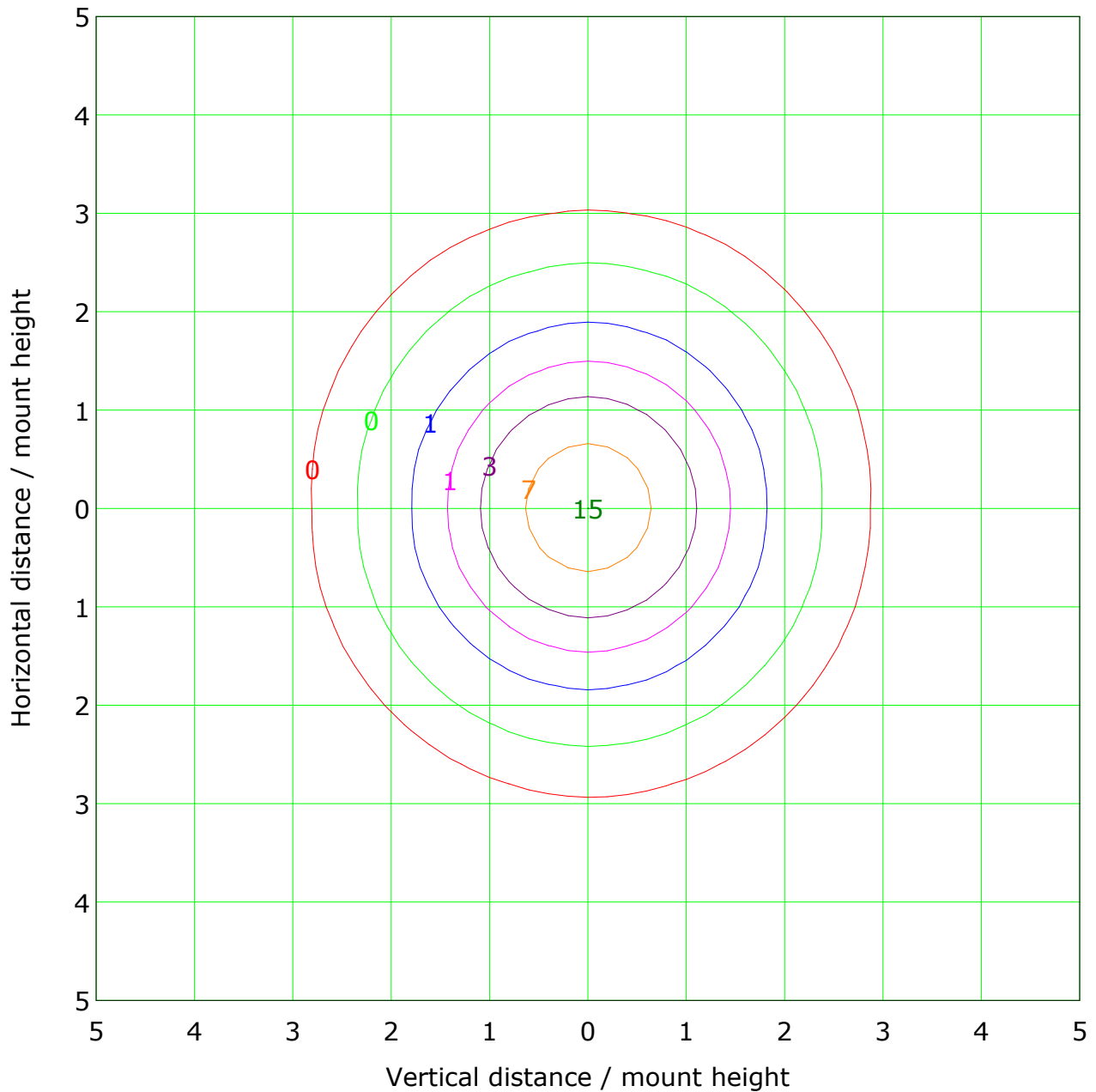
( 10%): 146 cd  
( 25%): 366 cd  
( 63%): 922 cd

( 16%): 234 cd  
( 40%): 585 cd  
(100%): 1464 cd

CIE: narrow - short  
CIE: Semi-cut-off luminaire  
Max.At90: 22.524 cd/klm

IES: Cut-off  
Max.At80: 61.603 cd/klm  
Max.80-90: 61.603 cd/klm

## IsoLux Plot



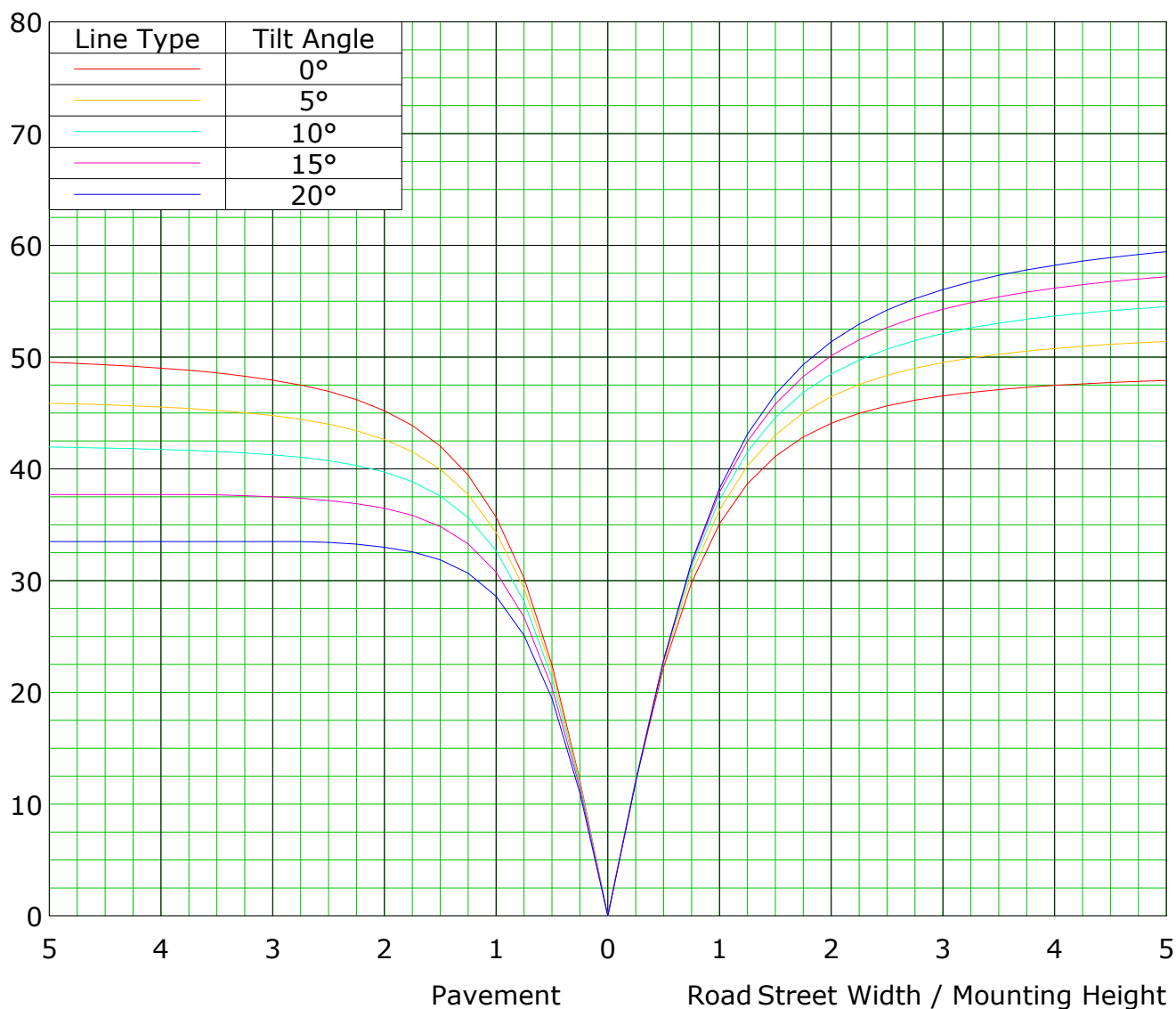
|  |                |
|--|----------------|
| Mounting Height: 10.0m    Max Lux(100%): 14.6 lx |                |
| ( 1%): 0.1 lx                                    | ( 2%): 0.3 lx  |
| ( 5%): 0.7 lx                                    | ( 10%): 1.5 lx |
| ( 20%): 2.9 lx                                   | ( 50%): 7.3 lx |
| (100%): 14.6 lx                                  |                |

C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

## Roadway CU Curve

Efficiency(%)



C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

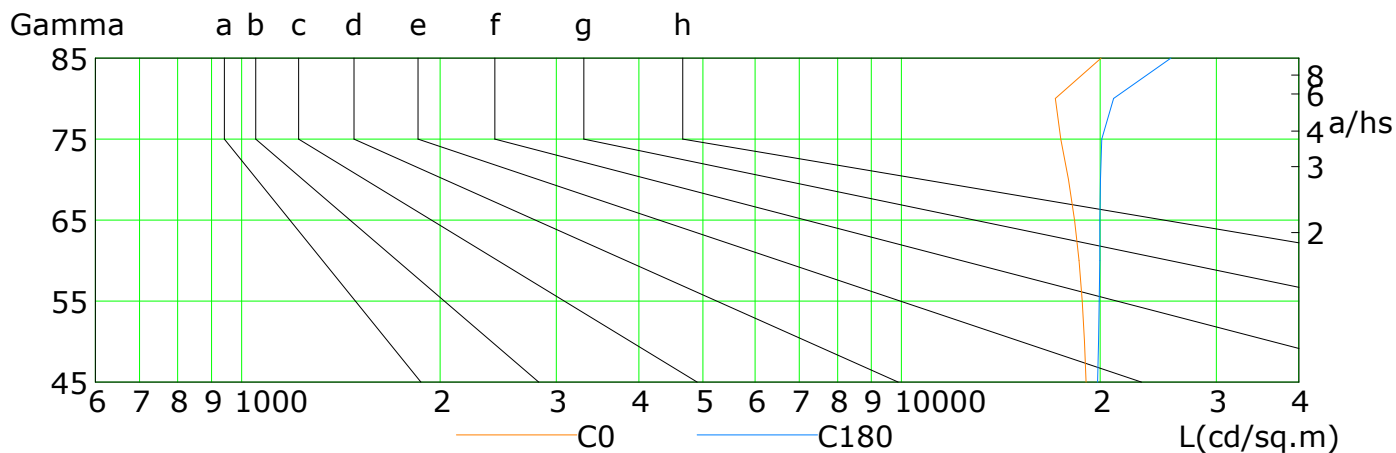
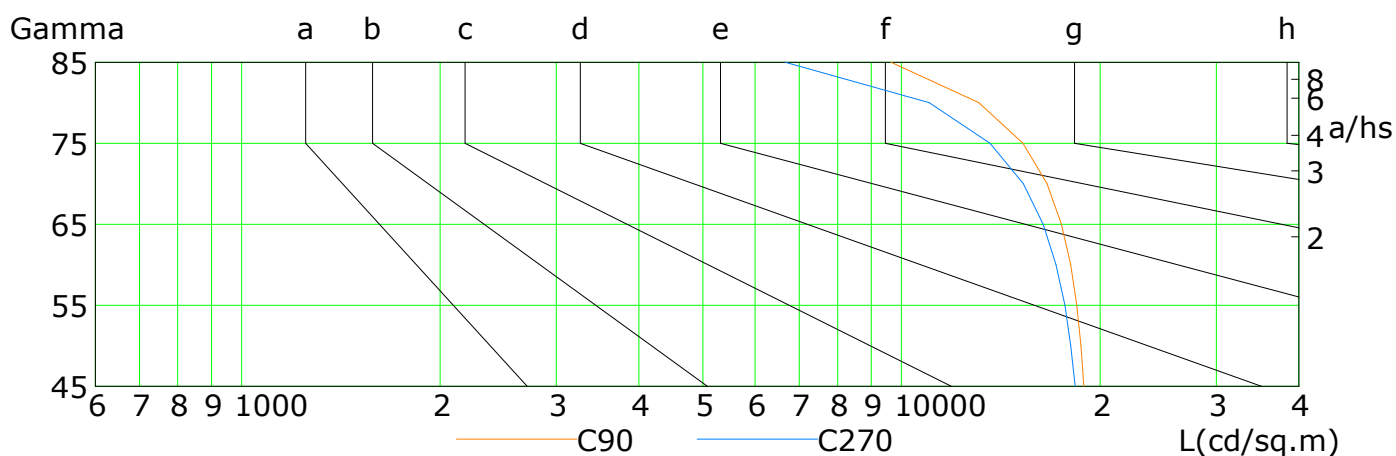
Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:



## Lum Limit Curve

| Dazzle | Quality | Illuminance (lx) |      |      |       |       |       |       |       |
|--------|---------|------------------|------|------|-------|-------|-------|-------|-------|
| 1.15   | A       | 2000             | 1000 | 500  | <=300 |       |       |       |       |
| 1.50   | B       |                  | 2000 | 1000 | 500   | <=300 |       |       |       |
| 1.85   | C       |                  |      | 2000 | 1000  | 500   | <=300 |       |       |
| 2.20   | D       |                  |      |      | 2000  | 1000  | 500   | <=300 |       |
| 2.55   | E       |                  |      |      |       | 2000  | 1000  | 500   | <=300 |

a b c d e f g h

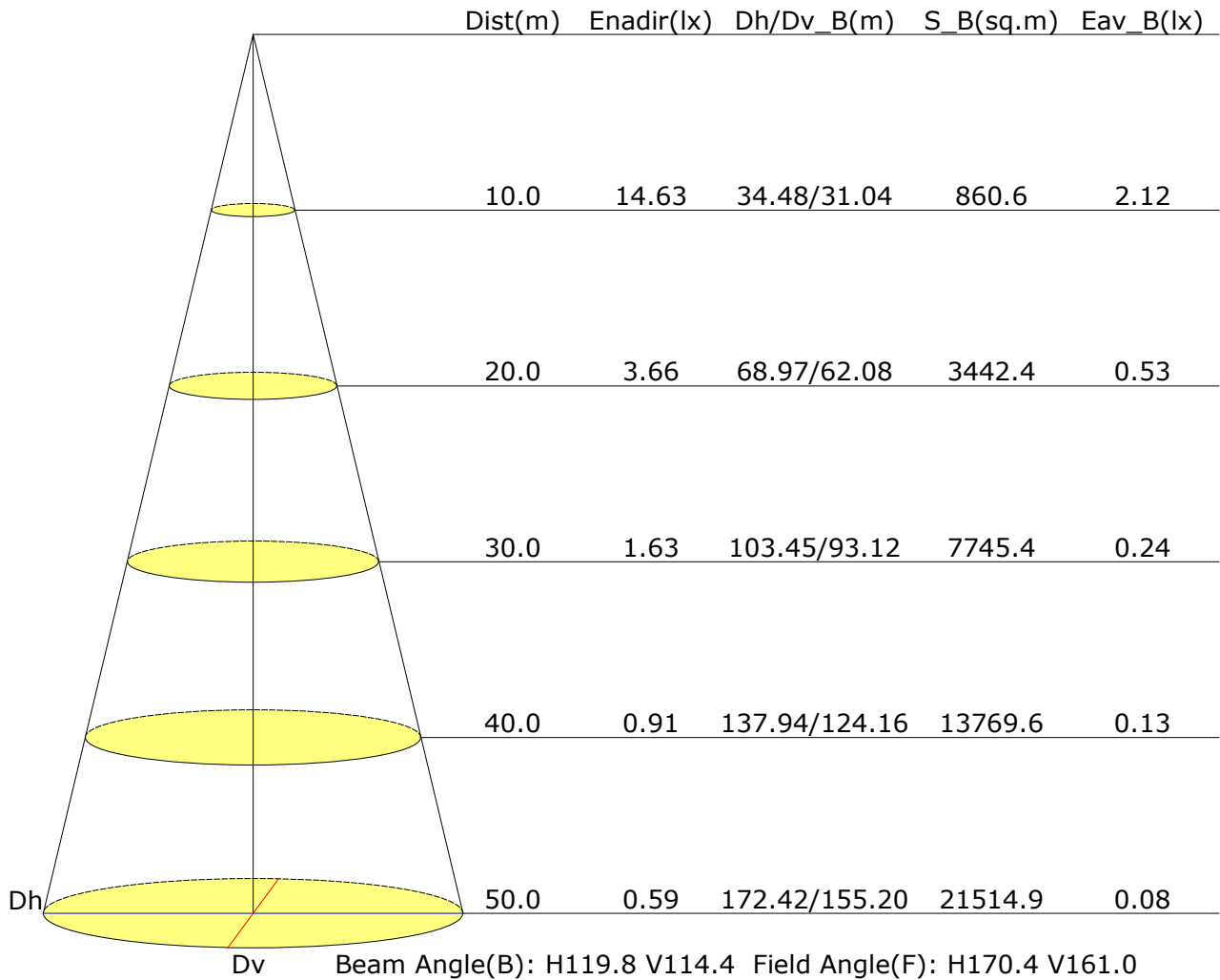


| L(cd/sq.m) | G45   | G50   | G55   | G60   | G65   | G70   | G75   | G80   | G85   |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C0         | 19037 | 18930 | 18786 | 18585 | 18293 | 17902 | 17436 | 17109 | 20071 |
| C90        | 18895 | 18699 | 18426 | 18046 | 17483 | 16624 | 15277 | 13093 | 9649  |
| C180       | 19832 | 19885 | 19938 | 19976 | 19980 | 20013 | 20108 | 20966 | 25607 |
| C270       | 18326 | 18055 | 17682 | 17144 | 16401 | 15295 | 13620 | 11017 | 6675  |

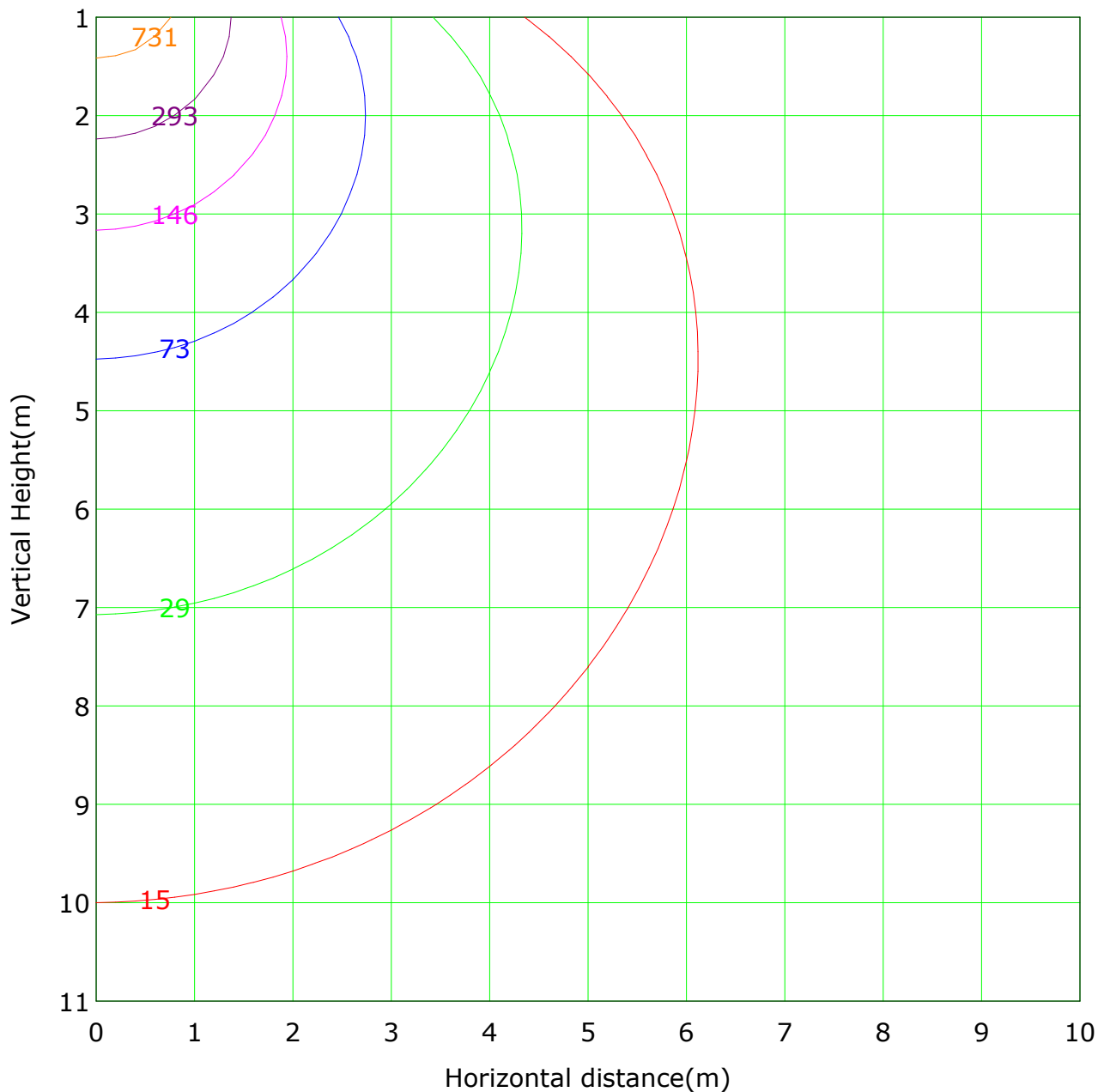
C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

## Illuminance at a Distance



## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 1462.9 lx

|                    |                    |
|--------------------|--------------------|
| — ( 1%): 14.6 lx   | — ( 2%): 29.3 lx   |
| — ( 5%): 73.1 lx   | — ( 10%): 146.3 lx |
| — ( 20%): 292.6 lx | — ( 50%): 731.4 lx |
| — (100%):1462.9 lx |                    |

## Area Flux Table

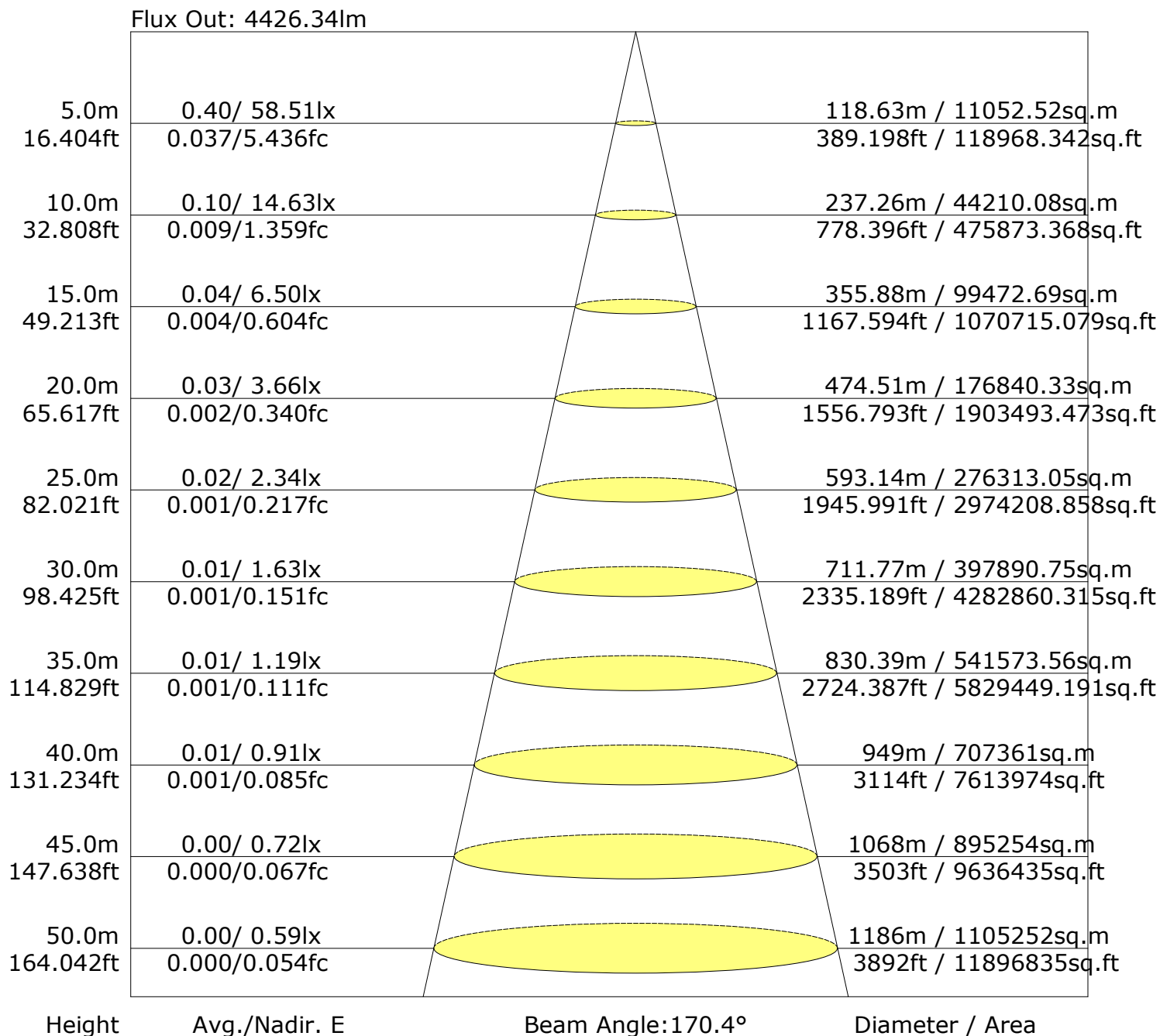
Unit: lm

| Vertical plane |         | -90  | -80  | -70   | -60   | -50   | -40   | -30   | -20   | -10   | 0     | 10    | 20    | 30    | 40    | 50    | 60    | 70   | 80   | 90  |
|----------------|---------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|-----|
| Flux(E)        | Flux(T) | 0.3  | 0.3  | 0.3   | 0.3   | 0.4   | 0.4   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.5   | 0.4   | 0.4   | 0.3   | 0.3  | 0.3  | 0.3 |
| 4.8            | 7.6     | 0.8  | 1.1  | 1.5   | 1.9   | 2.3   | 2.6   | 2.9   | 3.1   | 3.2   | 3.2   | 3.1   | 2.9   | 2.6   | 2.3   | 2.0   | 1.5   | 1.1  | 0.8  | 0.3 |
| 35.9           | 38.9    | 1.4  | 2.3  | 3.4   | 4.6   | 5.7   | 6.7   | 7.4   | 7.9   | 8.2   | 8.2   | 8.0   | 7.5   | 6.8   | 5.8   | 4.8   | 3.6   | 2.4  | 1.5  | 0.3 |
| 93.1           | 96.2    | 1.9  | 3.7  | 6.0   | 8.3   | 10.4  | 12.2  | 13.5  | 14.5  | 15.0  | 15.1  | 14.6  | 13.7  | 12.4  | 10.7  | 8.6   | 6.3   | 4.0  | 2.0  | 0.3 |
| 169.6          | 172.9   | 2.2  | 5.2  | 8.8   | 12.4  | 15.6  | 18.4  | 20.5  | 21.9  | 22.7  | 22.7  | 22.0  | 20.7  | 18.7  | 16.1  | 12.9  | 9.3   | 5.6  | 2.5  | 0.3 |
| 254.4          | 258.0   | 2.4  | 6.5  | 11.5  | 16.4  | 20.7  | 24.4  | 27.3  | 29.2  | 30.2  | 30.3  | 29.4  | 27.6  | 24.9  | 21.3  | 17.0  | 12.2  | 7.1  | 2.8  | 0.3 |
| 337.3          | 341.2   | 2.4  | 7.6  | 13.8  | 19.8  | 25.1  | 29.5  | 33.1  | 35.5  | 36.8  | 36.9  | 35.8  | 33.5  | 30.1  | 25.8  | 20.6  | 14.6  | 8.4  | 2.9  | 0.3 |
| 3408.3         | 3462.3  | 2.2  | 8.2  | 15.4  | 22.2  | 28.2  | 33.3  | 37.2  | 40.0  | 41.5  | 41.6  | 40.4  | 37.8  | 33.9  | 29.0  | 23.1  | 16.3  | 9.1  | 2.7  | 0.3 |
| 8458.8         | 8485.7  | 1.9  | 8.3  | 16.0  | 23.3  | 29.7  | 35.1  | 39.3  | 42.3  | 43.9  | 44.0  | 42.7  | 39.9  | 35.8  | 30.6  | 24.2  | 17.0  | 9.3  | 2.4  | 0.3 |
| 1479.8         | 1483.5  | 1.8  | 8.2  | 15.9  | 23.1  | 29.6  | 35.0  | 39.2  | 42.2  | 43.7  | 43.9  | 42.5  | 39.8  | 35.7  | 30.4  | 24.1  | 16.9  | 9.1  | 2.3  | 0.3 |
| 8451.4         | 8455.5  | 2.0  | 7.9  | 15.0  | 21.8  | 27.8  | 32.9  | 36.8  | 39.6  | 41.1  | 41.2  | 39.9  | 37.3  | 33.5  | 28.6  | 22.7  | 16.0  | 8.7  | 2.5  | 0.3 |
| 396.9          | 396.9   | 2.1  | 7.1  | 13.3  | 19.2  | 24.5  | 28.9  | 32.4  | 34.8  | 36.1  | 36.2  | 35.0  | 32.8  | 29.4  | 25.1  | 20.0  | 14.0  | 7.8  | 2.5  | 0.3 |
| 322.9          | 326.9   | 2.0  | 5.8  | 10.8  | 15.6  | 19.9  | 23.5  | 26.3  | 28.3  | 29.4  | 29.4  | 28.5  | 26.7  | 23.9  | 20.4  | 16.2  | 11.4  | 6.4  | 2.3  | 0.3 |
| 9238.3         | 9242.6  | 1.9  | 4.4  | 8.0   | 11.5  | 14.7  | 17.4  | 19.5  | 21.0  | 21.8  | 21.8  | 21.1  | 19.7  | 17.7  | 15.1  | 11.9  | 8.4   | 4.8  | 2.0  | 0.3 |
| 3154.4         | 3158.6  | 1.6  | 3.0  | 5.2   | 7.4   | 9.5   | 11.3  | 12.7  | 13.6  | 14.2  | 14.2  | 13.7  | 12.8  | 11.5  | 9.8   | 7.7   | 5.5   | 3.3  | 1.7  | 0.3 |
| 81.2           | 85.5    | 1.2  | 1.8  | 2.8   | 4.0   | 5.0   | 6.0   | 6.7   | 7.3   | 7.5   | 7.6   | 7.3   | 6.8   | 6.1   | 5.2   | 4.1   | 3.0   | 1.9  | 1.2  | 0.3 |
| 28.6           | 32.9    | 0.7  | 0.9  | 1.2   | 1.5   | 1.9   | 2.2   | 2.5   | 2.7   | 2.8   | 2.8   | 2.7   | 2.5   | 2.2   | 1.9   | 1.6   | 1.2   | 0.9  | 0.7  | 0.3 |
| 2.4            | 6.2     | 0.2  | 0.3  | 0.3   | 0.3   | 0.3   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.3   | 0.3   | 0.3   | 0.3  | 0.3  | 0.3 |
| 4400           | 4468    | 29.0 | 82.6 | 149.3 | 213.8 | 271.4 | 320.0 | 358.2 | 384.8 | 399.0 | 400.0 | 387.7 | 362.9 | 326.2 | 278.8 | 222.1 | 157.8 | 90.5 | 33.4 | 6.5 |
|                |         | 1.8  | 78.2 | 148.1 | 213.2 | 271.0 | 319.8 | 358.0 | 384.7 | 398.8 | 399.8 | 387.6 | 362.7 | 326.0 | 278.5 | 222.5 | 156.8 | 87.1 | 6.5  |     |

C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

## The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

## UGR Table

|                  |                  |      |      |      |      |                |      |      |      |      |
|------------------|------------------|------|------|------|------|----------------|------|------|------|------|
| Reflectance:     |                  |      |      |      |      |                |      |      |      |      |
| Ceiling (cavity) | 0.7              | 0.7  | 0.5  | 0.5  | 0.3  | 0.7            | 0.7  | 0.5  | 0.5  | 0.3  |
| Wall             | 0.5              | 0.3  | 0.5  | 0.3  | 0.3  | 0.5            | 0.3  | 0.5  | 0.3  | 0.3  |
| Reference plane  | 0.2              | 0.2  | 0.2  | 0.2  | 0.2  | 0.2            | 0.2  | 0.2  | 0.2  | 0.2  |
| Room dimensions  | Viewed crosswise |      |      |      |      | Viewed endwise |      |      |      |      |
| X=2H Y=2H        | 22.4             | 24.0 | 22.7 | 24.3 | 24.7 | 22.4           | 24.0 | 22.7 | 24.3 | 24.7 |
| 3H               | 24.3             | 25.9 | 24.7 | 26.2 | 26.5 | 24.2           | 25.8 | 24.6 | 26.1 | 26.4 |
| 4H               | 25.1             | 26.6 | 25.5 | 26.9 | 27.3 | 24.9           | 26.4 | 25.3 | 26.7 | 27.1 |
| 6H               | 25.8             | 27.1 | 26.2 | 27.5 | 27.8 | 25.4           | 26.7 | 25.8 | 27.1 | 27.5 |
| 8H               | 26.0             | 27.3 | 26.4 | 27.7 | 28.1 | 25.5           | 26.8 | 26.0 | 27.2 | 27.6 |
| 12H              | 26.3             | 27.5 | 26.7 | 27.9 | 28.3 | 25.6           | 26.8 | 26.1 | 27.2 | 27.7 |
| X=4H Y=2H        | 23.0             | 24.4 | 23.4 | 24.8 | 25.2 | 23.1           | 24.5 | 23.5 | 24.9 | 25.2 |
| 3H               | 25.2             | 26.4 | 25.6 | 26.8 | 27.2 | 25.2           | 26.4 | 25.6 | 26.8 | 27.2 |
| 4H               | 26.1             | 27.2 | 26.6 | 27.6 | 28.1 | 26.0           | 27.1 | 26.5 | 27.5 | 28.0 |
| 6H               | 26.9             | 27.9 | 27.4 | 28.3 | 28.8 | 26.7           | 27.6 | 27.1 | 28.1 | 28.5 |
| 8H               | 27.2             | 28.1 | 27.7 | 28.6 | 29.1 | 26.8           | 27.7 | 27.3 | 28.2 | 28.6 |
| 12H              | 27.6             | 28.4 | 28.0 | 28.8 | 29.3 | 27.0           | 27.8 | 27.4 | 28.3 | 28.7 |
| X=8H Y=4H        | 26.5             | 27.4 | 26.9 | 27.8 | 28.3 | 26.5           | 27.4 | 26.9 | 27.8 | 28.3 |
| 6H               | 27.4             | 28.2 | 27.9 | 28.6 | 29.1 | 27.2           | 28.0 | 27.7 | 28.5 | 28.9 |
| 8H               | 27.8             | 28.5 | 28.3 | 29.0 | 29.5 | 27.5           | 28.2 | 28.0 | 28.7 | 29.2 |
| 12H              | 28.2             | 28.9 | 28.8 | 29.3 | 29.9 | 27.7           | 28.3 | 28.2 | 28.8 | 29.4 |
| X=12H Y=4H       | 26.5             | 27.3 | 27.0 | 27.8 | 28.3 | 26.5           | 27.3 | 27.0 | 27.8 | 28.3 |
| 6H               | 27.5             | 28.2 | 28.0 | 28.6 | 29.2 | 27.4           | 28.0 | 27.9 | 28.5 | 29.0 |
| 8H               | 28.0             | 28.6 | 28.5 | 29.0 | 29.6 | 27.7           | 28.3 | 28.2 | 28.8 | 29.3 |

Calculate in accordance with CIE 190:2010 The table is revised with  $4468lm$  ( $8\log(F/F_0) = 5.2$ ).

C Plane (°):0.0-360.0: 30.0  
 Test Lab: EVERFINE  
 Test Type: TYPE C  
 Temperature: 25.3℃  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device:  
 Distance: 11.655m [K=1.0000]  
 Humidity: 45% R.H  
 Inspector:

**FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM**

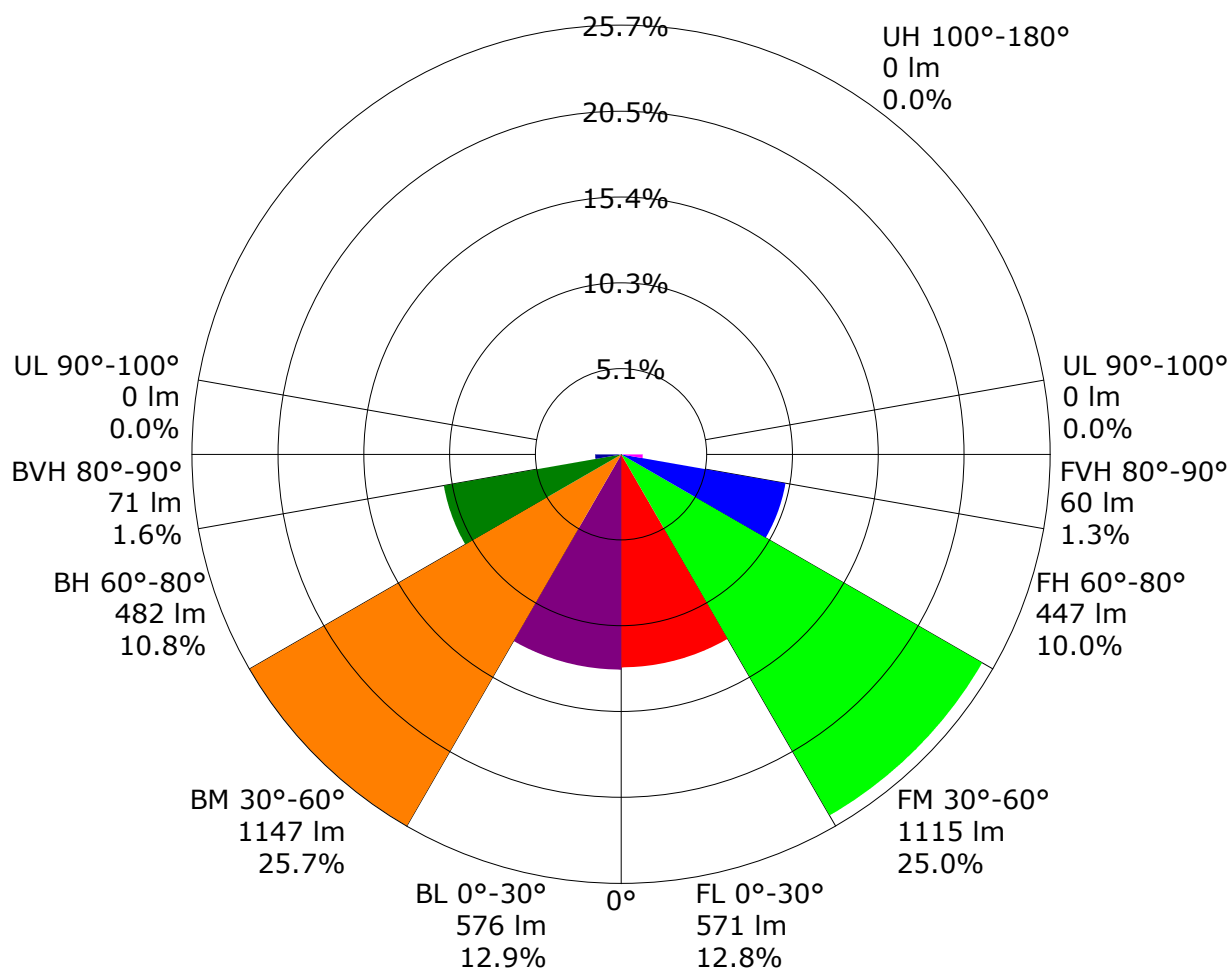
|  | ZONE           | LUMENS | % LAMP LUMENS |
|--|----------------|--------|---------------|
|  | FORWARD LIGHT  | 2193   | 49.1          |
|  | FL ( 0°-30°)   | 571    | 12.8          |
|  | FM (30°-60°)   | 1115   | 25.0          |
|  | FH (60°-80°)   | 447    | 10.0          |
|  | FVH (80°-90°)  | 60     | 1.3           |
|  | BACK LIGHT     | 2275   | 50.9          |
|  | BL ( 0°-30°)   | 576    | 12.9          |
|  | BM (30°-60°)   | 1147   | 25.7          |
|  | BH (60°-80°)   | 482    | 10.8          |
|  | BVH (80°-90°)  | 71     | 1.6           |
|  | UP LIGHT       | 0      | 0.0           |
|  | UL (90°-100°)  | 0      | 0.0           |
|  | UH (100°-180°) | 0      | 0.0           |
|  | TRAPPED LIGHT  | NA     | NA            |

| BUG(Backlight,Uplight,Glare) Rating Base On TM-15-07             |          |
|--|----------|
| Asymmetrical Luminaire Types<br>(Type I,II,III,IV)               | B2 U1 G1 |
| Quadrilateral Symmetrical Luminaire Types<br>(Type V,Area Light) | B2 U1 G1 |

C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

## LCS Graph



**Back Light**

**Forward Light**

Scale= MAX LCS%

Trapped Light:NA,NA



## Utilisation Factor Table(Floor cavity)

| Utilisation Factors UF(F)   |      |       | SHR NOM = 1.25 |      |      |      |      |      |      |      |      |  |
|---|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance  |      |       | Room Index(RI) |      |      |      |      |      |      |      |      |  |
| Ceiling   | Wall | Floor | 0.75           | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 |  |
| 0.70  | 0.50 | 0.20  | 0.55           | 0.65 | 0.73 | 0.78 | 0.86 | 0.91 | 0.94 | 0.99 | 1.02 |  |
|   | 0.30 |       | 0.47           | 0.57 | 0.65 | 0.71 | 0.79 | 0.85 | 0.89 | 0.95 | 0.98 |  |
|   | 0.20 |       | 0.41           | 0.51 | 0.59 | 0.65 | 0.74 | 0.80 | 0.84 | 0.91 | 0.95 |  |
| 0.50  | 0.50 | 0.20  | 0.53           | 0.63 | 0.70 | 0.75 | 0.82 | 0.87 | 0.91 | 0.95 | 0.98 |  |
|   | 0.30 |       | 0.46           | 0.56 | 0.63 | 0.69 | 0.77 | 0.82 | 0.86 | 0.91 | 0.95 |  |
|   | 0.20 |       | 0.40           | 0.51 | 0.58 | 0.64 | 0.72 | 0.78 | 0.82 | 0.88 | 0.92 |  |
| 0.30  | 0.50 | 0.20  | 0.52           | 0.61 | 0.68 | 0.73 | 0.79 | 0.84 | 0.87 | 0.91 | 0.94 |  |
|   | 0.30 |       | 0.45           | 0.55 | 0.62 | 0.67 | 0.75 | 0.80 | 0.83 | 0.88 | 0.92 |  |
|   | 0.20 |       | 0.40           | 0.50 | 0.57 | 0.63 | 0.71 | 0.76 | 0.80 | 0.86 | 0.89 |  |
| 0.00  | 0.00 | 0.00  | 0.38           | 0.47 | 0.54 | 0.60 | 0.67 | 0.72 | 0.76 | 0.81 | 0.84 |  |
| Rating:38W Photometrically tested without ceiling board.<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |  |

## Utilisation Factor Table(Wall)

| Utilisation Factors UF(W)   |      |       | SHR NOM = 1.25 |      |      |      |      |      |      |      |      |  |
|---|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance  |      |       | Room Index(RI) |      |      |      |      |      |      |      |      |  |
| Ceiling   | Wall | Floor | 0.75           | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 |  |
| 0.70  | 0.50 | 0.20  | 1.03           | 0.85 | 0.73 | 0.64 | 0.51 | 0.43 | 0.37 | 0.29 | 0.23 |  |
|   | 0.30 |       | 0.86           | 0.73 | 0.64 | 0.56 | 0.46 | 0.39 | 0.34 | 0.27 | 0.22 |  |
|   | 0.20 |       | 0.74           | 0.64 | 0.56 | 0.51 | 0.42 | 0.36 | 0.32 | 0.25 | 0.21 |  |
| 0.50  | 0.50 | 0.20  | 0.99           | 0.82 | 0.70 | 0.61 | 0.49 | 0.44 | 0.35 | 0.27 | 0.22 |  |
|   | 0.30 |       | 0.84           | 0.71 | 0.62 | 0.55 | 0.45 | 0.38 | 0.33 | 0.26 | 0.21 |  |
|   | 0.20 |       | 0.73           | 0.63 | 0.55 | 0.50 | 0.41 | 0.35 | 0.31 | 0.25 | 0.21 |  |
| 0.30  | 0.50 | 0.20  | 0.96           | 0.79 | 0.67 | 0.59 | 0.47 | 0.39 | 0.34 | 0.26 | 0.21 |  |
|   | 0.30 |       | 0.82           | 0.70 | 0.60 | 0.53 | 0.43 | 0.37 | 0.32 | 0.25 | 0.21 |  |
|   | 0.20 |       | 0.72           | 0.62 | 0.55 | 0.49 | 0.40 | 0.34 | 0.30 | 0.24 | 0.20 |  |
| 0.00  | 0.00 | 0.00  | 0.62           | 0.53 | 0.46 | 0.40 | 0.33 | 0.28 | 0.24 | 0.19 | 0.16 |  |
| Rating:38W Photometrically tested without ceiling board.<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |  |

## Utilisation Factor Table(Ceiling cavity)

| Utilisation Factors UF(C)  |      |       | SHR NOM = 1.25 |      |      |      |      |      |      |      |      |  |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| Room Reflectance   |      |       | Room Index(RI) |      |      |      |      |      |      |      |      |  |
| Ceiling  | Wall | Floor | 0.75           | 1.00 | 1.25 | 1.50 | 2.00 | 2.50 | 3.00 | 4.00 | 5.00 |  |
| 0.70   | 0.50 | 0.20  | 0.17           | 0.18 | 0.19 | 0.19 | 0.20 | 0.21 | 0.21 | 0.22 | 0.22 |  |
|  | 0.30 |       | 0.10           | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |  |
|  | 0.20 |       | 0.04           | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 |  |
| 0.50   | 0.50 | 0.20  | 0.16           | 0.17 | 0.18 | 0.19 | 0.19 | 0.20 | 0.20 | 0.21 | 0.21 |  |
|  | 0.30 |       | 0.09           | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |  |
|  | 0.20 |       | 0.04           | 0.06 | 0.07 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 |  |
| 0.30   | 0.50 | 0.20  | 0.16           | 0.17 | 0.17 | 0.18 | 0.19 | 0.19 | 0.20 | 0.20 | 0.20 |  |
|  | 0.30 |       | 0.09           | 0.11 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 |  |
|  | 0.20 |       | 0.04           | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 |  |
| 0.00   | 0.00 | 0.00  | NA             | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |  |
| <p>Rating:38W Photometrically tested without ceiling board.</p> <p>Multiply UF values by service correction factors</p> <p>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980</p> |      |       |                |      |      |      |      |      |      |      |      |  |

## Zonal Lumen

| Gamma<br>[°] | I <sub>mean</sub><br>[cd] | Zonal Flux<br>[lm] | Sum Zonal Flux<br>[lm] | Rel Zonal Flux<br>[%] | Sum Rel Zonal Flux<br>[%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 0.0-1.0      | 1462.8                    | 1.4                | 1.4                    | 0.03                  | 0.03                      |
| 1.0-2.0      | 1462.3                    | 4.2                | 5.6                    | 0.09                  | 0.13                      |
| 2.0-3.0      | 1461.3                    | 7.0                | 12.6                   | 0.16                  | 0.28                      |
| 3.0-4.0      | 1460.0                    | 9.8                | 22.4                   | 0.22                  | 0.50                      |
| 4.0-5.0      | 1458.2                    | 12.5               | 34.9                   | 0.28                  | 0.78                      |
| 5.0-6.0      | 1456.0                    | 15.3               | 50.2                   | 0.34                  | 1.12                      |
| 6.0-7.0      | 1453.2                    | 18.0               | 68.3                   | 0.40                  | 1.53                      |
| 7.0-8.0      | 1450.1                    | 20.8               | 89.0                   | 0.46                  | 1.99                      |
| 8.0-9.0      | 1446.5                    | 23.4               | 112.5                  | 0.52                  | 2.52                      |
| 9.0-10.0     | 1442.5                    | 26.1               | 138.6                  | 0.58                  | 3.10                      |
| 10.0-11.0    | 1438.0                    | 28.7               | 167.3                  | 0.64                  | 3.74                      |
| 11.0-12.0    | 1433.1                    | 31.3               | 198.6                  | 0.70                  | 4.45                      |
| 12.0-13.0    | 1427.7                    | 33.9               | 232.5                  | 0.76                  | 5.20                      |
| 13.0-14.0    | 1421.9                    | 36.4               | 268.9                  | 0.81                  | 6.02                      |
| 14.0-15.0    | 1415.6                    | 38.9               | 307.8                  | 0.87                  | 6.89                      |
| 15.0-16.0    | 1409.0                    | 41.3               | 349.1                  | 0.92                  | 7.81                      |
| 16.0-17.0    | 1401.8                    | 43.7               | 392.7                  | 0.98                  | 8.79                      |
| 17.0-18.0    | 1394.2                    | 46.0               | 438.7                  | 1.03                  | 9.82                      |
| 18.0-19.0    | 1386.1                    | 48.2               | 486.9                  | 1.08                  | 10.90                     |
| 19.0-20.0    | 1377.6                    | 50.4               | 537.4                  | 1.13                  | 12.03                     |
| 20.0-21.0    | 1368.7                    | 52.6               | 589.9                  | 1.18                  | 13.20                     |
| 21.0-22.0    | 1359.3                    | 54.6               | 644.6                  | 1.22                  | 14.43                     |
| 22.0-23.0    | 1349.4                    | 56.6               | 701.2                  | 1.27                  | 15.69                     |
| 23.0-24.0    | 1339.1                    | 58.6               | 759.7                  | 1.31                  | 17.00                     |
| 24.0-25.0    | 1328.5                    | 60.4               | 820.2                  | 1.35                  | 18.36                     |
| 25.0-26.0    | 1317.4                    | 62.2               | 882.4                  | 1.39                  | 19.75                     |
| 26.0-27.0    | 1305.8                    | 63.9               | 946.2                  | 1.43                  | 21.18                     |
| 27.0-28.0    | 1293.7                    | 65.5               | 1011.8                 | 1.47                  | 22.64                     |
| 28.0-29.0    | 1281.3                    | 67.0               | 1078.8                 | 1.50                  | 24.15                     |
| 29.0-30.0    | 1268.6                    | 68.5               | 1147.3                 | 1.53                  | 25.68                     |
| 30.0-31.0    | 1255.4                    | 69.9               | 1217.2                 | 1.56                  | 27.24                     |
| 31.0-32.0    | 1241.7                    | 71.1               | 1288.3                 | 1.59                  | 28.83                     |
| 32.0-33.0    | 1227.7                    | 72.3               | 1360.7                 | 1.62                  | 30.45                     |
| 33.0-34.0    | 1213.4                    | 73.4               | 1434.1                 | 1.64                  | 32.10                     |
| 34.0-35.0    | 1198.5                    | 74.4               | 1508.5                 | 1.67                  | 33.76                     |
| 35.0-36.0    | 1183.3                    | 75.4               | 1583.9                 | 1.69                  | 35.45                     |

C Plane (°):0.0-360.0: 30.0  
 Test Lab: EVERFINE  
 Test Type: TYPE C  
 Temperature: 25.3℃  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device:  
 Distance: 11.655m [K=1.0000]  
 Humidity: 45% R.H  
 Inspector:

## Zonal Lumen (Continue 1)

| Gamma<br>[°] | I <sub>mean</sub><br>[cd] | Zonal Flux<br>[lm] | Sum Zonal Flux<br>[lm] | Rel Zonal Flux<br>[%] | Sum Rel Zonal Flux<br>[%] |
|--------------|---------------------------|--------------------|------------------------|-----------------------|---------------------------|
| 36.0-37.0    | 1167.6                    | 76.2               | 1660.1                 | 1.70                  | 37.15                     |
| 37.0-38.0    | 1151.7                    | 76.9               | 1736.9                 | 1.72                  | 38.88                     |
| 38.0-39.0    | 1135.5                    | 77.5               | 1814.4                 | 1.73                  | 40.61                     |
| 39.0-40.0    | 1118.7                    | 78.0               | 1892.5                 | 1.75                  | 42.36                     |
| 40.0-41.0    | 1101.5                    | 78.5               | 1970.9                 | 1.76                  | 44.11                     |
| 41.0-42.0    | 1084.2                    | 78.8               | 2049.7                 | 1.76                  | 45.88                     |
| 42.0-43.0    | 1066.5                    | 79.0               | 2128.7                 | 1.77                  | 47.64                     |
| 43.0-44.0    | 1048.3                    | 79.1               | 2207.9                 | 1.77                  | 49.41                     |
| 44.0-45.0    | 1029.8                    | 79.2               | 2287.0                 | 1.77                  | 51.19                     |
| 45.0-46.0    | 1011.1                    | 79.1               | 2366.1                 | 1.77                  | 52.96                     |
| 46.0-47.0    | 992.0                     | 78.9               | 2445.0                 | 1.77                  | 54.72                     |
| 47.0-48.0    | 972.4                     | 78.6               | 2523.6                 | 1.76                  | 56.48                     |
| 48.0-49.0    | 952.5                     | 78.2               | 2601.8                 | 1.75                  | 58.23                     |
| 49.0-50.0    | 932.4                     | 77.8               | 2679.6                 | 1.74                  | 59.97                     |
| 50.0-51.0    | 912.1                     | 77.2               | 2756.8                 | 1.73                  | 61.70                     |
| 51.0-52.0    | 891.3                     | 76.5               | 2833.3                 | 1.71                  | 63.41                     |
| 52.0-53.0    | 870.1                     | 75.7               | 2909.0                 | 1.69                  | 65.11                     |
| 53.0-54.0    | 848.9                     | 74.8               | 2983.8                 | 1.67                  | 66.78                     |
| 54.0-55.0    | 827.3                     | 73.9               | 3057.7                 | 1.65                  | 68.43                     |
| 55.0-56.0    | 805.3                     | 72.8               | 3130.4                 | 1.63                  | 70.06                     |
| 56.0-57.0    | 783.0                     | 71.6               | 3202.0                 | 1.60                  | 71.67                     |
| 57.0-58.0    | 760.5                     | 70.3               | 3272.4                 | 1.57                  | 73.24                     |
| 58.0-59.0    | 737.6                     | 69.0               | 3341.3                 | 1.54                  | 74.78                     |
| 59.0-60.0    | 714.5                     | 67.5               | 3408.8                 | 1.51                  | 76.29                     |
| 60.0-61.0    | 691.1                     | 66.0               | 3474.8                 | 1.48                  | 77.77                     |
| 61.0-62.0    | 667.6                     | 64.3               | 3539.2                 | 1.44                  | 79.21                     |
| 62.0-63.0    | 643.7                     | 62.6               | 3601.8                 | 1.40                  | 80.61                     |
| 63.0-64.0    | 619.8                     | 60.8               | 3662.6                 | 1.36                  | 81.97                     |
| 64.0-65.0    | 595.4                     | 58.9               | 3721.5                 | 1.32                  | 83.29                     |
| 65.0-66.0    | 570.8                     | 57.0               | 3778.5                 | 1.27                  | 84.57                     |
| 66.0-67.0    | 546.2                     | 54.9               | 3833.4                 | 1.23                  | 85.80                     |
| 67.0-68.0    | 521.3                     | 52.8               | 3886.2                 | 1.18                  | 86.98                     |
| 68.0-69.0    | 496.4                     | 50.6               | 3936.9                 | 1.13                  | 88.11                     |
| 69.0-70.0    | 471.2                     | 48.4               | 3985.3                 | 1.08                  | 89.20                     |
| 70.0-71.0    | 446.1                     | 46.1               | 4031.4                 | 1.03                  | 90.23                     |
| 71.0-72.0    | 421.0                     | 43.8               | 4075.2                 | 0.98                  | 91.21                     |

C Plane (°):0.0-360.0: 30.0  
 Test Lab: EVERFINE  
 Test Type: TYPE C  
 Temperature: 25.3℃  
 Operator:

Gamma Plane (°):0.0-90.0:1.0  
 Test Device:  
 Distance: 11.655m [K=1.0000]  
 Humidity: 45% R.H  
 Inspector:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

## Zonal Lumen (Continue 3)

cone flux(90°): 2287.00 lm

%lum = 51.2%

%lamp = 51.2%

cone flux(120°): 3408.85 lm

%lum = 76.3%

%lamp = 76.3%

## Candlepower Table

Unit: cd

| G\C   | C0.0   | C30.0  | C60.0  | C90.0  | C120.0 | C150.0 | C180.0 | C210.0 | C240.0 |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| G0.0  | 1462.9 | 1462.9 | 1462.9 | 1462.9 | 1462.9 | 1462.9 | 1462.9 | 1462.9 | 1462.9 |
| G1.0  | 1462.0 | 1462.4 | 1462.7 | 1463.0 | 1463.4 | 1463.5 | 1463.1 | 1463.0 | 1462.4 |
| G2.0  | 1460.8 | 1461.6 | 1461.9 | 1462.5 | 1463.2 | 1463.5 | 1462.9 | 1462.6 | 1461.5 |
| G3.0  | 1459.5 | 1460.2 | 1460.9 | 1461.8 | 1462.5 | 1463.2 | 1462.5 | 1461.9 | 1460.2 |
| G4.0  | 1457.5 | 1458.3 | 1459.4 | 1460.4 | 1461.5 | 1462.2 | 1461.5 | 1460.5 | 1458.3 |
| G5.0  | 1455.1 | 1456.2 | 1457.3 | 1458.6 | 1459.8 | 1461.2 | 1460.3 | 1459.0 | 1456.2 |
| G6.0  | 1452.4 | 1453.3 | 1455.1 | 1456.4 | 1457.9 | 1459.4 | 1458.6 | 1457.0 | 1453.5 |
| G7.0  | 1449.0 | 1450.3 | 1451.8 | 1453.5 | 1455.4 | 1457.3 | 1456.4 | 1454.4 | 1450.2 |
| G8.0  | 1445.5 | 1446.7 | 1448.4 | 1450.2 | 1452.3 | 1454.9 | 1453.8 | 1451.7 | 1446.5 |
| G9.0  | 1441.5 | 1442.7 | 1444.8 | 1446.5 | 1448.8 | 1451.8 | 1451.2 | 1448.4 | 1442.4 |
| G10.0 | 1437.5 | 1438.4 | 1440.2 | 1442.2 | 1445.0 | 1448.4 | 1447.8 | 1444.6 | 1437.9 |
| G11.0 | 1432.4 | 1433.7 | 1435.4 | 1437.6 | 1440.8 | 1444.7 | 1443.8 | 1440.5 | 1433.0 |
| G12.0 | 1427.2 | 1428.5 | 1430.5 | 1432.4 | 1435.8 | 1440.6 | 1439.6 | 1436.0 | 1427.2 |
| G13.0 | 1421.2 | 1422.8 | 1424.6 | 1426.7 | 1430.5 | 1436.0 | 1435.4 | 1430.9 | 1421.6 |
| G14.0 | 1415.3 | 1416.4 | 1418.2 | 1420.2 | 1424.6 | 1430.7 | 1430.0 | 1425.2 | 1415.0 |
| G15.0 | 1408.8 | 1410.0 | 1411.6 | 1413.8 | 1418.6 | 1425.2 | 1424.7 | 1419.5 | 1408.4 |
| G16.0 | 1401.9 | 1403.4 | 1404.5 | 1406.6 | 1411.7 | 1419.5 | 1418.8 | 1413.3 | 1401.1 |
| G17.0 | 1394.2 | 1395.6 | 1397.2 | 1398.9 | 1404.9 | 1412.7 | 1412.4 | 1406.6 | 1393.6 |
| G18.0 | 1386.4 | 1387.7 | 1389.1 | 1391.2 | 1397.4 | 1406.2 | 1405.7 | 1399.6 | 1385.3 |
| G19.0 | 1378.0 | 1379.5 | 1380.7 | 1382.2 | 1389.5 | 1398.8 | 1398.4 | 1391.3 | 1376.8 |
| G20.0 | 1369.4 | 1370.8 | 1371.7 | 1373.3 | 1380.7 | 1391.2 | 1390.6 | 1383.3 | 1367.5 |
| G21.0 | 1360.2 | 1361.6 | 1362.6 | 1364.1 | 1372.2 | 1383.0 | 1382.3 | 1375.1 | 1358.2 |
| G22.0 | 1350.4 | 1351.9 | 1352.6 | 1354.1 | 1362.8 | 1374.2 | 1373.9 | 1366.0 | 1348.3 |
| G23.0 | 1340.5 | 1341.7 | 1342.3 | 1343.6 | 1353.1 | 1365.1 | 1364.6 | 1356.3 | 1337.6 |
| G24.0 | 1330.1 | 1331.2 | 1331.9 | 1333.0 | 1342.7 | 1355.7 | 1355.2 | 1346.6 | 1327.2 |
| G25.0 | 1318.9 | 1320.2 | 1320.7 | 1321.6 | 1332.4 | 1346.1 | 1345.5 | 1336.5 | 1316.0 |
| G26.0 | 1307.7 | 1309.0 | 1309.7 | 1310.0 | 1321.3 | 1335.5 | 1334.8 | 1325.7 | 1304.1 |
| G27.0 | 1295.8 | 1297.5 | 1297.7 | 1297.5 | 1309.7 | 1324.5 | 1323.8 | 1314.3 | 1292.1 |
| G28.0 | 1283.7 | 1284.7 | 1284.8 | 1285.0 | 1298.0 | 1313.0 | 1312.6 | 1302.8 | 1279.6 |
| G29.0 | 1270.8 | 1272.4 | 1272.2 | 1272.2 | 1285.3 | 1301.7 | 1301.1 | 1291.0 | 1266.7 |
| G30.0 | 1258.0 | 1259.4 | 1259.4 | 1258.6 | 1272.9 | 1289.8 | 1289.1 | 1278.7 | 1253.7 |
| G31.0 | 1244.6 | 1246.0 | 1245.4 | 1244.5 | 1259.5 | 1277.1 | 1276.5 | 1265.8 | 1239.8 |
| G32.0 | 1230.5 | 1232.0 | 1231.9 | 1230.6 | 1245.8 | 1264.1 | 1263.7 | 1252.6 | 1225.8 |
| G33.0 | 1216.8 | 1217.8 | 1217.6 | 1216.3 | 1232.0 | 1250.6 | 1250.2 | 1239.0 | 1211.4 |
| G34.0 | 1202.2 | 1203.2 | 1202.9 | 1200.8 | 1217.9 | 1236.9 | 1236.6 | 1224.8 | 1196.6 |
| G35.0 | 1186.8 | 1188.3 | 1187.5 | 1185.6 | 1202.9 | 1222.8 | 1222.6 | 1210.4 | 1181.4 |

C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:



## Candlepower Table(Continue 1)

Unit: cd

| G\C   | C0.0   | C30.0  | C60.0  | C90.0  | C120.0 | C150.0 | C180.0 | C210.0 | C240.0 |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| G36.0 | 1171.5 | 1172.9 | 1172.0 | 1169.5 | 1187.7 | 1208.3 | 1207.9 | 1195.6 | 1165.8 |
| G37.0 | 1156.1 | 1156.8 | 1156.0 | 1153.0 | 1172.3 | 1193.1 | 1193.1 | 1180.3 | 1149.6 |
| G38.0 | 1139.8 | 1141.0 | 1139.7 | 1136.8 | 1156.5 | 1177.8 | 1177.8 | 1164.7 | 1133.5 |
| G39.0 | 1123.6 | 1124.4 | 1123.3 | 1119.9 | 1140.3 | 1162.3 | 1161.9 | 1149.2 | 1117.2 |
| G40.0 | 1106.6 | 1107.2 | 1106.4 | 1102.3 | 1123.2 | 1146.2 | 1146.0 | 1132.5 | 1099.6 |
| G41.0 | 1089.3 | 1090.4 | 1088.6 | 1084.3 | 1106.4 | 1129.3 | 1129.5 | 1115.7 | 1082.1 |
| G42.0 | 1072.2 | 1073.1 | 1071.1 | 1066.4 | 1088.8 | 1112.7 | 1112.8 | 1098.7 | 1064.1 |
| G43.0 | 1054.3 | 1054.9 | 1053.1 | 1047.9 | 1071.4 | 1095.7 | 1095.5 | 1081.7 | 1046.3 |
| G44.0 | 1035.7 | 1036.2 | 1034.4 | 1029.2 | 1052.9 | 1078.1 | 1078.2 | 1063.6 | 1027.9 |
| G45.0 | 1017.7 | 1017.8 | 1015.8 | 1010.1 | 1034.5 | 1060.0 | 1060.2 | 1045.5 | 1008.8 |
| G46.0 | 998.9  | 999.6  | 996.7  | 990.1  | 1015.6 | 1042.1 | 1042.1 | 1027.4 | 989.6  |
| G47.0 | 979.2  | 979.9  | 976.9  | 970.7  | 996.7  | 1023.3 | 1023.6 | 1008.6 | 970.2  |
| G48.0 | 960.1  | 959.9  | 957.3  | 950.6  | 977.0  | 1004.6 | 1004.8 | 989.4  | 950.4  |
| G49.0 | 940.2  | 939.9  | 937.0  | 929.4  | 957.3  | 984.9  | 985.9  | 969.7  | 930.5  |
| G50.0 | 919.9  | 920.7  | 916.4  | 908.7  | 937.1  | 965.3  | 966.3  | 950.2  | 909.6  |
| G51.0 | 899.7  | 900.0  | 895.8  | 887.7  | 916.7  | 945.6  | 946.5  | 930.2  | 889.3  |
| G52.0 | 878.8  | 878.6  | 874.5  | 865.8  | 895.7  | 925.5  | 926.5  | 909.6  | 868.0  |
| G53.0 | 857.8  | 857.2  | 853.2  | 844.1  | 874.6  | 904.7  | 906.2  | 889.2  | 846.7  |
| G54.0 | 836.9  | 836.5  | 831.6  | 822.1  | 853.1  | 884.2  | 885.3  | 868.3  | 825.0  |
| G55.0 | 814.6  | 815.1  | 809.4  | 799.0  | 831.6  | 862.5  | 864.5  | 846.5  | 803.3  |
| G56.0 | 793.4  | 792.3  | 787.2  | 777.1  | 809.4  | 841.5  | 842.9  | 825.6  | 780.7  |
| G57.0 | 770.9  | 770.0  | 764.4  | 754.1  | 787.1  | 820.2  | 821.5  | 803.9  | 758.4  |
| G58.0 | 748.6  | 748.4  | 741.4  | 729.7  | 764.3  | 797.3  | 799.6  | 780.8  | 735.4  |
| G59.0 | 726.6  | 725.0  | 719.1  | 706.8  | 740.9  | 775.3  | 776.8  | 759.1  | 711.8  |
| G60.0 | 702.5  | 701.7  | 694.5  | 682.1  | 718.4  | 752.3  | 755.1  | 735.6  | 689.1  |
| G61.0 | 680.4  | 678.9  | 672.2  | 658.4  | 694.3  | 729.5  | 731.6  | 713.1  | 664.7  |
| G62.0 | 656.3  | 655.0  | 647.3  | 633.9  | 671.3  | 706.7  | 709.4  | 690.2  | 641.6  |
| G63.0 | 632.8  | 631.4  | 623.4  | 608.7  | 646.6  | 682.8  | 685.6  | 666.4  | 616.8  |
| G64.0 | 609.7  | 607.7  | 599.6  | 584.1  | 622.6  | 659.5  | 662.6  | 642.7  | 593.1  |
| G65.0 | 584.5  | 583.0  | 573.7  | 558.6  | 597.8  | 635.3  | 638.4  | 618.5  | 568.1  |
| G66.0 | 561.1  | 558.5  | 549.8  | 533.5  | 573.7  | 611.6  | 615.2  | 594.9  | 544.0  |
| G67.0 | 536.2  | 534.4  | 523.9  | 507.4  | 547.9  | 586.8  | 590.0  | 570.0  | 518.3  |
| G68.0 | 512.3  | 509.8  | 499.4  | 481.8  | 523.3  | 562.6  | 566.2  | 545.7  | 493.4  |
| G69.0 | 487.5  | 485.0  | 473.7  | 455.6  | 497.8  | 537.7  | 541.9  | 520.9  | 468.4  |
| G70.0 | 462.9  | 459.9  | 448.2  | 429.9  | 472.8  | 513.1  | 517.5  | 496.4  | 443.2  |
| G71.0 | 438.3  | 435.5  | 422.7  | 403.6  | 447.1  | 488.3  | 492.9  | 471.7  | 417.9  |

C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

## Candlepower Table(Continue 3)

Unit: cd

| G\C   | C270.0 | C300.0 | C330.0 | C360.0 |  |  |  |  |  |
|-------|--------|--------|--------|--------|--|--|--|--|--|
| G0.0  | 1462.9 | 1462.9 | 1462.9 | 1462.9 |  |  |  |  |  |
| G1.0  | 1462.2 | 1462.1 | 1462.1 | 1462.0 |  |  |  |  |  |
| G2.0  | 1460.8 | 1460.8 | 1460.8 | 1460.8 |  |  |  |  |  |
| G3.0  | 1459.2 | 1458.9 | 1459.0 | 1459.5 |  |  |  |  |  |
| G4.0  | 1457.1 | 1456.8 | 1456.9 | 1457.5 |  |  |  |  |  |
| G5.0  | 1454.4 | 1453.9 | 1454.2 | 1455.1 |  |  |  |  |  |
| G6.0  | 1451.1 | 1450.9 | 1451.0 | 1452.4 |  |  |  |  |  |
| G7.0  | 1447.5 | 1447.3 | 1447.7 | 1449.0 |  |  |  |  |  |
| G8.0  | 1443.5 | 1443.4 | 1443.8 | 1445.5 |  |  |  |  |  |
| G9.0  | 1439.0 | 1438.8 | 1439.4 | 1441.5 |  |  |  |  |  |
| G10.0 | 1433.8 | 1433.7 | 1434.8 | 1437.5 |  |  |  |  |  |
| G11.0 | 1428.3 | 1428.2 | 1429.6 | 1432.4 |  |  |  |  |  |
| G12.0 | 1422.4 | 1422.5 | 1424.1 | 1427.2 |  |  |  |  |  |
| G13.0 | 1415.9 | 1415.9 | 1417.8 | 1421.2 |  |  |  |  |  |
| G14.0 | 1409.0 | 1409.5 | 1411.5 | 1415.3 |  |  |  |  |  |
| G15.0 | 1401.6 | 1402.1 | 1404.5 | 1408.8 |  |  |  |  |  |
| G16.0 | 1393.6 | 1394.7 | 1397.4 | 1401.9 |  |  |  |  |  |
| G17.0 | 1385.5 | 1386.1 | 1389.3 | 1394.2 |  |  |  |  |  |
| G18.0 | 1376.2 | 1377.6 | 1381.3 | 1386.4 |  |  |  |  |  |
| G19.0 | 1367.2 | 1368.7 | 1372.5 | 1378.0 |  |  |  |  |  |
| G20.0 | 1357.5 | 1359.2 | 1363.3 | 1369.4 |  |  |  |  |  |
| G21.0 | 1347.0 | 1349.0 | 1353.7 | 1360.2 |  |  |  |  |  |
| G22.0 | 1336.5 | 1338.8 | 1344.0 | 1350.4 |  |  |  |  |  |
| G23.0 | 1325.4 | 1328.3 | 1333.3 | 1340.5 |  |  |  |  |  |
| G24.0 | 1313.9 | 1317.2 | 1322.6 | 1330.1 |  |  |  |  |  |
| G25.0 | 1301.9 | 1305.3 | 1311.3 | 1318.9 |  |  |  |  |  |
| G26.0 | 1289.6 | 1293.7 | 1299.9 | 1307.7 |  |  |  |  |  |
| G27.0 | 1276.9 | 1281.3 | 1287.8 | 1295.8 |  |  |  |  |  |
| G28.0 | 1263.5 | 1267.9 | 1275.0 | 1283.7 |  |  |  |  |  |
| G29.0 | 1249.8 | 1254.6 | 1262.2 | 1270.8 |  |  |  |  |  |
| G30.0 | 1236.0 | 1241.2 | 1249.0 | 1258.0 |  |  |  |  |  |
| G31.0 | 1221.5 | 1227.2 | 1235.1 | 1244.6 |  |  |  |  |  |
| G32.0 | 1206.6 | 1212.6 | 1221.1 | 1230.5 |  |  |  |  |  |
| G33.0 | 1191.4 | 1198.3 | 1206.6 | 1216.8 |  |  |  |  |  |
| G34.0 | 1176.1 | 1182.9 | 1191.9 | 1202.2 |  |  |  |  |  |
| G35.0 | 1159.9 | 1167.1 | 1176.4 | 1186.8 |  |  |  |  |  |

C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

## Candlepower Table(Continue 4)

Unit: cd

| G\C   | C270.0 | C300.0 | C330.0 | C360.0 |  |  |  |  |  |
|-------|--------|--------|--------|--------|--|--|--|--|--|
| G36.0 | 1143.3 | 1151.2 | 1160.8 | 1171.5 |  |  |  |  |  |
| G37.0 | 1126.6 | 1134.9 | 1144.7 | 1156.1 |  |  |  |  |  |
| G38.0 | 1109.7 | 1118.1 | 1128.6 | 1139.8 |  |  |  |  |  |
| G39.0 | 1092.1 | 1101.2 | 1111.7 | 1123.6 |  |  |  |  |  |
| G40.0 | 1074.2 | 1083.5 | 1094.2 | 1106.6 |  |  |  |  |  |
| G41.0 | 1056.2 | 1065.8 | 1077.4 | 1089.3 |  |  |  |  |  |
| G42.0 | 1037.5 | 1048.3 | 1059.7 | 1072.2 |  |  |  |  |  |
| G43.0 | 1018.5 | 1029.6 | 1041.0 | 1054.3 |  |  |  |  |  |
| G44.0 | 999.0  | 1010.5 | 1022.9 | 1035.7 |  |  |  |  |  |
| G45.0 | 979.7  | 991.6  | 1004.2 | 1017.7 |  |  |  |  |  |
| G46.0 | 960.3  | 972.3  | 985.8  | 998.9  |  |  |  |  |  |
| G47.0 | 939.8  | 952.2  | 966.0  | 979.2  |  |  |  |  |  |
| G48.0 | 918.6  | 932.1  | 945.8  | 960.1  |  |  |  |  |  |
| G49.0 | 897.9  | 911.5  | 926.0  | 940.2  |  |  |  |  |  |
| G50.0 | 877.4  | 890.7  | 906.2  | 919.9  |  |  |  |  |  |
| G51.0 | 855.6  | 869.8  | 885.4  | 899.7  |  |  |  |  |  |
| G52.0 | 833.3  | 848.5  | 863.9  | 878.8  |  |  |  |  |  |
| G53.0 | 810.8  | 826.7  | 842.6  | 857.8  |  |  |  |  |  |
| G54.0 | 789.2  | 804.9  | 821.8  | 836.9  |  |  |  |  |  |
| G55.0 | 766.7  | 782.2  | 800.2  | 814.6  |  |  |  |  |  |
| G56.0 | 742.8  | 760.3  | 777.3  | 793.4  |  |  |  |  |  |
| G57.0 | 719.5  | 737.6  | 754.9  | 770.9  |  |  |  |  |  |
| G58.0 | 696.8  | 713.7  | 733.0  | 748.6  |  |  |  |  |  |
| G59.0 | 672.3  | 691.6  | 709.5  | 726.6  |  |  |  |  |  |
| G60.0 | 648.1  | 667.3  | 686.3  | 702.5  |  |  |  |  |  |
| G61.0 | 623.9  | 643.7  | 663.3  | 680.4  |  |  |  |  |  |
| G62.0 | 598.7  | 619.4  | 638.8  | 656.3  |  |  |  |  |  |
| G63.0 | 574.5  | 595.1  | 615.6  | 632.8  |  |  |  |  |  |
| G64.0 | 549.7  | 571.2  | 592.0  | 609.7  |  |  |  |  |  |
| G65.0 | 524.0  | 545.7  | 567.1  | 584.5  |  |  |  |  |  |
| G66.0 | 498.7  | 521.4  | 543.1  | 561.1  |  |  |  |  |  |
| G67.0 | 473.1  | 495.9  | 518.5  | 536.2  |  |  |  |  |  |
| G68.0 | 447.5  | 471.2  | 494.2  | 512.3  |  |  |  |  |  |
| G69.0 | 421.6  | 445.7  | 469.1  | 487.5  |  |  |  |  |  |
| G70.0 | 395.5  | 420.4  | 444.3  | 462.9  |  |  |  |  |  |
| G71.0 | 369.9  | 395.5  | 419.8  | 438.3  |  |  |  |  |  |

C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3℃  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

### Candlepower Table(Continue 5)

Unit: cd

[illegible]

C Plane (°):0.0-360.0: 30.0  
Test Lab: EVERFINE  
Test Type: TYPE C  
Temperature: 25.3°C  
Operator:

Gamma Plane (°):0.0-90.0:1.0  
Test Device:  
Distance: 11.655m [K=1.0000]  
Humidity: 45% R.H  
Inspector:

## LED Average Luminance Report

| Avg.L           | cd/m <sup>2</sup> |
|-----------------|-------------------|
| L 0-180(65) av  | 19136.71          |
| L 0-180(75) av  | 18772.00          |
| L 0-180(85) av  | 22839.11          |
| L 90-270(65) av | 16941.65          |
| L 90-270(75) av | 14448.19          |
| L 90-270(85) av | 8161.87           |
| L 45(65) av     | 18346.21          |
| L 45(75) av     | 17221.12          |
| L 45(85) av     | 17565.97          |

Standard: GB/T 29293-2012