

Report No.:

Test Time: 2025-12-24 09:26

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: 3000K

Number of Lamps:

Luminous Length (mm): 250

Luminous Height (mm):

Current: 0.0650 A

Power Factor: 0.9270

Luminaire Description: L250

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 250

Voltage: 231.40 V

Power: 13.85 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 1411.8 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H113.8

Vertical Diffuse Angle(50%): V113.9

Luminous Efficacy (lm/w): 101.93

Max. Intensity: 343.04 cd/klm

S/MH(C0/C180): 1.26

Total Rated Lamp Lumens: 1411.8 lm

Efficiency: 100%

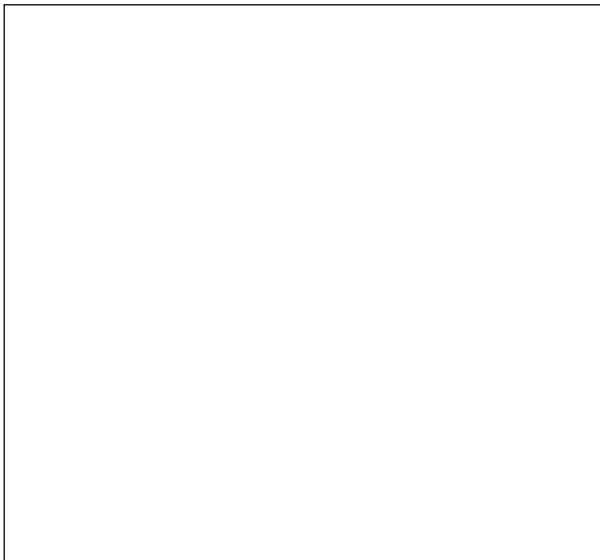
Upward Ratio: 0%

C0r0 Intensity: 343.04 cd/klm

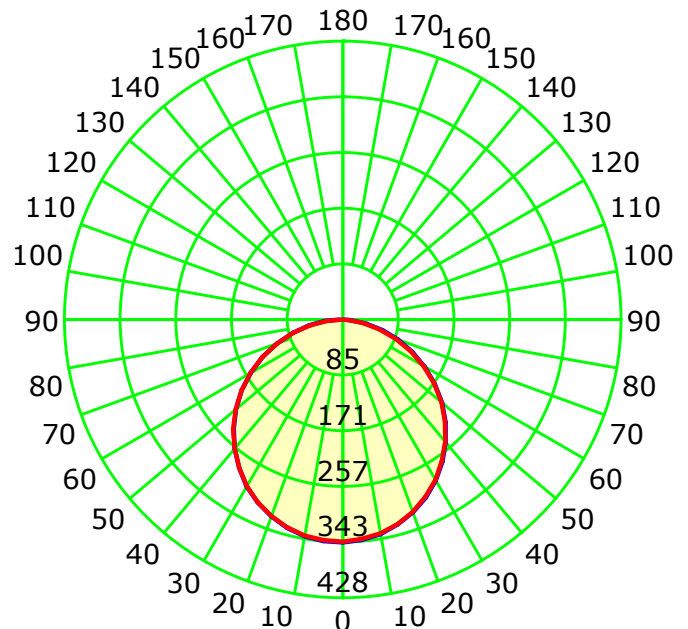
Pos of Max. Intensity: H0 V0

S/MH(C90/C270): 1.26

Picture Of Luminaire



Luminous Intensity Distribution Curve



Unit: cd/klm

Average Diffuse Angle(50%): 113.9°

— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:5.0

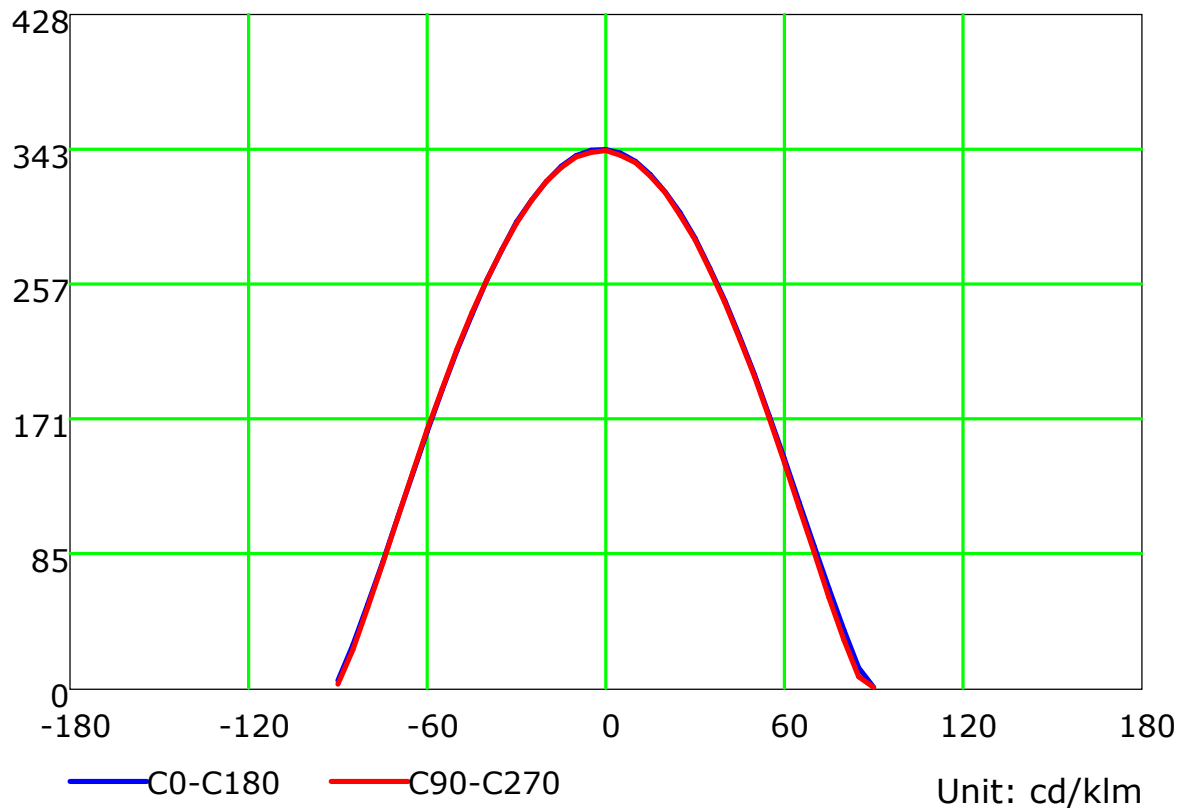
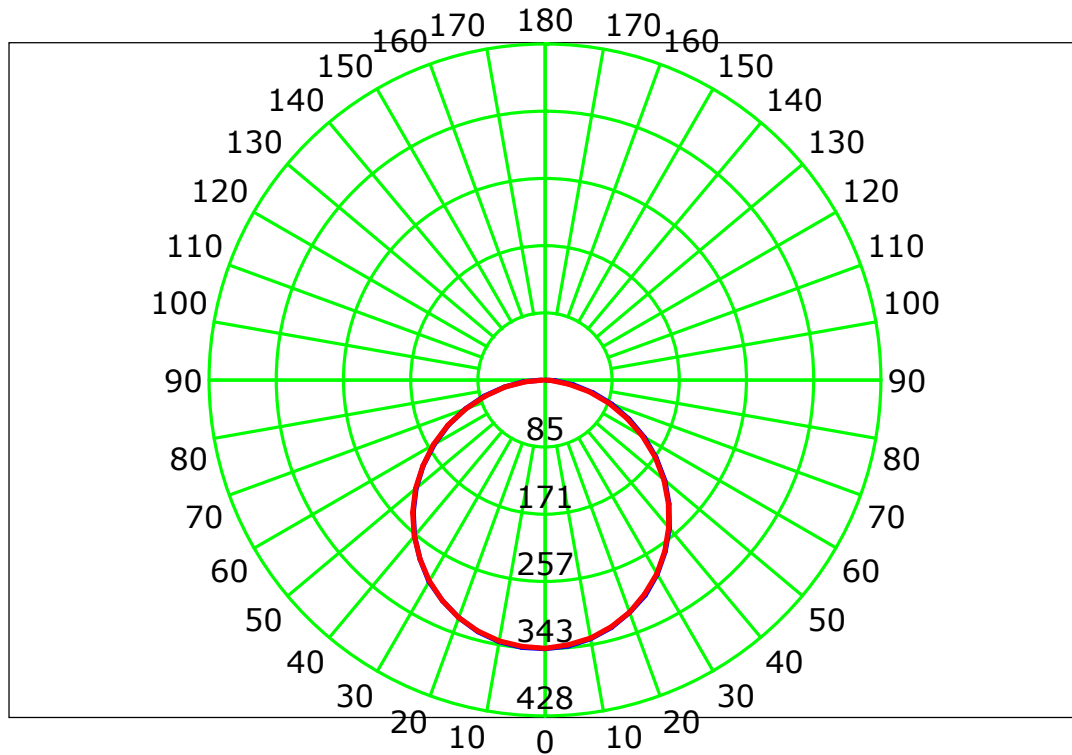
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

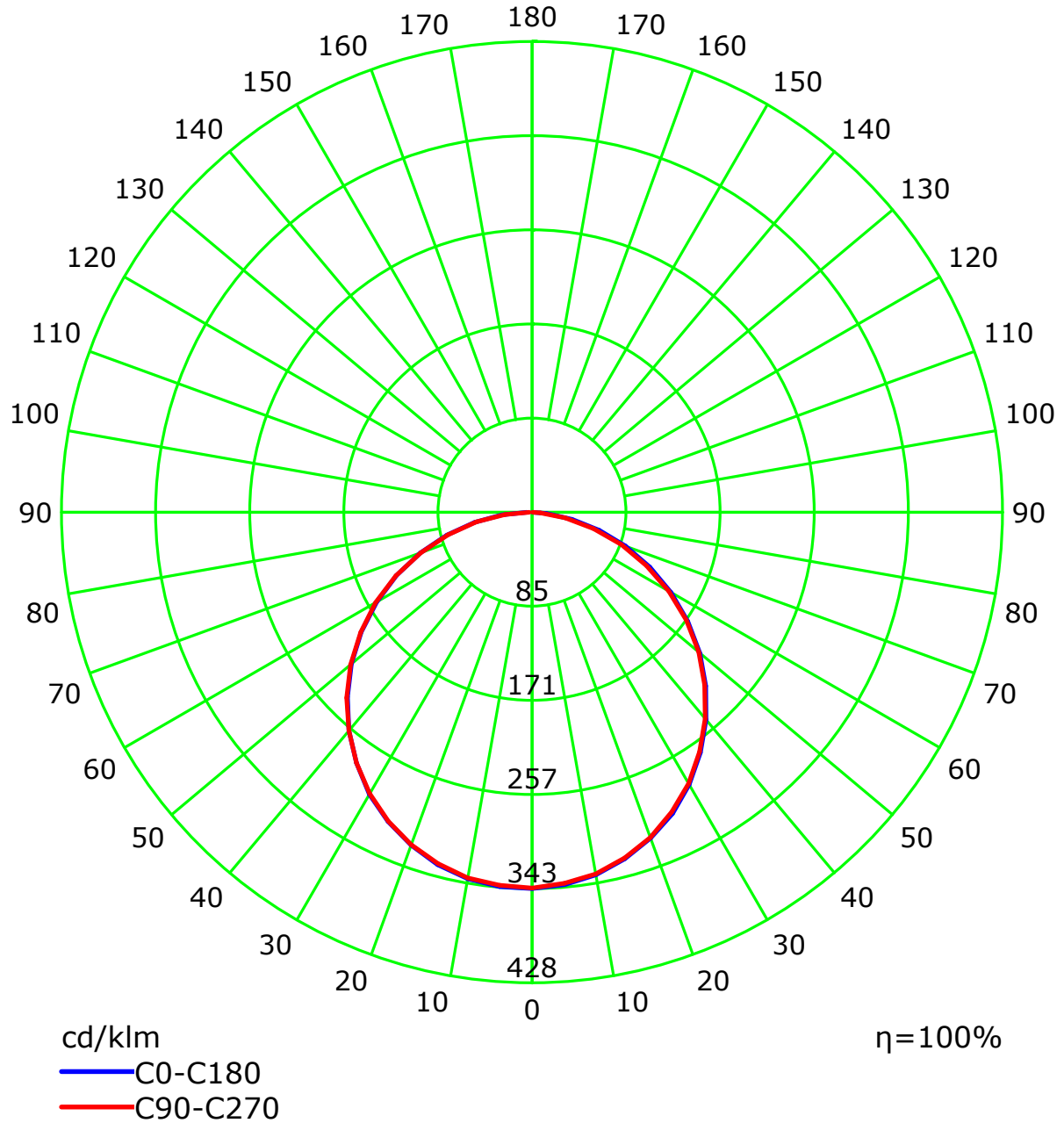
## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



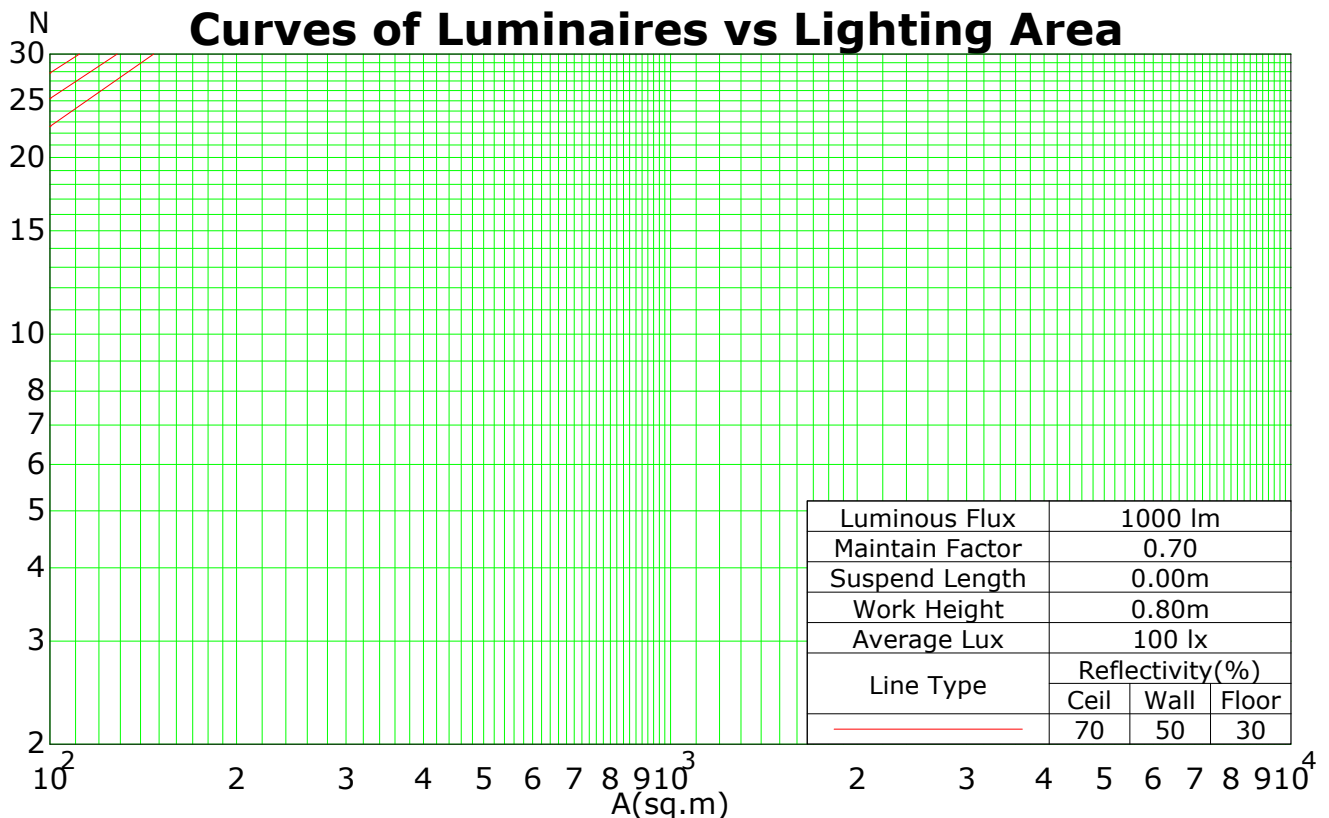
C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 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     | 1.04 | 0.99 | 0.95 | 1.06 | 1.01 | 0.97 | 0.94 | 0.97 | 0.94 | 0.91 | 0.93 | 0.90 | 0.88 | 0.89 | 0.87 | 0.85 | 0.83 |
| 2   | 0.98     | 0.90 | 0.83 | 0.77 | 0.96 | 0.88 | 0.82 | 0.76 | 0.84 | 0.79 | 0.74 | 0.81 | 0.77 | 0.73 | 0.78 | 0.74 | 0.71 | 0.69 |
| 3   | 0.90     | 0.79 | 0.71 | 0.64 | 0.87 | 0.77 | 0.70 | 0.63 | 0.74 | 0.68 | 0.62 | 0.71 | 0.66 | 0.61 | 0.69 | 0.64 | 0.60 | 0.58 |
| 4   | 0.82     | 0.70 | 0.61 | 0.54 | 0.80 | 0.68 | 0.60 | 0.54 | 0.66 | 0.59 | 0.53 | 0.63 | 0.57 | 0.52 | 0.61 | 0.56 | 0.51 | 0.49 |
| 5   | 0.75     | 0.62 | 0.53 | 0.46 | 0.73 | 0.61 | 0.53 | 0.46 | 0.59 | 0.51 | 0.46 | 0.57 | 0.50 | 0.45 | 0.55 | 0.49 | 0.45 | 0.42 |
| 6   | 0.69     | 0.56 | 0.47 | 0.40 | 0.68 | 0.55 | 0.46 | 0.40 | 0.53 | 0.46 | 0.40 | 0.51 | 0.45 | 0.39 | 0.50 | 0.44 | 0.39 | 0.37 |
| 7   | 0.64     | 0.51 | 0.42 | 0.36 | 0.63 | 0.50 | 0.41 | 0.35 | 0.48 | 0.41 | 0.35 | 0.47 | 0.40 | 0.35 | 0.46 | 0.39 | 0.35 | 0.33 |
| 8   | 0.60     | 0.46 | 0.38 | 0.32 | 0.58 | 0.46 | 0.37 | 0.32 | 0.44 | 0.37 | 0.31 | 0.43 | 0.36 | 0.31 | 0.42 | 0.36 | 0.31 | 0.29 |
| 9   | 0.56     | 0.42 | 0.34 | 0.29 | 0.55 | 0.42 | 0.34 | 0.28 | 0.41 | 0.33 | 0.28 | 0.40 | 0.33 | 0.28 | 0.39 | 0.32 | 0.28 | 0.26 |
| 10  | 0.52     | 0.39 | 0.31 | 0.26 | 0.51 | 0.39 | 0.31 | 0.26 | 0.38 | 0.31 | 0.26 | 0.37 | 0.30 | 0.26 | 0.36 | 0.30 | 0.25 | 0.24 |

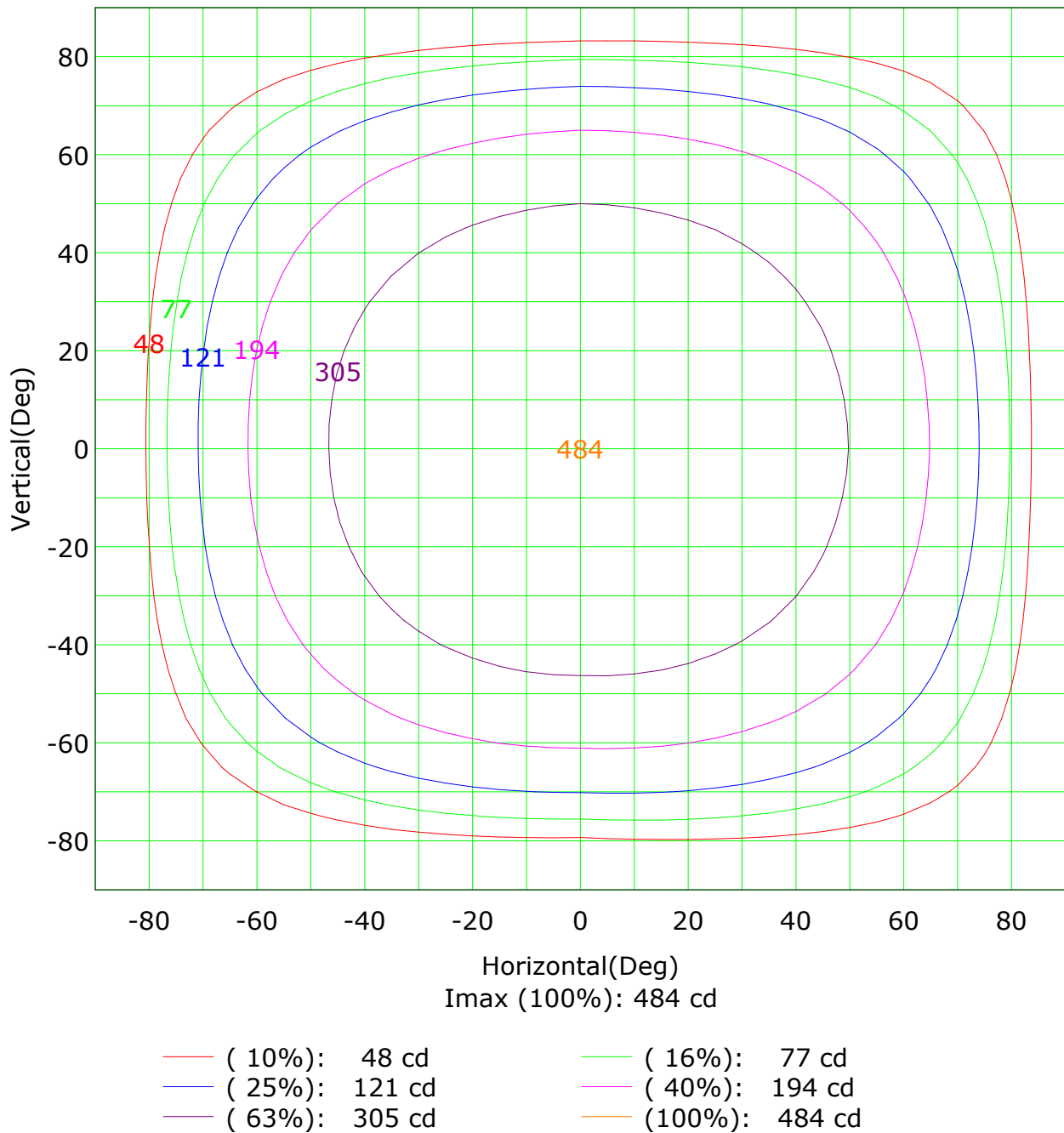
Spacing Criteria (0-180): 1.26  
Spacing Criteria (90-270): 1.26  
Spacing Criteria (Diagonal): 1.38



C Plane (°):0.0-360.0: 90.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:5.0  
Test Device: GPM-1600L  
Distance: 7.172 m [K=1.0000]  
Humidity:  
Inspector:

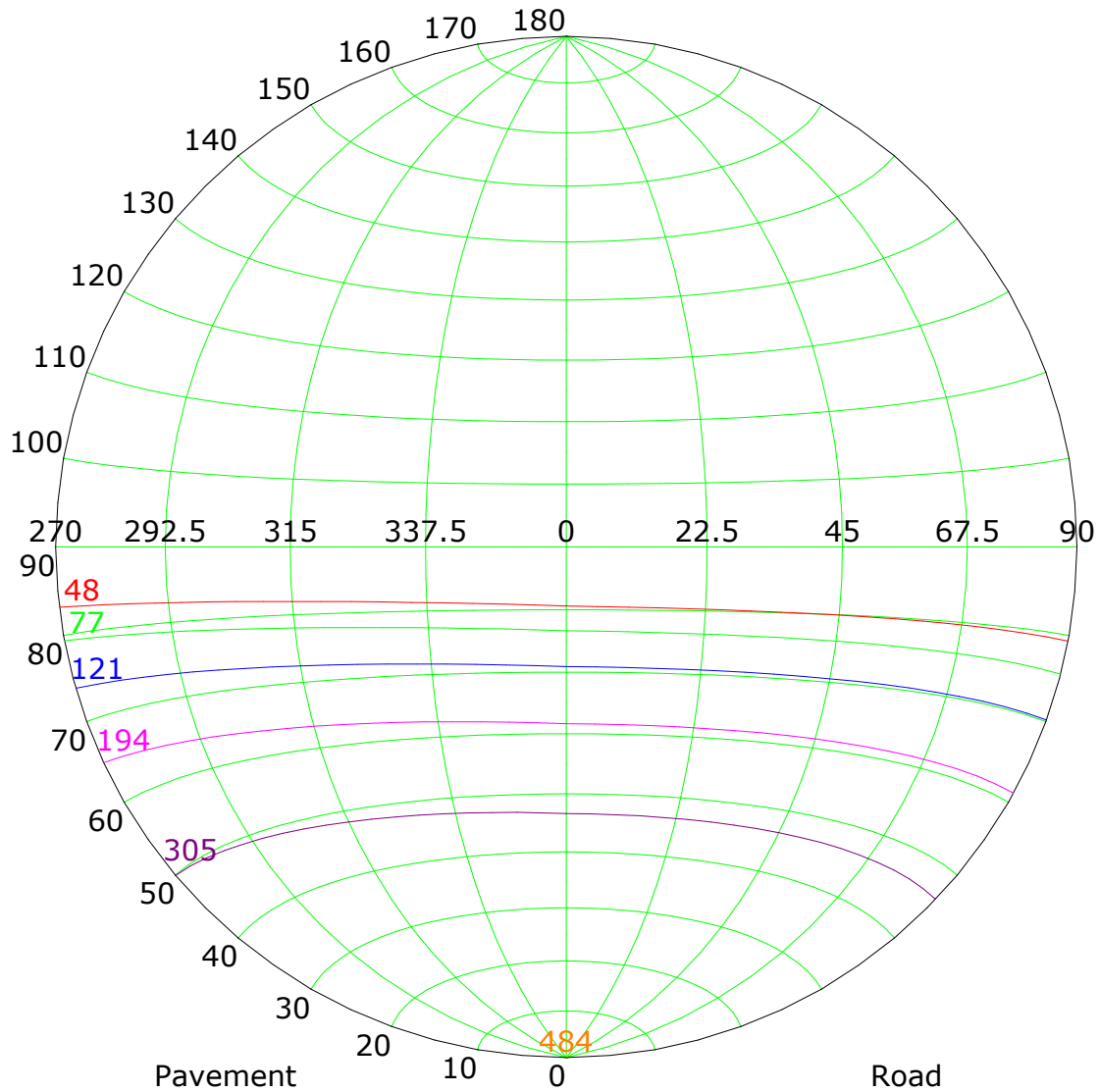
## Isocandela (rectangle)



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Isocandela (sphere)



Imax (100%): 484 cd

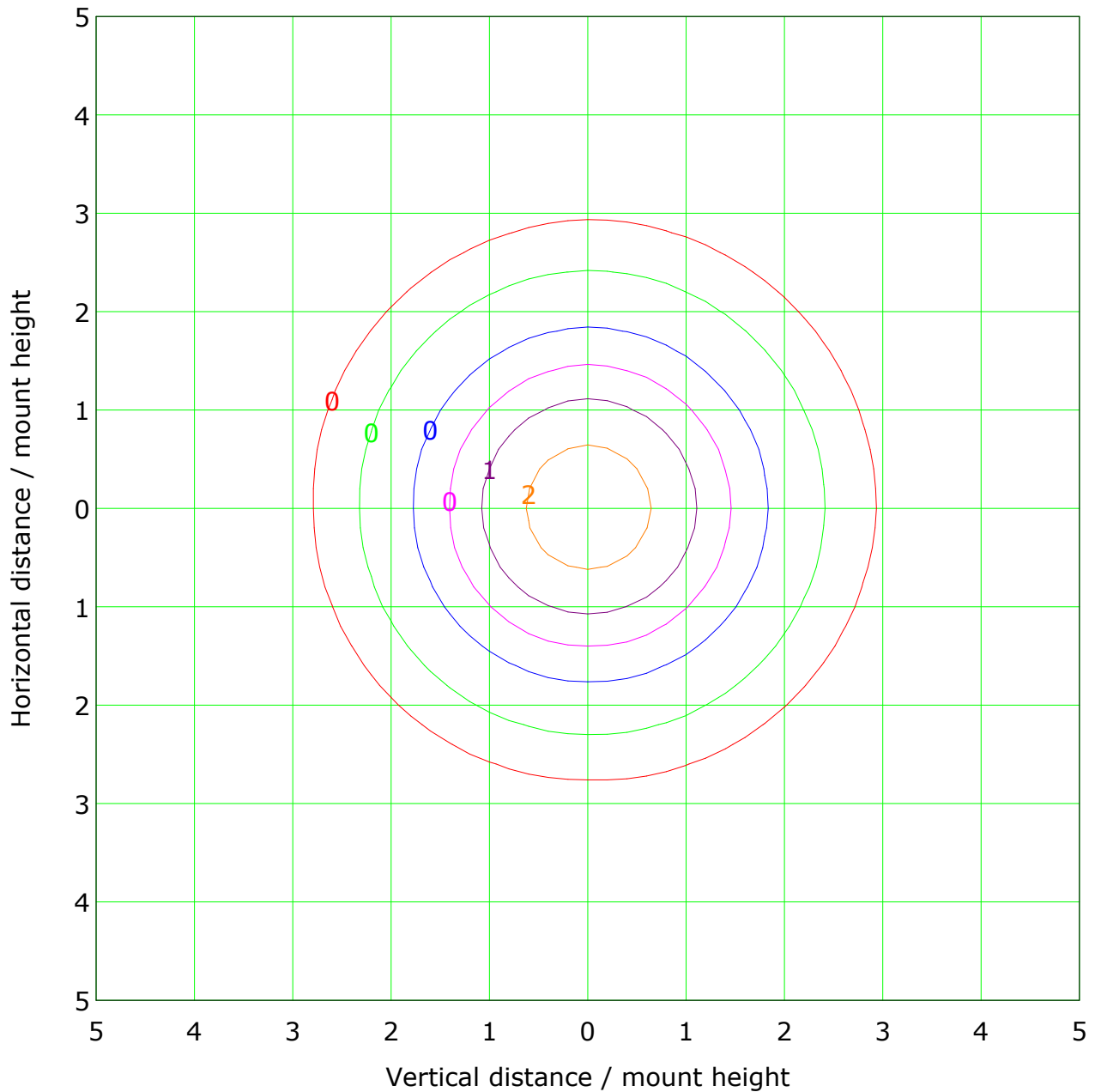
( 10%): 48 cd  
( 25%): 121 cd  
( 63%): 305 cd

( 16%): 77 cd  
( 40%): 194 cd  
(100%): 484 cd

CIE: narrow - short  
CIE: Non-cut-off luminaire  
Max.At90: 64.134 cd/klm

IES: Non-cut-off  
Max.At80: 223.735 cd/klm  
Max.80-90: 35712934495074096000000000000.0

## IsoLux Plot



Mounting Height: 10.0m Max Lux(100%): 4.8 lx

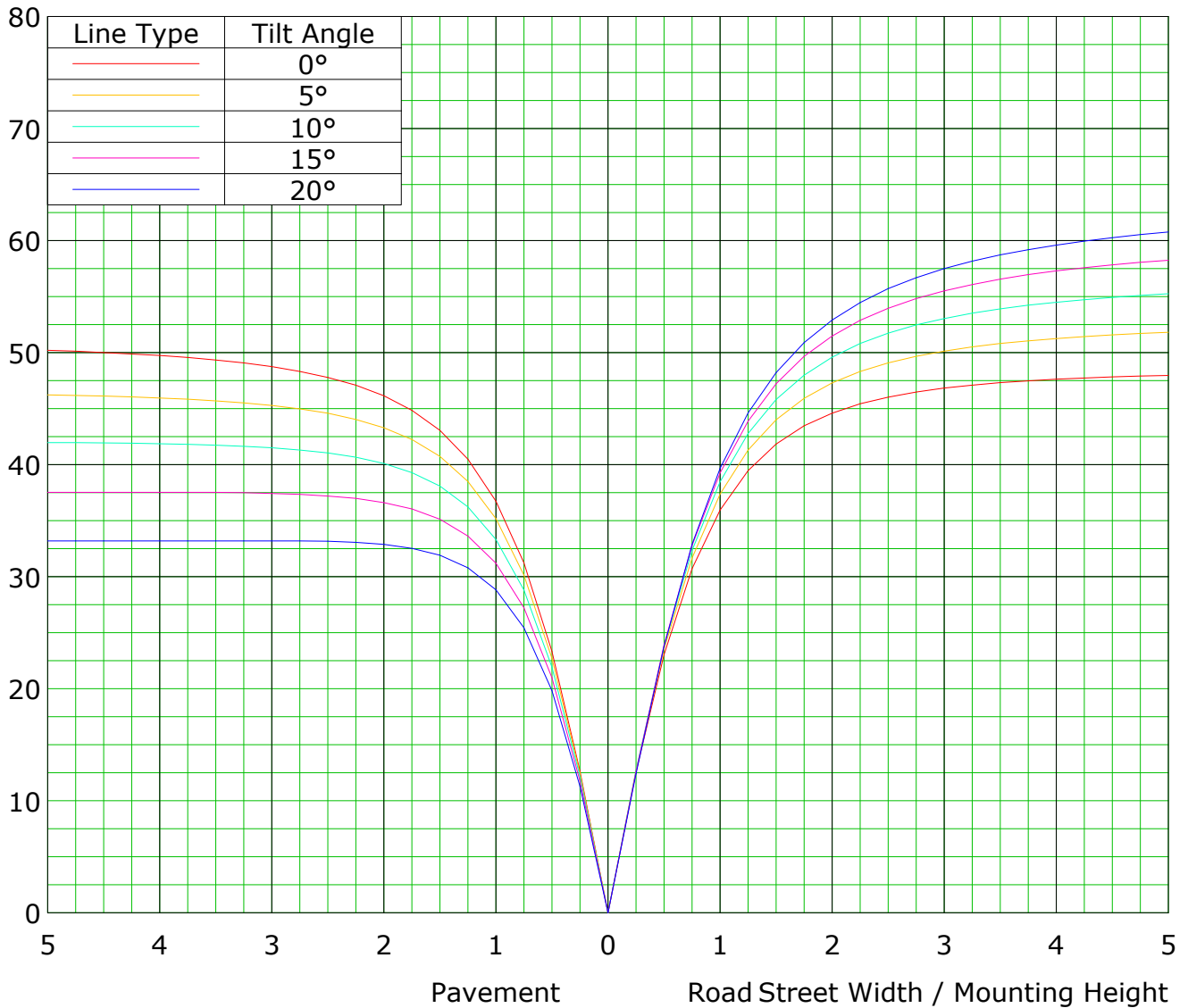
|                |                |
|----------------|----------------|
| ( 1%): 0.0 lx  | ( 2%): 0.1 lx  |
| ( 5%): 0.2 lx  | ( 10%): 0.5 lx |
| ( 20%): 1.0 lx | ( 50%): 2.4 lx |
| (100%): 4.8 lx |                |

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Roadway CU Curve

Efficiency(%)



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

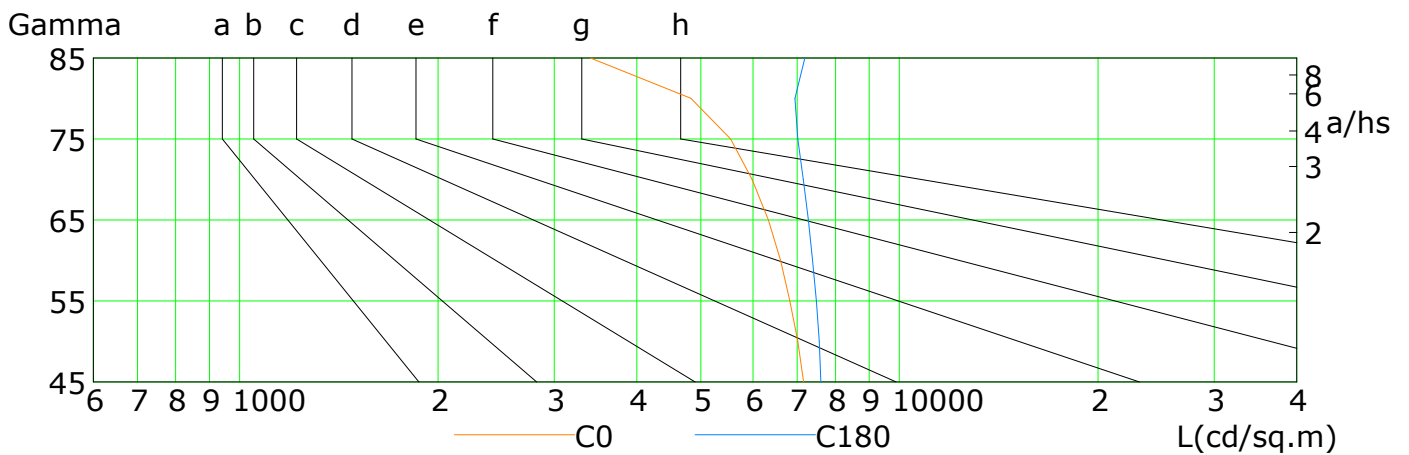
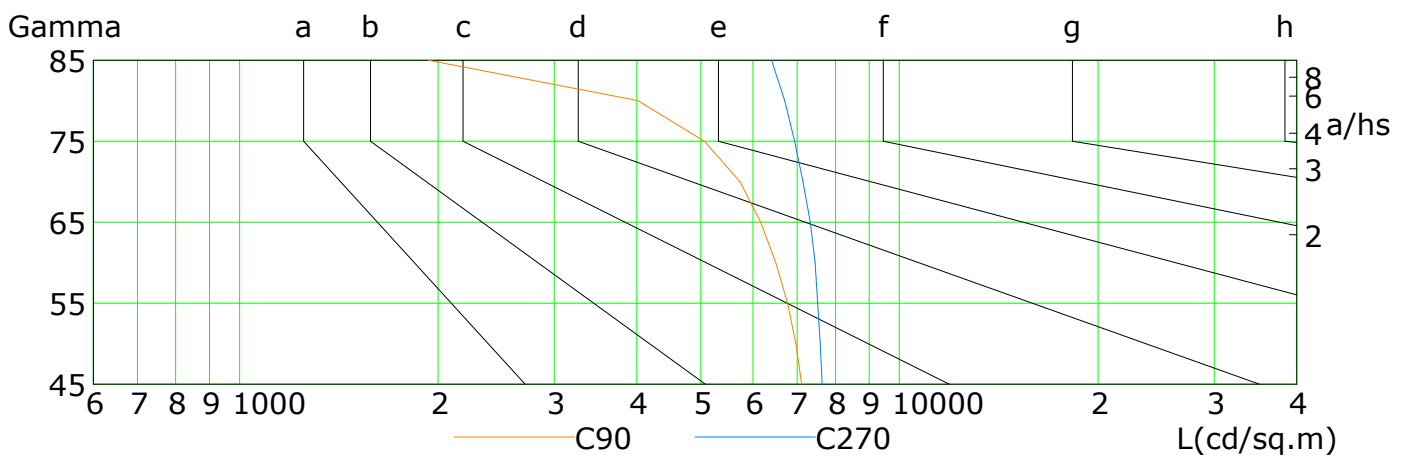
Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:



## 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         | 7156 | 7015 | 6820 | 6605 | 6332 | 5980 | 5550 | 4832 | 3404 |
| C90        | 7109 | 6967 | 6767 | 6493 | 6160 | 5728 | 5062 | 4015 | 1933 |
| C180       | 7606 | 7557 | 7488 | 7385 | 7278 | 7147 | 7018 | 6946 | 7187 |
| C270       | 7641 | 7588 | 7517 | 7448 | 7325 | 7141 | 6935 | 6699 | 6401 |

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:5.0

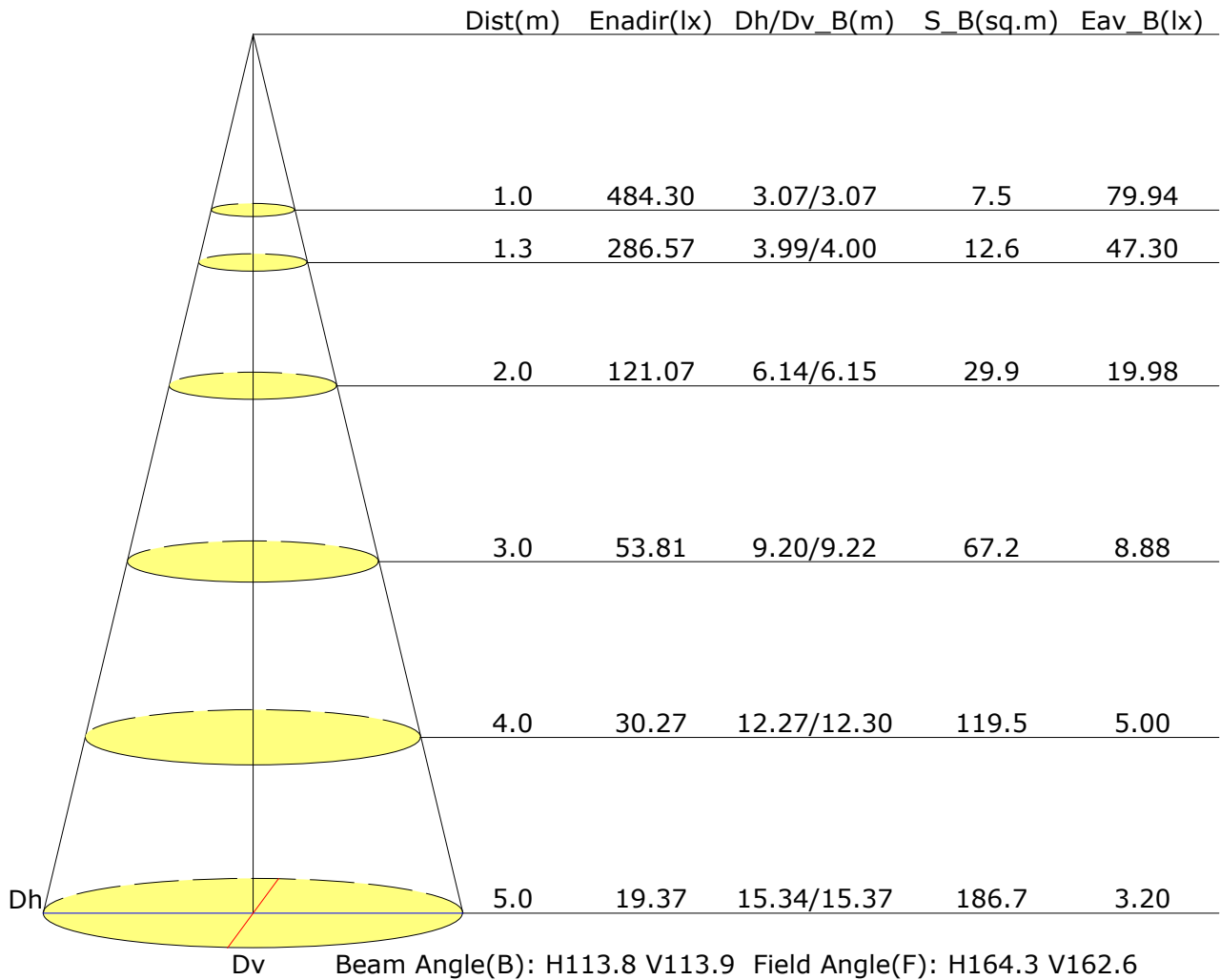
Test Device: GPM-1600L

Distance: 7.172 m [K=1.0000]

Humidity:

Inspector:

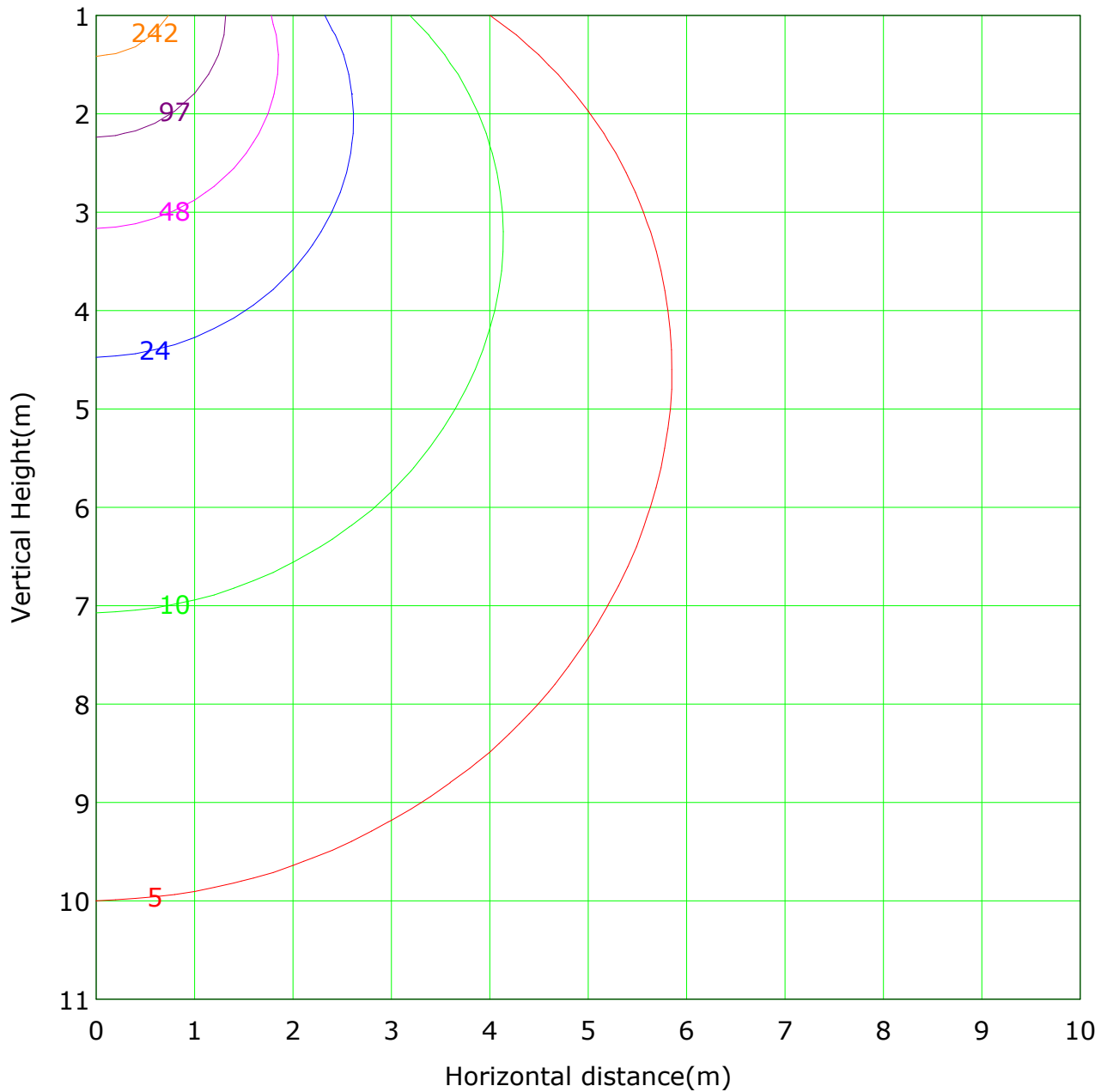
## Illuminance at a Distance



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 484.3 lx

|                    |                    |
|--------------------|--------------------|
| — ( 1%): 4.8 lx    | — ( 2%): 9.7 lx    |
| — ( 5%): 24.2 lx   | — ( 10%): 48.4 lx  |
| — ( 20%): 96.9 lx  | — ( 50%): 242.1 lx |
| — (100%): 484.3 lx |                    |

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## Area Flux Table

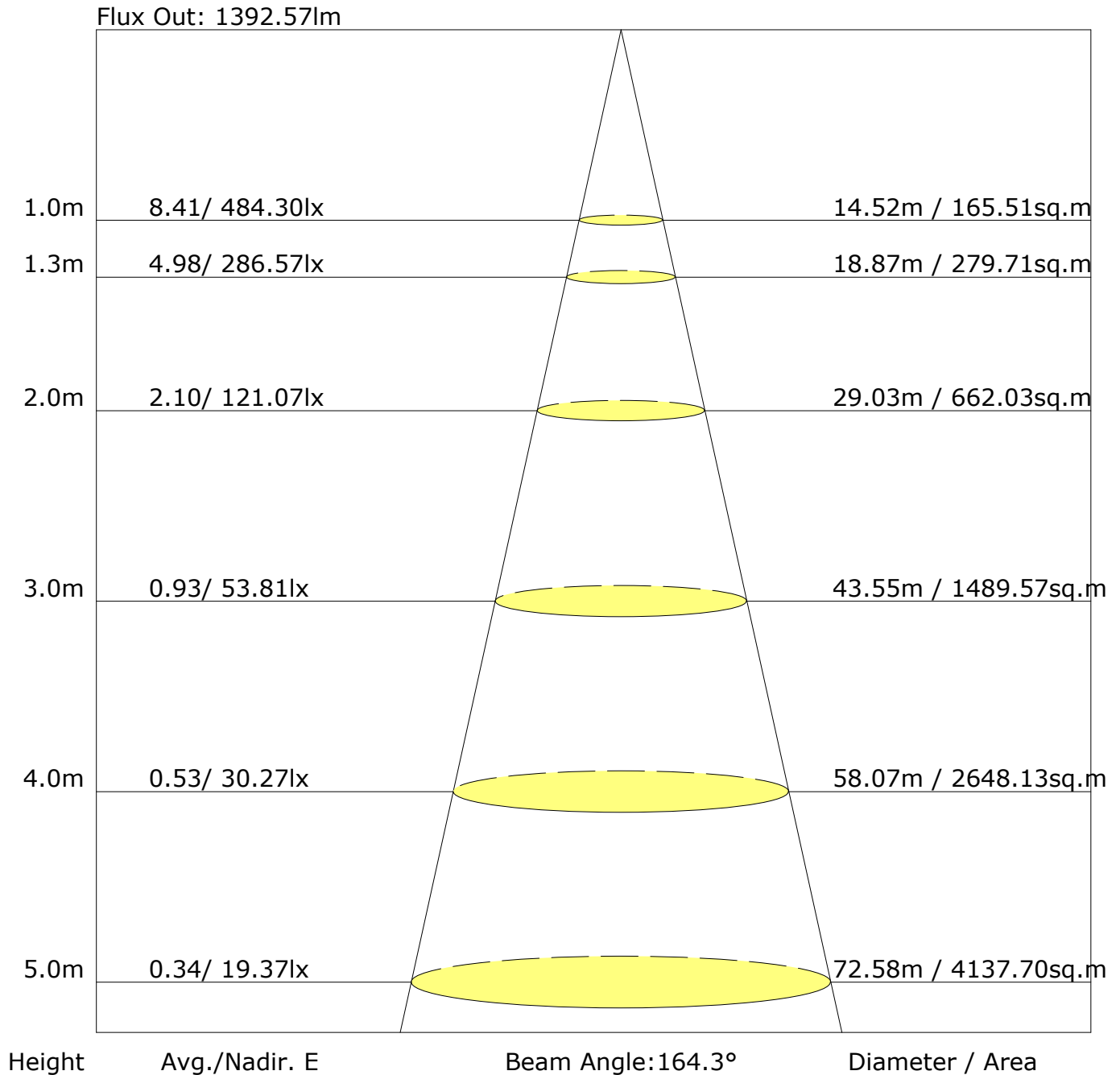
Unit: lm/klm

|                |         | Orbit: m/s/km    |     |      |      |      |      |      |       |       |       |       |      |      |      |      |      |     |     |      |         |         |
|----------------|---------|------------------|-----|------|------|------|------|------|-------|-------|-------|-------|------|------|------|------|------|-----|-----|------|---------|---------|
|                |         | -90              | -80 | -70  | -60  | -50  | -40  | -30  | -20   | -10   | 0     | 10    | 20   | 30   | 40   | 50   | 60   | 70  | 80  | 90   |         |         |
| Vertical plane | -90     | 0.0              | 0.1 | 0.2  | 0.3  | 0.4  | 0.6  | 0.7  | 0.7   | 0.8   | 0.8   | 0.7   | 0.6  | 0.4  | 0.3  | 0.2  | 0.1  | 0.0 | 0.0 | 6.9  | 2.2     |         |
|                | -80     | 0.0              | 0.2 | 0.4  | 0.8  | 1.2  | 1.6  | 2.0  | 2.3   | 2.4   | 2.4   | 2.2   | 1.8  | 1.4  | 1.0  | 0.6  | 0.3  | 0.1 | 0.0 | 20.8 | 19.6    |         |
|                | -70     | 0.0              | 0.3 | 0.7  | 1.3  | 2.0  | 2.7  | 3.4  | 3.9   | 4.1   | 4.1   | 3.8   | 3.2  | 2.5  | 1.8  | 1.1  | 0.6  | 0.2 | 0.0 | 35.8 | 35.4    |         |
|                | -60     | 0.1              | 0.4 | 1.0  | 1.8  | 2.8  | 3.8  | 4.7  | 5.4   | 5.7   | 5.7   | 5.3   | 4.6  | 3.6  | 2.6  | 1.6  | 0.8  | 0.3 | 0.0 | 50.2 | 50.0    |         |
|                | -50     | 0.1              | 0.5 | 1.2  | 2.3  | 3.5  | 4.8  | 5.9  | 6.7   | 7.2   | 7.2   | 6.6   | 5.7  | 4.6  | 3.3  | 2.1  | 1.0  | 0.3 | 0.0 | 63.1 | 63.0    |         |
|                | -40     | 0.1              | 0.5 | 1.4  | 2.7  | 4.1  | 5.6  | 6.9  | 7.9   | 8.4   | 8.4   | 7.8   | 6.8  | 5.4  | 3.9  | 2.4  | 1.2  | 0.4 | 0.0 | 74.0 | 73.9    |         |
|                | -30     | 0.1              | 0.6 | 1.6  | 3.0  | 4.6  | 6.2  | 7.7  | 8.8   | 9.3   | 9.3   | 8.7   | 7.5  | 6.0  | 4.4  | 2.7  | 1.4  | 0.5 | 0.1 | 82.5 | 82.4    |         |
|                | -20     | 0.1              | 0.6 | 1.7  | 3.2  | 4.9  | 6.7  | 8.2  | 9.4   | 10.0  | 9.9   | 9.3   | 8.1  | 6.5  | 4.7  | 2.9  | 1.5  | 0.5 | 0.1 | 88.3 | 88.2    |         |
|                | -10     | 0.1              | 0.7 | 1.8  | 3.3  | 5.1  | 6.9  | 8.5  | 9.7   | 10.3  | 10.3  | 9.6   | 8.3  | 6.6  | 4.8  | 3.0  | 1.5  | 0.5 | 0.1 | 91.1 | 91.0    |         |
|                | 0       | 0.1              | 0.7 | 1.8  | 3.3  | 5.1  | 6.9  | 8.5  | 9.7   | 10.3  | 10.2  | 9.5   | 8.3  | 6.6  | 4.8  | 3.0  | 1.5  | 0.5 | 0.1 | 90.7 | 90.7    |         |
|                | 10      | 0.1              | 0.6 | 1.7  | 3.2  | 4.9  | 6.6  | 8.1  | 9.3   | 9.8   | 9.8   | 9.2   | 8.0  | 6.4  | 4.6  | 2.9  | 1.5  | 0.5 | 0.1 | 87.2 | 87.1    |         |
|                | 20      | 0.1              | 0.6 | 1.6  | 2.9  | 4.5  | 6.1  | 7.5  | 8.6   | 9.1   | 9.1   | 8.5   | 7.4  | 5.9  | 4.3  | 2.7  | 1.4  | 0.5 | 0.1 | 80.6 | 80.5    |         |
|                | 30      | 0.1              | 0.5 | 1.4  | 2.6  | 4.0  | 5.4  | 6.7  | 7.6   | 8.0   | 8.0   | 7.5   | 6.5  | 5.2  | 3.8  | 2.4  | 1.2  | 0.4 | 0.0 | 71.3 | 71.2    |         |
|                | 40      | 0.1              | 0.4 | 1.2  | 2.2  | 3.4  | 4.5  | 5.6  | 6.4   | 6.7   | 6.7   | 6.3   | 5.4  | 4.3  | 3.1  | 2.0  | 1.0  | 0.3 | 0.0 | 59.6 | 59.4    |         |
|                | 50      | 0.1              | 0.3 | 0.9  | 1.7  | 2.6  | 3.5  | 4.3  | 4.9   | 5.2   | 5.2   | 4.8   | 4.2  | 3.3  | 2.4  | 1.5  | 0.7  | 0.2 | 0.0 | 46.0 | 45.7    |         |
|                | 60      | 0.0              | 0.3 | 0.6  | 1.2  | 1.8  | 2.4  | 3.0  | 3.3   | 3.5   | 3.5   | 3.2   | 2.8  | 2.2  | 1.6  | 1.0  | 0.5  | 0.2 | 0.0 | 31.2 | 30.7    |         |
|                | 70      | 0.0              | 0.2 | 0.4  | 0.7  | 1.0  | 1.3  | 1.6  | 1.7   | 1.8   | 1.8   | 1.7   | 1.4  | 1.1  | 0.8  | 0.5  | 0.2  | 0.1 | 0.0 | 16.2 | 13.9    |         |
|                | 80      | 0.0              | 0.1 | 0.1  | 0.2  | 0.3  | 0.4  | 0.4  | 0.4   | 0.4   | 0.4   | 0.3   | 0.3  | 0.2  | 0.2  | 0.1  | 0.1  | 0.0 | 0.0 | 3.9  | 0.0     |         |
|                | 90      | 1.2              | 7.4 | 19.6 | 36.6 | 56.3 | 76.2 | 93.7 | 106.6 | 113.1 | 112.5 | 104.8 | 90.9 | 72.6 | 52.3 | 32.8 | 16.5 | 5.5 | 0.6 | 999  |         |         |
|                | Flux(T) | 0.5              | 6.6 | 18.8 | 35.8 | 55.5 | 75.3 | 92.9 | 105.8 | 112.3 | 111.7 | 104.0 | 90.1 | 71.7 | 51.5 | 31.9 | 15.7 | 4.6 | 0.0 |      | 985     |         |
| Flux(E)        |         |                  |     |      |      |      |      |      |       |       |       |       |      |      |      |      |      |     |     |      |         |         |
|                |         | -90              | -80 | -70  | -60  | -50  | -40  | -30  | -20   | -10   | 0     | 10    | 20   | 30   | 40   | 50   | 60   | 70  | 80  | 90   | Flux(T) | Flux(E) |
|                |         | Horizontal plane |     |      |      |      |      |      |       |       |       |       |      |      |      |      |      |     |     |      |         |         |

Gamma Plane (°):0.0-90.0:5.0  
Test Device: GPM-1600L  
Distance: 7.172 m [K=1.0000]  
Humidity:  
Inspector:

C Plane (°):0.0-360.0: 90.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

## The Average Illuminance Effective Figure



C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:

## UGR Table

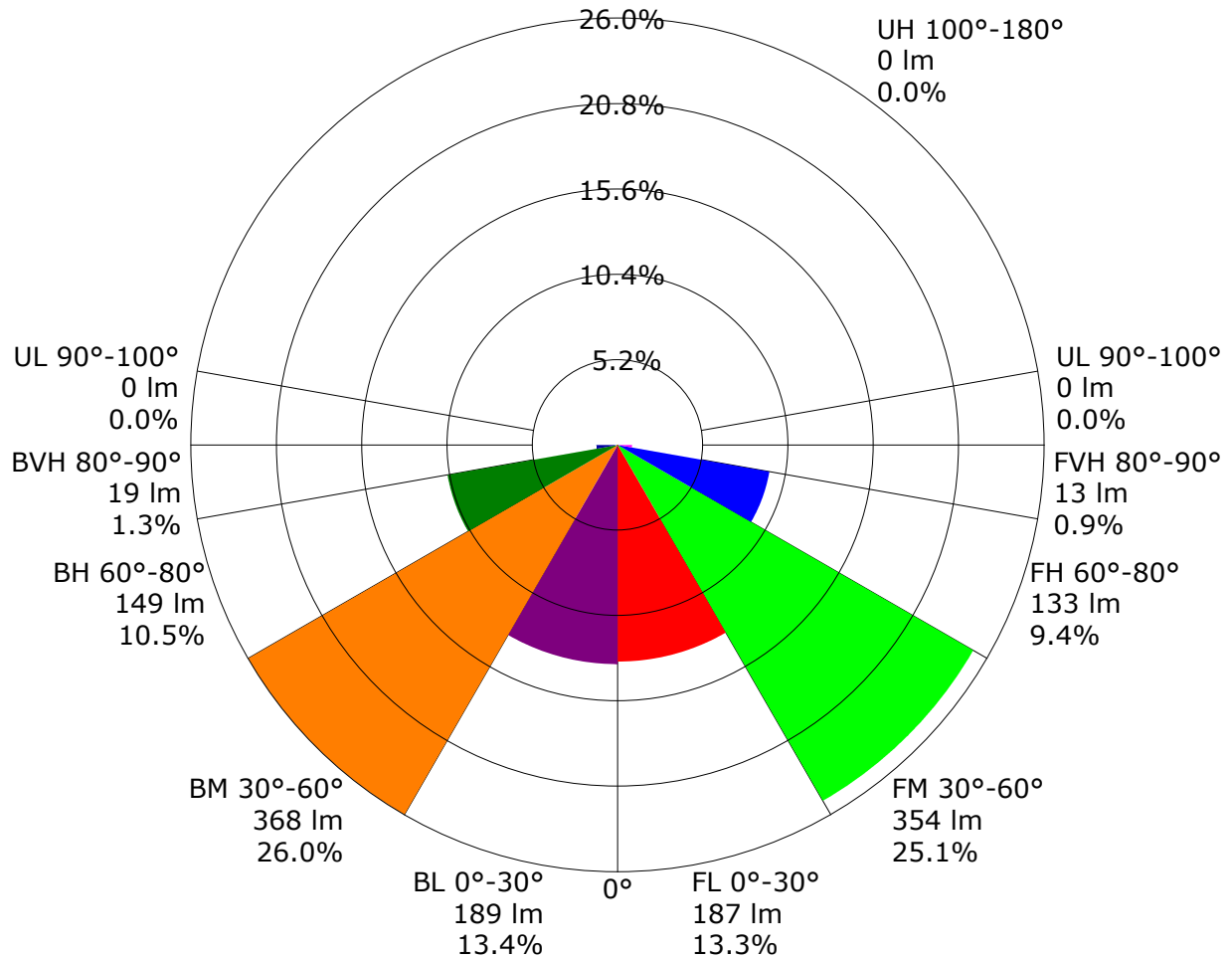
|  |                  |      |      |      |      |                |      |      |      |      |
|--|------------------|------|------|------|------|----------------|------|------|------|------|
| Reflectance:                                       |                  |      |      |      |      |                |      |      |      |      |
| 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  | 19.2             | 20.6 | 19.5 | 20.8 | 21.1 | 19.4           | 20.8 | 19.7 | 21.0 | 21.3 |
| 3H   | 20.7             | 22.0 | 21.1 | 22.3 | 22.6 | 21.0           | 22.3 | 21.3 | 22.6 | 22.8 |
| 4H   | 21.4             | 22.6 | 21.7 | 22.9 | 23.2 | 21.7           | 22.9 | 22.0 | 23.2 | 23.5 |
| 6H   | 21.8             | 22.9 | 22.2 | 23.2 | 23.6 | 22.2           | 23.3 | 22.5 | 23.6 | 23.9 |
| 8H   | 21.9             | 23.0 | 22.3 | 23.3 | 23.7 | 22.3           | 23.4 | 22.7 | 23.7 | 24.1 |
| 12H  | 22.0             | 23.0 | 22.4 | 23.4 | 23.7 | 22.4           | 23.5 | 22.8 | 23.8 | 24.2 |
| X=4H Y=2H  | 19.9             | 21.1 | 20.3 | 21.4 | 21.7 | 20.1           | 21.3 | 20.4 | 21.6 | 21.9 |
| 3H   | 21.6             | 22.7 | 22.0 | 23.0 | 23.4 | 21.9           | 22.9 | 22.2 | 23.2 | 23.6 |
| 4H   | 22.4             | 23.3 | 22.8 | 23.7 | 24.1 | 22.7           | 23.6 | 23.1 | 23.9 | 24.3 |
| 6H   | 22.9             | 23.8 | 23.4 | 24.2 | 24.6 | 23.3           | 24.1 | 23.7 | 24.5 | 24.9 |
| 8H   | 23.1             | 23.9 | 23.6 | 24.3 | 24.7 | 23.5           | 24.3 | 23.9 | 24.7 | 25.1 |
| 12H  | 23.2             | 23.9 | 23.7 | 24.3 | 24.8 | 23.6           | 24.3 | 24.1 | 24.8 | 25.2 |
| X=8H Y=4H  | 22.7             | 23.5 | 23.1 | 23.9 | 24.3 | 22.9           | 23.7 | 23.4 | 24.1 | 24.5 |
| 6H   | 23.4             | 24.0 | 23.9 | 24.5 | 24.9 | 23.7           | 24.3 | 24.2 | 24.8 | 25.2 |
| 8H   | 23.7             | 24.2 | 24.1 | 24.7 | 25.2 | 24.0           | 24.6 | 24.5 | 25.0 | 25.5 |
| 12H  | 23.8             | 24.3 | 24.3 | 24.8 | 25.3 | 24.2           | 24.7 | 24.7 | 25.2 | 25.7 |
| X=12H Y=4H   | 22.7             | 23.4 | 23.2 | 23.8 | 24.3 | 23.0           | 23.7 | 23.4 | 24.1 | 24.5 |
| 6H   | 23.5             | 24.0 | 24.0 | 24.5 | 25.0 | 23.8           | 24.3 | 24.3 | 24.8 | 25.3 |
| 8H   | 23.8             | 24.3 | 24.3 | 24.7 | 25.2 | 24.1           | 24.6 | 24.6 | 25.1 | 25.6 |
| Variations with the observer position at spacings: |                  |      |      |      |      |                |      |      |      |      |
| S=1.0H   | +0.2/-0.2        |      |      |      |      | +0.1/-0.1      |      |      |      |      |
| S=1.5H   | +0.3/-0.5        |      |      |      |      | +0.3/-0.3      |      |      |      |      |
| S=2.0H   | +0.5/-0.8        |      |      |      |      | +0.6/-0.8      |      |      |      |      |

Calculate in accordance with CIE Pub.117. The table is revised with  $1412\text{lm}$  ( $8\log(F/F_0) = 1.2$ ).

C Plane (°):0.0-360.0: 90.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:5.0  
Test Device: GPM-1600L  
Distance: 7.172 m [K=1.0000]  
Humidity:  
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  | 0.56           | 0.66 | 0.74 | 0.79 | 0.86 | 0.92 | 0.95 | 1.00 | 1.03 |  |
|   | 0.30 |       | 0.48           | 0.58 | 0.66 | 0.72 | 0.80 | 0.86 | 0.90 | 0.96 | 0.99 |  |
|   | 0.20 |       | 0.42           | 0.52 | 0.60 | 0.66 | 0.75 | 0.81 | 0.85 | 0.92 | 0.96 |  |
| 0.50  | 0.50 | 0.20  | 0.54           | 0.64 | 0.71 | 0.76 | 0.83 | 0.88 | 0.91 | 0.96 | 0.99 |  |
|   | 0.30 |       | 0.47           | 0.57 | 0.64 | 0.70 | 0.78 | 0.83 | 0.87 | 0.92 | 0.96 |  |
|   | 0.20 |       | 0.42           | 0.52 | 0.59 | 0.65 | 0.73 | 0.79 | 0.83 | 0.89 | 0.93 |  |
| 0.30  | 0.50 | 0.20  | 0.53           | 0.62 | 0.69 | 0.74 | 0.80 | 0.85 | 0.88 | 0.92 | 0.95 |  |
|   | 0.30 |       | 0.46           | 0.56 | 0.63 | 0.68 | 0.76 | 0.81 | 0.84 | 0.89 | 0.92 |  |
|   | 0.20 |       | 0.41           | 0.51 | 0.59 | 0.64 | 0.72 | 0.77 | 0.81 | 0.87 | 0.90 |  |
| 0.00  | 0.00 | 0.00  | 0.39           | 0.49 | 0.56 | 0.61 | 0.68 | 0.74 | 0.77 | 0.82 | 0.85 |  |
| Rating:14W Photometrically tested without ceiling board.<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |  |

C Plane (°):0.0-360.0: 90.0  
 Test Lab:  
 Test Type: TYPE C  
 Temperature:  
 Operator:

Gamma Plane (°):0.0-90.0:5.0  
 Test Device: GPM-1600L  
 Distance: 7.172 m [K=1.0000]  
 Humidity:  
 Inspector:



## 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  | 1.01           | 0.84 | 0.71 | 0.62 | 0.50 | 0.41 | 0.35 | 0.28 | 0.22 |  |
|  | 0.30 |       | 0.84           | 0.72 | 0.62 | 0.55 | 0.45 | 0.38 | 0.33 | 0.26 | 0.21 |  |
|  | 0.20 |       | 0.72           | 0.63 | 0.55 | 0.49 | 0.41 | 0.35 | 0.31 | 0.24 | 0.20 |  |
| 0.50   | 0.50 | 0.20  | 0.98           | 0.80 | 0.69 | 0.60 | 0.48 | 0.43 | 0.34 | 0.26 | 0.21 |  |
|  | 0.30 |       | 0.83           | 0.70 | 0.61 | 0.54 | 0.44 | 0.37 | 0.32 | 0.25 | 0.21 |  |
|  | 0.20 |       | 0.72           | 0.62 | 0.54 | 0.48 | 0.40 | 0.34 | 0.30 | 0.24 | 0.20 |  |
| 0.30   | 0.50 | 0.20  | 0.95           | 0.77 | 0.66 | 0.57 | 0.46 | 0.38 | 0.32 | 0.25 | 0.21 |  |
|  | 0.30 |       | 0.81           | 0.68 | 0.59 | 0.52 | 0.42 | 0.35 | 0.30 | 0.24 | 0.20 |  |
|  | 0.20 |       | 0.71           | 0.61 | 0.53 | 0.48 | 0.39 | 0.33 | 0.29 | 0.23 | 0.19 |  |
| 0.00   | 0.00 | 0.00  | 0.61           | 0.51 | 0.44 | 0.39 | 0.32 | 0.27 | 0.23 | 0.18 | 0.15 |  |
| <p>Rating:14W 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> |      |       |                |      |      |      |      |      |      |      |      |  |

## 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  | 0.16           | 0.18 | 0.19 | 0.19 | 0.20 | 0.21 | 0.21 | 0.22 | 0.22 |  |
|   | 0.30 |       | 0.09           | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |  |
|   | 0.20 |       | 0.05           | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 |  |
| 0.50  | 0.50 | 0.20  | 0.16           | 0.17 | 0.18 | 0.18 | 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 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 |  |
| 0.30  | 0.50 | 0.20  | 0.15           | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.19 | 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   |  |
| Rating:14W Photometrically tested without ceiling board.<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |  |

## Zonal Lumen

[illegible]

C Plane (°):0.0-360.0: 90.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:5.0  
Test Device: GPM-1600L  
Distance: 7.172 m [K=1.0000]  
Humidity:  
Inspector:

## Zonal Lumen (Continue 1)

cone flux(90°): 744.07 lm

%lum = 52.7%  
%lamp = 52.7%

cone flux(120°): 1098.06 lm

%lum = 77.8%  
%lamp = 77.8%

## Unit: cd/klm

C Plane (°):0.0-360.0: 90.0  
Test Lab:  
Test Type: TYPE C  
Temperature:  
Operator:

Gamma Plane (°):0.0-90.0:5.0  
Test Device: GPM-1600L  
Distance: 7.172 m [K=1.0000]  
Humidity:  
Inspector:

## LED Average Luminance Report

| Avg.L           | cd/m <sup>2</sup> |
|-----------------|-------------------|
| L 0-180(65) av  | 6805.01           |
| L 0-180(75) av  | 6284.24           |
| L 0-180(85) av  | 5295.35           |
| L 90-270(65) av | 6742.35           |
| L 90-270(75) av | 5998.63           |
| L 90-270(85) av | 4167.25           |
| L 45(65) av     | 6773.68           |
| L 45(75) av     | 6141.43           |
| L 45(85) av     | 4731.30           |

Standard: GB/T 29293-2012