

Report No.:

Test Time: 2023-10-20 13:44

## Luminaire Property

Luminaire Manufacturer:

Luminaire Category:

Lamp Catalog: 3000K

Number of Lamps:

Luminous Length (mm): 85

Luminous Height (mm):

Current: 0.0210 A

Power Factor: 0.8140

Luminaire Description: ADLT90DPB

Lamp Description:

Lumens per Lamp:

Luminous Width (mm): 85

Voltage: 230.69 V

Power: 4.00 W

## Photometric Results

CIE Class: Direct

Measurement Flux: 422.1 lm

Downward Ratio: 100%

Horizontal Diffuse Angle(50%): H67.4

Vertical Diffuse Angle(50%): V67.5

Luminous Efficacy (lm/w): 105.52

Max. Intensity: 332.4 cd

S/MH(C0/C180): 0.97

Total Rated Lamp Lumens: 422.1 lm

Efficiency: 100%

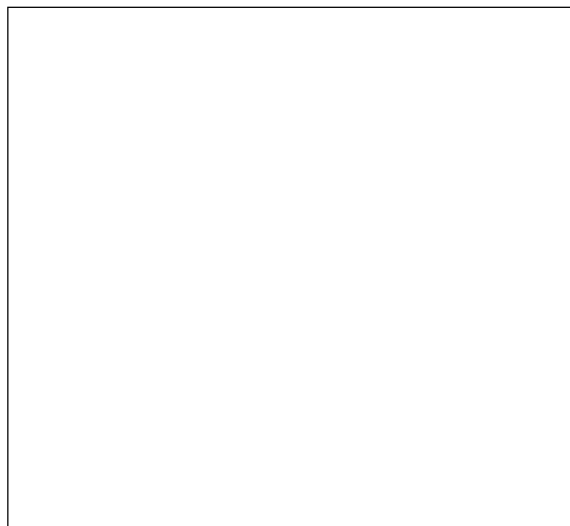
Upward Ratio: 0%

C0r0 Intensity: 332.39 cd

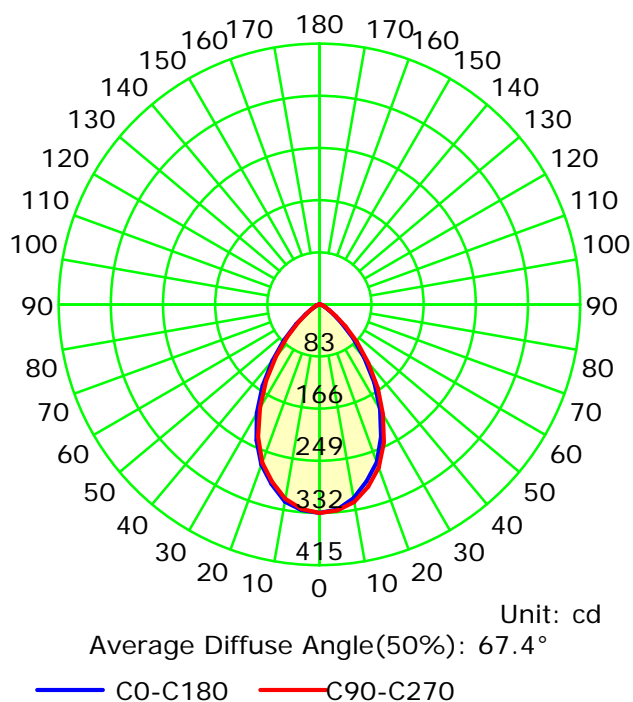
Pos of Max. Intensity: H0 V0

S/MH(C90/C270): 0.98

Picture Of Luminaire



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

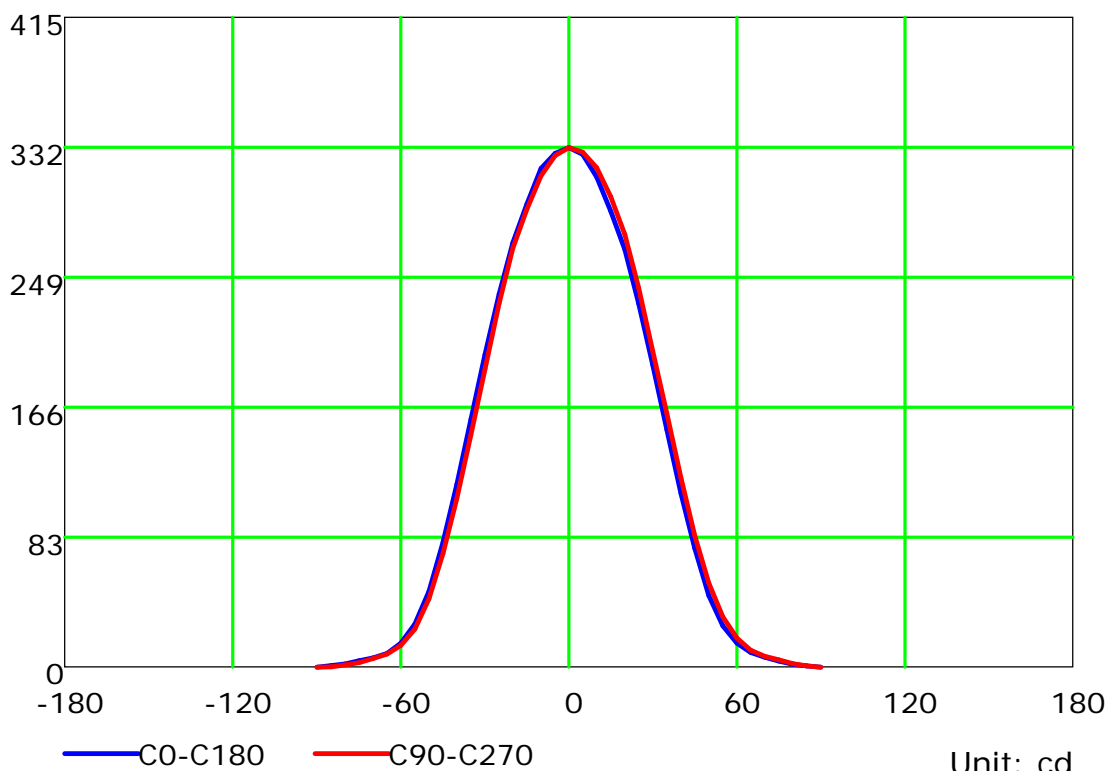
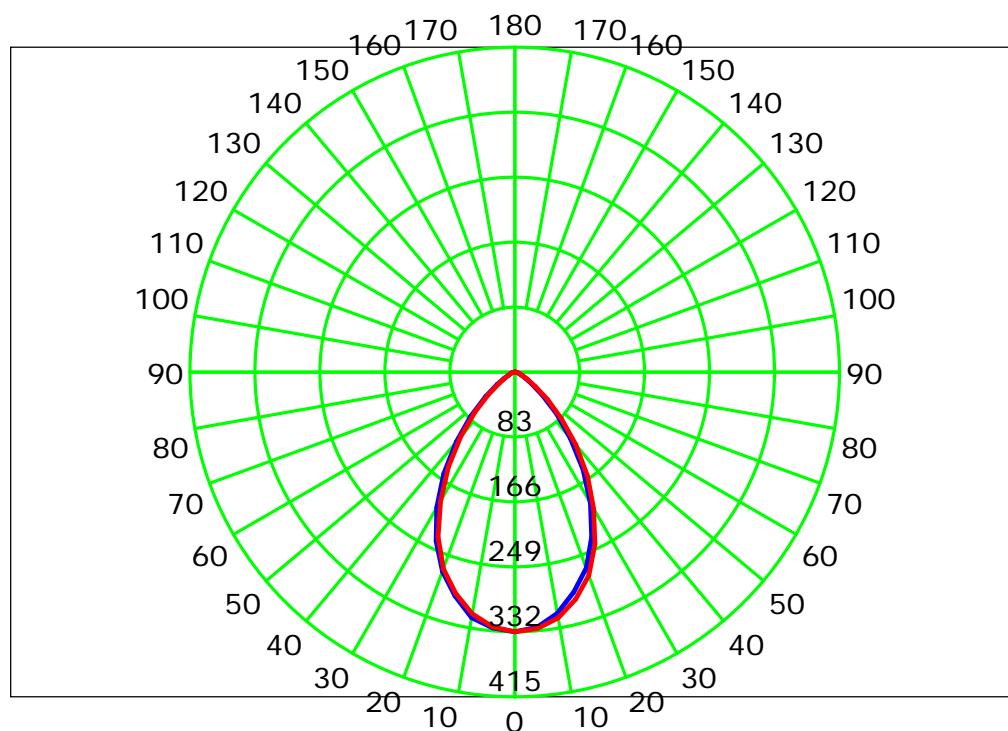
Test Device: GPM-1600L

Distance: 7.305 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: 7.305 m [K=1.0000]  
 Humidity:  
 Inspector:

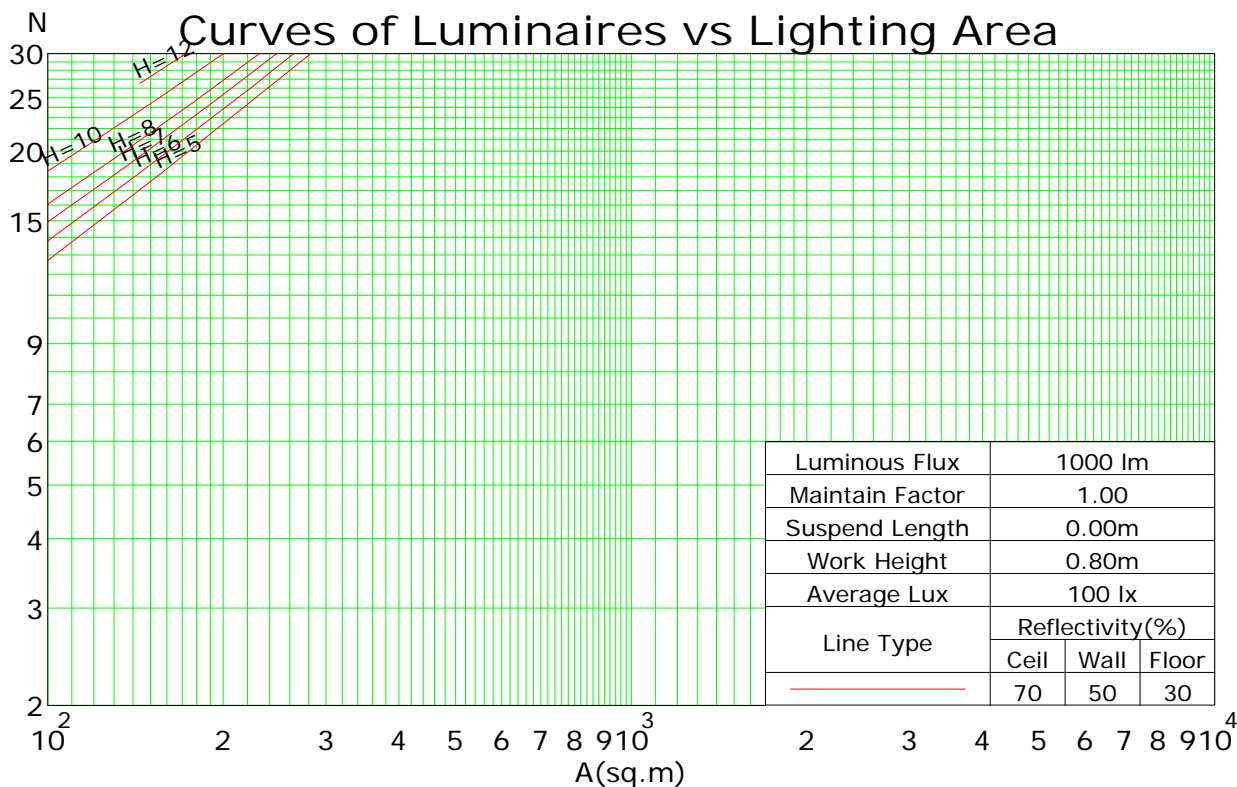
## Coefficients Of Utilization - Zonal Cavity Method

|     |          |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|-----|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 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   | 1.12     | 1.09 | 1.06 | 1.03 | 1.10 | 1.07 | 1.04 | 1.02 | 1.03 | 1.01 | 0.99 | 0.99 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.91 |
| 2   | 1.05     | 1.00 | 0.95 | 0.91 | 1.03 | 0.98 | 0.93 | 0.90 | 0.94 | 0.91 | 0.88 | 0.91 | 0.88 | 0.86 | 0.89 | 0.86 | 0.84 | 0.82 |
| 3   | 0.99     | 0.91 | 0.85 | 0.80 | 0.97 | 0.90 | 0.84 | 0.80 | 0.87 | 0.82 | 0.78 | 0.84 | 0.80 | 0.77 | 0.82 | 0.79 | 0.76 | 0.74 |
| 4   | 0.93     | 0.84 | 0.77 | 0.72 | 0.91 | 0.82 | 0.76 | 0.72 | 0.80 | 0.75 | 0.71 | 0.78 | 0.74 | 0.70 | 0.76 | 0.72 | 0.69 | 0.67 |
| 5   | 0.87     | 0.77 | 0.70 | 0.65 | 0.85 | 0.76 | 0.70 | 0.65 | 0.74 | 0.68 | 0.64 | 0.72 | 0.67 | 0.64 | 0.71 | 0.66 | 0.63 | 0.61 |
| 6   | 0.82     | 0.71 | 0.64 | 0.59 | 0.80 | 0.70 | 0.64 | 0.59 | 0.69 | 0.63 | 0.58 | 0.67 | 0.62 | 0.58 | 0.66 | 0.61 | 0.58 | 0.56 |
| 7   | 0.77     | 0.66 | 0.59 | 0.54 | 0.75 | 0.65 | 0.59 | 0.54 | 0.64 | 0.58 | 0.54 | 0.63 | 0.57 | 0.53 | 0.61 | 0.57 | 0.53 | 0.51 |
| 8   | 0.72     | 0.61 | 0.55 | 0.50 | 0.71 | 0.61 | 0.54 | 0.50 | 0.60 | 0.54 | 0.49 | 0.59 | 0.53 | 0.49 | 0.57 | 0.53 | 0.49 | 0.47 |
| 9   | 0.68     | 0.57 | 0.51 | 0.46 | 0.67 | 0.57 | 0.50 | 0.46 | 0.56 | 0.50 | 0.46 | 0.55 | 0.49 | 0.46 | 0.54 | 0.49 | 0.45 | 0.44 |
| 10  | 0.65     | 0.54 | 0.47 | 0.43 | 0.64 | 0.53 | 0.47 | 0.43 | 0.52 | 0.46 | 0.42 | 0.51 | 0.46 | 0.42 | 0.51 | 0.46 | 0.42 | 0.41 |

Spacing Criteria (0-180): 0.97

Spacing Criteria (90-270): 0.98

Spacing Criteria (Diagonal): 1.00



C Plane (°): 0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°): 0.0-90.0: 5.0

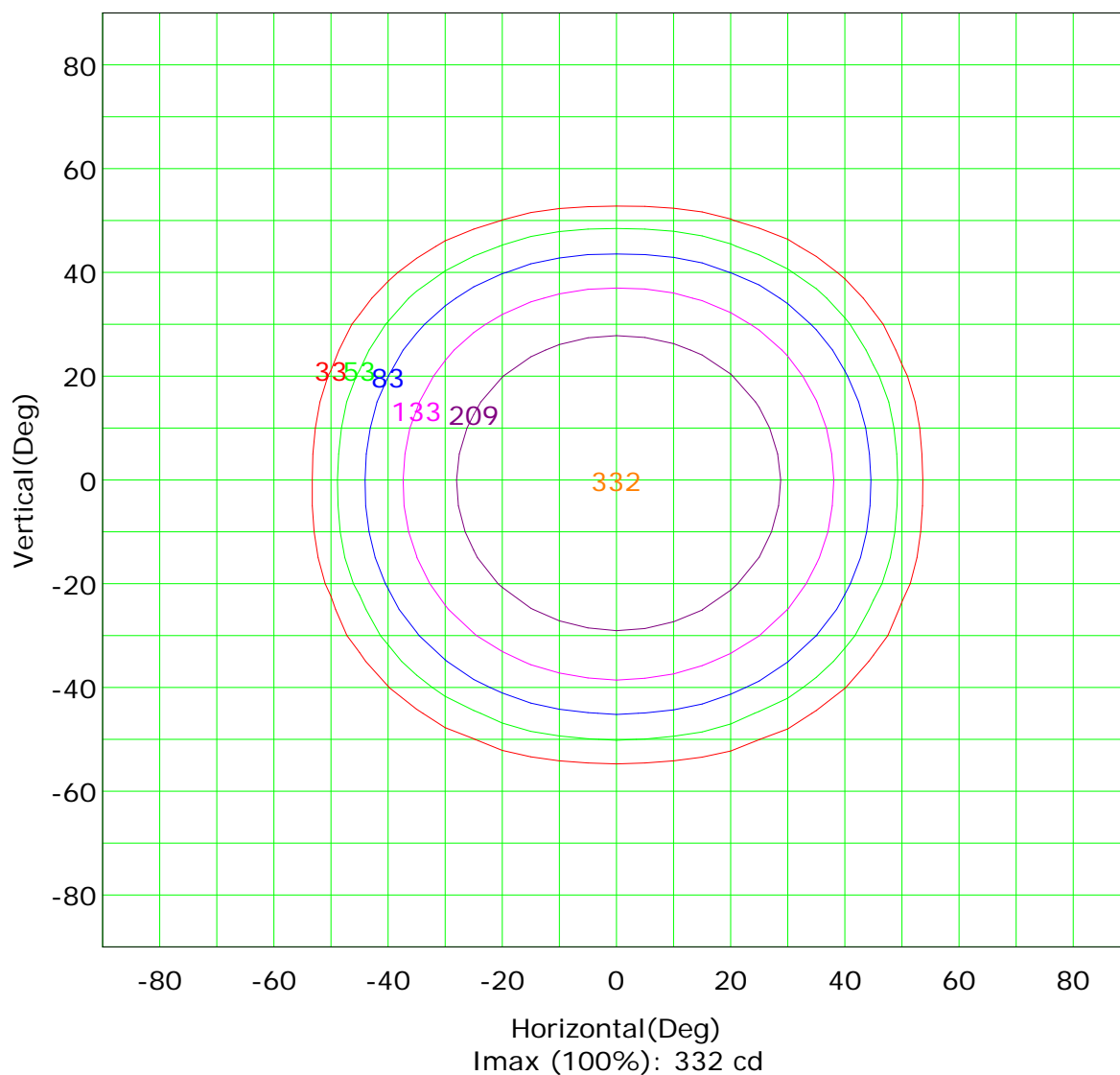
Test Device: GPM-1600L

Distance: 7.305 m [K=1.0000]

Humidity:

Inspector:

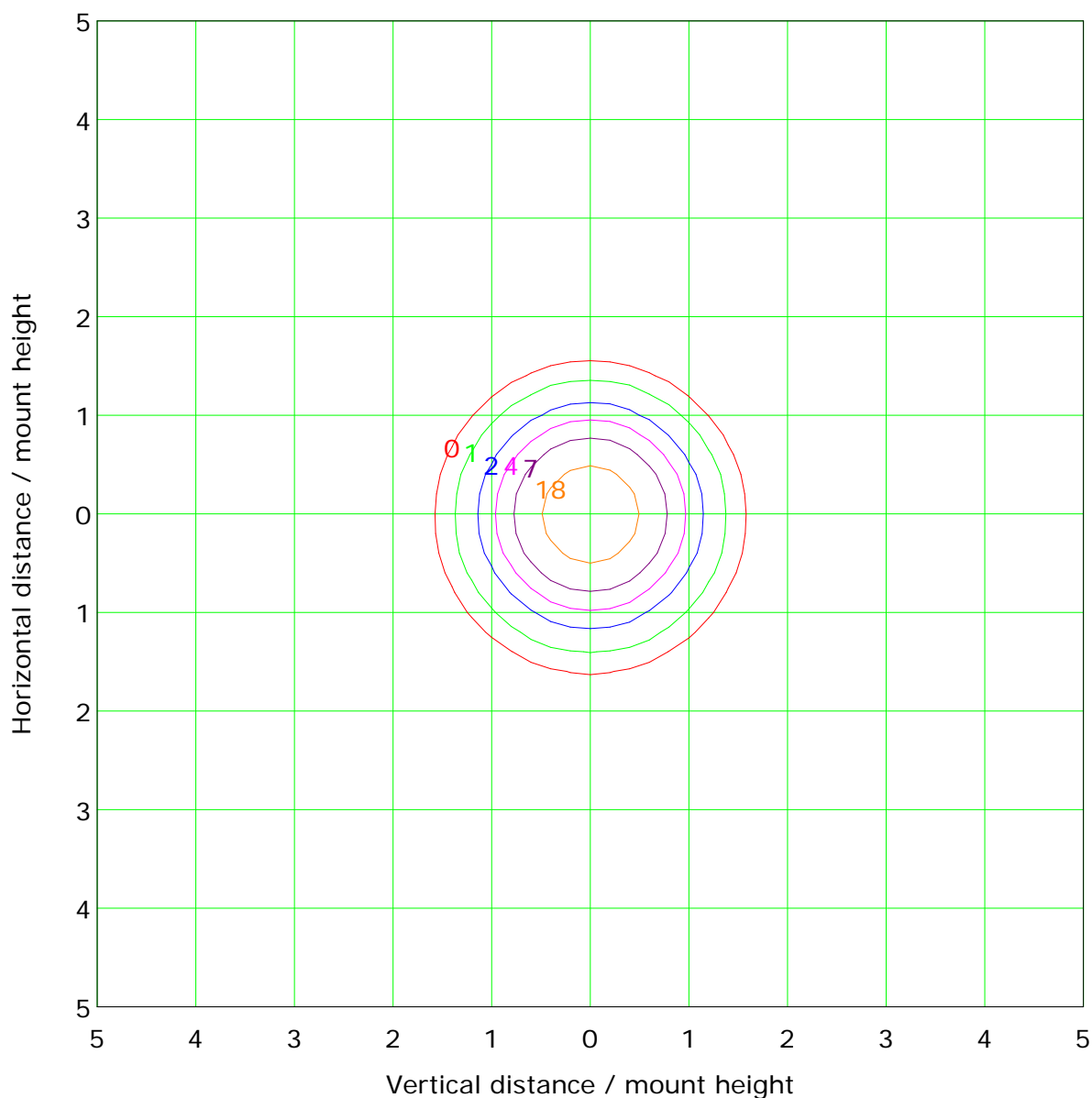
## Isocandela (rectangle)



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: 7.305 m [K=1.0000]  
 Humidity:  
 Inspector:

## IsoLux Plot



Mounting Height: 3.0m    Max Lux(100%): 36.9 lx

|                 |                |
|-----------------|----------------|
| ( 1%): 0.4 lx   | ( 2%): 0.7 lx  |
| ( 5%): 1.8 lx   | (10%): 3.7 lx  |
| (20%): 7.4 lx   | (50%): 18.5 lx |
| (100%): 36.9 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: 7.305 m [K=1.0000]

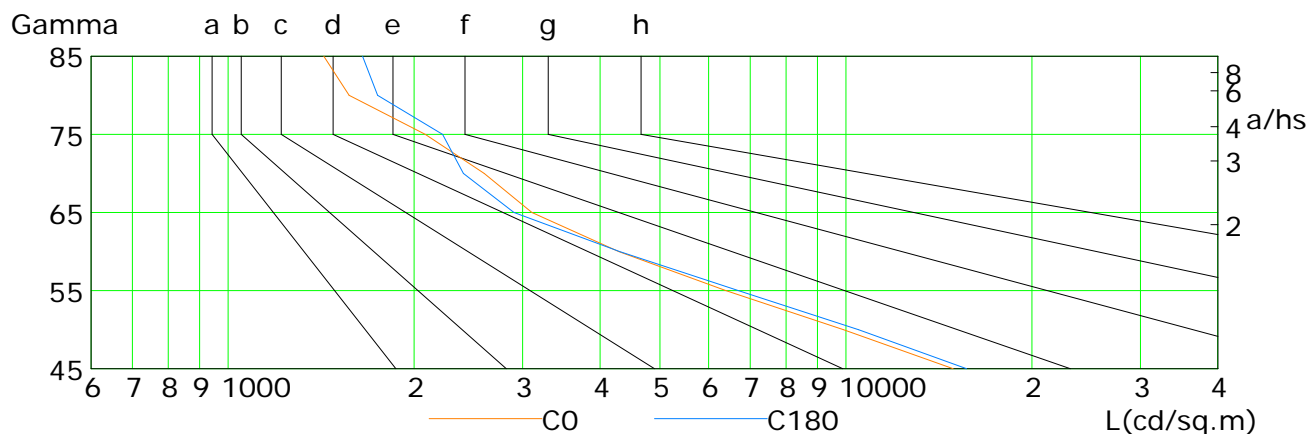
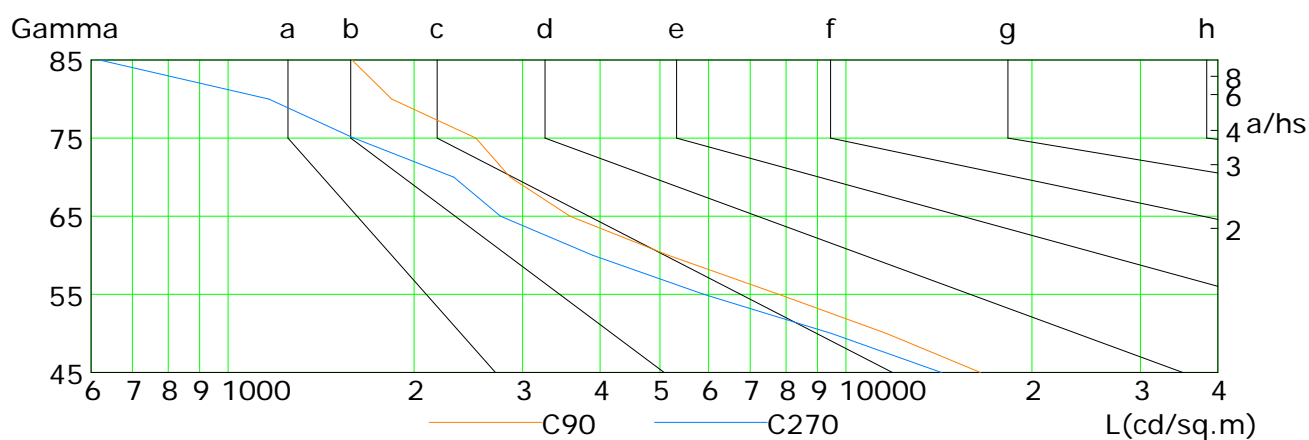
Humidity:

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         | 14929 | 9916  | 6397 | 4288 | 3105 | 2598 | 2086 | 1570 | 1429 |
| C90        | 16516 | 11630 | 7785 | 5163 | 3576 | 2861 | 2519 | 1841 | 1588 |
| C180       | 15683 | 10484 | 6704 | 4304 | 2902 | 2404 | 2225 | 1746 | 1652 |
| C270       | 14275 | 9466  | 5888 | 3895 | 2761 | 2319 | 1599 | 1164 | 619  |

C Plane (°):0.0-360.0: 90.0

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-90.0:5.0

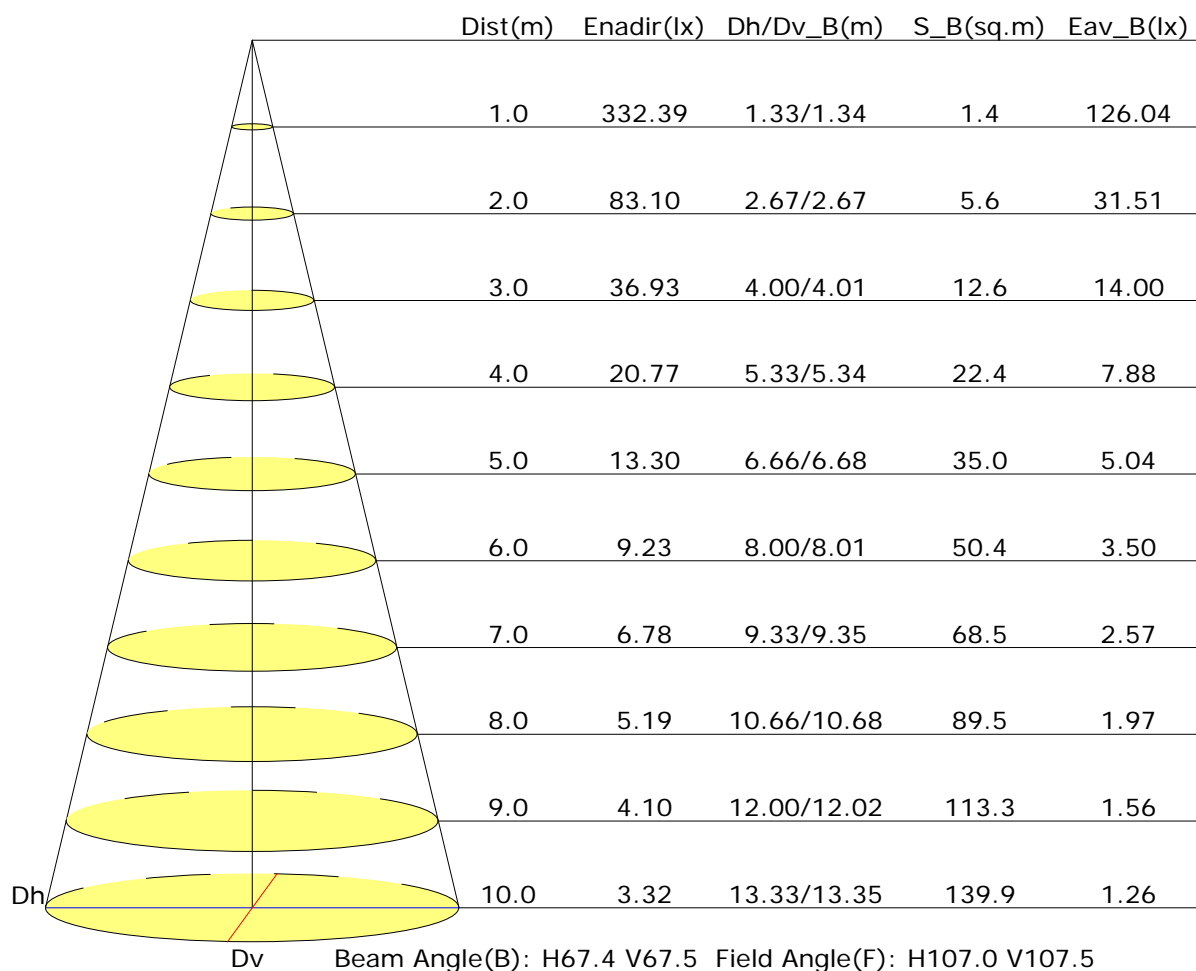
Test Device: GPM-1600L

Distance: 7.305 m [K=1.0000]

Humidity:

Inspector:

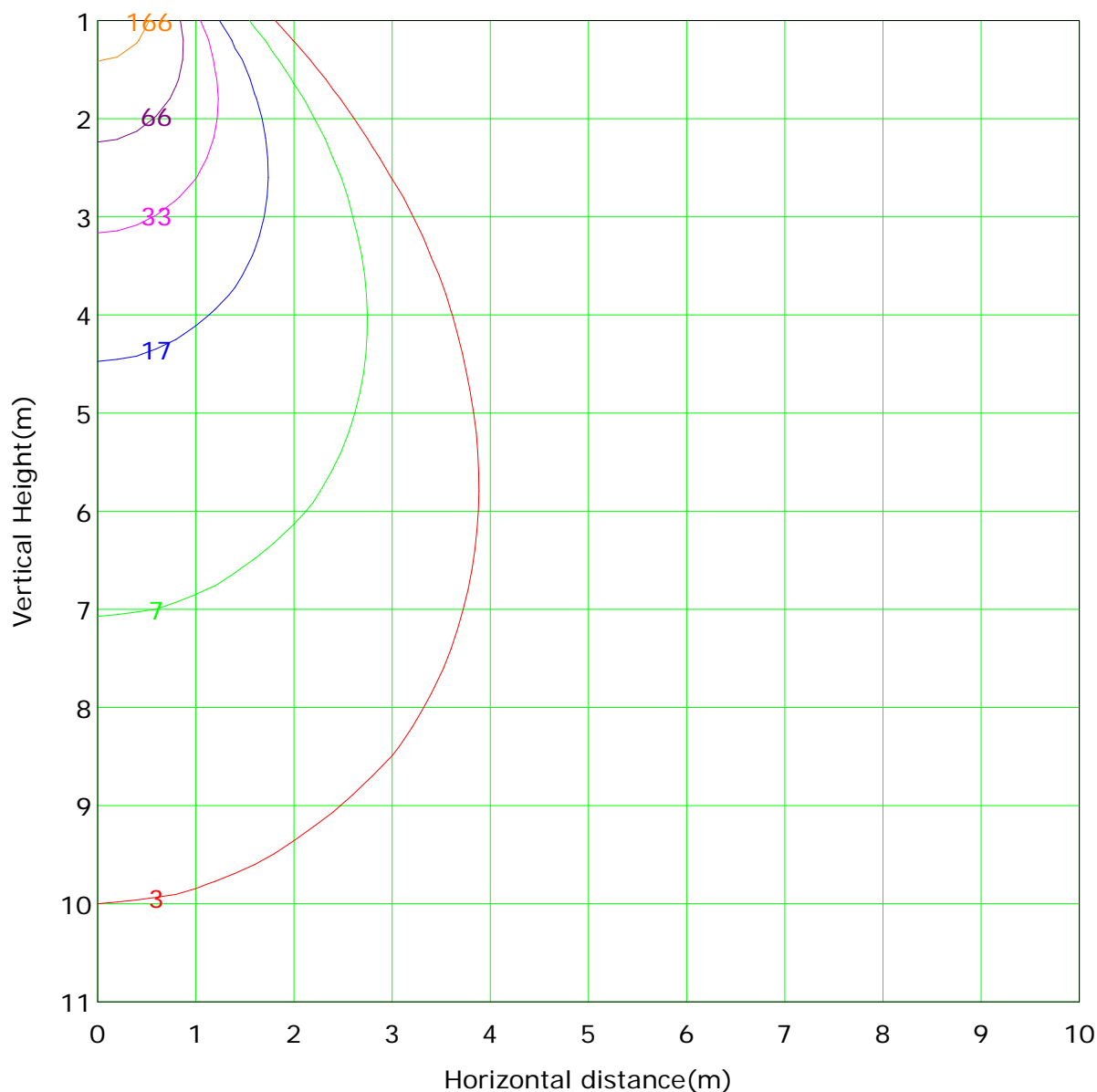
## Illuminance at a Distance



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: 7.305 m [K=1.0000]  
 Humidity:  
 Inspector:

## Vertical IsoLux Plot



Lowest(m): 1.0m    Highest(m): 11.0m    Max Lux: 332.4 lx

|                    |                   |
|--------------------|-------------------|
| — ( 1%): 3.3 lx    | — ( 2%): 6.6 lx   |
| — ( 5%): 16.6 lx   | — (10%): 33.2 lx  |
| — (20%): 66.5 lx   | — (50%): 166.2 lx |
| — (100%): 332.4 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: 7.305 m [K=1.0000]  
 Humidity:  
 Inspector:



## Area Flux Table

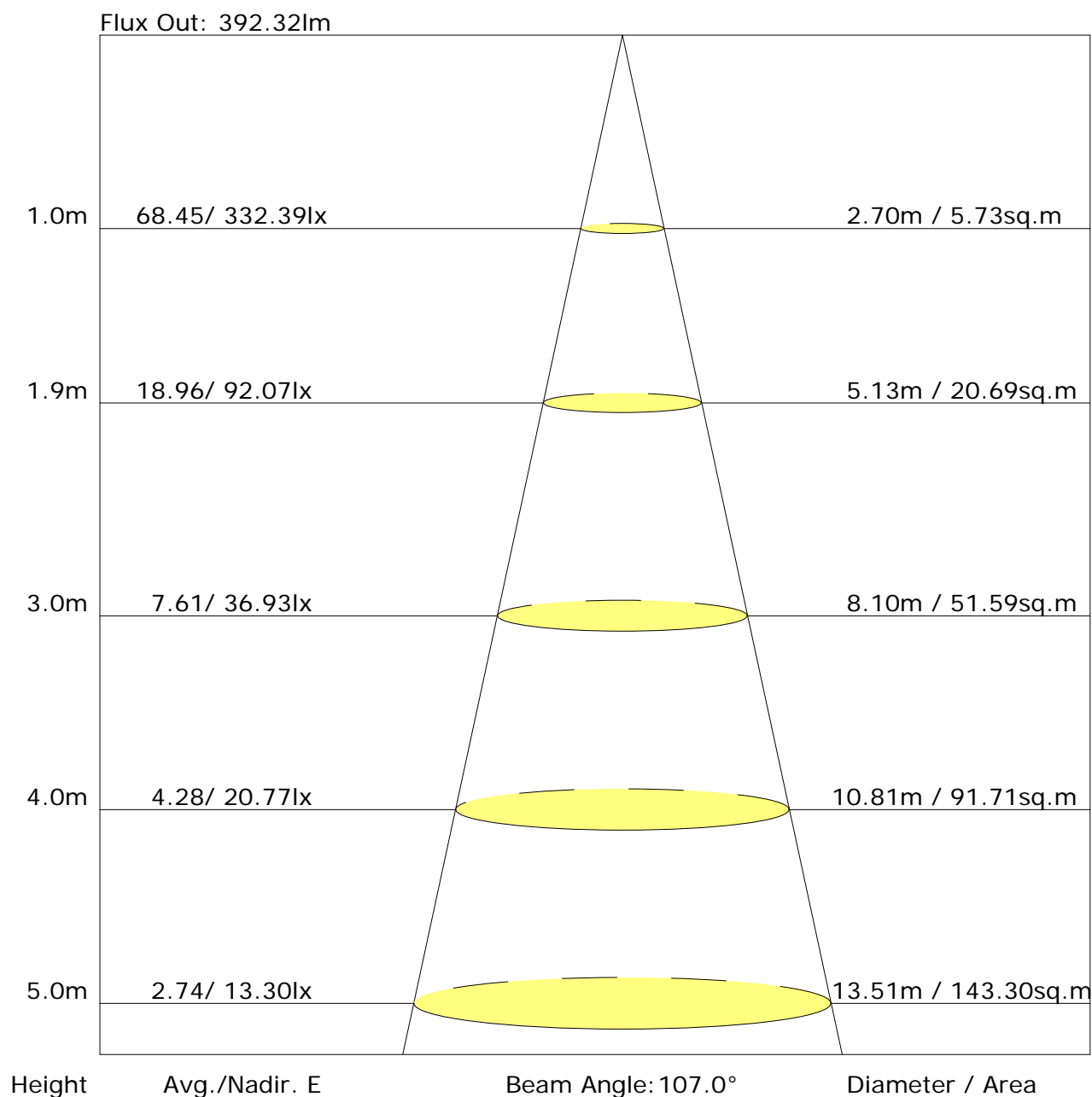
Unit: lm

| Vertical plane | Horizontal plane |     |     |     |      |      |      |      |      |      |      |      |      |      |     |     |     |     |     |
|----------------|------------------|-----|-----|-----|------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
|                | -90              | -80 | -70 | -60 | -50  | -40  | -30  | -20  | -10  | 0    | 10   | 20   | 30   | 40   | 50  | 60  | 70  | 80  | 90  |
| Flux(E)        | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Flux(T)        | 0.0              | 0.4 | 1.2 | 3.9 | 11.4 | 25.5 | 43.1 | 58.8 | 67.9 | 67.6 | 58.1 | 42.2 | 24.7 | 11.0 | 3.8 | 1.2 | 0.3 | 0.0 | 421 |
|                | 0.0              | 0.0 | 0.0 | 0.9 | 9.2  | 23.4 | 41.1 | 56.9 | 66.1 | 65.8 | 56.2 | 40.3 | 22.6 | 8.7  | 0.7 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
| Flux(E)        | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
| Flux(T)        | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
| Flux(E)        | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
| Flux(T)        | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
| Flux(E)        | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0 | 0.0 | 0.0 | 0.0 |     |
|                | 0.0              | 0.0 | 0.0 | 0.0 | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.0  | 0.   |      |      |     |     |     |     |     |

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: 7.305 m [K=1.0000]  
 Humidity:  
 Inspector:

## 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: 7.305 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  | 18.2             | 19.2 | 18.5 | 19.5 | 19.7 | 18.4           | 19.4 | 18.6 | 19.6 | 19.8 |
| 3H   | 18.3             | 19.2 | 18.6 | 19.5 | 19.7 | 18.4           | 19.4 | 18.8 | 19.6 | 19.9 |
| 4H   | 18.3             | 19.2 | 18.6 | 19.5 | 19.7 | 18.5           | 19.3 | 18.8 | 19.6 | 19.9 |
| 6H   | 18.3             | 19.1 | 18.6 | 19.4 | 19.7 | 18.4           | 19.3 | 18.8 | 19.5 | 19.8 |
| 8H   | 18.3             | 19.1 | 18.6 | 19.4 | 19.7 | 18.4           | 19.2 | 18.8 | 19.5 | 19.8 |
| 12H  | 18.3             | 19.0 | 18.6 | 19.3 | 19.6 | 18.4           | 19.1 | 18.8 | 19.5 | 19.8 |
| X=4H Y=2H  | 18.2             | 19.1 | 18.5 | 19.3 | 19.6 | 18.3           | 19.2 | 18.7 | 19.5 | 19.8 |
| 3H   | 18.3             | 19.1 | 18.7 | 19.4 | 19.7 | 18.5           | 19.2 | 18.9 | 19.5 | 19.9 |
| 4H   | 18.4             | 19.1 | 18.8 | 19.4 | 19.8 | 18.5           | 19.2 | 18.9 | 19.6 | 19.9 |
| 6H   | 18.4             | 19.0 | 18.8 | 19.4 | 19.8 | 18.6           | 19.1 | 19.0 | 19.5 | 19.9 |
| 8H   | 18.4             | 19.0 | 18.9 | 19.3 | 19.8 | 18.6           | 19.1 | 19.0 | 19.5 | 19.9 |
| 12H  | 18.4             | 18.9 | 18.9 | 19.3 | 19.7 | 18.5           | 19.0 | 19.0 | 19.4 | 19.9 |
| X=8H Y=4H  | 18.4             | 18.9 | 18.8 | 19.3 | 19.7 | 18.5           | 19.0 | 18.9 | 19.4 | 19.8 |
| 6H   | 18.4             | 18.8 | 18.9 | 19.3 | 19.7 | 18.6           | 19.0 | 19.0 | 19.4 | 19.9 |
| 8H   | 18.4             | 18.8 | 18.9 | 19.3 | 19.7 | 18.6           | 18.9 | 19.0 | 19.4 | 19.9 |
| 12H  | 18.4             | 18.8 | 18.9 | 19.2 | 19.7 | 18.6           | 18.9 | 19.0 | 19.3 | 19.8 |
| X=12H Y=4H   | 18.3             | 18.8 | 18.8 | 19.2 | 19.7 | 18.5           | 18.9 | 18.9 | 19.4 | 19.8 |
| 6H   | 18.4             | 18.8 | 18.9 | 19.2 | 19.7 | 18.5           | 18.9 | 19.0 | 19.3 | 19.8 |
| 8H   | 18.4             | 18.7 | 18.9 | 19.2 | 19.7 | 18.5           | 18.9 | 19.0 | 19.3 | 19.8 |
| Variations with the observer position at spacings: |                  |      |      |      |      |                |      |      |      |      |
| S=1.0H   | +1.2/-2.4        |      |      |      |      | +1.3/-2.5      |      |      |      |      |
| S=1.5H   | +2.9/-4.1        |      |      |      |      | +3.0/-4.3      |      |      |      |      |
| S=2.0H   | +4.6/-5.2        |      |      |      |      | +4.8/-5.4      |      |      |      |      |

Calculate in accordance with CIE Pub.117. The table is revised with  $422\text{Im}$  ( $8\log(F/F_0) = -3.0$ ).

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: 7.305 m [K=1.0000]  
Humidity:  
Inspector:

## Utilisation Factor Table(Floor cavity)

| Utilisation Factors UF(F)  |      |       | SHR NOM = 1.00 |      |      |      |      |      |      |      |      |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|
| 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  | 0.75           | 0.83 | 0.89 | 0.93 | 0.98 | 1.01 | 1.04 | 1.07 | 1.08 |
|  | 0.30 |       | 0.69           | 0.78 | 0.84 | 0.88 | 0.94 | 0.98 | 1.00 | 1.04 | 1.06 |
|  | 0.20 |       | 0.65           | 0.74 | 0.80 | 0.84 | 0.90 | 0.95 | 0.97 | 1.01 | 1.04 |
| 0.50   | 0.50 | 0.20  | 0.73           | 0.82 | 0.87 | 0.90 | 0.95 | 0.98 | 1.00 | 1.03 | 1.04 |
|  | 0.30 |       | 0.68           | 0.77 | 0.83 | 0.86 | 0.92 | 0.95 | 0.97 | 1.01 | 1.02 |
|  | 0.20 |       | 0.65           | 0.73 | 0.79 | 0.83 | 0.89 | 0.92 | 0.95 | 0.99 | 1.01 |
| 0.30   | 0.50 | 0.20  | 0.72           | 0.80 | 0.85 | 0.88 | 0.92 | 0.95 | 0.97 | 0.99 | 1.01 |
|  | 0.30 |       | 0.68           | 0.76 | 0.81 | 0.85 | 0.90 | 0.93 | 0.95 | 0.97 | 0.99 |
|  | 0.20 |       | 0.64           | 0.73 | 0.78 | 0.82 | 0.87 | 0.90 | 0.93 | 0.96 | 0.98 |
| 0.00   | 0.00 | 0.00  | 0.63           | 0.71 | 0.76 | 0.79 | 0.84 | 0.87 | 0.89 | 0.92 | 0.93 |
| <p>Rating: 4W 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(Wall)

| Utilisation Factors UF(W)  |      |       | SHR NOM = 1.00 |      |      |      |      |      |      |      |      |  |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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  | 0.72           | 0.57 | 0.48 | 0.41 | 0.32 | 0.26 | 0.22 | 0.17 | 0.14 |  |
|  | 0.30 |       | 0.60           | 0.49 | 0.42 | 0.36 | 0.29 | 0.24 | 0.21 | 0.16 | 0.13 |  |
|  | 0.20 |       | 0.51           | 0.43 | 0.37 | 0.33 | 0.27 | 0.22 | 0.19 | 0.15 | 0.13 |  |
| 0.50   | 0.50 | 0.20  | 0.69           | 0.54 | 0.45 | 0.39 | 0.30 | 0.29 | 0.21 | 0.16 | 0.13 |  |
|  | 0.30 |       | 0.58           | 0.47 | 0.40 | 0.35 | 0.28 | 0.23 | 0.20 | 0.15 | 0.12 |  |
|  | 0.20 |       | 0.51           | 0.42 | 0.36 | 0.31 | 0.25 | 0.21 | 0.18 | 0.14 | 0.12 |  |
| 0.30   | 0.50 | 0.20  | 0.66           | 0.52 | 0.43 | 0.37 | 0.28 | 0.23 | 0.20 | 0.15 | 0.12 |  |
|  | 0.30 |       | 0.57           | 0.46 | 0.38 | 0.33 | 0.26 | 0.22 | 0.18 | 0.14 | 0.12 |  |
|  | 0.20 |       | 0.50           | 0.41 | 0.35 | 0.30 | 0.24 | 0.20 | 0.17 | 0.14 | 0.11 |  |
| 0.00   | 0.00 | 0.00  | 0.37           | 0.29 | 0.24 | 0.21 | 0.16 | 0.13 | 0.11 | 0.08 | 0.07 |  |
| <p>Rating: 4W 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> |      |       |                |      |      |      |      |      |      |      |      |  |

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: 7.305 m [K=1.0000]  
Humidity:  
Inspector:

## Utilisation Factor Table(Ceiling cavity)

| Utilisation Factors UF(C)  |      |       | SHR NOM = 1.00 |      |      |      |      |      |      |      |      |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|
| 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  | 0.14           | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.21 |
|  | 0.30 |       | 0.09           | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |
|  | 0.20 |       | 0.05           | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.15 | 0.17 | 0.18 |
| 0.50   | 0.50 | 0.20  | 0.13           | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.19 | 0.20 | 0.20 |
|  | 0.30 |       | 0.09           | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |
|  | 0.20 |       | 0.05           | 0.07 | 0.09 | 0.10 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 |
| 0.30   | 0.50 | 0.20  | 0.13           | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 |
|  | 0.30 |       | 0.09           | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 |
|  | 0.20 |       | 0.05           | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 |
| 0.00   | 0.00 | 0.00  | NA             | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |
| <p>Rating: 4W 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

[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: 7.305 m [K=1.0000]  
Humidity:  
Inspector:

## Zonal Lumen (Continue 1)

cone flux(90°): 354.47 lm

%lum = 84.0%

%lamp = 84.0%

cone flux(120°): 406.65 lm

%lum = 96.3%

%lamp = 96.3%



## Unit: cd

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: 7.305 m [K=1.0000]  
Humidity:  
Inspector: