

Report No.:

Test Time:

Luminaire Property

Luminaire Manufacturer:

Luminaire Category: LED FLOODLIGHT

Lamp Catalog: LED

Number of Lamps:

Luminous Length (mm):

Luminous Height (mm):

Current: 0.047 A

Power Factor: 0.915

Luminaire Description: E002EI-10W-6500K

Lamp Description: SMD

Lumens per Lamp:

Luminous Width (mm):

Voltage: 230.1 V

Power: 9.93 W

Photometric Results

IES NEMA Type: 7H x 7V

Measurement Flux: 853.2 lm

Field Lumens: 837.3 lm

Field Angle: H146.3, V163.5

Luminaire Efficacy Rating (LER): 85.97

Max. Intensity: 315.58 cd

Total Rated Lamp Lumens: 853.2 lm

Efficiency: 100%

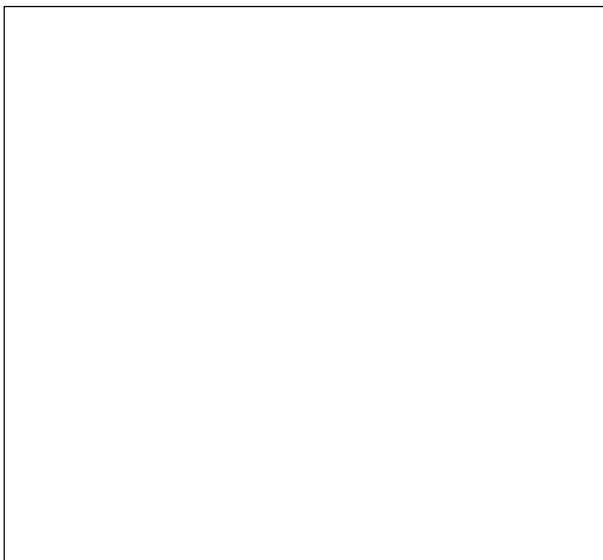
Field Efficiency: 98.14%

Beam Angle: H114.0, V105.6

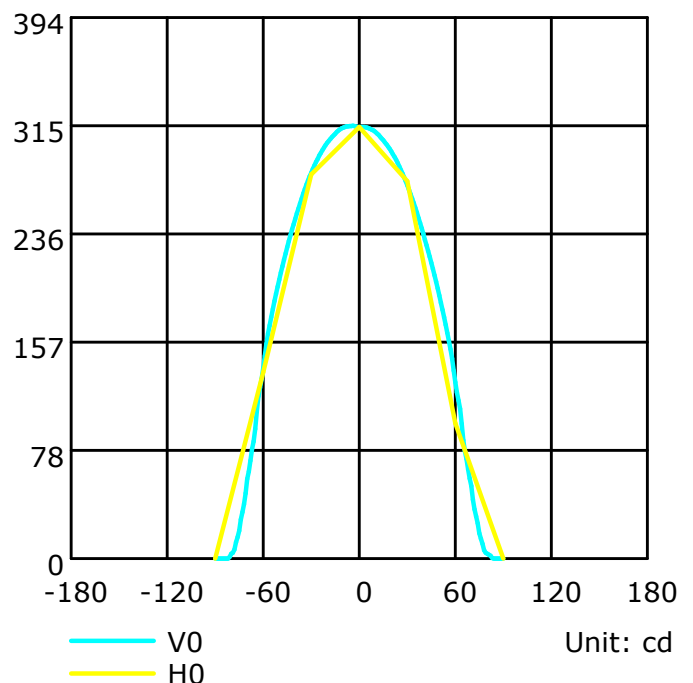
C0r0 Intensity: 314.69 cd

Pos of Max. Intensity: H0 V-4

Picture Of Luminaire



Luminous Intensity Distribution Curve



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

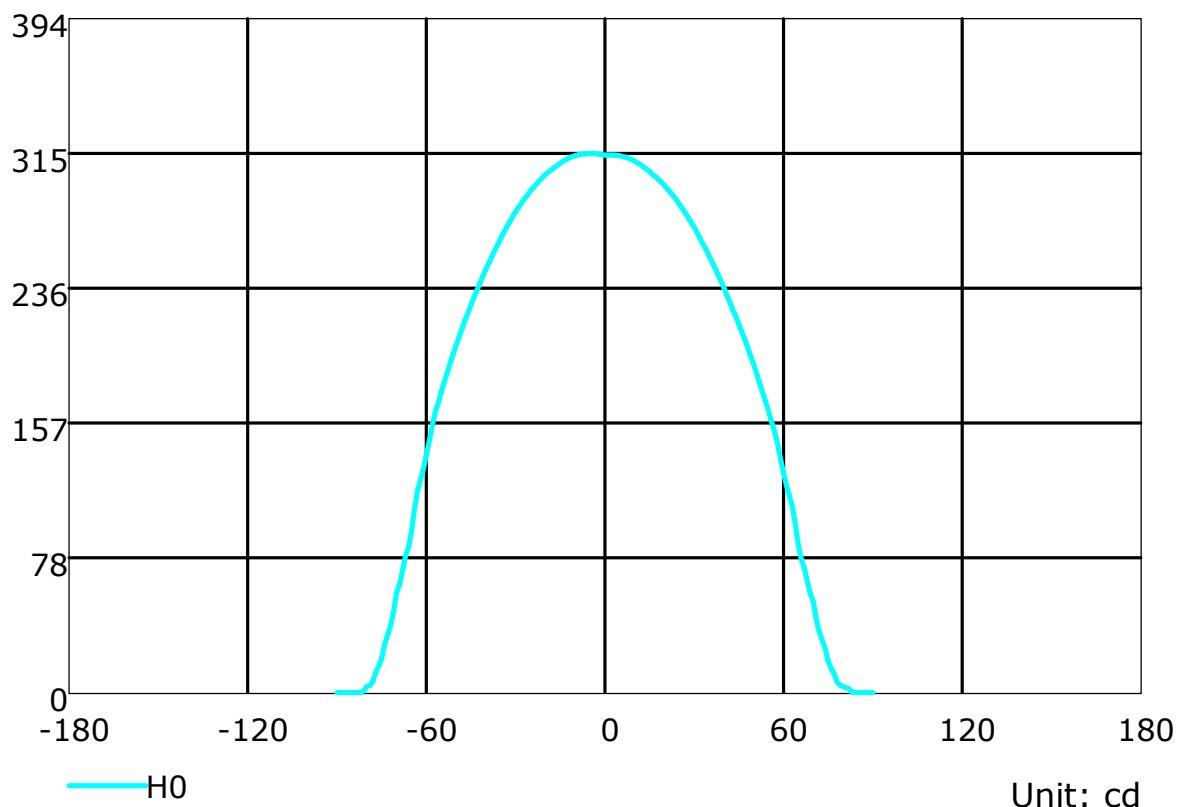
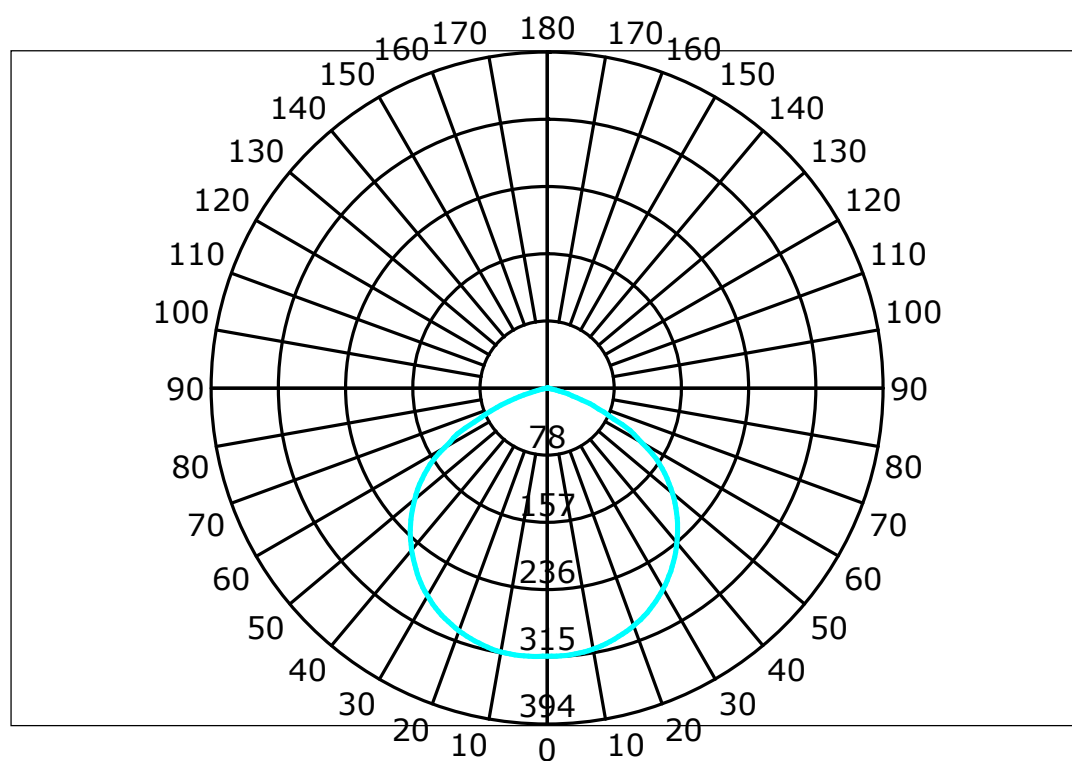
Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve



Unit: cd

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

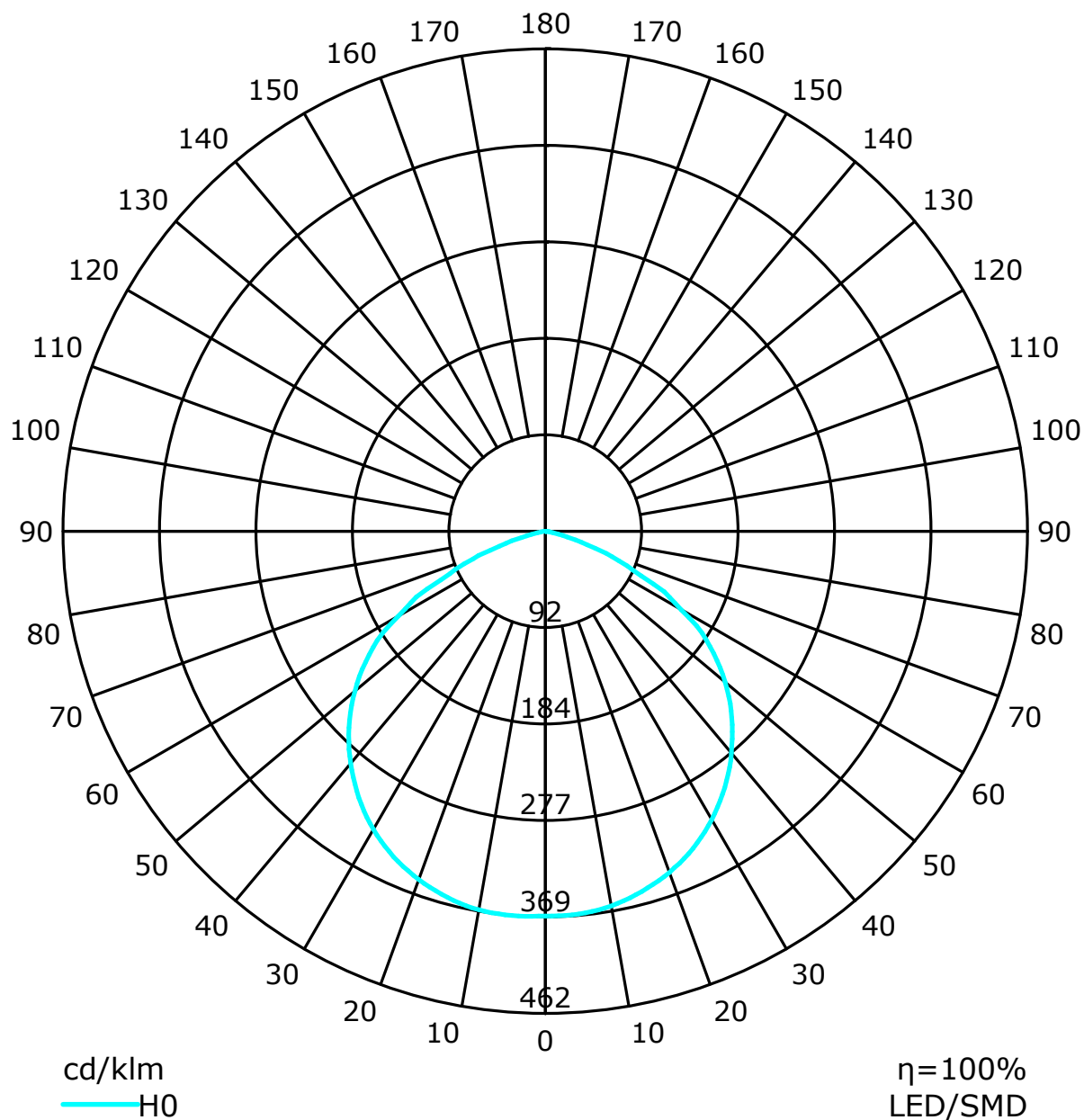
Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd/klm)



B Plane (°):-90.0-90.0: 30.0
Test Lab:
Test Type: TYPE B
Temperature:
Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0
Test Device: GPM-1600L
Distance: 7.121 m
Humidity:
Inspector:

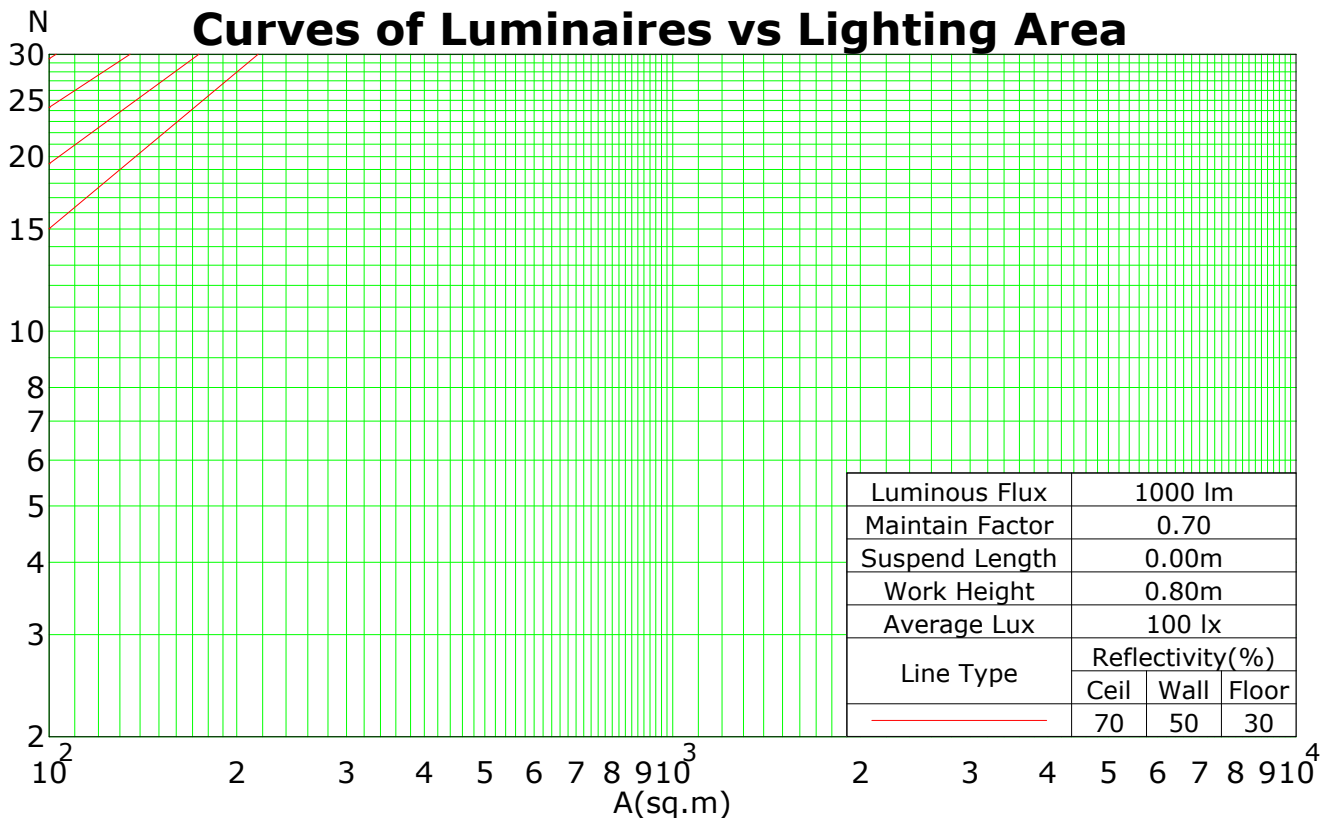
Coefficients Of Utilization - Zonal Cavity Method

| | | | | | | | | | | | | | | | | | | |
|-----|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 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 | 1.09 | 1.05 | 1.01 | 0.97 | 1.07 | 1.03 | 0.99 | 0.95 | 0.98 | 0.95 | 0.92 | 0.94 | 0.92 | 0.90 | 0.91 | 0.89 | 0.87 | 0.85 |
| 2 | 1.00 | 0.92 | 0.85 | 0.80 | 0.97 | 0.90 | 0.84 | 0.79 | 0.86 | 0.81 | 0.77 | 0.83 | 0.79 | 0.75 | 0.80 | 0.77 | 0.74 | 0.71 |
| 3 | 0.91 | 0.81 | 0.73 | 0.67 | 0.89 | 0.79 | 0.72 | 0.66 | 0.76 | 0.70 | 0.65 | 0.74 | 0.68 | 0.64 | 0.71 | 0.67 | 0.63 | 0.61 |
| 4 | 0.84 | 0.72 | 0.63 | 0.57 | 0.81 | 0.71 | 0.63 | 0.56 | 0.68 | 0.61 | 0.56 | 0.66 | 0.60 | 0.55 | 0.64 | 0.58 | 0.54 | 0.52 |
| 5 | 0.77 | 0.64 | 0.56 | 0.49 | 0.75 | 0.63 | 0.55 | 0.49 | 0.61 | 0.54 | 0.48 | 0.59 | 0.53 | 0.48 | 0.57 | 0.52 | 0.47 | 0.45 |
| 6 | 0.71 | 0.58 | 0.49 | 0.43 | 0.69 | 0.57 | 0.49 | 0.43 | 0.55 | 0.48 | 0.42 | 0.54 | 0.47 | 0.42 | 0.52 | 0.46 | 0.42 | 0.39 |
| 7 | 0.66 | 0.53 | 0.44 | 0.38 | 0.64 | 0.52 | 0.44 | 0.38 | 0.50 | 0.43 | 0.37 | 0.49 | 0.42 | 0.37 | 0.47 | 0.41 | 0.37 | 0.35 |
| 8 | 0.61 | 0.48 | 0.40 | 0.34 | 0.60 | 0.47 | 0.39 | 0.34 | 0.46 | 0.39 | 0.33 | 0.45 | 0.38 | 0.33 | 0.44 | 0.38 | 0.33 | 0.31 |
| 9 | 0.57 | 0.44 | 0.36 | 0.30 | 0.56 | 0.43 | 0.36 | 0.30 | 0.42 | 0.35 | 0.30 | 0.41 | 0.35 | 0.30 | 0.40 | 0.34 | 0.30 | 0.28 |
| 10 | 0.54 | 0.41 | 0.33 | 0.28 | 0.52 | 0.40 | 0.33 | 0.27 | 0.39 | 0.32 | 0.27 | 0.38 | 0.32 | 0.27 | 0.37 | 0.31 | 0.27 | 0.25 |

Spacing Criteria (0-180): 1.30

Spacing Criteria (90-270): 1.28

Spacing Criteria (Diagonal): 1.39



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

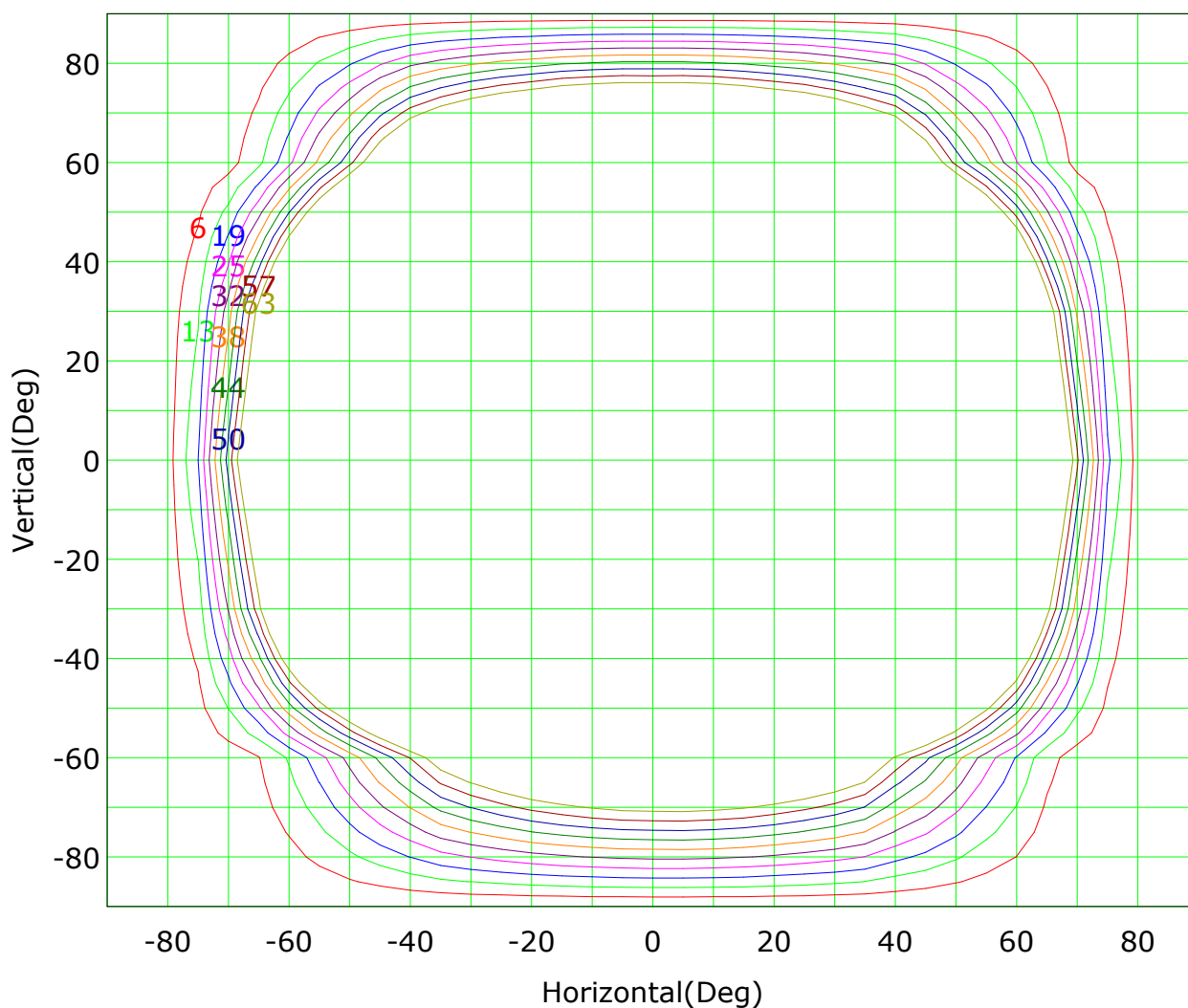
Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

Isocandela (rectangle)



Imax (100%): 316 cd

| | | | |
|--------|-------|--------|-------|
| (2%): | 6 cd | (4%): | 13 cd |
| (6%): | 19 cd | (8%): | 25 cd |
| (10%): | 32 cd | (12%): | 38 cd |
| (14%): | 44 cd | (16%): | 50 cd |
| (18%): | 57 cd | (20%): | 63 cd |

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

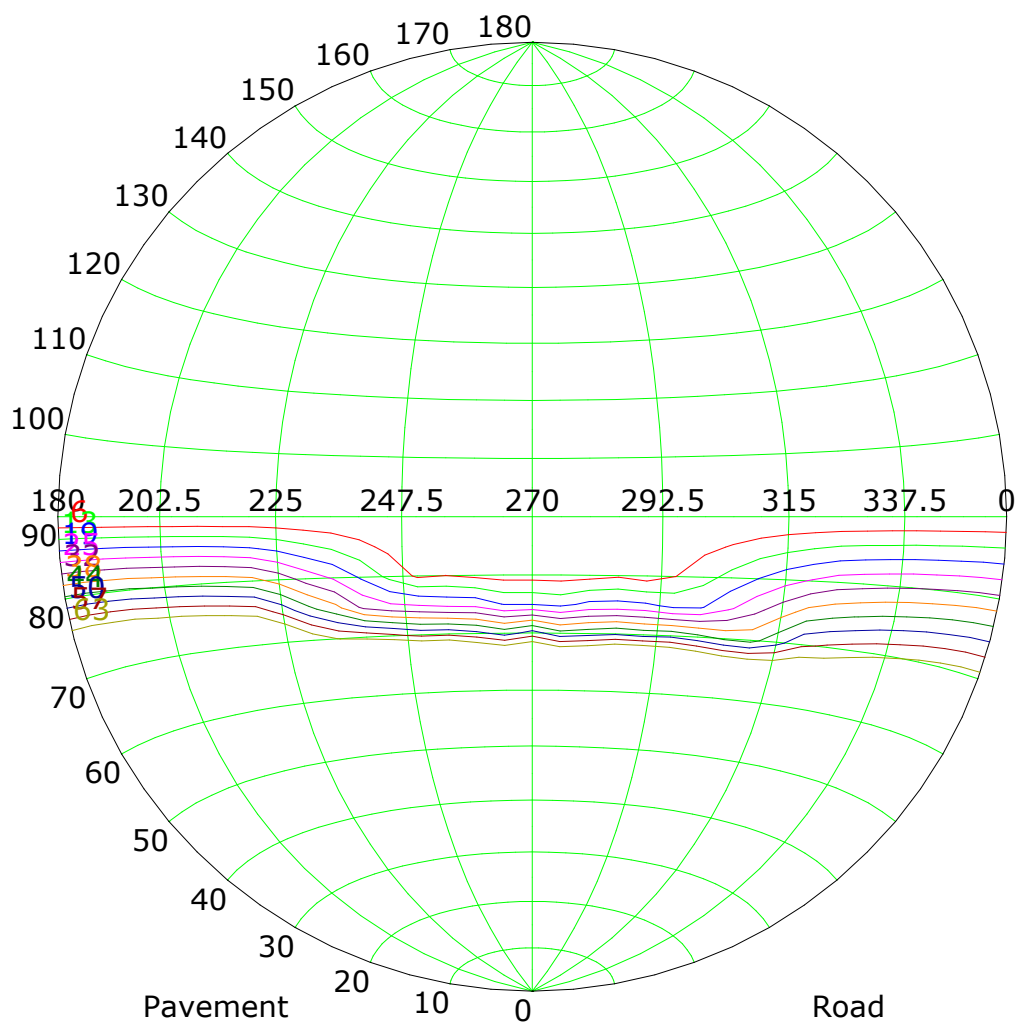
Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

Isocandela (sphere)



Imax (100%): 316 cd

| | | | |
|---------|-------|---------|-------|
| (2%): | 6 cd | (4%): | 13 cd |
| (6%): | 19 cd | (8%): | 25 cd |
| (10%): | 32 cd | (12%): | 38 cd |
| (14%): | 44 cd | (16%): | 50 cd |
| (18%): | 57 cd | (20%): | 63 cd |

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

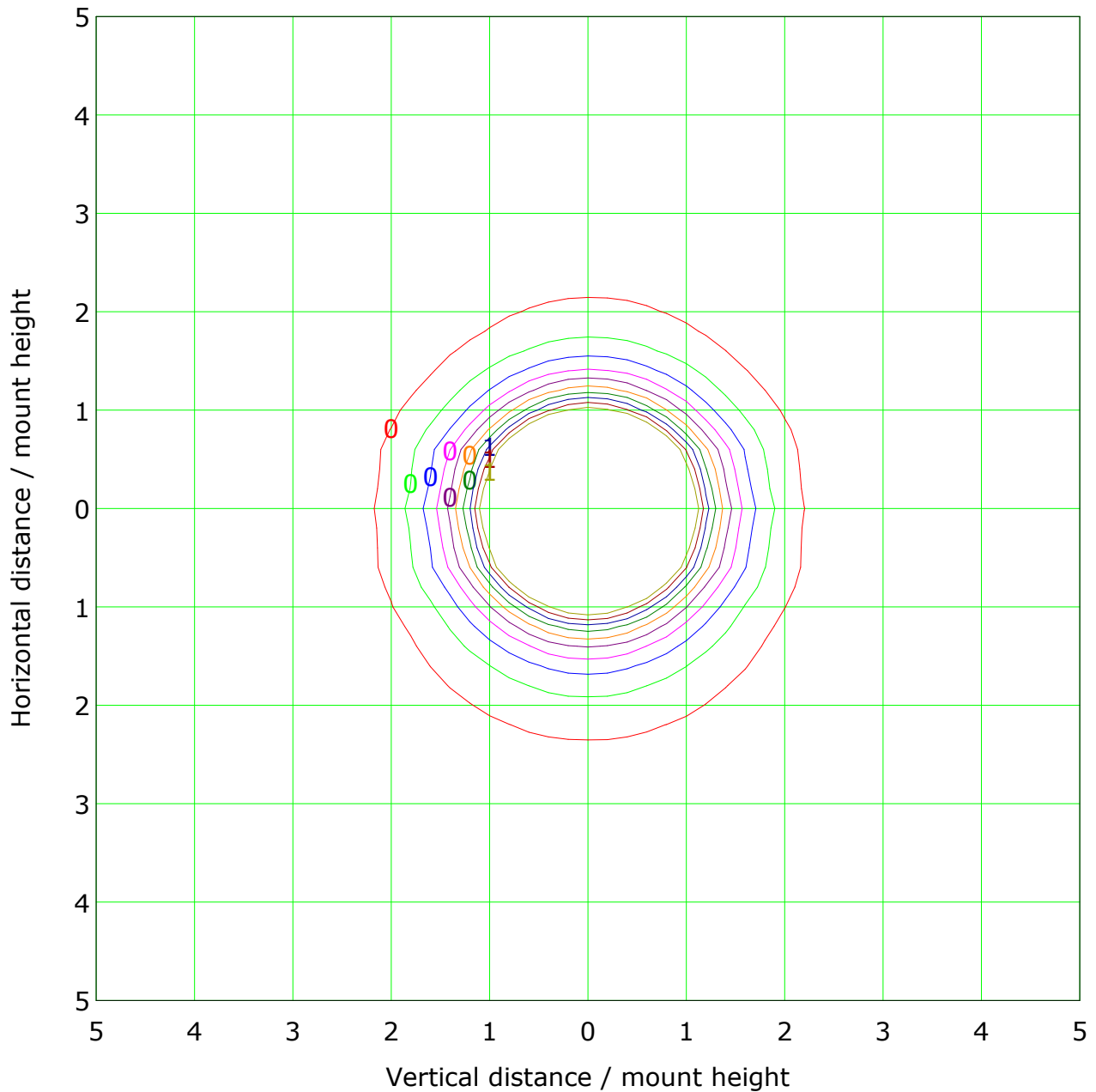
Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

IsoLux Plot



| | | | |
|------------------------|--------|-----------------------|--------|
| Mounting Height: 10.0m | | Max Lux(100%): 3.1 lx | |
| (2%): | 0.1 lx | (4%): | 0.1 lx |
| (6%): | 0.2 lx | (8%): | 0.3 lx |
| (10%): | 0.3 lx | (12%): | 0.4 lx |
| (14%): | 0.4 lx | (16%): | 0.5 lx |
| (18%): | 0.6 lx | (20%): | 0.6 lx |

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

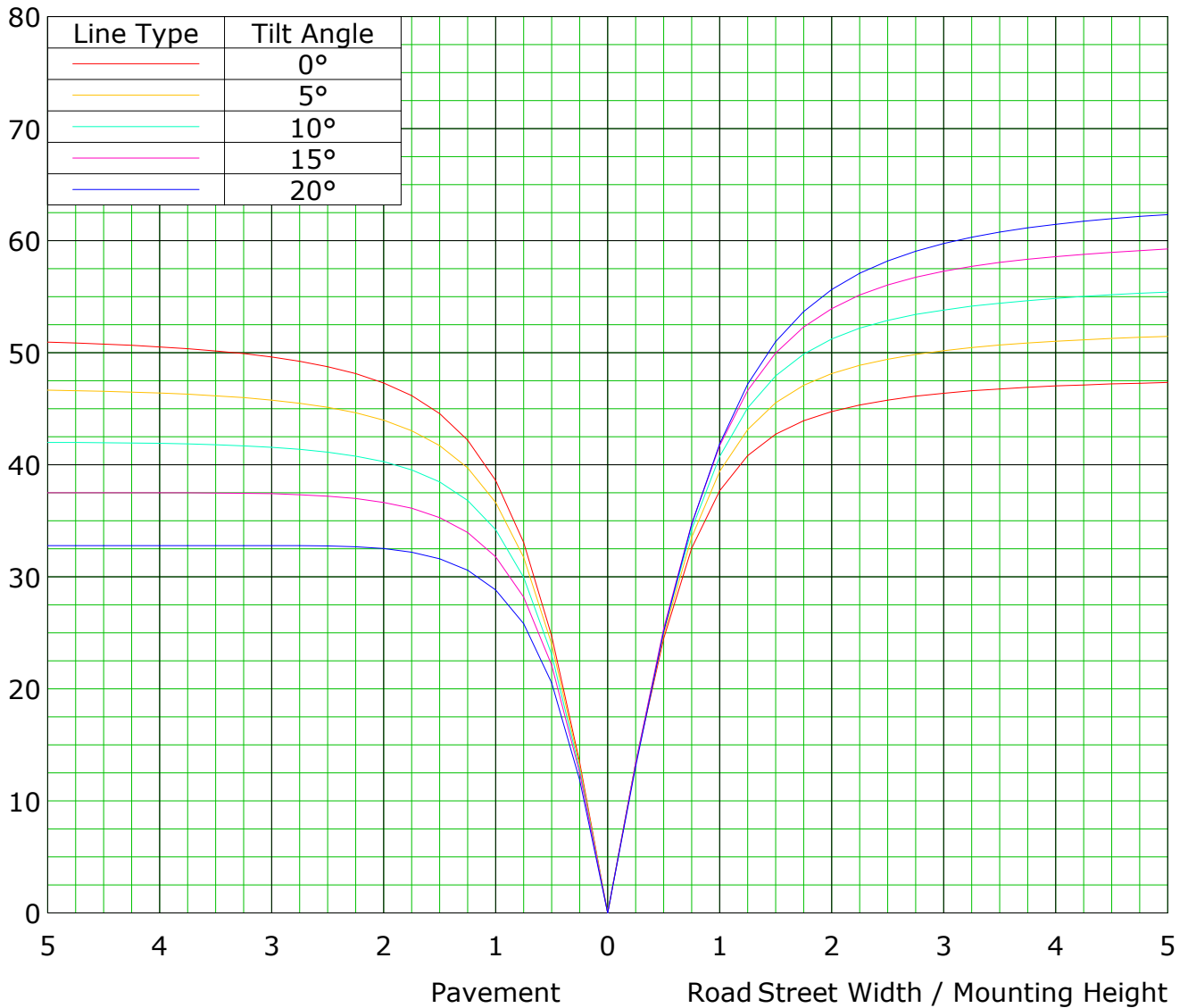
Distance: 7.121 m

Humidity:

Inspector:

Roadway CU Curve

Efficiency(%)



B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.121 m

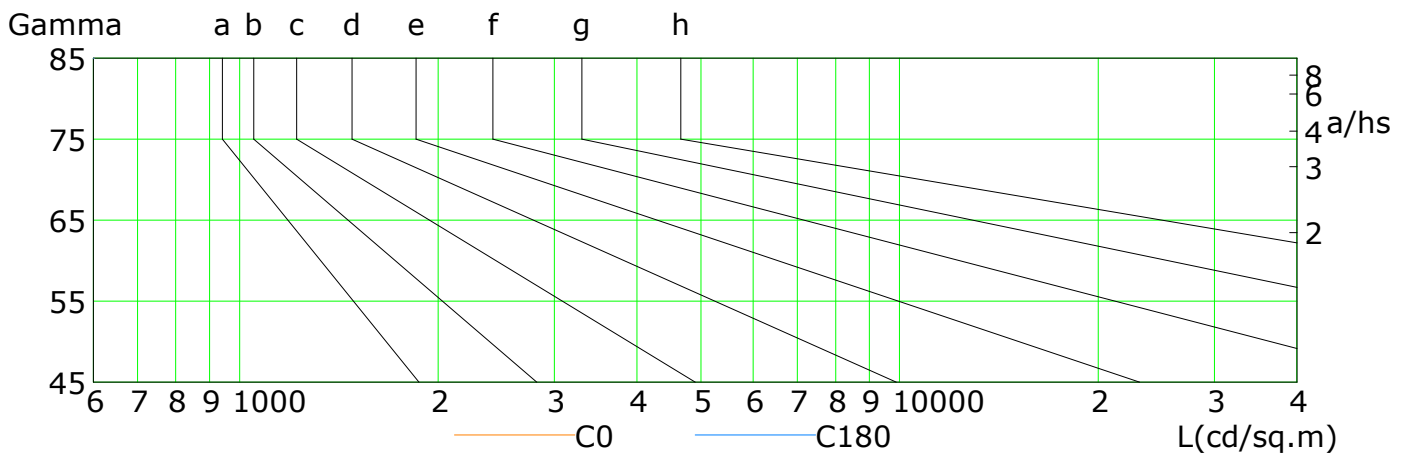
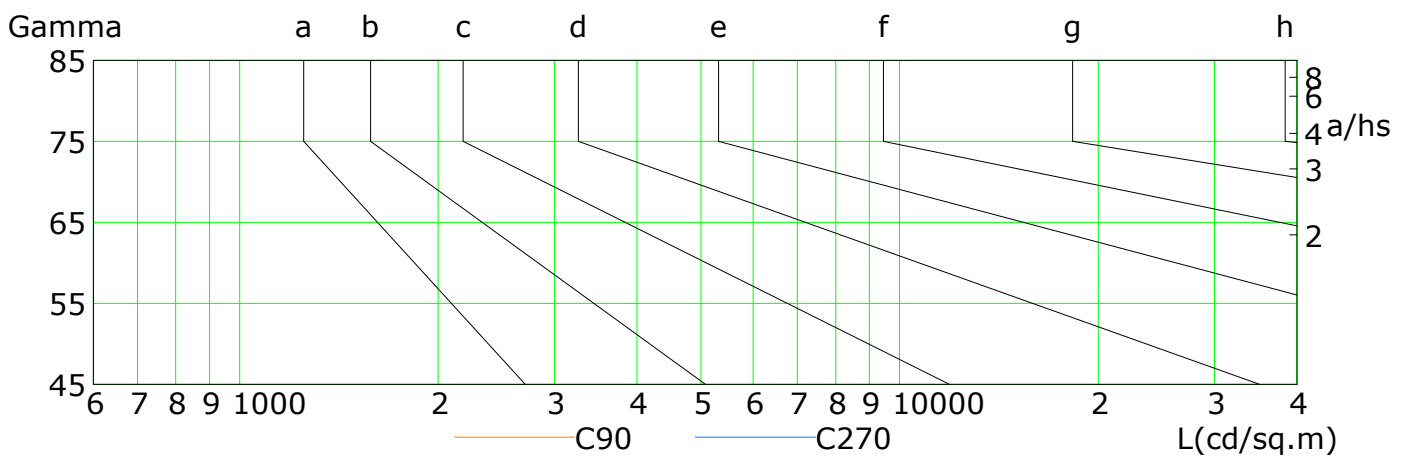
Humidity:

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 | 216 | 192 | 165 | 129 | 87 | 53 | 19 | 4 | 0 |
| C90 | 187 | 158 | 128 | 99 | 82 | 66 | 49 | 33 | 17 |
| C180 | 227 | 203 | 176 | 139 | 95 | 58 | 20 | 4 | 0 |
| C270 | 208 | 184 | 160 | 136 | 113 | 91 | 68 | 45 | 23 |

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

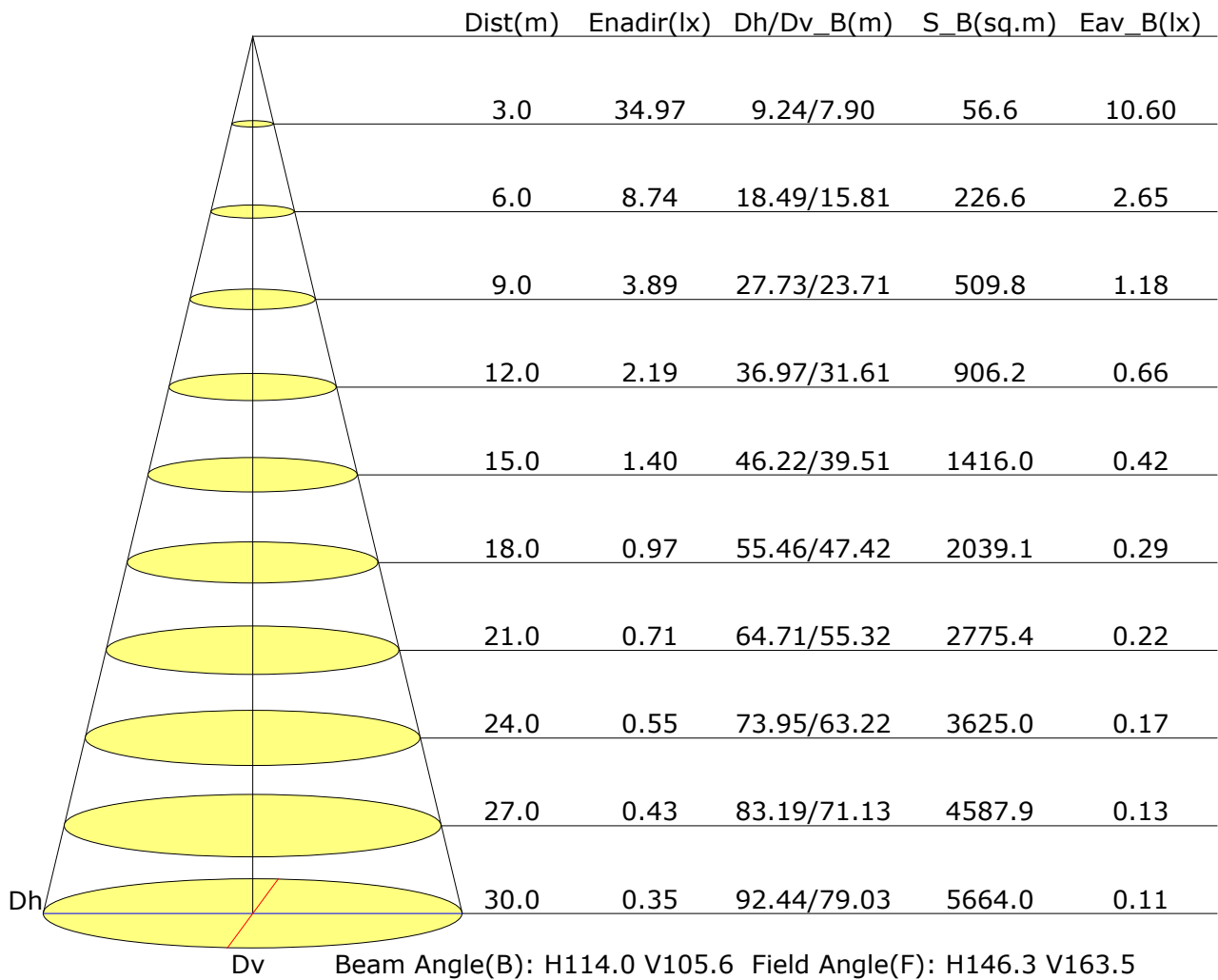
Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

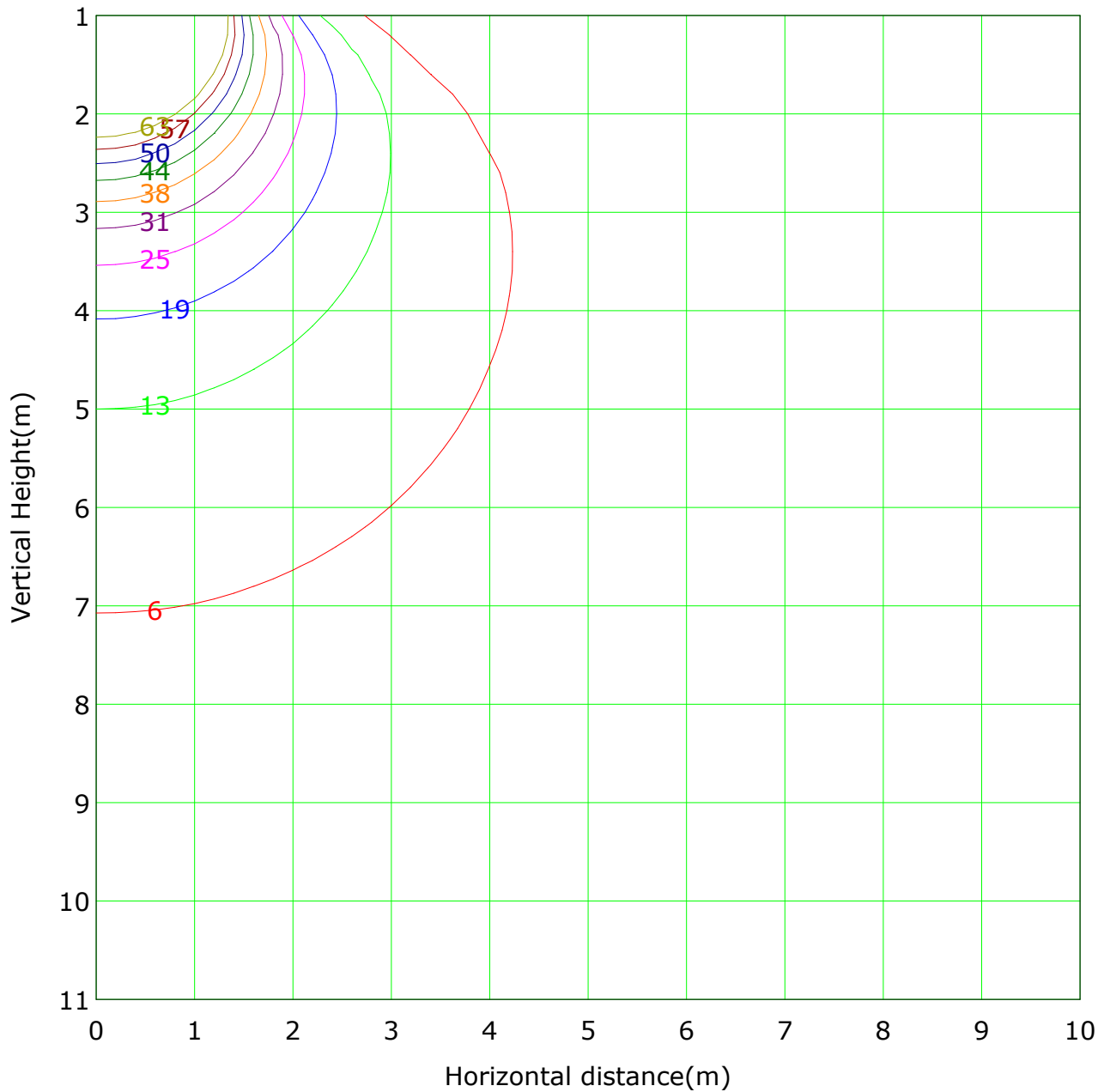
Illuminance at a Distance



B Plane (°):-90.0-90.0: 30.0
 Test Lab:
 Test Type: TYPE B
 Temperature:
 Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0
 Test Device: GPM-1600L
 Distance: 7.121 m
 Humidity:
 Inspector:

Vertical IsoLux Plot



| | | |
|-----------------|-------------------|-------------------|
| Lowest(m): 1.0m | Highest(m): 11.0m | Max Lux: 314.7 lx |
| (2%): 6.3 lx | (4%): 12.6 lx | |
| (6%): 18.9 lx | (8%): 25.2 lx | |
| (10%): 31.5 lx | (12%): 37.8 lx | |
| (14%): 44.1 lx | (16%): 50.3 lx | |
| (18%): 56.6 lx | (20%): 62.9 lx | |

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

Area Flux Table

Unit: lm

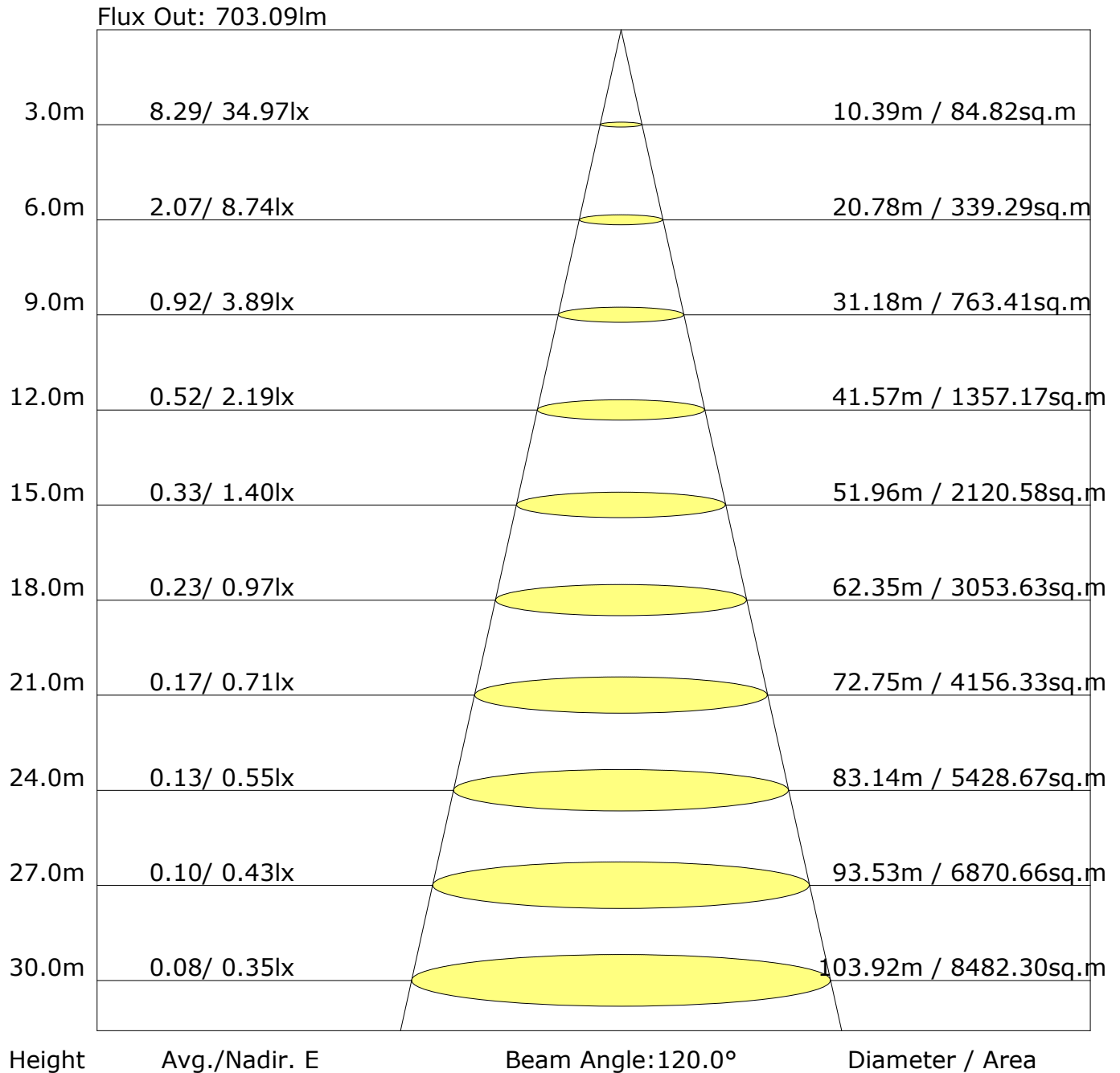
| Vertical plane | | | | | | | | | | | | | | | | | |
|----------------|-----|-----|------|------|------|------|------|------|-------|------|------|------|------|------|------|-----|-----|
| -90 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.7 | 0.6 | 0.5 | 0.4 | 0.3 | 0.1 | 0.0 | 0.0 |
| -80 | 0.0 | 0.0 | 0.1 | 0.4 | 0.8 | 1.3 | 1.6 | 1.9 | 2.1 | 2.1 | 1.9 | 1.6 | 1.3 | 0.8 | 0.3 | 0.1 | 0.0 |
| -70 | 0.0 | 0.0 | 0.1 | 0.6 | 1.3 | 2.1 | 2.7 | 3.2 | 3.4 | 3.4 | 3.2 | 2.7 | 2.1 | 1.3 | 0.6 | 0.1 | 0.0 |
| -60 | 0.0 | 0.0 | 0.3 | 1.0 | 2.0 | 3.1 | 3.9 | 4.5 | 4.8 | 4.8 | 4.5 | 3.9 | 3.0 | 2.0 | 1.0 | 0.3 | 0.0 |
| -50 | 0.0 | 0.1 | 0.6 | 1.6 | 2.9 | 4.1 | 5.2 | 5.9 | 6.3 | 6.3 | 5.8 | 5.1 | 4.0 | 2.8 | 1.5 | 0.5 | 0.1 |
| -40 | 0.0 | 0.1 | 0.8 | 2.2 | 3.7 | 5.2 | 6.4 | 7.3 | 7.7 | 7.7 | 7.2 | 6.3 | 5.0 | 3.6 | 2.1 | 0.8 | 0.1 |
| -30 | 0.0 | 0.1 | 1.0 | 2.6 | 4.3 | 5.9 | 7.2 | 8.2 | 8.6 | 8.6 | 8.1 | 7.0 | 5.7 | 4.1 | 2.4 | 0.9 | 0.1 |
| -20 | 0.0 | 0.2 | 1.1 | 2.8 | 4.5 | 6.2 | 7.6 | 8.5 | 9.0 | 9.0 | 8.4 | 7.4 | 6.0 | 4.3 | 2.6 | 1.0 | 0.2 |
| -10 | 0.0 | 0.2 | 1.2 | 3.0 | 4.8 | 6.5 | 7.9 | 8.9 | 9.4 | 9.3 | 8.8 | 7.7 | 6.2 | 4.5 | 2.8 | 1.1 | 0.2 |
| 0 | 0.0 | 0.2 | 1.2 | 3.0 | 4.8 | 6.5 | 7.9 | 8.9 | 9.3 | 9.3 | 8.8 | 7.7 | 6.2 | 4.5 | 2.8 | 1.1 | 0.2 |
| 10 | 0.0 | 0.2 | 1.1 | 2.8 | 4.5 | 6.1 | 7.5 | 8.5 | 8.9 | 8.9 | 8.3 | 7.3 | 5.9 | 4.2 | 2.6 | 1.0 | 0.2 |
| 20 | 0.0 | 0.1 | 1.0 | 2.5 | 4.2 | 5.8 | 7.1 | 8.1 | 8.5 | 8.5 | 7.9 | 6.9 | 5.6 | 4.0 | 2.4 | 0.9 | 0.1 |
| 30 | 0.0 | 0.1 | 0.8 | 2.1 | 3.6 | 5.0 | 6.2 | 7.0 | 7.4 | 7.4 | 6.9 | 6.0 | 4.8 | 3.4 | 2.0 | 0.7 | 0.1 |
| 40 | 0.0 | 0.1 | 0.5 | 1.5 | 2.6 | 3.7 | 4.7 | 5.3 | 5.7 | 5.6 | 5.2 | 4.5 | 3.5 | 2.4 | 1.3 | 0.5 | 0.1 |
| 50 | 0.0 | 0.0 | 0.3 | 0.8 | 1.6 | 2.5 | 3.2 | 3.6 | 3.9 | 3.8 | 3.5 | 3.0 | 2.3 | 1.5 | 0.7 | 0.2 | 0.0 |
| 60 | 0.0 | 0.0 | 0.1 | 0.4 | 0.9 | 1.5 | 2.0 | 2.3 | 2.5 | 2.5 | 2.3 | 1.9 | 1.4 | 0.8 | 0.3 | 0.1 | 0.0 |
| 70 | 0.0 | 0.0 | 0.1 | 0.3 | 0.6 | 0.9 | 1.2 | 1.4 | 1.5 | 1.5 | 1.4 | 1.1 | 0.9 | 0.5 | 0.2 | 0.0 | 0.0 |
| 80 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.3 | 0.2 | 0.1 | 0.0 | 0.0 |
| 90 | 0.0 | 1.5 | 10.3 | 27.7 | 47.6 | 67.1 | 83.4 | 94.8 | 100.3 | 99.9 | 93.3 | 81.0 | 64.6 | 45.0 | 25.8 | 9.4 | 1.4 |
| Flux(T) | 0.0 | 1.5 | 10.3 | 27.7 | 47.6 | 67.1 | 83.4 | 94.8 | 100.3 | 99.9 | 93.3 | 81.0 | 64.6 | 45.0 | 25.8 | 9.4 | 1.4 |
| Flux(E) | 0.0 | 0.5 | 9.2 | 26.4 | 46.5 | 66.2 | 82.6 | 94.0 | 99.5 | 99.0 | 92.5 | 80.2 | 63.7 | 43.8 | 24.5 | 8.4 | 0.4 |
| Flux(T) | | | | | | | | | | | | | | | | | |
| Flux(E) | | | | | | | | | | | | | | | | | |

Horizontal plane

B Plane (°):-90.0-90.0: 30.0
Test Lab:
Test Type: TYPE B
Temperature:
Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0
Test Device: GPM-1600L
Distance: 7.121 m
Humidity:
Inspector:

The Average Illuminance Effective Figure



B Plane (°):-90.0-90.0: 30.0
 Test Lab:
 Test Type: TYPE B
 Temperature:
 Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0
 Test Device: GPM-1600L
 Distance: 7.121 m
 Humidity:
 Inspector:

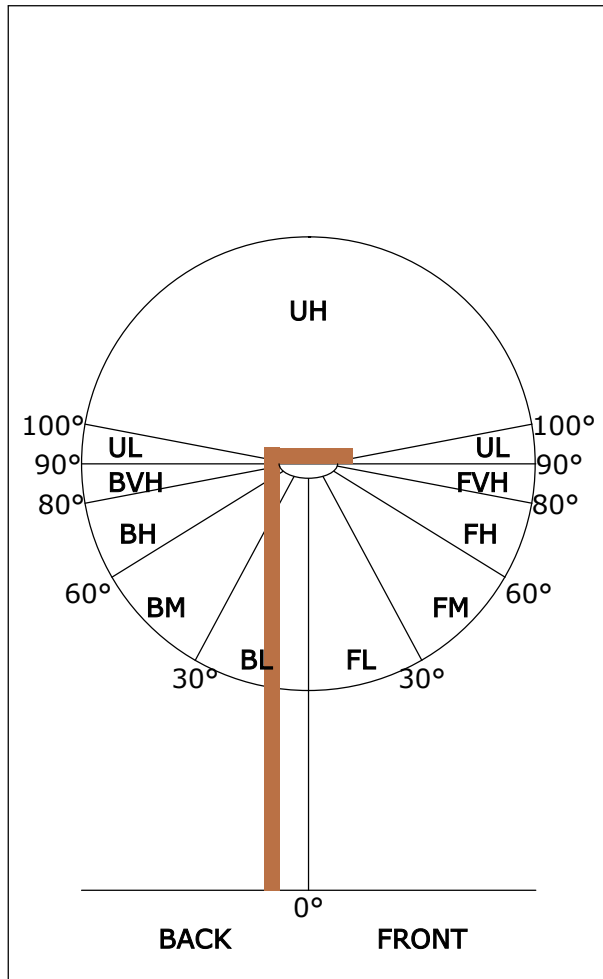
UGR Table

| | | | | | | | | | | | |
|------------|------|------|------|------|------|------|------|------|------|------|--|
| 反射率: | | | | | | | | | | | |
| 天花板 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | |
| 墙面 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | |
| 工作面 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | |
| 房间尺寸 | 横向 | | | | | 纵向 | | | | | |
| X=2H Y=2H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 3H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 4H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 6H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 8H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 12H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| X=4H Y=2H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 3H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 4H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 6H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 8H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 12H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| X=8H Y=4H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 6H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 8H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 12H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| X=12H Y=4H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 6H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |
| 8H | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | 1.\$ | |

依据CIE Pub.190:2010计算,表格已按0lm光源光通量进行修正($8\log(F/F_0) = -1.$$).

B Plane (°):-90.0-90.0: 30.0
 Test Lab:
 Test Type: TYPE B
 Temperature:
 Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0
 Test Device: GPM-1600L
 Distance: 7.121 m
 Humidity:
 Inspector:

FLUX DISTRIBUTION TABLE BASED ON THE IESNA LUMINAIRE CLASSIFICATION SYSTEM

| ZONE | LUMENS | % LAMP LUMENS |
|----------------|--------|---------------|
| FORWARD LIGHT | 426 | 50.0 |
| FL (0°-30°) | 123 | 14.4 |
| FM (30°-60°) | 229 | 26.8 |
| FH (60°-80°) | 68 | 8.0 |
| FVH (80°-90°) | 6 | 0.7 |
| BACK LIGHT | 433 | 50.7 |
| BL (0°-30°) | 123 | 14.4 |
| BM (30°-60°) | 233 | 27.3 |
| BH (60°-80°) | 70 | 8.2 |
| BVH (80°-90°) | 7 | 0.8 |
| 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 (Type I,II,III,IV) | B1 U1 G0 |
| Quadrilateral Symmetrical Luminaire Types (Type V,Area Light) | B1 U1 G0 |

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

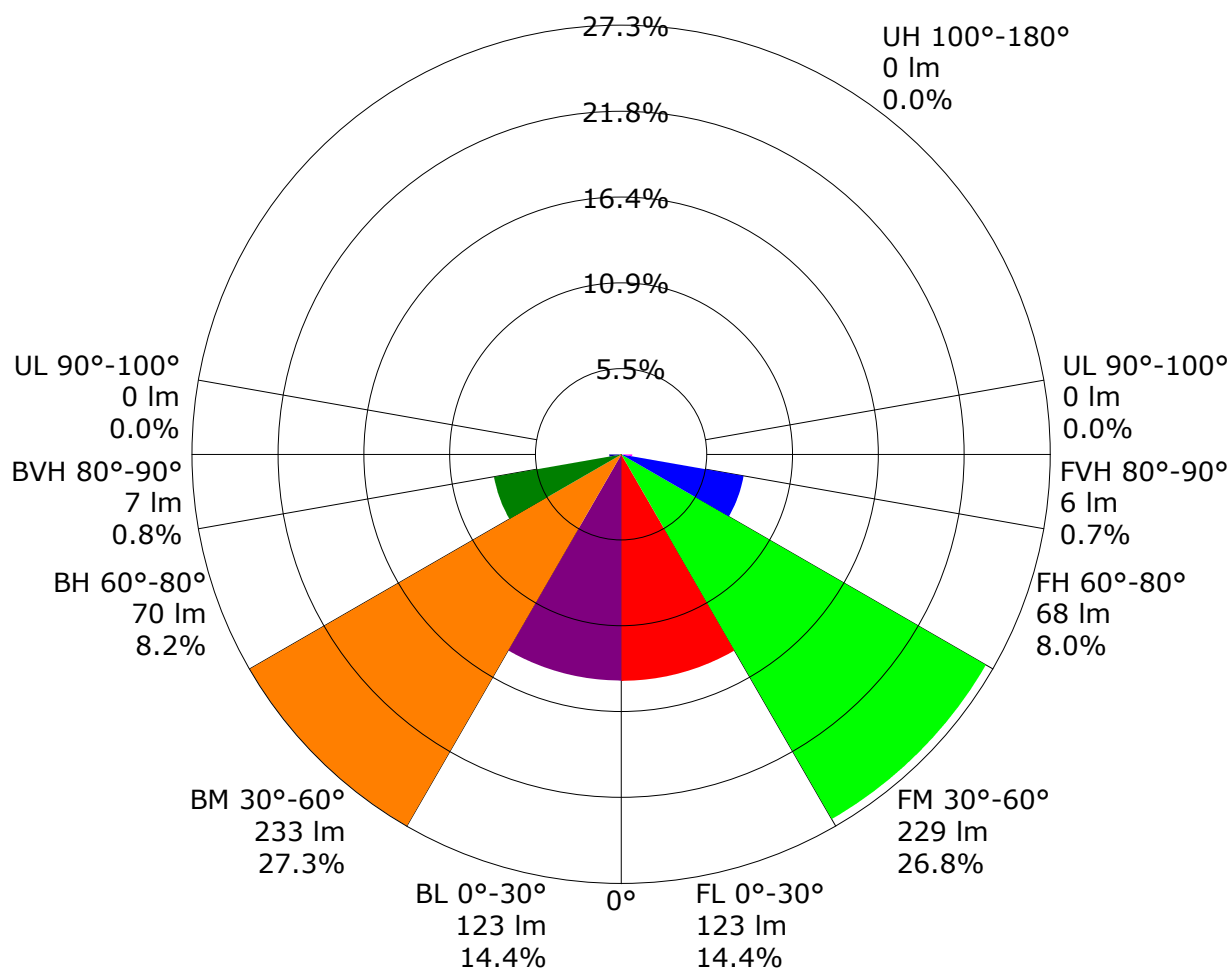
Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

LCS Graph



Back Light

Forward Light

Scale= MAX LCS%

Trapped Light:NA,NA

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

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 | 0.58 | 0.69 | 0.76 | 0.81 | 0.88 | 0.93 | 0.96 | 1.00 | 1.03 | |
| | 0.30 | | 0.51 | 0.62 | 0.69 | 0.75 | 0.83 | 0.88 | 0.92 | 0.97 | 1.00 | |
| | 0.20 | | 0.45 | 0.56 | 0.64 | 0.70 | 0.78 | 0.84 | 0.88 | 0.93 | 0.97 | |
| 0.50 | 0.50 | 0.20 | 0.56 | 0.67 | 0.74 | 0.79 | 0.85 | 0.90 | 0.92 | 0.96 | 0.99 | |
| | 0.30 | | 0.50 | 0.61 | 0.68 | 0.73 | 0.81 | 0.86 | 0.89 | 0.93 | 0.96 | |
| | 0.20 | | 0.45 | 0.56 | 0.63 | 0.69 | 0.77 | 0.82 | 0.86 | 0.91 | 0.94 | |
| 0.30 | 0.50 | 0.20 | 0.55 | 0.65 | 0.72 | 0.76 | 0.83 | 0.87 | 0.89 | 0.93 | 0.95 | |
| | 0.30 | | 0.49 | 0.60 | 0.67 | 0.72 | 0.79 | 0.83 | 0.86 | 0.90 | 0.93 | |
| | 0.20 | | 0.45 | 0.55 | 0.63 | 0.68 | 0.75 | 0.80 | 0.84 | 0.88 | 0.91 | |
| 0.00 | 0.00 | 0.00 | 0.43 | 0.53 | 0.60 | 0.65 | 0.72 | 0.77 | 0.80 | 0.84 | 0.87 | |
| Rating:10W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | | |

B Plane (°):-90.0-90.0: 30.0
 Test Lab:
 Test Type: TYPE B
 Temperature:
 Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0
 Test Device: GPM-1600L
 Distance: 7.121 m
 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 | 0.93 | 0.75 | 0.63 | 0.54 | 0.42 | 0.35 | 0.29 | 0.22 | 0.18 | |
| | 0.30 | | 0.77 | 0.64 | 0.55 | 0.48 | 0.38 | 0.32 | 0.27 | 0.21 | 0.17 | |
| | 0.20 | | 0.66 | 0.56 | 0.49 | 0.43 | 0.35 | 0.29 | 0.25 | 0.20 | 0.17 | |
| 0.50 | 0.50 | 0.20 | 0.90 | 0.72 | 0.60 | 0.52 | 0.40 | 0.36 | 0.28 | 0.21 | 0.17 | |
| | 0.30 | | 0.76 | 0.62 | 0.53 | 0.46 | 0.37 | 0.30 | 0.26 | 0.20 | 0.16 | |
| | 0.20 | | 0.66 | 0.55 | 0.48 | 0.42 | 0.34 | 0.28 | 0.24 | 0.19 | 0.16 | |
| 0.30 | 0.50 | 0.20 | 0.87 | 0.69 | 0.58 | 0.49 | 0.38 | 0.31 | 0.26 | 0.20 | 0.16 | |
| | 0.30 | | 0.74 | 0.61 | 0.52 | 0.45 | 0.35 | 0.29 | 0.25 | 0.19 | 0.16 | |
| | 0.20 | | 0.65 | 0.54 | 0.47 | 0.41 | 0.33 | 0.27 | 0.24 | 0.18 | 0.15 | |
| 0.00 | 0.00 | 0.00 | 0.55 | 0.45 | 0.37 | 0.32 | 0.25 | 0.21 | 0.18 | 0.13 | 0.11 | |
| Rating:10W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | | |

B Plane (°):-90.0-90.0: 30.0
 Test Lab:
 Test Type: TYPE B
 Temperature:
 Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0
 Test Device: GPM-1600L
 Distance: 7.121 m
 Humidity:
 Inspector:

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 | 0.17 | 0.17 | 0.18 | 0.19 | 0.19 | 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 | | 0.05 | 0.06 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | |
| 0.50 | 0.50 | 0.20 | 0.15 | 0.16 | 0.17 | 0.17 | 0.18 | 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 | | 0.05 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | |
| 0.30 | 0.50 | 0.20 | 0.15 | 0.16 | 0.16 | 0.17 | 0.18 | 0.18 | 0.18 | 0.19 | 0.19 | |
| | 0.30 | | 0.09 | 0.10 | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.17 | |
| | 0.20 | | 0.05 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | |
| 0.00 | 0.00 | 0.00 | NA | NA | NA | NA | NA | NA | NA | NA | NA | |
| Rating:10W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | | |

B Plane (°):-90.0-90.0: 30.0
 Test Lab:
 Test Type: TYPE B
 Temperature:
 Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0
 Test Device: GPM-1600L
 Distance: 7.121 m
 Humidity:
 Inspector:

Zonal Lumen

[illegible]

B Plane (°):-90.0-90.0: 30.0
Test Lab:
Test Type: TYPE B
Temperature:
Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0
Test Device: GPM-1600L
Distance: 7.121 m
Humidity:
Inspector:

Zonal Lumen (Continue 1)

cone flux(90°): 485.86 lm

%lum = 56.9%
%lamp = 56.9%

cone flux(120°): 703.09 lm

%lum = 82.4%
%lamp = 82.4%

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

Unit: cd

Inspector:

Unit: cd

Inspector:

Unit: cd

| | |
|------------------------------|-------------------------------|
| B Plane (°):-90.0-90.0: 30.0 | Beta Plane (°):-90.0-90.0:1.0 |
| Test Lab: | Test Device: GPM-1600L |
| Test Type: TYPE B | Distance: 7.121 m |
| Temperature: | Humidity: |
| Operator: ZBB | Inspector: |

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

Unit: cd

Inspector:

Unit: cd

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

Unit: cd

Inspector:

Unit: cd

Inspector:

Unit: cd

Inspector:

Unit: cd

Inspector:

Unit: cd

Inspector:

Unit: cd

Inspector:

Unit: cd

Inspector:

Unit: cd

Inspector:

Unit: cd

| | |
|------------------------------|-------------------------------|
| B Plane (°):-90.0-90.0: 30.0 | Beta Plane (°):-90.0-90.0:1.0 |
| Test Lab: | Test Device: GPM-1600L |
| Test Type: TYPE B | Distance: 7.121 m |
| Temperature: | Humidity: |
| Operator: ZBB | Inspector: |

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

Unit: cd

Inspector:

Unit: cd

Inspector:

Unit: cd

| | |
|------------------------------|-------------------------------|
| B Plane (°):-90.0-90.0: 30.0 | Beta Plane (°):-90.0-90.0:1.0 |
| Test Lab: | Test Device: GPM-1600L |
| Test Type: TYPE B | Distance: 7.121 m |
| Temperature: | Humidity: |
| Operator: ZBB | Inspector: |

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector:

Unit: cd

Inspector:

Unit: cd

Inspector:

LED Average Luminance Report

| Avg.L | cd/m ² |
|-----------------|-------------------|
| L 0-180(65) av | 1.#J |
| L 0-180(75) av | 1.#J |
| L 0-180(85) av | -1.#J |
| L 90-270(65) av | 1.#J |
| L 90-270(75) av | 1.#J |
| L 90-270(85) av | 1.#J |
| L 45(65) av | 1.#J |
| L 45(75) av | 1.#J |
| L 45(85) av | 1.#J |

Standard: GB/T 29293-2012

B Plane (°):-90.0-90.0: 30.0

Test Lab:

Test Type: TYPE B

Temperature:

Operator: ZBB

Beta Plane (°):-90.0-90.0:1.0

Test Device: GPM-1600L

Distance: 7.121 m

Humidity:

Inspector: