

Report No.: 1

Test Time: 23.07.2019 15:55

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FL 58 2x152 LED 40W 4000K opal

Lamp Description: LED

Luminous Width (mm): 76

Voltage: 221.5 V

Power: 42.20 W

Luminous Length (mm): 1500

Luminous Height (mm): 60

Current: 0.194 A

Power Factor: 0.981

Photometric Results

CIE Class: Direct

Measurement Flux: 5126 lm

Downward Ratio: 99%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 166.9, 164.3, 165.2, 165.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 114.7, 112.2, 113.6, 113.7

Luminaire Efficacy Rating (LER): 121.52

Max. Intensity: 1736.42 cd

S/MH(C0/C180): 1.26

Total Rated Lamp Lumens: 5126.0 lm

Efficiency: 100%

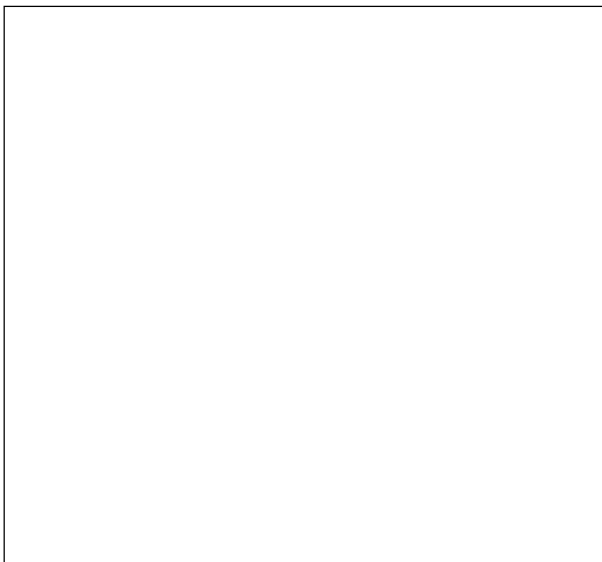
Upward Ratio: 1%

Central Intensity: 1735 cd

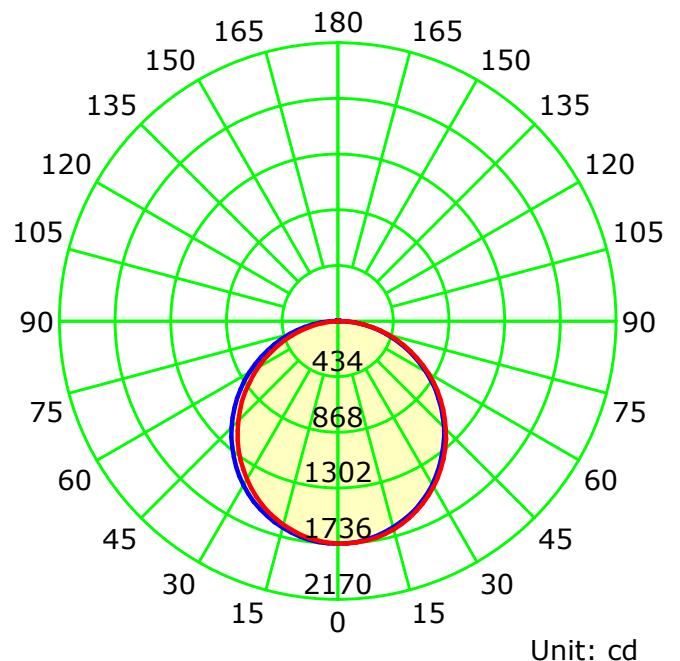
Pos of Max. Intensity: H112.5 V2.5

S/MH(C90/C270): 1.25

Picture Of Luminaire



Luminous Intensity Distribution Curve



— C0-C180 — C90-C270

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.5

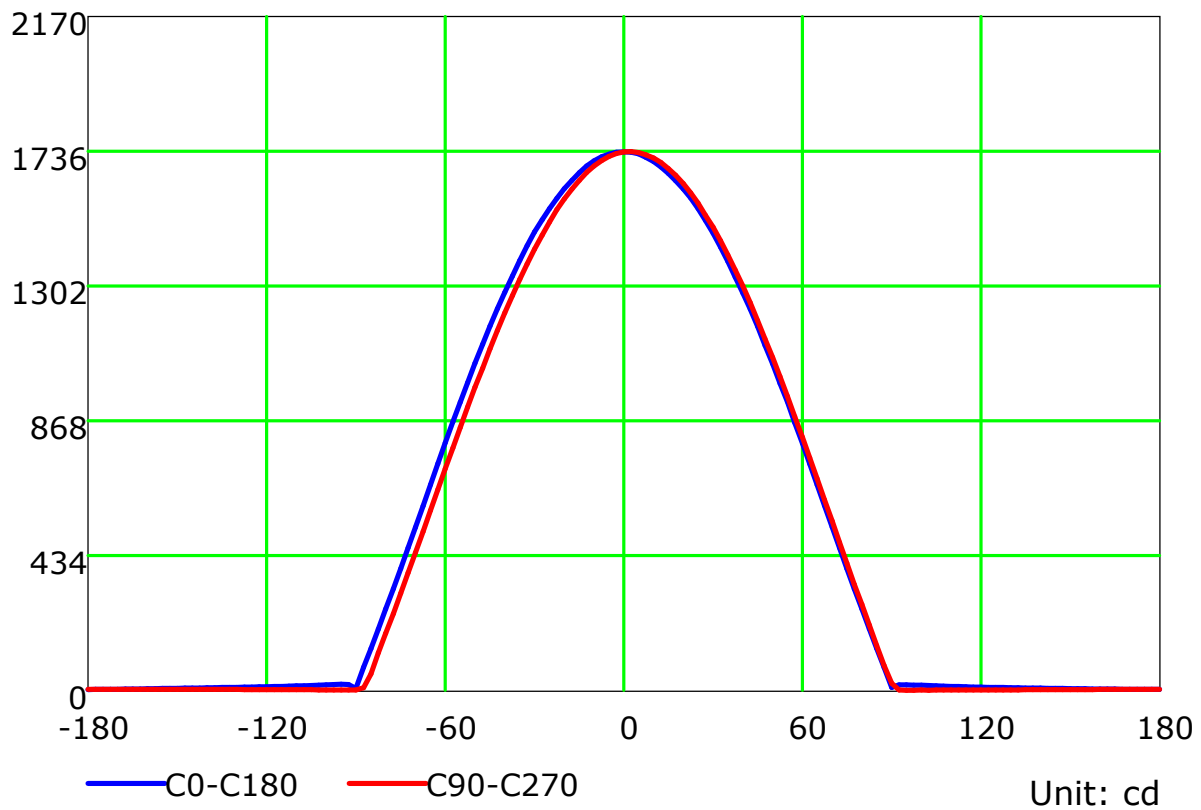
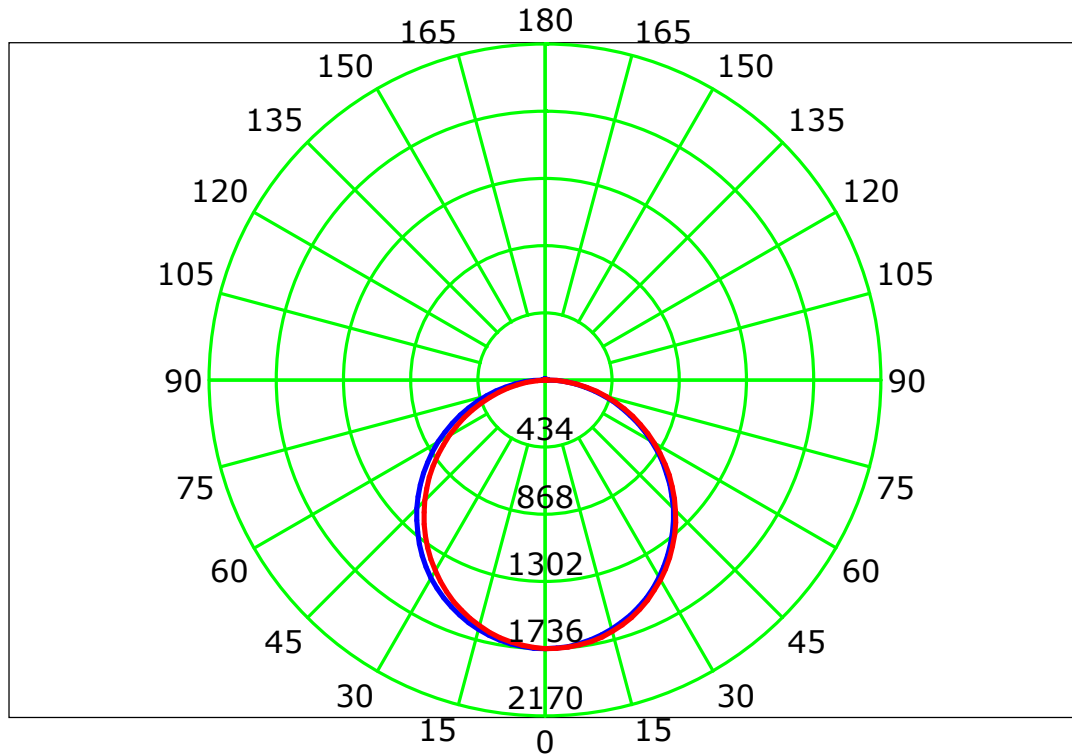
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.5

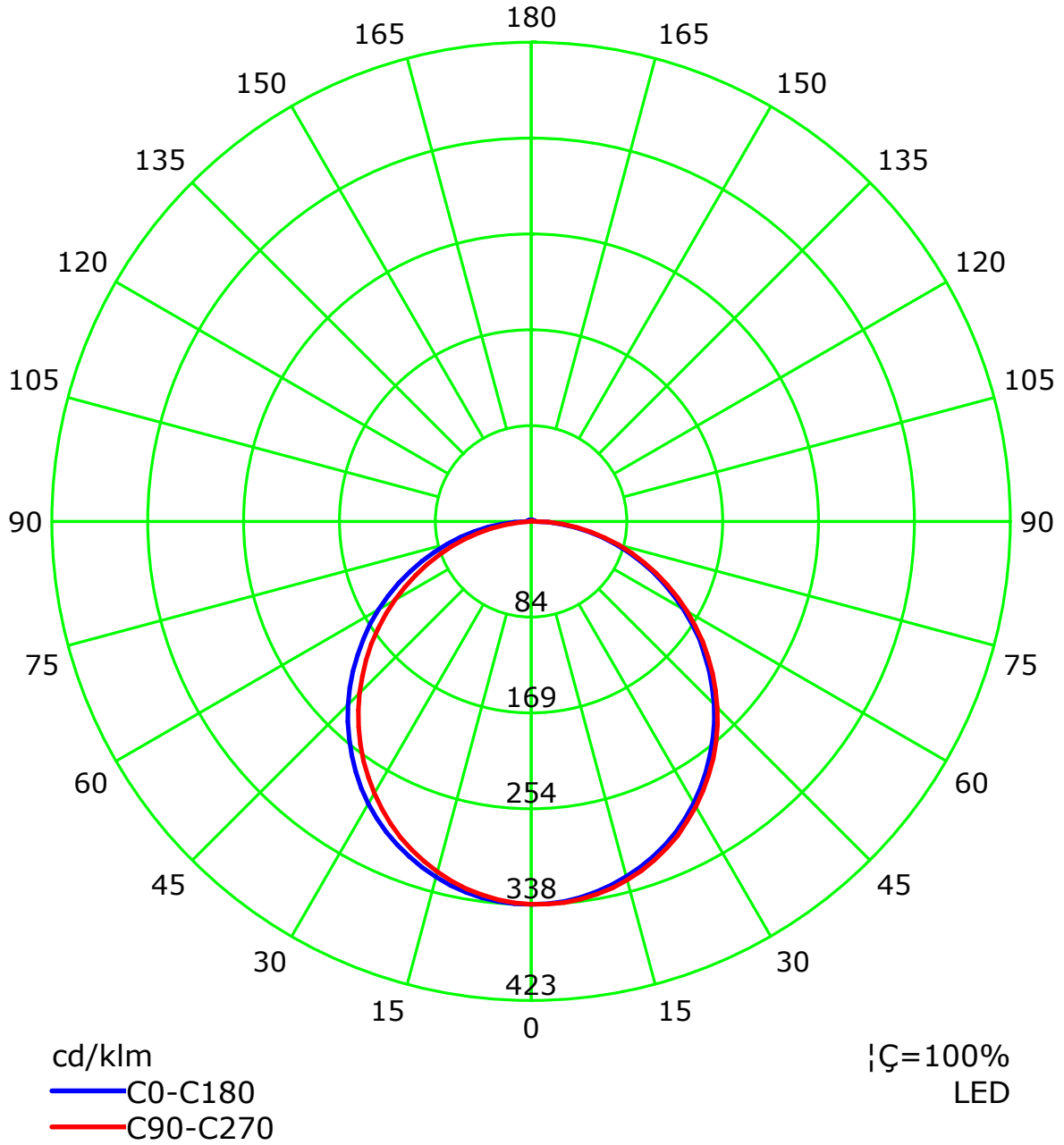
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Luminous Intensity Distribution Curve(cd/klm)



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.5

Test Device: LSG-1800B

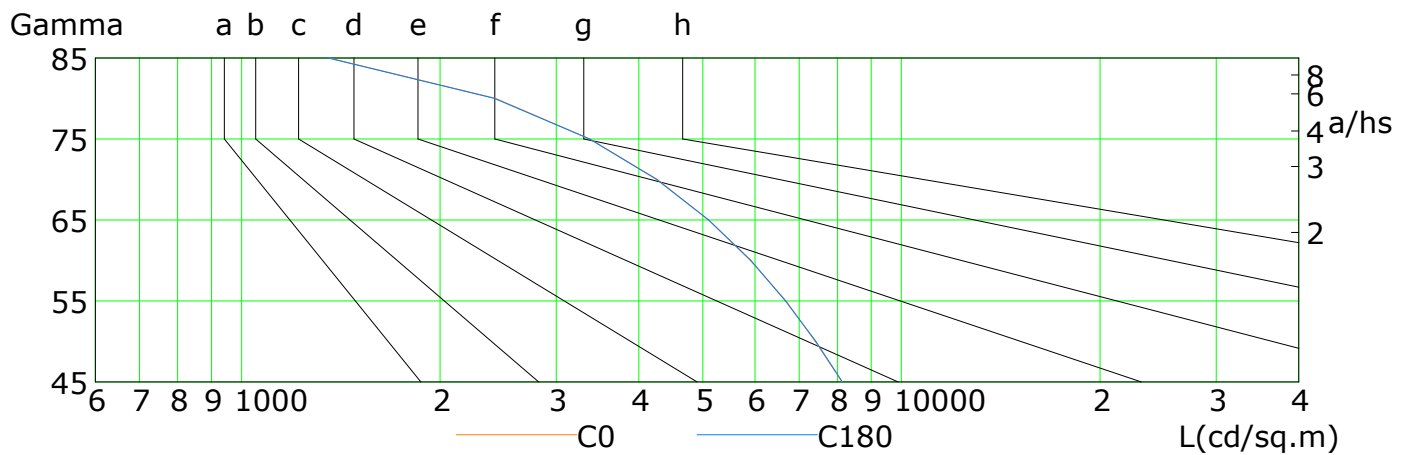
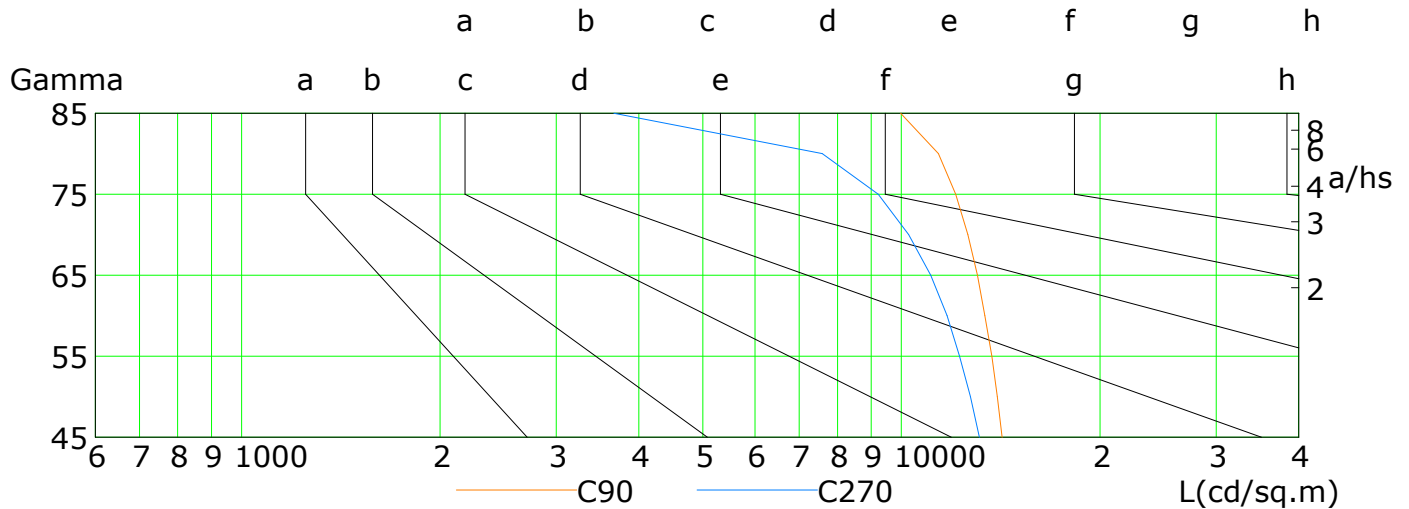
Distance: 12.677 m

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 |



| L(cd/sq.m) | G45 | G50 | G55 | G60 | G65 | G70 | G75 | G80 | G85 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| C0 | 8130 | 7400 | 6689 | 5900 | 5105 | 4264 | 3370 | 2425 | 1358 |
| C90 | 14217 | 13975 | 13713 | 13384 | 13035 | 12608 | 12084 | 11380 | 9977 |
| C180 | 8136 | 7416 | 6673 | 5912 | 5103 | 4256 | 3368 | 2416 | 1352 |
| C270 | 13124 | 12728 | 12247 | 11722 | 11081 | 10262 | 9222 | 7584 | 3667 |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.5

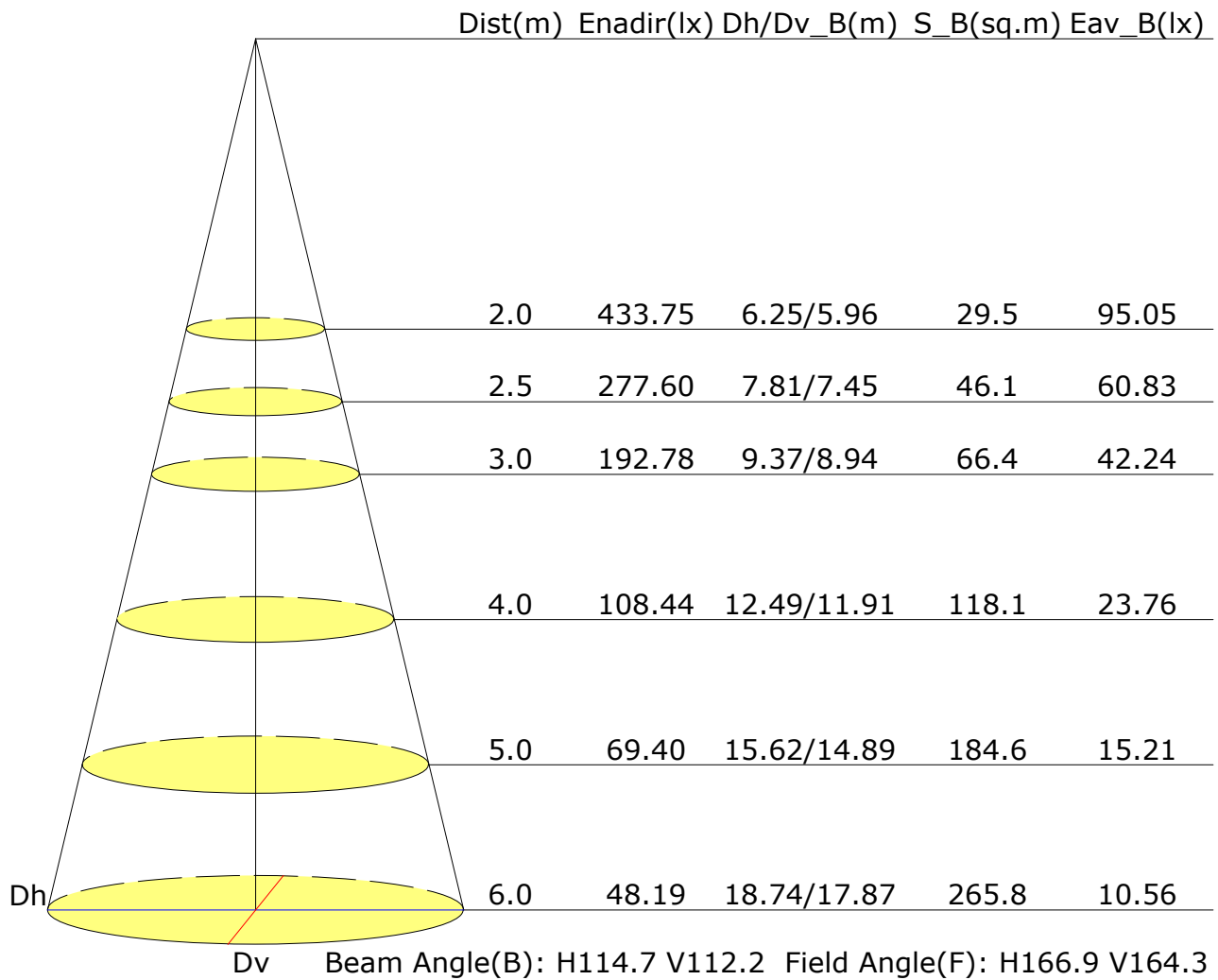
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Illuminance at a Distance



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.5

Test Device: LSG-1800B

Distance: 12.677 m

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 | 19.3 | 20.7 | 19.6 | 20.9 | 21.2 | 20.5 | 21.9 | 20.8 | 22.2 | 22.4 |
| 3H | 20.5 | 21.8 | 20.9 | 22.1 | 22.4 | 22.1 | 23.4 | 22.4 | 23.7 | 24.0 |
| 4H | 21.0 | 22.2 | 21.3 | 22.5 | 22.8 | 22.8 | 24.0 | 23.1 | 24.3 | 24.6 |
| 6H | 21.3 | 22.4 | 21.7 | 22.7 | 23.1 | 23.3 | 24.4 | 23.7 | 24.7 | 25.1 |
| 8H | 21.4 | 22.5 | 21.8 | 22.8 | 23.2 | 23.5 | 24.6 | 23.9 | 24.9 | 25.2 |
| 12H | 21.4 | 22.5 | 21.8 | 22.8 | 23.2 | 23.6 | 24.6 | 24.0 | 25.0 | 25.3 |
| X=4H Y=2H | 19.9 | 21.1 | 20.3 | 21.4 | 21.7 | 20.9 | 22.1 | 21.3 | 22.4 | 22.7 |
| 3H | 21.3 | 22.4 | 21.7 | 22.7 | 23.1 | 22.7 | 23.7 | 23.1 | 24.0 | 24.4 |
| 4H | 21.9 | 22.8 | 22.3 | 23.2 | 23.6 | 23.4 | 24.4 | 23.8 | 24.7 | 25.1 |
| 6H | 22.3 | 23.2 | 22.8 | 23.6 | 24.0 | 24.0 | 24.9 | 24.5 | 25.3 | 25.7 |
| 8H | 22.5 | 23.2 | 22.9 | 23.6 | 24.1 | 24.3 | 25.0 | 24.7 | 25.5 | 25.9 |
| 12H | 22.5 | 23.2 | 23.0 | 23.7 | 24.1 | 24.4 | 25.1 | 24.9 | 25.6 | 26.0 |
| X=8H Y=4H | 22.2 | 23.0 | 22.6 | 23.4 | 23.8 | 23.6 | 24.3 | 24.0 | 24.7 | 25.2 |
| 6H | 22.7 | 23.3 | 23.2 | 23.8 | 24.3 | 24.3 | 24.9 | 24.8 | 25.4 | 25.8 |
| 8H | 22.9 | 23.5 | 23.4 | 23.9 | 24.4 | 24.6 | 25.1 | 25.1 | 25.6 | 26.1 |
| 12H | 23.0 | 23.5 | 23.5 | 24.0 | 24.5 | 24.8 | 25.2 | 25.3 | 25.7 | 26.3 |
| X=12H Y=4H | 22.2 | 22.9 | 22.7 | 23.3 | 23.8 | 23.6 | 24.3 | 24.0 | 24.7 | 25.1 |
| 6H | 22.8 | 23.3 | 23.3 | 23.8 | 24.3 | 24.3 | 24.8 | 24.8 | 25.3 | 25.8 |
| 8H | 23.0 | 23.5 | 23.5 | 23.9 | 24.5 | 24.6 | 25.1 | 25.1 | 25.6 | 26.1 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S=1.0H | +0.2/-0.2 | | | | | +0.2/-0.2 | | | | |
| S=1.5H | +0.3/-0.6 | | | | | +0.3/-0.4 | | | | |
| S=2.0H | +0.6/-1.1 | | | | | +0.7/-0.8 | | | | |

Calculate in accordance with CIE Pub.117. The table is revised with 5126lm ($8\log(F/F_0) = 5.7$).

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