

Report No.:

Test Time: 22.06.2020 14:58

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FL 60/1000 48W 4000K прозрачный

Luminous Length (mm): 950

Luminous Width (mm): 60

Luminous Height (mm): 70

Voltage: 221.1 V

Current: 0.232 A

Power: 48.68 W

Power Factor: 0.945

Photometric Results

CIE Class: Direct

Measurement Flux: 6348.8 lm

Downward Ratio: 100%

Total Rated Lamp Lumens: 6348.8 lm

Efficiency: 100%

Upward Ratio: 0%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 156.4, 117.7, 134.3, 133.8

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 114.2, 109.5, 111.7, 111.5

Luminaire Efficacy Rating (LER): 130.47

Central Intensity: 2468.45 cd

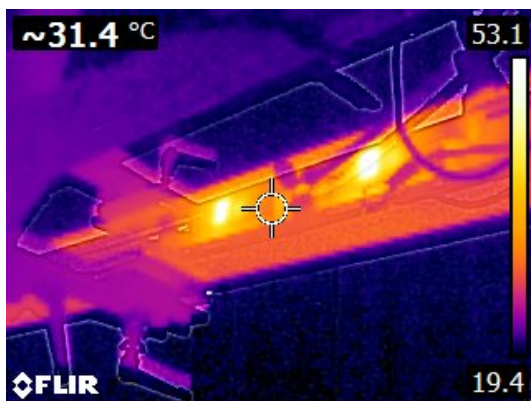
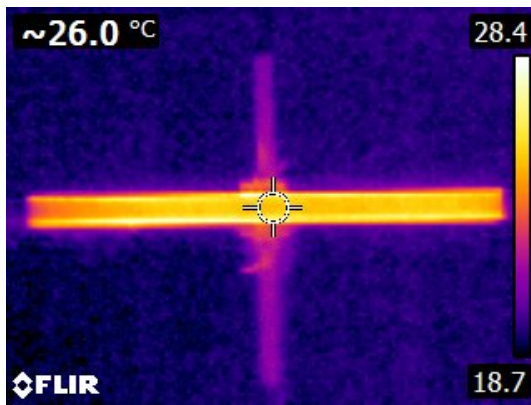
Max. Intensity: 2470.33 cd

Pos of Max. Intensity: H112.5 V0

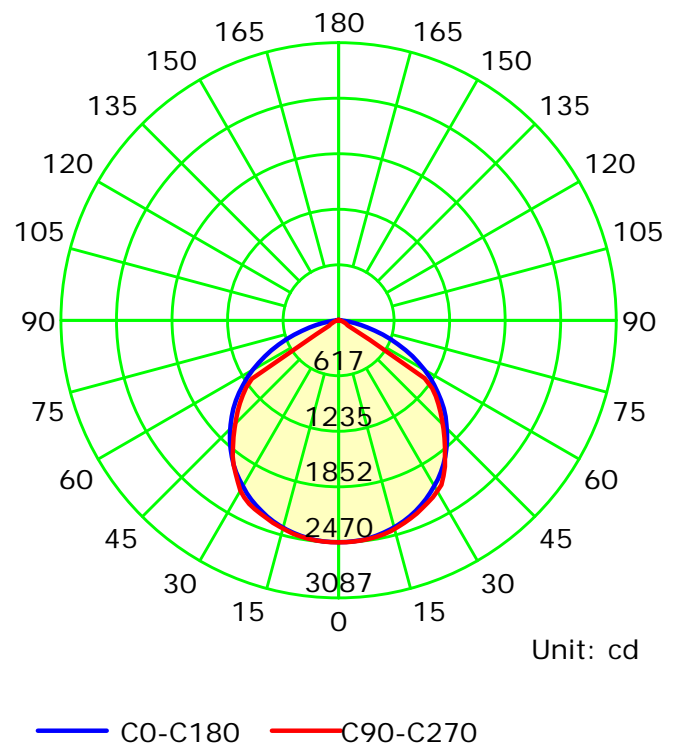
S/MH(C0/C180): 1.28

S/MH(C90/C270): 1.30

Termogramma



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

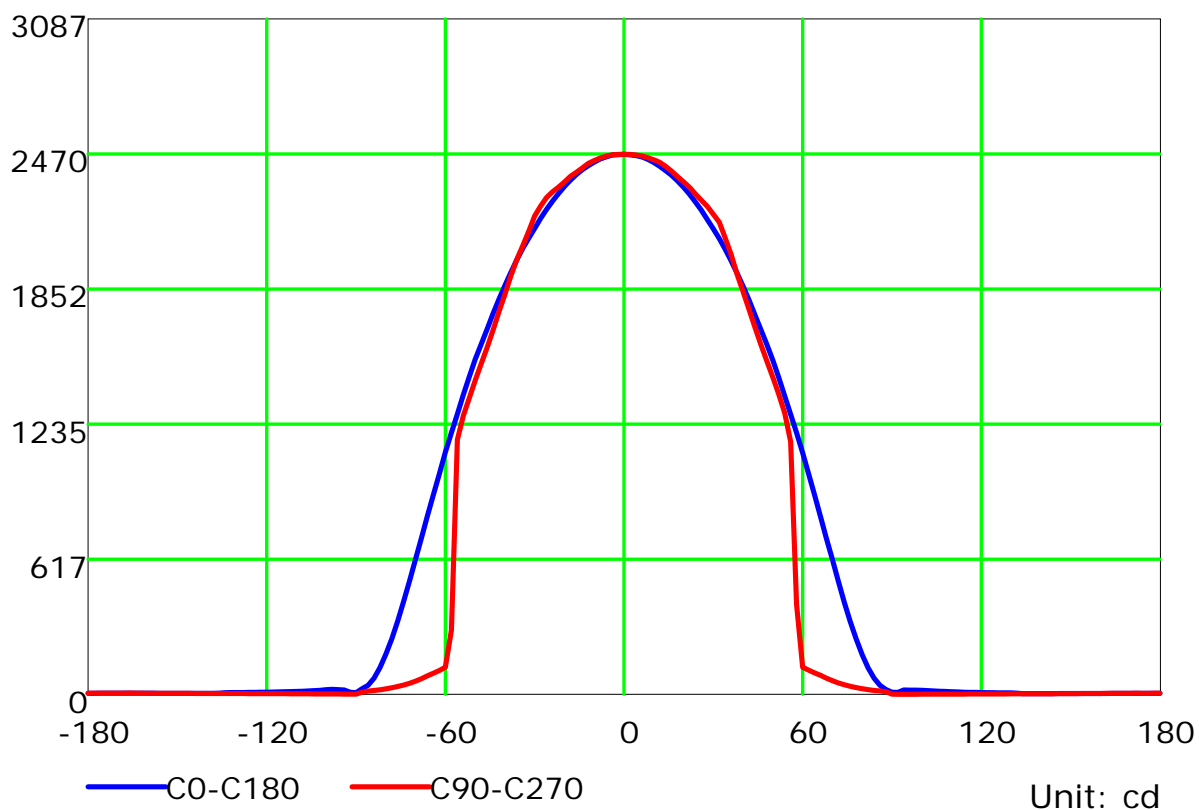
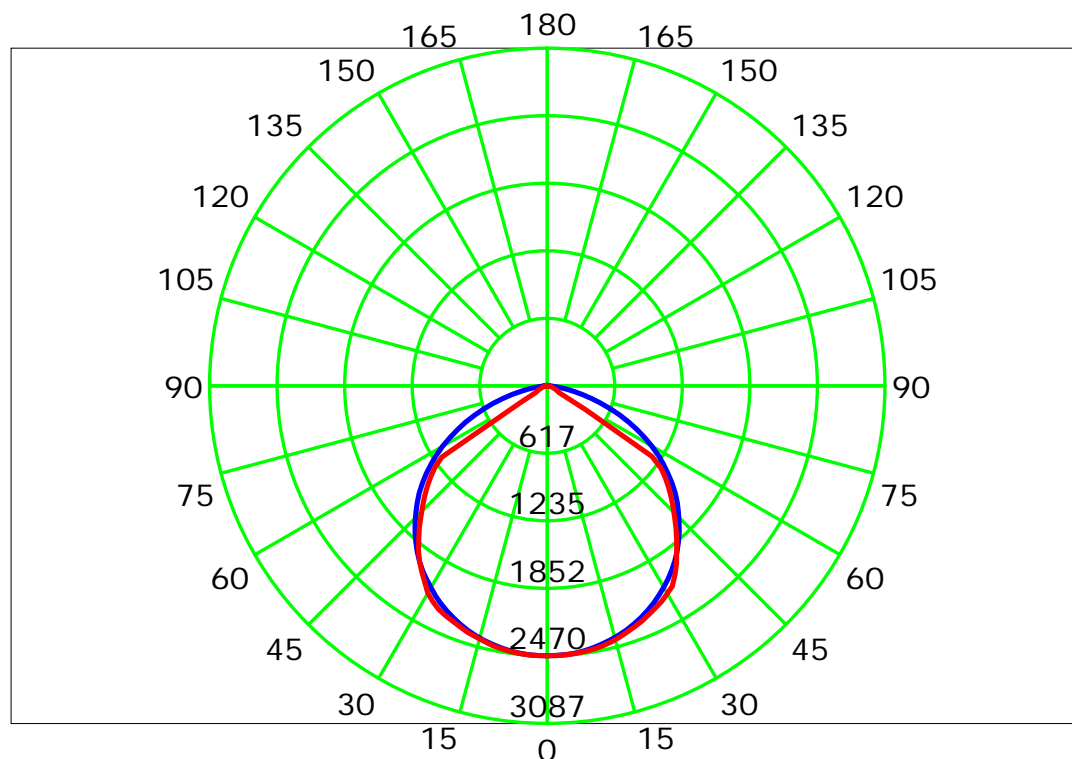
Test Device: LSG-1800B

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 (°):0.0-180.0:2.0

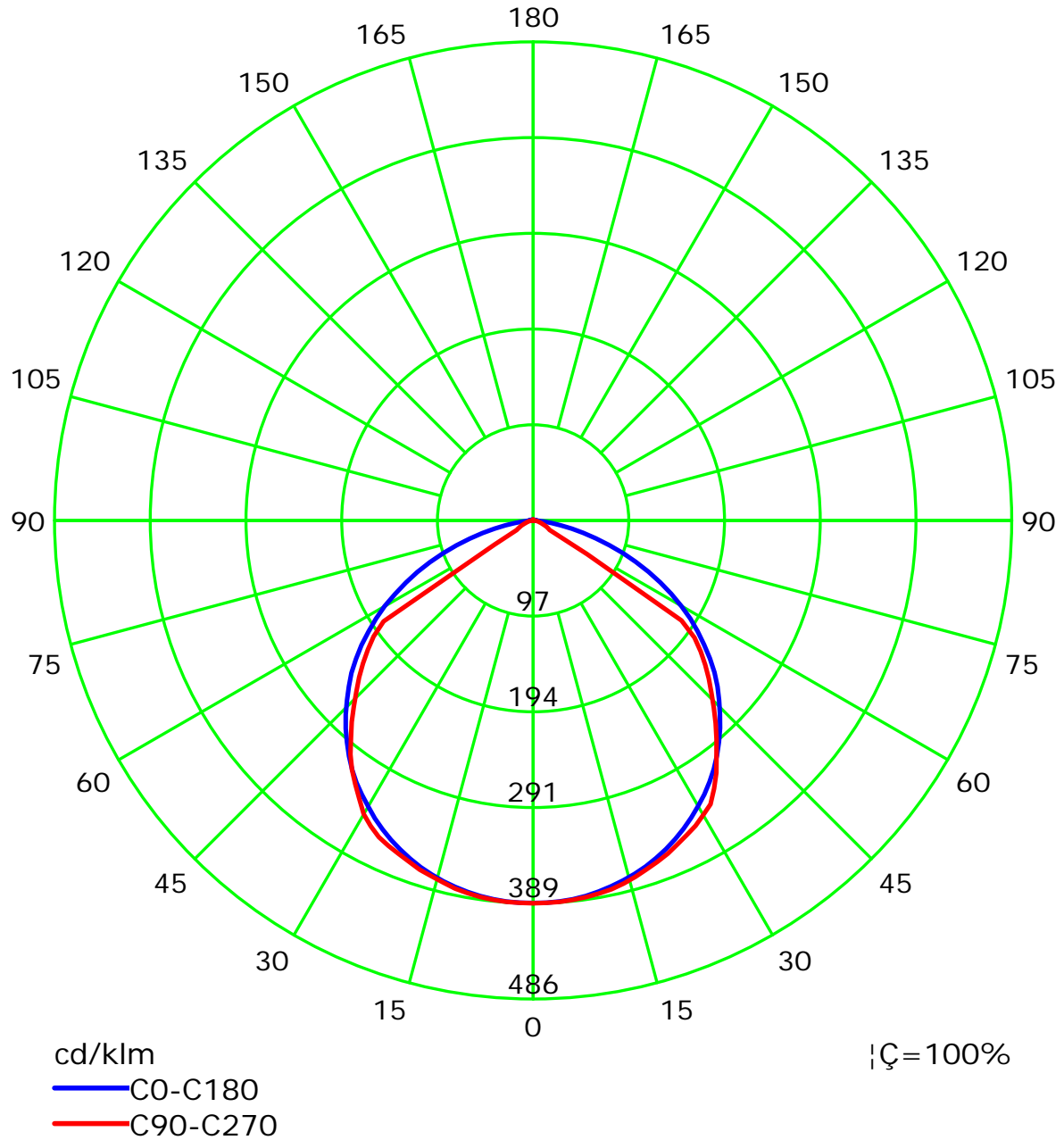
Test Device: LSG-1800B

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 (°):0.0-180.0:2.0

Test Device: LSG-1800B

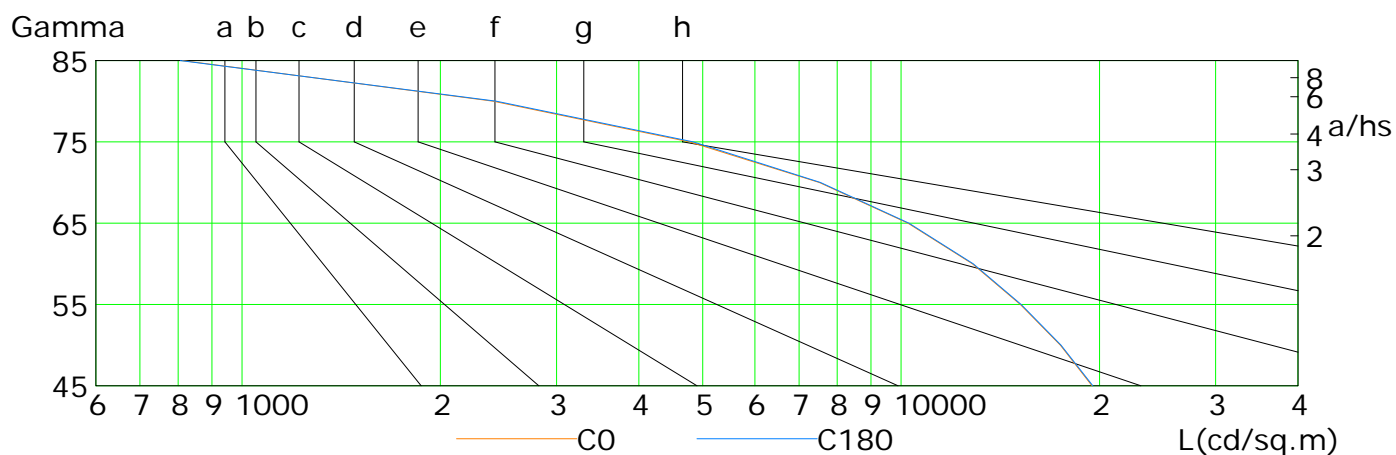
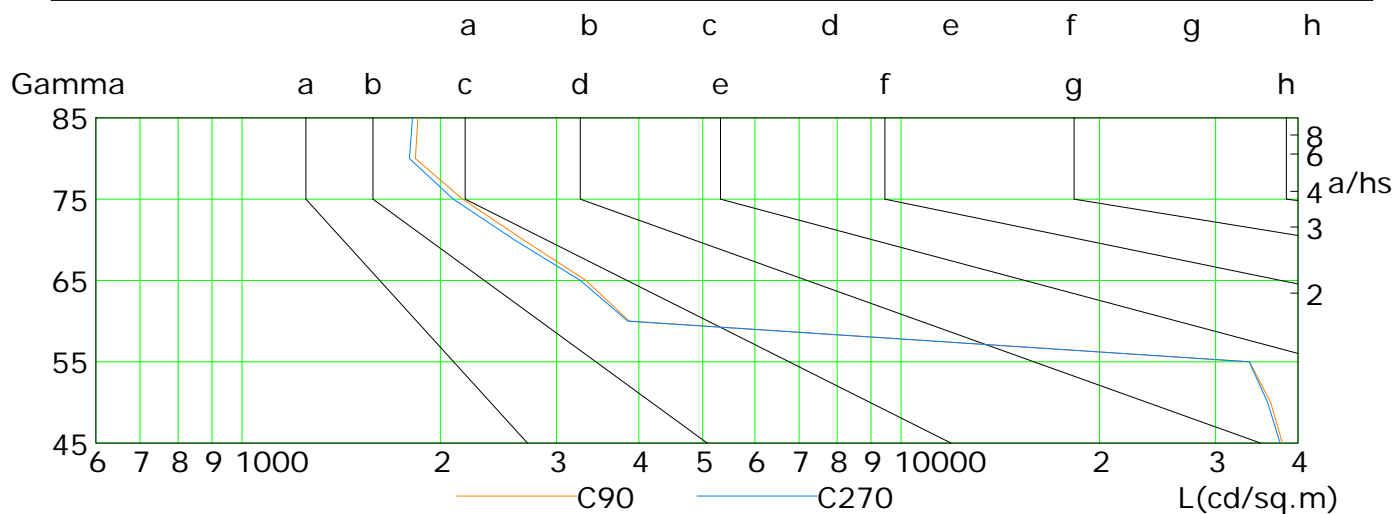
Distance: 12.677 m

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 | 19480 | 17436 | 15162 | 12828 | 10239 | 7516 | 4776 | 2406 | 812 |
| C90 | 37869 | 36369 | 33780 | 3867 | 3327 | 2671 | 2161 | 1832 | 1849 |
| C180 | 19531 | 17481 | 15208 | 12864 | 10277 | 7545 | 4835 | 2432 | 806 |
| C270 | 37578 | 35986 | 33738 | 3849 | 3261 | 2589 | 2093 | 1795 | 1814 |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

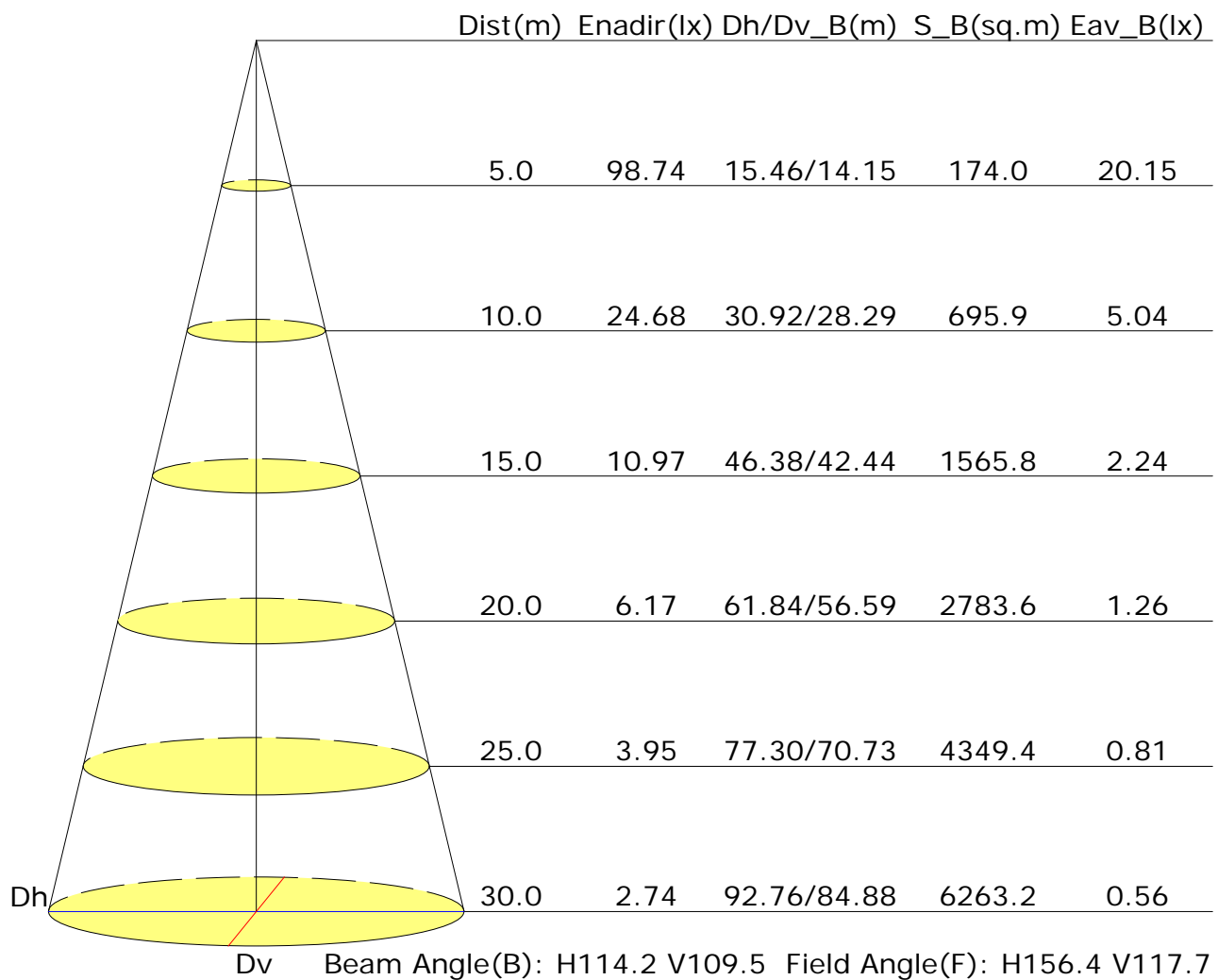
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

Illuminance at a Distance



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 | 22.7 | 24.0 | 23.0 | 24.2 | 24.4 | 22.4 | 23.7 | 22.7 | 24.0 | 24.2 |
| 3H | 23.5 | 24.7 | 23.9 | 25.0 | 25.3 | 22.3 | 23.5 | 22.6 | 23.7 | 24.0 |
| 4H | 23.8 | 24.8 | 24.1 | 25.1 | 25.4 | 22.2 | 23.3 | 22.6 | 23.6 | 23.9 |
| 6H | 23.8 | 24.8 | 24.1 | 25.1 | 25.4 | 22.2 | 23.2 | 22.5 | 23.5 | 23.8 |
| 8H | 23.8 | 24.7 | 24.1 | 25.1 | 25.4 | 22.1 | 23.1 | 22.5 | 23.4 | 23.7 |
| 12H | 23.7 | 24.7 | 24.1 | 25.0 | 25.3 | 22.1 | 23.0 | 22.5 | 23.3 | 23.7 |
| X=4H Y=2H | 23.0 | 24.1 | 23.3 | 24.3 | 24.6 | 22.7 | 23.8 | 23.0 | 24.1 | 24.4 |
| 3H | 23.9 | 24.8 | 24.3 | 25.2 | 25.5 | 22.6 | 23.5 | 23.0 | 23.8 | 24.2 |
| 4H | 24.2 | 25.0 | 24.6 | 25.3 | 25.7 | 22.5 | 23.3 | 22.9 | 23.7 | 24.1 |
| 6H | 24.2 | 24.9 | 24.6 | 25.3 | 25.7 | 22.5 | 23.2 | 22.9 | 23.6 | 24.0 |
| 8H | 24.2 | 24.9 | 24.6 | 25.3 | 25.7 | 22.4 | 23.1 | 22.9 | 23.5 | 23.9 |
| 12H | 24.2 | 24.8 | 24.6 | 25.2 | 25.6 | 22.4 | 23.0 | 22.9 | 23.4 | 23.9 |
| X=8H Y=4H | 24.1 | 24.7 | 24.5 | 25.1 | 25.6 | 22.5 | 23.1 | 22.9 | 23.5 | 24.0 |
| 6H | 24.1 | 24.6 | 24.6 | 25.1 | 25.6 | 22.4 | 22.9 | 22.9 | 23.4 | 23.9 |
| 8H | 24.1 | 24.6 | 24.6 | 25.0 | 25.5 | 22.4 | 22.9 | 22.9 | 23.3 | 23.8 |
| 12H | 24.1 | 24.5 | 24.6 | 25.0 | 25.5 | 22.4 | 22.8 | 22.9 | 23.3 | 23.8 |
| X=12H Y=4H | 24.0 | 24.6 | 24.5 | 25.1 | 25.5 | 22.4 | 23.0 | 22.9 | 23.5 | 23.9 |
| 6H | 24.1 | 24.5 | 24.6 | 25.0 | 25.5 | 22.4 | 22.9 | 22.9 | 23.3 | 23.8 |
| 8H | 24.1 | 24.5 | 24.6 | 25.0 | 25.5 | 22.4 | 22.8 | 22.9 | 23.2 | 23.8 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S=1.0H | +0.2/-0.3 | | | | | +0.8/-1.2 | | | | |
| S=1.5H | +0.6/-1.4 | | | | | +2.5/-9.0 | | | | |
| S=2.0H | +1.1/-2.2 | | | | | +4.0/-11.5 | | | | |

Calculate in accordance with CIE Pub.117. The table is revised with 6349Im ($8\log(F/F_0) = 6.4$).

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

Test Device: LSG-1800B

Distance: 12.677 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 | 0.61 | 0.72 | 0.80 | 0.85 | 0.92 | 0.97 | 1.00 | 1.04 | 1.07 | |
| | 0.30 | | 0.54 | 0.65 | 0.73 | 0.79 | 0.87 | 0.92 | 0.96 | 1.01 | 1.04 | |
| | 0.20 | | 0.48 | 0.60 | 0.68 | 0.74 | 0.82 | 0.88 | 0.92 | 0.97 | 1.01 | |
| 0.50 | 0.50 | 0.20 | 0.59 | 0.70 | 0.77 | 0.82 | 0.89 | 0.93 | 0.96 | 1.00 | 1.02 | |
| | 0.30 | | 0.53 | 0.64 | 0.72 | 0.77 | 0.84 | 0.89 | 0.93 | 0.97 | 1.00 | |
| | 0.20 | | 0.48 | 0.59 | 0.67 | 0.73 | 0.81 | 0.86 | 0.90 | 0.95 | 0.98 | |
| 0.30 | 0.50 | 0.20 | 0.58 | 0.68 | 0.75 | 0.80 | 0.86 | 0.90 | 0.93 | 0.96 | 0.98 | |
| | 0.30 | | 0.52 | 0.63 | 0.70 | 0.75 | 0.82 | 0.87 | 0.90 | 0.94 | 0.97 | |
| | 0.20 | | 0.48 | 0.59 | 0.66 | 0.72 | 0.79 | 0.84 | 0.87 | 0.92 | 0.95 | |
| 0.00 | 0.00 | 0.00 | 0.45 | 0.56 | 0.63 | 0.69 | 0.76 | 0.80 | 0.83 | 0.87 | 0.90 | |
| Rating: 49W Photometrically tested without ceiling board. Multiply UF values by service correction factors 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 | 0.95 | 0.76 | 0.64 | 0.55 | 0.43 | 0.35 | 0.30 | 0.23 | 0.19 | |
| | 0.30 | | 0.79 | 0.65 | 0.55 | 0.48 | 0.39 | 0.32 | 0.28 | 0.22 | 0.18 | |
| | 0.20 | | 0.68 | 0.57 | 0.49 | 0.43 | 0.35 | 0.30 | 0.26 | 0.20 | 0.17 | |
| 0.50 | 0.50 | 0.20 | 0.91 | 0.73 | 0.61 | 0.52 | 0.41 | 0.37 | 0.28 | 0.22 | 0.17 | |
| | 0.30 | | 0.77 | 0.63 | 0.54 | 0.47 | 0.37 | 0.31 | 0.26 | 0.20 | 0.17 | |
| | 0.20 | | 0.67 | 0.56 | 0.48 | 0.42 | 0.34 | 0.29 | 0.25 | 0.19 | 0.16 | |
| 0.30 | 0.50 | 0.20 | 0.89 | 0.70 | 0.58 | 0.50 | 0.39 | 0.32 | 0.27 | 0.20 | 0.17 | |
| | 0.30 | | 0.76 | 0.62 | 0.52 | 0.45 | 0.36 | 0.30 | 0.25 | 0.20 | 0.16 | |
| | 0.20 | | 0.66 | 0.55 | 0.47 | 0.41 | 0.33 | 0.28 | 0.24 | 0.19 | 0.15 | |
| 0.00 | 0.00 | 0.00 | 0.56 | 0.45 | 0.37 | 0.32 | 0.25 | 0.21 | 0.18 | 0.13 | 0.11 | |
| Rating: 49W Photometrically tested without ceiling board. Multiply UF values by service correction factors 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 | 0.16 | 0.18 | 0.18 | 0.19 | 0.20 | 0.21 | 0.21 | 0.22 | 0.22 | |
| | 0.30 | | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | |
| | 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 | 0.16 | 0.17 | 0.18 | 0.18 | 0.19 | 0.20 | 0.20 | 0.21 | 0.21 | |
| | 0.30 | | 0.10 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | |
| | 0.20 | | 0.05 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | |
| 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 | | 0.10 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | |
| | 0.20 | | 0.05 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Rating: 49W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | | |