

Report No.:

Test Time: 16.04.2020 13:01

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FT 185 47W 3000K linza 90x155 gr. N IPS 50-382

Luminous Length (mm): 587

Luminous Width (mm): 177

Luminous Height (mm): 73

Voltage: 229.1 V

Current: 0.224 A

Power: 50.27 W

Power Factor: 0.978

Photometric Results

CIE Class: Direct

Measurement Flux: 6842.8 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 6842.8 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 157.0, 171.0, 177.3, 177.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 101.0, 149.6, 154.6, 155.4

Luminaire Efficacy Rating (LER): 136.17

Central Intensity: 1561.64 cd

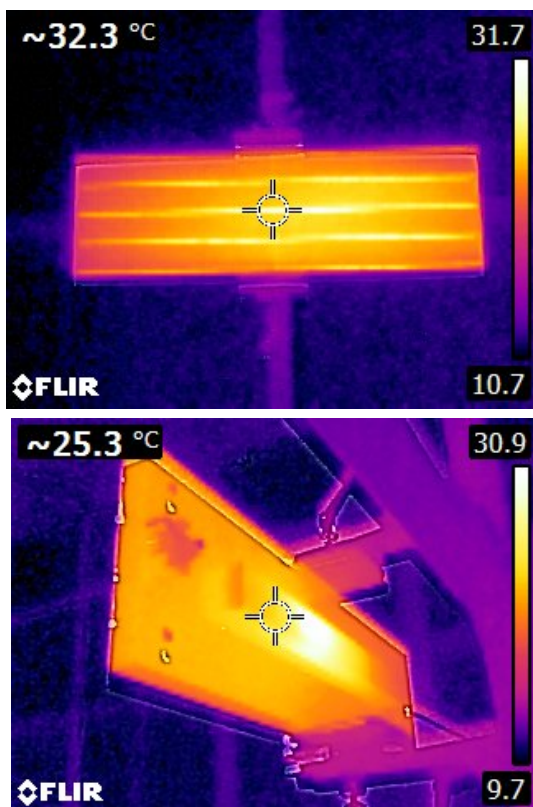
Max. Intensity: 2439.77 cd

Pos of Max. Intensity: H270 V64

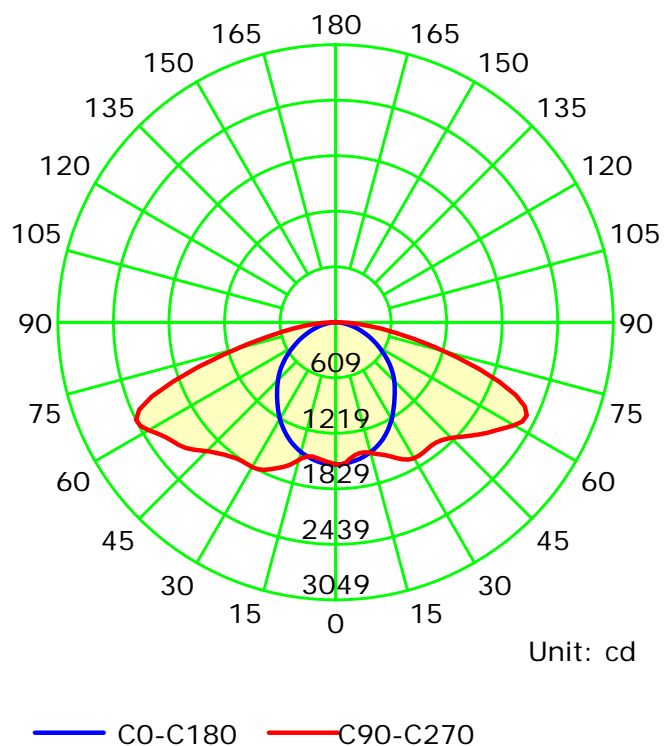
S/MH(C0/C180): 1.18

S/MH(C90/C270): 1.75

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

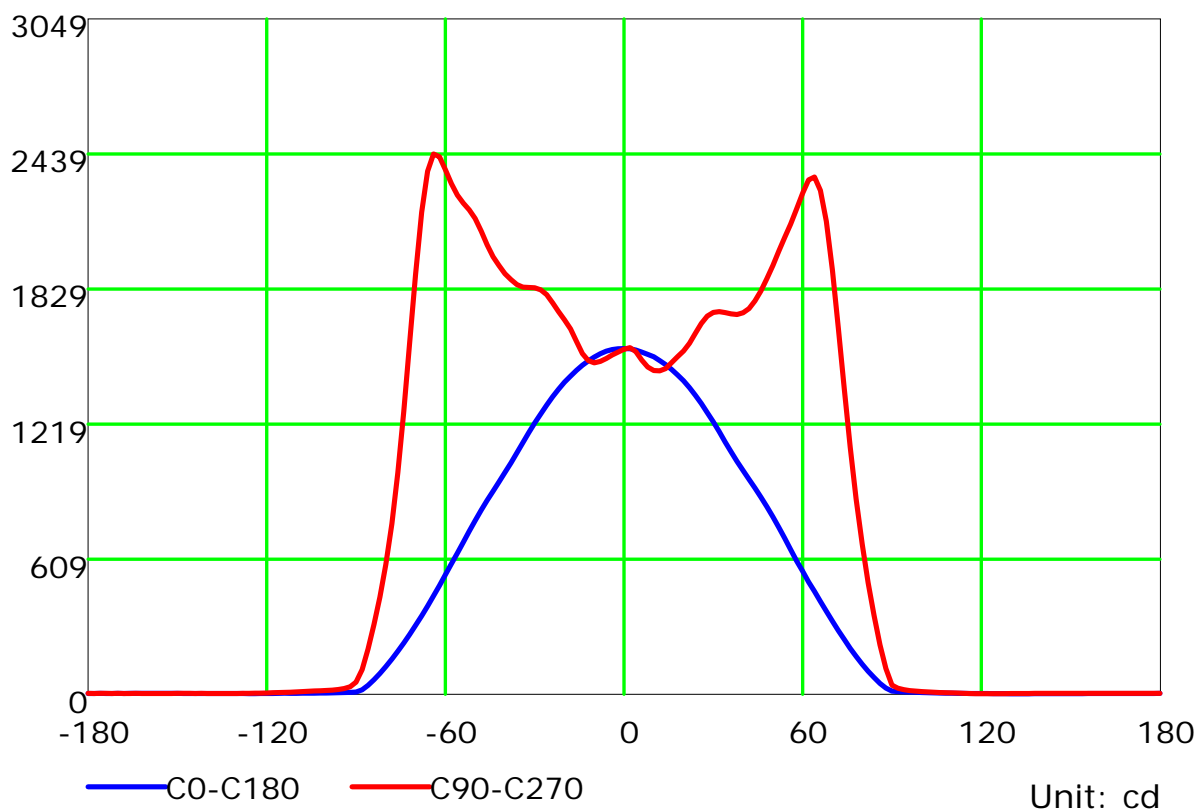
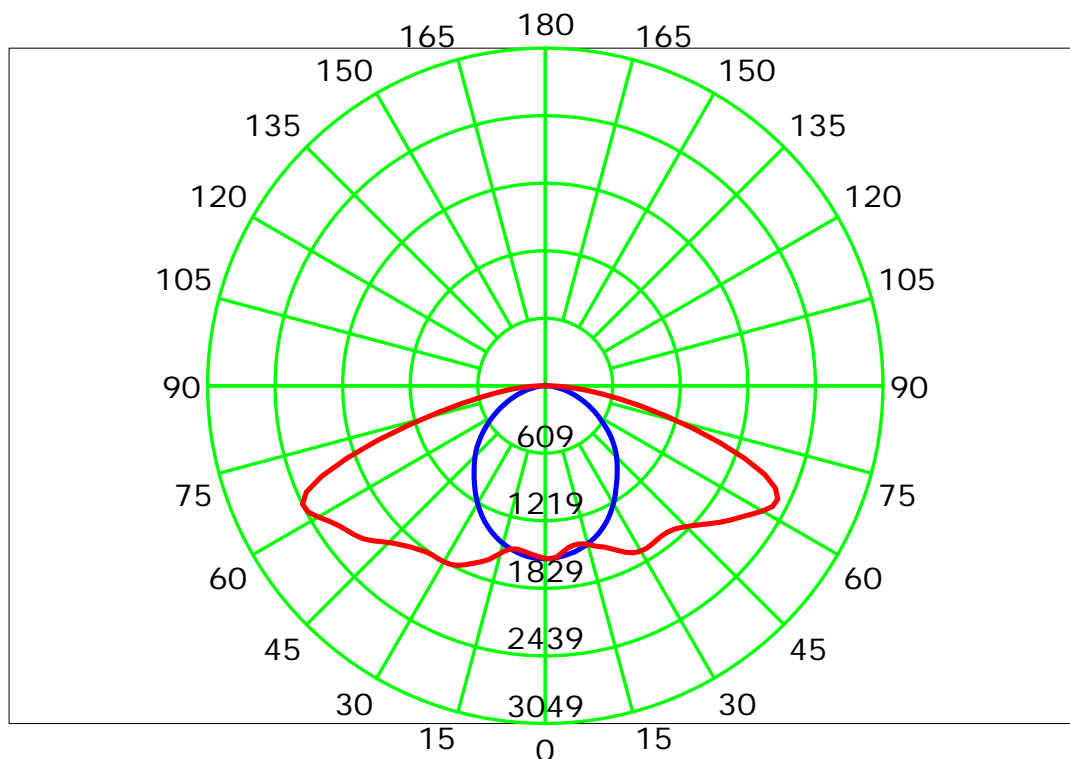
Test Device: LSG-1800B

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

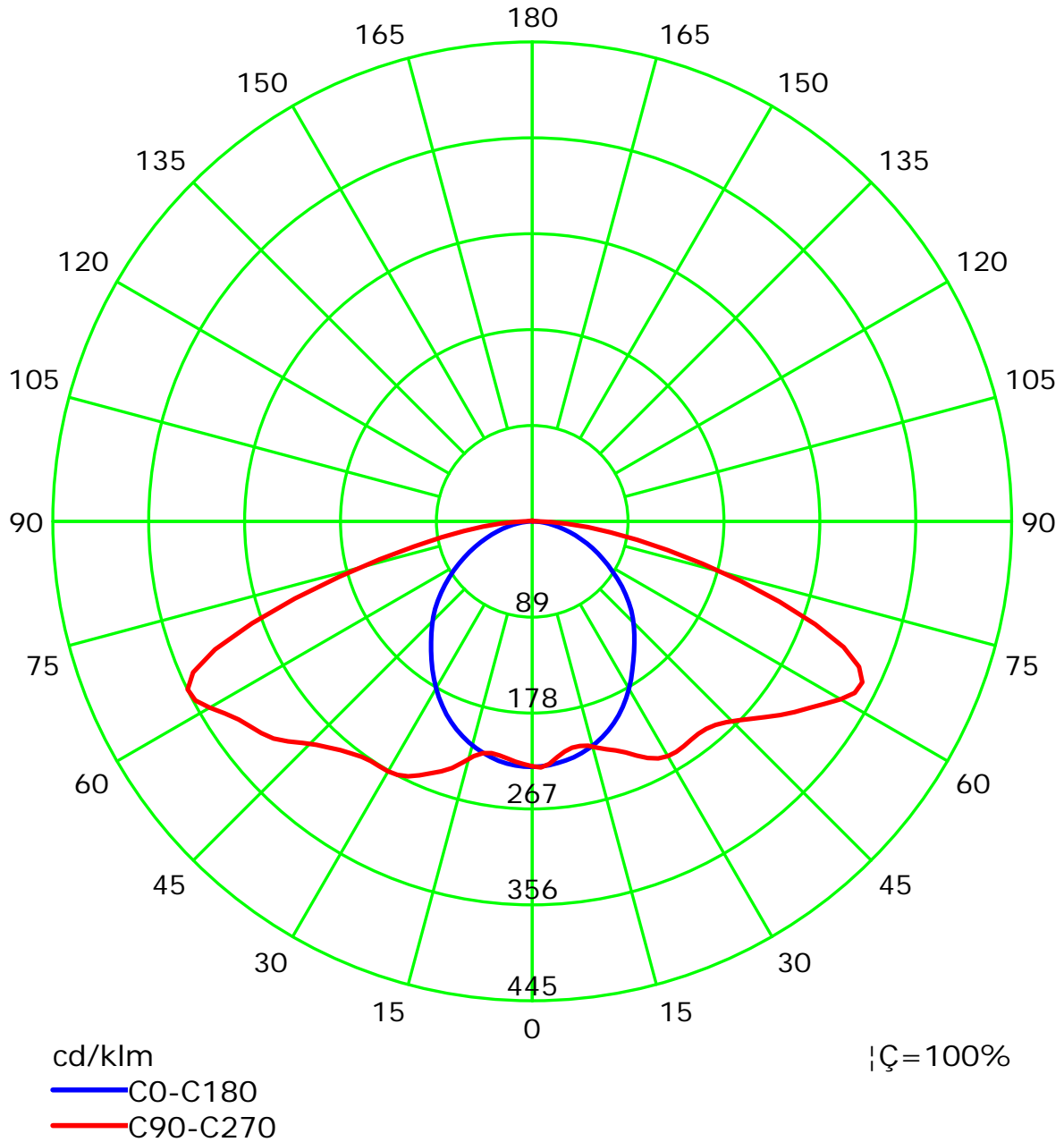
Test Device: LSG-1800B

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

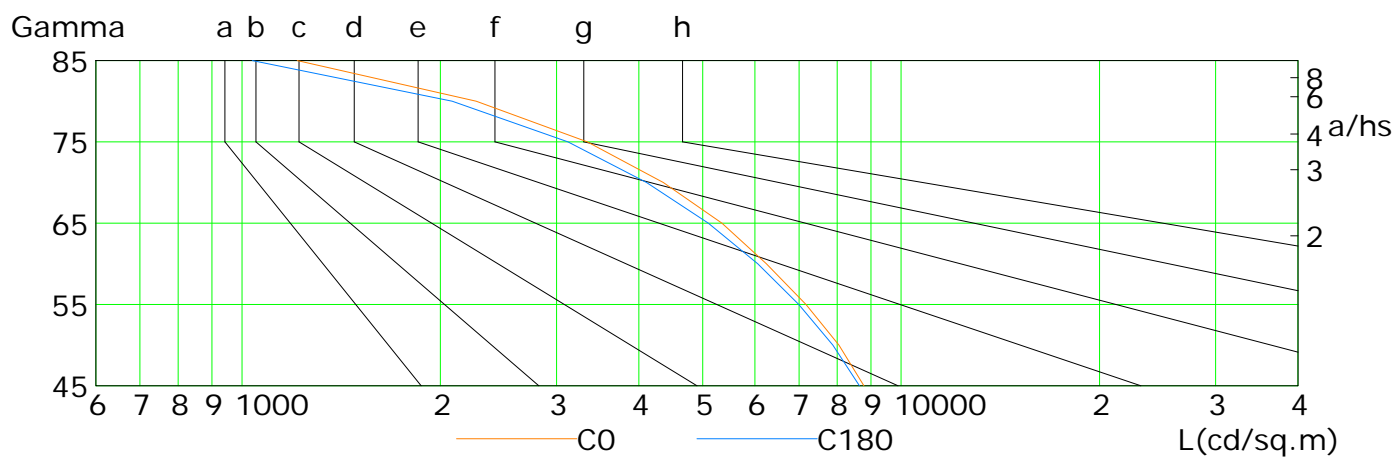
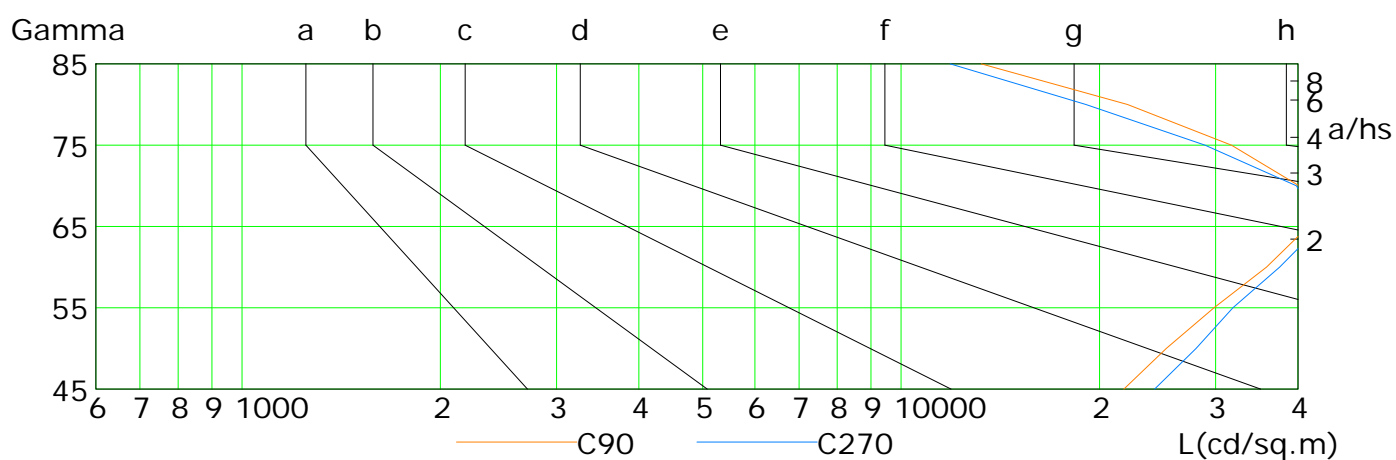
Humidity:

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 |

a b c d e f g h



| L(cd/sq.m) | G45 | G50 | G55 | G60 | G65 | G70 | G75 | G80 | G85 |
|------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C0 | 8782 | 8049 | 7172 | 6245 | 5348 | 4357 | 3341 | 2266 | 1213 |
| C90 | 21780 | 25255 | 29831 | 35846 | 41452 | 40173 | 31711 | 22060 | 13229 |
| C180 | 8643 | 7878 | 6995 | 6062 | 5099 | 4110 | 3122 | 2084 | 1036 |
| C270 | 24248 | 28027 | 31867 | 37529 | 43167 | 39795 | 28911 | 19069 | 11873 |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

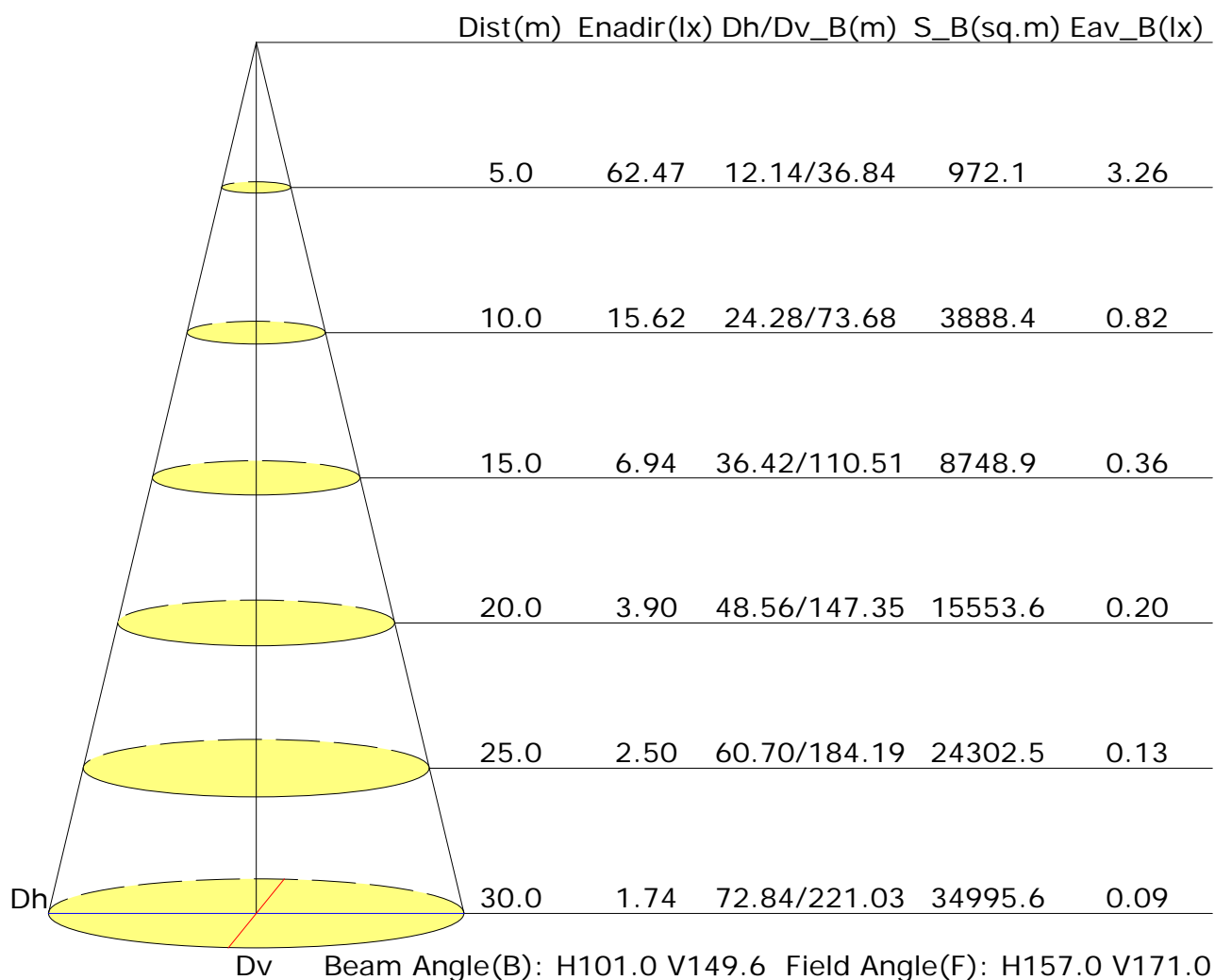
Test Device: LSG-1800B

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 | 18.6 | 20.2 | 18.9 | 20.4 | 20.7 | 25.7 | 27.3 | 26.0 | 27.5 | 27.8 |
| 3H | 19.5 | 21.0 | 19.9 | 21.3 | 21.6 | 28.9 | 30.3 | 29.2 | 30.6 | 30.9 |
| 4H | 19.9 | 21.2 | 20.2 | 21.5 | 21.9 | 29.8 | 31.1 | 30.1 | 31.4 | 31.8 |
| 6H | 20.0 | 21.3 | 20.4 | 21.6 | 22.0 | 30.2 | 31.5 | 30.6 | 31.8 | 32.2 |
| 8H | 20.1 | 21.3 | 20.5 | 21.6 | 22.0 | 30.3 | 31.5 | 30.7 | 31.9 | 32.2 |
| 12H | 20.1 | 21.3 | 20.5 | 21.6 | 22.0 | 30.3 | 31.5 | 30.8 | 31.9 | 32.3 |
| X=4H Y=2H | 20.9 | 22.2 | 21.2 | 22.5 | 22.9 | 25.9 | 27.3 | 26.3 | 27.6 | 28.0 |
| 3H | 21.9 | 23.1 | 22.3 | 23.5 | 23.9 | 29.4 | 30.6 | 29.8 | 30.9 | 31.3 |
| 4H | 22.3 | 23.4 | 22.7 | 23.7 | 24.1 | 30.5 | 31.6 | 30.9 | 31.9 | 32.3 |
| 6H | 22.5 | 23.4 | 22.9 | 23.8 | 24.2 | 31.1 | 32.1 | 31.5 | 32.5 | 32.9 |
| 8H | 22.5 | 23.4 | 22.9 | 23.8 | 24.2 | 31.3 | 32.1 | 31.7 | 32.6 | 33.0 |
| 12H | 22.5 | 23.3 | 23.0 | 23.7 | 24.2 | 31.3 | 32.1 | 31.8 | 32.6 | 33.1 |
| X=8H Y=4H | 24.0 | 24.9 | 24.5 | 25.3 | 25.8 | 30.6 | 31.5 | 31.0 | 31.9 | 32.3 |
| 6H | 24.4 | 25.1 | 24.8 | 25.5 | 26.0 | 31.3 | 32.1 | 31.8 | 32.5 | 33.0 |
| 8H | 24.4 | 25.1 | 24.9 | 25.5 | 26.0 | 31.6 | 32.2 | 32.1 | 32.7 | 33.2 |
| 12H | 24.4 | 25.0 | 25.0 | 25.5 | 26.0 | 31.7 | 32.3 | 32.3 | 32.8 | 33.3 |
| X=12H Y=4H | 24.3 | 25.1 | 24.8 | 25.5 | 26.0 | 30.6 | 31.4 | 31.0 | 31.8 | 32.3 |
| 6H | 24.8 | 25.4 | 25.3 | 25.9 | 26.4 | 31.4 | 32.0 | 31.9 | 32.5 | 33.0 |
| 8H | 24.9 | 25.5 | 25.5 | 26.0 | 26.5 | 31.6 | 32.2 | 32.1 | 32.7 | 33.2 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S=1.0H | +0.2/-0.2 | | | | | +0.1/-0.1 | | | | |
| S=1.5H | +0.3/-0.6 | | | | | +0.2/-0.3 | | | | |
| S=2.0H | +0.6/-1.1 | | | | | +0.5/-0.4 | | | | |

Calculate in accordance with CIE Pub.117. The table is revised with 6843lm ($8\log(F/F_0) = 6.7$).

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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 = 1.50 | | | | | | | | | |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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 | 0.50 | 0.58 | 0.66 | 0.72 | 0.80 | 0.86 | 0.90 | 0.96 | 0.99 | |
| | 0.30 | | 0.41 | 0.49 | 0.58 | 0.64 | 0.73 | 0.79 | 0.84 | 0.91 | 0.95 | |
| | 0.20 | | 0.35 | 0.42 | 0.51 | 0.57 | 0.67 | 0.73 | 0.79 | 0.86 | 0.91 | |
| 0.50 | 0.50 | 0.20 | 0.48 | 0.56 | 0.64 | 0.69 | 0.77 | 0.82 | 0.86 | 0.92 | 0.95 | |
| | 0.30 | | 0.40 | 0.48 | 0.56 | 0.62 | 0.70 | 0.77 | 0.81 | 0.87 | 0.91 | |
| | 0.20 | | 0.34 | 0.42 | 0.50 | 0.56 | 0.65 | 0.72 | 0.76 | 0.83 | 0.88 | |
| 0.30 | 0.50 | 0.20 | 0.46 | 0.54 | 0.61 | 0.66 | 0.74 | 0.79 | 0.83 | 0.88 | 0.91 | |
| | 0.30 | | 0.39 | 0.47 | 0.55 | 0.60 | 0.68 | 0.74 | 0.78 | 0.84 | 0.88 | |
| | 0.20 | | 0.34 | 0.41 | 0.49 | 0.55 | 0.64 | 0.70 | 0.74 | 0.81 | 0.85 | |
| 0.00 | 0.00 | 0.00 | 0.32 | 0.38 | 0.46 | 0.52 | 0.60 | 0.66 | 0.70 | 0.76 | 0.80 | |
| Rating: 50W 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 = 1.50 | | | | | | | | | |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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 | 1.10 | 0.96 | 0.82 | 0.73 | 0.59 | 0.50 | 0.43 | 0.34 | 0.27 | |
| | 0.30 | | 0.92 | 0.82 | 0.72 | 0.64 | 0.53 | 0.45 | 0.40 | 0.32 | 0.26 | |
| | 0.20 | | 0.79 | 0.72 | 0.64 | 0.58 | 0.49 | 0.42 | 0.37 | 0.30 | 0.25 | |
| 0.50 | 0.50 | 0.20 | 1.06 | 0.92 | 0.79 | 0.70 | 0.57 | 0.50 | 0.41 | 0.32 | 0.26 | |
| | 0.30 | | 0.90 | 0.80 | 0.70 | 0.63 | 0.52 | 0.44 | 0.38 | 0.30 | 0.25 | |
| | 0.20 | | 0.78 | 0.71 | 0.63 | 0.57 | 0.48 | 0.41 | 0.36 | 0.29 | 0.24 | |
| 0.30 | 0.50 | 0.20 | 1.04 | 0.89 | 0.76 | 0.67 | 0.54 | 0.46 | 0.39 | 0.31 | 0.25 | |
| | 0.30 | | 0.88 | 0.78 | 0.68 | 0.61 | 0.50 | 0.43 | 0.37 | 0.30 | 0.24 | |
| | 0.20 | | 0.77 | 0.70 | 0.62 | 0.56 | 0.47 | 0.40 | 0.35 | 0.28 | 0.23 | |
| 0.00 | 0.00 | 0.00 | 0.68 | 0.61 | 0.53 | 0.48 | 0.40 | 0.34 | 0.29 | 0.23 | 0.19 | |
| Rating: 50W 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 = 1.50 | | | | | | | | | |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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 | 0.18 | 0.20 | 0.20 | 0.21 | 0.22 | 0.22 | 0.22 | 0.23 | 0.23 | |
| | 0.30 | | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | |
| | 0.20 | | 0.05 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.14 | 0.15 | 0.17 | |
| 0.50 | 0.50 | 0.20 | 0.17 | 0.19 | 0.20 | 0.20 | 0.21 | 0.21 | 0.22 | 0.22 | 0.22 | |
| | 0.30 | | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | |
| | 0.20 | | 0.05 | 0.06 | 0.08 | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | |
| 0.30 | 0.50 | 0.20 | 0.17 | 0.18 | 0.19 | 0.19 | 0.20 | 0.20 | 0.21 | 0.21 | 0.21 | |
| | 0.30 | | 0.10 | 0.11 | 0.13 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | |
| | 0.20 | | 0.05 | 0.06 | 0.07 | 0.09 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | |
| 0.00 | 0.00 | 0.00 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | |
| Rating: 50W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | | |