

Report No.:

Test Time: 24.08.2020 17:37

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FD 112 150W 5000K 120 gr. prozrachnoe steclo DALI

Luminous Length (mm): 316

Luminous Width (mm): 316

Luminous Height (mm): 132

Voltage: 221.9 V

Current: 0.696 A

Power: 152.58 W

Power Factor: 0.987

Photometric Results

CIE Class: Direct

Measurement Flux: 23198.3 lm

Downward Ratio: 100%

Total Rated Lamp Lumens: 23198.3 lm

Efficiency: 100%

Upward Ratio: 0%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 151.7, 151.8, 151.1, 151.2

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 110.7, 108.6, 110.3, 110.5

Luminaire Efficacy Rating (LER): 152.09

Central Intensity: 8568.95 cd

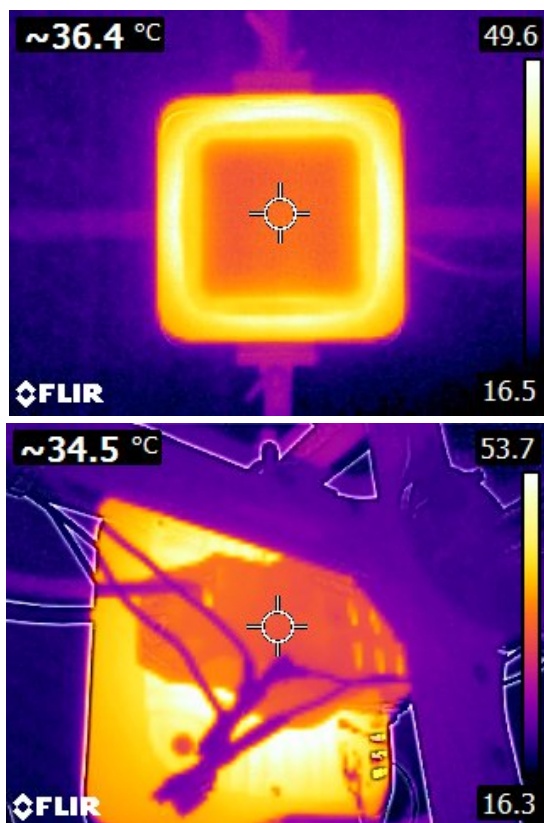
Max. Intensity: 8572 cd

Pos of Max. Intensity: H157.5 V0

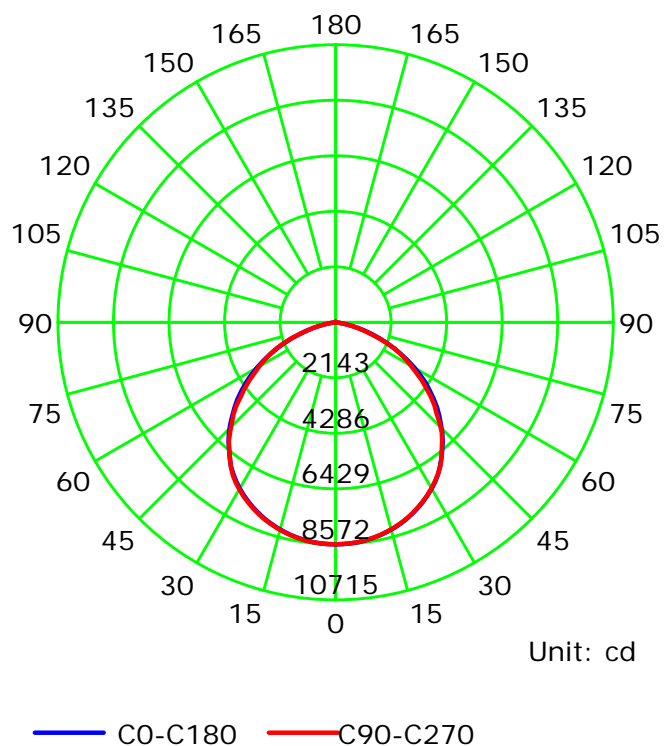
S/MH(C0/C180): 1.28

S/MH(C90/C270): 1.29

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

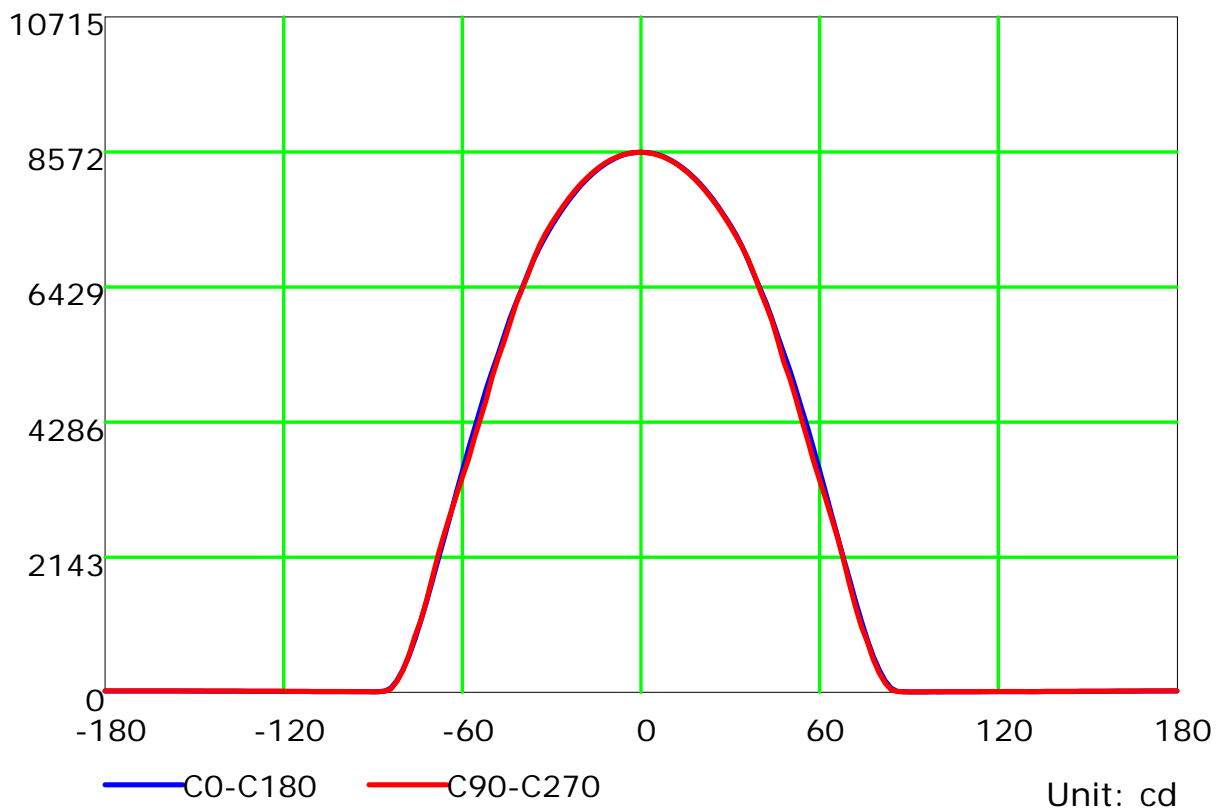
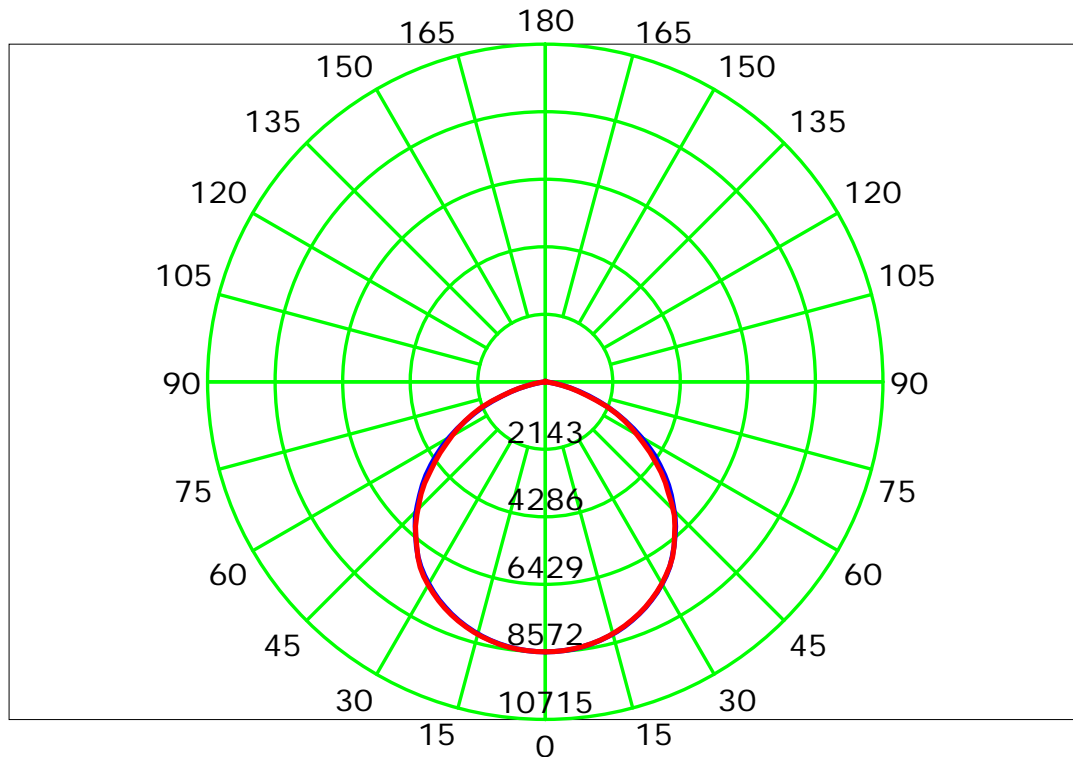
Test Device: LSG-1800B

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

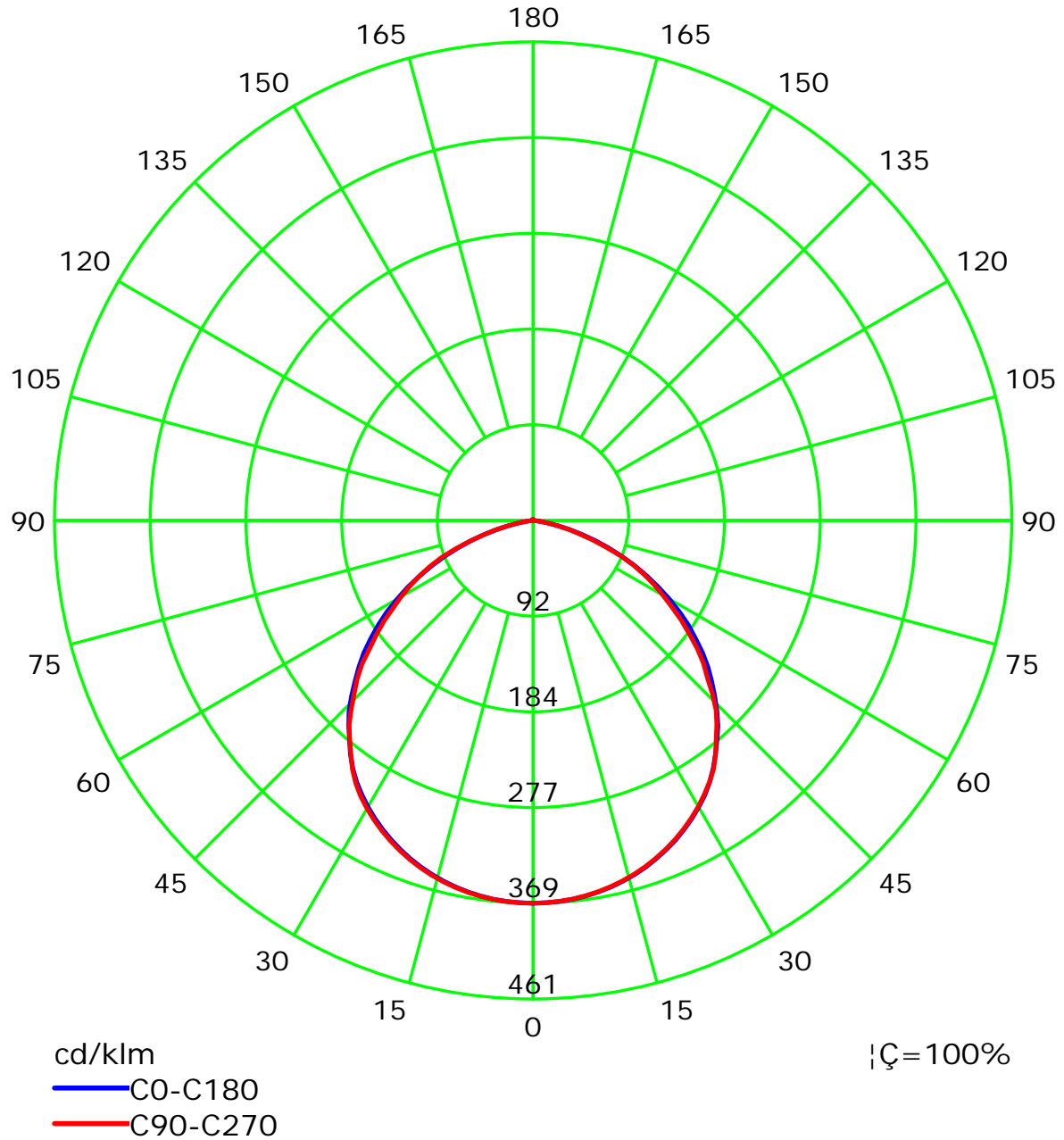
Test Device: LSG-1800B

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

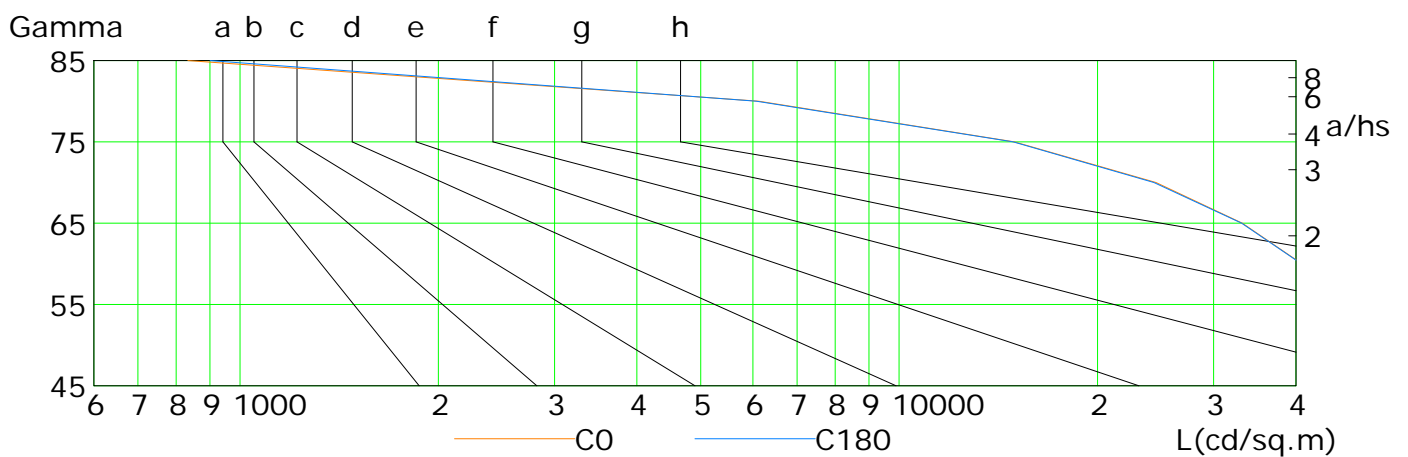
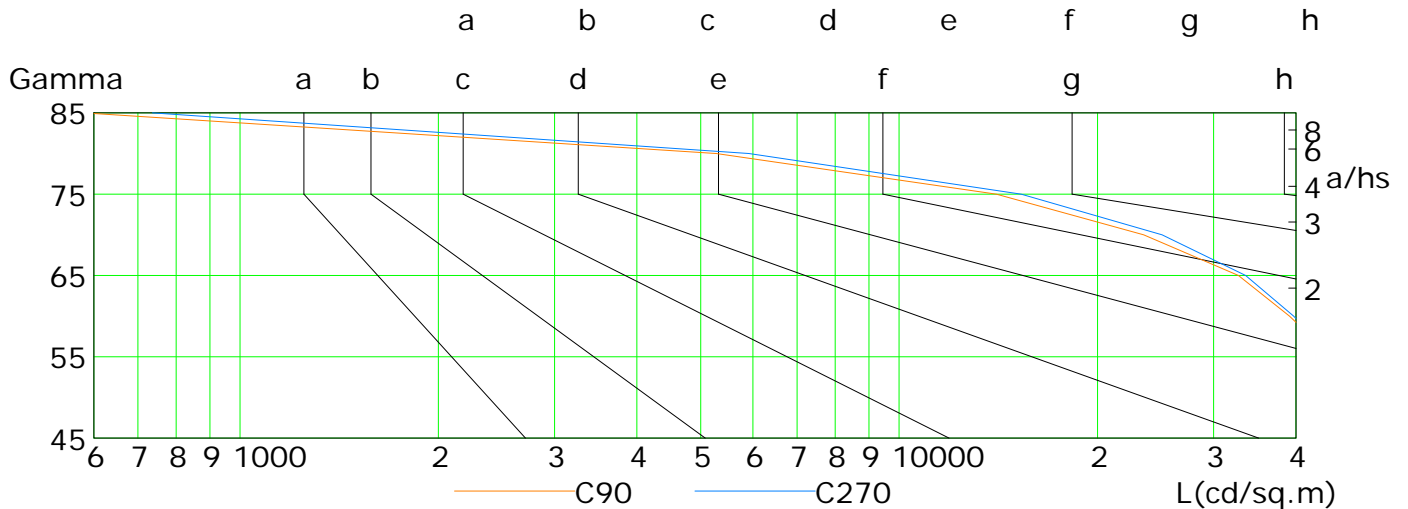
Distance: 12.677 m

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 | 57796 | 53155 | 47522 | 40878 | 33160 | 24529 | 14954 | 6127 | 833 |
| C90 | 57315 | 51776 | 45563 | 39098 | 32706 | 23489 | 14049 | 5280 | 581 |
| C180 | 57886 | 52984 | 47411 | 40781 | 33087 | 24347 | 14896 | 6074 | 901 |
| C270 | 57111 | 52037 | 45744 | 39680 | 33545 | 25058 | 15315 | 5915 | 737 |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

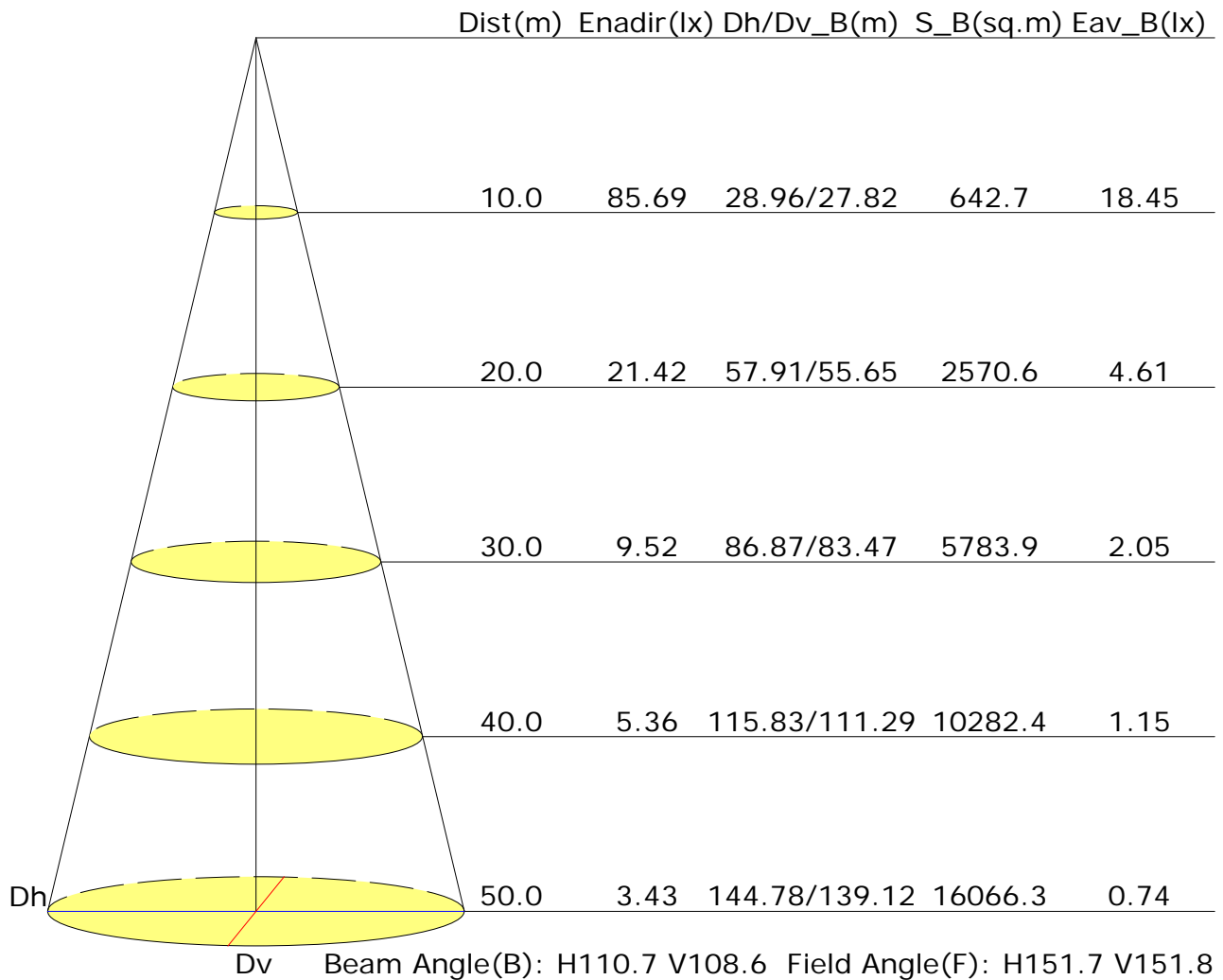
Test Device: LSG-1800B

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 | 25.8 | 27.1 | 26.1 | 27.4 | 27.6 | 25.6 | 27.0 | 25.9 | 27.2 | 27.5 |
| 3H | 26.7 | 27.9 | 27.0 | 28.2 | 28.5 | 26.6 | 27.8 | 26.9 | 28.0 | 28.3 |
| 4H | 26.9 | 28.0 | 27.2 | 28.3 | 28.6 | 26.7 | 27.9 | 27.1 | 28.2 | 28.5 |
| 6H | 26.9 | 27.9 | 27.3 | 28.3 | 28.6 | 26.8 | 27.8 | 27.1 | 28.1 | 28.4 |
| 8H | 26.9 | 27.9 | 27.2 | 28.2 | 28.5 | 26.7 | 27.7 | 27.1 | 28.1 | 28.4 |
| 12H | 26.8 | 27.8 | 27.2 | 28.1 | 28.5 | 26.7 | 27.7 | 27.1 | 28.0 | 28.3 |
| X=4H Y=2H | 26.2 | 27.3 | 26.5 | 27.6 | 27.9 | 26.1 | 27.2 | 26.4 | 27.5 | 27.8 |
| 3H | 27.2 | 28.2 | 27.6 | 28.5 | 28.8 | 27.1 | 28.1 | 27.5 | 28.4 | 28.7 |
| 4H | 27.4 | 28.3 | 27.8 | 28.6 | 29.0 | 27.3 | 28.2 | 27.7 | 28.5 | 28.9 |
| 6H | 27.5 | 28.2 | 27.9 | 28.6 | 29.0 | 27.4 | 28.1 | 27.8 | 28.5 | 28.9 |
| 8H | 27.4 | 28.1 | 27.9 | 28.6 | 29.0 | 27.3 | 28.0 | 27.8 | 28.4 | 28.9 |
| 12H | 27.4 | 28.0 | 27.9 | 28.5 | 28.9 | 27.3 | 27.9 | 27.8 | 28.4 | 28.8 |
| X=8H Y=4H | 27.5 | 28.2 | 27.9 | 28.6 | 29.0 | 27.4 | 28.0 | 27.8 | 28.5 | 28.9 |
| 6H | 27.5 | 28.1 | 28.0 | 28.5 | 29.0 | 27.4 | 28.0 | 27.9 | 28.4 | 28.9 |
| 8H | 27.5 | 28.0 | 28.0 | 28.5 | 29.0 | 27.4 | 27.9 | 27.9 | 28.4 | 28.9 |
| 12H | 27.5 | 27.9 | 28.0 | 28.4 | 28.9 | 27.4 | 27.8 | 27.9 | 28.3 | 28.8 |
| X=12H Y=4H | 27.4 | 28.1 | 27.9 | 28.5 | 28.9 | 27.3 | 28.0 | 27.8 | 28.4 | 28.8 |
| 6H | 27.5 | 28.0 | 28.0 | 28.5 | 28.9 | 27.4 | 27.9 | 27.9 | 28.4 | 28.8 |
| 8H | 27.5 | 27.9 | 28.0 | 28.4 | 28.9 | 27.4 | 27.8 | 27.9 | 28.3 | 28.8 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S=1.0H | +0.2/-0.3 | | | | | +0.2/-0.3 | | | | |
| S=1.5H | +0.5/-0.9 | | | | | +0.5/-0.9 | | | | |
| S=2.0H | +1.1/-1.8 | | | | | +1.1/-1.7 | | | | |

Calculate in accordance with CIE Pub.117. The table is revised with 23198lm ($8\log(F/F_0) = 10.9$).

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 | 0.59 | 0.69 | 0.77 | 0.82 | 0.90 | 0.94 | 0.98 | 1.02 | 1.05 | |
| | 0.30 | | 0.51 | 0.62 | 0.70 | 0.76 | 0.84 | 0.89 | 0.93 | 0.98 | 1.02 | |
| | 0.20 | | 0.46 | 0.57 | 0.65 | 0.71 | 0.79 | 0.85 | 0.89 | 0.95 | 0.99 | |
| 0.50 | 0.50 | 0.20 | 0.57 | 0.67 | 0.74 | 0.80 | 0.86 | 0.91 | 0.94 | 0.98 | 1.01 | |
| | 0.30 | | 0.50 | 0.61 | 0.68 | 0.74 | 0.82 | 0.87 | 0.90 | 0.95 | 0.98 | |
| | 0.20 | | 0.45 | 0.56 | 0.64 | 0.69 | 0.77 | 0.83 | 0.87 | 0.92 | 0.96 | |
| 0.30 | 0.50 | 0.20 | 0.56 | 0.65 | 0.72 | 0.77 | 0.83 | 0.88 | 0.91 | 0.94 | 0.97 | |
| | 0.30 | | 0.49 | 0.60 | 0.67 | 0.72 | 0.79 | 0.84 | 0.87 | 0.92 | 0.95 | |
| | 0.20 | | 0.45 | 0.55 | 0.63 | 0.68 | 0.76 | 0.81 | 0.85 | 0.90 | 0.93 | |
| 0.00 | 0.00 | 0.00 | 0.43 | 0.53 | 0.60 | 0.65 | 0.72 | 0.77 | 0.81 | 0.85 | 0.88 | |
| Rating: 153W 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 | 0.96 | 0.79 | 0.66 | 0.57 | 0.45 | 0.37 | 0.31 | 0.24 | 0.19 | |
| | 0.30 | | 0.80 | 0.67 | 0.58 | 0.50 | 0.41 | 0.34 | 0.29 | 0.23 | 0.18 | |
| | 0.20 | | 0.69 | 0.59 | 0.51 | 0.45 | 0.37 | 0.31 | 0.27 | 0.21 | 0.18 | |
| 0.50 | 0.50 | 0.20 | 0.93 | 0.75 | 0.63 | 0.55 | 0.43 | 0.39 | 0.30 | 0.23 | 0.18 | |
| | 0.30 | | 0.79 | 0.65 | 0.56 | 0.49 | 0.39 | 0.32 | 0.28 | 0.21 | 0.18 | |
| | 0.20 | | 0.68 | 0.58 | 0.50 | 0.44 | 0.36 | 0.30 | 0.26 | 0.20 | 0.17 | |
| 0.30 | 0.50 | 0.20 | 0.90 | 0.72 | 0.61 | 0.52 | 0.41 | 0.33 | 0.28 | 0.21 | 0.17 | |
| | 0.30 | | 0.77 | 0.64 | 0.54 | 0.47 | 0.38 | 0.31 | 0.27 | 0.21 | 0.17 | |
| | 0.20 | | 0.67 | 0.57 | 0.49 | 0.43 | 0.35 | 0.29 | 0.25 | 0.20 | 0.16 | |
| 0.00 | 0.00 | 0.00 | 0.57 | 0.47 | 0.40 | 0.34 | 0.27 | 0.22 | 0.19 | 0.15 | 0.12 | |
| Rating: 153W 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 | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 |
| | 0.20 | | 0.05 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 |
| 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 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |
| | 0.20 | | 0.05 | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.14 | 0.16 | 0.17 |
| 0.30 | 0.50 | 0.20 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 | 0.20 | 0.20 |
| | 0.30 | | 0.09 | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.16 | 0.18 | 0.18 |
| | 0.20 | | 0.05 | 0.07 | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.15 | 0.16 |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <p>Rating: 153W 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> | | | | | | | | | | | |