

Report No.: 1

Test Time: 22.01.2020 15:40

Luminaire Property

Luminaire Manufacturer:

Luminaire Description: FP 150 HE 100W 5000K 80x100gr.

Luminous Length (mm): 604

Luminous Width (mm): 153

Luminous Height (mm): 80

Voltage: 221.3 V

Current: 0.466 A

Power: 100.90 W

Power Factor: 0.978

Photometric Results

CIE Class: Direct

Measurement Flux: 15129.4 lm

Downward Ratio: 99%

Total Rated Lamp Lumens: 15129.4 lm

Efficiency: 100%

Upward Ratio: 1%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 118.2, 135.0, 135.9, 134.8

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 102.6, 112.0, 118.4, 117.5

Luminaire Efficacy Rating (LER): 149.99

Central Intensity: 2516.32 cd

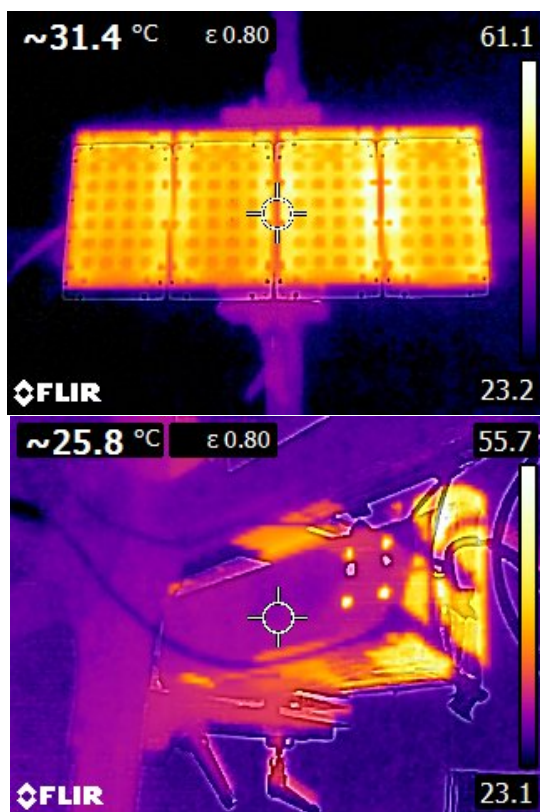
Max. Intensity: 7092.19 cd

Pos of Max. Intensity: H0 V37

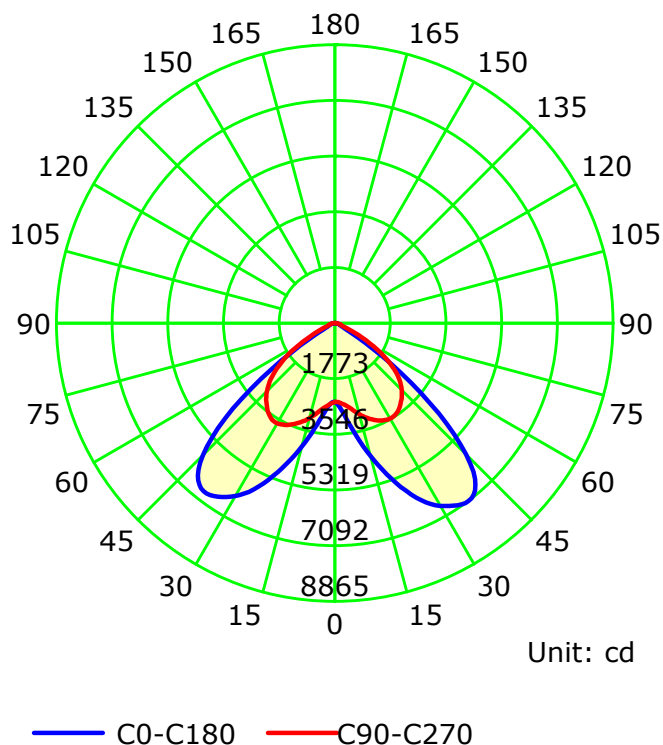
S/MH(C0/C180): 2.31

S/MH(C90/C270): 1.85

Termogramma



Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

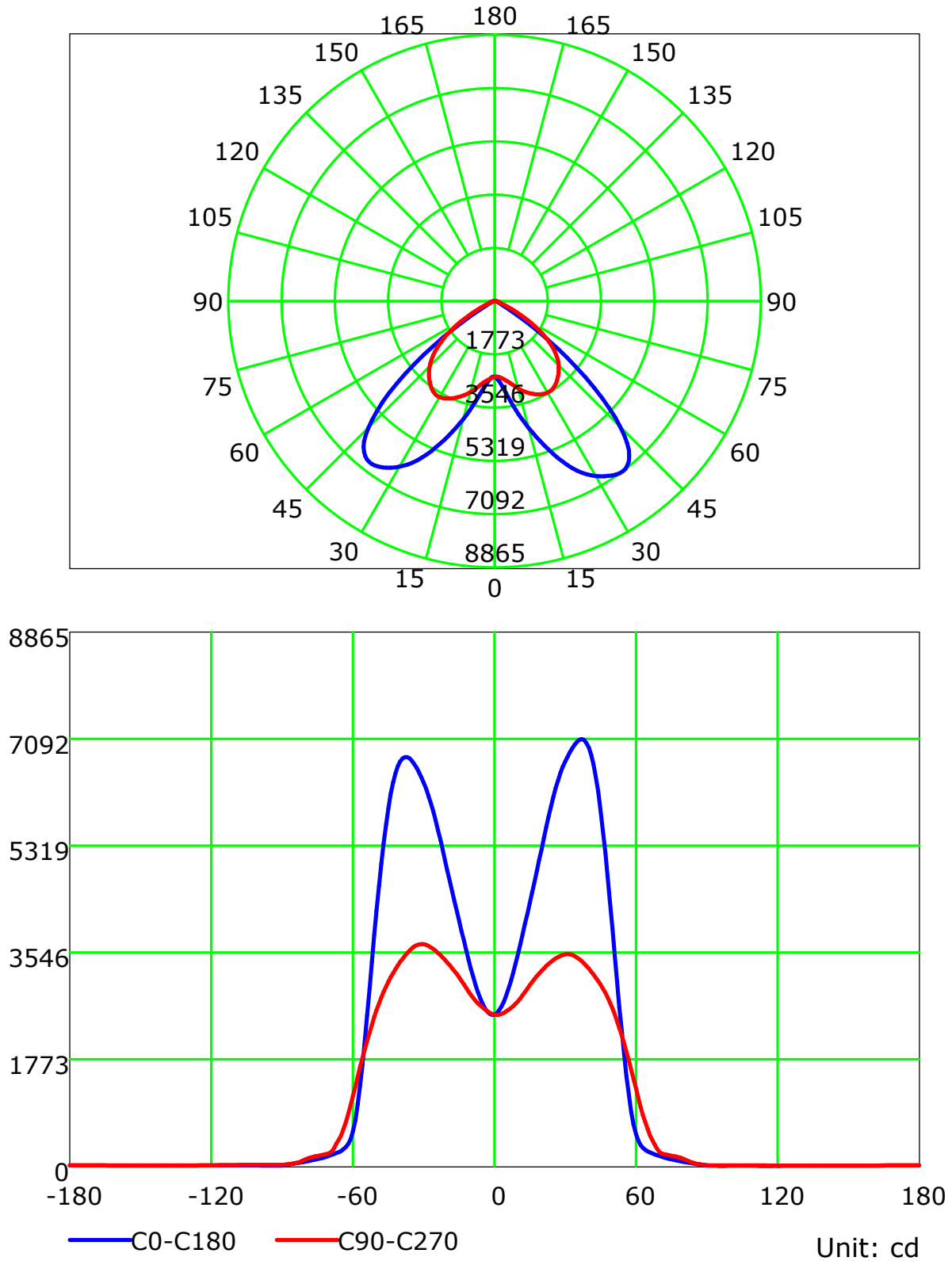
Test Device: LSG-1800B

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 (°):0.0-180.0:1.0

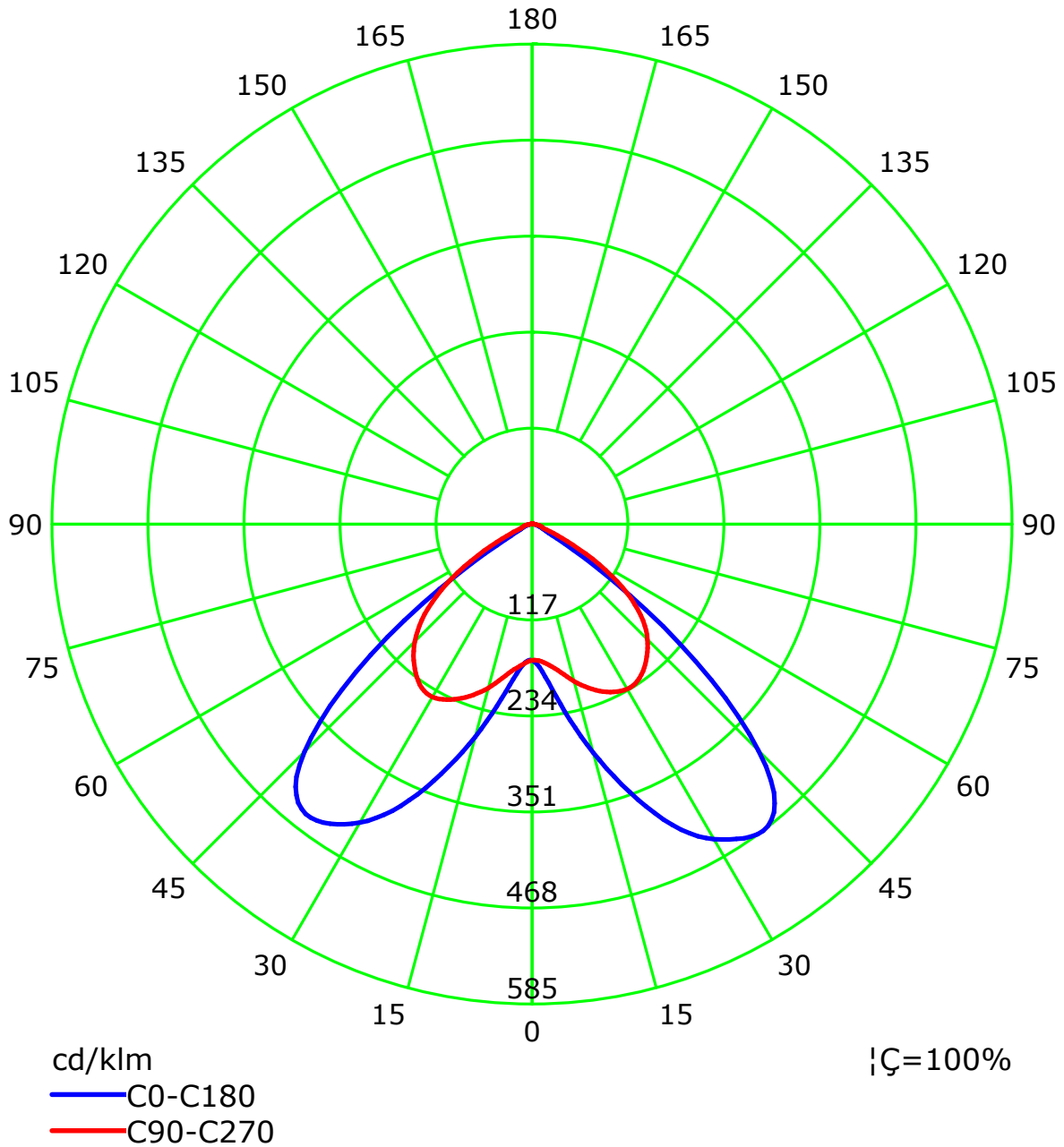
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

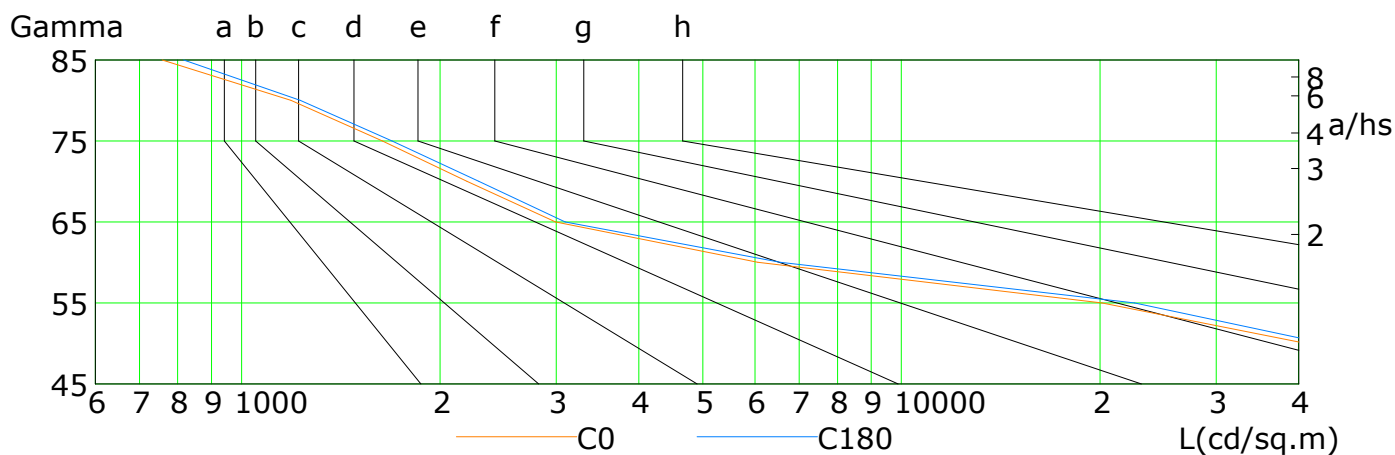
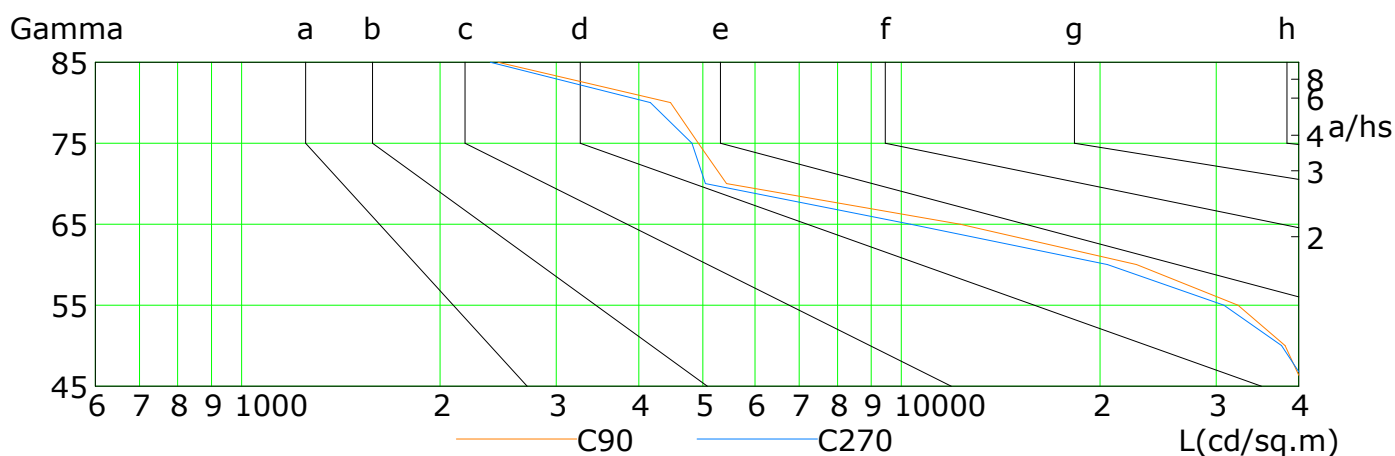
Luminous Intensity Distribution Curve(cd/klm)



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

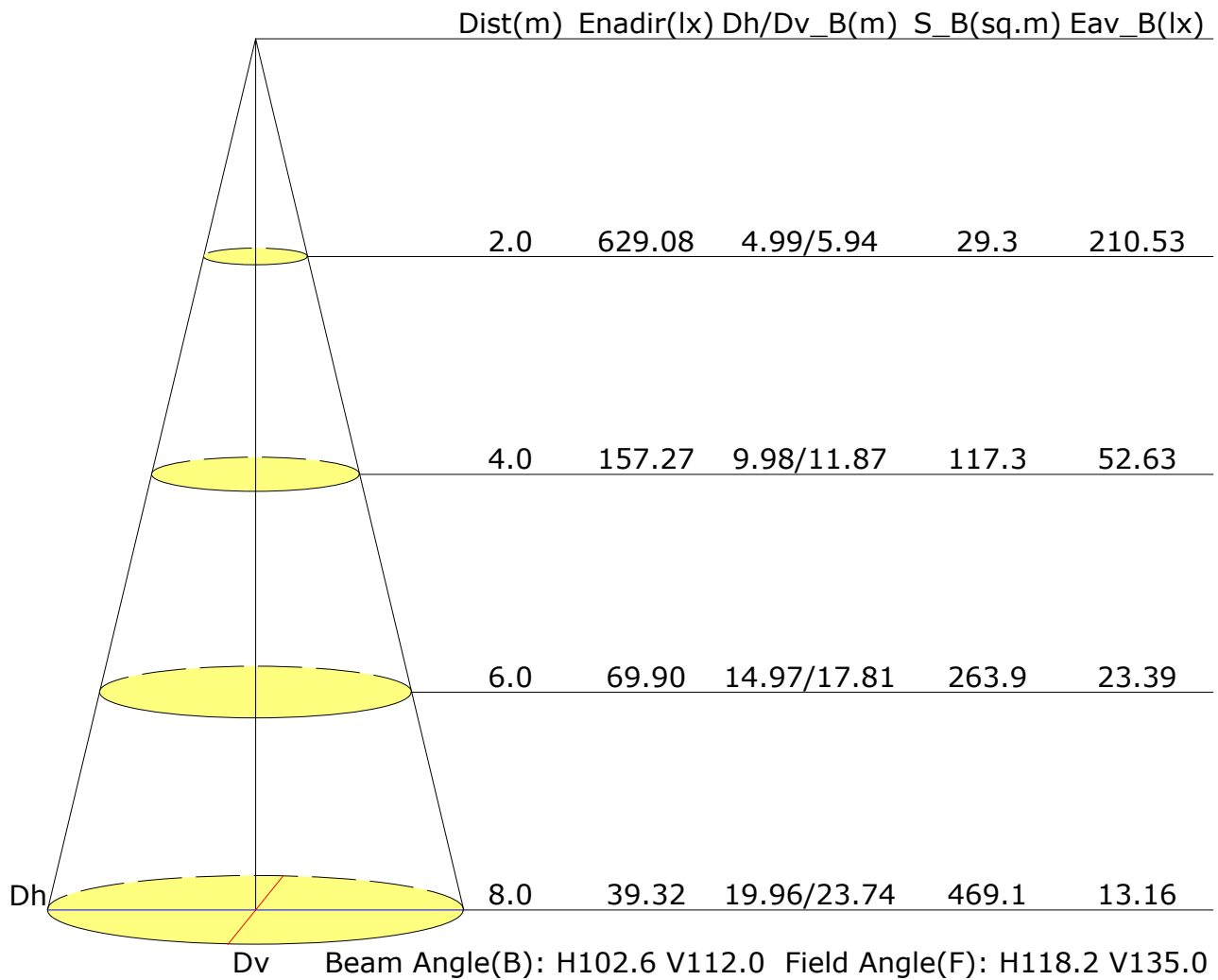


| L(cd/sq.m) | G45 | G50 | G55 | G60 | G65 | G70 | G75 | G80 | G85 |
|------------|-------|-------|-------|-------|-------|------|------|------|------|
| C0 | 59386 | 40974 | 20147 | 6062 | 2991 | 2196 | 1635 | 1188 | 758 |
| C90 | 40751 | 38139 | 32352 | 22727 | 12278 | 5434 | 4923 | 4470 | 2446 |
| C180 | 59722 | 44028 | 22576 | 6555 | 3094 | 2288 | 1691 | 1227 | 817 |
| C270 | 41400 | 37684 | 30805 | 20512 | 10327 | 5048 | 4815 | 4166 | 2382 |

C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-180.0:1.0
 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 | 25.1 | 26.4 | 25.4 | 26.7 | 26.9 | 25.7 | 27.0 | 26.0 | 27.3 | 27.5 |
| 3H | 25.0 | 26.1 | 25.3 | 26.4 | 26.7 | 25.7 | 26.9 | 26.0 | 27.2 | 27.4 |
| 4H | 24.9 | 26.0 | 25.2 | 26.3 | 26.6 | 25.7 | 26.8 | 26.0 | 27.1 | 27.4 |
| 6H | 24.8 | 25.8 | 25.2 | 26.1 | 26.5 | 25.6 | 26.6 | 26.0 | 26.9 | 27.3 |
| 8H | 24.8 | 25.8 | 25.2 | 26.1 | 26.4 | 25.6 | 26.6 | 26.0 | 26.9 | 27.2 |
| 12H | 24.7 | 25.7 | 25.1 | 26.0 | 26.4 | 25.5 | 26.5 | 25.9 | 26.8 | 27.2 |
| X=4H Y=2H | 25.4 | 26.5 | 25.8 | 26.8 | 27.1 | 25.9 | 27.0 | 26.3 | 27.3 | 27.6 |
| 3H | 25.3 | 26.2 | 25.7 | 26.6 | 26.9 | 26.0 | 26.9 | 26.3 | 27.2 | 27.6 |
| 4H | 25.2 | 26.1 | 25.7 | 26.4 | 26.8 | 25.9 | 26.7 | 26.3 | 27.1 | 27.5 |
| 6H | 25.2 | 25.9 | 25.6 | 26.3 | 26.7 | 25.9 | 26.6 | 26.3 | 27.0 | 27.4 |
| 8H | 25.2 | 25.8 | 25.6 | 26.2 | 26.6 | 25.9 | 26.5 | 26.3 | 26.9 | 27.4 |
| 12H | 25.1 | 25.7 | 25.6 | 26.1 | 26.6 | 25.8 | 26.4 | 26.3 | 26.8 | 27.3 |
| X=8H Y=4H | 25.2 | 25.8 | 25.6 | 26.2 | 26.7 | 25.8 | 26.5 | 26.3 | 26.9 | 27.3 |
| 6H | 25.1 | 25.6 | 25.6 | 26.1 | 26.5 | 25.8 | 26.3 | 26.3 | 26.8 | 27.2 |
| 8H | 25.1 | 25.5 | 25.6 | 26.0 | 26.5 | 25.8 | 26.2 | 26.3 | 26.7 | 27.2 |
| 12H | 25.1 | 25.4 | 25.6 | 25.9 | 26.4 | 25.8 | 26.2 | 26.3 | 26.6 | 27.1 |
| X=12H Y=4H | 25.1 | 25.7 | 25.6 | 26.1 | 26.6 | 25.8 | 26.4 | 26.3 | 26.8 | 27.3 |
| 6H | 25.1 | 25.5 | 25.6 | 26.0 | 26.5 | 25.8 | 26.2 | 26.3 | 26.7 | 27.2 |
| 8H | 25.1 | 25.4 | 25.6 | 25.9 | 26.4 | 25.8 | 26.1 | 26.3 | 26.6 | 27.1 |
| Variations with the observer position at spacings: | | | | | | | | | | |
| S=1.0H | +1.3/-2.4 | | | | | +0.6/-0.9 | | | | |
| S=1.5H | +2.9/-9.6 | | | | | +2.5/-4.7 | | | | |
| S=2.0H | +3.8/-12.2 | | | | | +3.0/-8.5 | | | | |

Calculate in accordance with CIE Pub.117. The table is revised with 15129Im ($8\log(F/F_0) = 9.4$).

C Plane (°):0.0-360.0: 22.5
 Test Lab:
 Test Type: TYPE C
 Temperature:
 Operator:

Gamma Plane (°):0.0-180.0:1.0
 Test Device: LSG-1800B
 Distance: 12.677 m
 Humidity:
 Inspector:

Utilisation Factor Table(Floor cavity)

| Utilisation Factors UF(F) | | | SHR NOM = 2.00 | | | | | | | | | |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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 | NA | 0.82 | 0.87 | 0.91 | 0.97 | 1.01 | 1.03 | 1.06 | 1.08 | |
| | 0.30 | | NA | 0.76 | 0.82 | 0.86 | 0.93 | 0.97 | 0.99 | 1.03 | 1.06 | |
| | 0.20 | | NA | 0.72 | 0.77 | 0.82 | 0.89 | 0.94 | 0.97 | 1.01 | 1.03 | |
| 0.50 | 0.50 | 0.20 | NA | 0.80 | 0.85 | 0.89 | 0.94 | 0.97 | 0.99 | 1.02 | 1.04 | |
| | 0.30 | | NA | 0.75 | 0.80 | 0.84 | 0.90 | 0.94 | 0.96 | 1.00 | 1.02 | |
| | 0.20 | | NA | 0.71 | 0.76 | 0.81 | 0.87 | 0.91 | 0.94 | 0.98 | 1.00 | |
| 0.30 | 0.50 | 0.20 | NA | 0.78 | 0.83 | 0.86 | 0.91 | 0.94 | 0.96 | 0.98 | 1.00 | |
| | 0.30 | | NA | 0.74 | 0.79 | 0.83 | 0.88 | 0.92 | 0.94 | 0.97 | 0.98 | |
| | 0.20 | | NA | 0.70 | 0.75 | 0.80 | 0.86 | 0.89 | 0.92 | 0.95 | 0.97 | |
| 0.00 | 0.00 | 0.00 | NA | 0.68 | 0.73 | 0.77 | 0.82 | 0.86 | 0.88 | 0.91 | 0.92 | |
| Rating:101W 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 = 2.00 | | | | | | | | | |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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 | NA | 0.60 | 0.51 | 0.43 | 0.33 | 0.27 | 0.23 | 0.18 | 0.15 | |
| | 0.30 | | NA | 0.51 | 0.44 | 0.38 | 0.30 | 0.25 | 0.22 | 0.17 | 0.14 | |
| | 0.20 | | NA | 0.45 | 0.39 | 0.34 | 0.28 | 0.23 | 0.20 | 0.16 | 0.13 | |
| 0.50 | 0.50 | 0.20 | NA | 0.57 | 0.48 | 0.41 | 0.31 | 0.29 | 0.22 | 0.17 | 0.13 | |
| | 0.30 | | NA | 0.49 | 0.42 | 0.37 | 0.29 | 0.24 | 0.20 | 0.16 | 0.13 | |
| | 0.20 | | NA | 0.44 | 0.38 | 0.33 | 0.26 | 0.22 | 0.19 | 0.15 | 0.12 | |
| 0.30 | 0.50 | 0.20 | NA | 0.54 | 0.46 | 0.39 | 0.30 | 0.24 | 0.20 | 0.15 | 0.13 | |
| | 0.30 | | NA | 0.48 | 0.41 | 0.35 | 0.27 | 0.22 | 0.19 | 0.15 | 0.12 | |
| | 0.20 | | NA | 0.43 | 0.37 | 0.32 | 0.25 | 0.21 | 0.18 | 0.14 | 0.12 | |
| 0.00 | 0.00 | 0.00 | 0.99 | 0.31 | 0.27 | 0.23 | 0.17 | 0.14 | 0.12 | 0.09 | 0.07 | |
| Rating:101W 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 = 2.00 | | | | | | | | | |
|--|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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 | NA | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.21 | 0.22 | |
| | 0.30 | | NA | 0.11 | 0.13 | 0.14 | 0.16 | 0.17 | 0.18 | 0.19 | 0.20 | |
| | 0.20 | | NA | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | |
| 0.50 | 0.50 | 0.20 | NA | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | 0.19 | 0.20 | 0.21 | |
| | 0.30 | | NA | 0.11 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 | |
| | 0.20 | | NA | 0.08 | 0.09 | 0.11 | 0.13 | 0.14 | 0.15 | 0.17 | 0.18 | |
| 0.30 | 0.50 | 0.20 | NA | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 | 0.20 | |
| | 0.30 | | NA | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | |
| | 0.20 | | NA | 0.08 | 0.09 | 0.10 | 0.12 | 0.14 | 0.15 | 0.16 | 0.17 | |
| 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:101W Photometrically tested without ceiling board. Multiply UF values by service correction factors Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 | | | | | | | | | | | | |