

Report No.:

Test Time: 11.06.2020 23:14

## Luminaire Property

Luminaire Manufacturer: FAROS LED

Luminaire Description: FG 50 40W 5000K прозрачный IP65 Ex

Luminous Length (mm): 940

Luminous Width (mm): 60

Luminous Height (mm): 80

Voltage: 222.1 V

Current: 0.187 A

Power: 41.05 W

Power Factor: 0.987

## Photometric Results

CIE Class: Direct

Measurement Flux: 3311.3 lm

Downward Ratio: 100%

Total Rated Lamp Lumens: 3311.3 lm

Efficiency: 100%

Upward Ratio: 0%

Field Angle(C0/C180,C90/C270,C45/C225,C135/315): 153.3, 117.1, 132.5, 133.4

Beam Angle(C0/C180,C90/C270,C45/C225,C135/315): 112.3, 109.2, 113.3, 113.7

Luminaire Efficacy Rating (LER): 80.72

Central Intensity: 1289.37 cd

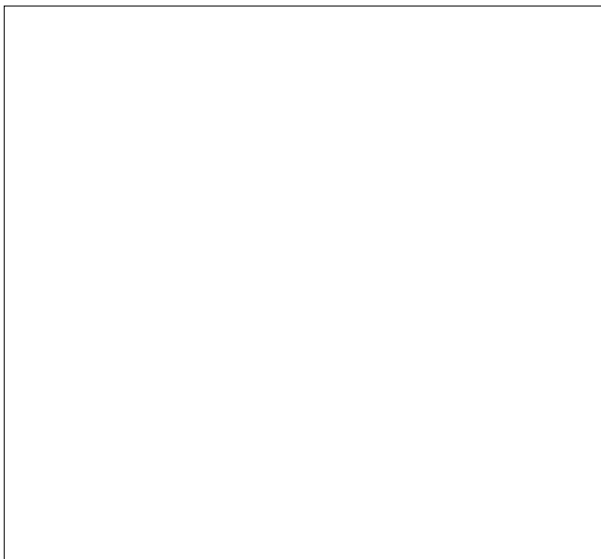
Max. Intensity: 1297.22 cd

Pos of Max. Intensity: H270 V4

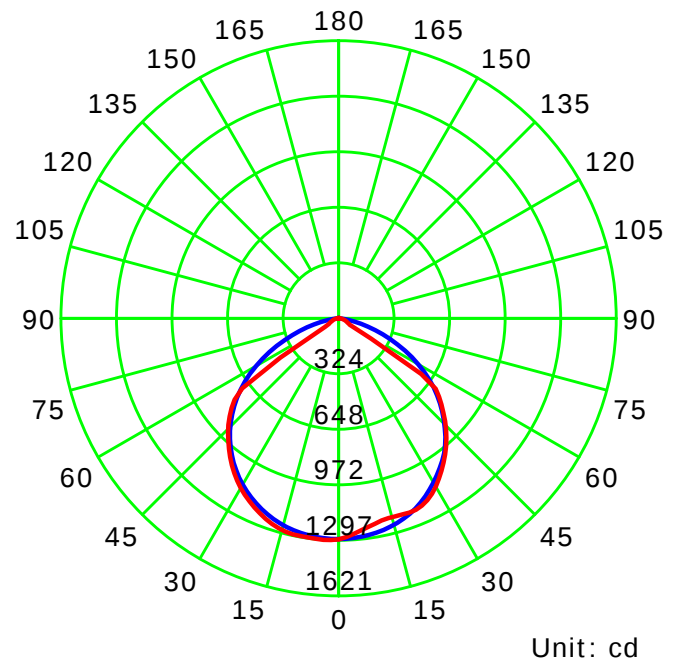
S/MH(C0/C180): 1.28

S/MH(C90/C270): 1.30

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 (°):0.0-180.0:2.0

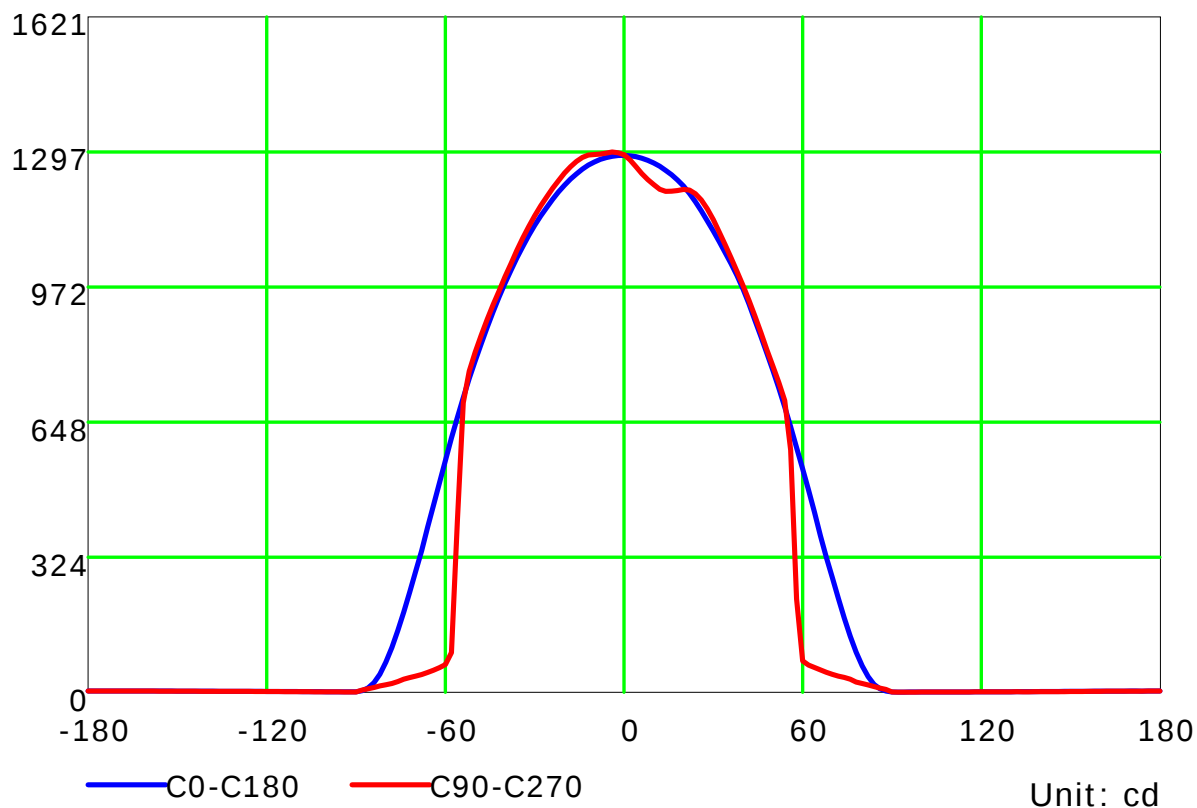
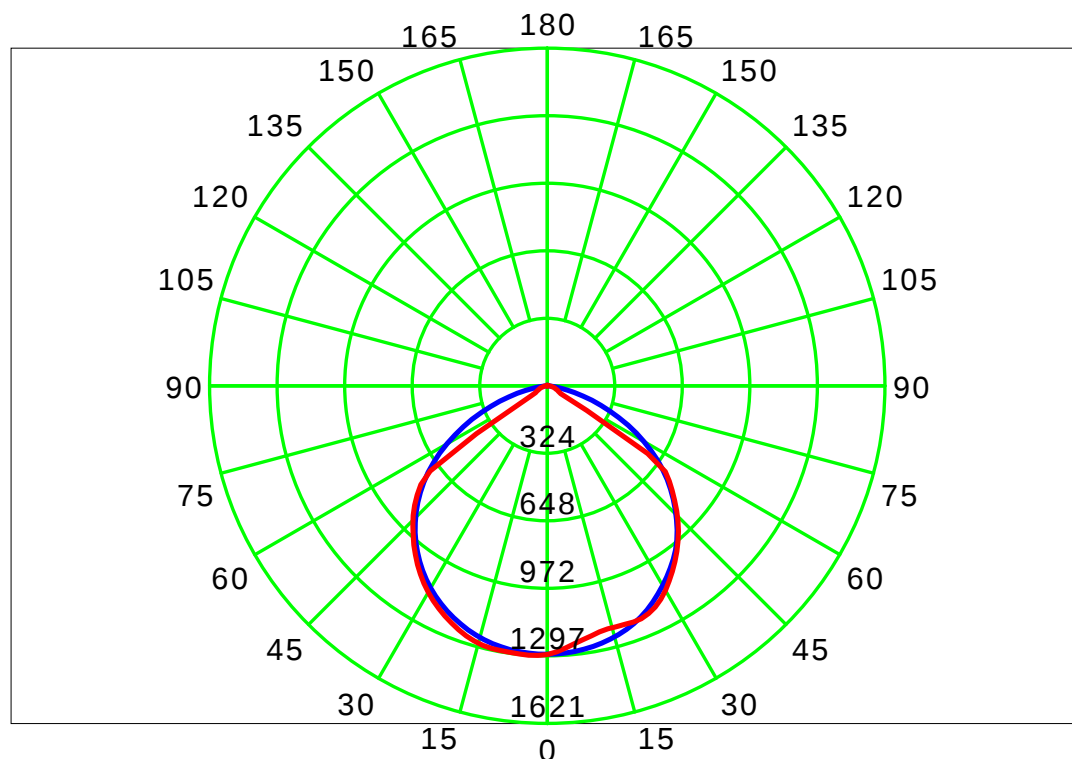
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

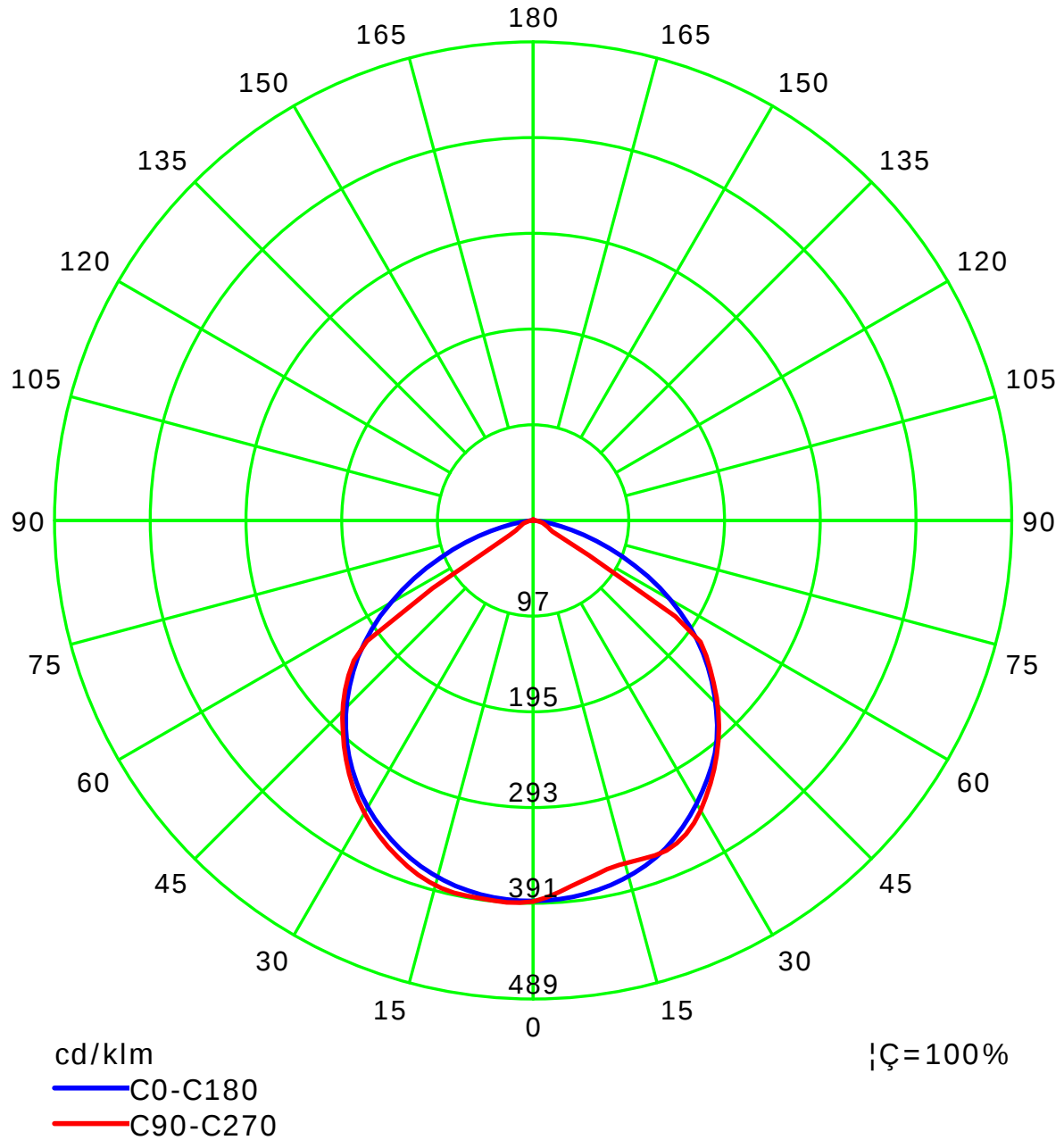
## Luminous Intensity Distribution Curve



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:

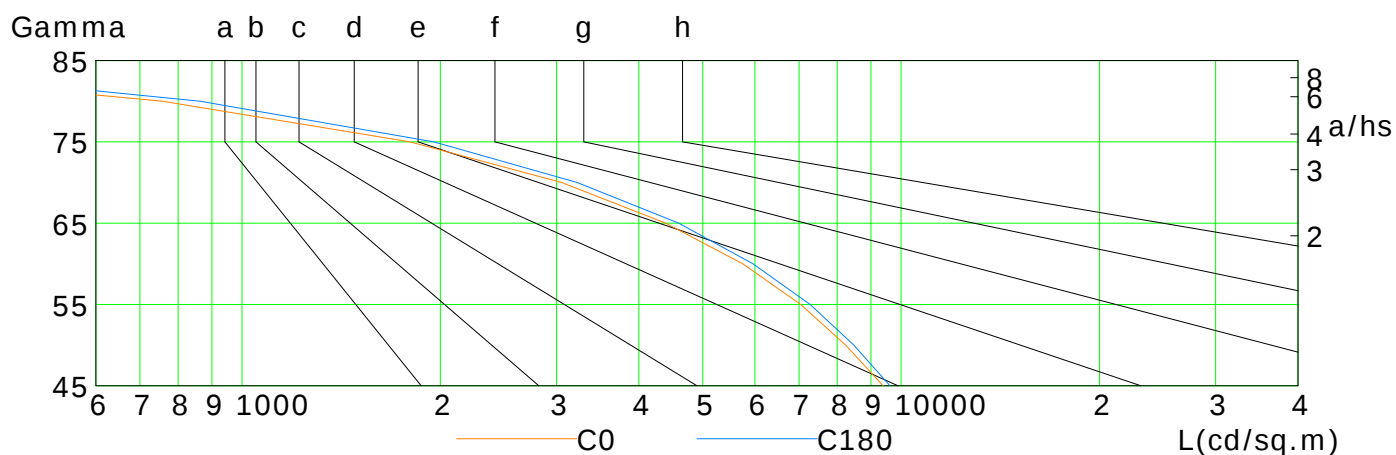
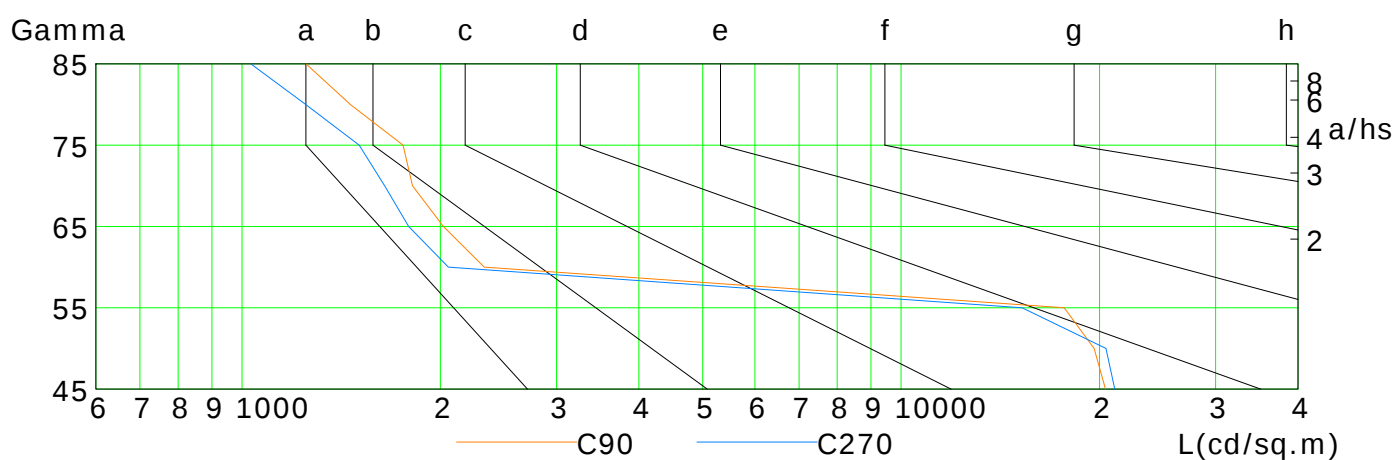
## Luminous Intensity Distribution Curve(cd / klm)



## 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         | 9391  | 8237  | 7041  | 5751 | 4394 | 3054 | 1799 | 757  | 172  |
| C90        | 20421 | 19618 | 17676 | 2331 | 2021 | 1814 | 1755 | 1460 | 1251 |
| C180       | 9617  | 8477  | 7278  | 5959 | 4597 | 3225 | 1954 | 863  | 211  |
| C270       | 21093 | 20448 | 15254 | 2056 | 1790 | 1646 | 1506 | 1249 | 1031 |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:2.0

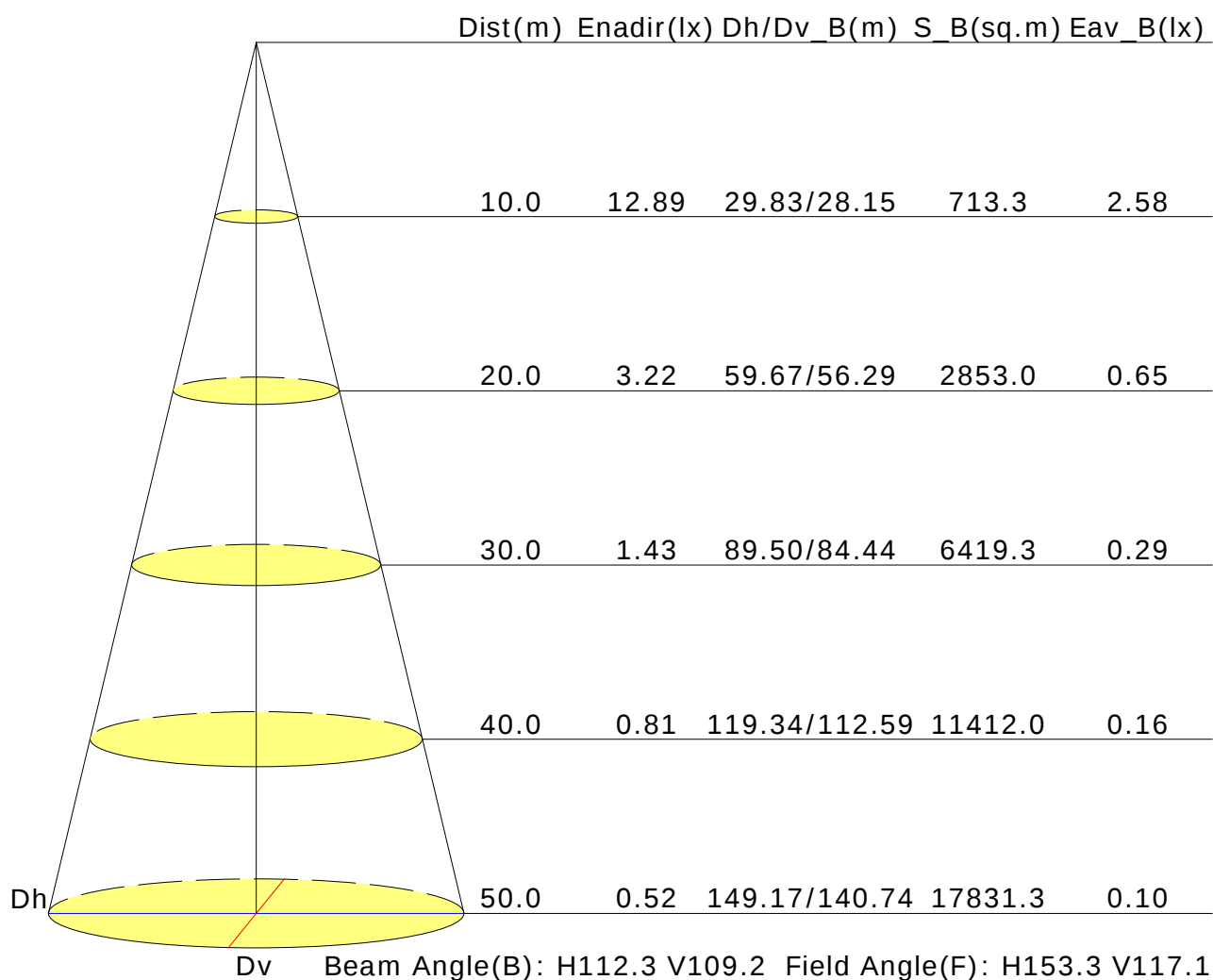
Test Device: LSG-1800B

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                                          | 20.0             | 21.3 | 20.3 | 21.6 | 21.8 | 20.2           | 21.5 | 20.5 | 21.7 | 22.0 |
| 3H                                                 | 20.8             | 21.9 | 21.1 | 22.2 | 22.5 | 20.1           | 21.2 | 20.4 | 21.5 | 21.8 |
| 4H                                                 | 20.9             | 22.0 | 21.3 | 22.3 | 22.6 | 20.0           | 21.1 | 20.4 | 21.4 | 21.7 |
| 6H                                                 | 20.9             | 21.9 | 21.3 | 22.2 | 22.5 | 20.0           | 21.0 | 20.3 | 21.3 | 21.6 |
| 8H                                                 | 20.9             | 21.8 | 21.2 | 22.2 | 22.5 | 19.9           | 20.9 | 20.3 | 21.2 | 21.6 |
| 12H                                                | 20.8             | 21.8 | 21.2 | 22.1 | 22.4 | 19.9           | 20.8 | 20.3 | 21.2 | 21.5 |
| X=4H Y=2H                                          | 20.3             | 21.4 | 20.7 | 21.7 | 22.0 | 20.4           | 21.5 | 20.8 | 21.8 | 22.1 |
| 3H                                                 | 21.1             | 22.1 | 21.5 | 22.4 | 22.7 | 20.3           | 21.2 | 20.7 | 21.6 | 21.9 |
| 4H                                                 | 21.3             | 22.2 | 21.7 | 22.5 | 22.9 | 20.3           | 21.1 | 20.7 | 21.4 | 21.8 |
| 6H                                                 | 21.3             | 22.0 | 21.8 | 22.4 | 22.8 | 20.2           | 20.9 | 20.6 | 21.3 | 21.7 |
| 8H                                                 | 21.3             | 22.0 | 21.7 | 22.4 | 22.8 | 20.2           | 20.9 | 20.6 | 21.3 | 21.7 |
| 12H                                                | 21.3             | 21.9 | 21.7 | 22.3 | 22.7 | 20.2           | 20.8 | 20.6 | 21.2 | 21.6 |
| X=8H Y=4H                                          | 21.2             | 21.9 | 21.7 | 22.3 | 22.7 | 20.2           | 20.9 | 20.6 | 21.3 | 21.7 |
| 6H                                                 | 21.2             | 21.8 | 21.7 | 22.2 | 22.7 | 20.2           | 20.7 | 20.6 | 21.1 | 21.6 |
| 8H                                                 | 21.2             | 21.7 | 21.7 | 22.1 | 22.6 | 20.2           | 20.6 | 20.6 | 21.1 | 21.6 |
| 12H                                                | 21.2             | 21.6 | 21.7 | 22.1 | 22.6 | 20.1           | 20.5 | 20.6 | 21.0 | 21.5 |
| X=12H Y=4H                                         | 21.2             | 21.8 | 21.7 | 22.2 | 22.7 | 20.2           | 20.8 | 20.6 | 21.2 | 21.6 |
| 6H                                                 | 21.2             | 21.7 | 21.7 | 22.1 | 22.6 | 20.1           | 20.6 | 20.6 | 21.1 | 21.6 |
| 8H                                                 | 21.2             | 21.6 | 21.7 | 22.1 | 22.6 | 20.1           | 20.5 | 20.6 | 21.0 | 21.5 |
| Variations with the observer position at spacings: |                  |      |      |      |      |                |      |      |      |      |
| S=1.0H                                             | +0.2/-0.4        |      |      |      |      | +0.8/-1.6      |      |      |      |      |
| S=1.5H                                             | +0.8/-1.8        |      |      |      |      | +2.6/-9.0      |      |      |      |      |
| S=2.0H                                             | +1.3/-2.8        |      |      |      |      | +4.2/-10.9     |      |      |      |      |

Calculate in accordance with CIE Pub.117. The table is revised with 3311lm ( $8\log(F/F_0) = 4.2$ ).

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 | 0.78 | 0.83 | 0.89 | 0.93 | 0.96 | 1.00 | 1.02 |  |
|                                                                                                                                                                                   | 0.30 |       | 0.53           | 0.64 | 0.72 | 0.77 | 0.85 | 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 | 0.99 |  |
|                                                                                                                                                                                   | 0.30 |       | 0.52           | 0.63 | 0.70 | 0.76 | 0.82 | 0.87 | 0.90 | 0.94 | 0.97 |  |
|                                                                                                                                                                                   | 0.20 |       | 0.47           | 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 | 0.64 | 0.69 | 0.76 | 0.80 | 0.83 | 0.87 | 0.90 |  |
| Rating:41W Photometrically tested without ceiling board.<br>Multiply UF values by service correction factors<br>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 | 0.63 | 0.55 | 0.43 | 0.35 | 0.30 | 0.23 | 0.18 |  |
|                                                                                                                                                                                                  | 0.30 |       | 0.79           | 0.65 | 0.55 | 0.48 | 0.39 | 0.32 | 0.28 | 0.21 | 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 | 0.21 | 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 | 0.16 |  |
|                                                                                                                                                                                                  | 0.30 |       | 0.76           | 0.62 | 0.52 | 0.45 | 0.36 | 0.30 | 0.25 | 0.19 | 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 | 0.17 | 0.13 | 0.11 |  |
| <p>Rating:41W 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> |      |       |                |      |      |      |      |      |      |      |      |  |

## 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           | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 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 | 0.09 | 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 | 0.12 | 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 | 0.17 | 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 |  |
| <p>Rating:41W 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> |      |       |                |      |      |      |      |      |      |      |      |  |