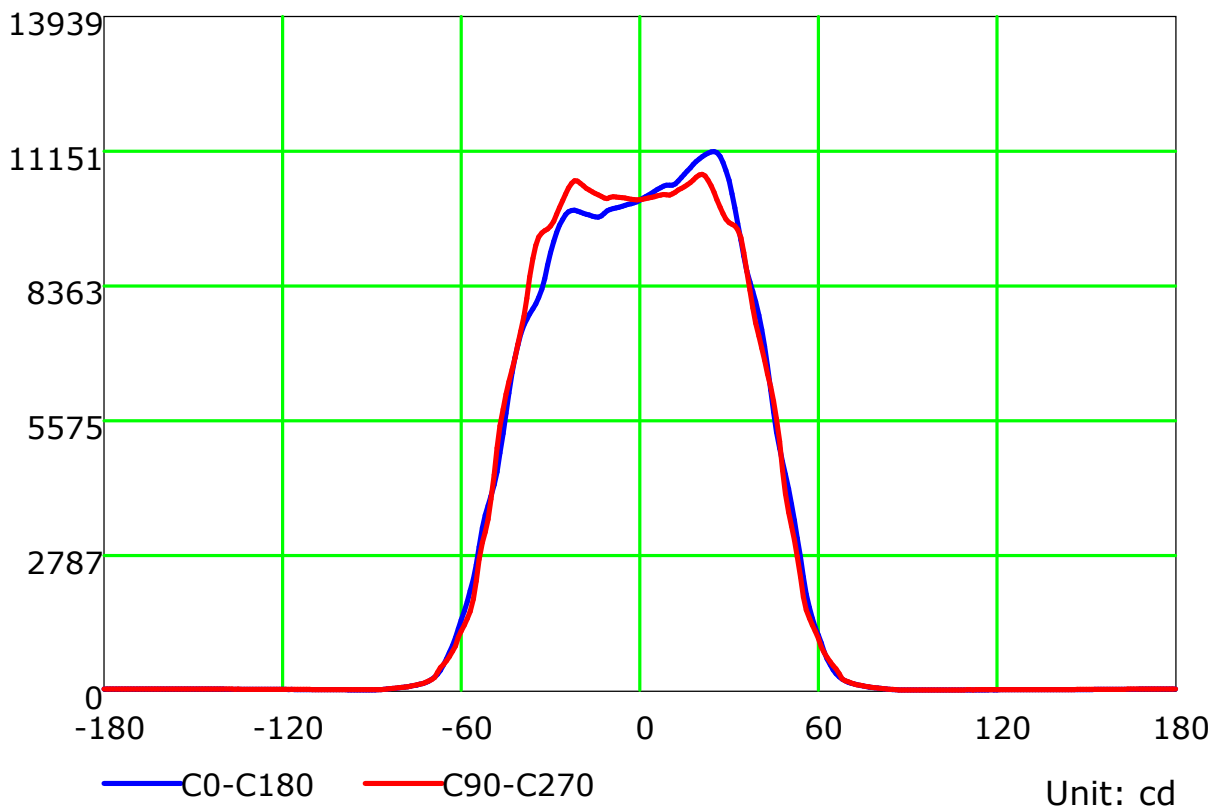
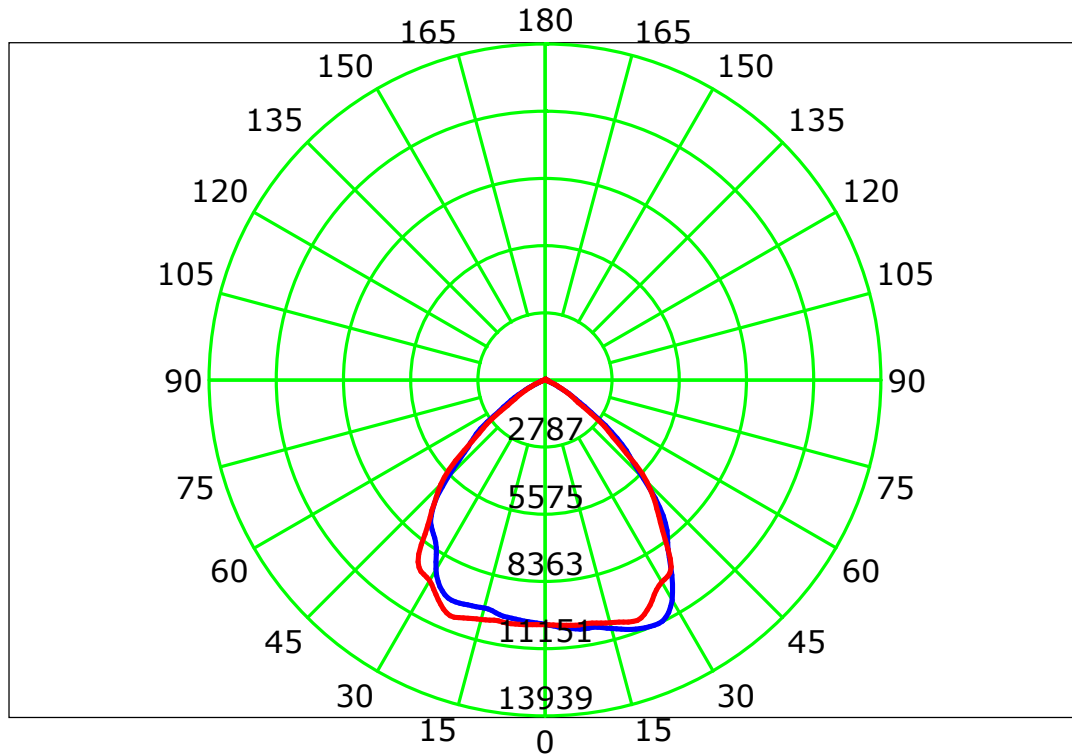




## Luminous Intensity Distribution Curve



C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

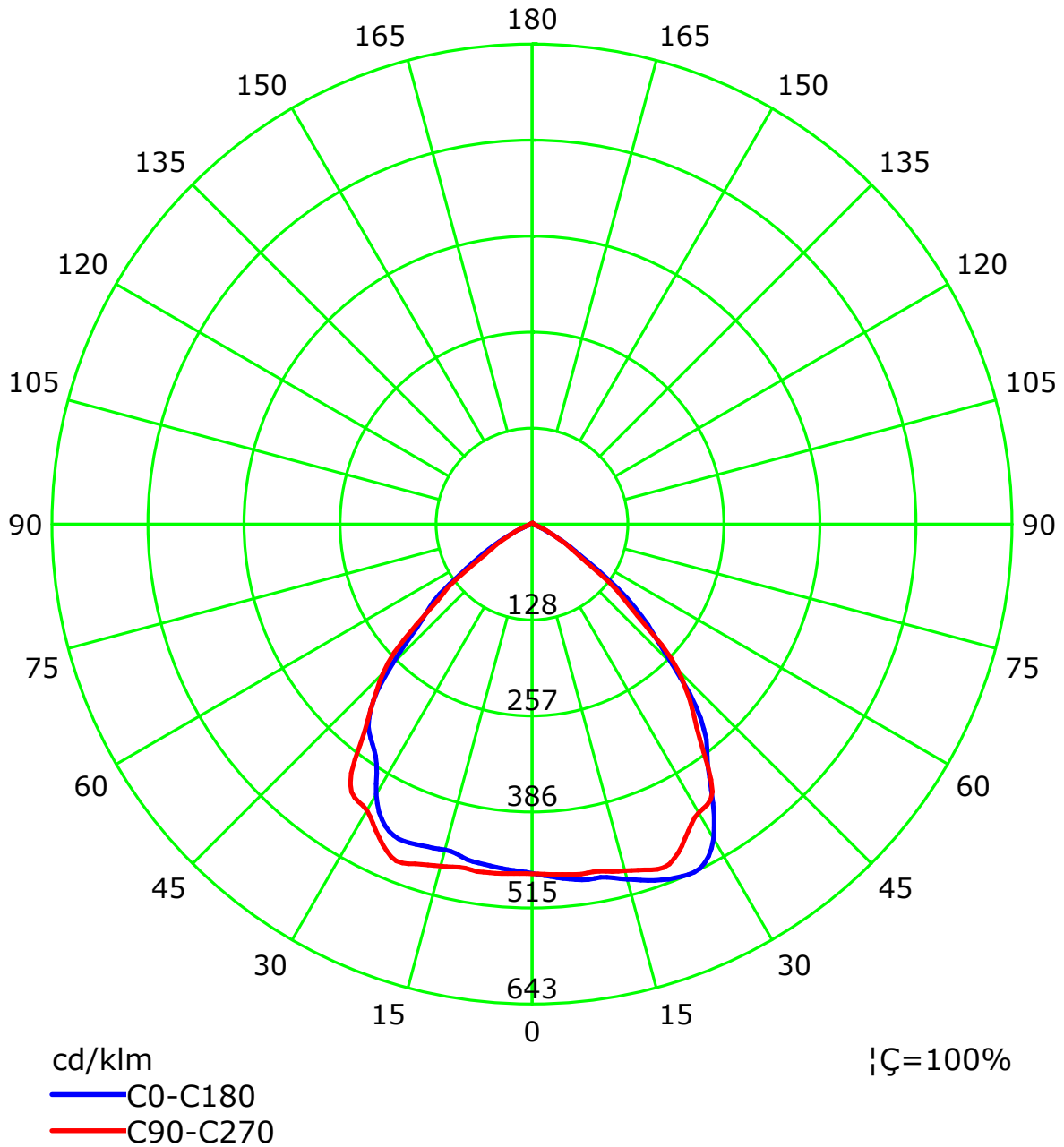
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

## Luminous Intensity Distribution Curve(cd/klm)



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

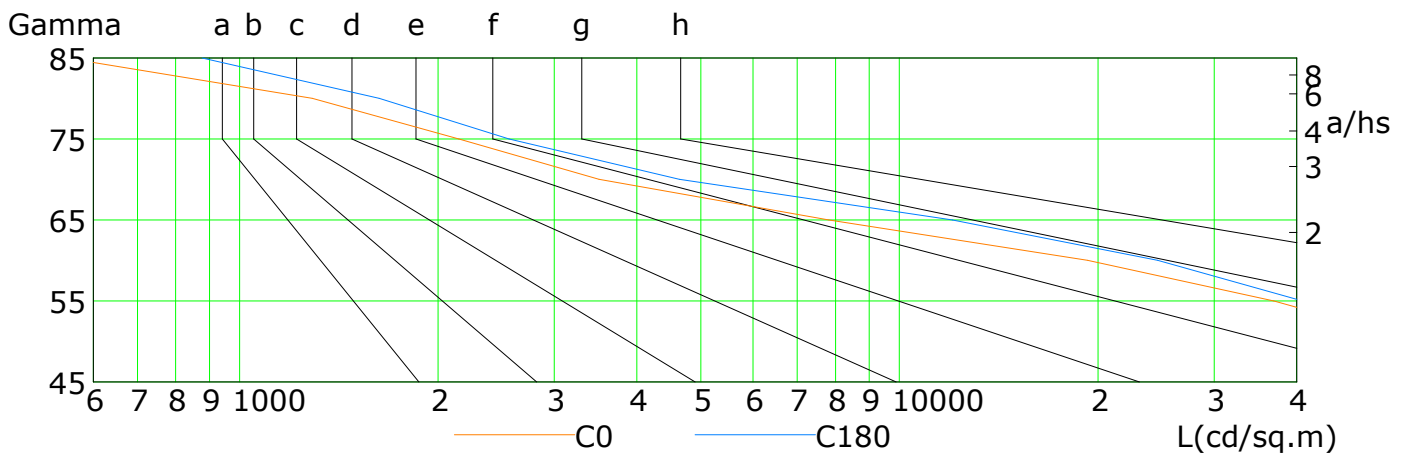
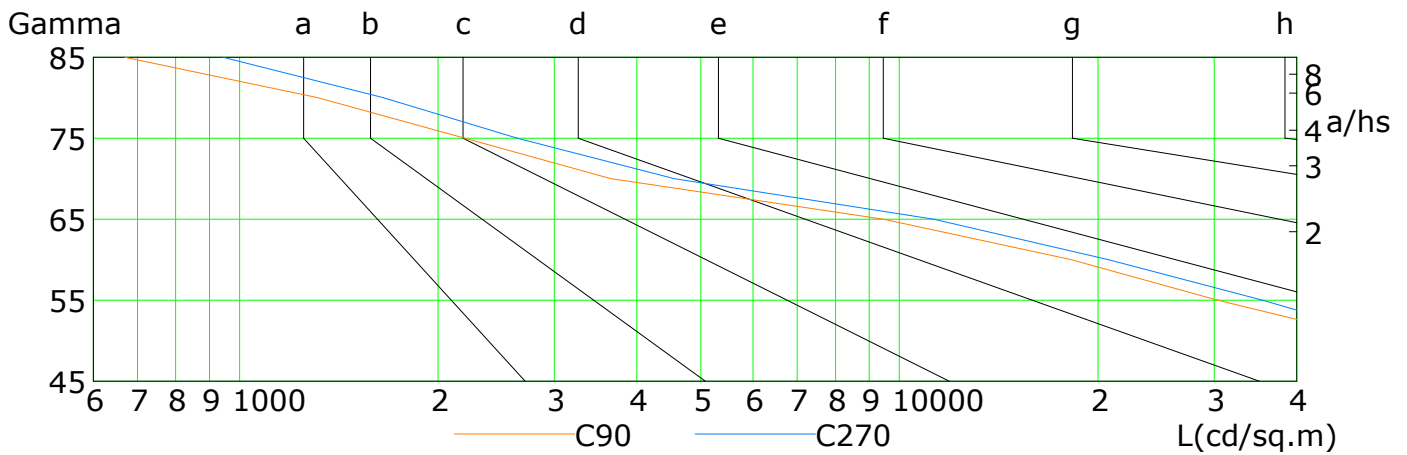
Humidity:

Inspector:

## 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         | 81211 | 61716 | 36915 | 19270 | 7815  | 3504 | 2149 | 1289 | 547 |
| C90        | 84288 | 54583 | 30380 | 18200 | 9462  | 3648 | 2197 | 1313 | 670 |
| C180       | 80725 | 59530 | 40851 | 24633 | 12031 | 4639 | 2563 | 1627 | 877 |
| C270       | 86307 | 58540 | 35525 | 20717 | 11283 | 4555 | 2637 | 1650 | 943 |

C Plane (°):0.0-360.0: 22.5

Test Lab:

Test Type: TYPE C

Temperature:

Operator:

Gamma Plane (°):0.0-180.0:1.0

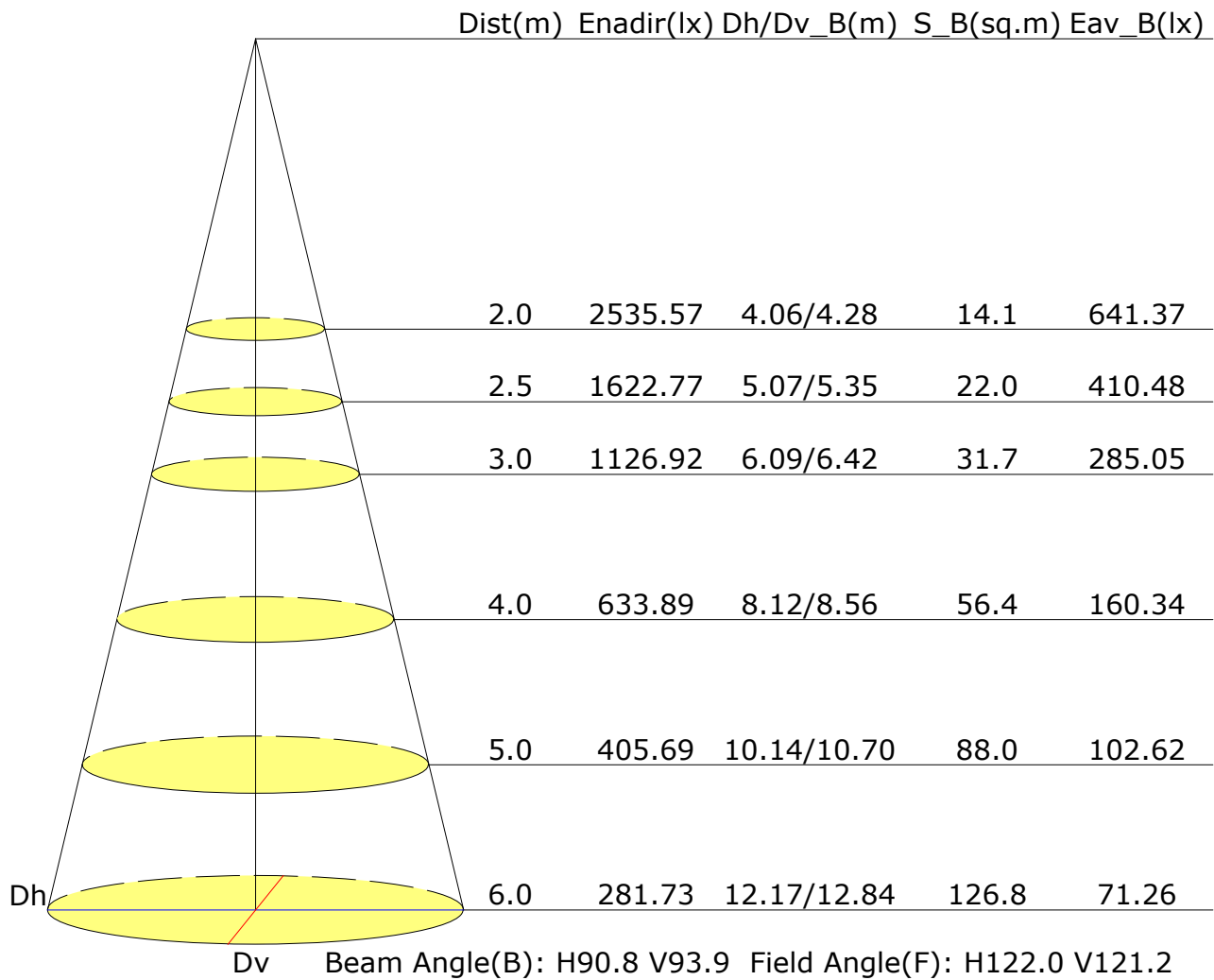
Test Device: LSG-1800B

Distance: 12.677 m

Humidity:

Inspector:

## Illuminance at a Distance



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:

## 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                                          | 24.6             | 25.7 | 24.9 | 26.0 | 26.2 | 24.8           | 26.0 | 25.1 | 26.2 | 26.4 |
| 3H                                                 | 24.5             | 25.5 | 24.8 | 25.8 | 26.0 | 24.7           | 25.7 | 25.0 | 26.0 | 26.3 |
| 4H                                                 | 24.4             | 25.4 | 24.8 | 25.7 | 25.9 | 24.7           | 25.6 | 25.0 | 25.9 | 26.2 |
| 6H                                                 | 24.4             | 25.2 | 24.7 | 25.5 | 25.8 | 24.6           | 25.5 | 24.9 | 25.8 | 26.1 |
| 8H                                                 | 24.3             | 25.2 | 24.7 | 25.5 | 25.8 | 24.5           | 25.4 | 24.9 | 25.7 | 26.0 |
| 12H                                                | 24.3             | 25.1 | 24.7 | 25.4 | 25.7 | 24.5           | 25.3 | 24.9 | 25.6 | 26.0 |
| X=4H Y=2H                                          | 24.5             | 25.5 | 24.8 | 25.7 | 26.0 | 24.7           | 25.7 | 25.0 | 25.9 | 26.2 |
| 3H                                                 | 24.4             | 25.2 | 24.8 | 25.5 | 25.9 | 24.6           | 25.4 | 25.0 | 25.7 | 26.1 |
| 4H                                                 | 24.3             | 25.0 | 24.7 | 25.4 | 25.8 | 24.6           | 25.3 | 25.0 | 25.6 | 26.0 |
| 6H                                                 | 24.3             | 24.9 | 24.7 | 25.3 | 25.7 | 24.5           | 25.1 | 24.9 | 25.5 | 25.9 |
| 8H                                                 | 24.2             | 24.8 | 24.7 | 25.2 | 25.6 | 24.4           | 25.0 | 24.9 | 25.4 | 25.8 |
| 12H                                                | 24.2             | 24.7 | 24.7 | 25.1 | 25.6 | 24.4           | 24.9 | 24.9 | 25.3 | 25.8 |
| X=8H Y=4H                                          | 24.2             | 24.8 | 24.7 | 25.2 | 25.6 | 24.4           | 25.0 | 24.9 | 25.4 | 25.8 |
| 6H                                                 | 24.2             | 24.6 | 24.6 | 25.1 | 25.5 | 24.4           | 24.8 | 24.8 | 25.3 | 25.7 |
| 8H                                                 | 24.1             | 24.5 | 24.6 | 25.0 | 25.5 | 24.3           | 24.7 | 24.8 | 25.2 | 25.7 |
| 12H                                                | 24.1             | 24.4 | 24.6 | 24.9 | 25.4 | 24.3           | 24.6 | 24.8 | 25.1 | 25.6 |
| X=12H Y=4H                                         | 24.2             | 24.7 | 24.6 | 25.1 | 25.6 | 24.4           | 24.9 | 24.9 | 25.3 | 25.8 |
| 6H                                                 | 24.1             | 24.5 | 24.6 | 25.0 | 25.5 | 24.3           | 24.7 | 24.8 | 25.2 | 25.7 |
| 8H                                                 | 24.1             | 24.4 | 24.6 | 24.9 | 25.4 | 24.3           | 24.6 | 24.8 | 25.1 | 25.6 |
| Variations with the observer position at spacings: |                  |      |      |      |      |                |      |      |      |      |
| S=1.0H                                             | +1.1/-3.4        |      |      |      |      | +1.1/-2.5      |      |      |      |      |
| S=1.5H                                             | +3.2/-7.7        |      |      |      |      | +2.7/-7.3      |      |      |      |      |
| S=2.0H                                             | +5.1/-12.4       |      |      |      |      | +4.6/-11.8     |      |      |      |      |

Calculate in accordance with CIE Pub.117. The table is revised with 21651lm ( $8\log(F/F_0) = 10.7$ ).

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)

| Utilance U(F)                                                                                                                                                                                                                                                |      |       |                |      |      |      |      |      |      |      |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------------|------|------|------|------|------|------|------|------|
| 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  | 0.63           | 0.74 | 0.81 | 0.86 | 0.93 | 0.98 | 1.01 | 1.04 | 1.07 |
|                                                                                                                                                                                                                                                              | 0.30 |       | 0.56           | 0.67 | 0.75 | 0.81 | 0.88 | 0.93 | 0.96 | 1.01 | 1.04 |
|                                                                                                                                                                                                                                                              | 0.20 |       | 0.51           | 0.62 | 0.70 | 0.76 | 0.84 | 0.89 | 0.93 | 0.98 | 1.01 |
| 0.50                                                                                                                                                                                                                                                         | 0.50 | 0.20  | 0.62           | 0.72 | 0.79 | 0.84 | 0.90 | 0.94 | 0.97 | 1.00 | 1.02 |
|                                                                                                                                                                                                                                                              | 0.30 |       | 0.55           | 0.66 | 0.74 | 0.79 | 0.86 | 0.91 | 0.94 | 0.98 | 1.00 |
|                                                                                                                                                                                                                                                              | 0.20 |       | 0.51           | 0.62 | 0.69 | 0.75 | 0.82 | 0.87 | 0.91 | 0.95 | 0.98 |
| 0.30                                                                                                                                                                                                                                                         | 0.50 | 0.20  | 0.60           | 0.70 | 0.77 | 0.81 | 0.87 | 0.91 | 0.94 | 0.97 | 0.99 |
|                                                                                                                                                                                                                                                              | 0.30 |       | 0.54           | 0.65 | 0.72 | 0.77 | 0.84 | 0.88 | 0.91 | 0.95 | 0.97 |
|                                                                                                                                                                                                                                                              | 0.20 |       | 0.50           | 0.61 | 0.68 | 0.74 | 0.81 | 0.85 | 0.89 | 0.93 | 0.95 |
| 0.00                                                                                                                                                                                                                                                         | 0.00 | 0.00  | 0.48           | 0.59 | 0.66 | 0.71 | 0.78 | 0.82 | 0.85 | 0.88 | 0.91 |
| Luminous ceiling reflectance(into room):0.30<br>Luminous ceiling reflectance(into void):0.20<br>Luminous ceiling transmittance:0.40<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |

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(Wall)

| Utilance U(W)                                                                                                                                                                                                                                                |      |       |                |      |      |      |      |      |      |      |      |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------------|------|------|------|------|------|------|------|------|--|
| 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  | 0.90           | 0.72 | 0.59 | 0.51 | 0.39 | 0.32 | 0.27 | 0.21 | 0.17 |  |
|                                                                                                                                                                                                                                                              | 0.30 |       | 0.75           | 0.61 | 0.52 | 0.45 | 0.36 | 0.30 | 0.25 | 0.20 | 0.16 |  |
|                                                                                                                                                                                                                                                              | 0.20 |       | 0.64           | 0.54 | 0.46 | 0.40 | 0.32 | 0.27 | 0.23 | 0.18 | 0.15 |  |
| 0.50                                                                                                                                                                                                                                                         | 0.50 | 0.20  | 0.87           | 0.69 | 0.57 | 0.48 | 0.37 | 0.34 | 0.26 | 0.20 | 0.16 |  |
|                                                                                                                                                                                                                                                              | 0.30 |       | 0.73           | 0.60 | 0.50 | 0.43 | 0.34 | 0.28 | 0.24 | 0.18 | 0.15 |  |
|                                                                                                                                                                                                                                                              | 0.20 |       | 0.64           | 0.53 | 0.45 | 0.39 | 0.31 | 0.26 | 0.23 | 0.18 | 0.15 |  |
| 0.30                                                                                                                                                                                                                                                         | 0.50 | 0.20  | 0.84           | 0.66 | 0.54 | 0.46 | 0.35 | 0.29 | 0.24 | 0.18 | 0.15 |  |
|                                                                                                                                                                                                                                                              | 0.30 |       | 0.72           | 0.58 | 0.49 | 0.42 | 0.33 | 0.27 | 0.23 | 0.18 | 0.14 |  |
|                                                                                                                                                                                                                                                              | 0.20 |       | 0.63           | 0.52 | 0.44 | 0.38 | 0.30 | 0.25 | 0.22 | 0.17 | 0.14 |  |
| 0.00                                                                                                                                                                                                                                                         | 0.00 | 0.00  | 0.52           | 0.41 | 0.34 | 0.29 | 0.22 | 0.18 | 0.15 | 0.12 | 0.09 |  |
| Luminous ceiling reflectance(into room):0.30<br>Luminous ceiling reflectance(into void):0.20<br>Luminous ceiling transmittance:0.40<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |  |

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(Ceiling cavity)

| Utilance U(C)                                                                                                                                                                                                                                                |      |       |                |      |      |      |      |      |      |      |      |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-------|----------------|------|------|------|------|------|------|------|------|
| 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  | 0.15           | 0.17 | 0.17 | 0.18 | 0.19 | 0.20 | 0.20 | 0.21 | 0.21 |
|                                                                                                                                                                                                                                                              | 0.30 |       | 0.09           | 0.11 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 | 0.18 | 0.19 |
|                                                                                                                                                                                                                                                              | 0.20 |       | 0.05           | 0.07 | 0.08 | 0.10 | 0.12 | 0.13 | 0.15 | 0.16 | 0.17 |
| 0.50                                                                                                                                                                                                                                                         | 0.50 | 0.20  | 0.15           | 0.16 | 0.17 | 0.17 | 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 | 0.19 |
|                                                                                                                                                                                                                                                              | 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  | 0.14           | 0.15 | 0.16 | 0.17 | 0.18 | 0.18 | 0.19 | 0.19 | 0.19 |
|                                                                                                                                                                                                                                                              | 0.30 |       | 0.09           | 0.10 | 0.12 | 0.13 | 0.14 | 0.15 | 0.16 | 0.17 | 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  | NA             | NA   | NA   | NA   | NA   | NA   | NA   | NA   | NA   |
| Luminous ceiling reflectance(into room):0.30<br>Luminous ceiling reflectance(into void):0.20<br>Luminous ceiling transmittance:0.40<br>Multiply UF values by service correction factors<br>Calculate in accordance with CIBSE Technical Memorandum NO.5 1980 |      |       |                |      |      |      |      |      |      |      |      |

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: