

#### Luminaire

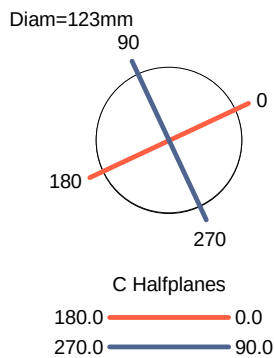
Code VDL2 15W  
Name VDL2 15W

#### Measurement

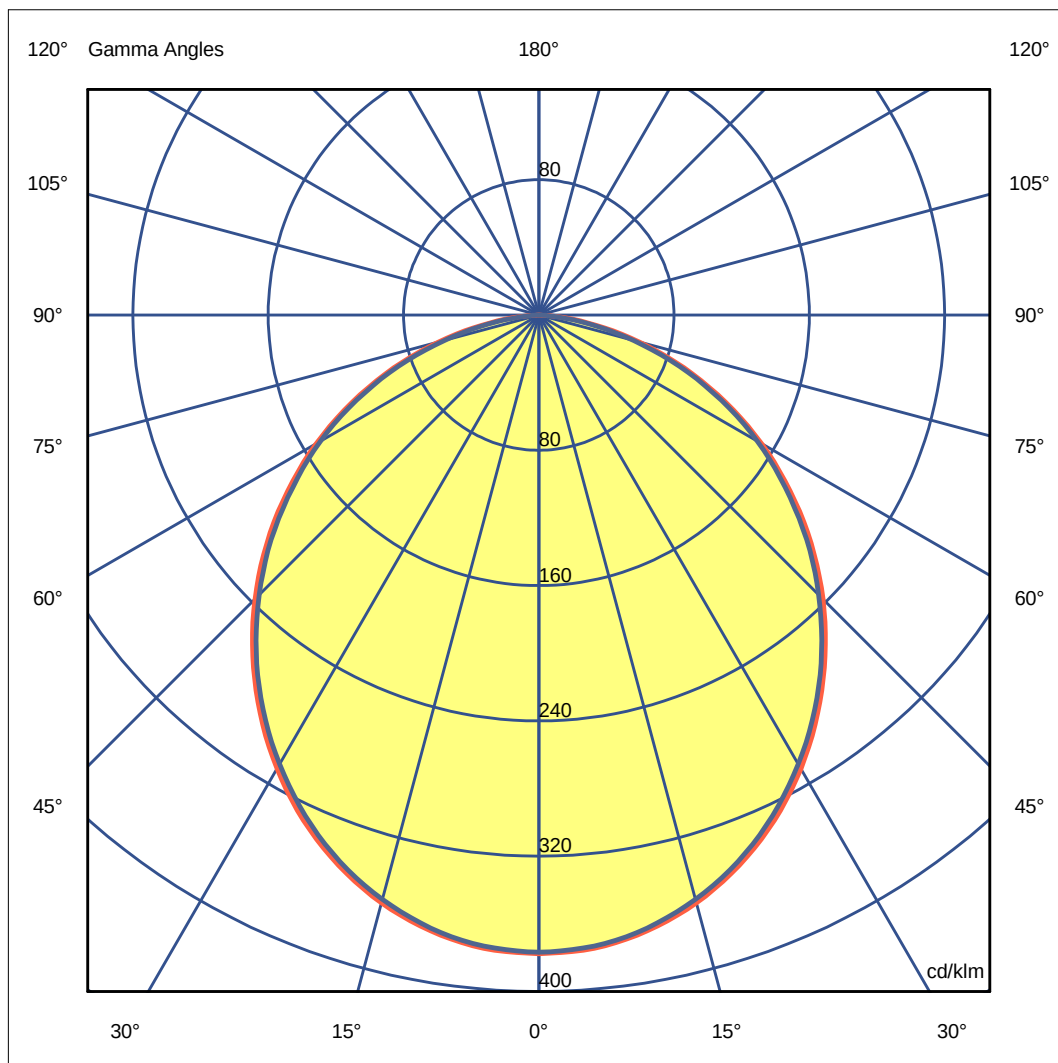
Code VDL2 15W  
Name VDL2 15W

|                            |            |                 |               |                             |               |                    |                    |
|----------------------------|------------|-----------------|---------------|-----------------------------|---------------|--------------------|--------------------|
| Luminaire Flux             | 1201.57 lm | Luminaire Power | 14.00 W       | Efficacy                    | 85.83 lm/W    | Efficiency         | 100.13%            |
| Lamps Flux                 | 1200.00 lm | Maximum value   | 377.58 cd/klm | Position                    | C=0.00 G=0.00 | CG                 | Double Symmetrical |
| Round Luminaire            |            | Diam.           | 123 mm        | Height                      | 1 mm          |                    |                    |
| Round Luminous Area        |            | Diam.           | 123 mm        | Height                      | 0 mm          |                    |                    |
| Horizontal Luminous Area   |            | 0.011882 m2     |               | Emitting area on Plane 180° |               | 0.000000 m2        |                    |
| Emitting area on Plane 0°  |            | 0.000000 m2     |               | Emitting area on Plane 270° |               | 0.000000 m2        |                    |
| Emitting area on Plane 90° |            | 0.000000 m2     |               | Glare area at 76°           |               | 0.002875 m2        |                    |
| Coordinate system          |            | CG              |               | Symmetry Type               |               | Double Symmetrical |                    |
| Date                       |            | 27-01-2000      |               | Maximum Gamma Angle         |               | 180                |                    |
| Measurement Distance       |            | 0.00            |               | Measurement Flux            |               | 1200.00 lm         |                    |
| Operator                   |            |                 |               | Source Voltage [V]          |               |                    |                    |
| Temperature                |            | 25.00 °C        |               | Source current [A]          |               |                    |                    |
| Humidity                   |            | 60.00 %         |               | Photocell                   |               |                    |                    |
| Notes                      |            |                 |               |                             |               |                    |                    |

| Luminaire Lamps |                                     |                                     |           |          |      |  |  |
|-----------------|-------------------------------------|-------------------------------------|-----------|----------|------|--|--|
| Line            | Code                                | Name                                | Flux [lm] | Pow. [W] | Q.ty |  |  |
|                 | LED 725.23 WW AD GENERAL 14W 1200lm | LED 725.23 WW AD GENERAL 14W 1200lm | 1200.00   | 14.00    | 1    |  |  |
| C.I.E.          | 49 81 96 100 100                    | D DIN 5040                          | A30       |          |      |  |  |
| F UTE           | 1.00 E                              | B NBN                               | BZ 4      |          |      |  |  |



ULOR 0.02 %  
DLOR100.11 %





" ĐẲNG CẤP NGƯỜI DẪN ĐẦU "

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|                |            |                 |               |          |               |            |                    |
|----------------|------------|-----------------|---------------|----------|---------------|------------|--------------------|
| Luminaire Flux | 1201.57 lm | Luminaire Power | 14.00 W       | Efficacy | 85.83 lm/W    | Efficiency | 100.13%            |
| Lamps Flux     | 1200.00 lm | Maximum value   | 377.58 cd/klm | Position | C=0.00 G=0.00 | CG         | Double Symmetrical |

**Luminous Intensity Table cd/klm Table 1/2**

|        | C 0.00 | C 5.00 | C 10.00 | C 15.00 | C 20.00 | C 25.00 | C 30.00 | C 35.00 | C 40.00 | C 45.00 | C 50.00 | C 55.00 | C 60.00 |
|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| G 0.0  | 377.58 | 377.50 | 377.42  | 377.42  | 377.33  | 377.25  | 377.17  | 377.17  | 377.00  | 377.00  | 376.92  | 376.92  | 376.83  |
| G 5.0  | 375.75 | 375.25 | 375.25  | 375.08  | 375.00  | 375.08  | 374.92  | 374.83  | 374.83  | 374.75  | 374.75  | 374.58  | 374.58  |
| G 10.0 | 369.67 | 368.83 | 368.83  | 368.67  | 368.75  | 368.50  | 368.58  | 368.33  | 368.42  | 368.33  | 368.33  | 368.17  | 368.08  |
| G 15.0 | 359.75 | 358.50 | 358.42  | 358.42  | 358.42  | 358.33  | 358.17  | 358.17  | 358.17  | 358.17  | 358.00  | 357.83  | 357.92  |
| G 20.0 | 346.25 | 344.67 | 344.50  | 344.33  | 343.92  | 344.25  | 344.33  | 344.33  | 344.25  | 344.25  | 344.08  | 344.17  | 344.00  |
| G 25.0 | 329.50 | 327.33 | 327.50  | 327.42  | 327.17  | 327.25  | 327.25  | 327.42  | 326.92  | 327.08  | 326.92  | 327.00  | 326.92  |
| G 30.0 | 309.75 | 307.42 | 309.83  | 307.50  | 307.33  | 307.50  | 307.00  | 307.17  | 306.83  | 307.08  | 306.92  | 307.00  | 309.25  |
| G 35.0 | 287.33 | 285.50 | 284.92  | 285.17  | 284.83  | 284.92  | 284.58  | 284.75  | 284.58  | 284.92  | 284.67  | 284.83  | 284.50  |
| G 40.0 | 263.25 | 261.00 | 260.58  | 260.58  | 260.58  | 260.67  | 260.50  | 260.75  | 260.08  | 260.42  | 260.08  | 260.50  | 260.00  |
| G 45.0 | 237.50 | 234.75 | 234.50  | 235.67  | 234.25  | 234.67  | 234.08  | 234.75  | 233.92  | 234.50  | 234.00  | 234.25  | 234.25  |
| G 50.0 | 210.08 | 207.42 | 207.17  | 214.17  | 207.08  | 207.42  | 207.00  | 207.25  | 206.75  | 207.08  | 206.92  | 207.00  | 206.75  |
| G 55.0 | 181.42 | 178.83 | 177.58  | 178.67  | 178.50  | 178.83  | 178.33  | 178.83  | 178.25  | 178.83  | 178.50  | 178.58  | 178.33  |
| G 60.0 | 152.08 | 149.50 | 149.17  | 149.42  | 149.25  | 149.25  | 149.08  | 149.50  | 149.17  | 149.42  | 149.00  | 149.33  | 149.25  |
| G 65.0 | 121.92 | 119.67 | 119.00  | 119.50  | 119.17  | 119.25  | 118.75  | 119.42  | 119.17  | 119.17  | 118.92  | 118.92  | 118.83  |
| G 70.0 | 91.33  | 89.17  | 88.75   | 89.17   | 88.83   | 89.33   | 88.50   | 89.33   | 88.75   | 89.25   | 88.42   | 89.08   | 88.58   |
| G 75.0 | 61.67  | 59.33  | 59.00   | 59.58   | 59.08   | 59.25   | 59.08   | 59.25   | 59.08   | 59.25   | 58.75   | 58.83   | 59.17   |
| G 80.0 | 34.17  | 32.08  | 32.08   | 32.17   | 32.08   | 31.75   | 32.08   | 32.17   | 32.00   | 31.92   | 31.33   | 31.08   | 30.75   |
| G 85.0 | 12.50  | 11.00  | 11.08   | 11.17   | 10.83   | 11.00   | 11.17   | 10.67   | 10.75   | 10.75   | 10.33   | 9.75    | 9.58    |
| G 90.0 | 0.83   | 0.75   | 0.75    | 0.67    | 0.67    | 0.67    | 0.58    | 0.58    | 0.58    | 0.58    | 0.50    | 0.50    | 0.50    |
| G 95.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G100.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G105.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G110.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G115.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G120.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G125.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G130.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G135.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G140.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G145.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G150.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G155.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G160.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G165.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G170.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G175.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G180.0 | 0.00   | 0.00   | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |



" ĐĂNG CẤP NGƯỜI DẪN ĐẦU "

#### Luminaire

Code VDL2 15W

Name VDL2 15W

#### Measurem.

Code VDL2 15W

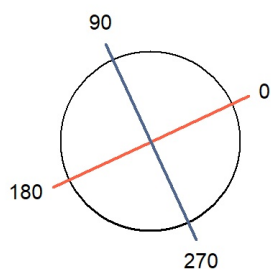
Name VDL2 15W

|                |            |                 |               |          |               |            |                    |
|----------------|------------|-----------------|---------------|----------|---------------|------------|--------------------|
| Luminaire Flux | 1201.57 lm | Luminaire Power | 14.00 W       | Efficacy | 85.83 lm/W    | Efficiency | 100.13%            |
| Lamps Flux     | 1200.00 lm | Maximum value   | 377.58 cd/klm | Position | C=0.00 G=0.00 | CG         | Double Symmetrical |

Luminous Intensity Table cd/klm Table 2/2

|        | C 65.00 | C 70.00 | C 75.00 | C 80.00 | C 85.00 | C 90.00 |
|--------|---------|---------|---------|---------|---------|---------|
| G 0.0  | 376.75  | 376.75  | 376.75  | 376.75  | 376.75  | 376.75  |
| G 5.0  | 374.50  | 374.50  | 374.42  | 374.42  | 374.42  | 374.50  |
| G 10.0 | 368.17  | 368.08  | 368.08  | 368.08  | 368.00  | 368.00  |
| G 15.0 | 357.75  | 357.75  | 357.67  | 357.67  | 357.75  | 357.67  |
| G 20.0 | 343.92  | 343.92  | 344.00  | 343.83  | 343.92  | 343.92  |
| G 25.0 | 326.75  | 327.33  | 326.83  | 326.67  | 326.67  | 326.67  |
| G 30.0 | 306.75  | 306.75  | 306.92  | 306.92  | 306.83  | 306.67  |
| G 35.0 | 284.67  | 284.33  | 284.42  | 284.33  | 284.58  | 284.42  |
| G 40.0 | 260.17  | 260.08  | 260.17  | 260.08  | 260.00  | 260.00  |
| G 45.0 | 234.33  | 234.08  | 234.42  | 234.17  | 234.42  | 233.83  |
| G 50.0 | 207.08  | 206.67  | 206.67  | 206.58  | 206.83  | 206.67  |
| G 55.0 | 178.83  | 178.08  | 178.58  | 177.92  | 178.50  | 177.75  |
| G 60.0 | 149.00  | 149.08  | 148.92  | 148.92  | 149.25  | 149.33  |
| G 65.0 | 119.33  | 118.92  | 119.67  | 118.83  | 119.25  | 118.92  |
| G 70.0 | 88.83   | 88.42   | 88.42   | 88.42   | 88.25   | 88.33   |
| G 75.0 | 58.42   | 58.42   | 58.25   | 57.75   | 58.08   | 58.08   |
| G 80.0 | 30.42   | 30.50   | 30.25   | 30.25   | 30.25   | 30.33   |
| G 85.0 | 9.42    | 9.08    | 9.42    | 9.33    | 9.17    | 9.00    |
| G 90.0 | 0.50    | 0.50    | 0.50    | 0.50    | 0.50    | 0.50    |
| G 95.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G100.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G105.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G110.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G115.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G120.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G125.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G130.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G135.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G140.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G145.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G150.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G155.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G160.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G165.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G170.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G175.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |
| G180.0 | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |

Diam=123mm



C Halfplanes

180.0 — 0.0

270.0 — 90.0

Flux 1200.00 lm

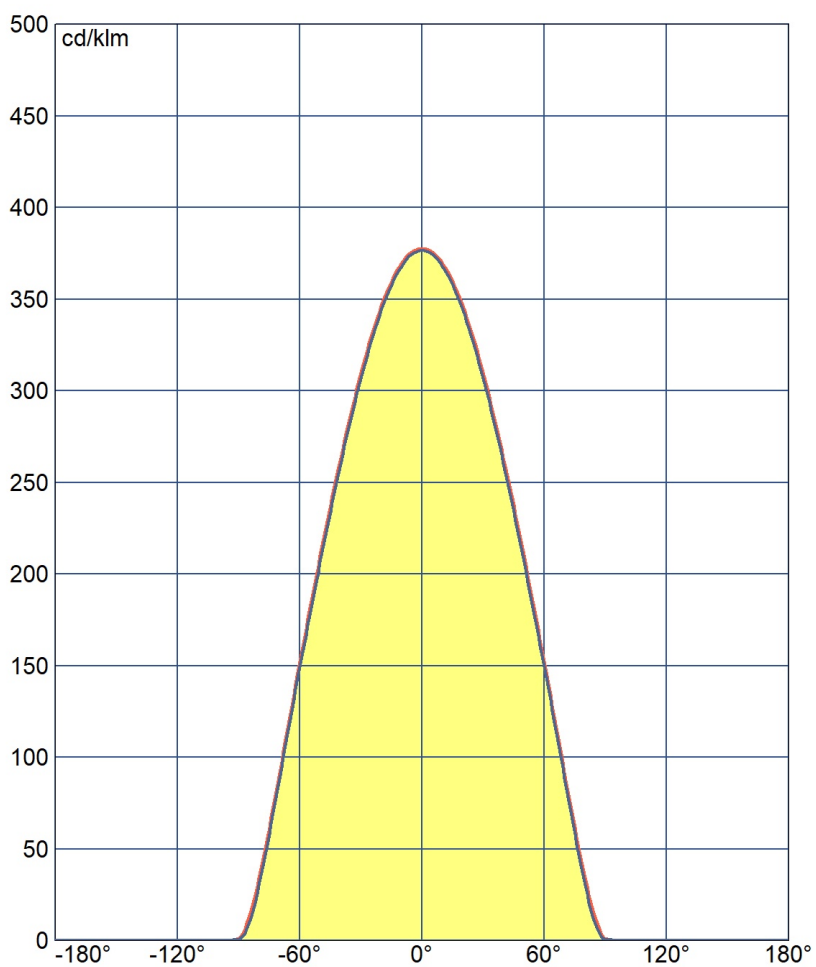
Maximum 377.58 cd/klm

Position C=0.00 G=0.00

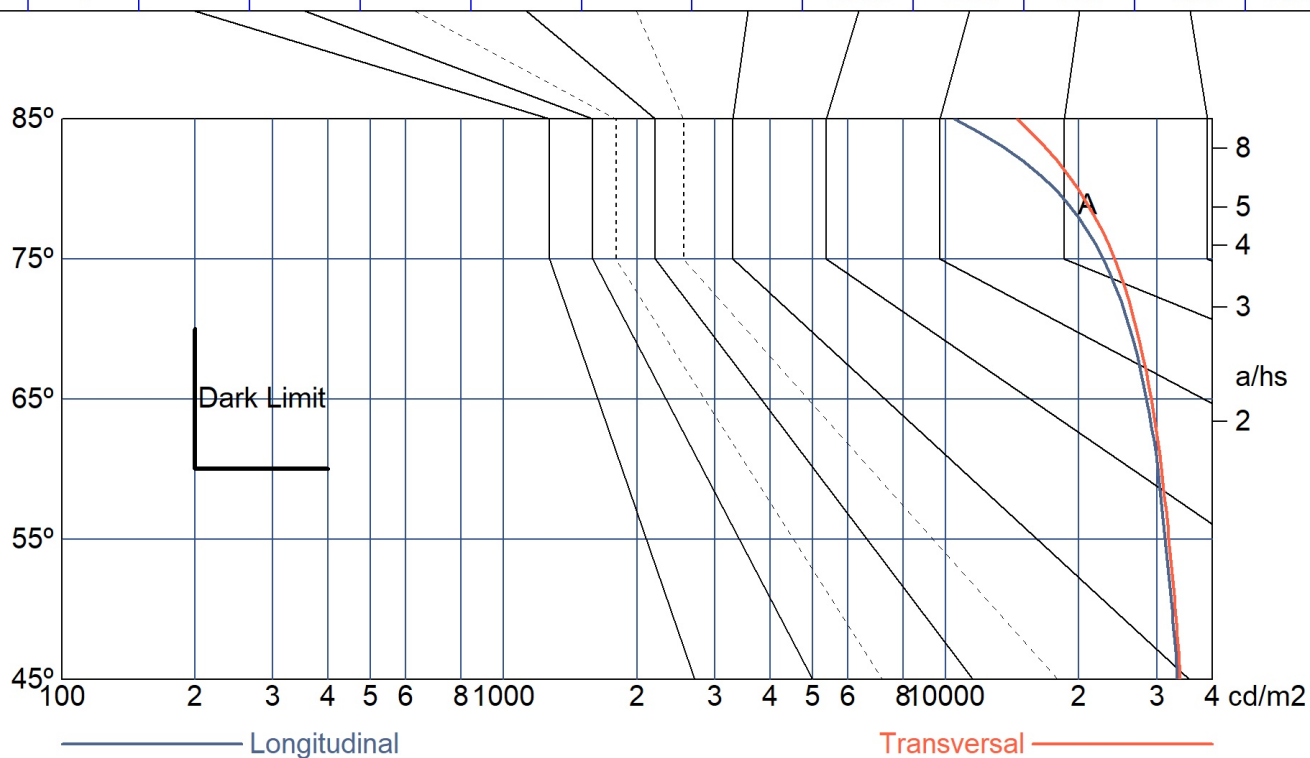
Efficiency: 100.13%

Date: 27-01-2000

Double Symmetrical



| Flush mounted or longitudinal view |   |                  |      |      |      |     |      |      |      |      |      |      |
|------------------------------------|---|------------------|------|------|------|-----|------|------|------|------|------|------|
|                                    |   | Illumination(lx) |      |      |      |     |      |      |      |      |      |      |
| A                                  | A | 2000             | 1000 | 750  | 500  |     | <300 |      |      |      |      | 1.15 |
| B                                  | 1 |                  | 2000 | 1500 | 1000 | 750 | 500  | <300 |      |      |      | 1.5  |
| C                                  |   |                  |      |      | 2000 |     | 1000 | 500  | <300 |      |      | 1.85 |
| D                                  | 2 |                  |      |      |      |     | 2000 | 1000 | 500  | <300 |      | 2.2  |
| E                                  | 3 |                  |      |      |      |     |      | 2000 | 1000 | 500  | <300 | 2.55 |



|     |              |                                      |                    |
|-----|--------------|--------------------------------------|--------------------|
| 0.5 | 1.33<br>1.36 | E(0°)<br>E(C90) 53.1°<br>E(C0) 53.7° | 1812<br>196<br>188 |
| 1.0 | 2.66<br>2.72 | E(0°)<br>E(C90) 53.1°<br>E(C0) 53.7° | 453<br>49<br>47    |
| 1.5 | 4.00<br>4.08 | E(0°)<br>E(C90) 53.1°<br>E(C0) 53.7° | 201<br>22<br>21    |
| 2.0 | 5.33<br>5.45 | E(0°)<br>E(C90) 53.1°<br>E(C0) 53.7° | 113<br>12<br>12    |
| 2.5 | 6.66<br>6.81 | E(0°)<br>E(C90) 53.1°<br>E(C0) 53.7° | 72<br>8<br>8       |
| 3.0 | 7.99<br>8.17 | E(0°)<br>E(C90) 53.1°<br>E(C0) 53.7° | 50<br>5<br>5       |

Distance [m]

Cone Diameter [m]

Illuminance [lx]

— C0 - C180 (Half value angle: 107.4°)

— C90 - C270 (Half value angle: 106.2°)

## Glare Evaluation According to UGR

|                                                                 |             |                                                   |      |      |      |             |                                            |      |      |      |      |
|-----------------------------------------------------------------|-------------|---------------------------------------------------|------|------|------|-------------|--------------------------------------------|------|------|------|------|
| $\rho$ Ceiling                                                  |             | 70                                                | 70   | 50   | 50   | 30          | 70                                         | 70   | 50   | 50   | 30   |
| $\rho$ Walls                                                    |             | 50                                                | 30   | 50   | 30   | 30          | 50                                         | 30   | 50   | 30   | 30   |
| $\rho$ Floor                                                    |             | 20                                                | 20   | 20   | 20   | 20          | 20                                         | 20   | 20   | 20   | 20   |
| Room size<br>X      Y                                           |             | Viewing direction at right angles<br>to lamp axis |      |      |      |             | Viewing direction parallel<br>to lamp axis |      |      |      |      |
| 2H                                                              | 2H          | 24.6                                              | 25.9 | 24.9 | 26.1 | 26.3        | 24.6                                       | 25.9 | 24.9 | 26.1 | 26.3 |
|                                                                 | 3H          | 26.0                                              | 27.2 | 26.4 | 27.5 | 27.7        | 26.0                                       | 27.2 | 26.3 | 27.4 | 27.7 |
|                                                                 | 4H          | 26.6                                              | 27.7 | 26.9 | 28.0 | 28.2        | 26.5                                       | 27.6 | 26.9 | 27.9 | 28.2 |
|                                                                 | 6H          | 26.9                                              | 27.9 | 27.3 | 28.3 | 28.6        | 26.8                                       | 27.9 | 27.2 | 28.2 | 28.5 |
|                                                                 | 8H          | 27.0                                              | 28.0 | 27.4 | 28.3 | 28.6        | 26.9                                       | 27.9 | 27.3 | 28.2 | 28.5 |
|                                                                 | 12H         | 27.1                                              | 28.0 | 27.4 | 28.3 | 28.7        | 26.9                                       | 27.9 | 27.3 | 28.2 | 28.5 |
| 4H                                                              | 2H          | 25.2                                              | 26.3 | 25.6 | 26.6 | 26.9        | 25.2                                       | 26.3 | 25.6 | 26.6 | 26.9 |
|                                                                 | 3H          | 26.9                                              | 27.8 | 27.2 | 28.1 | 28.5        | 26.8                                       | 27.8 | 27.2 | 28.1 | 28.4 |
|                                                                 | 4H          | 27.5                                              | 28.4 | 27.9 | 28.7 | 29.1        | 27.5                                       | 28.3 | 27.9 | 28.7 | 29.0 |
|                                                                 | 6H          | 28.0                                              | 28.7 | 28.4 | 29.1 | 29.5        | 27.9                                       | 28.6 | 28.3 | 29.0 | 29.4 |
|                                                                 | 8H          | 28.1                                              | 28.8 | 28.5 | 29.2 | 29.6        | 28.0                                       | 28.7 | 28.4 | 29.1 | 29.5 |
|                                                                 | 12H         | 28.2                                              | 28.8 | 28.6 | 29.2 | 29.6        | 28.0                                       | 28.6 | 28.5 | 29.1 | 29.5 |
| 8H                                                              | 4H          | 27.8                                              | 28.4 | 28.2 | 28.8 | 29.2        | 27.7                                       | 28.4 | 28.2 | 28.8 | 29.2 |
|                                                                 | 6H          | 28.3                                              | 28.9 | 28.8 | 29.3 | 29.8        | 28.2                                       | 28.8 | 28.7 | 29.2 | 29.7 |
|                                                                 | 8H          | 28.5                                              | 29.0 | 29.0 | 29.5 | 29.9        | 28.4                                       | 28.9 | 28.9 | 29.3 | 29.8 |
|                                                                 | 12H         | 28.6                                              | 29.0 | 29.1 | 29.5 | 30.0        | 28.5                                       | 28.9 | 29.0 | 29.4 | 29.9 |
| 12H                                                             | 4H          | 27.8                                              | 28.4 | 28.2 | 28.8 | 29.2        | 27.7                                       | 28.3 | 28.2 | 28.8 | 29.2 |
|                                                                 | 6H          | 28.4                                              | 28.8 | 28.8 | 29.3 | 29.8        | 28.3                                       | 28.8 | 28.8 | 29.2 | 29.7 |
|                                                                 | 8H          | 28.6                                              | 29.0 | 29.1 | 29.5 | 30.0        | 28.5                                       | 28.9 | 29.0 | 29.4 | 29.9 |
| Variation of the observer position for the luminaire distance S |             |                                                   |      |      |      |             |                                            |      |      |      |      |
| S = 1.0H                                                        | +0.1 / -0.1 |                                                   |      |      |      | +0.1 / -0.1 |                                            |      |      |      |      |
| S = 1.5H                                                        | +0.2 / -0.4 |                                                   |      |      |      | +0.2 / -0.4 |                                            |      |      |      |      |
| S = 2.0H                                                        | +0.5 / -0.7 |                                                   |      |      |      | +0.5 / -0.8 |                                            |      |      |      |      |
| Standard table                                                  | BK05        |                                                   |      |      |      | BK05        |                                            |      |      |      |      |
| Correction summand                                              | 11.1        |                                                   |      |      |      | 11.0        |                                            |      |      |      |      |
| Corrected glare indices referring to 1200lm total luminous flux |             |                                                   |      |      |      |             |                                            |      |      |      |      |