

## Photometric test report

Family  
**Monsun® 12**

Order number: **51FP10DP4B0Q**  
EAN: **4058352376409**

LP number  
**59015\_1**



**Version** prismatic diffuser, opal, PMMA, wide distribution  
**Lamps** LED 4000 K | CRI ≥ 80  
**Controlgear** ECG-DALI  
**Rated values** Net luminous flux = 12110 lm  
Power consumption = 67.6 W  
Luminous efficacy = 179.1 lm/W

serial  
documentation  
**08.04.2020**

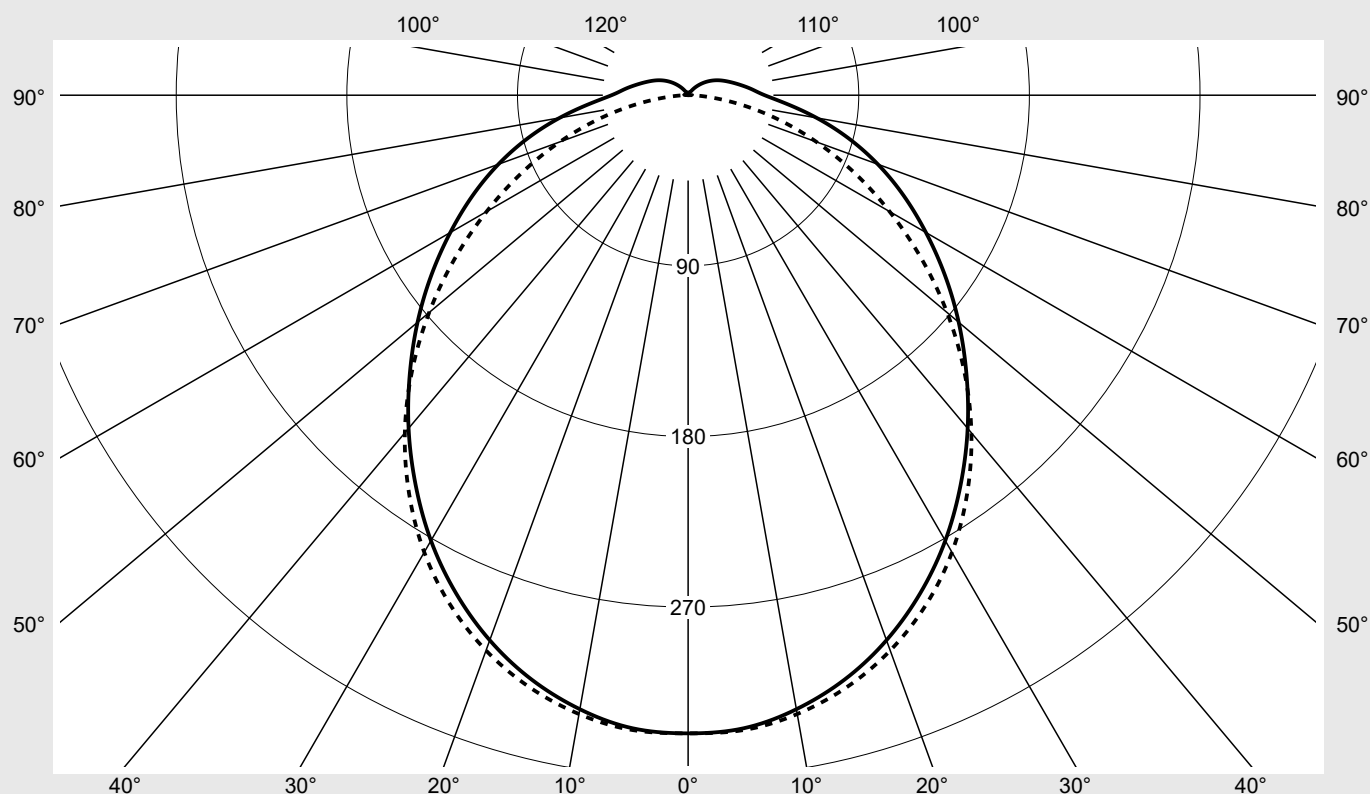
sitEco

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 337 cd/klm



### Classifications

DIN 5040 A 4 1  
CIE N1=47 N2=76 N3=93  
N4=94 N5=100

### Luminaire light output ratios

$\eta_{LB}$  100.0%  
 $\phi_u$  94.2%  
 $\phi_o$  5.8%

### Measurement conditions

DIN EN 13032 and DIN 5032

## Photometric test report

|   |  |                                    |
|---|--|------------------------------------|
| <b>Family</b><br><b>Monsun® 12</b>              | <b>Order number: 51FP10DP4B0Q</b><br><b>EAN: 4058352376409</b> | <b>LP number</b><br><b>59015_1</b> |
| <b>Table of values for luminous intensities</b> |  | <b>Maximum luminous intensity</b>  |
|   |  | <b>siteco</b>                      |

| C-planes<br>$\gamma$         | 0°<br>180° | 15°                  | 30°                  | 45°                  | 60°                  | 75°                  | 90°<br>270° | Phi-zone                | Total<br>Phi-zone |
|------------------------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------|-------------------------|-------------------|
|                              |            | 165°<br>195°<br>345° | 150°<br>210°<br>330° | 135°<br>225°<br>315° | 120°<br>240°<br>300° | 105°<br>255°<br>285° |             |                         |                   |
| Luminous intensity in cd/klm |            |                      |                      |                      |                      |                      |             | Luminous flux in lm/klm |                   |
| 0°                           | 336.6      | 336.6                | 336.6                | 336.6                | 336.6                | 336.6                | 336.6       | 2.0                     | 2.0               |
| 5°                           | 335.2      | 335.1                | 333.2                | 334.3                | 335.7                | 335.7                | 336.1       | 16.0                    | 18.0              |
| 10°                          | 328.8      | 330.1                | 328.0                | 329.4                | 330.8                | 330.9                | 331.4       | 31.4                    | 49.4              |
| 15°                          | 319.0      | 321.3                | 319.3                | 320.8                | 322.3                | 322.7                | 323.3       | 45.6                    | 95.0              |
| 20°                          | 305.9      | 308.9                | 307.1                | 308.7                | 310.4                | 311.0                | 311.7       | 58.0                    | 152.9             |
| 25°                          | 289.8      | 293.4                | 291.5                | 293.1                | 295.0                | 295.9                | 296.7       | 68.0                    | 221.0             |
| 30°                          | 271.3      | 275.1                | 273.1                | 274.3                | 276.2                | 277.4                | 278.4       | 75.4                    | 296.4             |
| 35°                          | 250.7      | 254.3                | 252.4                | 252.9                | 254.4                | 255.5                | 256.6       | 79.8                    | 376.2             |
| 40°                          | 229.4      | 232.7                | 230.3                | 229.8                | 230.5                | 231.3                | 232.4       | 81.4                    | 457.6             |
| 45°                          | 207.6      | 210.4                | 207.6                | 205.2                | 204.9                | 204.7                | 206.0       | 80.1                    | 537.6             |
| 50°                          | 186.3      | 188.5                | 185.0                | 181.0                | 178.9                | 177.2                | 178.3       | 76.5                    | 614.1             |
| 55°                          | 165.3      | 166.9                | 162.7                | 157.6                | 153.3                | 149.9                | 150.2       | 71.0                    | 685.1             |
| 60°                          | 144.9      | 145.8                | 140.7                | 134.7                | 128.7                | 123.6                | 122.7       | 63.9                    | 748.9             |
| 65°                          | 125.5      | 125.6                | 119.9                | 112.7                | 105.4                | 99.0                 | 96.8        | 55.8                    | 804.7             |
| 70°                          | 106.5      | 105.7                | 100.0                | 91.3                 | 83.0                 | 75.5                 | 72.0        | 46.8                    | 851.5             |
| 75°                          | 87.5       | 86.0                 | 80.8                 | 71.2                 | 61.8                 | 53.7                 | 49.1        | 37.2                    | 888.7             |
| 80°                          | 68.8       | 66.9                 | 62.0                 | 52.7                 | 42.3                 | 33.4                 | 27.9        | 27.5                    | 916.2             |
| 85°                          | 52.2       | 50.3                 | 45.3                 | 36.7                 | 26.2                 | 16.7                 | 10.8        | 18.8                    | 935.0             |
| 90°                          | 40.4       | 38.9                 | 34.5                 | 26.5                 | 16.4                 | 7.3                  | 2.2         | 13.2                    | 948.3             |
| 95°                          | 34.1       | 32.8                 | 29.3                 | 22.8                 | 14.2                 | 5.7                  | 1.9         | 11.2                    | 959.5             |
| 100°                         | 29.1       | 28.1                 | 25.5                 | 19.6                 | 11.7                 | 4.0                  | 1.6         | 9.4                     | 968.8             |
| 105°                         | 25.0       | 24.3                 | 21.6                 | 16.3                 | 9.2                  | 2.6                  | 1.4         | 7.7                     | 976.5             |
| 110°                         | 21.5       | 21.0                 | 18.2                 | 13.2                 | 6.8                  | 1.5                  | 1.2         | 6.2                     | 982.7             |
| 115°                         | 18.5       | 17.9                 | 15.1                 | 10.5                 | 4.8                  | 1.3                  | 1.2         | 4.9                     | 987.6             |
| 120°                         | 15.6       | 14.8                 | 12.2                 | 7.9                  | 3.1                  | 1.3                  | 1.1         | 3.8                     | 991.4             |
| 125°                         | 12.7       | 11.9                 | 9.4                  | 5.6                  | 1.7                  | 1.1                  | 1.0         | 2.7                     | 994.1             |
| 130°                         | 9.8        | 9.0                  | 6.8                  | 3.5                  | 1.4                  | 1.1                  | 1.0         | 1.9                     | 996.0             |
| 135°                         | 7.0        | 6.3                  | 4.4                  | 1.9                  | 1.4                  | 1.1                  | 1.0         | 1.2                     | 997.3             |
| 140°                         | 4.5        | 3.9                  | 2.4                  | 1.7                  | 1.3                  | 1.1                  | 1.0         | 0.8                     | 998.1             |
| 145°                         | 2.3        | 2.1                  | 1.9                  | 1.6                  | 1.4                  | 1.2                  | 1.2         | 0.5                     | 998.6             |
| 150°                         | 1.9        | 1.9                  | 1.8                  | 1.5                  | 1.4                  | 1.3                  | 1.2         | 0.4                     | 999.0             |
| 155°                         | 1.8        | 1.7                  | 1.6                  | 1.5                  | 1.4                  | 1.3                  | 1.3         | 0.3                     | 999.3             |
| 160°                         | 1.6        | 1.6                  | 1.5                  | 1.4                  | 1.3                  | 1.3                  | 1.3         | 0.3                     | 999.6             |
| 165°                         | 1.4        | 1.4                  | 1.4                  | 1.3                  | 1.3                  | 1.3                  | 1.3         | 0.2                     | 999.8             |
| 170°                         | 1.3        | 1.3                  | 1.3                  | 1.3                  | 1.3                  | 1.3                  | 1.3         | 0.1                     | 999.9             |
| 175°                         | 1.3        | 1.3                  | 1.3                  | 1.3                  | 1.3                  | 1.3                  | 1.3         | 0.1                     | 1000.0            |
| 180°                         | 1.3        | 1.3                  | 1.3                  | 1.3                  | 1.3                  | 1.3                  | 1.3         | 0.0                     | 1000.0            |

## Photometric test report

|                             |  |                             |
|-----------------------------|--|-----------------------------|
| Family<br><b>Monsun® 12</b> | Order number: <b>51FP10DP4B0Q</b><br>EAN: <b>4058352376409</b> | LP number<br><b>59015_1</b> |
|-----------------------------|--|-----------------------------|

| UGR-Table                    |     | Standard room       |      |      |      |      |                    |      |      |      |      |
|------------------------------|-----|---------------------|------|------|------|------|--------------------|------|------|------|------|
| Reflection factor of ceiling | 0.7 | 0.7                 | 0.5  | 0.5  | 0.3  | 0.7  | 0.7                | 0.5  | 0.5  | 0.3  |      |
| Reflection factor of walls   | 0.5 | 0.3                 | 0.5  | 0.3  | 0.3  | 0.5  | 0.3                | 0.5  | 0.3  | 0.3  |      |
| Reflection factor of floor   | 0.2 | 0.2                 | 0.2  | 0.2  | 0.2  | 0.2  | 0.2                | 0.2  | 0.2  | 0.2  |      |
| Room dimensions              |     | View crosswise (C0) |      |      |      |      | View endwise (C90) |      |      |      |      |
| x                            | y   |                     |      |      |      |      |                    |      |      |      |      |
| 2H                           | 2H  | 22.5                | 24.2 | 22.9 | 24.5 | 24.9 | 22.5               | 24.2 | 22.8 | 24.5 | 24.8 |
|                              | 3H  | 24.3                | 25.9 | 24.7 | 26.2 | 26.5 | 23.9               | 25.4 | 24.2 | 25.8 | 26.1 |
|                              | 4H  | 25.1                | 26.6 | 25.5 | 26.9 | 27.3 | 24.4               | 25.9 | 24.8 | 26.2 | 26.6 |
|                              | 6H  | 25.9                | 27.2 | 26.3 | 27.6 | 28.0 | 24.8               | 26.2 | 25.2 | 26.5 | 26.9 |
|                              | 8H  | 26.3                | 27.5 | 26.7 | 27.9 | 28.3 | 24.9               | 26.2 | 25.4 | 26.6 | 27.0 |
|                              | 12H | 26.6                | 27.8 | 27.0 | 28.1 | 28.6 | 25.0               | 26.2 | 25.4 | 26.6 | 27.0 |
| 4H                           | 2H  | 23.2                | 24.7 | 23.6 | 25.1 | 25.4 | 23.2               | 24.6 | 23.6 | 25.0 | 25.4 |
|                              | 3H  | 25.2                | 26.5 | 25.6 | 26.9 | 27.3 | 24.8               | 26.0 | 25.2 | 26.4 | 26.8 |
|                              | 4H  | 26.2                | 27.3 | 26.6 | 27.7 | 28.2 | 25.5               | 26.6 | 25.9 | 27.0 | 27.4 |
|                              | 6H  | 27.1                | 28.1 | 27.6 | 28.5 | 29.0 | 26.0               | 27.0 | 26.4 | 27.4 | 27.8 |
|                              | 8H  | 27.5                | 28.4 | 28.0 | 28.9 | 29.3 | 26.1               | 27.0 | 26.6 | 27.5 | 28.0 |
|                              | 12H | 27.9                | 28.7 | 28.4 | 29.2 | 29.7 | 26.2               | 27.1 | 26.7 | 27.5 | 28.0 |
| 8H                           | 4H  | 26.5                | 27.5 | 27.0 | 27.9 | 28.4 | 25.9               | 26.8 | 26.3 | 27.2 | 27.7 |
|                              | 6H  | 27.6                | 28.4 | 28.1 | 28.9 | 29.3 | 26.5               | 27.3 | 27.0 | 27.8 | 28.3 |
|                              | 8H  | 28.1                | 28.8 | 28.6 | 29.3 | 29.8 | 26.8               | 27.5 | 27.3 | 27.9 | 28.4 |
|                              | 12H | 28.7                | 29.3 | 29.2 | 29.8 | 30.3 | 26.9               | 27.5 | 27.4 | 28.0 | 28.6 |
| 12H                          | 4H  | 26.6                | 27.4 | 27.1 | 27.9 | 28.3 | 26.0               | 26.8 | 26.5 | 27.3 | 27.7 |
|                              | 6H  | 27.7                | 28.4 | 28.2 | 28.9 | 29.4 | 26.7               | 27.4 | 27.2 | 27.8 | 28.4 |
|                              | 8H  | 28.3                | 28.9 | 28.8 | 29.4 | 29.9 | 27.0               | 27.6 | 27.5 | 28.1 | 28.6 |

| Luminance table                |          | Max. for $\gamma \geq 65^\circ$ |         | Photometric dimensions in mm: |         | L = 1590 | H(C0) = 21  | H(C180) = 21 |
|--------------------------------|----------|---------------------------------|---------|-------------------------------|---------|----------|-------------|--------------|
|                                |          |                                 |         |                               |         | B = 87   | H(C90) = 21 | H(C270) = 21 |
| C-planes                       | $\gamma$ | 0°                              | 15°     | 30°                           | 45°     | 60°      | 75°         | 90°          |
|                                |          | 180°                            | 165°    | 150°                          | 135°    | 120°     | 105°        | 270°         |
|                                |          | 195°                            | 210°    | 225°                          | 240°    | 255°     |             |              |
|                                |          | 345°                            | 330°    | 315°                          | 300°    | 285°     |             |              |
| Luminance in cd/m <sup>2</sup> |          |                                 |         |                               |         |          |             |              |
| 45°                            |          | 20702.8                         | 21063.1 | 21146.4                       | 21527.9 | 22404.7  | 23570.4     | 25171.3      |
| 50°                            |          | 19705.1                         | 20022.3 | 20044.0                       | 20296.0 | 21045.2  | 22143.6     | 23907.6      |
| 55°                            |          | 18762.0                         | 19041.2 | 18981.3                       | 19131.9 | 19688.1  | 20655.0     | 22504.9      |
| 60°                            |          | 17884.4                         | 18109.9 | 17939.4                       | 17973.0 | 18343.6  | 19152.3     | 21004.3      |
| 65°                            |          | 17130.2                         | 17256.8 | 16987.6                       | 16841.6 | 17006.5  | 17664.4     | 19494.1      |
| 70°                            |          | 16390.1                         | 16403.5 | 16067.3                       | 15631.2 | 15595.5  | 16017.3     | 17795.1      |
| 75°                            |          | 15569.5                         | 15457.7 | 15134.5                       | 14405.1 | 14004.6  | 14176.4     | 15816.7      |
| 80°                            |          | 14649.9                         | 14412.0 | 14063.0                       | 13155.8 | 12188.0  | 11802.8     | 13103.8      |
| 85°                            |          | 13938.8                         | 13640.6 | 13121.5                       | 12050.0 | 10494.2  | 9043.9      | 9450.6       |

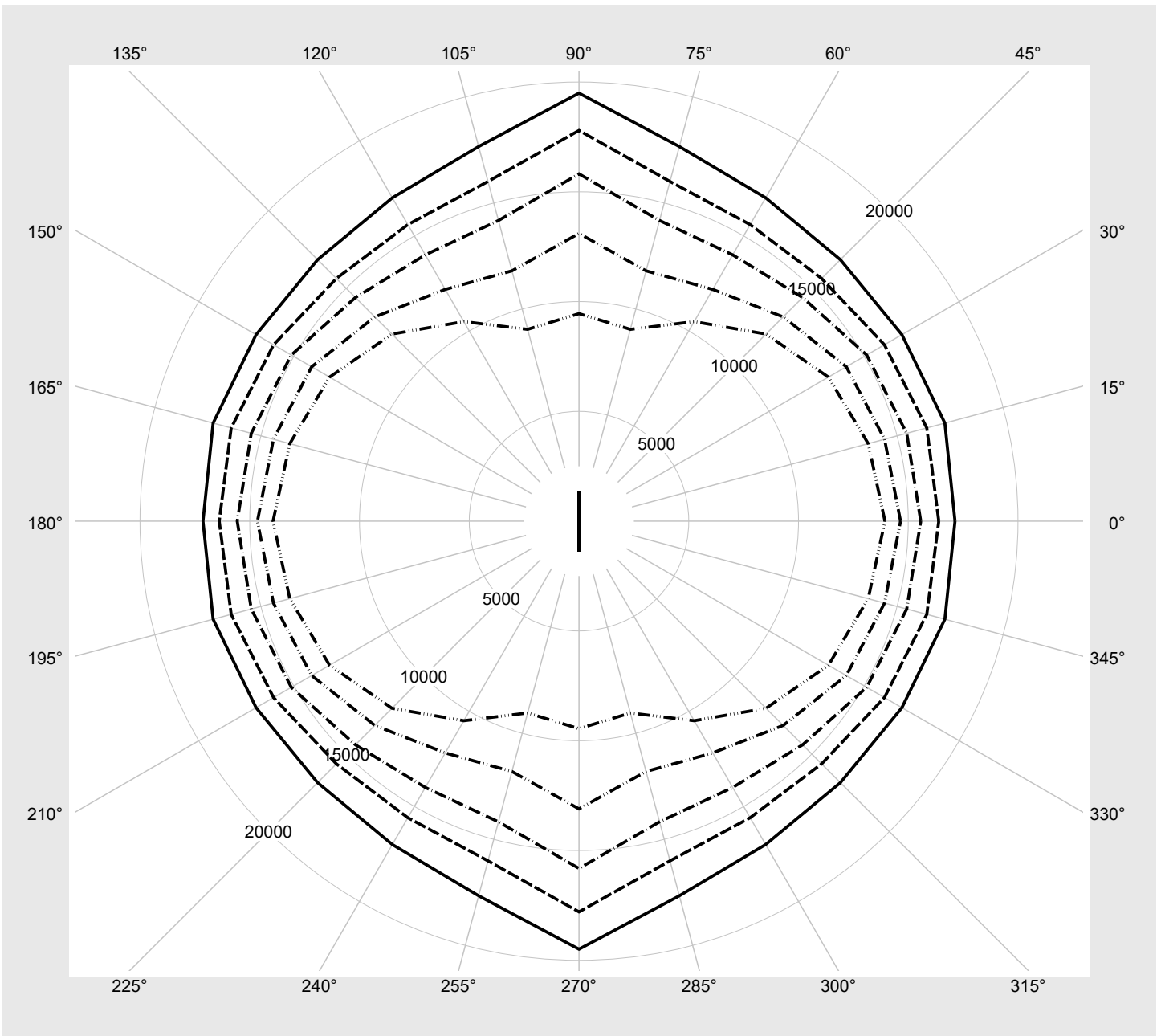
**Photometric test report**

**Family**  
Monsun® 12

**Order number: 51FP10DP4B0Q**  
**EAN: 4058352376409**


**LP number**  
59015\_1

**Luminance values in cd/m<sup>2</sup>**    γ 65°    γ 70°    γ 75°    γ 80°    γ 85°    **siteco**



## Photometric test report

|                                    |  |                                    |
|------------------------------------|--|------------------------------------|
| <b>Family</b><br><b>Monsun® 12</b> | <b>Order number: 51FP10DP4B0Q</b><br><b>EAN: 4058352376409</b> | <b>LP number</b><br><b>59015_1</b> |
|------------------------------------|--|------------------------------------|

|                             |                                 |   |
|-----------------------------|---------------------------------|---|
| <b>Dimming levels table</b> | environmental temperature: 25°C |  |
|-----------------------------|---------------------------------|---|

| Luminous flux % | Dimming level linear | Dimming level logarithmic | Luminous flux [lm] | Power consumption [W] |
|-----------------|----------------------|---------------------------|--------------------|-----------------------|
| 100             | 254                  | 254                       | 12110              | 67.6                  |
| 95              | 241                  | 252                       | 11520              | 64.1                  |
| 90              | 227                  | 250                       | 10882              | 60.4                  |
| 85              | 214                  | 248                       | 10283              | 57.0                  |
| 80              | 201                  | 245                       | 9681               | 53.6                  |
| 75              | 188                  | 243                       | 9074               | 50.1                  |
| 70              | 175                  | 240                       | 8463               | 46.8                  |
| 65              | 162                  | 238                       | 7849               | 43.3                  |
| 60              | 150                  | 235                       | 7278               | 40.3                  |
| 55              | 137                  | 231                       | 6656               | 37.1                  |
| 50              | 124                  | 228                       | 6033               | 33.6                  |
| 45              | 112                  | 224                       | 5451               | 30.5                  |
| 40              | 100                  | 220                       | 4865               | 27.5                  |
| 35              | 87                   | 215                       | 4227               | 24.2                  |
| 30              | 75                   | 209                       | 3633               | 21.1                  |
| 25              | 63                   | 203                       | 3037               | 18.1                  |
| 20              | 51                   | 195                       | 2437               | 15.0                  |
| 15              | 39                   | 185                       | 1834               | 12.0                  |
| 10              | 27                   | 172                       | 1228               | 9.0                   |
| 5               | 15                   | 150                       | 617                | 5.9                   |
| 1               | 5                    | 110                       | 107                | 3.3                   |