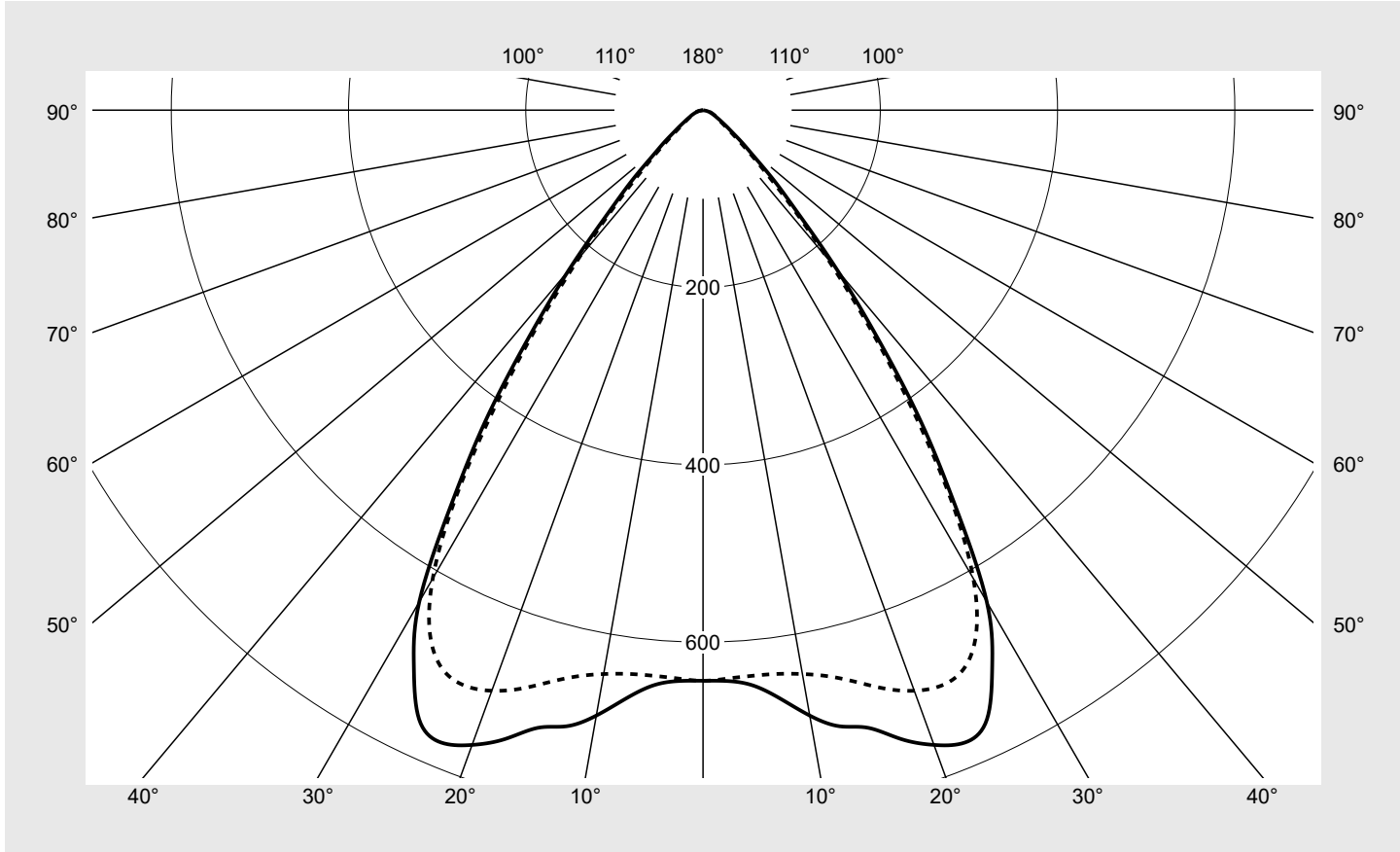


# Photometric test report

|                                    |  |  |
|------------------------------------|--|--|
| <b>Family</b><br><b>Highbay 11</b> | <b>Order number: 51HN12DA4FEA</b><br><b>EAN: 4069025254566</b>   | <b>LP number</b><br><b>59710_113</b>             |
|                                    | <b>Version</b> primary light control with lens, PMMA, housing, white, wide distribution<br><b>Lamps</b> LED 4000 K   CRI ≥ 80<br><b>Controlgear</b> ECG-DALI<br><b>Setting</b> AC-mode<br><b>Rated values</b> Net luminous flux = 15000 lm<br>Power consumption = 73.2 W<br>Luminous efficacy = 204.9 lm/W | <b>serial documentation</b><br><b>14.02.2025</b> |



**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 772 cd/klm**



| Classifications |                                     |
|-----------------|-------------------------------------|
| DIN 5040        | A 6 0                               |
| CIE             | N1=88 N2=98 N3=100<br>N4=100 N5=100 |

| Luminaire light output ratios |        |
|-------------------------------|--------|
| $\eta_{LB}$                   | 100.0% |
| $\phi_u$                      | 100.0% |
| $\phi_o$                      | 0.0%   |

**Measurement conditions**  
DIN EN 13032 and DIN 5032

## Photometric test report

|  |  |                            |
|--|--|----------------------------|
| Family<br>Highbay 11                     | Order number: 51HN12DA4FEA<br>EAN: 4069025254566 | LP number<br>59710_113     |
| Table of values for luminous intensities |  | Maximum luminous intensity |
|  |  | <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 |                   |
| 0,0°                         | 643.6      | 643.6                | 643.6                | 643.6                | 643.6                | 643.6                | 643.6       | 1.0                     | 1.0               |
| 2,5°                         | 644.5      | 645.1                | 645.0                | 644.3                | 644.2                | 643.7                | 641.7       | 7.7                     | 8.7               |
| 5,0°                         | 651.5      | 652.3                | 650.7                | 647.5                | 645.3                | 643.2                | 640.4       | 15.5                    | 24.1              |
| 7,5°                         | 669.6      | 669.1                | 664.2                | 657.2                | 651.2                | 645.8                | 641.3       | 23.5                    | 47.6              |
| 10,0°                        | 693.4      | 691.0                | 681.5                | 670.0                | 659.9                | 651.2                | 645.8       | 31.9                    | 79.6              |
| 12,5°                        | 711.8      | 709.4                | 700.3                | 685.9                | 671.9                | 660.7                | 654.0       | 40.7                    | 120.2             |
| 15,0°                        | 721.3      | 721.7                | 717.1                | 704.9                | 689.4                | 675.9                | 667.7       | 49.7                    | 169.9             |
| 17,5°                        | 743.8      | 740.8                | 737.9                | 726.5                | 708.9                | 693.0                | 684.2       | 59.4                    | 229.3             |
| 20,0°                        | 761.9      | 761.9                | 759.6                | 745.2                | 724.0                | 705.6                | 696.8       | 69.2                    | 298.5             |
| 22,5°                        | 772.0      | 771.2                | 770.0                | 754.7                | 731.1                | 710.8                | 702.6       | 78.2                    | 376.7             |
| 25,0°                        | 758.1      | 756.6                | 756.3                | 743.6                | 722.7                | 703.3                | 695.6       | 85.1                    | 461.8             |
| 27,5°                        | 706.7      | 709.5                | 709.5                | 700.0                | 685.7                | 672.3                | 667.0       | 87.8                    | 549.7             |
| 30,0°                        | 640.4      | 635.6                | 633.7                | 626.6                | 621.7                | 614.1                | 609.9       | 85.8                    | 635.5             |
| 32,5°                        | 530.6      | 537.6                | 535.6                | 526.2                | 530.2                | 524.1                | 520.8       | 78.1                    | 713.6             |
| 35,0°                        | 428.2      | 426.4                | 425.9                | 411.9                | 420.8                | 414.2                | 411.4       | 66.0                    | 779.6             |
| 37,5°                        | 322.5      | 323.4                | 327.0                | 311.0                | 319.4                | 310.8                | 308.2       | 53.0                    | 832.6             |
| 40,0°                        | 236.1      | 234.0                | 241.6                | 230.8                | 230.9                | 219.8                | 218.4       | 40.7                    | 873.3             |
| 42,5°                        | 162.3      | 165.3                | 172.9                | 171.1                | 161.7                | 151.3                | 150.8       | 30.2                    | 903.5             |
| 45,0°                        | 117.3      | 114.9                | 119.4                | 122.5                | 109.3                | 102.6                | 102.3       | 21.9                    | 925.4             |
| 47,5°                        | 80.5       | 81.4                 | 82.8                 | 85.5                 | 75.2                 | 71.4                 | 70.8        | 15.9                    | 941.3             |
| 50,0°                        | 59.4       | 58.0                 | 58.0                 | 59.0                 | 52.9                 | 50.5                 | 49.6        | 11.7                    | 953.0             |
| 52,5°                        | 43.3       | 42.8                 | 42.8                 | 43.0                 | 39.3                 | 37.2                 | 36.6        | 8.9                     | 961.8             |
| 55,0°                        | 33.3       | 32.4                 | 32.9                 | 33.7                 | 30.5                 | 28.7                 | 28.3        | 7.1                     | 968.9             |
| 57,5°                        | 25.9       | 25.4                 | 25.9                 | 26.8                 | 24.5                 | 22.9                 | 22.9        | 5.8                     | 974.7             |
| 60,0°                        | 20.9       | 20.2                 | 21.2                 | 21.8                 | 20.4                 | 18.9                 | 19.2        | 4.9                     | 979.5             |
| 62,5°                        | 16.9       | 16.2                 | 17.4                 | 18.0                 | 17.2                 | 15.9                 | 16.4        | 4.1                     | 983.6             |
| 65,0°                        | 14.9       | 13.6                 | 14.4                 | 15.1                 | 14.8                 | 13.6                 | 14.4        | 3.6                     | 987.2             |
| 67,5°                        | 12.3       | 11.4                 | 12.5                 | 12.4                 | 13.0                 | 11.7                 | 12.6        | 3.1                     | 990.3             |
| 70,0°                        | 10.4       | 9.5                  | 10.5                 | 10.1                 | 11.1                 | 10.1                 | 11.0        | 2.7                     | 993.0             |
| 72,5°                        | 8.2        | 7.7                  | 7.9                  | 8.2                  | 8.7                  | 8.6                  | 9.5         | 2.2                     | 995.2             |
| 75,0°                        | 6.5        | 6.0                  | 6.0                  | 6.4                  | 6.6                  | 7.1                  | 7.9         | 1.7                     | 996.9             |
| 77,5°                        | 4.5        | 4.3                  | 4.4                  | 4.7                  | 5.1                  | 5.6                  | 6.3         | 1.3                     | 998.2             |
| 80,0°                        | 2.9        | 2.7                  | 2.9                  | 3.1                  | 3.5                  | 4.1                  | 4.7         | 0.9                     | 999.1             |
| 82,5°                        | 1.3        | 1.4                  | 1.6                  | 1.8                  | 2.2                  | 2.7                  | 3.3         | 0.5                     | 999.7             |
| 85,0°                        | 0.6        | 0.6                  | 0.6                  | 0.7                  | 1.0                  | 1.4                  | 1.8         | 0.3                     | 999.9             |
| 87,5°                        | 0.3        | 0.3                  | 0.3                  | 0.3                  | 0.3                  | 0.4                  | 0.5         | 0.1                     | 1000.0            |
| 90,0°                        | 0.0        | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.0         | 0.0                     | 1000.0            |

## Photometric test report

|                      |  |                        |
|----------------------|--|------------------------|
| Family<br>Highbay 11 | Order number: 51HN12DA4FEA<br>EAN: 4069025254566 | LP number<br>59710_113 |
|----------------------|--|------------------------|

|           |               |        |  |
|-----------|---------------|--------|--|
| UGR-Table | Standard room | siteco |  |
|-----------|---------------|--------|--|

|                              |                     |      |      |      |      |                    |      |      |      |      |      |
|------------------------------|---------------------|------|------|------|------|--------------------|------|------|------|------|------|
| 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                  | 19.9 | 21.2 | 20.3 | 21.5 | 21.8               | 19.6 | 20.9 | 20.0 | 21.2 | 21.5 |
|                              | 3H                  | 19.9 | 21.1 | 20.3 | 21.4 | 21.7               | 19.6 | 20.8 | 20.0 | 21.1 | 21.5 |
|                              | 4H                  | 19.9 | 21.0 | 20.3 | 21.3 | 21.7               | 19.7 | 20.7 | 20.1 | 21.1 | 21.4 |
|                              | 6H                  | 19.9 | 20.8 | 20.3 | 21.2 | 21.6               | 19.7 | 20.6 | 20.1 | 21.0 | 21.4 |
|                              | 8H                  | 20.0 | 20.8 | 20.4 | 21.1 | 21.5               | 19.8 | 20.6 | 20.2 | 21.0 | 21.4 |
|                              | 12H                 | 19.9 | 20.7 | 20.4 | 21.1 | 21.5               | 19.8 | 20.5 | 20.2 | 20.9 | 21.3 |
| 4H                           | 2H                  | 19.8 | 20.9 | 20.2 | 21.2 | 21.6               | 19.5 | 20.6 | 19.9 | 20.9 | 21.3 |
|                              | 3H                  | 19.9 | 20.7 | 20.3 | 21.1 | 21.5               | 19.6 | 20.5 | 20.0 | 20.9 | 21.3 |
|                              | 4H                  | 19.9 | 20.6 | 20.3 | 21.0 | 21.5               | 19.6 | 20.4 | 20.1 | 20.8 | 21.3 |
|                              | 6H                  | 19.8 | 20.5 | 20.3 | 20.9 | 21.4               | 19.7 | 20.3 | 20.2 | 20.8 | 21.2 |
|                              | 8H                  | 19.8 | 20.4 | 20.3 | 20.8 | 21.3               | 19.7 | 20.3 | 20.2 | 20.7 | 21.2 |
|                              | 12H                 | 19.8 | 20.3 | 20.3 | 20.7 | 21.2               | 19.7 | 20.2 | 20.2 | 20.7 | 21.2 |
| 8H                           | 4H                  | 19.8 | 20.4 | 20.3 | 20.8 | 21.3               | 19.6 | 20.2 | 20.1 | 20.6 | 21.1 |
|                              | 6H                  | 19.8 | 20.2 | 20.3 | 20.7 | 21.2               | 19.6 | 20.1 | 20.1 | 20.6 | 21.1 |
|                              | 8H                  | 19.7 | 20.1 | 20.2 | 20.6 | 21.2               | 19.6 | 20.1 | 20.2 | 20.6 | 21.1 |
|                              | 12H                 | 19.7 | 20.0 | 20.2 | 20.5 | 21.1               | 19.7 | 20.0 | 20.2 | 20.5 | 21.1 |
| 12H                          | 4H                  | 19.8 | 20.3 | 20.3 | 20.7 | 21.2               | 19.6 | 20.1 | 20.1 | 20.5 | 21.0 |
|                              | 6H                  | 19.8 | 20.1 | 20.3 | 20.6 | 21.2               | 19.6 | 20.0 | 20.2 | 20.5 | 21.0 |
|                              | 8H                  | 19.7 | 20.0 | 20.3 | 20.6 | 21.1               | 19.7 | 20.0 | 20.2 | 20.5 | 21.0 |

|                 |                                 |                               |                    |
|-----------------|---------------------------------|-------------------------------|--------------------|
| Luminance table | Max. for $\gamma \geq 65^\circ$ | Photometric dimensions in mm: | L = 426<br>B = 264 |
|-----------------|---------------------------------|-------------------------------|--------------------|

| C-planes | $\gamma$ | Luminance in cd/m <sup>2</sup> |                             |                             |                             |                             |                             |             |  |
|----------|----------|--------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|--|
|          |          | 0°<br>180°                     | 15°<br>165°<br>195°<br>345° | 30°<br>150°<br>210°<br>330° | 45°<br>135°<br>225°<br>315° | 60°<br>120°<br>240°<br>300° | 75°<br>105°<br>255°<br>285° | 90°<br>270° |  |
| 45,0°    |          | 22130.1                        | 21669.3                     | 22524.9                     | 23102.3                     | 20610.4                     | 19351.1                     | 19294.2     |  |
| 50,0°    |          | 12330.0                        | 12038.5                     | 12025.9                     | 12240.6                     | 10984.0                     | 10473.0                     | 10293.3     |  |
| 55,0°    |          | 7748.7                         | 7541.5                      | 7649.2                      | 7824.8                      | 7098.1                      | 6672.3                      | 6592.1      |  |
| 60,0°    |          | 5573.3                         | 5380.1                      | 5653.0                      | 5822.7                      | 5451.6                      | 5048.5                      | 5112.8      |  |
| 65,0°    |          | 4702.7                         | 4277.9                      | 4559.7                      | 4756.3                      | 4657.5                      | 4307.2                      | 4550.6      |  |
| 70,0°    |          | 4042.0                         | 3687.9                      | 4079.4                      | 3946.8                      | 4329.8                      | 3941.4                      | 4304.4      |  |
| 75,0°    |          | 3331.1                         | 3085.3                      | 3077.0                      | 3290.9                      | 3419.2                      | 3659.8                      | 4079.8      |  |
| 80,0°    |          | 2248.9                         | 2098.4                      | 2220.5                      | 2398.7                      | 2707.5                      | 3184.5                      | 3630.0      |  |
| 85,0°    |          | 898.3                          | 893.7                       | 922.8                       | 1080.4                      | 1597.7                      | 2128.7                      | 2757.6      |  |

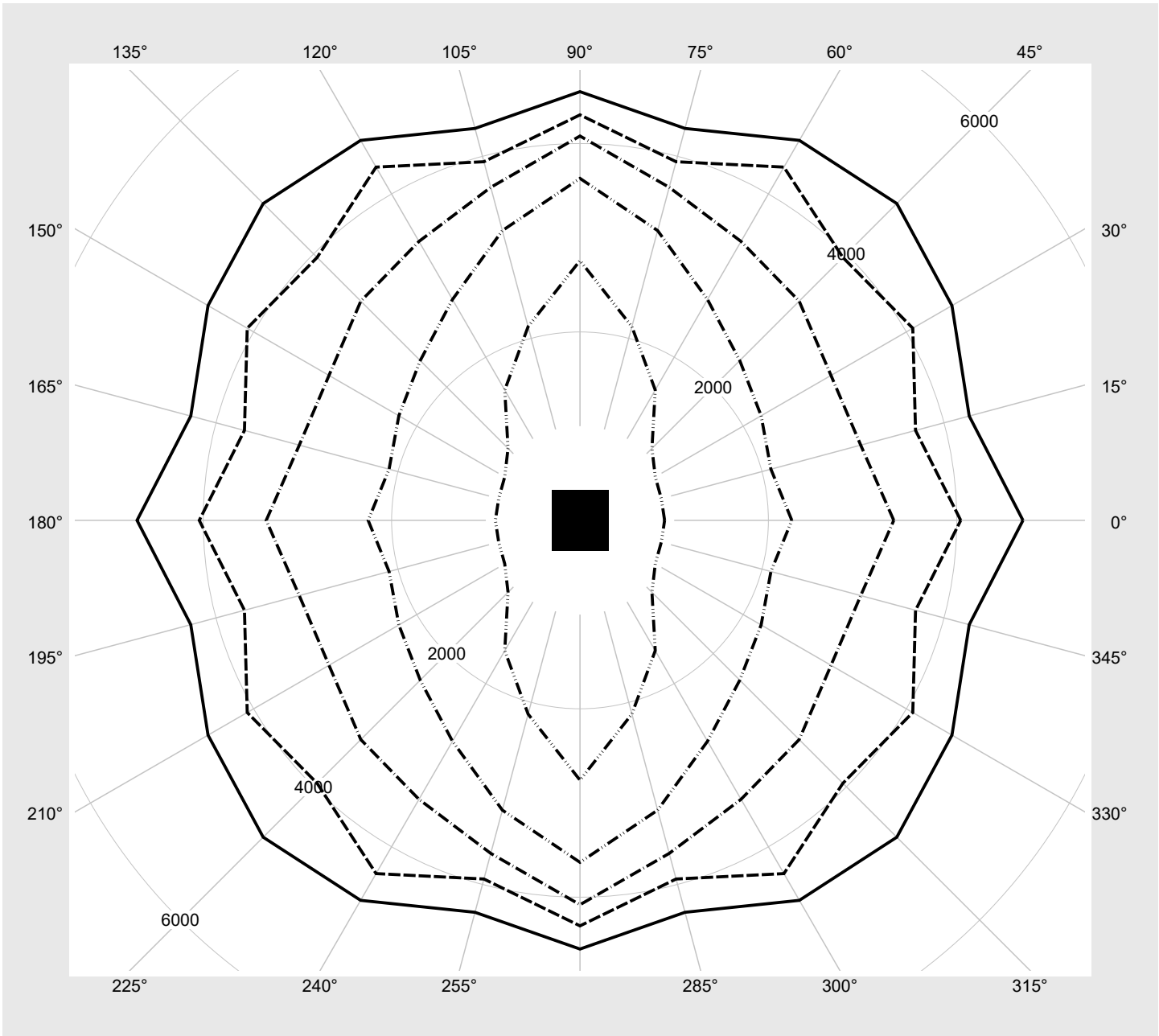
**Photometric test report**

|                             |  |                               |
|-----------------------------|--|-------------------------------|
| <b>Family</b><br>Highbay 11 | <b>Order number: 51HN12DA4FEA</b><br><b>EAN: 4069025254566</b> | <b>LP number</b><br>59710_113 |
|-----------------------------|--|-------------------------------|

**Luminance values in cd/m<sup>2</sup>**

$\gamma$  65°   
   $\gamma$  70°   
   $\gamma$  75°   
   $\gamma$  80°   
   $\gamma$  85°

**siteco**



## Photometric test report

|                      |  |                        |
|----------------------|--|------------------------|
| Family<br>Highbay 11 | Order number: 51HN12DA4FEA<br>EAN: 4069025254566 | LP number<br>59710_113 |
|----------------------|--|------------------------|

|                      |                                 |        |
|----------------------|---------------------------------|--------|
| Dimming levels table | environmental temperature: 25°C | sITeco |
|----------------------|---------------------------------|--------|

| Luminous flux % | Dimming level linear | Dimming level logarithmic | Luminous flux [lm] | Power consumption [W] |
|-----------------|----------------------|---------------------------|--------------------|-----------------------|
| 100             | ----                 | ----                      | ----               | ----                  |
| 95              | 241                  | 252                       | 14266              | 69.4                  |
| 90              | 227                  | 250                       | 13473              | 65.3                  |
| 85              | 214                  | 248                       | 12736              | 61.5                  |
| 80              | 201                  | 245                       | 11990              | 57.8                  |
| 75              | 188                  | 243                       | 11246              | 53.9                  |
| 70              | 175                  | 240                       | 10495              | 50.2                  |
| 65              | 162                  | 238                       | 9737               | 46.4                  |
| 60              | 149                  | 234                       | 8979               | 42.7                  |
| 55              | 137                  | 231                       | 8274               | 39.3                  |
| 50              | 124                  | 228                       | 7504               | 35.6                  |
| 45              | 111                  | 224                       | 6733               | 31.9                  |
| 40              | 99                   | 219                       | 6018               | 28.6                  |
| 35              | 86                   | 214                       | 5233               | 24.9                  |
| 30              | 74                   | 209                       | 4509               | 21.7                  |
| 25              | 62                   | 202                       | 3779               | 18.3                  |
| 20              | 49                   | 194                       | 2979               | 14.8                  |
| 15              | 37                   | 183                       | 2239               | 11.6                  |
| 10              | 25                   | 169                       | 1496               | 8.2                   |
| 5               | 13                   | 145                       | 743                | 4.7                   |
| 2               | 5                    | 110                       | 241                | 2.5                   |