
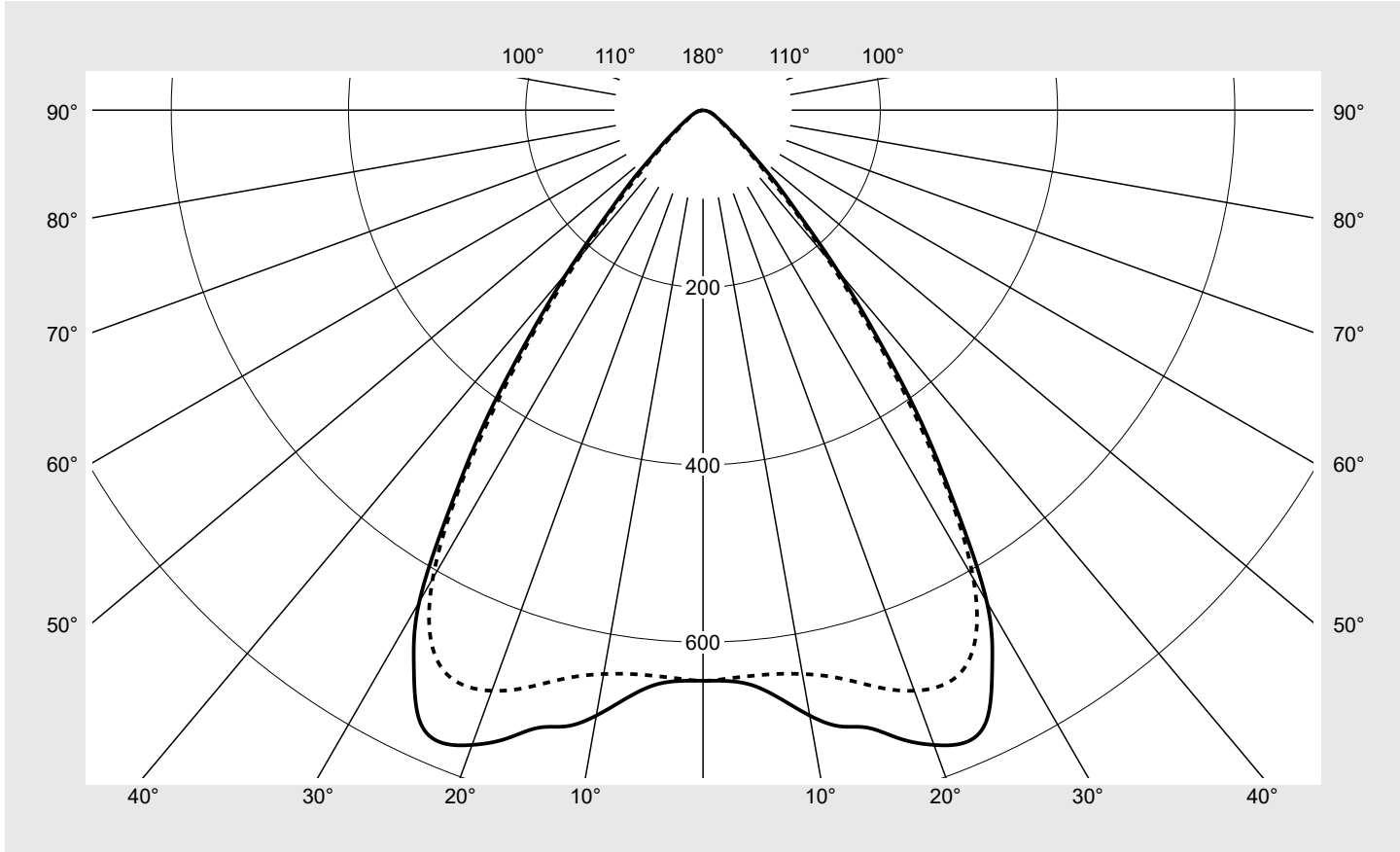


# Photometric test report

|                                    |  |  |
|------------------------------------|--|--|
| <b>Family</b><br><b>Highbay 11</b> | <b>Order number: 51HN12MA4GDA</b><br><b>EAN: 4069025691835</b>   | <b>LP number</b><br><b>59710_535</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 Multilumen<br><b>Rated values</b> Net luminous flux = 17230 lm<br>Power consumption = 85.2 W<br>Luminous efficacy = 202.2 lm/W | <b>serial documentation</b><br><b>12.02.2026</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: 51HN12MA4GDA<br>EAN: 4069025691835 | LP number<br>59710_535     |
| Table of values for luminous intensities |  | Maximum luminous intensity |

| C-planes<br>$\gamma$         | 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° | Luminous flux in lm/klm |                   |
|------------------------------|------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|-------------------------|-------------------|
|                              |            |                             |                             |                             |                             |                             |             | Phi-zone                | Total<br>Phi-zone |
| Luminous intensity in cd/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            |

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|                      |  |                        |
|----------------------|--|------------------------|
| Family<br>Highbay 11 | Order number: 51HN12MA4GDA<br>EAN: 4069025691835 | LP number<br>59710_535 |
|----------------------|--|------------------------|

|           |               |        |  |  |  |  |  |  |  |  |
|-----------|---------------|--------|--|--|--|--|--|--|--|--|
| 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                  | 20.4 | 21.7 | 20.8 | 22.0 | 22.3               | 20.1 | 21.4 | 20.5 | 21.7 | 22.0 |
|                              | 3H                  | 20.4 | 21.5 | 20.8 | 21.9 | 22.2               | 20.1 | 21.3 | 20.5 | 21.6 | 22.0 |
|                              | 4H                  | 20.4 | 21.4 | 20.8 | 21.8 | 22.2               | 20.2 | 21.2 | 20.5 | 21.5 | 21.9 |
|                              | 6H                  | 20.4 | 21.3 | 20.8 | 21.7 | 22.1               | 20.2 | 21.1 | 20.6 | 21.5 | 21.9 |
|                              | 8H                  | 20.4 | 21.2 | 20.9 | 21.6 | 22.0               | 20.3 | 21.1 | 20.7 | 21.4 | 21.9 |
|                              | 12H                 | 20.4 | 21.1 | 20.9 | 21.5 | 22.0               | 20.3 | 21.0 | 20.7 | 21.4 | 21.8 |
| 4H                           | 2H                  | 20.3 | 21.3 | 20.7 | 21.7 | 22.1               | 20.0 | 21.1 | 20.4 | 21.4 | 21.8 |
|                              | 3H                  | 20.3 | 21.2 | 20.8 | 21.6 | 22.0               | 20.1 | 20.9 | 20.5 | 21.3 | 21.7 |
|                              | 4H                  | 20.3 | 21.1 | 20.8 | 21.5 | 21.9               | 20.1 | 20.9 | 20.6 | 21.3 | 21.7 |
|                              | 6H                  | 20.3 | 21.0 | 20.8 | 21.4 | 21.9               | 20.2 | 20.8 | 20.6 | 21.3 | 21.7 |
|                              | 8H                  | 20.3 | 20.9 | 20.8 | 21.3 | 21.8               | 20.2 | 20.8 | 20.7 | 21.2 | 21.7 |
|                              | 12H                 | 20.3 | 20.8 | 20.8 | 21.2 | 21.7               | 20.2 | 20.7 | 20.7 | 21.2 | 21.7 |
| 8H                           | 4H                  | 20.3 | 20.8 | 20.7 | 21.3 | 21.8               | 20.1 | 20.6 | 20.5 | 21.1 | 21.6 |
|                              | 6H                  | 20.2 | 20.7 | 20.7 | 21.2 | 21.7               | 20.1 | 20.6 | 20.6 | 21.1 | 21.6 |
|                              | 8H                  | 20.2 | 20.6 | 20.7 | 21.1 | 21.6               | 20.1 | 20.5 | 20.6 | 21.0 | 21.6 |
|                              | 12H                 | 20.2 | 20.5 | 20.7 | 21.0 | 21.6               | 20.2 | 20.5 | 20.7 | 21.0 | 21.5 |
| 12H                          | 4H                  | 20.3 | 20.7 | 20.8 | 21.2 | 21.7               | 20.1 | 20.5 | 20.6 | 21.0 | 21.5 |
|                              | 6H                  | 20.3 | 20.6 | 20.8 | 21.1 | 21.6               | 20.1 | 20.5 | 20.6 | 21.0 | 21.5 |
|                              | 8H                  | 20.2 | 20.5 | 20.7 | 21.0 | 21.6               | 20.1 | 20.5 | 20.7 | 21.0 | 21.5 |

|                 |                                 |                               |                    |
|-----------------|---------------------------------|-------------------------------|--------------------|
| 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°    |          | 25420.1                        | 24890.8                     | 25873.6                     | 26536.8                     | 23674.4                     | 22228.0                     | 22162.6     |  |
| 50,0°    |          | 14163.1                        | 13828.2                     | 13813.7                     | 14060.4                     | 12617.0                     | 12029.9                     | 11823.5     |  |
| 55,0°    |          | 8900.7                         | 8662.7                      | 8786.4                      | 8988.1                      | 8153.4                      | 7664.3                      | 7572.1      |  |
| 60,0°    |          | 6401.8                         | 6180.0                      | 6493.4                      | 6688.3                      | 6262.1                      | 5799.1                      | 5872.9      |  |
| 65,0°    |          | 5401.8                         | 4913.9                      | 5237.6                      | 5463.4                      | 5350.0                      | 4947.6                      | 5227.1      |  |
| 70,0°    |          | 4642.9                         | 4236.2                      | 4685.9                      | 4533.6                      | 4973.5                      | 4527.3                      | 4944.4      |  |
| 75,0°    |          | 3826.3                         | 3543.9                      | 3534.5                      | 3780.1                      | 3927.5                      | 4203.9                      | 4686.4      |  |
| 80,0°    |          | 2583.3                         | 2410.4                      | 2550.6                      | 2755.3                      | 3110.0                      | 3657.9                      | 4169.6      |  |
| 85,0°    |          | 1031.8                         | 1026.6                      | 1060.0                      | 1241.0                      | 1835.2                      | 2445.1                      | 3167.6      |  |

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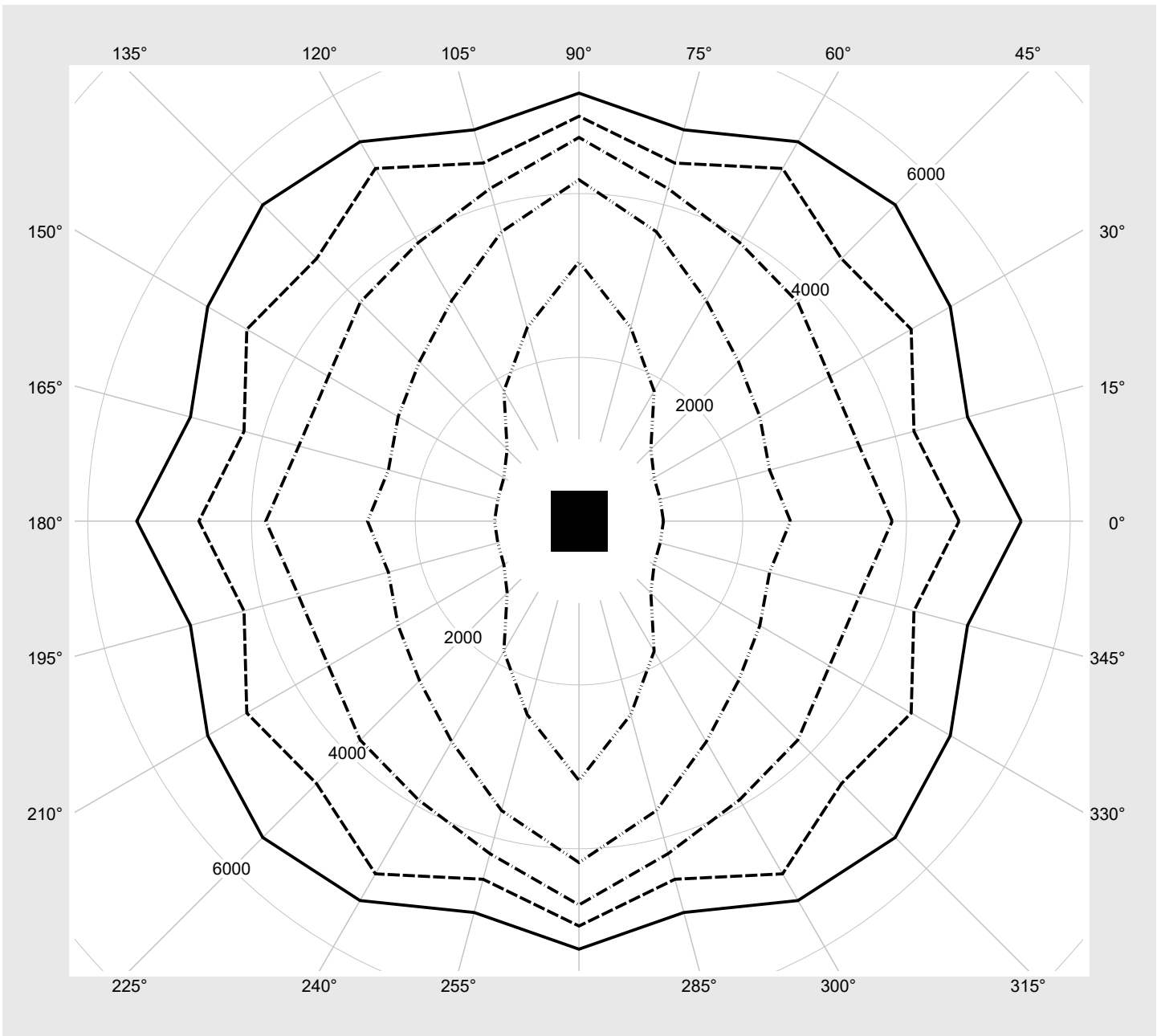
**Family**  
Highbay 11

**Order number: 51HN12MA4GDA**  
**EAN: 4069025691835**

**LP number**  
**59710\_535**

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

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



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|                      |  |                        |
|----------------------|--|------------------------|
| Family<br>Highbay 11 | Order number: 51HN12MA4GDA<br>EAN: 4069025691835 | LP number<br>59710_535 |
|----------------------|--|------------------------|

|                  |                                 |               |
|------------------|---------------------------------|---------------|
| Multilumen Table | environmental temperature: 25°C | <b>sITeco</b> |
|------------------|---------------------------------|---------------|

| DIP-Step | Switch Setting |   |   | Luminous flux<br>[lm] | Power consumption<br>[W] |
|----------|----------------|---|---|-----------------------|--------------------------|
|          | 1              | 2 | 3 |                       |                          |
| 1        | A              | C | E | 17230                 | 85.2                     |
| 2        | A              | C | F | 15970                 | 78.5                     |
| 3        | A              | D | E | 14620                 | 71.2                     |
| 4        | A              | D | F | 13170                 | 63.6                     |
| 5        | B              | C | E | 11880                 | 57.0                     |
| 6        | B              | C | F | 10570                 | 50.4                     |
| 7        | B              | D | E | 9350                  | 44.4                     |
| 8        | B              | D | F | 8020                  | 37.9                     |