

## Photometric test report

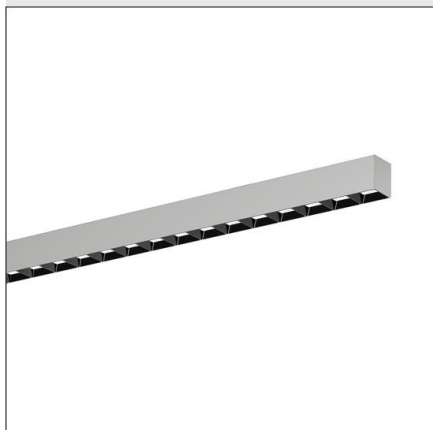
Family  
**Silica® 21**

Order number: **51MX21DB45SB**  
EAN: **4058352896037**

LP number  
**59268\_88**

serial  
documentation  
**02.08.2023**

siteco



**Version** surface-mounted luminaire, reflector, black, direct distribution, narrow distribution, UGR≤19 (L65≤3000cd/m²)

**Lamps** LED 4000 K | CRI ≥ 80

**Controlgear** ECG-DALI

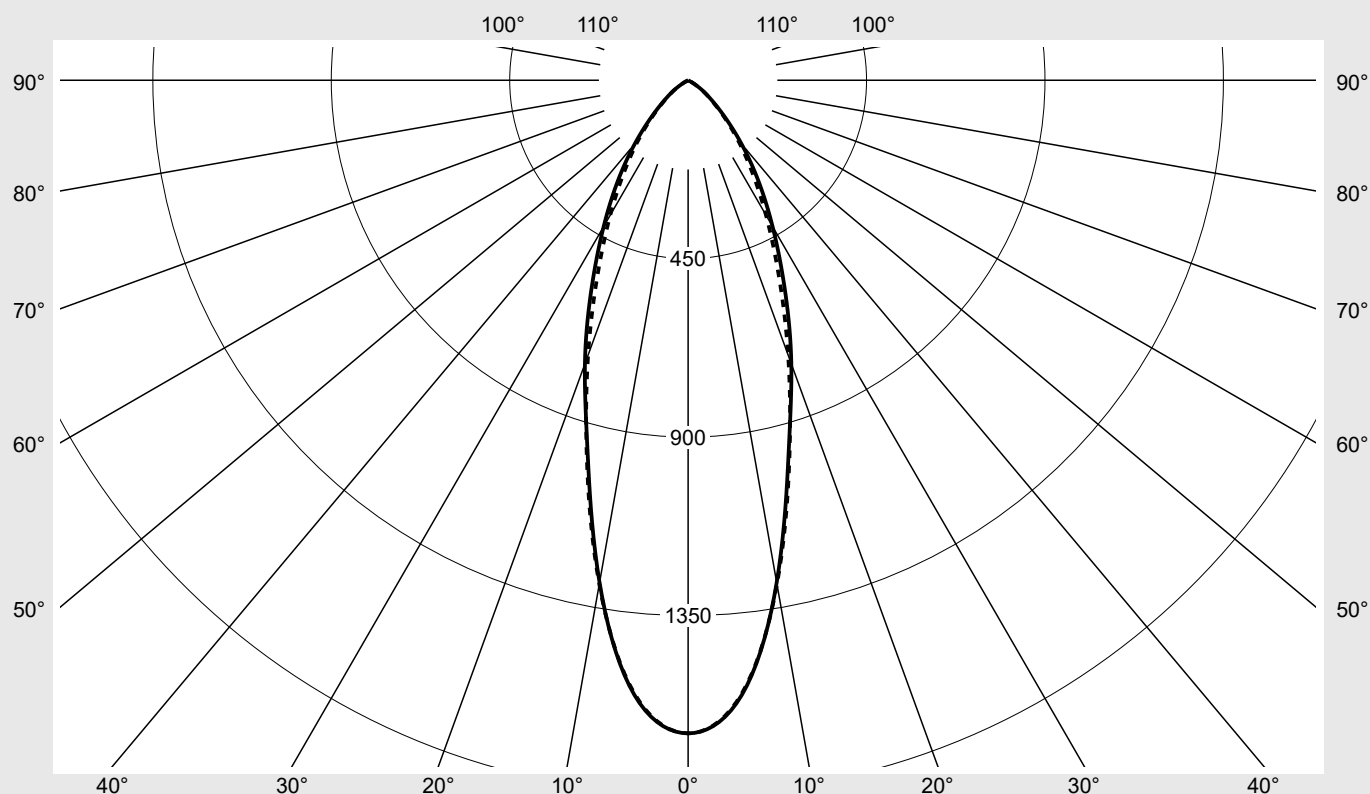
**Rated values** Net luminous flux = 5400 lm  
Power consumption = 32.0 W  
Luminous efficacy = 168.8 lm/W

Luminous intensity in cd/klm

C180-0

C270-90

Imax: 1647 cd/klm



### Classifications

DIN 5040 A 7 0  
CIE N1=87 N2=99 N3=100  
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>Silica® 21                     | Order number: 51MX21DB45SB<br>EAN: 4058352896037 | LP number<br>59268_88      |
| Table of values for luminous intensities |                                                  | Maximum luminous intensity |
|                                          |                                                  | siteco                     |

| C-<br>planes | 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° | Phi-zone                | Total<br>Phi-zone |
|--------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|-------------------------|-------------------|
| γ            | Luminous intensity in cd/klm |                             |                             |                             |                             |                             |             | Luminous flux in lm/klm |                   |
| 0°           | 1647.1                       | 1647.1                      | 1647.1                      | 1647.1                      | 1647.1                      | 1647.1                      | 1647.1      | 9.9                     | 9.9               |
| 5°           | 1556.0                       | 1552.2                      | 1545.4                      | 1552.7                      | 1555.3                      | 1549.6                      | 1552.8      | 74.1                    | 84.0              |
| 10°          | 1286.3                       | 1288.4                      | 1295.0                      | 1311.1                      | 1307.0                      | 1291.2                      | 1290.4      | 123.4                   | 207.4             |
| 15°          | 978.4                        | 985.5                       | 998.6                       | 1011.3                      | 1007.8                      | 991.2                       | 986.9       | 141.3                   | 348.7             |
| 20°          | 761.0                        | 758.1                       | 743.8                       | 731.7                       | 736.2                       | 737.5                       | 737.7       | 139.2                   | 488.0             |
| 25°          | 575.0                        | 565.5                       | 534.1                       | 513.6                       | 528.8                       | 542.8                       | 539.9       | 125.2                   | 613.2             |
| 30°          | 426.0                        | 419.2                       | 386.1                       | 366.4                       | 385.1                       | 401.9                       | 392.9       | 108.2                   | 721.3             |
| 35°          | 308.0                        | 307.0                       | 281.1                       | 264.9                       | 280.7                       | 295.5                       | 280.0       | 90.3                    | 811.6             |
| 40°          | 209.2                        | 211.1                       | 196.7                       | 188.3                       | 198.2                       | 205.5                       | 193.0       | 70.5                    | 882.1             |
| 45°          | 130.5                        | 131.9                       | 127.1                       | 124.8                       | 130.2                       | 130.3                       | 123.1       | 49.8                    | 932.0             |
| 50°          | 76.5                         | 78.3                        | 78.7                        | 78.6                        | 80.6                        | 77.5                        | 73.2        | 32.8                    | 964.8             |
| 55°          | 42.1                         | 44.0                        | 46.1                        | 47.2                        | 47.6                        | 43.6                        | 40.6        | 20.2                    | 985.0             |
| 60°          | 13.4                         | 16.3                        | 24.8                        | 26.9                        | 25.6                        | 18.0                        | 14.5        | 9.9                     | 994.9             |
| 65°          | 4.2                          | 5.2                         | 7.6                         | 13.7                        | 8.3                         | 5.3                         | 4.6         | 3.7                     | 998.6             |
| 70°          | 1.7                          | 1.8                         | 1.5                         | 2.7                         | 1.9                         | 2.1                         | 2.2         | 1.0                     | 999.6             |
| 75°          | 0.3                          | 0.5                         | 0.5                         | 0.6                         | 0.6                         | 0.6                         | 0.4         | 0.3                     | 999.9             |
| 80°          | 0.1                          | 0.1                         | 0.1                         | 0.1                         | 0.2                         | 0.2                         | 0.2         | 0.1                     | 999.9             |
| 85°          | 0.1                          | 0.1                         | 0.1                         | 0.1                         | 0.1                         | 0.2                         | 0.2         | 0.1                     | 1000.0            |
| 90°          | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 95°          | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 100°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 105°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 110°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 115°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 120°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 125°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 130°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 135°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 140°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 145°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 150°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 155°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 160°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 165°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 170°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 175°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |
| 180°         | 0.0                          | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0                         | 0.0         | 0.0                     | 1000.0            |

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|                      |                                                  |                       |
|----------------------|--------------------------------------------------|-----------------------|
| Family<br>Silica® 21 | Order number: 51MX21DB45SB<br>EAN: 4058352896037 | LP number<br>59268_88 |
|----------------------|--------------------------------------------------|-----------------------|

| 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  | 17.1                | 18.3 | 17.5 | 18.6 | 18.9 | 17.0               | 18.2 | 17.4   | 18.5 | 18.8 |
|                              | 3H  | 17.0                | 18.0 | 17.3 | 18.4 | 18.7 | 16.9               | 17.9 | 17.2   | 18.3 | 18.6 |
|                              | 4H  | 16.9                | 17.9 | 17.3 | 18.2 | 18.6 | 16.8               | 17.8 | 17.2   | 18.1 | 18.5 |
|                              | 6H  | 16.8                | 17.7 | 17.3 | 18.1 | 18.5 | 16.7               | 17.6 | 17.2   | 18.0 | 18.4 |
|                              | 8H  | 16.9                | 17.6 | 17.3 | 18.0 | 18.4 | 16.8               | 17.5 | 17.2   | 17.9 | 18.3 |
|                              | 12H | 16.9                | 17.5 | 17.3 | 17.9 | 18.3 | 16.8               | 17.4 | 17.2   | 17.8 | 18.2 |
| 4H                           | 2H  | 17.0                | 18.0 | 17.4 | 18.4 | 18.7 | 16.9               | 17.9 | 17.3   | 18.3 | 18.6 |
|                              | 3H  | 16.9                | 17.7 | 17.3 | 18.1 | 18.5 | 16.8               | 17.6 | 17.2   | 18.0 | 18.4 |
|                              | 4H  | 16.8                | 17.5 | 17.2 | 17.9 | 18.3 | 16.7               | 17.4 | 17.1   | 17.8 | 18.2 |
|                              | 6H  | 16.7                | 17.3 | 17.2 | 17.7 | 18.2 | 16.6               | 17.2 | 17.1   | 17.6 | 18.1 |
|                              | 8H  | 16.6                | 17.2 | 17.1 | 17.6 | 18.1 | 16.6               | 17.1 | 17.0   | 17.5 | 18.0 |
|                              | 12H | 16.6                | 17.1 | 17.1 | 17.5 | 18.0 | 16.5               | 17.0 | 17.0   | 17.4 | 17.9 |
| 8H                           | 4H  | 16.6                | 17.2 | 17.1 | 17.6 | 18.1 | 16.6               | 17.1 | 17.0   | 17.5 | 18.0 |
|                              | 6H  | 16.5                | 17.0 | 17.0 | 17.4 | 18.0 | 16.4               | 16.9 | 16.9   | 17.3 | 17.9 |
|                              | 8H  | 16.5                | 16.8 | 17.0 | 17.3 | 17.9 | 16.4               | 16.8 | 16.9   | 17.2 | 17.8 |
|                              | 12H | 16.5                | 16.7 | 17.0 | 17.2 | 17.8 | 16.4               | 16.6 | 16.9   | 17.1 | 17.7 |
| 12H                          | 4H  | 16.6                | 17.1 | 17.1 | 17.5 | 18.0 | 16.6               | 17.0 | 17.0   | 17.4 | 17.9 |
|                              | 6H  | 16.5                | 16.8 | 17.0 | 17.3 | 17.9 | 16.4               | 16.8 | 16.9   | 17.2 | 17.8 |
|                              | 8H  | 16.5                | 16.7 | 17.0 | 17.2 | 17.8 | 16.4               | 16.6 | 16.9   | 17.1 | 17.7 |

| Luminance table |                    | Max. for $\gamma \geq 65^\circ$ |                             | Photometric dimensions in mm: |                             | L = 1470<br>B = 49          |             |
|-----------------|--------------------|---------------------------------|-----------------------------|-------------------------------|-----------------------------|-----------------------------|-------------|
| C-planes        | 0°                 | 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° |
|                 | 180°               |                                 |                             |                               |                             |                             |             |
| $\gamma$        | Luminance in cd/m² |                                 |                             |                               |                             |                             |             |
| 45°             | 13837.3            | 13986.0                         | 13475.6                     | 13233.6                       | 13804.1                     | 13819.2                     | 13053.7     |
| 50°             | 8925.4             | 9130.3                          | 9184.1                      | 9166.8                        | 9400.7                      | 9037.8                      | 8535.2      |
| 55°             | 5509.0             | 5751.6                          | 6021.4                      | 6172.9                        | 6227.0                      | 5700.7                      | 5312.7      |
| 60°             | 2003.8             | 2439.0                          | 3713.1                      | 4029.6                        | 3843.3                      | 2697.1                      | 2177.5      |
| 65°             | 736.4              | 924.0                           | 1355.3                      | 2427.2                        | 1477.0                      | 934.7                       | 818.1       |
| 70°             | 378.5              | 403.1                           | 339.5                       | 585.9                         | 413.4                       | 465.3                       | 474.3       |
| 75°             | 95.9               | 135.3                           | 133.5                       | 171.2                         | 166.3                       | 159.3                       | 130.1       |
| 80°             | 30.7               | 41.0                            | 41.0                        | 50.9                          | 66.5                        | 76.4                        | 81.6        |
| 85°             | 61.1               | 61.1                            | 71.4                        | 86.9                          | 117.0                       | 137.6                       | 142.8       |

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Family  
Silica® 21

Order number: 51MX21DB45SB  
EAN: 4058352896037

LP number  
59268\_88

Luminance values in cd/m²

γ 65°

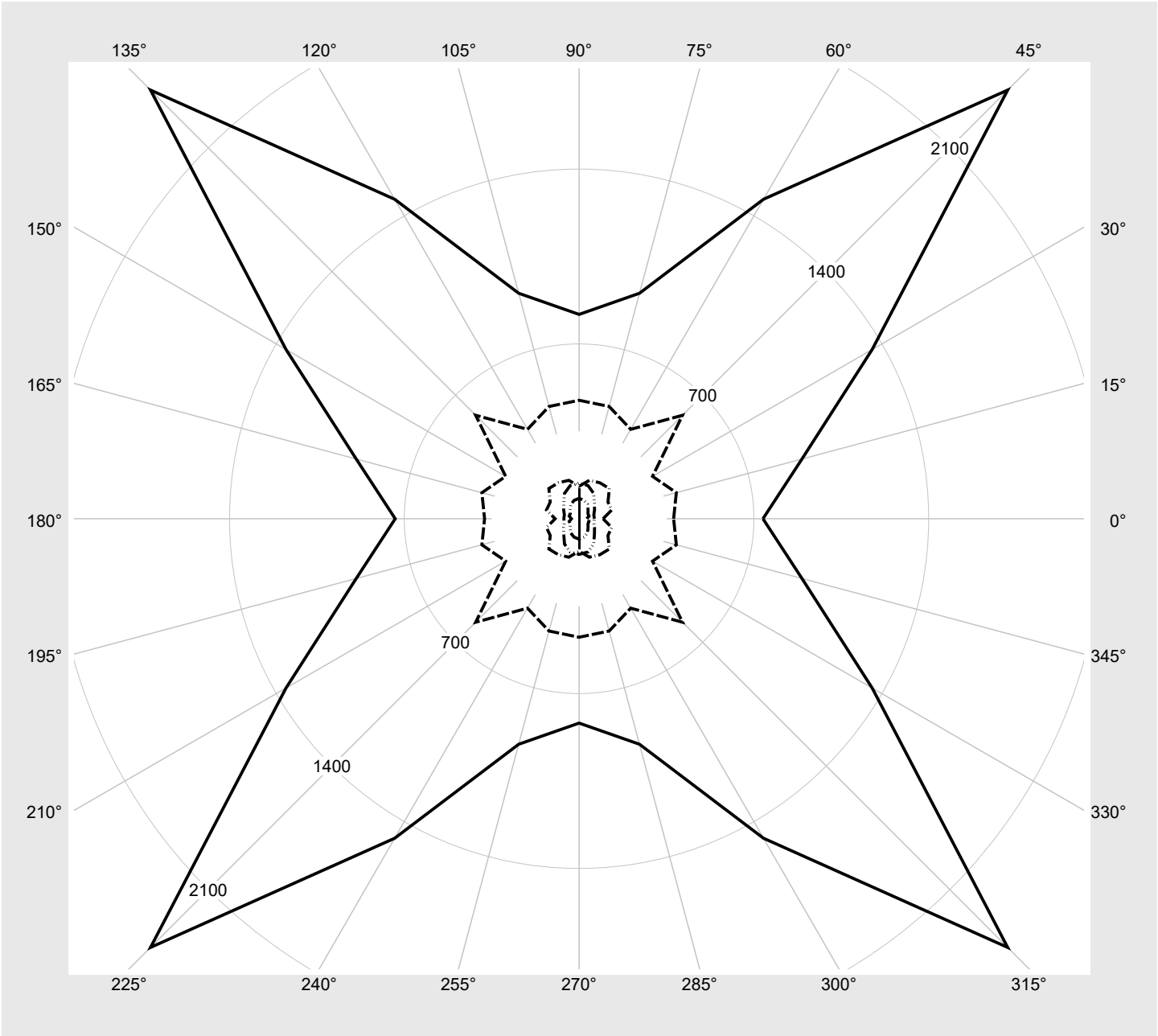
γ 70°

γ 75°

γ 80°

γ 85°

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|                                                                        |                                                                |                                                                                     |
|------------------------------------------------------------------------|----------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Family</b><br><b>Silica® 21</b>                                     | <b>Order number: 51MX21DB45SB</b><br><b>EAN: 4058352896037</b> | <b>LP number</b><br><b>59268_88</b>                                                 |
| <b>Dimming levels table</b> <div>environmental temperature: 25°C</div> |                                                                |  |

| Luminous flux<br>% | Dimming level<br>linear | Dimming level<br>logarithmic | Luminous flux<br>[lm] | Power consumption<br>[W] |
|--------------------|-------------------------|------------------------------|-----------------------|--------------------------|
| 100                | 254                     | 254                          | 5400                  | 32.0                     |
| 95                 | 241                     | 252                          | 5139                  | 30.3                     |
| 90                 | 227                     | 250                          | 4853                  | 28.5                     |
| 85                 | 214                     | 248                          | 4589                  | 26.8                     |
| 80                 | 201                     | 245                          | 4323                  | 25.2                     |
| 75                 | 188                     | 243                          | 4055                  | 23.6                     |
| 70                 | 175                     | 240                          | 3785                  | 21.9                     |
| 65                 | 162                     | 238                          | 3513                  | 20.3                     |
| 60                 | 149                     | 234                          | 3239                  | 18.7                     |
| 55                 | 136                     | 231                          | 2962                  | 17.1                     |
| 50                 | 124                     | 228                          | 2707                  | 15.7                     |
| 45                 | 111                     | 224                          | 2429                  | 14.0                     |
| 40                 | 99                      | 219                          | 2170                  | 12.5                     |
| 35                 | 86                      | 214                          | 1888                  | 11.0                     |
| 30                 | 74                      | 209                          | 1628                  | 9.6                      |
| 25                 | 61                      | 202                          | 1343                  | 8.2                      |
| 20                 | 49                      | 194                          | 1079                  | 6.8                      |
| 15                 | 37                      | 183                          | 813                   | 5.4                      |
| 10                 | 25                      | 169                          | 546                   | 4.0                      |
| 5                  | 13                      | 145                          | 279                   | 2.5                      |
| 3                  | 8                       | 127                          | 167                   | 1.5                      |