

## Lichttechnischer Prüfbefund

### Familie

**Silica® 21 rectangular**



**Bestell-Nr.: 51MA23D5ELBA**

**EAN: 4069025667359**

**LP-Nummer**

**59925\_65**

**Seriendokumentation**

**18.03.2026**

#### Ausführung

Anbauleuchte, direkt strahlend, mit Deckenaufhellung, Mikroprismenabdeckung, Gehäuse, schwarz,  $UGR \leq 19$  ( $L65 \leq 3000 \text{ cd/m}^2$ )

#### Bestückung

LED 4000 K | CRI  $\geq 90$

#### Betriebsgerät

EVG-DALI

#### Bemessungswerte

Nettolichtstrom = 4480 lm

Systemleistung = 36.6 W

Lichtausbeute = 122.4 lm/W

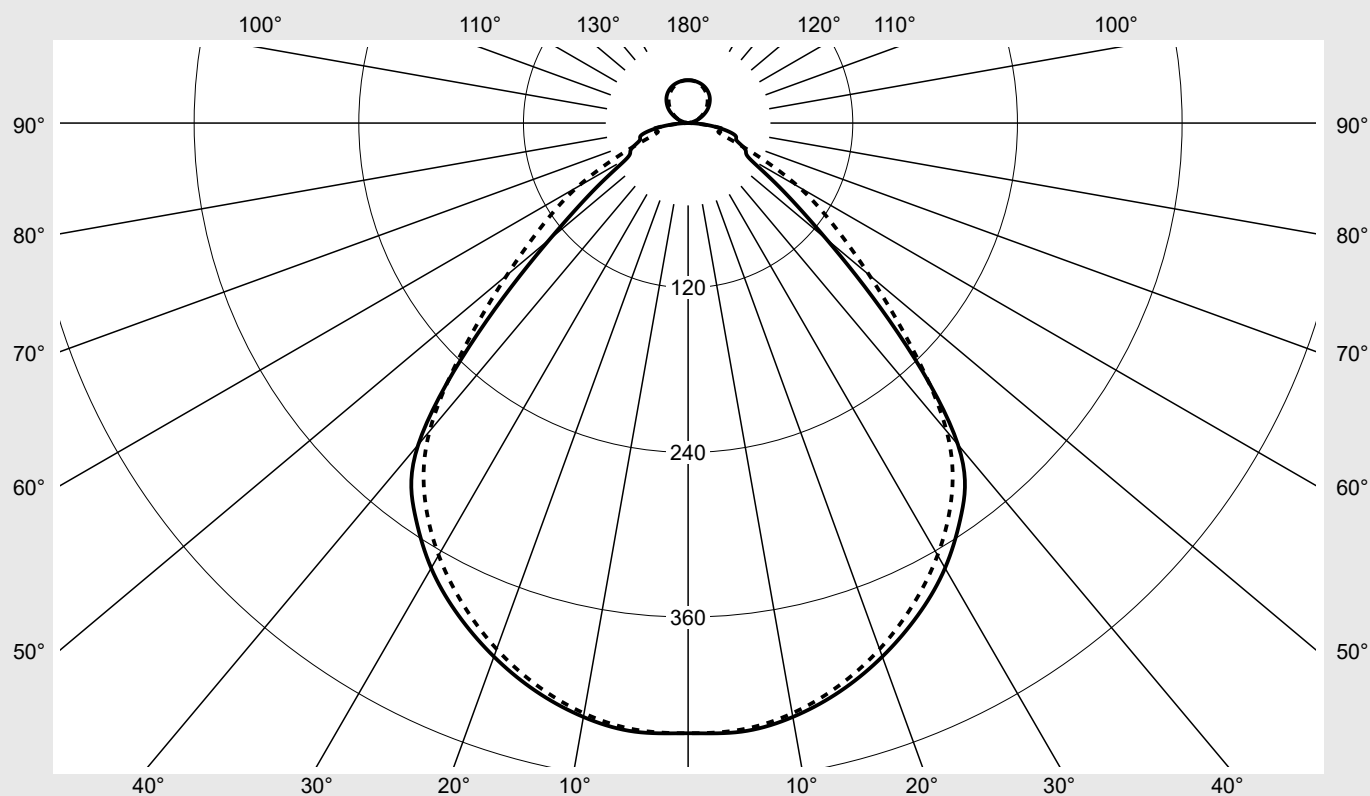
**siteco**

**Lichtstärke in cd/klm**

**C180-0**

**C270-90**

**Imax: 445 cd/klm**



### Klassifizierungen

DIN 5040

A 5 3

CIE

N1=64 N2=89 N3=97

N4=91 N5=100

### Leuchtenbetriebswirkungsgrade

$\eta_{LB}$

100,0%

$\phi_u$

91,5%

$\phi_o$

8,5%

### Messbedingungen

DIN EN 13032 und DIN 5032

Lichttechnischer Prüfbefund

|                                   |                                                 |                       |
|-----------------------------------|-------------------------------------------------|-----------------------|
| Familie<br>Silica® 21 rectangular | Bestell-Nr.: 51MA23D5ELBA<br>EAN: 4069025667359 | LP-Nummer<br>59925_65 |
| Wertetabelle Lichtstärkemessung   |                                                 | Maximale Lichtstärke  |
|                                   |                                                 | siteco                |

| C-<br>Ebenen | 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             | Summe<br>Phi-Zone |
|--------------|-----------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|----------------------|-------------------|
| γ            | Lichtstärke in cd/klm |                             |                             |                             |                             |                             |             | Lichtstrom in lm/klm |                   |
| 0°           | 444.7                 | 444.7                       | 444.7                       | 444.7                       | 444.7                       | 444.7                       | 444.7       | 2.7                  | 2.7               |
| 5°           | 445.2                 | 442.9                       | 440.4                       | 441.9                       | 444.0                       | 443.7                       | 443.7       | 21.2                 | 23.8              |
| 10°          | 439.5                 | 437.1                       | 434.2                       | 435.4                       | 437.2                       | 436.8                       | 436.8       | 41.5                 | 65.4              |
| 15°          | 428.6                 | 426.3                       | 423.1                       | 423.9                       | 425.2                       | 424.7                       | 424.5       | 60.3                 | 125.6             |
| 20°          | 413.8                 | 411.4                       | 407.8                       | 408.0                       | 408.9                       | 408.1                       | 408.0       | 76.7                 | 202.4             |
| 25°          | 395.9                 | 393.2                       | 388.8                       | 388.6                       | 389.4                       | 388.3                       | 387.5       | 90.3                 | 292.7             |
| 30°          | 374.5                 | 371.2                       | 366.0                       | 365.7                       | 367.0                       | 365.0                       | 363.6       | 100.7                | 393.4             |
| 35°          | 347.4                 | 344.2                       | 337.9                       | 338.3                       | 339.1                       | 337.2                       | 334.4       | 106.8                | 500.1             |
| 40°          | 306.0                 | 306.1                       | 300.5                       | 300.1                       | 295.2                       | 296.6                       | 293.1       | 105.6                | 605.7             |
| 45°          | 216.4                 | 230.3                       | 233.6                       | 229.1                       | 209.1                       | 228.7                       | 229.7       | 87.5                 | 693.2             |
| 50°          | 131.5                 | 150.8                       | 176.1                       | 150.7                       | 130.6                       | 148.4                       | 172.3       | 63.6                 | 756.8             |
| 55°          | 81.0                  | 92.6                        | 131.2                       | 92.2                        | 80.3                        | 90.2                        | 129.0       | 44.3                 | 801.0             |
| 60°          | 51.6                  | 62.5                        | 92.1                        | 63.2                        | 51.5                        | 61.7                        | 93.2        | 31.9                 | 832.9             |
| 65°          | 46.1                  | 53.5                        | 57.0                        | 54.8                        | 47.2                        | 54.8                        | 53.9        | 26.3                 | 859.2             |
| 70°          | 37.8                  | 46.1                        | 29.2                        | 47.0                        | 38.0                        | 47.1                        | 28.9        | 20.7                 | 879.9             |
| 75°          | 35.8                  | 32.2                        | 25.5                        | 32.9                        | 36.3                        | 32.6                        | 23.4        | 16.7                 | 896.6             |
| 80°          | 25.7                  | 19.4                        | 25.4                        | 18.9                        | 26.0                        | 19.8                        | 27.1        | 12.2                 | 908.8             |
| 85°          | 12.0                  | 11.2                        | 9.5                         | 11.2                        | 11.9                        | 11.5                        | 9.5         | 6.0                  | 914.8             |
| 90°          | 0.3                   | 0.3                         | 0.3                         | 0.4                         | 0.4                         | 0.5                         | 0.4         | 0.2                  | 915.0             |
| 95°          | 0.2                   | 0.2                         | 0.2                         | 0.3                         | 0.3                         | 0.6                         | 0.6         | 0.2                  | 915.2             |
| 100°         | 1.8                   | 1.7                         | 1.6                         | 1.6                         | 1.8                         | 2.0                         | 2.2         | 1.0                  | 916.1             |
| 105°         | 4.2                   | 4.1                         | 4.0                         | 4.0                         | 4.2                         | 4.3                         | 4.5         | 2.2                  | 918.3             |
| 110°         | 7.5                   | 7.2                         | 7.0                         | 6.9                         | 6.8                         | 6.8                         | 7.0         | 3.6                  | 921.9             |
| 115°         | 10.8                  | 10.6                        | 10.2                        | 9.9                         | 9.6                         | 9.5                         | 9.6         | 5.0                  | 926.9             |
| 120°         | 14.1                  | 13.8                        | 13.3                        | 12.8                        | 12.3                        | 12.2                        | 12.3        | 6.1                  | 933.0             |
| 125°         | 17.2                  | 16.9                        | 16.2                        | 15.5                        | 15.1                        | 14.8                        | 14.9        | 7.1                  | 940.1             |
| 130°         | 19.9                  | 19.5                        | 18.9                        | 18.2                        | 17.7                        | 17.4                        | 17.4        | 7.7                  | 947.8             |
| 135°         | 22.3                  | 22.0                        | 21.3                        | 20.7                        | 20.2                        | 19.8                        | 19.8        | 8.1                  | 955.9             |
| 140°         | 24.5                  | 24.1                        | 23.5                        | 22.9                        | 22.4                        | 22.1                        | 22.1        | 8.1                  | 964.0             |
| 145°         | 26.3                  | 25.9                        | 25.4                        | 24.8                        | 24.4                        | 24.1                        | 24.1        | 7.8                  | 971.9             |
| 150°         | 27.8                  | 27.5                        | 26.9                        | 26.5                        | 26.2                        | 25.9                        | 25.9        | 7.3                  | 979.2             |
| 155°         | 28.9                  | 28.7                        | 28.2                        | 27.9                        | 27.7                        | 27.5                        | 27.5        | 6.5                  | 985.7             |
| 160°         | 29.8                  | 29.6                        | 29.2                        | 29.1                        | 29.0                        | 28.8                        | 28.8        | 5.5                  | 991.1             |
| 165°         | 30.5                  | 30.3                        | 30.0                        | 30.0                        | 29.9                        | 29.9                        | 29.9        | 4.3                  | 995.4             |
| 170°         | 30.9                  | 30.8                        | 30.5                        | 30.6                        | 30.7                        | 30.6                        | 30.7        | 2.9                  | 998.3             |
| 175°         | 31.2                  | 31.1                        | 30.9                        | 31.0                        | 31.1                        | 31.1                        | 31.2        | 1.5                  | 999.8             |
| 180°         | 31.2                  | 31.2                        | 31.2                        | 31.2                        | 31.2                        | 31.2                        | 31.2        | 0.2                  | 1000.0            |

Lichttechnischer Prüfbefund

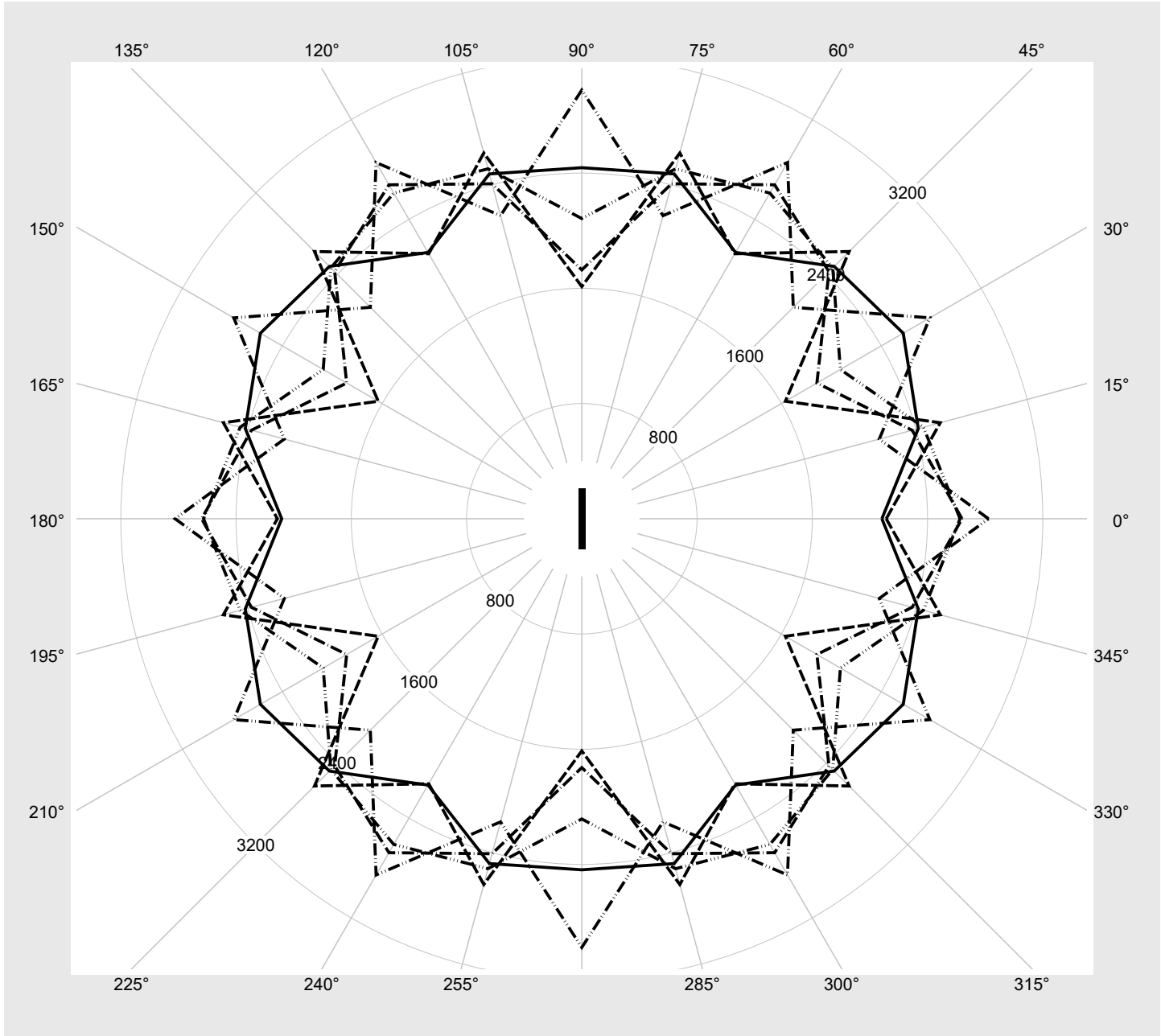
|                                   |     |                                                 |      |      |      |      |                                       |      |                       |      |
|-----------------------------------|-----|-------------------------------------------------|------|------|------|------|---------------------------------------|------|-----------------------|------|
| Familie<br>Silica® 21 rectangular |     | Bestell-Nr.: 51MA23D5ELBA<br>EAN: 4069025667359 |      |      |      |      |                                       |      | LP-Nummer<br>59925_65 |      |
| UGR-Tabelle                       |     | Standardraum                                    |      |      |      |      |                                       |      | siteco                |      |
| Reflexionsgrad Decke              | 0,7 | 0,7                                             | 0,5  | 0,5  | 0,3  | 0,7  | 0,7                                   | 0,5  | 0,5                   | 0,3  |
| Reflexionsgrad Wände              | 0,5 | 0,3                                             | 0,5  | 0,3  | 0,3  | 0,5  | 0,3                                   | 0,5  | 0,3                   | 0,3  |
| Reflexionsgrad Boden              | 0,2 | 0,2                                             | 0,2  | 0,2  | 0,2  | 0,2  | 0,2                                   | 0,2  | 0,2                   | 0,2  |
| Raumabmessungen                   |     | Blickrichtung quer zur Leuchte (C0)             |      |      |      |      | Blickrichtung längs zur Leuchte (C90) |      |                       |      |
| x                                 | y   |                                                 |      |      |      |      |                                       |      |                       |      |
| 2H                                | 2H  | 16,3                                            | 17,9 | 16,7 | 18,2 | 18,5 | 16,1                                  | 17,7 | 16,5                  | 18,0 |
|                                   | 3H  | 17,1                                            | 18,4 | 17,4 | 18,8 | 19,1 | 16,9                                  | 18,3 | 17,3                  | 18,6 |
|                                   | 4H  | 17,5                                            | 18,8 | 17,9 | 19,1 | 19,5 | 17,2                                  | 18,5 | 17,6                  | 18,8 |
|                                   | 6H  | 18,0                                            | 19,1 | 18,4 | 19,5 | 19,9 | 17,7                                  | 18,8 | 18,1                  | 19,2 |
|                                   | 8H  | 18,2                                            | 19,3 | 18,7 | 19,7 | 20,1 | 18,0                                  | 19,0 | 18,4                  | 19,4 |
|                                   | 12H | 18,4                                            | 19,4 | 18,8 | 19,8 | 20,2 | 18,1                                  | 19,1 | 18,5                  | 19,5 |
| 4H                                | 2H  | 16,6                                            | 17,9 | 17,0 | 18,2 | 18,6 | 16,5                                  | 17,7 | 16,8                  | 18,1 |
|                                   | 3H  | 17,4                                            | 18,5 | 17,9 | 18,9 | 19,3 | 17,4                                  | 18,5 | 17,9                  | 18,9 |
|                                   | 4H  | 18,0                                            | 19,0 | 18,4 | 19,4 | 19,8 | 18,0                                  | 18,9 | 18,4                  | 19,3 |
|                                   | 6H  | 18,6                                            | 19,4 | 19,1 | 19,9 | 20,3 | 18,6                                  | 19,4 | 19,0                  | 19,8 |
|                                   | 8H  | 18,9                                            | 19,6 | 19,3 | 20,1 | 20,5 | 18,9                                  | 19,6 | 19,3                  | 20,0 |
|                                   | 12H | 19,1                                            | 19,8 | 19,6 | 20,2 | 20,7 | 19,0                                  | 19,7 | 19,5                  | 20,2 |
| 8H                                | 4H  | 18,3                                            | 19,0 | 18,7 | 19,4 | 19,9 | 18,2                                  | 19,0 | 18,7                  | 19,4 |
|                                   | 6H  | 19,0                                            | 19,7 | 19,5 | 20,1 | 20,6 | 19,0                                  | 19,6 | 19,5                  | 20,1 |
|                                   | 8H  | 19,4                                            | 19,9 | 19,9 | 20,4 | 20,9 | 19,4                                  | 20,0 | 19,9                  | 20,4 |
|                                   | 12H | 19,7                                            | 20,2 | 20,2 | 20,7 | 21,2 | 19,7                                  | 20,1 | 20,2                  | 20,6 |
| 12H                               | 4H  | 18,3                                            | 19,0 | 18,8 | 19,4 | 19,9 | 18,3                                  | 19,0 | 18,8                  | 19,4 |
|                                   | 6H  | 19,1                                            | 19,7 | 19,6 | 20,1 | 20,7 | 19,1                                  | 19,6 | 19,6                  | 20,1 |
|                                   | 8H  | 19,5                                            | 20,0 | 20,0 | 20,5 | 21,0 | 19,5                                  | 20,0 | 20,1                  | 20,5 |

| Leuchtdichten-Tabelle |                       | Max. für $\gamma \geq 65^\circ$ |                             | Lichttechnische<br>Abmessungen in mm: |                             | L = 1484<br>B = 158         |             |
|-----------------------|-----------------------|---------------------------------|-----------------------------|---------------------------------------|-----------------------------|-----------------------------|-------------|
| C-<br>Ebenen          | 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° |
| $\gamma$              | Leuchtdichte in cd/m² |                                 |                             |                                       |                             |                             |             |
| 45°                   | 5846.6                | 6222.6                          | 6312.4                      | 6191.1                                | 5650.1                      | 6179.0                      | 6208.0      |
| 50°                   | 3908.1                | 4483.4                          | 5234.7                      | 4480.8                                | 3882.2                      | 4412.3                      | 5121.3      |
| 55°                   | 2699.4                | 3083.9                          | 4370.2                      | 3070.5                                | 2674.6                      | 3003.8                      | 4297.7      |
| 60°                   | 1972.8                | 2390.1                          | 3519.0                      | 2416.4                                | 1966.7                      | 2358.7                      | 3560.5      |
| 65°                   | 2083.1                | 2418.2                          | 2576.5                      | 2477.7                                | 2135.1                      | 2478.7                      | 2437.4      |
| 70°                   | 2113.1                | 2576.0                          | 1631.8                      | 2624.2                                | 2124.9                      | 2629.1                      | 1612.0      |
| 75°                   | 2639.2                | 2374.4                          | 1884.6                      | 2426.1                                | 2677.3                      | 2408.0                      | 1727.8      |
| 80°                   | 2823.3                | 2137.8                          | 2789.7                      | 2076.1                                | 2855.9                      | 2178.8                      | 2976.5      |
| 85°                   | 2625.7                | 2455.3                          | 2072.8                      | 2463.4                                | 2611.0                      | 2515.4                      | 2084.4      |

Lichttechnischer Prüfbefund

|                                                                                                                                 |                                                            |                                  |
|---------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|----------------------------------|
| <p>Familie</p> <p>Silica® 21 rectangular</p>                                                                                    | <p>Bestell-Nr.: 51MA23D5ELBA</p> <p>EAN: 4069025667359</p> | <p>LP-Nummer</p> <p>59925_65</p> |
| <p>Leuchtdichten in cd/m²</p> <div> <div>γ 65°</div> <div>γ 70°</div> <div>γ 75°</div> <div>γ 80°</div> <div>γ 85°</div> </div> |                                                            |                                  |

siteco



Lichttechnischer Prüfbefund

|                                                        |                                                               |                                     |
|--------------------------------------------------------|---------------------------------------------------------------|-------------------------------------|
| <b>Familie</b><br><b>Silica® 21 rectangular</b>        | <b>Bestell-Nr.: 51MA23D5ELBA</b><br><b>EAN: 4069025667359</b> | <b>LP-Nummer</b><br><b>59925_65</b> |
| <b>Dimmstufen-Tabelle</b><br>Umgebungstemperatur: 25°C |                                                               | <b>sit</b> eco                      |

| Lichtstrom [%] | Dimmstufe linear | Dimmstufe logarithmisch | Lichtstrom [lm] | Systemleistung [W] |
|----------------|------------------|-------------------------|-----------------|--------------------|
| 100            | 254              | 254                     | 4480            | 36.6               |
| 95             | 239              | 252                     | 4249            | 34.4               |
| 90             | 225              | 250                     | 4030            | 32.3               |
| 85             | 211              | 247                     | 3808            | 30.3               |
| 80             | 197              | 245                     | 3582            | 28.2               |
| 75             | 183              | 242                     | 3352            | 26.2               |
| 70             | 170              | 239                     | 3136            | 24.3               |
| 65             | 157              | 236                     | 2917            | 22.4               |
| 60             | 144              | 233                     | 2694            | 20.6               |
| 55             | 131              | 230                     | 2468            | 18.7               |
| 50             | 118              | 226                     | 2239            | 16.9               |
| 45             | 106              | 222                     | 2025            | 15.3               |
| 40             | 93               | 217                     | 1789            | 13.5               |
| 35             | 81               | 212                     | 1568            | 11.8               |
| 30             | 69               | 206                     | 1345            | 10.1               |
| 25             | 57               | 199                     | 1119            | 8.5                |
| 20             | 45               | 191                     | 889             | 6.9                |
| 15             | 34               | 180                     | 675             | 5.4                |
| 10             | 22               | 164                     | 439             | 3.8                |
| 5              | 11               | 139                     | 220             | 2.0                |
| 3              | 6                | 117                     | 119             | 1.2                |