

## Lichttechnischer Prüfbefund

### Familie

**Silica® 21 rectangular**



**Bestell-Nr.: 51MA23D83LWA1**

**EAN: 4069025737649**

**LP-Nummer**

**59974\_23**

**Seriendokumentation**

**20.02.2026**

### Ausführung

Anbauleuchte, direkt strahlend, mit Deckenaufhellung, Mikroprismenabdeckung, Gehäuse, weiß,  $UGR \leq 19$  ( $L65 \leq 3000 \text{ cd/m}^2$ ), Sensor PS2 DALI2

### Bestückung

LED 3000 K | CRI  $\geq 80$

### Betriebsgerät

EVG-DALI

### Bemessungswerte

Nettolichtstrom = 5960 lm

Systemleistung = 39.2 W

Lichtausbeute = 152 lm/W

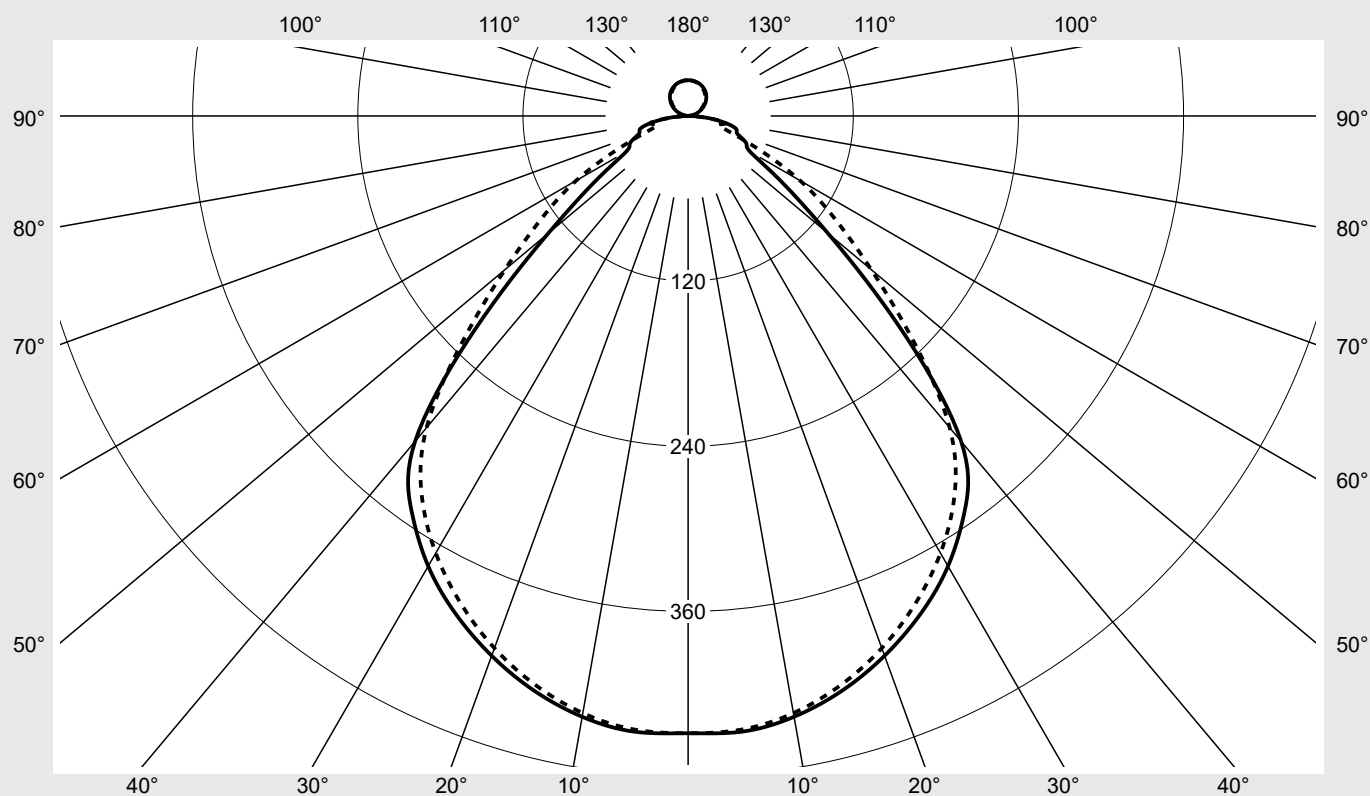
**siteco**

**Lichtstärke in cd/klm**

**C180-0**

**C270-90**

**Imax: 449 cd/klm**



### Klassifizierungen

DIN 5040

A 5 3

CIE

N1=64 N2=89 N3=97

N4=92 N5=100

### Leuchtenbetriebswirkungsgrade

$\eta_{LB}$

100,0%

$\phi_u$

92,3%

$\phi_o$

7,7%

### Messbedingungen

DIN EN 13032 und DIN 5032

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|                                   |                                                  |                       |
|-----------------------------------|--------------------------------------------------|-----------------------|
| Familie<br>Silica® 21 rectangular | Bestell-Nr.: 51MA23D83LWA1<br>EAN: 4069025737649 | LP-Nummer<br>59974_23 |
| 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°           | 448.5                 | 448.5                       | 448.5                       | 448.5                       | 448.5                       | 448.5                       | 448.5       | 2.7                  | 2.7               |
| 5°           | 449.1                 | 446.7                       | 444.2                       | 445.8                       | 447.8                       | 447.6                       | 447.5       | 21.3                 | 24.0              |
| 10°          | 443.3                 | 440.8                       | 437.9                       | 439.1                       | 441.0                       | 440.6                       | 440.6       | 41.9                 | 65.9              |
| 15°          | 432.3                 | 430.0                       | 426.7                       | 427.5                       | 428.8                       | 428.3                       | 428.1       | 60.8                 | 126.7             |
| 20°          | 417.4                 | 414.9                       | 411.3                       | 411.5                       | 412.4                       | 411.7                       | 411.5       | 77.4                 | 204.1             |
| 25°          | 399.4                 | 396.5                       | 392.1                       | 391.9                       | 392.8                       | 391.6                       | 390.8       | 91.1                 | 295.2             |
| 30°          | 377.7                 | 374.4                       | 369.2                       | 368.9                       | 370.1                       | 368.2                       | 366.8       | 101.5                | 396.8             |
| 35°          | 350.4                 | 347.1                       | 340.9                       | 341.2                       | 342.1                       | 340.1                       | 337.3       | 107.7                | 504.5             |
| 40°          | 308.6                 | 308.7                       | 303.1                       | 302.7                       | 297.7                       | 299.2                       | 295.7       | 106.5                | 611.0             |
| 45°          | 218.2                 | 232.3                       | 235.6                       | 231.1                       | 210.9                       | 230.6                       | 231.7       | 88.2                 | 699.2             |
| 50°          | 132.6                 | 152.1                       | 177.6                       | 152.0                       | 131.7                       | 149.7                       | 173.8       | 64.1                 | 763.3             |
| 55°          | 81.7                  | 93.4                        | 132.3                       | 93.0                        | 81.0                        | 91.0                        | 130.1       | 44.6                 | 807.9             |
| 60°          | 52.1                  | 63.1                        | 92.9                        | 63.8                        | 51.9                        | 62.3                        | 94.0        | 32.2                 | 840.1             |
| 65°          | 46.5                  | 53.9                        | 57.5                        | 55.3                        | 47.6                        | 55.3                        | 54.4        | 26.5                 | 866.6             |
| 70°          | 38.2                  | 46.5                        | 29.5                        | 47.4                        | 38.4                        | 47.5                        | 29.1        | 20.8                 | 887.5             |
| 75°          | 36.1                  | 32.4                        | 25.7                        | 33.1                        | 36.6                        | 32.9                        | 23.6        | 16.8                 | 904.3             |
| 80°          | 25.9                  | 19.6                        | 25.6                        | 19.0                        | 26.2                        | 20.0                        | 27.3        | 12.3                 | 916.6             |
| 85°          | 12.1                  | 11.3                        | 9.5                         | 11.3                        | 12.0                        | 11.6                        | 9.6         | 6.1                  | 922.7             |
| 90°          | 0.4                   | 0.4                         | 0.4                         | 0.4                         | 0.4                         | 0.5                         | 0.4         | 0.2                  | 922.9             |
| 95°          | 1.0                   | 1.0                         | 1.0                         | 1.2                         | 1.2                         | 1.4                         | 1.5         | 0.6                  | 923.6             |
| 100°         | 3.5                   | 3.4                         | 3.2                         | 3.2                         | 3.2                         | 3.4                         | 3.6         | 1.8                  | 925.4             |
| 105°         | 5.7                   | 5.6                         | 5.4                         | 5.3                         | 5.3                         | 5.4                         | 5.4         | 2.9                  | 928.2             |
| 110°         | 7.9                   | 7.8                         | 7.6                         | 7.5                         | 7.5                         | 7.5                         | 7.5         | 3.9                  | 932.1             |
| 115°         | 10.3                  | 10.1                        | 9.9                         | 9.7                         | 9.7                         | 9.6                         | 9.6         | 4.9                  | 937.0             |
| 120°         | 12.6                  | 12.4                        | 12.2                        | 11.9                        | 11.8                        | 11.7                        | 11.7        | 5.7                  | 942.7             |
| 125°         | 14.8                  | 14.6                        | 14.4                        | 14.0                        | 13.8                        | 13.8                        | 13.8        | 6.4                  | 949.1             |
| 130°         | 16.8                  | 16.7                        | 16.4                        | 16.0                        | 15.8                        | 15.7                        | 15.7        | 6.8                  | 955.9             |
| 135°         | 18.6                  | 18.5                        | 18.2                        | 17.8                        | 17.7                        | 17.6                        | 17.5        | 7.0                  | 962.8             |
| 140°         | 20.4                  | 20.3                        | 19.9                        | 19.6                        | 19.5                        | 19.3                        | 19.4        | 7.0                  | 969.8             |
| 145°         | 21.8                  | 21.6                        | 21.3                        | 21.0                        | 21.0                        | 20.9                        | 20.8        | 6.7                  | 976.4             |
| 150°         | 23.0                  | 22.8                        | 22.5                        | 22.4                        | 22.3                        | 22.2                        | 22.2        | 6.2                  | 982.6             |
| 155°         | 23.9                  | 23.8                        | 23.5                        | 23.4                        | 23.4                        | 23.3                        | 23.3        | 5.4                  | 988.0             |
| 160°         | 24.7                  | 24.6                        | 24.4                        | 24.3                        | 24.3                        | 24.3                        | 24.2        | 4.6                  | 992.6             |
| 165°         | 25.3                  | 25.2                        | 25.0                        | 25.0                        | 25.1                        | 25.0                        | 25.0        | 3.6                  | 996.2             |
| 170°         | 25.7                  | 25.6                        | 25.4                        | 25.5                        | 25.5                        | 25.5                        | 25.5        | 2.4                  | 998.6             |
| 175°         | 26.0                  | 25.8                        | 25.7                        | 25.8                        | 25.8                        | 25.8                        | 25.8        | 1.2                  | 999.8             |
| 180°         | 25.9                  | 25.9                        | 25.9                        | 25.9                        | 25.9                        | 25.9                        | 25.9        | 0.2                  | 1000.0            |

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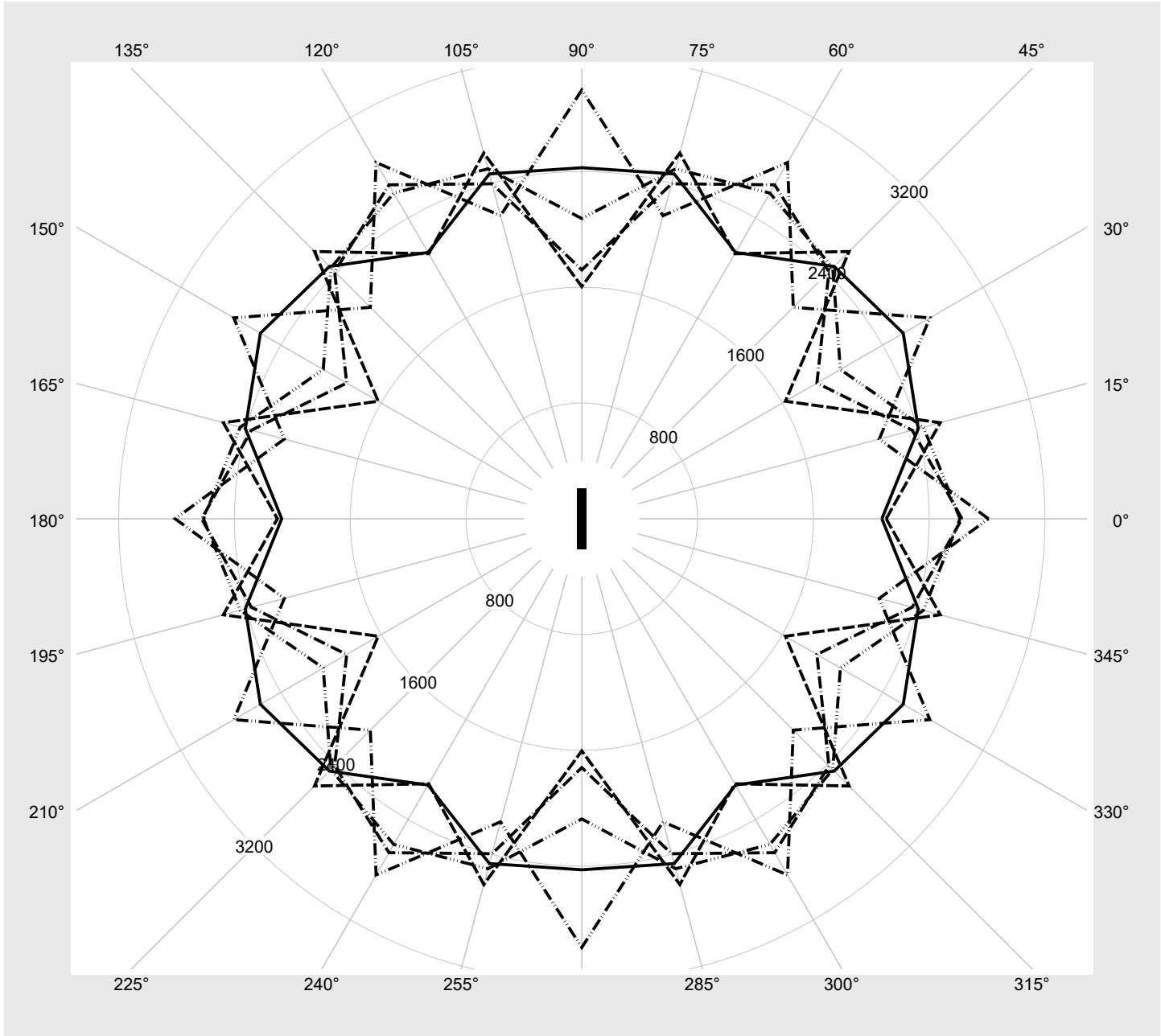
|                                   |     |                                                  |      |      |      |      |                                       |      |                       |      |
|-----------------------------------|-----|--------------------------------------------------|------|------|------|------|---------------------------------------|------|-----------------------|------|
| Familie<br>Silica® 21 rectangular |     | Bestell-Nr.: 51MA23D83LWA1<br>EAN: 4069025737649 |      |      |      |      |                                       |      | LP-Nummer<br>59974_23 |      |
| 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                                             | 17,8 | 16,7 | 18,1 | 18,5 | 16,1                                  | 17,6 | 16,5                  | 18,0 |
|                                   | 3H  | 17,0                                             | 18,4 | 17,4 | 18,7 | 19,1 | 16,9                                  | 18,2 | 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 | 18,6 | 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                                             | 17,8 | 17,0 | 18,2 | 18,6 | 16,4                                  | 17,7 | 16,8                  | 18,1 |
|                                   | 3H  | 17,4                                             | 18,5 | 17,8 | 18,9 | 19,3 | 17,4                                  | 18,5 | 17,8                  | 18,9 |
|                                   | 4H  | 18,0                                             | 18,9 | 18,4 | 19,4 | 19,8 | 18,0                                  | 18,9 | 18,4                  | 19,3 |
|                                   | 6H  | 18,6                                             | 19,4 | 19,0 | 19,8 | 20,3 | 18,5                                  | 19,4 | 19,0                  | 19,8 |
|                                   | 8H  | 18,9                                             | 19,6 | 19,3 | 20,0 | 20,5 | 18,8                                  | 19,6 | 19,3                  | 20,0 |
|                                   | 12H | 19,1                                             | 19,8 | 19,6 | 20,2 | 20,7 | 19,0                                  | 19,7 | 19,5                  | 20,1 |
| 8H                                | 4H  | 18,2                                             | 19,0 | 18,7 | 19,4 | 19,9 | 18,2                                  | 19,0 | 18,7                  | 19,4 |
|                                   | 6H  | 19,0                                             | 19,6 | 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                                  | 19,9 | 19,9                  | 20,4 |
|                                   | 12H | 19,7                                             | 20,1 | 20,2 | 20,6 | 21,2 | 19,7                                  | 20,1 | 20,2                  | 20,6 |
| 12H                               | 4H  | 18,3                                             | 19,0 | 18,8 | 19,4 | 19,9 | 18,3                                  | 18,9 | 18,8                  | 19,4 |
|                                   | 6H  | 19,1                                             | 19,6 | 19,6 | 20,1 | 20,6 | 19,1                                  | 19,6 | 19,6                  | 20,1 |
|                                   | 8H  | 19,5                                             | 20,0 | 20,0 | 20,5 | 21,0 | 19,5                                  | 20,0 | 20,0                  | 20,5 |

| Leuchtdichten-Tabelle |                       | Max. für $\gamma \geq 65^\circ$ |                             | Lichttechnische Abmessungen in mm: |                             | L = 1484<br>B = 213         |             |
|-----------------------|-----------------------|---------------------------------|-----------------------------|------------------------------------|-----------------------------|-----------------------------|-------------|
| 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°                   | 5819.4                | 6193.7                          | 6283.1                      | 6162.3                             | 5623.8                      | 6150.3                      | 6179.2      |
| 50°                   | 3889.9                | 4462.6                          | 5210.4                      | 4460.0                             | 3864.1                      | 4391.9                      | 5097.5      |
| 55°                   | 2686.9                | 3069.6                          | 4349.9                      | 3056.2                             | 2662.2                      | 2989.8                      | 4277.7      |
| 60°                   | 1963.6                | 2379.0                          | 3502.7                      | 2405.1                             | 1957.6                      | 2347.7                      | 3544.0      |
| 65°                   | 2073.4                | 2407.0                          | 2564.5                      | 2466.2                             | 2125.2                      | 2467.1                      | 2426.1      |
| 70°                   | 2103.2                | 2564.1                          | 1624.2                      | 2612.0                             | 2115.0                      | 2616.9                      | 1604.5      |
| 75°                   | 2627.0                | 2363.4                          | 1875.8                      | 2414.9                             | 2664.9                      | 2396.8                      | 1719.9      |
| 80°                   | 2810.1                | 2127.8                          | 2776.8                      | 2066.3                             | 2842.6                      | 2168.6                      | 2962.7      |
| 85°                   | 2613.4                | 2444.0                          | 2063.0                      | 2452.0                             | 2598.9                      | 2503.9                      | 2074.7      |

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|                                                                                                                                 |                                                             |                                  |
|---------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|----------------------------------|
| <p>Familie</p> <p>Silica® 21 rectangular</p>                                                                                    | <p>Bestell-Nr.: 51MA23D83LWA1</p> <p>EAN: 4069025737649</p> | <p>LP-Nummer</p> <p>59974_23</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> |                                                             |                                  |

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|                                                        |                                                                |                                     |
|--------------------------------------------------------|----------------------------------------------------------------|-------------------------------------|
| <b>Familie</b><br><b>Silica® 21 rectangular</b>        | <b>Bestell-Nr.: 51MA23D83LWA1</b><br><b>EAN: 4069025737649</b> | <b>LP-Nummer</b><br><b>59974_23</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                     | 5960            | 39.2               |
| 95             | 240              | 252                     | 5664            | 37.0               |
| 90             | 226              | 250                     | 5364            | 34.8               |
| 85             | 212              | 247                     | 5062            | 32.7               |
| 80             | 199              | 245                     | 4777            | 30.7               |
| 75             | 185              | 242                     | 4467            | 28.6               |
| 70             | 172              | 240                     | 4176            | 26.7               |
| 65             | 159              | 237                     | 3881            | 24.6               |
| 60             | 146              | 234                     | 3583            | 22.8               |
| 55             | 133              | 230                     | 3282            | 20.9               |
| 50             | 120              | 227                     | 2977            | 18.9               |
| 45             | 108              | 223                     | 2692            | 17.1               |
| 40             | 95               | 218                     | 2381            | 15.2               |
| 35             | 83               | 213                     | 2090            | 13.5               |
| 30             | 71               | 207                     | 1796            | 11.9               |
| 25             | 59               | 201                     | 1499            | 10.3               |
| 20             | 47               | 192                     | 1199            | 8.6                |
| 15             | 35               | 181                     | 895             | 6.6                |
| 10             | 23               | 166                     | 588             | 4.8                |
| 5              | 12               | 142                     | 302             | 3.2                |
| 2              | 5                | 110                     | 120             | 2.1                |