

Lichttechnischer Prüfbefund

Familie  
Silica® 21

Bestell-Nr.: 51MX13DR39WB  
EAN: 4069025175243

Ausführung

Bestückung

Betriebsgerät

Bemessungswerte

Einbauleuchte, homogen leuchtend,  
Prismenabdeckung, direkt strahlend, extrem  
breit strahlend, UGR≤19 (L65≤3000cd/m²)

LED 3000 K | CRI ≥ 80

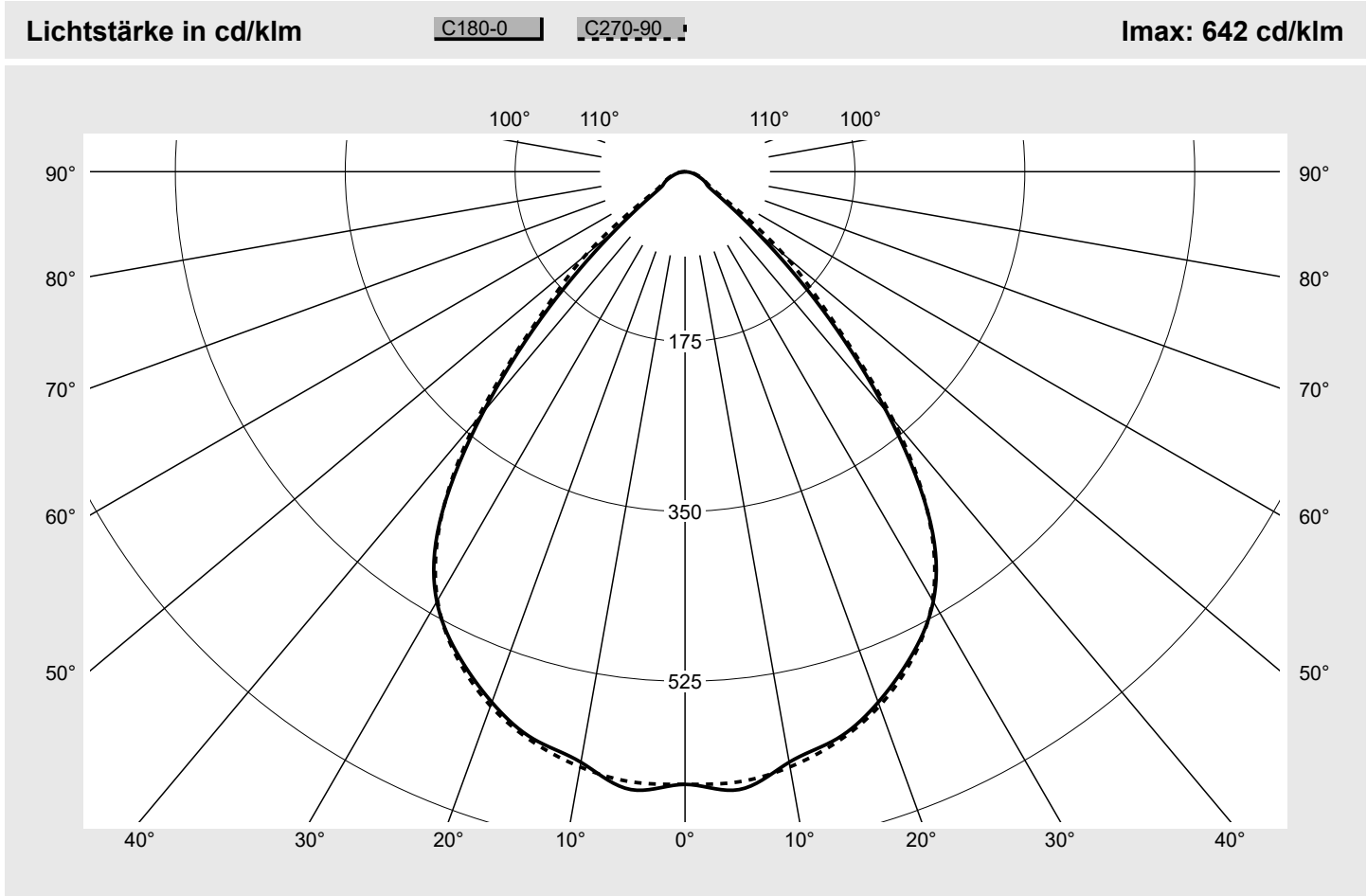
EVG-DALI

Nettolichtstrom = 9840 lm  
Systemleistung = 73.7 W  
Lichtausbeute = 133.5 lm/W

LP-Nummer  
59330\_325

Seriendokumentation  
08.07.2024

siteco



| Klassifizierungen |                   | Leuchtenbetriebswirkungsgrade |        |
|-------------------|-------------------|-------------------------------|--------|
| DIN 5040          | A 6 0             | ηLB                           | 100,0% |
| CIE               | N1=78 N2=96 N3=99 | φ <sub>u</sub>                | 100,0% |
|                   | N4=100 N5=100     | φ <sub>o</sub>                | 0,0%   |

| Messbedingungen           |
|---------------------------|
| DIN EN 13032 und DIN 5032 |

Lichttechnischer Prüfbefund

|                                 |                                                 |                        |
|---------------------------------|-------------------------------------------------|------------------------|
| Familie<br>Silica® 21           | Bestell-Nr.: 51MX13DR39WB<br>EAN: 4069025175243 | LP-Nummer<br>59330_325 |
| 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°           | 631.2                 | 631.2                       | 631.2                       | 631.2                       | 631.2                       | 631.2                       | 631.2       | 3.8                  | 3.8               |
| 5°           | 639.0                 | 636.9                       | 635.8                       | 640.8                       | 642.0                       | 634.8                       | 631.1       | 30.5                 | 34.2              |
| 10°          | 617.8                 | 615.8                       | 612.2                       | 616.7                       | 624.6                       | 629.4                       | 622.7       | 59.0                 | 93.2              |
| 15°          | 604.8                 | 603.1                       | 597.6                       | 597.0                       | 601.6                       | 607.9                       | 607.8       | 85.4                 | 178.7             |
| 20°          | 581.7                 | 581.2                       | 575.6                       | 575.6                       | 576.2                       | 579.7                       | 585.7       | 108.5                | 287.2             |
| 25°          | 550.9                 | 551.4                       | 546.3                       | 545.8                       | 546.2                       | 547.0                       | 553.9       | 127.0                | 414.1             |
| 30°          | 511.3                 | 512.1                       | 506.5                       | 506.8                       | 506.5                       | 506.0                       | 509.9       | 139.2                | 553.4             |
| 35°          | 440.5                 | 440.8                       | 437.0                       | 438.8                       | 441.2                       | 438.6                       | 439.0       | 138.1                | 691.5             |
| 40°          | 323.4                 | 324.8                       | 326.1                       | 329.4                       | 332.6                       | 332.8                       | 333.0       | 115.9                | 807.4             |
| 45°          | 198.4                 | 199.0                       | 200.7                       | 203.5                       | 206.3                       | 209.2                       | 212.1       | 79.1                 | 886.5             |
| 50°          | 93.9                  | 108.5                       | 122.0                       | 111.2                       | 100.2                       | 119.3                       | 133.6       | 47.2                 | 933.7             |
| 55°          | 37.7                  | 51.0                        | 48.2                        | 55.0                        | 41.5                        | 57.5                        | 53.4        | 22.4                 | 956.1             |
| 60°          | 25.5                  | 26.5                        | 28.2                        | 26.2                        | 26.1                        | 27.8                        | 29.0        | 12.8                 | 968.9             |
| 65°          | 21.0                  | 20.8                        | 21.7                        | 21.1                        | 22.1                        | 22.0                        | 22.3        | 10.7                 | 979.6             |
| 70°          | 15.2                  | 15.5                        | 16.2                        | 16.1                        | 16.4                        | 16.6                        | 17.4        | 8.3                  | 987.9             |
| 75°          | 10.6                  | 11.0                        | 12.1                        | 11.5                        | 11.8                        | 12.4                        | 12.4        | 6.2                  | 994.1             |
| 80°          | 6.4                   | 6.8                         | 7.5                         | 8.1                         | 7.5                         | 8.4                         | 8.5         | 4.1                  | 998.3             |
| 85°          | 2.4                   | 2.5                         | 2.6                         | 3.2                         | 3.5                         | 4.1                         | 4.3         | 1.7                  | 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            |

Lichttechnischer Prüfbefund

|                       |     |                                     |                                                 |      |      |      |                                       |      |                        |      |      |
|-----------------------|-----|-------------------------------------|-------------------------------------------------|------|------|------|---------------------------------------|------|------------------------|------|------|
| Familie<br>Silica® 21 |     |                                     | Bestell-Nr.: 51MX13DR39WB<br>EAN: 4069025175243 |      |      |      |                                       |      | LP-Nummer<br>59330_325 |      |      |
| 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  | 18,4                                | 19,8                                            | 18,8 | 20,1 | 20,4 | 18,6                                  | 20,0 | 19,0                   | 20,3 | 20,6 |
|                       | 3H  | 18,5                                | 19,7                                            | 18,9 | 20,0 | 20,4 | 18,7                                  | 19,9 | 19,1                   | 20,3 | 20,6 |
|                       | 4H  | 18,5                                | 19,7                                            | 18,9 | 20,0 | 20,4 | 18,8                                  | 19,9 | 19,2                   | 20,3 | 20,6 |
|                       | 6H  | 18,6                                | 19,6                                            | 19,0 | 19,9 | 20,3 | 18,9                                  | 19,9 | 19,3                   | 20,2 | 20,6 |
|                       | 8H  | 18,6                                | 19,5                                            | 19,1 | 19,9 | 20,3 | 19,0                                  | 19,9 | 19,4                   | 20,2 | 20,6 |
|                       | 12H | 18,6                                | 19,5                                            | 19,1 | 19,9 | 20,3 | 19,0                                  | 19,8 | 19,4                   | 20,2 | 20,6 |
| 4H                    | 2H  | 18,4                                | 19,5                                            | 18,8 | 19,8 | 20,2 | 18,6                                  | 19,7 | 19,0                   | 20,0 | 20,4 |
|                       | 3H  | 18,5                                | 19,4                                            | 18,9 | 19,8 | 20,2 | 18,7                                  | 19,7 | 19,2                   | 20,0 | 20,5 |
|                       | 4H  | 18,6                                | 19,4                                            | 19,0 | 19,8 | 20,3 | 18,8                                  | 19,7 | 19,3                   | 20,1 | 20,5 |
|                       | 6H  | 18,7                                | 19,4                                            | 19,1 | 19,8 | 20,3 | 19,0                                  | 19,7 | 19,4                   | 20,1 | 20,6 |
|                       | 8H  | 18,7                                | 19,3                                            | 19,2 | 19,8 | 20,3 | 19,0                                  | 19,7 | 19,5                   | 20,1 | 20,6 |
|                       | 12H | 18,7                                | 19,3                                            | 19,2 | 19,7 | 20,2 | 19,1                                  | 19,7 | 19,6                   | 20,1 | 20,6 |
| 8H                    | 4H  | 18,6                                | 19,2                                            | 19,1 | 19,7 | 20,2 | 18,8                                  | 19,5 | 19,3                   | 19,9 | 20,4 |
|                       | 6H  | 18,7                                | 19,2                                            | 19,2 | 19,7 | 20,2 | 19,0                                  | 19,5 | 19,5                   | 20,0 | 20,5 |
|                       | 8H  | 18,8                                | 19,2                                            | 19,3 | 19,7 | 20,2 | 19,1                                  | 19,6 | 19,6                   | 20,1 | 20,6 |
|                       | 12H | 18,8                                | 19,2                                            | 19,3 | 19,7 | 20,2 | 19,2                                  | 19,6 | 19,7                   | 20,1 | 20,6 |
| 12H                   | 4H  | 18,6                                | 19,1                                            | 19,1 | 19,6 | 20,1 | 18,8                                  | 19,4 | 19,3                   | 19,8 | 20,3 |
|                       | 6H  | 18,7                                | 19,2                                            | 19,3 | 19,7 | 20,2 | 19,0                                  | 19,5 | 19,5                   | 20,0 | 20,5 |
|                       | 8H  | 18,8                                | 19,2                                            | 19,3 | 19,7 | 20,2 | 19,1                                  | 19,5 | 19,7                   | 20,0 | 20,6 |

| Leuchtdichten-Tabelle |                       | Max. für $\gamma \geq 65^\circ$ |                             | Lichttechnische Abmessungen in mm: |                             | L = 3600<br>B = 50          |             |
|-----------------------|-----------------------|---------------------------------|-----------------------------|------------------------------------|-----------------------------|-----------------------------|-------------|
| 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°                   | 15337.1               | 15386.8                         | 15516.8                     | 15733.4                            | 15947.7                     | 16176.3                     | 16396.2     |
| 50°                   | 7985.6                | 9225.1                          | 10377.4                     | 9461.0                             | 8525.0                      | 10144.7                     | 11360.6     |
| 55°                   | 3593.5                | 4859.8                          | 4595.5                      | 5239.5                             | 3952.2                      | 5476.5                      | 5093.4      |
| 60°                   | 2786.7                | 2901.2                          | 3078.1                      | 2859.1                             | 2851.3                      | 3042.2                      | 3168.5      |
| 65°                   | 2712.4                | 2694.8                          | 2807.3                      | 2728.9                             | 2858.0                      | 2844.2                      | 2883.9      |
| 70°                   | 2428.8                | 2480.0                          | 2581.5                      | 2570.0                             | 2616.8                      | 2647.5                      | 2781.9      |
| 75°                   | 2234.0                | 2315.3                          | 2548.7                      | 2438.7                             | 2493.0                      | 2614.9                      | 2619.3      |
| 80°                   | 2010.4                | 2136.0                          | 2358.3                      | 2564.8                             | 2374.0                      | 2654.5                      | 2660.5      |
| 85°                   | 1519.8                | 1542.4                          | 1645.2                      | 2011.5                             | 2168.3                      | 2548.4                      | 2673.3      |

Lichttechnischer Prüfbefund

|                                     |                                                               |                                      |
|-------------------------------------|---------------------------------------------------------------|--------------------------------------|
| <b>Familie</b><br><b>Silica® 21</b> | <b>Bestell-Nr.: 51MX13DR39WB</b><br><b>EAN: 4069025175243</b> | <b>LP-Nummer</b><br><b>59330_325</b> |
|-------------------------------------|---------------------------------------------------------------|--------------------------------------|

**Leuchtdichten in cd/m²**

γ 65°

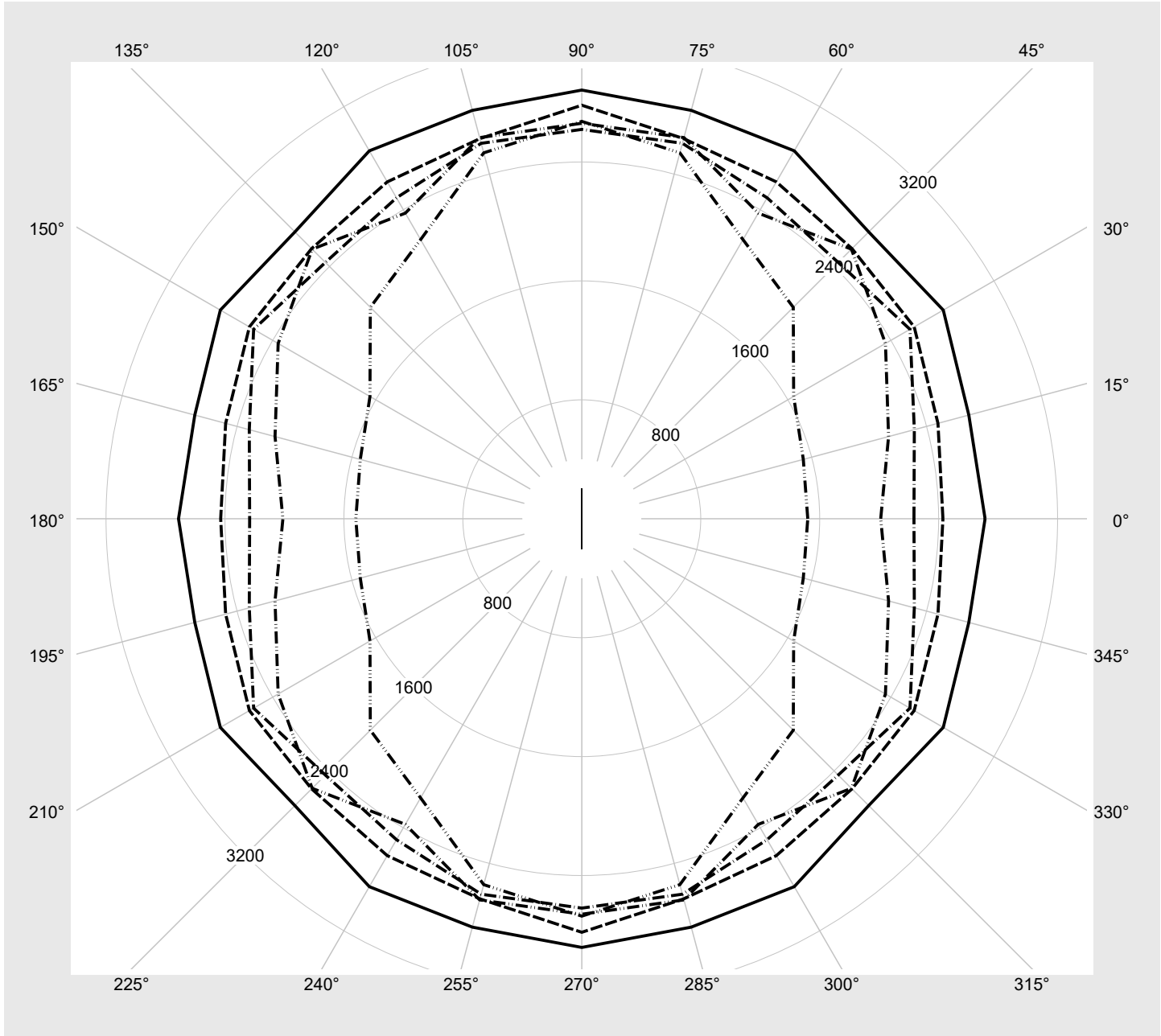
γ 70°

γ 75°

γ 80°

γ 85°

siteco



Lichttechnischer Prüfbefund

|                                                        |                                                               |                                      |
|--------------------------------------------------------|---------------------------------------------------------------|--------------------------------------|
| <b>Familie</b><br><b>Silica® 21</b>                    | <b>Bestell-Nr.: 51MX13DR39WB</b><br><b>EAN: 4069025175243</b> | <b>LP-Nummer</b><br><b>59330_325</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                     | 9840            | 73.7               |
| 95             | 241              | 252                     | 9360            | 70.3               |
| 90             | 227              | 250                     | 8845            | 66.5               |
| 85             | 214              | 248                     | 8362            | 63.1               |
| 80             | 201              | 245                     | 7876            | 59.5               |
| 75             | 188              | 243                     | 7388            | 56.0               |
| 70             | 175              | 240                     | 6895            | 52.4               |
| 65             | 162              | 238                     | 6399            | 48.7               |
| 60             | 149              | 234                     | 5898            | 45.0               |
| 55             | 136              | 231                     | 5397            | 41.3               |
| 50             | 124              | 228                     | 4931            | 37.8               |
| 45             | 111              | 224                     | 4423            | 34.0               |
| 40             | 99               | 219                     | 3952            | 30.5               |
| 35             | 86               | 214                     | 3439            | 26.6               |
| 30             | 74               | 209                     | 2963            | 23.0               |
| 25             | 61               | 202                     | 2446            | 19.4               |
| 20             | 49               | 194                     | 1964            | 16.0               |
| 15             | 37               | 183                     | 1479            | 12.5               |
| 10             | 25               | 169                     | 994             | 8.9                |
| 5              | 13               | 145                     | 507             | 5.4                |
| 4              | 9                | 132                     | 344             | 4.2                |