

## Lichttechnischer Prüfbefund

Familie  
Silica® 21

Bestell-Nr.: 51MX23DC4AWB  
EAN: 4058352905333

LP-Nummer  
59330\_240



**Ausführung** Anbauleuchte, homogen leuchtend,  
Prismenabdeckung, direkt strahlend, extrem  
breit strahlend,  $UGR \leq 19$  ( $L65 \leq 3000 \text{cd/m}^2$ )

**Bestückung** LED 4000 K | CRI  $\geq 80$

**Betriebsgerät** EVG-DALI

**Bemessungswerte** Nettolichtstrom = 8200 lm  
Systemleistung = 58.2 W  
Lichtausbeute = 140.9 lm/W

Seriendokumentation  
02.08.2023

siteco

Lichtstärke in cd/klm

C180-0

C270-90

Imax: 642 cd/klm



## Klassifizierungen

DIN 5040 A 6 0  
CIE N1=78 N2=96 N3=99  
N4=100 N5=100

## Leuchtenbetriebswirkungsgrade

$\eta_{LB}$  100,0%  
 $\phi_u$  100,0%  
 $\phi_o$  0,0%

## Messbedingungen

DIN EN 13032 und DIN 5032

## Lichttechnischer Prüfbefund

|  |   |                                      |
|--|---|--------------------------------------|
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| <b>Wertetabelle Lichtstärkemessung</b> |   | <b>Maximale Lichtstärke</b>          |
|  |   | <b>sITeCO</b>                        |

| C-<br>Ebenen          | 0°<br>180° | 15°                  | 30°                  | 45°                  | 60°                  | 75°                  | 90°<br>270° | Phi-Zone             | Summe<br>Phi-Zone |
|-----------------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------|----------------------|-------------------|
|                       |            | 165°<br>195°<br>345° | 150°<br>210°<br>330° | 135°<br>225°<br>315° | 120°<br>240°<br>300° | 105°<br>255°<br>285° |             |                      |                   |
| Lichtstärke in cd/klm |            |                      |                      |                      |                      |                      |             | Lichtstrom in lm/klm |                   |
| γ                     |            |                      |                      |                      |                      |                      |             |                      |                   |
| 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            |

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|                              |   |                               |
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|------------------------------|---|-------------------------------|

| UGR-Tabelle     |     | Standardraum                        |      |      |      |      |                                       |      |      |      |      |
|-----------------|-----|-------------------------------------|------|------|------|------|---------------------------------------|------|------|------|------|
|                 |     | Blickrichtung quer zur Leuchte (C0) |      |      |      |      | Blickrichtung längs zur Leuchte (C90) |      |      |      |      |
| Raumabmessungen |     |                                     |      |      |      |      |                                       |      |      |      |      |
| 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 |

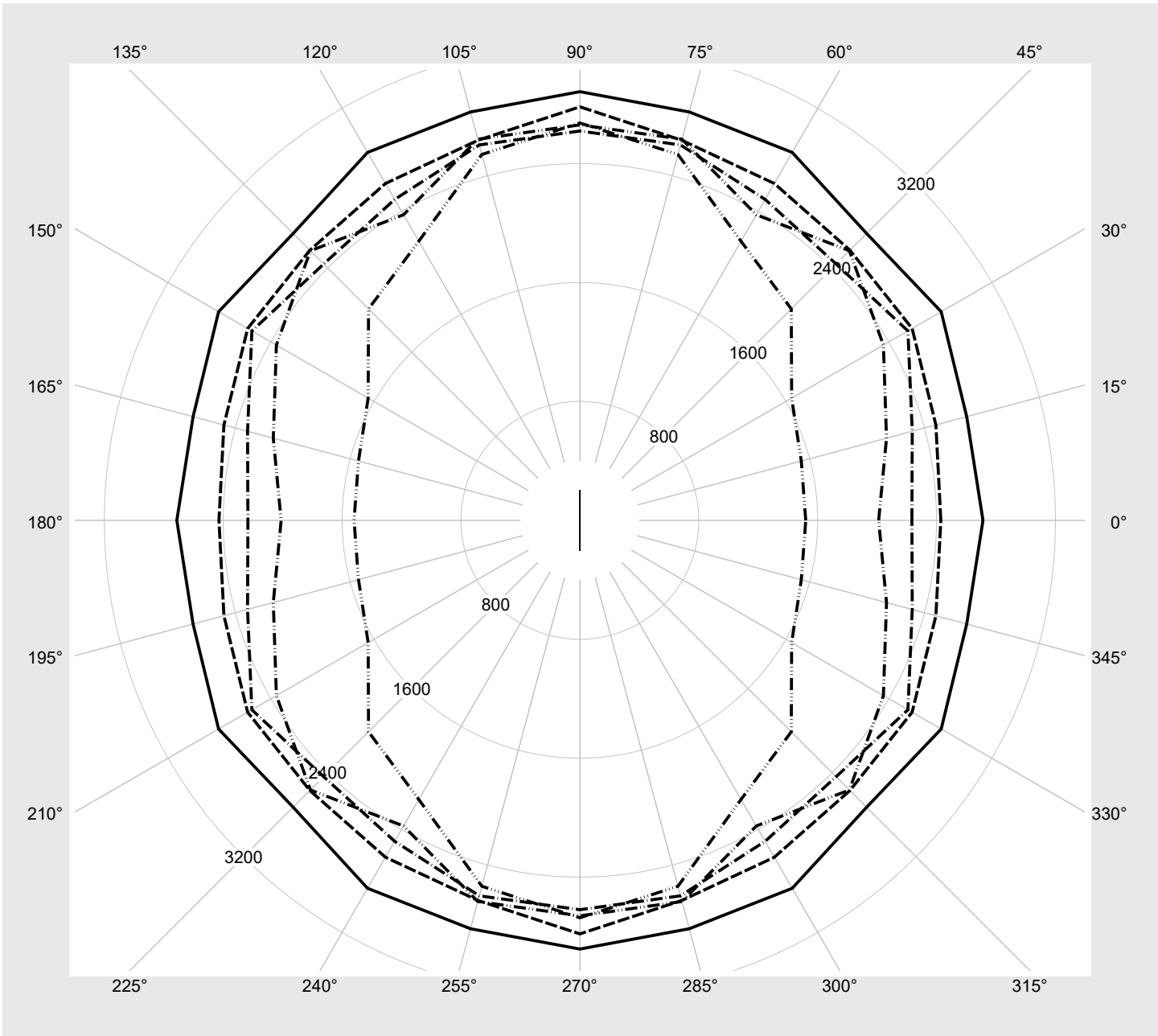
|                              |                                 |                                    |                    |
|------------------------------|---------------------------------|------------------------------------|--------------------|
| <b>Leuchtdichten-Tabelle</b> | Max. für $\gamma \geq 65^\circ$ | Lichttechnische Abmessungen in mm: | L = 3000<br>B = 50 |
|------------------------------|---------------------------------|------------------------------------|--------------------|

| C-Ebenen | $\gamma$ | Leuchtdichte in cd/m <sup>2</sup> |                             |                             |                             |                             |                             |             |
|----------|----------|-----------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|
|          |          | 0°<br>180°                        | 15°<br>165°<br>195°<br>345° | 30°<br>150°<br>210°<br>330° | 45°<br>135°<br>225°<br>315° | 60°<br>120°<br>240°<br>300° | 75°<br>105°<br>255°<br>285° | 90°<br>270° |
| 45°      |          | 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      |

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|                                     |   |                                      |
|-------------------------------------|---|--------------------------------------|
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|-------------------------------------|---|--------------------------------------|

Leuchtdichten in cd/m<sup>2</sup>      γ 65°    γ 70°    γ 75°    γ 80°    γ 85°      **siteco**



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|                                     |   |                                      |
|-------------------------------------|---|--------------------------------------|
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| <b>Dimmstufen-Tabelle</b>           |   | <b>Umgebungstemperatur: 25°C</b>     |
| <b>sITeco</b>                       |   |                                      |

| Lichtstrom [%] | Dimmstufe linear | Dimmstufe logarithmisch | Lichtstrom [lm] | Systemleistung [W] |
|----------------|------------------|-------------------------|-----------------|--------------------|
| 100            | 254              | 254                     | 8200            | 58.2               |
| 95             | 241              | 252                     | 7800            | 55.4               |
| 90             | 227              | 250                     | 7368            | 52.3               |
| 85             | 214              | 248                     | 6963            | 49.4               |
| 80             | 201              | 245                     | 6556            | 46.5               |
| 75             | 188              | 243                     | 6146            | 43.7               |
| 70             | 175              | 240                     | 5734            | 40.8               |
| 65             | 162              | 238                     | 5318            | 38.1               |
| 60             | 150              | 235                     | 4933            | 35.4               |
| 55             | 137              | 231                     | 4515            | 32.4               |
| 50             | 124              | 228                     | 4094            | 29.6               |
| 45             | 112              | 224                     | 3704            | 27.0               |
| 40             | 99               | 219                     | 3279            | 24.2               |
| 35             | 87               | 215                     | 2885            | 21.6               |
| 30             | 74               | 209                     | 2457            | 18.9               |
| 25             | 62               | 202                     | 2060            | 16.3               |
| 20             | 49               | 194                     | 1625            | 13.5               |
| 15             | 37               | 183                     | 1224            | 10.9               |
| 10             | 25               | 169                     | 822             | 8.5                |
| 5              | 13               | 145                     | 419             | 5.8                |
| 2              | 6                | 117                     | 183             | 4.2                |