

Lichttechnischer Prüfbefund

Familie
Silica® 21

Bestell-Nr.: 51MX24DC4ASB
EAN: 4058352905562

LP-Nummer
59270_92



Ausführung Anbauleuchte, Reflektor, schwarz, direkt strahlend, asymmetrisch strahlend

Bestückung LED 4000 K | CRI ≥ 80

Betriebsgerät EVG-DALI

Bemessungswerte Nettolichtstrom = 10800 lm
Systemleistung = 73.7 W
Lichtausbeute = 146.5 lm/W

Seriendokumentation
02.08.2023

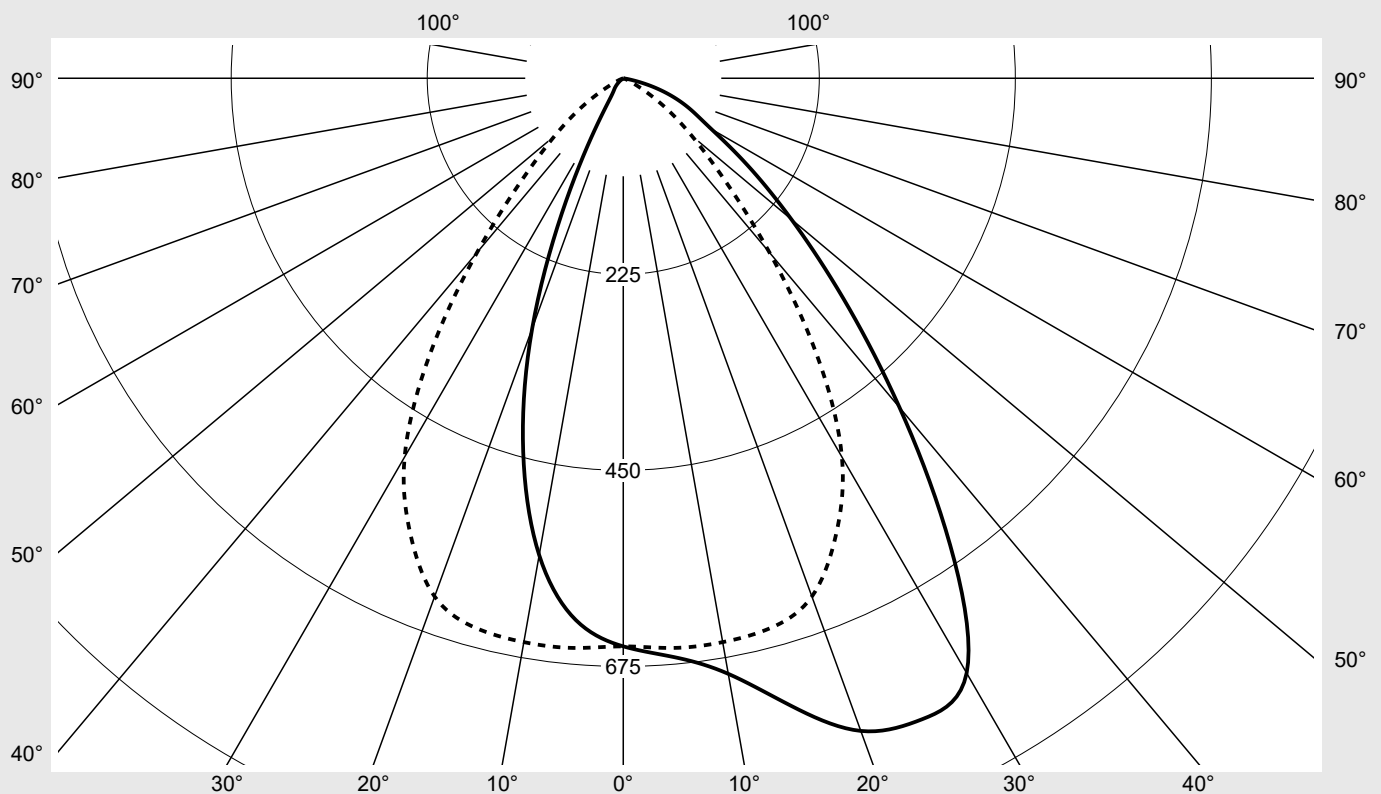
siteco

Lichtstärke in cd/klm

C180-0

C270-90

Imax: 826 cd/klm



Klassifizierungen

DIN 5040 A 6 0
CIE N1=74 N2=94 N3=99
N4=100 N5=100

Leuchtenbetriebswirkungsgrade

η_{LB} 100,0%
 ϕ_u 100,0%
 ϕ_o 0,0%

Messbedingungen

DIN EN 13032 und DIN 5032

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| | | |
|--|---|-------------------------------------|
| Familie Silica® 21 | Bestell-Nr.: 51MX24DC4ASB EAN: 4058352905562 | LP-Nummer 59270_92 |
| Wertetabelle Lichtstärkemessung | | Maximale Lichtstärke |
| | | siteco |

| C- Ebenen | 0° | 15° 345° | 30° 330° | 45° 315° | 60° 300° | 75° 285° | 90° 270° |
|--------------|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| γ | Lichtstärke in cd/klm | | | | | | |
| 0° | 652.0 | 652.0 | 652.0 | 652.0 | 652.0 | 652.0 | 652.0 |
| 5° | 666.9 | 669.0 | 664.7 | 668.1 | 665.8 | 658.5 | 656.3 |
| 10° | 694.1 | 699.5 | 694.9 | 697.8 | 687.8 | 669.7 | 657.2 |
| 15° | 745.9 | 757.8 | 758.6 | 751.7 | 720.3 | 681.6 | 653.2 |
| 20° | 797.2 | 810.9 | 815.9 | 795.0 | 737.5 | 674.0 | 633.0 |
| 25° | 811.7 | 825.8 | 812.3 | 769.4 | 703.1 | 631.1 | 577.8 |
| 30° | 788.3 | 790.4 | 769.6 | 695.9 | 622.5 | 550.2 | 501.9 |
| 35° | 654.2 | 653.0 | 648.0 | 598.2 | 512.7 | 433.1 | 387.1 |
| 40° | 493.4 | 503.0 | 513.6 | 491.7 | 407.8 | 312.4 | 261.1 |
| 45° | 356.9 | 371.2 | 396.6 | 382.3 | 311.7 | 212.0 | 163.2 |
| 50° | 252.0 | 264.9 | 292.8 | 285.3 | 227.0 | 141.1 | 102.4 |
| 55° | 174.1 | 185.5 | 214.4 | 210.2 | 168.5 | 93.5 | 60.0 |
| 60° | 116.9 | 126.6 | 154.3 | 157.4 | 127.4 | 55.1 | 26.1 |
| 65° | 85.8 | 90.4 | 106.5 | 115.9 | 84.8 | 29.1 | 8.4 |
| 70° | 58.6 | 65.3 | 76.1 | 78.1 | 49.1 | 15.0 | 3.2 |
| 75° | 29.3 | 36.5 | 51.8 | 37.7 | 23.5 | 8.4 | 1.1 |
| 80° | 4.9 | 7.0 | 15.4 | 15.1 | 10.7 | 3.3 | 0.5 |
| 85° | 1.0 | 1.2 | 2.3 | 2.1 | 0.8 | 0.3 | 0.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 115° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 130° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 135° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 140° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 145° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 155° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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| Wertetabelle Lichtstärkemessung | | Maximale Lichtstärke |
| | | siteco |

| C- Ebenen | 105° 255° | 120° 240° | 135° 225° | 150° 210° | 165° 195° | 180° | Phi-Zone | Summe Phi-Zone |
|--------------|-----------------------|--------------|--------------|--------------|--------------|-------|----------------------|-------------------|
| γ | Lichtstärke in cd/klm | | | | | | Lichtstrom in lm/klm | |
| 0° | 652.0 | 652.0 | 652.0 | 652.0 | 652.0 | 652.0 | 3.9 | 3.9 |
| 5° | 648.8 | 644.3 | 634.4 | 624.8 | 623.0 | 624.2 | 31.1 | 35.0 |
| 10° | 640.2 | 622.4 | 598.9 | 573.5 | 560.8 | 555.7 | 61.3 | 96.3 |
| 15° | 627.5 | 590.3 | 536.8 | 485.9 | 456.2 | 443.8 | 90.0 | 186.3 |
| 20° | 595.4 | 535.2 | 448.1 | 369.0 | 322.8 | 305.6 | 113.9 | 300.1 |
| 25° | 535.8 | 444.7 | 330.5 | 240.5 | 178.2 | 155.1 | 126.1 | 426.3 |
| 30° | 439.6 | 334.4 | 213.1 | 117.0 | 65.0 | 52.1 | 126.1 | 552.3 |
| 35° | 312.5 | 213.9 | 111.2 | 44.6 | 25.1 | 21.7 | 112.1 | 664.4 |
| 40° | 197.6 | 120.2 | 49.4 | 22.0 | 16.7 | 15.5 | 92.5 | 756.9 |
| 45° | 117.6 | 62.5 | 22.8 | 14.8 | 11.5 | 10.5 | 72.7 | 829.5 |
| 50° | 69.7 | 30.7 | 13.3 | 9.8 | 7.0 | 5.9 | 55.0 | 884.6 |
| 55° | 38.5 | 15.6 | 8.4 | 6.0 | 3.7 | 3.2 | 40.9 | 925.5 |
| 60° | 14.7 | 7.6 | 5.1 | 3.5 | 2.8 | 2.3 | 29.3 | 954.8 |
| 65° | 4.9 | 3.9 | 3.0 | 2.5 | 1.8 | 1.2 | 20.5 | 975.2 |
| 70° | 1.9 | 1.9 | 1.7 | 1.4 | 1.0 | 0.6 | 13.9 | 989.2 |
| 75° | 0.7 | 0.9 | 0.9 | 0.8 | 0.6 | 0.5 | 7.8 | 997.0 |
| 80° | 0.4 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 2.6 | 999.6 |
| 85° | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.4 | 1000.0 |
| 90° | 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 | 1000.0 |
| 100° | 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 | 1000.0 |
| 110° | 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 | 1000.0 |
| 120° | 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 | 1000.0 |
| 130° | 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 | 1000.0 |
| 140° | 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 | 1000.0 |
| 150° | 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 | 1000.0 |
| 160° | 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 | 1000.0 |
| 170° | 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 | 1000.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1000.0 |

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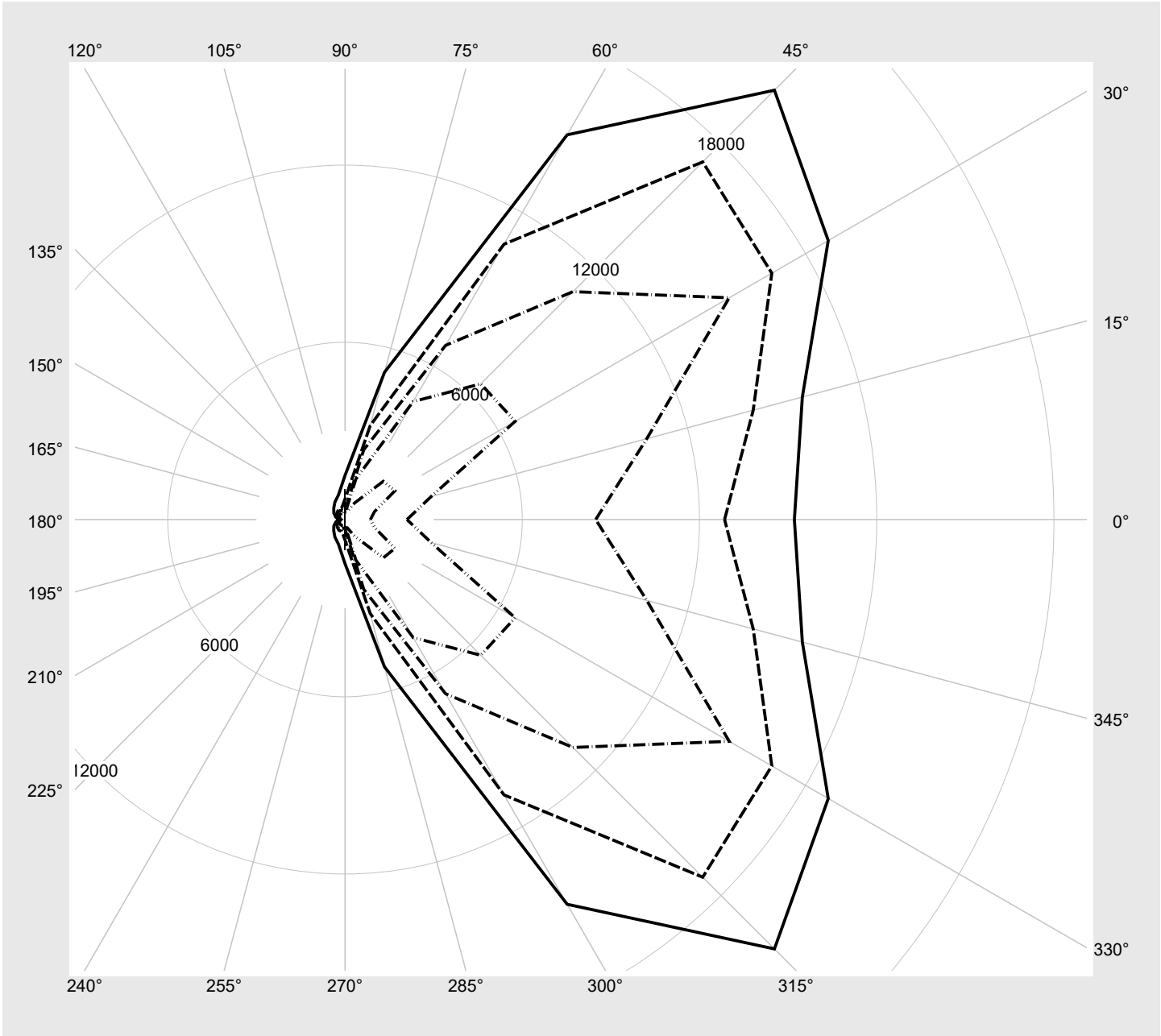
| UGR-Tabelle | | Standardraum | | | | | | | | | |
|-----------------|-----|-------------------------------------|------|------|------|------|---------------------------------------|------|------|------|------|
| | | Blickrichtung quer zur Leuchte (C0) | | | | | Blickrichtung längs zur Leuchte (C90) | | | | |
| Raumabmessungen | | | | | | | | | | | |
| x | y | | | | | | | | | | |
| 2H | 2H | 25,0 | 26,4 | 25,4 | 26,7 | 27,0 | 20,4 | 21,8 | 20,8 | 22,1 | 22,4 |
| | 3H | 25,5 | 26,8 | 25,9 | 27,1 | 27,5 | 20,4 | 21,6 | 20,7 | 21,9 | 22,3 |
| | 4H | 25,7 | 26,8 | 26,1 | 27,2 | 27,5 | 20,3 | 21,5 | 20,7 | 21,8 | 22,2 |
| | 6H | 25,7 | 26,7 | 26,1 | 27,1 | 27,5 | 20,2 | 21,3 | 20,7 | 21,7 | 22,1 |
| | 8H | 25,6 | 26,6 | 26,1 | 27,0 | 27,4 | 20,2 | 21,2 | 20,7 | 21,6 | 22,0 |
| | 12H | 25,7 | 26,5 | 26,1 | 26,9 | 27,3 | 20,3 | 21,1 | 20,7 | 21,5 | 21,9 |
| 4H | 2H | 25,4 | 26,5 | 25,8 | 26,9 | 27,3 | 21,2 | 22,4 | 21,6 | 22,8 | 23,1 |
| | 3H | 26,1 | 27,1 | 26,5 | 27,5 | 27,9 | 21,4 | 22,4 | 21,8 | 22,8 | 23,2 |
| | 4H | 26,4 | 27,2 | 26,8 | 27,6 | 28,1 | 21,4 | 22,2 | 21,8 | 22,7 | 23,1 |
| | 6H | 26,4 | 27,1 | 26,8 | 27,5 | 28,0 | 21,3 | 22,1 | 21,8 | 22,5 | 23,0 |
| | 8H | 26,3 | 27,0 | 26,8 | 27,4 | 27,9 | 21,3 | 22,0 | 21,8 | 22,4 | 22,9 |
| | 12H | 26,3 | 26,9 | 26,8 | 27,4 | 27,9 | 21,3 | 21,9 | 21,8 | 22,3 | 22,8 |
| 8H | 4H | 26,4 | 27,1 | 26,9 | 27,5 | 28,0 | 21,6 | 22,3 | 22,1 | 22,7 | 23,2 |
| | 6H | 26,5 | 27,0 | 26,9 | 27,5 | 28,0 | 21,6 | 22,1 | 22,1 | 22,6 | 23,1 |
| | 8H | 26,4 | 26,9 | 26,9 | 27,4 | 27,9 | 21,6 | 22,0 | 22,1 | 22,5 | 23,1 |
| | 12H | 26,4 | 26,8 | 26,9 | 27,3 | 27,8 | 21,5 | 21,9 | 22,1 | 22,4 | 23,0 |
| 12H | 4H | 26,4 | 27,0 | 26,9 | 27,4 | 27,9 | 21,7 | 22,2 | 22,2 | 22,7 | 23,2 |
| | 6H | 26,5 | 26,9 | 27,0 | 27,4 | 27,9 | 21,6 | 22,1 | 22,1 | 22,6 | 23,1 |
| | 8H | 26,4 | 26,8 | 26,9 | 27,3 | 27,8 | 21,6 | 22,0 | 22,1 | 22,5 | 23,0 |

| Leuchtdichten-Tabelle | | Max. für $\gamma \geq 65^\circ$ | | | | | | | | | | | | |
|-----------------------|--|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|--------|
| | | Lichttechnische Abmessungen in mm: | | | | | | | | | | | | |
| | | L = 2940 | | | | | | | | | | | | |
| | | B = 49 | | | | | | | | | | | | |
| C-Ebenen | | 0° | 15° 345° | 30° 330° | 45° 315° | 60° 300° | 75° 285° | 90° 270° | 105° 255° | 120° 240° | 135° 225° | 150° 210° | 165° 195° | 180° |
| γ | | Leuchtdichte in cd/m ² | | | | | | | | | | | | |
| 45° | | 37839.4 | 39355.2 | 42043.7 | 40527.9 | 33048.7 | 22474.8 | 17303.7 | 12471.6 | 6626.9 | 2419.6 | 1571.7 | 1222.7 | 1112.6 |
| 50° | | 29386.5 | 30896.8 | 34153.2 | 33272.3 | 26476.2 | 16458.3 | 11940.3 | 8123.8 | 3582.1 | 1555.9 | 1146.8 | 814.9 | 682.8 |
| 55° | | 22760.1 | 24248.1 | 28024.4 | 27469.0 | 22017.9 | 12219.3 | 7847.1 | 5028.1 | 2036.2 | 1094.8 | 781.0 | 481.3 | 412.5 |
| 60° | | 17526.2 | 18986.4 | 23128.3 | 23597.5 | 19103.7 | 8263.5 | 3917.4 | 2206.5 | 1140.6 | 766.5 | 529.9 | 412.6 | 347.9 |
| 65° | | 15212.9 | 16028.7 | 18890.4 | 20558.2 | 15040.6 | 5161.0 | 1495.4 | 861.4 | 684.4 | 540.7 | 437.8 | 325.3 | 215.4 |
| 70° | | 12849.2 | 14306.8 | 16684.0 | 17124.5 | 10764.8 | 3293.6 | 697.7 | 416.9 | 416.9 | 369.6 | 307.5 | 221.8 | 135.9 |
| 75° | | 8486.1 | 10576.2 | 15018.4 | 10912.3 | 6809.8 | 2445.9 | 320.4 | 210.9 | 257.8 | 246.2 | 226.5 | 183.6 | 148.6 |
| 80° | | 2096.5 | 3022.1 | 6650.3 | 6498.8 | 4612.1 | 1426.9 | 203.8 | 192.1 | 227.1 | 233.1 | 221.5 | 192.1 | 174.8 |
| 85° | | 858.4 | 1032.2 | 1949.1 | 1833.0 | 649.4 | 289.9 | 278.7 | 313.1 | 348.4 | 359.6 | 336.3 | 289.9 | 278.7 |

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Leuchtdichten in cd/m² γ 65° γ 70° γ 75° γ 80° γ 85° **siteco**



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| Familie Silica® 21 | Bestell-Nr.: 51MX24DC4ASB EAN: 4058352905562 | LP-Nummer 59270_92 |
| Dimmstufen-Tabelle | | sITeco |
| Umgebungstemperatur: 25°C | | |

| Lichtstrom [%] | Dimmstufe linear | Dimmstufe logarithmisch | Lichtstrom [lm] | Systemleistung [W] |
|----------------|------------------|-------------------------|-----------------|--------------------|
| 100 | 254 | 254 | 10800 | 73.7 |
| 95 | 240 | 252 | 10245 | 69.7 |
| 90 | 227 | 250 | 9725 | 66.0 |
| 85 | 214 | 248 | 9198 | 62.4 |
| 80 | 200 | 245 | 8625 | 58.3 |
| 75 | 187 | 243 | 8091 | 54.8 |
| 70 | 174 | 240 | 7554 | 51.1 |
| 65 | 161 | 237 | 7011 | 47.5 |
| 60 | 148 | 234 | 6466 | 43.8 |
| 55 | 136 | 231 | 5958 | 40.5 |
| 50 | 123 | 227 | 5401 | 37.0 |
| 45 | 110 | 223 | 4843 | 33.4 |
| 40 | 98 | 219 | 4325 | 30.0 |
| 35 | 85 | 214 | 3759 | 26.4 |
| 30 | 73 | 208 | 3235 | 23.3 |
| 25 | 61 | 202 | 2707 | 20.0 |
| 20 | 49 | 194 | 2176 | 16.9 |
| 15 | 37 | 183 | 1640 | 13.4 |
| 10 | 24 | 168 | 1060 | 9.8 |
| 5 | 12 | 142 | 521 | 6.1 |
| 3 | 7 | 122 | 295 | 4.1 |