

## Lichttechnischer Prüfbefund

Familie  
Modario® 31

Bestell-Nr.: 53BM812DV6DXD2  
EAN: 4069025123190

LP-Nummer  
59594\_7



**Ausführung** Diffusoroptik, satiniert, breit strahlend  
**Bestückung** LED 6500 K | CRI ≥ 80  
**Betriebsgerät** EVG-DALI  
**Bemessungswerte** Nettolichtstrom = 13280 lm  
Systemleistung = 74.9 W  
Lichtausbeute = 177.3 lm/W

Seriendokumentation  
02.05.2024

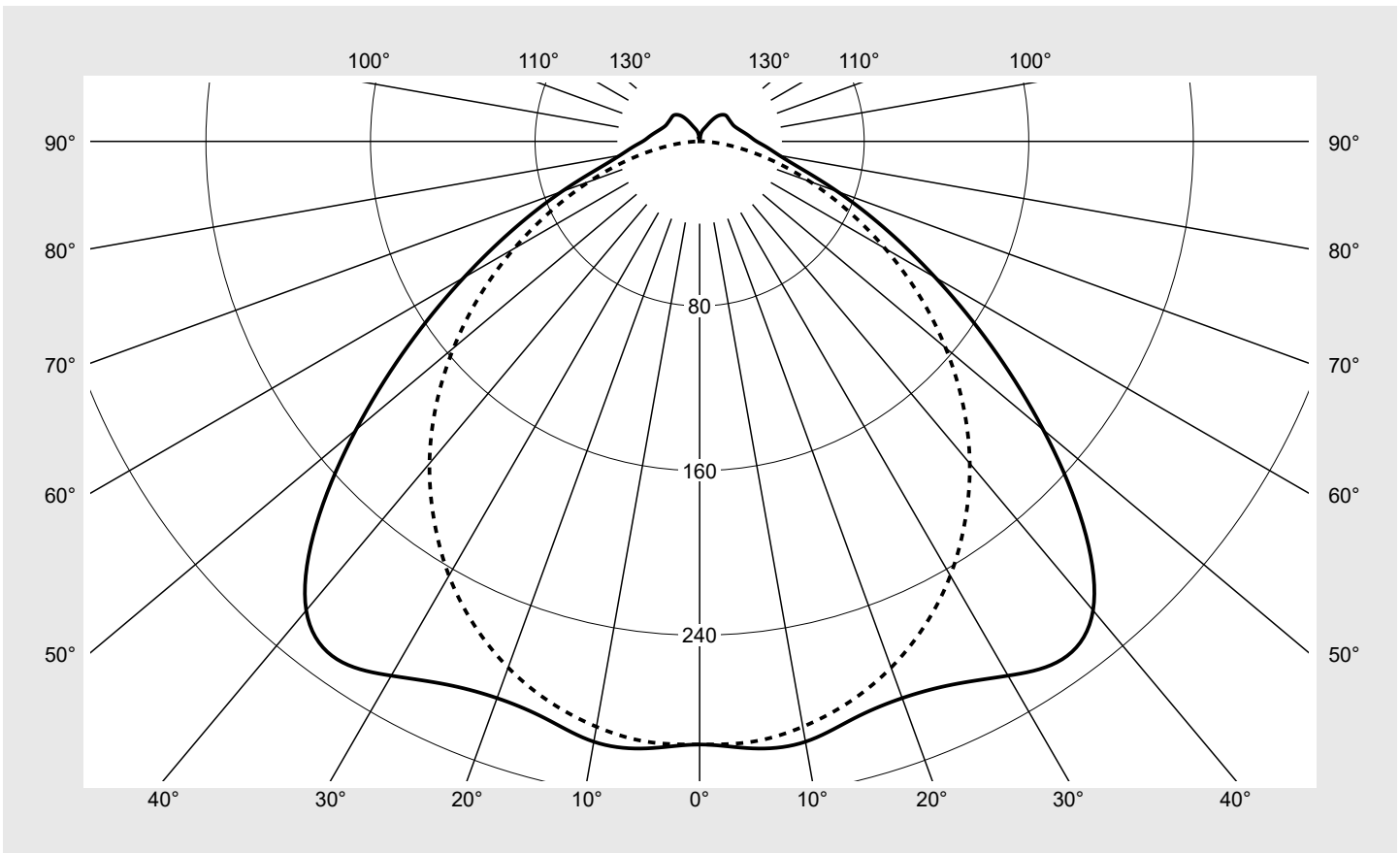
siteco

Lichtstärke in cd/klm

C180-0

C270-90

Imax: 307 cd/klm



## Klassifizierungen

DIN 5040 A 4 1  
CIE N1=47 N2=80 N3=95  
N4=93 N5=100

## Leuchtenbetriebswirkungsgrade

$\eta_{LB}$  100,0%  
 $\phi_u$  92,6%  
 $\phi_o$  7,4%

## 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°                    | 293.1      | 293.1                | 293.1                | 293.1                | 293.1                | 293.1                | 293.1       | 1.8                  | 1.8               |
| 5°                    | 296.1      | 295.6                | 293.1                | 293.6                | 293.8                | 293.0                | 292.9       | 14.0                 | 15.8              |
| 10°                   | 296.3      | 296.3                | 293.6                | 293.6                | 292.6                | 289.9                | 288.9       | 27.9                 | 43.7              |
| 15°                   | 290.3      | 290.9                | 288.4                | 289.1                | 288.3                | 284.2                | 281.9       | 40.8                 | 84.5              |
| 20°                   | 287.9      | 288.2                | 282.8                | 281.1                | 280.6                | 275.9                | 272.2       | 52.8                 | 137.3             |
| 25°                   | 291.3      | 290.8                | 281.6                | 274.0                | 270.0                | 264.7                | 259.4       | 64.0                 | 201.2             |
| 30°                   | 299.8      | 298.4                | 283.7                | 269.7                | 258.3                | 250.5                | 243.7       | 74.6                 | 275.8             |
| 35°                   | 307.3      | 306.0                | 288.6                | 266.7                | 246.6                | 233.7                | 225.0       | 84.2                 | 360.1             |
| 40°                   | 297.5      | 299.0                | 287.4                | 263.1                | 235.0                | 215.2                | 204.3       | 91.1                 | 451.1             |
| 45°                   | 263.6      | 268.2                | 268.7                | 253.4                | 221.8                | 194.2                | 181.1       | 92.3                 | 543.4             |
| 50°                   | 218.1      | 223.5                | 232.0                | 231.1                | 204.9                | 171.7                | 156.1       | 87.5                 | 630.9             |
| 55°                   | 172.9      | 177.3                | 186.9                | 195.4                | 181.1                | 147.5                | 130.2       | 77.8                 | 708.7             |
| 60°                   | 132.3      | 135.3                | 142.3                | 152.9                | 149.4                | 121.4                | 104.1       | 64.8                 | 773.5             |
| 65°                   | 98.5       | 100.2                | 104.0                | 112.2                | 114.5                | 94.5                 | 79.4        | 50.9                 | 824.4             |
| 70°                   | 71.4       | 72.6                 | 74.4                 | 79.3                 | 82.2                 | 69.0                 | 57.1        | 37.9                 | 862.3             |
| 75°                   | 51.0       | 51.6                 | 52.9                 | 55.5                 | 55.9                 | 46.4                 | 37.5        | 27.0                 | 889.4             |
| 80°                   | 39.4       | 39.1                 | 38.7                 | 38.1                 | 35.5                 | 27.5                 | 20.9        | 18.8                 | 908.2             |
| 85°                   | 32.8       | 32.1                 | 30.1                 | 26.5                 | 21.0                 | 13.7                 | 8.3         | 13.1                 | 921.3             |
| 90°                   | 27.7       | 27.1                 | 24.5                 | 19.3                 | 12.6                 | 5.6                  | 0.8         | 9.4                  | 930.7             |
| 95°                   | 24.8       | 24.4                 | 22.4                 | 17.8                 | 11.6                 | 5.3                  | 0.8         | 8.6                  | 939.3             |
| 100°                  | 22.5       | 22.2                 | 20.5                 | 16.7                 | 11.5                 | 5.5                  | 0.8         | 7.9                  | 947.2             |
| 105°                  | 20.6       | 20.3                 | 18.7                 | 16.0                 | 11.5                 | 5.9                  | 0.8         | 7.3                  | 954.6             |
| 110°                  | 19.2       | 18.7                 | 17.6                 | 15.5                 | 11.7                 | 6.3                  | 0.7         | 6.8                  | 961.4             |
| 115°                  | 18.2       | 17.8                 | 17.0                 | 15.3                 | 12.2                 | 5.8                  | 0.8         | 6.4                  | 967.8             |
| 120°                  | 17.9       | 17.4                 | 16.9                 | 15.5                 | 12.3                 | 5.3                  | 0.8         | 6.1                  | 973.9             |
| 125°                  | 17.8       | 17.4                 | 16.9                 | 15.5                 | 11.8                 | 5.2                  | 0.8         | 5.7                  | 979.6             |
| 130°                  | 17.9       | 17.4                 | 16.8                 | 15.0                 | 10.1                 | 5.0                  | 0.9         | 5.2                  | 984.7             |
| 135°                  | 17.9       | 17.3                 | 16.2                 | 13.6                 | 8.1                  | 4.3                  | 1.0         | 4.5                  | 989.2             |
| 140°                  | 16.9       | 16.0                 | 14.5                 | 11.2                 | 6.7                  | 3.5                  | 1.1         | 3.6                  | 992.8             |
| 145°                  | 14.9       | 14.0                 | 12.0                 | 8.5                  | 5.5                  | 2.8                  | 1.2         | 2.7                  | 995.4             |
| 150°                  | 11.8       | 10.8                 | 9.0                  | 6.5                  | 4.7                  | 2.2                  | 1.4         | 1.8                  | 997.3             |
| 155°                  | 8.6        | 8.1                  | 7.0                  | 5.2                  | 4.0                  | 1.7                  | 1.5         | 1.2                  | 998.5             |
| 160°                  | 6.8        | 6.5                  | 5.3                  | 4.3                  | 3.2                  | 1.5                  | 1.5         | 0.8                  | 999.2             |
| 165°                  | 5.5        | 5.3                  | 3.9                  | 3.4                  | 2.1                  | 1.6                  | 1.6         | 0.5                  | 999.7             |
| 170°                  | 3.8        | 3.1                  | 2.5                  | 2.0                  | 1.6                  | 1.6                  | 1.6         | 0.2                  | 999.9             |
| 175°                  | 1.6        | 1.6                  | 1.6                  | 1.6                  | 1.6                  | 1.6                  | 1.6         | 0.1                  | 1000.0            |
| 180°                  | 1.6        | 1.6                  | 1.6                  | 1.6                  | 1.6                  | 1.6                  | 1.6         | 0.0                  | 1000.0            |

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

| UGR-Tabelle          |           | Standardraum                        |      |      |      |      |                                       |      |      |      |      |
|----------------------|-----------|-------------------------------------|------|------|------|------|---------------------------------------|------|------|------|------|
| Raumabmessungen      |           | Blickrichtung quer zur Leuchte (C0) |      |      |      |      | Blickrichtung längs zur Leuchte (C90) |      |      |      |      |
| x                    | y         |                                     |      |      |      |      |                                       |      |      |      |      |
| 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  |      |
| <b>2H</b>            | <b>2H</b> | 23,9                                | 25,6 | 24,2 | 25,9 | 26,2 | 23,7                                  | 25,4 | 24,0 | 25,7 | 26,0 |
|                      | 3H        | 24,7                                | 26,3 | 25,1 | 26,6 | 26,9 | 24,8                                  | 26,3 | 25,2 | 26,7 | 27,0 |
|                      | 4H        | 25,1                                | 26,5 | 25,4 | 26,8 | 27,2 | 25,2                                  | 26,6 | 25,6 | 27,0 | 27,3 |
|                      | 6H        | 25,3                                | 26,7 | 25,8 | 27,0 | 27,4 | 25,4                                  | 26,8 | 25,8 | 27,1 | 27,5 |
|                      | 8H        | 25,5                                | 26,7 | 25,9 | 27,1 | 27,5 | 25,5                                  | 26,8 | 25,9 | 27,2 | 27,6 |
|                      | 12H       | 25,7                                | 26,8 | 26,1 | 27,2 | 27,6 | 25,6                                  | 26,8 | 26,0 | 27,2 | 27,6 |
| <b>4H</b>            | <b>2H</b> | 24,5                                | 26,0 | 24,9 | 26,3 | 26,7 | 24,4                                  | 25,8 | 24,8 | 26,2 | 26,6 |
|                      | 3H        | 25,5                                | 26,7 | 25,9 | 27,1 | 27,5 | 25,7                                  | 27,0 | 26,2 | 27,3 | 27,8 |
|                      | 4H        | 25,9                                | 27,0 | 26,4 | 27,4 | 27,9 | 26,2                                  | 27,4 | 26,7 | 27,8 | 28,2 |
|                      | 6H        | 26,3                                | 27,3 | 26,8 | 27,7 | 28,2 | 26,6                                  | 27,6 | 27,1 | 28,0 | 28,5 |
|                      | 8H        | 26,5                                | 27,4 | 27,0 | 27,9 | 28,3 | 26,7                                  | 27,6 | 27,2 | 28,0 | 28,5 |
|                      | 12H       | 26,8                                | 27,6 | 27,3 | 28,0 | 28,5 | 26,8                                  | 27,6 | 27,3 | 28,0 | 28,5 |
| <b>8H</b>            | <b>4H</b> | 26,2                                | 27,1 | 26,7 | 27,5 | 28,0 | 26,5                                  | 27,4 | 27,0 | 27,8 | 28,3 |
|                      | 6H        | 26,7                                | 27,4 | 27,2 | 27,9 | 28,4 | 27,0                                  | 27,7 | 27,5 | 28,2 | 28,7 |
|                      | 8H        | 27,0                                | 27,6 | 27,5 | 28,1 | 28,6 | 27,1                                  | 27,8 | 27,6 | 28,3 | 28,8 |
|                      | 12H       | 27,3                                | 27,9 | 27,8 | 28,4 | 28,9 | 27,3                                  | 27,8 | 27,8 | 28,3 | 28,9 |
| <b>12H</b>           | <b>4H</b> | 26,2                                | 27,0 | 26,7 | 27,5 | 28,0 | 26,5                                  | 27,3 | 27,0 | 27,8 | 28,3 |
|                      | 6H        | 26,8                                | 27,4 | 27,3 | 27,9 | 28,4 | 27,1                                  | 27,7 | 27,6 | 28,2 | 28,7 |
|                      | 8H        | 27,1                                | 27,7 | 27,6 | 28,2 | 28,7 | 27,3                                  | 27,8 | 27,8 | 28,3 | 28,9 |

|                              |                                 |                                    |                    |                          |                             |
|------------------------------|---------------------------------|------------------------------------|--------------------|--------------------------|-----------------------------|
| <b>Leuchtdichten-Tabelle</b> | Max. für $\gamma \geq 65^\circ$ | Lichttechnische Abmessungen in mm: | L = 1476<br>B = 75 | H(C0) = 25<br>H(C90) = 0 | H(C180) = 25<br>H(C270) = 0 |
|------------------------------|---------------------------------|------------------------------------|--------------------|--------------------------|-----------------------------|

| 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°      |          | 33543.9                           | 34424.2                     | 35375.5                     | 34788.7                     | 32258.8                     | 30332.7                     | 30728.2     |
| 50°      |          | 29129.8                           | 30141.4                     | 32215.4                     | 33666.7                     | 31896.1                     | 29061.7                     | 29133.8     |
| 55°      |          | 24495.9                           | 25395.7                     | 27676.6                     | 30581.2                     | 30586.7                     | 27471.2                     | 27240.4     |
| 60°      |          | 20124.5                           | 20833.4                     | 22754.7                     | 26049.2                     | 27812.0                     | 25333.3                     | 24987.8     |
| 65°      |          | 16309.0                           | 16831.1                     | 18238.8                     | 21161.0                     | 23953.9                     | 22624.6                     | 22528.2     |
| 70°      |          | 13063.2                           | 13506.4                     | 14543.7                     | 16885.6                     | 19781.3                     | 19567.2                     | 20014.9     |
| 75°      |          | 10528.5                           | 10864.3                     | 11796.5                     | 13684.3                     | 15971.7                     | 16253.8                     | 17372.2     |
| 80°      |          | 9417.3                            | 9563.2                      | 10125.2                     | 11274.7                     | 12620.6                     | 12767.8                     | 14435.2     |
| 85°      |          | 9384.6                            | 9452.0                      | 9644.0                      | 9871.8                      | 9967.1                      | 9480.7                      | 11478.1     |

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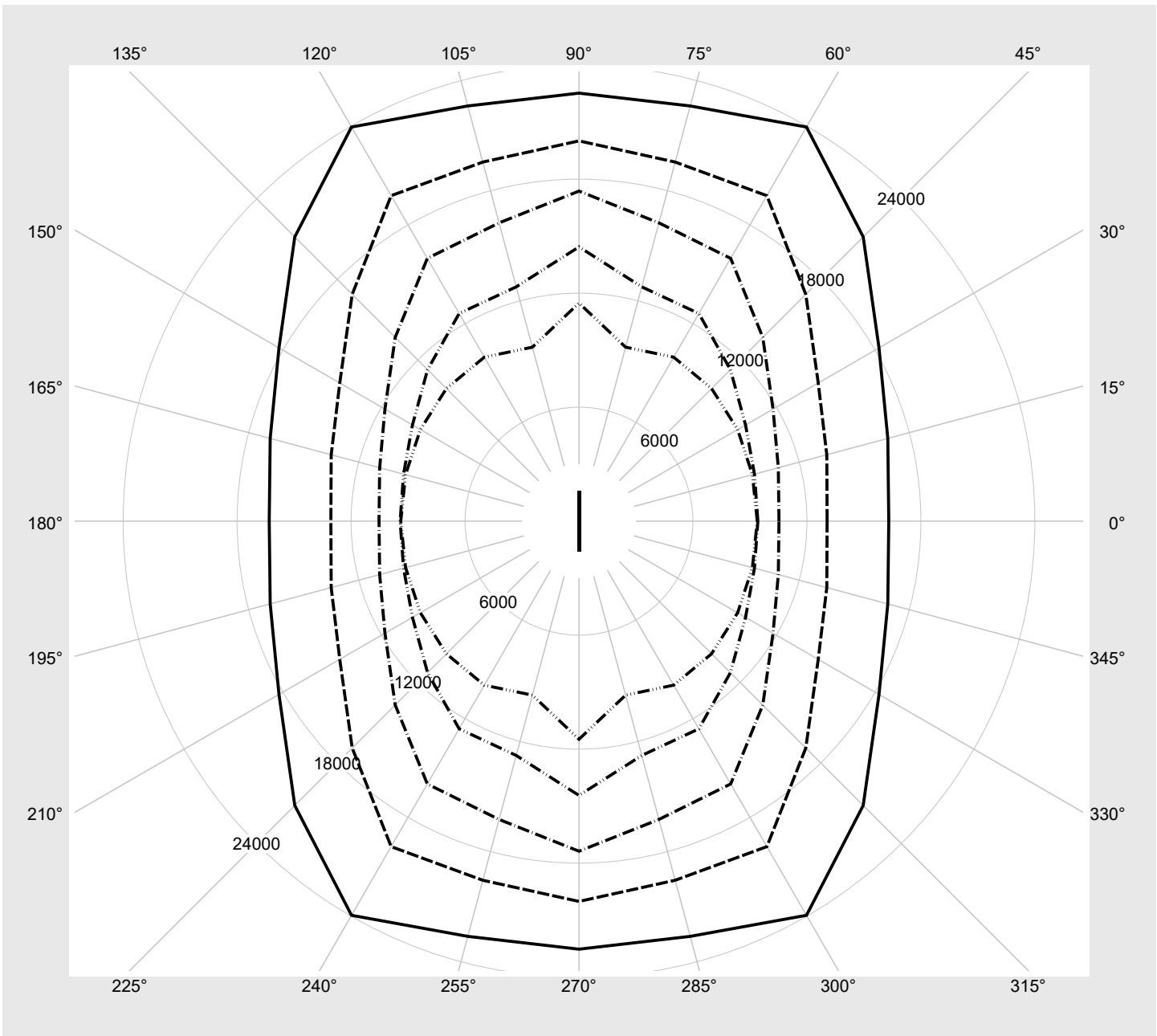
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**Leuchtdichten in cd/m<sup>2</sup>**

γ 65°
γ 70°
γ 75°
γ 80°
γ 85°



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

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

| Lichtstrom [%] | Dimmstufe linear | Dimmstufe logarithmisch | Lichtstrom [lm] | Systemleistung [W] |
|----------------|------------------|-------------------------|-----------------|--------------------|
| 100            | 254              | 254                     | 13280           | 74.9               |
| 95             | 241              | 252                     | 12641           | 71.0               |
| 90             | 227              | 250                     | 11945           | 67.0               |
| 85             | 214              | 248                     | 11295           | 63.2               |
| 80             | 201              | 245                     | 10639           | 59.3               |
| 75             | 188              | 243                     | 9980            | 55.6               |
| 70             | 175              | 240                     | 9315            | 51.9               |
| 65             | 162              | 238                     | 8644            | 48.2               |
| 60             | 149              | 234                     | 7971            | 44.5               |
| 55             | 136              | 231                     | 7293            | 40.8               |
| 50             | 124              | 228                     | 6666            | 37.3               |
| 45             | 111              | 224                     | 5979            | 33.6               |
| 40             | 98               | 219                     | 5289            | 30.0               |
| 35             | 86               | 214                     | 4649            | 26.6               |
| 30             | 74               | 209                     | 4005            | 23.3               |
| 25             | 61               | 202                     | 3304            | 19.8               |
| 20             | 49               | 194                     | 2654            | 16.4               |
| 15             | 37               | 183                     | 2002            | 13.0               |
| 10             | 25               | 169                     | 1345            | 9.7                |
| 5              | 13               | 145                     | 686             | 6.4                |
| 2              | 5                | 110                     | 245             | 4.2                |