

Lichttechnischer Prüfbefund

Familie  
Monsun® 11



Bestell-Nr.: 51FP10DP4B0U  
EAN: 4069025242525

Ausführung

Bestückung

Betriebsgerät

Bemessungswerte

Prismenwanne, opal, PMMA, breit strahlend

LED 4000 K | CRI ≥ 80

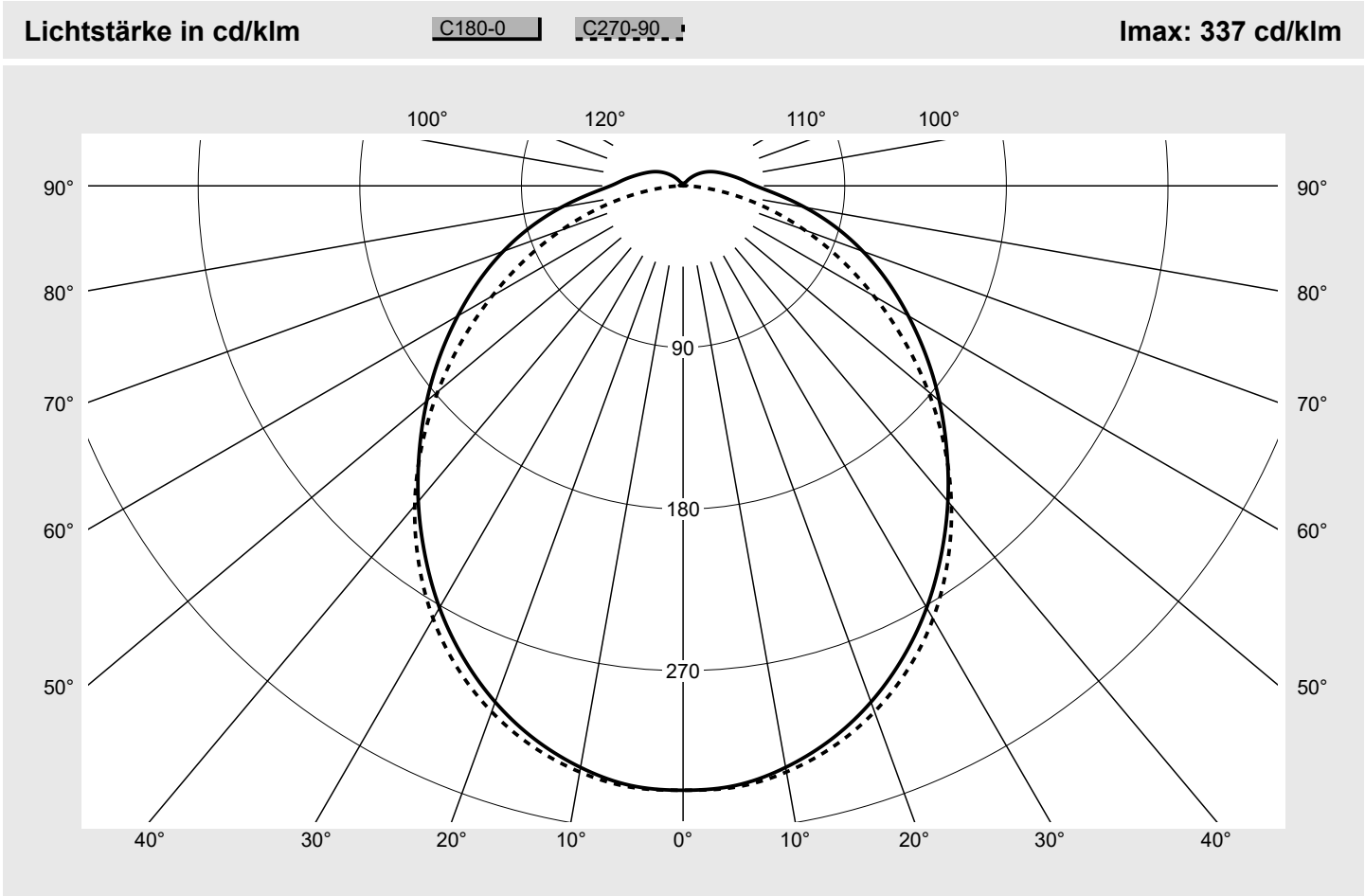
EVG-DALI

Nettolichtstrom = 12110 lm  
Systemleistung = 63.7 W  
Lichtausbeute = 190.1 lm/W

LP-Nummer  
59015\_7

Seriodokumentation  
20.08.2024

siteco



| Klassifizierungen |                   | Leuchtenbetriebswirkungsgrade |        |
|-------------------|-------------------|-------------------------------|--------|
| DIN 5040          | A 4 1             | $\eta_{LB}$                   | 100,0% |
| CIE               | N1=47 N2=76 N3=93 | $\phi_u$                      | 94,2%  |
|                   | N4=94 N5=100      | $\phi_o$                      | 5,8%   |

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

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|                                 |                                                 |                      |
|---------------------------------|-------------------------------------------------|----------------------|
| Familie<br>Monsun® 11           | Bestell-Nr.: 51FP10DP4B0U<br>EAN: 4069025242525 | LP-Nummer<br>59015_7 |
| Wertetabelle Lichtstärkemessung |                                                 | Maximale Lichtstärke |
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| 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°           | 336.6                 | 336.6                       | 336.6                       | 336.6                       | 336.6                       | 336.6                       | 336.6       | 2.0                  | 2.0               |
| 5°           | 335.2                 | 335.1                       | 333.2                       | 334.3                       | 335.7                       | 335.7                       | 336.1       | 16.0                 | 18.0              |
| 10°          | 328.8                 | 330.1                       | 328.0                       | 329.4                       | 330.8                       | 330.9                       | 331.4       | 31.4                 | 49.4              |
| 15°          | 319.0                 | 321.3                       | 319.3                       | 320.8                       | 322.3                       | 322.7                       | 323.3       | 45.6                 | 95.0              |
| 20°          | 305.9                 | 308.9                       | 307.1                       | 308.7                       | 310.4                       | 311.0                       | 311.7       | 58.0                 | 152.9             |
| 25°          | 289.8                 | 293.4                       | 291.5                       | 293.1                       | 295.0                       | 295.9                       | 296.7       | 68.0                 | 221.0             |
| 30°          | 271.3                 | 275.1                       | 273.1                       | 274.3                       | 276.2                       | 277.4                       | 278.4       | 75.4                 | 296.4             |
| 35°          | 250.7                 | 254.3                       | 252.4                       | 252.9                       | 254.4                       | 255.5                       | 256.6       | 79.8                 | 376.2             |
| 40°          | 229.4                 | 232.7                       | 230.3                       | 229.8                       | 230.5                       | 231.3                       | 232.4       | 81.4                 | 457.6             |
| 45°          | 207.6                 | 210.4                       | 207.6                       | 205.2                       | 204.9                       | 204.7                       | 206.0       | 80.1                 | 537.6             |
| 50°          | 186.3                 | 188.5                       | 185.0                       | 181.0                       | 178.9                       | 177.2                       | 178.3       | 76.5                 | 614.1             |
| 55°          | 165.3                 | 166.9                       | 162.7                       | 157.6                       | 153.3                       | 149.9                       | 150.2       | 71.0                 | 685.1             |
| 60°          | 144.9                 | 145.8                       | 140.7                       | 134.7                       | 128.7                       | 123.6                       | 122.7       | 63.9                 | 748.9             |
| 65°          | 125.5                 | 125.6                       | 119.9                       | 112.7                       | 105.4                       | 99.0                        | 96.8        | 55.8                 | 804.7             |
| 70°          | 106.5                 | 105.7                       | 100.0                       | 91.3                        | 83.0                        | 75.5                        | 72.0        | 46.8                 | 851.5             |
| 75°          | 87.5                  | 86.0                        | 80.8                        | 71.2                        | 61.8                        | 53.7                        | 49.1        | 37.2                 | 888.7             |
| 80°          | 68.8                  | 66.9                        | 62.0                        | 52.7                        | 42.3                        | 33.4                        | 27.9        | 27.5                 | 916.2             |
| 85°          | 52.2                  | 50.3                        | 45.3                        | 36.7                        | 26.2                        | 16.7                        | 10.8        | 18.8                 | 935.0             |
| 90°          | 40.4                  | 38.9                        | 34.5                        | 26.5                        | 16.4                        | 7.3                         | 2.2         | 13.2                 | 948.3             |
| 95°          | 34.1                  | 32.8                        | 29.3                        | 22.8                        | 14.2                        | 5.7                         | 1.9         | 11.2                 | 959.5             |
| 100°         | 29.1                  | 28.1                        | 25.5                        | 19.6                        | 11.7                        | 4.0                         | 1.6         | 9.4                  | 968.8             |
| 105°         | 25.0                  | 24.3                        | 21.6                        | 16.3                        | 9.2                         | 2.6                         | 1.4         | 7.7                  | 976.5             |
| 110°         | 21.5                  | 21.0                        | 18.2                        | 13.2                        | 6.8                         | 1.5                         | 1.2         | 6.2                  | 982.7             |
| 115°         | 18.5                  | 17.9                        | 15.1                        | 10.5                        | 4.8                         | 1.3                         | 1.2         | 4.9                  | 987.6             |
| 120°         | 15.6                  | 14.8                        | 12.2                        | 7.9                         | 3.1                         | 1.3                         | 1.1         | 3.8                  | 991.4             |
| 125°         | 12.7                  | 11.9                        | 9.4                         | 5.6                         | 1.7                         | 1.1                         | 1.0         | 2.7                  | 994.1             |
| 130°         | 9.8                   | 9.0                         | 6.8                         | 3.5                         | 1.4                         | 1.1                         | 1.0         | 1.9                  | 996.0             |
| 135°         | 7.0                   | 6.3                         | 4.4                         | 1.9                         | 1.4                         | 1.1                         | 1.0         | 1.2                  | 997.3             |
| 140°         | 4.5                   | 3.9                         | 2.4                         | 1.7                         | 1.3                         | 1.1                         | 1.0         | 0.8                  | 998.1             |
| 145°         | 2.3                   | 2.1                         | 1.9                         | 1.6                         | 1.4                         | 1.2                         | 1.2         | 0.5                  | 998.6             |
| 150°         | 1.9                   | 1.9                         | 1.8                         | 1.5                         | 1.4                         | 1.3                         | 1.2         | 0.4                  | 999.0             |
| 155°         | 1.8                   | 1.7                         | 1.6                         | 1.5                         | 1.4                         | 1.3                         | 1.3         | 0.3                  | 999.3             |
| 160°         | 1.6                   | 1.6                         | 1.5                         | 1.4                         | 1.3                         | 1.3                         | 1.3         | 0.3                  | 999.6             |
| 165°         | 1.4                   | 1.4                         | 1.4                         | 1.3                         | 1.3                         | 1.3                         | 1.3         | 0.2                  | 999.8             |
| 170°         | 1.3                   | 1.3                         | 1.3                         | 1.3                         | 1.3                         | 1.3                         | 1.3         | 0.1                  | 999.9             |
| 175°         | 1.3                   | 1.3                         | 1.3                         | 1.3                         | 1.3                         | 1.3                         | 1.3         | 0.1                  | 1000.0            |
| 180°         | 1.3                   | 1.3                         | 1.3                         | 1.3                         | 1.3                         | 1.3                         | 1.3         | 0.0                  | 1000.0            |

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|                       |     |                                                 |      |      |      |      |                                       |      |                      |      |      |
|-----------------------|-----|-------------------------------------------------|------|------|------|------|---------------------------------------|------|----------------------|------|------|
| Familie<br>Monsun® 11 |     | Bestell-Nr.: 51FP10DP4B0U<br>EAN: 4069025242525 |      |      |      |      |                                       |      | LP-Nummer<br>59015_7 |      |      |
| 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  | 22,5                                            | 24,2 | 22,9 | 24,5 | 24,9 | 22,5                                  | 24,2 | 22,8                 | 24,5 | 24,8 |
|                       | 3H  | 24,3                                            | 25,9 | 24,7 | 26,2 | 26,5 | 23,9                                  | 25,4 | 24,2                 | 25,8 | 26,1 |
|                       | 4H  | 25,1                                            | 26,6 | 25,5 | 26,9 | 27,3 | 24,4                                  | 25,9 | 24,8                 | 26,2 | 26,6 |
|                       | 6H  | 25,9                                            | 27,2 | 26,3 | 27,6 | 28,0 | 24,8                                  | 26,2 | 25,2                 | 26,5 | 26,9 |
|                       | 8H  | 26,3                                            | 27,5 | 26,7 | 27,9 | 28,3 | 24,9                                  | 26,2 | 25,4                 | 26,6 | 27,0 |
|                       | 12H | 26,6                                            | 27,8 | 27,0 | 28,1 | 28,6 | 25,0                                  | 26,2 | 25,4                 | 26,6 | 27,0 |
| 4H                    | 2H  | 23,2                                            | 24,7 | 23,6 | 25,1 | 25,4 | 23,2                                  | 24,6 | 23,6                 | 25,0 | 25,4 |
|                       | 3H  | 25,2                                            | 26,5 | 25,6 | 26,9 | 27,3 | 24,8                                  | 26,0 | 25,2                 | 26,4 | 26,8 |
|                       | 4H  | 26,2                                            | 27,3 | 26,6 | 27,7 | 28,2 | 25,5                                  | 26,6 | 25,9                 | 27,0 | 27,4 |
|                       | 6H  | 27,1                                            | 28,1 | 27,6 | 28,5 | 29,0 | 26,0                                  | 27,0 | 26,4                 | 27,4 | 27,8 |
|                       | 8H  | 27,5                                            | 28,4 | 28,0 | 28,9 | 29,3 | 26,1                                  | 27,0 | 26,6                 | 27,5 | 28,0 |
|                       | 12H | 27,9                                            | 28,7 | 28,4 | 29,2 | 29,7 | 26,2                                  | 27,1 | 26,7                 | 27,5 | 28,0 |
| 8H                    | 4H  | 26,5                                            | 27,5 | 27,0 | 27,9 | 28,4 | 25,9                                  | 26,8 | 26,3                 | 27,2 | 27,7 |
|                       | 6H  | 27,6                                            | 28,4 | 28,1 | 28,9 | 29,3 | 26,5                                  | 27,3 | 27,0                 | 27,8 | 28,3 |
|                       | 8H  | 28,1                                            | 28,8 | 28,6 | 29,3 | 29,8 | 26,8                                  | 27,5 | 27,3                 | 27,9 | 28,4 |
|                       | 12H | 28,7                                            | 29,3 | 29,2 | 29,8 | 30,3 | 26,9                                  | 27,5 | 27,4                 | 28,0 | 28,6 |
| 12H                   | 4H  | 26,6                                            | 27,4 | 27,1 | 27,9 | 28,3 | 26,0                                  | 26,8 | 26,5                 | 27,3 | 27,7 |
|                       | 6H  | 27,7                                            | 28,4 | 28,2 | 28,9 | 29,4 | 26,7                                  | 27,4 | 27,2                 | 27,8 | 28,4 |
|                       | 8H  | 28,3                                            | 28,9 | 28,8 | 29,4 | 29,9 | 27,0                                  | 27,6 | 27,5                 | 28,1 | 28,6 |

|                       |          |                                 |                             |                                    |                             |                             |                             |                              |
|-----------------------|----------|---------------------------------|-----------------------------|------------------------------------|-----------------------------|-----------------------------|-----------------------------|------------------------------|
| Leuchtdichten-Tabelle |          | Max. für $\gamma \geq 65^\circ$ |                             | Lichttechnische Abmessungen in mm: |                             | L = 1590<br>B = 87          | H(C0) = 21<br>H(C90) = 21   | H(C180) = 21<br>H(C270) = 21 |
| C-<br>Ebenen          | $\gamma$ | 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°                  |
|                       |          |                                 | Leuchtdichte in cd/m²       |                                    |                             |                             |                             |                              |
| 45°                   |          | 20702.8                         | 21063.1                     | 21146.4                            | 21527.9                     | 22404.7                     | 23570.4                     | 25171.3                      |
| 50°                   |          | 19705.1                         | 20022.3                     | 20044.0                            | 20296.0                     | 21045.2                     | 22143.6                     | 23907.6                      |
| 55°                   |          | 18762.0                         | 19041.2                     | 18981.3                            | 19131.9                     | 19688.1                     | 20655.0                     | 22504.9                      |
| 60°                   |          | 17884.4                         | 18109.9                     | 17939.4                            | 17973.0                     | 18343.6                     | 19152.3                     | 21004.3                      |
| 65°                   |          | 17130.2                         | 17256.8                     | 16987.6                            | 16841.6                     | 17006.5                     | 17664.4                     | 19494.1                      |
| 70°                   |          | 16390.1                         | 16403.5                     | 16067.3                            | 15631.2                     | 15595.5                     | 16017.3                     | 17795.1                      |
| 75°                   |          | 15569.5                         | 15457.7                     | 15134.5                            | 14405.1                     | 14004.6                     | 14176.4                     | 15816.7                      |
| 80°                   |          | 14649.9                         | 14412.0                     | 14063.0                            | 13155.8                     | 12188.0                     | 11802.8                     | 13103.8                      |
| 85°                   |          | 13938.8                         | 13640.6                     | 13121.5                            | 12050.0                     | 10494.2                     | 9043.9                      | 9450.6                       |

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|                                     |                                                               |                                    |
|-------------------------------------|---------------------------------------------------------------|------------------------------------|
| <b>Familie</b><br><b>Monsun® 11</b> | <b>Bestell-Nr.: 51FP10DP4B0U</b><br><b>EAN: 4069025242525</b> | <b>LP-Nummer</b><br><b>59015_7</b> |
|-------------------------------------|---------------------------------------------------------------|------------------------------------|

**Leuchtdichten in cd/m²**

γ 65°

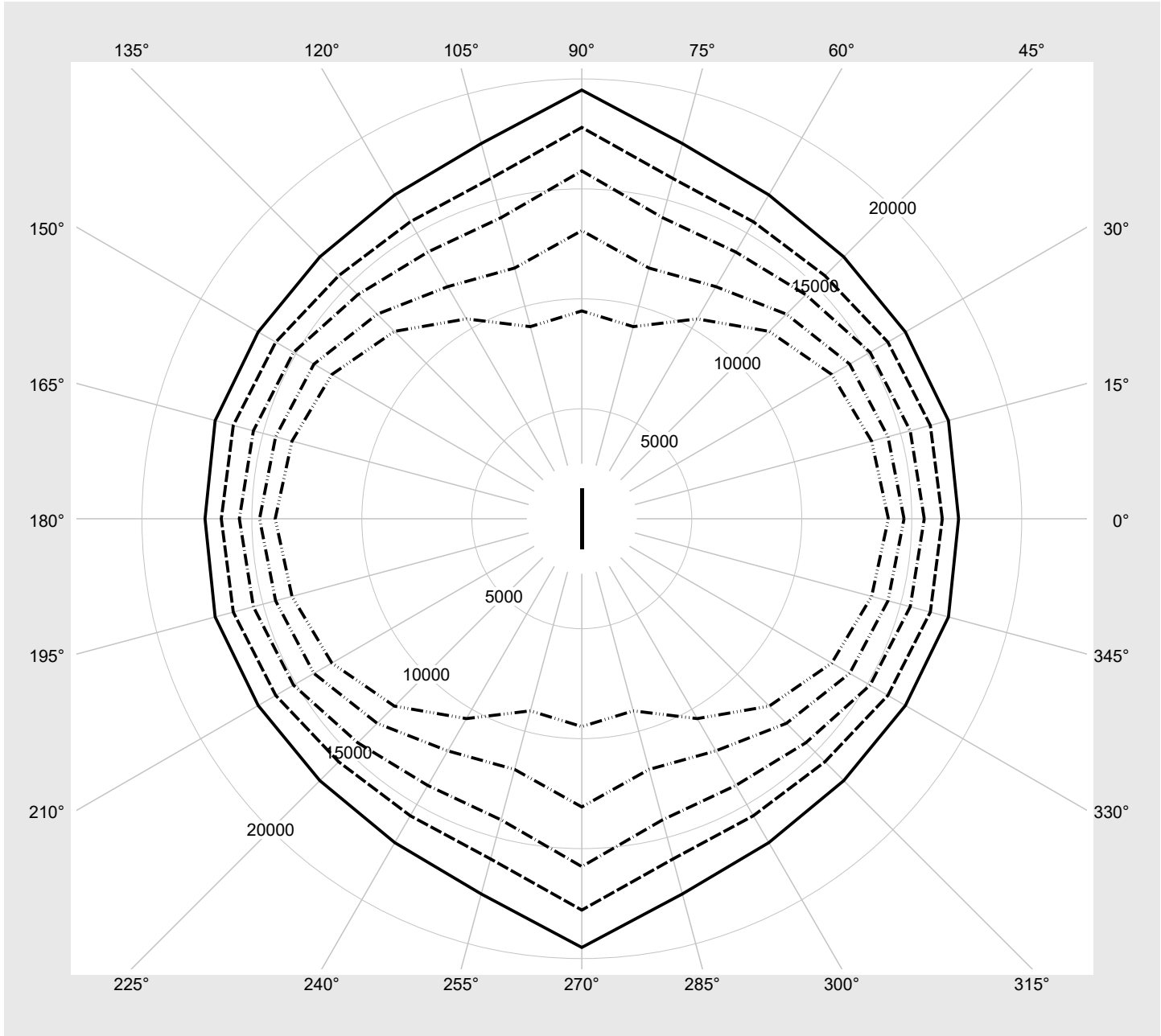
γ 70°

γ 75°

γ 80°

γ 85°

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|                                                        |                                                               |                                    |
|--------------------------------------------------------|---------------------------------------------------------------|------------------------------------|
| <b>Familie</b><br><b>Monsun® 11</b>                    | <b>Bestell-Nr.: 51FP10DP4B0U</b><br><b>EAN: 4069025242525</b> | <b>LP-Nummer</b><br><b>59015_7</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                     | 12110           | 63.7               |
| 95             | 240              | 252                     | 11485           | 60.2               |
| 90             | 227              | 250                     | 10902           | 56.9               |
| 85             | 214              | 248                     | 10312           | 53.6               |
| 80             | 200              | 245                     | 9676            | 50.1               |
| 75             | 187              | 243                     | 9077            | 46.8               |
| 70             | 174              | 240                     | 8478            | 43.5               |
| 65             | 161              | 237                     | 7874            | 40.4               |
| 60             | 148              | 234                     | 7264            | 37.2               |
| 55             | 135              | 231                     | 6649            | 34.1               |
| 50             | 123              | 227                     | 6079            | 31.1               |
| 45             | 110              | 223                     | 5454            | 28.0               |
| 40             | 97               | 219                     | 4825            | 24.9               |
| 35             | 85               | 214                     | 4240            | 21.9               |
| 30             | 73               | 208                     | 3651            | 19.0               |
| 25             | 60               | 201                     | 3007            | 15.8               |
| 20             | 48               | 193                     | 2405            | 12.9               |
| 15             | 36               | 182                     | 1800            | 9.9                |
| 10             | 24               | 168                     | 1189            | 6.7                |
| 5              | 13               | 145                     | 627             | 3.8                |
| 2              | 5                | 110                     | 214             | 1.5                |