
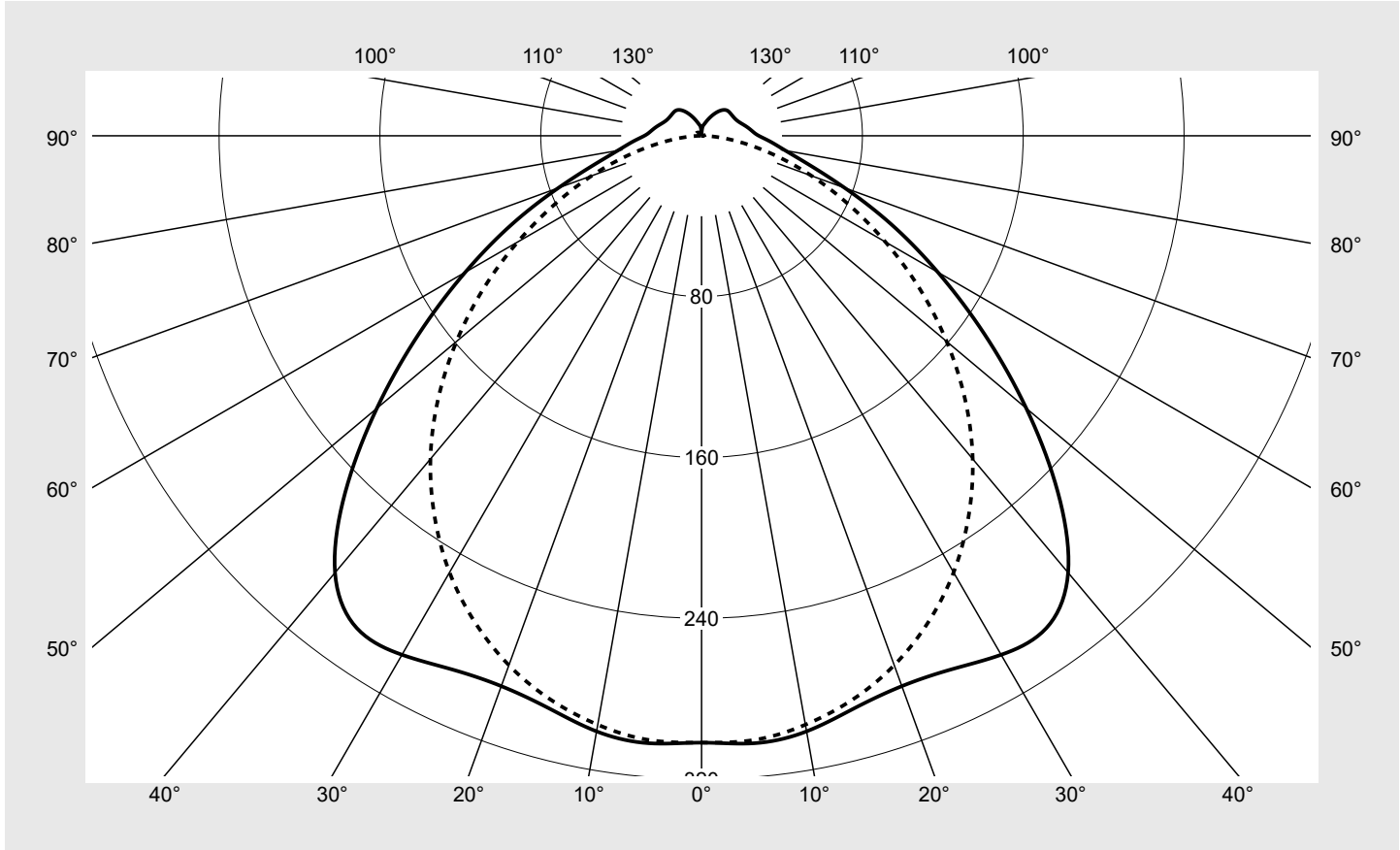


Photometric test report

| | | |
|--|---|--|
| Family Modario® 31  | Order number: 53BM812C1V4105 EAN: 4058352421802 | LP number 59064_3 |
| | Version diffuser optic, frosted, wide distribution Lamps LED 4000 K CRI ≥ 80 Controlgear ECG-Multilumen CLOi Rated values Net luminous flux = 10520 lm Power consumption = 63.8 W Luminous efficacy = 164.9 lm/W | serial documentation 29.10.2020 |

Luminous intensity in cd/klm **C180-0** **C270-90** **Imax: 303 cd/klm**



| Classifications | |
|-----------------|-----------------------------------|
| DIN 5040 | A 4 1 |
| CIE | N1=47 N2=80 N3=95 N4=92 N5=100 |

| Luminaire light output ratios | |
|-------------------------------|--------|
| η_{LB} | 100.0% |
| ϕ_u | 92.2% |
| ϕ_o | 7.8% |

| Measurement conditions |
|---------------------------|
| DIN EN 13032 and DIN 5032 |

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|---|--|------------------------------------|
| Family Modario® 31 | Order number: 53BM812C1V4105 EAN: 4058352421802 | LP number 59064_3 |
| Table of values for luminous intensities | | Maximum luminous intensity |
| | | siteco |

| C-planes γ | 0° 180° | 15° | 30° | 45° | 60° | 75° | 90° 270° | Phi-zone | Total Phi-zone |
|------------------------------|------------|----------------------|----------------------|----------------------|----------------------|----------------------|-------------------------|----------|-------------------|
| | | 165° 195° 345° | 150° 210° 330° | 135° 225° 315° | 120° 240° 300° | 105° 255° 285° | | | |
| Luminous intensity in cd/klm | | | | | | | Luminous flux in lm/klm | | |
| 0° | 301.8 | 301.8 | 301.8 | 301.8 | 301.8 | 301.8 | 301.8 | 1.8 | 1.8 |
| 5° | 303.3 | 302.1 | 299.9 | 300.9 | 301.9 | 301.5 | 301.6 | 14.4 | 16.2 |
| 10° | 300.8 | 300.0 | 297.7 | 298.5 | 298.9 | 297.8 | 297.4 | 28.4 | 44.6 |
| 15° | 294.6 | 294.3 | 291.7 | 292.6 | 293.1 | 291.2 | 290.3 | 41.5 | 86.1 |
| 20° | 291.3 | 290.6 | 285.8 | 284.4 | 284.3 | 281.8 | 280.2 | 53.5 | 139.7 |
| 25° | 293.0 | 291.5 | 283.0 | 276.7 | 273.3 | 269.6 | 266.9 | 64.6 | 204.3 |
| 30° | 298.0 | 296.0 | 283.3 | 270.8 | 261.1 | 254.6 | 250.8 | 74.9 | 279.2 |
| 35° | 299.0 | 297.5 | 283.8 | 265.6 | 248.4 | 237.0 | 231.5 | 83.7 | 362.9 |
| 40° | 283.7 | 284.3 | 276.5 | 258.3 | 235.0 | 217.5 | 209.8 | 89.2 | 452.1 |
| 45° | 250.6 | 253.6 | 254.2 | 243.8 | 219.3 | 195.5 | 185.4 | 89.4 | 541.5 |
| 50° | 210.8 | 214.1 | 220.0 | 218.9 | 199.3 | 171.7 | 159.1 | 84.6 | 626.1 |
| 55° | 171.6 | 174.1 | 180.5 | 185.1 | 173.7 | 146.4 | 132.4 | 75.7 | 701.8 |
| 60° | 135.7 | 137.3 | 141.6 | 147.2 | 142.6 | 119.7 | 105.6 | 64.0 | 765.8 |
| 65° | 104.1 | 104.9 | 107.1 | 111.0 | 110.3 | 93.2 | 80.6 | 51.2 | 817.1 |
| 70° | 75.8 | 76.7 | 78.0 | 80.6 | 80.3 | 68.4 | 58.2 | 38.7 | 855.8 |
| 75° | 55.2 | 55.4 | 55.7 | 57.0 | 55.4 | 46.3 | 38.3 | 27.9 | 883.7 |
| 80° | 42.4 | 41.9 | 40.8 | 39.2 | 35.6 | 27.7 | 21.5 | 19.5 | 903.3 |
| 85° | 34.5 | 33.8 | 31.7 | 27.6 | 21.5 | 14.0 | 8.7 | 13.7 | 916.9 |
| 90° | 28.5 | 27.9 | 25.4 | 20.0 | 13.0 | 5.8 | 0.8 | 9.7 | 926.7 |
| 95° | 25.4 | 25.0 | 22.9 | 18.2 | 11.9 | 5.4 | 1.1 | 8.8 | 935.5 |
| 100° | 23.4 | 22.9 | 21.0 | 17.1 | 11.6 | 5.5 | 1.7 | 8.2 | 943.6 |
| 105° | 21.5 | 21.0 | 19.3 | 16.3 | 11.6 | 5.8 | 2.4 | 7.6 | 951.2 |
| 110° | 19.9 | 19.3 | 18.1 | 15.8 | 11.8 | 6.2 | 2.9 | 7.1 | 958.3 |
| 115° | 18.9 | 18.4 | 17.5 | 15.6 | 12.1 | 6.5 | 2.9 | 6.7 | 965.0 |
| 120° | 18.5 | 17.9 | 17.3 | 15.6 | 12.2 | 6.6 | 2.9 | 6.3 | 971.4 |
| 125° | 18.2 | 17.7 | 17.1 | 15.5 | 11.7 | 6.5 | 2.7 | 5.9 | 977.3 |
| 130° | 18.1 | 17.6 | 16.9 | 14.9 | 10.9 | 6.2 | 2.5 | 5.4 | 982.6 |
| 135° | 17.9 | 17.2 | 16.1 | 13.6 | 9.8 | 5.6 | 2.4 | 4.7 | 987.3 |
| 140° | 16.8 | 15.9 | 14.5 | 12.0 | 8.4 | 5.0 | 2.2 | 3.8 | 991.1 |
| 145° | 14.9 | 14.0 | 12.6 | 10.1 | 6.9 | 4.5 | 2.0 | 3.0 | 994.1 |
| 150° | 12.5 | 11.8 | 10.5 | 8.0 | 5.7 | 4.2 | 1.8 | 2.2 | 996.3 |
| 155° | 10.2 | 9.6 | 8.4 | 6.3 | 5.0 | 3.7 | 1.6 | 1.5 | 997.8 |
| 160° | 8.1 | 7.7 | 6.3 | 5.1 | 4.6 | 3.6 | 1.5 | 1.0 | 998.8 |
| 165° | 6.4 | 6.2 | 4.7 | 4.5 | 4.1 | 4.7 | 1.5 | 0.7 | 999.5 |
| 170° | 5.4 | 4.4 | 3.9 | 4.0 | 3.9 | 3.8 | 1.5 | 0.4 | 999.8 |
| 175° | 3.9 | 3.2 | 4.4 | 4.7 | 3.9 | 2.2 | 1.5 | 0.2 | 1000.0 |
| 180° | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 0.0 | 1000.0 |

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| | | |
|------------------|----------------------|---------------|
| UGR-Table | Standard room | siteco |
|------------------|----------------------|---------------|

| | | | | | | | | | | | |
|------------------------------|---------------------|------|------|------|------|--------------------|------|------|------|------|------|
| Reflection factor of ceiling | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | 0.7 | 0.7 | 0.5 | 0.5 | 0.3 | |
| Reflection factor of walls | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | 0.5 | 0.3 | 0.5 | 0.3 | 0.3 | |
| Reflection factor of floor | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | |
| Room dimensions | View crosswise (C0) | | | | | View endwise (C90) | | | | | |
| x | y | | | | | | | | | | |
| 2H | 2H | 23.0 | 24.7 | 23.3 | 25.0 | 25.3 | 22.8 | 24.5 | 23.1 | 24.8 | 25.1 |
| | 3H | 23.9 | 25.5 | 24.3 | 25.8 | 26.2 | 23.9 | 25.4 | 24.3 | 25.8 | 26.1 |
| | 4H | 24.3 | 25.7 | 24.7 | 26.1 | 26.5 | 24.3 | 25.8 | 24.7 | 26.1 | 26.5 |
| | 6H | 24.6 | 26.0 | 25.1 | 26.3 | 26.7 | 24.6 | 25.9 | 25.0 | 26.3 | 26.7 |
| | 8H | 24.8 | 26.1 | 25.3 | 26.5 | 26.9 | 24.7 | 26.0 | 25.1 | 26.3 | 26.7 |
| | 12H | 25.0 | 26.2 | 25.4 | 26.6 | 27.0 | 24.7 | 25.9 | 25.2 | 26.3 | 26.7 |
| 4H | 2H | 23.6 | 25.1 | 24.0 | 25.4 | 25.8 | 23.5 | 24.9 | 23.9 | 25.3 | 25.6 |
| | 3H | 24.7 | 26.0 | 25.2 | 26.4 | 26.8 | 24.8 | 26.1 | 25.3 | 26.5 | 26.9 |
| | 4H | 25.2 | 26.3 | 25.6 | 26.7 | 27.2 | 25.4 | 26.5 | 25.8 | 26.9 | 27.3 |
| | 6H | 25.7 | 26.6 | 26.1 | 27.0 | 27.5 | 25.7 | 26.7 | 26.2 | 27.1 | 27.6 |
| | 8H | 25.9 | 26.8 | 26.3 | 27.2 | 27.7 | 25.9 | 26.8 | 26.3 | 27.2 | 27.7 |
| | 12H | 26.1 | 26.9 | 26.6 | 27.4 | 27.9 | 25.9 | 26.7 | 26.4 | 27.2 | 27.7 |
| 8H | 4H | 25.5 | 26.4 | 25.9 | 26.8 | 27.3 | 25.6 | 26.5 | 26.1 | 27.0 | 27.4 |
| | 6H | 26.0 | 26.8 | 26.5 | 27.3 | 27.8 | 26.1 | 26.9 | 26.6 | 27.3 | 27.8 |
| | 8H | 26.4 | 27.0 | 26.9 | 27.5 | 28.0 | 26.3 | 27.0 | 26.8 | 27.5 | 28.0 |
| | 12H | 26.7 | 27.3 | 27.2 | 27.8 | 28.3 | 26.5 | 27.0 | 27.0 | 27.5 | 28.0 |
| 12H | 4H | 25.5 | 26.3 | 26.0 | 26.8 | 27.3 | 25.7 | 26.5 | 26.2 | 26.9 | 27.4 |
| | 6H | 26.1 | 26.8 | 26.6 | 27.3 | 27.8 | 26.2 | 26.9 | 26.7 | 27.3 | 27.9 |
| | 8H | 26.5 | 27.1 | 27.0 | 27.5 | 28.1 | 26.4 | 27.0 | 26.9 | 27.5 | 28.0 |

| | | | | | |
|------------------------|---|--------------------------------------|-----------------|-------------------|---------------------|
| Luminance table | Max. for $\gamma \geq 65^\circ$ | Photometric dimensions in mm: | L = 1476 | H(C0) = 25 | H(C180) = 25 |
| | | | B = 75 | H(C90) = 0 | H(C270) = 0 |

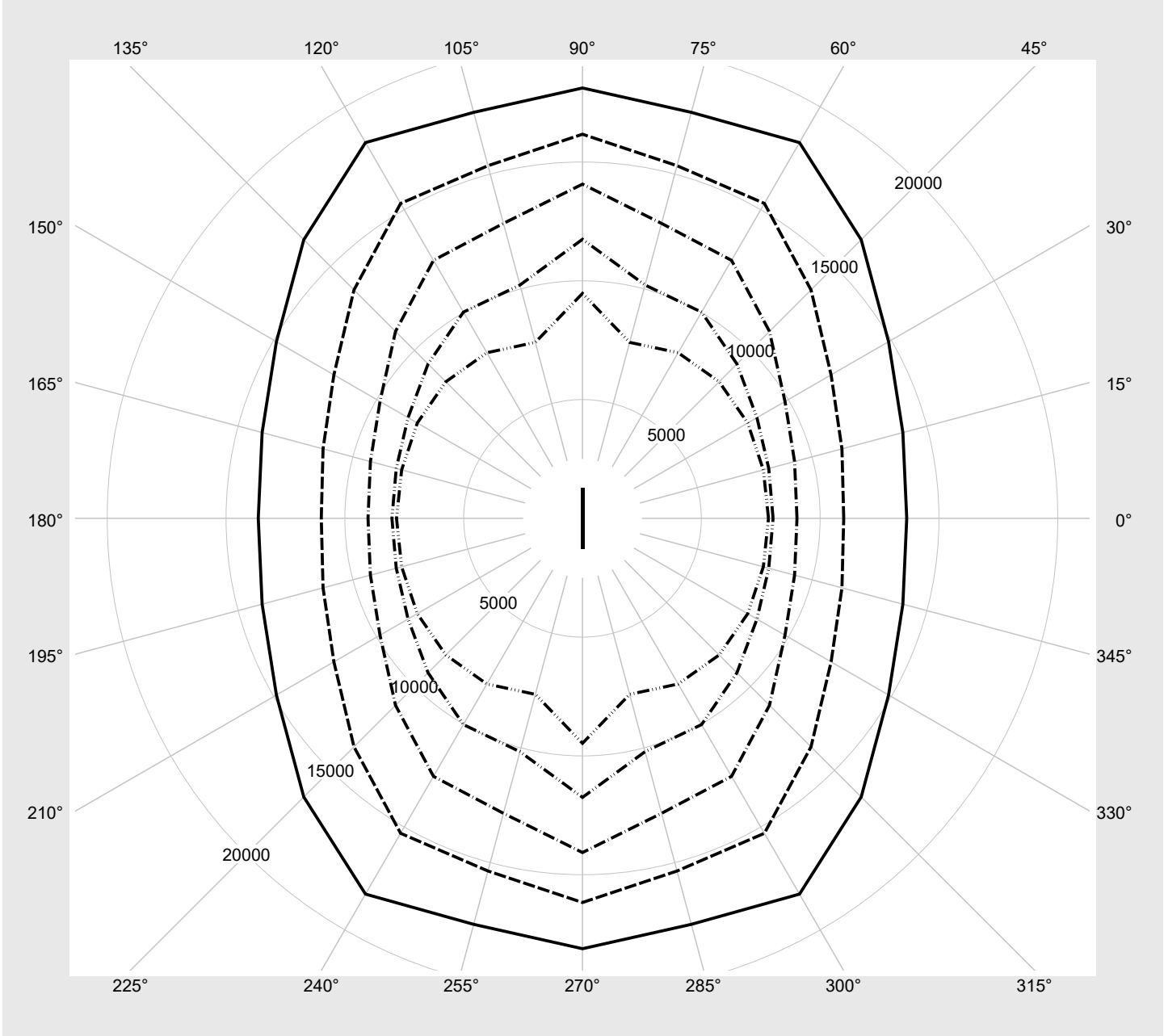
| C-planes | γ | Luminance in cd/m ² | | | | | | | |
|----------|----------|--------------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-------------|--|
| | | 0° 180° | 15° 165° 195° 345° | 30° 150° 210° 330° | 45° 135° 225° 315° | 60° 120° 240° 300° | 75° 105° 255° 285° | 90° 270° | |
| 45° | | 25262.9 | 25776.9 | 26505.1 | 26515.4 | 25264.0 | 24183.4 | 24912.9 | |
| 50° | | 22309.8 | 22876.2 | 24194.4 | 25267.6 | 24585.1 | 23017.9 | 23527.7 | |
| 55° | | 19263.9 | 19762.0 | 21176.0 | 22943.5 | 23241.4 | 21592.4 | 21928.3 | |
| 60° | | 16354.8 | 16750.5 | 17941.0 | 19868.9 | 21029.6 | 19798.2 | 20071.2 | |
| 65° | | 13644.3 | 13957.2 | 14873.6 | 16586.7 | 18264.0 | 17693.3 | 18115.7 | |
| 70° | | 10992.5 | 11303.3 | 12080.3 | 13599.9 | 15308.6 | 15368.3 | 16169.7 | |
| 75° | | 9025.8 | 9239.4 | 9839.6 | 11128.4 | 12541.6 | 12853.8 | 14067.9 | |
| 80° | | 8019.6 | 8114.2 | 8476.8 | 9191.0 | 10023.6 | 10169.0 | 11745.4 | |
| 85° | | 7826.8 | 7879.0 | 8027.7 | 8132.7 | 8051.0 | 7669.5 | 9468.7 | |

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Luminance values in cd/m² γ 65° γ 70° γ 75° γ 80° γ 85°



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

| | | |
|-------------------------|---------------------------------|---------------|
| Multilumen Table | environmental temperature: 25°C | siteco |
|-------------------------|---------------------------------|---------------|

| DIP-Step | Switch Setting | | | Luminous flux [lm] | Power consumption [W] | Power consumption | Power consumption |
|----------|----------------|---|---|-----------------------|--------------------------|------------------------|-------------------|
| | 1 | 2 | 3 | | | [W] end of lifetime | [W] average |
| 1 | A | C | E | 10520 | 63.8 | 73.1 | 68.4 |
| 2 | A | C | F | 10060 | 60.6 | 69.3 | 65.0 |
| 3 | A | D | E | 9050 | 53.8 | 61.0 | 57.4 |
| 4 | A | D | F | 8010 | 47.0 | 53.3 | 50.2 |
| 5 | B | C | E | 7020 | 40.8 | 46.1 | 43.4 |
| 6 | B | C | F | 6010 | 34.7 | 39.0 | 36.8 |
| 7 | B | D | E | 5050 | 29.1 | 32.5 | 30.8 |
| 8 | B | D | F | 4070 | 23.5 | 26.1 | 24.8 |