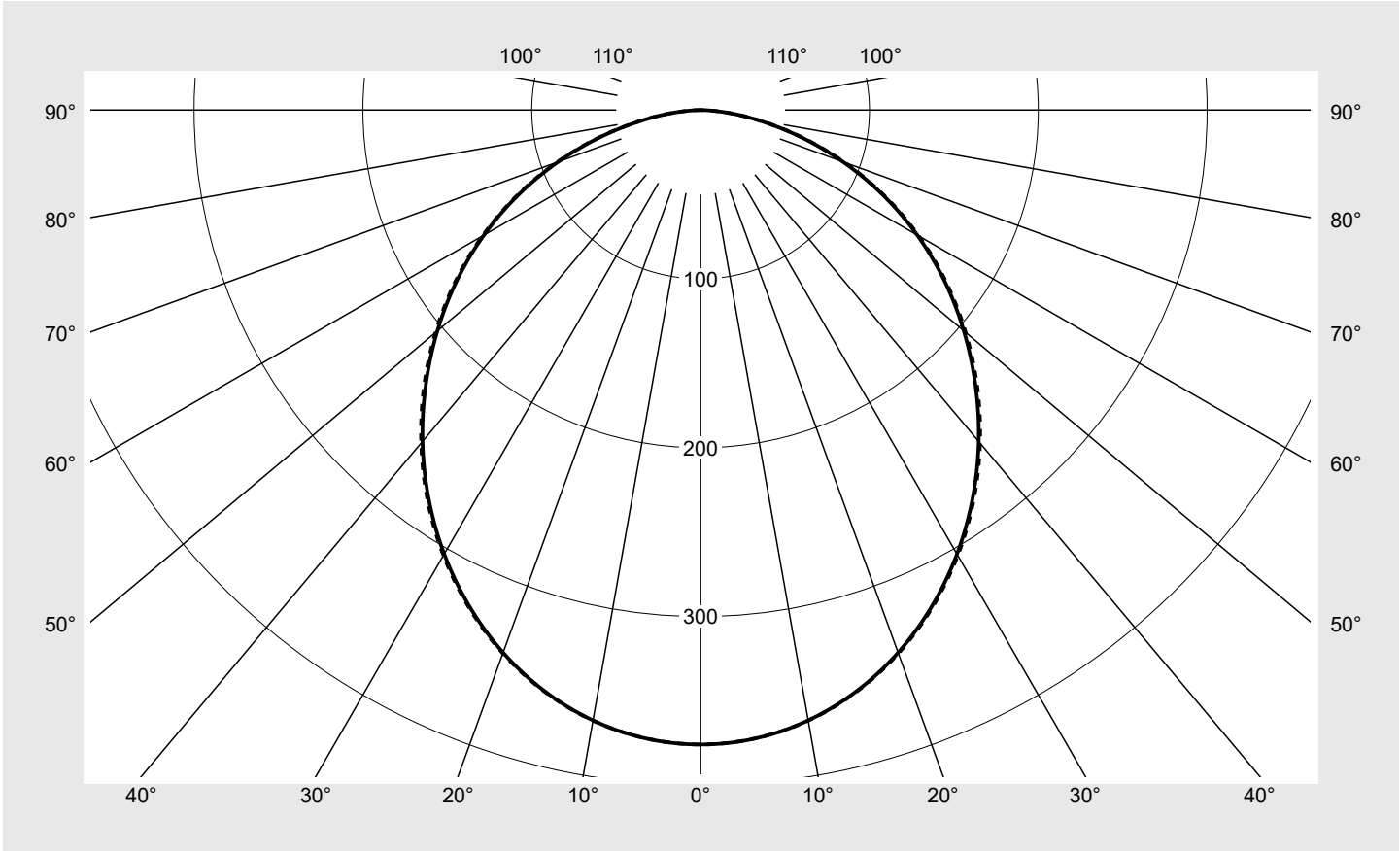


# Photometric test report

|  |  |  |
|--|--|--|
| <b>Family</b><br><b>Round 21 M</b>   | <b>Order number: 51MR36FD0321B</b><br><b>EAN: 4058352829837</b>  | <b>LP number</b><br><b>59509_5</b>               |
|                                   | <b>Version</b><br>surface-mounted and suspended luminaire, cover, opal, PMMA, symmetric extremely wide distribution, direct distribution, aluminium housing, black | <b>serial documentation</b><br><b>08.11.2023</b> |
|  | <b>Lamps</b><br>LED 3000 K   CRI ≥ 80  |  |
|  | <b>Controlgear</b><br>ECG-DALI   |  |
| <b>Rated values</b><br>Net luminous flux = 6790 lm<br>Power consumption = 54.8 W<br>Luminous efficacy = 123.9 lm/W |  |  |



**Luminous intensity in cd/klm** C180-0 C270-90 **Imax: 376 cd/klm**



| Classifications |                                    |
|-----------------|------------------------------------|
| DIN 5040        | A 4 0                              |
| CIE             | N1=49 N2=80 N3=96<br>N4=100 N5=100 |

| Luminaire light output ratios |        |
|-------------------------------|--------|
| $\eta_{LB}$                   | 100.0% |
| $\phi_u$                      | 100.0% |
| $\phi_o$                      | 0.0%   |

**Measurement conditions**  
 DIN EN 13032 and DIN 5032

## Photometric test report

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

|  |                            |        |
|--|----------------------------|--------|
| Table of values for luminous intensities | Maximum luminous intensity | sITeco |
|--|----------------------------|--------|

| C-planes<br>$\gamma$         | 0°<br>180° | 15°                  | 30°                  | 45°                  | 60°                  | 75°                  | 90°<br>270°             | Phi-zone | Total<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° |                         |          |                   |
| Luminous intensity in cd/klm |            |                      |                      |                      |                      |                      | Luminous flux in lm/klm |          |                   |
| 0°                           | 375.8      | 375.8                | 375.8                | 375.8                | 375.8                | 375.8                | 375.8                   | 2.2      | 2.2               |
| 5°                           | 373.6      | 373.6                | 373.6                | 373.6                | 373.7                | 373.6                | 373.6                   | 17.8     | 20.1              |
| 10°                          | 367.1      | 367.0                | 367.1                | 367.1                | 367.2                | 367.1                | 367.2                   | 34.9     | 55.0              |
| 15°                          | 356.4      | 356.5                | 356.5                | 356.7                | 356.7                | 356.7                | 356.7                   | 50.6     | 105.6             |
| 20°                          | 342.0      | 342.1                | 342.1                | 342.4                | 342.4                | 342.5                | 342.5                   | 64.2     | 169.8             |
| 25°                          | 324.2      | 324.6                | 324.4                | 324.9                | 324.8                | 325.3                | 324.9                   | 75.2     | 245.0             |
| 30°                          | 303.7      | 304.3                | 303.9                | 304.6                | 304.5                | 305.2                | 304.6                   | 83.4     | 328.5             |
| 35°                          | 280.8      | 281.7                | 281.1                | 282.4                | 281.8                | 282.9                | 282.0                   | 88.6     | 417.1             |
| 40°                          | 256.2      | 257.4                | 256.5                | 258.0                | 257.2                | 258.5                | 257.4                   | 90.7     | 507.8             |
| 45°                          | 230.2      | 231.7                | 230.5                | 232.2                | 231.4                | 232.8                | 231.7                   | 89.8     | 597.5             |
| 50°                          | 203.5      | 204.9                | 203.8                | 205.4                | 204.7                | 206.0                | 204.9                   | 86.0     | 683.6             |
| 55°                          | 176.3      | 177.6                | 175.5                | 178.1                | 177.3                | 178.7                | 177.4                   | 79.6     | 763.2             |
| 60°                          | 148.1      | 149.5                | 147.4                | 150.0                | 149.0                | 150.6                | 149.2                   | 70.8     | 834.0             |
| 65°                          | 119.2      | 120.8                | 118.4                | 121.2                | 120.0                | 121.6                | 120.1                   | 59.7     | 893.7             |
| 70°                          | 89.7       | 91.5                 | 88.8                 | 91.9                 | 90.4                 | 92.3                 | 90.6                    | 46.8     | 940.5             |
| 75°                          | 60.9       | 62.5                 | 60.0                 | 63.4                 | 61.5                 | 63.0                 | 61.6                    | 32.8     | 973.3             |
| 80°                          | 34.5       | 35.9                 | 33.5                 | 36.8                 | 35.0                 | 36.0                 | 35.0                    | 19.1     | 992.4             |
| 85°                          | 13.2       | 14.6                 | 12.4                 | 14.8                 | 13.6                 | 14.5                 | 13.7                    | 7.6      | 1000.0            |
| 90°                          | 0.0        | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.0                  | 0.0                     | 0.0      | 1000.0            |

## Photometric test report

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

| UGR-Table                    |     | Standard room       |      |      |      |      |                    |      |      |      |      |
|------------------------------|-----|---------------------|------|------|------|------|--------------------|------|------|------|------|
| 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  | 19.4                | 21.1 | 19.7 | 21.4 | 21.7 | 19.4               | 21.1 | 19.8 | 21.4 | 21.7 |
|                              | 3H  | 20.9                | 22.5 | 21.3 | 22.8 | 23.1 | 21.0               | 22.5 | 21.4 | 22.8 | 23.2 |
|                              | 4H  | 21.5                | 23.0 | 21.9 | 23.3 | 23.7 | 21.6               | 23.0 | 22.0 | 23.4 | 23.7 |
|                              | 6H  | 22.0                | 23.3 | 22.4 | 23.6 | 24.0 | 22.0               | 23.3 | 22.4 | 23.7 | 24.1 |
|                              | 8H  | 22.1                | 23.3 | 22.5 | 23.7 | 24.1 | 22.2               | 23.4 | 22.6 | 23.8 | 24.2 |
|                              | 12H | 22.2                | 23.4 | 22.6 | 23.7 | 24.2 | 22.3               | 23.4 | 22.7 | 23.8 | 24.2 |
| 4H                           | 2H  | 20.1                | 21.6 | 20.5 | 21.9 | 22.3 | 20.2               | 21.6 | 20.6 | 21.9 | 22.3 |
|                              | 3H  | 21.9                | 23.1 | 22.3 | 23.4 | 23.9 | 21.9               | 23.1 | 22.3 | 23.5 | 23.9 |
|                              | 4H  | 22.6                | 23.7 | 23.0 | 24.1 | 24.5 | 22.6               | 23.7 | 23.1 | 24.1 | 24.5 |
|                              | 6H  | 23.1                | 24.0 | 23.5 | 24.5 | 24.9 | 23.2               | 24.1 | 23.6 | 24.5 | 25.0 |
|                              | 8H  | 23.3                | 24.1 | 23.7 | 24.6 | 25.1 | 23.3               | 24.2 | 23.8 | 24.6 | 25.1 |
|                              | 12H | 23.4                | 24.2 | 23.9 | 24.6 | 25.1 | 23.5               | 24.2 | 23.9 | 24.7 | 25.2 |
| 8H                           | 4H  | 22.9                | 23.8 | 23.4 | 24.2 | 24.7 | 22.9               | 23.8 | 23.4 | 24.2 | 24.7 |
|                              | 6H  | 23.5                | 24.2 | 24.0 | 24.7 | 25.2 | 23.6               | 24.3 | 24.1 | 24.8 | 25.3 |
|                              | 8H  | 23.7                | 24.4 | 24.2 | 24.9 | 25.4 | 23.8               | 24.4 | 24.3 | 24.9 | 25.4 |
|                              | 12H | 23.9                | 24.5 | 24.4 | 24.9 | 25.5 | 24.0               | 24.5 | 24.5 | 25.0 | 25.6 |
| 12H                          | 4H  | 22.9                | 23.7 | 23.4 | 24.2 | 24.6 | 23.0               | 23.8 | 23.5 | 24.2 | 24.7 |
|                              | 6H  | 23.6                | 24.2 | 24.1 | 24.7 | 25.2 | 23.7               | 24.3 | 24.2 | 24.8 | 25.3 |
|                              | 8H  | 23.8                | 24.4 | 24.4 | 24.9 | 25.4 | 23.9               | 24.4 | 24.4 | 24.9 | 25.5 |

| Luminance table |          | Max. for $\gamma \geq 65^\circ$ |        | Photometric dimensions in mm: |        | D = 590 |        |        |
|-----------------|----------|---------------------------------|--------|-------------------------------|--------|---------|--------|--------|
| C-planes        | $\gamma$ | 0°                              | 15°    | 30°                           | 45°    | 60°     | 75°    | 90°    |
|                 |          | 180°                            | 165°   | 150°                          | 135°   | 120°    | 105°   | 90°    |
|                 |          | 195°                            | 195°   | 210°                          | 225°   | 240°    | 255°   | 270°   |
|                 |          | 345°                            | 345°   | 330°                          | 315°   | 300°    | 285°   |        |
|                 |          | Luminance in cd/m <sup>2</sup>  |        |                               |        |         |        |        |
| 45°             |          | 8084.7                          | 8139.4 | 8096.7                        | 8155.3 | 8127.0  | 8175.5 | 8138.2 |
| 50°             |          | 7862.3                          | 7918.2 | 7874.9                        | 7936.4 | 7907.5  | 7960.5 | 7915.1 |
| 55°             |          | 7633.0                          | 7690.9 | 7600.7                        | 7712.0 | 7675.2  | 7737.2 | 7682.8 |
| 60°             |          | 7357.8                          | 7427.8 | 7319.2                        | 7452.2 | 7401.5  | 7479.6 | 7410.2 |
| 65°             |          | 7004.6                          | 7096.5 | 6955.0                        | 7119.9 | 7049.4  | 7146.0 | 7059.1 |
| 70°             |          | 6515.4                          | 6647.6 | 6450.5                        | 6672.3 | 6565.7  | 6699.5 | 6576.5 |
| 75°             |          | 5848.3                          | 5999.2 | 5759.0                        | 6087.8 | 5905.0  | 6046.8 | 5912.7 |
| 80°             |          | 4933.7                          | 5127.8 | 4792.7                        | 5263.5 | 4998.9  | 5149.3 | 5010.4 |
| 85°             |          | 3766.6                          | 4163.2 | 3536.9                        | 4210.2 | 3880.5  | 4144.7 | 3906.2 |

**Photometric test report**

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

**Luminance values in cd/m<sup>2</sup>**

$\gamma$  65°   
   $\gamma$  70°   
   $\gamma$  75°   
   $\gamma$  80°   
   $\gamma$  85°

**siteco**

