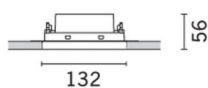


Last information update: May 2024

Product configuration: MM86

MM86: 5 - cell Frameless Recessed luminaire - LED - Warm white - Incorporated DALI dimmable power supply - Wide Flood optic

**Product code**

MM86: 5 - cell Frameless Recessed luminaire - LED - Warm white - Incorporated DALI dimmable power supply - Wide Flood optic

Attention! Code no longer in production**Technical description**

rectangular miniaturised recessed luminaire with 5 optical elements with LED lamps - fixed optics - wide flood beam angle. Main body with die-cast aluminium radiant surface, minimal (frameless) version for mounting flush with the ceiling. Metallised thermoplastic high definition optics, integrated in a rear position in the black anti-glare screen; the structure of the optical system prevents a pinpoint effect, allowing precise, circular light distribution and emission with controlled glare. Supplied with DALI dimmable electronic control gear connected to the luminaire. Warm white high colour rendering LED

Installation

recessed with steel wire springs on the specific adapter (included) which allows flush-mounting with the ceiling. Adapter fixed to false ceiling (12.5 mm thick) with self-tapping screws; subsequent filling and smoothing operations; insertion of luminaire body and aesthetic finishing. Preparation hole 35 x 139

Colour

White (01) | Black (04) | Burnished chrome (E6)

Weight (Kg)

0.36

Mounting

wall recessed|ceiling recessed

Wiring

on control gear box; screw connections with terminal block included

Complies with EN60598-1 and pertinent regulations



IP20

IP23

On the visible part of the product once installed

**Technical data**

| | | | |
|--|-----|---------------------------------------|-------------------------------|
| lm system: | 705 | CRI: | 95 |
| W system: | 15 | Colour temperature [K]: | 2700 |
| lm source: | 850 | MacAdam Step: | 3 |
| W source: | 10 | Life Time LED 1: | 50,000h - L90 - B10 (Ta 25°C) |
| Luminous efficiency (lm/W, real value): | 47 | Lamp code: | LED |
| lm in emergency mode: | - | Number of lamps for optical assembly: | 1 |
| Total light flux at or above an angle of 90° [Lm]: | 0 | ZVEI Code: | LED |
| Light Output Ratio (L.O.R.) [%]: | 83 | Number of optical assemblies: | 1 |
| Beam angle [°]: | 48° | Control: | DALI |

Polar

| | | | | |
|--|--|-----|------|------|
| | CIE nL 0.83 100-100-100-100-83 UGR <10-10 DIN A.61 UTE 0.83A+0.00T F*1=999 F*1+F*2=1000 F*1+F*2+F*3=1000 CIBSE LG3 L<1500 cd/m² at 65° UGR<10 L<1500 cd/mq @65° | | | |
| | Lux | | | |
| | h | d | Em | Emax |
| | 1 | 0.9 | 1045 | 1246 |
| | 2 | 1.8 | 261 | 311 |
| | 3 | 2.7 | 116 | 138 |
| | 4 | 3.6 | 65 | 78 |

Utilisation factors

| R | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
|------|----|----|----|----|----|----|----|----|-----|
| K0.8 | 75 | 71 | 68 | 66 | 70 | 68 | 68 | 65 | 78 |
| 1.0 | 78 | 75 | 72 | 70 | 74 | 72 | 71 | 69 | 83 |
| 1.5 | 82 | 79 | 77 | 76 | 79 | 77 | 76 | 74 | 89 |
| 2.0 | 85 | 83 | 81 | 80 | 82 | 80 | 79 | 77 | 93 |
| 2.5 | 86 | 85 | 84 | 83 | 84 | 83 | 82 | 79 | 96 |
| 3.0 | 87 | 86 | 85 | 85 | 85 | 84 | 83 | 81 | 98 |
| 4.0 | 88 | 87 | 87 | 86 | 86 | 86 | 84 | 82 | 99 |
| 5.0 | 89 | 88 | 88 | 88 | 87 | 86 | 85 | 83 | 100 |

UGR diagram

| Corrected UGR values (at 850 lm bare lamp luminous flux) | | | | | | | | | | | |
|--|-----|------------------|--------------|------|------|------|----------------|------|------|------|------|
| Reflect.: | | viewed crosswise | | | | | viewed endwise | | | | |
| ceiling/cav | | 0.70 | 0.70 | 0.50 | 0.50 | 0.30 | 0.70 | 0.70 | 0.50 | 0.50 | 0.30 |
| walls | | 0.50 | 0.30 | 0.50 | 0.30 | 0.30 | 0.50 | 0.30 | 0.50 | 0.30 | 0.30 |
| work pl. | | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| Room dim | | | | | | | | | | | |
| x | y | | | | | | | | | | |
| 2H | 2H | 1.2 | 1.6 | 1.4 | 1.9 | 2.1 | 1.2 | 1.6 | 1.4 | 1.9 | 2.1 |
| | 3H | 1.0 | 1.5 | 1.3 | 1.7 | 2.0 | 1.0 | 1.5 | 1.3 | 1.7 | 2.0 |
| | 4H | 1.0 | 1.4 | 1.3 | 1.7 | 2.0 | 1.0 | 1.4 | 1.3 | 1.7 | 2.0 |
| | 6H | 0.9 | 1.3 | 1.2 | 1.6 | 1.9 | 0.9 | 1.3 | 1.2 | 1.6 | 1.9 |
| | 8H | 0.9 | 1.2 | 1.2 | 1.5 | 1.9 | 0.9 | 1.2 | 1.2 | 1.5 | 1.9 |
| | 12H | 0.8 | 1.2 | 1.2 | 1.5 | 1.9 | 0.8 | 1.2 | 1.2 | 1.5 | 1.8 |
| 4H | 2H | 1.0 | 1.4 | 1.3 | 1.7 | 2.0 | 1.0 | 1.4 | 1.3 | 1.7 | 2.0 |
| | 3H | 0.8 | 1.2 | 1.2 | 1.5 | 1.8 | 0.8 | 1.2 | 1.2 | 1.5 | 1.9 |
| | 4H | 0.7 | 1.0 | 1.1 | 1.4 | 1.8 | 0.7 | 1.0 | 1.1 | 1.4 | 1.8 |
| | 6H | 0.6 | 0.9 | 1.1 | 1.3 | 1.7 | 0.6 | 0.9 | 1.1 | 1.3 | 1.7 |
| | 8H | 0.6 | 0.8 | 1.0 | 1.3 | 1.7 | 0.6 | 0.8 | 1.0 | 1.3 | 1.7 |
| | 12H | 0.5 | 0.8 | 1.0 | 1.2 | 1.7 | 0.5 | 0.8 | 1.0 | 1.2 | 1.7 |
| 8H | 4H | 0.6 | 0.8 | 1.0 | 1.3 | 1.7 | 0.6 | 0.8 | 1.0 | 1.3 | 1.7 |
| | 6H | 0.5 | 0.7 | 1.0 | 1.2 | 1.6 | 0.5 | 0.7 | 1.0 | 1.2 | 1.6 |
| | 8H | 0.4 | 0.6 | 0.9 | 1.1 | 1.6 | 0.4 | 0.6 | 0.9 | 1.1 | 1.6 |
| | 12H | 0.4 | 0.5 | 0.9 | 1.0 | 1.6 | 0.4 | 0.5 | 0.9 | 1.0 | 1.5 |
| 12H | 4H | 0.5 | 0.8 | 1.0 | 1.2 | 1.7 | 0.5 | 0.8 | 1.0 | 1.2 | 1.7 |
| | 6H | 0.4 | 0.6 | 0.9 | 1.1 | 1.6 | 0.4 | 0.6 | 0.9 | 1.1 | 1.6 |
| | 8H | 0.4 | 0.5 | 0.9 | 1.0 | 1.5 | 0.4 | 0.5 | 0.9 | 1.0 | 1.6 |
| Variations with the observer position at spacing: | | | | | | | | | | | |
| S = | | 1.0H | 0.9 / -18.0 | | | | 0.9 / -18.0 | | | | |
| | | 1.5H | 9.7 / -18.3 | | | | 9.7 / -18.3 | | | | |
| | | 2.0H | 11.7 / -18.4 | | | | 11.7 / -18.4 | | | | |