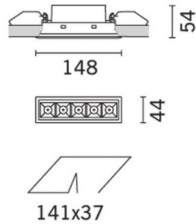


Last information update: May 2018

**5 - cell Recessed luminaire - LED - Warm white - Incorporated DALI dimmable power supply - Flood optic****Product code**

MM77

Technical description

rectangular miniaturised recessed luminaire with 5 optical elements with LED lamps - fixed optics - flood beam angle. Main body with die-cast aluminium radiant surface, version with perimeter surface frame. 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 for false ceilings from 1 to 25 mm thick - preparation hole 37 x 141

Dimension (mm)

148x44x54

Colour

White (01) | White/Brass (41) | Black/Black (43) | Black/White (47) | Grey/Black (74) | (E7)

Weight (Kg)

0.29

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

**Product configuration: MM77****Product characteristics**

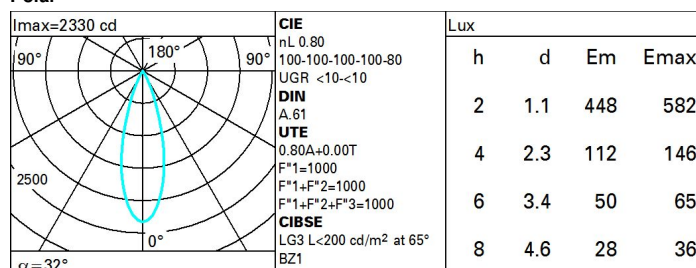
Total lighting output [Lm]: 678.9
Total power [W]: 13
Luminous efficacy [Lm/W]: 52.2
Life Time: 50,000h - L90 - B10 (Ta 25°C)

Total luminous flux at or above an angle of 90° [Lm]: 0
Emergency luminous flux [Lm]: /
Voltage [V]: -
Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 80
Lamp code: LED
ZVEI Code: LED
Nominal power [W]: 10
Nominal luminous [Lm]: 850
Lamp maximum intensity [cd]: /
Beam angle [°]: 32°

Number of lamps for optical assembly: 1
Socket: /
Ballast losses [W]: 3
Colour temperature [K]: 2700
CRI: 95
Wavelength [Nm]: /
MacAdam Step: 3

Polar

Utilisation factors

| R | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
|------|----|----|----|----|----|----|----|----|-----|
| K0.8 | 72 | 69 | 66 | 64 | 68 | 66 | 65 | 63 | 78 |
| 1.0 | 75 | 72 | 70 | 68 | 71 | 69 | 69 | 66 | 83 |
| 1.5 | 79 | 77 | 75 | 73 | 76 | 74 | 73 | 71 | 89 |
| 2.0 | 81 | 80 | 78 | 77 | 79 | 77 | 76 | 74 | 93 |
| 2.5 | 83 | 82 | 81 | 80 | 80 | 79 | 79 | 77 | 96 |
| 3.0 | 84 | 83 | 82 | 81 | 82 | 81 | 80 | 78 | 98 |
| 4.0 | 85 | 84 | 84 | 83 | 83 | 82 | 81 | 79 | 99 |
| 5.0 | 85 | 85 | 85 | 84 | 84 | 83 | 82 | 80 | 100 |

UGR diagram

| Corrected UGR values (at 850 lm bare lamp luminous flux) | | | | | | | | | | | |
|--|-----|---------------------|--------------|------|------|------|-------------------|------|------|------|------|
| Reflect.: ceiling/cav walls work pl. Room dim x y | | 0.70 | 0.70 | 0.50 | 0.50 | 0.30 | 0.70 | 0.70 | 0.50 | 0.50 | 0.30 |
| | | 0.50 | 0.30 | 0.50 | 0.30 | 0.30 | 0.50 | 0.30 | 0.50 | 0.30 | 0.30 |
| | | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| | | viewed crosswise | | | | | viewed endwise | | | | |
| 2H | 2H | -3.7 | -3.2 | -3.4 | -3.0 | -2.7 | -3.7 | -3.2 | -3.4 | -3.0 | -2.7 |
| | 3H | -3.8 | -3.4 | -3.5 | -3.1 | -2.8 | -3.8 | -3.4 | -3.5 | -3.1 | -2.8 |
| | 4H | -3.9 | -3.5 | -3.6 | -3.2 | -2.9 | -3.9 | -3.5 | -3.6 | -3.2 | -2.9 |
| | 6H | -4.0 | -3.6 | -3.6 | -3.3 | -3.0 | -4.0 | -3.6 | -3.6 | -3.3 | -3.0 |
| | 8H | -4.0 | -3.6 | -3.7 | -3.3 | -3.0 | -4.0 | -3.6 | -3.7 | -3.3 | -3.0 |
| | 12H | -4.1 | -3.7 | -3.7 | -3.4 | -3.0 | -4.1 | -3.7 | -3.7 | -3.4 | -3.0 |
| 4H | 2H | -3.9 | -3.5 | -3.6 | -3.2 | -2.9 | -3.9 | -3.5 | -3.6 | -3.2 | -2.9 |
| | 3H | -4.1 | -3.7 | -3.7 | -3.4 | -3.0 | -4.1 | -3.7 | -3.7 | -3.4 | -3.0 |
| | 4H | -4.2 | -3.8 | -3.8 | -3.5 | -3.1 | -4.2 | -3.8 | -3.8 | -3.5 | -3.1 |
| | 6H | -4.2 | -4.0 | -3.8 | -3.6 | -3.1 | -4.2 | -4.0 | -3.8 | -3.6 | -3.1 |
| | 8H | -4.3 | -4.0 | -3.9 | -3.6 | -3.2 | -4.3 | -4.0 | -3.9 | -3.6 | -3.2 |
| | 12H | -4.3 | -4.1 | -3.9 | -3.7 | -3.2 | -4.3 | -4.1 | -3.9 | -3.7 | -3.2 |
| 8H | 4H | -4.3 | -4.0 | -3.9 | -3.6 | -3.2 | -4.3 | -4.0 | -3.9 | -3.6 | -3.2 |
| | 6H | -4.4 | -4.2 | -3.9 | -3.7 | -3.2 | -4.4 | -4.2 | -3.9 | -3.7 | -3.2 |
| | 8H | -4.4 | -4.3 | -4.0 | -3.8 | -3.3 | -4.4 | -4.3 | -4.0 | -3.8 | -3.3 |
| | 12H | -4.5 | -4.3 | -4.0 | -3.8 | -3.3 | -4.5 | -4.3 | -4.0 | -3.8 | -3.3 |
| 12H | 4H | -4.3 | -4.1 | -3.9 | -3.7 | -3.2 | -4.3 | -4.1 | -3.9 | -3.7 | -3.2 |
| | 6H | -4.4 | -4.3 | -4.0 | -3.8 | -3.3 | -4.4 | -4.3 | -4.0 | -3.8 | -3.3 |
| | 8H | -4.5 | -4.3 | -4.0 | -3.8 | -3.3 | -4.5 | -4.3 | -4.0 | -3.8 | -3.3 |
| Variations with the observer position at spacing: | | | | | | | | | | | |
| S = | | 1.0H | 6.8 / -18.5 | | | | 6.8 / -18.5 | | | | |
| | | 1.5H | 9.6 / -18.7 | | | | 9.6 / -18.7 | | | | |
| | | 2.0H | 11.6 / -23.0 | | | | 11.6 / -23.0 | | | | |