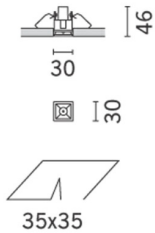


Last information update: October 2024

Product configuration: QQ48

QQ48: Square, Frameless, Recessed luminaire - Warm white LED - Flood optic



Product code

QQ48: Square, Frameless, Recessed luminaire - Warm white LED - Flood optic

Technical description

square, miniaturised, recessed luminaire for an individual LED - fixed optic - flood beam angle. Die-cast aluminium body, minimal version (frameless). Metallised, thermoplastic, high definition optic, integrated in a rear position in the black, anti-glare screen. Connecting cable supplied. Ballast not included, available with separate code. High CRI, warm white LED.

Installation

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

Colour

White (01) | Black (04)

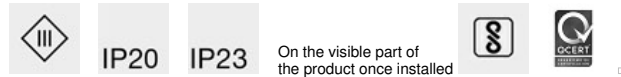
Mounting

wall recessed|ceiling recessed|ceiling surface

Wiring

Direct current ballasts to be ordered separately: electronic (MXF9) for max. 7 LEDs; 0-10V dimmable (Y360) for max. 18 LEDs; DALI dimmable (BZM4) for max. 15 LEDs (check instruction leaflet for compatible lengths of cables to be used)

Complies with EN60598-1 and pertinent regulations



On the visible part of the product once installed

Technical data

| | | | |
|--|-------|---------------------------------------|---------------------------------|
| lm system: | 213 | CRI (typical): | 92 |
| W system: | 2 | Colour temperature [K]: | 3000 |
| lm source: | 250 | MacAdam Step: | 3 |
| W source: | 2 | Life Time LED 1: | > 50,000h - L90 - B10 (Ta 25°C) |
| Luminous efficiency (lm/W, real value): | 106.3 | 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.) [%]: | 85 | Number of optical assemblies: | 1 |
| Beam angle [°]: | 32° | LED current [mA]: | 700 |
| CRI (minimum): | 90 | | |

Polar

| | | | | | |
|-------|--|------------|-----|-----|------------------|
| | CIE nL 0.85 100-100-100-100-85 UGR <10-<10 DIN A.61 UTE 0.85A+0.00T F*1=1000 F*1+F*2=1000 F*1+F*2+F*3=1000 CIBSE LG3 L<1500 cd/m ² at 65° UGR<10 L<1500 cd/mq @65° | Lux | | | |
| | | h | d | Em | E _{max} |
| | | 1 | 0.6 | 513 | 673 |
| | | 2 | 1.1 | 128 | 168 |
| | | 3 | 1.7 | 57 | 75 |
| α=32° | 4 | 2.3 | 32 | 42 | |

Utilisation factors

| R | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
|------|----|----|----|----|----|----|----|----|-----|
| K0.8 | 77 | 73 | 70 | 68 | 72 | 70 | 69 | 67 | 78 |
| 1.0 | 80 | 77 | 74 | 72 | 76 | 74 | 73 | 71 | 83 |
| 1.5 | 84 | 81 | 79 | 78 | 80 | 79 | 78 | 75 | 89 |
| 2.0 | 87 | 85 | 83 | 82 | 84 | 82 | 81 | 79 | 93 |
| 2.5 | 88 | 87 | 86 | 85 | 86 | 85 | 84 | 81 | 96 |
| 3.0 | 89 | 88 | 88 | 87 | 87 | 86 | 85 | 83 | 98 |
| 4.0 | 90 | 90 | 89 | 89 | 88 | 88 | 87 | 84 | 99 |
| 5.0 | 91 | 90 | 90 | 90 | 89 | 89 | 87 | 85 | 100 |

UGR diagram

| Corrected UGR values (at 250 lm bare lamp luminous flux) | | | | | | | | | | | |
|--|------|------------------|------|------|------|------|----------------|------|------|------|------|
| Reflect.: | | 0.70 | 0.70 | 0.50 | 0.50 | 0.30 | 0.70 | 0.70 | 0.50 | 0.50 | 0.30 |
| ceiling/cav | | | | | | | | | | | |
| walls | | | | | | | | | | | |
| work pl. | | | | | | | | | | | |
| Room dim | | viewed crosswise | | | | | viewed endwise | | | | |
| x | y | | | | | | | | | | |
| 2H | 2H | -2.4 | -1.9 | -2.1 | -1.6 | -1.4 | -2.4 | -1.9 | -2.1 | -1.6 | -1.4 |
| | 3H | -2.5 | -2.0 | -2.2 | -1.8 | -1.5 | -2.5 | -2.0 | -2.2 | -1.8 | -1.5 |
| | 4H | -2.6 | -2.1 | -2.3 | -1.9 | -1.6 | -2.6 | -2.1 | -2.3 | -1.9 | -1.6 |
| | 6H | -2.7 | -2.3 | -2.3 | -1.9 | -1.6 | -2.7 | -2.3 | -2.3 | -1.9 | -1.6 |
| | 8H | -2.7 | -2.3 | -2.3 | -2.0 | -1.7 | -2.7 | -2.3 | -2.3 | -2.0 | -1.7 |
| | 12H | -2.7 | -2.4 | -2.4 | -2.0 | -1.7 | -2.7 | -2.4 | -2.4 | -2.0 | -1.7 |
| 4H | 2H | -2.6 | -2.1 | -2.3 | -1.9 | -1.6 | -2.6 | -2.1 | -2.3 | -1.9 | -1.6 |
| | 3H | -2.7 | -2.4 | -2.4 | -2.0 | -1.7 | -2.7 | -2.4 | -2.4 | -2.0 | -1.7 |
| | 4H | -2.8 | -2.5 | -2.4 | -2.1 | -1.8 | -2.8 | -2.5 | -2.4 | -2.1 | -1.8 |
| | 6H | -2.9 | -2.6 | -2.5 | -2.2 | -1.8 | -2.9 | -2.6 | -2.5 | -2.2 | -1.8 |
| | 8H | -3.0 | -2.7 | -2.5 | -2.3 | -1.9 | -3.0 | -2.7 | -2.5 | -2.3 | -1.9 |
| | 12H | -3.0 | -2.8 | -2.6 | -2.3 | -1.9 | -3.0 | -2.8 | -2.6 | -2.3 | -1.9 |
| 8H | 4H | -3.0 | -2.7 | -2.5 | -2.3 | -1.9 | -3.0 | -2.7 | -2.5 | -2.3 | -1.9 |
| | 6H | -3.1 | -2.8 | -2.6 | -2.4 | -1.9 | -3.1 | -2.8 | -2.6 | -2.4 | -1.9 |
| | 8H | -3.1 | -2.9 | -2.6 | -2.5 | -2.0 | -3.1 | -2.9 | -2.6 | -2.5 | -2.0 |
| | 12H | -3.2 | -3.0 | -2.7 | -2.5 | -2.0 | -3.2 | -3.0 | -2.7 | -2.5 | -2.0 |
| 12H | 4H | -3.0 | -2.8 | -2.6 | -2.3 | -1.9 | -3.0 | -2.8 | -2.6 | -2.3 | -1.9 |
| | 6H | -3.1 | -2.9 | -2.6 | -2.5 | -2.0 | -3.1 | -2.9 | -2.6 | -2.5 | -2.0 |
| | 8H | -3.2 | -3.0 | -2.7 | -2.5 | -2.0 | -3.2 | -3.0 | -2.7 | -2.5 | -2.0 |
| Variations with the observer position at spacing: | | | | | | | | | | | |
| S = | 1.0H | 0.9 / -25.5 | | | | | 0.9 / -25.5 | | | | |
| | 1.5H | 9.7 / -26.0 | | | | | 9.7 / -26.0 | | | | |
| | 2.0H | 11.7 / -26.8 | | | | | 11.7 / -26.8 | | | | |