Last information update: June 2018


Frame 2 cells - Medium beam - LED

## Product code

Q468

## Technical description

Linear miniaturised recessed luminaire with 2 optical elements for LED lamps - fixed optics. Despite the ultracompact size of the product, the patented technology of the optic system guarantees an efficient flow and a high level of controlled glare visual comfort Main body with die-cast zamak radiant surface, version with perimeter surface frame. Metallised, thermoplastic, high definition Opti Beam reflectors, integrated in a set-back position in the anti-glare screen. Ballast not included, available with separate code.

Installation
Recessed with steel wire springs for false ceilings from 1 to 25 mm thick - preparation hole $24 \times 42$.


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$24 \times 42$

## Dimension (mm) <br> $46 \times 28 \times 50$

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

## Weight (Kg)

0.11

## Mounting

wall recessed|ceiling recessed

## Wiring

Direct current ballasts to be ordered separately: ON-OFF - code no. MXF9 (min 1 / max 4); dimmable DALI - code no. BZM4 (min 1 / max 10) - check the instruction sheet for the lengths and compatible cross-sections of the cables to be used.

## Notes

$\qquad$
Complies with EN60598-1 and pertinent regulations
IP20


## Product configuration: Q468

## Product characteristics

Total lighting output [Lm]: 228
Total power [W]: 3.9
Luminous efficacy [Lm/W]: 58.5
Life Time: > 50,000h - L80 - B10 (Ta $25^{\circ} \mathrm{C}$ )
Total luminous flux at or above an angle of $90^{\circ}[\mathrm{Lm}]: 0$
Emergency luminous flux [Lm]: /
Voltage [V]:
Number of optical assemblies: 1

## Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [\%]: 76
Number of lamps for optical assembly: 1
Lamp code: LED
Socket.
ZVEI Code: LED
Nominal power [W]: 3.9
Nominal luminous [Lm]: 300
Lamp maximum intensity [cd]:
Beam angle [ ${ }^{\circ}$ ]: $24^{\circ}$

Ballast losses [W]: 0
Colour temperature [K]: 2700
CRI: 90
Wavelength [Nm]: /
MacAdam Step: 3


Utilisation factors

| $R$ | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| K0.8 | 69 | 65 | 63 | 61 | 65 | 62 | 62 | 60 | 78 |
| 1.0 | 72 | 69 | 66 | 65 | 68 | 66 | 65 | 63 | 83 |
| 1.5 | 75 | 73 | 71 | 69 | 72 | 70 | 70 | 67 | 89 |
| 2.0 | 77 | 76 | 74 | 73 | 75 | 73 | 73 | 71 | 93 |
| 2.5 | 79 | 78 | 77 | 76 | 77 | 76 | 75 | 73 | 96 |
| 3.0 | 80 | 79 | 78 | 78 | 78 | 77 | 76 | 74 | 98 |
| 4.0 | 81 | 80 | 80 | 79 | 79 | 78 | 77 | 75 | 99 |
| 5.0 | 81 | 81 | 80 | 80 | 80 | 79 | 78 | 76 | 100 |



UGR diagram

| Corrected UGR values (at 300 Im bare lamp Iumino us flux) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rifl ceil wa wo Roo x | v <br> pl. <br> dim <br> y | $\begin{aligned} & 0.70 \\ & 0.50 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.70 \\ & 0.30 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.50 \\ & 0.50 \\ & 0.20 \end{aligned}$ <br> viewe <br> ossw | $\begin{aligned} & 0.50 \\ & 0.30 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.30 \\ & 0.30 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.70 \\ & 0.50 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.70 \\ & 0.30 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.50 \\ & 0.50 \\ & 0.20 \end{aligned}$ <br> viewed endwise | $\begin{aligned} & 0.50 \\ & 0.30 \\ & 0.20 \end{aligned}$ | $\begin{aligned} & 0.30 \\ & 0.30 \\ & 0.20 \end{aligned}$ |
| 2 H | 2 H | 3.5 | 5.6 | 3.8 | 5.9 | 6.2 | 3.5 | 5.6 | 3.8 | 5.9 | 6.2 |
|  | 3 H | 3.4 | 4.9 | 3.7 | 5.3 | 5.6 | 3.3 | 4.9 | 3.7 | 5.2 | 5.6 |
|  | 4 H | 3.3 | 4.6 | 3.7 | 5.0 | 5.3 | 3.3 | 4.6 | 3.7 | 4.9 | 5.3 |
|  | 6 H | 3.3 | 4.3 | 3.7 | 4.7 | 5.0 | 3.2 | 4.3 | 3.6 | 4.6 | 4.9 |
|  | 8 H | 3.3 | 4.3 | 3.7 | 4.7 | 5.0 | 3.2 | 4.2 | 3.6 | 4.6 | 4.9 |
|  | 12H | 3.3 | 4.4 | 3.7 | 4.7 | 5.1 | 3.1 | 4.2 | 3.5 | 4.5 | 4.9 |
| 4 H | 2 H | 3.3 | 4.6 | 3.7 | 4.9 | 5.3 | 3.3 | 4.6 | 3.7 | 5.0 | 5.3 |
|  | 3 H | 3.2 | 4.2 | 3.6 | 4.5 | 4.9 | 3.2 | 4.2 | 3.6 | 4.6 | 5.0 |
|  | 4 H | 3.1 | 4.1 | 3.5 | 4.5 | 4.9 | 3.1 | 4.1 | 3.5 | 4.5 | 4.9 |
|  | 6 H | 2.8 | 4.5 | 3.3 | 4.9 | 5.4 | 2.7 | 4.4 | 3.2 | 4.9 | 5.3 |
|  | 8 H | 2.8 | 4.6 | 3.3 | 5.1 | 5.6 | 2.6 | 4.5 | 3.1 | 5.0 | 5.5 |
|  | 12H | 2.8 | 4.7 | 3.3 | 5.2 | 5.7 | 2.5 | 4.5 | 3.0 | 5.0 | 5.5 |
| 8 H | 4 H | 2.6 | 4.5 | 3.1 | 5.0 | 5.5 | 2.8 | 4.6 | 3.3 | 5.1 | 5.6 |
|  | 6 H | 2.6 | 4.4 | 3.2 | 4.9 | 5.4 | 2.7 | 4.5 | 3.2 | 5.0 | 5.5 |
|  | 8 H | 2.8 | 4.3 | 3.3 | 4.8 | 5.3 | 2.8 | 4.3 | 3.3 | 4.8 | 5.3 |
|  | 12H | 3.1 | 4.1 | 3.7 | 4.6 | 5.2 | 3.0 | 4.0 | 3.5 | 4.5 | 5.0 |
| 12 H | 4 H | 2.5 | 4.5 | 3.0 | 5.0 | 5.5 | 2.8 | 4.7 | 3.3 | 5.2 | 5.7 |
|  | 6 H | 2.7 | 4.2 | 3.2 | 4.7 | 5.2 | 2.9 | 4.4 | 3.4 | 4.9 | 5.5 |
|  | 8 H | 3.0 | 4.0 | 3.5 | 4.5 | 5.0 | 3.1 | 4.1 | 3.7 | 4.6 | 5.2 |
| Variations with the o bserver position at spacing: |  |  |  |  |  |  |  |  |  |  |  |
| $\mathrm{S}=$ | 1.0 H |  |  | 3 / -5 |  |  |  |  | $6.3 /-5.9$ |  |  |
|  | 1.5 H |  |  | / / - |  |  |  |  | $9.0 /$-6.0 |  |  |
|  | 2.0 H |  |  | $10 /$ |  |  |  |  | 11.0 / -6. |  |  |

