

Last information update: June 2018

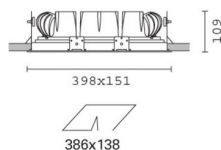


rectangular recessed luminaire with 3 optical assemblies - warm white passive dissipation LEDs - integrated DALI control gear - Wide flood

Product code
Q230

Technical description

Multiple recessed adjustable removable luminaire for LED lamp with passive heat dissipation system. Sheet steel perimeter frame. Main structure made of die-cast aluminium. Steel rotation hinges. Die-cast aluminium lamp bodies with shaped surface for high level radiant effect for effectively reducing the temperature and keeping the long-term LED lamp performance unchanged. Chrome-plated aluminium lamp body closing rings. Reflectors with high efficiency super-pure aluminium optic - flood beam angle. Orientamento dei corpi con dispositivi di manovra manuale: interno 29° - esterno 75° - rotazione sull'asse 355°; in fase di orientamento e rotazione i corpi lampada sono soggetti ad alcune limitazioni consultabili sul foglio istruzioni. Supplied with DALI dimmable control gear units connected to the luminaire. Warm white high colour rendering LEDs CRI (Ra) > 90.



Installation

recessed: preparation slot 138 x 386 mm; perimeter frame preliminary fixing on false ceiling (min. thickness 1 mm) with adjustable metal brackets; main structure inserted and mechanically locked on the frame

Dimension (mm)

398x151x109

Colour

White/Aluminium (39) | Grey/Black/Aluminium (E1)

Weight (Kg)

3.5

Mounting

ceiling recessed

Wiring

on control gear box with quick-coupling connections; each lamp body has a specific ballast, allowing separate switch ons

Notes

the configuration of the lamp bodies causes some limitations during angling and rotation; consult the instructions leaflet

Complies with EN60598-1 and pertinent regulations



Product configuration: Q230

Product characteristics

Total lighting output [Lm]: 5918
Total power [W]: 71.2
Luminous efficacy [Lm/W]: 83.1
Life Time: > 50,000h - L80 - 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: 3

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 79
Lamp code: LED
ZVEI Code: LED
Nominal power [W]: 21
Nominal luminous [Lm]: 2500
Lamp maximum intensity [cd]: /
Beam angle [°]: 42°

Number of lamps for optical assembly: 1
Socket: /
Ballast losses [W]: 2.7
Colour temperature [K]: 3000
CRI: 90
Wavelength [Nm]: /
MacAdam Step: 2

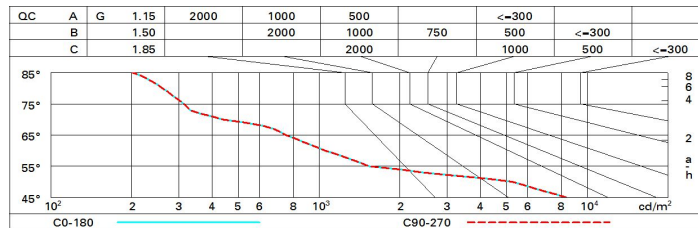
Polar

| | | | | | | |
|-------|--------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-----|-----|------------------|
| | Imax=3393 cd | CIE nL 0.79 97-100-100-100-79 UGR 16.1-16.1 DIN A.61 UTE 0.79A+0.00T F*1=968 F*1+F*2=998 F*1+F*2+F*3=1000 CIBSE LG3 L<1500 cd/m ² at 65° UGR<19 L<1500 cd/mq @65° | Lux | | | |
| | | | h | d | Em | E _{max} |
| | | | 2 | 1.5 | 658 | 848 |
| | | | 4 | 3.1 | 164 | 212 |
| | | | 6 | 4.6 | 73 | 94 |
| α=42° | | 8 | 6.1 | 41 | 53 | |

Utilisation factors

| R | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
|------|----|----|----|----|----|----|----|----|-----|
| K0.8 | 70 | 66 | 64 | 61 | 66 | 63 | 63 | 60 | 76 |
| 1.0 | 73 | 70 | 67 | 66 | 69 | 67 | 67 | 64 | 81 |
| 1.5 | 77 | 75 | 73 | 71 | 74 | 72 | 71 | 69 | 87 |
| 2.0 | 80 | 78 | 77 | 75 | 77 | 76 | 75 | 72 | 92 |
| 2.5 | 82 | 80 | 79 | 78 | 79 | 78 | 77 | 75 | 95 |
| 3.0 | 83 | 82 | 81 | 80 | 80 | 79 | 78 | 76 | 97 |
| 4.0 | 84 | 83 | 82 | 82 | 81 | 81 | 80 | 78 | 99 |
| 5.0 | 84 | 84 | 83 | 83 | 82 | 82 | 80 | 79 | 100 |

Luminance curve limit



UGR diagram

| Corrected UGR values (at 2500 lm bare lamp luminous flux) | | | | | | | | | | | |
|-----------------------------------------------------------|------|-----------|------|------|-------|------|---------|------|------|-------|------|
| Reflect.: | | | | | | | | | | | |
| 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 | | viewed | | | | | viewed | | | | |
| x | y | crosswise | | | | | endwise | | | | |
| 2H | 2H | 16.6 | 17.3 | 16.9 | 17.6 | 17.8 | 16.6 | 17.3 | 16.9 | 17.6 | 17.8 |
| | 3H | 16.5 | 17.1 | 16.8 | 17.4 | 17.7 | 16.5 | 17.1 | 16.8 | 17.4 | 17.7 |
| | 4H | 16.4 | 17.0 | 16.8 | 17.3 | 17.6 | 16.4 | 17.0 | 16.8 | 17.3 | 17.6 |
| | 6H | 16.4 | 16.9 | 16.7 | 17.2 | 17.5 | 16.4 | 16.9 | 16.7 | 17.2 | 17.5 |
| | 8H | 16.3 | 16.8 | 16.7 | 17.1 | 17.5 | 16.3 | 16.8 | 16.7 | 17.1 | 17.5 |
| | 12H | 16.3 | 16.8 | 16.7 | 17.1 | 17.5 | 16.3 | 16.8 | 16.7 | 17.1 | 17.5 |
| 4H | 2H | 16.4 | 17.0 | 16.8 | 17.3 | 17.6 | 16.4 | 17.0 | 16.8 | 17.3 | 17.6 |
| | 3H | 16.3 | 16.8 | 16.7 | 17.1 | 17.5 | 16.3 | 16.8 | 16.7 | 17.1 | 17.5 |
| | 4H | 16.2 | 16.6 | 16.6 | 17.0 | 17.4 | 16.2 | 16.6 | 16.6 | 17.0 | 17.4 |
| | 6H | 16.1 | 16.5 | 16.5 | 16.9 | 17.3 | 16.1 | 16.5 | 16.5 | 16.9 | 17.3 |
| | 8H | 16.1 | 16.4 | 16.5 | 16.8 | 17.3 | 16.1 | 16.4 | 16.5 | 16.8 | 17.3 |
| | 12H | 16.0 | 16.3 | 16.5 | 16.8 | 17.2 | 16.0 | 16.3 | 16.5 | 16.8 | 17.2 |
| 8H | 4H | 16.1 | 16.4 | 16.5 | 16.8 | 17.3 | 16.1 | 16.4 | 16.5 | 16.8 | 17.3 |
| | 6H | 16.0 | 16.3 | 16.5 | 16.7 | 17.2 | 16.0 | 16.3 | 16.5 | 16.7 | 17.2 |
| | 8H | 15.9 | 16.2 | 16.4 | 16.6 | 17.1 | 15.9 | 16.2 | 16.4 | 16.6 | 17.1 |
| | 12H | 15.9 | 16.1 | 16.4 | 16.6 | 17.1 | 15.9 | 16.1 | 16.4 | 16.6 | 17.1 |
| 12H | 4H | 16.0 | 16.3 | 16.5 | 16.8 | 17.2 | 16.0 | 16.3 | 16.5 | 16.8 | 17.2 |
| | 6H | 15.9 | 16.2 | 16.4 | 16.6 | 17.1 | 15.9 | 16.2 | 16.4 | 16.6 | 17.1 |
| | 8H | 15.9 | 16.1 | 16.4 | 16.6 | 17.1 | 15.9 | 16.1 | 16.4 | 16.6 | 17.1 |
| Variations with the observer position at spacing: | | | | | | | | | | | |
| S = | 1.0H | | 5.1 | / | -14.3 | | | 5.1 | / | -14.3 | |
| | 1.5H | | 7.9 | / | -16.4 | | | 7.9 | / | -16.4 | |
| | 2.0H | | 9.9 | / | -17.8 | | | 9.9 | / | -17.8 | |