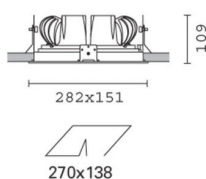


Last information update: June 2024

Product configuration: Q213

Q213: rectangular recessed luminaire with 2 optical assemblies - warm white passive dissipation LEDs - integrated electronic control gear - wide flood

**Product code**

Q213: rectangular recessed luminaire with 2 optical assemblies - warm white passive dissipation LEDs - integrated electronic control gear - wide flood **Attention! Code no longer in production**

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 - wide flood beam angle. Bodies adjusted using manually operated device: internal 29° - external 75° - rotation about axis 355°. During adjustment and rotation the lamp bodies are subject to some limitations. Consult the instruction sheet. Supplied with electronic control gear units connected to the luminaire. Warm white high efficiency LED.

Installation

recessed: preparation slot 138 x 270 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

Colour

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

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 instruction leaflet

Complies with EN60598-1 and pertinent regulations

**Technical data**

| | | | |
|--|------|---------------------------------------|---------------------------------|
| lm system: | 4676 | CRI: | 80 |
| W system: | 51 | Colour temperature [K]: | 3000 |
| lm source: | 3000 | MacAdam Step: | 2 |
| W source: | 22 | Life Time LED 1: | > 50,000h - L80 - B10 (Ta 25°C) |
| Luminous efficiency (lm/W, real value): | 91.7 | 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.) [%]: | 78 | Number of optical assemblies: | 2 |
| Beam angle [°]: | 54° | | |

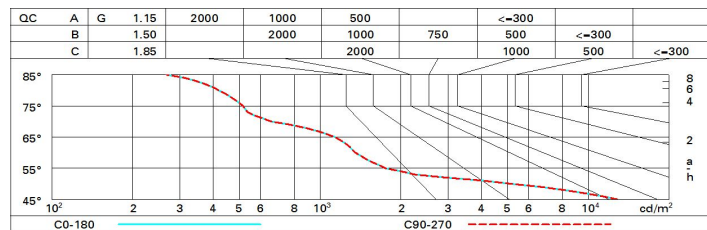
Polar

| | | | | | |
|--------------|--|----------------------------|--|-----|------|
| Imax=3107 cd | | CIE | | Lux | |
| 90° | | nL 0.78 | | h | d |
| 180° | | 97-100-100-100-78 | | Em | Emax |
| 90° | | UGR 16.4-16.4 | | 2 | 2 |
| 3000 | | DIN | | 4 | 4.1 |
| 0° | | A.61 | | 6 | 6.1 |
| α=54° | | UTE | | 8 | 8.2 |
| | | 0.78A+0.00T | | | |
| | | F*1=965 | | | |
| | | F*1+F*2=997 | | | |
| | | F*1+F*2+F*3=1000 | | | |
| | | CIBSE | | | |
| | | LG3 L<1500 cd/m² at 65° | | | |
| | | UGR<19 L<1500 cd/mq @65° | | | |

Utilisation factors

| R | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
|------|----|----|----|----|----|----|----|----|-----|
| K0.8 | 69 | 65 | 63 | 60 | 65 | 62 | 62 | 59 | 76 |
| 1.0 | 72 | 69 | 66 | 65 | 68 | 66 | 66 | 63 | 81 |
| 1.5 | 76 | 74 | 72 | 70 | 73 | 71 | 70 | 68 | 87 |
| 2.0 | 79 | 77 | 75 | 74 | 76 | 75 | 74 | 71 | 92 |
| 2.5 | 80 | 79 | 78 | 77 | 78 | 77 | 76 | 74 | 95 |
| 3.0 | 81 | 80 | 80 | 79 | 79 | 78 | 77 | 75 | 97 |
| 4.0 | 83 | 82 | 81 | 81 | 80 | 80 | 79 | 77 | 98 |
| 5.0 | 83 | 82 | 82 | 82 | 81 | 81 | 79 | 78 | 99 |

Luminance curve limit



UGR diagram

| Corrected UGR values (at 3000 lm bare lamp luminous flux) | | | | | | | | | | |
|--|------|---------------------|------|------|------|------|-------------------|------|------|------|
| Reflect.: ceiling 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 |
| | | 0.50 | 0.30 | 0.50 | 0.30 | 0.30 | 0.50 | 0.30 | 0.50 | 0.30 |
| | | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| | | viewed crosswise | | | | | viewed endwise | | | |
| 2H | 2H | 17.0 | 17.0 | 17.2 | 17.8 | 18.1 | 17.0 | 17.0 | 17.2 | 17.8 |
| | 3H | 16.8 | 17.4 | 17.1 | 17.7 | 17.9 | 16.8 | 17.4 | 17.1 | 17.7 |
| | 4H | 16.8 | 17.3 | 17.1 | 17.6 | 17.9 | 16.8 | 17.3 | 17.1 | 17.6 |
| | 6H | 16.7 | 17.2 | 17.0 | 17.5 | 17.8 | 16.7 | 17.2 | 17.0 | 17.5 |
| | 8H | 16.7 | 17.1 | 17.0 | 17.4 | 17.8 | 16.6 | 17.1 | 17.0 | 17.4 |
| | 12H | 16.6 | 17.1 | 17.0 | 17.4 | 17.7 | 16.6 | 17.1 | 17.0 | 17.4 |
| 4H | 2H | 16.8 | 17.3 | 17.1 | 17.6 | 17.9 | 16.8 | 17.3 | 17.1 | 17.6 |
| | 3H | 16.6 | 17.1 | 17.0 | 17.4 | 17.8 | 16.6 | 17.1 | 17.0 | 17.4 |
| | 4H | 16.5 | 16.9 | 16.9 | 17.3 | 17.7 | 16.5 | 16.9 | 16.9 | 17.3 |
| | 6H | 16.4 | 16.8 | 16.9 | 17.2 | 17.6 | 16.4 | 16.8 | 16.9 | 17.2 |
| | 8H | 16.4 | 16.7 | 16.8 | 17.1 | 17.6 | 16.4 | 16.7 | 16.8 | 17.1 |
| | 12H | 16.4 | 16.6 | 16.8 | 17.1 | 17.5 | 16.4 | 16.6 | 16.8 | 17.1 |
| 8H | 4H | 16.4 | 16.7 | 16.8 | 17.1 | 17.6 | 16.4 | 16.7 | 16.8 | 17.1 |
| | 6H | 16.3 | 16.6 | 16.8 | 17.0 | 17.5 | 16.3 | 16.6 | 16.8 | 17.0 |
| | 8H | 16.3 | 16.5 | 16.7 | 16.9 | 17.4 | 16.3 | 16.5 | 16.7 | 16.9 |
| | 12H | 16.2 | 16.4 | 16.7 | 16.9 | 17.4 | 16.2 | 16.4 | 16.7 | 16.9 |
| 12H | 4H | 16.4 | 16.6 | 16.8 | 17.1 | 17.5 | 16.4 | 16.6 | 16.8 | 17.1 |
| | 6H | 16.3 | 16.5 | 16.7 | 16.9 | 17.4 | 16.3 | 16.5 | 16.7 | 16.9 |
| | 8H | 16.2 | 16.4 | 16.7 | 16.9 | 17.4 | 16.2 | 16.4 | 16.7 | 16.9 |
| Variations with the observer position at spacing: | | | | | | | | | | |
| S = | 1.0H | 5.1 / -13.5 | | | | | 5.1 / -13.5 | | | |
| | 1.5H | 7.9 / -14.7 | | | | | 7.9 / -14.7 | | | |
| | 2.0H | 9.9 / -15.9 | | | | | 9.9 / -15.9 | | | |