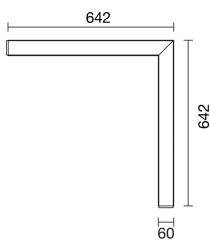


Last information update: May 2024

**Product configuration: QB87**

QB87: Angular LED module - Minimal Down - DALI - UGR &lt; 19 / Office / Working - Warm

**Product code**

QB87: Angular LED module - Minimal Down - DALI - UGR &lt; 19 / Office / Working - Warm

**Technical description**

Angular element for Minimal (frameless) flush with ceiling version profiles; including a Warm 3000K LED module. Microprismatic screen for controlled luminance emission UGR < 19 - 3000 cd/m<sup>2</sup> (working lighting); screen set up for overlapping connections. Integrated DALI control gear. Pass-through wiring for continuous lines:

**Installation**

Installation can be recessed, surface, ceiling and pendant-mounted using suitable accessories to be ordered separately.

**Colour**

White (01) | Black (04) | Aluminium (12)

**Weight (Kg)**

4.17

**Mounting**

ceiling recessed|ceiling surface|ceiling pendant

**Wiring**

The angular profile is supplied with pass-through wiring for continuous lines. Quick coupling terminal blocks to simplify connections between the luminaires. LED module complete with integrated dimmable digital DALI control gear.

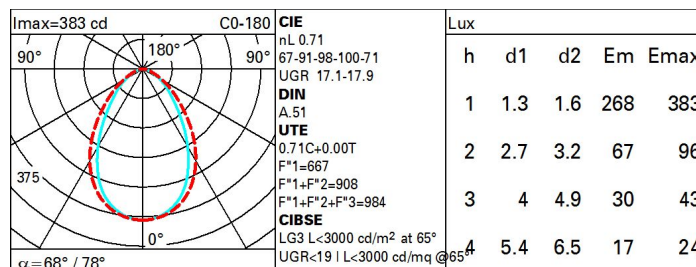
**Notes**

Important: the Minimal angular module is only available for Down emission. Take care when configuring the system; to complete a continuous line with an angular profile correctly, two initial modules are required, one for each end of the corner.

Complies with EN60598-1 and pertinent regulations

**Technical data**

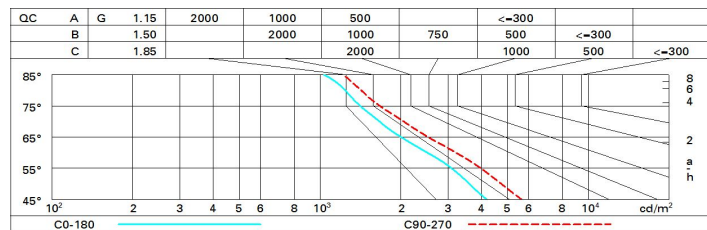
|  |       |  |  |
|--|-------|--|--|
| Im system:   | 1235  | Life Time LED 1:   | > 50,000h - L90 - B10 (Ta 25°C)  |
| W system:  | 11    | Lamp code:   | LED  |
| Im source:   | 870   | Number of lamps for optical assembly:                                    | 1  |
| W source:  | 4.5   | ZVEI Code:   | LED  |
| Luminous efficiency (Im/W, real value):            | 112.3 | Number of optical assemblies:  | 2  |
| Im in emergency mode:                              | -     | Power factor:  | See installation instructions  |
| Total light flux at or above an angle of 90° [Lm]: | 0     | Inrush current:  | 18 A / 250 µs  |
| Light Output Ratio (L.O.R.) [%]:                   | 71    | Maximum number of luminaires of this type per miniature circuit breaker: | B10A: 21 luminaires<br>B16A: 34 luminaires<br>C10A: 35 luminaires<br>C16A: 57 luminaires |
| CRI (minimum):                                     | 80    | Minimum dimming %:   | 1  |
| Colour temperature [K]:                            | 3000  | Overvoltage protection:  | 2kV Common mode & 1kV Differential mode  |
| MacAdam Step:                                      | 3     | Control:   | DALI-2   |

**Polar**

# Utilisation factors

| R    | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
|------|----|----|----|----|----|----|----|----|-----|
| K0.8 | 53 | 47 | 43 | 40 | 46 | 42 | 42 | 38 | 54  |
| 1.0  | 57 | 52 | 48 | 45 | 51 | 47 | 47 | 43 | 61  |
| 1.5  | 64 | 59 | 56 | 53 | 58 | 55 | 54 | 51 | 72  |
| 2.0  | 67 | 64 | 61 | 59 | 62 | 60 | 59 | 56 | 79  |
| 2.5  | 69 | 66 | 64 | 62 | 65 | 63 | 62 | 59 | 83  |
| 3.0  | 71 | 68 | 66 | 65 | 67 | 65 | 64 | 61 | 86  |
| 4.0  | 72 | 70 | 69 | 67 | 69 | 68 | 66 | 64 | 90  |
| 5.0  | 73 | 72 | 70 | 69 | 70 | 69 | 68 | 65 | 92  |

# Luminance curve limit



# UGR diagram

| Corrected UGR values (at 870 lm bare lamp luminous flux)         |     |                     |      |      |      |      |                   |      |      |      |      |
|--|-----|---------------------|------|------|------|------|-------------------|------|------|------|------|
| Reflect.:<br>ceiling/cav<br>walls<br>work pl.<br>Room dim<br>x y |     | viewed<br>crosswise |      |      |      |      | viewed<br>endwise |      |      |      |      |
| 2H   | 2H  | 15.3                | 16.3 | 15.7 | 16.0 | 16.8 | 16.7              | 17.6 | 17.0 | 17.9 | 18.1 |
|  | 3H  | 16.0                | 16.8 | 16.3 | 17.1 | 17.4 | 16.8              | 17.7 | 17.2 | 18.0 | 18.3 |
|  | 4H  | 16.2                | 17.0 | 16.5 | 17.3 | 17.6 | 16.9              | 17.7 | 17.2 | 18.0 | 18.3 |
|  | 6H  | 16.3                | 17.1 | 16.7 | 17.4 | 17.7 | 16.8              | 17.6 | 17.2 | 17.9 | 18.2 |
|  | 8H  | 16.4                | 17.1 | 16.7 | 17.4 | 17.8 | 16.8              | 17.5 | 17.2 | 17.9 | 18.2 |
|  | 12H | 16.4                | 17.1 | 16.8 | 17.4 | 17.8 | 16.8              | 17.5 | 17.2 | 17.8 | 18.2 |
| 4H   | 2H  | 15.7                | 16.6 | 16.1 | 16.9 | 17.2 | 17.4              | 18.3 | 17.8 | 18.6 | 18.9 |
|  | 3H  | 16.5                | 17.2 | 16.9 | 17.5 | 17.9 | 17.8              | 18.5 | 18.2 | 18.8 | 19.2 |
|  | 4H  | 16.8                | 17.4 | 17.2 | 17.8 | 18.2 | 17.9              | 18.5 | 18.3 | 18.9 | 19.2 |
|  | 6H  | 17.0                | 17.6 | 17.5 | 18.0 | 18.4 | 17.9              | 18.4 | 18.3 | 18.8 | 19.3 |
|  | 8H  | 17.1                | 17.6 | 17.6 | 18.0 | 18.5 | 17.9              | 18.4 | 18.4 | 18.8 | 19.3 |
|  | 12H | 17.1                | 17.6 | 17.6 | 18.0 | 18.5 | 17.9              | 18.3 | 18.3 | 18.8 | 19.2 |
| 8H   | 4H  | 16.9                | 17.4 | 17.3 | 17.8 | 18.2 | 18.1              | 18.6 | 18.6 | 19.1 | 19.5 |
|  | 6H  | 17.2                | 17.6 | 17.7 | 18.1 | 18.6 | 18.3              | 18.7 | 18.7 | 19.1 | 19.6 |
|  | 8H  | 17.4                | 17.7 | 17.9 | 18.2 | 18.7 | 18.3              | 18.7 | 18.8 | 19.1 | 19.6 |
|  | 12H | 17.5                | 17.8 | 18.0 | 18.2 | 18.8 | 18.3              | 18.6 | 18.8 | 19.1 | 19.6 |
| 12H  | 4H  | 16.9                | 17.3 | 17.3 | 17.8 | 18.2 | 18.2              | 18.6 | 18.6 | 19.1 | 19.5 |
|  | 6H  | 17.2                | 17.6 | 17.7 | 18.1 | 18.6 | 18.3              | 18.7 | 18.8 | 19.2 | 19.7 |
|  | 8H  | 17.4                | 17.7 | 17.9 | 18.2 | 18.7 | 18.4              | 18.7 | 18.9 | 19.2 | 19.7 |
| Variations with the observer position at spacing:                |     |                     |      |      |      |      |                   |      |      |      |      |
| S =  |     | 0.5 / -0.5          |      |      |      |      | 0.3 / -0.5        |      |      |      |      |
|  |     | 0.6 / -1.3          |      |      |      |      | 0.8 / -1.2        |      |      |      |      |
|  |     | 1.2 / -1.9          |      |      |      |      | 1.8 / -1.8        |      |      |      |      |