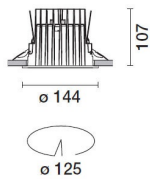


Last information update: May 2024

Product configuration: N231

N231: Fixed circular recessed luminaire - Ø125 mm - warm white - flood optic - UGR<19

**Product code**N231: Fixed circular recessed luminaire - Ø125 mm - warm white - flood optic - UGR<19 **Attention! Code no longer in production****Technical description**

Fixed round luminaire designed to use a LED lamp with C.O.B. technology. Version with rim for surface-mounting. Reflector vacuum-metallised with aluminium vapours with an anti-scratch protective layer. Die-cast aluminium body and passive dissipation system. Product complete with LED lamp in warm white colour tone (3000K). General light emission, with controlled luminance UGR<19 1500 cd/m² α>65° flood optic.

Installation

Recessed using torsion springs which allow easy installation in false ceilings with thickness ranging from 1 mm to 20 mm.

Colour

White / Aluminium (39)

Weight (Kg)

1.02

Mounting

ceiling recessed

Wiring

product complete with an electronic ballast

Complies with EN60598-1 and pertinent regulations



IP20

IP54

On the visible part of the product once installed

**Technical data**

| | | | |
|--|-------|---------------------------------------|---------------------------------|
| lm system: | 2635 | CRI (minimum): | 80 |
| W system: | 23.7 | Colour temperature [K]: | 3000 |
| lm source: | 3000 | MacAdam Step: | 2 |
| W source: | 21 | Life Time LED 1: | > 50,000h - L80 - B10 (Ta 25°C) |
| Luminous efficiency (lm/W, real value): | 111.2 | 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.) [%]: | 88 | Number of optical assemblies: | 1 |
| Beam angle [°]: | 24° | | |

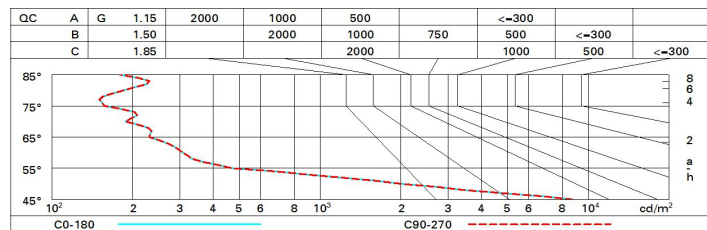
Polar

| Imax=7135 cd | | CIE | | Lux | | | |
|--------------|------|---|--|-----|-----|------|------|
| 90° | 180° | nL 0.88 | | h | d | Em | Emax |
| | | 98-100-100-100-88 | | 2 | 0.9 | 1348 | 1784 |
| | | UGR 18.3-18.3 | | 4 | 1.7 | 337 | 446 |
| | | DIN A.61 | | 6 | 2.6 | 150 | 198 |
| | | UTE 0.88A+0.00T | | 8 | 3.4 | 84 | 111 |
| | | F*1=97.8 | | | | | |
| | | F*1+F*2=999 | | | | | |
| | | F*1+F*2+F*3=1000 | | | | | |
| | | CIBSE LG3 L<1500 cd/m ² at 65° | | | | | |
| | | UGR<19 L<1500 cd/mq @65° | | | | | |
| α=24° | | | | | | | |

Utilisation factors

| R | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
|------|----|----|----|----|----|----|----|----|-----|
| K0.8 | 79 | 74 | 71 | 69 | 74 | 71 | 70 | 68 | 77 |
| 1.0 | 82 | 78 | 76 | 73 | 77 | 75 | 75 | 72 | 82 |
| 1.5 | 86 | 84 | 81 | 79 | 83 | 81 | 80 | 77 | 88 |
| 2.0 | 89 | 87 | 85 | 84 | 86 | 84 | 83 | 81 | 92 |
| 2.5 | 91 | 89 | 88 | 87 | 88 | 87 | 86 | 84 | 95 |
| 3.0 | 92 | 91 | 90 | 89 | 89 | 89 | 88 | 85 | 97 |
| 4.0 | 93 | 92 | 92 | 91 | 91 | 90 | 89 | 87 | 99 |
| 5.0 | 94 | 93 | 93 | 92 | 92 | 91 | 90 | 88 | 100 |

Luminance curve limit



UGR diagram

| Corrected UGR values (at 3000 lm bare lamp luminous flux) | | | | | | | | | | | |
|--|------|---------------------|------|------|------|------|-------------------|------|------|------|------|
| Reflect.: ceiling/cav walls work pl. Room dim x y | | viewed crosswise | | | | | viewed endwise | | | | |
| | | 0.70 | 0.70 | 0.50 | 0.50 | 0.30 | 0.70 | 0.70 | 0.50 | 0.50 | 0.30 |
| | | 0.50 | 0.30 | 0.50 | 0.30 | 0.30 | 0.50 | 0.30 | 0.50 | 0.30 | 0.30 |
| | | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 | 0.20 |
| | | | | | | | | | | | |
| 2H | 2H | 18.9 | 19.5 | 19.2 | 19.8 | 20.0 | 18.9 | 19.5 | 19.2 | 19.8 | 20.0 |
| | 3H | 18.7 | 19.3 | 19.1 | 19.6 | 19.9 | 18.7 | 19.3 | 19.1 | 19.6 | 19.9 |
| | 4H | 18.7 | 19.2 | 19.0 | 19.5 | 19.8 | 18.7 | 19.2 | 19.0 | 19.5 | 19.8 |
| | 6H | 18.6 | 19.1 | 18.9 | 19.4 | 19.7 | 18.6 | 19.1 | 18.9 | 19.4 | 19.7 |
| | 8H | 18.6 | 19.0 | 18.9 | 19.4 | 19.7 | 18.6 | 19.0 | 18.9 | 19.4 | 19.7 |
| | 12H | 18.5 | 19.0 | 18.9 | 19.3 | 19.7 | 18.5 | 19.0 | 18.9 | 19.3 | 19.7 |
| 4H | 2H | 18.7 | 19.2 | 19.0 | 19.5 | 19.8 | 18.7 | 19.2 | 19.0 | 19.5 | 19.8 |
| | 3H | 18.5 | 19.0 | 18.9 | 19.3 | 19.7 | 18.5 | 19.0 | 18.9 | 19.3 | 19.7 |
| | 4H | 18.4 | 18.8 | 18.8 | 19.2 | 19.6 | 18.4 | 18.8 | 18.8 | 19.2 | 19.6 |
| | 6H | 18.3 | 18.7 | 18.8 | 19.1 | 19.5 | 18.3 | 18.7 | 18.8 | 19.1 | 19.5 |
| | 8H | 18.3 | 18.6 | 18.7 | 19.0 | 19.5 | 18.3 | 18.6 | 18.7 | 19.0 | 19.5 |
| | 12H | 18.2 | 18.5 | 18.7 | 19.0 | 19.4 | 18.2 | 18.5 | 18.7 | 19.0 | 19.4 |
| 8H | 4H | 18.3 | 18.6 | 18.7 | 19.0 | 19.5 | 18.3 | 18.6 | 18.7 | 19.0 | 19.5 |
| | 6H | 18.2 | 18.5 | 18.7 | 18.9 | 19.4 | 18.2 | 18.5 | 18.7 | 18.9 | 19.4 |
| | 8H | 18.1 | 18.4 | 18.6 | 18.8 | 19.3 | 18.1 | 18.4 | 18.6 | 18.8 | 19.3 |
| | 12H | 18.1 | 18.3 | 18.6 | 18.8 | 19.3 | 18.1 | 18.3 | 18.6 | 18.8 | 19.3 |
| 12H | 4H | 18.2 | 18.5 | 18.7 | 19.0 | 19.4 | 18.2 | 18.5 | 18.7 | 19.0 | 19.4 |
| | 6H | 18.1 | 18.4 | 18.6 | 18.8 | 19.3 | 18.1 | 18.4 | 18.6 | 18.8 | 19.3 |
| | 8H | 18.1 | 18.3 | 18.6 | 18.8 | 19.3 | 18.1 | 18.3 | 18.6 | 18.8 | 19.3 |
| Variations with the observer position at spacing: | | | | | | | | | | | |
| S = | 1.0H | 4.4 / -24.6 | | | | | 4.4 / -24.6 | | | | |
| | 1.5H | 7.2 / -25.8 | | | | | 7.2 / -25.8 | | | | |
| | 2.0H | 9.2 / -26.2 | | | | | 9.2 / -26.2 | | | | |