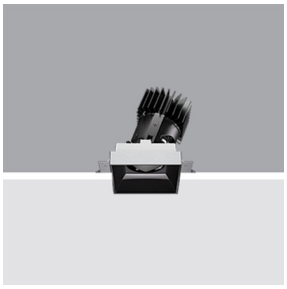
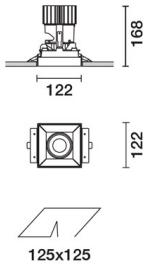
# Laser Blade XL

**Design iGuzzini** **iGuzzini**

Last information update: May 2018






**Minimal adjustable recessed luminaire - Warm LED - DALI dimmable control gear - Flood**

**Product code**
P770

**Technical description**
Recessed luminaire with adjustable optic for Warm White LED lamp. Passive heat dissipation system. The adjustable body can turn in a set-back position in relation to the flush-mounted recessed housing to ensure precise lighting that is extremely comfortable and reduces direct glare significantly. Internal rotation of 358° and a tilting movement of 35° with mechanical locking systems for both movements. False ceiling adapter with bracket system that adapts to the thickness of the panels, and is designed to house flush with ceiling luminaires. A fixed recessed structure in die-cast aluminium. The adjustable unit includes a radiant element in aluminium, with a steel coupling for the optic unit and a thermoplastic rotation locknut. Metallised thermoplastic reflector with a high definition optic. Thermoplastic anti-glare external screen. Transparent glass cover for LED lamp. Supplied with a dimmable DALI ballast unit connected to the luminaire.

**Installation**
Recessed with steel torsion springs on the specific adapter (included) which allows flush-mounting with the ceiling. Adapter for securing to false ceiling (between 12.5 mm and 25 mm thick) - screws not included, with subsequent filling and smoothing operations; insertion of luminaire body and aesthetic finishing. Preparation hole 125 x 125 mm.

**Dimension (mm)**
119x119x160

**Colour**
White (01) | Black (04)

**Weight (Kg)**
1.2

**Mounting**
ceiling recessed

**Wiring**
Quick-coupling connections on the ballast unit terminal block - Digital electronic cabling that allows dimming to be performed with DALI protocol or pushbutton systems (TOUCH DIM)

**Notes**
Technical and decorative accessories available; with the option of installing two accessories simultaneously. The product has a white finish (01) that maintains its UGR < 19 performance unaltered even when luminance values vary slightly.

Complies with EN60598-1 and pertinent regulations

IP20 IP23 On the visible part of the product once installed

pending

**Product configuration: P770.01**

**Product characteristics**

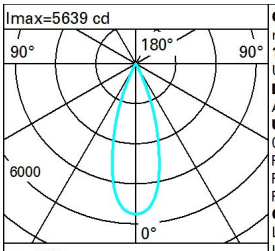
| | |
|---|---|
| Total lighting output [Lm]: 1796 | Total luminous flux at or above an angle of 90° [Lm]: 0 |
| Total power [W]: 32.1 | Emergency luminous flux [Lm]: / |
| Luminous efficacy [Lm/W]: 56 | Voltage [V]: - |
| Life Time: > 50,000h - L80 - B10 (Ta 25°C) | Number of optical assemblies: 1 |

**Optical assembly Characteristics Type 1**

| | |
|---|---|
| Light Output Ratio (L.O.R.) [%]: 60 | Number of lamps for optical assembly: 1 |
| Lamp code: LED | Socket: / |
| ZVEI Code: LED | Ballast losses [W]: 3.1 |
| Nominal power [W]: 29 | Colour temperature [K]: 3000 |
| Nominal luminous [Lm]: 3000 | CRI: 90 |
| Lamp maximum intensity [cd]: / | Wavelength [Nm]: / |
| Beam angle [°]: 34° | MacAdam Step: 3 |

**Polar**

Imax=5639 cd




α = 34°

**CIE**
nL 0.60
100-100-100-100-60
UGR <10-<10
**DIN**
A.61
**UTE**
0.60A+0.00T
F"1=997
F"1+F"2=999
F"1+F"2+F"3=1000
**CIBSE**
LG3 L<1500 cd/m² at 65°
UGR<10 I L<1500 cd/mq @65°

Lux

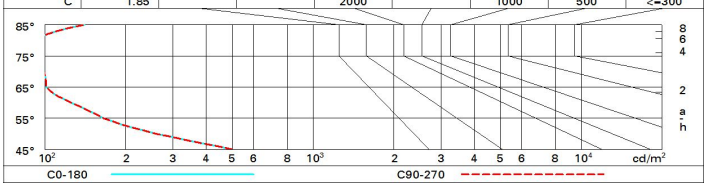
| h | d | Em | Emax |
|---|---|---|---|
| 2 | 1.2 | 1116 | 1410 |
| 4 | 2.4 | 279 | 352 |
| 6 | 3.7 | 124 | 157 |
| 8 | 4.9 | 70 | 88 |

**Utilisation factors**

| R | 77 | 75 | 73 | 71 | 55 | 53 | 33 | 00 | DRR |
|---|---|---|---|---|---|---|---|---|---|
| K0.8 | 54 | 51 | 49 | 48 | 51 | 49 | 49 | 47 | 78 |
| 1.0 | 56 | 54 | 52 | 51 | 53 | 52 | 51 | 50 | 83 |
| 1.5 | 59 | 57 | 56 | 55 | 57 | 55 | 55 | 53 | 89 |
| 2.0 | 61 | 60 | 59 | 58 | 59 | 58 | 57 | 56 | 93 |
| 2.5 | 62 | 61 | 60 | 60 | 60 | 60 | 59 | 57 | 96 |
| 3.0 | 63 | 62 | 62 | 61 | 61 | 61 | 60 | 58 | 98 |
| 4.0 | 64 | 63 | 63 | 62 | 62 | 62 | 61 | 59 | 99 |
| 5.0 | 64 | 64 | 63 | 63 | 63 | 62 | 61 | 60 | 100 |

**Luminance curve limit**

| QC | | G | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | A | | 1.15 | 2000 | 1000 | 500 | | <=300 | | |
| | B | | 1.50 | | 2000 | 1000 | 750 | 500 | <=300 | |
| | C | | 1.85 | | | 2000 | | 1000 | 500 | <=300 |



**UGR diagram**

Corrected UGR values (at 3000 lm bare lamp luminous flux)

| Riflect.: | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ceil/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 | -0.1 | 0.5 | 0.2 | 0.7 | 0.9 | -0.1 | 0.5 | 0.2 | 0.7 | 0.9 |
| | 3H | -0.2 | 0.3 | 0.1 | 0.6 | 0.8 | -0.2 | 0.3 | 0.1 | 0.6 | 0.8 |
| | 4H | -0.2 | 0.2 | 0.1 | 0.5 | 0.8 | -0.2 | 0.2 | 0.1 | 0.5 | 0.8 |
| | 6H | -0.3 | 0.1 | 0.1 | 0.4 | 0.7 | -0.3 | 0.1 | 0.0 | 0.4 | 0.7 |
| | 8H | -0.3 | 0.1 | 0.0 | 0.4 | 0.7 | -0.4 | 0.0 | 0.0 | 0.4 | 0.7 |
| | 12H | -0.3 | 0.0 | 0.0 | 0.4 | 0.7 | -0.4 | -0.0 | -0.0 | 0.3 | 0.7 |
| 4H | 2H | -0.2 | 0.2 | 0.1 | 0.5 | 0.8 | -0.2 | 0.2 | 0.1 | 0.5 | 0.8 |
| | 3H | -0.4 | 0.0 | 0.0 | 0.3 | 0.7 | -0.4 | 0.0 | 0.0 | 0.3 | 0.7 |
| | 4H | -0.4 | -0.1 | -0.0 | 0.3 | 0.6 | -0.4 | -0.1 | -0.0 | 0.3 | 0.6 |
| | 6H | -0.5 | -0.2 | -0.1 | 0.2 | 0.6 | -0.5 | -0.2 | -0.1 | 0.2 | 0.6 |
| | 8H | -0.5 | -0.3 | -0.1 | 0.1 | 0.6 | -0.6 | -0.3 | -0.1 | 0.1 | 0.5 |
| | 12H | -0.6 | -0.3 | -0.1 | 0.1 | 0.6 | -0.6 | -0.4 | -0.2 | 0.1 | 0.5 |
| 8H | 4H | -0.6 | -0.3 | -0.1 | 0.1 | 0.5 | -0.5 | -0.3 | -0.1 | 0.1 | 0.6 |
| | 6H | -0.6 | -0.4 | -0.2 | 0.0 | 0.5 | -0.6 | -0.4 | -0.2 | 0.0 | 0.5 |
| | 8H | -0.7 | -0.5 | -0.2 | -0.0 | 0.5 | -0.7 | -0.5 | -0.2 | -0.0 | 0.5 |
| | 12H | -0.7 | -0.5 | -0.2 | -0.0 | 0.5 | -0.7 | -0.5 | -0.2 | -0.1 | 0.5 |
| 12H | 4H | -0.6 | -0.4 | -0.2 | 0.1 | 0.5 | -0.6 | -0.3 | -0.1 | 0.1 | 0.6 |
| | 6H | -0.7 | -0.5 | -0.2 | -0.0 | 0.5 | -0.6 | -0.5 | -0.2 | 0.0 | 0.5 |
| | 8H | -0.7 | -0.5 | -0.2 | -0.1 | 0.5 | -0.7 | -0.5 | -0.2 | -0.0 | 0.5 |

Variations with the observer position at spacing:

| | | | |
|---|---|---|---|
| S = | 1.0H | 6.0 / -9.1 | 6.0 / -9.1 |
| | 1.5H | 8.8 / -9.9 | 8.8 / -9.9 |
| | 2.0H | 10.8 / -10.1 | 10.8 / -10.1 |