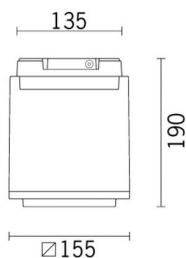


Last information update: May 2018


**Outdoor ceiling-mounted luminaire - Neutral white LED - with integrated electronic ballast Vin=120-240V ac - Flood optic**
**Product code**

BI31

**Technical description**

Ceiling-mounted luminaire designed to use Neutral White LED lamps and lenses for Flood (F) distribution. The luminaire consists of an optical assembly/component-holding box and base for ceiling-mounting. The optical assembly, front frame, rear door and ceiling-mounting base are made of die-cast aluminium alloy coated with liquid acrylic paint (colour: RAL 9007 grey) or textured liquid paint (colour: RAL 9016 white) with a high level of resistance to weather and UV rays. The 5 mm thick tempered sodium - calcium safety glass with customised serigraphy is joined to the frame with silicone. The frame is fastened to the optical assembly by two M5 AISI 304 stainless steel captive screws and a steel safety cable. The optical assembly contains the circuit complete with LEDs and relative PMMA plastic lenses. The component-holding box, in the rear of the luminaire, is set up to hold the control gear, which is fixed with captive screws on a galvanised steel pull-out plate. The control gear can be accessed via the ceiling-mounting base with quick-connecting system and the rear door made of painted aluminium alloy, fixed to the product body with four M5 AISI 304 stainless steel captive screws. A galvanised steel safety cable secures the upper base to the product. The internal silicone seals guarantee watertightness IP66. Various accessories are available: accessory-holder frame, visor, directional flaps, glass refractors, diffusers and coloured filters which can be applied in pairs, protective grille. All external screws used are made of A2 stainless steel. The luminaire technical characteristics conform to EN60598-1 standards and particular requirements.

**Installation**

Ceiling-mounted using the special base. Secure using screw anchors for concrete, cement and solid brick.

**Dimension (mm)**

155x155x190

**Colour**

White (01) | Grey (15)

**Weight (Kg)**

3.96

**Mounting**

ceiling surface|free standing

**Wiring**

With integrated electronic ballast Vin=120-240V ac 50/60Hz. The luminaire is set up for pass-through wiring using two PG 13.5 polyamide cable glands, suitable for the entry of cables with diameter between 8.5 and 12.5 mm. The connection to the mains is made using a 3-pole terminal block with quick-coupling system. Cables with quick-coupling terminals connect the terminal block and the control gear.

**Notes**

Product complete with LED lamp. IK09 with protective grille.

Complies with EN60598-1 and pertinent regulations


**Product configuration: BI31**
**Product characteristics**

Total lighting output [Lm]: 1058  
 Total power [W]: 18.5  
 Luminous efficacy [Lm/W]: 57.2  
 Life Time: 100,000h - L80 - B10 (Ta 25°C)  
 Ambient temperature range: from -20°C to +35°C.

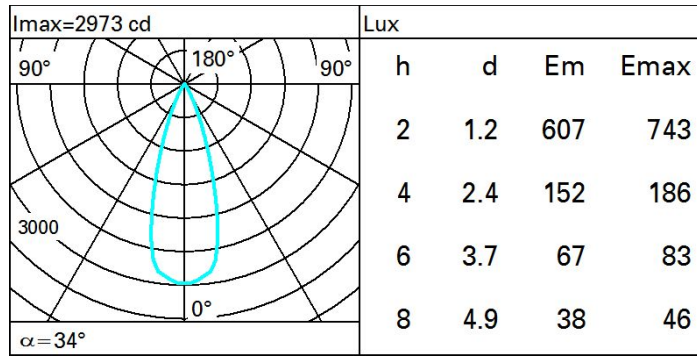
Total luminous flux at or above an angle of 90° [Lm]: 0  
 Emergency luminous flux [Lm]: /  
 Voltage [V]: -  
 Life Time: 66,000h - L80 - B10 (Ta 40°C)  
 Number of optical assemblies: 1

**Optical assembly Characteristics Type 1**

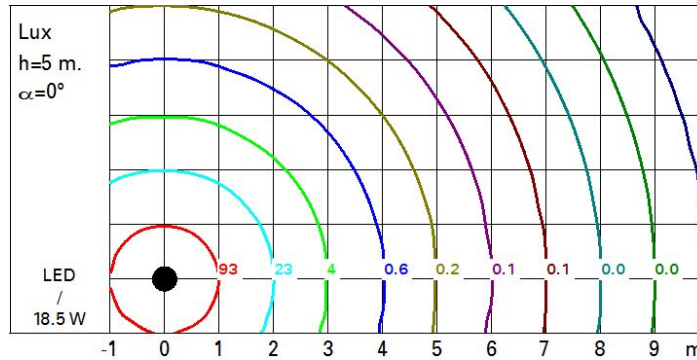
Light Output Ratio (L.O.R.) [%]: 65  
 Lamp code: LED  
 ZVEI Code: LED  
 Nominal power [W]: 16  
 Nominal luminous [Lm]: 1630  
 Lamp maximum intensity [cd]: /  
 Beam angle [°]: 34°

Number of lamps for optical assembly: 1  
 Socket: /  
 Ballast losses [W]: 2.5  
 Colour temperature [K]: 4000  
 CRI: 80  
 Wavelength [Nm]: /  
 MacAdam Step: 3

**Polar**



**Isolux**



**UGR diagram**

Corrected UGR values (at 1630 lm bare lamp luminous flux)											
Reflect.:		viewed crosswise					viewed endwise				
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											
x	y										
2H	2H	7.7	8.2	7.9	8.4	8.7	7.7	8.2	7.9	8.4	8.7
	3H	7.9	8.4	8.2	8.7	8.9	7.7	8.2	8.1	8.5	8.8
	4H	7.9	8.4	8.2	8.7	9.0	7.7	8.2	8.1	8.5	8.8
	6H	7.9	8.3	8.3	8.7	9.0	7.7	8.1	8.0	8.4	8.8
	8H	7.9	8.3	8.3	8.6	9.0	7.7	8.1	8.0	8.4	8.7
	12H	7.9	8.3	8.2	8.6	9.0	7.6	8.0	8.0	8.4	8.7
4H	2H	7.7	8.2	8.1	8.5	8.8	7.9	8.4	8.2	8.7	9.0
	3H	8.0	8.4	8.4	8.8	9.1	8.1	8.5	8.5	8.8	9.2
	4H	8.1	8.5	8.5	8.8	9.2	8.1	8.5	8.5	8.8	9.2
	6H	8.1	8.4	8.5	8.8	9.2	8.1	8.4	8.5	8.8	9.2
	8H	8.1	8.4	8.5	8.8	9.2	8.1	8.3	8.5	8.8	9.2
	12H	8.1	8.3	8.5	8.8	9.2	8.0	8.3	8.5	8.7	9.2
8H	4H	8.1	8.3	8.5	8.8	9.2	8.1	8.4	8.5	8.8	9.2
	6H	8.1	8.3	8.6	8.8	9.2	8.1	8.3	8.6	8.8	9.3
	8H	8.1	8.3	8.6	8.7	9.2	8.1	8.3	8.6	8.7	9.2
	12H	8.1	8.2	8.6	8.7	9.2	8.0	8.2	8.6	8.7	9.2
12H	4H	8.0	8.3	8.5	8.7	9.2	8.1	8.3	8.5	8.8	9.2
	6H	8.1	8.3	8.5	8.7	9.2	8.1	8.3	8.6	8.7	9.2
	8H	8.0	8.2	8.6	8.7	9.2	8.1	8.2	8.6	8.7	9.2
Variations with the observer position at spacing:											
S =	1.0H	3.7 / -2.1					3.7 / -2.1				
	1.5H	6.1 / -2.8					6.1 / -2.8				
	2.0H	8.0 / -4.0					8.0 / -4.0				