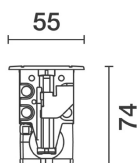


Last information update: May 2018

**Mini Linear Recessed Luminaire - Warm White LEDs - 24V dc - L=1609mm - Flood Optic and non-slip glass****Product code**

BW29

Technical description

Direct light luminaire, designed to use Warm White monochrome LED lamps, and a flood optic with non-slip glass. Ground-, wall- and ceiling-recessed. Consists of a body and outer casing for installation, to be ordered separately. Extruded aluminium body, with die-cast aluminium end caps complete with silicone seals. The painting process includes a multi-step, pre-treatment process, in which the main phases are degreasing, fluorozirconation (a protective surface film) and sealing (with a nano-structured silane layer). The following painting stage consists of a primer and a liquid acrylic paint, cured at 150°C, with a high level of weather and UV ray resistance. Lower PPS (polyphenylene sulfide) box for control gear. The top of the optical assembly is closed by an 8 mm thick non-slip glass screen (conforming to class R13 in accordance with DIN 51130), fixed with silicone. Complete with multi-LED plate in Warm White with 24V dc electronic circuit (ballast to be ordered separately). 24V intelligent driver that ensures light flow emission is constant even when the input voltage varies (from 30V dc to 16V dc). Fitted with optics with a plastic (methacrylate) lens for Flood lighting. The lower box has two PG11 nickel-plated brass cable glands for Ø6.5÷11mm cables used for pass-through wiring. To fix the optical assembly to the outer casing or false ceiling the product has a quick coupling system using an Allen key. Outer casing for installation made of aluminium with technopolymer covers, to be ordered separately. All external screws used are made of A2 stainless steel. The luminaire technical characteristics conform to EN 60598-1 standards and particular requirements.

Installation

Ground- and wall-recessed using the outer casing, to be ordered separately. For ground installation a drainage channel must be created or gravel inserted for drainage under the outer casing before installation, to guarantee the degree of protection stated. For ceiling-mounting with plasterboard panels (1-30 mm thick), make the preparation openings as indicated in the instructions sheet and use the accessory with code X013 (kit containing steel cables with reinforcement plates).

Dimension (mm)

1609x55x74

Colour

Grey (15)

Weight (Kg)

3.65

Mounting

wall recessed|ceiling recessed|ground recessed

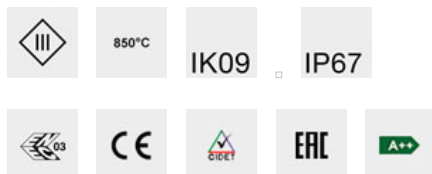
Wiring

Equipped with a 24V dc electronic circuit fitted inside the device. 24V dc electronic ballasts to be ordered separately. For the electrical connection the product has a lower box holding two quick coupling terminals (3-pole, max. 4 mm²) and double cable glands for pass-through wiring.

Notes

Product complete with LED lamp. The frame, glass, optical assembly and outer casing together guarantee a maximum static load of 1000 kg.

Complies with EN60598-1 and pertinent regulations

**Product configuration: BW29****Product characteristics**

Total lighting output [Lm]: 679.7
 Total power [W]: 20.8
 Luminous efficacy [Lm/W]: 32.7
 Life Time: 100,000h - L80 - B10 (Ta 25°C)
 Ambient temperature range: from -20°C to +35°C.

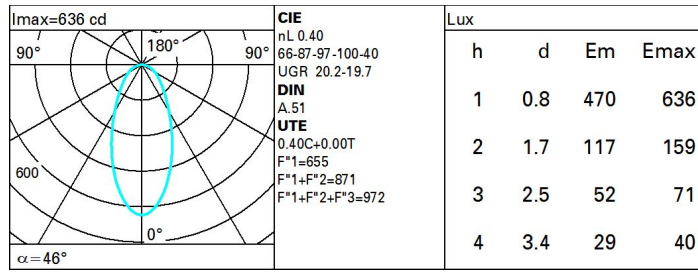
Total luminous flux at or above an angle of 90° [Lm]: 0
 Emergency luminous flux [Lm]: /
 Voltage [V]: 24
 Life Time: 66,000h - L80 - B10 (Ta 40°C)
 Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 40
 Lamp code: LED
 ZVEI Code: LED
 Nominal power [W]: 20
 Nominal luminous [Lm]: 1700
 Lamp maximum intensity [cd]: /
 Beam angle [°]: 46°

Number of lamps for optical assembly: 1
 Socket: /
 Ballast losses [W]: 0.8
 Colour temperature [K]: 3000
 CRI: 80
 Wavelength [Nm]: /
 MacAdam Step: 3

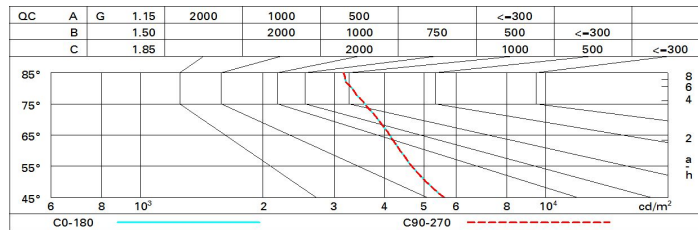
Polar



Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	30	26	24	22	26	24	23	21	53
1.0	32	29	26	25	28	26	26	24	59
1.5	35	33	31	29	32	30	30	28	70
2.0	37	35	34	32	35	33	33	31	77
2.5	39	37	36	34	36	35	34	33	82
3.0	39	38	37	36	37	36	36	34	85
4.0	40	39	38	37	38	38	37	35	89
5.0	41	40	39	39	39	39	38	36	91

Luminance curve limit



UGR diagram

Corrected UGR values (at 1700 lm bare lamp luminous flux)											
Reflect.:		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
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		viewed crosswise					viewed endwise				
x	y										
2H	2H	16.8	17.8	17.1	18.0	18.3	16.8	17.8	17.1	18.0	18.3
	3H	18.1	19.0	18.4	19.3	19.6	17.2	18.1	17.5	18.4	18.7
	4H	18.6	19.5	19.0	19.8	20.1	17.3	18.2	17.7	18.5	18.8
	6H	19.0	19.8	19.4	20.2	20.5	17.4	18.2	17.8	18.5	18.9
	8H	19.2	20.0	19.6	20.3	20.6	17.4	18.2	17.8	18.5	18.9
	12H	19.3	20.0	19.7	20.4	20.7	17.4	18.1	17.8	18.5	18.8
4H	2H	17.3	18.2	17.7	18.5	18.8	18.6	19.5	19.0	19.8	20.1
	3H	18.8	19.6	19.2	19.9	20.3	19.2	20.0	19.6	20.3	20.7
	4H	19.5	20.1	19.9	20.5	20.9	19.5	20.1	19.9	20.5	20.9
	6H	20.0	20.6	20.5	21.0	21.4	19.7	20.3	20.1	20.7	21.1
	8H	20.2	20.8	20.7	21.2	21.6	19.7	20.3	20.2	20.7	21.1
	12H	20.4	20.9	20.9	21.3	21.8	19.8	20.2	20.2	20.7	21.1
8H	4H	19.7	20.3	20.2	20.7	21.1	20.2	20.8	20.7	21.2	21.6
	6H	20.4	20.9	20.9	21.3	21.8	20.6	21.0	21.1	21.5	21.9
	8H	20.7	21.1	21.2	21.6	22.1	20.7	21.1	21.2	21.6	22.1
	12H	21.0	21.3	21.5	21.8	22.3	20.8	21.1	21.3	21.6	22.2
12H	4H	19.8	20.2	20.2	20.7	21.1	20.4	20.9	20.9	21.3	21.8
	6H	20.5	20.9	21.0	21.3	21.8	20.8	21.2	21.3	21.6	22.1
	8H	20.8	21.1	21.3	21.6	22.2	21.0	21.3	21.5	21.8	22.3
Variations with the observer position at spacing:											
S =	1.0H	0.2 / -0.2					0.2 / -0.2				
	1.5H	0.2 / -0.5					0.2 / -0.5				
	2.0H	0.4 / -0.7					0.4 / -0.7				