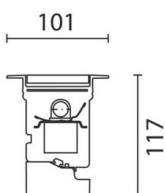


Last information update: May 2018

**Linear Recessed - Warm White LED - Electronic control gear 220-240V ac - L=601 mm - R13 anti-slip glass - Flood Optic****Product code**

BM99

**Technical description**

Direct light luminaire, designed to use monochrome LED lamps. 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. Coated with liquid acrylic paint with a high level of weather and UV ray resistance. Lower PPS (polyphenylene sulfide) power box. The top of the optical assembly is closed by an 8 mm thick anti-slip glass screen (conforming to class R13 in accordance with DIN 51130), fixed with silicone. Complete with multi-LED power plate in Warm White. Fitted with optics with plastic (methacrylate) lens for Flood lighting. The lower box has two PG11 nickel-plated brass cable glands for pass-through wiring, suitable for cables Ø6.5-11 mm. To fix the optical assembly to the outer casing the product has a quick coupling system using Allen keys. 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 5926 (kit containing steel cables with reinforcement plates).

**Dimension (mm)**

601x101x117

**Colour**

Grey (15)

**Weight (Kg)**

2.35

**Mounting**

wall recessed|ceiling recessed|ground recessed

**Wiring**

Equipped with electronic control gear 220-240V ac, 50/60Hz contained in the luminaire. For electrical connection the product has a lower box holding the terminal board (2-pin, max. 6mm<sup>2</sup>) 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 resistance of 1000 kg.

Complies with EN60598-1 and pertinent regulations

**Product configuration: BM99****Product characteristics**

Total lighting output [Lm]: 731  
 Total power [W]: 19.9  
 Luminous efficacy [Lm/W]: 36.7  
 Life Time: 100,000h - L80 - B10 (Ta 25°C)  
 Ambient temperature range: from -20°C to +35°C.

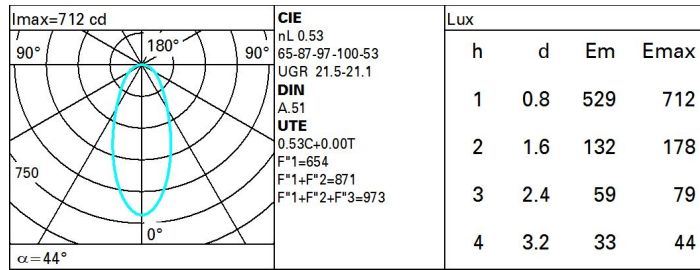
Total luminous flux at or above an angle of 90° [Lm]: 0  
 Emergency luminous flux [Lm]: /  
 Voltage [V]: -  
 Life Time: 66,000h - L80 - B10 (Ta 40°C)  
 Number of optical assemblies: 1

**Optical assembly Characteristics Type 1**

Light Output Ratio (L.O.R.) [%]: 53  
 Lamp code: LED  
 ZVEI Code: LED  
 Nominal power [W]: 18  
 Nominal luminous [Lm]: 1380  
 Lamp maximum intensity [cd]: /  
 Beam angle [°]: 44°

Number of lamps for optical assembly: 1  
 Socket: /  
 Ballast losses [W]: 1.9  
 Colour temperature [K]: 3000  
 CRI: 80  
 Wavelength [Nm]: /  
 MacAdam Step: 3

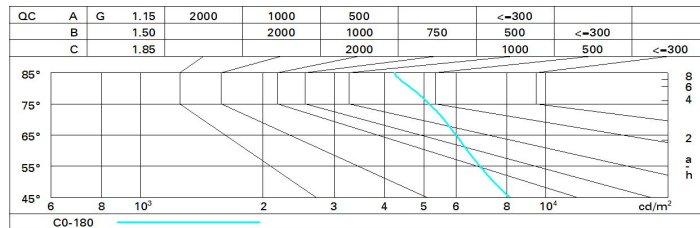
**Polar**



**Utilisation factors**

R	77	75	73	71	55	53	33	00	DRR
K0.8	39	35	31	29	34	31	31	28	53
1.0	42	38	35	33	37	35	34	31	59
1.5	47	43	41	39	43	40	40	37	70
2.0	50	47	45	43	46	44	43	41	77
2.5	51	49	47	46	48	46	46	43	82
3.0	52	50	49	47	49	48	47	45	85
4.0	54	52	51	50	51	50	49	47	89
5.0	54	53	52	51	52	51	50	48	91

**Luminance curve limit**



**UGR diagram**

Corrected UGR values (at 1380 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	18.1	19.1	18.4	19.4	19.6	18.1	19.1	18.4	19.4	19.6
	3H	19.4	20.3	19.7	20.6	20.9	18.5	19.4	18.9	19.7	20.0
	4H	19.9	20.8	20.3	21.1	21.4	18.7	19.5	19.0	19.8	20.2
	6H	20.3	21.1	20.7	21.4	21.8	18.7	19.5	19.1	19.9	20.2
	8H	20.5	21.2	20.8	21.6	21.9	18.7	19.5	19.1	19.8	20.2
	12H	20.6	21.3	20.9	21.6	22.0	18.7	19.4	19.1	19.8	20.2
4H	2H	18.7	19.5	19.0	19.8	20.2	19.9	20.8	20.3	21.1	21.4
	3H	20.2	20.9	20.6	21.3	21.6	20.5	21.3	20.9	21.6	22.0
	4H	20.8	21.5	21.2	21.8	22.2	20.8	21.5	21.2	21.8	22.2
	6H	21.3	21.9	21.8	22.3	22.7	21.0	21.6	21.4	22.0	22.4
	8H	21.5	22.0	22.0	22.5	22.9	21.1	21.6	21.5	22.0	22.4
	12H	21.6	22.1	22.1	22.5	23.0	21.1	21.5	21.5	22.0	22.4
8H	4H	21.1	21.6	21.5	22.0	22.4	21.5	22.0	22.0	22.5	22.9
	6H	21.7	22.1	22.2	22.6	23.1	21.8	22.3	22.3	22.7	23.2
	8H	22.0	22.3	22.5	22.8	23.3	22.0	22.3	22.5	22.8	23.3
	12H	22.2	22.5	22.7	23.0	23.5	22.0	22.4	22.6	22.9	23.4
12H	4H	21.1	21.5	21.5	22.0	22.4	21.6	22.1	22.1	22.5	23.0
	6H	21.8	22.1	22.2	22.6	23.1	22.0	22.4	22.5	22.8	23.3
	8H	22.0	22.4	22.6	22.9	23.4	22.2	22.5	22.7	23.0	23.5
Variations with the observer position at spacing:											
S =	1.0H	0.1 / -0.2					0.1 / -0.2				
	1.5H	0.2 / -0.5					0.2 / -0.5				
	2.0H	0.5 / -0.7					0.5 / -0.7				