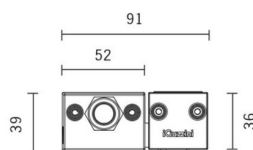


Last information update: May 2018

**Mini - Wall-/Ceiling-mounted - Neutral White LED - 48V dc DALI - L=512mm - 10° Spot Optic****Product code**

BM69

**Technical description**

Direct light luminaire, designed to use monochrome LED lamps, 48V dc Dali dimmable. Ceiling- and wall-mounted. Consists of a body, a box for Dali driver and supports for installation (to be ordered separately). Extruded aluminium body and side box, with zamak die-cast end caps complete with silicone gaskets. Coated with liquid acrylic paint with a high level of weather and UV ray resistance. The top of the optical assembly is closed by a 3 mm thick transparent glass screen, fixed with silicone. Complete with multi-LED power plate in Neutral White, side box with 48V dc Dali electronic driver (ballast to be ordered separately). Side box with double PG13.5 cable gland and outlet cables for pass-through wiring. Fitted with satin-finish polycarbonate film and optics with plastic (methacrylate) lens for 10° SPOT lighting. All external screws used are made of A2 stainless steel. The luminaire technical characteristics conform to EN60598-2-18 standards and particular requirements.

**Installation**

The following accessories are available for installation: adjustable wall-mounted arms in AISI304 stainless steel (L=115mm code BZQ9, L=200mm code BZJ9) and a plate for surface- or ceiling-mounting made of anodised aluminium (BZJ6).

**Dimension (mm)**

512x91x39

**Colour**

Grey (15)

**Weight (Kg)**

1.47

**Mounting**

wall surface|ceiling surface

**Wiring**

The product is equipped with a nickel-plated brass PG13.5 double cable gland with H05RN-F 2x1.5mm<sup>2</sup> + 2x0.35mm<sup>2</sup> rubber outlet cables for pass-through wiring: each cable is set up both for the Dali signal and for 48V dc power supply. Available for electrical connection: IP68 5-pin linear connector (BZS6), cap for IP68 connectors (BZQ7), IP68 Y-connector (BZN7) for signal cable and power cable connection and 48V dc DIN bar electronic ballasts to be ordered separately: 120W (BZ14), 240W (BZ15) and 480W (BZ16).

**Notes**

Product complete with LED lamp

Complies with EN60598-1 and pertinent regulations

**Product configuration: BM69****Product characteristics**

Total lighting output [Lm]: 419  
 Total power [W]: 6.8  
 Luminous efficacy [Lm/W]: 61.6  
 Life Time: 100,000h - L80 - B10 (Ta 25°C)  
 Ambient temperature range: from -20°C to +35°C.

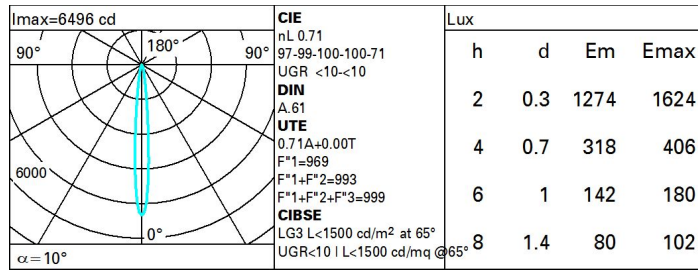
Total luminous flux at or above an angle of 90° [Lm]: 0  
 Emergency luminous flux [Lm]: /  
 Voltage [V]: 48  
 Life Time: 84,000h - L80 - B10 (Ta 40°C)  
 Number of optical assemblies: 1

**Optical assembly Characteristics Type 1**

Light Output Ratio (L.O.R.) [%]: 71  
 Lamp code: LED  
 ZVEI Code: LED  
 Nominal power [W]: 5.9  
 Nominal luminous [Lm]: 590  
 Lamp maximum intensity [cd]: /  
 Beam angle [°]: 10°

Number of lamps for optical assembly: 1  
 Socket: /  
 Ballast losses [W]: 0.9  
 Colour temperature [K]: 4000  
 CRI: 80  
 Wavelength [Nm]: /  
 MacAdam Step: 3

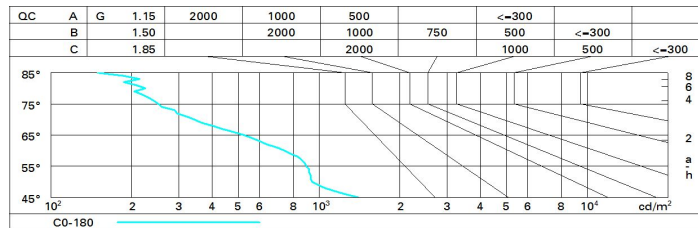
**Polar**



**Utilisation factors**

R	77	75	73	71	55	53	33	00	DRR
K0.8	63	60	57	55	59	57	56	54	76
1.0	66	63	61	59	62	60	60	57	81
1.5	70	67	65	64	66	65	64	62	87
2.0	72	70	69	68	69	68	67	65	92
2.5	73	72	71	70	71	70	69	67	95
3.0	74	73	72	72	72	71	71	69	97
4.0	75	74	74	73	73	73	72	70	99
5.0	76	75	75	74	74	74	72	71	100

**Luminance curve limit**



**UGR diagram**

Corrected UGR values (at 590 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	5.6	7.5	6.0	7.8	8.1	5.6	7.5	6.0	7.8	8.1
	3H	5.7	6.9	6.1	7.2	7.6	5.7	6.9	6.0	7.2	7.5
	4H	5.7	6.7	6.1	7.0	7.3	5.7	6.6	6.0	6.9	7.2
	6H	5.7	6.4	6.1	6.8	7.1	5.6	6.3	6.0	6.7	7.0
	8H	5.7	6.5	6.0	6.8	7.2	5.5	6.4	5.9	6.7	7.1
	12H	5.6	6.5	6.0	6.9	7.2	5.5	6.4	5.9	6.7	7.1
4H	2H	5.7	6.6	6.0	6.9	7.2	5.7	6.7	6.1	7.0	7.3
	3H	5.7	6.6	6.1	7.0	7.4	5.7	6.6	6.1	7.0	7.4
	4H	5.6	6.8	6.0	7.2	7.6	5.6	6.8	6.0	7.2	7.6
	6H	5.4	7.0	5.8	7.5	7.9	5.3	7.0	5.8	7.4	7.9
	8H	5.3	7.1	5.8	7.5	8.0	5.2	7.0	5.7	7.5	8.0
	12H	5.2	7.0	5.7	7.5	8.0	5.2	7.0	5.7	7.4	7.9
8H	4H	5.2	7.0	5.7	7.5	8.0	5.3	7.1	5.8	7.5	8.0
	6H	5.3	6.8	5.8	7.3	7.8	5.3	6.8	5.8	7.3	7.8
	8H	5.3	6.6	5.9	7.1	7.6	5.3	6.6	5.9	7.1	7.6
	12H	5.5	6.2	6.0	6.7	7.3	5.5	6.2	6.0	6.7	7.3
12H	4H	5.2	7.0	5.7	7.4	7.9	5.2	7.0	5.7	7.5	8.0
	6H	5.3	6.5	5.8	7.0	7.5	5.3	6.6	5.9	7.1	7.6
	8H	5.5	6.2	6.0	6.7	7.3	5.5	6.2	6.0	6.7	7.3
Variations with the observer position at spacing:											
S =	1.0H	2.8 / -2.8					2.8 / -2.8				
	1.5H	5.2 / -4.0					5.2 / -4.0				
	2.0H	7.0 / -5.4					7.0 / -5.4				