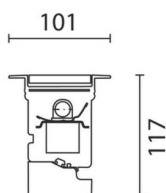


Last information update: May 2018



**Linear Recessed - Neutral White LED - Electronic control gear 220-240V ac - DALI - L=1658 mm - R13 anti-slip glass - Flood Optic**

**Product code**  
BN20

#### Technical description

Direct light luminaire, designed to use monochrome LED lamps, DALI dimmable. 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 Neutral White. Fitted with optics with plastic (methacrylate) lens for Flood lighting. The lower box has two PG11 nickel-plated brass cable glands and outgoing cables for pass-through wiring. To fix the optical assembly to the outer casing 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 5926 (kit containing steel cables with reinforcement plates).

**Dimension (mm)**  
1658x101x117

**Colour**  
Grey (15)

**Weight (Kg)**  
6.9

**Mounting**  
wall recessed|ceiling recessed|ground recessed

#### Wiring

Equipped with DALI dimmable electronic control gear, 220-240V ac, 50/60Hz contained in the luminaire. For electrical connection the product has a lower box with a nickel-plated brass PG11 double cable gland with H07RN-F rubber outgoing cables for pass-through wiring: each cable is set up both for the Dali signal and for 220-240V ac power supply. Available for electrical connection: IP68 5-pin linear connector (BZS6), cap for IP68 connectors (BZQ7), IP68 5-pin 3-way (Y-type) linear connector (BZN7).

#### Notes

Product complete with LED lamp. The frame, glass, optical assembly and outer casing together guarantee a maximum static load resistance of 1000 kg. The product occupies 1 Dali load and 1 Dali address. Fitted with DIRECT DIM, used for adjustments with a standard button, with the following functions: Soft ON/OFF, dimming, recall last lighting level.

Complies with EN60598-1 and pertinent regulations



**Product configuration: BN20**

#### Product characteristics

Total lighting output [Lm]: 2072  
Total power [W]: 44.6  
Luminous efficacy [Lm/W]: 46.4  
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: 100,000h - 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]: 41  
Nominal luminous [Lm]: 3910  
Lamp maximum intensity [cd]: /  
Beam angle [°]: 44°

Number of lamps for optical assembly: 1  
Socket: /  
Ballast losses [W]: 3.6  
Colour temperature [K]: 4000  
CRI: 80  
Wavelength [Nm]: /  
MacAdam Step: 3

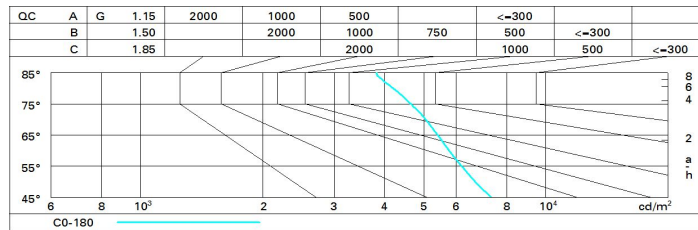
**Polar**

<p><math>\alpha = 44^\circ</math></p>	<b>Imax=2016 cd</b> CIE nL 0.53 65-87-97-100-53 UGR 21.1-20.7 DIN A.51 UTE 0.53C+0.00T F*1=654 F*1+F*2=871 F*1+F*2+F*3=973	<b>Lux</b>			
	h	d	Em	E <sub>max</sub>	
	2	1.6	375	504	
	4	3.2	94	126	
	6	4.8	42	56	
8	6.5	23	31		

**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 3910 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	17.7	18.8	18.1	19.0	19.3	17.7	18.8	18.1	19.0	19.3
	3H	19.1	20.0	19.4	20.3	20.5	18.2	19.1	18.5	19.4	19.7
	4H	19.6	20.4	19.9	20.7	21.0	18.3	19.2	18.7	19.5	19.8
	6H	20.0	20.8	20.3	21.1	21.4	18.4	19.2	18.7	19.5	19.8
	8H	20.1	20.9	20.5	21.2	21.6	18.4	19.1	18.8	19.5	19.8
	12H	20.2	20.9	20.6	21.3	21.6	18.3	19.1	18.7	19.4	19.8
4H	2H	18.3	19.2	18.7	19.5	19.8	19.6	20.4	19.9	20.7	21.0
	3H	19.8	20.5	20.2	20.9	21.3	20.2	20.9	20.6	21.3	21.6
	4H	20.4	21.1	20.9	21.5	21.9	20.4	21.1	20.9	21.5	21.9
	6H	21.0	21.5	21.4	21.9	22.4	20.6	21.2	21.1	21.6	22.0
	8H	21.1	21.7	21.6	22.1	22.5	20.7	21.2	21.1	21.6	22.1
	12H	21.3	21.8	21.7	22.2	22.7	20.7	21.2	21.2	21.6	22.1
8H	4H	20.7	21.2	21.1	21.6	22.1	21.1	21.7	21.6	22.1	22.5
	6H	21.3	21.8	21.8	22.2	22.7	21.5	21.9	21.9	22.4	22.8
	8H	21.6	22.0	22.1	22.4	22.9	21.6	22.0	22.1	22.4	22.9
	12H	21.8	22.1	22.3	22.6	23.1	21.7	22.0	22.2	22.5	23.0
12H	4H	20.7	21.2	21.2	21.6	22.1	21.3	21.8	21.7	22.2	22.7
	6H	21.4	21.8	21.9	22.2	22.7	21.6	22.0	22.1	22.5	23.0
	8H	21.7	22.0	22.2	22.5	23.0	21.8	22.1	22.3	22.6	23.1
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				