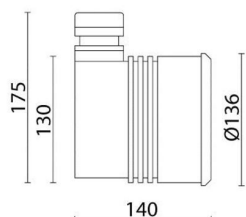


Last information update: May 2018

**Recessed luminaires for swimming pools - Recessed luminaire 3 LEDs - 350mA DC****Product code**

BI02

Technical description

Monochrome recessed luminaire for permanent immersion, IP68 10m. The luminaire is made strictly of AISI 316L stainless steel to guarantee maximum lasting reliability in pools and fountains (fresh water). Clear, transparent 6mm thick tempered closing glass. All screws used are made of stainless steel and the seals are silicone. The product is supplied with a 3m long 2x0,5NS20N power cable. The luminaire technical characteristics conform to EN60598-2-18 standards and particular requirements. IP68 - IK08. The luminaire is complete with 3 Cool White LEDs (3x1,2W). Optical assembly opening is not required for its installation. Insulation class III. The luminaire must be powered by a 350mA DC external driver

Dimension (mm)

140x136

Colour

Steel (13)

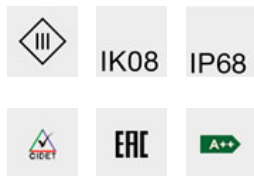
Mounting

wall recessed|ground recessed

Notes

Permanent immersion

Complies with EN60598-1 and pertinent regulations

**Product configuration: BI02****Product characteristics**

Total lighting output [Lm]: 291
 Total power [W]: 3.1
 Luminous efficacy [Lm/W]: 93.9
 Life Time: 100,000h - L80 - B10 (Ta 25°C)
 Number of optical assemblies: 1

Total luminous flux at or above an angle of 90° [Lm]: 0
 Emergency luminous flux [Lm]: /
 Voltage [V]: -
 Ambient temperature range: from -20°C to +35°C.

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 73
 Lamp code: LED
 ZVEI Code: LED
 Nominal power [W]: 3.1
 Nominal luminous [Lm]: 400
 Lamp maximum intensity [cd]: /
 Beam angle [°]: 38°

Number of lamps for optical assembly: 1
 Socket: /
 Ballast losses [W]: 0
 Colour temperature [K]: 6500
 CRI: 70
 Wavelength [Nm]: /
 MacAdam Step: /

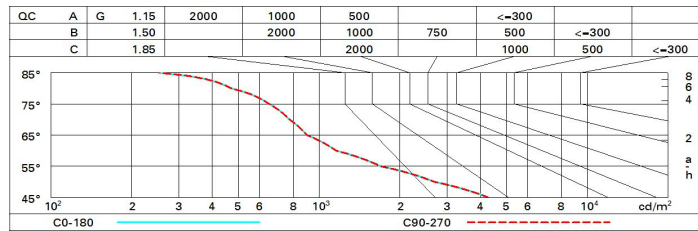
Polar

I _{max} =568 cd		CIE nL 0.73 92-99-100-100-73 UGR 11.7-11.6 DIN A.61 UTE 0.73A+0.00T F*1=915 F*1+F*2=985 F*1+F*2+F*3=998 CIBSE LG3 L<1500 cd/m ² at 65° UGR<16 L<1500 cd/mq @65°	Lux			
90°	180°		h	d	Em	Emax
90°	180°	1	0.7	429	568	
600	0°	2	1.4	107	142	
α=38°	0°	3	2.1	48	63	
		4	2.8	27	35	

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	63	59	56	54	58	56	55	52	72
1.0	66	63	60	58	62	59	59	56	77
1.5	70	68	65	64	67	65	64	62	85
2.0	73	71	69	68	70	68	68	65	90
2.5	74	73	72	70	72	71	70	68	93
3.0	75	74	73	72	73	72	71	69	95
4.0	77	76	75	74	74	74	73	71	97
5.0	77	76	76	75	75	75	73	71	98

Luminance curve limit



UGR diagram

Corrected UGR values (at 400 lm bare lamp luminous flux)											
Reflect.:		viewed crosswise					viewed endwise				
ceiling	walls	0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
work pl.	Room dim	0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
x	y	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
2H	2H	11.6	12.3	11.9	12.6	12.8	11.6	12.3	11.9	12.6	12.8
	3H	11.7	12.3	12.0	12.6	12.9	11.6	12.2	11.9	12.5	12.8
	4H	11.7	12.3	12.0	12.6	12.9	11.6	12.2	11.9	12.5	12.8
	6H	11.7	12.2	12.0	12.5	12.9	11.5	12.0	11.9	12.4	12.7
	8H	11.7	12.2	12.0	12.5	12.8	11.5	12.0	11.8	12.3	12.7
	12H	11.6	12.1	12.0	12.5	12.8	11.4	11.9	11.8	12.3	12.6
4H	2H	11.6	12.2	11.9	12.5	12.8	11.7	12.3	12.0	12.6	12.9
	3H	11.7	12.2	12.1	12.5	12.9	11.7	12.2	12.1	12.6	12.9
	4H	11.7	12.1	12.1	12.5	12.9	11.7	12.1	12.1	12.5	12.9
	6H	11.7	12.1	12.1	12.5	12.9	11.7	12.1	12.1	12.5	12.9
	8H	11.7	12.0	12.1	12.5	12.9	11.6	12.0	12.1	12.4	12.8
	12H	11.7	12.0	12.1	12.4	12.9	11.6	11.9	12.1	12.4	12.8
8H	4H	11.6	12.0	12.1	12.4	12.8	11.7	12.0	12.1	12.5	12.9
	6H	11.7	12.0	12.1	12.4	12.9	11.7	12.0	12.2	12.4	12.9
	8H	11.7	11.9	12.1	12.4	12.9	11.7	11.9	12.1	12.4	12.9
	12H	11.6	11.8	12.1	12.3	12.9	11.6	11.8	12.1	12.3	12.8
12H	4H	11.6	11.9	12.1	12.4	12.8	11.7	12.0	12.1	12.4	12.9
	6H	11.6	11.9	12.1	12.3	12.8	11.6	11.9	12.1	12.4	12.9
	8H	11.6	11.8	12.1	12.3	12.8	11.6	11.8	12.1	12.3	12.9

Variations with the observer position at spacing:

S =	1.0H	2.7 / -3.2	2.7 / -3.2
	1.5H	5.0 / -4.6	5.0 / -4.6
	2.0H	6.8 / -5.2	6.8 / -5.2