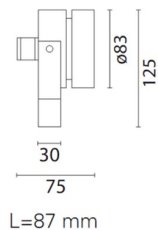## WaterApp

Last information update: May 2018

Floodlight - immersion 3 monochrome LEDs - 350mA DC

Product code
BH82

Technical description
Monochrome floodlight for permanent immersion, IP68 5m. Adjustable about the vertical axis and relative to the horizontal plane. 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 4m 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 Neutral 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.

Installation
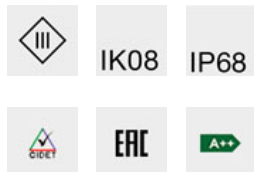Ground recessed/wall recessed

Dimension (mm)
125x87x75

Colour
Steel (13)

Mounting
wall recessed|ground recessed

Notes
Permanent immersion

Complies with EN60598-1 and pertinent regulations

III   IK08   IP68

CICET   EHC   A++

Product configuration: BH82

Product characteristics

Total lighting output [Lm]: 247	Total luminous flux at or above an angle of 90° [Lm]: 0
Total power [W]: 3.1	Emergency luminous flux [Lm]: /
Luminous efficacy [Lm/W]: 79.8	Voltage [V]: -
Life Time: 100,000h - L80 - B10 (Ta 25°C)	Ambient temperature range: from -20°C to +35°C.
Number of optical assemblies: 1	

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 73	Number of lamps for optical assembly: 1
Lamp code: LED	Socket: /
ZVEI Code: LED	Ballast losses [W]: 0
Nominal power [W]: 3.1	Colour temperature [K]: 4000
Nominal luminous [Lm]: 340	CRI: 75
Lamp maximum intensity [cd]: /	Wavelength [Nm]: /
Beam angle [°]: 38°	MacAdam Step: /

Polar

Imax=483 cd

CIE
nL 0.73
92-99-100-100-73
UGR 13.3-13.3
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/m² at 65°
UGR<16 | L<1500 cd/mq @65°

α=38°

h	d	Em	Emax
1	0.7	365	483
2	1.4	91	121
3	2.1	41	54
4	2.8	23	30
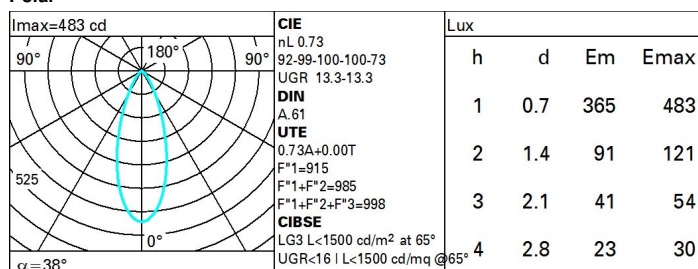
Utilisation factors

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

QC	A	G	1.15	2000	1000	500		<=300		
	B		1.50		2000	1000	750	500	<=300	
	C		1.85			2000		1000	500	<=300

C0-180 ———— C90-270 – – – – – – –
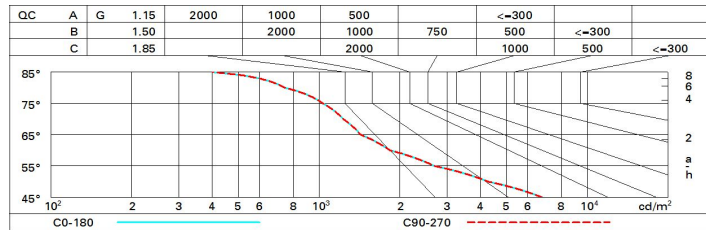
UGR diagram

Corrected UGR values (at 340 lm bare lamp luminous flux)

Riflect.:										
ceil/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					viewed			
x y		crosswise					endwise			
2H 2H	13.2	13.9	13.5	14.2	14.4	13.2	13.9	13.5	14.2	14.4
3H	13.3	13.9	13.6	14.2	14.5	13.2	13.8	13.5	14.1	14.4
4H	13.3	13.9	13.6	14.2	14.5	13.2	13.8	13.5	14.1	14.4
6H	13.3	13.8	13.6	14.1	14.5	13.1	13.7	13.5	14.0	14.3
8H	13.3	13.8	13.6	14.1	14.4	13.1	13.6	13.4	13.9	14.3
12H	13.2	13.7	13.6	14.1	14.4	13.0	13.5	13.4	13.9	14.2
4H 2H	13.2	13.8	13.5	14.1	14.4	13.3	13.9	13.6	14.2	14.5
3H	13.3	13.8	13.7	14.1	14.5	13.3	13.8	13.7	14.2	14.5
4H	13.3	13.7	13.7	14.1	14.5	13.3	13.7	13.7	14.1	14.5
6H	13.3	13.7	13.7	14.1	14.5	13.3	13.7	13.7	14.1	14.5
8H	13.3	13.6	13.7	14.1	14.5	13.3	13.6	13.7	14.0	14.5
12H	13.3	13.6	13.7	14.0	14.5	13.2	13.5	13.7	14.0	14.4
8H 4H	13.3	13.6	13.7	14.0	14.5	13.3	13.6	13.7	14.1	14.5
6H	13.3	13.6	13.7	14.0	14.5	13.3	13.6	13.8	14.0	14.5
8H	13.3	13.5	13.8	14.0	14.5	13.3	13.5	13.8	14.0	14.5
12H	13.2	13.5	13.7	13.9	14.5	13.2	13.4	13.7	13.9	14.5
12H 4H	13.2	13.5	13.7	14.0	14.4	13.3	13.6	13.7	14.0	14.5
6H	13.2	13.5	13.7	14.0	14.5	13.3	13.5	13.7	14.0	14.5
8H	13.2	13.4	13.7	13.9	14.5	13.2	13.5	13.7	13.9	14.5

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