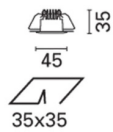
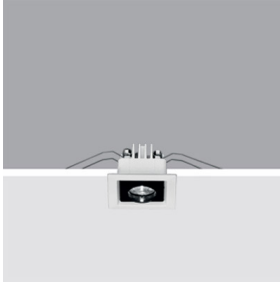


Last information update: June 2023

Product configuration: M988

M988: small body, Frame installation 1 LED neutral white medium

**Product code**M988: small body, Frame installation 1 LED neutral white medium **Attention! Code no longer in production****Technical description**

Fixed square recessed luminaire designed to use a 1X1,5W LED lamp in neutral white (4200°K) with medium optic. Recessed item with rim consisting of a single die-cast aluminium body. The upper part is a heat sink which helps to carry away the heat given off by the lamp. LED optics with a single lens made of thermoplastic material.

Installation

Recessed using springs which allow easy installation in false ceilings with thickness ranging from 1 mm to 30 mm

Colour

White (01) | Grey (15)

Mounting

wall recessed|ceiling recessed

Wiring

Electronic components to be ordered separately

Complies with EN60598-1 and pertinent regulations



IP23

**Technical data**

lm system:	78	CRI (minimum):	75
W system:	3.5	Colour temperature [K]:	4000
lm source:	106	Life Time LED 1:	50,000h - L80 - B20 (Ta 25°C)
W source:	1.6	Ballast losses [W]:	1.9
Luminous efficiency (lm/W, real value):	22.4	Lamp code:	LED
lm in emergency mode:	-	Number of lamps for optical assembly:	1
Total light flux at or above an angle of 90° [Lm]:	0	ZVEI Code:	LED
Light Output Ratio (L.O.R.) [%]:	74	Number of optical assemblies:	1
Beam angle [°]:	34°	LED current [mA]:	500

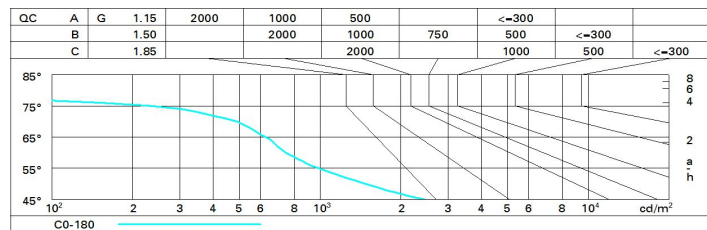
Polar

Imax=194 cd		CIE		Lux			
90°	180°	nL 0.74		h	d	Em	Emax
		97-99-100-100-74		1	0.6	157	194
		UGR <10-<10		2	1.2	39	49
		DIN		3	1.8	17	22
		A.61		4	2.4	10	12
		UTE					
		0.74A+0.00T					
		F*1=969					
		F*1+F*2=995					
		F*1+F*2+F*3=1000					
		CIBSE					
		LG3 L<1500 cd/m² at 65°					
		UGR<10 L<1500 cd/mq @ 65°					
α=34°							

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	66	62	60	58	62	59	59	56	76
1.0	69	66	63	61	65	63	62	60	81
1.5	73	70	68	67	69	68	67	65	87
2.0	75	73	72	70	72	71	70	68	92
2.5	76	75	74	73	74	73	72	70	95
3.0	77	77	76	75	75	75	74	72	97
4.0	78	78	77	77	76	76	75	73	99
5.0	79	78	78	78	77	77	76	74	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 114 lm bare lamp luminous flux)											
Reflect.: ceiling/cav walls work pl. Room dim x y		viewed crosswise					viewed endwise				
		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
		0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
		0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
2H	2H	8.1	8.7	8.4	9.0	9.2	8.1	8.7	8.4	9.0	9.2
	3H	8.1	8.7	8.5	9.0	9.2	8.1	8.6	8.4	8.9	9.2
	4H	8.1	8.6	8.4	8.9	9.2	8.0	8.5	8.4	8.8	9.1
	6H	8.0	8.5	8.4	8.8	9.1	8.0	8.4	8.3	8.7	9.1
	8H	8.0	8.4	8.3	8.8	9.1	7.9	8.4	8.3	8.7	9.0
	12H	7.9	8.4	8.3	8.7	9.1	7.9	8.3	8.3	8.7	9.0
4H	2H	8.0	8.5	8.4	8.8	9.1	8.1	8.6	8.4	8.9	9.2
	3H	8.1	8.5	8.4	8.8	9.2	8.1	8.5	8.4	8.8	9.2
	4H	8.0	8.4	8.4	8.7	9.1	8.0	8.4	8.4	8.7	9.1
	6H	7.9	8.2	8.3	8.6	9.1	7.9	8.3	8.4	8.7	9.1
	8H	7.9	8.2	8.3	8.6	9.0	7.9	8.2	8.3	8.6	9.0
	12H	7.8	8.1	8.3	8.5	9.0	7.8	8.1	8.3	8.5	9.0
8H	4H	7.9	8.2	8.3	8.6	9.0	7.9	8.2	8.3	8.6	9.0
	6H	7.8	8.0	8.3	8.5	9.0	7.8	8.0	8.3	8.5	9.0
	8H	7.7	7.9	8.2	8.4	8.9	7.7	7.9	8.2	8.4	8.9
	12H	7.7	7.9	8.2	8.4	8.9	7.7	7.9	8.2	8.4	8.9
12H	4H	7.8	8.1	8.3	8.5	9.0	7.8	8.1	8.3	8.5	9.0
	6H	7.7	7.9	8.2	8.4	8.9	7.7	7.9	8.2	8.4	8.9
	8H	7.7	7.9	8.2	8.4	8.9	7.7	7.9	8.2	8.4	8.9
Variations with the observer position at spacing:											
S =	1.0H	4.4 / -5.4					4.4 / -5.4				
	1.5H	7.1 / -6.9					7.1 / -6.9				
	2.0H	9.0 / -7.7					9.0 / -7.7				