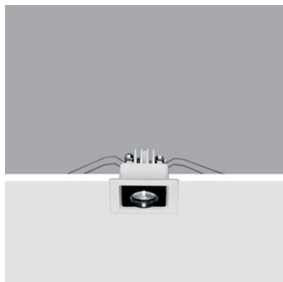


Last information update: June 2023

Product configuration: M989

M989: small body, Frame installation 1 LED warmwhite spot

**Product code**M989: small body, Frame installation 1 LED warmwhite spot **Attention! Code no longer in production****Technical description**

Fixed square recessed luminaire designed to use a 1X1,5W LED lamp in warm white (3100°K) with spot 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

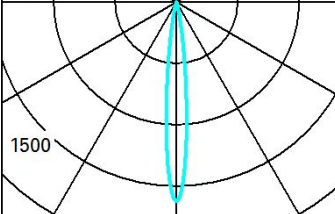
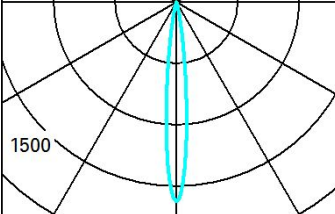
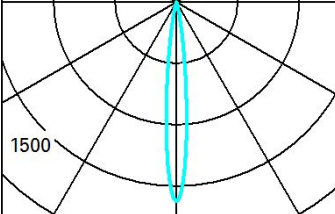


IP23

**Technical data**

lm system:	90	CRI (minimum):	85
W system:	3.5	Colour temperature [K]:	3000
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):	25.8	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.) [%]:	85	Number of optical assemblies:	1
Beam angle [°]:	12°	LED current [mA]:	500

Polar

Imax=1626 cd		Lux				
90°	180°	90°	h	d	Em	E _{max}
			1	0.2	1241	1626
			2	0.4	310	406
			3	0.6	138	181
			4	0.8	78	102
$\alpha = 12^\circ$						

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	77	73	70	68	72	69	69	66	78
1.0	80	76	74	72	76	73	73	70	82
1.5	84	81	79	77	80	78	78	75	88
2.0	87	85	83	82	84	82	81	79	93
2.5	88	87	86	85	86	84	84	81	95
3.0	89	88	87	87	87	86	85	83	97
4.0	90	90	89	89	88	88	87	84	99
5.0	91	91	90	90	89	89	87	85	100

Luminance curve limit

