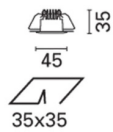
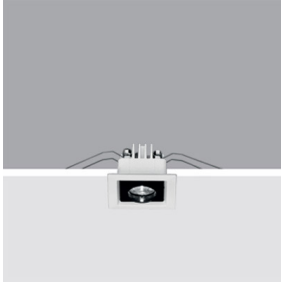


Last information update: June 2023

**Product configuration: M990**

M990: Small body, Frame installation 1 LED warmwhite flood

**Product code**M990: Small body, Frame installation 1 LED warmwhite flood **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 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):	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):	22.3	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**

		<b>CIE</b> nL 0.74 97-99-100-100-74 UGR <10-10 <b>DIN</b> A.61 <b>UTE</b> 0.74A+0.00T F*1=969 F*1+F*2=995 F*1+F*2+F*3=1000 <b>CIBSE</b> LG3 L<1500 cd/m² at 65° UGR<10   L<1500 cd/mq @65°		<b>Lux</b>			
h	d	Em	Emax				
1	0.6	156	193				
2	1.2	39	48				
3	1.8	17	21				
4	2.4	10	12				

R	77	75	73	71	55	53	33	00	DDR
K0.8	66	62	59	57	61	59	59	56	76
1.0	69	65	63	61	65	62	62	60	81
1.5	72	70	68	66	69	67	67	64	87
2.0	75	73	71	70	72	70	70	68	92
2.5	76	75	74	73	74	73	72	70	95
3.0	77	76	75	74	75	74	73	71	97
4.0	78	77	77	76	76	76	74	73	99
5.0	78	78	77	77	77	76	75	73	100

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

Corrected UGR values (at 113 lm bare lamp luminous flux)											
Reflect.: ceiling walls work pl. Room dim x      y		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
viewed crosswise						viewed endwise					
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