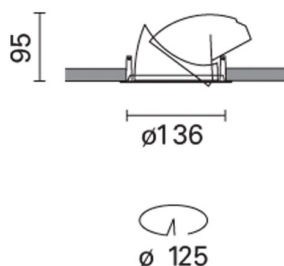


Last information update: April 2024

Product configuration: MM21+LED

MM21: LED warm white -spot optic

**Product code**MM21: LED warm white -spot optic **Attention! Code no longer in production****Technical description**

Recessed luminaire with 6 x 2.2W high output LED lamps. Monochrome emission in a warm white tone. Made of die-cast aluminium and thermoplastic material. LED optic with narrow beam lenses made of plastic material. Double adjustability: internal (40°) and external (65°) with continuous friction; 355° rotation about the horizontal axis. Equipped with electronic power supply. The luminaire technical characteristics conform to EN 60598-1 standards and particular requirements.

Installation

Recessed in false ceilings, with thicknesses starting at 1 mm, using special steel torsion springs

Colour

White (01) | Grey (15)

Mounting

ceiling recessed

Wiring


The connection to the power cable is made on the integrated electronic power supply.

Complies with EN60598-1 and pertinent regulations

**Technical data**

lm system:	619.8	CRI:	95
W system:	12.5	Colour temperature [K]:	3000
lm source:	900	MacAdam Step:	3
W source:	11	Life Time LED 1:	50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	49.6	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.) [%]:	69	Number of optical assemblies:	1
Beam angle [°]:	24°		

Polar

	Imax=3004 cd/Klm		CIE		Lux/Klm			
	90°		180°		h			
	90°		90°		d			
	3000		0°		Em			
	α=24°				Emax			
11 W					2	0.9	587	751
LED - /					4	1.7	147	188
					6	2.6	65	83
					8	3.4	37	47

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	60	57	54	52	56	54	53	51	74
1.0	63	60	58	56	59	57	57	54	79
1.5	67	64	62	61	64	62	61	59	85
2.0	69	67	66	65	66	65	64	62	90
2.5	71	69	68	67	68	67	66	64	93
3.0	72	71	70	69	69	69	68	66	96
4.0	73	72	71	71	71	70	69	67	98
5.0	73	73	72	72	71	71	70	68	99

Luminance curve limit

