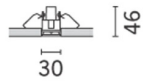
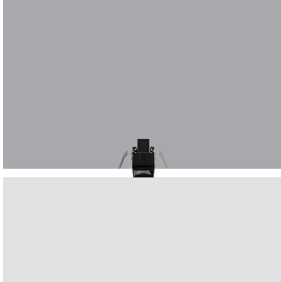


Last information update: May 2024

**Product configuration: MM83**

MM83: Square, Frameless, Recessed luminaire - Warm white LED - Flood optic

**Product code**MM83: Square, Frameless, Recessed luminaire - Warm white LED - Flood optic **Attention! Code no longer in production****Technical description**

square, miniaturised, recessed luminaire for an individual LED - fixed optic - flood beam angle. Die-cast aluminium body, minimal version (frameless). Metallised, thermoplastic, high definition optic, integrated in a rear position in the black, anti-glare screen. Connecting cable supplied. Ballast not included, available with separate code. High CRI, warm white LED.

**Installation**

recessed with steel wire springs on the specific adapter (included) which allows flush-mounting with the ceiling. Adapter for fitting luminaire to false ceilings (12.5 mm thick) with self-tapping screws; subsequent filling and smoothing operations; insertion of luminaire body and stylish finishing. Preparation hole 35 x 35

**Colour**

White (01) | Black (04) | Burnished chrome (E6)

**Weight (Kg)**

0.07

**Mounting**

wall recessed|ceiling recessed|ceiling surface

**Wiring**

Direct current ballasts to be ordered separately: electronic (MXF9) for max. 7 LEDs; DALI dimmable (BZM4) for max. 15 LEDs (check instruction leaflet for compatible lengths of cables to be used)

Complies with EN60598-1 and pertinent regulations



IP20

IP23

On the visible part of the product once installed

**Technical data**

lm system:	141	CRI (typical):	97
W system:	2.1	Colour temperature [K]:	2700
lm source:	170	MacAdam Step:	3
W source:	2.1	Life Time LED 1:	50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	67.1	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.) [%]:	83	Number of optical assemblies:	1
Beam angle [°]:	32°	LED current [mA]:	700
CRI (minimum):	95	Control:	DALI

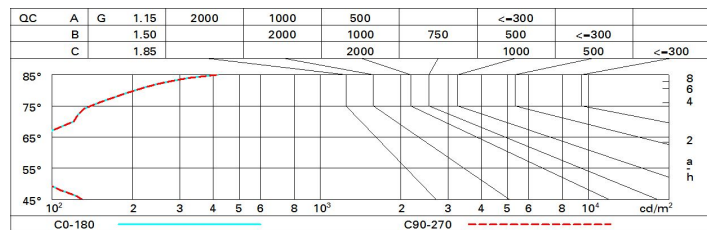
**Polar**

	<b>CIE</b> nL 0.83 100-100-100-100-83 UGR <10-<10 <b>DIN</b> A.61 <b>UTE</b> 0.83A+0.00T F*1=999 F*1+F*2=999 F*1+F*2+F*3=1000 <b>CIBSE</b> LG3 L<1500 cd/m² at 65° UGR<10   L<1500 cd/mq @65°			
	h	d	Em	E <sub>max</sub>
	1	0.6	368	473
	2	1.1	92	118
	3	1.7	41	53
	4	2.3	23	30

# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	75	71	68	66	70	68	68	65	78
1.0	78	75	72	70	74	72	71	69	83
1.5	82	79	77	76	78	77	76	73	89
2.0	84	83	81	80	81	80	79	77	93
2.5	86	85	84	83	83	82	82	79	96
3.0	87	86	85	85	85	84	83	81	98
4.0	88	87	87	86	86	86	84	82	99
5.0	89	88	88	87	87	86	85	83	100

# Luminance curve limit



# UGR diagram

Corrected UGR values (at 170 lm bare lamp luminous flux)											
Reflect.: ceiling/cav walls work pl. Room dim x y		viewed crosswise					viewed endwise				
2H	2H	-3.3	-2.7	-3.0	-2.5	-2.3	-3.3	-2.7	-3.0	-2.5	-2.3
	3H	-3.3	-2.9	-3.0	-2.6	-2.3	-3.4	-2.9	-3.1	-2.6	-2.4
	4H	-3.3	-2.9	-3.0	-2.6	-2.3	-3.4	-3.0	-3.1	-2.7	-2.4
	6H	-3.3	-2.9	-3.0	-2.6	-2.3	-3.5	-3.1	-3.2	-2.8	-2.5
	8H	-3.3	-2.9	-2.9	-2.6	-2.2	-3.5	-3.2	-3.2	-2.8	-2.5
	12H	-3.2	-2.8	-2.8	-2.5	-2.1	-3.6	-3.2	-3.2	-2.9	-2.5
4H	2H	-3.4	-3.0	-3.1	-2.7	-2.4	-3.3	-2.9	-3.0	-2.6	-2.3
	3H	-3.5	-3.1	-3.1	-2.8	-2.4	-3.4	-3.1	-3.1	-2.7	-2.4
	4H	-3.5	-3.2	-3.1	-2.8	-2.4	-3.5	-3.2	-3.1	-2.8	-2.4
	6H	-3.4	-3.1	-3.0	-2.7	-2.3	-3.5	-3.3	-3.1	-2.9	-2.4
	8H	-3.3	-3.0	-2.8	-2.6	-2.2	-3.6	-3.3	-3.1	-2.9	-2.5
	12H	-3.1	-2.8	-2.6	-2.4	-2.0	-3.6	-3.4	-3.1	-2.9	-2.5
8H	4H	-3.6	-3.3	-3.1	-2.9	-2.5	-3.3	-3.0	-2.8	-2.6	-2.2
	6H	-3.4	-3.2	-2.9	-2.7	-2.2	-3.2	-3.0	-2.8	-2.6	-2.1
	8H	-3.2	-3.0	-2.7	-2.5	-2.0	-3.2	-3.0	-2.7	-2.5	-2.0
	12H	-2.8	-2.7	-2.3	-2.2	-1.7	-3.1	-3.0	-2.6	-2.5	-2.0
12H	4H	-3.6	-3.4	-3.1	-2.9	-2.5	-3.1	-2.8	-2.6	-2.4	-2.0
	6H	-3.4	-3.2	-2.9	-2.7	-2.2	-2.9	-2.8	-2.5	-2.3	-1.8
	8H	-3.1	-3.0	-2.6	-2.5	-2.0	-2.8	-2.7	-2.3	-2.2	-1.7
Variations with the observer position at spacing:											
S =		5.6 / -3.8					5.6 / -3.8				
		8.3 / -4.0					8.3 / -4.0				
		10.3 / -4.1					10.3 / -4.1				