

march 2017



Laser Blade

code
MM77

Technical description

rectangular miniaturised recessed luminaire with 5 optical elements with LED lamps - fixed optics - flood beam angle. Main body with die-cast aluminium radiant surface, version with perimeter surface frame. Metallised thermoplastic high definition optics, integrated in a rear position in the black anti-glare screen; the structure of the optical system prevents a pinpoint effect, allowing precise, circular light distribution and emission with controlled glare . Supplied with DALI dimmable electronic control gear connected to the luminaire. Warm white high colour rendering LED.

Installation

recessed with steel wire springs for false ceilings from 1 to 25 mm thick - preparation hole 37 x 141

Size (mm)

148x44x54

Colour

White (01) | White/Brass (41) | Nero/Nero (43) | White / Black (47) | Grey / Black (74) | white / chrome burnished (E7)

Weight (kg)

0.29

Mounting

wall recessed | ceiling recessed

Wiring info

on control gear box; screw connections with terminal block included

Complies with EN60598-1 and pertinent regulations

IP20 **IP23** On the visible part of the product once installed



Product configuration: MM77+LED

LED: LED WARM 2700 K CRI>90

Product characteristics

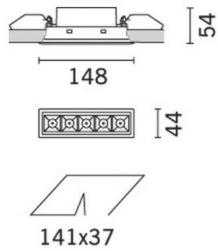
Total lighting output [Lm]: 678.9
Total power [W]: 13
Luminous efficacy (lm/W, real value): 52.2
Life Time: 50,000h - L90 - B10 (Ta 25°C)

Total luminous flux at or above an angle of 90° [Lm]: 0
Emergency luminous flux [Lm]: /
Voltage [V]: -
Number of optical assemblies: 1


Optical assembly Characteristics 1

Light Output Ratio (L.O.R.) [%]: 80
Lamp code: LED
ZVEI Code: LED
Nominal power [W]: 10
Nominal luminous [Lm]: 850
Lamp maximum intensity [cd]: /
Beam angle [°]: 32°

Number of lamps for optical assembly: 1
Socket: /
Ballast losses [W]: 3
Colour temperature [K]: 2700
CRI: 95
Wavelength [nm]: /
MacAdam Step: <3



Polar

 <p>13 W LED - /</p>	<p>Imax=2330 cd</p> <p>90° 180° 90°</p> <p>2500</p> <p>0°</p> <p>α=32°</p>	<p>CIE nL 0.80 100-100-100-100-80 UGR <10-<10</p> <p>DIN A.61</p> <p>UTE 0.80A+0.00T F*1=1000 F*1+F*2=1000 F*1+F*2+F*3=1000</p> <p>CIBSE LG3 L<200 cd/m² at 65° BZ1</p>	Lux			
			h	d	Em	Emax
			2	1.1	448	582
			4	2.3	112	146
			6	3.4	50	65
8	4.6	28	36			

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	72	69	66	64	68	66	65	63	78
1.0	75	72	70	68	71	69	69	66	83
1.5	79	77	75	73	76	74	73	71	89
2.0	81	80	78	77	79	77	76	74	93
2.5	83	82	81	80	80	79	79	77	96
3.0	84	83	82	81	82	81	80	78	98
4.0	85	84	84	83	83	82	81	79	99
5.0	85	85	85	84	84	83	82	80	100

UGR diagram

<p>Photometric curve code: MK500000.RV1 Corrected UGR values (at 850 lm bare lamp luminous flux)</p>											
Reflect.:											
ceiling	0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30	
walls	0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30	
work pl.	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	
Room dim	viewed					viewed					
x	y	crosswise					endwise				
2H	2H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4H	2H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	3H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	4H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8H	4H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	12H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12H	4H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	6H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	8H	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<p>Variations with the observer position at spacing:</p>											
S =	1.0H	6.8 / -18.5					6.8 / -18.5				
	1.5H	9.6 / -18.7					9.6 / -18.7				
	2.0H	11.6 / -23.0					11.6 / -23.0				

