

Last information update: May 2024

**Product configuration: MF21**

MF21: rectangular recessed luminaire with 3 optical assemblies - neutral white passive dissipation LEDs - integrated electronic control gear - wide flood

**Product code**MF21: rectangular recessed luminaire with 3 optical assemblies - neutral white passive dissipation LEDs - integrated electronic control gear - wide flood **Attention! Code no longer in production****Technical description**

Multiple recessed adjustable removable luminaire for LED lamp with passive heat dissipation system. Sheet steel perimeter frame. Main structure made of die-cast aluminium. Steel rotation hinges. Die-cast aluminium lamp bodies with shaped surface for high level radiant effect for effectively reducing the temperature and keeping the long-term LED lamp performance unchanged. Chrome-plated aluminium lamp body closing rings. Reflectors with high efficiency super-pure aluminium optic - wide flood beam angle. Bodies adjusted using manually operated device: internal 29° - external 75° - rotation about axis 355°. During adjustment and rotation the lamp bodies are subject to some limitations. Consult the instruction sheet. Supplied with electronic control gear units connected to the luminaire. Neutral white high efficiency LED.

**Installation**

recessed: preparation slot 138 x 386 mm; perimeter frame preliminary fixing on false ceiling (min. thickness 1 mm) with adjustable metal brackets; main structure inserted and mechanically locked on the frame

**Colour**

White / Aluminium (39) | Grey / Black / Aluminium (E1)

**Mounting**

ceiling recessed

**Wiring**

on control gear box with quick-coupling connections; each lamp body has a specific ballast, allowing separate switch ons

**Notes**

the configuration of the lamp bodies causes some limitations during angling and rotation; consult the instruction leaflet

Complies with EN60598-1 and pertinent regulations

**Technical data**

lm system:	4676	CRI:	80
W system:	46.2	Colour temperature [K]:	4000
lm source:	2000	MacAdam Step:	2
W source:	12	Life Time LED 1:	> 50,000h - L80 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	101.2	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.) [%]:	78	Number of optical assemblies:	3
Beam angle [°]:	54°		

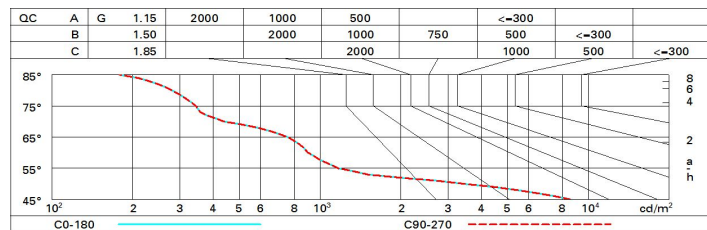
**Polar**

Imax=2071 cd		CIE		Lux			
				h	d	Em	Emax
90°		nL 0.78		2	2	400	516
		97-100-100-100-78		4	4.1	100	129
		UGR 15.0-15.0		6	6.1	44	57
		DIN A.61		8	8.2	25	32
		UTE 0.78A+0.00T					
		F*1=965					
		F*1+F*2=997					
		F*1+F*2+F*3=1000					
		CIBSE LG3 L<1500 cd/m² at 65°					
		UGR<16   L<1500 cd/mq @65°					
α=54°							

# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	69	65	63	60	65	62	62	59	76
1.0	72	69	66	65	68	66	66	63	81
1.5	76	74	72	70	73	71	70	68	87
2.0	79	77	75	74	76	75	74	71	92
2.5	80	79	78	77	78	77	76	74	95
3.0	81	80	80	79	79	78	77	75	97
4.0	83	82	81	81	80	80	79	77	98
5.0	83	82	82	82	81	81	79	78	99

# Luminance curve limit



# UGR diagram

Corrected UGR values (at 2000 lm bare lamp luminous flux)											
Reflect.: ceiling/cav 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
		0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
		0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
		viewed crosswise					viewed endwise				
2H	2H	15.6	16.2	15.8	16.4	16.7	15.6	16.2	15.8	16.4	16.7
	3H	15.4	16.0	15.7	16.3	16.5	15.4	16.0	15.7	16.3	16.5
	4H	15.4	15.9	15.7	16.2	16.5	15.4	15.9	15.7	16.2	16.5
	6H	15.3	15.8	15.6	16.1	16.4	15.3	15.8	15.6	16.1	16.4
	8H	15.2	15.7	15.6	16.0	16.4	15.2	15.7	15.6	16.0	16.4
	12H	15.2	15.6	15.6	16.0	16.3	15.2	15.6	15.6	16.0	16.3
4H	2H	15.4	15.9	15.7	16.2	16.5	15.4	15.9	15.7	16.2	16.5
	3H	15.2	15.7	15.6	16.0	16.3	15.2	15.7	15.6	16.0	16.3
	4H	15.1	15.5	15.5	15.9	16.3	15.1	15.5	15.5	15.9	16.3
	6H	15.0	15.4	15.5	15.8	16.2	15.0	15.4	15.5	15.8	16.2
	8H	15.0	15.3	15.4	15.7	16.2	15.0	15.3	15.4	15.7	16.2
	12H	14.9	15.2	15.4	15.7	16.1	14.9	15.2	15.4	15.7	16.1
8H	4H	15.0	15.3	15.4	15.7	16.2	15.0	15.3	15.4	15.7	16.2
	6H	14.9	15.2	15.4	15.6	16.1	14.9	15.2	15.4	15.6	16.1
	8H	14.9	15.1	15.3	15.5	16.0	14.9	15.1	15.3	15.5	16.0
	12H	14.8	15.0	15.3	15.5	16.0	14.8	15.0	15.3	15.5	16.0
12H	4H	14.9	15.2	15.4	15.7	16.1	14.9	15.2	15.4	15.7	16.1
	6H	14.8	15.1	15.3	15.5	16.0	14.9	15.1	15.3	15.5	16.0
	8H	14.8	15.0	15.3	15.5	16.0	14.8	15.0	15.3	15.5	16.0
Variations with the observer position at spacing:											
S =	1.0H	5.1 / -13.5					5.1 / -13.5				
	1.5H	7.9 / -14.7					7.9 / -14.7				
	2.0H	9.9 / -15.9					9.9 / -15.9				