

Last information update: April 2024

Product configuration: MU48

MU48: extractable, adjustable, recessed LED luminaire - DALI control gear included

**Product code**

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Technical description

Extractable, adjustable, recessed luminaire for warm white LED lamp with high color rendering index. Passive heat dispersion system. Die-cast aluminium main body and frame; stainless steel rotation hinge. Rotation ring with safety cover in a high resistance thermoplastic material. Body adjusted with a manual manoeuvre device: internal 40° - external 65° - rotation on 355° axis. Reflector with high efficiency super-pure aluminium optic - spot beam angle. Die-cast aluminium lamp body closure ring. Tempered transparent glass screen. Dimmerable DALI control gear supplied and connected to the luminaire.

Installation

recessed using steel springs in false ceilings with thicknesses starting at 1 mm; preparation hole Ø 125 mm

Weight (Kg)

0.85

Mounting

ceiling recessed

Wiring

on control gear box with quick-coupling connections

Complies with EN60598-1 and pertinent regulations

**Technical data**

lm system:	1648	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
W system:	17.9	Lamp code:	LED
lm source:	2140	Number of lamps for optical assembly:	1
W source:	15	ZVEI Code:	LED
Luminous efficiency (lm/W, real value):	92.1	Number of optical assemblies:	1
lm in emergency mode:	-	Power factor:	See installation instructions
Total light flux at or above an angle of 90° [Lm]:	0	Inrush current:	18 A / 250 µs
Light Output Ratio (L.O.R.) [%]:	77	Maximum number of luminaires of this type per miniature circuit breaker:	B10A: 21 luminaires B16A: 34 luminaires C10A: 35 luminaires C16A: 57 luminaires
Beam angle [°]:	18°	Minimum dimming %:	1
CRI (minimum):	90	Overvoltage protection:	2kV Common mode & 1kV Differential mode
Colour temperature [K]:	3000	Dimming mode:	CCR
MacAdam Step:	2	Control:	DALI

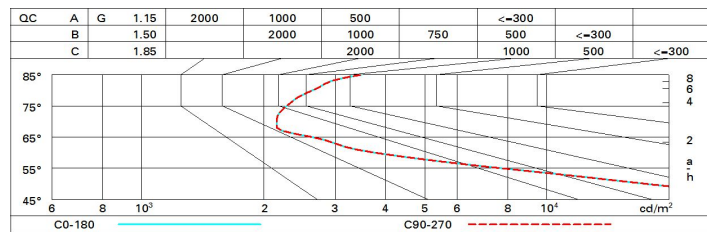
Polar

 Imax=5279 cd 90° 180° 90° 6000 0° α = 18°	CIE nL 0.77 94-100-100-100-77 UGR 20.5-20.5 DIN A.61 UTE 0.77A+0.00T F*1=941 F*1+F*2=995 F*1+F*2+F*3=999				Lux			
	h	d	Em	Emax	h	d	Em	Emax
	2	0.6	1052	1320				
	4	1.3	263	330				
	6	1.9	117	147				
	8	2.5	66	82				

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	68	63	61	58	63	60	60	57	74
1.0	71	67	65	63	66	64	64	61	79
1.5	75	72	70	68	71	69	69	66	86
2.0	78	76	74	73	75	73	72	70	91
2.5	79	78	76	75	77	75	75	72	94
3.0	80	79	78	77	78	77	76	74	96
4.0	81	80	80	79	79	79	77	75	98
5.0	82	81	81	80	80	79	78	76	99

Luminance curve limit



UGR diagram

Corrected UGR values (at 2140 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	21.3	22.8	21.7	23.1	23.4	21.3	22.8	21.7	23.1	23.4
	3H	21.2	22.3	21.6	22.6	22.9	21.2	22.3	21.6	22.6	22.9
	4H	21.1	22.2	21.5	22.5	22.8	21.1	22.2	21.5	22.5	22.8
	6H	21.0	22.1	21.4	22.5	22.8	21.0	22.1	21.4	22.5	22.8
	8H	21.0	22.1	21.4	22.4	22.8	20.9	22.1	21.3	22.4	22.8
	12H	20.9	22.0	21.3	22.4	22.8	20.9	22.0	21.3	22.4	22.8
4H	2H	21.1	22.2	21.5	22.5	22.8	21.1	22.2	21.5	22.5	22.8
	3H	20.9	22.0	21.3	22.4	22.8	20.9	22.0	21.3	22.4	22.8
	4H	20.8	21.9	21.2	22.3	22.7	20.8	21.9	21.2	22.3	22.7
	6H	20.6	21.8	21.1	22.3	22.7	20.6	21.8	21.1	22.3	22.7
	8H	20.5	21.8	21.0	22.3	22.8	20.5	21.8	21.0	22.3	22.7
	12H	20.4	21.9	20.9	22.3	22.8	20.4	21.8	20.9	22.3	22.8
8H	4H	20.5	21.8	21.0	22.3	22.7	20.5	21.8	21.0	22.3	22.8
	6H	20.4	21.7	20.9	22.2	22.7	20.4	21.7	20.9	22.2	22.7
	8H	20.4	21.5	20.9	22.0	22.6	20.4	21.5	20.9	22.0	22.6
	12H	20.5	21.3	21.0	21.8	22.3	20.4	21.3	21.0	21.8	22.3
12H	4H	20.4	21.8	20.9	22.3	22.8	20.4	21.9	20.9	22.3	22.8
	6H	20.4	21.5	20.9	22.0	22.5	20.4	21.5	20.9	22.0	22.6
	8H	20.4	21.3	21.0	21.8	22.3	20.5	21.3	21.0	21.8	22.3
Variations with the observer position at spacing:											
S =		1.0H	3.8 / -10.2				3.8 / -10.2				
		1.5H	6.5 / -12.2				6.5 / -12.2				
		2.0H	8.5 / -12.7				8.5 / -12.7				