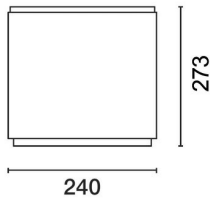


Last information update: May 2018

**Ceiling-mounted luminaire - warm LED - Controlled luminance UGR < 19 - DALI dimmable control gear****Product code**
MR78**Technical description**

LED lamp, ceiling-mounted luminaire; integrated DALI dimmable control gear. Die-cast aluminium plate for surface mounting with diffuser element; technical, shaped aluminium sheet brackets for components and optics; comfort reflector vacuum-metallised with aluminium vapours and finished with a protective anti-scratch layer - controlled luminance optic; safety glass cover over LED lamp; lathe-shaped aluminium cylindrical body; lower ring in high resistance polycarbonate.

Installation

Plate fixed to ceiling using screws and screw anchors (not included); bayonet assembly systems ensuring simple installation and maintenance; snap-on spring fastening for reflector. Wall or pendant application option available thanks to special accessory kits with a separate code.

Dimension (mm)
Ø240x273**Colour**
White (01) | Grey (15)**Weight (Kg)**
3.1**Mounting**

wall surface|ceiling surface|ceiling pendant

Wiring

Control gear integrated in luminaire; mains and optic unit connections made with quick coupling terminal blocks. Touch-dim push-button dimming option (see instruction sheet)

Notes

Kit for wall-mounting: code no. 9443 - kit for steel cable pendant system L 1500: code no. 9441

Complies with EN60598-1 and pertinent regulations



IP23

**Product configuration: MR78****Product characteristics**

Total lighting output [Lm]: 3358
Total power [W]: 33
Luminous efficacy [Lm/W]: 101.8
Life Time: 50,000h - L80 - B10 (Ta 25°C)

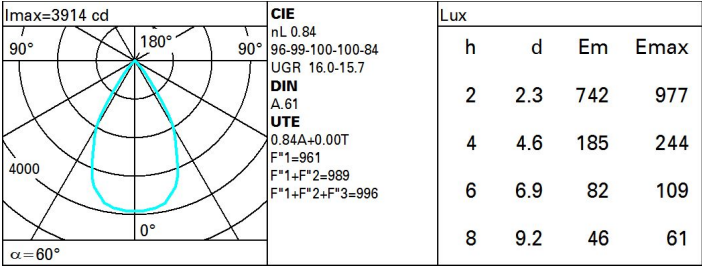
Total luminous flux at or above an angle of 90° [Lm]: 0
Emergency luminous flux [Lm]: /
Voltage [V]: -
Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 84
Lamp code: LED
ZVEI Code: LED
Nominal power [W]: 28
Nominal luminous [Lm]: 4000
Lamp maximum intensity [cd]: /
Beam angle [°]: /

Number of lamps for optical assembly: 1
Socket: /
Ballast losses [W]: 5
Colour temperature [K]: 3000
CRI: 80
Wavelength [Nm]: /
MacAdam Step: 3

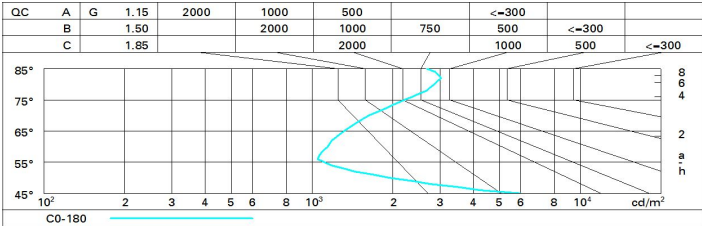
Polar



Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	74	70	67	65	69	67	66	63	76
1.0	78	74	71	69	73	71	70	67	80
1.5	82	79	77	75	78	76	75	73	87
2.0	85	83	81	79	82	80	79	77	91
2.5	86	85	84	82	84	82	82	79	94
3.0	88	86	85	84	85	84	83	81	96
4.0	89	88	87	86	86	86	85	82	98
5.0	89	89	88	88	87	87	85	83	99

Luminance curve limit



UGR diagram

Corrected UGR values (at 4000 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	15.9	16.6	16.2	16.8	17.1	15.9	16.6	16.2	16.8	17.1	
	3H	15.8	16.4	16.2	16.7	17.0	15.8	16.4	16.1	16.7	16.9	
	4H	15.8	16.4	16.2	16.7	17.0	15.7	16.3	16.1	16.6	16.9	
	6H	15.9	16.4	16.3	16.7	17.1	15.7	16.2	16.0	16.5	16.8	
	8H	15.9	16.4	16.3	16.8	17.1	15.6	16.1	16.0	16.4	16.8	
	12H	16.0	16.4	16.3	16.8	17.1	15.6	16.1	16.0	16.4	16.7	
4H	2H	15.7	16.3	16.1	16.6	16.9	15.8	16.4	16.2	16.7	17.0	
	3H	15.7	16.1	16.1	16.5	16.8	15.8	16.2	16.1	16.6	16.9	
	4H	15.7	16.1	16.1	16.5	16.9	15.7	16.1	16.1	16.5	16.9	
	6H	15.9	16.2	16.3	16.6	17.0	15.7	16.1	16.1	16.5	16.9	
	8H	16.0	16.3	16.4	16.7	17.1	15.7	16.0	16.1	16.4	16.9	
	12H	16.0	16.3	16.5	16.7	17.2	15.7	16.0	16.1	16.4	16.8	
8H	4H	15.7	16.0	16.1	16.4	16.9	16.0	16.3	16.4	16.7	17.1	
	6H	15.9	16.2	16.4	16.6	17.1	16.0	16.3	16.5	16.7	17.2	
	8H	16.1	16.3	16.5	16.8	17.3	16.1	16.3	16.5	16.8	17.3	
	12H	16.2	16.4	16.7	16.9	17.4	16.1	16.3	16.6	16.8	17.3	
12H	4H	15.7	16.0	16.1	16.4	16.8	16.0	16.3	16.5	16.7	17.2	
	6H	15.9	16.2	16.4	16.6	17.1	16.1	16.3	16.6	16.8	17.3	
	8H	16.1	16.3	16.6	16.8	17.3	16.2	16.4	16.7	16.9	17.4	
Variations with the observer position at spacing:												
S =		1.0H	4.7 / -4.3				4.7 / -4.3					
		1.5H	7.4 / -4.5				7.4 / -4.5					
		2.0H	9.4 / -4.4				9.4 / -4.4					