

Last information update: April 2018



**Square recessed luminaire - 226x226 mm H=146 mm - neutral white - DALI ballast - general light optic with controlled luminance UGR<19**

**Product code**  
MC31

**Technical description**

Recessed fixed square luminaire designed to use a LED lamp. Version with rim for surface-mounting. Reflector vacuum-metallised with aluminium vapours with an anti-scratch protective layer. Die-cast aluminium body and passive dissipation system. Product complete with 2000 lm DALI LED unit in a neutral white tone 4000K and driver separate from the luminaire. General light distribution, with controlled luminance (UGR<19).

**Installation**

Recessed using torsion springs which allow easy installation in false ceilings with thickness ranging from 1 mm to 25 mm.

**Dimension (mm)**

226x226x142

**Colour**

White/Aluminium (39)

**Weight (Kg)**

2.18

**Mounting**

ceiling recessed

**Wiring**

Product complete with DALI electronic components

Complies with EN60598-1 and pertinent regulations



**Product configuration: MC31**

**Product characteristics**

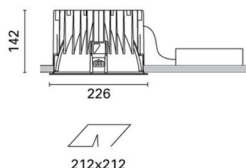
Total lighting output [Lm]: 1819  
Total power [W]: 18.6  
Luminous efficacy [Lm/W]: 97.8  
Life Time: 50,000h - L80 - B10 (Ta 25 °C)

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

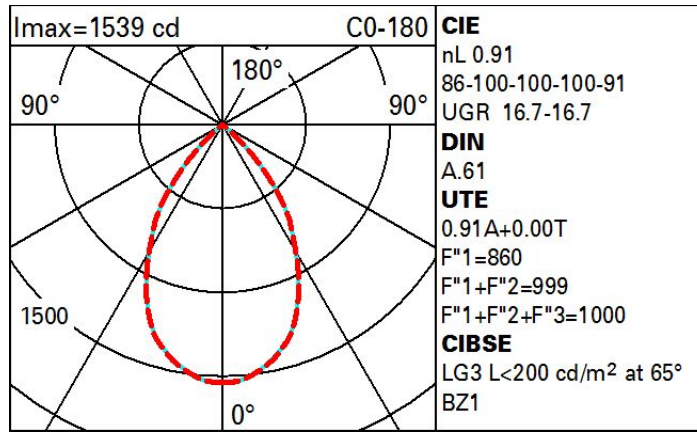
**Optical assembly Characteristics Type 1**

Light Output Ratio (L.O.R.) [%]: 91  
Lamp code: LED  
ZVEI Code: LED  
Nominal power [W]: 16  
Nominal luminous [Lm]: 2000  
Lamp maximum intensity [cd]: /  
Beam angle [°]: /

Number of lamps for optical assembly: 1  
Socket: /  
Ballast losses [W]: 2.6  
Colour temperature [K]: 4000  
CRI: 80  
Wavelength [Nm]: /  
MacAdam Step: 3



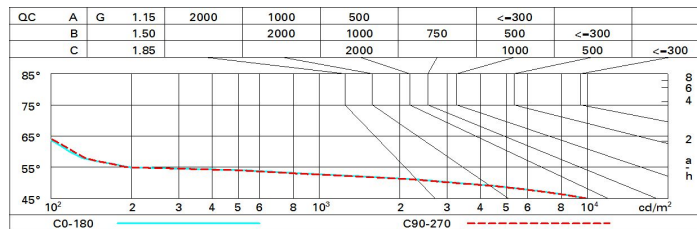
**Polar**



**Utilisation factors**

R	77	75	73	71	55	53	33	00	DRR
K0.8	76	71	67	64	70	66	66	62	68
1.0	81	76	72	69	75	71	71	67	74
1.5	87	83	80	78	82	79	78	75	83
2.0	90	88	85	83	86	84	83	80	88
2.5	92	90	88	87	89	87	86	83	92
3.0	94	92	91	89	90	89	88	85	94
4.0	95	94	93	92	92	91	90	87	96
5.0	96	95	94	93	93	92	91	88	97

**Luminance curve limit**



**UGR diagram**

Corrected UGR values (at 2000 lm bare lamp luminous flux)											
Reflect.:		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
ceiling/cav		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 crosswise					viewed endwise				
x	y										
2H	2H	17.2	18.0	17.5	18.2	18.4	17.2	17.9	17.5	18.2	18.4
	3H	17.1	17.7	17.4	18.0	18.3	17.1	17.8	17.4	18.0	18.3
	4H	17.0	17.6	17.3	17.9	18.2	17.0	17.6	17.4	17.9	18.2
	6H	16.9	17.5	17.3	17.8	18.1	16.9	17.5	17.3	17.8	18.1
	8H	16.9	17.4	17.3	17.8	18.1	16.9	17.4	17.3	17.8	18.1
	12H	16.9	17.4	17.2	17.7	18.1	16.9	17.4	17.3	17.7	18.1
4H	2H	17.0	17.6	17.4	17.9	18.2	17.0	17.6	17.3	17.9	18.2
	3H	16.9	17.4	17.3	17.7	18.1	16.9	17.4	17.3	17.7	18.1
	4H	16.8	17.2	17.2	17.6	18.0	16.8	17.2	17.2	17.6	18.0
	6H	16.7	17.1	17.1	17.5	17.9	16.7	17.1	17.1	17.5	17.9
	8H	16.7	17.0	17.1	17.4	17.9	16.7	17.0	17.1	17.4	17.9
	12H	16.6	16.9	17.1	17.4	17.8	16.6	16.9	17.1	17.4	17.8
8H	4H	16.7	17.0	17.1	17.4	17.9	16.7	17.0	17.1	17.4	17.9
	6H	16.6	16.9	17.0	17.3	17.8	16.6	16.9	17.0	17.3	17.8
	8H	16.5	16.8	17.0	17.2	17.7	16.5	16.8	17.0	17.2	17.7
	12H	16.5	16.7	17.0	17.2	17.7	16.5	16.7	17.0	17.2	17.7
12H	4H	16.6	16.9	17.1	17.4	17.8	16.6	16.9	17.1	17.4	17.8
	6H	16.5	16.8	17.0	17.2	17.7	16.5	16.8	17.0	17.2	17.7
	8H	16.5	16.7	17.0	17.2	17.7	16.5	16.7	17.0	17.2	17.7
Variations with the observer position at spacing:											
S =	1.0H	2.9 / -18.5					2.9 / -18.7				
	1.5H	4.3 / -25.8					4.3 / -25.6				
	2.0H	6.2 / -26.6					6.3 / -26.4				