Reflex

Design iGuzzini **iGuzzini**

Last information update: May 2025

Product configuration: MM99
MM99: Fixed round recessed luminaire - Ø212 mm - neutral white - wide flood optic

Product code
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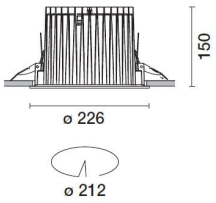
Technical description
Fixed round luminaire designed to use a LED lamp with C.O.B. technology. Version with rim for surface-mounting. Reflector vacuum-metallised with aluminium vapours with an anti-scratch protective layer. Die-cast aluminium body and passive dissipation system. Product complete with LED lamp in neutral white colour tone (4,000K). General light emission, with controlled luminance UGR<19 1500 cd/m2 α>65° wide flood optic.

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

Colour	**Weight (Kg)**
White / Aluminium (39)	2.01



Mounting
ceiling recessed

Wiring
Product complete with DALI components

Complies with EN60598-1 and pertinent regulations

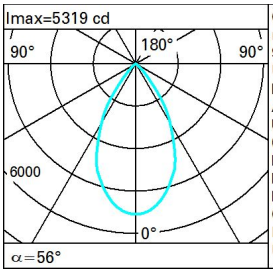
IP20 IP54 On the visible part of the product once installed

Technical data

lm system:	4512
W system:	34.8
lm source:	5250
W source:	31
Luminous efficiency (lm/W, real value):	129.7
lm in emergency mode:	-
Total light flux at or above an angle of 90° [Lm]:	0
Light Output Ratio (L.O.R.) [%]:	86
Beam angle [°]:	56°
CRI (minimum):	80
Colour temperature [K]:	4000
MacAdam Step:	2

Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Lamp code:	LED
Number of lamps for optical assembly:	1
ZVEI Code:	LED
Number of optical assemblies:	1
Power factor:	See installation instructions
Inrush current:	18 A / 250 µs
Maximum number of luminaires of this type per miniature circuit breaker:	B10A: 21 luminaires B16A: 34 luminaires C10A: 35 luminaires C16A: 57 luminaires
Minimum dimming %:	1
Overvoltage protection:	2kV Common mode & 1kV Differential mode
Control:	DALI-2

Polar



CIE
nL 0.86
95-100-100-100-86
UGR 17.9-17.9
DIN
A.61
UTE
0.86A+0.00T
F"1=946
F"1+F"2=1000
F"1+F"2+F"3=1000
CIBSE
LG3 L<1500 cd/m² at 65°
UGR<19 | L<1500 cd/mq @65°

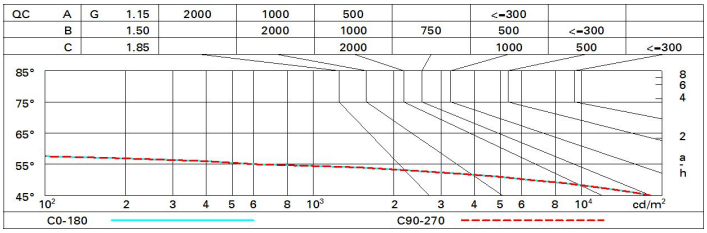
Lux

h	d	Em	Emax
2	2.1	990	1330
4	4.3	248	332
6	6.4	110	148
8	8.5	62	83

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	76	71	68	65	70	67	67	64	74
1.0	79	75	72	70	74	72	71	68	80
1.5	84	81	79	77	80	78	77	74	86
2.0	87	85	83	81	83	82	81	78	91
2.5	89	87	85	84	86	84	83	81	94
3.0	90	88	87	86	87	86	85	83	96
4.0	91	90	89	88	88	88	86	84	98
5.0	91	91	90	90	89	89	87	85	99

Luminance curve limit



UGR diagram

Corrected UGR values (at 5250 lm bare lamp luminous flux)

Riflect.: ceil/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	18.5	19.1	18.7	19.4	19.6	18.5	19.1	18.7	19.4	19.6
	3H	18.3	18.9	18.6	19.2	19.5	18.3	18.9	18.6	19.2	19.5
	4H	18.3	18.8	18.6	19.1	19.4	18.3	18.8	18.6	19.1	19.4
	6H	18.2	18.7	18.5	19.0	19.3	18.2	18.7	18.5	19.0	19.3
	8H	18.1	18.6	18.5	19.0	19.3	18.1	18.6	18.5	19.0	19.3
	12H	18.1	18.6	18.5	18.9	19.3	18.1	18.6	18.5	18.9	19.3
4H	2H	18.3	18.8	18.6	19.1	19.4	18.3	18.8	18.6	19.1	19.4
	3H	18.1	18.6	18.5	18.9	19.3	18.1	18.6	18.5	18.9	19.3
	4H	18.0	18.4	18.4	18.8	19.2	18.0	18.4	18.4	18.8	19.2
	6H	17.9	18.3	18.4	18.7	19.1	17.9	18.3	18.4	18.7	19.1
	8H	17.9	18.2	18.3	18.6	19.1	17.9	18.2	18.3	18.6	19.1
	12H	17.8	18.1	18.3	18.6	19.0	17.8	18.1	18.3	18.6	19.0
8H	4H	17.9	18.2	18.3	18.6	19.1	17.9	18.2	18.3	18.6	19.1
	6H	17.8	18.1	18.3	18.5	19.0	17.8	18.1	18.3	18.5	19.0
	8H	17.7	18.0	18.2	18.4	18.9	17.7	18.0	18.2	18.4	18.9
	12H	17.7	17.9	18.2	18.4	18.9	17.7	17.9	18.2	18.4	18.9
12H	4H	17.8	18.1	18.3	18.6	19.0	17.8	18.1	18.3	18.6	19.0
	6H	17.7	18.0	18.2	18.4	18.9	17.7	18.0	18.2	18.4	18.9
	8H	17.7	17.9	18.2	18.4	18.9	17.7	17.9	18.2	18.4	18.9

Variations with the observer position at spacing:

S =			
	1.0H	4.5 / -24.2	4.5 / -24.2
	1.5H	7.2 / -33.8	7.2 / -33.8
	2.0H	9.2 / -34.2	9.2 / -34.2