Reflex

Design iGuzzini **iGuzzini**

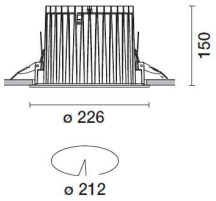
Last information update: June 2018

Fixed round recessed luminaire - Ø212 mm - neutral white - wide flood optic

Product code
MM99

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



Dimension (mm)
Ø226x150

Colour
White/Aluminium (39)

Weight (Kg)
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

Product configuration: MM99

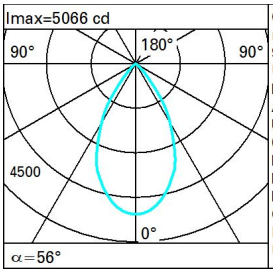
Product characteristics

Total lighting output [Lm]: 4297	Total luminous flux at or above an angle of 90° [Lm]: 0
Total power [W]: 35.3	Emergency luminous flux [Lm]: /
Luminous efficacy [Lm/W]: 121.7	Voltage [V]: -
Life Time: 50,000h - L80 - B10 (Ta 25°C)	Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 86	Number of lamps for optical assembly: 1
Lamp code: LED	Socket: /
ZVEI Code: LED	Ballast losses [W]: 3.3
Nominal power [W]: 32	Colour temperature [K]: 4000
Nominal luminous [Lm]: 5000	CRI: 80
Lamp maximum intensity [cd]: /	Wavelength [Nm]: /
Beam angle [°]: 56°	MacAdam Step: 2

Polar



CIE
nL 0.86
95-100-100-100-86
UGR 17.7-17.7
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 I L<1500 cd/mq @65°

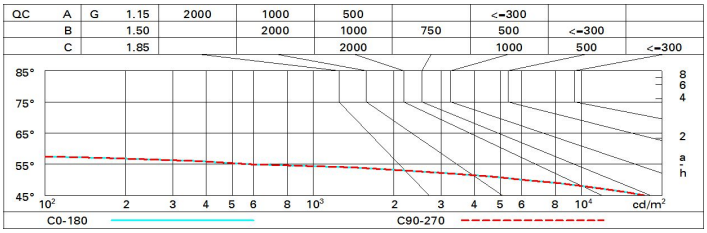
Lux

h	d	Em	Emax
2	2.1	943	1266
4	4.3	236	317
6	6.4	105	141
8	8.5	59	79

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 5000 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	18.3	19.0	18.6	19.2	19.5	18.3	19.0	18.6	19.2	19.5
	3H	18.2	18.8	18.5	19.0	19.3	18.2	18.8	18.5	19.0	19.3
	4H	18.1	18.6	18.4	18.9	19.2	18.1	18.7	18.4	18.9	19.2
	6H	18.0	18.5	18.4	18.8	19.2	18.0	18.5	18.4	18.8	19.2
	8H	18.0	18.5	18.3	18.8	19.1	18.0	18.5	18.3	18.8	19.1
	12H	17.9	18.4	18.3	18.7	19.1	17.9	18.4	18.3	18.7	19.1
4H	2H	18.1	18.7	18.4	18.9	19.2	18.1	18.6	18.4	18.9	19.2
	3H	17.9	18.4	18.3	18.7	19.1	17.9	18.4	18.3	18.7	19.1
	4H	17.8	18.3	18.2	18.6	19.0	17.8	18.3	18.2	18.6	19.0
	6H	17.8	18.1	18.2	18.5	18.9	17.8	18.1	18.2	18.5	18.9
	8H	17.7	18.0	18.1	18.5	18.9	17.7	18.0	18.1	18.5	18.9
	12H	17.7	18.0	18.1	18.4	18.9	17.7	18.0	18.1	18.4	18.9
8H	4H	17.7	18.0	18.1	18.5	18.9	17.7	18.0	18.1	18.5	18.9
	6H	17.6	17.9	18.1	18.3	18.8	17.6	17.9	18.1	18.3	18.8
	8H	17.6	17.8	18.0	18.3	18.8	17.6	17.8	18.0	18.3	18.8
	12H	17.5	17.7	18.0	18.2	18.7	17.5	17.7	18.0	18.2	18.7
12H	4H	17.7	18.0	18.1	18.4	18.9	17.7	18.0	18.1	18.4	18.9
	6H	17.6	17.8	18.0	18.3	18.8	17.6	17.8	18.0	18.3	18.8
	8H	17.5	17.7	18.0	18.2	18.7	17.5	17.7	18.0	18.2	18.7

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