Laser

Design iGuzzini **iGuzzini**

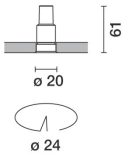
Last information update: June 2018

Fixed round mini-recessed luminaire - Minimal - LED - medium

Product code
P312

Technical description
Fixed round mini-recessed luminaire installed flush with ceiling (frameless). The LED is set back to minimize direct glare. The recessed body is made of machined aluminium and the inside of the ring of thermoplastic available in a range of painted and metallised finishes. PMMA - medium (25°) high resolution optic lens. LED 4000K. Power unit available with a separate code no.

Installation
For flush with ceiling installation, an adapter is fitted according to the thickness of the false ceiling (12.5 to 25 mm). The following filling and finishing operations are simplified by a special protection template, and the luminaire is recessed in the adapter and secured mechanically (the inside of the false ceiling musy be inspected first).



Dimension (mm)
Ø20x61

Colour
White (01) | Black (04)

Weight (Kg)
0.04

Mounting
wall recessed|ceiling recessed

Wiring
Direct current ballasts are available with a separate code no.: ON-OFF / 1-10V dimmable / DALI dimmable / Trailing Edge dimmable

Notes
The 25° optic is not available for the finishes: 10 (chrome) - 14 (gold) - E8 (satin finish gold) - E6 (burnished chrome)

Complies with EN60598-1 and pertinent regulations

IP20 IP43 On the visible part of the product once installed

Product configuration: P312.01

Product characteristics

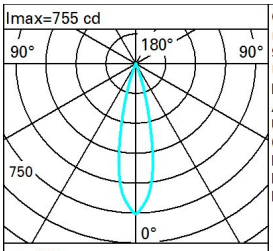
Total lighting output [Lm]: 141	Total luminous flux at or above an angle of 90° [Lm]: 0
Total power [W]: 2	Emergency luminous flux [Lm]: /
Luminous efficacy [Lm/W]: 70.4	Voltage [V]: -
Life Time: 50,000h - L80 - B10 (Ta 25°C)	Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 67	Number of lamps for optical assembly: 1
Lamp code: LED	Socket: /
ZVEI Code: LED	Ballast losses [W]: 0
Nominal power [W]: 2	Colour temperature [K]: 4000
Nominal luminous [Lm]: 210	CRI: 80
Lamp maximum intensity [cd]: /	Wavelength [Nm]: /
Beam angle [°]: 24°	MacAdam Step: 3

Polar

Imax=755 cd



α = 24°

CIE
nL 0.67
96-98-100-100-67
UGR 15.9-15.5
DIN
A.61
UTE
0.67A+0.00T
F"1=956
F"1+F"2=985
F"1+F"2+F"3=997

Lux

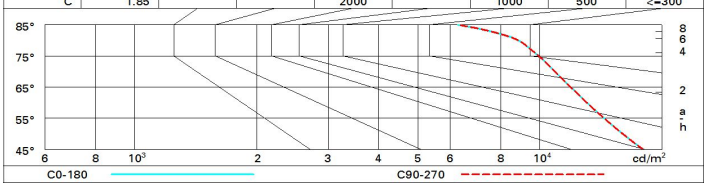
h	d	Em	Emax
1	0.4	600	755
2	0.9	150	189
3	1.3	67	84
4	1.7	37	47

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	59	56	53	52	55	53	53	50	75
1.0	62	59	57	55	58	56	56	54	80
1.5	65	63	61	60	62	61	60	58	86
2.0	68	66	64	63	65	64	63	61	91
2.5	69	68	67	66	67	66	65	63	94
3.0	70	69	68	67	68	67	66	64	96
4.0	71	70	70	69	69	68	67	66	98
5.0	71	71	70	70	70	69	68	66	99

Luminance curve limit

QC		G								
	A		1.15	2000	1000	500		<=300		
	B		1.50		2000	1000	750	500	<=300	
	C		1.85			2000		1000	500	<=300



C0-180 C90-270

UGR diagram

Corrected UGR values (at 210 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					viewed		
x	y			crosswise					endwise		
2H	2H	13.3	15.3	13.7	15.7	16.0	13.3	15.3	13.7	15.7	16.0
	3H	14.4	16.0	14.8	16.3	16.6	13.7	15.2	14.1	15.5	15.9
	4H	14.9	16.1	15.3	16.5	16.8	13.9	15.1	14.2	15.4	15.7
	6H	15.3	16.2	15.7	16.5	16.9	13.9	14.8	14.3	15.1	15.5
	8H	15.4	16.3	15.8	16.6	17.0	13.9	14.8	14.3	15.1	15.5
	12H	15.5	16.3	15.9	16.7	17.1	13.9	14.8	14.3	15.1	15.5
4H	2H	13.9	15.1	14.2	15.4	15.7	14.9	16.1	15.3	16.5	16.8
	3H	15.2	16.1	15.6	16.4	16.8	15.5	16.4	15.9	16.8	17.1
	4H	15.7	16.6	16.2	17.0	17.4	15.7	16.6	16.2	17.0	17.4
	6H	15.9	17.5	16.4	18.0	18.4	15.6	17.2	16.1	17.7	18.2
	8H	15.9	17.8	16.4	18.3	18.7	15.5	17.4	16.0	17.9	18.4
	12H	15.9	17.9	16.5	18.3	18.9	15.5	17.4	16.0	17.9	18.4
8H	4H	15.5	17.4	16.0	17.9	18.4	15.9	17.8	16.4	18.3	18.7
	6H	16.1	17.8	16.6	18.3	18.8	16.2	17.9	16.7	18.4	18.9
	8H	16.4	17.8	16.9	18.3	18.9	16.4	17.8	16.9	18.3	18.9
	12H	16.6	17.7	17.1	18.2	18.7	16.5	17.6	17.1	18.1	18.7
12H	4H	15.5	17.4	16.0	17.9	18.4	15.9	17.9	16.5	18.3	18.9
	6H	16.2	17.7	16.7	18.2	18.7	16.3	17.8	16.9	18.3	18.9
	8H	16.5	17.6	17.1	18.1	18.7	16.6	17.7	17.1	18.2	18.7

Variations with the observer position at spacing:

S =	1.0H	0.2 / -0.2	0.2 / -0.2
	1.5H	0.3 / -0.6	0.3 / -0.6
	2.0H	0.6 / -0.9	0.6 / -0.9