Reflex

Design iGuzzini **iGuzzini**

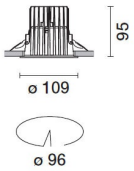
Last information update: May 2018

Fixed circular recessed luminaire - Ø 96 mm - warm white - wide flood optic - UGR<19

Product code
Q960

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 warm white colour tone CRI 90 (2700K). 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 20 mm.



Dimension (mm)
Ø109x95

Colour
White/Aluminium (39)

Weight (Kg)
0.65

Mounting
ceiling recessed

Wiring
product complete with DALI components

Complies with EN60598-1 and pertinent regulations

IP20 IP54

Product configuration: Q960

Product characteristics

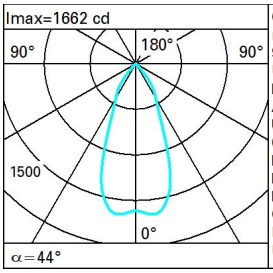
Total lighting output [Lm]: 1072	Total luminous flux at or above an angle of 90° [Lm]: 0
Total power [W]: 13.9	Emergency luminous flux [Lm]: /
Luminous efficacy [Lm/W]: 77.1	Voltage [V]: -
Life Time: > 50,000h - L80 - B10 (Ta 25°C)	Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 74	Number of lamps for optical assembly: 1
Lamp code: LED	Socket: /
ZVEI Code: LED	Ballast losses [W]: 1.9
Nominal power [W]: 12	Colour temperature [K]: 2700
Nominal luminous [Lm]: 1450	CRI: 90
Lamp maximum intensity [cd]: /	Wavelength [Nm]: /
Beam angle [°]: 44°	MacAdam Step: 2

Polar

Imax=1662 cd



CIE
nL 0.74
97-100-100-100-74
UGR 16.8-16.8
DIN
A.61
UTE
0.74A+0.00T
F"1=969
F"1+F"2=997
F"1+F"2+F"3=999
CIBSE
LG3 L<1500 cd/m² at 65°
UGR<19 | L<1500 cd/mq @65°

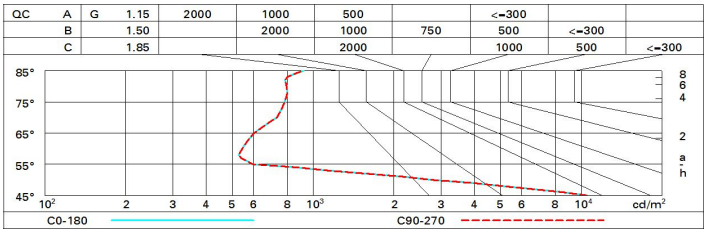
Lux

h	d	Em	Emax
2	1.6	339	409
4	3.2	85	102
6	4.8	38	45
8	6.5	21	26

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	66	62	60	58	61	59	59	56	76
1.0	69	66	63	61	65	63	62	60	81
1.5	73	70	68	67	69	67	67	65	87
2.0	75	73	72	70	72	71	70	68	92
2.5	76	75	74	73	74	73	72	70	95
3.0	77	76	76	75	75	74	73	72	97
4.0	78	77	77	76	76	76	75	73	99
5.0	79	78	78	77	77	77	75	74	99

Luminance curve limit



UGR diagram

Corrected UGR values (at 1450 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	17.3	18.0	17.6	18.2	18.5	17.3	18.0	17.6	18.2	18.5
	3H	17.2	17.8	17.5	18.1	18.4	17.2	17.8	17.5	18.1	18.4
	4H	17.1	17.7	17.5	18.0	18.3	17.1	17.7	17.5	18.0	18.3
	6H	17.1	17.6	17.4	17.9	18.2	17.0	17.6	17.4	17.9	18.2
	8H	17.0	17.5	17.4	17.8	18.2	17.0	17.5	17.4	17.8	18.2
	12H	17.0	17.5	17.4	17.8	18.2	17.0	17.4	17.4	17.8	18.1
4H	2H	17.1	17.7	17.5	18.0	18.3	17.1	17.7	17.5	18.0	18.3
	3H	17.0	17.5	17.4	17.8	18.1	17.0	17.5	17.4	17.8	18.2
	4H	16.9	17.3	17.3	17.7	18.1	16.9	17.3	17.3	17.7	18.1
	6H	16.8	17.2	17.2	17.6	18.0	16.8	17.2	17.2	17.6	18.0
	8H	16.8	17.1	17.2	17.5	18.0	16.8	17.1	17.2	17.5	18.0
	12H	16.7	17.0	17.2	17.5	17.9	16.7	17.0	17.2	17.5	17.9
8H	4H	16.8	17.1	17.2	17.5	18.0	16.8	17.1	17.2	17.5	18.0
	6H	16.7	17.0	17.2	17.4	17.9	16.7	17.0	17.2	17.4	17.9
	8H	16.6	16.9	17.1	17.3	17.8	16.6	16.9	17.1	17.3	17.8
	12H	16.6	16.8	17.1	17.3	17.8	16.6	16.8	17.1	17.3	17.8
12H	4H	16.7	17.0	17.2	17.5	17.9	16.7	17.0	17.2	17.5	17.9
	6H	16.6	16.9	17.1	17.3	17.8	16.6	16.9	17.1	17.3	17.8
	8H	16.6	16.8	17.1	17.3	17.8	16.6	16.8	17.1	17.3	17.8

Variations with the observer position at spacing:

S =			
	1.0H	4.5 / -14.0	4.5 / -14.0
	1.5H	7.3 / -14.3	7.3 / -14.3
	2.0H	9.3 / -14.3	9.3 / -14.3