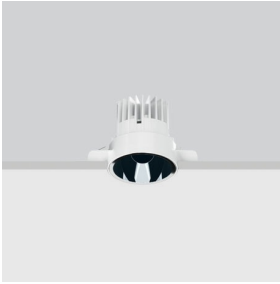


Last information update: May 2018



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

Product code
Q963

Technical description

Fixed round luminaire designed to use a LED lamp with C.O.B. technology. Version without rim for mounting flush with ceiling. 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

Installation flush with the ceiling is for false ceilings 12.5 mm thick

Dimension (mm)

Ø104x97

Colour

Aluminium (12)

Weight (Kg)

0.68

Mounting

ceiling recessed

Wiring

product complete with DALI components

Complies with EN60598-1 and pertinent regulations

IP20 IP54



Product configuration: Q963

Product characteristics

Total lighting output [Lm]: 1072
Total power [W]: 13.9
Luminous efficacy [Lm/W]: 77.1
Life Time: > 50,000h - L80 - B10 (Ta 25°C)

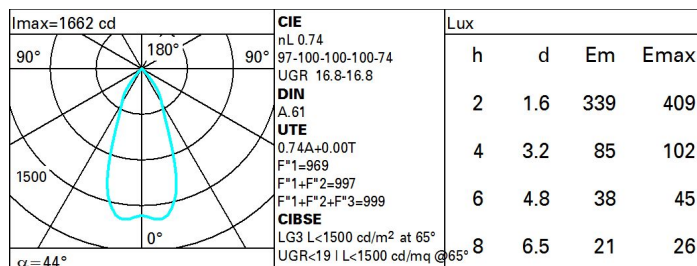
Total luminous flux at or above an angle of 90° [Lm]: 0
Emergency luminous flux [Lm]: /
Voltage [V]: -
Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 74
Lamp code: LED
ZVEI Code: LED
Nominal power [W]: 12
Nominal luminous [Lm]: 1450
Lamp maximum intensity [cd]: /
Beam angle [°]: 44°

Number of lamps for optical assembly: 1
Socket: /
Ballast losses [W]: 1.9
Colour temperature [K]: 2700
CRI: 90
Wavelength [Nm]: /
MacAdam Step: 2

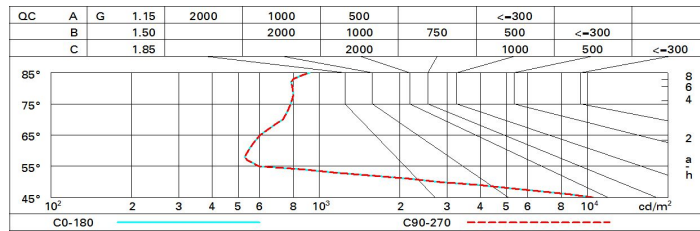
Polar



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)											
Reflect.:		viewed crosswise					viewed endwise				
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											
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					