

Last information update: May 2018

**Fixed circular recessed luminaire - Ø 96 mm - warm white - medium optic - UGR<19****Product code**

Q959

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° medium 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: Q959****Product characteristics**

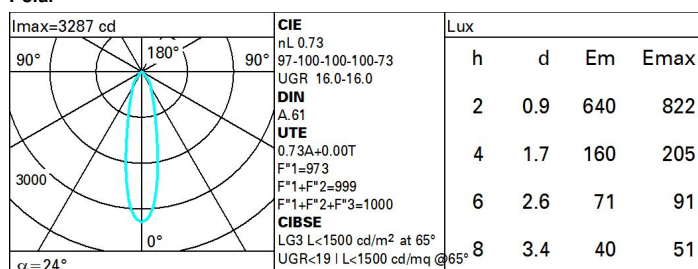
Total lighting output [Lm]: 1056
Total power [W]: 13.9
Luminous efficacy [Lm/W]: 76
Life Time: > 50,000h - L80 - B10 (Ta 25°C)

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.) [%]: 73
Lamp code: LED
ZVEI Code: LED
Nominal power [W]: 12
Nominal luminous [Lm]: 1450
Lamp maximum intensity [cd]: /
Beam angle [°]: 24°

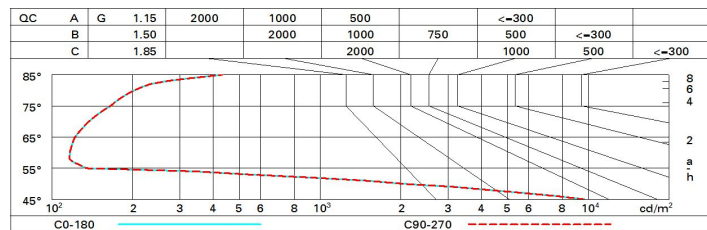
Number of lamps for optical assembly: 1
Socket: /
Ballast losses [W]: 1.9
Colour temperature [K]: 2700
CRI: 90
Wavelength [Nm]: /
MacAdam Step: 2

Polar

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	65	61	59	57	61	58	58	56	77
1.0	68	65	62	61	64	62	62	59	81
1.5	72	69	67	66	68	67	66	64	88
2.0	74	72	71	70	71	70	69	67	92
2.5	75	74	73	72	73	72	71	69	95
3.0	76	75	75	74	74	73	73	71	97
4.0	77	76	76	75	75	75	74	72	99
5.0	78	77	77	76	76	76	74	73	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 1450 lm bare lamp luminous flux)												
Reflect.:												
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		viewed					viewed					
x	y	crosswise					endwise					
2H	2H	16.9	18.6	17.3	18.9	19.2	16.9	18.6	17.3	18.9	19.2	
	3H	16.8	18.0	17.1	18.3	18.7	16.8	18.0	17.1	18.3	18.7	
	4H	16.7	17.9	17.1	18.2	18.5	16.7	17.9	17.1	18.2	18.5	
	6H	16.6	17.7	17.0	18.1	18.4	16.6	17.7	17.0	18.1	18.4	
	8H	16.5	17.7	16.9	18.0	18.4	16.5	17.7	16.9	18.0	18.4	
	12H	16.5	17.6	16.9	18.0	18.3	16.5	17.6	16.9	18.0	18.3	
4H	2H	16.7	17.9	17.1	18.2	18.5	16.7	17.9	17.1	18.2	18.5	
	3H	16.5	17.6	16.9	18.0	18.3	16.5	17.6	16.9	18.0	18.3	
	4H	16.4	17.4	16.8	17.8	18.2	16.4	17.4	16.8	17.8	18.2	
	6H	16.2	17.5	16.6	17.9	18.3	16.2	17.5	16.6	17.9	18.3	
	8H	16.0	17.5	16.5	17.9	18.4	16.0	17.5	16.5	17.9	18.4	
	12H	15.9	17.5	16.4	18.0	18.5	15.9	17.5	16.4	18.0	18.5	
8H	4H	16.0	17.5	16.5	17.9	18.4	16.0	17.5	16.5	17.9	18.4	
	6H	15.9	17.3	16.4	17.8	18.3	15.9	17.3	16.4	17.8	18.3	
	8H	15.9	17.2	16.4	17.6	18.2	15.9	17.2	16.4	17.6	18.2	
	12H	15.9	16.9	16.5	17.4	17.9	15.9	16.9	16.5	17.4	17.9	
12H	4H	15.9	17.5	16.4	18.0	18.5	15.9	17.5	16.4	18.0	18.5	
	6H	15.9	17.2	16.4	17.6	18.2	15.9	17.2	16.4	17.6	18.2	
	8H	15.9	16.9	16.5	17.4	17.9	15.9	16.9	16.5	17.4	17.9	
Variations with the observer position at spacing:												
S =		1.0H	4.4 / -22.6				4.4 / -22.6					
		1.5H	7.2 / -22.8				7.2 / -22.8					
		2.0H	9.2 / -23.1				9.2 / -23.1					