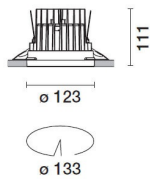
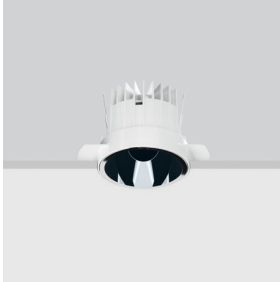


Last information update: October 2024

Product configuration: QQ03

QQ03: Fixed circular recessed luminaire - Ø133 mm - warm white - medium optic - UGR<19

**Product code**

QQ03: Fixed circular recessed luminaire - Ø133 mm - warm white - medium optic - UGR<19

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 neutral warm colour tone (3,000K). General light emission, with controlled luminance UGR<19 1500 cd/m² α >65° medium optic.

Installation

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

Colour

Aluminium (12)

Weight (Kg)

1.08

Mounting

ceiling recessed

Wiring

product complete with 1-10V components

Complies with EN60598-1 and pertinent regulations



IP20

IP43

On the visible part of the product once installed

**Technical data**

lm system:	2020	CRI (minimum):	90
W system:	21.8	Colour temperature [K]:	3000
lm source:	2300	MacAdam Step:	2
W source:	17	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	92.7	Lamp code:	LED
lm in emergency mode:	-	Number of lamps for optical assembly:	1
Total light flux at or above an angle of 90° [Lm]:	0	ZVEI Code:	LED
Light Output Ratio (L.O.R.) [%]:	88	Number of optical assemblies:	1
Beam angle [°]:	24°	Control:	1-10V

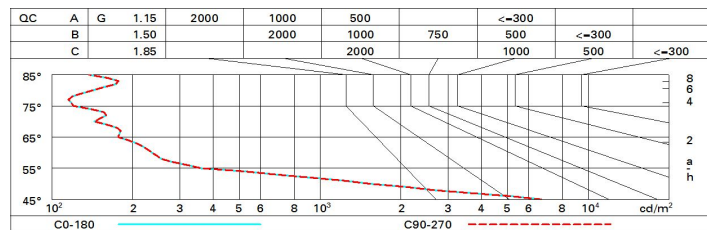
Polar

Imax=5470 cd		CIE nL 0.88 98-100-100-100-88 UGR 17.4-17.4 DIN A.61 UTE 0.88A+0.00T F*1=97.8 F*1+F*2=999 F*1+F*2+F*3=1000 CIBSE LG3 L<1500 cd/m ² at 65° UGR<19 L<1500 cd/mq @ 65°	Lux			
90°	180°		h	d	Em	Emax
			2	0.9	1033	1367
			4	1.7	258	342
			6	2.6	115	152
			8	3.4	65	85

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	79	74	71	69	74	71	70	68	77
1.0	82	78	76	73	77	75	75	72	82
1.5	86	84	81	79	83	81	80	77	88
2.0	89	87	85	84	86	84	83	81	92
2.5	91	89	88	87	88	87	86	84	95
3.0	92	91	90	89	89	89	88	85	97
4.0	93	92	92	91	91	90	89	87	99
5.0	94	93	93	92	92	91	90	88	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 2300 lm bare lamp luminous flux)											
Reflect.: ceiling/cav walls work pl. Room dim x y		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
		0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
		0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
		viewed crosswise					viewed endwise				
2H	2H	18.0	18.6	18.2	18.9	19.1	18.0	18.6	18.2	18.9	19.1
	3H	17.8	18.4	18.1	18.7	19.0	17.8	18.4	18.1	18.7	19.0
	4H	17.7	18.3	18.1	18.6	18.9	17.7	18.3	18.1	18.6	18.9
	6H	17.7	18.2	18.0	18.5	18.8	17.7	18.2	18.0	18.5	18.8
	8H	17.6	18.1	18.0	18.4	18.8	17.6	18.1	18.0	18.4	18.8
	12H	17.6	18.1	18.0	18.4	18.7	17.6	18.1	18.0	18.4	18.7
4H	2H	17.7	18.3	18.1	18.6	18.9	17.7	18.3	18.1	18.6	18.9
	3H	17.6	18.1	18.0	18.4	18.7	17.6	18.1	18.0	18.4	18.7
	4H	17.5	17.9	17.9	18.3	18.7	17.5	17.9	17.9	18.3	18.7
	6H	17.4	17.8	17.8	18.2	18.6	17.4	17.8	17.8	18.2	18.6
	8H	17.4	17.7	17.8	18.1	18.5	17.4	17.7	17.8	18.1	18.5
	12H	17.3	17.6	17.8	18.0	18.5	17.3	17.6	17.8	18.0	18.5
8H	4H	17.4	17.7	17.8	18.1	18.5	17.4	17.7	17.8	18.1	18.5
	6H	17.3	17.5	17.7	18.0	18.5	17.3	17.5	17.7	18.0	18.5
	8H	17.2	17.5	17.7	17.9	18.4	17.2	17.5	17.7	17.9	18.4
	12H	17.2	17.4	17.7	17.9	18.4	17.2	17.4	17.7	17.9	18.4
12H	4H	17.3	17.6	17.8	18.0	18.5	17.3	17.6	17.8	18.0	18.5
	6H	17.2	17.5	17.7	17.9	18.4	17.2	17.5	17.7	17.9	18.4
	8H	17.2	17.4	17.7	17.9	18.4	17.2	17.4	17.7	17.9	18.4
Variations with the observer position at spacing:											
S =	1.0H	4.4 / -24.6					4.4 / -24.6				
	1.5H	7.2 / -25.8					7.2 / -25.8				
	2.0H	9.2 / -26.2					9.2 / -26.2				