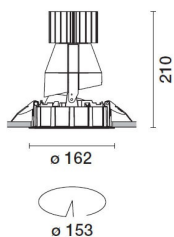


Last information update: April 2024

Product configuration: N099

N099: adjustable luminaire - Ø 153 mm - warm white - medium optic - frame

**Product code**

N099: adjustable luminaire - Ø 153 mm - warm white - medium optic - frame

Technical description

Round adjustable luminaire designed to use an LED lamp with C.O.B. technology in a warm white colour tone 3000K (CRI 90). Version with rim for surface-mounting. Painted, die-cast aluminium body. Lower reflector vacuum-metallised with aluminium vapours with an anti-scratch protective layer. Anodised aluminium upper reflector. Black, zinc-plated sheet steel bracket. The luminaire can be rotated 30° relative to the horizontal plane and 358° about the vertical axis. The luminaire is fitted with mechanical locks for light beam aiming. Painted extruded aluminium dissipater.

Installation

Recessed using torsion springs which allow easy installation in false ceilings with thickness ranging from 1 mm to 25 mm.

Colour

White / Aluminium (39)

Weight (Kg)

1.43

Mounting

ceiling recessed

Wiring

Product complete with DALI components

Complies with EN60598-1 and pertinent regulations

**Technical data**

lm system:	2070	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
W system:	31.2	Lamp code:	LED
lm source:	3400	Number of lamps for optical assembly:	1
W source:	28	ZVEI Code:	LED
Luminous efficiency (lm/W, real value):	66.4	Number of optical assemblies:	1
lm in emergency mode:	-	Power factor:	See installation instructions
Total light flux at or above an angle of 90° [Lm]:	0	Inrush current:	18 A / 250 µs
Light Output Ratio (L.O.R.) [%]:	61	Maximum number of luminaires of this type per miniature circuit breaker:	B10A: 21 luminaires B16A: 34 luminaires C10A: 35 luminaires C16A: 57 luminaires
Beam angle [°]:	13° / 14°	Minimum dimming %:	1
CRI (minimum):	90	Overvoltage protection:	2kV Common mode & 1kV Differential mode
Colour temperature [K]:	3000	Control:	DALI-2
MacAdam Step:	2		

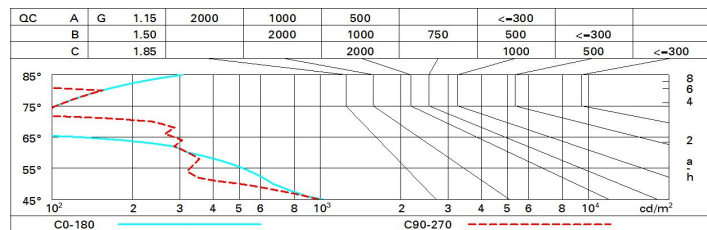
Polar

Imax=20704 cd C0-180 CIE nL 0.61 100-100-100-100-61 UGR <10-10 DIN A.61 UTE 0.61A+0.00T F*1=995 F*1+F*2=999 F*1+F*2+F*3=1000 CIBSE LG3 L<1500 cd/m² at 65° UGR<10 L<1500 cd/mq @ 65° α = 13° / 14°	Lux				
	h	d1	d2	Em	Emax
	2	0.5	0.5	4009	5176
	4	0.9	1	1002	1294
	6	1.4	1.5	445	575
	8	1.8	2	251	323

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	55	52	50	49	52	50	49	48	78
1.0	57	55	53	52	54	53	52	50	83
1.5	60	58	57	56	58	56	56	54	88
2.0	62	61	60	59	60	59	58	57	93
2.5	63	62	61	61	61	61	60	58	96
3.0	64	63	63	62	62	62	61	59	98
4.0	65	64	64	63	63	63	62	60	99
5.0	65	65	64	64	64	63	62	61	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 3400 lm bare lamp luminous flux)											
Reflect.: ceiling walls work pl. Room dim x y		viewed crosswise					viewed endwise				
2H	2H	-2.0	-0.5	-2.3	-0.2	0.1	-0.3	1.8	0.1	2.1	2.5
	3H	-2.7	-1.3	-2.4	-1.0	-0.6	-0.4	1.1	-0.0	1.4	1.7
	4H	-2.8	-1.6	-2.4	-1.3	-1.0	-0.4	0.7	-0.1	1.0	1.4
	6H	-2.7	-1.9	-2.4	-1.6	-1.3	-0.4	0.3	-0.1	0.7	1.0
	8H	-2.7	-1.9	-2.3	-1.5	-1.2	-0.5	0.3	-0.1	0.7	1.0
	12H	-2.7	-1.8	-2.3	-1.5	-1.1	-0.6	0.3	-0.2	0.7	1.0
4H	2H	-2.8	-1.6	-2.4	-1.3	-1.0	-0.4	0.7	-0.0	1.0	1.4
	3H	-2.9	-2.0	-2.5	-1.6	-1.3	-0.5	0.3	-0.2	0.7	1.1
	4H	-3.0	-2.0	-2.6	-1.6	-1.2	-0.7	0.3	-0.3	0.7	1.1
	6H	-3.3	-1.6	-2.8	-1.1	-0.6	-1.1	0.7	-0.6	1.1	1.6
	8H	-3.3	-1.3	-2.8	-0.9	-0.4	-1.2	0.7	-0.7	1.2	1.7
	12H	-3.2	-1.2	-2.6	-0.7	-0.2	-1.3	0.7	-0.8	1.2	1.7
8H	4H	-3.5	-1.6	-3.0	-1.1	-0.6	-1.2	0.8	-0.7	1.2	1.7
	6H	-3.4	-1.7	-2.9	-1.2	-0.7	-1.2	0.5	-0.7	1.0	1.5
	8H	-3.1	-1.7	-2.6	-1.2	-0.7	-1.2	0.3	-0.7	0.8	1.3
	12H	-2.6	-1.7	-2.1	-1.2	-0.6	-1.0	-0.1	-0.5	0.4	1.0
12H	4H	-3.6	-1.6	-3.1	-1.1	-0.6	-1.2	0.7	-0.7	1.2	1.7
	6H	-3.4	-1.9	-2.9	-1.4	-0.9	-1.2	0.3	-0.7	0.8	1.3
	8H	-2.9	-2.0	-2.4	-1.5	-0.9	-1.0	-0.1	-0.5	0.4	1.0
Variations with the observer position at spacing:											
S =		1.0H					3.6 / -3.8				
		1.5H					6.1 / -4.7				
		2.0H					8.0 / -5.0				
							6.4 / -9.1				
							9.1 / -9.8				
							11.1 / -10.1				