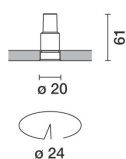
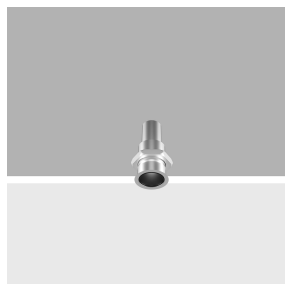


Last information update: October 2024

Product configuration: P312.04

P312.04: Fixed round mini-recessed luminaire - Minimal - LED - medium - Black

**Product code**

P312.04: Fixed round mini-recessed luminaire - Minimal - LED - medium - Black

Technical description

Fixed round mini-recessed luminaire installed flush with ceiling (frameless). The LED is set back to minimize direct glare. The recessed body is made of machined aluminium and the inside of the ring of thermoplastic available in a range of painted and metallised finishes. PMMA - medium (25°) high resolution optic lens. LED 4000K. Power unit available with a separate code no.

Installation

For flush with ceiling installation, an adapter is fitted according to the thickness of the false ceiling (12.5 to 25 mm). The following filling and finishing operations are simplified by a special protection template, and the luminaire is recessed in the adapter and secured mechanically (the inside of the false ceiling must be inspected first).

Colour

Black (04)

Weight (Kg)

0.04

Mounting

wall recessed|ceiling recessed

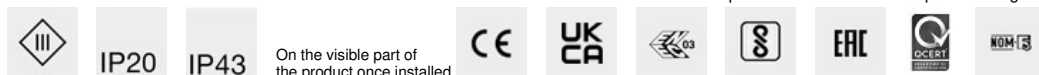
Wiring

Direct current ballasts are available with a separate code no.: ON-OFF / 1-10V dimmable / DALI dimmable / Trailing Edge dimmable

Notes

The 25° optic is not available for the finishes: 10 (chrome) - 14 (gold) - E8 (satin finish gold) - E6 (burnished chrome)

Complies with EN60598-1 and pertinent regulations



On the visible part of the product once installed

Technical data

Im system:	153	CRI (minimum):	80
W system:	2	Colour temperature [K]:	4000
Im source:	250	MacAdam Step:	2
W source:	2	Life Time LED 1:	> 50,000h - L80 - B10 (Ta 25°C)
Luminous efficiency (Im/W, real value):	76.3	Lamp code:	LED
Im 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.) [%]:	61	Number of optical assemblies:	1
Beam angle [°]:	22°	LED current [mA]:	700

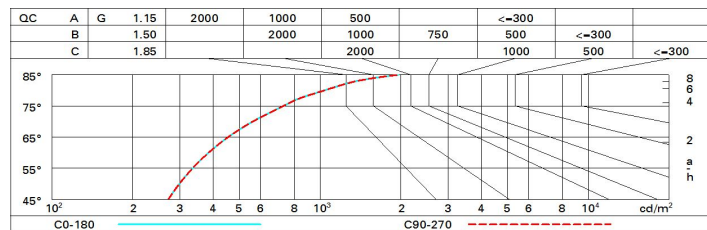
Polar

Imax=1074 cd		CIE		Lux			
90°	180°	nL 0.61	100-100-100-100-61	h	d	Em	Emax
		UGR <10-10	DIN A.61	1	0.4	841	1074
		UTE 0.61A+0.00T	F*1=999	2	0.8	210	269
		F*1+F*2=999	F*1+F*2+F*3=1000	3	1.2	93	119
		CIBSE LG3 L<3000 cd/m² at 65°	UGR<10 L<3000 cd/mq @65°	4	1.6	53	67
α=22°	0°						

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	55	52	50	49	52	50	50	48	78
1.0	58	55	53	52	54	53	52	51	83
1.5	60	58	57	56	58	56	56	54	89
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	60	98
4.0	65	64	64	64	63	63	62	61	99
5.0	65	65	65	64	64	64	63	61	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 250 lm bare lamp luminous flux)											
Reflect.: ceiling/cav walls work pl. Room dim x y		viewed crosswise					viewed endwise				
2H	2H	-12.3	-10.1	-11.9	-9.8	-9.4	-12.3	-10.1	-11.9	-9.8	-9.4
	3H	-9.4	-7.8	-9.0	-7.5	-7.2	-11.6	-10.1	-11.2	-9.7	-9.4
	4H	-7.6	-6.4	-7.2	-6.1	-5.8	-11.2	-10.0	-10.8	-9.7	-9.4
	6H	-5.6	-4.9	-5.3	-4.5	-4.2	-10.8	-10.0	-10.4	-9.7	-9.3
	8H	-4.6	-3.8	-4.3	-3.5	-3.1	-10.6	-9.8	-10.3	-9.5	-9.1
	12H	-3.5	-2.7	-3.1	-2.3	-1.9	-10.6	-9.8	-10.2	-9.4	-9.0
4H	2H	-11.2	-10.0	-10.8	-9.7	-9.4	-7.6	-6.4	-7.2	-6.1	-5.8
	3H	-8.0	-7.2	-7.6	-6.8	-6.4	-6.6	-5.8	-6.2	-5.4	-5.1
	4H	-6.2	-5.2	-5.7	-4.9	-4.4	-6.2	-5.2	-5.7	-4.9	-4.4
	6H	-4.4	-2.7	-3.9	-2.2	-1.8	-5.9	-4.2	-5.5	-3.8	-3.3
	8H	-3.4	-1.5	-2.9	-1.0	-0.5	-5.8	-3.8	-5.3	-3.4	-2.9
	12H	-2.2	-0.2	-1.7	0.3	0.8	-5.6	-3.6	-5.1	-3.2	-2.6
8H	4H	-5.8	-3.8	-5.3	-3.4	-2.9	-3.4	-1.5	-2.9	-1.0	-0.5
	6H	-3.5	-1.7	-3.0	-1.2	-0.7	-2.6	-0.9	-2.1	-0.4	0.1
	8H	-2.2	-0.7	-1.6	-0.2	0.4	-2.2	-0.7	-1.6	-0.2	0.4
	12H	-0.5	0.5	-0.0	1.0	1.6	-1.6	-0.5	-1.1	-0.0	0.5
12H	4H	-5.6	-3.6	-5.1	-3.2	-2.6	-2.2	-0.2	-1.7	0.3	0.8
	6H	-3.1	-1.6	-2.6	-1.1	-0.6	-1.2	0.3	-0.7	0.8	1.3
	8H	-1.6	-0.5	-1.1	-0.0	0.5	-0.5	0.5	-0.0	1.0	1.6
Variations with the observer position at spacing:											
S =		1.0H					0.1 / -0.2				
		1.5H					0.2 / -0.3				
		2.0H					0.3 / -0.4				