

Last information update: October 2024

Product configuration: QR13

QR13: 10 - cell Frameless Recessed luminaire - LED - Neutral white Flood optic



Product code

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Technical description

rectangular miniaturised recessed luminaire with 10 optical elements with LED lamps - fixed optics - flood beam angle. Main body with die-cast aluminium radiant surface; minimal (frameless) version for mounting flush with the ceiling. Metallised thermoplastic high definition optics, integrated in a rear position in the black anti-glare screen; the structure of the optical system prevents a pinpoint effect, allowing precise, circular light distribution and emission with controlled glare . Neutral white LED.

Installation

recessed with steel wire springs on the specific adapter (included) which allows flush-mounting with the ceiling. Adapter fixed to false ceiling (12.5 mm thick) with self-tapping screws; subsequent filling and smoothing operations; insertion of luminaire body and aesthetic finishing. Preparation hole 35 x 271

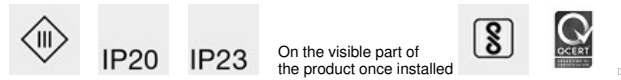
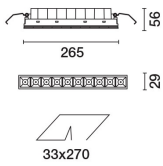
Colour

White (01) | Black (04)

Mounting

wall recessed|ceiling recessed

Complies with EN60598-1 and pertinent regulations

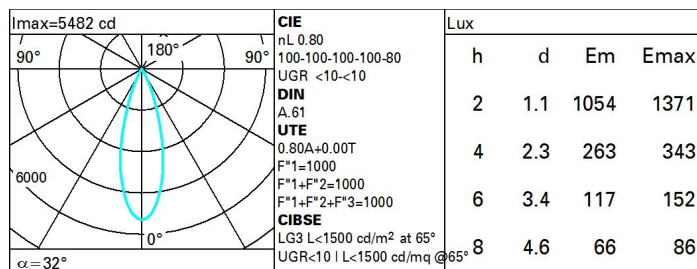


On the visible part of the product once installed

Technical data

lm system:	1597	CRI (typical):	97
W system:	21	Colour temperature [K]:	3500
lm source:	2000	MacAdam Step:	3
W source:	21	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	76.1	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.) [%]:	80	Number of optical assemblies:	1
Beam angle [°]:	31°	LED current [mA]:	700
CRI (minimum):	95		

Polar



Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	72	69	66	64	68	66	65	63	78
1.0	75	72	70	68	71	69	69	66	83
1.5	79	77	75	73	76	74	73	71	89
2.0	81	80	78	77	79	77	76	74	93
2.5	83	82	81	80	80	79	79	77	96
3.0	84	83	82	81	82	81	80	78	98
4.0	85	84	84	83	83	82	81	79	99
5.0	85	85	85	84	84	83	82	80	100

UGR diagram

Corrected UGR values (at 2000 lm bare lamp luminous flux)											
Reflect.:		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
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 crosswise					viewed endwise				
x	y										
2H	2H	-3.1	-2.6	-2.9	-2.4	-2.2	-3.1	-2.6	-2.9	-2.4	-2.2
	3H	-3.3	-2.8	-3.0	-2.5	-2.3	-3.3	-2.8	-3.0	-2.5	-2.3
	4H	-3.3	-2.9	-3.0	-2.6	-2.3	-3.3	-2.9	-3.0	-2.6	-2.3
	6H	-3.4	-3.0	-3.1	-2.7	-2.4	-3.4	-3.0	-3.1	-2.7	-2.4
	8H	-3.5	-3.1	-3.1	-2.8	-2.4	-3.5	-3.1	-3.1	-2.8	-2.4
	12H	-3.5	-3.1	-3.1	-2.8	-2.4	-3.5	-3.1	-3.1	-2.8	-2.4
4H	2H	-3.3	-2.9	-3.0	-2.6	-2.3	-3.3	-2.9	-3.0	-2.6	-2.3
	3H	-3.5	-3.1	-3.1	-2.8	-2.4	-3.5	-3.1	-3.1	-2.8	-2.4
	4H	-3.6	-3.3	-3.2	-2.9	-2.5	-3.6	-3.3	-3.2	-2.9	-2.5
	6H	-3.7	-3.4	-3.3	-3.0	-2.6	-3.7	-3.4	-3.3	-3.0	-2.6
	8H	-3.7	-3.5	-3.3	-3.0	-2.6	-3.7	-3.5	-3.3	-3.0	-2.6
	12H	-3.8	-3.5	-3.3	-3.1	-2.7	-3.8	-3.5	-3.3	-3.1	-2.7
8H	4H	-3.7	-3.5	-3.3	-3.0	-2.6	-3.7	-3.5	-3.3	-3.0	-2.6
	6H	-3.8	-3.6	-3.4	-3.2	-2.7	-3.8	-3.6	-3.4	-3.2	-2.7
	8H	-3.9	-3.7	-3.4	-3.2	-2.7	-3.9	-3.7	-3.4	-3.2	-2.7
	12H	-3.9	-3.8	-3.4	-3.3	-2.8	-3.9	-3.8	-3.4	-3.3	-2.8
12H	4H	-3.8	-3.5	-3.3	-3.1	-2.7	-3.8	-3.5	-3.3	-3.1	-2.7
	6H	-3.9	-3.7	-3.4	-3.2	-2.7	-3.9	-3.7	-3.4	-3.2	-2.7
	8H	-3.9	-3.8	-3.4	-3.3	-2.8	-3.9	-3.8	-3.4	-3.3	-2.8
Variations with the observer position at spacing:											
S =	1.0H	0.8 / -18.5					0.8 / -18.5				
	1.5H	9.6 / -18.7					9.6 / -18.7				
	2.0H	11.6 / -23.0					11.6 / -23.0				