

Last information update: February 2025

Product configuration: RA99

RA99: Minimal 10 cells - Medium beam - LED



Product code

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Technical description

Linear miniaturised recessed luminaire with 10 optical elements for LED lamps - fixed optic. Despite the ultracompact size of the product, the patented technology of the optic system guarantees an efficient luminous flux and a high level of controlled glare visual comfort. Main body with die-cast aluminium radiant surface, minimal (frameless) version for mounting flush with the ceiling. For recessed installation in a false ceiling a specific adapter is required that is available with a separate item code. Metallised, thermoplastic, high definition Opti Beam reflector, integrated in a set-back position in the anti-glare screen. Supplied with a dimmable DALI power supply unit connected to the luminaire.

Installation

The luminaire is recessed in the specific adapter (QJ92) by means of a steel wire spring, previously installed on the ceiling that can be 12.5 / 15 / 20 mm thick. A special protective sheath allows finishing operations on the plasterboard to be simplified and speeded up.

Colour

White (01) | Black (04) | Gold (14)* | Burnished chrome (E6)*

Weight (Kg)

0.46

* Colours on request

Mounting

wall recessed|ceiling recessed

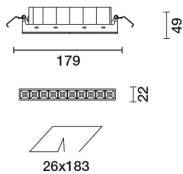
Wiring

On the power supply unit with terminal board included.

Notes

The special steel wire spring provided is required to facilitate the eventual extraction of the recessed body once it has been inserted.

Complies with EN60598-1 and pertinent regulations



Technical data

lm system:	1501	Colour temperature [K]:	3500
W system:	23.1	MacAdam Step:	2
lm source:	1900	Life Time LED 1:	> 50,000h - L80 - B10 (Ta 25°C)
W source:	20	Voltage [Vin]:	230
Luminous efficiency (lm/W, real value):	65	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.) [%]:	79	Number of optical assemblies:	1
Beam angle [°]:	25°	Control:	DALI-2
CRI (minimum):	90		

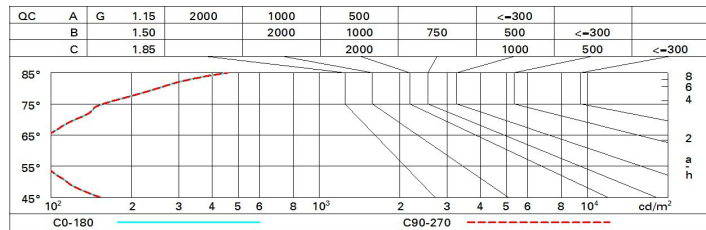
Polar

	<p>Imax=6935 cd</p> <p>90° 180° 90°</p> <p>7500</p> <p>0°</p> <p>α=24°</p>	<p>CIE</p> <p>nL 0.79</p> <p>100-100-100-100-79</p> <p>UGR <10-<10</p> <p>DIN</p> <p>A.61</p> <p>UTE</p> <p>0.79A+0.00T</p> <p>F*1=999</p> <p>F*1+F*2=1000</p> <p>F*1+F*2+F*3=1000</p> <p>CIBSE</p> <p>LG3 L<1500 cd/m² at 65°</p> <p>UGR<10 L<1500 cd/mq @65°</p>	<p>Lux</p> <table border="1"> <thead> <tr> <th>h</th> <th>d</th> <th>Em</th> <th>E_{max}</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>0.9</td> <td>1440</td> <td>1734</td> </tr> <tr> <td>4</td> <td>1.7</td> <td>360</td> <td>433</td> </tr> <tr> <td>6</td> <td>2.6</td> <td>160</td> <td>193</td> </tr> <tr> <td>8</td> <td>3.4</td> <td>90</td> <td>108</td> </tr> </tbody> </table>	h	d	Em	E _{max}	2	0.9	1440	1734	4	1.7	360	433	6	2.6	160	193	8	3.4	90	108
	h	d	Em	E _{max}																			
	2	0.9	1440	1734																			
	4	1.7	360	433																			
	6	2.6	160	193																			
8	3.4	90	108																				

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	71	68	65	63	67	65	64	62	78
1.0	75	71	69	67	70	68	68	66	83
1.5	78	76	74	72	75	73	72	70	89
2.0	81	79	77	76	78	76	76	73	93
2.5	82	81	80	79	80	79	78	76	96
3.0	83	82	81	81	81	80	79	77	98
4.0	84	83	83	82	82	82	80	79	99
5.0	84	84	84	83	83	82	81	79	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 1900 lm bare lamp luminous flux)											
Reflect.:		viewed crosswise					viewed endwise				
ceil/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											
x	y										
2H	2H	3.1	5.2	3.5	5.5	5.9	3.1	5.2	3.5	5.5	5.9
	3H	3.0	4.6	3.3	4.9	5.2	3.0	4.6	3.3	4.9	5.2
	4H	2.9	4.2	3.3	4.6	4.9	2.9	4.2	3.3	4.6	4.9
	6H	2.9	3.9	3.3	4.2	4.6	2.9	3.9	3.2	4.2	4.6
	8H	2.8	3.9	3.2	4.2	4.6	2.8	3.8	3.2	4.2	4.5
12H	2.8	3.8	3.2	4.2	4.6	2.8	3.8	3.2	4.1	4.5	
4H	2H	2.9	4.2	3.3	4.6	4.9	2.9	4.2	3.3	4.6	4.9
	3H	2.8	3.8	3.2	4.1	4.5	2.8	3.8	3.2	4.1	4.5
	4H	2.6	3.7	3.1	4.0	4.5	2.6	3.7	3.1	4.0	4.5
	6H	2.3	4.0	2.8	4.4	4.9	2.3	4.0	2.8	4.4	4.9
	8H	2.2	4.1	2.7	4.5	5.0	2.2	4.0	2.6	4.5	5.0
12H	2.1	4.1	2.6	4.5	5.1	2.0	4.0	2.6	4.5	5.0	
8H	4H	2.2	4.0	2.6	4.5	5.0	2.2	4.1	2.7	4.5	5.0
	6H	2.1	3.9	2.6	4.3	4.9	2.1	3.9	2.6	4.4	4.9
	8H	2.1	3.6	2.6	4.1	4.7	2.1	3.6	2.6	4.1	4.7
	12H	2.3	3.3	2.8	3.8	4.3	2.2	3.2	2.8	3.7	4.3
12H	4H	2.0	4.0	2.6	4.5	5.0	2.1	4.1	2.6	4.5	5.1
	6H	2.0	3.6	2.6	4.1	4.7	2.1	3.7	2.6	4.2	4.7
	8H	2.2	3.2	2.8	3.7	4.3	2.3	3.3	2.8	3.8	4.3
Variations with the observer position at spacing:											
S =	1.0H	6.9 / -11.5					6.9 / -11.5				
	1.5H	9.7 / -11.7					9.7 / -11.7				
	2.0H	11.7 / -11.8					11.7 / -11.8				