

Last information update: June 2018

**extractable, adjustable, recessed LED luminaire - electronic control gear included****Product code**

Q238

Technical description

Extractable, adjustable, recessed luminaire for warm white LED lamp with high color rendering index. Passive heat dispersion system. Die-cast aluminium main body and frame; stainless steel rotation hinge. Rotation ring with safety cover in a high resistance thermoplastic material. Body adjusted with a manual manoeuvre device: internal 40° - external 65° - rotation on 355° axis. Reflector with high efficiency super-pure aluminium optic - spot beam angle. Die-cast aluminium lamp body closure ring. Tempered transparent glass screen. Electronic control gear supplied and connected to the luminaire.

Installation

recessed using steel springs in false ceilings with thicknesses starting at 1 mm; preparation hole Ø 125 mm

Dimension (mm)

Ø136x98

Colour

White (01)

Weight (Kg)

0,85

Mounting

ceiling recessed

Wiring

on control gear box with quick-coupling connections

Complies with EN60598-1 and pertinent regulations

IP20 **IP23** On the visible part of the product once installed

**Product configuration: Q238****Product characteristics**

Total lighting output [Lm]: 2156
Total power [W]: 28.3
Luminous efficacy [Lm/W]: 76.2
Life Time: 50,000h - L80 - B10 (Ta 25°C)

Total luminous flux at or above an angle of 90° [Lm]: 0
Emergency luminous flux [Lm]: /
Voltage [V]: -
Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 77
Lamp code: LED
ZVEI Code: LED
Nominal power [W]: 24
Nominal luminous [Lm]: 2800
Lamp maximum intensity [cd]: /
Beam angle [°]: 18°

Number of lamps for optical assembly: 1
Socket: /
Ballast losses [W]: 4.3
Colour temperature [K]: 3000
CRI: 90
Wavelength [Nm]: /
MacAdam Step: 2

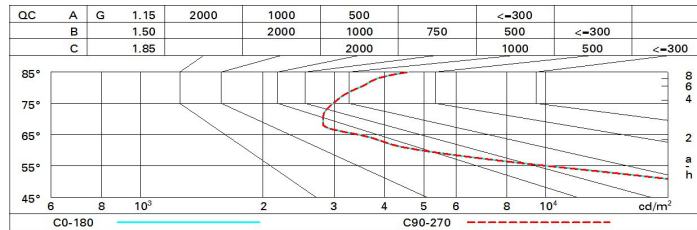
Polar

Imax=6906 cd	CIE nL 0.77 94-100-100-100-77 UGR 21.5-21.5 DIN A.61 UTE 0.77A+0.00T F*1=941 F*1+F*2=995 F*1+F*2+F*3=999	Lux			
		h	d	Em	E _{max}
		2	0.6	1377	1727
		4	1.3	344	432
		6	1.9	153	192
		8	2.5	86	108

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	68	63	61	58	63	60	60	57	74
1.0	71	67	65	63	66	64	64	61	79
1.5	75	72	70	68	71	69	69	66	86
2.0	78	76	74	73	75	73	72	70	91
2.5	79	78	76	75	77	75	75	72	94
3.0	80	79	78	77	78	77	76	74	96
4.0	81	80	80	79	79	79	77	75	98
5.0	82	81	81	80	80	79	78	76	99

Luminance curve limit



UGR diagram

Corrected UGR values (at 2800 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	22.3	23.8	22.6	24.1	24.4	22.3	23.8	22.6	24.1	24.4
	3H	22.2	23.3	22.5	23.6	23.9	22.2	23.3	22.5	23.6	23.9
	4H	22.1	23.1	22.4	23.4	23.8	22.1	23.1	22.4	23.4	23.8
	6H	21.9	23.1	22.3	23.4	23.8	21.9	23.1	22.3	23.4	23.8
	8H	21.9	23.0	22.3	23.4	23.7	21.9	23.0	22.3	23.4	23.7
	12H	21.8	23.0	22.3	23.3	23.7	21.8	22.9	22.2	23.3	23.7
4H	2H	22.1	23.1	22.4	23.4	23.8	22.1	23.1	22.4	23.4	23.8
	3H	21.8	23.0	22.3	23.3	23.7	21.8	23.0	22.3	23.3	23.7
	4H	21.7	22.8	22.2	23.2	23.6	21.7	22.8	22.2	23.2	23.6
	6H	21.6	22.8	22.0	23.2	23.6	21.6	22.8	22.0	23.2	23.6
	8H	21.5	22.8	22.0	23.2	23.7	21.5	22.8	21.9	23.2	23.7
	12H	21.4	22.8	21.9	23.3	23.8	21.3	22.8	21.8	23.2	23.7
8H	4H	21.5	22.8	21.9	23.2	23.7	21.5	22.8	22.0	23.2	23.7
	6H	21.3	22.6	21.8	23.1	23.6	21.3	22.7	21.8	23.1	23.6
	8H	21.3	22.5	21.8	23.0	23.5	21.3	22.5	21.8	23.0	23.5
	12H	21.4	22.3	21.9	22.7	23.3	21.4	22.2	21.9	22.7	23.3
12H	4H	21.3	22.8	21.8	23.2	23.7	21.4	22.8	21.9	23.3	23.8
	6H	21.3	22.5	21.8	23.0	23.5	21.3	22.5	21.8	23.0	23.5
	8H	21.4	22.2	21.9	22.7	23.3	21.4	22.3	21.9	22.7	23.3
Variations with the observer position at spacing:											
S =	1.0H	3.8 / -10.2					3.8 / -10.2				
	1.5H	6.5 / -12.2					6.5 / -12.2				
	2.0H	8.5 / -12.7					8.5 / -12.7				