

Last information update: June 2018



recessed luminaire Ø 137 - 4000K neutral white LED passive dissipation - integrated DALI control gear - medium

**Product code**

Q188

**Technical description**

recessed adjustable removable luminaire for LED lamp with passive heat dissipation system. Structure with die-cast aluminium frame and main body; shaped surface with high level radiant effect for effectively reducing the temperature and keeping the long-term LED lamp performance unchanged. Steel rotation hinge, chrome-plated aluminium body closing ring. Reflector with high efficiency super-pure aluminium optic - medium beam angle. Body adjusted using manually operated device: internal 30° - external 75° - rotation about axis 355°. Supplied with DALI dimmable control gear connected to the luminaire. Neutral white high efficiency LED.

**Installation**

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

**Dimension (mm)**

Ø137x91

**Colour**

White/Aluminium (39) | Grey/Aluminium (78)

**Weight (Kg)**

1.02

**Mounting**

ceiling recessed

**Wiring**

on control gear box with quick-coupling connections

Complies with EN60598-1 and pertinent regulations



IP20

**Product configuration: Q188****Product characteristics**

Total lighting output [Lm]: 2370  
Total power [W]: 23.8  
Luminous efficacy [Lm/W]: 99.6  
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.) [%]: 79  
Lamp code: LED  
ZVEI Code: LED  
Nominal power [W]: 21  
Nominal luminous [Lm]: 3000  
Lamp maximum intensity [cd]: /  
Beam angle [°]: 22°

Number of lamps for optical assembly: 1  
Socket: /  
Ballast losses [W]: 2.8  
Colour temperature [K]: 4000  
CRI: 80  
Wavelength [Nm]: /  
MacAdam Step: 2

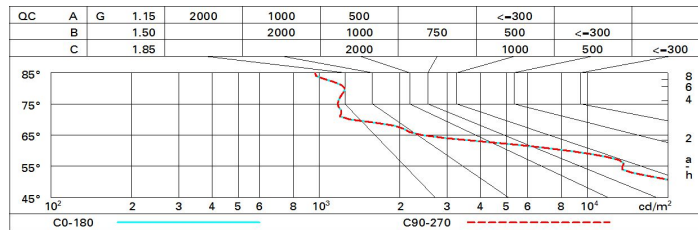
**Polar**

Imax=7973 cd	CIE nL 0.79 95-100-100-100-79 UGR 20.4-20.4 DIN A.61 UTE 0.79A+0.00T F*1=954 F*1+F*2=997 F*1+F*2+F*3=1000 CIBSE LG3 L<3000 cd/m² at 65°	Lux			
		h	d	Em	Emax
90°		2	0.8	1575	1993
9000		4	1.6	394	498
		6	2.3	175	221
		8	3.1	98	125
α=22°					

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	70	66	63	61	65	62	62	59	75
1.0	73	70	67	65	69	66	66	63	80
1.5	77	75	72	71	74	72	71	68	87
2.0	80	78	76	75	77	75	74	72	91
2.5	81	80	79	78	79	78	77	75	94
3.0	82	81	80	80	80	79	78	76	96
4.0	84	83	82	81	81	81	80	78	98
5.0	84	83	83	83	82	82	80	78	99

Luminance curve limit



UGR diagram

Corrected UGR values (at 3000 lm bare lamp luminous flux)											
Reflect.:		viewed crosswise					viewed endwise				
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											
x	y										
2H	2H	21.2	22.8	21.6	23.1	23.4	21.2	22.8	21.6	23.1	23.4
	3H	21.1	22.3	21.4	22.6	22.9	21.1	22.3	21.5	22.6	22.9
	4H	21.0	22.1	21.4	22.4	22.7	21.0	22.1	21.4	22.4	22.8
	6H	20.9	22.0	21.3	22.3	22.7	20.9	22.0	21.3	22.4	22.7
	8H	20.8	21.9	21.2	22.3	22.7	20.8	22.0	21.2	22.3	22.7
12H	20.8	21.9	21.2	22.2	22.6	20.8	21.9	21.2	22.3	22.6	
4H	2H	21.0	22.1	21.4	22.4	22.8	21.0	22.1	21.4	22.4	22.7
	3H	20.8	21.9	21.2	22.3	22.6	20.8	21.9	21.2	22.3	22.6
	4H	20.7	21.7	21.1	22.1	22.5	20.7	21.7	21.1	22.1	22.5
	6H	20.5	21.8	20.9	22.2	22.6	20.5	21.8	20.9	22.2	22.6
	8H	20.4	21.8	20.8	22.2	22.7	20.4	21.8	20.8	22.2	22.7
12H	20.2	21.8	20.7	22.3	22.8	20.2	21.8	20.7	22.3	22.8	
8H	4H	20.4	21.8	20.8	22.2	22.7	20.4	21.8	20.8	22.2	22.7
	6H	20.2	21.6	20.7	22.1	22.6	20.2	21.6	20.7	22.1	22.6
	8H	20.2	21.4	20.7	21.9	22.5	20.2	21.4	20.7	21.9	22.5
	12H	20.3	21.2	20.8	21.7	22.2	20.3	21.2	20.8	21.7	22.2
12H	4H	20.2	21.8	20.7	22.3	22.8	20.2	21.8	20.7	22.3	22.8
	6H	20.2	21.4	20.7	21.9	22.4	20.2	21.4	20.7	21.9	22.5
	8H	20.3	21.2	20.8	21.7	22.2	20.3	21.2	20.8	21.7	22.2
Variations with the observer position at spacing:											
S =	1.0H	4.3 / -9.6				4.3 / -9.6					
	1.5H	7.1 / -15.0				7.1 / -15.0					
	2.0H	9.1 / -18.0				9.1 / -18.0					