

Last information update: June 2018

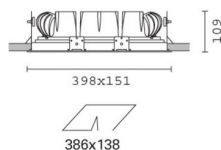


rectangular recessed luminaire with 3 optical assemblies - warm white passive dissipation LEDs - integrated DALI control gear - wide flood

**Product code**  
Q231

#### Technical description

Multiple recessed adjustable removable luminaire for LED lamp with passive heat dissipation system. Sheet steel perimeter frame. Main structure made of die-cast aluminium. Steel rotation hinges. Die-cast aluminium lamp bodies with shaped surface for high level radiant effect for effectively reducing the temperature and keeping the long-term LED lamp performance unchanged. Chrome-plated aluminium lamp body closing rings. Reflectors with high efficiency super-pure aluminium optic - wide flood beam angle. Orientamento dei corpi con dispositivi di manovra manuale: interno 29° - esterno 75° - rotazione sull'asse 355°; in fase di orientamento e rotazione i corpi lampada sono soggetti ad alcune limitazioni consultabili sul foglio istruzioni. Supplied with DALI dimmable control gear units connected to the luminaire. Warm white high colour rendering LEDs CRI (Ra) > 90.



#### Installation

recessed: preparation slot 138 x 386 mm; perimeter frame preliminary fixing on false ceiling (min. thickness 1 mm) with adjustable metal brackets; main structure inserted and mechanically locked on the frame

#### Dimension (mm)

398x151x109

#### Colour

White/Aluminium (39) | Grey/Black/Aluminium (E1)

#### Weight (Kg)

3.5

#### Mounting

ceiling recessed

#### Wiring

on control gear box with quick-coupling connections; each lamp body has a specific ballast, allowing separate switch ons

#### Notes

the configuration of the lamp bodies causes some limitations during angling and rotation; consult the instructions leaflet

Complies with EN60598-1 and pertinent regulations



#### Product configuration: Q231

#### Product characteristics

Total lighting output [Lm]: 5845  
Total power [W]: 71.2  
Luminous efficacy [Lm/W]: 82.1  
Life Time: > 50,000h - L80 - B10 (Ta 25°C)

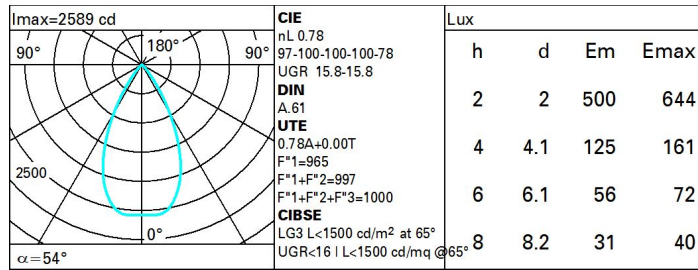
Total luminous flux at or above an angle of 90° [Lm]: 0  
Emergency luminous flux [Lm]: /  
Voltage [V]: -  
Number of optical assemblies: 3

#### Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 78  
Lamp code: LED  
ZVEI Code: LED  
Nominal power [W]: 21  
Nominal luminous [Lm]: 2500  
Lamp maximum intensity [cd]: /  
Beam angle [°]: 54°

Number of lamps for optical assembly: 1  
Socket: /  
Ballast losses [W]: 2.7  
Colour temperature [K]: 3000  
CRI: 90  
Wavelength [Nm]: /  
MacAdam Step: 2

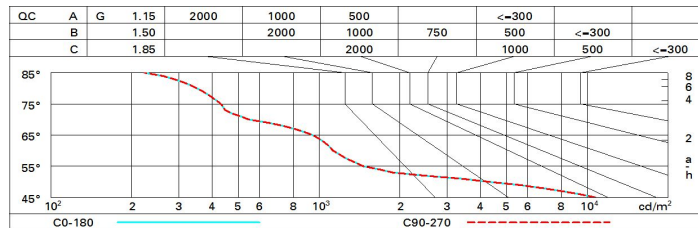
**Polar**



**Utilisation factors**

R	77	75	73	71	55	53	33	00	DRR
K0.8	69	65	63	60	65	62	62	59	76
1.0	72	69	66	65	68	66	66	63	81
1.5	76	74	72	70	73	71	70	68	87
2.0	79	77	75	74	76	75	74	71	92
2.5	80	79	78	77	78	77	76	74	95
3.0	81	80	80	79	79	78	77	75	97
4.0	83	82	81	81	80	80	79	77	98
5.0	83	82	82	82	81	81	79	78	99

**Luminance curve limit**



**UGR diagram**

Corrected UGR values (at 2500 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	16.3	17.0	16.6	17.2	17.4	16.3	17.0	16.6	17.2	17.4
	3H	16.2	16.8	16.5	17.0	17.3	16.2	16.8	16.5	17.0	17.3
	4H	16.1	16.7	16.5	16.9	17.2	16.1	16.7	16.5	16.9	17.2
	6H	16.1	16.5	16.4	16.8	17.2	16.0	16.5	16.4	16.8	17.2
	8H	16.0	16.5	16.4	16.8	17.1	16.0	16.5	16.4	16.8	17.1
	12H	16.0	16.4	16.4	16.8	17.1	16.0	16.4	16.3	16.8	17.1
4H	2H	16.1	16.7	16.5	16.9	17.2	16.1	16.7	16.5	16.9	17.2
	3H	16.0	16.4	16.4	16.8	17.1	16.0	16.4	16.4	16.8	17.1
	4H	15.9	16.3	16.3	16.7	17.0	15.9	16.3	16.3	16.7	17.0
	6H	15.8	16.2	16.2	16.6	17.0	15.8	16.2	16.2	16.5	17.0
	8H	15.8	16.1	16.2	16.5	16.9	15.8	16.1	16.2	16.5	16.9
	12H	15.7	16.0	16.2	16.4	16.9	15.7	16.0	16.2	16.4	16.9
8H	4H	15.8	16.1	16.2	16.5	16.9	15.8	16.1	16.2	16.5	16.9
	6H	15.7	15.9	16.1	16.4	16.9	15.7	15.9	16.1	16.4	16.9
	8H	15.6	15.8	16.1	16.3	16.8	15.6	15.8	16.1	16.3	16.8
	12H	15.6	15.8	16.1	16.3	16.8	15.6	15.8	16.1	16.2	16.8
12H	4H	15.7	16.0	16.2	16.4	16.9	15.7	16.0	16.2	16.4	16.9
	6H	15.6	15.8	16.1	16.3	16.8	15.6	15.8	16.1	16.3	16.8
	8H	15.6	15.8	16.1	16.2	16.8	15.6	15.8	16.1	16.3	16.8
Variations with the observer position at spacing:											
S =	1.0H	5.1 / -13.5					5.1 / -13.5				
	1.5H	7.9 / -14.7					7.9 / -14.7				
	2.0H	9.9 / -15.9					9.9 / -15.9				