

Last information update: November 2024

Product configuration: QX93.12+QX48.01

QX93.12: LED module - L 1192 - 78° - down emission - low output - neutral white - integrated DALI dimmable control gear - Aluminium
QX48.01: IN60 MMO - Down Module - Minimal - L= 1192 - White



Product code

QX93.12: LED module - L 1192 - 78° - down emission - low output - neutral white - integrated DALI dimmable control gear - Aluminium

Technical description

LED module set up for housing in IN60 MMO down emission system profiles. The raster is made of metallised thermoplastic. The luminaire generates a down emission with controlled luminance $L \leq 3000 \text{ cd/m}^2 - \alpha > 65^\circ$, for use in environments with video monitors in compliance with EN 12464-1. The version is Low Output. Supplied with DALI dimmable electronic control gear. Neutral white LED (4000K), CRI80.

Installation

Module insertion on compartments with a mechanical easy-push system (steel snap-on springs).

Colour
Aluminium (12)

Weight (Kg)
0.93

Wiring

Quick coupling input terminal block connection. LED module complete with integrated DALI control gear. The electrical cables used are made of a "halogen free" material.

Complies with EN60598-1 and pertinent regulations



Product code

QX48.01: IN60 MMO - Down Module - Minimal - L= 1192 - White

Technical description

The L profile=1192 mm is made of extruded aluminium. This is the Minimal version for down emission. The product can be used for recessed, surface-mounted and pendant applications, and for both stand alone and continuous line versions.

Installation

It can be recessed using suitable accessories to be ordered separately. The modules are completed with end caps and rasters with LEDs to be ordered separately.

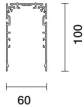
Colour
White (01)

Weight (Kg)
2

Mounting

ceiling recessed|ceiling surface

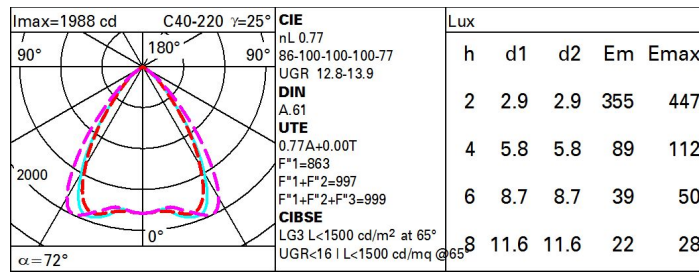
Complies with EN60598-1 and pertinent regulations



Technical data

Im system:	2734	CRI (minimum):	80
W system:	16	Colour temperature [K]:	4000
Im source:	3550	MacAdam Step:	3
W source:	16	Lamp code:	LED
Luminous efficiency (Im/W, real value):	170.8	Number of lamps for optical assembly:	1
Im in emergency mode:	-	ZVEI Code:	LED
Total light flux at or above an angle of 90° [Lm]:	0	Number of optical assemblies:	1
Light Output Ratio (L.O.R.) [%]:	77	Control:	DALI-2

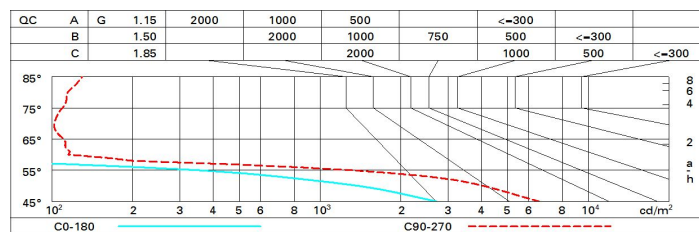
Polar



Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	65	60	56	54	59	56	56	53	68
1.0	69	64	61	59	63	61	60	57	74
1.5	74	70	68	66	69	67	67	64	83
2.0	77	74	72	71	73	71	71	68	88
2.5	78	76	75	74	75	74	73	71	92
3.0	79	78	77	76	77	76	75	72	94
4.0	81	79	78	78	78	77	76	74	96
5.0	81	80	79	79	79	78	77	75	97

Luminance curve limit



UGR diagram

Corrected UGR values (at 3550 lm bare lamp luminous flux)												
Reflect.: ceiling/cav walls work pl. Room dim x y		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30	0.30
		0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30	0.30
		0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
		viewed crosswise					viewed endwise					
2H	2H	13.4	14.0	13.6	14.2	14.5	14.4	15.1	14.7	15.3	15.6	
	3H	13.2	13.8	13.5	14.1	14.4	14.3	14.9	14.6	15.2	15.4	
	4H	13.2	13.7	13.5	14.0	14.3	14.2	14.8	14.6	15.1	15.4	
	6H	13.1	13.6	13.4	13.9	14.2	14.2	14.7	14.5	15.0	15.3	
	8H	13.0	13.5	13.4	13.8	14.2	14.1	14.6	14.5	14.9	15.3	
	12H	13.0	13.5	13.4	13.8	14.1	14.1	14.5	14.5	14.9	15.2	
4H	2H	13.2	13.7	13.5	14.0	14.3	14.2	14.8	14.6	15.1	15.4	
	3H	13.0	13.5	13.4	13.8	14.2	14.1	14.5	14.5	14.9	15.2	
	4H	12.9	13.3	13.3	13.7	14.1	14.0	14.4	14.4	14.8	15.2	
	6H	12.9	13.2	13.3	13.6	14.0	13.9	14.3	14.3	14.7	15.1	
	8H	12.8	13.1	13.2	13.5	14.0	13.9	14.2	14.3	14.6	15.0	
	12H	12.8	13.0	13.2	13.5	13.9	13.8	14.1	14.3	14.5	15.0	
8H	4H	12.8	13.1	13.2	13.5	14.0	13.9	14.2	14.3	14.6	15.0	
	6H	12.7	13.0	13.2	13.4	13.9	13.8	14.0	14.2	14.5	15.0	
	8H	12.7	12.9	13.1	13.4	13.9	13.7	13.9	14.2	14.4	14.9	
	12H	12.6	12.8	13.1	13.3	13.8	13.7	13.9	14.2	14.4	14.9	
12H	4H	12.8	13.0	13.2	13.5	13.9	13.8	14.1	14.3	14.5	15.0	
	6H	12.7	12.9	13.1	13.4	13.9	13.7	13.9	14.2	14.4	14.9	
	8H	12.6	12.8	13.1	13.3	13.8	13.7	13.9	14.2	14.4	14.9	
Variations with the observer position at spacing:												
S =		1.0H	3.9 / -11.5				3.2 / -9.2					
		1.5H	5.5 / -26.0				5.4 / -21.0					
		2.0H	7.5 / -26.7				7.4 / -21.5					