

Last information update: November 2024

**Product configuration: QX91.12+QX48.01**

QX91.12: LED module - L 1192 - 78° - down emission - low output - warm white - integrated DALI dimmable control gear - Aluminium  
QX48.01: IN60 MMO - Down Module - Minimal - L= 1192 - White



**Product code**

QX91.12: LED module - L 1192 - 78° - down emission - low output - warm 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. Warm white LED (3000K), CRI90.

**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)

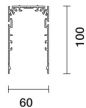
**Weight (Kg)**

2

**Mounting**

ceiling recessed|ceiling surface

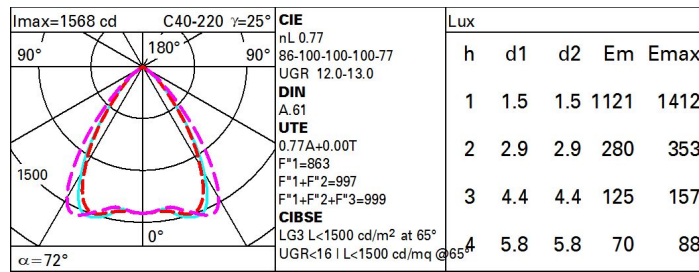
Complies with EN60598-1 and pertinent regulations



**Technical data**

Im system:	2156	CRI (minimum):	90
W system:	16	Colour temperature [K]:	3000
Im source:	2800	MacAdam Step:	3
W source:	16	Lamp code:	LED
Luminous efficiency (Im/W, real value):	134.8	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

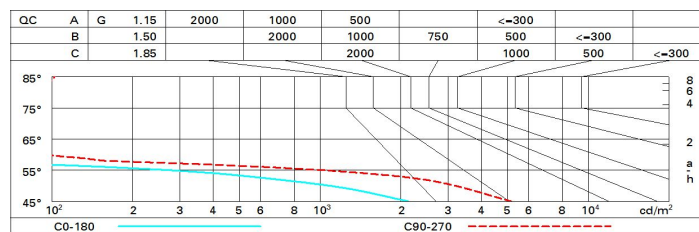
# Polar



# 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 2800 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	12.5	13.2	12.8	13.4	13.7	13.6	14.3	13.9	14.5	14.7	14.7
	3H	12.4	13.0	12.7	13.3	13.5	13.5	14.1	13.8	14.3	14.6	14.6
	4H	12.3	12.9	12.7	13.2	13.5	13.4	14.0	13.7	14.2	14.5	14.5
	6H	12.2	12.7	12.6	13.1	13.4	13.3	13.8	13.7	14.1	14.5	14.5
	8H	12.2	12.7	12.6	13.0	13.4	13.3	13.8	13.7	14.1	14.4	14.4
	12H	12.2	12.6	12.6	13.0	13.3	13.3	13.7	13.6	14.1	14.4	14.4
4H	2H	12.4	12.9	12.7	13.2	13.5	13.4	13.9	13.7	14.2	14.5	14.5
	3H	12.2	12.7	12.6	13.0	13.4	13.3	13.7	13.6	14.1	14.4	14.4
	4H	12.1	12.5	12.5	12.9	13.3	13.2	13.6	13.6	13.9	14.3	14.3
	6H	12.0	12.4	12.5	12.8	13.2	13.1	13.4	13.5	13.8	14.3	14.3
	8H	12.0	12.3	12.4	12.7	13.2	13.0	13.4	13.5	13.8	14.2	14.2
	12H	11.9	12.2	12.4	12.7	13.1	13.0	13.3	13.4	13.7	14.2	14.2
8H	4H	12.0	12.3	12.4	12.7	13.2	13.0	13.4	13.5	13.8	14.2	14.2
	6H	11.9	12.2	12.4	12.6	13.1	13.0	13.2	13.4	13.7	14.1	14.1
	8H	11.8	12.1	12.3	12.5	13.0	12.9	13.1	13.4	13.6	14.1	14.1
	12H	11.8	12.0	12.3	12.5	13.0	12.8	13.0	13.3	13.5	14.0	14.0
12H	4H	11.9	12.2	12.4	12.7	13.1	13.0	13.3	13.5	13.7	14.2	14.2
	6H	11.8	12.1	12.3	12.5	13.0	12.9	13.1	13.4	13.6	14.1	14.1
	8H	11.8	12.0	12.3	12.5	13.0	12.8	13.0	13.4	13.5	14.0	14.0
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				