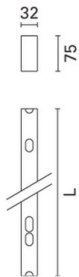
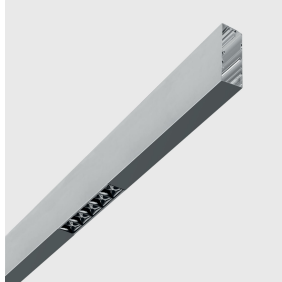


Last information update: May 2025

**Product configuration: R646**

R646: High Contrast module L=1197 - direct emission with controlled glare - neutral white integrated electronic control gear

**Product code**

R646: High Contrast module L=1197 - direct emission with controlled glare - neutral white integrated electronic control gear

**Attention! Code no longer in production****Technical description**

direct emission modular lighting system. High Contrast module with 2 groups of 5 elements using fixed optic LED lamps - flood beam angle. The structure of the optical system produces light emission with controlled glare (UGR < 19). Minimal (frameless) version extruded aluminium profile; partial black methacrylate screens set up for connection to end caps on both sides. Installation can be surface-mounted (ceiling/wall), or pendant. The module must be completed with the accessories kit needed for the selected type of installation. Electronic control gear integrated in the luminaire. Neutral white high efficiency LED.

**Installation**

pendant: complete with power supply unit with cable (MWG5) and suspension cables (MWG6); surface-mounted: complete with supports (MWG7).

**Colour**

White (01) | Black (04) | Aluminium (12)

**Weight (Kg)**

2.02

**Mounting**

ceiling recessed|ceiling surface|ceiling pendant

**Wiring**

the module is fitted with 5-pin terminal blocks for pass-through wiring at the ends. Electronic control gear integrated in the module.

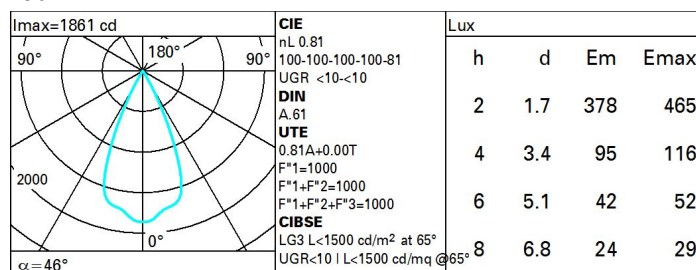
**Notes**

High Contrast modules may be completed with accessory end caps (code MX80) and used independently in the various applications. To make continuous lines, use accessory code MX81 with partial screen suitable for overlapping with other modules. Possibility of combined High Contrast / Low Contrast

Complies with EN60598-1 and pertinent regulations

**Technical data**

lm system:	1944	CRI (minimum):	90
W system:	24.7	CRI (typical):	92
lm source:	1200	Colour temperature [K]:	4000
W source:	9.9	MacAdam Step:	3
Luminous efficiency (lm/W, real value):	78.7	Life Time LED 1:	> 50,000h - L90 - B10 (Ta 25°C)
lm in emergency mode:	-	Lamp code:	LED
Total light flux at or above an angle of 90° [Lm]:	0	Number of lamps for optical assembly:	1
Light Output Ratio (L.O.R.) [%]:	81	ZVEI Code:	LED
Beam angle [°]:	46°	Number of optical assemblies:	2

**Polar**

# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	73	70	67	65	69	66	66	64	78
1.0	76	73	71	69	72	70	70	67	83
1.5	80	78	76	74	77	75	74	72	89
2.0	83	81	79	78	80	78	78	75	93
2.5	84	83	82	81	82	81	80	78	96
3.0	85	84	83	83	83	82	81	79	98
4.0	86	85	85	84	84	84	82	81	99
5.0	87	86	86	86	85	84	83	81	100

# UGR diagram

Corrected UGR values (at 1200 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	1.1	1.5	1.3	1.8	2.0	1.1	1.5	1.3	1.8	2.0
	3H	0.9	1.4	1.2	1.6	1.9	0.9	1.4	1.2	1.6	1.9
	4H	0.9	1.3	1.2	1.6	1.8	0.9	1.3	1.2	1.6	1.8
	6H	0.8	1.2	1.1	1.5	1.8	0.8	1.2	1.1	1.5	1.8
	8H	0.8	1.1	1.1	1.4	1.8	0.8	1.1	1.1	1.4	1.8
	12H	0.7	1.1	1.1	1.4	1.7	0.7	1.1	1.1	1.4	1.7
4H	2H	0.9	1.3	1.2	1.6	1.8	0.9	1.3	1.2	1.6	1.8
	3H	0.7	1.1	1.1	1.4	1.7	0.7	1.1	1.1	1.4	1.7
	4H	0.6	0.9	1.0	1.3	1.7	0.6	0.9	1.0	1.3	1.7
	6H	0.5	0.8	1.0	1.2	1.6	0.5	0.8	1.0	1.2	1.6
	8H	0.5	0.7	0.9	1.1	1.6	0.5	0.7	0.9	1.1	1.6
	12H	0.4	0.7	0.9	1.1	1.5	0.4	0.7	0.9	1.1	1.5
8H	4H	0.5	0.7	0.9	1.1	1.6	0.5	0.7	0.9	1.1	1.6
	6H	0.4	0.6	0.9	1.0	1.5	0.4	0.6	0.9	1.0	1.5
	8H	0.3	0.5	0.8	1.0	1.5	0.3	0.5	0.8	1.0	1.5
	12H	0.3	0.4	0.8	0.9	1.4	0.3	0.4	0.8	0.9	1.4
12H	4H	0.4	0.7	0.9	1.1	1.5	0.4	0.7	0.9	1.1	1.5
	6H	0.3	0.5	0.8	1.0	1.5	0.3	0.5	0.8	1.0	1.5
	8H	0.3	0.4	0.8	0.9	1.4	0.3	0.4	0.8	0.9	1.4
Variations with the observer position at spacing:											
S =		1.0H	0.8	/ -21.9				0.8	/ -21.9		
		1.5H	9.7	/ -22.0				9.7	/ -22.0		
		2.0H	11.7	/ -22.2				11.7	/ -22.2		