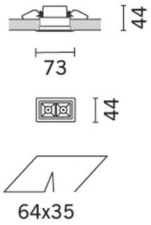
Laser Blade

Design iGuzzini **iGuzzini**

Last information update: October 2024

Product configuration: MU93
MU93: 2 - cell Recessed luminaire - LED - Warm white - Flood optic



Product code
MU93: 2 - cell Recessed luminaire - LED - Warm white - Flood optic

Technical description
rectangular miniaturised recessed luminaire with 2 optical elements with LED lamps - fixed optics - flood beam angle. Main body with die-cast aluminium radiant surface, version with perimeter surface frame. Metallised thermoplastic high definition optics, integrated in a rear position in the black anti-glare screen. Connecting cable supplied. Ballast not included, available with separate code. Warm white high colour rendering LED.

Installation
recessed with steel wire springs for false ceilings from 1 to 20 mm thick - preparation hole 35 x 64

Colour
White (01) | Black / Black (43) | Black / White (47)

Mounting
wall recessed|ceiling recessed

Wiring
direct current ballasts to be ordered separately: electronic (MXF9) for max. 7 LEDs; 0-10V dimmable (Y360) for max. 18 LEDs; DALI dimmable (BZM4) for max. 20 LEDs (check instructions leaflet for compatible lengths of cables to be used)

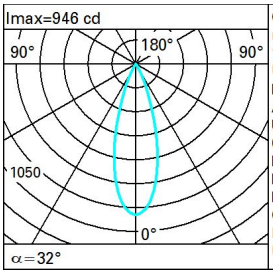
Complies with EN60598-1 and pertinent regulations

IP20 IP23 On the visible part of the product once installed

Technical data

lm system:	282	CRI (typical):	97
W system:	4.2	Colour temperature [K]:	2700
lm source:	340	MacAdam Step:	3
W source:	4.2	Life Time LED 1:	50,000h - L90 - B10 (Ta 25°C)
Luminous efficiency (lm/W, real value):	67.1	Lamp code:	LED
lm in emergency mode:	-	Number of lamps for optical assembly:	1
Total light flux at or above an angle of 90° [Lm]:	0	ZVEI Code:	LED
Light Output Ratio (L.O.R.) [%]:	83	Number of optical assemblies:	1
Beam angle [°]:	32°	LED current [mA]:	700
CRI (minimum):	95		

Polar



CIE
nL 0.83
100-100-100-100-83
UGR <10-<10
DIN
A.61
UTE
0.83A+0.00T
F"1=999
F"1+F"2=999
F"1+F"2+F"3=1000
CIBSE
LG3 L<1500 cd/m² at 65°
UGR<10 | L<1500 cd/mq @65°

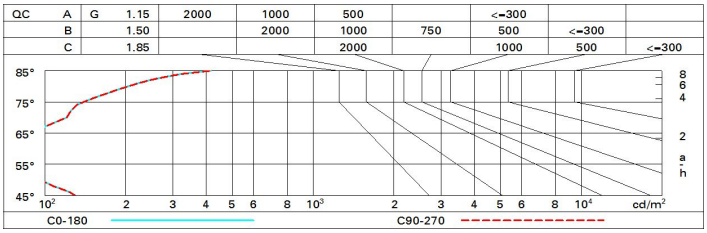
Lux

h	d	Em	Emax
1	0.6	735	946
2	1.1	184	237
3	1.7	82	105
4	2.3	46	59

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	75	71	68	66	70	68	68	65	78
1.0	78	75	72	70	74	72	71	69	83
1.5	82	79	77	76	78	77	76	73	89
2.0	84	83	81	80	81	80	79	77	93
2.5	86	85	84	83	83	82	82	79	96
3.0	87	86	85	85	85	84	83	81	98
4.0	88	87	87	86	86	86	84	82	99
5.0	89	88	88	87	87	86	85	83	100

Luminance curve limit



UGR diagram

Corrected UGR values (at 340 lm bare lamp luminous flux)

Riflect.: ceil/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	-3.3	-2.7	-3.0	-2.5	-2.3	-3.3	-2.7	-3.0	-2.5	-2.3
	3H	-3.3	-2.9	-3.0	-2.6	-2.3	-3.4	-2.9	-3.1	-2.6	-2.4
	4H	-3.3	-2.9	-3.0	-2.6	-2.3	-3.4	-3.0	-3.1	-2.7	-2.4
	6H	-3.3	-2.9	-3.0	-2.6	-2.3	-3.5	-3.1	-3.2	-2.8	-2.5
	8H	-3.3	-2.9	-2.9	-2.6	-2.2	-3.5	-3.2	-3.2	-2.8	-2.5
	12H	-3.2	-2.8	-2.8	-2.5	-2.1	-3.6	-3.2	-3.2	-2.9	-2.5
4H	2H	-3.4	-3.0	-3.1	-2.7	-2.4	-3.3	-2.9	-3.0	-2.6	-2.3
	3H	-3.5	-3.1	-3.1	-2.8	-2.4	-3.4	-3.1	-3.1	-2.7	-2.4
	4H	-3.5	-3.2	-3.1	-2.8	-2.4	-3.5	-3.2	-3.1	-2.8	-2.4
	6H	-3.4	-3.1	-3.0	-2.7	-2.3	-3.5	-3.3	-3.1	-2.9	-2.4
	8H	-3.3	-3.0	-2.8	-2.6	-2.2	-3.6	-3.3	-3.1	-2.9	-2.5
	12H	-3.1	-2.8	-2.6	-2.4	-2.0	-3.6	-3.4	-3.1	-2.9	-2.5
8H	4H	-3.6	-3.3	-3.1	-2.9	-2.5	-3.3	-3.0	-2.8	-2.6	-2.2
	6H	-3.4	-3.2	-2.9	-2.7	-2.2	-3.2	-3.0	-2.8	-2.6	-2.1
	8H	-3.2	-3.0	-2.7	-2.5	-2.0	-3.2	-3.0	-2.7	-2.5	-2.0
	12H	-2.8	-2.7	-2.3	-2.2	-1.7	-3.1	-3.0	-2.6	-2.5	-2.0
12H	4H	-3.6	-3.4	-3.1	-2.9	-2.5	-3.1	-2.8	-2.6	-2.4	-2.0
	6H	-3.4	-3.2	-2.9	-2.7	-2.2	-2.9	-2.8	-2.5	-2.3	-1.8
	8H	-3.1	-3.0	-2.6	-2.5	-2.0	-2.8	-2.7	-2.3	-2.2	-1.7

Variations with the observer position at spacing:

S =			
	1.0H	5.6 / -3.8	5.6 / -3.8
	1.5H	8.3 / -4.0	8.3 / -4.0
	2.0H	10.3 / -4.1	10.3 / -4.1