Deep Laser

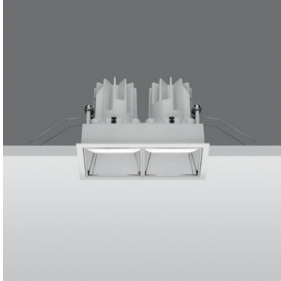**Design iGuzzini**   **iGuzzini**

Last information update: August 2023

Product configuration: ML56
ML56: rectangular recessed luminaire with 2 optical assemblies - LED 18W 1200 lm - warm white - CRI (Ra) 80 - integrated dimmable electronic control gear - medium

Product code
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Technical description
rectangular recessed luminaire with 2 optical assemblies with fixed optic LED lamps - medium beam angle. Structure with die-cast aluminium outer rim; die-cast aluminium optical units, with radiant upper zone for optimum dissipation of the heat given off by the lamps. LED optics made of thermoplastic material. Lamps set back for greater visual comfort. Supplied with dimmable electronic control gear connected to the luminaire. Warm white LED.

Installation
recessed using steel springs which allow easy installation in false ceilings with thickness from 1 mm to 25 mm

Colour
White (01) | Grey (15)

Mounting
wall recessed|ceiling recessed

Wiring
on control gear box; screw connections with terminal block included. Possibility of dimming with potentiometer.
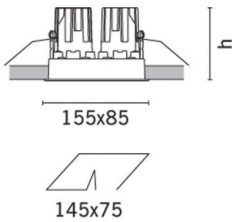
Notes
the use of reflectors with soft-lens accessories (MWL5) increases the protection rating to IP44
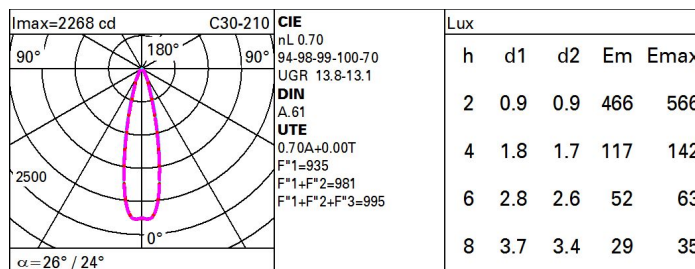
Complies with EN60598-1 and pertinent regulations

IP20

155x85

145x75

Technical data

lm system:	1232	CRI (minimum):	85
W system:	22.6	Colour temperature [K]:	3000
lm source:	880	Life Time LED 1:	> 50,000h - L80 - B10 (Ta 25°C)
W source:	8.5	Ballast losses [W]:	2.8
Luminous efficiency (lm/W, real value):	54.5	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.) [%]:	70	Number of optical assemblies:	2
Beam angle [°]:	26° / 24°		

Polar

Imax=2268 cd   C30-210

CIE
nL 0.70
94-98-99-100-70
UGR 13.8-13.1
DIN
A.61
UTE
0.70A+0.00T
F"1=935
F"1+F"2=981
F"1+F"2+F"3=995

α=26° / 24°

h	d1	d2	Em	Emax
2	0.9	0.9	466	566
4	1.8	1.7	117	142
6	2.8	2.6	52	63
8	3.7	3.4	29	35

Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	61	57	55	53	57	54	54	52	74
1.0	64	61	58	57	60	58	58	55	79
1.5	68	65	63	62	64	63	62	60	85
2.0	70	68	67	66	67	66	65	63	90
2.5	72	70	69	68	69	68	67	65	93
3.0	73	72	71	70	70	70	69	67	95
4.0	74	73	72	72	72	71	70	68	97
5.0	74	74	73	73	72	72	71	69	99

Luminance curve limit

QC	A	G	1.15	2000	1000	500		<=300		
	B		1.50		2000	1000	750	500	<=300	
	C		1.85			2000		1000	500	<=300

C0-180 ——————
C90-270 - - - - - - - - -
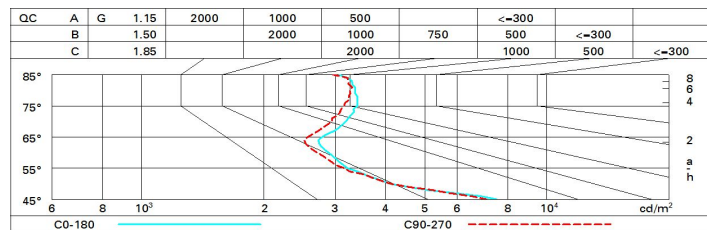
UGR diagram

Corrected UGR values (at 880 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					viewed			
x	y		crosswise					endwise			
2H	2H	11.9	13.8	12.3	14.1	14.4	11.9	13.7	12.2	14.0	14.4
	3H	12.5	13.9	12.9	14.2	14.6	12.0	13.4	12.3	13.7	14.0
	4H	12.9	14.1	13.3	14.4	14.8	12.0	13.2	12.4	13.5	13.9
	6H	13.3	14.3	13.7	14.7	15.0	12.0	13.0	12.4	13.4	13.7
	8H	13.4	14.5	13.8	14.8	15.2	12.0	13.0	12.4	13.4	13.7
	12H	13.5	14.5	13.9	14.9	15.3	11.9	13.0	12.4	13.3	13.7
4H	2H	12.1	13.3	12.4	13.6	13.9	12.7	13.9	13.1	14.2	14.6
	3H	12.8	13.9	13.2	14.2	14.6	13.0	14.0	13.4	14.4	14.8
	4H	13.4	14.4	13.8	14.8	15.2	13.1	14.2	13.6	14.5	15.0
	6H	13.7	15.2	14.2	15.6	16.1	13.1	14.6	13.6	15.0	15.5
	8H	13.8	15.5	14.3	16.0	16.5	13.1	14.7	13.6	15.2	15.7
	12H	13.9	15.7	14.4	16.2	16.7	13.0	14.8	13.5	15.3	15.8
8H	4H	13.3	14.9	13.7	15.4	15.9	13.6	15.3	14.1	15.8	16.2
	6H	13.9	15.6	14.5	16.0	16.6	13.9	15.5	14.4	16.0	16.5
	8H	14.3	15.7	14.8	16.2	16.7	14.1	15.5	14.6	16.0	16.5
	12H	14.7	15.7	15.2	16.2	16.7	14.3	15.3	14.9	15.8	16.4
12H	4H	13.2	15.0	13.7	15.4	16.0	13.7	15.5	14.2	16.0	16.5
	6H	14.0	15.5	14.5	15.9	16.5	14.1	15.6	14.7	16.1	16.6
	8H	14.5	15.5	15.1	16.0	16.6	14.5	15.5	15.0	16.0	16.5

Variations with the observer position at spacing:

S =			
	1.0H	1.0 / -0.9	1.0 / -1.0
	1.5H	2.1 / -1.2	2.3 / -1.3
	2.0H	3.4 / -1.3	3.6 / -1.4