

## Laser Pinhole

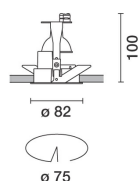
Design iGuzzini

iGuzzini

Last information update: June 2024

### Product configuration: M248+L221

M248: Pinholeadjustable round recessed luminaireD=82 mm H=99 mm50W QR CBC 51



### Product code

M248: Pinholeadjustable round recessed luminaireD=82 mm H=99 mm50W QR CBC 51

### Technical description

Adjustable round recessed luminaire for low voltage dichroic halogen lamp. Made of die-cast aluminium and thermoplastic material. Rotates 355° about the vertical axis and tilts internally 30° relative to the horizontal axis. Contact springs are used to couple to a die-cast aluminium outer frame a die-cast aluminium inner ring on which the black-painted sheet steel lamp-holder bracket is fastened. Inserted in the frame there is a die-cast aluminium front ring in turn containing a cylindrical element made of black thermoplastic material for housing the accessories: sand-blasted glass, ribbed glass, louver and soft lens. Above the lamp holder there is a slide which allows the position of the lamp holder to be moved so as to optimise luminaire performance. The luminaire technical characteristics conform to EN 60598-1 standards and particular requirements.

### Installation

Recessed in false ceilings whose thickness is between 1 mm and 20 mm using 75 mm diameter holes. Fixed with steel springs.

**Colour**  
White (01)

**Weight (Kg)**  
0.38

**Mounting**  
ceiling recessed

**Wiring**  
electronic components to be ordered separately

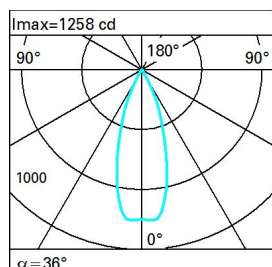
Complies with EN60598-1 and pertinent regulations



### Technical data

Im system:	487	CRI (minimum):	100
W system:	38	Colour temperature [K]:	3000
Im source:	704	Lamp maximum intensity	1100
W source:	35	[cd]:	
Luminous efficiency (Im/W, real value):	12.8	Voltage [Vin]:	12
Im in emergency mode:	-	Lamp code:	L221
Total light flux at or above an angle of 90° [Lm]:	0	Socket:	GU5,3
Light Output Ratio (L.O.R.) [%]:	69	Number of lamps for optical assembly:	1
Beam angle [°]:	36°	ZVEI Code:	QR-CBC 51
		Number of optical assemblies:	1

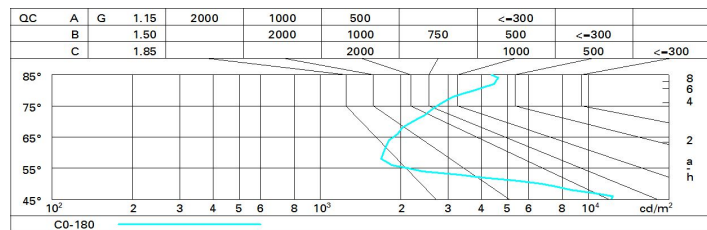
### Polar

 Imax=1258 cd 90° 180° 90° 1000 0° α = 36°	CIE				Lux			
	nL 0.69				h	d	Em	E <sub>max</sub>
	96-99-100-100-69				1	0.6	1006	1250
	UGR 11.4-10.3				2	1.3	252	313
	DIN A.61				3	1.9	112	139
	UTE 0.69A+0.00T				4	2.6	63	78
	F*1=965							
	F*1+F*2=992							
	F*1+F*2+F*3=997							

# Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	61	58	56	54	57	55	55	52	76
1.0	64	61	59	57	60	58	58	56	81
1.5	68	65	64	62	65	63	62	60	87
2.0	70	68	67	66	67	66	65	63	91
2.5	71	70	69	68	69	68	67	65	94
3.0	72	71	71	70	70	70	69	67	97
4.0	73	72	72	71	71	71	70	68	98
5.0	74	73	73	72	72	72	70	69	99

# Luminance curve limit



# UGR diagram

Corrected UGR values (at 704 lm bare lamp luminous flux)											
Reflect.: ceiling/cav walls work pl. Room dim x y		viewed crosswise					viewed endwise				
		0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
		0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
		0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
2H	2H	9.1	9.7	9.4	9.9	10.2	9.1	9.7	9.4	9.9	10.2
	3H	9.4	9.9	9.7	10.2	10.5	9.1	9.6	9.4	9.9	10.2
	4H	9.7	10.2	10.1	10.5	10.8	9.1	9.6	9.4	9.9	10.2
	6H	10.3	10.7	10.6	11.0	11.3	9.1	9.5	9.4	9.8	10.1
	8H	10.6	11.1	11.0	11.4	11.7	9.0	9.5	9.4	9.8	10.1
	12H	10.9	11.3	11.3	11.7	12.0	9.0	9.4	9.4	9.8	10.1
4H	2H	9.1	9.6	9.4	9.9	10.2	9.7	10.2	10.1	10.5	10.8
	3H	9.6	10.0	9.9	10.3	10.7	9.9	10.4	10.3	10.7	11.0
	4H	10.1	10.4	10.5	10.8	11.2	10.1	10.4	10.5	10.8	11.2
	6H	10.9	11.2	11.3	11.6	12.0	10.2	10.6	10.7	10.9	11.4
	8H	11.4	11.7	11.8	12.1	12.5	10.3	10.6	10.7	11.0	11.4
	12H	11.8	12.1	12.3	12.5	13.0	10.3	10.6	10.8	11.0	11.5
8H	4H	10.3	10.6	10.7	11.0	11.4	11.4	11.7	11.8	12.1	12.5
	6H	11.4	11.6	11.8	12.1	12.5	11.8	12.1	12.3	12.5	13.0
	8H	12.1	12.3	12.5	12.7	13.2	12.1	12.3	12.5	12.7	13.2
	12H	12.6	12.8	13.1	13.3	13.8	12.3	12.5	12.8	13.0	13.5
12H	4H	10.3	10.6	10.8	11.0	11.5	11.8	12.1	12.3	12.5	13.0
	6H	11.5	11.7	12.0	12.2	12.7	12.3	12.5	12.8	13.0	13.5
	8H	12.3	12.5	12.8	13.0	13.5	12.6	12.8	13.1	13.3	13.8
Variations with the observer position at spacing:											
S =	1.0H	1.1 / -0.9					1.1 / -0.9				
	1.5H	1.6 / -1.1					1.6 / -1.1				
	2.0H	2.7 / -1.1					2.7 / -1.1				