Laser Blade
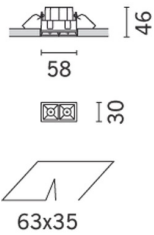
Last information update: October 2024

Product configuration: QQ54
QQ54: Square, Frameless, Recessed luminaire - Warm white LED - Flood optic

Product code
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Technical description
square, miniaturised, recessed luminaire for an individual LED - fixed optic - flood beam angle. Die-cast aluminium body, minimal version (frameless). Metallised, thermoplastic, high definition optic, integrated in a rear position in the black, anti-glare screen. Connecting cable supplied. Ballast not included, available with separate code. High CRI, warm white LED.

Installation
recessed with steel wire springs on the specific adapter (included) which allows flush-mounting with the ceiling. Adapter for fitting luminaire to false ceilings (12.5 mm thick) with self-tapping screws; subsequent filling and smoothing operations; insertion of luminaire body and stylish finishing. Preparation hole 64 x 35
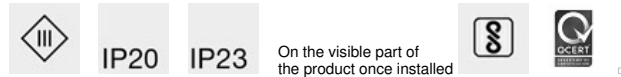
Colour
White (01) | Black (04)

Mounting
wall recessed|ceiling recessed|ceiling surface

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. 15 LEDs (check instruction leaflet for compatible lengths of cables to be used)

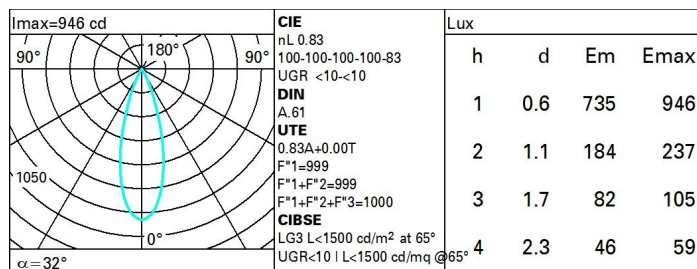Complies with EN60598-1 and pertinent regulations

III | IP20 | IP23 | On the visible part of the product once installed | QCERT

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	Control:	DALI-2

Polar

Imax=946 cd

90° | 180° | 90°

1050

0°

α=32°

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

58 | 46

30

63x35

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

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

```
85°                                                              8
                                                                 6
75°                                                              4
65°                                                              2
55°                                                              a
                                                                 h
45°  10²    2   3  4  5 6  8 10³      2    3   4 5 6  8 10⁴   cd/m²
     C0-180 ————————            C90-270 ---------------
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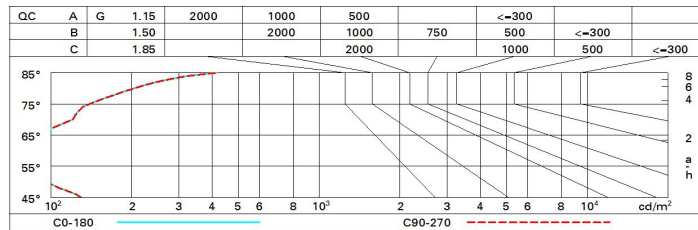
UGR diagram

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 x	y			viewed crosswise					viewed endwise		
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