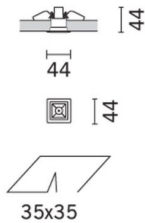
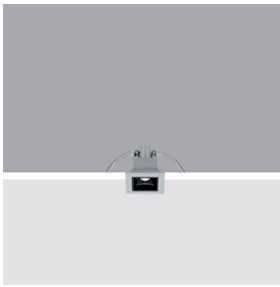


Last information update: May 2018

**Square Recessed luminaire - LED Neutral white medium****Product code**

MK45

Technical description

square miniaturised recessed luminaire for single LED - fixed optic - medium beam angle. Main body with die-cast aluminium radiant surface, version with perimeter surface frame. 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. Neutral white LED.

Installation

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

Dimension (mm)

44x44x44

Colour

White (01) | White/Brass (41) | Black/Black (43) | Black/White (47) | Grey/Black (74) | (E7)

Weight (Kg)

0.05

Mounting

wall recessed|ceiling recessed

Wiring

direct current ballasts to be ordered separately: electronic (MXF9) for max. 7 LEDs; DALI dimmable (BZM4) for max. 20 LEDs (check instruction 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

**Product configuration: MK45****Product characteristics**

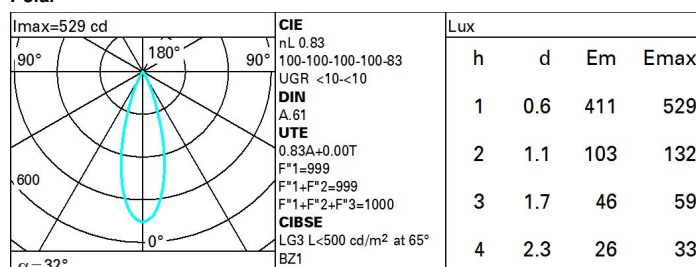
Total lighting output [Lm]: 157.5
Total power [W]: 2.1
Luminous efficacy [Lm/W]: 75
Life Time: 50,000h - L90 - B10 (Ta 25°C)

Total luminous flux at or above an angle of 90° [Lm]: 0
Emergency luminous flux [Lm]: /
Voltage [V]: -
Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 83
Lamp code: LED
ZVEI Code: LED
Nominal power [W]: 2.1
Nominal luminous [Lm]: 190
Lamp maximum intensity [cd]: /
Beam angle [°]: 32°

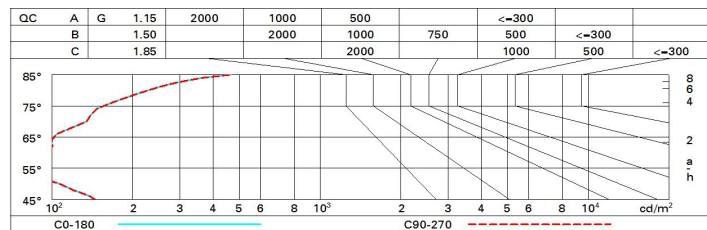
Number of lamps for optical assembly: 1
Socket: /
Ballast losses [W]: 0
Colour temperature [K]: 4000
CRI: 95
Wavelength [Nm]: /
MacAdam Step: 3

Polar

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 190 lm bare lamp luminous flux)											
Reflect.:											
ceiling	walls	0.70	0.70	0.50	0.50	0.30	0.70	0.70	0.50	0.50	0.30
work pl.	Room dim	0.50	0.30	0.50	0.30	0.30	0.50	0.30	0.50	0.30	0.30
x	y	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
		viewed crosswise					viewed endwise				
2H	2H	-2.9	-2.4	-2.6	-2.1	-1.9	-2.9	-2.4	-2.6	-2.1	-1.9
	3H	-2.9	-2.5	-2.6	-2.2	-1.9	-3.0	-2.5	-2.7	-2.3	-2.0
	4H	-3.0	-2.5	-2.6	-2.2	-1.9	-3.1	-2.6	-2.7	-2.3	-2.0
	6H	-2.9	-2.5	-2.6	-2.2	-1.9	-3.1	-2.7	-2.8	-2.4	-2.1
	8H	-2.9	-2.5	-2.5	-2.2	-1.8	-3.2	-2.8	-2.8	-2.4	-2.1
	12H	-2.8	-2.4	-2.4	-2.1	-1.7	-3.2	-2.8	-2.8	-2.5	-2.1
4H	2H	-3.1	-2.6	-2.7	-2.3	-2.0	-3.0	-2.5	-2.6	-2.2	-1.9
	3H	-3.1	-2.7	-2.7	-2.4	-2.1	-3.1	-2.7	-2.7	-2.4	-2.0
	4H	-3.1	-2.8	-2.7	-2.4	-2.0	-3.1	-2.8	-2.7	-2.4	-2.0
	6H	-3.0	-2.7	-2.6	-2.3	-1.9	-3.2	-2.9	-2.7	-2.5	-2.1
	8H	-2.9	-2.6	-2.5	-2.2	-1.8	-3.2	-2.9	-2.7	-2.5	-2.1
	12H	-2.7	-2.5	-2.2	-2.0	-1.6	-3.2	-3.0	-2.8	-2.5	-2.1
8H	4H	-3.2	-2.9	-2.7	-2.5	-2.1	-2.9	-2.6	-2.5	-2.2	-1.8
	6H	-3.0	-2.8	-2.5	-2.3	-1.9	-2.8	-2.6	-2.4	-2.2	-1.7
	8H	-2.8	-2.6	-2.3	-2.1	-1.7	-2.8	-2.6	-2.3	-2.1	-1.7
	12H	-2.4	-2.3	-1.9	-1.8	-1.3	-2.7	-2.6	-2.2	-2.1	-1.6
12H	4H	-3.2	-3.0	-2.8	-2.5	-2.1	-2.7	-2.5	-2.2	-2.0	-1.6
	6H	-3.0	-2.8	-2.5	-2.3	-1.8	-2.6	-2.4	-2.1	-1.9	-1.4
	8H	-2.7	-2.6	-2.2	-2.1	-1.6	-2.4	-2.3	-1.9	-1.8	-1.3
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				