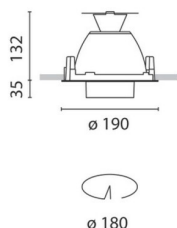


Last information update: May 2018



Recessed DALI extractable-control gear

Product code
MK93

Technical description

Die-cast aluminium and thermoplastic material, recessed luminaire complete with C.O.B technology LED lamp in a 4000K neutral white colour tone. Luminaire with medium optic complete with high level light output and uniform distribution OPTIBEAM reflector. The product permits an internal rotation around the 335° vertical axis and the 65° horizontal plane with continuous friction (only on this rotation). Product complete with a DALI driver separate from the luminaire.

Installation

Recessed in false ceilings, with thicknesses starting from between 1 mm and 20 mm, using special steel torsion springs and hinged brackets.

Dimension (mm)
Ø190x132

Colour
White (01)

Weight (Kg)
1.46

Mounting
ceiling recessed

Wiring
product complete with DALI components

Notes

For compliance with the NFC 20-455 standard use an optional filter code MW57 for each optical assembly

Complies with EN60598-1 and pertinent regulations



Product configuration: MK93

Product characteristics

Total lighting output [Lm]: 2308
Total power [W]: 25.1
Luminous efficacy [Lm/W]: 92
Life Time: > 50,000h - L80 - B10 (Ta 25°C)

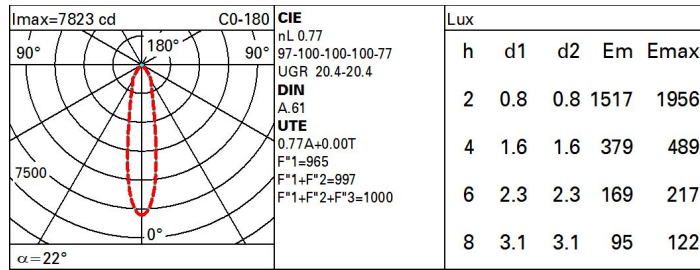
Total luminous flux at or above an angle of 90° [Lm]: 0
Emergency luminous flux [Lm]: /
Voltage [V]: -
Number of optical assemblies: 1

Optical assembly Characteristics Type 1

Light Output Ratio (L.O.R.) [%]: 77
Lamp code: LED
ZVEI Code: LED
Nominal power [W]: 22
Nominal luminous [Lm]: 3000
Lamp maximum intensity [cd]: /
Beam angle [°]: 22°

Number of lamps for optical assembly: 1
Socket: /
Ballast losses [W]: 3.1
Colour temperature [K]: 4000
CRI: 80
Wavelength [Nm]: /
MacAdam Step: 2

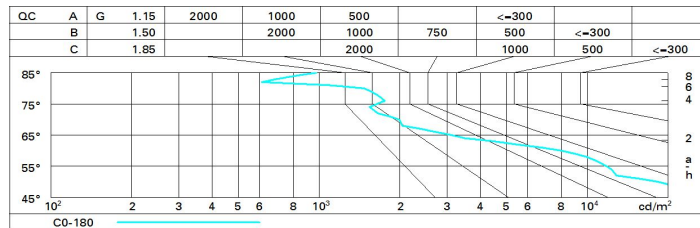
Polar



Utilisation factors

R	77	75	73	71	55	53	33	00	DRR
K0.8	68	64	62	60	64	61	61	58	76
1.0	72	68	66	64	67	65	65	62	81
1.5	75	73	71	69	72	70	69	67	87
2.0	78	76	75	73	75	74	73	71	92
2.5	79	78	77	76	77	76	75	73	95
3.0	80	79	79	78	78	77	76	74	97
4.0	81	81	80	79	79	79	78	76	98
5.0	82	81	81	81	80	80	78	77	99

Luminance curve limit



UGR diagram

Corrected UGR values (at 3000 lm bare lamp luminous flux)											
Reflect.:											
ceiling/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	21.2	22.9	21.6	23.2	23.5	21.2	22.9	21.6	23.2	23.5
	3H	21.1	22.3	21.5	22.6	22.9	21.1	22.3	21.5	22.6	22.9
	4H	21.0	22.1	21.4	22.5	22.8	21.0	22.1	21.4	22.5	22.8
	6H	20.9	22.0	21.3	22.4	22.7	20.9	22.0	21.3	22.4	22.7
	8H	20.9	22.0	21.3	22.3	22.7	20.9	22.0	21.3	22.3	22.7
	12H	20.8	21.9	21.2	22.3	22.7	20.8	21.9	21.2	22.3	22.7
4H	2H	21.0	22.1	21.4	22.5	22.8	21.0	22.1	21.4	22.5	22.8
	3H	20.8	21.9	21.2	22.3	22.7	20.8	21.9	21.2	22.3	22.7
	4H	20.7	21.8	21.1	22.1	22.6	20.7	21.8	21.1	22.1	22.6
	6H	20.5	21.8	21.0	22.2	22.7	20.5	21.8	21.0	22.2	22.7
	8H	20.4	21.8	20.9	22.2	22.7	20.4	21.8	20.9	22.2	22.7
	12H	20.3	21.8	20.7	22.3	22.8	20.2	21.8	20.7	22.3	22.8
8H	4H	20.4	21.8	20.9	22.2	22.7	20.4	21.8	20.9	22.2	22.7
	6H	20.2	21.7	20.7	22.1	22.7	20.2	21.7	20.7	22.1	22.7
	8H	20.2	21.5	20.7	22.0	22.5	20.2	21.5	20.7	22.0	22.5
	12H	20.3	21.2	20.8	21.7	22.2	20.3	21.2	20.8	21.7	22.2
12H	4H	20.2	21.8	20.7	22.3	22.8	20.3	21.8	20.7	22.3	22.8
	6H	20.2	21.5	20.7	22.0	22.5	20.2	21.5	20.7	22.0	22.5
	8H	20.3	21.2	20.8	21.7	22.2	20.3	21.2	20.8	21.7	22.2
Variations with the observer position at spacing:											
S =	1.0H	4.8 / -10.4					4.8 / -10.4				
	1.5H	7.5 / -14.3					7.5 / -14.3				
	2.0H	9.5 / -17.2					9.5 / -17.2				