

COMBO 450

trim

064-1041D37K



Project / Type

Notes

Count / Date



General

Ceiling , Recessed

white , RAL 9010 ¹

IP40

2170 lm

LED

tunable white

2700 K - 6500 K

CRI ≥ 80

L90 / 50000 h

initial MacAdam ≤ 3 SDCM

MR 0.48

MDER 0.44

Optical

Microprismatic

microprismatic

UGR ≤ 19 , ≥65° <3000 cd/m²

PstLM ≤ 1.0 ²

SVM ≤ 0.4 ²

Electrical

DALI-2 DT8

220-240 V

system 18.0 W

system 121 lm/W³

PC1

1 DALI Addr.

Physical

trim

diameter 466 mm

height 72 mm

3.1 kg

Cutout

diameter 455 mm

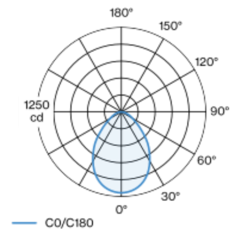
min. ceiling thickness 10 mm

max. ceiling thickness 25 mm

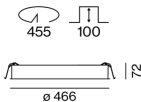
recessed depth 100 mm

Round light fitting in aluminium; recessed light with wrap around edge; suitable for ceiling thickness of 10-25 mm; surface white powder coated; installation without tools using snap spring closure; external converter for ceiling insertion, through-wiring suitable; electrical connection by means of reverse polarity protected plug system; LED board highly reflective lacquered for higher efficiency; light colour tunable white; binning initial MacAdam ≤ 3 SDCM; CRI ≥ 80; min. 90% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; flush ceiling light level; micro prismatic PMMA cover; absolutely homogeneous illumination by using a diffuser film on polycarbonate base; improved ratio of scattering effect to light transmission; same luminance for all size versions; UGR ≤ 19; VDU compatible workplace luminaire according to DIN EN 12464-1; luminance above 65° ≤ 3000 cd/m²; degree of protection IP40; PC1; 220-240 V; internal wiring in light halogen free; incl. converter, non dimmable; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

Light distribution



Product drawing



¹ RAL code ² Value of containing product at full load (undimmed)
³ incl. consideration of optical losses, internal control unit losses
& operating device efficiency

Installation instructions



Lighting calculator



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Maintenance Factors

Operating Time [h]	10 000	20 000	30 000	40 000	50 000
LLMF	0.98	0.96	0.94	0.92	0.9
LSF	1	1	1	1	1
MF	LMF × RSMF × LLMF × LSF		RSMF ^a	Room Surface Maintenance Factor	
MF	Maintenance Factor		LLMF	Lamp Lumens Maintenance Factor	
LMF ^a	Luminaire Maintenance Factor		LSF	Lamp Survival Factor	

^a According to "CIE 97, Maintenance of indoor electric lighting systems", 2005, ISBN 3-900-734-34-8. The values must be determined by the planner.

Circuit Breaker Types

Automatic Circuit Breaker Type	Number of Fixtures
B10	65
B16	104
C10	65
C16	104

Mounting accessories

MOUNTING RING

TYPE	ARTICLE NUMBER(S)
for acoustic ceiling	064-1906400

