

COMBO 450

trim

064-1041617K



Project / Type

Notes

Count / Date



IP 40

220-240V

X-PERT

X-PERT

General

Ceiling / Wall , Recessed

white , RAL9010 ¹

IP40

2180 lm

LED

4000 K

CRI ≥ 80

L90 / 50000 h

photobio. safety RG 0 - no Risk

initial MacAdam ≤ 3 SDCM

MR 0.72

MDER 0.66

Optical

Microprismatic

UGR < 19 , ≥65° <3000 cd/m²

PstLM ≤ 1.0 ²

SVM ≤ 0.4 ²

Electrical

non DIM

16.7 W

PC1 220-240V

131 lm/W

Physical

trim

diameter 466 mm

height 72 mm

3.1 kg

Cutout

diameter 455 mm

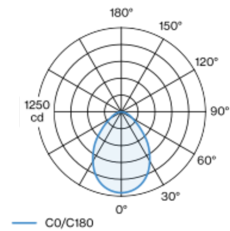
min. ceiling thickness 10 mm

max. ceiling thickness 25 mm

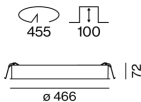
recessed depth 100 mm

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 4000 K; 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 220-240V; photobiological safety according to IEC 62471 risk group RG 0 - no Risk; 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)

Installation instructions



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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	0.91	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 Faktor

^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	31
B13	40
B16	50
B20	62
B25	78
C10	52
C13	67
C16	85
C20	104
C25	130

Mounting accessories

MOUNTING RING

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

