

# SONO 450 direct

surface

071-91466170



Project / Type

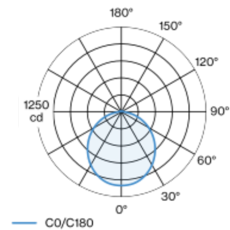
Notes

Count / Date

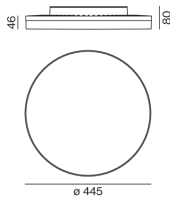


Round luminaire housing in die-cast aluminium; surface white powder coated; suitable for wall or ceiling mounting; time saving installation through snap-in mounting system; LED board highly reflective lacquered for higher efficiency; same luminance for all size versions; light colour 4000 K; binning initial MacAdam  $\leq 3$  SDCM; CRI  $\geq 80$ ; min. 90% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; completely homogeneously illuminated, satin PMMA cover; luminaire with 2 cable openings and plug-in terminal for through wiring; degree of protection IP50; PC1 220-240V; photobiological safety according to IEC 62471 risk group RG 0 - no Risk; shock resistance IK07; 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



IP50

IK 07

220-240V

X-PERT

X-PERT

### General

Ceiling / Wall , Surface

white , RAL9010 <sup>1</sup>

IP50

IK07

3240 lm

### LED

4000 K

CRI  $\geq 80$

L90 / 50000 h

photobio. safety RG 0 - no Risk

initial MacAdam  $\leq 3$  SDCM

MR 0.72

MDER 0.66

### Optical

Opal

PstLM  $\leq 1.0$  <sup>2</sup>

### Electrical

non DIM

no emergency light

23.2 W

PC1 220-240V

140 lm/W

### Physical

diameter 445 mm

height 80 mm

3.8 kg

<sup>1</sup> RAL code <sup>2</sup> Value of containing product at full load (undimmed)

## Installation instructions



# SONO 450 direct

surface

071-91466170



Project / Type

Notes

Count / Date

## Maintenance Factors

Operating Time [h]	10 000	20 000	30 000	40 000	50 000
LLMF	0.98	0.95	0.93	0.91	0.9
LSF	1	1	1	1	1

MF

MF

LMF<sup>a</sup>

LMF × RSMF × LLMF × LSF

Maintenance Factor

Luminaire Maintenance Factor

RSMF<sup>a</sup>

LLMF

LSF

Room Surface Maintenance Factor

Lamp Lumens Maintenance Factor

Lamp Survival Faktor

<sup>a</sup> 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	25
B13	32
B16	39
B20	49
C10	41
C13	53
C16	65
C20	81

