

# VELA 450 direct / indirect power

suspended  
073-12446170



Project / Type \_\_\_\_\_

Notes \_\_\_\_\_

Count / Date \_\_\_\_\_



**General**

Ceiling , Suspended \_\_\_\_\_

white , RAL 9010 <sup>1</sup> \_\_\_\_\_

IP40 \_\_\_\_\_

indirect 812 lm \_\_\_\_\_

direct 2070 lm \_\_\_\_\_

total 2880 lm \_\_\_\_\_

**LED**

4000 K \_\_\_\_\_

CRI ≥ 80 \_\_\_\_\_

L90 / 50000 h \_\_\_\_\_

initial MacAdam ≤ 3 SDCM \_\_\_\_\_

MR 0.72 \_\_\_\_\_

MDER 0.66 \_\_\_\_\_

**Optical**

Opal \_\_\_\_\_

opal (lambertsch) \_\_\_\_\_

PstLM ≤ 1.0 <sup>2</sup> \_\_\_\_\_

SVM ≤ 0.4 <sup>2</sup> \_\_\_\_\_

**Electrical**

non DIM \_\_\_\_\_

220-240 V \_\_\_\_\_

system 21.1 W \_\_\_\_\_

system 136 lm/W<sup>3</sup> \_\_\_\_\_

PC1 \_\_\_\_\_

**Physical**

cable 1500 mm \_\_\_\_\_

diameter 450 mm \_\_\_\_\_

height 87 mm \_\_\_\_\_

3.8 kg \_\_\_\_\_

Round luminaire housing in aluminium, rolled profile, seamlessly welded; surface white powder coated; highly reflective coating for improved efficiency; suspended luminaire with 1500mm cable suspension; with integrated toolless suspension height adjustment on the luminaire; incl. feed (white); completely homogeneously illuminated, satinised PMMA cover; direct / indirect radiation characteristic for additional accentuation of the ceiling; 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; canopy with 2 cable openings and plug-in terminal for through wiring; 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



<sup>1</sup> RAL code <sup>2</sup> Value of containing product at full load (undimmed)  
<sup>3</sup> 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	0.91	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 Factor

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

