

# VELA 450 direct / indirect power

suspended  
073-14455180



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

Notes \_\_\_\_\_

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



**General**

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

black , RAL 9005 <sup>1</sup> \_\_\_\_\_

IP40 \_\_\_\_\_

indirect 1200 lm \_\_\_\_\_

direct 3060 lm \_\_\_\_\_

total 4260 lm \_\_\_\_\_

**LED**

3000 K \_\_\_\_\_

CRI ≥ 80 \_\_\_\_\_

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

initial MacAdam ≤ 3 SDCM \_\_\_\_\_

MR 0.54 \_\_\_\_\_

MDER 0.49 \_\_\_\_\_

**Optical**

Opal \_\_\_\_\_

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

PstLM ≤ 1.0 <sup>2</sup> \_\_\_\_\_

SVM ≤ 0.4 <sup>2</sup> \_\_\_\_\_

**Electrical**

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

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

system 35 W \_\_\_\_\_

system 122 lm/W<sup>3</sup> \_\_\_\_\_

PC1 \_\_\_\_\_

**Physical**

rod 1000 mm \_\_\_\_\_

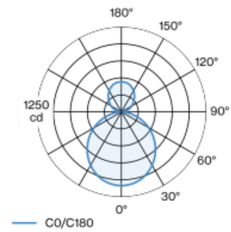
diameter 450 mm \_\_\_\_\_

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

4.1 kg \_\_\_\_\_

Round luminaire housing in aluminium, rolled profile, seamlessly welded; surface black powder coated; highly reflective coating for improved efficiency; suspended luminaire with adjustable pendant rod mounting (chrome) 1000mm, feed in rod; completely homogeneously illuminated, satinised PMMA cover; direct / indirect radiation characteristic for additional accentuation of the ceiling; light colour 3000 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	LMF × RSMF × LLMF × LSF		RSMF <sup>a</sup>	Room Surface Maintenance Factor	
MF	Maintenance Factor		LLMF	Lamp Lumens Maintenance Factor	
LMF <sup>a</sup>	Luminaire Maintenance Factor		LSF	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

