



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

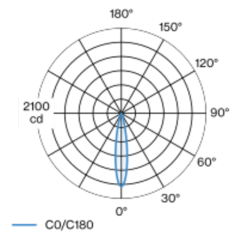
Notes \_\_\_\_\_

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



Miniature rectangular lamp made of aluminium; angular design; surface lacquered in black; plug and play electrical connector system for toolless mounting; different mechanical and electrical poles available - for flexible system design (available as an accessory); equipped with miniature spotlight heads; light colour 3000 K; binning initial MacAdam  $\leq 3$  SDCM; CRI  $\geq 95$ ; min. 80% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; incl. high quality lens system; precise radiation characteristic with 18° beam; light inset rotatable; degree of protection IP20; PC3; 24 V; accessories are listed separately; light source replaceable by an authorized professional;

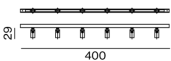
Light distribution



spot 18°

| h (m) | EO° (lx) | ø (m) |
|-------|----------|-------|
| 1     | 300      | 0.32  |
| 2     | 75       | 0.64  |
| 3     | 33       | 0.96  |
| 4     | 19       | 1.28  |
| 5     | 12       | 1.59  |

Product drawing



General

Showcase , Standing \_\_\_\_\_

rotation 360° \_\_\_\_\_

black , RAL 9021 <sup>1</sup> \_\_\_\_\_

IP20 \_\_\_\_\_

Interior \_\_\_\_\_

246 lm \_\_\_\_\_

optical inset 12 lm/W<sup>2</sup> \_\_\_\_\_

LED

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

CRI  $\geq 95$  \_\_\_\_\_

L80 / 50000 h \_\_\_\_\_

initial MacAdam  $\leq 3$  SDCM \_\_\_\_\_

R<sub>g</sub>: 102 , R<sub>r</sub>: 94 , R<sub>(1-15)</sub>: 95 \_\_\_\_\_

MR 0.61 \_\_\_\_\_

MDER 0.55 \_\_\_\_\_

Optical

spot \_\_\_\_\_

beam angle 18° \_\_\_\_\_

Electrical

excl. driver \_\_\_\_\_

24 V \_\_\_\_\_

fixture 4.4 W \_\_\_\_\_

optical inset 3.3 W \_\_\_\_\_

PC3 \_\_\_\_\_

Physical

length 400 mm \_\_\_\_\_

width 11 mm \_\_\_\_\_

height 29 mm \_\_\_\_\_

<sup>1</sup> RAL code <sup>2</sup> incl. consideration of optical losses

Installation instructions





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Maintenance Factors

| Operating Time [h] | 10 000 | 20 000 | 30 000 | 40 000 | 50 000 |
|--------------------|--------|--------|--------|--------|--------|
| LLMF               | 0.954  | 0.915  | 0.879  | 0.844  | 0.81   |
| 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.