

# PABLO shutter

180-5311188



Project / Type

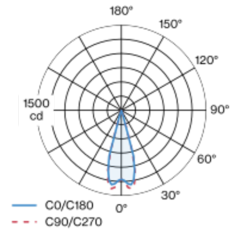
Notes

Count / Date



Track light made of die-cast aluminium; surface jet black powder coated; 360° rotatable and 310° tiltable; converter installed in aluminium spotlight housing; passive cooling of the LEDs through improved heat sink geometry; with COB (Chip on Board) technology for maximum efficiency; no appearance of multiple shadows; light colour 4000 K; binning initial MacAdam ≤ 2 SDCM; CRI ≥ 95; min. 85% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; contour spotlight for precise rectangular shape; easy adjustment by 4 stainless steel shading elements; incl. high quality bi-convex glass lens; sharp object focusing through adjustable lens; focusing by means of rubberised adjusting ring on the spotlight head; degree of protection IP20; PC1; 220-240 V; adapter for toolless insertion or movement on a variety of 3-phase power tracks; adapter fixation by means of set screw; incl. converter, dimmable with integrated potentiometer; point outlet, either in surface mounted housing or recessed housing, available as an accessory; accessories are listed separately; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

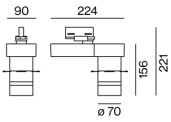
## Light distribution



framing 31°

h (m)	EO° (lx)	ø (m)
1	1210	0.56
2	300	1.12
3	130	1.68
4	80	2.24
5	50	2.79

## Product drawing



### General

Ceiling | Track

tilt max 310°

rotation 360°

jet black | RAL 9005 <sup>1</sup>

IP20

327 lm

### LED

4000 K

CRI ≥ 95

L85 / 50000h

initial MacAdam ≤ 2 SDCM

R<sub>g</sub>: 98 | R<sub>f</sub>: 91 | R<sub>(f-15)</sub>: 96

MR 0.85 | MDER 0.77

### Optical

framing | beam angle 31°

PstLM ≤ 1.0 <sup>2</sup> | SVM ≤ 0.4 <sup>2</sup>

### Electrical

DIM POTI

PC1 | 220-240 V

system 23.0 W

system 14 lm/W <sup>3</sup>

### Physical

diameter 70 mm | height 156 mm

1 kg

set screw (tool required)

<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	0.97	0.95	0.93	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

