

# PABLO shutter

180-5320188



Project / Type

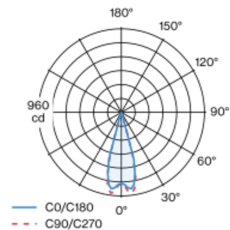
Notes

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 without tools by means of knurled 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;

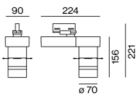
## Light distribution



framing 31°

h (m)	EO° (lx)	ø (m)
1	814	0.56
2	204	1.12
3	90	1.68
4	51	2.24
5	33	2.79

## Product drawing



### General

Ceiling | Track

tilt max 310°

rotation 360°

jet black | RAL 9005

IP20

220 lm

### LED

4000 K

CRI ≥ 95

L85 / 50000h

initial MacAdam ≤ 2 SDCM

R<sub>g</sub>: 98 | R<sub>f</sub>: 91 | R<sub>(1-15)</sub>: 96

MR 0.85 | MDER 0.77

### Optical

framing | beam angle 31°

PstLM ≤ 1.0 <sup>1</sup> | SVM ≤ 0.4 <sup>1</sup>

### Electrical

DIM POT1

PC1 | 220-240 V

system 14.0 W

system 16 lm/W <sup>2</sup>

### Physical

diameter 70 mm | height 156 mm

1 kg

tool-free fixation

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

MF

Maintenance Factor

LMF<sup>a</sup>

Luminaire Maintenance Factor

RSMF<sup>a</sup>

Room Surface Maintenance Factor

LLMF

Lamp Lumens 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

## Mounting accessories

### SURFACE HOUSING / POINT OUTLET

COLOUR	Ø (MM)	ARTICLE NUMBER(S)
traffic white	120	186-072287
jet black	120	186-072288

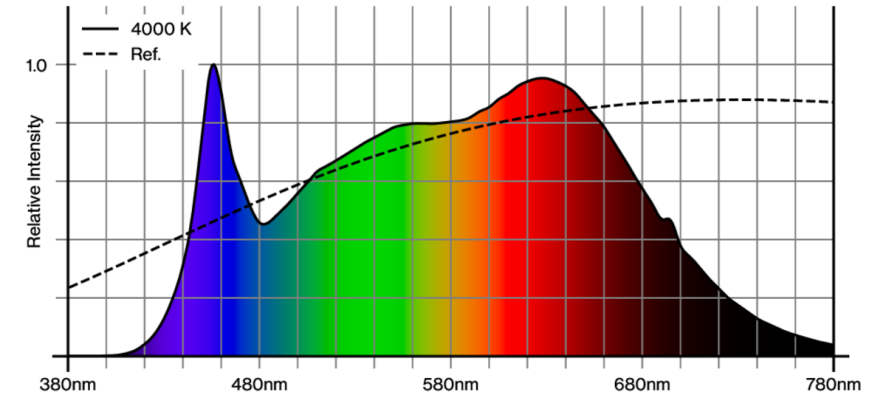


### RECESSED HOUSING / POINT OUTLET

TYPE	COLOUR	Ø (MM)	ARTICLE NUMBER(S)
ceiling thickness	traffic white	151	186-072277
ceiling thickness	jet black	151	186-072278



## Colour rendering

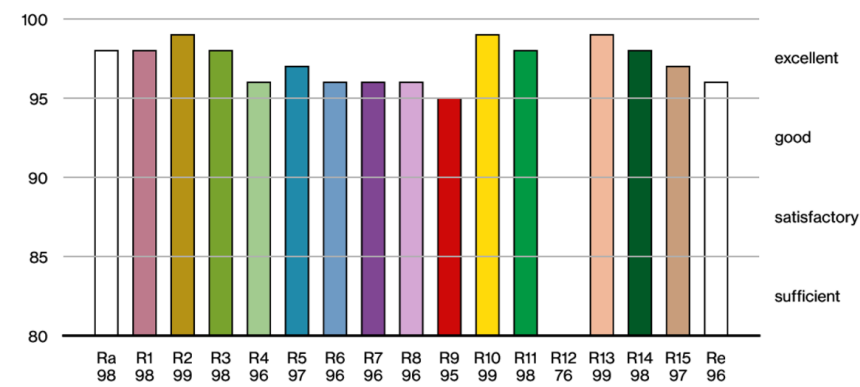




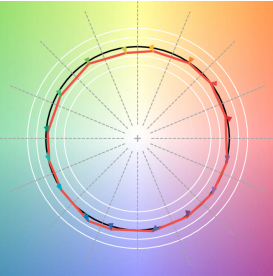
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TM30 colour vector graphic



The black line represents the black body reference. The red line indicates the results of the test light source. The deviation from the test light source to the reference is shown and is marked by arrows. The shorter the arrows, the higher the color rendering.