



Project / Type _____

Notes _____

Count / Date _____



220-240V

220-240V

X-PERT

UGR

UGR

CRI

CRI

X-PERT

General

Ceiling , Track

tilt max 310°

rotation 360°

black , RAL9005 ¹

IP20

298 lm

LED

3000 K

CRI ≥ 95

L90 / 50000 h

initial MacAdam ≤ 2 SDCM

R_g: 99 , R_f: 94 , R_{t(1-15)}: 96

MR 0.66

MDER 0.6

Optical

framing

beam angle 31°

PstLM ≤ 1.0 ²

SVM ≤ 0.4 ²

Track light made of die-cast aluminium; surface 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 3000 K; binning initial MacAdam ≤ 2 SDCM; CRI ≥ 95; min. 90% 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 220-240V; 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;

Electrical

DIM POTI

23.0 W

PC1 220-240V

13 lm/W

inset 15 lm/W

Physical

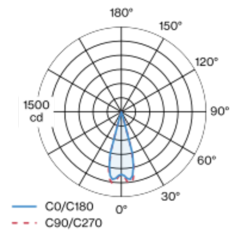
diameter 70 mm

height 156 mm

1 kg

tool-free fixation

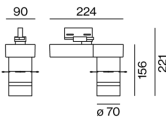
Light distribution



framing 31°

h (m)	E0° (lx)	ø (m)
1	1100	0.56
2	280	1.12
3	120	1.68
4	70	2.24
5	40	2.79

Product drawing



¹ RAL code ² Value of containing product at full load (undimmed)

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^a

Luminaire Maintenance Factor

RSMF^a

Room Surface Maintenance Factor

LLMF

Lamp Lumens Maintenance Factor

LSF

Lamp Survival Faktor

^a 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