



Project / Type

Notes

Count / Date



**General**

Ceiling , Track

tilt max 310°

rotation 360°

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

IP20

1080 lm

**LED**

4000 K

CRI ≥ 95

L90 / 50000 h

initial MacAdam ≤ 2 SDCM

R<sub>g</sub>: 98 , R<sub>f</sub>: 91 , R<sub>(1-15)</sub>: 95

MR 0.85

MDER 0.77

**Optical**

spot

beam angle 12°

PstLM ≤ 1.0 <sup>2</sup>

SVM ≤ 0.4 <sup>2</sup>

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 4000 K; binning initial MacAdam ≤ 2 SDCM; CRI ≥ 95; min. 90% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; including high quality aluminium reflector with spherical reflector; high gloss anodised; neutral colour reflection through absolute freedom from interference colour; for brilliant object staging; precise radiation characteristic with 12° beam; installed and exchanged without tools; optical attachments available as accessories; 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. DALI-2 converter; 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**

DALI-2

220-240 V

system 13.9 W

system 78 lm/W<sup>3</sup>

PC1

1 DALI Addr.

**Physical**

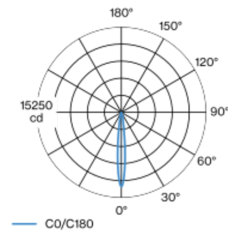
diameter 70 mm

height 98 mm

0.9 kg

tool-free fixation

Light distribution



spot 12°

h (m)	E0° (lx)	ø (m)
1	13300	0.20
2	3300	0.40
3	1500	0.60
4	800	0.81
5	500	1.01

Product drawing



<sup>1</sup> RAL code <sup>2</sup> Value of containing product at full load (undimmed)  
<sup>3</sup> FIXTURE: incl. consideration of optical losses & internal control unit losses SYSTEM: 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 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.

Circuit Breaker Types

Automatic Circuit Breaker Type	Number of Fixtures
B13	100
B16	122
B20	153
C13	59
C16	72
C20	90

Mounting accessories

RECESSED HOUSING

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



SURFACE HOUSING

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



Optical accessories

SNOOT

COLOUR	Ø (MM)	ARTICLE NUMBER(S)
jet black	62	080-5900008



HONEYCOMB LOUVER

COLOUR	Ø (MM)	ARTICLE NUMBER(S)
jet black	61	080-5900018

