



Project / Type _____

Notes _____

Count / Date _____



General

Ceiling , Track
 tilt max 310°
 rotation 360°
 black , RAL 9005 ¹
 IP20
 890², 911³, 961⁴, 981⁵, 1010⁶, 1010⁷ lm

LED

3000 K
 CRI ≥ 90
 L85 / 50000 h
 initial MacAdam ≤ 2 SDCM
 R_g: 98 , R_f: 91 , R₍₁₋₁₅₎: 89
 MR 0.6
 MDER 0.55

Optical

wide flood², medium³, flood⁴, flood⁵, spot⁶, super spot⁷
 beam angle 64°², 30°³, 38°⁴, 40°⁵, 19°⁶, 10°⁷
 PstLM ≤ 1.0^{3 4 6 7 5 2 8}
 SVM ≤ 0.4^{3 4 6 7 5 2 8}

Electrical

DIM POT1
 220-240 V
 system 14.7 W
 system 61², 62³, 65⁴, 67⁵, 69⁶, 69⁷ lm/W⁹
 PC1

Physical

diameter 70 mm
 height 98 mm
 0.92 kg
 tool-free fixation

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 ≥ 90; min. 85% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; incl. exchangeable additional lenses; precise radiation characteristics with different beam angles; optical filter available as accessory; 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;

¹ RAL code ² 64 degrees ³ 30 degrees ⁴ 38 degrees
⁵ 40 degrees ⁶ 19 degrees ⁷ 10 degrees

⁸ Value of containing product at full load (undimmed)

⁹ 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

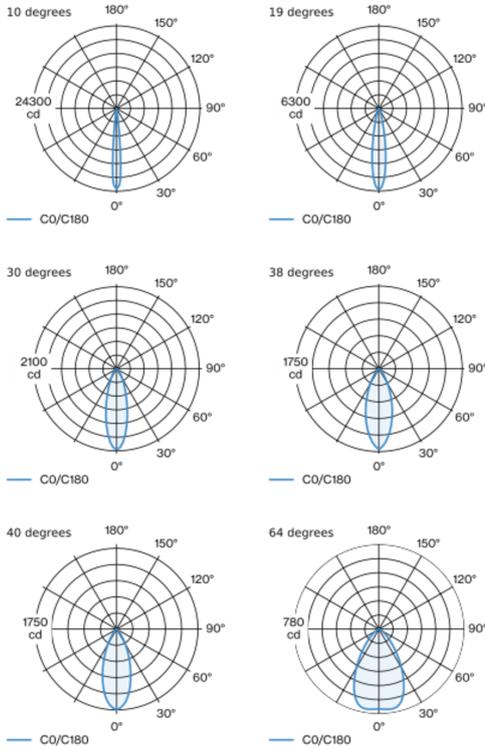


Lighting calculator

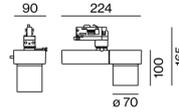




Light distribution



Product drawing



super spot 10°

h (m)	E0° (lx)	ø (m)
1	23700	0.18
2	5900	0.36
3	2600	0.53
4	1500	0.71
5	900	0.89

spot 19°

h (m)	E0° (lx)	ø (m)
1	6160	0.33
2	1540	0.65
3	680	0.98
4	390	1.31
5	250	1.63

medium 30°

h (m)	E0° (lx)	ø (m)
1	2070	0.54
2	520	1.08
3	230	1.63
4	130	2.17
5	80	2.71

flood 38°

h (m)	E0° (lx)	ø (m)
1	1710	0.69
2	430	1.37
3	190	2.06
4	110	2.75
5	70	3.43

flood 40°

h (m)	E0° (lx)	ø (m)
1	1750	0.72
2	440	1.44
3	190	2.16
4	110	2.88
5	70	3.60

wide flood 64°

h (m)	E0° (lx)	ø (m)
1	735	1.24
2	184	2.48
3	82	3.72
4	46	4.96
5	29	6.19



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Maintenance Factors

Operating Time [h]	10 000	20 000	30 000	40 000	50 000
LLMF	0.98	0.95	0.92	0.89	0.86
LSF	1	1	1	1	1

MF	LMF × RSMF × LLMF × LSF	RSMF ^a	Room Surface Maintenance Factor
MF	Maintenance Factor	LLMF	Lamp Lumens Maintenance Factor
LMF ^a	Luminaire 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

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

OVAL FILTER

TYPE	ARTICLE NUMBER(S)
60 x 15°	080-5900020

