



Project / Type \_\_\_\_\_

Notes \_\_\_\_\_

Count / Date \_\_\_\_\_



**General**

Ceiling , Track \_\_\_\_\_

tilt max 310° \_\_\_\_\_

rotation 360° \_\_\_\_\_

black , RAL9005 <sup>1</sup> \_\_\_\_\_

IP20 \_\_\_\_\_

231 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**

framing \_\_\_\_\_

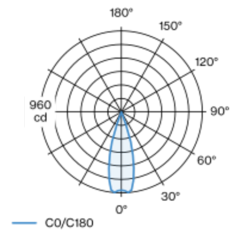
beam angle 32° \_\_\_\_\_

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; contoured spotlight for precise circular shape; easy adjustment by iris-shaped shielding device made of stainless steel; including 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 by means of set 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;

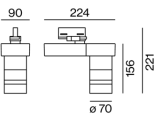
Light distribution



framing 32°

h (m)	E0° (lx)	ø (m)
1	929	0.57
2	232	1.13
3	103	1.70
4	58	2.26
5	37	2.83

Product drawing



**Electrical**

DALI-2 \_\_\_\_\_

14.0 W \_\_\_\_\_

PC1 220-240V \_\_\_\_\_

17 lm/W \_\_\_\_\_

inset 19 lm/W \_\_\_\_\_

1 DALI Addr. \_\_\_\_\_

**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)

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