

# TUBO 60

surface

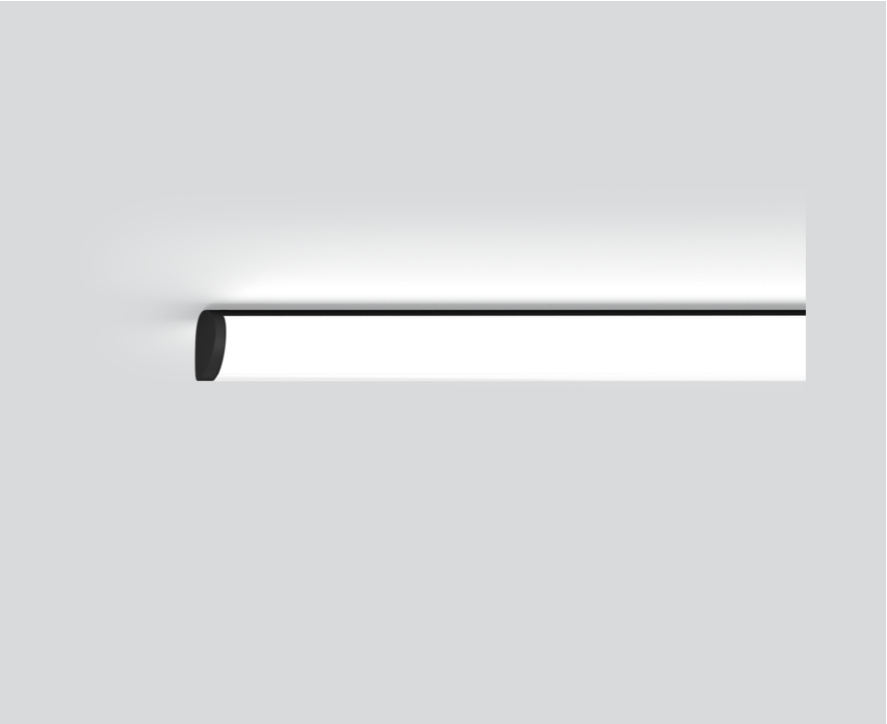
058-31145380



Project / Type

Notes

Count / Date



RG0  
IEC 62471

220-240V

X-PERT

X-PERT

### General

Ceiling / Wall , Surface

black , RAL9005 <sup>1</sup>

2690 lm/m

IP20

3180 lm

### LED

3000 K

CRI ≥ 80

L90 / 50000 h

photobio. safety RG 0 - no Risk

initial MacAdam ≤ 3 SDCM

MR 0.56

MDER 0.51

### Optical

High Performance Opal

opal (lambertsch)

PstLM ≤ 1.0 <sup>2</sup>

SVM ≤ 0.4 <sup>2</sup>

### Electrical

DALI-2

system 27.9 W

PC1 220-240V

system 114 lm/W<sup>3</sup>

1 DALI Addr.

24 W/m

### Physical

length 1210 mm

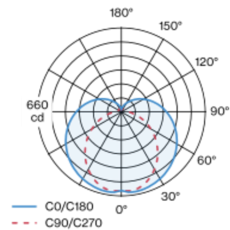
width 60 mm

height 60 mm

3.4 kg

<sup>1</sup> RAL code <sup>2</sup> Value of containing product at full load (undimmed)  
<sup>3</sup> incl. optical losses and the efficiency of the operating device (converter)

### Light distribution



### Product drawing



### Installation instructions



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## Maintenance Factors

Operating Time [h]	10 000	20 000	30 000	40 000	50 000
LLMF	0.98	0.96	0.94	0.92	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
B10	18
B13	24
B16	30
B20	37
C10	31
C13	40
C16	51
C20	62

