

# TUBIN 60

surface

058-5112037C



Project / Type

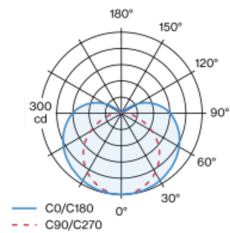
Notes

Count / Date



Carrier profile made of extruded aluminium profile; light-tight end caps in aluminium; converter integrated into luminaire housing; surface white powder coated; suitable for wall or ceiling mounting; easy installation using ceiling clips; light control via high quality lens system for maximum, homogeneous illumination; light colour 3000 K; binning initial MacAdam  $\leq 3$  SDCM; CRI  $\geq 90$ ; min. 90% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; clear, cylindrical cover with linear prismatic optic; with gentle ceiling illumination; degree of protection IP20; PC1; 220-240 V; incl. DALI-2 converter; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

## Light distribution



## Product drawing



### General

Ceiling / Wall , Surface

white , RAL 9010 <sup>1</sup>

IP20

1470 lm

2460 lm/m

### LED

3000 K

CRI  $\geq 90$

L90 / 50000 h

initial MacAdam  $\leq 3$  SDCM

R<sub>g</sub>: 99 , R<sub>r</sub>: 91 , R<sub>{t(1-15)}</sub>: 89

MR 0.61

MDER 0.55

### Optical

Clear Cover

opal (lambertsch)

PstLM  $\leq 1.0$  <sup>2</sup>

SVM  $\leq 0.4$  <sup>2</sup>

### Electrical

DALI-2

220-240 V

system 13.9 W

system 106 lm/W<sup>3</sup>

PC1

23 W/m

### Physical

length 625 mm

width 60 mm

height 60 mm

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

## 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 Factor	

<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	15
B13	19
B16	24
B20	30
C10	24
C13	32
C16	40
C20	49

