

# UNICO L4 basic high efficient

ceiling  
090-1L413CBB11



Project / Type

Notes

Count / Date



Rectangular surface mounted multi-downlight made of aluminium; luminaire housing can be attached to mounting plate without tools by interlock; converter integrated into luminaire housing; surface black powder coated; equipped with four flood round light elements; symmetrical light distribution with precise radiation characteristic, beam angle 46°; high quality reflector with micro-faceted, aluminum-vaporised surface; Reflector black; UGR ≤ 19; passive cooling of the LEDs through improved heat sink geometry; light colour 4000 K; binning initial MacAdam ≤ 3 SDCM; CRI ≥ 90; min. 85% of luminous flux after 50000 operating hours; energy-efficient high power LEDs with very good colour rendering; degree of protection IP20; PC1; 220-240 V; incl. DALI-2 converter; light source not replaceable; control gear replaceable by an authorized professional; clank-free;

## Light distribution



## Product drawing



### General

Ceiling | Surface

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

Reflector black

IP20

1900 lm

### LED

4000 K

CRI ≥ 90

L85 / 50000 h

initial MacAdam ≤ 3 SDCM

R<sub>g</sub>: 99 | R<sub>f</sub>: 92 | R<sub>t(1-15)</sub>: 90

MR 0.81 | MDER 0.74

### Optical

flood round | beam angle 46°

UGR ≤ 19

PstLM ≤ 1.0 <sup>2</sup> | SVM ≤ 0.4 <sup>2</sup>

### Electrical

DALI-2

PC1 | 220-240 V

system 15.3 W

system 124 lm/W <sup>3</sup>

### Physical

length 164 mm | width 51 mm | height 90 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



## Lighting calculator



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## Maintenance Factors

Operating Time [h]	10 000	20 000	30 000	40 000	50 000
LLMF	0.982	0.954	0.926	0.899	0.873
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	72
B16	115
C10	106
C16	170

