

**BETO** direct / indirect TW  
power  
suspended  
074-62D9048R



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

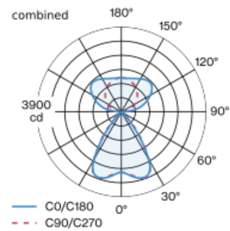
Notes \_\_\_\_\_

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

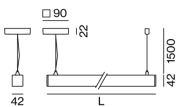


Luminaire housing made of extruded aluminium profile; extremely slim design (only 42 x 42 mm); light tight final end caps made of aluminium; no visible screws; angular design; surface black powder coated; suspended luminaire with 1500mm cable suspension; with integrated toolless suspension height adjustment on the luminaire; spring clip attachment to the luminaire; freely positionable; incl. feed (black); extruded profile for improved thermal management; high gloss reflector with faceted design; Reflector chrome; direct/indirect illumination characteristic; light colour direct light component: 3000 K; light colour indirect light component: tunable white diodes (2700-6500 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; UGR  $\leq 13$ ; VDU compatible workplace luminaire according to DIN EN 12464-1; luminance above  $65^\circ \leq 1500$  cd/m<sup>2</sup>; indirect light component with integrated PC boards and high quality lens system for maximum, homogeneous ceiling illumination, separately controllable; degree of protection IP20; PC1; 220-240 V; internal wiring in light halogen free; incl. DALI-2 converter; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

Light distribution



Product drawing



General

Ceiling , Suspended \_\_\_\_\_

black , RAL 9005 <sup>1</sup> \_\_\_\_\_

Reflector chrome \_\_\_\_\_

IP20 \_\_\_\_\_

indirect 6110 lm \_\_\_\_\_

direct 4450 lm \_\_\_\_\_

total 10560 lm \_\_\_\_\_

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

Reflector \_\_\_\_\_

symmetric \_\_\_\_\_

UGR  $\leq 13$  ,  $\geq 65^\circ < 1500$  cd/m<sup>2</sup> \_\_\_\_\_

PstLM  $\leq 1.0^2$  <sup>3</sup> \_\_\_\_\_

SVM  $\leq 0.4^2$  <sup>3</sup> \_\_\_\_\_

Electrical

DALI-2 D/I separately controllable \_\_\_\_\_

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

system 93 W \_\_\_\_\_

system 114 lm/W<sup>4</sup> \_\_\_\_\_

PC1 \_\_\_\_\_

2 DALI Addr. \_\_\_\_\_

Physical

length 3057 mm \_\_\_\_\_

width 42 mm \_\_\_\_\_

height 42 mm \_\_\_\_\_

5 kg \_\_\_\_\_

<sup>1</sup> RAL code <sup>2</sup> combined

<sup>3</sup> Value of containing product at full load (undimmed)

<sup>4</sup> 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





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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

MF

Maintenance Factor

LMF<sup>a</sup>

Luminaire Maintenance Factor

RSMF<sup>a</sup>

Room Surface Maintenance Factor

LLMF

Lamp Lumens 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	5
B13	6
B16	8
B20	10
C10	8
C13	11
C16	14
C20	18