

# TULA micro suspended

canopy surface

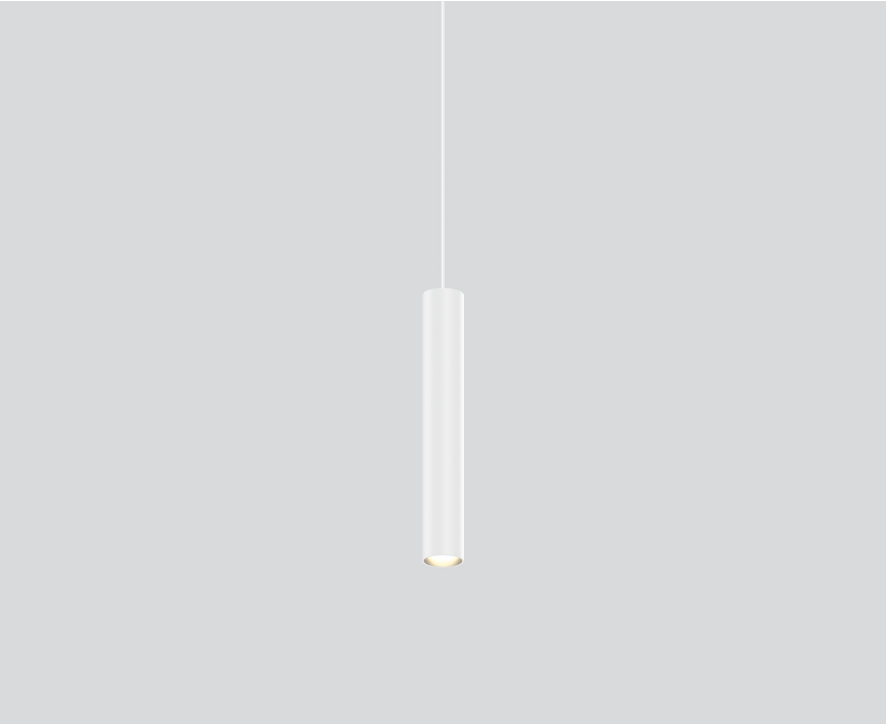
049-5515517F 005-2602137



Project / Type

Notes

Count / Date



Decorative suspended luminaire in aluminium; surface traffic white powder coated; pendant fitting with 1500mm suspension; incl. feed (white), can be individually shortened; 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 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; good glare control through recessed light point level; incl. high quality lens system; precise radiation characteristic with 44° beam; degree of protection IP20; PC2; 220-240 V; light source not replaceable; control gear replaceable by an authorized professional;

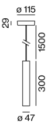
## Light distribution



flood 44°

h (m)	EO° (lx)	ø (m)
1	1480	0.82
2	370	1.64
3	160	2.45
4	90	3.27
5	60	4.09

## Product drawing



## General

Ceiling | Suspended

traffic white | RAL 9016

Canopy traffic white

IP20

798 lm

## LED

3000 K

CRI  $\geq 90$

L90 / 50000 h

initial MacAdam  $\leq 3$  SDCM

R<sub>g</sub>: 100 | R<sub>f</sub>: 90 | R<sub>f(1-15)</sub>: 87

MR 0.59 | MDER 0.54

## Optical

flood | beam angle 44°

PstLM  $\leq 1.0$ <sup>1 2 3 4</sup> | SVM  $\leq 0.4$ <sup>1 2 3 4</sup>

## Electrical

DALI-2 | 1 DALI Addr.

PC2 | 220-240 V

system 11.3 W | fixture 8.4 W

fixture 95 lm/W<sup>5</sup>

18 Vf | 500 mA

## Physical

diameter 47 mm | height 300 mm

0.52 kg

<sup>1</sup> oval lens BO 45 007-1965880 <sup>2</sup> soft lens BO 45 007-1965980  
<sup>3</sup> wallwasher lens BO 45 007-1965780  
<sup>4</sup> Value of containing product at full load (undimmed)  
<sup>5</sup> incl. consideration of optical losses & internal control unit losses

## 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	0.96	0.95	0.93	0.92
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.

## Components

### CANOPY for cable suspension

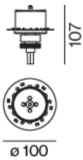
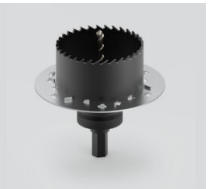
COLOUR	Ø (MM)	ARTICLE NUMBER(S)
traffic white	115	005-2602137



## Mounting accessories

### SPECIAL MOUNTING TOOL

TYPE	Ø (MM)	ARTICLE NUMBER(S)
for ARY   MOVE IN 45   NOBA trimless   TULA	100	063-8912110



### RING ceiling mounted

COLOUR	Ø (MM)	ARTICLE NUMBER(S)
traffic white	50	050-0510217
jet black	50	050-0510218



### HOOK ceiling mounted

COLOUR	Ø (MM)	ARTICLE NUMBER(S)
traffic white	18	050-0510317
jet black	18	050-0510318



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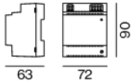


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## Optional electrical accessories

### DIN RAIL POWER SUPPLY

L-W-H (MM)	ARTICLE NUMBER(S)
72-90-63	005-6520210



### DIN RAIL LED DRIVER

L-W-H (MM)	ARTICLE NUMBER(S)
36-88-59	005-6121030



## Optical accessories

### OVAL LENS

TYPE	Ø (MM)	ARTICLE NUMBER(S)
for BO 45   MOVE IN 45   TULA micro	42	007-1965880



### SOFT LENS

TYPE	Ø (MM)	ARTICLE NUMBER(S)
for ARY   BO 45   MOVE IN 45   TULA micro	42	007-1965980



### WALLWASHER LENS

TYPE	Ø (MM)	ARTICLE NUMBER(S)
for ARY   BO 45   MOVE IN 45   TULA micro	42	007-1965780



### HONEYCOMB LOUVER

TYPE	COLOUR	Ø (MM)	ARTICLE NUMBER(S)
for BO 45   JUST 45   MOVE IN 45   TARO 45   TULA micro	jet black	42	007-1965188



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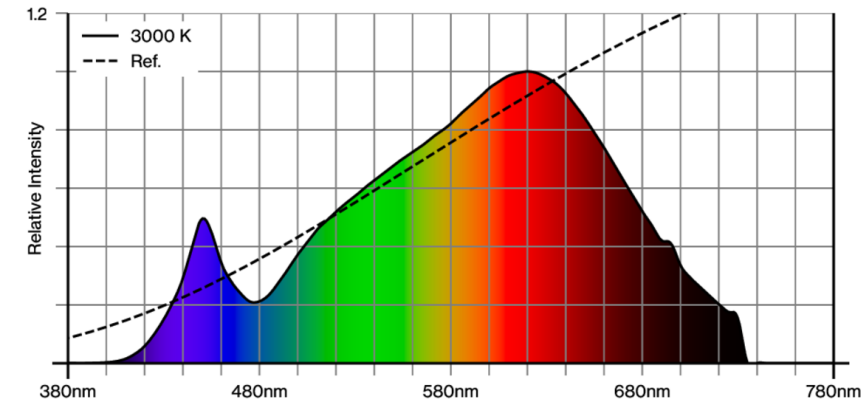


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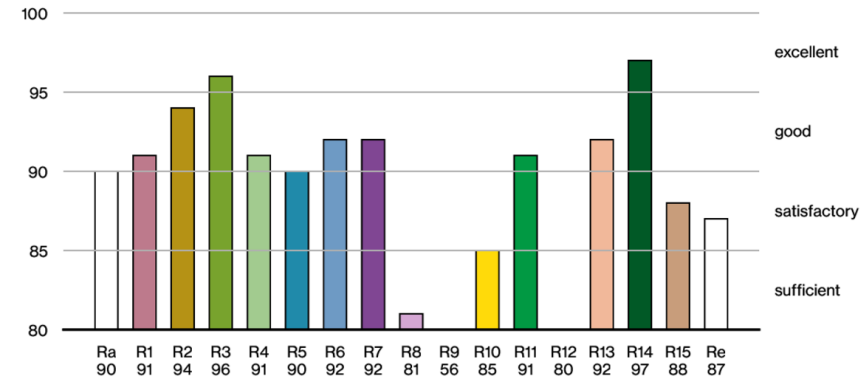
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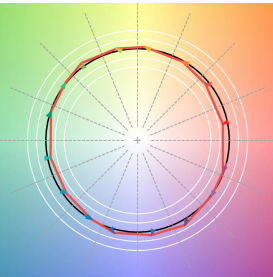
## Colour rendering



CRI/R<sub>a</sub> ≥ 91 R<sub>e</sub> ≥ 87 (3000 K)



## TM30 colour vector graphic



The black line represents the black body reference. The red line indicates the results of the test light source. The deviation from the test light source to the reference is shown and is marked by arrows. The shorter the arrows, the higher the color rendering.

