

# INO 1500 circle

suspended  
034-3445538H



Project / Type

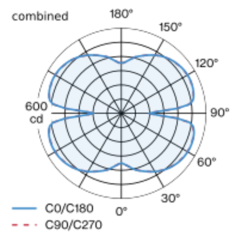
Notes

Count / Date

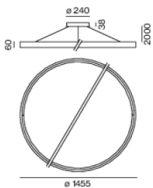


Ring-shaped light fitting in rolled and seamlessly welded extruded aluminium profile; surface jet black powder coated; suspended luminaire with 2000mm cable suspension (canopy central); height adjustment without tools; incl. transparent feed; electronic operating unit installed in the canopy; light colour 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; HPO (High Performance Opal) cover for uniform illumination; inwards facing emission characteristics; direct/indirect light emission for additional accentuation of the ceiling; canopy with 2 cable openings and plug-in terminal for through wiring; degree of protection IP20; PC1; 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

jet black | RAL 9005

IP20

indirect 3040 lm | direct 3050 lm

total 6090 lm

## LED

3000 K

CRI  $\geq 90$

L90 / 50000 h

initial MacAdam  $\leq 3$  SDCM

R<sub>g</sub>: 99 | R<sub>f</sub>: 91 | R<sub>f(1-15)</sub>: 89

MR 0.61 | MDER 0.55

## Optical

High Performance Opal | opal (lambertsch)

P<sub>stLM</sub>  $\leq 1.0^{1\ 2}$  | SVM  $\leq 0.4^{1\ 2}$

## Electrical

DALI-2 | 1 DALI Addr.

PC1 | 220-240 V

system 62 W

system 98 lm/W<sup>3</sup>

## Physical

cable 2000 mm

diameter 1455 mm | height 60 mm

5.4 kg

<sup>1</sup> combined <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

MF

Maintenance Factor

LMF<sup>a</sup>

Luminaire Maintenance Factor

RSMF<sup>a</sup>

Room Surface Maintenance Factor

LLMF

Lamp Lumens Maintenance Factor

LSF

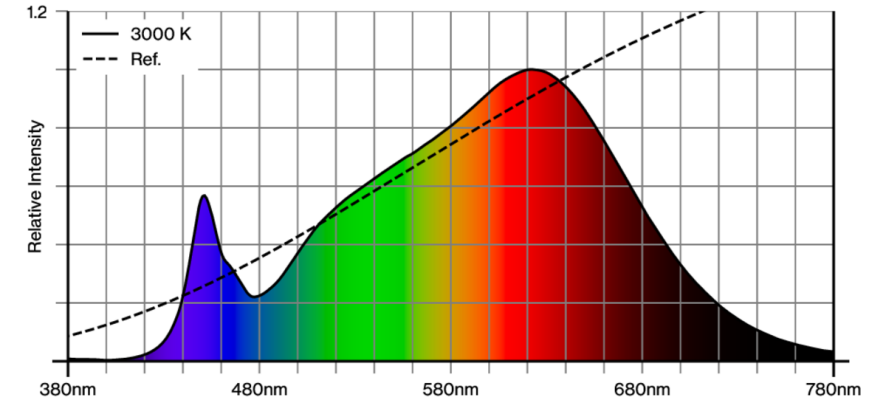
Lamp Survival Factor

<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.

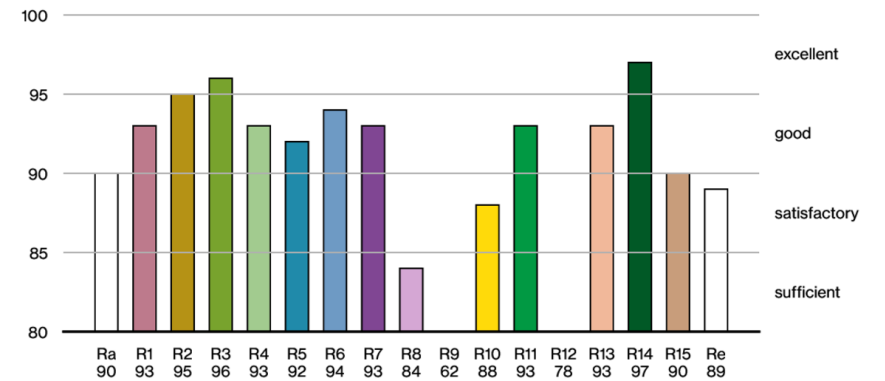
## Circuit Breaker Types

Automatic Circuit Breaker Type	Number of Fixtures
B10	6
B13	8
B16	10
B20	12
C10	10
C13	13
C16	16
C20	20

## Colour rendering



## CRI/R<sub>a</sub> ≥ 92 R<sub>e</sub> ≥ 89 (3000 K)



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## 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.