

# UNICO Q4 basic high efficient

ceiling  
090-1Q413FW011



Project / Type

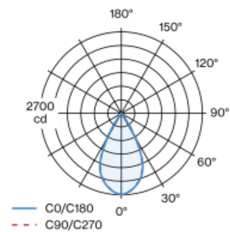
Notes

Count / Date

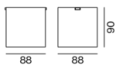


Square surface mounted multi-downlight made of aluminium; luminaire housing can be attached to mounting plate without tools by interlock; converter integrated into luminaire housing; surface traffic white powder coated; equipped with four flood square light elements; symmetrical light distribution with precise radiation characteristic; beam angle 54°; high quality reflector with micro-faceted, aluminum-vaporised surface; Reflector chrome; 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

traffic white | RAL 9016

Reflector chrome

IP20

1990 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>i(1-15)</sub>: 90

MR 0.81 | MDER 0.74

## Optical

flood square | beam angle 54°

UGR ≤ 19

## Electrical

DALI-2 | 1 DALI Addr.

PC1 | 220-240 V

system 15.7 W

system 127 lm/W <sup>1</sup>

## Physical

length 88 mm | width 88 mm | height 90 mm

0.5 kg

<sup>1</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      |

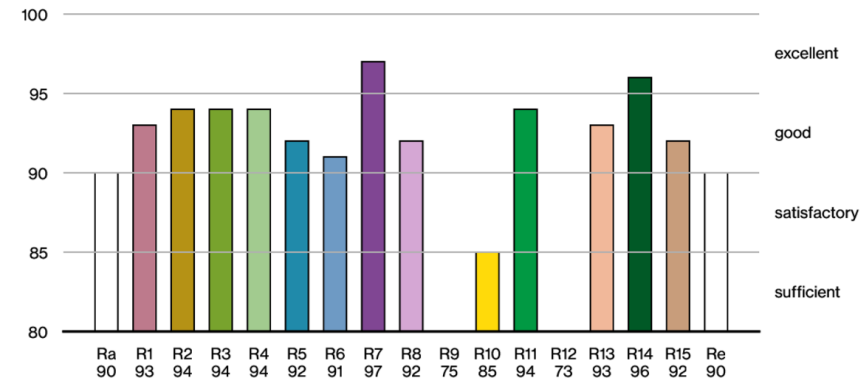
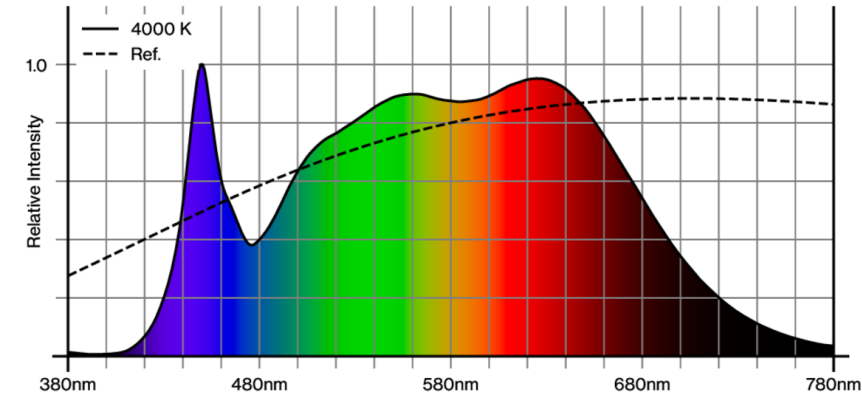
|                  |                              |                   |                                 |
|------------------|------------------------------|-------------------|---------------------------------|
| MF               | LMF × RSMF × LLMF × LSF      | RSMF <sup>a</sup> | Room Surface Maintenance 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.

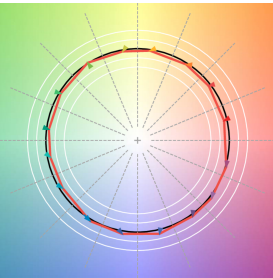
## Circuit Breaker Types

| Automatic Circuit Breaker Type | Number of Fixtures |
|--------------------------------|--------------------|
| B13                            | 40                 |
| B16                            | 50                 |
| B20                            | 62                 |
| C13                            | 67                 |
| C16                            | 85                 |
| C20                            | 104                |

## Colour rendering



## 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.

