Photometric Laboratory
Measurement report 202468G003

DIAL
light. building. software.

Name and address of customer

Kacem Electronic Industry
Kerkennah 3070
Sfax, Tunesia

Description of device under test („DUT")

Kacem Electronic Industry
Play I

Type of luminaire/lamp

1 x OSRAM Vialox NAV-T 4Y Super (SON-T Plus) 150W

Electronic gear

Kacem Electronic Industry Na-Na OHgl.150 Ref: 815003

Date of receipt of DUT

05.10.2015

Date of measurement

20.10.2015

Details of order

Measurement of light distribution and luminous flux according to EN 13032-1:2012-06

Measurement procedure

Measurement in an eccentric goniomultimeter with rotating mirror according to EN 13032-1:2012-06

Instructions for measurement

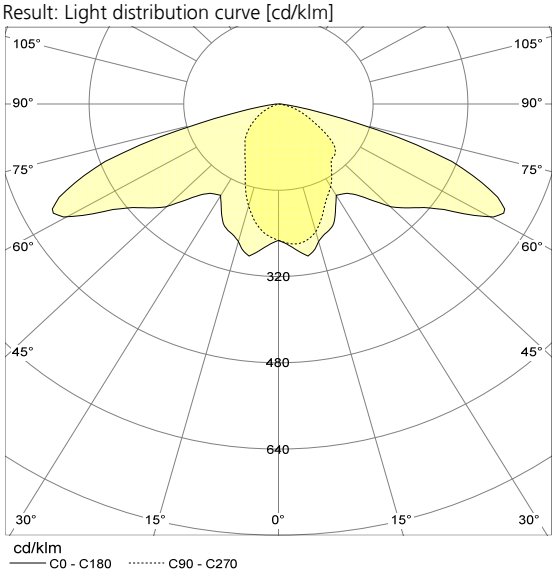
QMMA01 Test instruction for the measurement of light distribution and colorimetric values in the goniomultimeter with rotating mirror

Comments

Certification
The results apply solely to the above-mentioned measuring configuration. The implementation of other luminaires, operation equipment and lamps will lead to different results. If these measurements are to be repeated, then the devices under test are marked with the label "DUT" and the report number which should be retained by the customer.

Measurement uncertainty
This report refers to the expanded measurement uncertainty arising from the multiplication of the standard uncertainty in measurement by the extended tolerance factor k = 2. The measurement uncertainty arises from a combination of the uncertainty in measurement within the procedure itself and in the object being tested.

Result: Light distribution curve [cd/klm]



Result: Light output ratio (LOR)*

LOR = 71.9 %

Result: Measured values

Lamp luminous flux	20,994.0 lm
Luminaire luminous flux	15,085.5 lm
Upper hemisphere	Lower hemisphere
0.0 lm	15,085.5 lm
0.0 %	100.0 %
Efficacy of luminaire	74.5 lm/W

Nominal values

Lamp luminous flux	17,500.0 lm
Luminaire luminous flux	12,574.8 lm
Upper hemisphere	Lower hemisphere
0.0 lm	12,574.8 lm
0.0 %	100.0 %

*Measuring uncertainty at k=2 5.0 %

Lüdenscheid, 18.12.2015

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Thomas Pittner M.Sc., Lighting team

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Felix Schirmer, Lighting team

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DAkkS
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D-PL-17358-01-00

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Kacem Electronic Industry

Date of measurement
20.10.2015

Device
Kacem Electronic Industry
Play I

Total nominal luminous flux
Φ = 17,500 lm

Result: Maximum light intensity at C = 182.5° and γ = 62.5°
434.1 cd / klm

Result: Symmetrical properties
symmetrical to C90/C270

Position of device

according to customer	during measurement
horizontal	horizontal

Light centre
Light output

Coordinates

Starting angle C	Final angle C	Measured in C steps
0.0°	357.5°	2.5°

Starting angle γ	Final angle γ	Measured in γ steps
0.0°	90.0°	2.5°

Luminaire dimensions [mm]

Length	Width	Height
600	280	235

Dimensions of illuminated/luminous area [mm]

Length	Width	Height
290	200	0

Stability of luminous flux of lamp and/or luminaire
< 0.3 %

Classification

DIN 5040 Teil 2	A40
BZ (CIBSE TM 5)	BZ 6/0.75/BZ 5
UTE C71-121	0.72E
CIE FLUX CODE	42 75 97 100 72

DUT

(1) 1 x Vialox NAV-T 4Y Super (SON-T Plus) 150W
(1 x HST 150W)

Nominal luminous flux / Measured luminous flux
(1) Φ = 17,500.0 lm / 20,994.0 lm

Control gear / Ballast
(1) Na-Na OHgl.150 Ref: 815003

Ambient temperature during measurement [°C]

Measuring point	T_{MIN}	T_{MAX}	T_{AVG}
Environment	24.9	25.1	25.0

Electrical operating parameters

Measuring point	U [VAC]	I [A]	P [W]
Primary circuit	230.0	0.957	202.4

Test Equipment

(1) Device: AC Power Source
Brand: Hewlett Packard
Type: 6813A

(2) Device: Digital Power Meter
Brand: Yokogawa
Type: WT-210

(3) Device: Eccentric goniophotometer with rotating mirror
Brand: Czibula&Grundmann GmbH
Type: Unique

(4) Device: Standard Light Source
Brand: Czibula&Grundmann GmbH
Type: WI-41

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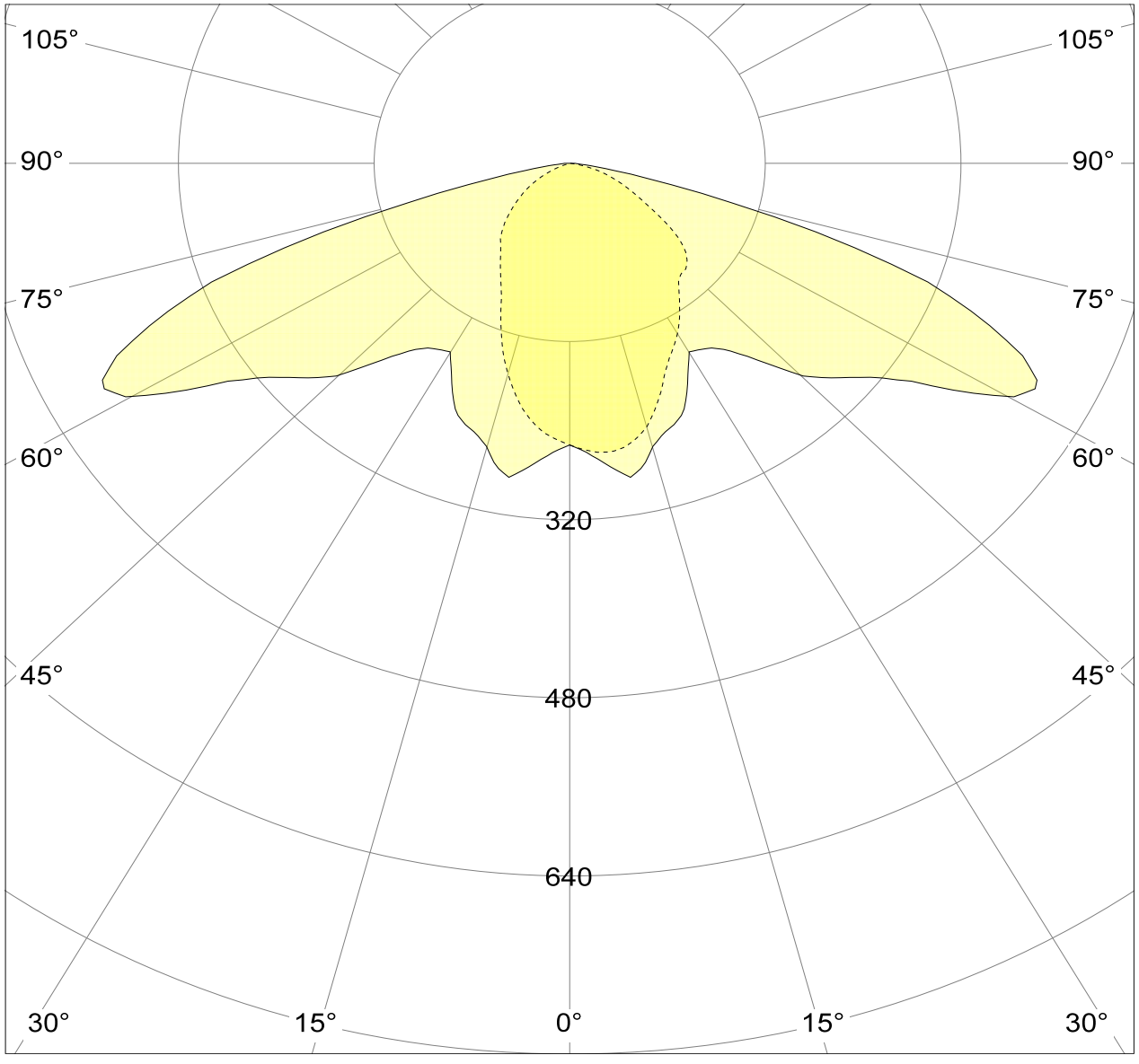
Total nominal luminous flux
Φ = 17,500 lm

Result: polar light distribution diagram



cd/klm

η = 72%

C0 - C180 C90 - C270

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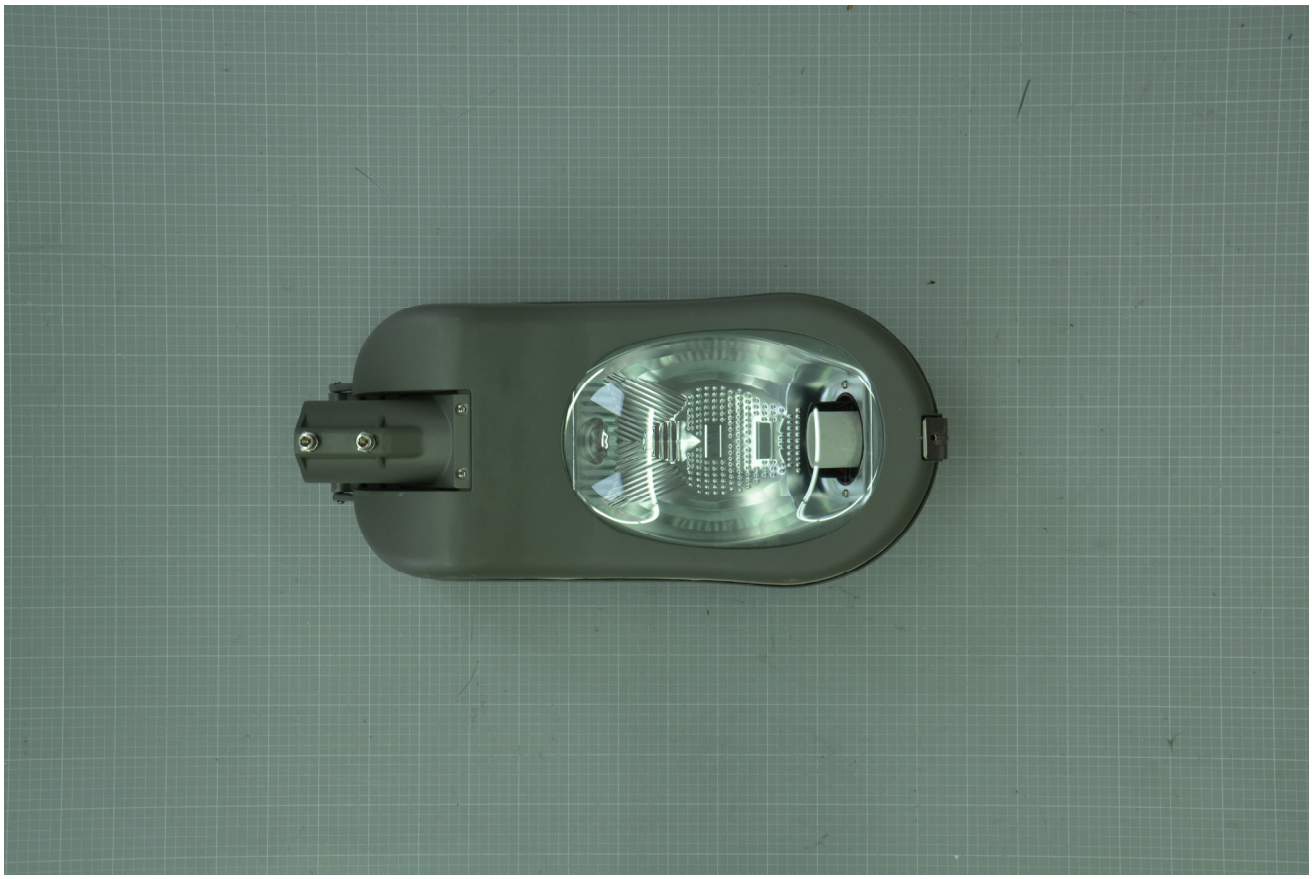
Picture of DUT:



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