

MEASUREMENT REPORT NUMBER 2014-158/16.05.2014

testing samples of products

Model number or type, referring to the manufacturer: LED luminarie VT-1408 SQ / RD
SKU 4803 8W

Company identification: V-TAC Europe Ltd., Sofia 1220, 1, Iliansko Shaussee Blvd.

Applicant testing: V-TAC Europe Ltd., Sofia 1220, 1, Iliansko Shaussee Blvd.

Type of test: control measurements

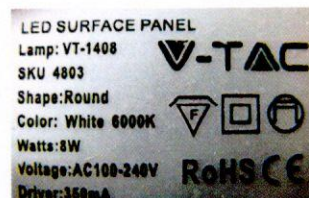
Measurements have been performed:

- luxmeter PU 550, ID 263621/2586, calibration certificate of the METRA BLANSKO a.s. №2887/2012, 19.12.2012;
- luxmeter KYORITSU 5202, ID K0017929, calibration certificate of the National Centre of Metrology 181-OИ/15.12.2012;
- luminance-meter L 1003 of angular field 1°, producer "LMT" Germany, ID 0686191, calibration certificate of the National Centre of Metrology 130-OИ/20.12.2010;
- Ulbricht photometer with diameter 2m;
- Automated goniophotometer.
- Power Meter HM8115-2 ID 015447345, calibration certificate of the National Centre of Metrology 148-ЕЕИ/14.12.2012;
- Digital thermometer with temperature sensor DS18B20 ID 0000011697CDH, calibration certificate of the National Centre of Metrology 268-ТИ/14.11.2012;
- Ampermeter Д5101 ID 737/1990, calibration certificate of 'ЛК УНИСИСТ' Ltd №733/21.11.2012;
- MEGER UT512 ID 1111074682, calibration certificate of 'ЛК УНИСИСТ' Ltd №732/21.11.2012;
- Laser rangefinder DLE-40
- spectroradiometer MK350 ID HS0313220158, test source MK002, calibration certificate of UPRtek lab № A012001 / 2013/7/5

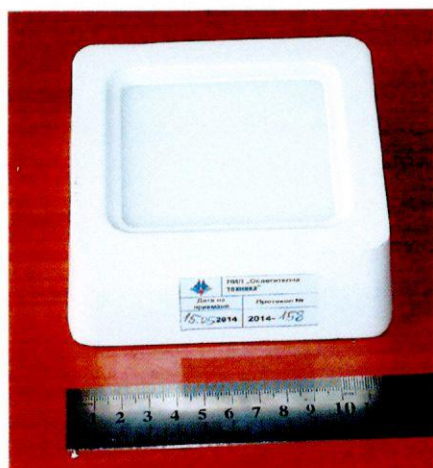
Technical specifications of documentation:

LED luminarie VT-1408 SQ / RD SKU 4803 8W

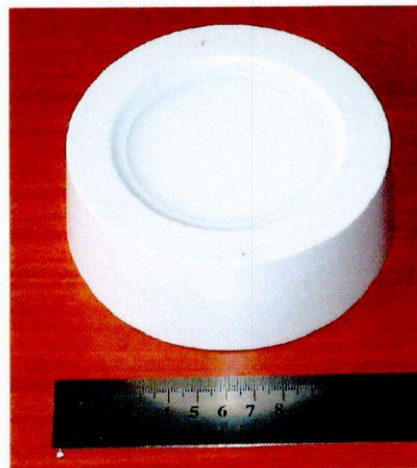
Optics - opal diffuser



tabele



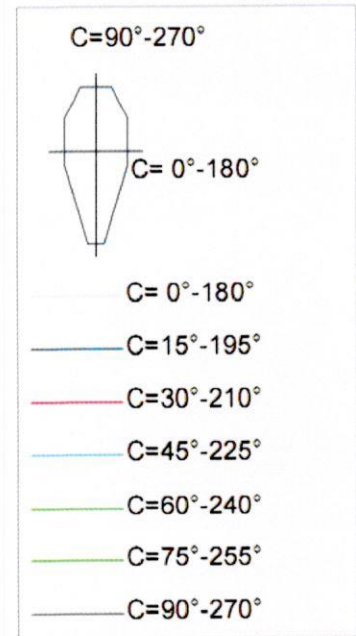
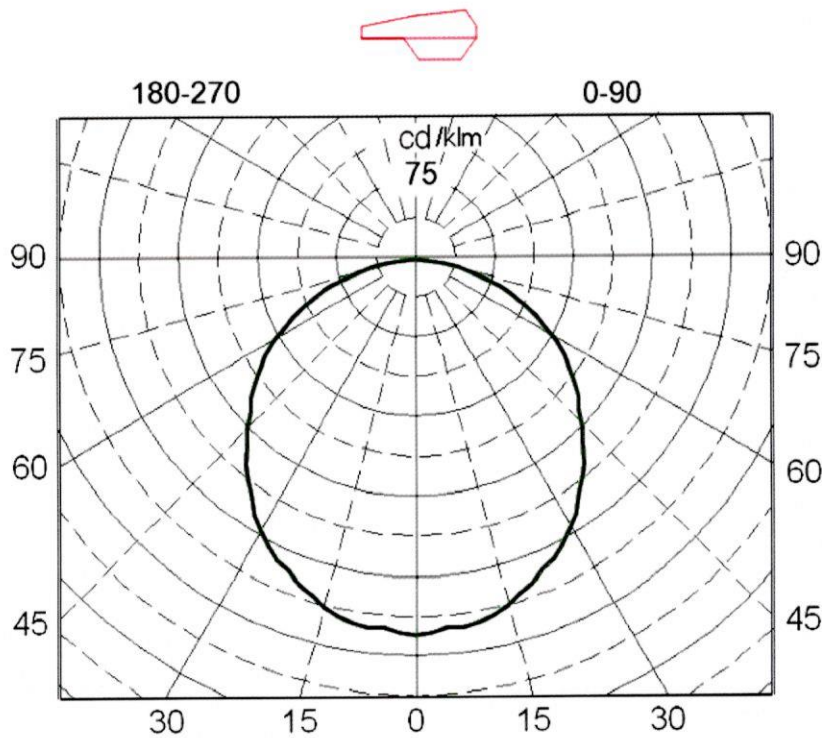
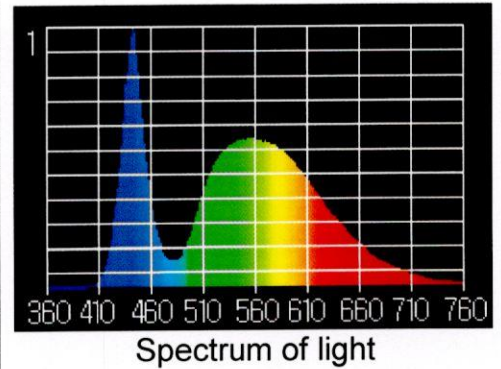
Luminaire SQ



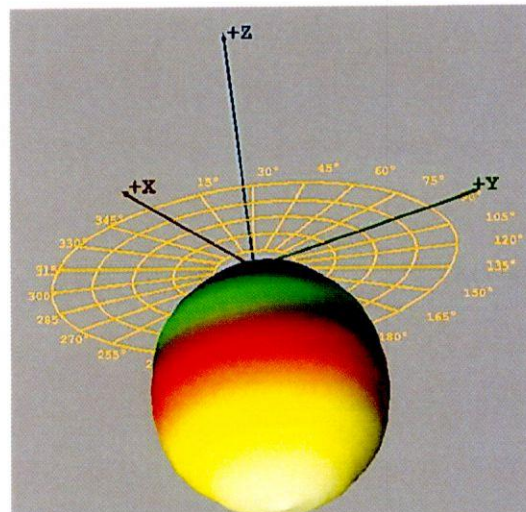
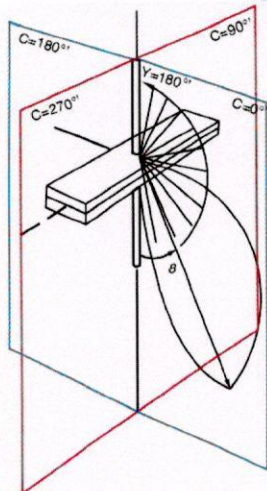
Luminaire RD

Results of test for VT-1408 SQ / RD

| | |
|--------------------------------------|-----------------------|
| Operating voltage | AC 230V |
| Operating Current | AC 0.075A / 0.075A |
| Wattage including ballast (watts) | 9.0W / 9.36W |
| Power factor | 0.52 / 0.53 |
| color temperature | 5803K |
| Color rendering index CRI | 71 |
| color coordinates CIE 1931 | x=0.3257, y=0.3401 |
| color coordinates CIE 1976 | u'=0.2026, v'= 0.4761 |
| Luminous flux emitted by a luminaire | 440 lm / 430 lm |
| Light output of the luminaire | 48.9 lm/W / 45.7 lm/W |



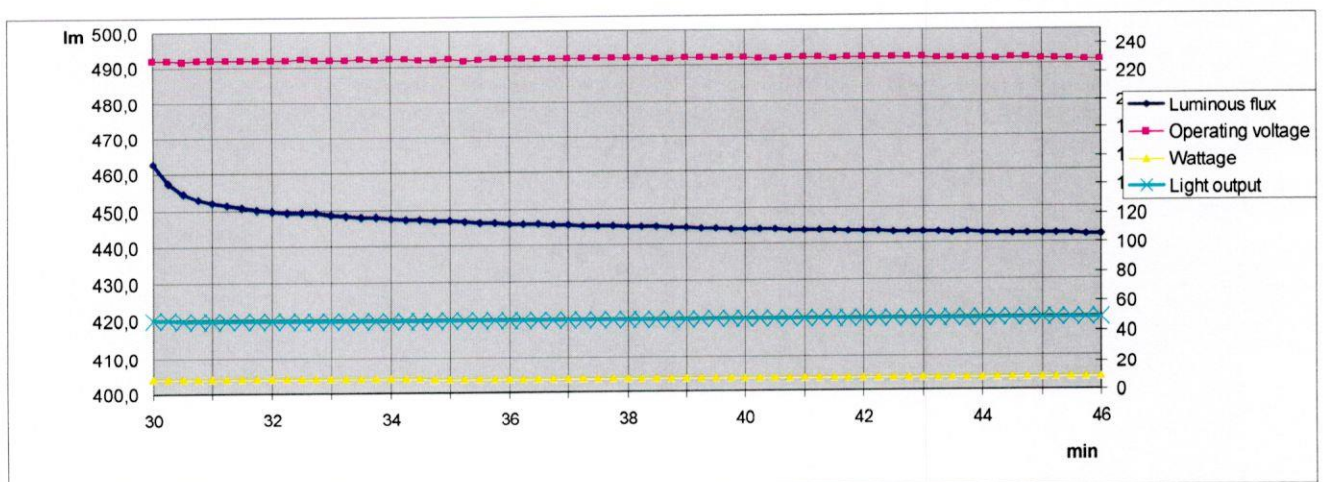
Luminaire light distribution of polar coordinates in the conditional flux 1000lm



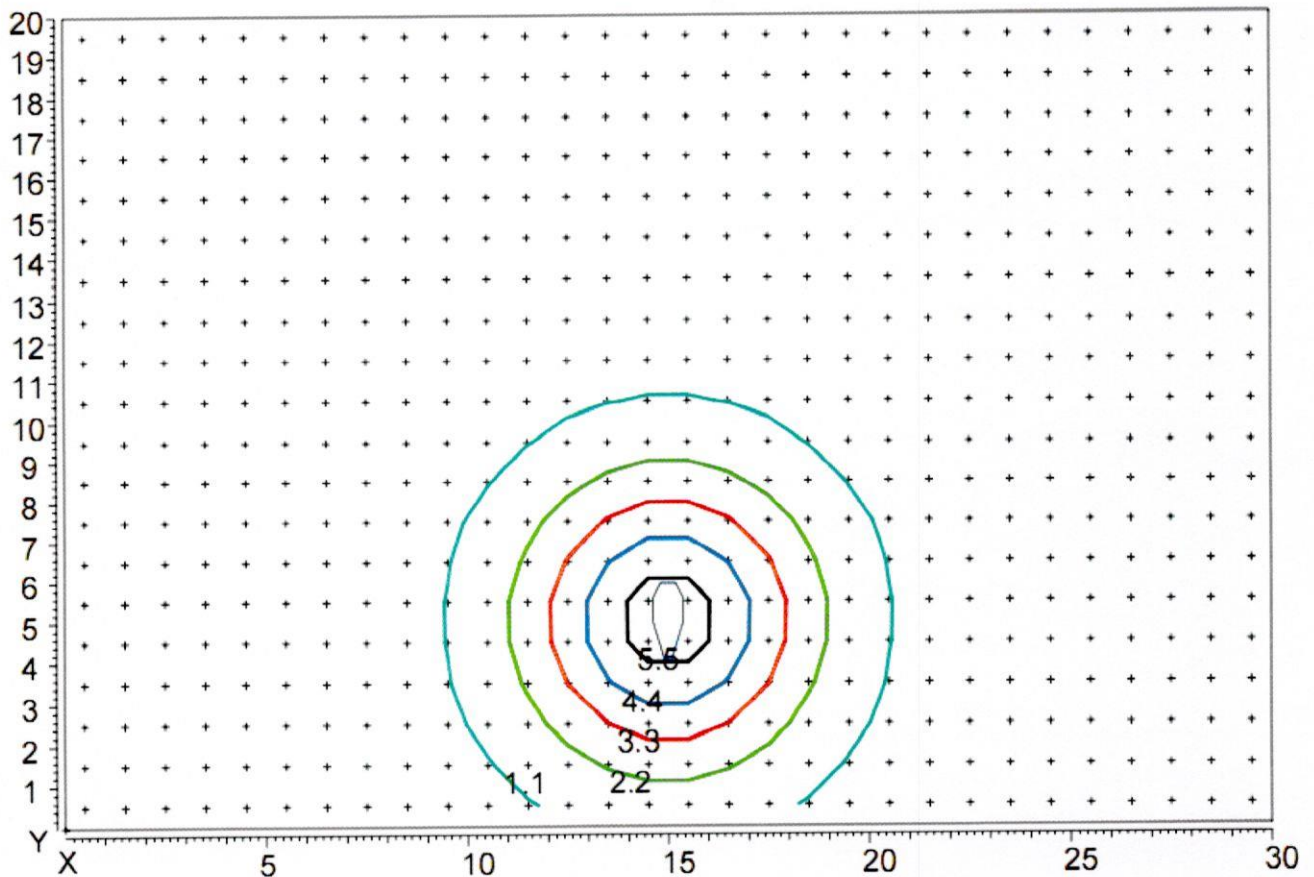
Luminaire light distribution of the 3D

Light distribution of luminaries are in tabular form for conditional luminous flux 1000lm:

| gm/C | Igm |
|------|-----|
| 0.0 | 356 |
| 2.5 | 354 |
| 5.0 | 349 |
| 7.5 | 351 |
| 10.0 | 349 |
| 12.5 | 345 |
| 15.0 | 339 |
| 17.5 | 332 |
| 20.0 | 326 |
| 22.5 | 318 |
| 25.0 | 313 |
| 27.5 | 305 |
| 30.0 | 296 |
| 32.5 | 286 |
| 35.0 | 273 |
| 37.5 | 262 |
| 40.0 | 252 |
| 42.5 | 238 |
| 45.0 | 227 |
| 47.5 | 213 |
| 50.0 | 205 |
| 52.5 | 193 |
| 55.0 | 181 |
| 57.5 | 170 |
| 60.0 | 157 |
| 62.5 | 141 |
| 65.0 | 129 |
| 67.5 | 113 |
| 70.0 | 100 |
| 72.5 | 87 |
| 75.0 | 69 |
| 77.5 | 54 |
| 80.0 | 41 |
| 82.5 | 28 |
| 85.0 | 14 |
| 87.5 | 3 |
| 90.0 | 1 |
| 92.5 | 1 |
| 95.0 | 1 |



Changing the light flux



Distribution of illumination in height hanging lamp 5 m
Coordinates of the luminaire X=15m, Y=5m.

Applications:

Files with the EULUMDAT format. Light distribution is captured in γ -C planes with step 2.5° in plane γ (от 0° - 95°) и 5° in plane C (от 0° - 360°) accordance with EN 13032-1 p 4.2.3.

Files with the measured values

- 2014-158a-S.Idt – **VT-1408 SQ**


- 2014-158b-S.Idt – **VT-1408 RD**

(photometric data in a standard format for axel of symmetry),

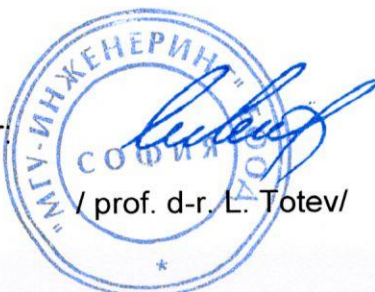
Test results relate only to test samples.

Sofia 16.05.2014

The measurements made:


/assoc. prof. d-r. Krasimir Velinov/

Manager:


/ prof. d-r. L. Totev/