

MEASUREMENT REPORT NUMBER 2014-138/28.04.2014

testing samples of products

Model number or type, referring to the manufacturer: LED luminarie VT-9151 SKU 5514 150W

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-EEИ/14.12.2012;
- Digital thermometer with temperature sensor DS18B20 ID 0000011697CDH, calibration certificate of the National Centre of Metrology 268-TИ/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

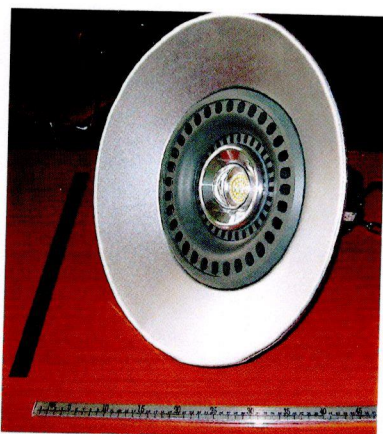
Technical specifications of documentation:

LED luminarie: VT-9151 SKU 5514 150W

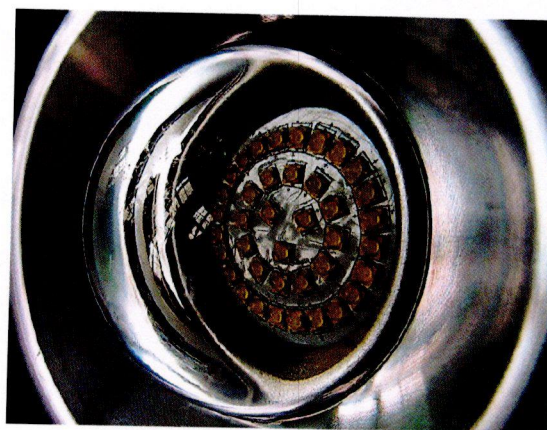
Optics - lens

Item: LED Highbay Light		V-TAC®	
Model: VT-9151	SKU NO: 5514		
Power: 150W	Color: White 5000-5500K		
Voltage: AC110-265V	50/60HZ		
Lumens: 13500lm	Led Chip: Cree		
Size: Ø483*H408MM			
Body: Aluminium Die Casting			
		CREE MW RoHS CE	
		03001	

tabele



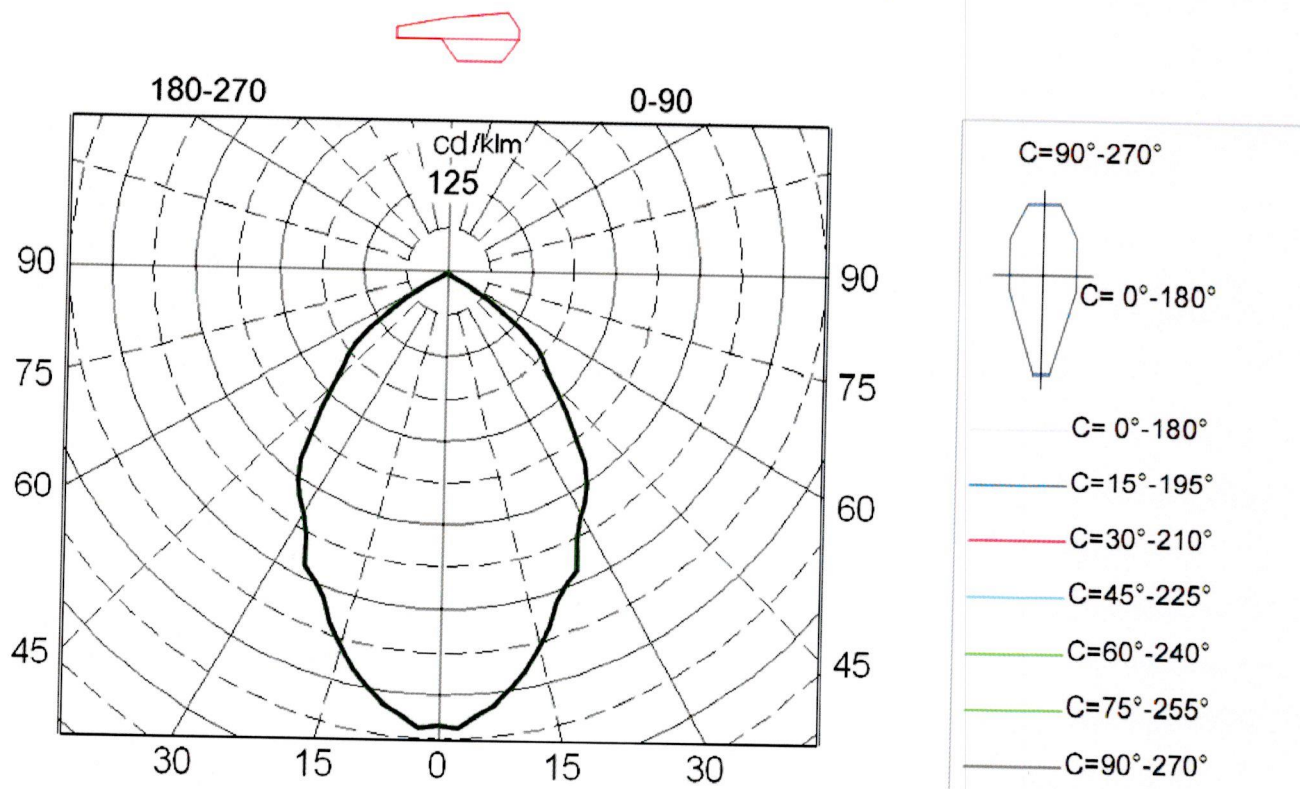
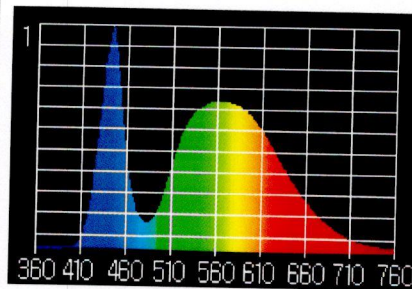
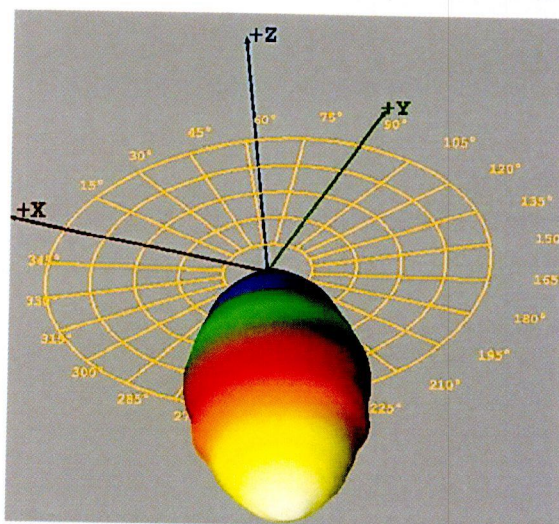
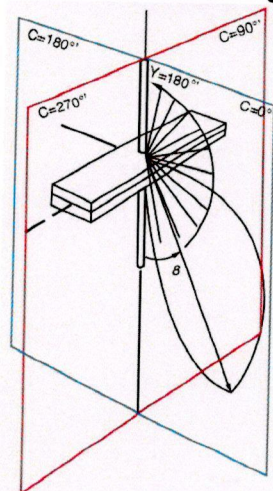
Luminaire



LED

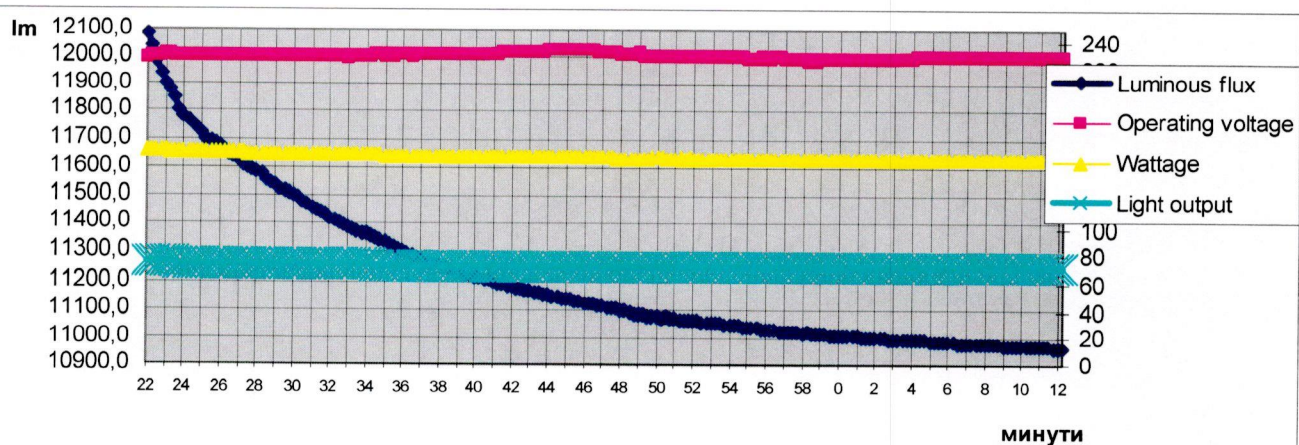
Results of test

Operating voltage	AC 230V
Operating Current	AC 0.686A
Wattage including ballast (watts)	152.6W
Power factor	0.97
color temperature	5198K
Color rendering index CRI	72
color coordinates CIE 1931	$x=0.3395$, $y=0.3440$
color coordinates CIE 1976	$u'=0.2106$, $v'=0.4801$
Luminous flux emitted by a luminaire	10960 lm
Light output of the luminaire	71.8 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:**

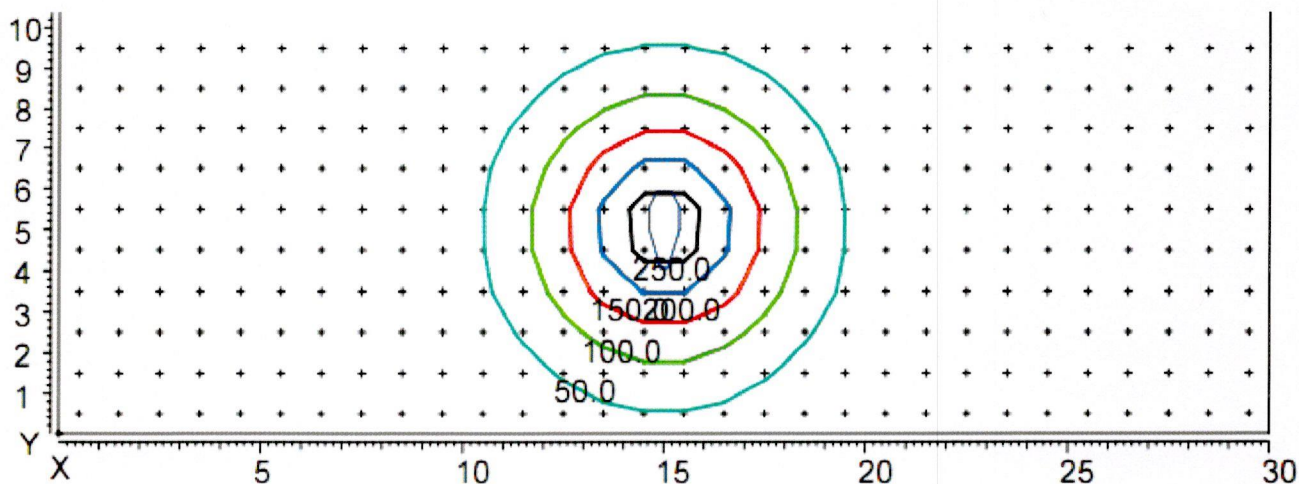
gm/C	0	15	30	45	60	75	90	105	120	135	150	165	180
0.0	669	669	669	669	669	669	669	669	669	669	669	669	669
2.5	674	674	674	674	674	674	674	674	674	674	674	674	674
5.0	657	657	657	657	657	657	657	657	657	657	657	657	657
7.5	644	644	644	644	644	644	644	644	644	644	644	644	644
10.0	624	624	624	624	624	624	624	624	624	624	624	624	624
12.5	602	602	602	602	602	602	602	602	602	602	602	602	602
15.0	574	574	574	574	574	574	574	574	574	574	574	574	574
17.5	547	547	547	547	547	547	547	547	547	547	547	547	547
20.0	514	514	514	514	514	514	514	514	514	514	514	514	514
22.5	496	496	496	496	496	496	496	496	496	496	496	496	496
25.0	483	483	483	483	483	483	483	483	483	483	483	483	483
27.5	441	441	441	441	441	441	441	441	441	441	441	441	441
30.0	415	415	415	415	415	415	415	415	415	415	415	415	415
32.5	399	399	399	399	399	399	399	399	399	399	399	399	399
35.0	377	377	377	377	377	377	377	377	377	377	377	377	377
37.5	351	351	351	351	351	351	351	351	351	351	351	351	351
40.0	306	306	306	306	306	306	306	306	306	306	306	306	306
42.5	272	272	272	272	272	272	272	272	272	272	272	272	272
45.0	239	239	239	239	239	239	239	239	239	239	239	239	239
47.5	208	208	208	208	208	208	208	208	208	208	208	208	208
50.0	192	192	192	192	192	192	192	192	192	192	192	192	192
52.5	170	170	170	170	170	170	170	170	170	170	170	170	170
55.0	138	138	138	138	138	138	138	138	138	138	138	138	138
57.5	100	100	100	100	100	100	100	100	100	100	100	100	100
60.0	70	70	70	70	70	70	70	70	70	70	70	70	70
62.5	34	34	34	34	34	34	34	34	34	34	34	34	34
65.0	8	8	8	8	8	8	8	8	8	8	8	8	8
67.5	6	6	6	6	6	6	6	6	6	6	6	6	6
70.0	6	6	6	6	6	6	6	6	6	6	6	6	6
72.5	3	3	3	3	3	3	3	3	3	3	3	3	3
75.0	1	1	1	1	1	1	1	1	1	1	1	1	1
77.5	0	0	0	0	0	0	0	0	0	0	0	0	0
80.0	0	0	0	0	0	0	0	0	0	0	0	0	0
82.5	0	0	0	0	0	0	0	0	0	0	0	0	0
85.0	0	0	0	0	0	0	0	0	0	0	0	0	0
87.5	0	0	0	0	0	0	0	0	0	0	0	0	0
90.0	0	0	0	0	0	0	0	0	0	0	0	0	0
92.5	0	0	0	0	0	0	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0	0	0	0	0	0	0



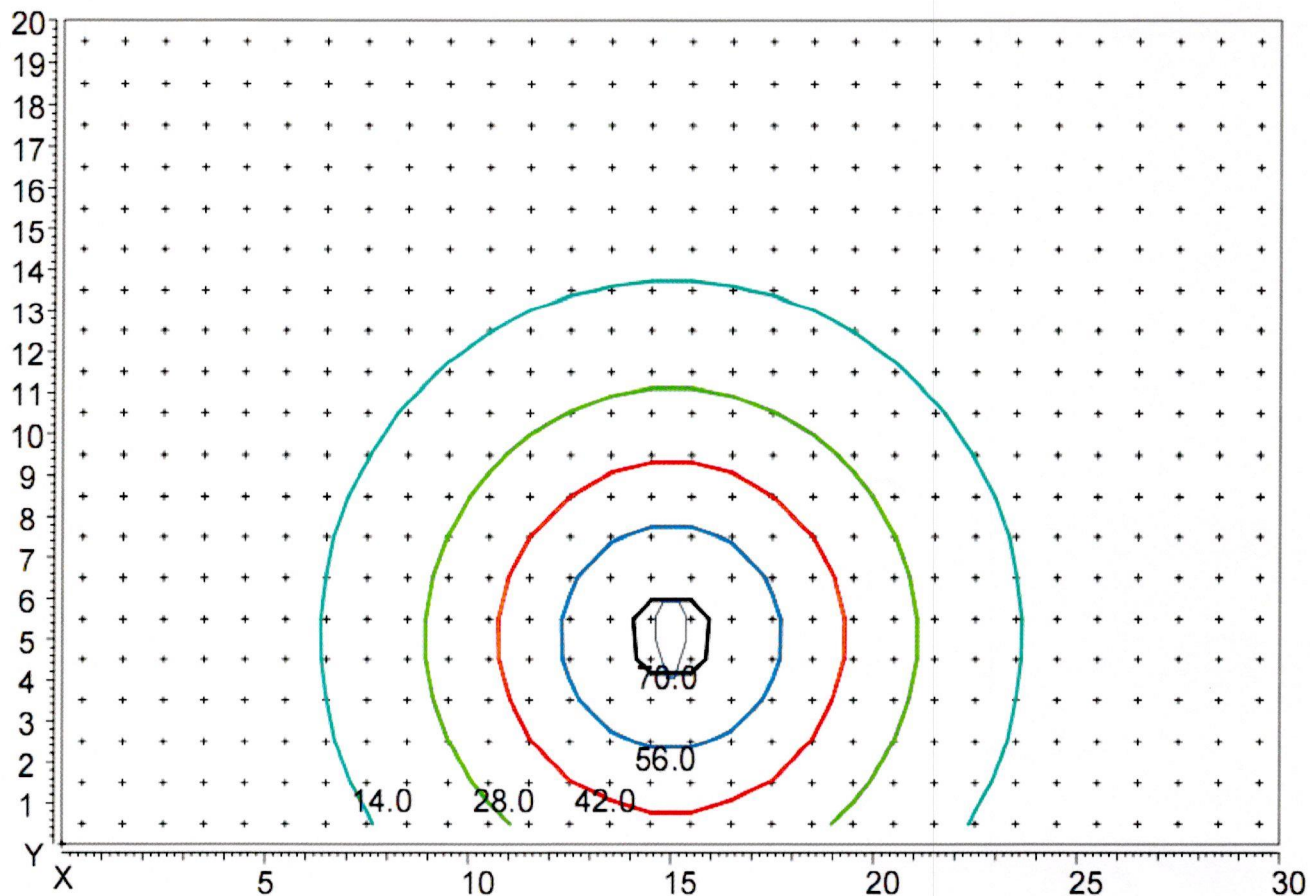
Changing the light flux

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

gm/C	180	195	210	225	240	255	270	285	300	315	330	345	360
0.0	669	669	669	669	669	669	669	669	669	669	669	669	669
2.5	674	674	674	674	674	674	674	674	674	674	674	674	674
5.0	657	657	657	657	657	657	657	657	657	657	657	657	657
7.5	644	644	644	644	644	644	644	644	644	644	644	644	644
10.0	624	624	624	624	624	624	624	624	624	624	624	624	624
12.5	602	602	602	602	602	602	602	602	602	602	602	602	602
15.0	574	574	574	574	574	574	574	574	574	574	574	574	574
17.5	547	547	547	547	547	547	547	547	547	547	547	547	547
20.0	514	514	514	514	514	514	514	514	514	514	514	514	514
22.5	496	496	496	496	496	496	496	496	496	496	496	496	496
25.0	483	483	483	483	483	483	483	483	483	483	483	483	483
27.5	441	441	441	441	441	441	441	441	441	441	441	441	441
30.0	415	415	415	415	415	415	415	415	415	415	415	415	415
32.5	399	399	399	399	399	399	399	399	399	399	399	399	399
35.0	377	377	377	377	377	377	377	377	377	377	377	377	377
37.5	351	351	351	351	351	351	351	351	351	351	351	351	351
40.0	306	306	306	306	306	306	306	306	306	306	306	306	306
42.5	272	272	272	272	272	272	272	272	272	272	272	272	272
45.0	239	239	239	239	239	239	239	239	239	239	239	239	239
47.5	208	208	208	208	208	208	208	208	208	208	208	208	208
50.0	192	192	192	192	192	192	192	192	192	192	192	192	192
52.5	170	170	170	170	170	170	170	170	170	170	170	170	170
55.0	138	138	138	138	138	138	138	138	138	138	138	138	138
57.5	100	100	100	100	100	100	100	100	100	100	100	100	100
60.0	70	70	70	70	70	70	70	70	70	70	70	70	70
62.5	34	34	34	34	34	34	34	34	34	34	34	34	34
65.0	8	8	8	8	8	8	8	8	8	8	8	8	8
67.5	6	6	6	6	6	6	6	6	6	6	6	6	6
70.0	6	6	6	6	6	6	6	6	6	6	6	6	6
72.5	3	3	3	3	3	3	3	3	3	3	3	3	3
75.0	1	1	1	1	1	1	1	1	1	1	1	1	1
77.5	0	0	0	0	0	0	0	0	0	0	0	0	0
80.0	0	0	0	0	0	0	0	0	0	0	0	0	0
82.5	0	0	0	0	0	0	0	0	0	0	0	0	0
85.0	0	0	0	0	0	0	0	0	0	0	0	0	0
87.5	0	0	0	0	0	0	0	0	0	0	0	0	0
90.0	0	0	0	0	0	0	0	0	0	0	0	0	0
92.5	0	0	0	0	0	0	0	0	0	0	0	0	0
95.0	0	0	0	0	0	0	0	0	0	0	0	0	0



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



Distribution of illumination in height hanging lamp 10 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

- 2014-138.ltd - photometric data in a standard format;

- 2014-138.ocb - complete data in tabular form.

Test results relate only to test samples.

Sofia 28.04.2014

The measurements made:

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

Manager:

/prof. d-r. L. Totev/