

MEASUREMENT REPORT NUMBER 2014-188/16.06.2014

testing samples of products

Model number or type, referring to the manufacturer: LED spotlight VT47200

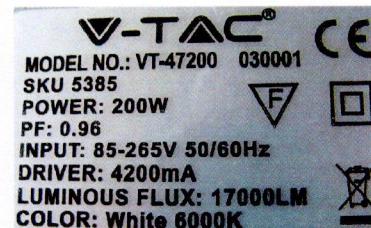
Company identification: V-TAC Europe Ltd., Sofia 1220, 1, Iljansko Shaussee Blvd.

Applicant testing: V-TAC Europe Ltd., Sofia 1220, 1, Iljansko 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-OW/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-OW/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-EEW/14.12.2012;
- Digital thermometer with temperature sensor DS18B20 ID 0000011697CDH, calibration certificate of the National Centre of Metrology 268-TW/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

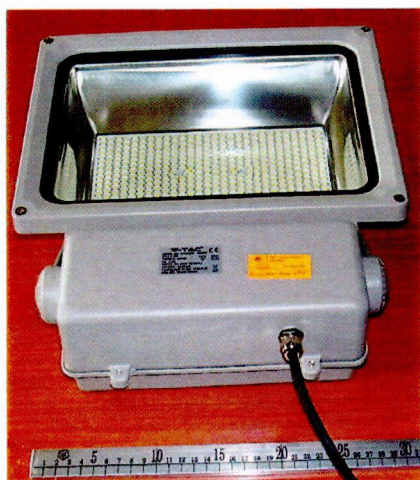


Technical specifications of documentation:

LED spotlight VT47200

tabele

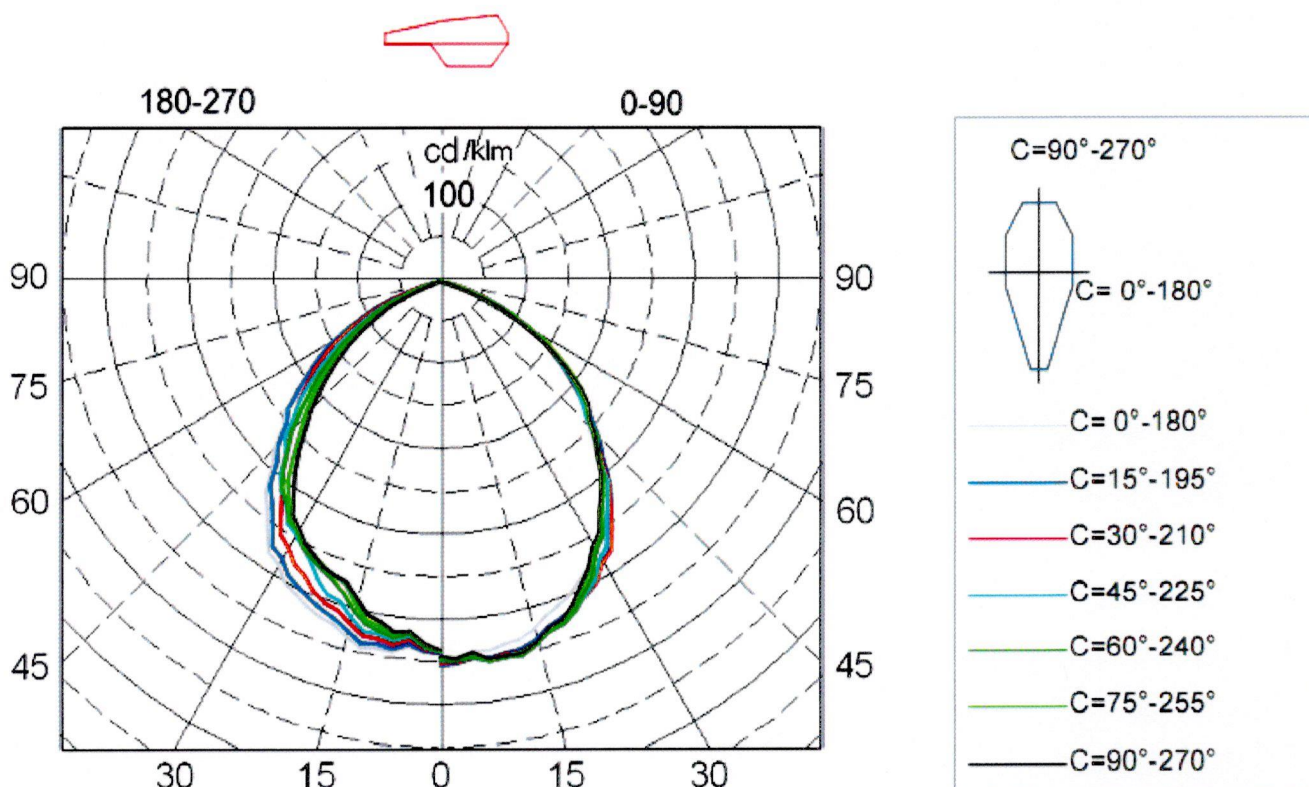
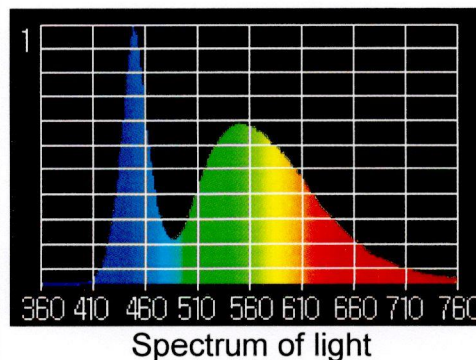
Optics – aluminium reflector



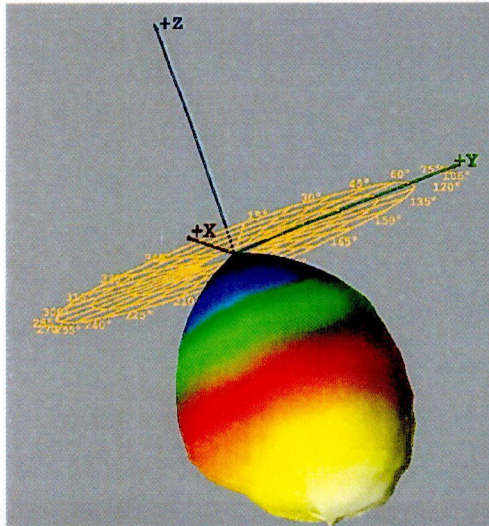
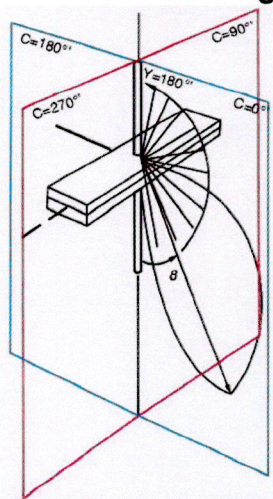
Luminaire

Results of test

Operating voltage	AC 230V
Operating Current	AC 0.85A
Wattage including ballast (watts)	193.1W
Power factor	0.97
color temperature	6352K
Color rendering index CRI	73
color coordinates CIE 1931	$x=0.3148, y=0.3351$
color coordinates CIE 1976	$u'=0.1970, v'=0.4719$
Luminous flux emitted by a luminaire	17216 lm
Light output of the luminaire	89.2 lm/W



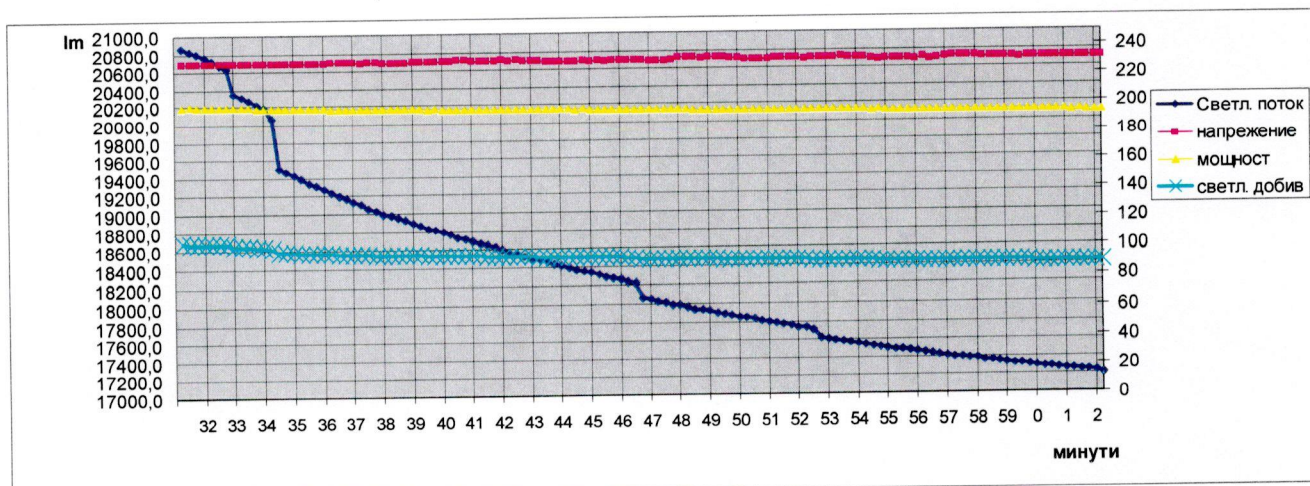
Luminaire light distribution of polar coordinates in the conditional flux 1000lm



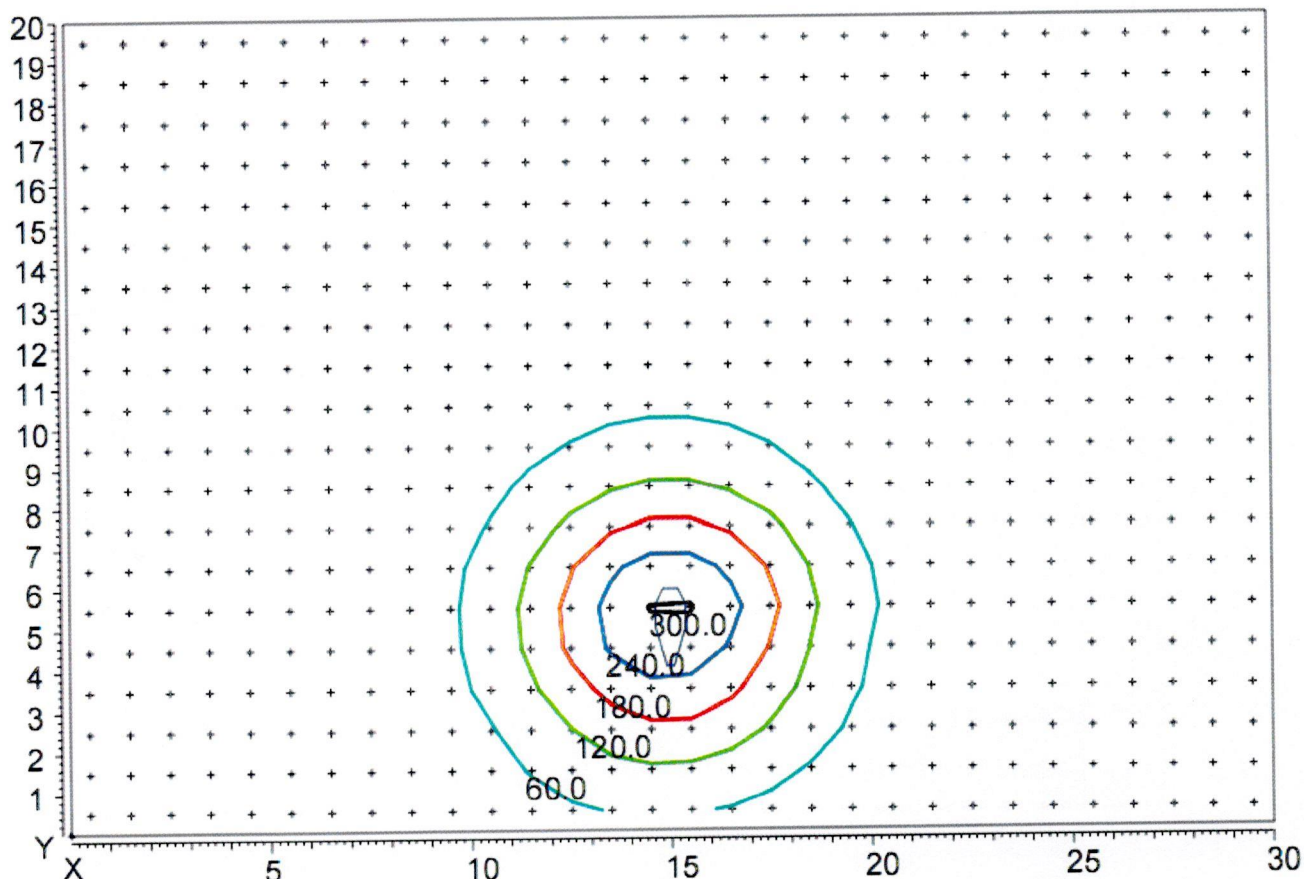
Luminaire light distribution of the 3D

**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	451	457	455	452	451	448	447	446	445	444	444	443	443
2.5	448	455	454	452	452	450	450	449	448	447	445	443	442
5.0	441	450	451	449	449	445	443	443	440	440	438	436	435
7.5	443	452	454	456	456	455	454	454	452	453	451	447	444
10.0	438	448	450	452	454	454	453	453	454	453	450	446	442
12.5	436	447	451	451	453	456	454	454	457	455	452	449	445
15.0	429	441	445	446	445	447	444	445	447	444	444	440	436
17.5	416	430	434	436	435	434	432	433	434	434	432	430	426
20.0	410	425	430	433	433	429	428	429	431	434	434	431	423
22.5	402	418	421	423	422	417	415	418	421	426	428	422	417
25.0	392	407	412	411	407	400	398	400	405	414	415	412	408
27.5	383	400	403	400	394	387	385	390	395	406	407	407	402
30.0	369	385	386	381	372	366	365	368	374	384	393	394	387
32.5	361	378	379	371	360	356	353	357	363	371	385	387	382
35.0	333	349	356	346	336	333	332	334	340	347	361	366	360
37.5	319	334	334	329	320	318	316	318	326	332	347	347	340
40.0	300	315	314	310	302	300	299	301	306	313	325	328	325
42.5	276	289	286	279	280	278	278	279	284	291	292	303	296
45.0	257	271	264	261	265	261	262	264	268	275	275	283	281
47.5	235	247	240	237	243	241	242	245	248	250	245	259	254
50.0	216	227	220	221	228	230	231	234	236	234	233	240	242
52.5	199	209	198	201	206	213	213	217	219	216	209	215	218
55.0	179	185	179	179	191	192	187	192	204	194	192	195	196
57.5	156	161	156	158	168	165	161	170	180	177	170	171	177
60.0	136	138	136	142	143	140	137	142	151	156	149	149	155
62.5	114	116	114	120	113	113	110	114	123	128	126	125	129
65.0	92	94	94	95	87	86	83	88	94	102	105	105	104
67.5	70	71	71	67	61	57	56	60	67	75	84	81	81
70.0	53	53	54	48	42	38	35	40	47	54	64	64	61
72.5	35	36	37	30	24	18	16	20	27	35	43	45	43
75.0	18	18	19	14	9	7	7	7	10	17	23	26	25
77.5	6	6	7	5	5	5	5	5	5	6	10	13	12
80.0	3	3	3	2	3	3	3	3	4	3	3	4	4
82.5	2	2	2	1	2	2	2	2	2	2	2	2	3
85.0	2	2	1	1	1	1	1	1	1	1	1	2	2
87.5	1	1	1	1	1	1	1	1	1	1	1	1	1
90.0	1	1	1	1	1	1	1	1	1	1	1	1	1
92.5	1	1	1	1	1	1	1	1	1	1	1	1	1



[illegible]



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

- 2014-188.ltd

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

Test results relate only to test samples.

Sofia 16.06.2014

The measurements made:

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



Manager:

/ prof. d-r. L. Totev/