

MEASUREMENT REPORT NUMBER 2014-143/12.05.2014

testing samples of products

Model number or type, referring to the manufacturer: LED Luminaire LP-PVC-60x60-100 model 12052014

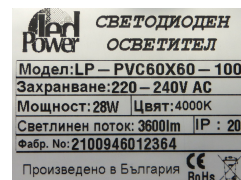
Company identification: Solar LED Power Ltd. 9, Andrey Liapchev blvd. , Sofia, 1756.

Applicant testing: Solar LED Power Ltd. 9, Andrey Liapchev blvd. , Sofia, 1756.

Type of test: control measurements

Metrological traceability:

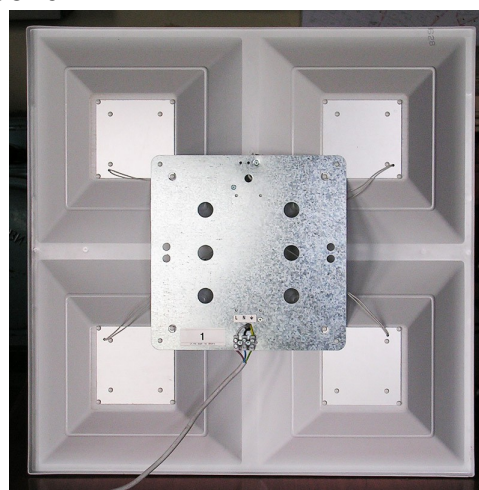
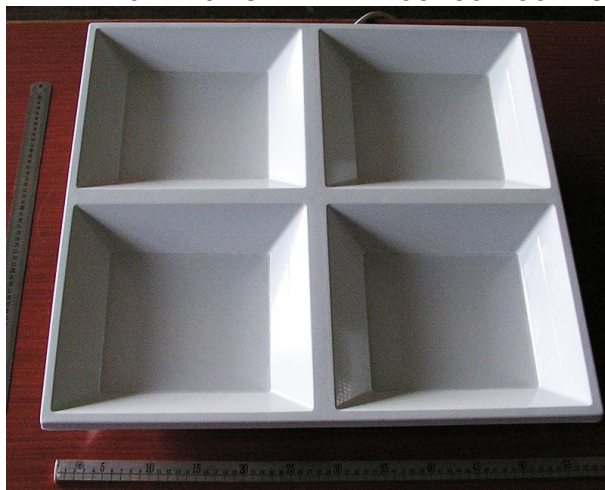
- LMT Photometer B520, ID 04B4021 with photometric head P30SC0 ID 04B4022, calibration certificate of the LMT Lichtmesstechnik GMBH Berlin №04B402/28.05.2014;
- luxmeter PU 550, ID 263621/2586, calibration certificate of the METRA BLANSKO a.s. №2887/2012, 19.12.2012;
- luxmeter KYORITSU 5202, ID K0017929, calibration certificate of the National Centre of Metrology 181-OI/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-OI/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-EEI/14.12.2012;
- Digital thermometer with temperature sensor DS18B20 ID 0000011697CDH, calibration certificate of the National Centre of Metrology 268-TI/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 Luminaire LP-PVC-60x60-100 model 12052014

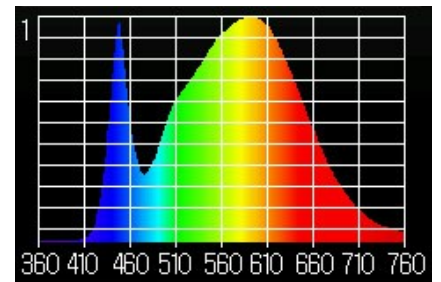
tabele



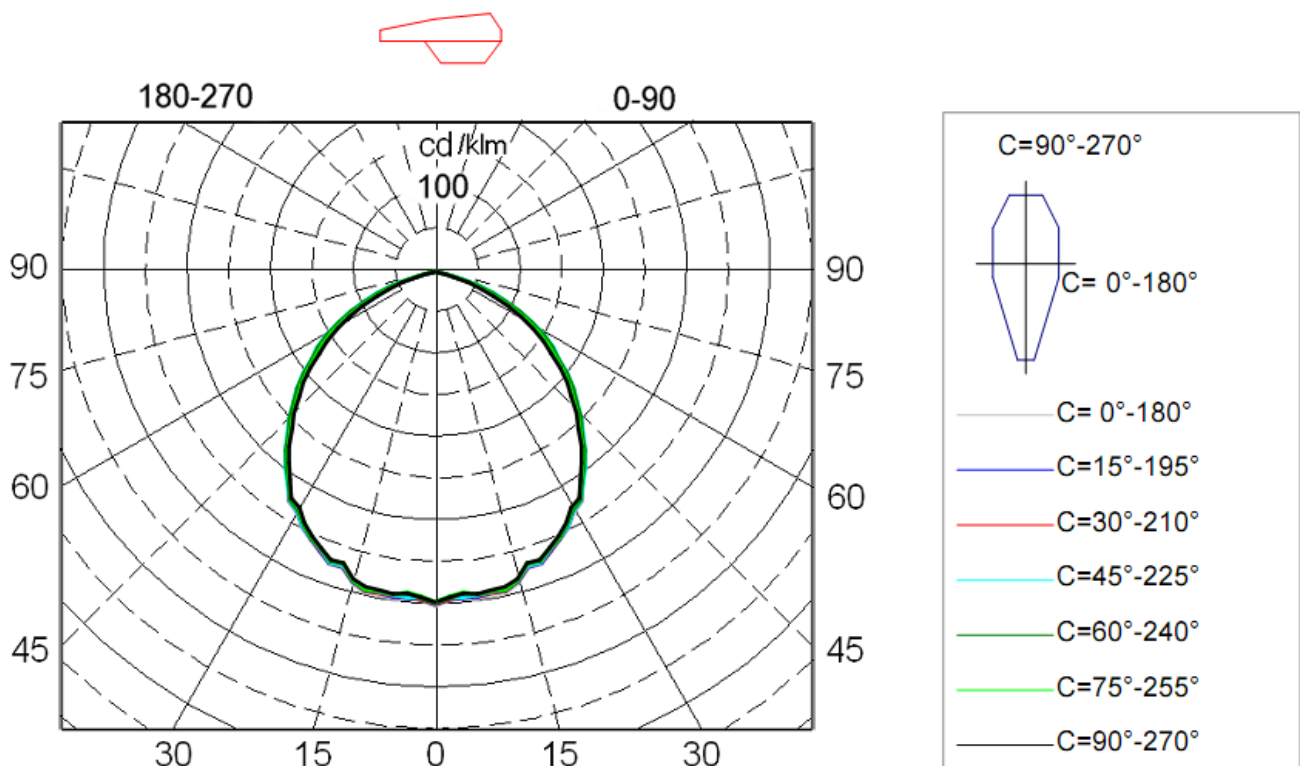
Luminaire

Results of test

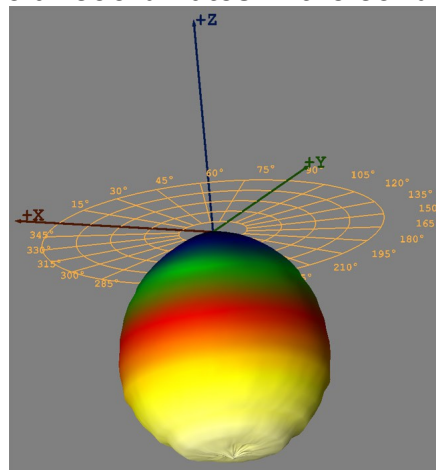
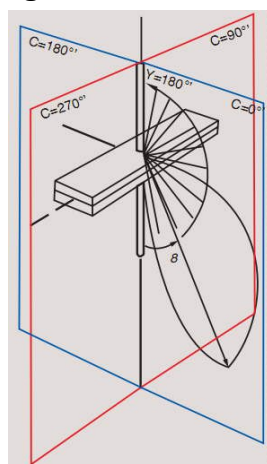
Operating voltage	AC 230 V
Operating Current	AC 0.129 A
Wattage including ballast (watts)	28.0 W
Power factor	0.94
color temperature	4030 K
Color rendering index CRI	81
color coordinates CIE 1931	$x=0.3807$, $y=0.3820$
color coordinates CIE 1976	$u'=0.2232$, $v'=0.5039$
Luminous flux emitted by a luminaire	3642 lm
Light output of the luminaire	130.07 lm /W



Spectrum of light



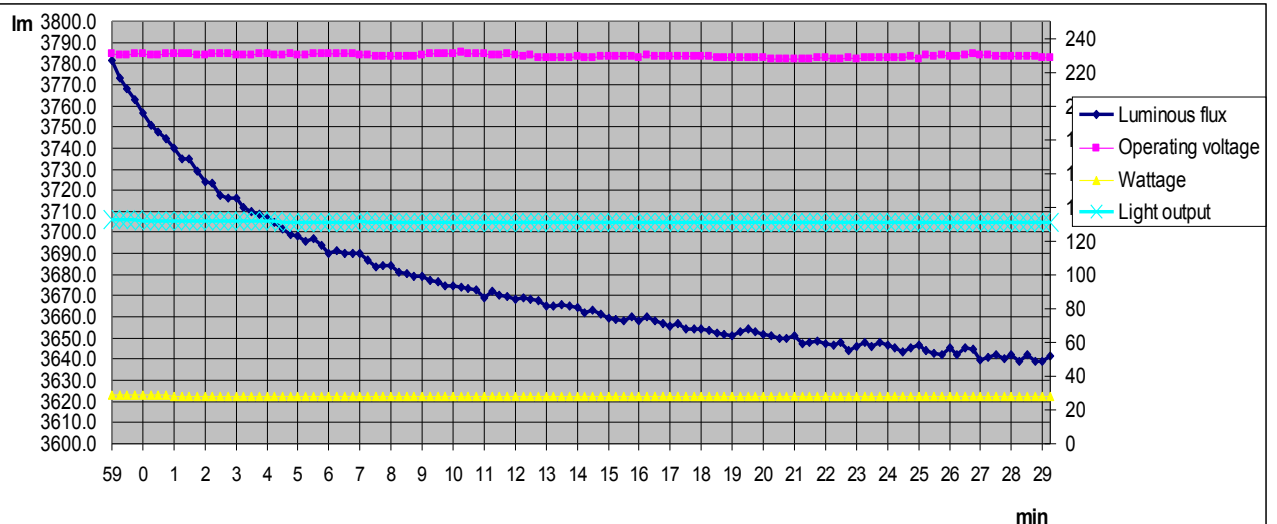
Luminaire light distribution of polar coordinates in the conditional flux 1000lm



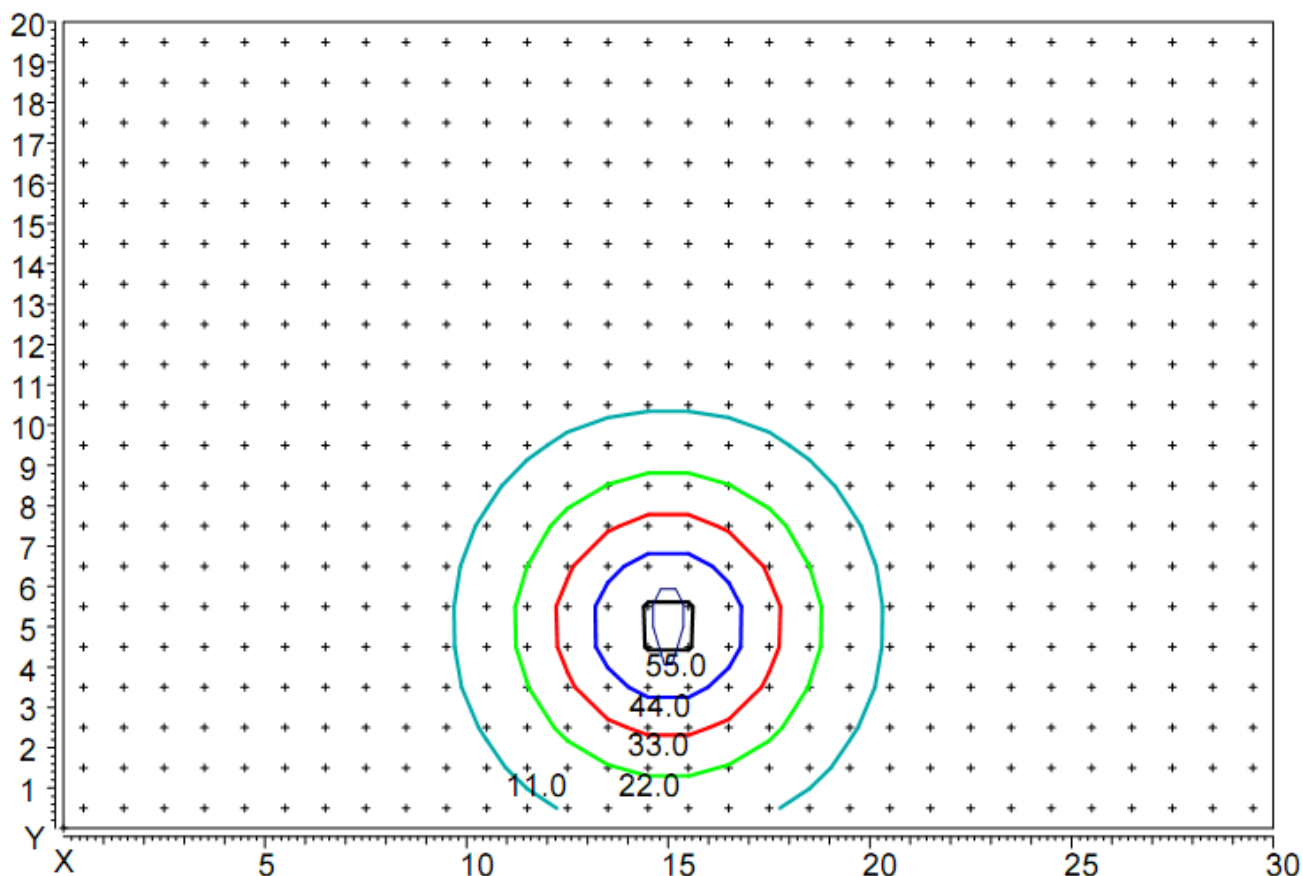
Luminaire light distribution of the 3D

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	404	403	402	401	402	400	400	400	402	401	402	403	404
2.5	398	397	397	395	396	393	395	393	396	395	397	397	398
5.0	397	396	395	396	391	390	391	390	391	396	395	396	397
7.5	399	397	395	394	394	394	393	394	394	394	395	397	399
10.0	396	395	395	393	393	392	391	392	393	393	395	395	396
12.5	398	395	395	394	395	393	391	393	395	394	395	395	398
15.0	390	388	388	387	387	386	385	386	387	387	388	388	390
17.5	376	375	374	373	370	370	370	370	370	373	374	375	376
20.0	377	376	374	375	373	372	371	372	373	375	374	376	377
22.5	366	366	365	364	363	362	362	362	363	364	365	366	366
25.0	359	357	356	356	356	354	353	354	356	356	356	357	359
27.5	349	348	346	347	346	344	343	344	346	347	346	348	349
30.0	336	335	334	335	333	331	330	331	333	335	334	335	336
32.5	330	329	329	329	327	325	325	325	327	329	329	329	330
35.0	312	311	311	313	311	308	307	308	311	313	311	311	312
37.5	297	296	298	299	297	294	291	294	297	299	298	296	297
40.0	280	280	282	283	282	278	276	278	282	283	282	280	280
42.5	261	261	263	265	264	260	257	260	264	265	263	261	261
45.0	246	246	249	251	250	245	242	245	250	251	249	246	246
47.5	227	228	231	233	232	227	223	227	232	233	231	228	227
50.0	212	213	217	219	218	212	209	212	218	219	217	213	212
52.5	194	195	200	202	201	195	191	195	201	202	200	195	194
55.0	173	172	177	182	182	176	171	176	182	182	177	172	173
57.5	159	160	167	171	169	161	156	161	169	171	167	160	159
60.0	140	142	149	154	151	144	137	144	151	154	149	142	140
62.5	119	121	128	134	132	123	117	123	132	134	128	121	119
65.0	99	101	109	115	113	104	98	104	113	115	109	101	99
67.5	77	80	88	94	91	83	76	83	91	94	88	80	77
70.0	61	63	71	76	74	66	60	66	74	76	71	63	61
72.5	43	45	52	58	55	48	43	48	55	58	52	45	43
75.0	25	27	33	37	35	29	25	29	35	37	33	27	25
77.5	13	14	18	21	19	15	13	15	19	21	18	14	13
80.0	6	7	8	10	9	7	6	7	9	10	8	7	6
82.5	4	4	4	4	4	4	4	4	4	4	4	4	4
85.0	3	3	3	3	3	3	3	3	3	3	3	3	3
87.5	2	2	2	2	2	2	2	2	2	2	2	2	2
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
95.0	1	1	1	1	1	1	1	1	1	1	1	1	1



Changing the light flux



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

- 2014-143.ldt (photometric data in a standard format),

Test results relate only to test samples.

Sofia 12.05.2014

Manager of Laboratory "Lighting":

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

Manager:

/ prof. d-r. L. Totev/