UNIVERSITY OF MINING AND GEOLOGY "Engineering" LTD
Laboratory "Lighting"

MEASUREMENT REPORT NUMBER 2012-181/25.10.2012

testing samples of products

Model number or type, referring to the manufacturer: FREEZING WAREHOUSE LED LUMINAIRE, . LCFW129-S40
Company identification: LUMICOMP DESIGN Ltd, София, бул. Цариградско шосе 7-ми км, Хай-Тек Парк, ет. 4, офис 402, тел. +359 2 971 83 72.
Applicant testing: LUMICOMP DESIGN Ltd.
Type of test: control measurements

Measurements of the photometric parameters have been performed:

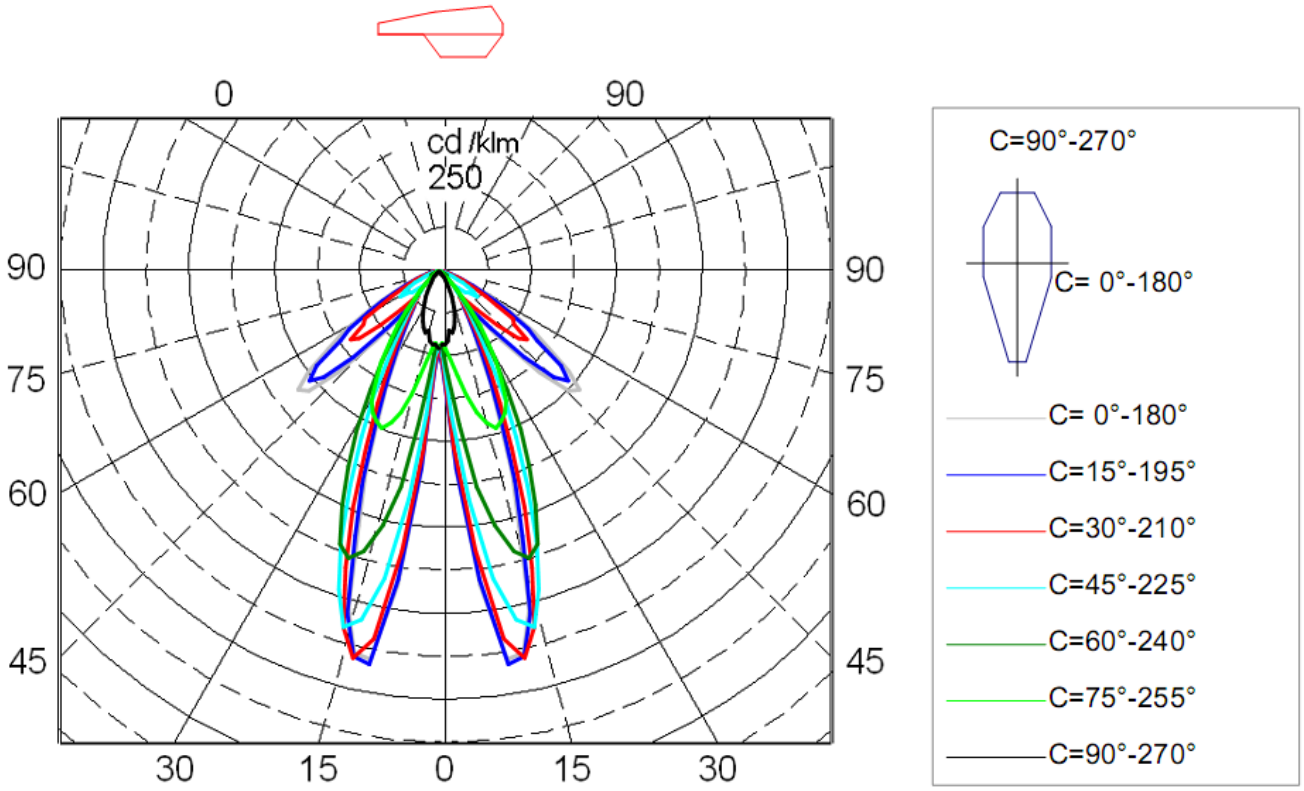
- **luxmeter Pocket-lux, producer "LMT" Germany, ID PO1363, calibration certificate of the National Centre of Metrology 129-ОИ/20.12.2010;**
- **luminance-meter L 1003 of angular field 1^{o}, producer "LMT" Germany, ID 0686191, calibration certificate of the National Centre of Metrology 130-ОИ/20.12.2010;**
- **Ulbricht photometer with diameter 2м;**
- **Automated goniophotometer.**
- **Power Meter HM8115-2**
- **Laser rangefinder DLE-40**

Technical specifications of documentation:
LED luminaire FREEZING WAREHOUSE LED LUMINAIRE, LCFW129-S40.
Optics – lens and aluminum reflector.

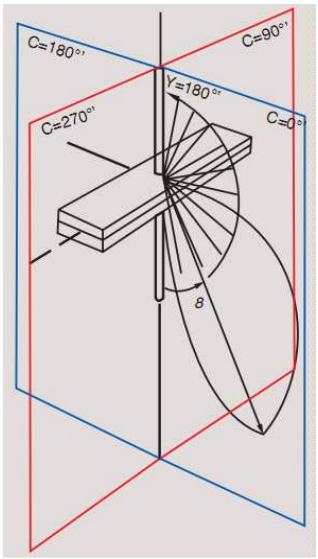
LED luminaire FREEZING WAREHOUSE LED LUMINAIRE, . LCFW129-S40

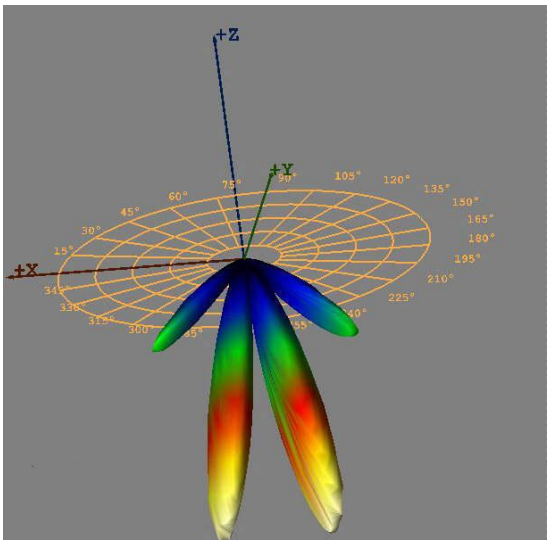
Results of test

	Lamp with power
Operating voltage	**AC 230V**
Operating Current	**AC 0.585A**
Wattage including ballast (watts)	**129.3W**
Power factor	**0.96**
Luminous flux emitted by a luminaire	**11256 lm**
light output	**87.05 lm/W**



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





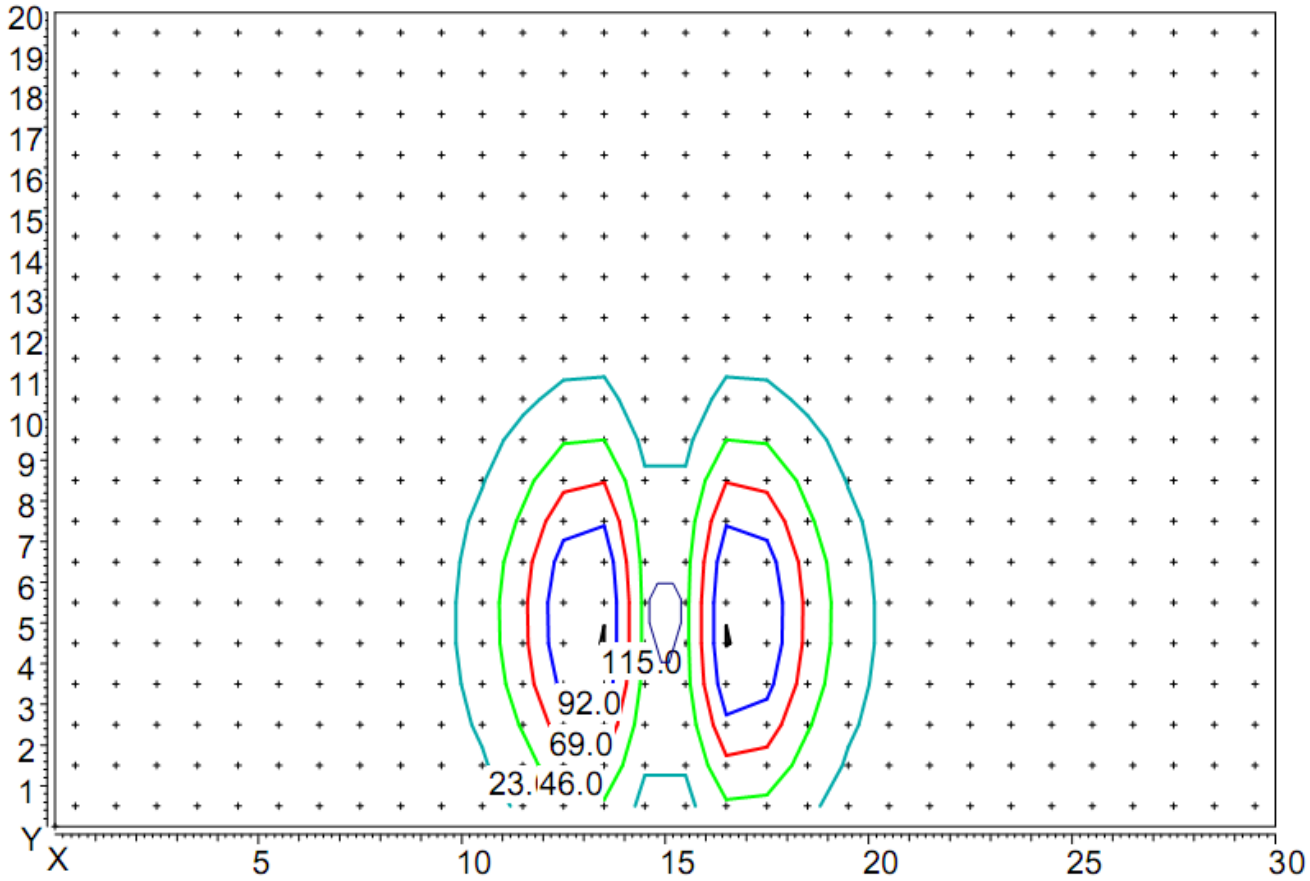
Luminaire light distribution of the 3D

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	236	230	227	225	225	225	227	225	225	225	227	230	236
2.5	280	284	271	249	225	211	215	211	225	249	271	284	280
5.0	589	583	524	424	308	230	216	230	308	424	524	583	589
7.5	933	916	830	676	454	259	207	259	454	676	830	916	933
10.0	1161	1177	1099	920	645	312	176	312	645	920	1099	1177	1161
12.5	1152	1163	1168	1052	766	371	185	371	766	1052	1168	1163	1152
15.0	1030	1044	1085	1086	854	430	171	430	854	1086	1085	1044	1030
17.5	786	819	916	983	887	467	154	467	887	983	916	819	786
20.0	633	657	742	845	855	491	137	491	855	845	742	657	633
22.5	467	487	563	684	746	478	116	478	746	684	563	487	467
25.0	358	372	427	539	632	460	99	460	632	539	427	372	358
27.5	257	276	329	421	525	429	83	429	525	421	329	276	257
30.0	210	218	249	311	403	371	67	371	403	311	249	218	210
32.5	164	168	192	236	310	315	54	315	310	236	192	168	164
35.0	128	130	146	178	231	250	42	250	231	178	146	130	128
37.5	117	112	115	139	176	199	33	199	176	139	115	112	117
40.0	154	130	94	106	130	148	25	148	130	106	94	130	154
42.5	276	227	105	80	94	104	19	104	94	80	105	227	276
45.0	420	357	159	66	73	77	16	77	73	66	159	357	420
47.5	520	462	234	63	56	55	11	55	56	63	234	462	520
50.0	541	499	307	76	43	39	9	39	43	76	307	499	541
52.5	483	455	328	100	33	28	7	28	33	100	328	455	483
55.0	396	355	270	109	21	16	5	16	21	109	270	355	396
57.5	333	312	258	135	23	15	5	15	23	135	258	312	333
60.0	257	240	198	117	23	11	4	11	23	117	198	240	257
62.5	200	188	158	98	25	9	3	9	25	98	158	188	200
65.0	151	142	121	77	25	7	3	7	25	77	121	142	151
67.5	113	107	92	59	22	6	3	6	22	59	92	107	113
70.0	91	86	74	48	19	6	2	6	19	48	74	86	91
72.5	71	67	58	38	16	5	2	5	16	38	58	67	71
75.0	54	50	43	28	12	6	2	6	12	28	43	50	54
77.5	43	40	34	22	10	6	2	6	10	22	34	40	43
80.0	37	34	29	18	9	6	1	6	9	18	29	34	37
82.5	30	27	23	14	8	5	1	5	8	14	23	27	30
85.0	27	25	20	12	7	5	1	5	7	12	20	25	27
87.5	23	21	17	10	6	4	1	4	6	10	17	21	23
90.0	20	18	14	9	5	3	1	3	5	9	14	18	20
92.5	17	16	12	7	4	2	1	2	4	7	12	16	17
95.0	15	13	10	6	4	1	1	1	4	6	10	13	15

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	236	230	227	225	225	225	227	225	225	225	227	230	236
2.5	280	284	271	249	225	211	215	211	225	249	271	284	280
5.0	589	583	524	424	308	230	216	230	308	424	524	583	589
7.5	933	916	830	676	454	259	207	259	454	676	830	916	933
10.0	1161	1177	1099	920	645	312	176	312	645	920	1099	1177	1161
12.5	1152	1163	1168	1052	766	371	185	371	766	1052	1168	1163	1152
15.0	1030	1044	1085	1086	854	430	171	430	854	1086	1085	1044	1030
17.5	786	819	916	983	887	467	154	467	887	983	916	819	786
20.0	633	657	742	845	855	491	137	491	855	845	742	657	633
22.5	467	487	563	684	746	478	116	478	746	684	563	487	467
25.0	358	372	427	539	632	460	99	460	632	539	427	372	358
27.5	257	276	329	421	525	429	83	429	525	421	329	276	257
30.0	210	218	249	311	403	371	67	371	403	311	249	218	210
32.5	164	168	192	236	310	315	54	315	310	236	192	168	164
35.0	128	130	146	178	231	250	42	250	231	178	146	130	128
37.5	117	112	115	139	176	199	33	199	176	139	115	112	117
40.0	154	130	94	106	130	148	25	148	130	106	94	130	154
42.5	276	227	105	80	94	104	19	104	94	80	105	227	276
45.0	420	357	159	66	73	77	16	77	73	66	159	357	420
47.5	520	462	234	63	56	55	11	55	56	63	234	462	520
50.0	541	499	307	76	43	39	9	39	43	76	307	499	541
52.5	483	455	328	100	33	28	7	28	33	100	328	455	483
55.0	396	355	270	109	21	16	5	16	21	109	270	355	396
57.5	333	312	258	135	23	15	5	15	23	135	258	312	333
60.0	257	240	198	117	23	11	4	11	23	117	198	240	257
62.5	200	188	158	98	25	9	3	9	25	98	158	188	200
65.0	151	142	121	77	25	7	3	7	25	77	121	142	151
67.5	113	107	92	59	22	6	3	6	22	59	92	107	113
70.0	91	86	74	48	19	6	2	6	19	48	74	86	91
72.5	71	67	58	38	16	5	2	5	16	38	58	67	71
75.0	54	50	43	28	12	6	2	6	12	28	43	50	54
77.5	43	40	34	22	10	6	2	6	10	22	34	40	43
80.0	37	34	29	18	9	6	1	6	9	18	29	34	37
82.5	30	27	23	14	8	5	1	5	8	14	23	27	30
85.0	27	25	20	12	7	5	1	5	7	12	20	25	27
87.5	23	21	17	10	6	4	1	4	6	10	17	21	23
90.0	20	18	14	9	5	3	1	3	5	9	14	18	20
92.5	17	16	12	7	4	2	1	2	4	7	12	16	17
95.0	15	13	10	6	4	1	1	1	4	6	10	13	15



Distribution of illuminance at an altitude of 10 meters hanging lamp 10м
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
- 2012-181.ldt - photometric data in a EULUMDAT format,
- 2012-181-P2.ldt - photometric data in a EULUMDAT format in two planes of symmetry C = 0 ° - 180 ° и C = 90 ° - 270 °;
- 2012-181.ocb - complete data in tabular form,
Test results relate only to test samples.

Sofia 25.10.2012

The measurements:

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

Manager:

/ prof. d-r. L. Totev/