



**LABORATORY FOR TESTING OF MACHINERY,
EQUIPMENT AND DEVICES**
CENTER FOR TESTING AND EUROPEAN CERTIFICATION LTD

2, Industrialna Str., Stara Zagora, Bulgaria,

Tel.: +359 42 620 368 Fax: +359 42 602 377 ctec@ctec-sz.com

TEST REPORT

№ 2emc-e-15-039 / 17.03.2015

OBJECT TO BE TESTED: Compact fluorescent lamp - CFL Model: Full Spiral D2 -11W, cat. No: 99210050
Model representative of: Spiral 5W cat.№ 99211418 cat.№99211152; Spiral 7W cat.№ 99211419 и cat.№99211153;
Spiral 9W cat.№ 99211420 и cat.№99211154; Spiral 11W cat.№ 99211421 и cat.№99211155;
Spiral 5W cat.№ 99212422 и cat.№99212156; Spiral 9W cat.№ 99212423 и cat.№99212157;
Spiral 11W cat.№ 99212424 и cat.№99212158; 3U/T2 - 7W cat.№ 99216166; 3U/T2 -11W cat.№ 99216168;
4U/T2 -15W cat.№ 99216170; Full Spiral D2 - 5W cat.№ 99210046; Full Spiral D2- 9W cat.№ 99210048;
Full Spiral D2 -11W cat.№ 99210050; Full Spiral D2 -11W cat.№ 99210051; Half Spiral/T2- 9W cat.№ 992100145;
Half Spiral/T2-11W cat.№ 992100147; Half Spiral/T2-15W cat.№ 992100149; 3U/T2 -7W cat.№ 99216165;
3U/T2 -11W cat.№ 99216167; 4U/T2 -15W cat.№ 99216169; Full Spiral D2 -5W cat.№ 99210047;
Full Spiral D2-9W cat.№ 99210049; Full Spiral D2 -11W cat.№ 99210052; Full Spiral D2 -11W cat.№ 99210053;
Full Spiral D2 -15W cat.№ 99210054; Full Spiral D2 -15W cat.№ 99210055; Full Spiral D2 -20W cat.№ 99210056;
Full Spiral D2 -20W cat.№ 99210057; Full Spiral D2 -24W cat.№ 99210058; Full Spiral D2 -24W cat.№ 99210059;
Full Spiral D2 -28W cat.№ 99210060; Full Spiral D2 -32W cat.№ 99210061; Full Spiral D2 -36W cat.№ 99210062;
Half Spiral/T2 -9W cat.№ 992100144; Half Spiral/T2 -11W cat.№ 992100146; Half Spiral/T2 -15W cat.№ 992100148;
*(name of object to be tested, type, model, quantity,
type – portable, fixed, for walling in and other)*

APPLICANT FOR TEST: "ELMARK INDUSTRIES" SC. 2 Dobrudja Blvd. Dobrich, Bulgaria ,
Tel.: 058 500 055, e-mail: denkov@elmark.bg
Application № 039 / 11.02.2015
(name of the firm – applicant, address, telephone, number and date of the test application)

STANDARD: BDS EN 55015:2006+A1:2007+A2:2009 Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment.
(number and name of the standards)

DATE OF ACCEPTANCE IN THE TEST LABORATORY: 11.02.2015

MANUFACTURER: "ELMARK INDUSTRIES" SC. 2 Dobrudja Blvd. Dobrich, Bulgaria ,
Tel.: 058 500 055, e-mail: denkov@elmark.bg
(firm, trade mark, address)

DECLARED TECHNICAL DATA: Rated voltage – 230 V
Rated frequency – 50 Hz
Rated power – 11 W
Cab – E14

DATE OF TEST PERFORMANCE: 05.03.2015

LABORATORY CHIEF:

/ T. Hristov /





I. Emission of Radio disturbance characteristics of electrical lighting and similar equipment

1. Radiated electromagnetic disturbances – 9kHz ÷ 30MHz

BDS EN 55015, cl. 4.4 – Radiated electromagnetic disturbances, limits – Table 3

BDS EN 55015, cl. 5.2.4 – Other luminaires

BDS EN 55015, cl. 6 – Operating conditions for lighting equipment

BDS EN 55015, cl. 6.4 – Ambient temperature: 24 °C ; Relative Humidity: 48 %.

BDS EN 55015, cl.9.1 – Measuring arrangement and procedure

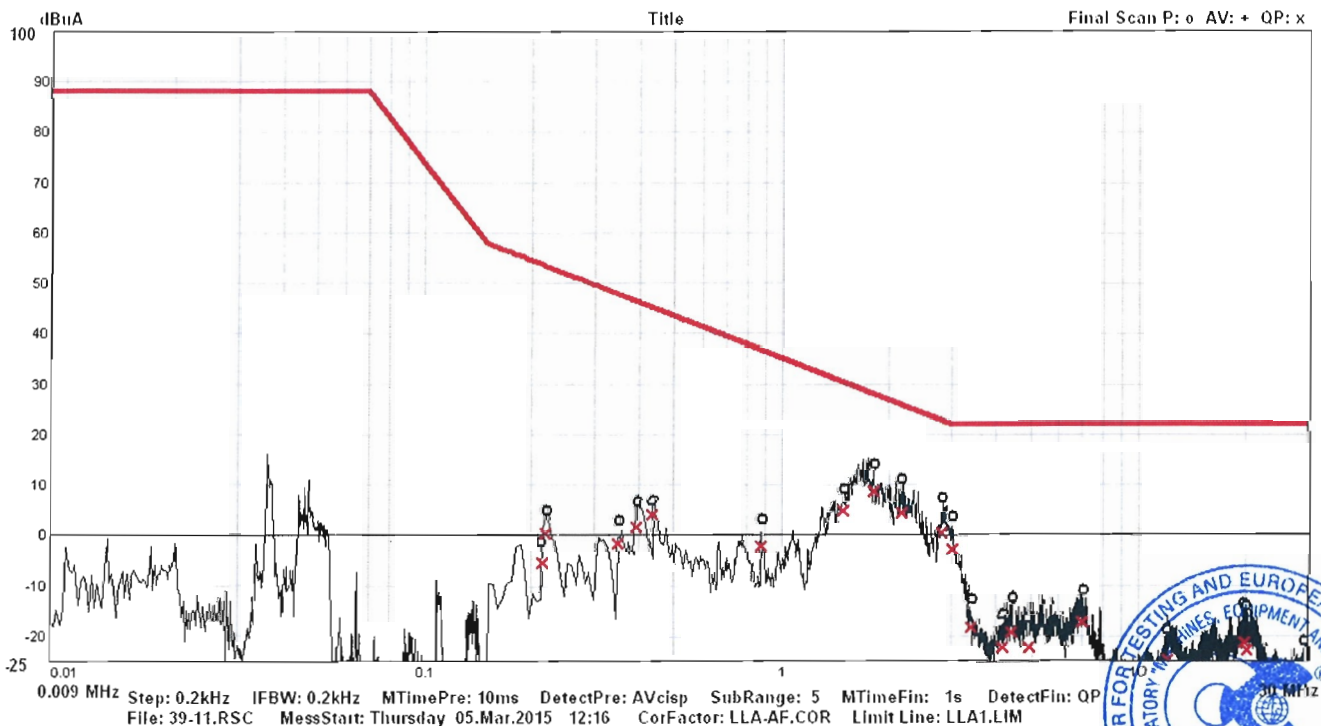
BDS EN 55015, cl.9.5 – Self-ballasted lamps and semi-luminaires

The test is performed at supply voltage: 230 V

RESULTS OF MEASUREMENT :

Frequency MHz	Radiated electromagnetic disturbances - measured along the axis - X		
	Quasi peak - QP		
	Measuring dB(µA)	Margin dB(µA)	Limit dB(µA)
0,215	-5,45	59,12	53,67
0,220	0,45	52,94	53,39
0,350	-1,64	49,45	47,81
0,395	1,62	44,74	46,36
0,435	4,00	41,20	45,20
0,875	-2,22	39,02	36,80
1,495	4,95	25,41	30,36
1,810	8,90	19,17	28,07
2,160	4,58	21,36	25,94
2,815	0,59	22,17	22,76
3,005	-2,74	24,74	22,00
3,400	-18,33	40,33	22,00
4,175	-22,27	44,27	22,00
4,440	-19,28	41,28	22,00
7,000	-17,40	39,40	22,00
19,835	-21,39	43,39	22,00

Drawing of Radiated electromagnetic disturbances - measured along the axis - X

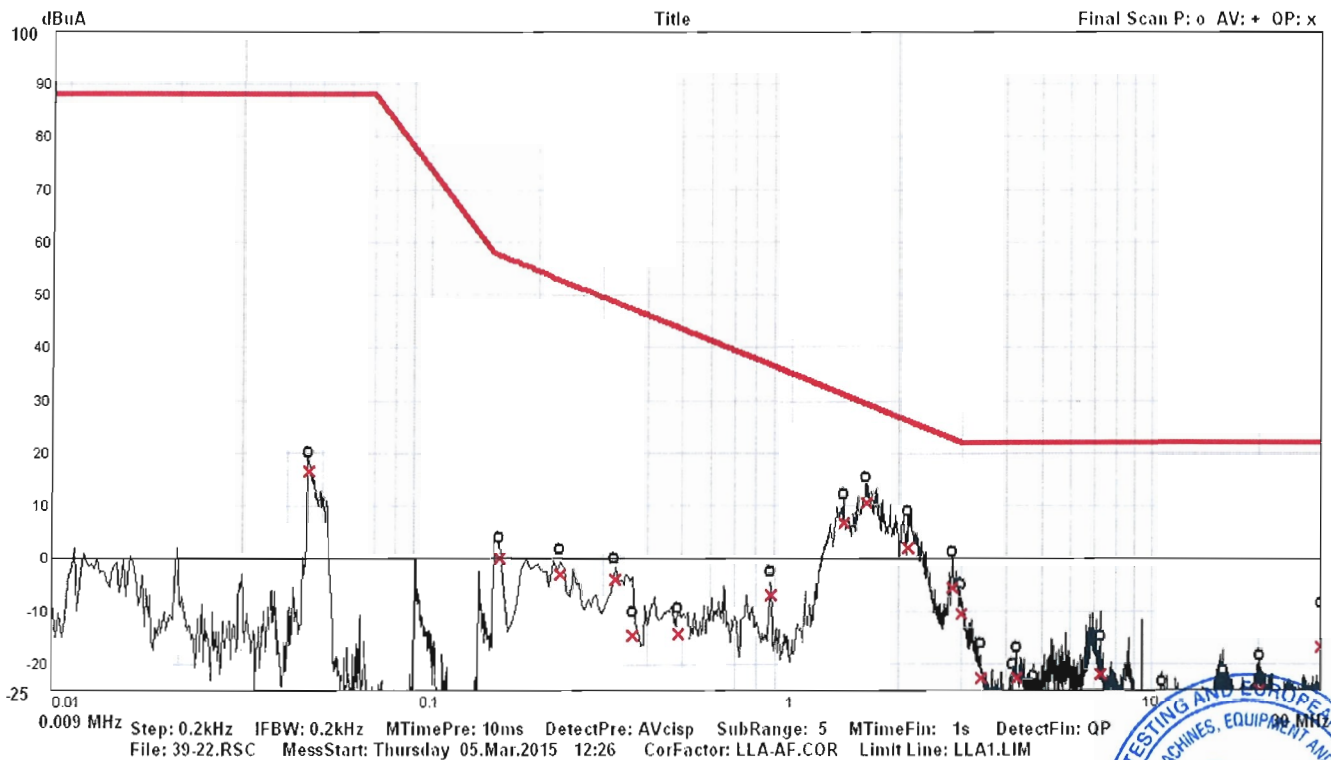


*The results showed in present test report concern tested sample only
The test report could be reproduced as a whole only and after written permission of the laboratory*



Frequency	Radiated electromagnetic disturbances - measured along the axis - Y		
	Quasi peak - QP		
	Measuring	Margin	Measuring
MHz	dB(μA)	dB(μA)	dB(μA)
0,046	16,46	71,54	88,00
0,155	0,11	57,49	57,60
0,230	-2,84	55,70	52,86
0,325	-3,93	52,63	48,70
0,365	-14,45	61,76	47,31
0,485	-14,35	58,24	43,89
0,875	-6,75	43,55	36,80
1,400	6,90	24,25	31,15
1,620	10,64	18,76	29,40
2,130	2,03	24,08	26,11
2,840	-5,52	28,17	22,65
3,000	-10,59	32,59	22,00
3,410	-22,82	44,82	22,00
4,270	-22,69	44,69	22,00
7,285	-22,03	44,03	22,00
30,000	-16,85	38,85	22,00

Drawing of Radiated electromagnetic disturbances - measured along the axis - Y



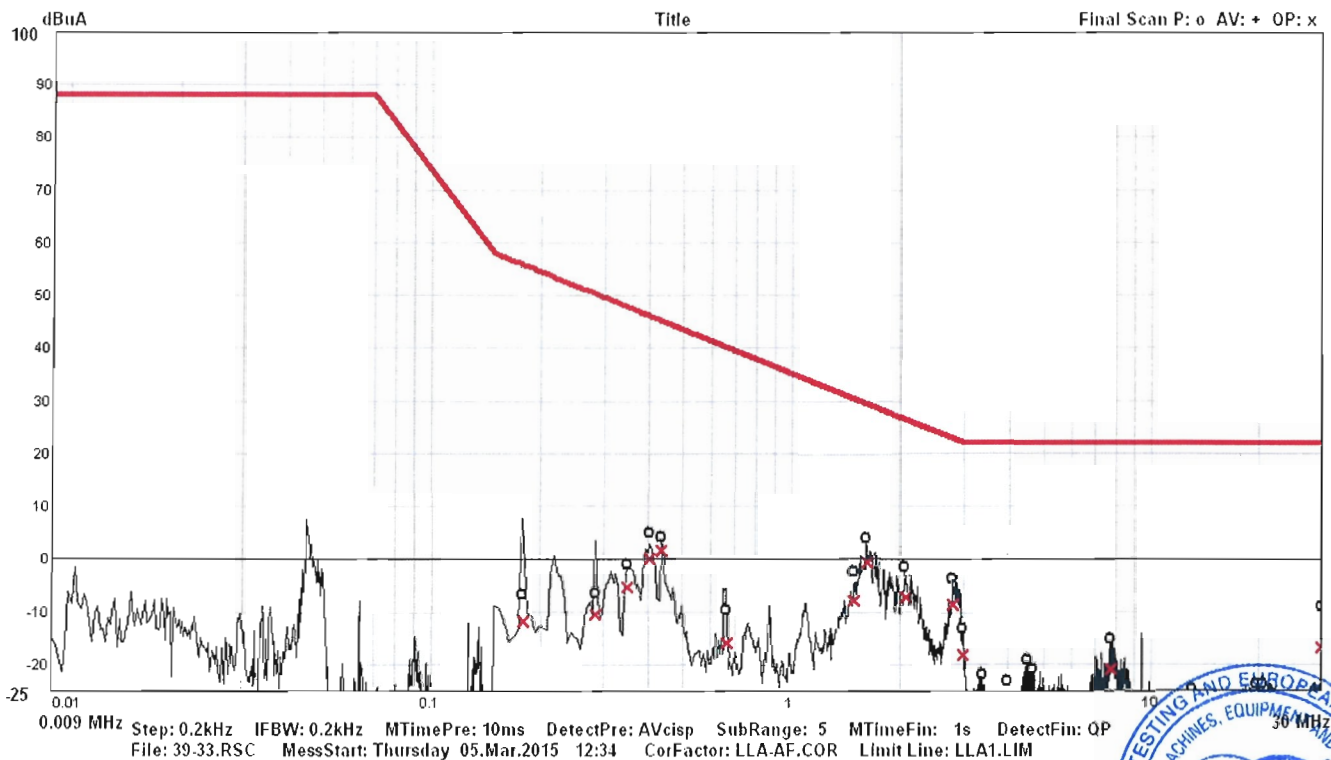
*The results showed in present test report concern tested sample only
The test report could be reproduced as a whole only and after written permission of the laboratory*





Frequency	Radiated electromagnetic disturbances - measured along the axis - Z		
	Quasi peak - QP		
	Measuring	Margin	Measuring
MHz	dB(μA)	dB(μA)	dB(μA)
0,180	-11,93	67,73	55,80
0,285	-10,69	60,97	50,28
0,350	-5,33	53,14	47,81
0,405	0,17	45,89	46,06
0,435	1,64	43,56	45,20
0,665	-15,85	55,95	40,10
1,495	-7,84	38,20	30,36
1,625	-0,63	29,99	29,36
2,075	-7,47	33,90	26,43
2,805	-8,56	31,36	22,80
3,010	-18,35	40,35	22,00
3,405	-26,78	48,78	22,00
4,525	-26,11	48,11	22,00
4,690	-28,56	50,56	22,00
7,745	-20,95	42,95	22,00
30,000	-16,91	38,91	22,00

Drawing of Radiated electromagnetic disturbances - measured along the axis - Z



*The results showed in present test report concern tested sample only
The test report could be reproduced as a whole only and after written permission of the laboratory*





Used technical equipments:

	Appliance	Type	Manufacturer	Identity №	Last calibration date
1.	EMI – receiver 9 kHz ÷ 1000 MHz	SCR 3501	Schaffner Electrotest GmbH, Germany	522	26.06.2014
2.	Large loop antenna 2m	RF300	Laplace Instruments LTD U.K.	9123	12.03.2013
3.	Digital multimeter	UNIGOR 390	LEM-Austria	PI 3288	19.03.2014
4.	Termometer-higrometer	177-H1	TESTO Germany	01320300/902	19.04.2012

TEST PERFORMER:

1. 

/ T. Hristov /



2. 

/ D. Chavalinov /

CHIEF LABORATORY : 

/ T. Hristov /