LABORATORY FOR TESTING OF MACHINERY, EQUIPMENT AND DEVICES

CENTER FOR TESTING AND EUROPEAN CERTIFICATION LTD

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TEST REPORT

№ 2emc-e-14-1064 / 18.12.2014

OBJECT TO BE TESTED: Luminaries – LED lamp, Model: LED50SMD3014 - 5,5W,E14 , cat.№ 99LED419; Model representative of: LED60SMD3528 - 3W cat.№ 99LED411 and 99LED412; LED50SMD3014- 5,5W cat.№99LED419 and 99LED420; LEDSMDPAR16 cat.№ 99LED605,99LED606;
(name of obejct 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 № 1064 / 16.10.2014
(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 characteristicsof electrical lighting and similar equipment.
(number and name of the standards)

DATE OF ACCEPTANCE IN THE TEST LABORATORY: 16.10.2014

MANIFACTURER: "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 – 230-240 VAC; 50-60 Hz
Rated power – 5,5 W
Class II

DATE OF TEST PERFORMANCE: 09.12.2014

LABORATORY CHIEF: ... .
/ T. Hristov

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

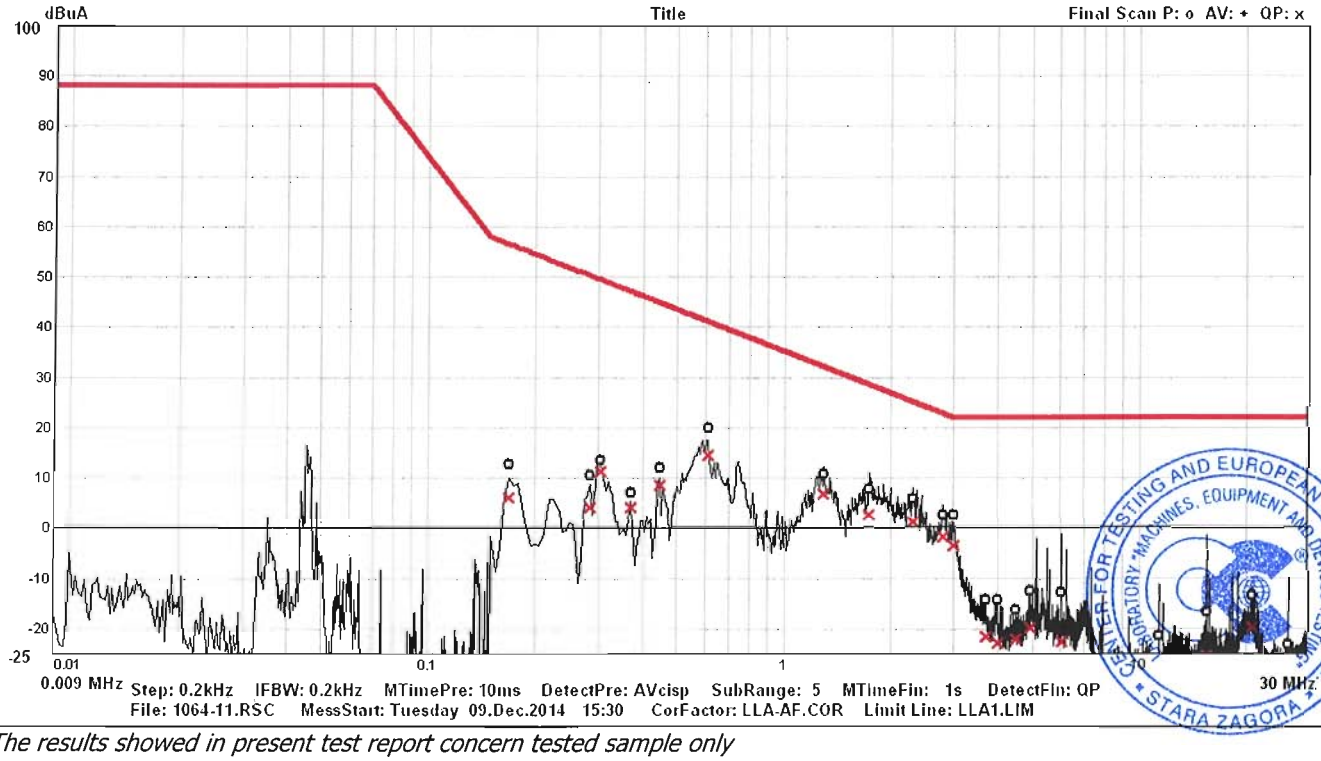
1. Radiated electromagnetic disturbances – 9kHz ÷ 30MHz

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 :

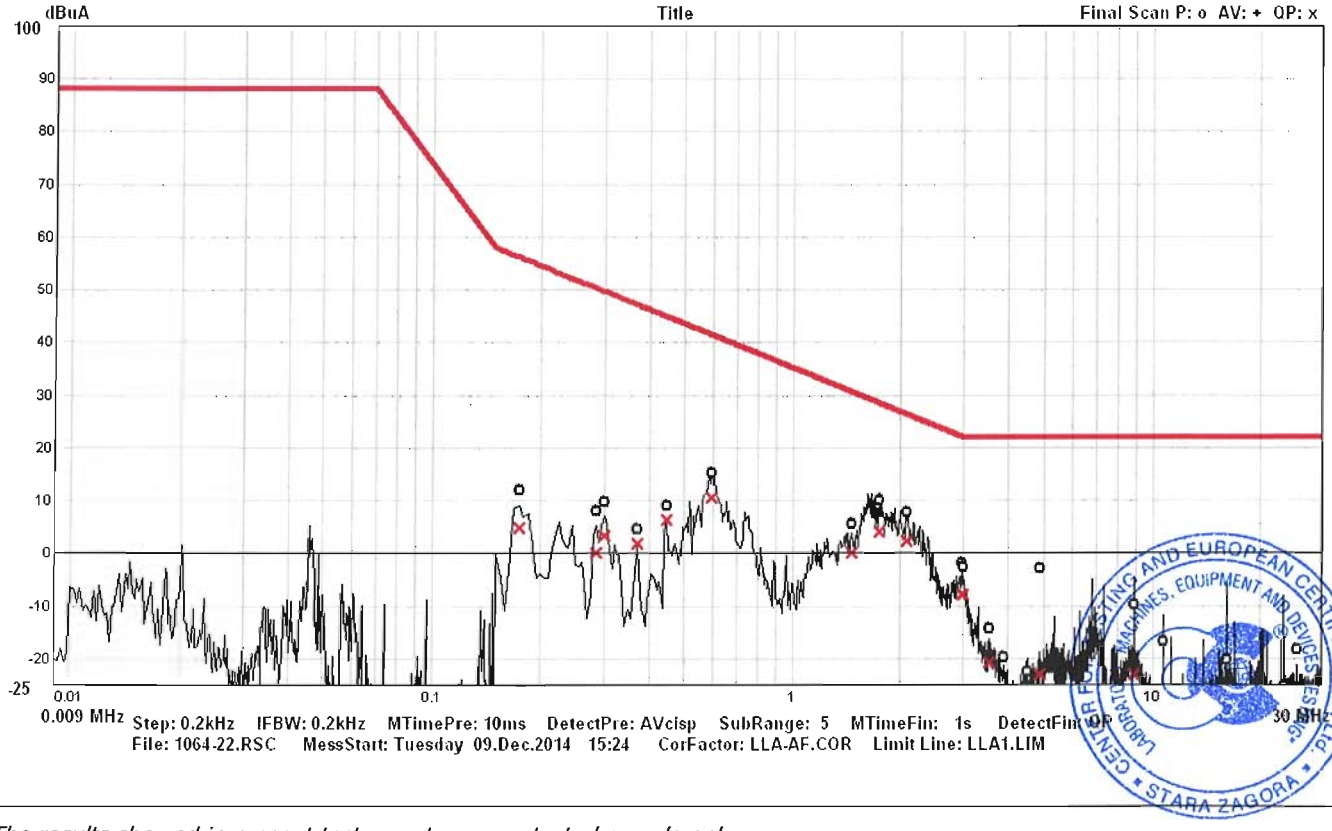
Frequency	Radiated electromagnetic disturbances - measured along the axis - X		
	Quasi peak - QP		
	Measuring	Margin	Limit
MHz	dB(μA)	dB(μA)	dB(μA)
0,170	6,06	50,43	56,49
0,285	4,02	46,26	50,28
0,305	11,34	38,13	49,47
0,370	4,18	42,97	47,15
0,445	8,67	36,26	44,93
0,610	14,45	26,69	41,14
1,295	6,88	25,21	32,09
1,740	2,61	25,93	28,54
2,305	1,06	24,10	25,16
2,800	-1,79	24,61	22,82
3,010	-3,52	25,52	22,00
3,715	-21,40	43,40	22,00
4,495	-22,05	44,05	22,00
4,925	-19,74	41,74	22,00
6,025	-22,60	44,60	22,00
20,835	-19,76	41,76	22,00

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



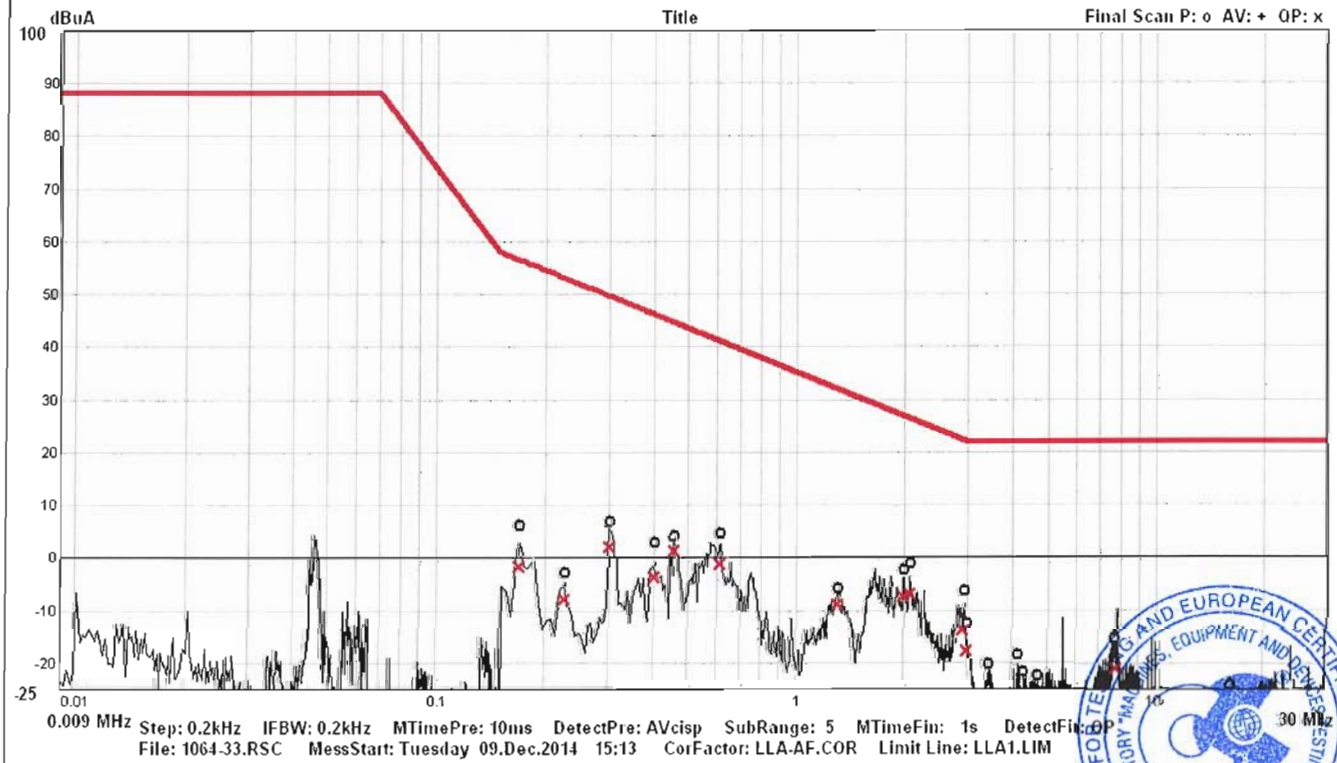
Frequency	Radiated electromagnetic disturbances - measured along the axis - Y		
	Quasi peak - QP		
	Measuring	Margin	Measuring
MHz	dB(μA)	dB(μA)	dB(μA)
0,175	4,89	51,25	56,14
0,285	-0,01	50,29	50,28
0,300	3,33	46,34	49,67
0,370	1,91	45,24	47,15
0,445	6,19	38,74	44,93
0,595	10,65	30,79	41,44
1,460	0,19	30,46	30,65
1,755	4,01	24,43	28,44
2,090	2,34	24,00	26,34
2,975	-7,77	29,87	22,10
3,010	-7,83	29,83	22,00
3,555	-20,86	42,86	22,00
3,905	-26,09	48,09	22,00
4,880	-23,12	45,12	22,00
8,925	-23,09	45,09	22,00
16,245	-28,38	50,38	22,00

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



Frequency	Radiated electromagnetic disturbances - measured along the axis - Z		
	Quasi peak - QP		
	Measuring	Margin	Measuring
MHz	dB(μA)	dB(μA)	dB(μA)
0,170	-1,60	58,09	56,49
0,225	-7,74	60,86	53,12
0,300	2,04	47,63	49,67
0,400	-3,67	49,88	46,21
0,455	1,24	43,42	44,66
0,610	-1,23	42,37	41,14
1,300	-8,81	40,85	32,04
1,990	-7,45	34,38	26,93
2,080	-6,97	33,37	26,40
2,925	-13,94	36,24	22,30
3,000	-17,70	39,70	22,00
3,420	-26,10	48,10	22,00
4,085	-26,43	48,43	22,00
4,240	-27,71	49,71	22,00
4,650	-28,57	50,57	22,00
7,790	-21,11	43,11	22,00

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



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 /