



**LABORATORY FOR TESTING OF MACHINERY,  
EQUIPMENT AND DEVICES**

**CENTER FOR TESTING AND EUROPEAN CERTIFICATION LTD**



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ИЗПИТВАНЕ

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**Accredited certificate**  
№ 101 ЛН / 10.05.2010  
Valid until: 31.05.2014  
of EA BAS, according  
EN ISO/IEC 17025

## TEST REPORT

№ 2emc-e-13-662 / 18.06.2013

**OBJECT TO BE TESTED:** Group luminaries – Road lighting fixture NOVA cat. № 98NVMM250  
Representative sample from Road lighting fixtures group with cat. № 98NVM100;  
98NVM150; 98NVM250; 98NVMM250; 98NVL100; 98NVL150; 98NVL250; 98NVL250;  
*(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](mailto:denkov@elmark.bg)  
Application № 662 / 08.05.2013  
*(name of the firm – applicant, address, telephone, number and date of the test application)*

**STANDART:** 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:** 08.05.2013

**YEAR OF PRODUCTION :** 2013  
*(identification number)*

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

**DECLARED TECHNICAL DATA:** Rated voltage – 230 V AC  
Rated frequency – 50 Hz  
Rated power – 250 W  
Class I  
Dimensions - 700x330x270 mm  
Degree of protection – IP 65

**DATE OF TEST PERFORMANCE:** 30.05.2013

**LABORATORY CHIEF:** .....  
/ T. Hristov /





**Emission of Radio disturbance characteristics of electrical lighting and similar equipment**

**Mains terminal disturbance voltage – 9kHz ÷ 30MHz**

EN 55015, cl. 4.3 – Disturbance voltage limits at mains terminals – Table 2a

EN 55015, cl. 5.2.4 – Application of the limits for other luminaires

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

EN 55015, cl. 6.4 – Ambient temperature: 25 °C; Relative Humidity: 42 %.

EN 55015, cl.8.1 – Measuring arrangement and procedure

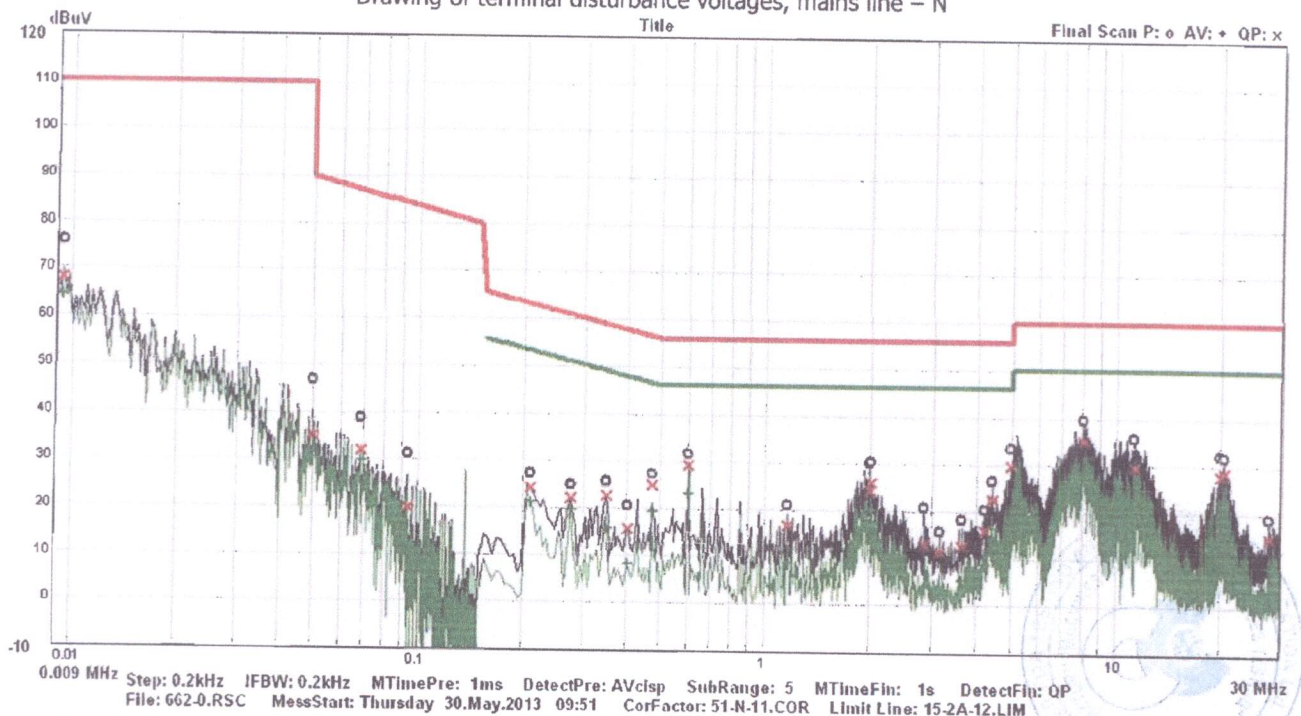
EN 55015, cl.8.2 – Measurement of disturbance voltages, at the mains terminals of indoor and outdoor luminaires – Figure 6a.

The test is performed with MHL and supply voltage: 230 V

**RESULTS OF MEASUREMENT :**

Frequency MHz	Terminal disturbance voltages, mains line – N					
	Quasi peak - QP			Average - AV		
	Measuring dB(μV)	Margin dB(μV)	Limit dB(μV)	Measuring dB(μV)	Margin dB(μV)	Limit dB(μV)
0,009	67,96	42,04	110,00	64,45	-	-
0,210	23,99	39,21	63,20	21,08	32,12	53,20
0,275	21,99	38,97	60,96	19,57	31,39	50,96
0,350	22,47	36,49	58,96	15,59	33,37	48,96
0,475	24,92	31,50	56,42	19,11	27,31	46,42
0,600	29,16	26,84	56,00	23,01	22,99	46,00
1,170	16,56	39,44	56,00	8,52	37,48	46,00
1,995	24,17	31,83	56,00	17,08	28,92	46,00
2,025	25,96	30,04	56,00	19,95	26,05	46,00
4,190	15,90	40,10	56,00	8,71	37,29	46,00
4,420	22,60	33,40	56,00	16,29	29,71	46,00
4,985	29,87	26,13	56,00	20,20	25,80	46,00
8,045	35,22	24,78	60,00	26,98	23,02	50,00
11,260	29,64	30,36	60,00	21,05	28,95	50,00
19,990	28,12	31,88	60,00	22,33	27,67	50,00
20,470	28,84	31,16	60,00	22,85	27,15	50,00

Drawing of terminal disturbance voltages, mains line – N



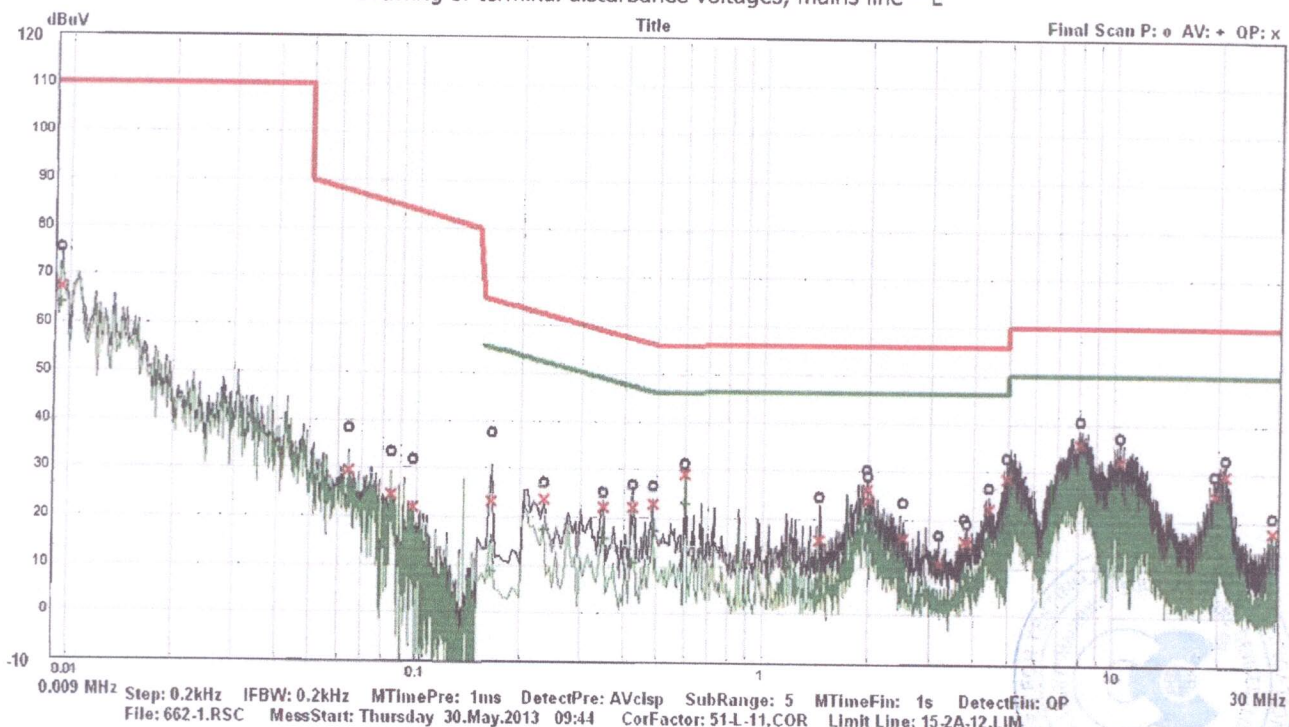
The results showed in present test report concern tested sample only

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Frequency	Terminal disturbance voltages, mains line - L					
	Quasi peak - QP			Average - AV		
	Measuring	Margin	Limit	Measuring	Margin	Limit
MHz	dB(μV)	dB(μV)	dB(μV)	dB(μV)	dB(μV)	dB(μV)
0,009	67,50	42,50	110,00	64,01	-	-
0,235	23,74	38,53	62,27	17,41	34,86	52,27
0,350	22,24	36,72	58,96	15,46	33,50	48,96
0,425	22,33	35,02	57,35	10,74	36,61	47,35
0,485	23,17	33,08	56,25	17,37	28,88	46,25
0,600	29,24	26,76	56,00	23,15	22,85	46,00
1,990	26,29	29,71	56,00	20,38	25,62	46,00
2,005	23,90	32,10	56,00	17,26	28,74	46,00
2,505	16,19	39,81	56,00	9,32	36,68	46,00
3,780	15,69	40,31	56,00	8,95	37,05	46,00
4,440	22,43	33,57	56,00	16,20	29,80	46,00
4,990	28,52	27,48	56,00	15,31	30,69	46,00
8,045	35,77	24,23	60,00	29,97	20,03	50,00
10,440	32,16	27,84	60,00	22,28	27,72	50,00
19,645	25,52	34,48	60,00	19,56	30,44	50,00
21,090	29,65	30,35	60,00	24,20	25,80	50,00
0,009	67,50	42,50	110,00	64,01	35,99	100,00
0,235	23,74	38,53	62,27	17,41	34,86	52,27
0,350	22,24	36,72	58,96	15,46	33,50	48,96

Drawing of terminal disturbance voltages, mains line – L



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Used technical equipments:

	Appliance	Type	Manufacturer	Identity №	Last calibration date
1.	EMI – receiver 9 kHz ÷ 1000 MHz	SCR 3501	Schaffner Electrotest GmbH, Germany	522	07.07.2011
2.	Line impedance stabilisation networks	NNB 51	TESEQ Switzerland	26458	15.11.2011
3.	Digital multimeter	UNIGOR 390	LEM-Austria	PI 3288	08.07.2011
4.	Termometer-higrometer	177-H1	TESTO Germany	01320300/902	19.04.2012

TEST PERFORMER:

1. .... 

/ T. Hristov /

2. .... 

/ D. Chavalinov /

CHIEF LABORATORY :..... 

/ T. Hristov /

