



Center for Testing and
European Certification

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

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

TEST REPORT

№ 2emc-e-13-664 / 18.06.2013

OBJECT TO BE TESTED: Group luminaries – Industrial lighting "Floodlights" cat. № 98AT 105110SCH
Representative sample from Industrial lighting "Floodlights" group with cat. №:
98AT 45101SCH; 98AT 45102SCH; 98AT 45103SCH; 98AT 45104SCH; 98AT 105109SCH;
98AT 105110SCH; 98AT 505111SCH; 98AT 505112SCH
*(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 № 664 / 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
(firm, trade mark, address)

DECLARED TECHNICAL DATA: Rated voltage – 230 V AC
Rated frequency – 50 Hz
Rated power – 400 W
Class I
Dimensions - 550x150 mm
Degree of protection – IP 65

DATE OF TEST PERFORMANCE: 28.05.2013

LABORATORY CHIEF:
/ T. Hristov /





Emission of Radio disturbance characteristics of electrical lighting and similar equipment

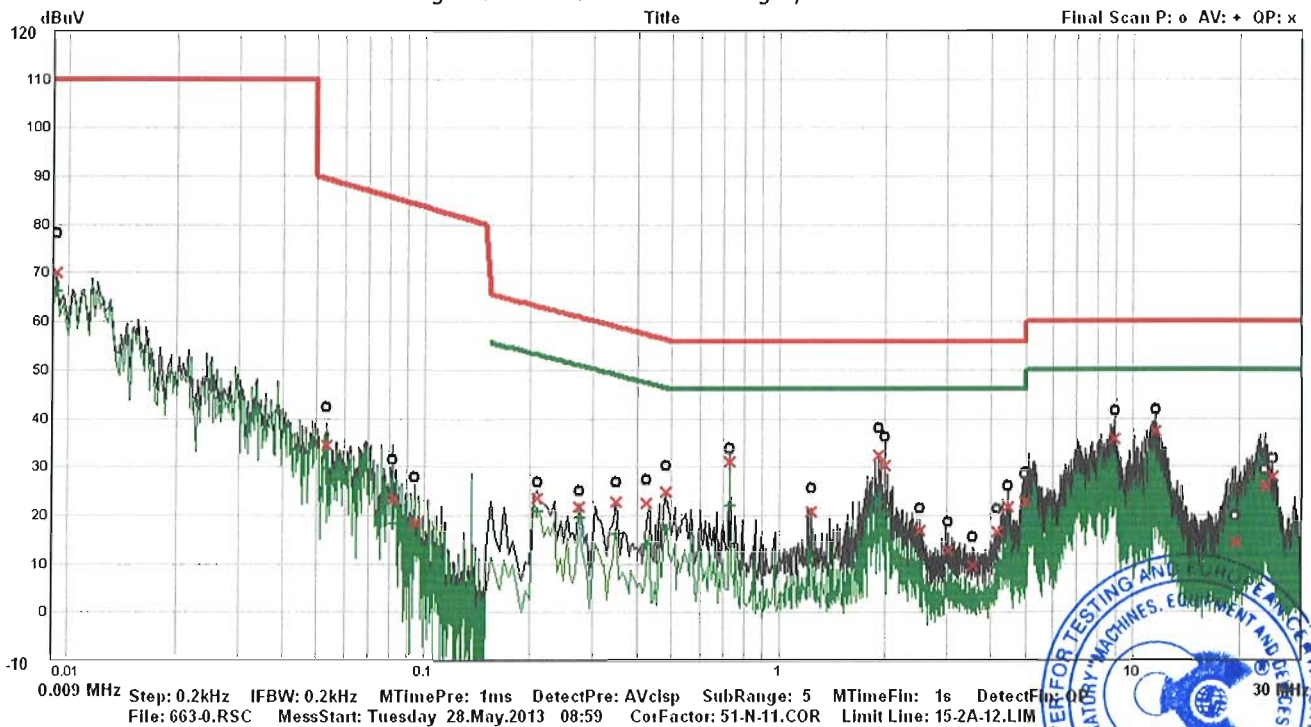
Mains terminal disturbance voltage – 9kHz + 30MHz

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	Terminal disturbance voltages, mains line – N					
	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	70,14	39,86	110,00	66,15	-	-
0,275	21,90	39,06	60,96	19,40	31,56	50,96
0,350	22,80	36,16	58,96	16,21	32,75	48,96
0,425	22,63	34,72	57,35	13,91	33,44	47,35
0,480	24,97	31,36	56,33	17,10	29,23	46,33
0,730	31,03	24,97	56,00	22,05	23,95	46,00
1,235	20,75	35,25	56,00	11,57	34,43	46,00
1,920	32,46	23,54	56,00	22,68	23,32	46,00
2,010	30,37	25,63	56,00	20,19	25,81	46,00
2,520	17,00	39,00	56,00	10,01	35,99	46,00
4,480	21,68	34,32	56,00	14,23	31,77	46,00
4,960	22,83	33,17	56,00	11,89	34,11	46,00
8,900	35,76	24,24	60,00	27,31	22,69	50,00
11,540	37,42	22,58	60,00	28,81	21,19	50,00
23,630	25,86	34,14	60,00	20,32	29,68	50,00
25,005	28,03	31,97	60,00	21,66	28,34	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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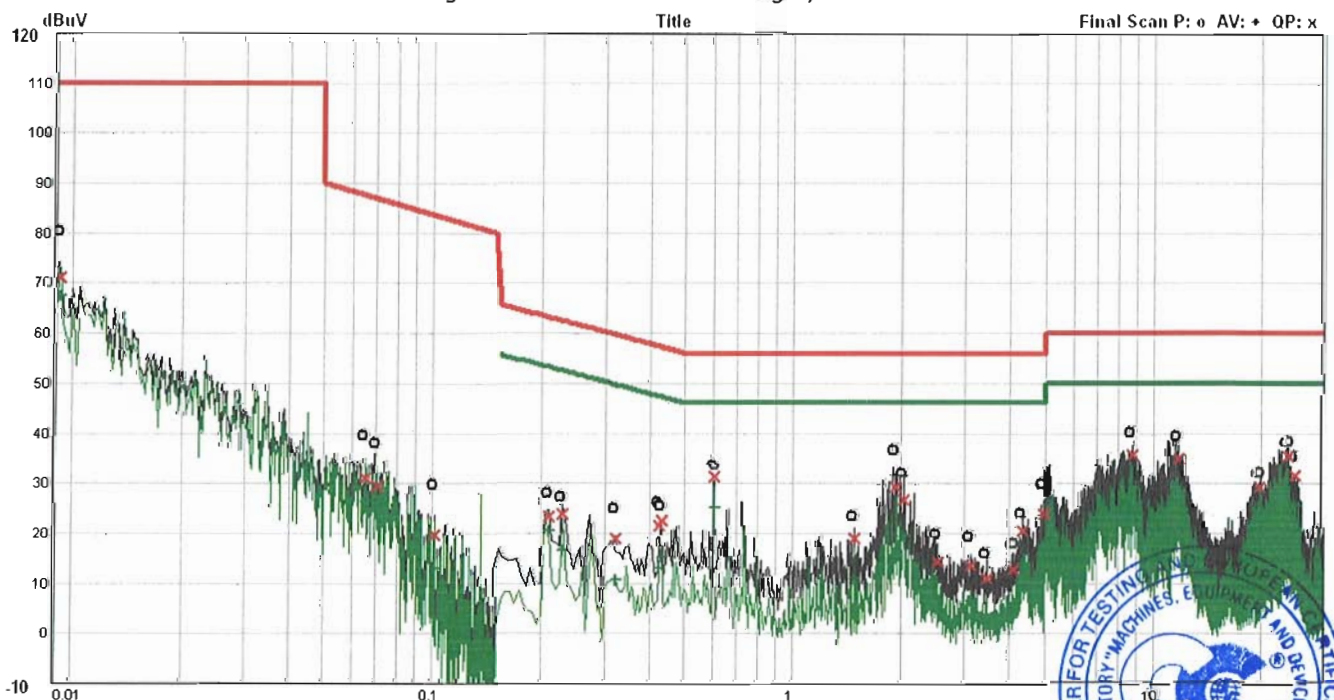


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Frequency	Terminal disturbance voltages, mains line - L					
	Quasi peak - QP			Average - AV		
	Measuring	Margin	Limit	Measuring	Margin	Limit
MHz	dB(μV)	dB(μV)	dB(μV)	dB(μV)	dB(μV)	dB(μV)
0,009	71,10	38,90	110,00	67,63	-	-
0,210	23,36	39,84	63,20	20,59	32,61	53,20
0,230	23,90	38,55	62,45	16,55	35,90	52,45
0,320	18,84	40,86	59,70	10,79	38,91	49,70
0,425	21,46	35,89	57,35	12,95	34,40	47,35
0,430	22,55	34,70	57,25	15,28	31,97	47,25
0,605	31,25	24,75	56,00	25,04	20,96	46,00
1,490	18,83	37,17	56,00	11,04	34,96	46,00
1,930	29,38	26,62	56,00	15,11	30,89	46,00
2,045	26,59	29,41	56,00	19,40	26,60	46,00
2,545	14,36	41,64	56,00	7,13	38,87	46,00
3,140	13,58	42,42	56,00	6,56	39,44	46,00
4,340	20,39	35,61	56,00	13,98	32,02	46,00
4,980	23,91	32,09	56,00	12,49	33,51	46,00
8,725	35,79	24,21	60,00	28,98	21,02	50,00
11,745	35,02	24,98	60,00	26,20	23,80	50,00
19,920	29,20	30,80	60,00	24,26	25,74	50,00
23,905	35,60	24,40	60,00	30,61	19,39	50,00
25,005	31,72	28,28	60,00	25,58	24,42	50,00

Drawing of terminal disturbance voltages, mains line – L



0.009 MHz Step: 0.2kHz IFBW: 0.2kHz MTimePre: 1ms DetectPre: AVclsp SubRange: 5 MTimeFin: 1s DetectFin: 0.1ms
File: 663-1.RSC MessStart: Tuesday 28.May.2013 08:52 CorFactor: 51-L-11.COR Limit Line: 15-2A-12.LIM

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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 /



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