

TEST-REPORT

1803-0191901R02

Client:	<i>Name:</i>	Ningbo Starlite Lighting & Electric Co., Ltd.	
	<i>Street:</i>	No. 14, Lane 757, Zhenxi Road	
	<i>Place:</i>	Zhouxiang Town, Cixi	
	<i>Country:</i>	China	

Device:	<i>Test Item:</i>	LED Rechargeable Work Lamp	
	<i>Supplier:</i>	--	
	<i>Article No.:</i>	SLED-20UPR, SLED-30UPR	
	<i>Rating:</i>	Class III, 12VDC, IP44	
	<i>Date of receipt:</i>	2018-12-24	<i>Sample-no.:</i>

Test:	<i>Description:</i>	EMC Test	
	<i>Standards:</i>	EN 55015: 2013 + A1: 2015 EN 61547: 2009	
	<i>Notes:</i>	All test items were performed by an external laboratory with required accreditation. Amendment Report to 1803-0191901R01 issued by Hermes Hansecontrol Technical Testing Service (Shanghai) Company Limited. 2019-01-11.	
	<i>Date of report:</i>	2019-05-08	<i>Pages of report:</i>

Final result: PASS	
 Tony Pu Test Engineer	 Tim Kirschner Test Engineer
Approved by	Reviewed by

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Testing :	
Date(s) of performance of tests ... :	See dates for each test case.
<p>General remarks:</p> <p>This report replaces Report 1803-0191901R01 issued by Hermes Hansecontrol Technical Testing Service (Shanghai) Company Limited. 2018-01-11.</p> <p>All Test results remain unchanged only the client name was corrected.</p> <p>"(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report.</p> <p>A cross <input checked="" type="checkbox"/> in a rectangular shape means that this option is applied.</p>	
<p>Possible test case verdicts:</p> <p>- test case does not apply to test object ... :</p> <p>- test object does meet requirement :</p> <p>- test object does not meet requirement ... :</p> <p>- test object was not performed :</p>	<p>N/A</p> <p>P (Pass)</p> <p>F (Fail)</p> <p>N/T</p>
<p>Definition of symbols used in this test report:</p> <p><input checked="" type="checkbox"/> Indicates that the listed condition, standard or equipment is applicable for this report.</p> <p><input type="checkbox"/> Indicates that the listed condition, standard or equipment is not applicable for this report.</p>	
Decimal separator used in this report.....:	<p><input type="checkbox"/> Comma (,)</p> <p><input checked="" type="checkbox"/> Point (.)</p>

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Table of Contents

1	General description of test item(s)	4
2	Verdict summary section	6
3	Test Conditions	7
3.1	General.....	7
3.1.1	Specific test conditions for EN 55015	7
4	Emission	8
4.1	Radiated electromagnetic disturbances (30 MHz to 300 MHz).....	8
4.1.1	SLED-20UPR - Test result – horizontal	9
4.1.2	SLED-20UPR - Test result – vertical	10
4.1.3	SLED-30UPR - Test result – horizontal	11
4.1.4	SLED-30UPR - Test result – vertical	12
4.2	Radiated electromagnetic disturbances (9 kHz to 30 MHz).....	13
4.2.1	SLED-20UPR - Radiated disturbance (9 kHz~30 MHz) test—X	14
4.2.2	SLED-20UPR - Radiated disturbance (9 kHz~30 MHz) test—Y	15
4.2.3	SLED-20UPR - Radiated disturbance (9 kHz~30 MHz) test—Z	16
4.2.4	SLED-30UPR - Radiated disturbance (9 kHz~30 MHz) test—X	17
4.2.5	SLED-30UPR - Radiated disturbance (9 kHz~30 MHz) test—Y	18
4.2.6	SLED-30UPR - Radiated disturbance (9 kHz~30 MHz) test—Z	19
5	Immunity	20
5.1	General information.....	20
5.2	Electrostatic discharge	21
5.3	Radio-frequency electromagnetic fields	23
6	Test Equipment	24
7	Pictures documentation	25
7.1	Setup picture	25
7.2	Product picture – SLED-20UPR	27
7.3	Product picture – SLED-30UPR	29

1 General description of test item(s)

Description	LED Rechargeable Work Lamp					
Article Number	SLED-20UPR, SLED-30UPR					
Project Number	Class III, 12VDC, IP44					
Brand name	--					
General product information.....	The product tested in this report is a battery supplied LED light. Both models are tested.					
Ports.....	Port name and description	Specified length [m]	Attached during test	Shielded		
	Enclosure	-	-	-		
		--	<input type="checkbox"/>	<input type="checkbox"/>		
			<input type="checkbox"/>	<input type="checkbox"/>		
Supplemental information to the ports	--					
Rated power supply	Voltage and Frequency	Reference poles				
		N	L1	L2	L3	
	<input type="checkbox"/>	AC: --	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	<input type="checkbox"/>	AC: --	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	DC: 12VDC					
Rated Power :	--					
Protection Class :	Class III					
Clock frequencies :	<108MHz					
Other parameters :	--					
Software version :	--					
Hardware version :	--					
Mounting position:	<input checked="" type="checkbox"/>	<i>Table top equipment</i>				
	<input type="checkbox"/>	<i>Wall/Ceiling mounted equipment</i>				
	<input type="checkbox"/>	<i>Floor standing equipment</i>				
	<input type="checkbox"/>	<i>Hand-held equipment</i>				
	<input type="checkbox"/>	<i>Other:</i>				

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Modules/parts :	Module/parts of test item		Type	Manufacturer
	none		--	--
Operating modes :	No.	Operating mode of test item	Applied for testing	
			Emission	Immunity
	1	ON	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Supplemental information to the operating modes :	---			
Accessories (not part of the test item) :	Accessory		Type	Manufacturer
	--		--	--
Modifications to the test item during testing :	none			

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2 Verdict summary section

EN 55015:2013+A1:2015			
Clause	Requirement – Test case	Basic standard	Verdict
4.3.1	Disturbance voltage at mains terminals	EN 55015 (ed. 8) + am1	N/A
4.3.2	Disturbance voltage at load terminals	EN 55016-1-2 +am1+am2	N/A
4.3.3	Disturbance voltage at control terminals	EN 55032 (ed.1)	N/A
4.4.1	Radiated electromagnetic disturbances (9 kHz to 30 MHz)	EN 55016-1-4 (ed. 3) EN 55015 (ed. 8) + am1	P
4.4.2	Radiated electromagnetic disturbances (30 MHz to 300 MHz)	EN 55032	P
Annex B	Independent method of measurement of radiated emission (CDNE)	EN 55015(ed. 8) + am1	N/A

EN 61547:2009			
Clause	Requirement – Test case	Basic standard	Verdict
5.2	Electrostatic discharge	EN 61000-4-2	P
5.3	Radio-frequency electromagnetic fields	EN 61000-4-3	P
5.4	Power frequency magnetic fields	EN 61000-4-8	N/A
5.5	Fast transients	EN 61000-4-4	N/A
5.6	Injected currents (radio-frequency common mode)	EN 61000-4-6	N/A
5.7	Surges	EN 61000-4-5	N/A
5.8	Voltage dips and short interruptions	EN 61000-4-11	N/A
Supplementary information:			
--			

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3 Test Conditions

3.1 General

Environmental reference conditions :	The climatic conditions during the tests are within the limits specified by the manufacturer for the operation of the EUT and the test equipment. The climatic conditions during the tests were within the following limits:		
	Temperature	Humidity	Atmospheric pressure
	15 °C – 35 °C	30 % - 60 %	800 hPa – 1060 hPa
	If explicitly required in the basic standard or applied product standard the climatic values are recorded and documented separately in this test report.		

3.1.1 Specific test conditions for EN 55015

Test set up..... :	<input checked="" type="checkbox"/>	EN 55015
	<input type="checkbox"/>	EN 55030 technical report applied for built-in appliances

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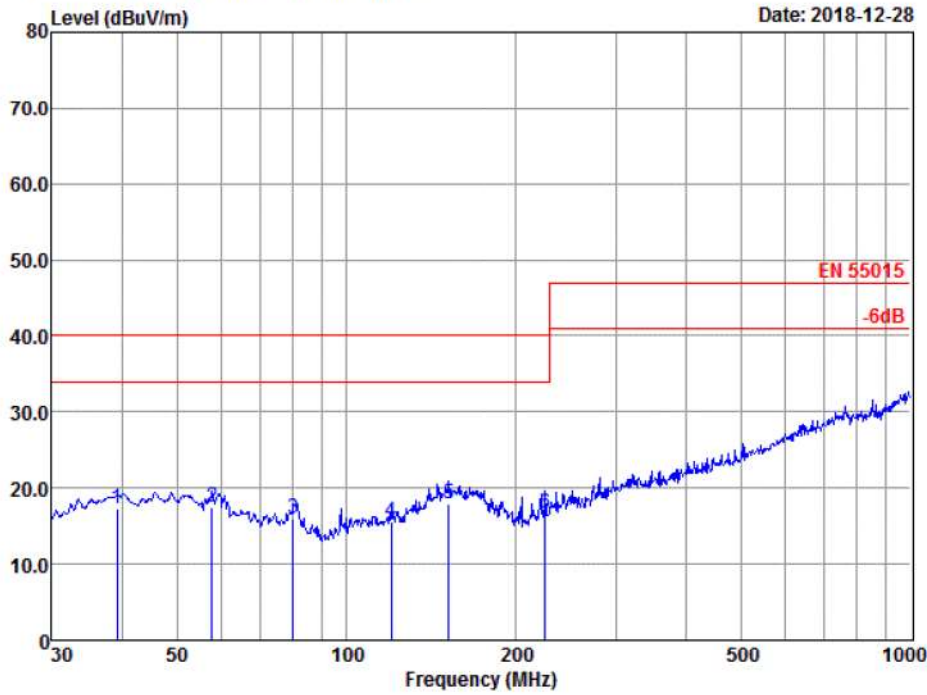
4 Emission

4.1 Radiated electromagnetic disturbances (30 MHz to 300 MHz)

Test date	2018-12-28	
Applied limit class	<input checked="" type="checkbox"/>	Table 3b Radiated disturbance limits
	<input type="checkbox"/>	Table B.1 Common mode terminal voltage, CDN method
	<input type="checkbox"/>	Other:
Test set-up description	<input checked="" type="checkbox"/>	Equipment on a table of 80 cm height
	<input type="checkbox"/>	Equipment on the floor (insulated from ground plane)
	<input type="checkbox"/>	Equipment on a 10 cm support over the ground plane according CISPR 15 Annex B
	<input type="checkbox"/>	Other:
Supplementary test set-up description	---	
Test method applied	<input checked="" type="checkbox"/>	OATS or SAC with measurement distance [m]: 3 m
	<input type="checkbox"/>	FAR with measurement distance [m]:
	<input type="checkbox"/>	TEM Waveguide
	<input type="checkbox"/>	CDN(E) according to CISPR 15 Annex B
Supplementary information	---	

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4.1.1 SLED-20UPR - Test result – horizontal

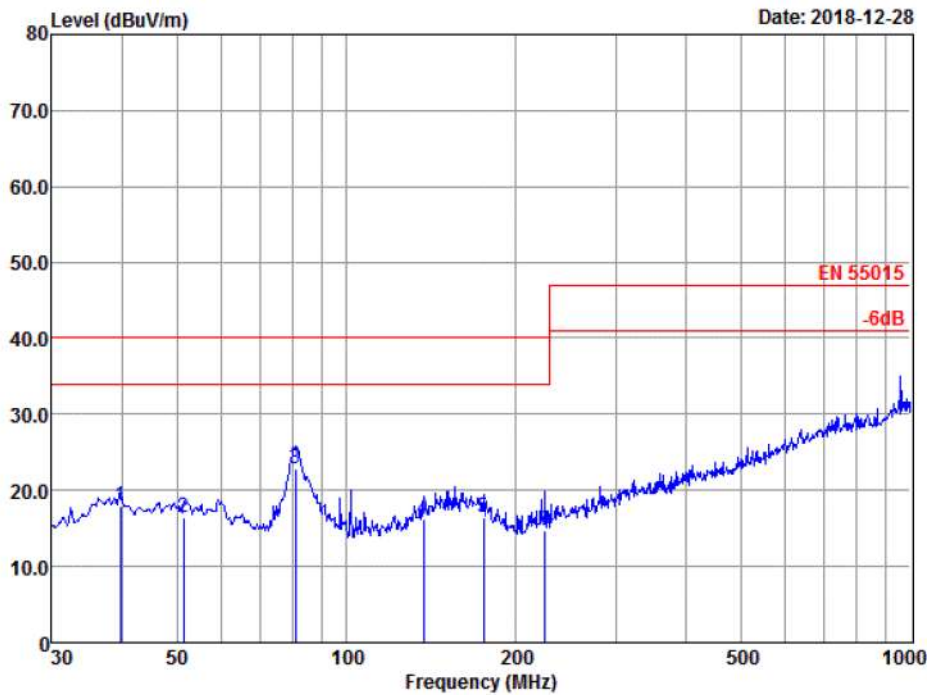


Site : Audix(Shanghai) Chamber3
 Condition : EN 55015 HORIZONTAL
 Project No. :
 Applicant :
 EUT : Battery flood light
 M/N :
 S/N : SHEE-01919-18
 Power Supply : 230V/50Hz
 Ambient : 22'C 60%RH
 Test Mode : On Max Power
 Test Engineer: David
 Memo : SLED-20UPR

	Read Freq	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Limit Line	Over Level	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	39.16	24.38	0.68	20.32	28.16	40.00	17.22	-22.78	QP
2	57.59	25.35	0.82	19.54	28.12	40.00	17.59	-22.41	QP
3	80.36	26.77	0.95	16.34	28.06	40.00	16.00	-24.00	QP
4	119.86	24.97	1.20	17.26	27.79	40.00	15.64	-24.36	QP
5	151.60	24.02	1.37	20.04	27.59	40.00	17.84	-22.16	QP
6	225.31	25.35	1.66	16.85	27.27	40.00	16.59	-23.41	QP

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4.1.2 SLED-20UPR - Test result – vertical

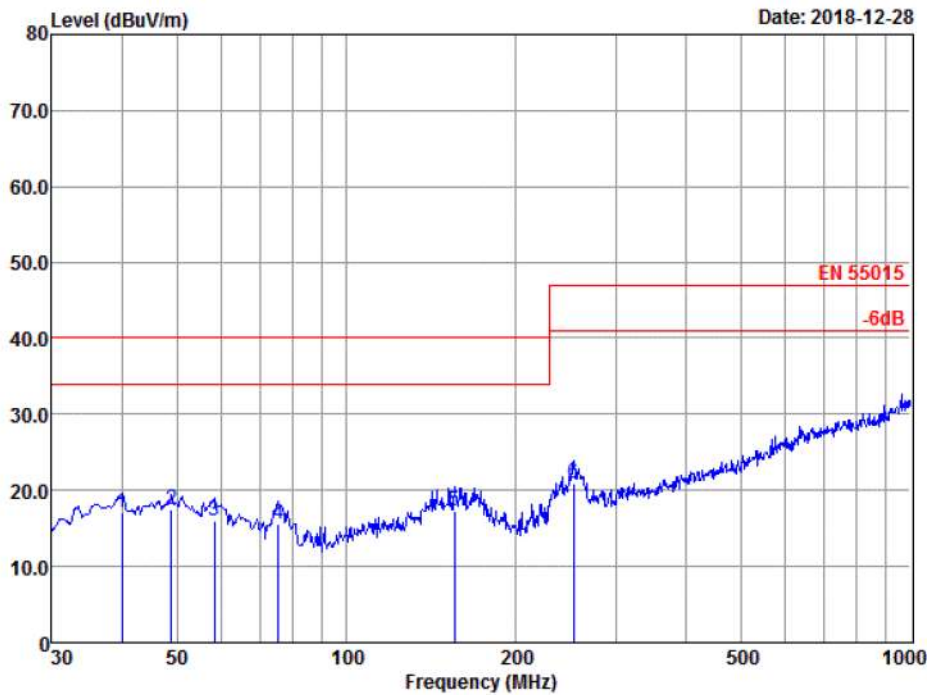


Site : Audix(Shanghai) Chamber3
 Condition : EN 55015 VERTICAL
 Project No. :
 Applicant :
 EUT : Battery flood light
 M/N :
 S/N : SHEE-01919-18
 Power Supply : 230V/50Hz
 Ambient : 22'C 60%RH
 Test Mode : On Max Power
 Test Engineer: David
 Memo : SLED-20UPR

	Read Freq	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Limit Line	Over Level	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	39.71	24.94	0.68	20.44	28.16	40.00	17.90	-22.10	QP
2	51.30	23.79	0.77	20.11	28.14	40.00	16.53	-23.47	QP
3	80.93	34.06	0.95	15.83	28.05	40.00	22.79	-17.21	QP
4	136.94	23.79	1.29	18.74	27.68	40.00	16.14	-23.86	QP
5	174.42	22.95	1.46	19.49	27.48	40.00	16.42	-23.58	QP
6	225.31	23.52	1.66	16.85	27.27	40.00	14.76	-25.24	QP

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4.1.3 SLED-30UPR - Test result – horizontal

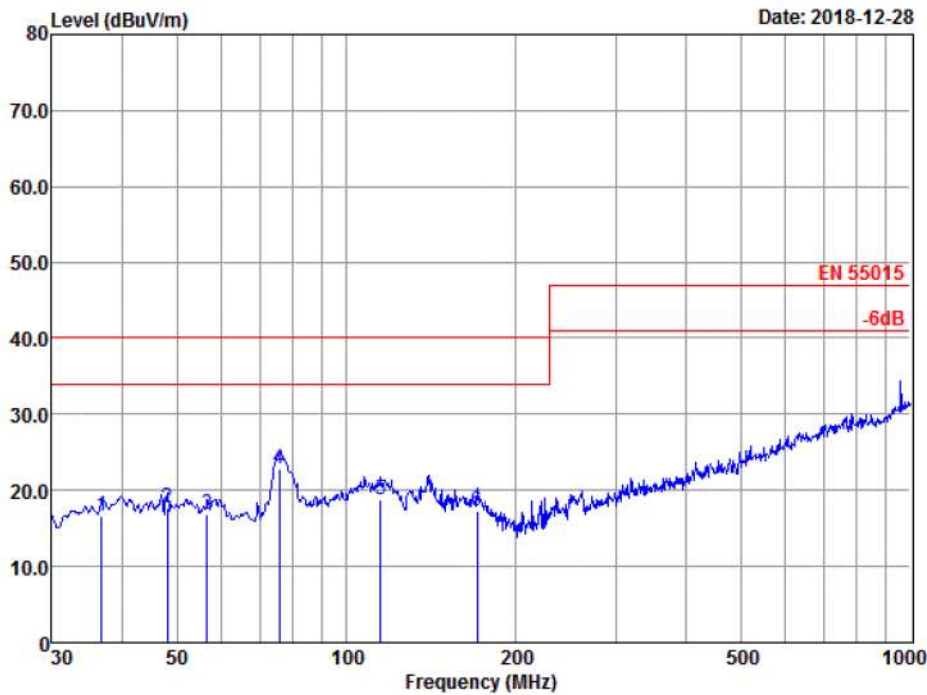


Site : Audix(Shanghai) Chamber3
 Condition : EN 55015 HORIZONTAL
 Project No. :
 Applicant :
 EUT : Battery flood light
 M/N :
 S/N : SHEE-01919-18
 Power Supply : 230V/50Hz
 Ambient : 22'C 60%RH
 Test Mode : On Max Power
 Test Engineer: David
 Memo : SLED-30UPR

	Read Freq	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Limit Line	Over Level	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	39.99	24.14	0.69	20.50	28.16	40.00	17.17	-22.83	QP
2	48.84	25.04	0.76	19.74	28.14	40.00	17.40	-22.60	QP
3	58.20	23.62	0.82	19.60	28.11	40.00	15.93	-24.07	QP
4	75.71	26.22	0.93	16.43	28.07	40.00	15.51	-24.49	QP
5	154.82	23.48	1.38	20.10	27.58	40.00	17.38	-22.62	QP
6	252.95	28.08	1.74	18.16	27.17	47.00	20.81	-26.19	QP

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4.1.4 SLED-30UPR - Test result – vertical



Site : Audix(Shanghai) Chamber3
 Condition : EN 55015 VERTICAL
 Project No. :
 Applicant :
 EUT : Battery flood light
 M/N :
 S/N : SHEE-01919-18
 Power Supply : 230V/50Hz
 Ambient : 22'C 60%RH
 Test Mode : On Max Power
 Test Engineer: David
 Memo : SLED-30UPR

	Read Freq	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Limit Line	Over Level	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	36.77	24.31	0.66	19.86	28.16	40.00	16.67	-23.33	QP
2	47.99	25.41	0.75	19.60	28.14	40.00	17.62	-22.38	QP
3	56.59	24.78	0.81	19.39	28.12	40.00	16.86	-23.14	QP
4	75.98	33.75	0.93	16.30	28.07	40.00	22.91	-17.09	QP
5	114.92	28.63	1.17	16.88	27.82	40.00	18.86	-21.14	QP
6	170.19	23.38	1.45	20.01	27.50	40.00	17.34	-22.66	QP

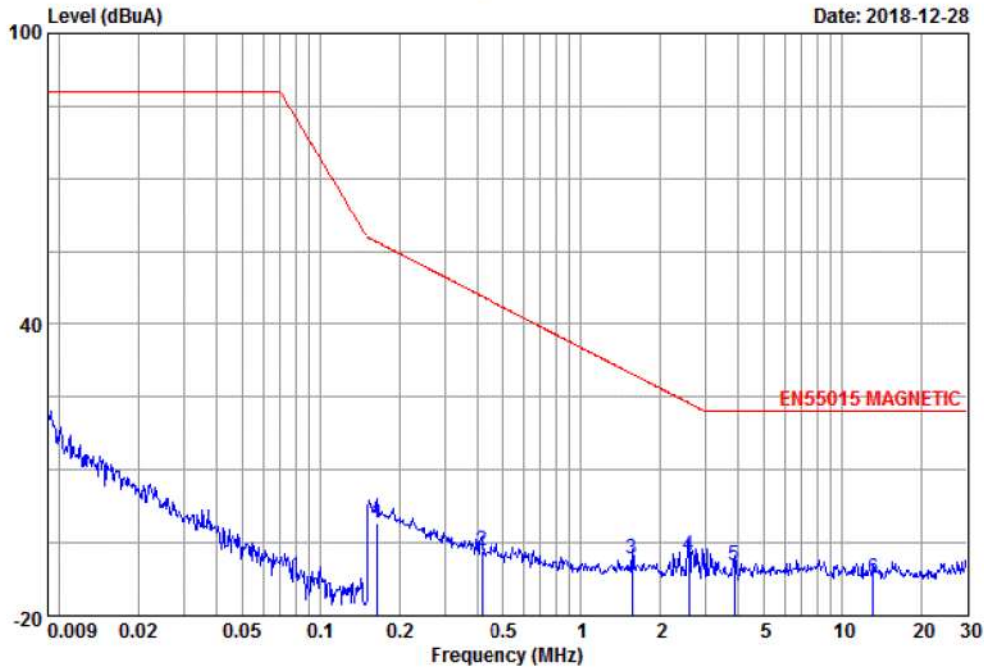
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4.2 Radiated electromagnetic disturbances (9 kHz to 30 MHz)

Test date	2018-12-28	
Applied limit according to loop antenna diameter	<input checked="" type="checkbox"/>	2m for equipment length not exceeding 1,6m
	<input type="checkbox"/>	3m for equipment length between 1,6 m and 2,6 m
	<input type="checkbox"/>	4m for equipment length between 2,6 m and 3,6 m
Test set-up description	<input checked="" type="checkbox"/>	Equipment placed in the centre of the LLA
	<input type="checkbox"/>	Other:
Supplementary test set-up description	All tests are done after 15 min pre-heating	
Test method applied	<input checked="" type="checkbox"/>	Large Loop Antenna
	<input type="checkbox"/>	Other:
Supplementary information	---	

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4.2.1 SLED-20UPR - Radiated disturbance (9 kHz~30 MHz) test—X

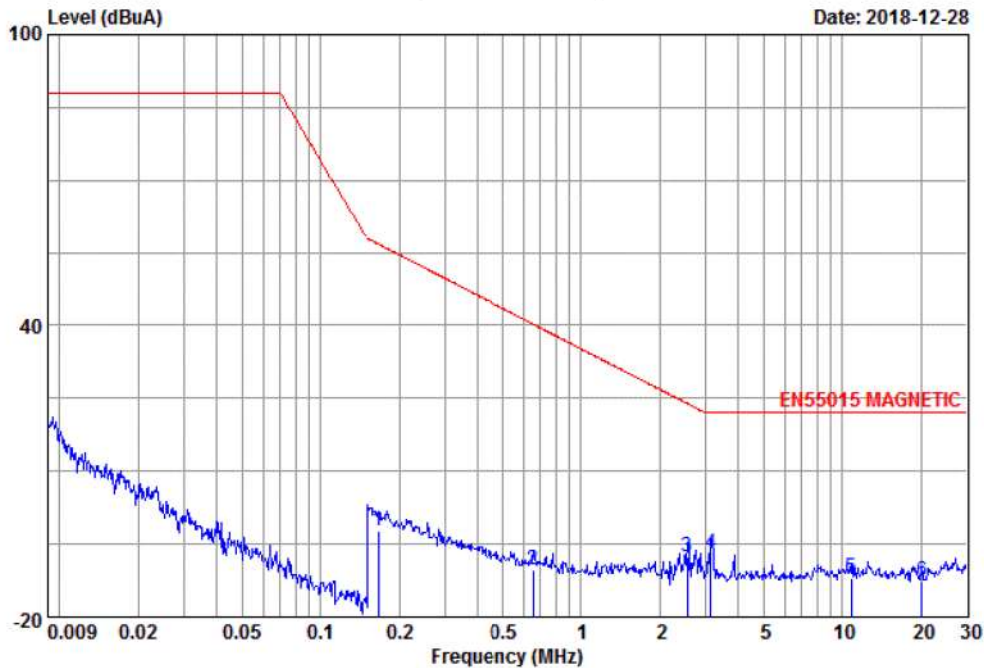


Site : Audix(Shanghai) Shielded1
 Condition : EN55015 MAGNETIC RF300-A-2018
 Project No. :
 Applicant :
 EUT : Battery flood light (2 size)
 M/N :
 S/N : SHEE-01919-18
 Power Supply : 230V/50Hz
 Ambient : 22'C 48%RH
 Test line : A
 Test Mode : On Max Power Without Load, Without Charger
 Test Engineer : Avalon
 Memo : SLED-20UPR

	Freq	Level	Read Level	Cable Loss	LISN Factor	Limit	Over	Remark	
	MHz	dBuA	dBuA	dB	dB	dB	dBuA	dB	
1	0.164223	-0.94	-29.06	0.04	-5.92	28.12	56.91	-57.85	QP
2	0.414039	-6.74	-28.61	0.05	-12.18	21.87	45.80	-52.54	QP
3	1.566006	-8.26	-26.62	0.10	-15.74	18.36	29.81	-38.07	QP
4	2.589476	-7.64	-25.87	0.12	-15.89	18.23	23.77	-31.41	QP
5	3.853301	-9.78	-28.46	0.14	-15.46	18.68	22.00	-31.78	QP
6	13.115580	-12.19	-30.86	0.27	-15.60	18.67	22.00	-34.19	QP

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4.2.2 SLED-20UPR - Radiated disturbance (9 kHz~30 MHz) test—Y

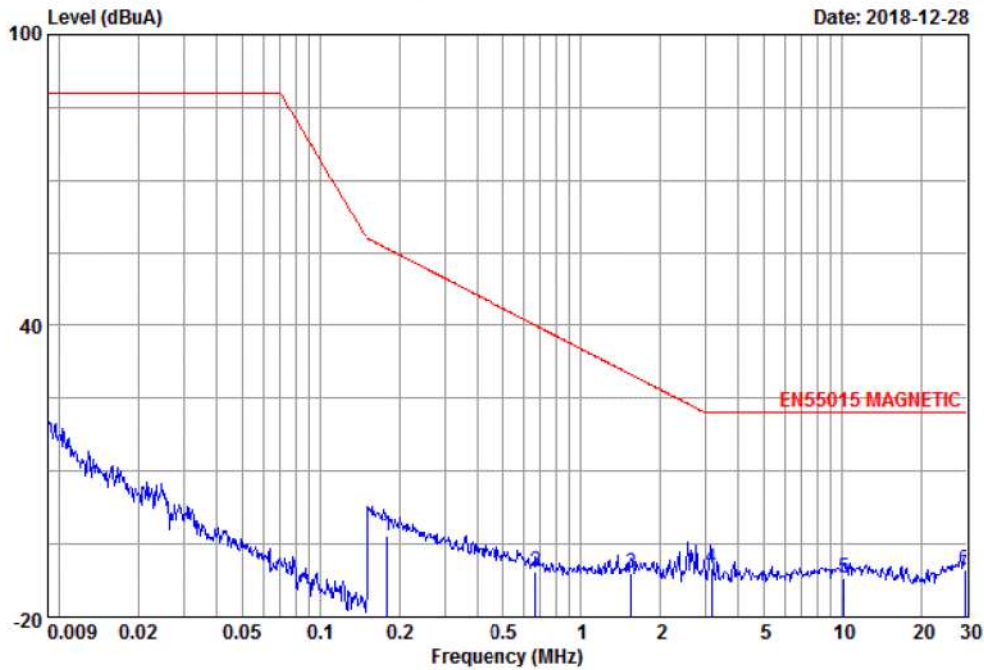


Site : Audix(Shanghai) Shielded1
 Condition : EN55015 MAGNETIC RF300-B-2018
 Project No. :
 Applicant :
 EUT : Battery flood light (2 size)
 M/N :
 S/N : SHEE-01919-18
 Power Supply : 230V/50Hz
 Ambient : 22°C 48%RH
 Test line : B
 Test Mode : On Max Power Without Load, Without Charger
 Test Engineer : Avalon
 Memo : SLED-20UPR

	Freq	Level	Read Level	Cable Loss	LISN Factor	Limit Factor	Limit Line	Over Limit	Remark
	MHz	dBuA	dBuA	dB	dB	dB	dBuA	dB	
1	0.165560	-2.17	-29.89	0.04	-6.32	27.72	56.81	-58.98	QP
2	0.657424	-10.47	-29.97	0.06	-14.56	19.50	40.24	-50.71	QP
3	2.547805	-7.74	-25.82	0.12	-16.04	18.08	23.96	-31.70	QP
4	3.146016	-6.84	-24.82	0.13	-16.15	17.98	22.00	-28.84	QP
5	10.795390	-11.84	-30.91	0.23	-15.16	19.07	22.00	-33.84	QP
6	20.160450	-12.72	-30.92	0.34	-16.14	18.20	22.00	-34.72	QP

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4.2.3 SLED-20UPR - Radiated disturbance (9 kHz~30 MHz) test—Z

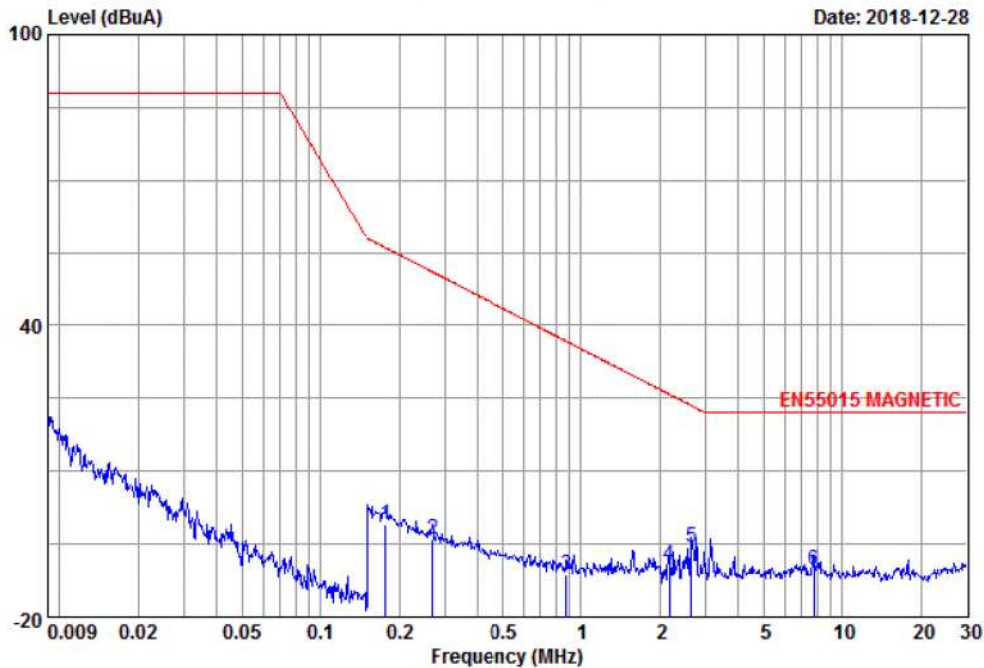


Site : Audix(Shanghai) Shielded1
 Condition : EN55015 MAGNETIC RF300-C-2018
 Project No. :
 Applicant :
 EUT : Battery flood light (2 size)
 M/N :
 S/N : SHEE-01919-18
 Power Supply : 230V/50Hz
 Ambient : 22°C 48%RH
 Test line : C
 Test Mode : On Max Power Without Load, Without Charger
 Test Engineer : Avalon
 Memo : SLED-20UPR

	Freq	Level	Read Level	Cable Loss	LISN Factor	Factor	Limit Line	Over Limit	Remark
	MHz	dBuA	dBuA	dB	dB	dB	dBuA	dB	
1	0.179550	-3.37	-30.50	0.04	-6.91	27.13	55.84	-59.21	QP
2	0.668176	-10.67	-30.05	0.06	-14.68	19.38	40.05	-50.72	QP
3	1.553354	-11.01	-29.27	0.10	-15.84	18.26	29.91	-40.92	QP
4	3.171640	-9.98	-27.89	0.13	-16.22	17.91	22.00	-31.98	QP
5	10.117090	-11.87	-31.48	0.22	-14.61	19.61	22.00	-33.87	QP
6	29.517220	-10.47	-31.75	0.40	-13.12	21.28	22.00	-32.47	QP

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4.2.4 SLED-30UPR - Radiated disturbance (9 kHz~30 MHz) test—X

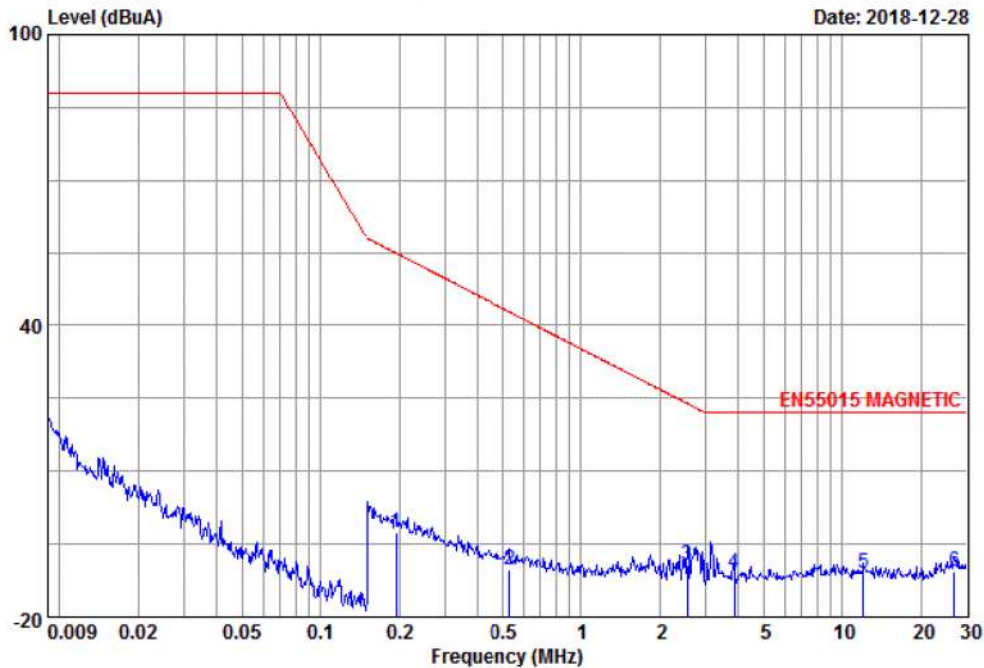


Site : Audix(Shanghai) Shielded1
 Condition : EN55015 MAGNETIC RF300-A-2018
 Project No. :
 Applicant :
 EUT : Battery flood light (2 size)
 M/N :
 S/N : SHEE-01919-18
 Power Supply : 230V/50Hz
 Ambient : 22°C 48%RH
 Test line : A
 Test Mode : On Max Power Without Load, Without Charger
 Test Engineer : Avalon
 Memo : SLED-30UPR

	Freq	Level	Read Level	Cable Loss	LISN Factor	Limit Factor	Limit Line	Over Limit	Remark
	MHz	dBuA	dBuA	dB	dB	dB	dBuA	dB	
1	0.176660	-0.86	-28.39	0.04	-6.51	27.53	56.03	-56.89	QP
2	0.267181	-3.91	-28.31	0.04	-9.64	24.40	51.06	-54.97	QP
3	0.880378	-11.28	-29.84	0.07	-15.51	18.56	36.73	-48.01	QP
4	2.183893	-9.19	-27.53	0.11	-15.77	18.34	25.82	-35.01	QP
5	2.653264	-5.68	-23.89	0.12	-15.91	18.21	23.48	-29.16	QP
6	7.804110	-10.30	-29.98	0.20	-14.52	19.68	22.00	-32.30	QP

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4.2.5 SLED-30UPR - Radiated disturbance (9 kHz~30 MHz) test—Y

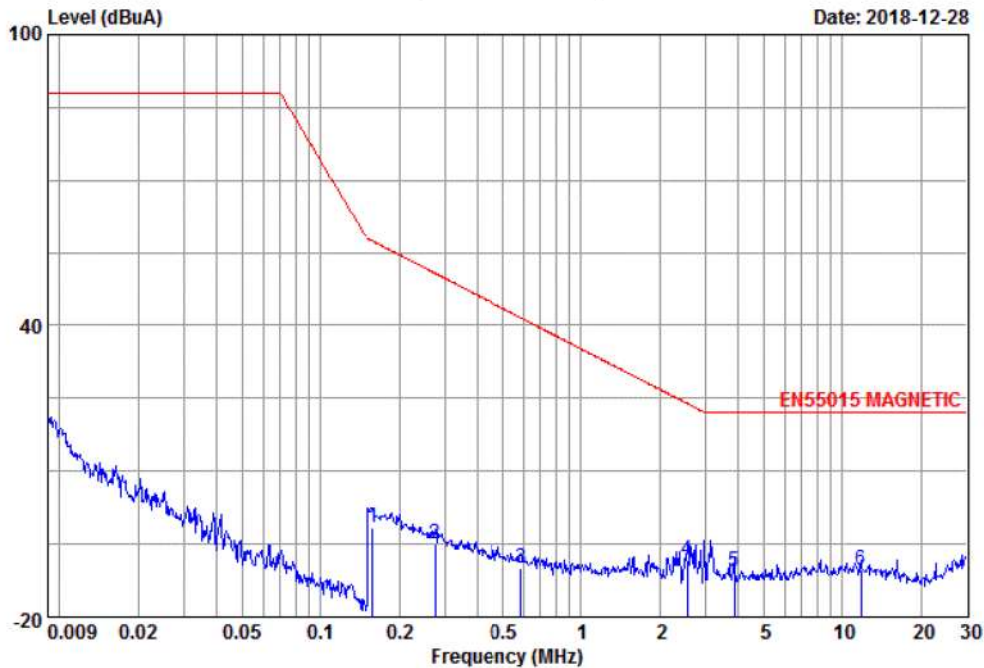


Site : Audix(Shanghai) Shielded1
 Condition : EN55015 MAGNETIC RF300-B-2018
 Project No. :
 Applicant :
 EUT : Battery flood light (2 size)
 M/N :
 S/N : SHEE-01919-18
 Power Supply : 230V/50Hz
 Ambient : 22°C 48%RH
 Test line : B
 Test Mode : On Max Power Without Load, Without Charger
 Test Engineer : Avalon
 Memo : SLED-30UPR

	Freq	Level	Read Level	Cable Loss	LISN Factor	LISN Factor	Limit Line	Over Limit	Remark
	MHz	dBuA	dBuA	dB	dB	dB	dBuA	dB	
1	0.194721	-2.78	-29.13	0.04	-7.69	26.35	54.86	-57.64	QP
2	0.532415	-10.27	-30.57	0.05	-13.75	20.30	42.78	-53.05	QP
3	2.547805	-9.31	-27.39	0.12	-16.04	18.08	23.96	-33.27	QP
4	3.853301	-10.86	-29.05	0.14	-15.95	18.19	22.00	-32.86	QP
5	12.093690	-10.83	-29.96	0.25	-15.12	19.13	22.00	-32.83	QP
6	26.779410	-10.59	-30.52	0.39	-14.46	19.93	22.00	-32.59	QP

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4.2.6 SLED-30UPR - Radiated disturbance (9 kHz~30 MHz) test—Z



Site : Audix(Shanghai) Shielded1
 Condition : EN55015 MAGNETIC RF300-C-2018
 Project No. :
 Applicant :
 EUT : Battery flood light (2 size)
 M/N :
 S/N : SHEE-01919-18
 Power Supply : 230V/50Hz
 Ambient : 22°C 48%RH
 Test line : C
 Test Mode : On Max Power Without Load, Without Charger
 Test Engineer : Avalon
 Memo : SLED-30UPR

	Freq	Level	Read Level	Cable Loss	LISN Factor	LISN Factor	Limit Line	Over Limit	Remark
	MHz	dBuA	dBuA	dB	dB	dB	dBuA	dB	
1	0.157695	-1.63	-29.86	0.04	-5.81	28.23	57.40	-59.03	QP
2	0.273763	-5.05	-29.09	0.04	-10.00	24.04	50.77	-55.82	QP
3	0.586847	-9.82	-29.72	0.06	-14.16	19.90	41.61	-51.43	QP
4	2.547805	-8.23	-26.25	0.12	-16.10	18.02	23.96	-32.19	QP
5	3.853301	-10.78	-28.96	0.14	-15.96	18.18	22.00	-32.78	QP
6	11.802940	-10.19	-29.66	0.25	-14.78	19.47	22.00	-32.19	QP

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 Die Prüfergebnisse beziehen sich ausschließlich auf das angelieferte Prüfmuster. Ohne schriftliche Genehmigung des Prüflaboratoriums ist eine auszugsweise Vervielfältigung des Prüfberichtes nicht gestattet.

5 Immunity

5.1 General information

Performance criteria as defined by the standard	
Criterion	Description from standard
A	During the test, no change of the luminous intensity shall be observed and the regulating control, if any shall operate during the test as intended.
B	During the test, the luminous intensity may change to any value. After the test, the luminous intensity shall be restored to its initial value within 1 min. Regulating controls need not function during the test, but after the test, the mode of the control shall be the same as before the test provided that during the test no mode changing commands were given.
C	During and after the test, any change of the luminous intensity is allowed and the lamp(s) may be extinguished. After the test, within 30 min, all functions shall return to normal, if necessary by temporary interruption of the mains supply and/or operating the regulating control. Additional requirement for lighting equipment incorporating a starting device: After the test, the lighting equipment is switched off. After half an hour, it is switched on again. The lighting equipment shall start and operate as intended.
Other:	--

Manufacturer defined performance criteria	--
Monitoring during the tests	Lux meter and visual

5.2 Electrostatic discharge

Test date.....	2019-01-03	
Test set-up.....	<input checked="" type="checkbox"/>	Table top equipment
	<input type="checkbox"/>	Floor standing equipment
	<input type="checkbox"/>	Wall or ceiling mounted equipment (Treated as table top)
Supplementary test set-up description	--	
Size of horizontal coupling plate ..	1,6 x 0,8 m	
Size of vertical coupling plate	0,5 x 0,5 m	
Number of discharges for each test point	10	
Discharge interval	1/s	
Performance criterion	B	
Supplementary information.....	both models tested	

Photo of selected test points	 <p>Air discharge: switch, button, caps in the enclosure, display (red arrow) Contact discharge: metal parts, screws, (blue arrow)</p>
-------------------------------------	---

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Table: Test results for electrostatic discharges							
No.	Location of discharge	Polarity	Discharge	Number of discharges	Test level [kV]	Operating mode	Observations
1	HCP top side	P	C	20	4	1	Criterion A
2	HCP top side	N	C	20	4	1	Criterion A
3	HCP bottom side	P	C	20	4	1	Criterion A
4	HCP bottom side	N	C	20	4	1	Criterion A
5	VCP right side	P	C	20	4	1	Criterion A
6	VCP right side	N	C	20	4	1	Criterion A
7	VCP left side	P	C	20	4	1	Criterion A
8	VCP left side	N	C	20	4	1	Criterion A
9	Points on conductive surface as indicated in the picture above	P	C	20	4	1	Criterion A
10	Points on conductive surface as indicated in the picture above	N	C	20	4	1	Criterion A
11	Points on non-conductive surface as indicated in the picture above	P	A	20	8	1	Criterion A
12	Points on non-conductive surface as indicated in the picture above	N	A	20	8	1	Criterion A
HCP = Horizontal coupling plate VCP = Vertical coupling plate		N = Negative P = Positive		A = Air discharge C = Contact discharge			
Supplementary information: ---							

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5.3 Radio-frequency electromagnetic fields

Test date	2018-12-29
Test set-up	<input checked="" type="checkbox"/> Equipment on the table (0,8 m height)
	<input type="checkbox"/> Equipment standing on floor (0,05 – 0,15 m height)
Supplementary test set up description	
Exposed side of EUT	<input checked="" type="checkbox"/> 0° (Front)
	<input checked="" type="checkbox"/> 90°
	<input checked="" type="checkbox"/> 180° (Rear)
	<input checked="" type="checkbox"/> 270°
Reason for not exposing a side ... :	--
Distance Antenna to EUT	150 cm
Test method	<input checked="" type="checkbox"/> IEC 61000-4-3
	<input type="checkbox"/> IEC 61000-4-22
Step size [%]	1%
Performance criterion	A
Mains voltage / frequency during test	230V / 50 Hz
Supplementary information	Both models tested

Test results for radiated electromagnetic field						
Frequency range	Test Level [V/m]	Polarization	Modulation	Operation mode	Dwell time [s]	Observations
80-1000 MHz	3	H/V	80% AM 1kHz	1	3	Criterion: A
H = Horizontal V = Vertical						
Supplementary information: ---						

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6 Test Equipment

Radiated electromagnetic disturbances (9 kHz to 30 MHz)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1	Loop Antenna	Laplace	RF300	5001	2018-08-25	2019-08-24
2	Test Receiver	R&S	ESCI	100841	2018-03-08	2019-03-07
3	50Ω Coaxial Switch	Anritsu	MP59B	6200655085	2018-03-08	2019-03-07
4	Software	Audix	e3	6.2009-1-15	--	--

Radiated electromagnetic disturbances (30 MHz to 6000 MHz)

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
5	Spectrum Analyzer(1~6GHz)	Agilent	E7405A	MY45106600	2018-02-26	2019-02-25
6	Pre-Amplifier(1~6GHz)	HP	8449B	3008A00864	2018-03-08	2019-03-07
7	Pre-Amplifier (30MHz~1GHz)	Agilent	8447D	2944A10548	2018-03-18	2019-03-17
8	Bilog Antenna+6dB Attenuator (30MHz~1GHz)	Schwarzbeck	VULB 9168+EMCI-N-6-06	707+AT-N0637	2018-07-20	2019-07-19
9	Test Receiver (30MHz~1GHz)	R&S	ESCI	101303	2018-07-05	2019-07-04
10	50Ω Coaxial Switch	Anritsu	MP59B	6200655086	2018-03-08	2019-03-07
11	Horn Antenna(1~6GHz)	EMCO	3115	96074878	2018-06-28	2019-06-27
12	Software	Audix	e3	6.111206	--	--

Electrostatic discharge

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
13	ESD Simulator (spare)	Prima	ESD61002BG	PR15062929	2018-05-25	2019-05-24
14	ESD Simulator (in use)	TESEQ	NSG 437	130	2018-04-19	2019-04-18

Radio-frequency electromagnetic fields

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
15	Signal Generator	Agilent	E4421B	MY 43350935	2018-03-06	2019-03-05
16	Power Amplifier (30MHz~1GHz)	TESEQ	CBA 1G-300B	W2281-0518	2018-05-16	2019-05-15
17	State Solid Amplifier (1~2.7GHz)	MILMEGA	AS0825-125	1010915	2018-03-17	2019-03-16
18	Log-Periodic Antenna(30MHz~1GHz)	AR	AT1080	19300	2018-06-18	2019-06-17
19	High Gain Horn Antenna(1~2.7GHz)	AR	AT4002A	309732	2018-06-18	2019-06-17
20	Dual Direct Coupler (DDC)	AR	DC6180	19326	2018-03-18	2019-03-17
21	DDC	AR	DC7144A	310049	2018-03-18	2019-03-17
22	Power Meter	HP	438A	2517A02731	2018-03-06	2019-03-05
23	Power Sensor	HP	8481D	MY41094382	2018-03-06	2019-03-05
24	Field Monitor	AR	FM2000	19221	2018-05-26	2019-05-25
25	Field Probe	AR	FP2036	308920	2018-05-26	2019-05-25
26	Software	Audix	i2	4.110314	--	--

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7 Pictures documentation

7.1 Setup picture

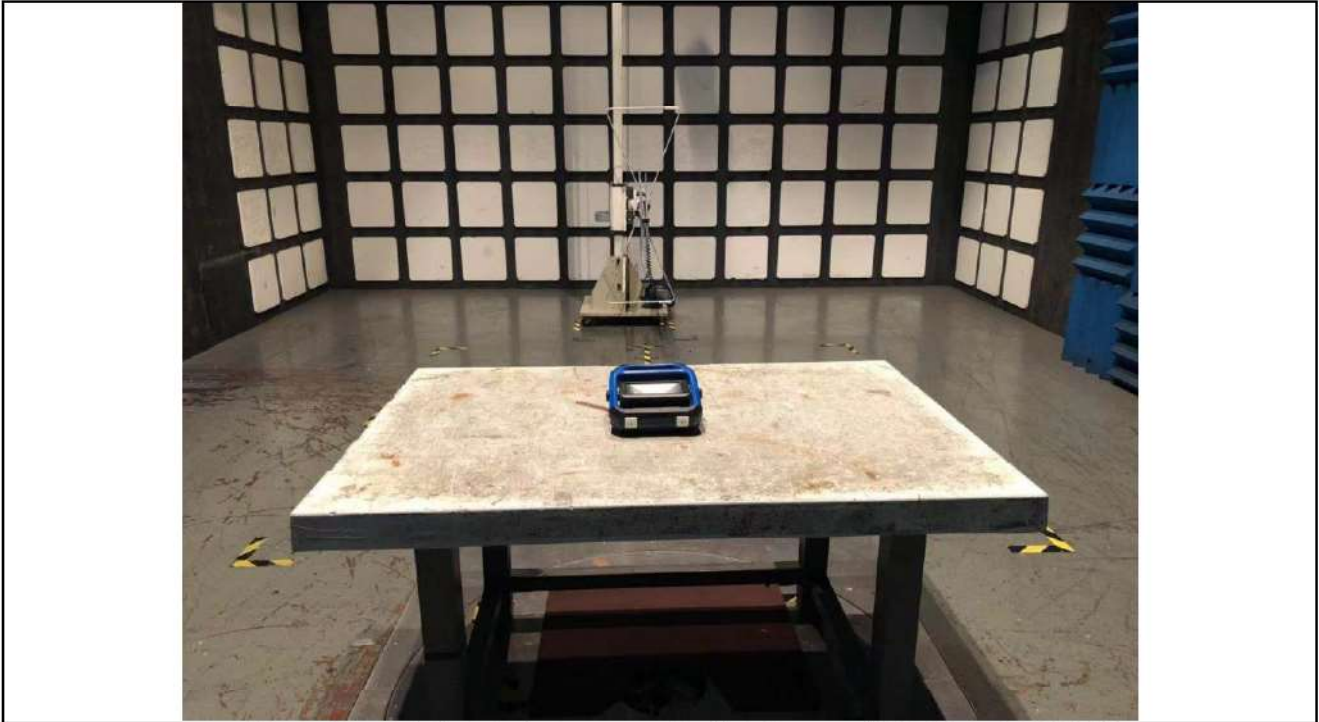


Photo 1: Radiated electromagnetic disturbances (30 MHz to 300 MHz)



Photo 2: Radiated electromagnetic disturbances (9 kHz to 30 MHz)

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Photo 3: Electrostatic discharge



Photo 4: Radio-frequency electromagnetic fields

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7.2 Product picture – SLED-20UPR

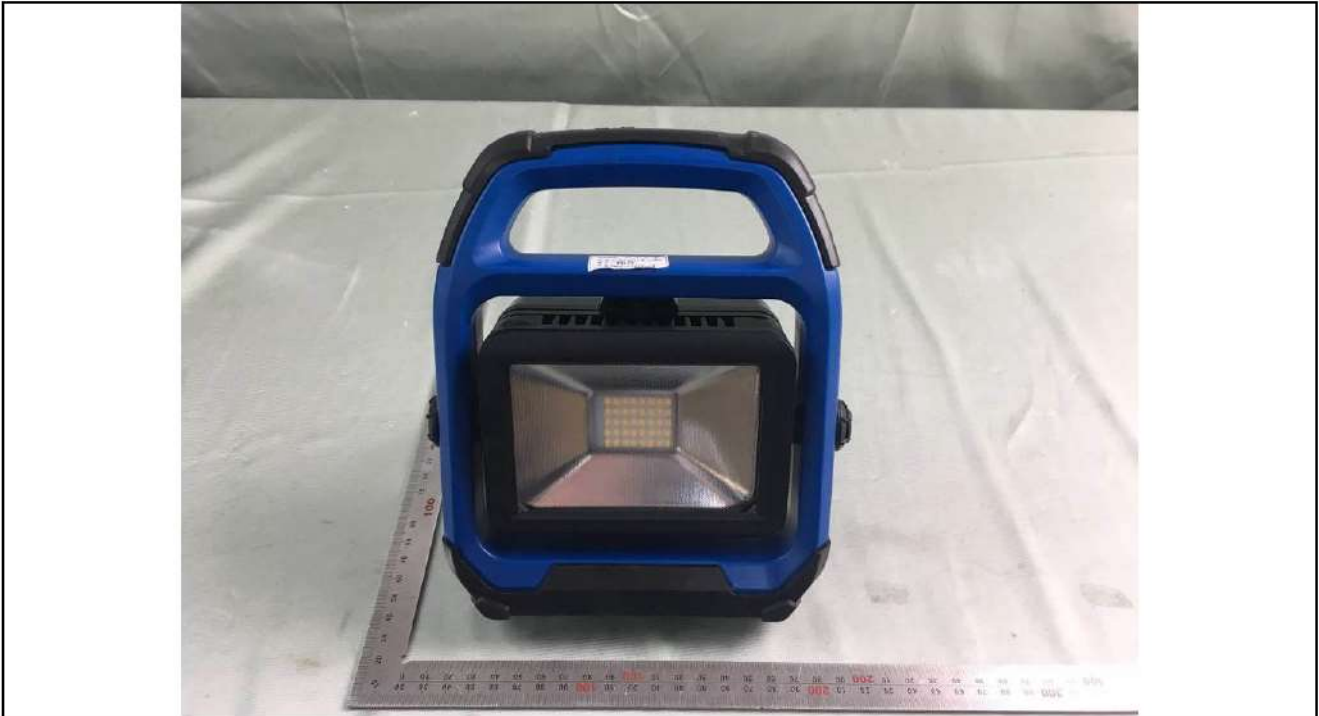


Photo 5: Sample overview



Photo 6: Sample overview

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Photo 7: Rating label

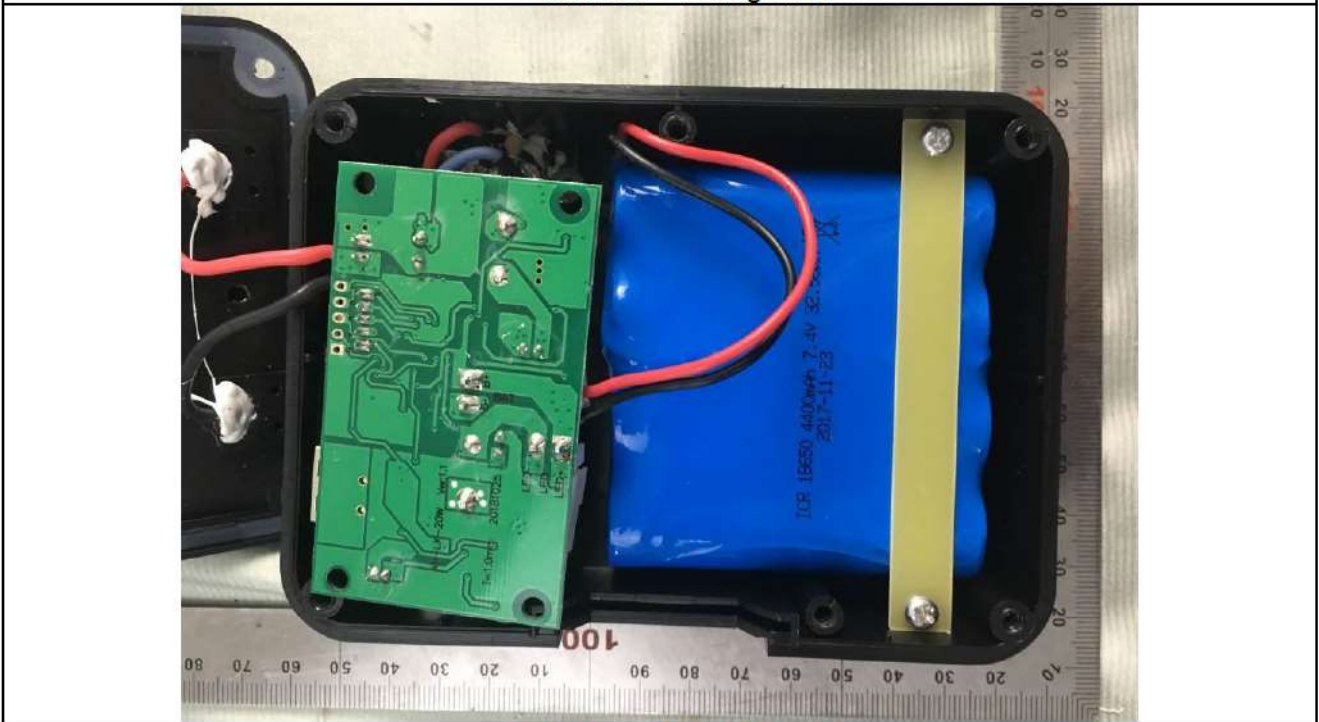


Photo 8: Internal overview

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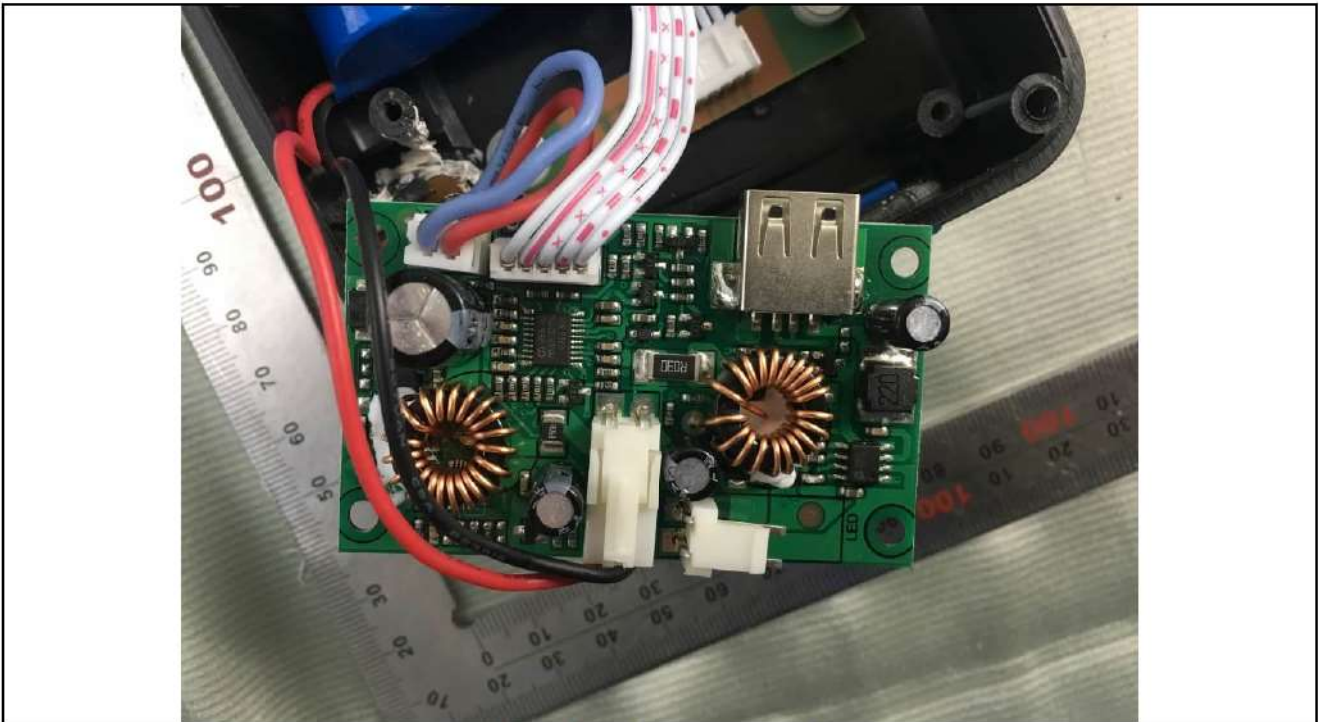


Photo 9: Internal view - PCB

7.3 Product picture – SLED-30UPR

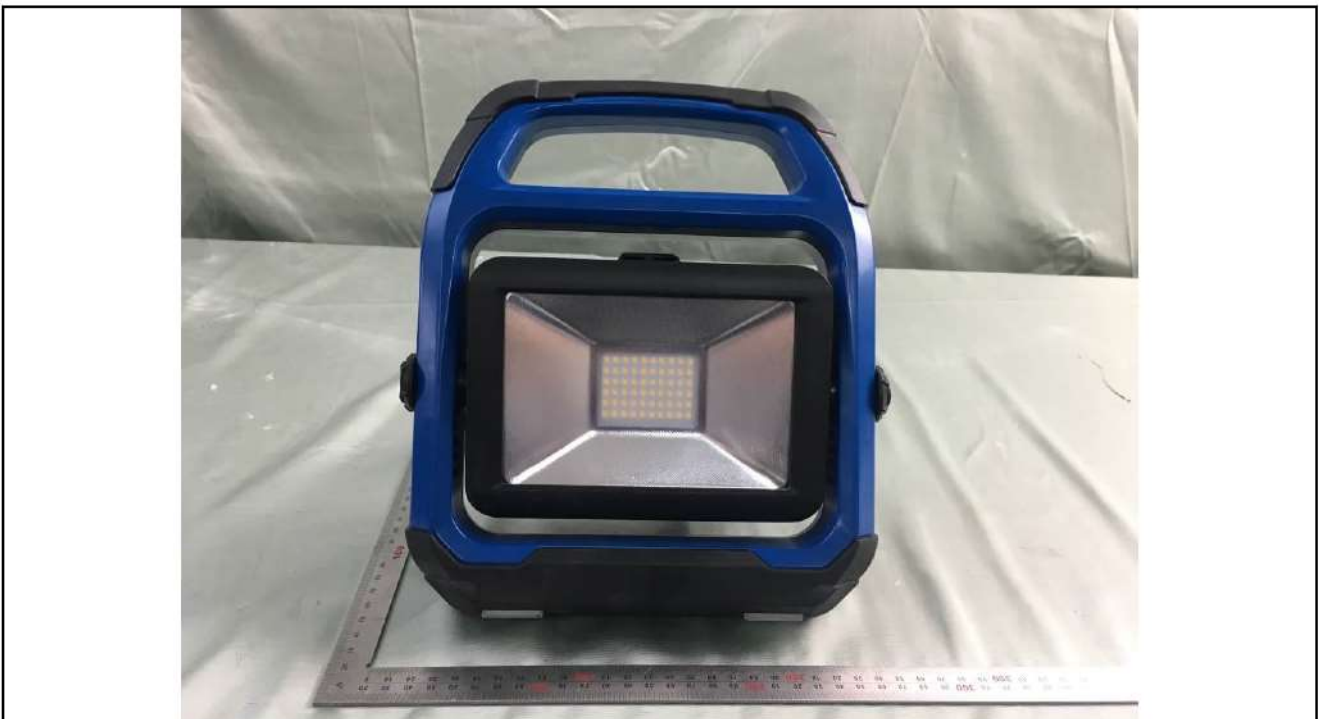


Photo 10: Sample overview

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Photo 11: Sample overview



Photo 12: Rating label

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Photo 13: Internal overview



Photo 14: Internal view - PCB

-End of report-

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