

LUX LED LIGHTS

TEST REPORT

SCOPE OF WORK

EMC TESTING—LUX BROOKLYN AURA TASK LIGHT, 77820, 77821

REPORT NUMBER

181029142GZU-002

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TEST REPORT

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Intertek Report No: 181029142GZU-002
FCC ID: 2ARP2-LUX-AURA

Test standards

47 CFR PART 1, Subpart I, Section 1.1310
KDB 680106 D01 RF Exposure Wireless Charging Apps v03

Sample Description

Product : LUX BROOKLYN AURA TASK LIGHT
Models No. : LUX BROOKLYN AURA TASK LIGHT, 77820, 77821
Electrical Rating : 12Vdc (Powered by Adaptor); total Max. 48W;
USB Output 1: 5 Vdc; 1 A;
USB Output 2: 5 Vdc; 1 A;
Wireless Output Max. 15 W
Adaptor: Model: IC-1204000
Input: 100-240Vac, 50-60Hz, 1.5A(Max)
Output: 12Vdc, 4A
USB cable: 0.6 m x 2 wires unscreened USB cable
Serial No. : Not Labeled
Date Received : 29 October 2018
Date Test : 13 December 2018-20 May 2019
Conducted

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TEST REPORT**1.0 TEST RESULT SUMMARY**

Classification of EUT: Class B

Test Item	Standard	Result
EMF	47 CFR PART 1, Subpart I, Section 1.1310	PASS

Remark:

When determining the test results, measurement uncertainty of tests has been considered.

All models are declared to be identical in terms of electrical and mechanical design. Their difference lies in the colour of appearance, which does not affect RF characteristics.

So model LUX BROOKLYN AURA TASK LIGHT was selected for full tests.

TEST REPORT

2.0 General Description

2.1 Product Description

Operating Frequency 127.79kHz
Type of Modulation: ASK
Antenna Type Inductive loop coil antenna
Antenna gain: 0 dBi
Power Supply: Input: 12Vdc, Powered by adaptor
Output: 15W Max
Power cord: 0.6m x 2 wires unscreened USB cable

2.2 Test Facility

Block E, No.7-2 Guang Dong Software Science Park, Caipin Road, Guangzhou Science City, GETDD Guangzhou, China

A2LA Certificate Number 0078.10

Intertek Testing Services Shenzhen Ltd. Guangzhou Branch is accredited by A2LA and Listed in FCC website. FCC accredited test labs may perform both Certification testing under Parts 15 and 18 and Declaration of Conformity testing.

2.3 EUT Exercising Software

N/A

2.4 Special Accessories

N/A

2.5 Equipment Modification

Any modifications installed previous to testing by LUX LED LIGHTS will be incorporated in each production model sold / leased in the United States.

No modifications were installed by Intertek Testing Services Shenzhen Ltd. Guangzhou Branch.

TEST REPORT**2.6 Support Equipment List and Description**

This product was tested with corresponding support equipment as below:

Support Equipment:

Equipment	Model No.	Rating	Supplier
Mobile phone	LG V30+	--	Client

Remark: the LG V30+ was one of typical client devices, it's selected such that the EUT was fully exercised at maximum power from its transmitter. It will not be sold together.

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested based on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above evaluated respectively

Pre-test mode	Description	
Standby Mode	kept transmitting continuously	
Charging Mode	CH:127.79kHz	Mobile phone is charging at 1% battery power, 50% and 99% battery power respectively, keep transmitting continuously.

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3.0 EMF TEST

3.1 Standard Requirement

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.1m normally can be maintained between the user and the device.

(a) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S)(mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500	--	--	F/300	6
1500-100000	--	--	5	6

(b) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S)(mW/cm ²)	Averaging Times E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500	--	--	F/1500	30
1500-100000	--	--	1.0	30

Note: f=frequency in MHz; *Plane-wave equivalent power density

TEST REPORT**3.2 Test Data**

Input Voltage: 120V/60Hz

Ambient Condition: 24°C, 50%RH

Test distance: 15 cm surrounding the device and 20 cm above the top surface from all simultaneous transmitting coils.

H-Field Strength:

Test Position	Probe Measure Result (A/m)			50% Limit (A/m)	Limit (A/m)
	Mobile in 1% battery power	Mobile in 50% battery power	Mobile in 99% battery power		
Side 1	0.045	0.038	0.037	0.815	1.63
Side 2	0.047	0.036	0.034	0.815	1.63
Back	0.054	0.046	0.041	0.815	1.63
Front	0.065	0.055	0.049	0.815	1.63

TEST REPORT**4.0 Test Equipment List**

Equip. No.	Equipment	Model	Manufacturer	Cal. date	Due date
EM007-03	Exposure Level Tester	ELT-400	NARDA	2018/12/11	2019/12/11

*****End of the test report*****