FCC Part15 Subpart B

TEST REPORT

For

LED Vanity Light

MODEL NUMBER: VAN-EXC-xxxxxxxx
(x can be any character or blank for commercial use only)

FCC ID: 2AUHG-VAN-EXC

REPORT NUMBER: 4790494520-F02-00

ISSUE DATE: August 28, 2022

Prepared for

ARTIKA FOR LIVING INC.
1756, 50th Avenue Montreal (Lachine), Quebec Canada, H8T 2V5

Prepared by

UL-CCIC Company Limited
Electronic Building, Parage Electronic Industrial Park, No. 8 Nanyun Er Road, Guangzhou Science Park, Guangzhou, 510670 China
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Revision History

Rev.	Issue Date	Revisions	Revised By
--	08/28/2022	Initial Issue	--

Summary of Test Results				
Standard	**Test Item**	**Limit**	**Result**	**Remark**
FCC PART 15, Subpart B (October 01, 2020)	Conducted Disturbance	Class B	PASS	
	Radiated Disturbance below 1 GHz	Class B	PASS	
	Radiated Disturbance above 1 GHz	Class B	N/A	**NOTE (1) NOTE (2)**

Note:
(1) “N/A” denotes test is not applicable in this Test Report
(2) If the highest frequency of the internal sources of the EUT is less than 108 MHz, the measurement shall only be made up to 1 GHz. If the highest frequency of the internal sources of the EUT is between 108 MHz and 500 MHz, the measurement shall only be made up to 2 GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1 GHz, measurement shall only be made up to 5 GHz. If the highest frequency of the internal sources of the EUT is above 1 GHz, the measurement shall be made up to 5 times the highest frequency or 40 GHz, whichever is less.
(2) The highest frequency of the internal sources of the EUT is less than 108 MHz.

CONTENTS

1. ATTESTATION OF TEST RESULTS

Applicant Information

Company Name:	ARTIKA FOR LIVING INC.
Address:	1756, 50th Avenue Montreal (Lachine), Quebec Canada, H8T 2V5

Manufacturer Information

Company Name:	DongGuan City Rising Stars Lighting Co., LTD
Address:	YuanQuan Road No.6, BaiHao Village, HouJie town , DongGuan City, GuangDong Province, China

EUT Information

Product Name:	LED Vanity Light
Model Name:	VAN-EXC-xxxxxxxx (x can be any character or blank for commercial use only)
Brand Name:	Artika
Sample Status:	Normal
Sample ID:	18007362
Sample Received Date:	July 18, 2022
Date of Tested:	July 19, 2022~ July 22, 2022

APPLICABLE STANDARDS	
STANDARDS	**TEST RESULTS**
FCC PART 15, Subpart B	**PASS***

'*'=Decision rule for statement(s) of conformity is based on IEC Guide 115:2007 Clause 4.4.3 Procedure 2" Accuracy Method"

Prepared By:

Ryan Pang
Project Engineer

Approved By:

Yam Shan
Project Engineer

2. TEST METHODOLOGY

All tests were performed in accordance with the standard FCC Part15 Subpart B and ANSI C63.4-2014.

3. FACILITIES AND ACCREDITATION

Accreditation Certificate	A2LA (Certificate No.: 3870.01) Dongguan Dongdian Testing Service Co., Ltd. has been assessed and proved to be in compliance with A2LA. CNAS (Registration No.: L6451) Dongguan Dongdian Testing Service Co., Ltd. has been assessed and proved to be in compliance with CNAS.

Note: All tests measurement facilities use to collect the measurement data are located at Dongguan Dongdian Testing Service Co., Ltd.

4. CALIBRATION AND UNCERTAINTY

4.1. Measuring Instrument Calibration

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. Measurement Uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

Test Item	Measurement Frequency Range	K	U(dB)
Conducted disturbance at mains terminals ports	0.15MHz ~ 30MHz	2	3.32 dB
Radiated disturbance Test	Below 1GHz(10m)	2	4.48 dB (Antenna Polarize: V)
		2	4.64 dB (Antenna Polarize: H)
Radiated disturbance Test	1GHz-18GHz	2	4.10dB (1-6GHz)
		2	4.40dB (6GHz-18Gz)
Note: This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.			

5. EQUIPMENT UNDER TEST

5.1. Description of EUT

EUT Name	LED Vanity Light
EUT Description	This devices are LED fixed luminaires for indoor use.
Model	VAN-EXC-xxxxxxxx
Model Difference	1. x can be any character or blank for commercial use only. 2. All models are identical except for the model name. 3. All models use same built-in LED driver BQE20-0600-39-TDB
Rated Input	AC 120V,60Hz,23W
Test Model	VAN-EXC-CR
Test Power Supply	AC 120V 60Hz

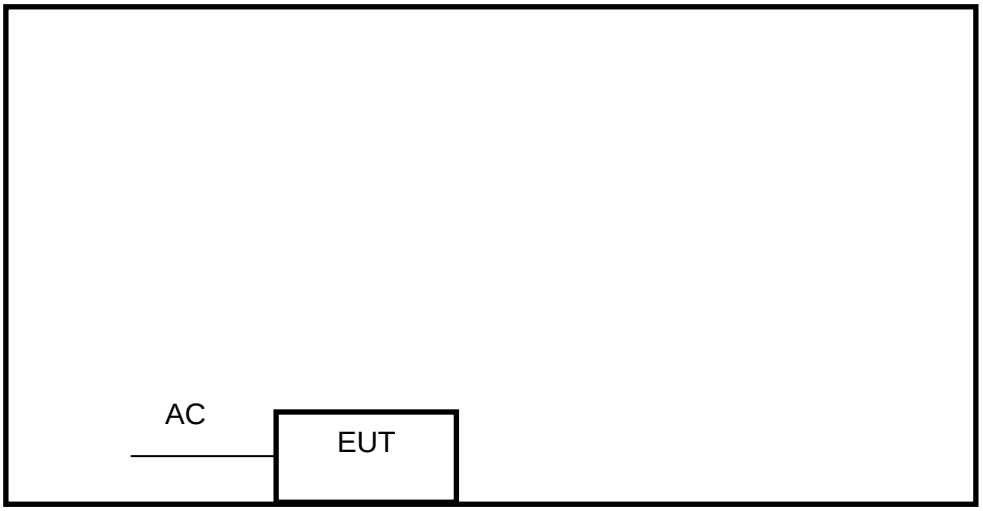
5.2. Test Mode

Test Mode	Description
Mode 1	Lighting mode.

5.3. EUT Accessory

Item	Accessory	Brand Name	Model Name	Description
1	N/A	N/A	N/A	N/A

5.4. Block Diagram Showing the Configuration of System Tested



The EUT has been tested without other necessary accessories or support units.

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

Support units

Item	Equipment	Mfr/Brand	Model/Type No.	Length	Note
N/A	N/A	N/A	N/A	N/A	N/A

6. MEASURING EQUIPMENT AND SOFTWARE USED

Conducted Disturbance						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	Test Receiver	R&S	ESCI	100551	2022.08.31	2023.08.30
☑	LISN 1	R&S	ENV216	101109	2021.09.07	2022.09.06
Software						
Used	Description		Manufacturer	Name	Version	
☑	Test Software for Conducted Emissions		Audix	E3	V 6.11111b	
Radiated Disturbance						
Used	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
☑	Test Receiver	R&S	ESU8	100316	2022.04.08	2023.04.07
☑	Trilog Broadband Antenna	Schwarzbeck	VULB9163	01426	2022.08.05	2023.08.04
Software						
Used	Description		Manufacturer	Name	Version	
☑	Test Software for Radiated Emissions		Audix	E3	V 6.11111b	

7. EMISSION TEST

7.1. Conducted Disturbance Measurement

7.1.1. Limits of conducted disturbance voltage

FREQUENCY (MHz)	☐Class A (dBμV)		☒Class B (dBμV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 -5.0	73.00	60.00	56.00	46.00
5.0 -30.0	73.00	60.00	60.00	50.00

Note:

(1) The tighter limit applies at the band edges.

(2) The limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

(3) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor
Correct Factor = Insertion Loss + Cable Loss + Attenuator Factor
Margin Level = Measurement Value - Limit Value

The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

7.1.2. Test Procedure

a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

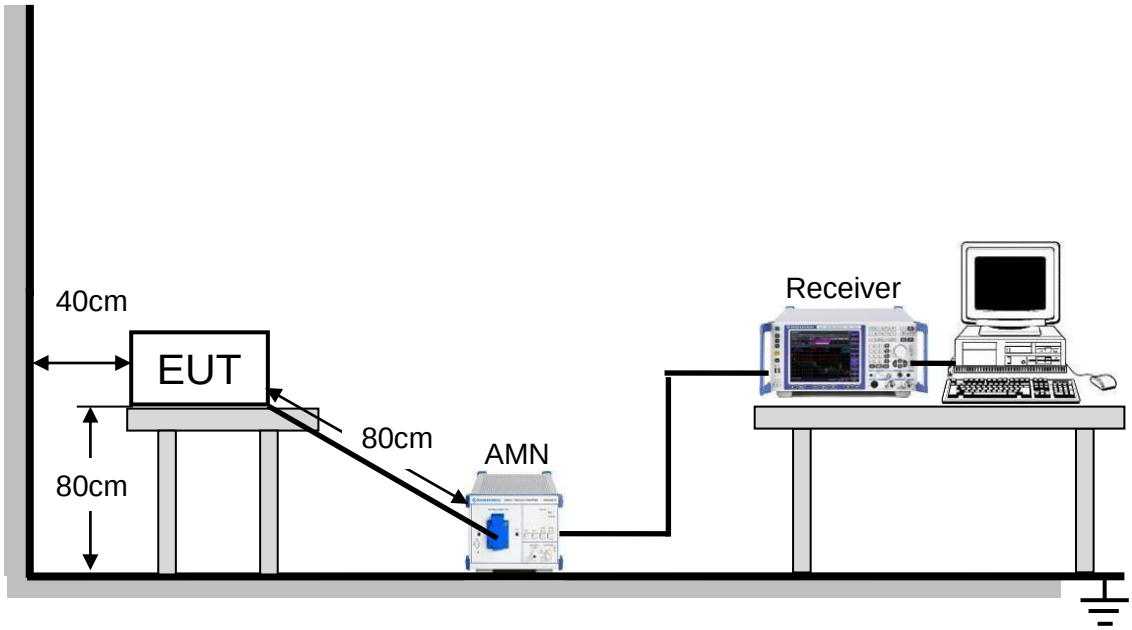
b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

d. LISN at least 80 cm from nearest part of EUT chassis.

e. For the actual test configuration, please refer to the related Item:EUT Test Photos.

7.1.3. Test Setup



For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

7.1.4. Test Environment

Temperature:	23.9℃
Humidity:	55.8%
ATM pressure:	101.4kPa

7.1.5. Test Mode

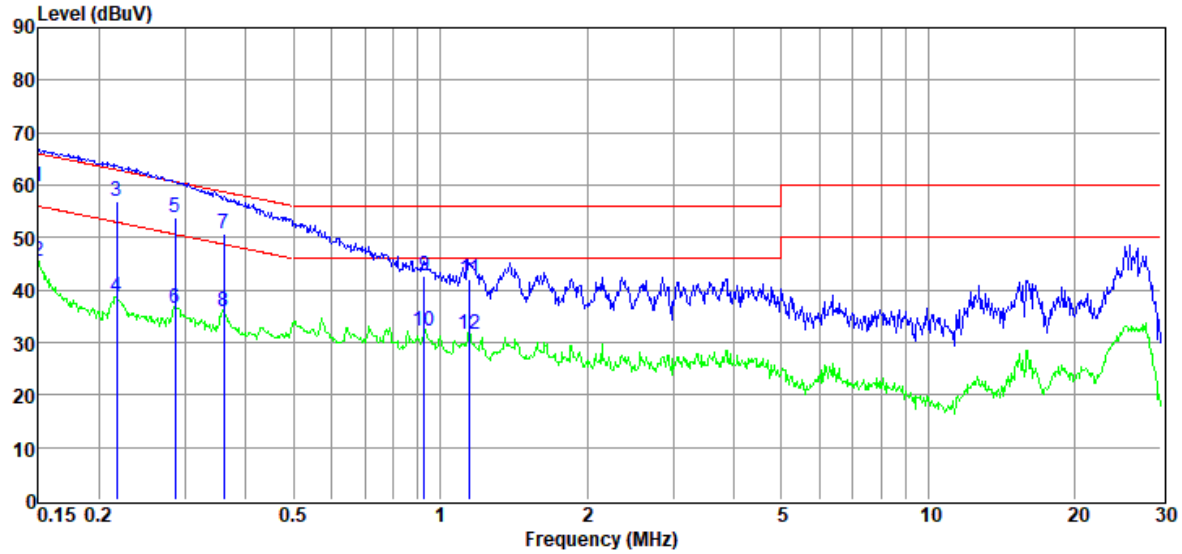
Pre-test Mode:	Mode 1
Final Test Mode:	Mode 1

Note: According to pre-test results, the final test mode is each independent function's worst case and only shown in the report.

7.1.6. Test Results

EUT	: LED Vanity Light	**Model Number**	: VAN-EXC-CR
Power Supply	: AC 120V/60Hz	**Test Mode**	: Mode 1
Condition	: Temp:23.9°C,Humi:55.8%,Press:101.4kPa	**LISN**	: ENV216 2#/LINE

Data: 14

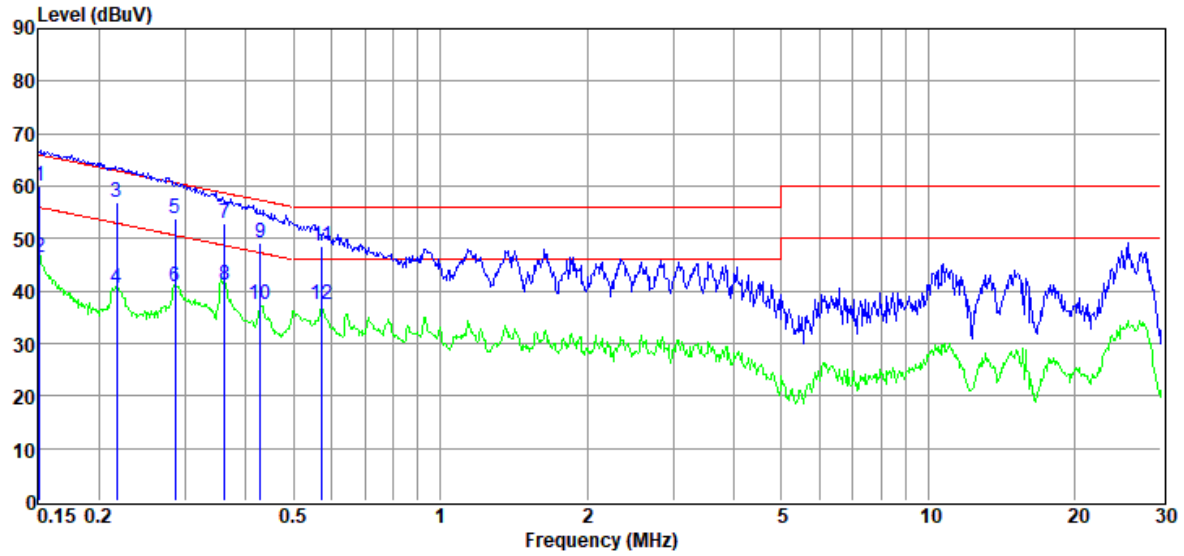


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.15	39.46	9.40	0.03	10.90	59.79	66.00	-6.21	QP	LINE
2	0.15	25.22	9.40	0.03	10.90	45.55	56.00	-10.45	Average	LINE
3	0.22	36.34	9.57	0.03	10.85	56.79	62.92	-6.13	QP	LINE
4	0.22	18.09	9.57	0.03	10.85	38.54	52.92	-14.38	Average	LINE
5	0.29	33.51	9.48	0.03	10.80	53.82	60.63	-6.81	QP	LINE
6	0.29	16.20	9.48	0.03	10.80	36.51	50.63	-14.12	Average	LINE
7	0.36	30.54	9.41	0.03	10.75	50.73	58.74	-8.01	QP	LINE
8	0.36	15.58	9.41	0.03	10.75	35.77	48.74	-12.97	Average	LINE
9	0.93	22.95	9.28	0.04	10.39	42.66	56.00	-13.34	QP	LINE
10	0.93	12.57	9.28	0.04	10.39	32.28	46.00	-13.72	Average	LINE
11	1.15	22.42	9.30	0.05	10.28	42.05	56.00	-13.95	QP	LINE
12	1.15	11.86	9.30	0.05	10.28	31.49	46.00	-14.51	Average	LINE

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

EUT	: LED Vanity Light	**Model Number**	: VAN-EXC-CR
Power Supply	: AC 120V/60Hz	**Test Mode**	: Mode 1
Condition	: Temp:23.9°C,Humi:55.8%,Press:101.4kPa	**LISN**	: ENV216 2#/LINE

Data: 16



Item (Mark)	Freq. (MHz)	Read Level (dBµV)	LISN Factor (dB)	Cable Loss (dB)	Pulse Limiter Factor (dB)	Result Level (dBµV)	Limit Line (dBµV)	Over Limit (dB)	Detector	Phase
1	0.15	39.43	9.60	0.03	10.90	59.96	65.96	-6.00	QP	NEUTRAL
2	0.15	26.01	9.60	0.03	10.90	46.54	55.96	-9.42	Average	NEUTRAL
3	0.22	36.44	9.48	0.03	10.85	56.80	62.92	-6.12	QP	NEUTRAL
4	0.22	20.19	9.48	0.03	10.85	40.55	52.92	-12.37	Average	NEUTRAL
5	0.29	33.50	9.42	0.03	10.80	53.75	60.63	-6.88	QP	NEUTRAL
6	0.29	20.48	9.42	0.03	10.80	40.73	50.63	-9.90	Average	NEUTRAL
7	0.36	32.86	9.37	0.03	10.75	53.01	58.69	-5.68	QP	NEUTRAL
8	0.36	21.13	9.37	0.03	10.75	41.28	48.69	-7.41	Average	NEUTRAL
9	0.43	29.00	9.33	0.03	10.71	49.07	57.29	-8.22	QP	NEUTRAL
10	0.43	17.26	9.33	0.03	10.71	37.33	47.29	-9.96	Average	NEUTRAL
11	0.57	28.48	9.38	0.04	10.62	48.52	56.00	-7.48	QP	NEUTRAL
12	0.57	17.30	9.38	0.04	10.62	37.34	46.00	-8.66	Average	NEUTRAL

Note: 1. Result Level = Read Level +LISN Factor + Pulse Limiter Factor + Cable loss.
2. If QP Result complies with AV limit, AV Result is deemed to comply with AV limit.
3. Test setup: RBW: 200 Hz (9 kHz—150 kHz), 9 kHz (150 kHz—30 MHz).
4. Step size: 80Hz (0.009MHz-0.15MHz), 4 kHz (0.15MHz-30MHz), Scan time: auto.

7.2. Radiated Disturbance Measurement

7.2.1. Limits of radiated disturbance measurement

Below 1 GHz
Measurement Method and Applied Limits:
ANSI C63.4:

Frequency (MHz)	☐Class A		☒Class B	
	Field strength (dBuV/m) (at 10m)	Field strength (dBuV/m) (at 3m)	Field strength (dBuV/m) (at 10m)	Field strength (dBuV/m) (at 3m)
30 - 88	39	49.5	29.5	40
88 - 216	43.5	54	33.0	43.5
216 - 960	46.4	56.9	35.5	46
Above 960	49.5	60	43.5	54

Above 1 GHz
Measurement Method and Applied Limits:
ANSI C63.4:

Frequency (MHz)	☐Class A				☐Class B	
	(dBuV/m) (at 3m)		(dBuV/m) (at 10m)		(dBuV/m) (at 3m)	
	Peak	Average	Peak	Average	Peak	Average
Above 1000	80	60	69.5	49.5	74	54

Frequency Range of Radiated Disturbance Measurement

Highest frequency generated or Upper frequency of measurement used in the device or on which the device operates or tunes (MHz)	Range (MHz)
Below 1.705	30
1.705 - 108	1000
108 - 500	2000
500 - 1000	5000
Above 1000	5^{th} harmonic of the highest frequency or 40 GHz, whichever is lower

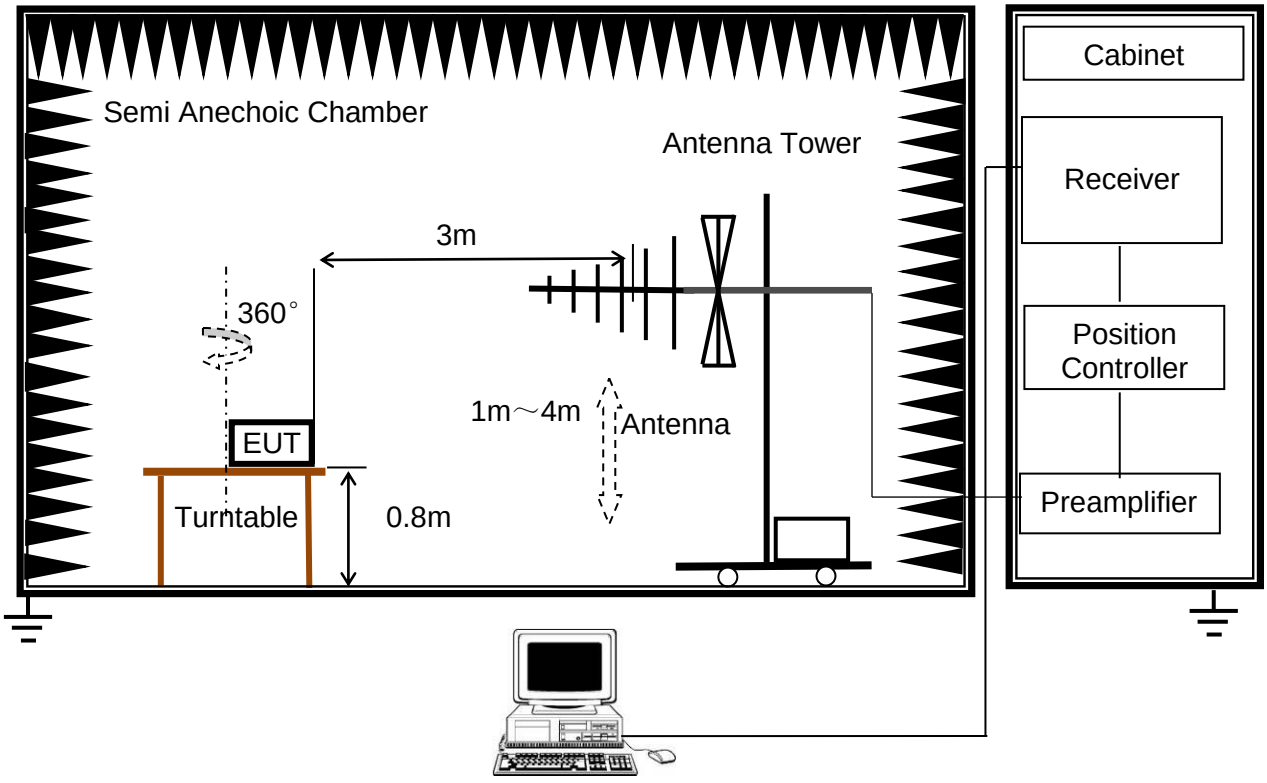
NOTE:
(1) The limit for radiated test was performed according to FCC Part 15, Subpart B;
(2) The tighter limit applies at the band edges;
(3) Emission level (dBuV/m) = 20log Emission level (uV/m),
3m Emission level = 10m Emission level + 20log(10m/3m);
(4) The test result calculated as following:
Measurement Value = Reading Level + Correct Factor,
Correct Factor = Antenna Factor + Cable Loss - Amplifier Gain(if use),
Margin Level = Measurement Value - Limit Value.

7.2.2. Test Procedure

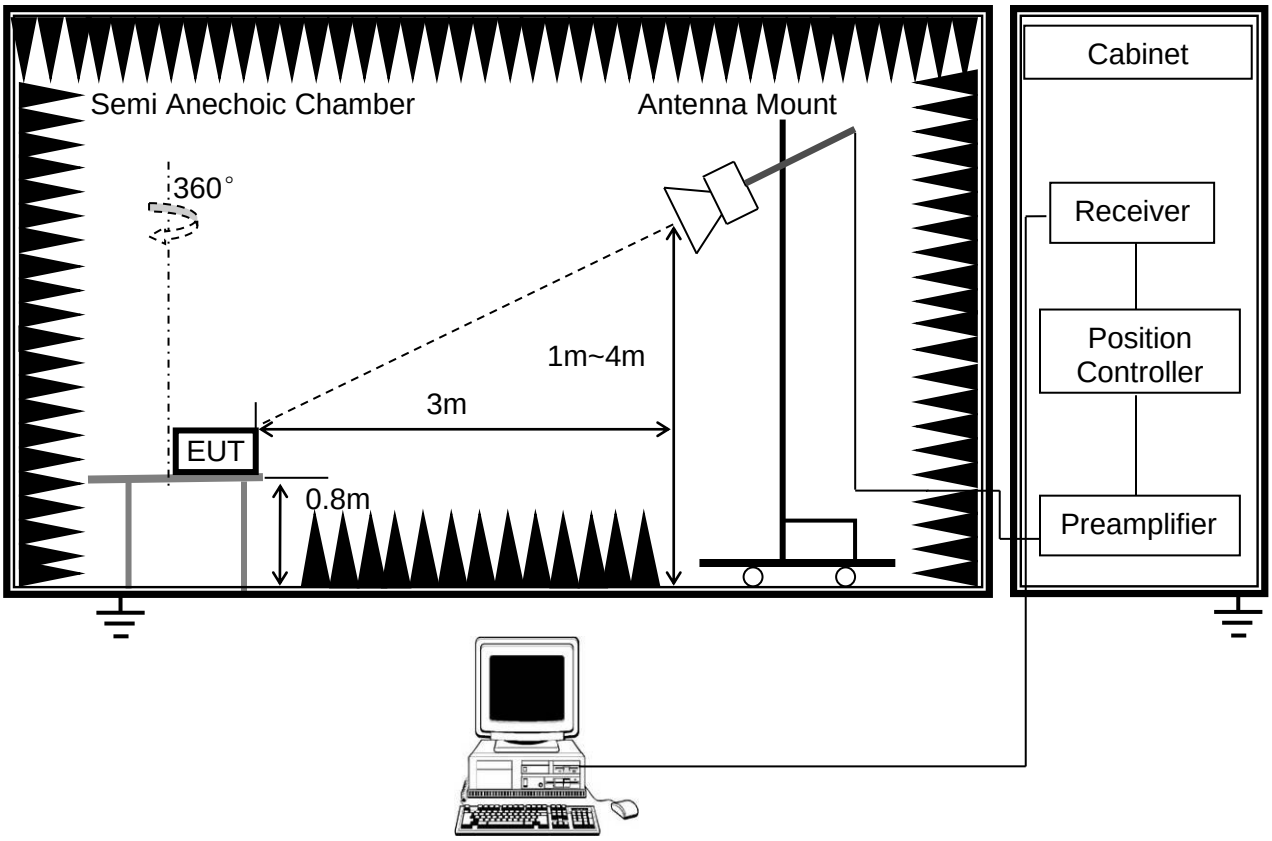
a. The measuring distance of at 10m shall be used for measurements at frequency up to 1GHz.
b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter chamber. The table was rotated 360 degrees to determine the position of the highest radiation.
c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d. For the actual test configuration, please refer to the related Item:EUT Test Photos.

7.2.3. Test Setup

(a) Radiated Disturbance Test Set-Up Frequency 30MHz - 1GHz



(b) Radiated Disturbance Test Set-Up Frequency above 1GHz



For the actual test configuration, please refer to Appendix I: Photographs of the Test Configuration.

7.2.4. Test Environment

Radiated Disturbance - below 1 GHz		Radiated Disturbance - above 1 GHz	
Temperature:	24.5℃	Temperature:	N/A
Humidity:	55%	Humidity:	N/A
ATM pressure:	100.1kPa	ATM pressure:	N/A

7.2.5. Test Mode

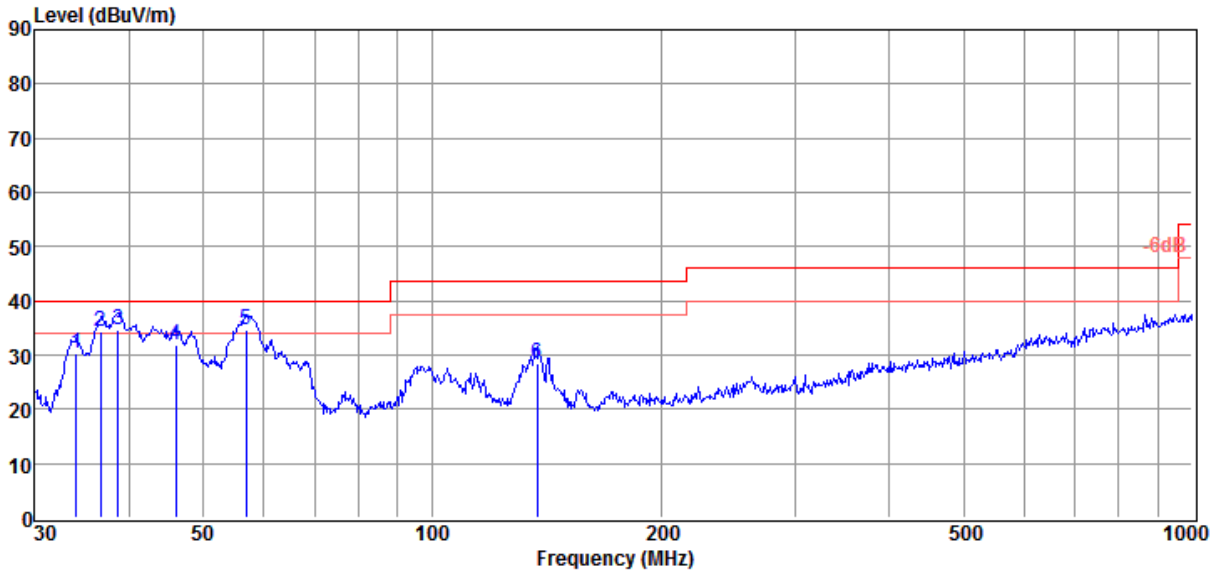
Radiated Disturbance - below 1 GHz		Radiated Disturbance - above 1 GHz	
Pre-test Mode:	Mode 1	Pre-test Mode:	N/A
Final Test Mode:	Mode 1	Final Test Mode:	N/A

Note: According to pre-test results, the final test mode is each independent function's worst case and only shown in the report.

7.2.6. Test Results – below 1GHz

EUT	: LED Vanity Light	**Model Number**	: VAN-EXC-CR
Power Supply	: AC 120V/60Hz	**Test Mode**	: Mode 1
Condition	: Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: VULB 9163 2#/3m/VERTICAL
Memo	:		

Data: 3
Data:
2

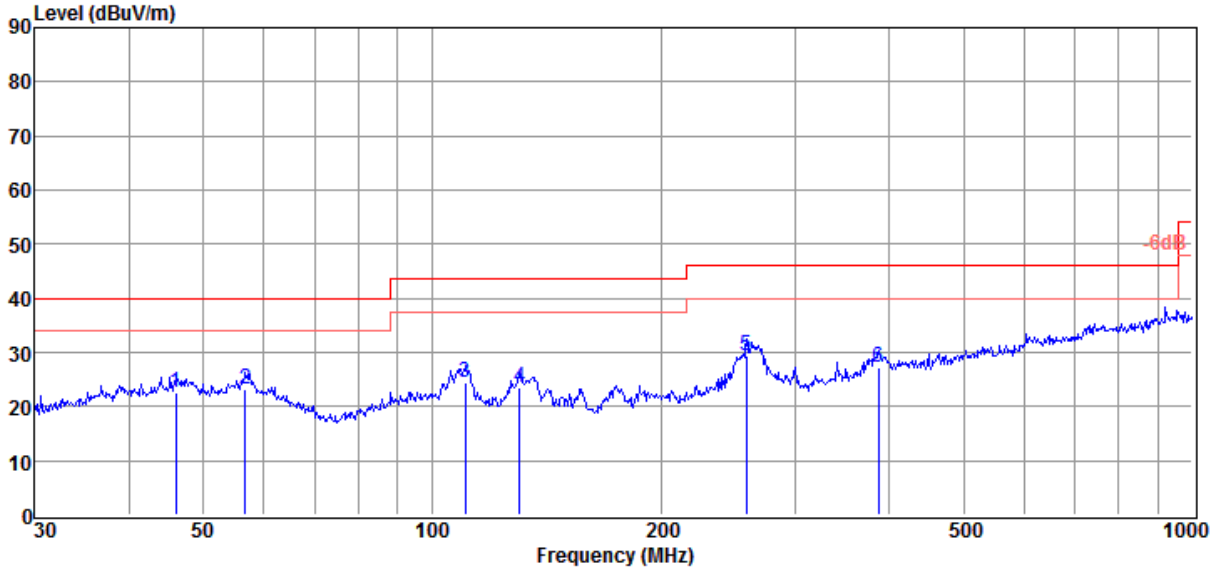


Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	34.04	14.41	12.01	3.80	30.22	40.00	-9.78	QP	VERTICAL
2	36.64	17.72	12.63	3.84	34.19	40.00	-5.81	QP	VERTICAL
3	38.62	17.78	13.02	3.87	34.67	40.00	-5.33	QP	VERTICAL
4	46.02	13.78	14.10	3.98	31.86	40.00	-8.14	QP	VERTICAL
5	56.99	17.21	13.20	4.11	34.52	40.00	-5.48	QP	VERTICAL
6	137.42	14.33	9.40	4.82	28.55	43.50	-14.95	QP	VERTICAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

EUT	: LED Vanity Light	**Model Number**	: VAN-EXC-CR
Power Supply	: AC 120V/60Hz	**Test Mode**	: Mode 1
Condition	: Temp:24.5°C,Humi:55%,Press:100.1kPa	**Antenna/Distance**	: VULB 9163 2#/3m/VERTICAL
Memo	:		

Data: 4
Data:
1



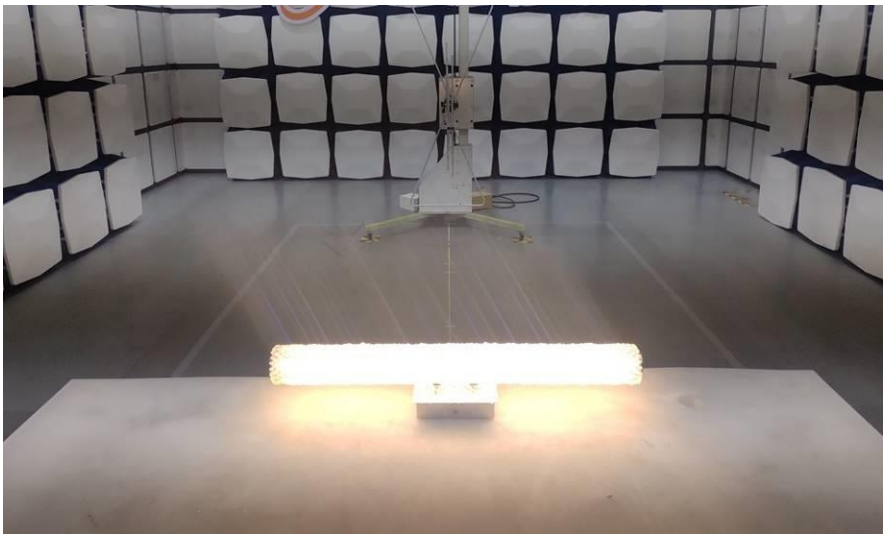
Item (Mark)	Freq. (MHz)	Read Level (dBµV)	Antenna Factor (dB/m)	Cable Loss dB	Result Level (dBµV/m)	Limit Line (dBµV/m)	Over Limit (dB)	Detector	Polarization
1	46.02	4.47	14.10	3.98	22.55	40.00	-17.45	QP	HORIZONTAL
2	56.79	5.84	13.22	4.10	23.16	40.00	-16.84	QP	HORIZONTAL
3	110.57	7.75	12.04	4.59	24.38	43.50	-19.12	QP	HORIZONTAL
4	130.38	8.74	9.86	4.76	23.36	43.50	-20.14	QP	HORIZONTAL
5	259.23	11.21	12.68	5.63	29.52	46.00	-16.48	QP	HORIZONTAL
6	386.63	5.26	15.73	6.34	27.33	46.00	-18.67	QP	HORIZONTAL

Note: 1. Result Level = Read Level + Antenna Factor + Cable loss.
2. If Peak Result complies with QP limit, QP Result is deemed to comply with QP limit.
3. Test setup: RBW: 120 kHz, VBW: 300 kHz, Sweep time: auto.

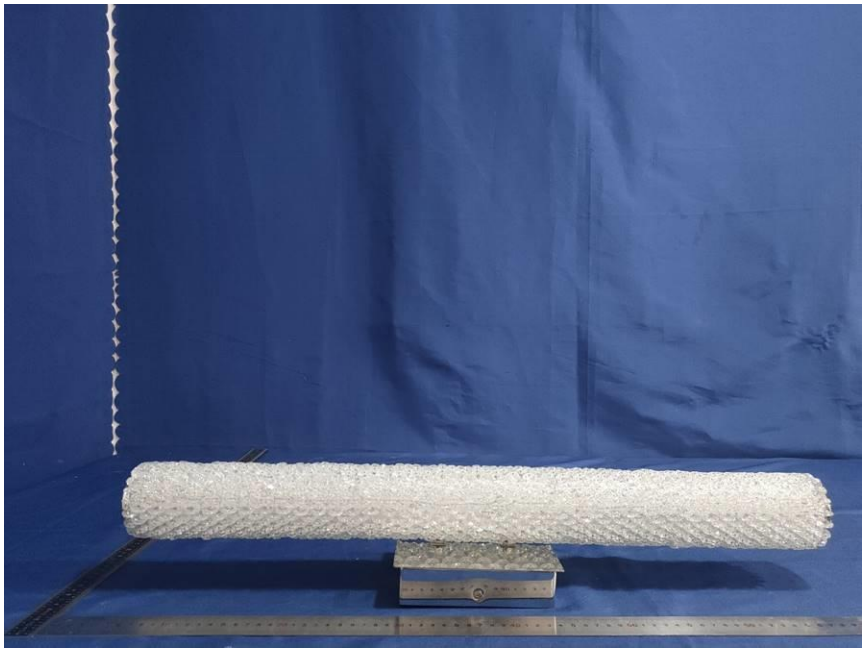
Appendix I: Photographs of Test Configuration

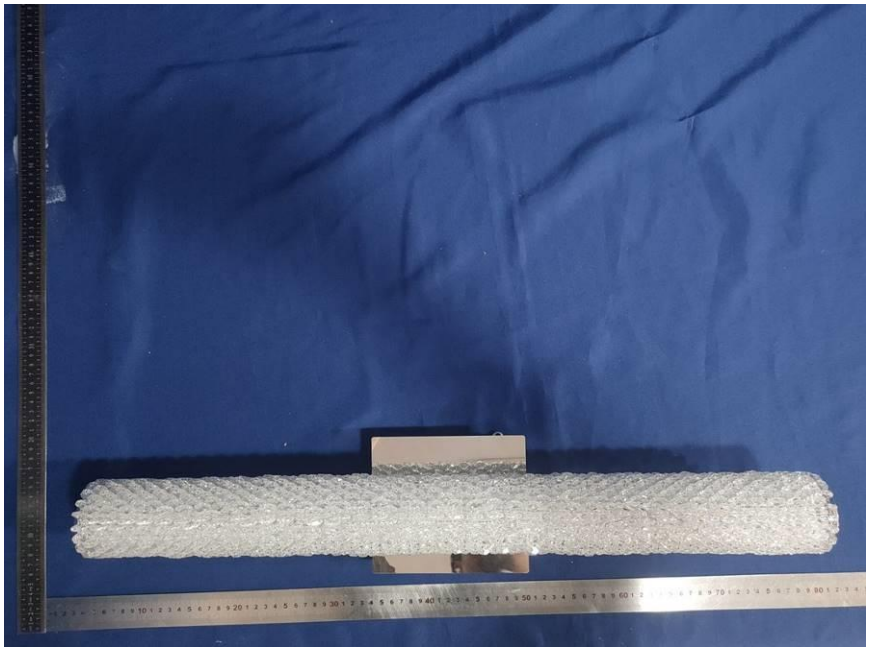
Conducted Disturbance

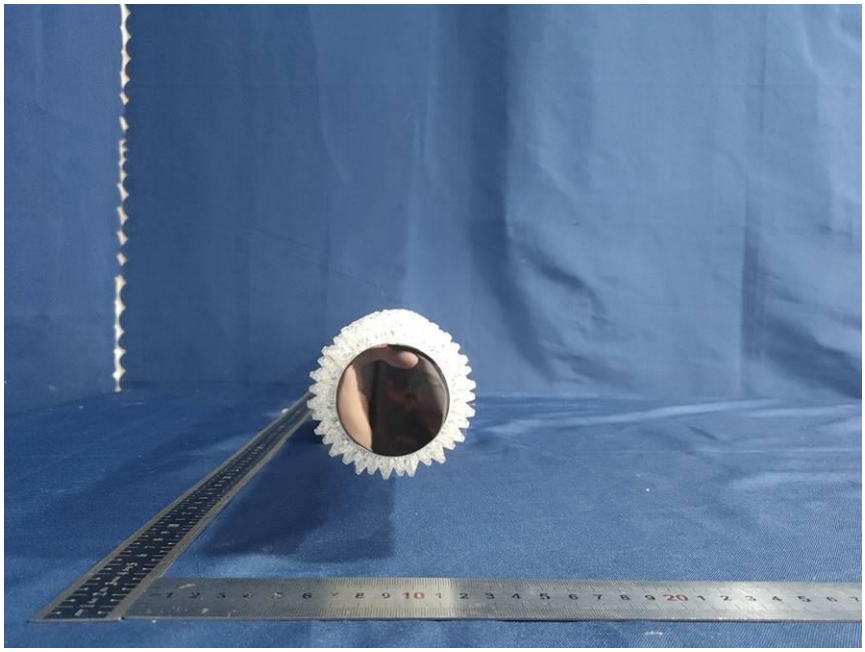
Radiated Disturbance below 1GHz

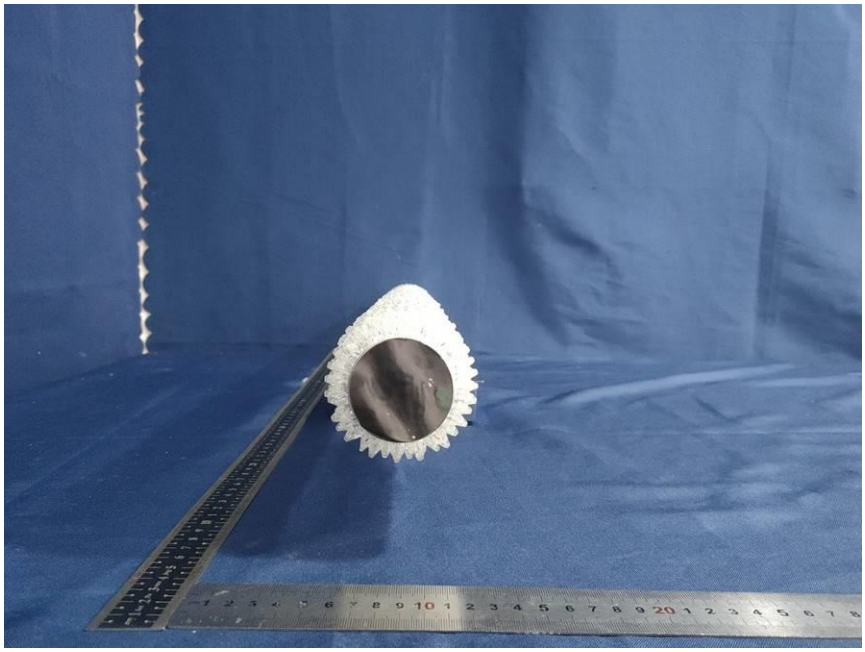


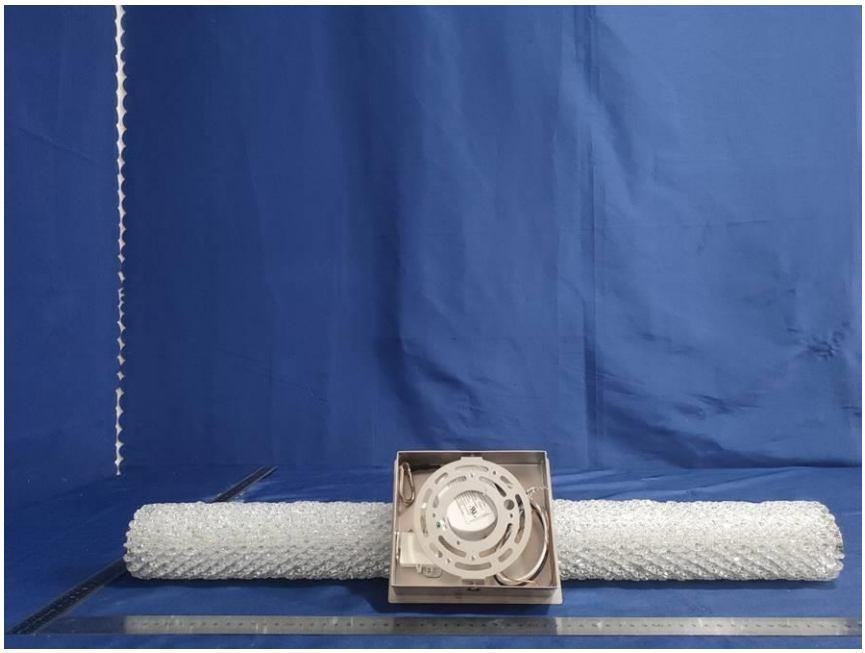
Appendix II: Photographs of the EUT



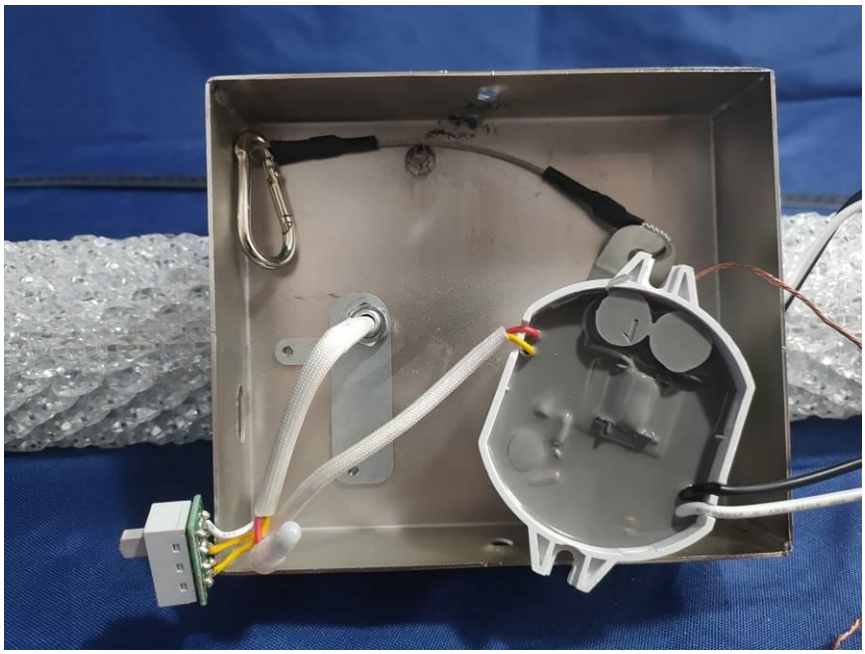


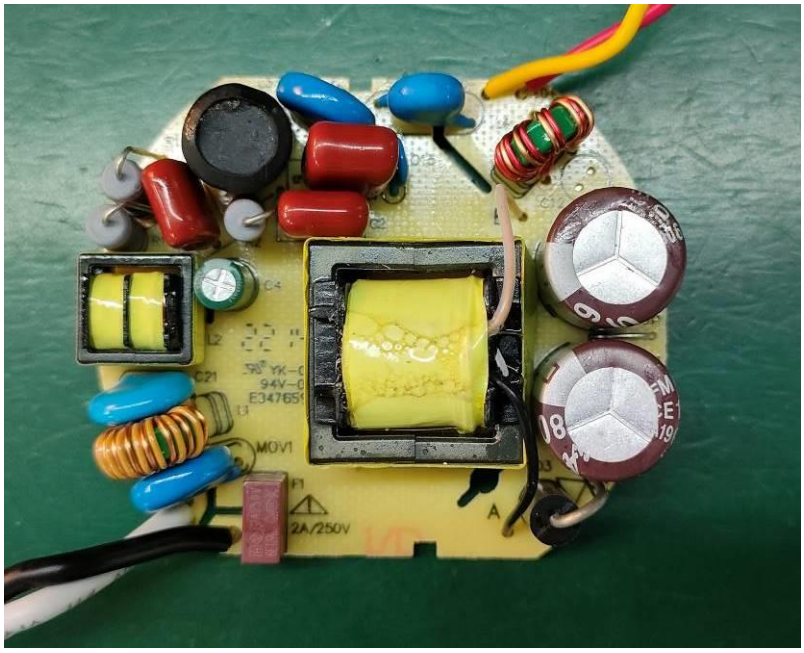


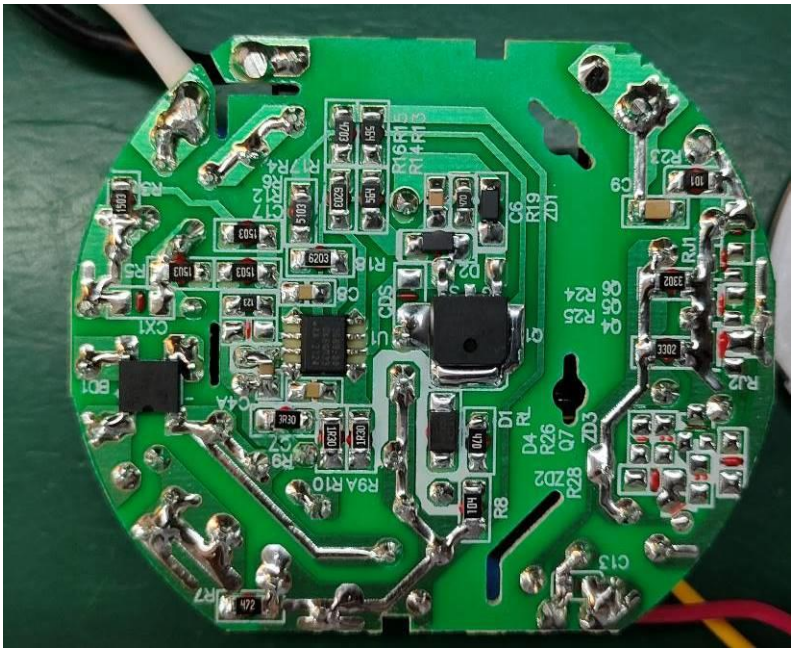





Constant Current LED Driver&Triac dimmer
Commande DEL graduable à courant constant
Graduateur/Dimmer:Triac
Modèle/P/N:BQE20-0600-39-TDB
Class 2
Tension d'entrée/Vin:100-135VAC 50-60Hz
Courant d'entrée/Iin:0.4A Max
Tension de sortie/Vout:30-39VDC
Courant de sortie/Iout:600mA C.C.
E478128
Puissance maximale de sortie/Max Pout:23.4W
Facteur de Puissance/P F:>0.92
2226
Fabriqué en Chine/Made in China
ENTRÉE EN C.A./AC INPUT
SORTIE EN C.C./DC OUTPUT




MOV1
F1
2A/250V



Appendix III : FCC Compliance Statement

1. Labeling requirements
Devices shall bear the following statement in a conspicuous location on the device. When the device is so small, and the device does not have a display that can show electronic labeling, then the information required by this paragraph shall be placed in the user manual and must also either be placed on the device packaging or on a removable label attached to the device:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1)This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

2. User manual or instruction manual requirements
The user manual or instruction manual shall caution the user the following statement:

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
-- Reorient or relocate the receiving antenna.
-- Increase the separation between the equipment and receiver.
-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
-- Consult the dealer or an experienced radio/TV technician for help.
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

3. FCC logo
Devices authorized under the SDoC procedure have the option to use the FCC logo to indicate compliance with the FCC rules,and the logo may be included in the instruction materials or as part of an e-label.

The FCC logo shall only be used on a product that has been tested, evaluated, and found to be compliant in accordance with the SDoC procedures.

End of Report