

TEST REPORT

47 C FR FCC Part15, Subpart B

FCC ID: 2AUHG-CL-CO

Report Reference No.:	E01A22120211F00201	
Prepared by (name + signature)	Luke Li	
Reviewed by (name + signature)	Duke Liu	
Approved by (name + signature)	Tiger Xu	
Date of Receipt of EUT	December 08, 2022	
Date of Test.....	December 08, 2022 to December 10, 2022	
Date of issue	June 21, 2023	
Testing Laboratory	Dong Guan Anci Electronic Technology Co., Ltd	
Address	1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.	
Laboratory location	EMC Laboratory	
Applicant's name	ARTIKA FOR LIVING INC	
Address	1756 50th avenue, Lachine Quebec, H8T 2V5 Canada	
Manufacturer's name.....	Meko Lighting Company Limited	
Address	NO.2 Songlin East Road, ZengTian Village, Xin An District, Chang An Town, Dongguan City, China	
Factory's name	Meko Lighting Company Limited	
Address.....	NO.2 Songlin East Road, ZengTian Village, Xin An District, Chang An Town, Dongguan City, China	

Test specification:

Product.....: Closet light

Trade Mark.....:



Description: The products covered by this report are surface ceiling-mounted luminaires which is suitable for dry locations use. They are provided with lead conductor for field wiring connection.

Models: MK-SPL-SN, MK-SPL-WH, CL-CO-, 10FM-CMP-, followed by six characters

They are similar in mechanical and electrical construction, differences among them are outlook, size and wattage.

Model nomenclature:

CL-CO-XXXXXX,10FM-CMP-XXXXXX

Suffix "X" can be A to Z, 1 to 9 or blank, used for a commercial code.

Test Sample: MK-SPL-SN

Ratings: Input: AC 120V,60Hz, 16W

Standards: 47 CFR FCC Part 15, Subpart B
ANSI C63.4: 2014

The device described above was tested by Dong Guan Anci Electronic Technology Co., Ltd. to determine the maximum emission levels emanated from the device and severity levels of the device endure and its performance criterion. The measurement results are contained in this test report and Dong Guan Anci Electronic Technology Co., Ltd. assumes full responsibility for the accuracy and completeness of these measurements. This report shows the EUT is technically compliance with the above official standards.

This report applies to the above sample only and shall not be reproduced in part without written approval of Dong Guan Anci Electronic Technology Co., Ltd.

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1. GENERAL INFORMATION

1.1 GENERAL PRODUCT INFORMATION

Closet light, direct plug-in type, which designed to supply power for audio, video, information and communication technology, business and office machines, for indoor use only.

The models **MK-SPL-SN** was tested in this report.

The EUT passed the test.

1.2 Modified Information

Version		Revision Date	Report No.
Ver.1.0	Original Report	/	E01A22120211F00201

1.3 FACILITIES AND ACCREDITATION

Test Location	Dong Guan Anci Electronic Technology Co., Ltd
Address	1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.
Accreditation Laboratory	The Laboratory has been assessed and proved to be in compliance with FCC, The Registration Number is 991798.
Description	All tests measurement facilities use to collect the measurement data are located at 1-2 Floor, Building A, No.11, Headquarters 2 Road, Songshan Lake Hi-tech Industrial Development Zone, Dongguan City, Guangdong Pr., China.

1.4 NORMATIVE REFERENCES

[1] **ANSI C63.4:2014** American National Standard for Methods of Measuring of Radio-Noise Emissions from Low-Voltage Electrical and Electronic Equipment in the Range of 9 kHz to 40 GHz.

[2] **47 CFR FCC Part 2** General Rules and Regulations

[3] **47 CFR FCC Part 15** Radio Frequency Devices (Subpart B)

2. SUMMARY OF TEST RESULTS

Test procedures according to the technical standards:

Emission				
Standard	Test Item	Limit	Judgment	Remark
47 CFR FCC Part15, Subpart B ANSI C63.4-2014	Conducted Emission	Class B	PASS	
	Radiated Emission Below 1 GHz	Class B	PASS	
	Radiated Emission Above 1 GHz	Class B	N/A	See Note

NOTE:

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 2GHz. If the highest frequency of the internal sources of the EUT is between 500 MHz and 1GHz, 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.

2.1 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement $y \pm U$, where expended uncertainty U is based on a standard uncertainty multiplied by a coverage factor of $k=2$, providing a level of confidence of approximately 95 %.

A. Conducted disturbance at mains terminals ports:

Test Site	Method	Measurement Frequency Range	U , (dB)	NOTE
843	ANSI	150 KHz ~ 30MHz	3.19	

B. Radiated Emission Test :

Test Site	Method	Measurement Frequency Range	Ant. H / V	U(dB)	NOTE
S02	ANSI	30MHz ~ 1000MHz	V	3.52	
S02	ANSI	30MHz ~ 1000MHz	H	3.52	

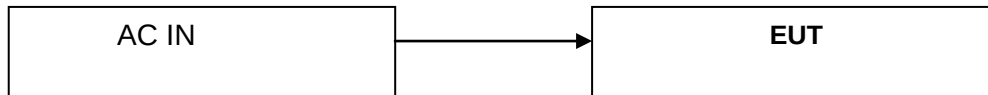
2.2 DESCRIPTION OF TEST MODES

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

Modes of Operation

For Emission Test	
Mode	Description
Mode 1	Lighting
Mode 2	Standby
Remark: the worst Mode was listed in this report	

2.3 BLOCK DIGRAM SHOWING THE CONFIGURATION OF SYSTEM TESTED



The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	M/N	Manufacturer	support
E-1	/	/	/	/

Item	Type of cable	Length
C-1	N/A	N/A

3. CONDUCTED EMISSION TEST

3.1 CONDUCTED EMISSION MEASUREMENT

3.1.1 LIMITS OF CONDUCTED EMISSION (MAINS PORT) (Frequency Range 150KHz-30MHz)

FREQUENCY (MHz)	☐ Class A (dBuV)		Class B (dBuV)	
	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 (if use)

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

3.1.2 MEASUREMENT INSTRUMENTS LIST

Item	Instr.Code	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	AN-E010	L.I.S.N	SCHWARZBECK	NSLK 8127	8127-669	2023-05-12
2	AN-E086	CURRENT PROBE	ROHDE&SCHWARZ	EZ-17	101602	2023-10-07
3	AN-E026	RF Cable	N/A	ZT06S-NJ-NJ-3M	19044021	2023-05-12
4	AN-E020	EMI Test Receiver	ROHDE&SCHWARZ	ESCI	101358	2023-05-12
5	AN-E058	1# Shielded Room	chengyu	8m*4m*3.3m	N/A	2024-11-12
6	AN-E046	Test Software	Farad	EZ-EMC (Ver.ANCI-3A1)	N/A	N/A

Remark: " N/A" denotes No Model No. , Serial No. or No Calibration specified.

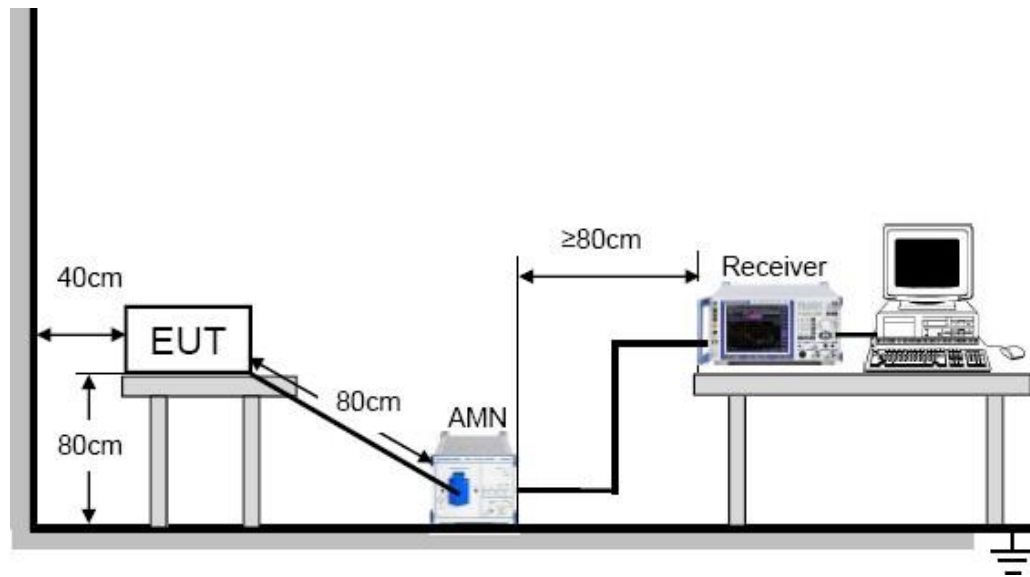
3.1.3 TEST PROCEDURE

- 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.

3.1.4 DEVIATION FROM TEST STANDARD

No deviation

3.1.5 TEST SETUP



For the actual test configuration, please refer to Appendix: Photographs of the Conducted Emission Test.

3.1.6 EUT OPERATING CONDITIONS

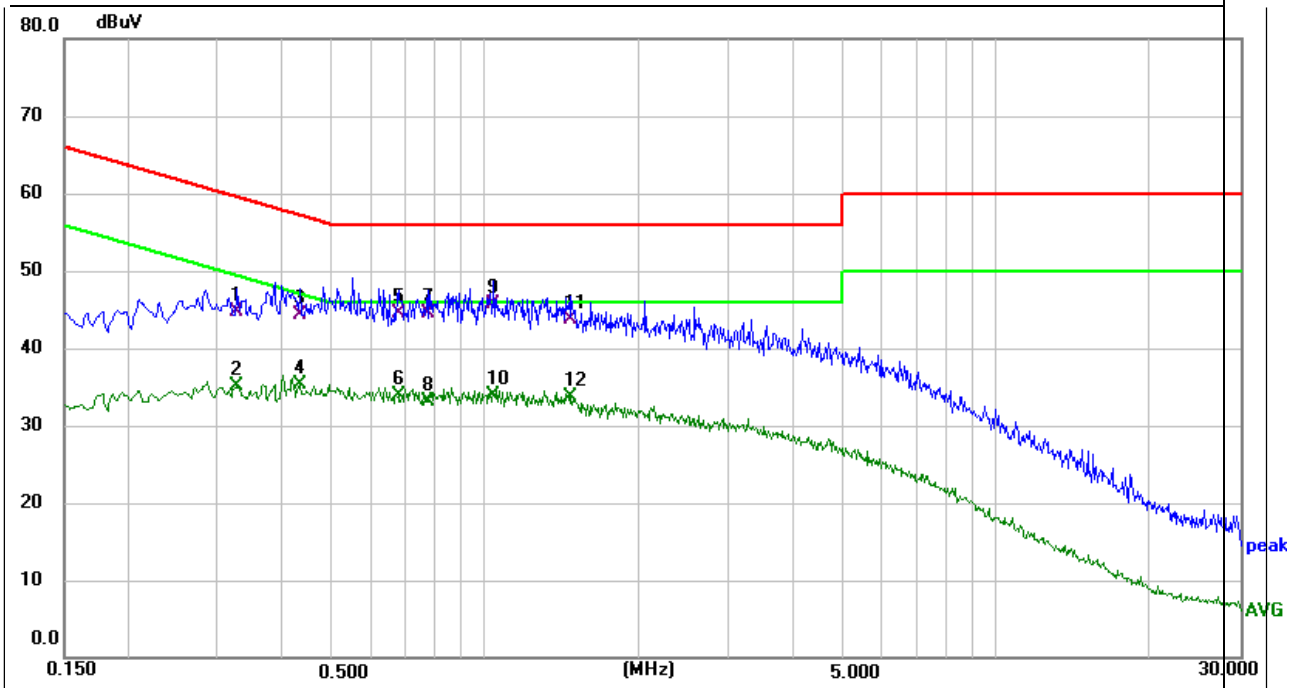
The EUT exercise program used during radiated and/or conducted emission measurement was designed to exercise the various system components in a manner similar to a typical use.

3.1.7 TEST RESULTS

EUT:	Closet light	Model No. :	MK-SPL-SN
Temperature:	26°C	Relative Humidity:	54 %
Pressure:	1008 hPa	Test Power :	AC 120V/60HZ
Test Engineer:	Sunshine	Test Time:	2022-12-10
Test Mode :	Standby		

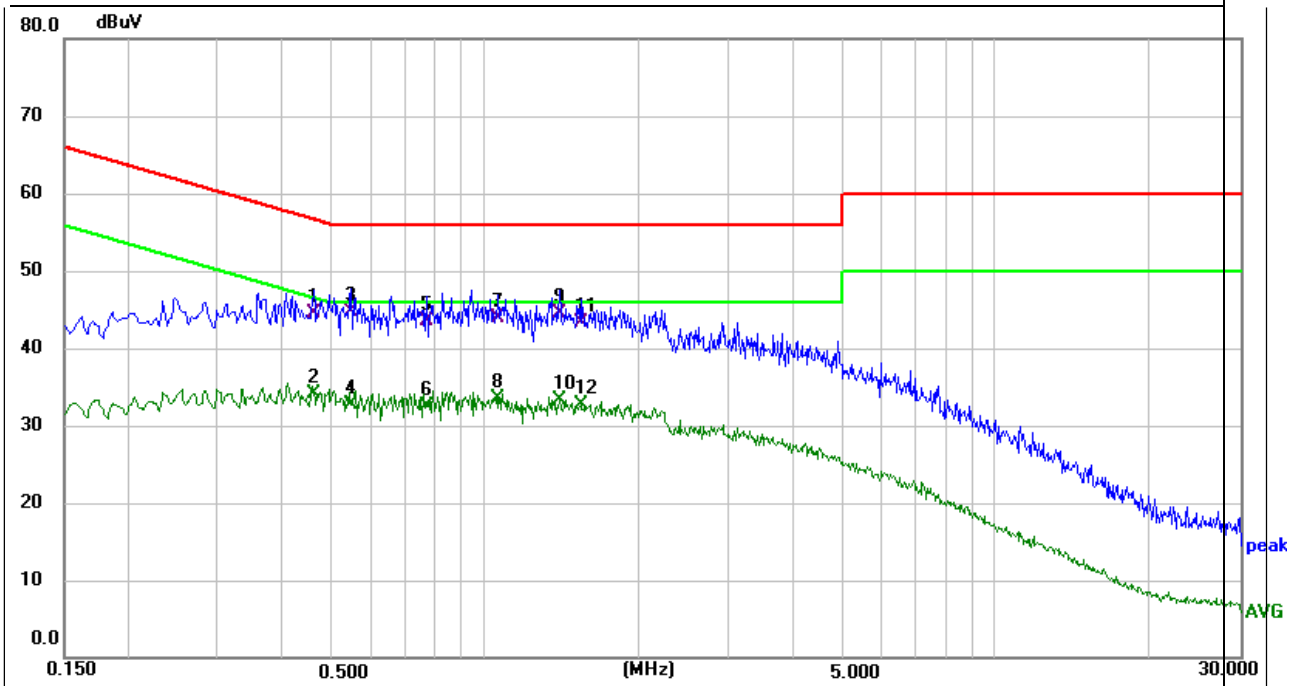
Remark:

- (1) Reading in which marked as QP means measurements by using Quasi-Peak Detector, and AV means measurements by using Average Detector.
- (2) All readings are QP Mode value unless otherwise stated AVG in column of 『Note』 . If the QP Mode Measured value compliance with the QP Limits and lower than AVG Limits, the EUT shall be deemed to meet both QP & AVG Limits and then only QP Mode was measured, but AVG Mode didn't perform. In this case, a " * " marked in AVG Mode column of Interference Voltage Measured.
- (3) Measuring frequency range from 150KHz to 30MHz.
- (4) This test was carried out in conducted emission shielded room.



Site:	ANCI 843	Phase:	N	Temperature(C):	23.5(C)
Limit:	FCC Part 15 Class B Conduction(QP)				
EUT:	Closet light	Test Time:		Humidity(%):	52.6%
					2022-12-10 11:32:12
M/N.:	MK-SPL-SN	Power Rating:		AC	120V/60HZ
Mode:	Standby	Test Engineer:			Sunshine
Note:					

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measurement(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.3260	34.37	10.35	44.72	59.55	-14.83	QP	
2	0.3260	24.68	10.35	35.03	49.55	-14.52	AVG	
3	0.4340	33.69	10.68	44.37	57.18	-12.81	QP	
4	0.4340	24.67	10.68	35.35	47.18	-11.83	AVG	
5	0.6780	34.98	9.61	44.59	56.00	-11.41	QP	
6	0.6780	24.34	9.61	33.95	46.00	-12.05	AVG	
7	0.7740	34.70	9.75	44.45	56.00	-11.55	QP	
8	0.7740	23.39	9.75	33.14	46.00	-12.86	AVG	
9 *	1.0380	35.70	9.98	45.68	56.00	-10.32	QP	
10	1.0380	23.93	9.98	33.91	46.00	-12.09	AVG	
11	1.4740	33.62	10.03	43.65	56.00	-12.35	QP	
12	1.4740	23.58	10.03	33.61	46.00	-12.39	AVG	



Site:	ANCI 843	Phase:	L1	Temperature(C):	23.5(C)
Limit:	FCC Part 15 Class B Conduction(QP)				
EUT:	Closet light	Test Time:		Humidity(%):	52.6%
					2022-12-10 11:30:14
M/N.:	MK-SPL-SN	Power Rating:		AC	120V/60HZ
Mode:	Standby	Test Engineer:			Sunshine
Note:					

No.	Frequency (MHz)	Reading Level(dBuV)	Factor (dB)	Measurement(dBuV)	Limit (dBuV)	Over (dB)	Detector	Comment
1	0.4620	33.89	10.65	44.54	56.66	-12.12	QP	
2	0.4620	23.44	10.65	34.09	46.66	-12.57	AVG	
3 *	0.5460	35.03	9.58	44.61	56.00	-11.39	QP	
4	0.5460	23.19	9.58	32.77	46.00	-13.23	AVG	
5	0.7700	33.75	9.74	43.49	56.00	-12.51	QP	
6	0.7700	22.85	9.74	32.59	46.00	-13.41	AVG	
7	1.0620	33.98	9.96	43.94	56.00	-12.06	QP	
8	1.0620	23.63	9.96	33.59	46.00	-12.41	AVG	
9	1.3980	34.54	9.98	44.52	56.00	-11.48	QP	
10	1.3980	23.39	9.98	33.37	46.00	-12.63	AVG	
11	1.5420	33.18	10.05	43.23	56.00	-12.77	QP	
12	1.5420	22.61	10.05	32.66	46.00	-13.34	AVG	

3.2 RADIATED EMISSION MEASUREMENT

3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1000MHz)

Frequency MHz	☐ Class A (at 10m)		☒ Class B (at 3m)	
	(uV/m)	(dBuV/m)	(uV/m)	(dBuV/m)
	Field strength	Field strength	Field strength	Field strength
30 ~ 88	90	39	100	40
88 ~ 216	150	43.5	150	43.5
216 ~ 960	210	46.4	200	46
960 ~ 1000	300	49.5	500	54

LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

FREQUENCY (GHz)	☐ Class A (dBuV/m) (at 3m)		☐ Class B (dBuV/m) (at 3m)	
	PEAK	AVERAGE	PEAK	AVERAGE
Above 1000MHz	80	60	74	54

FREQUENCY RANGE OF RADIATED MEASUREMENT (For unintentional radiators)

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;
- (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 bandwidth of the Receiver is set at 120 kHz.
- (5) 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.

3.2.2 MEASUREMENT INSTRUMENTS LIST

3m Radiated Emission Measurement 30MHz-18GHz

Item	Instr.Code	Kind of Equipment	Manufacturer	Type No.	Serial No.	Calibrated until
1	AN-E060	EMI Test Receiver	Rohde & Schwarz	ESCI	100302	2023-05-12
2	AN-E061	Pre-Amplifier	Anritsu	MH648A	M57886	2023-05-12
3	AN-E076	Bilog Antenna	Schwarzbeck	VULB9163	VULB9163-1290	2023-10-07
4	AN-E063	RF Cable	N/A	ZT06S-NJ-NJ-11M	19060398	2023-05-12
5	AN-E064	RF Cable	N/A	ZT06S-NJ-NJ-0.5M	19060400	2023-05-12
6	AN-E065	RF Cable	N/A	ZT06S-NJ-NJ-2.5M	19060404	2023-05-12
7	AN-E056	3m Semi-anechoic Chamber	chengyu	9m*6m*6m	N/A	2024-11-11
8	AN-E069	Test Software	Farad	EZ-EMC (Ver.FA-03A2 RE)	N/A	N/A
9	AN-E037	Spectrum Analyzer	Rohde & Schwarz	FSV40	102257	2023-10-07
10	AN-E015	Low noise Amplifiers	A-INFO	LA1018N4009	J1013130524001	2023-05-12
11	AN-E014	Horn antenna	A-INFO	LB-10180-SF	J2031090612123	2023-05-14
12	AN-E065	RF Cable	N/A	ZT26-NJ-NJ-11M	19060401	2023-05-12
13	AN-E067	RF Cable	N/A	ZT26-NJ-NJ-2.5M	19060402	2023-05-12
14	AN-E068	RF Cable	N/A	ZT26-NJ-NJ-0.5M	19060403	2023-05-12
15	AN-E056	3m Semi-anechoic Chamber	chengyu	9m*6m*6m	N/A	2024-11-12
16	AN-E069	Test Software	Farad	EZ-EMC (Ver.FA-03A2 RE)	N/A	N/A

Remark: " N/A" denotes No Model No. / Serial No. and No Calibration specified.

3.2.3 TEST PROCEDURE

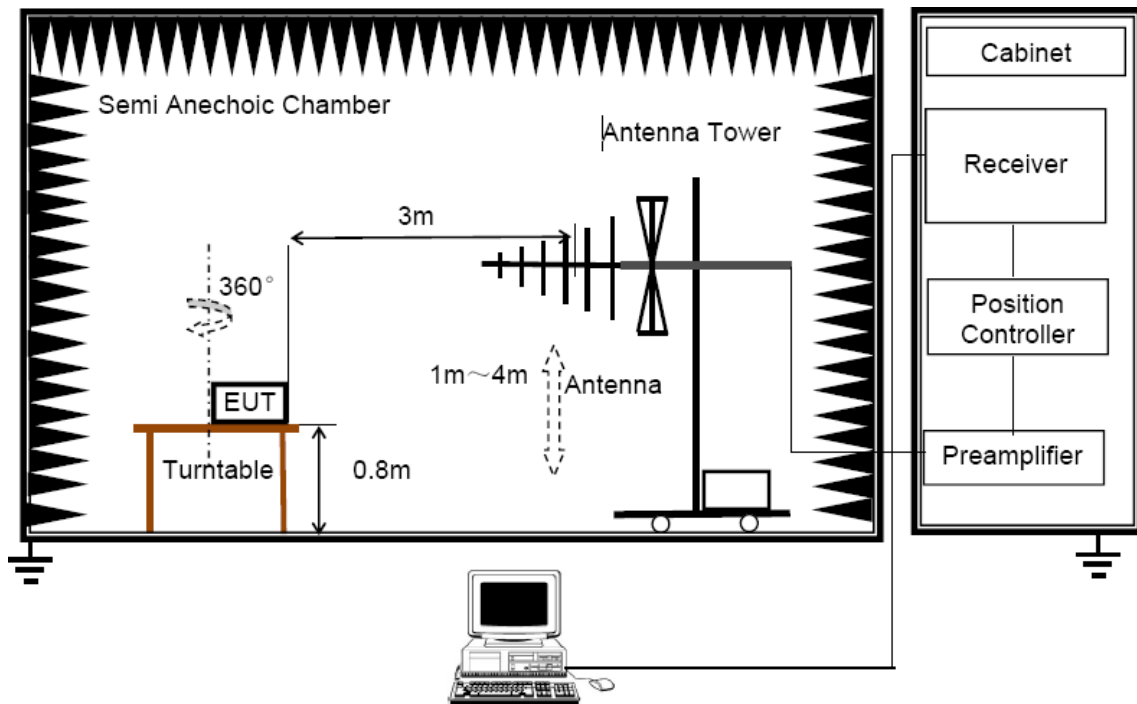
- a. The measuring distance of at 3 m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3m or 10 meter open area test site. The table 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. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item –EUT Test Photos.

3.2.4 DEVIATION FROM TEST STANDARD

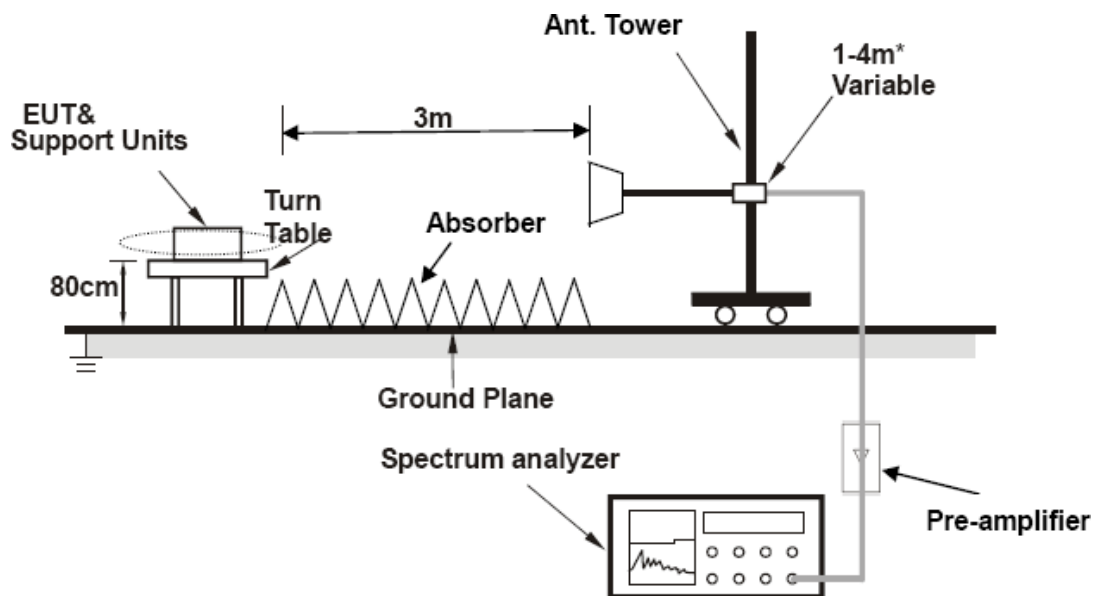
No deviation

3.2.5 TEST SETUP

Radiated Emissions Test Set-Up Frequency 30MHz - 1GHz



Radiated Emissions Test Set-Up Frequency above 1GHz



For the actual test configuration, please refer to Appendix: Photographs of the Radiated Emission Test.

3.2.6 EUT OPERATING CONDITIONS

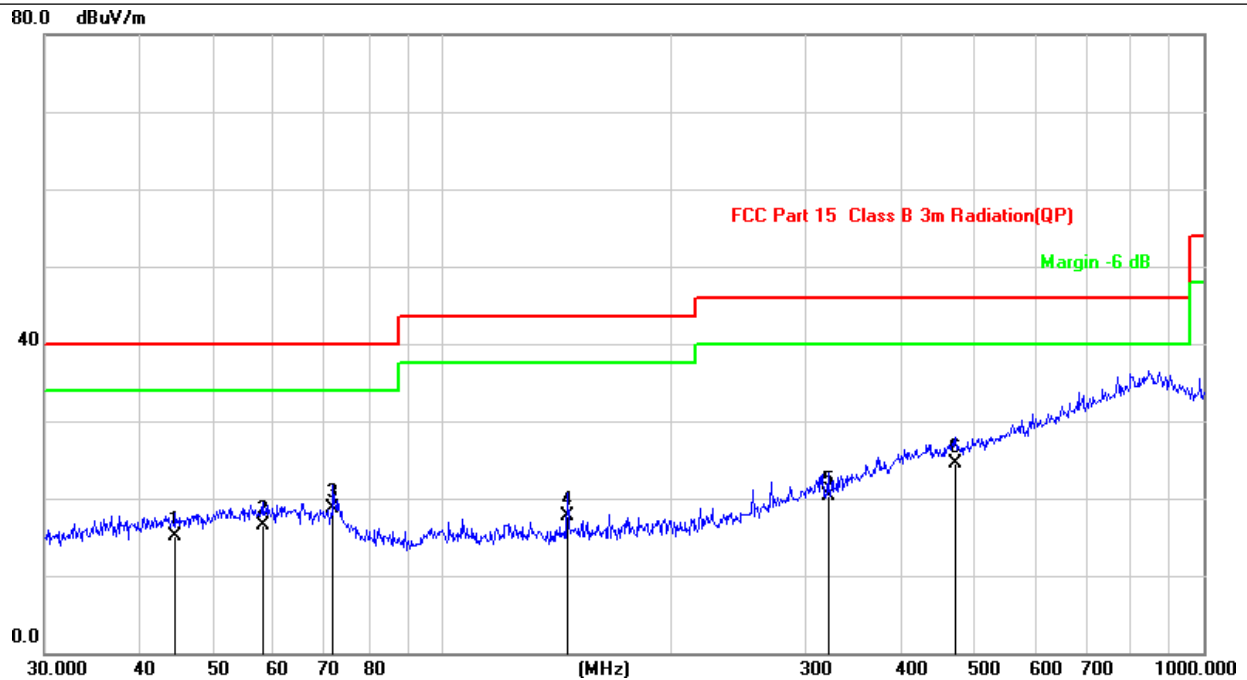
The EUT tested system was configured as the statements of 3.1.6 Unless otherwise a special operating condition is specified in the follows during the testing.

3.2.7 TEST RESULTS

EUT :	Closet light	Model No. :	MK-SPL-SN
Temperature :	26°C	Relative Humidity:	54 %
Pressure :	1008 hPa	Test Power :	AC 120V/60HZ
Test Engineer:	Sunshine	Test Time:	2022-12-10
Test Mode :	Lighting		

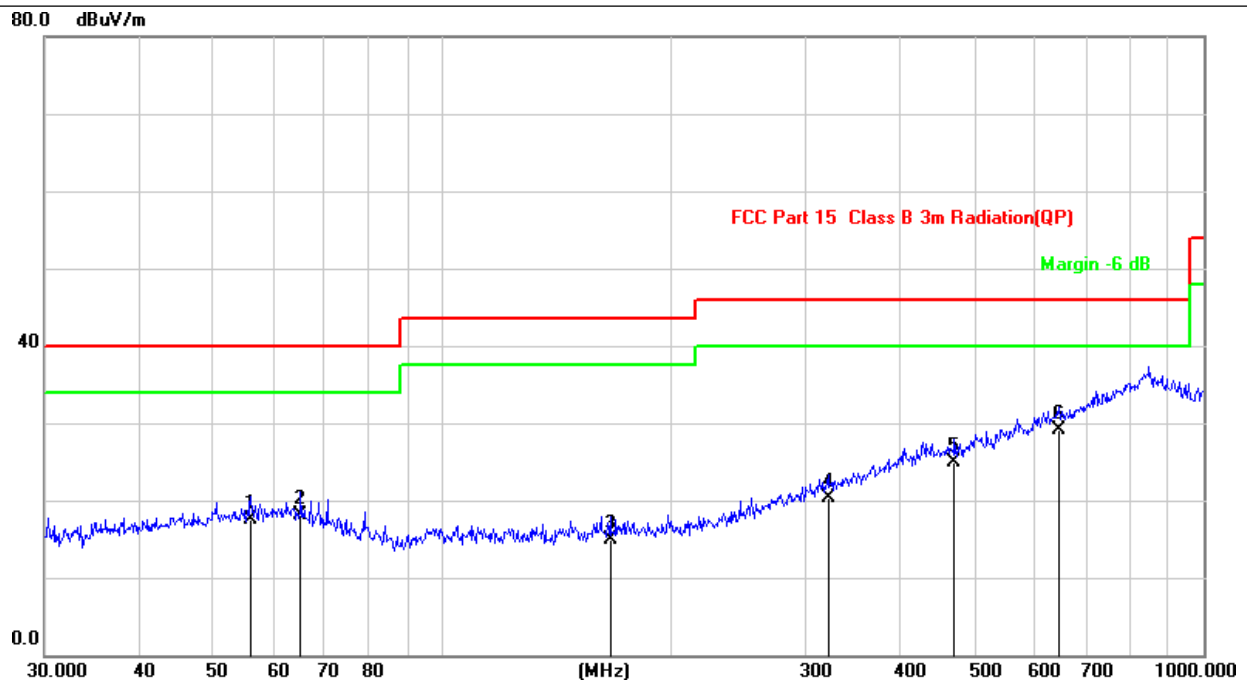
Remark :

- (1) Reading in which marked as QP or Peak means measurements by using are Quasi-Peak Detector or Peak Detector.
- (2) All readings are Peak unless otherwise stated QP in column of 『Note』 . Peak denotes that the Peak reading compliance with the QP Limits and then QP Mode measurement didn't perform.
- (3) Measuring frequency range from 30MHz to 1000MHz.
- (4) If the peak scan value lower limit more than 20dB, then this signal data does not how in table.
- (5) This test was carried out in 3m anechoic chamber.



Site:	LAB	Antenna::	Vertical	Temperature(C):	26C)
Limit:	FCC Part 15 Class B 3m Radiation(QP)			Humidity(%):	54 %
EUT:	Closet light	Test Time:			2022/12/10 9:11:23
M/N.:	MK-SPL-SN	Power Rating:			AC 120V/60HZ
Mode:	Lighting	Test Engineer:			Sunshine
Note:					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	44.5868	25.22	-10.12	15.10	40.00	-24.90	QP
2	57.9993	25.79	-9.19	16.60	40.00	-23.40	QP
3 *	71.8320	29.64	-10.94	18.70	40.00	-21.30	QP
4	145.8611	29.28	-11.58	17.70	43.50	-25.80	QP
5	321.0608	26.84	-6.54	20.30	46.00	-25.70	QP
6	472.1760	26.31	-1.71	24.60	46.00	-21.40	QP



Site:	LAB	Antenna::	Horizontal	Temperature(C):	26(C)
Limit:	FCC Part 15 Class B 3m Radiation(QP)			Humidity(%):	54%
EUT:	Closet light	Test Time:		2022/12/10 9:12:38	
M/N.:	MK-SPL-SN	Power Rating:		AC 120V/60HZ	
Mode:	Lighting	Test Engineer:		Sunshine	
Note:					

No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	132.2205	30.25	-11.74	18.51	43.50	-24.99	QP
2	144.3348	33.05	-11.75	21.30	43.50	-22.20	QP
3	150.0107	35.02	-11.36	23.66	43.50	-19.84	QP
4 *	155.9100	37.54	-11.62	25.92	43.50	-17.58	QP
5	175.0367	30.94	-11.24	19.70	43.50	-23.80	QP
6	204.2376	33.03	-11.35	21.68	43.50	-21.82	QP

4. ATTACHMENT

4.1 EUT TEST PHOTO

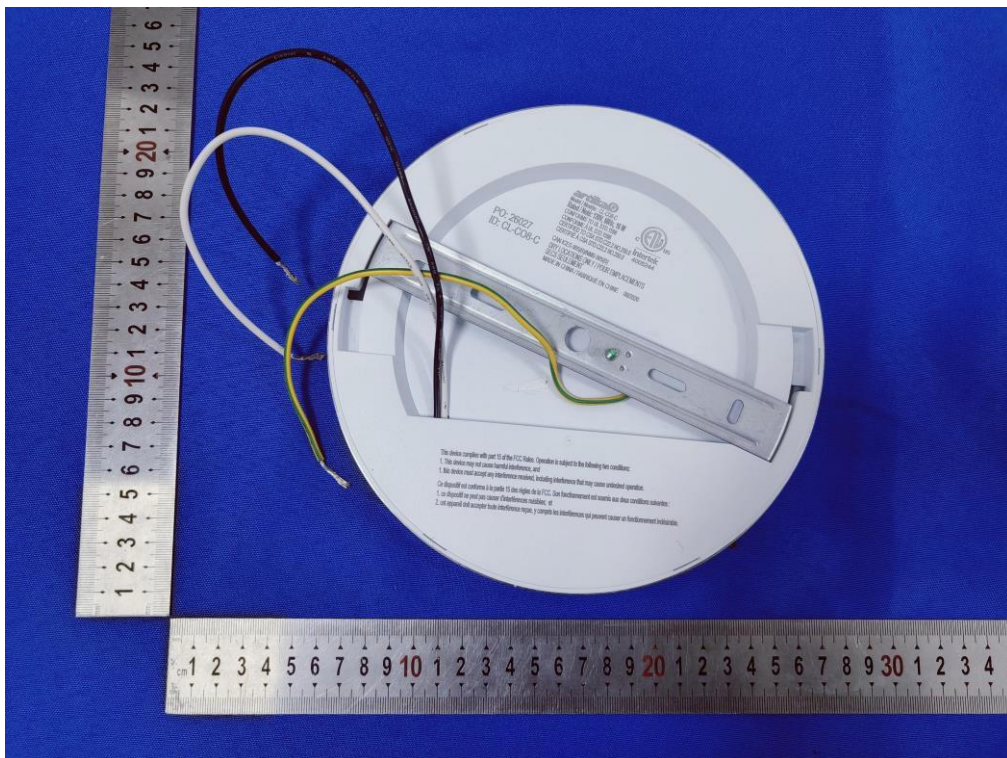
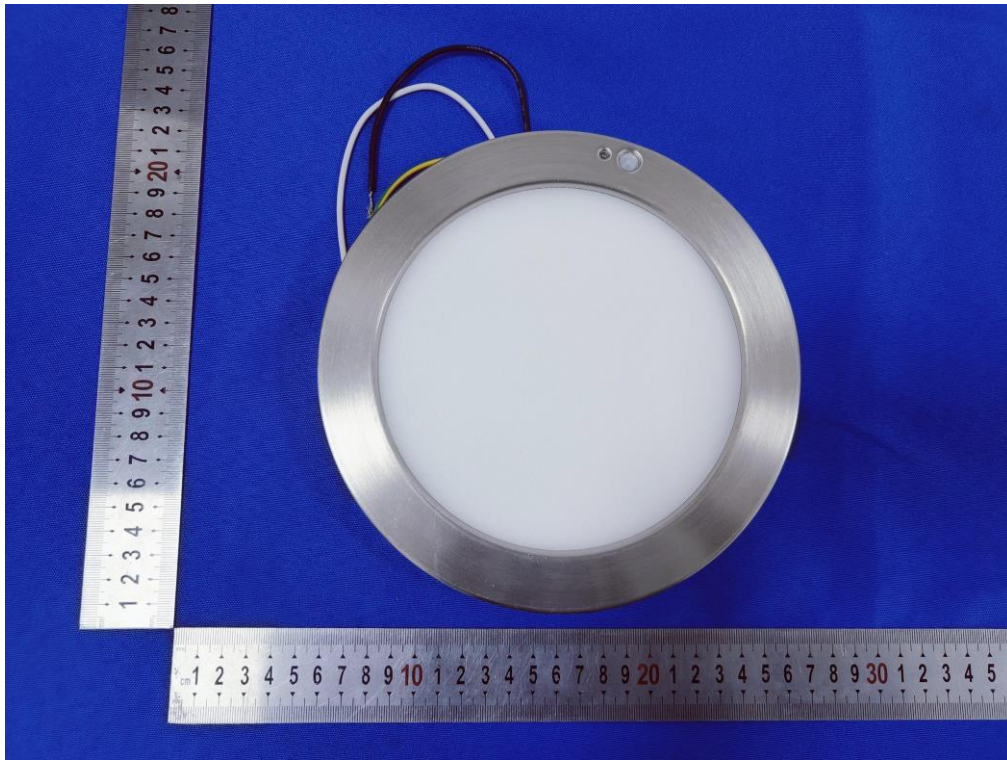
Conducted Emission Measurement Photo

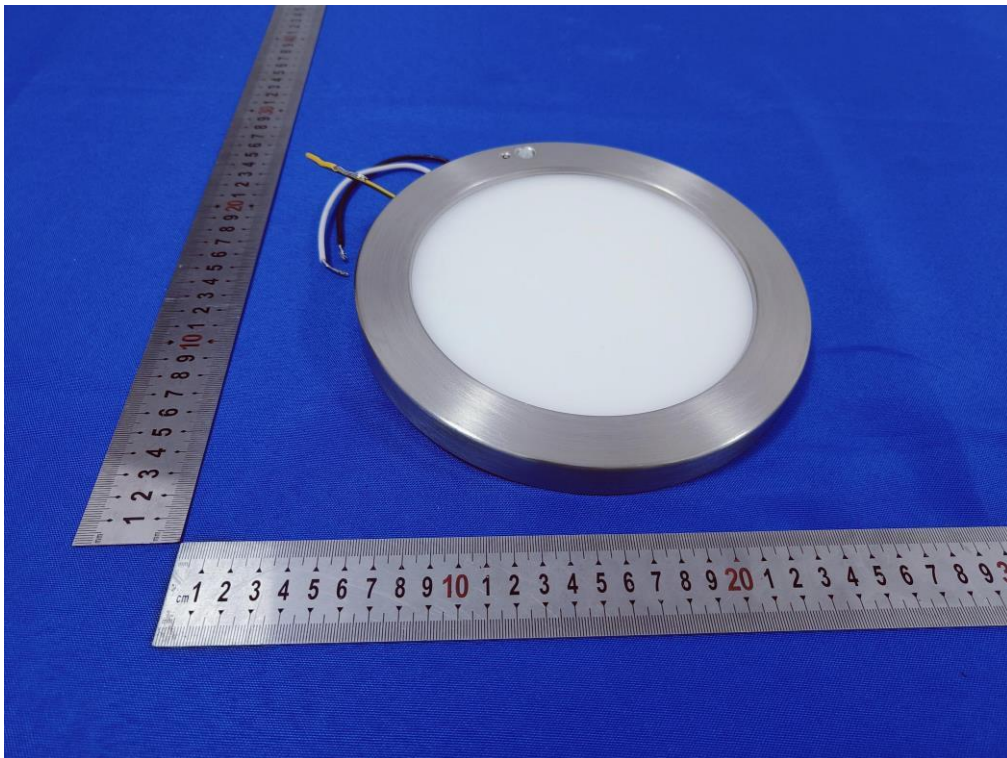
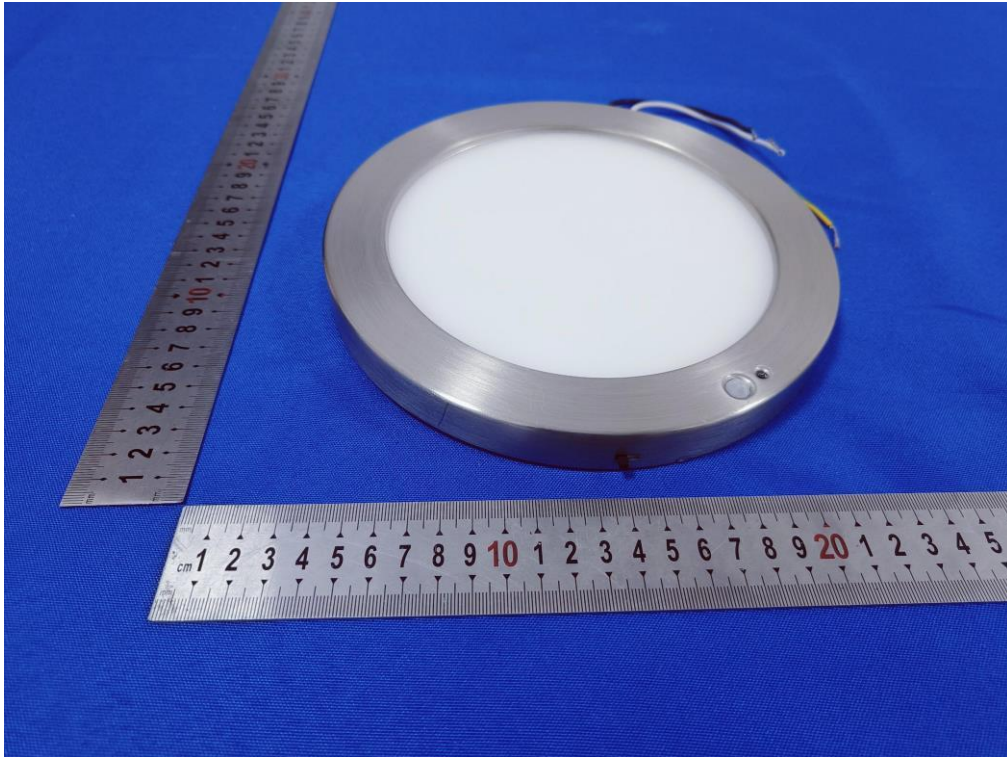


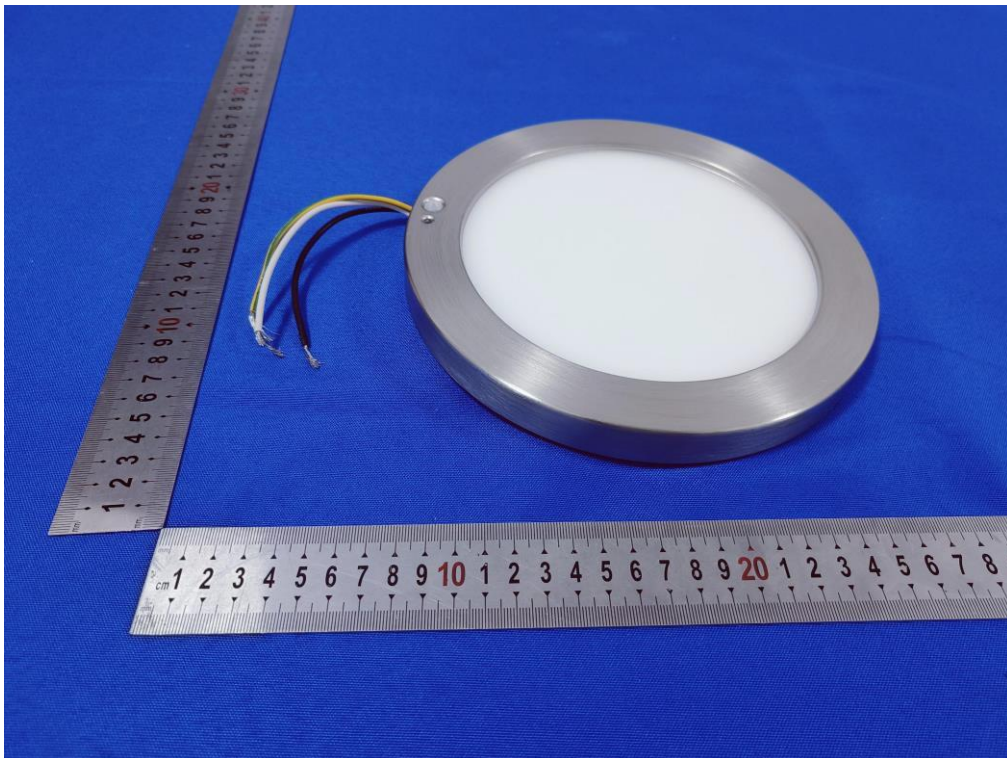
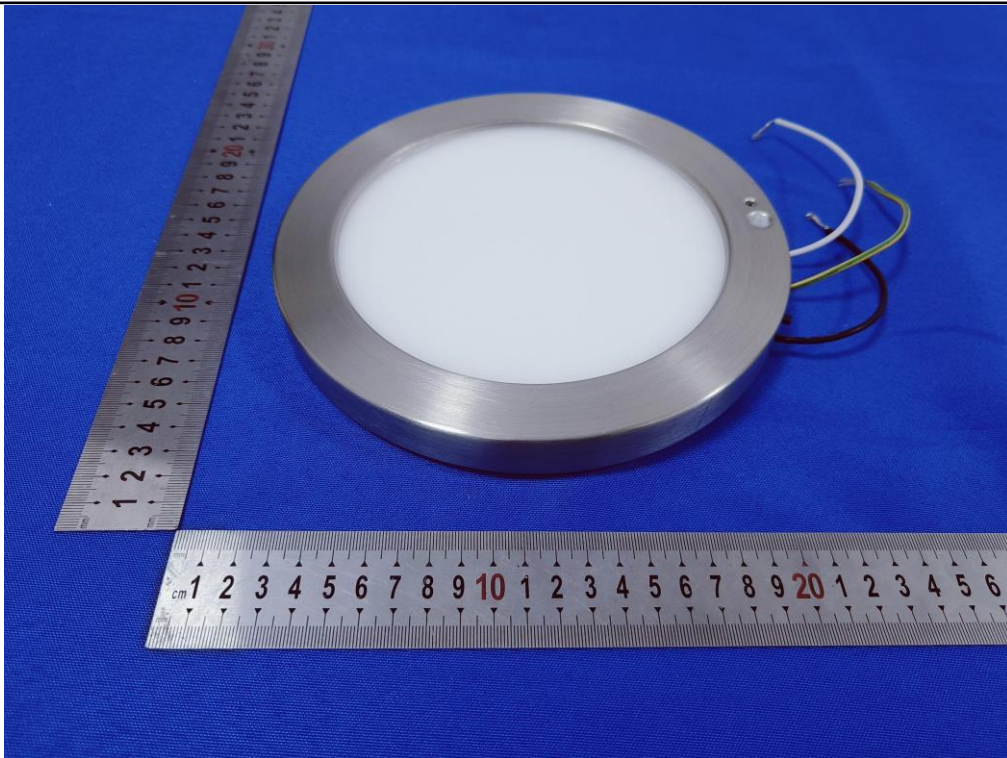
Radiated Measurement Photo

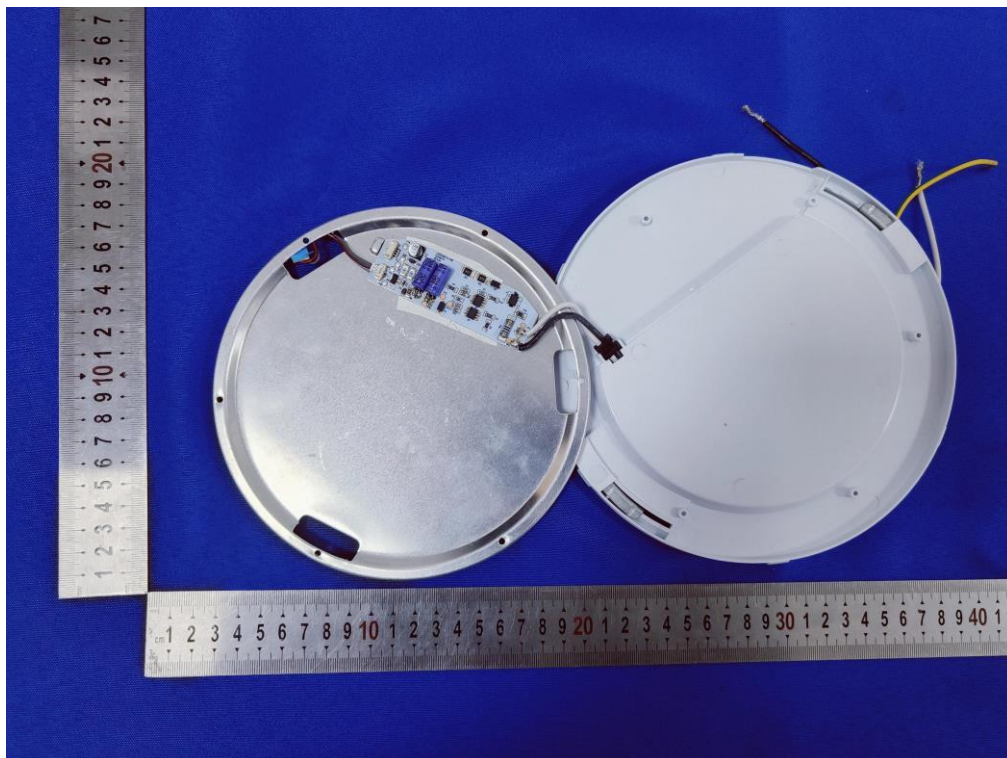
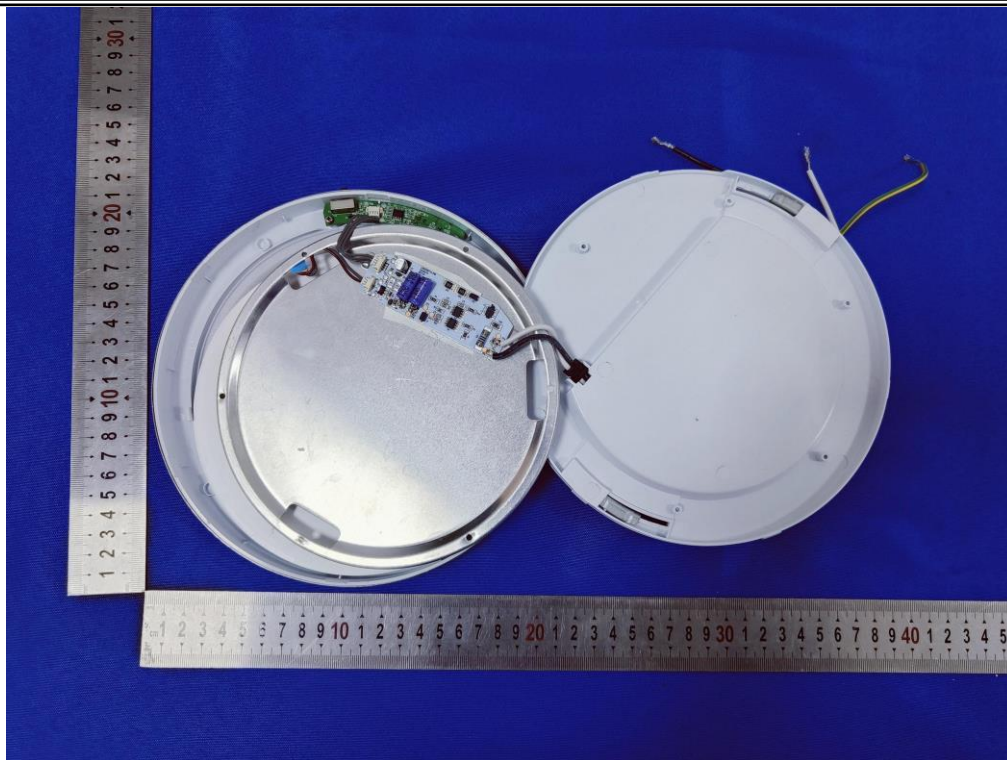


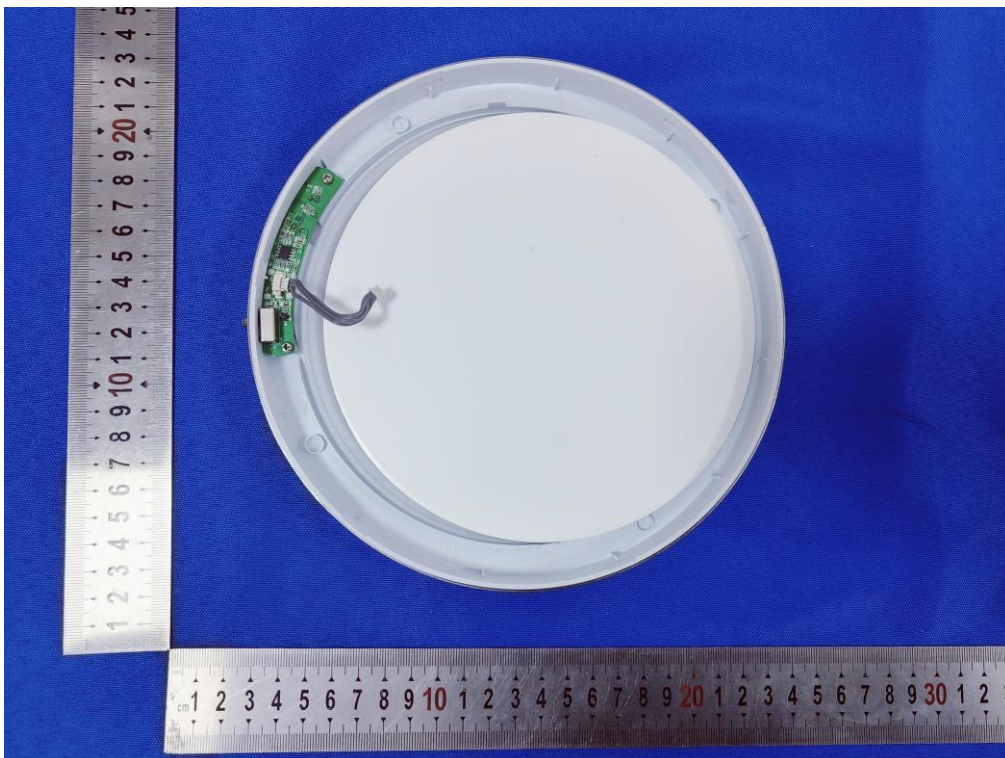
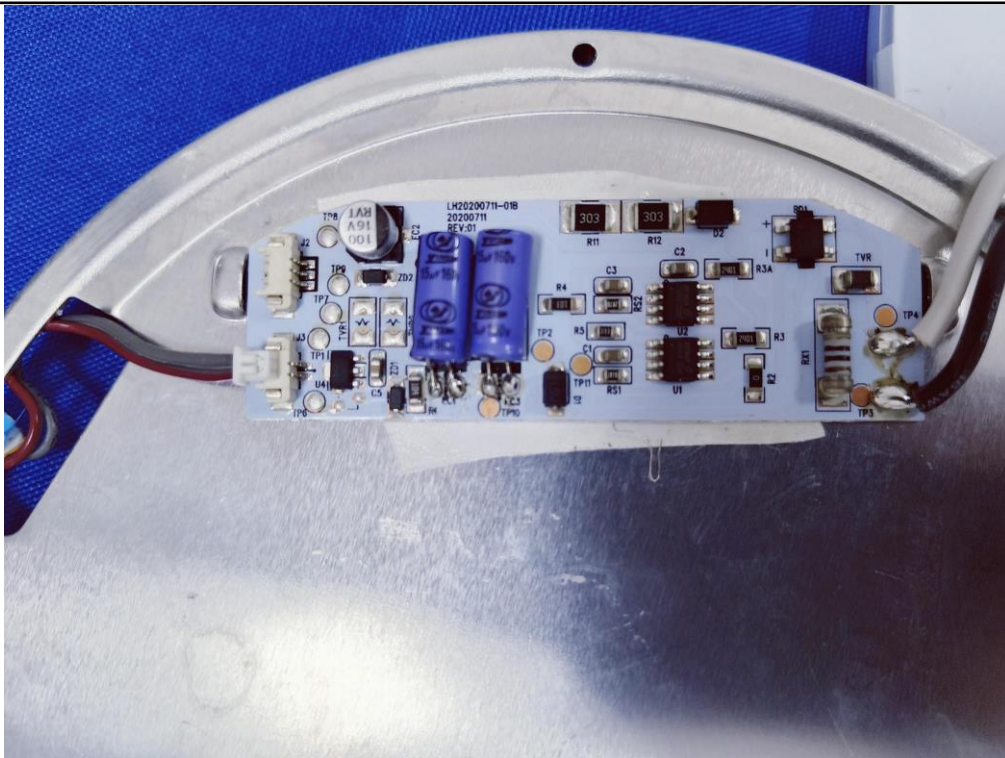
4.2 EUT PRODUCT PHOTO

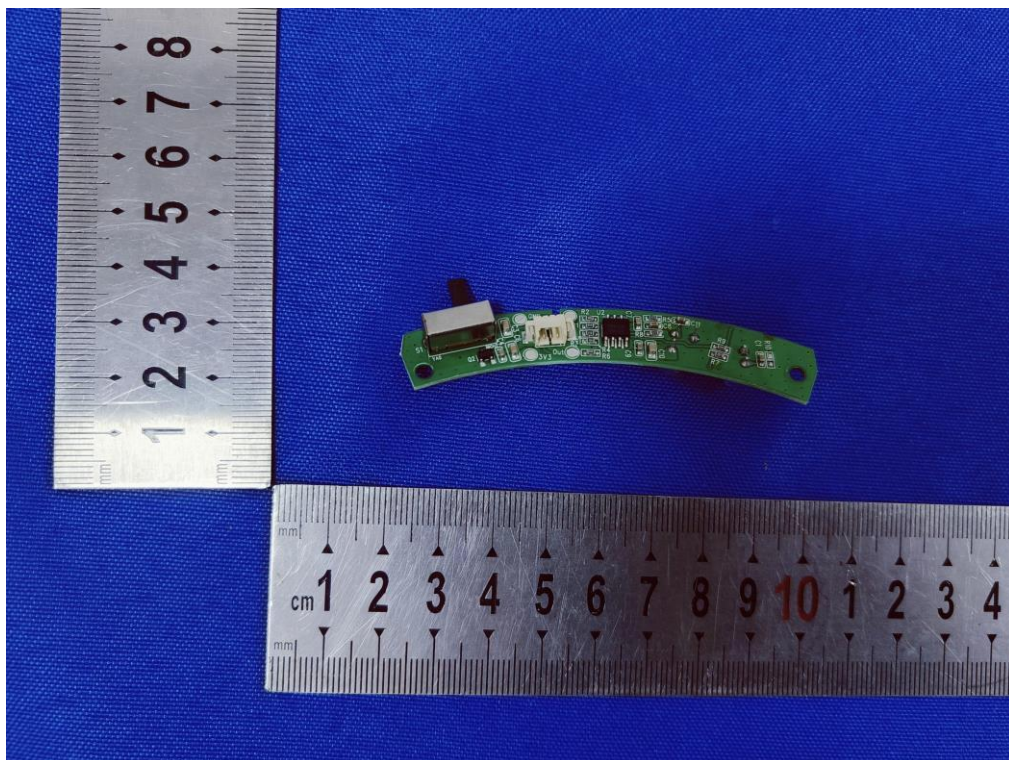
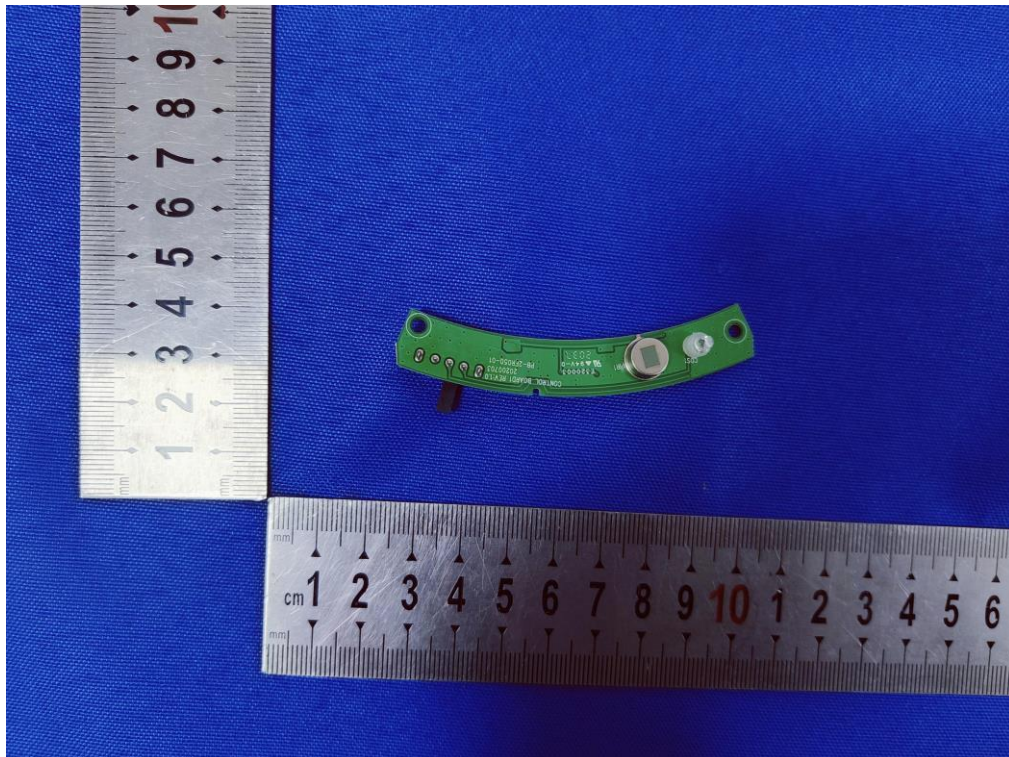


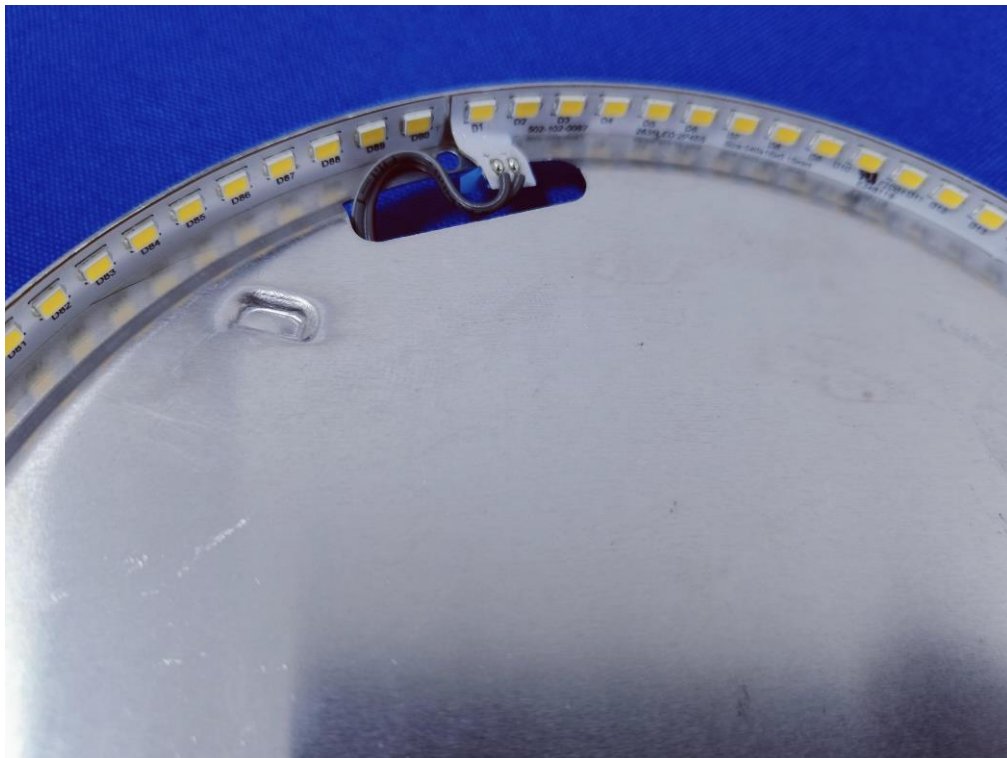
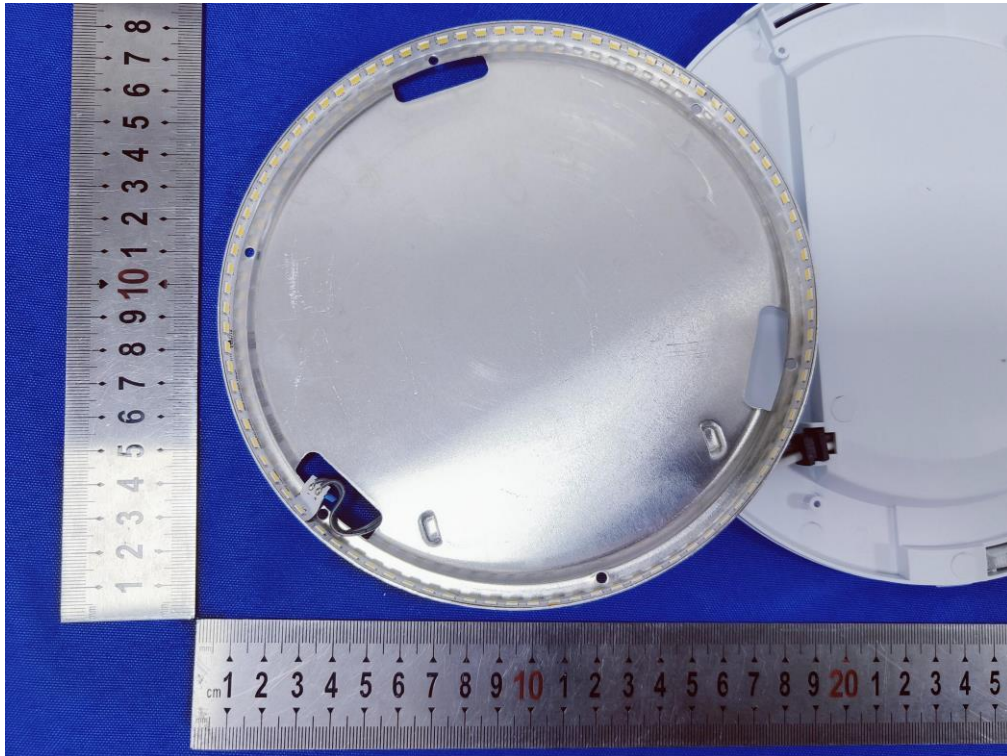












--- End of Report ---