

TEST REPORT

FCC ID:2AUHG-12FLPR-SP3

Report No..... : ZHT-240701007E

Product..... : Skylight_12_Dim

Trademark..... : Artika

Model(s)..... : 12FLPR-SP3-W17DD0
MPL20A-RN

Model Difference..... : 12FLPR-SP3-W17DD0 is the test model, while other models are derivative models. These models are the same on the circuit, only with different model names. Therefore, the test data of 12FLPR-SP3-W17DD0 can represent the remaining models.

Applicant..... : ARTIKA FOR LIVING INC

Address..... : 1756 50th avenue, Lachine, Qc, Canada H8T 2V5

Manufacturer..... : ZHONGSHAN ODEER ELECTRONICS LIGHTING CO.,LTD

Address..... : No.4,North Industrial Road,Xiaolan Town, Zhongshan City, G.D. China

Prepared by..... : Guangdong Zhonghan Testing Technology Co., Ltd.

Address..... : Room 104, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

Date of Receipt..... : July 01, 2024

Date of Test(s)..... : July 01, 2024- July 05, 2024

Date of Issue..... : July 05, 2024

Test Standard(s)..... : FCC CFR Title 47 Part 15 Subpart B
ANSI C63.4:2014

In the configuration tested, the EUT complied with the standards specified above.

Tested by:

Kimi Lu

Kimi Lu/ Engineer

Reviewed by:

Baret Wu

Baret Wu/ Director



Note: The results shown in this test report refer only to the sample(s) tested unless otherwise stated. This test report shall not be reproduced except in full, without prior written approval of ZHT. This document may be altered or revised by ZHT, personnel only, and shall be noted in the revision of the document.



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1. Revision History

Report No.	Issue Date	Description	Approved
ZHT-240701007E	July 05, 2024	Original	Valid



2. Test Summary

Emission			
Requirement - Test	Test Method	Limit	Result
Conducted Emission	FCC CFR Title 47 Part 15 Subpart B ANSI C63.4:2014	Class B	PASS
Radiated Emission	FCC CFR Title 47 Part 15 Subpart B ANSI C63.4:2014	Class B	PASS

Remark: N/A is abbreviation for Not Applicable.

3. General Information

3.1. Description of EUT

Product:	Skylight_12_Dim
Model Name:	12FLPR-SP3-W17DD0
Rated Power Supply:	Input: AC 120 - 277 V, 50 / 60 Hz, 0.21 A(Max), 20 W
Normal Testing Voltage:	AC 120 V/ 60 Hz
DC Line	Shorter than 3m
I/O Ports	Refer to User Manual
Highest Frequency Generated	Below 108 MHz

Adapter

Product	/
Model Name	/
Rated Power Supply	/
Normal Testing Voltage	/
DC Line	/
I/O Ports	/

Note:

1) Other Accessory Device List and Details

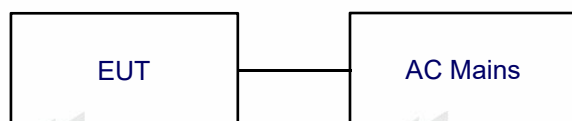
Description	Manufacturer	Model	Note
/	/	/	/
/	/	/	/

2) The above EUT information is declared by manufacturer and for more detailed features description, please refer to the manufacturer's specifications or the User's Manual.



3.2. Block diagram of EUT configuration

Mode 1



3.3. Test Mode

Pretest mode	Mode 1: Lighten mode		
Worst-case Test mode	Conducted Emission		Mode 1
	Radiated Emission	Below 1 GHz	Mode 1
		Above 1 GHz	N/A

* Only the Worst-case test mode is shown in the report

3.4. Test Site Environment

Test Item	Required (IEC 60068-1)		Actual
Conducted Emission	Temperature (°C)	15-35	23.8
	Humidity (%RH)	25-75	53.5
	Barometric pressure (mbar)	860-1060	1014
Radiated Emission	Temperature (°C)	15-35	24.0
	Humidity (%RH)	25-75	54
	Barometric pressure (mbar)	860-1060	1014



4. Facilities

4.1. Test Facility

Test site 1: Guangdong Zhonghan Testing Technology Co., Ltd.

Room 104, Building 1, Yibaolai Industrial Park, Qiaotou Community, Fuhai Street, Bao'an District, Shenzhen, Guangdong, China

FCC Registration Number: 255941

Designation Number: CN0325

IC Registered No.: 29832

CAB identifier: CN0143

4.2. Test Instruments

Conducted emissions Test

Equipment	Manufacturer	Model	Last Cal.	Next Cal.
Receiver	R&S	ESCI	May 10, 2024	May 09, 2025
LISN	R&S	ENV216	May 10, 2024	May 09, 2025
CE Shielding Room	EMToni	9m4m3m	Nov. 25, 2021	Nov. 24, 2024

Radiated emissions Test (966 chamber)

Equipment	Manufacturer	Model	Last Cal.	Next Cal.
Receiver	R&S	ESCI	May 10, 2024	May 09, 2025
Amplifier	Schwarzbeck	BBV 9743 B	May 10, 2024	May 09, 2025
Amplifier	Schwarzbeck	BBV 9718 B	May 10, 2024	May 09, 2025
Bilog Antenna	Schwarzbeck	VULB9168	Aug. 04, 2023	Aug. 03, 2024
Horn Antenna	Schwarzbeck	BBHA9120D	May 16, 2024	May 15, 2025

4.3. Testing software

Project	Software name	Edition
Conducted Emission	EZ-EMC	EMC-CON 3A1.1+
Radiated Emission	EZ-EMC	FA-03A2 RE+



4.4. Measurement uncertainty

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the Product as specified in CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of $k=2$.

Test item	Value (dB)
Conducted Emission (150kHz-30MHz)	2.60
Radiated Emission(30MHz~1GHz)	4.60
Radiated Emission(1GHz~18GHz)	4.30

Decision Rule

- ☒ Uncertainty is not included
☐ Uncertainty is included

5. Emission

5.1. Conducted Emission

5.1.1. Limit

For Class B devices:

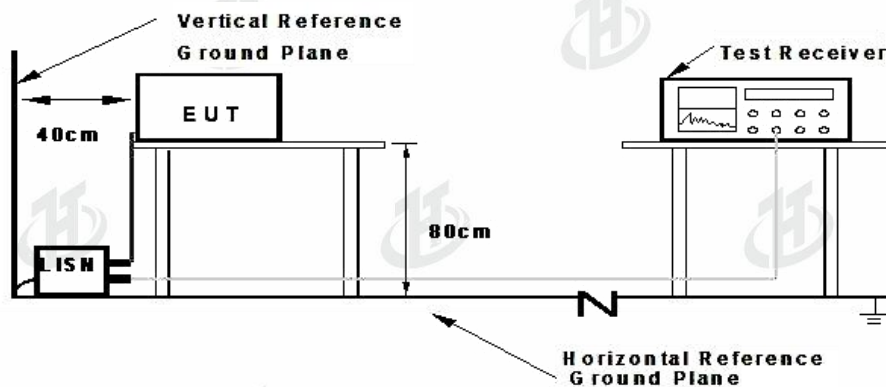
Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	66 to 56*	56 to 46*
0.5-5	56	46
5-30	60	50

*Decreases with the logarithm of the frequency.

For Class A devices:

Frequency of emission (MHz)	Conducted limit (dBμV)	
	Quasi-peak	Average
0.15-0.5	79	66
0.5-30	73	60

5.1.2. Test setup



Note: 1. Support units were connected to second LISN.

2. Both of LISNs (AMN) are 80 cm from EUT and at least 80 from other units and other metal planes

The setup of EUT is according with ANSI C63.4 measurement procedure. Specification used with 47CFR Part 15 Subpart B limits.



5.1.3. Test procedure

Measurement was performed in shielded room, and instruments used were followed clause 4 of ANSI C63.4.

Detailed test procedure was following clause 7 of ANSI C63.4.

Frequency range 150kHz – 30MHz was checked and EMI receiver measurement bandwidth was set to 9 kHz.

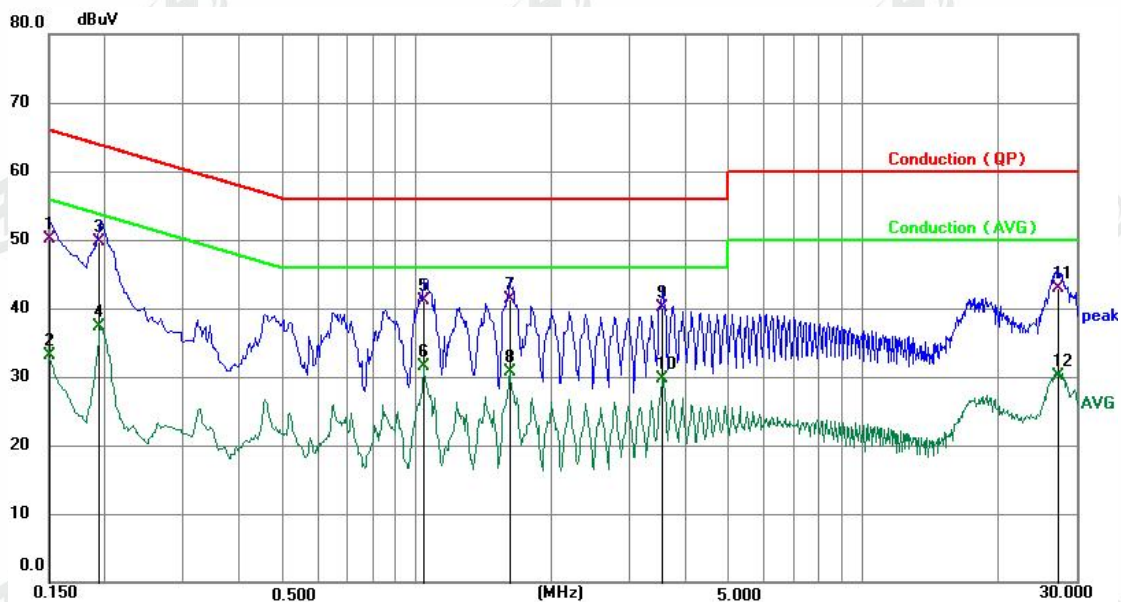
5.1.4. Test results

PASS

Please refer to pages 11 - 12 for data.



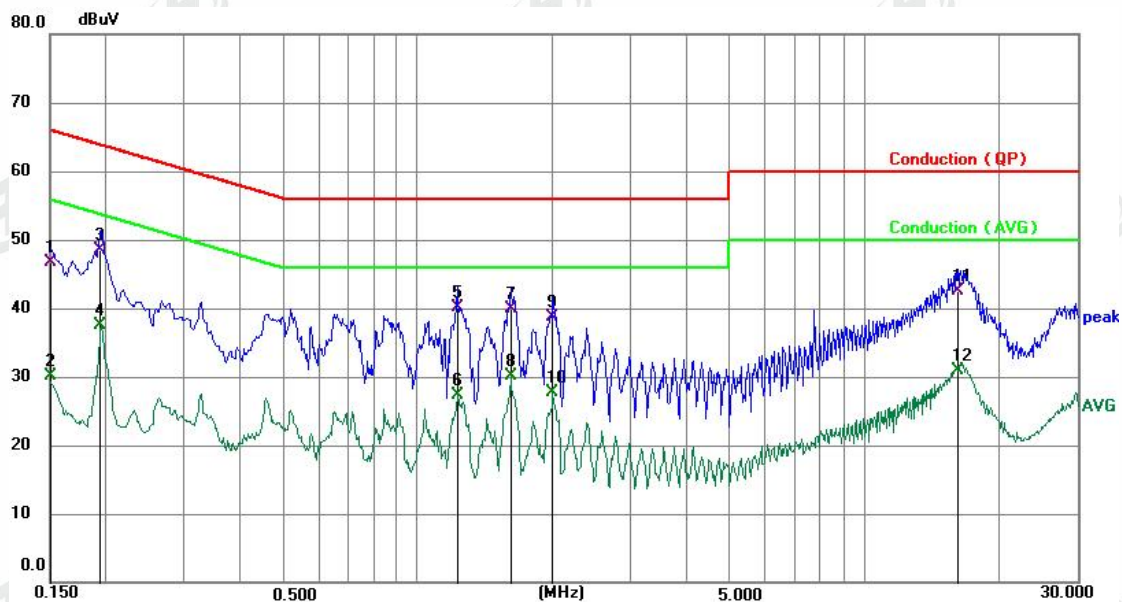
Phase: Live



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	40.18	9.89	50.07	66.00	-15.93	QP	P	
2	0.1500	23.21	9.89	33.10	56.00	-22.90	AVG	P	
3 *	0.1949	39.89	9.91	49.80	63.83	-14.03	QP	P	
4	0.1949	27.41	9.91	37.32	53.83	-16.51	AVG	P	
5	1.0363	31.12	10.06	41.18	56.00	-14.82	QP	P	
6	1.0363	21.54	10.06	31.60	46.00	-14.40	AVG	P	
7	1.6125	31.34	10.06	41.40	56.00	-14.60	QP	P	
8	1.6125	20.74	10.06	30.80	46.00	-15.20	AVG	P	
9	3.5565	30.12	10.08	40.20	56.00	-15.80	QP	P	
10	3.5565	19.70	10.08	29.78	46.00	-16.22	AVG	P	
11	27.3433	32.60	10.32	42.92	60.00	-17.08	QP	P	
12	27.3433	19.79	10.32	30.11	50.00	-19.89	AVG	P	



Phase: Neutral



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1500	36.86	9.89	46.75	66.00	-19.25	QP	P	
2	0.1500	20.19	9.89	30.08	56.00	-25.92	AVG	P	
3 *	0.1949	38.65	9.91	48.56	63.83	-15.27	QP	P	
4	0.1949	27.63	9.91	37.54	53.83	-16.29	AVG	P	
5	1.2255	29.97	10.06	40.03	56.00	-15.97	QP	P	
6	1.2255	17.28	10.06	27.34	46.00	-18.66	AVG	P	
7	1.6170	29.86	10.06	39.92	56.00	-16.08	QP	P	
8	1.6170	19.98	10.06	30.04	46.00	-15.96	AVG	P	
9	2.0040	28.54	10.07	38.61	56.00	-17.39	QP	P	
10	2.0040	17.58	10.07	27.65	46.00	-18.35	AVG	P	
11	16.1430	32.41	10.10	42.51	60.00	-17.49	QP	P	
12	16.1430	20.76	10.10	30.86	50.00	-19.14	AVG	P	

Note: Level=Reading + Factor

Margin=Level – Limit





5.2. Radiated emissions

5.2.1. Limit

For Class B devices (at 3m):

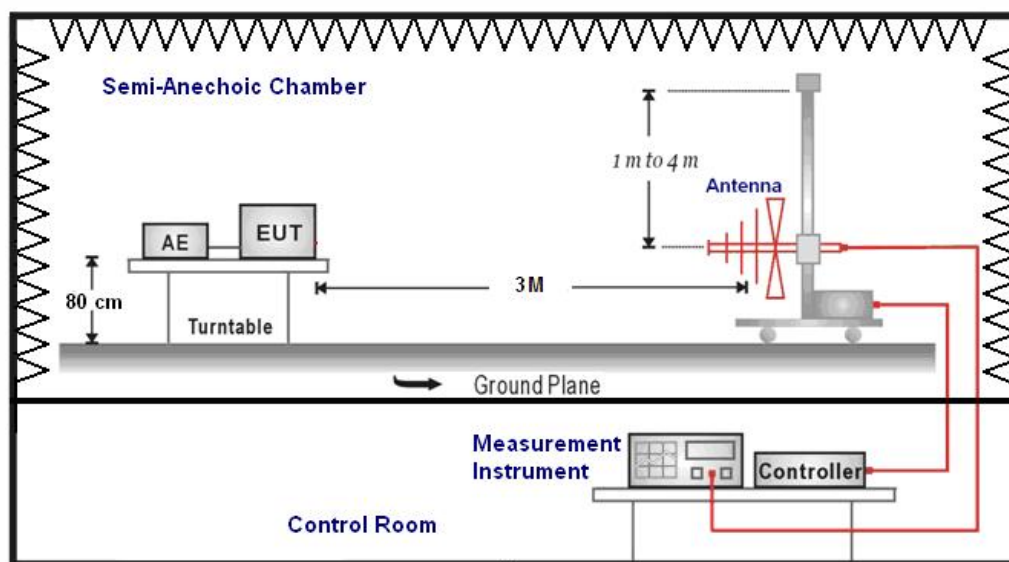
Frequency of emission (MHz)	(microvolts/meter)	(dB μ V/m)
30-88	100	40
88-216	150	43.5
216-960	200	46
Above 960	500	54

For Class A devices (at 10m):

Frequency of emission (MHz)	(microvolts/meter)	(dB μ V/m)
30-88	90	39
88-216	150	43.5
216-960	210	46.4
Above 960	300	49.5

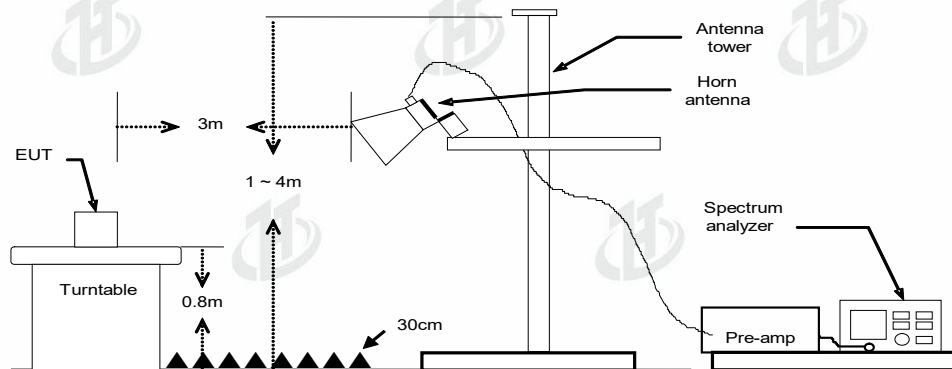
5.2.2. Test setup

Radiated Emission Test Set-Up Frequency Below 1 GHz





Radiated Emission Test Set-Up Frequency Above 1GHz



The radiated tests were performed in semi-anechoic(3m) test site, using the setup accordance with the ANSI C63.4:2014.

5.2.3. EMI Test Receiver Setup and Spectrum Analyzer Setup

During the radiated emission test, the EMI test receiver and Spectrum Analyzer were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
30 MHz-1000 MHz	100 kHz	300 kHz	120 kHz	QP
Above 1 GHz	1 MHz	3 MHz	/	PK
	1 MHz	3 MHz	/	AVG

5.2.4. Test procedure

The measurement was performed in a 3m semi-anechoic chamber, and instruments used were followed clause 4 of ANSI C63.4.

Detailed test procedure was following clause 8 of ANSI C63.4.

Note: for the measurement distance other than 3m and 10m, the limit is varied according to 20dB/10 decades.

5.2.5. Corrected Amplitude & Margin Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

Corrected Amplitude = Meter Reading + Antenna Factor + Cable Loss - Amplifier Gain

The "Margin" column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB means the emission is 7dB below the limit. The equation for margin calculation is as follows:

Margin = Limit – Corrected Amplitude

5.2.6. Test results

PASS

Please refer to pages 15 - 16 for data.



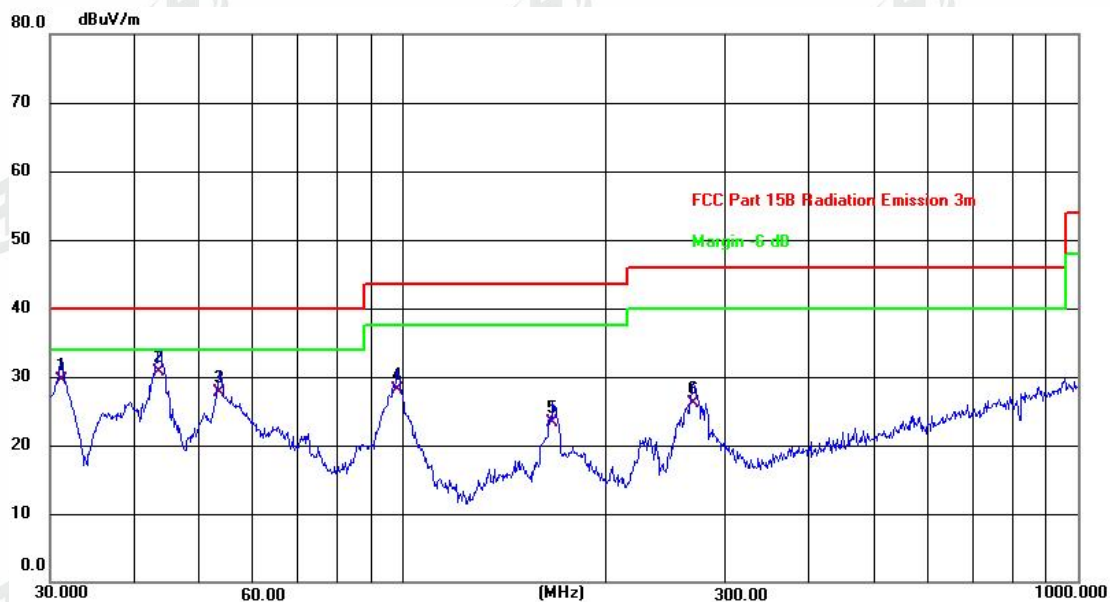
Polarization: Horizontal



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	42.8997	37.01	-9.41	27.60	40.00	-12.40	QP
2	75.1821	37.66	-13.86	23.80	40.00	-16.20	QP
3	98.4865	41.97	-11.17	30.80	43.50	-12.70	QP
4	225.3080	38.66	-9.96	28.70	46.00	-17.30	QP
5	261.9750	39.41	-8.81	30.60	46.00	-15.40	QP
6 *	273.2340	42.29	-8.59	33.70	46.00	-12.30	QP



Polarization: Vertical



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector
1	31.1797	40.74	-11.24	29.50	40.00	-10.50	QP
2 *	43.5056	40.06	-9.36	30.70	40.00	-9.30	QP
3	53.5052	36.93	-9.13	27.80	40.00	-12.20	QP
4	98.1418	39.43	-11.23	28.20	43.50	-15.30	QP
5	166.6512	36.48	-13.08	23.40	43.50	-20.10	QP
6	269.4282	34.76	-8.66	26.10	46.00	-19.90	QP

Note: Level=Reading + Factor

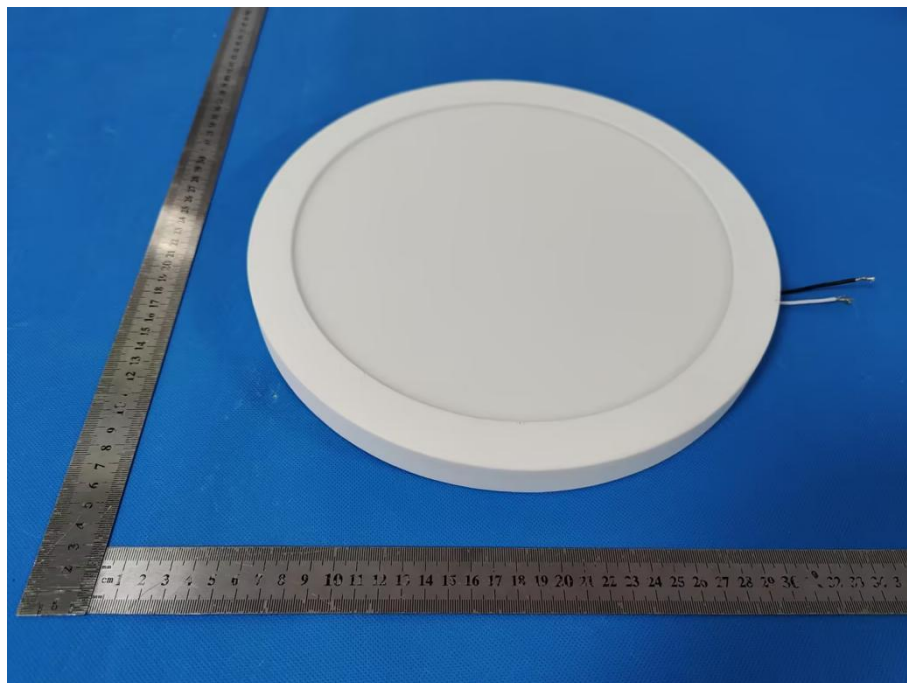
Margin=Level – Limit

6. Photographs of EUT

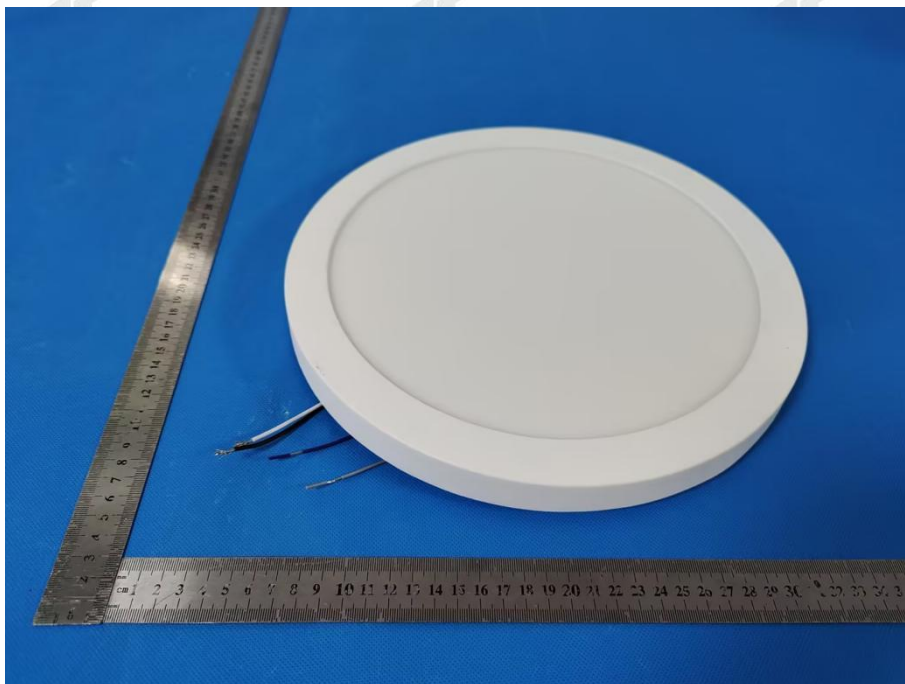
EUT Photo 1



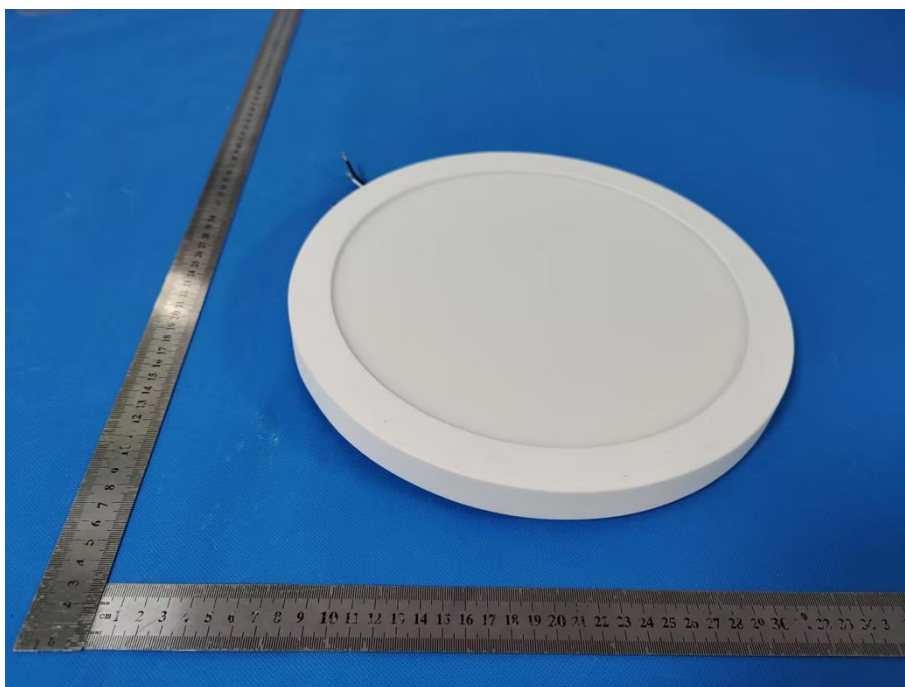
EUT Photo 2



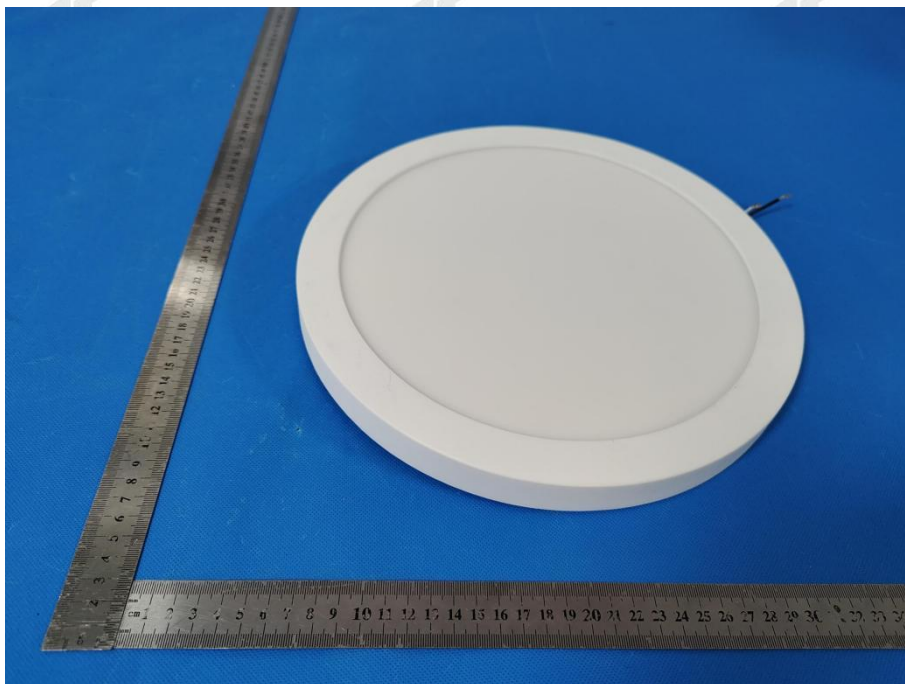
EUT Photo 3



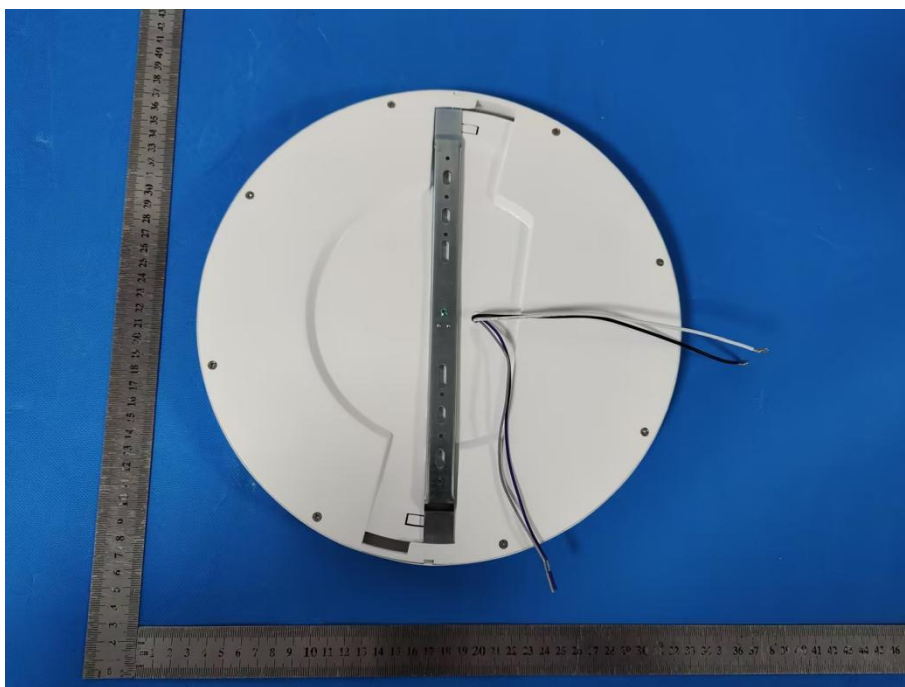
EUT Photo 4



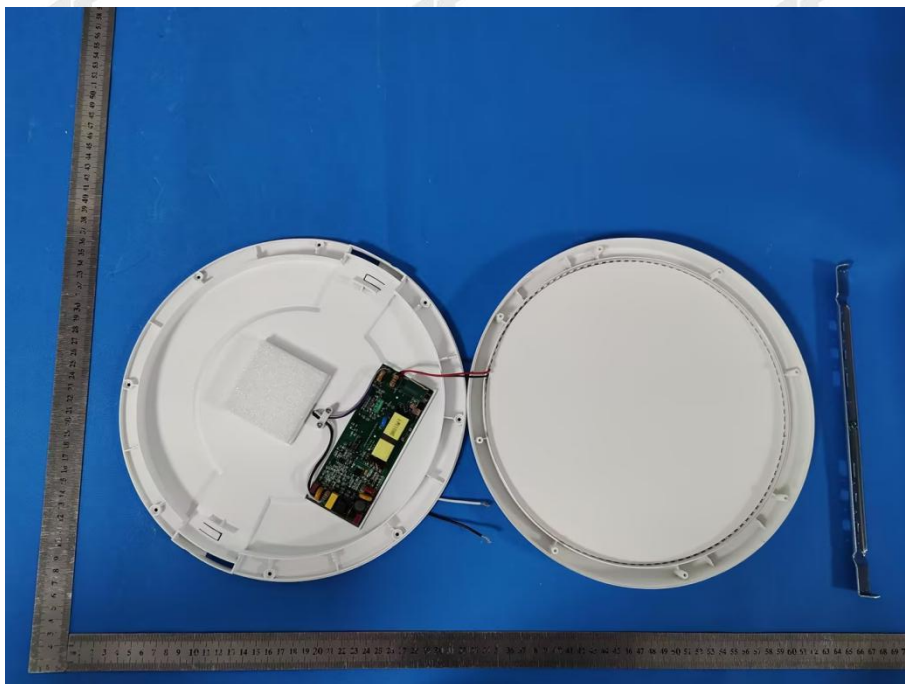
EUT Photo 5



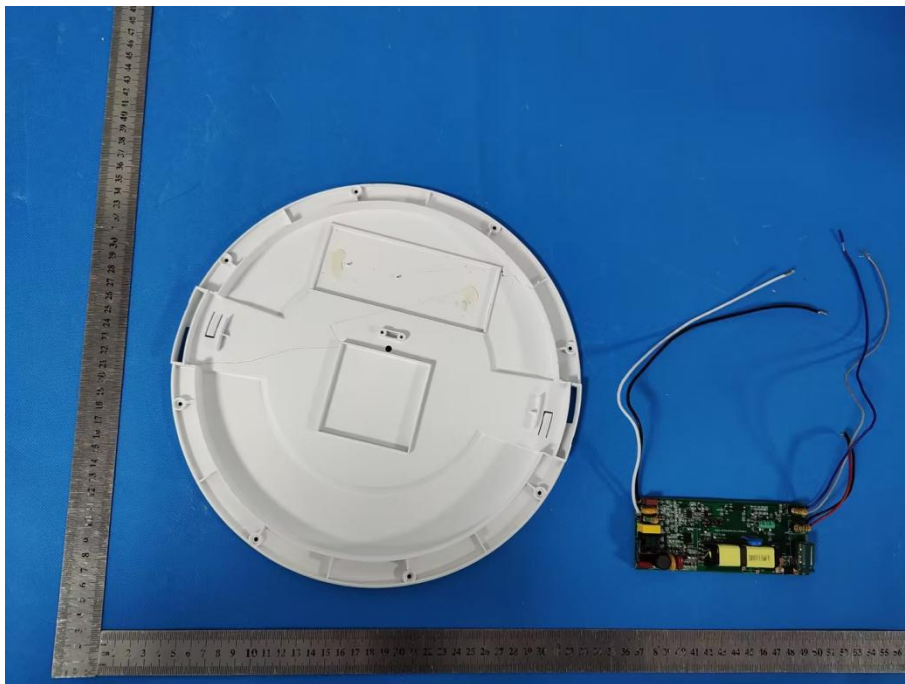
EUT Photo 6



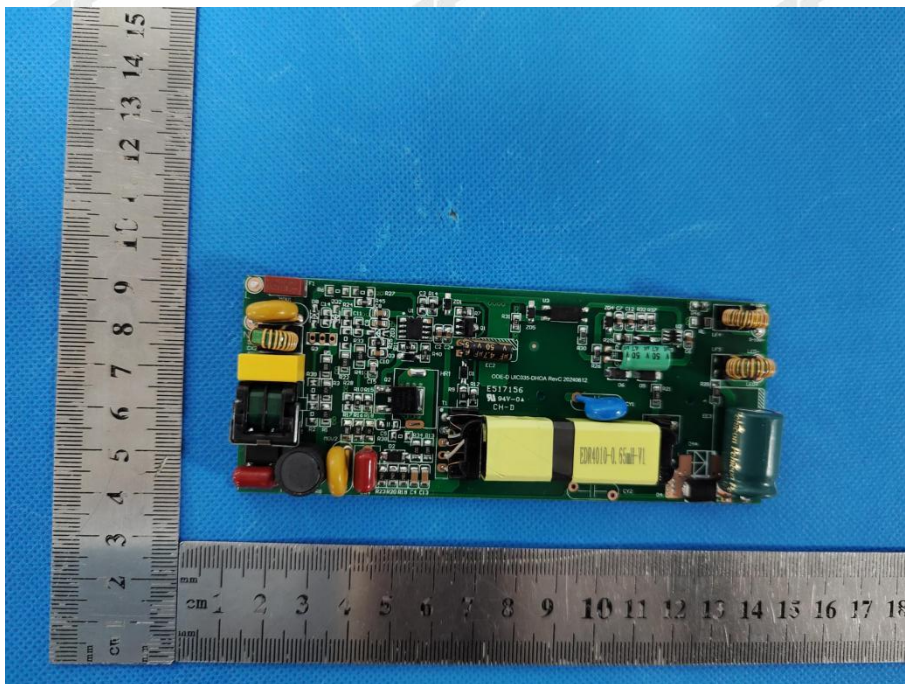
EUT Photo 7



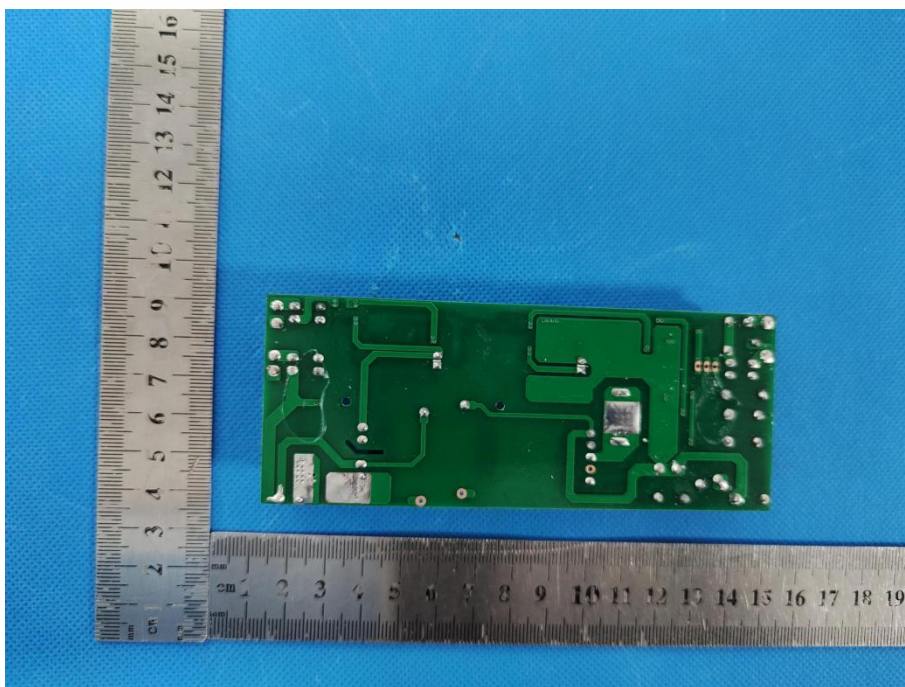
EUT Photo 8



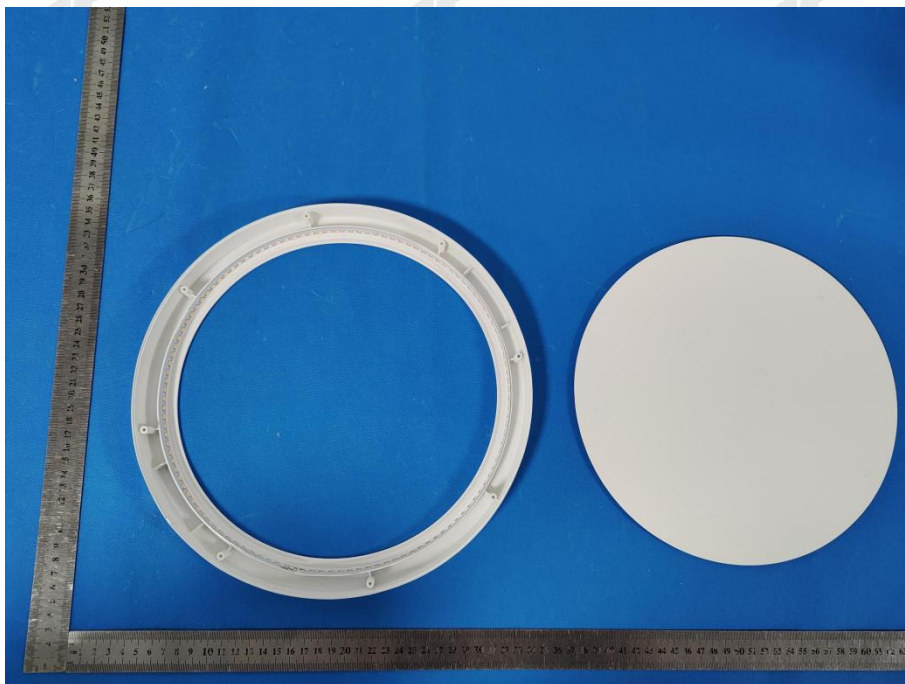
EUT Photo 9



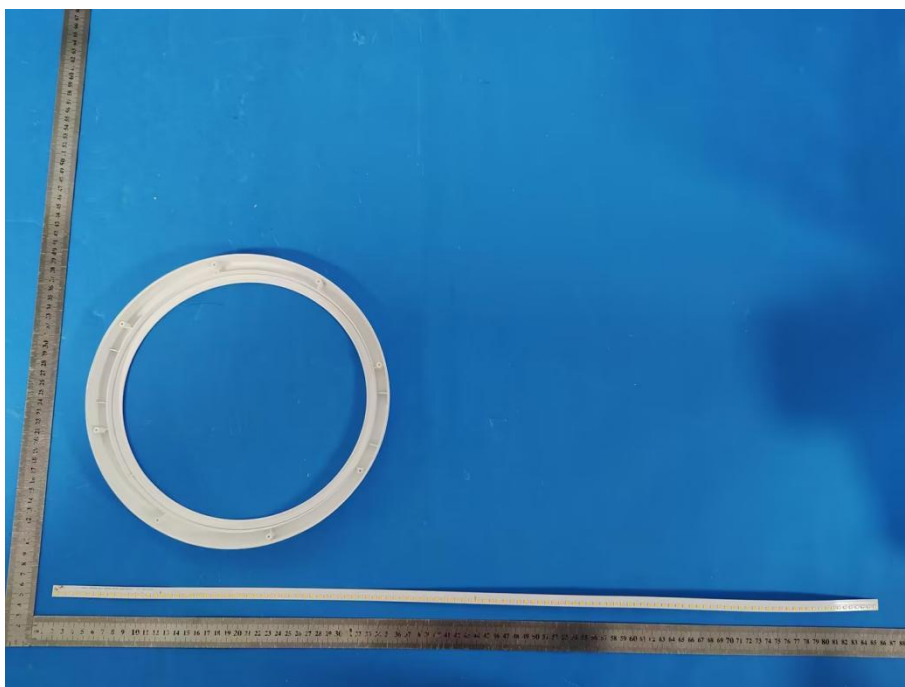
EUT Photo 10



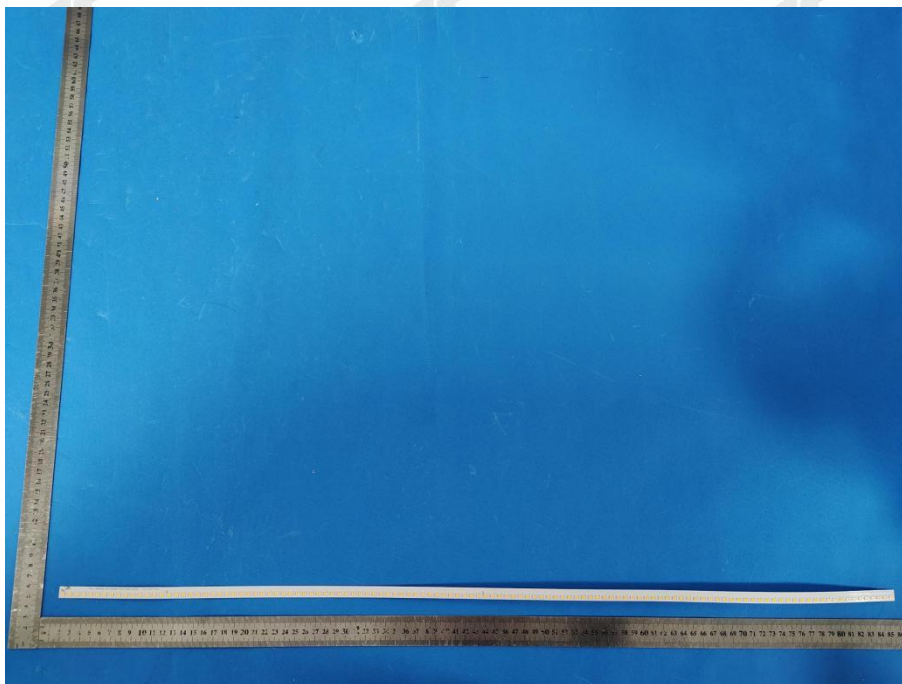
EUT Photo 11



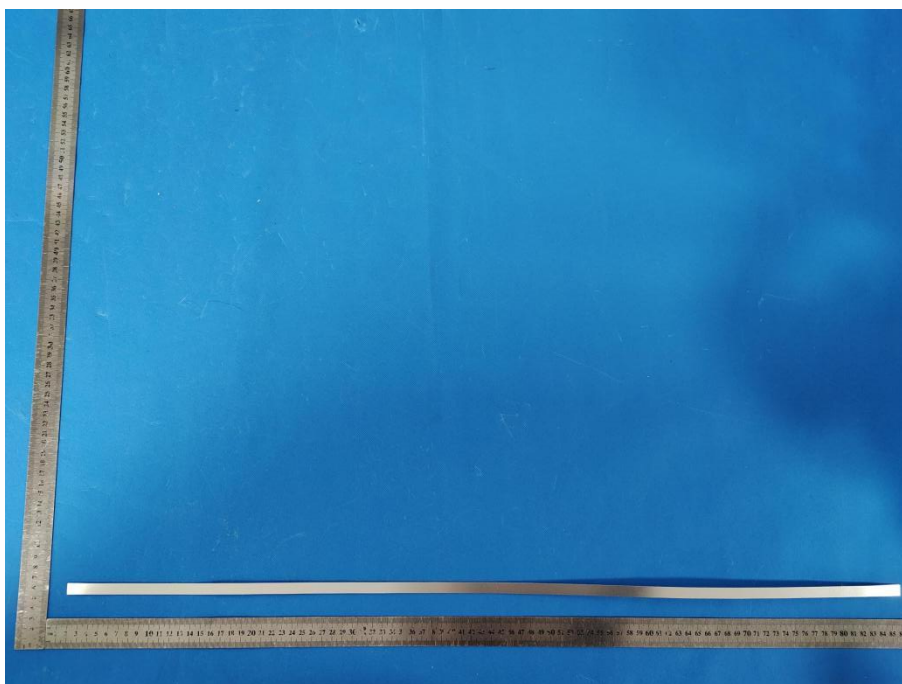
EUT Photo 12



EUT Photo 13

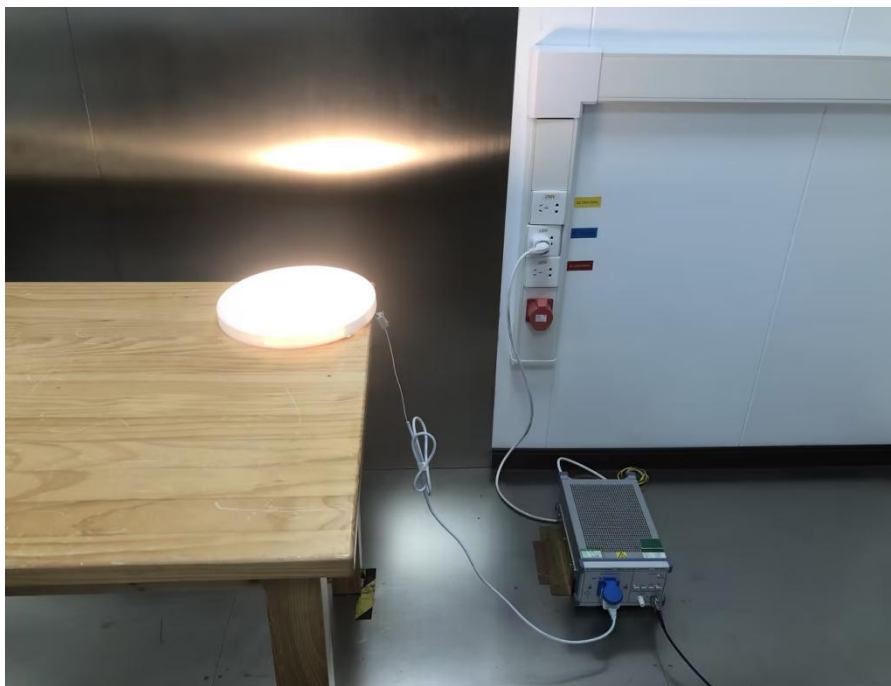


EUT Photo 14

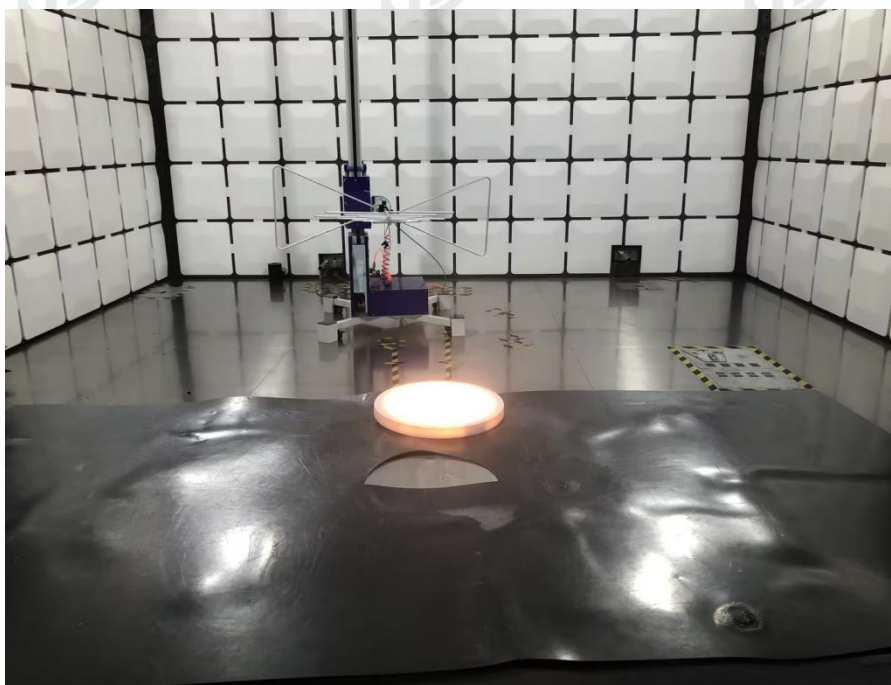


7. Test Setup Photographs

Conducted Emission



Radiated Emission



End of report