#### PSE TEST REPORT

For

Asuka Co., Ltd

Ceiling Light

Test Model: LEDCL-FL01\*

List Model No.: LEDCL- FL01\*, LEDCL- FL02\*, LEDCL- FL03\*, LEDCL- FL04\*, LEDCL- FL05\* (Remark: \* represent different colors)

Prepared for : Asuka Co.,Ltd

Address : ₹132-0021 2-7-16 Chuo, Edogawa-ku, Tokyo, Japan

Prepared by : Shenzhen AOCE Electronic Technology Service Co., Ltd. Address : Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu

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Mail : postmaster@aoc-cert.com

Date of receipt of test sample : May 30, 2025

Number of tested samples : 1

Serial number : Prototype

Date of Test : May 30, 2025 ~ June 11, 2025

Date of Report : June 11, 2025



## PSE TEST REPORT J55015 (H29)

Limits and methods of measurement of radio disturbance characteristics of electrical lighting and similar equipment

Report Reference No.....: AOC250611103E

Date Of Issue...... June 11, 2025

Testing Laboratory Name.....: Shenzhen AOCE Electronic Technology Service Co., Ltd.

Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong,

China

Testing Location/ Procedure....: Full application of Harmonised standards

Partial application of Harmonised standards

Other standard testing method

Applicant's Name..... Asuka Co.,Ltd

**Test Specification:** 

Standard..... J55015 (H29)

Test Report Form No...... AOCEEMC-1.0

TRF Originator....: Shenzhen AOCE Electronic Technology Service Co., Ltd.

Master TRF..... Dated 2016-08

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Test Item Description.....: Ceiling Light

Trade Mark....: N/A

Test Model..... LEDCL- FL01\*

Results .....: PASS

David Liu / File administrators

Compiled by: Supervised by: Approved by:

David Lik Kevin Huang

Kevin Huang / Technique principal Jackson Fang / Manager

Jackson Fang

June 11, 2025

Date of issue

**Test Report No.:** 

## **PSE - TEST REPORT**

AOC250611103E

EUT	Ceiling Light
Test Model:	LEDCL- FL01*
Applicant:	
Address	〒132-0021 2-7-16 Chuo, Edogawa-ku, Tokyo, Japan
Telephone:	
Fax:	
	Dongguan Zhongsheng Intelligent Technology Co., Ltd.
	2nd Floor, Building 1, No. 32, Changping Section, Dongping
	2nd Floor, Building 1, No. 32, Changping Section, Dongping Avenue, Changping Town, Dongguan City, Guangdong Province
Address	2nd Floor, Building 1, No. 32, Changping Section, Dongping Avenue, Changping Town, Dongguan City, Guangdong Province
Address  Telephone  Fax	2nd Floor, Building 1, No. 32, Changping Section, Dongping Avenue, Changping Town, Dongguan City, Guangdong Province
Address  Telephone  Fax  Factory	2nd Floor, Building 1, No. 32, Changping Section, Dongping Avenue, Changping Town, Dongguan City, Guangdong Province /   Dongguan Zhongsheng Intelligent Technology Co., Ltd. 2nd Floor, Building 1, No. 32, Changping Section, Dongping
Address  Telephone  Fax  Factory	2nd Floor, Building 1, No. 32, Changping Section, Dongping Avenue, Changping Town, Dongguan City, Guangdong Province / /  Dongguan Zhongsheng Intelligent Technology Co., Ltd. 2nd Floor, Building 1, No. 32, Changping Section, Dongping Avenue, Changping Town, Dongguan City, Guangdong Province

**Test Result** according to the standards on page 6: **PASS** 

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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## 1. REPORT INFORMATION DESCRIPTION

## 1.1 Summary of Standards and Results

## 1.1.1 Description of Standards and Results

EMISSION (CISPR 15: 2013+A1: 2015)				
Description of Test Item	Test Standard	Limits	Results	
Conducted Disturbance at Mains Terminals	J55015 (H29)		PASS	
Conducted Disturbance at Load Terminals	J55015 (H29)		N/A	
Conducted Disturbance at Control Terminals	J55015 (H29)		N/A	
Radiated Disturbance (9kHz to 30MHz)	J55015 (H29)		PASS	
Radiated Disturbance (30MHz to 300MHz)	J55015 (H29)		PASS	

Note: N/A is an abbreviation for Not Applicable.

#### 1.2 Product Information

#### 1.2.1 Electrical parameter description

EUT : Ceiling Light

Trade Mark : N/A

Test Model : LEDCL- FL01\*

LEDCL- FL01\*, LEDCL- FL02\*, LEDCL- FL03\*, LEDCL- FL04\*,

List Model No. : LEDCL- FL05\*

Remark: \* represent different colors

Power Supply : 100V, 50/60Hz, 50W

1.2.2 Test Modes

Lighting : EUT was test with power on, to get the status 'Lighting'

#### 1.2.3 Test Auxiliary Equipment

Configuration	Model	Rating	Manufacturer
/	/	/	/

## 1.3 Description of Test Facility

EMC Lab. :

Test Facilities : Shenzhen AOCE Electronic Technology Service Co., Ltd.

Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China.

#### 2. STATEMENT OF THE MEASUREMENT UNCERTAINTY

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the AOCE quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

Test	Parameters	Expanded uncertainty (U <sub>lab</sub> )	Expanded uncertainty (U <sub>cispr</sub> )
Conducted Disturbance	Level accuracy (9kHz to 150kHz) (150kHz to 30MHz)	± 1.40 dB ± 2.80 dB	± 4.0 dB ± 3.6 dB
Electromagnetic Radiated Emission (3-loop)	Level accuracy (9kHz to 30MHz)	± 3.46 dB	N/A
Radiated Disturbance	Level accuracy (9kHz to 30MHz)	± 3.12 dB	N/A
Radiated Disturbance	Level accuracy (30MHz to 200MHz)	± 4.66 dB	± 5.2 dB
Radiated Disturbance	Level accuracy (200MHz to 1000MHz)	± 4.64 dB	± 5.0 dB

- (1) Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus.
- (2) The reported expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor of k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

# 3. MEASURING DEVICES AND TEST EQUIPMENT

## **Conducted Disturbance**

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101142	2025-04-13
2	10dB Attenuator	SCHWARZBECK	MTS-IMP136	261115-001-003	2025-04-13
3	Artificial Mains	ROHDE & SCHWARZ	ENV216	101288	2025-04-13
4	EMI Test Software	AUDIX	E3	N/A	N/A

## Radiated Disturbance(9kHz to 30MHz)

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	R&S	ESR 7	101181	2025-04-13
2	Triple-loop Antenna	EVERFINE	LLA-2	9161	2025-04-13
3	EMI Test Software	AUDIX	E3	/	N/A

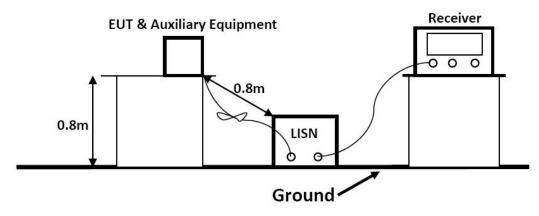
## Radiated Disturbance(30MHz to 300MHz)

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Software	AUDIX	E3	/	N/A
2	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03СН03-НҮ	2025-04-13
3	Positioning Controller	MF	MF-7082	/	2025-04-13
4	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2025-04-13
5	Horn Antenna	SCHWARZBECK	BBHA 9120D	9120D-1925	2025-04-13
6	EMI Test Receiver	R&S	ESR 7	101181	2025-04-13
7	RS SPECTRUM ANALYZER	R&S	FSP40	100503	2025-04-13
8	AMPLIFIER	QuieTek	QTK	CHM/0809065	2025-04-13
9	RF Cable-R03m	Jye Bao	RG142	CB021	2025-04-13
10	RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	2025-04-13

#### 4. TEST DETAILS

## 4.1 Conducted Disturbance at Mains Terminals

#### 4.1.1 Block Diagram of Test Setup



#### 4.1.2 Test Standard

J55015 (H29)

#### **4.1.3 Limits**

Disturbance voltage limits at the Mains Terminals				
Frequency range	Limits	s (dBµV)		
rrequency runge	Quasi-peak	Average		
9kHz to 50kHz	110			
50kHz to 150kHz	90 ~ 80*			
150kHz to 0.5MHz	66 ~ 56*	56 ~ 46*		
0.5MHz to 5.0MHz	56	46		
5.0MHz to 30MHz	60	50		

- 1. At the transition frequency the lower limit applies.
- 2. \* The limit decreases linearly with the logarithm of the frequency in the ranges 50 kHz to 150 kHz and 150 kHz to 0,5 MHz.

#### **4.1.4 EUT Configuration on Test**

The configuration of the EUT is same as Section 3

#### **4.1.5 Test Procedure Description**

The EUT is put on the table which is 0.8 meter high above the ground and connected to the AC mains through a Line Impedance Stabilization Network (L.I.S.N.). This provided a 500hm coupling impedance for the tested equipments. Both sides of AC line are checked to find out the maximum conducted emission according to the CISPR 15 regulations during conducted emission measurement. And the voltage probe had been used for the load terminals measurement according to the CISPR 15 standard.

The bandwidth of the test receiver is set at 200Hz in 9k~150kHz range and 9kHz in 150k~30MHz range.

## 4.1.6 Test Results: PASS

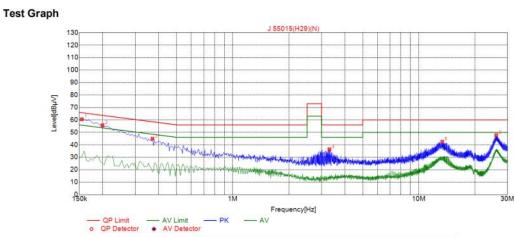
Environmental Conditions:	25°C, 60% RH
Test Voltage:	AC 100V,60Hz
Test Model:	LEDCL- FL01*
Test Mode:	Lighting
Test Engineer:	Andy
Pol:	Line

Detailed results are shown below

# 

NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Туре
1	0.1590	59.34	19.56	65.52	6.18	39.78	PK	L
2	0.4695	39.82	19.84	56.52	16.70	19.98	PK	L
3	3.3900	34.34	20.31	56.00	21.66	14.03	PK	L
4	10.3010	33.51	21.20	60.00	26.49	12.31	PK	L
5	19.0265	41.03	22.77	60.00	18.97	18.26	PK	L
6	26.3255	47.57	24.68	60.00	12.43	22.89	PK	L

Environmental Conditions:	25°C, 60% RH
Test Voltage:	AC 100V,60Hz
Test Model:	LEDCL- FL01*
Test Mode:	Lighting
Test Engineer:	Andy
Pol:	Neutral



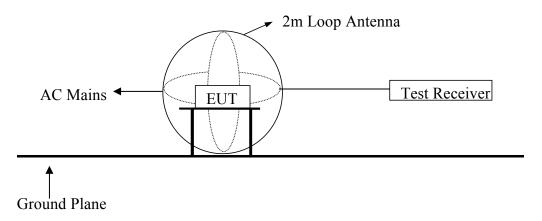
Suspected List								
NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Туре
1	0.1545	60.50	19.63	65.75	5.25	40.87	PK	N
2	0.1995	55.71	19.63	63.63	7.92	36.08	PK	N
3	0.3705	44.88	19.70	58.49	13.61	25.18	PK	N
4	3.3090	36.38	20.10	56.00	19.62	16.28	PK	N
5	13.3790	42.49	21.47	60.00	17.51	21.02	PK	N
6	26.0960	47.77	24.60	60.00	12.23	23.17	PK	N

Remark: Margin = Limit – Level

Correction factor = Cable lose + LISN insertion loss Level=Test receiver reading + correction factor

## 4.2 Radiated Disturbance (9kHz to 30MHz)

#### 4.2.1 Block Diagram of Test Setup



#### 4.2.2 Test Standard

J55015 (H29)

#### **4.2.3 Limits**

Radiated Disturbance limits (9KHz-30MHz)					
Frequency range	Limits for loop diameter (dBµA)				
	2m				
9kHz to 70kHz	88				
70kHz to 150kHz	88 to 58*				
150kHz to 3.0MHz	58 to 22*				
3.0MHz to 30MHz	22				

- 1. At the transition frequency the lower limit applies.
- 2.\* Decreasing linearly with logarithm of the frequency.

#### **4.2.4 EUT Configuration on Test**

The configuration of the EUT is same as Section 3

#### **4.2.5 Test Procedure**

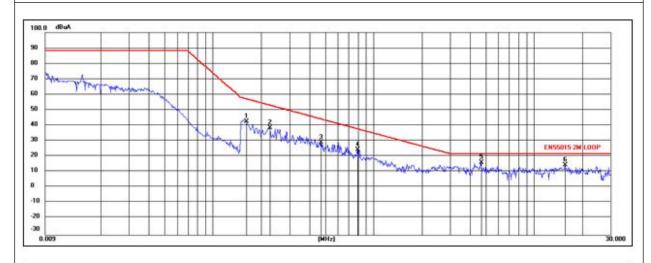
The EUT is placed on a wood table in the center of a loop antenna. The induced current in the loop antenna is measured by means of a current probe and the test receiver. Three field components are checked by means of a coaxial switch.

The frequency range from 9kHz to 30MHz is investigated. The receiver is measured with the quasi-peak detector. For frequency band 9kHz to 150kHz, the bandwidth of the field strength meter is set at 200Hz. For frequency band 150kHz to 30MHz, the bandwidth is set at 9kHz.

#### 4.2.6 Test Results: PASS

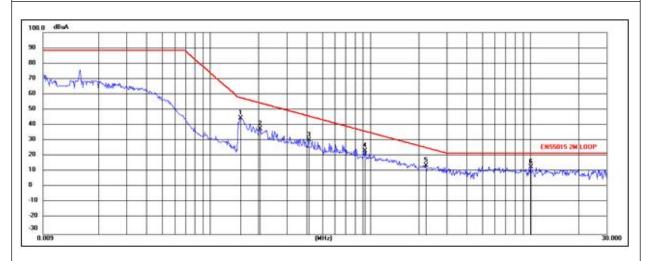
Environmental Conditions:	25℃, 60% RH
Test Voltage:	AC 100V,60Hz
Test Model:	LEDCL- FL01*
Test Mode:	Lighting
Test Engineer:	Andy
Pol:	X

Detailed results are shown below



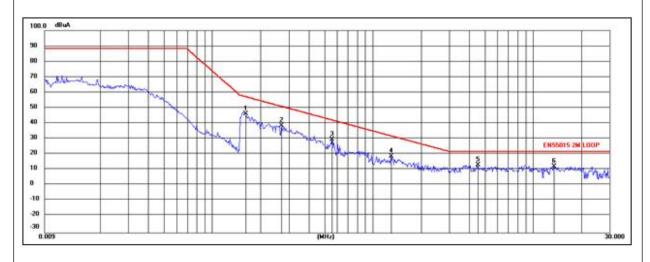
No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuA)	(dB)	(dBuA)	(dBuA)	(dB)	
1	0.1615	32.48	10.42	42.90	57.11	-14.21	QP
2	0.2265	28.23	10.58	38.81	53.05	-14.24	QP
3	0.4696	19.47	9.91	29.38	44.29	-14.91	QP
4	0.7980	15.33	9.52	24.85	37.91	-13.06	QP
5	4.6859	11.49	5.08	16.57	22.00	-5.43	QP
6	15.6706	9.50	5.38	14.88	22.00	-7.12	QP

Environmental Conditions:	25°C, 60% RH
Test Voltage:	AC 100V,60Hz
Test Model:	LEDCL- FL01*
Test Mode:	Lighting
Test Engineer:	Andy
Pol:	Y



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuA)	(dB)	(dBuA)	(dBuA)	(dB)	
1	0.1544	34.47	10.38	44.85	57.65	-12.80	QP
2	0.2038	27.19	10.67	37.86	54.32	-16.46	QP
3	0.4111	20.75	9.94	30.69	45.88	-15.19	QP
4	0.9193	15.48	8.29	23.77	36.21	-12.44	QP
5	2.2244	5.83	8.49	14.32	25.59	-11.27	QP
6	10.0456	7.95	5.54	13.49	22.00	-8.51	QP

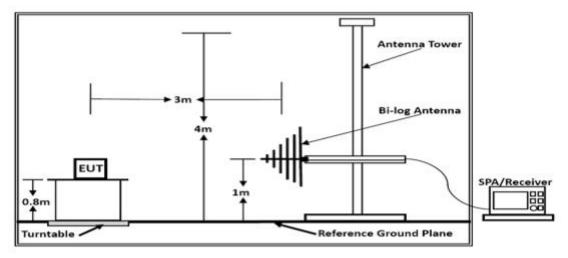
Environmental Conditions:	25°C, 60% RH
Test Voltage:	AC 100V,60Hz
Test Model:	LEDCL- FL01*
Test Mode:	Lighting
Test Engineer:	Andy
Pol:	Z



No.	Frequency	Reading	Correct	Result	Limit	Margin	Remark
	(MHz)	(dBuA)	(dB)	(dBuA)	(dBuA)	(dB)	
1	0.1615	35.98	10.42	46.40	57.11	-10.71	QP
2	0.2714	28.66	10.41	39.07	50.87	-11.80	QP
3	0.5550	20.79	9.40	30.19	42.28	-12.09	QP
4	1.3064	11.25	7.97	19.22	31.99	-12.77	QP
5	4.5106	8.43	5.31	13.74	22.00	-8.26	QP
6	13.5106	7.73	5.02	12.75	22.00	-9.25	QP

## 4.3 Radiated Disturbance (30MHz to 300MHz)

## 4.3.1 Block Diagram of Test Setup



#### 4.3.2 Test Standard

J55015 (H29)

#### **4.3.3 Limits**

Radiated Disturbance Limits at a measuring distance of 3m (30MHz-300MHz)						
Frequency range (MHz)	Quasi-Peak Limits(dBµV/m)					
30 ~ 230	40					
230 ~ 300	47					

- 1, At the transition frequency, the lower limit applies.
- 2, Distance refers to the distance in meters between the measuring instrument antenna geometric center and the closed point of any part of the EUT.

#### 4.3.4 EUT Configuration on Test

The configuration of the EUT is same as Section 3.

The CISPR 15 regulations test method must be used to find the maximum emission during radiated emission measurement.

#### **4.3.5 Test Procedure**

The EUT is placed on a turntable, which is 0.8 meter high above the ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. By-log antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarization of the antenna is set on test.

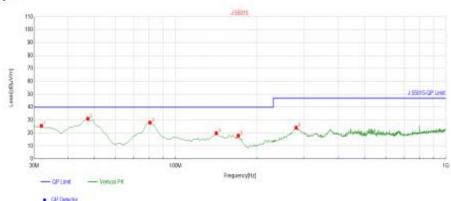
The bandwidth of the Receiver is set at 120kHz; The frequency range from 30MHz to 300MHz is investigated.

#### 4.3.6 Test Results: PASS

The test result please refer to the next page.

Environmental Conditions:	25℃, 60% RH
Test Voltage:	AC 100V,60Hz
Test Model:	LEDCL- FL01*
Test Mode:	Lighting
Test Engineer:	Andy
Pol:	Vertical

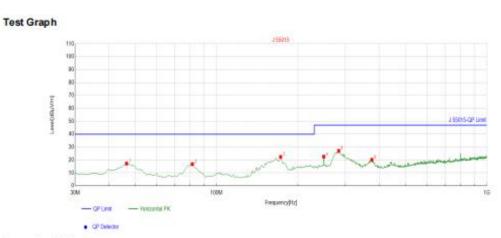
#### Test Graph



#### Suspected List

Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [*]	Polarity
1	31.9419	-16.26	41.76	25.50	40.00	14.50	100	357	Vertical
2	47.4775	-13.65	44.77	31.12	40.00	8.88	100	319	Vertical
3	80.4905	-19.35	47.42	28.07	40.00	11.93	100	56	Vertical
4	141.6617	-19.14	38.99	19.85	40.00	20.15	100	335	Vertical
5	170.7908	-17.26	35.22	17.96	40.00	22.04	100	295	Vertical
6	279.5395	-13.27	37.37	24.10	47.00	22.90	100	128	Vertical

Environmental Conditions:	25℃, 60% RH
Test Voltage:	AC 100V,60Hz
Test Model:	LEDCL- FL01*
Test Mode:	Lighting
Test Engineer:	Andy
Pol:	Horizontal



#### Suspected List

Suspected List									
NO.	Freq. [MHz]	Factor [dB]	Reading [dBµV/m]	Level [dBµV/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [*]	Polarity
1	46.5065	-13.65	30.89	17.24	40.00	22.76	100	89	Horizontal
2	81.4615	-19.12	35.96	16.84	40.00	23.16	100	304	Horizontal
3	172.7327	-17.18	39.58	22.40	40.00	17.60	100	256	Horizontal
4	249.4394	-13.42	36.04	22.62	47.00	24.38	100	304	Horizontal
5	283.4234	-13.11	40.16	27.05	47.00	19.95	100	57	Horizontal
6	375.6657	-10.90	31.11	20.21	47.00	26.79	100	49	Horizontal

Remark: Factor = Cable loss + Antenna factor – Preamplifier; Level = Reading + Factor; Margin = Limit – Level;

## 5. TEST PHOTOGRAPH

## 5.1 Photo of Conducted Disturbance at Mains Terminals



## 5.2 Photo of Radiated Disturbance(30MHz to 300MHz)



# 6. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

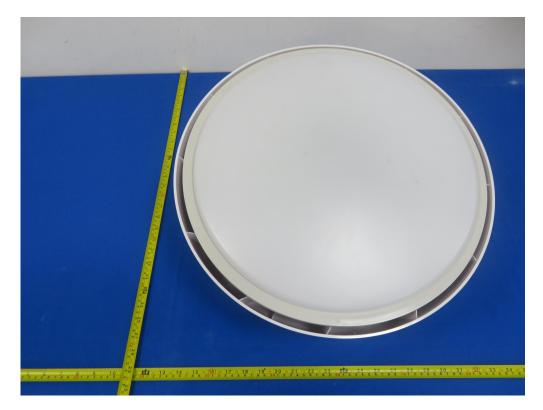


Fig.1

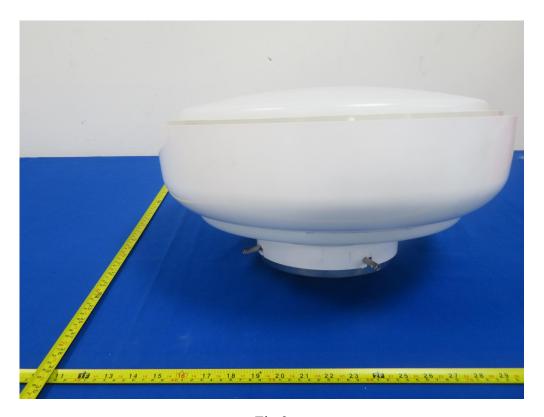


Fig.2

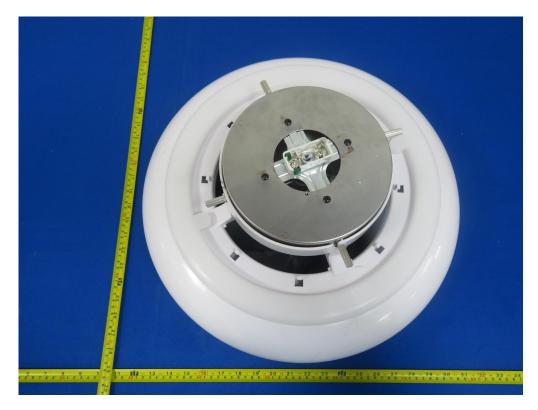


Fig.3

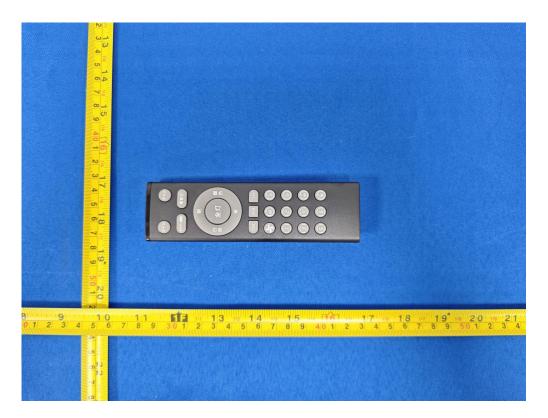


Fig.4

-----THE END OF TEST REPORT-----