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TESTING
CNAS L13445

AUSTRALIA TEST REPORT

For

SHENZHEN YOUWIN OPTRONICS CO., LTD

LED High Bay Light

Test Model: YWHBFN-300W

Additional Models : Please Refer To Page 7

Prepared for	:	SHENZHEN YOUWIN OPTRONICS CO., LTD
Address	:	Room 319 Chuangke Building, Huanguan South Road No. 72-1, Guanlan, Shenzhen, Guangdong, China
Prepared by	:	Ningbo LCS Standard Technology Service Co., Ltd.
Address	:	Room 101-106, 202-206, Building 037, No. 166, Jinghua Road, Meixu Street, Ningbo High-tech Zone, Yinzhou District, Ningbo City, Zhejiang Province, China
Tel	:	(0574) 8790 8011
Fax	:	(0574) 8790 6976
Web	:	www.LCS-cert.com
Mail	:	webmaster@LCS-cert.com
Date of receipt of test sample	:	September. 14, 2021
Number of tested samples	:	1
Serial number	:	Prototype
Date of Test	:	September. 14, 2021 ~ September. 16, 2021
Date of Report	:	September. 16, 2021

AUSTRALIA TEST REPORT

AS/NZS CISPR 15: 2011

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

Report Reference No.....:	**LCS210106030EE**
Date Of Issue.....:	September. 16, 2021
Testing Laboratory Name. :	**Ningbo LCS Standard Technology Service Co., Ltd.**
Address.....:	Room 101-106, 202-206, Building 037, No. 166, Jinghua Road, Meixu Street, Ningbo High-tech Zone, Yinzhou District, Ningbo City, Zhejiang Province, China
Testing Location/ Procedure:	Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □
Applicant's Name.....:	**SHENZHEN YOUWIN OPTRONICS CO., LTD**
Address.....:	Room 319 Chuangke Building, Huanguan South Road No. 72-1, Guanlan, Shenzhen, Guangdong, China
Test Specification:	
Standard.....:	AS/NZS CISPR 15: 2011
Test Report Form No.....:	SLCSEMC-1.0
TRF Originator.....:	Ningbo LCS Standard Technology Service Co., Ltd.
Master TRF.....:	Dated 2019-03

Test Item Description.....:	**LED High Bay Light**
Trade Mark.....:	YOUWIN
Test Model.....:	YWHBFN-300W
Power Supply.....:	Input: AC 100-277V, Max: 300W;
Results .....:	**PASS**

Compiled by:	**Supervised by:**	**Approved by:**
Feng liang/File administrators	Joker Wang/Technique principal	Lh Li/ Manager

AUSTRALIA - TEST REPORT

Test Report No. : LCS210106030EE	September. 16, 2021 Date of issue

EUT.....:	LED High Bay Light
Test Model.....:	YWHBFN-300W
Applicant.....:	**SHENZHEN YOUWIN OPTRONICS CO., LTD**
Address.....:	Room 319 Chuangke Building, Huanguan South Road No. 72-1, Guanlan, Shenzhen, Guangdong, China
Telephone.....:	/
Fax.....:	/
Manufacturer.....:	**FOSHAN YOUWIN LIGHTING CO., LTD**
Address.....:	Block 4, Area D, Bright City, Nanhai District Foshan, Guangdong, China.
Telephone.....	/
Fax.....:	/
Factory1..... :	**SHENZHEN YOUWIN OPTRONICS CO., LTD**
Factory2.....	**FOSHAN YOUWIN LIGHTING CO., LTD**
Address1..... :	Room 319 Chuangke Building, Huanguan South Road No. 72-1, Guanlan, Shenzhen, Guangdong, China
Address2.....	Block 4, Area D, Bright City,Nanhai District Foshan, Guangdong, China.
Telephone.....	/
Fax.....:	/

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.

The duplication of this report or parts of it and its use for advertising purposes is only allowed with permission of the testing laboratory.This report contains the result of examination of the product sample submitted by the appliance. A general statement concerning the quality of the products from the series manufacturer cannot be derived therefore.

Revision History

Revision	Issue Date	Revisions	Revised By
000	September. 16, 2021	Initial Issue	Lh Li

TABLE OF CONTENTS

1. REPORT INFORMATION DESCRIPTION

1.1 Summary of Standards and Results

1.1.1 Description of Standards and Results

EMISSION (AS/NZS CISPR 15: 2011)			
Description of Test Item	Test Standard	Limits	Results
Conducted Disturbance at Mains Terminals	AS/NZS CISPR 15: 2011	--------	PASS
Conducted Disturbance at Load Terminals	AS/NZS CISPR 15: 2011	--------	N/A
Conducted Disturbance at Control Terminals	AS/NZS CISPR 15: 2011	--------	N/A
Radiated Disturbance (9kHz to 30MHz)	AS/NZS CISPR 15: 2011	--------	PASS
Radiated Disturbance (30MHz to 300MHz)	AS/NZS CISPR 15: 2011	--------	PASS
Note：N/A is an abbreviation for Not Applicable.			

1.2 Product Information

1.2.1 Electrical parameter description

EUT	:	LED High Bay Light
Trade Mark	:	YOUWIN
Test Model	:	YWHBFN-300W
Additional Models	:	YWHBFN-100W, YWHBFN-150W,YWHBFN-200W, YWHBFN-240W, YWHBFM-100W, YWHBFM-150W, YWHBFM-200W, YWHBFM-240W, YWHBGL-100W, YWHBGL-150W, YWHBGL-200W, YWHBGL-240W, YWHBGL-300W, YWHBIB-100W, YWHBIB-150W, YWHBIB-200W, YWHBIB-240W, YWHBIB-300W, YWHBHF-100W, YWHBHF-150W, YWHBHF-200W, YWHBKB-100W, YWHBKB-150W, YWHBKB-200W, YWHBKB-240W, YWHBHB-100W, YWHBHB-150W, YWHBHB-200W, YWHBHB-240W, 4300001
Power Supply	:	Input: AC 100-277V, Max: 300W;

1.2.2 Test Modes

Lighting	:	EUT was test with power on, to get the status 'Lighting' ☑
Charging	:	EUT was test with power on and keep charging, to get the status 'Charging' □
Discharging	:	EUT was test with keep discharging, to get the status 'Discharging' □
Full Load	:	EUT was test with max power, to get the status 'Full load' □
Half Load	:	EUT was test with half power, to get the status 'Half load' □

1.3 Description of Test Facility

Site Description CNAS No.: L13445
EMC Lab. : CAN No.: 191121112621

Test Facilities : Ningbo LCS Standard Technology Service Co., Ltd.
Room 101-106, 202-206, Building 037, No. 166, Jinghua Road, Meixu Street, Ningbo High-tech Zone, Yinzhou District, Ningbo City, Zhejiang Province, 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 LCS 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_{lab})	Expanded uncertainty (U_{cispr})
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 Software	AUDIX	E3	/	N/A
2	EMI Test Receiver	R&S	ESR 3	102519	2021-05-31
3	Artificial Mains	R&S	ENV216	102318	2021-05-31

Radiated Electromagnetic Disturbance

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Large Loop Antenna	DAZE	ZN304401	17029	2021-05-31
2	EMI Test Receiver	R&S	ESR 3	102519	2021-05-31
3	EMI Test Software	AUDIX	E3	/	N/A

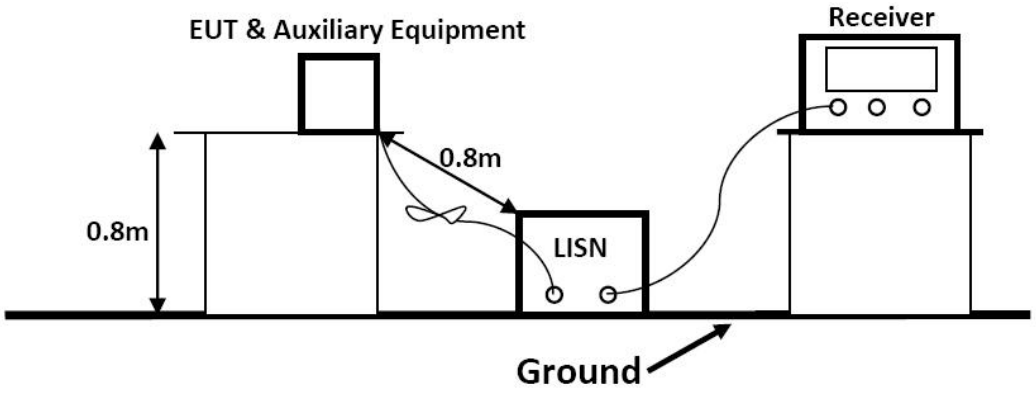
Radiated Disturbance (Electric Field)

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Software	AUDIX	E3	/	N/A
2	3m Semi Anechoic Chamber	MAORUI	9m*6m*6	160218849	2021-05-31
3	By-log Antenna	SCHWARZBECK	VULB9168	9168-988	2019-05-31
4	Horn Antenna	SCHWARZBECK	BBHA9120D	9120D-2049	2021-05-31
5	EMI Test Receiver	R&S	ESRP	101372	2021-05-31
6	AMPLIFIER	SCHWARZBECK	BBV9745	136	2021-05-31
7	RF Cable	Hubber Suhner	CBL-RE	/	2021-05-31
8	AMPLIFIER	SCHWARZBECK	BBV9718C	21	2021-05-31

4. TEST DETAILS

4.1 Conducted Disturbance at Mains Terminals

4.1.1 Block Diagram of Test Setup



4.1.2 Test Standard

AS/NZS CISPR 15: 2011

4.1.3 Limits

Disturbance voltage limits at the Mains Terminals		
Frequency range	Limits (dBμV)	
	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

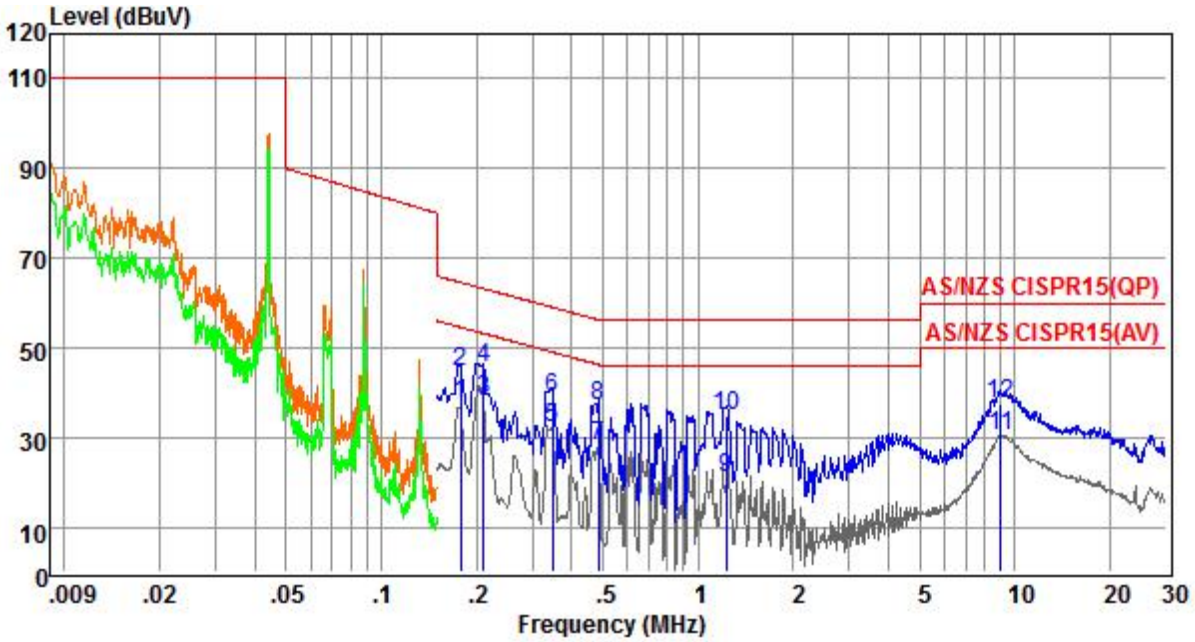
4.1.5 Test Procedure Description

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 50ohm 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:	24.2℃, 55% RH
Test Voltage:	AC 240V,50Hz
Test Model:	YWHBFN-300W
Test Mode:	Lighting
Test Engineer:	FENG LIANG
Pol:	Line
Detailed results are shown below	

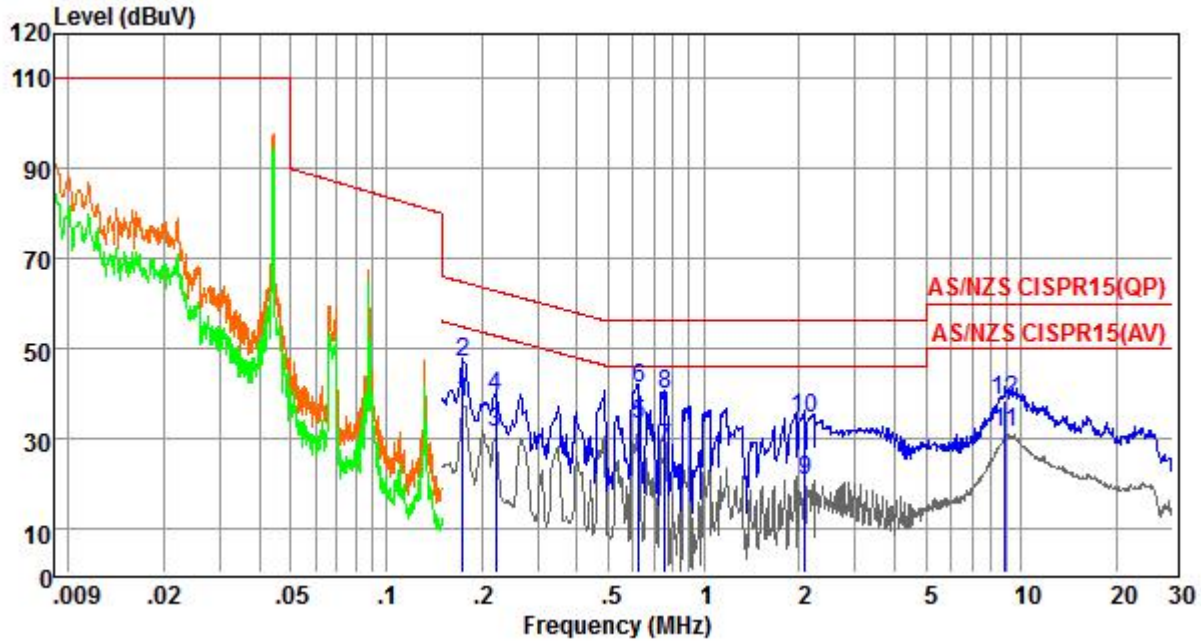


Pol: LINE

	Freq	Reading	LisnFac	CabLos	Measured	Limit	Over	Remark
	MHz	dBpW	dB	dB	dBpW	dBpW	dB	
1	0.18	27.78	9.59	0.12	37.49	54.59	-17.10	Average
2	0.18	34.78	9.59	0.12	44.49	64.59	-20.10	QP
3	0.21	28.61	9.58	0.13	38.32	53.18	-14.86	Average
4	0.21	35.61	9.58	0.13	45.32	63.18	-17.86	QP
5	0.35	22.31	9.58	0.11	32.00	49.05	-17.05	Average
6	0.35	29.31	9.58	0.11	39.00	59.05	-20.05	QP
7	0.49	18.35	9.58	0.10	28.03	46.23	-18.20	Average
8	0.49	27.35	9.58	0.10	37.03	56.23	-19.20	QP
9	1.23	11.23	9.59	0.12	20.94	46.00	-25.06	Average
10	1.23	25.23	9.59	0.12	34.94	56.00	-21.06	QP
11	9.06	20.66	9.72	0.12	30.50	50.00	-19.50	Average
12	9.06	27.66	9.72	0.12	37.50	60.00	-22.50	QP

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

Environmental Conditions:	24.2℃, 55% RH
Test Voltage:	AC 240V,50Hz
Test Model:	YWHBFN-300W
Test Mode:	Lighting
Test Engineer:	FENG LIANG
Pol:	Neutral
Detailed results are shown below	



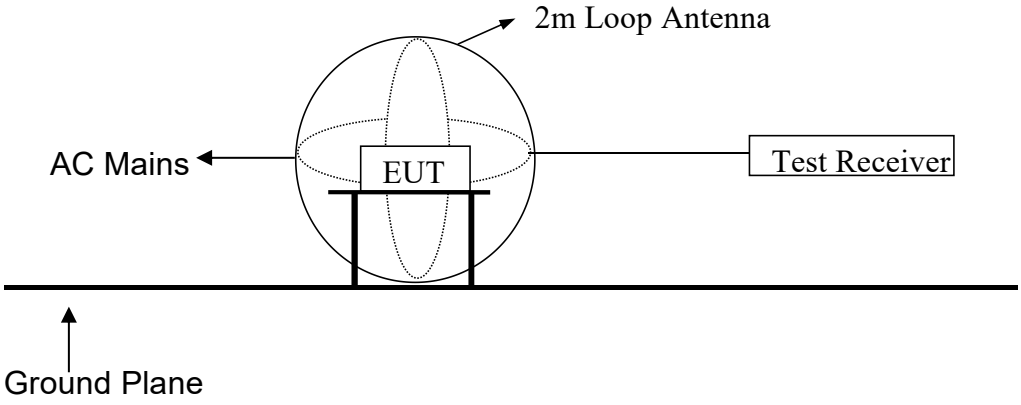
Pol: NEUTRAL

	Freq	Reading	LisnFac	CabLos	Measured	Limit	Over	Remark
	MHz	dBpW	dB	dB	dBpW	dBpW	dB	
1	0.17	28.13	9.59	0.12	37.84	54.77	-16.93	Average
2	0.17	37.13	9.59	0.12	46.84	64.77	-17.93	QP
3	0.22	21.66	9.58	0.13	31.37	52.74	-21.37	Average
4	0.22	29.66	9.58	0.13	39.37	62.74	-23.37	QP
5	0.63	23.45	9.58	0.11	33.14	46.00	-12.86	Average
6	0.63	31.45	9.58	0.11	41.14	56.00	-14.86	QP
7	0.75	17.98	9.58	0.11	27.67	46.00	-18.33	Average
8	0.75	29.98	9.58	0.11	39.67	56.00	-16.33	QP
9	2.09	10.58	9.59	0.13	20.30	46.00	-25.70	Average
10	2.09	24.58	9.59	0.13	34.30	56.00	-21.70	QP
11	8.92	21.48	9.71	0.12	31.31	50.00	-18.69	Average
12	8.92	28.48	9.71	0.12	38.31	60.00	-21.69	QP

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

4.2 Radiated Disturbance（9kHz to 30MHz）

4.2.1 Block Diagram of Test Setup



4.2.2 Test Standard

AS/NZS CISPR 15: 2011

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

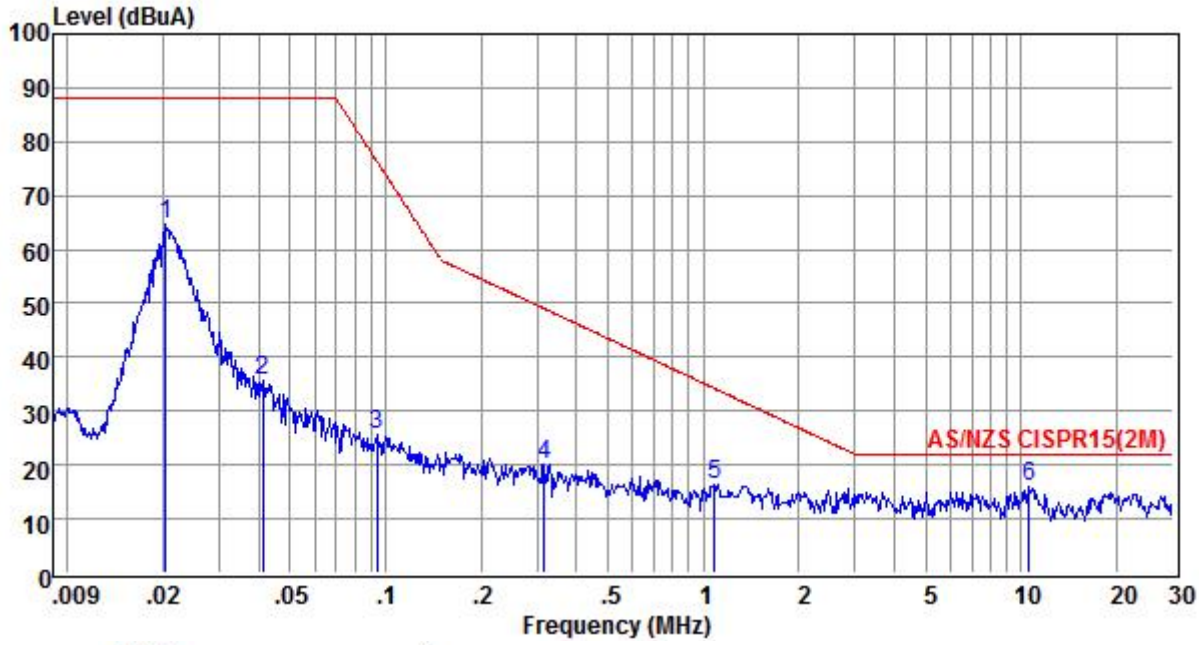
4.2.5 Test Procedure

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:	24.2℃, 55% RH
Test Voltage:	AC 240V,50Hz
Test Model:	YWHBFN-300W
Test Mode:	Lighting
Test Engineer:	FENG LIANG
Pol:	X
Detailed results are shown below	

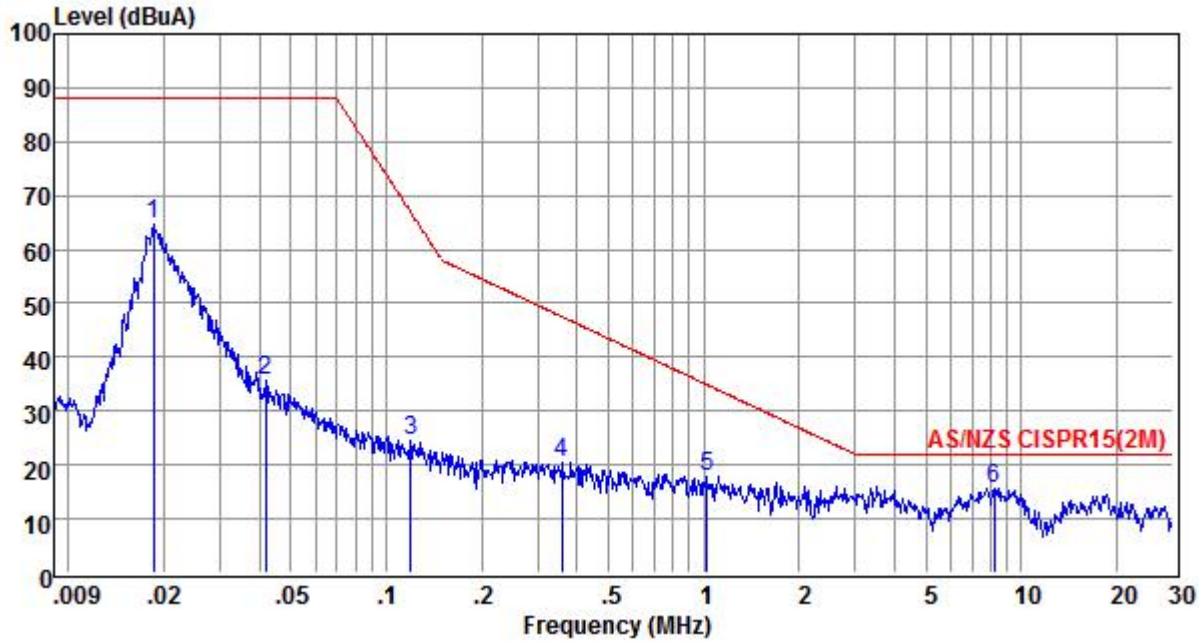


Pol: X

	Freq	Reading	LisnFac	CabLos	Measured	Limit	Over	Remark
	MHz	dBpW	dB	dB	dBpW	dBpW	dB	
1	0.02	64.71	0.00	0.00	64.71	88.00	-23.29	QP
2	0.04	35.60	0.00	0.00	35.60	88.00	-52.40	QP
3	0.09	25.65	0.00	0.00	25.65	76.47	-50.82	QP
4	0.32	20.22	0.00	0.00	20.22	49.02	-28.80	QP
5	1.09	16.24	0.00	0.00	16.24	34.20	-17.96	QP
6	10.62	15.87	0.00	0.00	15.87	22.00	-6.13	QP

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

Environmental Conditions:	24.2℃, 55% RH
Test Voltage:	AC 240V,50Hz
Test Model:	YWHBFN-300W
Test Mode:	Lighting
Test Engineer:	FENG LIANG
Pol:	Y
Detailed results are shown below	

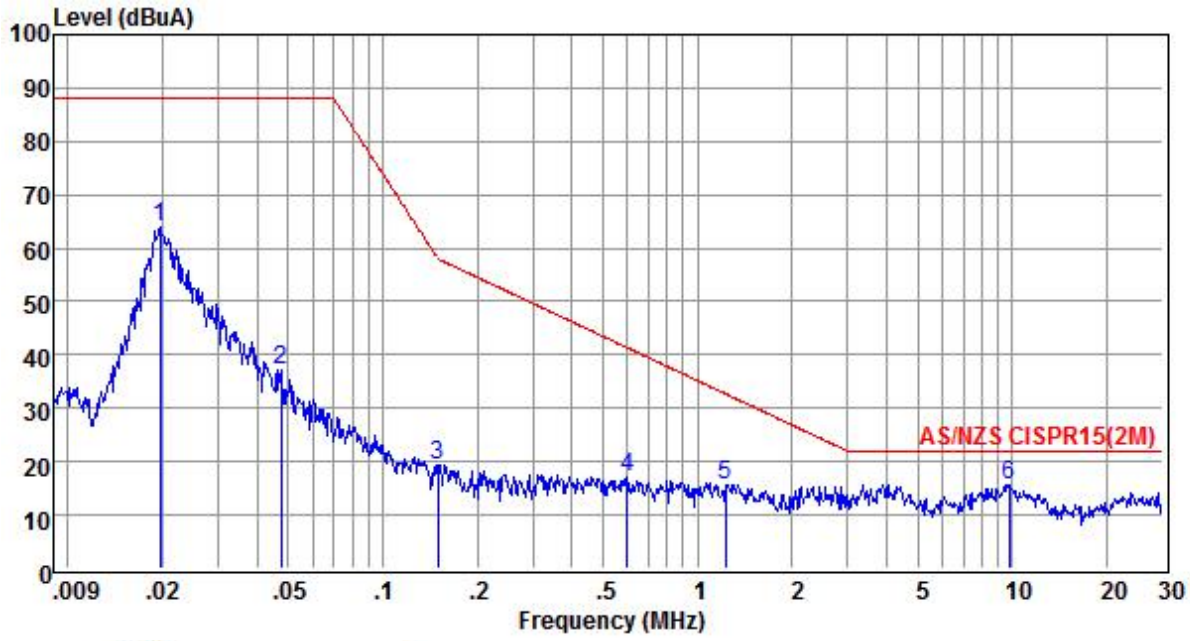


Pol: Y

	Freq	Reading	LisnFac	CabLos	Measured	Limit	Over	Remark
	MHz	dBpW	dB	dB	dBpW	dBpW	dB	
1	0.02	64.85	0.00	0.00	64.85	88.00	-23.15	QP
2	0.04	35.84	0.00	0.00	35.84	88.00	-52.16	QP
3	0.12	24.70	0.00	0.00	24.70	66.89	-42.19	QP
4	0.36	20.50	0.00	0.00	20.50	47.55	-27.05	QP
5	1.03	17.99	0.00	0.00	17.99	34.88	-16.89	QP
6	8.19	15.77	0.00	0.00	15.77	22.00	-6.23	QP

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

Environmental Conditions:	24.2℃, 55% RH
Test Voltage:	AC 240V,50Hz
Test Model:	YWHBFN-300W
Test Mode:	Lighting
Test Engineer:	FENG LIANG
Pol:	Z
Detailed results are shown below	



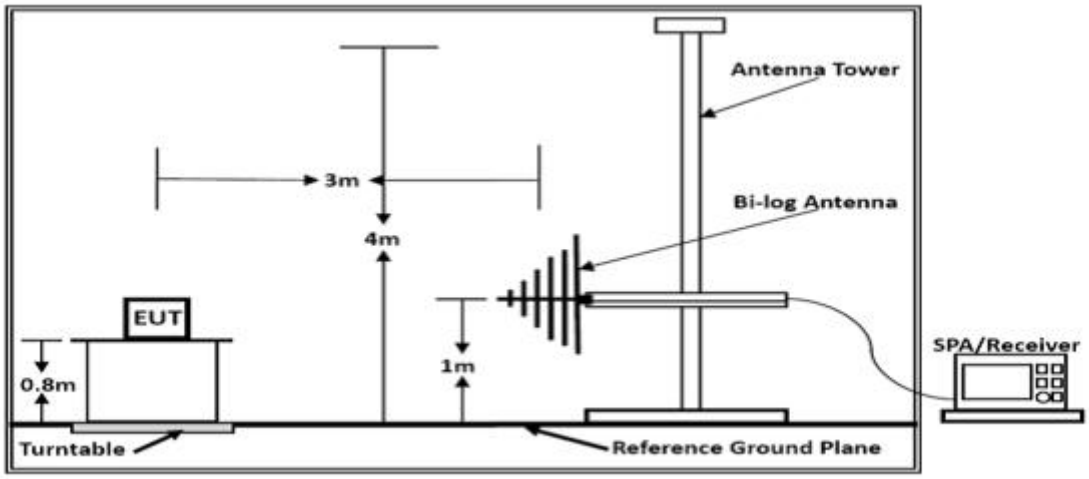
Pol: Z

	Freq	Reading	LisnFac	CabLos	Measured	Limit	Over	Remark
	MHz	dBpW	dB	dB	dBpW	dBpW	dB	
1	0.02	64.10	0.00	0.00	64.10	88.00	-23.90	QP
2	0.05	37.19	0.00	0.00	37.19	88.00	-50.81	QP
3	0.15	19.47	0.00	0.00	19.47	57.98	-38.51	QP
4	0.60	17.01	0.00	0.00	17.01	41.41	-24.40	QP
5	1.23	15.71	0.00	0.00	15.71	32.74	-17.03	QP
6	9.79	15.62	0.00	0.00	15.62	22.00	-6.38	QP

Remarks: 1. Measured = Reading + Lisn Factor +Cable Loss.
2. The emission levels that are 20dB below the official limit are not reported.

4.3 Radiated Disturbance（30MHz to 300MHz）

4.3.1 Block Diagram of Test Setup



4.3.2 Test Standard

AS/NZS CISPR 15: 2011

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

4.3.5 Test Procedure

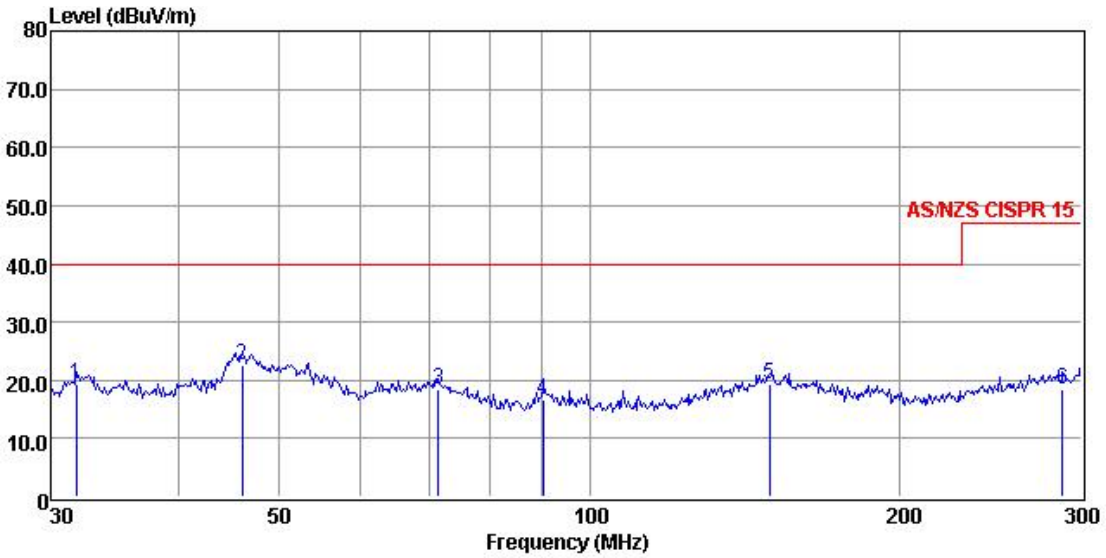
The EUT is placed on a turntable, which is 0.8 meter high above the ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down 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.

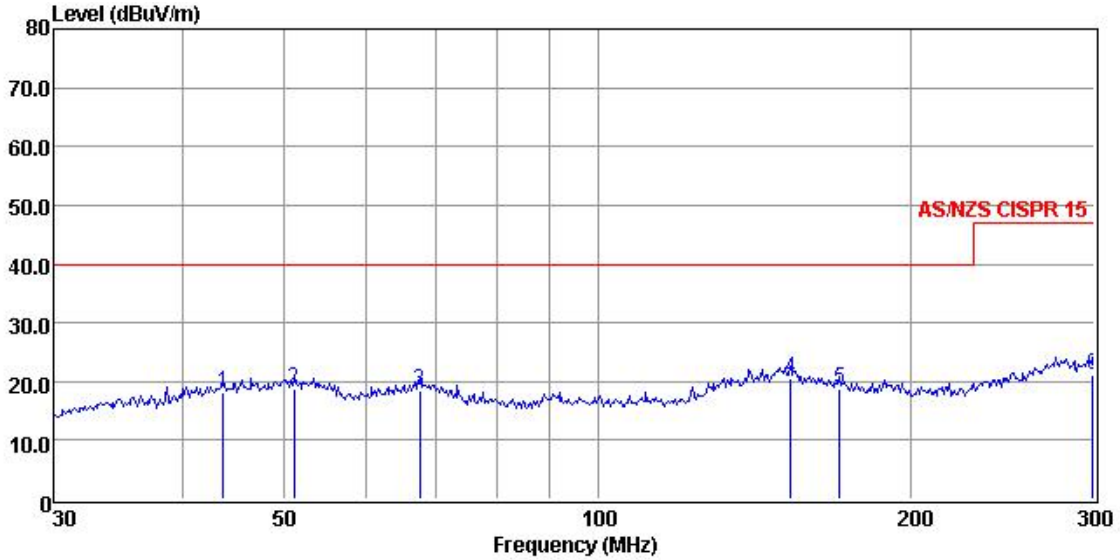
Environmental Conditions:	25.4℃, 56% RH
Test Voltage:	AC 240V,50Hz
Test Model:	YWHBFN-300W
Test Mode:	Lighting
Test Engineer:	FENG LIANG
Pol:	Vertical
Detailed results are shown below	



Site : 3m chamber
Condition : AS/NZS CISPR 15 3m VULB9168 NB VERTICAL

	Freq	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	31.73	38.22	2.11	9.28	30.32	19.29	40.00	-20.71	QP
2	46.02	37.60	2.35	12.95	30.32	22.58	40.00	-17.42	QP
3	71.33	34.43	2.73	11.54	30.40	18.30	40.00	-21.70	QP
4	90.22	34.42	2.97	9.76	30.47	16.68	40.00	-23.32	QP
5	149.49	32.06	3.54	14.23	30.60	19.23	40.00	-20.77	QP
6	287.99	32.03	4.71	12.52	30.84	18.42	47.00	-28.58	QP

Environmental Conditions:	25.4℃, 56% RH
Test Voltage:	AC 240V,50Hz
Test Model:	YWHBFN-300W
Test Mode:	Lighting
Test Engineer:	FENG LIANG
Pol:	Horizontal
Detailed results are shown below	



Site : 3m chamber
Condition : AS/NZS CISPR 15 3m VULB9168 NB HORIZONTAL

	Freq	Read Level	Cable Loss	Antenna Factor	Preamp Factor	Level	Limit Line	Over Limit	Remark
	MHz	dBuV	dB	dB/m	dB	dBuV/m	dBuV/m	dB	
1	43.66	33.41	2.32	12.81	30.32	18.22	40.00	-21.78	QP
2	51.12	33.17	2.43	13.44	30.32	18.72	40.00	-21.28	QP
3	67.44	34.15	2.68	12.05	30.39	18.49	40.00	-21.51	QP
4	153.20	33.85	3.58	13.76	30.60	20.59	40.00	-19.41	QP
5	170.79	33.79	3.76	11.89	30.63	18.81	40.00	-21.19	QP
6	299.32	34.29	4.80	12.97	30.86	21.20	47.00	-25.80	QP

5. TEST PHOTOGRAPH

5.1 Photo of Conducted Disturbance at Mains Terminals

5.2 Photo of Radiated Disturbance(9kHz to 30MHz)

5.3 Photo of Radiated Disturbance(30MHz to 300MHz)

6. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

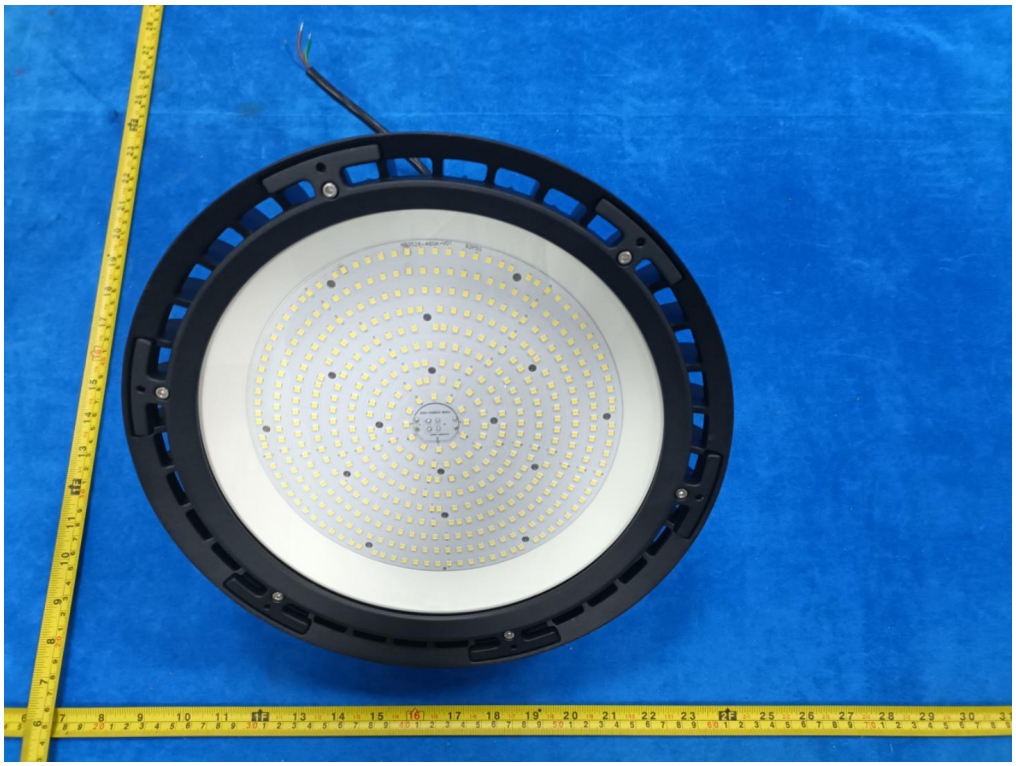


Figure. 1

Figure. 2

Figure. 3

Figure. 4

Figure. 5

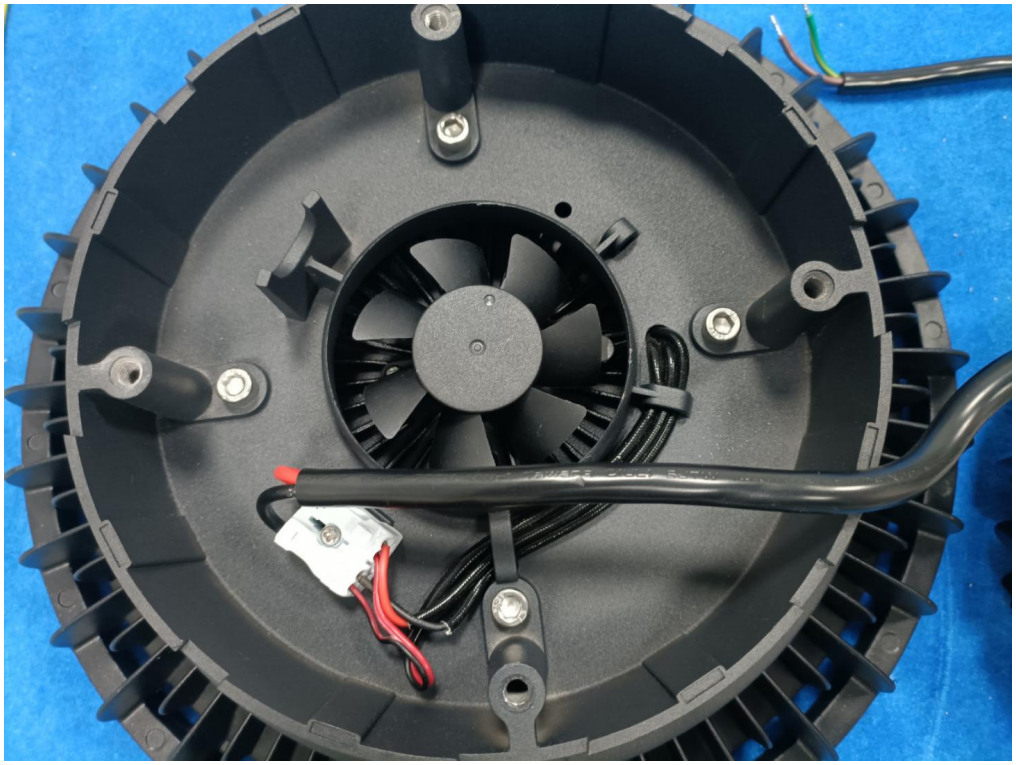


Figure. 6

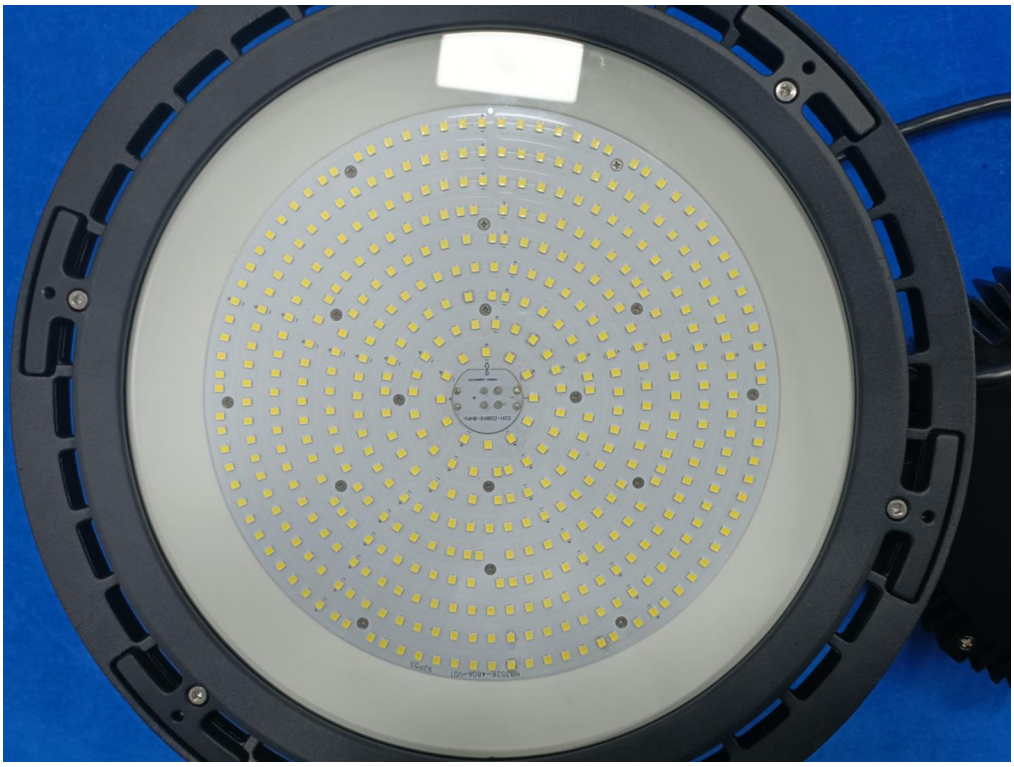


Figure. 7

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