Application for FCC Certificate
On Behalf of
SHANGHAI HONGYUAN LIGHTING & ELECTRIC EQUIPMENT CO LTD

Highbay Luminaire

Model No. : LVD-ZD25000-40, LVD-ZD25000-50, LVD-ZD25000-80

FCC ID : 2AAFG06039040-080

Prepared For : SHANGHAI HONGYUAN LIGHTING & ELECTRIC EQUIPMENT CO LTD
5028 ZHENNAN RD 201802 SHANGHAI, CHINA

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Report No. : ACI-F13130
Date of Test : Mar 09 – Aug 09, 2013
Date of Report : Aug 12, 2013

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TEST REPORT FOR FCC CERTIFICATE

Applicant	:	SHANGHAI HONGYUAN LIGHTING & ELECTRIC EQUIPMENT CO LTD
Manufacturer	:	SHANGHAI HONGYUAN LIGHTING & ELECTRIC EQUIPMENT CO LTD
Factory	:	Jiangsu LVD Lighting Industry Co., Ltd
EUT Description	:	Highbay Luminaire
		(A) Model No. : LVD-ZD25000-40, LVD-ZD25000-50, LVD-ZD25000-80
		(B) Power Supply : 120V/60Hz

Test Procedure Used:

FCC RULES AND REGULATIONS PART 18 SUBPART C RF LIGHTING DEVICES OCTOBER 2012 AND MP-5/1986

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 18 Subpart C (RF Lighting Devices) limits both radiated and conducted emissions.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. This report shows that the EUT which was tested in 3m anechoic chamber on Mar 09 – Aug 09, 2013 is technically compliance with the FCC official limits also.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

Date of Test : Mar 09 – Aug 09, 2013 **Date of Report :** Aug 12, 2013

Producer : Kathy Wang
KATHY WANG/ Supervisor

Review : Dio Yang
DIO YANG / Assistant Manager

For and on behalf of
Audix Technology (Shanghai) Co., Ltd.

Signatory : Sammy Chen
Authorized Signature EMC SAMMY CHEN / Deputy Manager

1 SUMMARY OF STANDARDS AND RESULTS

1.1 Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below:

Description / Test Item	Test Standard	Meets Limit	Results
EMISSION			
Conducted Disturbance at the Mains Terminals	FCC RULES AND REGULATIONS PART 18 SUBPART C OCTOBER 2012 AND MP-5/1986	18.307(c) Consumer Equipment	Pass
Magnetic Field Strength	FCC RULES AND REGULATIONS PART 18 SUBPART C OCTOBER 2012 AND MP-5/1986	18.305(b) Any type, Non-ISM Frequency	Pass
Radiated Emission	FCC RULES AND REGULATIONS PART 18 SUBPART C OCTOBER 2012 AND MP-5/1986	18.305(c) Consumer Equipment	Pass

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description : Highbay Luminaire

Type of EUT : ☑ Production ☐ Pre-product ☐ Pro-type

Model No.	LVD-ZD25000-40	LVD-ZD25000-50	LVD-ZD25000-80
Rated Power	40W	50W	80W

Applicant : SHANGHAI HONGYUAN LIGHTING & ELECTRIC EQUIPMENT CO LTD
5028 ZHENNAN RD 201802 SHANGHAI, CHINA

Manufacturer : SHANGHAI HONGYUAN LIGHTING & ELECTRIC EQUIPMENT CO LTD
5028 ZHENNAN RD 201802 SHANGHAI, CHINA

Factory : Jiangsu LVD Lighting Industry Co., Ltd
9 Minjiang Rd. Yancheng Economic and Technological Development Zone

2.2 Description of Test Facility

Site Description (Semi-Anechoic Chamber) : Sept. 17, 1998 file on
Mar 16, 2012 Renewed
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai 200233, China

NVLAP Lab Code : 200371-0

2.3 Measurement Uncertainty

Conducted Emission Expanded Uncertainty: U = 3.42 dB
Radiated Emission Expanded Uncertainty (30-200MHz):
U = 4.14 dB (Horizontal)
U = 4.28 dB (Vertical)
Radiated Emission Expanded Uncertainty (200M-1GHz):
U = 4.18 dB (Horizontal)
U = 4.26 dB (Vertical)

3 CONDUCTED EMISSION TEST

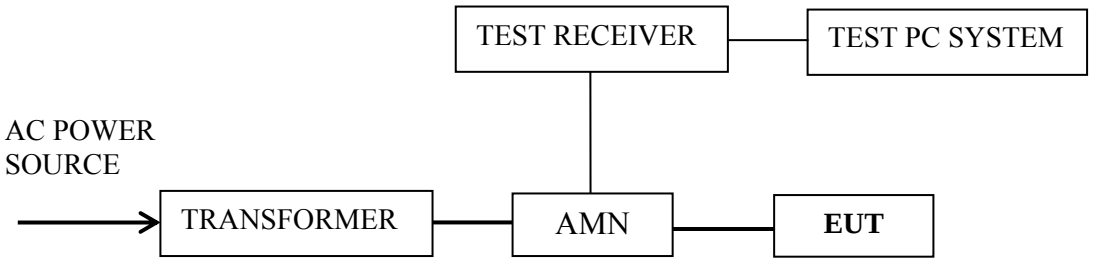
3.1 Test Equipment

The following test equipments are used during the conducted emission test in a shielded room:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	100841	Mar 20, 2013	Mar 20, 2014
2.	Artificial Mains Network (AMN)	R&S	ESH2-Z5	843890/011	Feb 25, 2013	Feb 25, 2014
3.	50 Ω Coaxial Switch	Anritsu	MP59B	6200426389	Mar 18, 2013	Sep 18, 2013
4.	Software	Audix	E3	SET00200 9804M592	--	--

3.2 Block Diagram of Test Setup

3.2.1 Conducted Disturbance Test Setup



—— : Signal Line
▬▬ : Power Line

3.3 Conducted Emission Limits (FCC Part 18 Consumer Equipment)

Frequency (MHz)			Maximum RF Line Voltage	
			(μV)	dB(μV)
0.45	~	2.51	250	48
2.51	~	3.0	3000	70
3.0	~	30	250	48

NOTE 1 – RF Line Voltage dB (μV) = 20 log RF Line Voltage (μV)
NOTE 2 – The tighter limits shall apply at the boundary between two frequency ranges.

3.4 Test Configuration

The EUT (listed in Sec.2.1) was installed as shown on Sec.3.2 to meet FCC requirement and operating in a manner that tends to maximize its emission level in a normal application.

3.5 Operating Condition of EUT

3.5.1 Setup the EUT as shown in Sec. 3.2.

3.5.2 Turn on the power of EUT.

3.5.3 The EUT will be operated normally.

3.5.4 Set the EUT on the lighting test mode, and then test.

3.6 Test Procedures

The EUT was connected to the power mains through a Artificial Mains Network (AMN). This provided a 50 ohm coupling impedance for the measuring equipment.

Both sides of AC line were checked for maximum conducted interference. In order to find the maximum emission, the relative positions of equipment and all of the interface cables were changed or manipulated according to MP-5/1986 during conducted emission test.

The I.F bandwidth of Test Receiver ESCI was set at 9 kHz.

The frequency range from 450 kHz to 30 MHz for Lighting mode was checked.

The test modes were done on conducted test and the test results of the highest emissions are listed in Sec. 3.7.

3.7 Test Results

< PASS >

The frequency and amplitude of the highest conducted emission relative to the limit is reported. All emissions not reported below are too low against the prescribed limits.

Model No	Test Mode	Data Page
LVD-ZD25000-40	Lighting	P8
LVD-ZD25000-50		P9
LVD-ZD25000-80		P10

NOTE 1 – Factor = Cable Loss + AMN Factor.
NOTE 2 – Emission Level = Meter Reading + Factor.
NOTE 3 – All readings are Quasi-Peak values. (QP)
NOTE 4 – The worst case is for LVD-ZD25000-80 model. The worst emission is detected at 18.822 MHz with corrected signal level of 36.51 dB (μV) (limit is 48.00 dB (μV)), when the Line of the EUT is connected to AMN.

EUT	:	Highbay Luminaire	Temperature :	22℃	
Model No.	:	LVD-ZD25000-40	Humidity	:	48%RH
Serial No.	:	N/A	Date of Test	:	Mar 10, 2013
Test Mode	:	Lighting			

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.594	26.50	0.26	26.76	48.00	21.24	QP
	1.352	**28.23**	**0.34**	**28.57**	**48.00**	**19.43**	
	2.880	16.72	0.41	17.13	69.50	52.37	
	13.564	21.58	0.82	22.40	48.00	25.60	
	16.734	25.77	0.86	26.63	48.00	21.37	
	20.130	24.97	0.92	25.89	48.00	22.11	
Neutral	0.601	27.59	0.18	27.77	48.00	20.23	QP
	1.330	28.24	0.21	28.45	48.00	19.55	
	2.715	19.15	0.21	19.36	69.50	50.14	
	15.321	23.86	0.73	24.59	48.00	23.41	
	16.875	26.26	0.76	27.02	48.00	20.98	
	19.384	23.03	0.82	23.85	48.00	24.15	

TEST ENGINEER: WENCY YANG

EUT	:	Highbay Luminaire	Temperature :	22℃
Model No.	:	LVD-ZD25000-50	Humidity :	48%RH
Serial No.	:	N/A	Date of Test :	Mar 10, 2013
Test Mode	:	Lighting		

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	**0.450**	**26.89**	**0.35**	**27.24**	**48.00**	**20.76**	QP
	0.498	25.99	0.35	26.34	48.00	21.66	
	0.560	24.07	0.32	24.39	48.00	23.61	
	1.540	20.59	0.37	20.96	48.00	27.04	
	1.957	19.01	0.39	19.40	48.00	28.60	
	18.822	24.27	0.92	25.19	48.00	22.81	
Neutral	0.450	26.08	0.17	26.25	48.00	21.75	QP
	0.544	23.20	0.17	23.37	48.00	24.63	
	1.101	19.14	0.22	19.36	48.00	28.64	
	1.465	19.23	0.18	19.41	48.00	28.59	
	1.900	17.11	0.17	17.28	48.00	30.72	
	18.431	23.70	0.81	24.51	48.00	23.49	

TEST ENGINEER: WENCY YANG

EUT	:	Highbay Luminaire	Temperature :	22℃
Model No.	:	LVD-ZD25000-80	Humidity :	48%RH
Serial No.	:	N/A	Date of Test :	Mar 10, 2013
Test Mode	:	Lighting		

Test Line	Frequency (MHz)	Meter Reading dB(μV)	Factor (dB)	Emission Level dB(μV)	Limits dB(μV)	Margin (dB)	Remark
Line	0.498	29.68	0.35	30.03	48.00	17.97	QP
	0.565	28.02	0.31	28.33	48.00	19.67	
	0.657	24.83	0.20	25.03	48.00	22.97	
	0.761	23.00	0.21	23.21	48.00	24.79	
	1.381	23.20	0.35	23.55	48.00	24.45	
	18.822	**35.59**	**0.92**	**36.51**	**48.00**	**11.49**	
Neutral	0.465	29.15	0.17	29.32	48.00	18.68	QP
	0.572	28.65	0.18	28.83	48.00	19.17	
	1.087	23.00	0.22	23.22	48.00	24.78	
	1.352	22.81	0.21	23.02	48.00	24.98	
	16.524	30.74	0.75	31.49	48.00	16.51	
	19.221	34.06	0.82	34.88	48.00	13.12	

TEST ENGINEER: WENCY YANG

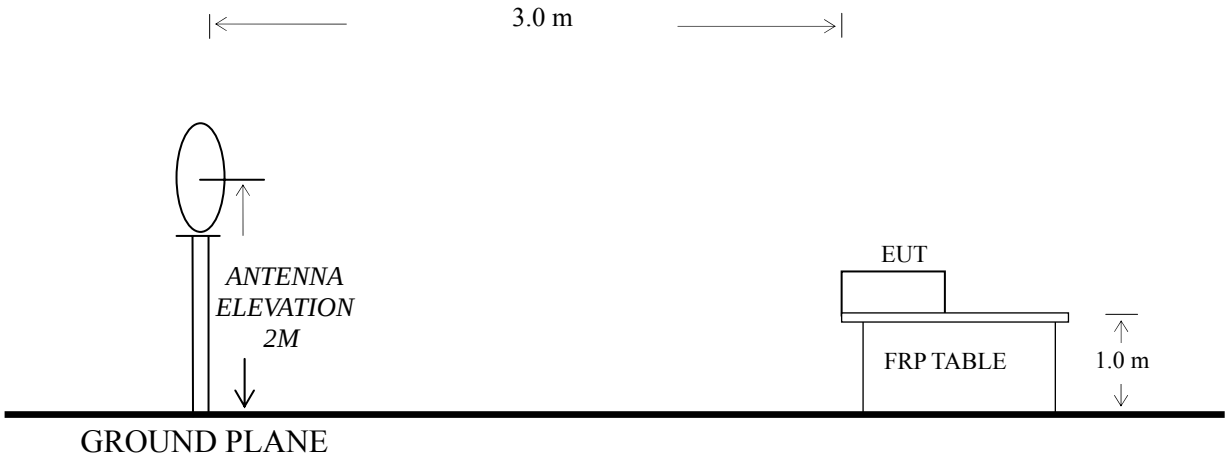
4 MAGNETIC FIELD EMISSION TEST

4.1 Test Equipment

The following test equipments are used during the field strength test in a shielded room:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Loop Antenna	Schaffner	HLA6120	1193	Apr 25, 2013	Apr 25, 2014
2.	Test Receiver	R&S	ESCI	101302	Sep 11, 2012	Sep 11, 2013
3.	50Ω Coaxial Switch	ANRITSU	MP59B	6200426390	Mar 18, 2013	Sep 18, 2013
4.	Software	Audix	E3	SET00200 9912M295-2	--	--

4.2 Block Diagram of Test Setup



4.3 Magnetic Field Emission Limit (FCC Part 18 305(b))

All emanations from Non-ISM frequency devices or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

Frequency (MHz)	Distance (m)	Field Strength Limits (μV/m)	Converted Field Strength Limits By 3 Meters Measuring Distance dB (μV/m)
0.009~30	300	15	63.5
NOTE 1 - Distance refers to the distance in meters between the test antenna and the closed point of any part of the EUT. NOTE 2 - Audix Technology (Shanghai) Co., Ltd. only has a 3 meters Semi-anechoic Chamber to do the radiated disturbance test, therefore, Audix Shanghai used 3 meters measuring distance and converted limits to judge the EUT compliance with or not.			

4.4 Test Configuration

The FCC part 18 regulations test method must be used to find the maximum emission during Radiated Emission test.

The configuration of the EUT is same as used in conducted emission test. Please Refer to Section 3.4.

4.5 Operating Condition of EUT

4.5.1 Setup the EUT as shown on Section 4.2.

4.5.2 Turn on the power of all equipments.

4.5.3 Let the EUT work in test mode and test it.

4.6 Test Procedures

The EUT was placed on a table, which is 1.0 meter above ground. Measurements are performed at distance 3.0m with a 0.6m loop antenna as described in 2.2.4 of MP-5. The antenna shall be set at height 2m above the floor.

The bandwidth setting on the test receiver (R&S Test Receiver ESCI) is 200Hz from 9kHz to 150kHz and 9kHz from 150kHz to 30MHz. The EUT is tested in a semi-anechoic chamber.

All the test results are attached within Sec. 4.7.

4.7 Test Results

<**PASS**>

Refer to the following pages.

Model Number	Test Mode	Data Page
LVD-ZD25000-40	Lighting	P14
LVD-ZD25000-50		P15
LVD-ZD25000-80		P16

NOTE 1 – Factor = Antenna Factor + Cable Loss
Emission Level = Meter Reading + Factor
NOTE 2 – All reading are Quasi-Peak Values.
NOTE 3 – The worst case is for LVD-ZD25000-50 model. The worst emission at horizontal polarization was detected at 0.010 MHz with corrected signal level of 53.25 dB (μV/m) (limit is 63.50 dB (μV/m)). The worst emission at vertical polarization was detected at 0.009 MHz with corrected signal level of 58.92 dB (μV/m) (limit is 63.50 dB (μV/m)).

EUT	:	Highbay Luminaire	Temperature :	22℃
Model No.	:	LVD-ZD25000-40	Humidity :	52%RH
Serial No.	:	N/A	Date of Test :	Aug 09, 2013
Test Mode	:	Lighting		

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	0.010	30.41	20.34	0.03	50.78	63.50	12.72
	0.016	**32.98**	**20.39**	**0.03**	**53.40**	**63.50**	**10.10**
	0.027	22.88	20.61	0.03	43.52	63.50	19.98
	0.668	30.62	20.31	0.04	50.97	63.50	12.53
	1.114	27.49	20.30	0.05	47.84	63.50	15.66
	3.046	21.29	20.69	0.05	42.03	63.50	21.47
Vertical	0.011	34.40	20.36	0.03	54.79	63.50	8.71
	0.015	35.43	20.49	0.03	55.95	63.50	7.55
	0.021	**35.86**	**20.20**	**0.03**	**56.09**	**63.50**	**7.41**
	0.027	30.04	20.62	0.03	50.69	63.50	12.81
	0.713	25.85	20.39	0.04	46.28	63.50	17.22
	1.114	22.49	20.30	0.05	42.84	63.50	20.66

TEST ENGINEER: WENCY YANG

EUT	:	Highbay Luminaire	Temperature :	22℃
Model No.	:	LVD-ZD25000-50	Humidity :	52%RH
Serial No.	:	N/A	Date of Test :	Aug 09, 2013
Test Mode	:	Lighting		

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	**0.010**	**32.89**	**20.33**	**0.03**	**53.25**	**63.50**	**10.25**
	0.016	29.81	20.43	0.03	50.27	63.50	13.23
	0.021	30.19	20.18	0.03	50.40	63.50	13.10
	0.276	18.53	20.38	0.03	38.94	63.50	24.56
	0.642	26.77	20.22	0.04	47.03	63.50	16.47
	1.228	28.52	20.40	0.05	48.97	63.50	14.53
Vertical	**0.009**	**38.59**	**20.30**	**0.03**	**58.92**	**63.50**	**4.58**
	0.012	36.60	20.41	0.03	57.04	63.50	6.46
	0.015	34.43	20.49	0.03	54.95	63.50	8.55
	0.021	29.28	20.29	0.03	49.60	63.50	13.90
	0.026	30.05	20.65	0.03	50.73	63.50	12.77
	0.621	24.13	20.16	0.04	44.33	63.50	19.17

TEST ENGINEER: WENCY YANG

EUT	:	Highbay Luminaire	Temperature :	22℃
Model No.	:	LVD-ZD25000-80	Humidity :	52%RH
Serial No.	:	N/A	Date of Test :	Aug 09, 2013
Test Mode	:	Lighting		

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	**0.011**	**35.00**	**20.38**	**0.03**	**55.41**	**63.50**	**8.09**
	0.023	26.12	20.45	0.03	46.60	63.50	16.90
	0.162	19.57	20.32	0.03	39.92	63.50	23.58
	0.404	15.95	20.09	0.03	36.07	63.50	27.43
	0.690	30.91	20.37	0.04	51.32	63.50	12.18
	1.631	26.48	20.54	0.05	47.07	63.50	16.43
Vertical	**0.010**	**37.73**	**20.32**	**0.03**	**58.08**	**63.50**	**5.42**
	0.017	32.64	20.34	0.03	53.01	63.50	10.49
	0.030	25.20	20.51	0.03	45.74	63.50	17.76
	0.742	25.70	20.37	0.04	46.11	63.50	17.39
	1.208	20.78	20.38	0.05	41.21	63.50	22.29
	1.566	21.90	20.57	0.05	42.52	63.50	20.98

TEST ENGINEER: WENCY YANG

5 RADIATED EMISSION TEST

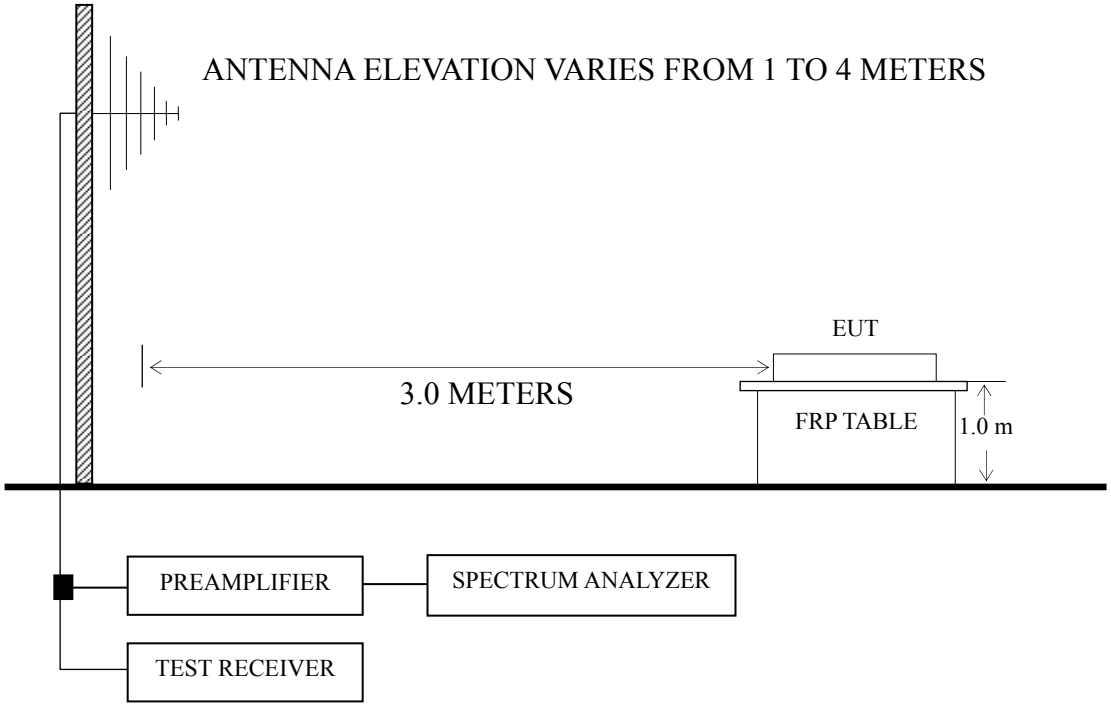
5.1 Test Equipment

The following test equipments are used during the radiated emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Next Cal.
1.	Test Receiver	R&S	ESCI	101302	Sep 11, 2012	Sep 11, 2013
2.	Preamplifier	Agilent	8447D	2944A10548	Mar 18, 2013	Sep 18, 2013
3.	Bi-log Antenna	TESEQ	CBL6112D	23192	Nov 29, 2012	Nov 29, 2013
4.	Spectrum	Agilent	E7405A	MY45106600	Dec 17, 2012	Dec 17, 2013
5.	Software	Audix	E3	SET00200 9912M295-2	--	--

5.2 Block Diagram of Test Setup

5.2.1 Radiated emission test setup



■ : 50 ohm Coaxial Switch

5.3 Radiated Emission Limit (FCC Part 18.305(c) Consumer Equipment)

Frequency (MHz)	Distance (m)	Field strength limits		Converted Field Strength Limits By 3 Meters Measuring Distance
		(μV/m)	dB (μV/m)	dB (μV/m)
30 ~ 88	30	10	20.0	40.0
88 ~ 216	30	15	23.5	43.5
216 ~ 1000	30	20	26.0	46.0

NOTE 1 - The lower limit shall apply at the transition frequency.
NOTE 2 - Measuring distance of 30 m is a primary requirement. However, 3 m (instead of 30 m) distance maybe allowed. In this case, the limits with measuring distance of 3 m shall be the above limit value increased 20lg(30/3)=20dB.
NOTE 3 - 1 μV/m is regarded as 0 dBμV/m.

5.4 Test Configuration

The configuration of the EUT and peripherals are same as those used in conducted emission test.

Please refer to Sec.3.4.

5.5 Operating Condition of EUT

Same as conducted emission test which is listed in Sec.3.5, except for the test setup replaced by Sec.5.2.

5.6 Test Procedures

The EUT was placed on a turntable that is 1.0 meter above ground. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (Calibrated Bilog Antenna) was used as receiving antenna. Both horizontal and vertical polarizations of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to FCC MP-5: 1986 requirements during radiated emission test.

The bandwidth of Test Receiver R&S ESCI was set at 120 kHz.

The frequency range from 30 MHz to 1000 MHz was checked.

The test mode was done on radiated disturbance test and all the test results are listed in Sec.5.7.

5.7 Test Results

<**PASS**>

Refer to the following pages.

Model No	Test Mode	Data Page
LVD-ZD25000-40	Lighting	P20
LVD-ZD25000-50		P21
LVD-ZD25000-80		P22

NOTE 1 – Emission Level = Antenna Factor + Cable Loss + Meter Reading.

NOTE 2 – The emission levels that are 20dB below the official limit are not reported.

NOTE 3 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

NOTE 4 –The worst case is for LVD-ZD25000-80 model. The worst emission at horizontal polarization was detected at 133.790 MHz with corrected signal level of 32.72 dB (μV/m) (limit is 43.50 dB (μV/m)), when the antenna was 2.00 m height and the turntable was at 134°. The worst emission at vertical polarization was detected at 224.970 MHz with corrected signal level of 25.19 dB (μV/m) (limit is 46.00 dB (μV/m)), when the antenna was 1.00 m height and the turntable was at 253°.

EUT	:	Highbay Luminaire	Temperature :	22℃	
Model No.	:	LVD-ZD25000-40	Humidity	:	60%RH
Serial No.	:	N/A	Date of Test	:	Mar 09, 2013
Test Mode	:	Lighting			

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	**30.970**	**0.34**	**17.65**	**0.67**	**18.66**	**40.00**	**21.34**
	36.790	0.38	14.92	0.74	16.04	40.00	23.96
	112.450	5.17	11.72	1.42	18.31	43.50	25.19
	127.000	8.90	11.70	1.52	22.12	43.50	21.38
	141.550	8.68	10.30	1.60	20.58	43.50	22.92
	332.640	1.85	14.53	2.60	18.98	46.00	27.02
Vertical	**30.970**	**0.32**	**17.65**	**0.67**	**18.64**	**40.00**	**21.36**
	36.790	0.63	14.92	0.74	16.29	40.00	23.71
	106.630	3.77	11.50	1.39	16.66	43.50	26.84
	121.180	4.85	11.42	1.48	17.75	43.50	25.75
	147.370	4.52	10.20	1.63	16.35	43.50	27.15
	226.910	4.61	9.10	2.09	15.80	46.00	30.20

TEST ENGINEER: NEAL WANG

EUT	:	Highbay Luminaire	Temperature :	22℃	
Model No.	:	LVD-ZD25000-50	Humidity	:	60%RH
Serial No.	:	N/A	Date of Test	:	Mar 09, 2013
Test Mode	:	Lighting			

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	**30.970**	**0.90**	**17.65**	**0.67**	**19.22**	**40.00**	**20.78**
	35.820	0.78	15.63	0.73	17.14	40.00	22.86
	107.600	0.18	11.60	1.39	13.17	43.50	30.33
	132.820	6.48	11.45	1.56	19.49	43.50	24.01
	218.180	4.67	7.95	2.04	14.66	46.00	31.34
	349.130	1.00	14.80	2.62	18.42	46.00	27.58
Vertical	**30.970**	**0.37**	**17.65**	**0.67**	**18.69**	**40.00**	**21.31**
	43.580	0.50	10.60	0.80	11.90	40.00	28.10
	92.080	3.11	8.66	1.24	13.01	43.50	30.49
	107.600	0.74	11.60	1.39	13.73	43.50	29.77
	130.880	1.51	11.72	1.55	14.78	43.50	28.72
	219.150	12.36	8.13	2.04	22.53	46.00	23.47

TEST ENGINEER: NEAL WANG

EUT	:	Highbay Luminaire	Temperature :	22℃
Model No.	:	LVD-ZD25000-80	Humidity :	60%RH
Serial No.	:	N/A	Date of Test :	Mar 09, 2013
Test Mode	:	Lighting		

Polarization	Frequency (MHz)	Meter Reading dB (μV)	Antenna Factor (dB/m)	Cable Loss (dB)	Emission Level dB (μV/m)	Limits dB (μV/m)	Margin (dB)
Horizontal	30.970	1.17	17.65	0.67	19.49	40.00	20.51
	101.780	6.37	10.76	1.35	18.48	43.50	25.02
	133.790	**19.94**	**11.22**	**1.56**	**32.72**	**43.50**	**10.78**
	158.040	16.40	9.60	1.70	27.70	43.50	15.80
	225.940	6.18	8.80	2.08	17.06	46.00	28.94
	419.940	2.85	17.20	2.74	22.79	46.00	23.21
Vertical	42.610	5.05	11.30	0.79	17.14	40.00	22.86
	95.960	9.61	9.57	1.29	20.47	43.50	23.03
	139.610	8.96	10.37	1.59	20.92	43.50	22.58
	169.680	11.86	8.40	1.78	22.04	43.50	21.46
	224.970	**14.61**	**8.50**	**2.08**	**25.19**	**46.00**	**20.81**
	394.720	6.59	15.80	2.68	25.07	46.00	20.93

TEST ENGINEER: NEAL WANG

6 DEBUG DESCRIPTION

The following components are used during the countermeasure procedures:

Name	M/N	Specifications	Manufacturer	Location
Ferrite core	F5B	T25*12*15-P.W	Kunshan Youci Electronic Co. Ltd.	See Internal Photos Figure 22 – 27
			Wuxi Jianhua Electric Appliance Factory	

Note: We had required the applicant and manufacturer that all electrical and mechanical devices employed for spurious radiation suppression, including any modifications made during certification testing, must be incorporated in each unit marked

TEST ENGINEER: Neal_wang

(NEAL WANG)

7 DEVIATION TO TEST SPECIFICATIONS

None.