Technical Compliance Statement
FCC Test Report

For the following information **Ref. File No.: C1D2207053**

Product	:	LED Luminaire
Model Number	:	OUT-HA-XXXXXX, TP-WL-10
Brand	:	Artika, Tospo
Applicant	:	ARTIKA FOR LIVING INC.
Manufacturer	:	Hengdian Group Tospo Lighting Co., Ltd.
Rules and Standards	:	47 CFR FCC Part 15 Subpart B (Class B Limit)

We hereby certify that the above product has been tested by us and complied with the FCC official limits. The product might be marketed in US in accordance with the standard 47 CFR FCC Part 2 and Part 15 Subpart B Class B equipment regulations under FCC Rules. The test was performed according to the procedures mentioned in ANSI C63.4-2014.

The test data and results are issued on the test report No. **ACI-F22133**.

Signature

Byron Kwo/Assistant General Manager
Date: 2022.08.17

Test Laboratory:
Audix Technology (Shanghai) Co., Ltd.
NVLAP Lab Code : 200371-0
FCC Designation Number : CN5027
Test Firm Registration Number : 954668
Web Site: www.audixtech.com

The statement is based on a single evaluation of one sample of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.

TEST REPORT

On behalf of
ARTIKA FOR LIVING INC.

LED Luminaire

Model No.: OUT-HA-XXXXXX, TP-WL-10

FCC ID: 2AUHG-OUT-HA

Prepared For : ARTIKA FOR LIVING INC.
1756, 50th Avenue Montreal (Lachine), Quebec Canada, H8T 2V5

Prepared By : Audix Technology (Shanghai) Co., Ltd.
3F and 4F, 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai, China 200233

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TESTING
NVLAP LAB CODE 200371-0

File No. : C1D2207053
Report No. : ACI-F22133
Date of Test : 2022.07.28-29
Date of Report : 2022.08.17

The statement is based on a single evaluation of samples of the above-mentioned products. It does not imply an assessment of the whole production and does not permit the use of the test lab logo.
The 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.

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TEST REPORT

Applicant	:	ARTIKA FOR LIVING INC.
Manufacturer	:	Hengdian Group Tospo Lighting Co., Ltd.
EUT Description	:	LED Luminaire
		(A) Model No. : OUT-HA-XXXXXX, TP-WL-10
		(B) Power Rating : AC 120V/60Hz
		(C) Test Voltage : AC 120V/60Hz

Rules of Compliance and Measurement Standards:

47 CFR FCC Part 15 Subpart B
ANSI C63.4-2014

The device described above was tested by Audix Technology (Shanghai) Co., Ltd.. to determine the maximum emission levels emanating from the device. The maximum emission levels were compared with the requirements in section §15.107(a), §15.109(a) of FCC Part 15 Class B regulation.

The measurement 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. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only; the truth of the above tested sample is responsible by applicant. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

Date of Test : 2022.07.28-29 Date of Report : 2022.08.17

Producer : Mindy Wang
MINDY WANG / Assistant

Review : Byron Wu
BYRON WU / Deputy Assistant Manager

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

Signatory : Kamp. Chen.
Authorized Signature(s) KAMP CHEN / Manager

Name of the Responsible Party : _____

Signature : _____

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	Referred Rules/Standard	Meets Limit	Results
EMISSION			
Power line Conducted Emission Measurement	47 CFR FCC Part 15 Subpart B AND ANSI C63.4-2014	15.107(a) Class B	**Pass** Margin 15.90dB at 0.150MHz
Radiated Emission Measurement (30-1000MHz)	47 CFR FCC Part 15 Subpart B AND ANSI C63.4-2014	15.109(a) Class B	**Pass** Margin 15.37dB at 731.92MHz (Vertical, 1.00m/60°)Note
NOTE – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.			

2 GENERAL INFORMATION

2.1 Description of Equipment Under Test

Description	:	LED Luminaire
Type of EUT	:	☑Production ☐ Pre-product ☐ Pro-type
Date of receipt	:	2022.07.27
Model Number	:	OUT-HA-XXXXXX, TP-WL-10
Brand	:	Artika, Tospo
Test model	:	OUT-HA-MB
Note #1	:	The two models differ only in name.
Note #2	:	“X” can be A to Z or 0 to 9 or blank (commercial code).
High working Frequency	:	<108MHz
Applicant	:	ARTIKA FOR LIVING INC. 1756, 50th Avenue Montreal (Lachine), Quebec Canada, H8T 2V5
Manufacturer	:	Hengdian Group Tospo Lighting Co., Ltd. Hengdian Electronics Industrial Zone, Dongyang Zhejiang P.R China
Factory	:	Same as Applicant

2.2 Description of Test Facility

Name of Firm	:	Audix Technology (Shanghai) Co., Ltd.
Site Location	:	3F 34 Bldg 680 Guiping Rd, Caohejing Hi-Tech Park, Shanghai 200233, China
Test Facilities	:	No.3 3m Chamber No.1 Shielded Room
Accredited by NVLAP, Lab Code	:	200371-0
FCC Designation Number	:	CN5027
Test Firm Registration Number	:	954668

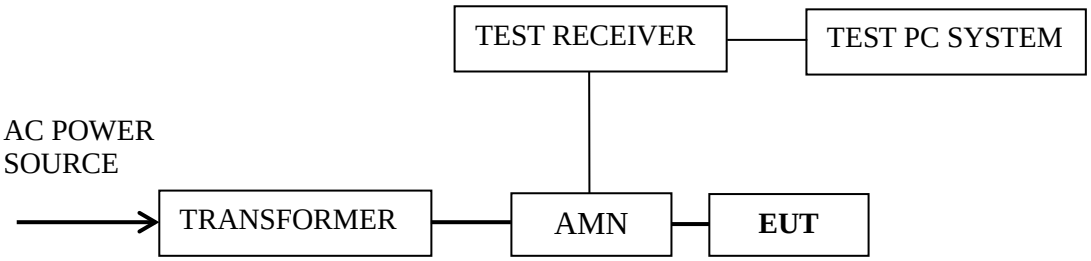
3 CONDUCTED EMISSION TEST

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.	Cal. Date	Cal. Interval
1.	Test Receiver	R&S	ESCI	100841	2022.02.11	1 Year
2.	Artificial Mains Network (AMN)	R&S	ESH2-Z5	843890/011	2022.01.06	1 Year
3.	50Ω Coaxial Switch	ANRITSU	MP59B	6200655085	2022.03.08	1 Year
4.	Coaxial Cable	Audix	CE Cable	CE-SH1-001	2022.03.08	1 Year
5.	Software	Audix	e3	6.2009-1-15	--	--

3.2 Block Diagram of Test Setup



—— : SIGNAL LINE
▬ : POWER LINE

3.3 Conducted Emission Limits

Frequency Range (MHz)	Limits (dBμV)	
	Quasi-peak	Average
0.15 ~ 0.5	66~56	56~46
0.5 ~ 5	56	46
5 ~ 30	60	50

NOTE 1 – The lower limit shall apply at the transition frequencies.

NOTE 2 – The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz~0.50 MHz

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 which 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 power source

3.5.3 Start testing on the Lighting mode.

3.6 Test Procedures

The EUT was placed upon a non-metallic table, which is 0.8 m above the horizontal conducting ground plane and 0.4 m from a vertical reference plane. The EUT was connected to the power mains through an Artificial Mains Network (AMN) to provide a 50 Ω coupling impedance for the measuring equipment. Both sides of AC line (Line & Neutral) were checked to find out the maximum conducted emission according to FCC Part 15 (CLASS B) regulations during conducted disturbance test.

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

The frequency range from 150 kHz to 30 MHz was checked.

The test mode was done on conducted disturbance test and all the test results 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.

M/N	Power Rating	Data Page
OUT-HA-MB	120V/60Hz	P8-P9

NOTE 1 – “QP” means “Quasi-Peak” values, “AV” means “Average” values.

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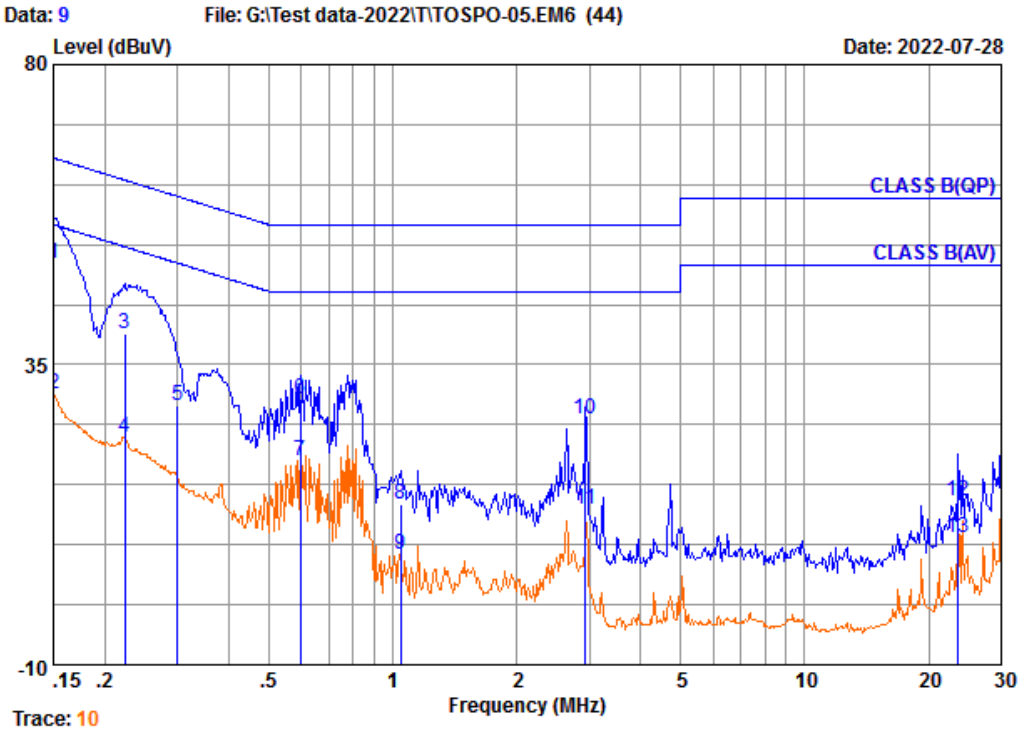

Site no	: Audix(Shanghai) Shielded1	Data no	:9	
AMN	: ESH2-Z5-2022	AMN Phase	:LINE	
Limit	: CLASS B(QP)			
Env/Ins	: 22'C 48%RH / ESCI	Engineer	:Neil	
EUT	: LED Luminaire			
M/N	: OUT-HA-MB			
Power Rating	: 120V/60Hz			
Test Mode	: Lighting			

	Freq (MHz)	AMN. Factor (dB)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.150	0.16	0.03	49.91	50.10	66.00	15.90	QP
2	0.150	0.16	0.03	30.41	30.60	56.00	25.40	Average
3	0.223	0.17	0.03	39.45	39.65	62.70	23.05	QP
4	0.223	0.17	0.03	23.90	24.10	52.70	28.60	Average
5	0.300	0.18	0.03	28.58	28.79	60.24	31.45	QP
6	0.598	0.20	0.05	29.74	29.99	56.00	26.01	QP
7	0.598	0.20	0.05	20.43	20.68	46.00	25.32	Average
8	1.043	0.22	0.06	13.68	13.96	56.00	42.04	QP
9	1.043	0.22	0.06	6.28	6.56	46.00	39.44	Average
10	2.931	0.26	0.11	26.52	26.89	56.00	29.11	QP
11	2.931	0.26	0.11	12.90	13.27	46.00	32.73	Average
12	23.636	0.28	0.30	13.97	14.55	60.00	45.45	QP
13	23.636	0.28	0.30	8.54	9.12	50.00	40.88	Average

Remark: 1.Emission Level(dBµV)= AMN Factor(dB) + Cable Loss(dB)
+ Reading(dBµV).

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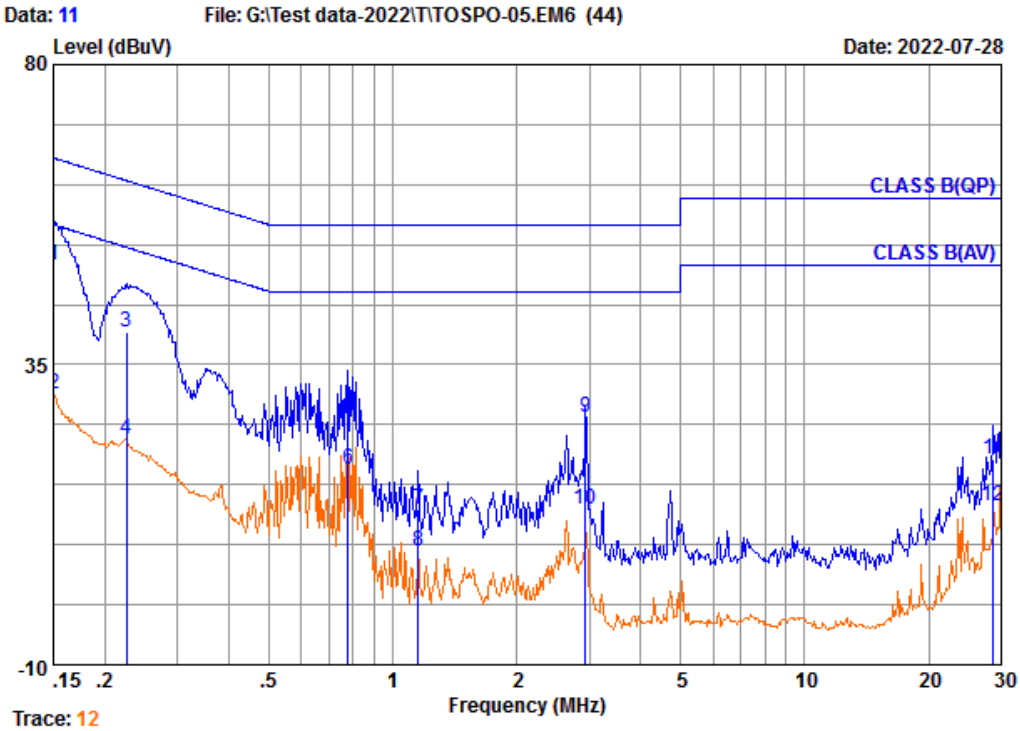


Site no	: Audix(Shanghai) Shielded1	Data no	:11	
AMN	: ESH2-Z5-2022	AMN Phase	:NEUTRAL	
Limit	: CLASS B(QP)			
Env/Ins	: 22'C 48%RH / ESCI	Engineer	:Neil	
EUT	: LED Luminaire			
M/N	: OUT-HA-MB			
Power Rating	: 120V/60Hz			
Test Mode	: Lighting			

	Freq (MHz)	AMN. Factor (dB)	Cable Loss (dB)	Reading (dBµV)	Emission Level (dBµV)	Limits (dBµV)	Margin (dB)	Remark
1	0.150	0.12	0.03	49.76	49.91	66.00	16.09	QP
2	0.150	0.12	0.03	30.49	30.64	56.00	25.36	Average
3	0.226	0.13	0.03	39.83	39.99	62.61	22.62	QP
4	0.226	0.13	0.03	23.80	23.96	52.61	28.65	Average
5	0.779	0.24	0.05	26.59	26.88	56.00	29.12	QP
6	0.779	0.24	0.05	19.01	19.30	46.00	26.70	Average
7	1.153	0.36	0.07	12.78	13.21	56.00	42.79	QP
8	1.153	0.36	0.07	6.64	7.07	46.00	38.93	Average
9	2.931	0.38	0.11	26.66	27.15	56.00	28.85	QP
10	2.931	0.38	0.11	12.72	13.21	46.00	32.79	Average
11	28.755	0.60	0.33	19.86	20.79	60.00	39.21	QP
12	28.755	0.60	0.33	12.97	13.90	50.00	36.10	Average

Remark: 1.Emission Level(dBµV)= AMN Factor(dB) + Cable Loss(dB)
+ Reading(dBµV).

4 RADIATED EMISSION TEST

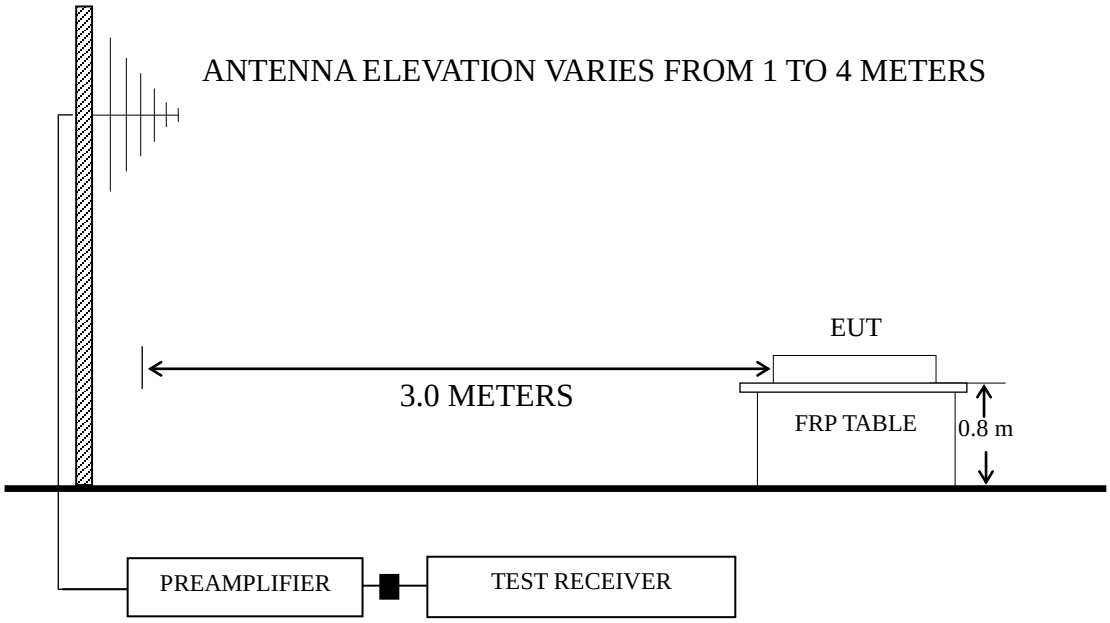
4.1 Test Equipment

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

Item	Type	Manufacturer	Model No.	Serial No.	Cal. Date	Cal. Interval
1.	Test Receiver	R&S	ESCI	101303	2022.03.08	1 Year
2.	Preamplifier	Agilent	8447D	2944A10548	2022.03.08	1 Year
3.	Bi-log Antenna	Schwarzbeck	VULB 9168 +EMCI-N-6-06	708+AT-N0638	2021.12.13	1 Year
4.	Coaxial Switch	Anritsu	MP59B	6200655086	2022.03.08	1 Year
5.	Coaxial Cable	SCHAFFNER	RG 212U-MIL C 17+N1K50-EW0630 -N1K50-15m-1	RE-10m-001/ RE-15m-002	2022.03.08	1 Year
6.	Software	Audix	e3	6.111206	--	--

4.2 Block Diagram of Test Setup

4.2.1.1 Below 1GHz



■: 50 ohm Coaxial Switch

4.3 Radiated Emission Limit

Frequency (MHz)	Distance (m)	Field strength limits (μV/m)	
		(μV/m)	dB(μV/m)
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
Above 960	3	500	54.0

NOTE 1 - Emission Level dB (μV/m) = 20 log Emission Level (μV/m)
NOTE 2 - The tighter limit applies at the band edges.
NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system.
NOTE 4 - All readings are Quasi-Peak values below or equal to 1GHz, Peak values and Average values above 1GHz.

4.4 Test Configuration

The EUT (listed in Sec.2.1) was installed as shown on Sec.4.2 meet FCC requirement and operating in a manner which tends to maximize its emission level in a normal application.

4.5 Operating Condition of EUT

4.5.1 Set up the EUT as shown in Sec.4.2.

4.5.2 Turn on the power of all equipments.

4.5.3 Operate the EUT on the test mode (Lighting) and then test.

4.6 Test Procedures

The EUT was placed on a FRP turntable that is 0.8 meter above ground. The FRP 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 ANSI C63.4 requirements during radiated emission test.

The I.F. bandwidth of Test Receiver R&S ESCI was set at 120 kHz below 1GHz and The Spectrum E7405A was set at 1MHz above 1GHz.

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

The test mode was done on radiated disturbance test and all the test results are listed in Sec.4.7.

4.7 Test Results

<PASS>

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

M/N	Power Rating	Data Page
OUT-HA-MB	120V/60Hz	P13-P14

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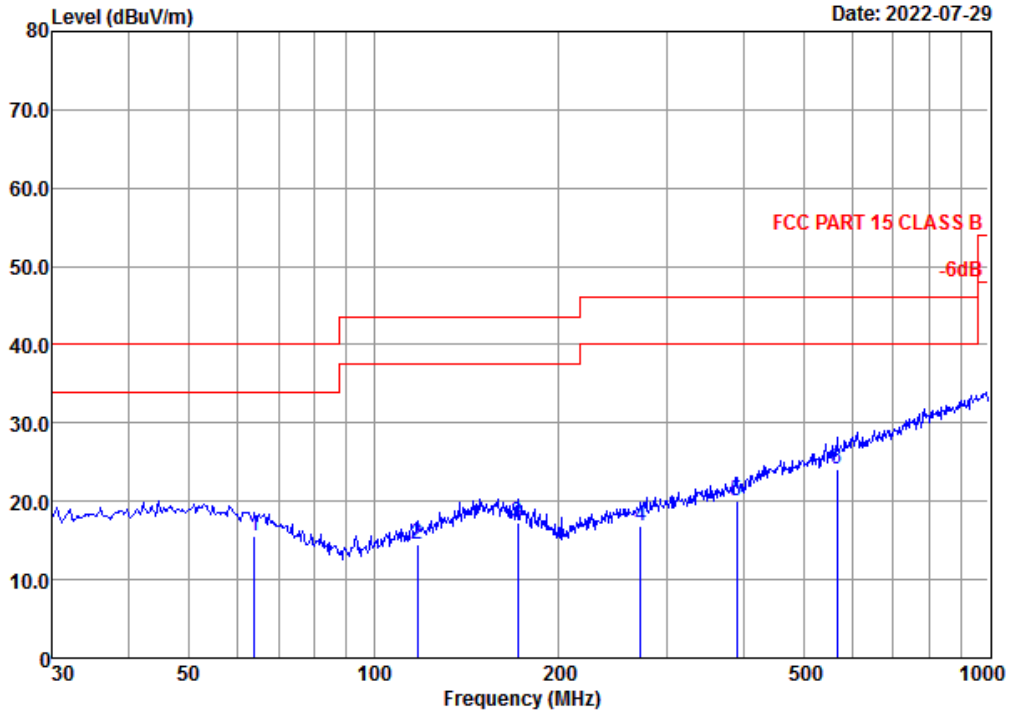

Site no :Audix ACI (3m Chamber)
Dis. / Ant. :3m /VULB 9168-708-2022 Data no. :82
Limit :FCC PART 15 CLASS B Ant. pol. :HORIZONTAL
Env. / Ins. :23'C 55%RH/ESCI Engineer :Avalon
EUT :LED Luminaire
M/N :OUT-HA-MB
Power Rating:120V/60Hz
Test mode :Lighting

	Freq. (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Remark
1	63.98	18.33	0.86	28.15	24.50	15.54	40.00	24.46	QP
2	117.77	16.65	1.18	27.91	24.51	14.43	43.50	29.07	QP
3	171.39	18.59	1.40	27.65	25.02	17.36	43.50	26.14	QP
4	271.32	18.48	1.78	27.10	23.59	16.75	46.00	29.25	QP
5	389.35	21.05	2.14	27.54	24.41	20.06	46.00	25.94	QP
6	566.62	24.73	2.61	27.87	24.65	24.12	46.00	21.88	QP

Remarks:1.Emission Level(dBµV/m)= Antenna Factor(dB/m) + Cable Loss(dB)
- Preamp Factor(dB)+ Reading(Receiver)(dBµV).

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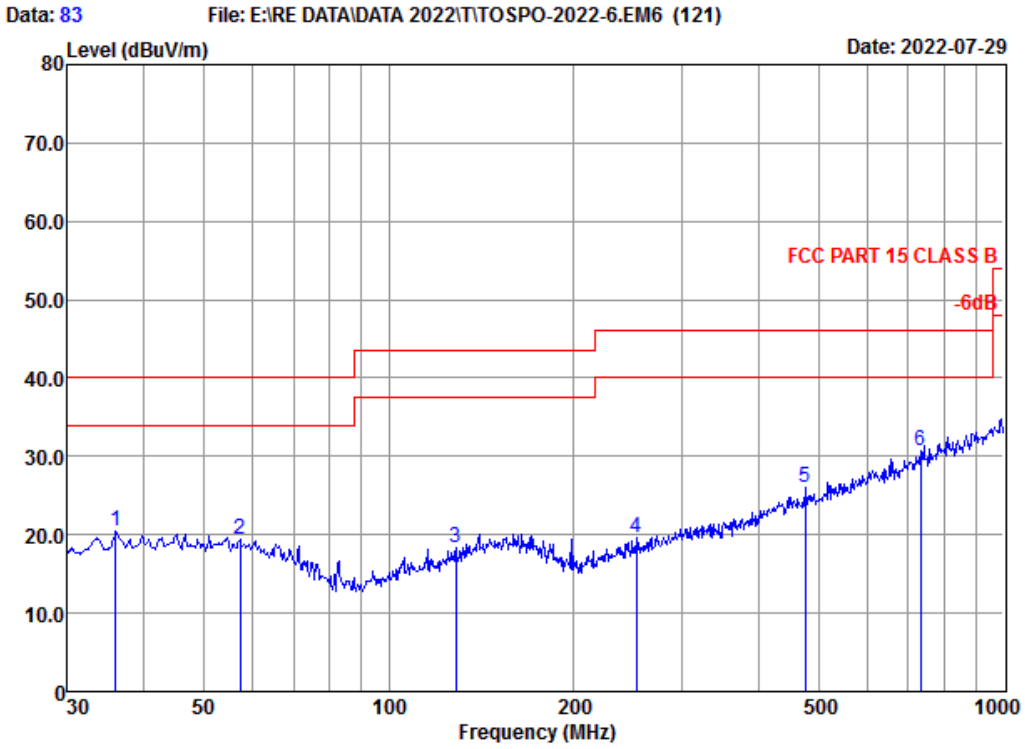

Site no :Audix ACI (3m Chamber)
Dis. / Ant. :3m /VULB 9168-708-2022 Data no. :83
Limit :FCC PART 15 CLASS B Ant. pol. :VERTICAL
Env. / Ins. :23'C 55%RH/ESCI Engineer :Avalon
EUT :LED Luminaire
M/N :OUT-HA-MB
Power Rating:120V/60Hz
Test mode :Lighting

	Freq. (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Reading (dBµV)	Emission Level (dBµV/m)	Limits (dBµV/m)	Margin (dB)	Remark
1	35.87	19.22	0.63	28.26	28.92	20.51	40.00	19.49	QP
2	57.19	19.12	0.82	28.17	27.67	19.44	40.00	20.56	QP
3	128.56	17.67	1.22	27.87	27.39	18.41	43.50	25.09	QP
4	252.95	17.98	1.70	27.14	27.09	19.63	46.00	26.37	QP
5	475.50	23.32	2.40	27.85	28.12	25.99	46.00	20.01	QP
6	731.92	27.28	2.88	27.29	27.76	30.63	46.00	15.37	QP

Remarks:1.Emission Level(dBµV/m)= Antenna Factor(dB/m) + Cable Loss(dB)
- Preamp Factor(dB)+ Reading(Receiver)(dBµV).

5 MEASUREMENT UNCERTAINTY LIST

The measurement uncertainty was estimated for test on the EUT according to CISPR 16-4-2. This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage of K=2.
The uncertainties value is not used in determining the PASS/FAIL results.

Test Items/Facilities	Frequency/Equipment/Unit	Uncertainty
Conducted Emission No.1 Shielded Room	9kHz~150kHz	±3.1 dB
	150kHz~30MHz	±2.6 dB
Conducted Emission No.3 Shielded Room	9kHz~150kHz	±3.1 dB
	150kHz~30MHz	±2.6 dB
Conducted Emissions at Wired network port	Category 3	±2.5 dB
	Category 5	±2.6 dB
	Category 6	±2.7 dB
Disturbance Power	300MHz~1000MHz	±3.8 dB
CDNE	30MHz~300MHz	±3.0 dB
Radiated Emission	30MHz~200MHz, Horizontal	±3.8 dB
	30MHz~200MHz, Vertical	±4.1 dB
	200MHz~1000MHz, Horizontal	±3.6 dB
	200MHz~1000MHz, Vertical	±5.1 dB
	1GHz~6GHz	±5.3 dB
	6GHz~18GHz	±5.3 dB
	18GHz~40GHz	±3.5 dB
Radiated Emission LLAS	9kHz~30MHz	±2.2 dB