



NVLAP LAB CODE 200707-0



FCC PART 18

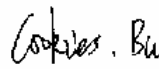
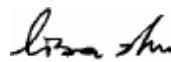
MEASUREMENT AND TEST REPORT

For

Jiangxi Elegant Lighting Co., Ltd.

No.731 Xihou street, Guixi City Guixi, China

FCC ID: VGZGYT2S3-7

Report Type: Original Report	Product Type: CFL
Test Engineer: Cookies Bu	
Report Number: RSZ09010653	
Report Date: 2009-11-09	
Reviewed By: Lisa Zhu	
Reviewed By: EMC Engineer	
Prepared By:	Bay Area Compliance Laboratories Corp. (Shenzhen) 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China Tel: +86-755-33320018 Fax: +86-755-33320008

Note: This test report is prepared for the customer shown above and for the device described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp. This report **must not** be used by the customer to claim product certification, approval, or endorsement by NVLAP*, NIST, or any agency of the Federal Government.

* This report may contain data that are not covered by the NVLAP accreditation and are marked with an asterisk "*" (Rev.2)

TABLE OF CONTENTS

GENERAL INFORMATION.....	3
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT)	3
OBJECTIVE	3
RELATED SUBMITTAL(S)/GRANT(S)	3
TEST METHODOLOGY	3
TEST FACILITY	3
SYSTEM TEST CONFIGURATION.....	5
JUSTIFICATION	5
EQUIPMENT MODIFICATIONS	5
EXTERNAL I/O CABLE.....	5
CONFIGURATION OF TEST SETUP	5
BLOCK DIAGRAM OF TEST SETUP	5
CONDUCTED EMISSIONS	6
MEASUREMENT UNCERTAINTY.....	6
EUT SETUP	6
EMI TEST RECEIVER SETUP.....	7
TEST EQUIPMENT LIST AND DETAILS.....	7
TEST PROCEDURE	7
TEST RESULTS SUMMARY	7
TEST DATA	8
PLOT(S) OF TEST DATA	9

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The Jiangxi Elegant Lighting Co., Ltd.'s model: *Model: GYT2S03-E12, GYT2S03-E26, GYT2S07-E12, GYT2S07-E26, (FCC ID: VGZGYT2S3-7)* or the "EUT" as referred to in this report is a CFL which measures approximately: *GYT2S03-E12: 3.0 cm L x 3.1 cm W x 7.2 cm H, GYT2S03-E26: 3.0 cm L x 3.1 cm W x 6.6 cm H, GYT2S07-E12: 3.1 cm L x 3.0 cm W x 8.8 cm H, GYT2S07-E26: 3.1 cm L x 3.0 cm W x 8.2 cm H, rated input voltage: AC 120V/60Hz.*

** All measurement and test data in this report was gathered from production sample serial number: 0901503 (Assigned by BACL, Shenzhen). The EUT was received on 2009-01-06.*

Objective

The following test report is prepared on behalf of *Jiangxi Elegant Lighting Co., Ltd.* in accordance with Part 2, Subpart J, and Part 18, Subparts A, B and C of the Federal Communication Commissions rules and regulations.

The objective of the manufacturer is to determine compliance with FCC Part 18 limits.

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

All measurements contained in this report were conducted with MP-5, FCC Methods of Measurements of Radio Noise Emissions from ISM Equipment, February 1986. All measurement was performed at Bay Area Compliance Laboratories Corp. (Shenzhen). The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located in the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on November 04, 2004. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2003.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is a National Institute of Standards and Technology (NIST) accredited laboratory, under the National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



NVLAP LAB CODE 200707-0

The current scope of accreditations can be found at <http://ts.nist.gov/Standards/scopes/2007070.htm>

SYSTEM TEST CONFIGURATION

Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

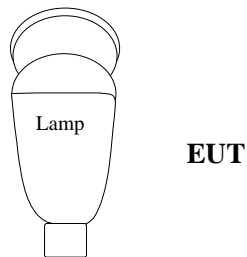
Equipment Modifications

No modifications were made to the unit tested.

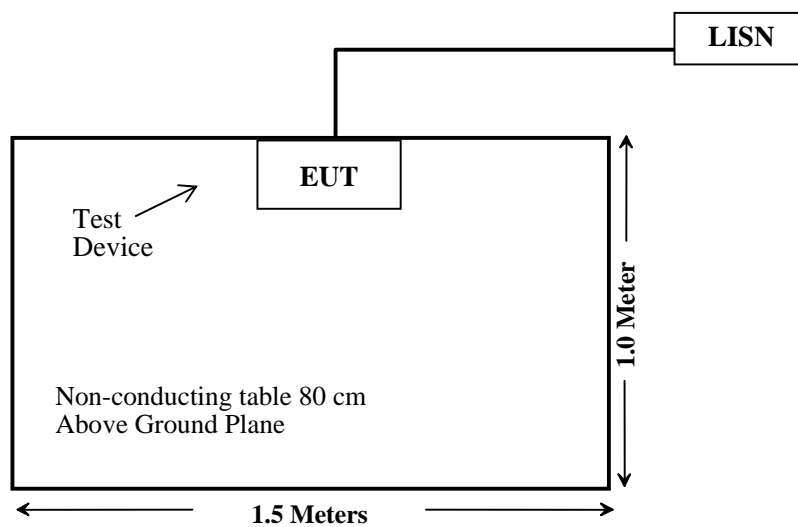
External I/O Cable

Cable Description	Length (m)	From Port	To
Unshielded Undetachable AC Power Cable	1.1	EUT	AC Mains

Configuration of Test Setup



Block Diagram of Test Setup



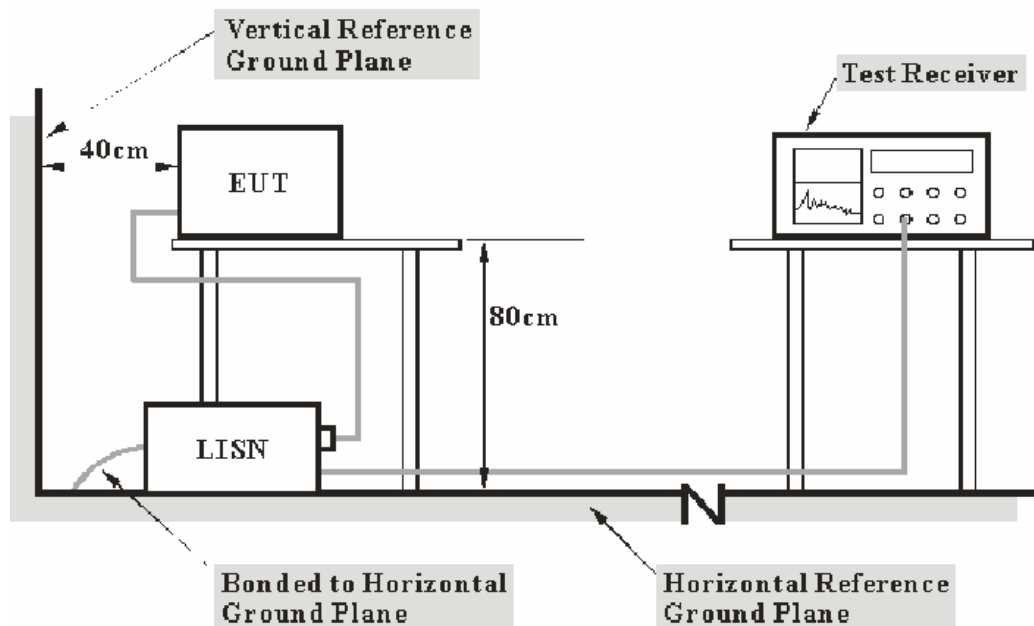
CONDUCTED EMISSIONS

Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on NIS 81, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is ± 2.4 dB.

EUT Setup



- Note: 1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with MP-5: 1986 measurement procedure. Specification used was with the FCC Part 18 limits.

The EUT was connected to a 120 VAC/ 60Hz power source.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 450 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

<i>Frequency Range</i>	<i>IF B/W</i>
450 kHz – 30 MHz	9 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Com-Power	L.I.S.N.	LI-200	12005	N/A	N/A
Com-Power	L.I.S.N.	LI-200	12208	N/A	N/A
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245/006	2009-03-25	2010-03-25
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2009-03-25	2010-03-25

* Com-Power's LISN were used as the supporting equipment.

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

Test Procedure

During the conducted emission test, the EUT power cord was connected to the outlet of the LISN.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All data was recorded in the Quasi-peak detection mode.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 18, with the worst margin reading of:

GYT2S03-E12: 16.80 dB at 29.410 MHz in the **Line** conductor mode.

GYT2S03-E26: 11.80 dB at 0.485 MHz in the **Line** conductor mode.

GYT2S07-E12: 14.00 dB at 1.630 MHz in the **Line** conductor mode.

GYT2S07-E26: 10.60 dB at 0.450 MHz in the **Neutral** conductor mode.

Test Data**Environmental Conditions**

Temperature:	25 ° C
Relative Humidity:	56 %
ATM Pressure:	100.0 kPa

Testing was performed by Cookies Bu on 2009-05-31.

Model: GYT2S03-E12

Line Conducted Emissions				FCC Part 18.307	
Frequency (MHz)	Amplitude (dBμV)	Detector (Peak)	Conductor (Line/Neutral)	Limit (dBμV)	Margin (dB)
29.410	31.20	Peak	Line	48.00	16.80
29.230	30.90	Peak	Neutral	48.00	17.10
27.975	29.90	Peak	Line	48.00	18.10
0.485	29.70	Peak	Neutral	48.00	18.30
23.880	29.60	Peak	Line	48.00	18.40
24.840	29.00	Peak	Line	48.00	19.00
28.305	28.70	Peak	Neutral	48.00	19.30
22.160	28.00	Peak	Line	48.00	20.00
0.485	27.60	Peak	Line	48.00	20.40
23.740	27.40	Peak	Neutral	48.00	20.60
19.555	25.10	Peak	Neutral	48.00	22.90
11.235	24.90	Peak	Neutral	48.00	23.10

Model: GYT2S03-E26

Line Conducted Emissions				FCC Part 18.307	
Frequency (MHz)	Amplitude (dBμV)	Detector (Peak)	Conductor (Line/Neutral)	Limit (dBμV)	Margin (dB)
0.485	36.20	Peak	Line	48.00	11.80
0.500	35.00	Peak	Neutral	48.00	13.00
28.925	32.10	Peak	Line	48.00	15.90
0.625	31.60	Peak	Line	48.00	16.40
28.750	30.60	Peak	Neutral	48.00	17.40
0.555	30.20	Peak	Neutral	48.00	17.80
1.210	29.90	Peak	Neutral	48.00	18.10
13.525	28.10	Peak	Neutral	48.00	19.90
21.690	27.90	Peak	Line	48.00	20.10
22.900	26.30	Peak	Line	48.00	21.70
24.820	26.10	Peak	Line	48.00	21.90
10.010	25.60	Peak	Neutral	48.00	22.40

Model: GYT2S07-E12

Line Conducted Emissions				FCC Part 18.307	
Frequency (MHz)	Amplitude (dBμV)	Detector (Peak)	Conductor (Line/Neutral)	Limit (dBμV)	Margin (dB)
1.630	34.00	Peak	Line	48.00	14.00
29.755	33.90	Peak	Line	48.00	14.10
0.460	33.70	Peak	Line	48.00	14.30
0.465	33.20	Peak	Neutral	48.00	14.80
1.350	31.40	Peak	Line	48.00	16.60
29.095	30.90	Peak	Neutral	48.00	17.10
0.510	30.80	Peak	Line	48.00	17.20
0.555	29.70	Peak	Neutral	48.00	18.30
0.600	29.00	Peak	Neutral	48.00	19.00
1.635	29.00	Peak	Neutral	48.00	19.00
7.630	28.90	Peak	Line	48.00	19.10
0.780	27.90	Peak	Neutral	48.00	20.10

Model: GYT2S07-E26

Line Conducted Emissions				FCC Part 18.307	
Frequency (MHz)	Amplitude (dBμV)	Detector (Peak)	Conductor (Line/Neutral)	Limit (dBμV)	Margin (dB)
0.450	37.40	Peak	Neutral	48.00	10.60
0.490	36.60	Peak	Neutral	48.00	11.40
0.535	35.80	Peak	Neutral	48.00	12.20
0.495	35.00	Peak	Line	48.00	13.00
1.465	34.60	Peak	Line	48.00	13.40
0.450	34.30	Peak	Line	48.00	13.70
1.505	33.70	Peak	Neutral	48.00	14.30
0.530	33.60	Peak	Line	48.00	14.40
0.630	33.40	Peak	Neutral	48.00	14.60
29.340	32.20	Peak	Line	48.00	15.80
21.755	31.20	Peak	Line	48.00	16.80
29.290	28.80	Peak	Neutral	48.00	19.20

Plot(s) of Test Data

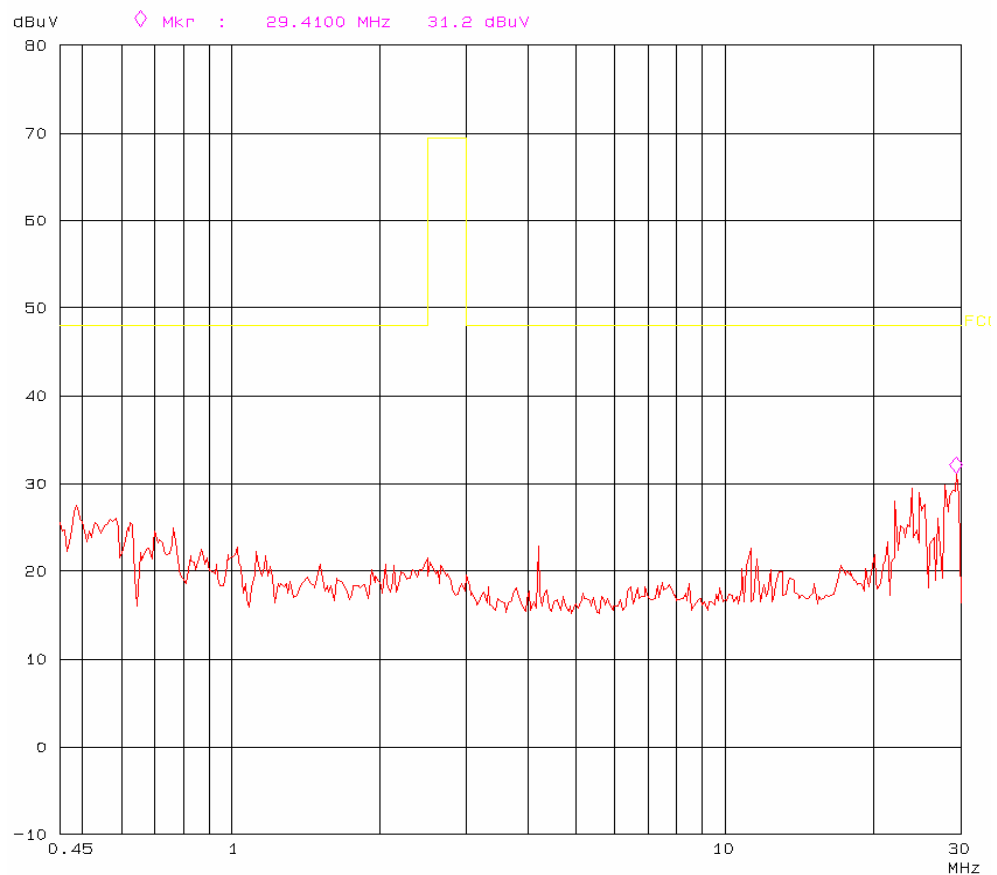
Plot(s) of Test Data is presented hereinafter as reference..

Model: GYT2S03-E12

Conducted Emission

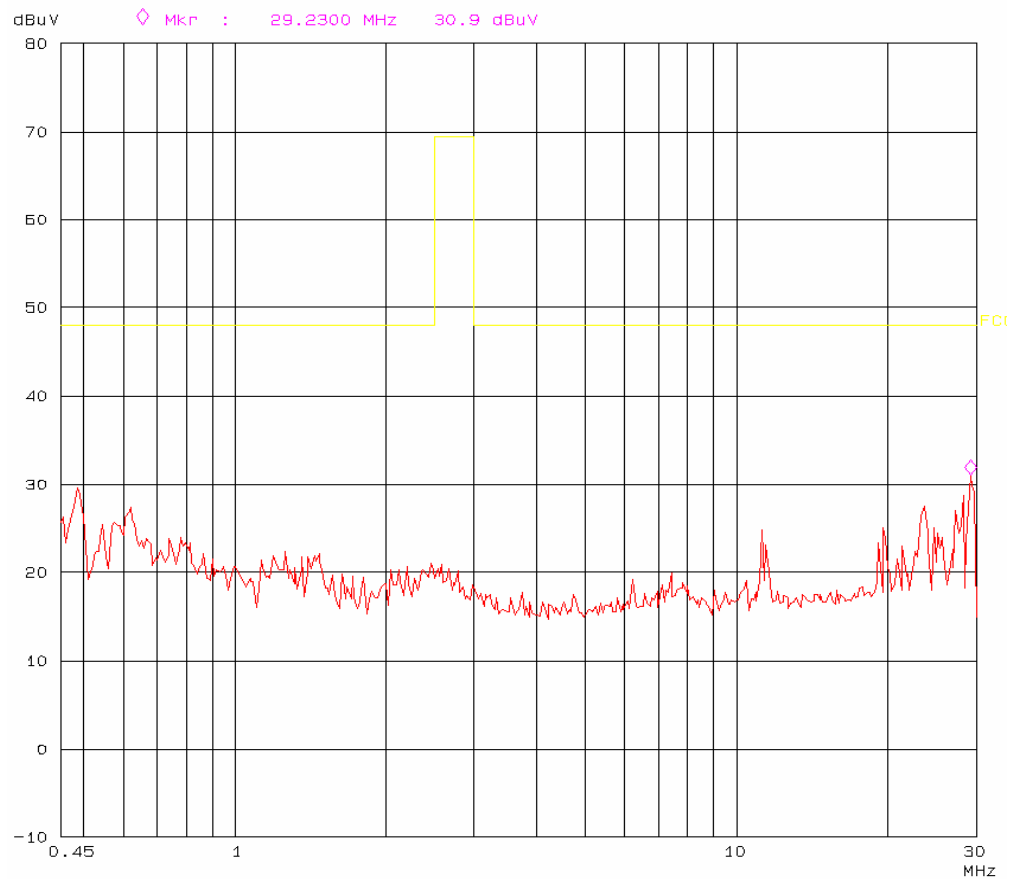
FCC PART18

EUT: CFL M/N: GYT2S03-E12
Manuf: JIANGXI ELEGANT LIGHTING CO., LTD
Op Cond: On
Operator: Cookies
Test Spec: AC 120V/60Hz L
Comment: Temp: 25 Hum: 56%



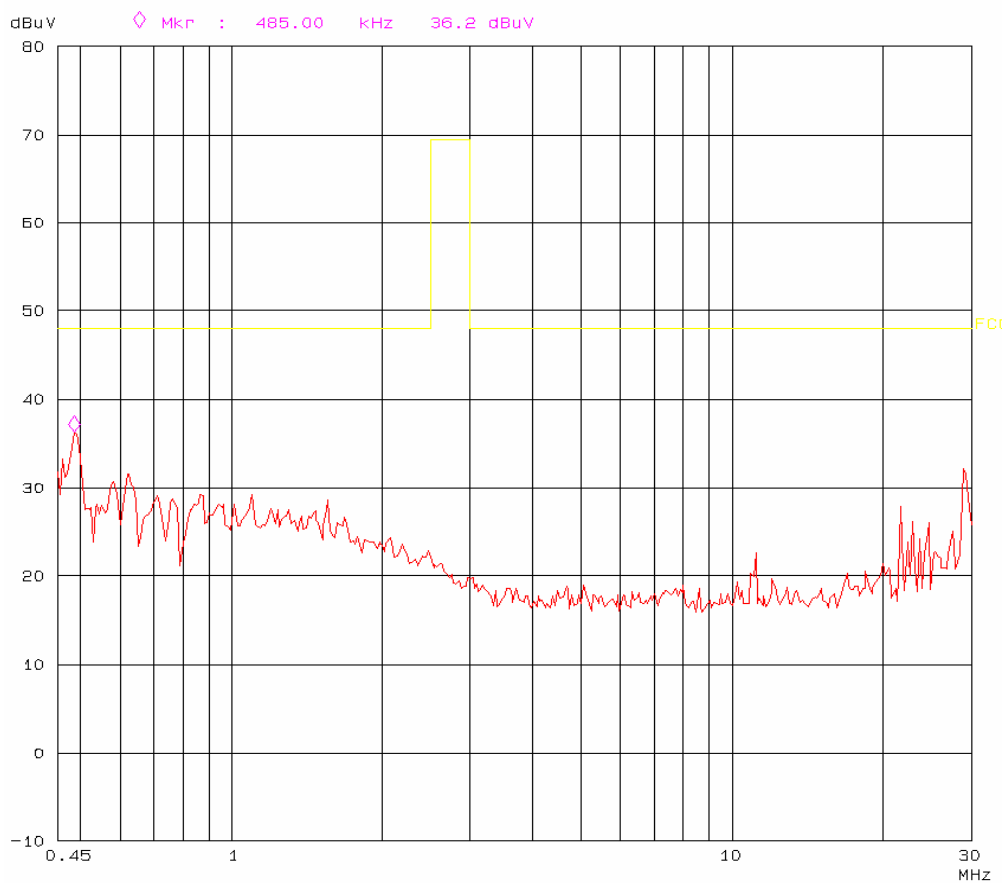
Conducted Emission FCC PART18

EUT: CFL M/N: GYT2S03-E12
Manuf: JIANGXI ELEGANT LIGHTING CO.,LTD
Op Cond: On
Operator: Cookies
Test Spec: AC 120V/60Hz N
Comment: Temp: 25 Hum: 56%



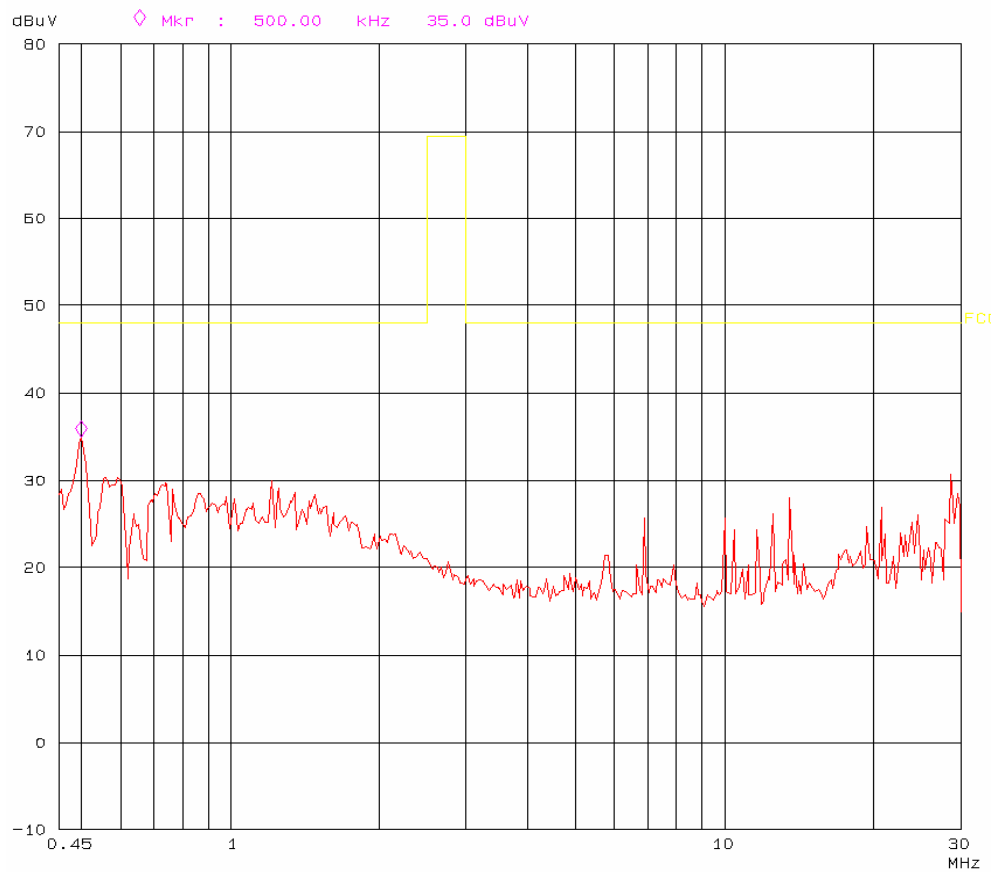
Model: GYT2S03-E26**Conducted Emission
FCC PART18**

EUT: CFL M/N: GYT2S03-E26
Manuf: JIANGXI ELEGANT LIGHTING CO.,LTD
Op Cond: On
Operator: Cookies
Test Spec: AC 120V/60Hz L
Comment: Temp: 25 Hum: 56%



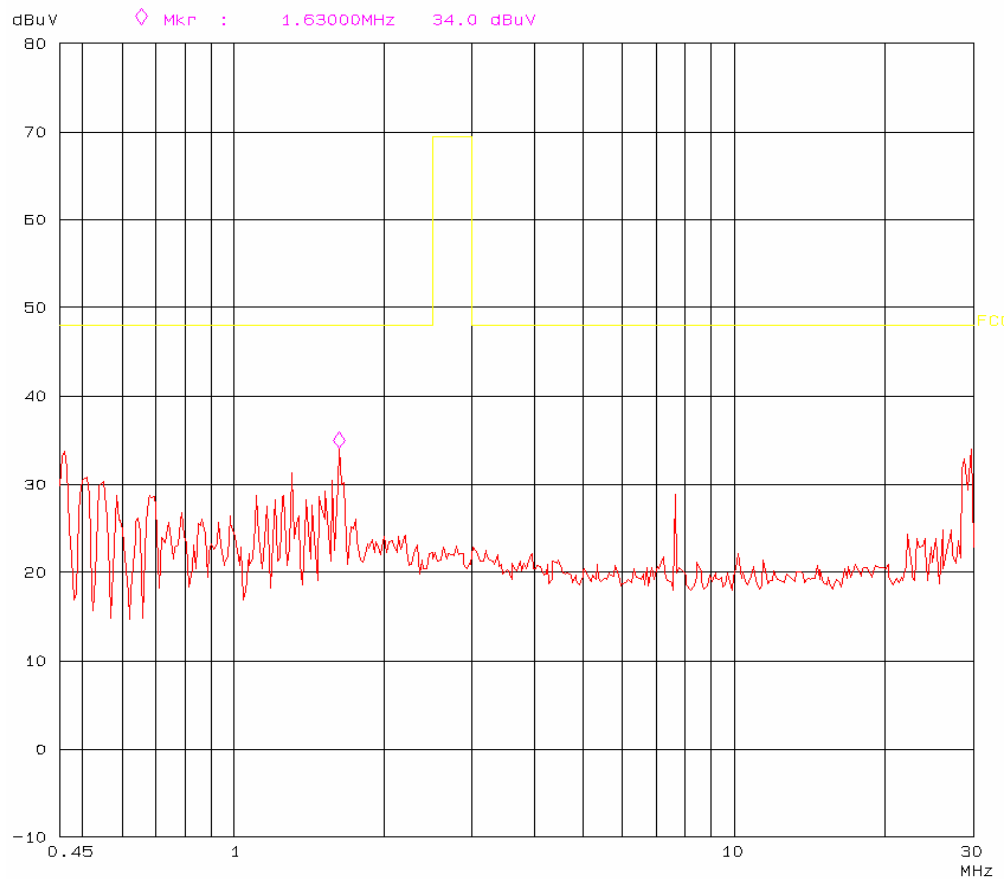
Conducted Emission FCC PART18

EUT: CFL M/N: GYT2S03-E26
Manuf: JIANGXI ELEGANT LIGHTING CO.,LTD
Op Cond: On
Operator: Cookies
Test Spec: AC 120V/60Hz N
Comment: Temp: 25 Hum: 56%



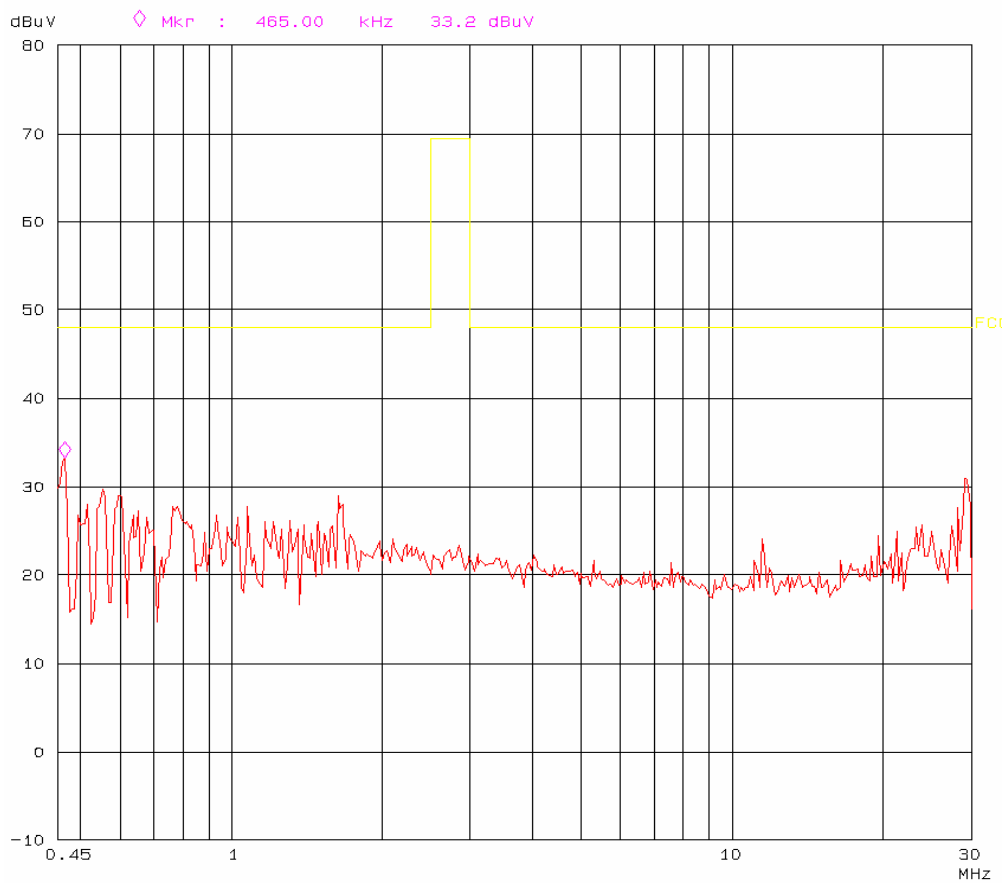
Model: GYT2S07-E12**Conducted Emission
FCC PART18**

EUT: CFL M/N: GYT2S07-E12
Manuf: JIANGXI ELEGANT LIGHTING CO.,LTD
Op Cond: On
Operator: Cookies
Test Spec: AC 120V/60Hz L
Comment: Temp: 25 Hum: 56%



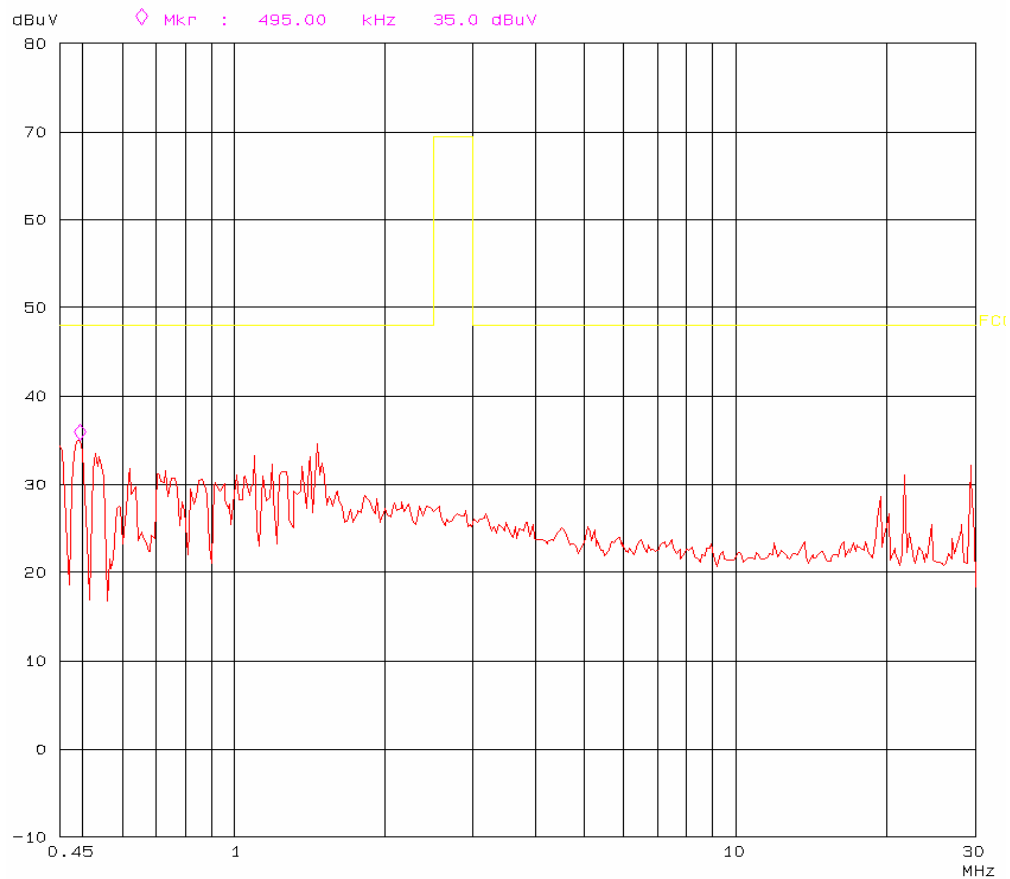
Conducted Emission FCC PART18

EUT: CFL M/N: GYT2807-E12
Manuf: JIANGXI ELEGANT LIGHTING CO., LTD
Op Cond: On
Operator: Cookies
Test Spec: AC 120V/60Hz N
Comment: Temp: 25 Hum: 56%



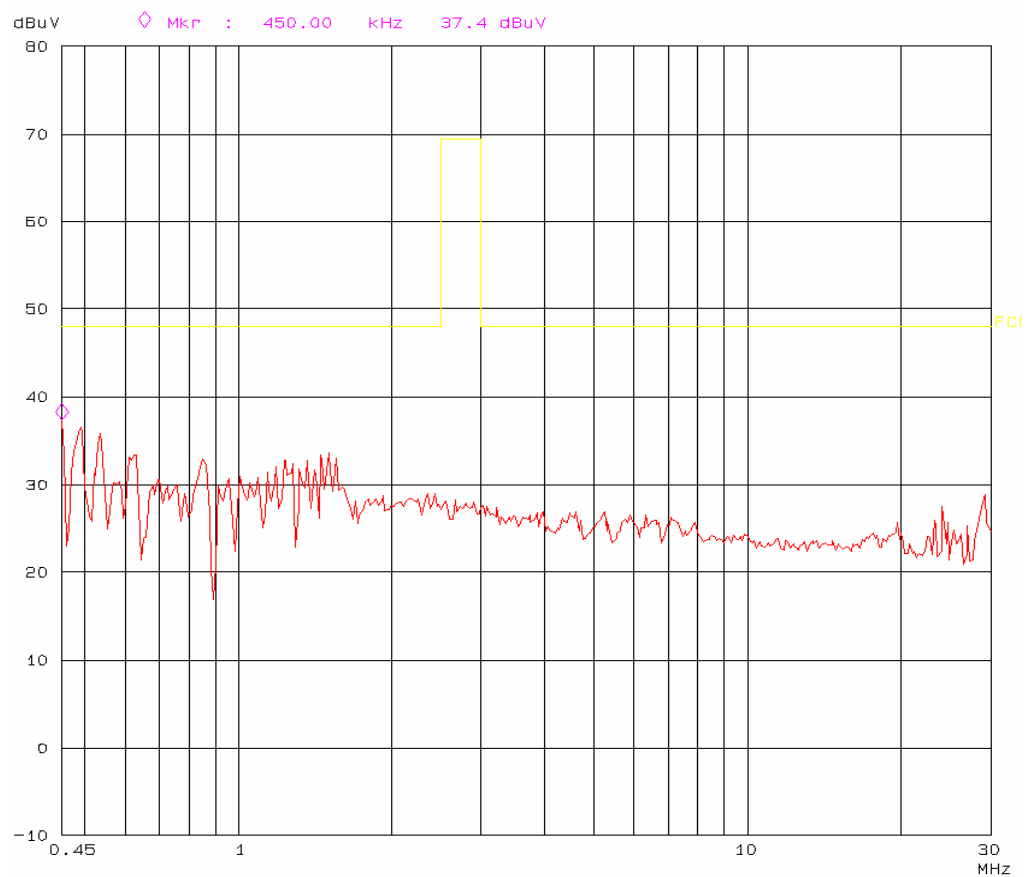
Model: GYT2S07-E26Conducted Emission
FCC PART18

EUT: CFL M/N: GYT2S07-E26
Manuf: JIANGXI ELEGANT LIGHTING CO., LTD
Op Cond: On
Operator: Cookies
Test Spec: AC 120V/60Hz L
Comment: Temp: 25 Hum: 56%



Conducted Emission FCC PART18

EUT: CFL M/N: GYT2S07-E26
Manuf: JIANGXI ELEGANT LIGHTING CO.,LTD
Op Cond: On
Operator: Cookies
Test Spec: AC 120V/60Hz N
Comment: Temp: 25 Hum: 56%



***** END OF REPORT *****