NVLAP LAB CODE 200707-0

FCC PART 18
MEASUREMENT AND TEST REPORT

For

Jiangxi Elegant Lighting Co.,Ltd.

No.713, Xihuo Street, Guixi City, Jiangxi, China

FCC ID: VGZGYFSGU24

Report Type:	Product Type:
Original Report	CFL

Test Engineer:	Karo Liao
Report Number:	RSZ08062753
Report Date:	2008-09-12
Reviewed By:	Name: Green Xu Title: EMC Manager
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

TABLE OF CONTENTS

GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Jiangxi Elegant Lighting Co., Ltd*'s model: *GYFS13GU/GYFS18GU/GYFS26GU*, or the "EUT" as referred to in this report is a *CFL* which measures approximately: *GYFS13GU*: 7.2 cm L x 7.2 cm W x 6.5 cm H, *GYFS18GU*: 6.8 cm L x 7.8 cm W x 7.8 cm H, *GYFS26GU*: 8.6 cm L x 7.9 cm W x 7.9 cm H, rated input voltage: AC 120V/60Hz.

** All measurement and test data in this report was gathered from production sample serial number: 0806560 (Assigned by BACL, Shenzhen). The EUT was received on 2008-06-27.*

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

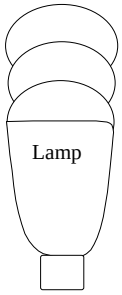
Justification

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

Equipment Modifications

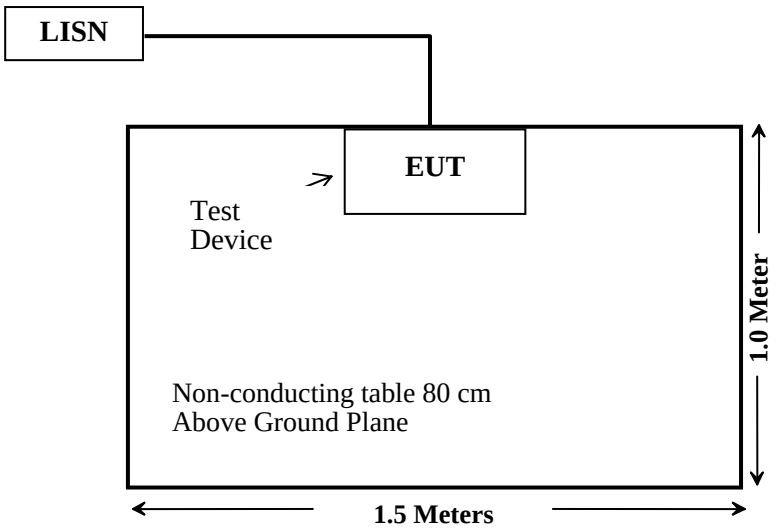
No modifications were made to the unit tested.

Configuration of Test Setup



EUT

Block Diagram of Test Setup



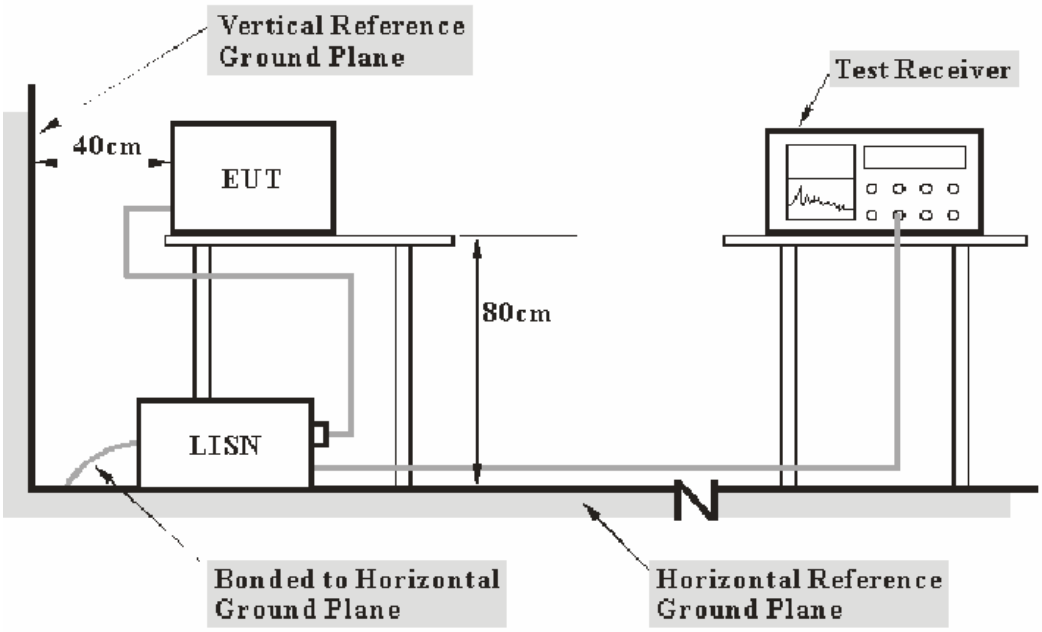
§18.307 CONDUCTED EMISSIONS

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 18.307 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:

Frequency Range	***IF B/W***
450 kHz – 30 MHz	9 kHz

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	EMI Test Receiver	ESCS30	DE25330	2008-03-25	2009-03-25
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2008-03-25	2009-03-25

***** 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 PK detection mode.

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 18.307, with the worst margin reading of:

GYFS13GU: 4.10 dB at **1.020 MHz** in the **Line** conductor mode.

GYFS18GU: 5.20 dB at **0.970 MHz** in the **Neutral** conductor mode.

GYFS26GU: 8.70 dB at **1.030 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 Karo Liao on 2008-07-25.

Test Mode: On

Model: GYFS13GU

Line Conducted Emissions				FCC Part 18.307	
Frequency (MHz)	**Amplitude (dBµV)**	**Detector (PK)**	**Conductor (Line/Neutral)**	**Limit (dBµV)**	**Margin (dB)**
1.020	43.90	PK	Line	48.00	4.10
0.990	42.60	PK	Neutral	48.00	5.40
0.890	37.90	PK	Line	48.00	10.10
0.840	36.50	PK	Line	48.00	11.50
0.750	35.50	PK	Line	48.00	12.50
0.870	34.60	PK	Neutral	48.00	13.40
0.730	34.30	PK	Neutral	48.00	13.70
0.650	33.90	PK	Neutral	48.00	14.10
0.510	33.60	PK	Neutral	48.00	14.40
0.530	33.60	PK	Line	48.00	14.40
0.600	33.50	PK	Neutral	48.00	14.50
0.650	33.10	PK	Line	48.00	14.90

Model: GYFS18GU

Line Conducted Emissions				FCC Part 18.307	
Frequency (MHz)	**Amplitude (dBμV)**	**Detector (PK)**	**Conductor (Line/Neutral)**	**Limit (dBμV)**	**Margin (dB)**
0.970	42.80	PK	Neutral	48.00	5.20
1.020	39.40	PK	Line	48.00	8.60
1.050	39.30	PK	Line	48.00	8.70
0.650	39.10	PK	Neutral	48.00	8.90
0.580	38.40	PK	Neutral	48.00	9.60
0.730	37.60	PK	Neutral	48.00	10.40
2.060	37.40	PK	Line	48.00	10.60
0.890	36.70	PK	Neutral	48.00	11.30
0.500	35.60	PK	Neutral	48.00	12.40
0.490	33.70	PK	Line	48.00	14.30
0.820	31.60	PK	Line	48.00	16.40
0.650	31.40	PK	Line	48.00	16.60

Model: GYFS26GU

Line Conducted Emissions				FCC Part 18.307	
Frequency (MHz)	**Amplitude (dBμV)**	**Detector (PK)**	**Conductor (Line/Neutral)**	**Limit (dBμV)**	**Margin (dB)**
1.030	39.30	PK	Neutral	48.00	8.70
0.480	37.90	PK	Neutral	48.00	10.10
1.030	37.60	PK	Line	48.00	10.40
0.940	37.50	PK	Neutral	48.00	10.50
0.520	37.00	PK	Neutral	48.00	11.00
0.560	36.60	PK	Neutral	48.00	11.40
1.070	35.40	PK	Neutral	48.00	12.60
0.520	33.80	PK	Line	48.00	14.20
0.960	33.70	PK	Line	48.00	14.30
0.580	33.40	PK	Line	48.00	14.60
0.670	32.30	PK	Line	48.00	15.70
1.790	22.00	PK	Line	48.00	26.00

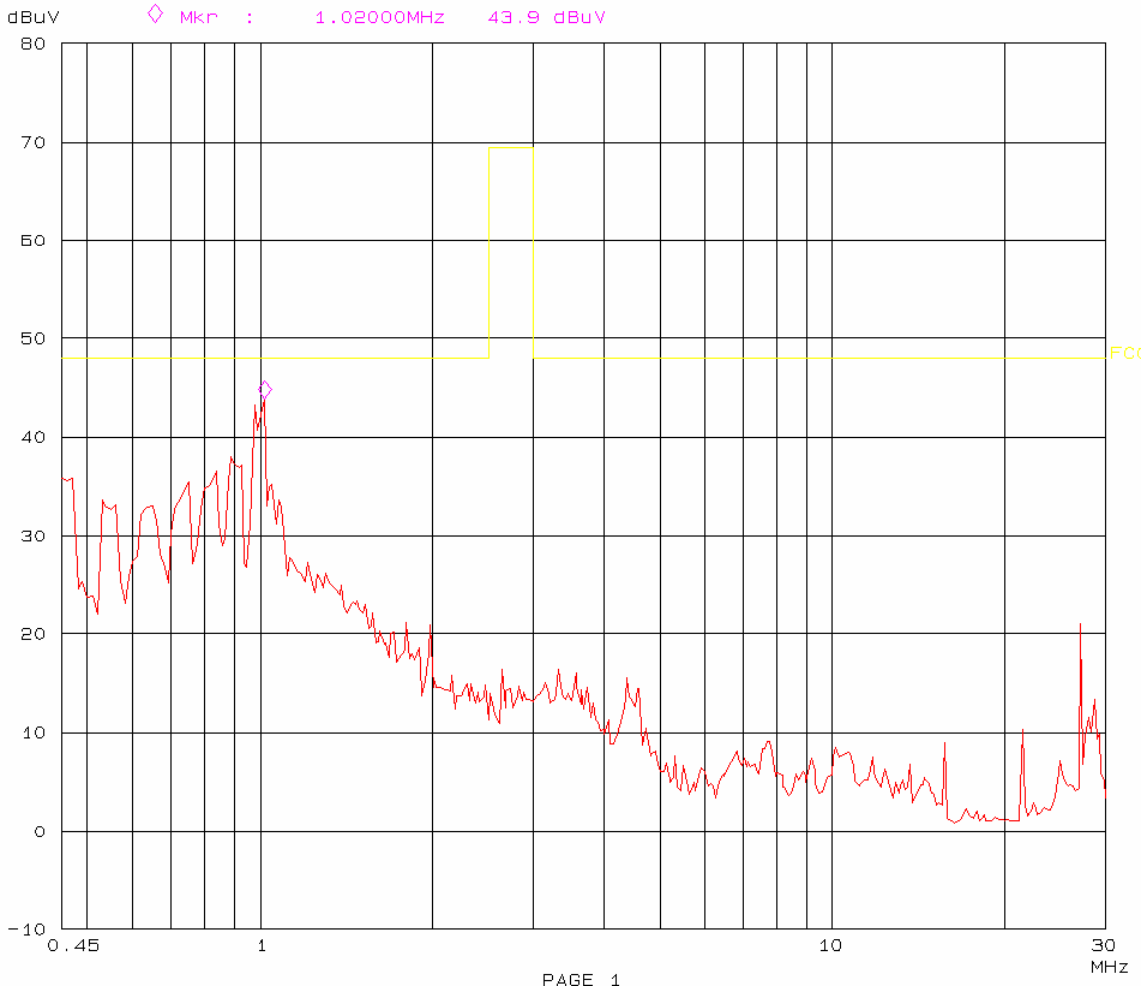
Plot(s) of Test Data

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

Model: GYFS13GU

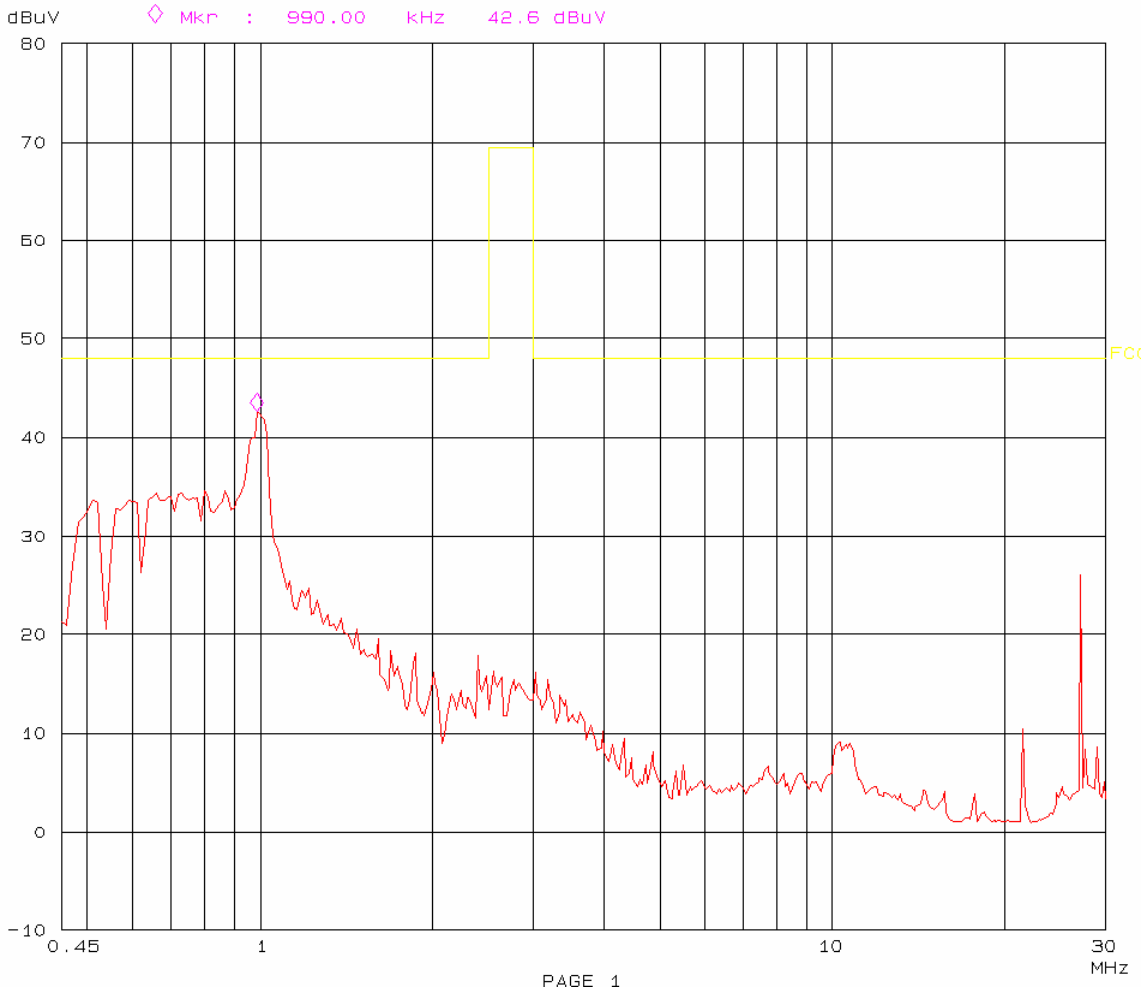
Conducted Emission 25. Jul 08 11:27
FCC PART18

EUT:	CFL M/N: GYFS13GU
Manuf:	JIANGXI ELEGANT LIGHTINGS CO.,LTD
Op Cond:	ON
Operator:	Karo
Test Spec:	AC 120V/60Hz L
Comment:	Temp: 25 Hum: 56%



Conducted Emission
FCC PART18

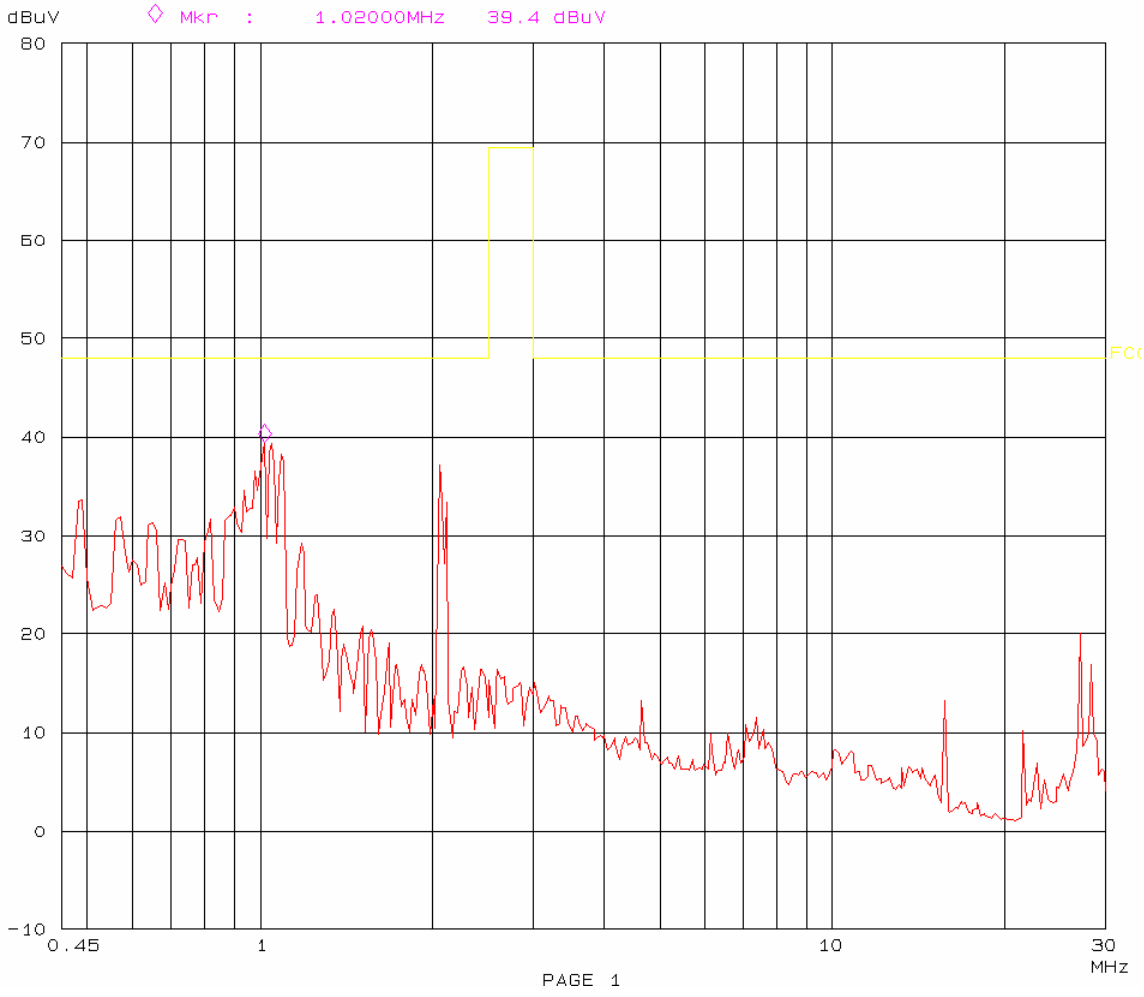
EUT:	CFL M/N: GYFS13GU
Manuf:	JIANGXI ELEGANT LIGHTINGS CO.,LTD
Op Cond:	ON
Operator:	Karo
Test Spec:	AC 120V/60Hz N
Comment:	Temp: 25 Hum: 56%



Model: GYFS18GU

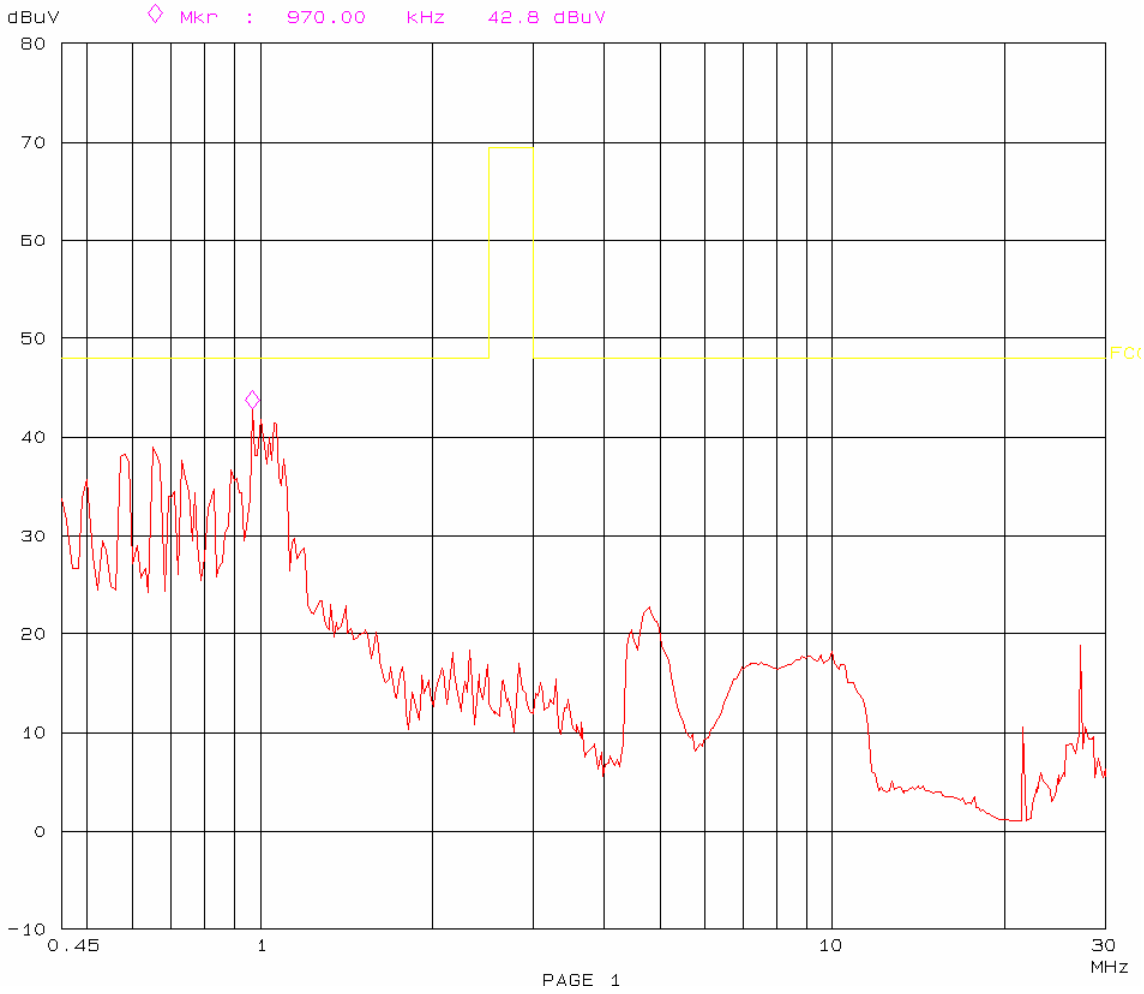
Conducted Emission
FCC PART18

EUT:	CFL M/N: GYFS18GU
Manuf:	JIANGXI ELEGANT LIGHTINGS CO.,LTD
Op Cond:	ON
Operator:	Karo
Test Spec:	AC 120V/60Hz L
Comment:	Temp: 25 Hum: 56%



Conducted Emission
FCC PART18

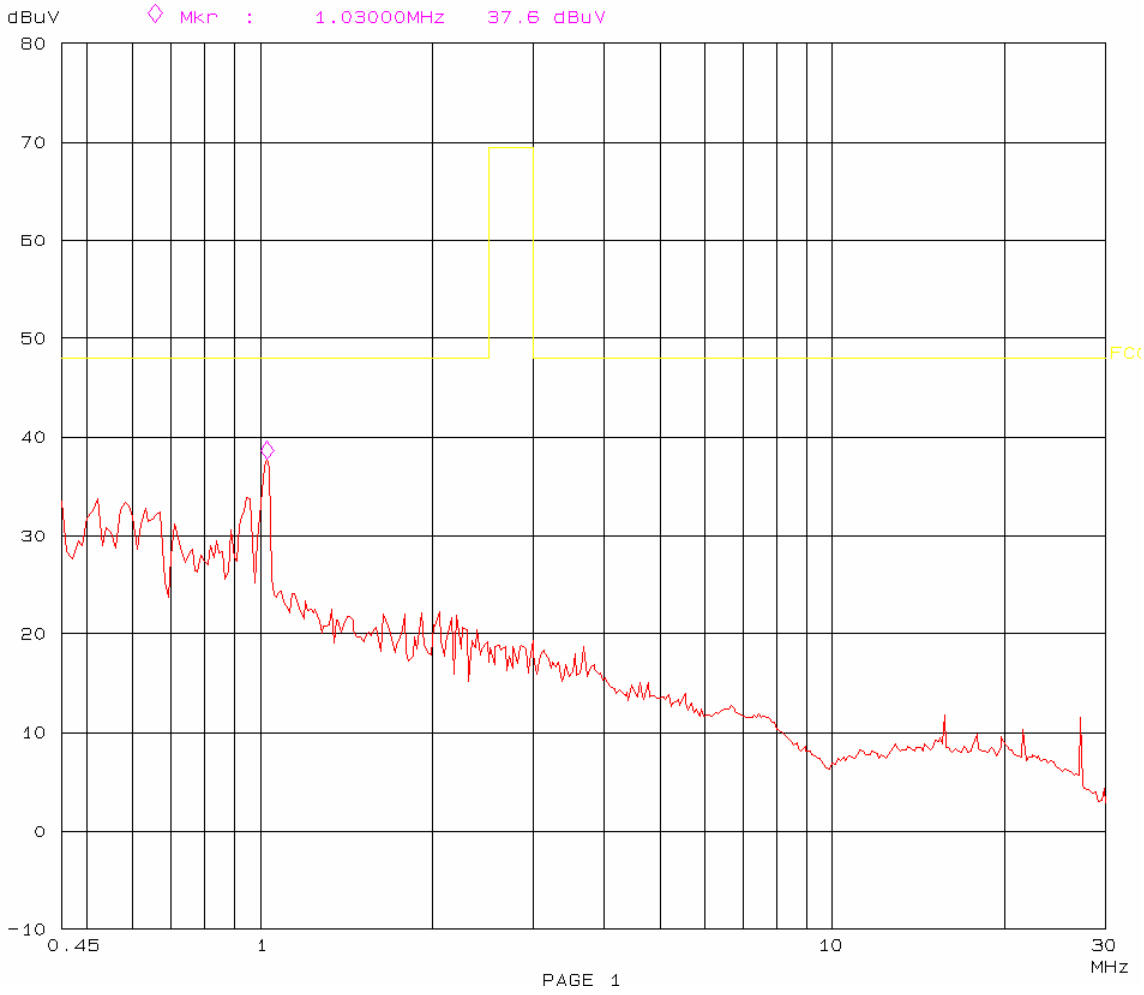
EUT: CFL M/N: GYFS18GU
Manuf: JIANGXI ELEGANT LIGHTINGS CO.,LTD
Op Cond: ON
Operator: Karo
Test Spec: AC 120V/60Hz N
Comment: Temp: 25 Hum: 56%



Model: GYFS26GU

Conduction Emission 11. Jul 08 14:19
FCC PART 18

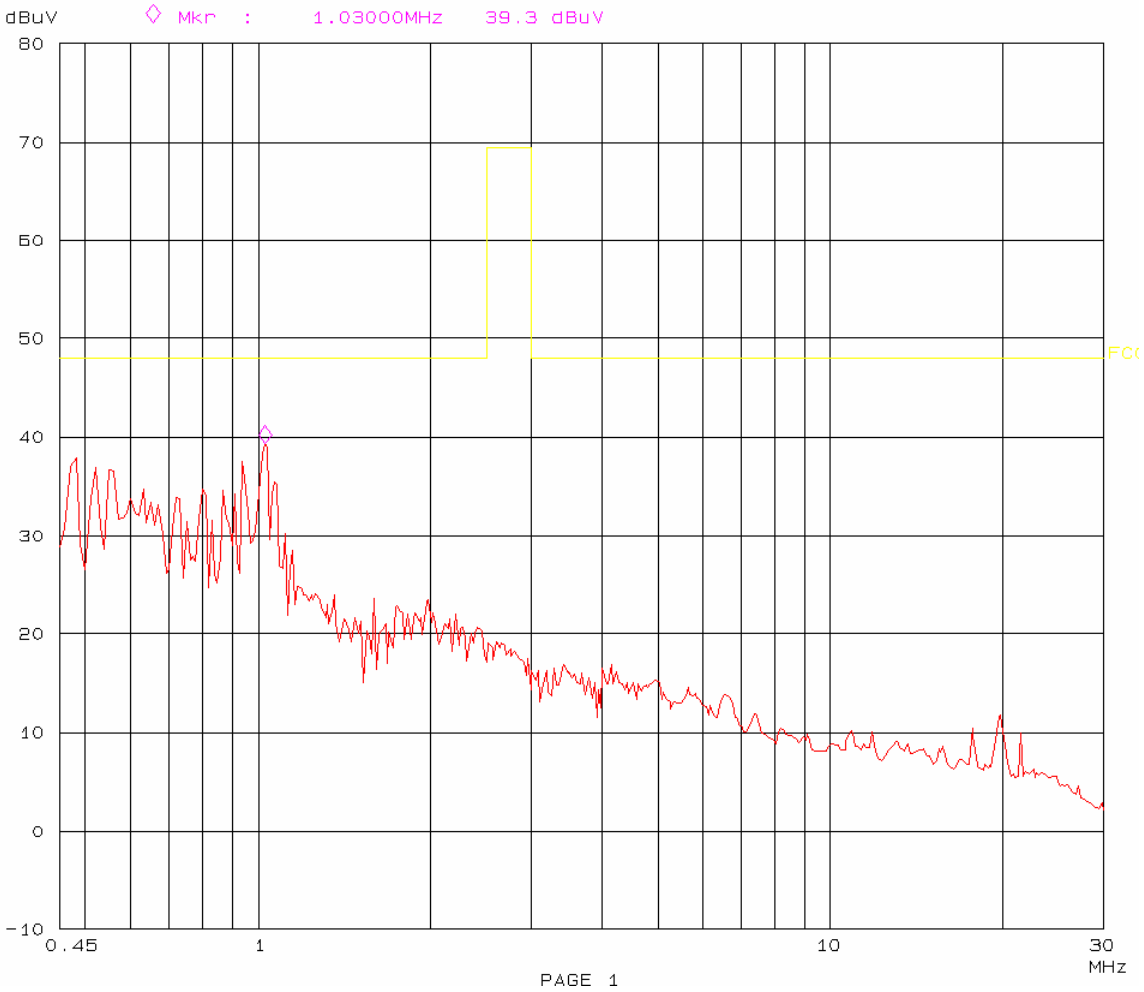
EUT:	CFL M/N: GYFS26GU
Manuf:	JIANGXI ELEGANT LIGHTINGS., LTD
Op Cond:	ON
Operator:	Karo
Test Spec:	AC 120V/60HZ L
Comment:	Temp: 25 Hum: 56%



Conduction Emission
FCC PART 18

11. Jul 08 13:49

EUT: CFL M/N: GYFS26GU
Manuf: JIANGXI ELEGANT LIGHTINGS., LTD
Op Cond: ON
Operator: Karo
Test Spec: AC 120V/60HZ N
Comment: Temp: 25 Hum: 56%



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