



NVLAP LAB CODE 200707-0



# FCC PART 18

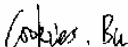
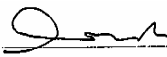
## MEASUREMENT AND TEST REPORT

For

**Jiangxi Elegant Lighting Co., Ltd.**

No.731 Xihou street, Guixi City, Jiangxi, China

**FCC ID: VGZGYC5-7E26**

<b>Report Type:</b> Original Report	<b>Product Type:</b> CFL
<b>Test Engineer:</b> Cookies Bu	
<b>Report Number:</b> RSZ0910656	
<b>Report Date:</b> 2009-06-10	
<b>Reviewed By:</b> Lisa Zhu EMC Engineer	
<b>Prepared By:</b>	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

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

## **TABLE OF CONTENTS**

<b>GENERAL INFORMATION.....</b>	<b>3</b>
PRODUCT DESCRIPTION FOR EQUIPMENT UNDER TEST (EUT) .....	3
OBJECTIVE .....	3
RELATED SUBMITTAL(S)/GRANT(S).....	3
TEST METHODOLOGY .....	3
TEST FACILITY .....	3
<b>SYSTEM TEST CONFIGURATION.....</b>	<b>5</b>
JUSTIFICATION .....	5
EQUIPMENT MODIFICATIONS .....	5
EXTERNAL I/O CABLE.....	5
CONFIGURATION OF TEST SETUP .....	5
BLOCK DIAGRAM OF TEST SETUP .....	5
<b>CONDUCTED EMISSIONS .....</b>	<b>6</b>
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
<b>DECLARATION LETTER .....</b>	<b>14</b>

## GENERAL INFORMATION

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### Product Description for Equipment under Test (EUT)

The Jiangxi Elegant Lighting Co., Ltd.'s model: GYC05-E26, GYC07-E26, or the "EUT" as referred to in this report is a CFL which measures approximately: GYC05-E26: 3.7 cm L x 3.7 cm W x 10.0 cm H, GYC07-E26 : 3.7 cm L x 3.7 cm W x 10.0 cm H, rated input voltage: AC 120V/60Hz.

*\*Note: The series products, model GYC05-E26, GYC07-E26; GYD05-E26, GYD07-E26; GYG05-E26, GYG07-E26, we select GYC05-E26, GYC07-E26 to test, and all these models have the same circuit diagram and PCB layout, only their model names, output power and appearances have differences, which were explained in the attached Declaration Letter.*

*\* All measurement and test data in this report was gathered from production sample serial number: 0906611 (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 21, 2007. 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).

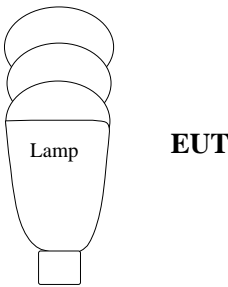
Equipment Modifications

No modifications were made to the unit tested.

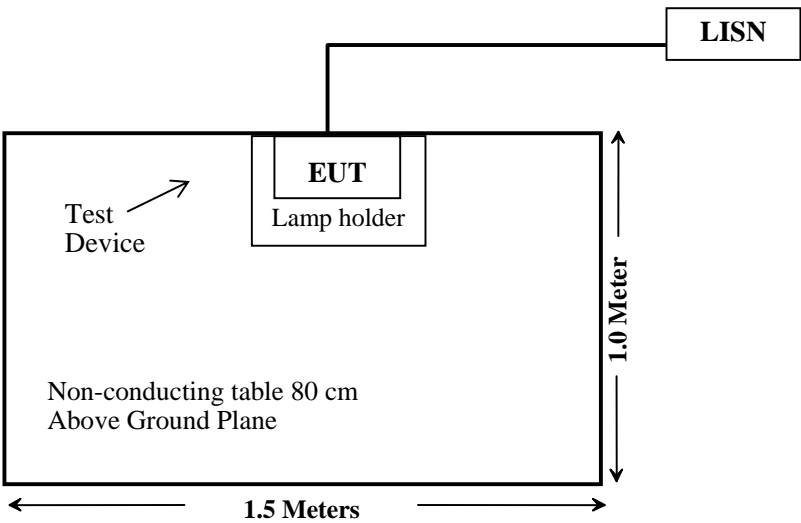
External I/O Cable

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

Configuration of Test Setup



Block Diagram of Test Setup



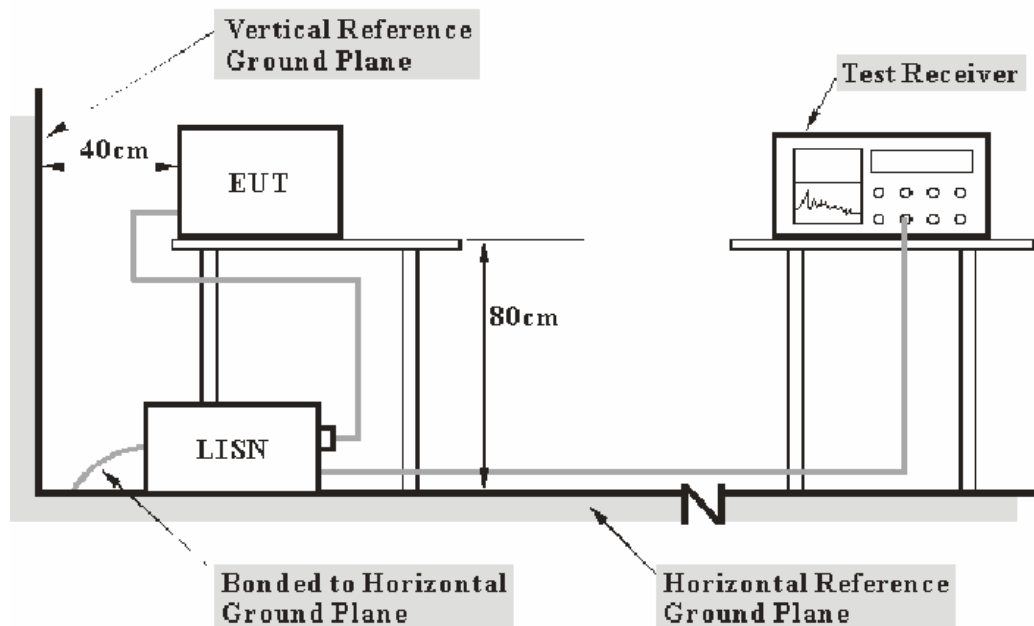
## CONDUCTED EMISSIONS

### 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  $\pm 2.4$  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:

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

## Test Equipment List and Details

<b>Manufacturer</b>	<b>Description</b>	<b>Model</b>	<b>Serial Number</b>	<b>Calibration Date</b>	<b>Calibration Due Date</b>
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	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 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:

*GYC05-E26*: **9.40 dB** at **1.450 MHz** in the **Neutral** conductor mode.

*GYC07-E26*: **9.50 dB** at **3.525 MHz** in the **Neutral** conductor mode.

**Test Data****Environmental Conditions**

<b>Temperature:</b>	25 ° C
<b>Relative Humidity:</b>	56 %
<b>ATM Pressure:</b>	100.0 kPa

*Testing was performed by Cookies Bu on 2009-02-13.*

*Test Mode: On (GYC05-E26)*

Line Conducted Emissions				FCC Part 18.307	
Frequency (MHz)	Amplitude (dB $\mu$ V)	Detector (Peak)	Conductor (Line/Neutral)	Limit (dB $\mu$ V)	Margin (dB)
1.450	38.60	Peak	Neutral	48.00	9.40
1.355	38.20	Peak	Neutral	48.00	9.80
3.095	38.10	Peak	Line	48.00	9.90
3.010	38.00	Peak	Line	48.00	10.00
1.385	37.90	Peak	Neutral	48.00	10.10
1.285	37.80	Peak	Neutral	48.00	10.20
3.185	37.70	Peak	Line	48.00	10.30
3.280	37.20	Peak	Line	48.00	10.80
3.160	37.10	Peak	Neutral	48.00	10.90
1.190	36.50	Peak	Neutral	48.00	11.50
1.330	35.40	Peak	Line	48.00	12.60
2.910	38.00	Peak	Line	69.50	31.50



*Test Mode: On (GYC07-E26)*

Line Conducted Emissions				FCC Part 18 .307	
Frequency (MHz)	Amplitude (dB $\mu$ V)	Detector (Peak)	Conductor (Line/Neutral)	Limit (dB $\mu$ V)	Margin (dB)
3.525	38.50	Peak	Neutral	48.00	9.50
3.250	38.40	Peak	Line	48.00	9.60
3.410	38.20	Peak	Neutral	48.00	9.80
3.280	38.10	Peak	Neutral	48.00	9.90
3.875	38.10	Peak	Neutral	48.00	9.90
29.150	37.90	Peak	Neutral	48.00	10.10
3.445	37.80	Peak	Line	48.00	10.20
3.175	37.80	Peak	Line	48.00	10.20
3.540	37.70	Peak	Line	48.00	10.30
3.075	37.50	Peak	Line	48.00	10.50
4.060	37.30	Peak	Neutral	48.00	10.70
2.960	37.60	Peak	Line	69.50	31.90

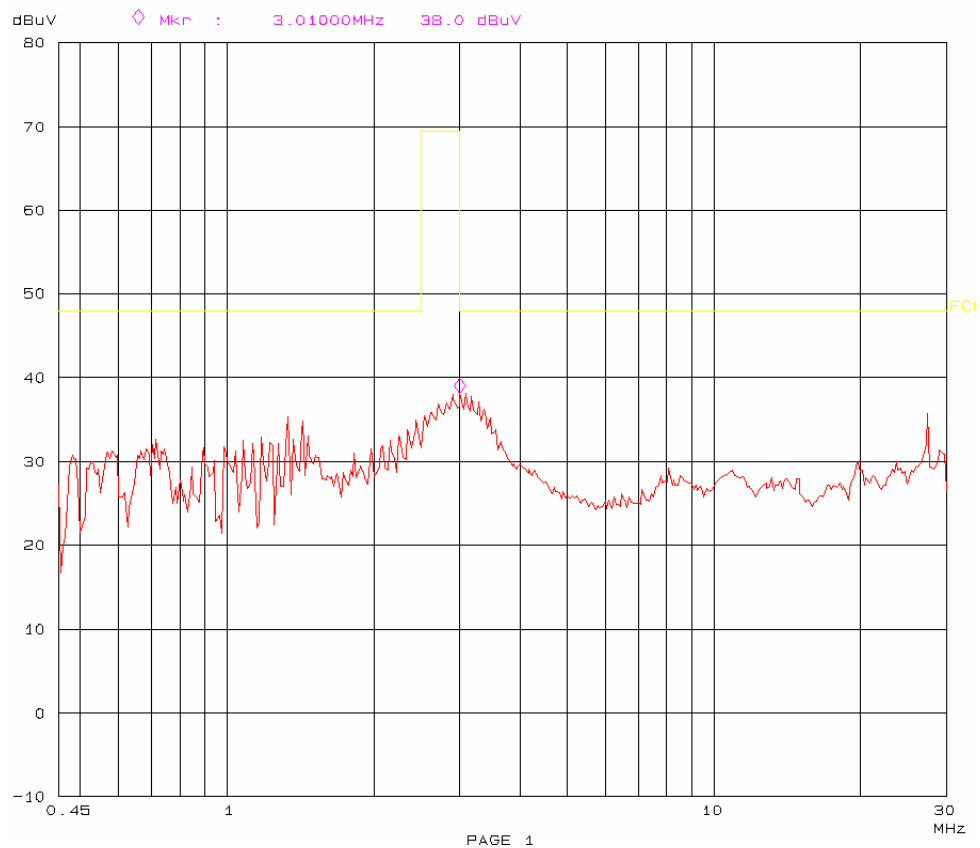
### Plot(s) of Test Data

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

Conducted emission  
FCC PART18

13. Feb 09 13:35

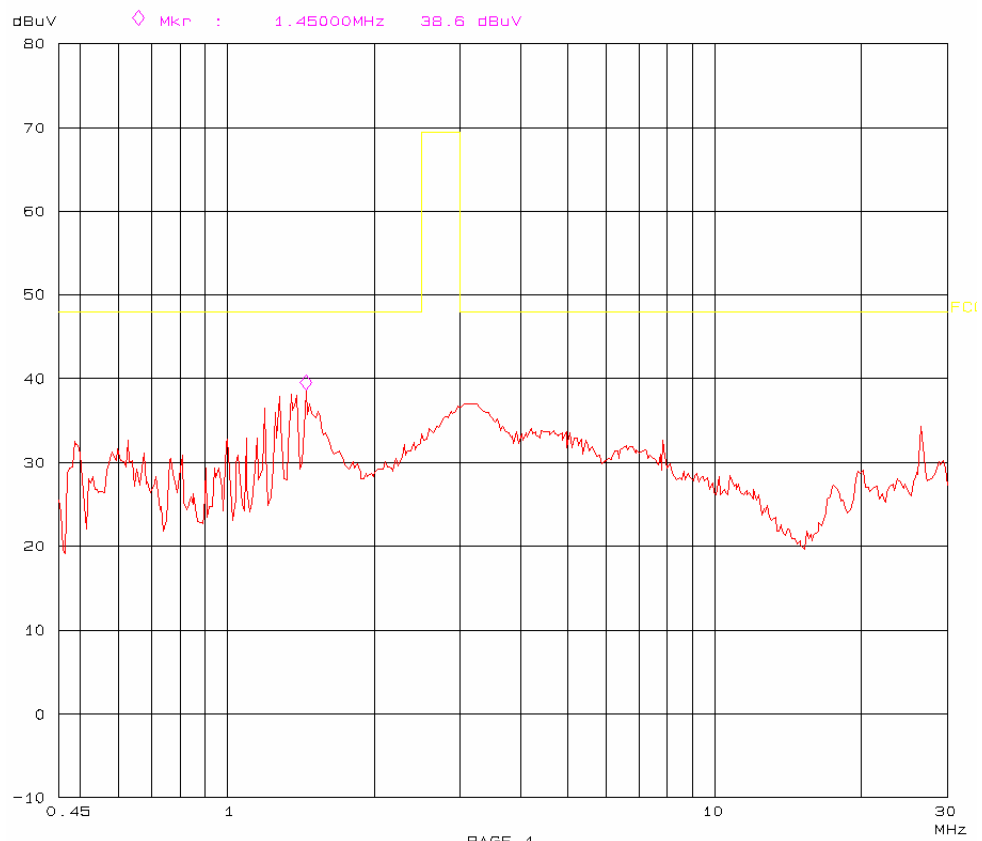
EUT: CFL M/N: GYC05-E26  
Manuf: JIANGXI ELEGANT LIGHTING CO., LTD  
Op Cond: On  
Operator: Cookies  
Test Spec: AC 120V/60Hz L  
Comment: Temp: 25 Hum: 56%  
BACL



Conducted emission  
FCC PART18

13. Feb 09 13:30

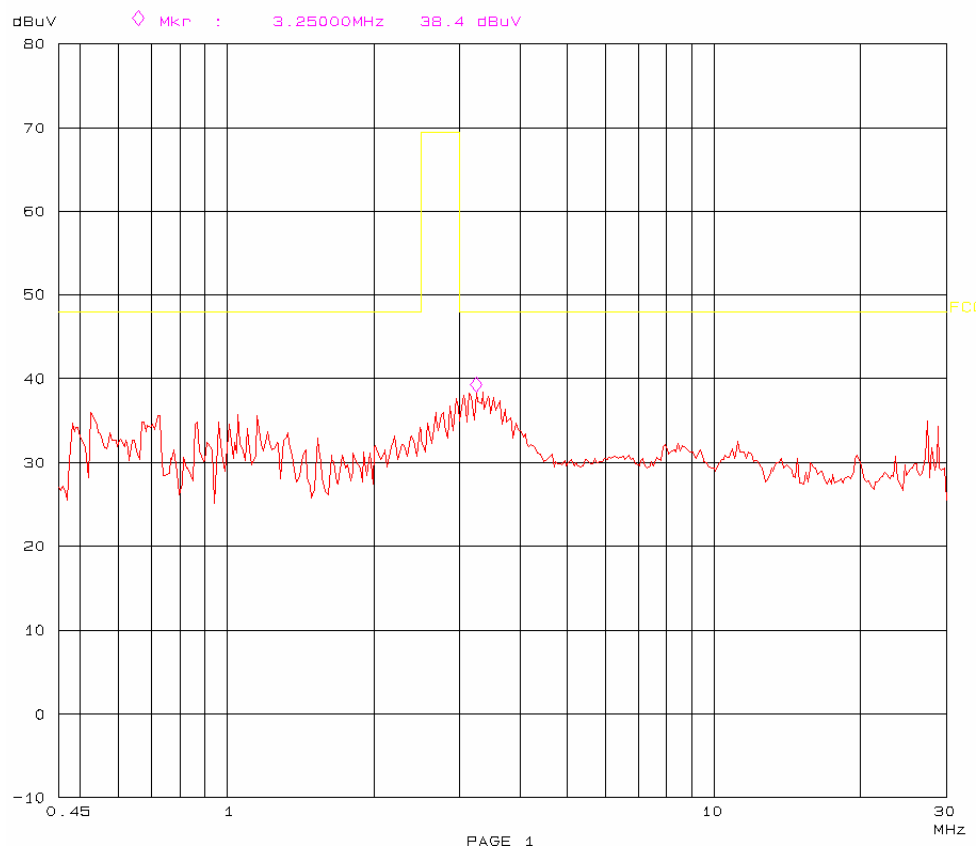
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Manuf: JIANGXI ELEGANT LIGHTING CO., LTD  
Op Cond: On  
Operator: Cookies  
Test Spec: AC 120V/60Hz N  
Comment: Temp: 25 Hum: 56%  
BACL



Conducted emission  
FCC PART18

13. Feb 09 13:41

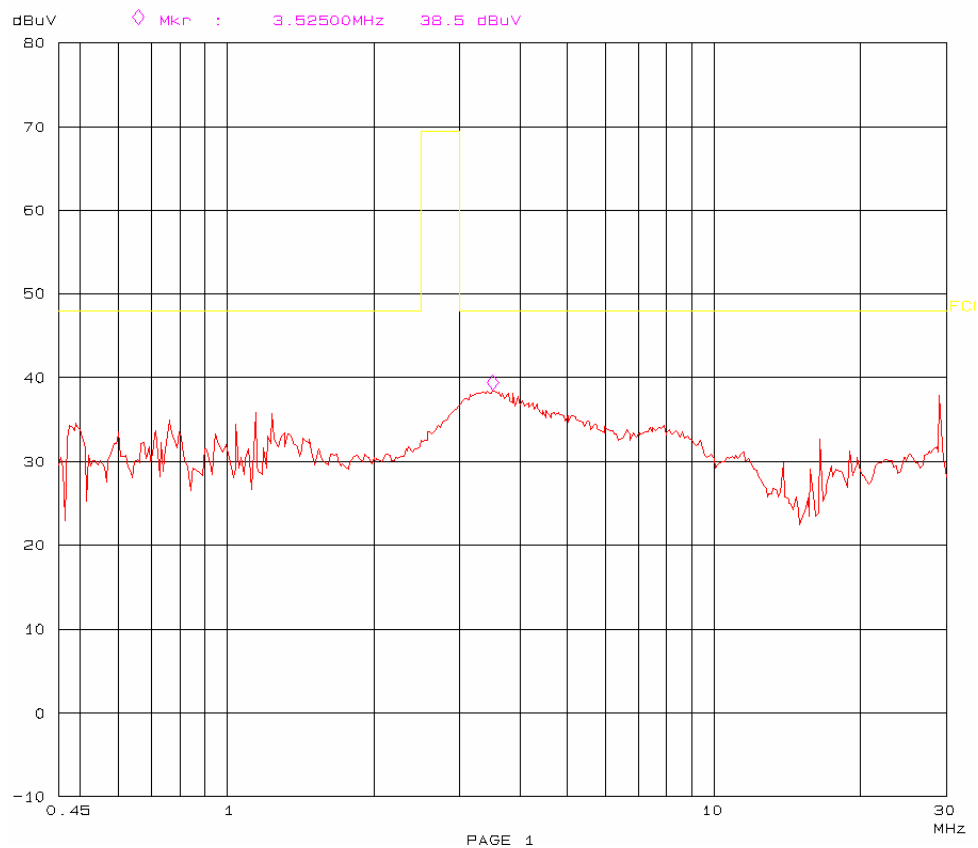
EUT: CFL M/N: GYC07-E26  
Manuf: JIANGXI ELEGANT LIGHTING CO., LTD  
Op Cond: On  
Operator: Cookies  
Test Spec: AC 120V/60Hz L  
Comment: Temp: 25 Hum: 56%  
BACL



Conducted emission  
FCC PART18

13. Feb 09 13:47

EUT: CFL M/N: GYC07-E26  
Manuf: JIANGXI ELEGANT LIGHTING CO., LTD  
Op Cond: On  
Operator: Cookies  
Test Spec: AC 120V/60Hz N  
Comment: Temp: 25 Hum: 56%  
BACL



## DECLARATION LETTER

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**Jiangxi Elegant Lighting Co., Ltd.**

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### Different Declaration

We, Jiangxi Elegant Lighting Co., Ltd., declare that the CFL, the GYC05-E26(trade name: GUI YA) and GYC07-E26, GYD05-E26, GYD07-E26, GYG05-E26, GYG07-E26 which have the same circuit diagram, PCB layout in side, and only different in output power and appearance. Thank you!

Date:2009/10/30

Sincerely Yours.

Signature:

Typed or Printed Name: 徐建明 JIANMING.XU

Title: Founder-inventor, Manager

Company Name: Jiangxi Elegant Lighting Co., Ltd



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