

EXHIBIT 4

Test Report

APPLICATION FOR CERTIFICATION

On Behalf of

Ningbo Global Lamp Co., Ltd.

Energy Saving Lamp

Model Number : 70405, 70409, 70413, 70315, 70320
50205, 50209, 80109(A), 80205(A)

Prepared for : Ningbo Global Lamp Co., Ltd.
All 24th F1 181 Zhongshan E Rd Ningbo
Zhejiang China

Prepared by : Shenzhen Most Technology Co., Ltd
C-13B, Shennan Gardon Nanshan Zone Shenzhen
Guangdong China

Telephone : (0755)26506933

Report Number : SMT-F32002

Date of Test : July 30, 2002

Date of Report : August 27-29, 2002

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TEST REPORT DECLARATION

Applicant : Ningbo Global Lamp Co., Ltd.
Manufacturer : Ningbo Global Lamp Co., Ltd.
EUT Description : Energy Saving Lamps
(A) MODEL NO. : 70405, 70409, 70413, 70315, 70320
50205, 50209, 80109(A), 80205(A)
(B) SERIAL NO. : F20020808
(C) POWER SUPPLY : 120V / 60Hz

Test Procedure Used:

FCC RULES AND REGULATIONS PART 18 SUBPART C RF LIGHTING
DEVICES CONSUMER (1998) AND MP-5/1986

The device described above is tested by Shenzhen Most Technology 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 limits for radiation and conduction emissions.

The test results are contained in this test report and Shenzhen Most Technology Co., Ltd is assumed of full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT is technically compliant with FCC requirements.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Shenzhen Most Technology Co., Ltd.

This report must not be used by the applicant to claim product endorsement by NVLAP or any agency of the U.S. Government.

Date of Test :

July 30, 2002

Prepared by :

T. Ag Su

Totty Su/ Assistant

Reviewer :

Amy Zhu

For and on behalf of
Amy Zhu / Assistant Manager
SHENZHEN MOST TECHNOLOGY CO., LTD.

Approved & Authorized Signer :

Mark Wen

Mark Wen / Manager
Authorized Signature(s)

1. GENERAL INFORMATION

1.1. Description of Device (EUT)

Description : Energy Saving Lamp

Model Number : **70405, 70409, 70413, 70315, 70320
50205, 50209, 80109(A), 80205(A)**

The 50205, 80205(A), 70405 are the same just the lamp-chimney is different.

The 50209, 70409 are the same just the lamp-chimney is different.

Applicant : Ningbo Global Lamp Co., Ltd.
All 24th F1 181 Zhongshan E Rd Ningbo
Zhejiang China

Manufacturer : Ningbo Global Lamp Co., Ltd.
All 24th F1 181 Zhongshan E Rd Ningbo
Zhejiang China

Date of Test : July 30, 2002

1.2. Test Facility

Site Description

3m Anechoic Chamber : Certificated by FCC, USA
Aug. 24, 2000

3m & 10m Open Site : Certificated by FCC, USA
Feb. 13, 1998

EMC Lab. : Certificated by VCCI, Japan
Oct. 29, 1998

Certificated by DATech, German
Feb. 02, 1999

Certificated by NVLAP, USA
until Mar. 03, 2001

NVLAP Code: 200372-0
Certificated by DNV, Norway
May 26, 1999

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

Site Location : No. 6, Ke Feng Rd., 52 Block,
Shenzhen Science & Industrial Park,
Nantou, Shenzhen, Guangdong, P.R China

1.3. Test Uncertainty

Conducted Emission Uncertainty = $\pm 2.66\text{dB}$

Radiated Emission Uncertainty = $\pm 4.26\text{dB}$

2. POWER LINE CONDUCTED EMISSION TEST

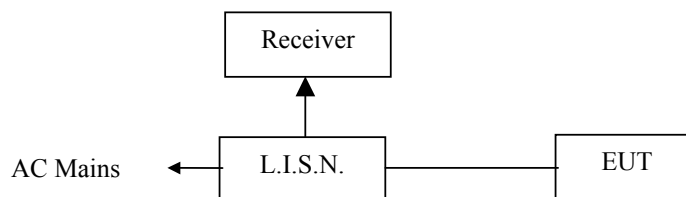
2.1 Test Equipment

The following test equipments are used during the power line conducted emission test:

Item	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESHS20	836600/006	Jun. 04, 02	1 Year
2.	L.I.S.N.	Kyoritsu	KNW-407	8-541-4	Jun. 04, 02	1 Year
3.	Terminator	EMCO	50Ω	No. 1	Jun. 04, 02	1 Year
4.	Terminator	EMCO	50Ω	No. 2	Jun. 04, 02	1 Year
5.	RF Cable	FUJIKURA	RG-55/U	LISN Cable	Feb 28, 02	1/2 Year
6.	Passive Probe	Rohde & Schwarz	ESH-Z3	299.7810.52	Jun. 04, 02	1 Year
7.	Coaxial Switch	Anritsu	MP59B	M73989	Feb.28, 02	1/2 Year

2.2 Block Diagram of Test Setup

Block diagram of connection between the EUT and simulators



(EUT: Saving Lamp)

2.3 Power Line Conducted Emission Test Limits

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

2.4 Configuration of EUT on Test

The following equipment are installed on Power Line Conducted Emission Test to meet the commission requirement and operating regulations in a manner which tends to maximize its emission characteristics in a normal application.

2.4.1 Saving Lamp (EUT)

Model Number : 70405, 70409, 70413, 70315, 70320
50205, 50209, 80109(A), 80205(A)

Manufacturer : Ningbo Global Lamp Co., Ltd.
All 24th F1 181 Zhongshan E Rd Ningbo Zhejiang China

2.5 Operating Condition of EUT

- 2.5.1 Setup the EUT and simulator as shown as Section 2.2.
- 2.5.2 Turn on the power of all equipment.
- 2.5.3 Let the EUT work in test mode (ON) and test it.

2.6 Test Procedure

The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohm coupling impedance for the EUT. Please refer the block diagram of the test setup and photographs. Both sides of AC line are checked to find out the maximum conducted emission levels. In order to find the maximum emission levels, the relative positions of equipment and all of the interface cables shall be changed according to ANSI C63.4-2000 on Conducted Emission Test.

The bandwidth of test receiver (R & S ESHS20) is set at 10KHz.

The frequency range from 450KHz to 30MHz is checked.

The test result are reported on Section 2.7., all the scanning waveforms for Conducted Emission Test are attached in Appendix I.

2.7 Power Line Conducted Emission Test Results

PASS.

The frequency range from 450KHz to 30 MHz is investigated. All emissions not reported below are too low against the prescribed limits

And the Test Data, Please see Appendix I

3. MODIFICATION TO TEST SPECIFICATIONS

[NONE]

4. PHOTOGRAPH

4.1. Photo of Power Line Conducted Emission Test



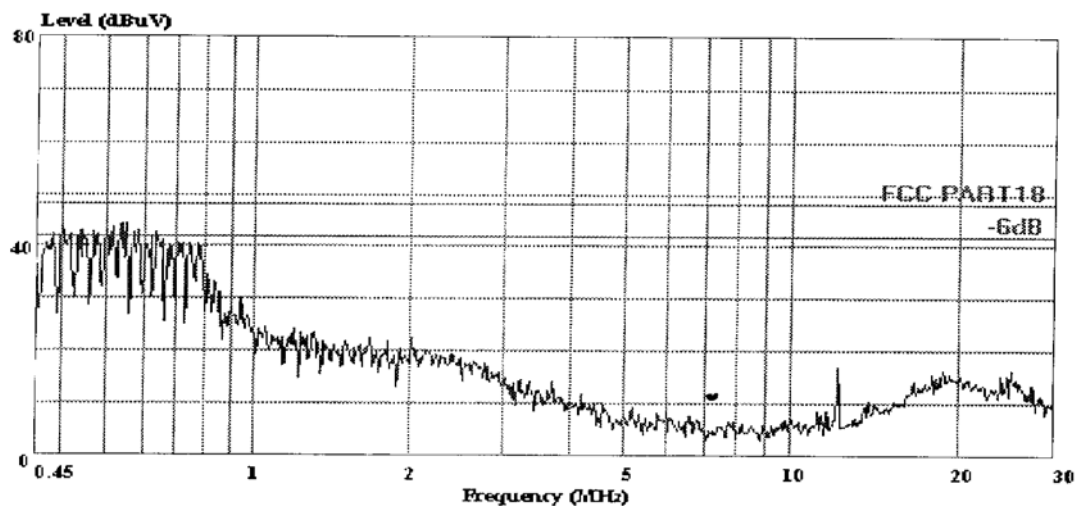
APPENDIX 1

Conduction Test Data

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AUDIX TECHNOLOGY (SHENZHEN) CO., LTD.

Shenzhen Science & Ind Park
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Tel: 0755-26639495~7
Fax: 0755-26632877

Data#: 3 File#: Ning Bo Global.EMI Date: 2002-07-30 Time: 10:52:26



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (Audix ATC)

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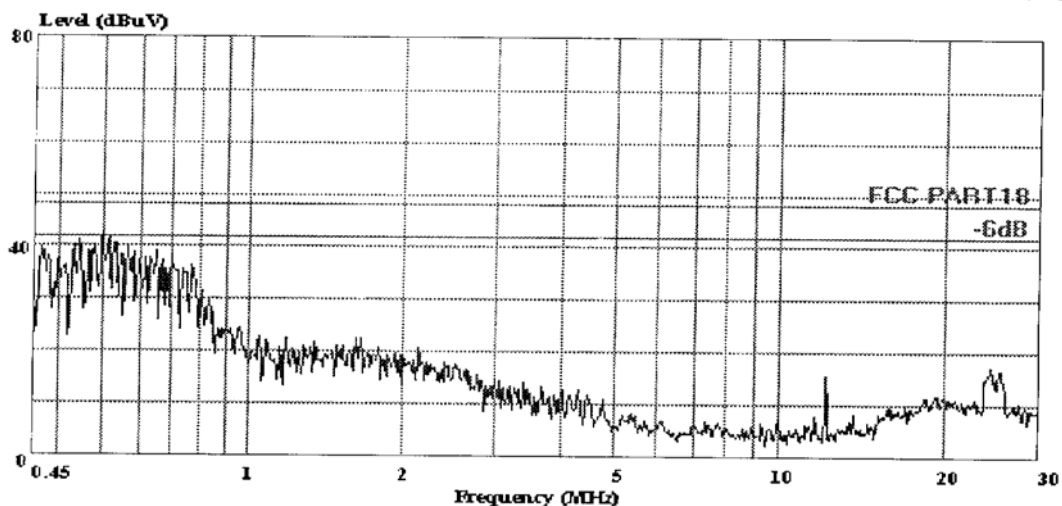
Ref Trace:

Condition: FCC PART18 VA(KNW-407)
EUT: : Energy Saving Lamp
M/N: : 70405
POWER: : AC 120V/60Hz
OP Cond: : Lighting

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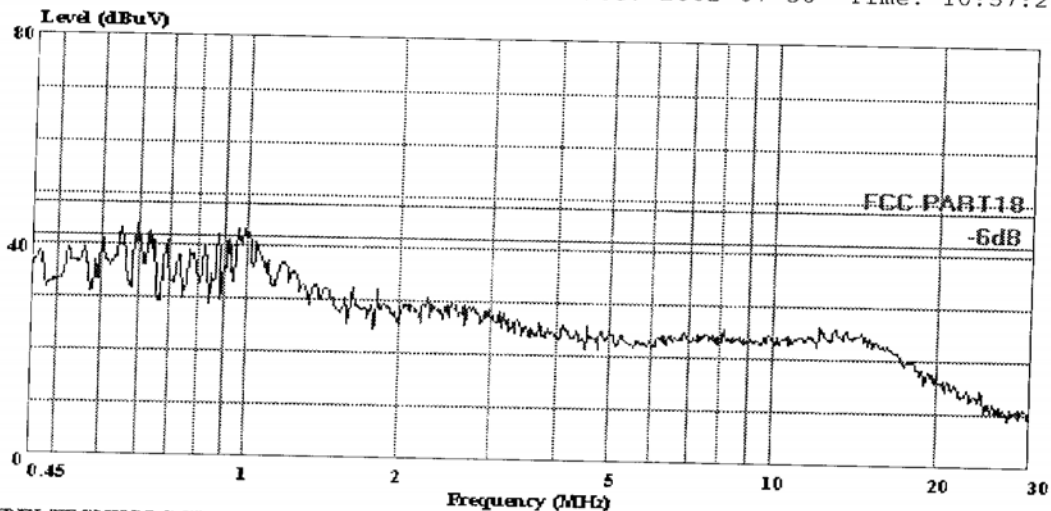
Ref Trace:

Condition: FCC PART18 VB(KNW-407)
EUT: : Energy Saving Lamp
M/N: : 70405
POWER: : AC 120V/60Hz
OP Cond: : Lighting

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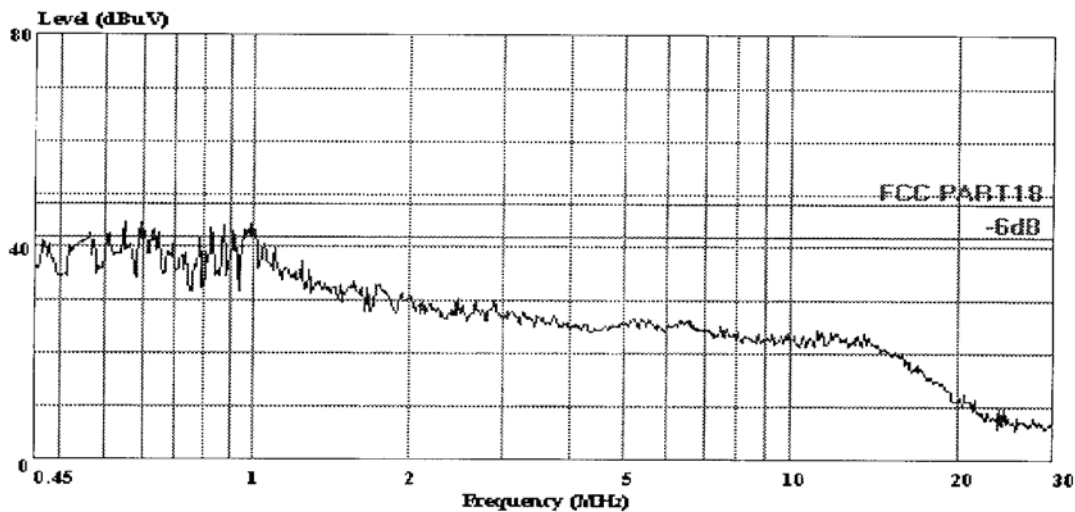
Ref Trace:

Condition: FCC PART18 VB(KNW-407)
EUT: : Energy Saving Lamp
M/N: : 70409
POWER: : AC 120V/60Hz
OP Cond: : Lighting

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Data#: 6 File#: Ning Bo Global.EMI Date: 2002-07-15 Time: 11:00:10



AUDIX TECHNOLOGY (SHENZHEN) CO., LTD. (Audix ATC)
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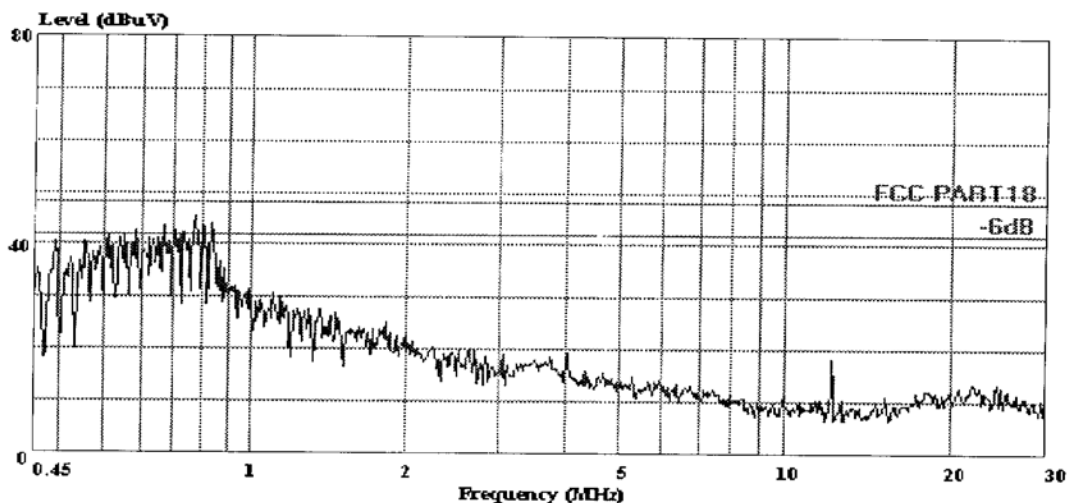
Condition: FCC PART18 VA(KNW-407)
EUT: : Energy Saving Lamp
M/N: : 70409
POWER: : AC 120V/60Hz
OP Cond: : Lighting



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Data#: 9 File#: Ning Bo Global.EMI Date: 2002-07-30 Time: 11:06:54



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Trace:

Ref Trace:

Condition: FCC PART18 VB(KNW-407)

EUT: : Energy Saving Lamp

M/N: : 70413

POWER: : AC 120V/60Hz

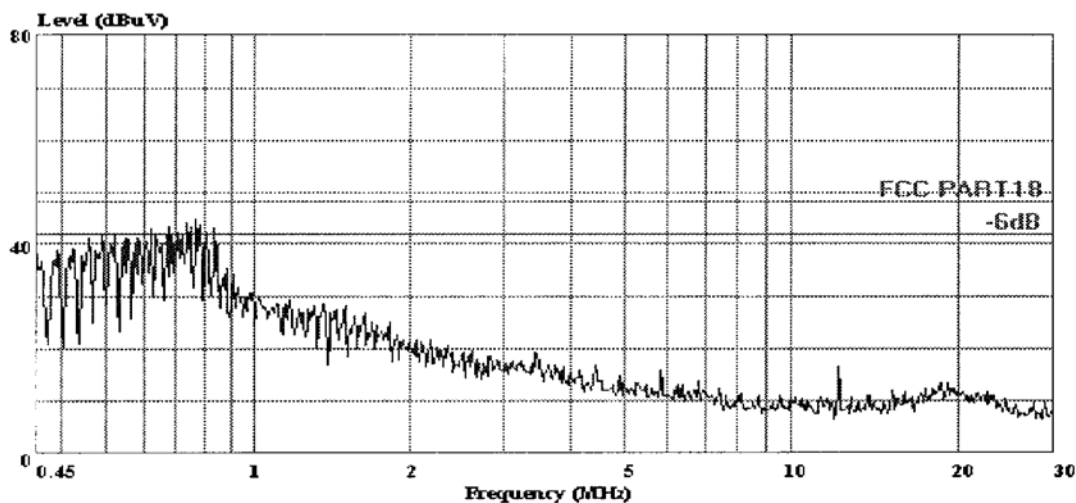
OP Cond:: Lighting



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Data#: 10 File#: Ning Bo Global.EMI Date: 2002-07-30 Time: 11:10:39



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Trace:

Ref Trace:

Condition: FCC PART18 VA(KNW-407)

EUT: : Energy Saving Lamp

M/N: : 70413

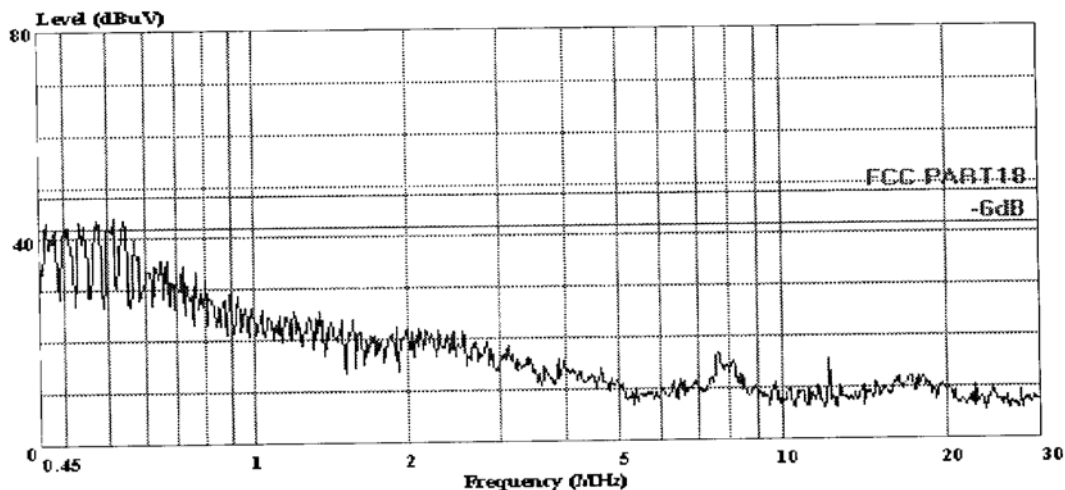
POWER: : AC 120V/60Hz

OP Cond:: Lighting

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Data#: 11 File#: Ning Bo Global.EMI Date: 2002-07-30 Time: 11:18:31



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Trace:

Ref Trace:

Condition: FCC PART18 VB(KNW-407)

EUT: : Energy Saving Lamp

M/N: : 70315

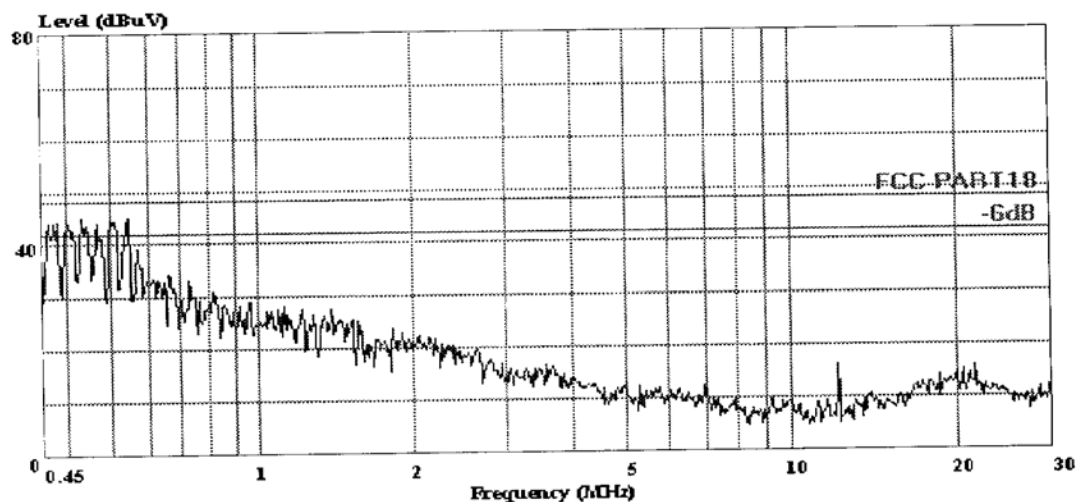
POWER: : AC 120V/60Hz

OP Cond:: Lighting

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Trace:

Ref Trace:

Condition: FCC PART18 VA(KNW-407)

EUT: : Energy Saving Lamp

M/N: : 70315

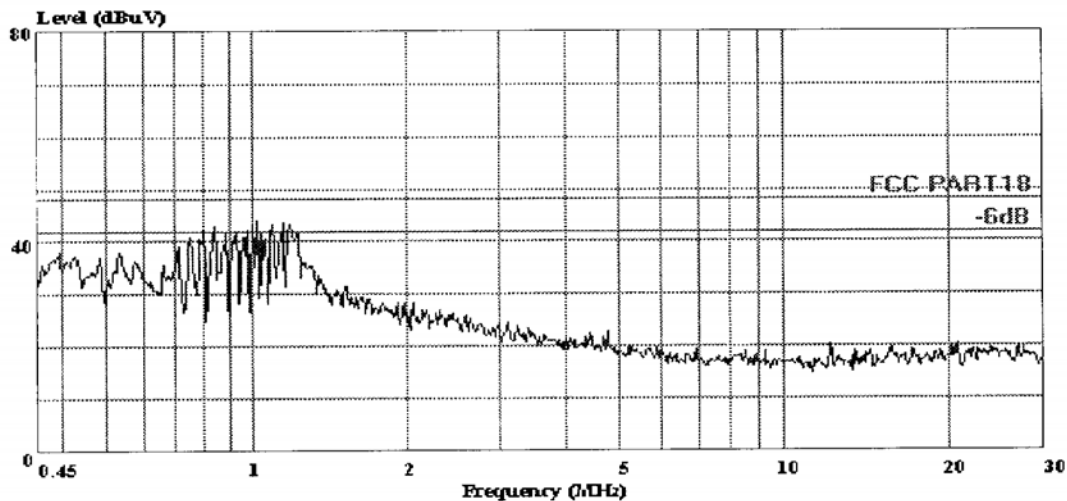
POWER: : AC 120V/60Hz

OP Cond:: Lighting

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Data#: 13 File#: Ning Bo Global.EMI Date: 2002-07-30 Time: 11:27:08



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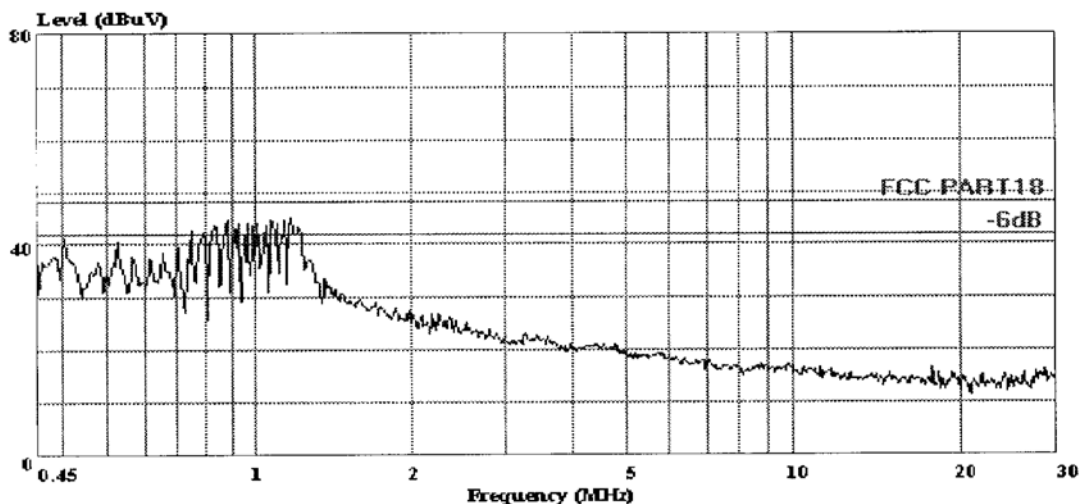
Ref Trace:

Condition: FCC PART18 VB(KNW-407)
EUT: : Energy Saving Lamp
M/N: : 70320
POWER: : AC 120V/60Hz
CP Cond:: Lighting

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Data#: 14 File#: Ning Bo Global.EMI Date: 2002-07-30 Time: 11:29:13



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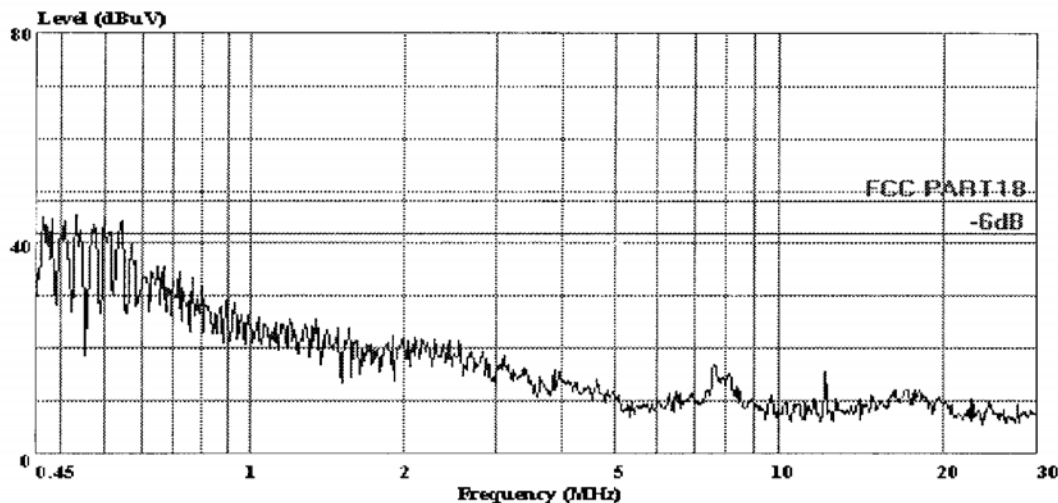
Ref Trace:

Condition: FCC PART18 VA(KNW-407)
EUT: : Energy Saving Lamp
M/N: : 70320
POWER: : AC 120V/60Hz
CP Cond:: Lighting

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Data#: 15 File#: Ning Bo Global.EMIDate: 2002-07-30 Time: 12:05:31



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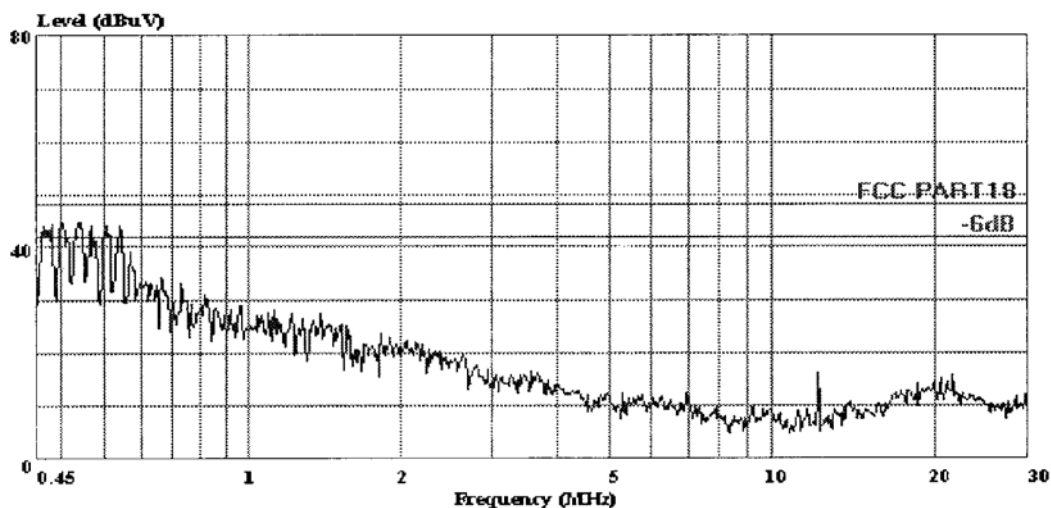
Ref Trace:

Condition: FCC PART18 VB(KNW-407)
EUT: : Energy Saving Lamp
M/N: : 80109
POWER: : AC 120V/60Hz
OP Cond:: Lighting

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Data#: 16 File#: Ning Bo Global.EMIDate: 2002-07-30 Time: 12:15:31



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Trace:

Ref Trace:

Condition: FCC PART18 VA(KNW-407)
EUT: : Energy Saving Lamp
M/N: : 80109
POWER: : AC 120V/60Hz
OP Cond:: Lighting