EXHIBIT 4

Test Report

APPLICATION FOR CERTIFICATION

On Behalf of

Canel Lighting Co., Ltd.

Energy Saving Lamp

Model Number : CL-10WL, CL-15WL, CL-20WL, CL-25WL

Prepared for : Canel Lighting Co., Ltd.
3rd Fl, No.107, Chung Cheng Road, Sec.1, Shihlin, Taipei, Taiwan

Prepared by : Shenzhen Unitech Technology Co., Ltd.
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Report No. : SUTF030501

Date of Test : April 15-30, 2003

Date of Report : May 5, 2002

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Appendix I: Power Line Conduction Emission Test Data

TEST REPORT DECLARATION

Applicant	:	Canel Lighting Co., Ltd.
Manufacturer	:	Canel Lighting Co., Ltd.
EUT Description	:	Energy Saving Lamp
(A) Model No.	:	CL-10WL, CL-15WL, CL-20WL, CL-25WL
(B) Serial No.	:	F2003050501
(C) Power Supply	:	AC120V /60Hz

Test Procedure Used:
FCC Rules and Regulations Part 18 Subpart B Class B October 1998.

The devices described above have been tested in Shenzhen Emtek Co., Ltd. by Shenzhen Unitech 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 B Class B limits conducted.
The test results are contained in this test report and Shenzhen Unitech Technology Co., Ltd is assumed of full responsibility for the accuracy and completeness of these tests. Also, this report shows that the EUT (Equipment Under Test) is complies with the FCC requirements.

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

Date of Test: April 15-30, 2003

Prepared by: Kenny Gan / Assistant

Reviewer: Daniel Yang / Engineer

For and on behalf of
SHENZHEN UNITECH TECHNOLOGY CO., LTD.

Approved & Authorized Signer: Jimmy Jiang / Manager
Authorized Signature(s)

1. GENERAL INFORMATION

1.1 Description of Device (EUT)

Description	:	Energy Saving Lamp
Model Number	:	CL-10WL, CL-15WL, CL-20WL, CL-25WL
Applicant	:	Canel Lighting Co., Ltd. 3rd Fl, No.107, Chung Cheng Road, Sec.1, Shihlin, Taipei, Taiwan
Manufacturer	:	Canel Lighting Co., Ltd. Lincun, Xihu Industrial Zone, Tangxia Town, Dongguan, Guangdong, P.R China
Date of Receipt	:	April 10, 2003
Date of Test	:	April 15-30, 2003

1.2 Test Facility

Site Description

3m Anechoic Chamber	:	Certificated by FCC, USA December 09, 2002 (Registration number: 709623)
EMC Laboratory	:	Certificated by TUV Rheinland (Guangdong) Limited, which is member of TUV Rheinland / Berlin-Brandenburg Group. March 26, 2001
Name of Firm	:	Shenzhen Emtek Co., Ltd.
Site Location	:	Bldg 69, Taipinyang Industrial Zone, Majialong, Nanshan, Shenzhen, Guangdong, China

1.3 Test Uncertainty

Conducted Emission Uncertainty = ±2.66dB

Radiated Emission Uncertainty = ±4.26dB

2. POWER LINE CONDUCTED EMISSION TEST

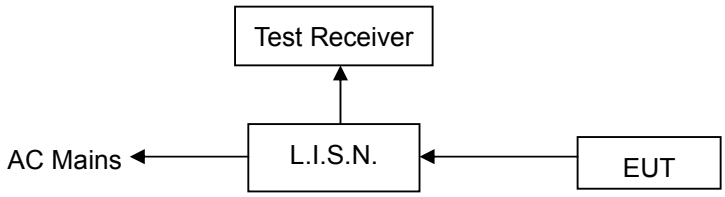
2.1 Test Equipment

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

Item	Equipment	Manufacturer	Model No	Last Cal.	Cal. Interval
1.	Test Receiver	Rohde & Schwarz	ESCS30	Jun. 04, 02	1 Year
2.	L.I.S.N.#1	Rohde & Schwarz	ESH2-Z5	Jun. 04, 02	1 Year
3.	L.I.S.N.#2	Rohde & Schwarz	ESH3-Z6	Jun. 04, 02	1 Year
4.	L.I.S.N.#3	Kyoritsu	KNW-407	Jun. 04, 02	1 Year
5.	Terminator	EMCO	50Ω	Jun. 04, 02	1 Year
6.	Terminator	EMCO	50Ω	Jun. 04, 02	1 Year
7.	RF Cable	FUJIKURA	RG-55/U	Sep. 04, 02	1/2 Year
8.	Passive Probe	Rohde & Schwarz	ESH-Z3	Jun. 04, 02	1 Year
9.	Coaxial Switch	Anritsu	MP59B	Jun. 04, 02	1/2 Year

2.2 **Block Diagram of Test Setup**

Block diagram of connection between the EUT and simulators



(EUT: Energy Saving Lamp)

2.3 **Power Line Conducted Emission Test Limits**

Frequency MHz	Test Limits dBμV
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 Energy Saving Lamp (EUT)

Model No.	:	CL-10WL / CL-15WL / CL-20WL / CL-25WL
Serial No.	:	F2003050501
Manufacturer	:	Canel Lighting Co., Ltd.

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

2.6.1 The EUT is connected to the power mains through a line impedance stabilization network (L.I.S.N.). This provides a 50 ohms 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.

2.6.2 The bandwidth of test receiver(R & S ESCS30) is set at 10KHz.

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

2.6.4 The test results 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 all of the test data, please see Appendix I.

Date of Test: April 25, 2003 Temperature: 22℃

EUT: Energy Saving Lamp Humidity: 50%

M/N: CL-10WL Test Engineer: Andy

■ Va ☐ Neutral ☐ Other					■ Vb ☐ Live ☐ Other				
Frequency (MHz)	QP (dBuV)	Limit			Frequency (MHz)	QP (dBuV)	Limit		
0.458	36.40	48.00			0.460	40.05	48.00		
0.470	38.80	48.00			0.480	42.00	48.00		
0.485	40.20	48.00			0.520	40.00	48.00		
0.530	39.12	48.00			0.620	38.00	48.00		
0.584	36.50	48.00			0.710	38.20	48.00		
0.654	32.90	48.00			0.810	36.50	48.00		

Date of Test: April 25, 2003 Temperature: 22℃

EUT: Energy Saving Lamp Humidity: 50%

M/N: CL-15WL Test Engineer: Andy

■ Va ☐ Neutral ☐ Other					■ Vb ☐ Live ☐ Other				
Frequency (MHz)	QP (dBuV)	Limit			Frequency (MHz)	QP (dBuV)	Limit		
0.455	40.12	48.00			0.460	40.50	48.00		
0.475	38.42	48.00			0.478	37.45	48.00		
0.500	35.50	48.00			0.483	31.55	48.00		
0.545	32.10	48.00			0.510	31.62	48.00		
0.560	30.90	48.00			0.637	29.94	48.00		
0.592	36.87	48.00			0.698	28.34	48.00		

Date of Test: April 25, 2003 Temperature: 22℃

EUT: Energy Saving Lamp Humidity: 50%

M/N: CL-20WL Test Engineer: Andy

■ Va ☐ Neutral ☐ Other					■ Vb ☐ Live ☐ Other				
Frequency (MHz)	QP (dBuV)	Limit			Frequency (MHz)	QP (dBuV)	Limit		
0.450	40.09	48.00			0.455	39.83	48.00		
0.463	34.27	48.00			0.474	31.25	48.00		
0.500	35.82	48.00			0.510	33.75	48.00		
0.568	30.43	48.00			0.618	33.98	48.00		
0.600	36.56	48.00			1.740	26.80	48.00		
1.749	28.62	48.00			1.850	32.76	48.00		

Date of Test: April 25, 2003 Temperature: 22℃

EUT: Energy Saving Lamp Humidity: 50%

M/N: CL-25WL Test Engineer: Andy

■ Va ☐ Neutral ☐ Other					■ Vb ☐ Live ☐ Other				
Frequency (MHz)	QP (dBuV)	Limit			Frequency (MHz)	QP (dBuV)	Limit		
0.450	38.92	48.00			0.455	39.75	48.00		
0.468	39.35	48.00			0.468	34.92	48.00		
0.472	33.27	48.00			0.476	34.90	48.00		
0.492	29.96	48.00			0.492	27.34	48.00		
0.558	27.85	48.00			0.528	34.98	48.00		
0.635	23.40	48.00			3.310	21.58	48.00		

3. MODIFICATION TO TEST SPECIFICATIONS

[NONE]

4. PHOTOGRAPH

4.1 Photo of Power Line Conducted Emission Test (CL-10WL)

4.2 Photo of Power Line Conducted Emission Test (CL-15WL)

4.3 Photo of Power Line Conducted Emission Test (CL-20WL)

4.4 Photo of Power Line Conducted Emission Test (CL-25WL)

APPENDIX I

Power Line Conduction Emission Test Data

CONDUCTION EMISSION STANDARD FCC PART18

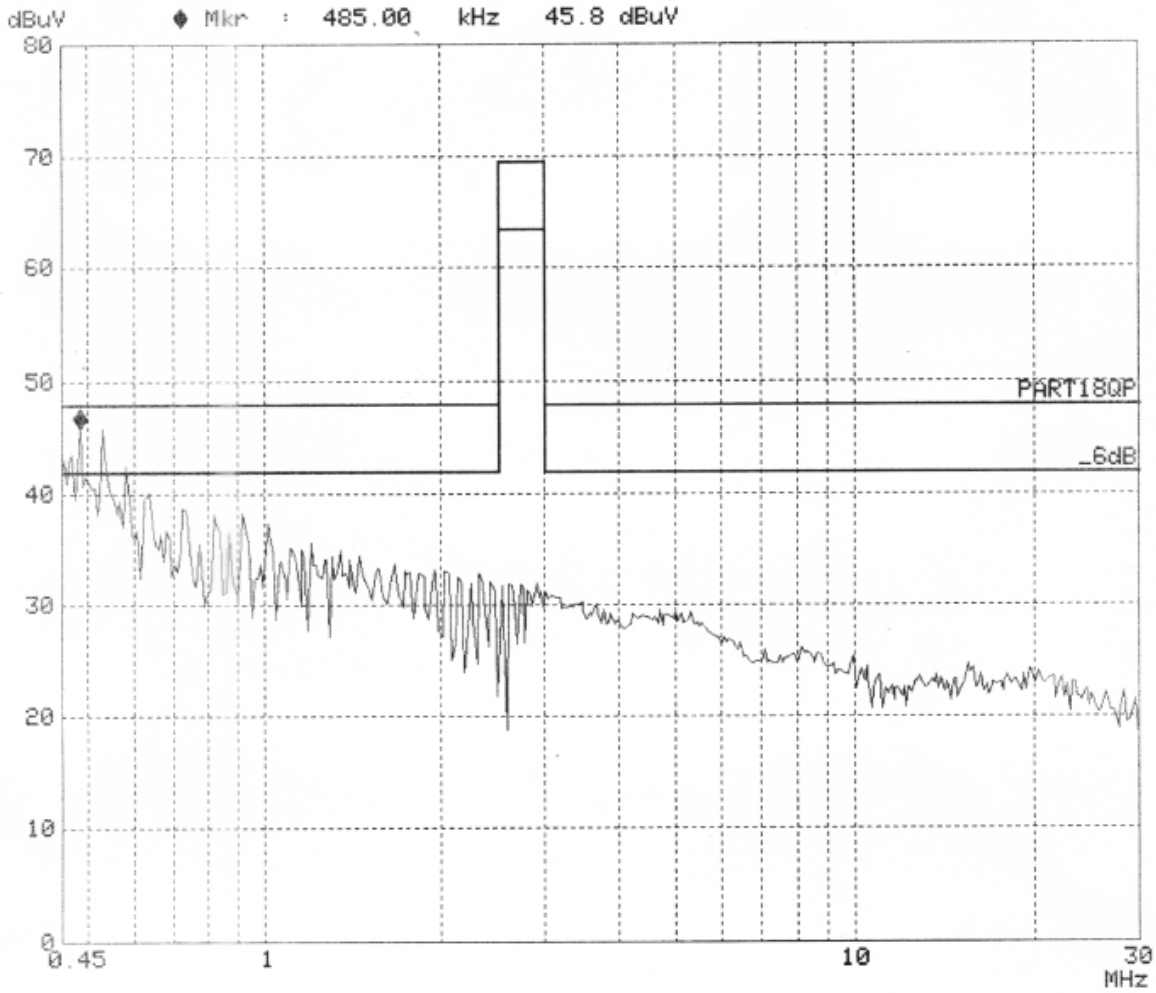
EUT: Saving lamp M/N:CL-10WL
Manuf: CANEL
Op Cond: On
Operator: Andy
Test Spec: Va 120V/60Hz
Comment: Tem22C Hum50%
Date: 25. Apr 03 11:13

Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC1

Final Measurement: x QP
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

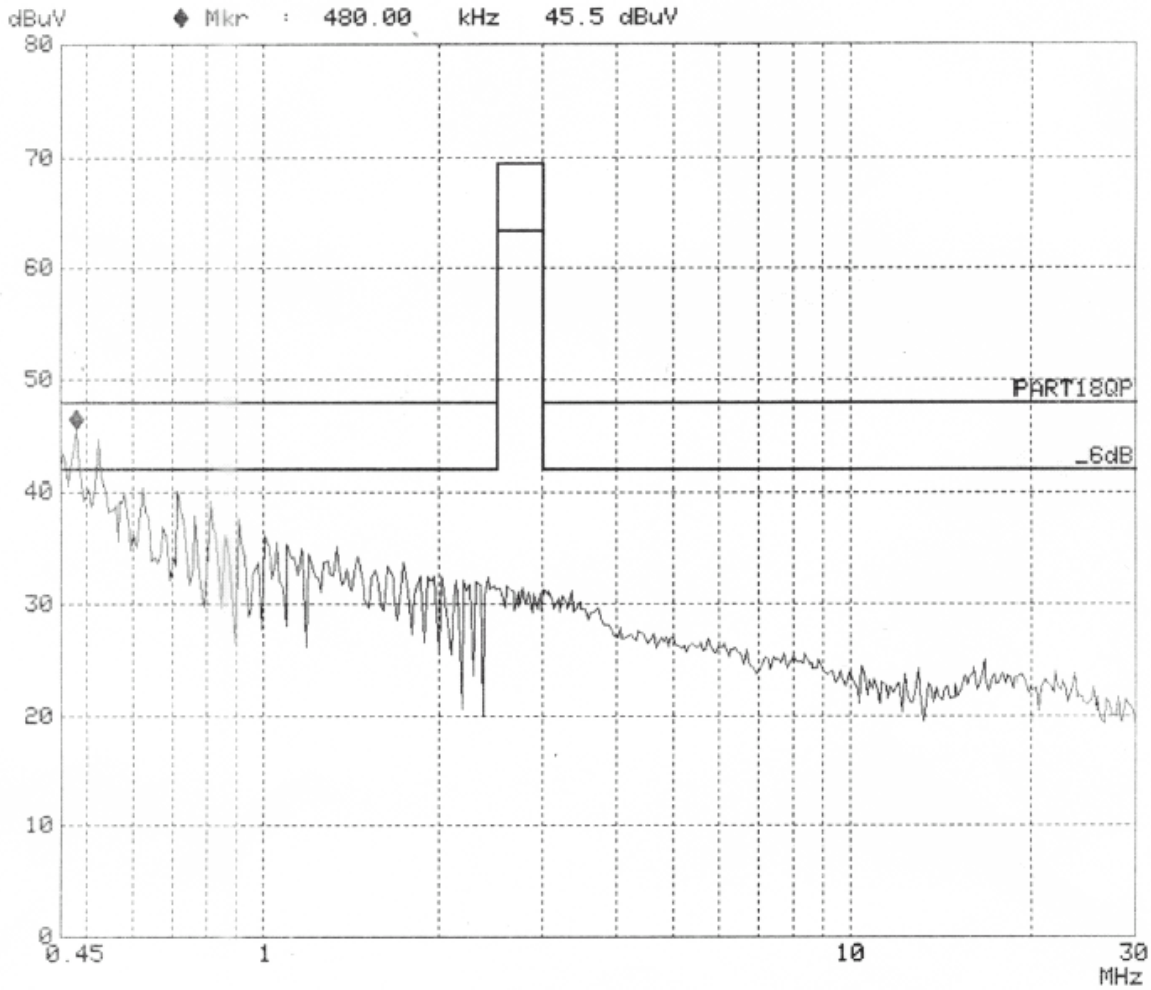
EUT: Saving lamp M/N:CL-10WL
Manuf: CANEL
Op Cond: On
Operator: Andy
Test Spec: Vb 120V/60Hz
Comment: Tem22C Hum50%
Date: 25. Apr 03 11:16

Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC1

Final Measurement: x QP
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

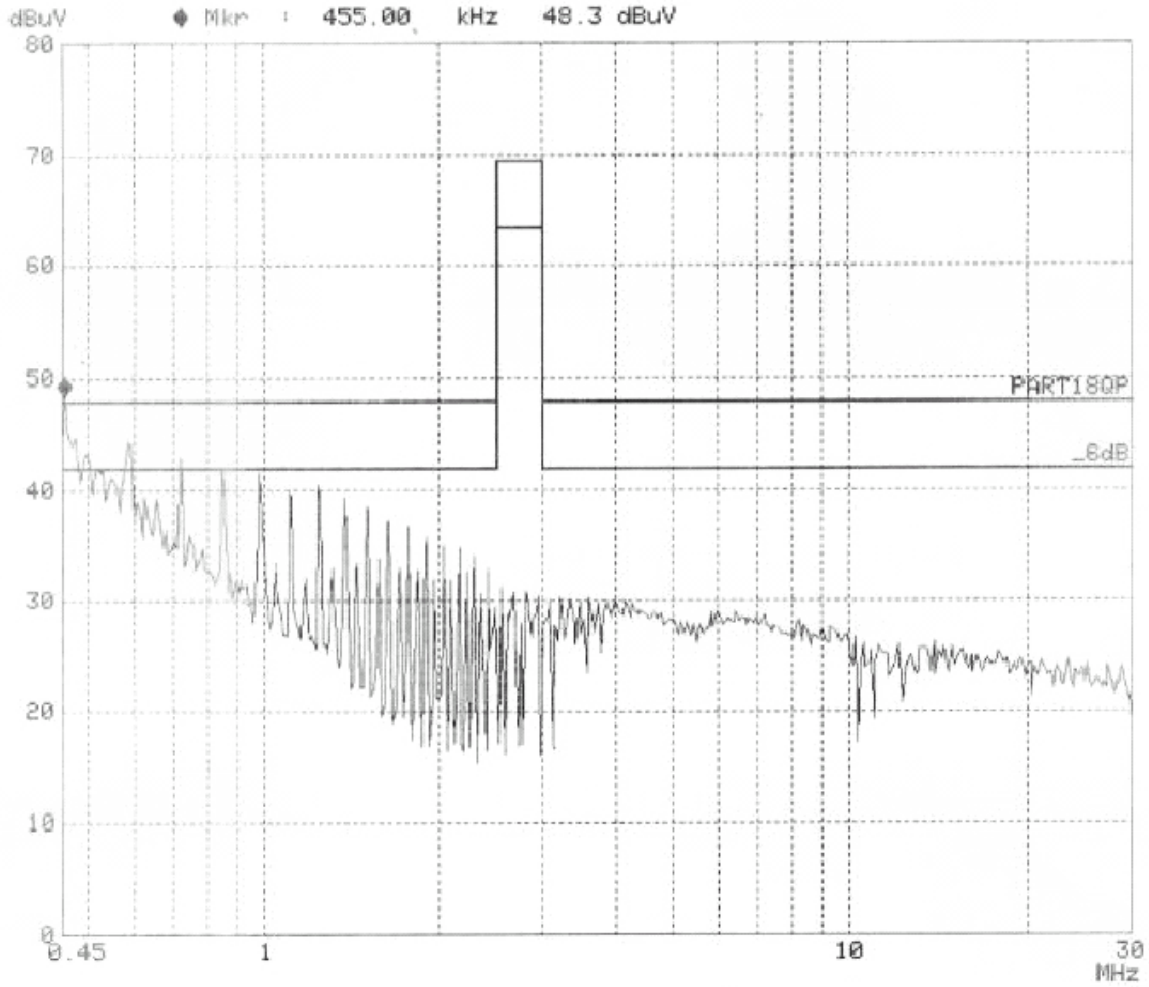
EUT: Saving lamp M/N:CL-15WL
Manuf: CANEL
Op Cond: On
Operator: Andy
Test Spec: Va 120V/60Hz
Comment: Tem22C Hum50%
Date: 25. Apr 03 11:21

Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC1

Final Measurement: x QP
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

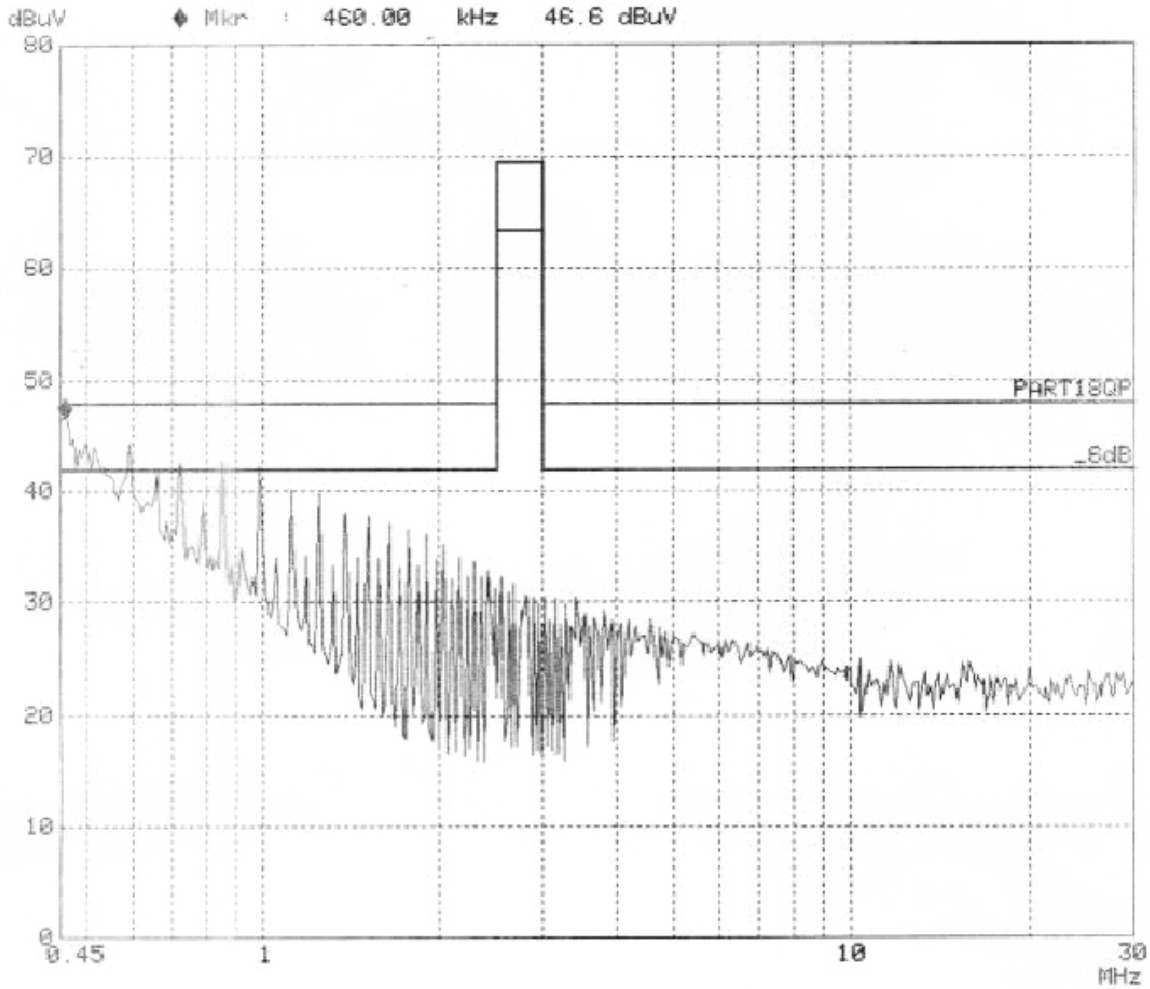
EUT: Saving lamp M/N:CL-15WL
Manuf: CANEL
Op Cond: On
Operator: Andy
Test Spec: Vb 120V/60Hz
Comment: Tem22C Hum50%
Date: 25. Apr 03 11:18

Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO	LN OFF
2M	10M	10k	9k	PK	10ms	AUTO	LN OFF
10M	30M	25k	9k	PK	1ms	AUTO	LN OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC1

Final Measurement: x QP
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

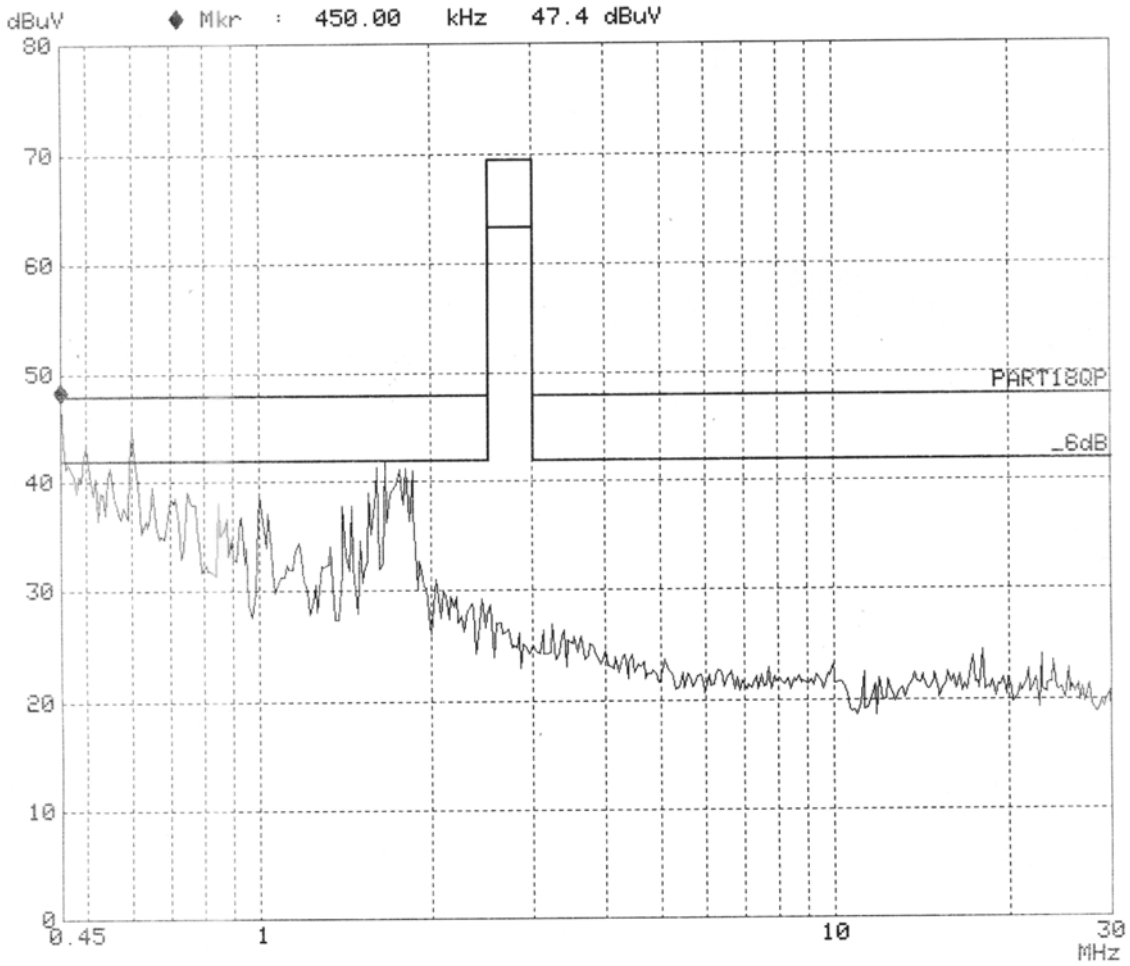
EUT: Saving lamp M/N:CL-20WL
Manuf: CANEL
Op Cond: On
Operator: Andy
Test Spec: Va 120V/60Hz
Comment: Tem22C Hum50%
Date: 25. Apr 03 11:02

Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC1

Final Measurement: x QP
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

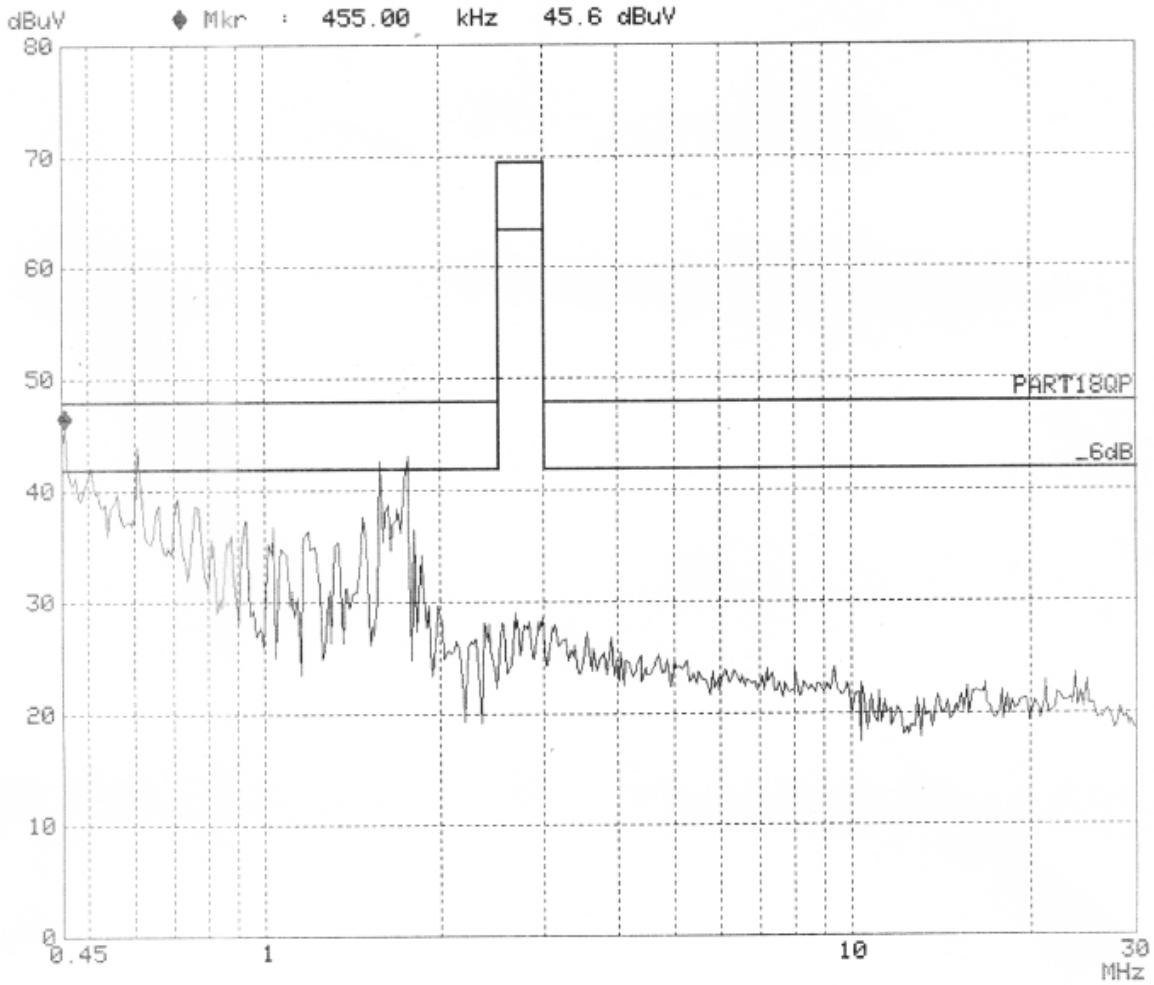
EUT: Saving lamp M/N:CL-20WL
Manuf: CANEL
Op Cond: On
Operator: Andy
Test Spec: Vb 120V/60Hz
Comment: Tem22C Hum50%
Date: 25. Apr 03 10:59

Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC1

Final Measurement: x QP
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB



CONDUCTION EMISSION STANDARD FCC PART18

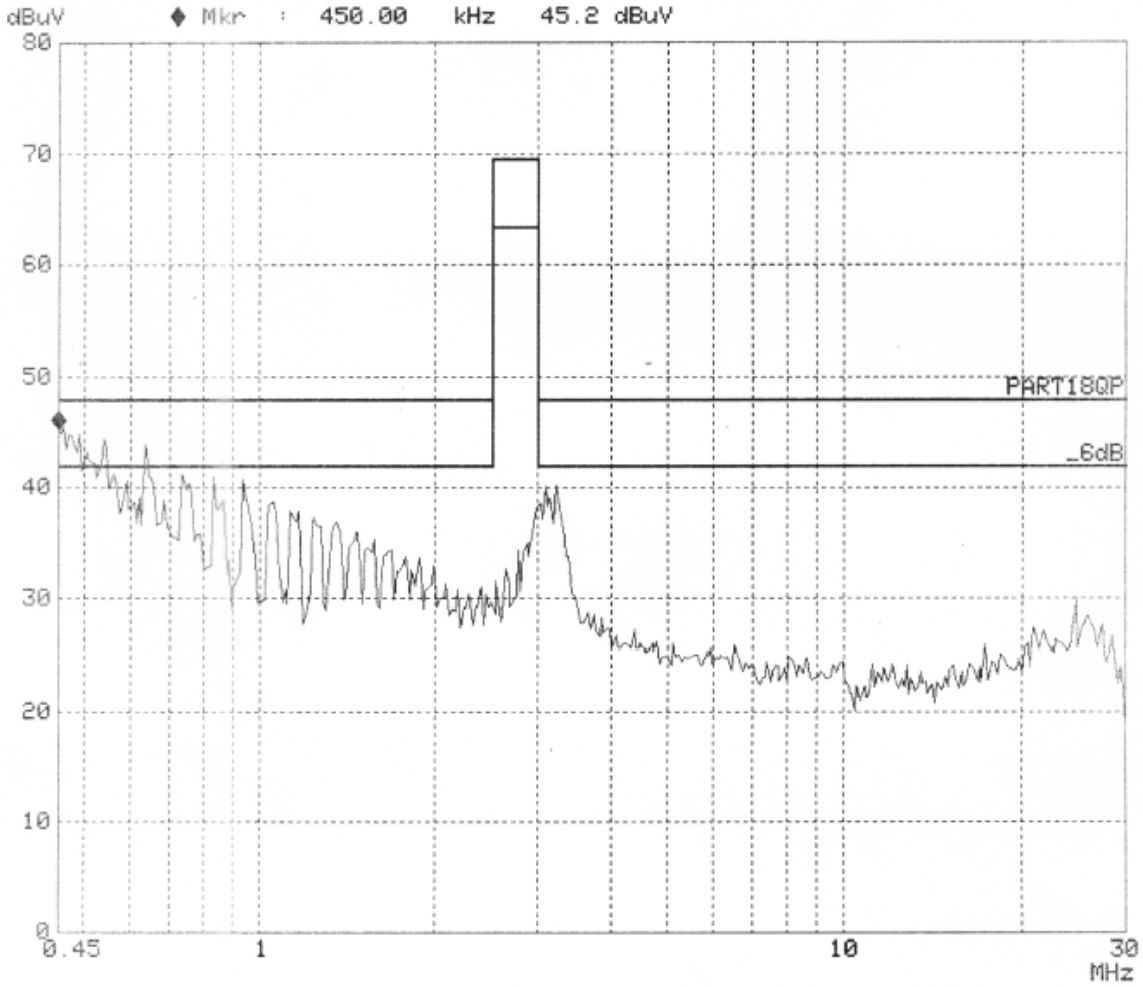
EUT: Saving lamp M/N:CL-25WL
Manuf: CANEL
Op Cond: On
Operator: Andy
Test Spec: Va 120V/60Hz
Comment: Tem22C Hum50%
Date: 25. Apr 03 11:28

Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC1

Final Measurement: x QP
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB

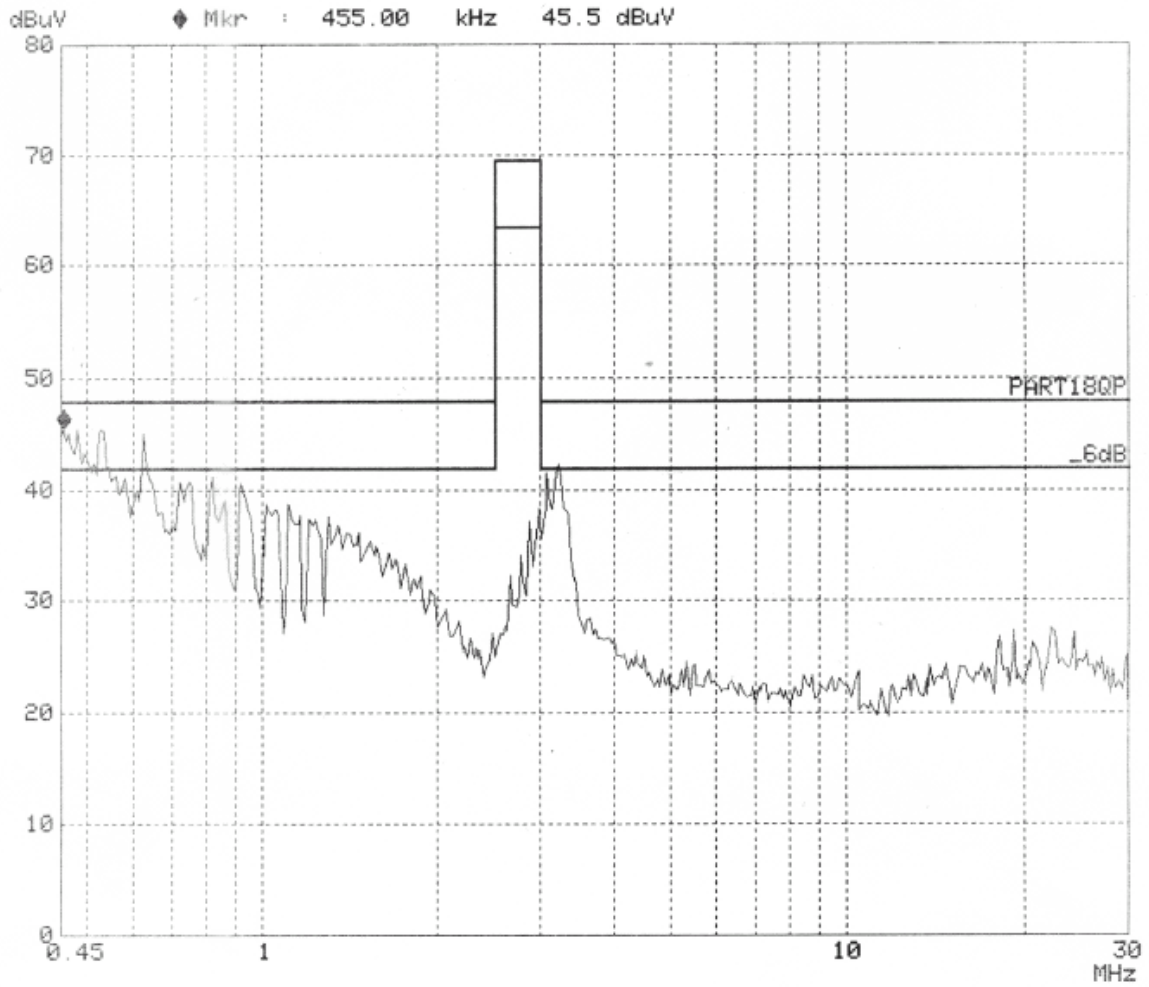


CONDUCTION EMISSION STANDARD FCC PART18

EUT: Saving lamp M/N:CL-25WL
Manuf: CANEL
Op Cond: On
Operator: Andy
Test Spec: Vb 120V/60Hz
Comment: Tem22C Hum50%
Date: 25. Apr 03 11:30

Scan Settings (3 Ranges)

Frequencies			Receiver Settings				
Start	Stop	Step	IF BW	Detector	M-Time	Atten	Preamp
450k	2M	5k	9k	PK	20ms	AUTO LN	OFF
2M	10M	10k	9k	PK	10ms	AUTO LN	OFF
10M	30M	25k	9k	PK	1ms	AUTO LN	OFF

Transducer No.	Start	Stop	Name
1	9k	30M	CONFAC1

Final Measurement: x QP
Meas Time: 1 s
Subranges: 25
Acc Margin: 6dB