

CTS (GUANGZHOU) TESTING SERVICE TECHNOLOGY INTERNATIONAL

**OPERATE ACCORDING TO ISO/IEC 17025** 

# **EMF TEST REPORT**

TEST REPORT NUMBER : CGZ3140307-00565-L

CTS (Guangzhou) Testing Service Technology Co., Ltd. G.Z. test site: A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China





TEST REPORT EN 62493:2010					
Assessment of lighting equipment related to human exposure to electromagnetic fields					
Report Reference No	CGZ3140307-00565-L				
Date of issue:	26 March 2014				
Testing Laboratory Name	CTS (Guangzhou) Testing Service Technology Co., Ltd.				
	GZ test site: A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China				
Testing location/ procedure:	Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □				
Applicant's name:	ZhongShan ZAWA Lighting Co., Ltd.				
Address	No.13, LeFeng Six Road, HengLan Town, ZhongShan, GuangDong, China				
Test specification:					
Standard:	EN 62493:2010				
Test Report Form No	CTSEMF-1.0				
TRF Originator	CTS (Guangzhou) Testing Service Technology Co., Ltd.				
Master TRF	Dated 2012-01				
This publication may be reproduced (Guangzhou) Testing Service Techno the material. CTS (Guangzhou) Test	<b>Technology Co., Ltd. All rights reserved.</b> in whole or in part for non-commercial purposes as long as the CTS ology Co., Ltd. is acknowledged as copyright owner and source of ing Service Technology Co., Ltd. takes no responsibility for and will ulting from the reader's interpretation of the reproduced material due				
Test item description::	Fixed Lamp				
Trade Mark:	/				
Manufacturer:	ZhongShan ZAWA Lighting Co., Ltd.				
Model/Type reference:	MX11047-4H				
Ratings	220-240V~ 50/60Hz 200W				
Result	PASSED				

Compiled by:

Supervised by:

Approved by:

Prek Wen

Kate Zhang / File administrators

Rock Weng / Technique principal

Jun Yang / Manager



Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

 CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

Report No.: CGZ3140307-00565-L

Page 1 of 26



# EMF -- TEST REPORT

# Test Report No. : CGZ3140307-00565-L

26 March 2014 Date of issue

Type / Model:	MX11047-4H
EUT:	Fixed Lamp
Applicant:	ZhongShan ZAWA Lighting Co., Ltd.
Address	No.13, LeFeng Six Road, HengLan Town, ZhongShan, GuangDong, China
Telephone	+86-0760-22537709
Fax:	+86-0760-22537709
Contact:	YinWu
Manufacturer:	ZhongShan ZAWA Lighting Co., Ltd.
Address	No.13, LeFeng Six Road, HengLan Town, ZhongShan, GuangDong, China
Telephone	+86-0760-22537709
Fax:	+86-0760-22537709
Contact:	YinWu
Factory:	ZhongShan ZAWA Lighting Co., Ltd.
Address	No.13, LeFeng Six Road, HengLan Town, ZhongShan, GuangDong, China
Telephone	+86-0760-22537709
Fax:	+86-0760-22537709
Contact	YinWu

The test report merely corresponds to the test sample.

It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn





# **TABLE OF CONTENTS**

Des	scription	Page
1	TEST STANDARDS	4
2	SUMMARY	4
	2.1 GENERAL REMARKS 2.2 FINAL ASSESSMENT	
3	EQUIPMENT UNDER TEST	5
	<ul> <li>3.1 Power supply system utilised</li> <li>3.2 Short description of the Equipment under Test (EUT)</li> <li>3.3 EUT operation mode</li> <li>3.4 EUT configuration</li> </ul>	5 5
4	TEST ENVIRONMENT	7
	<ul> <li>4.1 Address of the test laboratory</li></ul>	7 7 7 7
5	TEST CONDITIONS AND RESULTS	9
	<ul> <li>5.1 Conducted disturbance</li> <li>5.2 Radiated disturbance (magnetic field)</li> <li>5.3 Radiated disturbance (Electric field)</li> <li>5.4 Induced current density</li> </ul>	13 18
6	TEST PHOTOGRAPHS	23
	<ul> <li>6.1. Photos of power line conducted emission measurement</li> <li>6.2. Photos of radiated emission measurement (Magnetic field)</li> <li>6.3. Photos of radiated emission measurement (Electric field)</li> </ul>	23
7	EXTERNAL AND INTERNAL PHOTOS OF THE EUT	24
8	Manufacturer/ Approval holder Declaration	26

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd. A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



# 1 TEST STANDARDS

The tests were performed according to following standards: EN 62493:2010 Assessment of lighting equipment related to human exposure to electromagnetic fields

# 2 SUMMARY

# 2.1 GENERAL REMARKS

Date of receipt of test sample	25 March 2014
Testing commenced on	25 March 2014
Testing concluded on	26 March 2014

## 2.2 FINAL ASSESSMENT

The EMC requirements pertaining to the technical standards and tested operation modes are

- fulfilled.
- □ **not** fulfilled.

The equipment under test

- - fulfils the EN 62493:2010 requirements cited on page 1.
- **does not** fulfil the EN 62493:2010 requirements cited on page 1.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



# **3 EQUIPMENT UNDER TEST**

## 3.1 Power supply system utilised

Power supply voltage: ■ AC 230V

□ Other (Specified blank below)

## 3.2 Short description of the Equipment under Test (EUT)

1

Number of tested samples: Serial number: Prototype

#### 3.3 EUT operation mode

The equipment under test was operated during the measurement under the following conditions:



Operating Mode: Normal

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn





# 3.4 EUT configuration

(The CDF filled by the applicant can be viewed at the test laboratory.)

The following peripheral devices and interface cables were connected during the measurement:

Not Applicable

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



# 4 TEST ENVIRONMENT

## 4.1 Address of the test laboratory

GZ test site: A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

Tel: +86-20-85543113 (32 lines)

Fax: +86-20-38780406

## 4.2 Test facility

The test facility is recognized, certified, or accredited by the following organizations:

## CNAS-Lab Code: L3394

CTS (Guangzhou) Testing Service Technology Co., Ltd. has been assessed and proved to be in compliance with CNAS-CL01: 2006 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

## 4.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35 ° C
Humidity:	25~75 %
Atmospheric pressure:	86~106 kPa

## 4.4 Definitions of symbols used in this test report

- The black square indicates that the listed condition, standard or equipment is applicable for this report.
- □ The empty square indicates that the listed condition, standard or equipment is **not** applicable for this report.

### 4.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the CTS quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

### 4.6 Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Conduction disturbance	150kHz~30MHz	±1.22dB	(1)
Dediction emission (2m)	30MHz~300MHz	±3.14dB	(1)
Radiation emission (3m)	300MHz~1000MHz	±3.18dB	(1)

(1) This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel:
 +86-20-85543113 (32 lines)

 Fax:
 +86-20-38780406

 Complaint line:
 +86-20-85533471



# **4.7 Test Description**

#### 4.7.1 Description of Standards and Results

EN 62493: 2010					
Description of Test Item	Limits	Results			
Conducted disturbance	EN 55015: 2006+A1: 2007+A2: 2009		PASS		
Radiated Disturbance (Magnetic)	EN 55015: 2006+A1: 2007+A2: 2009		PASS		
Radiated Disturbance (Electric)	EN 55015: 2006+A1: 2007+A2: 2009		PASS		
Induced current density	EN 62493: 2010		PASS		

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



# **5 TEST CONDITIONS AND RESULTS**

## 5.1 Conducted disturbance

For test instruments and accessories used see section 6 part 6.1.

#### 5.1.1 Description of the test location

Test location: Shielded room

#### 5.1.2 Description of the test set-up

5.1.2.1 Operating Condition

The EUT is engraving during the test, and the results of the maximum emanation are recorded

#### 5.1.2.2 Block Diagram of Test Setup



#### 5.1.3 Limits disturbance

Frequency			At mains terminals (dBµV)		
		icy	Quasi-peak Level	Average Level	
9kHz	9kHz ~ 50kHz		110		
50kHz	50kHz ~ 150kHz		90 ~ 80*		
150kHz	~	0.5MHz	66 ~ 56*	56 ~ 46*	
0.5MHz	~	5.0MHz	56	46	
5.0MHz	~	30MHz	60	50	

Note: (1) The tighter limit shall apply at the edge between two frequency bands.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China Tel: +86-20-85543113 (32 lines) Fax: +86-20-38780406 Complaint line: +86-20-85533471 E-mail: cts@cts-lab.com.cn



#### 5.1.4 Test result

The requirements are	Fulfilled
Band width	9kHz
Frequency range	20kHz - 30 MHz
Min. limit margin	>32.23 dB at 9kHz - 30 MHz

**Remarks:** The limits are kept. For detailed results, please see the following page(s).

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



#### 5.1.5 Test protocol

Test point Operation mode Remarks:	L Normal	Result:	<ul> <li>■ - passed</li> <li>□ - not passed</li> </ul>

EUT	Fixed Lamp
Operating Condition	AC 230V
Test Condition	Ambient Temperature: 24°C Humidity: 56%
Operator	Eric
MODEL NO.	MX11047-4H



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	9.78	21.04	30.82	66.00	-35.18	QP
2	0.1500	9.78	7.33	17.11	56.00	-38.89	AVG
3	0.4221	9.82	-1.41	8.41	57.41	-49.00	QP
4	0.4221	9.82	-4.52	5.30	47.41	-42.11	AVG
5	1.0901	9.83	-1.77	8.06	56.00	-47.94	QP
6	1.0901	9.83	-4.74	5.09	46.00	-40.91	AVG
7	1.9381	9.86	-1.86	8.00	56.00	-48.00	QP
8	1.9381	9.86	-4.68	5.18	46.00	-40.82	AVG
9	6.8501	9.89	-0.18	9.71	60.00	-50.29	QP
10	6.8501	9.89	-5.15	4.74	50.00	-45.26	AVG
11	23.2861	10.04	9.05	19.09	60.00	-40.91	QP
12	23.2861	10.04	5.55	15.59	50.00	-34.41	AVG

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn







No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector
1	0.1500	9.78	23.99	33.77	66.00	-32.23	QP
2	0.1500	9.78	9.48	19.26	56.00	-36.74	AVG
3	0.2581	9.78	-1.16	8.62	61.49	-52.87	QP
4	0.2581	9.78	-4.15	5.63	51.49	-45.86	AVG
5	0.6541	9.84	-1.59	8.25	56.00	-47.75	QP
6	0.6541	9.84	-4.58	5.26	46.00	-40.74	AVG
7	1.4541	9.85	-1.87	7.98	56.00	-48.02	QP
8	1.4541	9.85	-4.73	5.12	46.00	-40.88	AVG
9	6.9021	9.89	-0.40	9.49	60.00	-50.51	QP
10	6.9021	9.89	-5.07	4.82	50.00	-45.18	AVG
11	22.5661	10.03	8.06	18.09	60.00	-41.91	QP
12	22.5661	10.03	4.78	14.81	50.00	-35.19	AVG

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn





## 5.2 Radiated disturbance (magnetic field)

For test instruments and accessories used see section 6 part 6.2.

#### 5.2.1 Description of the test location

Test location : Shielded room

Test disturbance: 2 Meter

#### 5.2.2 Description of the test set-up

5.2.2.1 Operating Condition

The EUT is engraving during the test, and the results of the maximum emanation are recorded

#### 5.2.2.2 Block Diagram of Test Setup



Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



#### 5.2.3 Limits of disturbance

	Frequer	Limits for loop diameter (dBµA)				
	requei	icy	2m			
9kHz	~	70kHz	88			
70kHz	~	150kHz	88 ~ 58*			
150kHz	~	3.0MHz	58 ~ 22*			
3.0MHz	~	30MHz	22			

Note: (1) The tighter limit shall apply at the edge between two frequency bands.

(2) Distance refers to the distance in meters between the test instrument antenna and the closest point of any part of the E.U.T.

#### 5.2.4 Test result

The requirements are	Fulfilled
Band width	9kHz
Frequency range	100kHz - 30 MHz
Min. limit margin MHz	>9.55 dB at 9kHz- 30MHz

**Remarks:** The limits are kept. For detailed results, please see the following page(s).

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



#### 5.2.5 Test protocol

Test point:XOperation modeNoRemarks:	ormal	Result:	<ul> <li>passed</li> <li>not passed</li> </ul>		
EUT	Fixed Lamp				
Operating Condition	AC 230V				
Test Condition	Ambient Temperature: 24°C Humidity: 56%				
Operator	Eric				
MODEL NO.	MX11047-4H				



No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	0.1482	55.65	-39.60	16.05	58.48	-42.43	peak
2	0.3183	55.78	-40.91	14.87	48.96	-34.09	peak
3	1.0605	54.32	-40.84	13.48	34.50	-21.02	peak
4	1.7124	54.51	-41.19	13.32	28.74	-15.42	peak
5	3.4146	53.75	-41.45	12.30	22.00	-9.70	peak
6	5.1781	51.62	-40.47	11.15	22.00	-10.85	peak

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn







No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	0.1134	56.36	-38.86	17.50	69.01	-51.51	peak
2	0.4045	56.00	-40.83	15.17	46.08	-30.91	peak
3	0.6720	55.20	-42.04	13.16	39.98	-26.82	peak
4	1.4431	53.67	-41.19	12.48	30.79	-18.31	peak
5	3.0990	53.70	-41.49	12.21	22.00	-9.79	peak
6	4.8632	51.85	-40.99	10.86	22.00	-11.14	peak

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn







No.	Frequency (MHz)	Factor (dB)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	0.2148	56.60	-40.82	15.78	53.68	-37.90	peak
2	0.4381	56.72	-42.36	14.36	45.12	-30.76	peak
3	0.6420	56.29	-40.36	15.93	40.53	-24.60	peak
4	1.5019	55.90	-41.62	14.28	30.31	-16.03	peak
5	2.9777	53.94	-41.40	12.54	22.09	-9.55	peak
6	4.5674	52.28	-41.01	11.27	22.00	-10.73	peak

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



# CTS

## 5.3 Radiated disturbance (Electric field)

For test instruments and accessories used see section 6 part 6.3.

#### 5.3.1 Description of the test location

Test location : Semi-Anechoic chamber

Test disturbance: 3 Meter

#### 5.3.2 Description of the test set-up

5.3.2.1 Operating Condition

The EUT is engraving during the test, and the results of the maximum emanation are recorded

#### 5.3.2.2 Block Diagram of Test Setup



#### 5.3.3 Limits of disturbance

Frequency (MHz)	Distance (Meters)	Field Strengths Limits (dBµV/m)
30 ~ 230	3	40
230 ~ 300	3	47

Note: (1) The tighter limit shall apply at the edge between two frequency bands.(2) Distance refers to the distance in meters between the test instrument antenna and the closest point of any part of the E.U.T.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel:
 +86-20-85543113 (32 lines)

 Fax:
 +86-20-38780406

 Complaint line:
 +86-20-85533471

 E-mail:
 cts@cts-lab.com.cn



#### 5.3.4 Test result

The requirements are	Fulfilled
Band width	120kHz
Frequency range	30 MHz - 300 MHz
Min. limit margin	>18.40 dB at 30 - 300 MHz

**Remarks:** The limits are kept. For detailed results, please see the following page(s).

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



#### 5.3.5 Test protocol

Test point: Operation mode Remarks:	Horizontal Normal		Result:	<ul> <li>passed</li> <li>not passed</li> </ul>				
EUT	Fixed	Fixed Lamp						
Operating Condition	AC 23	30V						
Test Condition	Ambie	ent Temperature	e: 24°C Humidity	r: 56%				
Operator	Eric							
MODEL NO.	MX11	047-4H						
80.0 dBuV/m	and and a second s			EN62493 RE-3M Margin -6 dB				
20								

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	30.5411	-18.94	40.54	21.60	40.00	-18.40	QP
2	75.4509	-21.45	31.88	10.43	40.00	-29.57	QP
3	144.7094	-16.83	33.18	16.35	40.00	-23.65	QP
4	190.1603	-12.02	33.10	21.08	40.00	-18.92	QP
5	223.1663	-12.40	32.23	19.83	40.00	-20.17	QP
6	288.6373	-7.37	33.04	25.67	47.00	-21.33	QP

165.00

192.00

219.00

246.00

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd. A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

30.000

57.00

84.00

111.00

138.00

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

300.00 MHz







No.	Frequency (MHz)	Factor (dB/m)	Reading (dBuV)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Det.
1	73.2865	-22.03	34.12	12.09	40.00	-27.91	QP
2	127.9358	-17.28	33.85	16.57	40.00	-23.43	QP
3	191.2424	-12.09	32.81	20.72	40.00	-19.28	QP
4	223.7074	-12.40	33.14	20.74	40.00	-19.26	QP
5	255.0901	-12.69	33.71	21.02	47.00	-25.98	QP
6	298.9178	-5.73	33.74	28.01	47.00	-18.99	QP

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



# CTS

## 5.4 Induced current density

#### 5.4.1 Description of the test location

Test location : Semi-Anechoic chamber

Test disturbance: 50 cm

#### 5.4.2 Description of the test set-up

5.4.2.1 Operating Condition

The EUT is engraving during the test, and the results of the maximum emanation are recorded

#### 5.4.2.2 Block Diagram of Test Setup



#### 5.4.3 Test Limit

Frequency (MHz)	Distance (Meters)	Limit
0.01 ~ 10	0.5	0.85

#### 5.4.4 Test result

The requirements are	Fulfilled
Frequency range	20 kHz - 10 MHz
Result	– passed
Result	$\Box$ – not passed

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn



# **6 TEST PHOTOGRAPHS**

6.1. Photos of power line conducted emission measurement



6.2. Photos of radiated emission measurement (Magnetic field)



6.3. Photos of radiated emission measurement (Electric field)



Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel:
 +86-20-85543113 (32 lines)

 Fax:
 +86-20-38780406

 Complaint line:
 +86-20-85533471

 E-mail:
 cts@cts-lab.com.cn



# 7 EXTERNAL AND INTERNAL PHOTOS OF THE EUT



External view -1



External view -2

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

#### CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn

See Reverse For Terms And Conditions of Service

CTS







Lampholder

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd. A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn





# 8 Manufacturer/ Approval holder Declaration

The following identical model(s):

N/A

Belong to the tested device:

Product description: Fixed Lamp Model name: MX11047-4H

No additional models were tested.

Copyright of this report is owned by Centre of Testing Service and may not be reproduced other than in full except with the written approval of the issuing Company.

CTS (Guangzhou) Testing Service Technology Co., Ltd.

 A101, No.65, Zhuji Road, Tianhe District, Guangzhou, Guangdong, China

 Tel: +86-20-85543113 (32 lines)
 Fax: +86-20-38780406

 Complaint line: +86-20-85533471
 E-mail: cts@cts-lab.com.cn