

# CENTRE OF TESTING SERVICE INTERNATIONAL

**OPERATE ACCORDING TO ISO/IEC 17025** 

# **TEST REPORT**

# **RoHS 2011/65/EU**

Test Report Number: CGZ3131230-04015-C-R1



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

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#### 1 General Information

### 1.1 Application Details

Name : Shenzhen Aglare Lighting Co., Ltd.

Address : Factory A, Supply and Marketing Cooperative Industrial Park,

Guanlan Avenue, Guanlan Town, Bao'an District, Shenzhen City,

Guangdong, China

Contact : Cheng Jun

Telephone : +86-755-88868631
Fax : +86-27659398
Mobile telephone : 13902981139
Email : aglare@aglare.com

#### 1.2 Manufacturer & Buyer

Manufacturer name : Shenzhen Aglare Lighting Co., Ltd.

Address : Factory A, Supply and Marketing Cooperative Industrial Park,

Guanlan Avenue, Guanlan Town, Bao'an District, Shenzhen City,

Guangdong, China

Contact : Cheng Jun

Telephone : +86-755-88868631
Fax : +86-27659398
Mobile telephone : 13902981139
Email : aglare@aglare.com

Buyer name : /

#### 1.3 Description of the Test Item

Sample name : LED Amusement Light

Model No. : YJLED-001A-S12RGB;YJLED-015-SM16RGB, YJLED-007-SV12,

YJLED-007-SM12, YJLED-007-SV16, YJLED-007-SM16, YJLED-007-SV18, YJLED-007-SM18, YJLED-007-SV20, YJLED-007-SM20, YJLED-008-SV12, YJLED-008-SM12, YJLED-008-SV16, YJLED-008-SM16, YJLED-008-SW20, YJLED-009-SV12, YJLED-009-SM12, YJLED-009-SV16, YJLED-009-SM16, YJLED-009-SV20, YJLED-009-SM20, YJLED-010-SV22, YJLED-011-SV12, YJLED-011-SV16, YJLED-011-SV20, YJLED-011-SM22, YJLED-013-SV8, YJLED-013-SM8, YJLED-015-SV12RGB, YJLED-015-SM16RGB-1, YJLED-015-S12RGB, YJLED-018-SM12, YJLED-018-SV16, YJLED-018-SV20, YJLED-018-SM18, YJLED-018-ST9, YJLED-019-S8RGB, YJLED-019-S15WW-A, YJLED-019-SV18, YJLED-0019-S8RGB, YJLED-020-S1RGB, YJLED-021-S1RGB, YJLED-022-S3RGB, YJLED-024-S6, YJLED-001A-S48RGB-1-A,

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YJLED-002A-S12RGB, YJLED-003A-S12RGB, YJLED-A003A-S12RGB, YJLED-004A-S12RGB-1, YJLED-A004A-S12RGB-1, YJLED-005A-S12RGB, YJLED-A006A-S12RGB-1, YJLED-A006A-S12RGB-1, YJLED-A008-SV16, YJLED-A006A-S12RGB-1, YJLED-A008-SV16, YJLED-A

A008-SV20, YJLED-008-ST8RGB

Brand name : Aglare Lighting Condition of sample(s) : EFFECTIVE

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#### 2 Test results

### 2.1 Sample Receiving Date

Dec. 30, 2013

### 2.2 Testing Period

Dec. 30, 2013 to Jan. 06, 2014

#### 2.3 Test Requested

In accordance with the RoHS Directive 2011/65/EU Annex II.

#### 2.4 Test Method

1. X-Ray Fluorescence Spectrometry method in reference to IEC 62321: 2008.

#### 2. Chemical test method

Test Item(s)	Test Method	Test Instrument		
Lead (Pb)	With reference to IEC 62321:2008	ICP-AES		
Cadmium (Cd)	With reference to IEC 62321:2008	ICP-AES		
Mercury (Hg)	With reference to IEC 62321:2008	ICP-AES		
Chromium VI (Cr VI)	With reference to IEC 62321:2008	UV-Vis		
PBBs	With reference to IEC 62321:2008	GC-MS		
PBDEs	With reference to IEC 02321.2000	GC-1013		

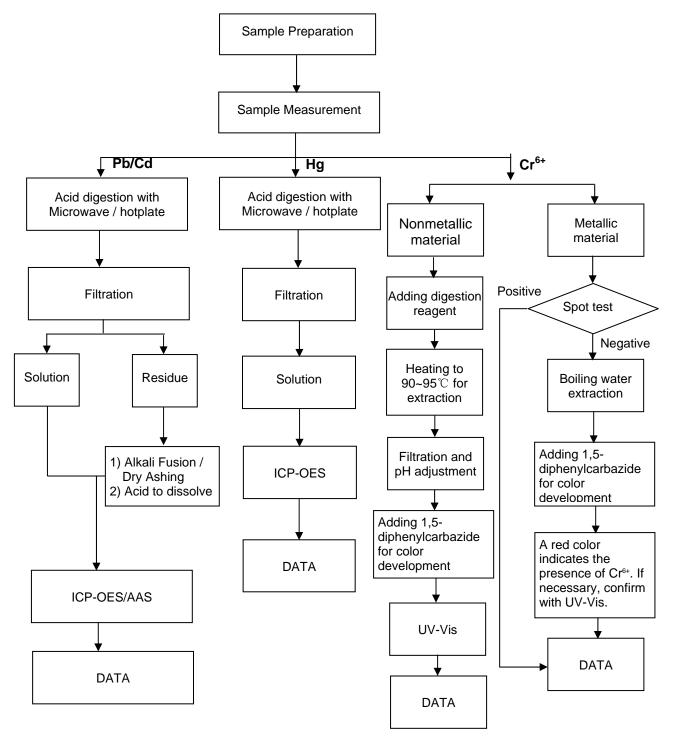




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#### 2.5 Chemical Test Method Flow Chart



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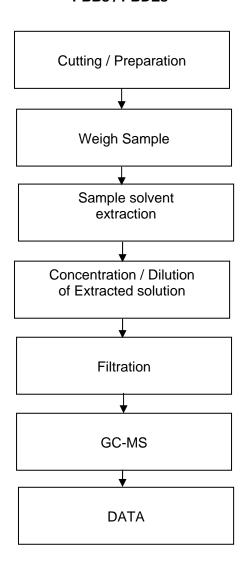


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#### **PBBs / PBDEs**



#### 2.6 Conclusion

Based on the performed tests on submitted samples, the results of Lead, Cadmium, Mercury, Hexavalent chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE) comply with the limits as set by RoHS Directive 2011/65/EU Annex II; recasting 2002/95/EC.

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#### 2.7 **Test Results**

#### 2.7.1 Test results of all parts by EDXRF and chemical confirmation

No.			Results				Chemical Confirmation					
No.		Sample Description			Pb Cd Hg Cr Br		Br	Result (Unit=mg/kg)				
1	Transparent plastic cover		Р	Р	Р	Р	Р					
2	Cover(Y					Р	Р	Р	Р	Р		
3	S12RG			Silvery metal screw	Р	Р	Р	Р	/			
4	Black ink		Black ink	Р	Р	Р	Р	Р				
5		Transparent encapsulation material (soft)		Р	Р	Р	Р	Р				
6		L	.ED	White plastic	Р	Р	Р	Р	Р			
7		White fibre board		Р	Р	Р	Р	Х	PBBs,PBDEs =N.D.			
8		Copper		opper-colored metal wafer		Р	Р	Р	/			
9				Black plastic jacket with white printing	Р	Р	Р	Р	Р			
10	Body					Silvery metal cover	Р	Р	Р	Р	/	
11	(YJLED -001A-	Δlur	minum	Black rubber end closure	Р	Р	Р	Р	Р			
12	S12RG B)	electro	trolytic acitor	Pin	Р	Р	Р	Р	/			
13	D)	Сар	Jaciloi	Capacitor anode film	Р	Р	Р	Р	/			
14		Brown polyester capacitor		Capacitor cathode film	Р	Р	Р	Р	/			
15				Paper film	Р	Р	Р	Р	Р			
16				Brown encapsulation material	Р	Р	Р	Р	Р			
17				Capacitor film	Р	Р	Р	Р	/			
18				Pin	Р	Р	Р	Р	/			

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	O and D and		Results					Chemical Confirmation	
No.	Sample Description			Pb	Cd	Hg	Cr	Br	Result (Unit=mg/kg)
19	IC		Black body	Р	Р	Р	Р	Р	
20		0	Pin	Р	Р	Р	Р	/	
21		Chi	p resistor	Х	Р	Р	Р	Р	Pb=1.8×10 <sup>3 △</sup>
22	Body(YJLE D-001A-	Chip	capacitor	Р	Р	Р	Р	Р	
23	S12RGB)	Ch	ip audion	Р	Р	Р	Р	Х	PBBs,PBDEs =N.D.
24	Chip voltag		e regulator diode	Х	Р	Р	Р	Р	Pb=4.7x10 <sup>4</sup> *
25		Solder tin		Р	Р	Р	Р	/	
26	Grey-white filled		led material (block)	Р	Р	Р	Р	Р	
27		Transparent encapsulation material (hard)		Р	Р	Р	Р	Р	
28		Grey-white plastic cover		Р	Р	Р	Р	Р	
29		Silvery	Silvery metal cover		Р	Р	Р	/	
30		Black f	illed material	Р	Р	Р	Р	Р	
31	Pody/VII E		Grey cable jacket	Р	Р	Р	Р	Р	
32	Body(YJLE D-015-	Wire	Silvery wire	Р	Р	Р	Р	/	
33	SM16RGB)		Black pyrocondensation tube	Р	Р	Р	Р	Р	
34		Color wheel resistor	Grey body	Р	Р	Р	Р	Р	
35			Transparent encapsulation material	Р	Р	Р	Р	Р	
36			Pin	Р	Р	Р	Р	/	

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: P = Below Limit (Pass) Note

> F = Over Limit (Fail) X = Inconclusive

N.D. = not detected (less than MDL)

1mg/kg=1ppm=0.0001%

\* According to the declaration from client, the source of lead in the sample could be from the glass material .Lead in glass of electronic components (cathode ray tubes/fluorescent tubes) is exempted from the requirement of RoHS Directive (Annex III,2011/65/EU).

According to the declaration from client, the source of lead in the sample could be from the ceramic parts. Lead in electronic ceramic parts is exempted from the requirement of RoHS Directive (Annex III,2011/65/EU).

#### Remarks:

(1) Results are obtained by EDXRF for primary screening, and further chemical testing is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321: 2008.

Element	Polymer Materials	Metallic Materials	Electronic Materials		
Pb	P ≤ 500 < X < 1300 ≤ F	P ≤ 500 < X < 1300 ≤ F	P ≤ 500 < X < 1300 ≤ F		
Cd	P ≤ 50 < X < 130 ≤ F	P ≤ 50 < X < 130 ≤ F	X < 130 ≤ F		
Hg	P ≤ 500 < X < 1300 ≤ F	P ≤ 500 < X < 1300 ≤ F	P ≤ 500 < X < 1300 ≤ F		
Cr	P ≤ 700 < X	P ≤ 700 < X	P ≤ 500 < X		
Br	P ≤ 250 < X	/	P ≤ 250 < X		

(2) Chemical Confirmation Result acceptable Limit:

Test items	Lead (Pb)	Cadmium (Cd)	Mercury (Hg)	Chromium (CrVI)	PBBs	PBDEs
Unit	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Acceptable Limit	1000	100	1000	1000	1000	1000

(3) The test results only apply to the materials requested by applicant.

Written by: Amada Inspected by: Annue

Approved by:

\*\*\*End of Report\*\*\*

he measurement results only apply to the submitted samples.

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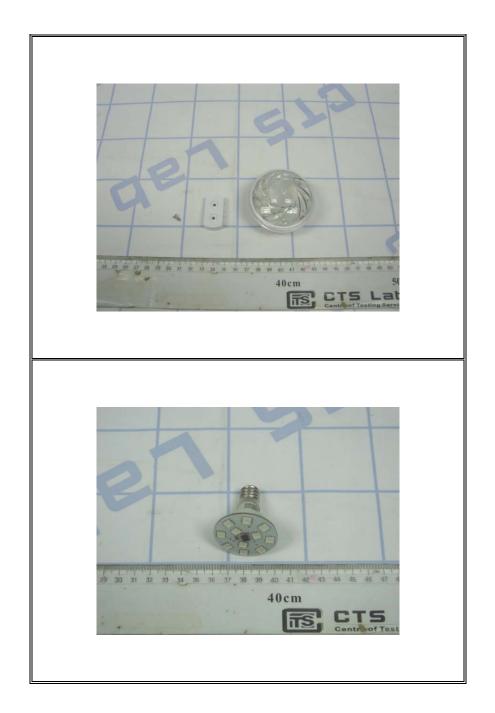




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#### 3 **Sample Reference Photo**



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