



**CENTRE OF TESTING SERVICE  
INTERNATIONAL**

**OPERATE ACCORDING TO ISO/IEC 17025**

# **TEST REPORT**

**RoHS 2011/65/EU**

**Test Report Number : CGZ3140707-02295-C**



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

**G.Z. test site: A101, No.65, Zhuji Road, Tianhe District,  
Guangzhou, Guangdong, China**

**TEST REPORT**

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### 1 General Information

#### 1.1 Application Details

Name : Focus Lighting Technology Co., Ltd.  
Address : The 2nd Road, Tutang Industrial Village, Changping Town, Dongguan City, Guangdong Province, China.  
Contact : Amy Huang  
Telephone : +86-769 83758918  
Fax : +86-769 83757118  
Mobile telephone : 13602303548  
Email : sales@focuslighting.com.cn

#### 1.2 Manufacturer & Buyer

Manufacturer name : Focus Lighting Technology Co., Ltd.  
Address : The 2nd Road, Tutang Industrial Village, Changping Town, Dongguan City, Guangdong Province, China.  
Contact : Amy Huang  
Telephone : +86-769 83758918  
Fax : +86-769 83757118  
Mobile telephone : 13602303548  
Email : sales@focuslighting.com.cn  
Buyer name : /

#### 1.3 Description of the Test Item

Sample name : Wall Lamp  
Model No. : FS-3006-2, FL-3102, FL-3108,  
FL-3118, FL-3003  
Brand name : /  
Condition of sample(s) : EFFECTIVE

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## 2 Test results

### 2.1 Sample Receiving Date

Jul. 07, 2014

### 2.2 Testing Period

Jul. 07, 2014 to Jul. 10, 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 62321-3-1:2013.
2. Chemical test method

Test Item(s)	Test Method	Test Instrument
Lead (Pb)	With reference to IEC 62321-5:2013	ICP-AES
Cadmium (Cd)	With reference to IEC 62321-5:2013	ICP-AES
Mercury (Hg)	With reference to IEC 62321-4:2013	ICP-AES
Chromium VI (Cr VI)	With reference to IEC 62321:2008	UV-Vis
PBBs	With reference to IEC 62321:2008	GC-MS
PBDEs		

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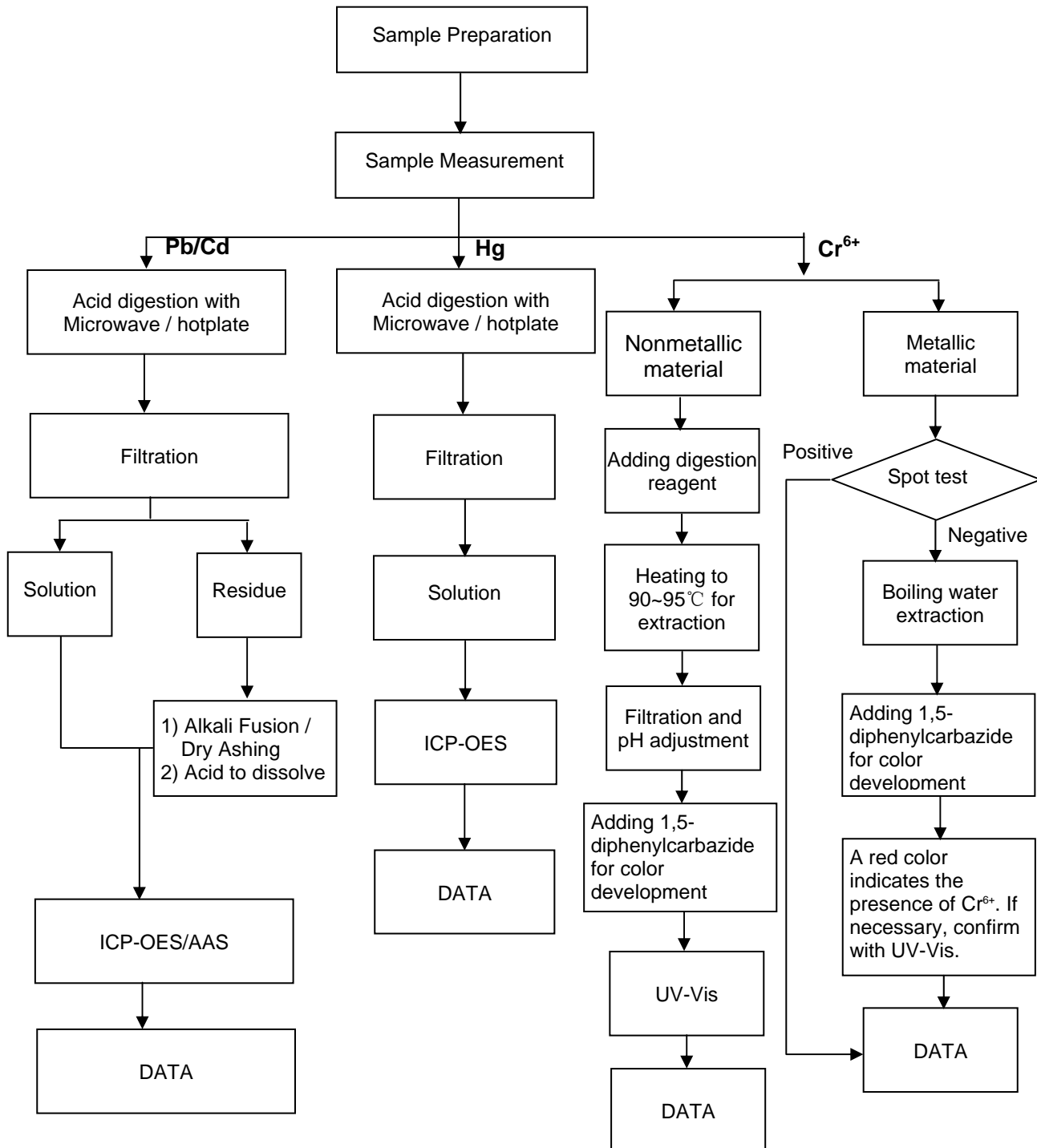
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### 2.5 Chemical Test Method Flow Chart



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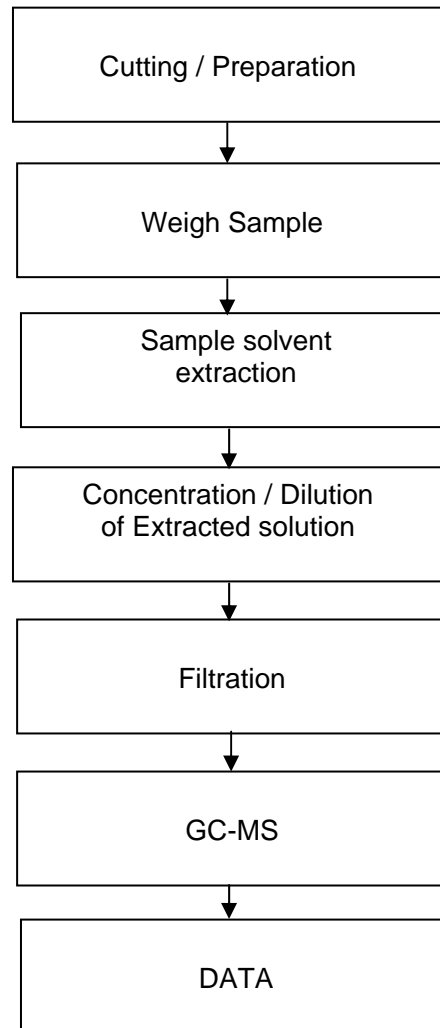
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**PBBs / PBDEs****2.6 Conclusion**

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.	Sample Description		Results					Chemical Confirmation Result (Unit=mg/kg)	
			Pb	Cd	Hg	Cr	Br		
1	lamp head	Silvery metal lampshade	P	P	P	P	/		
2		Bright silvery plating	P	P	P	P	/		
3		White plastic material	P	P	P	P	P		
4		Transparent plastic	P	P	P	P	P		
5		Dark silvery metal	P	P	P	P	/		
6		Silvery metal board	P	P	P	P	/		
7		Solder tin	P	P	P	P	/		
8		Chip LED	P	P	P	P	P		
9	Silvery metal wire ( hard )		P	P	P	P	/		
10	Silvery metal wire ( soft )		P	P	P	P	/		
11	Silvery metal nut		P	P	P	P	/		
12	Transparent plastic sheath		P	P	P	P	P		
13	White EVA		P	P	P	P	P		
14	lamp holder	Silvery metal fixing frame	P	P	P	P	/		
15		Bright silvery screw	P	P	P	P	/		
16		Connection box	Black plastic cover	P	P	P	P	P	
17			Silvery metal screw	P	P	P	P	/	
18			White plastic	P	P	P	P	P	
19			Silvery metal wafer	P	P	P	P	/	

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No.	Sample Description		Results					Chemical Confirmation Result (Unit=mg/kg)	
			Pb	Cd	Hg	Cr	Br		
20	Wires	Red cable jacket (thick)	P	P	P	P	P		
21		Black cable jacket (thin)	P	P	P	P	P		
22		Red cable jacket (thick)	P	P	P	P	P		
23		Black cable jacket (thin)	P	P	P	P	P		
24		Blue jacket	P	P	P	P	P		
25		Coffee jacket	P	P	P	P	P		
26		White cable jacket	P	P	P	P	P		
27		Silvery wire	P	P	P	P	/		
28		Black pyrocondensation tube	P	P	P	P	P		
29		Milky transparent plastic	P	P	P	P	P		
30		Silvery metal terminal	P	P	P	P	/		
31		Switch	Silvery metal pole	X	P	P	P	/	Pb= 2.3×10 <sup>4</sup> *
32			Silvery metal nut	P	P	P	P	/	
33	Silvery metal gasket		P	P	P	P	/		
34	Silvery metal cover		P	P	P	P	/		
35	Black plastic pedestal		P	P	P	P	P		
36	Silvery metal wafer		P	P	P	P	/		
37	Pin		P	P	P	P	/		
38	Beige plastic		P	P	P	P	P		

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No.	Sample Description		Results					Chemical Confirmation Result (Unit=mg/kg)
			Pb	Cd	Hg	Cr	Br	
39	Black plastic cover		P	P	P	P	P	
40	Green fiberboard		P	P	P	P	P	
41	Chip resistor		X	P	P	P	P	Pb= 1.3×10 <sup>3</sup> △
42	Chip diode		P	P	P	P	P	
43	IC	Black body	P	P	P	P	P	
44	Color wheel resistor	Blue body	P	P	P	P	P	
45		Green body	P	P	P	P	P	
46	Rectifier diode	Black solid with silvery printing body	P	P	P	P	P	
47	Y capacitor	Blue body	P	P	P	P	P	
48	Aluminum electrolytic capacitor	Dard blue plastic jacket with printing	P	P	P	P	P	
49		Light blue plastic jacket with printing	P	P	P	P	P	
50	Transformer	Black plastic base	P	P	P	P	P	

Note : P = Below Limit (Pass)  
 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 copper alloy material. Lead as a copper alloy containing which is under 4% (40000ppm) 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).

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**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 62321-3-1: 2013.

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

- (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: *Amanda* Inspected by: *Annie* Approved by: *hyt*

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



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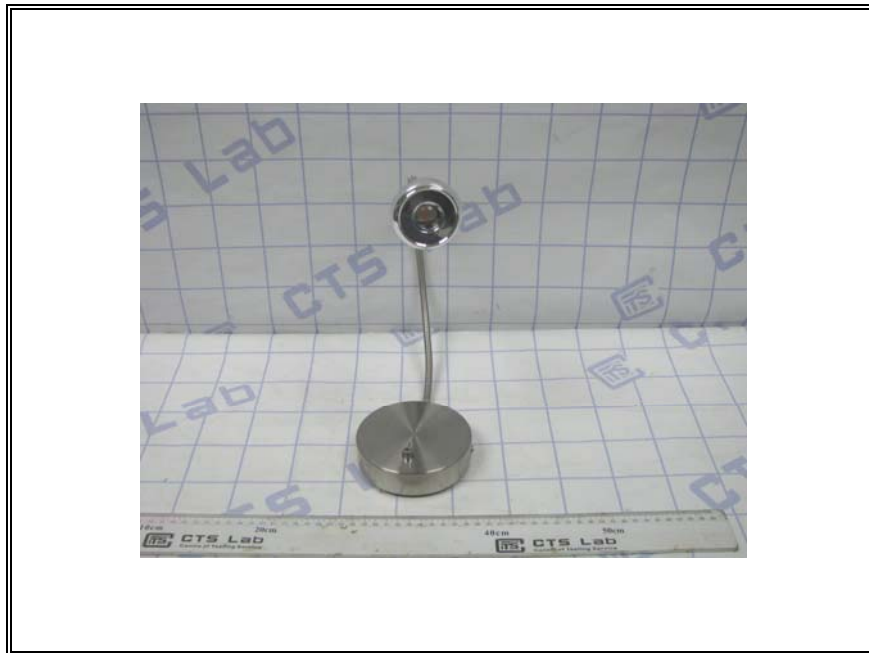
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### 3 Sample Reference Photo



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