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Applicant : EXTRA LIGHTING MANUFACTURING LTD

Address : NO. 19 Yunpu 1st Road Yunpu Industrial Zone, Guangzhou, 510530

China

The submitted sample and sample information was/were submitted and identified by/on the behalf

of the client

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Sample name : Elephant trunk light

Testing type /model : RH-CL3182

Additional type /model : RH-CL1111, RH-CL2111, RH-CL3111, RH-CL4111, RH-CL2606,

RH-CL2609, RH-CLW1175, RH-RPN, RH-SPN

Manufacturer : EXTRA LIGHTING MANUFACTURING LTD

Address : NO. 19 Yunpu 1st Road Yunpu Industrial Zone, Guangzhou, 510530

China

Sample received date : Sep. 25, 2017

Testing period : Sep. 25, 2017 - Sep. 29, 2017

Test requested : 1. As specified by client, to screen Lead(Pb), Cadmium(Cd),

Mercury(Hg), Chromium(Cr) and Bromine(Br) in the submitted sample(s)

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by XRF.

2. As specified by client, when screening results exceed the XRF

screening limit in IEC 62321-3-1:2013, further use of chemical methods

are required to test the Lead(Pb), Cadmium(Cd), Mercury(Hg), Hexavalent Chromium(Cr(VI)), Polybrominated Biphenyls(PBBs), Polybrominated Diphenyl Ethers(PBDEs) in the submitted samples.

According to the RoHS Directive 2011/65/EU

*****For more detailed information, please refer to the next page*****

Tested by

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Judy Zou

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) imhang

Lab:Shenzhen BCTC Testing Co.,Ltd.

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Test Method:

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A. Screening test by XRF spectroscopy

Element	Limit of IEC 62321-3	MDL		
	Polymers and metals	Composite material	Polymers	Other material
Pb	BL≤(700-3σ) <x <(1300+3σ)<br="">≤OL</x>	BL≤(500-3σ) <x <(1500+3σ)<br="">≤OL</x>	10 mg/kg	50 mg/kg
Cd	BL≤(70-3σ) <x <(130+3σ)<br="">≤OL</x>	LOD≤(50-3σ) <x <(150+3σ)<br="">≤OL</x>	10 mg/kg	50 mg/kg
Hg	BL≤(700-3σ) <x <(1300+3σ)<br="">≤OL</x>	BL≤(500-3σ) <x <(1500+3σ)<br="">≤OL</x>	10 mg/kg	50 mg/kg
Cr	BL≤(700-3σ)< X	BL≤(500-3σ)< X	10 mg/kg	50 mg/kg
Br	BL≤(300-3σ)< X	BL≤(250-3σ)< X	10 mg/kg	50 mg/kg

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Note:

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-BL = Under the XRF screening limit

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- -OL = Further chemical test will be conducted while result is above the screening limit
- -X= The symbol "X" marks the region where further investigation is necessary
- -3σ= The reproducibility of analytical instruments

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-LOD= Detection limit

B. Chemical Test

Test Item(s)	Test Method	Measured Equipment(s)	MDL	Limit
Lead (Pb)	IEC 62321-5:2013 Ed.1.0	ICP-OES	2 mg/kg	1000 mg/kg
Cadmium (Cd)	IEC 62321-5:2013 Ed.1.0	ICP-OES	2 mg/kg	100 mg/kg
Mercury (Hg)	IEC 62321-4:2013 Ed.1.0	ICP-OES	2 mg/kg	1000 mg/kg
Llovevelent Chromium Cr(//)	IEC 62321-7-1:2015 Ed.1.0	UV-VIS	7.8	1000 mg/kg
Hexavalent Chromium Cr(VI)	IEC 62321-7-2:2017 Ed.1.0	UV-VIS	8 mg/kg	1000 mg/kg
Polybrominated Biphenyls (PBBs)	IEC 62321-6:2015 Ed.1.0	GC-MS	5 mg/kg	1000 mg/kg
Polybrominated Diphenyl Ethers (PBDEs)	IEC 62321-6:2015 Ed.1.0	GC-MS	5 mg/kg	1000 mg/kg
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Test Results:

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	rest results.					
TC	Sample No.	Sample Description	Tested Items	XRF Screening Test Unit (mg/kg)	Chemical Test Unit (mg/kg)	Conclusion
	BC	TC	Pb	BL	1	0.0
	5,-		Cd	BL	-56 /	
	1	Black plastic	Hg	BL	1	PASS
		De.	Cr(Cr(VI))	BL	1	rici .
0000			Br(PBBs&PBDEs)	1733	N.D.	-
BC			Pb	BL	1	
		noTC.	Cd	BL	1	
	2	Metal with white	Hg	BL		PASS
		coating	Cr(Cr(VI))	BL	Bril	
			Br(PBBs&PBDEs)	1	1	-75
	50		Pb	BL	1	Bria
15	C. C.		Cd	BL	1	
	3	Plastic with	Hg	BL	1	PASS
		silver coating	Cr(Cr(VI))	BL	1,	
70			Br(PBBs&PBDEs)	BL	1	
			Pb	BL	1	
			Cd	BL	1	BCIC
	4	Silver metal	Hg	BL	1	PASS
		octi	Cr(Cr(VI))	127793	Negative	
		BC.	Br(PBBs&PBDEs)	1	1	
			Pb	BL	l BC	1
BCI			Cd	BL	1	
	5	White plastic	Hg	BL	1	PASS
	E	Cic	Cr(Cr(VI))	BL	1	
		-	Br(PBBs&PBDEs)	BL	3CT-	
			Pb	BL	/	
	-50		Cd	BL	1	BCIC
B	6	Silver spring	Hg	BL	1	PASS
			Cr(Cr(VI))	BL	1	
		BCIC	Br(PBBs&PBDEs)	1	1	

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		Pb	BL	DOTO.	
		Cd	BL	1	
7	Silver gasket	Hg	BL	1	PASS
80	TC	Cr(Cr(VI))	BL	1	00
		Br(PBBs&PBDEs)	1	TC /	
	BCT	Pb	BL E	1	
		Cd	BL	1	rd
8	Silver screw	Hg	BL	1	PASS
		Cr(Cr(VI))	BL	/	
	BCTC	Br(PBBs&PBDEs)	BCY	/	
	0~	Pb	BL		
		Cd	BL	1	
9	Brown wire	Hg	BL	/	PASS
30	jacket	Cr(Cr(VI))	BL	/	BEIL
		Br(PBBs&PBDEs)	BL	/	
	pric	Pb	BL	1	
	Dec	Cd	BL	1-5	
10	Blue wire jacket	Hg	BL	7	PASS
		Cr(Cr(VI))	BL	/	
		Br(PBBs&PBDEs)	BL	/	BCIC
Bri		Pb	BL	1	
	pcT	Cd	BL BC	1	
11	Black wire tube	Hg	BL	1	PASS
		Cr(Cr(VI))	BL	Be	- 1
		Br(PBBs&PBDEs)	BL_	1	
	et C	Pb	BL	/	BC
В	Ci-	Cd	BL	1	
12	Gold metal	Hg	BL	3CTC	PASS
	1 1	Cr(Cr(VI))	BL	1	
TC		Br(PBBs&PBDEs)	1	1	BC).
4		Pb	BL	1	
		Cd	BL	1	
13	Silver wire	Hg	BL	1	PASS
		Cr(Cr(VI))	76404	Negative	
		Br(PBBs&PBDEs)	1	1	

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		BC 1				
			Pb	BL	100	
C.		_ , [Cd	BL	1	
	14	Transparent	Hg	BL	1	PASS
	BC	glass	Cr(Cr(VI))	BL	1	0.0
	-		Br(PBBs&PBDEs)	BL	-sc 1	
		BCT	Pb	BL	1	
			Cd	BL	1	rd
CIC	15	Orange plastic	Hg	BL	1	PASS
-			Cr(Cr(VI))	BL	1	
		RCTC	Br(PBBs&PBDEs)	BL	1	1.0
			Pb	BL	- T	
		10	Cd	BL	1	
	16	White plastic	Hg	BL	1	PASS
n.	TC		Cr(Cr(VI))	BL	1	Brian
25%	11-1		Br(PBBs&PBDEs)	BL	1	
		BCTC	Pb	BL	1	
		Black wire jacket	Cd	BL	1-50	
	17		Hg	BL	1	PASS
			Cr(Cr(VI))	BL	1	-75
	mr50	2	Br(PBBs&PBDEs)	BL	1	BCIC
	Dr.		Pb	BL	1	
		p.CT	Cd	BL BC	1	
	18	Red wire jacket	Hg	BL	1	PASS
CEC			Cr(Cr(VI))	BL	1	
CIV			Br(PBBs&PBDEs)	BL	1	
	-	rtC.	Pb	BL	/	BC
	В	U1-	Cd	BL	1	
	19	Yellow LED	Hg	BL	1	PASS
			Cr(Cr(VI))	BL	1	- 155
100	TC		Br(PBBs&PBDEs)	BL	1	Bria

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Note:

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- -MDL = Method Detection Limit
- -N.D. = Not Detected (<MDL)
- -mg/kg = ppm = parts per million
- -Negative = Absence of Cr(VI), the detected Cr(VI) concentration in the boiling water extraction solution is less than 0.1 $\mu g/cm^2$ with $50cm^2$ sample surface area used.

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- -Positive = Presence of Cr(VI), the detected Cr(VI) concentration in the boiling water extraction solution is equal to or greater than 0.13 μ g/cm² with 50cm² sample surface area used.
- -The data in this report are copy of this report: BCTC-FYC170092185R.

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Remark:

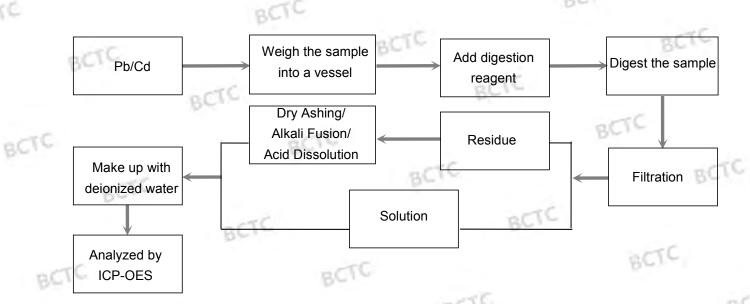
- The screening results are only used for reference.
- When conducting the test for PBBs&PBDEs, XRF was introduced to screen Br Exclusively; When conducting the test for Hexavalent Chromium, XRF was introduced to screen Chromium exclusively.

Test Process:

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The sample(s) had been dissolved totally tested for Lead, Cadmium, Mercury.

♦IEC 62321-5:2013 Ed.1.0



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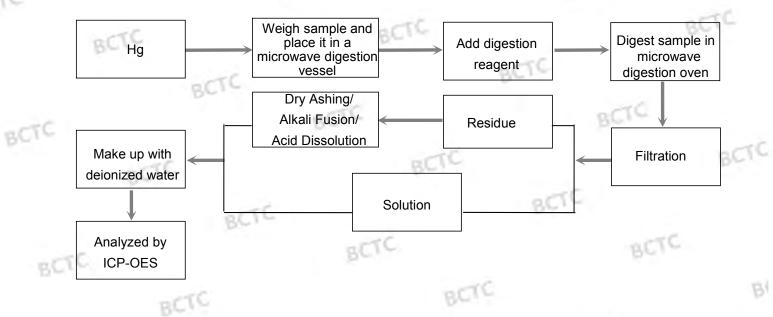
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♦IEC 62321-4:2013 Ed.1.0

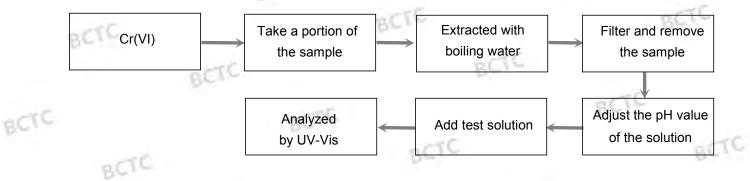


♦IEC 62321-7-1:2015 Ed.1.0

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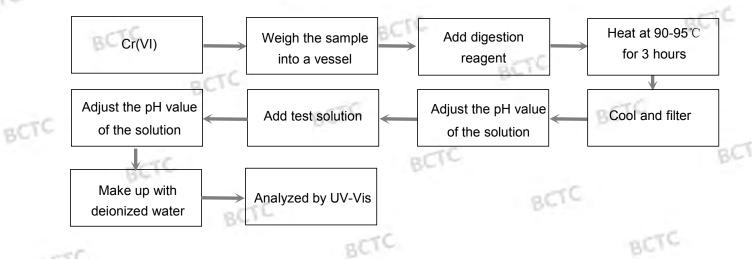
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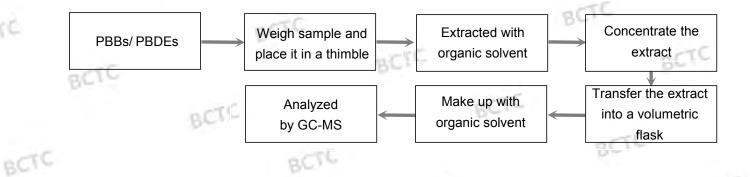
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♦IEC 62321-7-2:2017 Ed.1.0



♦IEC 62321-6:2015 Ed.1.0

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Photograph of Sample



Fig. 1



Fig. 2

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Photo(s) of the tested component(s)

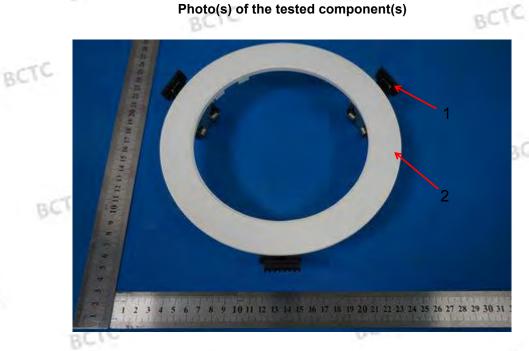


Fig. 3

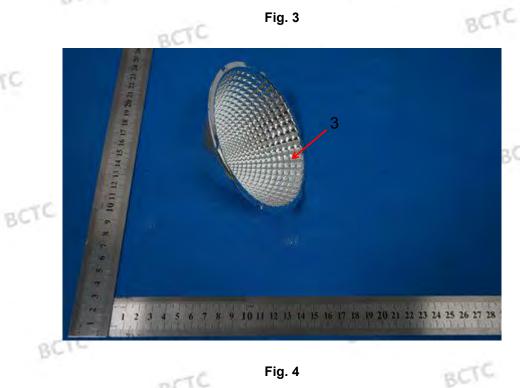


Fig. 4

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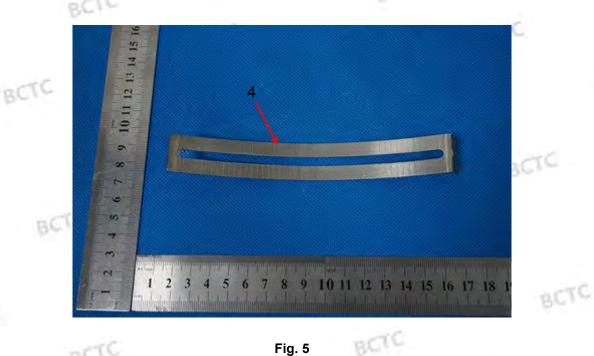


Fig. 5

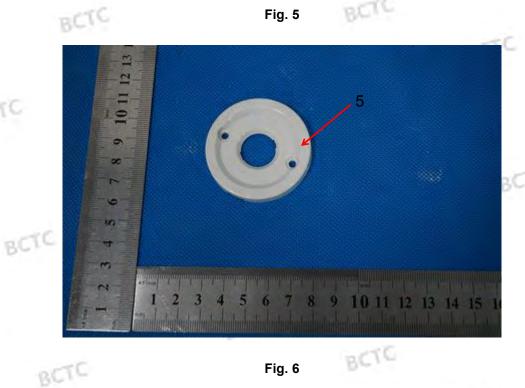


Fig. 6

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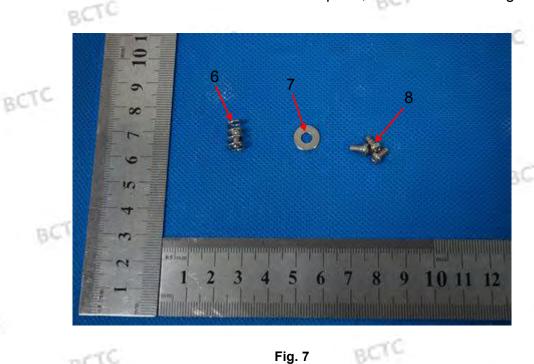


Fig. 7

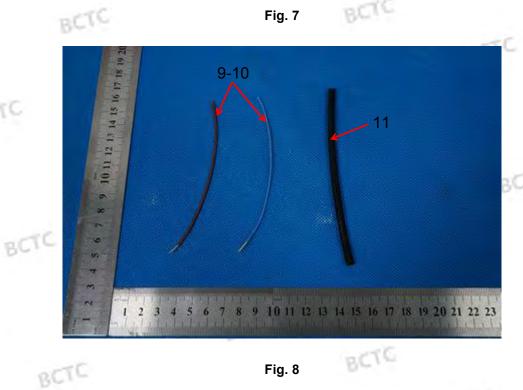


Fig. 8

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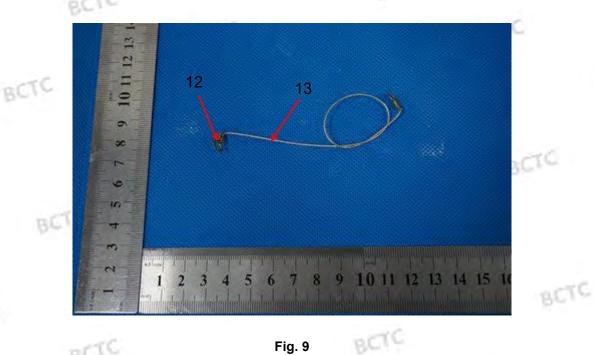


Fig. 9

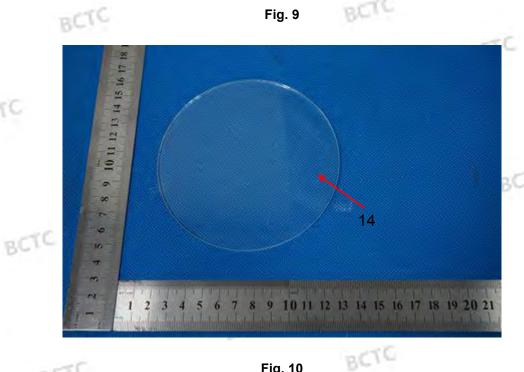


Fig. 10

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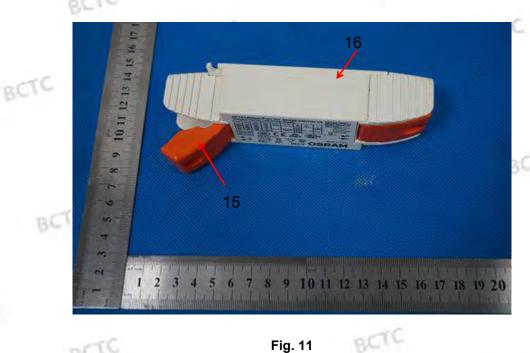


Fig. 11

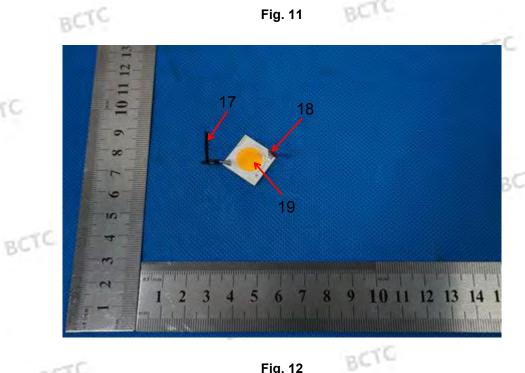


Fig. 12

End of Report

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