

TECHNICAL REPORT



Report No.: RoHS1712032

File reference No.: 2017-12-22

Applicant: Yuyao Yute Lighting Appliance Factory

Product: LED WORK LIGHT

Model No.: ZYJ021-A1, ZYJ021-A2, ZYJ021-A3, ZYJ021-A4

Brand Name: N/A

Test Conclusions: Based on the verification results of the submitted samples, the test results comply with the limits as set by RoHS Directive 2011/65/EU Annex II.

Approved By

Jack Chung

Manager

Dated: 2017-12-22

**Test Conclusions appearing herein relate only to the sample tested
The technical reports is issued errors and omissions exempt and is subject to
withdrawal at**

SHENZHEN TIMEWAY TESTING LABORATORIES

Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District,
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Report No.: RoHS1712032
Date:2017-12-22



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1 General Details

1.1 Test Lab Details

Name: SHENZHEN TIMEWAY TESTING LABORATORIES
Address: Room 512-519, 5/F., East Tower, Building 4, Anhua Industrial Zone, Futian District, Shenzhen, Guangdong, China
Tel: (+86 755)8344 8688
Fax: (+86 755)8344 2996

1.2 Applicant Details

Applicant: Yuyao Yute Lighting Appliance Factory
Address: No.99 North Tonghai Road, Huangjiabu Town, Yuyao City, Ningbo, Zhejiang province , P.R. China
Tel: 0574-56358069
Fax: 0574-65131561

1.3 Description of EUT

Product: LED WORK LIGHT
Manufacturer: Yuyao Yute Lighting Appliance Factory
Address: No.99 North Tonghai Road, Huangjiabu Town, Yuyao City, Ningbo, Zhejiang province , P.R. China
Basic Model: ZYJ021-A1
Additional Model: ZYJ021-A2, ZYJ021-A3, ZYJ021-A4
Brand Name: N/A

1.4 Submitted Sample

4 Sample

1.5 Test Time

2017-12-06 to 2017-12-22

1.6 Test Engineer

The sample tested by

Print Name: David Guo

1.7 Verify Engineer

The report verified by

Print Name: Jack Chung





1.8 Possible test case verdicts

1. N.D.= NOT DETECTED (<2ppm)
2. ppm = PART PER MILLION
3. ppm = mg/kg
4. “-“ = Not Regulated

1.9 General remark

The test conclusions presented in this report relate only to the object tested.

SHENZHEN TIMEWAY TESTING LABORATORIES takes no responsibility for any mistakes caused by inaccurate and/or invalid information submitted by the applicant.

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The difference between models: The proportions and contents for the material are same.

2. Test Requested and Conclusion

Test according to RoHS (Restriction of Hazardous Substances) directive 2011/65/EU on submitted samples

--- Heavy Metal (Pb, Cd, Hg and CrVI) Content **PASS**

--- Polybrominated Biphenyls (PBBs) and

Polybrominated Diphenyl Ethers (PBDEs) Content **PASS**



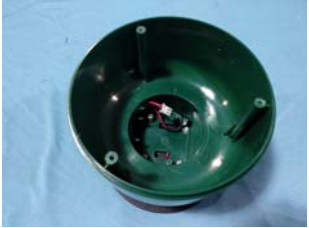



3. Test Result: Refer to the following page(s)



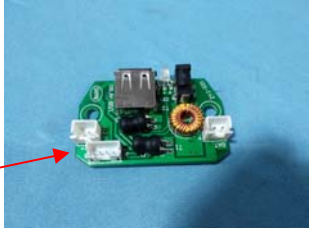

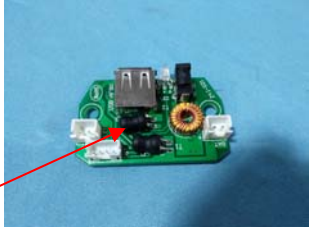
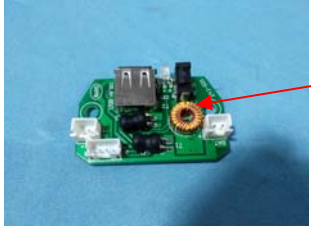
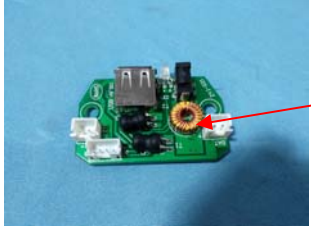
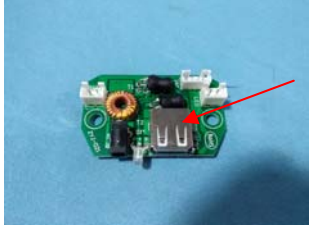
4. Tested subject Description

Sample Number	Item Name	Tested Material Description	Photo
001	Enclosure	Plastic	
002	Metal conductor	Metal	
003	Enclosure	Plastic	
004	Reflector	Plastic	
005	Plastic component	Plastic	

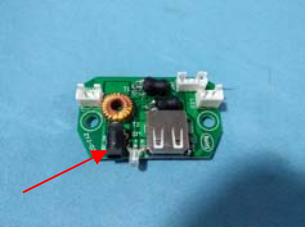


Sample Number	Item Name	Tested Material Description	Photo
006	Gasket	Plastic	
007	Lens	Plastic	
008	Enclosure	Plastic	
009	Nut	Metal	
010	PCB	Green body	
011	PCB - solder	Metal	

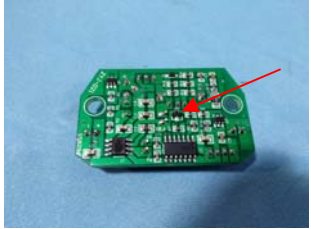
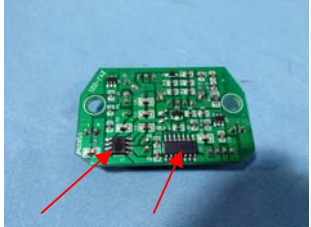
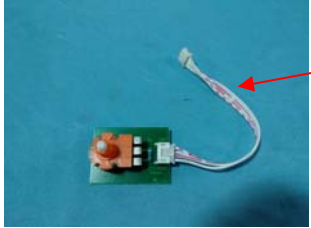
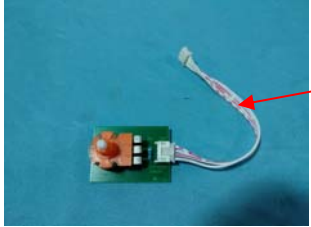




Sample Number	Item Name	Tested Material Description	Photo
012	Connector	Plastic	
013	Connector	Metal	
014	Inductor	Black body	
015	Inductor	Metal	
016	Inductor	Yellow material	
017	USB	Metal	


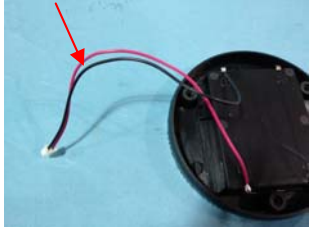
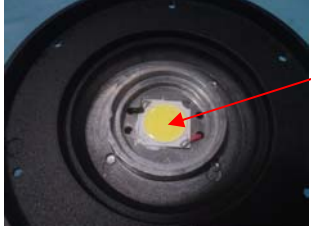
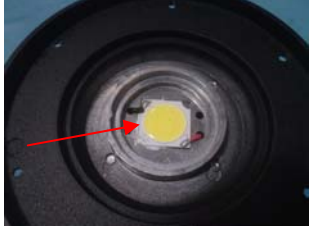



Sample Number	Item Name	Tested Material Description	Photo
018	USB	Plastic	
019	DC inlet	Plastic	
020	DC inlet	Metal	
021	Chip diode	Black body	
022	Chip resistor	Black body	
023	Chip capacitor	Yellow body	



Sample Number	Item Name	Tested Material Description	Photo
023	Chip triode	Black body	
024	IC	Black body	
025	Flat cable	Plastic	
026	Flat cable	Metal	
027	Switch	Plastic	
028	Switch	Plastic	



Sample Number	Item Name	Tested Material Description	Photo
029	Resistor	Blue body	
030	Wire	Plastic	
031	Wire	Metal	
032	LED	Yellow body	
033	MCPCB	Metal	
034	Screw	Metal	



5. TEST RESULTS

Test method: With reference to IEC 62321-3-1:2013, analysed by Energy Dispersive X-ray Fluorescence Spectrometers (XRF).

Sample No.	Total Cadmium	Total Chromium	Total Mercury	Total Lead	Total Bromine
001	BL	BL	BL	BL	BL
002	BL	BL	BL	BL	N.A.
003	BL	BL	BL	BL	BL
004	BL	BL	BL	BL	BL
005	BL	BL	BL	BL	BL
006	BL	BL	BL	BL	BL
007	BL	BL	BL	BL	BL
008	BL	BL	BL	BL	BL
009	BL	BL	BL	BL	N.A.
010	BL	BL	BL	BL	BL
011	BL	BL	BL	BL	N.A.
012	BL	BL	BL	BL	BL
013	BL	BL	BL	BL	N.A.
014	BL	BL	BL	BL	BL
015	BL	BL	BL	BL	N.A.
016	BL	BL	BL	BL	BL
017	BL	BL	BL	BL	N.A.
018	BL	BL	BL	BL	BL
019	BL	BL	BL	BL	BL
020	BL	BL	BL	BL	N.A.
021	BL	BL	BL	BL	BL
022	BL	BL	BL	BL	BL
023	BL	BL	BL	BL	BL
024	BL	BL	BL	BL	BL
025	BL	BL	BL	BL	BL
026	BL	BL	BL	BL	N.A.
027	BL	BL	BL	BL	BL
028	BL	BL	BL	BL	BL



Sample No.	Total Cadmium	Total Chromium	Total Mercury	Total Lead	Total Bromine
029	BL	BL	BL	BL	BL
030	BL	BL	BL	BL	BL
031	BL	BL	BL	BL	N.A.
032	BL	BL	BL	BL	BL
033	BL	BL	BL	BL	N.A.
034	BL	BL	BL	BL	N.A.

Note:

- “BL” denotes below limit
- “OL” denotes over limit
- “N.A.” denotes not applicable

— **XRF screening limits in mg/kg for regulated elements in various matrices**

ELEMENT	POLYMER		
	BL	INCONCLUSIVE	OL
Cd	$X < (70-3\sigma)$	$(70-3\sigma) < X < (130+3\sigma)$	$X > (130+3\sigma)$
Pb	$X < (700-3\sigma)$	$(700-3\sigma) < X < (1300+3\sigma)$	$X > (1300+3\sigma)$
Hg	$X < (700-3\sigma)$	$(700-3\sigma) < X < (1300+3\sigma)$	$X > (1300+3\sigma)$
Br	$X < (300-3\sigma)$	$X > (300-3\sigma)$	N.A.
Cr	$X < (700-3\sigma)$	$X > (700-3\sigma)$	N.A.

ELEMENT	METAL		
	BL	INCONCLUSIVE	OL
Cd	$X < (70-3\sigma)$	$(70-3\sigma) < X < (130+3\sigma)$	$X > (130+3\sigma)$
Pb	$X < (700-3\sigma)$	$(700-3\sigma) < X < (1300+3\sigma)$	$X > (1300+3\sigma)$
Hg	$X < (700-3\sigma)$	$(700-3\sigma) < X < (1300+3\sigma)$	$X > (1300+3\sigma)$
Cr	$X < (700-3\sigma)$	$X > (700-3\sigma)$	N.A.

ELEMENT	COMPLEX MATERIAL		
	BL	INCONCLUSIVE	OL
Cd	$X < (50-3\sigma)$	$(50-3\sigma) < X < (150+3\sigma)$	$X > (150+3\sigma)$
Pb	$X < (500-3\sigma)$	$(500-3\sigma) < X < (1500+3\sigma)$	$X > (1500+3\sigma)$
Hg	$X < (500-3\sigma)$	$(500-3\sigma) < X < (1500+3\sigma)$	$X > (1500+3\sigma)$
Br	$X < (250-3\sigma)$	$X > (250-3\sigma)$	N.A.
Cr	$X < (500-3\sigma)$	$X > (500-3\sigma)$	N.A.



6. APPENDIX: Photos of the product



ZYJ021-A1



ZYJ021-A2



ZYJ021-A3



ZYJ021-A4

-End of the report-