

TECHNICAL REPORT



Report No.: RoHS1712034

File reference No.: 2017-12-22

Applicant: Yuyao Yute Lighting Appliance Factory

Product: LED WORK LIGHT

Model No.: ZYJ018-15W-A1, ZYJ018-15W-A2,
ZYJ018-15W-B1, ZYJ018-15W-B2

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,
Shenzhen, Guangdong, China

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Report No.: RoHS1712034
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: ZYJ018-15W-A1
Additional Model: ZYJ018-15W-A2, ZYJ018-15W-B1, ZYJ018-15W-B2
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.

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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**


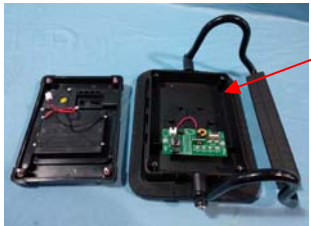



--- Polybrominated Biphenyls (PBBs) and

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

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



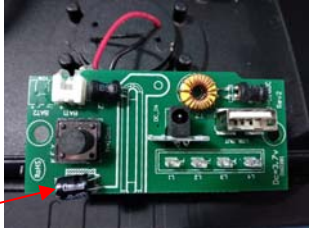
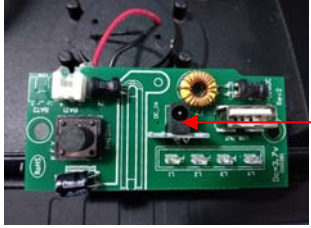
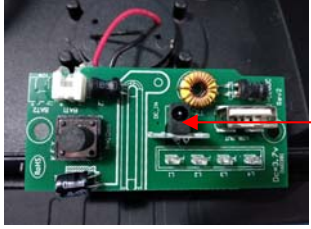
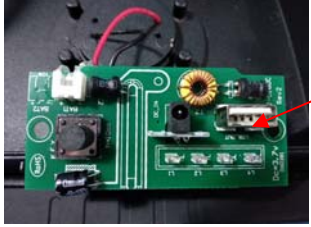
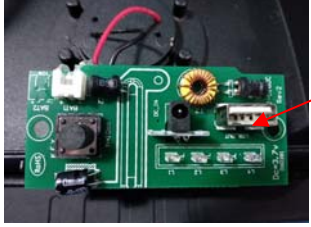
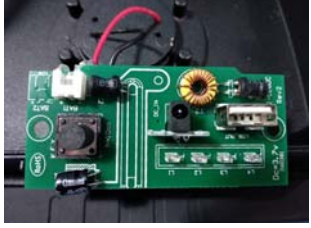
4. Tested subject Description

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



Sample Number	Item Name	Tested Material Description	Photo
006	Wire	Metal	
007	Wire	Plastic	
008	Connector	Plastic	
009	Connector	Metal	
010	PCB	Green body	
011	PCB - solder	Metal	




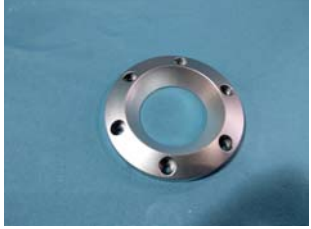
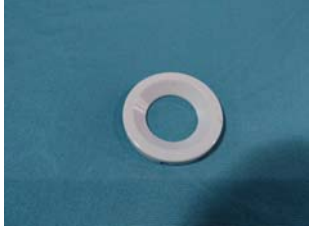



Sample Number	Item Name	Tested Material Description	Photo
012	Electrolytic capacitor	Black body	
013	DC inlet	Metal	
014	DC inlet	Plastic	
015	USB	Plastic	
016	USB	Metal	
017	Inductor	Metal	

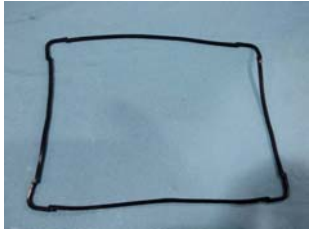
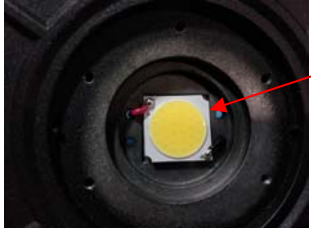




Sample Number	Item Name	Tested Material Description	Photo
018	Inductor	Yellow material	
019	Inductor	Black body	
020	Switch	Black body	
021	LED	White body	
022	IC	Black body	
023	Chip diode	Black body	



Sample Number	Item Name	Tested Material Description	Photo
024	Chip resistor	Black body	
025	Chip capacitor	Yellow body	
026	Chip triode	Black body	
027	Plastic component	Plastic	
028	Plastic component	Plastic	
029	Lens	Plastic	



Sample Number	Item Name	Tested Material Description	Photo
030	Gasket	Rubber	
031	Gasket	Rubber	
032	LED	Yellow body	
033	MCPCB	Metal	
034	Screw	Metal	
035	Screw	Metal	



Sample Number	Item Name	Tested Material Description	Photo
036	Enclosure	Plastic	
037	Magnet	Metal	
038	Support	Metal	
039	Enclosure	Plastic	
040	Enclosure	Plastic	
041	Protective jacket	Plastic	



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	N.A.
006	BL	BL	BL	BL	N.A.
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	BL
016	BL	BL	BL	BL	N.A.
017	BL	BL	BL	BL	N.A.
018	BL	BL	BL	BL	BL
019	BL	BL	BL	BL	BL
020	BL	BL	BL	BL	BL
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	BL
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	BL
032	BL	BL	BL	BL	N.A.
033	BL	BL	BL	BL	BL
034	BL	BL	BL	BL	N.A.
035	BL	BL	BL	BL	N.A.
036	BL	BL	BL	BL	BL
037	BL	BL	BL	BL	N.A.
038	BL	BL	BL	BL	N.A.
039	BL	BL	BL	BL	BL
040	BL	BL	BL	BL	BL
041	BL	BL	BL	BL	BL.

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.

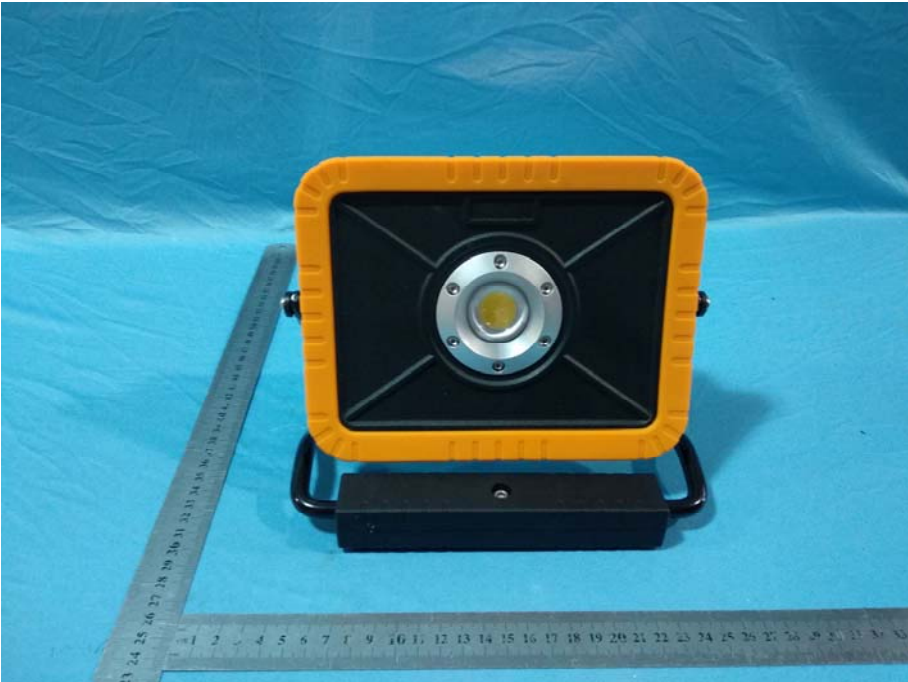
ELEMENT	COMPLEX MATERIAL		
	BL	INCONCLUSIVE	OL
Cd	$X < (50 - 3\sigma)$	$(50 - 3\sigma) < X < (150 + 3\sigma)$	$X > (150 + 3\sigma)$
Pb	$X < (500 - 3\sigma)$	$(500 - 3\sigma) < X < (1500 + 3\sigma)$	$X > (1500 + 3\sigma)$
Hg	$X < (500 - 3\sigma)$	$(500 - 3\sigma) < X < (1500 + 3\sigma)$	$X > (1500 + 3\sigma)$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



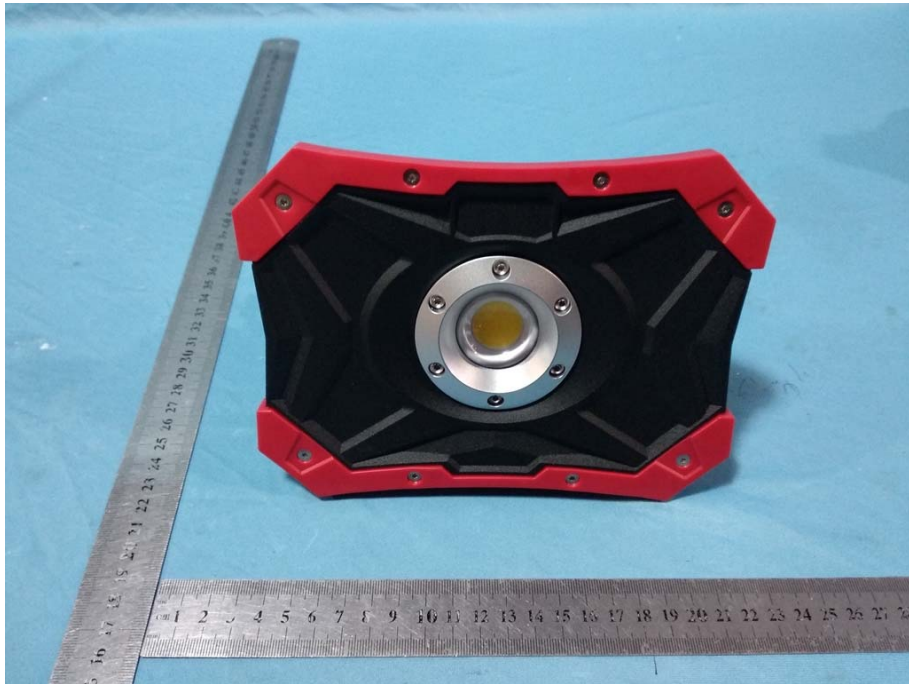
6. APPENDIX: Photos of the product



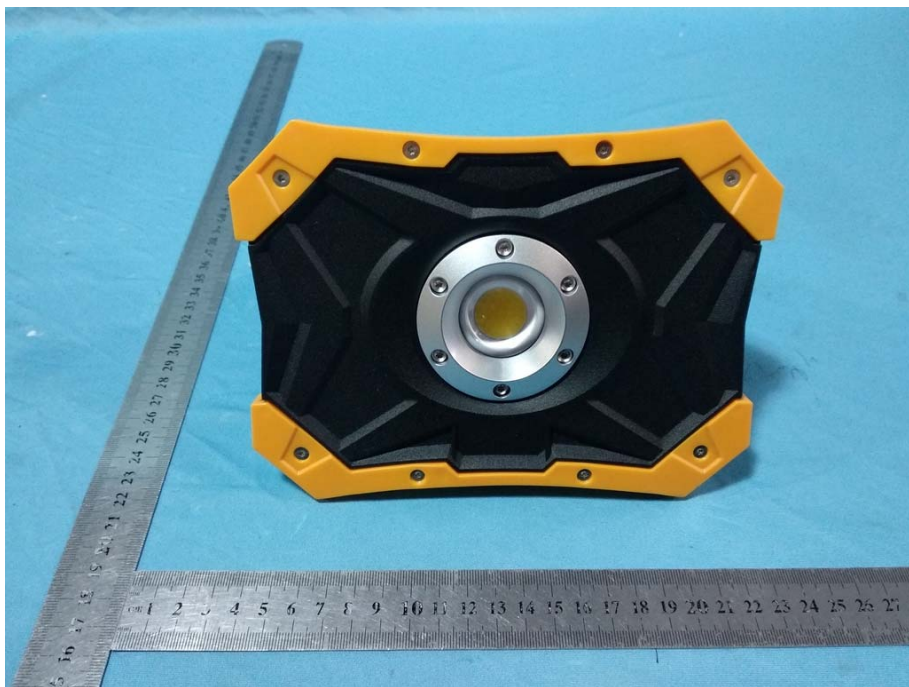
ZYJ018-15W-A1



ZYJ018-15W-A2



ZYJ018-15W-B1



ZYJ018-15W-B2

-End of the report-