

1A/F., Bldg.6, Yusheng Industrial Zone, The National Road No.107 Xixiang Section 467, Xixiang, Bao'an, Shenzhen, Guangdong, China Tel: (86) 755-26509301/02 Fax: (86) 755-26509195 Http://www.tongbiao.com

## **CONSOLIDATED TEST REPORT**

## Sample information:

- 1. Applicant: Shenzhen Supernova Technology co., Ltd
- 2. Applicant Address: 2rd Floor, 116 Xiangshan Avenue, Songgang Street, Baoan District, Shenzhen, china
- 3. Sample Name: LED street light
- 4. Type No.: SV-STCSL30W, SV-STCSL50W, SV-STSWD50W, SV-STSWD100W, SV-STSWD150W SV-STCBR50W, SV-STCBR100W, SV-STCBR150W, SV-STHP60W, SV-STHP90W, SV-STHP120W SV-STHP150W, SV-STHP180W, SV-STCOB50W, SV-STCOB100W, SV-STCOB150W
- 5. Manufacturer: Shenzhen Supernova Technology co., Ltd
- 6. Manufacturer Address: 2rd Floor, 116 Xiangshan Avenue, Songgang Street, Baoan District, Shenzhen, china
- 7. Sample received date: Apr. 21, 2015
- 8. Testing period: Apr. 21 Apr. 23, 2015

### Testing Required:

- 1) In accordance with the RoHS Directive 2011/65/EU Annex II.
- 2) As specified by client, to determine Lead, Cadmium, Mercury, Hexavalent Chromium, PBBs and PBDs content in the selected materials (see remark) of submitted sample with reference to Directive 2011/65/EU of the European Parliament and of The Council of 8 June 2011 (ROHS, Previously 2002/95/EC).

### Test Standards:

Testing Item	Pretreatment method	Measuring method	Report
			Limit
Lead (Pb)	IEC 62321, Ed1:2013	IEC62321 (ICP-OES)	2ppm
Cadmium (Cd)	IEC 62321, Ed1:2013	IEC62321 (ICP-OES)	2ppm
Mercury (Hg)	IEC 62321, Ed1:2013	IEC62321 (ICP-0ES)	2ppm
Chromium (Cr <sup>6+</sup> )	IEC 62321, Ed1:2008 Annex C	TEC60201 (HV_VTC)	0.02ppm*
	TEC 02321, Eu1:2008 Almex C	1EC02321 (UV=V13)	2ppm
PBBs/ PBDEs	IEC 62321, Ed1:2008 Annex A	IEC62321 (GC-MS)	5ppm

Note: \* 0.02ppm refers to the MQL of sample extraction liquid.

### Remarks:

- 1. The test report is valid for above tested sample only and shall not be reproduced in part without written approval of the company.
- 2. Characterization & Condition of sample: Normal.
- 3. Ambient Condition During Testing: (15~22) °C, (50~68) % RH.

Conclusion:

Based on the performed tests on submitted sample(s) the results of Cadmium, Lead, Mercury, Hexaval Chromium Cr(VI), PBBs and PBDEs comply with the limits as set by RoHS Directive 2011/65

Annex II; recasting 2002/95/EC.

Signed for Shenzhen TOBY

Justin Zhang Manager

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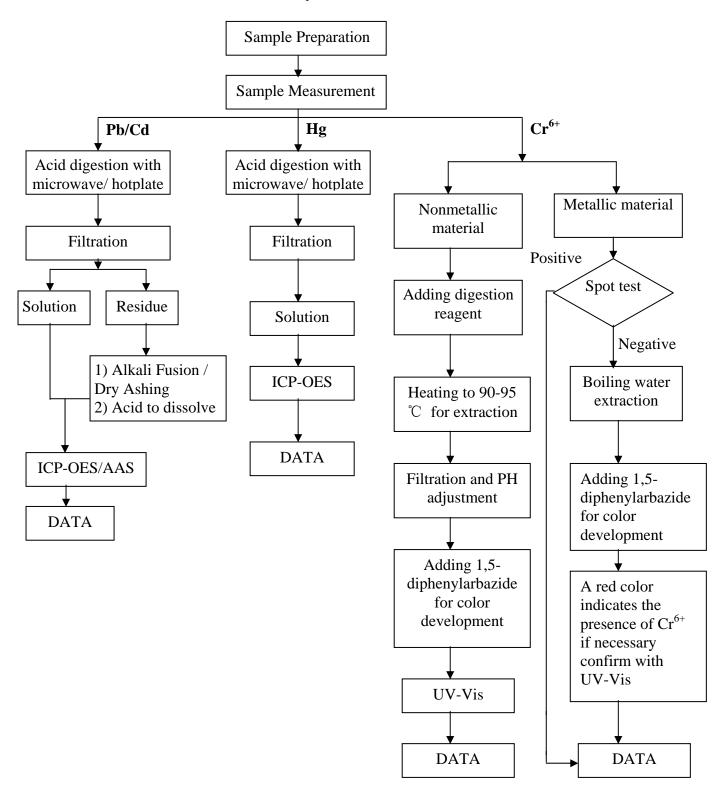


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# **CONSOLIDATED TEST REPORT**

### Test flow:

1. To Determine Lead/Cadmium/Mercury/ Hexavalent Chromium Content:



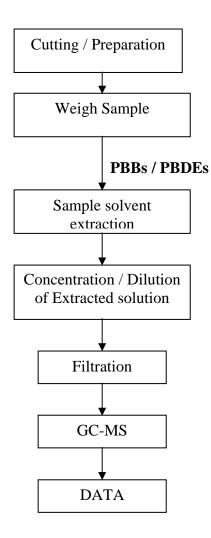
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# **CONSOLIDATED TEST REPORT**

### 2. To Determine PBBs/PBDEs Content:





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# CONSOLIDATED TEST REPORT

NO.	SAMPLES NAME	SPECIFICATION	TEST REPORT NO.	DESCRIPTION	
1	PCB		CANEC1102119101	SILVERY BOARD	
2	IC		CE/2010/22047	"LED" (MIXED)	
3	STEEL MESH		SZ2012002717-6	SILVERY METAL	
4	POWER SHELL		CANEC1100037701	SILVERY METAL PIECE	
5. 1	LAMP COVER		CTSPN/02271/12	TRANPSRENT GLASS	
5. 2	LAMP COVER		CANEC1100037706	SILVERY METAL	
6	POWER CARTRIDGE COVER		CANEC1100037704	SILVERY METAL	
7	ORNAMENT BOARD		CANEC1100037708	SILVERY METAL	
8	SEAL CUSHION		CY/2012/2197A	WHITE RUBBER	
9	FASTENER		CANEC1203243601	SILVERY METAL	
10. 1	SOLDER		CANEC1201820702	SILVER-GREY PLATED METAL	
10. 2	SOLDER		RLSZE001225160001C	SILVER-GREY PLATED METAL SCREW	
11	WASHER		CANEC110139101	SILVERY METAL	
12	SPRING PAD		CANEC1302014206	SILVERY METAL	
13. 1			CANEC1004268109	BLUE PLASTIC	
13. 2			CANEC1004268104	BROWN PLASTIC	
13. 3	WIRE		CANEC1300215101	YELLOW/GREEN TUBE	
13. 4			CANEC1216892703	BLACK TUBE	
13. 5			CANEC1201527501	SILVERY METAL WIRE	
14	ADHESIVE TAPE		CANEC1003800301	TRANSPARENT ADHESIVE TAPE	
15	BAG		GZ1105066134A/CHEM	WHITE TRANSPARENT PLASTIC	
16	LABEL		CANEC1000969707	"LABEL"	
17	MANUAL		CANEC1100731502	PAPER SHEET	

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# CONSOLIDATED TEST REPORT

	18	PACKING BOX		GZ1002016494/CHEM	PAPER BOX
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1) Test Result: Heavy Metals (Pb, Cd, Cr<sup>6+</sup>, Hg) Tests

Element	Pb	Cd Cd	Cr <sup>6+</sup>	Hg
Limit:	1000 (mg/kg)	100 (mg/kg)	1000 (mg/kg)	1000 (mg/kg)
1	9	N. D.	N. D.	N. D.
2	N. D.	N. D.	N. D.	N. D.
3	68	N. D.	N. D.	N. D.
4	12	N. D.	N. D.	N. D.
5. 1	N. D.	N. D.	N. D.	N. D.
5. 2	12	N. D.	N. D.	N. D.
6	6	N. D.	N. D.	N. D.
7	11	N. D.	N. D.	N. D.
8	N. D.	N. D.	N. D.	N. D.
9	N. D.	N. D.	N. D.	N. D.
10. 1	N. D.	N. D.	N. D.	N. D.
10. 2	N. D.	N. D.	N. D.	N. D.
11	N. D.	N. D.	N. D.	N. D.
12	N. D.	N. D.	N. D.	N. D.
13. 1	N. D.	N. D.	N. D.	N. D.
13. 2	4	N. D.	N. D.	N. D.
13. 3	N. D.	N. D.	N. D.	N. D.
13. 4	N. D.	N. D.	N. D.	N. D.
13. 5	32	N. D.	N. D.	N. D.
14	N. D.	N. D.	N. D.	N. D.
15	N. D.	N. D.	N. D.	N. D.
16	15	N. D.	N. D.	N. D.
17	N. D.	N. D.	N. D.	N. D.
18	9	N. D.	N. D.	N. D.

<sup>◆ &</sup>quot;N.D." means "Not Detected", method detection limit=2mg/kg.

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<sup>◆ &</sup>quot;\*" means be exempted from RoHS Directive.



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## 2) Test Result: Brominated Flame Retardants (PBBs&PBDEs) Tests

<u> 2) lest kesult: Brominated i</u>	11ame 1	tetarda	nts (P.	BBS&PBL	JES) 1e	STS			
PBBs	1	2	5. 1	8	13. 1	13. 2	13. 3	13. 4	14
MONOBROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.	N. D.				
DIBROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.	N. D.				
TRIBROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.	N. D.				
TETRABROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.	N. D.				
PENTABROMONIPHENYL	N. D.	N. D.	N. D.	N. D.	N. D.				
HEXQBROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.	N. D.				
HEPTABROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.	N. D.				
OCTABROMOB I PHENYL	N. D.	N. D.	N. D.	N. D.	N. D.				
NONABROMOB I PHENYL	N. D.	N. D.	N. D.	N. D.	N. D.				
DECABROMOB I PHENYL	N. D.	N. D.	N. D.	N. D.	N. D.				
Sum of PBBs	N. D.	N. D.	N. D.	N. D.	N. D.				
PBDEs	1	2	5. 1	8	13. 1	13. 2	13. 3	13. 4	14
MONOBROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.	N. D.				
DIBROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.	N. D.				
TRIBROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.	N. D.				
TETRABROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.	N. D.				
PENTABROMONIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.	N. D.				
HEXABROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.	N. D.				
HEPTABROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.	N. D.				
OCTABROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.	N. D.				
NONABROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.	N. D.				
DECABROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.	N. D.				
Sum of PBDEs	N. D.	N. D.	N. D.	N. D.	N. D.				

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PBBs	15	16	17	18
MONOBROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.
DIBROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.
TRIBROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.
TETRABROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.
PENTABROMONIPHENYL	N. D.	N. D.	N. D.	N. D.
HEXQBROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.
HEPTABROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.
OCTABROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.
NONABROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.
DECABROMOBIPHENYL	N. D.	N. D.	N. D.	N. D.
Sum of PBBs	N. D.	N. D.	N. D.	N. D.
PBDEs	15	16	17	18
PBDEs  MONOBROMODIPHENYL ETHER	15 N. D.	16 N. D.	17 N. D.	18 N. D.
MONOBROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.
MONOBROMODIPHENYL ETHER DIBROMODIPHENYL ETHER	N. D. N. D.	N. D. N. D.	N. D. N. D.	N. D. N. D.
MONOBROMODIPHENYL ETHER  DIBROMODIPHENYL ETHER  TRIBROMODIPHENYL ETHER	N. D. N. D. N. D.	N. D. N. D. N. D.	N. D. N. D. N. D.	N. D. N. D. N. D.
MONOBROMODIPHENYL ETHER  DIBROMODIPHENYL ETHER  TRIBROMODIPHENYL ETHER  TETRABROMODIPHENYL ETHER	N. D. N. D. N. D. N. D.	N. D. N. D. N. D. N. D.	N. D. N. D. N. D. N. D.	N. D. N. D. N. D. N. D.
MONOBROMODIPHENYL ETHER  DIBROMODIPHENYL ETHER  TRIBROMODIPHENYL ETHER  TETRABROMODIPHENYL ETHER  PENTABROMONIPHENYL ETHER	N. D. N. D. N. D. N. D. N. D.	N. D. N. D. N. D. N. D. N. D.	N. D. N. D. N. D. N. D. N. D.	N. D. N. D. N. D. N. D. N. D.
MONOBROMODIPHENYL ETHER DIBROMODIPHENYL ETHER TRIBROMODIPHENYL ETHER TETRABROMODIPHENYL ETHER PENTABROMONIPHENYL ETHER HEXABROMODIPHENYL ETHER	N. D. N. D. N. D. N. D. N. D. N. D.	N. D. N. D. N. D. N. D. N. D. N. D.	N. D. N. D. N. D. N. D. N. D. N. D.	N. D. N. D. N. D. N. D. N. D. N. D.
MONOBROMODIPHENYL ETHER  DIBROMODIPHENYL ETHER  TRIBROMODIPHENYL ETHER  TETRABROMODIPHENYL ETHER  PENTABROMONIPHENYL ETHER  HEXABROMODIPHENYL ETHER  HEPTABROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.
MONOBROMODIPHENYL ETHER  DIBROMODIPHENYL ETHER  TRIBROMODIPHENYL ETHER  TETRABROMODIPHENYL ETHER  PENTABROMONIPHENYL ETHER  HEXABROMODIPHENYL ETHER  HEPTABROMODIPHENYL ETHER  OCTABROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.
MONOBROMODIPHENYL ETHER  DIBROMODIPHENYL ETHER  TRIBROMODIPHENYL ETHER  TETRABROMODIPHENYL ETHER  PENTABROMONIPHENYL ETHER  HEXABROMODIPHENYL ETHER  HEPTABROMODIPHENYL ETHER  OCTABROMODIPHENYL ETHER  NONABROMODIPHENYL ETHER	N. D.	N. D.	N. D.	N. D.

- ◆ PBBs Limit = 1000 ppm, PBDEs Limit = 1000 ppm
- ◆ "N.D." means "Not Detected", method detection limit = 5mg/kg.

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# CONSOLIDATED TEST REPORT

## **Appearance Photo 1 of Sample**



**Appearance Photo 2 of Sample** 



\*\*\*\*\* END OF REPORT \*\*\*\*\*

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