



TEST REPORT

Reference No.	1.4	WTF16F1267800A1C
110101010011001101	300	VVII 101 1207000010

Applicant Foshan Ronse Lighting Technology CO., LTD

Address Liansha Industrial Zone, Jinsha, Danzao Town, Nanhai, Foshan,

GuangDong, China.

Manufacturer Foshan Ronse Lighting Technology CO., LTD

Address : Liansha Industrial Zone, Jinsha, Danzao Town, Nanhai, Foshan,

GuangDong, China.

Sample Name LED High Bay Light Series

Model No. GK02C200

Reference Model No...... : GK01A050, GK01A100, GK01A150, GK01A200, GK01B050,

GK01B100, GK01B150, GK01B200, GK01C050, GK01C100, GK01C150, GK02C050, GK02C100, GK02C150, GK01C200, GK02A050, GK02A100, GK02A150, GK02A200, GK03A050, GK03A100, GK03A150, GK03A200, GK01D050, GK01D100, GK01D150, GK01D200, GK01E050, GK01E100, GK01E150, GK01E200, GK01F050, GK01F150, GK01F200, GK01G050, GK01G100, GK01G150, GK01G200, GK02D050, GK02D100, GK02D150, GK02D200, GK02E050, GK02E100, GK02F150, GK02E200, GK02G050, GK02G050, GK02F050, GK02G050, GK02G050, GK03D050, GK03D150, GK03D150, GK03F050, GK03F100, GK03E150, GK03E150, GK03E150, GK03F100, GK03F1

GK03F150, GK03F200, GK03G050, GK03G100, GK03G150,

GK03G200

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 Date of Receipt sample
 2016-12-14 & 2017-01-03

 Date of Test
 2016-12-14 to 2017-01-03

Date of Issue 2017-01-07

Test Result Please refer to next page (s)

Remarks:

The results shown in this test report refer only to the sample(s) tested, this test report cannot be reproduced, except in full, without prior written permission of the company. The report would be invalid without specific stamp of test institute and the signatures of compiler and approver.

Prepared By:

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Approved by:

WALTERackson.Zhou / Lab Manager

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STREPO



Test Requested.....: In accordance with the RoHS Directive 2011/65/EU

Test Method: 1) With Reference to IEC 62321-2:2013, disassembly, disjointment

and mechanical sample preparation

2) With Reference to IEC 62321-3-1:2013, screening - Lead, mercury, cadmium, total chromium and total bromine by X-ray fluorescence

spectrometry

3) With reference to IEC62321-4:2013, determination of Mercury by

ICP-OES

4) With reference to IEC62321-5:2013, determination of Lead and

Cadmium by ICP-OES

5) With reference to IEC 62321: 2008 and IEC 62321-7-1:2015, determination of Hexavalent Chromium by UV-Vis

6) With reference to IEC62321-6:2015, determination of PBBs and $\,$

PBDEs by GC-MS

Test Conclusion.....: Based on the performed tests on the submitted samples, the results

comply with the RoHS Directive 2011/65/EU

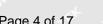
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Reference No.: WTF16F1267800A1C

Test Results:

Part No.	Part Description	Result of XRF		Result of Wet Chemical Testing (mg/kg)	Conclusion on RoHS	
TEX	ITER SLIFE SLIFE STATE OF	Cd	BL	· · · · · · · · · · · · · · · · · · ·	TEX	
	we in a	Pb	BL	er write while while	Mr. M	
.1	Semi-transparent plastic cover	Hg	BL	NA	Comply	
	The man and an	Cr	J BL	TEX STEE WITE	INCT WALL	
7.	and the set set	Br	BL	Live Mr Mr A		
	in with white white	Cd	BL	EX TEX TEX	TER OLIVE	
	3 t st	Pb	BL	with the the	20	
2	Semi transparent rubber gasket	Hg	BL	NA L	Comply	
	me me in	Cr	BL	TE WITE WITE WALL	W. A	
4	IN THE THE THE O	Br	BL	70, 7	x	
	Will Must My My My	Cd	∠ BL ∠	H TEX LIFE OLIE	INCTE WA	
	at at at	Pb	BL	14. 14. 14.	2.	
3	White glue	Hg	BL	NA NA	Comply	
		Cr	BL	The Maria Mar M		
		Br	BL			
	The Mr. Mr.	Cd	BL	THE WALTE WALTE WAS	MI	
	at at a sie	Pb	BL			
4	Grey glue	Hg	BL	NA NA	Comply	
		Cr	BL	in my my	12, 1	
EX		Br	BL	t at at	TEX	
	. 10, 10,	Cd	BL	with min mer.	Comply	
	EX TEX STEX STEE	Pb	BL			
5	Semi-transparent glue	Hg	BL	NA NA		
		Cr	BL	in in in		
TE		Br	BL	to the state of	LIE	
	EN AIAIV	Cd	BL	The Muse Miles	20,	
	Silvery metal shell without black	Pb	BL	at the	TEX	
6	Silvery metal shell without black coating	Hg	BL	NA	Comply	
	Coaling	Cr	BL	70, 7	it is	
	is the me me	Br	BL	TEX JER JER	NITE MALL	
	and the set set	Cd	BL	" " " " " " " " " " " " " " " " " " "		
	" WITH WILL WILL WILL	Pb	BL	et let let	IER WILE.	
7	Black coating	Hg	BL	NAC NAC	Comply	
	THE LIFE LIFE WITE IN	Cr	BL	, t . t . s	t TEX	
	We My My	Br	BL	te alter with win	W. A	
	et let tet tiet u	Cd	n Br _n	20, 20,	A.	
	The Muli My Mus And	Pb	BL	t TEX LIER SITER	INLIE WA	
8	Silvery metal shackle	Hg	BL	NA NA	Comply	
	ER NITER WILL WALL WALL	Cr	BL	at let let		
	71, 21,	Br	BL	Will Mr. M.	711	



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Part No.	Part Description Result of		of XRF	Result of Wet Chemical Testing (mg/kg)	Conclusion on RoHS
1EX	TEX SITE OUT OF THE WAY	Cd	BL	at at all	TEX
	we my my	Pb	BL	alle will wall	mr m
9	Silvery metal screw	Hg	BL	Cr ⁶⁺ :Negative	Comply
	Til MUTI AND MY AND	Cr	J IN	TEX LIER SLIER.	INLITE WALL
	the state of	Br	BL	The Mr. Mr.	
	all all was	Cd	BL	at let let	TER CLIP
	In the	Pb	BL	in, in whi, whe was	711
10	Silvery metal screw	Hg	BL	Cr ⁶⁺ :Negative	Comply
	any any any	Cr	(IN	te alter with wall	MULTINE
	at let test itest of	Br	on Bran	711, 22, 2	
16	VII MUT MUT MILL MILL	Cd	, ∠ BL	t let det de	الله الله
	1 1 1	Pb	BL	arr. Mrs. Arr.	20, 20,
11	Silvery metal washer	Hg	BL	Cr ⁶⁺ :Negative	Comply
		Cr	IN	WITE WILL WILL W	
		Br W	BL		
مالال	The she she	Cd	BL	THE LIFE OUT ON	Comply
	The state of the s	Pb	BL	Cr ⁶⁺ :Negative	
12	Silvery metal screw	Hg	BL		
		Cr	IN .	write white whi	
		Br	BL		All C
1/1	4 24 24	Cd	BL	alle millions	Comply
	at let get get	Pb	BL	1, 2,	
13	Silvery metal screw	Hg	BL	NA J	
		Cr	BL	in in in in	
		Br	BL	to the state of	
dr.	20 2	Cd	BL	r. Mur Mur	
	Last V. A V A V A No	Pb	BL		TEX.
14	Silvery metal cover without black	Hg	BL	NA	Comply
	coating	Cr	BL	10 10 10	
	HER WILL MUTT AND AND	Br	BL	LEX LEX LIEX	
		Cd	BL	MIT THE WAY	
	X LIER ALTER MLTE WALL	Pb	BL	L A A	EX JEX
15	White rubber sleeve	Hg	BL	NA NA	Comply
	LEK TEK ITEK SITEK W	Cr	BL	100	t ext
	With My My My	∠ Br →	BL	E LIER CLIER WITE	Write
	at the fift of	Cd	IN IN IN	1/1, 1/1, 0,	
	LIFE MILL WALL WALL IN	Pb	OL	EX TEX TEX	ALTER OF
16	Silvery metal cap	Hg	BL	Cd :53	Comply
	EX ITEX LIFE RELIED WAL	Cr	BL		Comply (
	The The In	Br	BL	TER SLIE WITH M	



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Part No.	Part Description	Result	of XRF	Result of Wet Chemical Testing (mg/kg)	Conclusion on RoHS
TEX	TER SLIE SLIE WALLE	Cd	IN	. A A A	TEX
	We my my	Pb	OL		Mr. M
17	Silvery metal sleeve	Hg	BL	Cd :66 #Pb :3.53×10 ⁴	Comply
" "IL	it with the My m	Cr	→ BL →	- PD :3:53×10	inlite wall
"	and the state of	Br	BL	The Mr. In 1	
	WITE WILL WALL WALL	Cd	BL	at the text	TER WITE
1115	20, 20	Pb	BL	ing, with the the	20
18	White rubber sleeve	Hg ^{sul}	BL	NA -	Comply
n	MUT. Mr. M. M.	Cr	BL	te alter white white	MUL
.4	at let let liet o	Br	M BL	11, 2,	,*
	VII MUT AU AU AU	Cd	, BL	K TEK JEK JEK	anti an
7		Pb	BL	ing my min	20. 2.
19	Silvery metal washer	Hg	BL	Cr ⁶⁺ :Negative	Comply
in	Mr. Mr.	Cr	IN	WILL MILL MULL M	211
, e t	- TEX ITEX ALL MITE	Br W	BL		et let
WILL	Myr. My. An. O.	Cd	BL	I THE SLIFE WITH WAL	, wr
	At let A STE	Pb	BL	111, 11, 1,	
20	Solder	Hg	BL	NA NA	Comply
	n t	Cr	BL	whi har my	20, 2,
EX.	TEX SITES OUTE . WAY	Br	BL	t at let	TEX
71/	in in	Cd	BL	alle with with	in an
	at the the ties	Pb	BL		at de
21	Blue plastic wire covering	Hg	BL	NA STATE	Comply
	at the left left	Cr	BL	in an an	
J. T. E. Y.	Late will will the	Br	BL	to the state of	H CLIER
0.	20.	Cd	BL	F. MUT. MIL.	1,1,
TEX.	TEF V A V SET IS	Pb	BL	it it	TEX
22	Coppery metal wire	Hg	BL	NA	Comply
_	et let let liet in	Cr	BL	20, 20, 1	.* ×
	it will mur my m	Br	BL	TEX TEX STEE	ملتك ماملنا
77	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Cd	BL	Mr. Mr. M. A	
(16)	WITE WITE WALL MAL	Pb	BL	at let tex	IEK LIER
23	Brown plastic wire covering	Hg	BL	NA NA	Comply
il.	TEX LIEX SLIEN MITE.	Cr	BL		t TEX
	Wer Au Au	Br	BL	it liter with with	Wer.
	et let tex tex	Cd	M BL	74, 72	At-
E	the mer mer me	Pb	BL	t TEX TEX TEX	INLIE IN
24	Black plastic wire jacket	Hg	BL	NA W	Comply
ļ- , (EX STEE WITE MALL WAL	Cr	BL	at at at	TEX JE
MU	24, 24, 24	Br	BL	CITE WITH WILL WI	in My



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Part No.	Part Description	Result of XRF		Result of Wet Chemical Testing (mg/kg)	Conclusion on RoHS	
LEX.	TEX LIFE SLIP WITH W	Cd	BL		- TEX	
		Pb	BL	CLIEF WILL WALL		
25	Silvery plastic adhesive label with	Hg	BL	NA	Comply	
	black printing	Cr	BL.	TEX LIEX SLIER	nlik whi	
	A A A A	Br	BL	Mr. My. M.		
ک. `	" " " " " " " " " " " " " " " " " " "	Cd	BL	et et et	TER CLIE	
	11, 12, 14	Pb	BL	ulit with mur wi		
26	Yellow-green plastic wire covering	Hg	BL	NA L	Comply	
	Mr. Mr. M. M.	Cr	BL	ie alter alte and		
	at let test test test of	Br	W BLW	20, 20,		
16	Up and and an	Cd	, ← BL	t TEX TEX TIES	الد المالي	
		Pb	BL	arr mr. m.		
27	Black heat-shrinkable tube	Hg	BL	NA NA	Comply	
	141 101 2.	Cr	BL	WILL MILL MALL W		
	t tex itex of write or	Br	BL			
W.	Mr. Mr. M.	Cd	BL	it it with with wh	. W.	
	at at a stell	Pb	BL	PBBs :ND PBDEs :ND		
28	Chip IC	Hg	BL		Comply	
		Cr	BL		TEX	
		Br	IN	at at all		
1/1	The The T	Cd	BL	neite unit was	14. 14	
	ex lex liex lie	Pb	*OL			
29	Chip resistor	Hg	F BL	Cr ⁶⁺ :ND	Comply	
		Cr	o NI no	in the the		
JE!	The state of the s	Br	BL	t the set of	it alier	
		Cd	BL	The Automotive		
	THE VIEW ST	Pb	BL	. It let		
30	Chip fuse	Hg	BL	NA	Comply	
	EX TEX TEX TEXT IN	Cr	BL	70, 70		
	it with my my	Br	BL	TEX TEX LIER	مرزال مرزا	
70		Cd	BL	Wer Mr. Mr.		
	" TITE MITE WALL WALL	Pb	BL	et let let		
31	Blue body of resistor	∠Hg ⋌	BL	NA NA	Comply	
	TEX LIER LIFE WITE ON	Cr	BL "	1 1 1 6		
	Mer Mr. M. M.	Br 🖈	BL	E LIFE WILL WILL	WILL.	
.1	at let tet tet it	Cd	BL	24. 24.	A	
	With while water or	Pb	BL	TEX TEX TEX	Comply	
32	Silvery metal pin of resistor	Hg	BL	NA W		
	EL STER WILL MILL MAN	Cr Cr	BL	at at alt		
	1/1, 1/1, 1/2,	Br	BL	TE OLIV WILL W		



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Part No.	Part Description	Result of XRF		Result of Wet Chemical Testing (mg/kg)	Conclusion on RoHS	
TEX	TEX LIE NITE MILL W	Cd	BL	at at all	TEX	
	no my	Pb	BL	alle while while		
33	Chip capacitor	Hg	BL	NA	Comply	
~\u011	the water was an	Cr	→ BL →	TEX LIER SLIER		
7,	and the set of	Br	BL	Wir My Min 1		
	nite inti wat wat	Cd	BL	et et et	TER OUT	
The.	In In	Pb	BL	Wir Muri Mur Mu		
34	Blue body of resistor	Hg	BL	L NA	Comply	
In the	mer me m m	Cr	BL	ie alie antie anti		
	at let let liet o	Br	W BL	20, 20,	*	
	VII MUT MUT AND AND	Cd	, ∠ BL , ⊘	t Tet Jet Jie	Will M	
7,	1 1 1 1	Pb	BL	avr. Mr. M.		
35	Silvery metal pin of resistor	Hg	BL	NA NA	Comply	
n,		Cr	BL	write while where w		
		Br W	BL	, , , , , , , , , , , , , , , , , , ,		
write	mer mr m	Cd	BL	THE OUTER WITH WAY	MULL	
	at let a stell	Pb	BL	MA WALLE		
36	Solder	Hg	BL		Comply	
		Cr	BL		TEX	
EX		Br	BL	at at at		
111	20 20	Cd	BL	PBBs :ND	Comply	
- ,	ex tex tiex ties	Pb	BL			
37	Chip rectifier	Hg	L BL	PBDEs :ND		
		Cr	BL	T DDESND		
LIE		Br	IN	t dit it	IL WILLER	
30		Cd	BL	The Aller Alle		
TEX	Silvery metal plate with white	Pb	BL	- At Att		
38	coating	Hg	BL	NA	Comply	
	obaling	Cr	BL	z, , , , ,		
	in whi we will me	Br	BL	TEX JET LIE		
	at at all self	Cd	BL	Mr. Mr. M.		
_(JE	WITE WILL WALL WALL	Pb	BL	et let let		
39	Chip LED	√Hg ✓	BL	NA NA	Comply	
TEX.	TEX STEX STEEL MITE.	Cr	BL	, t .t .6		
	We All All	Br	BL	E SITE WITE WITE	MUL	
.4	et let let liet u	Cd	IN BLIN	24, 22,		
	Lite White white white	Pb	BL	- TEX LIER LITER	Comply	
40	Brown plastic wire covering	Hg	BL	NA		
	EL WILL MILE MULT MY	Cr	BL	at let let		
n.	10, 10,	Br	BL	with with M		



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Part No.	Part Description	Result of XRF		Result of Wet Chemical Testing (mg/kg)	Conclusion on RoHS	
TEX	TEX LIFE WITE WITE WITE	Cd	BL		EX	
	me me in in	Pb	BL	The write wall	Wr. W	
41	Coppery metal wire	Hg	BL	NA	Comply	
	The wife wife were and	Cr	BL.	TEX LIER NITER		
	at at at the	Br	BL	also also also		
_\(\(\)	all with white	Cd	BL	et et tet	TEN SITE	
	n t	Pb	BL	Kin whi we we	20,	
42	Blue plastic wire covering	Hg	BL	NA -	Comply	
	me me m	Cr 👉	BL	e nite until whi	MUL	
, J	at let let let let	Br	BL	20, 20, 1	*	
	VII MUT MY MY	Cd	BL &	- TEK STER STER	antitude	
	the state of the s	Pb	BL	ing the sur	20.	
43	Yellow-green plastic wire covering	Hg	BL	NA NA NATER	Comply	
		Cr	BL			
	t rest treet not matter a	Br Br	BL		et et	
	Mer Mr M	Cd	BL	Tik alie while whi		
	at let it life!	Pb	BL	10, 10,		
44	Golden metal terminal	Hg	BL	NA NA	Comply	
		Cr	BL			
<u> </u>	TER LITE OLITE NAME	Br	BL	at at all	JEK	
	20, 20,	Cd	BL	nite white whi	n. m.	
	EX TEX LIEX LITER	Pb	BL		LET LE	
45	Black plastic wire jacket	Hg	BL	NA NA	Comply	
	at let let let	Cr	BL	10 20 20	L at	
LIE!		Br	BL	to the state of		
		Cd	BL	My My	10,	
	The A A A A	Pb	BL	- A LIF LIFE	TEX	
46	Silvery metal terminal	Hg	BL	NA	Comply	
	TEX TEX STEX STEX SUN	Cr	BL		LET A	
1,,1	y were my my	Br	BL	JEK JEK JEK	Vr. OVr.	
	t at at at all	Cd	BL	4. 41. 12.	Comply	
	White plastic adhesive label with	Pb	BL	Et TEX JEX		
47	multicolour printing	Hg	BL	NAC JUL		
	LIFE NAME OF THE PARTY OF	Cr	BL			
	44. 14. 14.	Br	BL		W. A	



Remark:

Reference No.: WTF16F1267800A1C

(1) Results are obtained by EDXRF for primary screening, and further chemical testing by ICP (for Cd, Pb, Hg), UV-VIS (for Cr6⁺) and GC-MS (for PBBs, PBDEs) is recommended to be performed, if the concentration exceeds the below warning value according to IEC 62321-3-1: 2013 (unit: mg/kg)

Element	Polymer	Metal	Composite Materials
Cd	BL ≤ (70-3σ) < IN < (130+3σ) ≤ OL	BL \leq (70-3 σ) $<$ IN $<$ (130+3 σ) \leq OL	LOD < IN < (150+3σ) ≤ OL
Pb	BL \leq (700-3 σ) < IN < (1300+3 σ) \leq OL	$BL \le (700-3\sigma) < IN < (1300+3\sigma) \le OL$	BL ≤ (500-3σ) < IN < (1500+3σ) ≤ OL
Hg	BL \leq (700-3 σ) $<$ IN $<$ (1300+3 σ) \leq OL	$BL \le (700-3\sigma) < IN < (1300+3\sigma) \le OL$	BL ≤ (500-3σ) < IN < (1500+3σ) ≤ OL
Cr	BL ≤ (700-3σ) < IN	BL ≤ (700-3σ) <in< td=""><td>BL ≤ (500-3σ) < IN</td></in<>	BL ≤ (500-3σ) < IN
Br	BL ≤ (300-3σ) < IN	CH WHILE MULL MALL M	BL ≤ (250-3σ) < IN

BL= Below Limit

OL= Over Limit

LOD = Limit of Detection

-- = Not Regulated

- (2) "IN" expresses the inconclusive region, and further chemical testing to confirm whether it complies with the requirement of RoHS Directive.
- (3) The XRF screening test for RoHS elements the reading may be different to the actual content in the sample be of non-uniformity composition.
- (4) ppm = mg / kg, based on the dry weight of tested sample.
- (5) ND = Not Detected, less than the value of Method Detection Limit.
- (6) NA = Not Applicable, as the XRF screening test result was below the limit, it was not need to conduct the wet chemical testing.
- (7) MDL= Method Detection Limit in wet chemical test

S	Test Items	Pb	Cd	Hg	Cr ⁶⁺		PBB	PBDE
	Units	mg/kg	mg/kg	mg/kg	mg/kg	μg/cm ²	mg/kg	mg/kg
1	MDL	2 (6)	2	2	2	0.1	5	× 5 ×

The MDL for single compound of PBBs and PBDEs is 5mg/kg, MDL of Cr⁶⁺ for polymer and composite sample is 2mg/kg and MDL of Cr⁶⁺ for metal sample is 0.1µg/cm².

(8) According to IEC 62321-7-1:2015, determined of Cr⁶⁺ on metal sample by boiling water extraction test method, and result is shown as Positive/Negative.

Boiling water extraction:

Negative = Absence of Cr⁶⁺ coating, the detected concentration in boiling water extraction solution is less than 0.10ug/cm².

Positive = Presence of Cr⁶⁺ coating, the detected concentration in boiling water extraction solution is greater than 0.13ug/cm².

Information on storage conditions and production date of the tested sample is unavailable and thus Cr⁶⁺ results represent status of the sample at the time of testing.

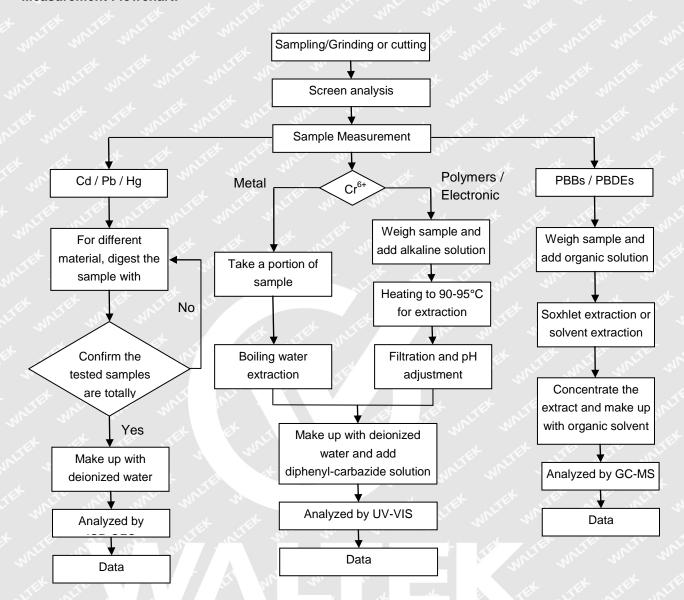
- (9) * = According to the declaration from client, the source of lead in test sample could be from the glass or ceramic material of that electronic component which is exempted by Directive 2011/65/EU.
- (10)[#] = According to the declaration from client, the source of lead in test sample could be from copper alloy while lead as copper alloy containing up to 4% lead by weight is exempted by Directive 2011/65/EU.



W

Measurement Flowchart:

Reference No.: WTF16F1267800A1C



W

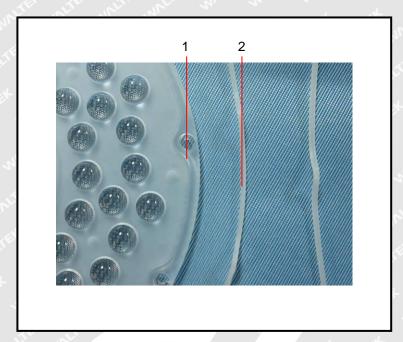
Sample Photo:

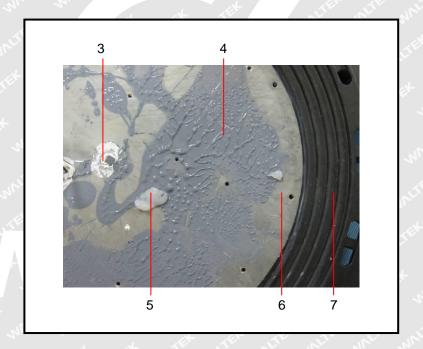




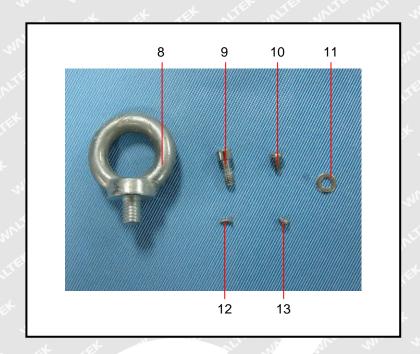
W

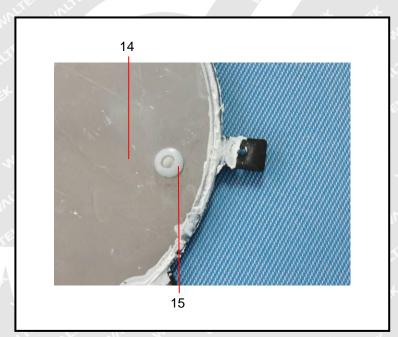
Photograph of parts tested:



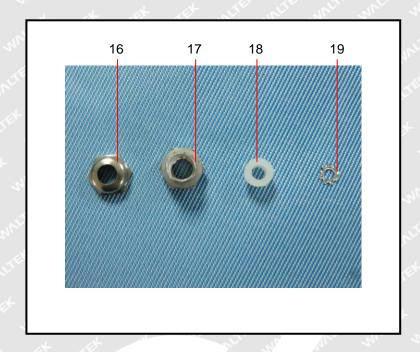


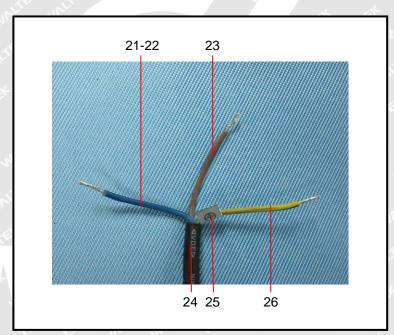




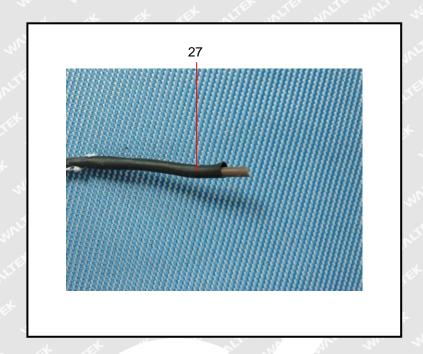


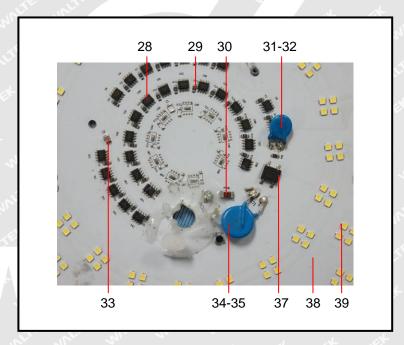




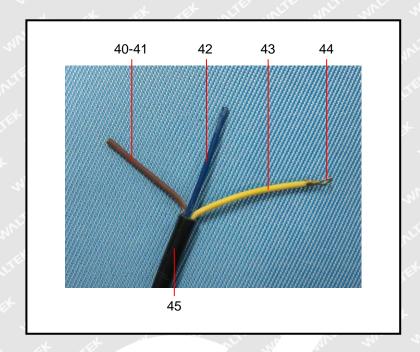


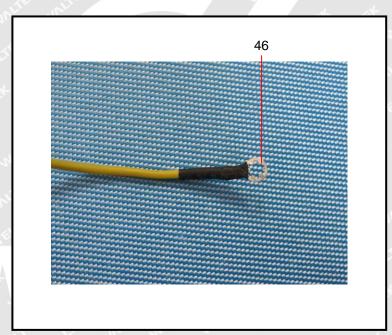




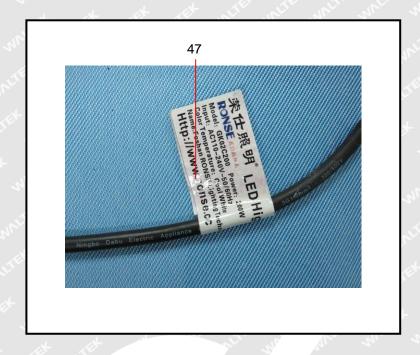


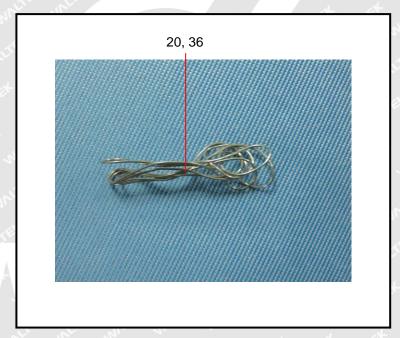












===== End of Report =====