XRF Screening and Chemical Confirmation Test Report Number: ETA25060001C-001

Applicant: Hangzhou Longlux Electronic Technology Co., ltd Date: July 3, 2025
The Western Science Park, Hangzhou City, China

Sample Description:
One (1) piece of submitted samples said to be

Item Name	:	LED Back Light Ceiling Luminaire (hexagonal side)
Brand Name/Trade Name		Longlux
Tested Model	:	LLX-Panel-60120-72W
Referenced Model	:	See model list

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Tests Conducted:
As Requested By The Applicant, For Details Refer To Attached Page(S).

Remark:
The tested samples were confirmed by client and reference models were based on the self declaration supplied by clients. **ETA** takes no responsibility for any issues of product consistency caused by inaccurate and/or invalid information submitted by the client.

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Conclusion:

Tested sample	Standard	Result
Tested component of Submitted sample	Screening by XRF spectroscopy and chemical confirmation test for RoHS Directive 2011/65/EU and amendment (EU)2015/863	Pass

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To be continued

Authorized By:
For Hangzhou ETA Testing Technology Co., Ltd

Sean Wan
Manager

Model list
For size 300*300 series

Mode name	Rated wattage (W)	CCT switch
LLX-Panel-3030-10W	10	N/A
LLX-Panel-3030-10W-CCT	10	With
LLX-Panel-3030-12W	12	N/A
LLX-Panel-3030-12W-CCT	12	With
LLX-Panel-3030-14W	14	N/A
LLX-Panel-3030-14W-CCT	14	With
LLX-Panel-3030-16W	16	N/A
LLX-Panel-3030-16W-CCT	16	With
LLX-Panel-3030-18W	18	N/A
LLX-Panel-3030-18W-CCT	18	With
LLX-Panel-3030-20W	20	N/A
LLX-Panel-3030-20W-CCT	20	With
LLX-Panel-3030-24W	24	N/A
LLX-Panel-3030-24W-CCT	24	With
LLX-Panel-3030-28W	28	N/A
LLX-Panel-3030-28W-CCT	28	With
LLX-Panel-3030-30W	30	N/A
LLX-Panel-3030-30W-CCT	30	With

For size 300*600 series

Mode name	Rated wattage (W)	CCT switch
LLX-Panel-3060-10W	10	N/A
LLX-Panel-3060-10W-CCT	10	With
LLX-Panel-3060-12W	12	N/A
LLX-Panel-3060-12W-CCT	12	With
LLX-Panel-3060-14W	14	N/A
LLX-Panel-3060-14W-CCT	14	With
LLX-Panel-3060-16W	16	N/A
LLX-Panel-3060-16W-CCT	16	With
LLX-Panel-3060-18W	18	N/A
LLX-Panel-3060-18W-CCT	18	With
LLX-Panel-3060-20W	20	N/A
LLX-Panel-3060-20W-CCT	20	With
LLX-Panel-3060-24W	24	N/A
LLX-Panel-3060-24W-CCT	24	With
LLX-Panel-3060-28W	28	N/A
LLX-Panel-3060-28W-CCT	28	With
LLX-Panel-3060-30W	30	N/A
LLX-Panel-3060-30W-CCT	30	With
LLX-Panel-3060-32W	32	N/A
LLX-Panel-3060-32W-CCT	32	With
LLX-Panel-3060-36W	36	N/A
LLX-Panel-3060-36W-CCT	36	With

For size 600*600 series

Mode name	Rated wattage (W)	CCT switch
LLX-Panel-6060-20W	20	N/A
LLX-Panel-6060-20W-CCT	20	With
LLX-Panel-6060-24W	24	N/A
LLX-Panel-6060-24W-CCT	24	With
LLX-Panel-6060-28W	28	N/A
LLX-Panel-6060-28W-CCT	28	With
LLX-Panel-6060-30W	30	N/A
LLX-Panel-6060-30W-CCT	30	With
LLX-Panel-6060-32W	32	N/A
LLX-Panel-6060-32W-CCT	32	With
LLX-Panel-6060-36W	36	N/A
LLX-Panel-6060-36W-CCT	36	With
LLX-Panel-6060-40W	40	N/A
LLX-Panel-6060-40W-CCT	40	With
LLX-Panel-6060-48W	48	N/A
LLX-Panel-6060-48W-CCT	48	With

For size 620*620 series

Mode name	Rated wattage (W)	CCT switch
LLX-Panel-6262-20W	20	N/A
LLX-Panel-6262-20W-CCT	20	With
LLX-Panel-6262-24W	24	N/A
LLX-Panel-6262-24W-CCT	24	With
LLX-Panel-6262-28W	28	N/A
LLX-Panel-6262-28W-CCT	28	With
LLX-Panel-6262-30W	30	N/A
LLX-Panel-6262-30W-CCT	30	With
LLX-Panel-6262-32W	32	N/A
LLX-Panel-6262-32W-CCT	32	With
LLX-Panel-6262-36W	36	N/A
LLX-Panel-6262-36W-CCT	36	With
LLX-Panel-6262-40W	40	N/A
LLX-Panel-6262-40W-CCT	40	With
LLX-Panel-6262-48W	48	N/A
LLX-Panel-6262-48W-CCT	48	With

For size 300*1200 series

Mode name	Rated voltage (A)	Rated wattage (W)	LED Driver	CCT switch
LLX-Panel-30120-20W		20		N/A
LLX-Panel-30120-20W-CCT		20		With
LLX-Panel-30120-24W		24		N/A
LLX-Panel-30120-24W-CCT		24		With
LLX-Panel-30120-28W		28		N/A
LLX-Panel-30120-28W-CCT		28		With
LLX-Panel-30120-30W		30		N/A
LLX-Panel-30120-30W-CCT		30		With
LLX-Panel-30120-32W		32		N/A
LLX-Panel-30120-32W-CCT		32		With
LLX-Panel-30120-36W		36		N/A
LLX-Panel-30120-36W-CCT		36		With
LLX-Panel-30120-40W		40		N/A
LLX-Panel-30120-40W-CCT		40		With
LLX-Panel-30120-48W		48		N/A
LLX-Panel-30120-48W-CCT		48		With

For size 600*1200 series

Mode name	Rated voltage (A)	Rated wattage (W)	LED Driver	CCT switch
LLX-Panel-60120-40W		40		N/A
LLX-Panel-60120-40W-CCT		40		With
LLX-Panel-60120-48W		48		N/A
LLX-Panel-60120-48W-CCT		48		With
LLX-Panel-60120-50W		50		N/A
LLX-Panel-60120-50W-CCT		50		With
LLX-Panel-60120-60W		60		N/A
LLX-Panel-60120-60W-CCT		60		With
LLX-Panel-60120-72W		72		N/A
LLX-Panel-60120-72W-CCT		72		With
LLX-Panel-60120-80W		80		N/A
LLX-Panel-60120-80W-CCT		80		With

Tests Conducted

Cadmium (Cd), Lead (Pb), Mercury (Hg), Chromium (Cr) and Bromine (Br) content were measured with reference to IEC 62321-3-1 Edition 1.0 : 2013 by XRF spectroscopy and chemical confirmation test for RoHS restricted substances. And Phthalates content were determined by Gas Chromatographic-Mass Spectrometric (GC-MS).

(A) Results:

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
1	Lampshade (Transparent plastic)	/	Cd	P	NA	/	PASS
			Pb	P		/	

			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
2	White plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
3	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
4	Spring washer (Silver metal)	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
5	Screw (Silver metal)	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
6	White plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
7	Enclosure (White metal)	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
8	White plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
9	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
10	Yellow (green wire skin)	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
11	Lead	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
12	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
13	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
14	LED	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
15	LED PCB	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
16	White plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
17	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
18	Blue wire skin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
19	Lead	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
20	Brown wire skin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
21	Lead	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
22	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
23	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
24	Soldering tin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
25	White label	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
26	White driver box	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
27	Orange plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
28	Gray plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
29	White paper	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
30	White plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
31	Black plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
32	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
33	Transparent plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
34	Transparent plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
35	PCB	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
36	Green paint	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
37	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
38	Black plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
39	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
40	Golden lead	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
41	Resistor	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
42	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
43	Black metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
44	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
45	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
46	Black nonmetal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
47	Brown skin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
48	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
49	Electrolyte	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
50	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
51	Blue body	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
52	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
53	White skin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
54	Lead	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
55	Brown skin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
56	Lead	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
57	Orange tap	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
58	Black plastic part	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
59	Yellow wire skin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
60	Golden lead	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
61	Transparent plastic tube	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
62	Black nonmetal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
63	Black metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
64	Black nonmetal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
65	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
66	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
67	Black soft plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
68	Black body	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
69	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
70	Red body	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
71	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
72	Yellow skin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
73	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
74	Electrolyte	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
75	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
76	Yellow body	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
77	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
78	D3	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
79	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
80	Black nonmetal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
81	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
82	Golden lead	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
83	Golden lead	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
84	Red lead	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
85	Green paint	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
86	Silver metal	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	
87	Silver metal pin	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	NA		/	
			DEHP	NA	NA	/	
			BBP	NA	NA	/	
			DBP	NA	NA	/	
			DIBP	NA	NA	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
88	Fuse resistor	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
89	Black body	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
90	IC2	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Part No.	Tested Components	Refer information	Restricted Substance	XRF Result	Screened Results (phthalates)	Chemical Confirmation Result	Conclusion on RoHS
91	Yellow body	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
92	Black body	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	
93	Black plastic	/	Cd	P	NA	/	PASS
			Pb	P		/	
			Hg	P		/	
			Cr	P		/	
			Br	P		/	
			DEHP	NA	BL	/	
			BBP	NA	BL	/	
			DBP	NA	BL	/	
			DIBP	NA	BL	/	

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To be continued

Remark: P = Pass (Below the lower screening limit of table (B1))
X = Inconclusive result (Further chemical test was suggested (see table (B1).)
BL= Below the lower screening limit of table (B2) and pass
NA = Not applicable
NT = Not tested
ND = Not detected
ppm = Parts per million = mg/kg
/ = No content.

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(B)
(B1) XRF screening limits in mg/kg for regulated elements in various matrices.

Element	Polymer materials	Metallic materials	Composite materials
Cd	P ≤70 < X < 130 ≤ F	P ≤ 70 < X < 130 ≤ F	P ≤ 70 < X < 150 ≤ F
Pb	P ≤ 700 < X < 1300≤ F	P ≤ 700 < X < 1300 ≤ F	P ≤ 500< X < 1500 ≤ F
Hg	P ≤ 700< X < 1300 ≤ F	P ≤ 700 < X < 1300 ≤ F	P ≤ 500 < X < 1500 ≤ F
Cr	P ≤ 700< X	P ≤ 700 < F	P ≤ 500 < X
Br	P ≤ 300< X	Not applicable	P ≤ 250 < X

(B2) Preliminary screening test will used for phthalates, if the results exceed the warning area in the following table, further chemical methods will conduct to confirm the exact content by GC/MS.

Phthalates	Polymer
Bis(2-ethylhexyl)phthalate(DEHP)	BL ≤600<X
Butyl benzyl phthalate(BBP)	BL ≤600<X
Dibutyl phthalate(DBP)	BL ≤600<X
Diisobutyl phthalate(DIBP)	BL ≤600<X

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(C) Estimated detection limits in mg/kg for regulated elements in various matrices.

Element	Polymer materials	Metallic materials	Composite materials
Cd	50	70	70
Pb	100	200	200
Hg	100	200	200
Cr	100	200	200
Br	200	Not applicable	200

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To be continued

Disclaimers:

This XRF Screening and Chemical Confirmation Test Report is for reference purposes only. The applicant shall make its/his/her own judgment as to whether the information provided in this XRF Screening and Chemical Confirmation Test Report is sufficient for its/his/her purposes.

The results shown in this XRF Screening and Chemical Confirmation Test Report will differ based on various factors, including but not limited to, the sample size, thickness, area, surface flatness, equipment parameters and matrix effect (e.g. plastic, rubber, metal, glass, ceramic etc.). Further wet chemical pre-treatment with relevant chemical equipment analysis is required to obtain quantitative data.

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(D) Chemical confirmation test methods:

Testing item	Testing method	Reporting limit
Cadmium (Cd) content	With reference to IEC 62321-5 Edition 1.0：2013, by acid digestion and determined by ICP - OES	2 mg/kg
Lead (Pb) content	With reference to IEC 62321-5 Edition 1.0：2013, by acid digestion and determined by ICP - OES	2 mg/kg
Mercury (Hg) content	With reference to IEC 62321-4 Edition 1.1：2017, by acid digestion and determined by ICP - OES	2 mg/kg
Chromium (VI) (Cr^{6+}) content	With reference to IEC 62321-7-1 Edition 1.0:2015, by boiling water extraction and determined by UV-VIS spectrophotometer	Positive(>0.13 μg/cm^2) / Negative(<0.10 μg/cm^2) / Inconclusive(0.10 μg/cm^2 --0.13 μg/cm^2)
Chromium (VI) (Cr^{6+}) content	With reference to IEC 62321-7-2 Edition 1.0:2017, by alkaline digestion and determined by UV-VIS Spectrophotometer	10 mg/kg
Polybrominated Biphenyls (PBBs)& Polybrominated Diphenyl Ethers (PBDEs) Content	With reference to IEC 62321-6 Edition 1.0:2015, by solvent extraction and determined by GC/MS and further HPLC confirmation when necessary	5 mg/kg
Phthalates (DEHP, BBP, DBP, DIBP) Content	With reference to IEC 62321-8 Edition 1.0:2017,by solvent extraction and determined by GC/MS	100mg/kg

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(E) RoHS requirement

Restricted substances	Limits
Cadmium (Cd)	0.01% (100 ppm)
Lead (Pb)	0.1% (1000 ppm)
Mercury (Hg)	0.1% (1000 ppm)
Chromium (VI) (Cr^{6+})	0.1% (1000 ppm)
Polybrominated biphenyls (PBBs)	0.1% (1000 ppm)
Polybrominated diphenyl ethers (PBDEs)	0.1% (1000 ppm)
Phthalates(DEHP, BBP, DBP, DIBP)	0.1% (1000 ppm)

The above limits were quoted from 2011/65/EU and (EU) 2015/863 for homogeneous material.

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Date sample received: June 12, 2025

Testing period: June 12, 2024 to July 3, 2025

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To be continued

For model LLX-Panel-6060-36W; LLX-Panel-6060-40W; LLX-Panel-6060-48W



LLX-Panel-30120-36W; LLX-Panel-30120-40W; LLX-Panel-30120-48W



LLX-Panel-30120-36W; LLX-Panel-30120-40W; LLX-Panel-30120-48W



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End of this report