

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250623213GZU-001

ISSUE DATE

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REVISION DATE

None

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14

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 250623213GZU-001

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLFL53527XXX

Remark: "XXX" represents the color of the appearance.

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

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<u>TEST:</u>	Electrical and Photometric as required to the IES LM-79 test standard.
<u>AUTHORIZATION:</u>	The testing performed was authorized by signed quote number: QGZ250623117.
<u>STANDARDS USED:</u>	The following American National Standards or Illuminating Engineering Society of North America Test Guides were used in part or totally to test each specimen:
IES LM-79-24	Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI C78.377-2017 (R2022)	Specifications of the Chromaticity of Solid State Lighting Products
<u>DESCRIPTION OF SAMPLE:</u>	The client submitted one sample of model SLFL53527XXX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250623213-001.
<u>MANUFACTURER /FACTORY & ADDRESS:</u>	LEEDARSON XIAMEN ECO LIGHTING CO LTD Xingtai Industrial Park, Economic Development Zone of Changtai County, Zhangzhou City, Fujian
<u>DATES OF TESTS:</u>	07 July 2025
<u>ISSUED BY:</u>	Intertek Testing Services Shenzhen Ltd. Guangzhou Branch
<u>TEST LOCATION:</u>	Room101/301/401/102/202/302/402/502/602/702/802, No. 7-2, Caipin Road, Huangpu District, Guangzhou, Guangdong, China

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TEST REPORT

SUMMARY

Model Number:	SLFL53527XXX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLFL53527XXX

Criteria	Result
Total Lumen Output	259.2 lm
Total Power	5.0 W
Luminaire Efficacy	51.5 lm/W
S/MH(C0/180)	0.08
S/MH(C90/270)	0.04
Correlated Color Temperature (CCT)	2778 K
Color Rendering Index (CRI)	94
R9	62
Chromaticity Coordinate (x)	0.4533
Chromaticity Coordinate (y)	0.4086
Chromaticity Coordinate (u')	0.2591
Chromaticity Coordinate (v')	0.5256

Remark:

N/A

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TEST REPORT

EQUIPMENT LIST

Equipment Used	Model Number	Control Number
Goniophotometer System	Go-R5000	SA063-16
KONICA MINOLTA - Illuminance meter	CX-2B_WL	SA063-16-01
Standard Lamp	D215S	SA063-16-06
Digital Power Meter	PLM3000	SA063-16-09
AC power source for Goniophotometer	PCR-1000WH	SA063-16-10
Temperature Meter	S500-TH	SA047-182

GENERAL REMARK

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When determining for test conclusion, measurement uncertainty of tests has been considered.

Throughout this report a ☐ comma ☒ point is used as the decimal separator.

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TEST REPORT

TEST METHOD

Seasoning in Sample Orientation – LED Products

No seasoning was performed in accordance with IES LM-79

Light Distribution and Output Measurements

Light Distribution and total light output (luminous flux) were measured using a Go-R5000 Type-C Rotating Mirror Goniophotometer. Temperature 25°C and relative humidity of 60% was measured at a position in the testing laboratory.

The lamp rotates only around the fixed vertical axle in the prescribed burning position. The lamp and mirror permit the measurement of luminous intensity at the direction of any horizontal or vertical angle without tilting the lamp. The lamp was allowed to stabilize before measurements were made.

Chromaticity Measurements

Chromaticity was measured using a 2 meters integrating sphere spectral lamp measurement system, 4 π geometry, with an interior coating reflectance no less than 95 %. Temperature was measured at a position inside the sphere shielded from direct light. Relative humidity of 65% was measured at a position in the testing laboratory.

Spectral radiant flux measurements were made using spectroradiometer attached to the detector port of the integrating sphere. Each lamp was allowed to stabilise before measurements were made. The calibration of the integrating sphere spectroradiometer system is by the reference/standard lamps which are traceable to National Institute of Metrology P.R. CHINA. Lamp efficacy (lumens per watt) for each lamp model was then computed based on the luminous flux result. Electrical measurements including voltage, power and power factor were measured using YOKOGAWA - Digital Power Meter., model WT310E.

Correction factor (self-absorption) has been considered when doing measurement.

Standard lamp used for Goniophotometer method:

Model: D215S

Current: 4.809A DC

Standard lamp used for integrating sphere:

Model: D204

Current: 3.958A DC

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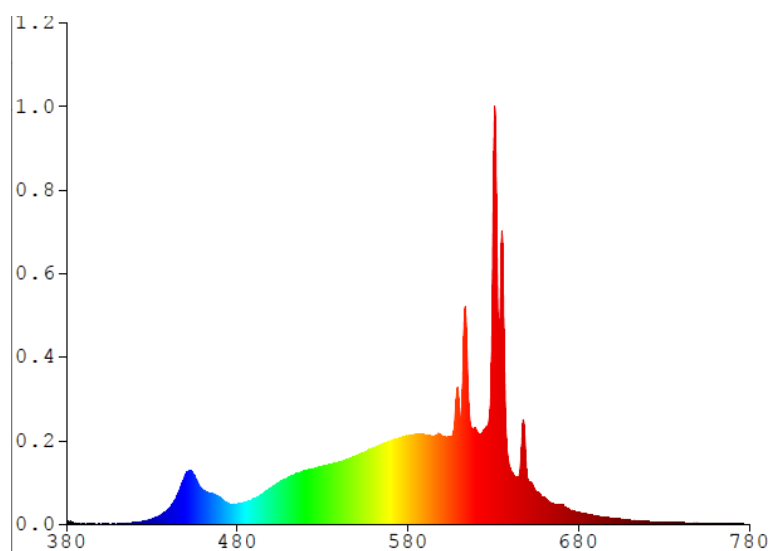
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLFL53527XXX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0566	480	1.5424	580	6.6722	680	0.9186	780	0.0311
385	0.0955	485	1.7192	585	6.7780	685	0.7723		
390	0.0755	490	1.9586	590	6.7313	690	0.6606		
395	0.0169	495	2.3079	595	6.6218	695	0.5560		
400	0.0144	500	2.7837	600	6.6813	700	0.4724		
405	0.0309	505	3.1964	605	6.6157	705	0.3952		
410	0.0502	510	3.5426	610	8.9553	710	0.3314		
415	0.0859	515	3.8517	615	11.2440	715	0.2824		
420	0.1285	520	4.0883	620	7.1591	720	0.2361		
425	0.2374	525	4.2248	625	7.1994	725	0.1998		
430	0.4096	530	4.3918	630	24.6090	730	0.1665		
435	0.6925	535	4.5478	635	22.0150	735	0.1473		
440	1.2061	540	4.6949	640	4.1908	740	0.1231		
445	2.2316	545	4.9214	645	3.6210	745	0.1069		
450	3.8303	550	5.2037	650	3.5827	750	0.0918		
455	3.6535	555	5.4905	655	2.5406	755	0.0800		
460	2.5962	560	5.7994	660	2.0209	760	0.0720		
465	2.3438	565	6.0505	665	1.5650	765	0.0640		
470	2.0006	570	6.3123	670	1.5238	770	0.0512		
475	1.5950	575	6.5180	675	1.0677	775	0.0429		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLFL53527XXX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

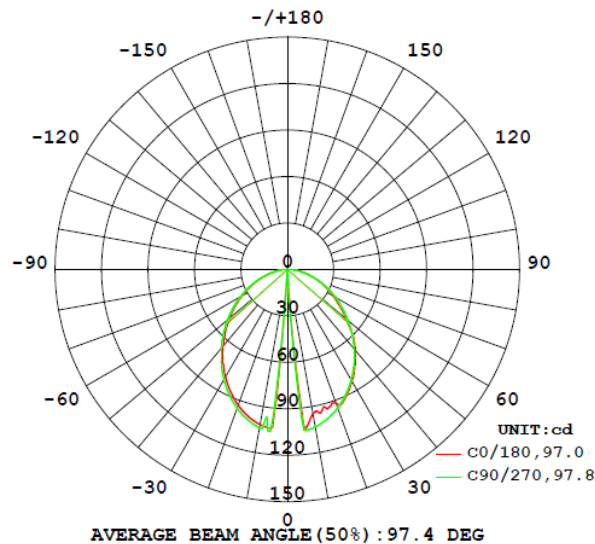
Photometric Measurements at 25°C – Distribution Method

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	R9	CIE 31'	CIE 31'	CIE 76'	CIE 76'
					Chromaticit	Chromaticit	Chromaticit	Chromaticit
					y	y	y	y
					Coordinate	Coordinate	Coordinate	Coordinate
					(x)	(y)	(u')	(v')
SLFL53527XXX								
S2506232 13-001	base-up	2778	94	62	0.4533	0.4086	0.2591	0.5256

Photometric and Electrical Measurements at 25°C – Distribution Method

Intertek Sample No.	Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (Watts)	Input Power Factor	Absolute Luminous Flux (Lumens)	Lumen Efficacy (Lumens Per Watt)
SLFL53527XXX							
S2506232 13-001	base-up	120.2	90.7	5.0	0.462	259.2	51.5

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLFL53527XXX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	0.0	0.0	0.0	0.0	0.0
5	60.8	60.9	61.8	69.3	77.7
10	94.8	103.4	103.6	104.1	103.2
15	91.6	100.4	100.6	100.9	99.8
20	91.7	95.9	96.1	96.3	95.1
25	90.1	90.1	90.4	90.5	89.2
30	83.5	83.4	83.6	83.7	82.4
35	76.1	76.0	76.2	76.2	75.0
40	68.2	68.2	68.4	68.3	67.2
45	59.6	60.2	60.3	60.1	59.2
50	49.7	52.1	52.3	52.1	51.2
55	41.5	44.4	44.4	44.2	43.4
60	34.2	36.8	36.8	36.6	35.8
65	27.4	29.6	29.6	29.2	28.6
70	21.1	22.6	22.6	22.2	21.6
75	15.2	15.9	15.9	15.5	15.0
80	9.9	10.1	9.8	9.4	8.9
85	5.3	5.5	5.1	4.5	4.1
90	2.6	2.6	2.1	1.6	1.5
95	1.4	1.5	1.3	1.1	1.2
100	0.7	1.0	1.1	1.0	1.1
105	0.7	0.9	0.9	0.9	0.9
110	0.6	0.7	0.8	0.8	0.8
115	0.6	0.6	0.6	0.7	0.7
120	0.5	0.6	0.6	0.6	0.6
125	0.6	0.6	0.6	0.7	0.7
130	0.5	0.6	0.6	0.6	0.6
135	0.5	0.6	0.6	0.6	0.6
140	0.4	0.5	0.5	0.6	0.5
145	0.4	0.5	0.5	0.5	0.5
150	0.4	0.5	0.5	0.5	0.5
155	0.4	0.5	0.5	0.5	0.5
160	0.4	0.5	0.5	0.5	0.5
165	0.4	0.5	0.5	0.5	0.5
170	0.4	0.5	0.5	0.5	0.5
175	0.4	0.4	0.4	0.4	0.4
180	0.2	0.2	0.1	0.1	0.1

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLFL53527XXX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLFL53527XXX		
0-30	76.0	29.3
0-40	122.4	47.2
0-60	205.7	79.4
0-90	254.3	98.1
60-90	48.6	18.7
0-180	259.2	100.0

Beam Angle

Total Beam Angle(°)

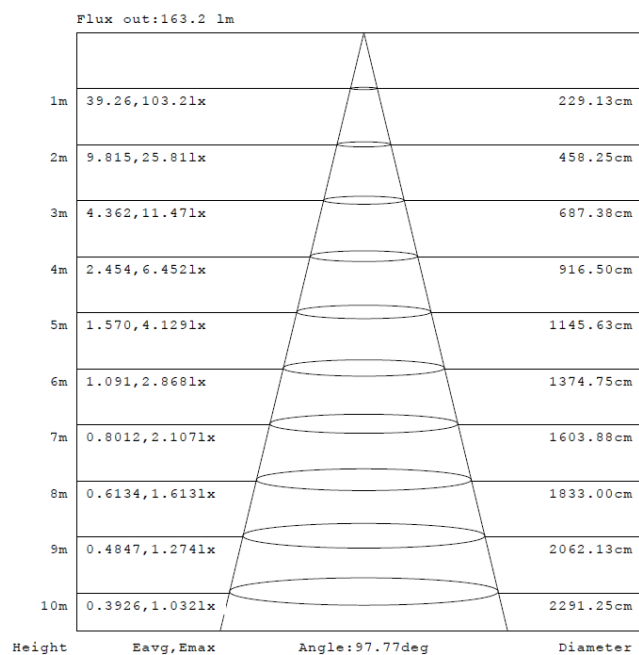
97.4

Illumination Plots

Model No.: SLFL53527XXX

Mount Height: 2.5 m

Illuminance - Cone of Light



Note: The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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TEST REPORT

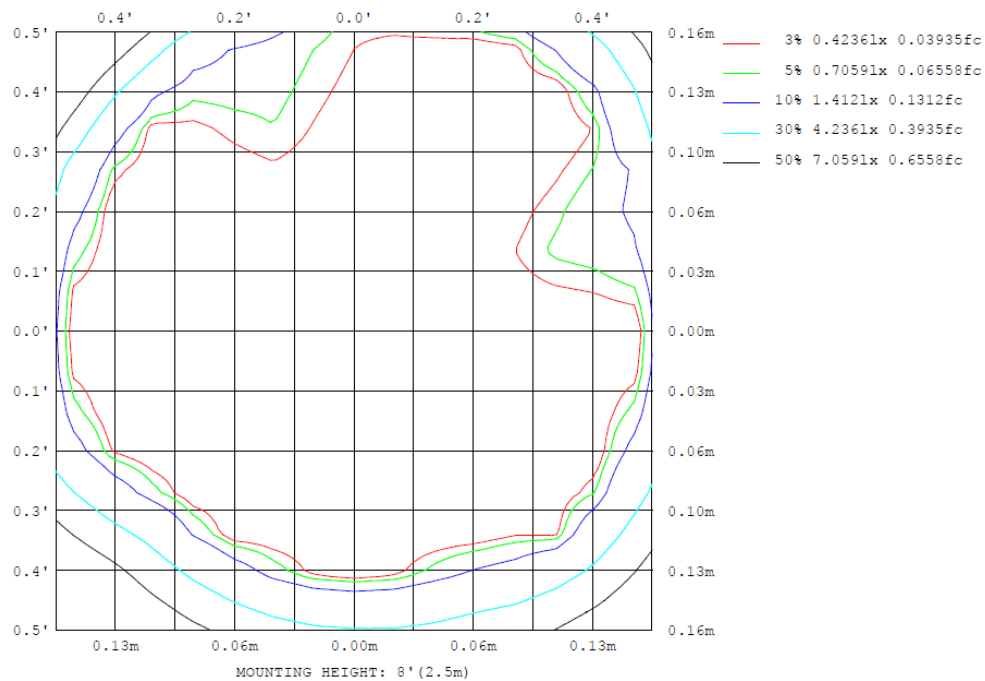
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLFL53527XXX

Model No.: SLFL53527XXX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLFL53527XXX

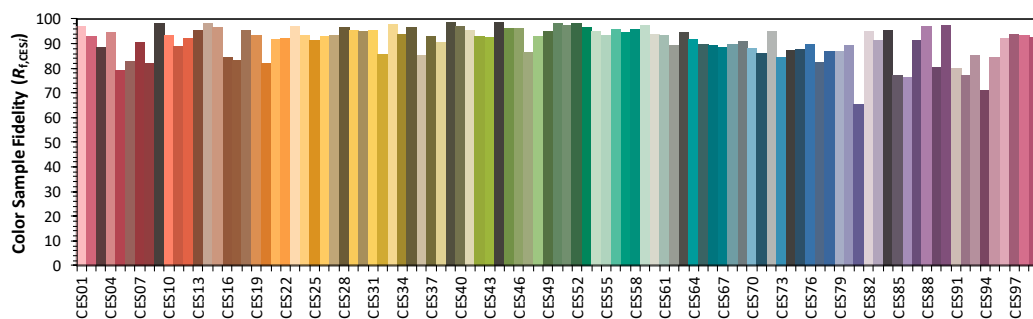
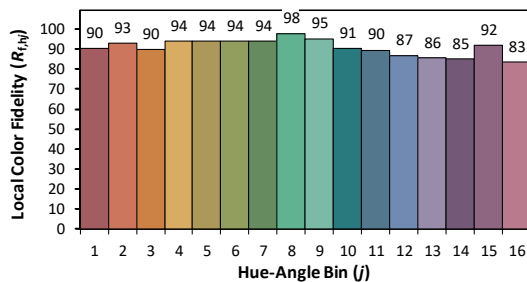
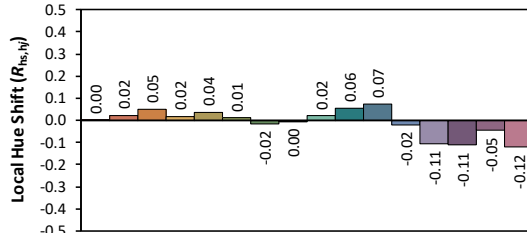
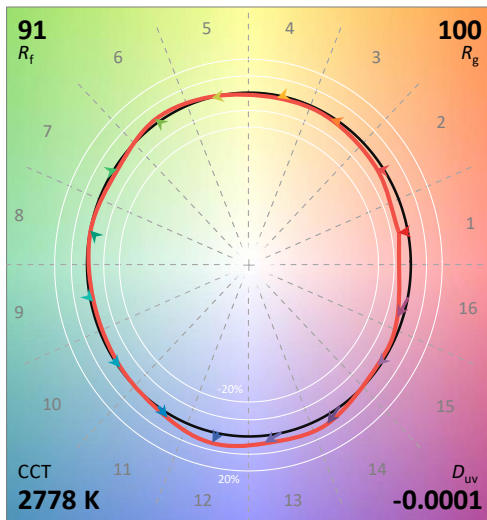
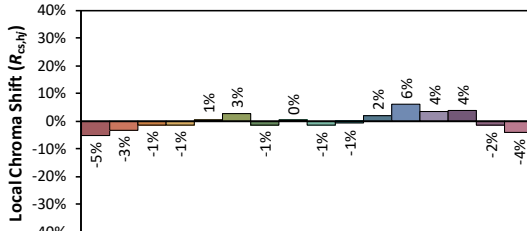
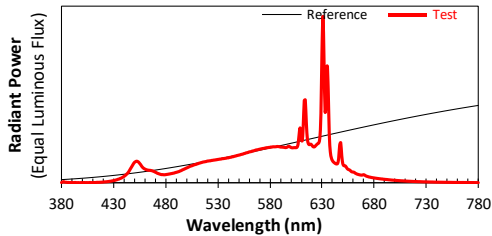
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/7/7

Model: SLFL53527XXX



Notes: This is a recommended method for displaying ANSI/IES TM-30-18 information.

x 0.4533
 y 0.4086
 u' 0.2591
 v' 0.5256

CIE 13.3-1995
(CRI)
 R_a 94
 R_g 62

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

***** End of Page *****

TEST REPORT

PRODUCT PICTURE (not to scale)

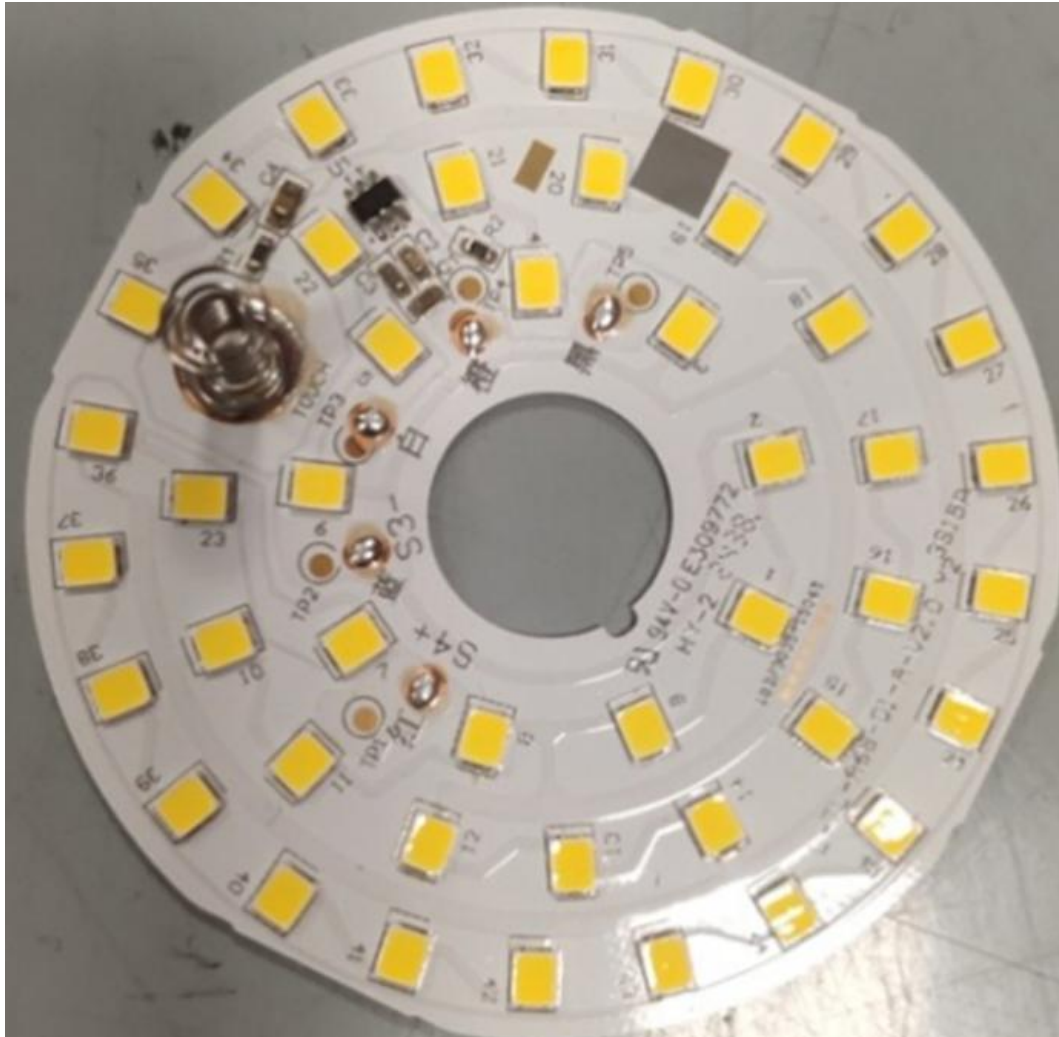


External view of SLFL53527XXX

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TEST REPORT

PRODUCT PICTURE (not to scale)

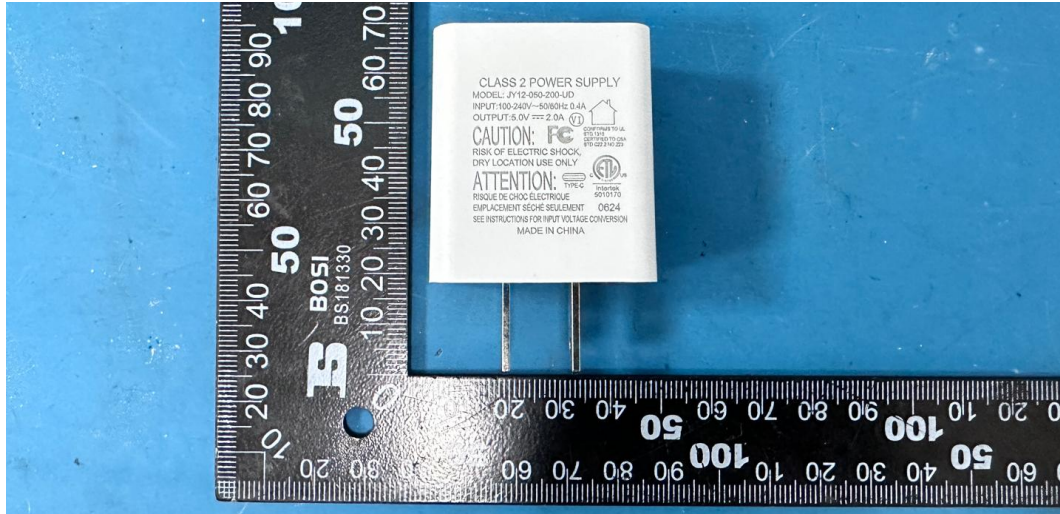


View of LED

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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver JY12-050-200-UD

In Charge Of Tests:

Done Ye

Done Ye
Engineer

Report Reviewed By

Shelley Ying

Shelley Ying
Reviewer

Attachment: None

***** End of Report *****