

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250623168GZU-039

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REVISION DATE

None

NUMBER OF PAGES

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DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 250623168GZU-039

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLFL78327XX

Remark: "XX" 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: QGZ250619128.
<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 SLFL78327XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250623168-025.
<u>MANUFACTURER /FACTORY & ADDRESS:</u>	Guangzhou Xiongyi Precision Metalworking Co., Ltd Hantang Industrial Zone, Langbian Village, Shiji Town, Panyu District, Guangzhou City, Guangdong Province, China 511450
<u>DATES OF TESTS:</u>	04 August 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:	SLFL78327XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLFL78327XX

Criteria	Result
Total Lumen Output	246.7 lm
Total Power	4.0 W
Luminaire Efficacy	61.5 lm/W
S/MH(C0/180)	0.18
S/MH(C90/270)	1.19
Correlated Color Temperature (CCT)	2744 K
Color Rendering Index (CRI)	92
R9	70
Chromaticity Coordinate (x)	0.4563
Chromaticity Coordinate (y)	0.4098
Chromaticity Coordinate (u')	0.2605
Chromaticity Coordinate (v')	0.5265

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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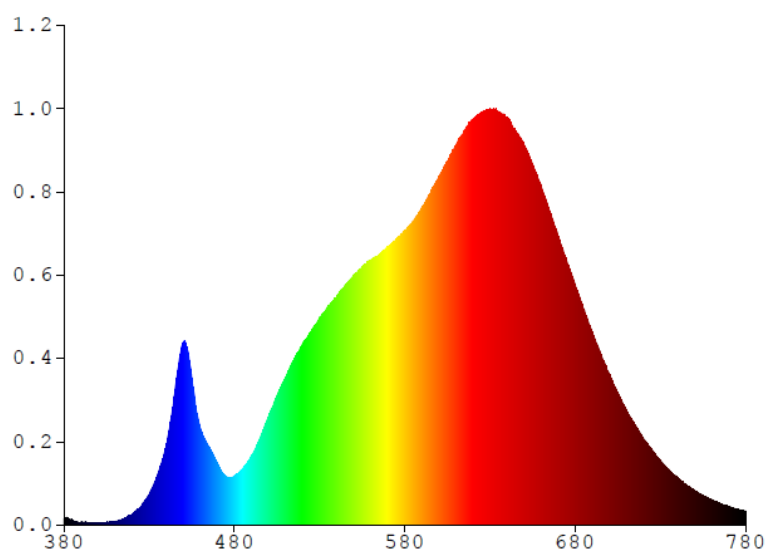
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLFL78327XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.2614	480	1.9036	580	11.4730	680	9.3615	780	0.5440
385	0.1809	485	2.1974	585	11.8530	685	8.4318		
390	0.1112	490	2.6913	590	12.3740	690	7.5293		
395	0.0614	495	3.3845	595	12.9380	695	6.6564		
400	0.0822	500	4.2174	600	13.5890	700	5.8936		
405	0.0886	505	5.0299	605	14.2010	705	5.1503		
410	0.1406	510	5.7549	610	14.8180	710	4.4854		
415	0.2358	515	6.4429	615	15.3940	715	3.9229		
420	0.4202	520	7.0541	620	15.8290	720	3.3920		
425	0.7135	525	7.5335	625	16.1080	725	2.9507		
430	1.2055	530	8.0914	630	16.2430	730	2.5167		
435	1.9575	535	8.5176	635	16.1090	735	2.1575		
440	3.0865	540	8.9001	640	15.9010	740	1.8426		
445	5.1318	545	9.3446	645	15.3670	745	1.5790		
450	7.1257	550	9.7450	650	14.8420	750	1.3490		
455	5.6894	555	10.1020	655	14.0530	755	1.1575		
460	3.7745	560	10.3360	660	13.2440	760	0.9923		
465	3.0488	565	10.5580	665	12.2390	765	0.8418		
470	2.3931	570	10.8570	670	11.2610	770	0.7178		
475	1.8996	575	11.1510	675	10.1340	775	0.6210		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLFL78327XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

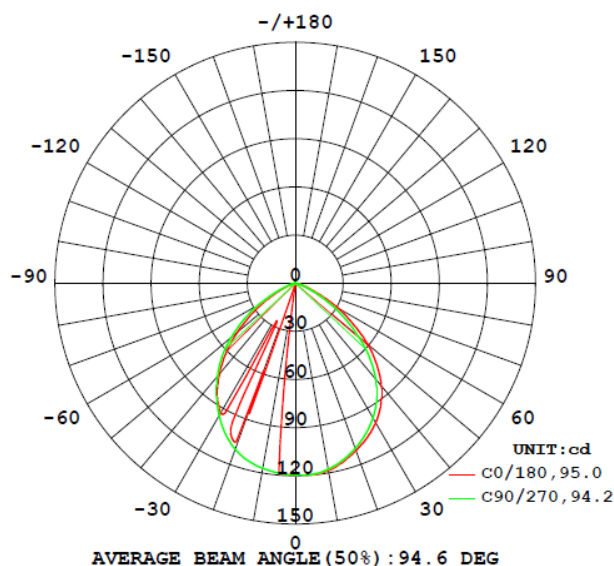
Photometric Measurements at 25°C – Distribution Method

Intertek Sample No.	Base Orientation	Correlated Color Temperatur e (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')
SLFL78327XX								
S2506231 68-025	base-up	2744	92	70	0.4563	0.4098	0.2605	0.5265

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)
SLFL78327XX							
S2506231 68-025	base-up	120.1	44.7	4.0	0.747	246.7	61.5

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLFL78327XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	119.6	119.6	119.6	119.5	119.5
5	119.8	119.8	119.7	119.7	119.5
10	118.5	118.1	117.9	117.9	117.7
15	115.2	114.6	114.4	114.5	114.1
20	110.8	110.3	110.0	110.2	109.4
25	106.1	105.6	105.2	105.1	103.8
30	100.4	100.0	99.3	98.8	96.9
35	93.0	92.7	91.5	90.6	88.5
40	83.6	83.2	81.2	80.2	78.1
45	72.1	71.3	68.7	67.7	65.7
50	58.8	57.3	54.3	53.4	51.4
55	43.9	42.0	39.2	38.6	36.9
60	30.3	28.4	25.9	25.3	23.7
65	16.9	15.4	13.8	13.3	12.2
70	8.2	7.6	6.9	6.5	5.9
75	3.7	3.4	3.1	2.9	2.4
80	1.3	1.1	1.0	1.0	0.8
85	0.5	0.5	0.5	0.4	0.3
90	0.2	0.2	0.2	0.1	0.0
95	0.1	0.1	0.1	0.1	0.0
100	0.2	0.1	0.1	0.1	0.0
105	0.4	0.3	0.2	0.1	0.0
110	0.4	0.4	0.4	0.2	0.0
115	0.5	0.4	0.5	0.4	0.2
120	0.5	0.4	0.5	0.5	0.4
125	0.5	0.5	0.5	0.5	0.5
130	0.5	0.5	0.5	0.5	0.5
135	0.5	0.5	0.6	0.5	0.5
140	0.5	0.5	0.6	0.6	0.6
145	0.5	0.6	0.6	0.6	0.6
150	0.5	0.6	0.6	0.6	0.6
155	0.5	0.6	0.6	0.6	0.6
160	0.5	0.7	0.7	0.7	0.7
165	0.5	0.7	0.7	0.7	0.7
170	0.4	0.6	0.7	0.7	0.7
175	0.2	0.2	0.4	0.7	0.7
180	0.4	0.4	0.2	0.2	0.2

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLFL78327XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLFL78327XX		
0-30	87.1	35.3
0-40	142.1	57.6
0-60	227.2	92.1
0-90	244.6	99.2
60-90	17.4	7.1
0-180	246.7	100.0

Beam Angle

Total Beam Angle(°)

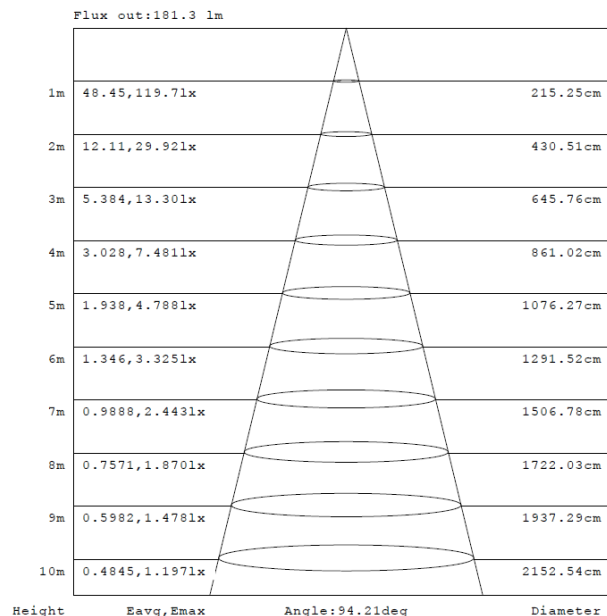
94.6

Illumination Plots

Model No.: SLFL78327XX

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

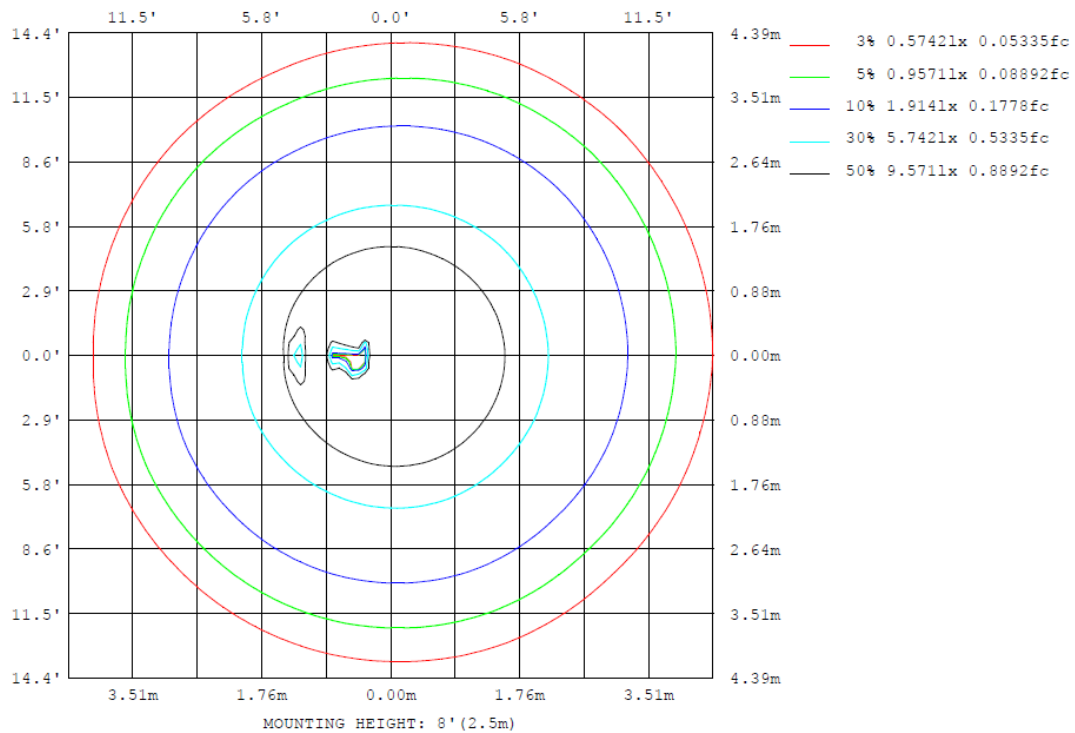
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLFL78327XX

Model No.: SLFL78327XX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLFL78327XX

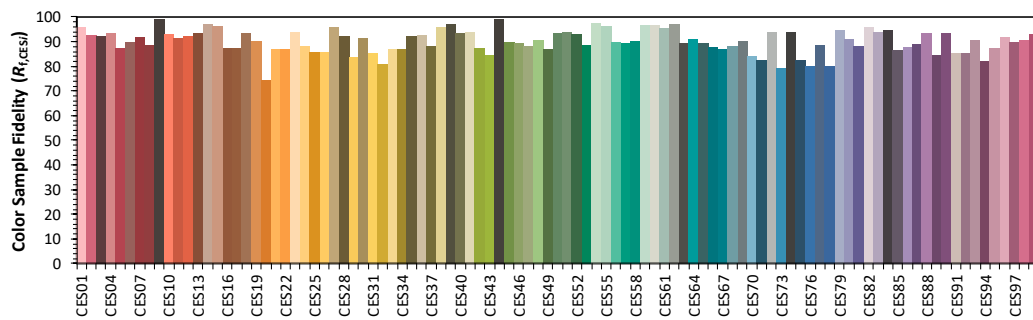
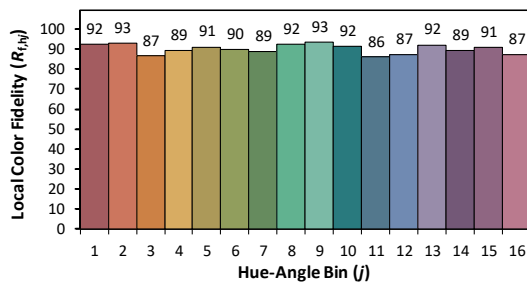
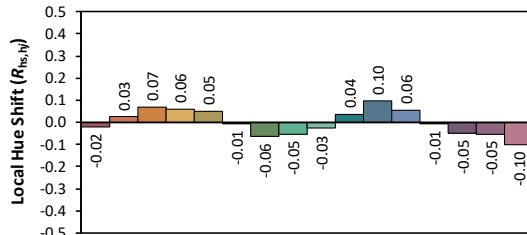
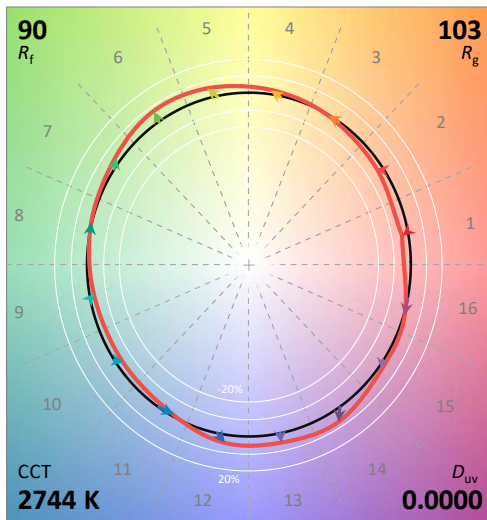
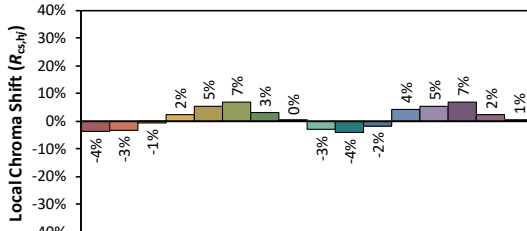
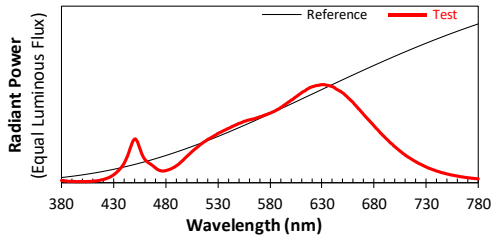
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/8/4

Model: SLFL78327XX



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

x 0.4563
 y 0.4098
 u' 0.2605
 v' 0.5265

CIE 13.3-1995
(CRI)
 R_a 92
 R_g 70

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)

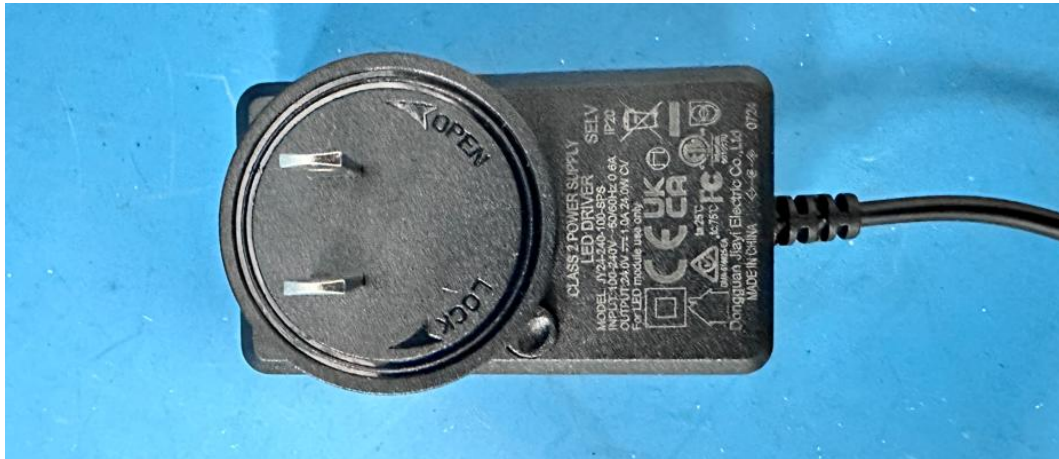


External view of SLFL78327XX

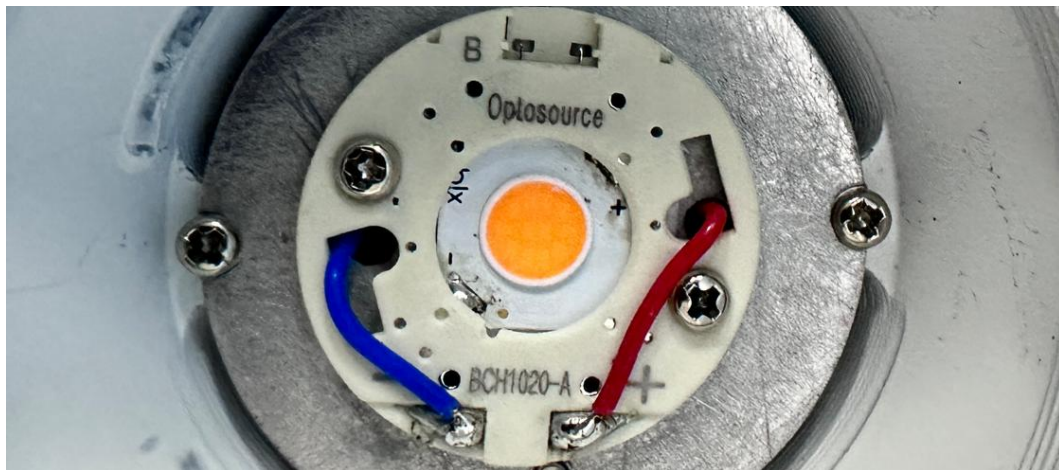
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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver JY24-240-100-SPS



View of LED

In Charge Of Tests:

Done Ye

Done Ye
Engineer

Report Reviewed By

Shelley Ying

Shelley Ying
Reviewer

Attachment: None

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