

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251027067GZU-003

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None

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Report format for LM-79_G

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Report No.: 251027067GZU-003

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLV83227XXXCG

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: QGZ251023107.
<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 SLV83227XXXCG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251027067-004.
<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>	18 November 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:	SLV83227XXXCG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLV83227XXXCG

Criteria	Result
Total Lumen Output	479.9 lm
Total Power	18.6 W
Luminaire Efficacy	25.8 lm/W
S/MH(C0/180)	3.63
S/MH(C90/270)	5.47
Correlated Color Temperature (CCT)	2358 K
Color Rendering Index (CRI)	91
R9	47
Chromaticity Coordinate (x)	0.4888
Chromaticity Coordinate (y)	0.4128
Chromaticity Coordinate (u')	0.2802
Chromaticity Coordinate (v')	0.5326

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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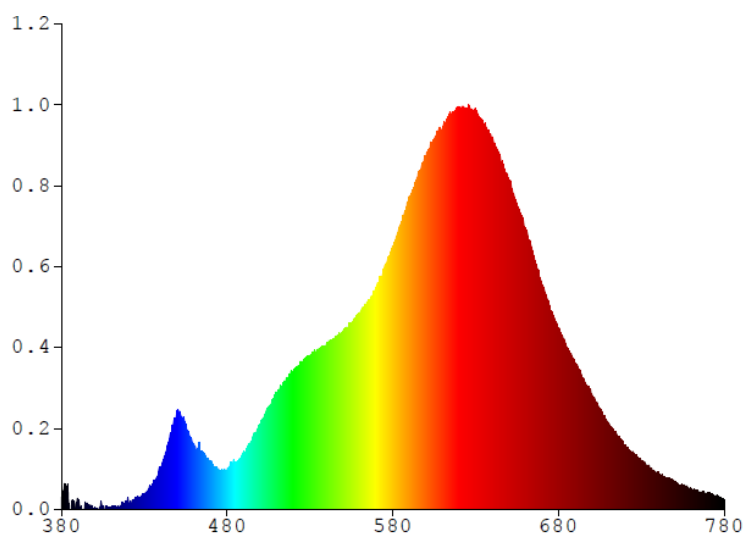
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLV83227XXXCG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0267	480	0.2657	580	1.7639	680	1.2143	780	0.0667
385	0.0000	485	0.3172	585	1.9148	685	1.0802		
390	0.0000	490	0.3847	590	2.0923	690	0.9740		
395	0.0119	495	0.4618	595	2.2194	695	0.8703		
400	0.0067	500	0.5619	600	2.3531	700	0.7715		
405	0.0151	505	0.6834	605	2.4767	705	0.6705		
410	0.0085	510	0.7793	610	2.5532	710	0.5779		
415	0.0079	515	0.8502	615	2.6465	715	0.5046		
420	0.0818	520	0.9236	620	2.6940	720	0.4324		
425	0.0776	525	0.9788	625	2.6849	725	0.3844		
430	0.0847	530	1.0217	630	2.6638	730	0.3107		
435	0.1616	535	1.0704	635	2.5778	735	0.2772		
440	0.2719	540	1.1119	640	2.4881	740	0.2502		
445	0.4600	545	1.1455	645	2.3401	745	0.2069		
450	0.6663	550	1.1917	650	2.2043	750	0.1767		
455	0.5638	555	1.2414	655	2.0376	755	0.1525		
460	0.4331	560	1.3089	660	1.8844	760	0.1424		
465	0.3776	565	1.3823	665	1.6956	765	0.1158		
470	0.3134	570	1.4872	670	1.5033	770	0.1031		
475	0.2609	575	1.6173	675	1.3236	775	0.0871		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV83227XXXCG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

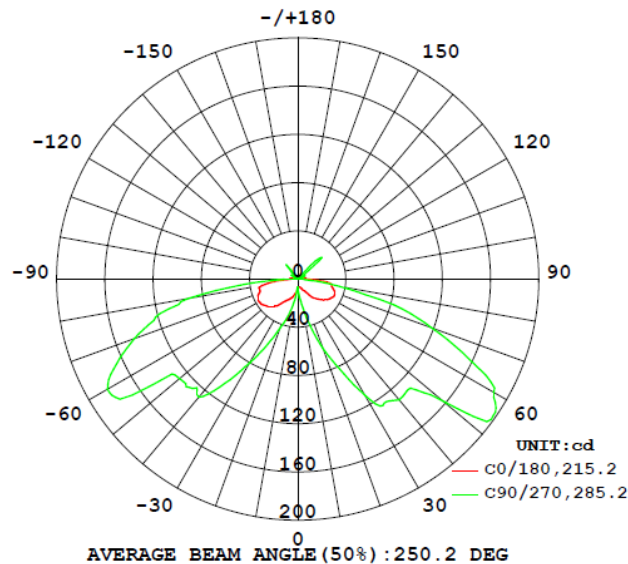
Photometric Measurements at 25°C – Distribution Method

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')
SLV83227XXXCG								
S2510270 67-004	base-up	2358	91	47	0.4888	0.4128	0.2802	0.5326

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	Lumen Efficacy
						(Lumens)	(Lumens Per Watt)
SLV83227XXXCG							
S2510270 67-004	base-up	120.1	156.9	18.6	0.990	479.9	25.8

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV83227XXXCG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	6.7	6.6	6.7	7.7	7.7
5	6.5	9.5	11.0	14.0	14.0
10	6.5	12.8	17.4	23.7	23.7
15	7.1	17.6	27.9	40.2	40.2
20	8.0	25.1	43.6	60.8	60.8
25	10.2	35.6	61.8	82.1	82.1
30	11.2	47.6	81.3	111.3	111.0
35	15.6	61.0	105.4	127.3	125.4
40	20.2	76.0	115.3	130.7	130.8
45	23.4	86.6	119.7	129.9	129.7
50	27.0	89.4	119.0	160.7	158.2
55	29.8	90.8	159.3	198.1	197.8
60	31.6	104.7	169.3	187.7	187.5
65	33.3	106.2	153.9	159.1	157.0
70	32.7	97.6	125.0	120.9	118.3
75	30.4	72.5	87.4	85.8	82.5
80	28.8	35.6	47.8	37.5	35.3
85	21.3	11.5	13.8	8.4	7.4
90	6.8	5.6	2.7	2.2	2.3
95	5.3	6.9	2.3	1.8	1.8
100	6.8	6.8	1.9	1.5	1.5
105	4.7	6.1	1.8	1.4	1.4
110	2.3	8.2	2.4	2.0	2.1
115	0.5	4.7	6.8	6.3	6.4
120	0.3	3.3	3.2	3.4	3.3
125	0.4	3.1	3.0	3.3	4.0
130	0.5	0.6	11.4	12.9	17.9
135	0.3	0.1	8.1	29.9	23.0
140	0.1	0.0	0.0	4.0	3.9
145	0.0	0.0	0.0	0.0	0.0
150	0.0	0.0	0.0	0.0	0.0
155	0.1	0.0	0.0	0.0	0.0
160	0.1	0.0	0.0	0.0	0.0
165	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0	0.0

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV83227XXXCG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLV83227XXXCG		
0-30	29.2	6.1
0-40	74.4	15.5
0-60	242.4	50.5
0-90	460.0	95.9
60-90	217.6	45.4
0-180	479.9	100.0

Beam Angle

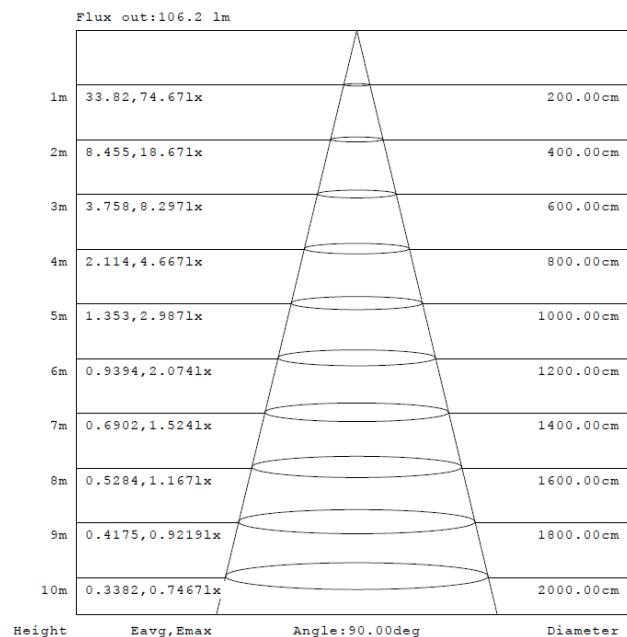
Total Beam Angle(°)
250.2

Illumination Plots

Model No.: SLV83227XXXCG

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

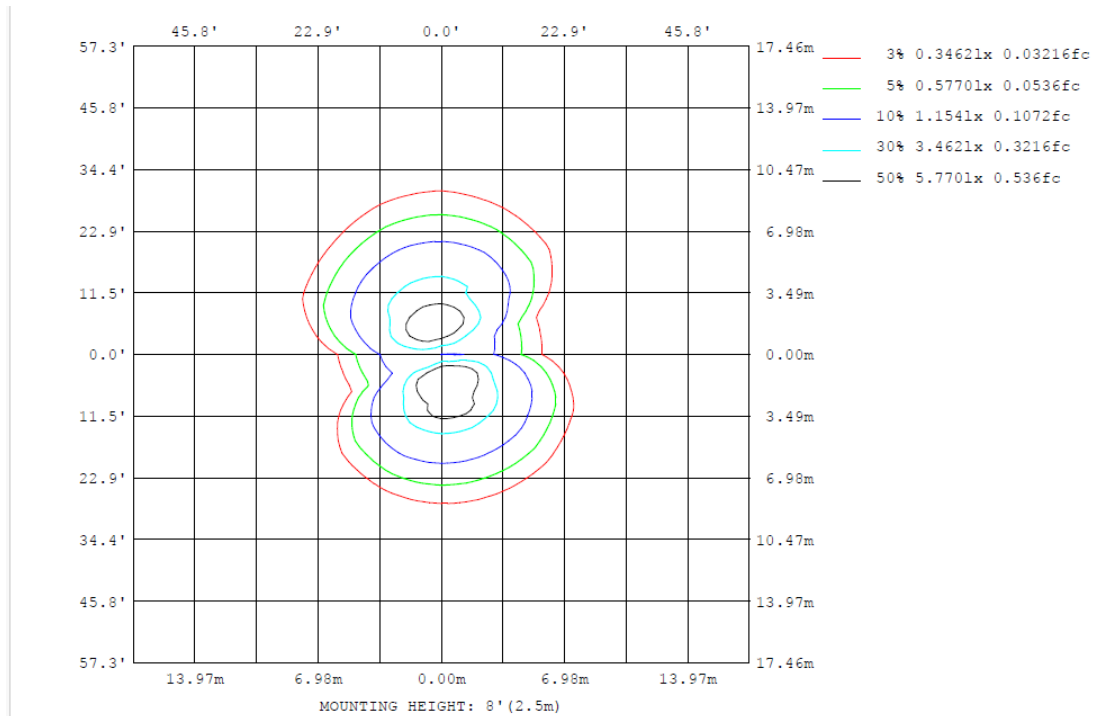
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV83227XXXCG

Model No.: SLV83227XXXCG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV83227XXXCG

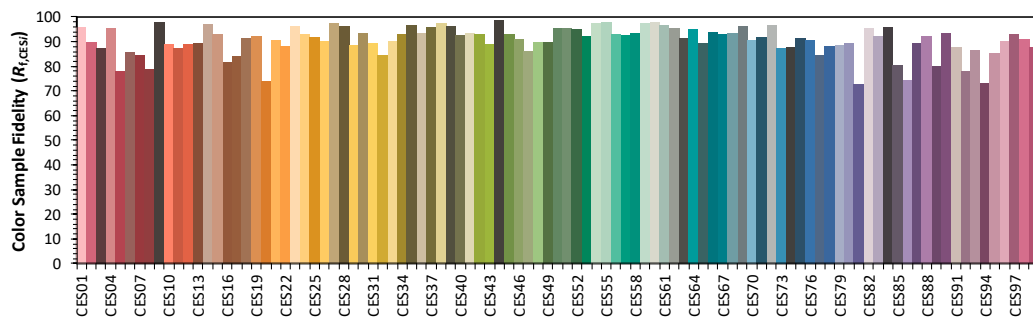
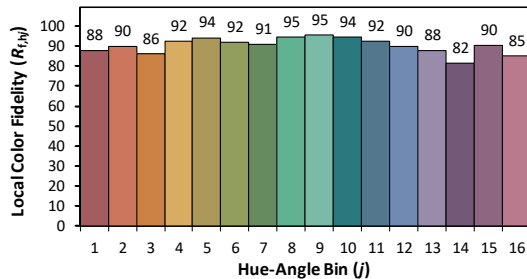
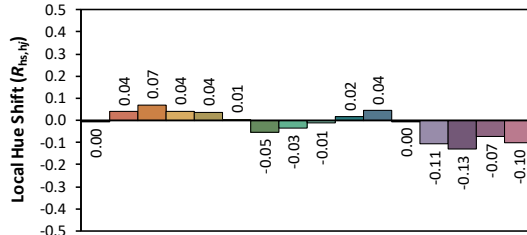
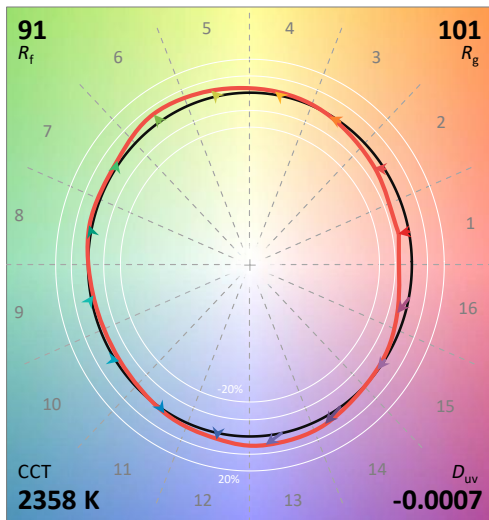
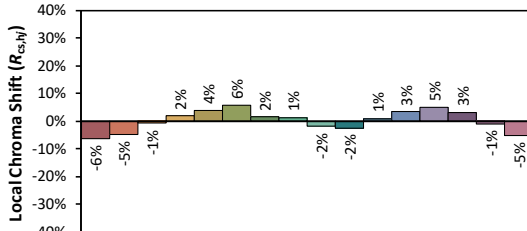
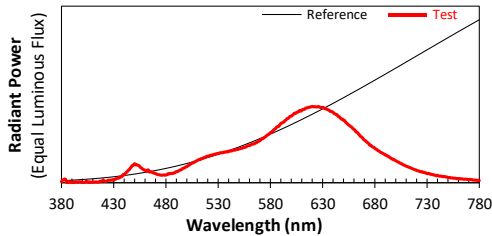
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/11/18

Model: SLV83227XXXCG



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

x 0.4888
 y 0.4128
 u' 0.2802
 v' 0.5326

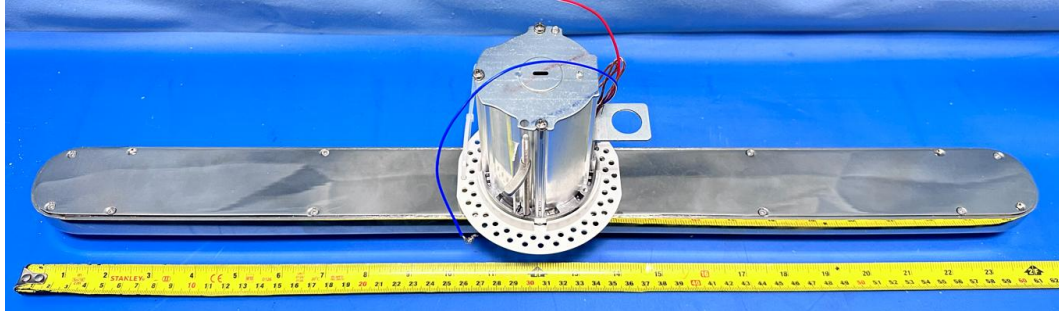
CIE 13.3-1995
(CRI)
 R_a 91
 R_g 47

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

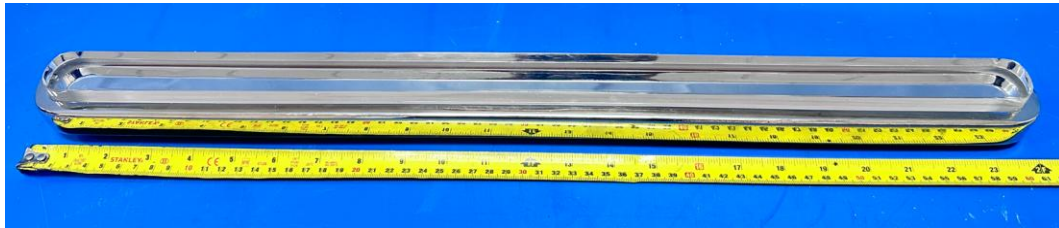
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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLV83227XXXCG

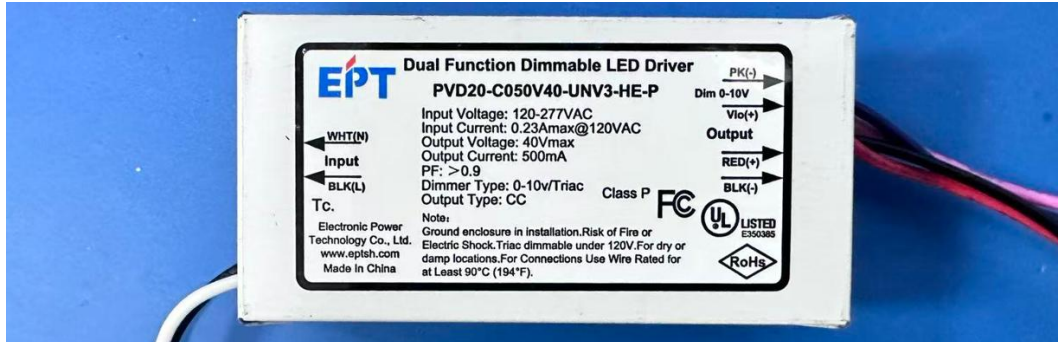


External view of SLV83227XXXCG

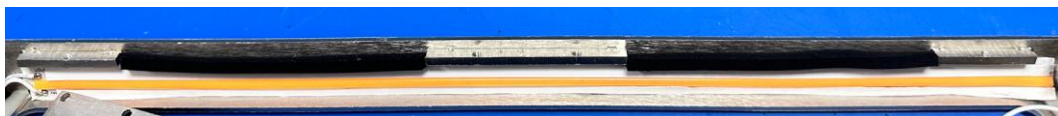
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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver PVD20-C050V40-UNV3-HE-P



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 *****