

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250623168GZU-018

ISSUE DATE

11 August 2025

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

© 2024 INTERTEK



Report No.: 250623168GZU-018

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLLS78527XX

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

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

7400 LINDER AVE. SKOKIE, IL, 60077

Email: jrivero@visualcomfort.com

Phone No.: 847-410-4552

<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 SLLS78527XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250623168-012.
<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>	14 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

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

TEST REPORT

SUMMARY

Model Number:	SLLS78527XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLLS78527XX

Criteria	Result
Total Lumen Output	798.4 lm
Total Power	14.5 W
Luminaire Efficacy	54.9 lm/W
S/MH(C0/180)	0.84
S/MH(C90/270)	0.85
Correlated Color Temperature (CCT)	2786 K
Color Rendering Index (CRI)	91
R9	66
Chromaticity Coordinate (x)	0.4528
Chromaticity Coordinate (y)	0.4086
Chromaticity Coordinate (u')	0.2588
Chromaticity Coordinate (v')	0.5255

Remark:

N/A

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

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

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

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

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

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

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

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

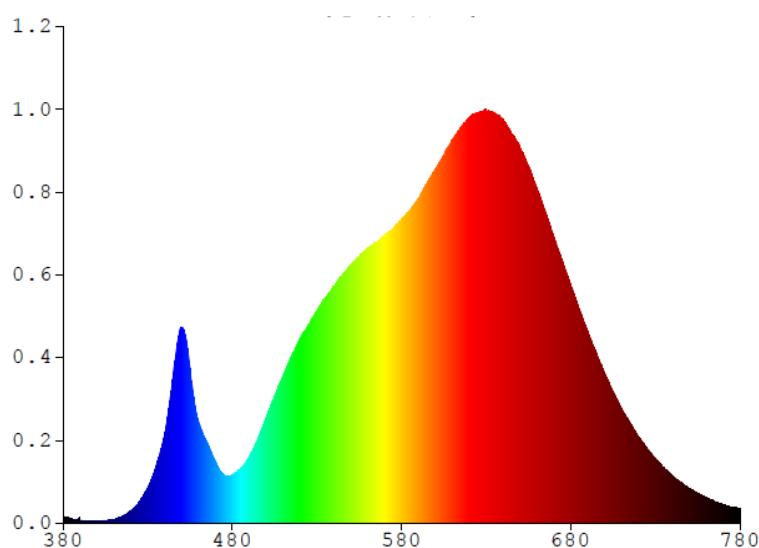
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLLS78527XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.6100	480	3.9964	580	25.1770	680	19.6740	780	1.2425
385	0.4277	485	4.5502	585	25.9200	685	17.7220		
390	0.2446	490	5.4978	590	26.8690	690	15.8760		
395	0.1884	495	6.9328	595	28.1000	695	14.1650		
400	0.1891	500	8.7477	600	29.3470	700	12.4020		
405	0.2146	505	10.5310	605	30.4310	705	10.8980		
410	0.3452	510	12.1910	610	31.7280	710	9.5039		
415	0.5518	515	13.7910	615	32.7420	715	8.3254		
420	1.0060	520	15.2550	620	33.5380	720	7.1707		
425	1.7597	525	16.4220	625	33.9280	725	6.2236		
430	2.9281	530	17.5470	630	34.2230	730	5.3506		
435	4.7064	535	18.6680	635	34.0190	735	4.6084		
440	7.3775	540	19.5780	640	33.4000	740	3.9339		
445	12.1630	545	20.5230	645	32.2120	745	3.3877		
450	16.2280	550	21.3500	650	31.1540	750	2.8942		
455	12.6910	555	22.0710	655	29.5530	755	2.4895		
460	8.4178	560	22.7830	660	27.7430	760	2.1257		
465	6.6575	565	23.2240	665	25.7910	765	1.8055		
470	5.1022	570	23.7800	670	23.6810	770	1.5448		
475	4.0364	575	24.3730	675	21.2950	775	1.3297		



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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLLS78527XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

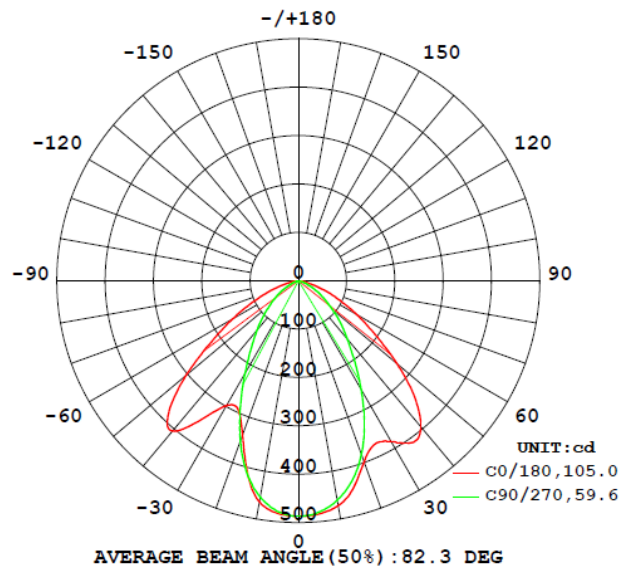
Photometric Measurements at 25°C – Distribution Method

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')
SLLS78527XX								
S2506231 68-012	base-up	2786	91	66	0.4528	0.4086	0.2588	0.5255

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	Lumen
						Flux (Lumens)	Efficacy (Lumens Per Watt)
SLLS78527XX							
S2506231 68-012	base-up	120.1	122.9	14.5	0.986	798.4	54.9

Intensity (Candlepower) Summary at 25°C - Candelas



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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLLS78527XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	487.0	486.9	486.8	486.8	486.8
5	483.9	483.4	482.3	480.9	480.3
10	472.2	471.0	466.8	462.6	461.1
15	442.5	443.3	438.7	431.7	428.4
20	398.3	398.4	396.0	388.3	382.0
25	373.5	360.2	342.5	333.7	323.8
30	383.9	344.6	288.2	273.4	260.4
35	408.6	346.2	238.1	214.7	203.2
40	394.1	333.0	192.9	163.5	158.6
45	340.8	279.4	155.1	122.5	123.4
50	266.6	212.4	125.5	90.7	91.2
55	193.7	157.9	99.2	64.1	65.8
60	137.9	114.3	71.1	43.5	45.3
65	91.7	75.0	47.0	26.0	26.8
70	57.0	45.7	26.2	12.2	11.8
75	25.7	19.7	10.1	4.7	4.5
80	6.3	5.4	3.8	2.5	2.6
85	2.5	2.2	1.7	1.2	1.3
90	0.1	0.2	0.2	0.3	0.4
95	0.0	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0	0.0
105	0.1	0.1	0.0	0.0	0.0
110	0.1	0.1	0.1	0.1	0.0
115	0.1	0.1	0.1	0.1	0.1
120	0.1	0.1	0.1	0.1	0.1
125	0.2	0.2	0.2	0.2	0.2
130	0.3	0.2	0.2	0.2	0.2
135	0.3	0.3	0.3	0.3	0.3
140	0.4	0.4	0.4	0.4	0.4
145	0.5	0.5	0.5	0.5	0.5
150	0.5	0.6	0.6	0.6	0.6
155	0.6	0.6	0.7	0.7	0.7
160	0.6	0.7	0.7	0.8	0.8
165	0.7	0.7	0.8	0.8	0.8
170	0.7	0.7	0.8	0.8	0.8
175	0.7	0.7	0.7	0.8	0.8
180	0.7	0.7	0.7	0.7	0.7

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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLLS78527XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLLS78527XX		
0-30	312.0	39.1
0-40	472.6	59.2
0-60	727.6	91.1
0-90	797.1	99.8
60-90	69.5	8.7
0-180	798.4	100.0

Beam Angle

Total Beam Angle(°)

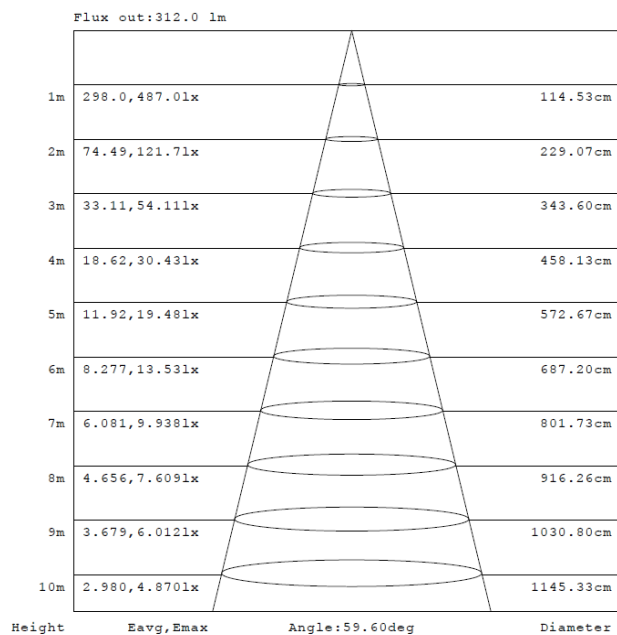
82.3

Illumination Plots

Model No.: SLLS78527XX

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.

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

TEST REPORT

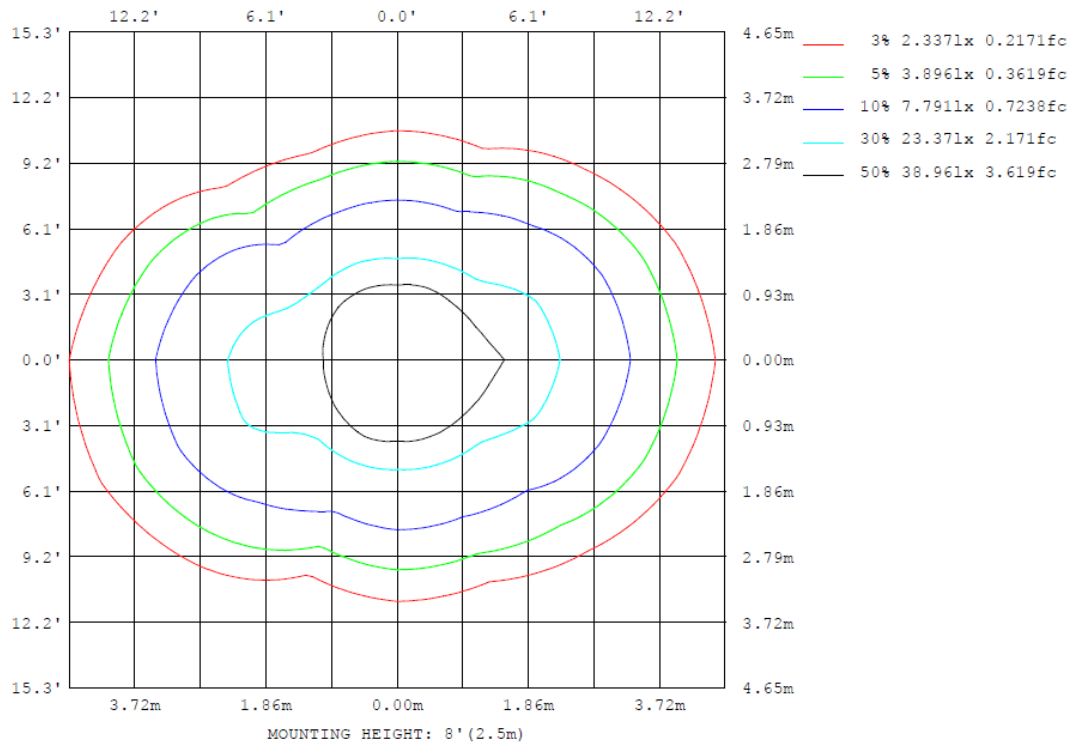
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLLS78527XX

Model No.: SLLS78527XX

Mount Height: 2.5 m

Isoillumination Plot



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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLLS78527XX

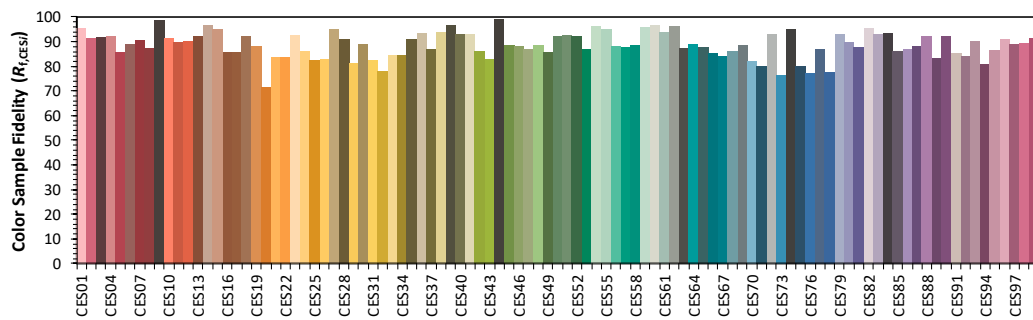
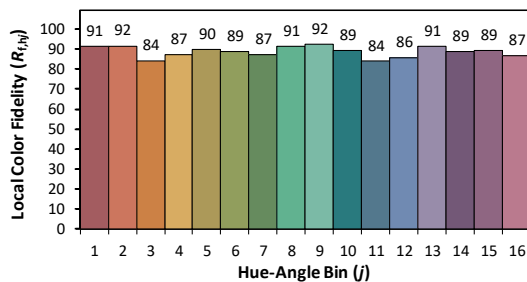
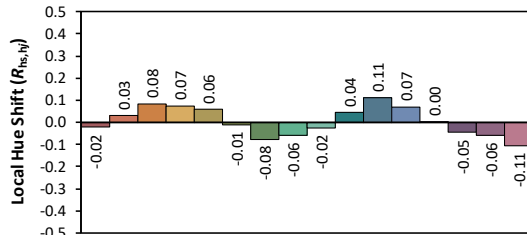
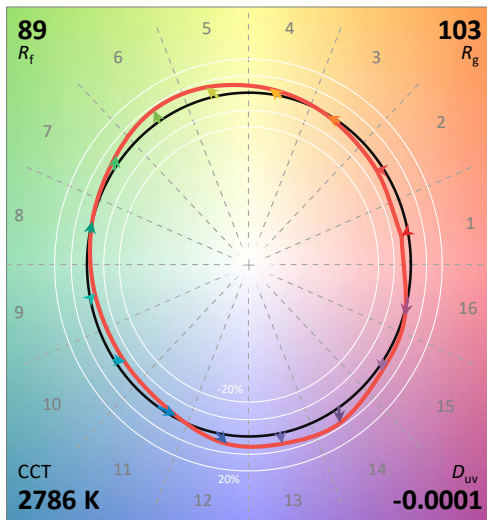
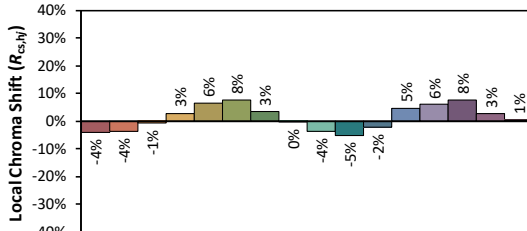
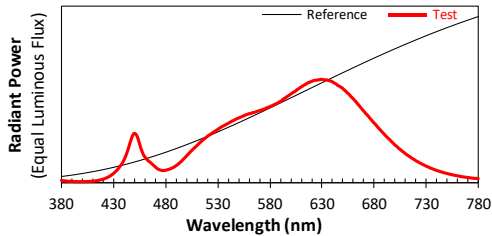
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/7/14

Model: SLLS78527XX



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

x 0.4528
 y 0.4086
 u' 0.2588
 v' 0.5255

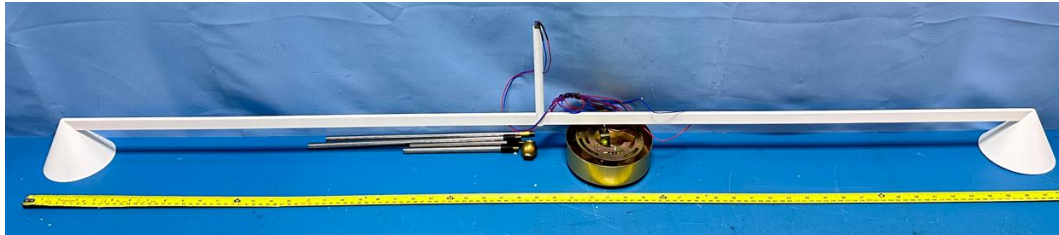
CIE 13.3-1995
(CRI)
 R_a 91
 R_g 66

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

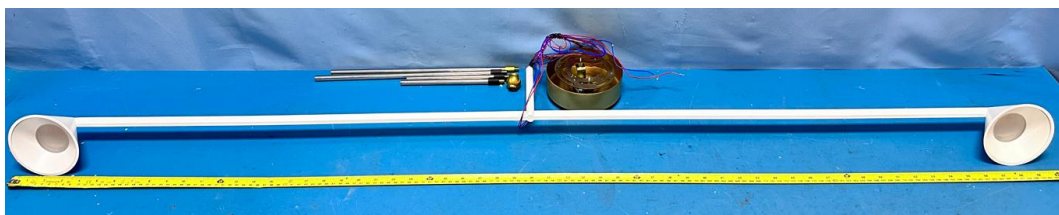
***** End of Page *****

TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLLS78527XX



External view of SLLS78527XX



View of LED driver PTB20W-0400-38-VCC1(AB0258)

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

TEST REPORT

PRODUCT PICTURE (not to scale)



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 *****