

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250919125GZU-003

ISSUE DATE

29 October 2025

REVISION DATE

Modification 1: 05 November 2025

NUMBER OF PAGES

12

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 250919125GZU-003
Modification 1: 05 November 2025

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLWS81727XX

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

RENDERED TO

Visual Comfort & Co.

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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: QGZ250918006, QGZ251031053.
<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 SLWS81727XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251031113-001.
<u>MANUFACTURER /FACTORY & ADDRESS:</u>	Union Star Collection-Dongguan Denghuang HomeFurnishing Co., Ltd. No.5, Central Road, Yayuan Industrial Zone, Nancheng District, Dongguan City, Guangdong Province, 523000
<u>DATES OF TESTS:</u>	17 October 2025 Modification 1: 31 October 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:	SLWS81727XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLWS81727XX

Criteria	Result
Total Lumen Output	24.6 lm
Total Power	5.6 W
Luminaire Efficacy	4.4 lm/W
S/MH(C0/180)	1.64
S/MH(C90/270)	1.74
Correlated Color Temperature (CCT)	2694 K
Color Rendering Index (CRI)	90
R9	60
Chromaticity Coordinate (x)	0.4648
Chromaticity Coordinate (y)	0.4187
Chromaticity Coordinate (u')	0.2621
Chromaticity Coordinate (v')	0.5311

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.

Revision history:

Modification 1: Based on and superseded the previous report 250919125GZU-003 issued on 29 October 2025, retest for model SLWS81727XX.

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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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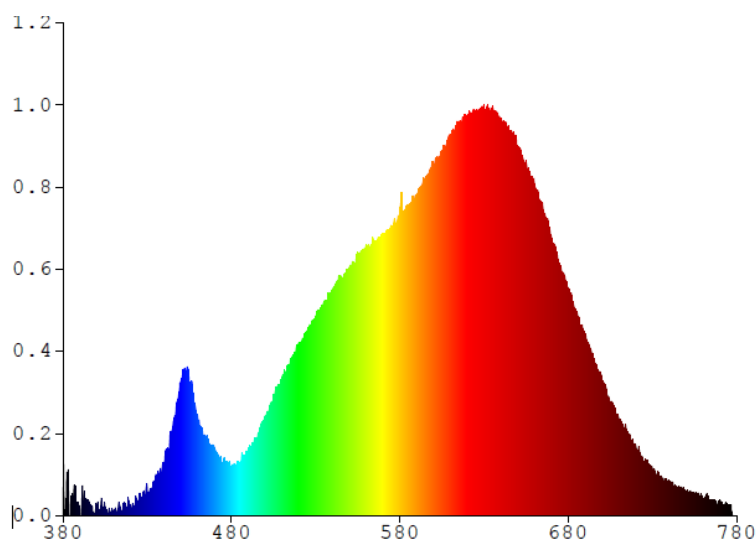
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLWS81727XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0039	480	0.1225	580	0.7621	680	0.5778	780	0.0000
385	0.0340	485	0.1334	585	0.7876	685	0.5147		
390	0.0160	490	0.1690	590	0.8159	690	0.4575		
395	0.0391	495	0.1973	595	0.8572	695	0.3930		
400	0.0119	500	0.2535	600	0.8956	700	0.3458		
405	0.0163	505	0.3067	605	0.9276	705	0.2877		
410	0.0034	510	0.3463	610	0.9618	710	0.2461		
415	0.0004	515	0.3963	615	0.9904	715	0.2135		
420	0.0272	520	0.4390	620	1.0165	720	0.1800		
425	0.0319	525	0.4704	625	1.0298	725	0.1390		
430	0.0530	530	0.5063	630	1.0446	730	0.1139		
435	0.1015	535	0.5415	635	1.0409	735	0.1005		
440	0.1283	540	0.5751	640	1.0092	740	0.0861		
445	0.2191	545	0.6070	645	0.9747	745	0.0707		
450	0.3431	550	0.6281	650	0.9323	750	0.0606		
455	0.3353	555	0.6692	655	0.8995	755	0.0525		
460	0.2470	560	0.6891	660	0.8332	760	0.0438		
465	0.1966	565	0.6938	665	0.7793	765	0.0401		
470	0.1662	570	0.7175	670	0.7073	770	0.0385		
475	0.1250	575	0.7362	675	0.6208	775	0.0255		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLWS81727XX

Total operation burning time: 60 minutes
Stabilization time: 30 minutes

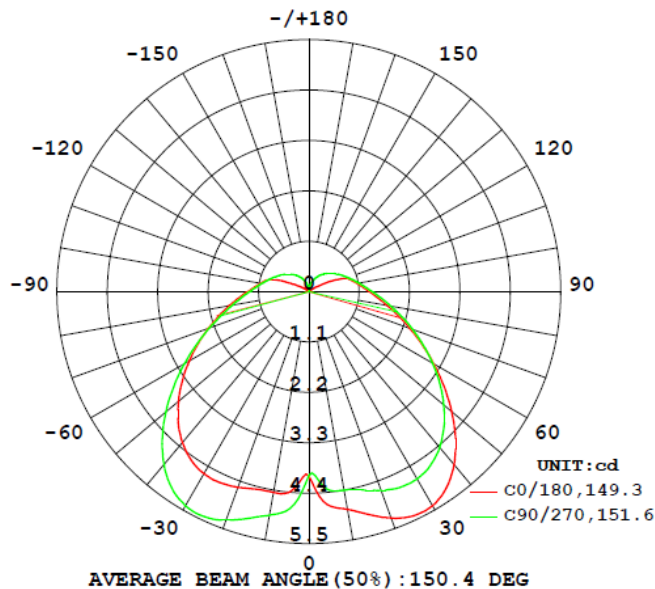
Photometric Measurements at 25°C – Distribution Method

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')
SLWS81727XX								
S2510311 13-001	base-up	2694	90	60	0.4648	0.4187	0.2621	0.5311

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)
SLWS81727XX							
S2510311 13-001	base-up	120.2	47.4	5.6	0.990	24.6	4.4

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLWS81727XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	4.0	4.0	4.0	4.0	4.0
5	4.7	4.6	4.4	4.4	4.3
10	4.8	4.6	4.5	4.4	4.4
15	5.0	4.8	4.6	4.5	4.5
20	5.3	5.0	4.8	4.7	4.6
25	5.4	5.1	4.9	4.8	4.7
30	5.4	5.1	4.9	4.8	4.7
35	5.2	4.9	4.7	4.7	4.6
40	4.9	4.7	4.5	4.5	4.4
45	4.5	4.3	4.2	4.2	4.2
50	4.1	3.9	3.8	3.8	3.8
55	3.6	3.5	3.5	3.5	3.5
60	3.1	3.1	3.1	3.1	3.1
65	2.7	2.7	2.7	2.7	2.8
70	2.3	2.3	2.3	2.4	2.4
75	2.0	2.0	2.0	2.1	2.1
80	1.7	1.7	1.8	1.8	1.8
85	1.5	1.5	1.5	1.6	1.6
90	1.3	1.3	1.3	1.4	1.4
95	1.2	1.2	1.2	1.2	1.2
100	1.1	1.1	1.1	1.1	1.1
105	1.0	1.0	1.0	1.0	1.0
110	0.9	0.9	0.9	0.9	0.9
115	0.6	0.8	0.8	0.8	0.8
120	0.3	0.7	0.7	0.8	0.8
125	0.2	0.7	0.7	0.7	0.7
130	0.1	0.6	0.6	0.6	0.6
135	0.0	0.5	0.6	0.6	0.6
140	0.0	0.5	0.5	0.5	0.5
145	0.0	0.4	0.4	0.4	0.5
150	0.0	0.4	0.4	0.4	0.4
155	0.0	0.3	0.3	0.3	0.3
160	0.1	0.1	0.2	0.3	0.3
165	0.1	0.0	0.2	0.2	0.2
170	0.0	0.0	0.0	0.1	0.1
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 SLWS81727XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLWS81727XX		
0-30	4.1	16.7
0-40	7.2	29.2
0-60	13.7	55.5
0-90	20.2	82.0
60-90	6.5	26.5
0-180	24.6	100.0

Beam Angle

Total Beam Angle(°)

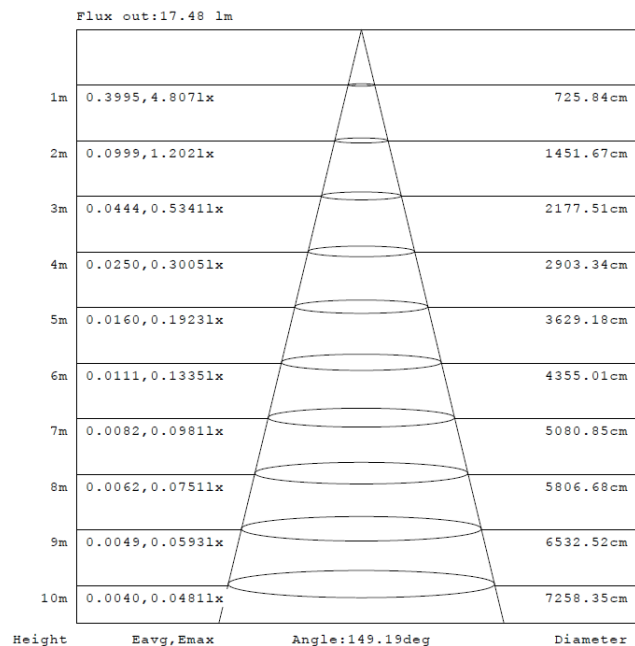
150.4

Illumination Plots

Model No.: SLWS81727XX

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

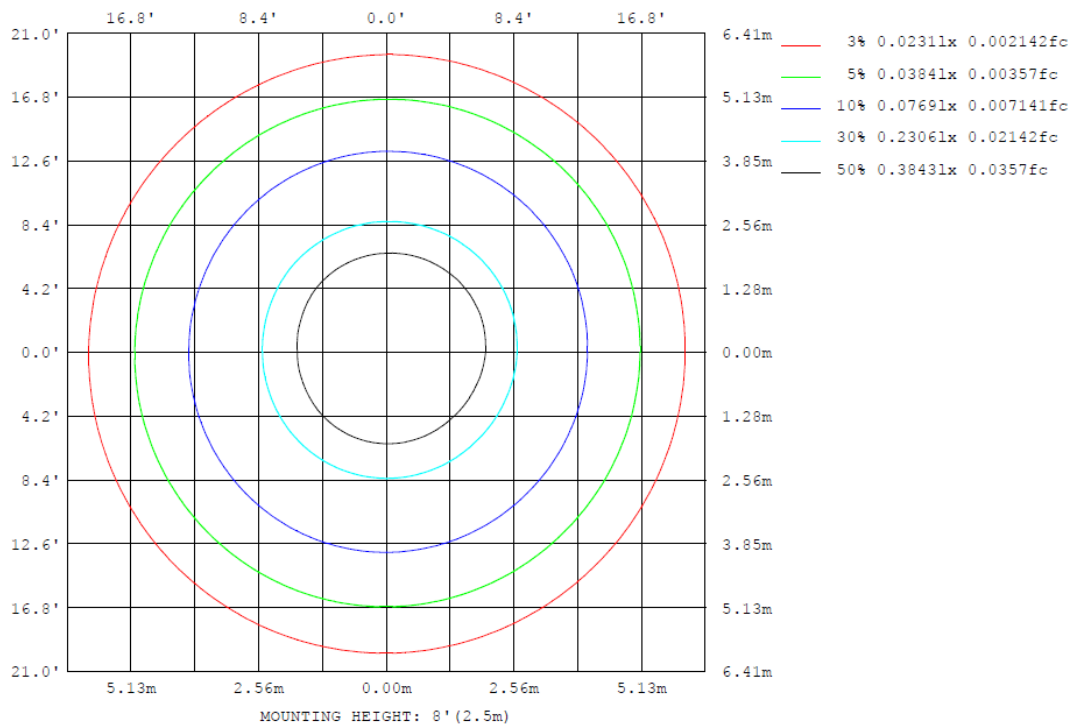
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLWS81727XX

Model No.: SLWS81727XX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLWS81727XX

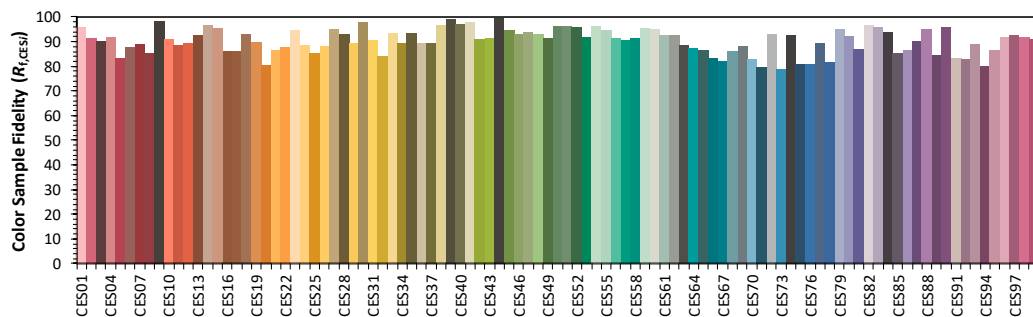
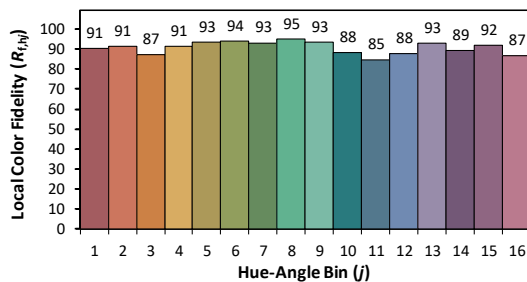
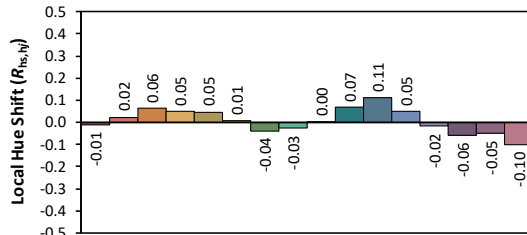
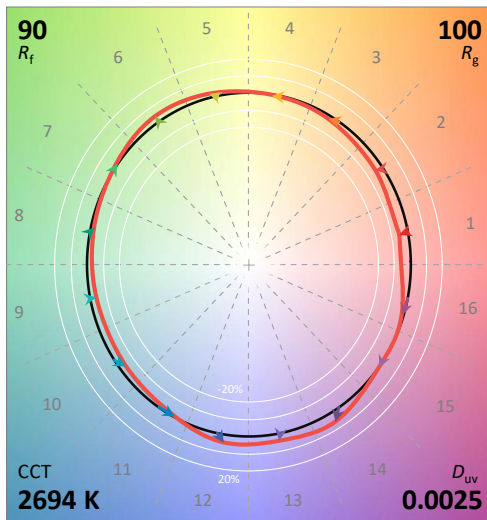
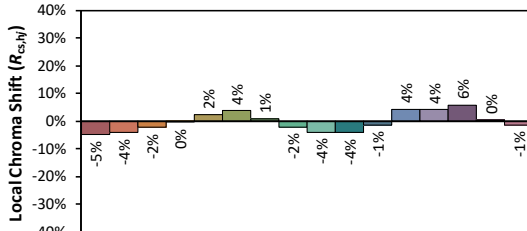
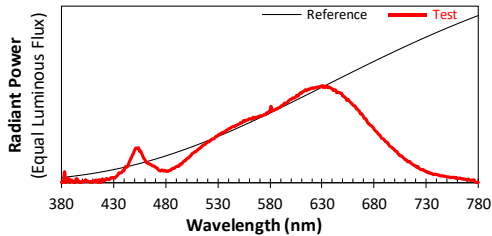
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/10/31

Model: SLWS81727XX



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

x 0.4648
 y 0.4187
 u' 0.2621
 v' 0.5311

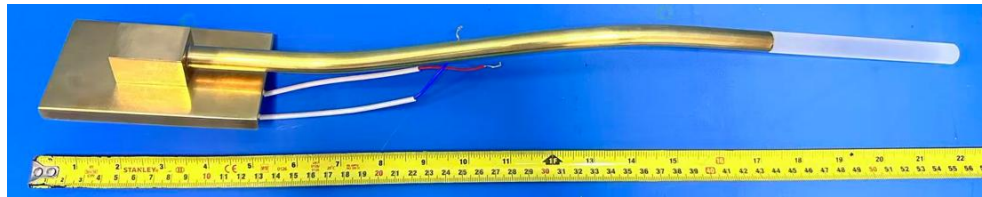
CIE 13.3-1995
(CRI)
 R_a 90
 R_g 60

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 SLWS81727XX



View of LED driver DS6W150C2542MB1UD-0001



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 *****