

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250513213GZU-004

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None

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Report format for LM-79_G

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Report No.: 250513213GZU-004

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLWS74827XXXCG

Remark: "XXX" denotes the appearance color.

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

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TEST: Electrical and Photometric as required to the IES LM-79 test standard.

AUTHORIZATION: The testing performed was authorized by signed quote number: QGZ250428049.

STANDARDS USED: 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

DESCRIPTION OF SAMPLE: The client submitted one sample of model SLWS74827XXXCG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250513213-003.

MANUFACTURER /FACTORY & ADDRESS: Union Star Collection Company Limited
288 East Longhua Avenue, Longhua Town, Boluo County, Huizhou City, Guangdong Province, 516122 China

DATES OF TESTS: 04 June 2025

ISSUED BY: Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

TEST LOCATION: 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:	SLWS74827XXXCG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLWS74827XXXCG

Criteria	Result
Total Lumen Output	364.4 lm
Total Power	7.4 W
Luminaire Efficacy	49.0 lm/W
S/MH(C0/180)	4.04
S/MH(C90/270)	1.60
Correlated Color Temperature (CCT)	2766 K
Color Rendering Index (CRI)	93
R9	72
Chromaticity Coordinate (x)	0.4538
Chromaticity Coordinate (y)	0.4079
Chromaticity Coordinate (u')	0.2598
Chromaticity Coordinate (v')	0.5254

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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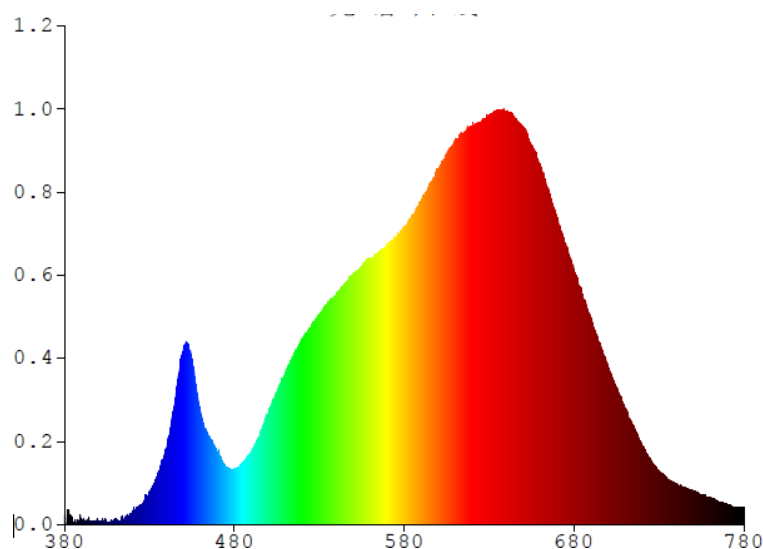
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLWS74827XXXCG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0238	480	0.1616	580	0.8653	680	0.7397	780	0.0505
385	0.0055	485	0.1803	585	0.8955	685	0.6651		
390	0.0078	490	0.2121	590	0.9372	690	0.5981		
395	0.0114	495	0.2610	595	0.9813	695	0.5274		
400	0.0057	500	0.3218	600	1.0247	700	0.4578		
405	0.0016	505	0.3836	605	1.0707	705	0.3978		
410	0.0169	510	0.4385	610	1.1115	710	0.3363		
415	0.0133	515	0.4953	615	1.1362	715	0.2832		
420	0.0308	520	0.5410	620	1.1530	720	0.2291		
425	0.0568	525	0.5683	625	1.1642	725	0.1910		
430	0.0965	530	0.6110	630	1.1848	730	0.1558		
435	0.1491	535	0.6440	635	1.2010	735	0.1323		
440	0.2212	540	0.6679	640	1.1981	740	0.1158		
445	0.3539	545	0.6965	645	1.1814	745	0.1068		
450	0.5100	550	0.7273	650	1.1529	750	0.0985		
455	0.4742	555	0.7485	655	1.1008	755	0.0850		
460	0.3272	560	0.7729	660	1.0411	760	0.0751		
465	0.2574	565	0.7851	665	0.9716	765	0.0666		
470	0.2087	570	0.8150	670	0.8879	770	0.0588		
475	0.1651	575	0.8307	675	0.8012	775	0.0493		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLWS74827XXXCG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

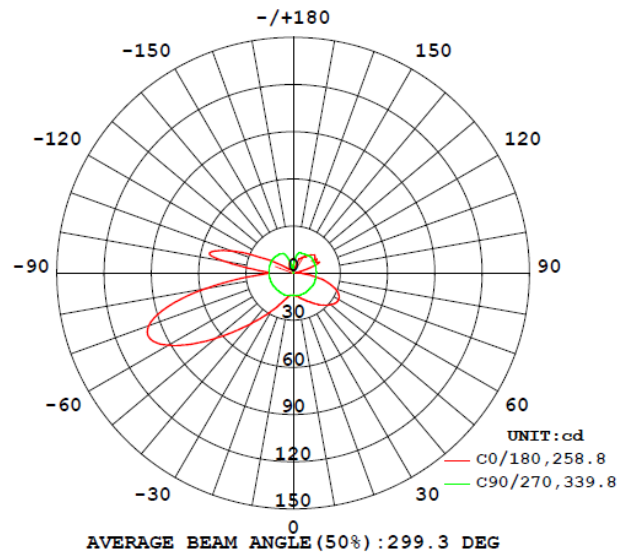
Photometric Measurements at 25°C – Distribution Method

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')
SLWS74827XXXCG								
S2505132 13-003	base-up	2766	93	72	0.4538	0.4079	0.2598	0.5254

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)
SLWS74827XXXCG							
S2505132 13-003	base-up	120.0	63.1	7.4	0.981	364.4	49.0

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLWS74827XXXCG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	14.1	14.2	14.2	14.2	14.1
5	14.4	14.6	14.5	14.4	14.3
10	15.0	15.2	14.9	14.6	14.4
15	16.0	16.2	15.4	14.7	14.5
20	17.6	17.6	16.0	15.0	14.5
25	19.3	19.0	17.1	15.2	14.6
30	21.2	20.7	18.1	15.5	14.7
35	23.6	22.6	19.1	15.6	14.6
40	26.2	24.7	20.0	15.7	14.5
45	28.9	27.0	20.8	15.9	14.5
50	31.3	29.1	21.8	16.0	14.5
55	33.0	31.2	22.7	16.2	14.6
60	33.4	33.1	23.5	16.5	14.7
65	31.9	34.2	24.2	16.9	14.8
70	28.1	33.9	24.8	17.0	14.8
75	22.5	33.0	25.3	17.1	14.8
80	15.5	32.3	25.7	17.2	14.8
85	8.6	32.3	26.1	17.3	14.7
90	4.0	32.3	26.3	17.3	14.7
95	5.0	32.4	26.3	17.3	14.8
100	2.2	32.5	26.0	17.3	14.9
105	2.3	30.3	25.5	17.3	15.0
110	13.6	27.7	24.6	17.1	15.0
115	17.4	24.9	23.7	16.9	15.0
120	17.2	25.3	22.8	16.7	15.1
125	17.0	24.8	21.7	16.6	15.2
130	17.9	23.1	20.8	16.4	15.4
135	16.7	22.7	19.7	16.1	15.2
140	15.2	21.4	18.7	15.7	14.8
145	13.2	20.2	17.9	15.3	14.4
150	11.8	18.7	17.0	15.0	14.2
155	10.4	16.6	16.0	14.8	14.0
160	5.0	13.9	15.1	14.6	13.9
165	1.9	10.4	13.2	13.6	13.3
170	0.5	0.4	10.2	11.0	10.9
175	0.0	3.2	4.6	4.4	6.9
180	5.0	5.0	4.7	3.2	0.0

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLWS74827XXXCG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLWS74827XXXCG		
0-30	14.1	3.9
0-40	27.7	7.6
0-60	77.9	21.4
0-90	195.4	53.9
60-90	117.5	32.5
0-180	364.4	100.0

Beam Angle

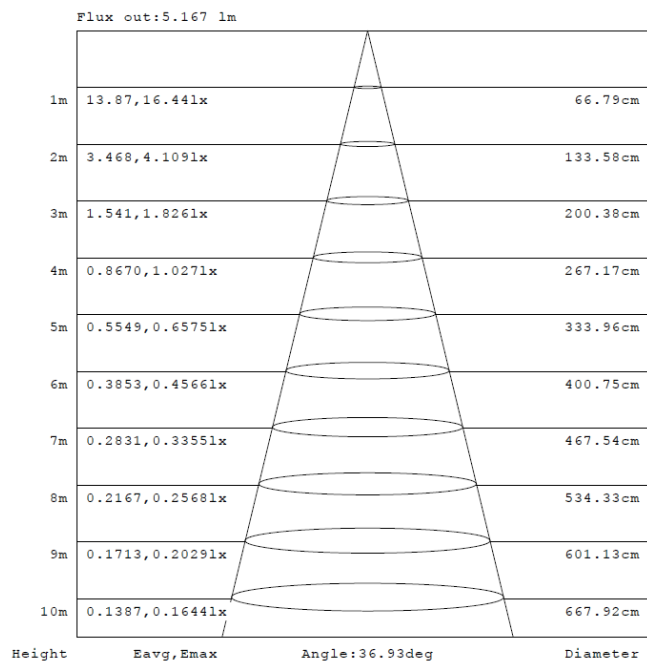
Total Beam Angle(°)
299.3

Illumination Plots

Model No.: SLWS74827XXXCG

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

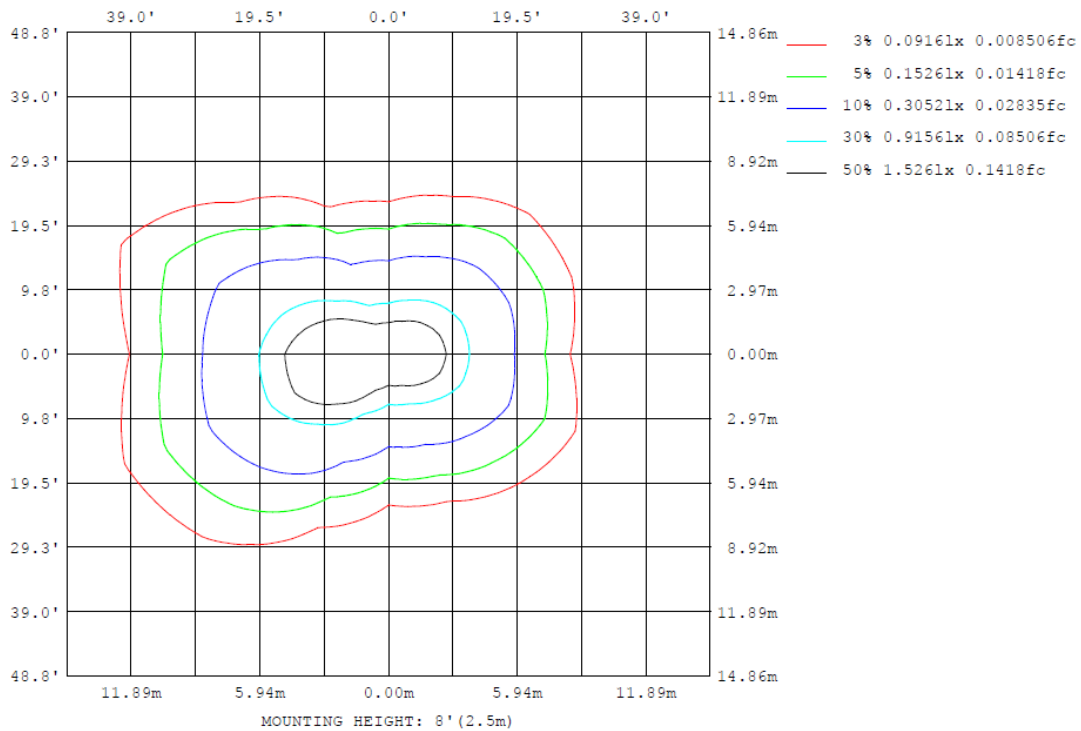
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLWS74827XXXCG

Model No.: SLWS74827XXXCG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLWS74827XXXCG

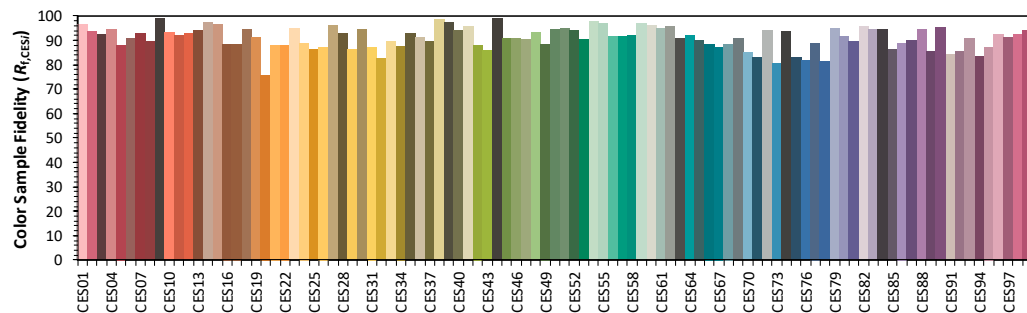
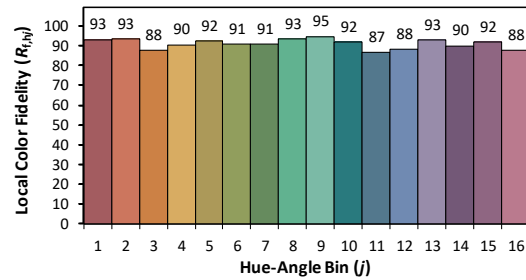
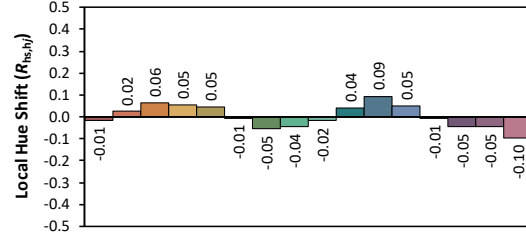
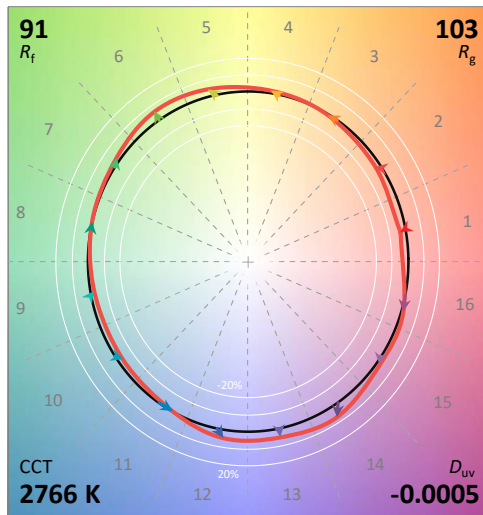
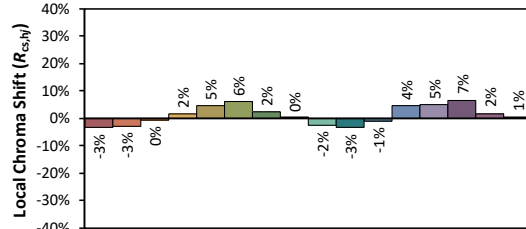
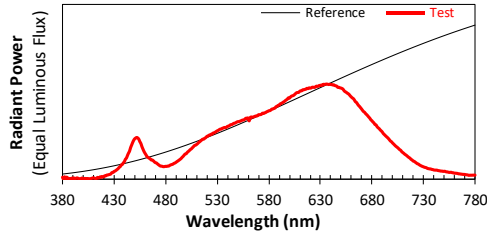
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/6/4

Model: SLWS74827XXXCG



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

x 0.4538
 y 0.4079
 u' 0.2598
 v' 0.5254

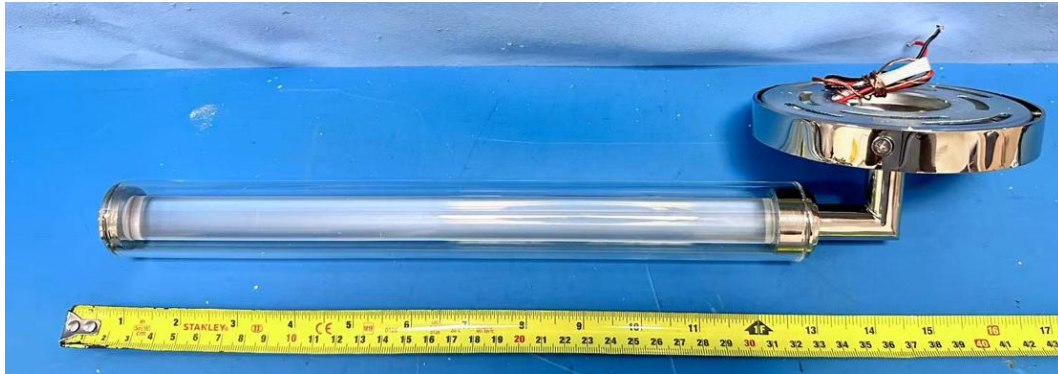
CIE 13.3-1995
(CRI)
 R_a 93
 R_g 72

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 SLWS74827XXXCG



View of LED driver PTB10W-0200-38-VCC1(AB2612)

***** 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 *****