

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250513213GZU-012

ISSUE DATE

04 August 2025

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 250513213GZU-012

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLLS74727XXXCG

Remark: "XXX" denotes the appearance color.

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: QGZ250428049.
<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 SLLS74727XXXCG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250513213-012.
<u>MANUFACTURER /FACTORY & ADDRESS:</u>	Union Star Collection Company Limited 288 East Longhua Avenue, Longhua Town, Boluo County, Huizhou City, Guangdong Province, 516122 China
<u>DATES OF TESTS:</u>	25 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

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TEST REPORT

SUMMARY

Model Number:	SLS74727XXXCG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLS74727XXXCG

Criteria	Result
Total Lumen Output	815.4 lm
Total Power	15.1 W
Luminaire Efficacy	53.9 lm/W
S/MH(C0/180)	3.78
S/MH(C90/270)	1.56
Correlated Color Temperature (CCT)	2804 K
Color Rendering Index (CRI)	93
R9	71
Chromaticity Coordinate (x)	0.4511
Chromaticity Coordinate (y)	0.4077
Chromaticity Coordinate (u')	0.2581
Chromaticity Coordinate (v')	0.5249

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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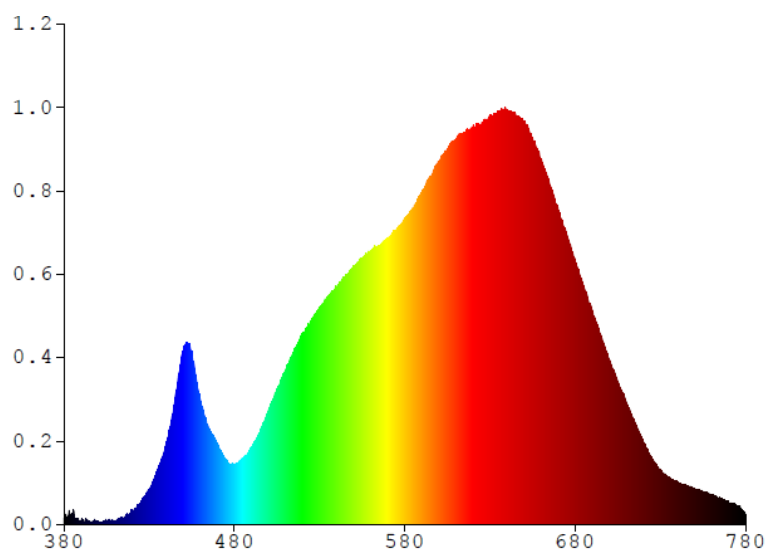
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLLS74727XXXCG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0335	480	0.2941	580	1.5067	680	1.2994	780	0.0481
385	0.0072	485	0.3268	585	1.5532	685	1.1723		
390	0.0004	490	0.3796	590	1.6346	690	1.0503		
395	0.0167	495	0.4530	595	1.7103	695	0.9362		
400	0.0160	500	0.5600	600	1.7841	700	0.8124		
405	0.0113	505	0.6629	605	1.8483	705	0.7046		
410	0.0203	510	0.7607	610	1.8973	710	0.6001		
415	0.0251	515	0.8519	615	1.9273	715	0.5033		
420	0.0654	520	0.9380	620	1.9547	720	0.4057		
425	0.1048	525	1.0035	625	1.9683	725	0.3252		
430	0.1694	530	1.0679	630	2.0089	730	0.2679		
435	0.2708	535	1.1211	635	2.0337	735	0.2278		
440	0.3989	540	1.1645	640	2.0423	740	0.2067		
445	0.6042	545	1.2159	645	2.0181	745	0.1942		
450	0.8554	550	1.2704	650	1.9795	750	0.1777		
455	0.8449	555	1.3070	655	1.8989	755	0.1617		
460	0.6134	560	1.3466	660	1.7928	760	0.1470		
465	0.4741	565	1.3729	665	1.6733	765	0.1264		
470	0.3982	570	1.4105	670	1.5509	770	0.1097		
475	0.3167	575	1.4488	675	1.4009	775	0.0927		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLLS74727XXXCG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

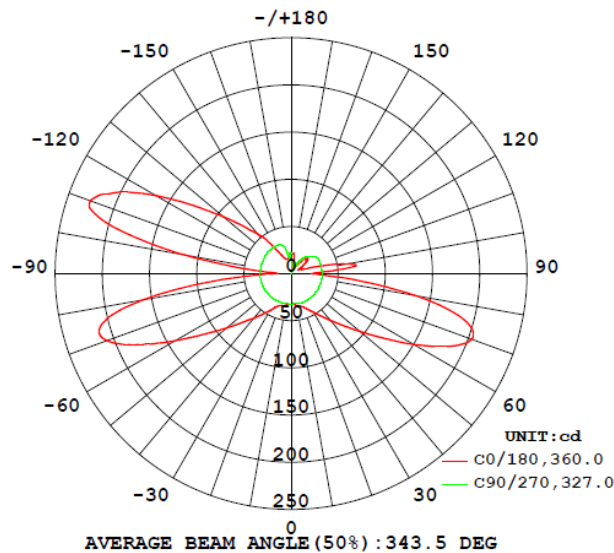
Photometric Measurements at 25°C – Distribution Method

Intertek Sample No.	Base Orientation	Correlated Color Temperatur e (K)	CRI	R9	CIE 31'	CIE 31'	CIE 76'	CIE 76'
					Chromaticit y	Chromaticit y	Chromaticit y	Chromaticit y
					Coordinate (x)	Coordinate (y)	Coordinate (u')	Coordinate (v')
SLLS74727XXXCG								
S2505132 13-012	base-up	2804	93	71	0.4511	0.4077	0.2581	0.5249

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)
SLLS74727XXXCG							
S2505132 13-012	base-up	120.1	127.2	15.1	0.991	815.4	53.9

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLLS74727XXXCG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	32.2	32.2	32.3	32.3	32.3
5	32.8	32.6	32.4	32.3	32.2
10	34.1	33.9	33.4	32.6	32.4
15	35.5	35.1	34.3	33.3	32.9
20	37.8	36.8	35.4	33.9	33.1
25	41.8	39.8	36.4	34.4	33.1
30	47.3	44.2	37.9	34.5	33.0
35	54.7	49.7	39.8	34.6	32.9
40	64.5	56.5	42.3	34.9	33.0
45	77.7	65.1	45.2	35.1	33.0
50	95.5	75.3	48.3	35.3	32.8
55	119.4	86.9	51.3	35.6	32.9
60	150.2	100.9	54.4	35.9	33.0
65	182.9	116.9	57.7	36.1	32.9
70	203.3	134.4	60.6	36.2	32.9
75	190.0	150.8	63.5	36.6	32.9
80	132.6	164.3	66.0	37.0	32.9
85	59.9	173.6	67.8	37.1	32.8
90	21.8	177.2	68.6	37.1	32.8
95	50.1	174.8	68.4	37.1	32.8
100	61.9	166.4	67.0	37.0	32.8
105	32.9	153.0	64.8	36.9	32.8
110	14.0	129.8	62.3	36.8	32.9
115	12.1	103.8	59.0	36.6	33.0
120	8.8	77.8	52.0	36.3	32.9
125	16.0	47.4	43.9	33.2	31.4
130	23.1	27.8	36.5	29.6	28.5
135	25.4	17.2	28.2	26.2	26.0
140	21.8	11.8	18.7	22.5	23.3
145	12.0	11.4	11.5	16.7	18.5
150	7.8	10.8	8.2	11.2	12.8
155	6.3	10.7	8.1	8.2	9.1
160	5.8	11.4	9.6	8.1	7.9
165	5.6	11.9	6.9	9.3	9.2
170	18.7	15.4	10.2	6.4	9.1
175	21.2	18.5	15.9	13.0	12.1
180	21.1	21.1	20.6	20.4	14.6

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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLLS74727XXXCG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLLS74727XXXCG		
0-30	29.8	3.7
0-40	56.4	6.9
0-60	154.2	18.9
0-90	442.7	54.3
60-90	288.5	35.4
0-180	815.4	100.0

Beam Angle

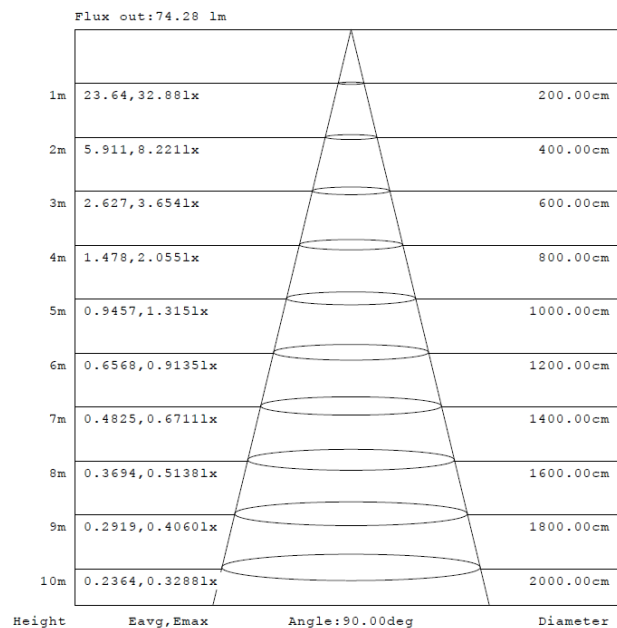
Total Beam Angle(°)
343.5

Illumination Plots

Model No.: SLLS74727XXXCG

Mount Height: 2.5 m

Illuminance - Cone of Light



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TEST REPORT

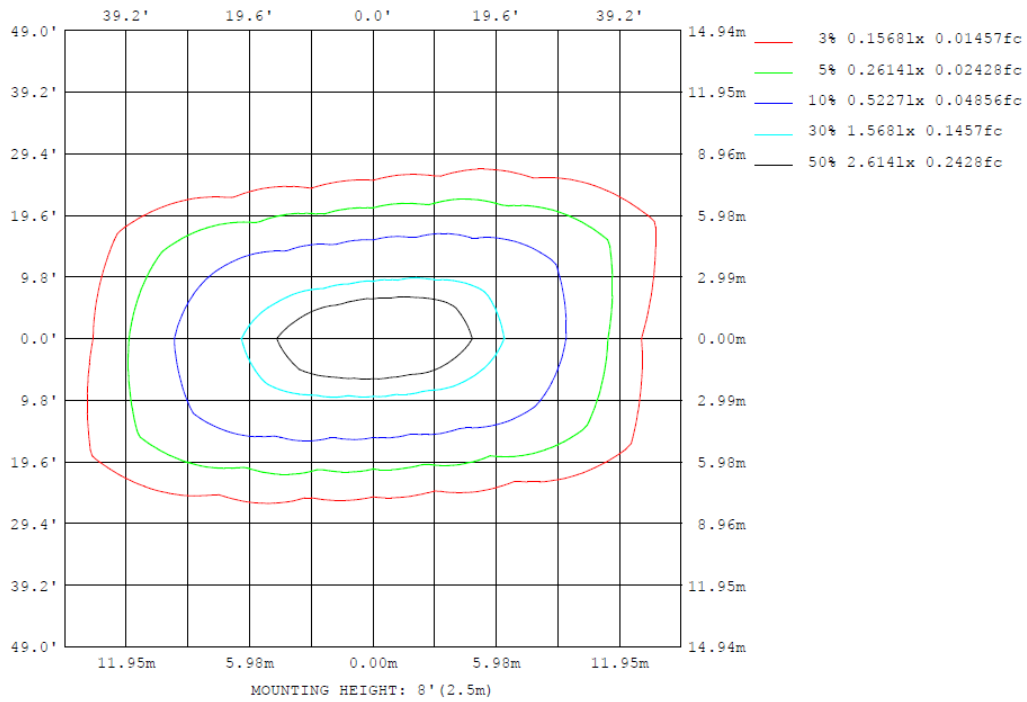
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLLS74727XXXCG

Model No.: SLLS74727XXXCG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLLS74727XXXCG

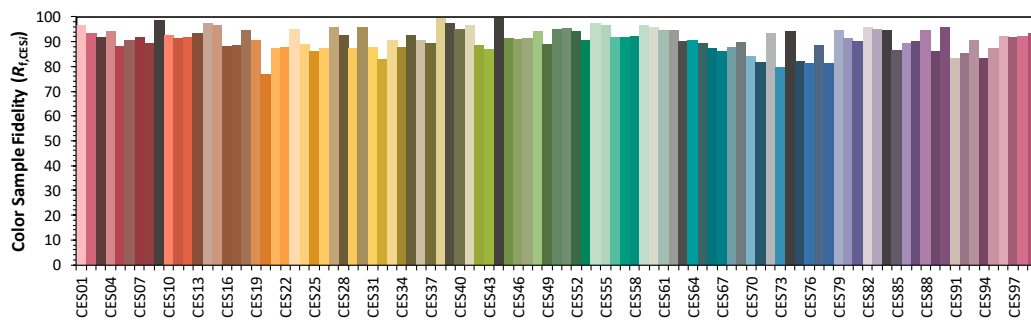
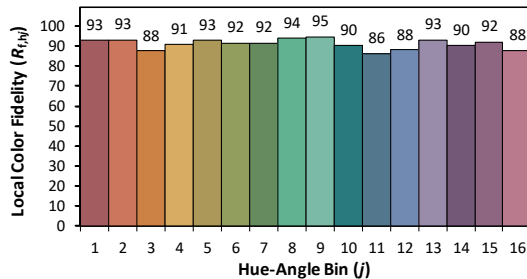
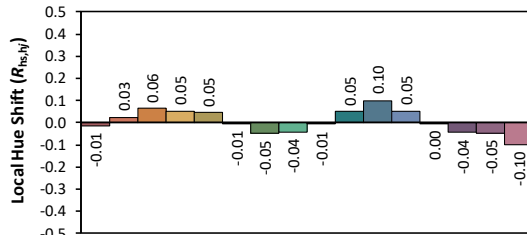
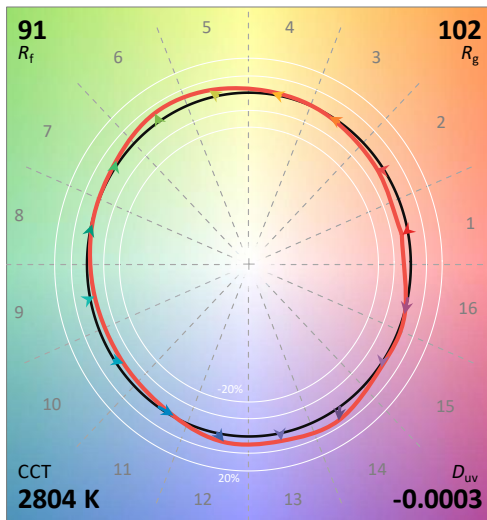
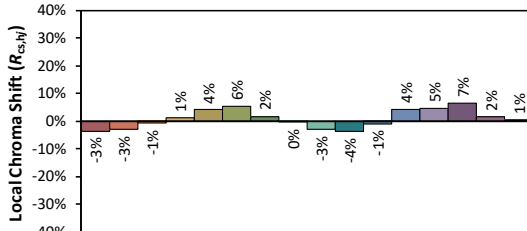
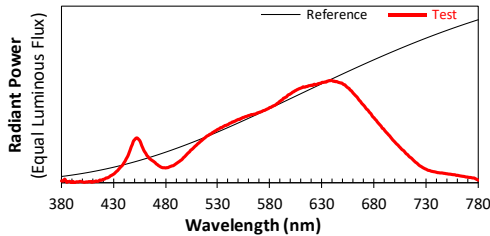
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/7/25

Model: SLLS74727XXXCG



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

x 0.4511
 y 0.4077
 u' 0.2581
 v' 0.5249

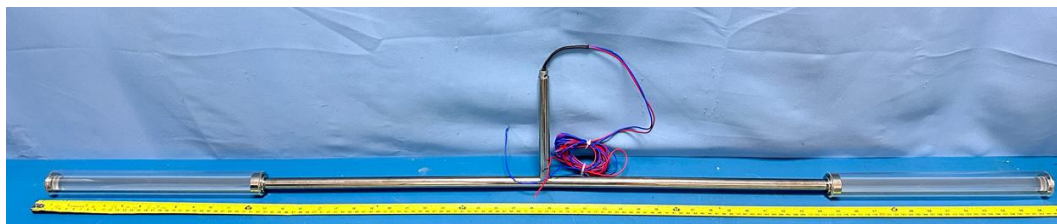
CIE 13.3-1995
(CRI)
 R_a 93
 R_g 71

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 SLLS74727XXXCG



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 *****