

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250513213GZU-006

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REVISION DATE

None

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Report format for LM-79_G

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Report No.: 250513213GZU-006

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH78127XXXCG

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 SLCH78127XXXCG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250513213-011.
<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>	30 June 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:	SLCH78127XXXCG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz ForSLCH78127XXXCG

Criteria	Result
Total Lumen Output	1127.0 lm
Total Power	25.0 W
Luminaire Efficacy	45.0 lm/W
S/MH(C0/180)	2.86
S/MH(C90/270)	3.02
Correlated Color Temperature (CCT)	2725 K
Color Rendering Index (CRI)	93
R9	74
Chromaticity Coordinate (x)	0.4554
Chromaticity Coordinate (y)	0.4058
Chromaticity Coordinate (u')	0.2618
Chromaticity Coordinate (v')	0.5248

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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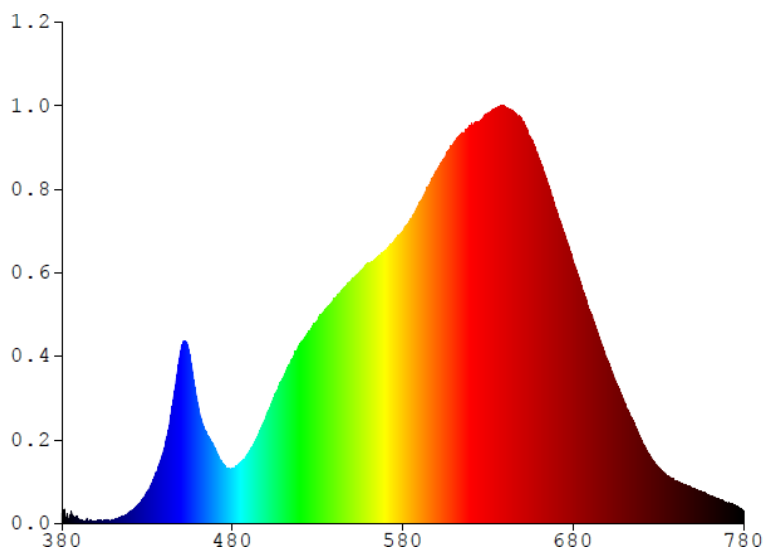
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz ForSLCH78127XXXCG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0740	480	0.3850	580	2.0644	680	1.8534	780	0.0892
385	0.0645	485	0.4295	585	2.1573	685	1.6764		
390	0.0331	490	0.5099	590	2.2721	690	1.4934		
395	0.0199	495	0.6203	595	2.3817	695	1.3217		
400	0.0124	500	0.7643	600	2.4906	700	1.1589		
405	0.0186	505	0.9055	605	2.5834	705	1.0006		
410	0.0136	510	1.0335	610	2.6910	710	0.8573		
415	0.0491	515	1.1634	615	2.7605	715	0.7280		
420	0.0754	520	1.2714	620	2.8111	720	0.5921		
425	0.1364	525	1.3598	625	2.8319	725	0.4812		
430	0.2245	530	1.4313	630	2.9022	730	0.3988		
435	0.3572	535	1.5190	635	2.9336	735	0.3405		
440	0.5298	540	1.5840	640	2.9456	740	0.3017		
445	0.8422	545	1.6589	645	2.9060	745	0.2770		
450	1.2413	550	1.7216	650	2.8544	750	0.2480		
455	1.1815	555	1.7799	655	2.7248	755	0.2271		
460	0.8271	560	1.8360	660	2.5763	760	0.1992		
465	0.6287	565	1.8785	665	2.4105	765	0.1747		
470	0.5285	570	1.9336	670	2.2183	770	0.1487		
475	0.4170	575	1.9942	675	2.0071	775	0.1290		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78127XXXCG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

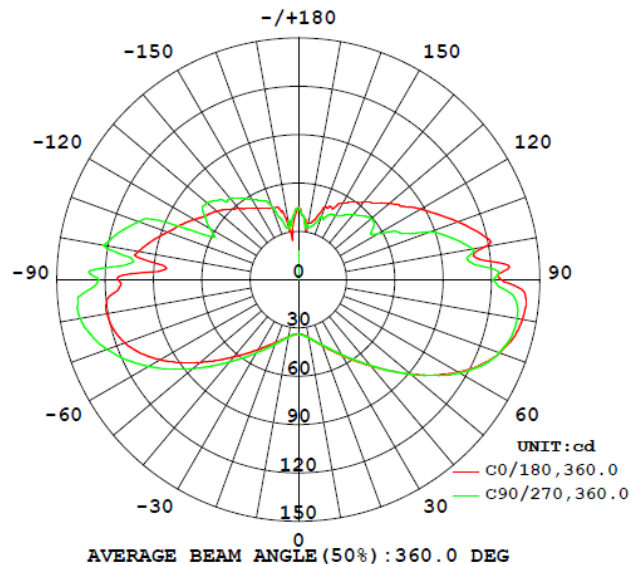
Photometric Measurements at 25°C – Distribution Method

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')
SLCH78127XXXCG								
S2505132 13-011	base-up	2725	93	74	0.4554	0.4058	0.2618	0.5248

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)
SLCH78127XXXCG							
S2505132 13-011	base-up	120.1	211.5	25.0	0.986	1127.0	45.0

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78127XXXCG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	33.9	33.9	33.9	33.8	33.8
5	34.2	34.4	34.6	34.7	34.7
10	36.4	36.4	36.7	36.9	36.6
15	39.6	39.2	39.4	39.7	39.4
20	43.6	42.8	43.0	43.0	43.1
25	48.4	48.0	47.7	47.3	47.6
30	54.3	55.1	54.3	52.3	53.6
35	61.5	64.9	63.3	58.7	60.7
40	69.9	78.3	75.6	66.2	69.2
45	79.8	94.9	90.8	74.7	79.7
50	91.0	113.8	108.6	84.3	91.4
55	103.1	132.5	125.9	94.6	104.1
60	114.7	145.3	138.2	104.9	115.8
65	125.0	146.2	140.7	114.5	125.8
70	133.0	131.7	131.7	122.2	132.7
75	138.4	108.5	116.8	128.4	136.9
80	141.3	92.0	106.8	131.4	137.9
85	141.8	92.9	108.2	131.1	135.1
90	126.1	110.9	122.6	116.9	120.8
95	124.4	131.1	138.7	105.4	109.9
100	117.3	140.1	144.4	114.5	110.2
105	115.3	129.2	137.1	105.1	99.4
110	105.4	115.4	115.7	91.0	87.4
115	96.0	105.4	96.3	76.7	69.5
120	87.8	93.3	86.2	60.0	57.1
125	79.6	82.7	79.9	61.4	56.9
130	73.7	74.3	71.9	63.8	59.1
135	67.7	68.2	64.4	60.4	56.3
140	62.9	63.2	60.2	53.6	52.7
145	58.8	58.6	56.4	51.5	49.1
150	54.9	53.2	53.5	48.9	46.2
155	49.3	49.0	49.0	44.0	44.7
160	48.1	39.4	40.6	44.4	41.8
165	38.6	35.2	34.7	42.7	35.0
170	35.9	35.0	34.4	32.2	33.3
175	39.5	41.4	32.4	37.3	39.0
180	44.8	42.8	44.3	45.1	44.9

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78127XXXCG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH78127XXXCG		
0-30	36.6	3.3
0-40	75.4	6.7
0-60	238.9	21.2
0-90	611.3	54.2
60-90	372.4	33.0
0-180	1127.0	100.0

Beam Angle

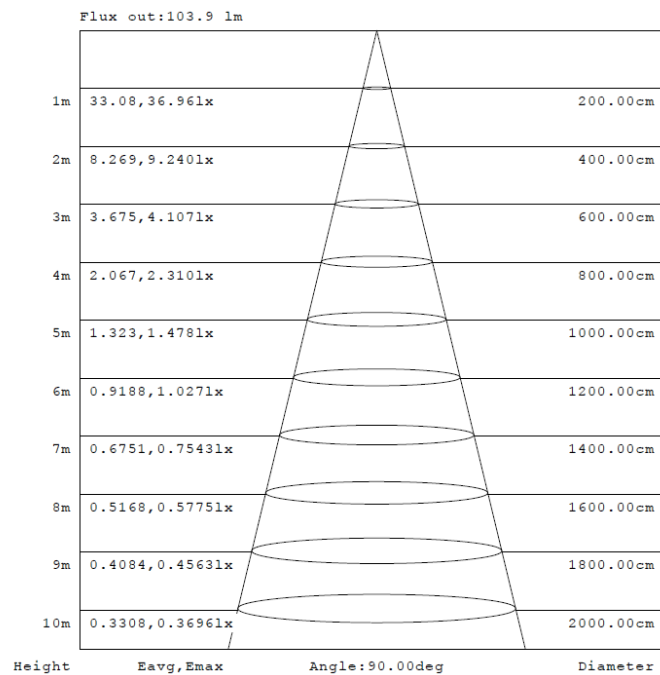
Total Beam Angle(°)
360.0

Illumination Plots

Model No.:SLCH78127XXXCG

Mount Height: 2.5 m

Illuminance - Cone of Light



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TEST REPORT

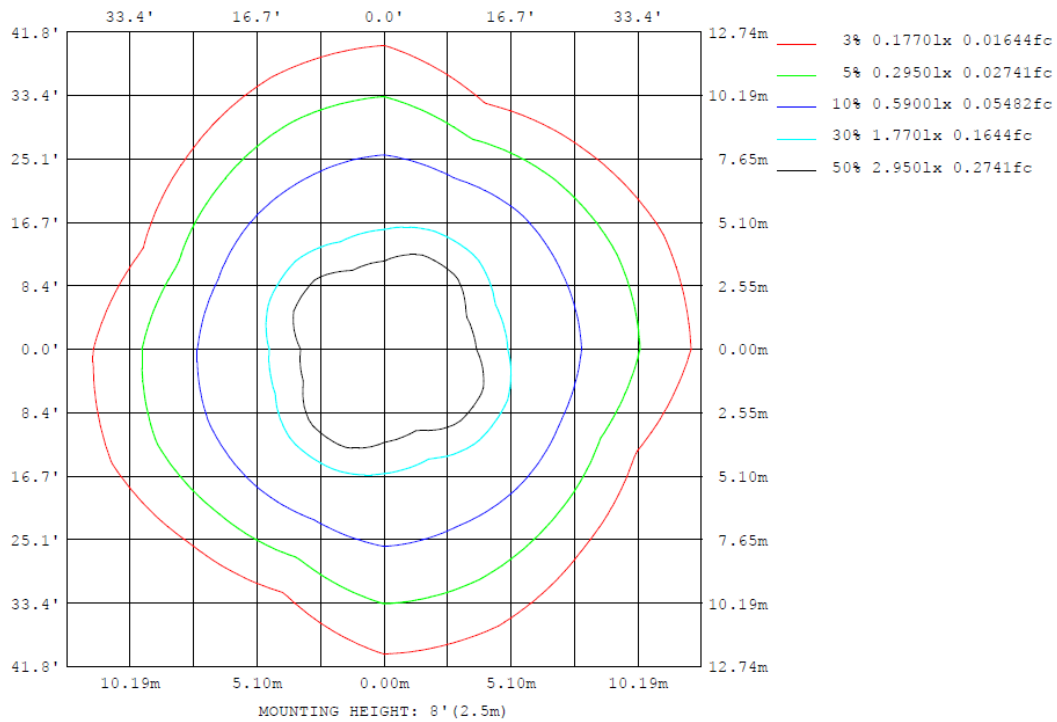
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78127XXXCG

Model No.:SLCH78127XXXCG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78127XXXCG

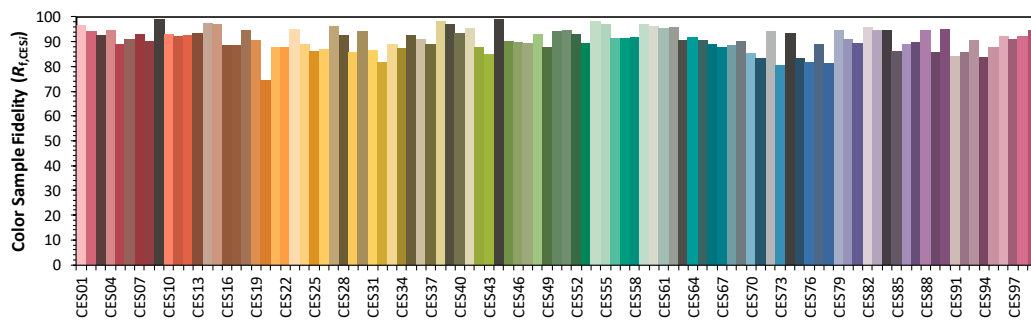
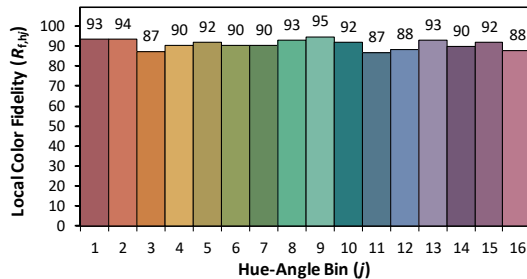
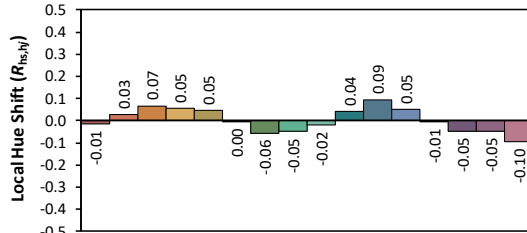
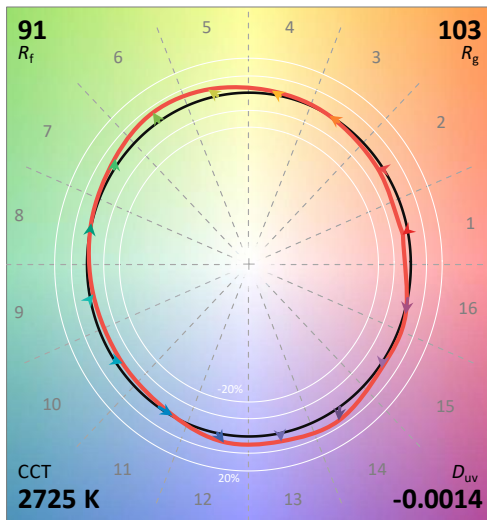
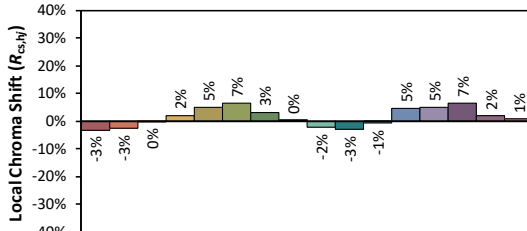
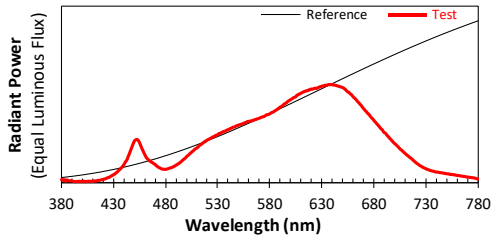
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/6/30

Model: SLCH78127XXXCG



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

x 0.4554
 y 0.4058
 u' 0.2618
 v' 0.5248

CIE 13.3-1995
(CRI)
 R_a 93
 R_g 74

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 SLCH78127XXXCG



External view of SLCH78127XXXCG

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

TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver PSS30W-0700-38-VCC1(AB2613)



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 *****