

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251027067GZU-013

ISSUE DATE

26 January 2026

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 251027067GZU-013

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH837SCTXXX

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

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: QGZ251023107.
<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 SLCH837SCTXXX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251027067-017.
<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>	21 November 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:	SLCH837SCTXXX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH837SCTXXX

Criteria	Result
Total Lumen Output	1008.8 lm
Total Power	12.5 W
Luminaire Efficacy	81.0 lm/W
S/MH(C0/180)	0.71
S/MH(C90/270)	1.33
Correlated Color Temperature (CCT)	2729 K
Color Rendering Index (CRI)	94
R9	67
Chromaticity Coordinate (x)	0.4538
Chromaticity Coordinate (y)	0.4034
Chromaticity Coordinate (u')	0.2618
Chromaticity Coordinate (v')	0.5237

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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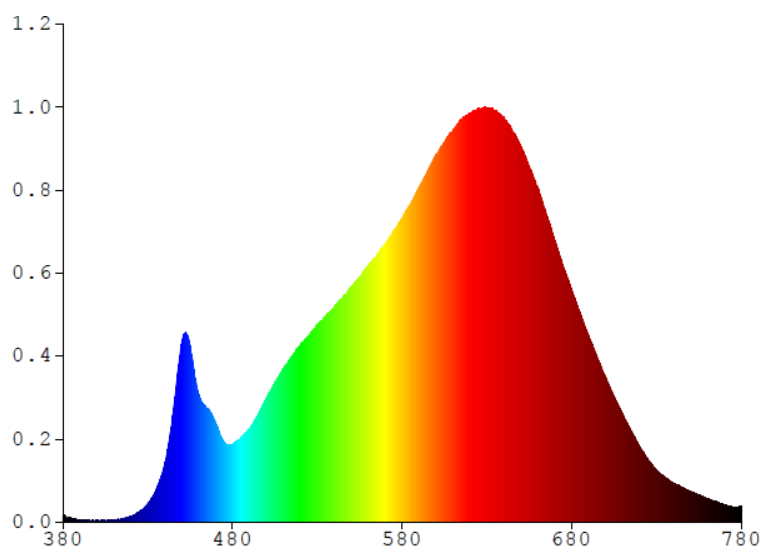
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH837SCTXXX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.9227	480	12.9250	580	50.7650	680	38.9290	780	2.6527
385	0.5082	485	14.0620	585	53.1470	685	34.9420		
390	0.3837	490	15.6470	590	55.8240	690	31.2300		
395	0.3024	495	17.9700	595	58.6730	695	27.5880		
400	0.2806	500	20.7280	600	61.4340	700	24.2590		
405	0.2562	505	23.2520	605	63.4580	705	21.0510		
410	0.4197	510	25.6280	610	65.4400	710	18.1020		
415	0.5102	515	27.6520	615	67.3010	715	15.2960		
420	0.9822	520	29.6220	620	68.3490	720	12.7070		
425	1.7209	525	31.1570	625	69.0250	725	10.4470		
430	3.0344	530	32.8930	630	69.2040	730	8.7651		
435	5.4239	535	34.4400	635	68.5890	735	7.5318		
440	9.7611	540	35.8780	640	67.6220	740	6.5269		
445	18.3100	545	37.5460	645	65.4080	745	5.8206		
450	29.9160	550	39.2900	650	62.8330	750	5.1738		
455	29.3330	555	40.9480	655	59.3520	755	4.5435		
460	21.4060	560	42.8790	660	55.8340	760	3.9798		
465	19.0500	565	44.5390	665	51.5500	765	3.4570		
470	16.4920	570	46.3520	670	47.1860	770	2.9203		
475	13.3920	575	48.6200	675	42.0350	775	2.4915		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH837SCTXXX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

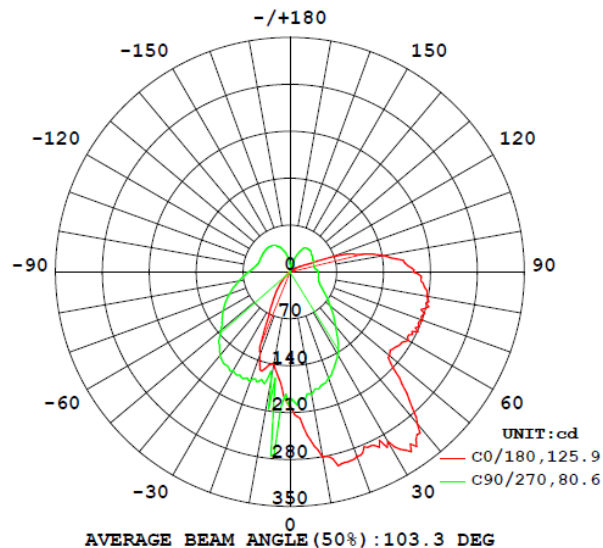
Photometric Measurements at 25°C – Distribution Method

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')
SLCH837SCTXXX								
S2510270 67-017	base-up	2729	94	67	0.4538	0.4034	0.2618	0.5237

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)
SLCH837SCTXXX							
S2510270 67-017	base-up	120.2	104.7	12.5	0.990	1008.8	81.0

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH837SCTXXX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	200.3	228.4	182.0	198.0	194.4
5	232.2	189.6	196.2	202.6	188.7
10	280.3	214.7	200.4	195.5	184.8
15	296.1	213.5	205.9	191.8	176.9
20	292.6	214.0	210.4	189.7	168.6
25	286.2	198.8	198.4	180.8	157.2
30	292.1	208.8	185.1	165.7	142.3
35	313.3	197.7	163.4	144.1	125.0
40	295.8	193.5	145.6	124.2	106.2
45	236.7	188.1	139.0	110.0	92.1
50	194.1	183.0	130.0	99.4	78.6
55	194.1	193.6	126.4	89.4	68.0
60	204.2	188.7	121.5	81.0	58.6
65	211.2	192.0	116.4	74.5	51.4
70	211.0	186.4	112.1	68.2	46.4
75	209.8	178.0	107.8	63.0	44.2
80	207.5	167.1	103.1	57.0	43.1
85	200.1	155.9	98.3	51.8	43.1
90	184.4	143.0	91.3	49.2	42.5
95	171.6	128.0	83.2	48.7	40.3
100	143.1	110.9	75.0	49.2	37.6
105	102.2	92.1	67.7	51.0	37.3
110	66.0	73.6	64.1	51.8	38.0
115	26.1	59.5	62.2	48.9	39.1
120	16.5	49.3	62.0	47.9	39.5
125	8.5	46.0	56.8	49.4	41.1
130	4.1	40.8	53.3	50.0	41.9
135	2.5	35.6	50.6	49.7	44.2
140	1.9	31.7	47.1	47.6	44.2
145	1.2	25.8	42.0	46.4	43.8
150	0.4	21.1	35.7	42.9	41.0
155	0.2	14.6	29.0	34.8	32.7
160	0.1	9.2	19.6	25.3	23.2
165	0.0	1.1	9.6	13.8	11.9
170	0.0	0.0	0.0	1.2	0.5
175	0.0	0.0	0.0	0.0	0.0
180	0.0	0.5	3.6	5.6	7.9

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH837SCTXXX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH837SCTXXX		
0-30	144.8	14.4
0-40	236.4	23.4
0-60	424.9	42.1
0-90	709.8	70.4
60-90	284.9	28.3
0-180	1008.8	100.0

Beam Angle

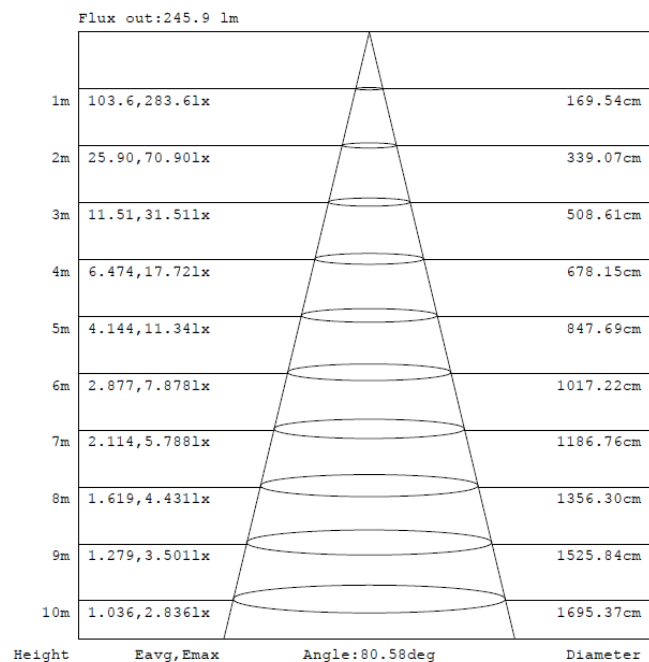
Total Beam Angle(°)
103.3

Illumination Plots

Model No.: SLCH837SCTXXX

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

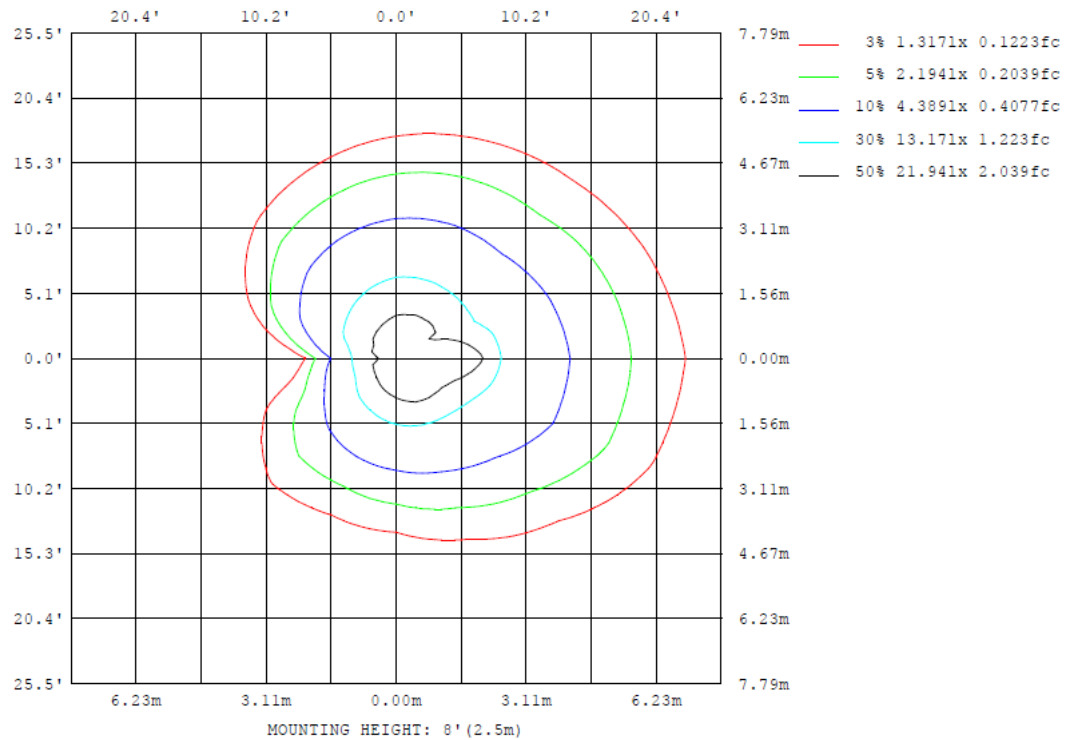
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH837SCTXXX

Model No.: SLCH837SCTXXX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH837SCTXXX

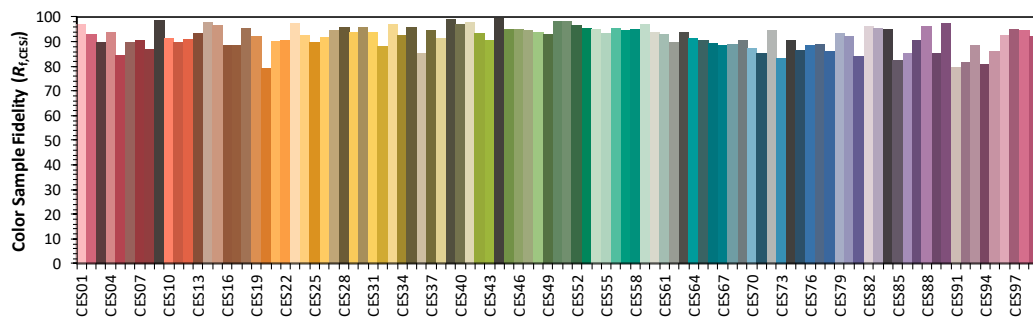
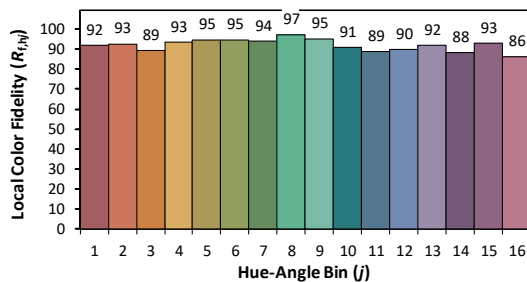
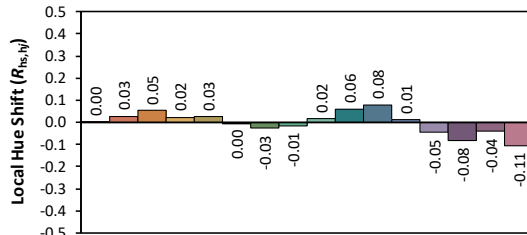
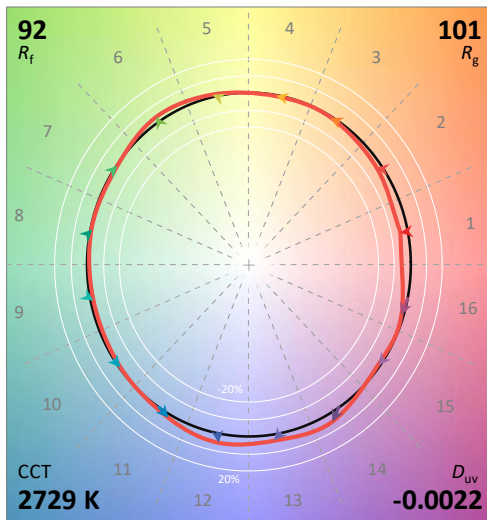
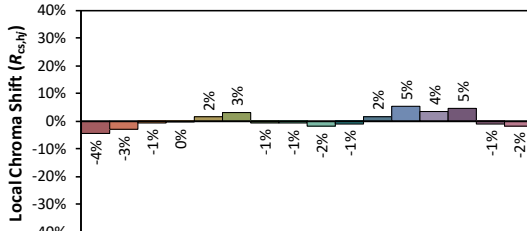
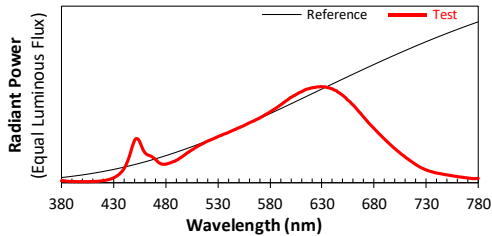
ANSI/IES+B3:X17 TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/11/21

Model: SLCH837SCTXXX



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

x 0.4538
 y 0.4034
 u' 0.2618
 v' 0.5237

CIE 13.3-1995
(CRI)
 R_a 94
 R_g 67

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 SLCH837SCTXXX

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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of PTB15W-0300-38-VCC1(AB0257)



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 *****