

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250623168GZU-021

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None

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Report format for LM-79_G

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Report No.: 250623168GZU-021

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLTS78727X

Remark: "X" 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: QGZ250619128.
<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 SLTS78727X. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250623168-020.
<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>	16 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:	SLTS78727X
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLTS78727X

Criteria	Result
Total Lumen Output	414.3 lm
Total Power	7.7 W
Luminaire Efficacy	53.8 lm/W
S/MH(C0/180)	0.99
S/MH(C90/270)	1.03
Correlated Color Temperature (CCT)	2708 K
Color Rendering Index (CRI)	91
R9	66
Chromaticity Coordinate (x)	0.4584
Chromaticity Coordinate (y)	0.4090
Chromaticity Coordinate (u')	0.2623
Chromaticity Coordinate (v')	0.5265

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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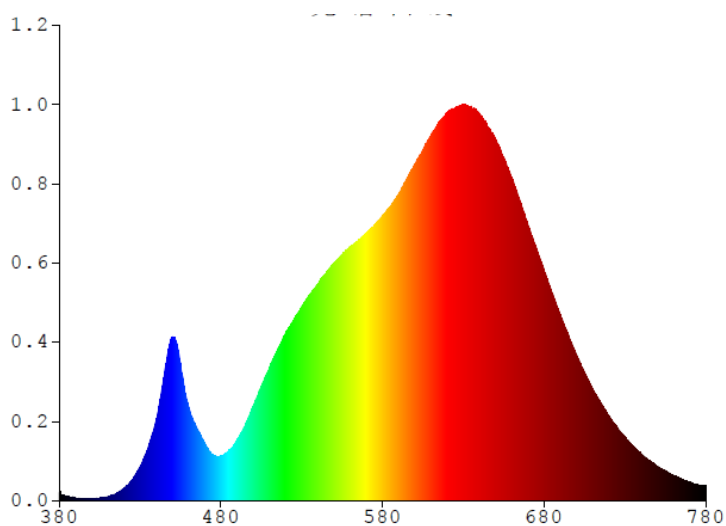
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLTS78727X

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.6174	480	3.2886	580	21.0360	680	17.0010	780	1.1105
385	0.2985	485	3.7094	585	21.7000	685	15.3050		
390	0.2143	490	4.4513	590	22.6050	690	13.7040		
395	0.1729	495	5.5300	595	23.7220	695	12.2310		
400	0.1485	500	6.9886	600	24.8370	700	10.7640		
405	0.1806	505	8.3884	605	25.8380	705	9.4688		
410	0.3000	510	9.7729	610	26.9430	710	8.2525		
415	0.4931	515	11.1150	615	27.9060	715	7.2482		
420	0.9042	520	12.3220	620	28.5780	720	6.2704		
425	1.5232	525	13.2940	625	28.9670	725	5.4447		
430	2.5111	530	14.2930	630	29.2260	730	4.6914		
435	3.8877	535	15.1710	635	29.0970	735	4.0300		
440	5.9772	540	15.9760	640	28.5580	740	3.4596		
445	9.2699	545	16.7700	645	27.5850	745	2.9646		
450	12.0730	550	17.5020	650	26.6570	750	2.5521		
455	10.0340	555	18.1320	655	25.3600	755	2.2096		
460	6.9326	560	18.7700	660	23.8070	760	1.8734		
465	5.3744	565	19.1300	665	22.1260	765	1.6018		
470	4.2337	570	19.7020	670	20.3440	770	1.3617		
475	3.3942	575	20.3240	675	18.3440	775	1.1769		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTS78727X

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

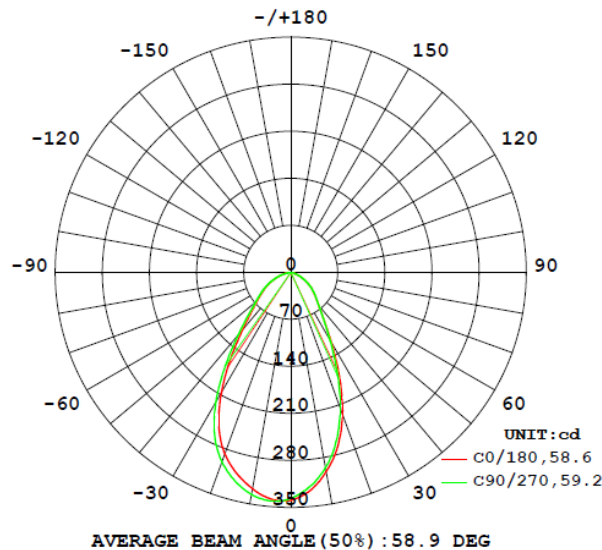
Photometric Measurements at 25°C – Distribution Method

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')
SLTS78727X								
S2506231 68-020	base-up	2708	91	66	0.4584	0.4090	0.2623	0.5265

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	Lumen
						Luminous Flux (Lumens)	Efficacy (Lumens Per Watt)
SLTS78727X							
S2506231 68-020	base-up	120.1	65	7.7	0.986	414.3	53.8

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTS78727X

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	339.2	337.0	335.4	335.6	336.1
5	326.3	319.1	315.7	317.4	320.5
10	301.4	291.0	287.1	290.4	295.9
15	269.0	253.5	247.7	252.5	260.8
20	224.7	204.5	197.8	203.7	214.5
25	171.2	150.6	144.6	151.0	162.9
30	121.3	105.7	101.7	107.0	117.0
35	85.9	76.5	74.5	78.1	84.7
40	64.9	59.2	58.4	60.9	65.2
45	52.4	48.9	48.3	50.1	53.1
50	42.9	40.1	39.6	41.1	43.6
55	34.0	31.2	30.6	32.2	34.6
60	24.8	22.0	21.6	23.0	25.2
65	15.9	13.5	13.1	14.4	16.4
70	7.9	6.1	5.8	6.8	8.5
75	2.0	1.1	1.0	1.5	2.4
80	0.5	0.4	0.4	0.4	0.6
85	0.1	0.0	0.0	0.1	0.2
90	0.0	0.0	0.0	0.0	0.0
95	0.0	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0	0.0
105	0.0	0.0	0.0	0.0	0.0
110	0.0	0.0	0.0	0.0	0.0
115	0.0	0.0	0.1	0.0	0.0
120	0.1	0.1	0.1	0.1	0.1
125	0.1	0.1	0.1	0.1	0.1
130	0.1	0.2	0.2	0.2	0.2
135	0.2	0.2	0.2	0.2	0.2
140	0.3	0.3	0.3	0.3	0.3
145	0.3	0.3	0.3	0.3	0.3
150	0.4	0.4	0.4	0.4	0.4
155	0.4	0.4	0.4	0.4	0.4
160	0.4	0.4	0.4	0.4	0.4
165	0.4	0.4	0.4	0.4	0.4
170	0.4	0.4	0.4	0.4	0.4
175	0.3	0.3	0.3	0.3	0.3
180	0.3	0.3	0.3	0.3	0.3

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTS78727X

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLTS78727X		
0-30	209.2	50.5
0-40	287.3	69.4
0-60	381.0	92.0
0-90	413.7	99.8
60-90	32.7	7.8
0-180	414.3	100.0

Beam Angle

Total Beam Angle(°)

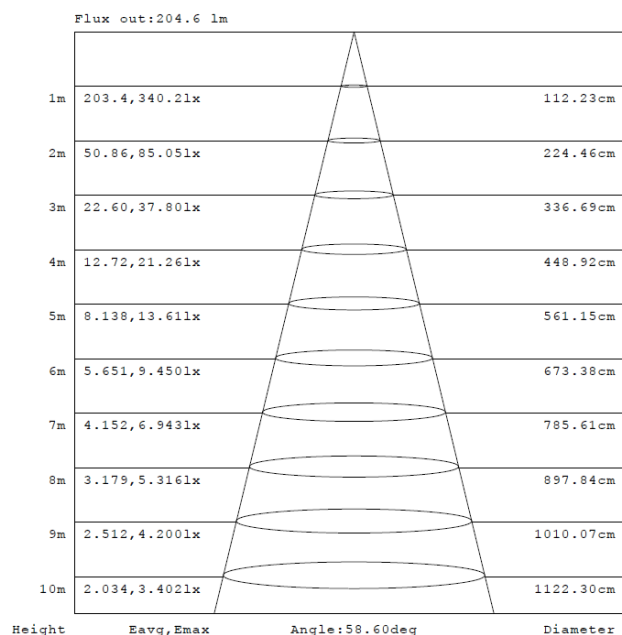
58.9

Illumination Plots

Model No.: SLTS78727X

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

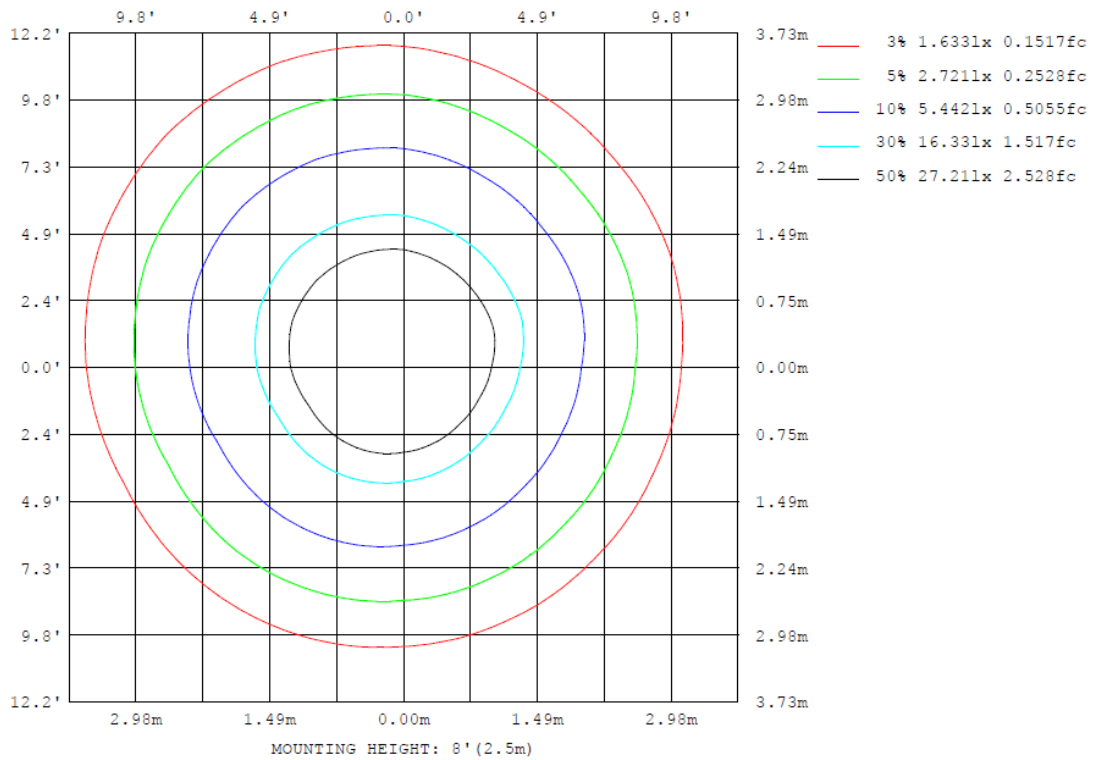
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTS78727X

Model No.: SLTS78727X

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTS78727X

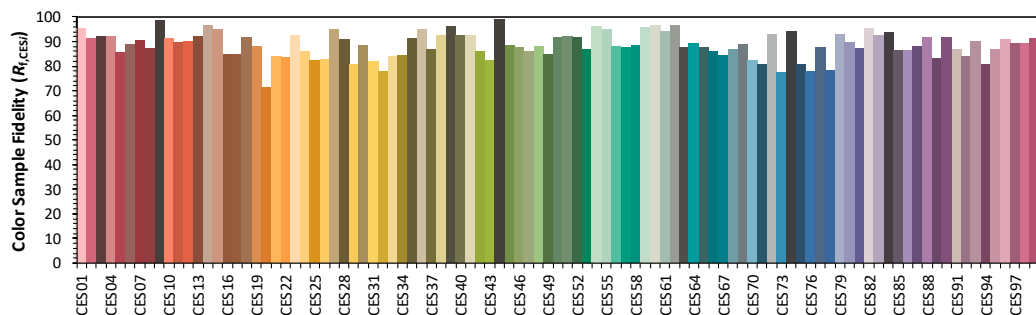
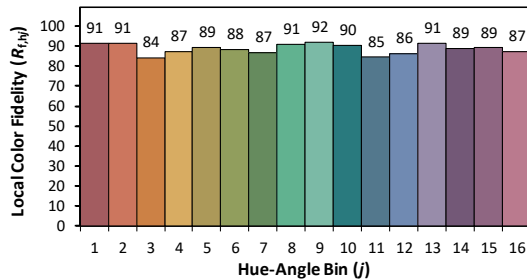
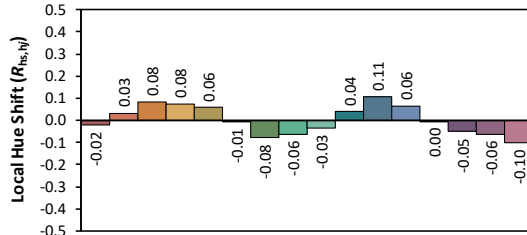
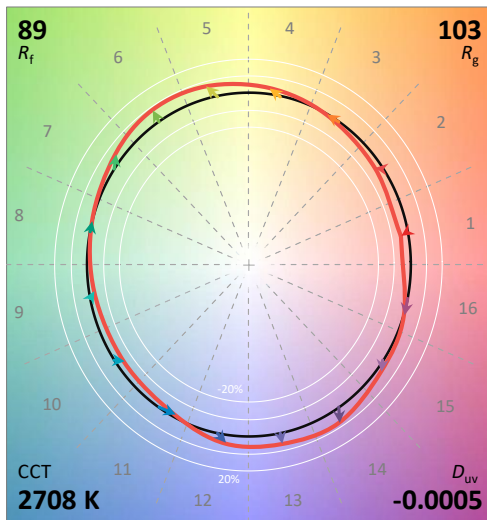
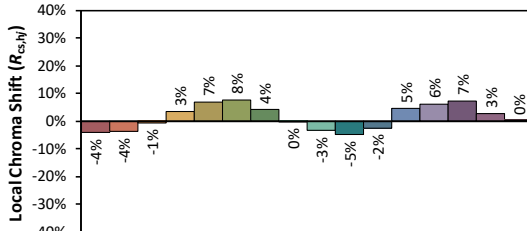
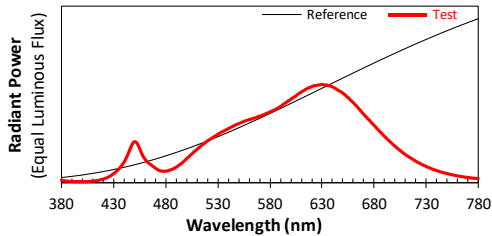
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/7/16

Model: SLTS78727X



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

x 0.4584
 y 0.4090
 u' 0.2623
 v' 0.5265

CIE 13.3-1995
(CRI)
 R_a 91
 R_g 66

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 SLTS78727X



View of LED

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

TEST REPORT

PRODUCT PICTURE (not to scale)



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

In Charge Of Tests:

Done Ye

Done Ye
Engineer

Report Reviewed By

Shelley Ying

Shelley Ying
Reviewer

Attachment: None

***** End of Report *****