

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250513213GZU-005

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REVISION DATE

None

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Report format for LM-79_G

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Report No.: 250513213GZU-005

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLBA74927XXXCG

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 SLBA74927XXXCG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250513213-001.
<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>	27 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:	SLBA74927XXXCG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLBA74927XXXCG

Criteria	Result
Total Lumen Output	672.0 lm
Total Power	14.5 W
Luminaire Efficacy	46.3 lm/W
S/MH(C0/180)	3.89
S/MH(C90/270)	1.64
Correlated Color Temperature (CCT)	2712 K
Color Rendering Index (CRI)	94
R9	76
Chromaticity Coordinate (x)	0.4559
Chromaticity Coordinate (y)	0.4049
Chromaticity Coordinate (u')	0.2625
Chromaticity Coordinate (v')	0.5246

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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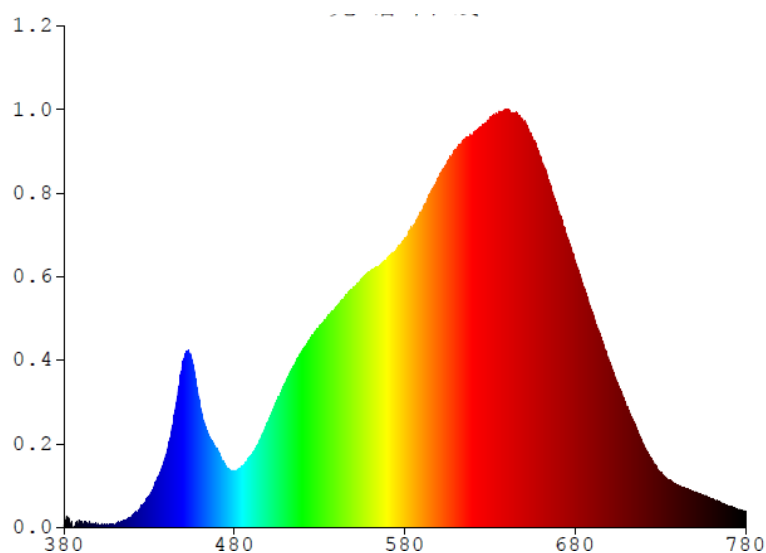
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLBA74927XXXCG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	0.2832	580	1.4429	680	1.3290	780	0.0818
385	0.0009	485	0.3034	585	1.5079	685	1.1985		
390	0.0275	490	0.3615	590	1.5789	690	1.0730		
395	0.0278	495	0.4367	595	1.6676	695	0.9479		
400	0.0216	500	0.5303	600	1.7433	700	0.8300		
405	0.0074	505	0.6304	605	1.8242	705	0.7181		
410	0.0146	510	0.7221	610	1.8874	710	0.6040		
415	0.0338	515	0.8099	615	1.9323	715	0.5187		
420	0.0528	520	0.8842	620	1.9603	720	0.4158		
425	0.1040	525	0.9476	625	1.9971	725	0.3367		
430	0.1540	530	1.0093	630	2.0464	730	0.2787		
435	0.2491	535	1.0590	635	2.0705	735	0.2370		
440	0.3641	540	1.0998	640	2.0872	740	0.2073		
445	0.5729	545	1.1525	645	2.0636	745	0.1954		
450	0.8327	550	1.1982	650	2.0286	750	0.1757		
455	0.8341	555	1.2408	655	1.9419	755	0.1605		
460	0.5985	560	1.2780	660	1.8445	760	0.1419		
465	0.4571	565	1.2993	665	1.7159	765	0.1278		
470	0.3878	570	1.3482	670	1.5839	770	0.1058		
475	0.3053	575	1.3837	675	1.4337	775	0.0917		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLBA74927XXXCG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

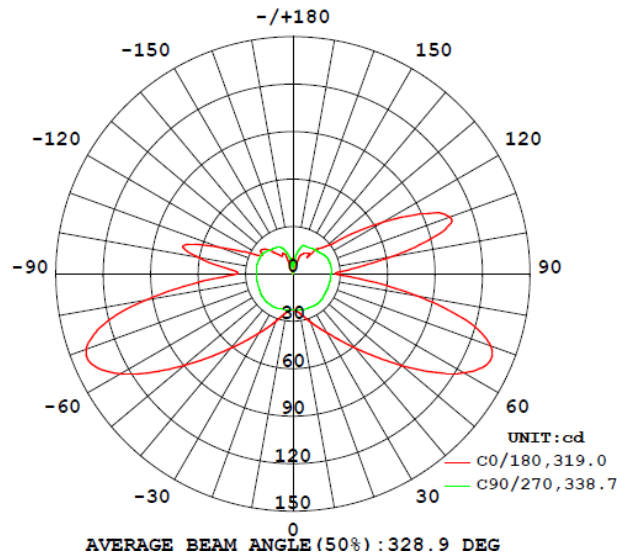
Photometric Measurements at 25°C – Distribution Method

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')
SLBA74927XXXCG								
S2505132 13-001	base-up	2712	94	76	0.4559	0.4049	0.2625	0.5246

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)
SLBA74927XXXCG							
S2505132 13-001	base-up	120.1	122.5	14.5	0.987	672.0	46.3

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLBA74927XXXCG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	22.6	22.6	22.6	22.6	22.6
5	23.4	23.4	23.2	22.9	22.8
10	25.3	25.3	24.3	23.4	23.0
15	28.3	28.1	26.3	24.2	23.3
20	32.3	32.0	28.6	24.9	23.7
25	36.9	36.2	31.0	25.2	23.7
30	42.8	41.0	33.4	25.8	23.9
35	50.7	46.0	35.3	26.3	24.2
40	61.0	51.7	37.3	26.7	24.4
45	74.0	58.5	39.0	26.8	24.4
50	90.2	67.1	41.0	26.7	24.2
55	108.2	77.5	43.4	26.5	23.8
60	124.9	89.1	45.7	26.7	23.8
65	135.4	101.1	48.3	26.8	23.8
70	133.1	111.4	50.5	27.0	23.9
75	113.4	119.2	52.4	27.0	23.9
80	79.6	124.3	53.8	26.9	23.8
85	46.7	127.0	54.5	27.0	23.9
90	27.4	127.4	54.7	27.2	24.1
95	37.1	126.9	55.0	27.7	24.6
100	63.3	123.9	54.4	27.6	24.6
105	93.6	116.2	52.8	27.4	24.5
110	105.4	105.3	50.2	27.1	24.4
115	90.4	92.0	46.8	26.6	24.2
120	65.7	76.8	43.7	25.3	23.3
125	42.7	65.8	39.5	23.6	22.4
130	27.8	56.7	34.4	21.8	21.6
135	22.7	46.3	29.4	20.7	21.2
140	13.9	38.4	25.8	19.7	20.6
145	16.2	31.8	23.8	18.8	20.1
150	15.0	25.2	22.2	18.3	19.6
155	13.8	20.4	20.6	18.4	19.3
160	12.0	15.8	17.9	18.6	19.5
165	3.7	12.7	15.2	16.3	16.8
170	2.3	6.6	10.2	12.8	12.8
175	2.2	1.9	5.5	9.4	9.7
180	9.3	9.2	7.9	6.9	5.5

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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLBA74927XXXCG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLBA74927XXXCG		
0-30	24.0	3.6
0-40	47.9	7.1
0-60	139.1	20.1
0-90	366.0	54.5
60-90	226.9	34.4
0-180	672.0	100.0

Beam Angle

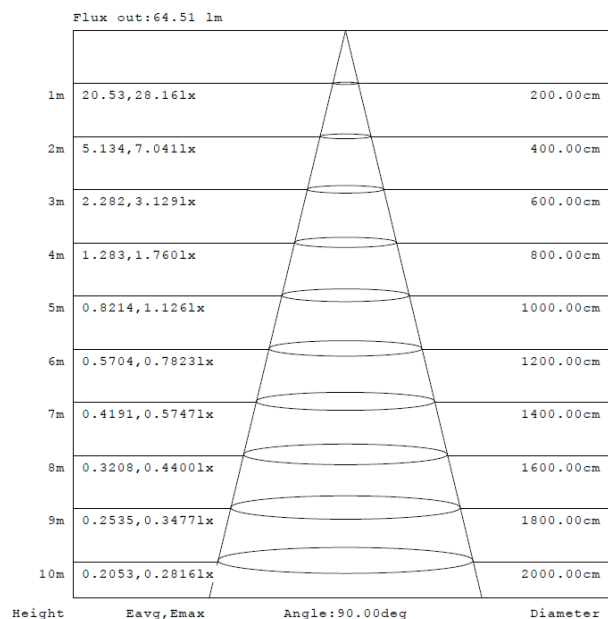
Total Beam Angle(°)
328.9

Illumination Plots

Model No.: SLBA74927XXXCG

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

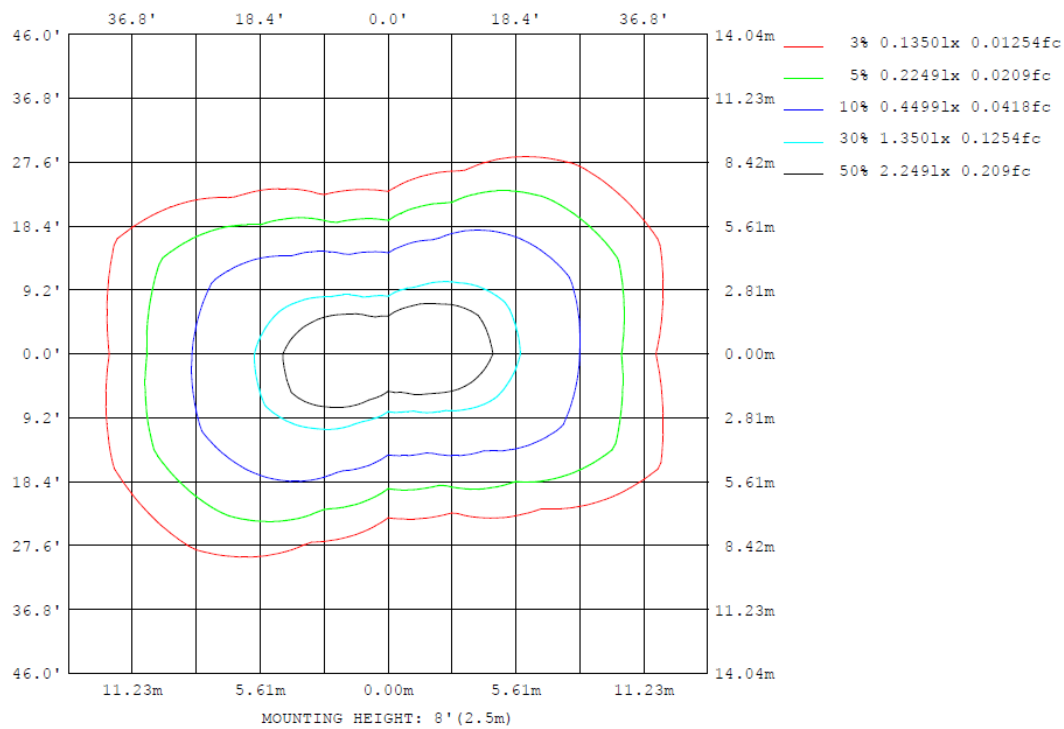
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLBA74927XXXCG

Model No.: SLBA74927XXXCG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLBA74927XXXCG

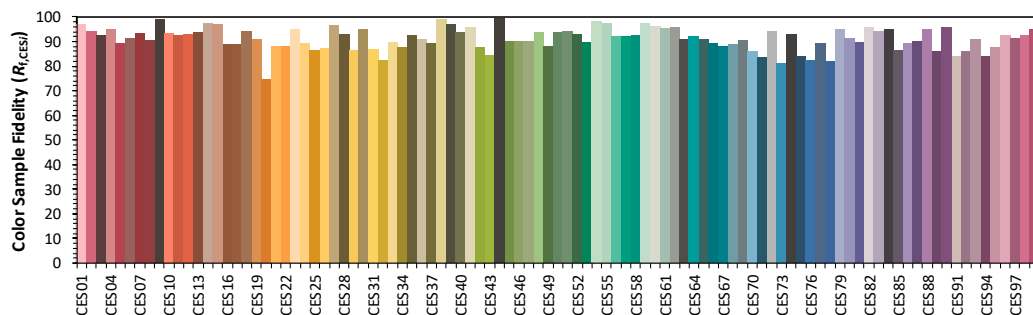
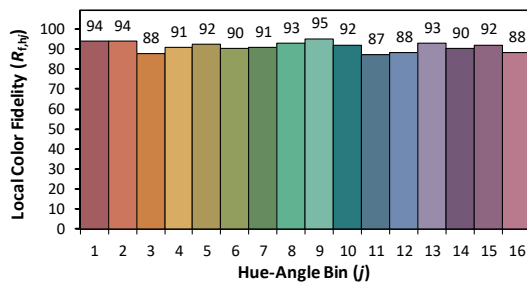
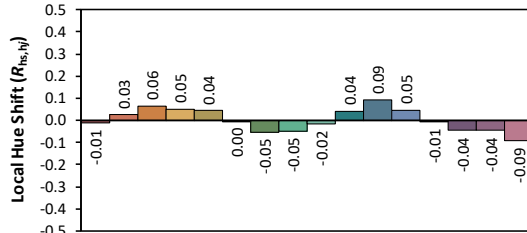
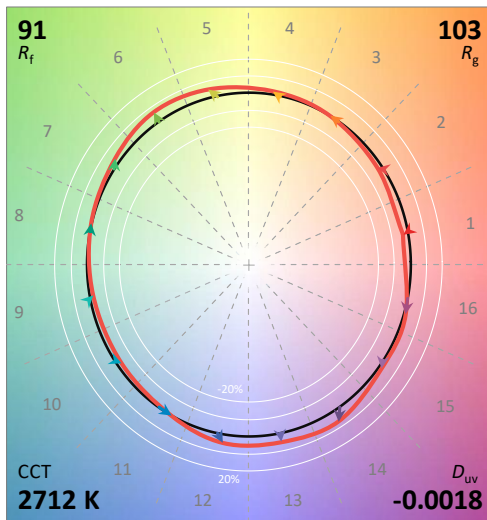
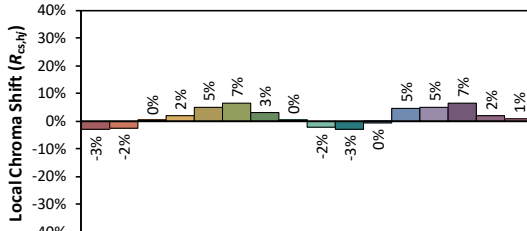
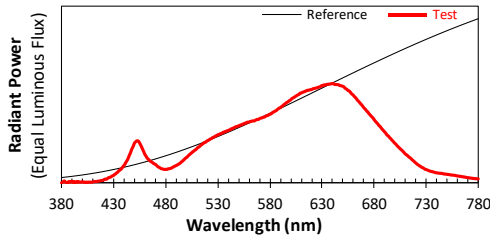
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/6/27

Model: SLBA74927XXXCG



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

x 0.4559
 y 0.4049
 u' 0.2625
 v' 0.5246

CIE 13.3-1995
(CRI)
 R_a 94
 R_g 76

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 SLBA74927XXXCG



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 *****