

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250919125GZU-001

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REVISION DATE

None

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DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 250919125GZU-001

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH81827XX

Remark: "XX" 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: QGZ250918006.
<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 SLCH81827XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250919125-002.
<u>MANUFACTURER /FACTORY & ADDRESS:</u>	Union Star Collection-Dongguan Denghuang HomeFurnishing Co., Ltd. No.5, Central Road, Yayuan Industrial Zone, Nancheng District, Dongguan City, Guangdong Province, 523000
<u>DATES OF TESTS:</u>	17 October 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:	SLCH81827XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH81827XX

Criteria	Result
Total Lumen Output	133.6 lm
Total Power	15.5 W
Luminaire Efficacy	8.6 lm/W
S/MH(C0/180)	2.21
S/MH(C90/270)	1.97
Correlated Color Temperature (CCT)	2719 K
Color Rendering Index (CRI)	91
R9	64
Chromaticity Coordinate (x)	0.4621
Chromaticity Coordinate (y)	0.4172
Chromaticity Coordinate (u')	0.2610
Chromaticity Coordinate (v')	0.5302

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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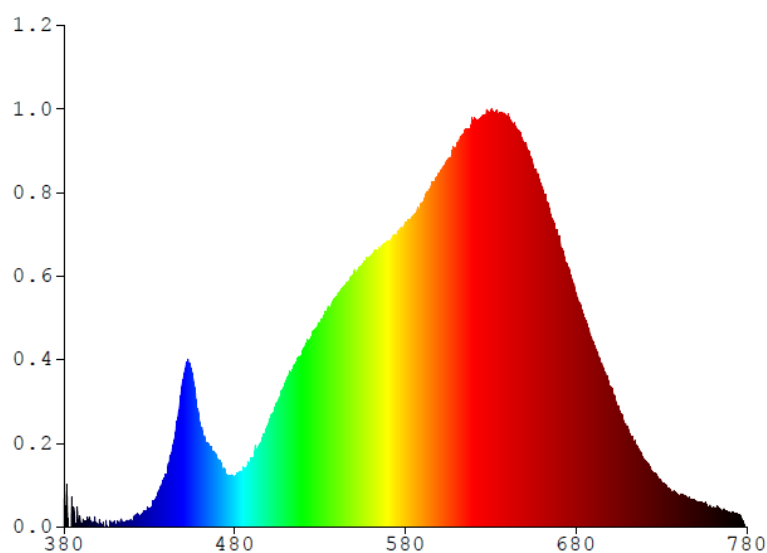
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH81827XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.1589	480	0.2026	580	1.2605	680	0.9682	780	0.0000
385	0.0243	485	0.2499	585	1.2976	685	0.8667		
390	0.0175	490	0.2791	590	1.3467	690	0.7709		
395	0.0395	495	0.3410	595	1.4189	695	0.6815		
400	0.0000	500	0.4343	600	1.4735	700	0.5886		
405	0.0000	505	0.5181	605	1.5310	705	0.4938		
410	0.0102	510	0.6096	610	1.5910	710	0.4132		
415	0.0156	515	0.6736	615	1.6475	715	0.3426		
420	0.0233	520	0.7415	620	1.6798	720	0.2806		
425	0.0497	525	0.7902	625	1.7100	725	0.2286		
430	0.0752	530	0.8353	630	1.7109	730	0.1850		
435	0.1398	535	0.8983	635	1.7119	735	0.1564		
440	0.2207	540	0.9477	640	1.7108	740	0.1312		
445	0.3775	545	1.0017	645	1.6578	745	0.1210		
450	0.6211	550	1.0595	650	1.5950	750	0.1062		
455	0.6350	555	1.0864	655	1.4905	755	0.0915		
460	0.4150	560	1.1249	660	1.4088	760	0.0786		
465	0.3409	565	1.1523	665	1.3004	765	0.0703		
470	0.2730	570	1.1841	670	1.2110	770	0.0599		
475	0.2203	575	1.2110	675	1.0707	775	0.0509		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81827XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

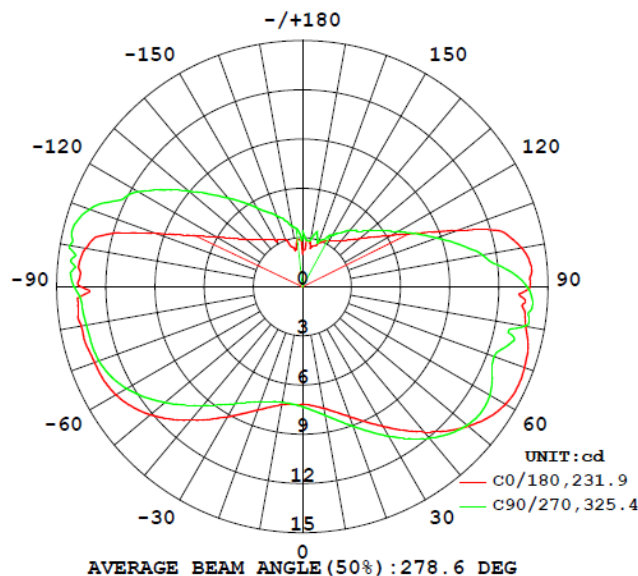
Photometric Measurements at 25°C – Distribution Method

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')
SLCH81827XX								
S2509191 25-002	base-up	2719	91	64	0.4621	0.4172	0.2610	0.5302

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)
SLCH81827XX							
S2509191 25-002	base-up	120.1	131.5	15.5	0.982	133.6	8.6

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81827XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	7.2	7.4	7.4	7.4	7.3
5	7.3	7.7	7.7	7.6	7.6
10	7.5	8.1	8.1	8.0	8.0
15	7.9	8.7	8.7	8.6	8.5
20	8.4	9.4	9.4	9.2	9.1
25	9.1	10.2	10.2	10.0	9.8
30	9.8	11.0	11.0	10.8	10.5
35	10.7	11.9	11.8	11.6	11.3
40	11.6	12.7	12.5	12.3	12.0
45	12.4	13.5	13.1	13.0	12.7
50	13.2	14.1	13.5	13.6	13.1
55	13.9	14.5	13.7	14.0	13.3
60	14.3	14.8	13.8	14.4	13.2
65	14.5	15.0	14.3	14.6	12.8
70	14.4	15.1	14.5	14.7	12.4
75	14.3	15.1	14.5	14.6	13.2
80	13.8	14.9	13.9	14.4	13.8
85	13.5	14.1	13.9	13.7	14.1
90	13.9	13.5	13.2	13.2	13.7
95	14.0	13.0	11.7	11.9	12.5
100	13.6	11.9	11.1	10.8	11.2
105	12.8	10.7	9.9	9.7	10.0
110	10.1	9.5	8.8	8.5	8.7
115	7.8	8.4	7.7	7.5	7.7
120	6.3	7.3	6.8	6.6	6.8
125	5.3	6.4	6.0	5.9	6.0
130	4.6	5.7	5.4	5.3	5.4
135	4.1	5.2	4.9	4.9	4.8
140	3.7	4.8	4.6	4.6	4.5
145	3.4	4.4	4.1	4.1	4.0
150	3.3	3.9	3.8	3.8	3.7
155	3.0	3.4	3.3	3.6	3.2
160	2.8	2.8	2.9	3.1	3.0
165	2.6	2.4	3.3	2.9	3.5
170	2.8	2.8	2.3	2.9	2.9
175	2.8	2.9	2.9	2.9	2.9
180	2.1	2.3	3.2	2.8	3.4

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81827XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH81827XX		
0-30	7.1	5.3
0-40	13.5	10.1
0-60	34.1	25.5
0-90	78.0	58.3
60-90	43.9	32.8
0-180	133.6	100.0

Beam Angle

Total Beam Angle(°)

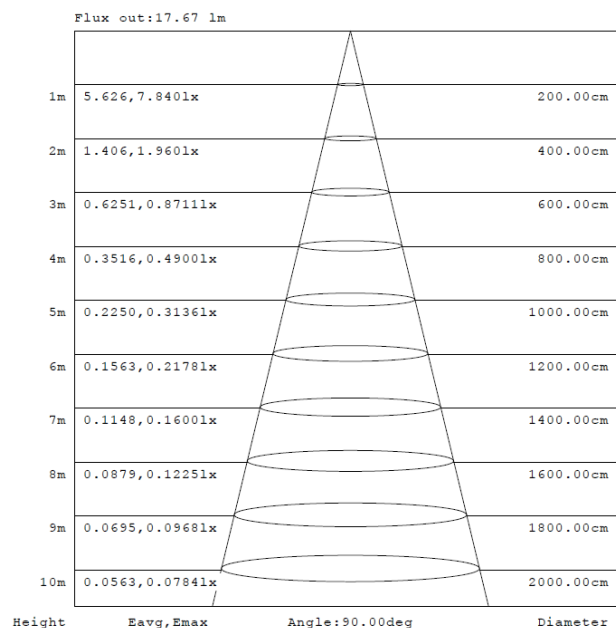
278.6

Illumination Plots

Model No.: SLCH81827XX

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

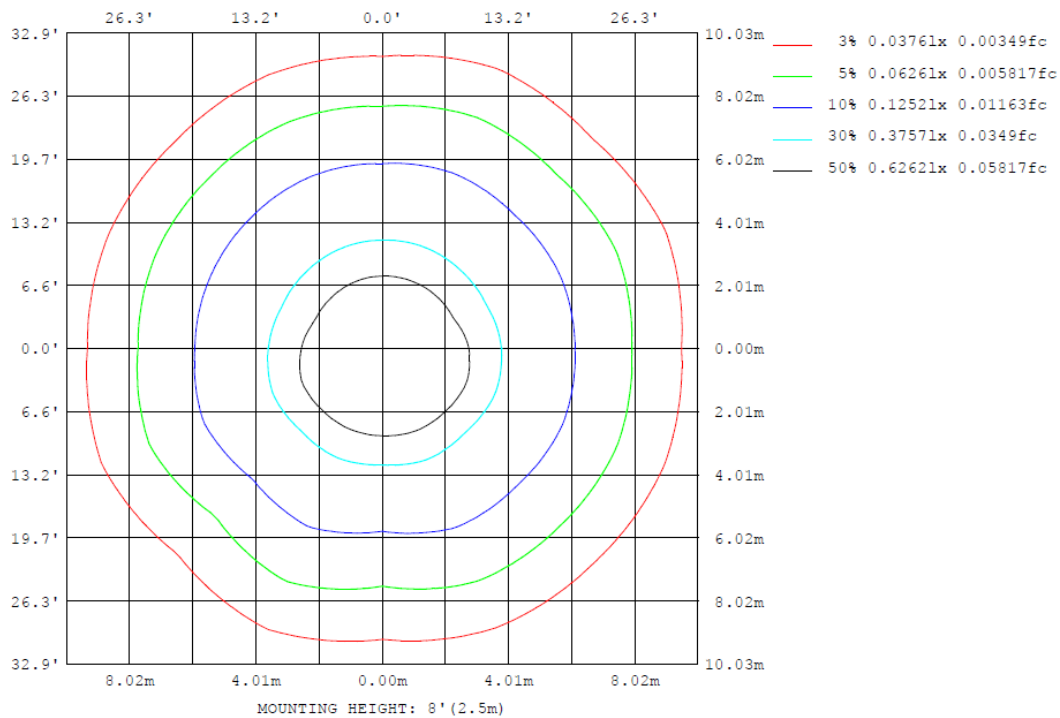
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81827XX

Model No.: SLCH81827XX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81827XX

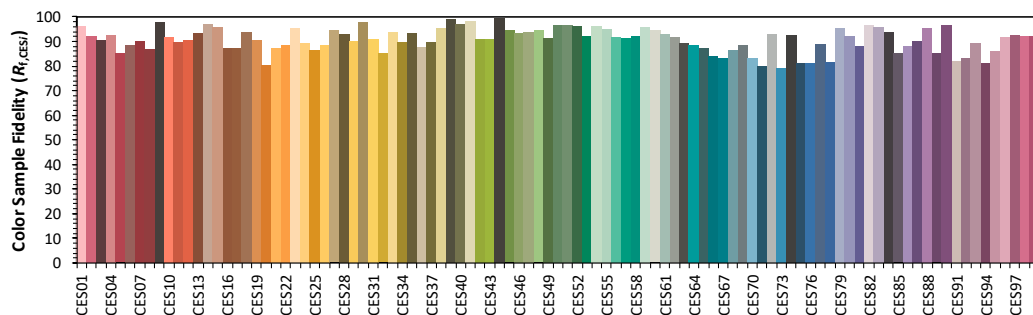
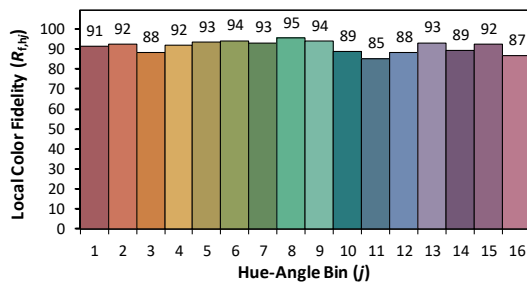
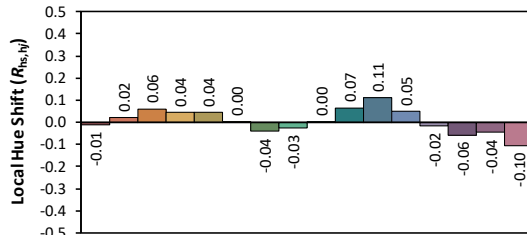
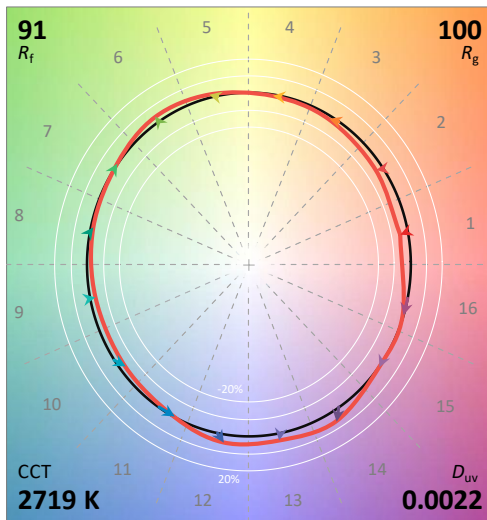
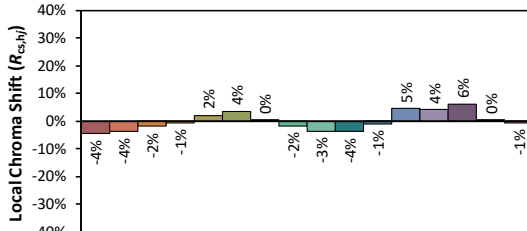
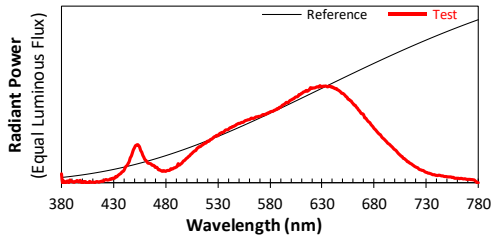
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/10/17

Model: SLCH81827XX



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

x 0.4621
 y 0.4172
 u' 0.2610
 v' 0.5302

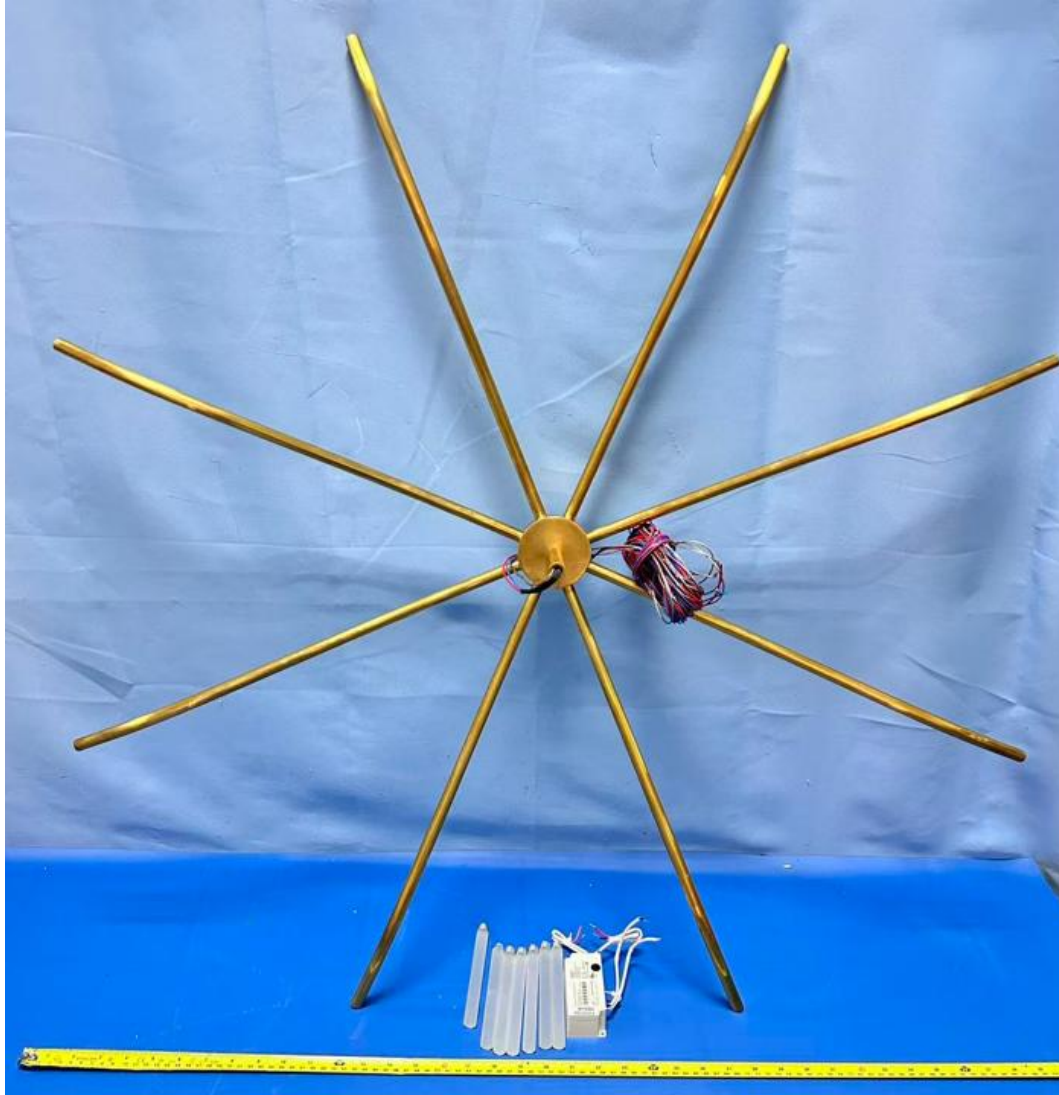
CIE 13.3-1995
(CRI)
 R_a 91
 R_g 64

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 SLCH81827XX

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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 *****