

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250919125GZU-002

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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-002

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH81927XX

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 SLCH81927XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250919125-001.
<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:	SLCH81927XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH81927XX

Criteria	Result
Total Lumen Output	113.0 lm
Total Power	14.1 W
Luminaire Efficacy	8.0 lm/W
S/MH(C0/180)	2.06
S/MH(C90/270)	1.92
Correlated Color Temperature (CCT)	2768 K
Color Rendering Index (CRI)	91
R9	64
Chromaticity Coordinate (x)	0.4572
Chromaticity Coordinate (y)	0.4145
Chromaticity Coordinate (u')	0.2590
Chromaticity Coordinate (v')	0.5284

Remark:

N/A

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

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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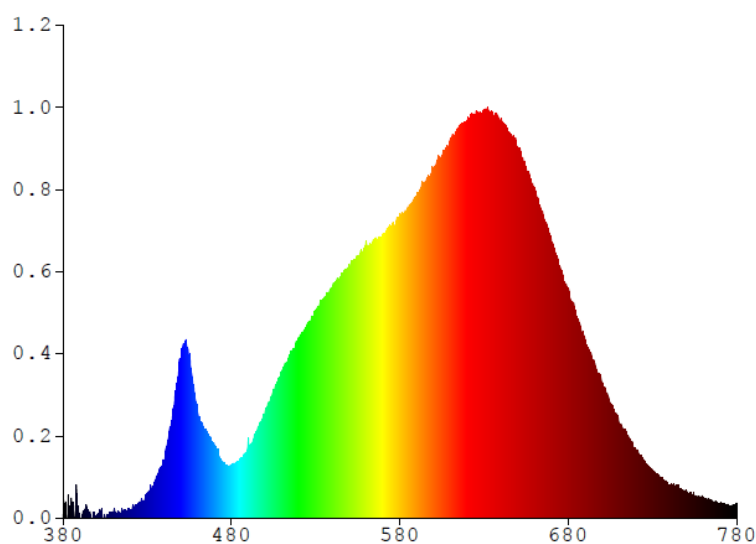
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH81927XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	0.2119	580	1.2277	680	0.9310	780	0.0606
385	0.0636	485	0.2405	585	1.2604	685	0.8154		
390	0.0000	490	0.3177	590	1.3045	690	0.7235		
395	0.0286	495	0.3476	595	1.3658	695	0.6433		
400	0.0101	500	0.4294	600	1.4147	700	0.5538		
405	0.0000	505	0.5201	605	1.4698	705	0.4658		
410	0.0268	510	0.5971	610	1.5399	710	0.3878		
415	0.0367	515	0.6508	615	1.5808	715	0.3375		
420	0.0362	520	0.7319	620	1.6150	720	0.2814		
425	0.0559	525	0.7881	625	1.6328	725	0.2348		
430	0.1028	530	0.8431	630	1.6470	730	0.1905		
435	0.1535	535	0.8899	635	1.6481	735	0.1576		
440	0.2289	540	0.9388	640	1.6179	740	0.1351		
445	0.4176	545	0.9812	645	1.5667	745	0.1338		
450	0.6473	550	1.0276	650	1.5006	750	0.1134		
455	0.6644	555	1.0582	655	1.4200	755	0.0825		
460	0.4251	560	1.1246	660	1.3368	760	0.0734		
465	0.3558	565	1.1243	665	1.2333	765	0.0696		
470	0.2767	570	1.1550	670	1.1249	770	0.0542		
475	0.2230	575	1.1797	675	1.0036	775	0.0494		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81927XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

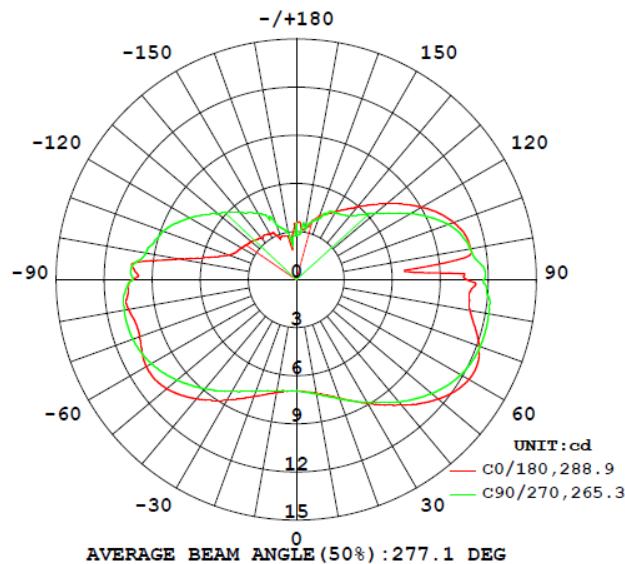
Photometric Measurements at 25°C – Distribution Method

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')
SLCH81927XX								
S2509191 25-001	base-up	2768	91	64	0.4572	0.4145	0.2590	0.5284

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)
SLCH81927XX							
S2509191 25-001	base-up	120.2	118.7	14.1	0.985	113.0	8.0

Intensity (Candlepower) Summary at 25°C - Candelas



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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81927XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	6.9	6.9	6.9	6.9	6.9
5	7.0	7.0	7.0	7.1	7.1
10	7.2	7.2	7.2	7.3	7.3
15	7.5	7.5	7.5	7.5	7.5
20	7.9	7.9	7.9	7.9	7.9
25	8.3	8.4	8.4	8.3	8.3
30	8.9	9.0	8.9	8.8	8.8
35	9.5	9.6	9.5	9.4	9.4
40	10.2	10.3	10.0	9.9	10.0
45	10.9	11.0	10.6	10.5	10.5
50	11.6	11.7	11.1	10.9	11.0
55	12.1	12.3	11.4	11.4	11.5
60	12.5	12.7	11.6	11.7	11.9
65	12.5	13.0	11.7	11.8	12.1
70	12.2	13.2	11.7	11.9	12.2
75	11.6	13.3	11.7	11.8	12.2
80	11.0	13.3	11.4	11.7	12.2
85	10.8	13.1	11.0	11.5	12.0
90	10.7	12.7	10.6	11.3	11.7
95	6.8	12.4	10.4	11.0	11.5
100	11.1	11.6	10.8	10.8	11.0
105	10.9	8.1	10.5	10.5	10.7
110	10.5	6.3	9.2	9.9	10.1
115	9.8	5.7	7.8	8.9	9.2
120	9.1	5.9	6.7	7.8	8.2
125	8.2	6.7	6.0	6.9	7.3
130	7.4	7.1	5.5	6.1	6.4
135	6.6	6.7	5.3	5.4	5.7
140	5.9	6.1	5.3	5.1	5.2
145	5.4	5.5	5.3	4.9	5.0
150	4.9	5.1	5.1	4.8	4.8
155	4.5	4.7	4.7	4.5	4.5
160	4.2	4.2	4.1	4.0	4.1
165	3.8	3.6	3.8	3.3	3.7
170	3.3	3.4	2.9	3.0	3.3
175	3.2	3.6	3.1	3.6	2.9
180	3.5	2.7	3.5	3.5	3.4

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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81927XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH81927XX		
0-30	6.6	5.8
0-40	12.3	10.9
0-60	30.2	26.8
0-90	65.9	58.3
60-90	35.7	31.5
0-180	113.0	100.0

Beam Angle

Total Beam Angle(°)

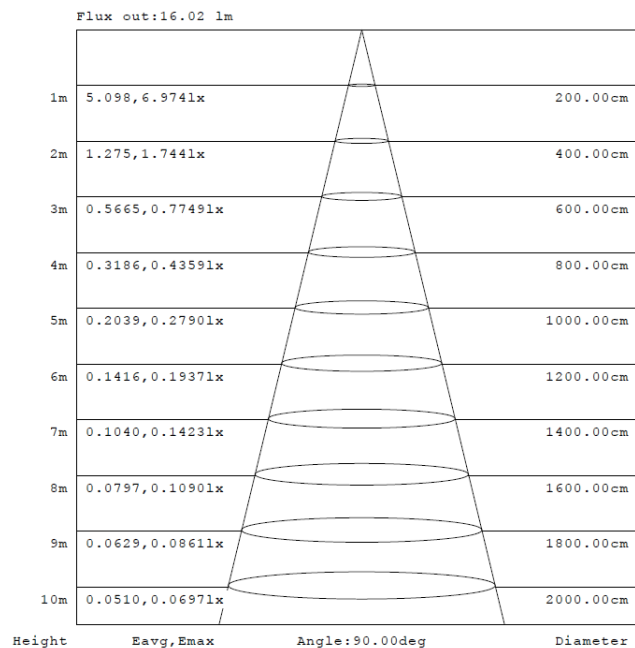
277.1

Illumination Plots

Model No.: SLCH81927XX

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

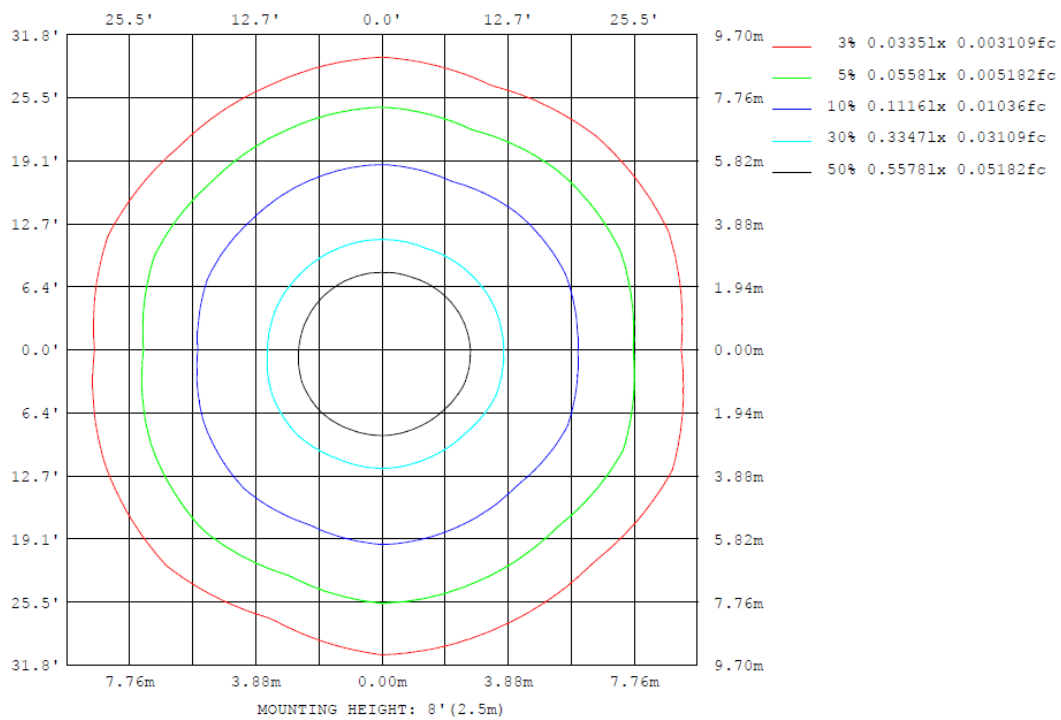
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81927XX

Model No.: SLCH81927XX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81927XX

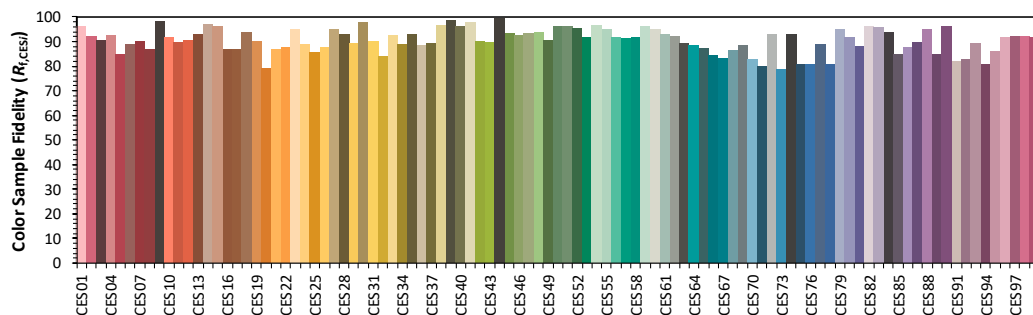
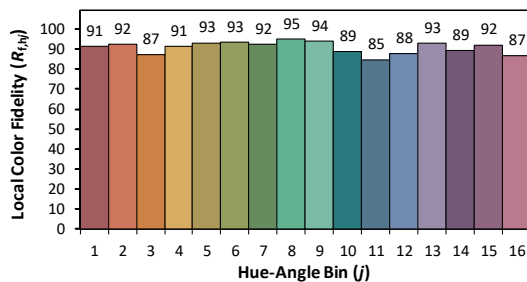
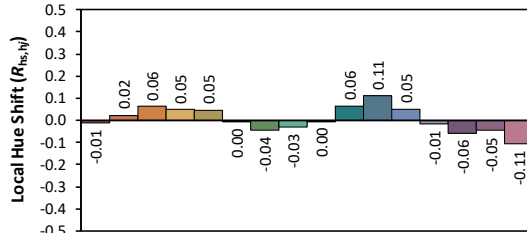
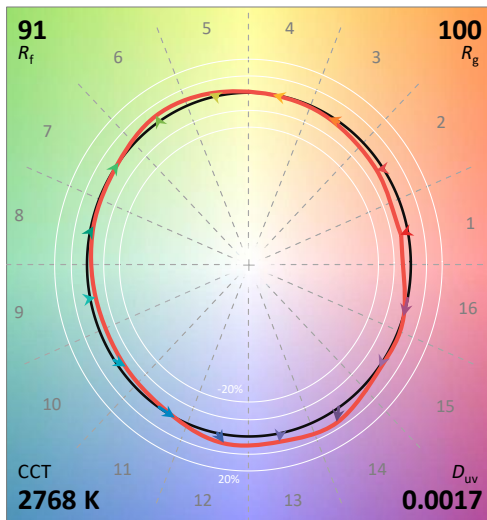
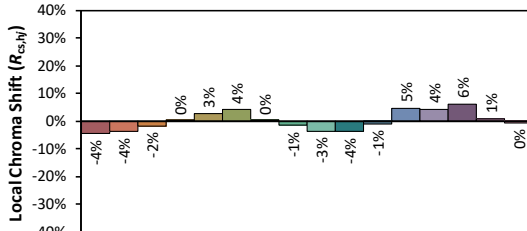
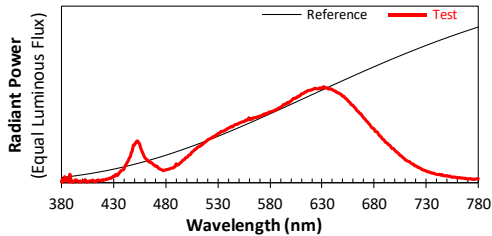
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/10/17

Model: SLCH81927XX



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

x 0.4572
 y 0.4145
 u' 0.2590
 v' 0.5284

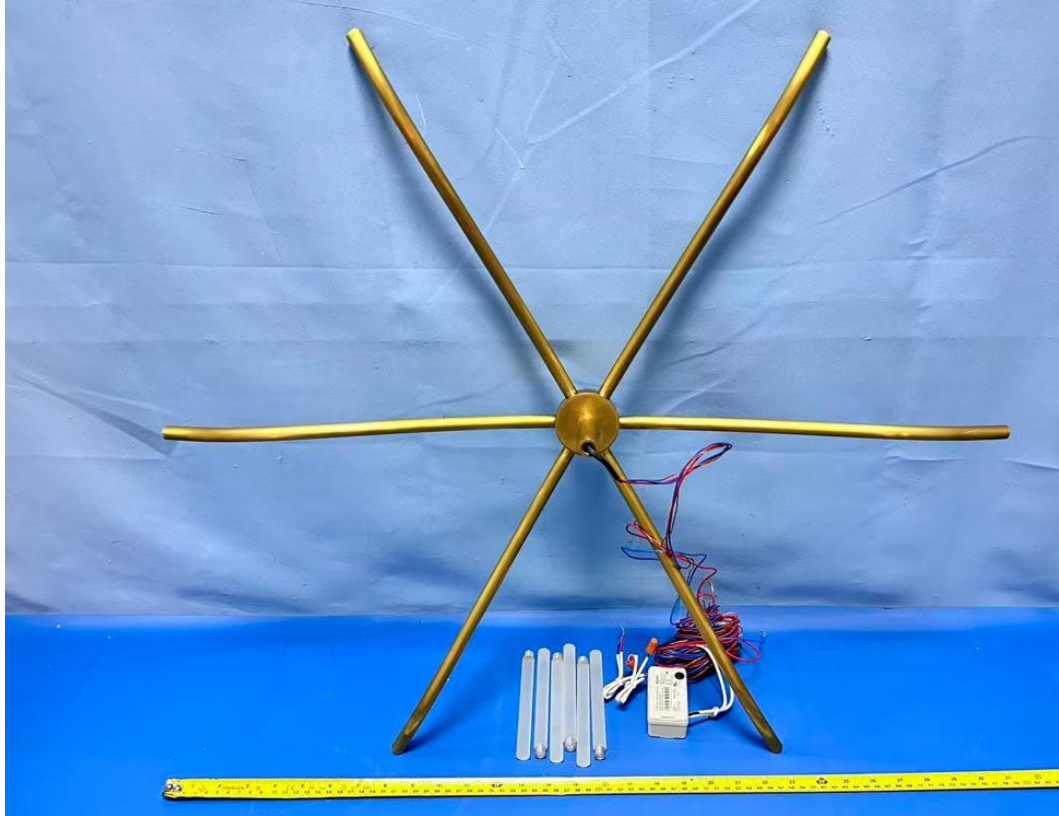
CIE 13.3-1995
(CRI)
 R_a 91
 R_g 64

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLCH81927XX

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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver PTB20W-0400-38-VCC1(AB0258)



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 *****