

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250722187GZU-005

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REVISION DATE

None

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Report format for LM-79_G

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Report No.: 250722187GZU-005

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH63227XXX

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

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

7400 LINDER AVE. SKOKIE, IL, 60077

Email: jrivero@visualcomfort.com

Phone No.: 847-410-4552

<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: QGZ250722038.
<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 SLCH63227XXX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250722187-005.
<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>	12 August 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:	SLCH63227XXX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH63227XXX

Criteria	Result
Total Lumen Output	1930.1 lm
Total Power	35.7 W
Luminaire Efficacy	54.0 lm/W
S/MH(C0/180)	1.46
S/MH(C90/270)	0.01
Correlated Color Temperature (CCT)	2551 K
Color Rendering Index (CRI)	97
R9	98
Chromaticity Coordinate (x)	0.4696
Chromaticity Coordinate (y)	0.4081
Chromaticity Coordinate (u')	0.2699
Chromaticity Coordinate (v')	0.5279

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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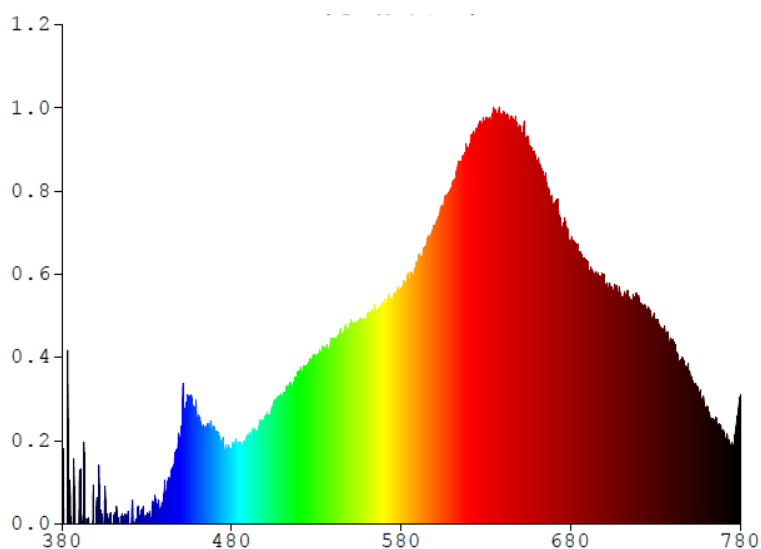
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH63227XXX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	0.0501	580	0.1561	680	0.1883	780	0.0865
385	0.0048	485	0.0531	585	0.1639	685	0.1810		
390	0.0000	490	0.0557	590	0.1738	690	0.1762		
395	0.0000	495	0.0611	595	0.1876	695	0.1696		
400	0.0000	500	0.0711	600	0.1988	700	0.1621		
405	0.0032	505	0.0799	605	0.2109	705	0.1524		
410	0.0000	510	0.0849	610	0.2250	710	0.1517		
415	0.0000	515	0.0928	615	0.2421	715	0.1512		
420	0.0000	520	0.1024	620	0.2518	720	0.1470		
425	0.0034	525	0.1074	625	0.2656	725	0.1384		
430	0.0040	530	0.1112	630	0.2712	730	0.1343		
435	0.0176	535	0.1174	635	0.2779	735	0.1279		
440	0.0178	540	0.1239	640	0.2754	740	0.1228		
445	0.0343	545	0.1263	645	0.2731	745	0.1096		
450	0.0593	550	0.1342	650	0.2629	750	0.0988		
455	0.0840	555	0.1329	655	0.2592	755	0.0918		
460	0.0697	560	0.1412	660	0.2379	760	0.0778		
465	0.0649	565	0.1400	665	0.2326	765	0.0693		
470	0.0617	570	0.1496	670	0.2143	770	0.0621		
475	0.0577	575	0.1497	675	0.2016	775	0.0527		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH63227XXX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

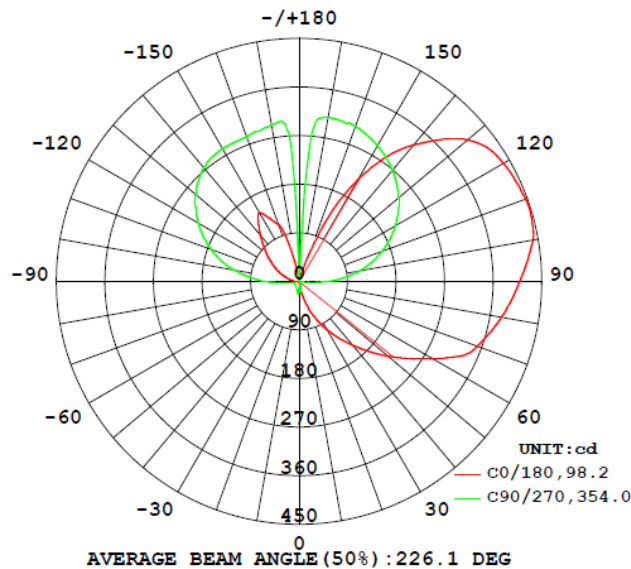
Photometric Measurements at 25°C – Distribution Method

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')
SLCH63227XXX								
S2507221 87-005	base-up	2551	97	98	0.4696	0.4081	0.2699	0.5279

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)
SLCH63227XXX							
S2507221 87-005	base-up	120.1	300.5	35.7	0.990	1930.1	54.0

Intensity (Candlepower) Summary at 25°C - Candelas



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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH63227XXX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	1.9	1.9	8.6	5.6	5.3
5	5.0	26.1	26.5	22.2	18.8
10	13.0	36.9	30.3	21.8	15.3
15	31.1	46.4	35.1	22.0	12.6
20	56.3	57.5	41.3	23.0	10.4
25	79.0	70.6	49.1	24.8	8.8
30	102.6	86.1	58.5	27.3	7.4
35	127.7	104.3	70.1	30.6	6.4
40	154.3	125.2	83.7	34.8	5.5
45	183.7	148.8	99.8	39.7	4.8
50	215.6	175.3	118.7	45.8	4.2
55	249.6	205.1	140.5	53.7	3.7
60	286.4	237.8	165.7	64.0	3.3
65	328.1	272.7	194.6	78.3	3.1
70	351.5	299.7	222.6	97.6	3.0
75	366.5	321.0	246.8	122.3	3.3
80	381.1	340.0	268.8	146.3	5.4
85	395.4	358.2	289.2	169.8	23.7
90	408.9	376.0	308.0	195.3	51.6
95	424.1	393.4	325.9	221.9	83.0
100	440.0	410.3	345.2	247.7	113.9
105	446.7	426.0	370.1	273.9	139.5
110	446.8	440.3	389.3	296.4	163.3
115	442.6	454.2	406.4	311.2	185.3
120	437.5	464.3	415.9	323.0	205.7
125	428.9	469.0	418.6	332.5	224.3
130	407.8	470.6	418.8	339.7	241.0
135	371.8	462.8	416.8	345.1	256.0
140	330.1	452.9	412.9	348.5	269.3
145	281.3	440.6	406.8	350.0	280.8
150	217.1	426.0	398.2	350.1	290.7
155	141.0	408.5	386.7	348.4	299.1
160	53.9	387.9	370.9	344.6	305.8
165	4.6	359.9	355.1	335.4	307.3
170	0.8	247.1	332.0	325.5	308.7
175	0.5	123.2	136.4	270.5	276.9
180	0.2	0.0	0.0	0.0	0.0

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH63227XXX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH63227XXX		
0-30	21.1	1.1
0-40	45.0	2.3
0-60	147.0	7.6
0-90	503.8	26.1
60-90	356.8	18.5
0-180	1930.1	100.0

Beam Angle

Total Beam Angle(°)

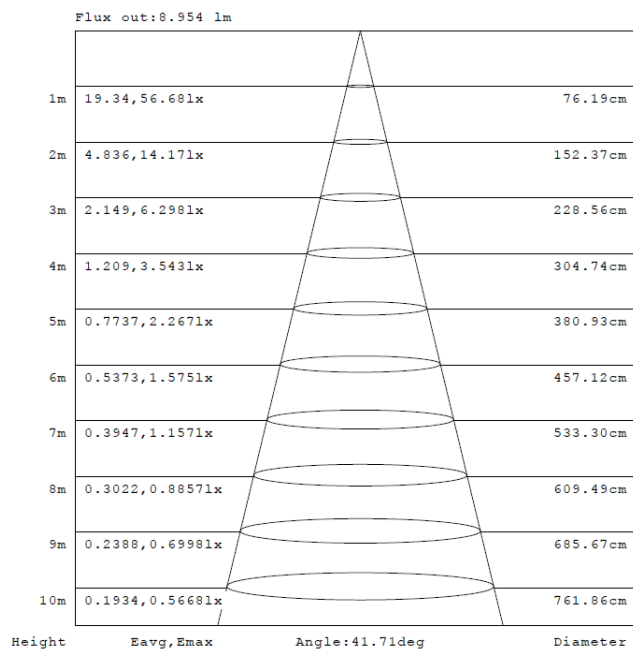
226.1

Illumination Plots

Model No.: SLCH63227XXX

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

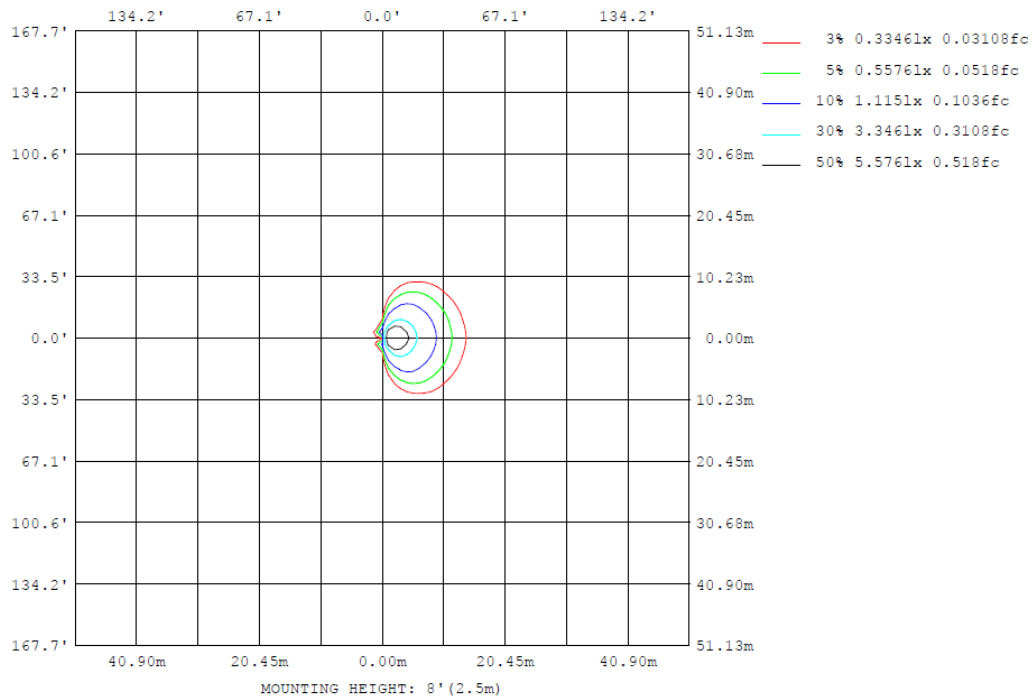
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH63227XXX

Model No.: SLCH63227XXX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH63227XXX

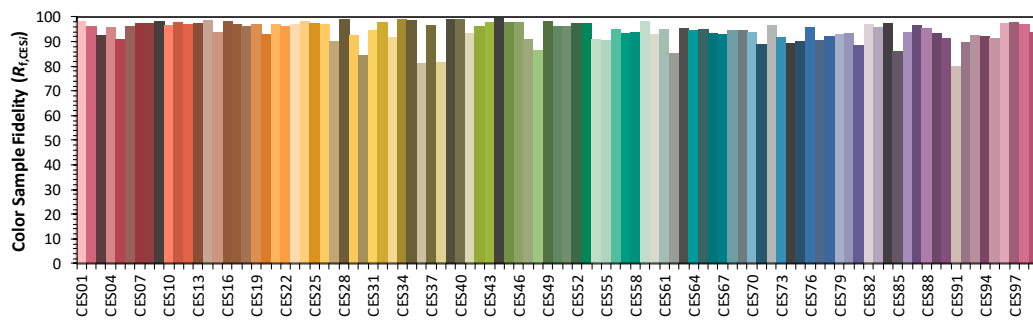
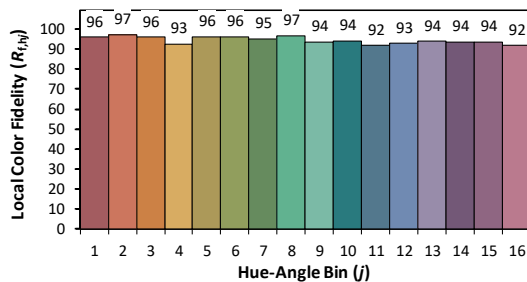
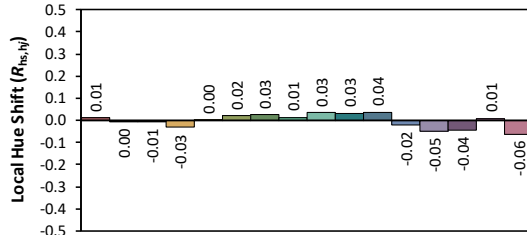
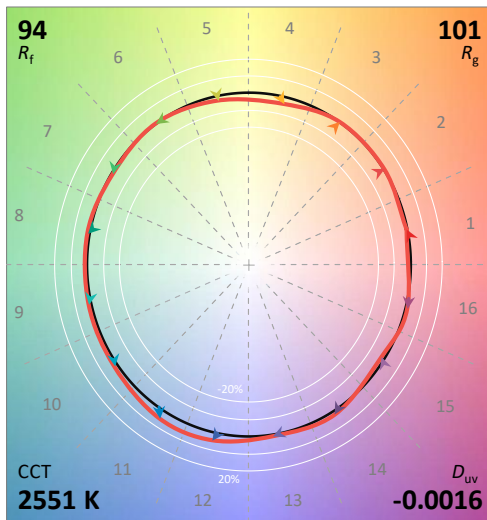
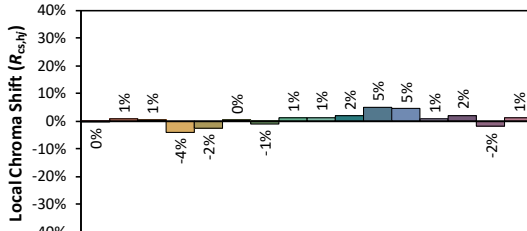
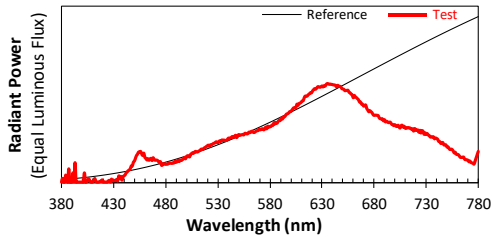
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/8/12

Model: SLCH63227XXX



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

x 0.4696
 y 0.4081
 u' 0.2699
 v' 0.5279

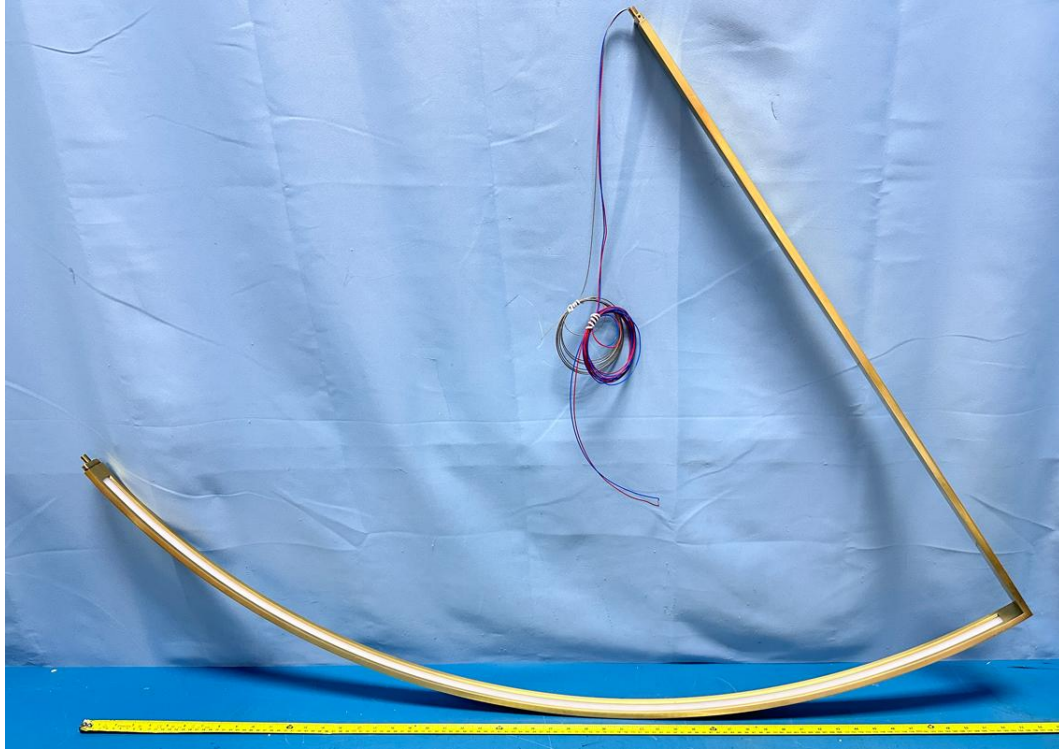
CIE 13.3-1995
(CRI)
 R_a 97
 R_g 98

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)

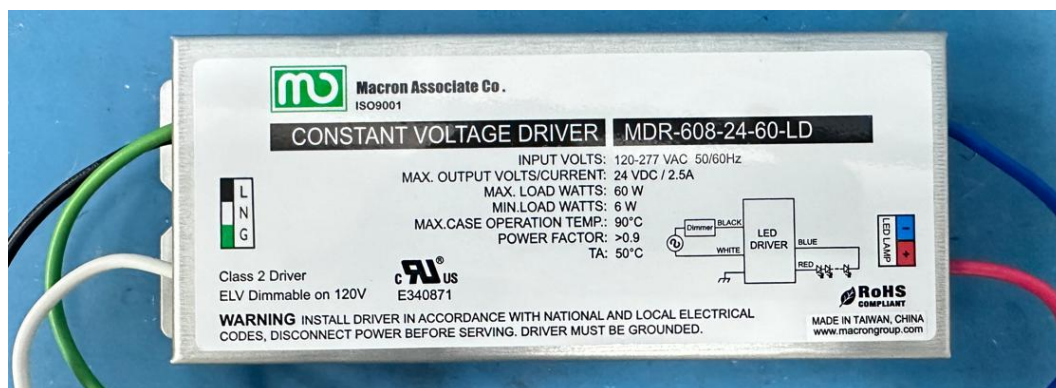


External view of SLCH63227XXX

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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver MDR-608-24-60-LD



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 *****