

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251110010GZU-049

ISSUE DATE

26 January 2026

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 251110010GZU-049

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH81222XXXEG

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

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

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TEST: Electrical and Photometric as required to the IES LM-79 test standard.

AUTHORIZATION: The testing performed was authorized by signed quote number: QGZ251106008.

STANDARDS USED: 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

DESCRIPTION OF SAMPLE: The client submitted one sample of model SLCH81222XXXEG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251110010-034.

MANUFACTURER /FACTORY & ADDRESS: Guangzhou Xiongyi Precision Metalworking Co., Ltd
Hantang Industrial Zone, Langbian Village, Shiji Town, Panyu District, Guangzhou City, Guangdong Province, China 511450

DATES OF TESTS: 05 January 2026

ISSUED BY: Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

TEST LOCATION: 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:	SLCH81222XXXEG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH81222XXXEG

Criteria	Result
Total Lumen Output	3825.6 lm
Total Power	68.1 W
Luminaire Efficacy	56.2 lm/W
S/MH(C0/180)	4.49
S/MH(C90/270)	4.46
Correlated Color Temperature (CCT)	2150 K
Color Rendering Index (CRI)	93
R9	50
Chromaticity Coordinate (x)	0.5114
Chromaticity Coordinate (y)	0.4159
Chromaticity Coordinate (u')	0.2936
Chromaticity Coordinate (v')	0.5372

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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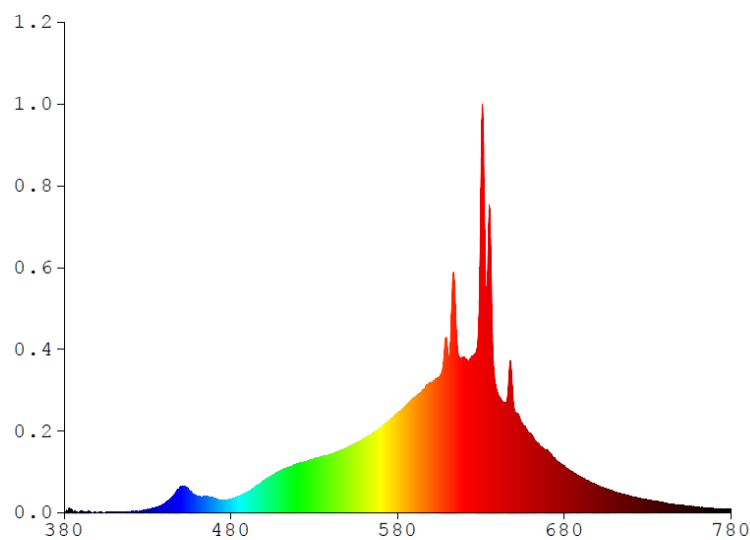
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH81222XXXEG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	0.6999	580	5.0637	680	2.3875	780	0.1875
385	0.1440	485	0.8651	585	5.4523	685	2.0703		
390	0.0799	490	1.0571	590	5.8484	690	1.8316		
395	0.0874	495	1.3643	595	6.2376	695	1.6003		
400	0.0058	500	1.6536	600	6.5975	700	1.4005		
405	0.0111	505	1.9184	605	6.9017	705	1.2366		
410	0.0341	510	2.1665	610	8.2697	710	1.0706		
415	0.0412	515	2.3194	615	9.6698	715	0.9569		
420	0.0531	520	2.5063	620	7.8726	720	0.8480		
425	0.0836	525	2.6177	625	7.9416	725	0.7431		
430	0.1801	530	2.7393	630	17.1350	730	0.6695		
435	0.2700	535	2.8740	635	15.5630	735	0.5885		
440	0.4576	540	2.9729	640	6.0674	740	0.5088		
445	0.8295	545	3.1389	645	5.5808	745	0.4549		
450	1.3293	550	3.3181	650	5.2942	750	0.3965		
455	1.1642	555	3.5299	655	4.4912	755	0.3501		
460	0.8526	560	3.7844	660	3.9958	760	0.2926		
465	0.8459	565	4.0463	665	3.4470	765	0.2640		
470	0.7579	570	4.3000	670	3.1878	770	0.2249		
475	0.6445	575	4.6806	675	2.6063	775	0.1982		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81222XXXEG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

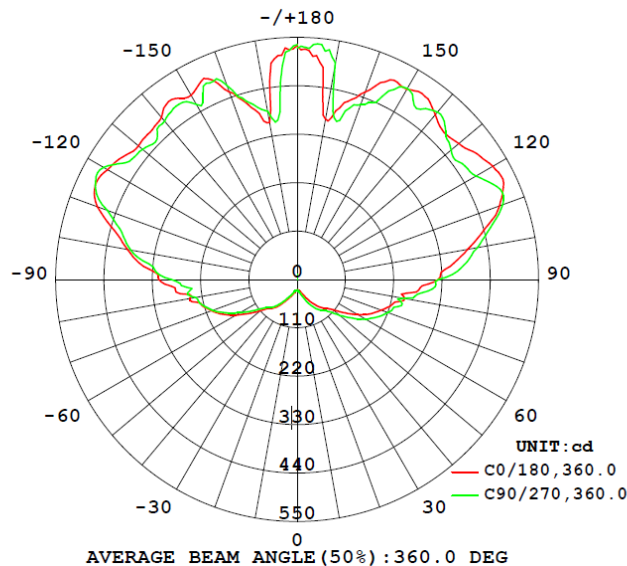
Photometric Measurements at 25°C – Distribution Method

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')
SLCH81222XXXEG								
S2511100 10-034	base-up	2150	93	50	0.5114	0.4159	0.2936	0.5372

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)
SLCH81222XXXEG							
S2511100 10-034	base-up	120.0	570.5	68.1	0.99	3825.6	56.2

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81222XXXEG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	23.7	23.7	23.8	23.8	24.0
5	23.9	24.2	25.3	25.7	26.1
10	25.5	26.2	28.1	29.0	29.6
15	29.2	30.4	33.9	35.3	36.1
20	35.8	38.1	43.1	44.5	45.1
25	44.4	48.2	55.6	57.5	58.7
30	56.4	62.1	69.9	70.4	71.4
35	69.9	75.6	82.3	82.9	83.1
40	82.8	87.8	91.8	92.3	91.7
45	92.5	96.4	102.7	104.4	103.7
50	107.4	116.3	126.4	127.7	127.2
55	132.8	142.4	154.3	154.8	153.2
60	159.9	170.0	180.7	180.5	180.4
65	184.6	193.7	200.4	202.2	201.8
70	203.8	215.0	218.6	219.7	220.1
75	223.7	231.5	238.6	237.8	237.9
80	248.7	251.0	245.0	245.6	247.6
85	278.4	273.7	295.2	297.9	299.6
90	320.9	321.0	323.2	320.8	321.8
95	349.7	365.1	375.8	380.3	381.3
100	394.1	411.1	422.8	417.2	415.9
105	441.2	447.1	469.2	456.6	454.7
110	490.8	477.7	503.4	495.9	497.9
115	519.3	506.4	495.4	501.4	501.5
120	514.8	495.2	479.0	470.4	470.4
125	499.2	481.7	473.8	465.8	459.0
130	480.4	473.9	474.2	464.7	457.9
135	473.0	485.8	487.8	482.4	478.2
140	489.3	480.5	495.1	499.0	496.8
145	508.2	482.5	501.8	485.4	474.8
150	499.6	490.7	481.8	487.4	501.6
155	500.5	500.1	458.8	448.5	459.7
160	453.7	442.0	430.2	418.7	422.7
165	415.9	391.0	361.9	369.1	374.4
170	371.0	383.9	494.9	498.9	500.6
175	510.4	518.4	527.5	531.0	537.3
180	529.2	519.4	531.8	550.7	526.2

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81222XXXEG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH81222XXXEG		
0-30	35.1	0.9
0-40	81.5	2.1
0-60	282.0	7.4
0-90	1011.0	26.4
60-90	729.0	19.0
0-180	3825.6	100.0

Beam Angle

Total Beam Angle(°)

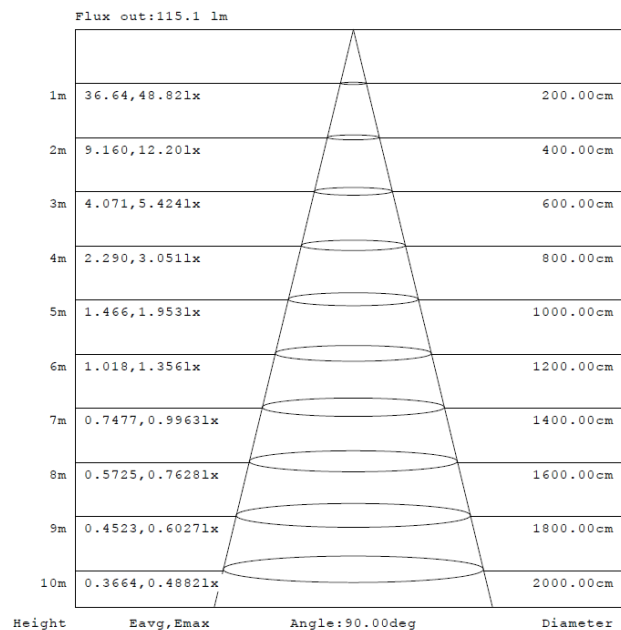
360.0

Illumination Plots

Model No.: SLCH81222XXXEG

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

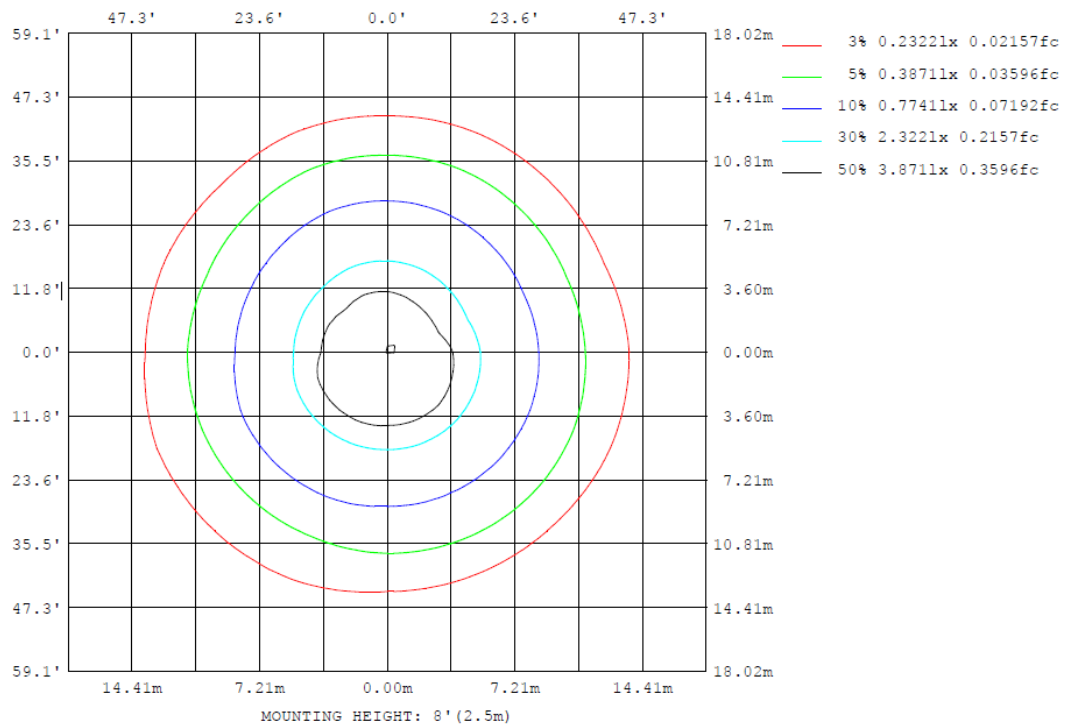
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81222XXXEG

Model No.: SLCH81222XXXEG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81222XXXEG

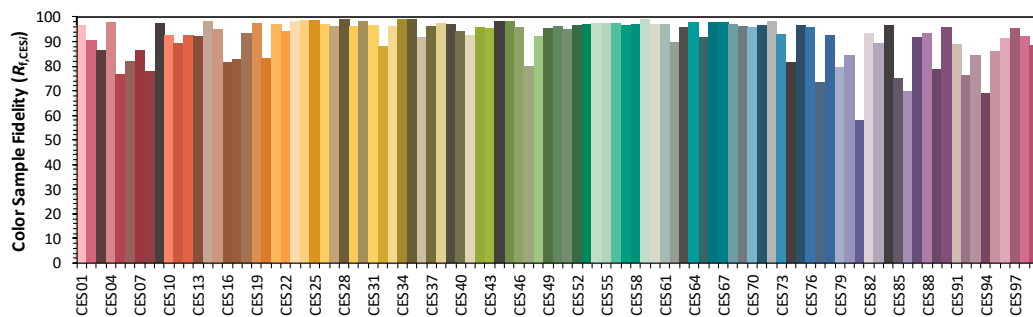
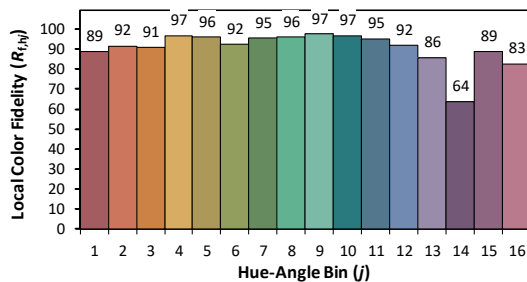
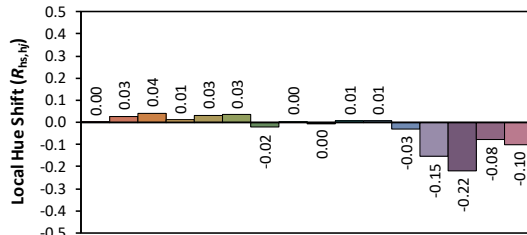
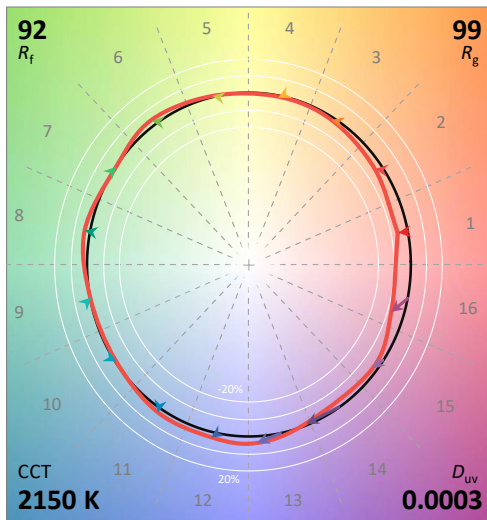
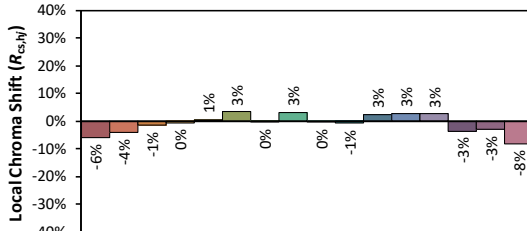
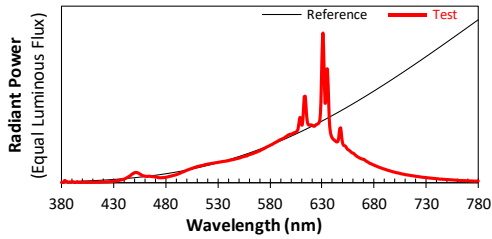
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2026/1/5

Model: SLCH81222XXXEG



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

x 0.5114
 y 0.4159
 u' 0.2936
 v' 0.5372

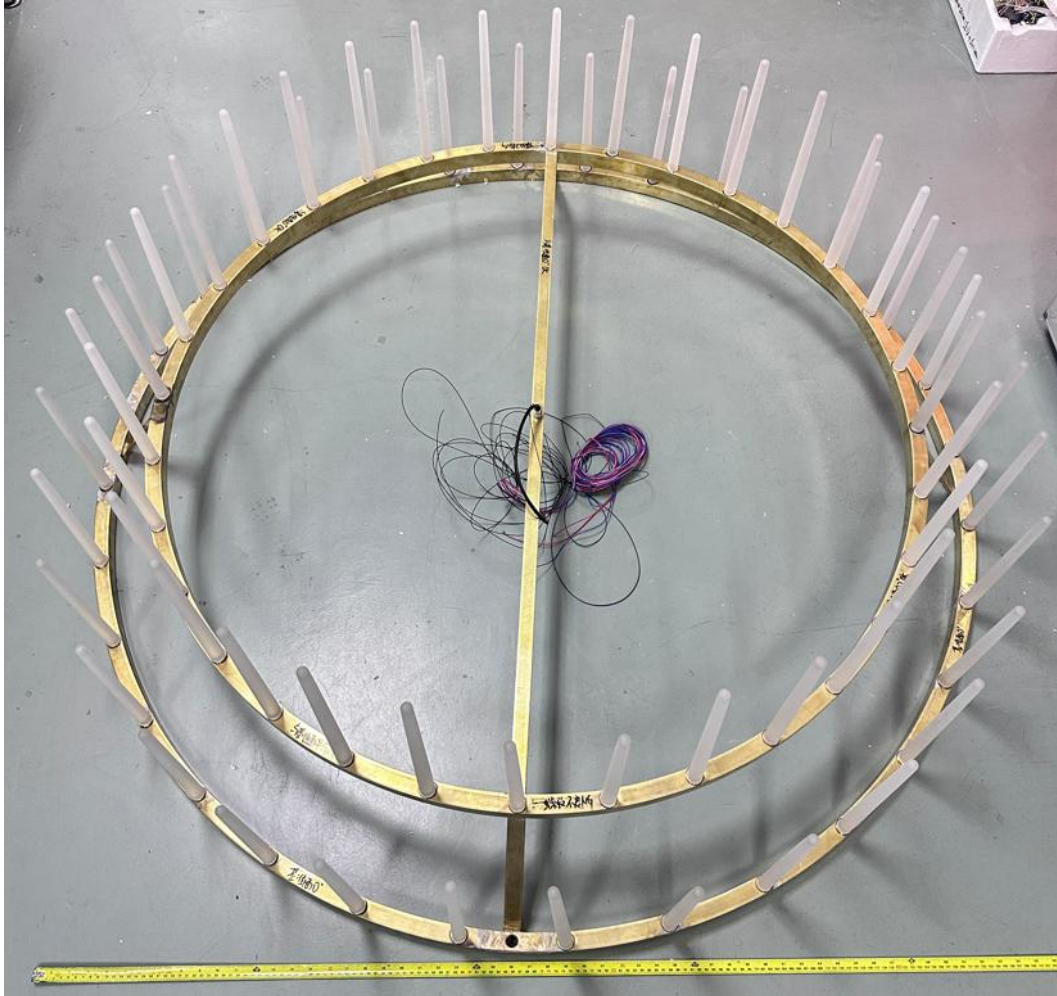
CIE 13.3-1995
(CRI)
 R_a 93
 R_g 50

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 SLCH81222XXXEG

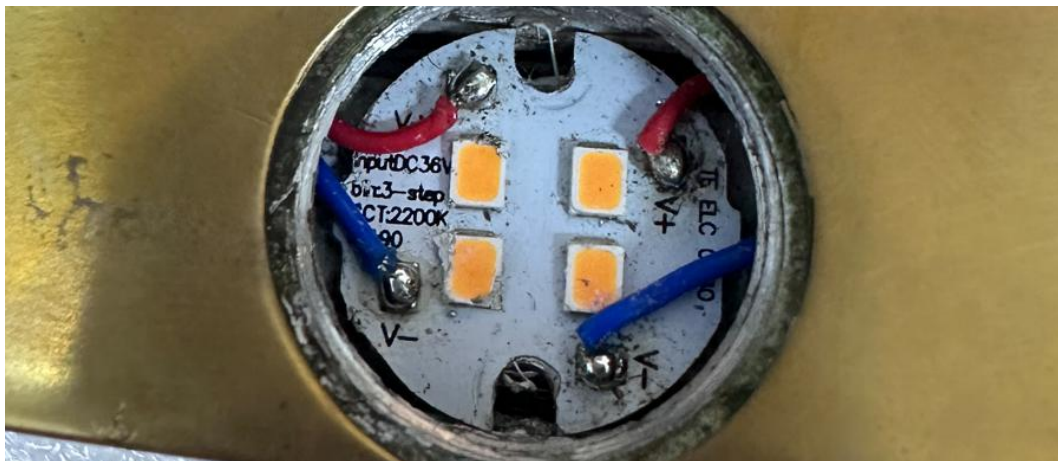
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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver PVD36-C090V40-UNV3-HE-P



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 *****