

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251110010GZU-045

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None

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Report No.: 251110010GZU-045

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH81122XXXEG

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

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 SLCH81122XXXEG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251110010-033.

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: 31 December 2025

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:	SLCH81122XXXEG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH81122XXXEG

Criteria	Result
Total Lumen Output	4092.0 lm
Total Power	71.0 W
Luminaire Efficacy	57.6 lm/W
S/MH(C0/180)	3.78
S/MH(C90/270)	3.75
Correlated Color Temperature (CCT)	2126 K
Color Rendering Index (CRI)	92
R9	48
Chromaticity Coordinate (x)	0.5131
Chromaticity Coordinate (y)	0.4147
Chromaticity Coordinate (u')	0.2953
Chromaticity Coordinate (v')	0.5370

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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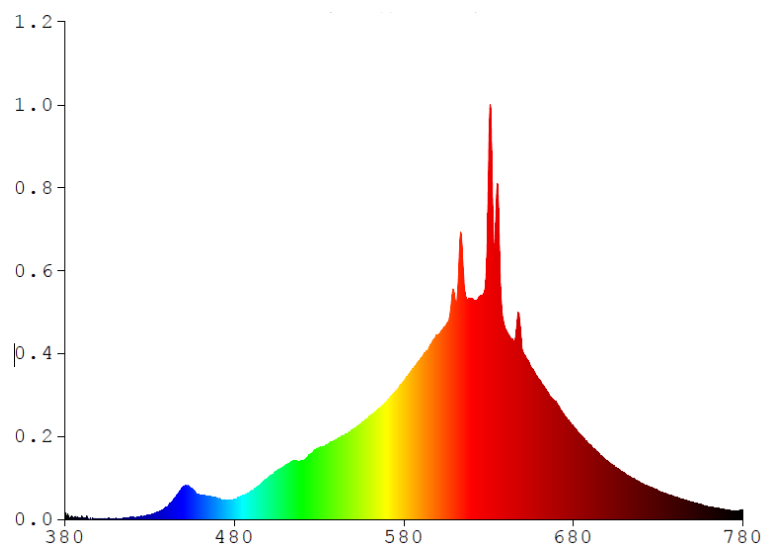
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH81122XXXEG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.1401	480	0.8815	580	6.0363	680	4.0847	780	0.4391
385	0.0415	485	1.0449	585	6.5418	685	3.6229		
390	0.1572	490	1.2568	590	7.0192	690	3.2486		
395	0.0686	495	1.5075	595	7.5023	695	2.8724		
400	0.0386	500	1.8290	600	8.0415	700	2.5541		
405	0.0102	505	2.1150	605	8.4667	705	2.2731		
410	0.0600	510	2.3588	610	9.6795	710	2.0258		
415	0.0481	515	2.5690	615	10.9150	715	1.8034		
420	0.0815	520	2.5638	620	9.6104	720	1.5975		
425	0.1492	525	2.8515	625	9.7330	725	1.4194		
430	0.2100	530	3.1040	630	15.5970	730	1.2628		
435	0.3397	535	3.2720	635	14.5840	735	1.1219		
440	0.5489	540	3.4831	640	8.2813	740	0.9795		
445	0.9555	545	3.6695	645	7.7387	745	0.8772		
450	1.4484	550	3.9230	650	7.3690	750	0.7576		
455	1.3357	555	4.1736	655	6.6581	755	0.6565		
460	1.0427	560	4.4853	660	6.1005	760	0.5696		
465	1.0147	565	4.8404	665	5.5338	765	0.4948		
470	0.9274	570	5.1485	670	5.0870	770	0.4252		
475	0.8332	575	5.5731	675	4.4226	775	0.3752		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81122XXXEG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

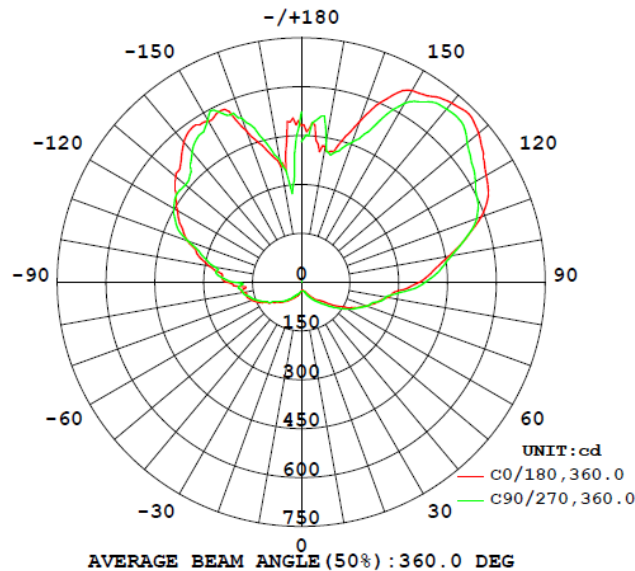
Photometric Measurements at 25°C – Distribution Method

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')
SLCH81122XXXEG								
S2511100 10-033	base-up	2126	92	48	0.5131	0.4147	0.2953	0.5370

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)
SLCH81122XXXEG							
S2511100 10-033	base-up	120.1	595.1	71.0	0.99	4092.0	57.6

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81122XXXEG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	27.8	27.2	26.6	26.3	26.8
5	26.1	25.1	24.7	25.2	26.7
10	26.0	24.8	24.0	24.7	27.5
15	27.3	25.8	24.8	25.7	29.6
20	30.7	29.6	28.7	30.0	34.8
25	36.9	37.7	37.7	38.4	43.8
30	46.5	49.4	49.9	49.5	55.0
35	58.1	62.7	64.4	63.1	66.8
40	70.2	76.0	80.0	78.3	78.7
45	79.2	85.7	94.1	95.9	94.5
50	97.8	109.6	114.5	117.0	116.4
55	125.6	141.4	145.5	141.5	139.7
60	153.8	170.5	174.0	178.7	166.2
65	184.6	202.2	208.5	214.0	189.1
70	213.4	231.5	238.8	243.6	214.6
75	240.7	259.7	269.9	277.6	236.4
80	271.1	294.0	307.3	307.1	264.1
85	301.7	333.4	355.0	359.4	320.4
90	363.5	393.7	416.4	414.4	381.2
95	407.2	442.7	464.0	480.6	427.8
100	460.3	497.6	527.1	537.9	468.4
105	523.6	556.9	585.4	598.0	523.3
110	589.5	597.8	641.1	649.7	573.6
115	634.6	641.9	674.8	679.7	597.6
120	656.4	677.8	700.8	689.5	617.5
125	684.6	708.1	728.5	697.5	639.0
130	711.5	727.7	753.8	711.8	664.5
135	730.0	734.4	739.1	704.7	695.8
140	718.6	731.1	737.6	693.0	694.5
145	697.1	725.4	704.0	687.1	676.4
150	679.7	691.1	650.9	638.2	633.7
155	621.8	618.7	574.8	543.5	527.5
160	524.6	500.6	464.9	437.2	458.1
165	432.7	433.7	403.5	407.0	415.7
170	423.1	403.0	420.9	431.4	440.5
175	483.4	481.4	508.6	514.5	497.3
180	481.6	505.5	491.5	509.6	432.5

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81122XXXEG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH81122XXXEG		
0-30	34.3	0.8
0-40	75.9	1.9
0-60	255.4	6.2
0-90	928.1	22.7
60-90	672.7	16.5
0-180	4092.0	100.0

Beam Angle

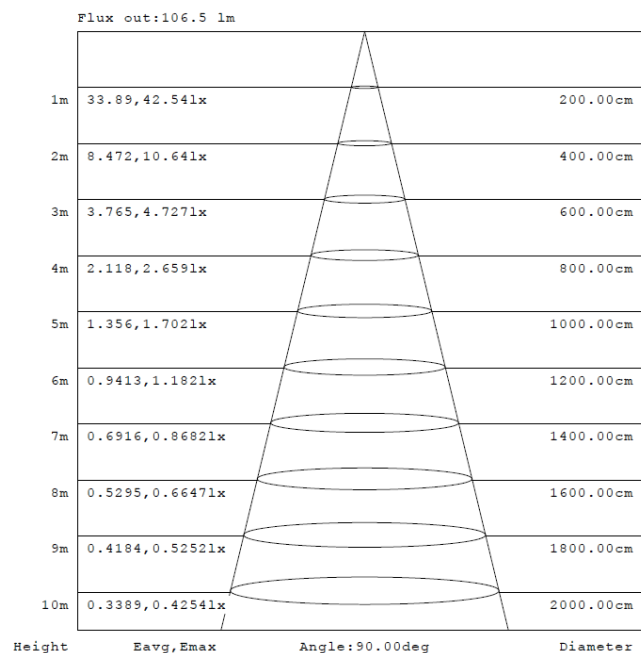
Total Beam Angle(°)
360.0

Illumination Plots

Model No.: SLCH81122XXXEG

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

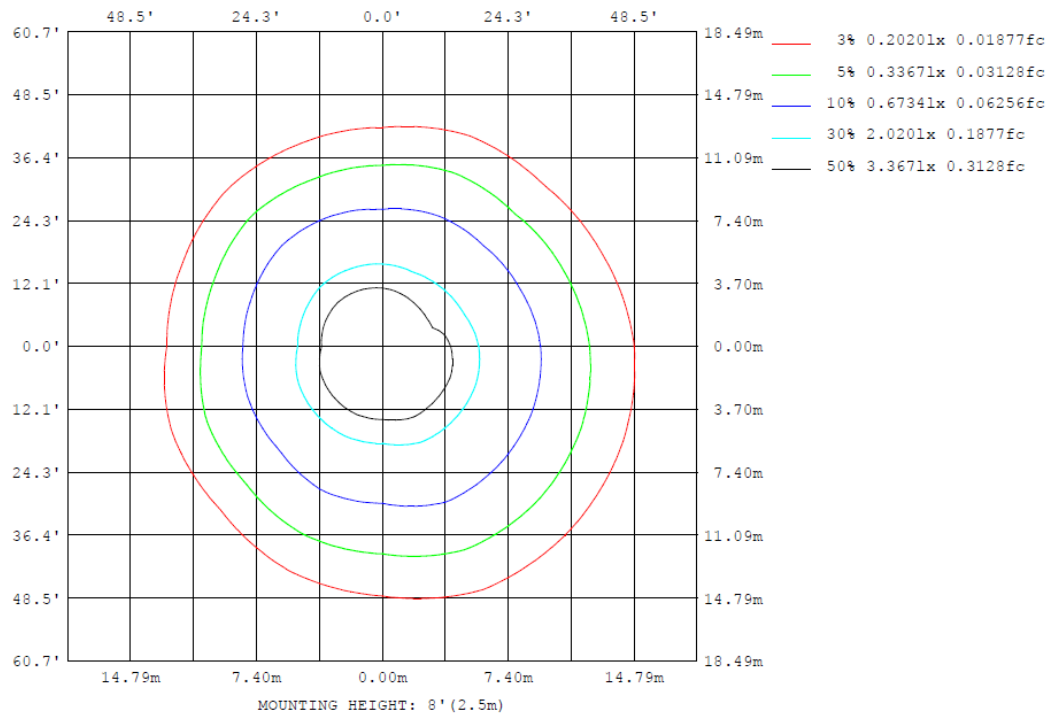
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81122XXXEG

Model No.: SLCH81122XXXEG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81122XXXEG

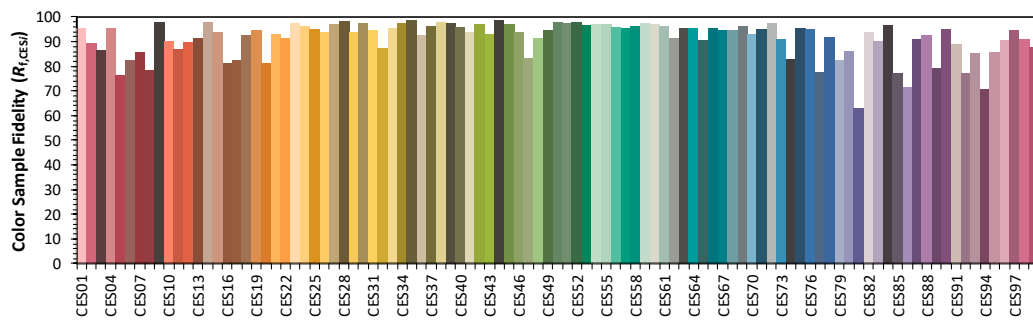
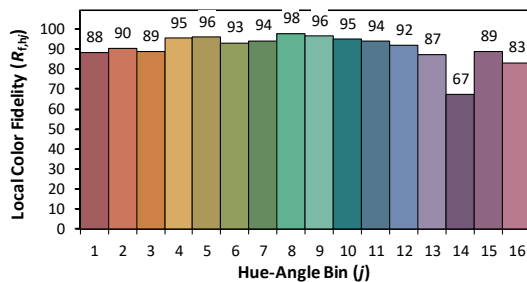
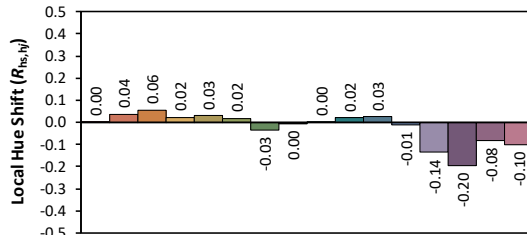
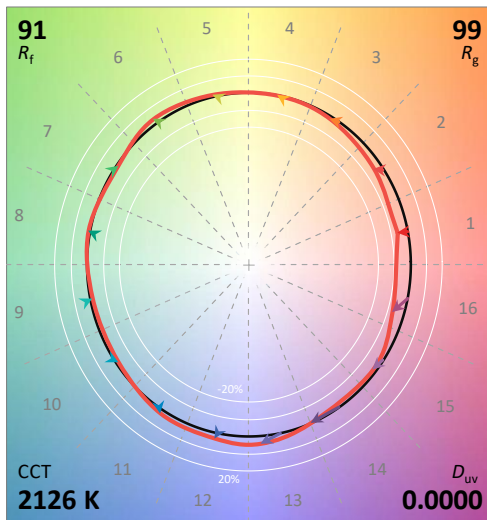
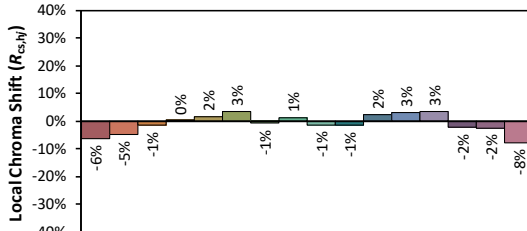
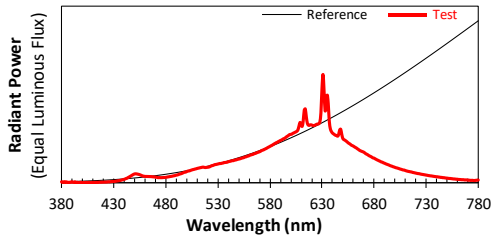
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/12/31

Model: SLCH81122XXXEG



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

x 0.5131
 y 0.4147
 u' 0.2953
 v' 0.5370

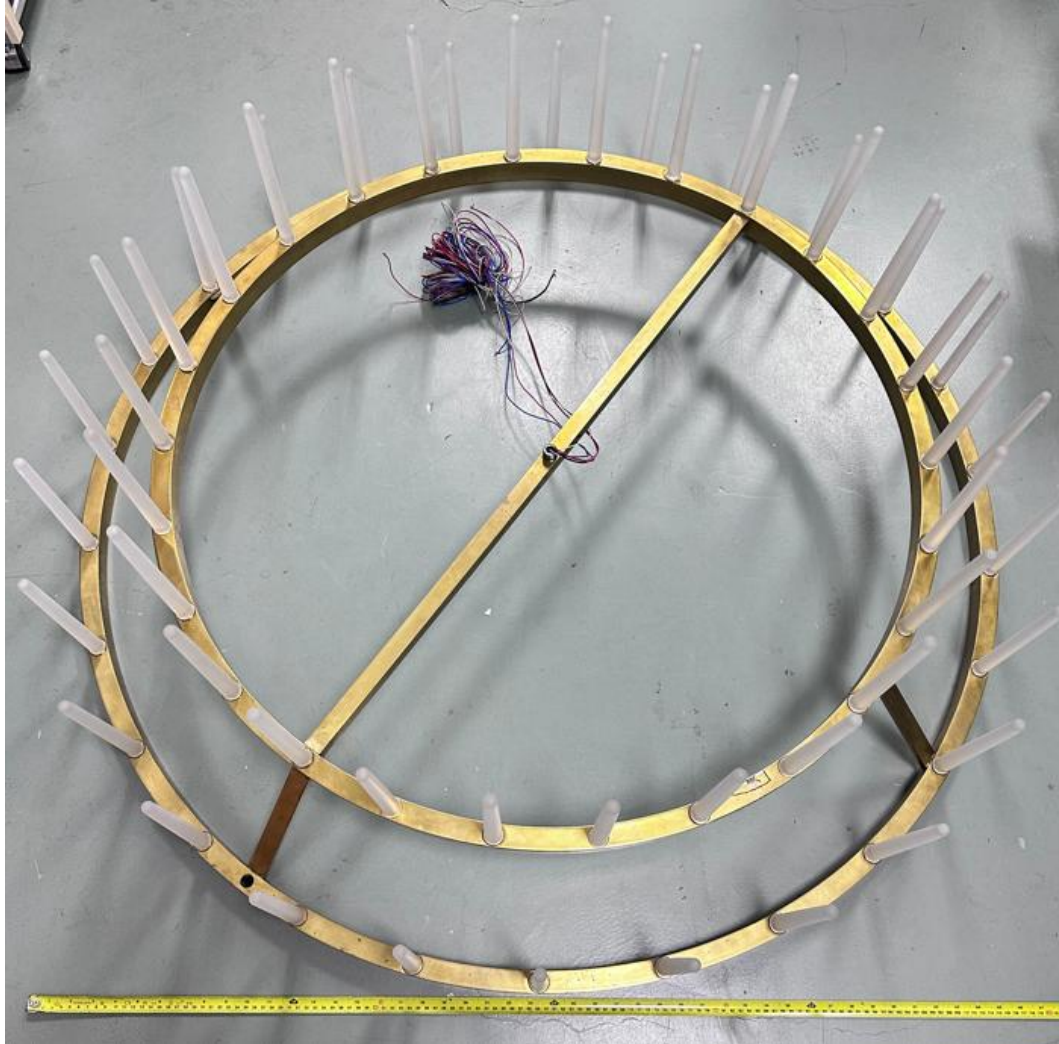
CIE 13.3-1995
(CRI)
 R_a 92
 R_g 48

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 SLCH81122XXXEG

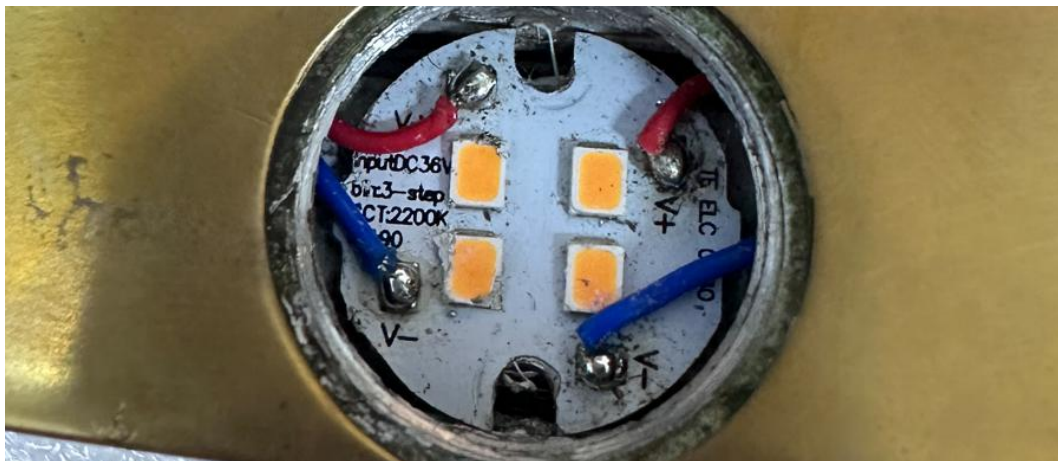
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TEST REPORT

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 *****