

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251110010GZU-044

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None

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Report No.: 251110010GZU-044

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH81022XXXEG

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 SLCH81022XXXEG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251110010-039.

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:	SLCH81022XXXEG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH81022XXXEG

Criteria	Result
Total Lumen Output	4676.0 lm
Total Power	69.4 W
Luminaire Efficacy	67.4 lm/W
S/MH(C0/180)	5.00
S/MH(C90/270)	4.49
Correlated Color Temperature (CCT)	2179 K
Color Rendering Index (CRI)	93
R9	50
Chromaticity Coordinate (x)	0.5070
Chromaticity Coordinate (y)	0.4142
Chromaticity Coordinate (u')	0.2916
Chromaticity Coordinate (v')	0.5359

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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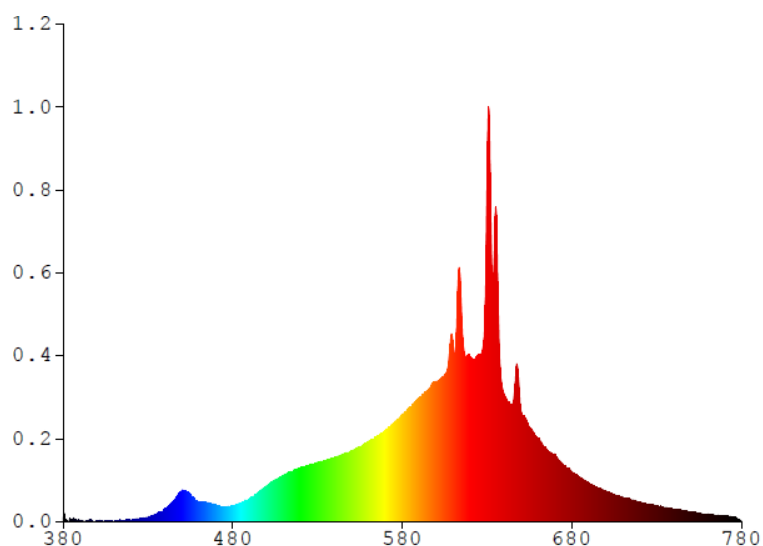
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH81022XXXEG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0313	480	0.5772	580	3.9464	680	1.8364	780	0.0115
385	0.0000	485	0.6975	585	4.2376	685	1.6176		
390	0.0000	490	0.8459	590	4.5444	690	1.4267		
395	0.0511	495	1.0718	595	4.8265	695	1.2655		
400	0.0256	500	1.3141	600	5.1522	700	1.1237		
405	0.0450	505	1.5270	605	5.3857	705	0.9842		
410	0.0170	510	1.7147	610	6.4623	710	0.8906		
415	0.0511	515	1.8454	615	7.5616	715	0.8025		
420	0.0322	520	1.9769	620	6.0956	720	0.7146		
425	0.0970	525	2.0751	625	6.1428	725	0.6398		
430	0.1645	530	2.1735	630	12.6040	730	0.6000		
435	0.2643	535	2.2677	635	11.5450	735	0.5136		
440	0.4535	540	2.3596	640	4.7034	740	0.4613		
445	0.7605	545	2.4784	645	4.3298	745	0.4152		
450	1.1369	550	2.6040	650	4.0878	750	0.3600		
455	0.9929	555	2.7616	655	3.4762	755	0.3152		
460	0.7163	560	2.9362	660	3.0702	760	0.2846		
465	0.6721	565	3.1291	665	2.6529	765	0.2393		
470	0.6245	570	3.3597	670	2.4643	770	0.2067		
475	0.5308	575	3.6322	675	2.0531	775	0.1770		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81022XXXEG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

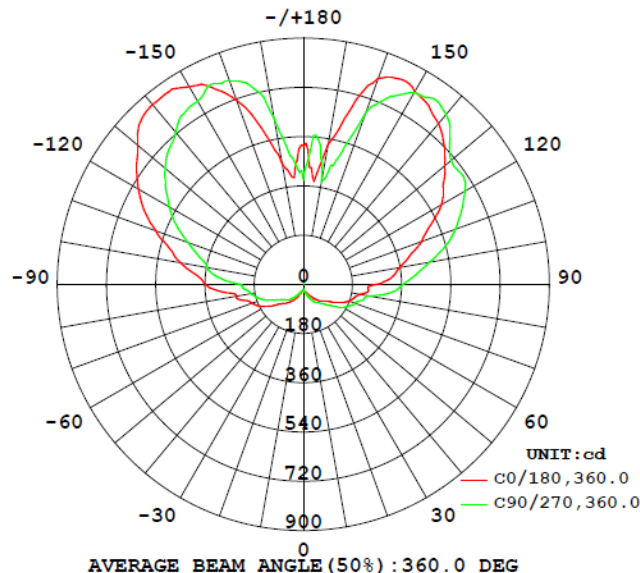
Photometric Measurements at 25°C – Distribution Method

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')
SLCH81022XXXEG								
S2511100 10-039	base-up	2179	93	50	0.5070	0.4142	0.2916	0.5359

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)
SLCH81022XXXEG							
S2511100 10-039	base-up	120.1	581.0	69.4	0.99	4676.0	67.4

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81022XXXEG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	17.6	17.4	17.8	18.4	18.8
5	17.8	18.5	20.2	21.4	22.3
10	20.2	21.9	24.5	26.4	27.3
15	24.5	27.3	31.3	33.5	34.7
20	30.5	35.1	40.6	42.9	44.7
25	39.0	45.0	51.7	54.2	56.9
30	49.4	56.2	63.1	66.3	69.5
35	60.9	68.1	74.5	78.0	81.2
40	73.1	79.5	84.9	87.1	88.4
45	84.5	88.3	94.1	99.0	99.8
50	94.9	101.7	111.0	118.8	118.3
55	109.7	120.8	135.1	143.9	140.9
60	132.3	144.8	159.9	169.6	166.8
65	157.3	172.2	182.6	189.1	185.8
70	178.3	191.8	194.0	202.3	202.4
75	192.4	201.6	207.5	218.5	224.4
80	210.5	225.7	231.5	231.3	246.2
85	239.0	234.7	268.5	297.8	325.5
90	266.0	306.2	330.7	346.1	365.0
95	326.7	343.8	358.1	388.3	411.9
100	356.8	384.7	410.6	442.2	468.2
105	401.1	441.2	468.5	516.3	536.1
110	460.0	486.0	533.2	573.7	591.5
115	513.2	521.9	582.9	616.3	638.3
120	583.4	591.2	619.5	659.5	682.4
125	621.9	649.3	659.0	687.9	705.7
130	677.9	705.8	724.2	705.5	705.1
135	727.2	751.4	783.0	761.2	758.7
140	768.5	817.8	820.1	828.1	812.1
145	798.7	847.2	828.4	844.1	829.7
150	814.4	841.1	806.2	843.8	808.7
155	829.7	836.0	811.2	800.4	759.3
160	802.2	787.0	707.9	676.3	668.3
165	657.8	612.0	530.9	464.9	471.9
170	520.3	441.3	365.0	373.8	381.9
175	395.4	462.8	516.2	530.7	546.0
180	504.6	501.5	431.1	371.5	394.2

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81022XXXEG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH81022XXXEG		
0-30	32.4	0.7
0-40	76.4	1.6
0-60	262.3	5.6
0-90	949.3	20.3
60-90	687.0	14.7
0-180	4746.0	100.0

Beam Angle

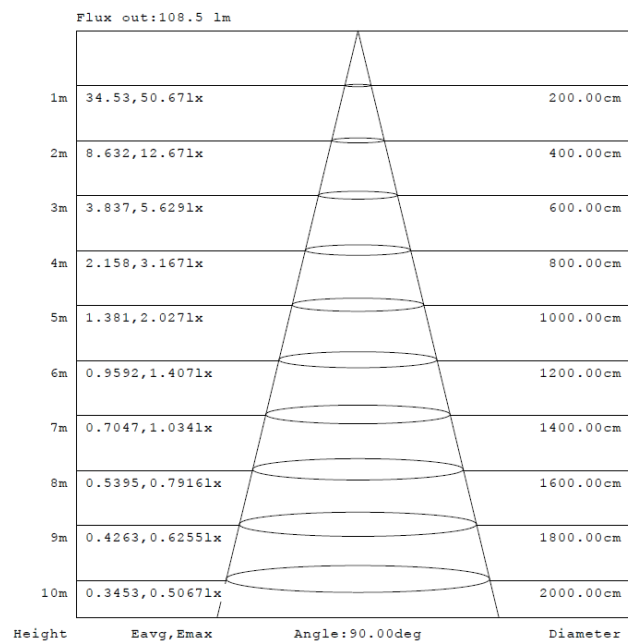
Total Beam Angle(°)
360.0

Illumination Plots

Model No.: SLCH81022XXXEG

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

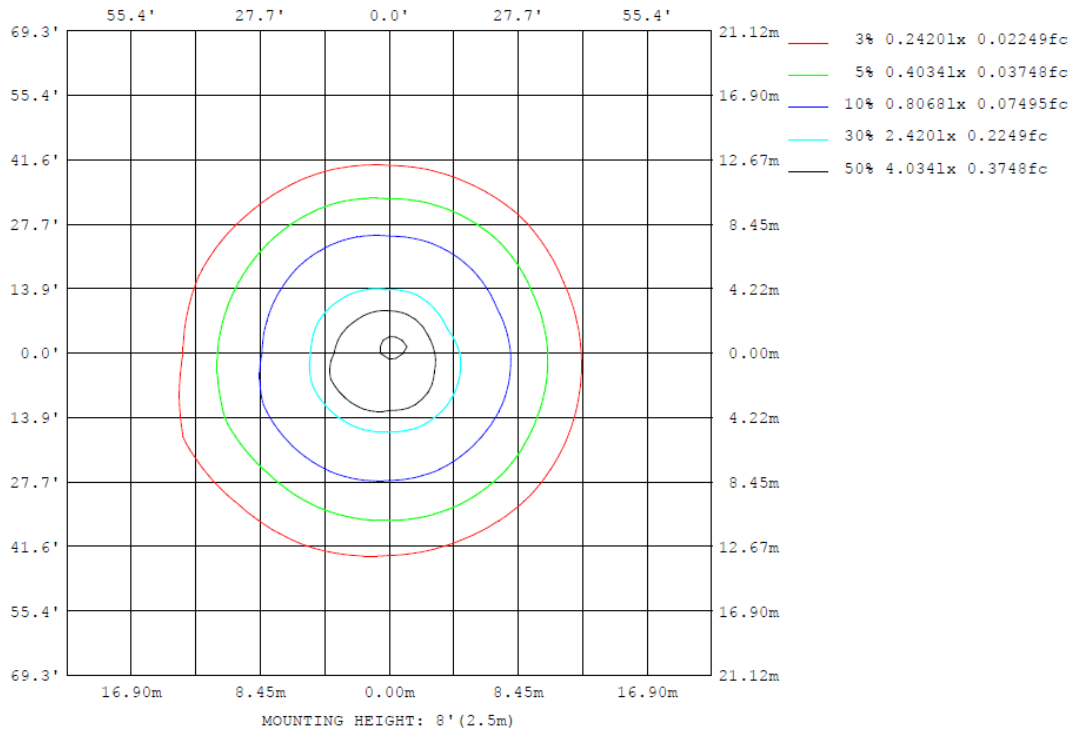
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81022XXXEG

Model No.: SLCH81022XXXEG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH81022XXXEG

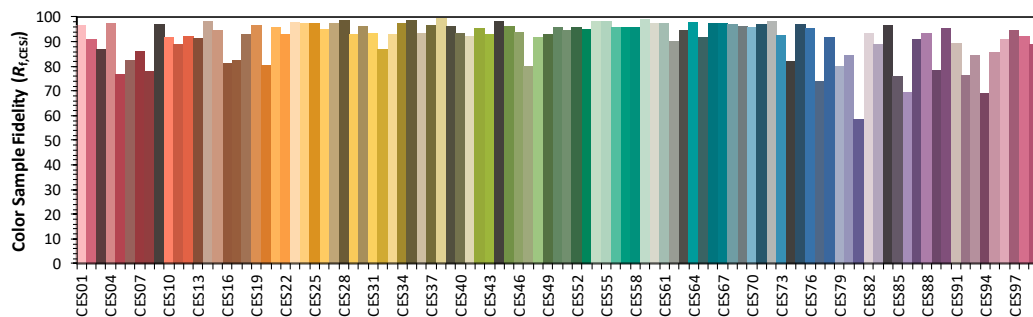
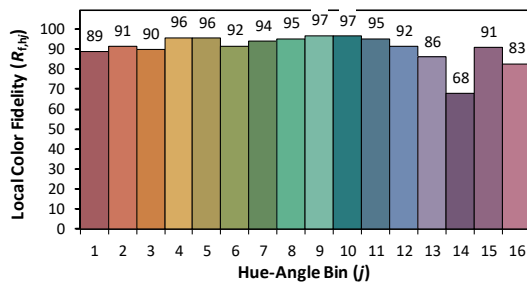
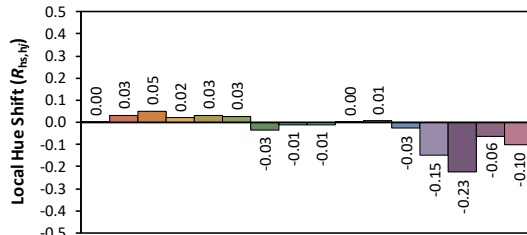
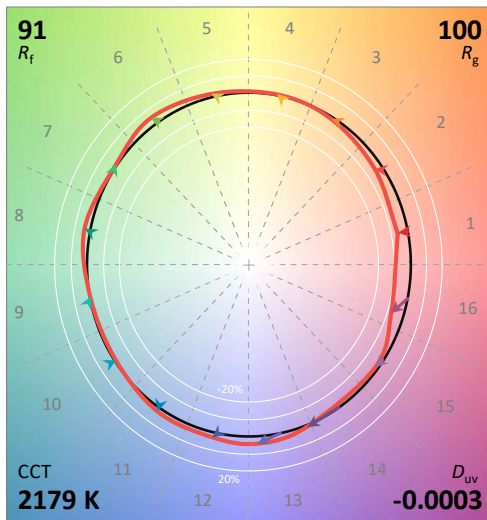
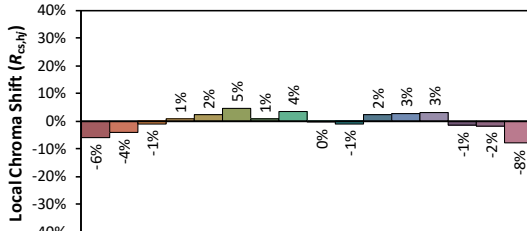
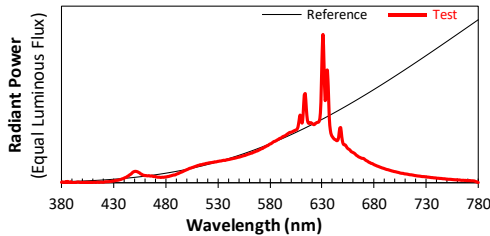
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/12/31

Model: SLCH81022XXXEG



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

x 0.5070
 y 0.4142
 u' 0.2916
 v' 0.5359

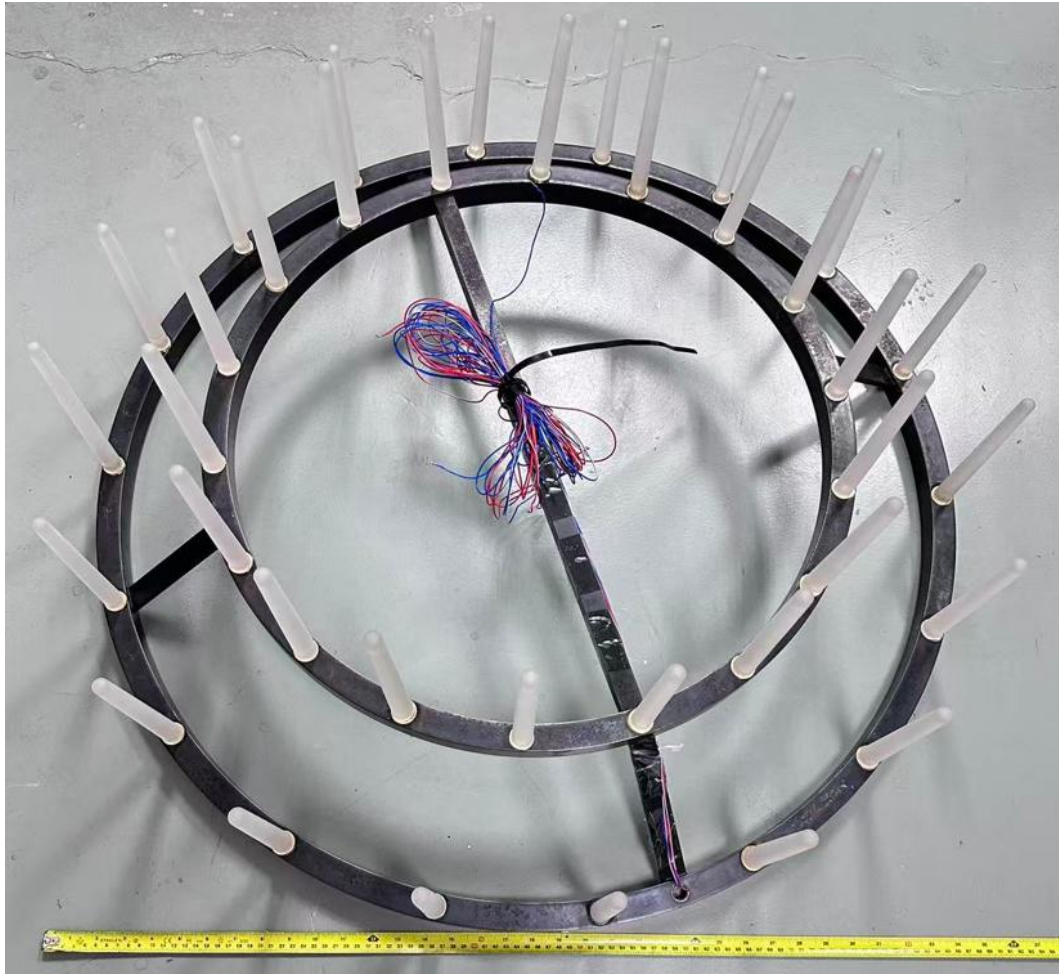
CIE 13.3-1995
(CRI)
 R_a 93
 R_g 50

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 SLCH81022XXXEG

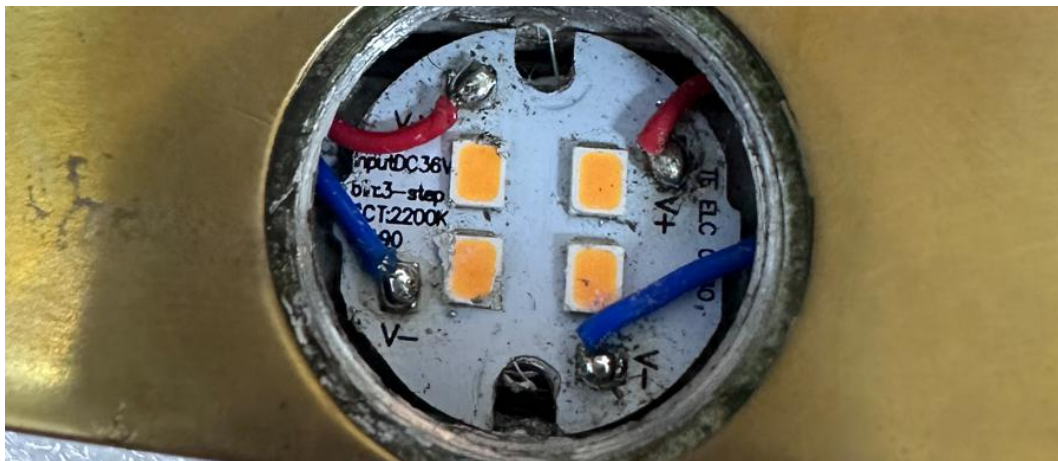
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TEST REPORT

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 *****