

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250623168GZU-035

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None

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Report format for LM-79_G

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Report No.: 250623168GZU-035

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH75227XXXXX

Remark: "XXXXX" 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: QGZ250619128.
<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 SLCH75227XXXXX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250623168-037.
<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>	25 July 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:	SLCH75227XXXXX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH75227XXXXX

Criteria	Result
Total Lumen Output	2642.6 lm
Total Power	31.4 W
Luminaire Efficacy	84.1 lm/W
S/MH(C0/180)	1.15
S/MH(C90/270)	1.19
Correlated Color Temperature (CCT)	2721 K
Color Rendering Index (CRI)	91
R9	68
Chromaticity Coordinate (x)	0.4582
Chromaticity Coordinate (y)	0.4102
Chromaticity Coordinate (u')	0.2616
Chromaticity Coordinate (v')	0.5270

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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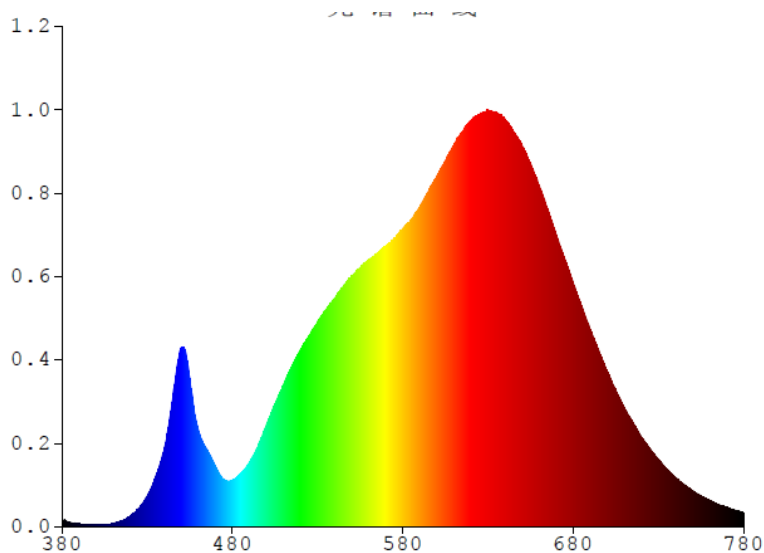
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH75227XXXXX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	1.1584	480	7.8526	580	50.2980	680	41.1660	780	2.4040
385	0.6413	485	8.9310	585	51.8580	685	37.1850		
390	0.5503	490	10.8340	590	53.9530	690	33.3200		
395	0.3379	495	13.5580	595	56.5770	695	29.7460		
400	0.3826	500	17.1780	600	59.2240	700	26.1690		
405	0.3803	505	20.6530	605	61.7510	705	23.0490		
410	0.5966	510	23.9570	610	64.4610	710	20.0930		
415	1.0335	515	27.1080	615	66.7350	715	17.6300		
420	1.8082	520	29.8940	620	68.5150	720	15.1670		
425	3.1228	525	32.2800	625	69.5510	725	13.1890		
430	5.1653	530	34.5900	630	70.2270	730	11.3300		
435	8.4421	535	36.6210	635	70.0140	735	9.7538		
440	13.1790	540	38.5260	640	68.7550	740	8.3404		
445	21.7080	545	40.4970	645	66.6520	745	7.1405		
450	30.2130	550	42.2230	650	64.4320	750	6.1189		
455	24.7970	555	43.6190	655	61.3480	755	5.2485		
460	16.3360	560	45.1480	660	57.6410	760	4.4683		
465	13.1000	565	46.1010	665	53.7140	765	3.8280		
470	10.1760	570	47.3240	670	49.3190	770	3.2788		
475	8.0515	575	48.6750	675	44.4910	775	2.8073		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH75227XXXXX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

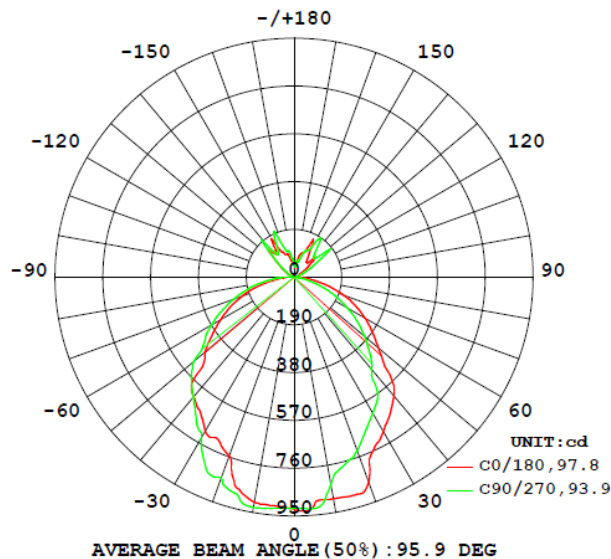
Photometric Measurements at 25°C – Distribution Method

Intertek Sample No.	Base Orientation	Correlated Color Temperatur e (K)	CRI	R9	CIE 31'	CIE 31'	CIE 76'	CIE 76'
					Chromaticit y	Chromaticit y	Chromaticit y	Chromaticit y
					Coordinate (x)	Coordinate (y)	Coordinate (u')	Coordinate (v')
SLCH75227XXXXX								
S2506231 68-037	base-up	2721	91	68	0.4582	0.4102	0.2616	0.5270

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)
SLCH75227XXXXX							
S2506231 68-037	base-up	120.1	263.9	31.4	0.992	2642.6	84.1

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH75227XXXXX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	923.9	929.6	927.6	923.2	918.6
5	911.9	885.1	879.5	911.6	924.5
10	895.5	868.7	849.6	835.4	839.0
15	898.8	824.5	809.3	810.1	773.2
20	868.2	792.9	779.8	776.4	734.6
25	752.2	726.3	740.1	693.6	674.1
30	708.7	653.4	668.4	641.2	624.9
35	664.6	605.5	535.8	585.4	580.5
40	617.5	501.4	490.2	488.3	476.9
45	523.7	446.1	426.2	427.5	425.0
50	437.8	383.4	369.3	369.5	365.3
55	379.0	327.2	312.8	311.7	305.7
60	325.7	269.8	254.1	252.6	243.9
65	269.2	210.0	196.6	193.3	184.5
70	208.2	147.7	133.9	132.6	125.4
75	145.3	91.9	81.8	78.8	70.0
80	84.2	44.1	34.2	32.4	28.4
85	35.8	15.0	10.6	10.0	9.3
90	10.8	16.5	12.0	12.2	10.2
95	14.8	17.2	14.1	13.2	16.6
100	14.5	12.5	12.3	7.7	8.3
105	8.8	6.8	6.5	7.7	10.6
110	6.4	15.9	12.0	29.5	30.3
115	22.7	38.9	44.4	42.3	43.9
120	27.2	65.0	62.9	73.1	83.1
125	61.1	105.0	101.8	117.0	134.3
130	93.3	165.3	148.4	180.7	136.3
135	92.6	147.9	232.2	134.7	108.5
140	76.6	142.4	151.5	154.1	132.5
145	95.8	141.9	115.2	149.0	186.8
150	140.3	146.0	129.3	143.6	134.0
155	133.7	149.8	134.5	95.2	116.8
160	102.8	111.1	75.5	80.1	92.9
165	93.4	67.8	67.0	65.4	63.7
170	64.7	48.3	66.8	58.3	62.6
175	48.1	50.0	48.8	48.3	38.3
180	44.6	61.6	64.2	52.2	66.3

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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH75227XXXXX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH75227XXXXX		
0-30	670.6	25.4
0-40	1066.1	40.3
0-60	1782.7	67.5
0-90	2228.6	84.3
60-90	445.9	16.8
0-180	2642.6	100.0

Beam Angle

Total Beam Angle(°)

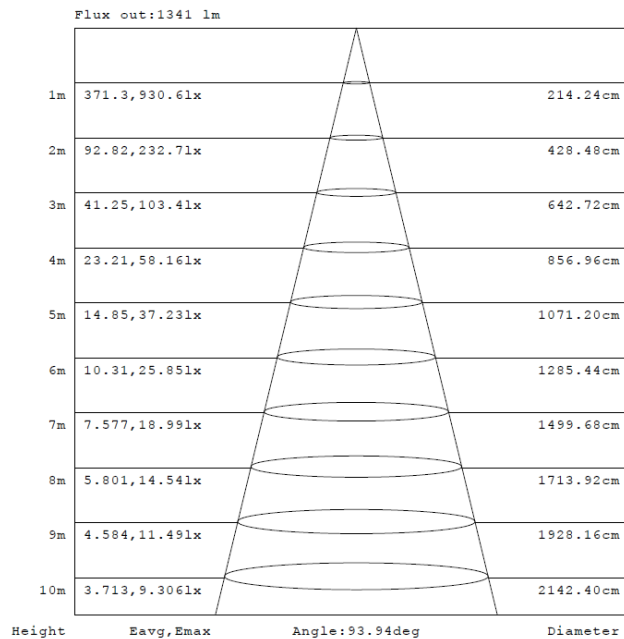
95.9

Illumination Plots

Model No.: SLCH75227XXXXX

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

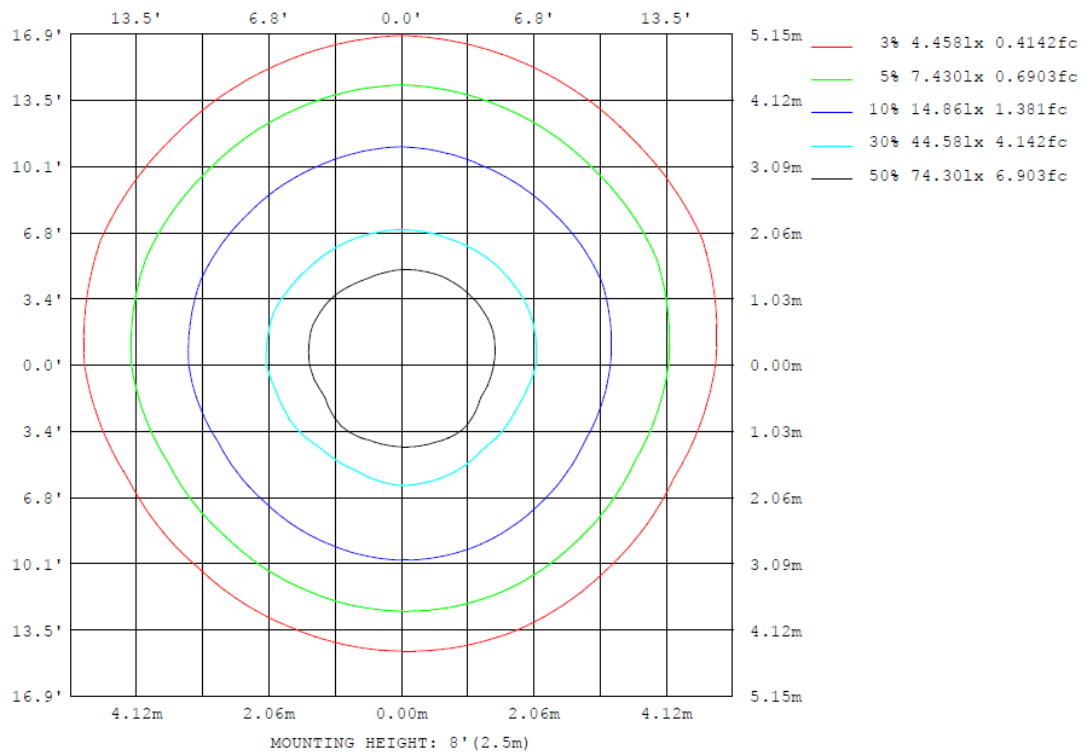
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH75227XXXXX

Model No.: SLCH75227XXXXX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH75227XXXXX

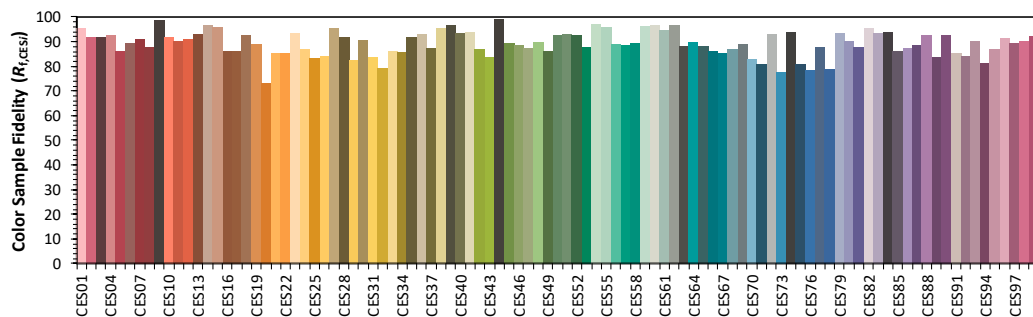
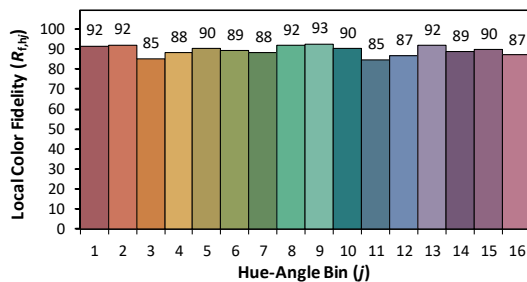
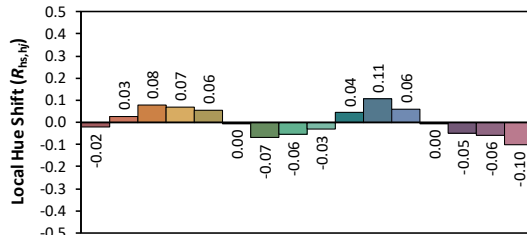
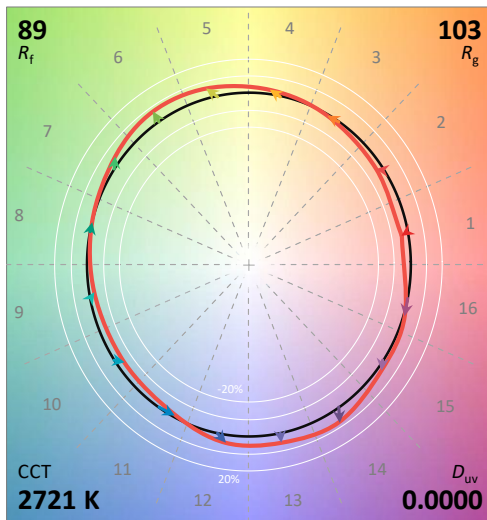
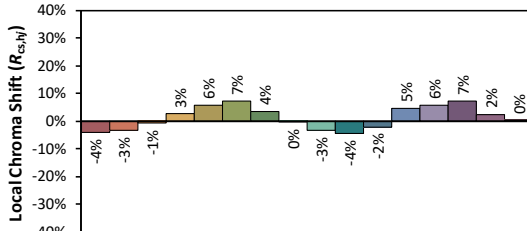
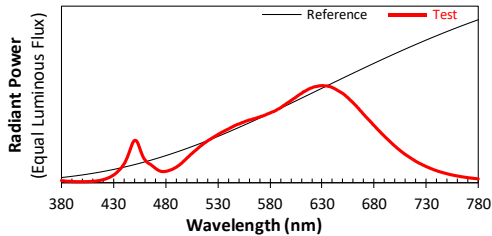
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/7/25

Model: SLCH75227XXXXX



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

x 0.4582
 y 0.4102
 u' 0.2616
 v' 0.5270

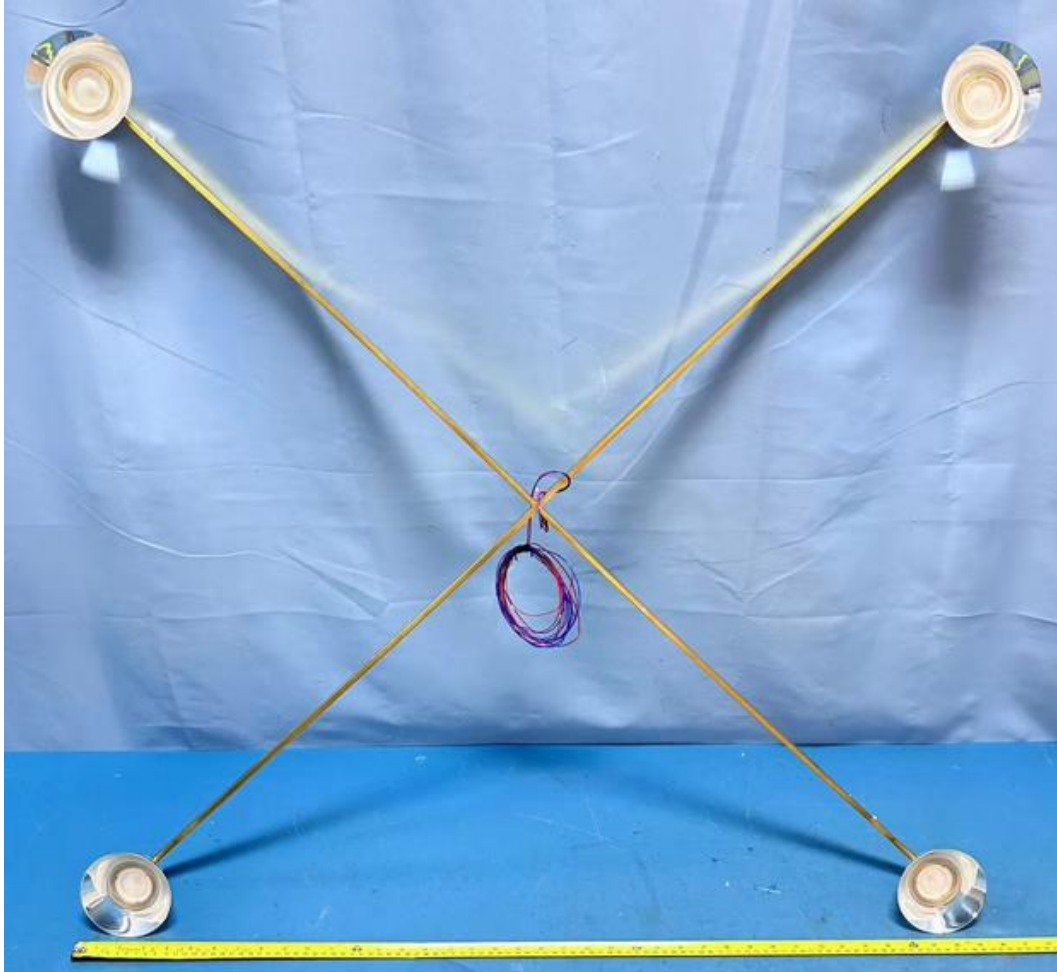
CIE 13.3-1995
(CRI)
 R_a 91
 R_g 68

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)

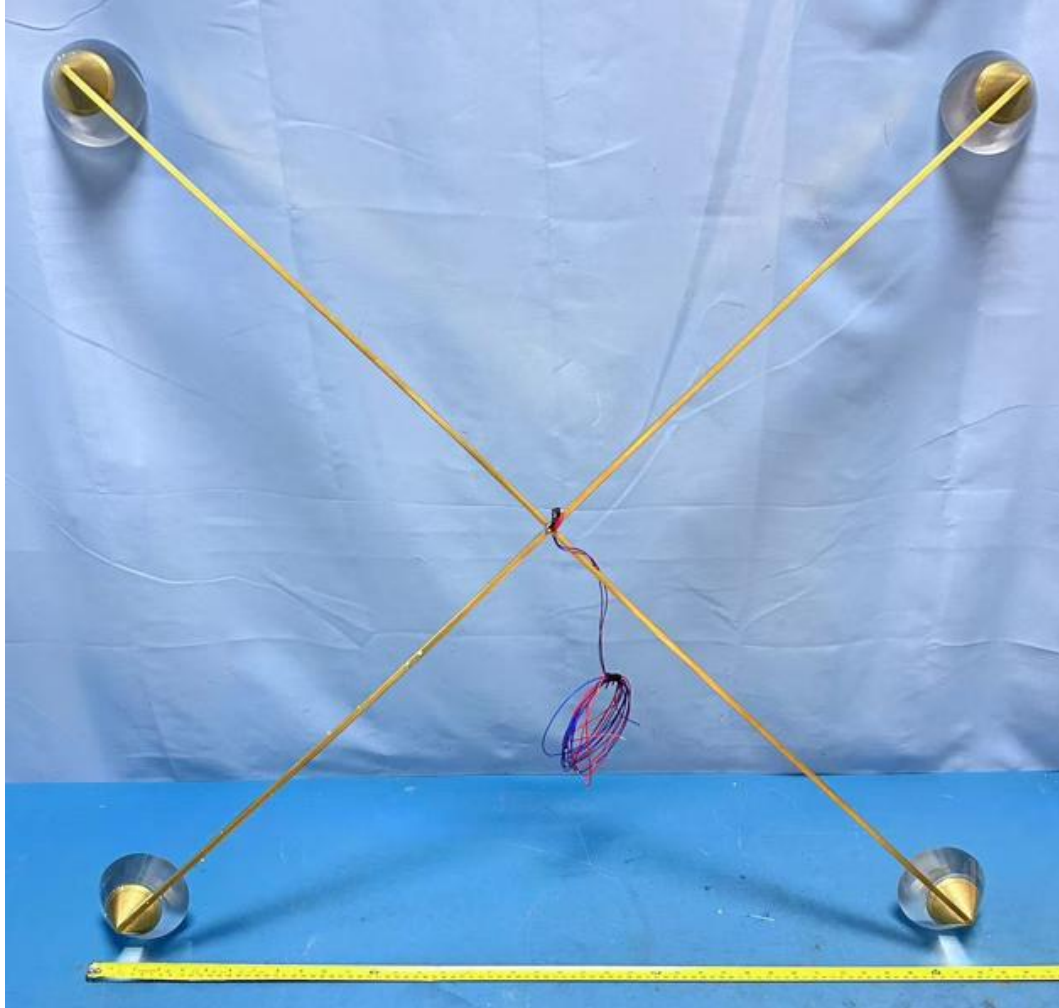


External view of SLCH75227XXXXX

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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLCH75227XXXXX

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

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 *****