

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250623168GZU-009

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REVISION DATE

None

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DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 250623168GZU-009

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH75427XXXXX

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 SLCH75427XXXXX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250623168-009.
<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>	10 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:	SLCH75427XXXXX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH75427XXXXX

Criteria	Result
Total Lumen Output	2278.5 lm
Total Power	31.1 W
Luminaire Efficacy	73.3 lm/W
S/MH(C0/180)	1.09
S/MH(C90/270)	1.09
Correlated Color Temperature (CCT)	2668 K
Color Rendering Index (CRI)	92
R9	68
Chromaticity Coordinate (x)	0.4628
Chromaticity Coordinate (y)	0.4118
Chromaticity Coordinate (u')	0.2639
Chromaticity Coordinate (v')	0.5282

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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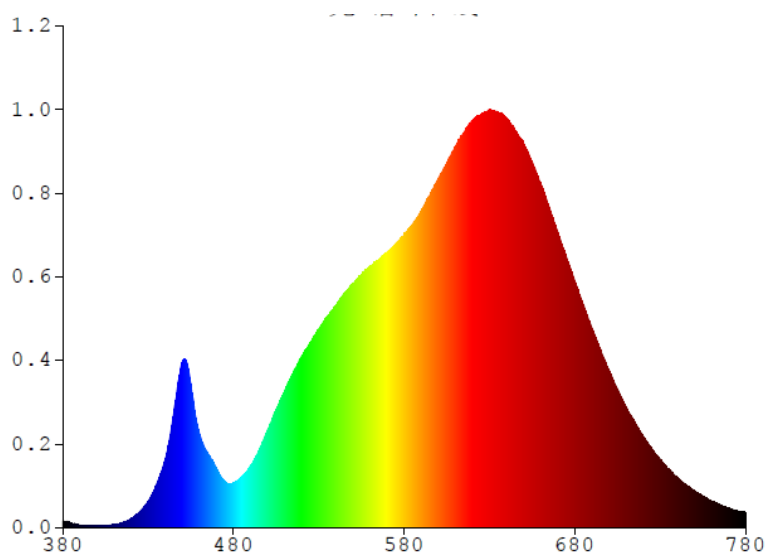
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH75427XXXXX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	1.2597	480	8.5300	580	55.8120	680	46.8320	780	2.9103
385	0.8880	485	9.6766	585	57.6350	685	42.3780		
390	0.4618	490	11.7170	590	60.1280	690	37.9430		
395	0.4023	495	14.6870	595	63.2050	695	33.8810		
400	0.2996	500	18.5820	600	66.4320	700	29.9120		
405	0.3605	505	22.3710	605	69.3440	705	26.3350		
410	0.5794	510	25.9670	610	72.4720	710	22.9070		
415	0.9654	515	29.4090	615	75.1320	715	20.1770		
420	1.7422	520	32.5720	620	77.2060	720	17.4120		
425	2.9674	525	35.1870	625	78.6110	725	15.0960		
430	4.9997	530	37.7400	630	79.5070	730	12.9740		
435	8.2058	535	40.1720	635	78.9590	735	11.1180		
440	13.0570	540	42.2500	640	77.8480	740	9.5436		
445	21.7610	545	44.4750	645	75.4460	745	8.1314		
450	31.4590	550	46.4520	650	73.0640	750	7.0156		
455	27.1540	555	48.0700	655	69.4790	755	5.9920		
460	17.9420	560	49.8600	660	65.4840	760	5.0659		
465	14.0990	565	50.8350	665	60.9030	765	4.3925		
470	11.1990	570	52.3280	670	56.1870	770	3.7537		
475	8.7419	575	53.8860	675	50.5020	775	3.2046		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH75427XXXXX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

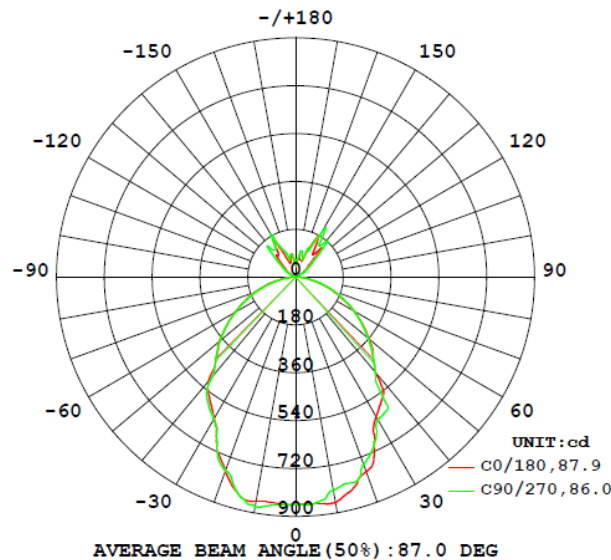
Photometric Measurements at 25°C – Distribution Method

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')
SLCH75427XXXXX								
S2506231 68-009	base-up	2668	92	68	0.4628	0.4118	0.2639	0.5282

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)
SLCH75427XXXXX							
S2506231 68-009	base-up	120.0	260.9	31.1	0.993	2278.5	73.3

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH75427XXXXX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	855.3	854.7	854.5	855.1	854.3
5	853.8	854.8	856.0	855.2	852.8
10	861.3	848.6	842.1	836.0	813.6
15	825.6	816.5	814.3	810.5	801.3
20	778.0	759.4	746.0	743.8	750.1
25	701.3	701.2	679.1	678.9	698.5
30	606.1	599.2	665.7	641.4	620.5
35	565.0	559.9	531.2	593.7	605.3
40	467.9	461.8	462.2	461.4	467.1
45	412.4	407.3	406.9	410.0	410.5
50	361.6	354.5	352.3	354.0	355.9
55	307.8	300.5	298.3	301.0	303.5
60	251.9	246.6	245.8	250.0	254.1
65	198.4	195.7	195.8	199.8	204.1
70	148.1	145.1	145.1	149.0	154.1
75	101.6	98.1	98.2	102.3	105.9
80	59.7	57.9	58.2	60.0	61.9
85	26.0	24.2	25.2	26.3	27.2
90	8.7	9.3	9.4	9.3	9.1
95	10.6	10.4	11.0	10.5	11.1
100	10.7	8.9	11.1	11.4	12.4
105	7.8	7.2	10.3	7.7	7.3
110	5.5	4.6	4.4	3.5	3.4
115	8.7	9.2	5.9	6.3	8.8
120	14.5	21.5	27.6	28.8	30.0
125	40.3	51.7	50.1	50.8	52.7
130	58.6	73.4	73.3	77.2	79.7
135	93.0	111.8	106.2	116.0	129.6
140	125.3	165.1	179.9	188.4	169.9
145	118.4	154.8	170.0	179.3	162.9
150	176.2	163.9	144.5	158.5	187.8
155	116.7	182.1	178.5	136.9	119.8
160	63.2	98.0	88.4	79.9	70.1
165	72.7	81.1	56.5	66.7	94.8
170	79.1	52.7	58.1	66.7	91.6
175	58.7	51.5	68.2	67.8	69.6
180	40.2	54.7	54.6	54.4	44.1

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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH75427XXXXX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH75427XXXXX		
0-30	630.1	27.7
0-40	980.1	43.0
0-60	1577.3	69.2
0-90	1922.0	84.4
60-90	344.7	15.2
0-180	2278.5	100.0

Beam Angle

Total Beam Angle(°)

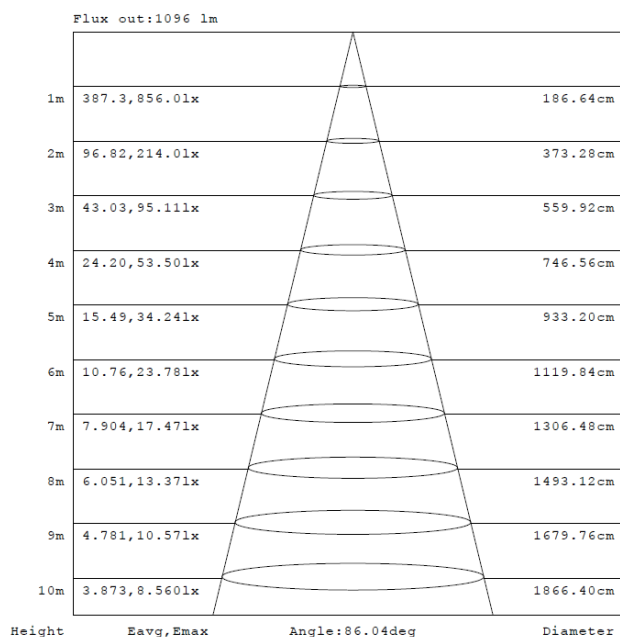
87.0

Illumination Plots

Model No.: SLCH75427XXXXX

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

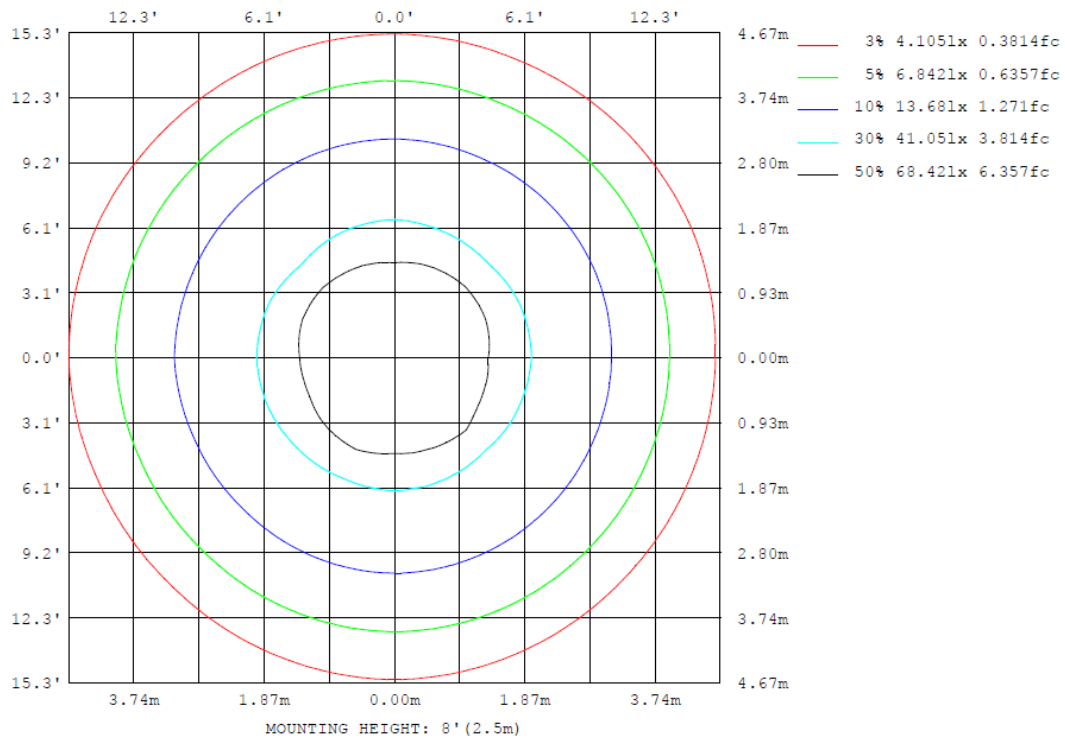
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH75427XXXXX

Model No.: SLCH75427XXXXX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH75427XXXXX

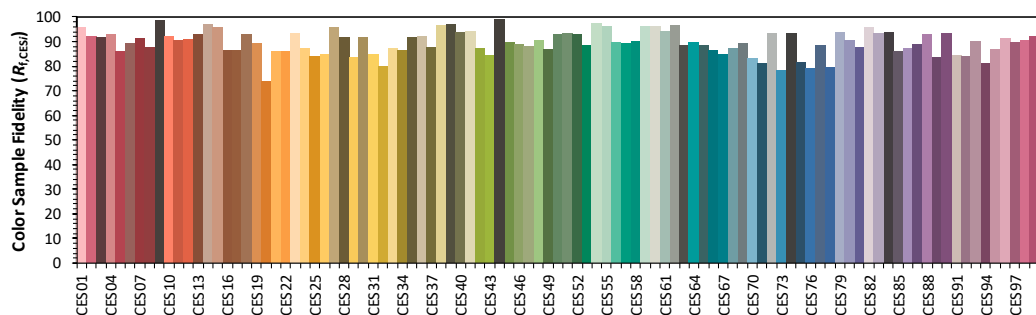
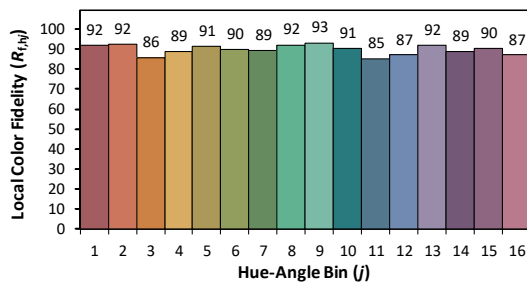
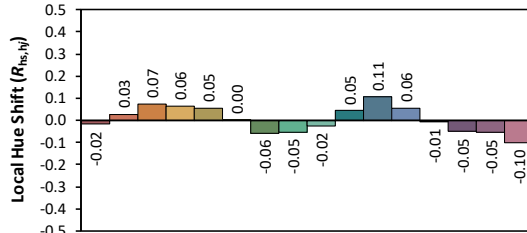
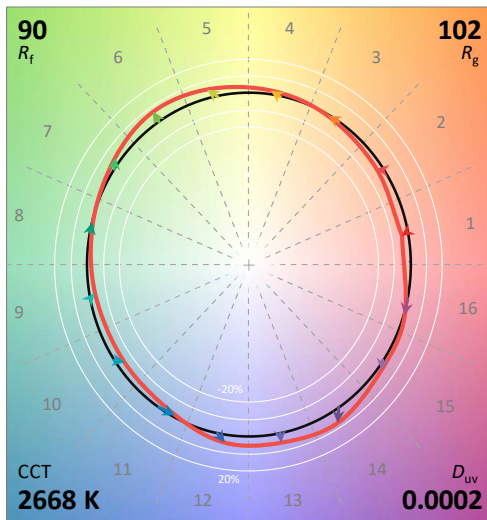
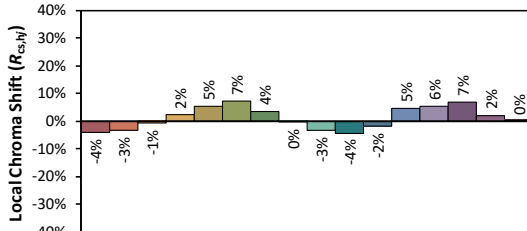
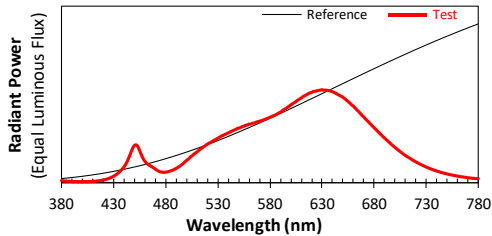
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/7/10

Model: SLCH75427XXXXX



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

x 0.4628
 y 0.4118
 u' 0.2639
 v' 0.5282

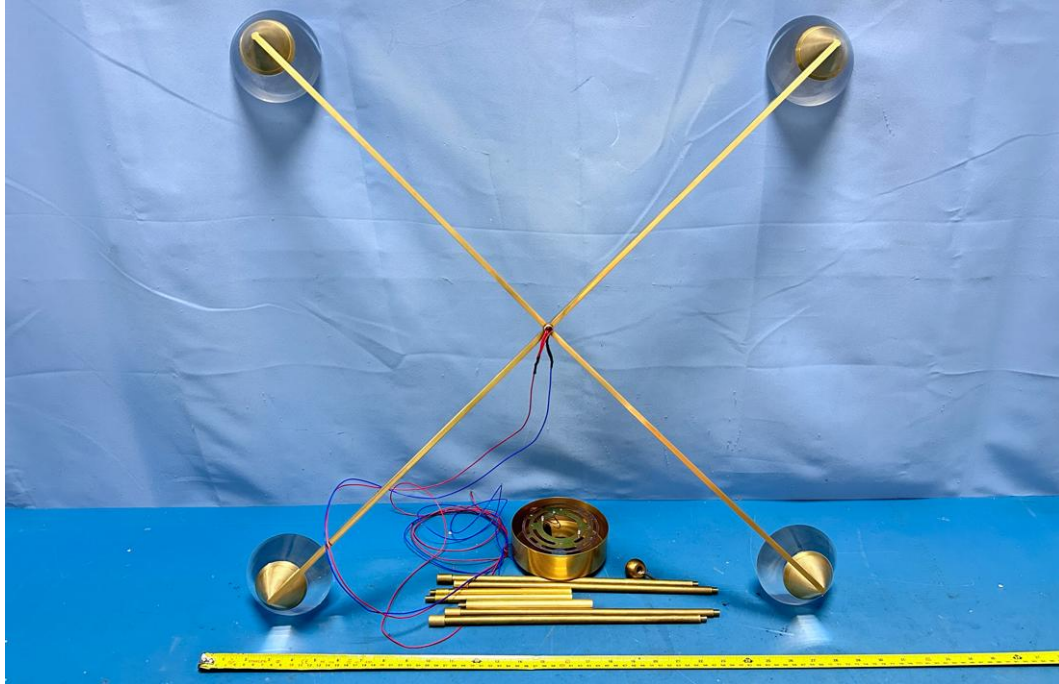
CIE 13.3-1995
(CRI)
 R_a 92
 R_g 68

Colors are for visual orientation purposes only. Created with the ANSI/IES TM-30-18 Calculator Version 2.00.

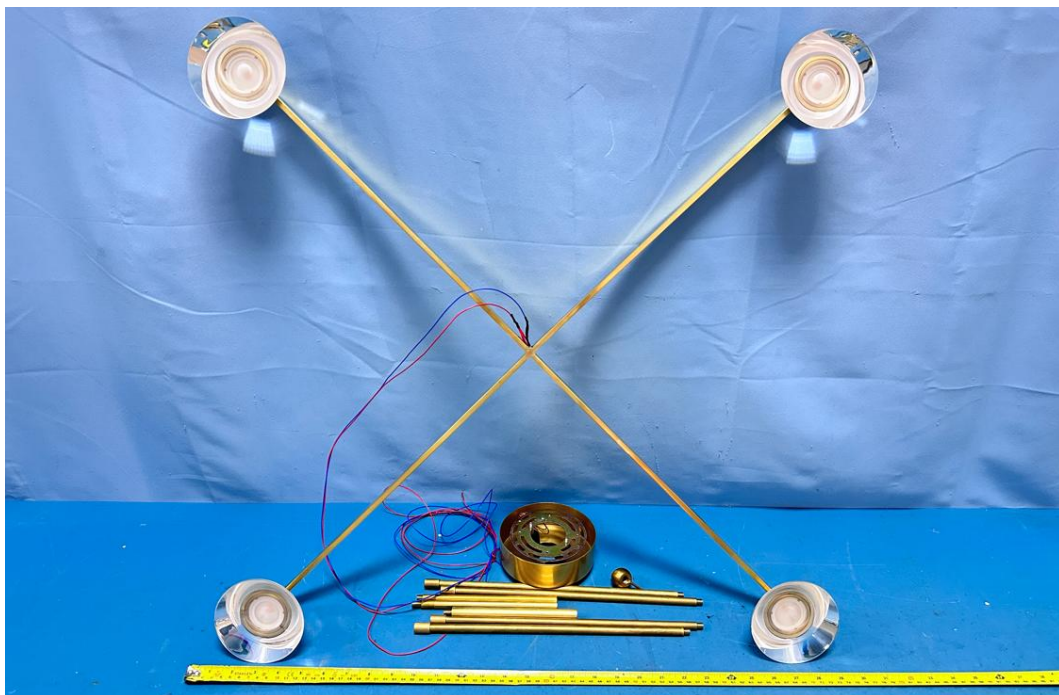
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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLCH75427XXXXX



External view of SLCH75427XXXXX

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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 *****