

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250623168GZU-036

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REVISION DATE

None

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Report format for LM-79_G

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Report No.: 250623168GZU-036

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH78427XX

Remark: "XX" 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 SLCH78427XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250623168-036.
<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:	SLCH78427XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH78427XX

Criteria	Result
Total Lumen Output	2292.0 lm
Total Power	31.5 W
Luminaire Efficacy	72.8 lm/W
S/MH(C0/180)	1.05
S/MH(C90/270)	1.15
Correlated Color Temperature (CCT)	2785 K
Color Rendering Index (CRI)	91
R9	66
Chromaticity Coordinate (x)	0.4523
Chromaticity Coordinate (y)	0.4077
Chromaticity Coordinate (u')	0.2589
Chromaticity Coordinate (v')	0.5251

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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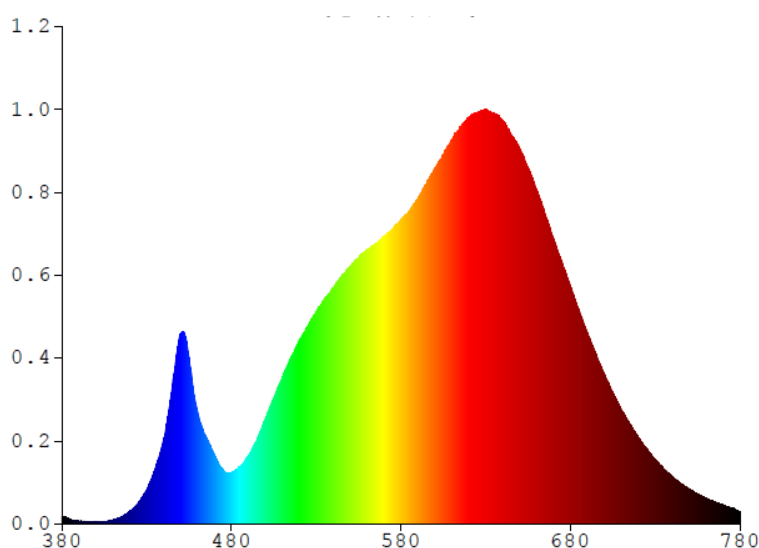
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH78427XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	1.9207	480	13.2200	580	78.1880	680	61.0760	780	3.0868
385	0.9604	485	14.7380	585	80.4780	685	55.0390		
390	0.6457	490	17.5160	590	83.5640	690	49.1700		
395	0.4890	495	21.5820	595	87.3640	695	43.7790		
400	0.6601	500	27.1400	600	91.5090	700	38.5190		
405	0.5780	505	32.4840	605	94.9440	705	33.7920		
410	1.0211	510	37.6770	610	98.9180	710	29.3720		
415	1.8460	515	42.7100	615	102.040	715	25.7360		
420	3.1493	520	47.1730	620	104.480	720	22.2480		
425	5.4092	525	50.8460	625	105.710	725	19.3320		
430	8.7916	530	54.5090	630	106.350	730	16.5990		
435	14.1440	535	57.8060	635	105.840	735	14.2130		
440	21.7870	540	60.6710	640	103.780	740	12.1880		
445	34.8910	545	63.5910	645	100.140	745	10.4740		
450	48.8400	550	66.2580	650	96.7050	750	9.0234		
455	42.3020	555	68.4390	655	91.6850	755	7.7838		
460	28.8600	560	70.6240	660	85.9770	760	6.5854		
465	22.4290	565	72.0570	665	79.7520	765	5.6623		
470	17.6620	570	73.8240	670	73.3650	770	4.8145		
475	13.9580	575	75.8010	675	65.9590	775	4.1415		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78427XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

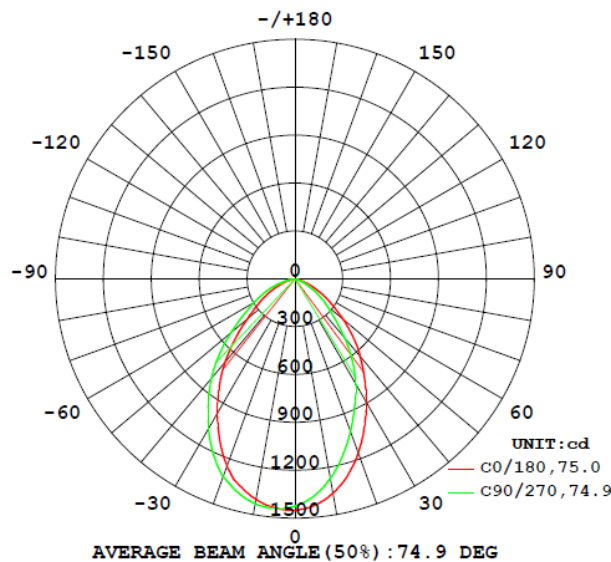
Photometric Measurements at 25°C – Distribution Method

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')
SLCH78427XX								
S2506231 68-036	base-up	2785	91	66	0.4523	0.4077	0.2589	0.5251

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)
SLCH78427XX							
S2506231 68-036	base-up	120.0	264.5	31.5	0.992	2292.0	72.8

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78427XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	1449.2	1426.6	1418.6	1417.7	1423.6
5	1424.2	1367.6	1353.9	1353.9	1367.4
10	1364.4	1273.1	1253.1	1250.6	1271.0
15	1276.0	1157.3	1130.2	1126.3	1150.9
20	1160.5	1031.9	1006.4	997.3	1016.9
25	1028.4	901.6	881.3	872.9	886.4
30	891.8	761.6	740.9	750.7	762.6
35	760.9	614.7	591.5	615.2	629.4
40	635.4	479.5	447.7	470.7	484.6
45	514.9	364.6	336.4	344.5	354.2
50	392.4	271.5	246.7	252.8	262.1
55	287.3	189.1	167.5	175.3	186.4
60	203.6	120.2	102.5	107.4	117.0
65	129.3	62.5	50.1	54.2	60.5
70	69.7	22.3	16.8	19.1	22.2
75	27.6	8.9	7.5	7.5	8.3
80	9.4	3.5	2.6	2.3	2.8
85	3.6	0.2	0.1	0.1	0.1
90	0.2	0.1	0.1	0.1	0.1
95	0.1	0.1	0.1	0.1	0.1
100	0.1	0.1	0.1	0.1	0.1
105	0.1	0.2	0.2	0.2	0.2
110	0.1	0.2	0.2	0.2	0.2
115	0.2	0.3	0.3	0.3	0.3
120	0.3	0.4	0.5	0.5	0.5
125	0.5	0.6	0.7	0.7	0.6
130	0.7	0.9	0.9	0.9	0.9
135	0.9	1.1	1.2	1.2	1.2
140	1.1	1.4	1.4	1.4	1.4
145	1.4	1.6	1.6	1.6	1.6
150	1.6	1.8	1.8	1.8	1.9
155	1.8	1.9	2.0	2.0	2.0
160	1.9	2.0	2.0	2.0	2.0
165	2.0	2.0	2.0	2.0	2.0
170	2.0	1.9	1.9	2.0	2.0
175	1.9	1.9	1.9	1.9	1.9
180	1.9	1.7	1.6	1.6	1.7

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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78427XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH78427XX		
0-30	976.3	42.6
0-40	1462.9	63.8
0-60	2104.2	91.8
0-90	2287.9	99.8
60-90	183.7	8.0
0-180	2292.0	100.0

Beam Angle

Total Beam Angle(°)

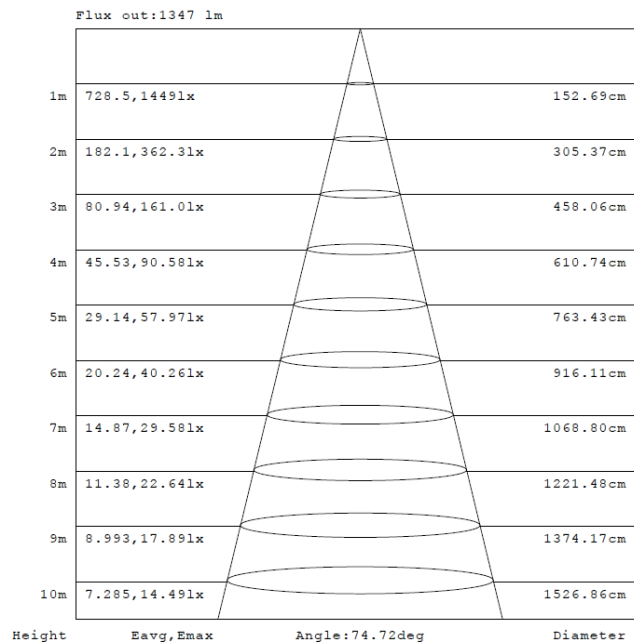
74.9

Illumination Plots

Model No.: SLCH78427XX

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

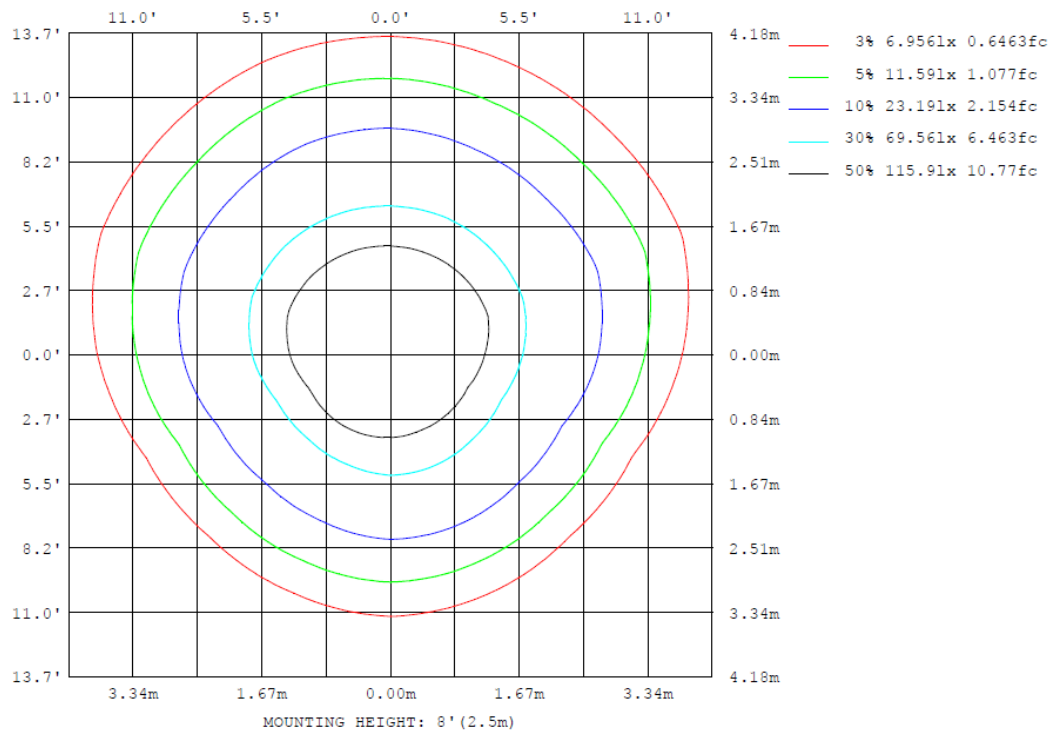
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78427XX

Model No.: SLCH78427XX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78427XX

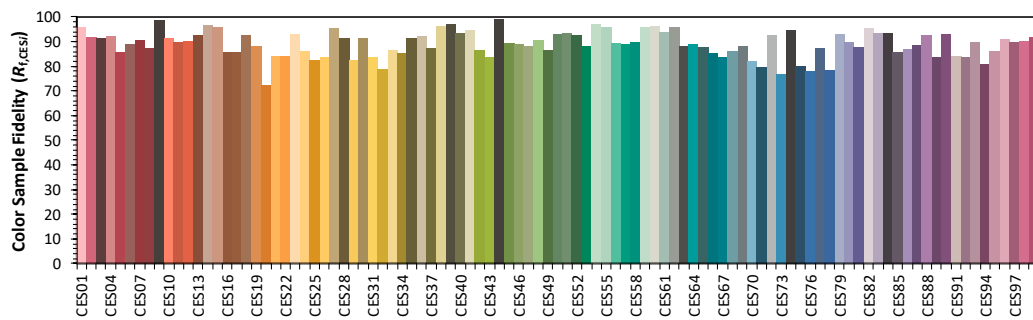
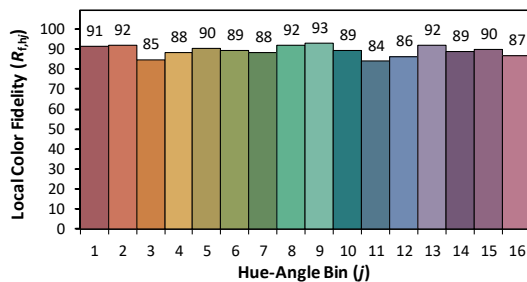
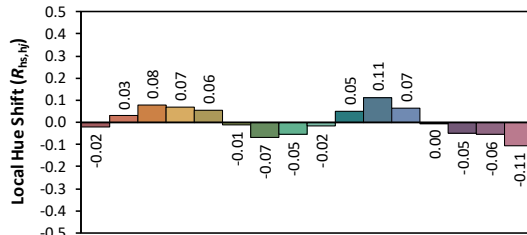
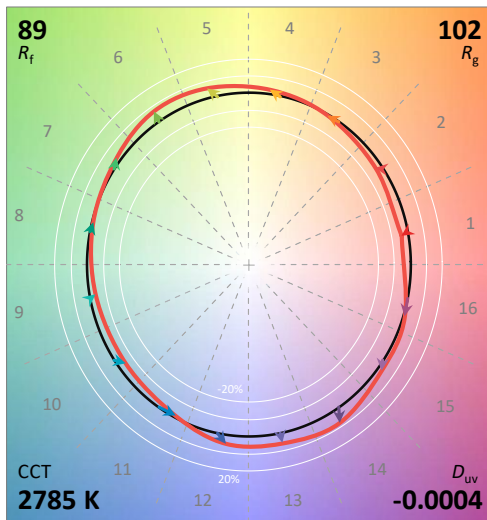
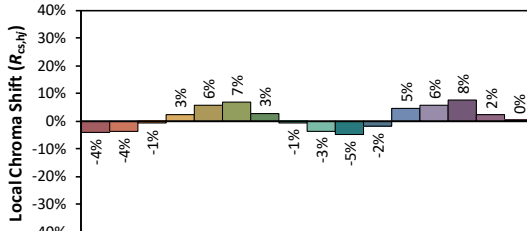
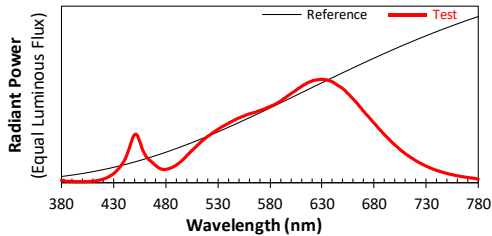
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/7/25

Model: SLCH78427XX



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

x 0.4523
 y 0.4077
 u' 0.2589
 v' 0.5251

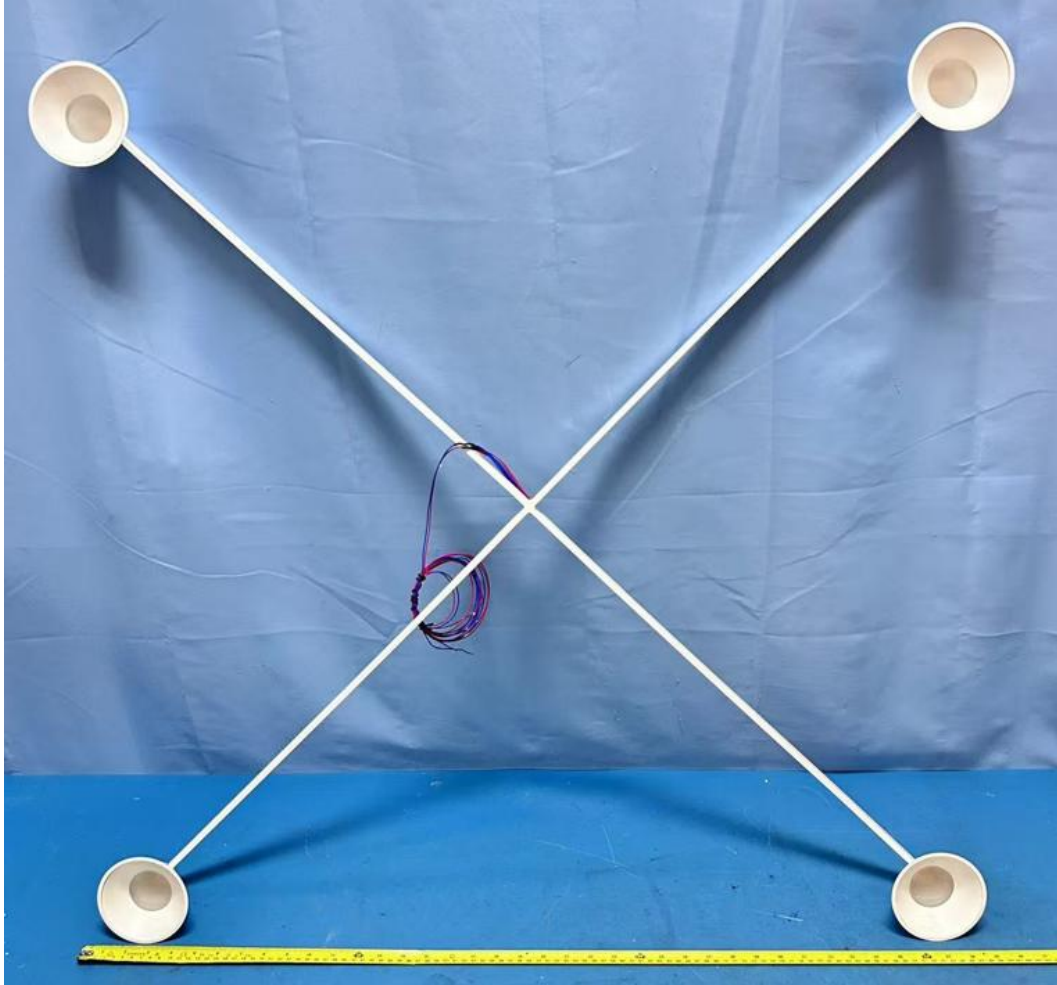
CIE 13.3-1995
(CRI)
 R_a 91
 R_g 66

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)

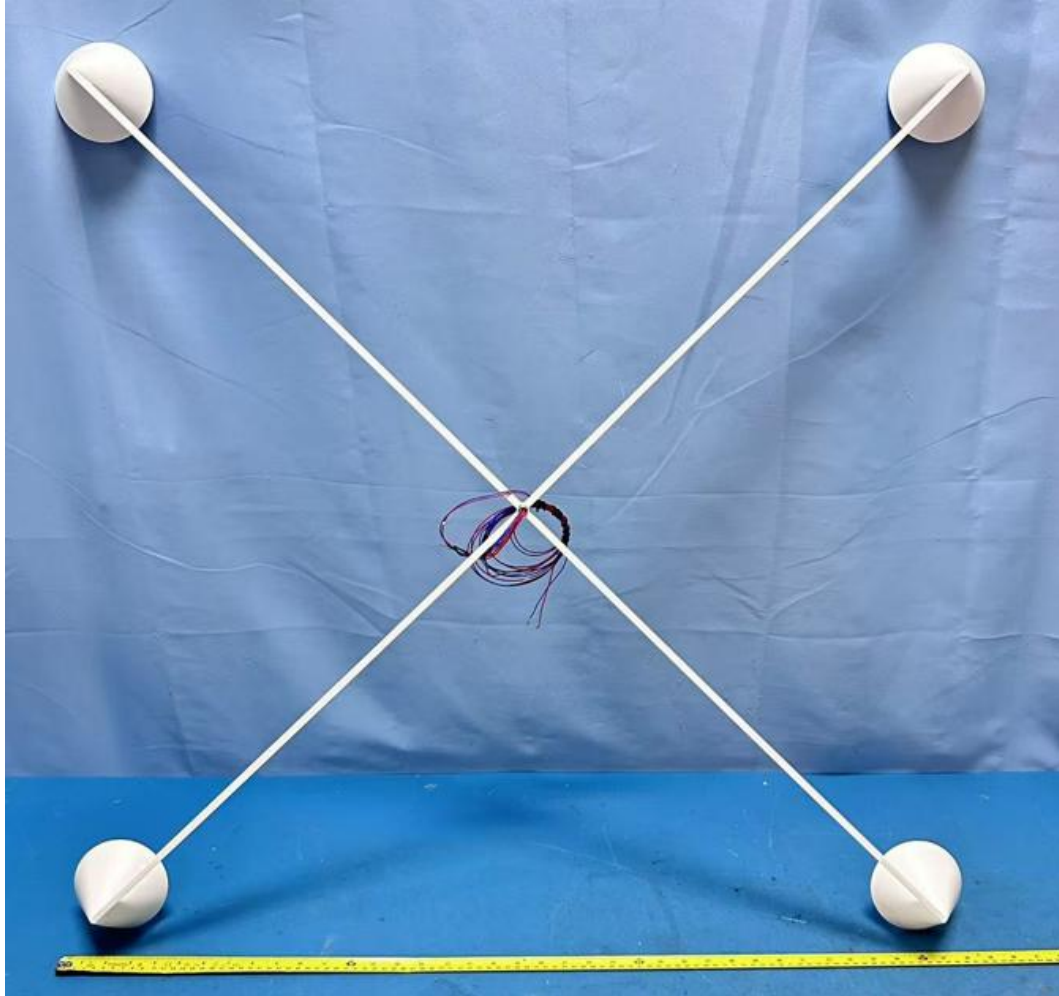


External view of SLCH78427XX

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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLCH78427XX

***** 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 *****