

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250623168GZU-005

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None

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Report format for LM-79_G

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Report No.: 250623168GZU-005

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH78627X

Remark: "X" 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 SLCH78627X. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250623168-003.
<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>	09 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:	SLCH78627X
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH78627X

Criteria	Result
Total Lumen Output	2002.3 lm
Total Power	31.3 W
Luminaire Efficacy	63.9 lm/W
S/MH(C0/180)	1.00
S/MH(C90/270)	1.00
Correlated Color Temperature (CCT)	2784 K
Color Rendering Index (CRI)	91
R9	66
Chromaticity Coordinate (x)	0.4530
Chromaticity Coordinate (y)	0.4088
Chromaticity Coordinate (u')	0.2589
Chromaticity Coordinate (v')	0.5257

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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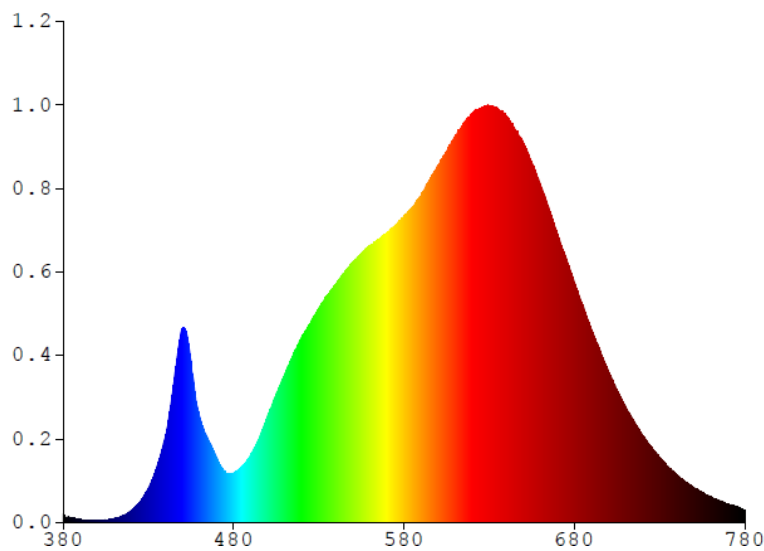
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH78627X

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	2.5728	480	13.7680	580	85.2900	680	66.7350	780	3.2960
385	1.2592	485	15.6310	585	87.8400	685	60.3610		
390	0.8130	490	18.7610	590	91.0550	690	53.6760		
395	0.6463	495	23.4520	595	95.2240	695	47.8930		
400	0.5632	500	29.7030	600	99.2990	700	41.9480		
405	0.6751	505	35.6470	605	103.260	705	36.8580		
410	1.1148	510	41.2480	610	107.460	710	32.1730		
415	1.9004	515	46.7630	615	111.110	715	28.1600		
420	3.3365	520	51.5650	620	113.680	720	24.2660		
425	5.6647	525	55.5240	625	115.020	725	21.0170		
430	9.5249	530	59.5170	630	115.970	730	18.1050		
435	15.4490	535	63.0880	635	115.390	735	15.5270		
440	24.0100	540	66.2960	640	113.060	740	13.2940		
445	39.1510	545	69.4680	645	109.440	745	11.3750		
450	53.9850	550	72.3720	650	105.760	750	9.7447		
455	44.1720	555	74.6980	655	100.150	755	8.4279		
460	29.4940	560	77.1900	660	94.1330	760	7.1471		
465	23.0430	565	78.6470	665	87.5230	765	6.0815		
470	17.9790	570	80.6150	670	80.2850	770	5.2279		
475	14.1560	575	82.6900	675	72.2440	775	4.4628		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78627X

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

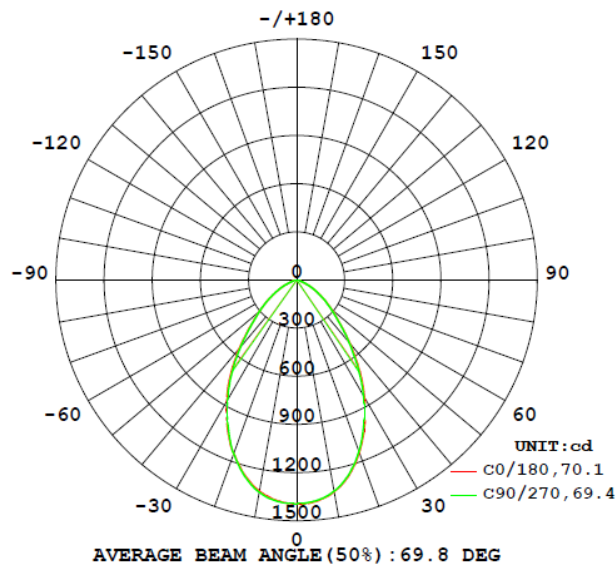
Photometric Measurements at 25°C – Distribution Method

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')
SLCH78627X								
S2506231 68-003	base-up	2784	91	66	0.4530	0.4088	0.2589	0.5257

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	Lumen
						Flux (Lumens)	Efficacy (Lumens Per Watt)
SLCH78627X							
S2506231 68-003	base-up	120.0	263.2	31.3	0.992	2002.3	63.9

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78627X

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	1395.4	1394.9	1394.8	1395.3	1393.4
5	1384.3	1375.3	1377.7	1378.9	1379.4
10	1339.3	1321.9	1328.3	1331.2	1336.0
15	1260.0	1232.9	1243.0	1244.5	1254.0
20	1142.5	1107.5	1120.3	1121.6	1134.9
25	1003.1	960.8	973.5	977.8	990.7
30	847.1	805.1	819.3	821.8	833.3
35	679.7	648.2	665.7	659.7	666.7
40	518.4	500.3	519.5	507.6	509.5
45	380.9	367.9	387.5	374.8	374.6
50	283.6	267.1	280.2	277.8	278.6
55	206.4	192.3	201.9	199.9	202.7
60	140.1	127.6	134.6	133.7	137.0
65	85.7	75.2	80.9	80.8	84.1
70	42.7	35.2	39.2	38.9	42.0
75	16.0	14.1	15.9	15.2	16.4
80	8.6	7.6	8.2	8.3	8.9
85	4.2	3.5	4.0	4.1	4.6
90	0.5	0.1	0.1	0.2	0.9
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	0.1	0.1	0.1	0.1
110	0.1	0.1	0.1	0.1	0.1
115	0.2	0.2	0.2	0.2	0.2
120	0.3	0.3	0.3	0.3	0.3
125	0.4	0.5	0.5	0.5	0.4
130	0.6	0.7	0.7	0.7	0.6
135	0.8	0.9	0.9	0.9	0.9
140	1.1	1.2	1.2	1.2	1.1
145	1.3	1.4	1.4	1.4	1.4
150	1.5	1.6	1.6	1.6	1.6
155	1.7	1.8	1.8	1.8	1.7
160	1.8	1.9	1.9	1.9	1.9
165	1.9	1.9	1.9	1.9	1.9
170	1.8	1.8	1.8	1.8	1.8
175	1.8	1.8	1.8	1.8	1.8
180	1.7	1.6	1.6	1.6	1.7

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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78627X

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH78627X		
0-30	942.6	47.1
0-40	1373.9	68.6
0-60	1879.6	93.9
0-90	1999.2	99.9
60-90	119.6	6.0
0-180	2002.3	100.0

Beam Angle

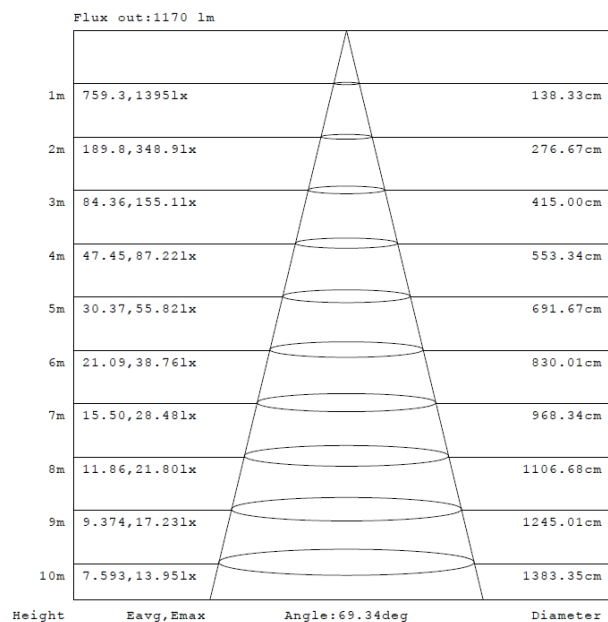
Total Beam Angle(°)
69.8

Illumination Plots

Model No.: SLCH78627X

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

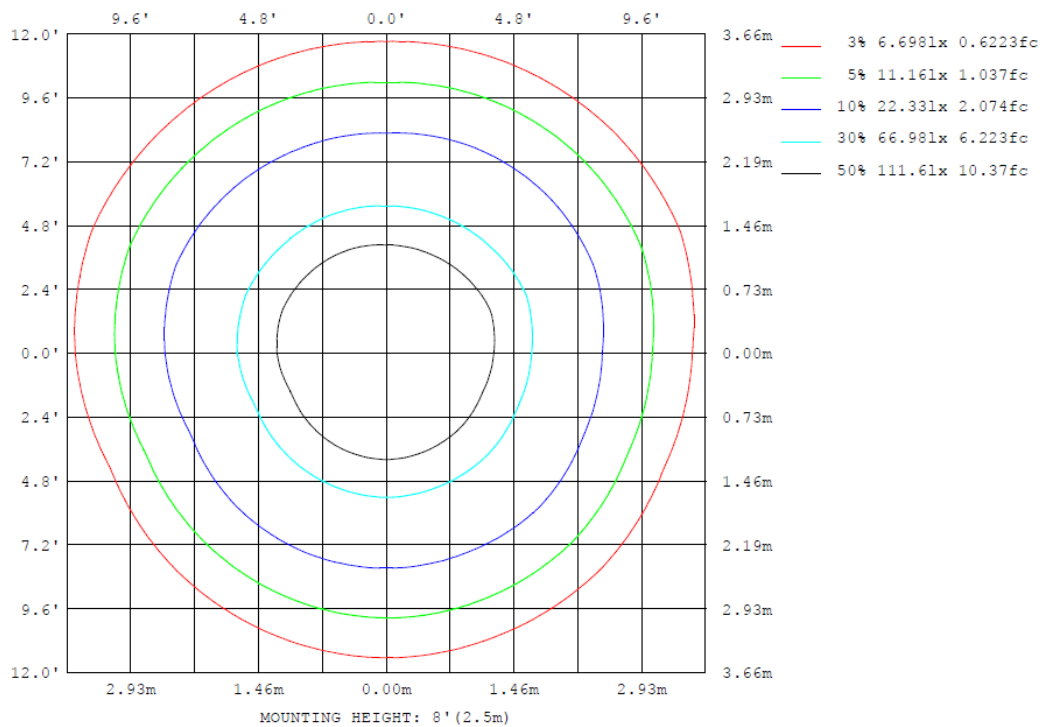
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78627X

Model No.: SLCH78627X

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH78627X

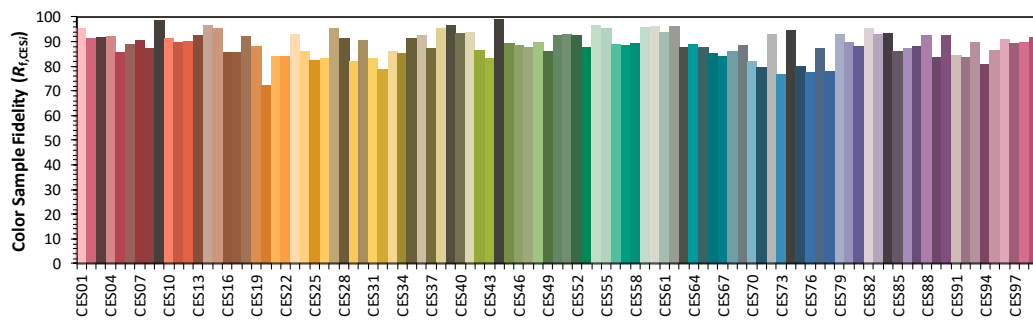
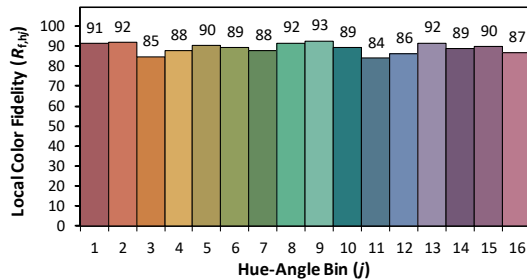
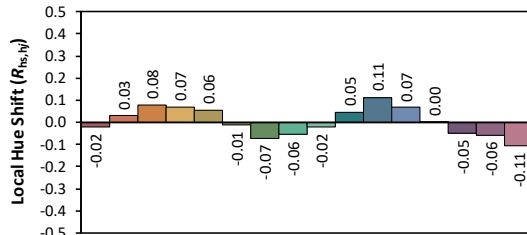
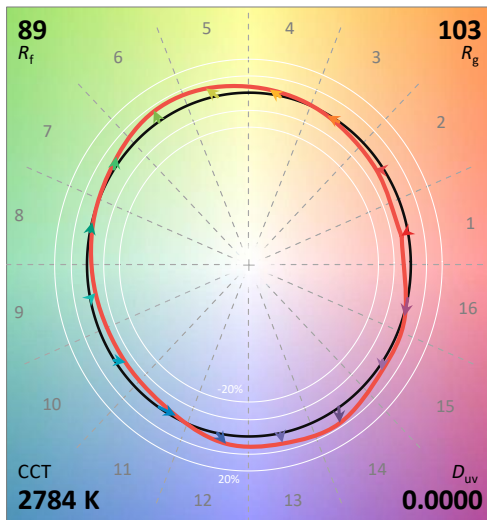
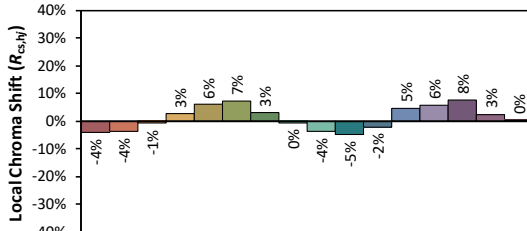
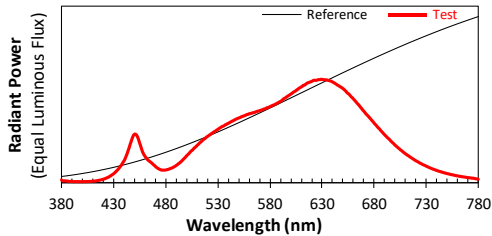
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/7/9

Model: SLCH78627X



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

x 0.4530
 y 0.4088
 u' 0.2589
 v' 0.5257

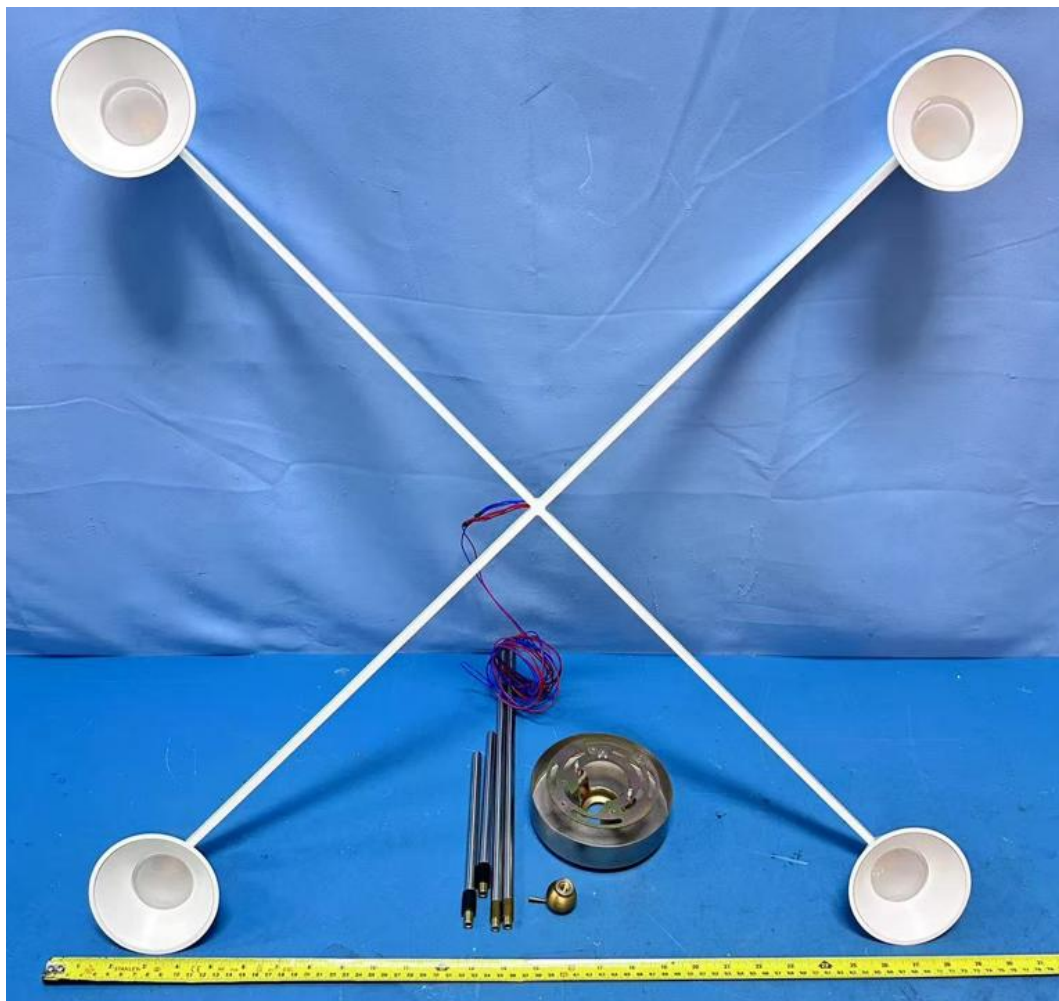
CIE 13.3-1995
(CRI)
 R_a 91
 R_g 66

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

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

TEST REPORT

PRODUCT PICTURE (not to scale)

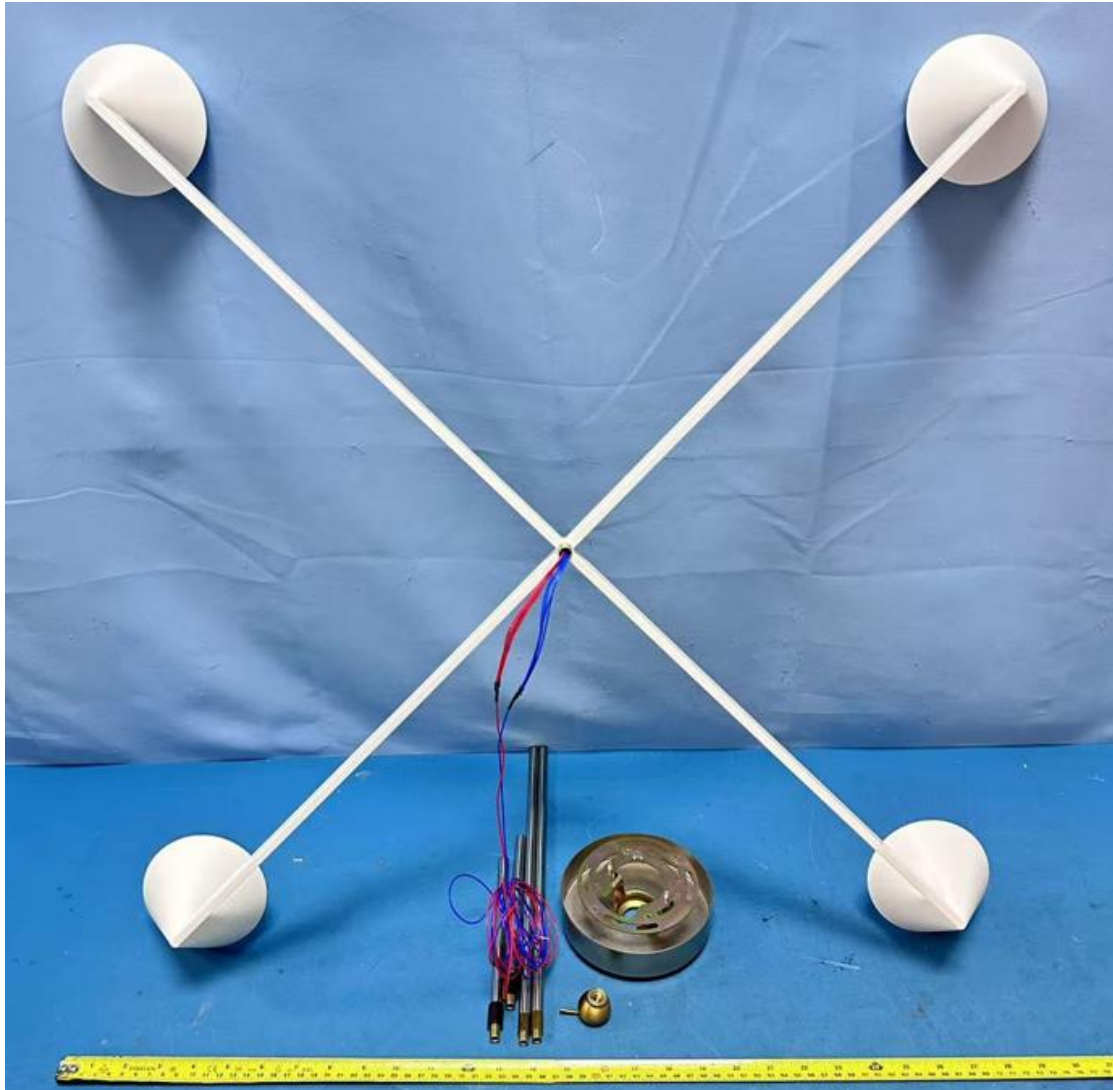


External view of SLCH78627X

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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLCH78627X

***** 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 *****