

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250623168GZU-030

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None

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DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 250623168GZU-030

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLTB78827X

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 SLTB78827X. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250623168-032.
<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>	24 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:	SLTB78827X
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLTB78827X

Criteria	Result
Total Lumen Output	246.0 lm
Total Power	4.0 W
Luminaire Efficacy	61.3 lm/W
S/MH(C0/180)	0.43
S/MH(C90/270)	1.26
Correlated Color Temperature (CCT)	2791 K
Color Rendering Index (CRI)	91
R9	63
Chromaticity Coordinate (x)	0.4531
Chromaticity Coordinate (y)	0.4099
Chromaticity Coordinate (u')	0.2585
Chromaticity Coordinate (v')	0.5261

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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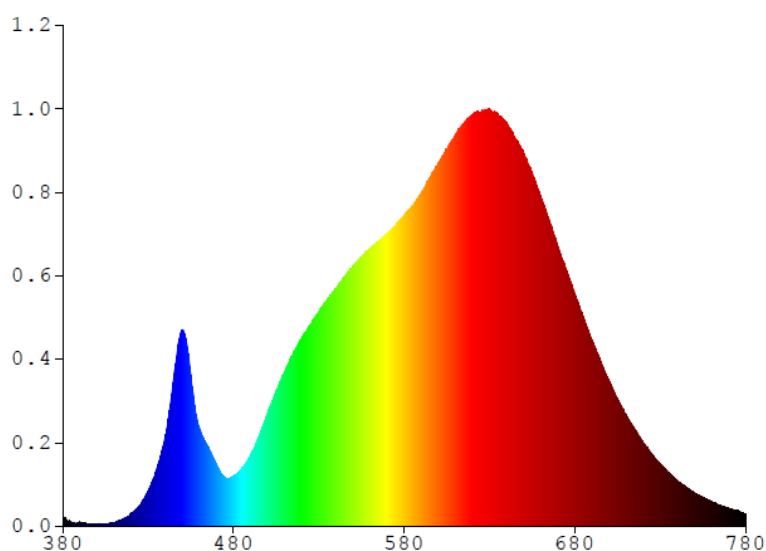
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLTB78827X

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.2289	480	1.1564	580	7.1984	680	5.3822	780	0.2720
385	0.0964	485	1.3455	585	7.4332	685	4.8413		
390	0.0996	490	1.6533	590	7.7080	690	4.3154		
395	0.0561	495	2.0794	595	8.0594	695	3.8267		
400	0.0489	500	2.6239	600	8.3993	700	3.3700		
405	0.0652	505	3.1235	605	8.7237	705	2.9511		
410	0.0870	510	3.5765	610	9.0721	710	2.5802		
415	0.1617	515	3.9922	615	9.3198	715	2.2576		
420	0.2860	520	4.3628	620	9.5334	720	1.9341		
425	0.4829	525	4.6472	625	9.5870	725	1.6805		
430	0.8086	530	4.9596	630	9.6303	730	1.4405		
435	1.3177	535	5.2398	635	9.5493	735	1.2444		
440	2.0957	540	5.5043	640	9.3358	740	1.0611		
445	3.4288	545	5.7762	645	8.9823	745	0.9107		
450	4.5399	550	6.0153	650	8.6592	750	0.7769		
455	3.4648	555	6.2209	655	8.1943	755	0.6672		
460	2.2768	560	6.4385	660	7.6369	760	0.5680		
465	1.8458	565	6.5778	665	7.0877	765	0.4906		
470	1.4229	570	6.7675	670	6.4802	770	0.4218		
475	1.1381	575	6.9526	675	5.8217	775	0.3606		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB78827X

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

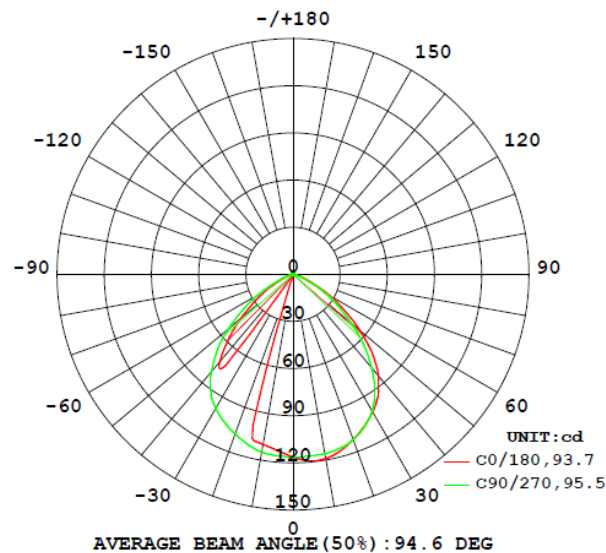
Photometric Measurements at 25°C – Distribution Method

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')
SLTB78827X								
S2506231 68-032	base-up	2791	91	63	0.4531	0.4099	0.2585	0.5261

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)
SLTB78827X							
S2506231 68-032	base-up	120.0	45	4.0	0.743	246.0	61.3

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB78827X

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	116.3	116.5	116.4	116.3	116.1
5	118.9	118.7	118.2	117.3	116.1
10	119.0	118.5	118.1	117.3	115.9
15	116.3	115.9	116.2	115.8	114.6
20	111.8	111.8	112.8	112.7	111.9
25	106.7	106.7	107.7	107.6	107.2
30	101.1	100.8	101.3	100.8	100.5
35	94.2	93.1	92.8	91.3	90.7
40	84.5	81.9	81.2	79.1	77.7
45	71.3	67.5	67.0	65.0	63.8
50	55.4	50.5	50.1	48.8	48.2
55	39.7	35.3	35.4	34.8	34.6
60	26.5	23.2	23.1	22.6	22.7
65	15.0	13.3	12.7	11.9	11.7
70	7.5	6.7	6.4	5.8	5.8
75	3.4	2.9	2.6	2.3	2.2
80	1.1	0.9	0.9	0.8	0.7
85	0.6	0.5	0.5	0.4	0.4
90	0.4	0.4	0.4	0.4	0.4
95	0.5	0.5	0.6	0.6	0.6
100	0.7	0.7	0.7	0.7	0.8
105	0.8	0.8	0.9	0.9	0.9
110	1.0	1.0	1.0	1.0	1.1
115	1.1	1.1	1.1	1.2	1.2
120	1.1	1.2	1.3	1.3	1.3
125	1.1	1.3	1.4	1.4	1.5
130	1.1	1.5	1.5	1.5	1.6
135	1.2	1.6	1.6	1.6	1.7
140	1.3	1.7	1.7	1.7	1.8
145	1.1	1.8	1.8	1.8	1.9
150	1.0	1.8	1.9	1.9	1.9
155	0.9	1.7	1.9	1.9	2.0
160	1.0	1.7	2.0	2.0	2.0
165	1.0	1.6	2.1	2.1	2.1
170	0.7	1.2	1.7	1.9	2.0
175	0.2	0.2	0.5	1.1	1.3
180	0.8	0.9	0.6	0.3	0.3

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB78827X

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLTB78827X		
0-30	84.7	34.5
0-40	138.8	56.4
0-60	221.0	89.8
0-90	237.7	96.6
60-90	16.7	6.8
0-180	246.0	100.0

Beam Angle

Total Beam Angle(°)

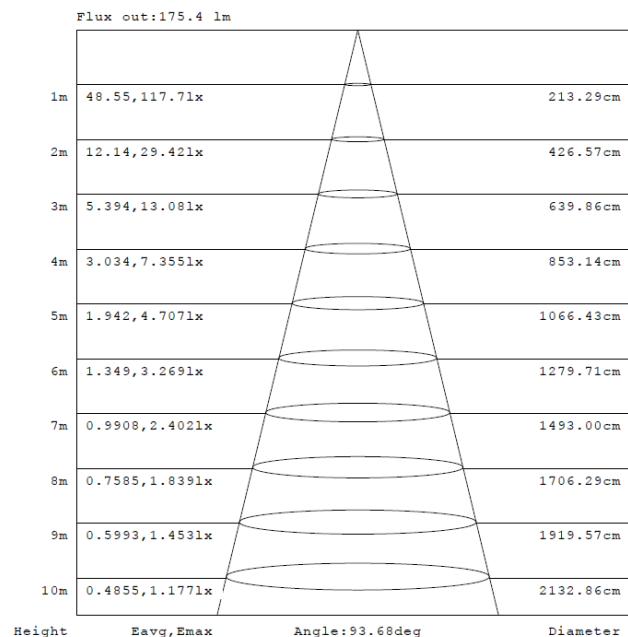
94.6

Illumination Plots

Model No.: SLTB78827X

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

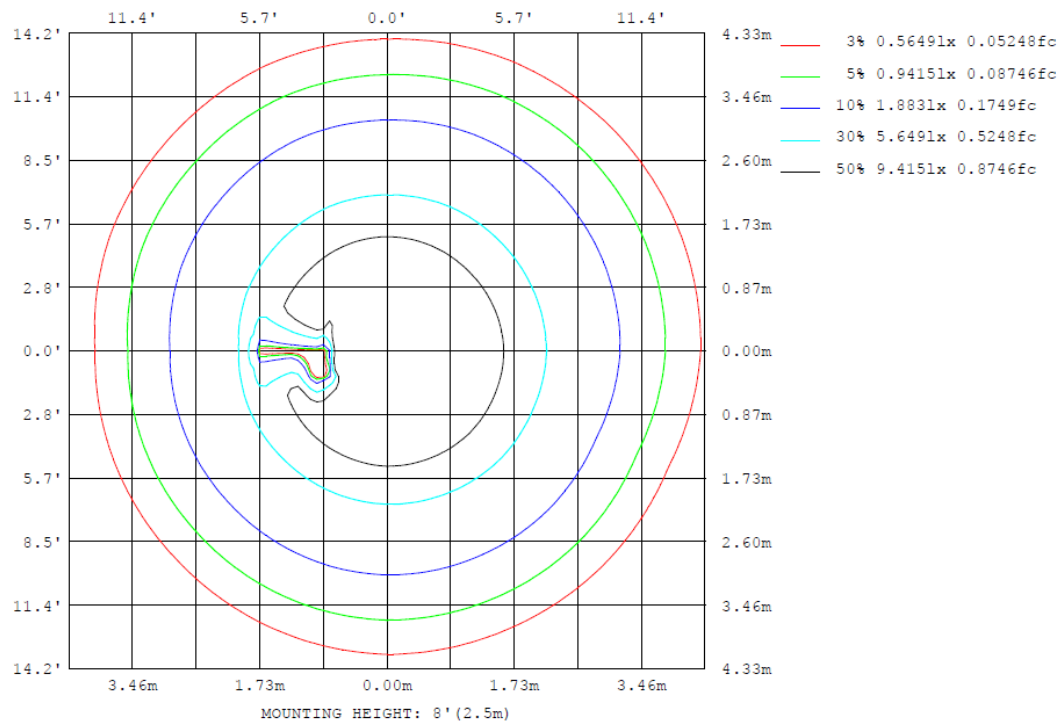
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB78827X

Model No.: SLTB78827X

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB78827X

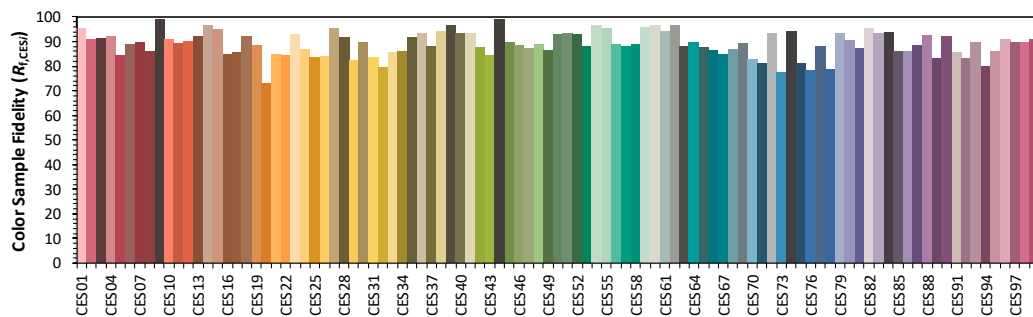
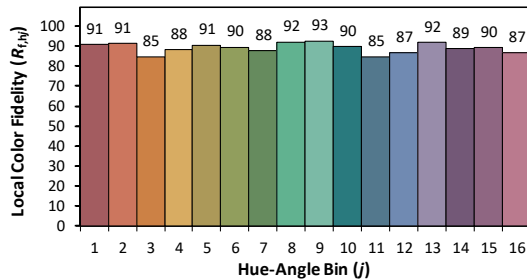
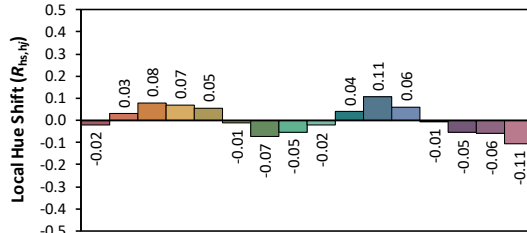
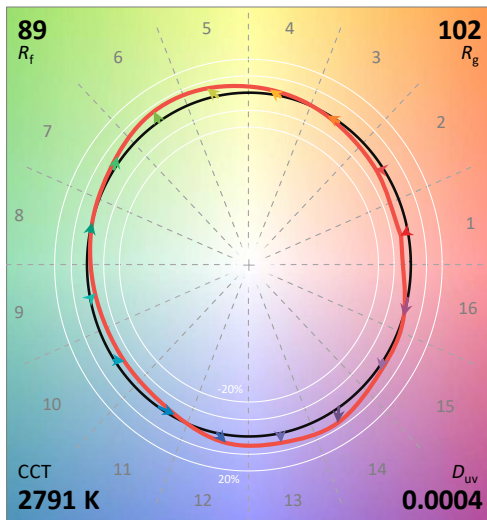
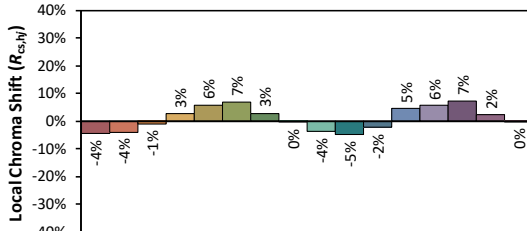
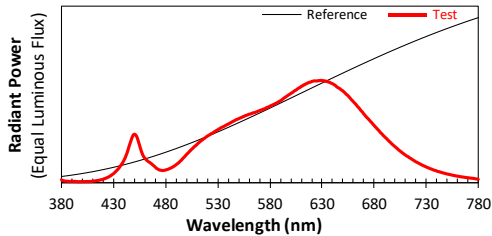
ANSI/IES +B3:X8TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/7/24

Model: SLTB78827X



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

x 0.4531
 y 0.4099
 u' 0.2585
 v' 0.5261

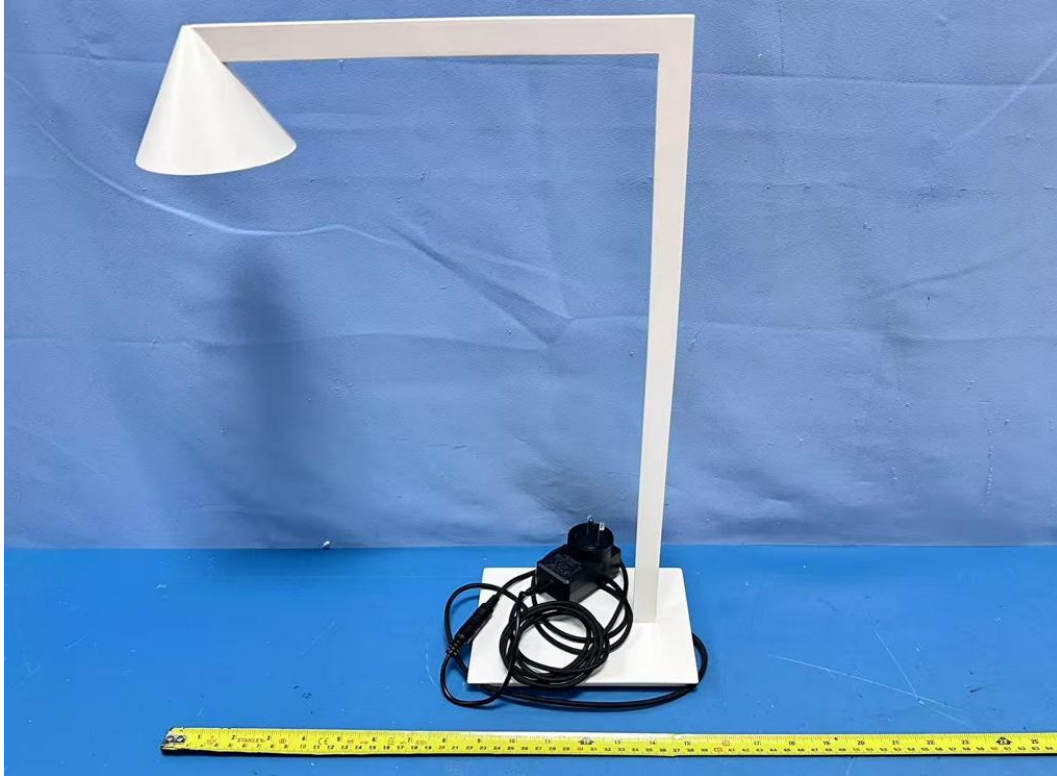
CIE 13.3-1995
(CRI)
 R_a 91
 R_g 63

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 SLTB78827X

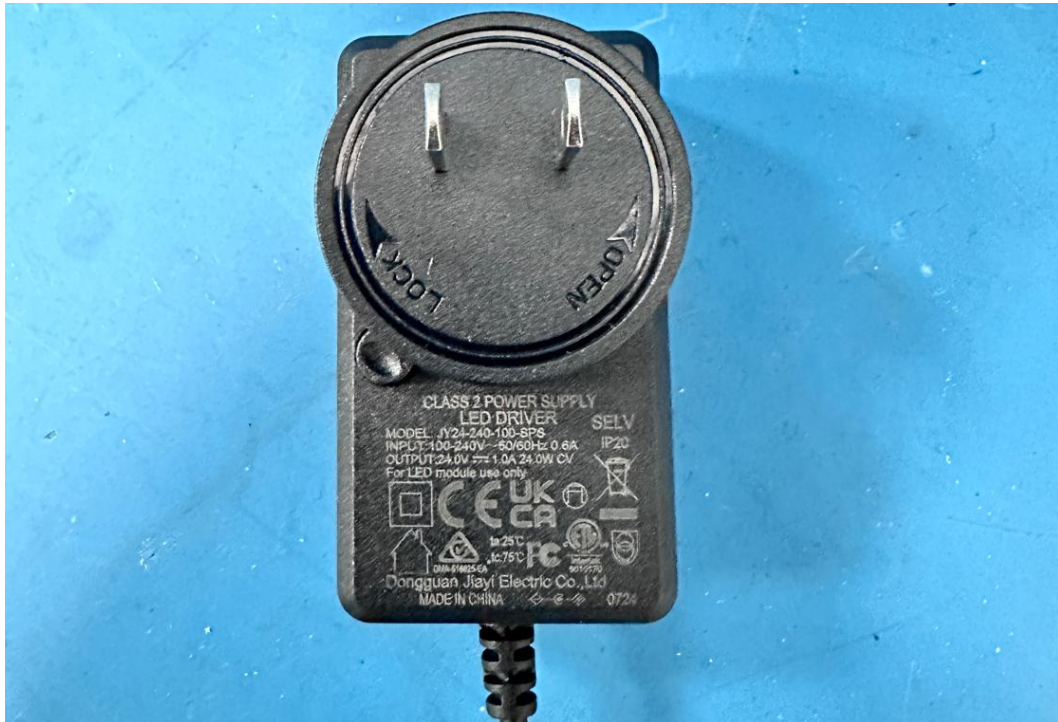


View of LED

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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver JY24-240-100-SPS

In Charge Of Tests:

Done Ye

Done Ye
Engineer

Report Reviewed By

Shelley Ying

Shelley Ying
Reviewer

Attachment: None

***** End of Report *****