

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251110010GZU-010

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REVISION DATE

None

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Report format for LM-79_G

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Report No.: 251110010GZU-010

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLV84427XXXCA

Remark: "XXX" represents the color of the appearance.

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

7400 LINDER AVE. SKOKIE, IL, 60077

Email: jrivero@visualcomfort.com

Phone No.: 847-410-4552

TEST: Electrical and Photometric as required to the IES LM-79 test standard.

AUTHORIZATION: The testing performed was authorized by signed quote number: QGZ251106008.

STANDARDS USED: 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

DESCRIPTION OF SAMPLE: The client submitted one sample of model SLV84427XXXCA. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251110010-011.

MANUFACTURER /FACTORY & ADDRESS: Guangzhou Xiongyi Precision Metalworking Co., Ltd
Hantang Industrial Zone, Langbian Village, Shiji Town, Panyu District, Guangzhou City, Guangdong Province, China 511450

DATES OF TESTS: 02 December 2025

ISSUED BY: Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

TEST LOCATION: 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:	SLV84427XXXCA
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLV84427XXXCA

Criteria	Result
Total Lumen Output	996.4 lm
Total Power	14.5 W
Luminaire Efficacy	68.6 lm/W
S/MH(C0/180)	4.28
S/MH(C90/270)	1.50
Correlated Color Temperature (CCT)	2544 K
Color Rendering Index (CRI)	94
R9	75
Chromaticity Coordinate (x)	0.4711
Chromaticity Coordinate (y)	0.4097
Chromaticity Coordinate (u')	0.2702
Chromaticity Coordinate (v')	0.5287

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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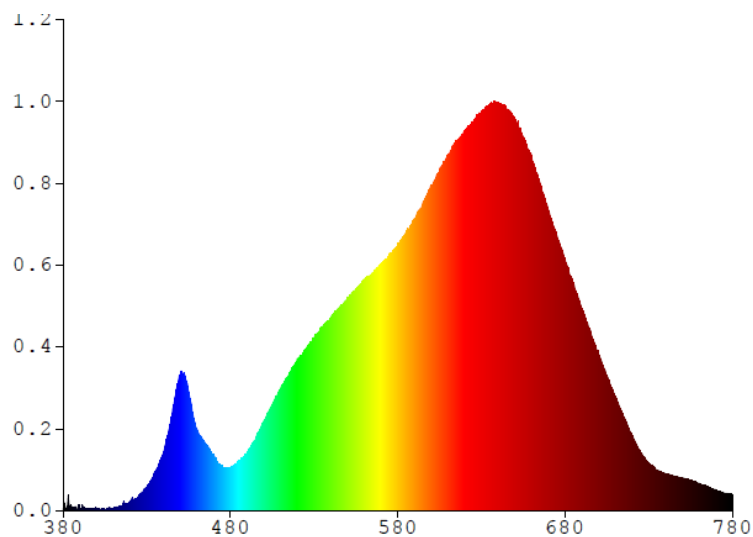
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLV84427XXXCA

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	0.9617	580	6.0671	680	5.7385	780	0.3691
385	0.0479	485	1.1431	585	6.3453	685	5.1831		
390	0.0383	490	1.3396	590	6.6598	690	4.5943		
395	0.0466	495	1.6490	595	7.0049	695	4.1179		
400	0.0198	500	2.0407	600	7.4060	700	3.5760		
405	0.0346	505	2.4080	605	7.7407	705	3.0684		
410	0.0521	510	2.7885	610	8.0883	710	2.6071		
415	0.0941	515	3.1109	615	8.4270	715	2.1446		
420	0.2217	520	3.4677	620	8.6501	720	1.7233		
425	0.3298	525	3.6823	625	8.8584	725	1.3291		
430	0.5427	530	3.9235	630	9.0799	730	1.0747		
435	0.8919	535	4.1965	635	9.2690	735	0.9257		
440	1.3253	540	4.3873	640	9.3021	740	0.8423		
445	2.1507	545	4.6268	645	9.1556	745	0.7932		
450	3.0961	550	4.8420	650	8.9328	750	0.7500		
455	2.6976	555	5.0514	655	8.5127	755	0.7039		
460	1.8505	560	5.2657	660	8.0497	760	0.6297		
465	1.5126	565	5.4243	665	7.4721	765	0.5540		
470	1.2562	570	5.6204	670	6.8476	770	0.4770		
475	1.0263	575	5.8496	675	6.1578	775	0.4013		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV84427XXXCA

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

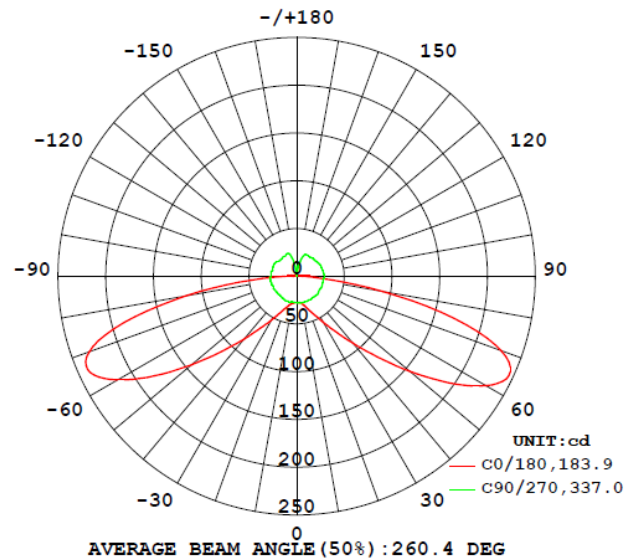
Photometric Measurements at 25°C – Distribution Method

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')
SLV84427XXXCA								
S2511100 10-011	base-up	2544	94	75	0.4711	0.4097	0.2702	0.5287

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)
SLV84427XXXCA							
S2511100 10-011	base-up	120.2	122.5	14.5	0.99	996.4	68.6

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV84427XXXCA

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	27.6	27.7	27.7	27.7	27.6
5	28.0	28.1	28.2	27.8	27.6
10	28.9	28.4	28.3	28.6	28.2
15	32.2	30.1	29.7	28.6	28.2
20	37.4	34.8	31.9	28.6	28.4
25	45.0	40.4	35.2	29.2	28.0
30	55.6	48.7	39.5	29.7	28.1
35	70.5	60.0	44.5	31.5	28.0
40	91.3	75.5	52.3	32.3	28.3
45	119.4	96.8	58.4	33.8	28.5
50	154.7	122.4	67.2	35.4	29.0
55	194.3	150.9	76.4	36.0	28.2
60	229.1	189.7	85.3	36.7	27.8
65	245.4	220.3	94.7	38.5	28.4
70	228.0	248.8	103.9	39.9	28.4
75	170.7	265.4	112.3	40.2	28.1
80	91.3	265.9	120.3	40.4	27.8
85	26.1	260.2	125.4	40.8	28.5
90	5.1	247.0	123.9	40.7	28.8
95	14.0	241.8	118.1	40.0	28.8
100	6.2	239.1	110.5	38.9	28.3
105	3.2	231.4	102.3	37.5	27.9
110	2.9	212.2	93.4	36.4	27.6
115	2.3	195.1	83.4	34.8	27.6
120	1.5	168.5	72.7	33.2	27.0
125	1.3	136.0	64.0	31.1	26.3
130	1.0	107.0	54.8	29.3	25.6
135	0.8	83.0	46.2	28.4	25.5
140	0.7	60.6	40.2	26.7	25.3
145	0.6	37.5	35.3	25.9	24.8
150	0.4	24.2	31.1	26.0	25.0
155	0.3	16.7	25.3	25.7	24.7
160	0.3	11.4	17.7	23.1	24.5
165	0.3	6.7	13.1	16.4	17.8
170	0.3	0.5	7.8	11.0	11.9
175	0.3	0.3	0.3	1.8	3.6
180	0.3	0.3	0.3	0.3	0.1

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV84427XXXCA

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLV84427XXXCA		
0-30	27.7	2.8
0-40	56.7	5.7
0-60	187.6	18.8
0-90	559.3	56.1
60-90	371.7	37.3
0-180	996.4	100.0

Beam Angle

Total Beam Angle(°)

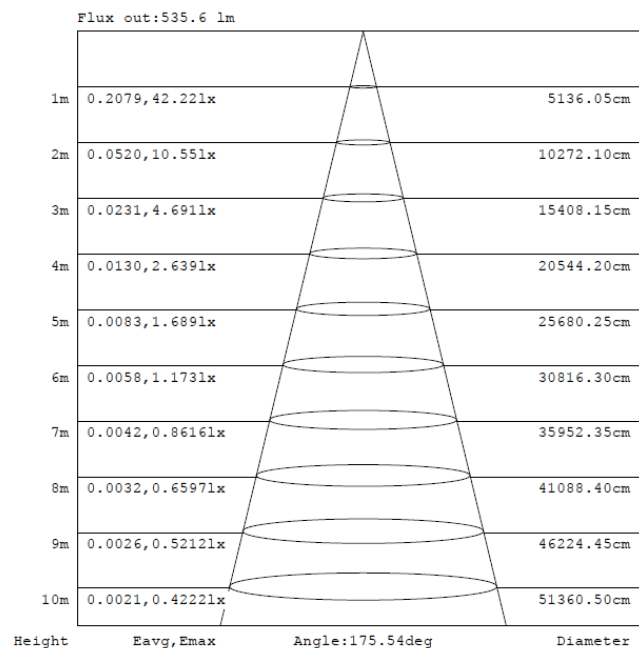
260.4

Illumination Plots

Model No.: SLV84427XXXCA

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

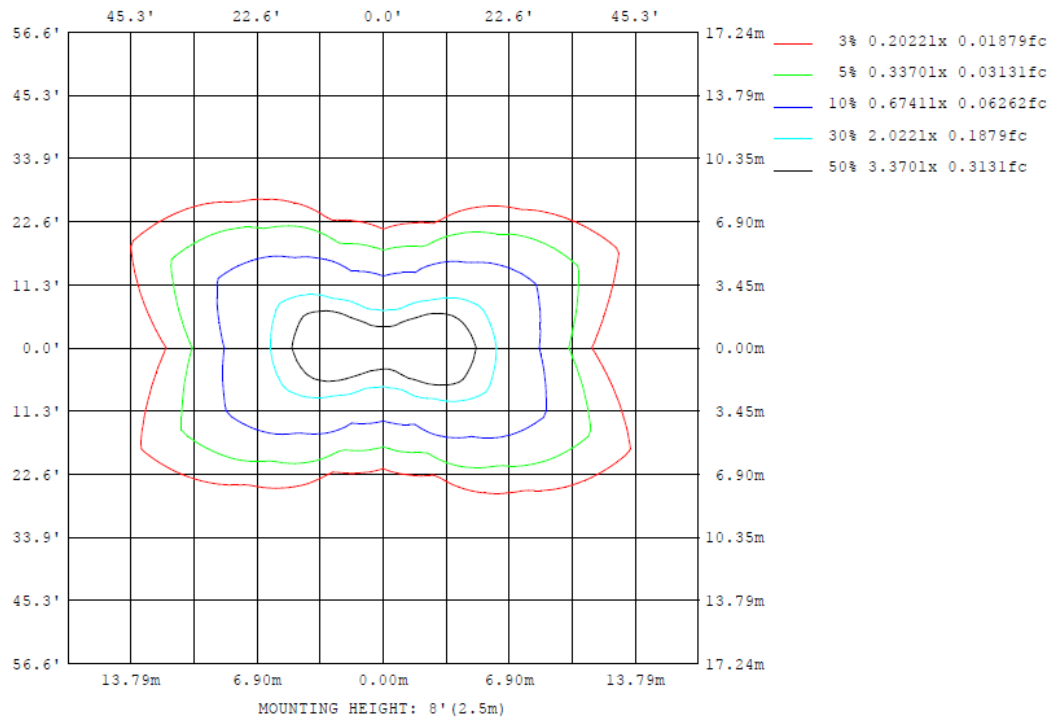
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV84427XXXCA

Model No.: SLV84427XXXCA

Mount Height: 2.5 m

Isoillumination Plot



TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV84427XXXCA

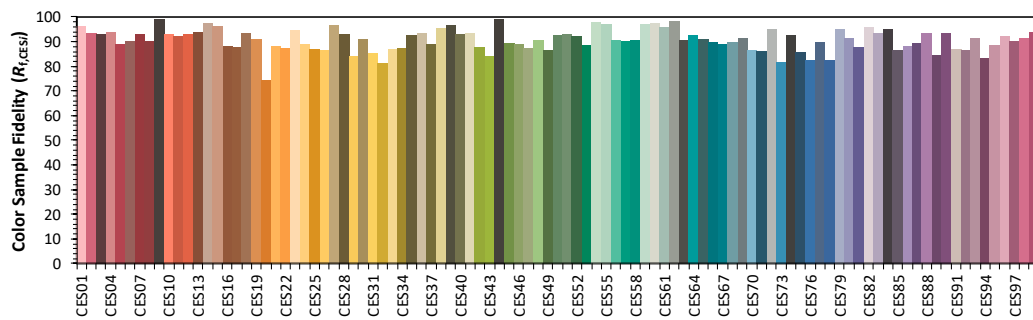
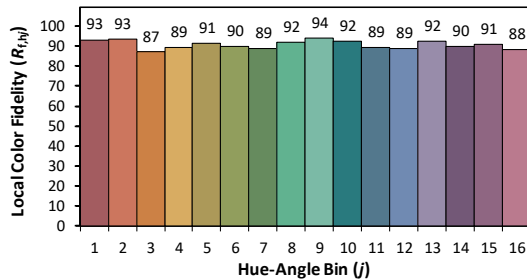
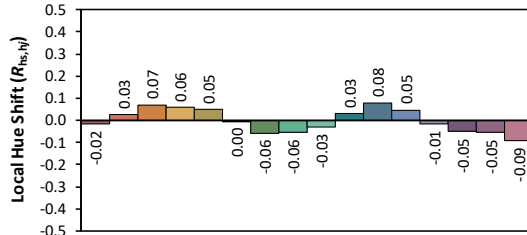
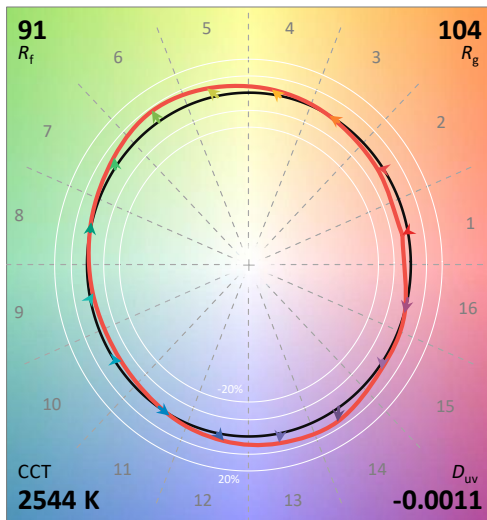
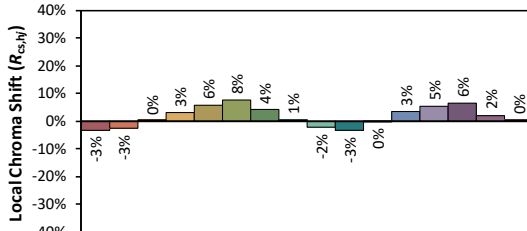
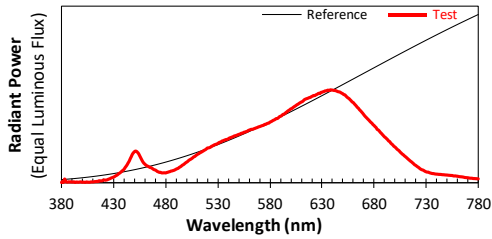
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/12/2

Model: SLV84427XXXCA



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

x 0.4711
 y 0.4097
 u' 0.2702
 v' 0.5287

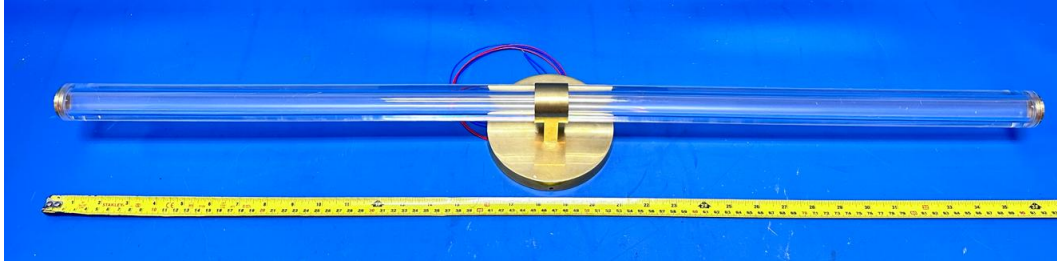
CIE 13.3-1995
(CRI)
 R_a 94
 R_g 75

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

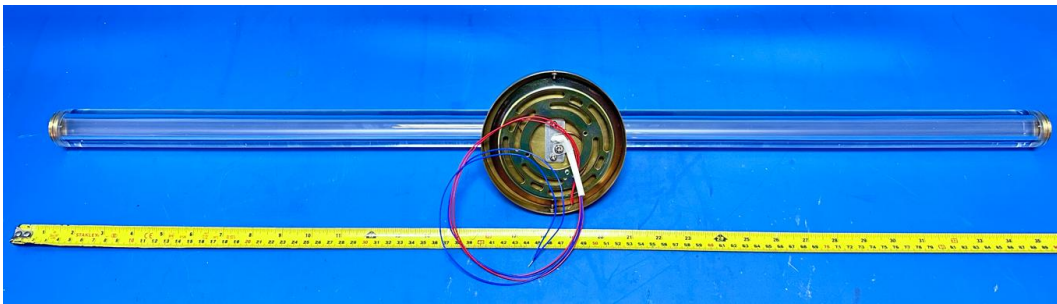
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TEST REPORT

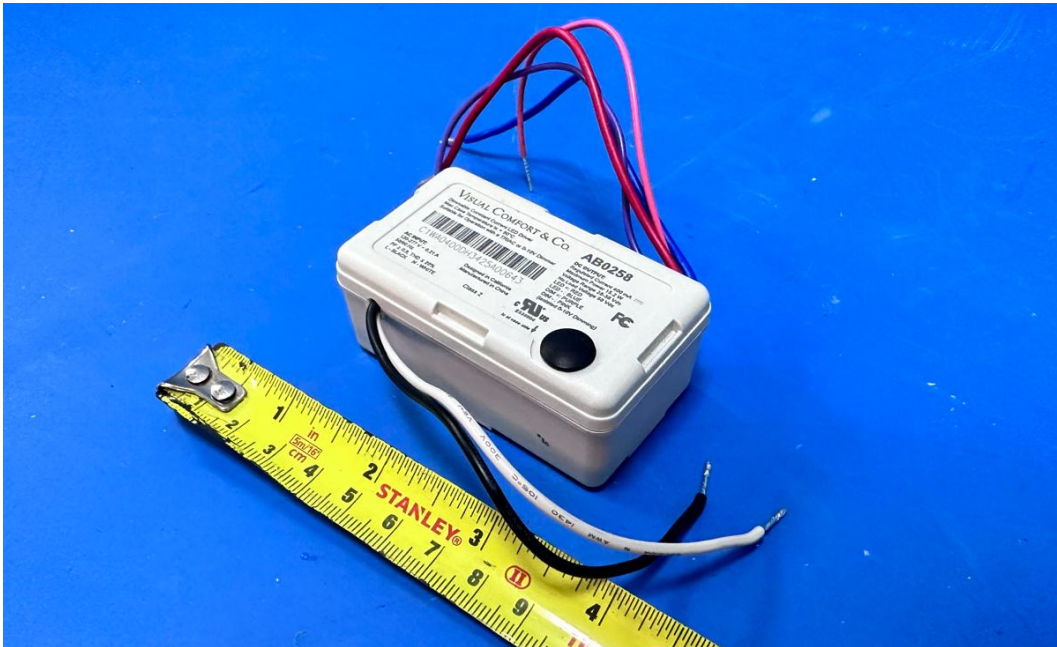
PRODUCT PICTURE (not to scale)



External view of SLV84427XXXCA



External view of SLV84427XXXCA



View of LED driver PTB20W-0400-38-VCC1 (AB0258)

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

TEST REPORT

PRODUCT PICTURE (not to scale)



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 *****