

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251110010GZU-021

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REVISION DATE

None

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13

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 251110010GZU-021

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. PBV80127XXX

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

<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: QGZ251106008.
<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 PBV80127XXX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251110010-024.
<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>	12 December 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:	PBV80127XXX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For PBV80127XXX

Criteria	Result
Total Lumen Output	1184.0 lm
Total Power	15.8 W
Luminaire Efficacy	75.1 lm/W
S/MH(C0/180)	1.22
S/MH(C90/270)	3.52
Correlated Color Temperature (CCT)	2542 K
Color Rendering Index (CRI)	93
R9	60
Chromaticity Coordinate (x)	0.4744
Chromaticity Coordinate (y)	0.4150
Chromaticity Coordinate (u')	0.2699
Chromaticity Coordinate (v')	0.5312

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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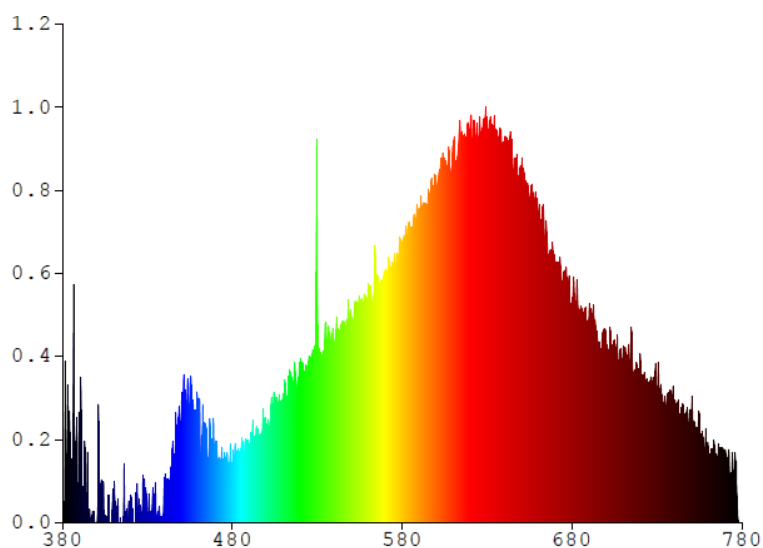
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For PBV80127XXX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	0.0203	580	0.1352	680	0.1119	780	0.0000
385	0.0128	485	0.0327	585	0.1475	685	0.1080		
390	0.0037	490	0.0349	590	0.1582	690	0.1035		
395	0.0000	495	0.0450	595	0.1565	695	0.0916		
400	0.0000	500	0.0493	600	0.1718	700	0.0926		
405	0.0000	505	0.0579	605	0.1782	705	0.0900		
410	0.0002	510	0.0643	610	0.1880	710	0.0851		
415	0.0000	515	0.0668	615	0.1963	715	0.0970		
420	0.0028	520	0.0790	620	0.1969	720	0.0757		
425	0.0102	525	0.0840	625	0.1943	725	0.0708		
430	0.0053	530	0.1162	630	0.2045	730	0.0690		
435	0.0061	535	0.1007	635	0.1913	735	0.0595		
440	0.0212	540	0.0898	640	0.1857	740	0.0577		
445	0.0326	545	0.1014	645	0.1784	745	0.0584		
450	0.0584	550	0.0991	650	0.1749	750	0.0523		
455	0.0561	555	0.1046	655	0.1619	755	0.0524		
460	0.0473	560	0.1203	660	0.1524	760	0.0404		
465	0.0387	565	0.1246	665	0.1474	765	0.0332		
470	0.0370	570	0.1261	670	0.1302	770	0.0360		
475	0.0225	575	0.1292	675	0.1160	775	0.0205		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For PBV80127XXX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

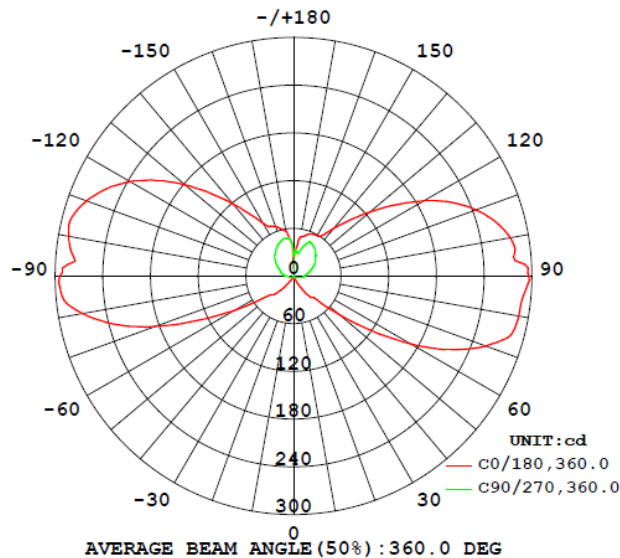
Photometric Measurements at 25°C – Distribution Method

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')
PBV80127XXX								
S2511100 10-024	base-up	2542	93	60	0.4744	0.4150	0.2699	0.5312

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)
PBV80127XXX							
S2511100 10-024	base-up	120.2	132.9	15.8	0.99	1184.0	75.1

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For PBV80127XXX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	0.6	0.6	0.7	0.7	0.7
5	0.6	0.7	0.7	0.7	0.7
10	0.7	0.7	0.7	0.8	0.8
15	0.7	0.7	0.8	0.8	0.8
20	0.7	0.8	0.8	0.9	0.9
25	1.6	9.3	1.0	1.0	1.0
30	12.3	21.2	8.7	1.1	1.2
35	25.0	33.0	18.9	1.3	1.5
40	35.6	36.9	29.6	1.8	1.9
45	43.6	64.2	33.1	7.9	2.4
50	75.9	103.4	54.9	16.1	3.0
55	119.0	153.0	89.6	24.8	3.7
60	171.0	201.6	132.8	29.4	4.5
65	219.4	240.0	172.3	53.3	5.4
70	257.0	268.4	201.5	86.0	6.4
75	283.9	273.0	211.9	111.5	7.5
80	287.9	273.9	210.6	115.4	10.7
85	290.1	279.7	217.1	119.7	12.1
90	295.5	265.6	219.6	121.6	12.5
95	277.9	239.1	183.7	106.4	14.9
100	276.9	237.9	172.5	85.4	17.5
105	263.4	223.4	159.8	66.8	20.4
110	244.3	202.1	137.0	53.0	23.9
115	219.8	172.9	112.4	44.0	27.3
120	189.5	143.5	89.8	40.5	30.8
125	156.9	114.1	71.7	42.1	33.5
130	125.8	90.8	58.9	44.0	36.8
135	99.9	72.0	53.9	44.6	39.8
140	78.4	60.1	54.0	45.4	42.6
145	62.4	58.0	54.1	45.8	44.9
150	59.3	57.5	52.5	45.0	47.0
155	58.5	55.0	50.4	45.7	47.3
160	56.2	51.6	45.6	39.9	41.7
165	52.3	45.8	37.7	34.1	34.4
170	49.9	33.9	26.0	27.2	28.9
175	33.0	13.8	28.1	28.9	31.3
180	12.9	45.9	49.6	29.2	24.9

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For PBV80127XXX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
PBV80127XXX		
0-30	1.1	0.1
0-40	5.5	0.5
0-60	58.6	5.0
0-90	469.4	39.7
60-90	410.8	34.7
0-180	1184.0	100.0

Beam Angle

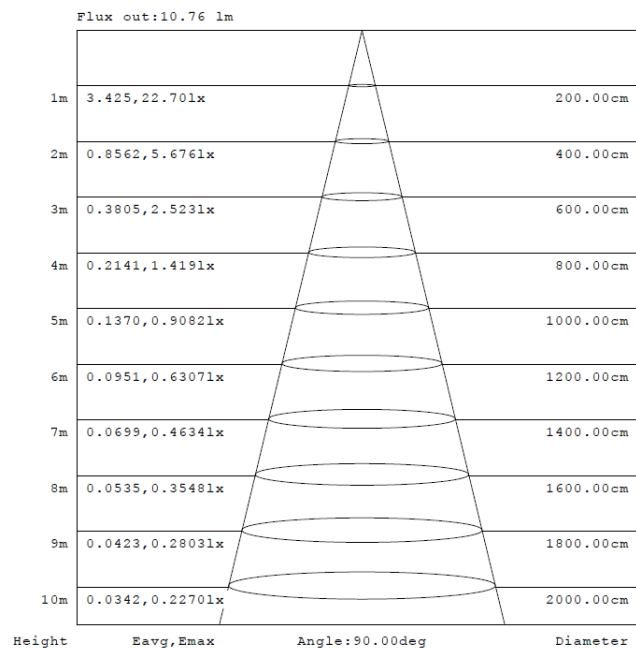
Total Beam Angle(°)
360.0

Illumination Plots

Model No.: PBV80127XXX

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

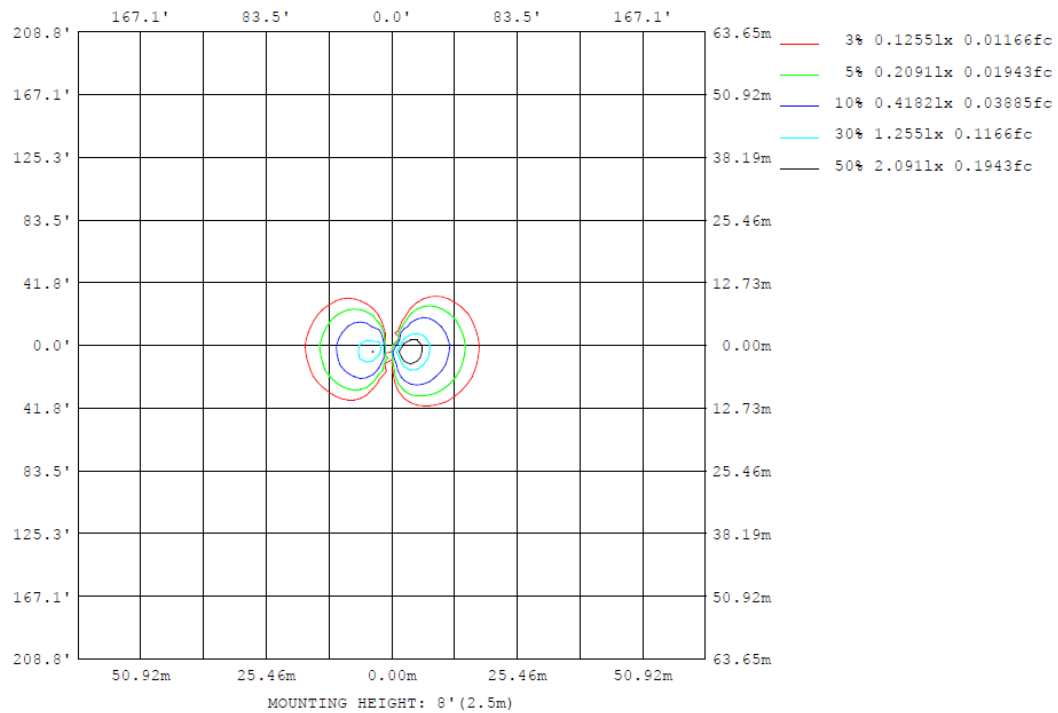
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For PBV80127XXX

Model No.: PBV80127XXX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For PBV80127XXX

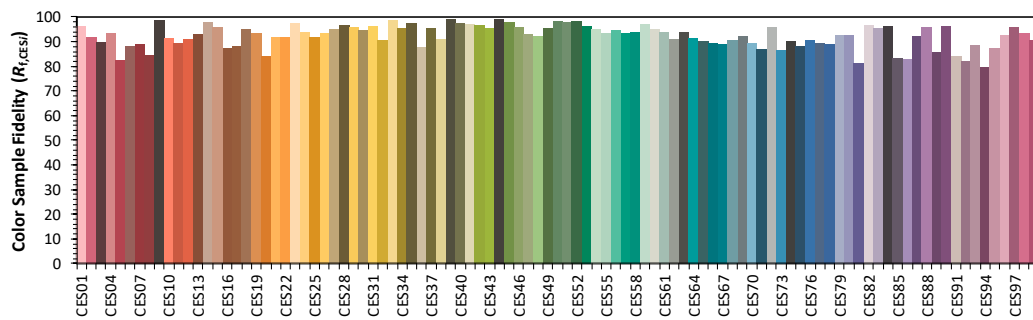
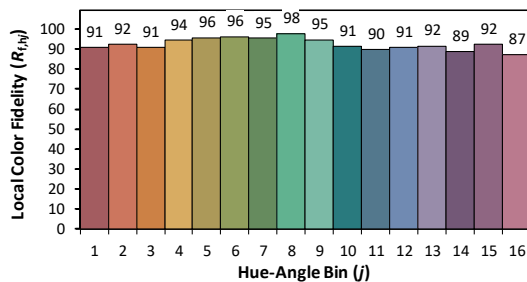
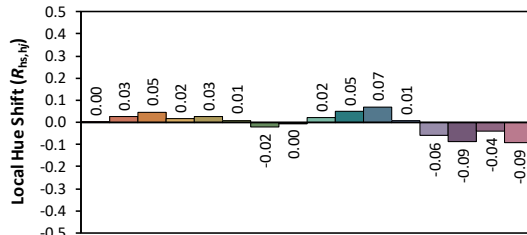
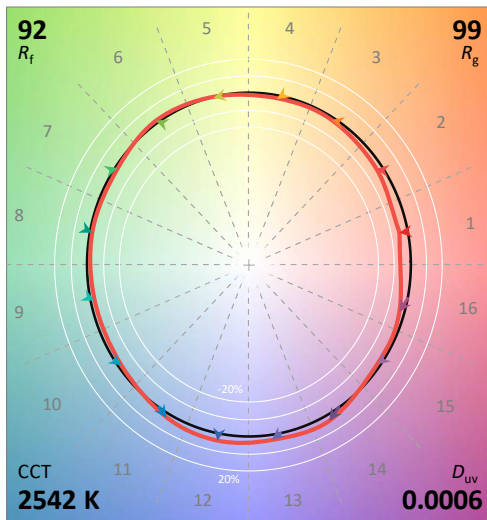
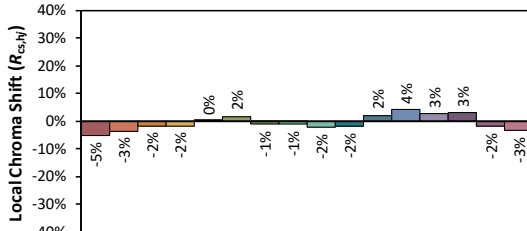
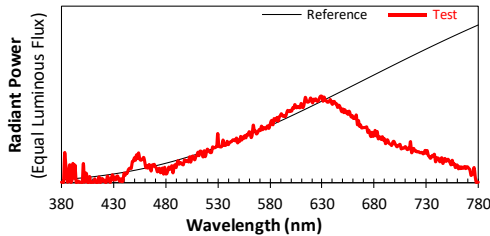
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/12/12

Model: PBV80127XXX



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

x 0.4744
 y 0.4150
 u' 0.2699
 v' 0.5312

CIE 13.3-1995
(CRI)
 R_a 93
 R_g 60

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

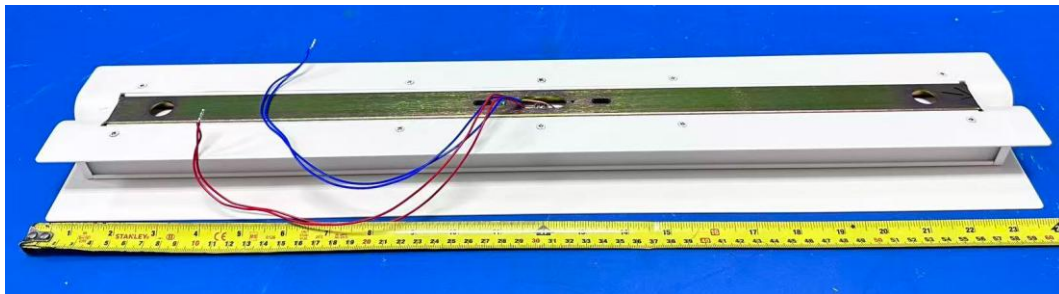
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TEST REPORT

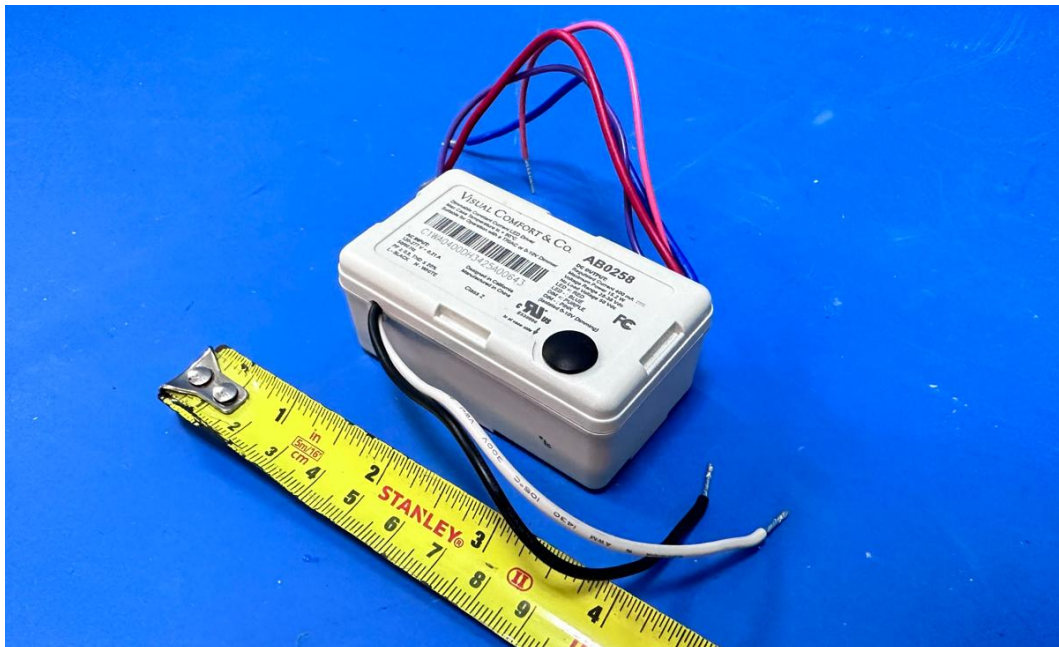
PRODUCT PICTURE (not to scale)



External view of PBV80127XXX



External view of PBV80127XXX



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

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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 *****