

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251027067GZU-019

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REVISION DATE

None

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Report No.: 251027067GZU-019

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. PBWS80927XXXEG

Remark: "XXX" 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: QGZ251023107.
<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 PBWS80927XXXEG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251027067-025.
<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>	04 February 2026
<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:	PBWS80927XXXEG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For PBWS80927XXXEG

Criteria	Result
Total Lumen Output	447.6 lm
Total Power	9.4 W
Luminaire Efficacy	47.5 lm/W
S/MH(C0/180)	1.19
S/MH(C90/270)	1.56
Correlated Color Temperature (CCT)	2657 K
Color Rendering Index (CRI)	95
R9	63
Chromaticity Coordinate (x)	0.4648
Chromaticity Coordinate (y)	0.4139
Chromaticity Coordinate (u')	0.2642
Chromaticity Coordinate (v')	0.5293

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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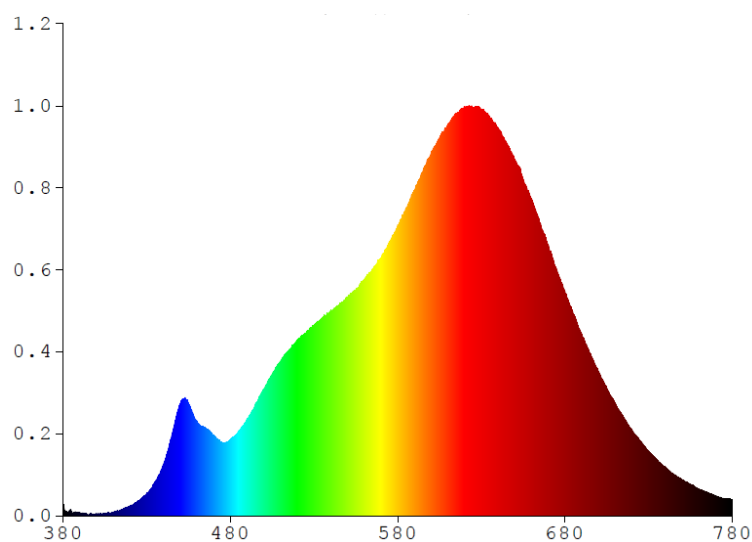
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For PBWS80927XXXEG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.2815	480	4.2313	580	16.0780	680	12.4010	780	0.9272
385	0.2022	485	4.7153	585	17.0390	685	11.1620		
390	0.2013	490	5.3681	590	18.0170	690	10.0430		
395	0.0438	495	6.2058	595	19.0520	695	9.0088		
400	0.1080	500	7.0297	600	20.0690	700	8.0137		
405	0.1230	505	7.8446	605	20.9010	705	7.0680		
410	0.2144	510	8.5570	610	21.6780	710	6.2342		
415	0.3566	515	9.1598	615	22.2730	715	5.4488		
420	0.5266	520	9.7237	620	22.6610	720	4.7445		
425	0.8363	525	10.0850	625	22.6130	725	4.1729		
430	1.2500	530	10.5160	630	22.4950	730	3.5916		
435	1.8962	535	10.9590	635	21.9480	735	3.1080		
440	2.8615	540	11.3650	640	21.4620	740	2.7054		
445	4.4466	545	11.6720	645	20.6540	745	2.3236		
450	6.1965	550	12.0980	650	19.6980	750	2.0034		
455	6.2018	555	12.5220	655	18.6160	755	1.7484		
460	5.2363	560	13.1080	660	17.5300	760	1.5005		
465	4.8745	565	13.6790	665	16.2330	765	1.2985		
470	4.4507	570	14.2480	670	14.9750	770	1.1215		
475	4.0659	575	15.1430	675	13.3350	775	0.9618		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For PBWS80927XXXEG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

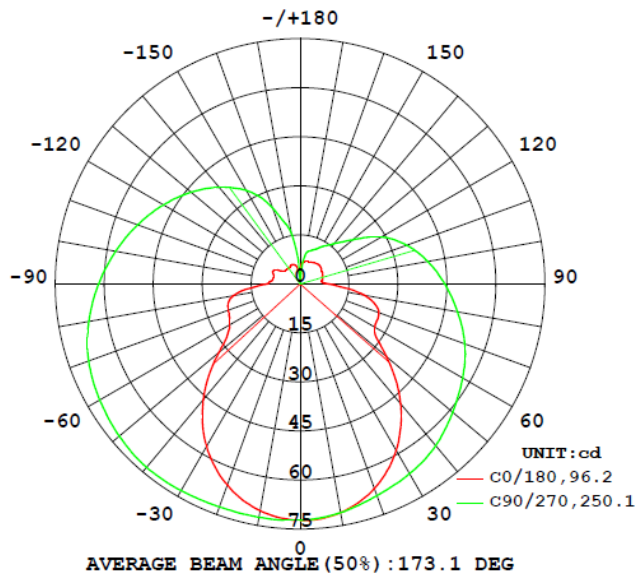
Photometric Measurements at 25°C – Distribution Method

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')
PBWS80927XXXEG								
S2510270 67-025	base-up	2657	95	63	0.4648	0.4139	0.2642	0.5293

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)
PBWS80927XXXEG							
S2510270 67-025	base-up	120.1	79.6	9.4	0.99	447.6	47.5

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For PBWS80927XXXEG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	72.3	72.3	72.3	72.2	72.2
5	72.1	72.0	71.9	71.9	71.8
10	71.0	71.0	71.1	71.2	71.0
15	69.2	69.4	69.9	70.2	70.0
20	66.6	67.1	68.3	69.2	68.9
25	63.1	64.3	66.5	68.2	67.9
30	58.8	60.8	64.5	67.2	67.0
35	53.7	56.8	62.3	66.0	66.0
40	47.9	52.5	59.8	64.5	64.6
45	41.4	48.0	57.1	62.8	62.8
50	34.5	43.2	54.3	60.9	61.0
55	28.5	38.3	51.3	59.1	59.2
60	26.4	33.6	48.5	57.2	57.5
65	26.1	29.4	45.8	55.4	55.7
70	25.7	26.0	43.2	53.3	53.7
75	23.7	23.3	40.7	50.9	51.4
80	19.9	21.3	38.2	48.5	49.0
85	13.8	19.6	35.9	46.1	46.6
90	8.8	18.4	33.9	43.8	44.3
95	6.7	17.6	32.2	41.7	42.1
100	6.8	17.0	30.6	39.4	39.7
105	7.3	16.6	29.0	37.1	37.3
110	7.4	16.3	27.3	34.6	34.8
115	7.7	16.0	25.5	32.0	32.0
120	7.7	15.6	23.8	29.2	28.8
125	8.0	15.3	21.9	26.1	24.9
130	8.2	14.7	20.0	22.9	21.1
135	8.3	13.6	18.2	20.1	18.3
140	8.1	12.8	16.7	17.8	16.1
145	7.9	12.2	15.2	16.0	14.4
150	7.7	12.0	13.8	14.4	13.2
155	7.5	11.6	12.6	12.9	11.9
160	7.3	10.2	12.0	11.8	11.1
165	7.1	8.1	10.9	11.1	10.4
170	6.9	6.5	7.9	9.1	9.0
175	6.1	5.4	5.2	4.8	3.9
180	0.0	0.0	0.0	0.0	0.0

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For PBWS80927XXXEG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
PBWS80927XXXEG		
0-30	57.2	12.8
0-40	95.6	21.4
0-60	181.0	40.5
0-90	302.0	67.5
60-90	121.0	27.0
0-180	447.6	100.0

Beam Angle

Total Beam Angle(°)

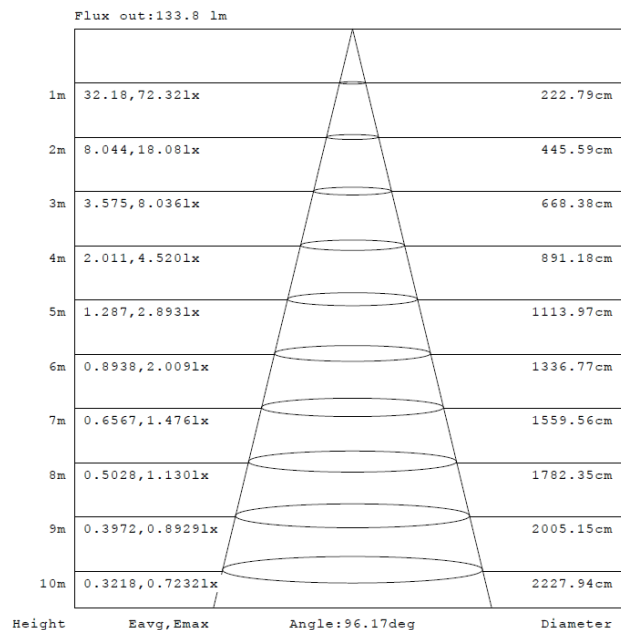
173.1

Illumination Plots

Model No.: PBWS80927XXXEG

Mount Height: 2.5 m

Illuminance - Cone of Light



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TEST REPORT

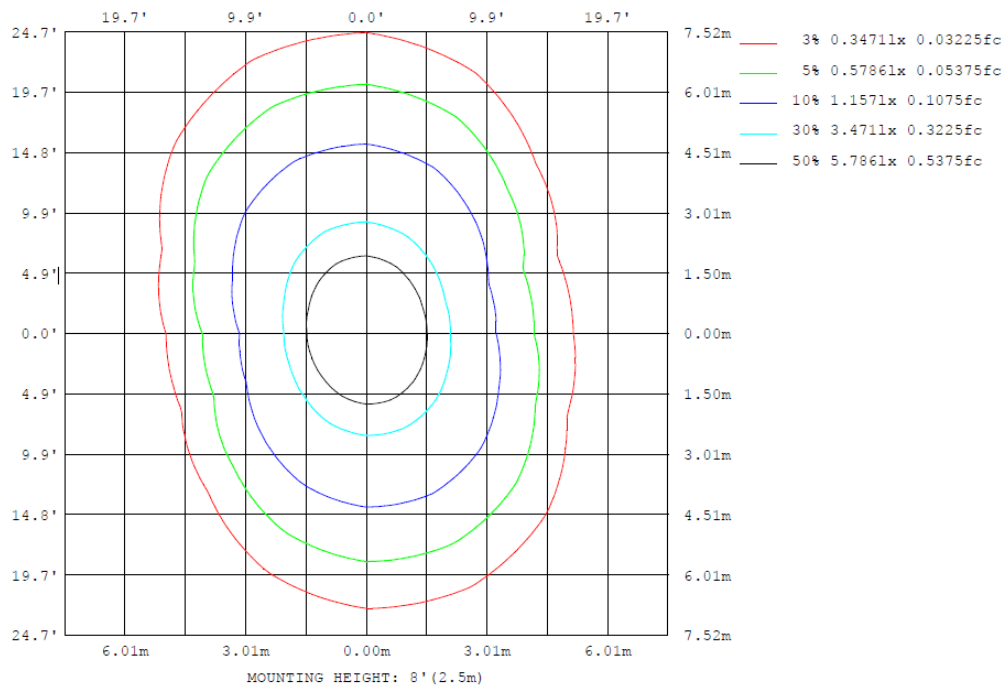
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For PBWS80927XXXEG

Model No.: PBWS80927XXXEG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For PBWS80927XXXEG

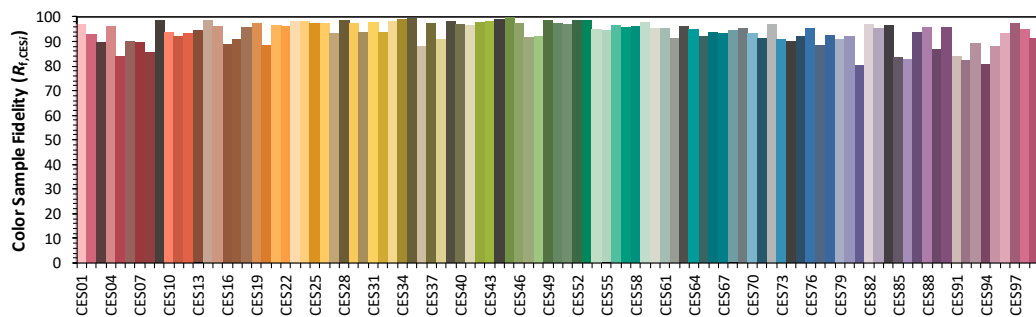
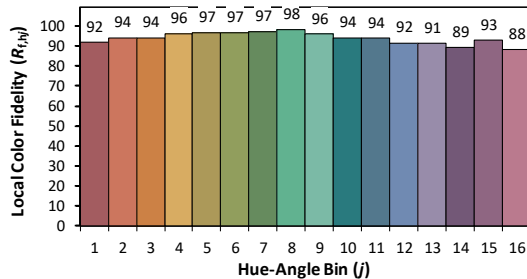
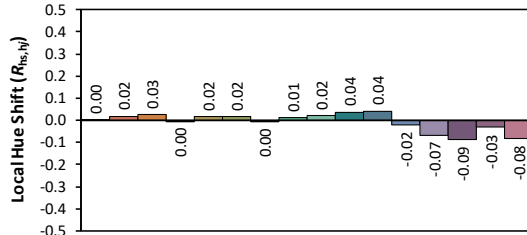
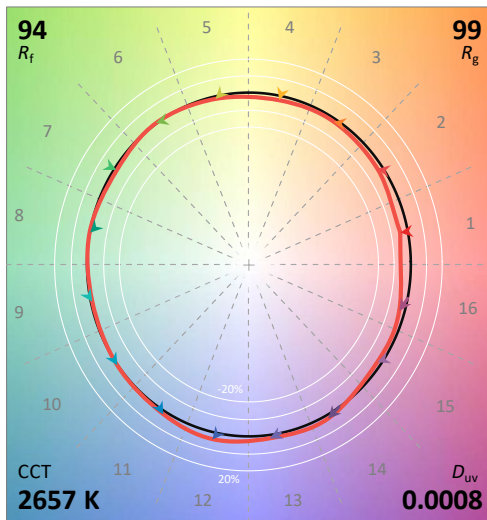
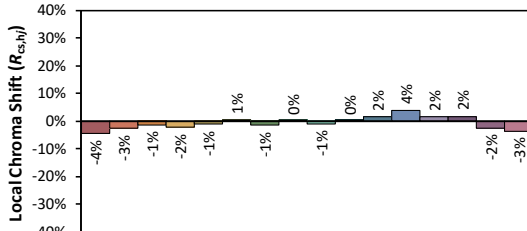
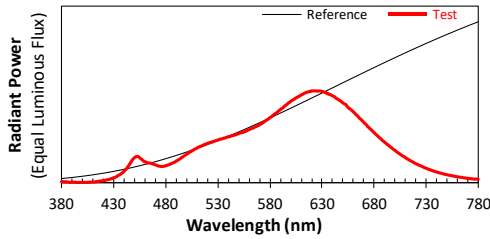
ANSI/IES+B3:X17 TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2026/2/4

Model: PBWS80927XXXEG



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

x 0.4648
 y 0.4139
 u' 0.2642
 v' 0.5293

CIE 13.3-1995
(CRI)
 R_a 95
 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 PBWS80927XXXEG

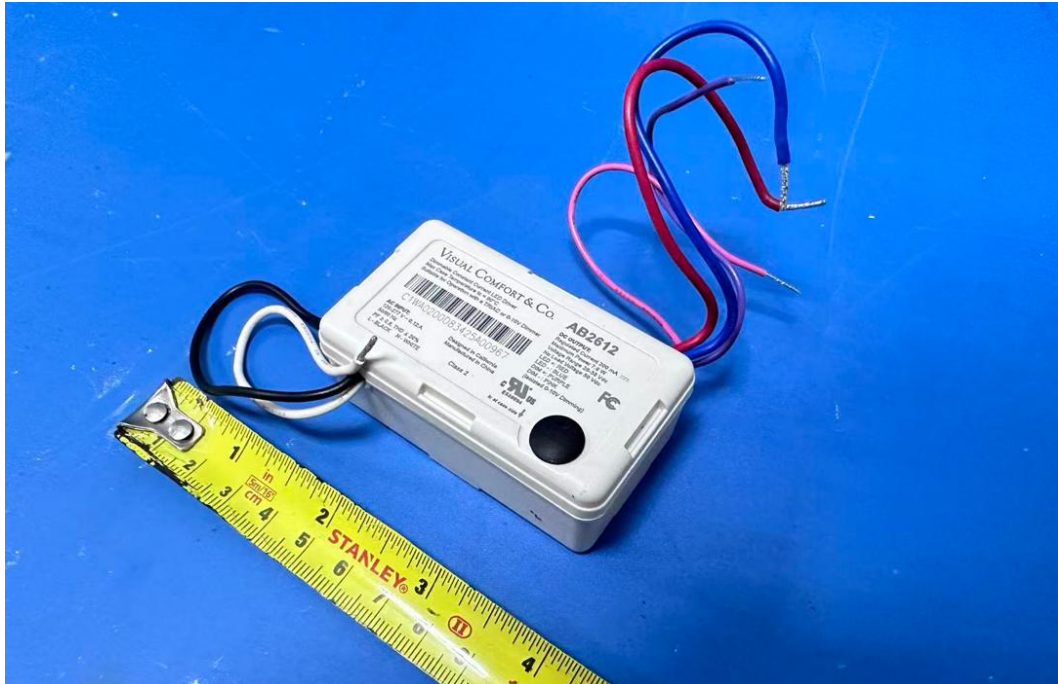


View of LED

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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of PTB10W-0200-38-VCC1(AB2612)

In Charge Of Tests:

Done Ye

Done Ye
Engineer

Report Reviewed By

Shelley Ying

Shelley Ying
Reviewer

Attachment: None

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