

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251027067GZU-002

ISSUE DATE

26 January 2026

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 251027067GZU-002

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLV83027XXXCG

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 SLV83027XXXCG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251027067-001.
<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>	18 November 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:	SLV83027XXXCG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLV83027XXXCG

Criteria	Result
Total Lumen Output	285.8 lm
Total Power	16.1 W
Luminaire Efficacy	17.8 lm/W
S/MH(C0/180)	2.68
S/MH(C90/270)	0.82
Correlated Color Temperature (CCT)	2355 K
Color Rendering Index (CRI)	91
R9	46
Chromaticity Coordinate (x)	0.4889
Chromaticity Coordinate (y)	0.4126
Chromaticity Coordinate (u')	0.2804
Chromaticity Coordinate (v')	0.5325

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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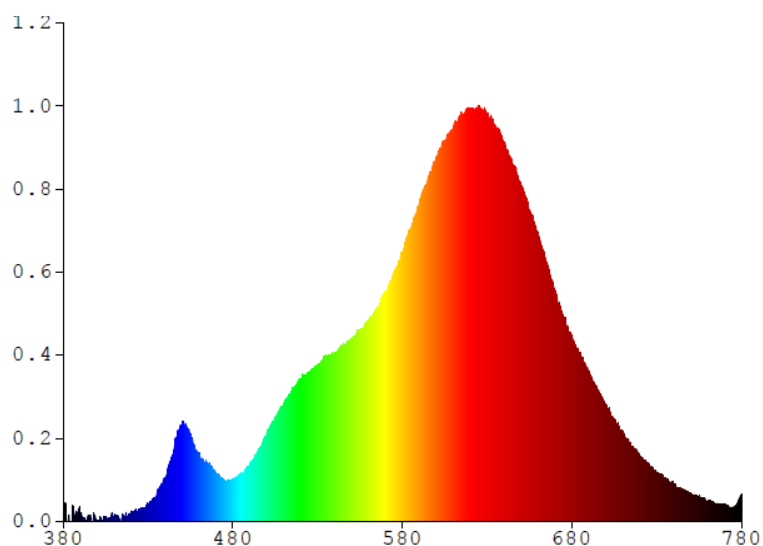
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLV83027XXXCG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0222	480	0.2759	580	1.7559	680	1.2152	780	0.1767
385	0.0000	485	0.3206	585	1.9121	685	1.0955		
390	0.0470	490	0.3715	590	2.0732	690	0.9736		
395	0.0017	495	0.4666	595	2.2286	695	0.8650		
400	0.0004	500	0.5687	600	2.3775	700	0.7636		
405	0.0059	505	0.6798	605	2.4767	705	0.6732		
410	0.0340	510	0.7610	610	2.5590	710	0.5856		
415	0.0496	515	0.8496	615	2.6662	715	0.4915		
420	0.0657	520	0.9343	620	2.6864	720	0.4260		
425	0.0737	525	0.9682	625	2.7131	725	0.3783		
430	0.1101	530	1.0228	630	2.6394	730	0.3128		
435	0.1652	535	1.0824	635	2.5792	735	0.2821		
440	0.2659	540	1.0960	640	2.4779	740	0.2433		
445	0.4507	545	1.1509	645	2.3281	745	0.2135		
450	0.6192	550	1.1783	650	2.2050	750	0.1824		
455	0.5631	555	1.2476	655	2.0290	755	0.1630		
460	0.4314	560	1.3065	660	1.8818	760	0.1292		
465	0.3733	565	1.3995	665	1.6938	765	0.1104		
470	0.3158	570	1.4884	670	1.5099	770	0.1005		
475	0.2667	575	1.6228	675	1.3291	775	0.0857		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV83027XXXCG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

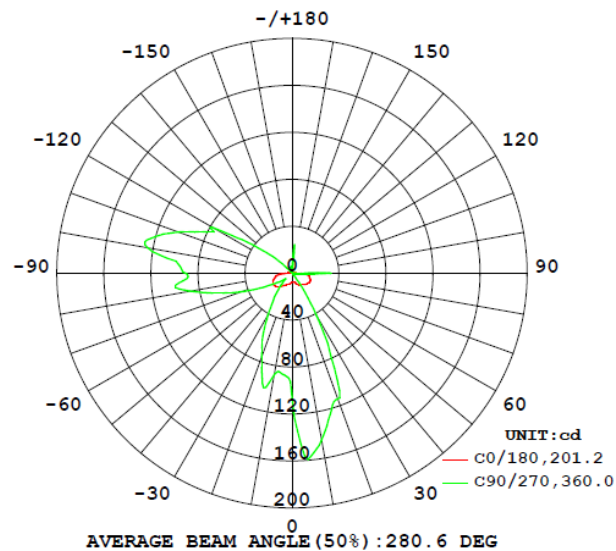
Photometric Measurements at 25°C – Distribution Method

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')
SLV83027XXXCG								
S2510270 67-001	base-up	2355	91	46	0.4889	0.4126	0.2804	0.5325

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 Efficacy
						Flux (Lumens)	(Lumens Per Watt)
SLV83027XXXCG							
S2510270 67-001	base-up	120.0	135.5	16.1	0.987	285.8	17.8

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV83027XXXCG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	7.6	28.3	82.8	86.4	106.4
5	7.5	34.6	75.0	125.6	159.0
10	7.7	44.0	78.8	152.0	144.6
15	8.1	54.4	131.3	135.7	125.1
20	9.1	58.7	122.5	116.2	113.8
25	10.4	55.1	102.1	107.3	78.6
30	11.5	53.3	80.1	67.6	41.5
35	12.3	73.1	62.5	31.6	17.1
40	12.9	75.7	28.5	11.7	3.6
45	13.9	63.0	10.0	2.0	1.5
50	14.8	45.5	2.9	1.6	1.3
55	15.8	23.6	3.1	1.5	1.3
60	16.5	9.0	3.1	1.6	1.5
65	17.0	4.2	2.8	1.8	2.0
70	17.0	5.8	3.1	2.5	3.0
75	15.5	5.3	3.9	3.4	3.3
80	14.9	5.1	3.4	3.3	3.6
85	12.5	4.5	3.0	4.0	7.5
90	5.3	3.2	5.3	13.8	33.0
95	2.9	1.9	3.5	13.0	3.5
100	3.2	1.1	0.1	0.0	0.0
105	3.2	0.6	0.0	0.0	0.0
110	2.3	0.2	0.1	0.1	0.1
115	1.9	0.1	0.1	0.1	0.1
120	1.1	0.1	0.1	0.1	0.1
125	0.8	0.1	0.1	0.1	0.2
130	0.7	0.1	0.1	0.1	0.0
135	0.4	0.2	0.1	0.1	0.1
140	0.2	0.1	0.1	0.1	0.1
145	0.2	0.1	0.1	0.1	0.2
150	0.2	0.1	0.2	0.1	0.1
155	0.2	0.1	0.1	0.1	0.1
160	0.1	0.1	0.1	0.1	0.1
165	0.1	0.1	0.1	0.1	0.1
170	0.1	0.1	0.1	1.1	0.6
175	0.1	0.1	0.9	35.4	24.6
180	0.1	0.1	30.2	7.3	4.8

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV83027XXXCG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLV83027XXXCG		
0-30	46.9	16.4
0-40	61.5	21.5
0-60	81.1	28.4
0-90	162.1	56.7
60-90	81.0	28.3
0-180	285.8	100.0

Beam Angle

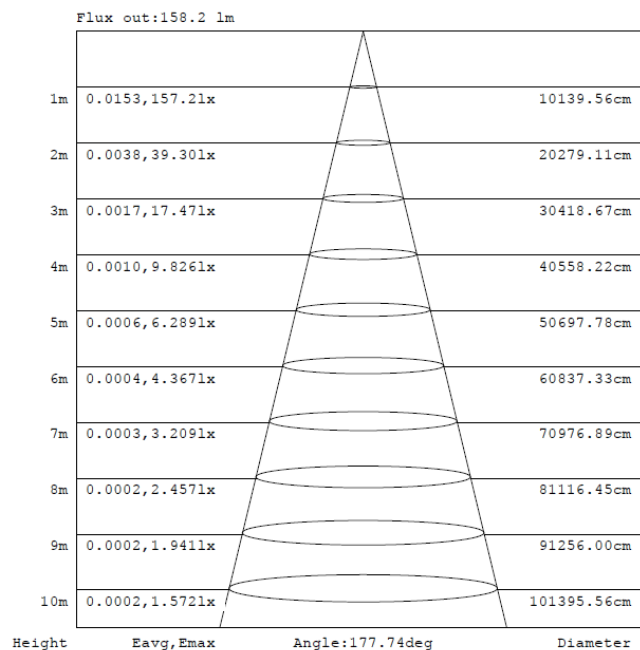
Total Beam Angle(°)
280.6

Illumination Plots

Model No.: SLV83027XXXCG

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

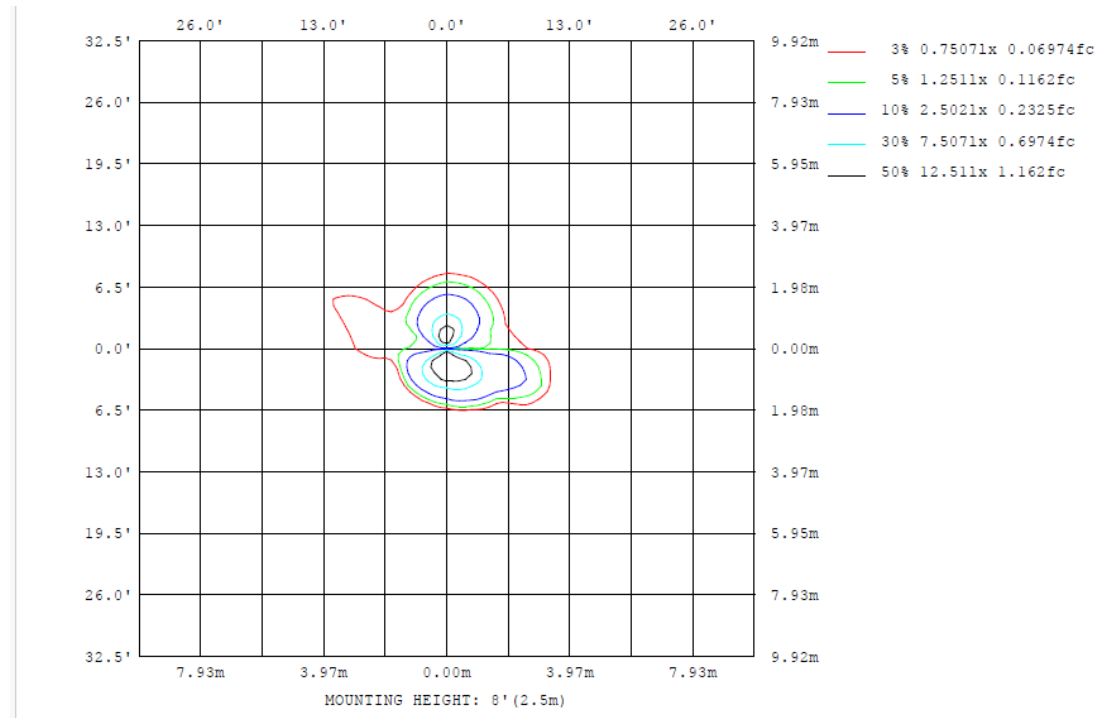
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV83027XXXCG

Model No.: SLV83027XXXCG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLV83027XXXCG

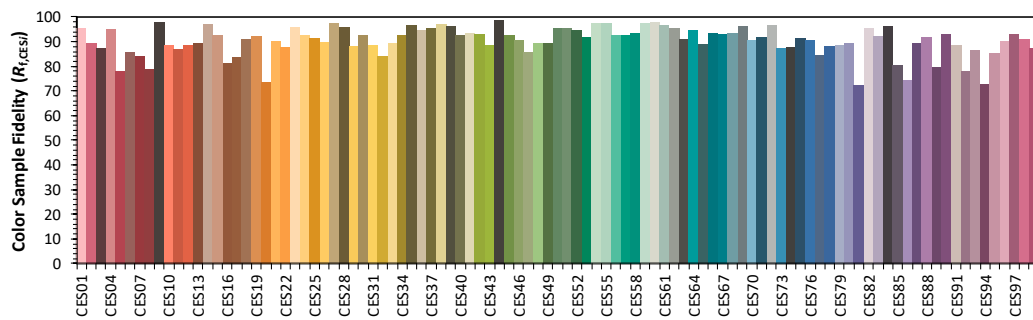
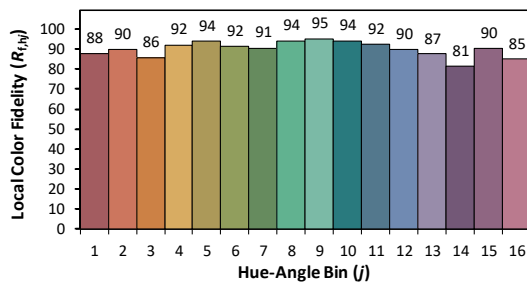
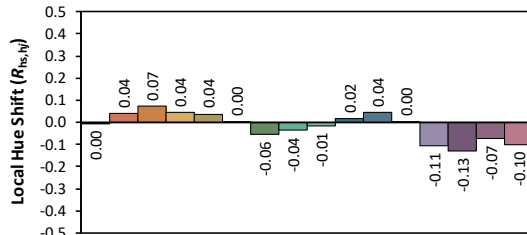
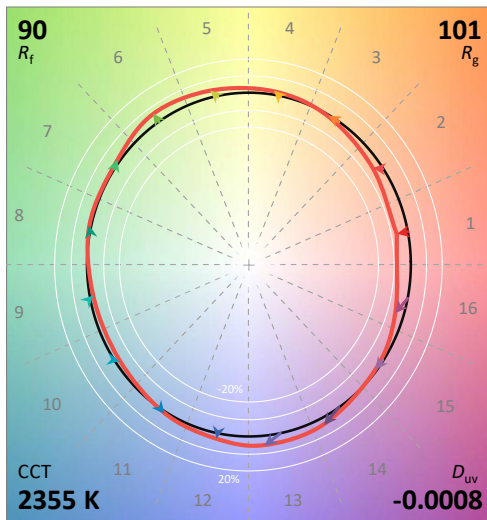
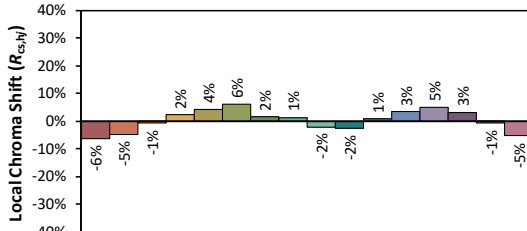
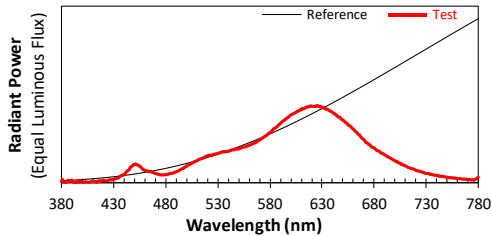
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/11/18

Model: SLV83027XXXCG



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

x 0.4889
 y 0.4126
 u' 0.2804
 v' 0.5325

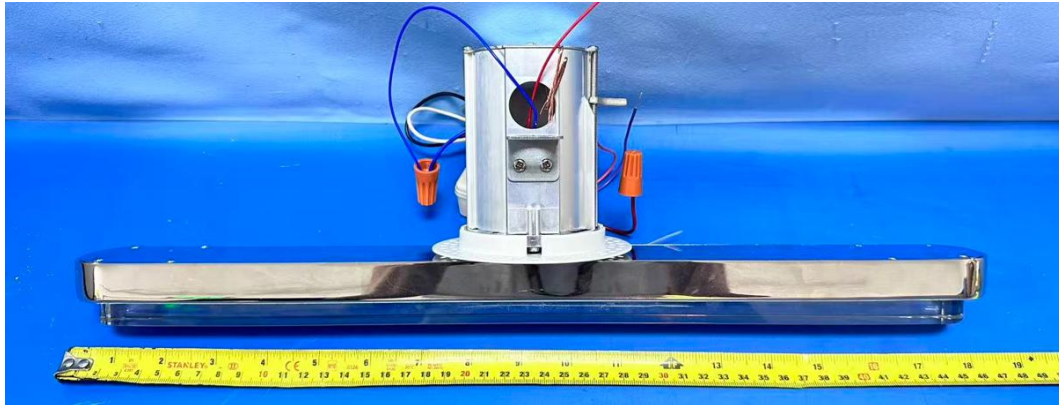
CIE 13.3-1995
(CRI)
 R_a 91
 R_g 46

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 SLV83027XXXCG



External view of SLV83027XXXCG

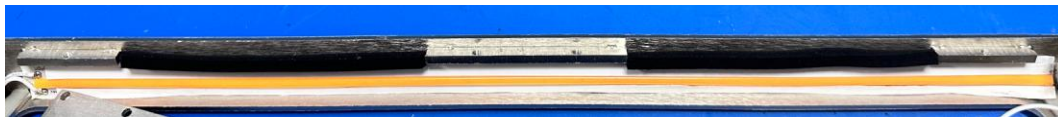
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TEST REPORT

PRODUCT PICTURE (not to scale)



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



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 *****