

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251110010GZU-014

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REVISION DATE

None

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DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 251110010GZU-014

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH86427X

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: 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 SLCH86427X. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251110010-016.
<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>	05 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:	SLCH86427X
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH86427X

Criteria	Result
Total Lumen Output	1359.7 lm
Total Power	32.7 W
Luminaire Efficacy	41.6 lm/W
S/MH(C0/180)	1.81
S/MH(C90/270)	1.87
Correlated Color Temperature (CCT)	2556 K
Color Rendering Index (CRI)	92
R9	57
Chromaticity Coordinate (x)	0.4746
Chromaticity Coordinate (y)	0.4174
Chromaticity Coordinate (u')	0.2690
Chromaticity Coordinate (v')	0.5321

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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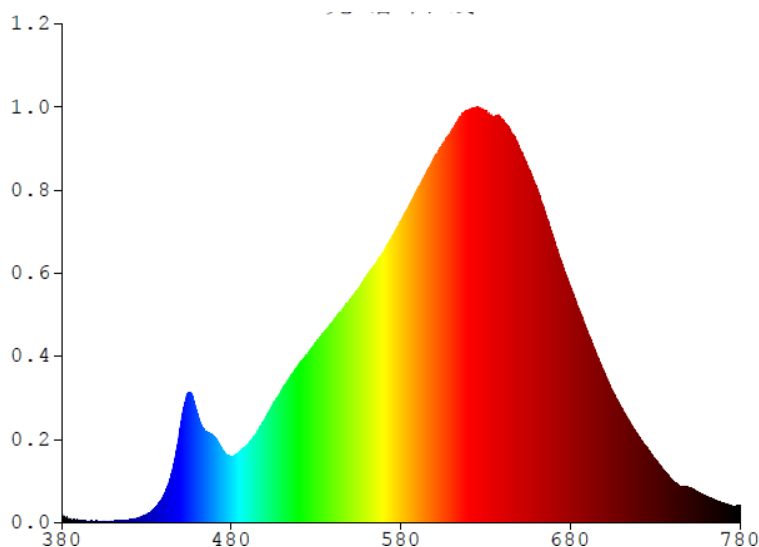
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH86427X

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.7821	480	5.7605	580	26.5410	680	20.8240	780	1.5093
385	0.3389	485	6.2891	585	27.9920	685	18.8400		
390	0.1846	490	6.9417	590	29.4090	690	16.9040		
395	0.1305	495	7.9022	595	30.7950	695	15.0140		
400	0.1163	500	9.1744	600	32.2730	700	13.2710		
405	0.1083	505	10.5040	605	33.3720	705	11.5940		
410	0.0949	510	11.7380	610	34.5090	710	10.1710		
415	0.1847	515	12.8630	615	35.7390	715	8.9090		
420	0.2473	520	14.0440	620	36.3650	720	7.7133		
425	0.4196	525	14.8390	625	36.5370	725	6.6090		
430	0.7170	530	15.8710	630	36.2520	730	5.5947		
435	1.2750	535	16.8000	635	35.7400	735	4.6493		
440	2.3714	540	17.6940	640	35.5710	740	3.7634		
445	4.4307	545	18.6410	645	34.4790	745	3.2048		
450	8.4709	550	19.6470	650	32.9860	750	3.0824		
455	11.4840	555	20.5960	655	31.3640	755	2.7102		
460	9.6167	560	21.8390	660	29.5560	760	2.3363		
465	8.0445	565	22.7460	665	27.4640	765	2.0128		
470	7.5346	570	23.9130	670	25.1150	770	1.7161		
475	6.3756	575	25.2540	675	22.4340	775	1.5022		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH86427X

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

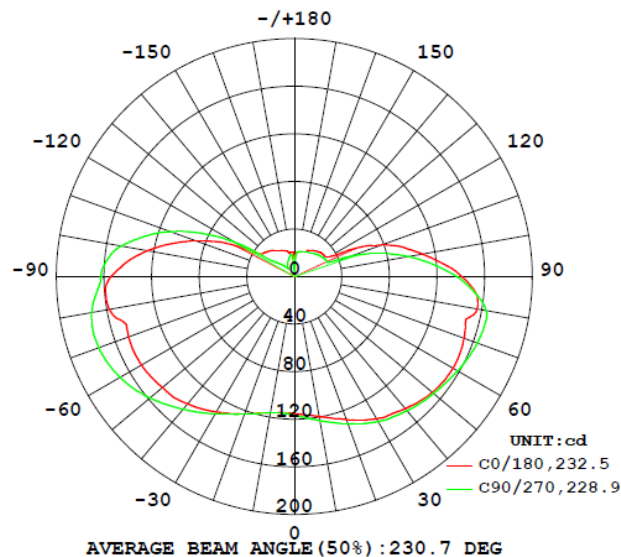
Photometric Measurements at 25°C – Distribution Method

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')
SLCH86427X								
S2511100 10-016	base-up	2556	92	57	0.4746	0.4174	0.2690	0.5321

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)
SLCH86427X							
S2511100 10-016	base-up	120.1	274.4	32.7	0.99	1359.7	41.6

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH86427X

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	115.2	115.7	115.5	115.9	116.6
5	116.8	117.9	118.1	118.4	119.3
10	119.4	121.2	121.4	121.9	122.9
15	123.1	125.4	125.3	126.0	127.1
20	127.8	129.5	129.4	130.2	131.6
25	133.1	133.8	133.8	134.9	136.3
30	138.0	137.9	138.0	139.2	140.8
35	141.3	141.6	141.9	143.4	144.0
40	144.9	144.7	145.3	147.1	147.3
45	148.5	145.3	148.3	150.0	150.3
50	151.4	146.8	150.4	150.8	152.7
55	153.2	147.8	151.7	151.9	155.4
60	153.9	148.0	152.1	155.3	158.5
65	153.5	146.9	155.8	158.9	161.2
70	151.8	147.3	161.8	161.5	163.5
75	148.8	156.2	164.5	162.2	165.0
80	156.0	156.6	163.7	164.2	163.5
85	152.9	149.7	156.4	158.1	152.0
90	140.8	136.9	141.8	143.4	136.6
95	125.5	119.8	122.1	124.9	117.7
100	109.6	101.5	101.2	105.1	97.5
105	95.2	82.0	85.7	84.3	75.9
110	77.8	61.4	61.7	60.6	50.8
115	57.4	41.3	47.1	38.1	30.5
120	34.2	35.5	35.7	33.2	29.7
125	30.8	34.1	34.5	32.1	28.8
130	30.3	32.7	33.0	30.8	27.7
135	29.3	31.3	31.5	29.5	26.7
140	28.2	29.7	29.8	28.0	25.5
145	27.1	28.1	28.2	26.6	24.5
150	25.9	26.6	26.6	25.3	23.5
155	23.6	24.5	25.0	24.1	22.8
160	22.6	23.1	23.3	23.1	22.3
165	21.9	22.0	22.3	22.2	21.9
170	21.1	21.3	21.5	21.5	21.3
175	20.8	20.6	20.7	20.6	19.7
180	15.5	0.0	12.6	2.1	0.0

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH86427X

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH86427X		
0-30	107.0	7.9
0-40	195.6	14.4
0-60	451.5	33.2
0-90	955.5	70.3
60-90	504.0	37.1
0-180	1359.7	100.0

Beam Angle

Total Beam Angle(°)

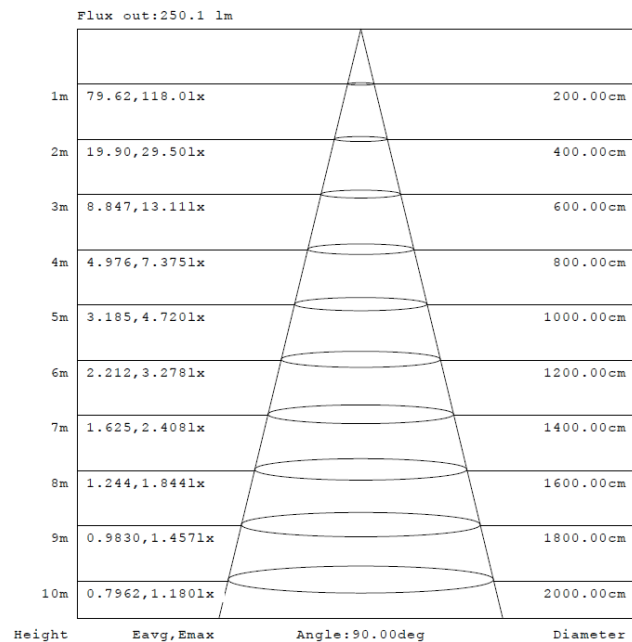
230.7

Illumination Plots

Model No.: SLCH86427X

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

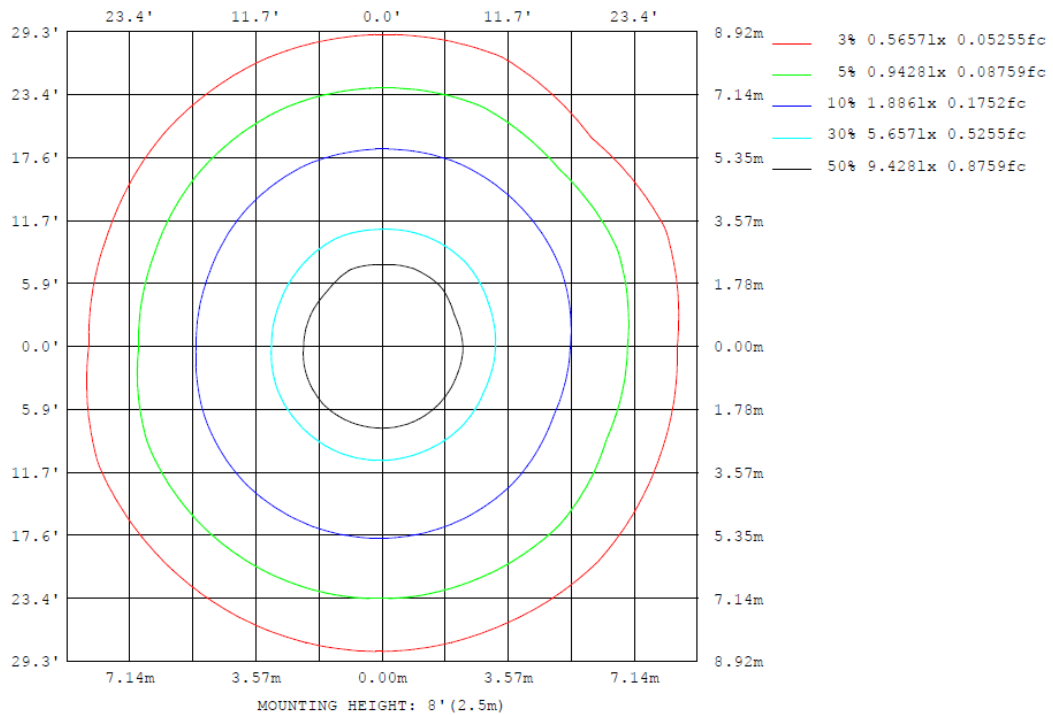
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH86427X

Model No.: SLCH86427X

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH86427X

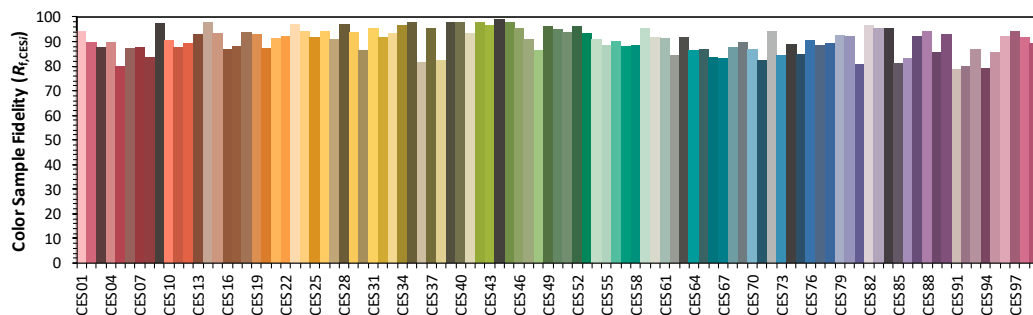
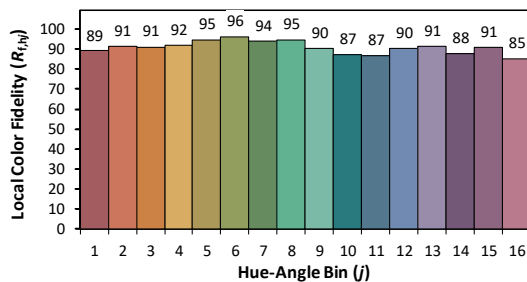
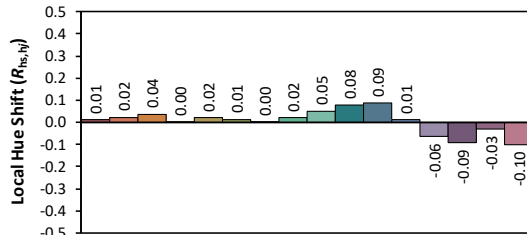
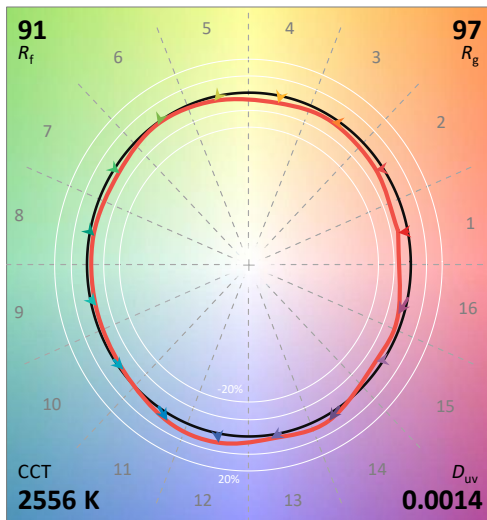
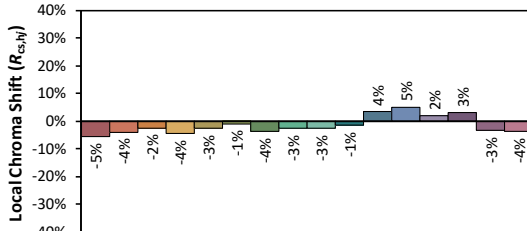
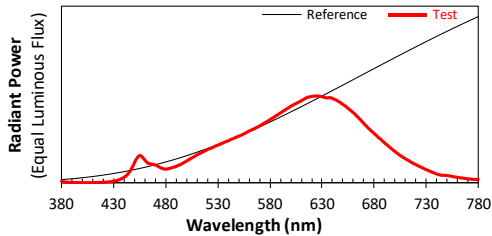
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/12/5

Model: SLCH86427X



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

x 0.4746
 y 0.4174
 u' 0.2690
 v' 0.5321

CIE 13.3-1995
(CRI)
 R_a 92
 R_g 57

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 SLCH86427X

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TEST REPORT

PRODUCT PICTURE (not to scale)

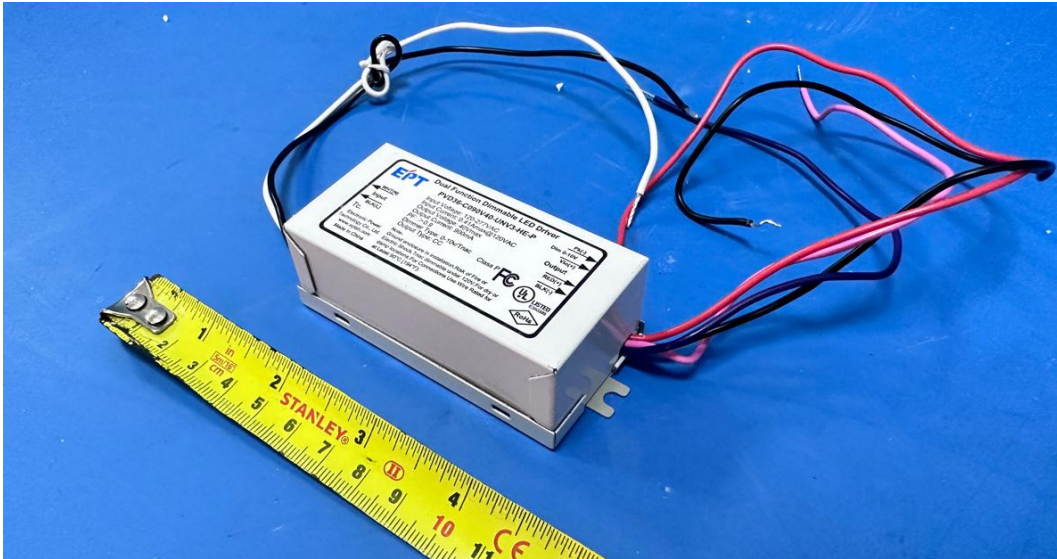


External view of SLCH86427X

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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver PVD36-C090V40-UNV3-HE-P



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 *****