

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250722187GZU-003

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None

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Report No.: 250722187GZU-003

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLCH63027XXX

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: QGZ250722038.
<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 SLCH63027XXX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250722187-006.
<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 August 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:	SLCH63027XXX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLCH63027XXX

Criteria	Result
Total Lumen Output	611.7 lm
Total Power	12.2 W
Luminaire Efficacy	50.2 lm/W
S/MH(C0/180)	1.26
S/MH(C90/270)	1.62
Correlated Color Temperature (CCT)	2616 K
Color Rendering Index (CRI)	91
R9	83
Chromaticity Coordinate (x)	0.4554
Chromaticity Coordinate (y)	0.3922
Chromaticity Coordinate (u')	0.2681
Chromaticity Coordinate (v')	0.5194

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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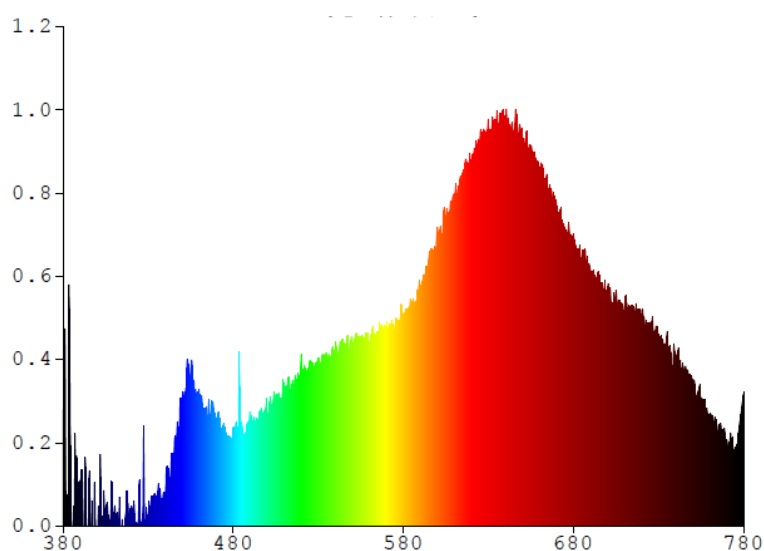
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLCH63027XXX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0506	480	0.0388	580	0.0814	680	0.1134	780	0.0520
385	0.0000	485	0.0408	585	0.0866	685	0.1037		
390	0.0177	490	0.0357	590	0.0919	690	0.0991		
395	0.0128	495	0.0416	595	0.1043	695	0.0977		
400	0.0000	500	0.0433	600	0.1165	700	0.0922		
405	0.0026	505	0.0498	605	0.1191	705	0.0906		
410	0.0000	510	0.0552	610	0.1270	710	0.0840		
415	0.0000	515	0.0560	615	0.1377	715	0.0853		
420	0.0000	520	0.0667	620	0.1422	720	0.0755		
425	0.0032	525	0.0647	625	0.1502	725	0.0762		
430	0.0022	530	0.0655	630	0.1585	730	0.0750		
435	0.0078	535	0.0657	635	0.1616	735	0.0747		
440	0.0118	540	0.0699	640	0.1580	740	0.0653		
445	0.0261	545	0.0703	645	0.1515	745	0.0582		
450	0.0490	550	0.0723	650	0.1498	750	0.0537		
455	0.0607	555	0.0715	655	0.1482	755	0.0479		
460	0.0508	560	0.0720	660	0.1398	760	0.0434		
465	0.0414	565	0.0753	665	0.1301	765	0.0360		
470	0.0412	570	0.0784	670	0.1250	770	0.0332		
475	0.0385	575	0.0764	675	0.1134	775	0.0287		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH63027XXX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

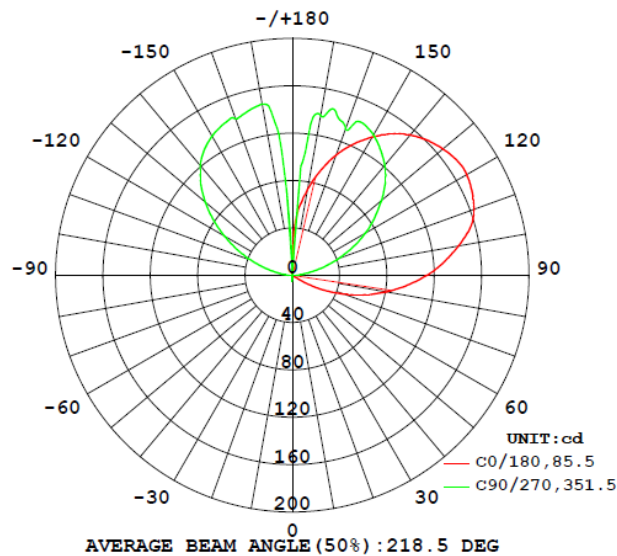
Photometric Measurements at 25°C – Distribution Method

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')
SLCH63027XXX								
S2507221 87-006	base-up	2616	91	83	0.4554	0.3922	0.2681	0.5194

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)
SLCH63027XXX							
S2507221 87-006	base-up	120.0	103.5	12.2	0.981	611.7	50.2

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH63027XXX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	0.9	0.8	0.7	0.7	0.7
5	0.9	2.6	3.2	2.9	2.7
10	0.9	3.0	2.4	1.7	1.5
15	0.9	2.7	1.8	1.3	1.2
20	0.9	2.4	1.3	1.0	1.0
25	0.9	3.9	2.0	0.9	0.8
30	1.0	6.7	3.2	0.8	0.7
35	1.0	10.1	4.9	0.8	0.7
40	1.2	14.0	6.9	1.2	0.6
45	1.8	18.8	9.6	1.9	0.6
50	1.9	24.5	12.9	2.6	0.5
55	1.9	31.3	16.8	3.4	0.5
60	13.5	39.2	22.1	4.4	0.4
65	30.2	48.0	28.7	6.1	0.4
70	46.9	57.8	36.3	8.6	0.4
75	64.0	68.4	44.5	12.7	0.3
80	80.8	80.2	54.6	18.5	0.3
85	97.5	93.6	65.7	25.6	0.3
90	113.7	108.6	79.5	36.4	0.8
95	128.5	123.3	94.4	49.5	5.7
100	142.3	137.4	109.1	63.7	14.9
105	155.6	150.7	122.6	78.2	27.3
110	163.3	163.2	135.6	92.5	41.4
115	167.5	174.4	147.7	106.5	56.2
120	170.2	184.1	158.8	119.7	71.1
125	169.6	192.0	168.3	132.0	84.9
130	166.1	198.3	174.7	142.7	98.2
135	161.3	202.4	180.9	151.7	111.2
140	154.8	204.5	185.9	157.8	121.5
145	146.0	203.9	189.5	160.9	129.7
150	134.8	199.6	192.4	160.7	137.1
155	122.4	191.3	189.0	152.1	141.6
160	108.2	176.3	178.8	156.8	131.9
165	91.3	150.3	171.5	159.5	142.7
170	73.3	127.3	147.3	150.1	137.3
175	54.5	63.5	72.9	95.6	95.5
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 SLCH63027XXX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLCH63027XXX		
0-30	1.6	0.3
0-40	3.1	0.5
0-60	12.6	2.1
0-90	77.1	12.6
60-90	64.5	10.5
0-180	611.7	100.0

Beam Angle

Total Beam Angle(°)

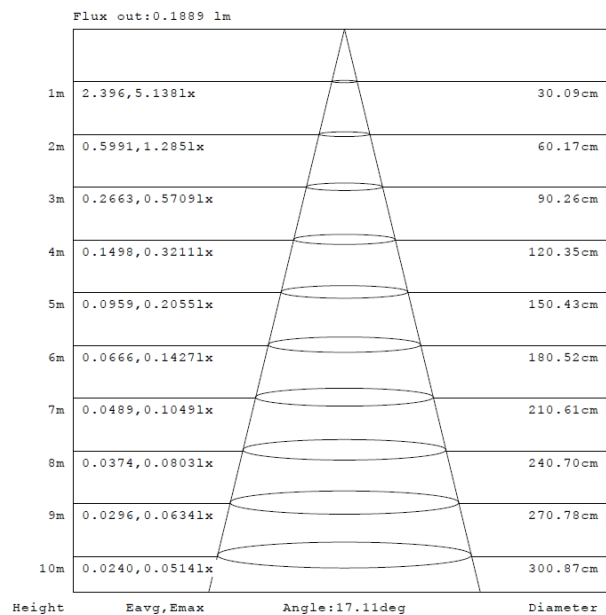
218.5

Illumination Plots

Model No.: SLCH63027XXX

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

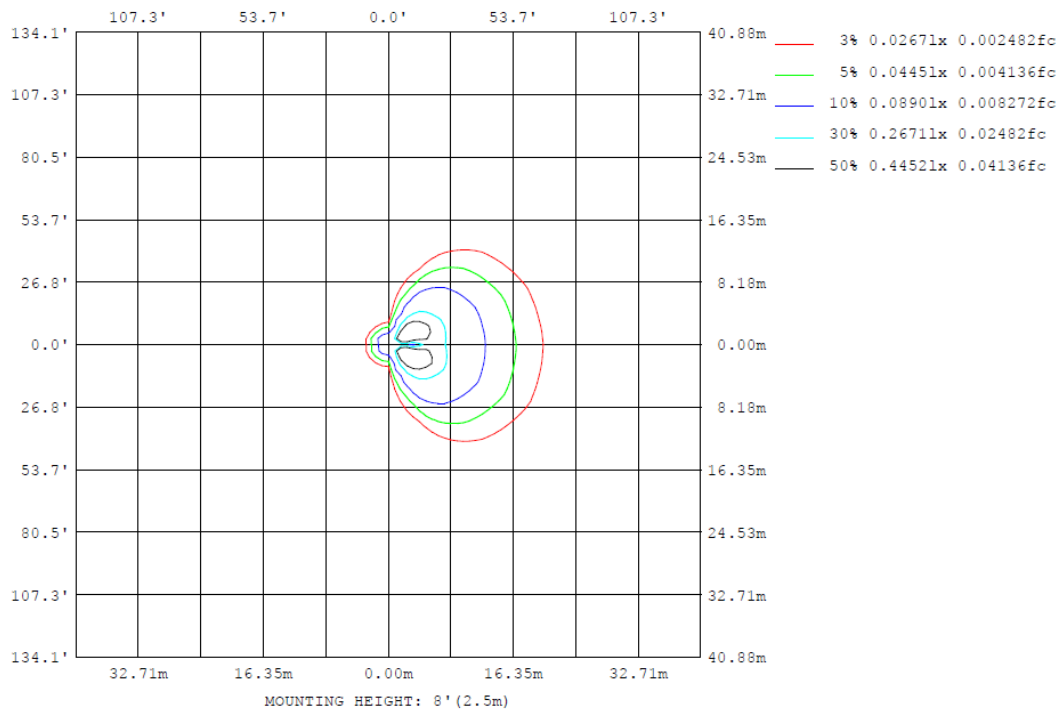
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH63027XXX

Model No.: SLCH63027XXX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLCH63027XXX

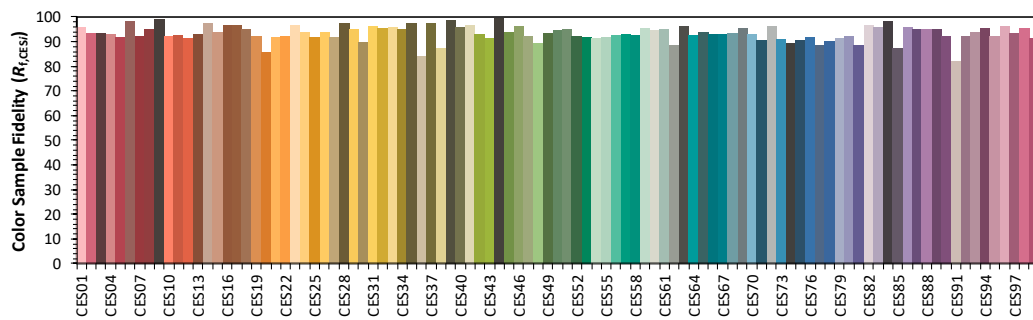
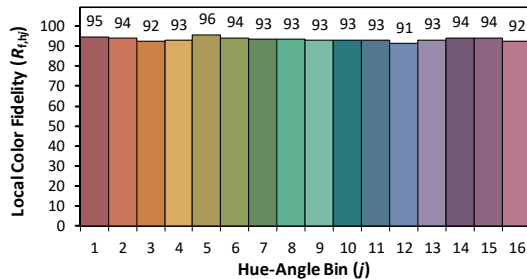
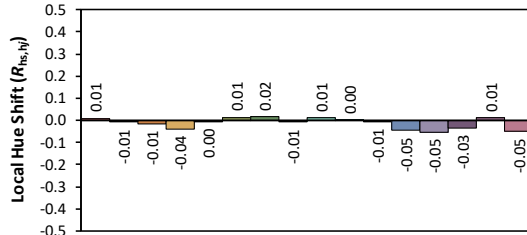
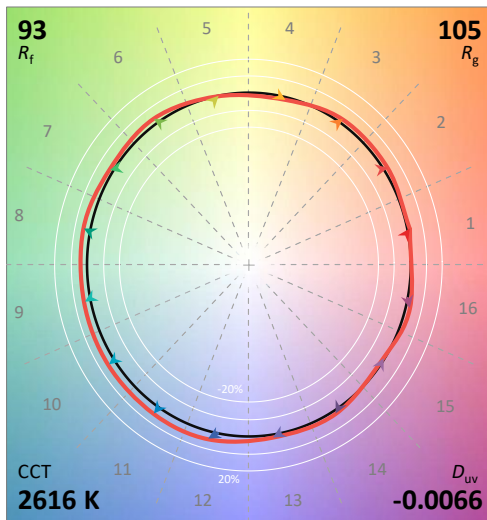
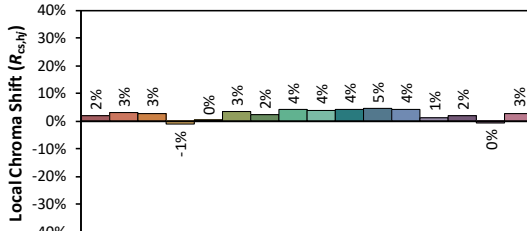
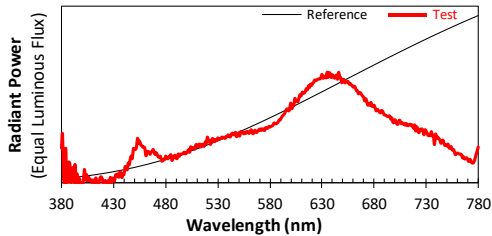
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/8/12

Model: SLCH63027XXX



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

x 0.4554
 y 0.3922
 u' 0.2681
 v' 0.5194

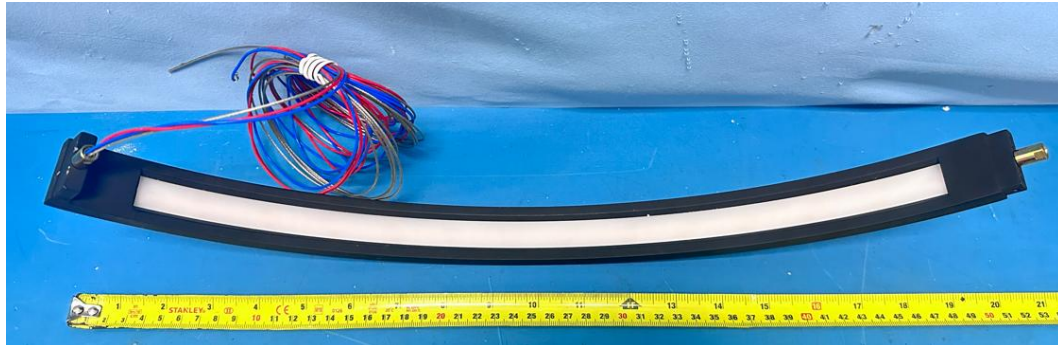
CIE 13.3-1995
(CRI)
 R_a 91
 R_g 83

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

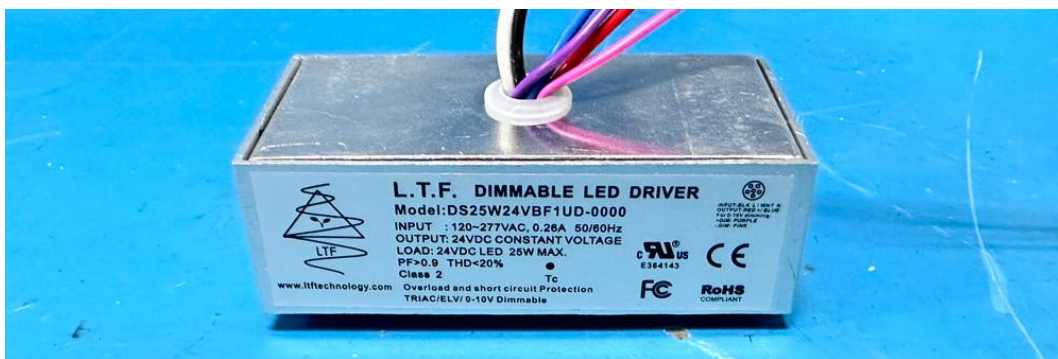
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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLCH63027XXX



View of LED driver DS25W24VBF1UD-0000



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 *****