

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250513213GZU-003

ISSUE DATE

11 July 2025

REVISION DATE

None

NUMBER OF PAGES

14

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

© 2024 INTERTEK



Report No.: 250513213GZU-003

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLTB74527XXXCG, SLTB74327XXXCG, SLTB74427XXXCG

Remark: "XXX" denotes the appearance color.

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

7400 LINDER AVE. SKOKIE, IL, 60077

Email: jrivero@visualcomfort.com
Phone No.: 847-410-4552

TEST: Electrical and Photometric as required to the IES LM-79 test standard.

AUTHORIZATION: The testing performed was authorized by signed quote number: QGZ250428049.

STANDARDS USED: 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

DESCRIPTION OF SAMPLE: The client submitted one sample of model SLTB74527XXXCG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250513213-009.

MANUFACTURER /FACTORY & ADDRESS: Union Star Collection Company Limited
288 East Longhua Avenue, Longhua Town, Boluo County, Huizhou City, Guangdong Province, 516122 China

DATES OF TESTS: 29 May 2025

ISSUED BY: Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

TEST LOCATION: Room101/301/401/102/202/302/402/502/602/702/802, No. 7-2, Caipin Road, Huangpu District, Guangzhou, Guangdong, China

***** End of Page *****

TEST REPORT

SUMMARY

Model Number:	SLTB74527XXXCG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLTB74527XXXCG

Criteria	Result
Total Lumen Output	678.5 lm
Total Power	14.5 W
Luminaire Efficacy	46.9 lm/W
S/MH(C0/180)	1.28
S/MH(C90/270)	1.24
Correlated Color Temperature (CCT)	2680 K
Color Rendering Index (CRI)	95
R9	81
Chromaticity Coordinate (x)	0.4587
Chromaticity Coordinate (y)	0.4060
Chromaticity Coordinate (u')	0.2638
Chromaticity Coordinate (v')	0.5254

Remark:

1. Tests were all performed without the lampshade.
2. The models SLTB74327XXXCG, SLTB74427XXXCG and SLTB74527XXXCG are identical except for the design of their lampshades.

***** End of Page *****

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

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

When determining for test conclusion, measurement uncertainty of tests has been considered.

Throughout this report a ☐ comma ☒ point is used as the decimal separator.

***** End of Page *****

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

***** End of Page *****

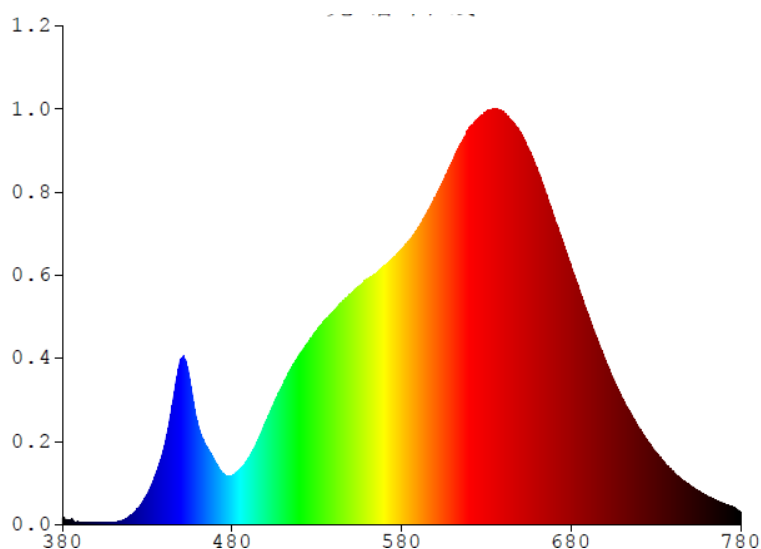
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLTB74527XXXCG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.3012	480	2.0375	580	11.4440	680	10.7400	780	0.5042
385	0.1490	485	2.3190	585	11.8440	685	9.7227		
390	0.0807	490	2.7880	590	12.3600	690	8.7233		
395	0.0756	495	3.4531	595	12.9550	695	7.7799		
400	0.0825	500	4.2826	600	13.5510	700	6.8643		
405	0.0827	505	5.0852	605	14.3120	705	6.0414		
410	0.0887	510	5.7959	610	15.0870	710	5.2532		
415	0.1766	515	6.5046	615	15.8160	715	4.6506		
420	0.3536	520	7.0844	620	16.4740	720	4.0264		
425	0.7043	525	7.5473	625	16.8530	725	3.4842		
430	1.2610	530	8.0619	630	17.1300	730	3.0005		
435	2.0714	535	8.5182	635	17.2380	735	2.5765		
440	3.2374	540	8.8839	640	17.1520	740	2.2121		
445	5.0491	545	9.2542	645	16.7800	745	1.8862		
450	6.8870	550	9.5884	650	16.3130	750	1.6329		
455	6.0093	555	9.9067	655	15.5840	755	1.3940		
460	4.1257	560	10.1950	660	14.7600	760	1.1939		
465	3.2306	565	10.4090	665	13.7740	765	1.0177		
470	2.6169	570	10.7570	670	12.7540	770	0.8729		
475	2.1018	575	11.0800	675	11.5360	775	0.7488		



***** End of Page *****

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB74527XXXCG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

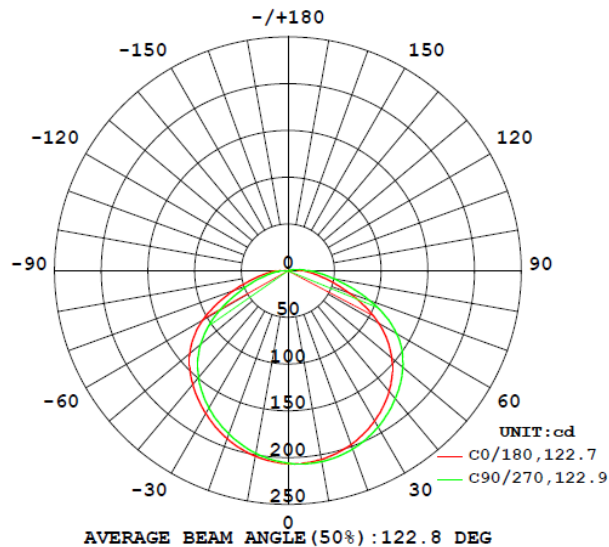
Photometric Measurements at 25°C – Distribution Method

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')
SLTB74527XXXCG								
S2505132 13-009	base-up	2680	95	81	0.4587	0.4060	0.2638	0.5254

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)
SLTB74527XXXCG							
S2505132 13-009	base-up	120.1	148.1	14.5	0.813	678.5	46.9

Intensity (Candlepower) Summary at 25°C - Candelas



***** End of Page *****

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB74527XXXCG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	206.3	206.3	205.9	205.8	205.8
5	206.4	207.0	207.4	207.5	207.4
10	204.9	206.4	207.4	207.7	207.4
15	202.0	204.1	206.0	206.5	205.9
20	197.7	200.4	203.0	203.6	202.9
25	192.3	195.6	198.6	199.4	198.6
30	185.6	189.2	193.1	193.9	193.1
35	177.7	181.9	186.4	187.3	186.4
40	168.5	173.4	178.5	179.8	178.8
45	157.8	163.4	169.5	171.2	170.3
50	145.2	151.5	158.8	161.2	160.8
55	130.2	137.1	145.9	149.2	149.2
60	112.2	119.7	129.8	134.0	134.4
65	91.5	99.0	110.3	114.8	115.4
70	70.0	77.0	88.0	92.5	93.0
75	50.9	56.5	65.7	69.5	69.9
80	35.5	39.7	47.0	49.8	50.1
85	24.3	27.1	32.4	34.5	34.5
90	15.5	17.9	21.8	23.3	23.0
95	9.2	11.2	14.1	15.1	14.8
100	4.1	6.5	8.5	9.3	9.1
105	0.1	0.7	4.7	5.4	5.2
110	0.1	0.1	0.1	0.1	0.1
115	0.1	0.1	0.1	0.1	0.1
120	0.1	0.1	0.1	0.1	0.1
125	0.1	0.1	0.1	0.1	0.1
130	0.2	0.2	0.2	0.1	0.2
135	0.2	0.2	0.2	0.2	0.2
140	0.2	0.2	0.2	0.2	0.2
145	0.3	0.3	0.3	0.3	0.3
150	0.3	0.3	0.3	0.3	0.3
155	0.3	0.3	0.3	0.3	0.3
160	0.3	0.3	0.3	0.3	0.3
165	0.3	0.3	0.3	0.3	0.3
170	0.3	0.3	0.3	0.3	0.3
175	0.3	0.3	0.3	0.3	0.3
180	0.3	0.3	0.3	0.3	0.3

***** End of Page *****

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB74527XXXCG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLTB74527XXXCG		
0-30	162.5	24.0
0-40	270.7	39.9
0-60	501.5	73.9
0-90	667.1	98.3
60-90	165.6	24.4
0-180	678.5	100.0

Beam Angle

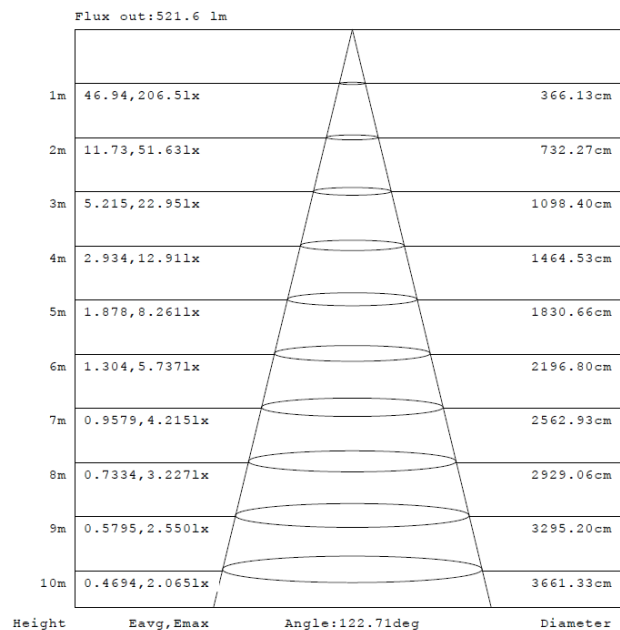
Total Beam Angle(°)
122.8

Illumination Plots

Model No.: SLTB74527XXXCG

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.

***** End of Page *****

TEST REPORT

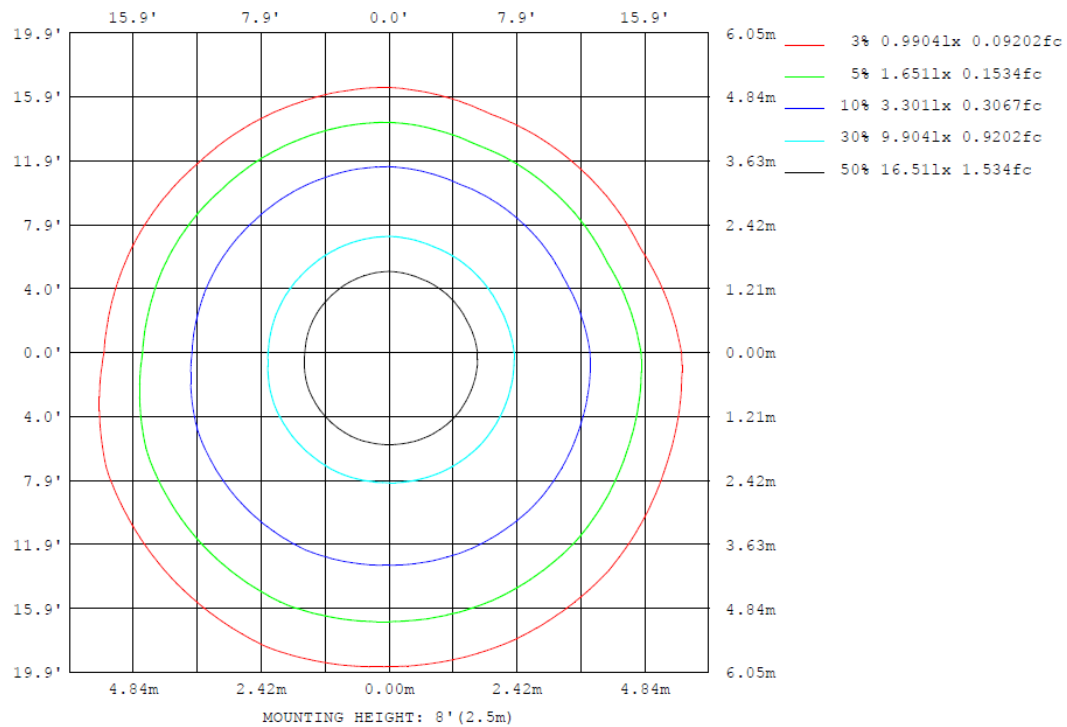
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB74527XXXCG

Model No.: SLTB74527XXXCG

Mount Height: 2.5 m

Isoillumination Plot



***** End of Page *****

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLTB74527XXXCG

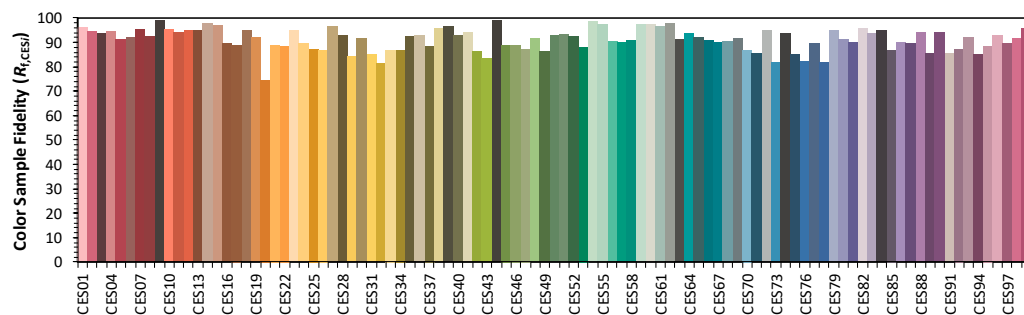
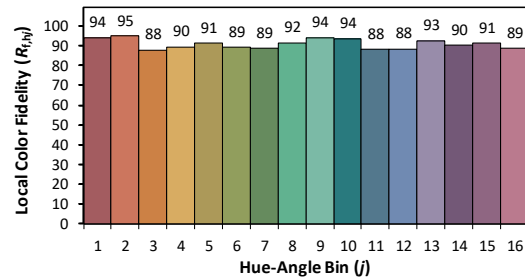
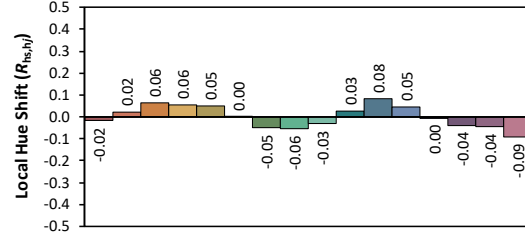
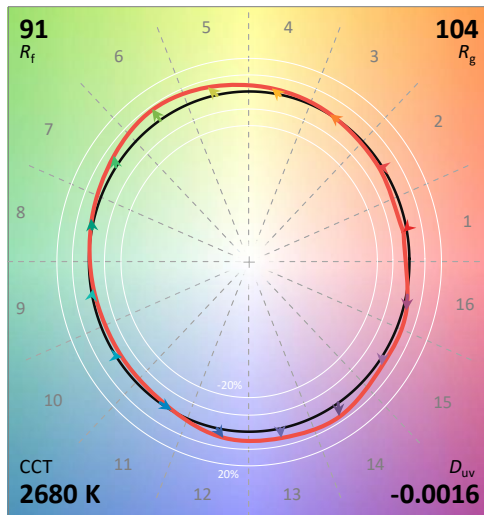
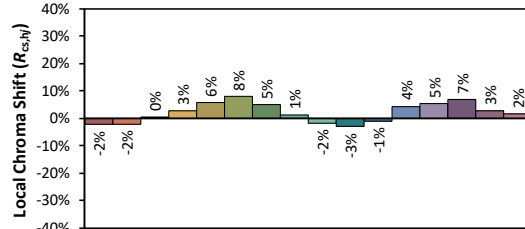
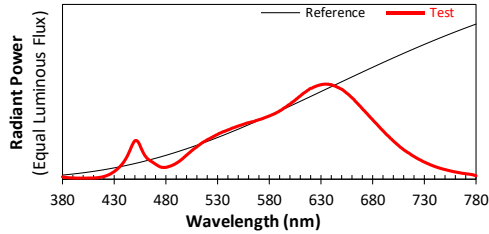
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/5/29

Model: SLTB74527XXXCG



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

x 0.4587
 y 0.4060
 u' 0.2638
 v' 0.5254

CIE 13.3-1995
(CRI)
 R_a 95
 R_g 81

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

***** End of Page *****

TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLTB74527XXXCG

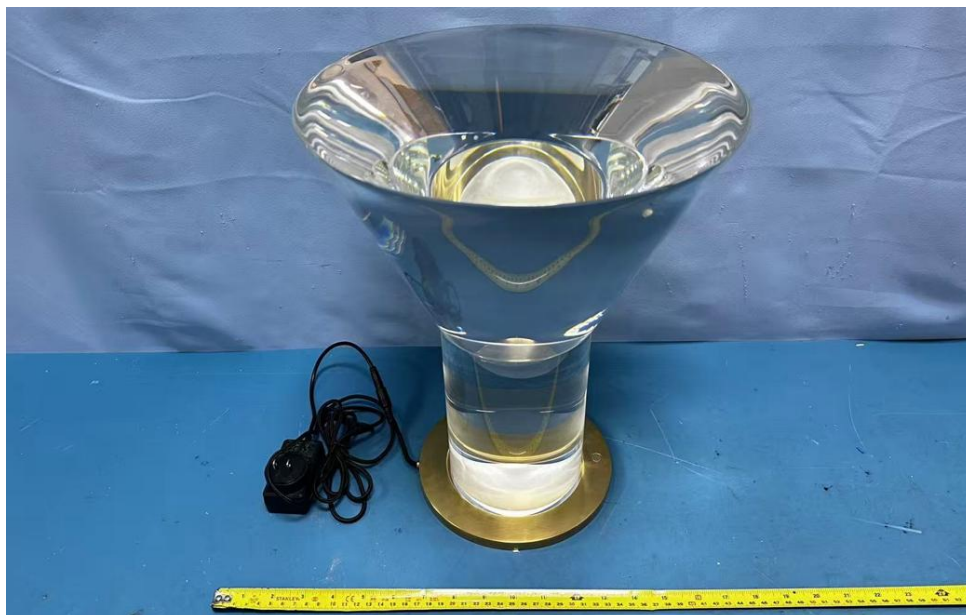


External view of SLTB74427XXXCG

***** End of Page *****

TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLTB74327XXXCG



View of LED driver JY24-240-100-SPS

***** End of Page *****

TEST REPORT

PRODUCT PICTURE (not to scale)



View of SLTB74527XXXCG (test sample)



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 *****