

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250623168GZU-010

ISSUE DATE

11 August 2025

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

© 2024 INTERTEK



Report No.: 250623168GZU-010

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLBA76027XXXXX

Remark: "XXXXX" represents the color of the appearance.

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

7400 LINDER AVE. SKOKIE, IL, 60077

Email: jrivero@visualcomfort.com

Phone No.: 847-410-4552

<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: QGZ250619128.
<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 SLBA76027XXXXX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250623168-042.
<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>	07 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

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

TEST REPORT

SUMMARY

Model Number:	SLBA76027XXXXX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLBA76027XXXXX

Criteria	Result
Total Lumen Output	2404.9 lm
Total Power	30.7 W
Luminaire Efficacy	78.4 lm/W
S/MH(C0/180)	1.09
S/MH(C90/270)	0.74
Correlated Color Temperature (CCT)	2680 K
Color Rendering Index (CRI)	92
R9	68
Chromaticity Coordinate (x)	0.4603
Chromaticity Coordinate (y)	0.4089
Chromaticity Coordinate (u')	0.2636
Chromaticity Coordinate (v')	0.5268

Remark:

N/A

***** 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 *****

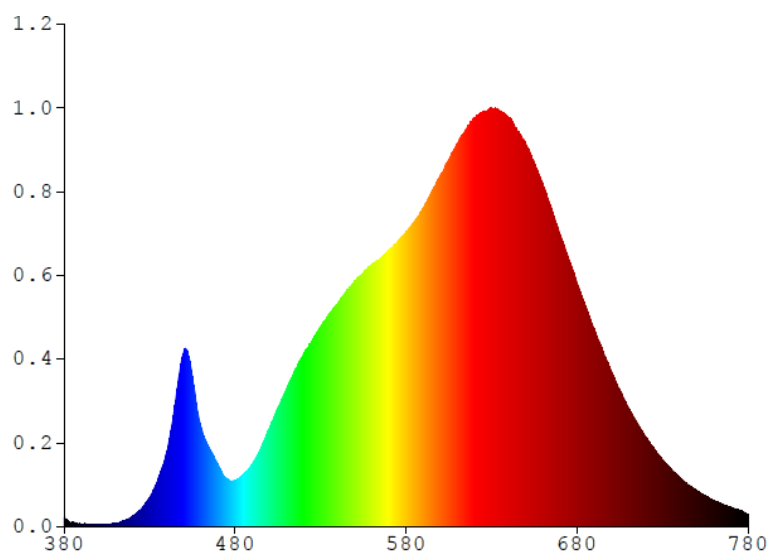
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLBA76027XXXXX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	2.7895	480	14.6020	580	93.0530	680	76.8050	780	3.6576
385	1.4602	485	16.4690	585	96.3430	685	69.5580		
390	0.9202	490	19.6510	590	100.500	690	62.4010		
395	0.5948	495	24.8210	595	105.730	695	55.3930		
400	0.7164	500	30.9440	600	110.790	700	48.9250		
405	0.6598	505	37.4060	605	115.690	705	43.1830		
410	1.0678	510	43.3220	610	120.850	710	37.4820		
415	1.7921	515	49.3130	615	125.350	715	32.8790		
420	3.1940	520	54.4250	620	128.880	720	28.3550		
425	5.5027	525	58.4520	625	130.880	725	24.5460		
430	9.1460	530	63.0760	630	131.920	730	21.1270		
435	15.0400	535	66.9880	635	131.010	735	18.1370		
440	23.5590	540	70.3290	640	129.170	740	15.4830		
445	38.8000	545	74.1470	645	124.940	745	13.1530		
450	55.2460	550	77.4050	650	120.920	750	11.4140		
455	46.8170	555	80.1830	655	114.680	755	9.7602		
460	31.4590	560	82.7650	660	108.060	760	8.3005		
465	24.6080	565	84.4050	665	100.370	765	7.0731		
470	19.3220	570	87.1470	670	92.2530	770	6.0748		
475	15.1850	575	89.7580	675	83.0850	775	5.1654		



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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLBA76027XXXXX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

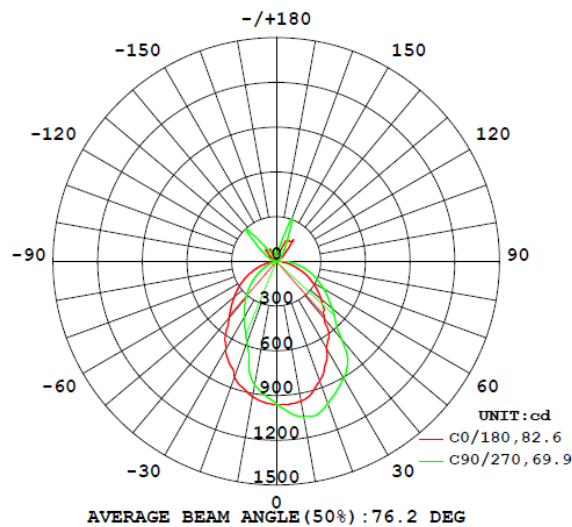
Photometric Measurements at 25°C – Distribution Method

Intertek Sample No.	Base Orientation	Correlated Color Temperatur e (K)	CRI	R9	CIE 31'	CIE 31'	CIE 76'	CIE 76'
					Chromaticit y	Chromaticit y	Chromaticit y	Chromaticit y
					Coordinate (x)	Coordinate (y)	Coordinate (u')	Coordinate (v')
SLBA76027XXXXX								
S2506231 68-042	base-up	2680	92	68	0.4603	0.4089	0.2636	0.5268

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)
SLBA76027XXXXX							
S2506231 68-042	base-up	120.0	257.6	30.7	0.992	2404.9	78.4

Intensity (Candlepower) Summary at 25°C - Candelas



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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLBA76027XXXXX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	960.5	960.6	960.4	954.5	954.0
5	962.6	986.2	1009.1	1015.8	1017.2
10	951.3	992.2	1031.8	1023.4	1056.8
15	917.7	976.1	1042.8	1035.4	1063.0
20	853.5	934.6	986.3	1006.5	1014.3
25	772.3	862.0	925.7	954.2	959.4
30	674.7	781.4	850.6	898.9	904.7
35	618.4	673.2	754.1	820.4	835.2
40	501.9	609.5	641.6	682.5	686.1
45	451.6	493.9	529.4	551.3	562.2
50	392.5	439.1	465.6	485.0	490.5
55	337.2	380.7	404.7	420.3	425.2
60	282.0	325.5	348.9	363.5	367.8
65	227.3	269.2	295.4	310.2	312.2
70	173.3	214.2	240.5	258.9	260.9
75	120.1	159.7	185.8	204.6	206.7
80	73.5	108.5	133.2	151.2	154.8
85	34.6	63.5	86.7	104.1	108.2
90	7.3	28.2	47.6	63.6	67.5
95	5.5	9.3	17.4	29.2	31.0
100	8.7	11.4	9.0	9.7	11.4
105	8.5	11.4	12.3	10.5	11.5
110	6.3	9.8	12.5	11.0	12.5
115	5.6	6.9	10.6	9.1	9.9
120	18.8	7.3	6.5	9.6	9.6
125	36.1	19.6	7.8	4.9	4.6
130	64.7	43.5	23.5	11.0	6.4
135	92.7	74.6	56.9	46.6	49.9
140	155.8	109.8	80.3	65.3	64.9
145	162.2	173.8	117.3	94.1	93.3
150	160.0	200.1	179.6	138.9	132.8
155	155.1	189.2	225.4	216.1	201.7
160	77.3	168.3	208.3	275.9	307.1
165	59.0	124.1	144.8	160.2	141.1
170	43.9	73.6	82.6	86.1	74.6
175	58.6	56.8	61.8	65.5	57.5
180	43.4	40.9	40.1	25.3	17.0

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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLBA76027XXXXX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLBA76027XXXXX		
0-30	685.5	28.5
0-40	1055.6	43.9
0-60	1663.8	69.2
0-90	2031.8	84.5
60-90	368.0	15.3
0-180	2404.9	100.0

Beam Angle

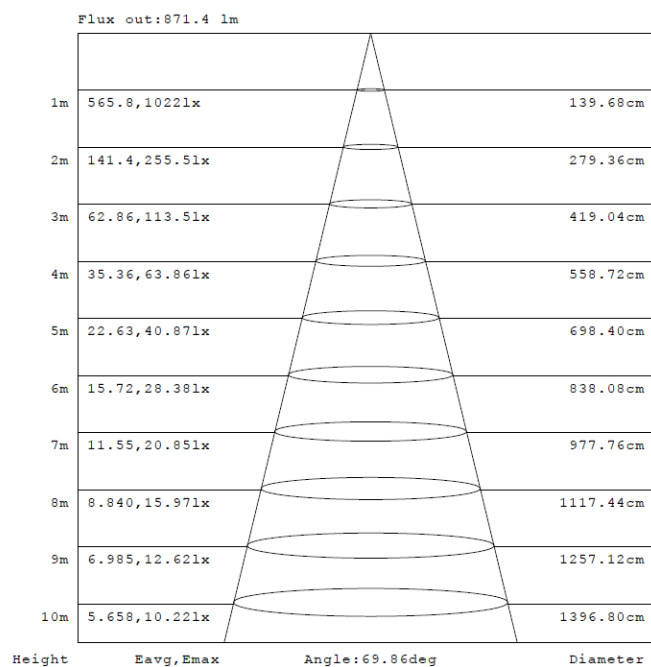
Total Beam Angle(°)
76.2

Illumination Plots

Model No.: SLBA76027XXXXX

Mount Height: 2.5 m

Illuminance - Cone of Light



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

TEST REPORT

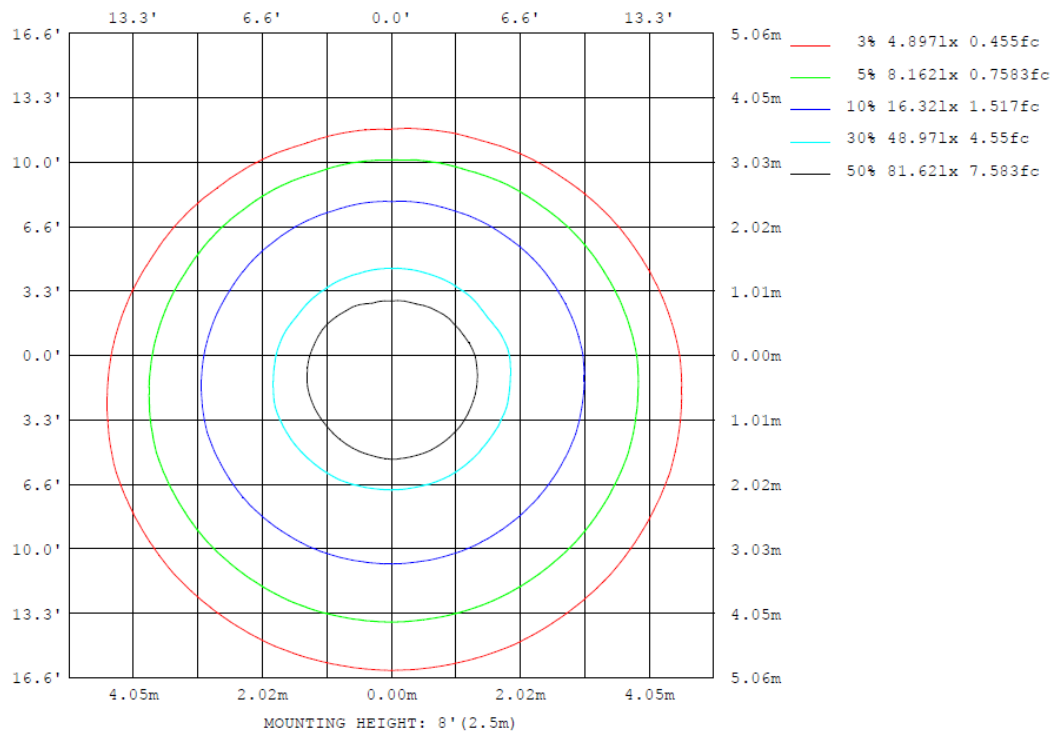
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLBA76027XXXXX

Model No.: SLBA76027XXXXX

Mount Height: 2.5 m

Isoillumination Plot



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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLBA76027XXXXX

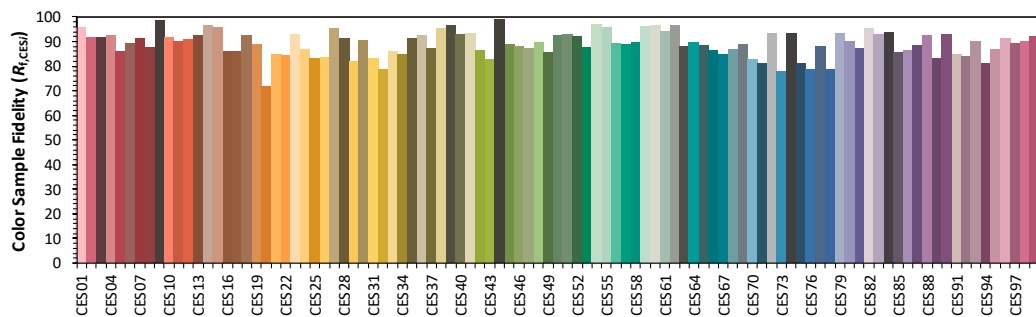
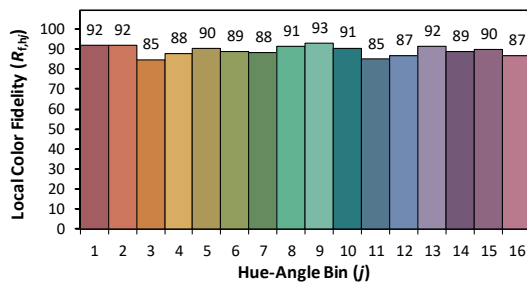
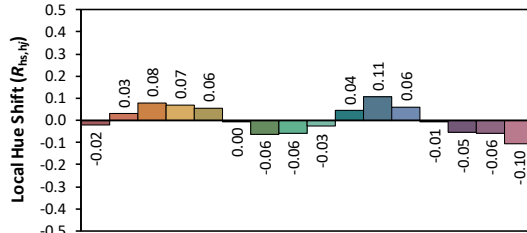
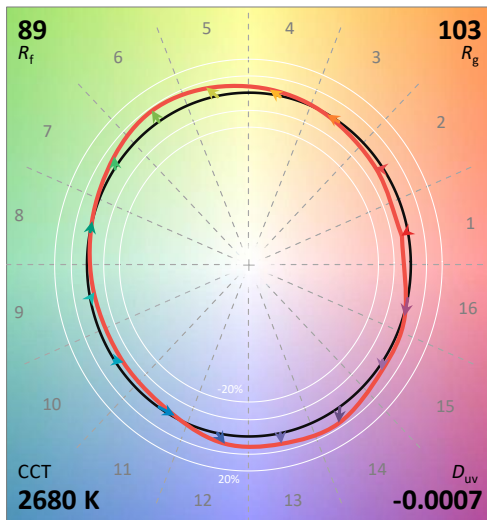
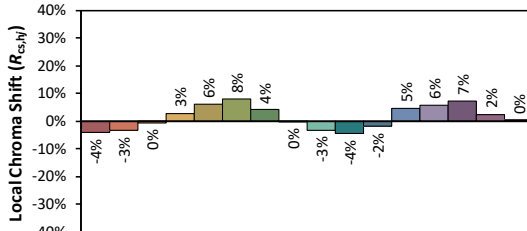
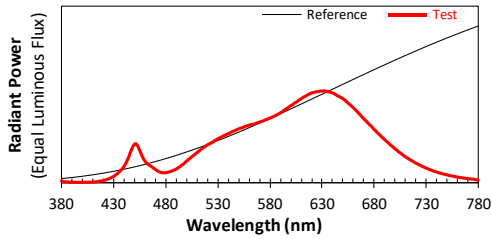
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/8/7

Model: SLBA76027XXXXX



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

x 0.4603
 y 0.4089
 u' 0.2636
 v' 0.5268

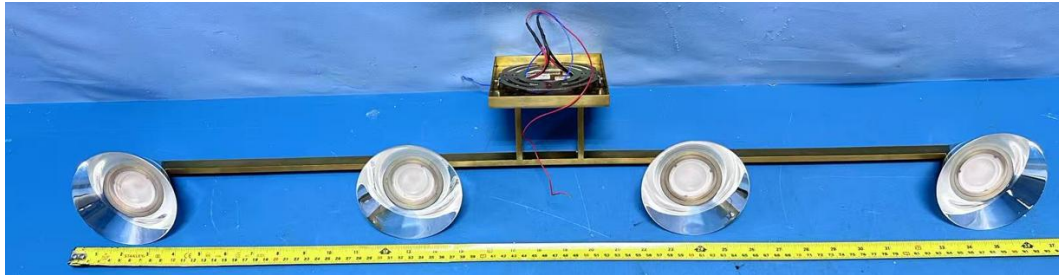
CIE 13.3-1995
(CRI)
 R_a 92
 R_g 68

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

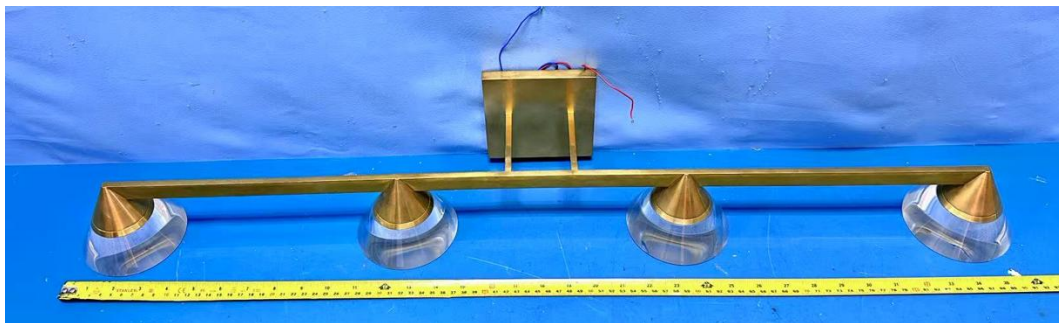
***** End of Page *****

TEST REPORT

PRODUCT PICTURE (not to scale)



External view of SLBA76027XXXXX



External view of SLBA76027XXXXX



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

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

TEST REPORT

PRODUCT PICTURE (not to scale)



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 *****