

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250417136GZU-001

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None

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Report format for LM-79_G

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Report No.: 250417136GZU-001

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. KWOWS72127OB

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

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

AUTHORIZATION: The testing performed was authorized by signed quote number: QGZ250416085.

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 KWOWS72127OB. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250417136-002.

MANUFACTURER /FACTORY & ADDRESS: Shao Guan Weng Yuan Pearly Gates Furniture Manufacturing Co., Ltd.
GuanYing Industrial Park, GuanDu Economic Development Experimental Zone, Weng Yuan County, Guang Dong Province, PRC. 512625.

DATES OF TESTS: 28 April 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

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TEST REPORT

SUMMARY

Model Number:	KWOWS72127OB
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For KWOWS72127OB

Criteria	Result
Total Lumen Output	26.1 lm
Total Power	3.2 W
Luminaire Efficacy	8.1 lm/W
S/MH(C0/180)	1.27
S/MH(C90/270)	1.13
Correlated Color Temperature (CCT)	2698 K
Color Rendering Index (CRI)	95
R9	72
Chromaticity Coordinate (x)	0.4584
Chromaticity Coordinate (y)	0.4077
Chromaticity Coordinate (u')	0.2629
Chromaticity Coordinate (v')	0.5260

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: 3.948A DC

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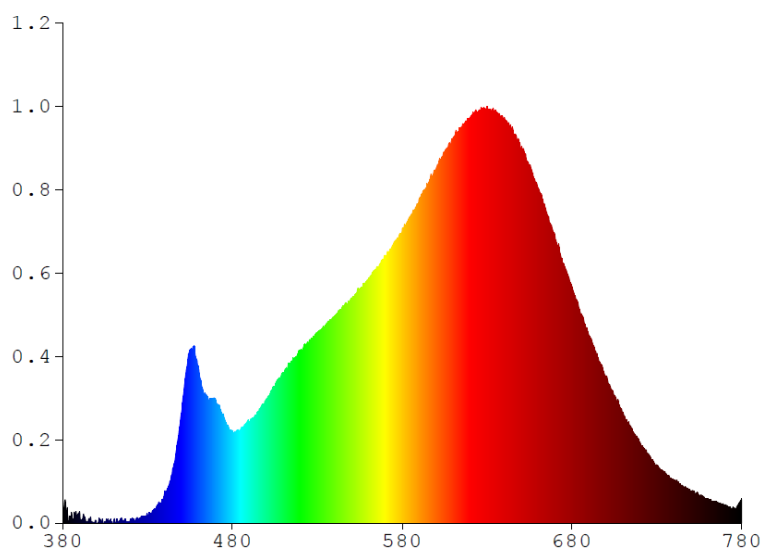
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For KWOWS721270B

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	0.6703	580	2.1325	680	1.7142	780	0.1767
385	0.0000	485	0.6888	585	2.2394	685	1.5226		
390	0.0748	490	0.7326	590	2.3572	690	1.3594		
395	0.0096	495	0.8056	595	2.4571	695	1.2059		
400	0.0000	500	0.9029	600	2.5816	700	1.0701		
405	0.0112	505	0.9962	605	2.6984	705	0.9258		
410	0.0133	510	1.0952	610	2.8075	710	0.8012		
415	0.0253	515	1.1788	615	2.8806	715	0.6908		
420	0.0271	520	1.2563	620	2.9539	720	0.5880		
425	0.0312	525	1.3128	625	3.0009	725	0.5034		
430	0.0513	530	1.3905	630	3.0327	730	0.4177		
435	0.1071	535	1.4392	635	3.0066	735	0.3592		
440	0.2231	540	1.5036	640	2.9472	740	0.3072		
445	0.4006	545	1.5830	645	2.8730	745	0.2735		
450	0.7962	550	1.6385	650	2.7297	750	0.2285		
455	1.2596	555	1.7067	655	2.5827	755	0.1969		
460	1.1290	560	1.7752	660	2.4360	760	0.1772		
465	0.8991	565	1.8652	665	2.2649	765	0.1569		
470	0.9013	570	1.9296	670	2.0725	770	0.1335		
475	0.7661	575	2.0356	675	1.8538	775	0.1060		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWOWS721270B

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

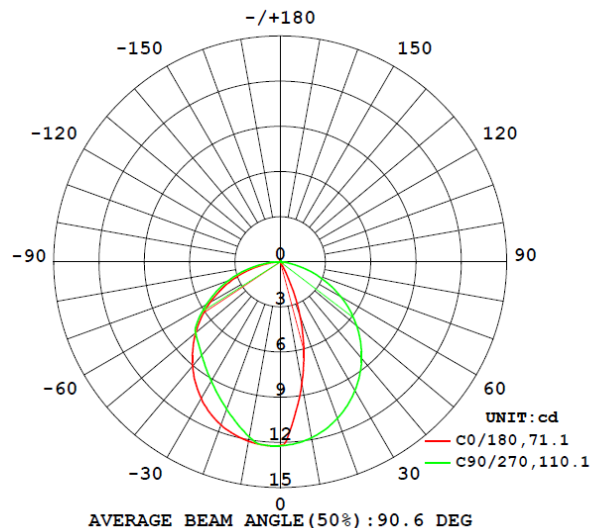
Photometric Measurements at 25°C – Distribution Method

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')
KWOWS721270B								
S2504171 36-002	base-up	2698	95	72	0.4584	0.4077	0.2629	0.5260

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)
KWOWS721270B							
S2504171 36-002	base-up	120.1	27.4	3.2	0.981	26.1	8.1

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWOWS721270B

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	12.2	12.2	12.2	12.2	12.2
5	10.4	10.8	11.4	12.1	12.1
10	8.2	8.8	9.9	11.6	11.9
15	6.1	6.9	8.7	10.9	11.5
20	3.9	5.2	7.6	10.2	11.1
25	1.7	3.7	6.8	9.5	10.5
30	0.0	2.5	6.0	8.9	9.9
35	0.0	2.0	5.5	8.3	9.2
40	0.0	2.3	5.2	7.9	8.4
45	0.0	2.6	5.4	7.4	7.5
50	0.1	2.6	5.6	6.5	6.6
55	0.2	2.5	5.3	5.6	5.6
60	0.2	2.1	4.3	4.6	4.6
65	0.2	1.5	3.2	3.6	3.6
70	0.2	1.0	2.2	2.5	2.6
75	0.1	0.5	1.2	1.5	1.5
80	0.0	0.2	0.5	0.7	0.7
85	0.0	0.0	0.1	0.1	0.1
90	0.0	0.0	0.0	0.0	0.0
95	0.0	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0	0.0
105	0.0	0.0	0.0	0.0	0.0
110	0.0	0.0	0.0	0.0	0.0
115	0.0	0.0	0.0	0.0	0.0
120	0.0	0.0	0.0	0.0	0.0
125	0.0	0.0	0.0	0.0	0.0
130	0.0	0.0	0.0	0.0	0.1
135	0.0	0.0	0.0	0.0	0.1
140	0.0	0.0	0.0	0.0	0.1
145	0.0	0.0	0.0	0.0	0.1
150	0.0	0.0	0.0	0.0	0.1
155	0.0	0.0	0.0	0.0	0.0
160	0.0	0.0	0.0	0.0	0.0
165	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0
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 KWOWS72127OB

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
KWOWS72127OB		
0-30	7.6	29.3
0-40	11.9	45.5
0-60	20.7	79.2
0-90	26.0	99.4
60-90	5.3	20.2
0-180	26.1	100.0

Beam Angle

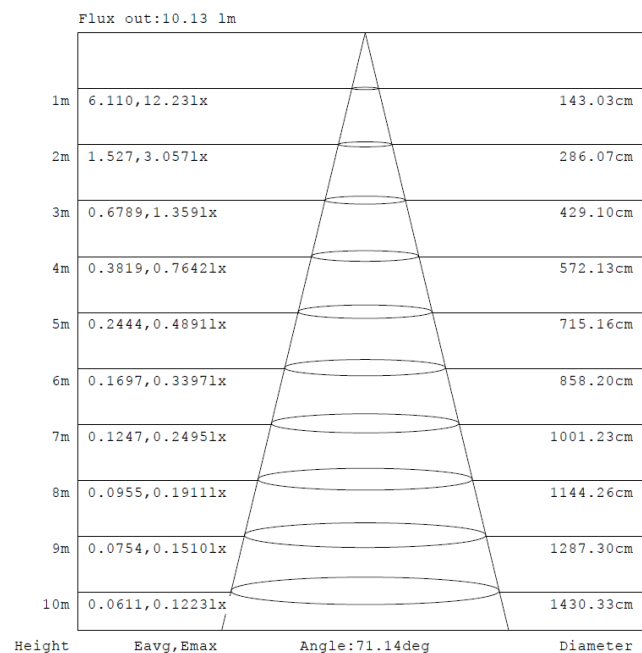
Total Beam Angle(°)
90.6

Illumination Plots

Model No.: KWOWS72127OB

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

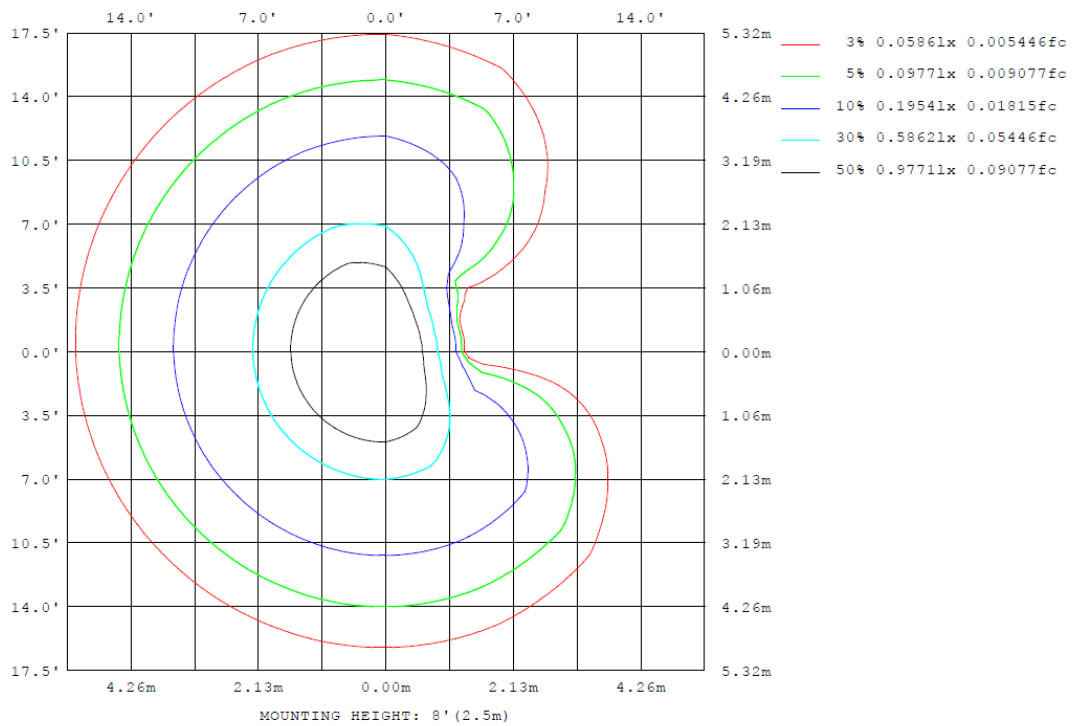
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWOWS72127OB

Model No.: KWOWS72127OB

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWOWS721270B

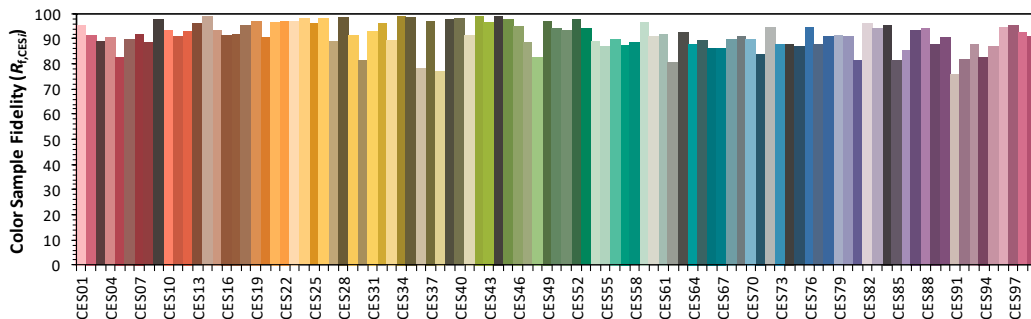
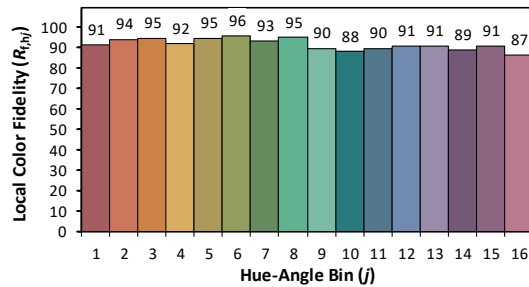
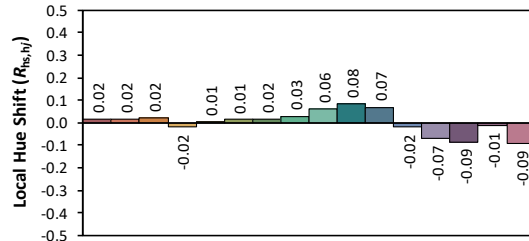
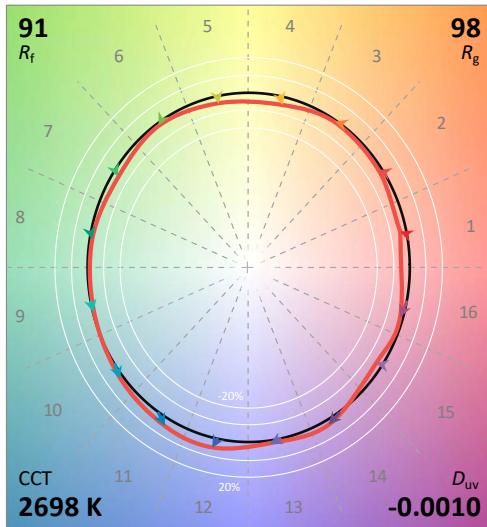
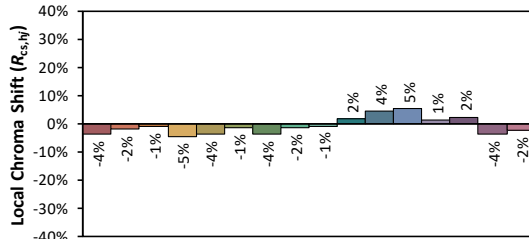
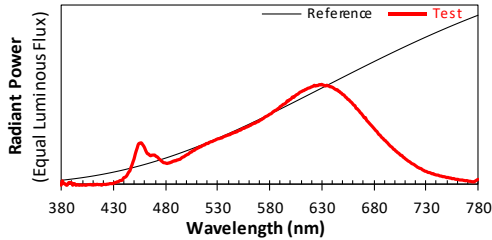
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/4/28

Model: KWOWS721270B



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

x 0.4584
 y 0.4077
 u' 0.2629
 v' 0.5260

CIE 13.3-1995
(CRI)

R_a 95

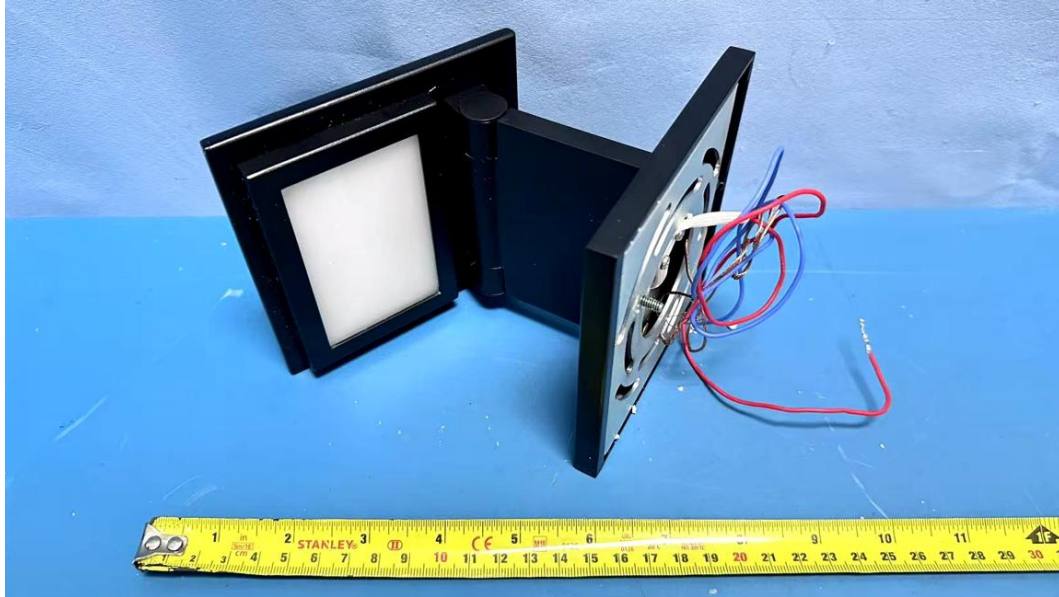
R_g 72

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 KWOWS72127OB



View of LED driver DS6W24VMB1UD-0000

***** 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 *****