

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250417136GZU-004

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None

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Report No.: 250417136GZU-004

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. KWWS61227HAB

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 KWWS61227HAB. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250417136-001.

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: 29 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:	KWWS61227HAB
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For KWWS61227HAB

Criteria	Result
Total Lumen Output	53.3 lm
Total Power	3.5 W
Luminaire Efficacy	15.0 lm/W
S/MH(C0/180)	1.67
S/MH(C90/270)	1.23
Correlated Color Temperature (CCT)	2659 K
Color Rendering Index (CRI)	95
R9	71
Chromaticity Coordinate (x)	0.4620
Chromaticity Coordinate (y)	0.4092
Chromaticity Coordinate (u')	0.2645
Chromaticity Coordinate (v')	0.5271

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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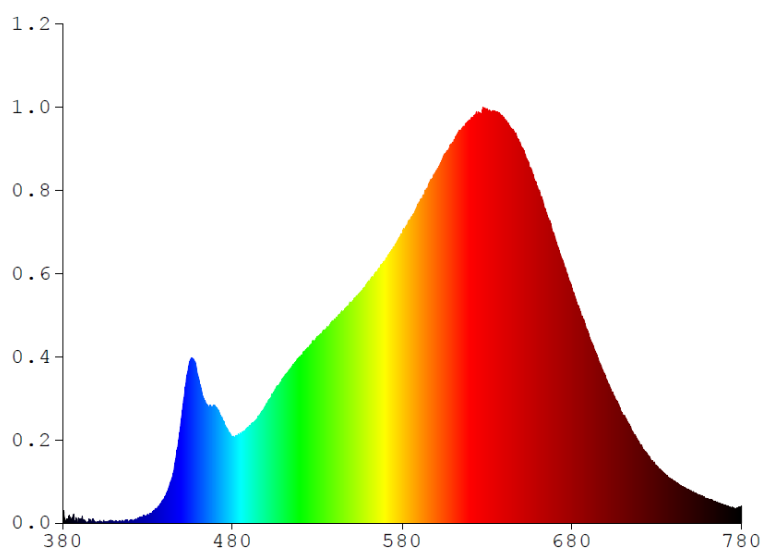
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For KWWS61227HAB

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0000	480	1.2805	580	4.2979	680	3.4849	780	0.2520
385	0.0429	485	1.3252	585	4.5255	685	3.1283		
390	0.0492	490	1.4444	590	4.7742	690	2.7929		
395	0.0138	495	1.5754	595	4.9771	695	2.4531		
400	0.0060	500	1.7676	600	5.2388	700	2.1409		
405	0.0194	505	1.9718	605	5.4874	705	1.8785		
410	0.0137	510	2.1697	610	5.6518	710	1.6074		
415	0.0383	515	2.3217	615	5.8577	715	1.3827		
420	0.0450	520	2.4662	620	5.9901	720	1.1567		
425	0.0761	525	2.6125	625	6.1082	725	0.9964		
430	0.1293	530	2.7682	630	6.1611	730	0.8440		
435	0.2120	535	2.8825	635	6.1047	735	0.7208		
440	0.3787	540	3.0227	640	6.0074	740	0.6202		
445	0.7211	545	3.1434	645	5.8493	745	0.5412		
450	1.5474	550	3.2674	650	5.6027	750	0.4771		
455	2.4101	555	3.4193	655	5.2786	755	0.4085		
460	2.1521	560	3.5844	660	4.9625	760	0.3626		
465	1.7449	565	3.7367	665	4.6191	765	0.2983		
470	1.7342	570	3.8966	670	4.2349	770	0.2678		
475	1.5003	575	4.1097	675	3.7980	775	0.2301		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS61227HAB

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

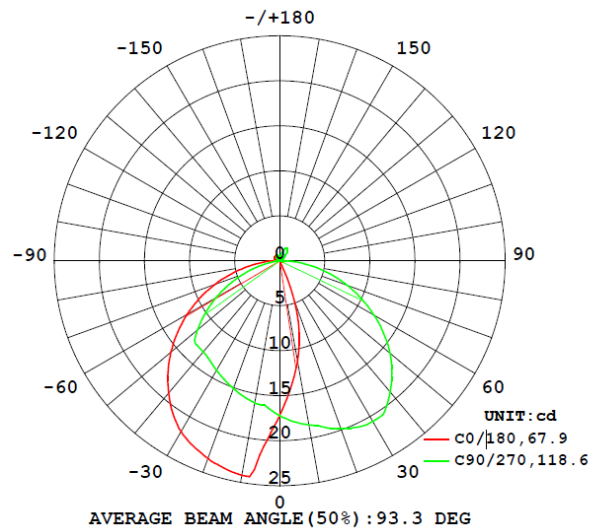
Photometric Measurements at 25°C – Distribution Method

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')
KWWS61227HAB								
S2504171 36-001	base-up	2659	95	71	0.4620	0.4092	0.2645	0.5271

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	Lumen
						Luminous Flux (Lumens)	Efficacy (Lumens Per Watt)
KWWS61227HAB							
S2504171 36-001	base-up	120.2	30.0	3.5	0.984	53.3	15.0

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS61227HAB

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	17.1	17.1	17.2	17.2	17.2
5	14.2	14.6	15.5	16.6	17.9
10	11.3	12.2	13.8	16.0	18.5
15	8.3	9.7	12.0	15.4	19.1
20	4.9	7.0	11.1	15.3	19.8
25	0.0	4.1	10.2	15.1	20.4
30	0.0	1.6	9.3	14.9	20.6
35	0.0	2.4	8.4	14.5	20.4
40	0.0	3.1	7.1	14.0	19.0
45	0.0	3.7	7.8	13.5	17.6
50	0.0	3.9	8.3	13.1	16.0
55	0.0	3.8	8.4	13.0	14.1
60	0.2	3.5	8.3	11.2	12.1
65	0.4	2.7	6.8	9.2	10.0
70	0.5	2.0	5.0	7.3	8.0
75	0.3	1.3	3.4	5.3	5.9
80	0.1	0.6	2.0	3.4	3.9
85	0.0	0.2	0.8	1.6	2.0
90	0.0	0.0	0.1	0.4	0.6
95	0.0	0.0	0.0	0.0	0.1
100	0.0	0.0	0.0	0.0	0.1
105	0.0	0.0	0.0	0.1	0.1
110	0.0	0.0	0.0	0.1	0.2
115	0.0	0.0	0.0	0.1	0.3
120	0.0	0.0	0.1	0.2	0.4
125	0.0	0.0	0.1	0.2	0.5
130	0.0	0.1	0.1	0.3	0.7
135	0.1	0.1	0.1	0.4	0.9
140	0.1	0.1	0.2	0.5	1.2
145	0.1	0.1	0.2	0.7	1.5
150	0.1	0.2	0.3	0.8	1.6
155	0.2	0.2	0.4	0.9	1.5
160	0.2	0.3	0.5	0.8	1.3
165	0.3	0.4	0.5	0.6	1.0
170	0.2	0.3	0.4	0.5	0.5
175	0.1	0.2	0.2	0.3	0.3
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 KWWS61227HAB

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
KWWS61227HAB		
0-30	13.3	24.9
0-40	21.6	40.5
0-60	39.4	73.9
0-90	50.9	95.4
60-90	11.5	21.5
0-180	53.3	100.0

Beam Angle

Total Beam Angle(°)

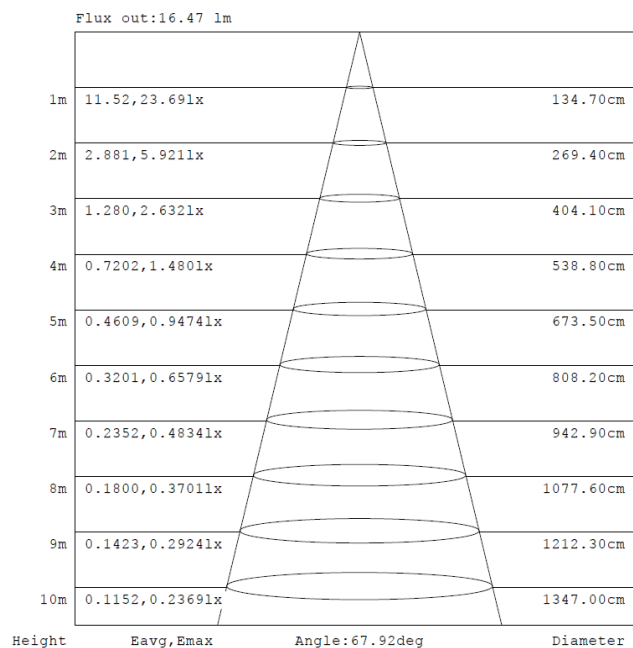
93.3

Illumination Plots

Model No.: KWWS61227HAB

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

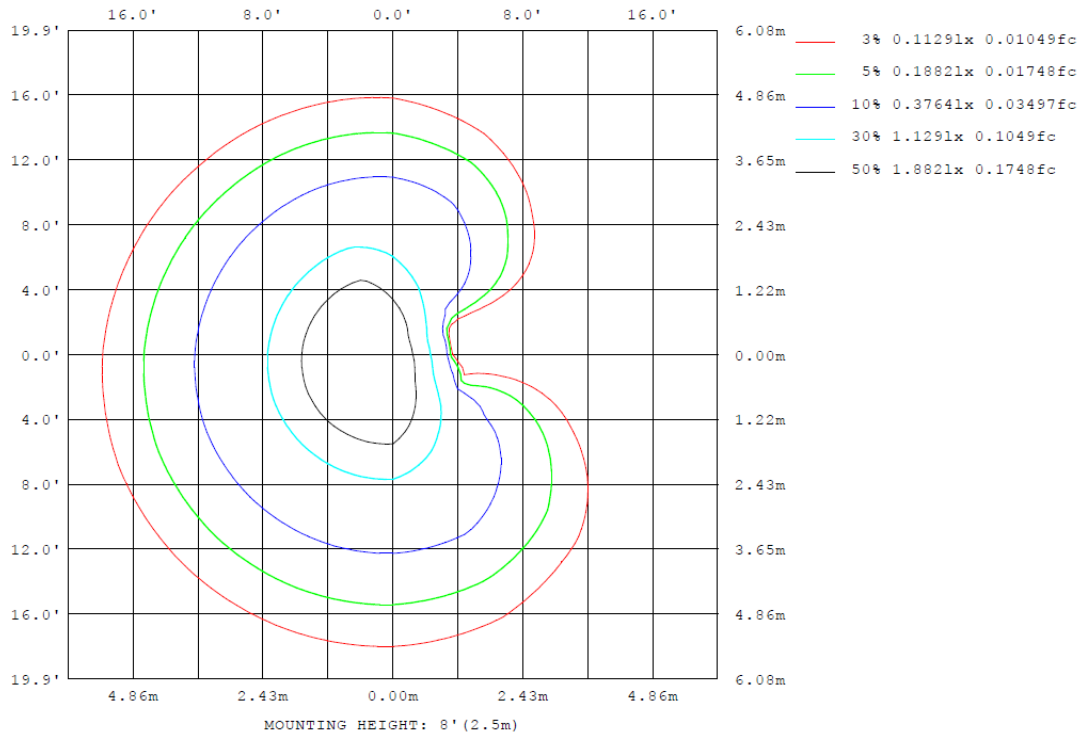
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS61227HAB

Model No.: KWWS61227HAB

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS61227HAB

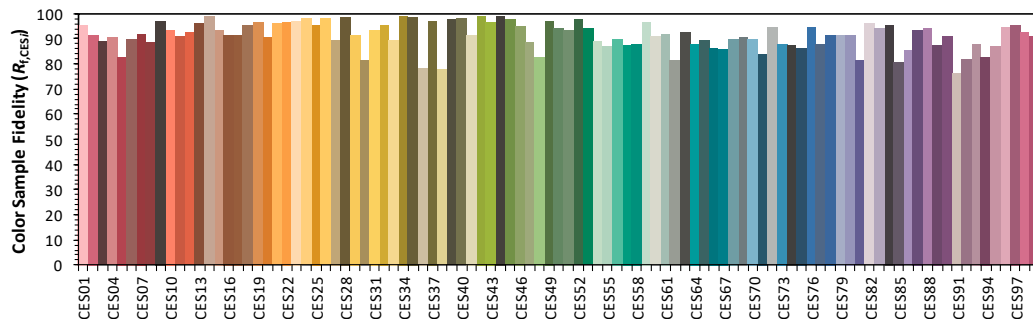
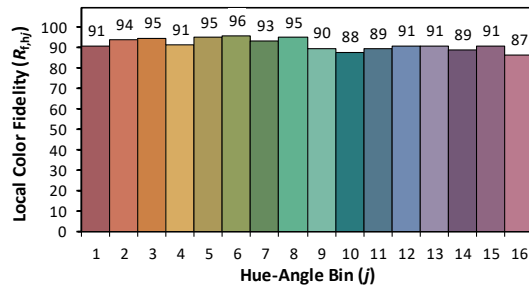
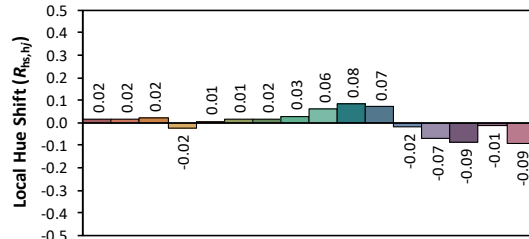
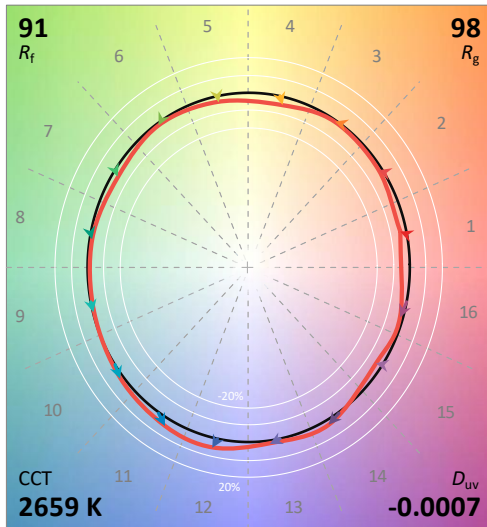
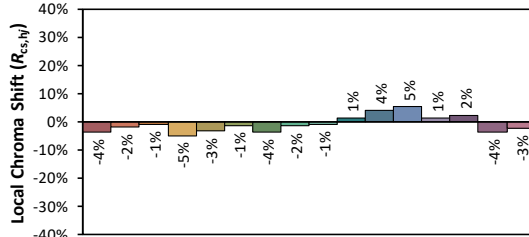
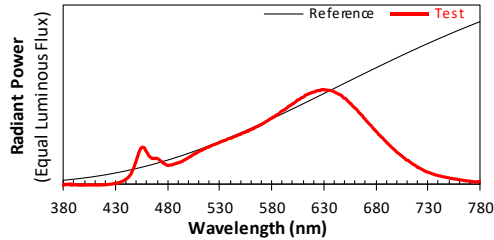
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/4/29

Model: KWWS61227HAB



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

x 0.4620
 y 0.4092
 u' 0.2645
 v' 0.5271

CIE 13.3-1995
(CRI)

R_a 95

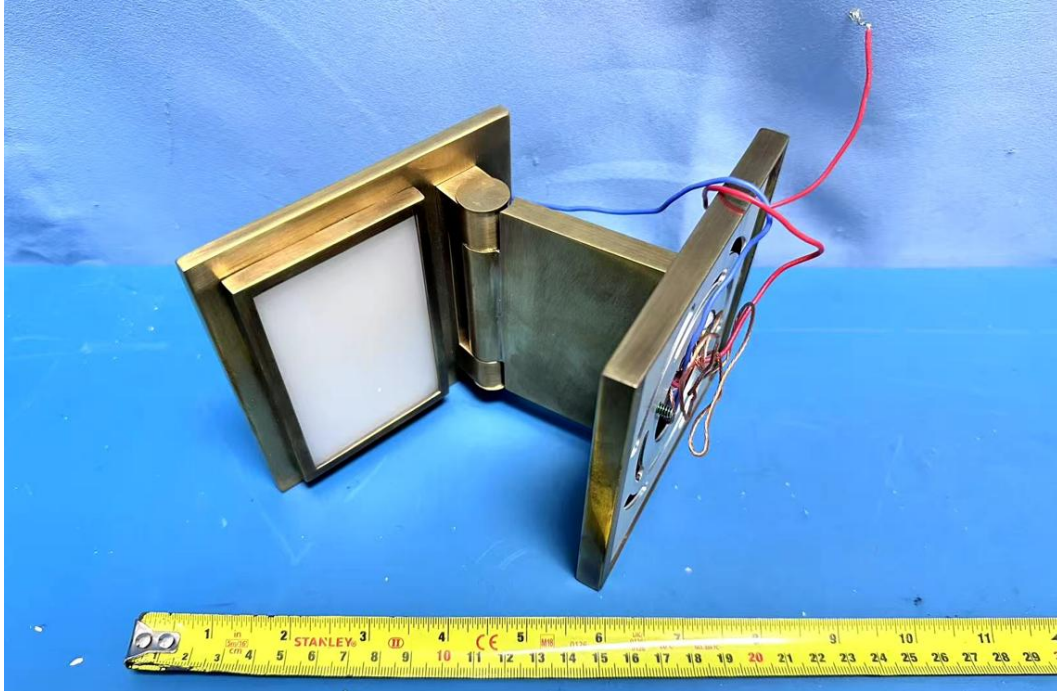
R_g 71

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 KWWS61227HAB



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 *****