

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250530064GZU-004

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REVISION DATE

None

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Report format for LM-79_G

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Report No.: 250530064GZU-004

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. KWWS69627XXXALB

Remark: "XXX" are denoted appearance color.

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: QGZ250527132.
<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 KWWS69627HABALB. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250530064-003.
<u>MANUFACTURER /FACTORY & ADDRESS:</u>	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.
<u>DATES OF TESTS:</u>	12 June 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:	KWWS69627HABALB
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For KWWS69627HABALB

Criteria	Result
Total Lumen Output	370.8 lm
Total Power	12.4 W
Luminaire Efficacy	29.8 lm/W
S/MH(C0/180)	1.29
S/MH(C90/270)	1.29
Correlated Color Temperature (CCT)	2479 K
Color Rendering Index (CRI)	93
R9	68
Chromaticity Coordinate (x)	0.4749
Chromaticity Coordinate (y)	0.4075
Chromaticity Coordinate (u')	0.2737
Chromaticity Coordinate (v')	0.5284

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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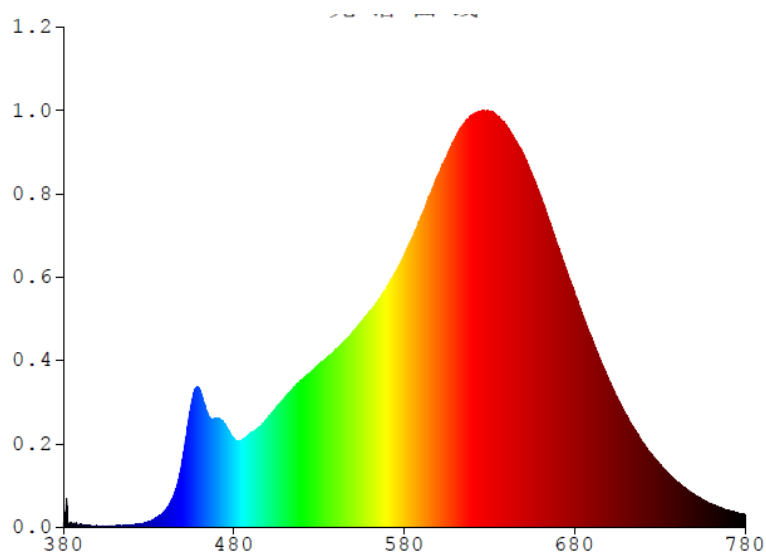
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For KWWS69627HABALB

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.1262	480	2.3606	580	7.2588	680	6.2487	780	0.3429
385	0.1072	485	2.3399	585	7.7464	685	5.6256		
390	0.0623	490	2.5101	590	8.3011	690	5.0360		
395	0.0469	495	2.6723	595	8.8480	695	4.4754		
400	0.0403	500	2.9112	600	9.3806	700	3.9327		
405	0.0353	505	3.1921	605	9.8765	705	3.4563		
410	0.0317	510	3.4534	610	10.3730	710	2.9883		
415	0.0440	515	3.7110	615	10.7530	715	2.6215		
420	0.0650	520	3.9405	620	10.9900	720	2.2628		
425	0.0999	525	4.1363	625	11.0580	725	1.9462		
430	0.1482	530	4.3372	630	11.0670	730	1.6764		
435	0.2681	535	4.5393	635	10.9330	735	1.4322		
440	0.4732	540	4.7355	640	10.7040	740	1.2220		
445	0.8908	545	4.9800	645	10.3330	745	1.0378		
450	1.8474	550	5.1967	650	9.9461	750	0.8745		
455	3.2814	555	5.4863	655	9.3981	755	0.7413		
460	3.6665	560	5.7668	660	8.8202	760	0.6257		
465	2.9831	565	6.0405	665	8.1703	765	0.5253		
470	2.8989	570	6.4169	670	7.5069	770	0.4523		
475	2.7285	575	6.8049	675	6.7429	775	0.3884		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS69627HABALB

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

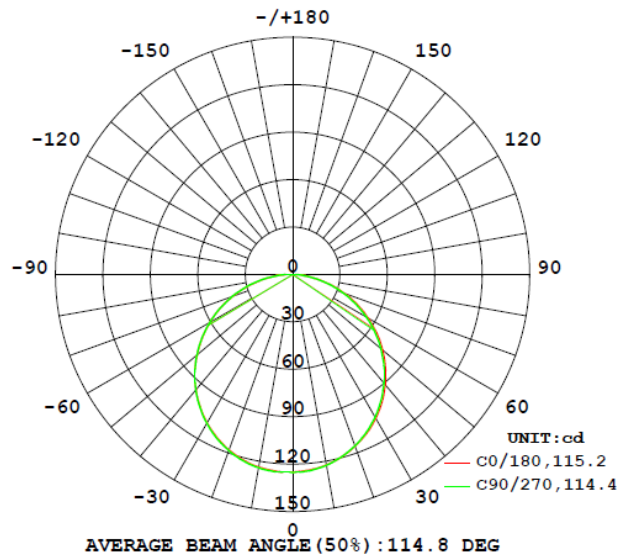
Photometric Measurements at 25°C – Distribution Method

Intertek Sample No.	Base Orientation	Correlated Color Temperature (K)	CRI	R9	CIE 31'	CIE 31'	CIE 76'	CIE 76'
					Chromaticit y	Chromaticit y	Chromaticit y	Chromaticit y
					Coordinate (x)	Coordinate (y)	Coordinate (u')	Coordinate (v')
KWWS69627HABALB								
S2505300 64-003	base-up	2479	93	68	0.4749	0.4075	0.2737	0.5284

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)
KWWS69627HABALB							
S2505300 64-003	base-up	120.1	104.9	12.4	0.987	370.8	29.8

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS69627HABALB

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	125.1	124.9	125.0	125.1	125.2
5	124.1	124.0	124.2	124.4	124.6
10	122.4	122.1	122.2	122.4	122.6
15	119.5	119.0	119.0	119.1	119.4
20	115.6	114.9	114.7	114.9	115.3
25	110.8	109.7	109.6	109.7	110.2
30	105.0	103.7	103.5	103.7	104.2
35	98.4	96.8	96.6	96.8	97.4
40	91.1	89.1	88.9	89.2	89.8
45	83.0	80.8	80.6	80.8	81.6
50	74.2	71.9	71.7	72.0	72.7
55	64.9	62.4	62.3	62.6	63.5
60	55.2	52.6	52.5	52.9	53.7
65	45.0	42.4	42.4	42.8	43.7
70	34.7	32.1	32.1	32.7	33.6
75	24.3	21.8	22.0	22.6	23.5
80	14.0	11.8	12.1	12.7	13.7
85	4.8	2.9	3.1	3.8	4.5
90	0.3	0.2	0.2	0.2	0.2
95	0.2	0.1	0.1	0.1	0.1
100	0.1	0.1	0.1	0.0	0.0
105	0.1	0.1	0.0	0.0	0.0
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	0.1	0.1	0.1	0.1	0.1
135	0.1	0.1	0.2	0.2	0.2
140	0.2	0.2	0.2	0.2	0.2
145	0.2	0.2	0.2	0.2	0.2
150	0.2	0.2	0.2	0.2	0.2
155	0.2	0.2	0.3	0.3	0.3
160	0.2	0.2	0.2	0.3	0.3
165	0.2	0.2	0.2	0.2	0.3
170	0.2	0.2	0.2	0.2	0.2
175	0.2	0.2	0.2	0.2	0.2
180	0.2	0.2	0.2	0.2	0.2

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWS69627HABALB

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
KWS69627HABALB		
0-30	97.7	26.4
0-40	160.4	43.3
0-60	285.9	77.1
0-90	370.0	99.8
60-90	84.1	22.7
0-180	370.8	100.0

Beam Angle

Total Beam Angle(°)

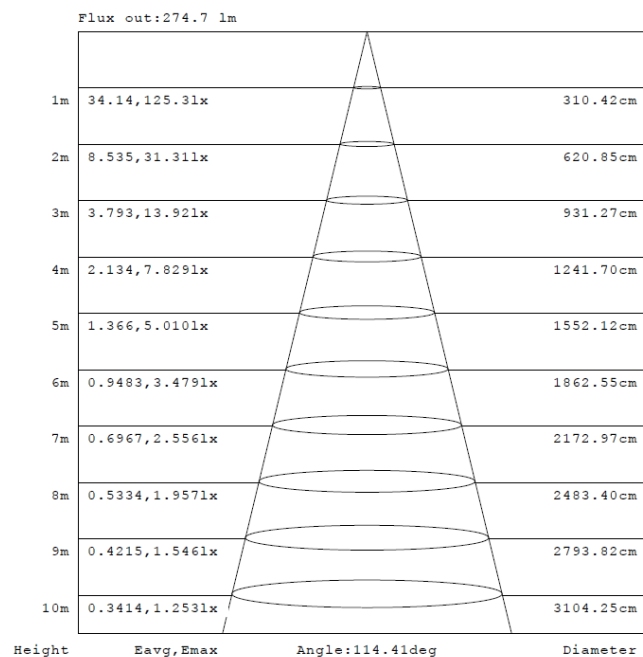
114.8

Illumination Plots

Model No.: KWS69627HABALB

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

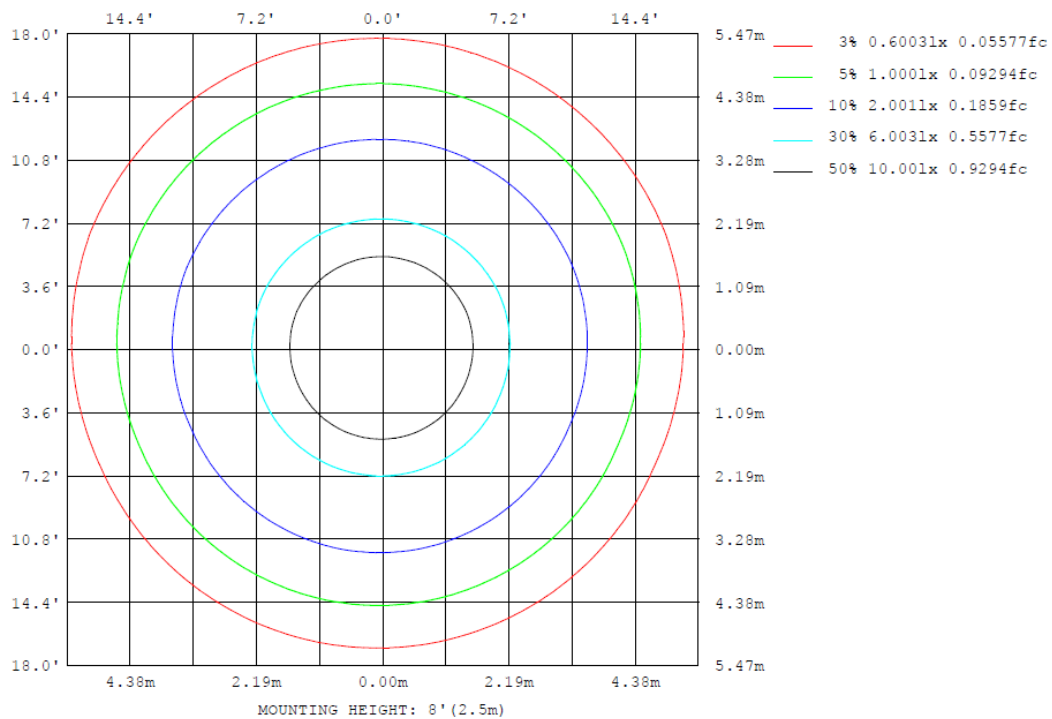
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS69627HABALB

Model No.: KWWS69627HABALB

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS69627HABALB

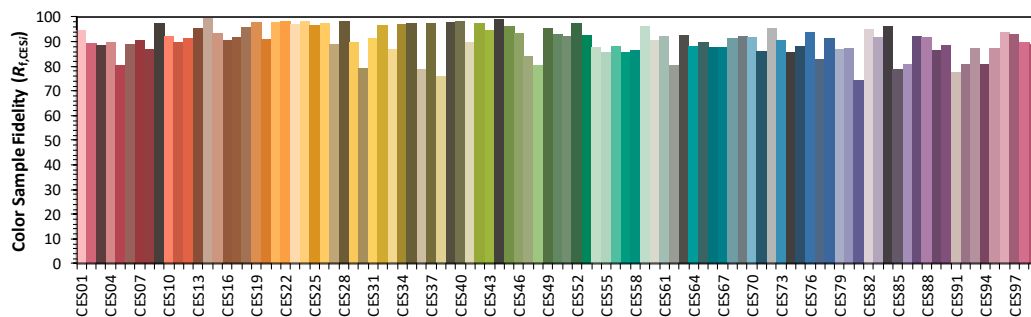
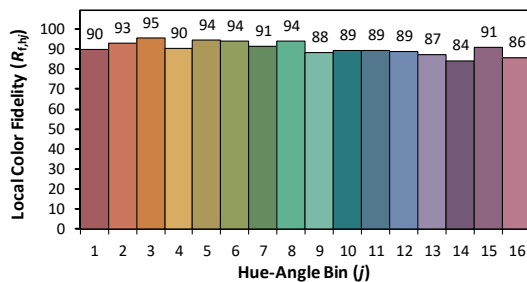
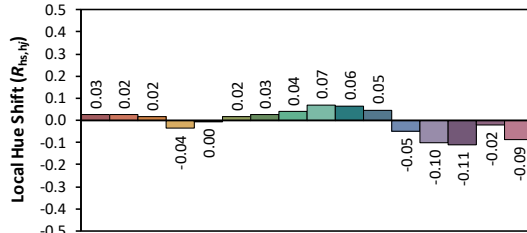
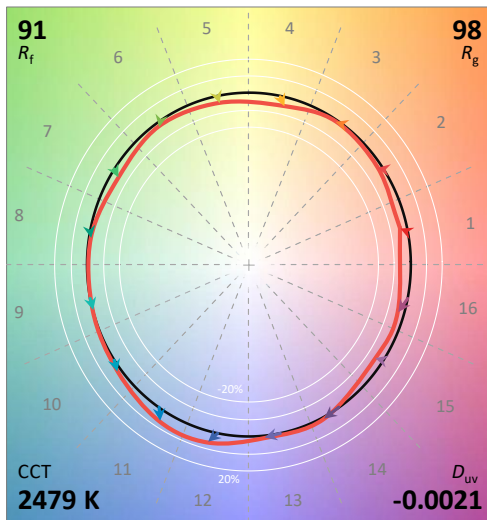
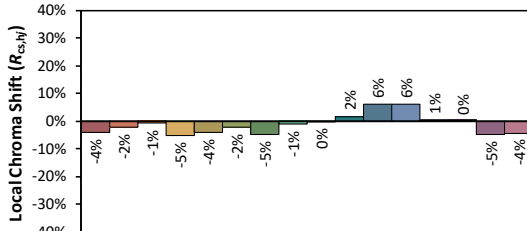
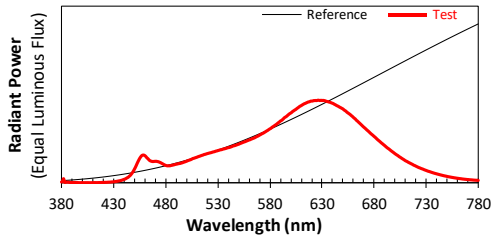
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/6/12

Model: KWWS69627HABALB



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

x 0.4749
 y 0.4075
 u' 0.2737
 v' 0.5284

CIE 13.3-1995
(CRI)
 R_a 93
 R_g 68

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

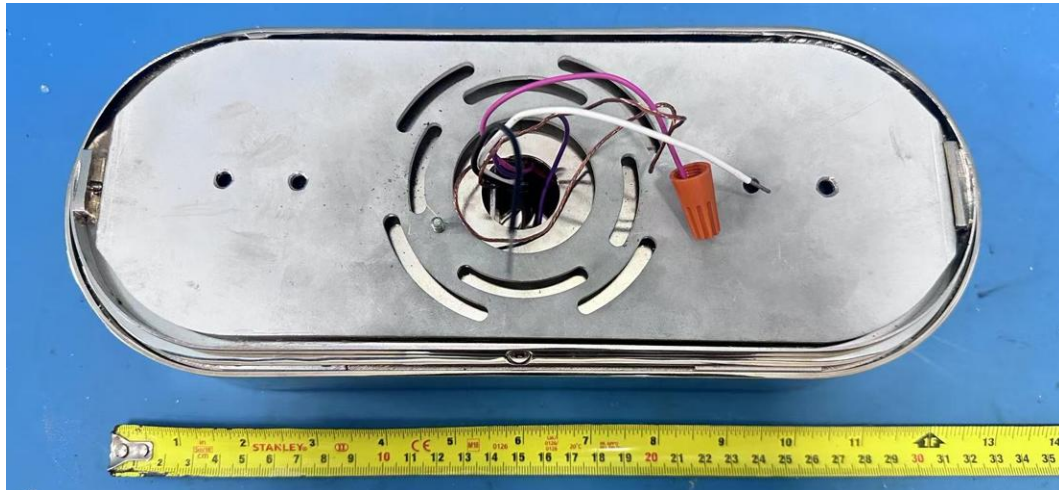
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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of KWW569627HABALB

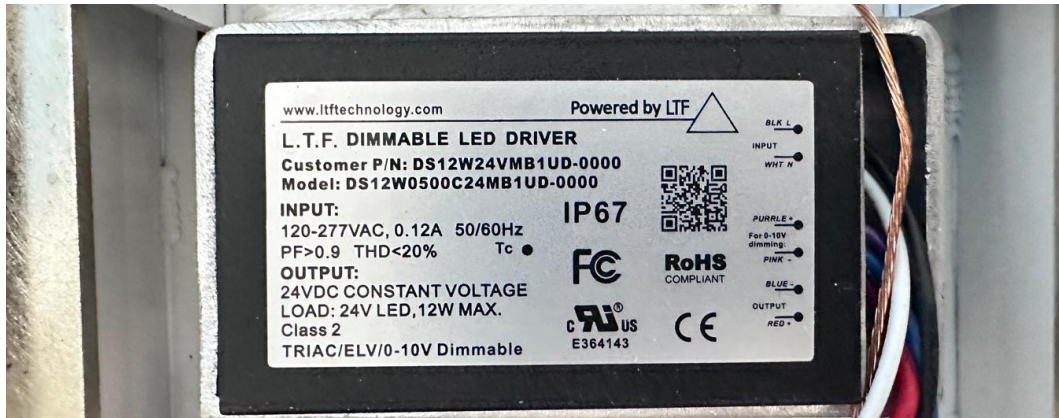


External view of KWW569627HABALB

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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver DS12W24VMB1UD-0000(AA8027)



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 *****