

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250530064GZU-005

ISSUE DATE

20 June 2025

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 250530064GZU-005

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. KWWS69727XXXALB

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 KWWS69727HABALB. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250530064-006.
<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>	13 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:	KWWS69727HABALB
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For KWWS69727HABALB

Criteria	Result
Total Lumen Output	406.1 lm
Total Power	19.1 W
Luminaire Efficacy	21.3 lm/W
S/MH(C0/180)	1.25
S/MH(C90/270)	1.28
Correlated Color Temperature (CCT)	2505 K
Color Rendering Index (CRI)	93
R9	68
Chromaticity Coordinate (x)	0.4729
Chromaticity Coordinate (y)	0.4076
Chromaticity Coordinate (u')	0.2724
Chromaticity Coordinate (v')	0.5282

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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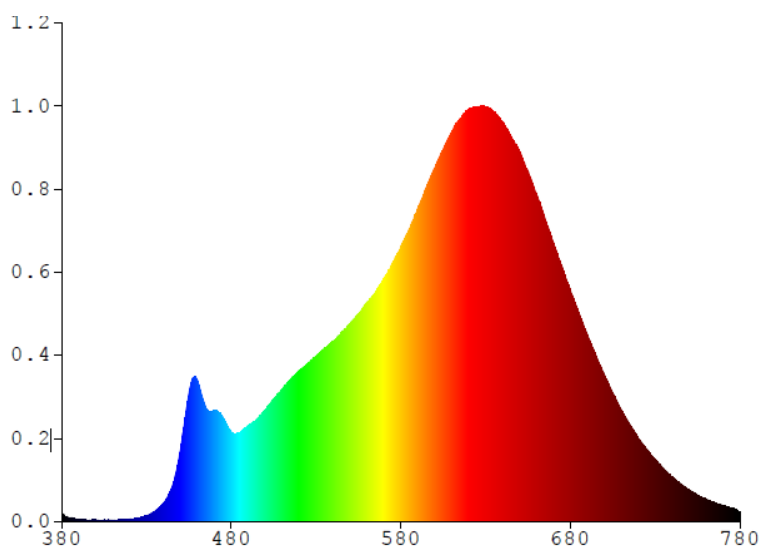
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For KWWS69727HABALB

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.1995	480	2.5614	580	7.8692	680	6.6341	780	0.2722
385	0.1145	485	2.5555	585	8.3790	685	5.9744		
390	0.0418	490	2.7493	590	8.9625	690	5.3461		
395	0.0392	495	2.9277	595	9.5607	695	4.7563		
400	0.0420	500	3.1936	600	10.1060	700	4.2107		
405	0.0451	505	3.5037	605	10.6500	705	3.6850		
410	0.0388	510	3.7914	610	11.1560	710	3.1910		
415	0.0468	515	4.0572	615	11.5370	715	2.7844		
420	0.0669	520	4.3097	620	11.8160	720	2.4040		
425	0.1039	525	4.5129	625	11.8610	725	2.0687		
430	0.1710	530	4.7299	630	11.8770	730	1.7898		
435	0.2906	535	4.9683	635	11.7340	735	1.5151		
440	0.5219	540	5.1555	640	11.4560	740	1.2879		
445	0.9735	545	5.4200	645	11.0330	745	1.0770		
450	2.0419	550	5.6634	650	10.6110	750	0.9091		
455	3.6558	555	5.9531	655	10.0170	755	0.7566		
460	4.0458	560	6.2826	660	9.3635	760	0.6415		
465	3.2610	565	6.5541	665	8.6745	765	0.5424		
470	3.1650	570	6.9583	670	7.9868	770	0.4603		
475	2.9825	575	7.3807	675	7.1614	775	0.3950		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS69727HABALB

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

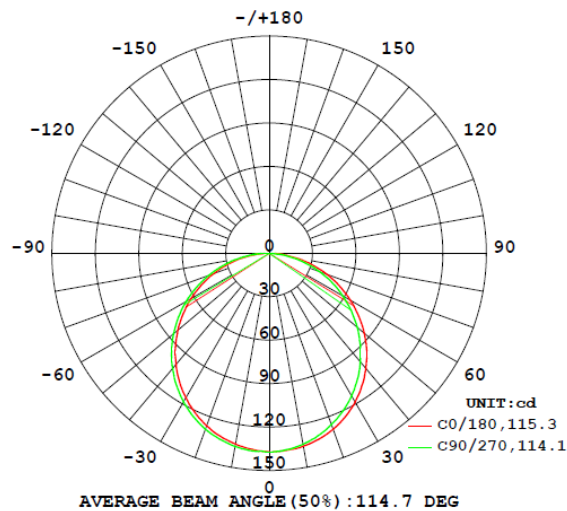
Photometric Measurements at 25°C – Distribution Method

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')
KWWS69727HABALB								
S2505300 64-006	base-up	2505	93	68	0.4729	0.4076	0.2724	0.5282

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)
KWWS69727HABALB							
S2505300 64-006	base-up	120.1	164.1	19.1	0.968	406.1	21.3

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS69727HABALB

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	136.9	137.0	137.0	137.0	137.0
5	136.6	136.5	136.5	136.3	136.1
10	135.3	134.9	134.6	134.2	133.9
15	132.8	132.0	131.5	130.9	130.4
20	129.2	128.0	127.2	126.5	125.8
25	124.4	122.9	122.0	121.0	120.2
30	118.5	116.7	115.7	114.6	113.7
35	111.7	109.5	108.3	107.1	106.2
40	103.8	101.4	100.2	98.9	97.9
45	95.2	92.5	91.2	89.9	88.9
50	85.7	82.8	81.5	80.2	79.2
55	75.5	72.4	71.2	70.0	69.1
60	64.7	61.6	60.4	59.1	58.5
65	53.9	50.7	49.7	48.6	48.0
70	42.3	39.2	38.3	37.4	36.9
75	30.7	27.7	26.9	26.2	25.9
80	18.9	16.2	15.8	15.3	15.0
85	7.6	5.5	5.3	5.1	5.0
90	0.5	0.5	0.6	0.6	0.5
95	0.1	0.2	0.3	0.3	0.2
100	0.1	0.1	0.1	0.1	0.1
105	0.1	0.2	0.1	0.1	0.1
110	0.1	0.2	0.3	0.1	0.1
115	0.1	0.2	0.6	0.2	0.2
120	0.1	0.2	0.4	0.3	0.2
125	0.1	0.3	0.3	0.3	0.2
130	0.1	0.3	0.3	0.3	0.2
135	0.2	0.3	0.3	0.3	0.3
140	0.2	0.3	0.4	0.3	0.3
145	0.2	0.3	0.4	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	0.4	0.4	0.3	0.3	0.3
180	0.3	0.3	0.3	0.2	0.2

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWW569727HABALB

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
KWW569727HABALB		
0-30	106.7	26.3
0-40	175.1	43.1
0-60	312.1	76.9
0-90	404.8	99.7
60-90	92.7	22.8
0-180	406.1	100.0

Beam Angle

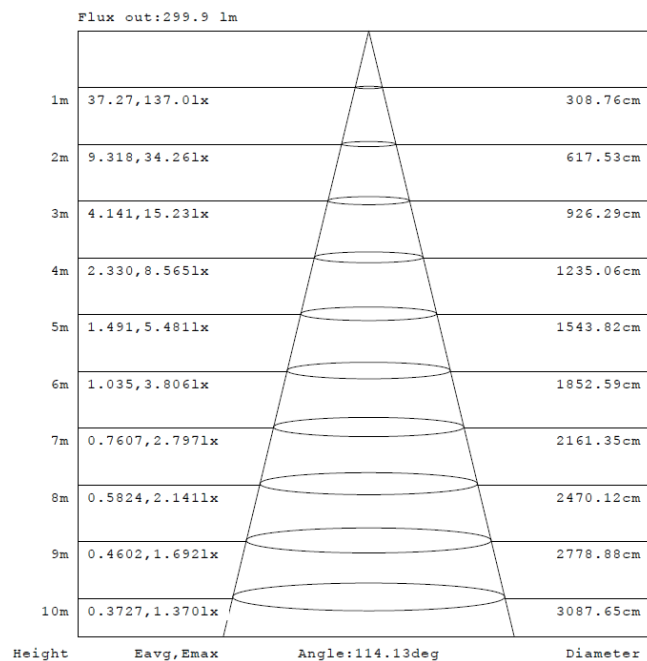
Total Beam Angle(°)
114.7

Illumination Plots

Model No.: KWW569727HABALB

Mount Height: 2.5 m

Illuminance - Cone of Light



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TEST REPORT

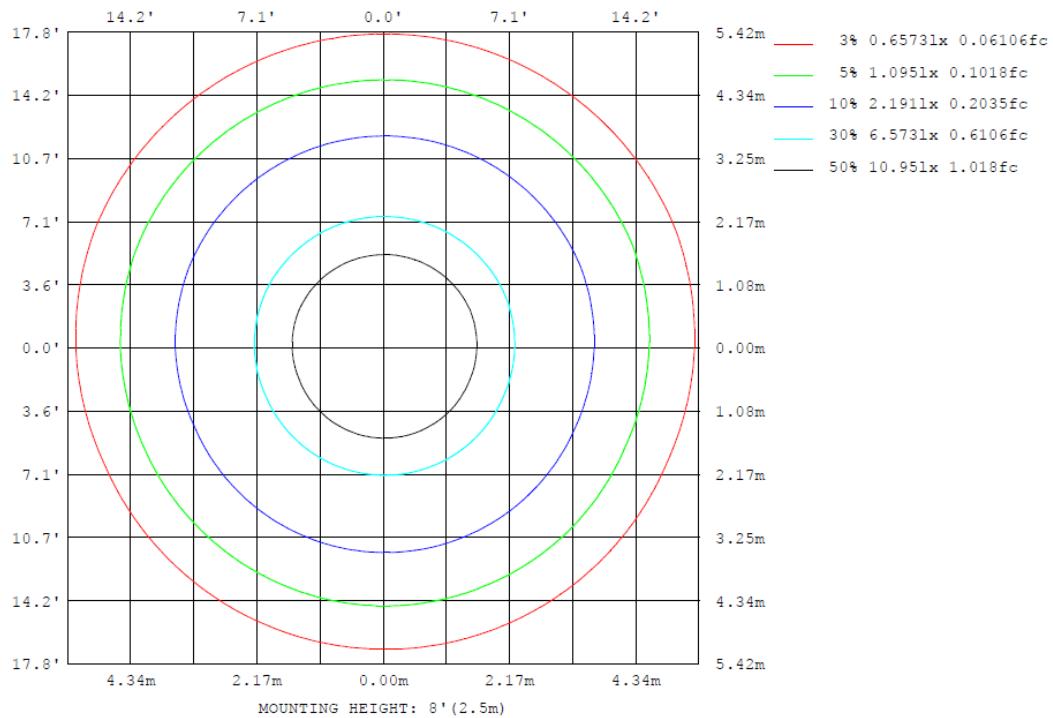
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS69727HABALB

Model No.: KWWS69727HABALB

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWWS69727HABALB

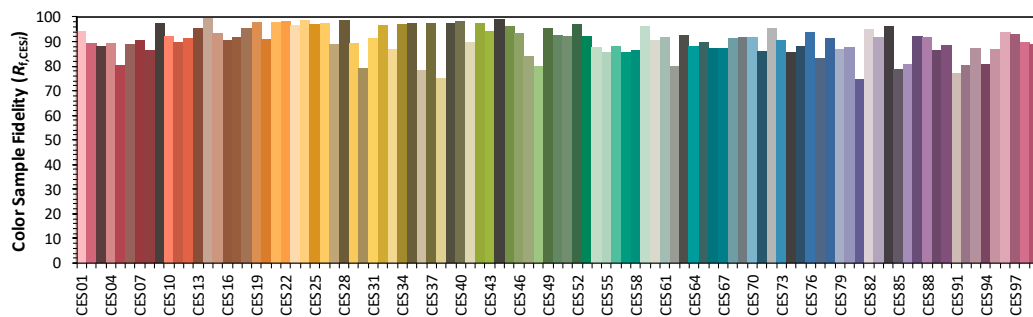
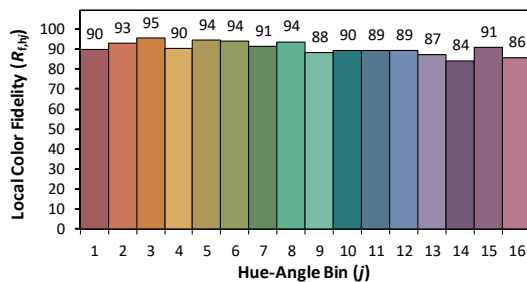
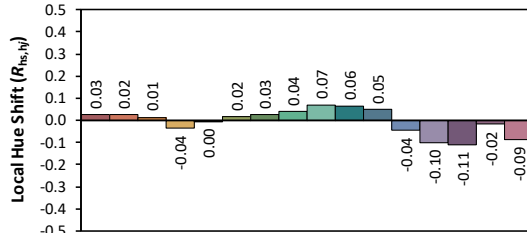
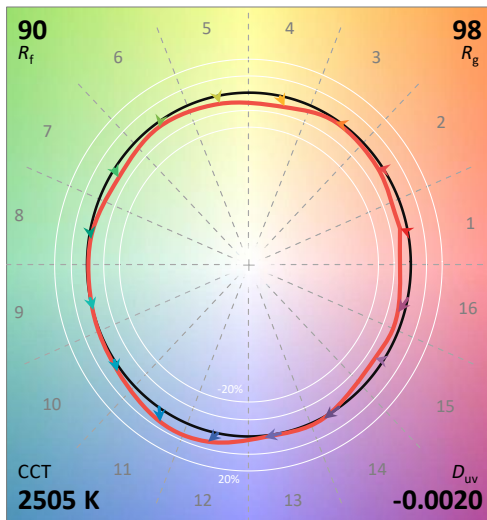
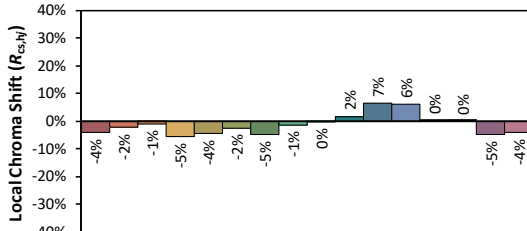
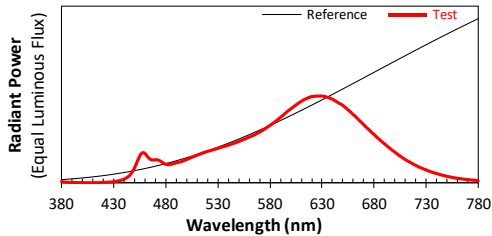
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/6/13

Model: KWWS69727HABALB



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

x 0.4729
 y 0.4076
 u' 0.2724
 v' 0.5282

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.

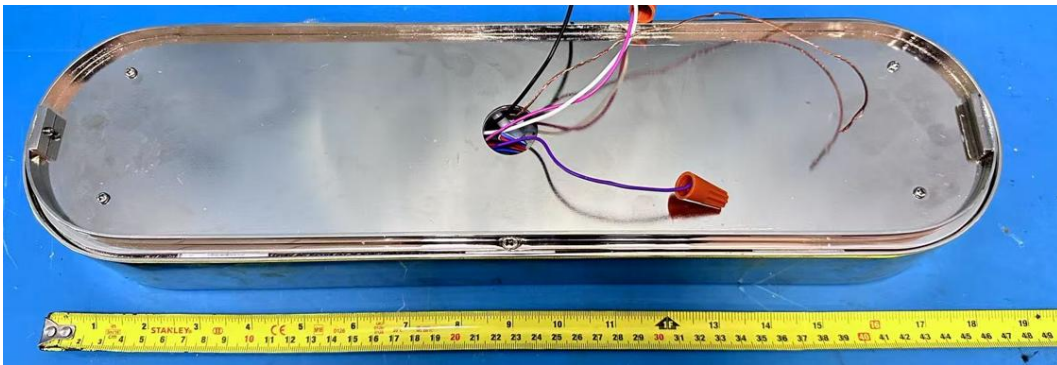
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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of KWW569727HABALB

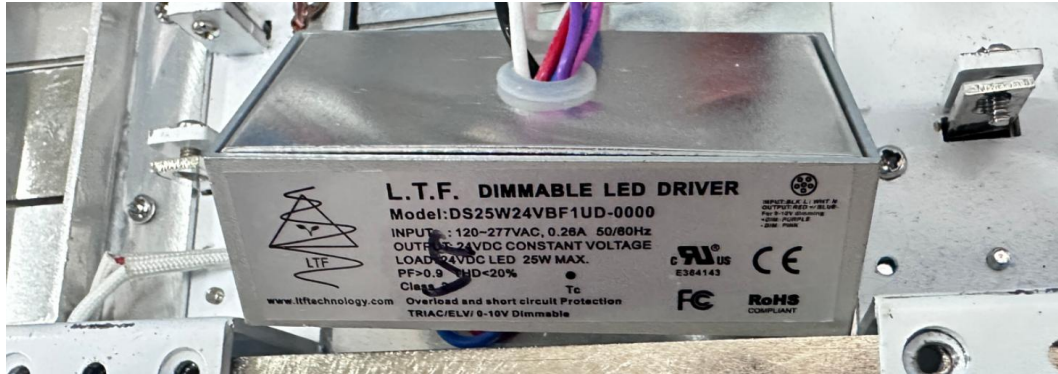


External view of KWW569727HABALB

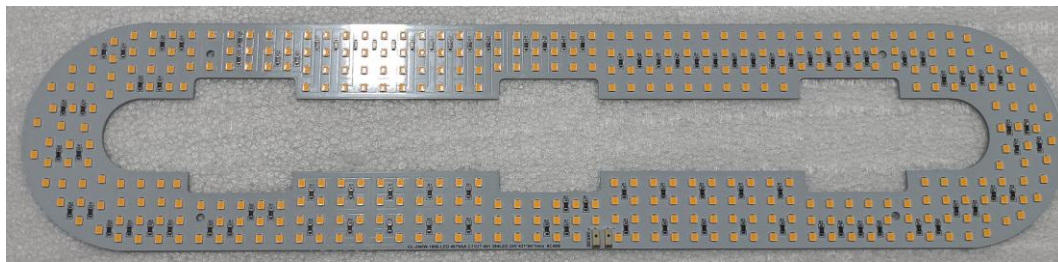
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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver DS25W24VBF1UD-0000(AA7580)



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 *****