

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

260128032GZU-001

ISSUE DATE

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REVISION DATE

None

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DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 260128032GZU-001

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. AKLS242WDXXXCG

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

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: QGZ260126178.
<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 AKLS242WDHABCG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S260128032-001.
<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>	11 February 2026
<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:	AKLS242WDHABCG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For AKLS242WDHABCG

Criteria	Result
Total Lumen Output	941.2 lm
Total Power	18.1 W
Luminaire Efficacy	52.1 lm/W
S/MH(C0/180)	1.32
S/MH(C90/270)	1.14
Correlated Color Temperature (CCT)	2931 K
Color Rendering Index (CRI)	93
R9	64
Chromaticity Coordinate (x)	0.4407
Chromaticity Coordinate (y)	0.4034
Chromaticity Coordinate (u')	0.2533
Chromaticity Coordinate (v')	0.5217

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: 3.958A DC

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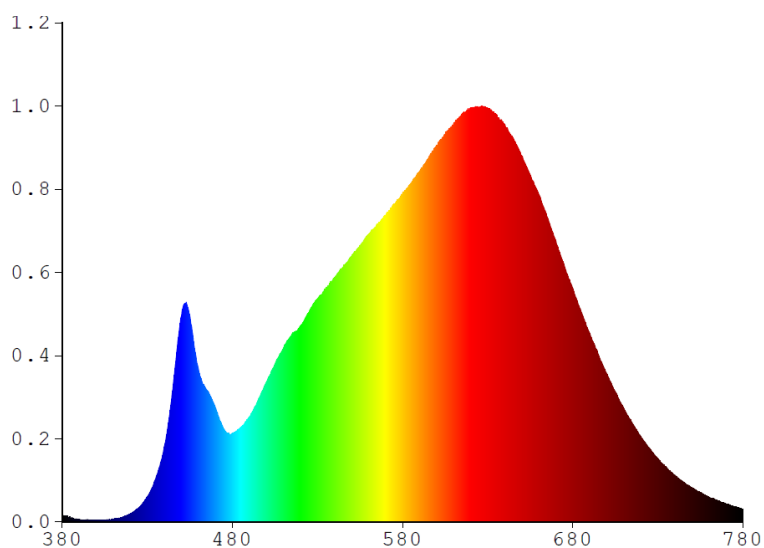
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For AKLS242WDHABCG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	1.2862	480	22.6040	580	83.6910	680	59.6630	780	3.2587
385	0.9853	485	24.2730	585	86.3850	685	53.5840		
390	0.6967	490	26.8100	590	89.3170	690	48.1780		
395	0.5937	495	30.9320	595	92.6410	695	42.8020		
400	0.3901	500	35.6360	600	95.9650	700	37.8600		
405	0.4803	505	40.1090	605	98.7400	705	33.2530		
410	0.7489	510	44.3170	610	101.420	710	28.9920		
415	1.1706	515	47.7910	615	103.990	715	25.2340		
420	2.0654	520	49.9660	620	105.630	720	21.8300		
425	3.6435	525	53.4170	625	105.730	725	18.9440		
430	6.3842	530	56.9120	630	105.670	730	16.1680		
435	11.0320	535	59.6320	635	103.750	735	14.0130		
440	19.1460	540	62.2930	640	101.450	740	11.9610		
445	33.8310	545	64.9200	645	97.9010	745	10.2790		
450	52.3370	550	67.7090	650	93.4080	750	8.8431		
455	52.3410	555	70.4180	655	88.5420	755	7.5451		
460	39.0700	560	73.3710	660	83.6610	760	6.3529		
465	33.6930	565	75.9100	665	77.8820	765	5.5030		
470	29.1430	570	78.1150	670	71.7930	770	4.7069		
475	23.7250	575	81.1200	675	64.1500	775	4.0037		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For AKLS242WDHABCG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

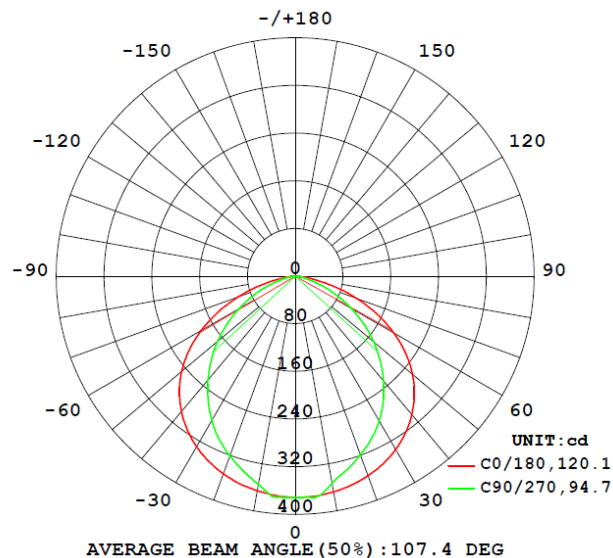
Photometric Measurements at 25°C – Distribution Method

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')
AKLS242WDHABCG								
S2601280 32-001	base-up	2931	93	64	0.4407	0.4034	0.2533	0.5217

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)
AKLS242WDHABCG							
S2601280 32-001	base-up	120.1	156.0	18.1	0.96	941.2	52.1

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For AKLS242WDHABCG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	371.5	371.5	371.6	371.6	371.6
5	370.7	370.5	371.3	372.5	372.6
10	367.7	369.0	364.0	355.5	353.1
15	363.0	362.6	344.1	337.6	335.7
20	356.3	346.6	329.4	321.3	319.1
25	347.5	329.5	313.2	303.7	301.2
30	335.9	313.5	295.2	284.1	281.0
35	321.5	295.7	274.9	261.2	257.0
40	303.6	274.7	251.7	235.3	230.2
45	281.9	250.4	225.9	206.9	201.4
50	256.1	222.6	196.3	177.1	171.3
55	225.6	191.5	164.6	146.4	140.0
60	190.6	157.5	131.4	114.3	108.3
65	151.2	120.8	97.0	82.3	77.7
70	109.1	83.1	63.9	53.1	49.7
75	67.1	47.8	35.0	27.6	25.2
80	30.3	19.8	13.8	10.4	9.5
85	8.4	5.7	3.4	2.4	2.2
90	1.3	1.0	0.6	0.2	0.2
95	1.6	1.1	0.5	0.1	0.1
100	1.5	1.2	0.5	0.1	0.1
105	1.2	1.0	0.5	0.1	0.1
110	0.8	0.9	0.4	0.1	0.1
115	0.6	0.8	0.4	0.1	0.1
120	0.6	0.8	0.4	0.1	0.1
125	0.7	0.8	0.4	0.2	0.2
130	0.6	0.7	0.4	0.2	0.2
135	0.6	0.6	0.4	0.3	0.3
140	0.6	0.6	0.4	0.4	0.4
145	0.6	0.5	0.5	0.5	0.5
150	0.6	0.5	0.5	0.5	0.5
155	0.5	0.5	0.5	0.6	0.6
160	0.5	0.5	0.6	0.6	0.6
165	0.5	0.5	0.6	0.6	0.6
170	0.5	0.5	0.6	0.6	0.6
175	0.5	0.5	0.6	0.6	0.6
180	0.5	0.5	0.5	0.5	0.6

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For AKLS242WDHABCG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
AKLS242WDHABCG		
0-30	280.7	29.8
0-40	456.0	48.5
0-60	786.8	83.6
0-90	938.1	99.7
60-90	151.3	16.1
0-180	941.2	100.0

Beam Angle

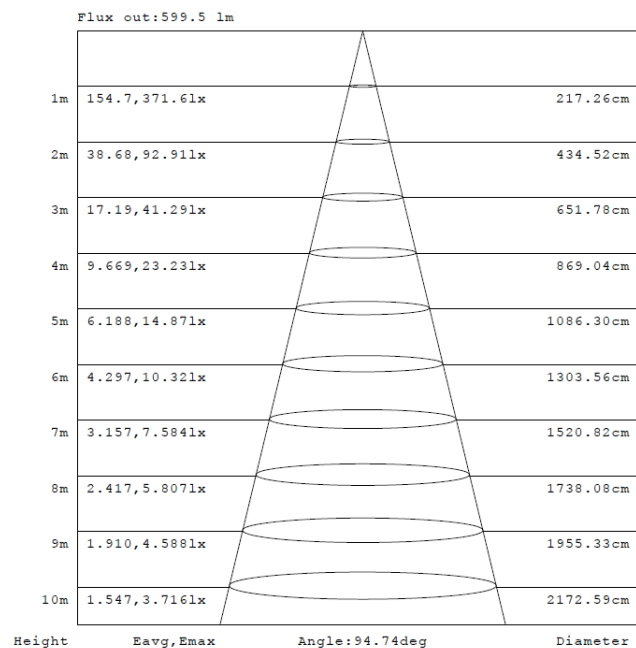
Total Beam Angle(°)
107.4

Illumination Plots

Model No.: AKLS242WDHABCG

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

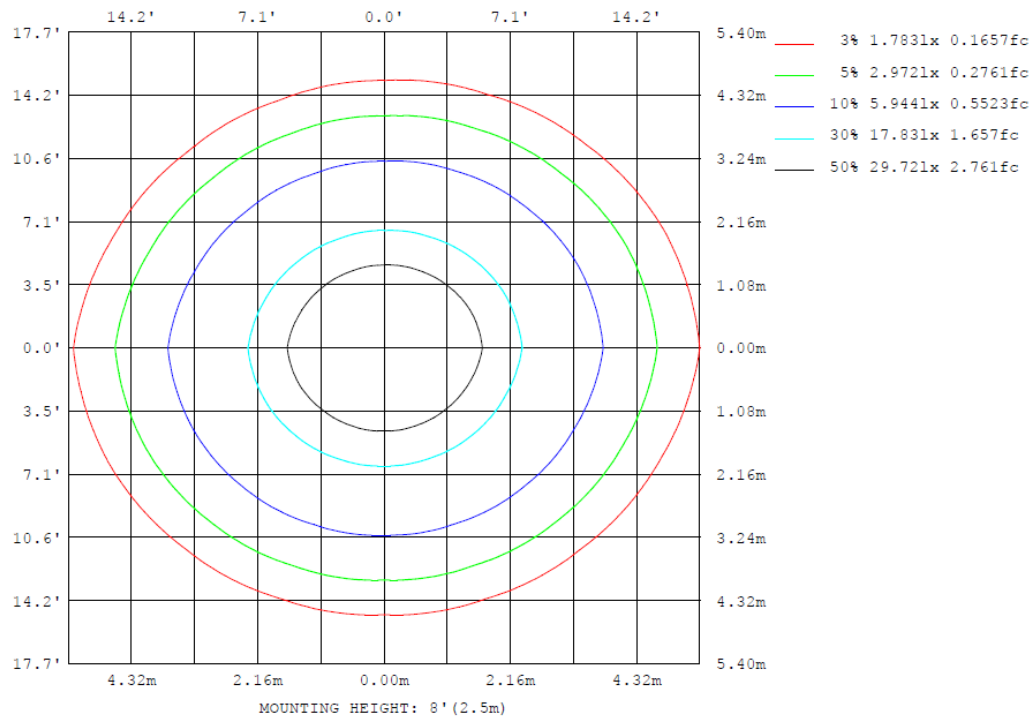
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For AKLS242WDHABCG

Model No.: AKLS242WDHABCG

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For AKLS242WDHABCG

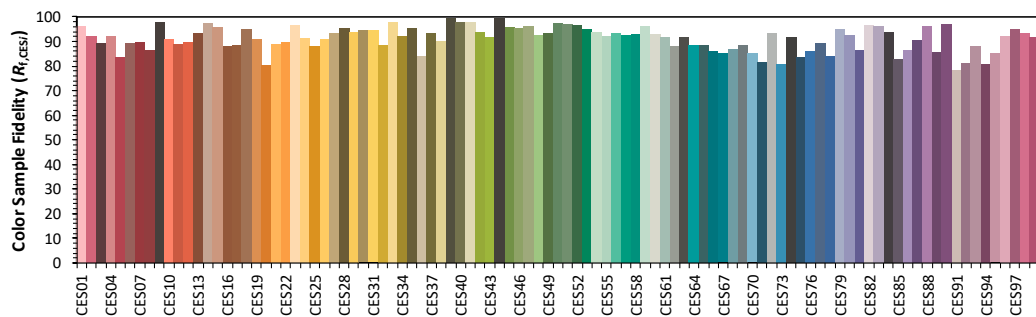
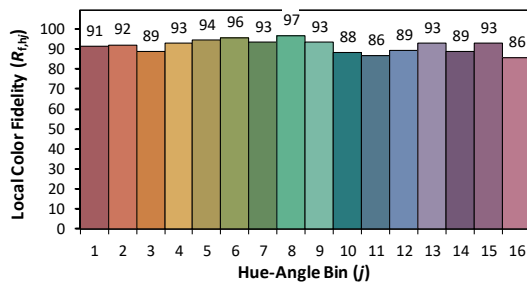
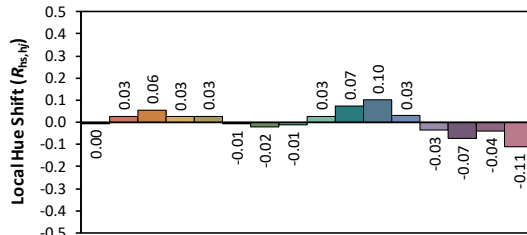
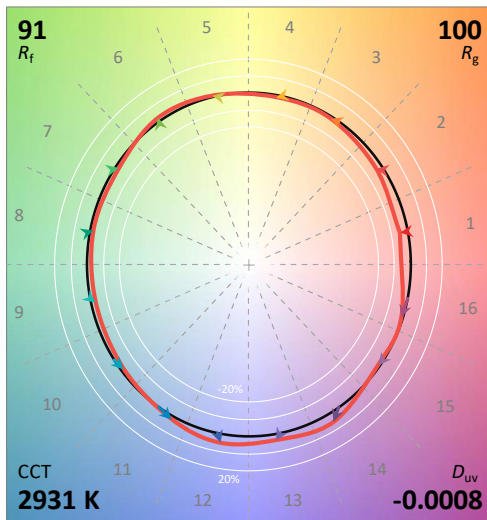
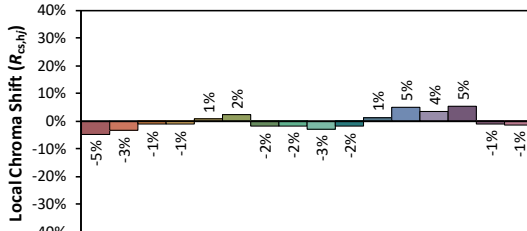
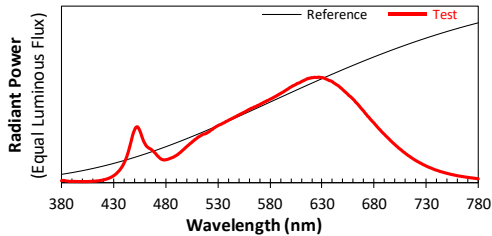
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2026/2/11

Model: AKLS242WDHABCG



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

x 0.4407
 y 0.4034
 u' 0.2533
 v' 0.5217

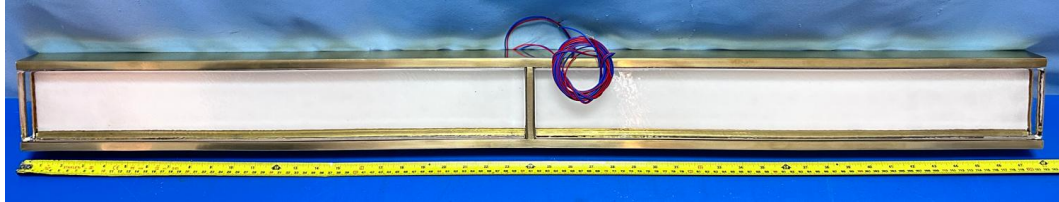
CIE 13.3-1995
(CRI)
 R_a 93
 R_g 64

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

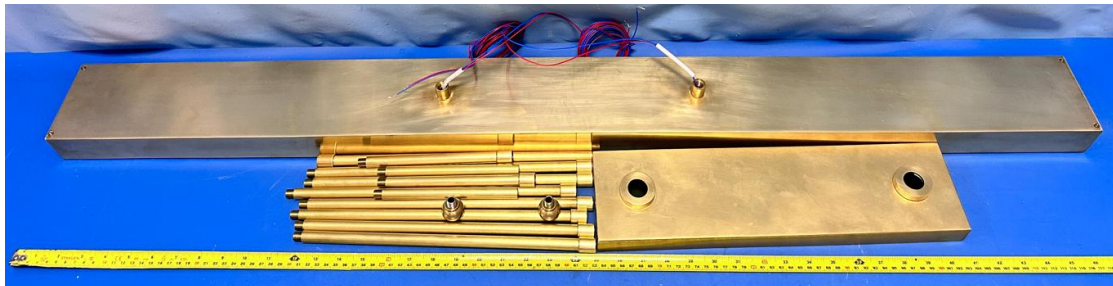
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TEST REPORT

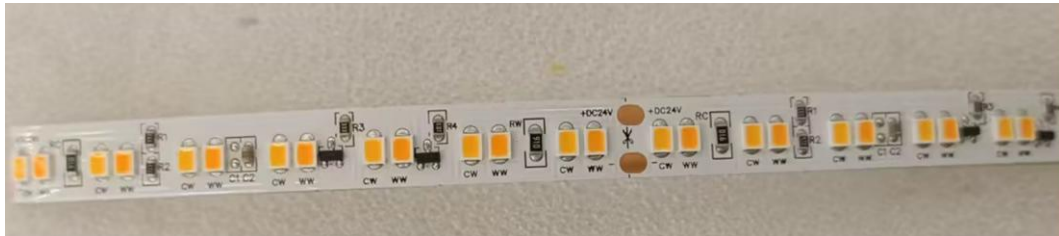
PRODUCT PICTURE (not to scale)



External view of AKLS242WDHABCG



External view of AKLS242WDHABCG

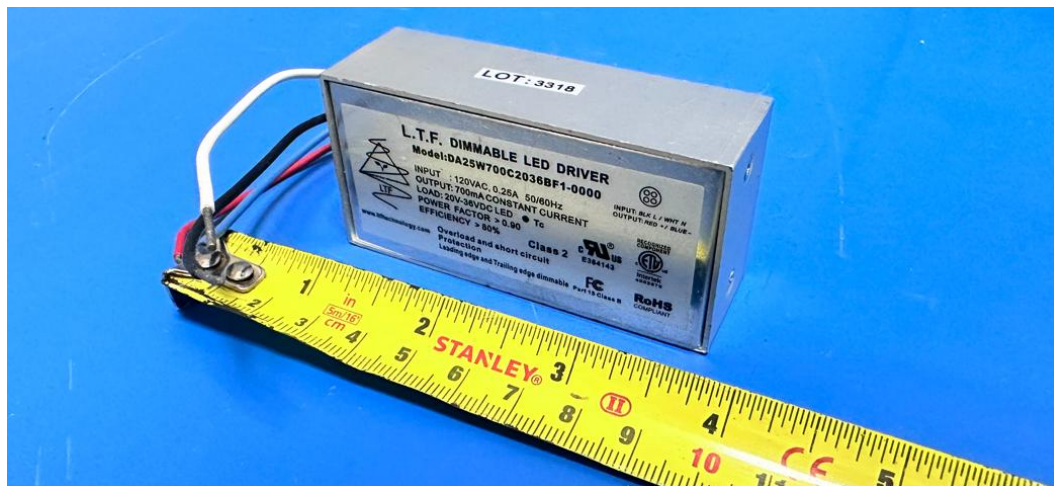


View of LED

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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver DA25W700C2036BF1-0000

In Charge Of Tests:

Done Ye

Done Ye
Engineer

Report Reviewed By

Shelley Ying

Shelley Ying
Reviewer

Attachment: None

***** End of Report *****