

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250417136GZU-003

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None

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Report No.: 250417136GZU-003

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. KWOWS72327OB

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

7400 LINDER AVE. SKOKIE, IL, 60077

Email: jrivero@visualcomfort.com

Phone No.: 847-410-4552

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 KWOWS72327OB. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250417136-006.

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:	KWOWS723270B
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For KWOWS723270B

Criteria	Result
Total Lumen Output	176.3 lm
Total Power	8.5 W
Luminaire Efficacy	20.8 lm/W
S/MH(C0/180)	1.31
S/MH(C90/270)	1.15
Correlated Color Temperature (CCT)	2693 K
Color Rendering Index (CRI)	95
R9	75
Chromaticity Coordinate (x)	0.4584
Chromaticity Coordinate (y)	0.4071
Chromaticity Coordinate (u')	0.2631
Chromaticity Coordinate (v')	0.5258

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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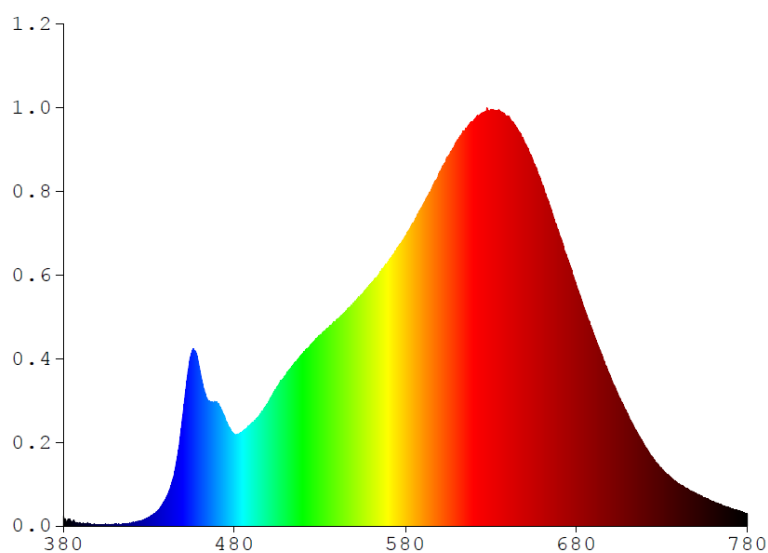
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For KWOWS723270B

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.4194	480	3.6271	580	11.4610	680	9.4598	780	0.4626
385	0.1413	485	3.7424	585	11.9760	685	8.4685		
390	0.1080	490	4.0468	590	12.6200	690	7.5771		
395	0.0855	495	4.4055	595	13.2540	695	6.7034		
400	0.0403	500	4.8811	600	13.9750	700	5.8460		
405	0.0433	505	5.4890	605	14.5690	705	5.0600		
410	0.0709	510	5.9553	610	15.1750	710	4.3867		
415	0.0835	515	6.4153	615	15.6250	715	3.7401		
420	0.1278	520	6.8096	620	16.0100	720	3.1431		
425	0.1847	525	7.1812	625	16.2790	725	2.6470		
430	0.3470	530	7.5295	630	16.4470	730	2.2274		
435	0.5885	535	7.8171	635	16.3540	735	1.9126		
440	1.0894	540	8.1508	640	16.1410	740	1.6493		
445	2.1055	545	8.4518	645	15.7060	745	1.4622		
450	4.4029	550	8.8146	650	15.0740	750	1.2689		
455	6.8301	555	9.1542	655	14.2900	755	1.1016		
460	6.0527	560	9.5615	660	13.4380	760	0.9712		
465	4.8953	565	9.9750	665	12.5110	765	0.8166		
470	4.8464	570	10.4280	670	11.4580	770	0.7040		
475	4.1414	575	10.9380	675	10.2930	775	0.5898		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWOWS723270B

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

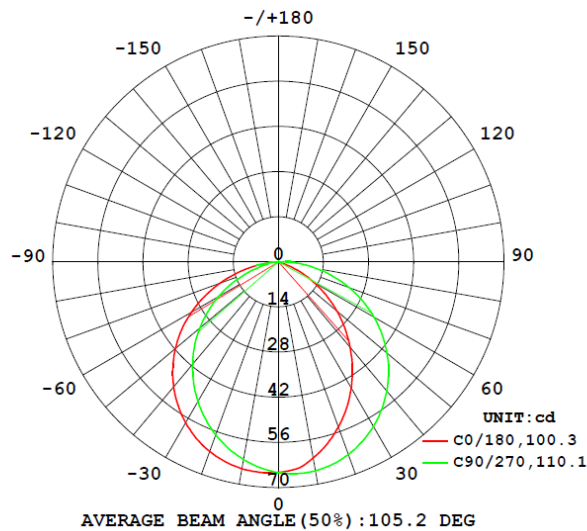
Photometric Measurements at 25°C – Distribution Method

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')
KWOWS723270B								
S2504171 36-006	base-up	2693	95	75	0.4584	0.4071	0.2631	0.5258

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)
KWOWS723270B							
S2504171 36-006	base-up	120.1	72.4	8.5	0.975	176.3	20.8

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWOWS723270B

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	65.3	65.2	65.3	65.3	65.3
5	64.4	64.8	65.2	65.6	65.9
10	61.8	62.9	64.4	65.2	65.8
15	58.4	60.0	62.1	64.2	65.0
20	54.5	56.4	59.3	62.5	63.5
25	50.0	52.4	56.1	60.0	61.5
30	45.2	48.0	52.6	57.0	58.9
35	40.1	43.4	48.9	53.6	55.8
40	34.7	38.8	45.0	49.9	52.3
45	29.2	34.1	40.9	46.0	48.3
50	23.7	29.6	36.9	41.9	44.0
55	18.1	25.2	33.0	37.6	39.2
60	12.6	21.0	29.6	32.7	34.2
65	7.3	17.1	25.1	27.5	28.9
70	2.6	14.2	19.7	22.1	23.4
75	0.2	10.5	14.4	16.6	17.8
80	0.4	6.2	9.2	11.2	12.1
85	0.3	2.6	4.5	6.1	6.8
90	0.0	0.5	1.5	2.1	2.4
95	0.0	0.0	0.2	0.4	0.5
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	0.1
130	0.1	0.1	0.1	0.1	0.1
135	0.1	0.1	0.1	0.1	0.1
140	0.1	0.1	0.1	0.1	0.1
145	0.1	0.1	0.1	0.1	0.1
150	0.1	0.1	0.1	0.1	0.2
155	0.1	0.1	0.1	0.1	0.2
160	0.1	0.1	0.1	0.1	0.2
165	0.1	0.1	0.1	0.1	0.1
170	0.1	0.1	0.1	0.1	0.1
175	0.1	0.1	0.1	0.1	0.1
180	0.1	0.1	0.1	0.1	0.1

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWOWS72327OB

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
KWOWS72327OB		
0-30	49.6	28.1
0-40	80.4	45.6
0-60	139.7	79.2
0-90	175.7	99.7
60-90	36.0	20.5
0-180	176.3	100.0

Beam Angle

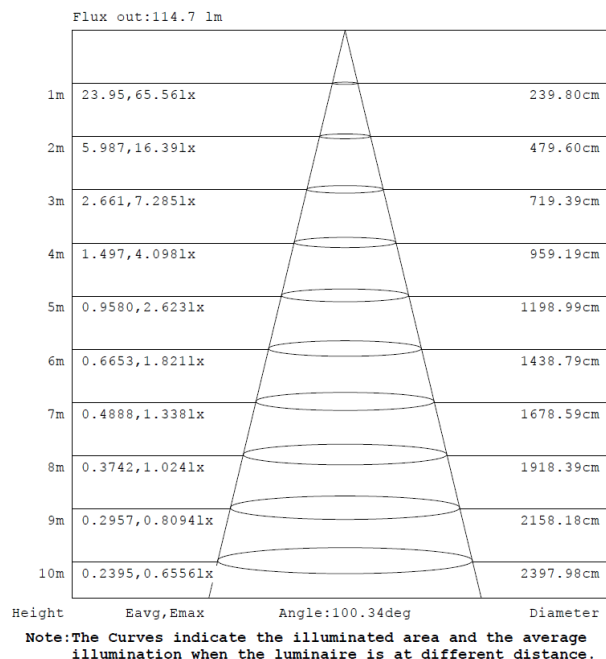
Total Beam Angle(°)
105.2

Illumination Plots

Model No.: KWOWS72327OB

Mount Height: 2.5 m

Illuminance - Cone of Light



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TEST REPORT

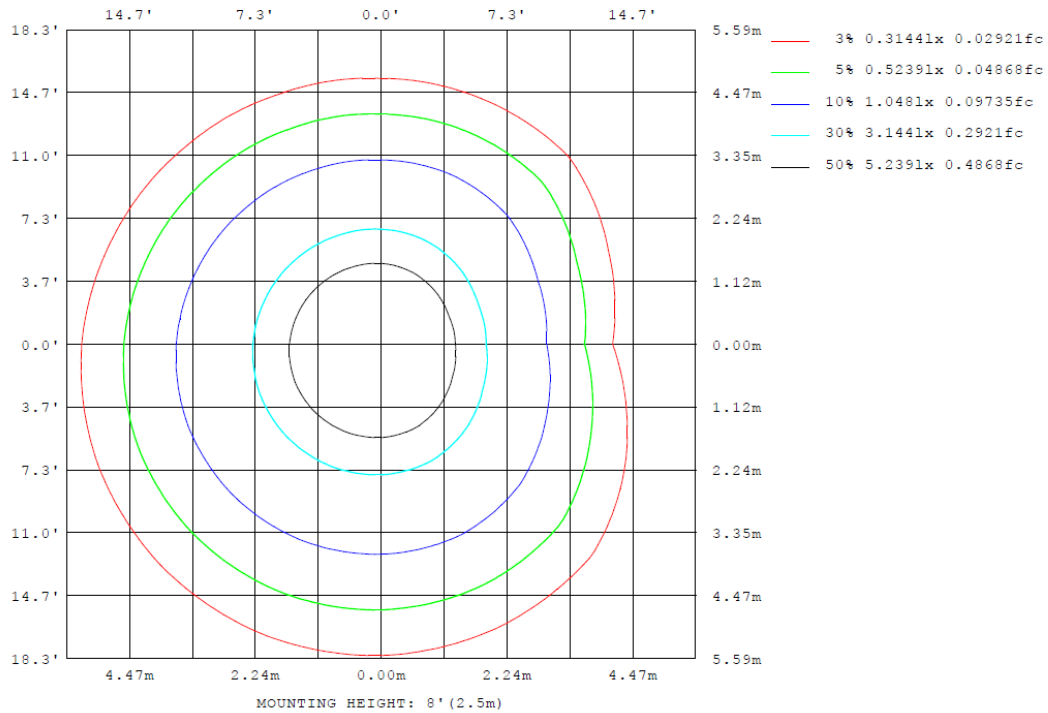
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWOWS72327OB

Model No.: KWOWS72327OB

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For KWOWS723270B

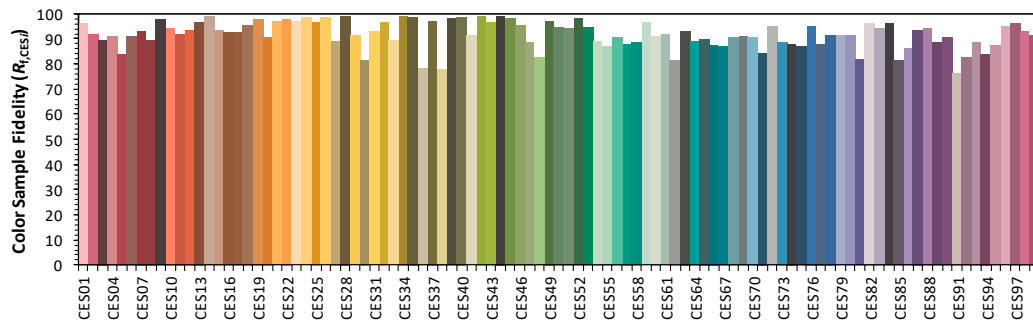
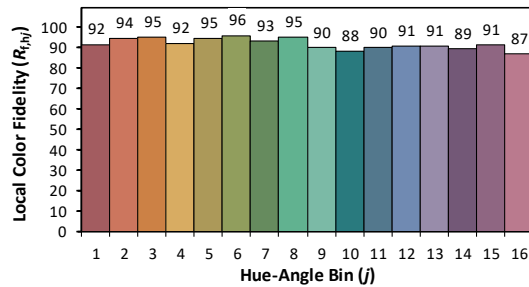
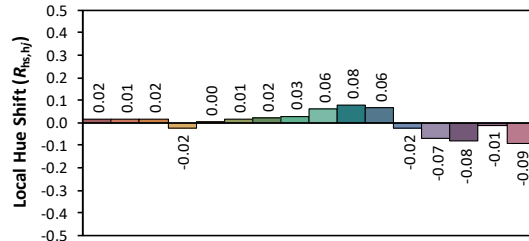
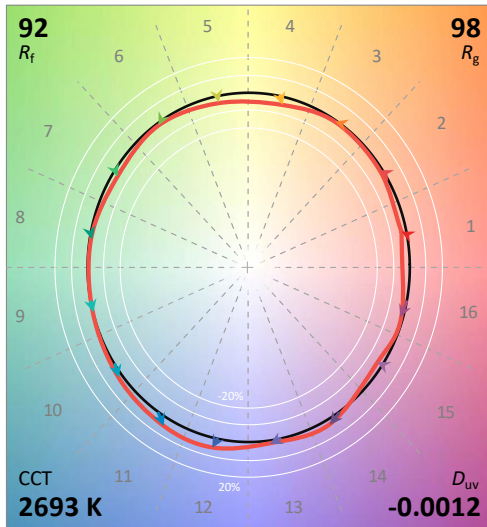
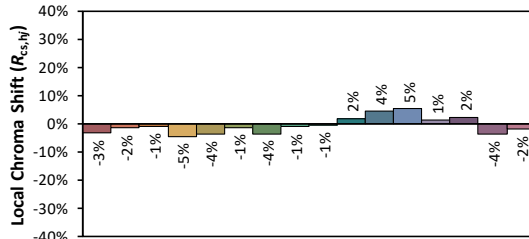
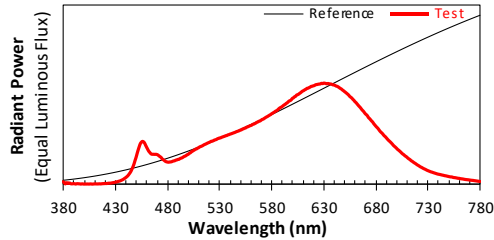
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/4/29

Model: KWOWS723270B



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

x 0.4584

y 0.4071

u' 0.2631

v' 0.5258

CIE 13.3-1995
(CRI)

R_a 95

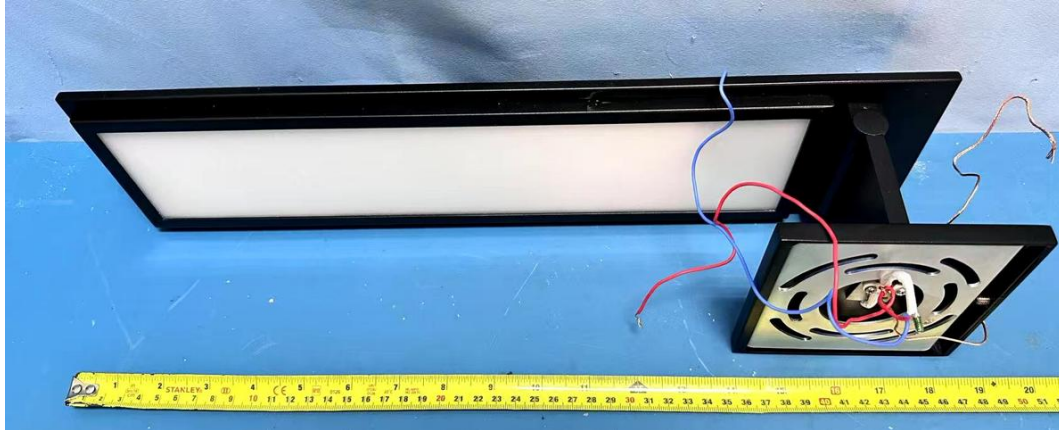
R_g 75

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 KWOWS723270B



View of LED driver DS12W24VMB1UD-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 *****