

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250918184GZU-002

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.: 250918184GZU-002

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. MDOWS73227XX

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

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: QGZ250611134.

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 MDOWS73227XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250918184-002.

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: 25 September 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:	MDOWS73227XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For MDOWS73227XX

Criteria	Result
Total Lumen Output	207.4 lm
Total Power	12.7 W
Luminaire Efficacy	16.3 lm/W
S/MH(C0/180)	1.19
S/MH(C90/270)	1.24
Correlated Color Temperature (CCT)	2688 K
Color Rendering Index (CRI)	93
R9	61
Chromaticity Coordinate (x)	0.4614
Chromaticity Coordinate (y)	0.4117
Chromaticity Coordinate (u')	0.2630
Chromaticity Coordinate (v')	0.5280

Remark:

Modification 1: Based on and superseded the previous report 250625080GZU-003 issued on 26 August 2025.

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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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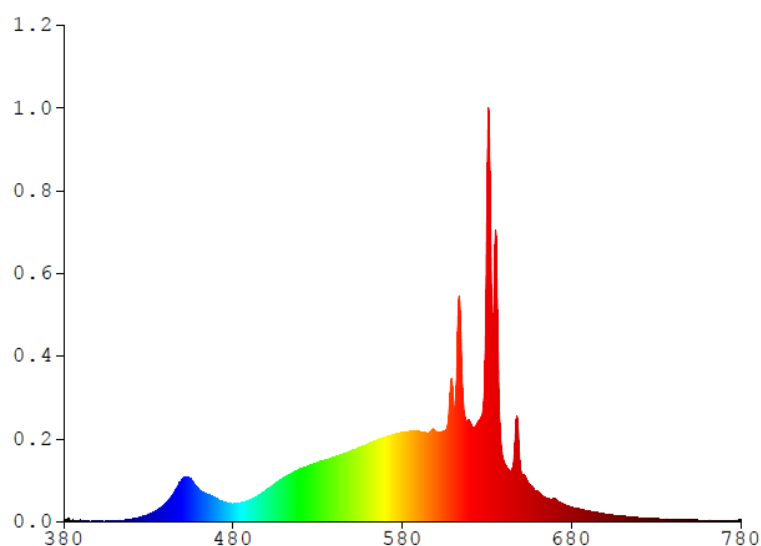
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For MDOWS73227XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0045	480	0.0722	580	0.3561	680	0.0593	780	0.0080
385	0.0051	485	0.0763	585	0.3640	685	0.0507		
390	0.0040	490	0.0876	590	0.3623	690	0.0430		
395	0.0026	495	0.1053	595	0.3543	695	0.0362		
400	0.0027	500	0.1286	600	0.3614	700	0.0310		
405	0.0031	505	0.1527	605	0.3618	705	0.0266		
410	0.0029	510	0.1761	610	0.5081	710	0.0229		
415	0.0057	515	0.1957	615	0.6590	715	0.0197		
420	0.0105	520	0.2127	620	0.4006	720	0.0166		
425	0.0187	525	0.2255	625	0.4025	725	0.0136		
430	0.0297	530	0.2374	630	1.2519	730	0.0124		
435	0.0459	535	0.2481	635	1.1570	735	0.0105		
440	0.0721	540	0.2600	640	0.2438	740	0.0089		
445	0.1158	545	0.2713	645	0.2099	745	0.0080		
450	0.1704	550	0.2836	650	0.2136	750	0.0067		
455	0.1705	555	0.2977	655	0.1507	755	0.0060		
460	0.1287	560	0.3124	660	0.1215	760	0.0054		
465	0.1093	565	0.3267	665	0.0954	765	0.0047		
470	0.0926	570	0.3385	670	0.0932	770	0.0039		
475	0.0766	575	0.3505	675	0.0679	775	0.0036		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS73227XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

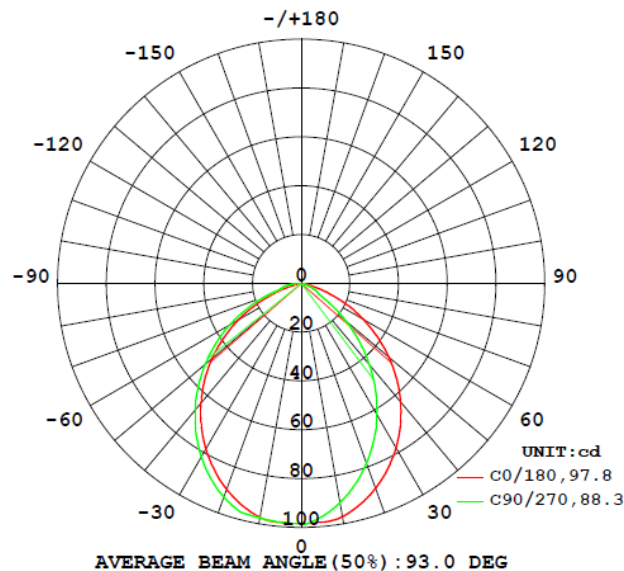
Photometric Measurements at 25°C – Distribution Method

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')
MDOWS73227XX								
S2509181 84-002	base-up	2688	93	61	0.4614	0.4117	0.2630	0.5280

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)
MDOWS73227XX							
S2509181 84-002	base-up	120.0	107.3	12.7	0.990	207.4	16.3

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS73227XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	98.5	98.4	98.5	98.6	98.6
5	98.2	98.2	97.4	96.3	96.0
10	97.1	95.5	94.0	92.0	91.3
15	93.7	90.8	88.5	86.5	85.3
20	89.3	84.9	81.8	80.0	78.4
25	83.9	78.2	74.3	72.2	70.7
30	77.8	70.8	66.0	63.7	62.2
35	71.0	62.7	57.2	54.5	53.2
40	63.5	54.2	47.9	44.9	43.6
45	55.5	45.2	38.5	35.0	33.8
50	46.9	35.8	29.0	25.1	23.8
55	38.0	26.5	19.8	15.6	14.2
60	29.4	17.7	11.5	7.7	8.0
65	20.6	9.9	5.1	5.5	5.8
70	11.9	3.9	2.7	2.9	3.0
75	4.8	1.8	1.2	1.3	1.3
80	2.7	0.7	0.4	0.3	0.2
85	0.9	0.1	0.1	0.1	0.1
90	0.1	0.1	0.1	0.1	0.0
95	0.1	0.1	0.1	0.1	0.0
100	0.1	0.1	0.1	0.1	0.0
105	0.1	0.1	0.1	0.1	0.0
110	0.1	0.1	0.1	0.1	0.0
115	0.1	0.1	0.1	0.1	0.0
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	0.1	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	0.2	0.2	0.2
155	0.1	0.2	0.2	0.2	0.2
160	0.2	0.2	0.2	0.2	0.2
165	0.2	0.2	0.2	0.2	0.2
170	0.2	0.2	0.2	0.2	0.2
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 MDOWS73227XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
MDOWS73227XX		
0-30	73.0	35.2
0-40	115.2	55.5
0-60	183.2	88.3
0-90	206.9	99.8
60-90	23.7	11.5
0-180	207.4	100.0

Beam Angle

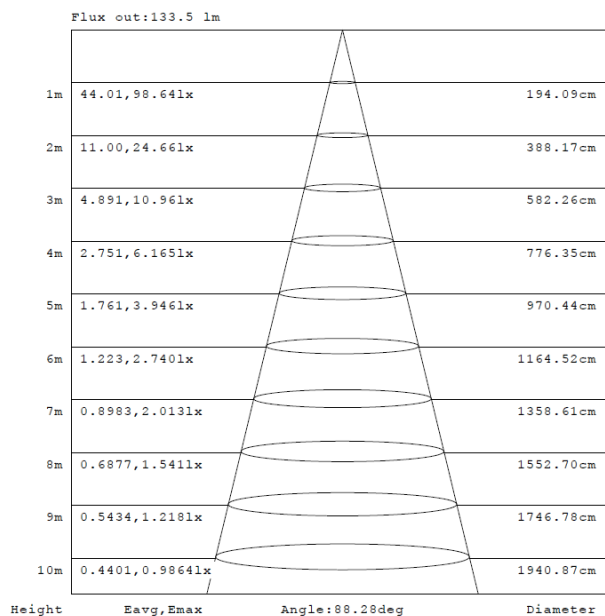
Total Beam Angle(°)
93.0

Illumination Plots

Model No.: MDOWS73227XX

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

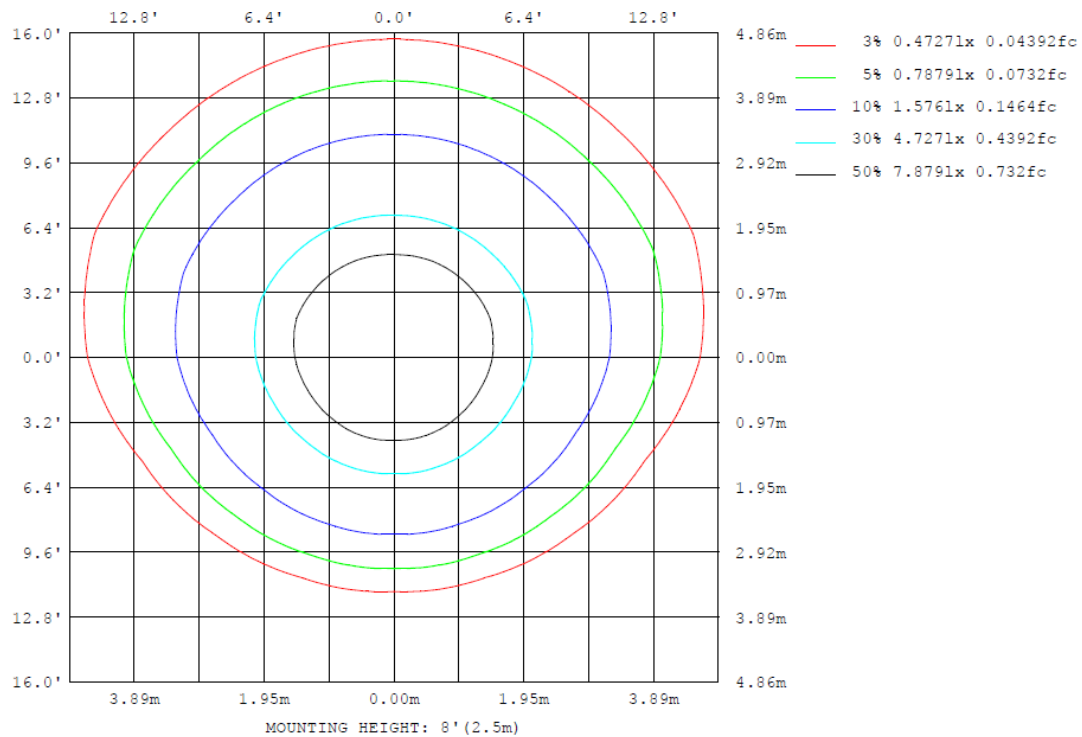
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS73227XX

Model No.: MDOWS73227XX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS73227XX

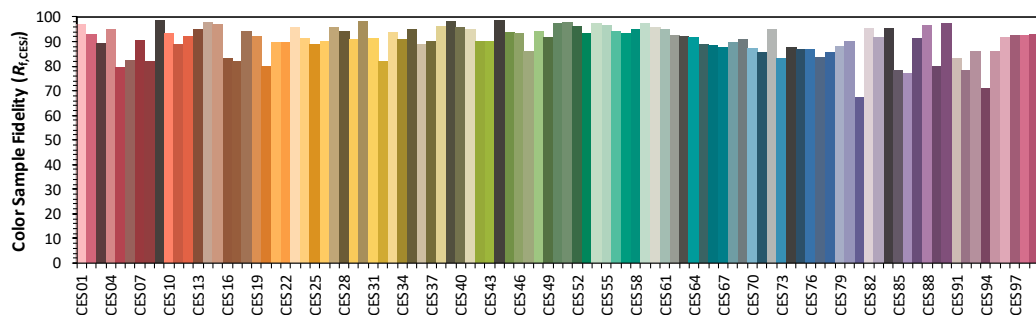
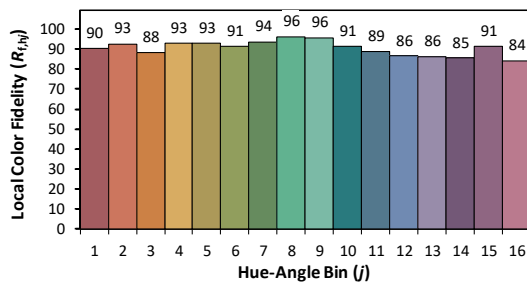
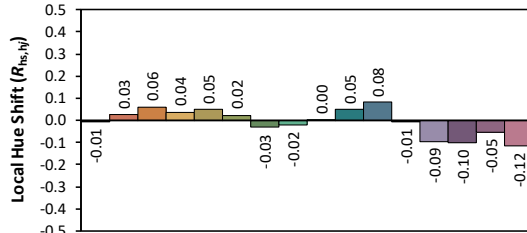
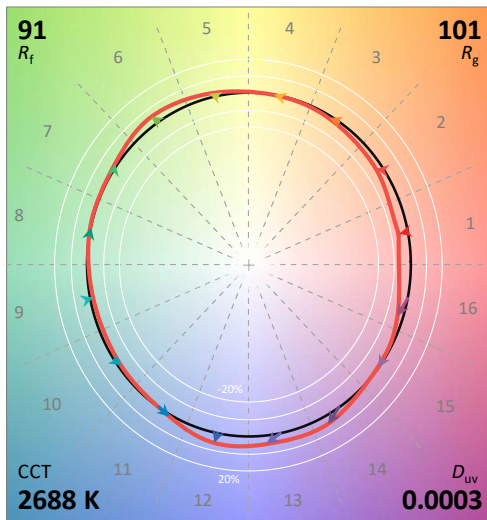
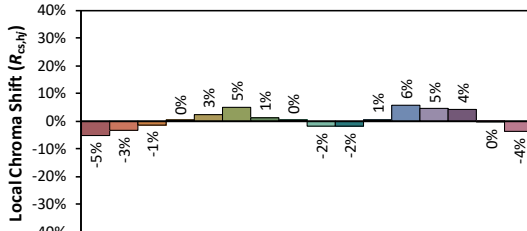
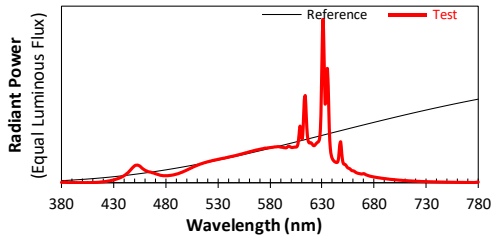
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/9/25

Model: MDOWS73227XX



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

x 0.4614
 y 0.4117
 u' 0.2630
 v' 0.5280

CIE 13.3-1995
(CRI)
 R_a 93
 R_g 61

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

***** End of Page *****

TEST REPORT

PRODUCT PICTURE (not to scale)



External view of MDOWS73227XX

***** End of Page *****

TEST REPORT

PRODUCT PICTURE (not to scale)



External view of MDOWS73227XX



View of LED driver PTB15W-0300-38-VCC1 (AB0257)

***** 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 *****