

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251027067GZU-001

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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.: 251027067GZU-001

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. MDOWS86127XXX

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

RENDERED TO

Visual Comfort & Co.

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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: QGZ251023107.
<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 MDOWS86127XXX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251027067-007.
<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>	19 November 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:	MDOWS86127XXX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For MDOWS86127XXX

Criteria	Result
Total Lumen Output	56.7 lm
Total Power	12.0 W
Luminaire Efficacy	4.7 lm/W
S/MH(C0/180)	0.99
S/MH(C90/270)	0.73
Correlated Color Temperature (CCT)	2925 K
Color Rendering Index (CRI)	91
R9	53
Chromaticity Coordinate (x)	0.4467
Chromaticity Coordinate (y)	0.4144
Chromaticity Coordinate (u')	0.2524
Chromaticity Coordinate (v')	0.5268

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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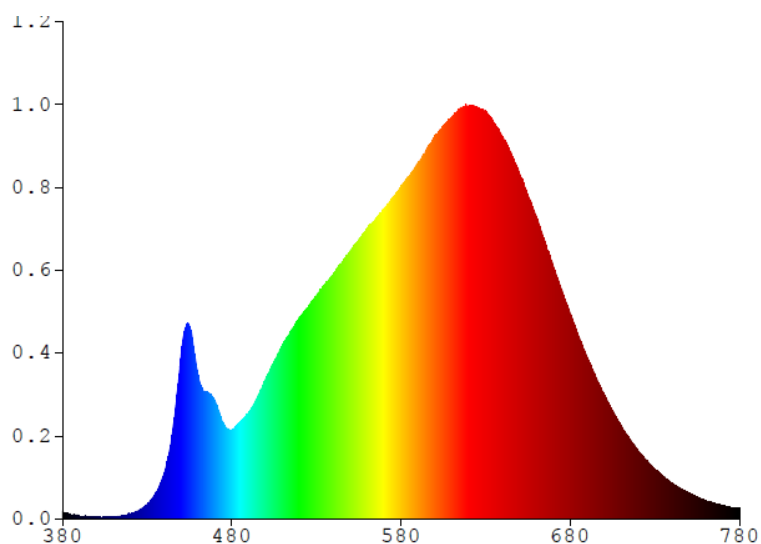
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For MDOWS86127XXX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.6354	480	6.5764	580	24.5420	680	15.1510	780	0.8121
385	0.3099	485	7.1452	585	25.3290	685	13.4690		
390	0.1707	490	7.8695	590	26.2740	690	11.9400		
395	0.1330	495	8.9412	595	27.2280	695	10.4710		
400	0.1127	500	10.3070	600	28.2890	700	9.1744		
405	0.1391	505	11.5950	605	29.0420	705	7.9613		
410	0.1431	510	12.8350	610	29.6390	710	6.8890		
415	0.2266	515	13.8540	615	30.3140	715	5.9059		
420	0.3827	520	14.9320	620	30.4890	720	5.0332		
425	0.6168	525	15.6280	625	30.3810	725	4.3444		
430	1.0626	530	16.4520	630	30.0060	730	3.6905		
435	1.8986	535	17.3010	635	29.2780	735	3.1407		
440	3.3435	540	18.0690	640	28.2360	740	2.6620		
445	6.4002	545	18.9310	645	27.0380	745	2.2649		
450	12.0410	550	19.7670	650	25.4870	750	1.9229		
455	14.2110	555	20.5830	655	23.8530	755	1.6242		
460	10.6420	560	21.4300	660	22.3170	760	1.3800		
465	9.3562	565	22.1790	665	20.4730	765	1.1621		
470	8.6940	570	22.9420	670	18.6240	770	0.9925		
475	7.0668	575	23.7040	675	16.4980	775	0.8301		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS86127XXX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

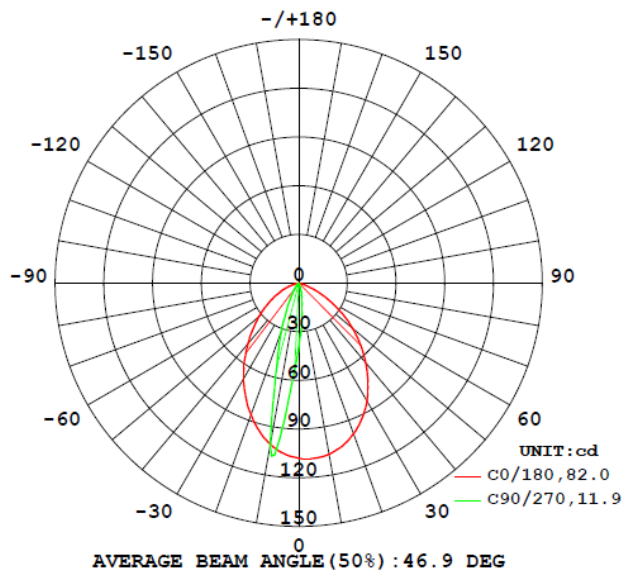
Photometric Measurements at 25°C – Distribution Method

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')
MDOWS86127XXX								
S2510270 67-007	base-up	2925	91	53	0.4467	0.4144	0.2524	0.5268

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)
MDOWS86127XXX							
S2510270 67-007	base-up	120.1	100.8	12.0	0.991	56.7	4.7

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS86127XXX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	107.8	77.6	55.0	45.8	39.0
5	108.3	56.8	36.7	28.5	22.8
10	107.1	43.7	24.6	16.2	12.1
15	103.8	34.3	15.5	8.7	5.9
20	98.7	26.5	9.1	3.9	2.6
25	92.1	18.4	4.7	1.9	1.3
30	84.0	12.0	2.4	1.0	0.7
35	74.5	7.5	1.4	0.5	0.3
40	64.3	3.8	0.7	0.2	0.1
45	53.8	2.1	0.3	0.1	0.0
50	43.1	1.1	0.1	0.0	0.0
55	32.5	0.5	0.0	0.0	0.0
60	22.3	0.2	0.0	0.0	0.0
65	13.1	0.0	0.0	0.0	0.0
70	5.6	0.0	0.0	0.0	0.0
75	1.0	0.0	0.0	0.0	0.0
80	0.1	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0	0.0
95	0.0	0.0	0.0	0.0	0.0
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	0.0
130	0.0	0.0	0.0	0.0	0.0
135	0.0	0.0	0.0	0.0	0.0
140	0.0	0.0	0.0	0.0	0.0
145	0.0	0.0	0.0	0.0	0.0
150	0.0	0.0	0.0	0.0	0.0
155	0.0	0.0	0.0	0.0	0.0
160	0.0	0.0	0.0	0.0	0.0
165	0.0	0.0	0.0	0.0	0.0
170	0.0	0.0	0.0	0.0	0.0
175	0.0	0.0	0.0	0.0	0.0
180	0.0	0.0	0.0	0.0	0.0

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS86127XXX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
MDOWS86127XXX		
0-30	32.9	58.0
0-40	42.9	75.7
0-60	54.3	95.8
0-90	56.7	100.0
60-90	2.4	4.2
0-180	56.7	100.0

Beam Angle

Total Beam Angle(°)

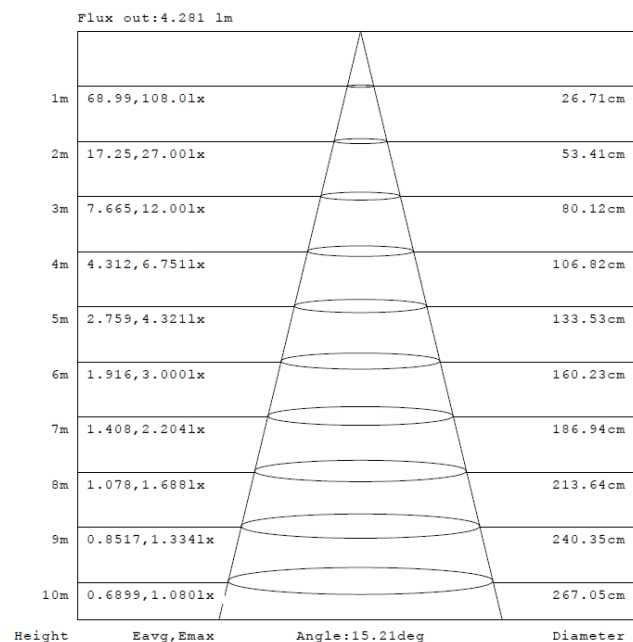
46.9

Illumination Plots

Model No.: MDOWS86127XXX

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

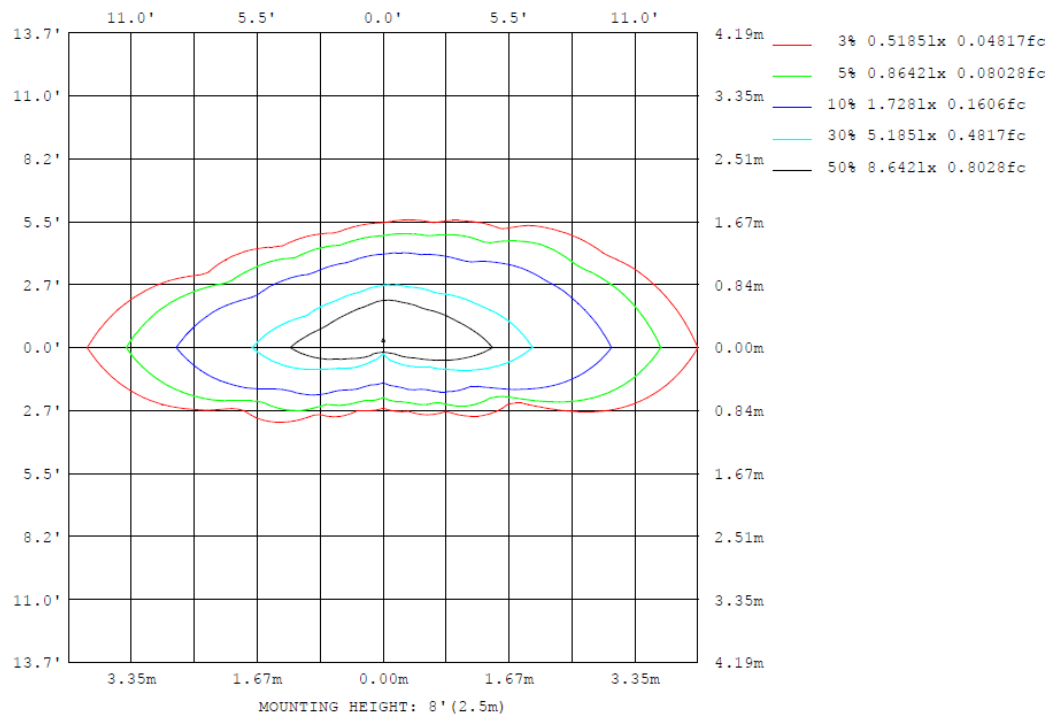
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS86127XXX

Model No.: MDOWS86127XXX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS86127XXX

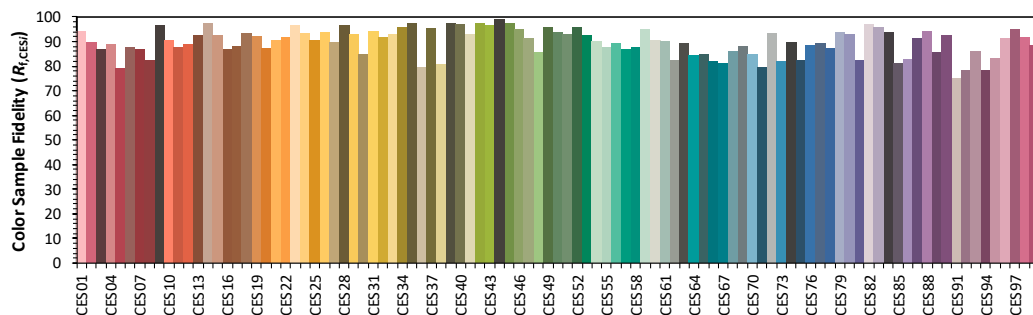
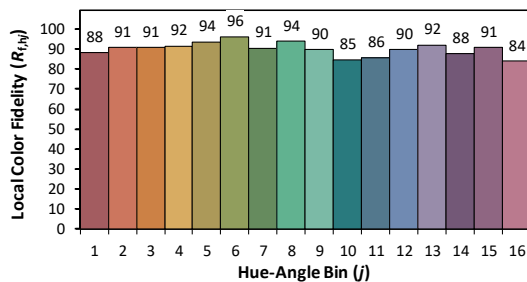
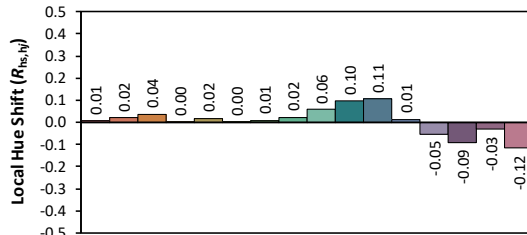
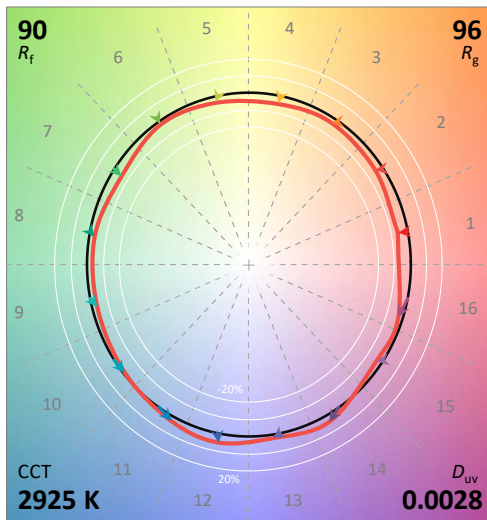
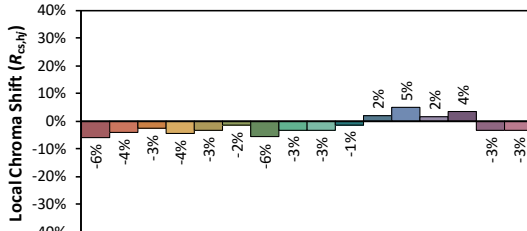
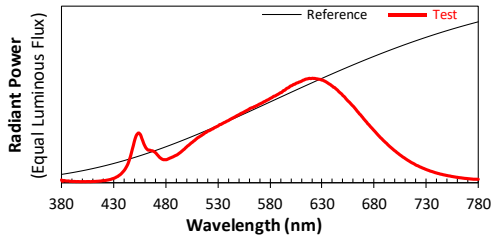
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/11/19

Model: MDOWS86127XXX



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

x 0.4467
 y 0.4144
 u' 0.2524
 v' 0.5268

CIE 13.3-1995
(CRI)
 R_a 91
 R_g 53

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

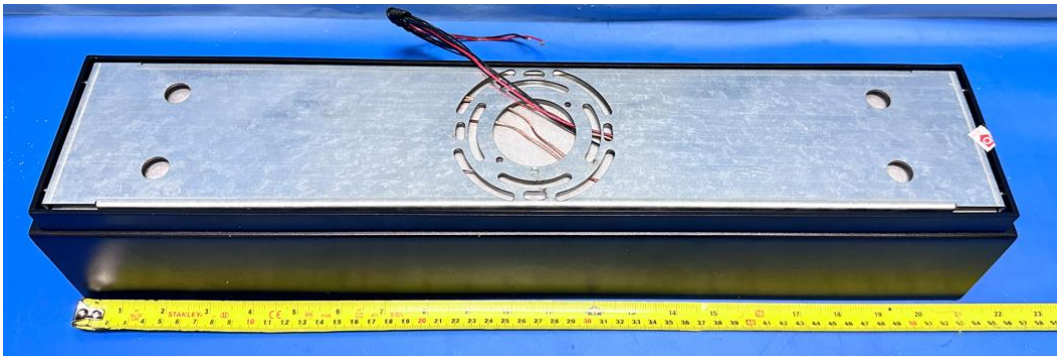
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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of MDOWS86127XXX



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TEST REPORT

PRODUCT PICTURE (not to scale)



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



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 *****