

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250918184GZU-003

ISSUE DATE

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REVISION DATE

None

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Report format for LM-79_G

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Report No.: 250918184GZU-003

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. MDOWS72427XX

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 MDOWS72427XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250918184-003.

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:	MDOWS72427XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For MDOWS72427XX

Criteria	Result
Total Lumen Output	179.6 lm
Total Power	12.5 W
Luminaire Efficacy	14.4 lm/W
S/MH(C0/180)	1.17
S/MH(C90/270)	1.39
Correlated Color Temperature (CCT)	2690 K
Color Rendering Index (CRI)	94
R9	63
Chromaticity Coordinate (x)	0.4616
Chromaticity Coordinate (y)	0.4124
Chromaticity Coordinate (u')	0.2628
Chromaticity Coordinate (v')	0.5283

Remark:

Modification 1: Based on and superseded the previous report 250625080GZU-002 issued on 26 August 2025.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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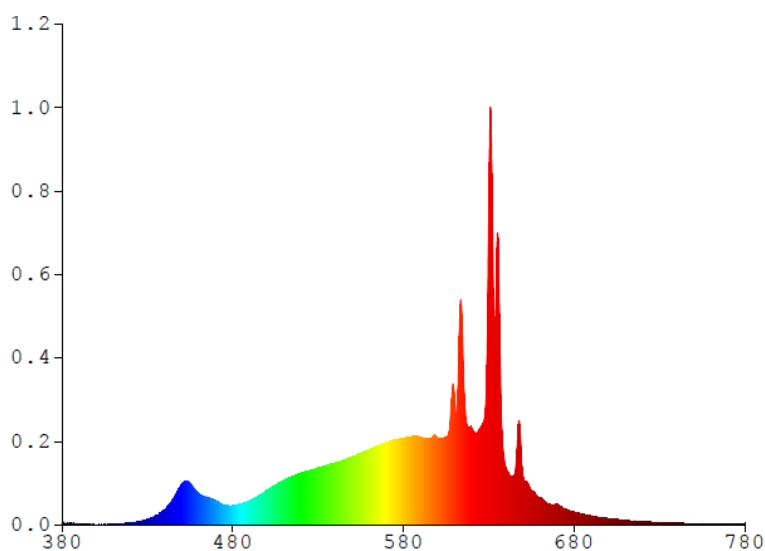
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For MDOWS72427XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0017	480	0.0702	580	0.3140	680	0.0467	780	0.0057
385	0.0064	485	0.0773	585	0.3203	685	0.0392		
390	0.0015	490	0.0885	590	0.3181	690	0.0330		
395	0.0022	495	0.1055	595	0.3107	695	0.0280		
400	0.0016	500	0.1262	600	0.3160	700	0.0241		
405	0.0023	505	0.1446	605	0.3172	705	0.0204		
410	0.0021	510	0.1622	610	0.4502	710	0.0172		
415	0.0043	515	0.1762	615	0.5905	715	0.0147		
420	0.0072	520	0.1888	620	0.3527	720	0.0124		
425	0.0120	525	0.1975	625	0.3517	725	0.0103		
430	0.0208	530	0.2075	630	1.1351	730	0.0088		
435	0.0339	535	0.2149	635	1.0488	735	0.0077		
440	0.0544	540	0.2250	640	0.2087	740	0.0064		
445	0.0935	545	0.2350	645	0.1791	745	0.0055		
450	0.1478	550	0.2472	650	0.1828	750	0.0048		
455	0.1510	555	0.2602	655	0.1268	755	0.0043		
460	0.1132	560	0.2730	660	0.1000	760	0.0038		
465	0.1010	565	0.2869	665	0.0777	765	0.0032		
470	0.0878	570	0.2990	670	0.0767	770	0.0026		
475	0.0719	575	0.3080	675	0.0541	775	0.0024		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS72427XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

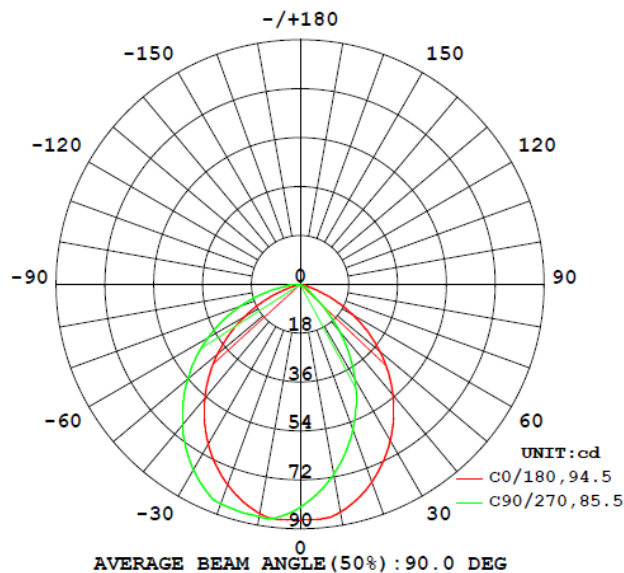
Photometric Measurements at 25°C – Distribution Method

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')
MDOWS72427XX								
S2509181 84-003	base-up	2690	94	63	0.4616	0.4124	0.2628	0.5283

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)
MDOWS72427XX							
S2509181 84-003	base-up	120.1	105.1	12.5	0.991	179.6	14.4

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS72427XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	86.8	85.4	83.9	82.4	82.0
5	86.6	81.2	79.0	77.9	77.0
10	85.1	76.0	73.0	72.3	71.1
15	81.8	69.9	66.2	65.4	64.3
20	77.4	63.2	58.8	57.8	56.9
25	72.2	55.9	50.9	49.7	49.0
30	66.4	48.3	42.6	41.2	40.5
35	60.1	40.3	34.1	32.3	31.7
40	53.3	32.1	25.7	23.4	22.6
45	46.1	23.9	17.5	14.7	13.7
50	38.4	16.1	10.1	7.0	6.2
55	30.5	9.0	4.4	3.7	4.0
60	22.3	3.5	1.9	2.3	2.4
65	14.3	1.4	0.9	1.1	1.1
70	6.7	0.7	0.4	0.4	0.4
75	2.5	0.2	0.0	0.0	0.0
80	1.4	0.0	0.0	0.0	0.0
85	0.6	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	0.1	0.1	0.1	0.1
125	0.0	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	0.1	0.1	0.1
155	0.1	0.1	0.1	0.1	0.1
160	0.1	0.1	0.1	0.1	0.1
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 MDOWS72427XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
MDOWS72427XX		
0-30	61.2	34.1
0-40	96.1	53.5
0-60	152.1	84.7
0-90	178.7	99.5
60-90	26.6	14.8
0-180	179.6	100.0

Beam Angle

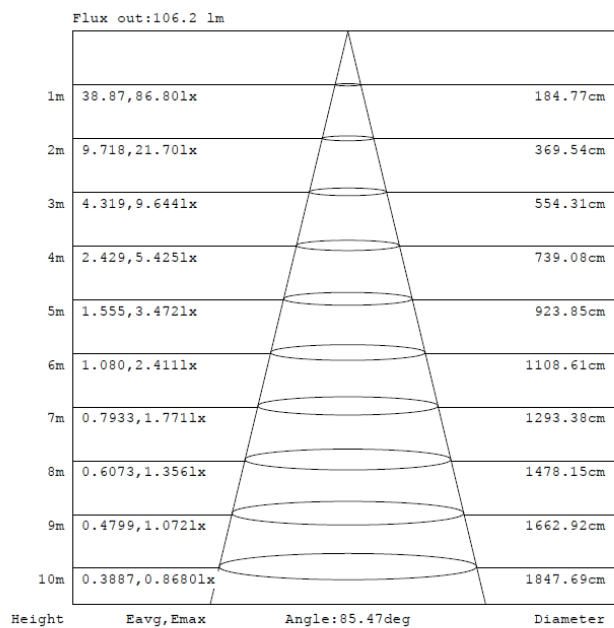
Total Beam Angle(°)
90.0

Illumination Plots

Model No.: MDOWS72427XX

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

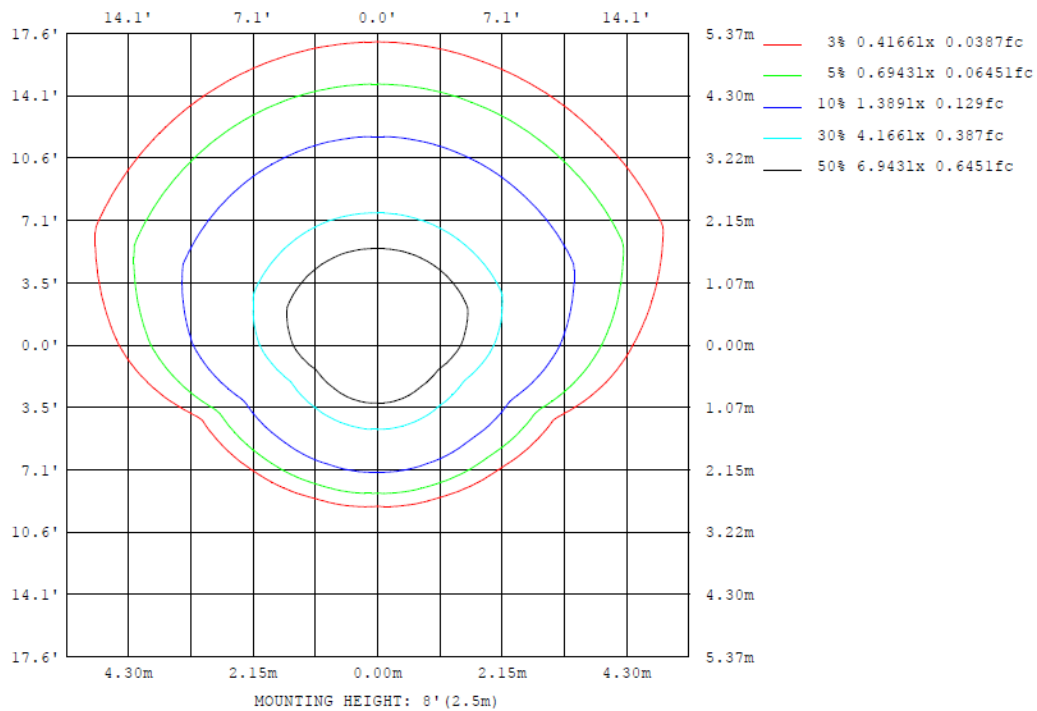
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS72427XX

Model No.: MDOWS72427XX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDOWS72427XX

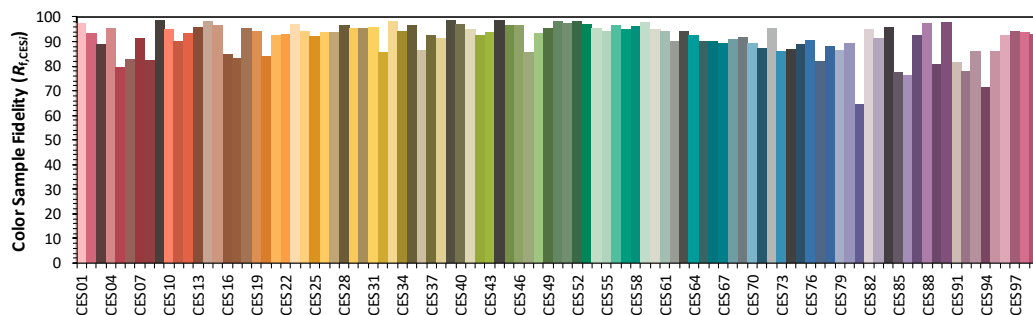
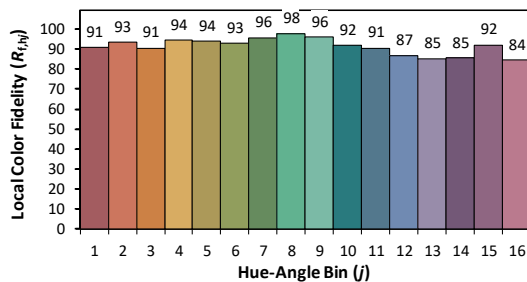
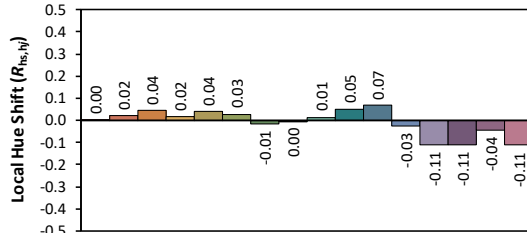
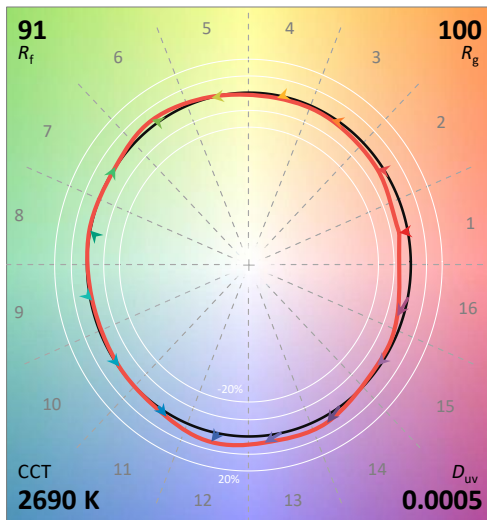
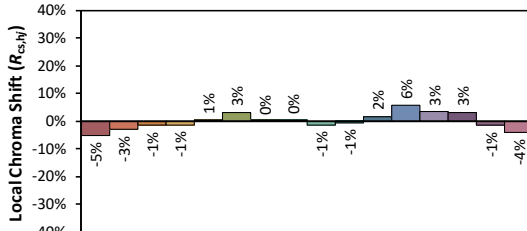
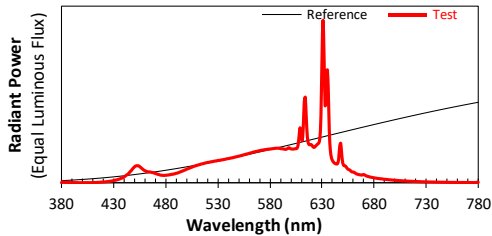
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/9/25

Model: MDOWS72427XX



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

x 0.4616
 y 0.4124
 u' 0.2628
 v' 0.5283

CIE 13.3-1995
(CRI)
 R_a 94
 R_g 63

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

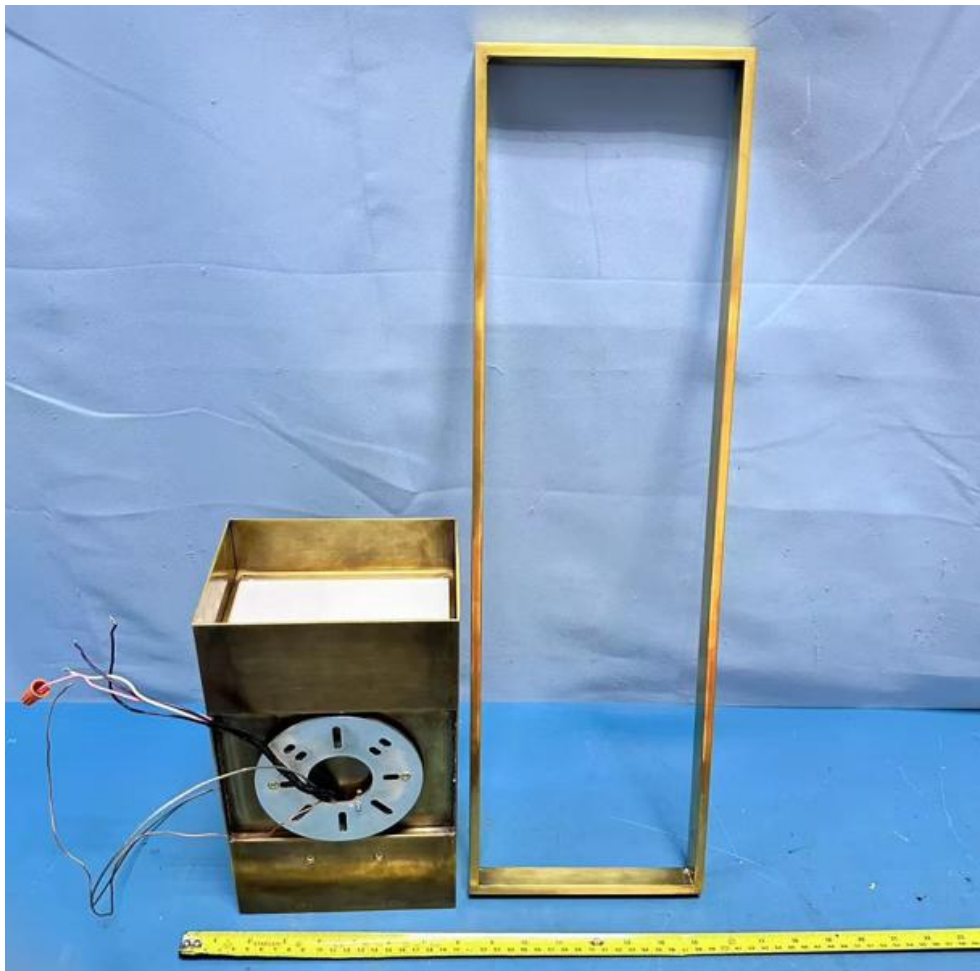
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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of MDOWS72427XX



External view of MDOWS72427XX

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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 *****