

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250625080GZU-006

ISSUE DATE

26 August 2025

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

Report format for LM-79_G

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Report No.: 250625080GZU-006

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. MDPD74227XX

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

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

7400 LINDER AVE. SKOKIE, IL, 60077

Email: jrivero@visualcomfort.com

Phone No.: 847-410-4552

<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: QGZ250611134.
<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 MDPD74227XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250625080-006.
<u>MANUFACTURER /FACTORY & ADDRESS:</u>	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.
<u>DATES OF TESTS:</u>	06 August 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:	MDPD74227XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For MDPD74227XX

Criteria	Result
Total Lumen Output	833.4 lm
Total Power	14.7 W
Luminaire Efficacy	56.7 lm/W
S/MH(C0/180)	0.51
S/MH(C90/270)	0.67
Correlated Color Temperature (CCT)	2667 K
Color Rendering Index (CRI)	92
R9	68
Chromaticity Coordinate (x)	0.4610
Chromaticity Coordinate (y)	0.4084
Chromaticity Coordinate (u')	0.2642
Chromaticity Coordinate (v')	0.5267

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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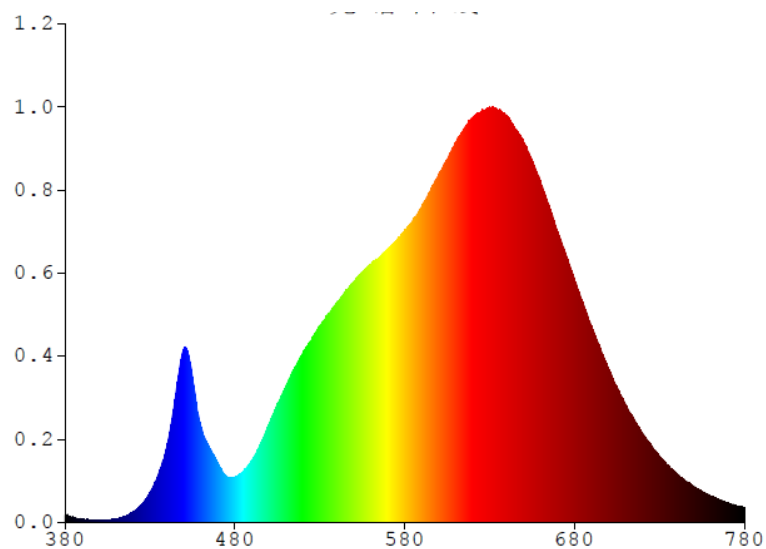
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For MDPD74227XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.7017	480	4.5425	580	29.4510	680	24.4810	780	1.4958
385	0.3237	485	5.2012	585	30.5770	685	22.1290		
390	0.2536	490	6.2550	590	31.8480	690	19.7900		
395	0.1971	495	7.8866	595	33.4330	695	17.6400		
400	0.2122	500	9.8836	600	35.1350	700	15.4950		
405	0.2385	505	11.9040	605	36.6380	705	13.6620		
410	0.3482	510	13.6800	610	38.3810	710	11.8960		
415	0.5908	515	15.4710	615	39.7450	715	10.4220		
420	1.0589	520	17.0720	620	40.8890	720	9.0215		
425	1.7645	525	18.3850	625	41.5110	725	7.8277		
430	2.9888	530	19.8170	630	41.9090	730	6.6940		
435	4.8341	535	21.0540	635	41.5980	735	5.7695		
440	7.7322	540	22.0820	640	41.1130	740	4.9470		
445	12.6720	545	23.2820	645	39.7330	745	4.2429		
450	17.5440	550	24.3280	650	38.4370	750	3.6576		
455	14.5330	555	25.3040	655	36.4810	755	3.1281		
460	9.6591	560	26.0690	660	34.4180	760	2.6521		
465	7.4829	565	26.7310	665	32.0200	765	2.2942		
470	5.9342	570	27.5990	670	29.3350	770	1.9714		
475	4.6506	575	28.3750	675	26.5250	775	1.6898		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD74227XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

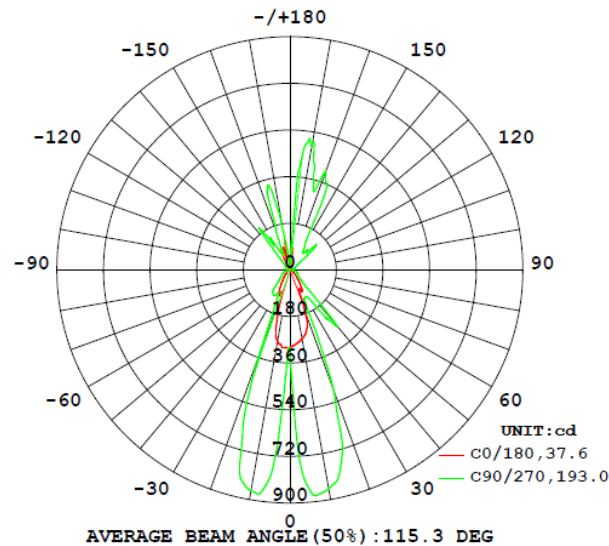
Photometric Measurements at 25°C – Distribution Method

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')
MDPD74227XX								
S2506250 80-006	base-up	2667	92	68	0.4610	0.4084	0.2642	0.5267

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)
MDPD74227XX							
S2506250 80-006	base-up	120.1	123.6	14.7	0.990	833.4	56.7

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD74227XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	299.6	299.4	297.8	300.1	325.8
5	286.4	447.2	747.3	814.9	845.5
10	270.1	773.2	859.2	856.9	858.3
15	246.1	814.4	789.2	799.8	766.7
20	173.6	688.8	666.1	561.3	489.6
25	82.1	361.6	474.7	230.1	140.4
30	94.3	209.9	233.2	131.7	119.4
35	72.8	222.6	62.3	160.6	153.3
40	49.5	135.6	48.8	249.4	282.5
45	35.0	75.3	51.7	75.0	72.9
50	24.4	44.2	40.6	46.2	49.0
55	19.3	29.9	43.7	34.5	37.5
60	16.1	21.7	27.2	28.0	32.7
65	12.3	18.2	19.2	23.8	34.2
70	9.7	14.6	12.8	21.8	30.7
75	7.6	14.4	9.2	17.7	23.0
80	5.1	9.2	6.4	12.4	13.6
85	3.1	5.0	3.9	6.7	6.5
90	1.9	1.9	1.8	2.6	2.9
95	1.4	1.8	1.9	3.1	4.2
100	2.0	2.8	3.1	4.9	8.6
105	2.8	5.7	4.7	8.1	17.5
110	4.1	7.9	6.6	10.4	22.3
115	4.3	9.5	8.0	12.5	21.3
120	5.1	9.6	12.4	15.8	27.0
125	5.4	7.1	24.6	21.3	38.4
130	4.6	7.9	35.4	43.2	86.1
135	5.5	10.1	28.4	46.9	114.6
140	6.7	14.7	31.3	53.7	90.0
145	9.3	39.4	42.4	74.5	86.4
150	9.5	97.8	89.7	58.0	120.6
155	9.2	120.5	327.7	299.0	308.9
160	14.8	312.4	483.7	537.6	404.6
165	34.4	504.5	563.4	655.3	361.9
170	48.6	447.6	563.8	637.3	493.1
175	66.2	171.5	417.1	476.4	382.0
180	0.3	0.0	0.0	0.0	0.0

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD74227XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
MDPD74227XX		
0-30	358.4	43.0
0-40	442.2	53.1
0-60	519.6	62.4
0-90	557.0	66.8
60-90	37.4	4.4
0-180	833.4	100.0

Beam Angle

Total Beam Angle(°)

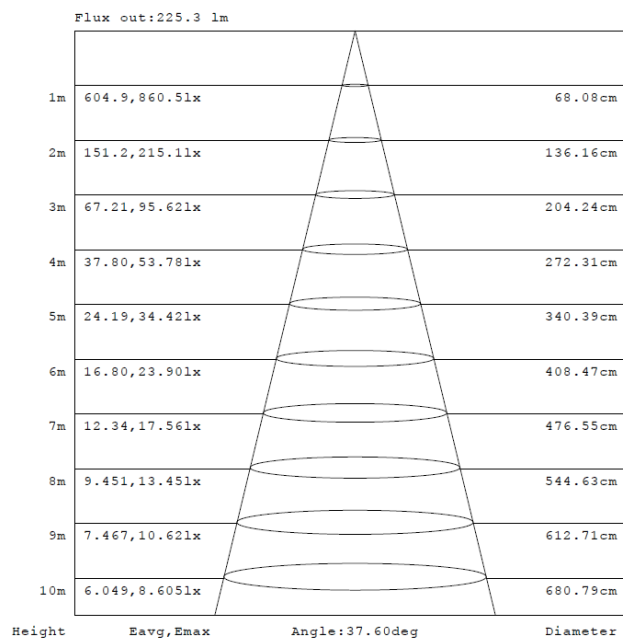
115.3

Illumination Plots

Model No.: MDPD74227XX

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

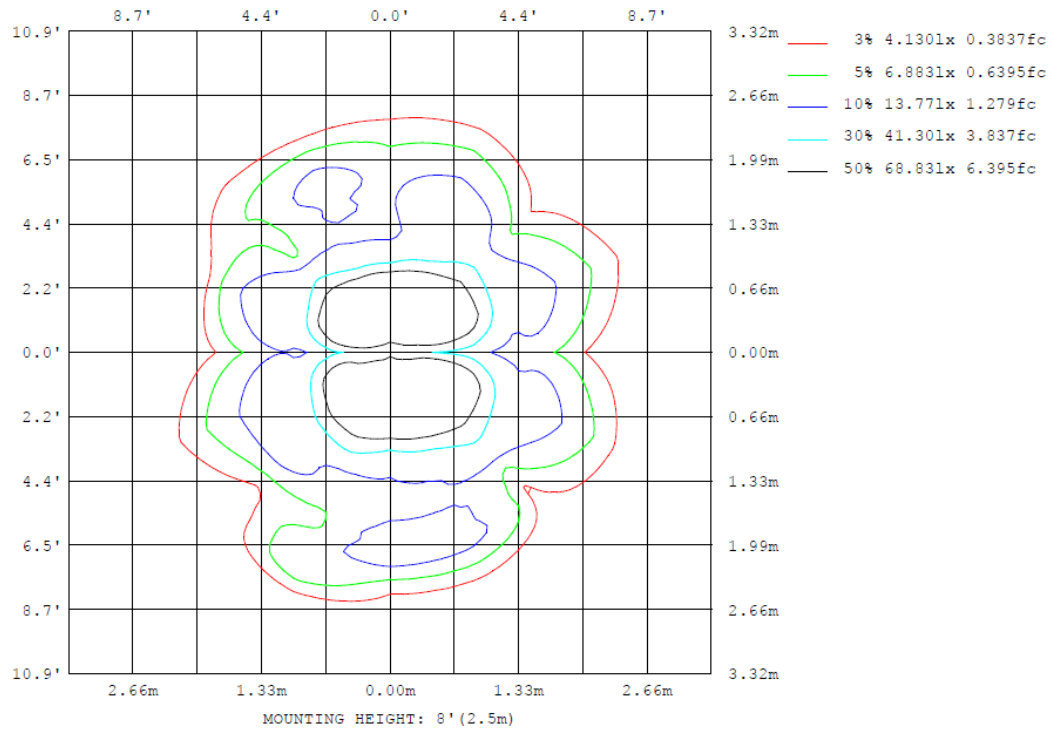
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD74227XX

Model No.: MDPD74227XX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD74227XX

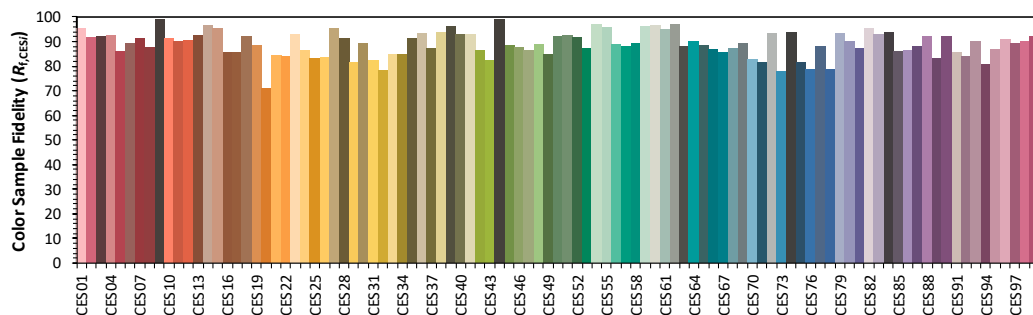
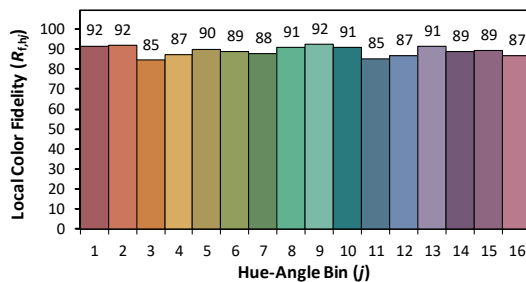
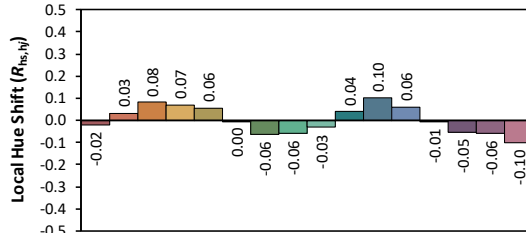
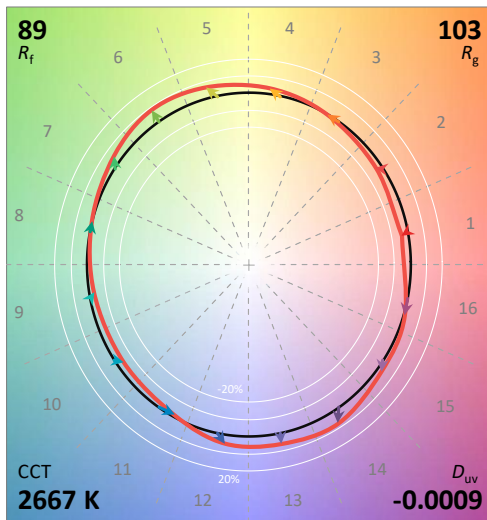
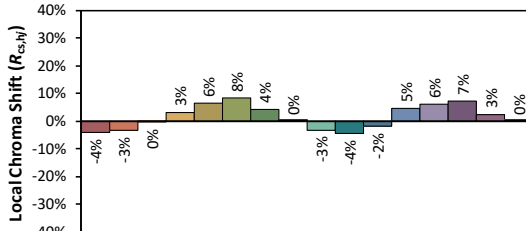
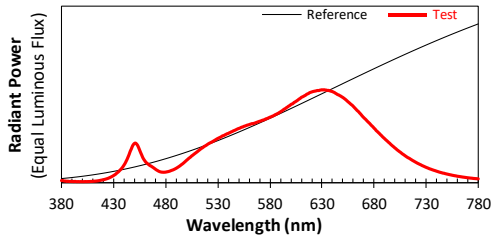
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/8/6

Model: MDPD74227XX



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

x 0.4610
 y 0.4084
 u' 0.2642
 v' 0.5267

CIE 13.3-1995
(CRI)
 R_a 92
 R_g 68

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

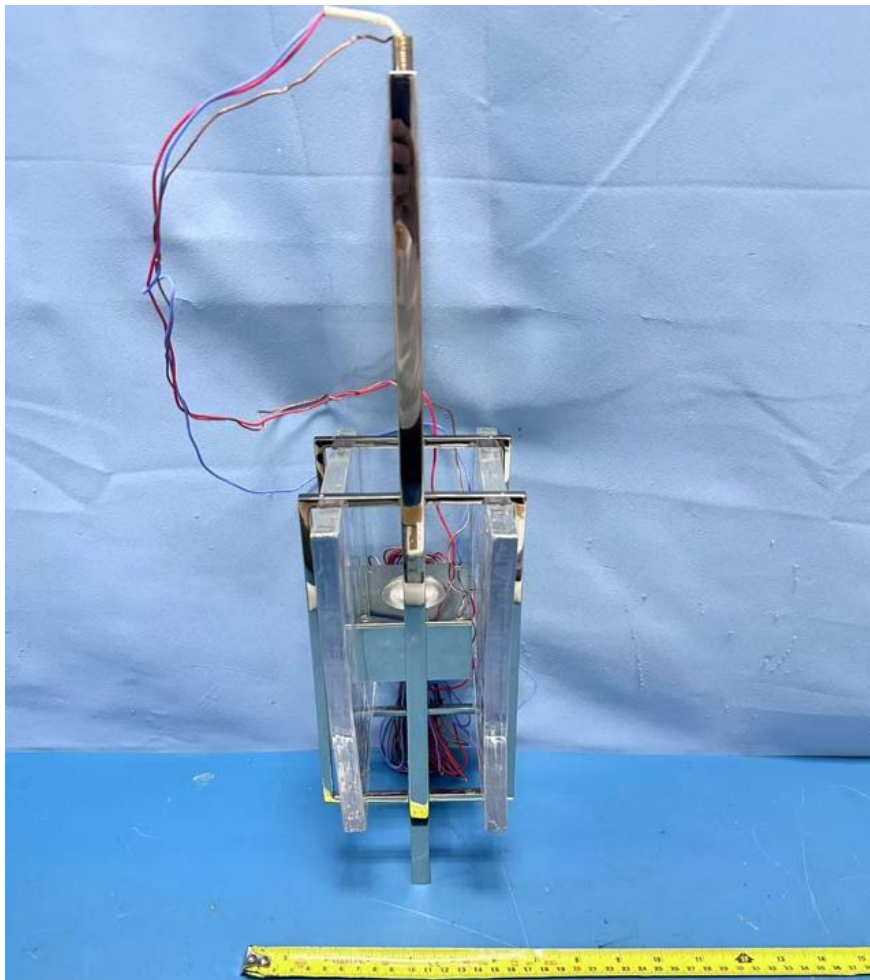
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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of MDPD74227XX



External view of MDPD74227XX

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TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED driver PTB20W-0400-38-VCC1 (AB0258)



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 *****