

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

250722187GZU-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.: 250722187GZU-001

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. MDPD73627XXXCG

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

RENDERED TO

Visual Comfort & Co.

Contact Name: Javan Rivero

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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: QGZ250722038.
<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 MDPD73627XXXCG. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S250722187-002.
<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>	12 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:	MDPD73627XXXCG
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For MDPD73627XXXCG

Criteria	Result
Total Lumen Output	225.6 lm
Total Power	16.6 W
Luminaire Efficacy	13.6 lm/W
S/MH(C0/180)	0.44
S/MH(C90/270)	0.61
Correlated Color Temperature (CCT)	2701 K
Color Rendering Index (CRI)	93
R9	63
Chromaticity Coordinate (x)	0.4567
Chromaticity Coordinate (y)	0.4050
Chromaticity Coordinate (u')	0.2630
Chromaticity Coordinate (v')	0.5247

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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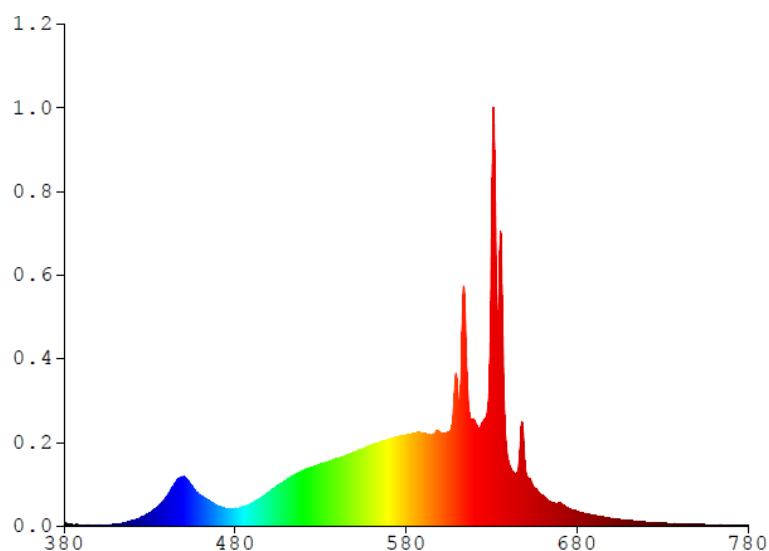
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For MDPD73627XXXCG

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	1.2505	480	12.0640	580	62.2220	680	10.1310	780	0.7914
385	0.6118	485	13.2720	585	63.4690	685	8.6522		
390	0.4424	490	15.8340	590	63.1730	690	7.5194		
395	0.5403	495	19.2750	595	62.2350	695	6.3374		
400	0.4457	500	23.5820	600	63.8960	700	5.4814		
405	0.8708	505	27.8390	605	64.1880	705	4.6661		
410	1.3217	510	31.4190	610	95.1430	710	3.9901		
415	2.2659	515	35.2420	615	128.290	715	3.4342		
420	3.7879	520	38.0830	620	72.4710	720	2.8804		
425	6.1363	525	40.1190	625	71.1290	725	2.5124		
430	9.1483	530	42.5450	630	204.770	730	2.1439		
435	13.7540	535	44.3380	635	196.270	735	1.8253		
440	20.4360	540	45.9810	640	43.8490	740	1.6311		
445	29.5830	545	48.2060	645	36.2480	745	1.4040		
450	33.8400	550	50.5950	650	38.7920	750	1.1931		
455	26.7810	555	53.0710	655	26.3170	755	1.0183		
460	21.0420	560	55.1580	660	21.1110	760	0.8330		
465	17.1600	565	57.3480	665	16.2830	765	0.8054		
470	13.8670	570	59.5270	670	15.8550	770	0.6807		
475	12.0580	575	60.9620	675	11.6720	775	0.5684		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD73627XXXCG

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

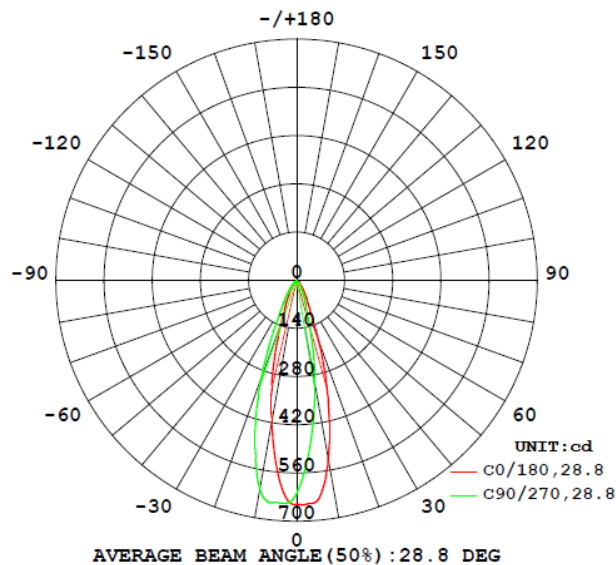
Photometric Measurements at 25°C – Distribution Method

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')
MDPD73627XXXCG								
S2507221 87-002	base-up	2701	93	63	0.4567	0.4050	0.2630	0.5247

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)
MDPD73627XXXCG							
S2507221 87-002	base-up	120.0	140.0	16.6	0.990	225.6	13.6

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD73627XXXCG

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	649.6	649.6	640.7	629.8	618.1
5	646.1	572.9	518.1	493.0	470.7
10	529.8	410.8	355.0	329.8	310.0
15	352.7	241.6	198.4	177.9	161.8
20	186.8	103.3	84.2	82.4	78.5
25	85.9	60.3	50.9	47.2	45.8
30	53.3	36.6	30.5	28.1	26.6
35	32.5	23.1	19.5	17.9	16.5
40	20.8	15.3	13.2	12.1	11.0
45	13.7	10.6	9.4	8.6	7.8
50	9.6	7.8	6.9	6.2	5.7
55	7.0	5.8	5.1	4.6	4.2
60	5.2	4.1	3.3	3.0	2.8
65	3.3	3.2	2.8	2.6	2.3
70	2.9	2.2	1.9	1.7	1.5
75	1.9	0.9	0.3	0.2	0.2
80	0.3	0.2	0.1	0.1	0.1
85	0.2	0.1	0.1	0.1	0.1
90	0.1	0.1	0.1	0.1	0.1
95	0.1	0.1	0.1	0.1	0.1
100	0.1	0.1	0.1	0.0	0.0
105	0.1	0.1	0.0	0.0	0.0
110	0.1	0.1	0.0	0.0	0.0
115	0.1	0.1	0.1	0.1	0.1
120	0.1	0.1	0.1	0.1	0.1
125	0.1	0.2	0.2	0.2	0.2
130	0.3	0.3	0.3	0.3	0.3
135	0.4	0.5	0.5	0.4	0.4
140	0.5	0.6	0.6	0.6	0.6
145	0.7	0.8	0.8	0.7	0.7
150	0.9	1.0	1.0	0.9	0.9
155	1.0	1.2	1.2	1.1	1.1
160	1.2	1.5	1.5	1.5	1.3
165	1.4	1.6	1.5	1.6	1.4
170	1.5	1.5	1.4	1.3	1.1
175	1.3	0.5	0.2	0.2	0.2
180	0.2	0.4	0.6	0.7	0.9

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD73627XXXCG

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
MDPD73627XXXCG		
0-30	183.1	81.2
0-40	203.2	90.1
0-60	218.7	97.0
0-90	223.9	99.2
60-90	5.2	2.2
0-180	225.6	100.0

Beam Angle

Total Beam Angle(°)

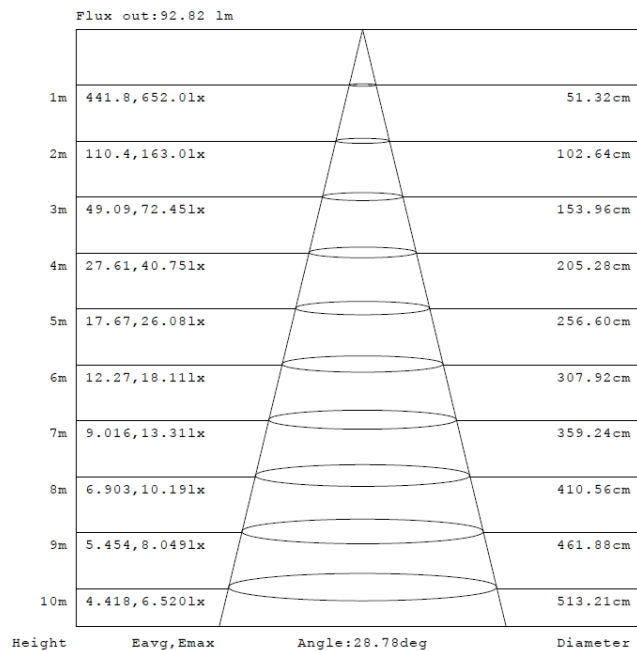
28.8

Illumination Plots

Model No.: MDPD73627XXXCG

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

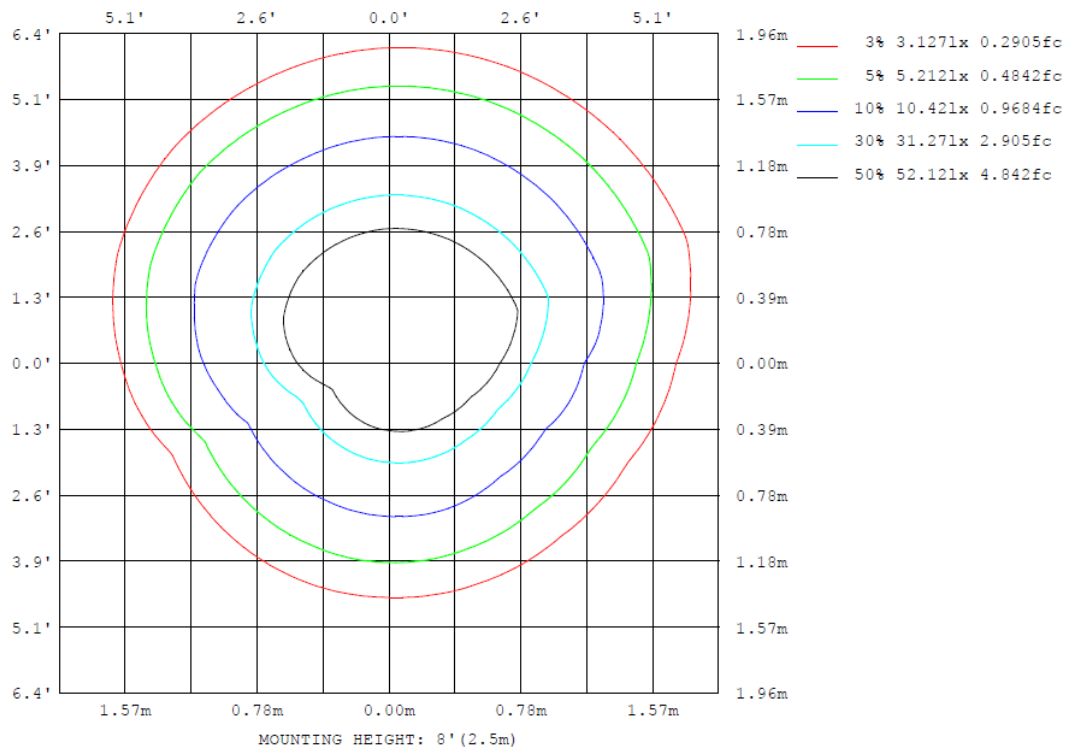
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD73627XXXCG

Model No.: MDPD73627XXXCG

Mount Height: 2.5 m

Isoillumination Plot



TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDPD73627XXXCG

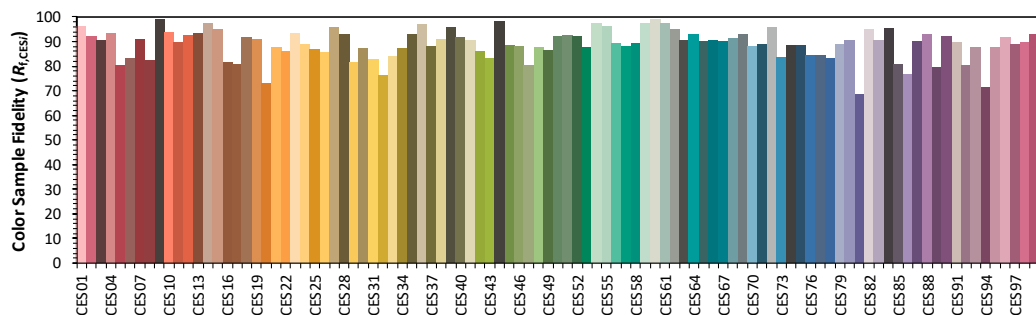
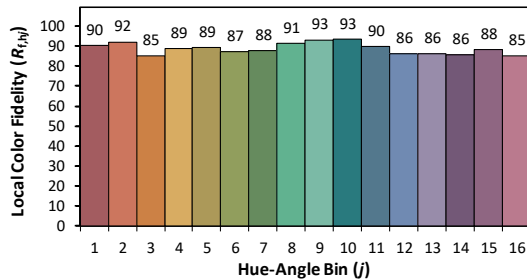
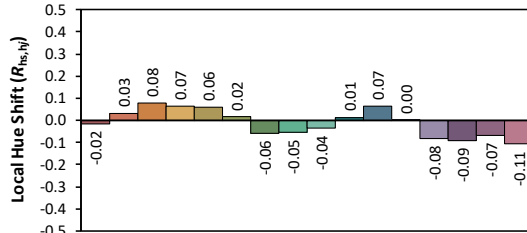
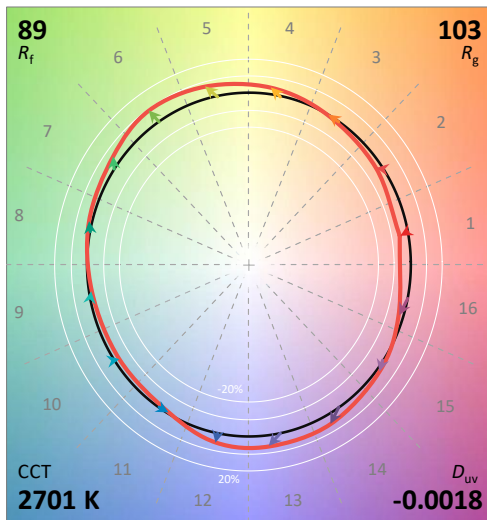
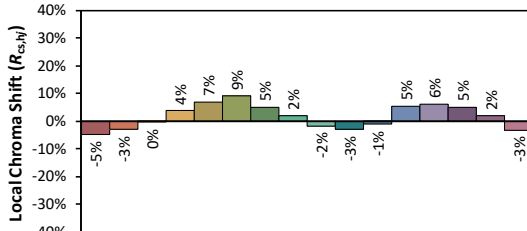
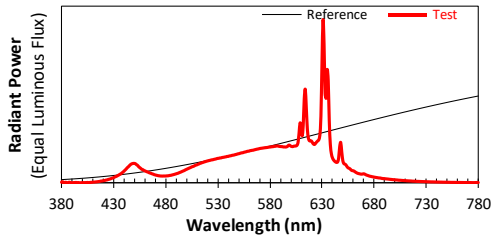
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/8/12

Model: MDPD73627XXXCG



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

x 0.4567
 y 0.4050
 u' 0.2630
 v' 0.5247

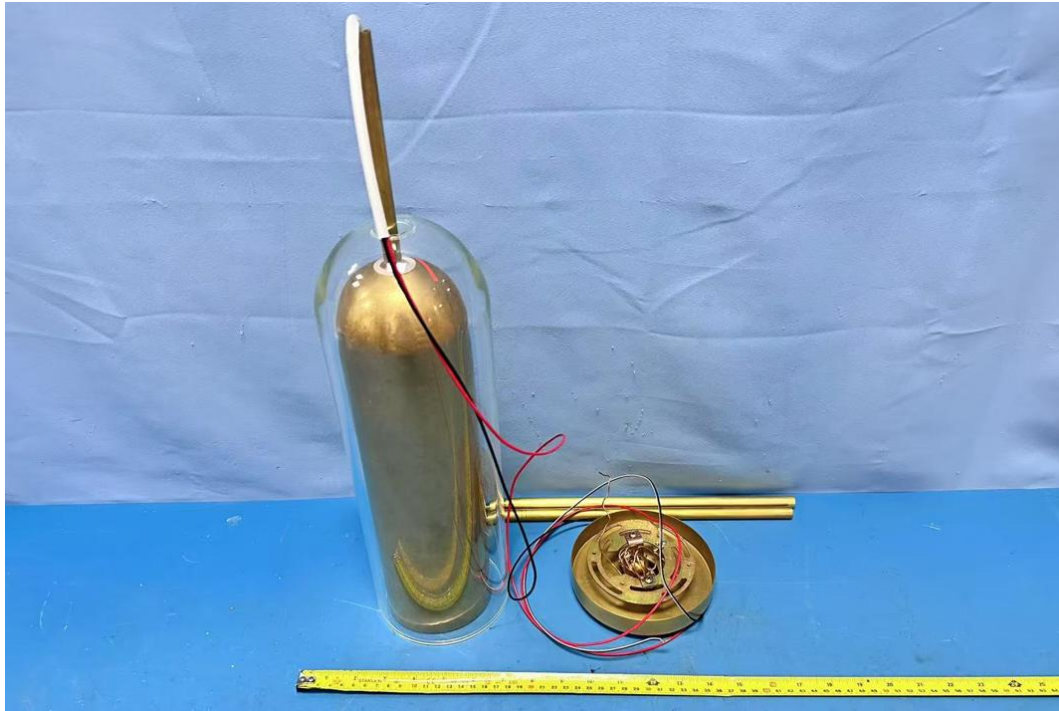
CIE 13.3-1995
(CRI)
 R_a 93
 R_g 63

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 MDPD73627XXXCG

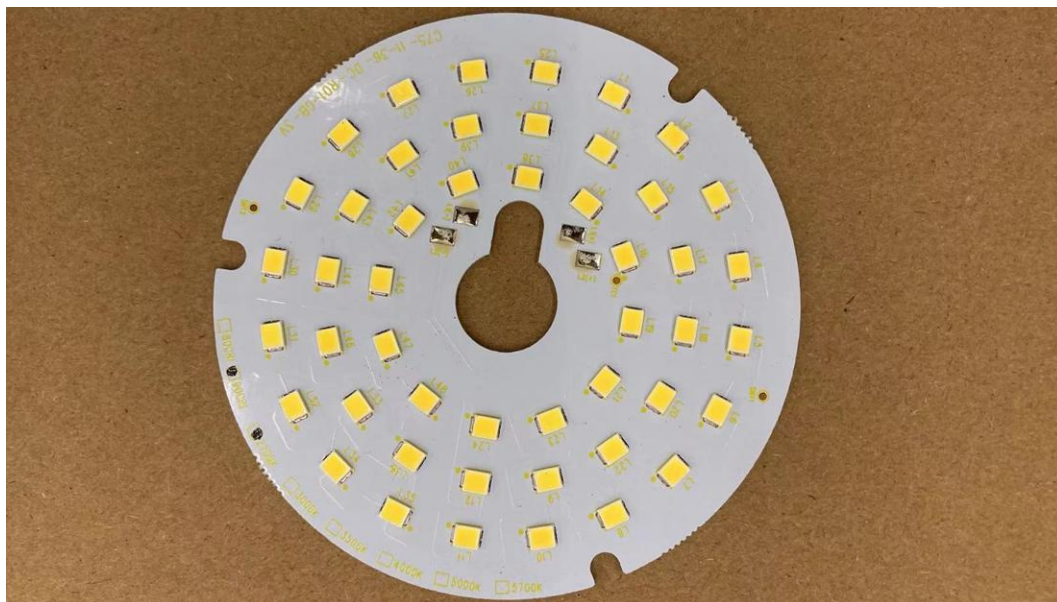


View of LED driver PTB20W-0400-38-VCC1 (AB0258)

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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 *****