

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

241212122GZU-005

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.: 241212122GZU-005

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. SLPD38127XX

Remark: "XX" are denoted appearance color.

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: QGZ241210128.
<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-79-19	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 SLPD38127XX. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S241212122-005.
<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>	02 January 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:	SLPD38127XX
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For SLPD38127XX

Criteria	Result
Total Lumen Output	317.3 lm
Total Power	8.9 W
Luminaire Efficacy	35.5 lm/W
S/MH(C0/180)	1.90
S/MH(C90/270)	2.11
Correlated Color Temperature (CCT)	2553 K
Color Rendering Index (CRI)	91
R9	51
Chromaticity Coordinate (x)	0.4696
Chromaticity Coordinate (y)	0.4085
Chromaticity Coordinate (u')	0.2698
Chromaticity Coordinate (v')	0.5280

Remark:

N/A

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

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: 3.948A DC

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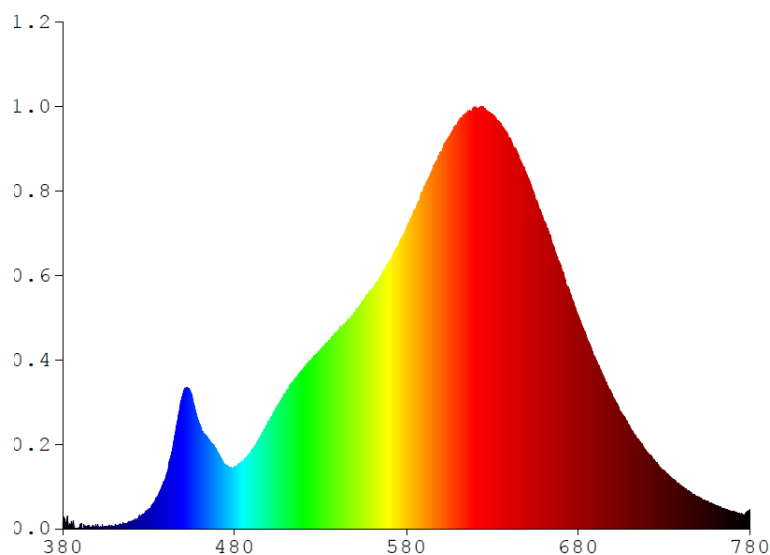
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For SLPD38127XX

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.2363	480	1.5021	580	7.2708	680	5.1465	780	0.4695
385	0.1818	485	1.6449	585	7.7313	685	4.5882		
390	0.0514	490	1.9015	590	8.2133	690	4.0803		
395	0.0549	495	2.2266	595	8.6746	695	3.6409		
400	0.0590	500	2.5973	600	9.1120	700	3.1868		
405	0.0543	505	2.9728	605	9.4585	705	2.8064		
410	0.0383	510	3.3042	610	9.8363	710	2.4447		
415	0.1493	515	3.6247	615	10.0270	715	2.1553		
420	0.1696	520	3.8500	620	10.1680	720	1.8537		
425	0.2862	525	4.1105	625	10.1650	725	1.5917		
430	0.4813	530	4.3213	630	10.0220	730	1.3958		
435	0.7676	535	4.5517	635	9.8012	735	1.1863		
440	1.2571	540	4.7857	640	9.4120	740	1.0239		
445	2.2113	545	4.9914	645	9.0212	745	0.8800		
450	3.2542	550	5.2279	650	8.5471	750	0.7652		
455	3.2291	555	5.5134	655	7.9549	755	0.6637		
460	2.4840	560	5.7957	660	7.4304	760	0.5574		
465	2.1367	565	6.1075	665	6.8665	765	0.4768		
470	1.8548	570	6.4699	670	6.3030	770	0.4186		
475	1.5173	575	6.8294	675	5.5718	775	0.3616		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLPD38127XX

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

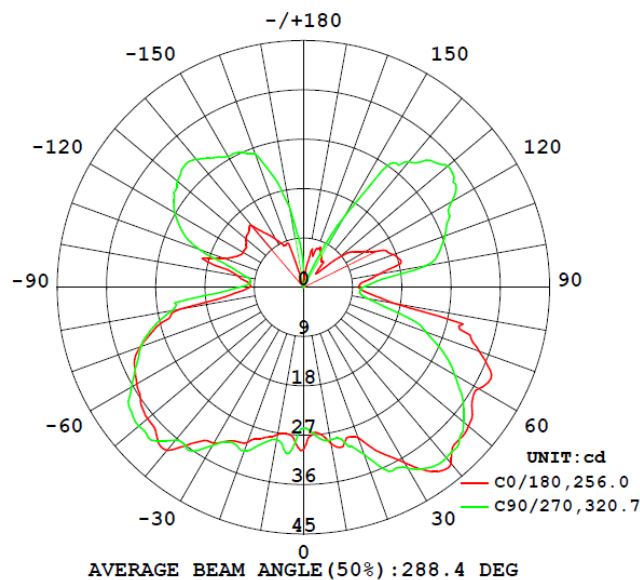
Photometric Measurements at 25°C – Distribution Method

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')
SLPD38127XX								
S2412121 22-005	base-up	2553	91	51	0.4696	0.4085	0.2698	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)
SLPD38127XX							
S2412121 22-005	base-up	120.1	76.3	8.9	0.975	317.3	35.5

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLPD38127XX

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	29.6	28.2	25.9	25.6	25.7
5	26.5	26.6	27.6	27.2	27.3
10	28.9	29.4	28.9	28.6	28.3
15	29.3	28.8	29.9	30.3	29.4
20	29.2	30.1	32.2	33.2	32.4
25	33.3	32.9	36.2	37.6	37.1
30	36.9	37.2	39.3	38.6	38.1
35	41.1	40.8	40.1	40.1	40.1
40	42.0	39.8	38.7	39.8	40.6
45	39.7	38.7	37.7	38.9	40.2
50	39.4	38.0	36.0	36.7	38.2
55	37.6	36.1	34.0	34.1	35.5
60	37.0	35.1	32.1	31.2	31.9
65	37.9	34.2	28.5	27.4	28.3
70	34.2	30.4	24.3	23.0	23.8
75	29.6	29.2	16.8	16.8	17.7
80	16.8	14.5	11.2	11.4	11.9
85	11.8	10.4	9.6	9.8	10.3
90	10.2	9.8	10.2	10.5	10.9
95	10.8	11.1	13.2	13.4	13.5
100	14.0	15.3	22.4	23.8	22.7
105	18.5	21.9	25.2	25.9	25.8
110	17.5	24.9	27.1	27.7	27.5
115	16.0	27.2	28.3	29.3	29.3
120	13.2	28.4	30.9	30.7	31.3
125	11.3	28.5	32.2	31.7	33.4
130	8.5	28.0	29.9	27.3	34.4
135	4.0	23.9	28.2	27.3	32.8
140	4.1	20.8	23.6	25.3	29.9
145	5.7	14.5	19.8	24.6	27.6
150	6.6	12.8	24.2	18.2	14.8
155	7.6	13.6	21.1	6.2	4.2
160	7.4	9.5	8.2	0.8	1.0
165	6.4	7.7	3.8	0.1	0.1
170	4.9	4.7	1.4	0.3	0.1
175	1.1	0.7	0.1	0.1	0.1
180	0.1	0.1	0.1	0.2	0.2

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLPD38127XX

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
SLPD38127XX		
0-30	26.2	8.3
0-40	49.7	15.7
0-60	113.0	35.6
0-90	187.8	59.2
60-90	74.8	23.6
0-180	317.3	100.0

Beam Angle

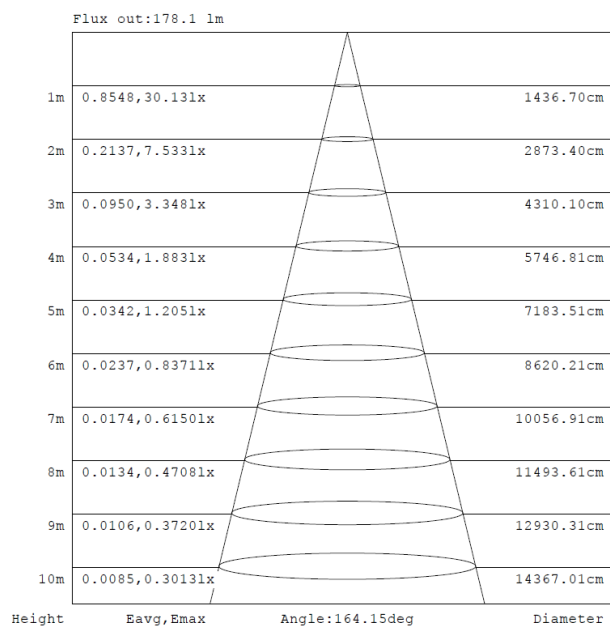
Total Beam Angle(°)
288.4

Illumination Plots

Model No.: SLPD38127XX

Mount Height: 2.5 m

Illuminance - Cone of Light



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TEST REPORT

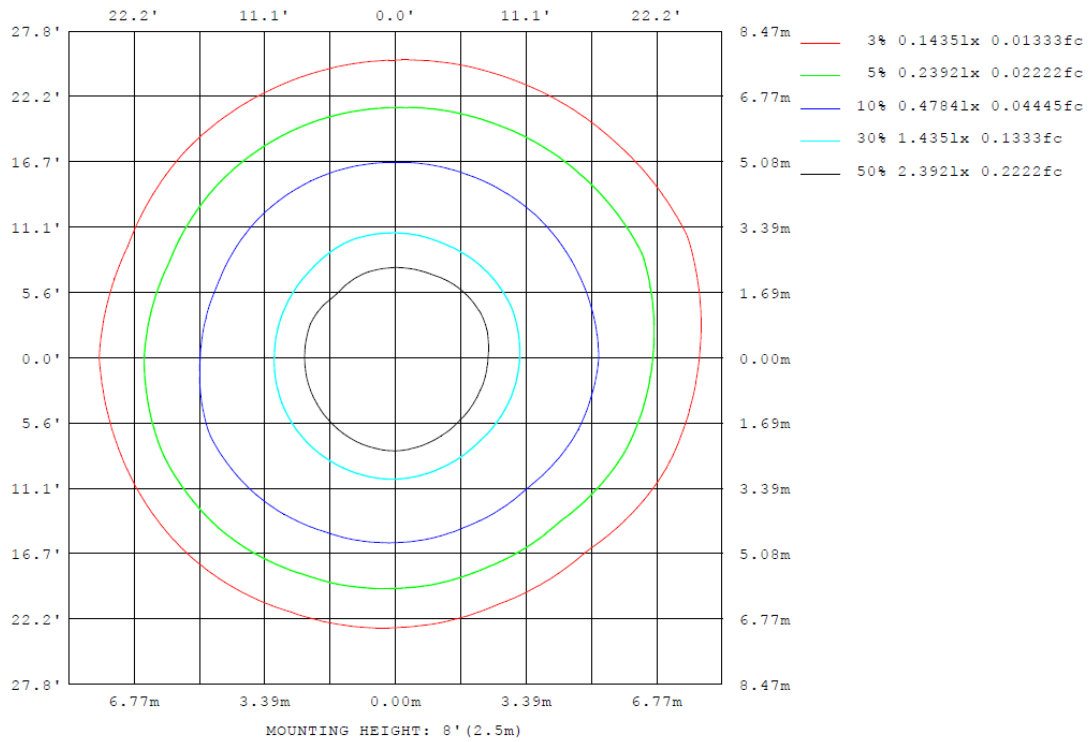
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLPD38127XX

Model No.: SLPD38127XX

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For SLPD38127XX

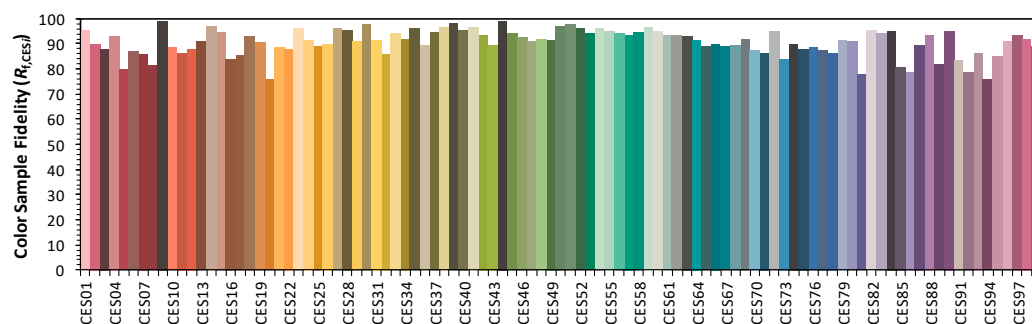
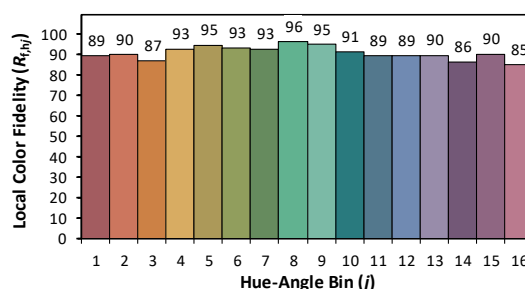
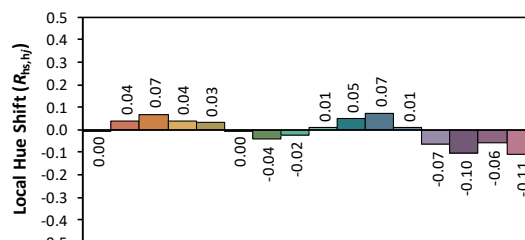
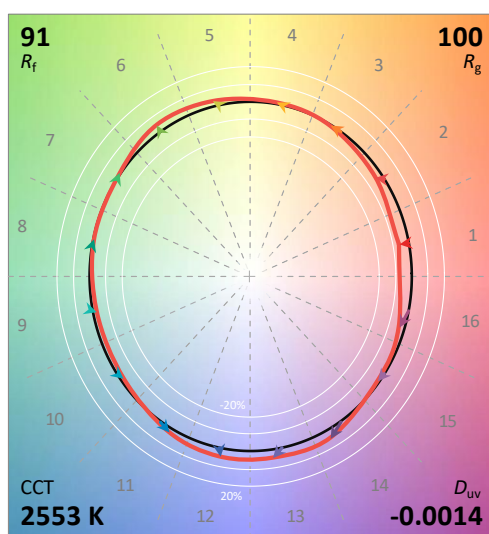
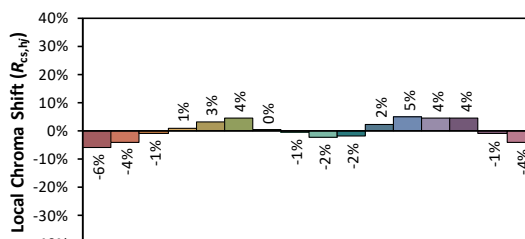
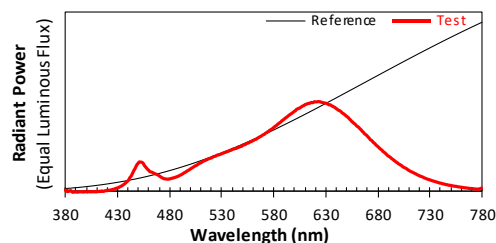
ANSI/IES TM-30-18 Color Rendition Report

Source:	User SPD
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Manufacturer: Visual Comfort & Co.

Date: 2025/1/2

Model: SLPD38127XX



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

X	0.4696
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 y 0.4085
$$u' \quad 0.2698$$
 $V' \quad 0.5280$

CIE 13.3-1995
(CRI)

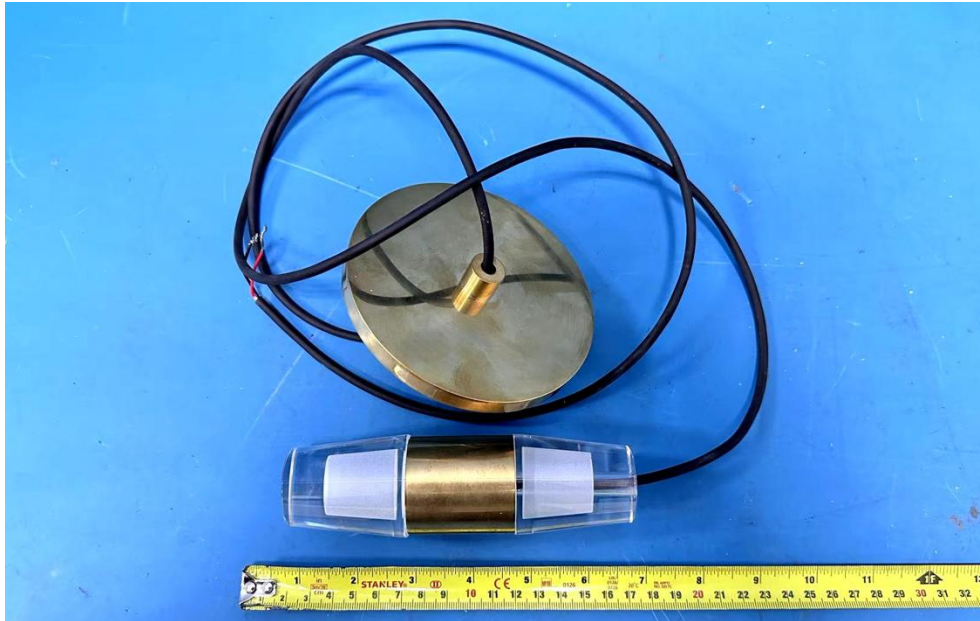
 R_a 91 R_9 51

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 SLPD38127XX

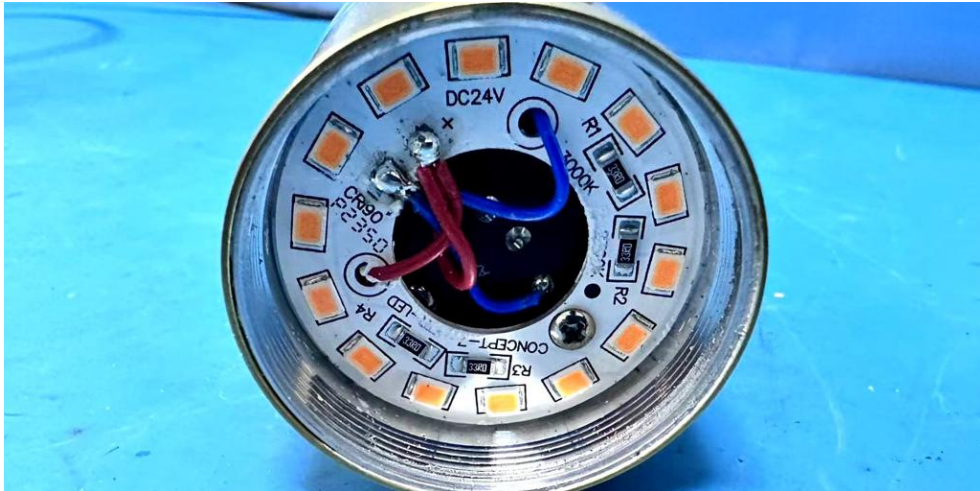


View of LED driver DS12W24VMB1UD-0000

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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 *****