

Visual Comfort & Co.

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

251110010GZU-017

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.: 251110010GZU-017

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. MDLS79727XHC

Remark: "X" 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: QGZ251106008.
<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 MDLS79727XHC. The sample was received by Intertek in undamaged condition and tested as received. The sample designation was S251110010-019.
<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>	11 December 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:	MDLS79727XHC
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For MDLS79727XHC

Criteria	Result
Total Lumen Output	830.9 lm
Total Power	15.5 W
Luminaire Efficacy	53.7 lm/W
S/MH(C0/180)	1.27
S/MH(C90/270)	1.10
Correlated Color Temperature (CCT)	2601 K
Color Rendering Index (CRI)	94
R9	67
Chromaticity Coordinate (x)	0.4664
Chromaticity Coordinate (y)	0.4093
Chromaticity Coordinate (u')	0.2674
Chromaticity Coordinate (v')	0.5278

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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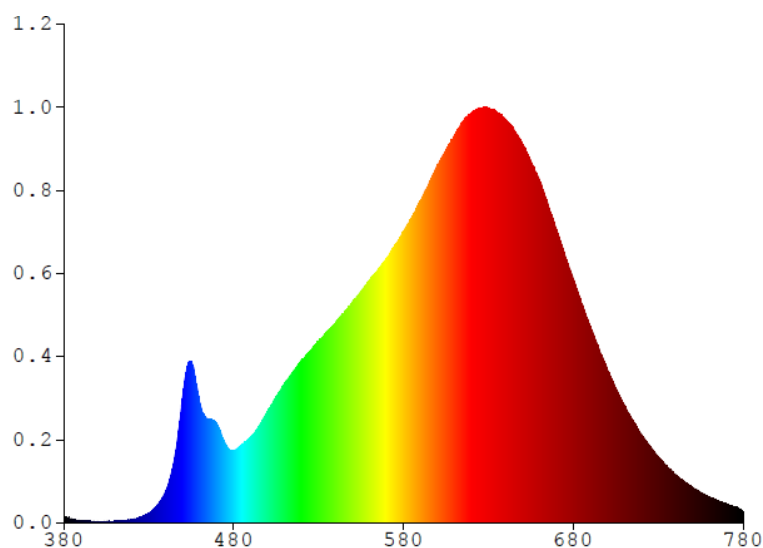
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For MDLS79727XHC

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	1.0190	480	12.3840	580	49.7900	680	41.8120	780	1.9297
385	0.6657	485	13.4250	585	52.3290	685	37.5010		
390	0.4032	490	14.7490	590	55.2000	690	33.6200		
395	0.2333	495	16.5390	595	58.0790	695	29.8850		
400	0.2507	500	19.0610	600	61.2930	700	26.2340		
405	0.1804	505	21.5530	605	63.8110	705	23.0970		
410	0.2574	510	23.8730	610	66.4080	710	20.1310		
415	0.3634	515	25.8330	615	68.7490	715	17.5150		
420	0.5158	520	27.9350	620	70.1680	720	15.1460		
425	0.9458	525	29.4080	625	70.9180	725	13.1420		
430	1.6350	530	31.0720	630	71.1460	730	11.2640		
435	3.0189	535	32.8320	635	70.2760	735	9.7628		
440	5.3850	540	34.2240	640	69.2360	740	8.2838		
445	10.6190	545	35.9660	645	67.3810	745	7.1567		
450	21.5840	550	37.8460	650	64.9430	750	6.0981		
455	27.6590	555	39.5800	655	61.9770	755	5.1889		
460	20.6110	560	41.5850	660	58.7150	760	4.4469		
465	17.8650	565	43.3690	665	54.6870	765	3.8093		
470	16.9490	570	45.2420	670	50.3280	770	3.2565		
475	13.6000	575	47.5420	675	45.0470	775	2.7851		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDLS79727XHC

Total operation burning time: 60 minutes

Stabilization time: 30 minutes

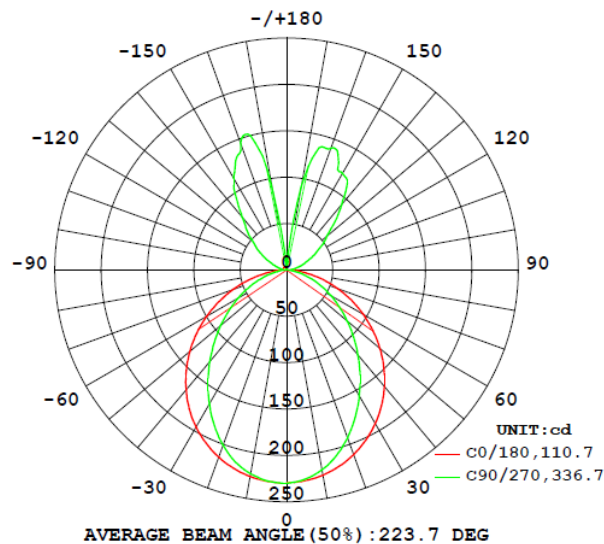
Photometric Measurements at 25°C – Distribution Method

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')
MDLS79727XHC								
S2511100 10-019	base-up	2601	94	67	0.4664	0.4093	0.2674	0.5278

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	Lumen Efficacy
						Flux (Lumens)	(Lumens Per Watt)
MDLS79727XHC							
S2511100 10-019	base-up	120.2	130.4	15.5	0.99	830.9	53.7

Intensity (Candlepower) Summary at 25°C - Candelas



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

TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDLS79727XHC

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	229.4	229.4	229.5	229.7	229.7
5	228.0	227.5	226.9	226.7	226.5
10	224.6	223.3	221.2	219.5	218.9
15	219.1	216.9	212.4	208.8	207.3
20	211.7	208.2	201.1	194.8	192.3
25	202.4	197.4	187.2	178.6	175.2
30	191.2	184.9	171.6	161.0	156.9
35	178.5	170.8	154.9	142.7	138.3
40	164.1	155.0	137.5	124.6	119.9
45	148.3	138.3	119.7	106.7	102.2
50	131.4	120.8	102.1	89.6	85.3
55	113.7	102.8	85.0	73.5	69.6
60	95.4	84.7	68.2	58.8	55.3
65	76.8	66.6	52.6	44.3	41.6
70	58.6	49.4	37.5	31.1	29.1
75	41.1	32.6	23.5	19.1	17.9
80	24.7	17.5	11.4	9.3	8.8
85	11.0	5.5	2.8	2.7	2.8
90	0.8	0.6	1.0	1.0	1.1
95	5.5	6.0	5.2	4.3	3.9
100	3.6	15.1	11.1	8.8	8.1
105	0.4	27.0	18.8	14.7	13.4
110	0.3	38.4	28.4	21.6	19.5
115	0.3	50.3	39.1	30.0	27.1
120	0.3	63.5	50.8	39.1	36.0
125	0.4	69.6	65.7	51.0	46.3
130	0.4	89.3	80.8	63.0	56.8
135	0.5	103.2	97.2	80.9	74.0
140	0.5	110.3	101.9	99.6	92.3
145	0.6	113.7	113.4	114.3	114.2
150	0.6	109.6	132.6	116.1	120.6
155	0.7	98.2	133.9	136.9	132.3
160	0.7	72.5	129.9	137.2	139.9
165	0.8	29.4	102.2	127.3	136.5
170	0.7	10.1	39.3	75.2	90.0
175	1.0	4.6	6.2	8.8	8.3
180	1.3	0.6	0.6	0.5	0.5

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDLS79727XHC

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
MDLS79727XHC		
0-30	170.7	20.5
0-40	271.5	32.7
0-60	452.2	54.4
0-90	549.0	66.1
60-90	96.8	11.7
0-180	830.9	100.0

Beam Angle

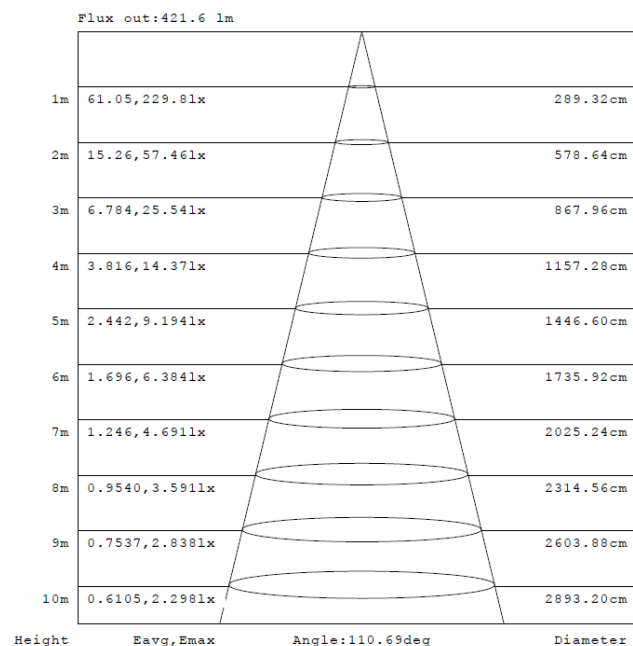
Total Beam Angle(°)
223.7

Illumination Plots

Model No.: MDLS79727XHC

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

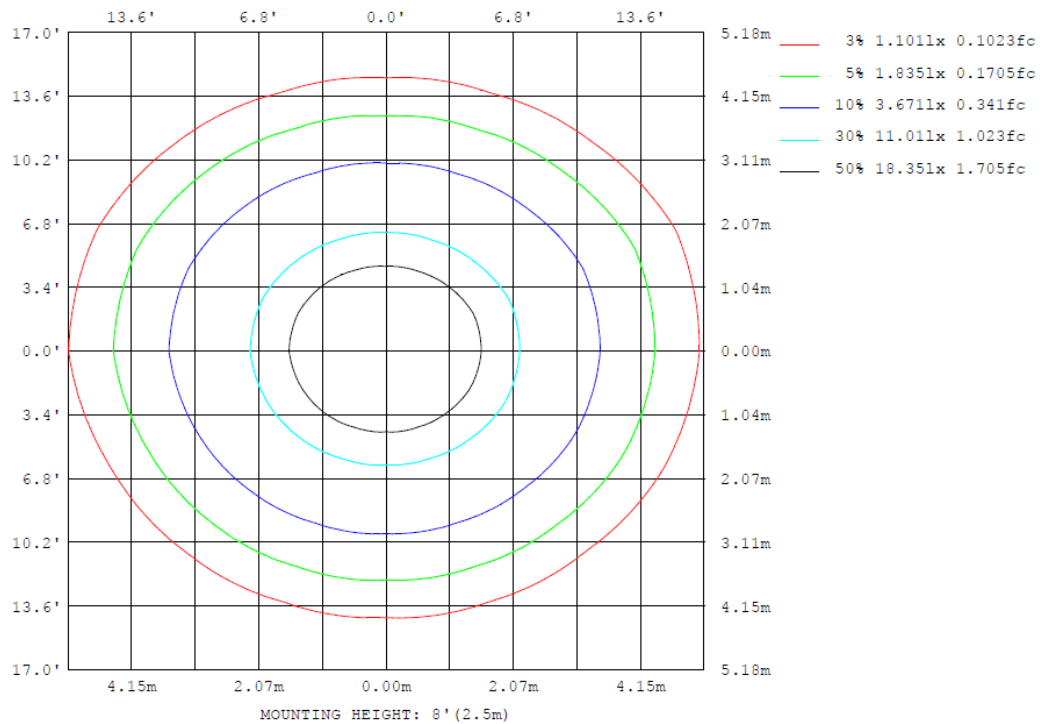
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDLS79727XHC

Model No.: MDLS79727XHC

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For MDLS79727XHC

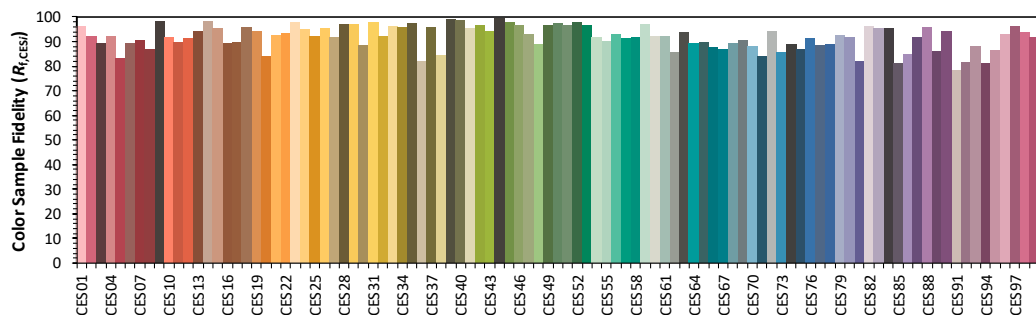
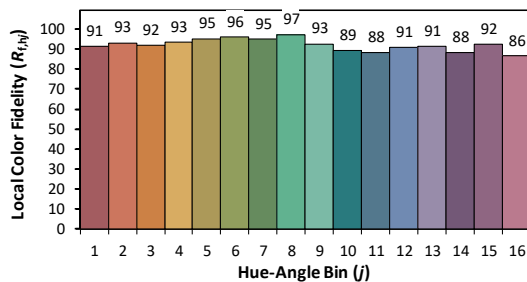
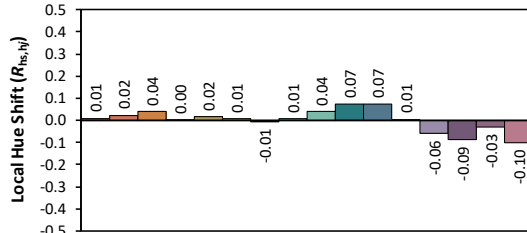
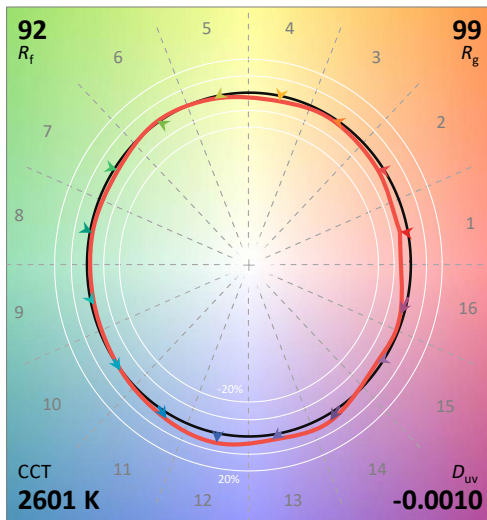
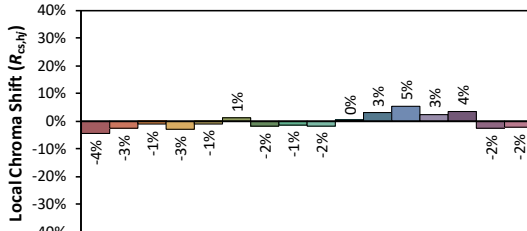
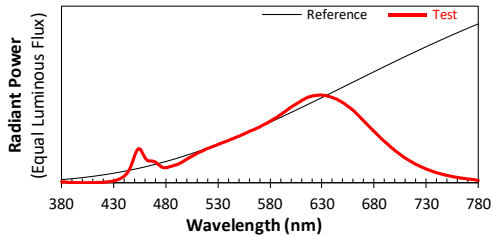
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: Visual Comfort & Co.

Date: 2025/12/11

Model: MDLS79727xHC



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

x 0.4664
 y 0.4093
 u' 0.2674
 v' 0.5278

CIE 13.3-1995
(CRI)
 R_a 94
 R_g 67

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

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

TEST REPORT

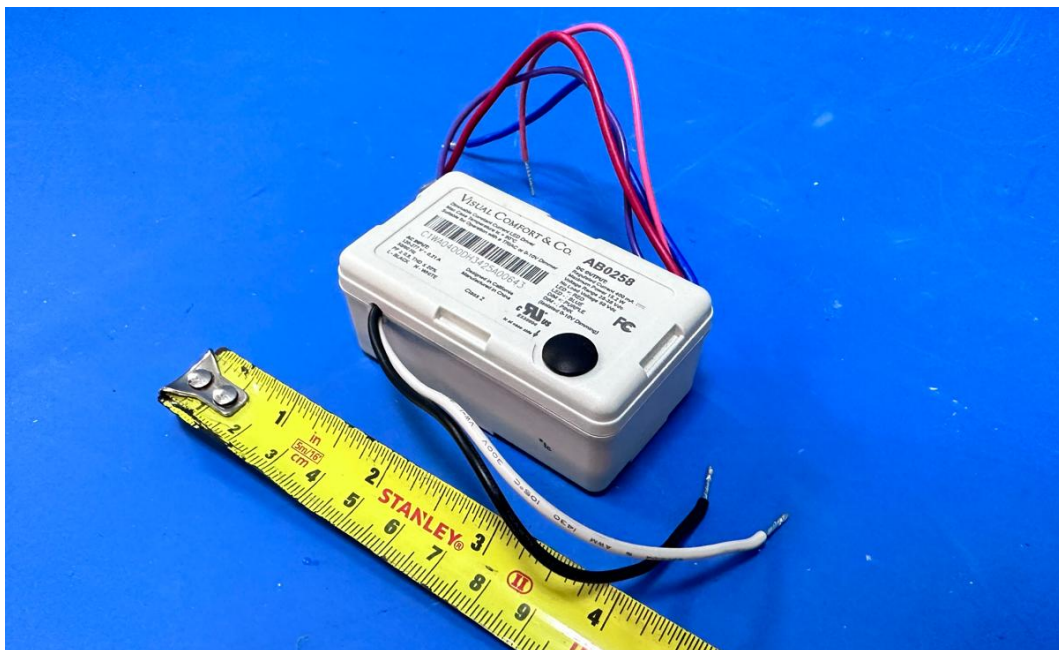
PRODUCT PICTURE (not to scale)



External view of MDLS79727XHC



External view of MDLS79727XHC

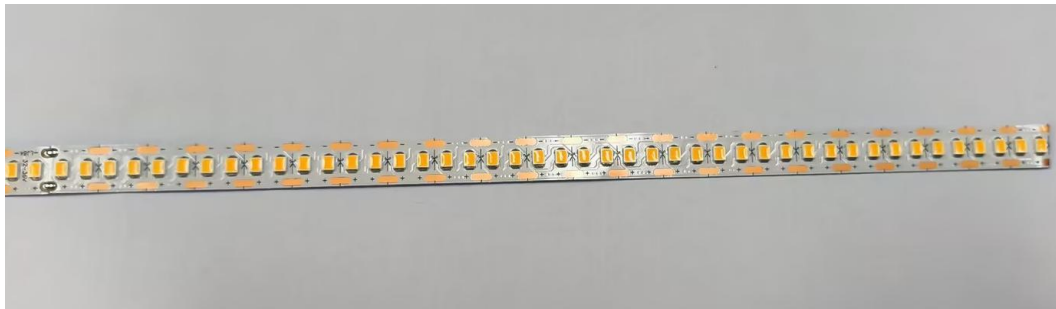


View of LED driver PTB20W-0400-38-VCC1(AB0258)

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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 *****