

VC BRANDS LLC

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

211208061GZU-008

ISSUE DATE

10 January 2022

REVISION DATE

None

NUMBER OF PAGES

13

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Report No.: 211208061GZU-008

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. 700WYT8XX-LED927

RENDERED TO

VC BRANDS LLC

Contact Name: Tess Gallagher

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TEST: Electrical and Photometric as required to the IES LM-79 test standard.

STATEMENT OF LIMITATION: The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the U.S. Government.

AUTHORIZATION: The testing performed was authorized by signed quote number: QGZ211208009.

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: 2008 Approved Method for the Electrical and Photometric Measurements of Solid-State Lighting Products

ANSI C78.377:2017 Specifications of the Chromaticity of Solid State Lighting Products

DESCRIPTION OF SAMPLE: The client submitted one sample of model 700WYT8XX-LED927. The sample was received, in undamaged condition. The sample designation was S211208061-008.

DATES OF TESTS: 8 December 2021 to 7 January 2022

ISSUED BY: Intertek Testing Services Shenzhen Ltd. Guangzhou Branch

TEST LOCATION: Room 02, & 101/E201/E301/E401/E501/E601/E701/E801 of Room 01 1-8/F., No. 7-2. Caipin Road, Science City, GETDD, Guangzhou, Guangdong, China

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TEST REPORT

SUMMARY

Model Number:	700WYT8XX-LED927 (Remark: "XX" denote other appearance colors for the characters that change)
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For 700WYT8XX-LED927

Criteria	Result
Total Lumen Output	2423.8 lm
Total Power	30.4 W
Luminaire Efficacy	79.76 lm/W
S/MH(C0/180)	14.96
S/MH(C90/270)	15.54
Correlated Color Temperature (CCT)	2410 K
Color Rendering Index (CRI)	92.0
R9	68
Chromaticity Coordinate (x)	0.4872
Chromaticity Coordinate (y)	0.4178
Chromaticity Coordinate (u')	0.2769
Chromaticity Coordinate (v')	0.5342

Remark:

- 1. Measurement uncertainty for applicable tests has been established.**
- 2. All the tests were conducted with the removal of the replaceable lampshade.**

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TEST REPORT

EQUIPMENT LIST

Equipment Used	Model Number	Control Number
Temperature Meter	RS210	SA047-126
Sensing - DC Power Supply	IT6122	SA063-12-09
Sensing- AC power source for Integrating Sphere System	APW-105N	SA063-12-05
Everfine - AC power source for Goniophotometer System	DPS1060	SA063-16-03
Two meter integrating sphere unit	Sensing – 2M	SA063-12-01
YOKOGAWA – Digital Power Meter	WT-210	SA011-122
Everfine – Goniophotometer	Go-R5000	SA063-16
KONICA MINOLTA - Illuminance meter	CX-2B_WL	SA063-16-01
Standard lamp	S82134	SA063-12-13
Standard lamp	S1320039	SA063-12-24
Standard lamp	D908S	SA063-16-05
Standard lamp	D215S	SA063-16-06

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 WT210.

Correction factor (self-absorption) has been considered when doing measurement.

Standard lamp used for Goniophotometer method:

Model: D908S

Current: 7.255A

Standard lamp used for integrating sphere:

Model: S82134

Current: 1.830

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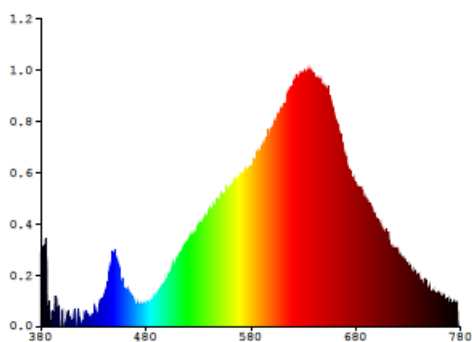
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For 700WYT8XX-LED927

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0047	480	0.0015	580	0.0110	680	0.0096	780	0.0000
385	0.0048	485	0.0016	585	0.0114	685	0.0091		
390	0.0000	490	0.0017	590	0.0124	690	0.0087		
395	0.0008	495	0.0000	595	0.0125	695	0.0080		
400	0.0003	500	0.0029	600	0.0138	700	0.0072		
405	0.0005	505	0.0039	605	0.0144	705	0.0065		
410	0.0000	510	0.0046	610	0.0149	710	0.0062		
415	0.0005	515	0.0052	615	0.0159	715	0.0053		
420	0.0003	520	0.0058	620	0.0166	720	0.0050		
425	0.0007	525	0.0064	625	0.0169	725	0.0043		
430	0.0000	530	0.0068	630	0.0174	730	0.0040		
435	0.0010	535	0.0073	635	0.0176	735	0.0035		
440	0.0020	540	0.0078	640	0.0173	740	0.0034		
445	0.0035	545	0.0079	645	0.0170	745	0.0027		
450	0.0050	550	0.0087	650	0.0166	750	0.0027		
455	0.0033	555	0.0091	655	0.0158	755	0.0023		
460	0.0026	560	0.0091	660	0.0145	760	0.0020		
465	0.0022	565	0.0101	665	0.0130	765	0.0015		
470	0.0014	570	0.0103	670	0.0117	770	0.0015		
475	0.0010	575	0.0109	675	0.0105	775	0.0013		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WYT8XX-LED927

Total operation burning time: 60 minutes

Stabilization time: 45 minutes

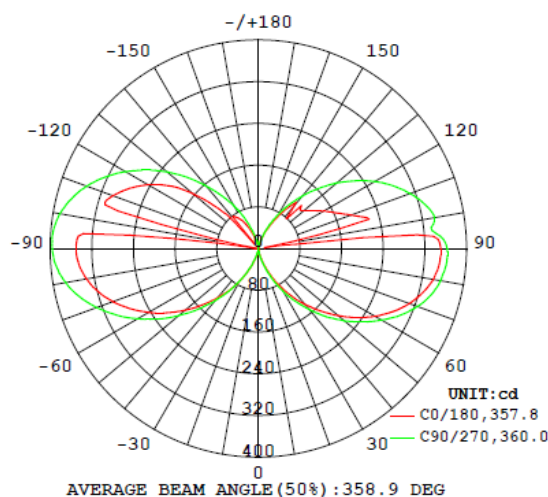
Photometric Measurements at 25°C – Integrating Sphere Method

Intertek Sample No.	Base Orientation	Correlated Color Temperatur e (K)	CRI	R9	CIE 31'	CIE 31'	CIE 76'	CIE 76'
					Chromaticit y	Chromaticit y	Chromaticit y	Chromaticit y
					Coordinate (x)	Coordinate (y)	Coordinate (u')	Coordinate (v')
700WYT8XX-LED927								
S2112080 61-008	--	2410	92.0	68	0.4872	0.4178	0.2769	0.5342

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)
700WYT8XX-LED927							
S2112080 61-008	--	120.0	255.2	30.4	0.992	2423.8	79.76

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WYT8XX-LED927

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	1.2	1.2	1.2	1.2	1.2
5	1.3	1.7	1.8	2.0	1.7
10	7.1	8.5	8.9	10.1	9.0
15	17.2	20.7	20.9	23.0	21.9
20	34.8	38.3	40.5	42.8	41.6
25	57.5	63.5	63.8	68.4	65.8
30	83.6	91.7	90.6	96.8	93.9
35	111.3	121.2	118.2	121.4	122.7
40	140.0	144.0	147.6	141.2	152.8
45	169.1	157.4	179.3	162.1	184.9
50	200.0	162.8	211.5	184.4	215.2
55	230.4	168.9	246.2	206.9	244.9
60	259.2	179.9	271.9	227.3	273.6
65	285.4	192.3	297.5	244.1	301.5
70	308.4	204.5	320.7	256.1	324.8
75	326.6	214.9	339.5	262.5	343.4
80	341.1	223.3	352.6	259.2	355.3
85	348.5	228.2	357.7	262.3	361.8
90	350.1	229.3	339.5	257.0	362.6
95	306.3	73.4	302.8	251.0	342.1
100	11.8	37.0	243.7	236.7	343.8
105	220.0	179.3	164.8	211.0	330.6
110	189.1	216.6	181.5	198.0	309.7
115	163.6	205.2	208.0	186.2	285.4
120	144.1	190.6	249.0	174.6	257.7
125	127.4	172.9	223.5	162.6	227.4
130	113.5	153.6	191.8	143.8	195.7
135	117.0	96.0	157.4	130.9	163.3
140	106.6	110.6	127.4	122.0	132.2
145	92.1	88.2	101.6	104.6	103.1
150	66.5	47.2	74.6	77.3	75.5
155	44.4	43.7	48.9	50.9	49.8
160	26.6	28.4	26.8	29.1	28.3
165	9.7	13.2	12.0	13.7	12.5
170	2.0	2.1	4.2	3.8	4.5
175	1.0	1.2	1.0	1.0	0.8
180	1.0	1.0	1.0	1.0	1.3

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WYT8XX-LED927

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
700WYT8XX-LED927		
0-30	31.0	1.3
0-40	97.4	4.0
0-60	399.3	16.5
0-90	1283.0	52.9
60-90	883.7	36.4
0-180	2423.8	100.0

Beam Angle

Total Beam Angle(°)

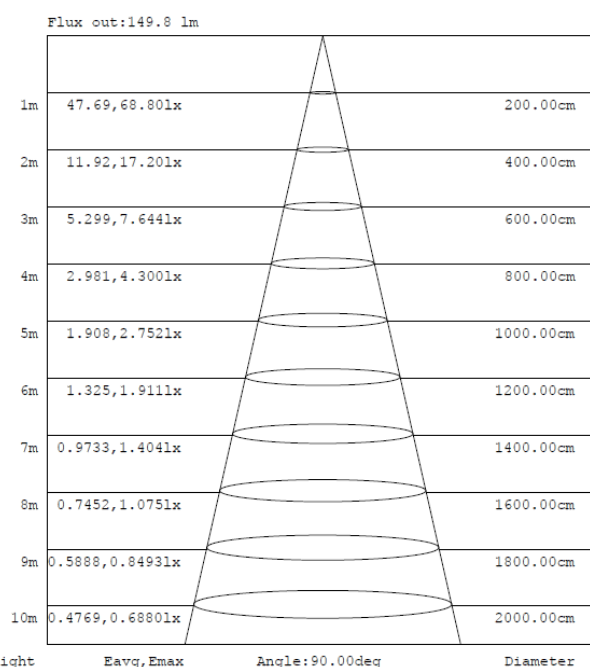
358.9

Illumination Plots

Model No.: 700WYT8XX-LED927

Mount Height: 2.5 m

Illuminance - Cone of Light



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TEST REPORT

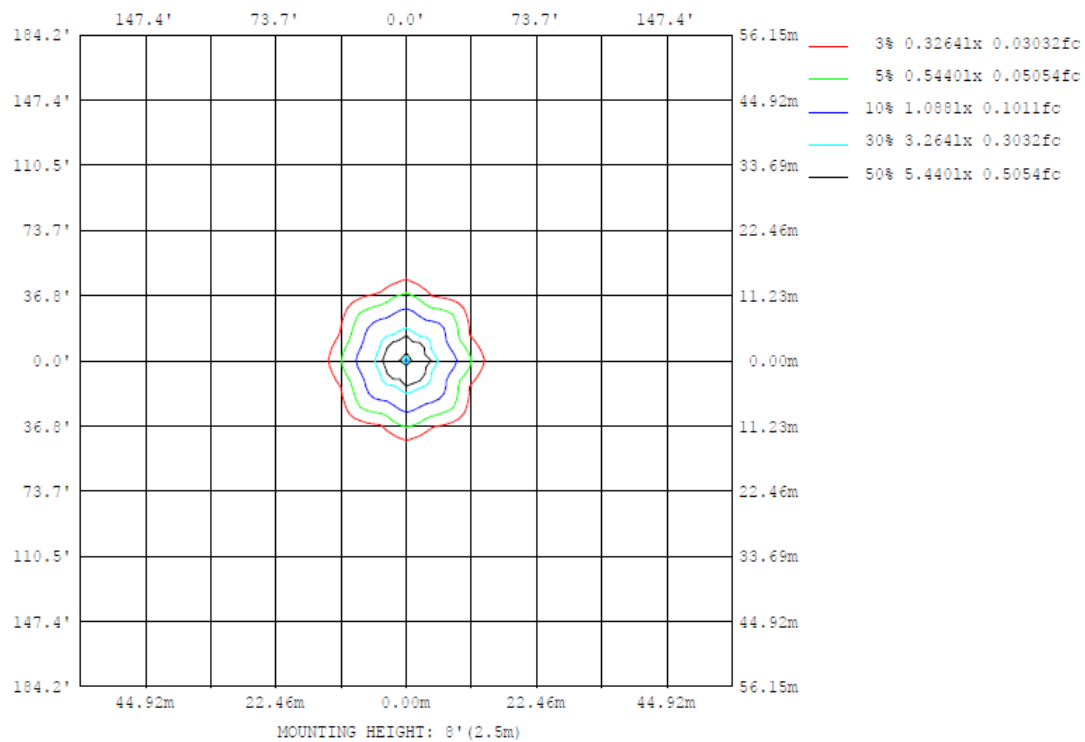
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WYT8XX-LED927

Model No.: 700WYT8XX-LED927

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WYT8XX-LED927

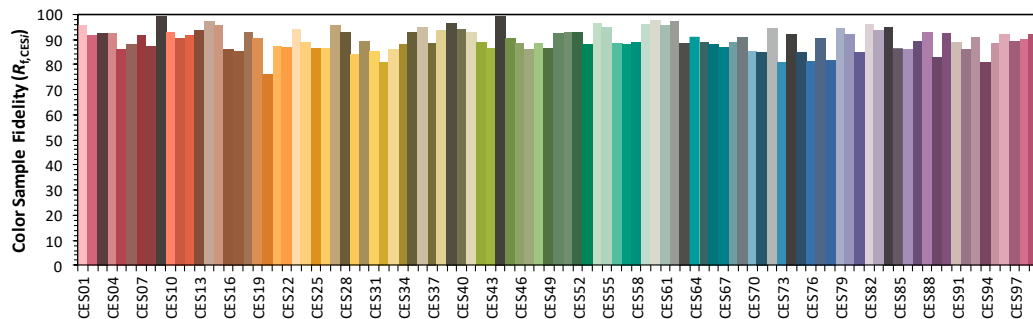
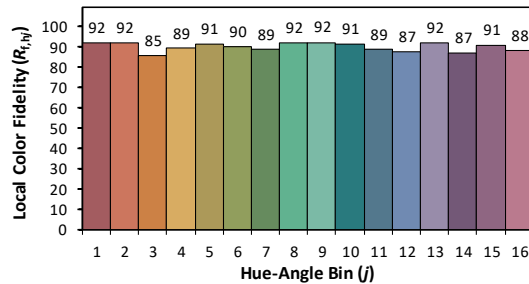
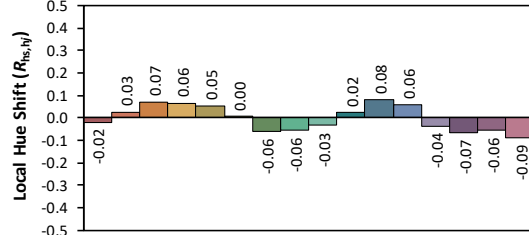
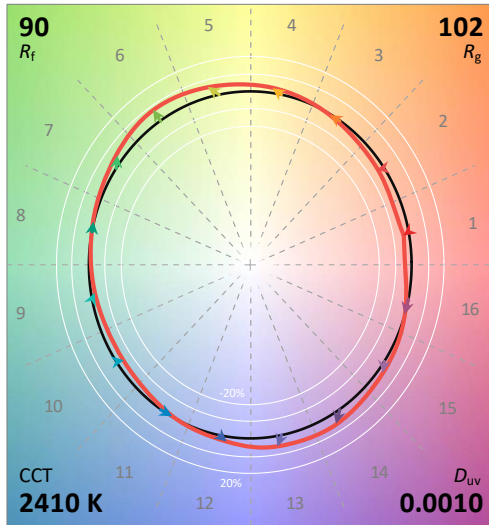
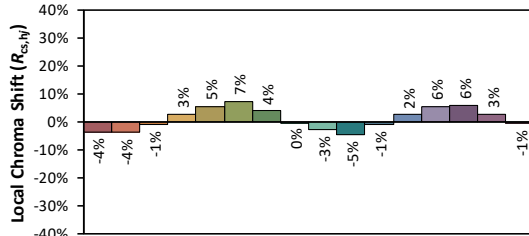
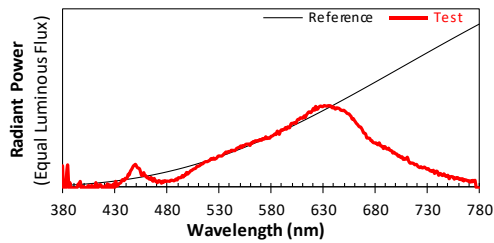
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: VC BRANDS LLC

Date: 2022/1/7

Model: 700WYT8XX-LED927



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

x 0.4872
 y 0.4178
 u' 0.2769
 v' 0.5342

CIE 13.3-1995
(CRI)

R_a 92
 R_g 68

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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of 700WYT8XX-LED927



View of LED Driver PAD36-C090V40-UNV3-HE-P

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

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 *****