

VC BRANDS LLC

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

211208061GZU-011

ISSUE DATE

7 January 2022

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

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Report No.: 211208061GZU-011

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. 700WSWYT15XX-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 700WSWYT15XX-LED927. The sample was received, in undamaged condition. The sample designation was S211208061-011.

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:	700WSWYT15XX-LED927 (Remark: "XX" denote other appearance colors for the characters that change)
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For 700WSWYT15XX-LED927

Criteria	Result
Total Lumen Output	531.5 lm
Total Power	11.5 W
Luminaire Efficacy	46.29 lm/W
S/MH(C0/180)	1.22
S/MH(C90/270)	1.36
Correlated Color Temperature (CCT)	2608 K
Color Rendering Index (CRI)	91.0
R9	69
Chromaticity Coordinate (x)	0.4671
Chromaticity Coordinate (y)	0.4115
Chromaticity Coordinate (u')	0.2668
Chromaticity Coordinate (v')	0.5288

Remark:

Measurement uncertainty for applicable tests has been established.

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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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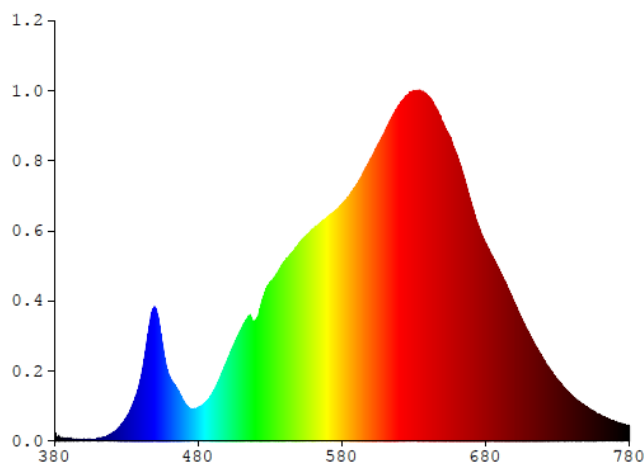
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For 700WSWYT15XX-LED927

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0345	480	0.2658	580	1.8895	680	1.5775	780	0.1215
385	0.0232	485	0.3083	585	1.9549	685	1.4630		
390	0.0132	490	0.3827	590	2.0419	690	1.3478		
395	0.0136	495	0.5013	595	2.1514	695	1.2274		
400	0.0105	500	0.6376	600	2.2559	700	1.1026		
405	0.0133	505	0.7731	605	2.3600	705	0.9762		
410	0.0206	510	0.8920	610	2.4726	710	0.8600		
415	0.0351	515	0.9957	615	2.5885	715	0.7528		
420	0.0618	520	0.9671	620	2.6866	720	0.6554		
425	0.1095	525	1.1380	625	2.7542	725	0.5655		
430	0.1857	530	1.2664	630	2.7887	730	0.4880		
435	0.3074	535	1.3389	635	2.7898	735	0.4209		
440	0.4985	540	1.4315	640	2.7517	740	0.3607		
445	0.8441	545	1.5009	645	2.6674	745	0.3133		
450	1.0621	550	1.5734	650	2.5419	750	0.2717		
455	0.7696	555	1.6403	655	2.4296	755	0.2375		
460	0.5141	560	1.6923	660	2.2758	760	0.2049		
465	0.4196	565	1.7384	665	2.1038	765	0.1790		
470	0.3141	570	1.7914	670	1.8954	770	0.1559		
475	0.2566	575	1.8317	675	1.7142	775	0.1361		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WSWYT15XX-LED927

Total operation burning time: 60 minutes

Stabilization time: 45 minutes

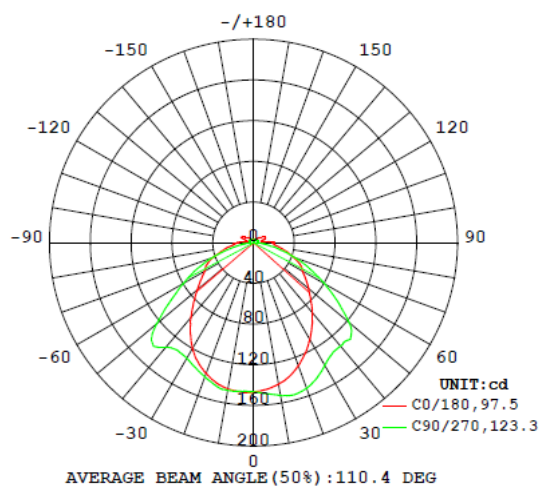
Photometric Measurements at 25°C – Integrating Sphere Method

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')
700WSWYT15XX-LED927								
S2112080 61-011	--	2608	91.0	69	0.4671	0.4115	0.2668	0.5288

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	Lumen
						Luminous Flux (Lumens)	Efficacy (Lumens Per Watt)
700WSWYT15XX-LED927							
S2112080 61-011	--	120.0	97.2	11.5	0.984	531.5	46.29

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WSWYT15XX-LED927

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	146.7	146.7	146.8	146.8	146.8
5	144.7	145.7	147.2	148.4	149.0
10	141.1	144.0	148.0	151.3	152.4
15	136.0	140.8	148.4	153.4	154.7
20	128.6	135.4	146.6	151.7	152.3
25	119.9	128.7	142.7	146.8	146.9
30	110.1	121.1	136.1	140.7	139.4
35	100.1	112.9	128.4	135.0	133.9
40	89.8	104.6	121.0	136.3	132.5
45	79.3	93.6	116.9	132.5	134.3
50	70.4	82.6	111.0	118.8	122.4
55	62.6	73.1	98.3	97.5	100.8
60	55.5	65.0	83.8	79.9	80.0
65	50.2	57.9	71.0	62.8	61.4
70	41.6	47.6	58.4	49.0	43.3
75	33.2	35.6	45.2	35.0	28.0
80	25.4	27.2	32.0	22.2	15.1
85	20.3	20.0	20.1	11.3	6.5
90	19.3	15.7	10.5	4.8	2.8
95	14.5	11.4	7.9	3.5	2.6
100	7.1	11.2	10.4	5.1	3.8
105	8.5	14.1	12.4	5.9	4.3
110	11.6	16.7	13.7	6.2	4.8
115	13.1	20.5	14.6	6.5	4.9
120	12.3	20.4	13.7	6.3	4.7
125	10.1	18.8	11.5	5.7	4.1
130	8.7	16.2	10.9	5.3	3.9
135	7.1	9.6	10.6	5.1	4.1
140	5.2	7.3	11.6	5.0	4.1
145	3.9	6.5	9.9	4.7	4.1
150	3.4	6.0	6.8	3.6	3.6
155	3.8	5.7	4.9	2.9	2.9
160	4.0	4.8	3.5	2.5	2.4
165	2.9	2.8	2.4	2.0	2.0
170	1.5	1.5	1.6	1.5	1.6
175	0.8	0.8	0.8	1.1	1.2
180	0.6	0.6	0.5	0.0	0.1

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WSWYT15XX-LED927

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
700WSWYT15XX-LED927		
0-30	116.9	22.0
0-40	192.6	36.2
0-60	356.5	67.1
0-90	476.2	89.6
60-90	119.7	22.5
0-180	531.5	100

Beam Angle

Total Beam Angle(°)

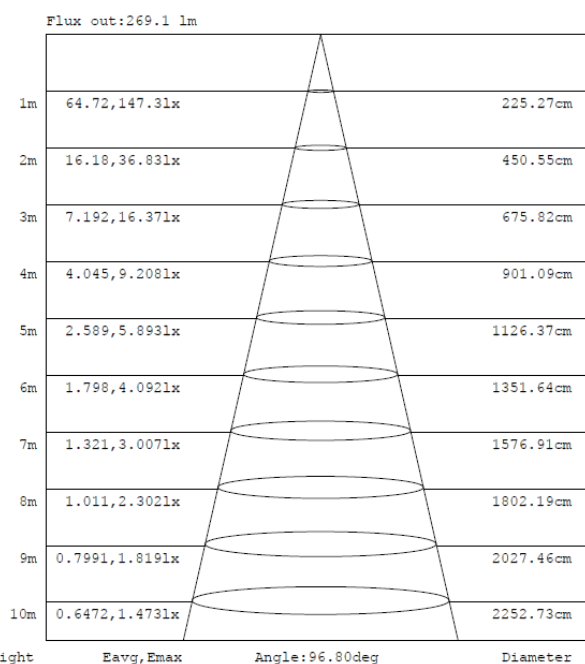
110.4

Illumination Plots

Model No.: 700WSWYT15XX-LED927

Mount Height: 2.5 m

Illuminance - Cone of Light



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TEST REPORT

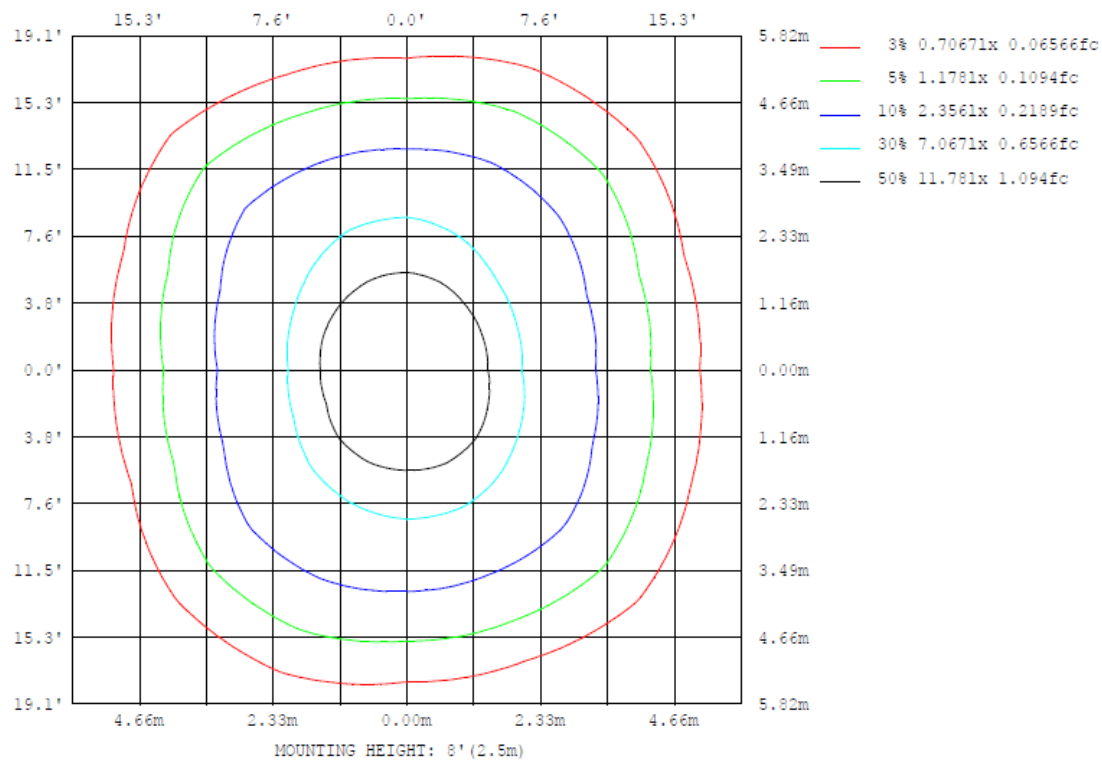
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WSWYT15XX-LED927

Model No.: 700WSWYT15XX-LED927

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WSWYT15XX-LED927

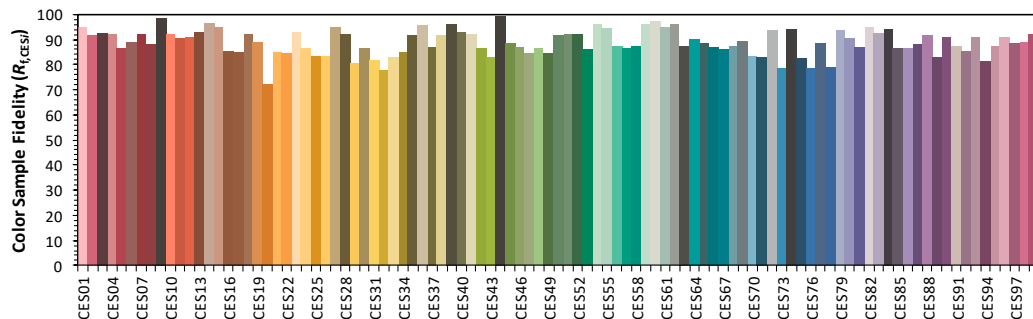
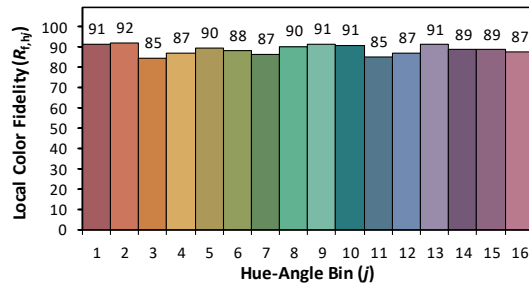
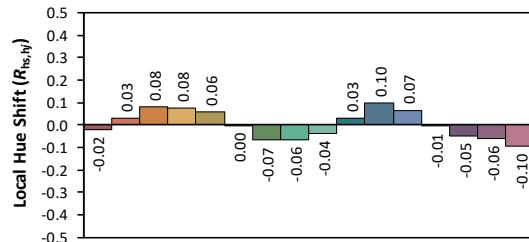
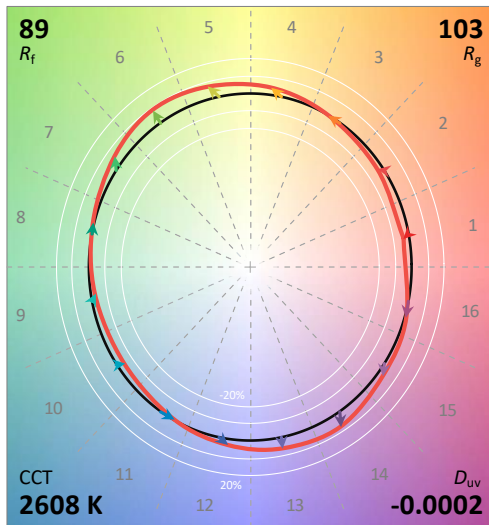
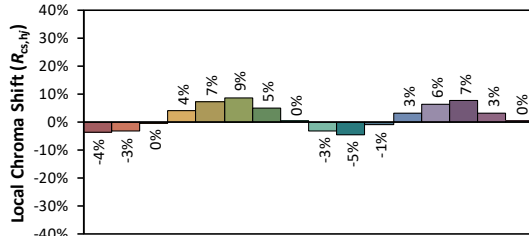
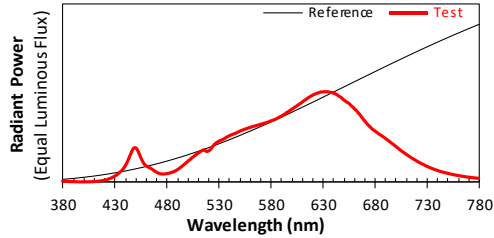
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: VC BRANDS LLC

Date: 2021/12/28

Model: 700WSWYT15XX-LED927



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

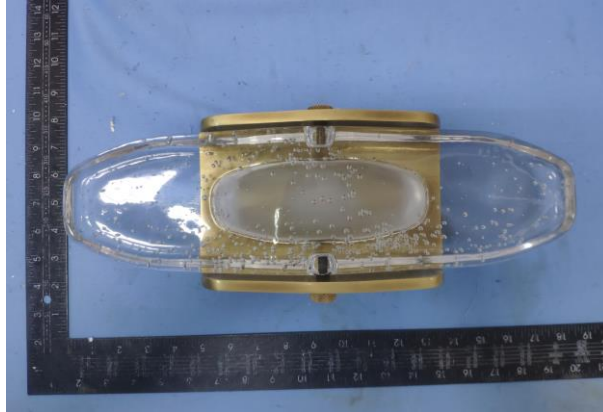
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 u' 0.2668
 v' 0.5288

CIE 13.3-1995
(CRI)
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 R_g 69

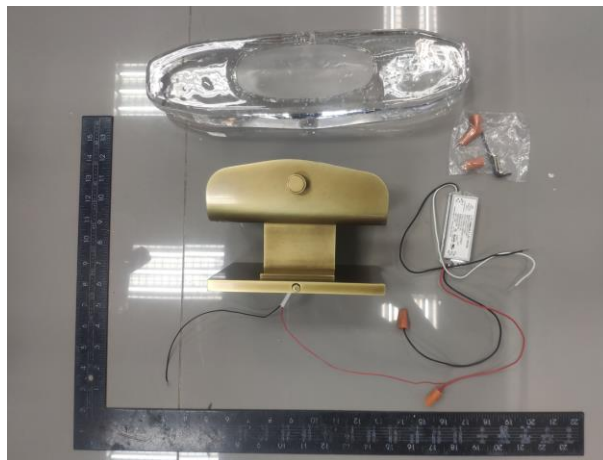
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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of 700WSWYT15XX-LED927



External view of 700WSWYT15XX-LED927

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

TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED Driver DA12W300C2742-3001



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 *****