

VC BRANDS LLC

TEST REPORT

SCOPE OF WORK

LM-79 testing report

REPORT NUMBER

211208061GZU-009

ISSUE DATE

7 January 2022

REVISION DATE

None

NUMBER OF PAGES

13

DOCUMENT CONTROL NUMBER

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Report No.: 211208061GZU-009

TEST REPORT

TEST OF ONE LED LUMINAIRE

MODEL NO. 700WYT6MXX-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 700WYT6MXX-LED927. The sample was received, in undamaged condition. The sample designation was S211208061-009.

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:	700WYT6MXX-LED927 (Remark: "XX" denote other appearance colors for the characters that change)
Description:	LED Luminaries
Brand Name:	--

Test Condition: 120V, 60Hz For 700WYT6MXX-LED927

Criteria	Result
Total Lumen Output	1646.5 lm
Total Power	30.6 W
Luminaire Efficacy	53.77 lm/W
S/MH(C0/180)	3.70
S/MH(C90/270)	3.84
Correlated Color Temperature (CCT)	2627 K
Color Rendering Index (CRI)	90.0
R9	66
Chromaticity Coordinate (x)	0.4642
Chromaticity Coordinate (y)	0.4089
Chromaticity Coordinate (u')	0.2661
Chromaticity Coordinate (v')	0.5274

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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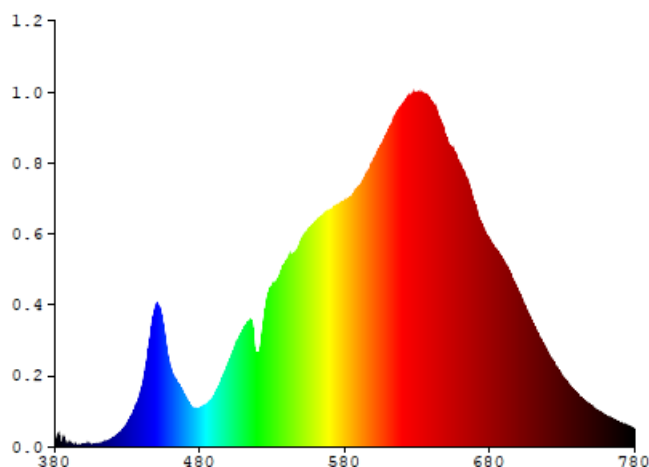
TEST REPORT

RESULTS OF TESTS

Test Condition: 120V, 60Hz For 700WYT6MXX-LED927

Spectral Distribution over Visible Wavelengths

nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
380	0.0118	480	0.0783	580	0.5000	680	0.4225	780	0.0348
385	0.0090	485	0.0870	585	0.5123	685	0.4010		
390	0.0066	490	0.1037	590	0.5313	690	0.3775		
395	0.0028	495	0.0000	595	0.5575	695	0.3466		
400	0.0040	500	0.1724	600	0.5877	700	0.3159		
405	0.0034	505	0.2095	605	0.6148	705	0.2836		
410	0.0036	510	0.2384	610	0.6445	710	0.2500		
415	0.0073	515	0.2588	615	0.6758	715	0.2208		
420	0.0164	520	0.1913	620	0.7003	720	0.1929		
425	0.0269	525	0.2739	625	0.7157	725	0.1674		
430	0.0468	530	0.3286	630	0.7206	730	0.1443		
435	0.0752	535	0.3473	635	0.7209	735	0.1256		
440	0.1187	540	0.3814	640	0.7038	740	0.1089		
445	0.2053	545	0.3953	645	0.6736	745	0.0946		
450	0.2886	550	0.4212	650	0.6327	750	0.0826		
455	0.2418	555	0.4449	655	0.6075	755	0.0721		
460	0.1589	560	0.4592	660	0.5777	760	0.0630		
465	0.1281	565	0.4726	665	0.5446	765	0.0555		
470	0.1019	570	0.4822	670	0.4939	770	0.0485		
475	0.0792	575	0.4929	675	0.4507	775	0.0424		



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WYT6MXX-LED927

Total operation burning time: 60 minutes

Stabilization time: 45 minutes

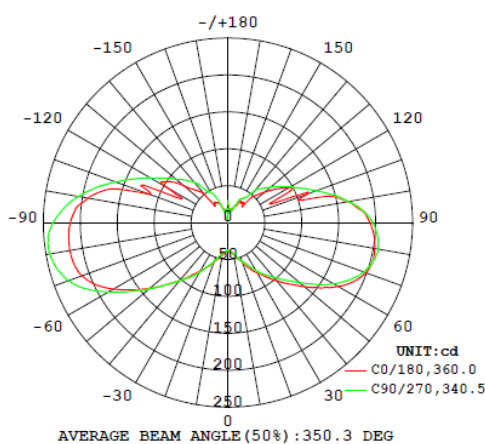
Photometric Measurements at 25°C – Integrating Sphere Method

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')
700WYT6MXX-LED927								
S2112080 61-009	--	2627	90.0	66	0.4642	0.4089	0.2661	0.5274

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)
700WYT6MXX-LED927							
S2112080 61-009	--	120.0	257.1	30.6	0.992	1646.5	53.77

Intensity (Candlepower) Summary at 25°C - Candelas



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WYT6MXX-LED927

Intensity (Candlepower) Summary at 25°C - Candelas

V \ H(°)	0	22.5	45	67.5	90
0	38.2	38.2	38.2	38.2	38.1
5	39.8	40.1	40.5	40.4	40.5
10	43.0	43.2	43.7	43.7	43.4
15	50.0	49.2	49.7	49.3	49.1
20	57.2	56.0	57.0	55.9	55.7
25	68.0	64.6	66.3	66.7	63.7
30	78.1	74.6	77.1	77.1	74.7
35	89.5	83.7	86.0	87.1	85.5
40	102.9	94.2	95.5	96.9	96.7
45	117.5	108.1	108.5	109.4	110.4
50	135.1	124.5	123.3	124.2	126.2
55	154.1	142.8	139.3	142.1	145.8
60	172.8	161.4	154.3	158.7	165.5
65	188.3	176.1	166.9	173.4	182.6
70	198.3	188.2	175.1	182.8	195.7
75	202.8	193.8	178.6	188.0	203.2
80	201.9	194.9	178.6	188.6	206.1
85	198.4	192.7	176.3	184.5	203.2
90	192.4	186.6	171.4	178.3	196.2
95	182.7	175.3	163.7	168.5	184.0
100	165.5	161.0	151.4	153.8	165.8
105	140.2	141.8	132.5	139.4	146.9
110	114.1	70.2	86.9	120.7	127.0
115	63.0	72.7	95.2	102.0	111.1
120	94.9	63.2	95.1	93.5	97.0
125	80.4	52.7	84.0	84.5	84.9
130	65.4	47.0	71.8	74.9	75.0
135	52.5	31.8	57.1	66.1	66.1
140	30.3	20.3	51.4	52.3	58.0
145	31.9	26.8	42.7	48.4	41.8
150	34.5	31.1	27.9	42.6	37.7
155	25.3	30.2	15.9	27.2	30.9
160	21.5	21.9	21.9	19.6	21.1
165	20.6	21.9	20.6	21.4	19.1
170	18.7	12.9	14.4	15.3	18.4
175	14.2	13.0	10.3	12.8	12.8
180	28.1	22.9	20.0	20.2	29.9

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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WYT6MXX-LED927

Zonal Lumen Summary and Percentages at 25°C

Zone	Lumens (lm)	% Luminaire (%)
700WYT6MXX-LED927		
0-30	49.1	3.0
0-40	104.9	6.4
0-60	333.1	20.2
0-90	980.7	59.6
60-90	647.6	39.4
0-180	1646.5	100.0

Beam Angle

Total Beam Angle(°)

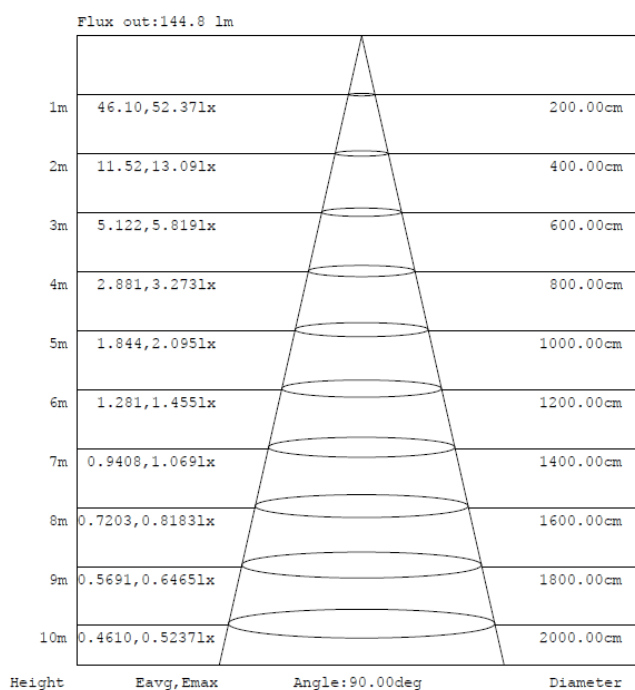
350.3

Illumination Plots

Model No.: 700WYT6MXX-LED927

Mount Height: 2.5 m

Illuminance - Cone of Light



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TEST REPORT

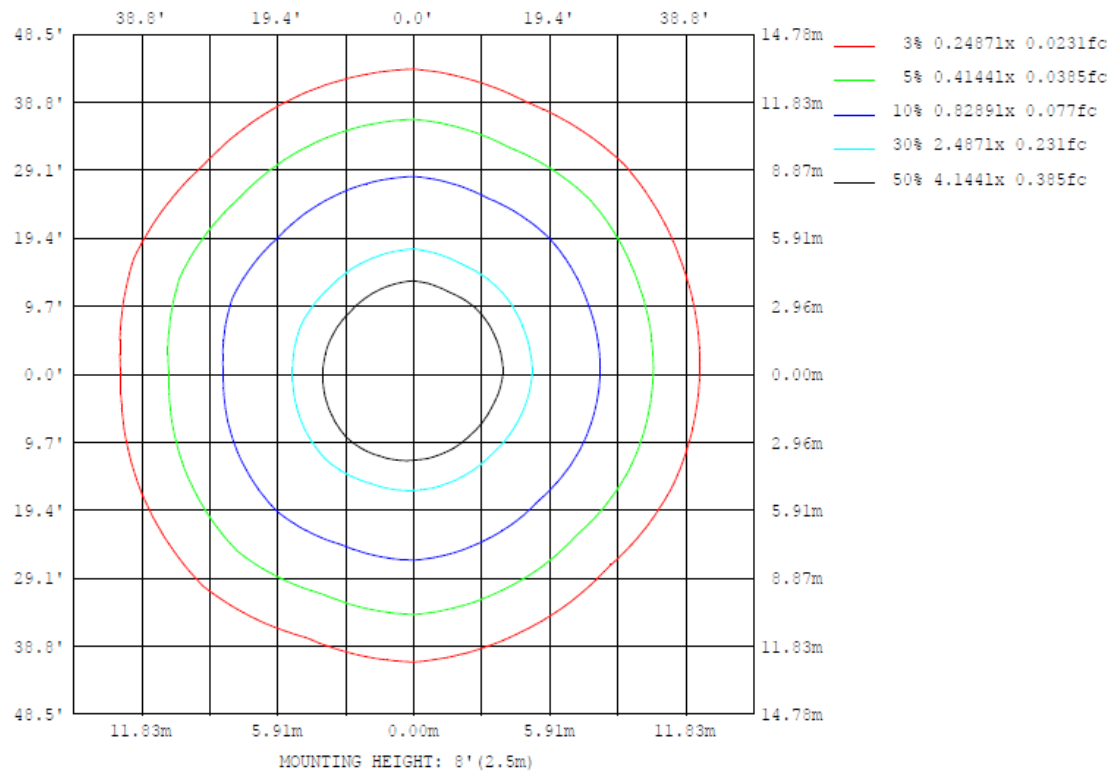
RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WYT6MXX-LED927

Model No.: 700WYT6MXX-LED927

Mount Height: 2.5 m

Isoillumination Plot



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TEST REPORT

RESULTS OF TESTS (cont'd)

Test Condition: 120V, 60Hz For 700WYT6MXX-LED927

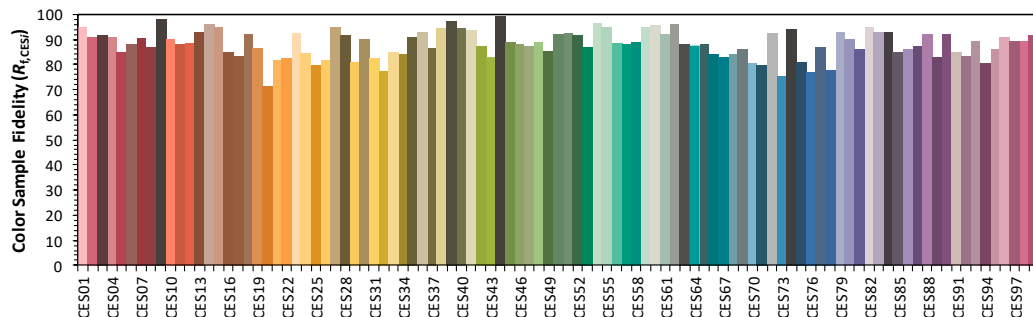
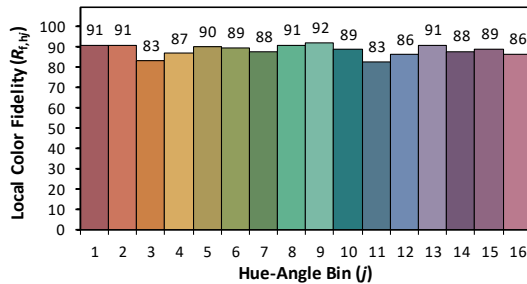
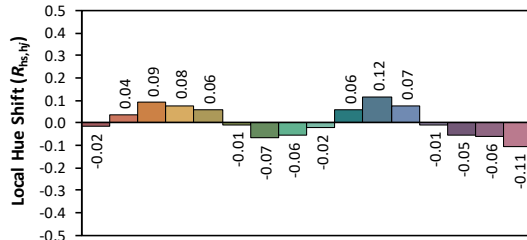
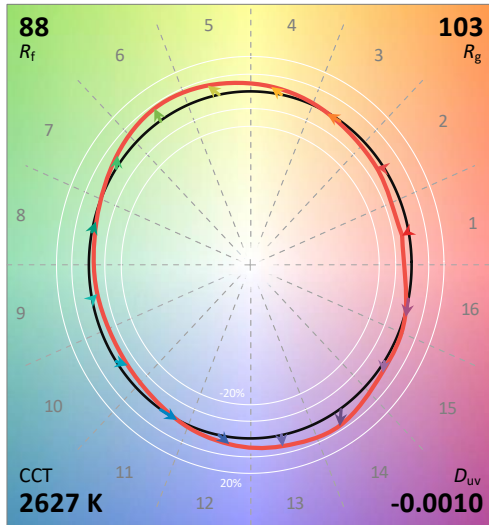
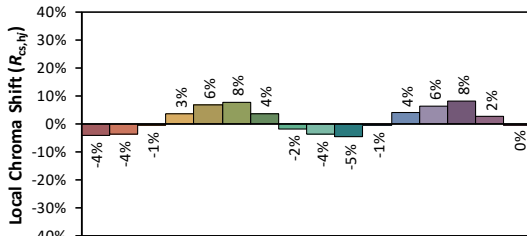
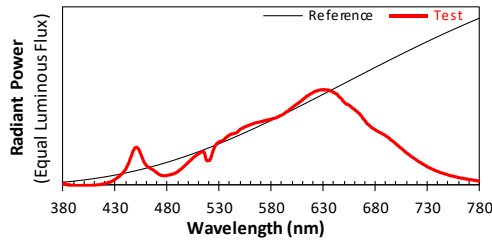
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: VC BRANDS LLC

Date: 2022/1/5

Model: 700WYT6MXX-LED927



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

x 0.4642
 y 0.4089
 u' 0.2661
 v' 0.5274

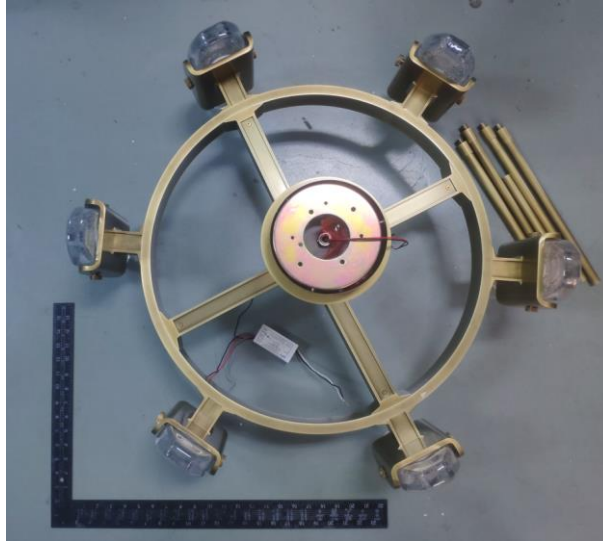
CIE 13.3-1995
(CRI)

R_a 90
 R_g 66

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TEST REPORT

PRODUCT PICTURE (not to scale)



External view of 700WYT6MXX-LED927



External view of 700WYT6MXX-LED927

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

TEST REPORT

PRODUCT PICTURE (not to scale)



View of LED Driver PVD36-C090V40-UNV3-HE-P



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 *****