

VISUAL COMFORT AND CO.

TEST REPORT

SCOPE OF WORK

LED Performance Testing

MODEL NUMBER

700TDWIT6XX-LED930

PROJECT NUMBER

G105735679

REPORT NUMBER

105735679CHI-006

ISSUE DATE

1/16/2025

REVISED DATE

None

TEST DATES

2024-12-21 through 2025-01-07.

DOCUMENT CONTROL NUMBER

RTTDS-R-AMER-Test-3407

© 2017 INTERTEK



PAGES

10

REPORT NUMBER

105735679CHI-006

MODEL NUMBER(s)

700TDWIT6XX-LED930

REPORT RENDERED TO:

VISUAL COMFORT AND CO.

7400 LINDER AVE

SKOKIE, IL 60077

USA

STATEMENT OF LIMITATION

NVLAP Lab Code 600186-0. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

AUTHORIZATION

The testing performed was authorized by signed quote number Qu-01387083-0.

TEST STANDARDS

IES LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting

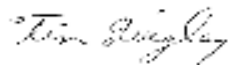
ANSI/IES LM-79-19 Optical and Electrical Measurements of Solid-State Lighting Products

ANSI NEMA ANSLG C78.377: 2017: Specifications for the Chromaticity of Solid State Lighting (SSL) Products

ANSI/IES TM-30-18: IES Method for Evaluating Light Source Color Rendition

In Charge of Testing:

Reviewer:



T. Quigley
Engineer
Lighting Division



J. Davis
N.A. Technical Lead
Lighting Division

This report is for the exclusive use of Intertek's Client and is provided pursuant to the agreement between Intertek and its Client. Intertek's responsibility and liability are limited to the terms and conditions of the agreement. Intertek assumes no liability to any party, other than to the Client in accordance with the agreement, for any loss, expense or damage occasioned by the use of this report. Only the Client is authorized to permit copying or distribution of this report and then only in its entirety. Any use of the Intertek name or one of its marks for the sale or advertisement of the tested material, product or service must first be approved in writing by Intertek. The observations and test results in this report are relevant only to the sample tested. This report by itself does not imply that the material, product, or service is or has ever been under an Intertek certification program.

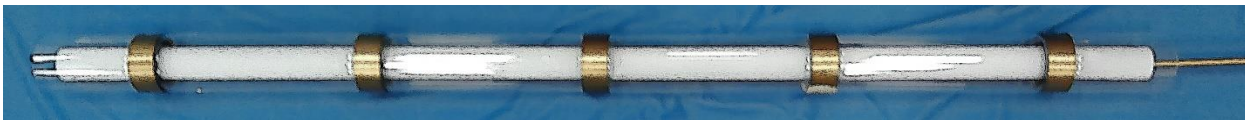
ITEMS RECEIVED

Item No.	Control No.	Model No.	Description	Type	Received
1	AH12122024023126-004	700TDWIT6XX-LED930	Wit 6 Pendant	Production	12/12/2024

TESTED SAMPLE CONFIGURATIONS

Config No.	Tested Model No.	Item Nos. Utilized
1	700TDWIT6XX-LED930	1

SAMPLE PHOTOS - TESTED CONFIGURATIONS



PRODUCT INFORMATION AND SUMMARY OF DATA

Product Model No.:	700TDWIT6XX-LED930
Product Description:	Wit 6 Pendant
LED Model No.:	XY ELC0435
Driver Model No.:	Macron GBLD001
Light Source:	LED

Criteria	Results
	Goniophotometer
Light Output (lumens)	4840.6
Input Power (W) @ 120 (Vac)	65.82
Lumen Efficacy (lm/W)	73.5
Input Power Factor (I) @ 120 (Vac)	0.983

Criteria	Results
Input ATHD (%) @ 120 (Vac)	8.55
Correlated Color Temperature (K)	2955
Color Rendering Index - Ra	93.8
Color Rendering Index - R9	64.9
Duv	-0.0014
Chromaticity Coordinate (x)	0.438
Chromaticity Coordinate (y)	0.401
Chromaticity Coordinate (u')	0.253
Chromaticity Coordinate (v')	0.520
Input Power (W) @ 277 (Vac)	65.99
Input Power Factor (I) @ 277 (Vac)	0.891
Input ATHD (%) @ 277 (Vac)	18.01

TEST METHODS

SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS

No seasoning was performed in accordance with IESNA LM-79.

INTEGRATING SPHERE TESTING

A spectroradiometer and integrating sphere were used to measure the spectral distribution for each EUT resulting in photometric and colorimetric data. Electrical measurements of the unit were measured using a power analyzer. Each EUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature was measured at a position inside the sphere and stabilization procedures to LM-79 were followed.

TYPE C GONIOPHOTOMETER DISTRIBUTION TESTING

A Type C Mirror Goniophotometer system was used to measure the luminous intensity (candela) at each angle of distribution for the EUT. Electrical measurements of the unit were measured using a power analyzer. Each EUT was operated at the rated input voltage of the system in its designated orientation. The ambient temperature was measured at a position near the EUT at equal height and stabilization procedures to LM-79 were followed.

*ANSI/IES Technical Memorandums (TM) reported are not NVLAP accredited

Test Configuration	Tested Model No.	Pass/Fail/NA
1	700TDWIT6XX-LED930	NA

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS (25°C +/- 1°C)

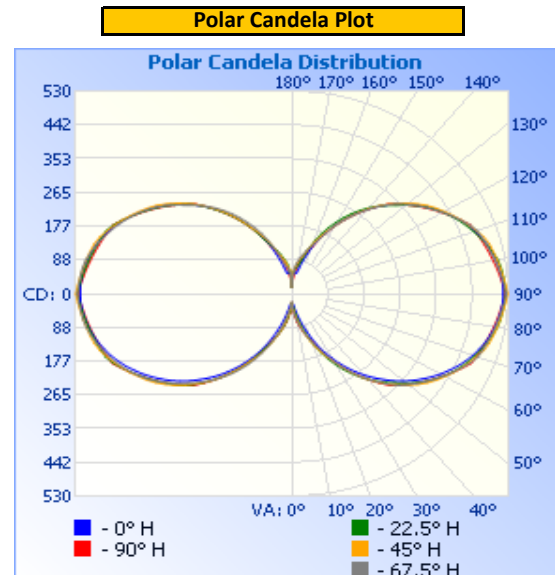
Base Orientation	Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor ()
Up/Down	120.01	558.1	65.82	0.983

Light Output (lm)	Lumen Efficacy (lm/W)
4840.6	73.5

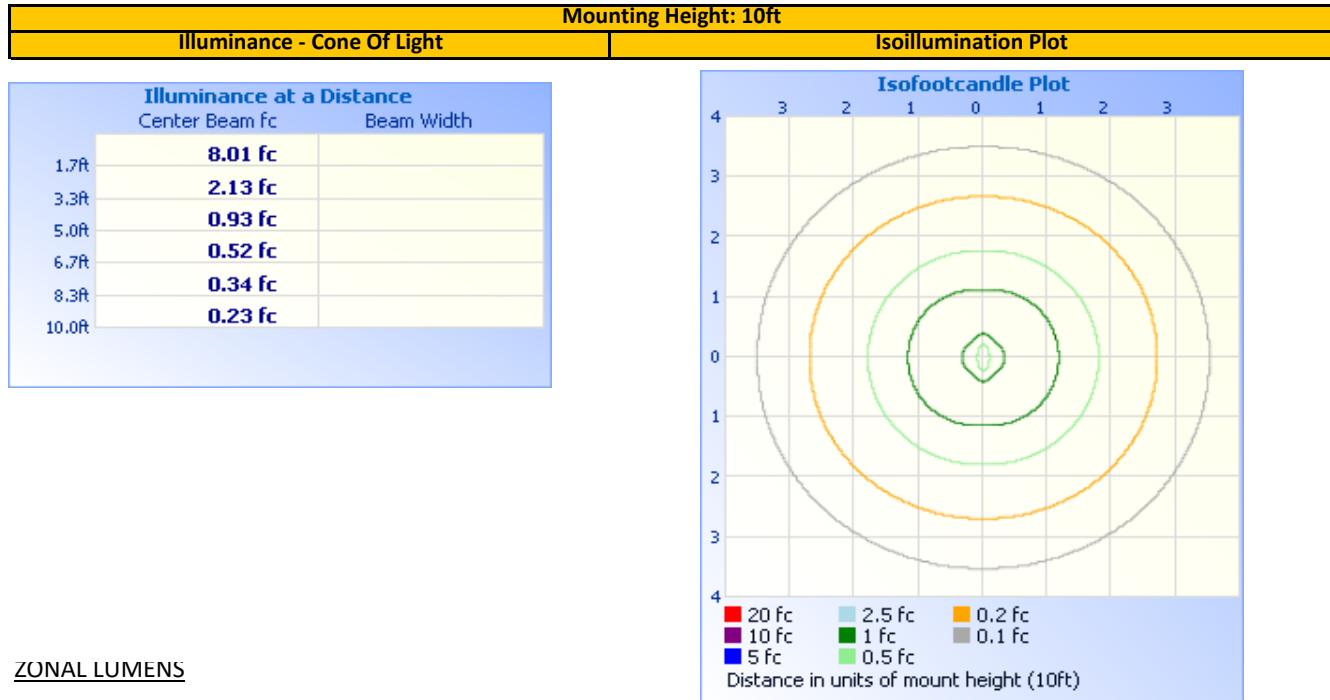
INTENSITY SUMMARY - CANDELA

Angle	0	22.5	45	67.5	90
0	23	23	23	23	23
5	26	33	39	42	43
10	38	51	58	62	63
15	61	77	83	83	83
20	92	109	110	106	103
25	127	143	139	131	130
30	164	176	167	167	166
35	200	209	203	202	202
40	233	239	236	236	237
45	264	267	268	269	273
50	293	295	297	297	298
55	319	322	323	321	323
60	342	346	345	346	348
65	363	367	365	369	373
70	381	384	384	390	390
75	395	398	399	399	400
80	406	410	408	408	409
85	414	418	416	418	419
90	419	425	425	427	429
95	416	419	416	418	419
100	410	412	408	409	410
105	401	400	400	400	401
110	388	385	384	391	392
115	370	368	366	370	374
120	350	347	346	347	350
125	326	323	324	322	325
130	299	295	297	298	300
135	269	267	267	270	275
140	238	239	235	236	239
145	202	209	200	202	204
150	167	176	163	166	168
155	130	142	136	130	133
160	93	109	110	108	104
165	64	79	85	93	83
170	44	58	70	78	62
175	54	58	61	57	41
180	20	20	20	20	20

Entire luminous intensity matrix found in .IES file



ILLUMINANCE SUMMARY



ZONAL LUMENS

Zonal Lumen Summary					
Zone	Lumens	Luminaire	Zone	Lumens	Total
0-30	109.1	2.3%	90-100	563.6	11.6%
0-40	266.9	5.5%	100-110	523.2	10.8%
0-60	883.4	18.2%	110-120	451.6	9.3%
60-90	1,539.8	31.8%	120-130	356.7	7.4%
70-100	1,650.2	34.1%	130-140	254.7	5.3%
90-120	1,538.3	31.8%	140-150	156.2	3.2%
0-90	2,423.2	50.1%	150-160	76.9	1.6%
90-180	2,417.4	49.9%	160-170	28.4	0.6%
0-180	4,840.6	100.0%	170-180	6.1	0.1%

Test Configuration	Tested Model No.	Pass/Fail/NA
1	700TDWIT6XX-LED930	NA

PHOTOMETRIC, COLORIMETRIC, AND ELECTRICAL MEASUREMENTS (25°C +/- 1°C)

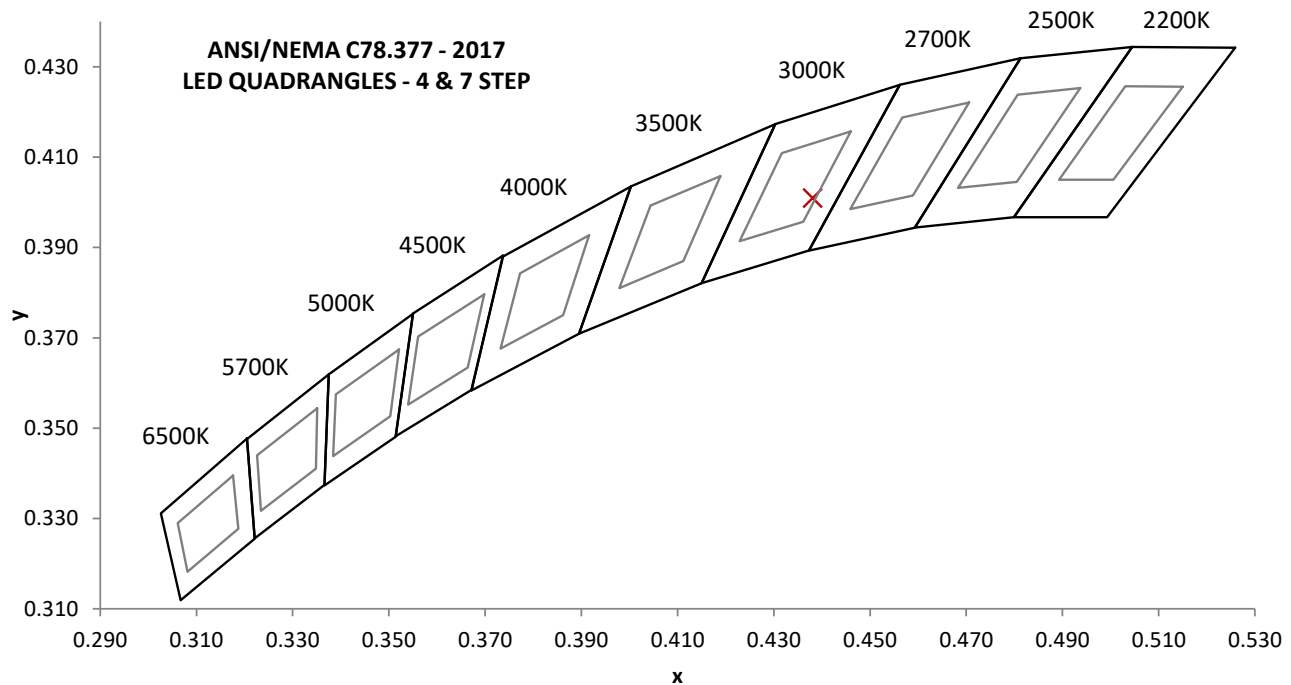
Base Orientation
Up/Down

Input Voltage (Vac)	Input Current (mA)	Input Power (W)	Input Power Factor (I)	Input ATHD (%)
120.03	555.1	65.70	0.986	8.55
276.99	267.4	65.99	0.891	18.01

Measured at 120.03(Vac)

CCT (K)	CRI - Ra	CRI - R9
2955	93.8	64.9

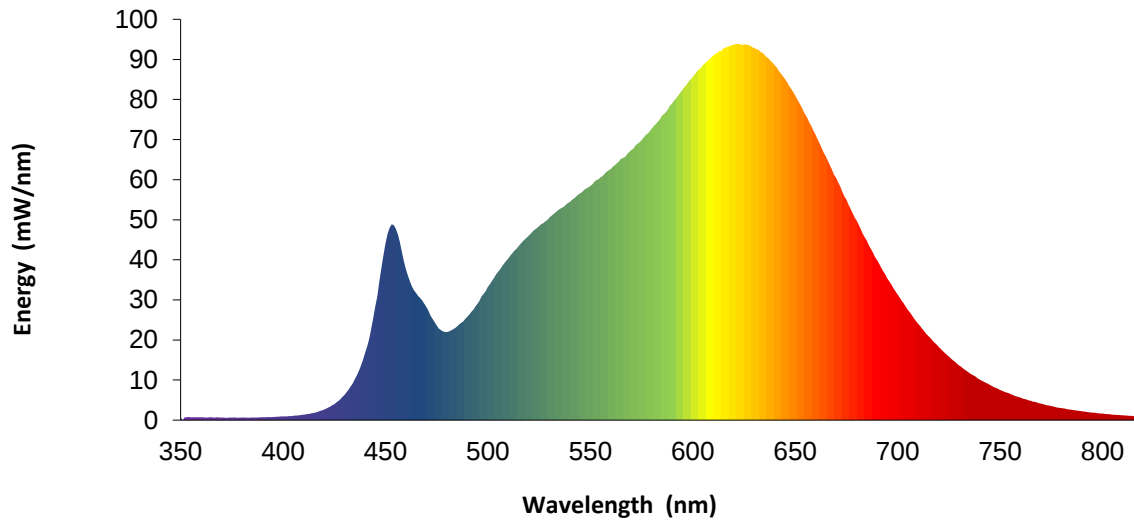
Duv (I)	1931 Chrom (x)	1931 Chrom (y)	1976 Chrom (u')	1976 Chrom (v')
-0.0014	0.438	0.401	0.253	0.520



SPECTRAL DISTRIBUTION OVER WAVELENGTHS

nm	mW/nm		nm	mW/nm		nm	mW/nm		nm	mW/nm
350	0.7		460	37.7		570	67.4		680	49.7
355	0.7		465	31.7		575	69.8		685	44.7
360	0.7		470	28.2		580	72.7		690	39.9
365	0.7		475	23.7		585	76.0		695	35.4
370	0.7		480	22.0		590	79.1		700	31.4
375	0.6		485	23.4		595	82.4		705	27.6
380	0.6		490	25.8		600	85.5		710	24.1
385	0.7		495	29.1		605	88.6		715	21.0
390	0.8		500	33.3		610	91.0		720	18.4
395	0.8		505	37.0		615	92.7		725	15.9
400	0.9		510	40.4		620	93.7		730	13.7
405	1.1		515	43.4		625	93.7		735	11.8
410	1.4		520	46.0		630	92.9		740	10.2
415	1.8		525	48.4		635	91.2		745	8.8
420	2.7		530	50.5		640	88.6		750	7.6
425	4.0		535	52.7		645	85.1		755	6.5
430	6.3		540	54.4		650	81.1		760	5.6
435	10.1		545	56.5		655	76.2		765	4.8
440	16.5		550	58.4		660	71.1		770	4.1
445	28.2		555	60.6		665	65.8		775	3.5
450	43.9		560	62.7		670	60.4		780	3.0
455	47.9		565	65.2		675	55.0		---	---

Without correction of sample absorption.



Portrayed color in graphic is estimated by wavelength (nm) and may not be exact - it is a visual representation only



Total Quality. Assured.

545 E Algonquin Rd
Arlington Heights, IL 60005
Telephone: (847) 439-5667
www.intertek.com

EQUIPMENT LIST

REPORT NO. 105735679CHI-006

#	Equipment	Model No	Control No.	Last Cal	Cal Due
1	Yokogawa Power Meter	WT310E	CHI0664	4/2/2024	4/2/2025
2	Omega Thermometer	DPI8-C24	146920	9/30/2024	9/30/2025
3	LSI High Speed Mirror Goniometer	6440T	146928	VBV	VBV
4	Omega Thermohygrometer	OM-CP-RFPRHTEMP2000A	CHI0764	10/8/2024	10/8/2025
5	Chroma Power Supply	61604	CHI0371	VBV	VBV
8	Omega Thermohygrometer	OM-CP-RFPRHTEMP2000A	CHI0727	10/8/2024	10/8/2025
9	Labsphere Spectroradiometer	CDS2600	CHI0539	VBV	VBV
10	3 Meter Sphere	SPR600	CHI0088	VBV	VBV
11	Elgar AC Power Supply	CW1251	146112	VBV	VBV
12	Sorenson DC Power Supply	XFR150-8	146846	VBV	VBV
13	Yokogawa Power Meter	WT1600	146769	4/10/2024	4/10/2025
17	Omega thermometer	USB TC08	CHI0625	4/10/2024	4/10/2025
26	Xitron Power Analyzer	XT2640	CHI0611	7/17/2024	7/17/2025

Note: Standard sources listed above are traceable to NIST: National Institute of Standards and Technology

REVISION HISTORY

#	Revision Date	Updated By	Reviewed By	Description of Change
---	None	---	---	---
---	---	---	---	---
---	---	---	---	---

Test Configuration	Tested Model No.	Pass/Fail/NA
1	700TDWIT6XX-LED930	NA

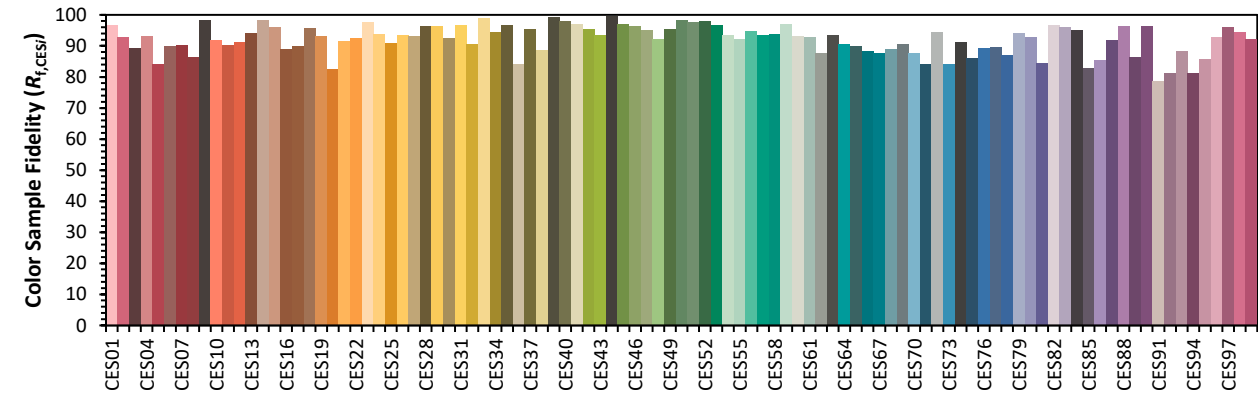
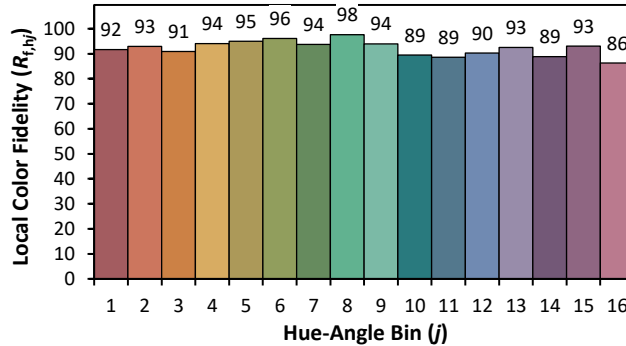
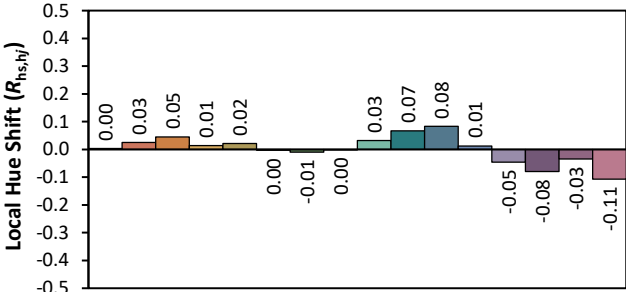
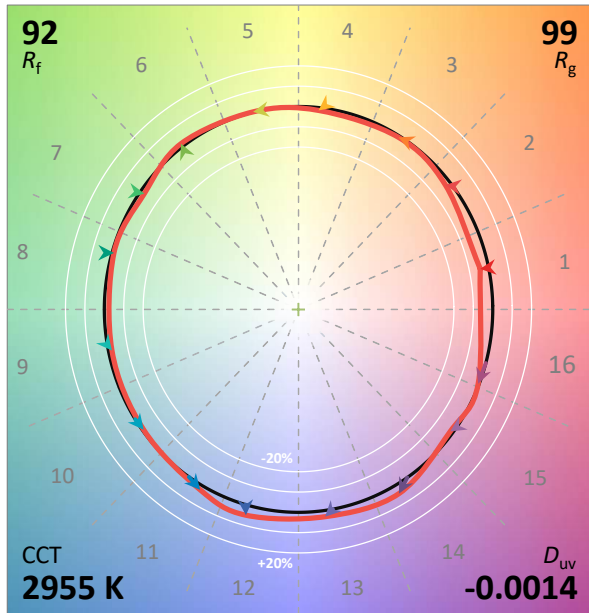
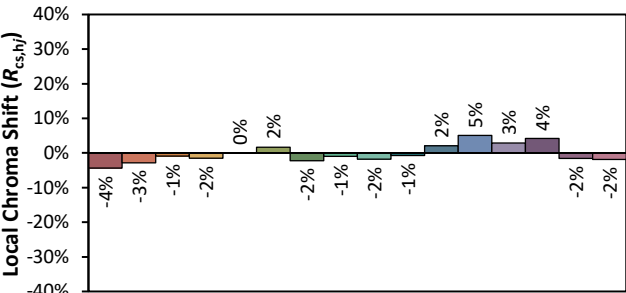
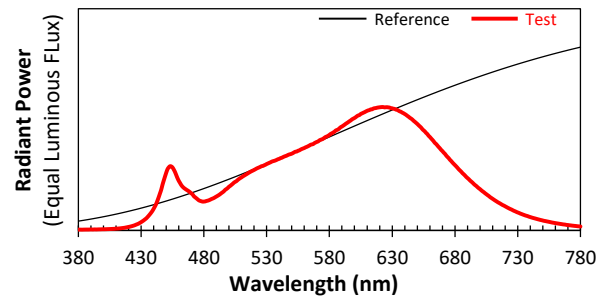
ANSI/IES TM-30-18 Color Rendition Report

Source: User SPD

Manufacturer: VISUAL COMFORT AND CO.

Date: 1/7/2025

Model: 700TDWIT6XX-LED930



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

x 0.4381
y 0.4009
u' 0.2527
v' 0.5203