

VISUAL COMFORT GROUP TEST REPORT

SCOPE OF WORK

Electrical and Photometric tests as required to the IESNA test standard.

MODEL NUMBER
700WSPEAKI-LEDWD

REPORT NUMBER
103952063CHI-008

ISSUE DATE
June 23, 2019

REVISION DATE
None

DOCUMENT CONTROL NUMBER
TBD
© 2017 INTERTEK



TEST REPORT

REPORT NO.: 103982892CHI-008

REPORT DATE: June 23, 2019

TEST OF ONE LED WALL

MODEL NO. 700WSPEAKI-LEDWD
LED MODEL NO. LYNK LABS SRL46SS31P14W52WDIH-120
DRIVER MODEL NO. N/A

RENDERED TO:

VISUAL COMFORT GROUP
7400 LINDER AVE.
SKOKIE, IL 60077

AUTHORIZATION

The testing performed was authorized by signed quote number Qu-00981438-0.

STANDARDS USED

IESNA LM-79 - 2008: Electrical and Photometric Measurements of Solid State Lighting
ANSI NEMA ANSLG C78.377: 2015: Specifications of the Chromaticity of Solid State Lighting Products

DESCRIPTION OF SAMPLE

The client submitted one production sample of model number 700WSPEAKI-LEDWD. The sample was received by Intertek on June 14, 2019 in undamaged condition and one sample was tested as received. The sample designation was AH06142019092403-008.

DATE OF TESTS

June 17, 2019 through June 18, 2019.

TEST REPORT

REPORT NO.: 103982892CHI-008

REPORT DATE: June 23, 2019

SUMMARY

MODEL NO:	700WSPEAKI-LEDWD
DESCRIPTION:	LED wall

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	391.1	374.0
Input Power (W) @ 120 (VAC)	12.00	12.04
Lumen Efficacy (lm/W)	32.6	31.1
Input Power Factor @ 120 (VAC)	0.943	0.943

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	34.64
Correlated Color Temperature (K)	3176
Color Rendering Index - Ra	93.8
Color Rendering - R9	63.0
DUV	0.0057
Chromaticity Coordinate (x)	0.418
Chromaticity Coordinate (y)	0.384
Chromaticity Coordinate (u')	0.247
Chromaticity Coordinate (v')	0.510

REPORT NO.: 103982892CHI-008

REPORT DATE: June 23, 2019

TEST REPORT

EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	LAST CAL DATE	CAL DUE DATE
Yokogawa Power Meter	WT210	146919	7/9/2018	7/9/2019
Omega Newport Thermometer	DPI8-C24	146920	10/4/2018	10/4/2019
LSI High Speed Mirror Goniometer	6440T	146928	VBV	VBV
Newport Thermohygrometer	iServer	146957	12/11/2018	12/11/2019
Pacific, AC power supply	118-ACX	CHI0358	VBV	VBV
Labsphere Spectroradiometer	CDS1100	CHI0091	VBV	VBV
3 Meter Sphere	SPR600	CHI0088	VBV	VBV
Elgar AC Power Supply	CW1251	146112	VBV	VBV
Sorenson DC Power Supply	XFR150-8	146846	VBV	VBV
Newport Humidity Recorder	iTHX-SD	146961	7/23/2018	7/23/2019
Yokogawa Power Meter	WT1600	146769	4/3/2019	4/3/2020
Extech K Temperature Meter	SD200	CHI0207	4/3/2019	4/3/2020

REPORT NO.: 103982892CHI-008

REPORT DATE: June 23, 2019

TEST REPORT

TEST METHODS

SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS

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

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - INTEGRATING SPHERE METHOD

A Spectroradiometer and integrating sphere was used to measure correlated color temperature, chromaticity coordinates, and the color rendering index for each SSL unit.

Ambient temperature was measured at a position inside the sphere. Each SSL unit was operated on the client provided driver at the rated input voltage in its designated orientation. Each SSL unit was allowed to stabilize for at least thirty minutes before measurements were made. Stabilization procedures to LM-79 were followed. Electrical measurements including voltage, current, and power were measured using a power analyzer.

The calibration of the sphere photometer-spectroradiometer system is traceable to the National Institute of Standards and Technology.

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD

A Type C Mirror Goniometer was used to measure the intensity (candelas) at each angle of distribution for the SSL sample.

Ambient temperature was measured equal to the height of the sample mounted on the goniometer equipment. The SSL sample was operated on the client provided driver at rated input volts in its designated orientation. The SSL sample was allowed to stabilize for at least thirty minutes before measurements were made. Stabilization procedures to LM-79 were followed. Electrical measurements including voltage, current, and power were measured using a power analyzer.

REPORT NO.: 103982892CHI-008

TEST REPORT

REPORT DATE: June 23, 2019

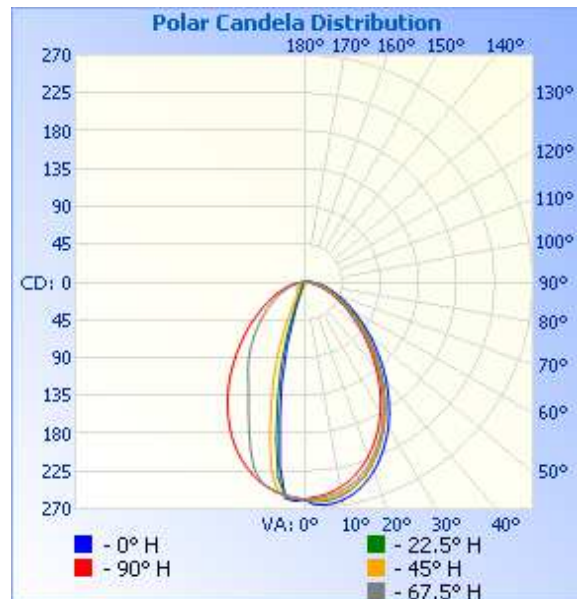
RESULTS OF TESTS

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

INTERTEK CONTROL NO.	BASE POSITION	INPUT VOLTAGE (VAC)	INPUT CURRENT (mA)	INPUT POWER (W)	INPUT POWER FACTOR ()	LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)
AH06142019092403-008	Base Up	120.1	106.3	12.04	0.943	374.0	31.1

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	259	259	259	259	259
5	266	262	260	258	255
10	263	258	256	253	248
15	254	248	246	243	237
20	240	232	231	228	221
25	221	213	212	209	202
30	199	190	189	186	180
35	175	166	165	162	156
40	150	142	139	137	132
45	126	118	115	112	108
50	104	96	93	90	87
55	84	77	74	71	68
60	67	61	58	55	52
65	52	48	44	42	39
70	40	36	34	31	28
75	30	27	25	22	19
80	22	20	17	14	12
85	15	13	11	8	5
90	8	7	5	3	0
95	6	6	4	2	0
100	6	5	4	2	0
105	5	4	3	2	0
110	4	4	3	2	0
115	3	3	3	2	0
120	3	3	2	2	0
125	2	2	2	1	0
130	2	2	2	1	0
135	2	1	1	1	0
140	1	1	1	1	0
145	1	1	1	1	0
150	1	1	1	1	0
155	1	0	1	0	0



REPORT NO.: 103982892CHI-008

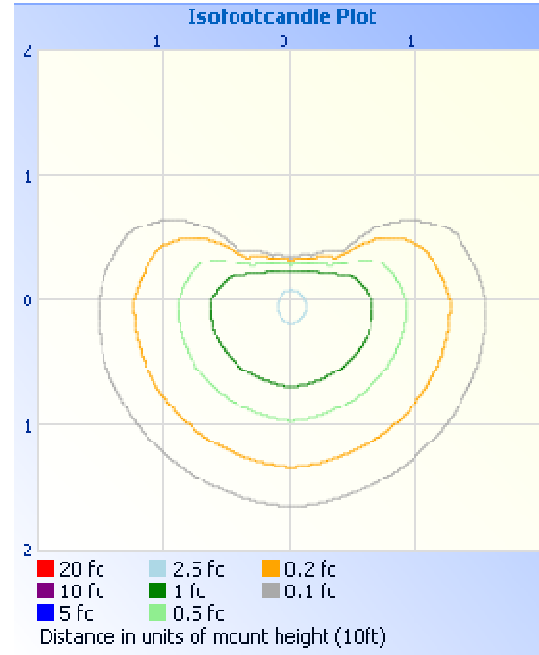
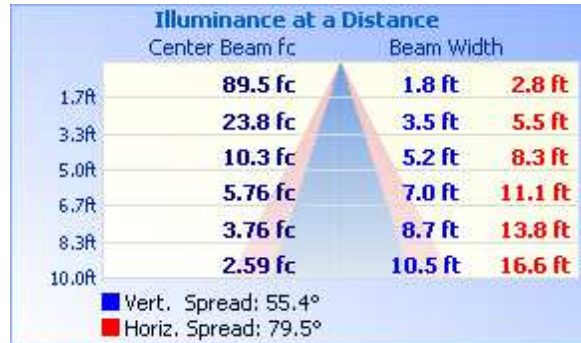
REPORT DATE: June 23, 2019

TEST REPORT

RESULTS OF TESTS

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

MOUNTING HEIGHT: 10ft	
ILLUMINANCE - CONE OF LIGHT	ISOILLUMINATION PLOT



ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	146.0	39.0
0-40	213.4	57.1
0-60	315.6	84.4
60-90	52.1	13.9
70-100	25.3	6.8
90-120	4.8	1.3
0-90	367.6	98.3
90-180	6.3	1.7
0-180	374.0	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	23.9	6.4
10-20	56.3	15.1
20-30	65.8	17.6
30-40	67.4	18.0
40-50	58.5	15.6
50-60	43.7	11.7
60-70	28.9	7.7
70-80	16.6	4.4
80-90	6.7	1.8
90-100	2.1	0.6
100-110	1.6	0.4
110-120	1.1	0.3
120-130	0.7	0.2
130-140	0.4	0.1
140-150	0.2	0.1
150-160	0.1	0.0

REPORT NO.: 103982892CHI-008

REPORT DATE: June 23, 2019

TEST REPORT

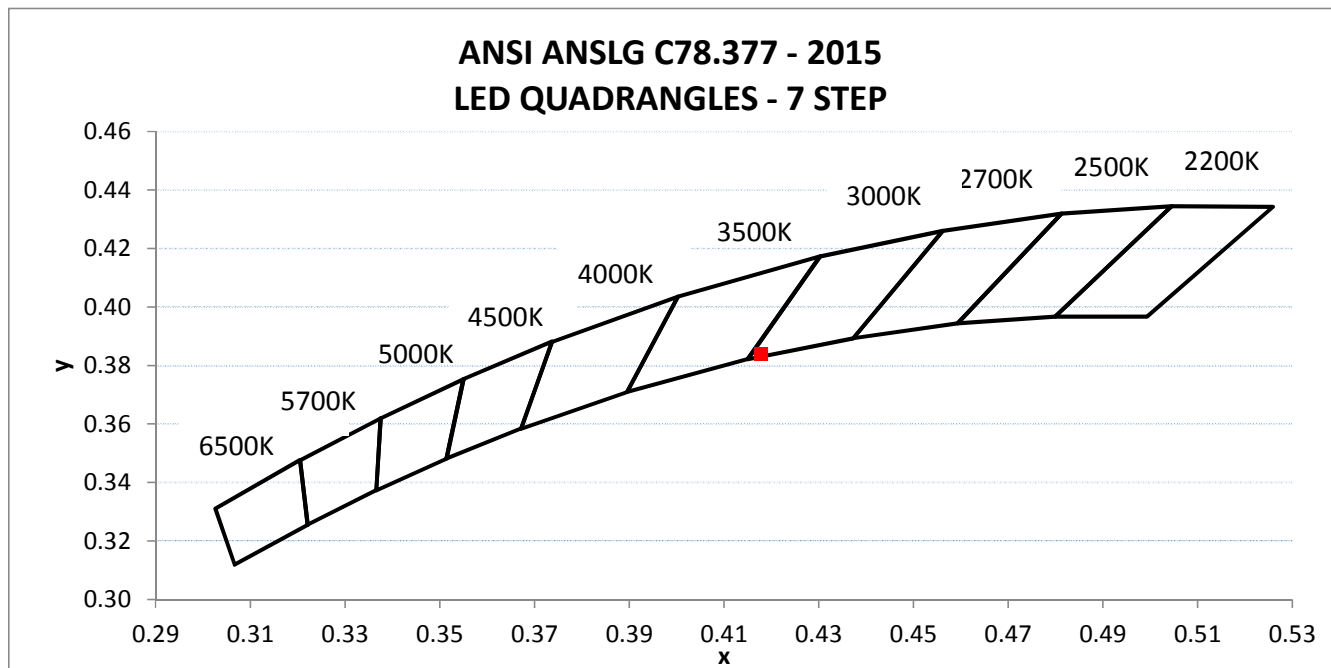
RESULTS OF TESTS

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

INTERTEK CONTROL NO.	BASE POSITION	INPUT VOLTAGE (VAC)	INPUT CURRENT (mA)	INPUT POWER (W)	INPUT POWER FACTOR	INPUT CURRENT ATHD (%)
AH06142019092403-008	Base Up	119.99	106.09	12.00	0.943	34.64

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
391.1	32.6	3176	93.8	63.0	0.0057

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.418	0.384	0.247	0.510



REPORT NO.: 103982892CHI-008

TEST REPORT

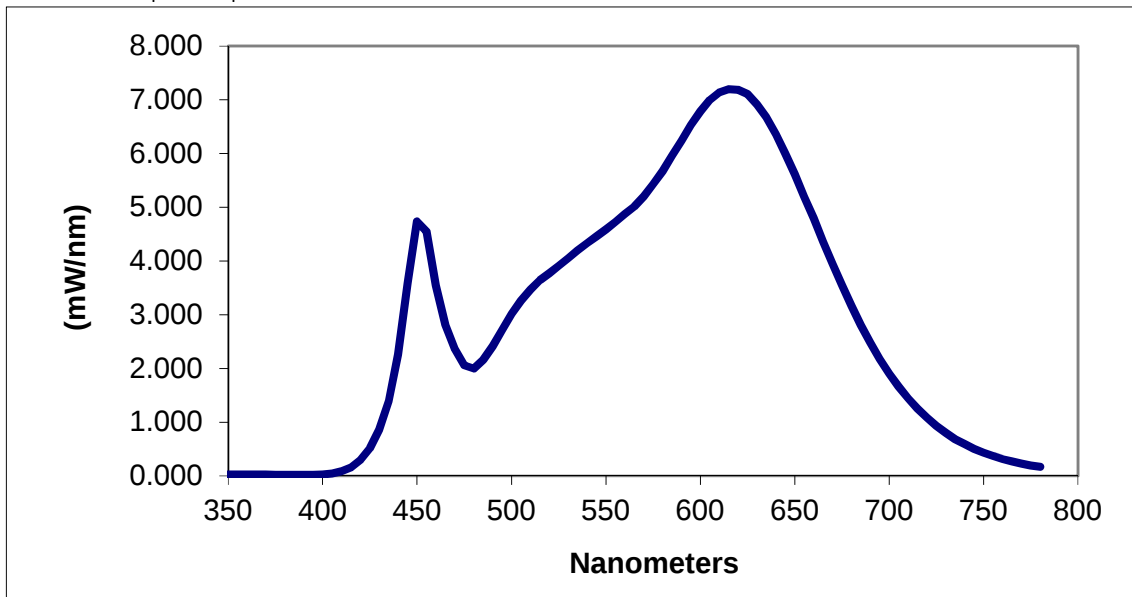
REPORT DATE: June 23, 2019

RESULTS OF TESTS

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

SPECTRAL DISTRIBUTION OVER VISIBLE WAVELENGTHS*							
nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
350	0.030	460	3.550	570	5.203	680	3.165
355	0.031	465	2.810	575	5.427	685	2.812
360	0.030	470	2.371	580	5.671	690	2.479
365	0.032	475	2.057	585	5.960	695	2.180
370	0.031	480	1.999	590	6.238	700	1.907
375	0.025	485	2.158	595	6.532	705	1.665
380	0.022	490	2.418	600	6.785	710	1.444
385	0.022	495	2.712	605	6.994	715	1.253
390	0.021	500	3.016	610	7.137	720	1.081
395	0.024	505	3.261	615	7.197	725	0.932
400	0.030	510	3.471	620	7.187	730	0.801
405	0.046	515	3.640	625	7.109	735	0.687
410	0.089	520	3.774	630	6.914	740	0.592
415	0.161	525	3.910	635	6.677	745	0.506
420	0.298	530	4.051	640	6.357	750	0.432
425	0.516	535	4.194	645	6.003	755	0.372
430	0.865	540	4.331	650	5.614	760	0.315
435	1.390	545	4.458	655	5.199	765	0.271
440	2.259	550	4.589	660	4.795	770	0.232
445	3.587	555	4.727	665	4.363	775	0.196
450	4.735	560	4.873	670	3.946	780	0.169
455	4.555	565	5.014	675	3.551		

*Without correction of sample absorption.



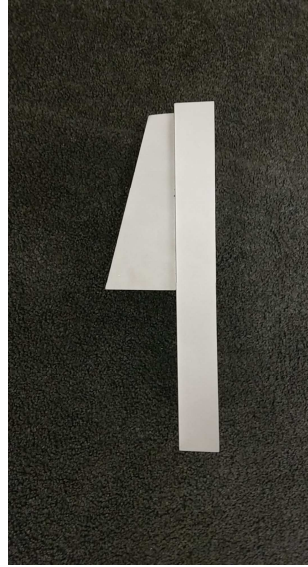
End Of Test Results

REPORT NO.: 103982892CHI-008

REPORT DATE: June 23, 2019

TEST REPORT

PICTURES



CONCLUSION

The results tabulated in this report are representative of the actual test samples submitted for this report only. The data is provided to the client for further evaluation. Compliance to the referenced specification requirements was not determined in this report.

In Charge Of Tests:

Timothy Quigley
Project Engineer
Lighting Division

Report Reviewed By:

Hector Huitron
Associate Engineer
Lighting Division

Attachments: IES File

REVISION HISTORY

JOB NUMBER	DATE OF REVISION	PROJECT HANDLER	REVIEWED BY	REVISION NOTE
None				