

# VISUAL COMFORT GROUP TEST REPORT

## SCOPE OF WORK

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

## MODEL NUMBER

700ARL60x-LED930

## REPORT NUMBER

103643585CHI-021

## ISSUE DATE

January 22, 2019

## REVISION DATE

None

## DOCUMENT CONTROL NUMBER

TBD

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**REPORT DATE: January 22, 2019**

**TEST REPORT**

**TEST OF ONE CHANDELIER**

MODEL NO. 700ARL60X-LED930  
LED MODEL NO. SEOUL STW9C2SB.3030  
DRIVER MODEL NO. (2) LTF DA30W700C2542-3001-01

**RENDERED TO:**

VISUAL COMFORT GROUP  
7400 LINDER AVE.  
SKOKIE, IL 60077

**AUTHORIZATION**

The testing performed was authorized by signed quote number Qu-00912313.

**STANDARDS USED**

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

**DESCRIPTION OF SAMPLE**

The client submitted one production sample of model number 700ARL60x-LED930. The sample was received by Intertek on January 8, 2019 in undamaged condition and one sample was tested as received. The sample designation was AH01082019040430-002.

**DATE OF TESTS**

January 17, 2019.

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**TEST REPORT**

**SUMMARY**

<b>MODEL NO:</b>	700ARL60x-LED930
<b>DESCRIPTION:</b>	Chandelier

CRITERIA	RESULTS
Lumen Output (lumens)	2845.1
Input Power (W) @ 120 (VAC)	49.17
Lumen Efficacy (lm/W)	57.9
Input Power Factor @ 120 (VAC)	0.999

**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 Thermometer	DPI8-C24	146920	10/4/2018	10/4/2019
LSI High Speed Mirror Goniometer	6440T	146928	VBV	VBV
Newport Thermohygrometer	iServer	146379	4/16/2018	4/16/2019
Pacific, AC power supply	118-ACX	CHI0358	VBV	VBV

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**TEST METHODS**

**SEASONING IN SAMPLE ORIENTATION - LED PRODUCTS**

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

**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.

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**TEST REPORT**

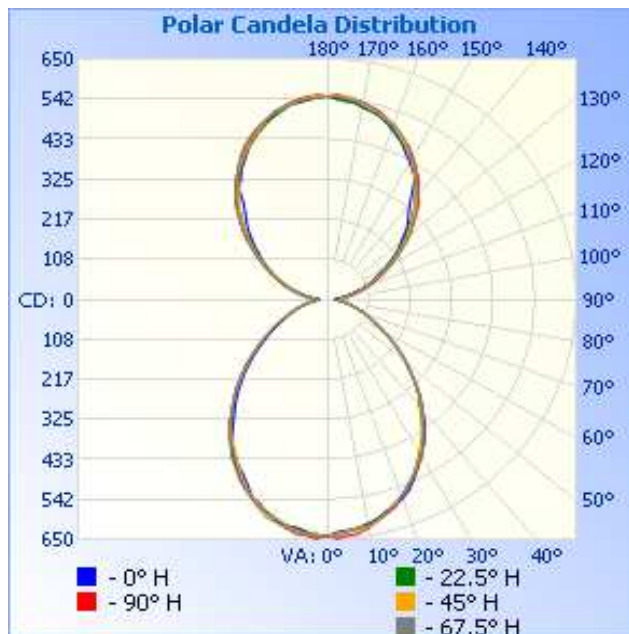
**RESULTS OF TESTS**

**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)
AH01082019040430-002	Base Up	120.1	410.1	49.17	0.999	2845.1	57.9

**INTENSITY SUMMARY - CANDELAS**

Angle	0	22.5	45	67.5	90
0	641	641	641	641	641
5	628	630	630	632	642
10	616	619	623	623	627
15	601	594	598	597	602
20	574	566	568	568	572
25	536	528	530	532	535
30	489	481	483	494	492
35	443	435	434	441	445
40	386	376	382	388	385
45	330	327	326	331	328
50	271	270	270	273	273
55	222	215	219	220	216
60	168	166	169	168	167
65	128	128	127	127	129
70	96	94	91	95	98
75	70	65	66	69	68
80	45	42	45	48	47
85	27	28	33	36	36
90	21	24	31	36	33
95	30	33	42	46	47
100	49	53	60	65	68
105	75	84	86	94	96
110	108	112	114	126	128
115	142	143	152	161	162
120	180	178	192	199	196
125	223	223	233	240	240
130	257	266	277	286	286
135	299	313	316	329	330
140	336	358	356	368	370
145	399	401	400	406	411
150	431	439	440	443	446
155	464	466	470	477	476
160	490	496	504	501	506
165	516	515	522	522	527
170	530	527	539	539	542
175	543	538	552	544	551
180	550	550	550	550	550



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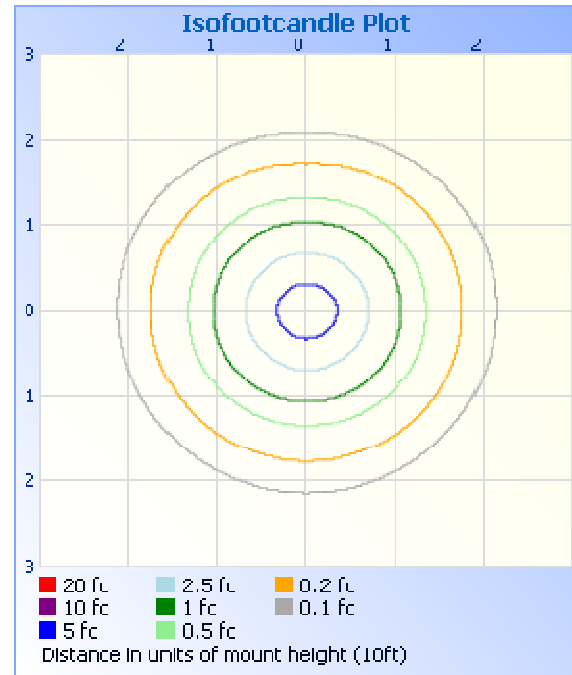
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**TEST REPORT**

**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	473.4	16.6
0-40	746.8	26.2
0-60	1195.1	42.0
60-90	236.6	8.3
70-100	154.4	5.4
90-120	291.9	10.3
0-90	1431.7	50.3
90-180	1413.4	49.7
0-180	2845.1	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	60.2	2.1
10-20	168.8	5.9
20-30	244.4	8.6
30-40	273.4	9.6
40-50	253.0	8.9
50-60	195.3	6.9
60-70	128.0	4.5
70-80	72.0	2.5
80-90	36.5	1.3
90-100	45.9	1.6
100-110	93.7	3.3
110-120	152.3	5.4
120-130	208.1	7.3
130-140	245.8	8.6
140-150	251.8	8.8
150-160	217.4	7.6
160-170	146.7	5.2
170-180	51.8	1.8

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**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:

*Tess Gallagher*

Tess Gallagher  
Engineer  
Lighting Division

Report Reviewed By:

*Tim Quigley*

Timothy Quigley  
Engineer  
Lighting Division

Attachments: IES File

**REVISION HISTORY**

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