

# VISUAL COMFORT GROUP TEST REPORT

## SCOPE OF WORK

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

**MODEL NUMBER**  
700BLT30xx-LED930

**REPORT NUMBER**  
104203293CHI-006

**ISSUE DATE**  
January 7, 2020

**REVISION DATE**  
None

**DOCUMENT CONTROL NUMBER**  
TBD  
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**REPORT NO.: 104203293CHI-006**

**REPORT DATE: January 7, 2020**

**TEST REPORT**

TEST OF ONE BELTERRA 30" CHANDELIER

MODEL NO. 700BLT30XX-LED930  
LED MODEL NO. SEOUL STW9A12D.3528  
DRIVER MODEL NO. LTF DA32W900C2036-3001

RENDERED TO:

VISUAL COMFORT GROUP  
7400 LINDER AVE.  
SKOKIE IL 60077

**AUTHORIZATION**

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

**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 700BLT30xx-LED930. The sample was received by Intertek on December 23, 2019 in undamaged condition and one sample was tested as received. The sample designation was AH12232019065911-006.

**DATE OF TESTS**

January 2, 2020.

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**TEST REPORT**

**SUMMARY**

<b>MODEL NO:</b>	700BLT30xx-LED930
<b>DESCRIPTION:</b>	Belterra 30" Chandelier

CRITERIA	RESULTS
Lumen Output (lumens)	2399.3
Input Power (W) @ 120 (VAC)	31.95
Lumen Efficacy (lm/W)	75.1
Input Power Factor @ 120 (VAC)	0.997

**EQUIPMENT LIST**

EQUIPMENT USED	MODEL NO.	CONTROL NO.	LAST CAL DATE	CAL DUE DATE
Yokogawa Power Meter	WT210	146919	7/1/2019	7/1/2020
Omega Thermometer	DPI8-C24	146920	10/3/2019	10/3/2020
LSI High Speed Mirror Goniometer	6440T	146928	VBU	VBU
Newport Thermohygrometer	iServer	146956	10/11/2019	10/11/2020
Elgar, AC Power Supply	CW1251	146111	VBU	VBU

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**TEST REPORT**

**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

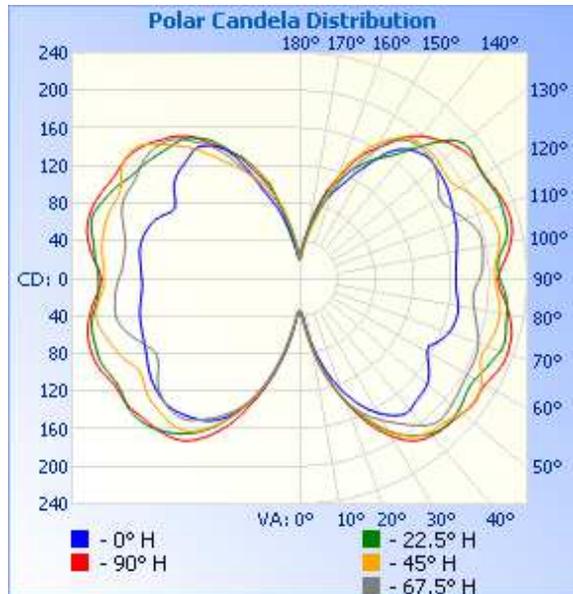
RESULTS OF TESTS

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)
AH12232019065911-006	Base Up	120.0	266.9	31.95	0.997	2399.3	75.1

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	35	35	35	35	35
5	41	48	47	45	44
10	69	76	77	74	71
15	98	108	108	107	104
20	125	138	136	137	138
25	148	165	162	159	170
30	165	188	187	174	194
35	178	204	205	189	211
40	182	216	214	204	218
45	178	220	216	212	221
50	176	219	224	209	224
55	167	214	228	206	226
60	155	214	222	204	226
65	161	220	210	204	231
70	168	226	211	201	234
75	171	225	214	193	232
80	170	222	215	187	225
85	166	219	210	184	215
90	165	211	206	190	209
95	166	210	208	194	217
100	168	221	214	196	226
105	172	226	215	195	232
110	175	227	211	186	231
115	178	225	204	176	227
120	182	223	194	171	223
125	185	225	190	178	223
130	186	225	192	186	218
135	186	206	193	189	208
140	179	179	191	188	198
145	164	158	183	180	180
150	137	144	166	157	159
155	113	126	142	127	139
160	95	106	111	98	112
165	73	83	65	74	84
170	51	54	43	50	53
175	32	26	26	30	34
180	21	21	21	21	21



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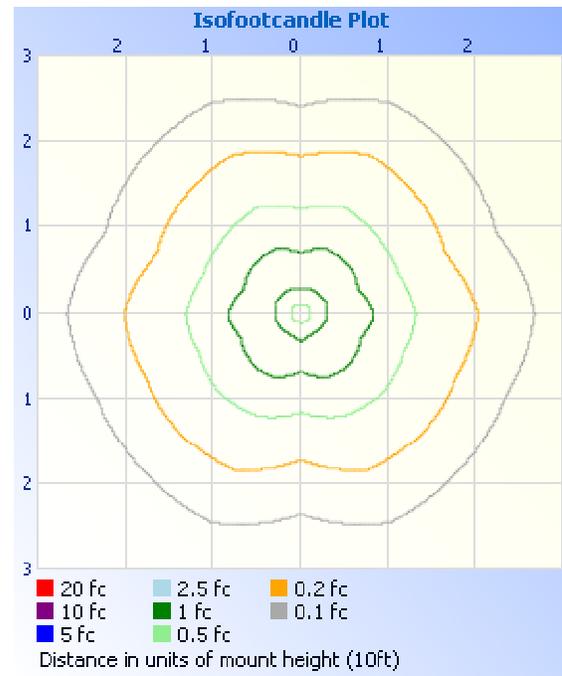
**TEST REPORT**

**RESULTS OF TESTS**

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

**MOUNTING HEIGHT: 10ft**

ILLUMINANCE - CONE OF LIGHT	ISOILLUMINATION PLOT
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**ZONAL LUMEN SUMMARY AND PERCENTAGES**

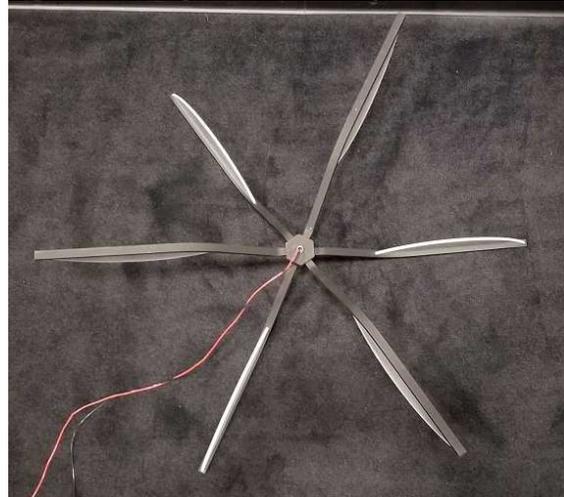
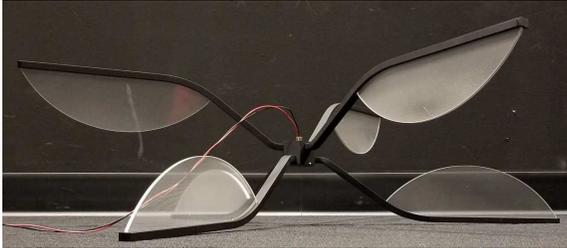
ZONE	LUMENS	% LUMINAIRE
0-30	109.9	4.6
0-40	233.1	9.7
0-60	581.1	24.2
60-90	645.1	26.9
70-100	661.2	27.6
90-120	642.8	26.8
0-90	1226.2	51.1
90-180	1173.1	48.9
0-180	2399.3	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	5.2	0.2
10-20	30.4	1.3
20-30	74.3	3.1
30-40	123.2	5.1
40-50	162.1	6.8
50-60	185.9	7.7
60-70	203.7	8.5
70-80	220.8	9.2
80-90	220.6	9.2
90-100	219.8	9.2
100-110	220.2	9.2
110-120	202.9	8.5
120-130	181.8	7.6
130-140	152.5	6.4
140-150	108.7	4.5
150-160	60.7	2.5
160-170	23.0	1.0
170-180	3.6	0.2

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**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:

*Tim Quigley*

Timothy Quigley  
Project Engineer  
Lighting Division

Report Reviewed By:

*Jeffrey Davis*

Jeffrey Davis  
N. A. Technical Lead  
Lighting Division

Attachments: IES File

**REVISION HISTORY**

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