

VISUAL COMFORT GROUP TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER
700LNG12x-LED930

REPORT NUMBER
103643585CHI-024

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. 700LNG12X-LED930
LED MODEL NO. CITIZEN CLU028-1203C4-303H5M3-F1
DRIVER MODEL NO. (2) LTF DA30W700C2542-3001

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 700LNG12x-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 AH01082019040430-005.

DATE OF TESTS

January 12, 2019.

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SUMMARY

MODEL NO:	700LNG12x-LED930
DESCRIPTION:	Chandelier

CRITERIA	RESULTS
Lumen Output (lumens)	4251.4
Input Power (W) @ 120 (VAC)	53.61
Lumen Efficacy (lm/W)	79.3
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	VBU	VBU
Newport Thermohygrometer	iServer	146379	4/16/2018	4/16/2019
Pacific, AC power supply	118-ACX	CHI0358	VBU	VBU

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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

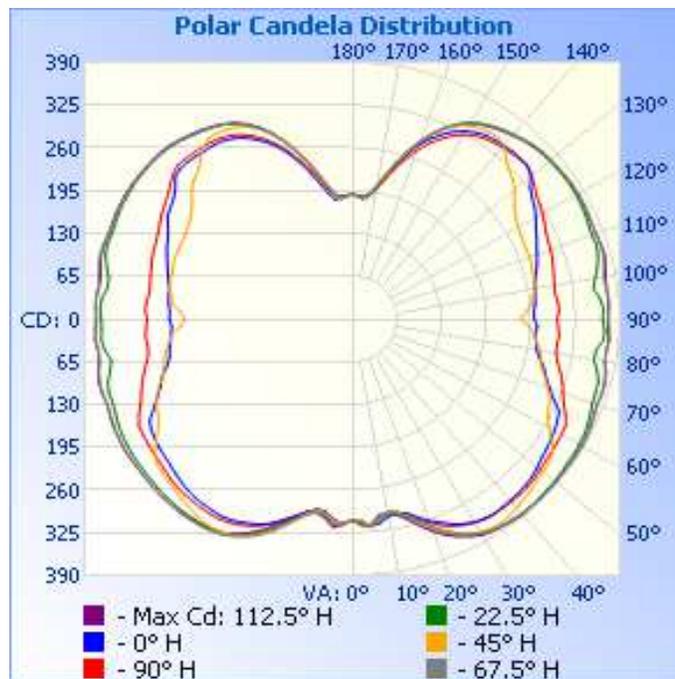
RESULTS OF TESTS

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)
AH01082019040430-005	Base Up	120.1	447.0	53.61	0.999	4251.4	79.3

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	305	305	305	305	305
5	316	317	315	318	316
10	305	301	298	297	300
15	305	312	310	310	309
20	326	338	336	335	329
25	344	361	359	358	347
30	356	375	374	375	357
35	361	382	378	383	362
40	359	386	374	386	362
45	357	385	368	387	361
50	352	385	362	387	357
55	346	383	357	386	354
60	340	382	331	387	352
65	333	379	316	385	343
70	306	373	303	380	327
75	290	372	285	382	314
80	273	358	278	375	302
85	267	368	267	376	303
90	266	365	244	374	299
95	268	362	262	375	301
100	270	360	270	372	299
105	278	371	272	379	303
110	287	372	276	378	308
115	297	375	276	380	312
120	309	377	279	381	320
125	320	377	289	380	328
130	340	376	309	378	341
135	346	373	323	374	344
140	344	366	344	366	341
145	341	358	347	357	336
150	330	345	340	344	324
155	310	321	321	322	302
160	281	286	287	288	272
165	242	244	246	246	235
170	204	203	206	206	201
175	187	184	184	186	185
180	190	190	190	190	190



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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

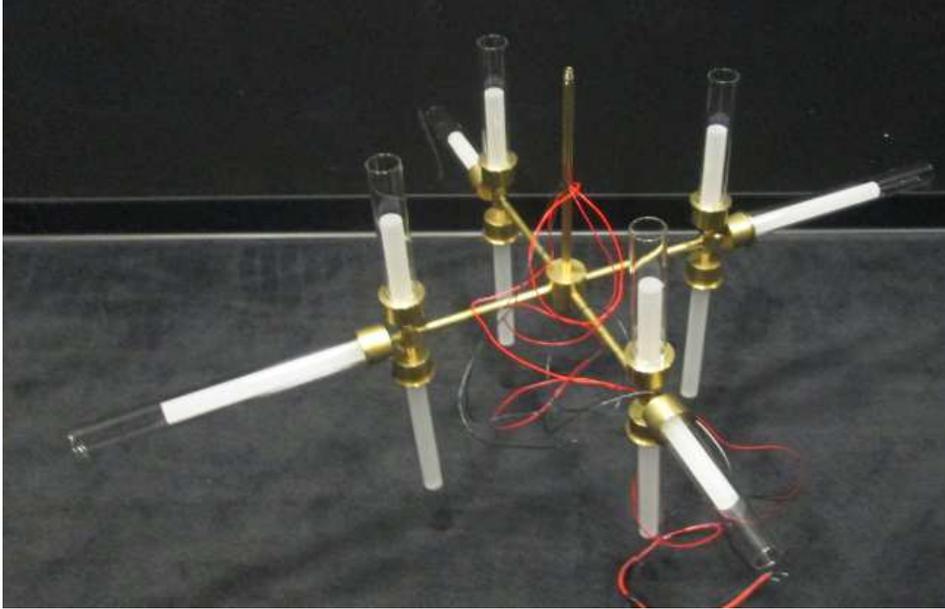
ZONE	LUMENS	% LUMINAIRE
0-30	283.9	6.7
0-40	519.4	12.2
0-60	1138.0	26.8
60-90	1052.9	24.8
70-100	1052.6	24.8
90-120	1027.4	24.2
0-90	2190.8	51.5
90-180	2060.5	48.5
0-180	4251.4	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	29.1	0.7
10-20	89.5	2.1
20-30	165.3	3.9
30-40	235.5	5.5
40-50	289.4	6.8
50-60	329.1	7.7
60-70	349.5	8.2
70-80	352.7	8.3
80-90	350.7	8.2
90-100	349.2	8.2
100-110	346.8	8.2
110-120	331.3	7.8
120-130	307.4	7.2
130-140	272.7	6.4
140-150	218.5	5.1
150-160	146.1	3.4
160-170	70.2	1.7
170-180	18.3	0.4

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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				