

# VISUAL COMFORT GROUP TEST REPORT

## SCOPE OF WORK

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

## MODEL NUMBER

700LDY20x-LED930

## REPORT NUMBER

103643585CHI-040

## ISSUE DATE

February 15, 2019

## REVISION DATE

None

## DOCUMENT CONTROL NUMBER

TBD

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**REPORT DATE: February 15, 2019**

**TEST REPORT**

**TEST OF ONE CHANDELIER**

MODEL NO. 700LDY20X-LED930  
LED MODEL NO. LUMINUS 62-217D/MP-3020-1100-30-90 3020  
DRIVER MODEL NO. MACRON GBLD001

**RENDERED TO:**

VISUAL COMFORT GROUP  
7400 LINDER AVE.  
SKOKIE, IL 60077

**AUTHORIZATION**

The testing performed was authorized by signed quote number Qu-00912313-2.

**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 700LDY20x-LED930. The sample was received by Intertek on January 24, 2019 in undamaged condition and one sample was tested as received. The sample designation was AH01242019034321-040.

**DATE OF TESTS**

February 15, 2019.

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**SUMMARY**

<b>MODEL NO:</b>	700LDY20x-LED930
<b>DESCRIPTION:</b>	Chandelier

CRITERIA	RESULTS
Lumen Output (lumens)	2081.0
Input Power (W) @ 120 (VAC)	39.52
Lumen Efficacy (lm/W)	52.7
Input Power Factor @ 120 (VAC)	0.976

**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 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**

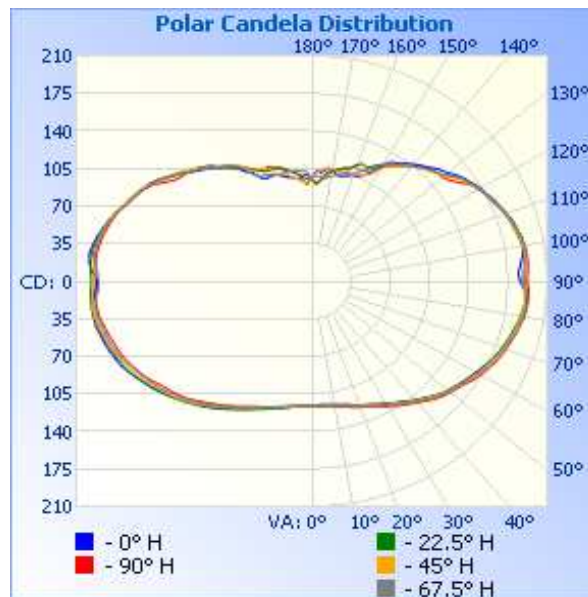
**RESULTS OF TESTS**

**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)
AH01242019034321-040	Base Up	120.0	337.6	39.52	0.976	2081.0	52.7

**INTENSITY SUMMARY - CANDELAS**

Angle	0	22.5	45	67.5	90
0	116	116	116	116	116
5	115	117	116	116	117
10	117	118	117	117	119
15	119	120	120	120	121
20	123	123	123	124	125
25	126	127	127	128	129
30	132	132	133	133	134
35	138	138	138	139	141
40	145	144	145	146	147
45	152	152	152	154	155
50	159	158	159	160	161
55	164	164	165	166	167
60	170	170	171	172	174
65	176	176	177	179	180
70	182	181	182	184	184
75	185	185	186	188	188
80	190	189	190	192	192
85	192	191	191	193	194
90	186	190	189	189	192
95	187	191	191	190	194
100	192	191	191	193	193
105	189	188	188	190	189
110	185	184	184	184	185
115	180	177	178	178	178
120	174	172	172	173	172
125	167	165	165	166	160
130	158	154	153	154	152
135	150	148	146	147	148
140	142	140	140	140	139
145	134	133	130	133	131
150	124	126	120	126	123
155	109	117	109	115	114
160	105	116	106	106	114
165	102	109	106	104	109
170	106	104	107	99	104
175	102	95	106	98	95
180	96	96	96	96	96



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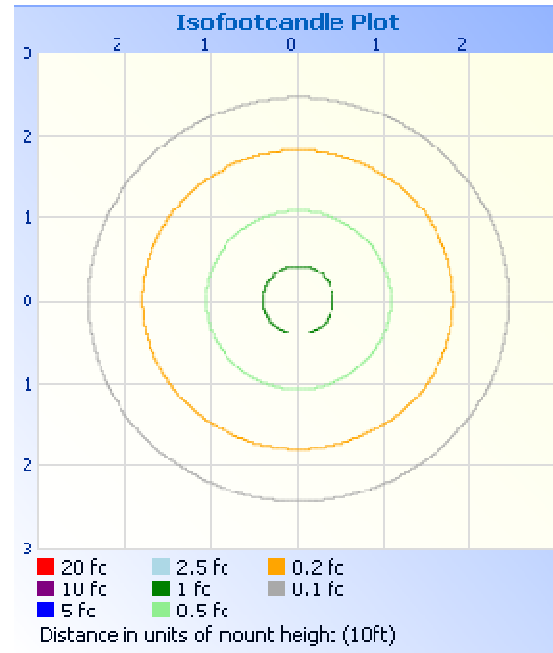
**TEST REPORT**

**RESULTS OF TESTS**

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

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

Illuminance at a Distance		
	Center Beam fc	Beam Width
1.7ft	<b>40.0 fc</b>	
3.3ft	<b>10.6 fc</b>	
5.0ft	<b>4.63 fc</b>	
6.7ft	<b>2.58 fc</b>	
8.3ft	<b>1.68 fc</b>	
10.0ft	<b>1.16 fc</b>	



**ZONAL LUMEN SUMMARY AND PERCENTAGES**

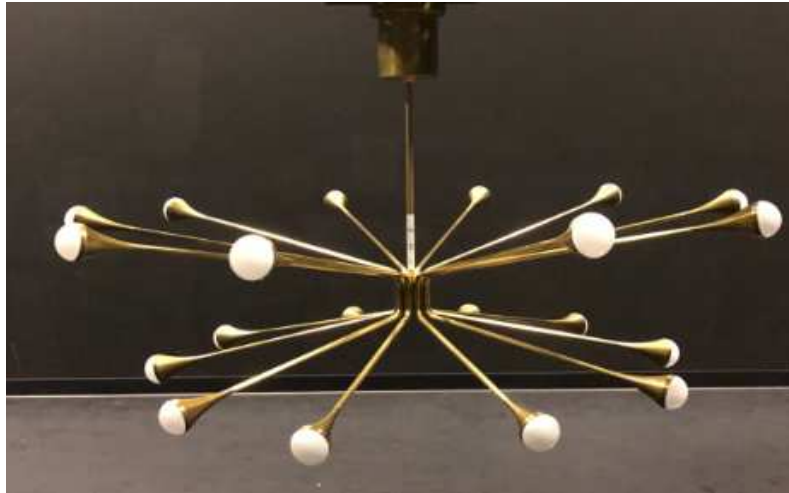
ZONE	LUMENS	% LUMINAIRE
0-30	105.4	5.1
0-40	194.2	9.3
0-60	465.1	22.4
60-90	590.1	28.4
70-100	621.6	29.9
90-120	588.8	28.3
0-90	1055.2	50.7
90-180	1025.8	49.3
0-180	2081.0	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	11.2	0.5
10-20	34.4	1.7
20-30	59.9	2.9
30-40	88.7	4.3
40-50	120.2	5.8
50-60	150.8	7.2
60-70	178.9	8.6
70-80	200.3	9.6
80-90	210.8	10.1
90-100	210.5	10.1
100-110	200.8	9.7
110-120	177.5	8.5
120-130	147.4	7.1
130-140	114.2	5.5
140-150	82.8	4.0
150-160	52.9	2.5
160-170	30.1	1.4
170-180	9.6	0.5

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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:

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Tess Gallagher  
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Report Reviewed By:

*Tim Quigley*

Timothy Quigley  
Engineer  
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Attachments: IES File

**REVISION HISTORY**

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