

# PURE EDGE LIGHTING

## TEST REPORT

### SCOPE OF WORK

Electrical and Photometric tests as required to the IESNA LM-79 test standard.

### MODEL NUMBER

LCS6-7W-36-D-30K-SA

### REPORT NUMBER

103597691CHI-033

### ISSUE DATE

January 21, 2020

### REVISION DATE

None

### DOCUMENT CONTROL NUMBER

TBD

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**REPORT DATE: January 21, 2020**

**TEST REPORT**

**TEST OF ONE LINEAR LUMINAIRE**

MODEL NO. LCS6-7W-36-D-30K-SA  
LED MODEL NO. LUMILED 2835  
DRIVER MODEL NO. LTF DA25W24VBF1-0000

**RENDERED TO:**

PURE EDGE LIGHTING  
1718 WEST FULLERTON  
CHICAGO, IL 60614

**STATEMENT OF LIMITATIONS**

NVLAP Lab Code 600186-0. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

**AUTHORIZATION**

The testing performed was authorized by signed quote number Qu-00901421-1 .

**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 LCS6-7W-36-D-30K-SA. The sample was received by Intertek on January 13, 2020 in undamaged condition and one sample was tested as received. The sample designation was AH01132020121521-033.

**DATE OF TESTS**

January 14, 2020 through January 15, 2020.

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**SUMMARY**

<b>MODEL NO:</b>	LCS6-7W-36-D-30K-SA
<b>DESCRIPTION:</b>	Linear Luminaire

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	1064.8	1044.1
Input Power (W) @ 120 (VAC)	23.59	23.37
Lumen Efficacy (lm/W)	45.1	44.7
Input Power Factor ( ) @ 120 (VAC)	0.914	0.913

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	28.55
Correlated Color Temperature (K)	2976
Color Rendering Index - Ra	94.7
Color Rendering - R9	75.0
DUV	0.0031
Chromaticity Coordinate (x)	0.434
Chromaticity Coordinate (y)	0.396
Chromaticity Coordinate (u')	0.252
Chromaticity Coordinate (v')	0.518

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**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	VBV	VBV
Newport Thermohygrometer	iServer	146957	12/2/2019	12/2/2020
Elgar, AC Power Supply	CW1251	146111	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	146382	4/17/2019	4/17/2020
Yokogawa Power Meter	WT1600	146769	4/3/2019	4/3/2020
Extech K Temperature Meter	SD200	CHI0207	4/3/2019	4/3/2020

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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 - 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.

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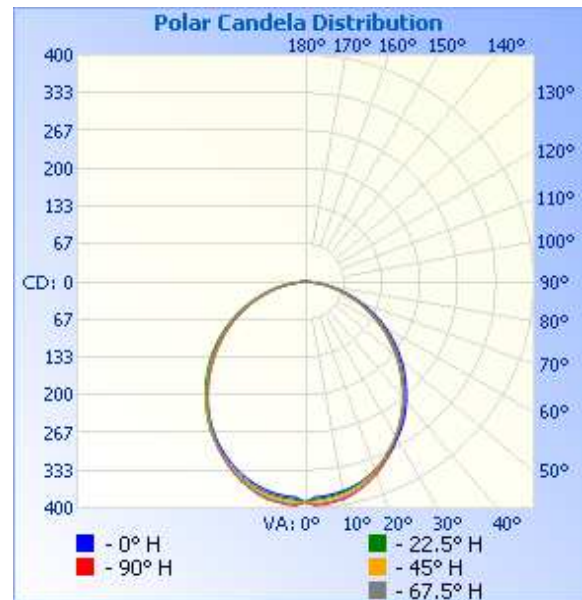
## RESULTS OF TESTS

### 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)
AH01132020121521-033	Base Up	120.0	213.3	23.37	0.913	1044.1	44.7

### INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	389	389	389	389	389
5	380	383	387	392	395
10	376	378	382	386	389
15	368	368	371	375	378
20	356	354	356	359	362
25	340	336	338	339	342
30	321	316	316	317	319
35	300	292	292	292	294
40	274	267	266	265	267
45	248	240	239	237	239
50	220	212	210	209	210
55	192	184	180	179	180
60	162	154	151	149	150
65	131	124	121	120	120
70	100	93	91	90	91
75	71	64	62	62	63
80	42	36	35	36	37
85	17	13	13	14	14
90	1	1	1	1	2



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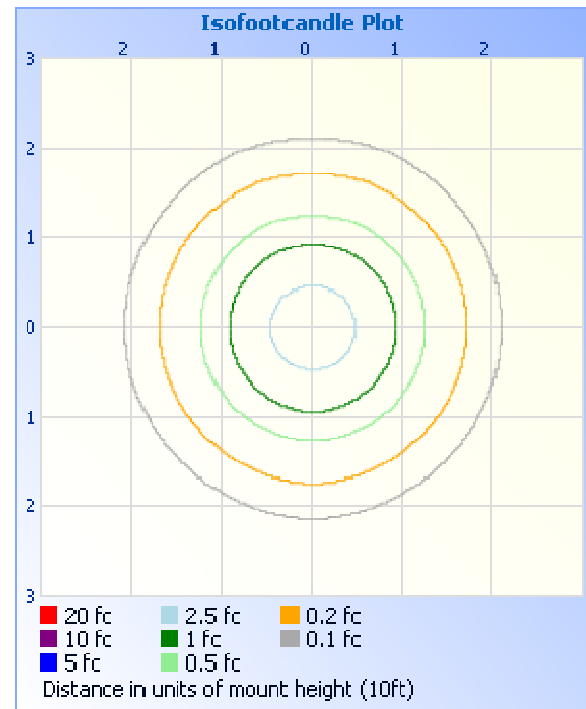
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RESULTS OF TESTS

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

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



ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	298.1	28.5
0-40	482.2	46.2
0-60	832.4	79.7
60-90	209.7	20.1
70-100	87.4	8.4
90-120	0.8	0.1
0-90	1042.1	99.8
90-180	2.0	0.2
0-180	1044.1	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	36.8	3.5
10-20	105.0	10.1
20-30	156.3	15.0
30-40	184.1	17.6
40-50	186.0	17.8
50-60	164.3	15.7
60-70	122.6	11.7
70-80	68.9	6.6
80-90	18.1	1.7
90-100	0.4	0.0
100-110	0.2	0.0
110-120	0.2	0.0
120-130	0.3	0.0
130-140	0.3	0.0
140-150	0.3	0.0
150-160	0.2	0.0
160-170	0.1	0.0

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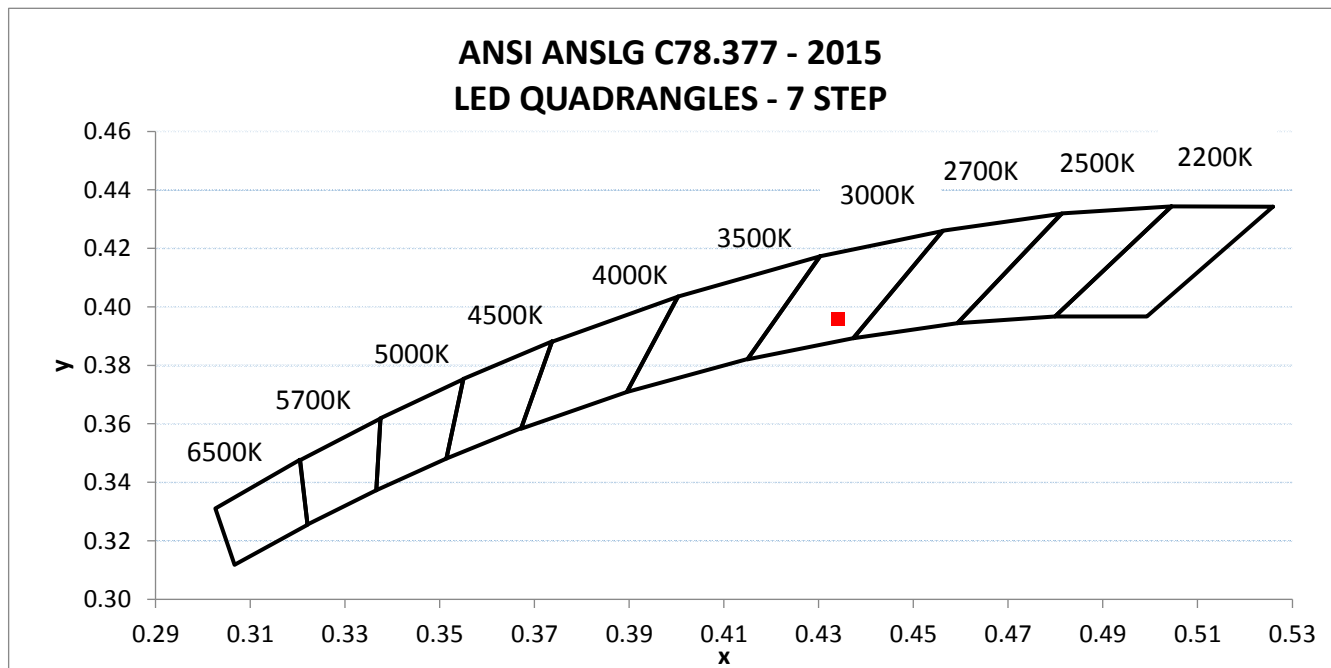
RESULTS OF TESTS

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 (%)
AH01132020121521-033	Base Up	120.00	215.00	23.59	0.914	28.55

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
1064.8	45.1	2976	94.7	75.0	0.0031

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.434	0.396	0.252	0.518





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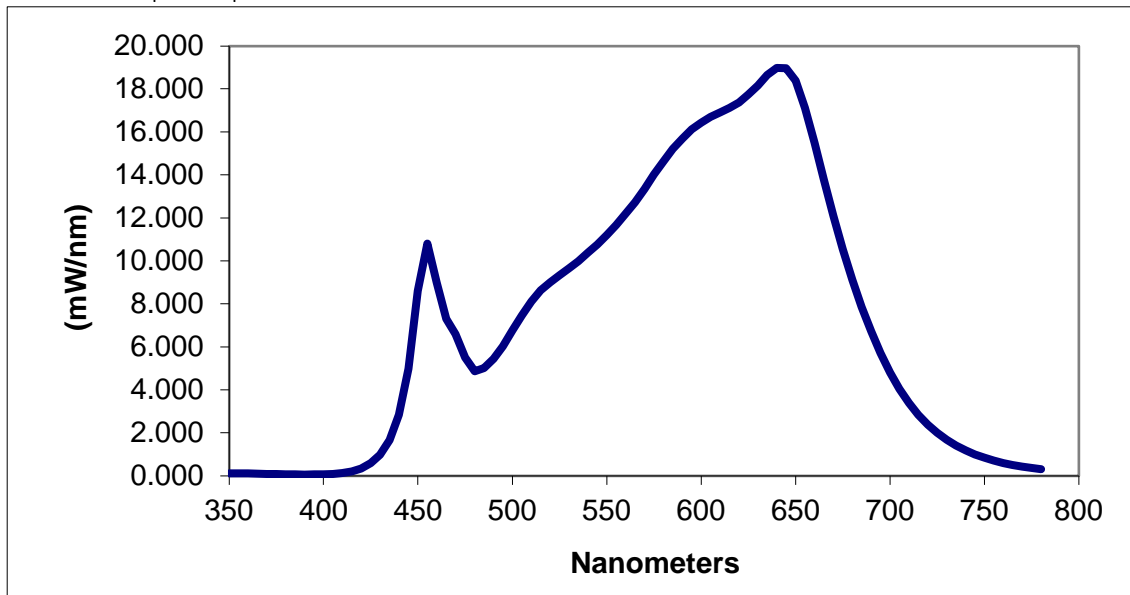
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RESULTS OF TESTS

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	0.120	460	8.998	570	13.341	680	9.123
355	0.123	465	7.303	575	14.012	685	7.860
360	0.110	470	6.588	580	14.629	690	6.730
365	0.105	475	5.505	585	15.214	695	5.711
370	0.091	480	4.867	590	15.692	700	4.808
375	0.084	485	5.019	595	16.123	705	4.042
380	0.074	490	5.450	600	16.435	710	3.389
385	0.073	495	6.026	605	16.697	715	2.843
390	0.067	500	6.764	610	16.904	720	2.387
395	0.071	505	7.462	615	17.116	725	2.007
400	0.074	510	8.113	620	17.371	730	1.682
405	0.087	515	8.630	625	17.741	735	1.410
410	0.127	520	9.001	630	18.151	740	1.182
415	0.208	525	9.335	635	18.644	745	0.996
420	0.348	530	9.657	640	18.979	750	0.842
425	0.586	535	9.991	645	18.967	755	0.710
430	0.984	540	10.385	650	18.373	760	0.600
435	1.670	545	10.761	655	17.112	765	0.509
440	2.840	550	11.212	660	15.493	770	0.428
445	4.990	555	11.670	665	13.786	775	0.363
450	8.604	560	12.204	670	12.088	780	0.309
455	10.802	565	12.723	675	10.543		

\*Without correction of sample absorption.



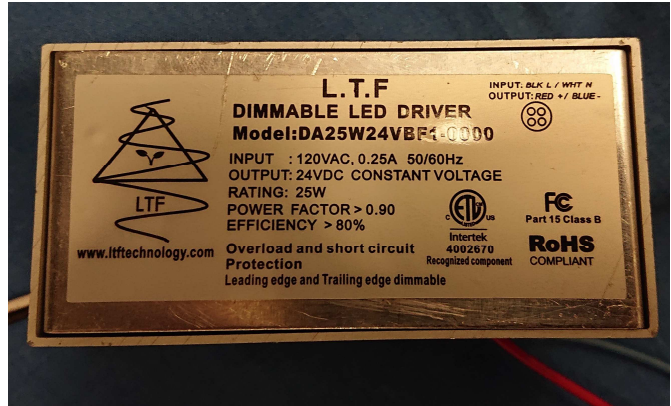
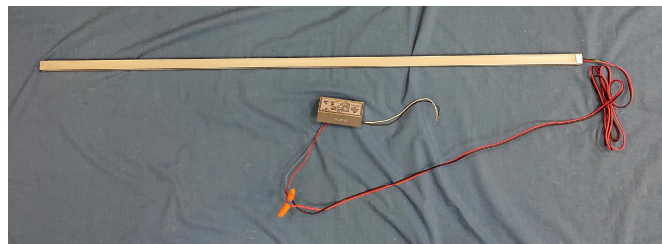
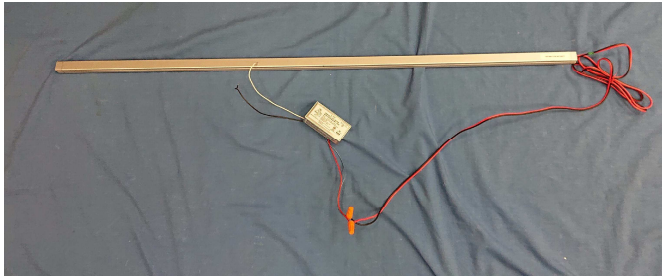
End Of Test Results

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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:

*Ian Smith*

Ian Smith  
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Lighting Division

Report Reviewed By:

*Jeffrey Davis*

Jeff Davis  
NA Technical Lead  
Lighting Division

Attachments: IES File

**REVISION HISTORY**

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