

# PURE EDGE LIGHTING

## TEST REPORT

### SCOPE OF WORK

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

### MODEL NUMBER

LCMG.6-7W-36-30K-SN

### REPORT NUMBER

104373788CHI-016

### ISSUE DATE

August 26, 2020

### REVISION DATE

None

### DOCUMENT CONTROL NUMBER

TBD

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**REPORT DATE: August 26, 2020**

**TEST REPORT**

**TEST OF ONE LINEAR LED LUMINAIRE**

MODEL NO. LCMG.6-7W-36-30K-SN  
LED MODEL NO. LUMILED/ L128-2780CB3500001  
DRIVER MODEL NO. HUARUI/DR-24V-2000-60D

**RENDERED TO:**

PURE EDGE LIGHTING  
1718 W. FULLERTON AVE.  
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-01087644-1.

**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 LCMG.6-7W-36-30K-SN. The sample was received by Intertek on August 4, 2020 in undamaged condition and one sample was tested as received. The sample designation was AH08042020023951-016.

**DATE OF TESTS**

August 6, 2020 through August 19, 2020.

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**SUMMARY**

<b>MODEL NO:</b>	LCMG.6-7W-36-30K-SN
<b>DESCRIPTION:</b>	LINEAR LED Luminaire

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	1672.3	1656.7
Input Power (W) @ 120 (VAC)	27.95	27.87
Lumen Efficacy (lm/W)	59.8	59.4
Input Power Factor ( ) @ 120 (VAC)	0.990	0.990

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	12.62
Correlated Color Temperature (K)	3044
Color Rendering Index - Ra	93.8
Color Rendering - R9	70.4
DUV	0.0034
Chromaticity Coordinate (x)	0.429
Chromaticity Coordinate (y)	0.393
Chromaticity Coordinate (u')	0.250
Chromaticity Coordinate (v')	0.516

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**EQUIPMENT LIST**

EQUIPMENT USED	MODEL NO.	CONTROL NO.	LAST CAL DATE	CAL DUE DATE
Yokogawa Power Meter	WT210	146919	7/1/2020	7/1/2021
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
Pacific, AC Power Supply	118-ACX	CHI0153	VBV	VBV
Labsphere 2M Sphere & Spectroradiometer	CDS1100	146137	VBV	VBV
Elgar AC Power Supply	CW1251M	146113	VBV	VBV
Sorenson DC Power Supply	XFR150-8	146847	VBV	VBV
Yokogawa Power Analyzer	WT1600	146767	4/6/2020	4/6/2021
Omega Temperature	MDSi8	146873	7/2/2020	7/2/2021
Newport Humidity Recorder	iTHX-SD	CHI0452	10/11/2019	10/11/2020

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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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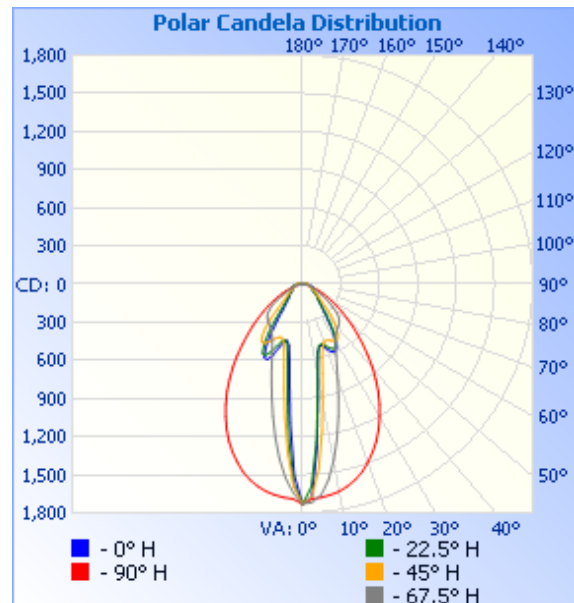
## RESULTS OF TESTS

### 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)
AH08042020023951-016	Base Up	120.0	234.7	27.87	0.990	1656.7	59.4

### INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	1729	1729	1729	1729	1729
5	1293	1243	1453	1663	1684
10	674	680	906	1405	1655
15	502	500	593	1080	1593
20	538	512	486	804	1492
25	589	562	486	621	1363
30	515	514	514	513	1204
35	350	380	480	458	1031
40	232	242	382	434	846
45	178	175	258	406	663
50	148	144	170	347	507
55	114	112	132	257	374
60	93	89	104	175	264
65	88	82	82	118	177
70	84	77	69	87	110
75	68	64	60	61	62
80	58	55	49	44	32
85	50	48	44	32	13
90	41	40	38	24	2
95	37	36	34	17	1
100	33	31	26	8	1
105	28	26	13	3	1
110	17	13	8	1	1
115	13	10	4	1	1
120	7	6	2	1	1
125	5	3	1	1	1
130	2	1	1	1	1
135	1	1	1	1	1



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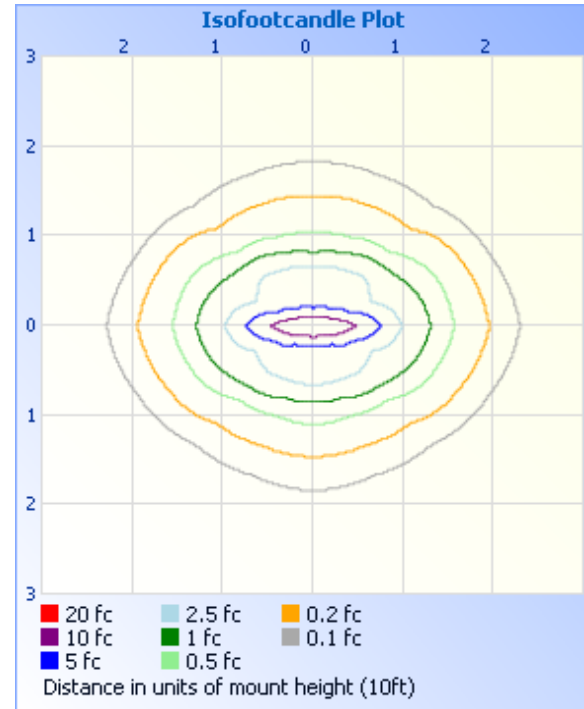
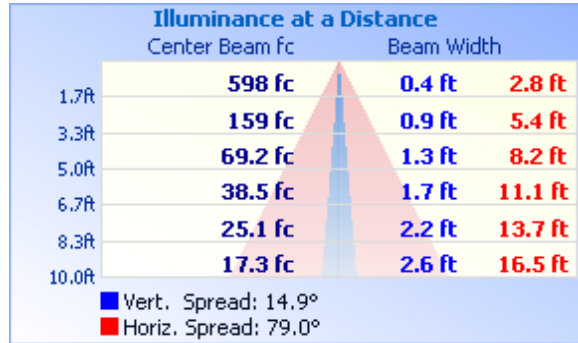
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RESULTS OF TESTS

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	644.9	38.9
0-40	965.5	58.3
0-60	1382.1	83.4
60-90	220.4	13.3
70-100	143.6	8.7
90-120	51.7	3.1
0-90	1602.5	96.7
90-180	54.2	3.3
0-180	1656.7	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	120.8	7.3
10-20	222.1	13.4
20-30	302.0	18.2
30-40	320.6	19.4
40-50	245.6	14.8
50-60	170.9	10.3
60-70	106.6	6.4
70-80	69.3	4.2
80-90	44.6	2.7
90-100	29.7	1.8
100-110	16.2	1.0
110-120	5.8	0.4
120-130	1.9	0.1
130-140	0.7	0.0

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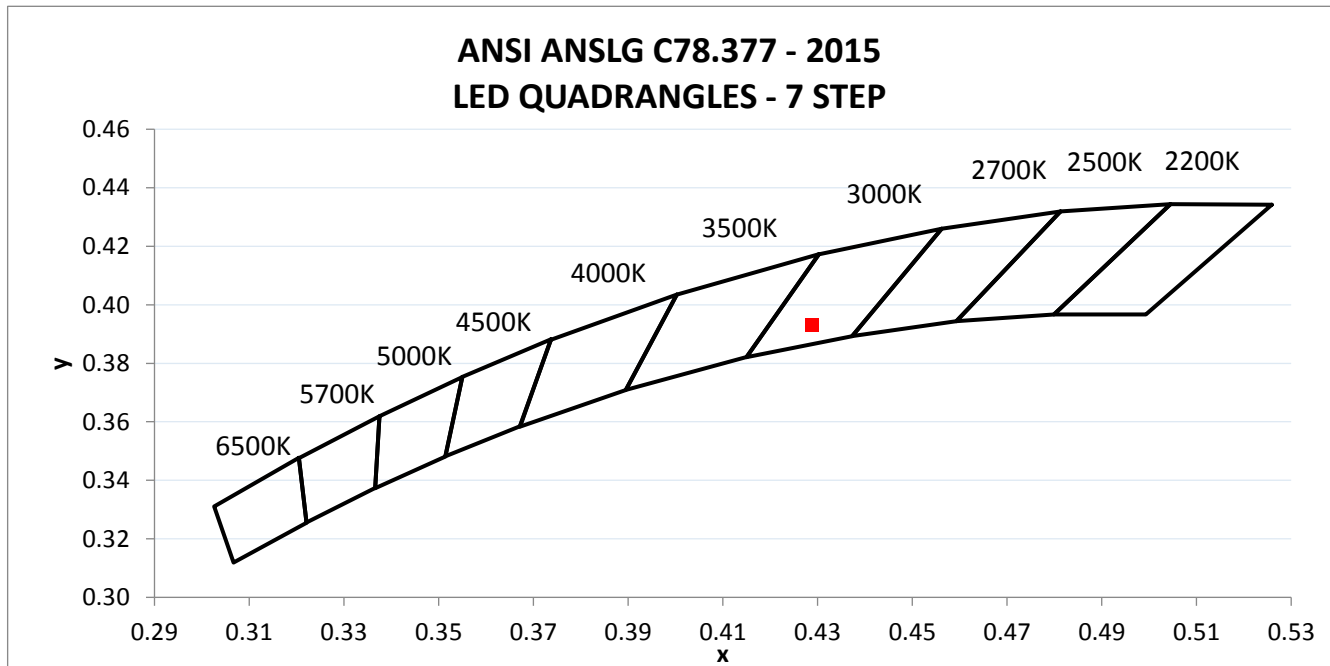
RESULTS OF TESTS

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 (%)
AH08042020023951-016	Base Up	119.97	235.35	27.95	0.990	12.62

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
1672.3	59.8	3044	93.8	70.4	0.0034

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.429	0.393	0.250	0.516





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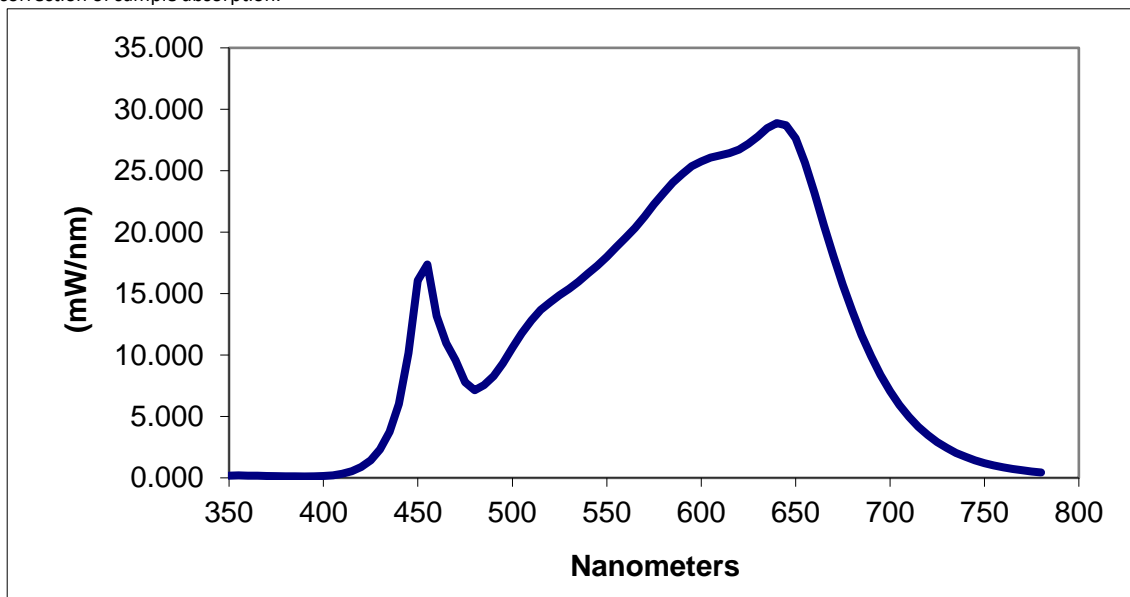
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**RESULTS OF TESTS**

**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	0.176	460	13.182	570	21.270	680	13.564
355	0.202	465	10.950	575	22.270	685	11.624
360	0.190	470	9.591	580	23.171	690	9.886
365	0.178	475	7.776	585	24.031	695	8.384
370	0.148	480	7.127	590	24.738	700	7.065
375	0.141	485	7.550	595	25.368	705	5.936
380	0.126	490	8.290	600	25.764	710	4.978
385	0.117	495	9.320	605	26.058	715	4.164
390	0.115	500	10.593	610	26.244	720	3.487
395	0.131	505	11.773	615	26.427	725	2.920
400	0.154	510	12.817	620	26.726	730	2.440
405	0.210	515	13.670	625	27.199	735	2.037
410	0.324	520	14.301	630	27.782	740	1.710
415	0.535	525	14.862	635	28.462	745	1.430
420	0.880	530	15.396	640	28.875	750	1.207
425	1.439	535	15.960	645	28.708	755	1.017
430	2.326	540	16.641	650	27.638	760	0.860
435	3.736	545	17.275	655	25.647	765	0.724
440	6.006	550	18.007	660	23.165	770	0.612
445	10.148	555	18.774	665	20.576	775	0.514
450	16.070	560	19.561	670	18.041	780	0.436
455	17.358	565	20.349	675	15.728		

\*Without correction of sample absorption.



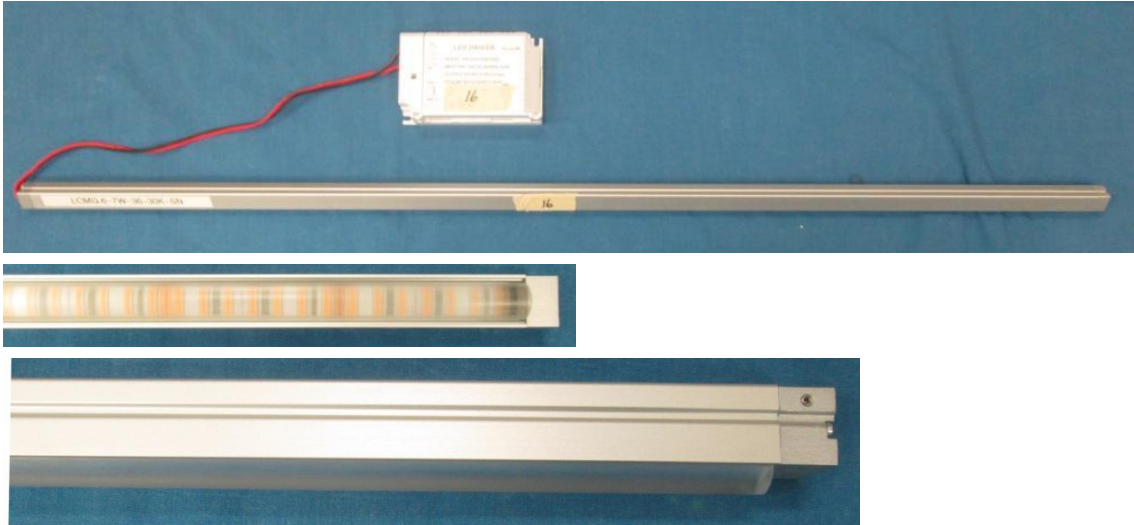
**End Of Test Results**

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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:

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Timothy Quigley  
Project Engineer  
Lighting Division

Report Reviewed By:

*Jeff Davis*

Jeff Davis  
N.A. Technical Lead  
Lighting Division

Attachments: IES File

**REVISION HISTORY**

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