

# PUREEDGE LIGHTING TEST REPORT

## SCOPE OF WORK

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

## MODEL NUMBER

NCWG-7W-36-30K-SN

## REPORT NUMBER

103597691CHI-027

## ISSUE DATE

July 9, 2019

## REVISION DATE

None

## DOCUMENT CONTROL NUMBER

TBD

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**REPORT DATE: July 9, 2019**

**TEST REPORT**

**TEST OF ONE LINEAR LED LIGHTING**

MODEL NO. NCWG-7W-36-30K-SN  
LED MODEL NO. LUMILEDS 2835C  
DRIVER MODEL NO. HUARI/DR-24V-2000-60D

**RENDERED TO:**

PUREEDGE LIGHTING  
1718 W. FULLERTON AVE,  
CHICAGO, IL 60614

**AUTHORIZATION**

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

**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 NCWG-7W-36-30K-SN. The sample was received by Intertek on June 24, 2019 in undamaged condition and one sample was tested as received. The sample designation was AH06242019024015-027.

**DATE OF TESTS**

July 3, 2019 through July 8, 2019.

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**SUMMARY**

<b>MODEL NO:</b>	NCWG-7W-36-30K-SN
<b>DESCRIPTION:</b>	Linear LED lighting

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	1494.4	1433.5
Input Power (W) @ 120 (VAC)	25.09	25.04
Lumen Efficacy (lm/W)	59.6	57.3
Input Power Factor @ 120 (VAC)	0.987	0.987

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	13.48
Correlated Color Temperature (K)	2981
Color Rendering Index - Ra	95.4
Color Rendering - R9	79.0
DUV	0.0029
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 Newport Thermometer	DPI8-C24	146920	10/4/2018	10/4/2019
LSI High Speed Mirror Goniometer	6440T	146928	VBV	VBV
Newport Thermohygrometer	iServer	146957	12/11/2018	12/11/2019
Pacific, AC power supply	118-ACX	CHI0358	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	4/3/2019	4/3/2020
Omega Temperature	MDSi8	146873	7/2/2019	7/2/2020
Newport Thermohygrometer	iTHX-M	146961	7/23/2018	7/23/2019

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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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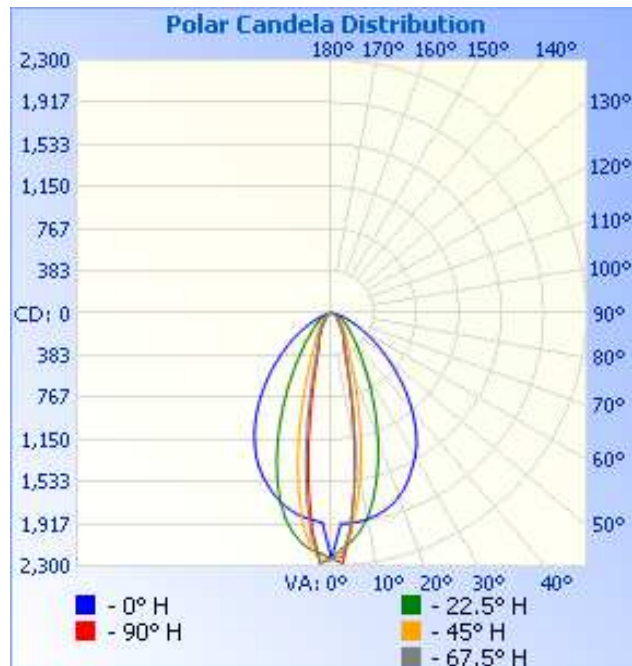
RESULTS OF TESTS

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)
AH06242019024015-027	Base Up	120.0	211.4	25.04	0.987	1433.5	57.3

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	2235	2235	2235	2235	2235
5	1920	2082	2012	1955	1988
10	1901	1884	1502	1241	1196
15	1857	1573	966	658	600
20	1778	1230	572	369	340
25	1655	900	360	273	262
30	1509	635	270	208	199
35	1335	447	204	155	136
40	1123	326	155	110	97
45	906	242	118	80	77
50	692	184	84	65	64
55	506	139	63	50	47
60	349	101	46	35	32
65	229	68	32	26	24
70	138	42	23	24	24
75	73	22	17	13	10
80	31	9	3	1	1
85	9	1	0	0	0
90	0	0	0	0	0



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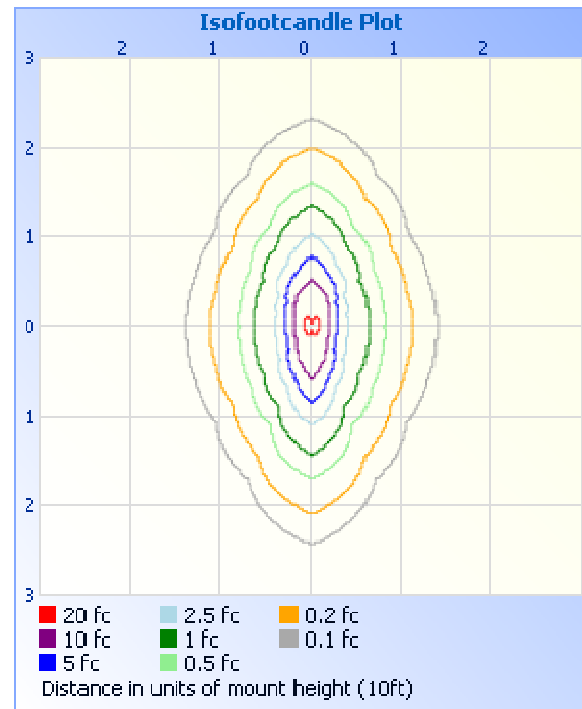
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RESULTS OF TESTS

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	801.4	55.9
0-40	1047.6	73.1
0-60	1343.5	93.7
60-90	90.0	6.3
70-100	27.2	1.9
90-120	0.0	0.0
0-90	1433.5	100.0
90-180	0.0	0.0
0-180	1433.5	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	179.2	12.5
10-20	322.8	22.5
20-30	299.4	20.9
30-40	246.2	17.2
40-50	179.1	12.5
50-60	116.8	8.1
60-70	62.8	4.4
70-80	24.7	1.7
80-90	2.5	0.2

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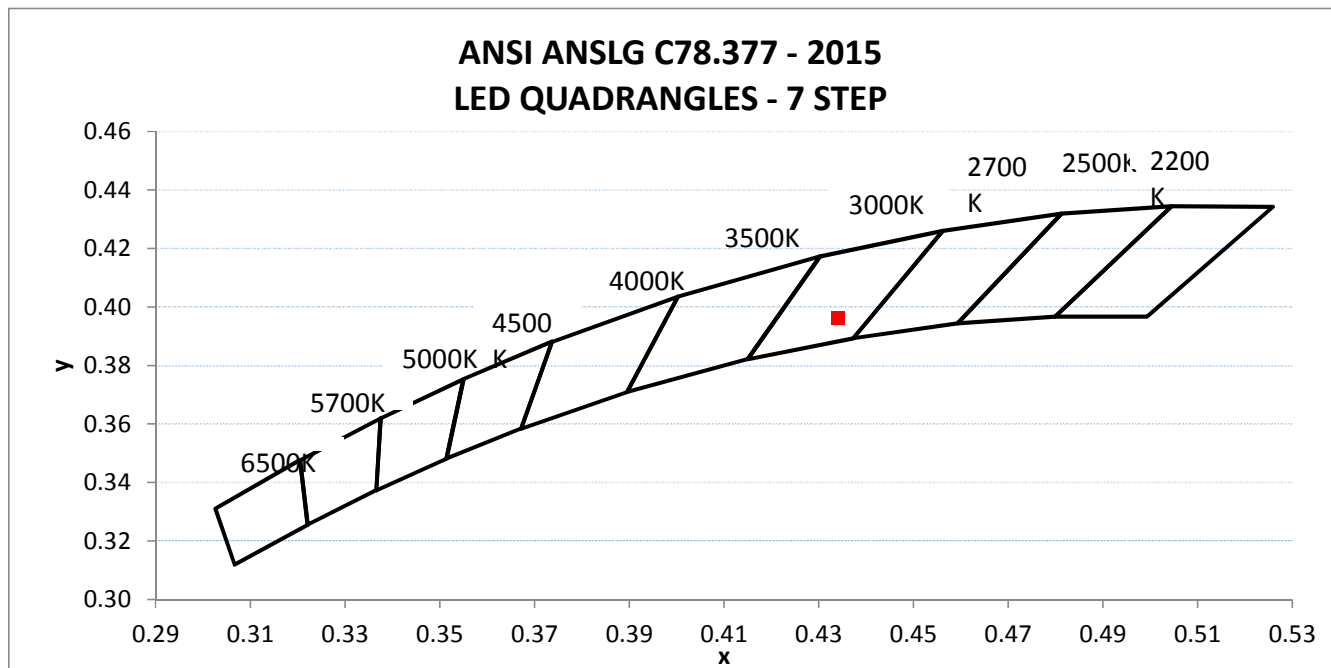
RESULTS OF TESTS

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 (%)
AH06242019024015-027	Base Up	119.99	211.78	25.09	0.987	13.48

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
1494.4	59.6	2981	95.4	79.0	0.0029

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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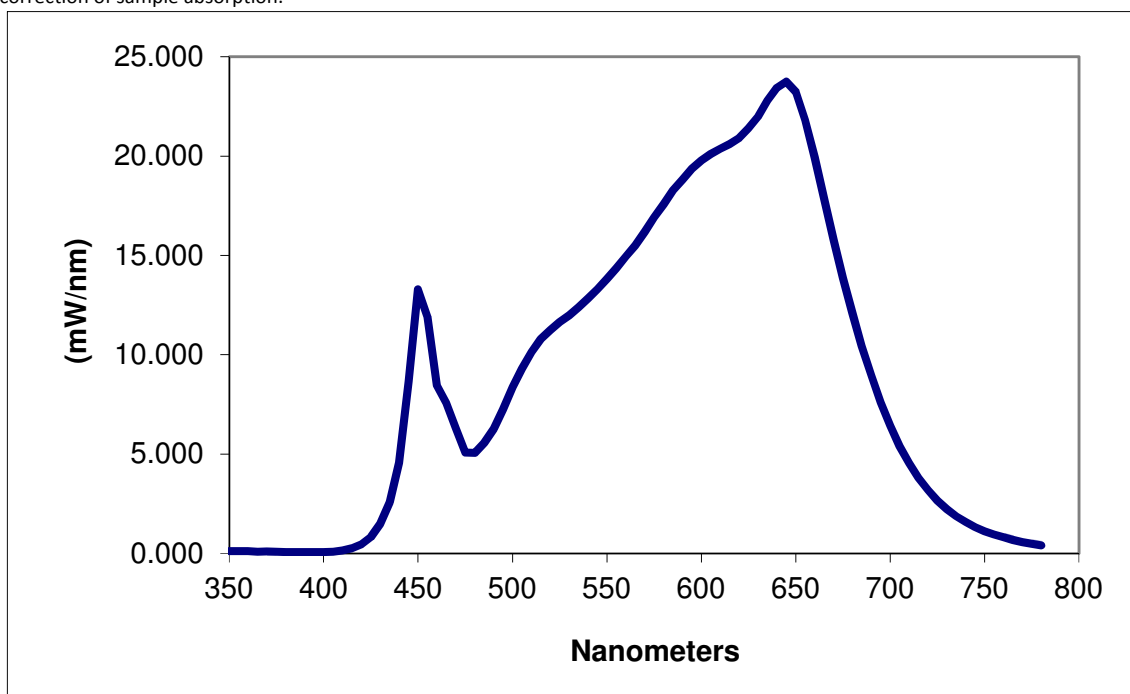
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RESULTS OF TESTS

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	0.116	460	8.482	570	16.196	680	12.077
355	0.116	465	7.575	575	16.909	685	10.441
360	0.121	470	6.313	580	17.582	690	8.958
365	0.093	475	5.085	585	18.267	695	7.612
370	0.101	480	5.069	590	18.810	700	6.425
375	0.090	485	5.562	595	19.358	705	5.407
380	0.074	490	6.265	600	19.778	710	4.543
385	0.075	495	7.247	605	20.109	715	3.810
390	0.067	500	8.359	610	20.355	720	3.196
395	0.065	505	9.300	615	20.606	725	2.670
400	0.073	510	10.133	620	20.906	730	2.235
405	0.089	515	10.796	625	21.393	735	1.867
410	0.145	520	11.251	630	21.987	740	1.578
415	0.258	525	11.643	635	22.795	745	1.327
420	0.459	530	11.989	640	23.445	750	1.123
425	0.834	535	12.395	645	23.748	755	0.950
430	1.487	540	12.847	650	23.229	760	0.807
435	2.585	545	13.294	655	21.816	765	0.679
440	4.560	550	13.826	660	19.926	770	0.574
445	8.650	555	14.359	665	17.875	775	0.485
450	13.285	560	14.945	670	15.796	780	0.410
455	11.899	565	15.506	675	13.873		

\*Without correction of sample absorption.



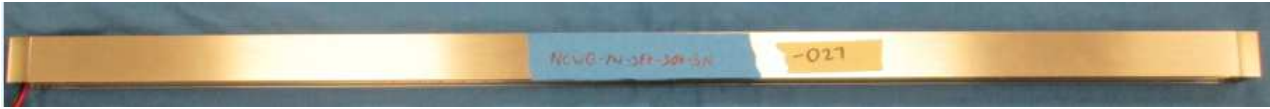
End Of Test Results

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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:

*Tess Gallagher*

Tess Gallagher  
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Report Reviewed By:

*Tim Quigley*

Timothy Quigley  
Project Engineer  
Lighting Division

Attachments: IES File

**REVISION HISTORY**

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