

PUREEDGE LIGHTING

TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

CCWG-5W-36-30K-SN

REPORT NUMBER

103597691CHI-029

ISSUE DATE

July 9, 2019

REVISION DATE

None

DOCUMENT CONTROL NUMBER

TBD

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TEST OF ONE LINEAR LED LIGHTING

MODEL NO. CCWG-5W-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 CCWG-5W-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 AH06242019024015-029.

DATE OF TESTS

July 3, 2019 through July 8, 2019.

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SUMMARY

MODEL NO:	CCWG-5W-36-30K-SN
DESCRIPTION:	Linear LED lighting

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	989.6	944.5
Input Power (W) @ 120 (VAC)	15.47	15.40
Lumen Efficacy (lm/W)	64.0	61.3
Input Power Factor @ 120 (VAC)	0.972	0.971

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	16.43
Correlated Color Temperature (K)	3062
Color Rendering Index - Ra	95.5
Color Rendering - R9	79.1
DUV	0.0030
Chromaticity Coordinate (x)	0.428
Chromaticity Coordinate (y)	0.394
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	7/1/2019	7/1/2020
Omega 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	146382	4/17/2019	4/17/2020

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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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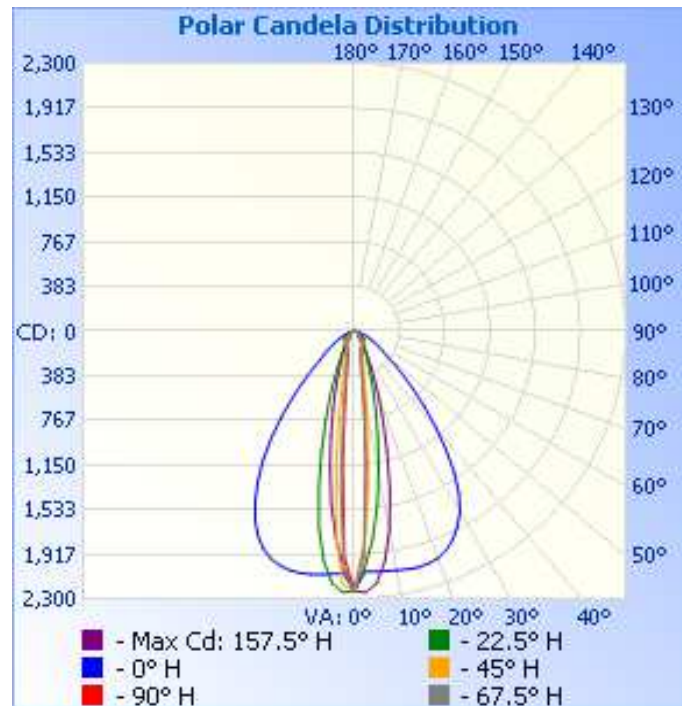
RESULTS OF TESTS

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)
AH06242019024015-029	Base Up	120.1	132.0	15.40	0.971	944.5	61.3

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	2230	2230	2230	2230	2230
5	2072	1791	1356	1120	1138
10	2086	1184	550	383	365
15	2101	699	283	221	213
20	2075	402	186	163	163
25	1976	248	147	145	152
30	1793	160	134	152	140
35	1473	125	140	82	64
40	1068	111	97	55	56
45	711	110	49	48	52
50	443	98	43	50	54
55	289	58	37	53	61
60	204	47	36	43	45
65	138	50	31	38	36
70	75	46	24	24	26
75	44	33	18	17	16
80	22	21	12	10	9
85	7	15	7	6	6
90	1	8	4	4	6
95	0	3	2	3	6
100	0	0	1	3	6
105	0	0	0	2	4



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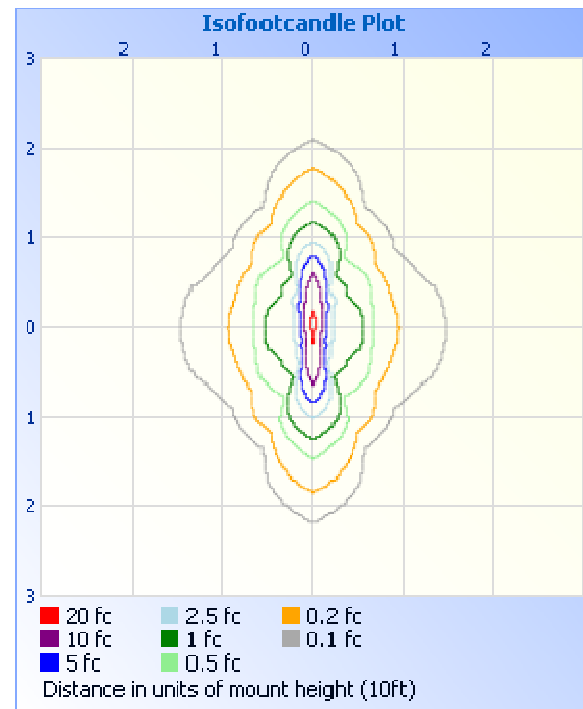
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RESULTS OF TESTS

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	502.9	53.2
0-40	672.9	71.2
0-60	855.7	90.6
60-90	84.5	8.9
70-100	38.9	4.1
90-120	4.3	0.5
0-90	940.2	99.5
90-180	4.3	0.5
0-180	944.5	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	129.7	13.7
10-20	183.6	19.4
20-30	189.7	20.1
30-40	169.9	18.0
40-50	111.6	11.8
50-60	71.3	7.5
60-70	49.0	5.2
70-80	26.0	2.8
80-90	9.5	1.0
90-100	3.4	0.4
100-110	1.0	0.1

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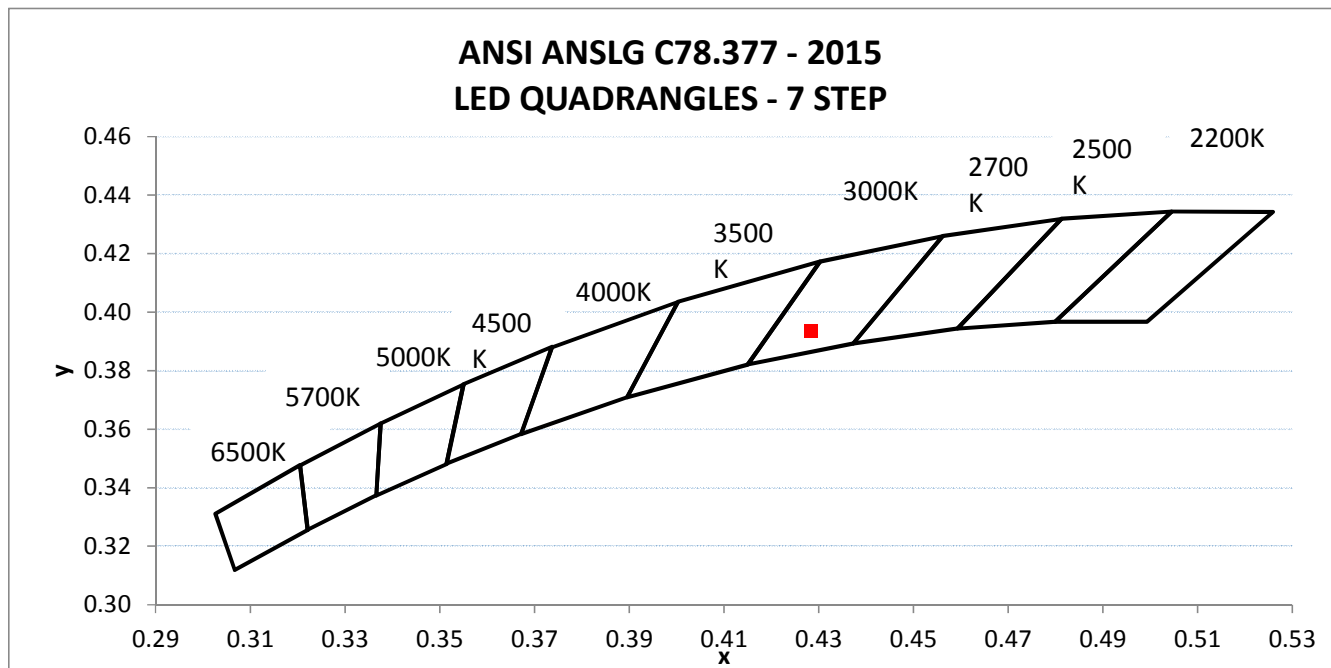
RESULTS OF TESTS

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 (%)
AH06242019024015-029	Base Up	120.02	132.53	15.47	0.972	16.43

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
989.6	64.0	3062	95.5	79.1	0.0030

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.428	0.394	0.250	0.516



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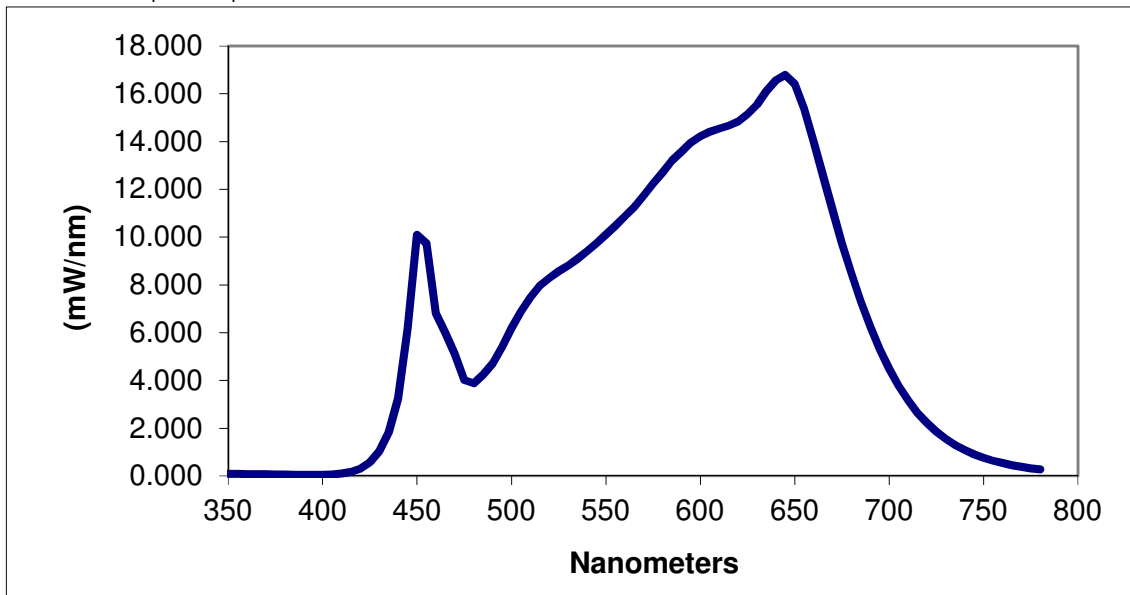
TEST REPORT

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	0.092	460	6.811	570	11.741	680	8.480
355	0.097	465	5.985	575	12.242	685	7.315
360	0.083	470	5.112	580	12.712	690	6.258
365	0.084	475	4.023	585	13.201	695	5.310
370	0.078	480	3.886	590	13.580	700	4.481
375	0.067	485	4.245	595	13.953	705	3.771
380	0.068	490	4.716	600	14.222	710	3.167
385	0.056	495	5.397	605	14.409	715	2.650
390	0.054	500	6.199	610	14.544	720	2.221
395	0.048	505	6.879	615	14.659	725	1.854
400	0.052	510	7.492	620	14.838	730	1.549
405	0.065	515	7.968	625	15.154	735	1.293
410	0.102	520	8.292	630	15.548	740	1.086
415	0.174	525	8.572	635	16.111	745	0.911
420	0.313	530	8.817	640	16.567	750	0.764
425	0.570	535	9.094	645	16.790	755	0.643
430	1.030	540	9.416	650	16.401	760	0.545
435	1.830	545	9.733	655	15.371	765	0.454
440	3.239	550	10.107	660	14.012	770	0.382
445	6.178	555	10.478	665	12.570	775	0.321
450	10.098	560	10.879	670	11.125	780	0.273
455	9.739	565	11.255	675	9.766		

*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
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Lighting Division

Attachments: IES File

REVISION HISTORY

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