

PURE EDGE LIGHTING

TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

CSCW-7W-4S-36-30K-SN

REPORT NUMBER

102602453CHI-029

ISSUE DATE

June 4, 2018

REVISION DATE

None

DOCUMENT CONTROL NUMBER

TBD

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TEST OF ONE LINEAR LED FIXTURE

MODEL NO. CSCW-7W-4S-36-30K-SN
LED MODEL NO. LUMILED/SS7CL-12MM-24VDC-C-30K
DRIVER MODEL NO. MEANWELL APV-16-24

RENDERED TO:

PURE EDGE LIGHTING
1718 WEST FULLERTON
CHICAGO, IL 60614

AUTHORIZATION

The testing performed was authorized by signed quote number Qu-00685500-1.

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 CSCW-7W-4S-36-30K-SN. The sample was received by Intertek on May 17, 2018 in undamaged condition and one sample was tested as received. The sample designation was AH05172018024639-029.

DATE OF TESTS

May 30, 2018

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SUMMARY

MODEL NO:	CSCW-7W-4S-36-30K-SN
DESCRIPTION:	Linear LED fixture

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	1083.9	1063.4
Input Power (W) @ 120 (VAC)	24.95	24.907
Lumen Efficacy (lm/W)	43.5	42.7
Input Power Factor () @ 120 (VAC)	0.989	0.988

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	11.84
Correlated Color Temperature (K)	2943
Color Rendering Index - Ra ()	97.0
Color Rendering - R9 ()	88.6
DUV ()	0.0045
Chromaticity Coordinate (x)	0.435
Chromaticity Coordinate (y)	0.393
Chromaticity Coordinate (u')	0.254
Chromaticity Coordinate (v')	0.517

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EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	LAST CAL DATE	CAL DUE DATE
Yokogawa Power Meter	WT210	146919	7/10/2017	7/10/2018
Omega Newport Thermometer	DPI8-C24	146920	10/4/2017	10/4/2018
LSI High Speed Mirror Goniometer	6440T	146928	VBV	VBV
Newport Thermohygrometer	iServer	146957	11/17/2017	11/17/2018
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	4/5/2018	4/5/2019
Omega Temperature	MDSi8	146873	7/20/2017	7/20/2018
Newport Thermohygrometer	iTHX-M	146382	7/14/2017	7/14/2018

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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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TEST REPORT

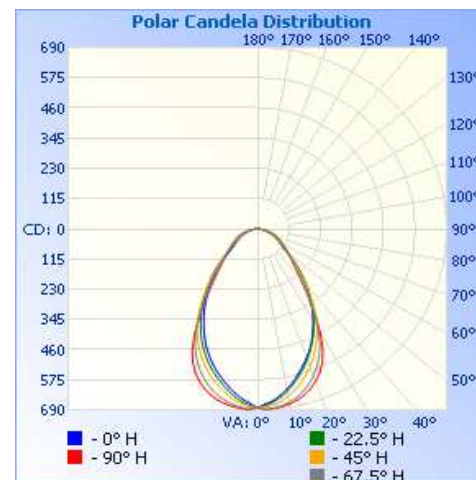
RESULTS OF TESTS

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)
AH05172018024639-029	Base Up	120.1	210.0	24.907	0.988	1063.4	42.7

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	681	681	681	681	681
5	656	663	674	686	686
10	620	627	647	670	677
15	573	581	608	641	655
20	523	530	558	596	618
25	469	473	500	533	559
30	407	411	434	445	458
35	341	343	357	334	332
40	272	276	274	244	239
45	206	210	204	186	184
50	144	149	154	149	147
55	108	107	119	121	120
60	87	86	92	99	100
65	69	67	71	79	82
70	51	50	53	60	66
75	36	35	36	41	47
80	22	21	22	23	27
85	10	9	9	9	8
90	0	0	0	0	0



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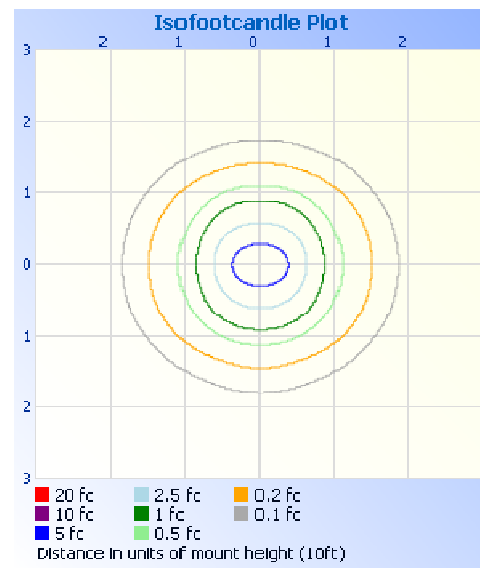
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RESULTS OF TESTS

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	464.7	43.7
0-40	679.8	63.9
0-60	939.6	88.4
60-90	123.8	11.6
70-100	51.3	4.8
90-120	0.0	0.0
0-90	1063.4	100.0
90-180	0.0	0.0
0-180	1063.4	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	63.2	5.9
10-20	170.8	16.1
20-30	230.6	21.7
30-40	215.1	20.2
40-50	155.3	14.6
50-60	104.5	9.8
60-70	72.6	6.8
70-80	40.7	3.8
80-90	10.6	1.0

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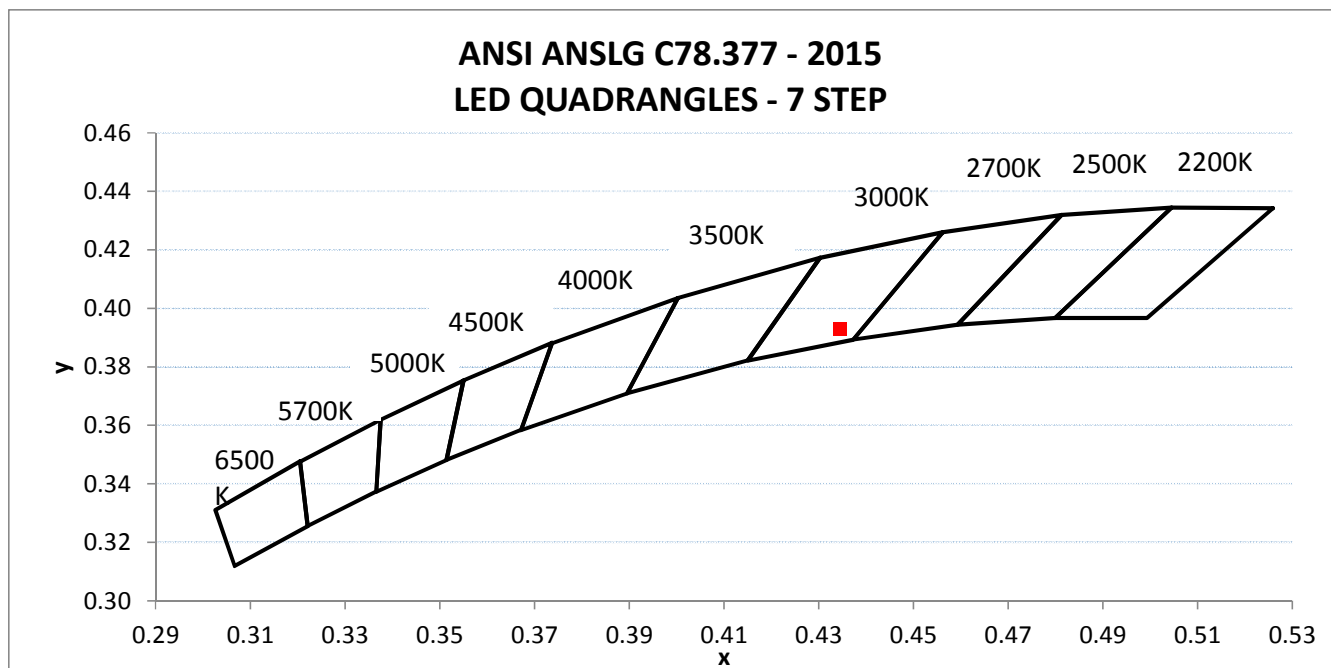
RESULTS OF TESTS

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 (%)
AH05172018024639-029	Base Up	120.01	210.26	24.95	0.989	11.84

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
1083.9	43.5	2943	97.0	88.6	0.0045

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.435	0.393	0.254	0.517



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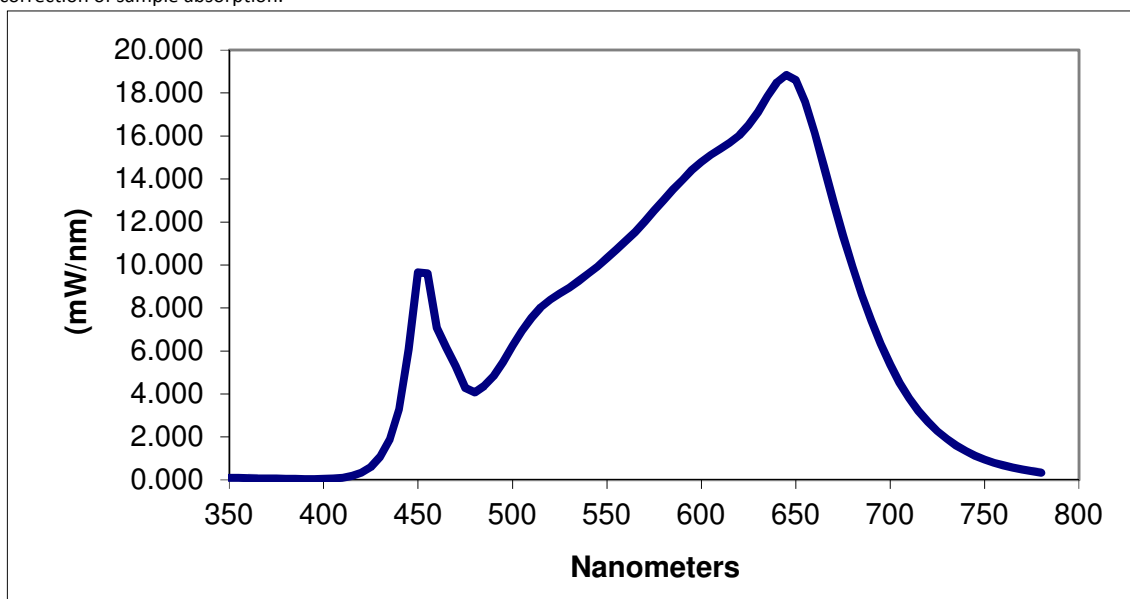
TEST REPORT

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	0.105	460	7.082	570	12.018	680	9.936
355	0.100	465	6.139	575	12.524	685	8.614
360	0.089	470	5.299	580	13.016	690	7.412
365	0.073	475	4.283	585	13.518	695	6.332
370	0.073	480	4.069	590	13.960	700	5.364
375	0.068	485	4.374	595	14.418	705	4.527
380	0.062	490	4.836	600	14.799	710	3.815
385	0.050	495	5.479	605	15.122	715	3.214
390	0.048	500	6.252	610	15.409	720	2.710
395	0.048	505	6.929	615	15.679	725	2.276
400	0.056	510	7.540	620	16.029	730	1.916
405	0.067	515	8.033	625	16.503	735	1.605
410	0.110	520	8.390	630	17.108	740	1.346
415	0.188	525	8.676	635	17.844	745	1.133
420	0.344	530	8.949	640	18.492	750	0.953
425	0.615	535	9.251	645	18.839	755	0.806
430	1.085	540	9.592	650	18.597	760	0.685
435	1.887	545	9.930	655	17.589	765	0.574
440	3.290	550	10.321	660	16.139	770	0.482
445	6.073	555	10.712	665	14.566	775	0.409
450	9.660	560	11.127	670	12.910	780	0.347
455	9.617	565	11.538	675	11.383		

*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
Engineer
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Attachments: IES File

REVISION HISTORY

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