

PURE EDGE LIGHTING

TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

P1SD-7W-4S-36-30K-SN

REPORT NUMBER

102602453CHI-032

ISSUE DATE

June 4, 2018

REVISION DATE

None

DOCUMENT CONTROL NUMBER

TBD

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TEST OF ONE LINEAR LED FIXTURE

MODEL NO. P1SD-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 P1SD-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 AH05172018024639-032.

DATE OF TESTS

May 29, 2018 through May 30, 2018.

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SUMMARY

MODEL NO:	P1SD-7W-4S-36-30K-SN
DESCRIPTION:	Linear LED fixture

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	2010.6	1924.8
Input Power (W) @ 120 (VAC)	24.78	24.814
Lumen Efficacy (lm/W)	81.1	77.6
Input Power Factor () @ 120 (VAC)	0.988	0.988

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	12.38
Correlated Color Temperature (K)	2991
Color Rendering Index - Ra ()	96.6
Color Rendering - R9 ()	86.1
DUV ()	0.0036
Chromaticity Coordinate (x)	0.432
Chromaticity Coordinate (y)	0.394
Chromaticity Coordinate (u')	0.252
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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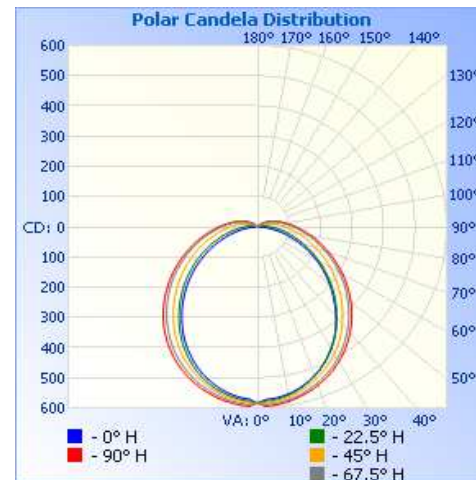
RESULTS OF TESTS

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)
AH05172018024639-032	Base Up	120.1	209.3	24.814	0.988	1924.8	77.6

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	584	584	584	584	584
5	571	576	580	587	593
10	562	566	572	580	586
15	546	550	558	568	574
20	525	527	539	551	558
25	499	499	514	530	539
30	466	467	486	506	515
35	429	430	455	477	488
40	388	391	418	445	457
45	344	350	380	410	423
50	301	308	342	373	387
55	257	266	303	336	349
60	213	224	265	299	311
65	169	184	229	262	274
70	128	148	194	226	238
75	89	115	163	194	204
80	55	86	134	164	174
85	26	62	109	137	146
90	3	42	87	114	122
95	1	29	69	93	101
100	1	19	54	76	83
105	1	12	41	61	68
110	1	7	30	49	55
115	1	4	22	38	43
120	1	2	14	29	34
125	1	2	10	20	23
130	1	2	6	13	16
135	1	1	4	9	11



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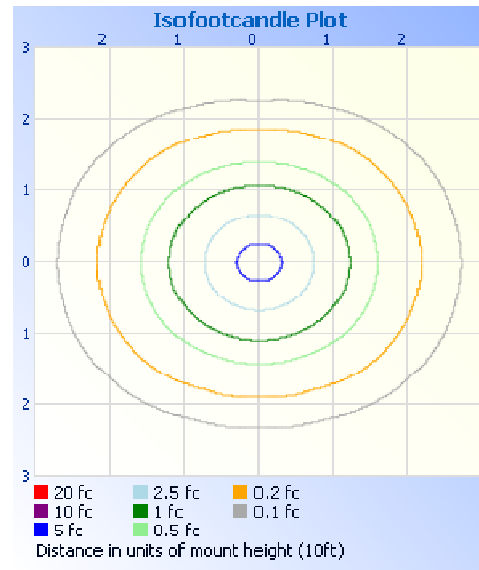
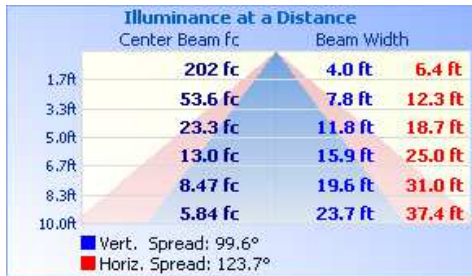
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RESULTS OF TESTS

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	449.2	23.3
0-40	732.5	38.1
0-60	1293.8	67.2
60-90	491.8	25.6
70-100	337.5	17.5
90-120	126.8	6.6
0-90	1785.6	92.8
90-180	139.1	7.2
0-180	1924.8	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	55.1	2.9
10-20	157.3	8.2
20-30	236.8	12.3
30-40	283.3	14.7
40-50	292.5	15.2
50-60	268.9	14.0
60-70	221.1	11.5
70-80	163.0	8.5
80-90	107.7	5.6
90-100	66.8	3.5
100-110	39.5	2.1
110-120	20.5	1.1
120-130	9.0	0.5
130-140	3.3	0.2

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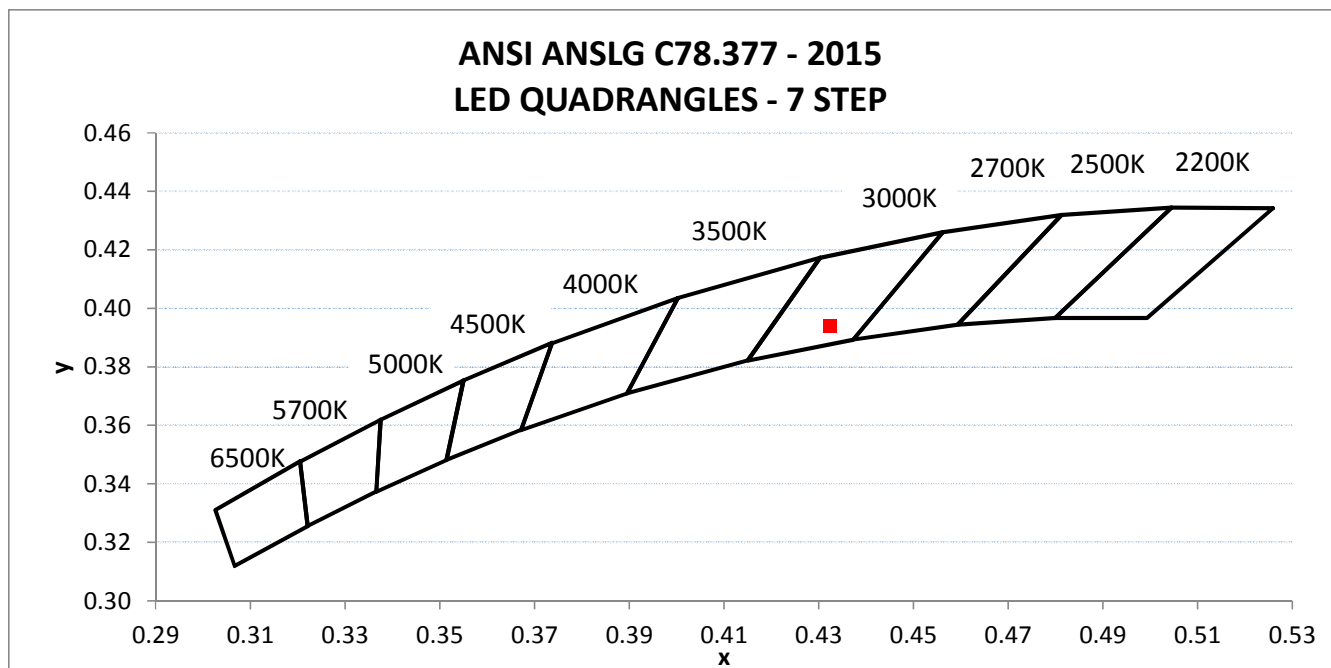
RESULTS OF TESTS

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 (%)
AH05172018024639-032	Base Up	120.00	209.06	24.78	0.988	12.38

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
2010.6	81.1	2991	96.6	86.1	0.0036

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.432	0.394	0.252	0.517



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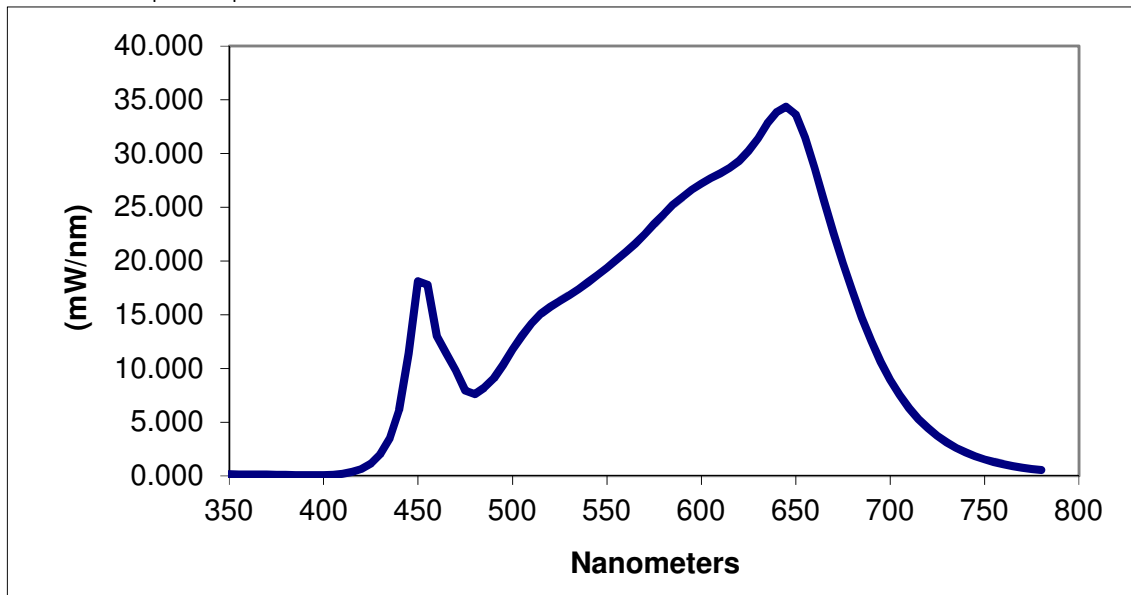
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RESULTS OF TESTS

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	0.177	460	13.038	570	22.498	680	17.157
355	0.159	465	11.401	575	23.447	685	14.723
360	0.155	470	9.834	580	24.360	690	12.546
365	0.148	475	7.955	585	25.229	695	10.632
370	0.137	480	7.618	590	25.939	700	8.958
375	0.124	485	8.211	595	26.649	705	7.542
380	0.114	490	9.089	600	27.215	710	6.321
385	0.090	495	10.329	605	27.703	715	5.300
390	0.095	500	11.785	610	28.153	720	4.457
395	0.088	505	13.049	615	28.647	725	3.734
400	0.096	510	14.187	620	29.309	730	3.125
405	0.128	515	15.097	625	30.243	735	2.609
410	0.212	520	15.736	630	31.392	740	2.190
415	0.377	525	16.282	635	32.784	745	1.833
420	0.660	530	16.803	640	33.874	750	1.540
425	1.159	535	17.365	645	34.354	755	1.297
430	2.022	540	18.038	650	33.618	760	1.101
435	3.509	545	18.675	655	31.484	765	0.924
440	6.134	550	19.374	660	28.646	770	0.777
445	11.390	555	20.096	665	25.659	775	0.657
450	18.139	560	20.841	670	22.619	780	0.556
455	17.809	565	21.614	675	19.823		

*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
Engineer
Lighting Division

Report Reviewed By:

Tim Quigley

Timothy Quigley
Engineer
Lighting Division

Attachments: IES File

REVISION HISTORY

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