

# PURE EDGE LIGHTING

## TEST REPORT

### SCOPE OF WORK

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

### MODEL NUMBER

P2SD-7W-4S-36-30K-SN

### REPORT NUMBER

102602453CHI-035

### ISSUE DATE

June 4, 2018

### REVISION DATE

None

### DOCUMENT CONTROL NUMBER

TBD

© 2017 INTERTEK



**REPORT NO.:102602453CHI-035**

**REPORT DATE: June 4, 2018**

**TEST REPORT**

**TEST OF ONE LINEAR LED FIXTURE**

MODEL NO. P2SD-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 P2SD-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 AH05172018024639-035.

**DATE OF TESTS**

May 29, 2018 through May 31, 2018.

**REPORT NO.:102602453CHI-035**

**TEST REPORT**

**REPORT DATE: June 4, 2018**

**SUMMARY**

<b>MODEL NO:</b>	P2SD-7W-4S-36-30K-SN
<b>DESCRIPTION:</b>	Linear LED fixture

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	2233.2	2145.0
Input Power (W) @ 120 (VAC)	25.27	25.289
Lumen Efficacy (lm/W)	88.4	84.8
Input Power Factor @ 120 (VAC)	0.993	0.993

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	9.90
Correlated Color Temperature (K)	3021
Color Rendering Index - Ra	95.6
Color Rendering - R9	80.4
DUV	0.0030
Chromaticity Coordinate (x)	0.431
Chromaticity Coordinate (y)	0.395
Chromaticity Coordinate (u')	0.251
Chromaticity Coordinate (v')	0.517

**REPORT NO.:102602453CHI-035**

**TEST REPORT**

**REPORT DATE: June 4, 2018**

**EQUIPMENT LIST**

<b>EQUIPMENT USED</b>	<b>MODEL NO.</b>	<b>CONTROL NO.</b>	<b>LAST CAL DATE</b>	<b>CAL DUE DATE</b>
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

**REPORT NO.:102602453CHI-035**

**REPORT DATE: June 4, 2018**

**TEST REPORT**

**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.

REPORT NO.:102602453CHI-035

REPORT DATE: June 4, 2018

TEST REPORT

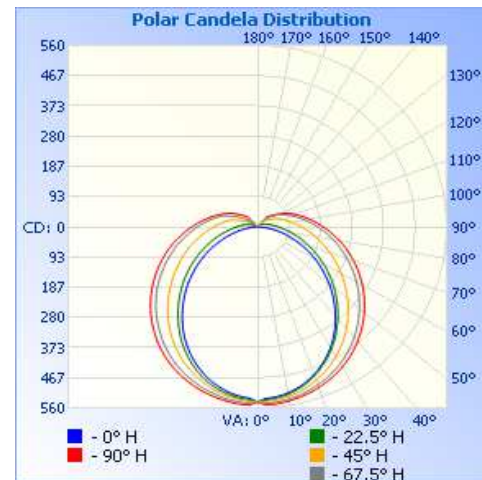
RESULTS OF TESTS

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)
AH05172018024639-035	Base Up	120.1	212.2	25.289	0.993	2145.0	84.8

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	541	541	541	541	541
5	529	534	539	545	550
10	521	525	532	540	546
15	507	511	521	532	538
20	486	490	505	520	529
25	461	466	486	506	516
30	432	437	463	489	501
35	397	404	438	469	483
40	358	370	410	445	462
45	319	334	379	420	438
50	279	297	348	393	412
55	237	260	316	366	386
60	196	224	285	338	358
65	155	189	255	310	330
70	116	156	226	281	302
75	81	127	199	254	274
80	48	100	174	227	246
85	21	78	151	202	220
90	3	62	131	178	195
95	2	48	112	156	171
100	2	39	97	137	151
105	2	31	83	119	132
110	2	24	71	103	114
115	2	19	59	89	99
120	3	16	46	76	84
125	3	14	38	60	67
130	3	13	32	49	54
135	4	11	27	40	45



**REPORT NO.:102602453CHI-035**

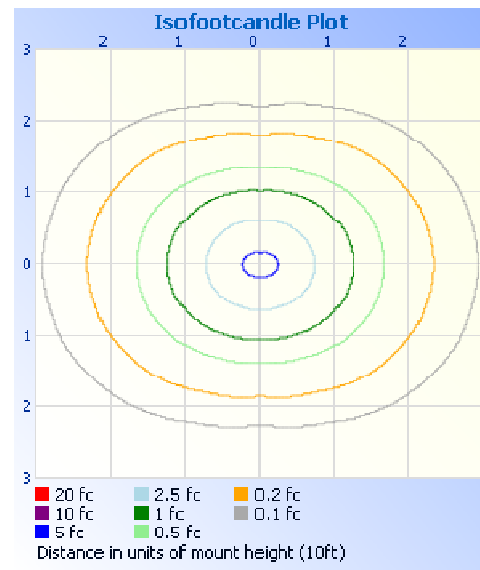
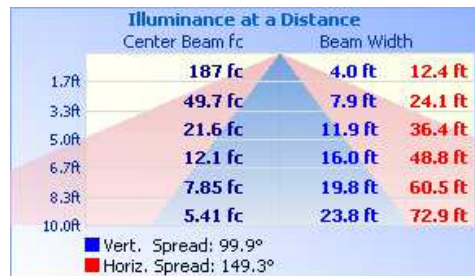
**REPORT DATE: June 4, 2018**

**TEST REPORT**

**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	421.5	19.7
0-40	694.3	32.4
0-60	1263.9	58.9
60-90	596.0	27.8
70-100	461.0	21.5
90-120	240.1	11.2
0-90	1859.9	86.7
90-180	285.0	13.3
0-180	2145.0	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	51.2	2.4
10-20	146.8	6.8
20-30	223.5	10.4
30-40	272.7	12.7
40-50	290.3	13.5
50-60	279.4	13.0
60-70	245.9	11.5
70-80	199.5	9.3
80-90	150.7	7.0
90-100	110.9	5.2
100-110	78.7	3.7
110-120	50.6	2.4
120-130	29.4	1.4
130-140	15.5	0.7

REPORT NO.:102602453CHI-035

REPORT DATE: June 4, 2018

TEST REPORT

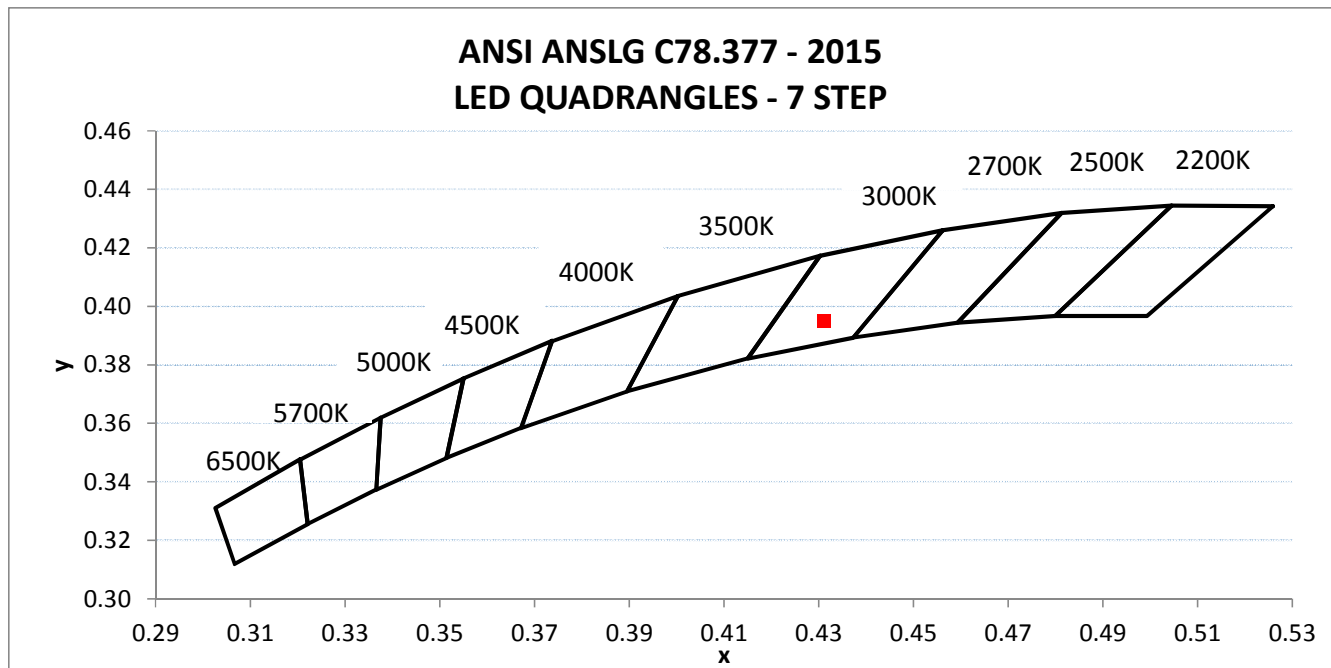
RESULTS OF TESTS

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 (%)
AH05172018024639-035	Base Up	119.98	212.11	25.27	0.993	9.90

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
2233.2	88.4	3021	95.6	80.4	0.0030

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.431	0.395	0.251	0.517





REPORT NO.:102602453CHI-035

REPORT DATE: June 4, 2018

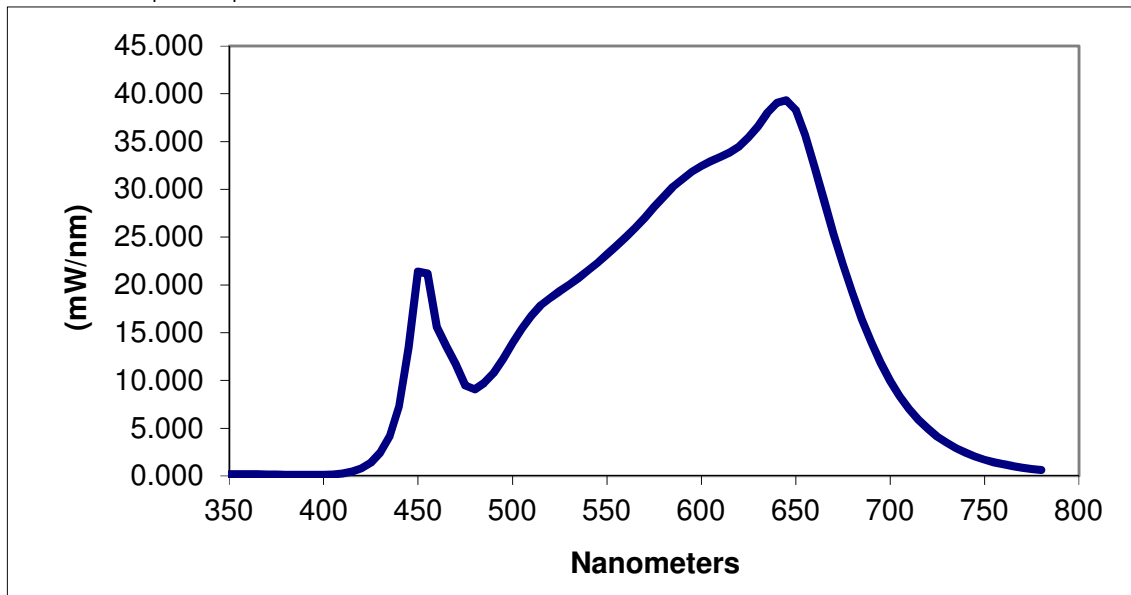
TEST REPORT

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	0.203	460	15.602	570	27.014	680	19.152
355	0.202	465	13.572	575	28.164	685	16.413
360	0.203	470	11.718	580	29.224	690	13.985
365	0.183	475	9.488	585	30.268	695	11.837
370	0.163	480	9.058	590	31.063	700	9.949
375	0.155	485	9.744	595	31.836	705	8.375
380	0.133	490	10.791	600	32.445	710	7.023
385	0.124	495	12.212	605	32.936	715	5.887
390	0.117	500	13.932	610	33.388	720	4.947
395	0.116	505	15.436	615	33.835	725	4.129
400	0.121	510	16.783	620	34.482	730	3.468
405	0.163	515	17.882	625	35.434	735	2.896
410	0.259	520	18.654	630	36.599	740	2.423
415	0.458	525	19.352	635	37.999	745	2.035
420	0.810	530	20.006	640	39.040	750	1.716
425	1.406	535	20.733	645	39.329	755	1.442
430	2.439	540	21.522	650	38.290	760	1.218
435	4.182	545	22.304	655	35.705	765	1.023
440	7.285	550	23.206	660	32.361	770	0.862
445	13.443	555	24.082	665	28.864	775	0.725
450	21.388	560	24.998	670	25.355	780	0.621
455	21.178	565	25.942	675	22.166		

\*Without correction of sample absorption.



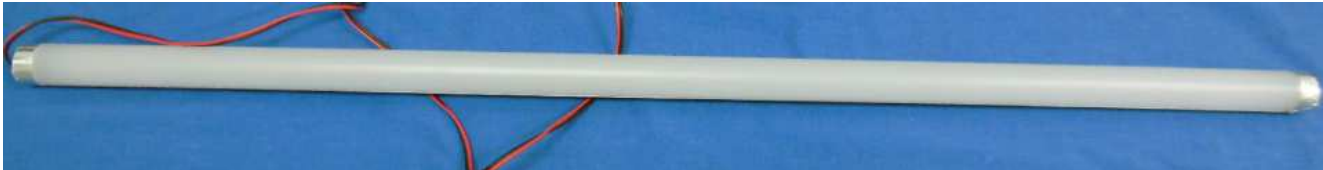
End Of Test Results

**REPORT NO.:102602453CHI-035**

**REPORT DATE: June 4, 2018**

**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:

*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				