

PURE EDGE LIGHTING

TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

FJ-PST-WF-1-30K-SN

REPORT NUMBER

103597691CHI-026

ISSUE DATE

January 25, 2019

REVISION DATE

None

DOCUMENT CONTROL NUMBER

TBD

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REPORT DATE: January 25, 2019

TEST REPORT

TEST OF ONE FAST JACK/RAIL

MODEL NO. FJ-PST-WF-1-30K-SN
LED MODEL NO. LUXEON M/B61402204
DRIVER MODEL NO. MAGNITUDE/SR-612

RENDERED TO:

PURE EDGE LIGHTING
1718 WEST FULLERTON
CHICAGO, IL 60614

AUTHORIZATION

The testing performed was authorized by signed quote number Qu-00901421-0.

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 FJ-PST-WF-1-30K-SN. The sample was received by Intertek on January 17, 2019 in undamaged condition and one sample was tested as received. The sample designation was AH01172019034846-026.

DATE OF TESTS

January 24, 2019 through January 25, 2019.

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SUMMARY

MODEL NO:	FJ-PST-WF-1-30K-SN
DESCRIPTION:	fast jack/rail

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	469.8	465.2
Input Power (W) @ 120 (VAC)	8.97	8.81
Lumen Efficacy (lm/W)	52.4	52.8
Input Power Factor @ 120 (VAC)	0.646	0.677

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	70.63
Correlated Color Temperature (K)	3027
Color Rendering Index - Ra	94.5
Color Rendering - R9	77.1
DUV	0.0010
Chromaticity Coordinate (x)	0.434
Chromaticity Coordinate (y)	0.401
Chromaticity Coordinate (u')	0.250
Chromaticity Coordinate (v')	0.520

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EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	LAST CAL DATE	CAL DUE DATE
Yokogawa Power Meter	WT210	146919	7/9/2018	7/9/2019
Omega Newport Thermometer	DPI8-C24	146920	10/4/2018	10/4/2019
LSI High Speed Mirror Goniometer	6440T	146928	VBU	VBU
Newport Thermohygrometer	iServer	146379	4/16/2018	4/16/2019
Pacific, AC power supply	118-ACX	CHI0358	VBU	VBU
Labsphere 2M Sphere & Spectroradiometer	CDS1100	146137	VBU	VBU
Elgar AC Power Supply	CW1251M	146113	VBU	VBU
Sorenson DC Power Supply	XFR150-8	146847	VBU	VBU
Yokogawa Power Analyzer	WT1600	146767	4/5/2018	4/5/2019
Omega Temperature	MDSi8	146873	7/10/2018	7/10/2019
Newport Thermohygrometer	iTHX-M	146961	4/16/2018	4/16/2019
Yokogawa Power Analyzer	WT230	146454	10/2/2018	10/2/2019
Staco Variac	3PN2210B	146360	VBU	VBU

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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.

TEST REPORT

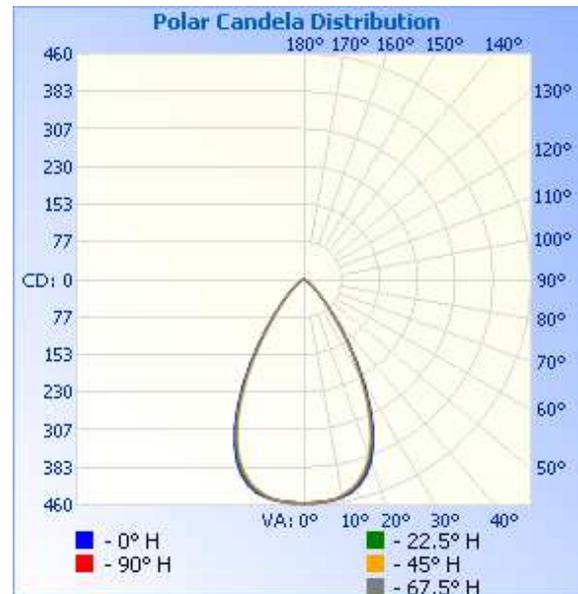
RESULTS OF TESTS

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)
AH01172019034846-026	Base Up	120.0	108.6	8.81	0.677	465.2	52.8

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	456	456	456	456	456
5	454	455	455	456	456
10	450	449	446	448	450
15	435	430	424	428	431
20	397	392	384	387	390
25	331	325	316	321	323
30	246	238	229	235	239
35	159	152	145	150	155
40	92	87	83	86	90
45	52	49	47	48	51
50	30	28	27	28	29
55	17	17	16	16	17
60	10	10	10	10	10
65	5	5	5	5	5
70	3	3	3	3	3
75	1	1	1	1	1
80	0	0	0	0	0
85	0	0	0	0	0
90	0	0	0	0	0



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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
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ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	307.9	66.2
0-40	403.2	86.7
0-60	458.2	98.5
60-90	6.9	1.5
70-100	1.3	0.3
90-120	0.0	0.0
0-90	465.2	100.0
90-180	0.0	0.0
0-180	465.2	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	43.2	9.3
10-20	119.5	25.7
20-30	145.2	31.2
30-40	95.3	20.5
40-50	39.6	8.5
50-60	15.4	3.3
60-70	5.6	1.2
70-80	1.3	0.3
80-90	0.0	0.0

TEST REPORT

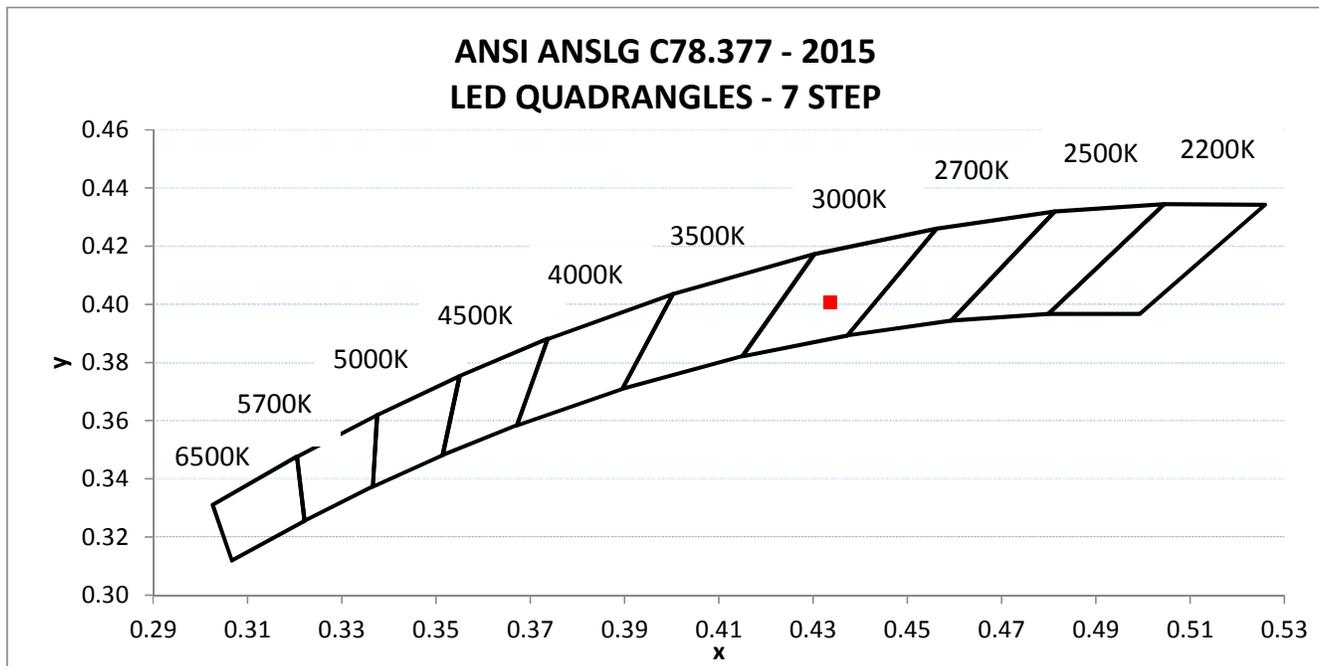
RESULTS OF TESTS

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 (%)
AH01172019034846-026	Base Up	120.02	115.76	8.97	0.646	70.63

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
469.8	52.4	3027	94.5	77.1	0.0010

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.434	0.401	0.250	0.520



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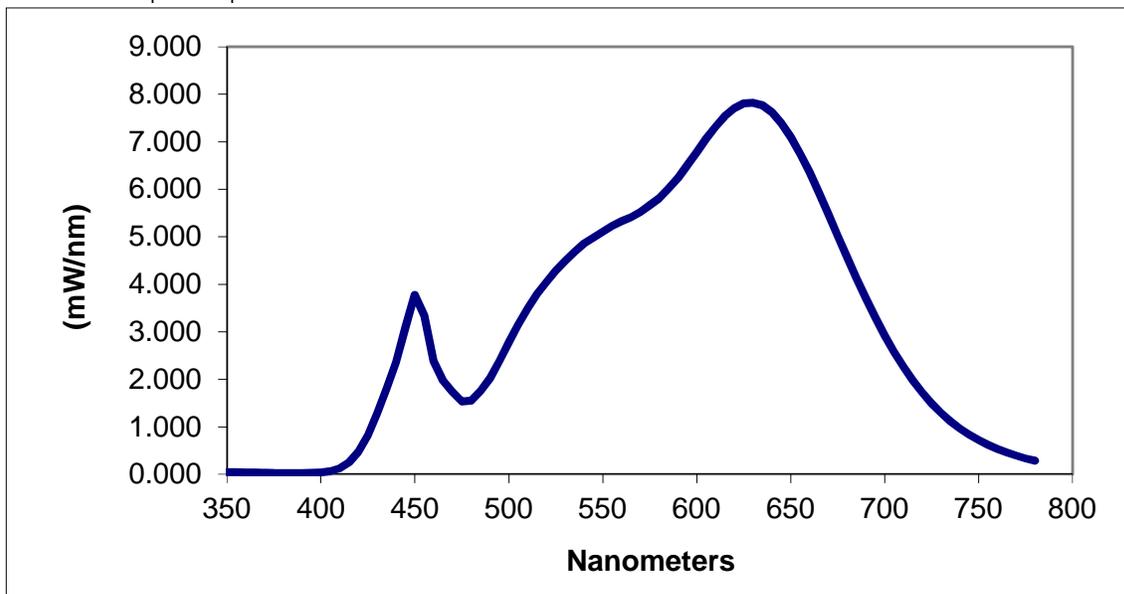
REPORT DATE: January 25, 2019

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	0.046	460	2.381	570	5.528	680	4.567
355	0.043	465	1.967	575	5.664	685	4.123
360	0.039	470	1.735	580	5.810	690	3.705
365	0.038	475	1.530	585	6.013	695	3.305
370	0.034	480	1.552	590	6.240	700	2.922
375	0.029	485	1.751	595	6.511	705	2.581
380	0.028	490	2.031	600	6.785	710	2.264
385	0.028	495	2.382	605	7.066	715	1.975
390	0.026	500	2.784	610	7.318	720	1.722
395	0.031	505	3.150	615	7.543	725	1.491
400	0.040	510	3.494	620	7.705	730	1.291
405	0.066	515	3.800	625	7.805	735	1.116
410	0.126	520	4.051	630	7.820	740	0.967
415	0.252	525	4.286	635	7.768	745	0.836
420	0.476	530	4.494	640	7.621	750	0.721
425	0.820	535	4.681	645	7.391	755	0.622
430	1.286	540	4.860	650	7.102	760	0.538
435	1.813	545	4.985	655	6.751	765	0.460
440	2.355	550	5.109	660	6.363	770	0.393
445	3.099	555	5.227	665	5.936	775	0.337
450	3.778	560	5.328	670	5.479	780	0.290
455	3.343	565	5.408	675	5.022		

*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:

Timothy Quigley
Engineer
Lighting Division

Report Reviewed By:

Hector Huitron
Associate Engineer
Lighting Division

Attachments: IES File

REVISION HISTORY

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