

PURE EDGE LIGHTING

TEST REPORT

SCOPE OF WORK

Electrical and Photometric tests as required to the IESNA LM-79 test standard.

MODEL NUMBER

PWW-7W-36IN-30K-XX

REPORT NUMBER

103597691CHI-037

ISSUE DATE

February 19, 2020

REVISION DATE

None

DOCUMENT CONTROL NUMBER

TBD

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REPORT DATE: February 19, 2020

TEST REPORT

TEST OF ONE LINEAR LUMINAIRE

MODEL NO. PWW-7W-36IN-30K-XX
LED MODEL NO. LUMILED 2835
DRIVER MODEL NO. LTF TA60WD24LEDRE-0000

RENDERED TO:

PURE EDGE LIGHTING
1718 WEST FULLERTON
CHICAGO, IL 60614

STATEMENT OF LIMITATIONS

NVLAP Lab Code 600186-0. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government.

AUTHORIZATION

The testing performed was authorized by signed quote number Qu-00901421-1.

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 PWW-7W-36IN-30K-XX. The sample was received by Intertek on February 3, 2020 in undamaged condition and one sample was tested as received. The sample designation was AH02032020121245.

DATE OF TESTS

February 13, 2020 through February 13, 2020.

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SUMMARY

MODEL NO:	PWW-7W-36IN-30K-XX
DESCRIPTION:	Linear Luminaire

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	1919.0	1934.9
Input Power (W) @ 120 (VAC)	33.59	33.72
Lumen Efficacy (lm/W)	57.1	57.4
Input Power Factor () @ 120 (VAC)	0.938	0.940

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	36.21
Correlated Color Temperature (K)	3062
Color Rendering Index - Ra	93.1
Color Rendering - R9	67.7
DUV	-0.0010
Chromaticity Coordinate (x)	0.431
Chromaticity Coordinate (y)	0.399
Chromaticity Coordinate (u')	0.249
Chromaticity Coordinate (v')	0.519

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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	10/3/2019	10/3/2020
LSI High Speed Mirror Goniometer	6440T	146928	VBV	VBV
Newport Thermohygrometer	iServer	146957	12/2/2019	12/2/2020
Pacific, AC Power Supply	118-ACX	CHI-0153	VBV	VBV
Labsphere Spectroradiometer	CDS1100	CHI0091	VBV	VBV
3 Meter Sphere	SPR600	CHI0088	VBV	VBV
Elgar AC Power Supply	CW1251	146112	VBV	VBV
Sorenson DC Power Supply	XFR150-8	146846	VBV	VBV
Newport Humidity Recorder	iTHX-SD	146382	4/17/2019	4/17/2020
Yokogawa Power Meter	WT1600	146769	4/3/2019	4/3/2020
Extech K Temperature Meter	SD200	CHI0207	4/3/2019	4/3/2020

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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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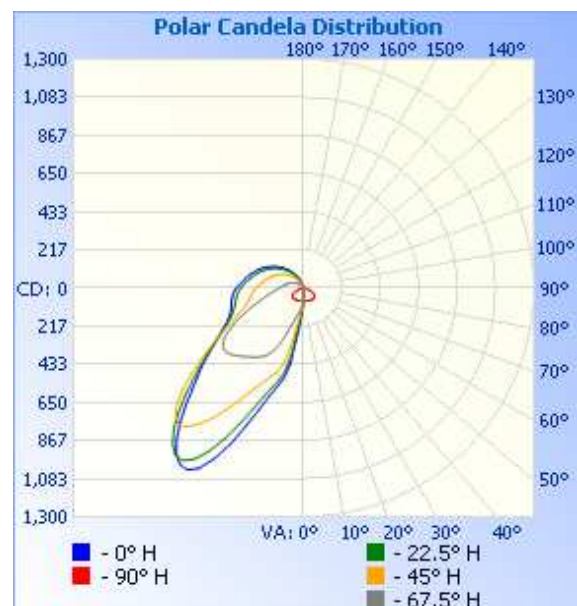
RESULTS OF TESTS

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)
AH02032020121245	Horizontal	120.0	299.1	33.72	0.940	1934.9	57.4

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	74	74	74	74	74
5	27	26	34	49	73
10	4	6	16	33	73
15	0	0	1	22	75
20	0	0	0	13	76
25	0	0	0	4	77
30	0	0	0	0	79
35	0	0	0	0	79
40	0	0	0	0	80
45	0	0	0	0	81
50	0	0	0	0	79
55	0	0	0	0	75
60	0	0	0	0	67
65	0	0	0	0	54
70	0	0	0	0	39
75	0	0	0	0	24
80	0	0	0	0	12
85	0	0	0	0	3
90	0	0	0	0	0



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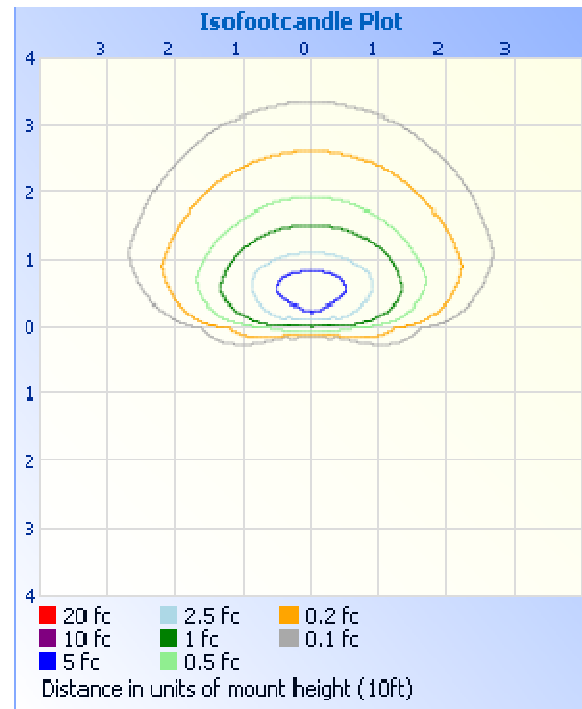
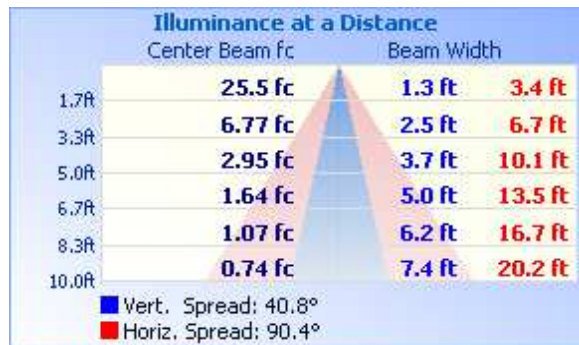
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RESULTS OF TESTS

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	207.5	10.7
0-40	460.4	23.8
0-60	1020.2	52.7
60-90	504.6	26.1
70-100	422.3	21.8
90-120	295.5	15.3
0-90	1524.8	78.8
90-180	410.1	21.2
0-180	1934.9	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	9.6	0.5
10-20	56.0	2.9
20-30	141.9	7.3
30-40	253.0	13.1
40-50	297.9	15.4
50-60	261.9	13.5
60-70	202.2	10.5
70-80	161.7	8.4
80-90	140.6	7.3
90-100	119.9	6.2
100-110	98.6	5.1
110-120	76.9	4.0
120-130	54.9	2.8
130-140	34.5	1.8
140-150	17.9	0.9
150-160	6.5	0.3
160-170	0.9	0.0

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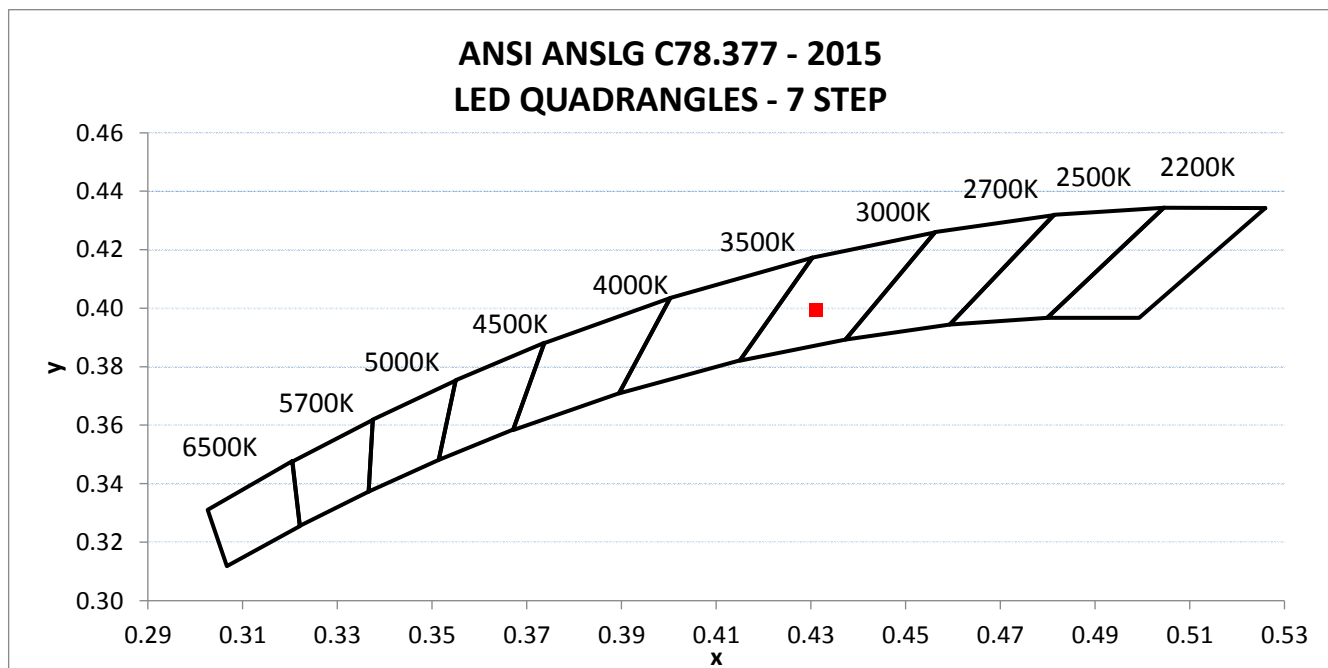
RESULTS OF TESTS

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 (%)
AH02032020121245	Horizontal	119.98	298.35	33.59	0.938	36.21

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
1919.0	57.1	3062	93.1	67.7	-0.0010

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.431	0.399	0.249	0.519



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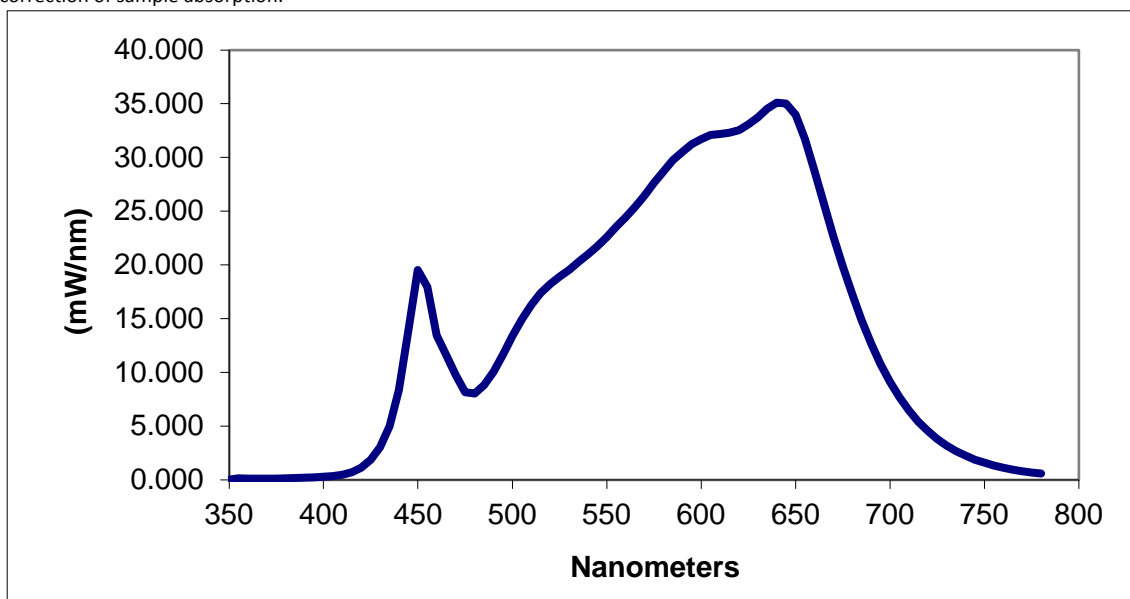
TEST REPORT

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	0.050	460	13.452	570	26.470	680	17.250
355	0.142	465	11.598	575	27.614	685	14.861
360	0.119	470	9.792	580	28.701	690	12.688
365	0.112	475	8.159	585	29.725	695	10.774
370	0.115	480	8.023	590	30.511	700	9.117
375	0.126	485	8.804	595	31.224	705	7.701
380	0.135	490	10.060	600	31.693	710	6.463
385	0.174	495	11.620	605	32.080	715	5.428
390	0.211	500	13.393	610	32.170	720	4.557
395	0.249	505	14.908	615	32.286	725	3.821
400	0.302	510	16.267	620	32.531	730	3.190
405	0.354	515	17.387	625	33.058	735	2.686
410	0.476	520	18.203	630	33.730	740	2.256
415	0.708	525	18.887	635	34.529	745	1.877
420	1.133	530	19.529	640	35.103	750	1.599
425	1.884	535	20.253	645	35.007	755	1.336
430	3.045	540	20.987	650	33.961	760	1.127
435	4.983	545	21.725	655	31.711	765	0.951
440	8.352	550	22.603	660	28.732	770	0.812
445	13.971	555	23.530	665	25.729	775	0.674
450	19.521	560	24.431	670	22.620	780	0.581
455	17.940	565	25.375	675	19.881		

*Without correction of sample absorption.



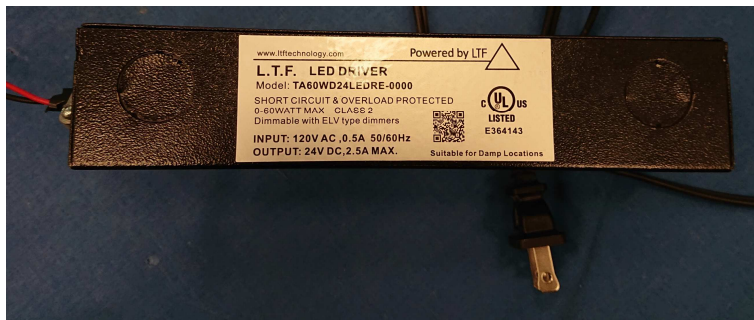
End Of Test Results

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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:

Ian Smith

Ian Smith
Engineer
Lighting Division

Report Reviewed By:

Jeff Davis

Jeff Davis
NA Technical Lead
Lighting Division

Attachments: IES File

REVISION HISTORY

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