

PURE EDGE LIGHTING

TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

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

REPORT NUMBER

103597691CHI-036

ISSUE DATE

February 19, 2020

REVISION DATE

None

DOCUMENT CONTROL NUMBER

TBD

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REPORT NO.: 103597691CHI-036

REPORT DATE: February 19, 2020

TEST REPORT

TEST OF ONE LINEAR LUMINAIRE

MODEL NO. PW-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 PW-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 6, 2020 through February 13, 2020.

REPORT NO.: 103597691CHI-036

REPORT DATE: February 19, 2020

TEST REPORT

SUMMARY

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

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	1528.5	1559.0
Input Power (W) @ 120 (VAC)	34.21	34.45
Lumen Efficacy (lm/W)	44.7	45.3
Input Power Factor () @ 120 (VAC)	0.939	0.940

CRITERIA	RESULTS
Input Current ATHD (%) @ 120 (VAC)	35.95
Correlated Color Temperature (K)	2996
Color Rendering Index - Ra	93.4
Color Rendering - R9	68.4
DUV	-0.0019
Chromaticity Coordinate (x)	0.434
Chromaticity Coordinate (y)	0.398
Chromaticity Coordinate (u')	0.251
Chromaticity Coordinate (v')	0.519

REPORT NO.: 103597691CHI-036

TEST REPORT

REPORT DATE: February 19, 2020

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

REPORT NO.: 103597691CHI-036

REPORT DATE: February 19, 2020

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.: 103597691CHI-036

REPORT DATE: February 19, 2020

TEST REPORT

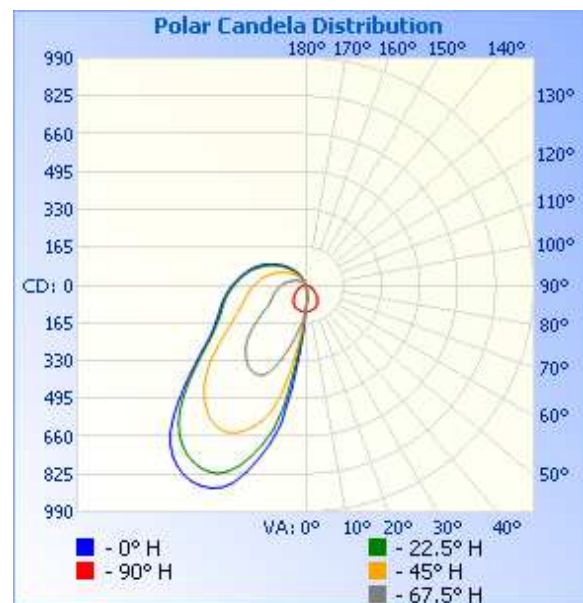
RESULTS OF TESTS

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)
AH02032020121245	Horizontal	120.0	305.5	34.45	0.940	1559.0	45.3

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	116	116	116	116	116
5	50	51	63	84	115
10	10	13	28	61	114
15	0	0	7	41	111
20	0	0	0	23	109
25	0	0	0	9	104
30	0	0	0	0	99
35	0	0	0	0	91
40	0	0	0	0	80
45	0	0	0	0	70
50	0	0	0	0	57
55	0	0	0	0	47
60	0	0	0	0	38
65	0	0	0	0	30
70	0	0	0	0	23
75	0	0	0	0	15
80	0	0	0	0	8
85	0	0	0	0	3
90	0	0	0	0	0



REPORT NO.: 103597691CHI-036

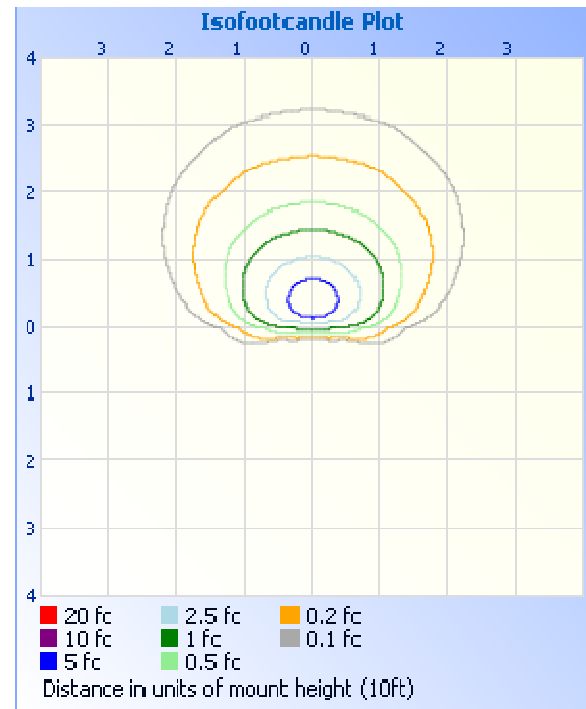
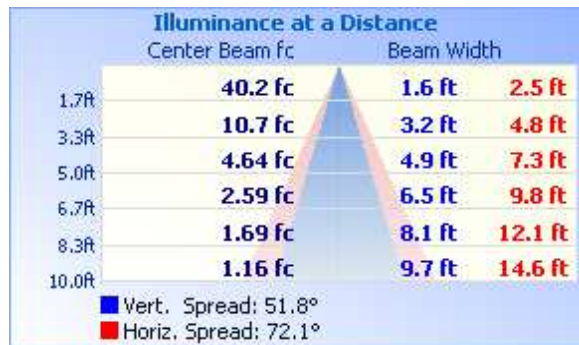
REPORT DATE: February 19, 2020

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	243.9	15.6
0-40	448.0	28.7
0-60	842.3	54.0
60-90	397.7	25.5
70-100	349.2	22.4
90-120	239.9	15.4
0-90	1240.0	79.5
90-180	319.0	20.5
0-180	1559.0	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	15.6	1.0
10-20	76.2	4.9
20-30	152.1	9.8
30-40	204.1	13.1
40-50	213.7	13.7
50-60	180.6	11.6
60-70	148.3	9.5
70-80	132.0	8.5
80-90	117.3	7.5
90-100	99.8	6.4
100-110	80.4	5.2
110-120	59.7	3.8
120-130	40.3	2.6
130-140	23.6	1.5
140-150	11.2	0.7
150-160	3.7	0.2
160-170	0.3	0.0

REPORT NO.: 103597691CHI-036

REPORT DATE: February 19, 2020

TEST REPORT

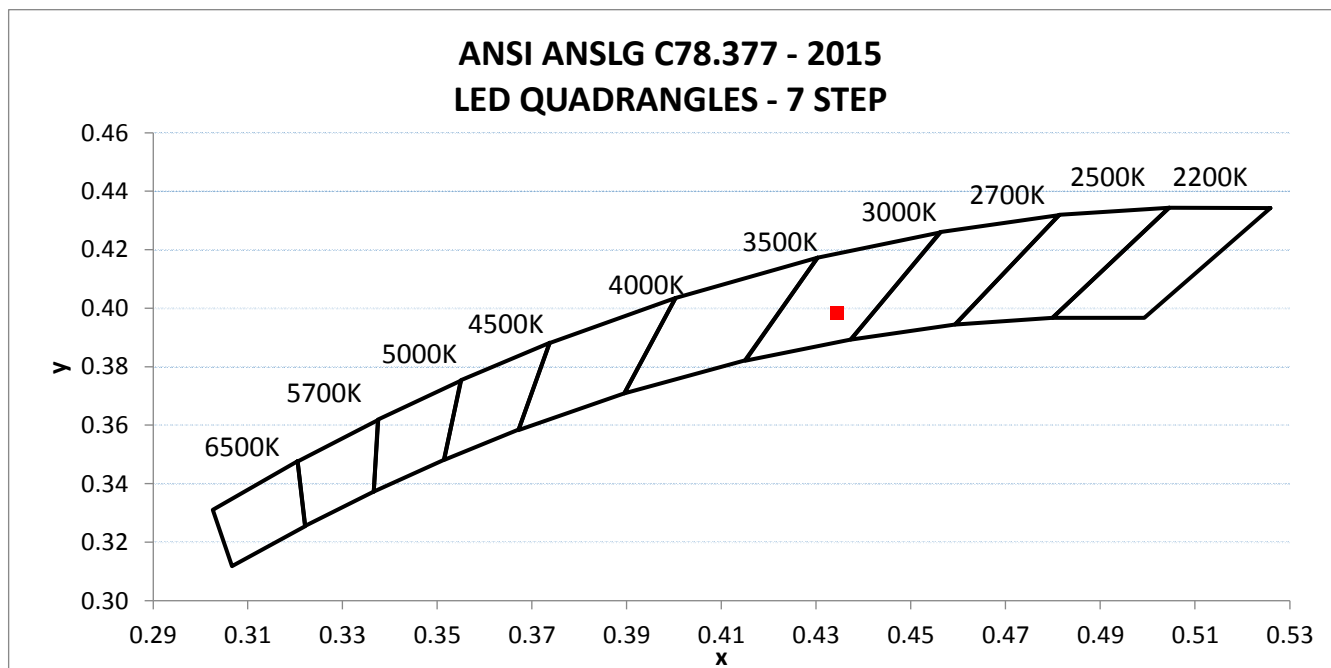
RESULTS OF TESTS

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 (%)
AH02032020121245	Horizontal	120.00	303.76	34.21	0.939	35.95

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
1528.5	44.7	2996	93.4	68.4	-0.0019

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.434	0.398	0.251	0.519



REPORT NO.: 103597691CHI-036

REPORT DATE: February 19, 2020

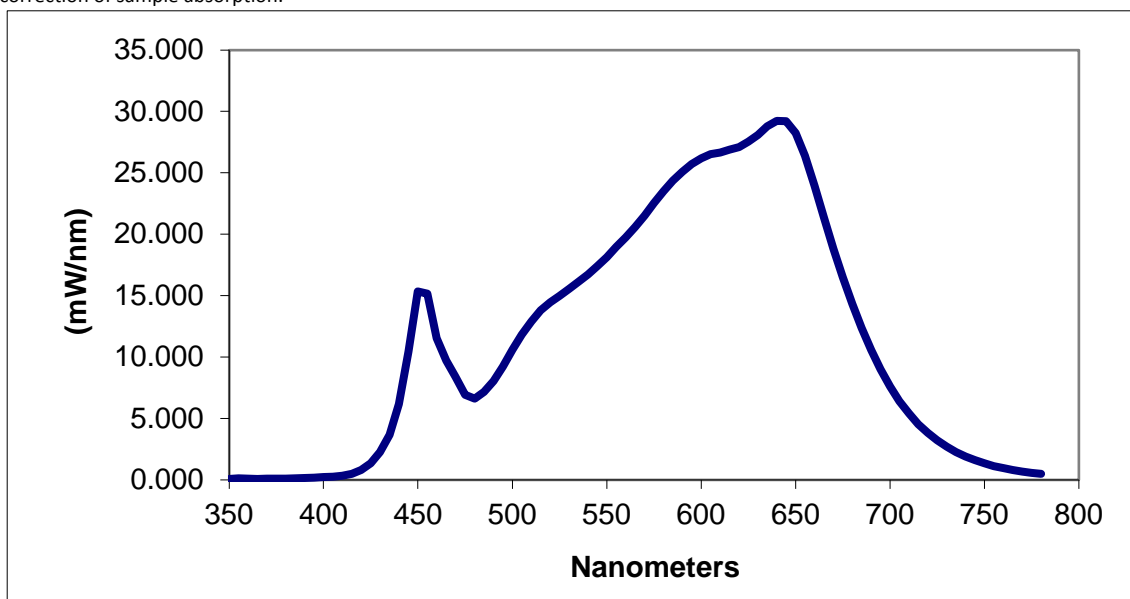
TEST REPORT

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	0.076	460	11.536	570	21.516	680	14.331
355	0.124	465	9.715	575	22.515	685	12.361
360	0.100	470	8.383	580	23.478	690	10.571
365	0.081	475	6.931	585	24.354	695	9.007
370	0.095	480	6.622	590	25.072	700	7.614
375	0.099	485	7.163	595	25.693	705	6.414
380	0.109	490	8.041	600	26.167	710	5.423
385	0.114	495	9.225	605	26.512	715	4.541
390	0.155	500	10.600	610	26.650	720	3.826
395	0.185	505	11.815	615	26.880	725	3.217
400	0.237	510	12.892	620	27.083	730	2.695
405	0.256	515	13.791	625	27.519	735	2.269
410	0.327	520	14.459	630	28.081	740	1.894
415	0.482	525	14.981	635	28.776	745	1.603
420	0.801	530	15.548	640	29.241	750	1.349
425	1.362	535	16.128	645	29.189	755	1.128
430	2.271	540	16.729	650	28.242	760	0.958
435	3.676	545	17.401	655	26.382	765	0.806
440	6.172	550	18.114	660	23.924	770	0.679
445	10.440	555	18.954	665	21.368	775	0.571
450	15.338	560	19.731	670	18.810	780	0.495
455	15.144	565	20.564	675	16.521		

*Without correction of sample absorption.



End Of Test Results

REPORT NO.: 103597691CHI-036

REPORT DATE: February 19, 2020

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:

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				