

VISUAL COMFORT & COMPANY TEST REPORT

SCOPE OF WORK

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

MODEL NUMBER

700**PALO**

REPORT NUMBER

104349704CHI-001

ISSUE DATE

August 18, 2020

REVISION DATE

None

DOCUMENT CONTROL NUMBER

TBD

© 2017 INTERTEK



REPORT NO.: 104349704CHI-001

REPORT DATE: August 18, 2020

TEST REPORT

TEST OF ONE MINI PALESTRA PENDANT

MODEL NO. 700**PALO**
LED MODEL NO. 300BLV035
DRIVER MODEL NO. NA

RENDERED TO:

VISUAL COMFORT & COMPANY
7400 LINDER AVE
SKOKIE, IL 60077

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 .

STANDARDS USED

IESNA LM-46 - 2004: Photometric Testing of Indoor Luminaires Using High Intensity Discharge or Incandescent Filament Lamps

IESNA LM-54:2012: Guide to Lamp Seasoning

DESCRIPTION OF SAMPLE

The client submitted one production sample of model number 700**PALO**. The sample was received by Intertek on August 5, 2020 in undamaged condition and one sample was tested as received. The sample designation was AH08052020182125-001.

DATE OF TESTS

August 18, 2020

REPORT NO.: 104349704CHI-001

REPORT DATE: August 18, 2020

TEST REPORT

SUMMARY

MODEL NO:	700**PALO**
DESCRIPTION:	MINI PALESTRA PENDANT

CRITERIA	RESULTS	
	INTEGRATING SPHERE	GONIOPHOTOMETER
Lumen Output (lumens)	433.5	425.9
Input Power (W) @ 12 (VAC)	35.65	35.34
Lumen Efficacy (lm/W)	12.2	12.1
Input Power Factor @ 12 (VAC)	NA	NA

CRITERIA	RESULTS
Input Current ATHD (%) @ 12 (VAC)	NA
Correlated Color Temperature (K)	2809
Color Rendering Index - Ra	98.9
Color Rendering - R9	95.6
DUV	0.0002
Chromaticity Coordinate (x)	0.452
Chromaticity Coordinate (y)	0.409
Chromaticity Coordinate (u')	0.258
Chromaticity Coordinate (v')	0.526

REPORT NO.: 104349704CHI-001

TEST REPORT

REPORT DATE: August 18, 2020

EQUIPMENT LIST

EQUIPMENT USED	MODEL NO.	CONTROL NO.	LAST CAL DATE	CAL DUE DATE
Yokogawa Power Meter	WT210	146919	7/1/2020	7/1/2021
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	CHI0153	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	4/6/2020	4/6/2021
Omega Temperature	MDSi8	146873	7/2/2020	7/2/2021

REPORT NO.: 104349704CHI-001

REPORT DATE: August 18, 2020

TEST REPORT

TEST METHODS

SEASONING IN SAMPLE ORIENTATION

The lamp was seasoned per the requirements of IES LM54-12: IES Guide to Lamp Seasoning.

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 unit.

Ambient temperature was measured at a position inside the sphere. Each unit was operated on the client provided driver at the rated input voltage in its designated orientation. Each unit was allowed to stabilize per the requirements of the Standard.

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 sample.

Ambient temperature was measured equal to the height of the sample mounted on the goniometer equipment. The sample was operated on the client provided driver at rated input volts in its designated orientation. The sample was allowed to stabilize per the requirements of the Standard before measurements were made. Electrical measurements including voltage, current, and power were measured using a power analyzer.

REPORT NO.: 104349704CHI-001

TEST REPORT

REPORT DATE: August 18, 2020

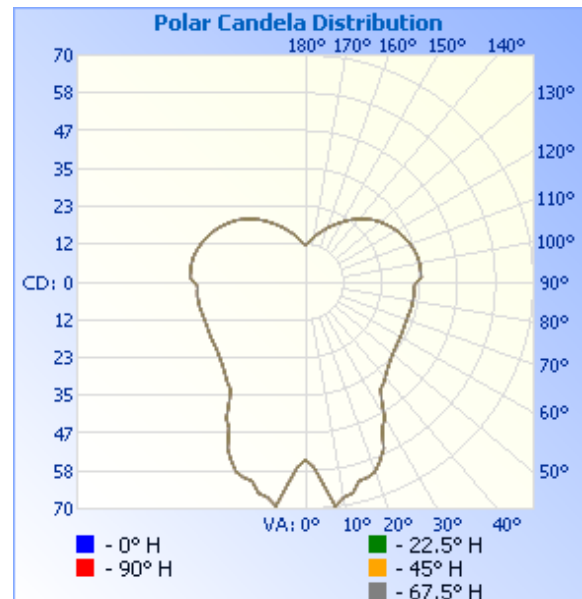
RESULTS OF TESTS

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)
AH08052020182125-001	Base Up	12.0	2946.2	35.34	NA	425.9	12.1

INTENSITY SUMMARY - CANDELAS

Angle	0	22.5	45	67.5	90
0	55	55	55	55	55
5	63	63	63	63	63
10	67	67	67	67	67
15	64	64	64	64	64
20	62	62	62	62	62
25	57	57	57	57	57
30	49	49	49	49	49
35	40	40	40	40	40
40	38	38	38	38	38
45	36	36	36	36	36
50	35	35	35	35	35
55	34	34	34	34	34
60	34	34	34	34	34
65	33	33	33	33	33
70	33	33	33	33	33
75	33	33	33	33	33
80	33	33	33	33	33
85	33	33	33	33	33
90	34	34	34	34	34
95	36	36	36	36	36
100	35	35	35	35	35
105	35	35	35	35	35
110	34	34	34	34	34
115	33	33	33	33	33
120	32	32	32	32	32
125	31	31	31	31	31
130	29	29	29	29	29
135	27	27	27	27	27
140	26	26	26	26	26
145	23	23	23	23	23
150	21	21	21	21	21
155	19	19	19	19	19
160	17	17	17	17	17
165	16	16	16	16	16
170	14	14	14	14	14
175	12	12	12	12	12
180	12	12	12	12	12



REPORT NO.: 104349704CHI-001

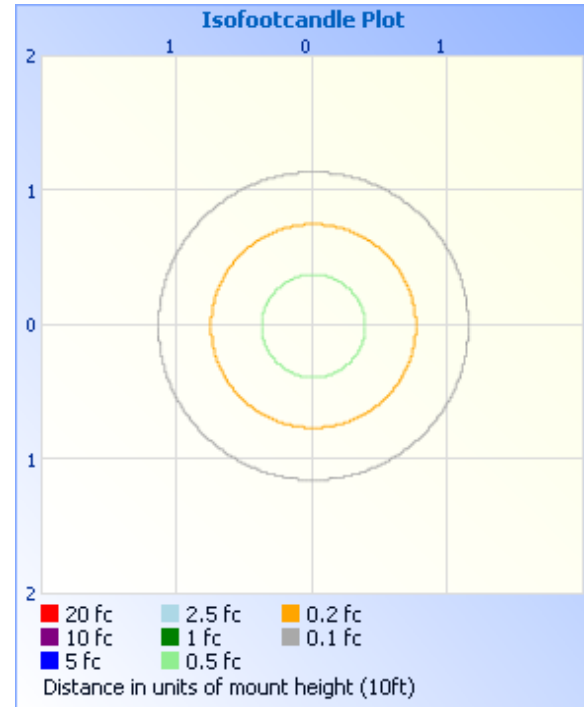
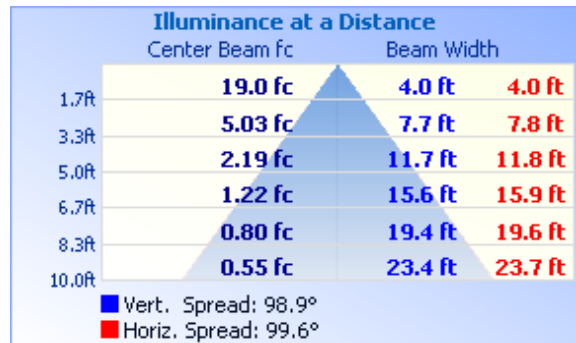
REPORT DATE: August 18, 2020

TEST REPORT

RESULTS OF TESTS

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - DISTRIBUTION METHOD (25°C +/- 5°C)

MOUNTING HEIGHT: 10ft	
ILLUMINANCE - CONE OF LIGHT	ISOILLUMINATION PLOT



ZONAL LUMEN SUMMARY AND PERCENTAGES

ZONE	LUMENS	% LUMINAIRE
0-30	50.0	11.7
0-40	76.0	17.8
0-60	134.6	31.6
60-90	104.7	24.6
70-100	110.2	25.9
90-120	108.4	25.5
0-90	239.2	56.2
90-180	186.6	43.8
0-180	425.9	100.0

ZONE	LUMENS	% LUMINAIRE
0-10	6.3	1.5
10-20	18.2	4.3
20-30	25.5	6.0
30-40	26.0	6.1
40-50	28.0	6.6
50-60	30.6	7.2
60-70	33.0	7.8
70-80	35.2	8.3
80-90	36.4	8.6
90-100	38.5	9.1
100-110	37.0	8.7
110-120	32.9	7.7
120-130	27.5	6.5
130-140	21.3	5.0
140-150	14.7	3.5
150-160	9.0	2.1
160-170	4.5	1.1
170-180	1.2	0.3

REPORT NO.: 104349704CHI-001

REPORT DATE: August 18, 2020

TEST REPORT

RESULTS OF TESTS

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - INTEGRATING SPHERE METHOD (25°C +/- 5°C)

INTERTEK CONTROL NO.	BASE POSITION	INPUT VOLTAGE (VAC)	INPUT CURRENT (mA)	INPUT POWER (W)	INPUT POWER FACTOR	INPUT CURRENT ATHD (%)
AH08052020182125-001	Base Up	12.00	2971.10	35.65	NA	NA

LIGHT OUTPUT (lm)	LUMEN EFFICACY (lm/W)	CORRELATED COLOR TEMPERATURE - CCT (K)	CRI - Ra	CRI - R9	DUV
433.5	12.2	2809	98.9	95.6	0.0002

CIE 1931 CHROMATICITY COORDINATE (x)	CIE 1931 CHROMATICITY COORDINATE (y)	CIE 1976 CHROMATICITY COORDINATE (u')	CIE 1976 CHROMATICITY COORDINATE (v')
0.452	0.409	0.258	0.526

REPORT NO.: 104349704CHI-001

TEST REPORT

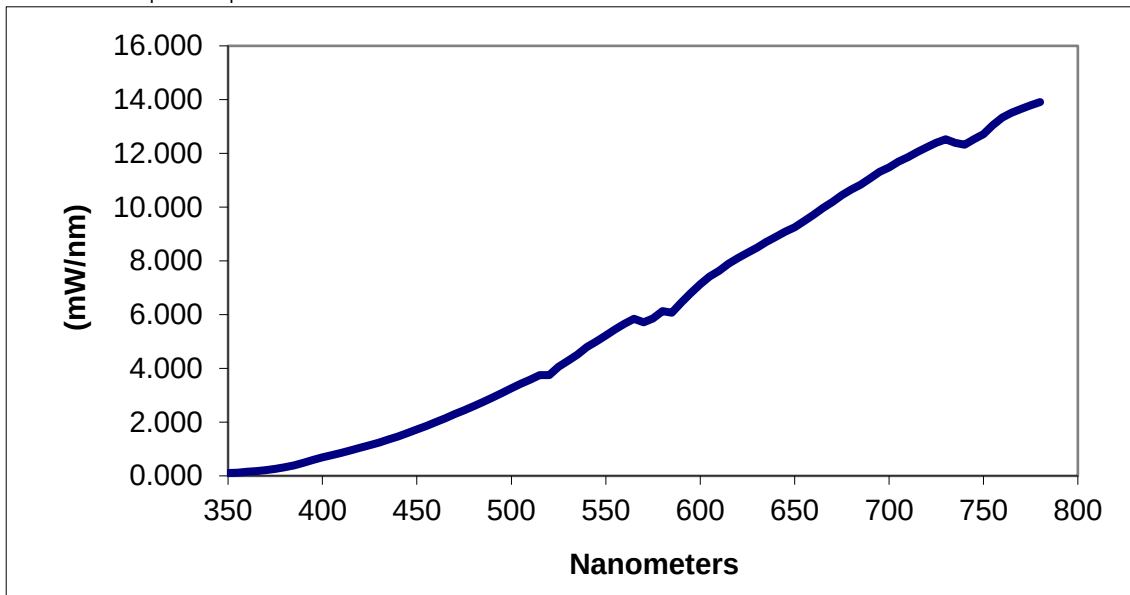
REPORT DATE: August 18, 2020

RESULTS OF TESTS

PHOTOMETRIC AND ELECTRICAL MEASUREMENTS - INTEGRATING SPHERE METHOD (25°C +/- 5°C)

SPECTRAL DISTRIBUTION OVER VISIBLE WAVELENGTHS*							
nm	mW/nm	nm	mW/nm	nm	mW/nm	nm	mW/nm
350	0.105	460	2.000	570	5.718	680	10.650
355	0.123	465	2.144	575	5.855	685	10.838
360	0.154	470	2.294	580	6.136	690	11.066
365	0.178	475	2.442	585	6.070	695	11.305
370	0.217	480	2.593	590	6.450	700	11.480
375	0.263	485	2.752	595	6.799	705	11.696
380	0.315	490	2.911	600	7.132	710	11.861
385	0.395	495	3.079	605	7.414	715	12.042
390	0.491	500	3.260	610	7.634	720	12.222
395	0.592	505	3.427	615	7.890	725	12.390
400	0.685	510	3.586	620	8.105	730	12.521
405	0.776	515	3.744	625	8.303	735	12.389
410	0.858	520	3.745	630	8.486	740	12.322
415	0.951	525	4.059	635	8.700	745	12.528
420	1.041	530	4.281	640	8.896	750	12.712
425	1.142	535	4.508	645	9.081	755	13.051
430	1.239	540	4.797	650	9.245	760	13.339
435	1.351	545	4.997	655	9.479	765	13.518
440	1.465	550	5.227	660	9.714	770	13.658
445	1.589	555	5.447	665	9.967	775	13.787
450	1.724	560	5.664	670	10.192	780	13.909
455	1.859	565	5.840	675	10.443		

*Without correction of sample absorption.



End Of Test Results

REPORT NO.: 104349704CHI-001

REPORT DATE: August 18, 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:

A handwritten signature in black ink, reading "Tim Quigley".

Timothy Quigley
Project Engineer
Lighting Division

Report Reviewed By:

A handwritten signature in black ink, reading "Jeff Davis".

Jeff Davis
N.A. Technical Lead
Lighting Division

Attachments: IES File

REVISION HISTORY

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