



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

Moving Mirror Goniophotometer Test Report

Standard(s): IESNA LM-15-03, IES LM-79-08, ANSI C82.77-2002

Customer Artemide Manufacturing N-A LTD, 11105 Renaude-Lapointe, Montreal, Québec, Canada, H1J2T4

General Information		SSL Details		Driver Details	
Test Report	S1509084-R1	Description	40W White 3500K SSL	Type	Commercial
Test Date	8 September 2015	Serial Number	SRIS 2162	Description	40SSL-CY977
Report Date	10 September 2015	Photometric Method	Absolute	Manufacturer	Universal
Ambient	24.3 °C	Lamp Lumens	-1	Catalog No.	D15CC55UNVT-C
Humidity	37.8 %	Test Position	Vertical Base Up	Voltage	120.00 V
Lamp Type	SSL	Comments	CRI 90 Linear LED	Power Factor	0.9900

Luminaire Data

General Information		Optics		Aperture (feet)	
Manufacturer	Rezek	Reflector	None	X	0.2500
Name	2.5 Square LED	Housing	Extruded Aluminum	Y	4.0000
Catalog No.	USC-RA904DL93508C1A	Lens	Frosted Flat Acrylic	Z	0.0000

SKT Position: Fixed

Lamp Stabilization Time: 45 minutes, 5 seconds

Tested By: Jean-Paul Ojeil

Approved Signatory: Chrisnel Blot

Signature:



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025
NVLAP[®]
NVLAP LAB CODE: 200899-0

Luminaire Test Method

Precise installation and alignment of the luminaire to the rotation axis of the photometer is governed by a servomotor controlled via a microcontroller. A laser is used to validate the luminaire positioning. Before photometric measurements are taken, luminaire is operated long enough to reach stabilization and temperature equilibrium.

All movement commands issued to the photometer axes are mediated by the software to ensure the motion is within the limits of operation. The photometric detector used is a silicon detector corrected to closely match the spectral luminous efficiency photopic curve with a quality index less than 1.5%. Proper shielding is incorporated to the photometric test bench such that only the light from the unit under test is measured.

Luminous intensity measurements are performed at a distance great enough so that the inverse-square law applies. During each measurement the computer records the luminous intensity associated to the corresponding angles of radiation, as well as input electrical operational parameters and temperature measurements. Candela values are reported in IES format as per LM-63.

Equipment, reference standards are traceable to National Institute of Standards and Technology (NIST) and National Research Council of Canada (NRC).





Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025
NVLAP
NVLAP LAB CODE: 200899-0

Electrical Equipment

Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Power Supply	Elgar	CW801	30527	N.P.C.R.	N.P.C.R.
Input Power Meter	Yokogawa	WT210	27E116584	2014/10/30	2015/10/30
Output Power Meter	N/A	N/A	N/A	N.P.C.R.	N.P.C.R.

Photometric Equipment

Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Photometer	N/A	N/A	N/A	N.P.C.R.	N.P.C.R.
Photodetector	INPHORA	IPR-PDET 19	110802	2015/05/16	2016/05/16

Environment Equipment

Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Temperature Humidity Sensor	Omega	HH311	120504178	2014/04/16	2016/04/16



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



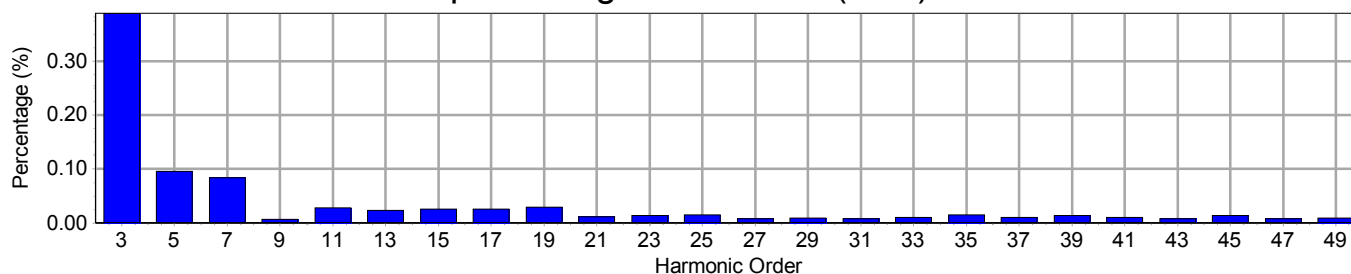
NVLAP LAB CODE: 200899-0

Electrical Measurements

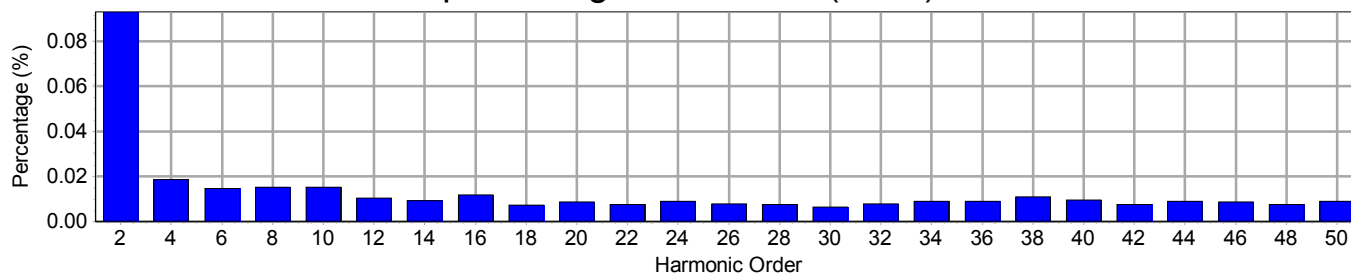
Input

Frequency	60 Hz	Active Power	38.72 W	THDV [ANSI]	0.43 %
Voltage	120.3 V(rms)	Apparent Power	38.82 VA	THDA [ANSI]	6.19 %
Current	0.3228 A(rms)	Power Factor	0.997	Max. Harmonic At	3rd order

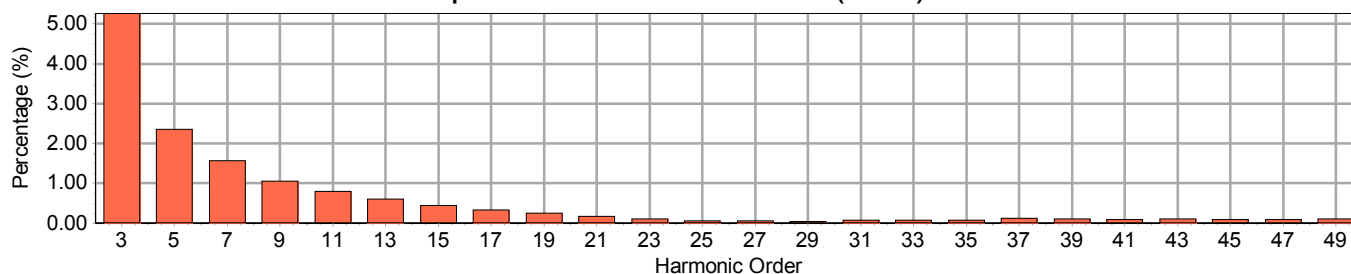
Input Voltage Harmonics (Odd)



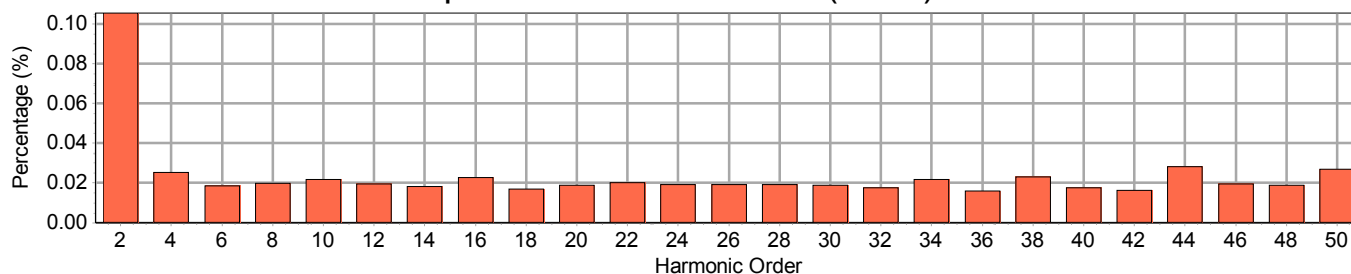
Input Voltage Harmonics (Even)



Input Current Harmonics (Odd)



Input Current Harmonics (Even)





Les Industries Spectralux Inc.
Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

Harmonic Measurements

Odd Harmonics				Even Harmonics			
Harmonic Order	Frequency (HZ)	Voltage Harmonics (%)	Current Harmonics (%)	Harmonic Order	Frequency (HZ)	Voltage Harmonics (%)	Current Harmonics (%)
1	60	100.000	100.000	2	120	0.093	0.106
3	180	0.390	5.270	4	240	0.019	0.025
5	300	0.096	2.346	6	360	0.015	0.019
7	420	0.084	1.564	8	480	0.015	0.020
9	540	0.006	1.046	10	600	0.015	0.022
11	660	0.028	0.794	12	720	0.010	0.020
13	780	0.023	0.605	14	840	0.009	0.018
15	900	0.026	0.446	16	960	0.012	0.023
17	1020	0.025	0.333	18	1080	0.007	0.017
19	1140	0.029	0.248	20	1200	0.009	0.019
21	1260	0.012	0.164	22	1320	0.008	0.020
23	1380	0.014	0.108	24	1440	0.009	0.019
25	1500	0.015	0.058	26	1560	0.008	0.019
27	1620	0.008	0.053	28	1680	0.008	0.019
29	1740	0.009	0.035	30	1800	0.006	0.019
31	1860	0.008	0.076	32	1920	0.008	0.018
33	1980	0.010	0.067	34	2040	0.009	0.022
35	2100	0.015	0.066	36	2160	0.009	0.016
37	2220	0.010	0.114	38	2280	0.011	0.023
39	2340	0.013	0.100	40	2400	0.010	0.018
41	2460	0.011	0.091	42	2520	0.008	0.016
43	2580	0.008	0.105	44	2640	0.009	0.028
45	2700	0.013	0.083	46	2760	0.009	0.019
47	2820	0.008	0.094	48	2880	0.007	0.019
49	2940	0.008	0.099	50	3000	0.009	0.027



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

Photometric Report: S1509084-R1

Prepared for: Artemide Manufacturing N-A LTD · Test Date: 08 September 2015

Luminaire: 2.5 Square LED · Lumcat: USC-RA904DL93508C1A

Coefficients of Utilization - Zonal Cavity Method

RCR	RC RW	0.9				0.8				0.7				0.5			0.1			0
		0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.7	0.5	0.3	0.1	0.5	0.3	0.1	0.5	0.3	0.1	0
0		122	122	122	122	119	119	119	119	116	116	116	116	111	111	111	102	102	102	100
1		112	108	103	99	110	105	101	98	107	103	99	96	99	96	93	91	89	88	86
2		103	95	88	82	100	93	86	81	98	91	85	80	87	82	78	81	78	75	73
3		95	84	76	69	92	82	75	69	90	81	74	68	78	72	67	73	68	64	62
4		87	75	66	59	85	74	65	59	83	72	65	59	70	63	58	65	60	56	54
5		81	67	58	52	78	66	58	51	76	65	57	51	63	56	51	59	54	50	47
6		75	61	52	46	73	60	51	45	71	59	51	45	57	50	45	54	48	44	42
7		69	56	47	41	68	55	46	40	66	54	46	40	52	45	40	50	44	39	38
8		65	51	42	37	63	50	42	36	62	50	42	36	48	41	36	46	40	36	34
9		61	47	39	33	59	46	38	33	58	46	38	33	45	38	33	43	37	32	31
10		57	43	35	30	56	43	35	30	54	42	35	30	41	35	30	40	34	30	28

Zonal Lumen Summary

Zone	Lumens	% Lamp	% Luminaire
0 - 20	357	16.13	16.13
0 - 40	1150	51.91	51.91
20 - 50	1179	53.21	53.21
0 - 60	1850	83.51	83.51
40 - 70	918	41.42	41.42
60 - 80	333	15.04	15.04
70 - 80	116	5.22	5.22
0 - 90	2216	100.00	100.00
10 - 90	2121	95.74	95.74
80 - 90	32	1.45	1.45
90 - 110	0	0.00	0.00
90 - 150	0	0.00	0.00
90 - 180	0	0.00	0.00

Average Luminance (Cd/m²)

Angle	0 Degree	45 Degree	90 Degree
45.0	9475	7743	6430
55.0	8335	6668	5502
65.0	7127	5642	4617
75.0	5719	4637	3785
85.0	3442	3645	3763

Luminaire Luminous Flux: 2216

Measured Input Power: 38.72 W

Total Luminaire Efficiency: N/A

Luminaire Luminous Efficacy: 57.2 lm/W

Luminaire Spacing Criterion (0 Degree): 1.2489

Luminaire Spacing Criterion (90 Degree): 0.9797

CIE Type: Direct



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



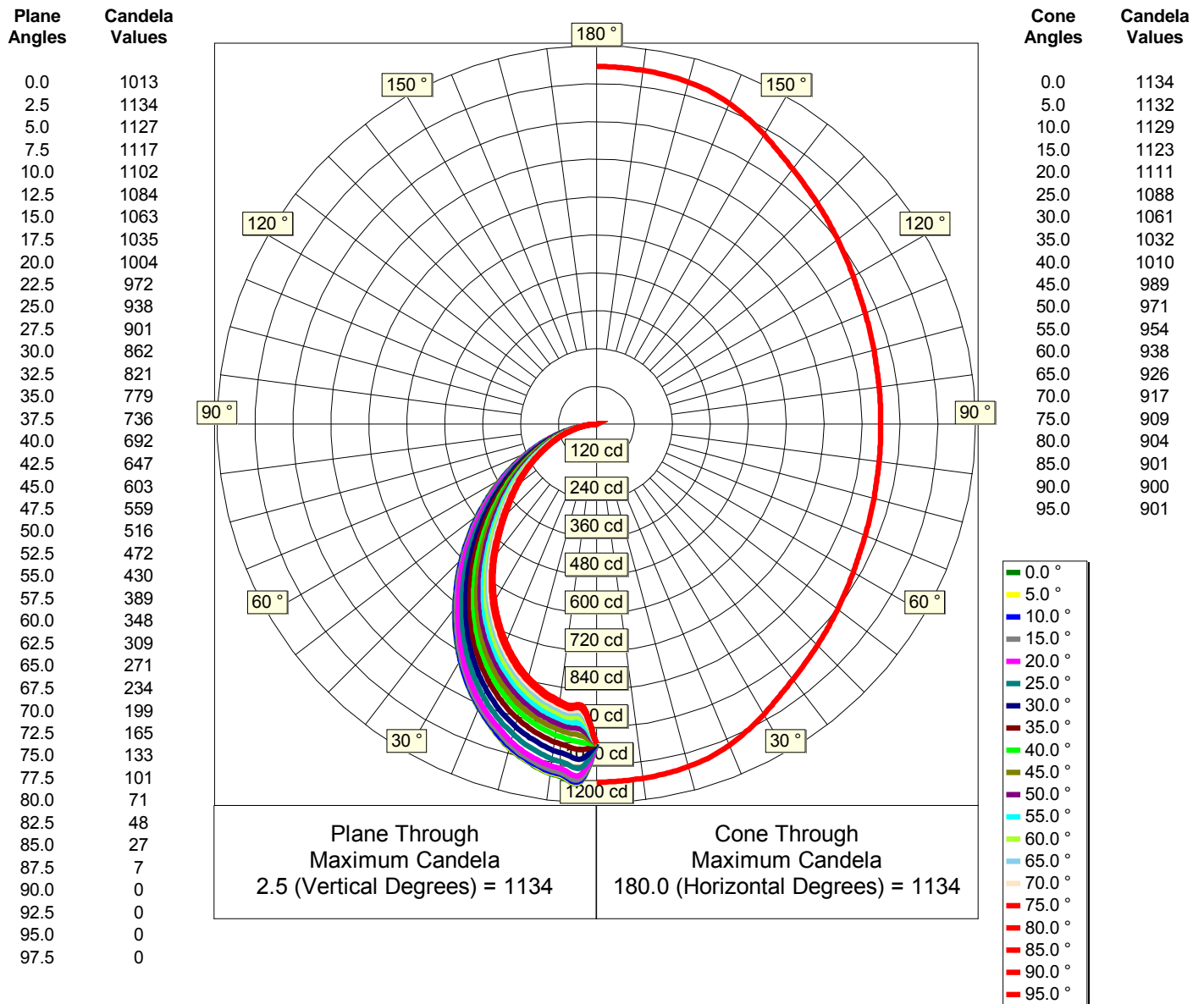
NVLAP LAB CODE: 200899-0

Photometric Report: S1509084-R1

Prepared for: Artemide Manufacturing N-A LTD · Test Date: 08 September 2015

Luminaire: 2.5 Square LED · Lumcat: USC-RA904DL93508C1A

Luminous Intensity - Polar Curve for each Plane(1)





Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



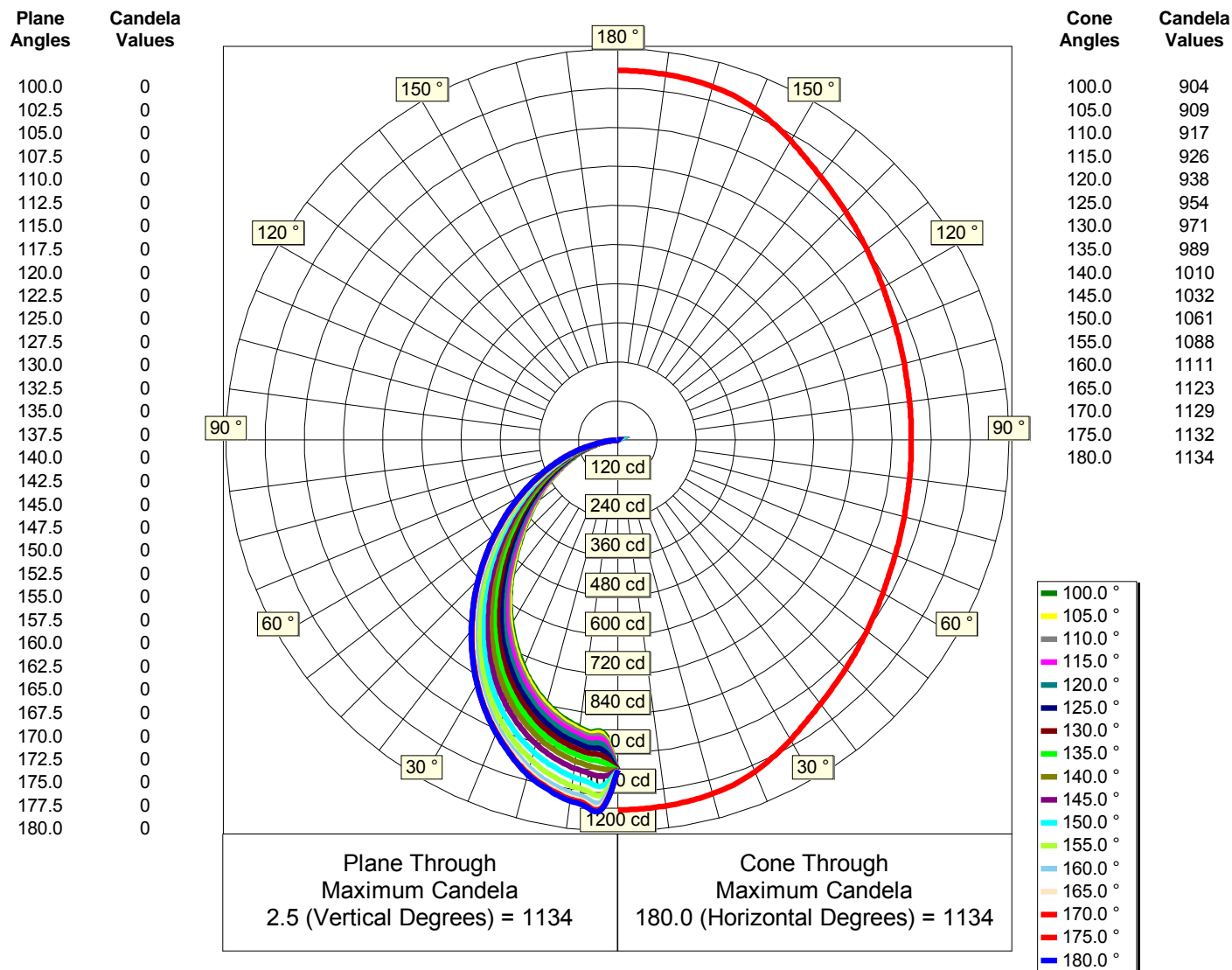
NVLAP LAB CODE: 200899-0

Photometric Report: S1509084-R1

Prepared for: Artemide Manufacturing N-A LTD · Test Date: 08 September 2015

Luminaire: 2.5 Square LED · Lumcat: USC-RA904DL93508C1A

Luminous Intensity - Polar Curve for each Plane(2)





Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

IES File Headers

IESNA:LM-63-2002
[ISSUEDATE] 08 September 2015
[TESTLAB] Spectra Lux Industries Inc.
[TEST] S1509084-R1
[MANUFAC] Rezek
[LUMCAT] USC-RA904DL93508C1A
[LUMINAIRE] 2.5 Square LED
[LAMP] (Linear LED) White 40W SSL c/w Universal Driver D15CC55UNVT-C @ 120.00V
[_LAMPDETAILS] DC Voltage=28.57V, Current=1.4A, CCT=3500K, CRI=90, x=N/K, y=N/K
[_BURNING] Vertical Base Up (2,216 Luminaire Lumens)
[_REFLECTOR] None
[_LENS] Frosted Flat Acrylic
[_HOUSING] Extruded Aluminum
[_SKTPOSITION] Fixed
[DISTRIBUTION] Direct Type - Downlight

Candela Table

Lateral Angles

	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
V e r t i c a l	0.0	1013	1013	1013	1013	1013	1013	1013	1013	1013
	2.5	1134	1132	1129	1123	1111	1088	1061	1032	989
	5.0	1127	1125	1121	1116	1102	1080	1052	1025	982
	7.5	1117	1114	1110	1104	1092	1070	1043	1015	973
	10.0	1102	1099	1096	1090	1079	1055	1027	1002	960
	12.5	1084	1082	1079	1074	1062	1038	1011	985	944
	15.0	1063	1061	1059	1051	1040	1016	991	965	924
	17.5	1035	1034	1032	1024	1014	992	967	941	900
	20.0	1004	1002	1002	997	987	965	940	915	873
	22.5	972	971	971	966	956	934	910	885	844
	25.0	938	937	937	932	922	900	877	853	812
	27.5	901	900	900	895	885	864	841	817	777
	30.0	862	860	861	855	846	824	802	779	740
	32.5	821	820	820	814	804	783	761	739	700
	35.0	779	777	778	771	761	740	719	697	659
	37.5	736	734	734	728	718	697	676	655	617
	40.0	692	691	691	684	674	654	634	613	575
	42.5	647	647	647	640	630	611	592	571	534
A n g l e s	45.0	603	602	602	596	586	567	549	530	493
	47.5	559	558	557	551	541	524	508	488	454
	50.0	516	514	513	506	498	481	466	448	416
	52.5	472	471	469	464	455	440	426	409	379
	55.0	430	429	427	421	413	400	387	372	344
	57.5	389	387	386	380	373	361	349	335	310
	60.0	348	346	345	340	333	323	312	300	277
	62.5	309	307	307	301	295	286	277	265	245
	65.0	271	269	269	263	259	251	243	233	215
	67.5	234	233	232	227	224	217	210	201	185
	70.0	199	198	197	192	190	185	179	171	158
	72.5	165	164	163	160	159	154	149	143	133
	75.0	133	132	132	129	128	125	122	116	108
	77.5	101	100	100	98	98	96	91	87	81
	80.0	71	70	71	70	70	69	68	65	62
	82.5	48	47	48	47	48	47	47	46	44
	85.0	27	26	27	28	29	29	29	29	29
	87.5	7	8	9	10	11	12	14	14	16
	90.0	0	0	0	0	0	0	0	0	0



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

Lateral Angles

	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0	45.0
V e r t i c a l A n g l e s	92.5	0	0	0	0	0	0	0	0	0
	95.0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0
	100.0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0
	105.0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0
	110.0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0
	115.0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0
	120.0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0
	125.0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0
	130.0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0
	135.0	0	0	0	0	0	0	0	0	0
	137.5	0	0	0	0	0	0	0	0	0
	140.0	0	0	0	0	0	0	0	0	0
	142.5	0	0	0	0	0	0	0	0	0
	145.0	0	0	0	0	0	0	0	0	0
	147.5	0	0	0	0	0	0	0	0	0
	150.0	0	0	0	0	0	0	0	0	0
	152.5	0	0	0	0	0	0	0	0	0
	155.0	0	0	0	0	0	0	0	0	0
	157.5	0	0	0	0	0	0	0	0	0
	160.0	0	0	0	0	0	0	0	0	0
	162.5	0	0	0	0	0	0	0	0	0
	165.0	0	0	0	0	0	0	0	0	0
	167.5	0	0	0	0	0	0	0	0	0
	170.0	0	0	0	0	0	0	0	0	0
	172.5	0	0	0	0	0	0	0	0	0
	175.0	0	0	0	0	0	0	0	0	0
	177.5	0	0	0	0	0	0	0	0	0
	180.0	0	0	0	0	0	0	0	0	0



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

Lateral Angles

	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	90.0	95.0
V e r t i c a l	0.0	1013	1013	1013	1013	1013	1013	1013	1013	1013
	2.5	971	954	938	926	917	909	904	901	901
	5.0	965	948	932	920	911	904	899	896	896
	7.5	955	938	923	910	901	894	888	886	886
	10.0	942	925	910	897	888	880	874	871	871
	12.5	925	908	893	880	870	862	856	853	853
	15.0	905	887	872	858	849	841	835	832	832
	17.5	881	864	848	834	825	816	810	807	807
	20.0	854	836	820	807	797	788	783	779	779
	22.5	825	807	791	777	767	758	752	749	749
	25.0	792	775	758	744	735	725	719	716	716
	27.5	758	740	724	710	700	691	685	682	682
	30.0	721	704	688	674	664	655	649	645	645
	32.5	681	665	649	636	627	618	612	609	609
	35.0	641	624	609	597	588	579	574	570	570
	37.5	599	583	568	556	547	538	533	530	530
	40.0	557	541	527	514	506	497	491	489	489
	42.5	516	500	486	474	464	456	451	448	448
	45.0	476	460	447	435	426	418	413	410	410
	47.5	437	422	410	399	391	384	379	376	376
A n g l e s	50.0	400	387	376	366	358	351	347	344	344
	52.5	365	353	343	334	327	321	317	314	314
	55.0	332	321	311	303	297	291	287	285	285
	57.5	299	289	280	272	267	262	258	256	256
	60.0	267	258	250	243	238	233	230	228	228
	62.5	236	228	221	214	210	206	203	201	201
	65.0	207	199	193	188	184	180	178	176	176
	67.5	179	173	168	163	160	156	155	153	153
	70.0	153	148	143	139	137	134	132	131	131
	72.5	128	124	121	117	115	113	112	111	111
	75.0	102	97	95	93	92	90	89	89	89
	77.5	79	78	76	74	73	72	72	71	71
	80.0	60	59	58	57	57	56	56	55	55
	82.5	43	43	43	42	42	42	42	42	42
	85.0	29	29	29	29	29	29	30	29	29
	87.5	16	17	17	18	18	19	19	19	19
	90.0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0
	95.0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0
	100.0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0
	105.0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0
	110.0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0
	115.0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0
	120.0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0
	125.0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0
	130.0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

Lateral Angles

	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	90.0	95.0
135.0	0	0	0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0

**V
e
r
t
i
c
a
l**

**A
n
g
l
e
s**



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

Lateral Angles

	100.0	105.0	110.0	115.0	120.0	125.0	130.0	135.0	140.0	145.0
V e r t i c a l	0.0	1013	1013	1013	1013	1013	1013	1013	1013	1013
	2.5	904	909	917	926	938	954	971	989	1032
	5.0	899	904	911	920	932	948	965	982	1025
	7.5	888	894	901	910	923	938	955	973	1015
	10.0	874	880	888	897	910	925	942	960	1002
	12.5	856	862	870	880	893	908	925	944	985
	15.0	835	841	849	858	872	887	905	924	965
	17.5	810	816	825	834	848	864	881	900	941
	20.0	783	788	797	807	820	836	854	873	915
	22.5	752	758	767	777	791	807	825	844	885
	25.0	719	725	735	744	758	775	792	812	853
	27.5	685	691	700	710	724	740	758	777	817
	30.0	649	655	664	674	688	704	721	740	779
	32.5	612	618	627	636	649	665	681	700	739
	35.0	574	579	588	597	609	624	641	659	697
	37.5	533	538	547	556	568	583	599	617	655
	40.0	491	497	506	514	527	541	557	575	613
	42.5	451	456	464	474	486	500	516	534	571
	45.0	413	418	426	435	447	460	476	493	530
	47.5	379	384	391	399	410	422	437	454	488
A n g l e s	50.0	347	351	358	366	376	387	400	416	448
	52.5	317	321	327	334	343	353	365	379	409
	55.0	287	291	297	303	311	321	332	344	372
	57.5	258	262	267	272	280	289	299	310	335
	60.0	230	233	238	243	250	258	267	277	300
	62.5	203	206	210	214	221	228	236	245	265
	65.0	178	180	184	188	193	199	207	215	233
	67.5	155	156	160	163	168	173	179	185	201
	70.0	132	134	137	139	143	148	153	158	171
	72.5	112	113	115	117	121	124	128	133	143
	75.0	89	90	92	93	95	97	102	108	116
	77.5	72	72	73	74	76	78	79	81	87
	80.0	56	56	57	57	58	59	60	62	65
	82.5	42	42	42	42	43	43	43	44	46
	85.0	30	29	29	29	29	29	29	29	29
	87.5	19	19	18	18	17	17	16	16	14
	90.0	0	0	0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0	0	0	0
	95.0	0	0	0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0	0	0	0
	100.0	0	0	0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0	0	0	0
	105.0	0	0	0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0	0	0	0
	110.0	0	0	0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0	0	0	0
	115.0	0	0	0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0	0	0	0
	120.0	0	0	0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0	0	0	0
	125.0	0	0	0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0	0	0	0
	130.0	0	0	0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0	0	0	0



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

Lateral Angles

	100.0	105.0	110.0	115.0	120.0	125.0	130.0	135.0	140.0	145.0
135.0	0	0	0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0

**V
e
r
t
i
c
a
l**

**A
n
g
l
e
s**



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

Lateral Angles

	150.0	155.0	160.0	165.0	170.0	175.0	180.0
V e r t i c a l	0.0	1013	1013	1013	1013	1013	1013
	2.5	1061	1088	1111	1123	1129	1134
	5.0	1052	1080	1102	1116	1121	1125
	7.5	1043	1070	1092	1104	1110	1114
	10.0	1027	1055	1079	1090	1096	1099
	12.5	1011	1038	1062	1074	1079	1082
	15.0	991	1016	1040	1051	1059	1061
	17.5	967	992	1014	1024	1032	1034
	20.0	940	965	987	997	1002	1002
	22.5	910	934	956	966	971	971
	25.0	877	900	922	932	937	937
	27.5	841	864	885	895	900	900
	30.0	802	824	846	855	861	860
	32.5	761	783	804	814	820	820
	35.0	719	740	761	771	778	777
	37.5	676	697	718	728	734	734
	40.0	634	654	674	684	691	691
	42.5	592	611	630	640	647	647
	45.0	549	567	586	596	602	602
	47.5	508	524	541	551	557	558
A n g l e s	50.0	466	481	498	506	513	514
	52.5	426	440	455	464	469	471
	55.0	387	400	413	421	427	429
	57.5	349	361	373	380	386	387
	60.0	312	323	333	340	345	346
	62.5	277	286	295	301	307	307
	65.0	243	251	259	263	269	269
	67.5	210	217	224	227	232	233
	70.0	179	185	190	192	197	198
	72.5	149	154	159	160	163	164
	75.0	122	125	128	129	132	132
	77.5	91	96	98	98	100	100
	80.0	68	69	70	70	71	70
	82.5	47	47	48	47	48	47
	85.0	29	29	29	28	27	26
	87.5	14	12	11	10	9	8
	90.0	0	0	0	0	0	0
	92.5	0	0	0	0	0	0
	95.0	0	0	0	0	0	0
	97.5	0	0	0	0	0	0
	100.0	0	0	0	0	0	0
	102.5	0	0	0	0	0	0
	105.0	0	0	0	0	0	0
	107.5	0	0	0	0	0	0
	110.0	0	0	0	0	0	0
	112.5	0	0	0	0	0	0
	115.0	0	0	0	0	0	0
	117.5	0	0	0	0	0	0
	120.0	0	0	0	0	0	0
	122.5	0	0	0	0	0	0
	125.0	0	0	0	0	0	0
	127.5	0	0	0	0	0	0
	130.0	0	0	0	0	0	0
	132.5	0	0	0	0	0	0



Les Industries Spectralux Inc. Spectralux Industries Inc.

2750 Sabourin, Saint-Laurent (Quebec) H4S 1M2 Canada
Tel.: (514) 332-0082 Fax: (514) 332-3590 www.spectralux.ca

ISO/IEC 17025



NVLAP LAB CODE: 200899-0

Lateral Angles

	150.0	155.0	160.0	165.0	170.0	175.0	180.0
135.0	0	0	0	0	0	0	0
137.5	0	0	0	0	0	0	0
140.0	0	0	0	0	0	0	0
142.5	0	0	0	0	0	0	0
145.0	0	0	0	0	0	0	0
147.5	0	0	0	0	0	0	0
150.0	0	0	0	0	0	0	0
152.5	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0
157.5	0	0	0	0	0	0	0
160.0	0	0	0	0	0	0	0
162.5	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0
167.5	0	0	0	0	0	0	0
170.0	0	0	0	0	0	0	0
172.5	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0
177.5	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0

V
e
r
t
i
c
a
l

A
n
g
l
e
s