



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-35-02, IES LM-79-08, ANSI C82.77-2002

Customer Lumenpulse, 1751 Richardson, suite 1505, Montréal, Québec, Canada, H3K 1G6

General Information		SSL Details		Driver Details	
Test Report	G1507281-R1	Description	61W White 3888K SSL	Type	Commercial
Test Date	28 July 2015	Serial Number	SRIS 2090	Description	61SSL-CY963
Report Date	28 July 2015	Photometric Method	Absolute	Manufacturer	Mean Well
Ambient	25.1 °C	Lamp Lumens	-1	Catalog No.	LPF-60-24
Humidity	55.4 %	Test Position	Axial	Voltage Tap	120.00 V
Lamp Type	SSL	Comments	CREE XPE2 LED's	Power Factor	0.9900

Floodlight Data

General Information		Optics		Aperture (feet)	
Manufacturer	Lumenpulse	Reflector	48 Collimators	X	0.0000
Name	LUMENFACADE	Housing	Extruded Aluminum	Y	4.0000
Catalog No.	LOGI-HO-120-48-40K- WWLF-WH-NO	Lens	Half Etched Half Clear Flat Acrylic Lens C/W Diffuse Film	Z	0.0167

SKT Position: None

Lamp Stabilization Time: 59 minutes, 12 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	iRDC	CIF-3000A	974997	N.P.C.R.	N.P.C.R.
Input Power Meter	Yokogawa	WT210	91L236541	2015/03/25	2016/04/16
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	Gigahertz-Optik	X11	4500	2014/12/12	2015/12/12
Photodetector	INPHORA	IPR-PDET 19	110803	2015/05/16	2016/05/16

Environment Equipment

Equipment	Manufacturer	Model	Serial Number	Calibration Date	Calibration Due Date
Temperature Humidity Sensor	Omega	HH311	051202970	2014/10/24	2016/10/24



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

Photometric Report: G1507281-R1

Prepared for: Lumenpulse · Test Date: 28 July 2015

Floodlight: LUMENFACADE · Lumcat: LOGI-HO-120-48-40K-WWLF-WH-NO

Photometric Floodlight Characteristics

Nominal SSL Power	61.00 W	
Measured Input Voltage	120.06 V	Notes
Test SSL Current	0.0000 A	1) Floodlight tested in accordance to IES LM-35-1989 at a distance great enough so that the inverse-square law applies.
Floodlight Luminous Flux	3824	
Measured Input Power	61.45 W	
Floodlight Luminous Efficacy	62.2 lm/W	2) Field performance may differ from laboratory measurements.
Maximum Candela Value	4728	
Maximum Candela Location	0.0 H, 0.0 V	3) Results are valid for the tested material only.
Horizontal Beam Angle (50%)	77.0 °	
Vertical Beam Angle (50%)	22.5 °	4) All data published in this report are based on absolute photometry.
Horizontal Field Angle (10%)	125.0 °	
Vertical Field Angle (10%)	72.5 °	5) The original electronic file or paper report cannot be edited in whole or in part without written consent of Spectralux Industries Inc.
IES/NEMA Type Classification	6Hx5V	
Beam Lumens (50%)	1424	
Beam Efficiency (50%)	N/A	
Field Lumens (10%)	3169	
Field Efficiency (10%)	N/A	
Spill Lumens	655	
Total Floodlight Lumens	3824	
Total Floodlight Efficiency	N/A	



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

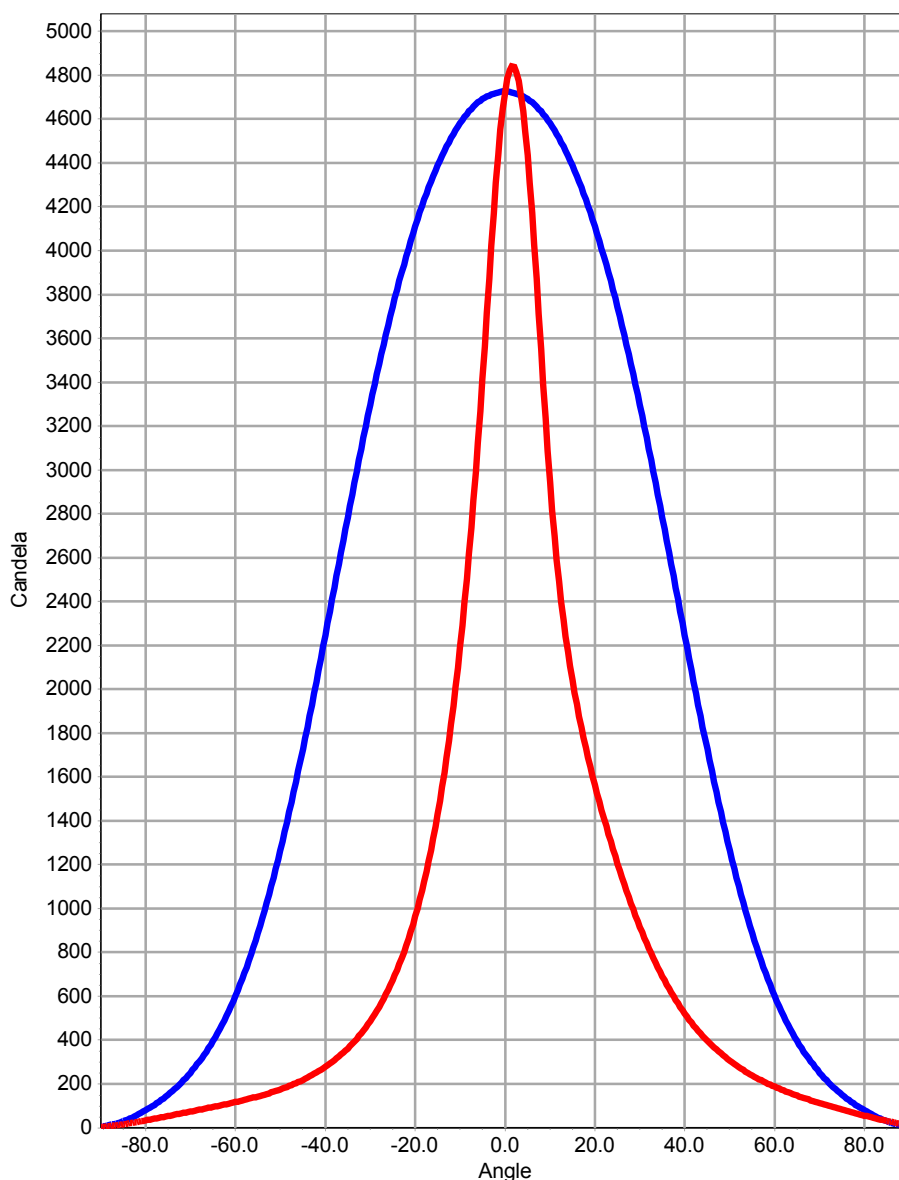
Photometric Report: G1507281-R1

Prepared for: Lumenpulse · Test Date: 28 July 2015

Floodlight: LUMENFACADE · Lumcat: LOGI-HO-120-48-40K-WWLF-WH-NO

Maximum Candela Trace (Max. Location: 0.0 H, 0.0 V)

Horizontal Angles	Candela
-90.0	4
-85.0	30
-80.0	79
-75.0	150
-70.0	251
-65.0	396
-60.0	601
-55.0	886
-50.0	1264
-45.0	1725
-40.0	2247
-35.0	2784
-30.0	3295
-25.0	3742
-20.0	4111
-15.0	4388
-10.0	4581
-5.0	4691
0.0	4728
5.0	4691
10.0	4581
15.0	4388
20.0	4111
25.0	3742
30.0	3295
35.0	2784
40.0	2247
45.0	1725
50.0	1264
55.0	886
60.0	601
65.0	396
70.0	251
75.0	150
80.0	79
85.0	30
90.0	4



Vertical Angles	Candela
-90.0	3
-85.0	16
-80.0	34
-75.0	53
-70.0	74
-65.0	95
-60.0	117
-55.0	143
-50.0	174
-45.0	218
-40.0	278
-35.0	362
-30.0	486
-25.0	673
-20.0	964
-15.0	1429
-10.0	2192
-5.0	3412
0.0	4728
5.0	4435
10.0	2945
15.0	2043
20.0	1564
25.0	1205
30.0	916
35.0	691
40.0	521
45.0	397
50.0	306
55.0	238
60.0	187
65.0	146
70.0	112
75.0	82
80.0	55
85.0	31
90.0	10



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



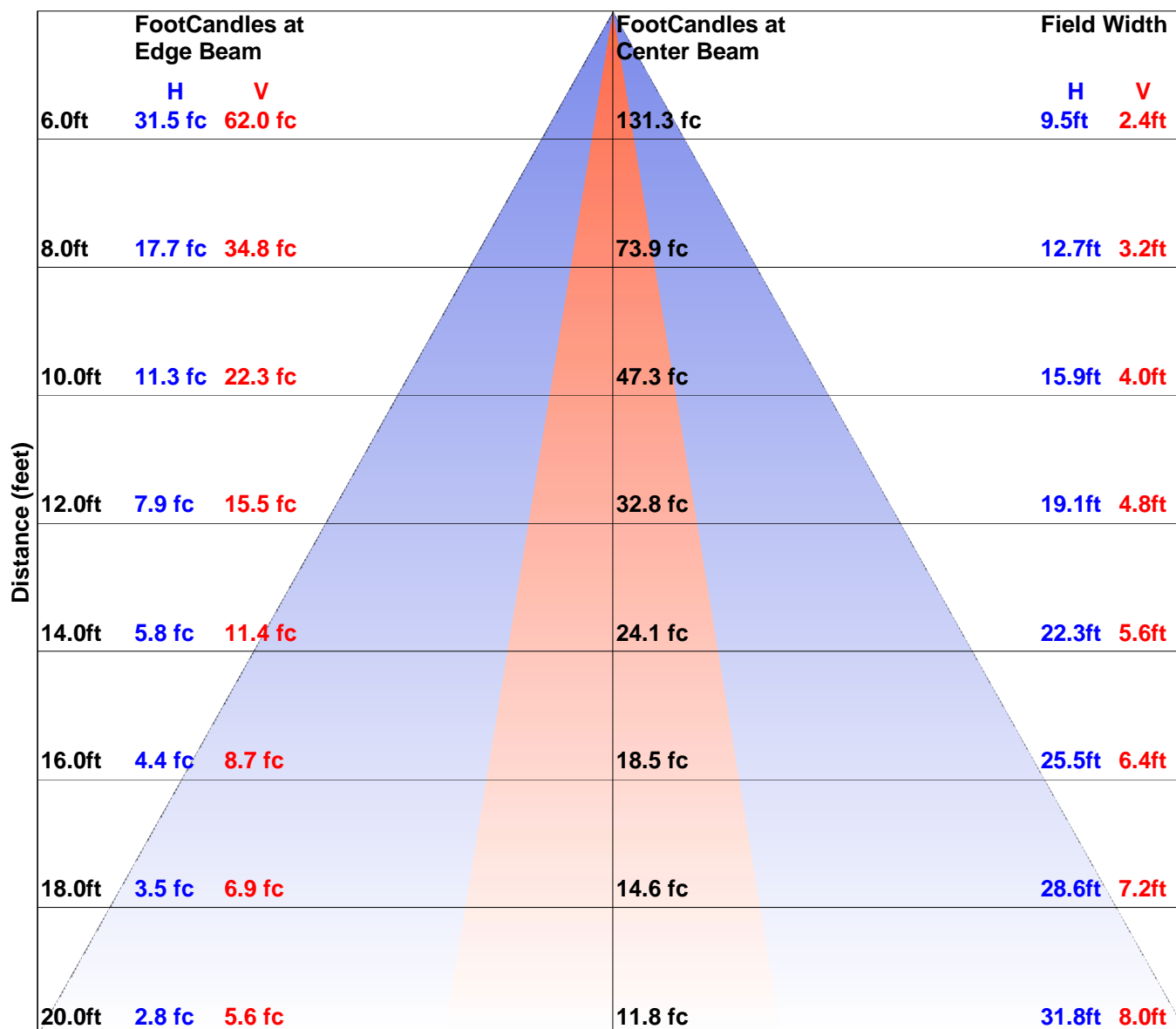
NVLAP LAB CODE: 200899-0

Photometric Report: G1507281-R1

Prepared for: Lumenpulse · Test Date: 28 July 2015

Floodlight: LUMENFACADE · Lumcat: LOGI-HO-120-48-40K-WWLF-WH-NO

Downlight Beam



— Horizontal (77.0 °) — Vertical (22.5 °)



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



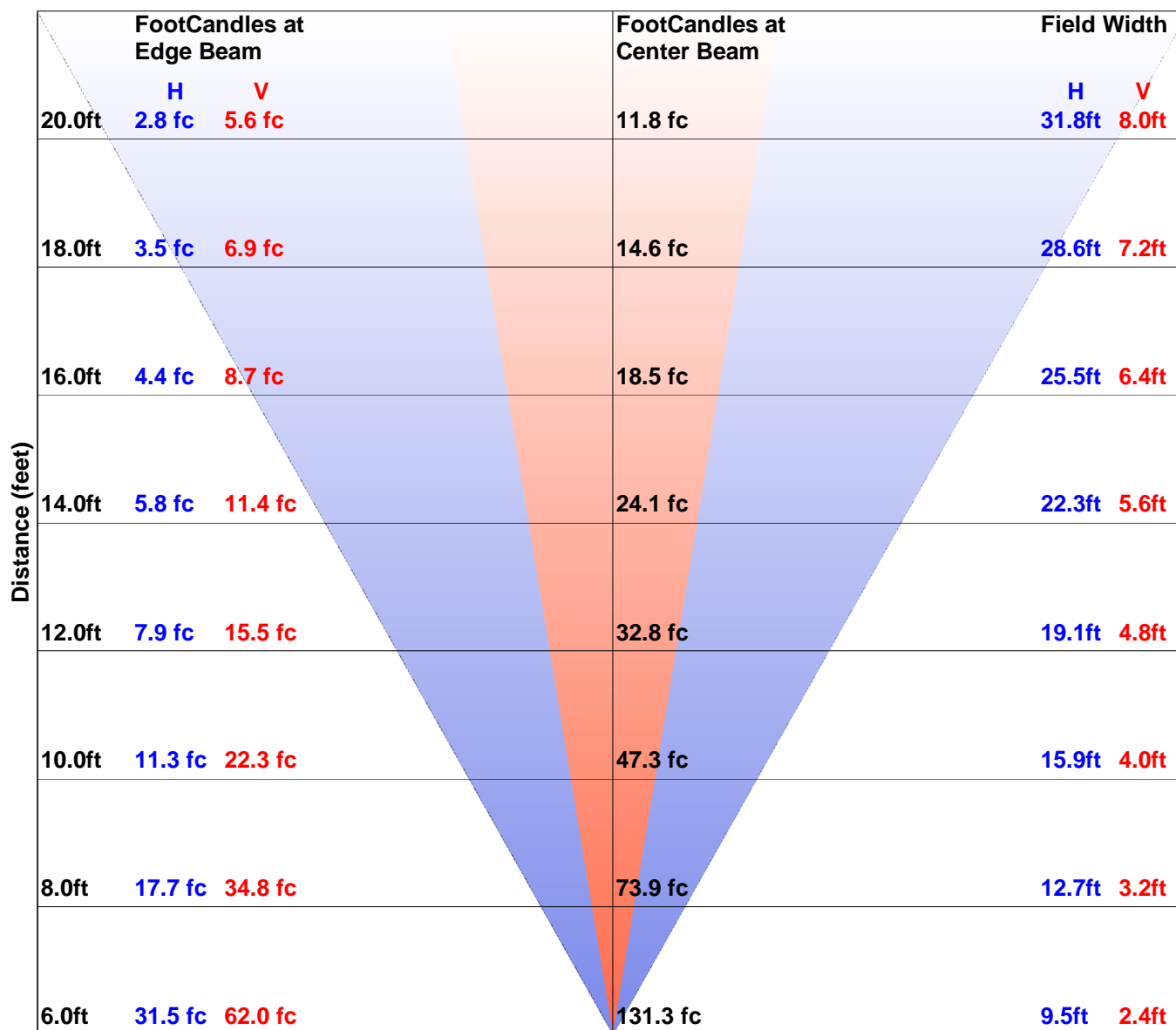
NVLAP LAB CODE: 200899-0

Photometric Report: G1507281-R1

Prepared for: Lumenpulse · Test Date: 28 July 2015

Floodlight: LUMENFACADE · Lumcat: LOGI-HO-120-48-40K-WWLF-WH-NO

Uplight Beam



— Horizontal (77.0 °) — Vertical (22.5 °)



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



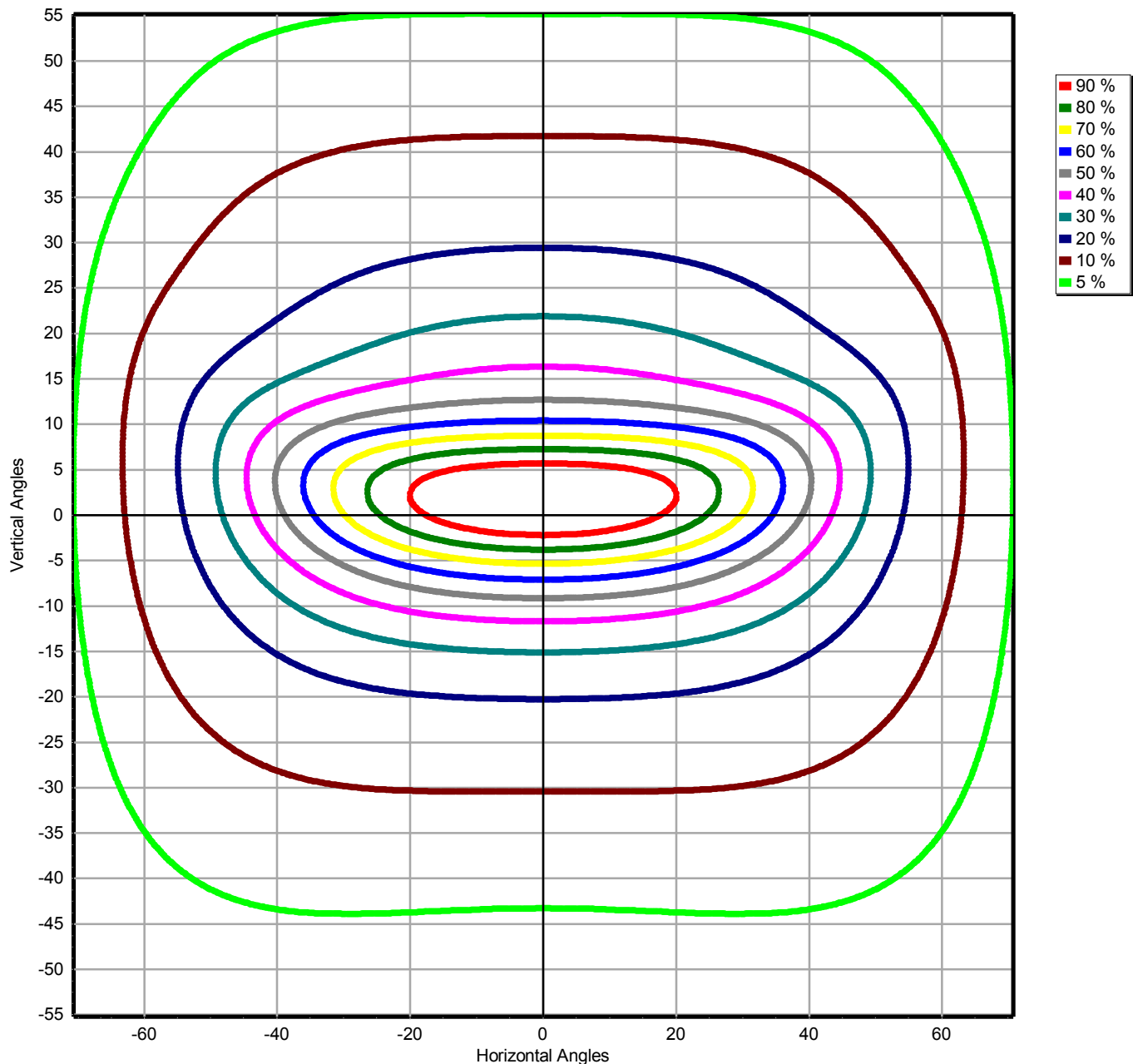
NVLAP LAB CODE: 200899-0

Photometric Report: G1507281-R1

Prepared for: Lumenpulse · Test Date: 28 July 2015

Floodlight: LUMENFACADE · Lumcat: LOGI-HO-120-48-40K-WWLF-WH-NO

ISO Candela Diagram





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]      28 July 2015
[TESTLAB]        Spectra Lux Industries Inc.
[TEST]           G1507281-R1
[MANUFAC]        Lumenpulse
[LUMCAT]          LOGI-HO-120-48-40K-WWLF-WH-NO
[LUMINAIRE]       LUMENFACADE
[LAMP]           (CREE XPE2 LED's) White 61W SSL c/w Mean Well Driver LPF-60-24 @ 120.00V
[_LAMPDETAILS]   DC Voltage=24V, Current=2.5416A, CCT=3888K, CRI=83, x=0.3861, y=0.382
[_BURNING]        Axial (3,824 Luminaire Lumens)
[_REFLECTOR]      48 Collimators
[_LENS]           Half Etched Half Clear Flat Acrylic Lens C/W Diffuse Film
[_HOUSING]        Extruded Aluminum
[_SKTPOSITION]    None
[DISTRIBUTION]    NEMA 6Hx5V (Max. CP at 0.0H,0.0V)
[MORE]           (Based on IES LM-35-1989)
```

Candela Table

Horizontal Angles

	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
V e r t i c a l	-90.0	3	4	3	3	3	3	3	4
	-85.0	16	16	16	16	16	15	15	15
	-80.0	34	34	34	33	33	33	33	32
	-75.0	53	53	53	53	53	53	52	52
	-70.0	74	74	74	74	74	74	74	73
	-65.0	95	95	95	96	96	97	96	96
	-60.0	117	117	117	118	119	120	121	120
	-55.0	143	143	144	145	146	147	148	148
	-50.0	174	175	176	177	179	181	182	180
	-45.0	218	218	220	221	223	224	225	221
	-40.0	278	278	279	280	282	283	282	273
	-35.0	362	362	363	364	364	363	360	341
	-30.0	486	485	485	485	482	477	468	432
	-25.0	673	672	670	665	657	643	622	555
	-20.0	964	961	954	942	921	891	849	725
	-15.0	1429	1424	1408	1378	1334	1270	1188	965
	-10.0	2192	2179	2144	2081	1989	1862	1704	1304
A n g l e s	-5.0	3412	3388	3313	3184	3000	2757	2459	1758
	0.0	4728	4691	4581	4388	4111	3742	3295	2247
	5.0	4435	4412	4344	4216	4015	3732	3356	2379
	10.0	2945	2936	2906	2851	2765	2638	2464	1936
	15.0	2043	2033	2002	1952	1878	1786	1671	1376
	20.0	1564	1556	1530	1487	1425	1346	1251	1023
	25.0	1205	1199	1183	1153	1111	1054	984	809
	30.0	916	913	903	886	861	825	779	655
	35.0	691	690	685	676	662	641	613	530
	40.0	521	520	518	514	507	496	479	426
	45.0	397	397	396	394	391	385	376	342
	50.0	306	306	306	305	304	301	295	273
	55.0	238	238	239	238	238	236	233	218
	60.0	187	187	187	187	186	185	183	172
	65.0	146	146	146	146	146	145	143	135
	70.0	112	112	112	112	111	110	108	102
	75.0	82	82	82	82	81	80	78	73
	80.0	55	55	55	55	54	53	52	48



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

Horizontal Angles

	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
85.0	31	31	31	31	30	30	29	28	27
90.0	10	10	10	10	10	9	9	9	8

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

Horizontal Angles

	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
V e r t i c a l	-90.0	4	4	4	4	3	4	3	3
	-85.0	14	14	13	12	11	9	6	4
	-80.0	31	30	28	26	22	18	14	9
	-75.0	50	48	45	41	36	29	22	13
	-70.0	71	69	64	58	51	41	31	18
	-65.0	94	90	85	77	67	55	40	24
	-60.0	118	114	107	97	85	69	50	30
	-55.0	144	139	131	120	104	84	61	36
	-50.0	176	169	158	144	124	100	72	43
	-45.0	215	205	190	170	146	116	83	49
	-40.0	263	247	227	200	169	133	94	55
	-35.0	324	300	271	235	194	150	104	61
	-30.0	403	366	323	274	222	167	114	66
	-25.0	507	450	387	320	251	185	123	70
	-20.0	645	557	464	371	283	202	132	73
	-15.0	831	692	556	429	316	219	139	76
	-10.0	1082	864	664	491	348	233	145	78
	-5.0	1397	1064	780	551	376	244	148	79
A n g l e s	0.0	1725	1264	886	601	396	251	150	79
	5.0	1845	1349	940	626	405	252	149	78
	10.0	1594	1235	896	613	400	249	146	77
	15.0	1192	984	766	556	376	239	141	74
	20.0	896	762	622	479	341	223	134	70
	25.0	710	608	506	403	300	203	124	65
	30.0	580	501	420	340	261	182	113	59
	35.0	476	416	353	289	225	161	101	52
	40.0	389	345	296	245	193	140	89	46
	45.0	316	284	247	206	163	120	77	41
	50.0	256	233	204	172	137	101	66	35
	55.0	205	188	167	142	114	84	56	30
	60.0	163	151	134	114	92	69	46	25
	65.0	128	118	105	90	73	54	37	21
	70.0	96	89	79	68	55	42	28	16
	75.0	69	64	57	49	40	30	21	12
	80.0	46	42	37	32	27	20	14	9
	85.0	25	23	20	17	14	11	9	8
	90.0	8	7	7	7	7	7	8	9



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

Horizontal Angles

	90.0
V e r t i c a l	-90.0 3
	-85.0 3
	-80.0 3
	-75.0 3
	-70.0 3
	-65.0 3
	-60.0 3
	-55.0 3
	-50.0 3
	-45.0 4
	-40.0 4
	-35.0 4
	-30.0 4
	-25.0 4
	-20.0 4
	-15.0 4
	-10.0 4
	-5.0 4
A n g l e s	0.0 4
	5.0 4
	10.0 4
	15.0 4
	20.0 4
	25.0 4
	30.0 4
	35.0 4
	40.0 5
	45.0 5
	50.0 5
	55.0 6
	60.0 6
	65.0 6
	70.0 6
	75.0 6
	80.0 6
	85.0 6
	90.0 5