



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

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	G1504031-R1	Description	61W White 3492K SSL	Type Commercial
Test Date	3 April 2015	Serial Number	SRIS 1875	Description 69SSL-CY809
Report Date	15 April 2015	Photometric Method	Absolute	Manufacturer MEAN WELL USA inc.
Ambient	24.5 °C	Lamp Lumens	-1	Catalog No. LPF-60-12
Humidity	23.5 %	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.	LOG HO-120-48-35K 12XPE2-30x60-SI-NO	Lens	Clear Flat Glass C/W Diffuse Film	Z 0.1667

SKT Position: None

Lamp Stabilization Time: 60 minutes, 52 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	91L239798	2014/03/25	2015/04/15
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	2014/05/16	2015/05/16

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: G1504031-R1

Prepared for: Lumenpulse · Test Date: 03 April 2015

Floodlight: LUMENFACADE · Lumcat: LOG HO-120-48-35K 12XPE2-30x60-SI-NO

Photometric Floodlight Characteristics

Nominal SSL Power	61.00 W	
Measured Input Voltage	121.43 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	3669	
Measured Input Power	60.39 W	
Floodlight Luminous Efficacy	60.8 lm/W	2) Field performance may differ from laboratory measurements.
Maximum Candela Value	4863	
Maximum Candela Location	0.0 H, 0.0 V	3) Results are valid for the tested material only.
Horizontal Beam Angle (50%)	73.0 °	
Vertical Beam Angle (50%)	35.5 °	4) All data published in this report are based on absolute photometry.
Horizontal Field Angle (10%)	104.0 °	
Vertical Field Angle (10%)	62.5 °	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	6Hx4V	
Beam Lumens (50%)	2263	
Beam Efficiency (50%)	N/A	
Field Lumens (10%)	3339	
Field Efficiency (10%)	N/A	
Spill Lumens	331	
Total Floodlight Lumens	3669	
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



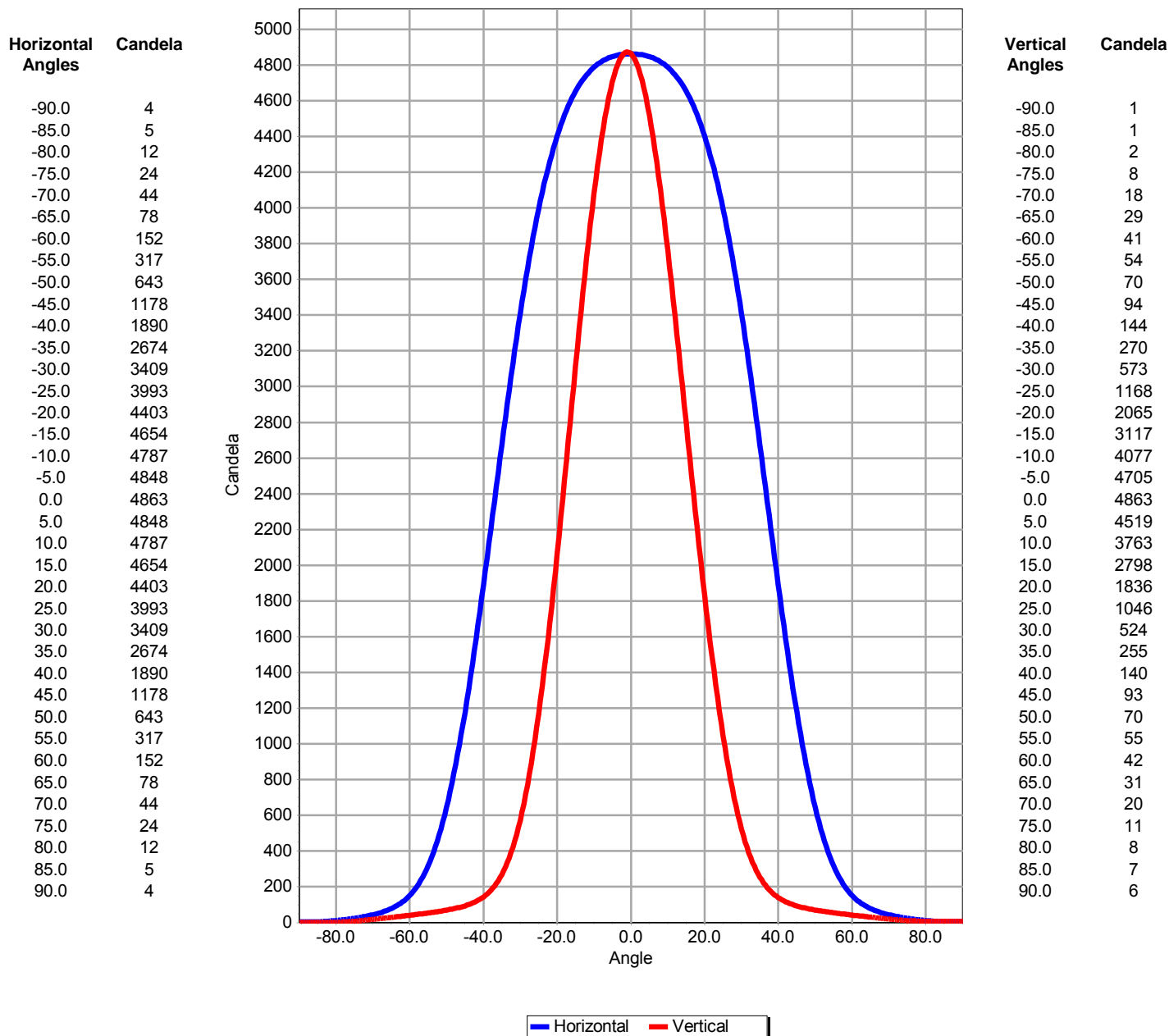
NVLAP LAB CODE: 200899-0

Photometric Report: G1504031-R1

Prepared for: Lumenpulse · Test Date: 03 April 2015

Floodlight: LUMENFACADE · Lumcat: LOG HO-120-48-35K 12XPE2-30x60-SI-NO

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

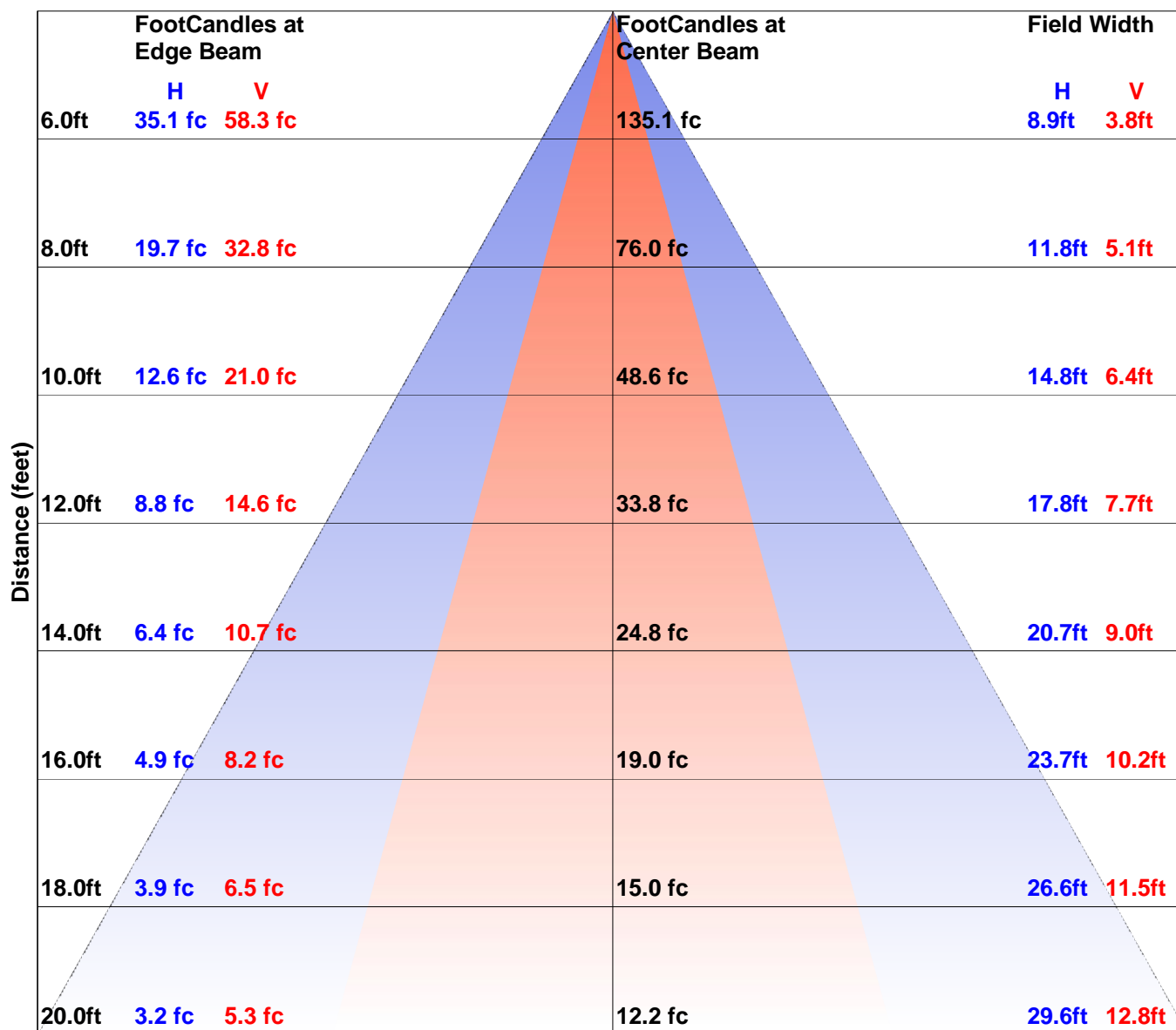


Photometric Report: G1504031-R1

Prepared for: Lumenpulse · Test Date: 03 April 2015

Floodlight: LUMENFACADE · Lumcat: LOG HO-120-48-35K 12XPE2-30x60-SI-NO

Downlight Beam



— Horizontal (73.0 °) — Vertical (35.5 °)



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



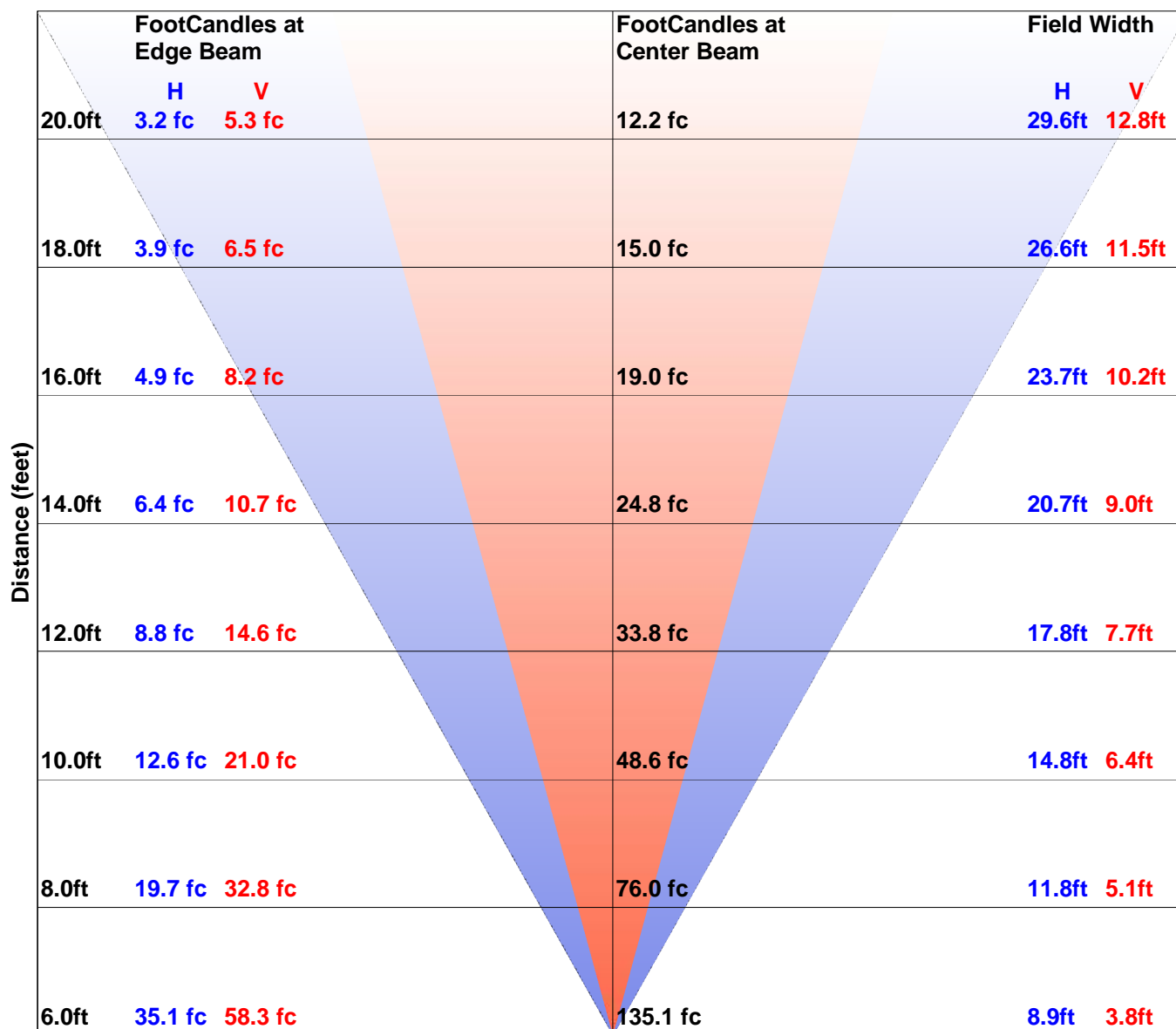
NVLAP LAB CODE: 200899-0

Photometric Report: G1504031-R1

Prepared for: Lumenpulse · Test Date: 03 April 2015

Floodlight: LUMENFACADE · Lumcat: LOG HO-120-48-35K 12XPE2-30x60-SI-NO

Uplight Beam



— Horizontal (73.0 °) — Vertical (35.5 °)



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



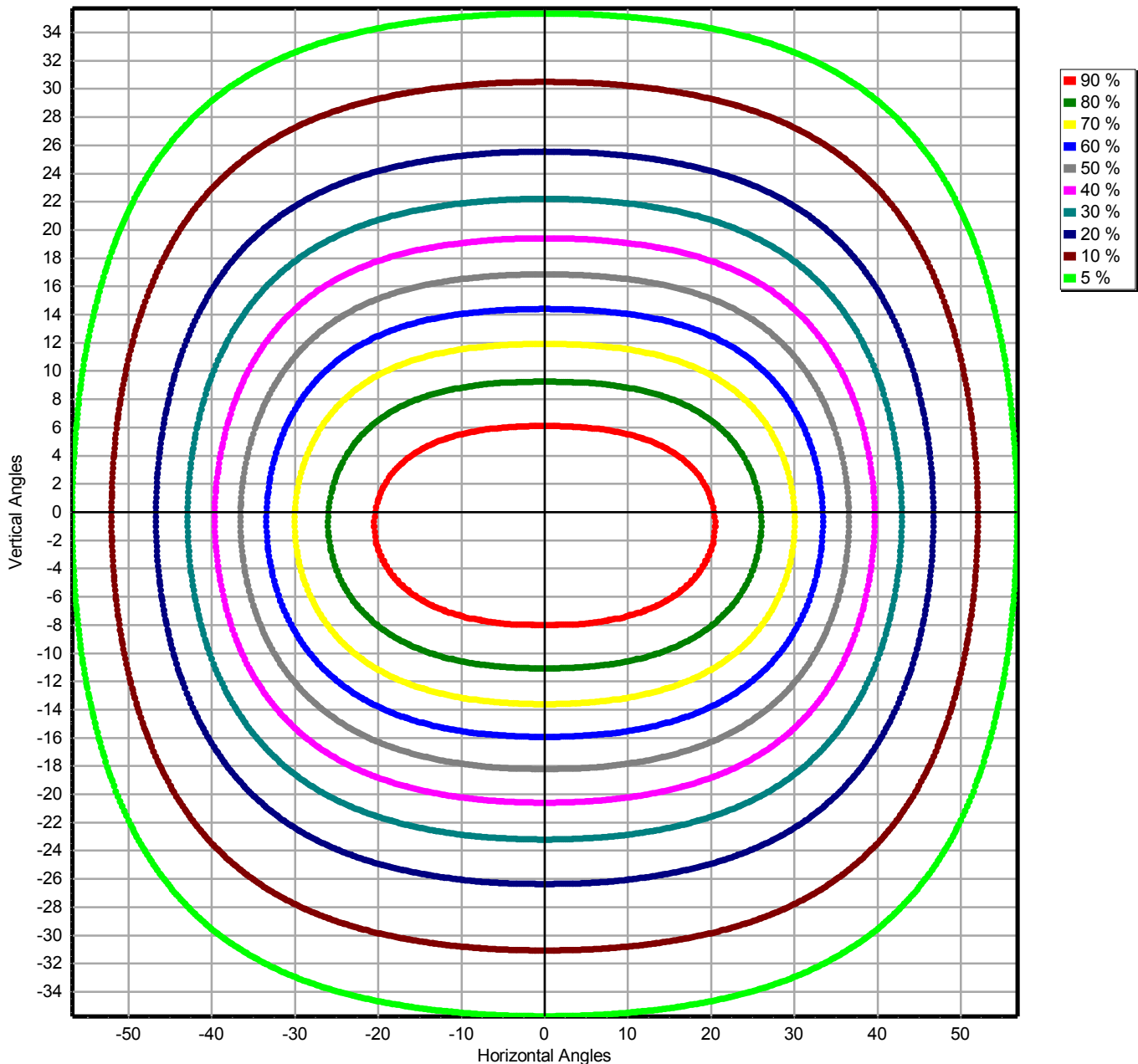
NVLAP LAB CODE: 200899-0

Photometric Report: G1504031-R1

Prepared for: Lumenpulse · Test Date: 03 April 2015

Floodlight: LUMENFACADE · Lumcat: LOG HO-120-48-35K 12XPE2-30x60-SI-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]      03 April 2015
[TESTLAB]        Spectra Lux Industries Inc.
[TEST]           G1504031-R1
[MANUFAC]        Lumenpulse
[LUMCAT]          LOG HO-120-48-35K 12XPE2-30x60-SI-NO
[LUMINAIRE]       LUMENFACADE
[LAMP]           (CREE XPE2 LED's) White 61W SSL c/w MEAN WELL USA inc. Driver LPF-60-12 @ 120.00V
[_LAMPDETAILS]   DC Voltage=24V, Current=2.54167A, CCT=3492K, CRI=81, x=0.4066, y=0.3933
[_BURNING]        Axial (3,669 Luminaire Lumens)
[_REFLECTOR]     48 Collimators
[_LENS]          Clear Flat Glass C/W Diffuse Film
[_HOUSING]        Extruded Aluminum
[_SKTPOSITION]    None
[DISTRIBUTION]    NEMA 6Hx4V (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	1	1	1	1	1	1	1	1
	-85.0	1	1	1	1	1	1	1	2
	-80.0	2	2	2	2	2	2	2	2
	-75.0	8	8	8	7	7	6	6	5
	-70.0	18	18	18	17	16	15	14	11
	-65.0	29	29	29	28	26	25	23	19
	-60.0	41	41	40	39	38	36	34	28
	-55.0	54	54	53	52	50	48	45	39
	-50.0	70	69	69	67	65	62	59	51
	-45.0	94	94	92	90	87	84	79	67
	-40.0	144	143	140	136	130	123	113	92
	-35.0	270	267	260	249	232	212	189	137
	-30.0	573	567	549	518	475	421	360	231
	-25.0	1168	1156	1119	1055	962	844	704	409
	-20.0	2065	2045	1988	1886	1731	1524	1268	701
	-15.0	3117	3095	3027	2895	2684	2382	1992	1087
	-10.0	4077	4057	3987	3845	3601	3230	2727	1490
	-5.0	4705	4689	4625	4485	4232	3826	3252	1786
A n g l e s	0.0	4863	4848	4787	4654	4403	3993	3409	1890
	5.0	4519	4501	4441	4312	4075	3692	3150	1747
	10.0	3763	3745	3686	3567	3356	3028	2575	1432
	15.0	2798	2783	2729	2627	2454	2199	1854	1032
	20.0	1836	1824	1778	1697	1572	1394	1171	661
	25.0	1046	1036	1006	953	875	773	651	386
	30.0	524	518	503	477	440	393	339	222
	35.0	255	253	247	236	222	204	183	135
	40.0	140	139	137	133	128	121	112	92
	45.0	93	93	92	90	87	84	79	68
	50.0	70	70	69	68	66	63	60	52
	55.0	55	55	54	53	51	49	46	40
	60.0	42	42	41	40	39	37	35	30
	65.0	31	31	30	29	28	27	25	21
	70.0	20	20	19	19	18	17	16	14
	75.0	11	11	11	11	10	10	10	9
	80.0	8	8	8	8	8	7	7	7



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	7	7	7	7	7	7	6	6	6
90.0	6	6	6	6	6	6	6	6	6

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	1	1	2	2	2	2	2	2
	-85.0	2	2	2	2	2	2	2	2
	-80.0	2	2	2	2	2	2	2	2
	-75.0	5	4	4	3	3	2	2	2
	-70.0	10	9	7	6	5	4	3	2
	-65.0	17	15	12	10	8	6	4	3
	-60.0	25	22	19	15	12	8	5	3
	-55.0	35	31	26	21	16	12	7	4
	-50.0	46	40	34	28	22	15	9	5
	-45.0	60	52	44	36	27	19	12	6
	-40.0	80	67	56	44	33	23	14	7
	-35.0	113	90	71	54	39	27	16	8
	-30.0	174	128	92	66	46	30	18	9
	-25.0	284	189	123	80	53	34	20	10
	-20.0	460	280	165	98	60	37	21	11
	-15.0	690	398	215	117	67	40	23	11
	-10.0	933	519	266	135	73	42	24	11
A n g l e s	-5.0	1115	612	302	147	77	44	24	12
	0.0	1178	643	317	152	78	44	24	12
	5.0	1095	604	299	145	76	43	24	11
	10.0	904	506	260	132	72	42	23	11
	15.0	662	384	209	114	66	39	22	11
	20.0	438	270	160	95	59	36	21	10
	25.0	271	182	119	78	51	33	19	9
	30.0	169	125	90	64	45	29	17	9
	35.0	112	90	70	53	39	26	16	8
	40.0	80	68	56	44	33	23	14	8
	45.0	61	53	45	36	28	20	12	7
	50.0	47	42	36	29	23	16	11	7
	55.0	36	32	28	23	18	14	9	7
	60.0	27	24	21	17	14	11	8	7
	65.0	19	17	15	13	11	9	7	7
	70.0	13	11	10	9	8	7	7	7
	75.0	8	8	7	7	7	6	6	7
	80.0	7	6	6	6	6	6	6	7
	85.0	6	6	6	6	6	6	6	8
	90.0	5	5	5	5	5	5	6	8



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 2
	-85.0 2
	-80.0 2
	-75.0 2
	-70.0 2
	-65.0 2
	-60.0 2
	-55.0 2
	-50.0 3
	-45.0 3
	-40.0 3
	-35.0 3
	-30.0 3
	-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 3
	30.0 4
	35.0 4
	40.0 4
	45.0 5
	50.0 5
	55.0 6
	60.0 6
	65.0 6
	70.0 6
	75.0 5
	80.0 5
	85.0 4
	90.0 4