



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	G1504131-R1	Description	61W White 3888K SSL	Type Commercial
Test Date	13 April 2015	Serial Number	SRIS 1894	Description 61SSL-CY810
Report Date	15 April 2015	Photometric Method	Absolute	Manufacturer MEAN WELL USA inc.
Ambient	24.6 °C	Lamp Lumens	-1	Catalog No. LPF-60-24
Humidity	23.4 %	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.	LOG-HO-120-48-40K- WWLF-SI-NO	Lens	Clear Flat Glass C/W Diffuse Film	Z 0.1667

SKT Position: None

Lamp Stabilization Time: 60 minutes, 42 seconds

Tested By: Jean-Paul Ojeil

Approved Signatory: Chrisnel Blot

Signature:



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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).





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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



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Photometric Report: G1504131-R1

Prepared for: Lumenpulse · Test Date: 13 April 2015

Floodlight: LUMENFACADE · Lumcat: LOG-HO-120-48-40K-WWLF-SI-NO

Photometric Floodlight Characteristics

Nominal SSL Power	61.00 W	
Measured Input Voltage	121.44 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	3592	
Measured Input Power	61.76 W	
Floodlight Luminous Efficacy	58.2 lm/W	2) Field performance may differ from laboratory measurements.
Maximum Candela Value	5159	
Maximum Candela Location	0.0 H, 5.0 V	3) Results are valid for the tested material only.
Horizontal Beam Angle (50%)	82.0 °	
Vertical Beam Angle (50%)	20.0 °	4) All data published in this report are based on absolute photometry.
Horizontal Field Angle (10%)	127.0 °	
Vertical Field Angle (10%)	56.5 °	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%)	1471	
Beam Efficiency (50%)	N/A	
Field Lumens (10%)	2927	
Field Efficiency (10%)	N/A	
Spill Lumens	665	
Total Floodlight Lumens	3592	
Total Floodlight Efficiency	N/A	



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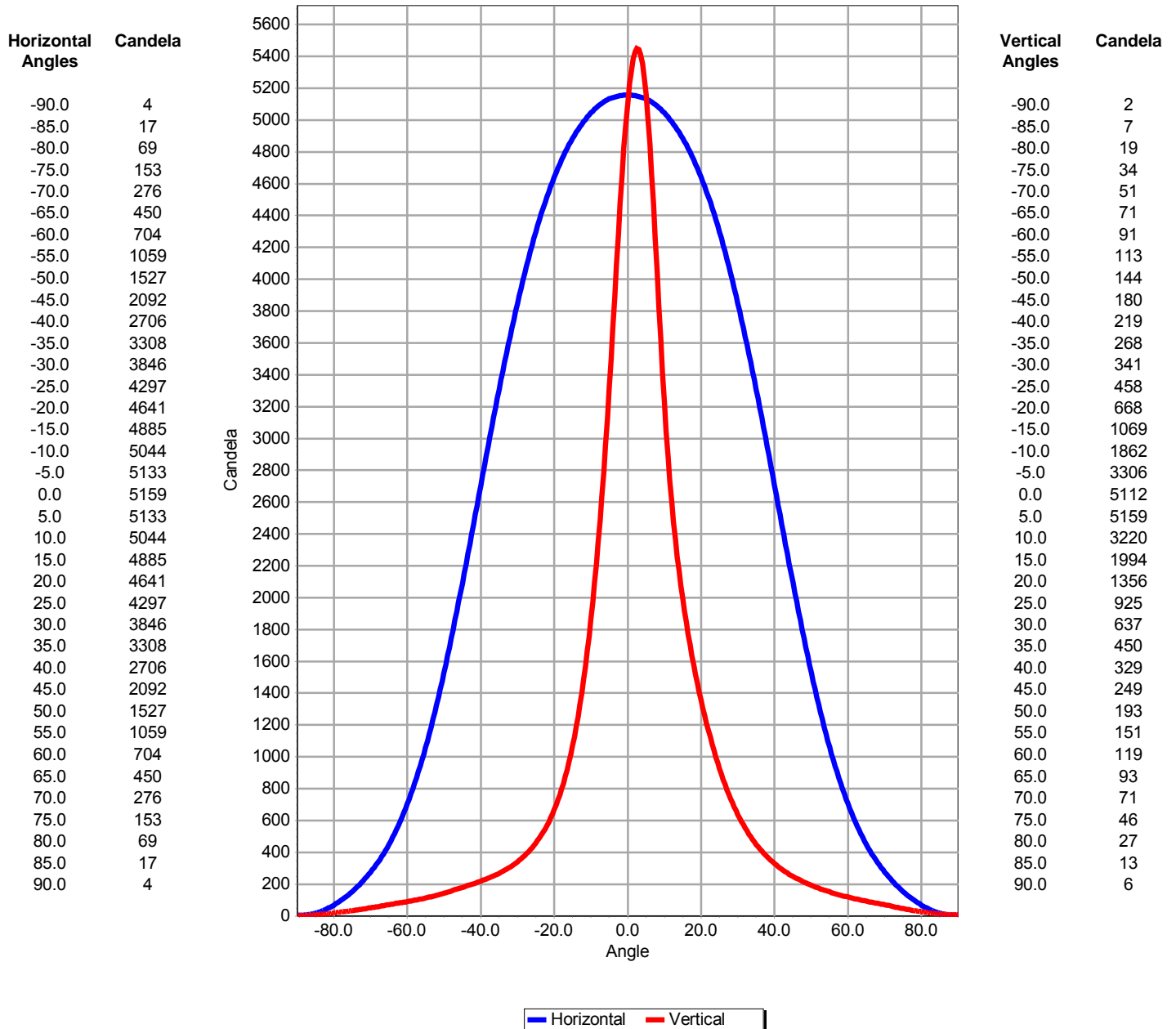
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Floodlight: LUMENFACADE · Lumcat: LOG-HO-120-48-40K-WWLF-SI-NO

Maximum Candela Trace (Max. Location: 0.0 H, 5.0 V)





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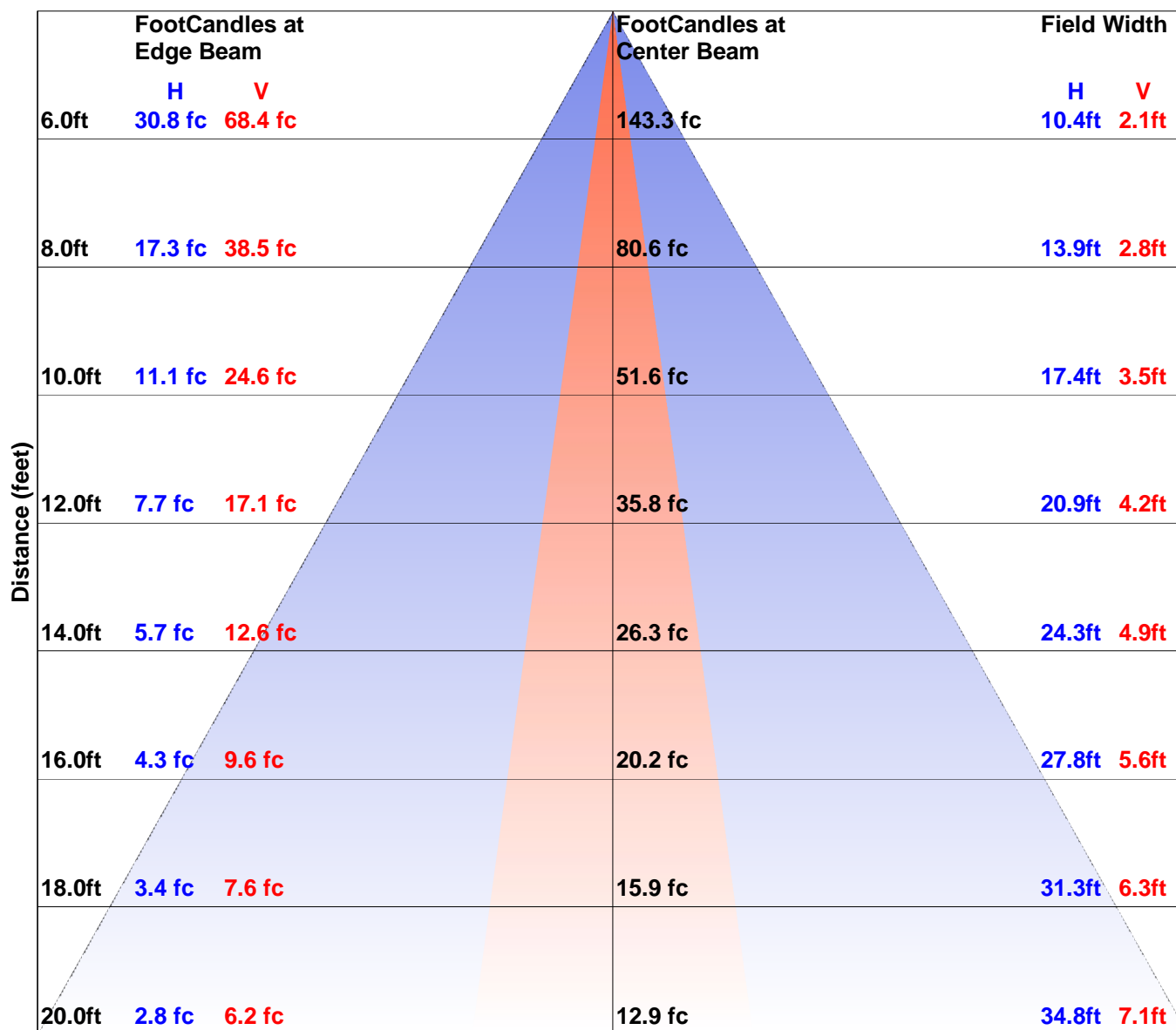
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Downlight Beam



— Horizontal (82.0 °) — Vertical (20.0 °)



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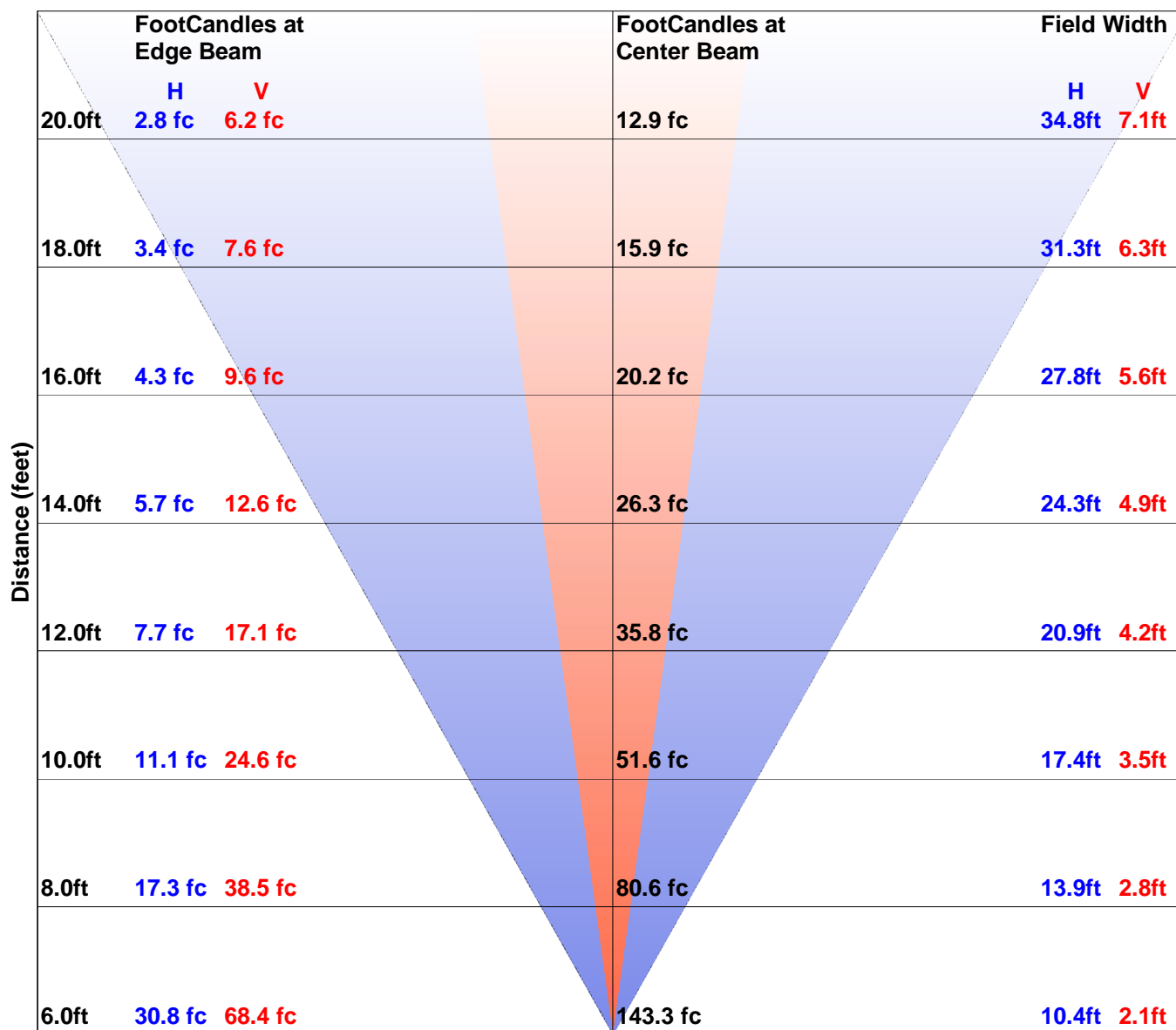
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Floodlight: LUMENFACADE · Lumcat: LOG-HO-120-48-40K-WWLF-SI-NO

Uplight Beam



— Horizontal (82.0 °) — Vertical (20.0 °)



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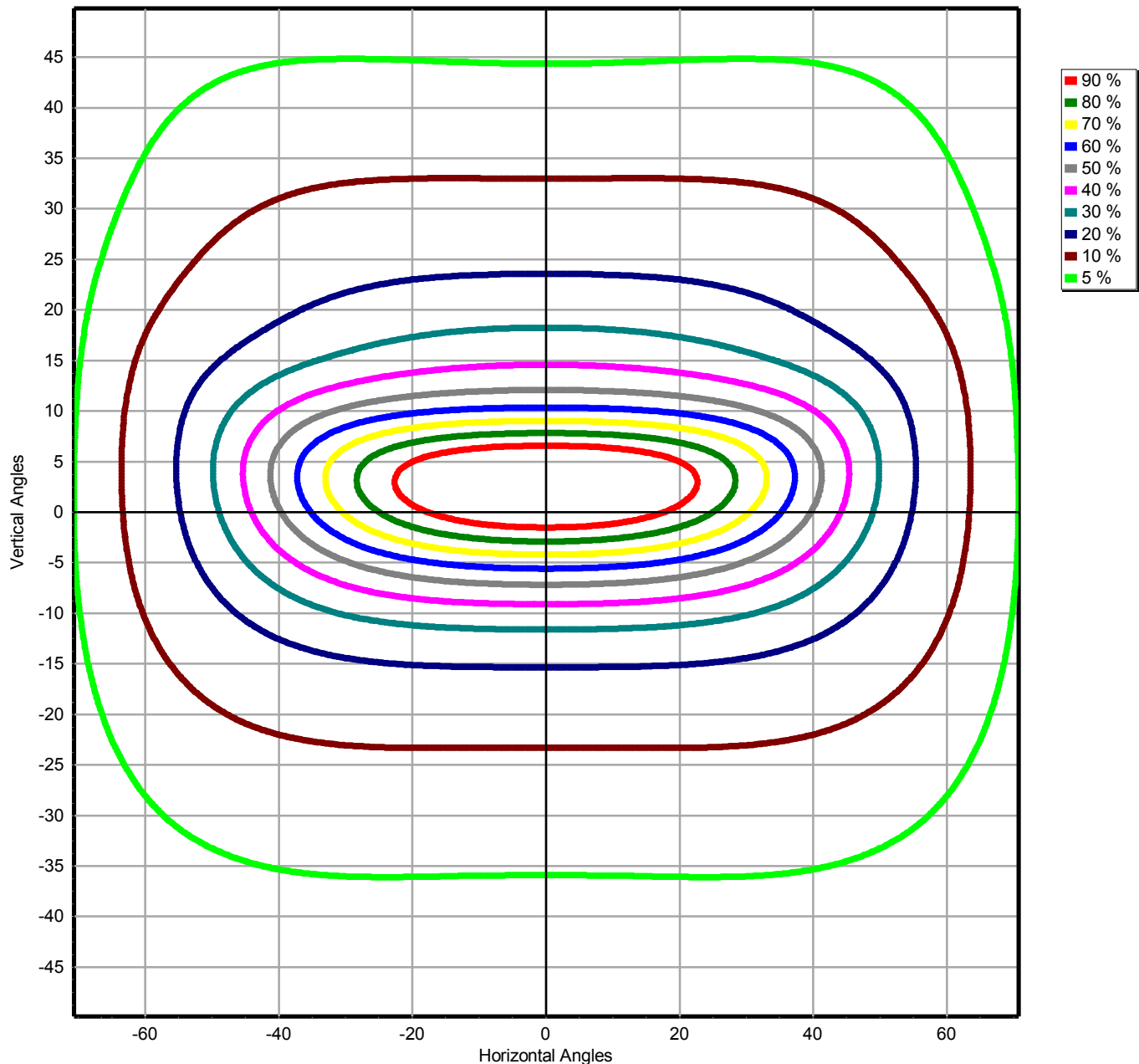
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Photometric Report: G1504131-R1

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Floodlight: LUMENFACADE · Lumcat: LOG-HO-120-48-40K-WWLF-SI-NO

ISO Candela Diagram





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IES File Headers

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IESNA:LM-63-2002
[ISSUEDATE] 13 April 2015
[TESTLAB] Spectra Lux Industries Inc.
[TEST] G1504131-R1
[MANUFAC] Lumenpulse
[LUMCAT] LOG-HO-120-48-40K-WWLF-SI-NO
[LUMINAIRE] LUMENFACADE
[LAMP] (CREE XPE2 LED's) White 61W SSL c/w MEAN WELL USA inc. Driver LPF-60-24 @ 120.00V
[_LAMPDETAILS] DC Voltage=15V, Current=2.5417A, CCT=3888K, CRI=83, x=0.3861, y=0.3818
[_BURNING] Axial (3,592 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,5.0V)
[MORE] (Based on IES LM-35-1989)
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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	2	2	2	2	2	2	2	3
	-85.0	7	7	7	7	7	6	6	6
	-80.0	19	19	19	18	17	17	16	15
	-75.0	34	34	34	33	32	30	29	27
	-70.0	51	51	51	50	48	47	45	43
	-65.0	71	71	71	70	69	67	65	61
	-60.0	91	90	90	89	88	87	86	82
	-55.0	113	113	113	113	112	112	111	109
	-50.0	144	144	144	144	145	144	144	140
	-45.0	180	180	180	181	180	179	177	173
A n g l e s	-40.0	219	219	220	220	220	219	217	213
	-35.0	268	268	269	269	270	269	267	262
	-30.0	341	341	341	342	343	341	337	329
	-25.0	458	458	459	460	460	458	445	429
	-20.0	668	669	669	669	666	659	645	589
	-15.0	1069	1068	1065	1058	1043	1018	979	849
	-10.0	1862	1856	1839	1808	1758	1681	1577	1273
	-5.0	3306	3288	3236	3144	2997	2799	2543	1885
	0.0	5112	5075	4968	4779	4503	4127	3661	2539
	5.0	5159	5133	5044	4885	4641	4297	3846	2706
	10.0	3220	3212	3179	3117	3018	2872	2669	2079
	15.0	1994	1988	1965	1922	1859	1774	1660	1364
	20.0	1356	1352	1339	1315	1278	1224	1154	961
	25.0	925	924	919	909	893	868	831	717
	30.0	637	637	637	635	630	621	605	545
	35.0	450	451	451	452	453	451	445	417
	40.0	329	330	331	333	334	335	334	322
	45.0	249	250	251	252	254	255	256	251
	50.0	193	193	194	195	197	198	199	197
	55.0	151	151	152	153	154	155	156	155
	60.0	119	119	119	120	120	121	122	121
	65.0	93	93	93	94	94	94	94	92
	70.0	71	71	71	71	70	70	69	66
	75.0	46	46	46	46	45	45	44	42
	80.0	27	27	27	27	27	26	25	24



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Horizontal Angles

	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
85.0	13	13	13	13	13	12	12	12	11
90.0	6	6	6	6	6	6	6	6	6

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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	3	3	3	3	3	3	3	3
	-85.0	6	5	5	5	4	3	3	3
	-80.0	14	13	12	10	9	6	4	3
	-75.0	25	23	21	19	16	13	9	6
	-70.0	41	38	35	30	26	21	15	9
	-65.0	58	55	51	47	40	32	23	13
	-60.0	80	76	72	66	57	46	33	18
	-55.0	106	102	95	87	76	62	44	24
	-50.0	135	129	121	110	96	78	56	31
	-45.0	168	160	150	136	119	96	69	38
	-40.0	206	196	183	165	143	115	81	45
	-35.0	253	240	222	199	170	135	94	51
	-30.0	316	297	272	240	201	156	107	56
	-25.0	407	376	337	290	237	179	119	62
	-20.0	545	490	425	355	280	204	131	66
	-15.0	758	654	544	434	328	230	142	69
A n g l e s	-10.0	1085	889	699	527	378	252	151	71
	-5.0	1524	1178	871	618	419	269	155	72
	0.0	1963	1442	1012	683	446	276	156	71
	5.0	2092	1527	1059	704	450	276	153	69
	10.0	1705	1325	965	664	434	267	149	66
	15.0	1180	978	770	570	393	250	141	63
	20.0	844	720	592	464	340	226	131	59
	25.0	642	557	468	377	286	198	118	54
	30.0	499	444	381	313	242	172	105	48
	35.0	391	356	313	262	206	148	91	42
	40.0	307	286	256	219	176	128	79	36
	45.0	243	229	209	183	148	109	66	30
	50.0	192	183	170	150	124	91	55	24
	55.0	152	146	136	121	100	74	45	20
	60.0	118	114	106	94	78	57	35	16
	65.0	90	86	79	70	57	42	26	13
	70.0	63	59	54	48	39	29	18	10
	75.0	40	38	34	30	25	18	12	7
	80.0	22	21	19	16	13	10	8	7
	85.0	10	9	9	8	7	6	7	7
	90.0	6	6	6	6	6	6	7	8



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	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 3
	-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 4
	45.0 4
	50.0 5
	55.0 5
	60.0 6
	65.0 6
	70.0 6
	75.0 6
	80.0 5
	85.0 5
	90.0 4