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Test #: L07120201

Date: 7/11/2012



NVLAP LAB CODE 200927-0

Test Report: L07120201

Model Number: MLSWP30LED50

Report Prepared For: MAXLITE
 12 York Ave. West Caldwell, NJ, 07006

Test: Electrical and Photometric tests as required by the IESNA test standards.

Standards Used: Appropriate part or all test guidelines were used for test performed:
IESNA LM79: 2008 Approved Methods for Electrical and Photometric Measurements of Solid-State Lighting Products
ANSI NEMA ANSLG C78.377: 2008 Specification of the Chromaticity of Solid State Lighting Products

Description of Sample: Client submitted 1 LED wallpack and 2 LED lamps. Fixture catalog number is MLSWP30LED50. Received in working and undamaged condition. No modifications were necessary.

Sample Arrival Date: 6/29/12

Date of Tests: 7/9/12 - 7/11/12

Seasoning of Sample SSL: No seasoning was performed in accordance with IESNA LM-79.

Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S1	01/04/13
Xitron Power Analysis System	2503AH	MT-EL01	01/09/13
Fluke Digital Thermometer	52k/J	MT-TP02-GC	01/04/13
LLI Type C Goniophotometer System	RMG-C-MKII	CD-LL04-GC	--
LLI 2M Sphere	2MR97	CD-SN03-S2	--
LLI Spectroradiometer	SPR-3000	MT-SC01-S2	Before Use

*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.

LM-79 Test Summary

Manufacturer:	MAXLITE
Model Number:	MLSWP30LED50
Total Lumens:	2075.90
Input Voltage (VAC):	277.00
Input Current (Amp):	0.18
Input Power (W):	34.26
Input Power Factor:	0.70
Efficacy:	60.59
Color Rendering Index (CRI):	70.12
Correlated Color Temperature (CCT):	4986
Chromaticity Coordinate x:	0.3453
Chromaticity Coordinate y:	0.3504
Ambient Temperature (°F):	77.0
Stabilization Time (Hours):	0:45
Total Operating Time (Hours):	1:50

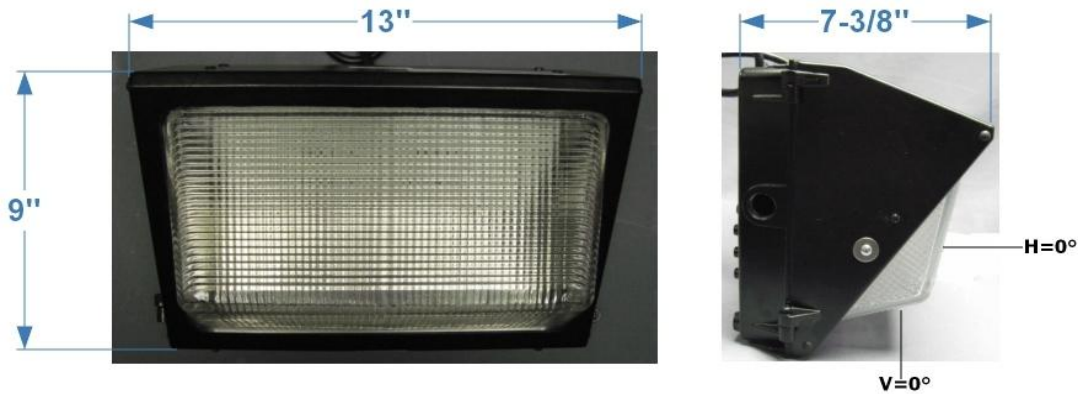
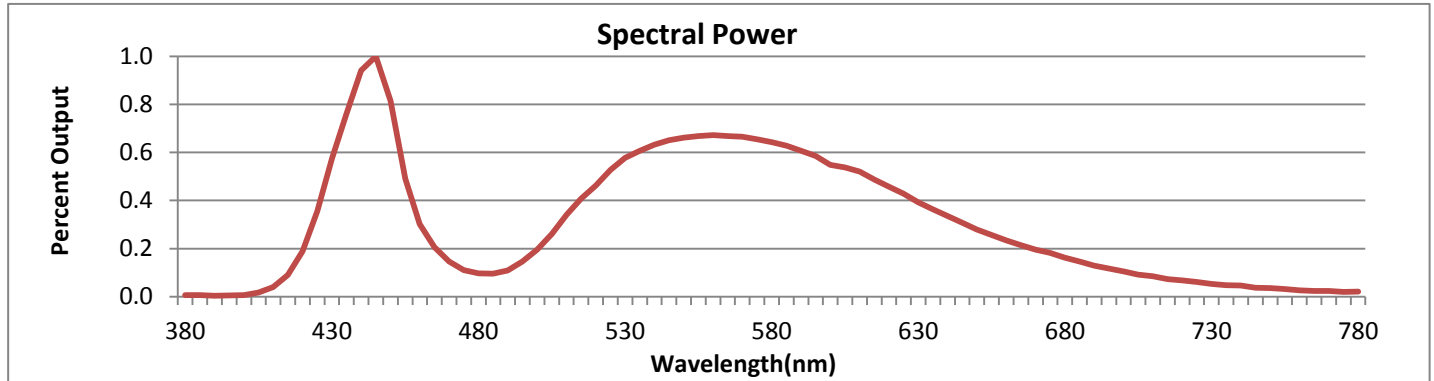


FIG.1 LUMINAIRE



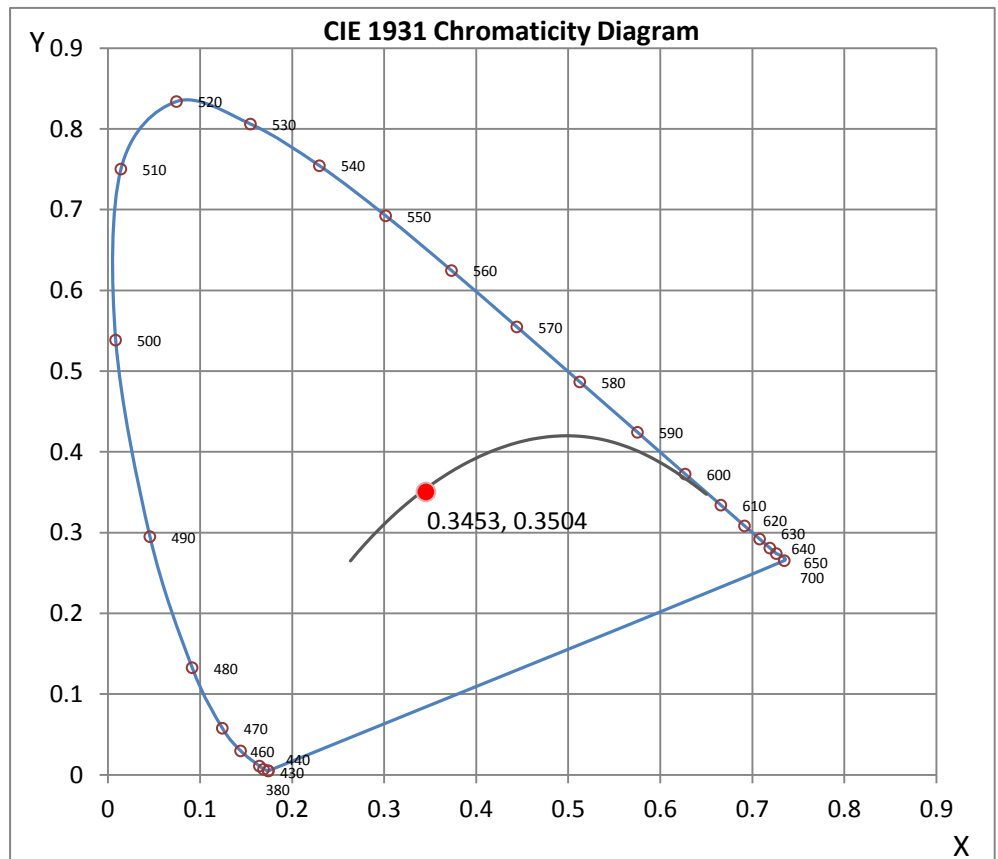
Wavelength	W/m ² nm	440	0.2590	510	0.0937	580	0.1770	650	0.0767	720	0.0185
380	0.0016	450	0.2240	520	0.1270	590	0.1670	660	0.0645	730	0.0145
390	0.0009	460	0.0830	530	0.1590	600	0.1510	670	0.0538	740	0.0126
400	0.0015	470	0.0400	540	0.1740	610	0.1430	680	0.0444	750	0.0097
410	0.0109	480	0.0267	550	0.1820	620	0.1260	690	0.0354	760	0.0071
420	0.0518	490	0.0301	560	0.1850	630	0.1080	700	0.0287	770	0.0063
430	0.1580	500	0.0537	570	0.1830	640	0.0923	710	0.0232	780	0.0056

CRI & CCT

x	0.3453
y	0.3504
u'	0.2121
v'	0.4841
CRI	70.12
CCT	4986
Duv	-0.00070

R Values

R1	69.58
R2	73.31
R3	74.16
R4	71.84
R5	69.45
R6	62.81
R7	78.21
R8	61.57
R9	-15.64
R10	35.10
R11	68.62
R12	39.88
R13	68.76
R14	85.00



*All Results in accordance to IESNA LM-79-2008: Approved Method for the Electrical and Photometric Testing of Solid-State Lighting.



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Test Methods

Photometric Measurements - Goniophotometer

A Custom Light Laboratory Type C Rotating Mirror Goniophotometer was used to measure candelas(intensity) at each angle of distribution as defined by IESNA for the appropriate fixture type.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Spectral Measurements - Integrating Sphere

A Sensing Spectroradiometer SPR-3000, in conjunction with Light Laboratory 2 meter integrating sphere was used to measure chromaticity coordinates, correlated color temperature(CCT) and the color rendering index(CRI) for each sample.

Ambient temperature is set to 25°C and is measured from the center of the fixture, within 1ft from the outside of the fixture. Temperature is maintained at 25°C throughout the testing process and the sample is stabilized for at least 30mins and longer as necessary for the sample to achieve stabilization.

Electrical measurements are measured using the listed equipment.

Test Report Released by:

Joseph Shin
Engineering Manager

Test Report Reviewed by:

Steve Kang
Quality Assurance

*Attached are photometric data reports. Total number of pages: 12



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Photometric Test Report

IES ROAD REPORT
PHOTOMETRIC FILENAME : L07120201.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L07120201
 [TESTLAB] LIGHT LABORATORY INC
 [ISSUEDATE] 7/11/2012
 [MANUFAC] MAXLITE
 [LUMCAT] MLSWP30LED50
 [LUMINAIRE] 7-3/16"L. X 13"W. X 9"H. LED WALL PACK
 [MORE] THREE LED MODULES WITH 9 5000K LEDS IN EACH
 [MORE] TOTAL OF 27 LEDS, PRISMATIC GLASS LENS
 [BALLASTCAT] INVENTRONICS EUC-040S105PS
 [BALLAST] INPUT: 100-277VAC, 50/60Hz OUTPUT: 12-36VDC, 1.05A
 [LAMPPOSITION] 0,0
 [LAMPCAT] 5000K LED
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [_INPUT] 277VAC, 34.26W
 [_TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

IES Classification	Type IV
Longitudinal Classification	Very Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2076
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	61
Total Luminaire Watts	34.26
Ballast Factor	1.00
Upward Waste Light Ratio	0.11
Maximum Candela	983
Maximum Candela Angle	15H 45V
Maximum Candela (<90 Degrees Vertical)	983
Maximum Candela Angle (<90 Degrees Vertical)	15H 45V
Maximum Candela At 90 Degrees Vertical	450 (21.7% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	569 (27.4% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

IES ROAD REPORT
PHOTOMETRIC FILENAME : L07120201.IES

LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	260.4	N.A.	12.5
FM - Front-Medium (30-60)	697.7	N.A.	33.6
FH - Front-High (60-80)	481.2	N.A.	23.2
FVH - Front-Very High (80-90)	153.7	N.A.	7.4
BL - Back-Low (0-30)	122.1	N.A.	5.9
BM - Back-Medium (30-60)	101.8	N.A.	4.9
BH - Back-High (60-80)	29.2	N.A.	1.4
BVH - Back-Very High (80-90)	6.3	N.A.	0.3
UL - Uplight-Low (90-100)	99.7	N.A.	4.8
UH - Uplight-High (100-180)	123.6	N.A.	6.0
Total	2075.7	N.A.	100.0
BUG Rating	B1-U3-G2		

IES ROAD REPORT
PHOTOMETRIC FILENAME : L07120201.IES

CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>5</u>	<u>15</u>	<u>25</u>	<u>35</u>	<u>45</u>	<u>55</u>	<u>65</u>	<u>75</u>	<u>85</u>
0.0	583	583	583	583	583	583	583	583	583	583
5.0	588	590	596	603	603	606	619	634	662	660
15.0	646	650	681	684	680	770	620	552	541	586
25.0	608	616	662	767	718	606	554	627	482	424
35.0	811	808	845	703	652	557	586	456	459	340
45.0	939	961	983	837	716	609	473	419	345	270
55.0	906	944	970	887	771	607	456	332	279	232
60.0	898	921	868	828	736	617	439	313	251	197
62.5	856	890	920	816	727	606	412	304	234	158
65.0	892	907	807	790	704	571	405	292	217	142
67.5	737	742	800	748	691	536	394	268	198	125
70.0	785	788	764	700	629	506	373	245	162	124
72.5	760	760	723	680	612	476	345	229	143	106
75.0	632	642	630	652	567	446	319	210	126	88
77.5	609	635	671	547	534	415	301	190	110	71
80.0	562	569	539	539	463	382	273	152	110	57
82.5	542	529	512	454	447	352	250	137	95	45
85.0	484	492	481	434	377	308	219	123	80	35
87.5	398	406	419	398	339	268	195	106	68	28
90.0	450	442	386	328	307	233	151	112	57	24
95.0	300	299	306	255	240	181	115	85	43	21
105.0	157	156	149	146	128	100	76	51	29	21
115.0	94	93	91	83	73	60	45	33	24	20
125.0	49	49	48	46	42	37	30	25	22	16
135.0	33	33	33	32	31	27	24	17	15	12
145.0	23	23	23	22	21	17	14	11	10	8
155.0	14	14	14	13	11	9	7	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Angles	Horizontal Angles									
	<u>90</u>	<u>95</u>	<u>105</u>	<u>115</u>	<u>125</u>	<u>135</u>	<u>145</u>	<u>155</u>	<u>165</u>	<u>175</u>
0.0	583	583	583	583	583	583	583	583	583	583
5.0	632	599	541	495	467	441	422	407	395	386
15.0	576	500	409	365	319	290	285	293	279	262
25.0	451	388	307	250	227	206	181	155	149	136
35.0	333	286	213	157	136	110	89	74	65	62
45.0	238	205	124	101	78	58	47	40	36	35
55.0	176	140	86	67	49	39	35	31	28	27
60.0	149	113	72	54	41	33	28	24	22	21
62.5	138	99	66	49	37	30	24	22	18	18
65.0	122	86	61	44	34	26	22	16	15	14
67.5	104	75	55	40	30	25	16	13	11	10
70.0	88	66	49	36	29	17	13	10	10	10
72.5	74	56	42	32	25	14	11	10	10	10
75.0	62	47	36	27	20	13	11	10	10	10
77.5	50	40	31	26	15	12	10	9	9	9
80.0	39	33	27	21	15	11	10	9	9	9
82.5	31	27	24	17	13	10	9	8	8	8
85.0	25	23	20	16	12	9	7	7	7	7
87.5	21	20	18	14	11	8	7	0	0	0

IES ROAD REPORT
PHOTOMETRIC FILENAME : L07120201.IES

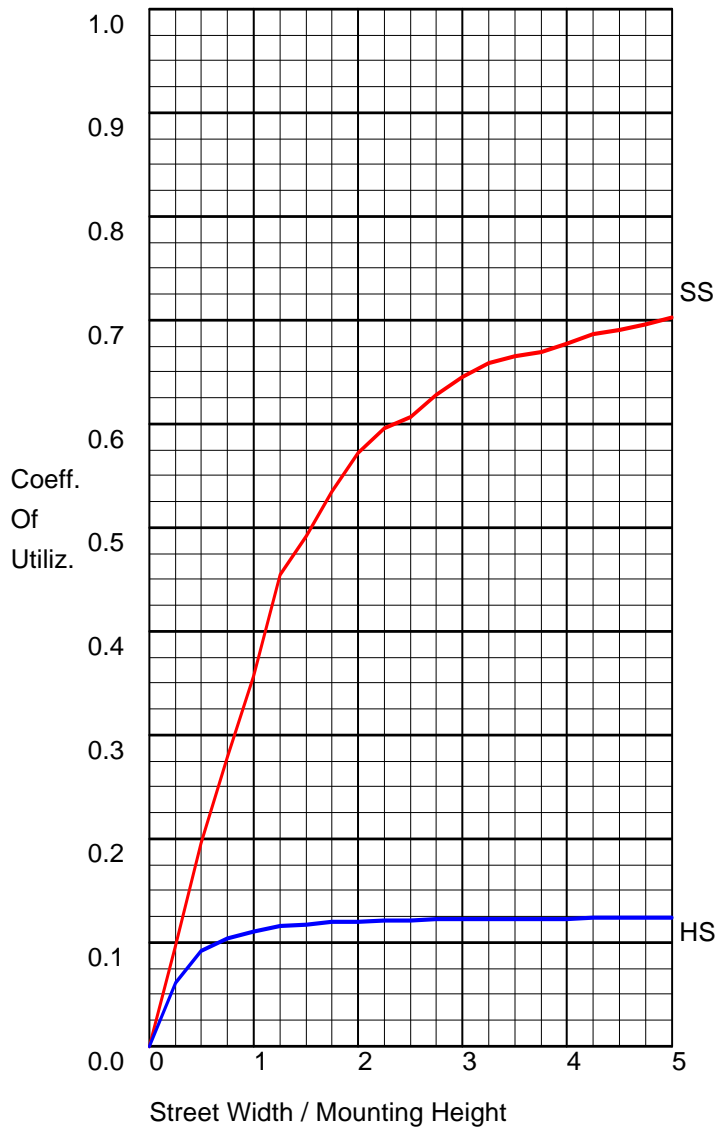
CANDELA TABULATION - (Cont.)

90.0	19	19	16	13	10	8	0	0	0	0
95.0	19	18	15	12	9	7	0	0	0	0
105.0	19	17	13	10	8	0	0	0	0	0
115.0	18	16	11	8	7	0	0	0	0	0
125.0	15	13	9	7	0	0	0	0	0	0
135.0	11	9	7	0	0	0	0	0	0	0
145.0	7	7	0	0	0	0	0	0	0	0
155.0	0	0	0	0	0	0	0	0	0	0
165.0	0	0	0	0	0	0	0	0	0	0
175.0	0	0	0	0	0	0	0	0	0	0
180.0	0	0	0	0	0	0	0	0	0	0

Vert. Horizontal Angles

	<u>180</u>
0.0	583
5.0	385
15.0	260
25.0	133
35.0	61
45.0	35
55.0	27
60.0	21
62.5	17
65.0	14
67.5	10
70.0	10
72.5	10
75.0	10
77.5	9
80.0	9
82.5	8
85.0	7
87.5	0
90.0	0
95.0	0
105.0	0
115.0	0
125.0	0
135.0	0
145.0	0
155.0	0
165.0	0
175.0	0
180.0	0

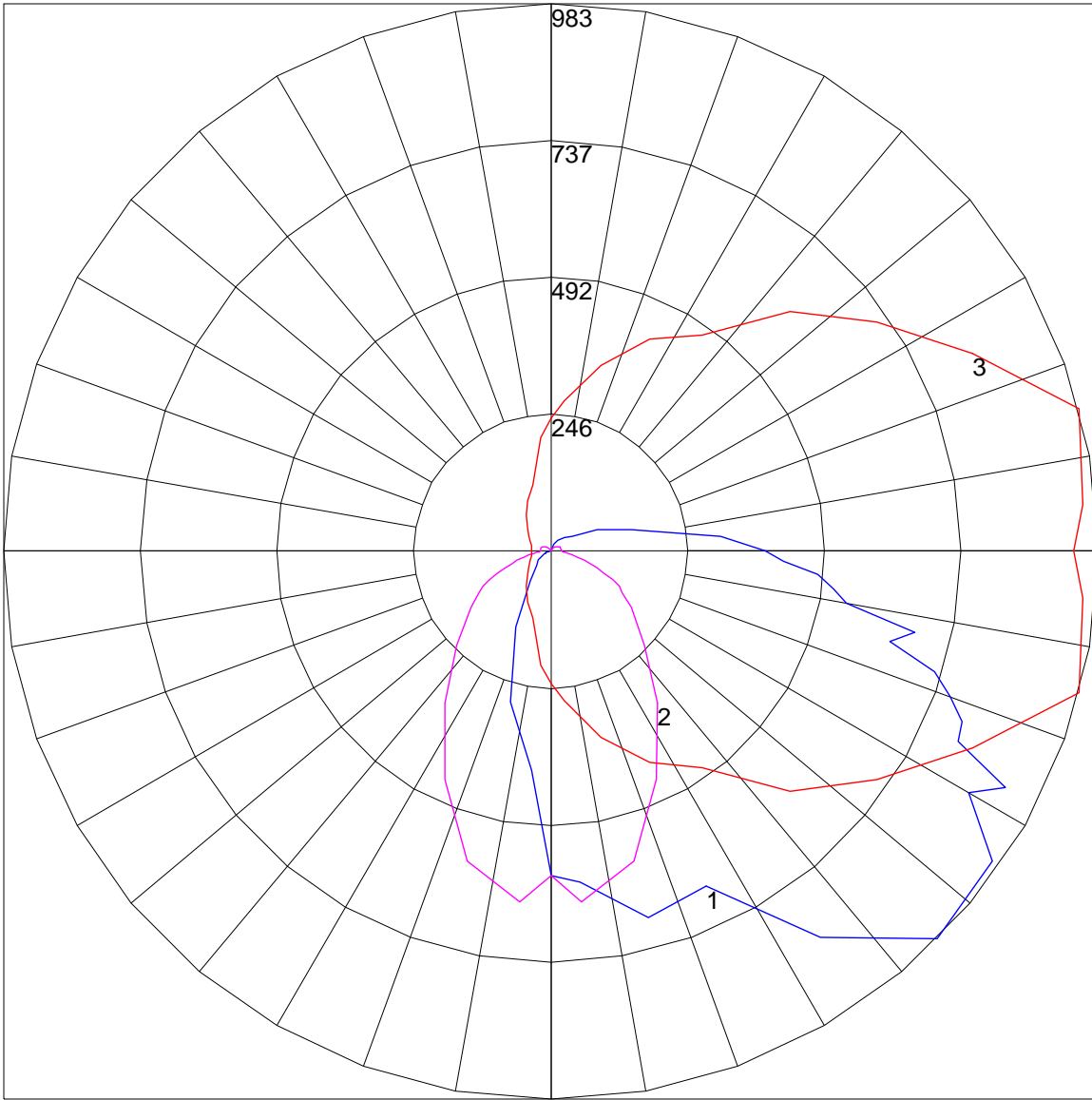
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

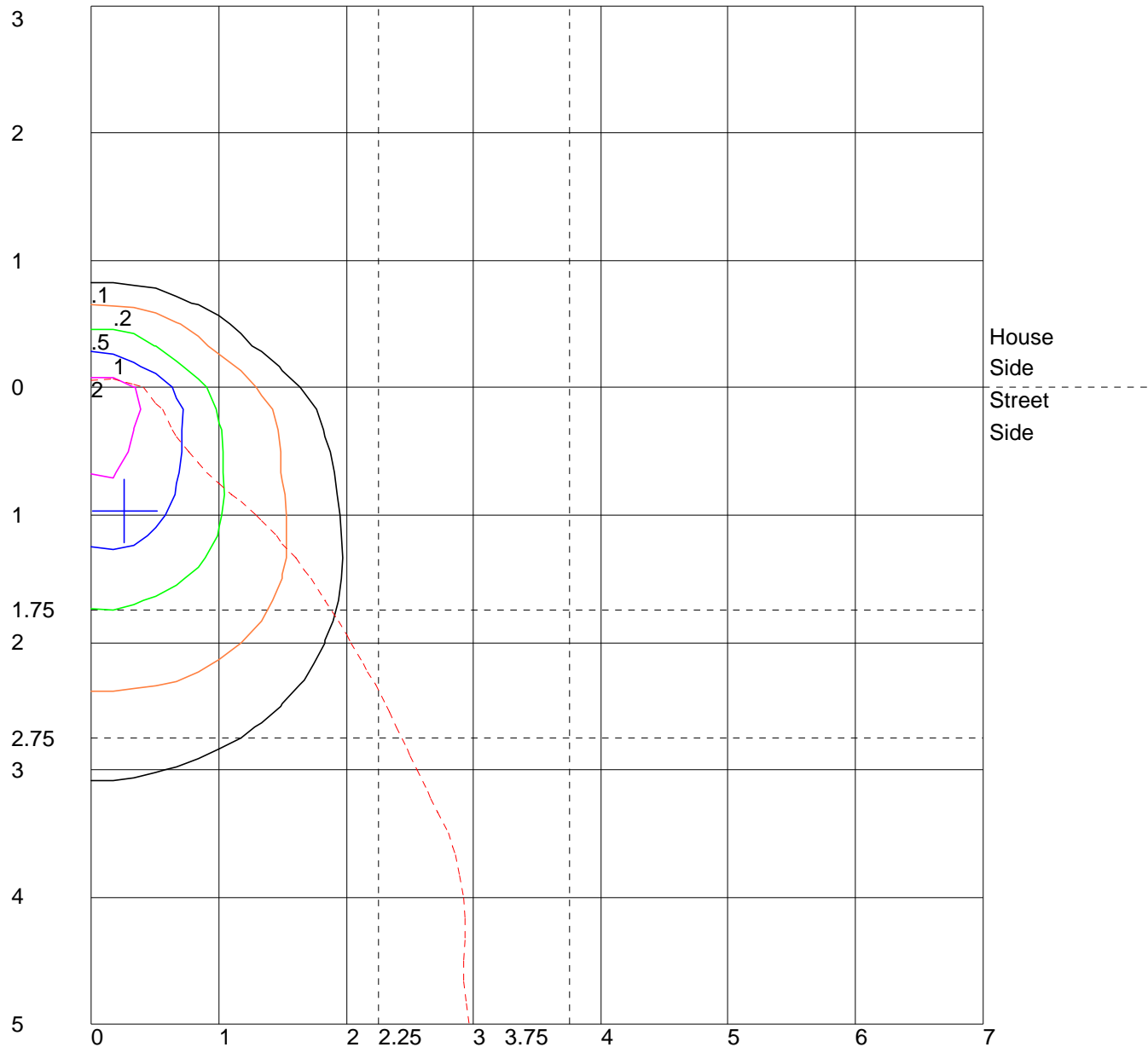
	Lumens	Percent Of Luminaire
Downward Street Side	1593.0	76.7
Downward House Side	259.8	12.5
Downward Total	1852.8	89.3
Upward Street Side	211.7	10.2
Upward House Side	11.4	0.5
Upward Total	223.1	10.7
Total Flux	2075.9	100.0

POLAR GRAPH



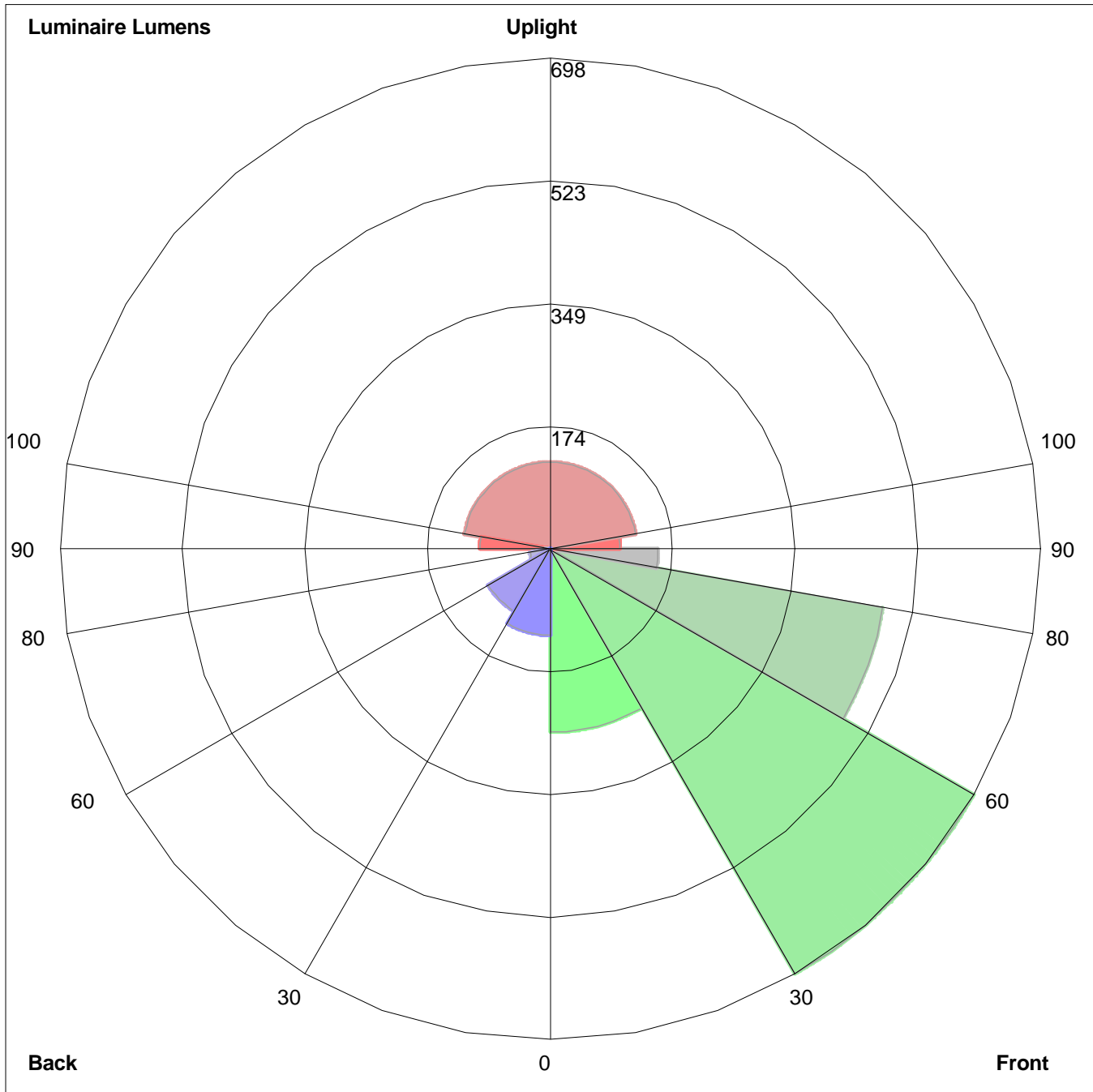
Maximum Candela = 983 Located At Horizontal Angle = 15, Vertical Angle = 45
1 - Vertical Plane Through Horizontal Angles (15 - 195) (Through Max. Cd.)
2 - Vertical Plane Through Horizontal Angles (90 - 270)
3 - Horizontal Cone Through Vertical Angle (45) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



Distance In Units Of Mounting Height
 Values Based On 15 Foot Mounting Height
 1/2 Maximum Candela Trace Shown As Dashed Curve
 (+) = Maximum Candela Point

LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
 Front: Low=260.4, Medium=697.7, High=481.2, Very High=153.7
 Back: Low=122.1, Medium=101.8, High=29.2, Very High=6.3
 Uplight: Low=99.7, High=123.6

BUG Rating : B1-U3-G2