



8165 E Kaiser Blvd. Anaheim, CA 92808
 p. 714.282.2270
 f. 714.676.5558

.....Test #: L0

Date: 6/1 /2012



NVLAP LAB CODE 200927-0

Test Report: L0*%&&* \$*

Model Number: MLAR30LED50

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 sample of LED area lighting fixture. Fixture catalog number is MLAR30LED50. Received in working and undamaged condition. No modifications were necessary.

Sample Arrival Date: 4/30/12

Date of Tests: 5/7/12 - 5/9/12

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

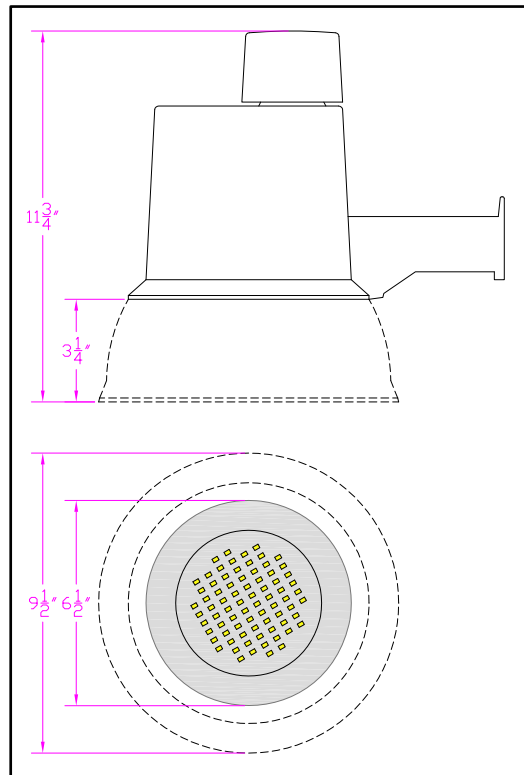
Equipment List

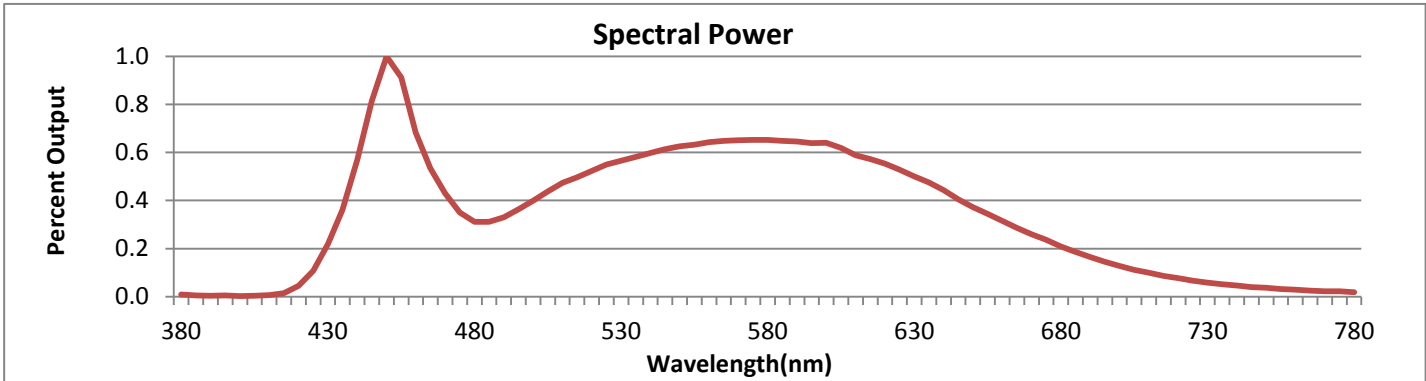
Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Yokogawa Digital Power Meter	WT210	MT-EL06-S1	01/04/13
Xitron Power Analysis System	2503AH	MT-EL01	01/09/13
Fluke Digital Thermometer	52k/J	MT-TP02-GC	01/04/13
LLI Type C Goniophotometer System	RMG-C-MKII	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:	MLAR30LED50
Total Lumens:	2086.80
Input Voltage (VAC):	120.00
Input Current (Amp):	0.27
Input Power (W):	30.30
Input Power Factor:	0.93
Efficacy:	68.86
Color Rendering Index (CRI):	86.22
Correlated Color Temperature (CCT):	5040
Chromaticity Coordinate x:	0.3437
Chromaticity Coordinate y:	0.3477
Ambient Temperature (°F):	77.0
Stabilization Time (Hours):	0:35
Total Operating Time (Hours):	1:15





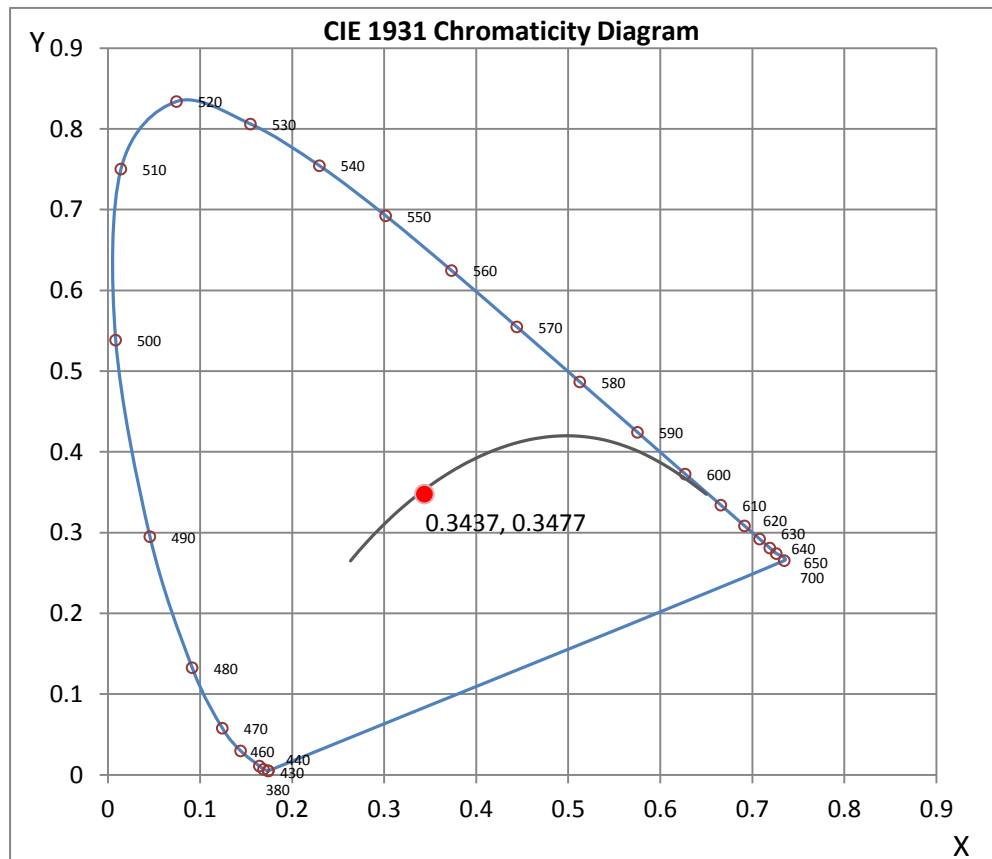
Wavelength	W/m ² nm	440	0.4053	510	0.3389	580	0.4666	650	0.2663	720	0.0547
380	0.0060	450	0.7152	520	0.3739	590	0.4623	660	0.2252	730	0.0421
390	0.0024	460	0.4889	530	0.4051	600	0.4581	670	0.1857	740	0.0333
400	0.0018	470	0.3077	540	0.4273	610	0.4210	680	0.1492	750	0.0261
410	0.0040	480	0.2226	550	0.4479	620	0.3964	690	0.1175	760	0.0208
420	0.0321	490	0.2363	560	0.4600	630	0.3578	700	0.0914	770	0.0161
430	0.1573	500	0.2858	570	0.4657	640	0.3171	710	0.0711	780	0.0135

CRI & CCT

x	0.3437
y	0.3477
u'	0.2120
v'	0.4826
CRI	86.22
CCT	5040
Duv	-0.00140

R Values

R1	85.70
R2	90.44
R3	92.06
R4	86.13
R5	85.94
R6	85.20
R7	88.99
R8	75.32
R9	31.70
R10	75.85
R11	84.97
R12	67.60
R13	86.92
R14	95.58



*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:

Test Report Reviewed by:

Joseph Shin
 Engineering Manager

Steve Kang
 Quality Assurance

**Attached are photometric data reports. Total number of pages: 11*



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Photometric Test Report

IES ROAD REPORT
PHOTOMETRIC FILENAME : L06122606.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L06122606
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 6/15/2012
 [MANUFAC] MAXLITE
 [LUMCAT] MLAR30LED50
 [LUMINAIRE] 9-1/2"DIA. X 11-3/4"H. LED AREA LIGHT
 [MORE] 76 DAYLIGHT LEDS, ALLUMINUM REFLECTOR WITH
 [MORE] ACRYLIC DIFFUSED LENS
 [BALLASTCAT] INVENTRONICS EUC-042S070PS
 [BALLAST] INPUT: 100-240VAC, 50/60Hz OUTPUT: 30-60VDC, 0.70A
 [LAMPPOSITION] 0,0
 [LAMPCAT] DAYLIGHT LED
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC, 30.30W
 [TEST PROCEDURE] IESNA:LM-79-08

CHARACTERISTICS

IES Classification	Type V
Longitudinal Classification	Very Short
Cutoff Classification (deprecated)	Full Cutoff
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	2087
Total Luminaire Efficiency	N.A.
Downward Total Efficiency	N.A.
Luminaire Efficacy Rating (LER)	69
Upward Waste Light Ratio	0.00
Maximum Candela	973
Maximum Candela Angle	0H 25.5V
Maximum Candela (<90 Degrees Vertical)	973
Maximum Candela Angle (<90 Degrees Vertical)	0H 25.5V
Maximum Candela At 90 Degrees Vertical	0 (0.0% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	11 (0.5% Luminaire Lumens)
Total Luminaire Watts	30.3
Ballast Factor	1.00

IES ROAD REPORT
PHOTOMETRIC FILENAME : L06122606.IES

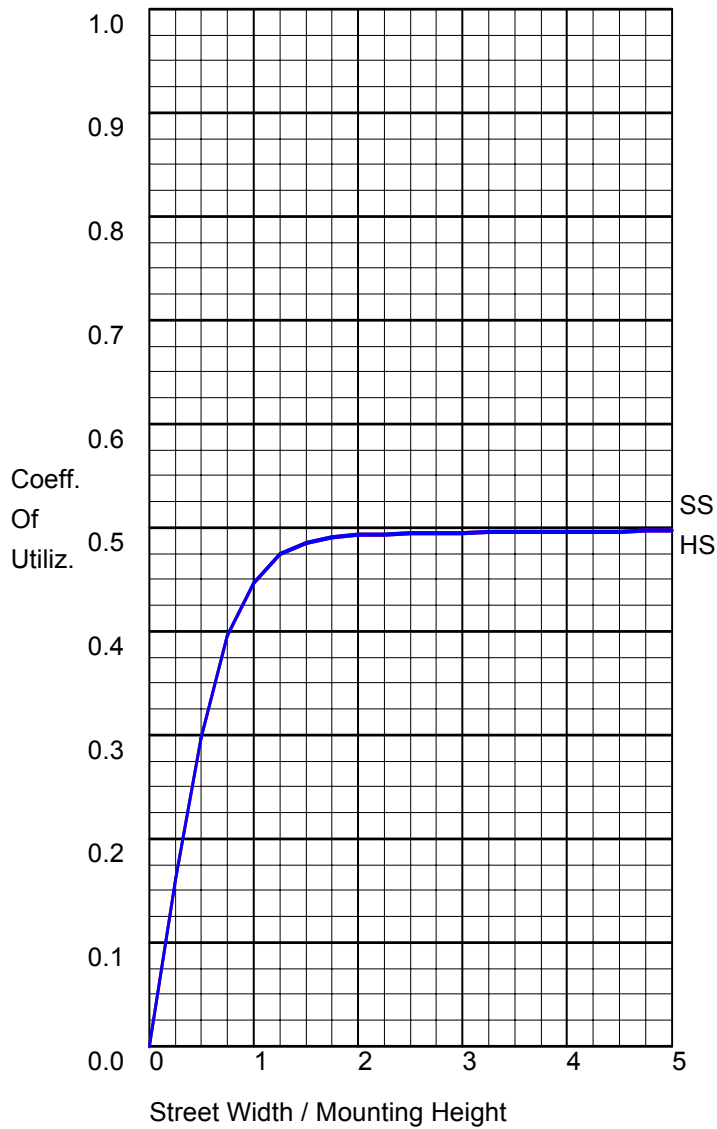
LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	395.0	N.A.	18.9
FM - Front-Medium (30-60)	613.4	N.A.	29.4
FH - Front-High (60-80)	30.5	N.A.	1.5
FVH - Front-Very High (80-90)	3.9	N.A.	0.2
BL - Back-Low (0-30)	395.0	N.A.	18.9
BM - Back-Medium (30-60)	613.4	N.A.	29.4
BH - Back-High (60-80)	30.5	N.A.	1.5
BVH - Back-Very High (80-90)	3.9	N.A.	0.2
UL - Uplight-Low (90-100)	0.0	N.A.	0.0
UH - Uplight-High (100-180)	0.0	N.A.	0.0
Total	2085.6	N.A.	100.0
BUG Rating	B1-U0-G0		

CANDELA TABULATION

Vert. Angles	Horizontal Angles
	<u>0</u>
0.0	865
1.0	865
3.0	866
5.0	869
7.0	873
9.0	878
11.0	886
13.0	896
15.0	911
17.0	928
19.5	949
22.5	968
25.5	973
29.0	960
33.0	915
37.5	832
42.5	693
47.5	507
55.0	227
65.0	23
75.0	13
85.0	9
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

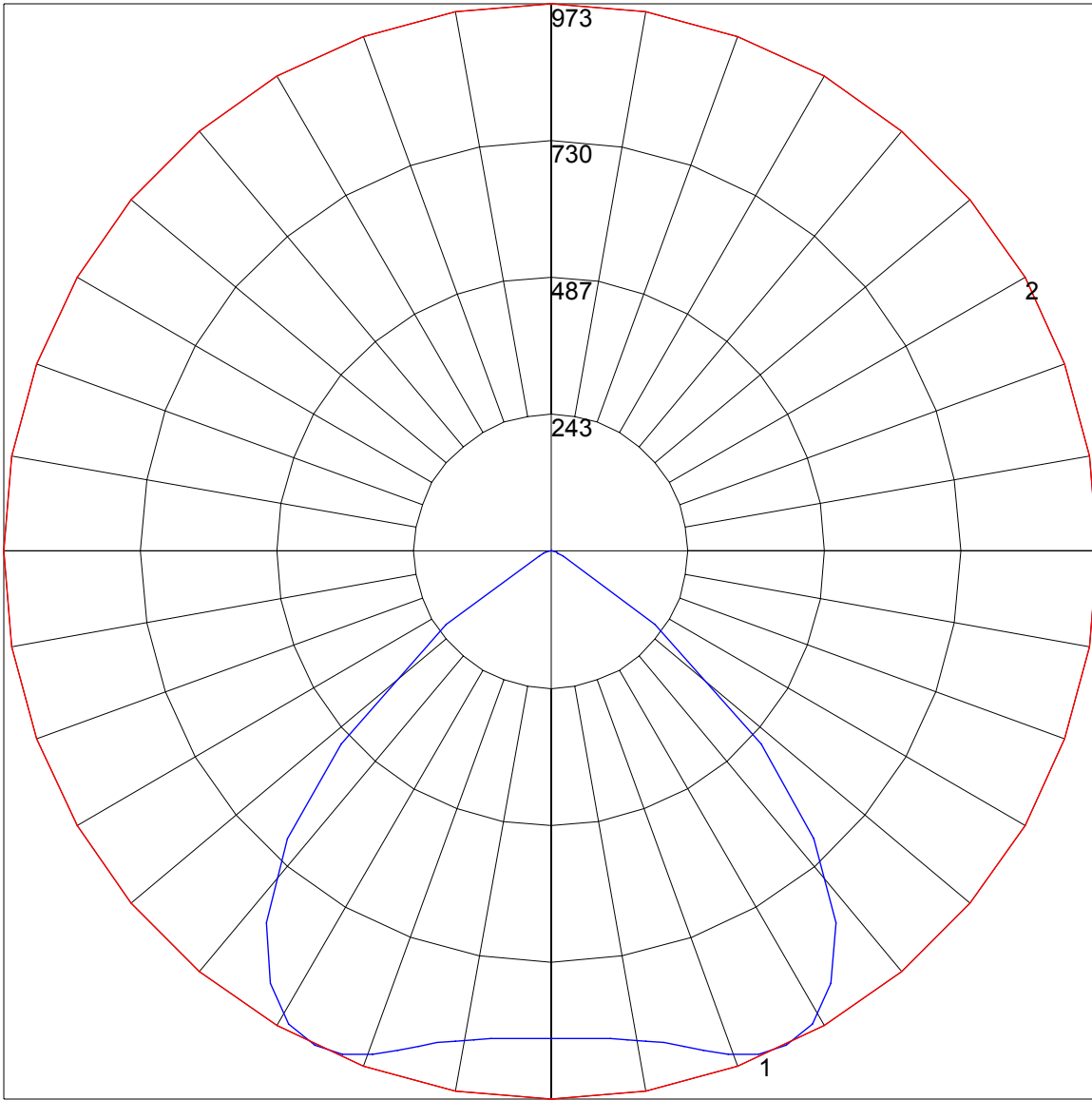
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

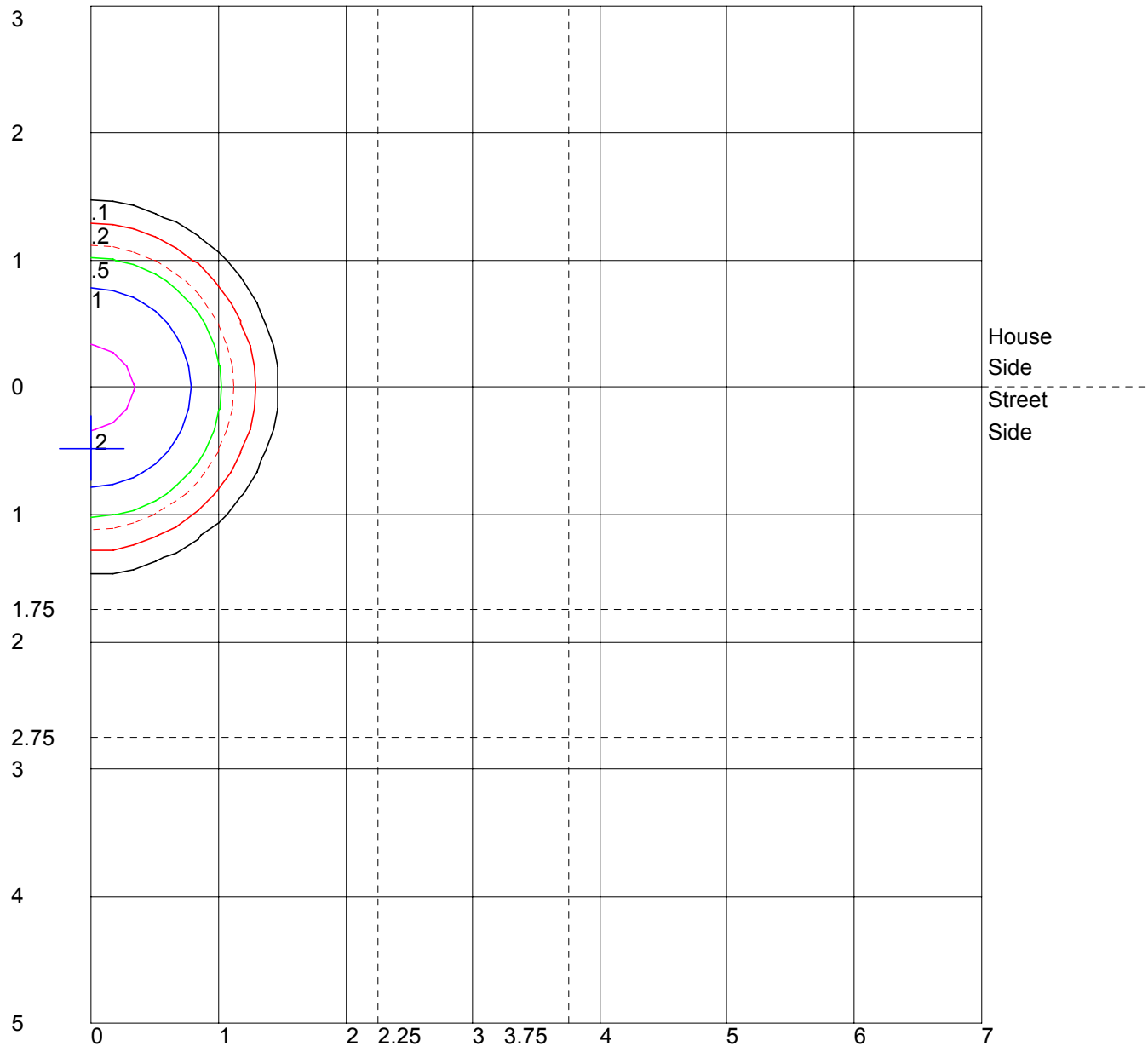
	Lumens	Percent Of Luminaire
Downward Street Side	1043.4	50.0
Downward House Side	1043.4	50.0
Downward Total	2086.8	100.0
Upward Street Side	0.0	0.0
Upward House Side	0.0	0.0
Upward Total	0.0	0.0
Total Flux	2086.8	100.0

POLAR GRAPH



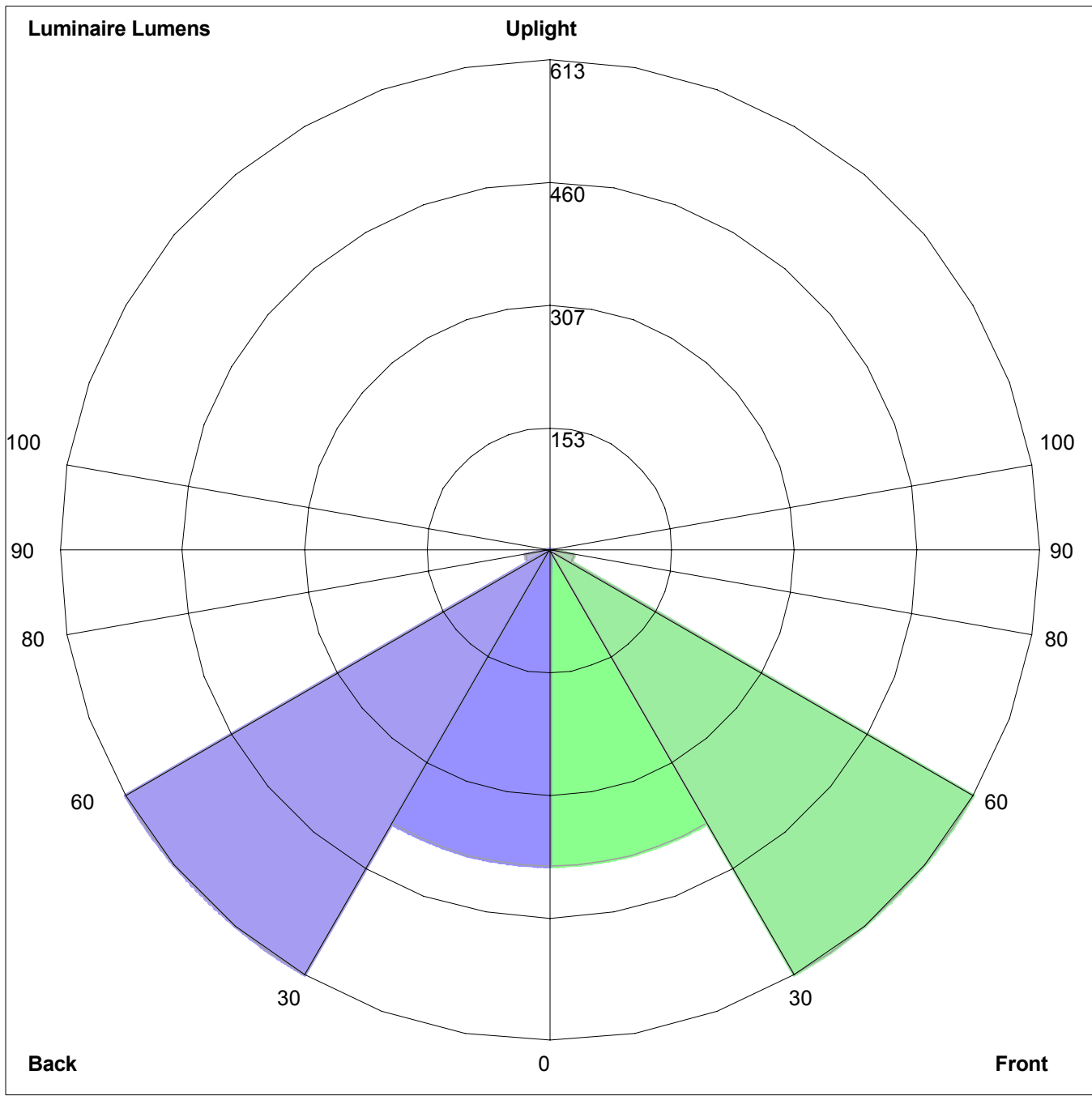
Maximum Candela = 973 Located At Horizontal Angle = 0, Vertical Angle = 25.5
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (25.5) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



Distance In Units Of Mounting Height
 Values Based On 20 Foot Mounting Height
 1/2 Maximum Candela Trace Shown As Dashed Curve
 (+) = Maximum Candela Point

LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=395.0, Medium=613.4, High=30.5, Very High=3.9
Back: Low=395.0, Medium=613.4, High=30.5, Very High=3.9
Uplight: Low=0.0, High=0.0

BUG Rating : B1-U0-G0