



8165 E Kaiser Blvd. Anaheim, CA 92808
www.lightlaboratory.com

Report No: L091706902



Report No: L091706902

Issue Date: 10/9/2017

Report Prepared For: USTE, dba Vista Professional Outdoor Lighting
1625 Surveyor Ave., Simi Valley CA 93063

Model Number: 1470/1471-3Q-A

Test: Electrical and Photometric tests

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
ANSI C82.77:2002: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 10/3/17

Date of Tests: 10/4/17 - 10/9/17

Seasoning of Sample: 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	11/28/17
ITECH	IT6122	PS-DC03-S1	11/28/17
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/28/17
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.

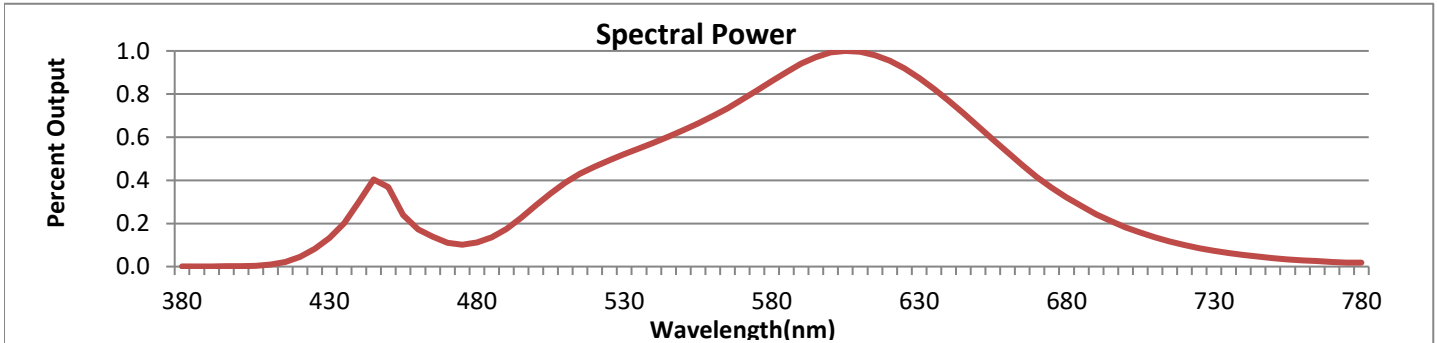
Test Summary

Manufacturer:	USTE, dba Vista Professional Outdoor Lighting
Model Number:	1470/1471-3Q-A
Driver Model Number:	ERP ESS020W-0350-56
Total Lumens:	1197.10
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.15
Input Power (W):	18.08
Input Power Factor:	0.99
Current ATHD @ 120V(%):	10%
Current ATHD @ 277V(%):	N/A
Efficacy:	66
Color Rendering Index (CRI):	82
Correlated Color Temperature (K):	2872
Chromaticity Coordinate x:	0.4523
Chromaticity Coordinate y:	0.4188
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:30
Total Operating Time (Hours):	1:20



FIG. 1 LUMINAIRE

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



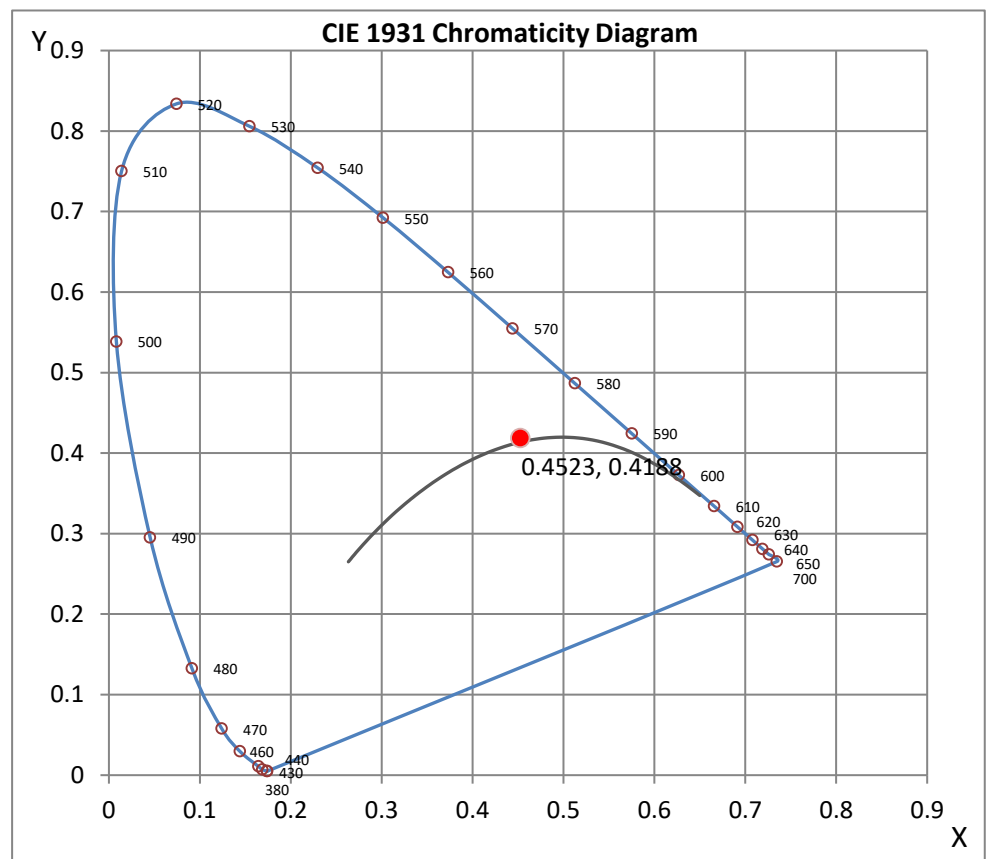
Wavelength	W/m ² nm	440	0.3008	510	0.3886	580	0.8598	650	0.6508	720	0.0995
380	0.0008	450	0.3686	520	0.4641	590	0.9413	660	0.5300	730	0.0727
390	0.0009	460	0.1726	530	0.5210	600	0.9927	670	0.4150	740	0.0536
400	0.0020	470	0.1098	540	0.5741	610	0.9965	680	0.3204	750	0.0395
410	0.0090	480	0.1123	550	0.6329	620	0.9544	690	0.2431	760	0.0292
420	0.0443	490	0.1745	560	0.6976	630	0.8741	700	0.1818	770	0.0216
430	0.1332	500	0.2834	570	0.7747	640	0.7689	710	0.1349	780	0.0187

CRI & CCT

x	0.4523
y	0.4188
u'	0.2541
v'	0.5293
CRI	81.60
CCT	2872
Duv	0.00378

R Values

R1	79.65
R2	87.10
R3	94.81
R4	81.93
R5	78.87
R6	83.45
R7	85.74
R8	61.57
R9	9.75
R10	70.57
R11	81.02
R12	65.31
R13	80.79
R14	96.57



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

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.

Disclaimers:

This report must not be used by the customer to claim product certification, approval or endorsement by NVLAP, NIST or any agency of Federal Government.

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Test Report Released by:



Jeff Ahn
Engineering Manager

Test Report Reviewed by:



Steve Kang
Quality Assurance

**Attached are photometric data reports. Total number of pages: 14*



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Photometric Test Report

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706902.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
[TEST] L091706902
[TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
[ISSUEDATE] 10/9/2017
[MANUFAC] USTE, DBA VISTA PROFESSIONAL OUTDOOR LIGHTING
[LUMCAT] 1470/1471-3Q-A
[LUMINAIRE] Bollard, 3 quadrant distribution, 350mA
[BALLASTCAT] ERP ESS020W-0350-56
[OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
[MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
[INPUT] 120VAC, 18.09W
[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	1197
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	66
Total Luminaire Watts	18.09
Ballast Factor	1.00
Upward Waste Light Ratio	0.06
Maximum Candela	367.1
Maximum Candela Angle	45H 15V
Maximum Candela (<90 Degrees Vertical)	367.1
Maximum Candela Angle (<90 Degrees Vertical)	45H 15V
Maximum Candela At 90 Degrees Vertical	55 (4.6% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	132.1 (11.0% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706902.IES

LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	133.3	N.A.	11.1
FM - Front-Medium (30-60)	318.5	N.A.	26.6
FH - Front-High (60-80)	233.9	N.A.	19.5
FVH - Front-Very High (80-90)	45.8	N.A.	3.8
BL - Back-Low (0-30)	75.8	N.A.	6.3
BM - Back-Medium (30-60)	177.5	N.A.	14.8
BH - Back-High (60-80)	120.5	N.A.	10.1
BVH - Back-Very High (80-90)	23.1	N.A.	1.9
UL - Uplight-Low (90-100)	30.4	N.A.	2.5
UH - Uplight-High (100-180)	38.3	N.A.	3.2
Total	1197.1	N.A.	100.0
BUG Rating	B1-U2-G1		

ZONAL LUMEN SUMMARY

Zone	%
0-20	7.7
0-30	17.5
0-40	29.8
0-60	58.9
0-80	88.5
0-90	94.3
10-90	92.8
20-40	22.1
20-50	35.3
40-70	47.5
60-80	29.6
70-80	11.2
80-90	5.8
90-110	4
90-120	4.8
90-130	5.3
90-150	5.7
90-180	5.7
110-180	1.8
0-180	100

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706902.IES

CANDELA TABULATION

Vert. Angles	Horizontal Angles									
	<u>0</u>	<u>5</u>	<u>10</u>	<u>15</u>	<u>20</u>	<u>25</u>	<u>30</u>	<u>35</u>	<u>40</u>	<u>45</u>
0.0	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2
5.0	202.0	201.5	202.1	204.2	204.8	207.5	209.6	211.4	212.1	212.7
10.0	327.8	331.6	333.6	330.2	330.7	336.1	338.4	339.1	341.4	342.9
15.0	354.7	356.7	357.5	356.5	356.1	360.5	364.3	365.6	366.9	367.1
20.0	347.4	350.8	351.4	353.2	351.5	353.5	359.7	362.2	364.8	363.9
25.0	336.5	337.2	339.0	339.5	339.6	343.1	342.6	346.5	346.6	342.1
30.0	332.9	335.9	335.6	333.0	332.8	338.0	337.5	336.8	332.6	327.7
35.0	318.4	321.5	320.9	318.8	319.7	324.3	323.7	322.9	320.7	319.3
37.5	310.2	312.5	312.3	308.7	310.5	314.9	314.8	314.4	312.6	311.0
40.0	302.2	303.8	303.0	300.1	300.7	304.4	307.5	304.6	302.2	301.8
42.5	292.4	294.4	295.0	290.6	290.0	294.6	296.4	293.1	292.1	292.1
45.0	279.5	282.6	284.0	278.7	277.7	282.8	283.9	281.3	282.1	282.4
47.5	265.2	267.0	268.9	263.5	261.3	267.0	269.1	269.1	269.3	270.5
50.0	250.1	253.0	255.4	250.8	249.5	253.6	254.9	257.1	258.6	258.1
52.5	255.3	256.2	257.1	255.1	253.4	255.9	255.9	256.9	257.0	257.0
55.0	286.1	283.2	282.8	282.0	277.3	276.6	274.7	274.1	274.6	272.2
57.5	319.2	314.9	312.4	310.0	302.7	301.9	300.1	298.5	299.7	294.1
60.0	339.9	334.4	330.5	325.7	318.4	317.6	316.4	315.1	316.5	311.1
62.5	338.4	336.1	333.0	327.4	323.6	321.7	320.3	321.6	321.8	318.4
65.0	323.2	323.5	321.6	317.7	315.7	315.5	313.1	315.4	315.2	313.0
67.5	292.4	294.7	294.6	293.1	294.1	291.7	291.5	294.1	292.7	293.2
70.0	254.0	253.8	253.4	254.8	257.5	255.7	255.9	256.7	254.5	253.8
72.5	212.1	211.5	210.8	211.5	213.9	213.9	212.7	211.0	209.1	207.9
75.0	172.0	172.6	174.1	175.4	175.1	174.1	172.7	172.3	170.5	166.5
77.5	146.8	147.6	149.0	150.5	149.4	147.1	145.5	145.6	142.8	140.5
80.0	132.1	131.9	131.2	131.4	131.1	130.9	128.8	126.4	125.0	124.8
85.0	89.3	88.8	87.7	87.6	87.6	86.6	86.5	86.7	85.8	85.0
90.0	49.8	50.3	51.6	53.0	54.5	54.9	55.0	54.4	53.3	52.4
95.0	34.9	34.9	35.3	36.2	37.5	37.5	37.7	37.0	36.4	35.5
100.0	27.5	27.2	26.8	26.4	26.3	26.1	26.1	26.2	25.9	25.6
105.0	21.5	21.2	21.0	20.7	20.3	20.0	19.7	19.7	19.6	19.2
110.0	17.0	16.8	16.6	16.3	16.1	15.8	15.6	15.5	15.5	15.5
115.0	13.5	13.5	13.3	13.3	13.1	13.0	12.9	12.8	12.6	12.6
120.0	10.6	10.7	10.8	10.7	10.7	10.5	10.4	10.4	10.4	10.2
125.0	8.5	8.5	8.3	8.4	8.3	8.3	8.3	8.1	8.2	8.2
130.0	6.3	6.4	6.4	6.4	6.3	6.3	6.3	6.3	6.3	6.3
135.0	4.4	4.4	4.4	4.5	4.4	4.4	4.5	4.5	4.4	4.6
140.0	3.1	3.0	3.0	3.0	3.0	3.2	3.2	3.2	3.3	3.2
145.0	2.0	2.2	2.2	2.0	2.1	2.0	2.1	2.0	2.1	2.2
150.0	1.6	1.5	1.5	1.7	1.6	1.5	1.4	1.5	1.5	1.6
155.0	1.5	1.5	1.5	1.5	1.4	1.4	1.5	1.5	1.6	1.5
160.0	1.2	1.3	1.1	1.1	1.1	1.2	1.1	1.2	1.3	1.2
165.0	0.8	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	1.0
170.0	0.8	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.7	0.8
175.0	0.5	0.6	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Vert. Angles	Horizontal Angles									
	<u>50</u>	<u>55</u>	<u>60</u>	<u>65</u>	<u>70</u>	<u>75</u>	<u>80</u>	<u>85</u>	<u>90</u>	<u>95</u>
0.0	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2
5.0	215.0	217.2	214.6	213.4	213.2	210.7	205.7	200.8	195.1	189.3
10.0	343.5	338.4	325.6	315.9	307.4	292.5	280.3	272.8	259.4	247.1

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706902.IES

CANDELA TABULATION - (Cont.)

15.0	361.7	353.3	342.3	330.3	318.6	307.6	298.3	284.7	267.8	259.5
20.0	359.7	348.8	332.1	323.5	316.7	296.4	283.5	279.3	263.7	246.2
25.0	339.1	333.3	317.4	305.3	300.6	286.6	269.6	260.2	250.9	237.6
30.0	325.4	322.1	310.4	296.8	289.4	278.1	265.4	253.8	246.4	235.9
35.0	314.6	308.3	297.6	286.3	278.0	268.5	257.5	246.0	236.7	227.3
37.5	308.3	300.6	288.8	279.3	269.7	259.6	248.7	239.7	230.3	219.9
40.0	298.4	290.7	282.2	270.7	259.6	249.9	241.7	233.1	224.2	213.3
42.5	287.5	279.8	273.1	262.1	251.1	242.7	235.1	225.7	216.6	206.7
45.0	277.5	270.6	263.3	253.6	242.1	234.3	227.9	217.1	208.5	200.3
47.5	265.1	259.4	254.3	244.2	233.2	225.2	219.5	209.5	198.8	191.1
50.0	256.3	251.4	246.6	239.2	229.2	221.7	216.0	205.9	195.4	187.6
52.5	258.0	255.1	252.3	248.7	241.8	235.2	229.4	223.7	212.9	205.7
55.0	274.6	272.8	268.6	267.2	263.9	258.6	254.9	251.3	241.8	235.2
57.5	294.0	291.1	284.5	282.2	277.6	274.6	272.7	270.9	264.7	259.2
60.0	309.9	303.8	296.5	291.5	286.0	284.3	282.5	282.4	275.8	271.0
62.5	315.2	311.5	303.8	297.3	295.2	289.8	284.9	283.3	275.4	270.7
65.0	309.0	306.5	301.1	292.7	288.0	278.8	272.1	270.8	261.5	256.9
67.5	289.4	284.7	277.5	266.1	259.8	250.8	242.6	240.7	231.5	227.9
70.0	250.6	246.0	239.3	228.5	220.5	211.5	202.8	198.8	193.0	186.7
72.5	204.0	200.0	196.5	188.8	180.6	173.7	166.0	161.0	155.4	149.7
75.0	164.8	163.3	159.3	153.1	149.1	144.1	137.4	131.0	125.5	121.8
77.5	139.1	138.3	135.2	131.2	127.0	122.8	118.3	112.9	108.3	104.6
80.0	122.8	120.8	121.2	118.1	112.8	109.7	106.7	103.2	99.4	95.3
85.0	85.0	84.6	82.9	80.0	77.3	73.7	69.4	66.3	63.8	60.8
90.0	51.5	50.9	49.9	49.0	47.4	44.2	41.3	38.7	36.1	33.8
95.0	34.7	34.4	34.2	33.4	32.4	30.9	29.3	27.6	25.7	23.6
100.0	25.0	24.6	24.2	23.8	23.5	23.1	22.4	21.5	20.5	19.4
105.0	19.0	18.9	18.7	18.6	18.5	18.4	18.1	17.5	16.8	16.2
110.0	15.3	15.3	15.1	15.0	14.9	14.7	14.5	14.1	13.7	13.3
115.0	12.6	12.4	12.4	12.3	12.1	12.0	11.8	11.5	11.4	11.0
120.0	10.2	10.2	10.1	10.1	10.0	9.8	9.6	9.4	9.3	8.9
125.0	8.2	8.1	8.1	8.0	8.0	7.8	7.7	7.5	7.4	7.3
130.0	6.3	6.3	6.3	6.3	6.1	6.1	6.1	5.9	5.7	5.6
135.0	4.5	4.4	4.4	4.5	4.4	4.4	4.4	4.4	4.0	4.0
140.0	3.1	3.1	3.2	3.2	3.2	3.2	3.0	3.0	3.0	2.8
145.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.0	2.1
150.0	1.6	1.7	1.7	1.7	1.7	1.7	1.5	1.7	1.7	1.7
155.0	1.6	1.6	1.6	1.7	1.7	1.7	1.6	1.6	1.7	1.5
160.0	1.3	1.3	1.3	1.3	1.4	1.4	1.3	1.4	1.3	1.3
165.0	1.1	1.1	1.1	1.0	0.9	1.1	1.1	1.0	1.1	1.1
170.0	0.8	0.8	0.8	0.8	0.9	0.9	0.8	0.9	0.9	0.9
175.0	0.7	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.7	0.9
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Vert. Horizontal Angles

Angles	<u>100</u>	<u>105</u>	<u>110</u>	<u>115</u>	<u>120</u>	<u>125</u>	<u>130</u>	<u>135</u>	<u>140</u>	<u>145</u>
0.0	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2	40.2
5.0	184.3	177.3	170.7	166.9	159.9	152.9	148.6	140.5	129.9	121.3
10.0	238.6	228.8	218.5	212.3	205.1	193.7	183.9	173.6	163.5	157.3
15.0	252.0	233.5	223.0	220.2	210.0	198.2	195.9	189.6	172.7	165.3
20.0	238.7	229.6	216.2	205.9	202.3	191.9	186.9	183.7	176.7	171.2
25.0	225.5	217.9	209.0	200.7	191.5	183.1	177.2	174.1	169.7	166.7
30.0	223.2	213.0	204.9	199.1	187.7	177.1	171.8	167.1	162.0	159.7
35.0	215.8	205.3	196.0	187.9	178.8	172.3	167.7	162.4	155.3	152.3
37.5	209.0	198.7	189.3	181.3	174.1	166.5	162.2	159.1	151.3	148.3

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706902.IES

CANDELA TABULATION - (Cont.)

40.0	202.4	192.7	181.9	175.4	169.1	161.4	156.5	152.7	146.1	143.5
42.5	197.9	187.3	176.0	169.7	162.5	155.3	151.3	147.4	141.2	138.1
45.0	190.3	177.3	167.2	161.5	154.3	147.3	144.6	142.2	136.1	132.5
47.5	180.2	167.7	157.9	152.3	145.4	138.7	137.0	135.4	129.6	125.6
50.0	179.4	168.1	158.0	151.5	142.2	135.5	133.1	130.7	125.1	120.2
52.5	197.1	187.3	176.7	168.1	157.7	147.6	140.1	133.3	125.7	116.9
55.0	227.5	218.3	207.1	195.9	181.7	167.3	155.8	144.1	133.2	119.6
57.5	249.5	239.9	227.2	213.7	199.1	185.3	170.7	155.8	142.4	125.5
60.0	261.0	248.7	235.4	220.7	207.8	193.1	178.6	163.2	147.1	130.4
62.5	262.1	249.2	238.4	222.6	207.2	193.3	178.2	164.6	149.6	134.3
65.0	251.0	237.0	225.3	209.7	196.6	186.0	171.7	158.5	145.2	131.1
67.5	221.3	209.6	200.1	186.1	174.1	164.6	152.5	142.0	130.3	118.2
70.0	179.8	171.4	164.4	154.7	144.8	136.4	126.9	117.5	109.7	101.5
72.5	143.8	137.3	129.5	123.7	117.2	110.9	103.3	95.5	89.8	84.1
75.0	117.5	113.6	107.4	101.6	96.9	91.2	85.2	79.5	74.6	69.6
77.5	100.6	97.4	93.3	88.0	82.9	78.9	73.3	67.7	63.6	59.6
80.0	90.4	86.2	82.4	78.5	73.3	68.8	63.7	59.5	55.2	51.9
85.0	57.9	54.4	50.9	48.0	45.9	44.1	41.9	39.6	37.8	36.3
90.0	32.2	31.1	29.9	29.2	29.0	28.5	27.0	26.3	25.4	24.6
95.0	22.0	21.1	20.9	21.1	21.2	21.3	20.7	19.8	19.0	18.4
100.0	18.2	17.1	16.3	16.1	16.1	16.1	15.8	15.3	14.5	13.9
105.0	15.4	14.6	13.9	13.6	13.3	12.9	12.6	12.0	11.4	10.8
110.0	13.0	12.4	11.8	11.4	10.9	10.5	10.0	9.6	9.1	8.5
115.0	10.6	10.3	9.8	9.4	8.9	8.7	8.1	7.7	7.3	6.8
120.0	8.7	8.3	7.9	7.6	7.3	7.0	6.5	6.1	5.9	5.5
125.0	6.9	6.7	6.5	6.1	5.8	5.4	5.1	4.7	4.6	4.2
130.0	5.4	5.2	5.0	4.7	4.5	4.2	3.9	3.7	3.5	3.2
135.0	3.9	3.8	3.7	3.4	3.2	3.2	3.0	2.8	2.6	2.6
140.0	2.8	2.8	2.6	2.5	2.4	2.3	2.2	2.2	2.0	2.0
145.0	2.0	2.1	2.0	2.0	2.0	1.9	1.7	1.9	1.7	1.7
150.0	1.6	1.7	1.7	1.7	1.7	1.7	1.6	1.7	1.6	1.6
155.0	1.6	1.6	1.6	1.6	1.7	1.6	1.6	1.6	1.5	1.5
160.0	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.4	1.3
165.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.2
170.0	1.0	1.0	0.9	0.9	0.9	1.0	1.0	1.1	1.0	0.9
175.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

Vert. Horizontal Angles
Angles

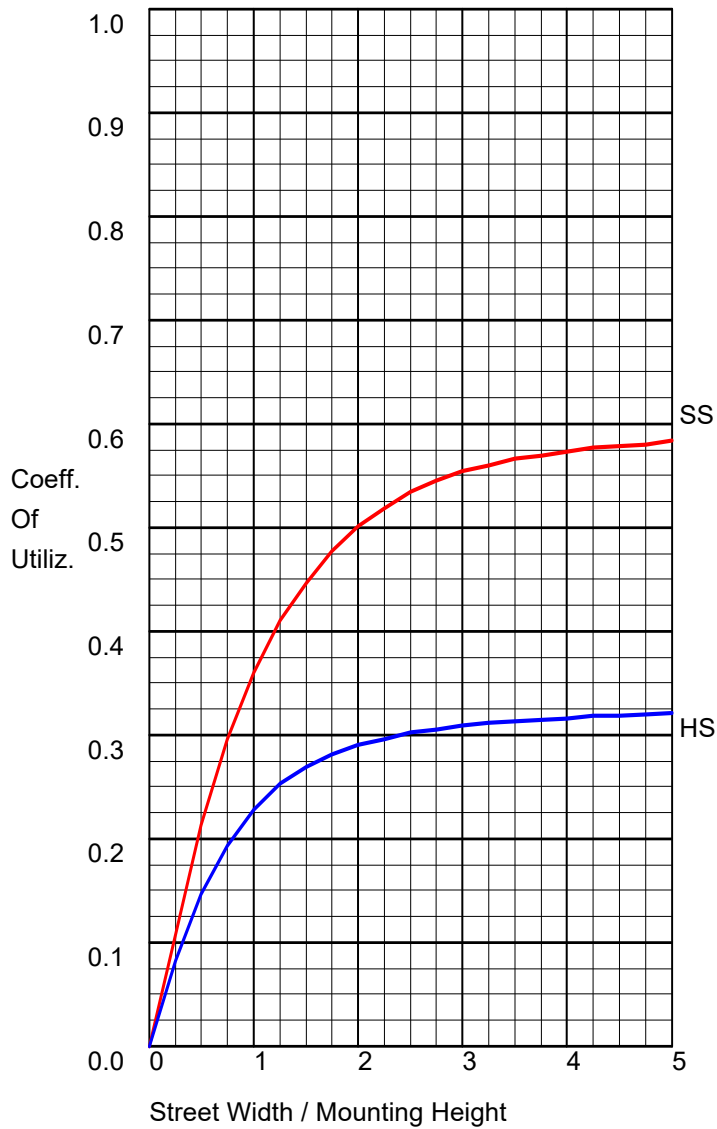
	150	155	160	165	170	175	180
0.0	40.2	40.2	40.2	40.2	40.2	40.2	40.2
5.0	112.0	102.7	94.4	88.9	86.7	85.2	84.2
10.0	148.9	144.0	141.0	138.6	135.6	137.8	140.2
15.0	166.1	160.3	148.4	152.1	152.2	149.2	143.6
20.0	157.1	154.7	164.7	157.4	142.6	149.7	159.2
25.0	158.8	156.5	159.9	156.0	145.6	151.5	155.6
30.0	157.4	154.2	153.3	150.9	149.3	149.9	150.2
35.0	151.4	147.7	142.6	141.4	144.0	142.2	140.3
37.5	147.5	143.8	137.6	135.6	138.7	136.6	134.4
40.0	143.4	138.6	131.7	130.1	133.3	130.5	127.6
42.5	137.8	131.7	124.6	124.3	126.2	123.3	121.1
45.0	131.1	124.6	117.5	117.5	119.1	116.5	115.2
47.5	122.5	116.9	111.1	110.9	111.1	109.8	109.1
50.0	114.6	108.5	104.6	102.9	103.3	102.7	102.4
52.5	108.6	102.2	98.2	95.7	96.1	95.9	95.5

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706902.IES

CANDELA TABULATION - (Cont.)

55.0	106.5	97.4	92.3	90.2	90.4	89.7	88.7
57.5	109.4	97.9	89.6	86.0	84.9	83.2	83.3
60.0	114.0	99.2	89.1	83.6	80.1	77.8	77.6
62.5	116.5	99.6	88.9	81.4	76.2	73.5	73.2
65.0	114.8	100.1	88.4	79.5	72.5	68.7	67.7
67.5	106.0	93.1	83.2	75.4	68.3	63.7	62.4
70.0	92.0	82.6	74.6	67.8	62.3	58.9	58.4
72.5	78.0	71.9	65.7	60.1	55.2	52.8	52.7
75.0	64.5	60.1	55.4	51.4	48.5	46.7	45.9
77.5	55.2	50.9	47.0	43.9	41.6	40.2	40.0
80.0	48.2	44.1	40.3	37.1	35.1	34.3	34.3
85.0	34.6	32.4	29.9	27.0	24.8	24.0	23.8
90.0	23.8	23.2	22.1	20.5	19.2	18.6	18.4
95.0	17.6	17.1	16.5	16.1	15.9	16.0	16.4
100.0	13.2	12.7	12.1	12.0	12.0	12.4	12.6
105.0	10.2	9.7	9.3	9.0	9.1	9.0	9.2
110.0	7.9	7.4	7.0	6.7	6.8	6.6	6.6
115.0	6.4	6.0	5.5	5.2	5.0	4.8	4.8
120.0	5.0	4.6	4.4	4.0	3.8	3.8	3.8
125.0	3.9	3.6	3.4	3.1	2.9	2.8	2.8
130.0	3.0	2.8	2.6	2.4	2.2	2.2	2.2
135.0	2.3	2.2	2.0	2.0	1.9	1.9	1.7
140.0	2.0	1.7	1.7	1.7	1.6	1.7	1.6
145.0	1.7	1.6	1.6	1.5	1.6	1.5	1.6
150.0	1.6	1.6	1.5	1.7	1.5	1.5	1.6
155.0	1.6	1.5	1.5	1.5	1.5	1.4	1.5
160.0	1.3	1.3	1.3	1.3	1.3	1.3	1.2
165.0	1.1	1.1	1.0	1.1	1.2	1.1	1.2
170.0	0.9	1.0	1.0	1.0	1.0	1.0	1.1
175.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9
180.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

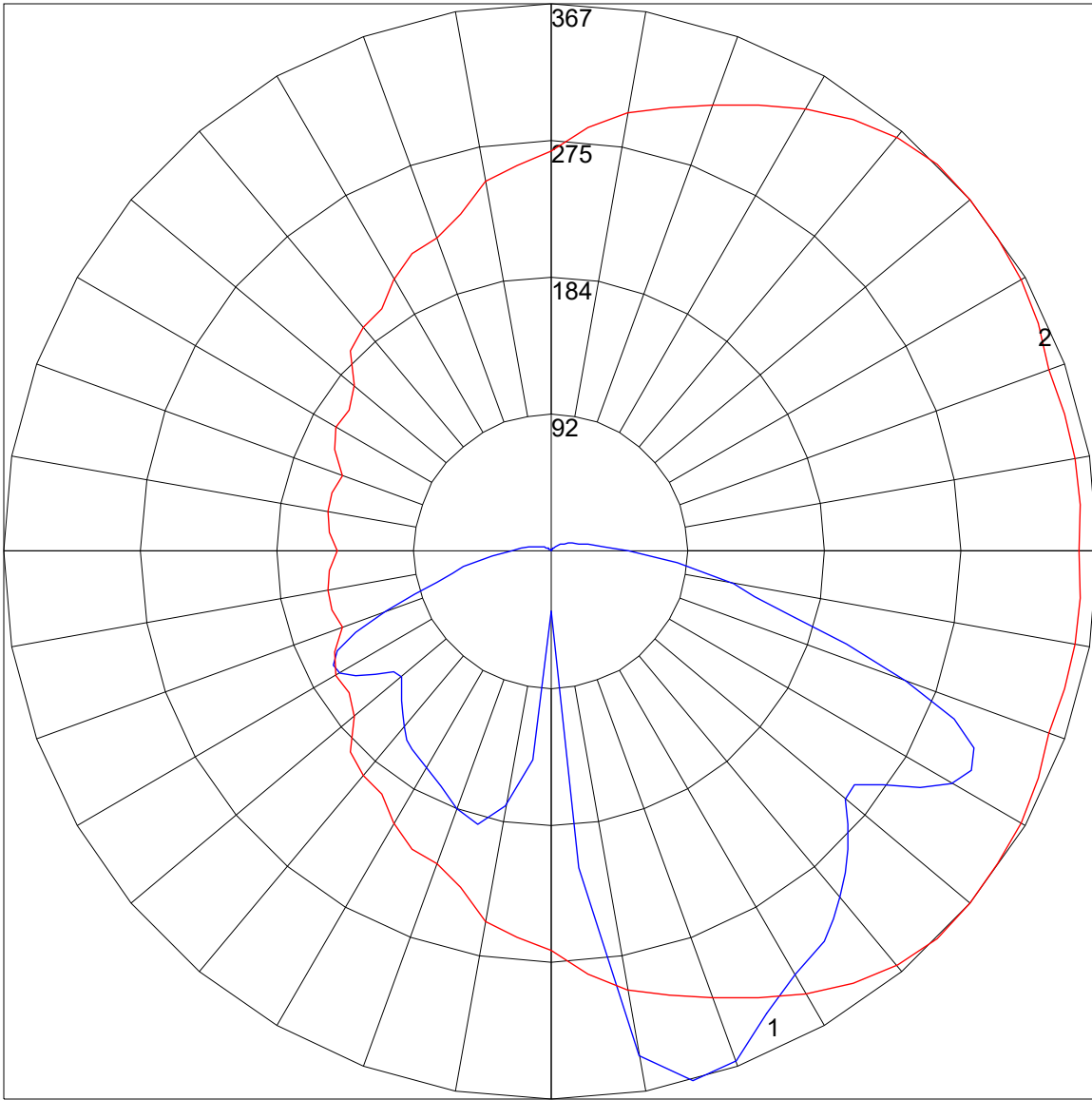
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

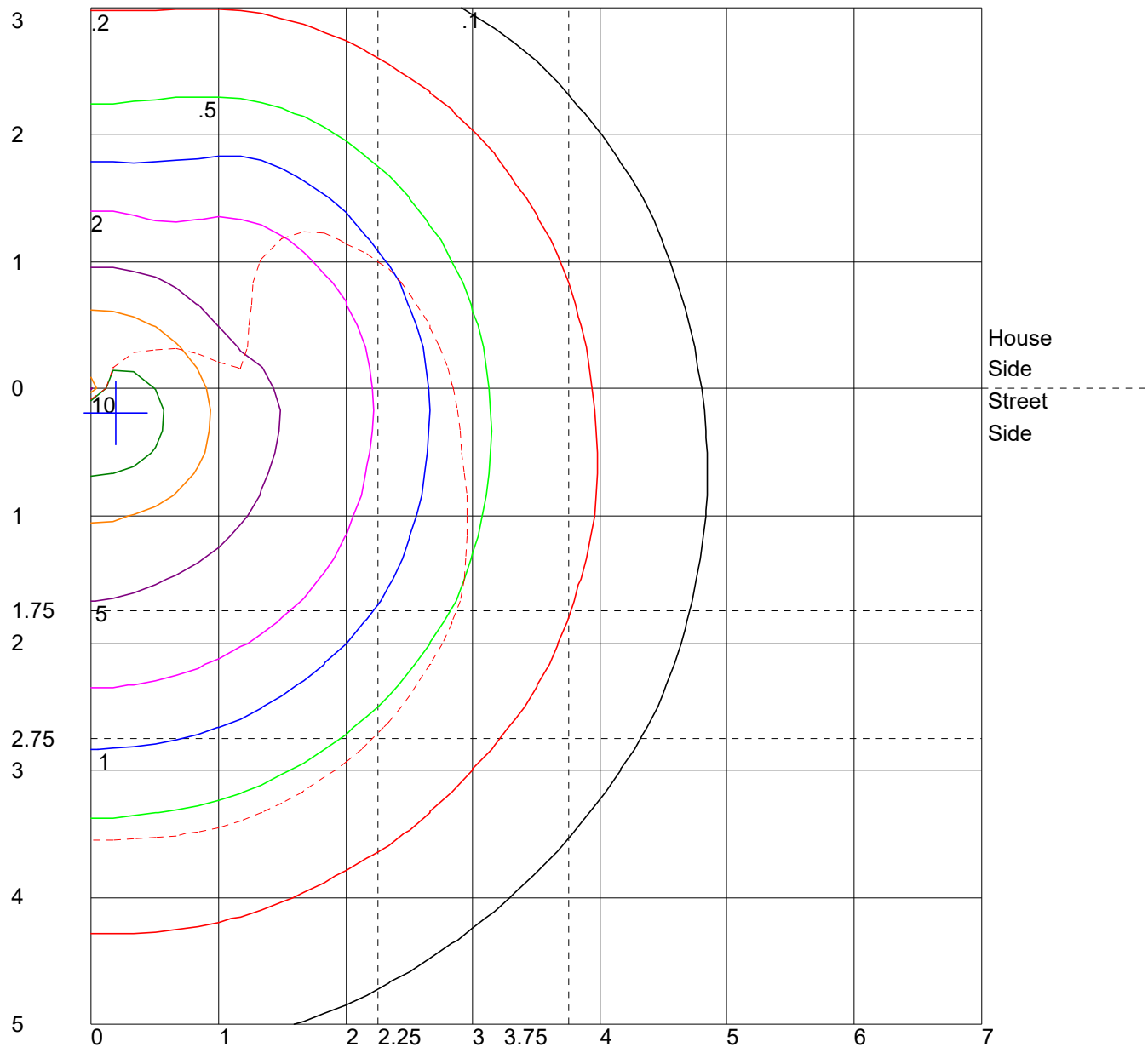
	Lumens	Percent Of Luminaire
Downward Street Side	731.5	61.1
Downward House Side	396.8	33.2
Downward Total	1128.3	94.3
Upward Street Side	43.0	3.6
Upward House Side	25.8	2.2
Upward Total	68.8	5.7
Total Flux	1197.1	100.0

POLAR GRAPH



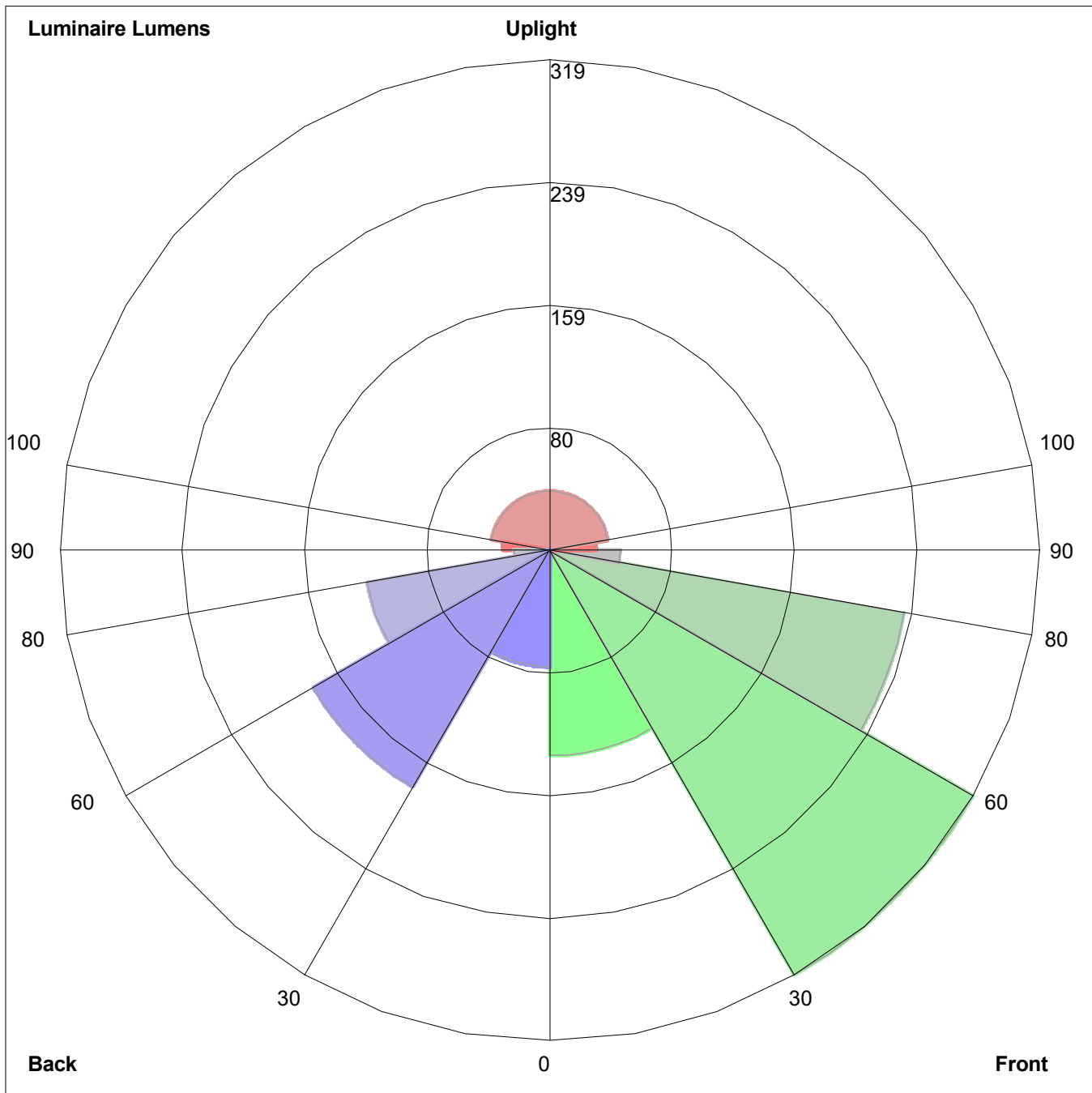
Maximum Candela = 367.1 Located At Horizontal Angle = 45, Vertical Angle = 15
1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (15) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



Distance In Units Of Mounting Height
 Values Based On 3 Foot Mounting Height
 1/2 Maximum Candela Trace Shown As Dashed Curve
 (+) = Maximum Candela Point

LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
 Front: Low=133.3, Medium=318.5, High=233.9, Very High=45.8
 Back: Low=75.8, Medium=177.5, High=120.5, Very High=23.1
 Uplight: Low=30.4, High=38.3

BUG Rating : B1-U2-G1