



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

Report No: L091706908



Report No: L091706908

Issue Date: 10/9/2017

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

Model Number: 1470/1471-2Q90-B

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: 10/5/17 - 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.

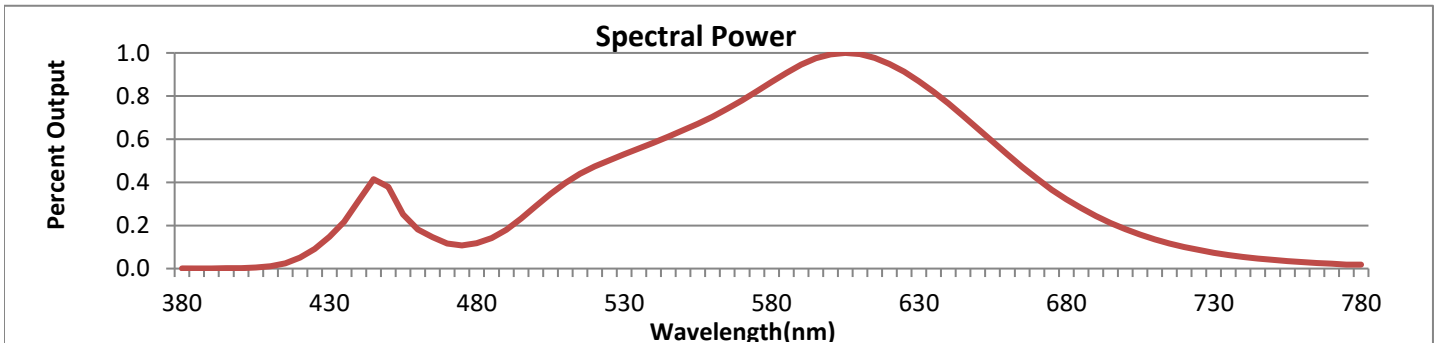
Test Summary

Manufacturer:	USTE, dba Vista Professional Outdoor Lighting
Model Number:	1470/1471-2Q90-B
Driver Model Number:	ERP ESS020W-0500-34
Total Lumens:	1050.30
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.15
Input Power (W):	17.81
Input Power Factor:	0.99
Current ATHD @ 120V(%):	12%
Current ATHD @ 277V(%):	N/A
Efficacy:	59
Color Rendering Index (CRI):	82
Correlated Color Temperature (K):	2909
Chromaticity Coordinate x:	0.4492
Chromaticity Coordinate y:	0.4173
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	0:30
Total Operating Time (Hours):	1:15



FIG. 1 LUMINAIRE

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



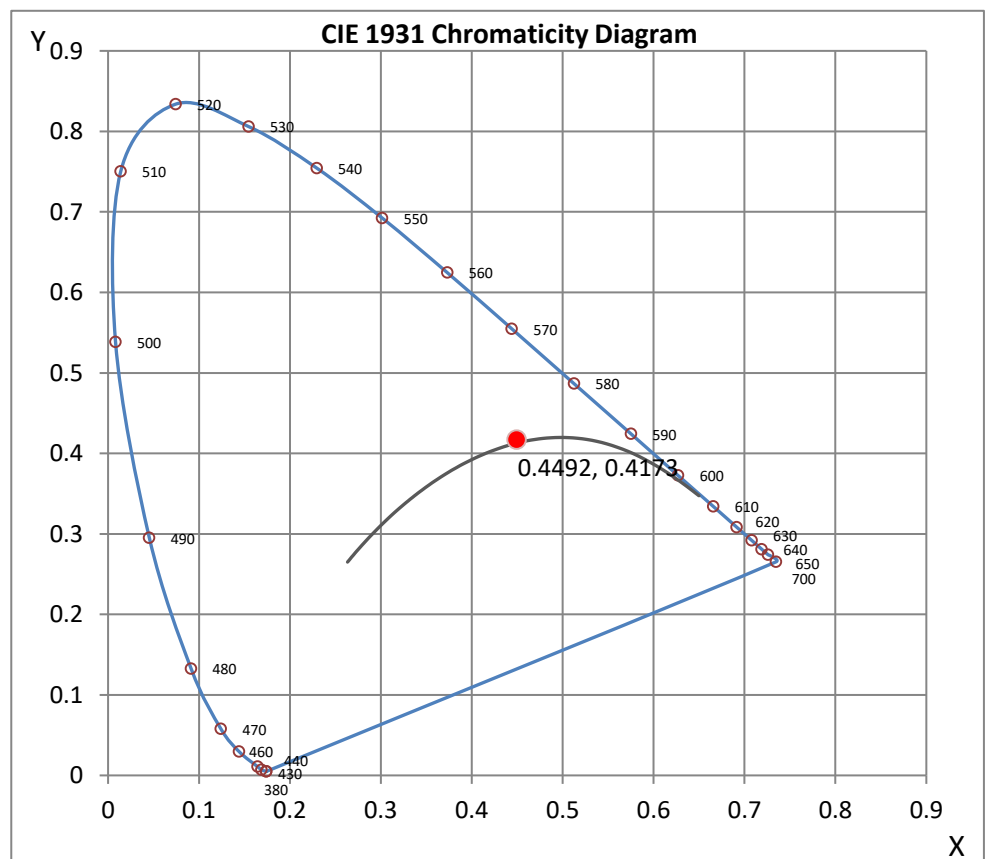
Wavelength	W/m ² nm	440	0.3170	510	0.3967	580	0.8657	650	0.6491	720	0.1000
380	0.0008	450	0.3786	520	0.4734	590	0.9460	660	0.5300	730	0.0738
390	0.0011	460	0.1814	530	0.5296	600	0.9940	670	0.4169	740	0.0542
400	0.0023	470	0.1162	540	0.5832	610	0.9945	680	0.3212	750	0.0400
410	0.0110	480	0.1179	550	0.6412	620	0.9482	690	0.2439	760	0.0297
420	0.0507	490	0.1804	560	0.7039	630	0.8682	700	0.1824	770	0.0220
430	0.1473	500	0.2902	570	0.7799	640	0.7658	710	0.1360	780	0.0190

CRI & CCT

x	0.4492
y	0.4173
u'	0.2527
v'	0.5283
CRI	81.70
CCT	2909
Duv	0.00357

R Values

R1	79.72
R2	87.08
R3	94.65
R4	82.05
R5	79.01
R6	83.40
R7	85.79
R8	61.85
R9	9.97
R10	70.51
R11	81.17
R12	65.57
R13	80.86
R14	96.50



*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.

Report Prepared by : Joseph Shin

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 : L091706908.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L091706908
 [TESTLAB] LIGHT LABORATORY, INC. (www.lightlaboratory.com)
 [ISSUEDATE] 10/9/2017
 [MANUFAC] USTE, DBA VISTA PROFESSIONAL OUTDOOR LIGHTING
 [LUMCAT] 1470/1471-2Q90-B
 [LUMINAIRE] Bollard, 2 quadrant distribution, 90° apart, 500mA
 [BALLASTCAT] ERP ESS020W-0500-34
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC, 17.81W
 [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	1050
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	59
Total Luminaire Watts	17.81
Ballast Factor	1.00
Upward Waste Light Ratio	0.06
Maximum Candela	489.5
Maximum Candela Angle	0H 15V
Maximum Candela (<90 Degrees Vertical)	489.5
Maximum Candela Angle (<90 Degrees Vertical)	0H 15V
Maximum Candela At 90 Degrees Vertical	58.9 (5.6% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	145.5 (13.9% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706908.IES

LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	143.8	N.A.	13.7
FM - Front-Medium (30-60)	352.1	N.A.	33.5
FH - Front-High (60-80)	244.2	N.A.	23.2
FVH - Front-Very High (80-90)	43.5	N.A.	4.1
BL - Back-Low (0-30)	44.3	N.A.	4.2
BM - Back-Medium (30-60)	96.7	N.A.	9.2
BH - Back-High (60-80)	54.6	N.A.	5.2
BVH - Back-Very High (80-90)	12.3	N.A.	1.2
UL - Uplight-Low (90-100)	25.5	N.A.	2.4
UH - Uplight-High (100-180)	33.5	N.A.	3.2
Total	1050.5	N.A.	100.0
BUG Rating	B0-U2-G1		

ZONAL LUMEN SUMMARY

Zone	%
0-20	8
0-30	17.9
0-40	30.4
0-60	60.6
0-80	89.1
0-90	94.4
10-90	92.8
20-40	22.5
20-50	36.1
40-70	48.1
60-80	28.4
70-80	10.5
80-90	5.3
90-110	3.8
90-120	4.6
90-130	5.1
90-150	5.5
90-180	5.6
110-180	1.8
0-180	100

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706908.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	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
5.0	317.0	314.2	311.8	315.1	312.9	307.5	301.9	297.4	288.6	278.8
10.0	459.0	451.1	440.8	438.9	431.1	413.7	397.6	388.9	374.8	356.9
15.0	489.5	480.5	469.1	458.9	445.7	430.4	413.5	399.4	383.0	367.7
20.0	482.8	473.2	461.3	453.1	439.8	420.3	398.9	389.3	371.7	350.5
25.0	453.6	448.6	441.4	430.2	419.6	399.7	379.1	368.6	355.4	336.1
30.0	433.8	429.9	425.5	416.3	408.4	391.6	371.0	360.2	350.9	331.0
35.0	417.0	413.6	408.3	400.4	395.3	379.7	360.3	349.6	337.8	320.9
37.5	406.1	402.6	396.7	389.6	384.2	366.9	352.3	342.9	330.1	314.5
40.0	392.8	391.2	383.6	378.0	372.2	357.2	342.3	334.6	321.3	305.7
42.5	379.7	378.1	372.3	365.1	358.0	344.8	331.9	323.7	311.9	298.4
45.0	364.0	362.3	358.4	349.2	342.7	330.7	318.7	310.6	299.5	287.2
47.5	346.5	346.4	341.9	334.2	327.9	318.2	306.3	298.4	286.5	275.7
50.0	335.5	335.2	332.2	328.2	319.9	311.4	302.0	294.1	284.5	274.7
52.5	344.7	344.8	341.9	344.3	339.0	331.2	325.4	318.2	306.5	299.5
55.0	376.1	378.0	373.5	379.3	373.9	368.1	366.9	361.4	350.7	345.3
57.5	402.1	404.3	397.6	401.3	395.2	388.9	389.1	384.8	379.5	372.3
60.0	407.6	407.7	402.6	402.7	395.8	387.5	387.9	378.7	376.0	366.3
62.5	407.6	406.6	403.4	407.0	395.3	384.6	385.1	371.6	367.4	357.4
65.0	404.2	397.7	398.6	400.0	385.9	376.6	373.8	357.9	354.2	344.0
67.5	370.4	363.6	362.2	358.3	344.9	338.0	332.8	321.1	316.0	306.8
70.0	309.6	303.6	302.2	296.5	287.0	279.3	275.0	267.3	261.8	252.1
72.5	242.9	241.3	241.0	235.5	230.4	225.1	220.0	211.9	205.9	198.1
75.0	196.9	193.3	193.5	192.2	189.1	185.6	181.7	174.2	167.1	160.5
77.5	166.2	164.5	166.0	164.2	163.0	160.5	156.3	150.7	143.9	137.7
80.0	143.6	143.6	145.5	143.5	140.7	139.8	135.6	130.5	125.5	120.3
85.0	99.3	98.8	97.8	96.1	93.8	90.2	87.7	84.8	81.1	78.3
90.0	58.8	58.8	58.9	58.9	58.3	56.4	54.1	50.7	47.0	44.2
95.0	37.9	38.1	38.6	39.4	39.7	39.0	37.9	36.3	33.9	31.2
100.0	27.6	27.7	27.9	27.9	28.1	28.0	27.7	27.0	26.2	24.8
105.0	21.3	21.3	21.4	21.6	21.7	21.9	21.7	21.3	20.9	20.3
110.0	17.4	17.4	17.4	17.4	17.6	17.6	17.4	17.2	16.8	16.6
115.0	14.5	14.6	14.6	14.6	14.5	14.5	14.3	14.2	14.1	13.6
120.0	12.1	12.1	12.2	12.2	12.2	12.1	11.9	11.8	11.5	11.4
125.0	9.7	9.8	9.8	9.8	9.8	9.7	9.7	9.5	9.3	9.2
130.0	7.5	7.5	7.4	7.4	7.5	7.4	7.3	7.3	7.1	7.0
135.0	5.2	5.2	5.3	5.2	5.3	5.2	5.0	5.0	5.0	4.9
140.0	3.5	3.6	3.7	3.6	3.6	3.5	3.4	3.4	3.3	3.2
145.0	2.2	2.2	2.1	2.2	2.2	2.2	2.2	2.1	2.2	2.2
150.0	1.3	1.4	1.6	1.5	1.7	1.6	1.5	1.5	1.6	1.5
155.0	1.6	1.5	1.4	1.5	1.6	1.7	1.7	1.6	1.6	1.6
160.0	1.2	1.1	1.1	1.1	1.2	1.1	1.1	1.3	1.2	1.3
165.0	0.7	0.7	0.7	0.8	0.7	0.8	0.8	0.8	0.8	0.9
170.0	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.6
175.0	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5	0.5	0.5
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	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
5.0	268.9	260.0	248.9	235.8	224.2	212.7	197.3	184.8	172.2	158.0
10.0	342.0	331.8	314.9	297.0	286.3	277.1	261.0	248.3	237.8	225.5

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706908.IES

CANDELA TABULATION - (Cont.)

15.0	352.5	339.6	323.8	309.5	293.7	283.4	270.3	257.5	246.7	233.1
20.0	338.2	326.7	311.4	294.3	284.5	271.3	256.1	247.9	239.0	232.4
25.0	319.4	311.3	297.2	280.8	269.9	262.0	245.7	235.1	229.7	223.2
30.0	316.6	307.4	294.5	277.5	266.0	256.7	239.4	225.0	219.2	211.5
35.0	308.5	297.4	283.9	266.0	255.4	245.2	231.8	218.7	212.2	203.9
37.5	302.2	288.6	273.6	260.6	250.7	239.2	225.3	213.3	207.6	198.3
40.0	295.6	281.4	265.8	253.7	244.3	232.7	218.7	208.9	202.0	192.8
42.5	287.4	274.0	258.4	246.3	235.3	224.8	213.5	203.9	195.2	186.0
45.0	277.2	263.0	250.3	238.7	226.7	216.3	206.9	197.9	188.7	179.6
47.5	264.4	252.2	241.1	228.8	215.4	206.7	199.6	191.1	183.7	174.7
50.0	263.3	249.9	240.9	229.8	216.0	207.0	198.4	189.2	180.4	168.7
52.5	288.2	275.8	264.5	252.0	236.4	223.6	209.5	198.3	185.4	169.7
55.0	333.9	320.7	302.8	287.6	269.1	251.9	231.6	215.7	197.5	176.7
57.5	361.4	344.8	326.5	309.0	289.5	270.1	247.9	231.0	207.6	184.5
60.0	357.3	342.1	326.0	308.9	289.8	270.4	248.9	233.7	212.3	188.4
62.5	347.5	334.7	318.8	300.2	281.2	265.8	244.4	227.9	207.6	184.5
65.0	331.7	325.0	308.5	289.4	270.2	253.0	233.7	217.6	200.9	179.2
67.5	295.6	289.1	274.9	260.5	243.3	226.3	210.5	196.2	182.8	164.3
70.0	245.0	236.1	225.9	214.8	204.4	190.5	177.6	165.0	152.9	140.8
72.5	192.9	185.6	177.8	169.1	160.6	153.0	144.5	135.0	126.8	116.4
75.0	155.3	149.8	144.5	137.3	129.8	122.4	116.3	110.1	102.9	95.8
77.5	132.3	127.2	123.0	116.9	111.5	103.1	96.9	92.4	87.3	80.8
80.0	115.3	109.9	104.9	99.6	94.2	90.0	83.6	77.8	73.4	69.3
85.0	75.6	72.0	68.5	64.7	61.4	58.9	56.4	54.1	50.7	48.1
90.0	42.3	40.8	40.0	39.5	38.5	37.3	36.5	35.9	34.2	32.9
95.0	28.9	27.5	26.4	26.1	26.2	26.7	26.7	26.6	25.6	24.4
100.0	23.4	22.2	21.1	20.4	19.8	19.6	19.4	19.4	19.0	18.1
105.0	19.4	18.6	17.8	17.0	16.4	15.9	15.5	15.1	14.6	14.0
110.0	16.2	15.7	15.1	14.5	13.7	13.1	12.8	12.2	11.6	10.9
115.0	13.5	13.1	12.5	12.0	11.5	11.0	10.4	9.9	9.4	8.7
120.0	11.1	10.7	10.4	9.9	9.4	9.0	8.6	8.1	7.5	7.1
125.0	8.9	8.6	8.3	8.0	7.5	7.1	6.8	6.4	6.0	5.7
130.0	6.8	6.6	6.4	6.1	5.8	5.6	5.2	4.8	4.6	4.3
135.0	4.7	4.6	4.4	4.3	4.2	4.0	3.8	3.5	3.3	3.2
140.0	3.2	3.1	3.1	3.0	2.8	2.7	2.7	2.5	2.4	2.2
145.0	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	1.8	1.8
150.0	1.6	1.5	1.5	1.5	1.5	1.5	1.6	1.6	1.5	1.7
155.0	1.7	1.6	1.6	1.6	1.5	1.6	1.6	1.5	1.5	1.4
160.0	1.3	1.3	1.3	1.2	1.2	1.2	1.3	1.2	1.2	1.2
165.0	0.8	0.9	0.9	0.9	0.9	1.0	0.9	0.9	0.9	0.9
170.0	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.7	0.8
175.0	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.8	0.7	0.8
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	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6	39.6
5.0	141.7	128.2	114.1	98.3	84.4	72.2	61.9	50.3	42.0	36.7
10.0	205.7	188.9	175.1	154.7	136.8	123.4	110.7	89.8	74.1	64.2
15.0	215.6	201.3	185.8	168.7	148.4	132.1	119.2	103.0	86.3	71.2
20.0	212.0	199.1	186.6	169.2	149.8	136.1	121.2	101.7	88.1	74.7
25.0	207.7	191.0	181.1	166.0	146.7	133.3	121.8	104.1	86.9	77.9
30.0	199.1	184.7	173.7	159.5	139.9	127.4	118.6	102.9	86.1	76.2
35.0	190.1	174.7	162.1	149.4	132.5	120.6	111.1	96.8	81.9	69.8
37.5	185.6	171.0	157.7	143.5	128.0	116.1	105.9	93.5	77.5	66.3

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706908.IES

CANDELA TABULATION - (Cont.)

40.0	179.0	165.2	151.4	138.7	123.9	110.5	100.9	88.6	74.7	63.2
42.5	173.5	159.5	144.5	131.5	117.4	105.8	95.2	84.6	71.9	59.4
45.0	167.7	152.5	139.6	124.8	112.0	100.1	90.2	79.0	67.0	55.8
47.5	161.4	146.3	133.6	119.9	106.8	96.3	85.7	74.1	63.0	52.0
50.0	156.2	143.6	128.4	114.2	101.4	90.8	80.1	70.0	59.5	47.8
52.5	153.9	140.7	124.7	109.8	97.4	85.7	74.4	65.0	54.6	44.3
55.0	157.6	140.5	121.0	105.2	92.7	81.3	71.1	61.8	52.0	41.8
57.5	165.6	144.0	120.9	103.7	89.2	77.0	66.5	57.6	48.0	38.3
60.0	168.2	144.9	122.3	103.2	87.3	74.9	63.4	53.8	44.9	36.3
62.5	165.4	144.3	121.7	101.9	85.4	71.5	61.3	51.3	42.5	33.8
65.0	160.9	140.5	118.2	99.6	83.1	69.6	57.3	47.5	38.9	30.9
67.5	148.0	130.7	111.1	93.9	78.9	65.6	53.2	44.1	35.9	28.9
70.0	128.4	115.7	99.9	84.2	71.1	59.4	49.2	40.6	33.4	26.1
72.5	107.4	97.2	86.0	74.3	63.4	53.6	43.7	36.1	29.7	24.1
75.0	89.2	81.9	72.6	63.6	54.6	46.4	39.2	32.9	27.2	21.7
77.5	75.3	69.2	62.1	54.8	47.2	40.1	33.5	28.3	23.6	18.9
80.0	64.5	59.3	53.6	46.9	40.8	34.2	28.7	24.4	20.5	16.8
85.0	45.7	42.7	39.4	34.4	29.7	25.5	21.3	18.0	15.0	12.2
90.0	31.9	30.3	28.4	25.9	22.8	19.4	16.0	13.2	10.7	8.5
95.0	23.3	22.3	21.5	20.2	18.4	16.3	13.8	11.3	9.2	7.5
100.0	17.1	16.1	15.4	14.5	13.6	12.3	11.0	9.3	7.7	6.3
105.0	13.1	12.2	11.5	10.8	9.9	9.1	8.1	7.1	6.0	5.0
110.0	10.3	9.6	8.8	8.1	7.5	6.7	6.1	5.3	4.6	4.0
115.0	8.1	7.6	6.9	6.4	5.7	5.1	4.6	4.1	3.6	3.1
120.0	6.6	6.0	5.5	5.0	4.4	3.9	3.5	3.1	2.8	2.5
125.0	5.1	4.7	4.2	3.8	3.5	3.0	2.7	2.4	2.2	2.0
130.0	3.8	3.5	3.2	2.8	2.7	2.4	2.1	1.9	1.9	1.7
135.0	2.9	2.7	2.5	2.3	2.0	1.9	1.8	1.7	1.5	1.5
140.0	2.1	2.0	1.9	1.7	1.7	1.6	1.5	1.5	1.5	1.5
145.0	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.5
150.0	1.5	1.5	1.5	1.5	1.5	1.6	1.5	1.4	1.4	1.4
155.0	1.4	1.4	1.4	1.3	1.5	1.4	1.4	1.4	1.3	1.2
160.0	1.3	1.1	1.2	1.3	1.2	1.3	1.2	1.3	1.2	1.2
165.0	1.0	1.0	1.1	1.0	1.1	1.1	1.0	1.1	1.1	1.1
170.0	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	1.0	1.1
175.0	0.8	0.8	0.7	0.8	0.9	0.8	0.8	0.9	0.9	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. Angles Horizontal Angles

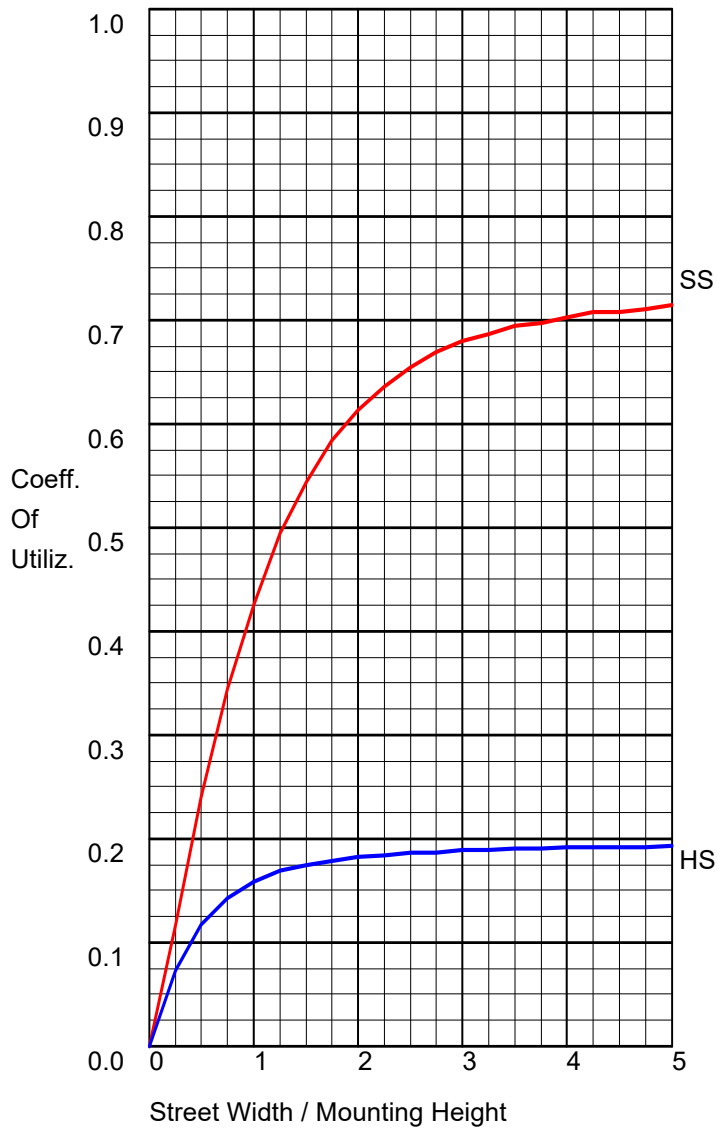
	150	155	160	165	170	175	180
0.0	39.6	39.6	39.6	39.6	39.6	39.6	39.6
5.0	32.4	28.7	27.3	26.6	26.6	26.8	26.9
10.0	51.5	38.2	31.2	25.9	22.3	21.1	21.5
15.0	57.9	43.6	31.6	22.8	16.7	11.2	9.8
20.0	60.1	44.9	36.8	24.4	16.3	13.3	9.8
25.0	63.4	47.8	36.0	27.7	17.6	13.0	11.7
30.0	62.2	47.2	35.4	26.9	18.1	12.2	10.5
35.0	59.5	46.1	33.4	24.9	16.6	11.1	9.0
37.5	55.6	42.7	31.8	23.5	16.3	10.9	9.2
40.0	54.0	42.5	30.8	22.5	15.5	10.4	8.6
42.5	50.0	39.6	29.5	21.5	15.4	10.5	9.0
45.0	46.0	36.5	27.1	19.7	14.2	9.9	8.5
47.5	42.5	33.8	25.5	18.2	13.1	9.1	7.8
50.0	38.1	30.1	22.8	16.8	12.2	8.6	7.5
52.5	34.6	27.0	20.0	14.7	10.6	7.7	6.7

IES ROAD REPORT
PHOTOMETRIC FILENAME : L091706908.IES

CANDELA TABULATION - (Cont.)

55.0	32.5	25.1	18.6	13.3	9.8	7.1	6.3
57.5	29.8	22.7	16.5	11.8	8.7	6.5	5.9
60.0	28.1	21.5	15.9	11.0	8.0	6.1	5.5
62.5	25.8	19.6	14.5	10.4	7.7	6.0	5.5
65.0	24.2	18.4	13.5	9.7	7.2	5.8	5.2
67.5	22.8	17.6	13.2	9.1	6.9	5.5	5.1
70.0	20.7	15.9	12.0	8.9	6.8	5.5	5.1
72.5	19.0	14.8	11.2	8.2	6.3	5.2	4.8
75.0	17.0	13.3	10.2	7.9	6.1	5.0	4.6
77.5	15.2	11.9	9.3	7.0	5.6	4.6	4.4
80.0	13.3	10.6	8.1	6.4	5.1	4.4	4.2
85.0	9.6	7.7	6.2	5.0	4.3	3.8	3.8
90.0	6.9	5.7	4.7	4.0	3.7	3.4	3.4
95.0	5.9	4.8	4.0	3.5	3.4	3.3	3.2
100.0	5.0	4.2	3.5	3.2	3.1	3.0	3.0
105.0	4.2	3.7	3.3	3.0	2.9	2.9	2.8
110.0	3.5	3.1	2.8	2.8	2.6	2.7	2.6
115.0	2.8	2.6	2.4	2.4	2.4	2.3	2.3
120.0	2.3	2.2	2.0	2.0	2.0	2.2	2.0
125.0	2.0	1.9	1.7	1.8	1.7	1.9	1.9
130.0	1.6	1.6	1.6	1.6	1.6	1.7	1.6
135.0	1.4	1.5	1.5	1.5	1.5	1.5	1.5
140.0	1.5	1.5	1.5	1.4	1.4	1.5	1.5
145.0	1.4	1.4	1.4	1.3	1.4	1.4	1.3
150.0	1.5	1.4	1.5	1.5	1.4	1.4	1.3
155.0	1.3	1.3	1.3	1.3	1.3	1.3	1.3
160.0	1.2	1.3	1.3	1.3	1.2	1.3	1.2
165.0	1.1	1.1	1.2	1.1	1.1	1.1	1.2
170.0	1.0	0.9	0.9	1.0	0.9	0.9	1.1
175.0	0.9	0.9	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

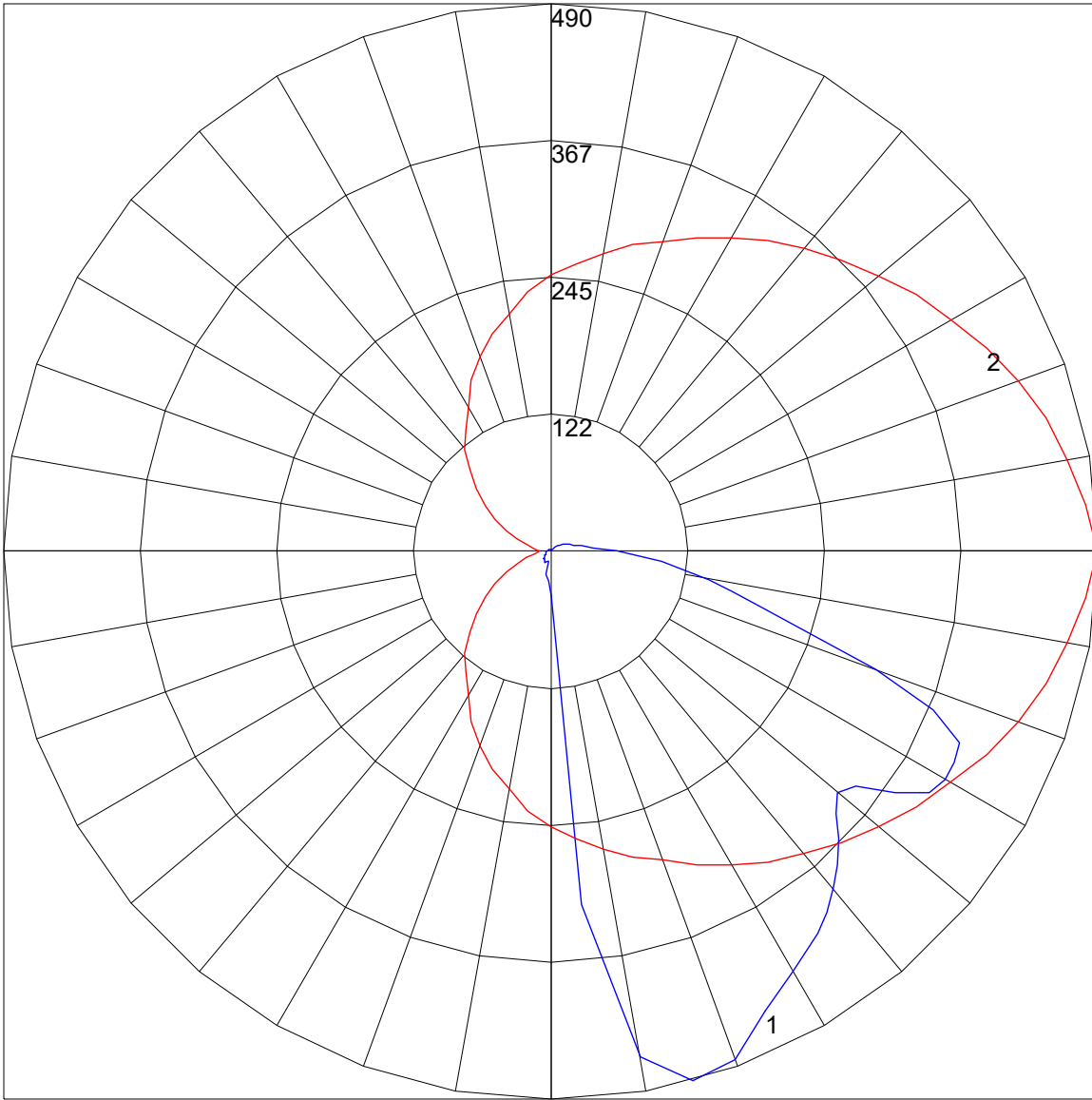
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

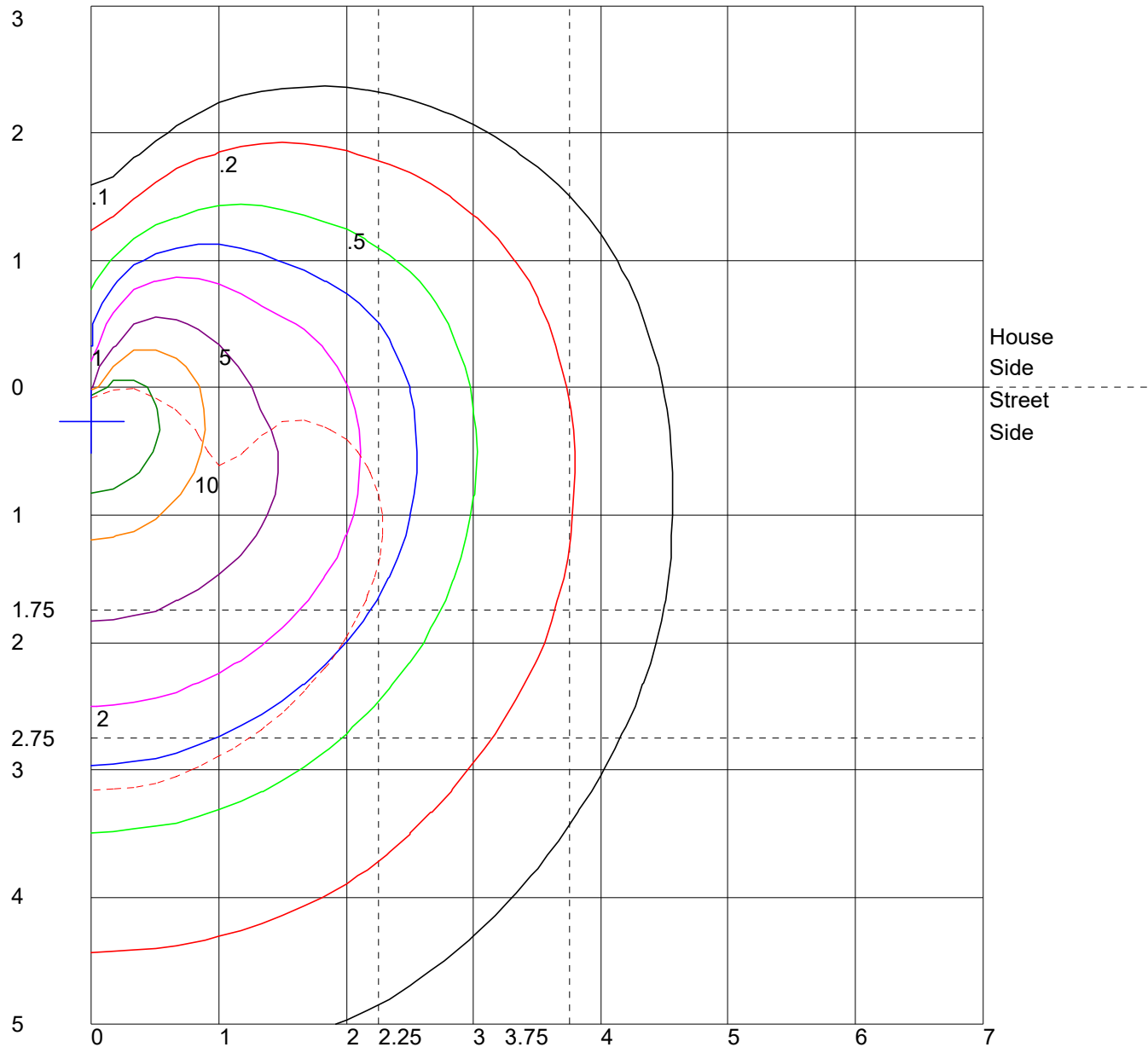
	Lumens	Percent Of Luminaire
Downward Street Side	783.5	74.6
Downward House Side	207.9	19.8
Downward Total	991.4	94.4
Upward Street Side	42.4	4.0
Upward House Side	16.5	1.6
Upward Total	58.9	5.6
Total Flux	1050.3	100.0

POLAR GRAPH



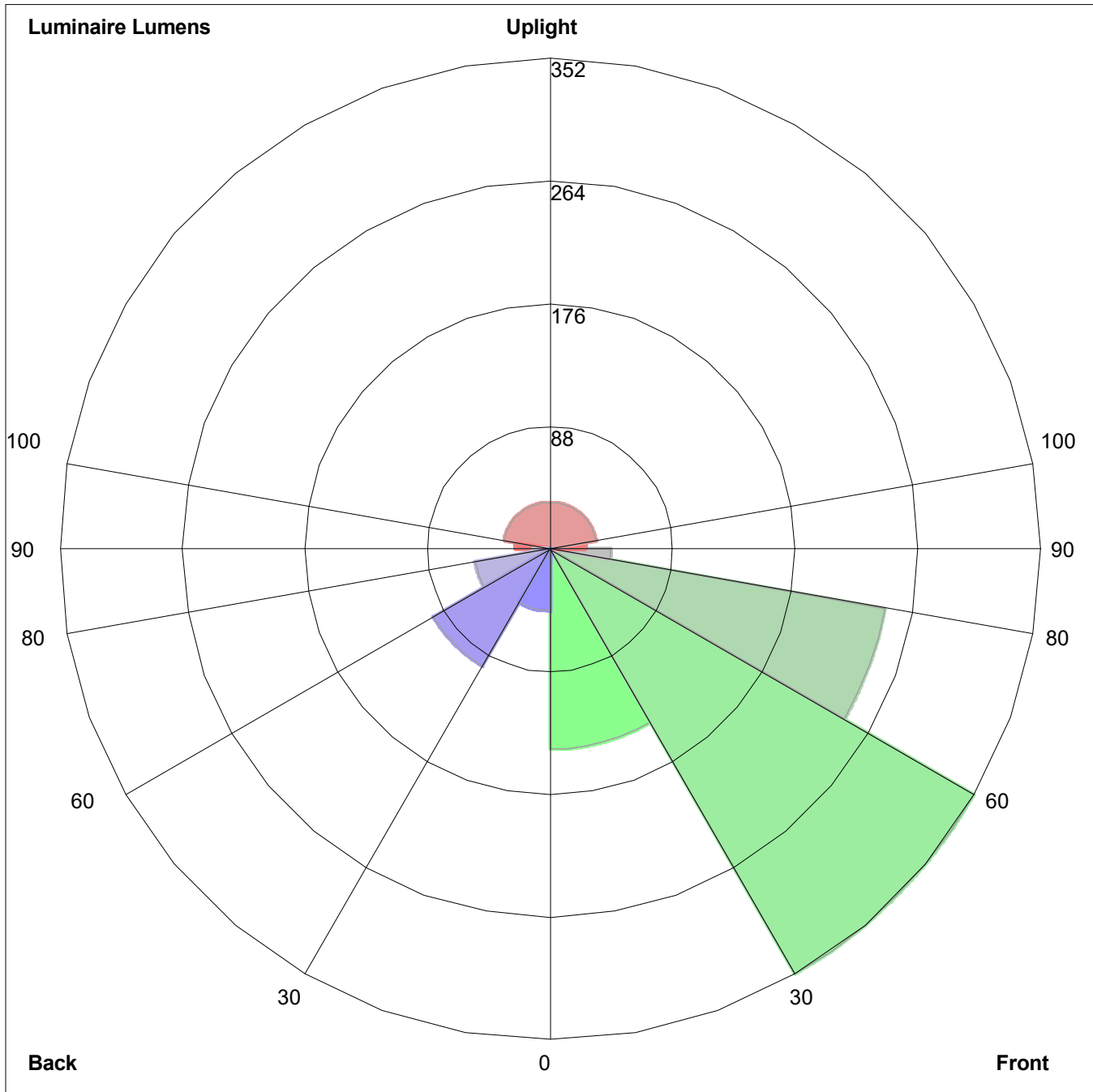
Maximum Candela = 489.5 Located At Horizontal Angle = 0, Vertical Angle = 15
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (15) (Through Max. Cd.)

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=143.8, Medium=352.1, High=244.2, Very High=43.5
Back: Low=44.3, Medium=96.7, High=54.6, Very High=12.3
Uplight: Low=25.5, High=33.5

BUG Rating : B0-U2-G1