



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

Test #: L061606205

Date: 8/17/2016



NVLAP LAB CODE 200927-0

Report No: L061606205

Prepared For: Beachside Lighting
 905 Kalaniana'ole Hwy # 29A Kailua, HI. 96734

Model Number: MB2-120V-MH39MR16SP

Test: Photometric/Electrical Test

Standards Used: Appropriate part or all test guidelines were used for test performed:
ANSI C82.77:2002: Harmonic Emission Limits-Related Quality Requirements for Lighting Equipment

Description of Sample: Client submitted the sample. Catalog number is MB2-120V-MH39MR16SP. Received in working and undamaged condition. No modifications were necessary.

Testing Condition: Fixture is tested with no special conditions.

Sample Arrival Date: 8/9/16

Date of Tests: 8/15/16 - 8/17/16

Seasoning of Sample: No seasoning was performed.

Equipment List

Equipment Used	Model No	Stock No	Calibration Due Date
Chroma Programmable AC Source	61604	PS-AC02	--
Xitron Power Analyzer	2503AH	MT-EL01	11/30/16
ITECH DC Power Supply	IT6122	PSDC-03-S1	11/17/16
Fluke Digital Thermometer	52k/J	MT-TP02-GC	11/24/16
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

Test Summary

Manufacturer:	Beachside Lighting
Model Number:	MB2-120V-MH39MR16SP
Driver/Ballast Model Number:	POWER SELECT PS10U39K
Total Lumens:	463.60
Input Voltage (VAC/60Hz):	120.00
Input Current (Amp):	0.34
Input Power (W):	40.27
Input Power Factor:	1.00
Current ATHD @ 120V(%):	8%
Current ATHD @ 277V(%):	N/A
Efficacy:	12
Ambient Temperature (°C):	25.0
Stabilization Time (Hours):	1:40
Total Operating Time (Hours):	2:50
Off State Power(W):	0.00



FIG.1 LUMINAIRE



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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.

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 : Keyur Patel

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: 10*



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Photometric Test Report

IES ROAD REPORT
PHOTOMETRIC FILENAME : L061606205.IES

DESCRIPTIVE INFORMATION (From Photometric File)

IESNA:LM-63-2002
 [TEST] L061606205
 [TESTLAB] LIGHT LABORATORY, INC.
 [ISSUEDATE] 8/17/2016
 [MANUFAC] Beachside Lighting
 [LUMCAT] MB2-120V-MH39MR16SP
 [LUMINAIRE] Bollard
 [BALLASTCAT] POWER SELECT PS10U39K
 [LAMPPOSITION] 0,0
 [LAMPCAT] N/A
 [OTHER] INDICATING THE CANDELA VALUES ARE ABSOLUTE AND
 [MORE] SHOULD NOT BE FACTORED FOR DIFFERENT LAMP RATINGS.
 [INPUT] 120VAC, 40.27W

CHARACTERISTICS

IES Classification	Type V
Longitudinal Classification	Short
Lumens Per Lamp	N.A. (absolute)
Total Lamp Lumens	N.A. (absolute)
Luminaire Lumens	464
Downward Total Efficiency	N.A. (absolute)
Total Luminaire Efficiency	N.A. (absolute)
Luminaire Efficacy Rating (LER)	12
Total Luminaire Watts	40.27
Ballast Factor	1.00
Upward Waste Light Ratio	0.04
Maximum Candela	150.76
Maximum Candela Angle	0H 50V
Maximum Candela (<90 Degrees Vertical)	150.76
Maximum Candela Angle (<90 Degrees Vertical)	0H 50V
Maximum Candela At 90 Degrees Vertical	3.39 (0.7% Luminaire Lumens)
Maximum Candela from 80 to <90 Degrees Vertical	17.24 (3.7% Luminaire Lumens)
Cutoff Classification (deprecated)	N.A. (absolute)

IES ROAD REPORT
PHOTOMETRIC FILENAME : L061606205.IES

LUMINAIRE CLASSIFICATION SYSTEM (LCS)

	Lumens	% Lamp	% Luminaire
FL - Front-Low (0-30)	7.9	N.A.	1.7
FM - Front-Medium (30-60)	139.3	N.A.	30.0
FH - Front-High (60-80)	70.6	N.A.	15.2
FVH - Front-Very High (80-90)	4.9	N.A.	1.1
BL - Back-Low (0-30)	7.9	N.A.	1.7
BM - Back-Medium (30-60)	139.3	N.A.	30.0
BH - Back-High (60-80)	70.6	N.A.	15.2
BVH - Back-Very High (80-90)	4.9	N.A.	1.1
UL - Uplight-Low (90-100)	2.8	N.A.	0.6
UH - Uplight-High (100-180)	15.5	N.A.	3.3
Total	463.7	N.A.	100.0
BUG Rating	B0-U2-G0		

ZONAL LUMEN SUMMARY

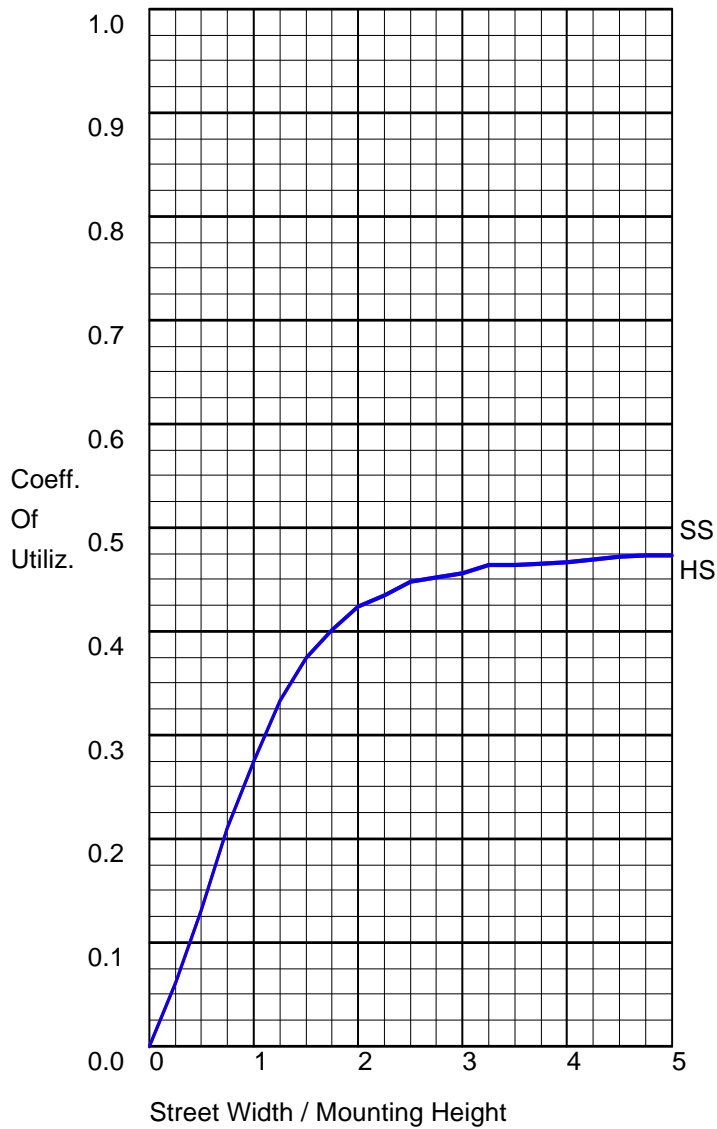
Zone	%
0-20	0.5
0-30	3.4
0-40	13.9
0-60	63.5
0-80	93.9
0-90	96.1
10-90	96
20-40	13.4
20-50	35.7
40-70	70.5
60-80	30.4
70-80	9.5
80-90	2.1
90-110	1.2
90-120	1.9
90-130	2.6
90-150	3.5
90-180	3.9
110-180	2.8
0-180	100

IES ROAD REPORT
PHOTOMETRIC FILENAME : L061606205.IES

CANDELA TABULATION

Vert. Angles	Horizontal Angles
	<u>0</u>
0	0.00
5	1.14
10	2.61
15	6.14
20	13.22
25	26.69
30	46.94
35	76.33
40	107.28
45	136.08
50	150.76
55	144.68
60	125.93
65	99.05
70	68.88
75	40.25
80	17.24
85	7.84
90	3.39
95	2.34
100	2.20
105	2.44
110	2.81
115	3.21
120	3.54
125	3.69
130	3.58
135	3.26
140	3.06
145	2.91
150	2.74
155	2.61
160	2.52
165	2.40
170	2.22
175	1.63
180	0.00

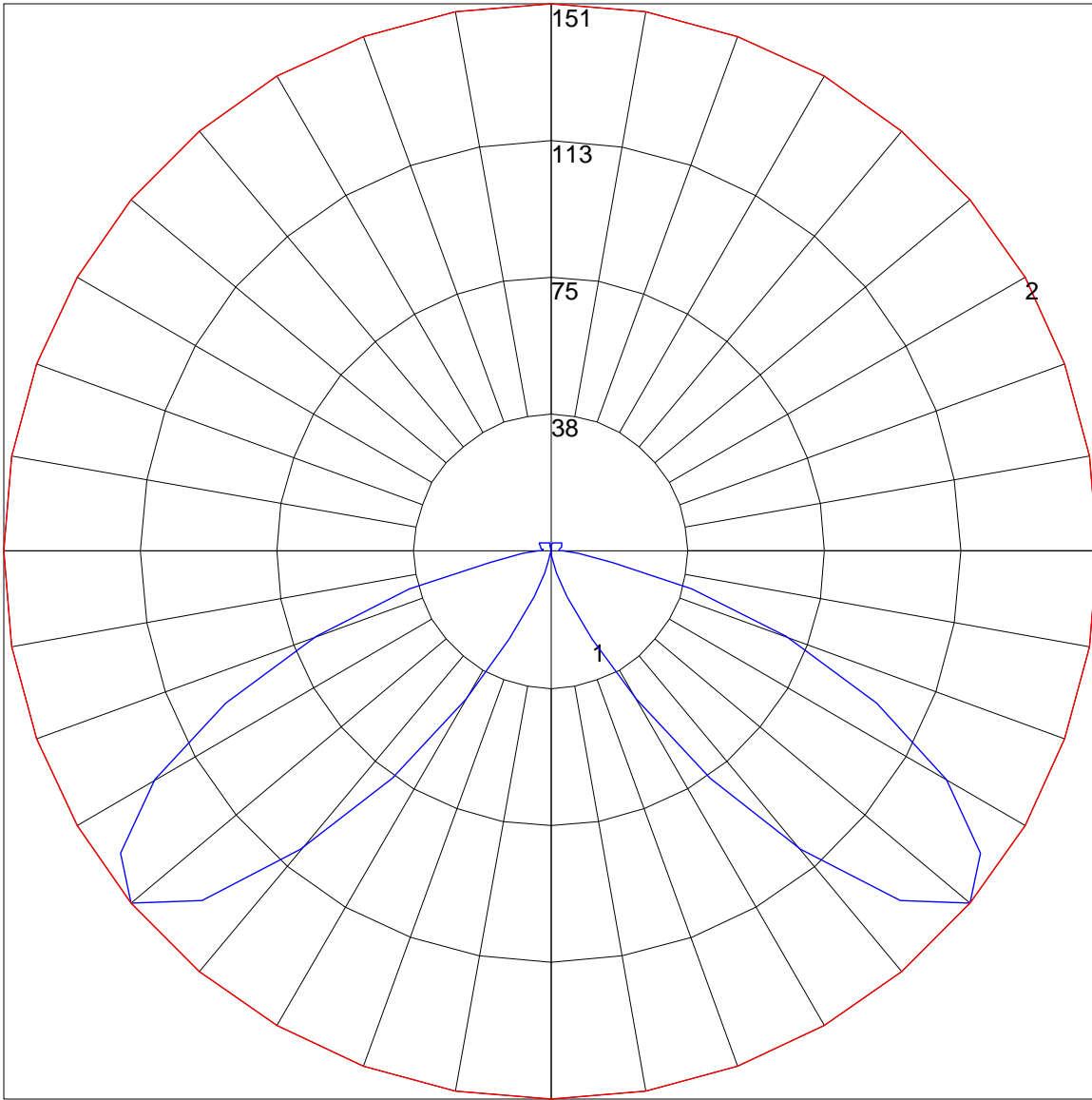
COEFFICIENTS OF UTILIZATION



FLUX DISTRIBUTION

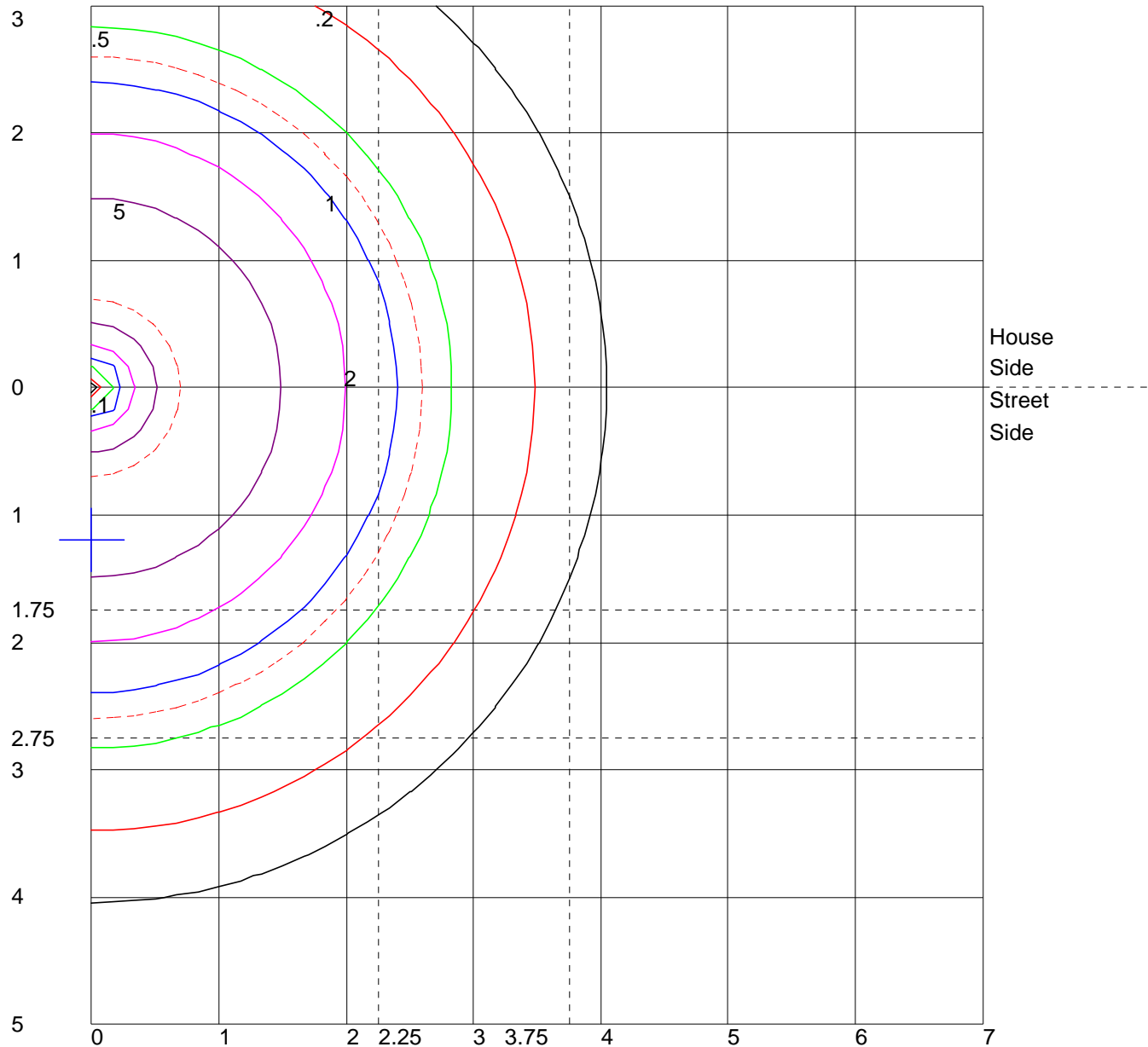
	Lumens	Percent Of Luminaire
Downward Street Side	222.7	48.0
Downward House Side	222.7	48.0
Downward Total	445.4	96.1
Upward Street Side	9.1	2.0
Upward House Side	9.1	2.0
Upward Total	18.2	3.9
Total Flux	463.6	100.0

POLAR GRAPH



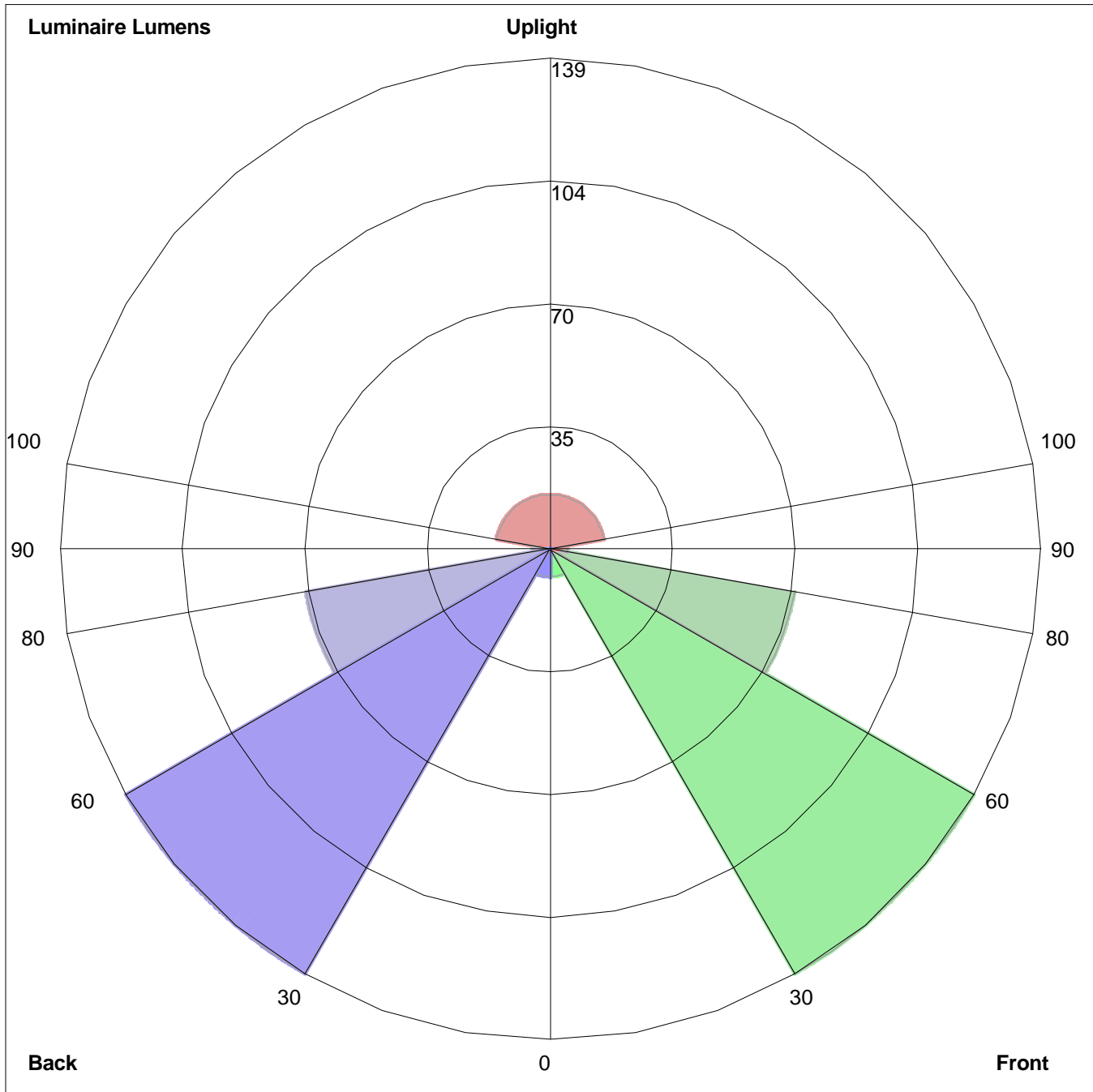
Maximum Candela = 150.76 Located At Horizontal Angle = 0, Vertical Angle = 50
1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (50) (Through Max. Cd.)

ISOFOOTCANDLE LINES OF HORIZONTAL ILLUMINANCE



Distance In Units Of Mounting Height
 Values Based On 2.21 Foot Mounting Height
 1/2 Maximum Candela Trace Shown As Dashed Curve
 (+) = Maximum Candela Point

LUMINAIRE CLASSIFICATION SYSTEM (LCS) GRAPH



Luminaire Lumens:
Front: Low=7.9, Medium=139.3, High=70.6, Very High=4.9
Back: Low=7.9, Medium=139.3, High=70.6, Very High=4.9
Uplight: Low=2.8, High=15.5

BUG Rating : B0-U2-G0