

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: INVUE

Report Number: P400769

Luminaire Tested: **ENV-SA1-740-U-SL3-HSS-ULG-XXB**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400769
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P#####)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-SA1-740-U-SL3-HSS-ULG-XXB
Description: ENTRI LED LUMINAIRE WITH UPLIGHT
(1) 70 CRI, 4000K LIGHTSQUARE IN BATTERY OPERATION WITH 16 LEDS AND TYPE III SPILL LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 647 lumens
Efficiency: N/A
Efficacy: 49.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Non-Cutoff
BUG Rating: B0 - U3 - G0

Input Watts (W): 13
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT

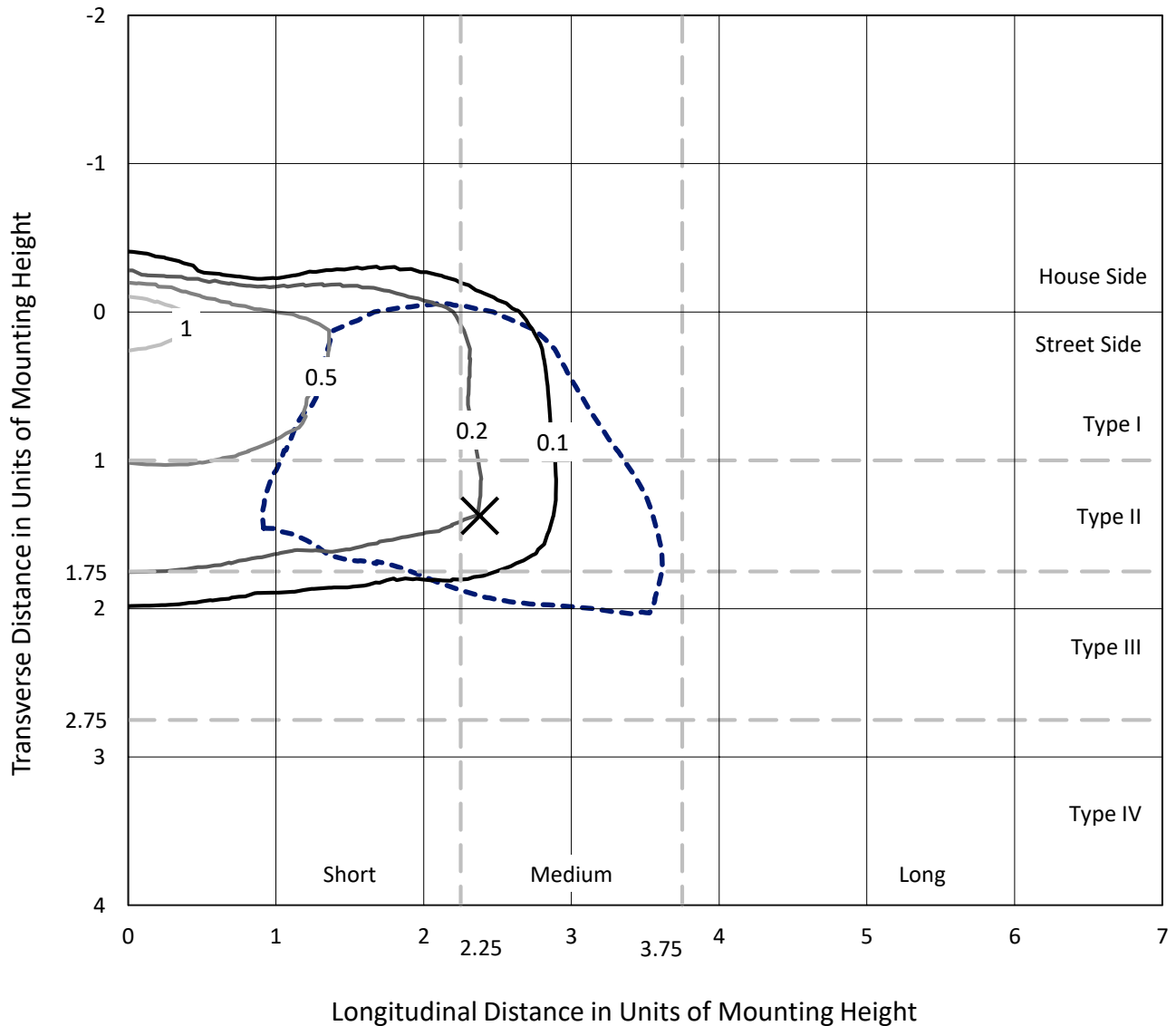


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

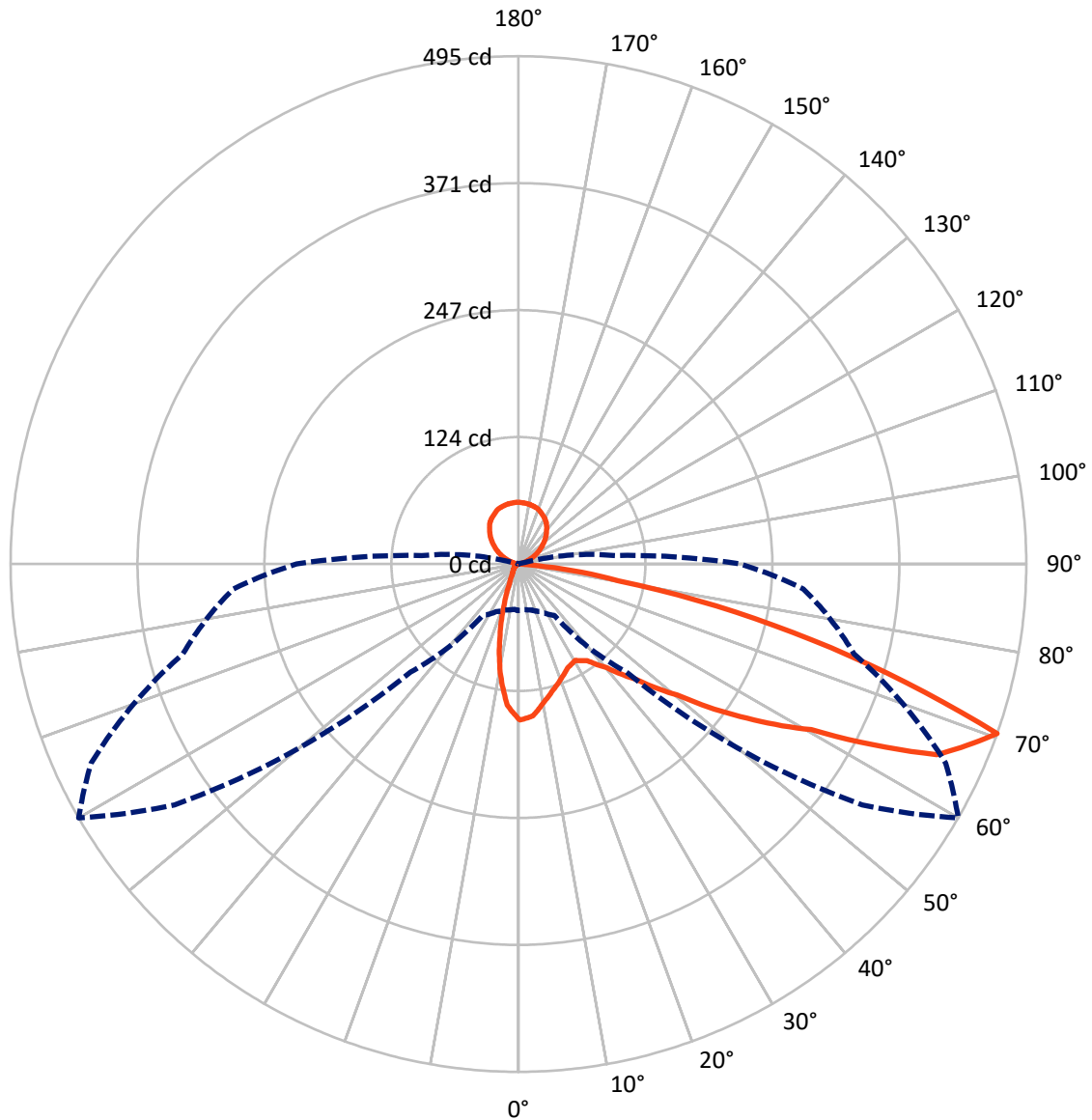


Based on 10 foot mounting height. Maximum calculated value = 1.5 fc
 Type III - Medium - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 60-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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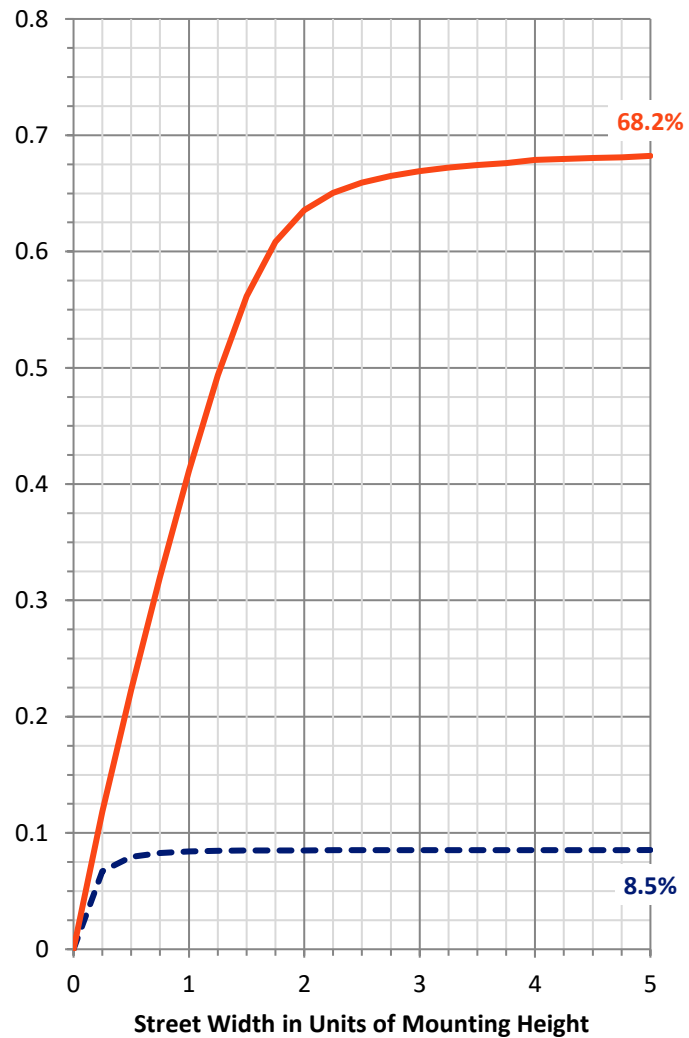
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	55.9	74.8	130.7
	% Fixture	8.6	11.6	20.2
Street Side	Lumens	441.4	74.8	516.3
	% Fixture	68.2	11.6	79.8
Total	Lumens	497.3	149.7	647.0
	% Fixture	76.9	23.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	12.4	1.9
10°-20°	25.4	3.9
20°-30°	33.3	5.1
30°-40°	45.8	7.1
40°-50°	69.5	10.7
50°-60°	111.5	17.2
60°-70°	131.4	20.3
70°-80°	63.5	9.8
80°-90°	4.4	0.7
90°-100°	0.7	0.1
100°-110°	5.1	0.8
110°-120°	14.4	2.2
120°-130°	23.6	3.6
130°-140°	29.0	4.5
140°-150°	29.7	4.6
150°-160°	25.0	3.9
160°-170°	16.5	2.5
170°-180°	5.7	0.9
0°-90°	497.3	76.9
0°-180°	647.0	100.0



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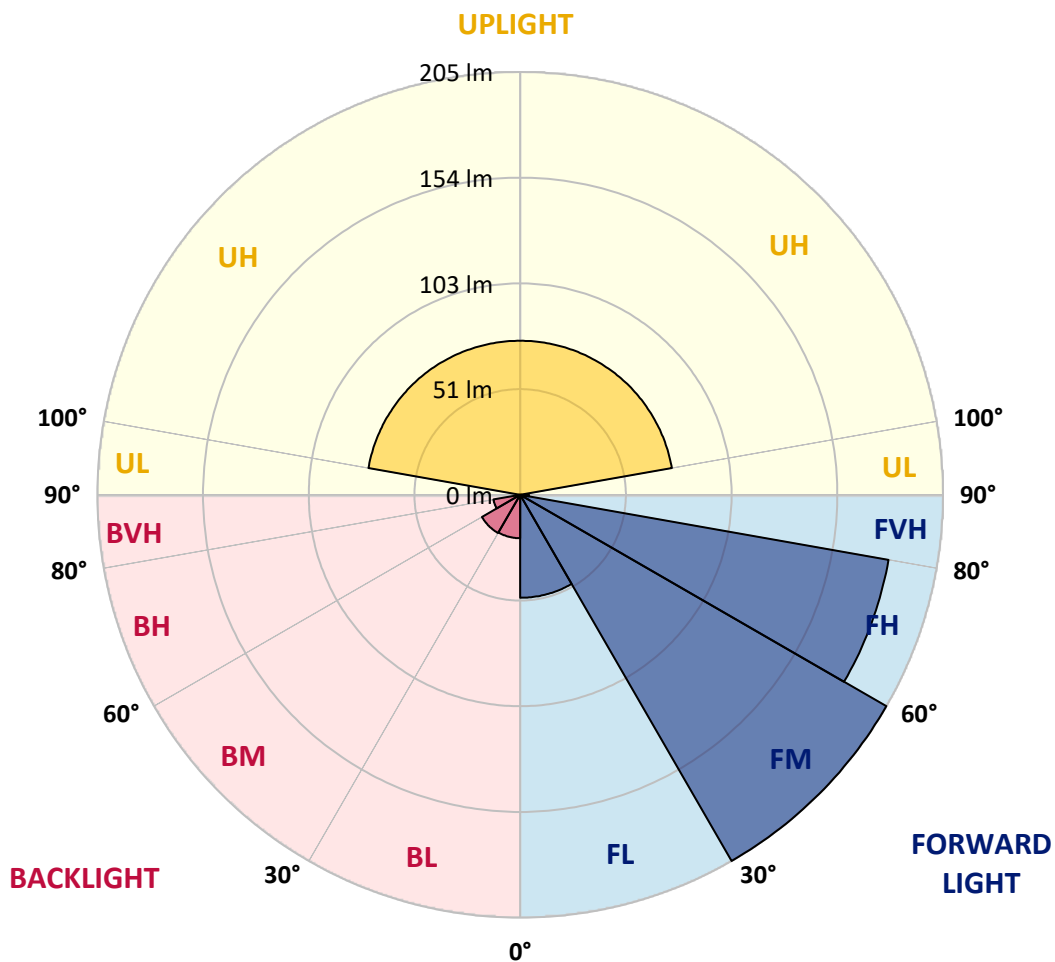
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	50.0	7.7			
FM	(30°-60°)	205.4	31.8			
FH	(60°-80°)	181.7	28.1			G0/660
FVH	(80°-90°)	4.3	0.7			G0/10
BL	(0°-30°)	21.1	3.3	B0/110		
BM	(30°-60°)	21.4	3.3	B0/220		
BH	(60°-80°)	13.2	2.0	B0/110		G0/110
BVH	(80°-90°)	0.2	0.0			G0/10
UL	(90°-100°)	0.7	0.1		U1/10	
UH	(100°-180°)	74.8	11.6		U3/500	

BUG Rating: B0-U3-G0

Type III Medium





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0
5°	140.4	141.0	141.4	141.8	142.4	142.9	143.5	144.0	145.3	146.6	147.1
10°	122.2	122.6	122.9	123.2	124.1	125.1	126.3	127.6	129.6	131.6	133.0
15°	108.5	108.6	108.9	109.3	110.2	111.2	112.7	114.2	116.8	119.4	121.9
20°	103.5	103.3	103.2	103.0	102.9	102.7	103.6	104.5	106.7	108.8	112.1
25°	107.0	107.0	106.4	105.9	104.8	103.7	103.1	102.5	102.8	103.1	105.3
30°	115.9	115.4	114.7	114.0	113.1	112.3	110.9	109.6	107.8	106.1	106.0
35°	126.3	126.2	126.3	126.3	126.0	125.8	124.6	123.5	121.1	118.7	116.6
40°	135.3	135.4	136.8	138.1	139.6	141.1	141.2	141.3	139.3	137.3	135.2
45°	143.6	145.0	147.7	150.4	154.0	157.7	160.1	162.5	162.5	162.6	162.0
50°	158.2	159.6	162.8	166.0	171.0	176.1	182.3	188.5	192.8	197.1	198.5
55°	190.0	192.2	195.6	199.1	203.7	208.3	215.6	222.8	231.7	240.6	250.3
60°	170.2	171.3	179.2	187.2	200.2	213.2	237.7	262.1	292.3	322.4	326.2
65°	75.6	75.3	79.3	83.2	96.9	110.6	144.3	177.9	250.3	322.7	389.8
70°	45.4	44.3	45.3	46.2	48.7	51.2	56.2	61.2	105.0	148.8	278.9
75°	19.1	20.2	23.4	26.6	31.0	35.4	41.5	47.6	49.0	50.4	122.3
80°	2.4	2.4	3.7	4.9	9.0	13.1	19.3	25.4	27.9	30.5	44.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	4.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6
100°	0.7	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.4	1.8	2.2
105°	1.8	1.9	2.1	2.3	2.7	3.1	3.6	4.1	4.8	5.4	5.8
110°	5.7	5.9	6.1	6.4	6.9	7.5	8.2	8.8	9.3	9.8	10.1
115°	12.1	12.0	12.3	12.7	13.2	13.7	14.1	14.5	14.7	15.0	15.2
120°	19.4	19.2	19.4	19.5	19.8	20.1	20.3	20.4	20.7	21.0	21.1
125°	25.7	25.3	25.4	25.5	25.7	25.8	26.0	26.3	26.5	26.7	26.9
130°	31.3	31.1	31.2	31.2	31.4	31.6	31.7	31.9	32.0	32.1	32.3
135°	37.0	36.7	36.7	36.7	37.0	37.2	37.4	37.5	37.6	37.7	37.9
140°	42.1	41.8	41.9	42.0	42.1	42.2	42.3	42.3	42.6	42.8	43.0
145°	47.4	47.1	47.0	46.9	47.0	47.2	47.3	47.4	47.5	47.5	47.7
150°	51.3	51.0	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.1	51.3
155°	54.2	53.9	53.9	53.9	54.0	54.1	54.2	54.3	54.2	54.1	54.1
160°	57.2	56.9	56.9	56.8	56.7	56.6	56.5	56.5	56.5	56.5	56.6
165°	58.7	58.5	58.4	58.3	58.3	58.3	58.2	58.0	58.0	58.0	58.0
170°	60.2	59.9	59.8	59.7	59.7	59.7	59.7	59.7	59.7	59.6	59.4
175°	60.4	60.2	60.1	60.1	60.0	59.9	59.8	59.6	59.5	59.5	59.5
180°	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0
5°	147.6	148.6	149.3	149.5	149.8	149.3	148.8	148.2	147.2	145.7	144.1
10°	134.4	136.6	138.6	140.2	141.8	141.4	141.0	139.3	136.4	131.5	126.6
15°	124.3	127.1	130.3	132.7	135.0	135.1	135.3	131.6	125.6	115.8	106.1
20°	115.5	119.1	123.6	127.4	131.2	131.3	131.3	125.2	115.1	100.4	85.7
25°	107.5	111.8	117.8	123.9	130.0	129.3	128.7	119.3	104.5	84.7	64.8
30°	105.9	108.9	114.7	123.4	132.1	130.3	128.5	115.9	96.7	71.2	45.8
35°	114.5	115.6	119.9	129.5	139.1	135.7	132.2	115.5	90.9	59.7	28.4
40°	133.1	133.0	135.0	144.4	153.7	148.7	143.6	121.8	89.8	53.0	16.1
45°	161.4	160.2	160.7	170.2	179.7	174.8	169.8	141.2	96.9	53.7	10.5
50°	200.0	200.5	198.7	207.5	216.3	213.7	211.2	177.2	114.7	61.3	7.9
55°	260.0	262.1	249.9	254.2	258.5	255.4	252.3	215.0	135.9	71.2	6.4
60°	330.0	327.7	302.2	296.5	290.7	289.9	289.2	254.5	156.3	80.5	4.8
65°	456.8	447.9	389.3	367.1	345.0	344.4	343.8	290.9	153.6	78.5	3.4
70°	408.9	494.7	459.3	398.8	338.3	308.4	278.5	216.1	94.5	48.3	2.1
75°	194.3	295.3	289.9	249.1	208.3	161.6	114.8	84.5	25.4	13.3	1.2
80°	57.5	99.1	68.2	45.1	22.1	15.7	9.4	7.1	2.6	1.6	0.6
85°	7.8	7.9	3.7	2.2	0.7	1.3	2.0	1.6	0.3	0.3	0.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.6	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
100°	2.5	2.4	2.2	2.1	2.0	1.8	1.6	1.6	1.6	1.8	2.0
105°	6.2	6.1	6.0	5.8	5.6	5.4	5.3	5.3	5.3	5.4	5.6
110°	10.3	10.4	10.4	10.3	10.3	10.1	10.0	10.1	10.0	10.1	10.3
115°	15.4	15.6	15.7	15.6	15.4	15.3	15.3	15.3	15.3	15.3	15.4
120°	21.2	21.4	21.6	21.3	21.1	21.0	21.0	21.0	21.0	21.0	21.1
125°	27.0	27.1	27.2	26.9	26.7	26.7	26.7	26.7	26.7	26.7	26.7
130°	32.5	32.7	32.8	32.8	32.8	32.8	32.7	32.8	32.7	32.8	32.8
135°	38.2	38.4	38.6	38.6	38.5	38.7	38.8	38.9	38.8	38.7	38.5
140°	43.1	43.2	43.3	43.4	43.5	43.7	43.9	44.1	43.9	43.7	43.5
145°	47.9	48.2	48.5	48.4	48.4	48.2	48.1	48.3	48.1	48.2	48.4
150°	51.5	51.6	51.7	51.9	52.0	52.1	52.2	52.6	52.2	52.1	52.0
155°	54.0	54.2	54.4	54.6	54.8	54.9	55.0	55.3	55.0	54.9	54.8
160°	56.7	57.0	57.2	57.1	57.0	57.0	56.9	57.4	56.9	57.0	57.0
165°	57.9	58.2	58.4	58.5	58.6	58.5	58.5	58.8	58.5	58.5	58.6
170°	59.1	59.3	59.4	59.6	59.8	59.9	60.0	60.4	60.0	59.9	59.8
175°	59.5	59.7	59.9	60.0	60.0	59.9	59.8	60.3	59.8	59.9	60.0
180°	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0	152.0
5°	142.2	140.3	137.8	135.2	132.2	129.1	127.4	125.6	123.1	120.7	120.2
10°	120.3	114.0	107.1	100.3	93.2	86.1	80.8	75.5	70.6	65.7	62.9
15°	94.9	83.6	71.6	59.5	50.0	40.5	34.1	27.8	24.5	21.2	20.0
20°	69.6	53.4	40.7	28.0	22.6	17.3	16.1	14.8	14.5	14.1	13.9
25°	46.3	27.7	21.2	14.7	13.7	12.6	12.3	12.1	11.9	11.7	11.5
30°	30.3	14.8	12.9	11.0	10.5	10.1	9.7	9.4	9.0	8.6	8.3
35°	19.3	10.3	9.6	8.8	8.3	7.8	7.2	6.7	6.2	5.7	5.4
40°	12.2	8.3	7.8	7.2	6.6	5.9	5.3	4.7	4.3	3.9	3.6
45°	8.7	7.0	6.4	5.7	5.0	4.3	3.8	3.4	3.0	2.7	2.4
50°	6.8	5.7	5.1	4.4	3.7	3.0	2.7	2.4	2.0	1.7	1.5
55°	5.5	4.6	3.9	3.2	2.7	2.2	1.9	1.5	1.3	1.0	0.8
60°	4.1	3.5	2.8	2.1	1.8	1.4	1.2	0.9	0.8	0.6	0.5
65°	2.8	2.3	1.8	1.3	1.1	0.8	0.7	0.5	0.4	0.3	0.3
70°	1.7	1.3	1.0	0.8	0.6	0.5	0.4	0.3	0.3	0.2	0.1
75°	0.9	0.7	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.2
80°	0.5	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.4	0.4
85°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.6	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
100°	2.1	2.2	2.4	2.5	2.2	1.8	1.4	1.0	1.0	0.9	0.8
105°	5.8	6.0	6.1	6.2	5.8	5.4	4.8	4.1	3.6	3.1	2.7
110°	10.3	10.4	10.4	10.3	10.1	9.8	9.3	8.8	8.2	7.5	6.9
115°	15.6	15.7	15.6	15.4	15.2	15.0	14.7	14.5	14.1	13.7	13.2
120°	21.3	21.6	21.4	21.2	21.1	21.0	20.7	20.4	20.3	20.1	19.8
125°	26.9	27.2	27.1	27.0	26.9	26.7	26.5	26.3	26.0	25.8	25.7
130°	32.8	32.8	32.7	32.5	32.3	32.1	32.0	31.9	31.7	31.6	31.4
135°	38.6	38.6	38.4	38.2	37.9	37.7	37.6	37.5	37.4	37.2	37.0
140°	43.4	43.3	43.2	43.1	43.0	42.8	42.6	42.3	42.3	42.2	42.1
145°	48.4	48.5	48.2	47.9	47.7	47.5	47.5	47.4	47.3	47.2	47.0
150°	51.9	51.7	51.6	51.5	51.3	51.1	51.1	51.1	51.1	51.1	51.1
155°	54.6	54.4	54.2	54.0	54.1	54.1	54.2	54.3	54.2	54.1	54.0
160°	57.1	57.2	57.0	56.7	56.6	56.5	56.5	56.5	56.5	56.6	56.7
165°	58.5	58.4	58.2	57.9	58.0	58.0	58.0	58.0	58.2	58.3	58.3
170°	59.6	59.4	59.3	59.1	59.4	59.6	59.7	59.7	59.7	59.7	59.7
175°	60.0	59.9	59.7	59.5	59.5	59.5	59.5	59.6	59.8	59.9	60.0
180°	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3	60.3



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CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	152.0	152.0	152.0	152.0
5°	119.7	118.3	117.0	118.6
10°	60.2	57.6	55.0	54.9
15°	18.9	18.3	17.8	18.0
20°	13.8	13.7	13.7	13.7
25°	11.4	11.3	11.1	11.1
30°	7.9	7.7	7.5	7.4
35°	5.1	4.8	4.6	4.6
40°	3.3	3.1	2.9	2.9
45°	2.2	2.1	1.9	1.9
50°	1.3	1.2	1.1	1.1
55°	0.7	0.6	0.5	0.5
60°	0.3	0.3	0.3	0.2
65°	0.2	0.1	0.1	0.1
70°	0.1	0.1	0.1	0.0
75°	0.2	0.1	0.1	0.1
80°	0.4	0.4	0.3	0.3
85°	0.2	0.1	0.1	0.1
90°	0.0	0.0	0.0	0.0
95°	0.5	0.5	0.4	0.4
100°	0.8	0.7	0.7	0.7
105°	2.3	2.1	1.9	1.8
110°	6.4	6.1	5.9	5.7
115°	12.7	12.3	12.0	12.1
120°	19.5	19.4	19.2	19.4
125°	25.5	25.4	25.3	25.7
130°	31.2	31.2	31.1	31.3
135°	36.7	36.7	36.7	37.0
140°	42.0	41.9	41.8	42.1
145°	46.9	47.0	47.1	47.4
150°	51.1	51.1	51.0	51.3
155°	53.9	53.9	53.9	54.2
160°	56.8	56.9	56.9	57.2
165°	58.3	58.4	58.5	58.7
170°	59.7	59.8	59.9	60.2
175°	60.1	60.1	60.2	60.4
180°	60.3	60.3	60.3	60.3

(END OF REPORT)