

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: P411971

Luminaire Tested: **CPB-VA1-42-830-U-AD**

Issue Date: 9/23/2020

Test Information

Test Method: LM-79-08
Report Number: P411971
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2009-963-2)
Test Lab: INNOVATION CENTER
Issue Date: 9/23/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CPB-VA1-42-830-U-AD
Description: CLEARPATH BOLLARD LUMINAIRE
3000K, 80 CRI LEDS WITH ASYMMETRIC DOUBLE SIDE LIGHTGUIDE
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 467.1 lumens
Efficiency: N/A
Efficacy: 20.6 lumens/watt
Luminous Opening: (L: 0.33 ' x W: 0 ' x H: 1.79 '
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B0 - U3 - G1

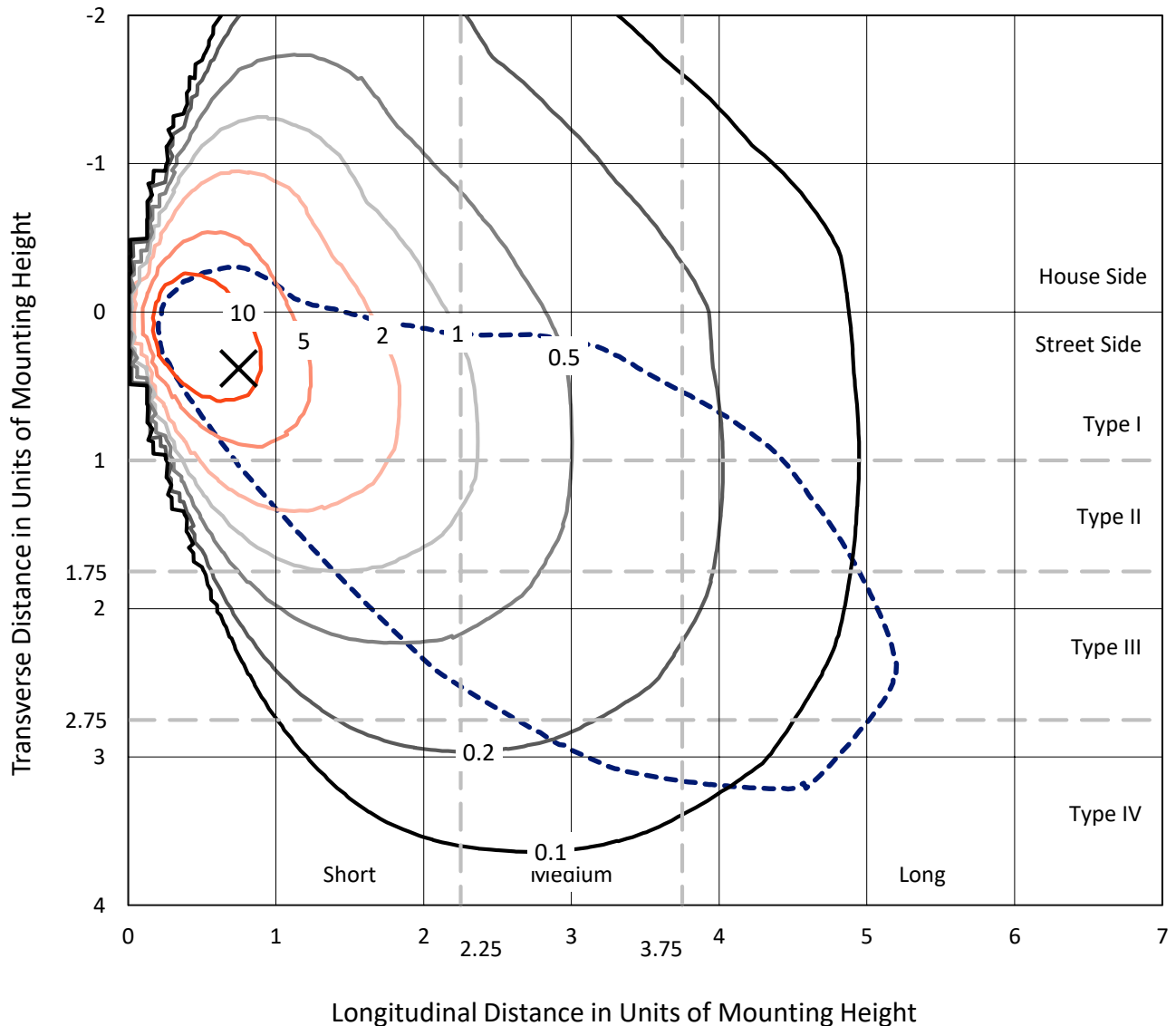
Input Watts (W): 22.7
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

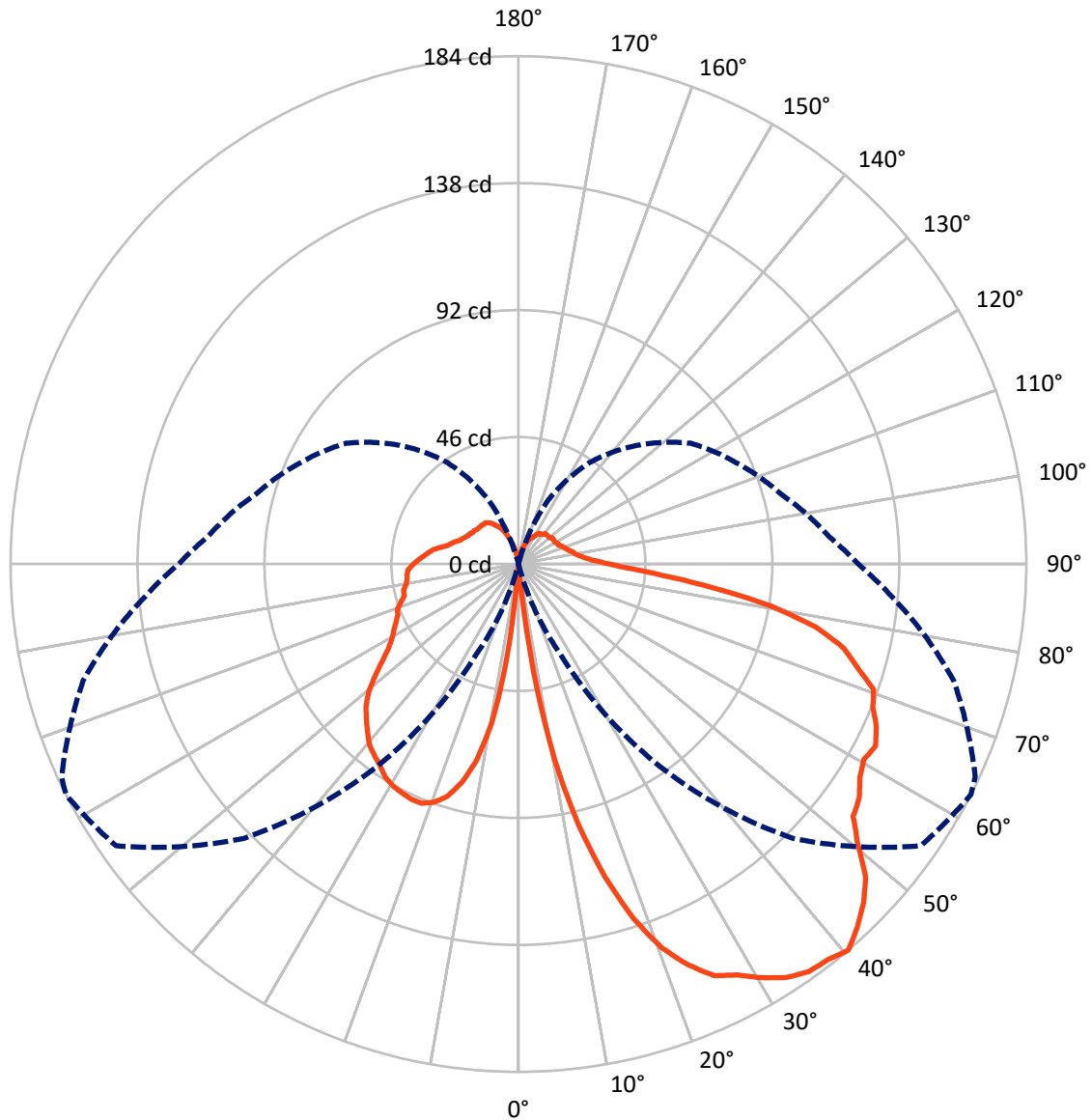


Based on 2.5 foot mounting height. Maximum calculated value = 19.5 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 63-Deg Lateral - - - Horizontal Cone Through 40-Deg Vertical

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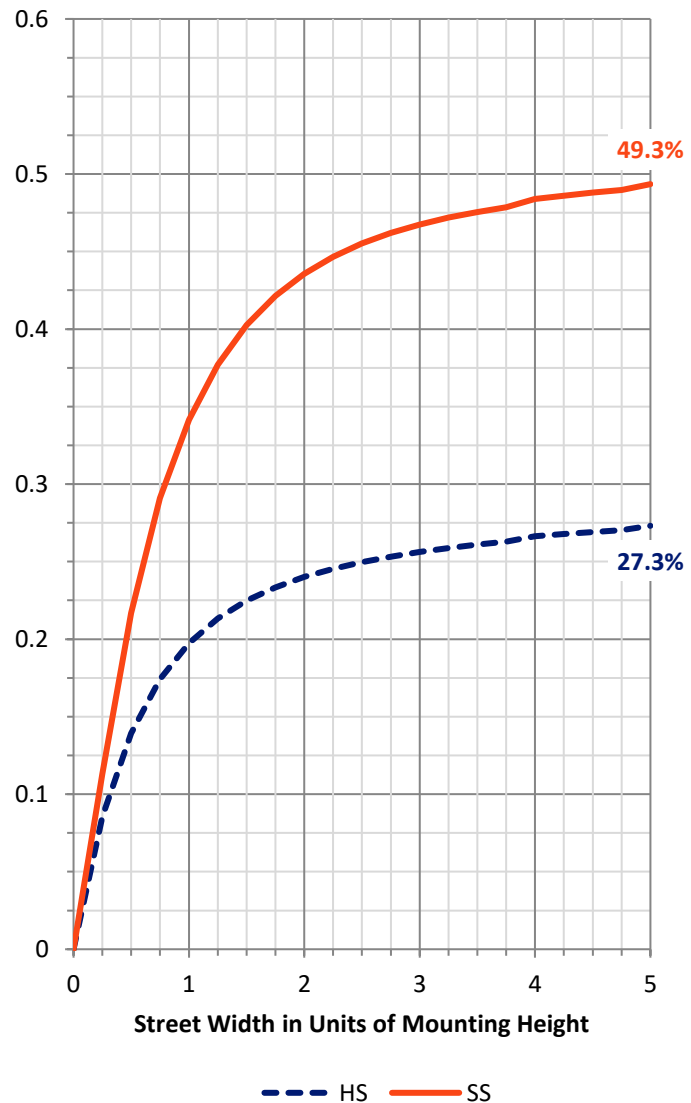
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	135.4	52.7	188.1
	% Fixture	29.0	11.3	40.3
Street Side	Lumens	238.0	41.0	278.9
	% Fixture	51.0	8.8	59.7
Total	Lumens	373.4	93.7	467.1
	% Fixture	79.9	20.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	1.5	0.3
10°-20°	16.6	3.5
20°-30°	35.7	7.7
30°-40°	50.5	10.8
40°-50°	57.9	12.4
50°-60°	58.9	12.6
60°-70°	59.2	12.7
70°-80°	55.1	11.8
80°-90°	38.0	8.1
90°-100°	24.5	5.3
100°-110°	19.2	4.1
110°-120°	15.7	3.4
120°-130°	12.8	2.7
130°-140°	9.9	2.1
140°-150°	6.8	1.4
150°-160°	3.6	0.8
160°-170°	1.1	0.2
170°-180°	0.1	0.0
0°-90°	373.4	79.9
0°-180°	467.1	100.0



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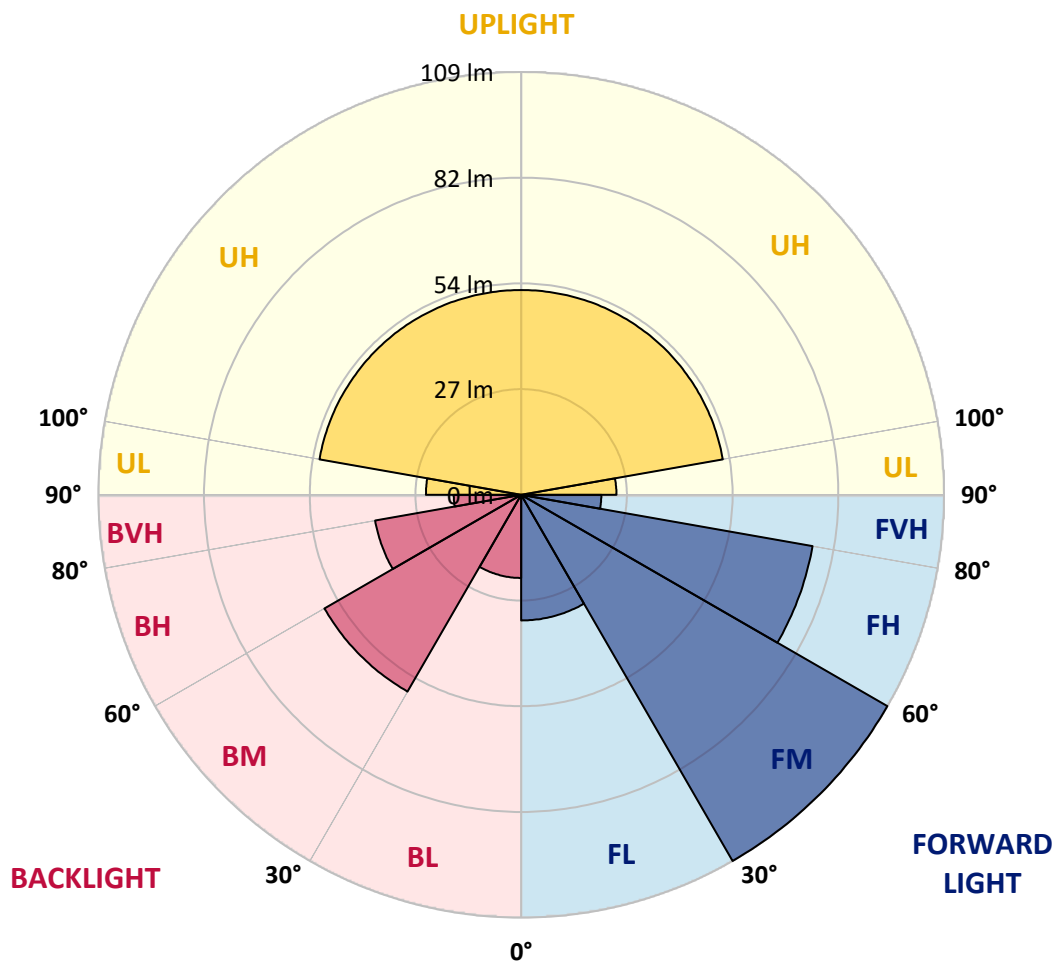
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	32.3	6.9			
FM (30°-60°)	108.8	23.3			
FH (60°-80°)	76.2	16.3			G0/660
FVH (80°-90°)	20.6	4.4			G1/100
BL (0°-30°)	21.4	4.6	B0/110		
BM (30°-60°)	58.5	12.5	B0/220		
BH (60°-80°)	38.2	8.2	B0/110		G0/110
BVH (80°-90°)	17.4	3.7			G1/100
UL (90°-100°)	24.5	5.3		U2/50	
UH (100°-180°)	52.7	11.3		U3/500	

BUG Rating: B0-U3-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.0	0.0	0.0	0.0	0.0	0.0	0.7	1.3	1.3	0.7	0.7
7.5°	0.0	0.0	0.0	0.0	2.7	14.0	29.4	38.7	39.4	46.7	49.4
10°	0.0	0.0	0.0	1.3	18.0	40.7	62.1	72.1	72.8	78.1	78.1
12.5°	0.0	0.0	0.0	6.7	34.7	64.8	88.8	96.8	98.8	100.8	98.8
15°	0.0	0.0	0.0	12.0	48.7	83.4	109.5	117.5	118.8	120.2	114.8
17.5°	0.0	0.0	0.0	17.4	60.1	99.5	126.8	134.8	134.8	134.8	126.8
20°	0.0	0.0	0.0	21.4	68.1	111.5	141.5	148.2	148.2	145.5	135.5
22.5°	0.0	0.0	0.0	24.7	75.4	120.8	151.5	157.5	157.5	152.2	140.9
25°	0.0	0.0	0.7	28.0	80.8	128.2	158.2	164.9	164.9	156.2	143.5
27.5°	0.0	0.0	0.7	30.0	84.1	132.8	163.5	168.2	168.2	160.2	143.5
30°	0.0	0.0	0.7	32.0	86.1	134.8	168.9	173.6	173.6	163.5	144.9
32.5°	0.0	0.0	0.7	33.4	88.1	138.2	172.9	178.2	176.9	164.9	143.5
35°	0.0	0.0	0.7	34.7	88.8	140.9	174.2	180.9	180.2	163.5	141.5
37.5°	0.0	0.0	0.7	35.4	89.5	140.2	175.6	181.6	180.9	164.2	139.5
40°	0.0	0.0	0.7	36.0	89.5	140.2	177.6	183.6	182.2	162.9	135.5
42.5°	0.0	0.0	0.7	36.0	89.5	140.2	174.2	179.6	177.6	158.2	128.8
45°	0.0	0.0	0.7	36.7	89.5	138.2	170.2	174.9	172.2	152.9	124.2
47.5°	0.0	0.0	0.7	36.7	88.8	135.5	168.2	168.9	166.2	143.5	114.8
50°	0.0	0.0	0.7	36.7	88.1	136.8	162.9	158.9	154.9	135.5	109.5
52.5°	0.0	0.0	0.7	37.4	88.1	132.8	154.2	151.5	149.5	131.5	107.5
55°	0.0	0.0	0.7	37.4	85.4	130.2	149.5	149.5	148.2	130.2	104.8
57.5°	0.0	0.0	0.7	37.4	84.1	126.8	148.2	145.5	143.5	126.2	101.5
60°	0.0	0.0	0.7	38.1	82.8	122.2	144.2	143.5	140.9	125.5	98.1
62.5°	0.0	0.0	0.7	38.1	81.4	117.5	144.2	144.9	140.9	123.5	96.8
65°	0.0	0.0	0.7	37.4	79.4	116.2	141.5	142.2	138.8	118.8	94.1
67.5°	0.0	0.0	0.7	36.7	77.4	112.8	138.2	138.2	135.5	114.2	94.8
70°	0.0	0.0	0.7	36.0	74.1	110.8	134.8	136.2	134.2	112.1	96.1
72.5°	0.0	0.0	0.7	34.7	70.1	108.1	128.8	128.2	125.5	108.1	93.5
75°	0.0	0.0	0.7	34.0	64.1	96.8	120.8	121.5	120.2	103.5	86.8
77.5°	0.0	0.0	0.7	32.7	58.1	87.4	109.5	110.1	108.8	94.8	82.8
80°	0.0	0.0	0.7	31.4	52.1	72.8	90.8	92.8	92.8	82.8	74.8
82.5°	0.0	0.0	0.7	30.7	46.7	60.1	69.4	70.8	70.8	66.1	66.8
85°	0.0	0.0	0.7	29.4	42.1	49.4	53.4	52.1	52.1	48.7	53.4
87.5°	0.0	0.0	0.7	28.7	38.7	42.1	41.4	38.7	38.1	34.0	36.7
90°	0.0	0.0	0.7	27.4	35.4	36.7	34.0	31.4	30.0	26.7	26.0
92.5°	0.0	0.0	0.7	26.7	33.4	33.4	30.0	26.7	26.0	22.7	21.4
95°	0.0	0.0	0.7	25.4	32.0	31.4	27.4	24.0	23.4	19.4	18.0
97.5°	0.0	0.0	0.7	24.7	30.7	29.4	25.4	22.0	21.4	17.4	16.0
100°	0.0	0.0	0.7	24.0	29.4	28.0	24.0	20.7	20.0	16.7	14.7
102.5°	0.0	0.0	0.7	22.7	28.0	26.7	22.7	20.0	18.7	15.4	13.4
105°	0.0	0.0	0.7	22.0	27.4	26.0	22.0	18.7	18.0	14.7	12.7
107.5°	0.0	0.0	0.7	21.4	26.0	24.7	21.4	18.0	17.4	14.7	12.7
110°	0.0	0.0	0.7	20.0	24.7	24.0	20.0	17.4	16.7	14.0	12.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	63°	65°	75°	85°
112.5°	0.0	0.0	0.7	18.7	24.0	23.4	19.4	16.7	16.0	13.4	11.3
115°	0.0	0.0	0.7	18.0	23.4	22.7	19.4	16.0	15.4	12.7	11.3
117.5°	0.0	0.0	0.7	17.4	22.0	22.0	18.7	16.0	15.4	12.7	11.3
120°	0.0	0.0	0.7	16.7	21.4	20.7	18.0	15.4	15.4	12.7	11.3
122.5°	0.0	0.0	0.7	15.4	20.0	20.0	18.0	15.4	14.7	12.7	11.3
125°	0.0	0.0	0.7	14.7	19.4	19.4	17.4	15.4	14.7	12.7	11.3
127.5°	0.0	0.0	0.0	13.4	18.7	18.7	17.4	15.4	14.7	12.7	11.3
130°	0.0	0.0	0.7	12.7	17.4	18.0	16.7	14.7	14.7	12.7	12.0
132.5°	0.0	0.0	0.7	11.3	16.0	17.4	16.7	14.7	14.7	12.7	12.0
135°	0.0	0.0	0.7	10.7	14.7	16.7	16.0	14.7	14.7	12.7	12.7
137.5°	0.0	0.0	0.0	9.3	14.0	15.4	15.4	14.7	14.0	12.7	12.7
140°	0.0	0.0	0.0	8.7	12.7	14.0	14.7	14.0	14.0	12.7	12.7
142.5°	0.0	0.0	0.0	7.3	11.3	13.4	14.0	13.4	13.4	12.7	13.4
145°	0.0	0.0	0.0	6.7	10.7	12.0	13.4	13.4	13.4	12.7	13.4
147.5°	0.0	0.0	0.0	6.0	9.3	11.3	12.0	12.7	12.7	12.7	13.4
150°	0.0	0.0	0.0	4.7	8.0	10.0	11.3	11.3	12.0	12.0	12.7
152.5°	0.0	0.0	0.0	4.0	7.3	9.3	10.0	10.7	11.3	11.3	12.0
155°	0.0	0.0	0.0	3.3	6.0	8.0	9.3	10.0	10.0	10.7	11.3
157.5°	0.0	0.0	0.0	2.7	5.3	7.3	8.0	9.3	9.3	10.0	10.7
160°	0.0	0.0	0.0	2.0	4.0	6.0	7.3	8.0	8.0	8.7	9.3
162.5°	0.0	0.0	0.0	1.3	3.3	5.3	6.0	6.7	7.3	8.0	8.0
165°	0.0	0.0	0.0	0.7	2.7	4.0	4.7	6.0	6.0	6.7	6.7
167.5°	0.0	0.0	0.0	0.7	1.3	2.7	4.0	4.7	4.7	4.7	5.3
170°	0.7	0.0	0.0	0.0	0.7	1.3	2.7	2.7	3.3	3.3	3.3
172.5°	0.0	0.0	0.7	0.0	0.0	0.0	0.7	0.7	0.7	0.7	1.3
175°	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	1.3	1.3	2.0	2.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	47.4	48.1	44.1	36.7	26.0	13.4	2.7	0.0	0.0	0.0	0.0
10°	76.1	75.4	68.1	60.7	48.1	30.7	13.4	1.3	0.0	0.0	0.0
12.5°	95.5	93.5	84.8	74.8	62.1	42.1	20.7	4.0	0.0	0.0	0.0
15°	110.1	106.1	96.1	84.1	70.8	50.1	27.4	7.3	0.0	0.0	0.0
17.5°	121.5	115.5	103.5	90.8	76.1	54.7	32.0	10.7	0.0	0.0	0.0
20°	128.8	122.2	108.1	94.1	80.1	58.7	36.0	13.4	0.7	0.0	0.0
22.5°	133.5	125.5	110.8	96.1	82.1	60.7	38.7	15.4	0.7	0.0	0.0
25°	135.5	126.8	110.8	96.1	82.8	62.1	40.7	18.0	0.7	0.0	0.7
27.5°	135.5	126.2	110.1	95.5	82.1	62.1	42.1	19.4	0.7	0.7	0.0
30°	135.5	126.2	108.8	94.8	81.4	62.1	42.7	21.4	0.7	0.7	0.0
32.5°	133.5	124.2	106.8	93.5	80.1	62.1	43.4	22.7	0.7	0.7	0.0
35°	130.2	120.8	104.1	90.8	78.8	62.1	44.1	23.4	0.7	0.7	0.7
37.5°	127.5	117.5	101.5	88.8	77.4	61.4	44.7	24.7	0.7	0.7	0.7
40°	122.8	112.8	98.1	86.8	76.1	60.7	44.7	25.4	0.7	0.7	0.7
42.5°	116.2	106.1	92.8	83.4	74.1	60.1	44.7	26.0	0.7	0.7	0.7
45°	110.1	100.1	87.4	80.1	71.4	58.7	44.7	26.7	0.7	0.7	0.7
47.5°	102.1	92.1	80.8	76.8	69.4	57.4	44.7	26.7	0.7	0.7	0.7
50°	97.5	86.8	72.8	72.1	67.4	56.1	44.1	27.4	1.3	0.7	0.7
52.5°	94.8	84.1	68.8	66.1	64.1	54.7	43.4	27.4	0.7	0.7	0.7
55°	92.8	82.1	66.8	60.1	61.4	53.4	42.7	28.0	1.3	0.7	0.7
57.5°	88.8	79.4	64.8	55.4	58.1	51.4	42.7	28.0	1.3	0.7	0.7
60°	86.8	77.4	63.4	52.7	54.1	49.4	41.4	28.0	1.3	0.7	0.7
62.5°	84.8	76.1	62.1	51.4	49.4	48.1	40.7	28.0	1.3	0.7	0.7
65°	84.1	73.4	60.1	50.1	44.7	46.1	40.1	28.0	1.3	0.7	0.7
67.5°	82.8	73.4	59.4	48.7	42.1	44.1	39.4	28.0	1.3	0.7	0.7
70°	84.1	73.4	58.7	48.1	40.7	42.7	38.1	28.0	1.3	0.7	0.7
72.5°	82.8	73.4	56.7	46.1	38.7	41.4	37.4	28.0	1.3	0.7	0.7
75°	84.8	73.4	55.4	44.1	37.4	40.1	36.7	28.0	0.7	0.7	0.7
77.5°	79.4	76.8	56.1	44.1	36.7	38.7	36.7	28.0	1.3	0.7	0.7
80°	73.4	71.4	54.7	42.7	36.0	37.4	36.0	27.4	1.3	0.7	0.7
82.5°	66.1	66.1	56.7	42.1	34.7	36.0	35.4	27.4	0.7	0.7	0.7
85°	59.4	60.7	54.7	42.1	34.0	34.7	35.4	27.4	0.7	0.7	0.7
87.5°	45.4	54.7	50.1	41.4	34.0	34.0	34.7	27.4	0.7	0.7	0.7
90°	30.7	42.7	46.1	39.4	33.4	33.4	34.0	26.7	0.7	0.7	0.7
92.5°	23.4	31.4	43.4	37.4	32.7	33.4	34.0	26.7	1.3	0.7	0.7
95°	18.7	24.7	37.4	35.4	31.4	32.7	33.4	26.0	0.7	0.7	0.7
97.5°	16.7	20.0	30.7	33.4	30.7	32.0	32.7	26.0	0.7	0.7	0.7
100°	14.7	18.0	26.7	31.4	30.7	32.0	32.7	25.4	0.7	0.7	0.7
102.5°	14.0	16.7	23.4	28.7	29.4	31.4	32.0	25.4	0.7	0.7	0.7
105°	12.7	15.4	21.4	26.0	28.7	31.4	32.0	24.7	0.7	0.7	0.7
107.5°	12.7	14.7	20.0	24.7	28.0	31.4	31.4	24.0	0.7	0.7	0.7
110°	12.0	14.0	19.4	23.4	27.4	30.7	30.7	23.4	0.7	0.7	0.7



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CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	12.0	13.4	18.7	22.0	26.0	30.0	30.0	22.7	0.7	0.7	0.7
115°	11.3	13.4	18.0	21.4	25.4	30.0	29.4	22.0	0.7	0.7	0.7
117.5°	11.3	13.4	17.4	20.7	24.7	29.4	28.7	22.0	0.7	0.7	0.7
120°	11.3	13.4	17.4	20.0	24.0	28.7	28.0	20.7	0.7	0.7	0.7
122.5°	11.3	13.4	16.7	20.0	23.4	28.0	27.4	20.0	0.7	0.7	0.7
125°	12.0	13.4	16.7	19.4	22.7	27.4	26.7	19.4	0.7	0.7	0.7
127.5°	12.0	13.4	16.7	19.4	22.7	26.7	26.0	18.0	0.7	0.7	0.7
130°	12.0	13.4	16.7	18.7	22.7	26.0	24.7	16.7	0.7	0.7	0.7
132.5°	12.7	14.0	16.7	18.7	22.0	24.7	23.4	16.0	0.7	0.7	0.0
135°	12.7	14.0	16.7	18.7	22.0	24.0	22.0	14.7	0.7	0.7	0.7
137.5°	13.4	14.0	16.7	18.7	21.4	22.7	20.7	13.4	0.7	0.7	0.0
140°	13.4	14.0	16.7	18.7	20.7	21.4	18.7	12.0	0.7	0.0	0.0
142.5°	13.4	14.7	16.0	18.7	20.0	20.0	17.4	10.7	0.7	0.0	0.0
145°	13.4	14.0	16.0	18.0	19.4	18.7	16.0	9.3	0.7	0.0	0.0
147.5°	13.4	14.0	16.0	17.4	18.0	17.4	14.0	8.0	0.7	0.7	0.0
150°	13.4	14.0	15.4	16.0	16.7	15.4	12.7	6.7	0.0	0.0	0.0
152.5°	12.7	13.4	14.0	15.4	15.4	14.0	10.7	6.0	0.7	0.0	0.0
155°	12.0	12.7	13.4	14.0	13.4	12.0	9.3	4.7	0.0	0.0	0.0
157.5°	10.7	11.3	12.0	12.7	12.0	10.0	7.3	3.3	0.0	0.0	0.0
160°	10.0	10.0	10.7	10.7	10.0	8.7	6.0	2.7	0.0	0.0	0.0
162.5°	8.7	8.7	8.7	8.7	8.0	6.7	4.7	2.0	0.0	0.0	0.0
165°	6.7	7.3	7.3	7.3	6.7	5.3	3.3	1.3	0.0	0.0	0.0
167.5°	5.3	5.3	5.3	5.3	4.7	3.3	2.0	0.7	0.0	0.0	0.0
170°	4.0	3.3	3.3	3.3	2.7	2.0	0.7	0.0	0.0	0.0	0.0
172.5°	1.3	0.7	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)