

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: McGRAW-EDISON

Report Number: 768856

Luminaire Tested: **BSL-XX-100-HPS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 768856
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: BSL-XX-100-HPS
Description: 100W HPS SQUARE ARCHITECTURAL BOLLARD WITH STACKED LOUVERS
Light Source: 100 WATT HPS COATED ED-17
Ballast/Driver: -

Summary

Lumens per Lamp: 8800 (1 lamp)
Luminaire Lumens: 3766.9 lumens
Efficiency: 42.8%
Efficacy: 37.7 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B2 - U4 - G3

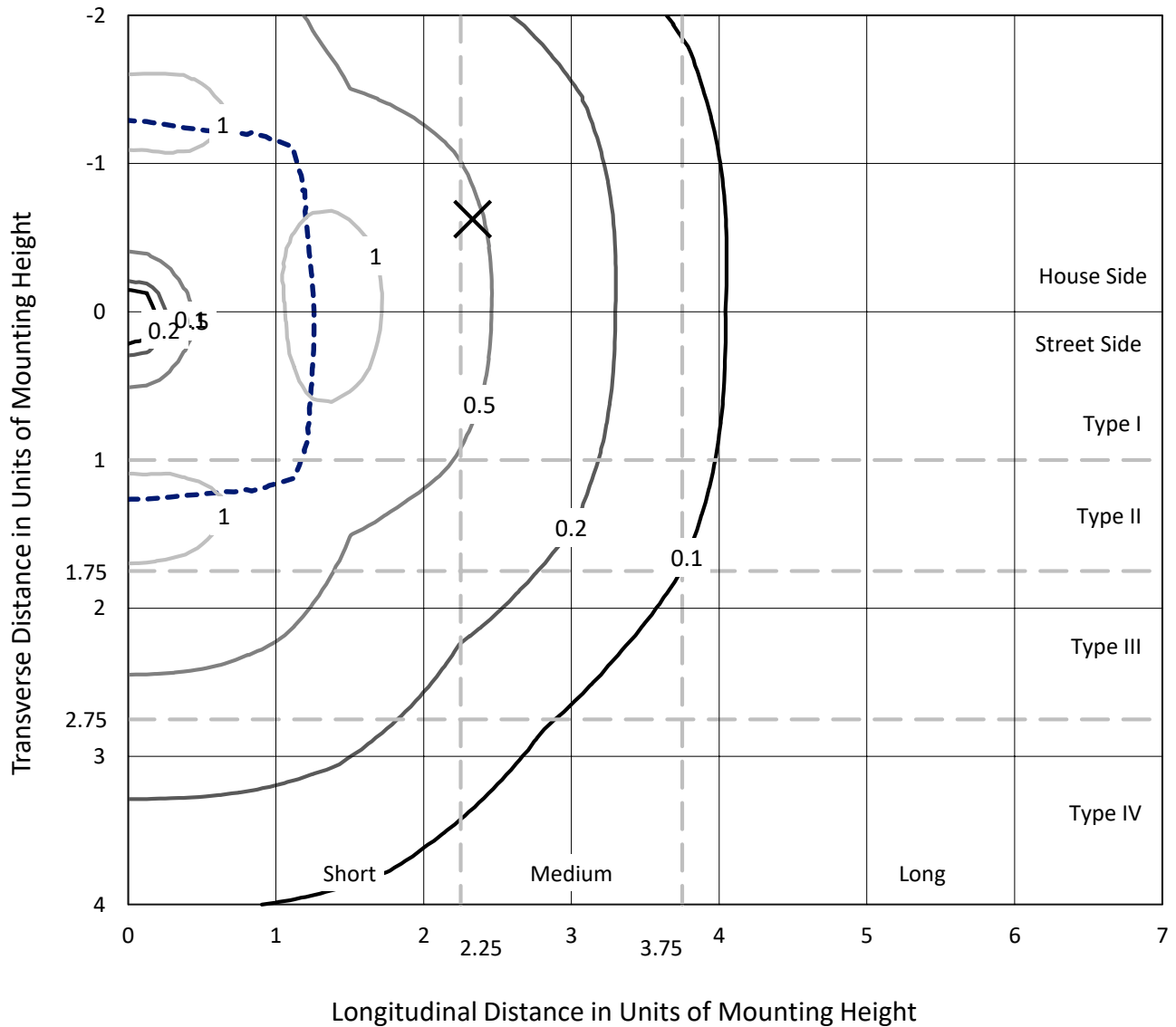
Input Watts (W): 100
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

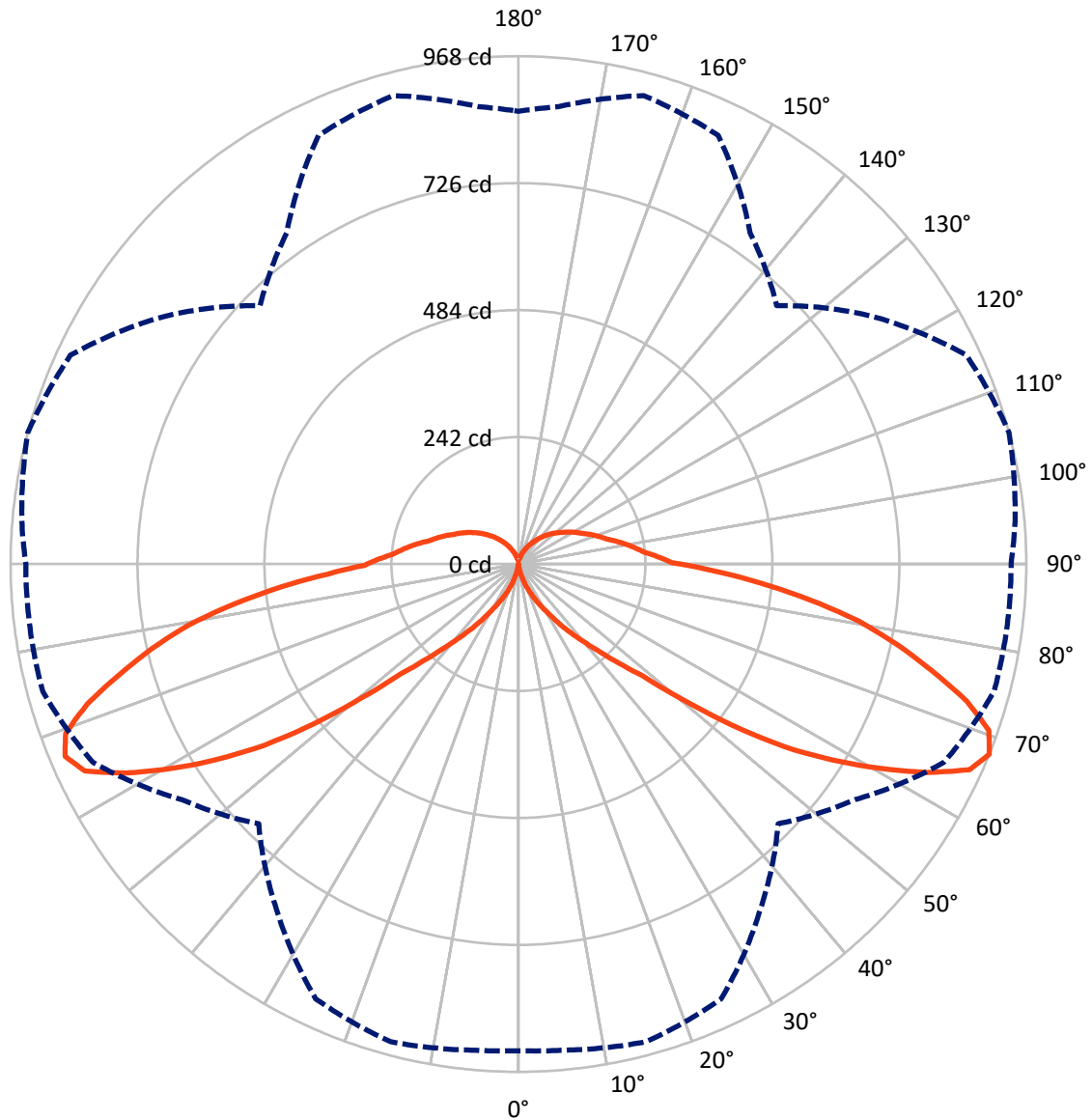
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 1.2 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 105-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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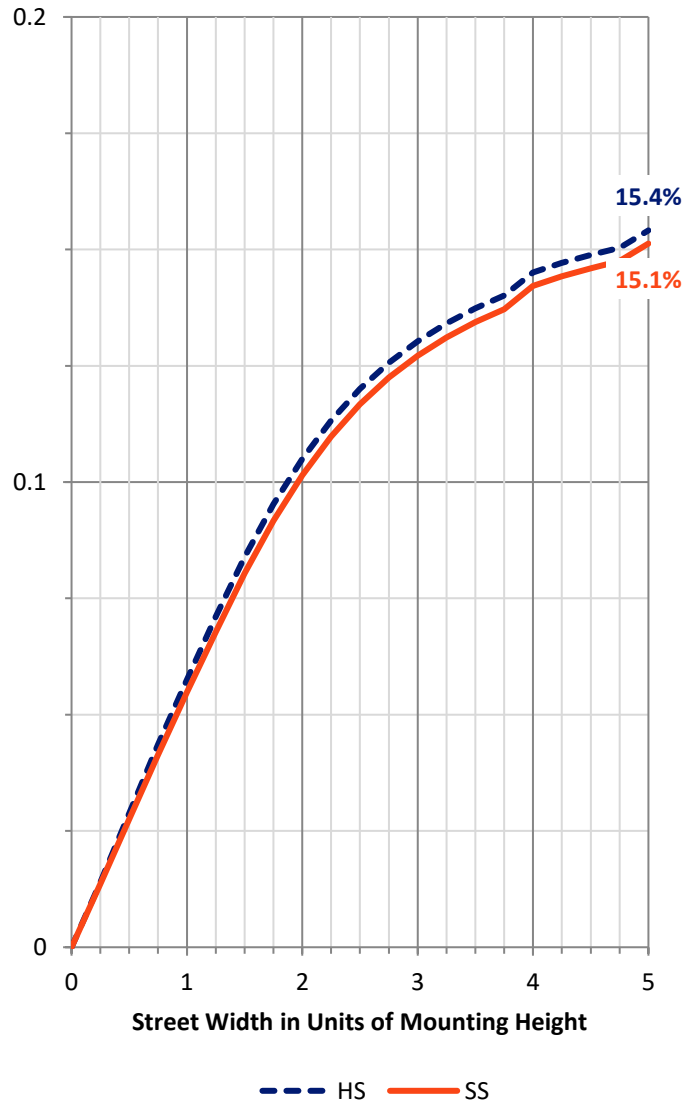
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1479.5	404.4	1884.0
	% Lamp	16.8	4.6	21.4
Street Side	Lumens	1467.4	415.6	1883.0
	% Lamp	16.7	4.7	21.4
Total	Lumens	2946.9	820.0	3766.9
	% Lamp	33.5	9.3	42.8

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.3	0.0	0.0
10°-20°	7.6	0.2	0.1
20°-30°	34.2	0.9	0.4
30°-40°	91.1	2.4	1.0
40°-50°	207.4	5.5	2.4
50°-60°	483.3	12.8	5.5
60°-70°	810.9	21.5	9.2
70°-80°	811.5	21.5	9.2
80°-90°	500.5	13.3	5.7
90°-100°	276.1	7.3	3.1
100°-110°	197.8	5.3	2.2
110°-120°	140.2	3.7	1.6
120°-130°	96.4	2.6	1.1
130°-140°	61.2	1.6	0.7
140°-150°	33.8	0.9	0.4
150°-160°	15.0	0.4	0.2
160°-170°	4.8	0.1	0.1
170°-180°	0.9	0.0	0.0
0°-90°	2946.9	78.2	33.5
0°-180°	3766.9	100.0	42.8



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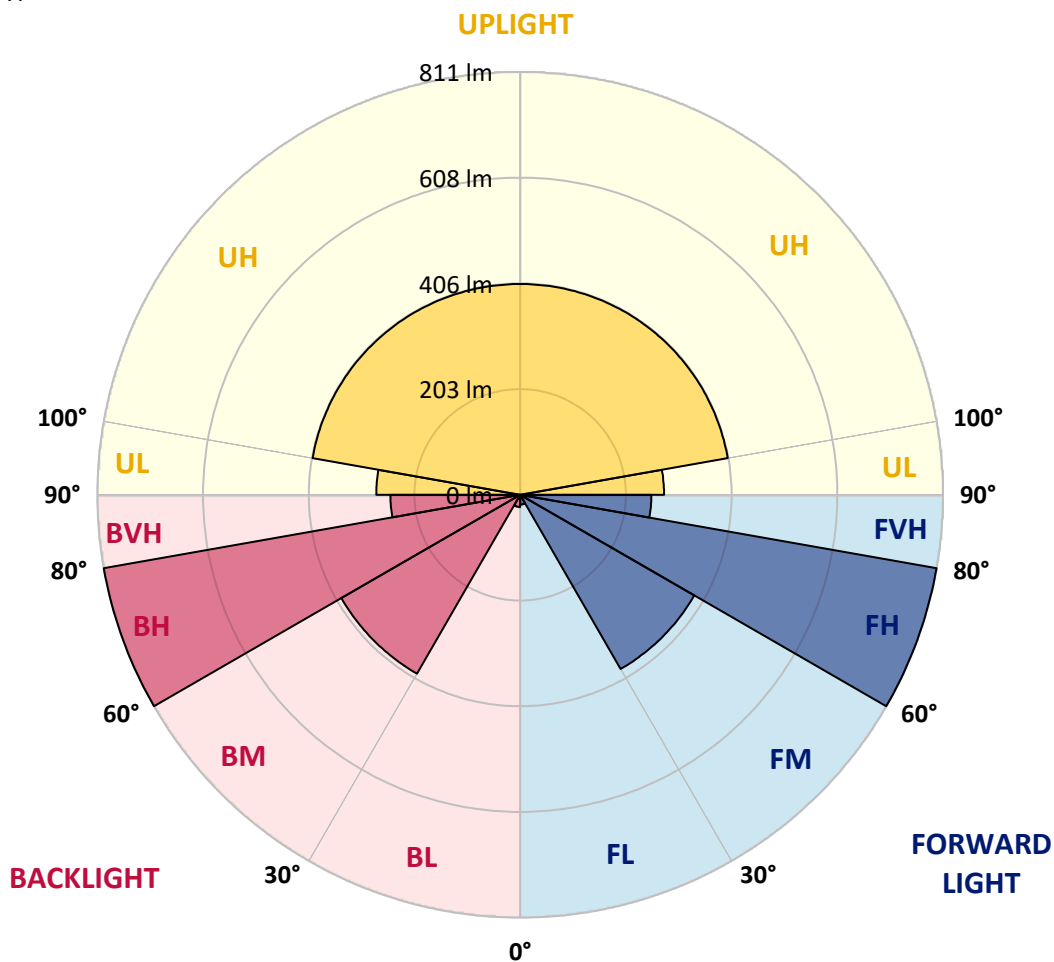
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	18.8	0.2			
FM	(30°-60°)	385.8	4.4			
FH	(60°-80°)	811.2	9.2			G1/1800
FVH	(80°-90°)	251.6	2.9			G3/500
BL	(0°-30°)	23.3	0.3	B0/110		
BM	(30°-60°)	396.1	4.5	B1/1000		
BH	(60°-80°)	811.3	9.2	B2/1000		G1/1800
BVH	(80°-90°)	248.9	2.8			G3/500
UL	(90°-100°)	276.1	3.1		U3/500	
UH	(100°-180°)	404.4	4.6		U3/500	
Trapped Light		5033.1	57.2			

BUG Rating: B2-U4-G3

Type V Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
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	0.0	0.0	0.5	0.0	0.0
7.5°	1.0	1.5	2.0	1.0	1.0	1.5	1.5	2.5	2.5	3.1	3.1
10°	5.1	4.1	4.6	4.1	4.6	5.1	5.6	6.1	6.6	7.1	7.6
12.5°	10.2	10.2	10.2	9.7	9.7	10.2	11.2	12.7	13.2	14.8	15.8
15°	17.3	16.3	16.8	16.3	16.8	16.8	18.8	20.9	22.9	23.9	24.4
17.5°	25.4	25.4	24.9	23.9	24.4	26.5	29.0	31.5	34.1	35.6	35.1
20°	36.6	36.1	35.6	34.6	36.1	38.7	41.2	43.3	45.3	47.3	48.3
22.5°	47.8	47.3	46.8	46.8	48.9	51.9	53.9	56.0	57.5	59.5	60.0
25°	60.0	59.5	59.5	60.0	63.6	65.6	67.7	68.2	69.2	71.2	71.8
27.5°	73.3	73.3	72.8	74.8	79.9	81.9	81.9	81.4	82.9	85.5	86.5
30°	89.6	88.5	87.5	89.6	96.2	97.7	97.2	96.2	98.2	101.8	102.3
32.5°	109.9	108.9	106.9	109.4	113.0	115.0	114.5	114.5	117.0	120.1	121.6
35°	132.3	132.8	130.8	133.3	133.3	132.8	135.4	136.9	139.4	143.0	144.0
37.5°	156.7	156.2	155.2	157.7	155.2	152.2	157.7	160.3	162.3	165.4	166.4
40°	184.2	184.2	184.2	187.3	182.7	178.6	183.7	187.8	188.8	192.9	193.9
42.5°	217.8	216.8	217.3	218.8	210.2	208.1	209.7	216.8	219.8	224.9	225.9
45°	259.5	259.0	258.5	254.4	243.7	240.7	241.2	251.4	259.5	265.6	267.7
47.5°	317.5	313.0	305.8	297.2	281.4	274.8	278.9	295.1	307.4	322.6	326.7
50°	413.2	410.7	394.9	350.1	325.2	312.4	323.1	348.6	392.8	417.3	421.9
52.5°	518.0	514.5	499.2	447.3	374.0	356.7	372.0	438.1	493.1	519.6	523.6
55°	616.8	613.7	602.0	546.5	455.4	409.6	448.3	534.3	594.9	616.8	621.8
57.5°	699.2	698.2	690.0	636.6	536.9	474.3	525.2	621.3	683.4	702.2	706.8
60°	783.7	782.6	774.0	714.5	612.7	548.1	596.9	697.7	768.4	788.2	792.8
62.5°	856.9	858.0	854.9	790.3	680.9	605.0	662.5	771.4	848.8	867.1	869.2
65°	913.9	914.9	919.5	861.5	747.0	654.4	728.2	845.2	916.0	926.7	926.1
67.5°	928.2	930.7	942.9	914.9	804.0	700.2	783.2	895.1	938.9	939.4	939.4
70°	899.7	903.8	927.7	925.1	830.5	733.3	805.0	904.3	921.6	910.9	910.4
72.5°	828.4	834.0	870.7	894.1	818.8	735.3	793.3	871.2	864.1	840.7	837.6
75°	749.1	756.7	796.9	832.0	773.5	708.9	748.5	809.1	790.3	759.2	752.6
77.5°	682.9	691.0	727.7	757.2	708.9	657.5	686.5	736.8	717.0	688.5	681.9
80°	614.7	621.8	652.9	678.8	633.0	587.2	611.7	660.5	639.7	613.2	609.1
82.5°	518.0	525.2	561.3	587.2	551.6	509.4	532.8	570.4	546.5	516.0	510.4
85°	420.3	428.0	465.6	495.6	473.2	440.7	456.5	480.4	453.9	419.3	412.7
87.5°	329.7	337.4	374.5	405.1	399.0	382.7	388.8	393.4	363.8	330.3	323.1
90°	256.5	262.6	296.2	332.3	342.0	337.9	335.9	327.2	293.6	261.1	254.4
95°	212.7	214.7	238.2	262.6	273.8	273.8	272.2	261.6	239.2	217.3	214.7
105°	160.8	163.3	173.5	187.3	196.9	199.5	197.4	188.8	176.1	167.4	165.9
115°	123.1	125.2	132.8	142.5	148.6	151.6	150.1	144.5	135.9	129.8	128.2
125°	94.6	95.7	102.8	108.4	114.0	115.5	115.0	110.9	105.8	99.2	98.7
135°	70.2	70.7	76.3	80.4	84.0	85.0	85.5	81.9	77.9	74.8	73.8
145°	46.8	47.3	51.9	54.4	57.0	58.0	57.5	55.5	52.9	49.9	49.4
155°	28.5	28.0	30.5	33.1	35.1	35.6	35.6	33.6	31.5	30.0	30.0
165°	13.2	13.7	13.7	15.3	15.8	16.8	16.3	15.3	14.8	14.2	13.7



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CATALOG NUMBER: BSL-XX-100-HPS

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
175°	11.2	7.6	7.1	15.3	9.7	13.7	2.0	5.1	8.1	13.2	7.6
180°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1



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CANDELA DISTRIBUTION (continued):

	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
2.5°	0.0	0.0	0.0	1.0	0.0	0.5	0.0	0.5	0.5	1.0
5°	0.0	0.5	1.0	1.0	2.0	2.0	2.5	2.0	2.0	2.0
7.5°	2.5	3.6	4.1	4.6	5.1	5.6	6.1	7.1	7.1	7.1
10°	8.1	8.1	8.7	10.2	10.2	11.7	13.2	13.7	15.3	14.2
12.5°	16.3	15.8	16.8	17.3	18.8	19.8	20.9	22.4	23.4	23.4
15°	25.4	25.4	26.0	27.0	28.5	29.0	30.5	31.0	32.6	33.6
17.5°	36.6	37.1	37.7	38.7	39.2	39.7	40.2	41.2	42.2	42.7
20°	48.9	49.4	51.4	52.9	52.4	52.9	52.4	52.4	53.4	53.9
22.5°	60.0	61.6	65.1	67.2	67.2	65.6	63.6	64.1	64.6	65.1
25°	73.8	74.8	78.9	81.9	81.9	80.4	77.3	76.3	76.3	76.3
27.5°	87.0	89.6	93.6	97.7	97.2	96.7	92.1	90.1	91.1	90.6
30°	102.8	104.3	108.9	112.5	113.5	112.0	107.9	106.4	107.4	107.9
32.5°	122.6	125.2	127.7	129.8	129.8	128.7	127.7	126.2	126.7	128.2
35°	145.5	148.1	150.1	149.6	147.6	150.1	150.6	148.6	148.1	147.6
37.5°	167.9	171.5	173.5	172.0	166.9	173.0	174.5	170.5	168.9	168.9
40°	195.4	198.5	201.5	198.0	194.9	197.4	201.5	196.4	193.9	194.4
42.5°	227.5	230.0	230.0	224.4	223.9	224.4	230.5	227.5	223.9	223.9
45°	269.2	270.2	264.6	256.0	256.0	256.5	266.1	266.1	263.6	263.6
47.5°	327.7	318.6	306.8	293.1	289.5	293.1	307.9	312.4	318.6	320.6
50°	421.9	406.1	365.4	336.4	325.2	335.9	362.8	399.0	402.5	403.0
52.5°	524.6	510.4	458.0	386.7	365.9	384.7	452.9	494.6	496.1	494.6
55°	624.9	614.7	558.7	466.1	416.8	458.5	548.6	593.3	585.7	583.2
57.5°	709.9	704.3	650.3	549.6	480.9	533.8	636.1	676.3	662.5	658.5
60°	796.9	790.8	731.8	625.9	550.1	601.0	707.8	756.7	737.4	732.8
62.5°	875.8	875.3	811.1	694.1	605.0	658.0	777.6	832.0	805.5	797.9
65°	934.8	945.5	886.5	762.8	652.4	716.5	847.8	896.1	859.0	848.8
67.5°	950.6	968.4	942.4	823.4	696.6	770.4	901.7	924.6	875.3	863.0
70°	922.1	951.6	952.6	852.4	727.2	796.4	915.5	912.4	853.4	840.7
72.5°	849.3	893.6	919.0	840.1	729.2	788.2	883.9	858.0	788.7	776.5
75°	765.9	814.7	850.3	789.3	702.2	744.5	820.3	785.2	715.0	703.3
77.5°	695.1	738.4	769.4	717.0	650.3	683.9	744.5	713.9	651.9	638.1
80°	620.3	657.0	686.0	638.6	579.1	610.1	664.6	635.6	582.7	571.0
82.5°	519.6	559.2	590.3	553.7	500.2	527.7	573.0	543.0	489.5	477.3
85°	423.4	463.1	494.1	470.7	429.5	452.4	485.0	453.9	402.5	390.8
87.5°	332.8	371.0	401.0	393.9	372.5	383.7	396.4	366.9	321.6	310.4
90°	261.6	292.6	323.6	330.8	325.7	323.1	316.0	283.4	249.3	242.2
95°	217.8	239.7	259.0	267.7	265.1	261.1	249.3	224.9	201.0	198.5
105°	167.9	176.1	186.8	194.4	194.9	190.8	181.2	167.9	156.7	153.7
115°	129.8	135.4	142.5	147.6	148.1	144.5	137.9	128.7	121.1	118.1
125°	99.7	103.8	108.4	112.5	113.5	110.9	105.3	99.7	93.1	90.6
135°	73.8	77.3	80.4	82.4	82.4	80.9	77.9	74.3	67.7	67.2
145°	49.4	51.4	53.4	55.5	55.0	54.4	51.4	48.9	45.3	43.8
155°	29.5	30.5	31.5	33.1	33.1	32.1	30.0	28.5	26.5	25.4
165°	13.2	13.7	13.7	13.7	14.2	14.2	12.2	11.7	10.2	10.2



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
175°	1.0	7.6	1.0	10.7	8.1	10.2	4.1	9.7	1.0	1.0
180°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1

(END OF REPORT)