

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: 768855

Luminaire Tested: **BSL-XX-50-HPS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 768855
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: BSL-XX-50-HPS
Description: 50W HPS SQUARE ARCHITECTURAL BOLLARD WITH STACKED LOUVERS
Light Source: 50 WATT HPS COATED ED-17
Ballast/Driver: -

Summary

Lumens per Lamp: 3800 (1 lamp)
Luminaire Lumens: 1608.7 lumens
Efficiency: 42.3%
Efficacy: 32.2 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B1 - U3 - G2

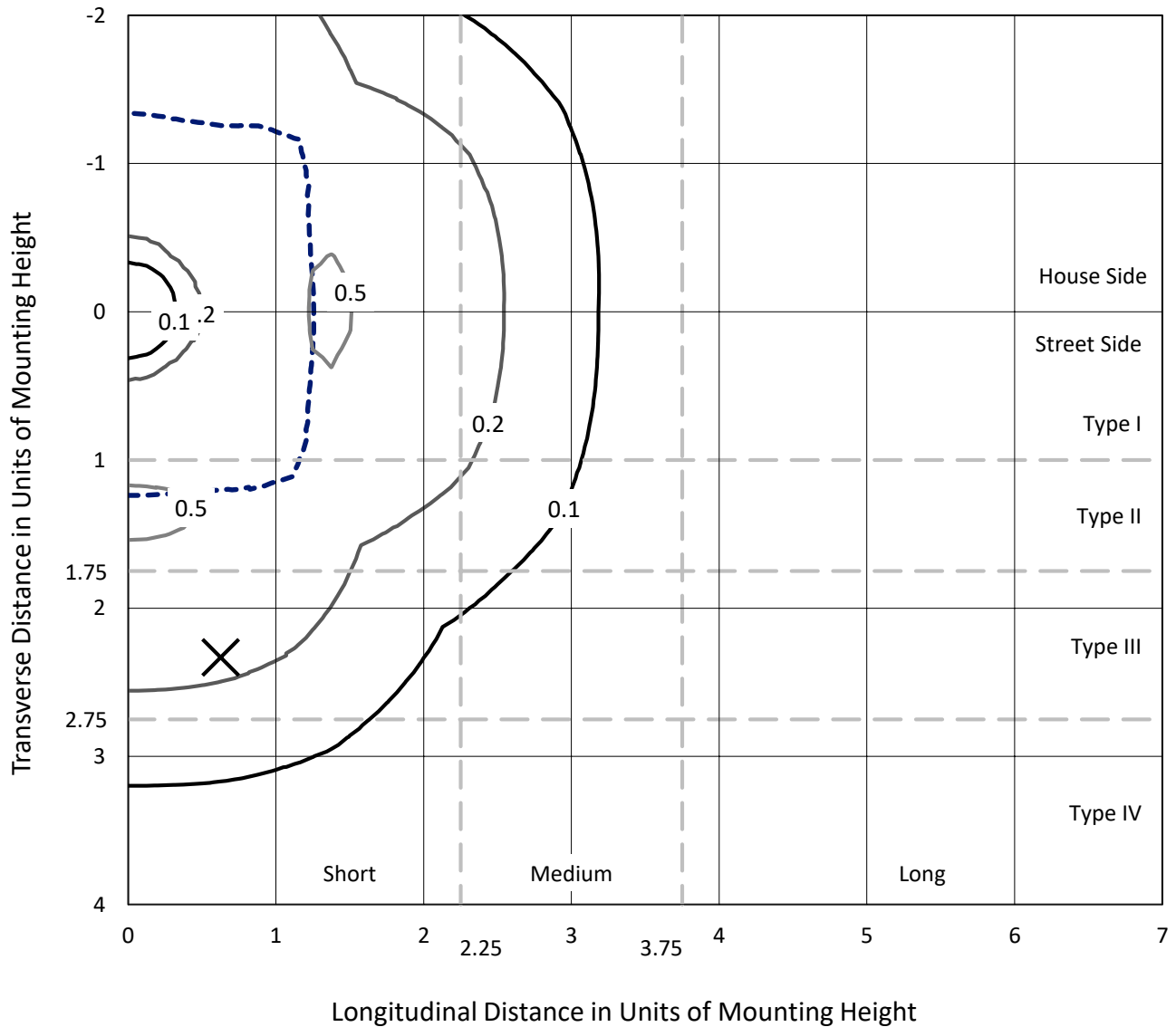
Input Watts (W): 50
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

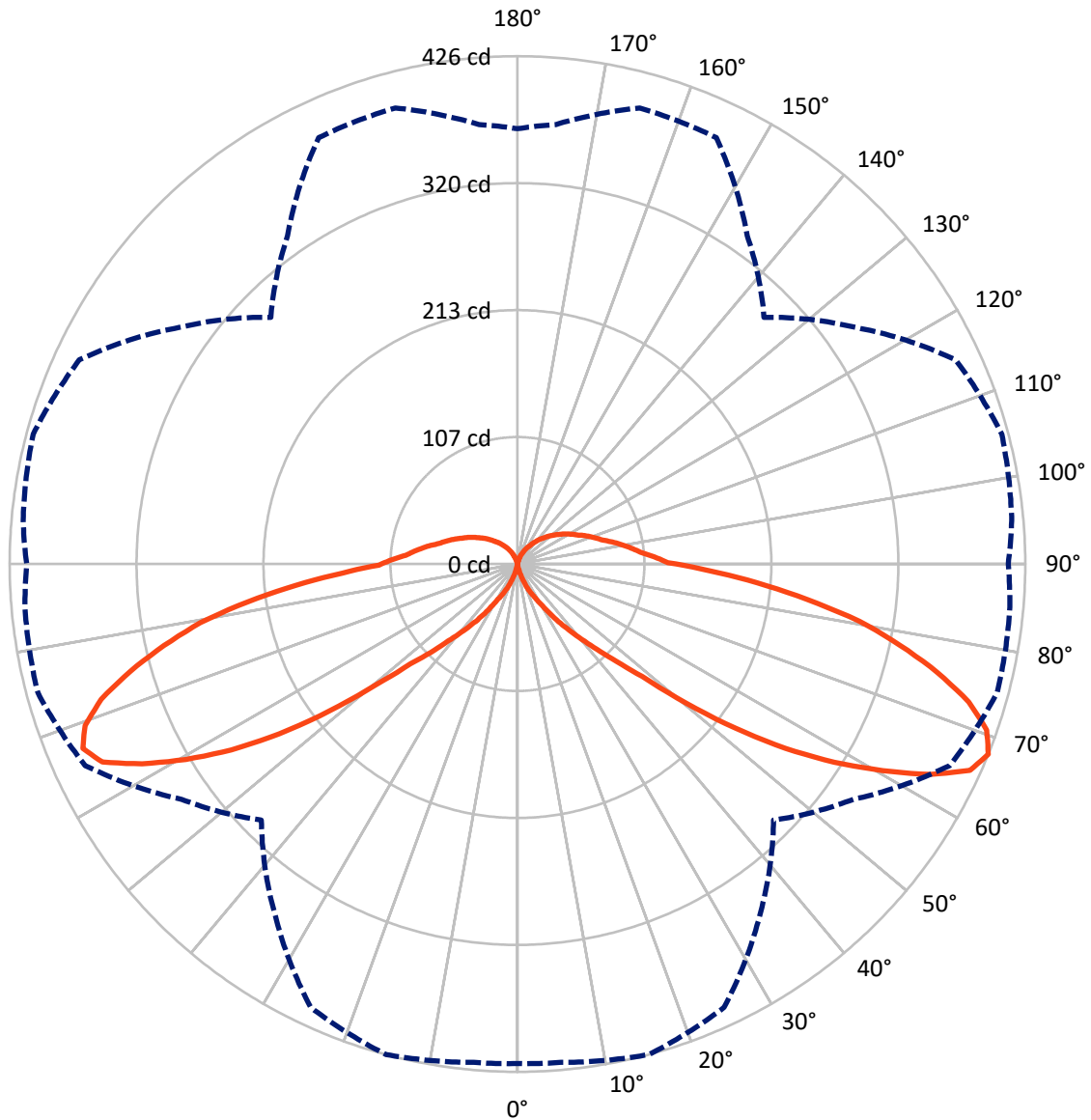
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.5 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 15-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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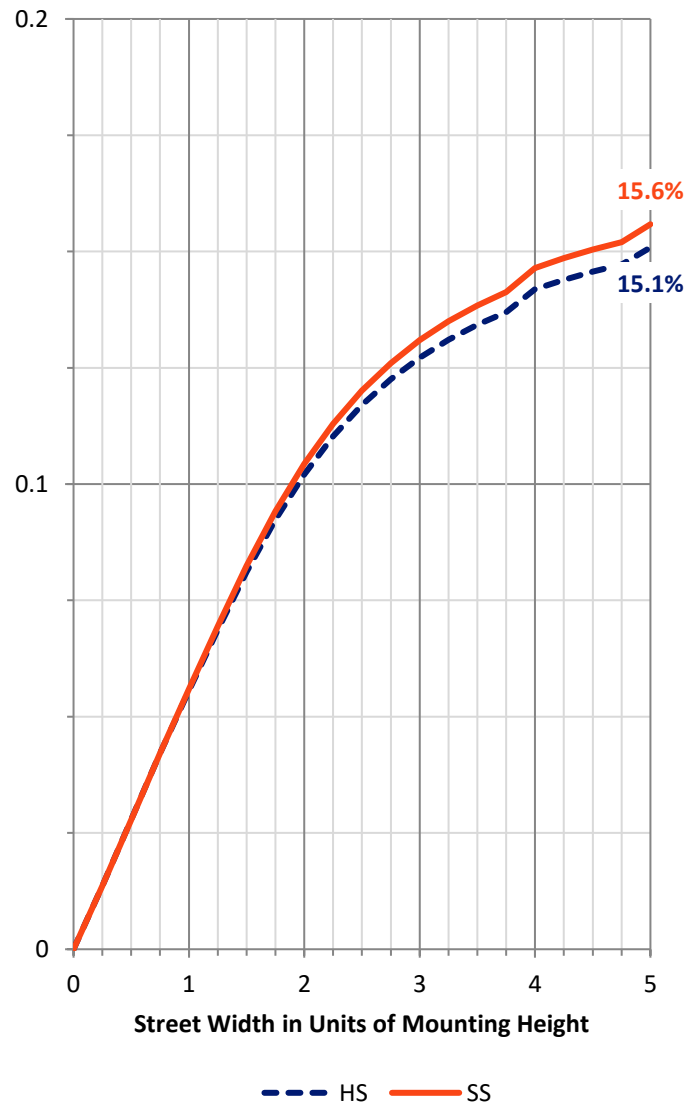
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	624.7	162.7	787.5
	% Lamp	16.4	4.3	20.7
Street Side	Lumens	651.1	170.1	821.2
	% Lamp	17.1	4.5	21.6
Total	Lumens	1275.9	332.9	1608.7
	% Lamp	33.6	8.8	42.3

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.0	0.0	0.0
10°-20°	2.2	0.1	0.1
20°-30°	12.5	0.8	0.3
30°-40°	36.3	2.3	1.0
40°-50°	87.4	5.4	2.3
50°-60°	210.5	13.1	5.5
60°-70°	354.9	22.1	9.3
70°-80°	356.3	22.2	9.4
80°-90°	215.7	13.4	5.7
90°-100°	116.4	7.2	3.1
100°-110°	82.3	5.1	2.2
110°-120°	57.1	3.5	1.5
120°-130°	38.1	2.4	1.0
130°-140°	23.4	1.5	0.6
140°-150°	12.3	0.8	0.3
150°-160°	4.8	0.3	0.1
160°-170°	1.1	0.1	0.0
170°-180°	0.1	0.0	0.0
0°-90°	1275.9	79.3	33.6
0°-180°	1608.7	100.0	42.3

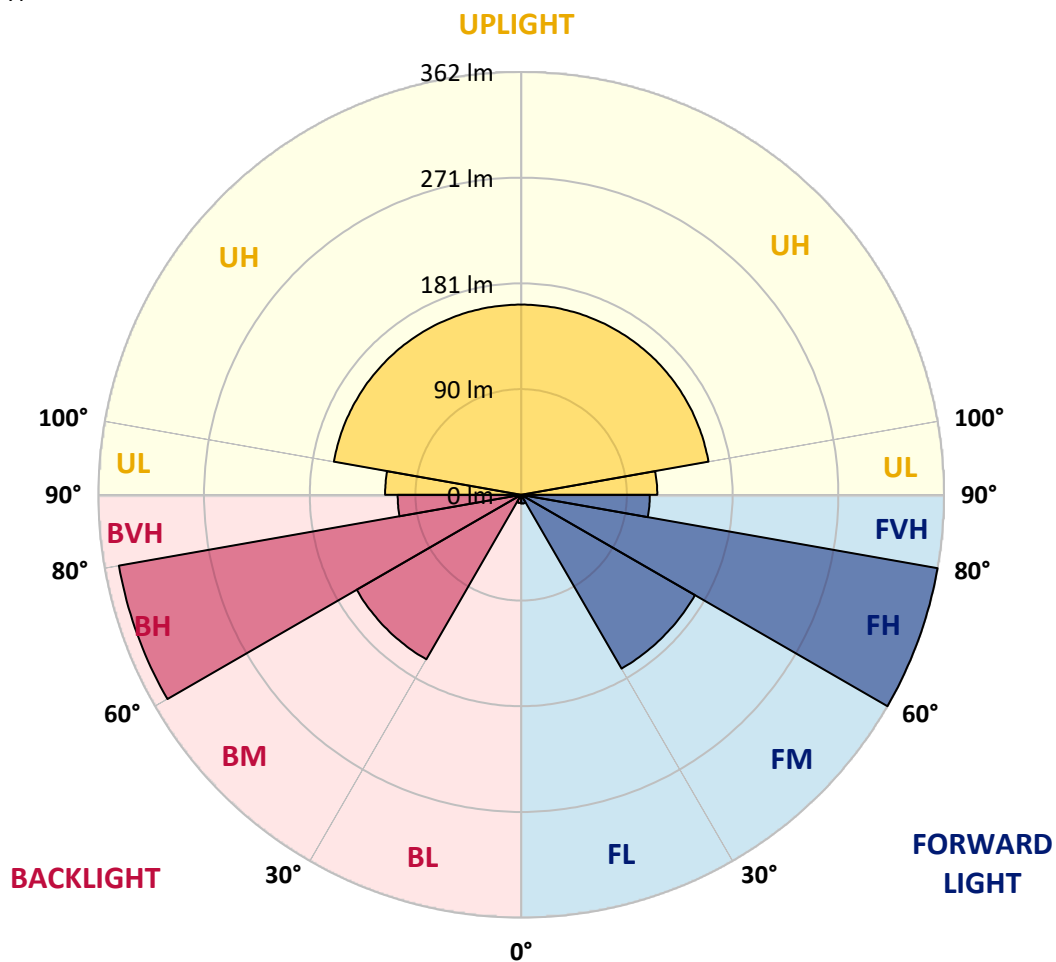


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	7.6	0.2			
FM (30°-60°)	171.7	4.5			
FH (60°-80°)	361.8	9.5			G0/660
FVH (80°-90°)	110.1	2.9			G2/225
BL (0°-30°)	7.1	0.2	B0/110		
BM (30°-60°)	162.5	4.3	B0/220		
BH (60°-80°)	349.5	9.2	B1/500		G0/660
BVH (80°-90°)	105.7	2.8			G2/225
UL (90°-100°)	116.4	3.1		U3/500	
UH (100°-180°)	162.7	4.3		U3/500	
Trapped Light	2191.3	57.7			

BUG Rating: B1-U3-G2
 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	0.0	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.0	0.0	0.0	0.0	0.5	0.5	1.0	1.0	1.0	1.5	1.0
12.5°	2.0	2.5	2.5	2.0	1.5	1.5	2.5	2.5	3.4	2.5	3.4
15°	7.9	7.4	7.9	6.9	6.4	6.4	6.9	6.4	7.4	7.4	6.9
17.5°	11.8	12.3	11.8	11.3	11.3	10.8	10.3	9.8	10.8	10.8	10.8
20°	16.7	16.7	16.7	16.2	16.2	16.2	14.7	14.7	14.7	15.2	14.7
22.5°	21.6	21.6	22.6	22.6	22.6	22.1	21.1	19.6	19.6	20.1	21.1
25°	27.5	27.5	27.5	28.0	28.5	28.0	27.5	25.5	24.5	25.0	26.0
27.5°	33.4	32.9	33.4	33.9	34.9	34.9	34.4	31.9	30.4	30.4	30.9
30°	39.3	39.8	39.3	40.3	41.2	41.2	40.7	38.8	36.8	37.8	38.3
32.5°	48.1	48.1	48.1	48.6	48.6	49.1	48.6	47.1	46.1	47.6	47.1
35°	58.9	59.4	59.4	58.4	57.9	56.9	57.9	57.4	56.9	57.4	57.9
37.5°	69.7	70.2	70.2	69.7	67.7	65.3	66.8	68.2	67.7	67.7	68.2
40°	82.5	83.0	83.0	82.0	79.5	77.6	78.5	81.0	80.0	80.5	81.0
42.5°	98.2	98.7	97.7	95.2	91.8	90.8	91.8	94.7	95.2	95.2	95.7
45°	116.8	117.3	116.3	111.9	106.5	105.0	106.0	110.9	113.9	114.4	113.9
47.5°	150.2	149.2	140.9	131.1	123.7	120.3	123.2	130.1	134.5	140.9	141.4
50°	192.4	191.4	183.6	161.5	143.8	137.0	142.8	155.6	175.7	183.6	185.1
52.5°	237.6	236.1	228.7	203.2	168.4	157.6	165.4	196.8	220.4	230.2	231.7
55°	278.8	278.3	272.9	246.4	204.2	181.1	199.8	240.0	265.6	273.4	274.4
57.5°	318.1	318.1	313.7	286.7	240.0	212.1	234.1	278.3	305.3	313.2	313.2
60°	356.4	355.4	352.0	321.0	272.4	242.0	265.1	313.7	343.1	349.0	349.5
62.5°	389.7	389.3	388.8	355.4	302.9	265.1	292.6	345.6	376.5	382.4	381.9
65°	413.3	414.3	417.2	388.3	329.9	284.2	320.0	377.0	405.9	407.9	405.9
67.5°	419.2	419.7	426.1	410.4	355.9	303.8	344.1	400.1	416.7	414.8	411.8
70°	405.5	407.4	417.7	412.8	365.7	317.1	353.9	404.5	408.4	402.0	399.6
72.5°	378.0	380.4	396.1	399.6	360.8	319.6	350.5	391.7	386.3	374.0	371.6
75°	341.6	345.6	364.2	375.0	342.1	309.7	331.3	365.7	355.9	339.7	337.2
77.5°	307.3	310.7	328.4	340.2	312.7	287.6	304.3	333.3	322.5	306.8	303.4
80°	271.0	275.9	291.1	303.4	280.3	256.2	271.9	298.0	287.2	273.4	271.0
82.5°	223.8	227.3	244.9	258.2	239.5	220.4	234.6	254.8	243.5	227.3	224.8
85°	181.6	184.1	201.7	216.0	204.2	189.0	200.3	214.0	200.8	184.6	181.6
87.5°	142.4	145.3	161.0	175.7	172.8	164.4	169.3	173.8	160.0	144.8	141.4
90°	110.0	112.4	126.2	141.4	145.3	143.8	143.3	140.4	124.7	111.4	108.0
95°	92.3	93.3	103.6	113.4	117.8	117.3	115.8	110.4	99.2	89.3	88.4
105°	69.7	70.7	74.6	80.0	83.9	83.9	83.0	78.5	72.2	67.7	66.8
115°	53.0	53.5	56.4	59.9	62.3	62.8	61.4	58.4	54.0	50.1	50.1
125°	39.3	39.8	42.7	44.7	46.1	45.7	45.2	42.7	40.3	37.3	36.8
135°	28.5	28.5	30.4	31.9	32.4	32.9	31.9	30.4	29.0	26.5	26.0
145°	17.7	18.2	19.1	20.6	21.1	21.1	20.6	19.6	18.2	16.2	16.2
155°	9.8	9.8	10.3	10.8	11.3	11.3	10.8	10.3	9.3	8.3	7.9
165°	2.0	2.0	2.5	2.5	2.5	2.5	2.0	2.0	1.5	1.5	1.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
175°	0.0	0.0	0.0	1.5	1.0	0.0	0.0	1.0	0.5	1.0	0.5
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0



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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	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	0.0	0.0
7.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	1.0	1.0	1.0	0.5	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	3.4	2.9	2.5	2.0	1.5	1.5	1.0	1.5	1.5	1.0
15°	7.4	6.4	6.4	6.4	6.4	5.4	5.9	6.4	5.9	6.9
17.5°	11.3	10.3	10.3	9.8	9.3	9.8	10.3	10.3	9.8	10.8
20°	15.2	15.2	14.2	14.2	14.7	14.7	14.2	14.7	14.2	14.7
22.5°	20.1	20.1	19.6	19.6	20.6	20.6	20.1	19.6	19.1	19.6
25°	25.5	25.0	24.5	26.0	26.0	26.5	25.5	24.5	24.1	23.6
27.5°	30.4	30.4	30.9	31.9	32.4	31.9	30.9	29.5	29.0	29.5
30°	37.8	37.3	36.8	38.3	38.3	37.8	35.8	35.3	34.9	35.3
32.5°	47.6	46.1	45.7	45.7	45.7	45.7	44.7	43.7	43.7	44.2
35°	57.4	56.4	56.9	55.0	53.5	54.5	54.0	53.5	53.0	53.0
37.5°	68.2	67.2	67.7	64.8	61.8	62.8	64.3	63.3	61.8	61.8
40°	81.0	80.0	80.0	76.1	73.6	74.6	75.1	74.1	73.1	72.6
42.5°	95.7	94.7	93.3	87.9	85.9	85.4	87.9	86.9	86.4	85.4
45°	114.4	113.4	109.0	103.1	101.1	100.1	102.1	104.1	103.1	102.1
47.5°	140.4	134.5	128.6	119.3	113.9	115.4	120.8	122.7	122.2	122.7
50°	184.1	175.7	152.7	138.9	130.6	134.5	142.8	155.6	159.0	158.1
52.5°	230.7	221.9	196.3	161.0	149.7	154.1	181.1	200.3	201.7	201.3
55°	274.4	267.0	240.5	195.9	172.3	186.0	226.8	245.4	242.0	240.5
57.5°	313.7	309.2	281.8	231.7	199.3	221.4	268.5	286.2	278.3	275.9
60°	351.0	347.5	317.6	265.1	229.2	254.3	304.8	323.0	311.7	308.3
62.5°	383.9	381.4	351.5	294.0	252.3	283.7	336.7	356.9	342.1	337.7
65°	408.9	409.9	382.9	321.0	273.4	310.2	370.6	385.8	365.2	360.3
67.5°	416.3	420.7	405.5	346.1	292.6	336.2	394.7	396.1	370.1	365.2
70°	404.0	412.8	407.9	357.8	306.8	347.0	397.1	387.3	359.3	352.4
72.5°	377.5	391.7	395.1	352.9	308.8	342.6	384.3	367.2	335.8	328.9
75°	342.6	360.3	369.1	332.3	298.9	325.4	358.8	337.2	305.3	297.5
77.5°	308.8	325.0	334.3	302.4	276.8	297.5	325.0	304.3	275.9	269.0
80°	275.4	290.1	298.0	268.5	246.4	263.6	289.1	270.5	245.9	241.5
82.5°	229.2	244.9	253.8	231.7	212.1	227.3	245.9	228.7	203.7	199.3
85°	186.0	201.3	211.1	196.8	181.1	191.4	203.7	186.5	164.4	159.0
87.5°	145.8	160.5	170.8	164.9	156.1	160.0	163.0	147.3	128.1	124.7
90°	111.4	126.2	138.4	139.4	137.0	136.5	132.0	116.3	101.1	97.2
95°	89.8	99.2	108.0	111.4	111.4	110.0	105.5	93.8	83.9	83.4
105°	67.7	72.2	76.6	79.0	80.0	78.5	74.6	68.2	64.8	63.8
115°	51.1	54.0	56.9	59.9	60.4	58.9	56.0	52.0	49.1	48.1
125°	38.3	39.8	42.2	44.2	44.7	43.7	41.7	38.8	36.8	36.3
135°	26.5	28.5	30.4	30.9	31.9	31.4	29.9	27.5	26.5	26.5
145°	16.7	18.2	20.1	20.1	20.6	19.6	19.6	18.2	16.7	15.7
155°	8.3	9.3	10.3	10.8	10.8	10.8	10.8	9.8	8.8	8.8
165°	1.5	1.5	2.5	2.0	2.9	2.5	2.0	2.0	2.0	2.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
175°	0.0	0.0	2.5	0.0	1.5	1.5	1.0	1.0	0.0	2.0
180°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0

(END OF REPORT)