

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: 768857

Luminaire Tested: **BSL-XX-70-MP**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: 768857
Test Lab:
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: BSL-XX-70-MP
Description: 70W MP SQUARE ARCHITECTURAL BOLLARD WITH STACKED LOUVERS
Light Source: 70 WATT PULSE-START COATED ED-17 VBD BURN
Ballast/Driver: -

Summary

Lumens per Lamp: 6000 (1 lamp)
Luminaire Lumens: 2385.6 lumens
Efficiency: 39.8%
Efficacy: 34.1 lumens/watt
Luminous Opening: Point Source (0' x 0' x 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B2 - U3 - G2

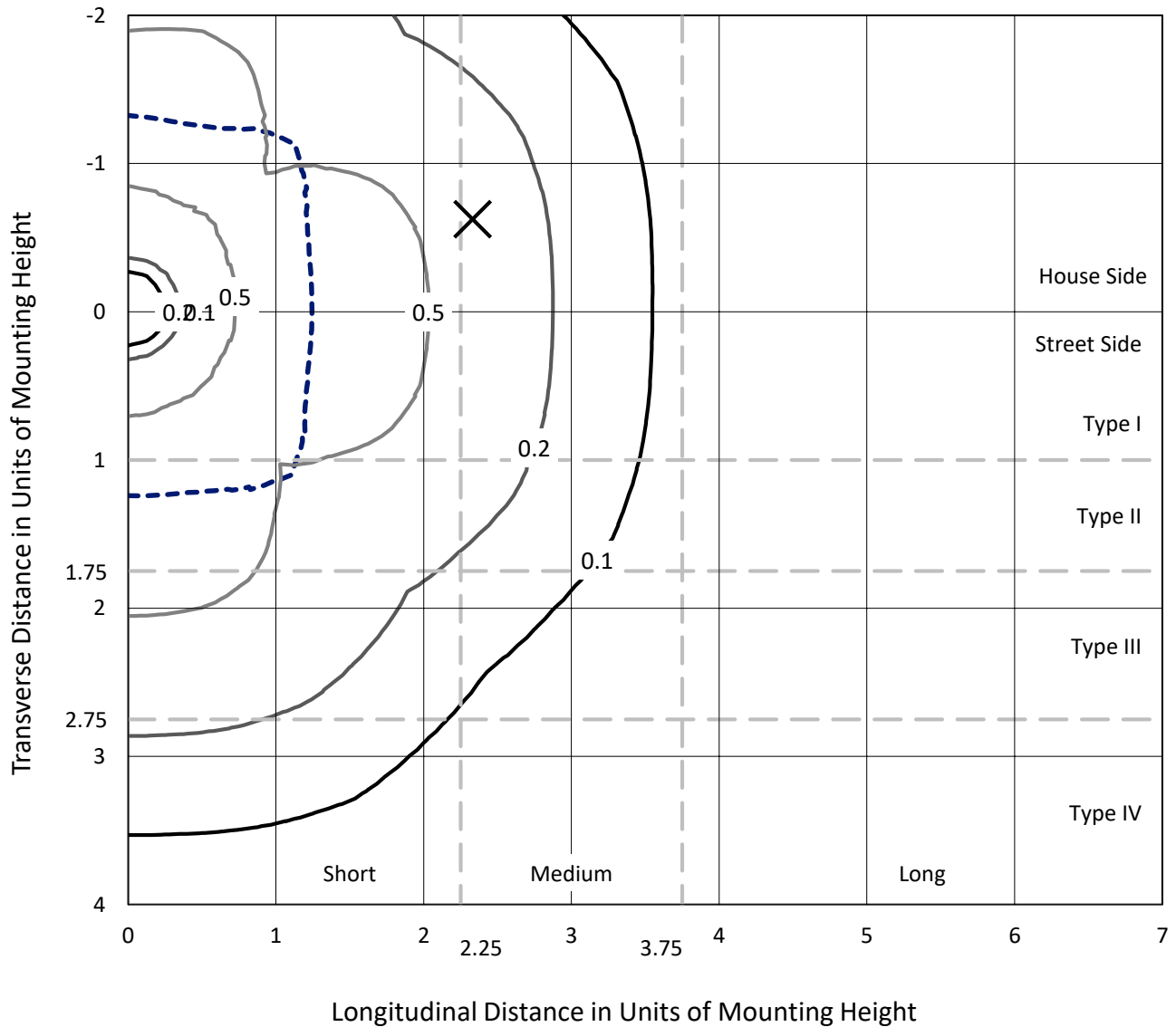
Input Watts (W): 70
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

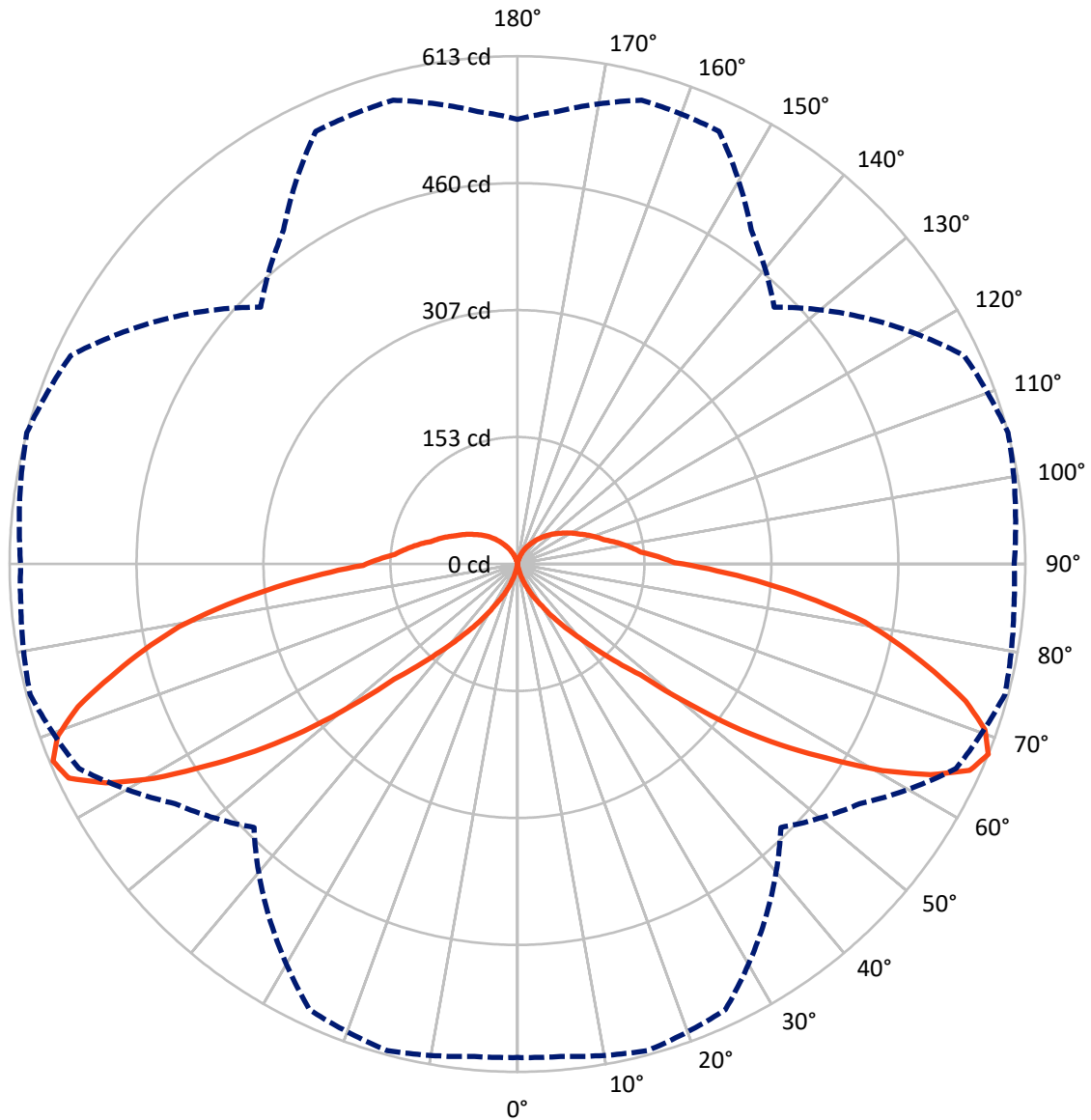
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.8 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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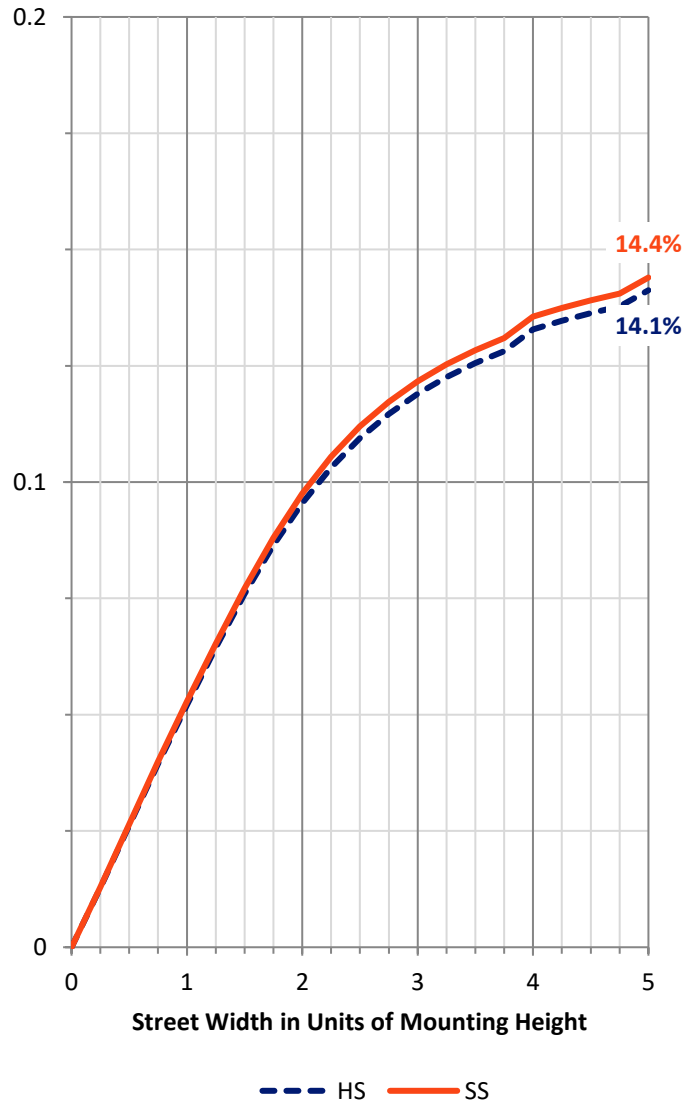
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	926.2	255.8	1181.9
	% Lamp	15.4	4.3	19.7
Street Side	Lumens	948.1	255.5	1203.6
	% Lamp	15.8	4.3	20.1
Total	Lumens	1874.3	511.3	2385.6
	% Lamp	31.2	8.5	39.8

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.1	0.0	0.0
10°-20°	4.2	0.2	0.1
20°-30°	20.5	0.9	0.3
30°-40°	56.4	2.4	0.9
40°-50°	131.2	5.5	2.2
50°-60°	308.0	12.9	5.1
60°-70°	521.1	21.8	8.7
70°-80°	515.1	21.6	8.6
80°-90°	317.7	13.3	5.3
90°-100°	174.0	7.3	2.9
100°-110°	124.1	5.2	2.1
110°-120°	87.6	3.7	1.5
120°-130°	59.8	2.5	1.0
130°-140°	37.6	1.6	0.6
140°-150°	20.5	0.9	0.3
150°-160°	8.7	0.4	0.1
160°-170°	2.4	0.1	0.0
170°-180°	0.3	0.0	0.0
0°-90°	1874.3	78.6	31.2
0°-180°	2385.6	100.0	39.8

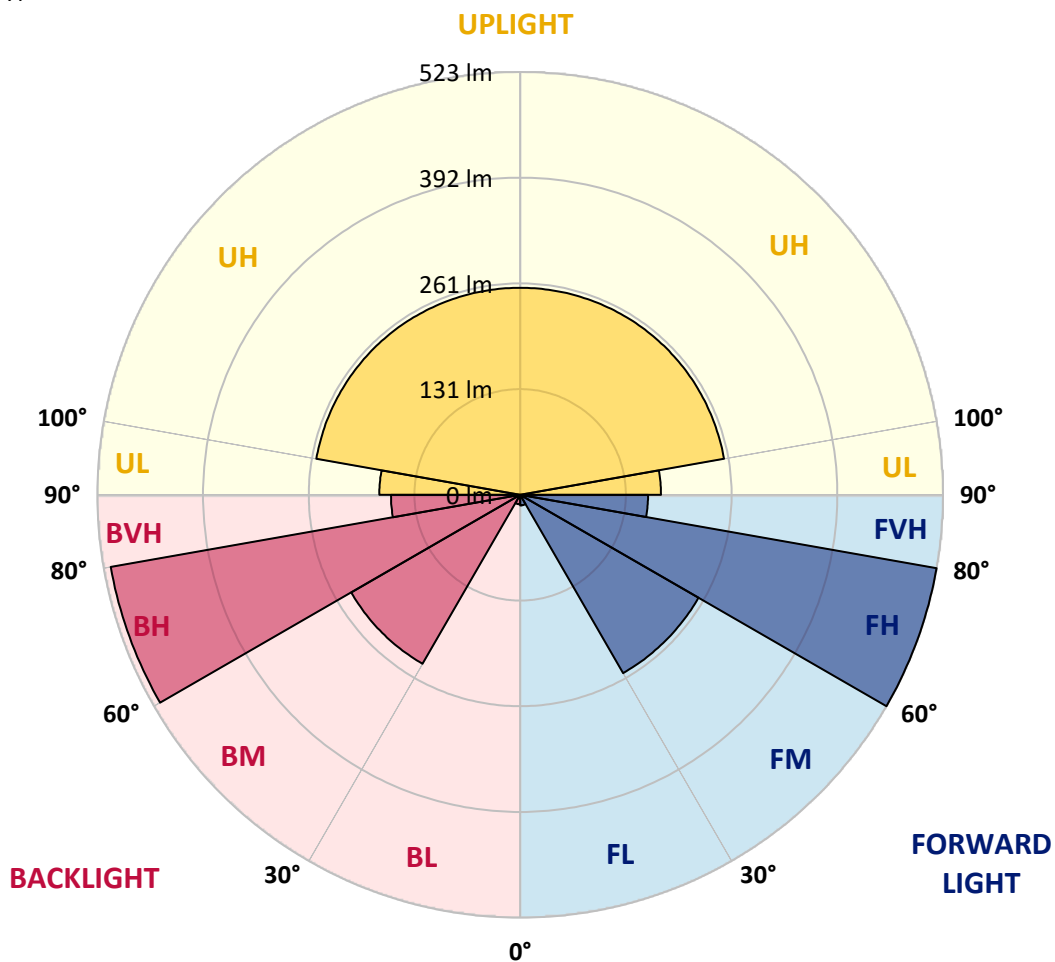


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	13.1	0.2			
FM (30°-60°)	254.5	4.2			
FH (60°-80°)	522.5	8.7			G0/660
FVH (80°-90°)	158.0	2.6			G2/225
BL (0°-30°)	11.7	0.2	B0/110		
BM (30°-60°)	241.1	4.0	B1/1000		
BH (60°-80°)	513.7	8.6	B2/1000		G0/660
BVH (80°-90°)	159.7	2.7			G2/225
UL (90°-100°)	174.0	2.9		U3/500	
UH (100°-180°)	255.8	4.3		U3/500	
Trapped Light	3614.4	60.2			

BUG Rating: B2-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	0.5	0.0	0.5	0.5	0.5	0.5	0.5	1.0	0.5	1.0
10°	4.0	4.0	4.0	4.0	3.5	3.5	3.5	4.0	4.0	4.5	4.5
12.5°	9.0	8.0	8.5	8.0	7.0	7.0	7.0	7.5	7.5	8.0	8.0
15°	15.9	16.4	15.4	15.4	14.4	13.9	13.5	13.0	13.5	14.4	14.4
17.5°	22.9	23.4	22.4	21.4	21.4	20.4	19.4	18.9	19.4	19.9	19.9
20°	29.9	30.4	29.4	29.4	29.4	28.9	27.4	26.4	25.9	26.4	26.4
22.5°	37.9	38.4	37.9	37.9	38.4	38.4	36.9	33.9	33.9	34.4	34.4
25°	46.8	45.8	45.8	46.8	47.8	47.3	46.3	43.3	42.3	42.8	42.8
27.5°	53.8	54.3	53.8	55.3	56.3	57.3	55.8	52.3	50.3	50.3	51.3
30°	64.8	64.3	64.3	65.8	66.3	67.7	65.8	62.8	61.3	61.3	61.3
32.5°	77.7	78.2	77.7	78.2	78.2	78.7	77.7	76.7	74.2	74.7	75.2
35°	92.7	92.7	92.2	92.7	91.7	90.7	92.2	91.7	89.7	89.7	90.7
37.5°	105.6	106.1	106.6	107.1	105.6	103.1	105.6	107.6	105.1	104.1	104.1
40°	123.5	124.5	124.5	125.0	122.5	121.1	123.0	126.0	124.5	123.0	123.5
42.5°	146.5	146.0	146.0	144.0	139.5	140.5	140.5	146.5	146.0	145.5	146.5
45°	173.4	173.4	171.9	168.4	160.4	159.9	161.4	168.9	173.4	172.4	173.4
47.5°	210.2	209.7	201.8	195.3	184.8	180.3	185.8	197.8	203.7	210.2	212.2
50°	278.0	274.5	262.0	229.6	212.7	204.2	213.7	232.6	263.5	274.0	276.0
52.5°	338.7	336.3	325.8	291.9	243.1	233.1	246.1	294.4	328.3	336.7	338.2
55°	400.5	399.0	389.6	353.7	293.9	267.5	296.4	353.2	389.1	396.5	397.0
57.5°	471.2	469.8	457.8	412.0	342.7	308.4	343.2	406.0	447.3	455.3	456.3
60°	538.0	536.0	525.5	474.2	394.5	351.7	388.1	460.3	509.6	516.6	517.6
62.5°	580.8	581.3	578.4	531.0	447.8	389.6	433.4	513.6	562.9	564.9	564.9
65°	601.8	604.3	611.2	573.9	491.2	421.9	473.7	556.9	600.3	598.3	596.3
67.5°	595.8	596.8	608.2	593.8	522.1	449.8	504.6	584.3	609.2	601.8	599.8
70°	568.9	571.4	586.8	585.3	526.5	467.8	513.1	581.8	592.3	579.8	577.4
72.5°	528.0	531.0	553.4	563.4	511.6	466.8	503.1	559.4	557.9	538.5	535.5
75°	477.2	480.2	506.6	526.0	481.2	447.3	474.2	521.1	510.1	487.2	484.2
77.5°	433.4	436.4	458.8	477.7	440.4	411.5	433.9	473.7	463.3	443.4	439.9
80°	385.6	388.1	409.0	425.4	393.0	366.6	388.6	426.4	415.5	399.0	397.0
82.5°	319.8	322.3	346.7	362.7	339.7	315.8	336.7	365.1	354.2	335.3	333.3
85°	257.0	261.0	284.9	303.4	288.4	274.0	287.9	305.9	292.9	273.5	270.5
87.5°	201.3	205.2	228.2	249.6	245.1	238.1	244.6	252.6	236.1	216.2	211.7
90°	159.4	163.9	183.8	206.2	210.7	209.2	210.2	206.7	186.3	167.4	162.9
95°	133.5	134.5	148.4	163.4	169.9	170.4	169.4	162.4	148.4	134.5	133.5
105°	101.6	103.1	109.6	117.1	122.5	124.5	122.0	116.6	108.1	102.1	103.1
115°	78.7	79.7	84.2	89.7	93.2	94.2	93.2	88.2	82.2	78.2	78.2
125°	59.8	60.3	64.8	67.3	70.2	71.2	69.2	66.8	62.8	58.8	58.8
135°	43.8	43.8	47.3	49.3	51.3	51.3	50.3	48.3	46.3	42.3	42.8
145°	28.9	28.9	30.9	32.9	33.4	33.9	33.9	31.9	29.9	27.9	27.9
155°	16.9	15.9	16.9	18.4	18.9	19.4	18.9	17.9	16.4	15.4	15.9
165°	6.0	5.5	6.0	6.5	6.5	6.5	6.5	6.0	5.5	5.5	5.5



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
175°	6.0	2.0	3.5	5.5	4.5	1.0	1.0	1.0	1.0	1.0	3.5
180°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	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°
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°	1.0	1.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
10°	4.5	4.0	3.5	3.0	2.5	2.5	2.0	2.5	2.0	2.0
12.5°	8.5	7.5	7.0	5.5	5.0	4.5	4.5	4.5	4.5	5.0
15°	14.4	13.5	13.0	12.0	11.0	10.0	10.5	10.5	12.0	11.0
17.5°	20.4	18.9	17.9	17.4	16.9	15.9	16.4	16.4	17.4	16.9
20°	26.4	25.9	24.4	23.4	23.9	23.9	23.4	23.9	24.4	23.9
22.5°	34.4	33.4	32.4	32.4	32.9	32.9	32.4	31.4	32.4	31.9
25°	42.8	41.8	40.4	41.3	42.3	41.3	40.4	38.9	39.4	39.9
27.5°	50.3	49.8	48.3	50.3	51.3	50.3	48.3	46.3	46.3	45.8
30°	61.3	59.3	58.3	60.3	60.8	59.3	57.3	55.3	55.3	54.8
32.5°	75.2	72.7	72.2	72.2	71.7	70.2	68.7	67.7	67.7	66.8
35°	90.2	86.7	86.7	85.2	83.7	83.2	82.2	81.2	81.7	80.7
37.5°	104.6	102.1	101.1	99.1	95.6	95.6	96.6	95.6	94.2	93.7
40°	123.0	120.1	119.6	115.6	111.6	112.1	114.1	112.6	111.6	110.6
42.5°	146.0	142.5	139.0	133.0	130.0	129.5	132.5	132.0	131.5	129.5
45°	172.9	169.9	163.9	154.4	149.9	149.4	155.4	156.4	154.9	154.4
47.5°	209.7	199.3	191.8	178.3	171.4	172.4	180.3	185.3	190.3	190.3
50°	274.5	259.0	225.7	206.7	194.3	199.8	216.2	241.1	246.1	245.1
52.5°	336.7	324.8	288.9	238.1	222.7	230.1	275.0	299.9	300.4	297.9
55°	395.5	386.1	351.7	289.9	256.0	278.5	333.8	355.7	351.7	347.7
57.5°	454.8	443.4	407.0	339.7	297.4	324.8	387.6	409.0	403.0	397.5
60°	516.6	506.6	461.8	386.6	341.7	368.1	440.4	470.3	459.3	454.3
62.5°	565.4	559.9	516.6	436.4	377.6	414.5	496.2	524.6	505.6	498.1
65°	598.8	600.3	564.4	481.7	409.0	458.8	545.0	564.9	539.5	529.0
67.5°	603.8	613.2	595.3	516.6	438.4	492.2	576.4	579.8	548.5	537.0
70°	581.8	598.8	597.8	531.0	459.3	507.1	578.8	566.9	531.5	520.1
72.5°	541.5	565.9	577.4	521.6	463.8	497.7	559.4	537.5	498.1	487.2
75°	490.2	519.6	540.0	493.7	449.8	473.7	523.1	496.2	453.8	443.4
77.5°	446.8	472.7	491.2	454.8	417.9	436.9	474.7	447.8	408.5	399.5
80°	403.0	425.4	441.9	408.0	373.6	394.0	428.9	403.0	369.1	361.7
82.5°	339.2	363.6	380.6	354.2	323.3	341.7	369.1	342.7	309.4	301.9
85°	276.0	301.4	318.8	300.4	278.5	290.9	307.9	282.0	252.6	245.1
87.5°	217.2	241.6	259.5	252.6	241.1	245.1	250.1	226.2	200.3	194.3
90°	168.4	189.8	210.2	213.2	209.7	208.7	202.7	178.3	156.9	151.4
95°	135.5	149.9	163.4	169.4	169.9	167.9	160.4	145.0	130.0	128.5
105°	104.1	109.1	117.1	122.5	124.0	121.5	116.1	107.6	101.1	99.6
115°	79.7	83.7	88.7	92.2	93.7	92.7	88.2	82.7	78.7	76.7
125°	60.3	63.8	67.3	70.2	71.2	70.2	67.7	63.8	60.3	59.8
135°	43.8	46.8	49.8	51.3	52.3	50.8	49.8	46.8	44.3	43.8
145°	29.4	30.9	33.4	34.9	34.9	34.4	33.9	31.9	30.4	29.9
155°	15.9	17.9	19.4	20.4	20.4	20.4	19.9	17.9	17.4	17.9
165°	6.0	6.0	7.0	8.0	8.0	8.0	7.5	7.5	7.5	8.0



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
175°	1.0	1.0	1.0	3.5	1.0	1.0	1.0	4.0	4.5	8.0
180°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0

(END OF REPORT)