

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: P522219

Luminaire Tested: **CTN-CA8-330-727-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522219  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-330-727-U-T5R-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 31932 lumens  
Efficiency: N/A  
Efficacy: 96.3 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G4

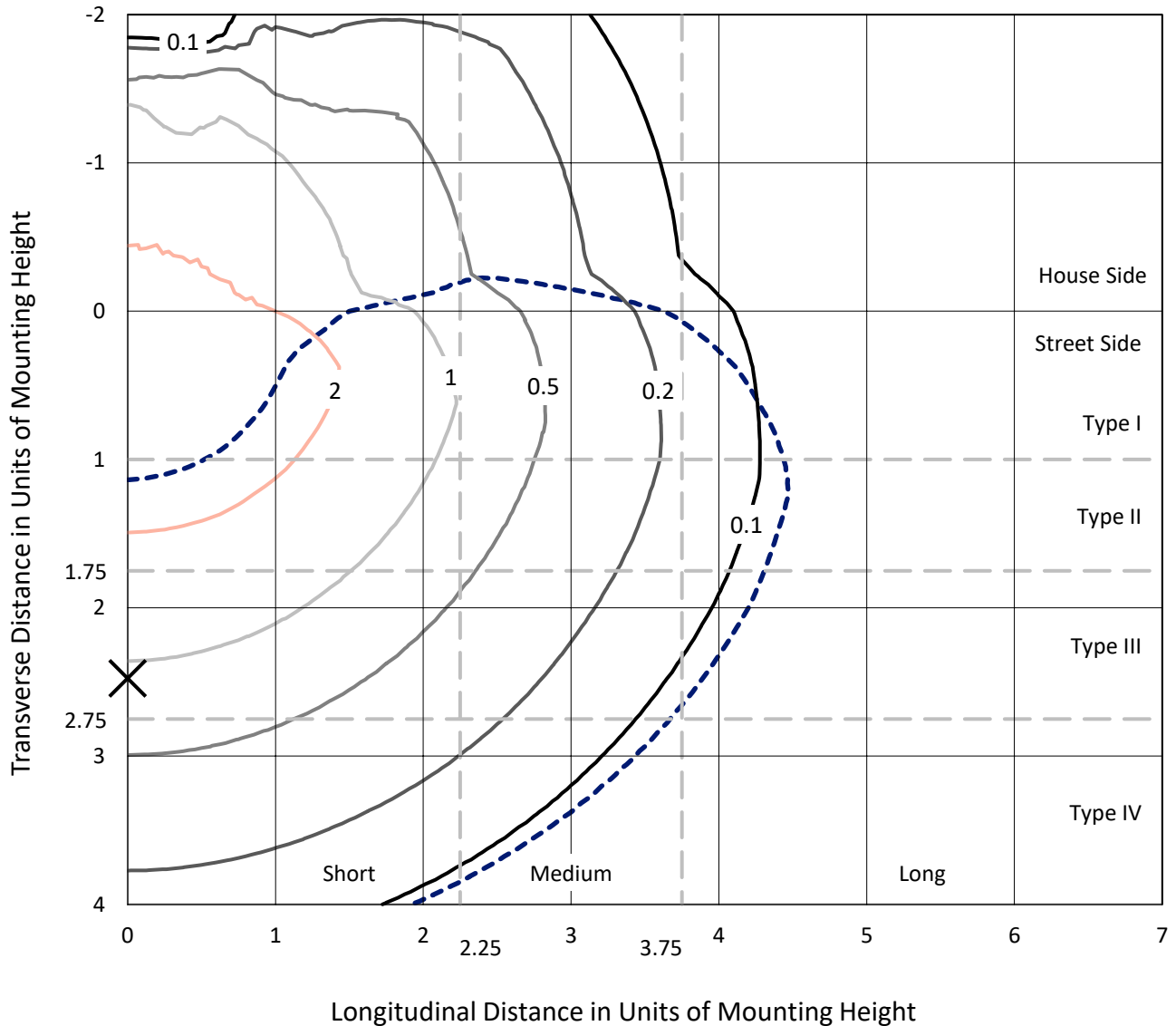
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

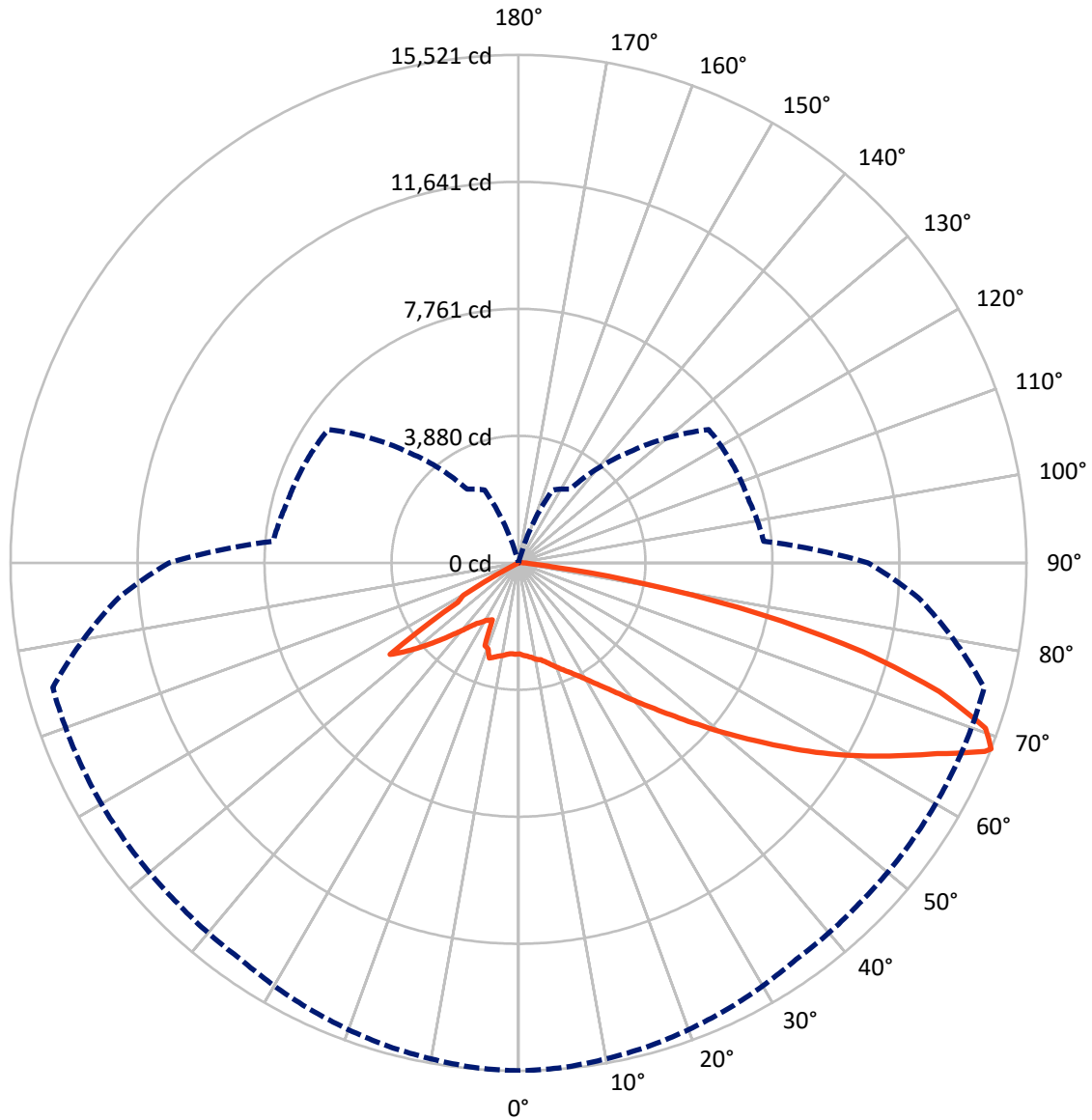
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.2 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical



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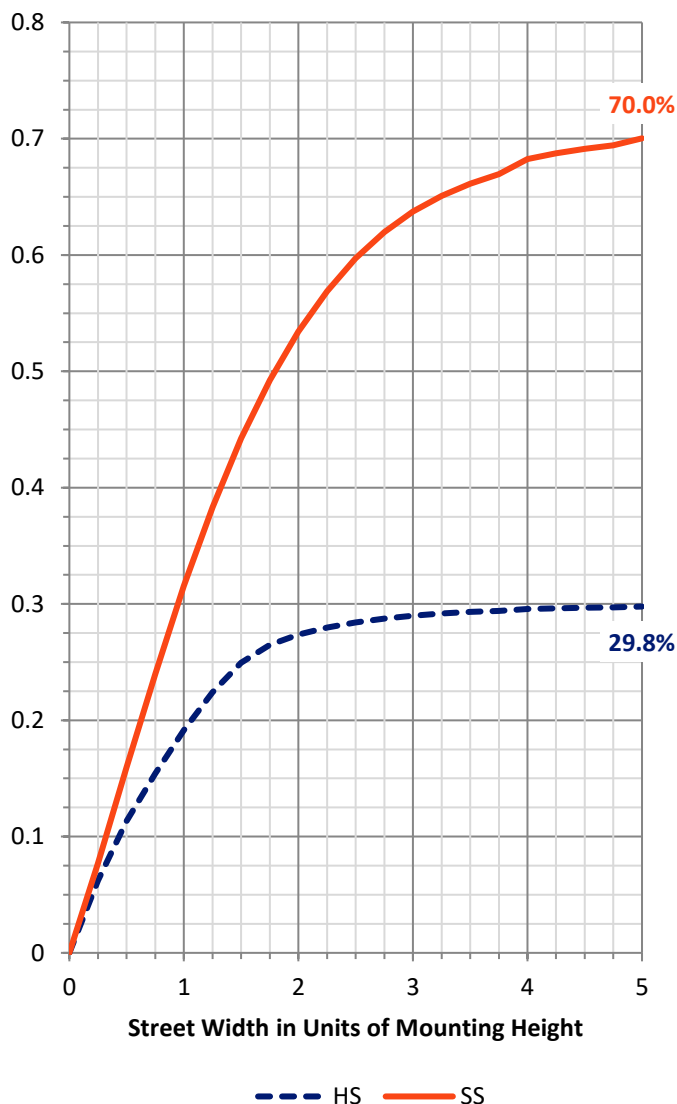
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9518.6	1.5	9520.0
	% Fixture	29.8	0.0	29.8
<b>Street Side</b>	Lumens	22398.9	13.1	22411.9
	% Fixture	70.1	0.0	70.2
<b>Total</b>	Lumens	31917.5	14.5	31932.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	270.2	0.8
10°-20°	859.9	2.7
20°-30°	1473.0	4.6
30°-40°	2389.5	7.5
40°-50°	4029.8	12.6
50°-60°	6568.7	20.6
60°-70°	8809.7	27.6
70°-80°	6842.8	21.4
80°-90°	673.9	2.1
90°-100°	12.8	0.0
100°-110°	0.7	0.0
110°-120°	0.2	0.0
120°-130°	0.1	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	31917.5	100.0
0°-180°	31932.0	100.0

**Coefficient of Utilization**

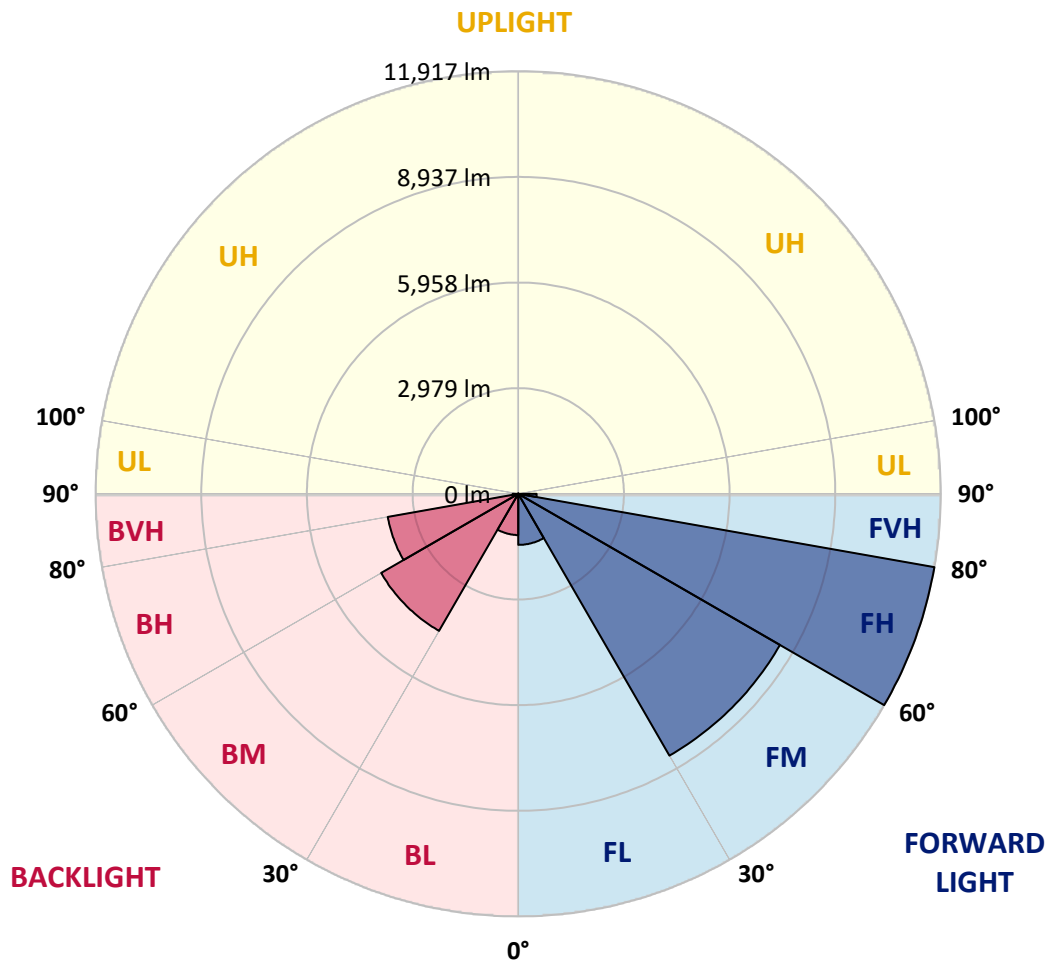


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1440.3	4.5			
FM	(30°-60°)	8523.8	26.7			
FH	(60°-80°)	11916.7	37.3			G4/12000
FVH	(80°-90°)	518.2	1.6			G4/750
BL	(0°-30°)	1162.8	3.6	B3/2500		
BM	(30°-60°)	4464.2	14.0	B3/5000		
BH	(60°-80°)	3735.8	11.7	B4/5000		G4/5000
BVH	(80°-90°)	155.8	0.5			G2/225
UL	(90°-100°)	12.8	0.0		U2/50	
UH	(100°-180°)	1.7	0.0		U1/10	

**BUG Rating: B4-U2-G4**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9
2.5°	2830.1	2822.2	2820.9	2836.7	2786.5	2811.6	2789.2	2807.7	2795.8	2805.0	2806.3
5°	2868.4	2853.9	2844.6	2863.1	2831.4	2843.3	2818.2	2826.1	2793.1	2811.6	2814.3
7.5°	2923.9	2900.1	2897.5	2902.7	2875.0	2884.2	2843.3	2852.6	2828.8	2818.2	2827.5
10°	2999.1	2976.7	2959.5	2971.4	2934.4	2939.7	2896.1	2897.5	2880.3	2860.5	2876.3
12.5°	3041.4	3044.0	3036.1	3045.4	3015.0	2997.8	2967.4	2956.9	2939.7	2915.9	2908.0
15°	3147.1	3141.8	3125.9	3140.4	3136.5	3120.6	3083.7	3059.9	3022.9	3009.7	2996.5
17.5°	3276.5	3259.3	3246.1	3264.6	3284.4	3251.4	3215.7	3182.7	3133.8	3107.4	3091.6
20°	3412.5	3400.6	3387.4	3416.5	3423.1	3398.0	3371.6	3322.7	3265.9	3231.6	3198.6
22.5°	3564.4	3540.6	3544.6	3582.9	3571.0	3559.1	3524.8	3485.1	3416.5	3372.9	3277.8
25°	3721.5	3708.3	3726.8	3744.0	3734.7	3709.6	3692.5	3663.4	3586.8	3534.0	3395.3
27.5°	3917.0	3895.8	3919.6	3926.2	3918.3	3911.7	3887.9	3865.5	3782.3	3722.8	3549.8
30°	4146.8	4121.7	4160.0	4150.7	4142.8	4148.1	4133.6	4084.7	4010.7	3930.2	3757.2
32.5°	4420.1	4387.1	4430.7	4410.9	4392.4	4429.4	4395.0	4348.8	4261.7	4167.9	3998.9
35°	4737.1	4738.4	4760.9	4727.8	4721.2	4760.9	4738.4	4681.6	4601.1	4503.3	4263.0
37.5°	5121.4	5110.8	5167.6	5151.8	5128.0	5180.8	5187.4	5116.1	4970.8	4874.4	4590.5
40°	5588.9	5586.2	5604.7	5607.4	5600.8	5625.9	5637.8	5542.7	5448.9	5303.6	4331.7
42.5°	6088.1	6098.7	6131.7	6107.9	6139.6	6172.6	6176.6	6097.3	5962.6	5088.4	4601.1
45°	6687.7	6720.7	6743.1	6737.8	6752.4	6799.9	6803.9	6761.6	6629.5	5512.3	5089.7
47.5°	7375.7	7407.4	7414.0	7456.3	7443.0	7510.4	7501.2	7502.5	7361.2	6102.6	5621.9
50°	8166.8	8181.3	8235.4	8259.2	8226.2	8317.3	8293.5	8322.6	8148.3	6778.8	6193.7
52.5°	9006.7	9031.8	9054.2	9144.0	9101.8	9181.0	9149.3	9216.7	9014.6	7466.8	6829.0
55°	9961.5	9965.4	10003.7	10094.9	10039.4	10134.5	10088.3	10113.4	9952.2	8227.5	7490.6
57.5°	10973.1	10959.9	10974.4	11047.0	10996.9	11068.2	11049.7	11073.5	10922.9	9027.8	7973.9
60°	11974.1	11954.3	11975.4	12024.3	11955.6	12078.4	12012.4	12034.9	11872.4	9845.3	8663.3
62.5°	12980.4	12965.9	12942.1	12991.0	12890.6	12954.0	12981.8	12944.8	12802.2	10584.8	9262.9
65°	14060.7	14046.2	13959.0	13989.4	13809.8	13779.4	13790.0	13801.9	13706.8	11317.8	9920.5
67.5°	15373.4	15352.3	15188.5	14982.5	14723.7	14666.9	14672.2	14703.9	14717.1	12260.7	10690.5
68°	15521.3	15483.0	15300.8	15061.7	14791.0	14725.0	14718.4	14725.0	14731.6	12268.6	10682.5
70°	15143.6	15129.1	14990.4	14701.2	14423.9	14265.4	14128.1	14122.8	14059.4	11641.3	10092.2
72.5°	13438.7	13420.2	13255.1	13050.4	12878.7	12630.5	12452.2	12462.8	12358.4	10289.0	8833.7
75°	10875.4	10874.0	10675.9	10504.3	10506.9	10488.4	10429.0	10533.3	10425.0	8726.7	7534.2
77.5°	7579.1	7605.5	7592.3	7491.9	7633.2	7828.7	8041.3	8242.0	8180.0	6893.7	6007.5
80°	3959.2	4033.2	4294.7	4306.6	4405.6	4595.8	4741.0	4875.8	4885.0	3911.7	3470.6
82.5°	1052.5	1075.0	1163.5	1138.4	1130.5	1168.8	1200.4	1204.4	1207.1	1019.5	952.2
85°	327.5	336.8	326.2	311.7	289.2	264.1	257.5	210.0	166.4	137.3	120.2
87.5°	232.4	248.3	224.5	211.3	187.5	178.3	159.8	125.5	97.7	68.7	46.2
90°	120.2	122.8	109.6	93.8	87.2	81.9	70.0	50.2	25.1	13.2	11.9
92.5°	60.7	62.1	54.1	46.2	39.6	34.3	26.4	14.5	7.9	4.0	1.3
95°	23.8	25.1	22.5	19.8	15.8	11.9	10.6	7.9	5.3	2.6	1.3
97.5°	7.9	7.9	7.9	6.6	6.6	6.6	6.6	5.3	4.0	2.6	1.3
100°	0.0	0.0	0.0	1.3	2.6	4.0	4.0	4.0	2.6	1.3	1.3
102.5°	0.0	0.0	0.0	0.0	0.0	1.3	2.6	2.6	2.6	1.3	1.3
105°	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9	2783.9
2.5°	2799.7	2791.8	2795.8	2762.8	2770.7	2749.5	2794.4	2782.6	2777.3	2795.8
5°	2806.3	2777.3	2801.0	2778.6	2782.6	2752.2	2789.2	2774.6	2773.3	2783.9
7.5°	2809.0	2794.4	2816.9	2779.9	2791.8	2779.9	2807.7	2793.1	2806.3	2815.6
10°	2845.9	2838.0	2835.4	2822.2	2831.4	2805.0	2839.3	2839.3	2845.9	2871.0
12.5°	2900.1	2889.5	2882.9	2859.2	2868.4	2860.5	2888.2	2893.5	2905.4	2915.9
15°	2974.1	2955.6	2949.0	2927.8	2934.4	2933.1	2952.9	2954.2	2980.7	2979.3
17.5°	3069.1	3042.7	3050.6	3034.8	3036.1	3025.6	3015.0	3015.0	3038.8	3044.0
20°	3182.7	3032.2	2834.1	2723.1	2703.3	2717.8	2774.6	2868.4	2750.9	2783.9
22.5°	2978.0	2842.0	2832.7	2807.7	2791.8	2437.9	2346.8	2317.7	2469.6	2731.1
25°	3004.4	2946.3	2929.1	2897.5	2430.0	2426.0	2399.6	2356.0	1925.5	1916.2
27.5°	3144.4	3087.6	3059.9	2538.2	2527.7	2526.4	2486.7	2049.6	1950.6	1963.8
30°	3308.2	3242.1	2745.6	2666.3	2657.1	2636.0	2408.8	2024.5	2023.2	2024.5
32.5°	3497.0	3277.8	2824.8	2820.9	2826.1	2761.4	2134.1	2126.2	2124.9	2138.1
35°	3755.9	3041.4	3022.9	3042.7	3015.0	2387.7	2262.2	2258.3	2259.6	2253.0
37.5°	3584.2	3279.1	3275.2	3275.2	3210.4	2443.2	2418.1	2436.6	2433.9	2424.7
40°	3656.8	3567.0	3543.2	3535.3	2713.9	2636.0	2621.4	2645.2	2649.2	2655.8
42.5°	4009.4	3927.5	3915.7	3821.9	2952.9	2927.8	2882.9	2908.0	2905.4	2913.3
45°	4442.6	4387.1	4335.6	3313.5	3275.2	3243.5	3197.2	3226.3	3234.2	3228.9
47.5°	4947.1	4886.3	4513.9	3643.6	3642.3	3617.2	3565.7	3589.5	3585.5	3585.5
50°	5454.2	5388.2	4100.5	4063.6	4050.4	4010.7	3968.5	3972.4	3973.8	3987.0
52.5°	6020.7	4812.4	4539.0	4465.0	4475.6	4449.2	4408.3	3337.2	4388.4	4400.3
55°	5627.2	5036.9	5021.0	4923.3	4948.4	4914.1	4887.6	3292.3	4364.7	4822.9
57.5°	5563.8	5521.5	5508.3	5408.0	5439.7	5113.5	5357.8	3602.7	3019.0	2205.4
60°	6048.5	6003.6	5995.6	5907.2	5904.5	4063.6	4870.5	2470.9	1930.8	1944.0
62.5°	6518.6	6446.0	6465.8	6361.5	4484.8	2476.2	2183.0	55.5	88.5	93.8
65°	7042.9	6921.4	6941.2	6844.8	4626.2	2610.9	2360.0	29.1	25.1	23.8
67.5°	7547.4	7334.8	7233.1	7131.4	4804.4	2749.5	2459.0	7.9	0.0	0.0
68°	7522.3	7297.8	7193.5	7097.0	4785.9	2745.6	2453.7	7.9	0.0	0.0
70°	7098.4	6896.3	6797.3	6723.3	4569.4	2651.8	2354.7	7.9	0.0	0.0
72.5°	6205.6	6093.4	6030.0	5965.3	4059.6	2371.8	2111.7	7.9	0.0	0.0
75°	5273.3	5241.6	5201.9	5059.3	3383.4	1941.3	1735.3	7.9	0.0	0.0
77.5°	4178.5	4177.1	4080.7	3913.0	2547.5	1425.0	1279.7	6.6	0.0	0.0
80°	2259.6	2463.0	2389.0	2303.2	1444.8	775.2	738.2	5.3	0.0	0.0
82.5°	635.2	600.9	577.1	540.1	303.7	169.0	165.1	5.3	0.0	0.0
85°	88.5	97.7	108.3	122.8	70.0	44.9	39.6	2.6	0.0	0.0
87.5°	50.2	56.8	70.0	72.6	26.4	21.1	6.6	0.0	0.0	0.0
90°	10.6	11.9	13.2	13.2	5.3	5.3	0.0	0.0	0.0	0.0
92.5°	0.0	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.3	1.3	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

(END OF REPORT)