

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: P522127

Luminaire Tested: **CTN-CA10-310-722-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522127  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-7)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-310-722-U-T5R-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (10) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 26117 lumens  
Efficiency: N/A  
Efficacy: 83.6 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U2 - G4

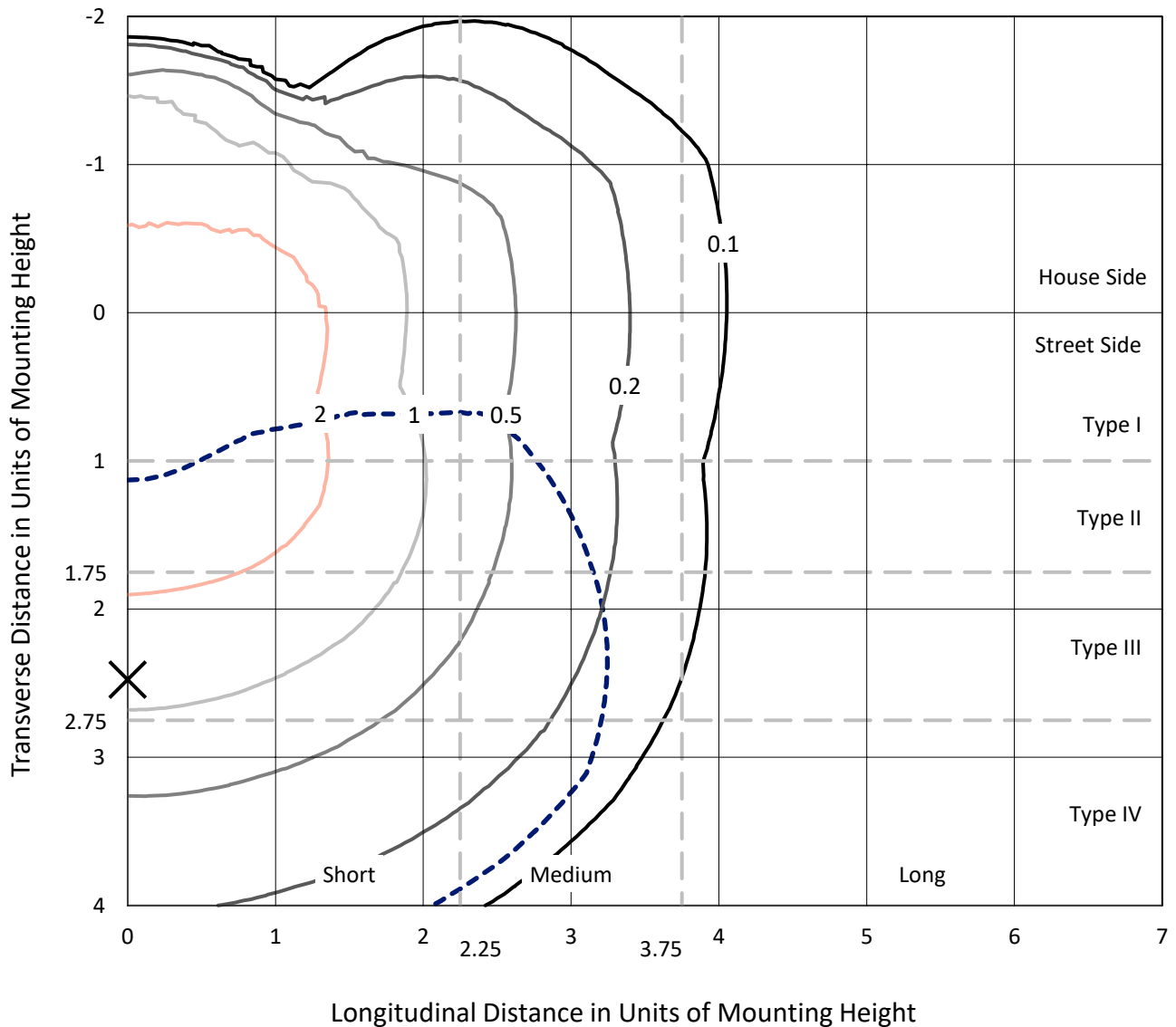
Input Watts (W): 312.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

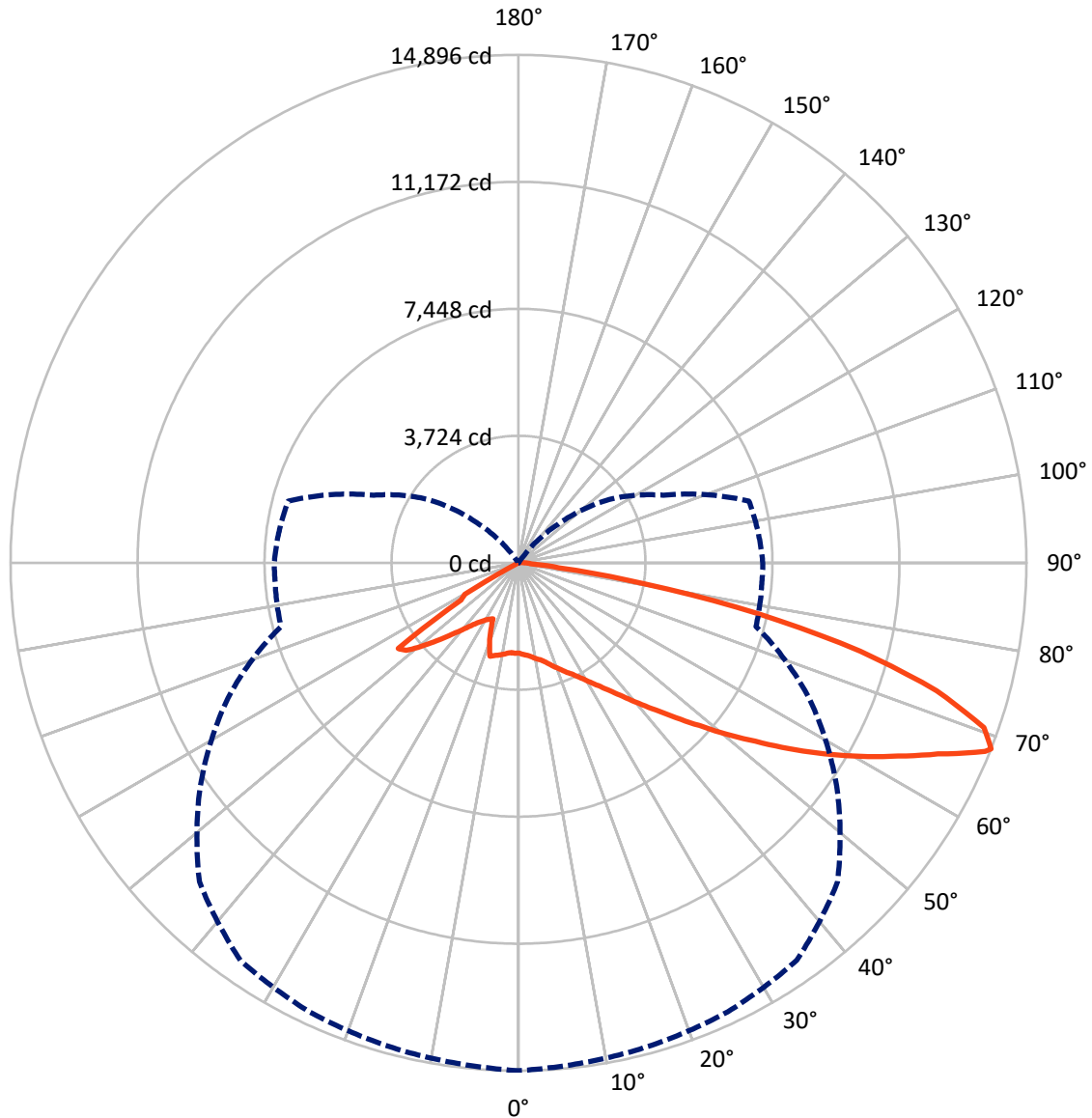
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 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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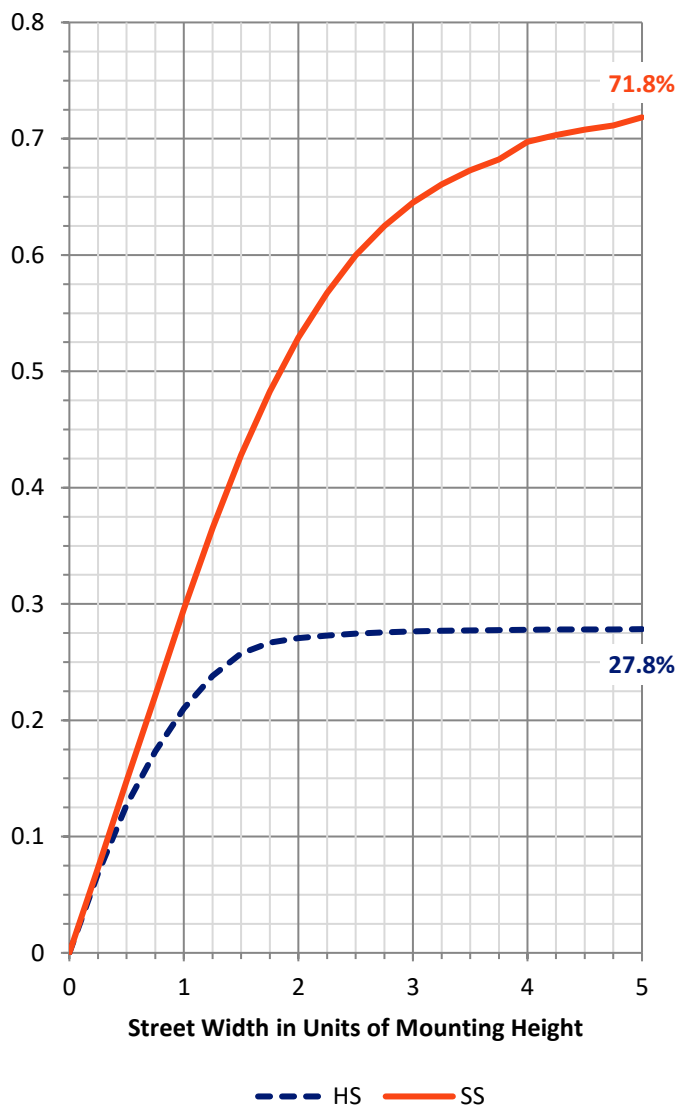
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7294.5	0.2	7294.7
	% Fixture	27.9	0.0	27.9
<b>Street Side</b>	Lumens	18807.4	15.0	18822.3
	% Fixture	72.0	0.1	72.1
<b>Total</b>	Lumens	26101.9	15.1	26117.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	256.8	1.0
10°-20°	813.7	3.1
20°-30°	1377.6	5.3
30°-40°	2182.5	8.4
40°-50°	3568.3	13.7
50°-60°	5465.7	20.9
60°-70°	6720.5	25.7
70°-80°	5192.8	19.9
80°-90°	523.9	2.0
90°-100°	14.9	0.1
100°-110°	0.2	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	26101.9	99.9
0°-180°	26117.0	100.0

**Coefficient of Utilization**



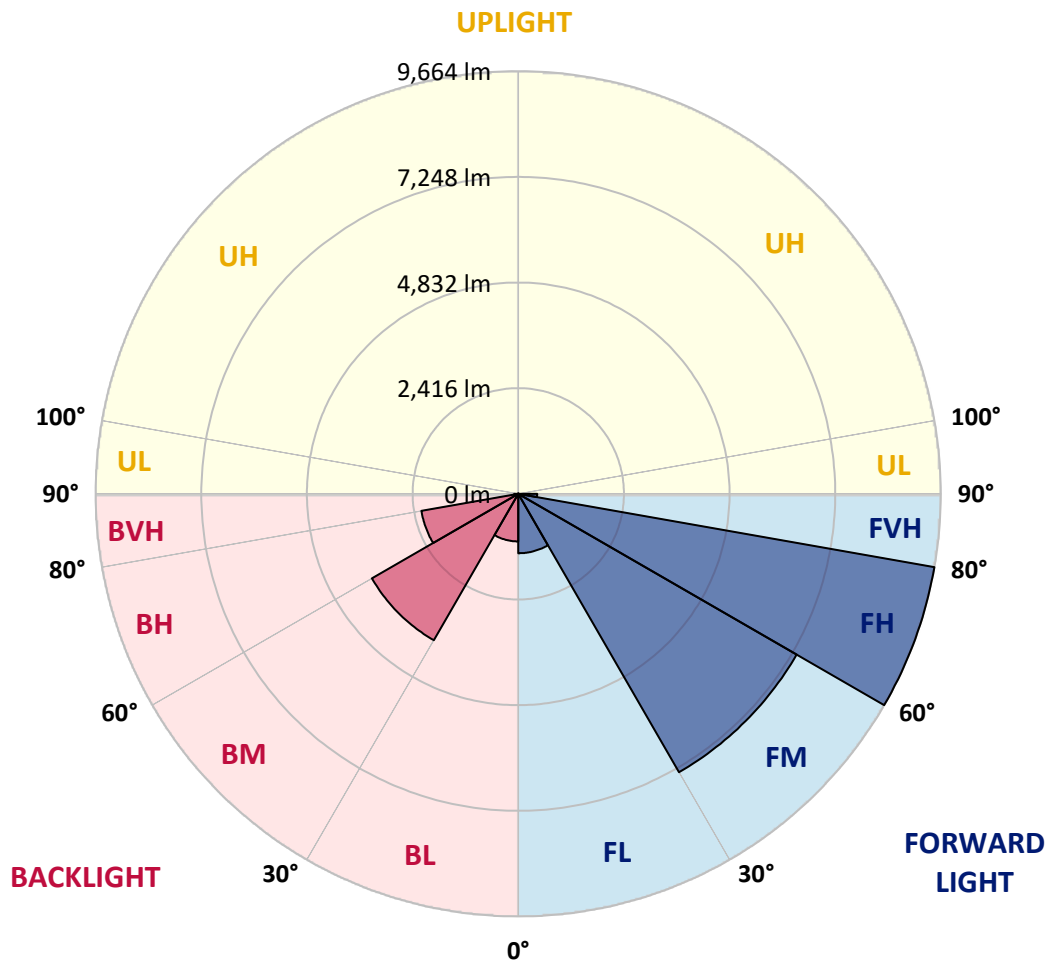
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1359.4	5.2			
FM (30°-60°)	7351.5	28.1			
FH (60°-80°)	9664.4	37.0			G4/12000
FVH (80°-90°)	432.1	1.7			G3/500
BL (0°-30°)	1088.8	4.2	B3/2500		
BM (30°-60°)	3865.0	14.8	B3/5000		
BH (60°-80°)	2248.9	8.6	B3/2500		G3/2500
BVH (80°-90°)	91.9	0.4			G1/100
UL (90°-100°)	14.9	0.1		U2/50	
UH (100°-180°)	0.2	0.0		U1/10	

**BUG Rating: B3-U2-G4**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9
2.5°	2693.7	2688.7	2683.7	2695.0	2651.0	2669.8	2654.7	2668.6	2658.5	2669.8	2666.1
5°	2729.0	2723.9	2708.8	2721.4	2692.5	2700.0	2681.2	2686.2	2652.2	2672.4	2671.1
7.5°	2786.8	2773.0	2762.9	2762.9	2737.8	2736.5	2706.3	2707.6	2681.2	2678.6	2683.7
10°	2864.9	2854.8	2827.1	2829.6	2794.4	2789.4	2751.6	2750.4	2729.0	2716.4	2727.7
12.5°	2922.7	2932.8	2907.6	2907.6	2872.4	2847.2	2820.8	2803.2	2786.8	2768.0	2759.2
15°	3028.4	3038.5	3004.5	3003.3	2989.4	2959.2	2930.3	2892.5	2863.6	2854.8	2840.9
17.5°	3165.6	3159.3	3130.3	3131.6	3134.1	3085.0	3056.1	3007.0	2965.5	2935.3	2927.8
20°	3305.2	3305.2	3273.8	3283.8	3271.2	3225.9	3207.1	3139.1	3081.3	3048.5	3022.1
22.5°	3461.2	3454.9	3433.5	3454.9	3429.8	3384.5	3353.0	3285.1	3210.8	3025.9	2950.4
25°	3609.7	3605.9	3614.7	3621.0	3589.6	3532.9	3511.6	3439.8	3233.5	2990.7	2838.4
27.5°	3797.2	3784.6	3804.7	3817.3	3785.8	3736.8	3691.5	3610.9	3174.4	2983.1	2966.8
30°	4037.5	4009.8	4038.7	4045.0	4012.3	3982.1	3914.2	3511.6	3194.5	3139.1	3134.1
32.5°	4294.1	4261.4	4299.2	4304.2	4261.4	4236.3	4065.1	3460.0	3392.0	3327.9	3334.1
35°	4598.6	4598.6	4617.5	4620.0	4588.5	4545.8	3894.0	3711.6	3651.2	3592.1	3590.8
37.5°	4969.8	4958.4	5008.8	5039.0	5005.0	4883.0	4143.2	4057.6	3964.5	3889.0	3733.0
40°	5417.7	5437.8	5451.6	5481.8	5449.1	5174.9	4506.8	4409.9	4336.9	4084.0	3690.2
42.5°	5900.8	5905.8	5936.0	5973.8	5973.8	5684.4	4932.0	4849.0	4754.6	3993.4	3816.0
45°	6478.3	6467.0	6524.9	6585.3	6568.9	6269.5	5426.5	5364.8	4923.2	4256.4	4257.6
47.5°	7133.8	7120.0	7203.0	7282.3	7200.5	6918.7	5970.0	5922.2	4752.1	4701.8	4691.7
50°	7891.2	7857.3	7952.9	8058.6	7991.9	7643.4	6630.6	5712.1	5229.0	5188.7	5182.4
52.5°	8700.2	8673.8	8731.7	8911.6	8823.5	8402.1	7255.9	5893.3	5781.3	5736.0	5724.7
55°	9613.7	9562.1	9686.6	9823.8	9721.9	9241.3	7872.4	6494.7	6378.9	6300.9	6187.7
57.5°	10573.7	10499.4	10563.6	10736.0	10637.8	10100.6	8667.5	7113.7	6976.5	5773.7	5314.5
60°	11529.9	11495.9	11521.1	11673.3	11552.5	10936.0	9412.4	7734.0	5904.6	5710.8	5733.5
62.5°	12491.1	12416.9	12439.5	12595.5	12440.8	11731.2	10118.2	8297.6	6214.1	6146.2	6170.1
65°	13521.5	13433.5	13453.6	13498.9	13307.7	12444.6	10742.3	8829.8	6679.6	6607.9	6634.3
67.5°	14763.4	14682.8	14573.4	14438.8	14174.5	13202.0	11362.5	9389.7	7203.0	7162.8	7171.6
68°	14895.5	14817.5	14685.4	14525.6	14228.6	13233.4	11389.0	9406.1	7210.6	7160.2	7162.8
70°	14484.0	14530.6	14380.9	14112.9	13865.0	12772.9	10957.4	9043.7	6889.7	6815.5	6796.6
72.5°	12827.0	12928.9	12722.6	12677.3	12372.8	11378.9	9588.5	7847.2	5992.7	6016.6	5948.6
75°	10356.0	10505.7	10255.3	10269.2	10095.6	9491.6	8035.9	6533.7	4920.7	5030.2	5050.3
77.5°	7201.8	7416.9	7307.4	7416.9	7331.4	7113.7	6219.1	5031.4	3754.4	3880.2	3929.3
80°	3755.6	4011.0	4155.7	4201.0	4228.7	4219.9	3787.1	3019.6	2170.3	2216.9	2214.4
82.5°	1187.7	1126.1	1162.5	1152.5	1121.0	1133.6	1021.6	798.9	553.6	610.2	583.8
85°	358.6	361.1	351.0	348.5	322.1	283.1	231.5	133.4	65.4	76.7	71.7
87.5°	264.2	266.7	246.6	234.0	218.9	190.0	147.2	83.0	31.5	30.2	23.9
90°	145.9	140.9	130.8	120.8	114.5	98.1	74.2	31.5	11.3	8.8	7.5
92.5°	79.3	75.5	70.5	66.7	57.9	46.6	30.2	10.1	5.0	1.3	0.0
95°	36.5	34.0	32.7	28.9	25.2	17.6	10.1	6.3	3.8	1.3	0.0
97.5°	16.4	15.1	13.8	11.3	8.8	5.0	5.0	3.8	2.5	1.3	0.0
100°	3.8	3.8	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.3	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0



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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	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	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





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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9	2645.9
2.5°	2662.3	2654.7	2651.0	2627.1	2634.6	2613.2	2654.7	2644.7	2638.4	2656.0
5°	2664.8	2638.4	2654.7	2640.9	2645.9	2615.7	2648.4	2634.6	2633.3	2640.9
7.5°	2671.1	2653.5	2669.8	2642.2	2654.7	2642.2	2666.1	2652.2	2663.5	2671.1
10°	2705.1	2695.0	2687.5	2681.2	2690.0	2664.8	2695.0	2696.3	2700.0	2722.7
12.5°	2752.9	2742.8	2730.2	2713.9	2722.7	2712.6	2735.3	2741.6	2755.4	2766.7
15°	2819.6	2800.7	2795.7	2780.6	2789.4	2784.3	2789.4	2785.6	2812.0	2808.2
17.5°	2911.4	2890.0	2818.3	2745.3	2698.8	2712.6	2770.5	2846.0	2864.9	2867.4
20°	2945.4	2794.4	2786.8	2703.8	2666.1	2663.5	2544.0	2365.4	2419.5	2546.5
22.5°	2905.1	2698.8	2677.4	2661.0	2500.0	2235.8	2210.6	2184.2	2177.9	2196.8
25°	2814.5	2790.6	2771.7	2557.9	2303.7	2305.0	2268.5	2094.9	1824.3	1801.7
27.5°	2952.9	2920.2	2737.8	2408.1	2403.1	2400.6	2346.5	1901.1	1843.2	1857.1
30°	3110.2	3056.1	2579.2	2536.5	2535.2	2512.6	2103.7	1917.5	1917.5	1920.0
32.5°	3291.4	2955.4	2669.8	2690.0	2688.7	2581.8	2031.9	2019.4	2014.3	2026.9
35°	3429.8	2874.9	2864.9	2901.3	2876.2	2190.5	2159.0	2147.7	2142.7	2136.4
37.5°	3387.0	3106.4	3106.4	3129.1	2926.5	2332.6	2317.5	2317.5	2307.5	2302.5
40°	3452.4	3394.5	3365.6	3374.4	2126.3	2505.0	2516.3	2513.8	2512.6	2521.4
42.5°	3797.2	3745.6	3719.1	3407.1	2380.5	2489.9	2766.7	2765.5	2769.2	2765.5
45°	4236.3	4188.4	4119.2	3188.2	2702.5	2182.9	3049.8	3063.6	3064.9	3063.6
47.5°	4696.7	4666.6	3958.2	3529.2	3052.3	2342.7	2915.2	3404.6	3398.3	3405.9
50°	5183.7	5047.8	3938.1	3933.0	3424.7	2606.9	2608.2	3702.8	3767.0	3787.1
52.5°	5725.9	4576.0	4364.6	3982.1	3802.2	2878.7	2851.0	3281.3	4157.0	4177.1
55°	5318.3	4833.9	4830.1	3544.3	3955.7	3140.4	3144.2	3114.0	3812.3	4333.1
57.5°	5291.9	5303.2	5294.4	3954.4	2886.2	2944.1	3426.0	3399.6	2468.5	2000.5
60°	5748.6	5764.9	5143.4	4270.2	3120.3	1810.5	2110.0	1792.9	1816.8	1835.7
62.5°	6185.2	6190.2	4183.4	2799.4	1546.3	73.0	35.2	28.9	27.7	27.7
65°	6668.3	6668.3	4484.1	3053.6	1493.4	27.7	5.0	3.8	13.8	13.8
67.5°	7135.1	7031.9	4704.3	3242.3	1519.9	3.8	0.0	0.0	0.0	0.0
68°	7108.7	6995.4	4684.2	3237.3	1516.1	2.5	0.0	0.0	0.0	0.0
70°	6713.6	6604.1	4443.9	3090.1	1459.5	2.5	0.0	0.0	0.0	0.0
72.5°	5926.0	5825.3	3935.6	2723.9	1316.0	1.3	0.0	0.0	0.0	0.0
75°	5016.3	5002.5	3399.6	2298.7	1128.6	1.3	0.0	0.0	0.0	0.0
77.5°	4036.2	3973.3	2657.3	1801.7	909.7	0.0	0.0	0.0	0.0	0.0
80°	2248.3	2341.5	1555.1	1059.4	572.5	0.0	0.0	0.0	0.0	0.0
82.5°	607.7	568.7	339.7	230.2	109.5	0.0	0.0	0.0	0.0	0.0
85°	78.0	85.6	39.0	31.5	7.5	0.0	0.0	0.0	0.0	0.0
87.5°	40.3	47.8	12.6	10.1	2.5	0.0	0.0	0.0	0.0	0.0
90°	7.5	8.8	3.8	1.3	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	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°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	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
120°	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
125°	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
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	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
177.5°	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

(END OF REPORT)