

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: P579473

Luminaire Tested: **CTN-CA10-210-740-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579473  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-3)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-210-740-U-T5-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 4000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21523 lumens  
Efficiency: N/A  
Efficacy: 101.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U2 - G4

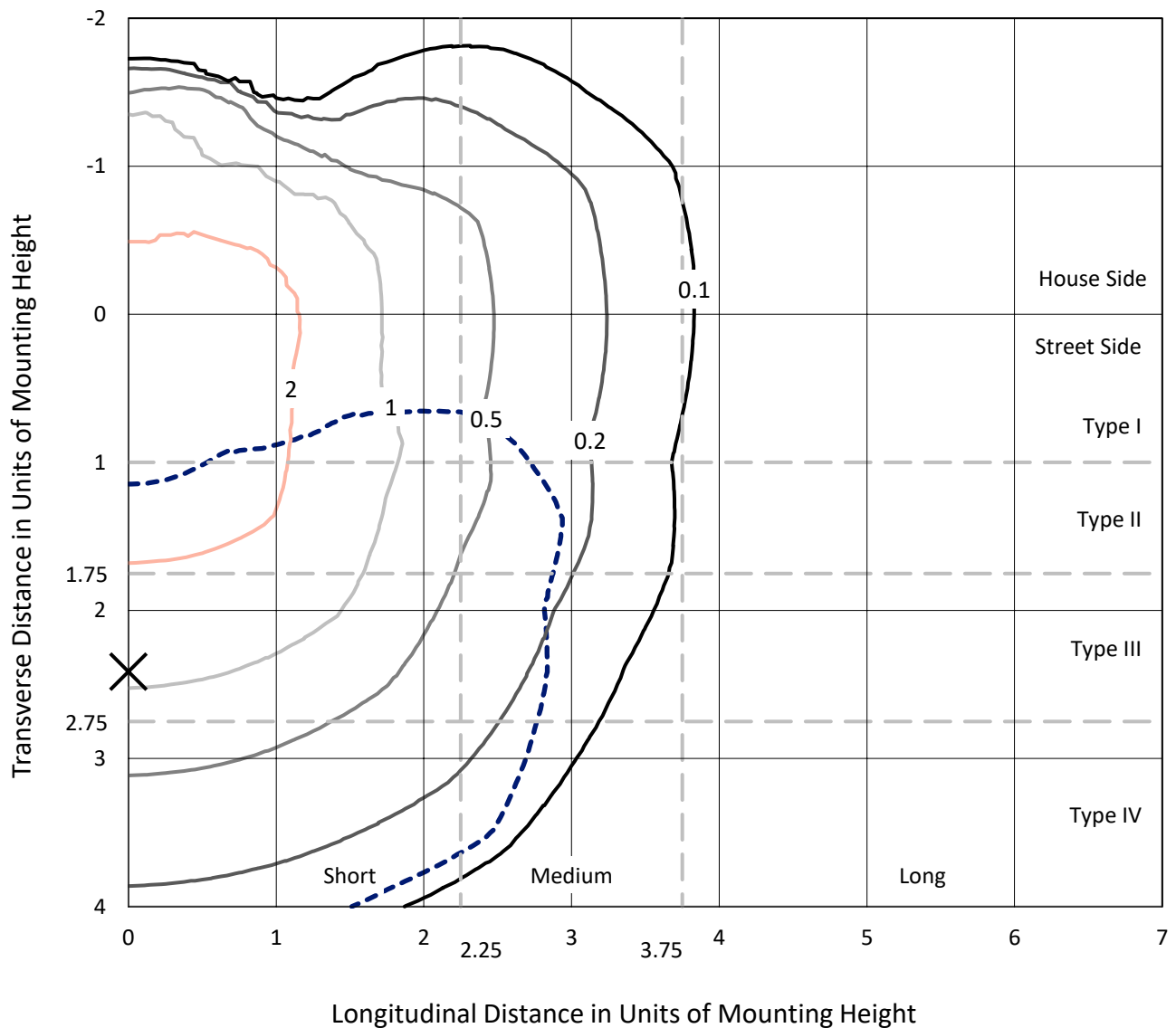
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

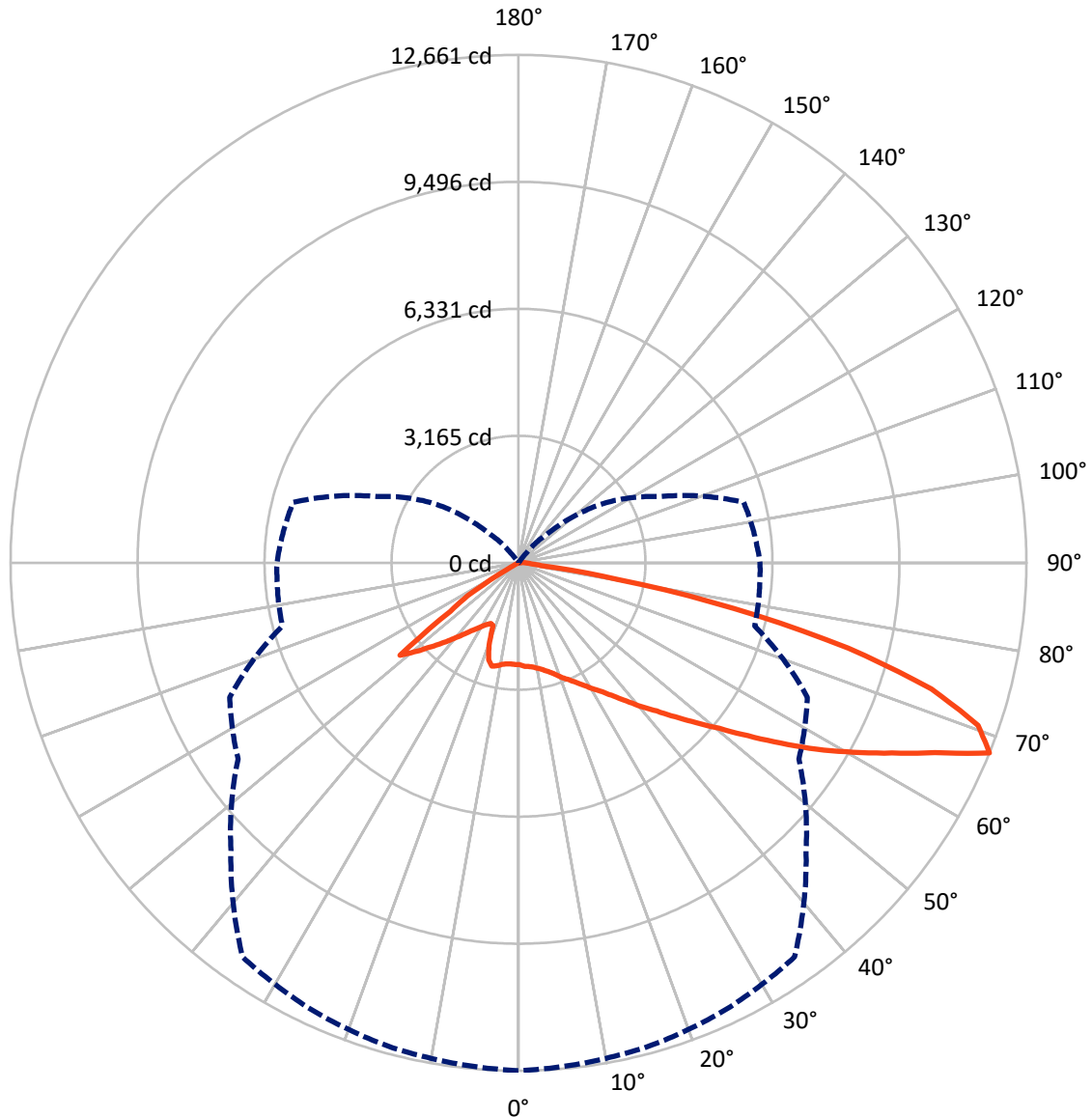
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.1 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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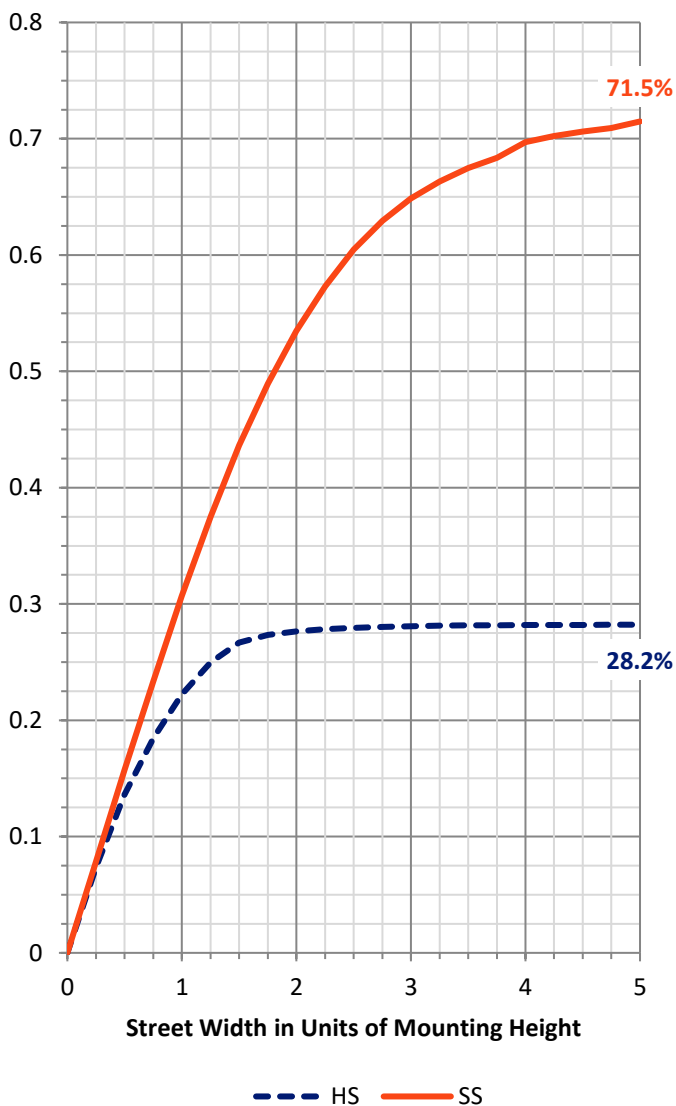
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6100.0	0.1	6100.1
	% Fixture	28.3	0.0	28.3
<b>Street Side</b>	Lumens	15395.5	27.4	15422.9
	% Fixture	71.5	0.1	71.7
<b>Total</b>	Lumens	21495.5	27.5	21523.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	244.5	1.1
10°-20°	752.5	3.5
20°-30°	1246.1	5.8
30°-40°	1961.6	9.1
40°-50°	3069.9	14.3
50°-60°	4432.4	20.6
60°-70°	5490.9	25.5
70°-80°	3998.9	18.6
80°-90°	298.7	1.4
90°-100°	23.5	0.1
100°-110°	3.9	0.0
110°-120°	0.1	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°	21495.5	99.9
0°-180°	21523.0	100.0

**Coefficient of Utilization**

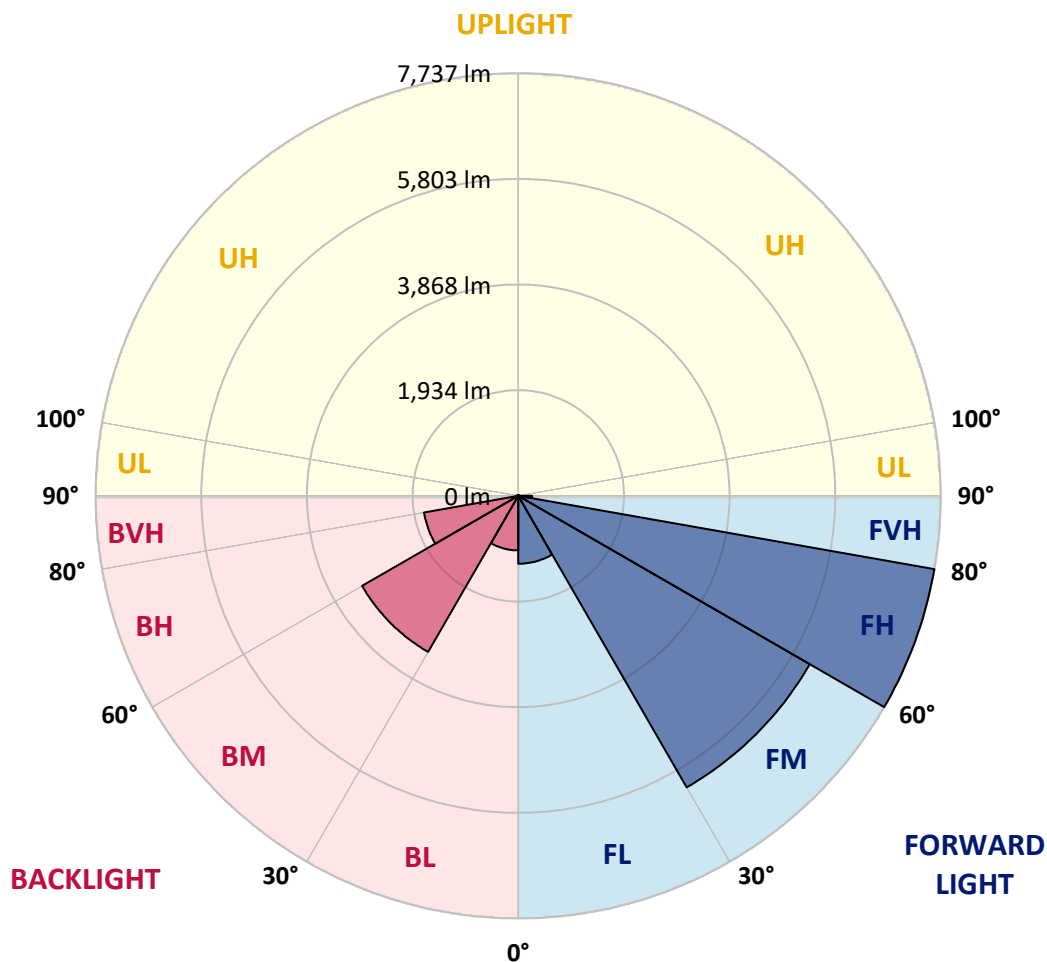


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1243.1	5.8			
FM	(30°-60°)	6163.6	28.6			
FH	(60°-80°)	7736.8	35.9			G4/12000
FVH	(80°-90°)	252.0	1.2			G3/500
BL	(0°-30°)	1000.0	4.6	B2/1000		
BM	(30°-60°)	3300.2	15.3	B3/5000		
BH	(60°-80°)	1753.1	8.1	B3/2500		G3/2500
BVH	(80°-90°)	46.8	0.2			G1/100
UL	(90°-100°)	23.5	0.1		U2/50	
UH	(100°-180°)	4.0	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°	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9
2.5°	2581.2	2567.2	2567.2	2582.3	2540.2	2553.2	2535.9	2551.0	2542.4	2546.7	2552.1
5°	2596.3	2580.2	2581.2	2599.6	2561.8	2572.6	2552.1	2559.7	2552.1	2555.3	2555.3
7.5°	2624.4	2610.4	2610.4	2621.1	2583.4	2586.6	2568.3	2568.3	2558.6	2566.1	2559.7
10°	2677.2	2662.1	2654.6	2660.0	2626.5	2622.2	2597.4	2597.4	2582.3	2594.2	2584.5
12.5°	2740.9	2719.3	2717.1	2718.2	2680.5	2672.9	2644.9	2646.0	2617.9	2634.1	2622.2
15°	2817.5	2790.5	2788.3	2792.7	2752.7	2738.7	2707.4	2707.4	2676.2	2684.8	2668.6
17.5°	2915.6	2884.3	2878.9	2886.5	2846.6	2833.6	2797.0	2790.5	2756.0	2749.5	2735.5
20°	3045.1	3009.5	2998.7	3014.9	2964.2	2952.3	2908.1	2894.0	2847.7	2771.1	2670.8
22.5°	3161.6	3133.5	3127.0	3137.8	3091.4	3079.6	3036.4	3007.3	2895.1	2740.9	2648.1
25°	3294.2	3283.4	3280.2	3273.7	3231.7	3211.2	3170.2	3129.2	2874.6	2663.2	2661.1
27.5°	3458.2	3452.8	3437.7	3432.3	3385.9	3373.0	3319.0	3054.8	2801.3	2786.2	2777.6
30°	3637.2	3626.5	3611.4	3612.4	3581.2	3557.4	3429.1	2989.0	2942.6	2942.6	2919.9
32.5°	3835.7	3823.9	3808.8	3812.0	3799.0	3778.6	3392.4	3162.6	3127.0	3136.7	3108.7
35°	4081.7	4062.2	4056.8	4069.8	4070.9	3938.2	3457.1	3398.9	3370.8	3364.3	3258.6
37.5°	4368.6	4352.4	4371.8	4402.0	4367.5	3979.2	3714.9	3696.6	3668.5	3512.1	3261.9
40°	4712.7	4683.5	4707.3	4726.7	4704.0	4223.0	3985.7	3992.1	3967.3	3503.5	3226.3
42.5°	5053.5	5025.5	5046.0	5094.5	5085.9	4525.0	4315.7	4329.7	4079.5	3524.0	3502.4
45°	5475.3	5465.6	5459.1	5499.0	5532.5	4886.3	4707.3	4706.2	3999.7	3849.7	3830.3
47.5°	5953.1	5940.2	5943.4	5994.1	6044.8	5317.8	5170.0	4736.4	4205.7	4220.8	4203.5
50°	6486.0	6472.0	6514.0	6587.4	6613.3	5802.1	5620.9	4654.4	4635.0	4651.2	4622.1
52.5°	7162.3	7131.0	7195.8	7274.5	7307.9	6374.9	5645.7	5138.7	5106.4	5109.6	5016.9
55°	7931.4	7906.6	7964.8	8053.3	8102.9	7014.5	6161.3	5610.1	5590.7	5040.6	4539.0
57.5°	8767.4	8739.3	8817.0	8842.9	8855.8	7675.8	6680.2	6121.4	5222.9	4602.7	4574.6
60°	9587.1	9556.9	9655.1	9659.4	9697.2	8335.9	7173.1	6614.4	5032.0	4950.0	4926.2
62.5°	10447.9	10410.2	10496.5	10493.2	10418.8	8939.9	7661.7	7087.9	5372.8	5308.1	5271.4
65°	11403.6	11375.6	11436.0	11338.9	11191.1	9564.5	8168.7	7603.5	5769.8	5757.9	5749.3
67.5°	12661.3	12606.3	12484.4	12277.3	11994.7	10137.3	8531.1	7943.3	6092.3	6037.3	6020.0
70°	12155.4	12090.7	11998.0	11770.4	11482.4	9599.0	7948.7	7429.8	5696.4	5698.6	5657.6
72.5°	10762.9	10650.7	10563.3	10244.1	10085.5	8383.4	6926.1	6448.2	4927.3	5019.0	4999.6
75°	8490.1	8375.8	8232.3	8107.2	8090.0	6799.9	5584.2	5240.1	3928.5	3995.4	4043.9
77.5°	5503.3	5461.3	5642.5	5523.8	5630.6	4682.5	3988.9	3693.3	2707.4	2876.8	2854.1
80°	2518.7	2470.1	2761.4	2679.4	2719.3	2299.7	1949.1	1872.6	1225.4	1234.0	1259.9
82.5°	569.5	550.1	570.6	524.2	511.3	432.5	380.8	345.2	216.8	229.8	241.6
85°	311.7	311.7	307.4	285.8	244.9	201.7	159.6	123.0	66.9	73.3	72.3
87.5°	219.0	213.6	212.5	189.8	162.9	138.1	110.0	78.7	37.8	25.9	23.7
90°	149.9	147.8	140.2	126.2	108.9	89.5	66.9	38.8	16.2	7.6	5.4
92.5°	108.9	106.8	101.4	89.5	74.4	60.4	44.2	25.9	12.9	5.4	1.1
95°	72.3	71.2	68.0	58.2	48.5	38.8	28.0	16.2	10.8	4.3	1.1
97.5°	49.6	48.5	45.3	38.8	31.3	24.8	17.3	11.9	8.6	3.2	1.1
100°	33.4	32.4	30.2	24.8	19.4	15.1	10.8	8.6	6.5	3.2	1.1
102.5°	21.6	20.5	18.3	15.1	10.8	8.6	7.6	6.5	4.3	2.2	1.1
105°	12.9	11.9	9.7	7.6	6.5	5.4	5.4	4.3	3.2	1.1	1.1
107.5°	6.5	5.4	4.3	4.3	4.3	3.2	3.2	3.2	2.2	1.1	0.0
110°	1.1	1.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1	0.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
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°	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9	2534.9
2.5°	2546.7	2529.5	2539.2	2524.1	2520.8	2504.7	2530.5	2533.8	2531.6	2535.9
5°	2550.0	2531.6	2542.4	2524.1	2524.1	2506.8	2531.6	2531.6	2525.1	2527.3
7.5°	2558.6	2540.2	2547.8	2527.3	2528.4	2507.9	2538.1	2534.9	2529.5	2537.0
10°	2583.4	2562.9	2561.8	2542.4	2546.7	2525.1	2562.9	2562.9	2557.5	2571.5
12.5°	2623.3	2593.1	2587.7	2564.0	2572.6	2554.3	2600.7	2602.8	2603.9	2626.5
15°	2665.4	2628.7	2634.1	2606.0	2602.8	2593.1	2635.2	2633.0	2631.9	2663.2
17.5°	2724.7	2552.1	2524.1	2504.7	2500.3	2476.6	2515.4	2589.9	2551.0	2529.5
20°	2630.9	2540.2	2429.1	2391.4	2383.8	2177.8	2014.9	2088.3	2187.5	2196.2
22.5°	2545.6	2513.3	2504.7	2445.3	2116.3	2047.3	2053.8	2026.8	1791.7	1689.2
25°	2651.4	2623.3	2586.6	2224.2	2146.5	2121.7	2114.2	1838.0	1652.5	1664.4
27.5°	2768.9	2737.6	2418.4	2229.6	2246.9	2212.3	2041.9	1715.1	1704.3	1724.8
30°	2915.6	2665.4	2360.1	2349.3	2365.5	2321.3	1814.3	1790.6	1787.3	1808.9
32.5°	3082.8	2570.5	2515.4	2515.4	2507.9	2030.0	1911.4	1895.2	1903.8	1926.5
35°	3020.3	2719.3	2712.8	2739.8	2558.6	2082.9	2066.7	2038.7	2045.1	2052.7
37.5°	2951.2	2964.2	2967.4	2953.4	1866.1	2233.9	2221.0	2215.6	2209.1	2211.3
40°	3207.9	3216.6	3213.3	3085.0	2013.9	2263.0	2395.7	2386.0	2384.9	2397.9
42.5°	3507.8	3531.5	3513.2	2721.5	2211.3	1902.8	2597.4	2592.0	2589.9	2616.8
45°	3845.4	3868.1	3483.0	2914.5	2421.6	1969.6	2611.4	2812.1	2828.3	2852.0
47.5°	4211.1	4206.8	3214.4	3211.2	2668.6	2155.2	2171.3	3075.3	3102.2	3110.9
50°	4631.8	3940.4	3519.7	3401.0	2948.0	2363.3	2301.9	2821.8	3417.2	3425.8
52.5°	4542.2	3898.3	3870.2	2983.6	3198.2	2593.1	2532.7	2516.5	3542.3	3750.5
55°	4233.7	4266.1	4226.2	3273.7	2345.0	2798.0	2760.3	2744.1	2635.2	2086.1
57.5°	4576.8	4586.5	4552.0	3540.2	2384.9	1744.2	2717.1	2331.0	1514.4	1506.9
60°	4932.7	4948.9	3390.2	2600.7	1528.5	583.6	139.1	146.7	418.5	367.8
62.5°	5272.5	5288.7	3588.7	2376.3	965.4	43.1	28.0	19.4	21.6	21.6
65°	5715.8	5722.3	3841.1	2515.4	1003.2	10.8	3.2	0.0	0.0	0.0
67.5°	5945.6	5812.9	3904.8	2579.1	1030.1	6.5	2.2	0.0	0.0	0.0
70°	5598.3	5455.9	3635.1	2417.3	960.0	5.4	1.1	0.0	0.0	0.0
72.5°	4932.7	4863.7	3263.0	2143.3	850.0	3.2	1.1	0.0	0.0	0.0
75°	4088.1	3996.4	2705.3	1786.3	703.3	2.2	0.0	0.0	0.0	0.0
77.5°	2908.1	2918.9	1885.5	1301.9	478.9	2.2	0.0	0.0	0.0	0.0
80°	1272.8	1301.9	826.3	597.6	169.3	1.1	0.0	0.0	0.0	0.0
82.5°	242.7	223.3	107.9	85.2	21.6	0.0	0.0	0.0	0.0	0.0
85°	79.8	87.4	39.9	32.4	9.7	0.0	0.0	0.0	0.0	0.0
87.5°	28.0	35.6	11.9	9.7	2.2	0.0	0.0	0.0	0.0	0.0
90°	4.3	4.3	0.0	0.0	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
110°	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°
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)