

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: P579474

Luminaire Tested: **CTN-CA10-210-740-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579474  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-1)  
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-EX90  
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: 28177 lumens  
Efficiency: N/A  
Efficacy: 132.3 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G4

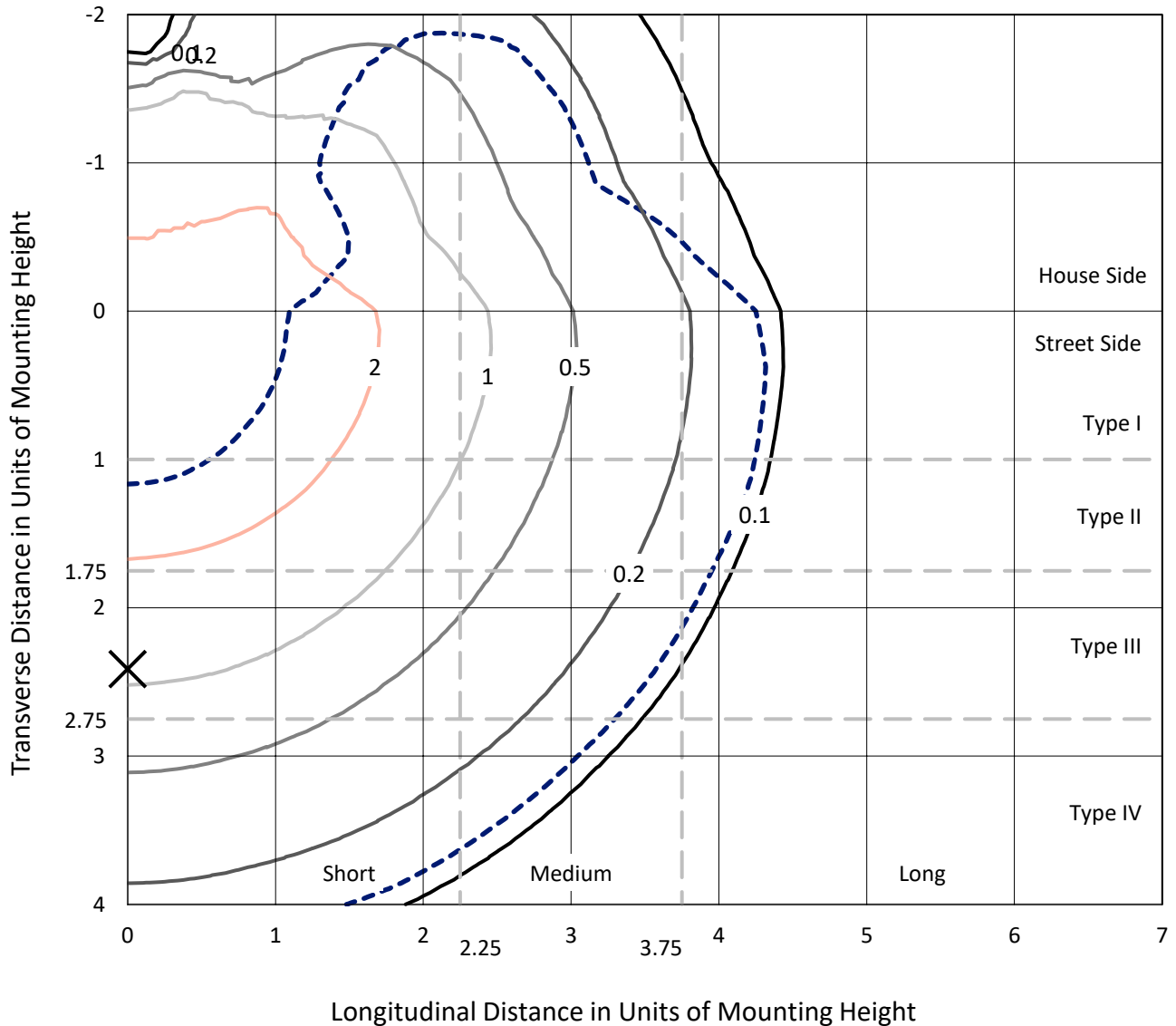
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

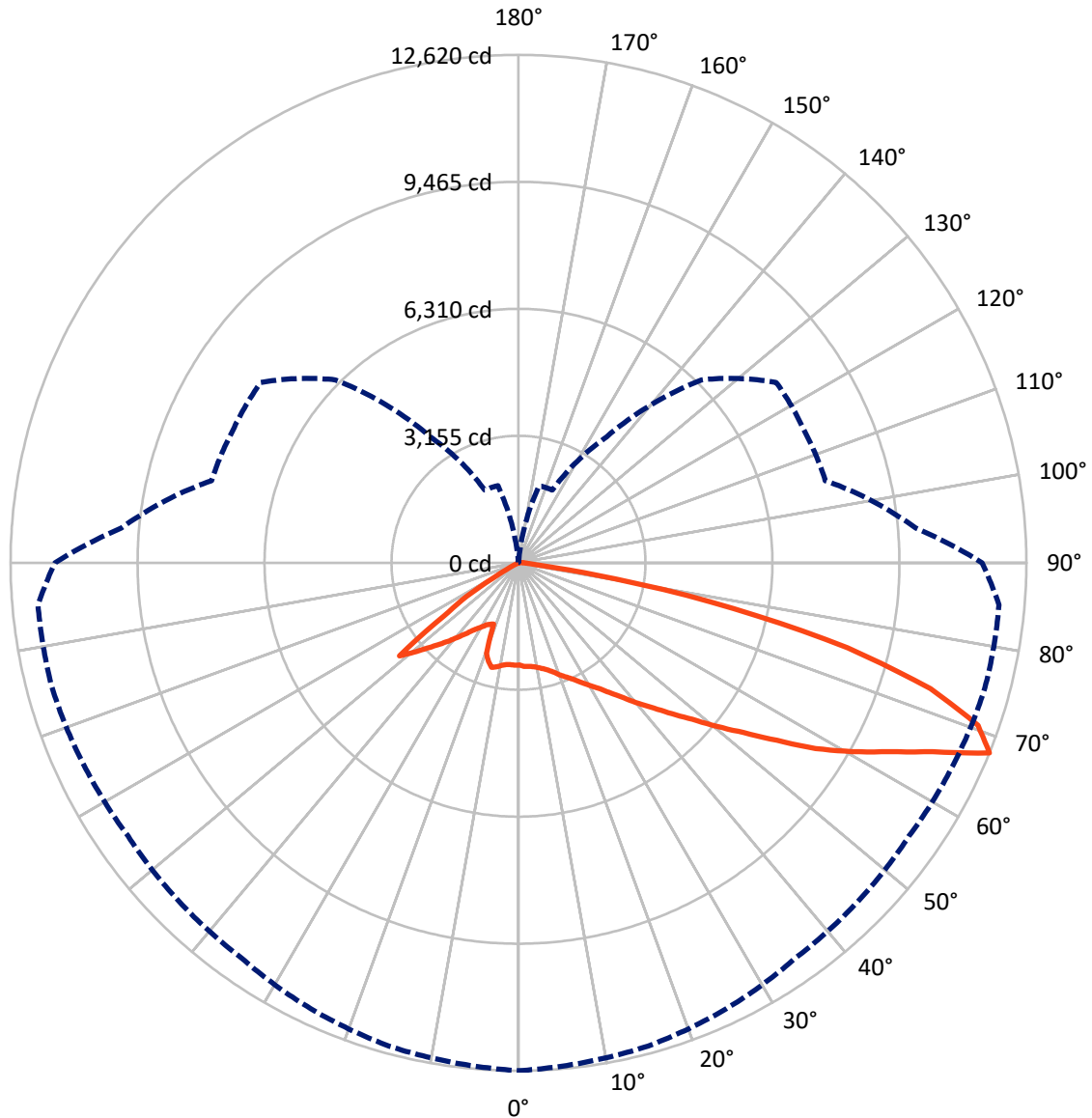
× Max cd  
 - - - 1/2 Max cd



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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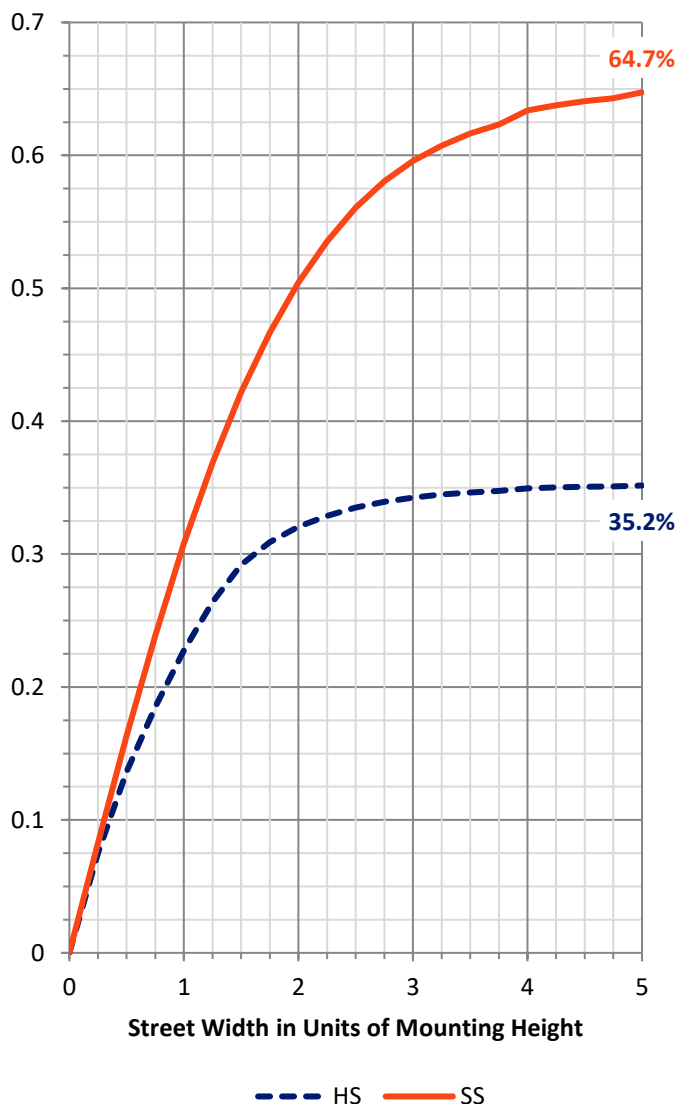
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9918.3	0.6	9918.9
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	18238.3	19.9	18258.2
	% Fixture	64.7	0.1	64.8
<b>Total</b>	Lumens	28156.5	20.5	28177.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	244.3	0.9
10°-20°	758.9	2.7
20°-30°	1315.7	4.7
30°-40°	2158.9	7.7
40°-50°	3601.0	12.8
50°-60°	5827.8	20.7
60°-70°	8044.2	28.5
70°-80°	5803.6	20.6
80°-90°	402.3	1.4
90°-100°	17.4	0.1
100°-110°	2.9	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°	28156.5	99.9
0°-180°	28177.0	100.0

**Coefficient of Utilization**

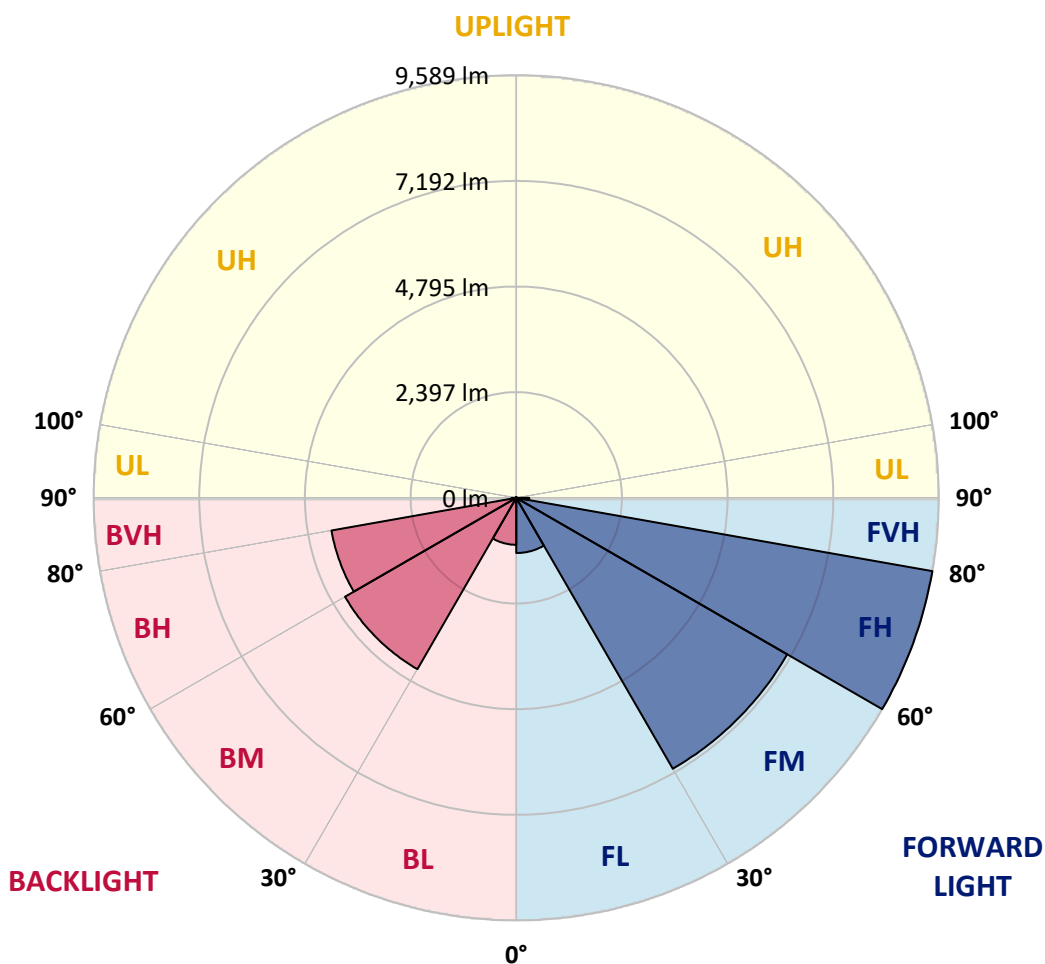


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1253.0	4.4			
FM	(30°-60°)	7099.9	25.2			
FH	(60°-80°)	9589.0	34.0			G4/12000
FVH	(80°-90°)	296.4	1.1			G3/500
BL	(0°-30°)	1065.9	3.8	B3/2500		
BM	(30°-60°)	4487.8	15.9	B3/5000		
BH	(60°-80°)	4258.8	15.1	B4/5000		G4/5000
BVH	(80°-90°)	105.9	0.4			G2/225
UL	(90°-100°)	17.4	0.1		U2/50	
UH	(100°-180°)	3.0	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°	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2
2.5°	2578.1	2563.0	2564.1	2579.2	2538.2	2553.3	2536.0	2551.1	2543.6	2548.9	2555.4
5°	2585.6	2567.3	2569.4	2587.8	2555.4	2567.3	2546.8	2555.4	2548.9	2555.4	2556.5
7.5°	2605.0	2586.7	2587.8	2601.8	2568.4	2577.0	2557.6	2561.9	2551.1	2563.0	2559.7
10°	2646.0	2628.8	2622.3	2634.2	2605.0	2606.1	2583.5	2587.8	2571.6	2587.8	2581.3
12.5°	2701.0	2677.3	2679.5	2685.9	2650.3	2652.5	2625.5	2632.0	2605.0	2627.7	2620.1
15°	2767.9	2738.8	2742.0	2752.8	2718.3	2715.1	2690.3	2690.3	2666.5	2683.8	2676.2
17.5°	2860.7	2828.3	2826.2	2833.7	2805.7	2805.7	2777.6	2774.4	2750.7	2764.7	2762.5
20°	2981.5	2944.8	2938.4	2952.4	2916.8	2921.1	2885.5	2882.3	2856.4	2865.0	2866.1
22.5°	3090.5	3061.3	3060.2	3081.8	3039.8	3045.1	3012.8	3004.2	2982.6	2994.4	2997.7
25°	3215.6	3211.3	3208.0	3215.6	3173.5	3173.5	3150.9	3143.3	3129.3	3137.9	3146.5
27.5°	3373.1	3370.9	3362.3	3363.4	3327.8	3333.2	3308.3	3304.0	3297.6	3296.5	3292.2
30°	3546.7	3537.0	3525.2	3532.7	3516.5	3521.9	3500.4	3486.3	3484.2	3485.3	3478.8
32.5°	3739.8	3726.9	3719.3	3732.3	3738.7	3753.8	3752.8	3713.9	3713.9	3730.1	3701.0
35°	3979.3	3958.8	3965.3	3982.5	3995.5	4034.3	4027.8	4000.9	4009.5	4017.0	3982.5
37.5°	4260.8	4246.8	4275.9	4308.3	4309.4	4364.4	4351.4	4357.9	4356.8	4347.1	4324.5
40°	4598.5	4575.8	4606.0	4630.8	4615.7	4681.5	4679.4	4708.5	4727.9	4761.3	4748.4
42.5°	4933.9	4916.7	4945.8	4999.7	4991.1	5066.6	5077.4	5122.7	5149.7	5201.5	5171.2
45°	5347.1	5337.4	5364.3	5406.4	5435.5	5535.8	5575.8	5595.2	5663.1	5725.7	5655.6
47.5°	5809.8	5822.8	5818.5	5895.1	5959.8	6081.7	6097.8	6160.4	6219.7	6288.8	6220.8
50°	6385.9	6364.3	6383.7	6457.0	6562.8	6651.2	6734.3	6823.8	6882.1	6953.2	6828.1
52.5°	7006.1	7024.4	7067.6	7180.9	7258.5	7363.2	7438.7	7545.4	7602.6	7664.1	7501.2
55°	7788.2	7803.3	7850.7	7967.2	8022.2	8140.9	8192.7	8299.5	8354.5	8381.4	8173.2
57.5°	8705.0	8654.3	8693.2	8753.6	8838.8	8967.2	8981.2	9081.5	9081.5	9116.0	8850.7
60°	9523.8	9489.3	9530.2	9616.5	9650.0	9766.5	9754.6	9836.6	9858.2	9832.3	9515.1
62.5°	10330.6	10337.1	10390.0	10418.0	10405.1	10474.1	10502.1	10588.4	10552.8	10561.5	10195.8
65°	11310.1	11325.2	11319.8	11268.0	11151.5	11287.4	11279.9	11416.9	11425.5	11503.2	11078.2
67.5°	12619.6	12552.7	12430.8	12222.7	11991.8	11912.0	11841.9	11909.8	11997.2	11983.2	11517.2
70°	12110.5	12001.5	11937.9	11756.7	11448.2	11288.5	11142.9	11154.8	11282.0	11293.9	10817.1
72.5°	10706.0	10651.0	10406.1	10247.6	10036.1	9913.2	9737.4	9777.3	9943.4	9971.4	9591.7
75°	8445.1	8394.4	8173.2	8121.5	8016.8	8077.2	8034.1	8050.3	8184.0	8061.1	7833.5
77.5°	5465.7	5477.6	5443.1	5560.7	5556.3	5559.6	5717.1	5733.2	5863.8	5788.3	5568.2
80°	2450.8	2486.4	2570.5	2741.0	2637.4	2693.5	2753.9	2735.6	2867.2	2569.4	2676.2
82.5°	496.2	513.5	484.3	505.9	472.5	489.7	514.5	476.8	472.5	437.9	406.7
85°	255.6	258.9	257.8	252.4	222.2	205.0	197.4	166.1	149.9	146.7	135.9
87.5°	166.1	168.3	162.9	161.8	142.4	130.5	116.5	98.2	82.0	57.2	47.5
90°	101.4	101.4	96.0	90.6	80.9	72.3	58.2	42.1	24.8	9.7	5.4
92.5°	68.0	68.0	65.8	62.6	56.1	48.5	37.8	24.8	11.9	4.3	2.2
95°	43.1	43.1	42.1	41.0	36.7	31.3	23.7	15.1	7.6	3.2	1.1
97.5°	28.0	28.0	28.0	27.0	24.8	21.6	16.2	9.7	5.4	2.2	1.1
100°	17.3	18.3	17.3	17.3	16.2	14.0	10.8	6.5	4.3	2.2	1.1
102.5°	9.7	9.7	10.8	10.8	9.7	8.6	6.5	5.4	3.2	2.2	1.1
105°	4.3	4.3	5.4	5.4	5.4	4.3	4.3	3.2	2.2	2.2	1.1
107.5°	1.1	1.1	1.1	2.2	3.2	3.2	3.2	3.2	2.2	1.1	1.1
110°	0.0	0.0	0.0	1.1	1.1	2.2	2.2	2.2	2.2	1.1	1.1



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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°	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2	2539.2
2.5°	2548.9	2536.0	2545.7	2529.5	2525.2	2511.2	2538.2	2542.5	2540.3	2544.6
5°	2551.1	2534.9	2546.8	2530.6	2529.5	2514.4	2542.5	2543.6	2536.0	2539.2
7.5°	2557.6	2542.5	2551.1	2532.8	2534.9	2516.6	2548.9	2547.9	2543.6	2551.1
10°	2581.3	2564.1	2567.3	2547.9	2553.3	2533.8	2573.8	2575.9	2571.6	2585.6
12.5°	2622.3	2598.6	2606.1	2583.5	2587.8	2568.4	2616.9	2620.1	2620.1	2642.8
15°	2678.4	2653.6	2669.8	2640.6	2641.7	2612.6	2649.3	2649.3	2653.6	2684.9
17.5°	2760.4	2730.2	2751.7	2724.8	2556.5	2492.9	2618.0	2694.6	2567.3	2556.5
20°	2861.8	2847.7	2859.6	2815.4	2542.5	2251.2	2024.7	2012.8	2264.2	2389.3
22.5°	2985.8	2971.8	2977.2	2921.1	2269.6	2064.6	2061.4	2039.8	1725.9	1639.6
25°	3131.4	3123.9	3112.0	2641.7	2346.2	2149.8	2123.9	1842.4	1662.3	1678.4
27.5°	3287.9	3265.2	2865.0	2744.2	2463.7	2235.0	2088.3	1720.5	1714.0	1729.1
30°	3462.6	3342.9	2933.0	2892.0	2600.7	2340.8	1817.6	1796.0	1796.0	1819.8
32.5°	3684.8	3121.7	3121.7	3100.2	2770.1	2054.9	1913.6	1900.7	1915.8	1925.5
35°	3651.4	3358.0	3392.5	3382.8	2999.8	2092.7	2067.9	2046.3	2049.5	2049.5
37.5°	3662.2	3674.0	3715.0	3672.9	2616.9	2256.6	2216.7	2212.4	2215.6	2223.2
40°	4000.9	4007.3	4022.4	3929.7	2812.1	2447.6	2392.5	2381.8	2392.5	2408.7
42.5°	4365.5	4383.8	4401.1	3573.7	3085.1	2664.4	2609.4	2588.9	2608.3	2625.5
45°	4796.9	4825.0	4560.7	3889.8	3393.6	2911.4	2853.1	2828.3	2840.2	2855.3
47.5°	5282.4	5326.6	4300.7	4292.1	3756.0	3203.7	3136.8	3089.4	3107.7	3106.6
50°	5830.3	5090.3	4751.6	4746.2	4160.5	3529.5	3460.4	3417.3	3431.3	3420.5
52.5°	6422.5	5229.5	5240.3	5239.2	4583.4	3880.1	3816.4	3762.5	3651.4	3753.8
55°	7028.8	5710.6	5751.6	5745.1	5026.7	4242.5	4174.5	4123.8	2694.6	2276.0
57.5°	7631.7	6213.3	6226.2	6241.3	5486.2	4592.0	4293.2	3943.7	1537.1	1529.6
60°	8227.2	6692.2	6718.1	6726.7	5734.3	3801.3	1755.0	1787.4	464.9	555.5
62.5°	8844.2	7164.7	7188.4	7180.9	5981.3	3534.9	1843.5	1806.8	43.1	39.9
65°	9631.6	7756.9	7723.4	7698.6	6370.8	3772.2	1980.5	1970.8	14.0	9.7
67.5°	9907.8	7891.7	7823.8	7815.1	6426.8	3822.9	1991.3	1983.7	14.0	9.7
70°	9282.1	7379.3	7262.8	7266.1	5980.3	3575.9	1857.5	1846.7	12.9	9.7
72.5°	8129.0	6517.5	6468.9	6212.2	5178.8	3145.5	1647.2	1606.2	12.9	8.6
75°	6673.9	5265.1	5157.2	4869.2	4121.7	2500.4	1293.4	1240.5	11.9	7.6
77.5°	4633.0	3692.4	3486.3	3192.9	2757.1	1657.9	869.4	801.5	10.8	7.6
80°	2100.2	1515.6	1523.1	1167.1	935.2	562.0	276.1	250.3	9.7	6.5
82.5°	365.7	269.7	253.5	244.9	203.9	138.1	84.1	72.3	8.6	4.3
85°	127.3	102.5	113.3	133.8	118.7	83.1	51.8	49.6	5.4	2.2
87.5°	43.1	45.3	52.9	63.6	56.1	32.4	19.4	14.0	1.1	0.0
90°	4.3	5.4	5.4	5.4	3.2	0.0	0.0	0.0	0.0	0.0
92.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	1.1	1.1	1.1	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)