

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: P522118

Luminaire Tested: **CTN-CA10-210-740-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522118
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-CA10-210-740-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 4000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23083 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G4

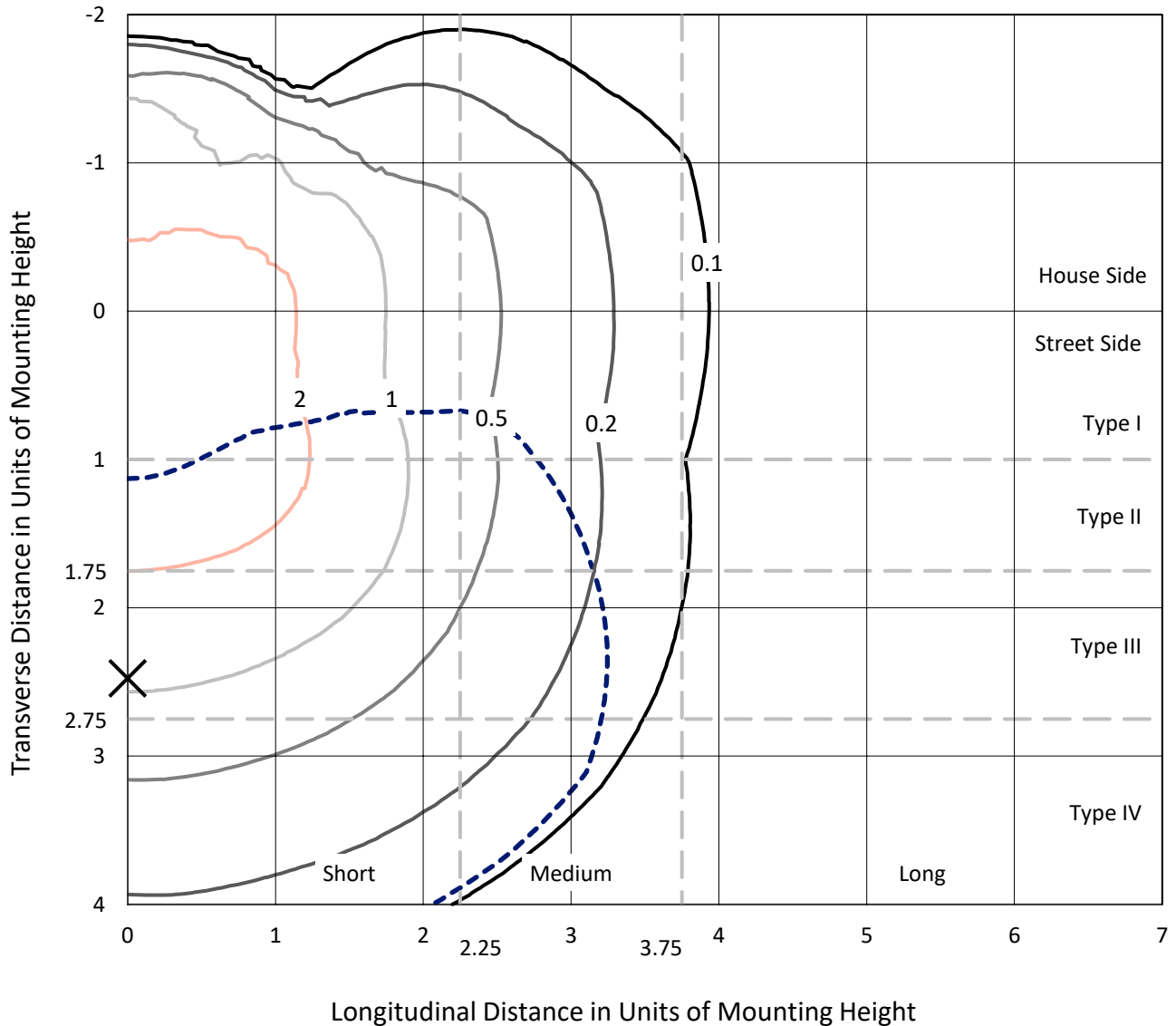
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

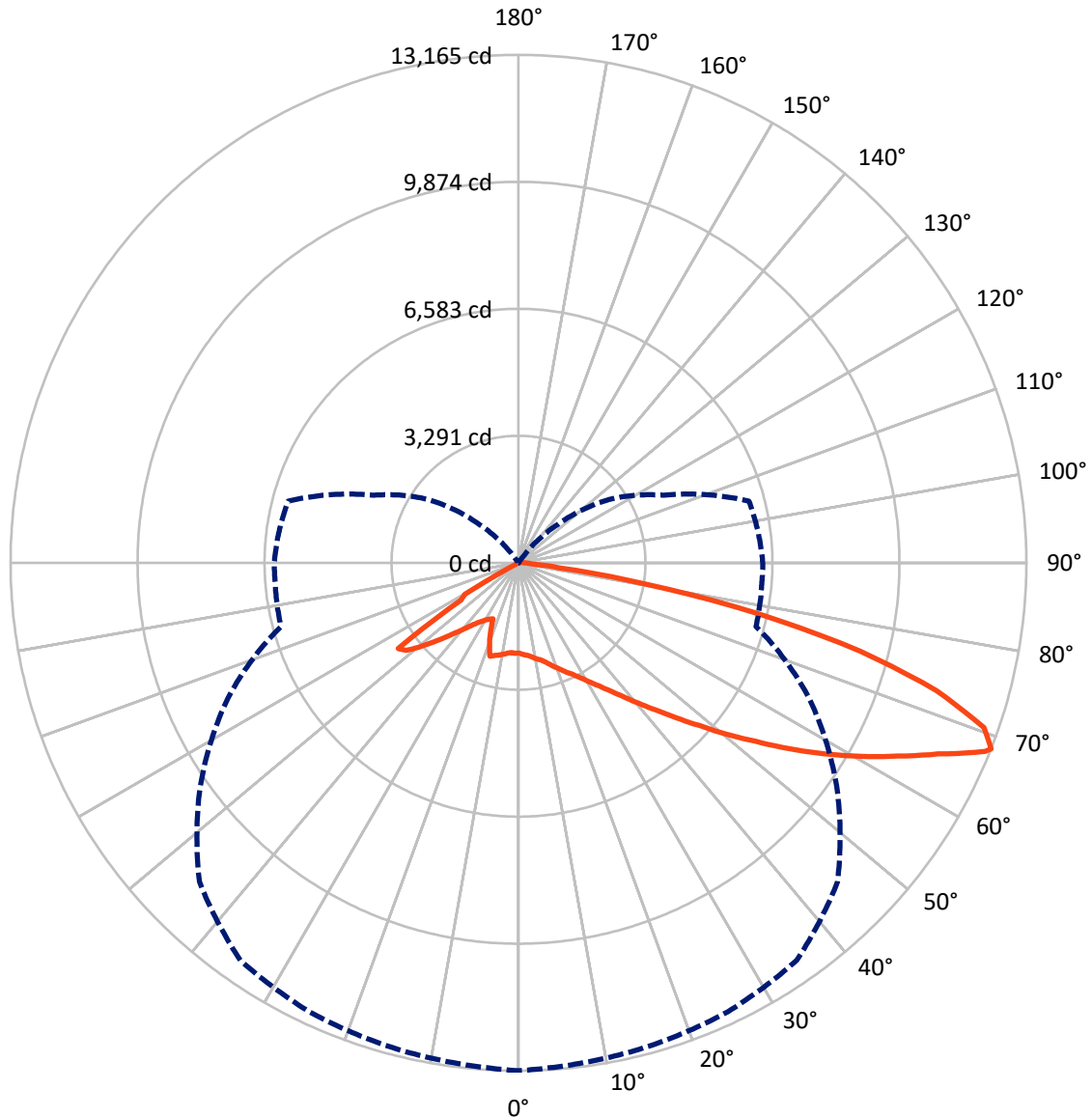
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 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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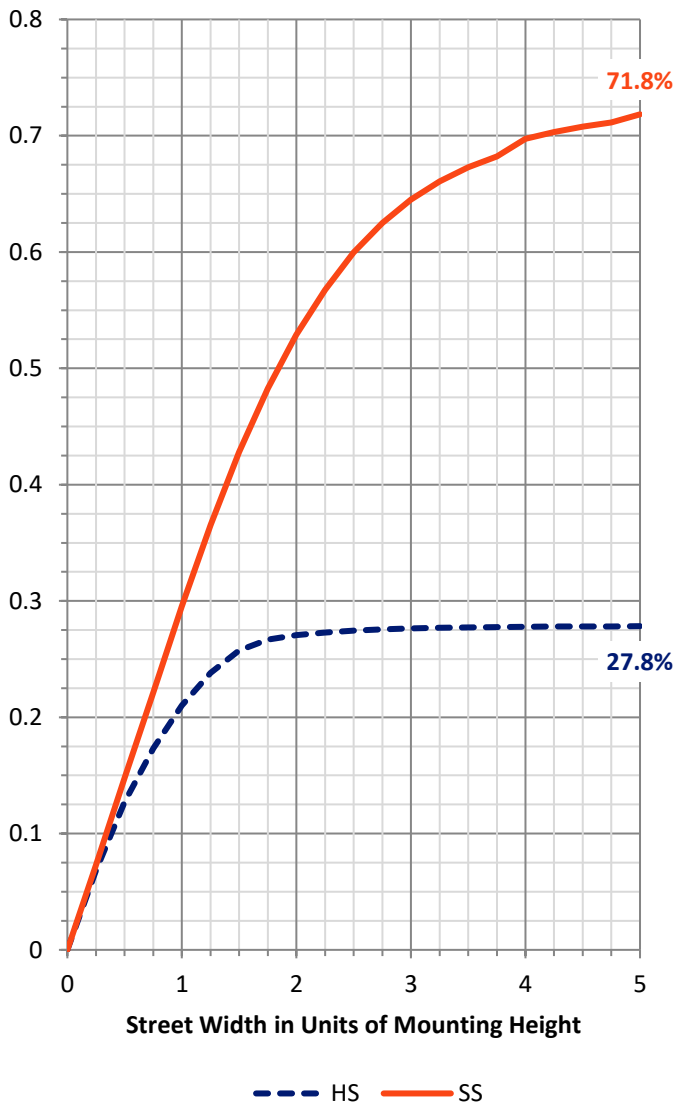
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6447.1	0.1	6447.2
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	16622.5	13.2	16635.7
	% Fixture	72.0	0.1	72.1
Total	Lumens	23069.6	13.4	23083.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.0	1.0
10°-20°	719.2	3.1
20°-30°	1217.6	5.3
30°-40°	1929.0	8.4
40°-50°	3153.7	13.7
50°-60°	4830.7	20.9
60°-70°	5939.7	25.7
70°-80°	4589.6	19.9
80°-90°	463.1	2.0
90°-100°	13.1	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°	23069.6	99.9
0°-180°	23083.0	100.0

Coefficient of Utilization

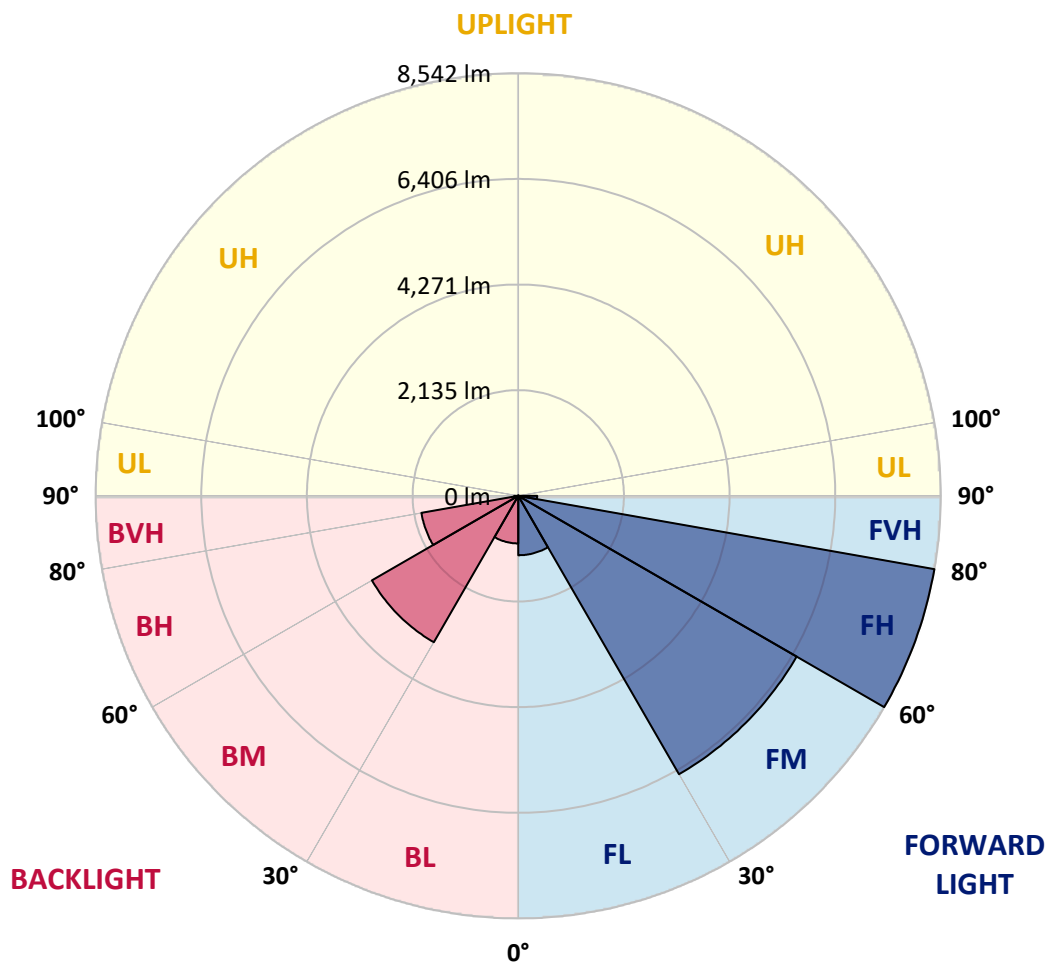


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1201.5	5.2			
FM (30°-60°)	6497.5	28.1			
FH (60°-80°)	8541.7	37.0			G4/12000
FVH (80°-90°)	381.9	1.7			G3/500
BL (0°-30°)	962.3	4.2	B2/1000		
BM (30°-60°)	3416.0	14.8	B3/5000		
BH (60°-80°)	1987.7	8.6	B3/2500		G3/2500
BVH (80°-90°)	81.2	0.4			G1/100
UL (90°-100°)	13.1	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°	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6
2.5°	2380.8	2376.4	2371.9	2381.9	2343.0	2359.7	2346.3	2358.6	2349.7	2359.7	2356.3
5°	2411.9	2407.5	2394.2	2405.3	2379.7	2386.4	2369.7	2374.1	2344.1	2361.9	2360.8
7.5°	2463.1	2450.9	2442.0	2442.0	2419.7	2418.6	2391.9	2393.0	2369.7	2367.5	2371.9
10°	2532.0	2523.1	2498.7	2500.9	2469.8	2465.3	2432.0	2430.9	2411.9	2400.8	2410.8
12.5°	2583.2	2592.1	2569.9	2569.9	2538.7	2516.5	2493.1	2477.6	2463.1	2446.4	2438.6
15°	2676.6	2685.5	2655.5	2654.4	2642.1	2615.4	2589.9	2556.5	2530.9	2523.1	2510.9
17.5°	2797.8	2792.3	2766.7	2767.8	2770.0	2726.6	2701.1	2657.7	2621.0	2594.3	2587.6
20°	2921.2	2921.2	2893.4	2902.3	2891.2	2851.2	2834.5	2774.5	2723.3	2694.4	2671.0
22.5°	3059.1	3053.6	3034.7	3053.6	3031.3	2991.3	2963.5	2903.5	2837.8	2674.4	2607.7
25°	3190.4	3187.0	3194.8	3200.4	3172.6	3122.5	3103.6	3040.2	2857.9	2643.2	2508.7
27.5°	3356.0	3344.9	3362.7	3373.8	3346.0	3302.7	3262.6	3191.5	2805.6	2636.6	2622.1
30°	3568.4	3544.0	3569.5	3575.1	3546.2	3519.5	3459.5	3103.6	2823.4	2774.5	2770.0
32.5°	3795.3	3766.4	3799.7	3804.2	3766.4	3744.1	3592.9	3058.0	2998.0	2941.3	2946.8
35°	4064.4	4064.4	4081.1	4083.3	4055.5	4017.7	3441.7	3280.4	3227.0	3174.8	3173.7
37.5°	4392.4	4382.4	4426.9	4453.6	4423.6	4315.7	3661.8	3586.2	3503.9	3437.2	3299.3
40°	4788.3	4806.1	4818.3	4845.0	4816.1	4573.7	3983.2	3897.6	3833.1	3609.6	3261.5
42.5°	5215.3	5219.8	5246.5	5279.8	5279.8	5024.1	4359.1	4285.7	4202.3	3529.5	3372.7
45°	5725.7	5715.7	5766.9	5820.3	5805.8	5541.1	4796.1	4741.6	4351.3	3761.9	3763.0
47.5°	6305.1	6292.9	6366.2	6436.3	6364.0	6114.9	5276.5	5234.2	4200.1	4155.6	4146.7
50°	6974.5	6944.5	7029.0	7122.4	7063.5	6755.5	5860.3	5048.5	4621.5	4585.9	4580.4
52.5°	7689.5	7666.2	7717.3	7876.4	7798.5	7426.0	6413.0	5208.6	5109.7	5069.6	5059.6
55°	8496.9	8451.3	8561.4	8682.6	8592.5	8167.7	6957.8	5740.2	5637.9	5568.9	5468.9
57.5°	9345.3	9279.7	9336.4	9488.8	9402.0	8927.2	7660.6	6287.3	6166.1	5103.0	4697.1
60°	10190.4	10160.4	10182.7	10317.2	10210.5	9665.6	8318.9	6835.5	5218.7	5047.4	5067.4
62.5°	11040.0	10974.4	10994.4	11132.3	10995.5	10368.4	8942.8	7333.7	5492.2	5432.2	5453.3
65°	11950.8	11872.9	11890.7	11930.7	11761.7	10998.9	9494.3	7804.1	5903.7	5840.3	5863.6
67.5°	13048.3	12977.1	12880.4	12761.4	12527.9	11668.3	10042.5	8298.9	6366.2	6330.7	6338.4
68°	13165.1	13096.1	12979.4	12838.1	12575.7	11696.1	10065.9	8313.4	6372.9	6328.4	6330.7
70°	12801.4	12842.6	12710.3	12473.4	12254.3	11289.1	9684.5	7993.1	6089.4	6023.8	6007.1
72.5°	11336.9	11427.0	11244.6	11204.6	10935.5	10057.0	8474.6	6935.6	5296.5	5317.6	5257.6
75°	9152.9	9285.3	9064.0	9076.2	8922.8	8389.0	7102.4	5774.7	4349.1	4445.8	4463.6
77.5°	6365.1	6555.3	6458.5	6555.3	6479.7	6287.3	5496.7	4446.9	3318.2	3429.4	3472.8
80°	3319.3	3545.1	3673.0	3713.0	3737.5	3729.7	3347.1	2668.8	1918.2	1959.4	1957.1
82.5°	1049.7	995.2	1027.5	1018.6	990.8	1001.9	903.0	706.1	489.3	539.3	516.0
85°	316.9	319.1	310.3	308.0	284.7	250.2	204.6	117.9	57.8	67.8	63.4
87.5°	233.5	235.7	218.0	206.8	193.5	167.9	130.1	73.4	27.8	26.7	21.1
90°	129.0	124.5	115.6	106.8	101.2	86.7	65.6	27.8	10.0	7.8	6.7
92.5°	70.1	66.7	62.3	58.9	51.2	41.1	26.7	8.9	4.4	1.1	0.0
95°	32.2	30.0	28.9	25.6	22.2	15.6	8.9	5.6	3.3	1.1	0.0
97.5°	14.5	13.3	12.2	10.0	7.8	4.4	4.4	3.3	2.2	1.1	0.0
100°	3.3	3.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.1	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	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°	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6	2338.6
2.5°	2353.0	2346.3	2343.0	2321.9	2328.5	2309.6	2346.3	2337.4	2331.9	2347.5
5°	2355.2	2331.9	2346.3	2334.1	2338.6	2311.9	2340.8	2328.5	2327.4	2334.1
7.5°	2360.8	2345.2	2359.7	2335.2	2346.3	2335.2	2356.3	2344.1	2354.1	2360.8
10°	2390.8	2381.9	2375.3	2369.7	2377.5	2355.2	2381.9	2383.0	2386.4	2406.4
12.5°	2433.1	2424.2	2413.1	2398.6	2406.4	2397.5	2417.5	2423.1	2435.3	2445.3
15°	2492.0	2475.3	2470.9	2457.5	2465.3	2460.9	2465.3	2462.0	2485.3	2482.0
17.5°	2573.2	2554.3	2490.9	2426.4	2385.3	2397.5	2448.6	2515.4	2532.0	2534.3
20°	2603.2	2469.8	2463.1	2389.7	2356.3	2354.1	2248.5	2090.6	2138.4	2250.7
22.5°	2567.6	2385.3	2366.4	2351.9	2209.6	1976.0	1953.8	1930.4	1924.9	1941.6
25°	2487.6	2466.4	2449.8	2260.7	2036.1	2037.2	2005.0	1851.5	1612.4	1592.4
27.5°	2609.9	2581.0	2419.7	2128.4	2123.9	2121.7	2073.9	1680.2	1629.1	1641.3
30°	2748.9	2701.1	2279.6	2241.8	2240.7	2220.7	1859.3	1694.7	1694.7	1696.9
32.5°	2909.0	2612.1	2359.7	2377.5	2376.4	2281.8	1795.9	1784.8	1780.3	1791.4
35°	3031.3	2540.9	2532.0	2564.3	2542.1	1936.0	1908.2	1898.2	1893.8	1888.2
37.5°	2993.5	2745.5	2745.5	2765.6	2586.5	2061.7	2048.3	2048.3	2039.4	2035.0
40°	3051.4	3000.2	2974.6	2982.4	1879.3	2214.0	2224.0	2221.8	2220.7	2228.5
42.5°	3356.0	3310.4	3287.1	3011.3	2103.9	2200.7	2445.3	2444.2	2447.5	2444.2
45°	3744.1	3701.9	3640.7	2817.8	2388.6	1929.3	2695.5	2707.7	2708.9	2707.7
47.5°	4151.1	4124.4	3498.4	3119.2	2697.7	2070.6	2576.5	3009.1	3003.5	3010.2
50°	4581.5	4461.4	3480.6	3476.1	3026.9	2304.1	2305.2	3272.6	3329.4	3347.1
52.5°	5060.8	4044.4	3857.6	3519.5	3360.5	2544.3	2519.8	2900.1	3674.1	3691.9
55°	4700.5	4272.3	4269.0	3132.5	3496.2	2775.6	2778.9	2752.2	3369.4	3829.8
57.5°	4677.1	4687.1	4679.3	3495.0	2550.9	2602.1	3028.0	3004.6	2181.8	1768.1
60°	5080.8	5095.2	4545.9	3774.2	2757.8	1600.2	1864.8	1584.6	1605.7	1622.4
62.5°	5466.6	5471.1	3697.4	2474.2	1366.7	64.5	31.1	25.6	24.5	24.5
65°	5893.6	5893.6	3963.2	2698.8	1320.0	24.5	4.4	3.3	12.2	12.2
67.5°	6306.2	6215.0	4157.8	2865.6	1343.3	3.3	0.0	0.0	0.0	0.0
68°	6282.8	6182.8	4140.0	2861.2	1340.0	2.2	0.0	0.0	0.0	0.0
70°	5933.7	5836.9	3927.6	2731.1	1289.9	2.2	0.0	0.0	0.0	0.0
72.5°	5237.6	5148.6	3478.4	2407.5	1163.2	1.1	0.0	0.0	0.0	0.0
75°	4433.6	4421.3	3004.6	2031.6	997.5	1.1	0.0	0.0	0.0	0.0
77.5°	3567.3	3511.7	2348.6	1592.4	804.0	0.0	0.0	0.0	0.0	0.0
80°	1987.2	2069.4	1374.4	936.3	506.0	0.0	0.0	0.0	0.0	0.0
82.5°	537.1	502.6	300.2	203.5	96.7	0.0	0.0	0.0	0.0	0.0
85°	68.9	75.6	34.5	27.8	6.7	0.0	0.0	0.0	0.0	0.0
87.5°	35.6	42.3	11.1	8.9	2.2	0.0	0.0	0.0	0.0	0.0
90°	6.7	7.8	3.3	1.1	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)