

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: P579503

Luminaire Tested: **CTN-CA8-230-740-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579503
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-CA8-230-740-U-T5-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22106 lumens
Efficiency: N/A
Efficacy: 96.8 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G4

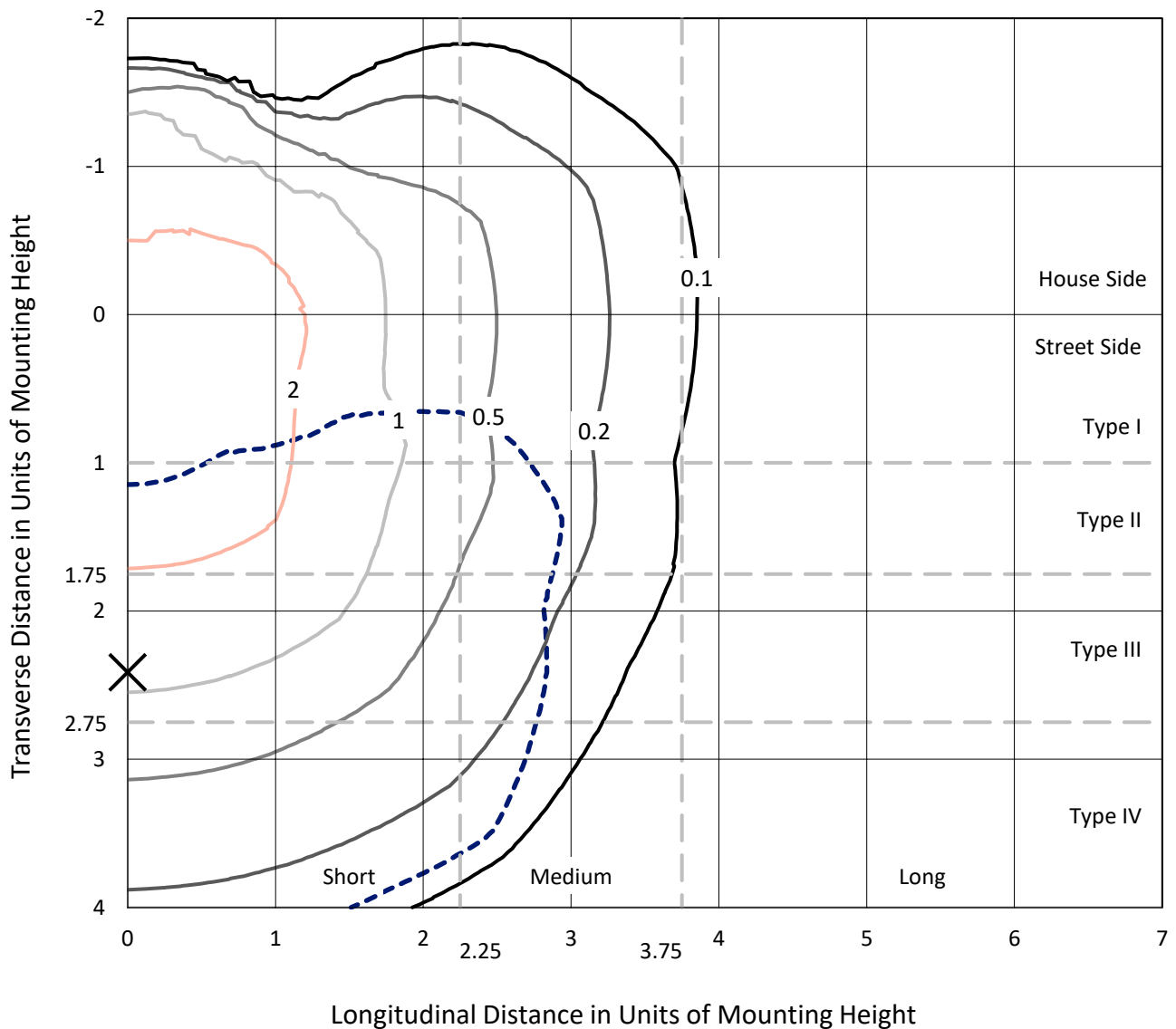
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

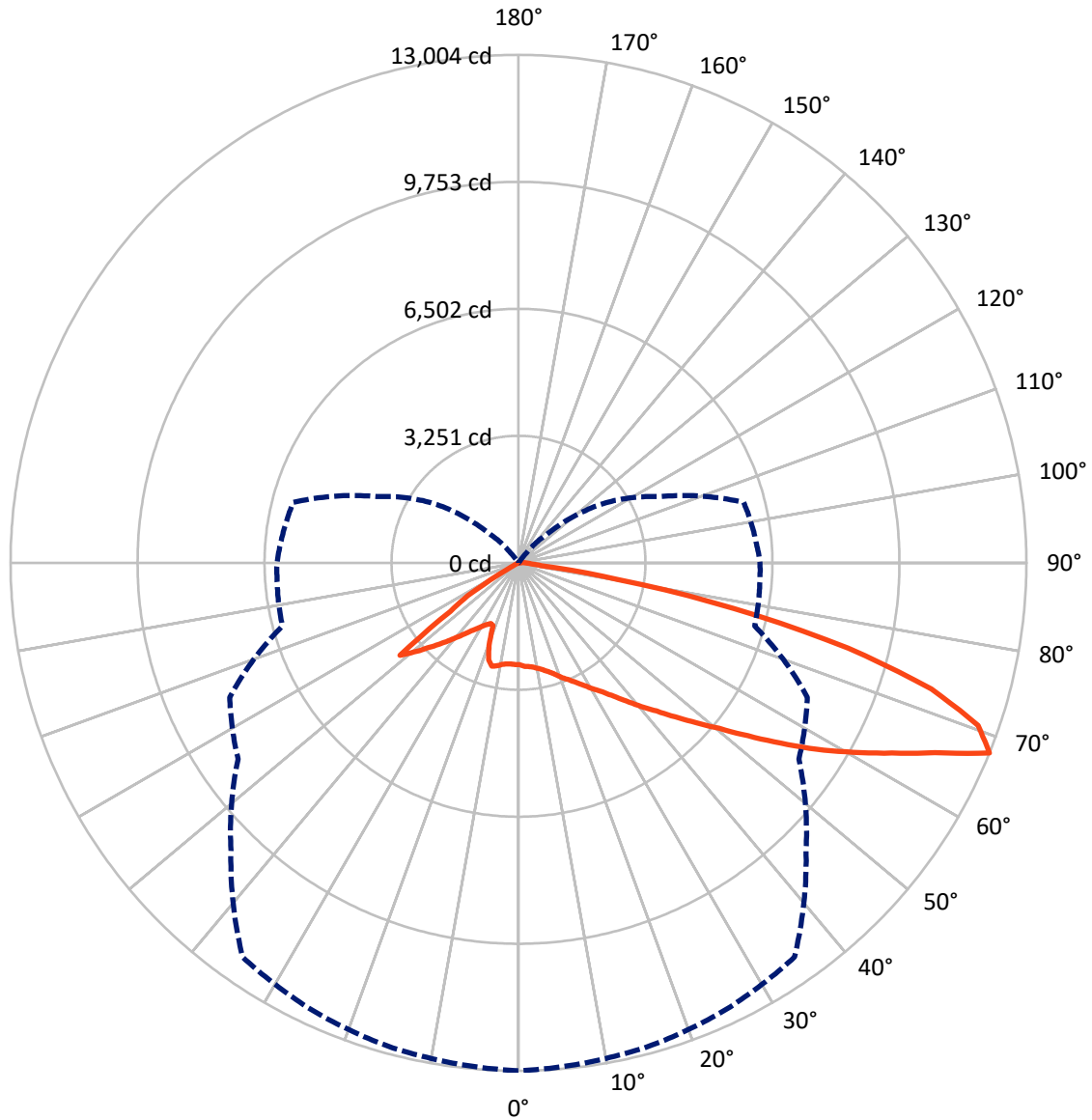
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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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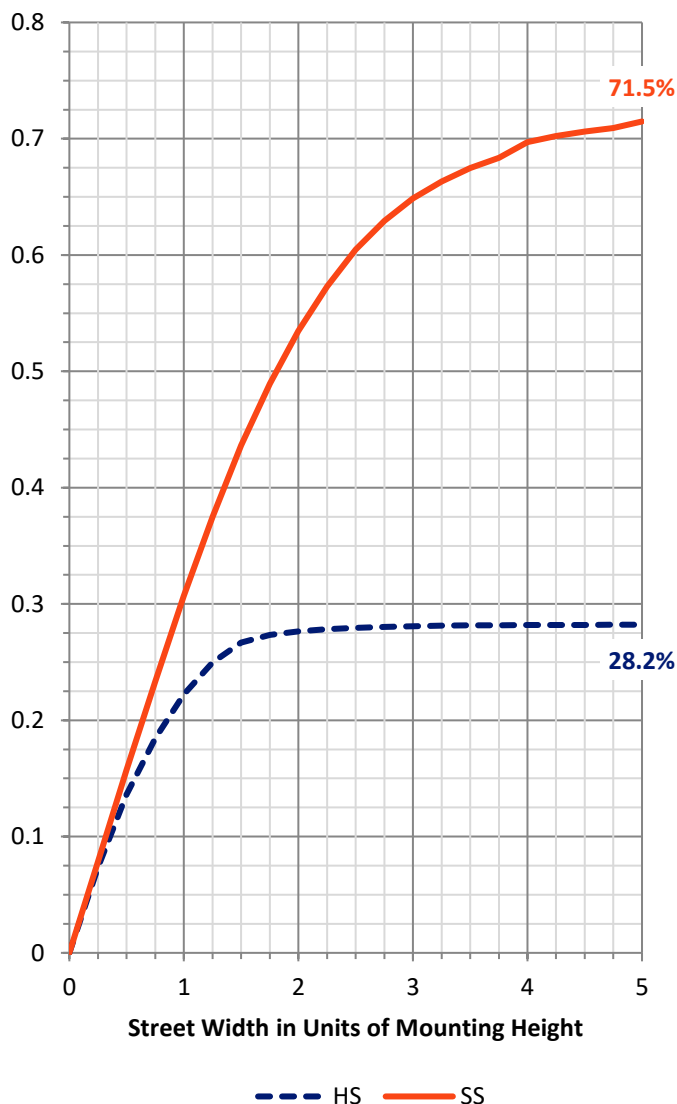
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6265.3	0.1	6265.3
	% Fixture	28.3	0.0	28.3
Street Side	Lumens	15812.5	28.1	15840.6
	% Fixture	71.5	0.1	71.7
Total	Lumens	22077.8	28.2	22106.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	251.1	1.1
10°-20°	772.9	3.5
20°-30°	1279.9	5.8
30°-40°	2014.7	9.1
40°-50°	3153.0	14.3
50°-60°	4552.4	20.6
60°-70°	5639.7	25.5
70°-80°	4107.2	18.6
80°-90°	306.8	1.4
90°-100°	24.1	0.1
100°-110°	4.0	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°	22077.8	99.9
0°-180°	22106.0	100.0

Coefficient of Utilization

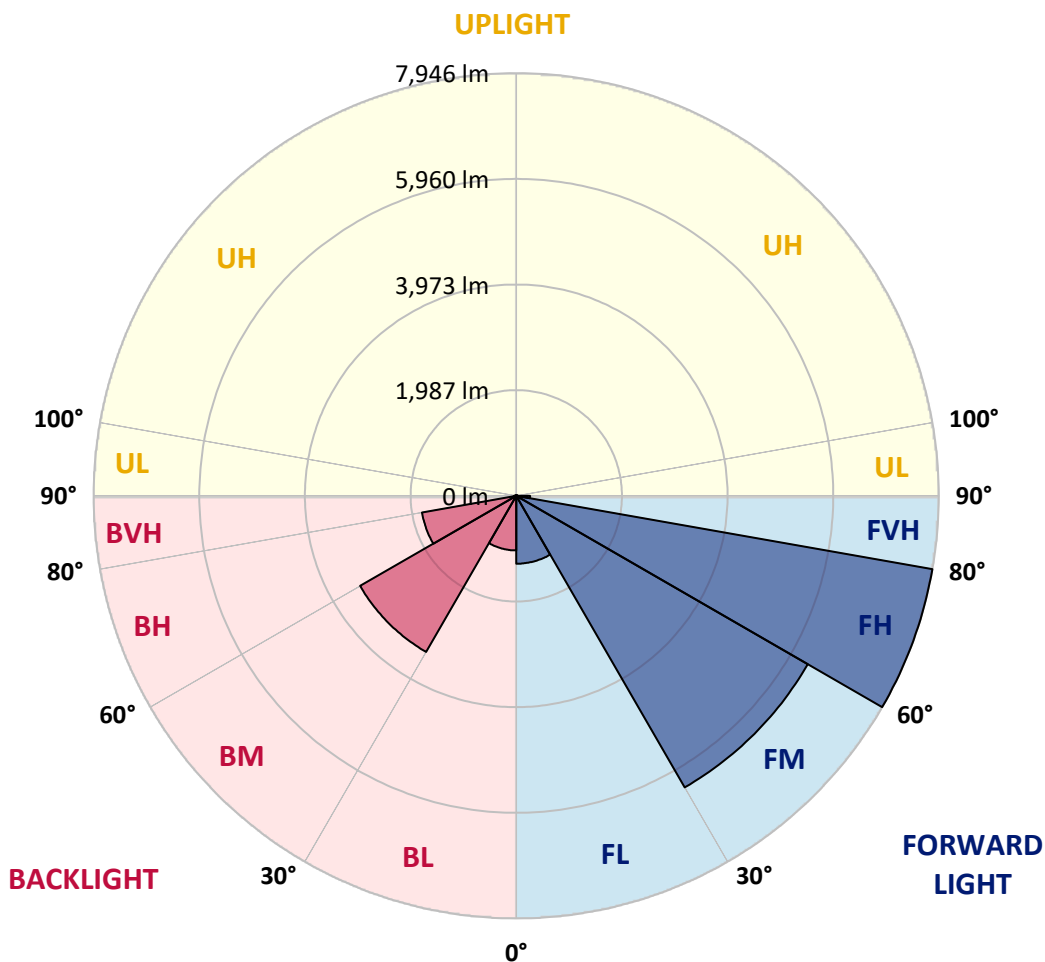


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1276.8	5.8			
FM (30°-60°)	6330.5	28.6			
FH (60°-80°)	7946.4	35.9			G4/12000
FVH (80°-90°)	258.8	1.2			G3/500
BL (0°-30°)	1027.1	4.6	B3/2500		
BM (30°-60°)	3389.6	15.3	B3/5000		
BH (60°-80°)	1800.5	8.1	B3/2500		G3/2500
BVH (80°-90°)	48.0	0.2			G1/100
UL (90°-100°)	24.1	0.1		U2/50	
UH (100°-180°)	4.1	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°	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5
2.5°	2651.2	2636.8	2636.8	2652.3	2609.1	2622.4	2604.6	2620.1	2611.3	2615.7	2621.2
5°	2666.7	2650.0	2651.2	2670.0	2631.2	2642.3	2621.2	2629.0	2621.2	2624.6	2624.6
7.5°	2695.5	2681.1	2681.1	2692.1	2653.4	2656.7	2637.9	2637.9	2627.9	2635.6	2629.0
10°	2749.8	2734.2	2726.5	2732.0	2697.7	2693.3	2667.8	2667.8	2652.3	2664.5	2654.5
12.5°	2815.1	2793.0	2790.7	2791.9	2753.1	2745.3	2716.5	2717.6	2688.8	2705.4	2693.3
15°	2893.8	2866.1	2863.9	2868.3	2827.3	2812.9	2780.8	2780.8	2748.6	2757.5	2740.9
17.5°	2994.6	2962.5	2956.9	2964.7	2923.7	2910.4	2872.7	2866.1	2830.6	2824.0	2809.6
20°	3127.5	3091.0	3079.9	3096.5	3044.5	3032.3	2986.8	2972.4	2924.8	2846.1	2743.1
22.5°	3247.2	3218.4	3211.7	3222.8	3175.2	3163.0	3118.7	3088.8	2973.5	2815.1	2719.8
25°	3383.5	3372.4	3369.1	3362.4	3319.2	3298.2	3256.1	3214.0	2952.5	2735.4	2733.1
27.5°	3551.9	3546.3	3530.8	3525.3	3477.6	3464.3	3408.9	3137.5	2877.2	2861.7	2852.8
30°	3735.8	3724.7	3709.2	3710.3	3678.2	3653.8	3522.0	3069.9	3022.3	3022.3	2999.0
32.5°	3939.6	3927.4	3911.9	3915.2	3902.0	3880.9	3484.3	3248.3	3211.7	3221.7	3192.9
35°	4192.2	4172.3	4166.7	4180.0	4181.1	4044.9	3550.8	3490.9	3462.1	3455.5	3346.9
37.5°	4486.9	4470.3	4490.2	4521.3	4485.8	4087.0	3815.5	3796.7	3767.9	3607.3	3350.2
40°	4840.3	4810.4	4834.8	4854.7	4831.5	4337.3	4093.6	4100.3	4074.8	3598.4	3313.7
42.5°	5190.4	5161.6	5182.7	5232.5	5223.7	4647.6	4432.6	4447.0	4190.0	3619.4	3597.3
45°	5623.6	5613.6	5607.0	5648.0	5682.3	5018.7	4834.8	4833.7	4108.0	3954.0	3934.1
47.5°	6114.4	6101.1	6104.4	6156.5	6208.6	5461.8	5310.1	4864.7	4319.6	4335.1	4317.4
50°	6661.7	6647.3	6690.5	6765.8	6792.4	5959.3	5773.2	4780.5	4760.6	4777.2	4747.3
52.5°	7356.3	7324.2	7390.7	7471.5	7505.9	6547.6	5798.6	5277.9	5244.7	5248.0	5152.7
55°	8146.2	8120.8	8180.6	8271.4	8322.4	7204.5	6328.2	5762.1	5742.1	5177.1	4662.0
57.5°	9004.8	8976.0	9055.8	9082.4	9095.7	7883.7	6861.1	6287.2	5364.4	4727.3	4698.5
60°	9846.8	9815.8	9916.6	9921.1	9959.8	8561.7	7367.4	6793.5	5168.3	5084.1	5059.7
62.5°	10730.9	10692.1	10780.8	10777.5	10701.0	9182.1	7869.3	7279.9	5518.3	5451.9	5414.2
65°	11712.5	11683.7	11745.7	11646.0	11494.3	9823.6	8390.0	7809.4	5926.0	5913.9	5905.0
67.5°	13004.3	12947.8	12822.6	12609.9	12319.6	10411.9	8762.2	8158.4	6257.3	6200.8	6183.1
70°	12484.7	12418.2	12322.9	12089.2	11793.4	9859.0	8164.0	7631.1	5850.7	5852.9	5810.8
72.5°	11054.4	10939.2	10849.5	10521.5	10358.7	8610.4	7113.7	6622.9	5060.8	5155.0	5135.0
75°	8720.1	8602.7	8455.3	8326.8	8309.1	6984.1	5735.5	5382.1	4034.9	4103.6	4153.4
77.5°	5652.4	5609.2	5795.3	5673.5	5783.1	4809.3	4096.9	3793.4	2780.8	2954.7	2931.5
80°	2586.9	2537.0	2836.2	2752.0	2793.0	2362.0	2001.9	1923.3	1258.6	1267.4	1294.0
82.5°	585.0	565.0	586.1	538.4	525.1	444.3	391.1	354.5	222.7	236.0	248.2
85°	320.2	320.2	315.7	293.6	251.5	207.2	164.0	126.3	68.7	75.3	74.2
87.5°	224.9	219.4	218.3	195.0	167.3	141.8	113.0	80.9	38.8	26.6	24.4
90°	154.0	151.8	144.0	129.6	111.9	92.0	68.7	39.9	16.6	7.8	5.5
92.5°	111.9	109.7	104.1	92.0	76.4	62.0	45.4	26.6	13.3	5.5	1.1
95°	74.2	73.1	69.8	59.8	49.9	39.9	28.8	16.6	11.1	4.4	1.1
97.5°	51.0	49.9	46.5	39.9	32.1	25.5	17.7	12.2	8.9	3.3	1.1
100°	34.3	33.2	31.0	25.5	19.9	15.5	11.1	8.9	6.6	3.3	1.1
102.5°	22.2	21.0	18.8	15.5	11.1	8.9	7.8	6.6	4.4	2.2	1.1
105°	13.3	12.2	10.0	7.8	6.6	5.5	5.5	4.4	3.3	1.1	1.1
107.5°	6.6	5.5	4.4	4.4	4.4	3.3	3.3	3.3	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°	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5	2603.5
2.5°	2615.7	2598.0	2607.9	2592.4	2589.1	2572.5	2599.1	2602.4	2600.2	2604.6
5°	2619.0	2600.2	2611.3	2592.4	2592.4	2574.7	2600.2	2600.2	2593.5	2595.8
7.5°	2627.9	2609.1	2616.8	2595.8	2596.9	2575.8	2606.8	2603.5	2598.0	2605.7
10°	2653.4	2632.3	2631.2	2611.3	2615.7	2593.5	2632.3	2632.3	2626.8	2641.2
12.5°	2694.4	2663.3	2657.8	2633.4	2642.3	2623.5	2671.1	2673.3	2674.4	2697.7
15°	2737.6	2699.9	2705.4	2676.6	2673.3	2663.3	2706.6	2704.3	2703.2	2735.4
17.5°	2798.5	2621.2	2592.4	2572.5	2568.1	2543.7	2583.6	2660.0	2620.1	2598.0
20°	2702.1	2609.1	2494.9	2456.2	2448.4	2236.8	2069.5	2144.9	2246.8	2255.6
22.5°	2614.6	2581.4	2572.5	2511.6	2173.7	2102.8	2109.4	2081.7	1840.2	1734.9
25°	2723.2	2694.4	2656.7	2284.4	2204.7	2179.2	2171.4	1887.8	1697.3	1709.5
27.5°	2843.9	2811.8	2483.9	2290.0	2307.7	2272.3	2097.2	1761.5	1750.5	1771.5
30°	2994.6	2737.6	2424.0	2413.0	2429.6	2384.2	1863.5	1839.1	1835.8	1857.9
32.5°	3166.3	2640.1	2583.6	2583.6	2575.8	2085.0	1963.2	1946.5	1955.4	1978.7
35°	3102.1	2793.0	2786.3	2814.0	2627.9	2139.3	2122.7	2093.9	2100.5	2108.3
37.5°	3031.2	3044.5	3047.8	3033.4	1916.6	2294.4	2281.1	2275.6	2268.9	2271.2
40°	3294.8	3303.7	3300.4	3168.5	2068.4	2324.3	2460.6	2450.6	2449.5	2462.8
42.5°	3602.8	3627.2	3608.4	2795.2	2271.2	1954.3	2667.8	2662.2	2660.0	2687.7
45°	3949.6	3972.9	3577.3	2993.5	2487.2	2023.0	2682.2	2888.2	2904.9	2929.2
47.5°	4325.2	4320.7	3301.5	3298.2	2740.9	2213.5	2230.2	3158.6	3186.3	3195.1
50°	4757.2	4047.1	3615.0	3493.1	3027.8	2427.4	2364.2	2898.2	3509.8	3518.6
52.5°	4665.3	4003.9	3975.1	3064.4	3284.9	2663.3	2601.3	2584.7	3638.3	3852.1
55°	4348.4	4381.7	4340.7	3362.4	2408.5	2873.8	2835.1	2818.4	2706.6	2142.6
57.5°	4700.7	4710.7	4675.3	3636.1	2449.5	1791.4	2790.7	2394.1	1555.5	1547.7
60°	5066.3	5083.0	3482.1	2671.1	1569.9	599.4	142.9	150.7	429.9	377.8
62.5°	5415.3	5431.9	3685.9	2440.7	991.6	44.3	28.8	19.9	22.2	22.2
65°	5870.7	5877.3	3945.2	2583.6	1030.3	11.1	3.3	0.0	0.0	0.0
67.5°	6106.6	5970.4	4010.5	2648.9	1058.0	6.6	2.2	0.0	0.0	0.0
70°	5749.9	5603.7	3733.6	2482.8	986.0	5.5	1.1	0.0	0.0	0.0
72.5°	5066.3	4995.4	3351.3	2201.4	873.0	3.3	1.1	0.0	0.0	0.0
75°	4198.9	4104.7	2778.6	1834.6	722.3	2.2	0.0	0.0	0.0	0.0
77.5°	2986.8	2997.9	1936.6	1337.2	491.9	2.2	0.0	0.0	0.0	0.0
80°	1307.3	1337.2	848.6	613.8	173.9	1.1	0.0	0.0	0.0	0.0
82.5°	249.3	229.3	110.8	87.5	22.2	0.0	0.0	0.0	0.0	0.0
85°	82.0	89.7	41.0	33.2	10.0	0.0	0.0	0.0	0.0	0.0
87.5°	28.8	36.6	12.2	10.0	2.2	0.0	0.0	0.0	0.0	0.0
90°	4.4	4.4	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)