

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: P579452

Luminaire Tested: **CTN-CA6-230-730-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579452
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA6-230-730-U-T5N-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (6) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 22915 lumens
Efficiency: N/A
Efficacy: 100.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U2 - G3

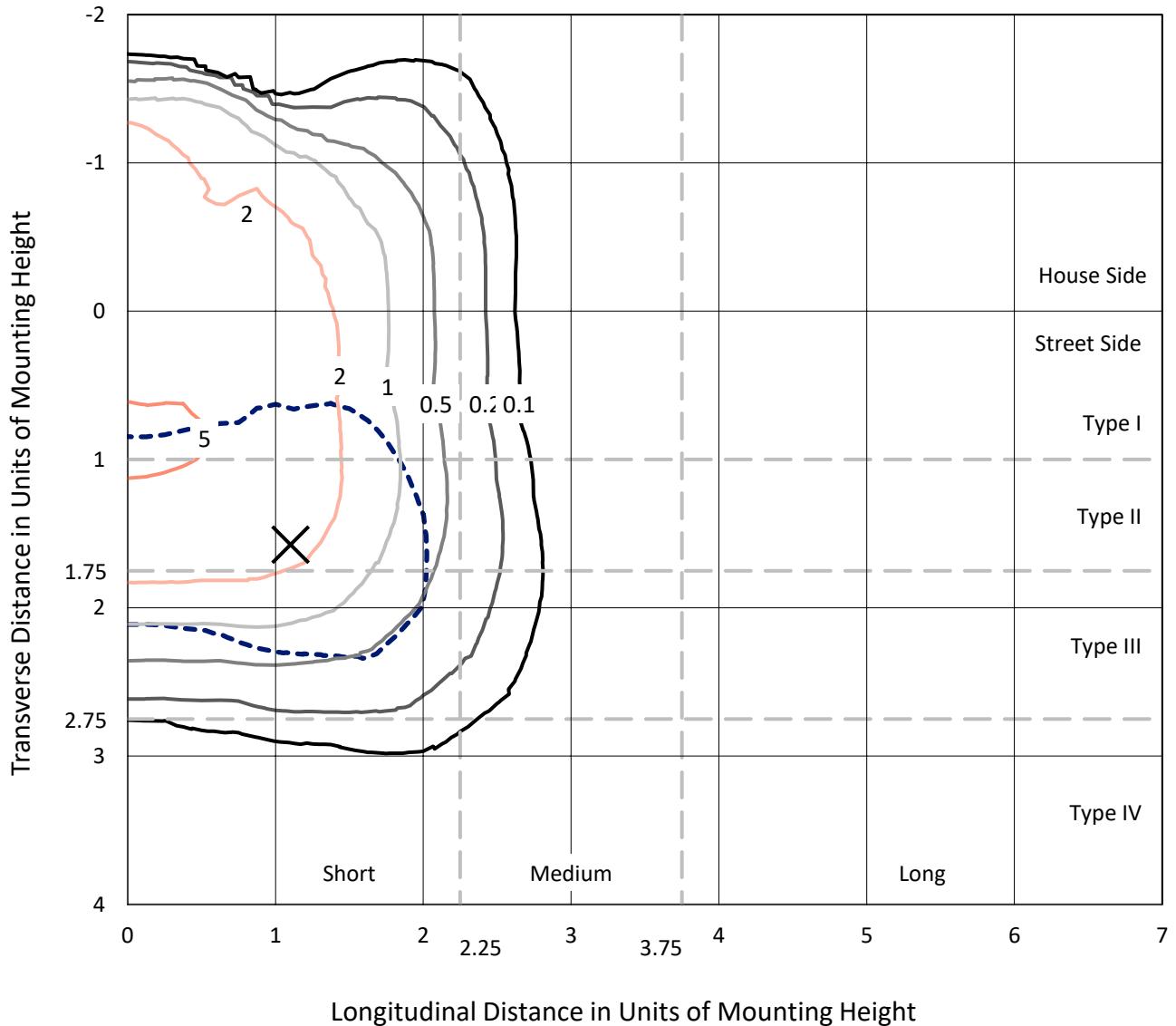
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

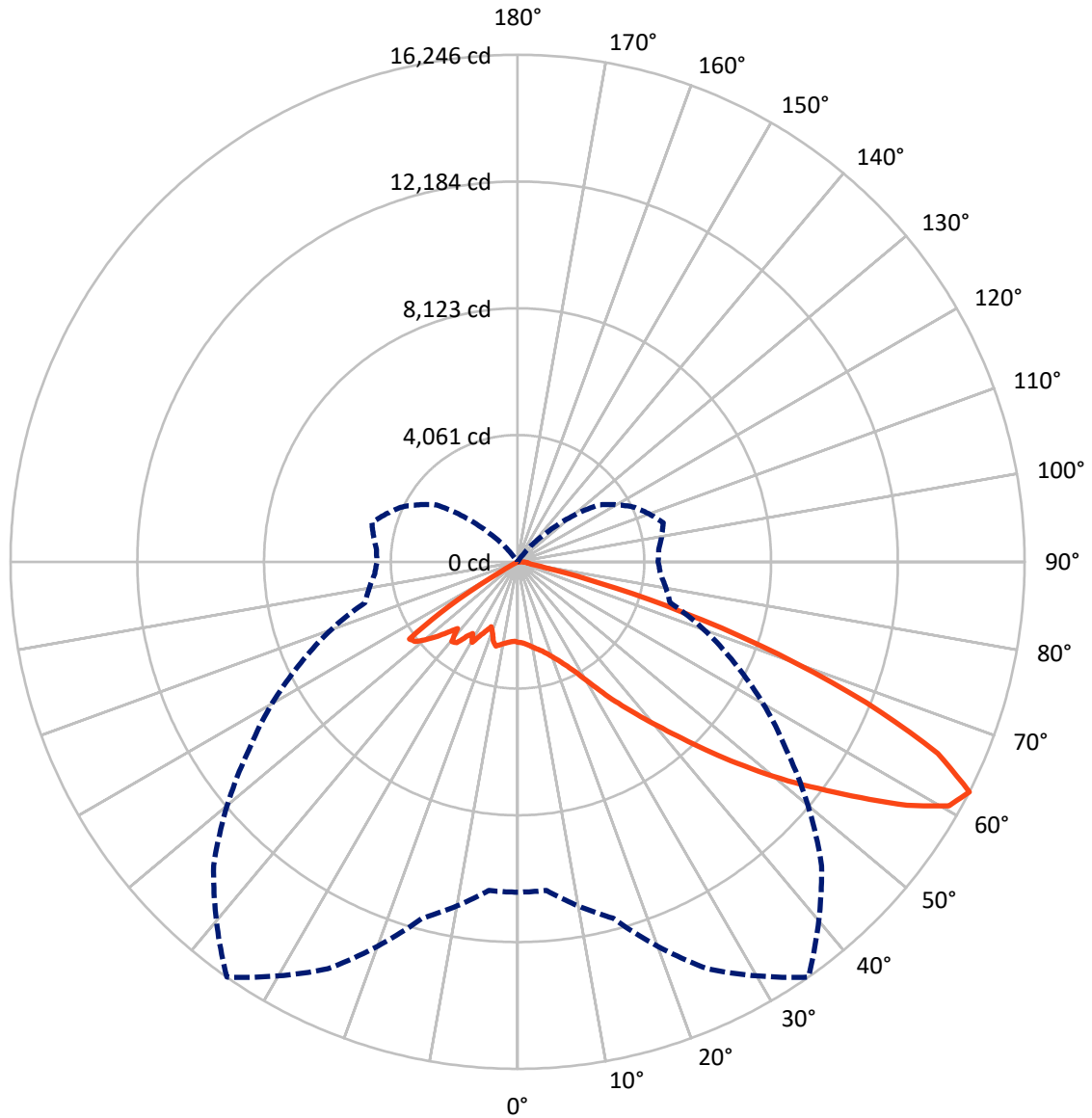
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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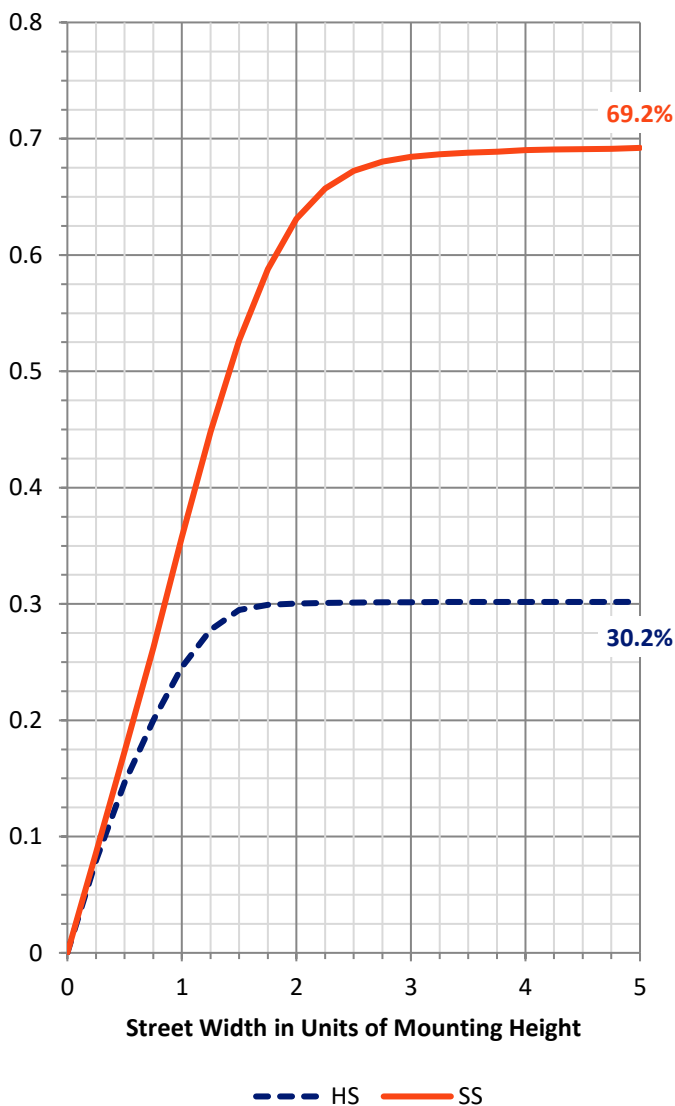
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6954.8	0.0	6954.8
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	15940.3	19.9	15960.2
	% Fixture	69.6	0.1	69.6
Total	Lumens	22895.1	19.9	22915.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.6	1.1
10°-20°	817.2	3.6
20°-30°	1493.5	6.5
30°-40°	2846.2	12.4
40°-50°	4885.3	21.3
50°-60°	6553.7	28.6
60°-70°	4982.1	21.7
70°-80°	943.4	4.1
80°-90°	119.1	0.5
90°-100°	17.5	0.1
100°-110°	2.4	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°	22895.1	99.9
0°-180°	22915.0	100.0

Coefficient of Utilization



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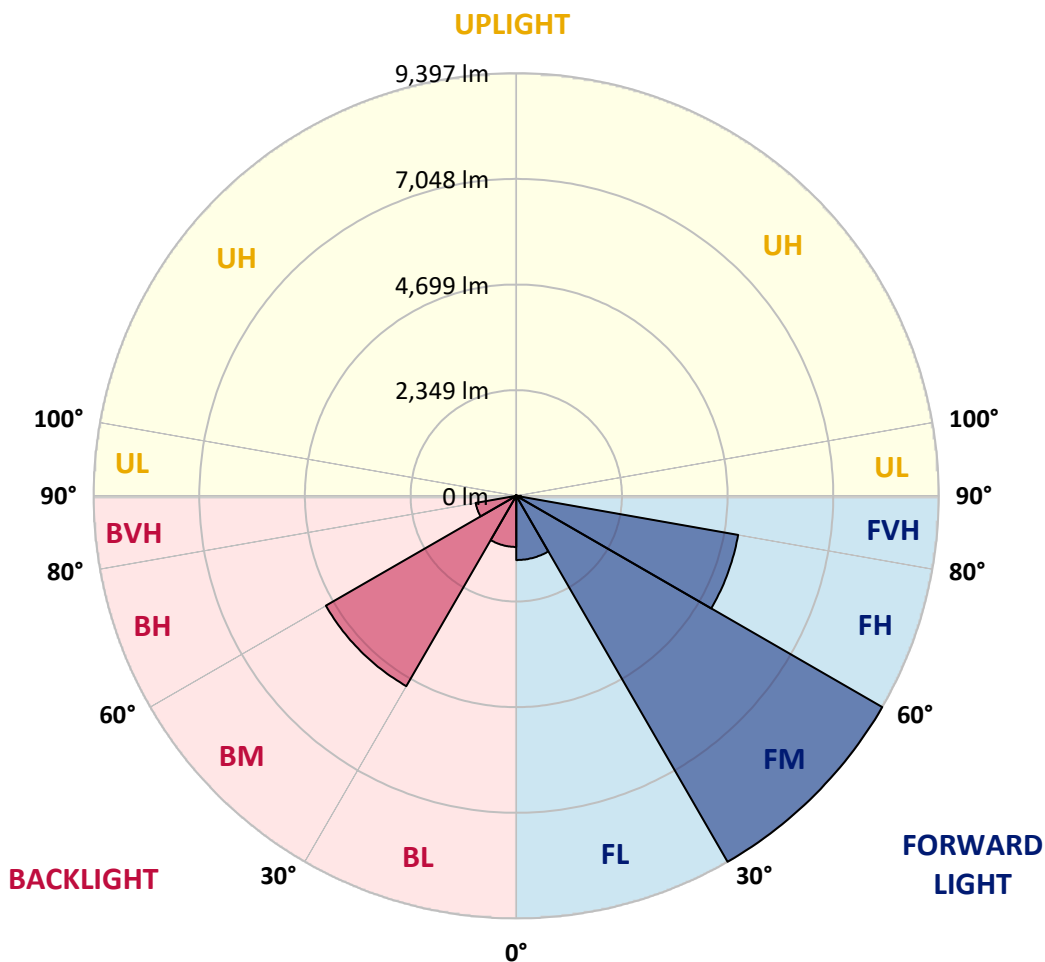
CATALOG NUMBER: CTN-CA6-230-730-U-T5N-HSS-HM-EX180

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1428.5	6.2			
FM (30°-60°)	9397.1	41.0			
FH (60°-80°)	5009.6	21.9			G3/7500
FVH (80°-90°)	105.2	0.5			G2/225
BL (0°-30°)	1136.8	5.0	B3/2500		
BM (30°-60°)	4888.1	21.3	B3/5000		
BH (60°-80°)	915.8	4.0	B2/1000		G2/1000
BVH (80°-90°)	14.0	0.1			G1/100
UL (90°-100°)	17.5	0.1		U2/50	
UH (100°-180°)	2.4	0.0		U1/10	

BUG Rating: B3-U2-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5
2.5°	2644.2	2624.8	2625.9	2643.2	2593.5	2611.8	2590.2	2611.8	2600.0	2608.6	2612.9
5°	2690.7	2671.2	2669.1	2687.4	2645.3	2658.3	2636.7	2651.8	2635.6	2646.4	2646.4
7.5°	2760.9	2741.5	2735.0	2749.0	2710.1	2719.9	2697.2	2705.8	2687.4	2701.5	2693.9
10°	2844.1	2822.5	2814.9	2822.5	2789.0	2794.4	2767.4	2777.1	2750.1	2766.3	2755.5
12.5°	2932.6	2904.6	2904.6	2911.0	2875.4	2876.5	2851.6	2857.0	2830.0	2847.3	2834.3
15°	3028.8	2997.5	3001.8	3008.3	2970.4	2976.9	2951.0	2959.6	2931.6	2948.8	2935.9
17.5°	3156.2	3122.8	3118.4	3137.9	3102.2	3114.1	3084.9	3095.7	3070.9	3076.3	3069.8
20°	3332.3	3290.2	3280.5	3306.4	3266.4	3275.1	3253.5	3275.1	3249.1	3210.2	3101.1
22.5°	3542.9	3506.2	3490.0	3507.3	3459.8	3474.9	3473.8	3508.4	3437.1	3191.9	3082.8
25°	3820.5	3795.7	3764.4	3766.5	3709.3	3732.0	3773.0	3800.0	3496.5	3281.5	3283.7
27.5°	4191.0	4166.2	4123.0	4106.8	4023.6	4078.7	4142.4	3878.9	3640.2	3695.2	3665.0
30°	4664.1	4659.8	4572.3	4544.2	4453.5	4522.6	4467.6	4016.0	4098.1	4174.8	4128.4
32.5°	5293.9	5263.6	5137.3	5086.5	4991.4	5031.4	4545.3	4480.5	4602.6	4706.3	4657.7
35°	6055.4	5963.6	5835.0	5734.6	5569.3	5346.8	4841.3	4967.7	5150.2	5292.8	5057.3
37.5°	6940.0	6840.7	6639.8	6459.4	6199.1	5505.6	5287.4	5540.2	5769.2	5614.7	5071.4
40°	7850.6	7762.1	7573.0	7340.8	6901.2	5998.1	5828.6	6131.0	6391.3	5506.7	5236.6
42.5°	8754.7	8679.1	8526.8	8297.8	7731.8	6584.7	6421.6	6746.7	6501.5	5717.3	5708.7
45°	9666.4	9628.6	9455.7	9260.2	8715.8	7335.4	7085.9	7339.7	6256.3	6221.7	6201.2
47.5°	10405.2	10411.7	10351.2	10249.7	9765.8	8159.6	7834.4	7081.6	6554.4	6592.2	6602.0
50°	11166.7	11118.1	11114.9	11121.4	10919.4	9221.4	8344.3	6964.9	6944.4	6941.1	6932.5
52.5°	11777.0	11715.5	11842.9	11944.4	12064.3	10406.3	8267.6	7360.2	7242.5	7201.4	6949.8
55°	12273.9	12250.1	12457.5	12801.0	13334.6	11661.4	8945.9	7745.9	7510.4	6551.2	5909.6
57.5°	12575.3	12609.8	13037.6	13712.7	14711.8	12701.6	9735.5	8136.9	6430.2	5770.2	5729.2
60°	11998.5	12181.0	12909.0	14391.0	15876.2	13680.3	10323.1	8215.7	5786.4	5433.2	5351.1
62.5°	10586.7	10569.4	11820.2	14391.0	16245.7	13777.5	10508.9	7657.3	5055.2	4595.0	4503.2
65°	7493.1	7538.5	8874.6	12968.4	14799.3	12815.1	9693.4	6510.1	4032.2	3609.9	3485.7
67.5°	4637.1	4633.9	5942.0	9550.8	12047.1	10729.3	8160.6	4990.4	2798.7	2400.1	2265.1
70°	1601.9	1647.2	2672.3	5588.8	8868.1	8405.8	6107.2	3150.8	1475.5	1052.1	887.9
72.5°	637.3	652.4	959.2	2491.9	5540.2	5615.8	3711.4	1530.6	441.8	280.8	263.6
75°	416.9	419.1	460.1	899.8	2688.5	3021.2	1723.9	439.6	205.2	187.9	183.6
77.5°	359.7	360.8	382.4	455.8	876.0	1175.2	490.4	260.3	171.7	154.5	150.1
80°	333.8	334.9	345.7	392.1	422.3	400.7	261.4	209.6	144.7	137.2	136.1
82.5°	315.4	319.7	325.1	353.2	341.3	301.4	217.1	169.6	111.3	118.8	122.1
85°	290.6	294.9	298.1	314.3	285.2	220.4	168.5	127.5	71.3	77.8	76.7
87.5°	218.2	220.4	216.0	213.9	198.8	154.5	111.3	81.0	28.1	25.9	23.8
90°	104.8	103.7	99.4	91.8	79.9	62.6	46.4	25.9	11.9	5.4	2.2
92.5°	83.2	82.1	79.9	72.4	62.6	46.4	33.5	18.4	10.8	4.3	1.1
95°	56.2	54.0	51.8	46.4	38.9	28.1	19.4	13.0	8.6	3.2	1.1
97.5°	36.7	35.6	32.4	28.1	21.6	15.1	11.9	9.7	7.6	3.2	1.1
100°	22.7	22.7	20.5	16.2	10.8	8.6	7.6	7.6	5.4	2.2	0.0
102.5°	14.0	13.0	11.9	7.6	5.4	5.4	5.4	5.4	4.3	2.2	0.0
105°	7.6	7.6	5.4	4.3	3.2	2.2	3.2	4.3	3.2	1.1	0.0
107.5°	2.2	2.2	2.2	1.1	1.1	0.0	1.1	2.2	2.2	1.1	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	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°	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5	2580.5
2.5°	2607.5	2587.0	2592.4	2571.9	2568.6	2547.0	2583.8	2585.9	2576.2	2587.0
5°	2641.0	2616.2	2625.9	2601.0	2596.7	2568.6	2597.8	2594.6	2587.0	2595.6
7.5°	2688.5	2663.7	2669.1	2639.9	2634.5	2603.2	2631.3	2620.5	2610.8	2622.6
10°	2754.4	2726.3	2730.7	2696.1	2691.8	2655.0	2687.4	2671.2	2657.2	2673.4
12.5°	2835.4	2798.7	2794.4	2757.7	2754.4	2719.9	2753.3	2737.1	2723.1	2749.0
15°	2928.3	2879.7	2873.2	2826.8	2821.4	2785.7	2818.1	2794.4	2783.6	2817.1
17.5°	3052.5	2880.8	2784.7	2716.6	2677.7	2658.3	2716.6	2795.5	2771.7	2772.8
20°	3001.8	2817.1	2688.5	2630.2	2588.1	2400.1	2140.9	2215.4	2366.6	2441.2
22.5°	2986.7	2921.8	2868.9	2770.6	2352.6	2246.7	2261.9	2244.6	1959.4	1850.3
25°	3276.1	3201.6	3087.1	2571.9	2450.9	2427.1	2435.8	2137.6	1922.7	1954.0
27.5°	3646.6	3569.9	3005.0	2716.6	2692.8	2661.5	2490.9	2118.2	2147.4	2177.6
30°	4113.3	3710.4	3133.6	3045.0	3000.7	2968.3	2335.3	2365.6	2414.2	2452.0
32.5°	4568.0	3698.5	3501.9	3391.7	3336.6	2708.0	2638.8	2709.0	2758.7	2787.9
35°	4573.4	4121.9	3914.5	3773.0	3423.0	2911.0	2974.8	3092.5	3214.6	3237.2
37.5°	4697.6	4601.5	4363.9	4185.6	2545.9	3249.1	3389.6	3524.6	3646.6	3654.2
40°	5192.3	5088.6	4866.1	4474.0	2811.7	3313.9	3846.5	3998.8	4101.4	4096.0
42.5°	5686.0	5614.7	5383.5	3976.1	3168.1	2871.1	4326.1	4426.5	4491.3	4536.7
45°	6182.9	6111.6	5330.6	4366.0	3592.6	3144.4	4209.4	4778.6	4849.9	4872.6
47.5°	6570.6	6394.6	4884.5	4883.4	4123.0	3494.3	3476.0	5096.2	5158.9	5142.7
50°	6929.2	5708.7	5279.8	5053.0	4671.7	3823.8	3696.3	4288.2	5438.6	5414.9
52.5°	6304.9	5540.2	5619.0	4596.1	5112.4	4151.1	3944.8	3845.4	4941.7	5578.0
55°	5638.5	5746.5	5965.7	5049.8	3709.3	4256.9	4155.4	3957.7	3334.5	2806.3
57.5°	5754.0	5915.0	5925.8	5469.9	3838.9	2659.4	3405.8	2981.3	1883.8	1888.1
60°	5368.4	5578.0	4331.5	3646.6	2064.2	554.1	54.0	47.5	328.4	399.7
62.5°	4538.8	4830.5	4134.9	3176.8	1324.3	20.5	5.4	1.1	0.0	0.0
65°	3514.9	3865.9	3494.3	2741.5	1175.2	6.5	0.0	0.0	0.0	0.0
67.5°	2318.0	2634.5	2655.0	2293.2	979.7	3.2	0.0	0.0	0.0	0.0
70°	971.1	1367.5	1652.6	1704.5	770.2	1.1	0.0	0.0	0.0	0.0
72.5°	280.8	434.2	795.0	1024.0	489.3	0.0	0.0	0.0	0.0	0.0
75°	186.9	199.8	230.1	461.2	244.1	0.0	0.0	0.0	0.0	0.0
77.5°	154.5	157.7	131.8	126.4	70.2	0.0	0.0	0.0	0.0	0.0
80°	140.4	138.3	105.9	74.5	25.9	0.0	0.0	0.0	0.0	0.0
82.5°	129.6	123.1	76.7	38.9	17.3	0.0	0.0	0.0	0.0	0.0
85°	87.5	86.4	34.6	23.8	3.2	0.0	0.0	0.0	0.0	0.0
87.5°	23.8	30.2	7.6	3.2	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	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)