

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: P522217

Luminaire Tested: **CTN-CA8-330-722-U-T5R-HSS-HM-EX180**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522217
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-CA8-330-722-U-T5R-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (8) 2200K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 26384 lumens
Efficiency: N/A
Efficacy: 79.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G4

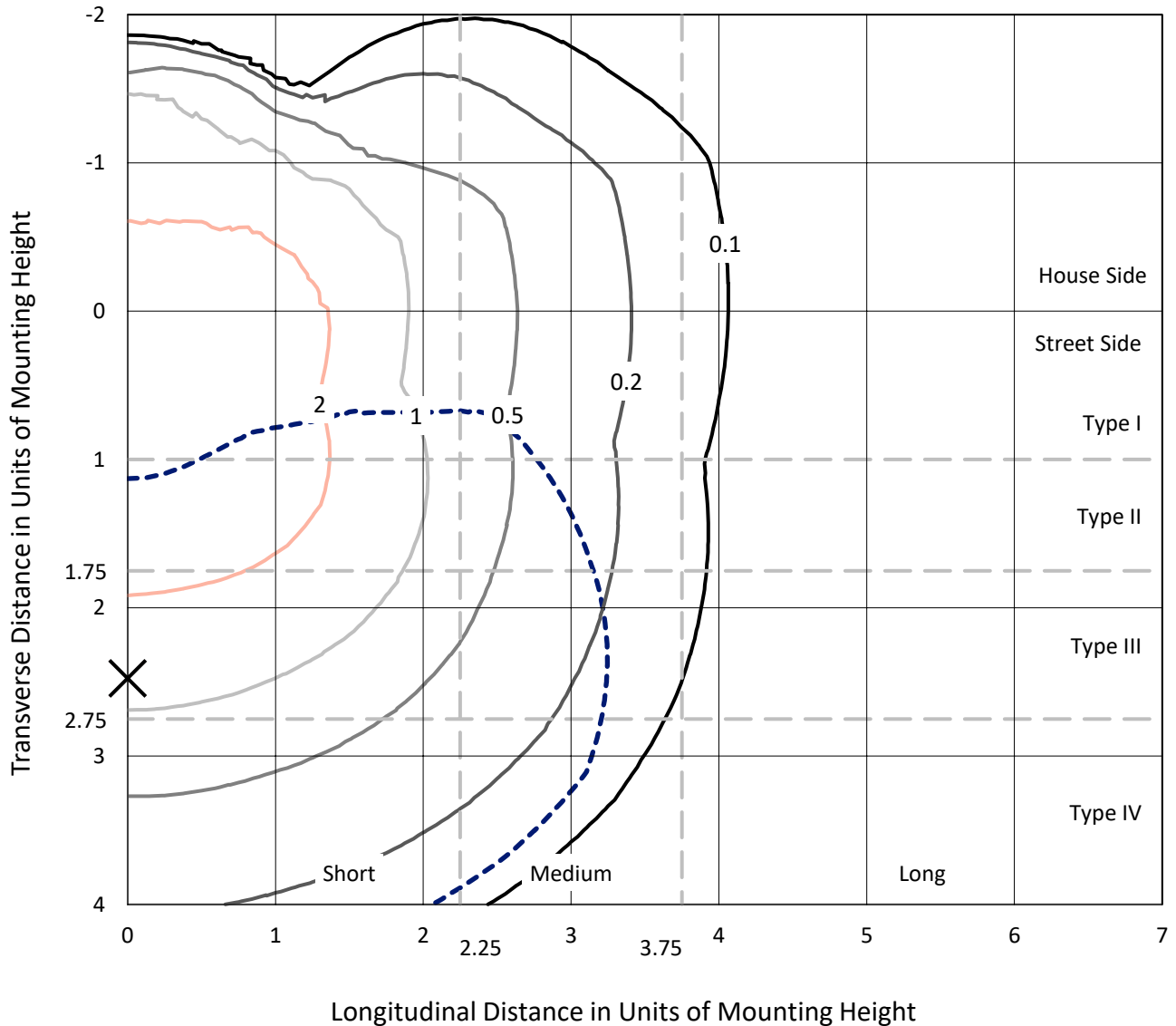
Input Watts (W): 331.5
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

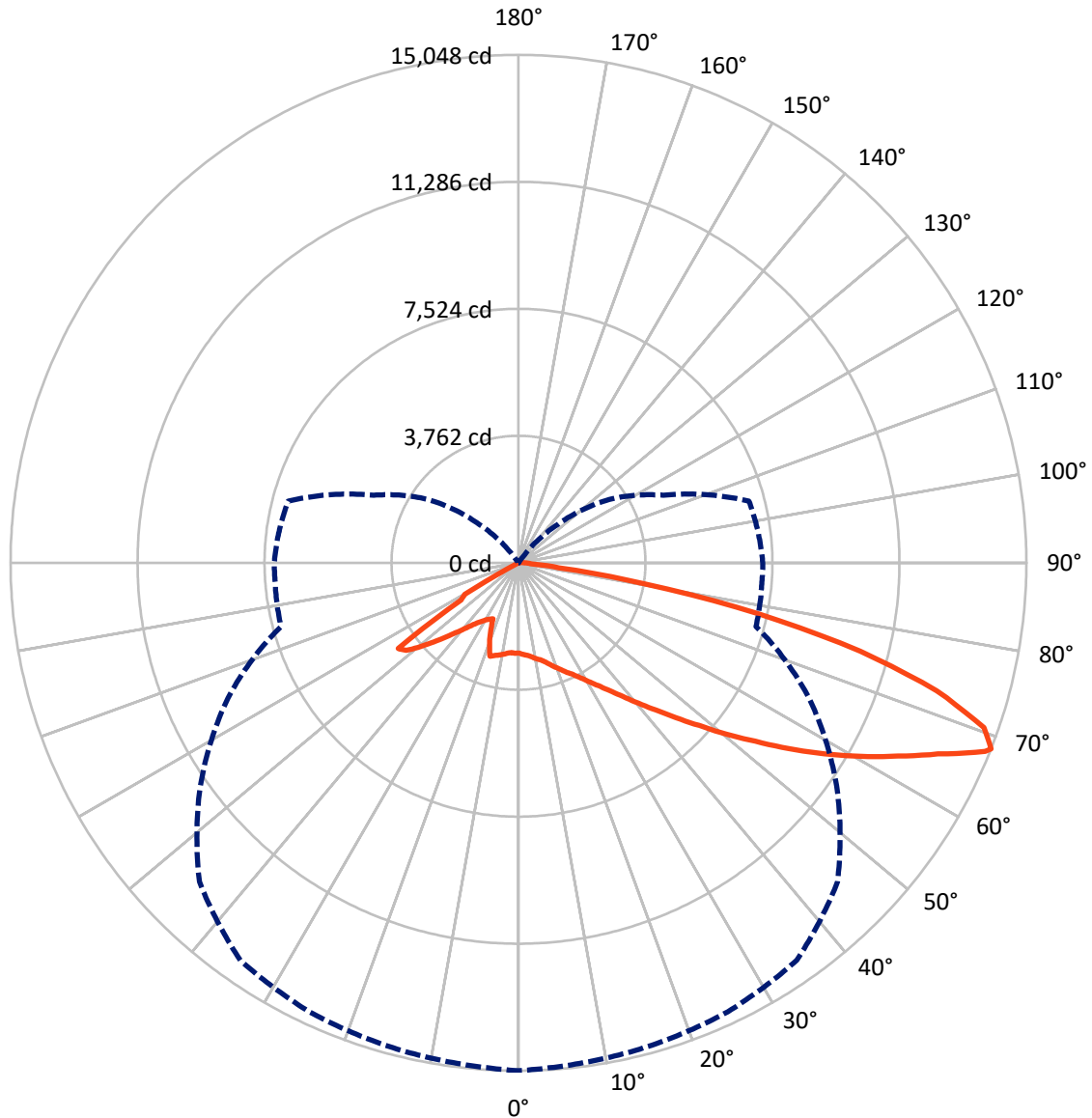
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 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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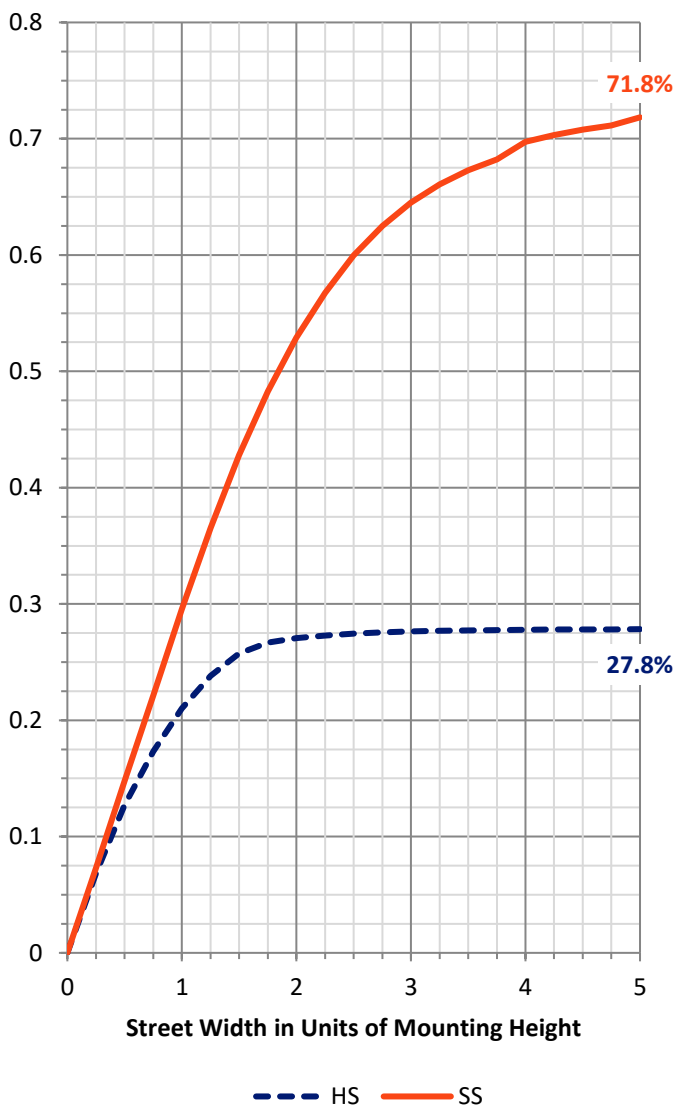
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7369.1	0.2	7369.3
	% Fixture	27.9	0.0	27.9
Street Side	Lumens	18999.6	15.1	19014.8
	% Fixture	72.0	0.1	72.1
Total	Lumens	26368.7	15.3	26384.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	259.4	1.0
10°-20°	822.1	3.1
20°-30°	1391.7	5.3
30°-40°	2204.8	8.4
40°-50°	3604.7	13.7
50°-60°	5521.5	20.9
60°-70°	6789.2	25.7
70°-80°	5245.9	19.9
80°-90°	529.3	2.0
90°-100°	15.0	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°	26368.7	99.9
0°-180°	26384.0	100.0

Coefficient of Utilization



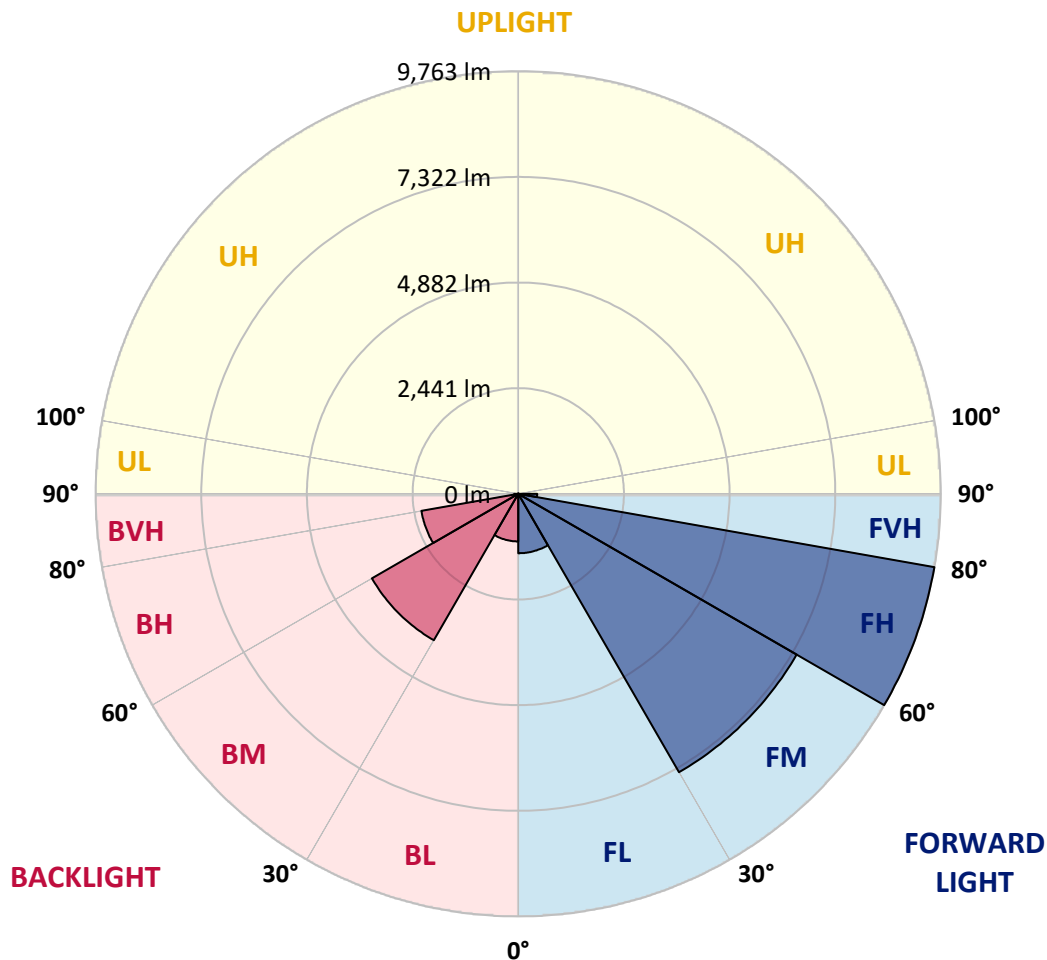
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1373.3	5.2			
FM	(30°-60°)	7426.6	28.1			
FH	(60°-80°)	9763.2	37.0			G4/12000
FVH	(80°-90°)	436.5	1.7			G3/500
BL	(0°-30°)	1099.9	4.2	B3/2500		
BM	(30°-60°)	3904.5	14.8	B3/5000		
BH	(60°-80°)	2271.9	8.6	B3/2500		G3/2500
BVH	(80°-90°)	92.8	0.4			G1/100
UL	(90°-100°)	15.0	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°	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0
2.5°	2721.3	2716.2	2711.1	2722.6	2678.1	2697.1	2681.9	2695.9	2685.7	2697.1	2693.3
5°	2756.9	2751.8	2736.5	2749.2	2720.0	2727.6	2708.6	2713.7	2679.3	2699.7	2698.4
7.5°	2815.3	2801.4	2791.2	2791.2	2765.8	2764.5	2734.0	2735.3	2708.6	2706.0	2711.1
10°	2894.1	2884.0	2856.0	2858.6	2823.0	2817.9	2779.7	2778.5	2756.9	2744.2	2755.6
12.5°	2952.6	2962.8	2937.4	2937.4	2901.8	2876.3	2849.7	2831.9	2815.3	2796.3	2787.4
15°	3059.4	3069.5	3035.2	3034.0	3020.0	2989.5	2960.2	2922.1	2892.9	2884.0	2870.0
17.5°	3197.9	3191.6	3162.3	3163.6	3166.1	3116.6	3087.3	3037.8	2995.8	2965.3	2957.7
20°	3339.0	3339.0	3307.2	3317.4	3304.7	3258.9	3239.9	3171.2	3112.8	3079.7	3053.0
22.5°	3496.6	3490.3	3468.6	3490.3	3464.8	3419.1	3387.3	3318.7	3243.7	3056.8	2980.6
25°	3646.6	3642.8	3651.7	3658.0	3626.3	3569.1	3547.5	3475.0	3266.6	3021.2	2867.4
27.5°	3836.0	3823.3	3843.6	3856.3	3824.5	3775.0	3729.2	3647.9	3206.8	3013.6	2997.1
30°	4078.7	4050.8	4080.0	4086.4	4053.3	4022.8	3954.2	3547.5	3227.2	3171.2	3166.1
32.5°	4338.0	4305.0	4343.1	4348.2	4305.0	4279.6	4106.7	3495.3	3426.7	3361.9	3368.2
35°	4645.6	4645.6	4664.7	4667.2	4635.5	4592.2	3933.8	3749.5	3688.5	3628.8	3627.5
37.5°	5020.6	5009.1	5060.0	5090.5	5056.2	4932.9	4185.5	4099.1	4005.0	3928.8	3771.2
40°	5473.1	5493.4	5507.4	5537.9	5504.8	5227.8	4552.8	4455.0	4381.2	4125.8	3727.9
42.5°	5961.1	5966.2	5996.7	6034.9	6034.9	5742.5	4982.4	4898.6	4803.2	4034.3	3855.0
45°	6544.5	6533.1	6591.6	6652.6	6636.1	6333.6	5482.0	5419.7	4973.5	4299.9	4301.2
47.5°	7206.8	7192.8	7276.7	7356.7	7274.1	6989.4	6031.0	5982.7	4800.7	4749.8	4739.7
50°	7971.9	7937.6	8034.2	8141.0	8073.6	7721.5	6698.3	5770.5	5282.4	5241.7	5235.4
52.5°	8789.2	8762.5	8821.0	9002.7	8913.7	8488.0	7330.0	5953.5	5840.4	5794.6	5783.2
55°	9712.0	9659.8	9785.7	9924.2	9821.3	9335.7	7952.8	6561.1	6444.1	6365.3	6250.9
57.5°	10681.8	10606.8	10671.6	10845.7	10746.6	10203.8	8756.1	7186.4	7047.9	5832.8	5368.8
60°	11647.7	11613.4	11638.8	11792.6	11670.6	11047.8	9508.6	7813.0	5965.0	5769.2	5792.1
62.5°	12618.8	12543.8	12566.7	12724.3	12568.0	11851.1	10221.6	8382.5	6277.6	6209.0	6233.1
65°	13659.8	13570.8	13591.1	13636.9	13443.7	12571.8	10852.1	8920.1	6747.9	6675.5	6702.2
67.5°	14914.3	14832.9	14722.4	14586.4	14319.4	13336.9	11478.7	9485.7	7276.7	7236.0	7244.9
68°	15047.7	14968.9	14835.5	14674.1	14374.1	13368.7	11505.4	9502.2	7284.3	7233.4	7236.0
70°	14632.1	14679.1	14527.9	14257.2	14006.8	12903.5	11069.4	9136.2	6960.2	6885.2	6866.1
72.5°	12958.2	13061.1	12852.7	12806.9	12499.3	11495.2	9686.5	7927.4	6053.9	6078.1	6009.4
75°	10461.9	10613.1	10360.2	10374.2	10198.8	9588.7	8118.1	6600.5	4971.0	5081.6	5101.9
77.5°	7275.4	7492.7	7382.2	7492.7	7406.3	7186.4	6282.7	5082.9	3792.8	3919.9	3969.4
80°	3794.0	4052.1	4198.2	4244.0	4271.9	4263.0	3825.8	3050.5	2192.5	2239.6	2237.0
82.5°	1199.9	1137.6	1174.4	1164.3	1132.5	1145.2	1032.1	807.1	559.3	616.5	589.8
85°	362.2	364.8	354.6	352.1	325.4	286.0	233.9	134.7	66.1	77.5	72.4
87.5°	266.9	269.5	249.1	236.4	221.2	191.9	148.7	83.9	31.8	30.5	24.1
90°	147.4	142.4	132.2	122.0	115.7	99.1	75.0	31.8	11.4	8.9	7.6
92.5°	80.1	76.3	71.2	67.4	58.5	47.0	30.5	10.2	5.1	1.3	0.0
95°	36.9	34.3	33.0	29.2	25.4	17.8	10.2	6.4	3.8	1.3	0.0
97.5°	16.5	15.3	14.0	11.4	8.9	5.1	5.1	3.8	2.5	1.3	0.0
100°	3.8	3.8	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.3	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	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°	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0	2673.0
2.5°	2689.5	2681.9	2678.1	2653.9	2661.5	2639.9	2681.9	2671.7	2665.4	2683.1
5°	2692.0	2665.4	2681.9	2667.9	2673.0	2642.5	2675.5	2661.5	2660.3	2667.9
7.5°	2698.4	2680.6	2697.1	2669.2	2681.9	2669.2	2693.3	2679.3	2690.8	2698.4
10°	2732.7	2722.6	2714.9	2708.6	2717.5	2692.0	2722.6	2723.8	2727.6	2750.5
12.5°	2781.0	2770.8	2758.1	2741.6	2750.5	2740.3	2763.2	2769.6	2783.6	2795.0
15°	2848.4	2829.3	2824.2	2809.0	2817.9	2812.8	2817.9	2814.1	2840.8	2836.9
17.5°	2941.2	2919.6	2847.1	2773.4	2726.4	2740.3	2798.8	2875.1	2894.1	2896.7
20°	2975.5	2823.0	2815.3	2731.4	2693.3	2690.8	2570.0	2389.5	2444.2	2572.6
22.5°	2934.8	2726.4	2704.8	2688.2	2525.5	2258.6	2233.2	2206.5	2200.2	2219.2
25°	2843.3	2819.1	2800.1	2584.0	2327.3	2328.5	2291.7	2116.3	1843.0	1820.1
27.5°	2983.1	2950.1	2765.8	2432.8	2427.7	2425.1	2370.5	1920.5	1862.1	1876.0
30°	3142.0	3087.3	2605.6	2562.4	2561.1	2538.3	2125.2	1937.1	1937.1	1939.6
32.5°	3325.0	2985.7	2697.1	2717.5	2716.2	2608.2	2052.7	2040.0	2034.9	2047.6
35°	3464.8	2904.3	2894.1	2931.0	2905.6	2212.9	2181.1	2169.7	2164.6	2158.2
37.5°	3421.6	3138.2	3138.2	3161.1	2956.4	2356.5	2341.2	2341.2	2331.1	2326.0
40°	3487.7	3429.2	3400.0	3408.9	2148.0	2530.6	2542.1	2539.5	2538.3	2547.1
42.5°	3836.0	3783.9	3757.2	3442.0	2404.8	2515.4	2795.0	2793.7	2797.5	2793.7
45°	4279.6	4231.3	4161.4	3220.8	2730.2	2205.2	3081.0	3095.0	3096.2	3095.0
47.5°	4744.8	4714.3	3998.7	3565.2	3083.5	2366.7	2945.0	3439.4	3433.1	3440.7
50°	5236.7	5099.4	3978.3	3973.2	3459.7	2633.6	2634.8	3740.6	3805.5	3825.8
52.5°	5784.5	4622.7	4409.2	4022.8	3841.1	2908.1	2880.2	3314.9	4199.5	4219.8
55°	5372.7	4883.3	4879.5	3580.5	3996.1	3172.5	3176.3	3145.8	3851.2	4377.4
57.5°	5346.0	5357.4	5348.5	3994.9	2915.7	2974.2	3461.0	3434.3	2493.8	2020.9
60°	5807.3	5823.9	5196.0	4313.9	3152.2	1829.0	2131.5	1811.2	1835.4	1854.4
62.5°	6248.4	6253.5	4226.2	2828.0	1562.1	73.7	35.6	29.2	28.0	28.0
65°	6736.5	6736.5	4530.0	3084.8	1508.7	28.0	5.1	3.8	14.0	14.0
67.5°	7208.0	7103.8	4752.4	3275.4	1535.4	3.8	0.0	0.0	0.0	0.0
68°	7181.3	7066.9	4732.1	3270.4	1531.6	2.5	0.0	0.0	0.0	0.0
70°	6782.2	6671.6	4489.3	3121.7	1474.4	2.5	0.0	0.0	0.0	0.0
72.5°	5986.6	5884.9	3975.8	2751.8	1329.5	1.3	0.0	0.0	0.0	0.0
75°	5067.6	5053.6	3434.3	2322.2	1140.1	1.3	0.0	0.0	0.0	0.0
77.5°	4077.5	4013.9	2684.4	1820.1	919.0	0.0	0.0	0.0	0.0	0.0
80°	2271.3	2365.4	1571.0	1070.2	578.3	0.0	0.0	0.0	0.0	0.0
82.5°	613.9	574.5	343.2	232.6	110.6	0.0	0.0	0.0	0.0	0.0
85°	78.8	86.4	39.4	31.8	7.6	0.0	0.0	0.0	0.0	0.0
87.5°	40.7	48.3	12.7	10.2	2.5	0.0	0.0	0.0	0.0	0.0
90°	7.6	8.9	3.8	1.3	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)