

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: P579457

Luminaire Tested: **CTN-CA8-230-730-U-T5N-HSS-HM-EX120**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579457
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-730-U-T5N-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 27648 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G3

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

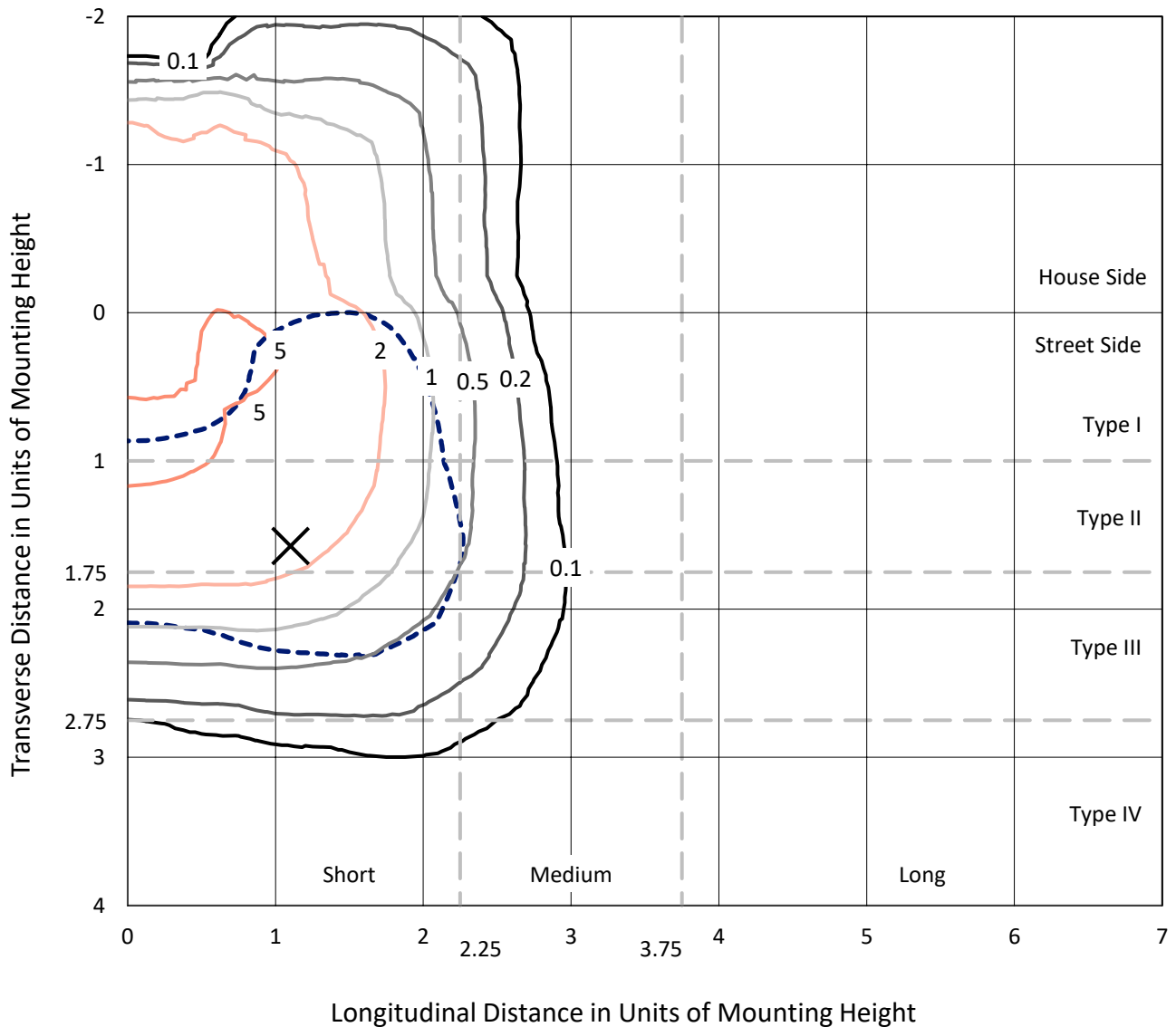




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Iso-Footcandle Lines of Horizontal Illumination

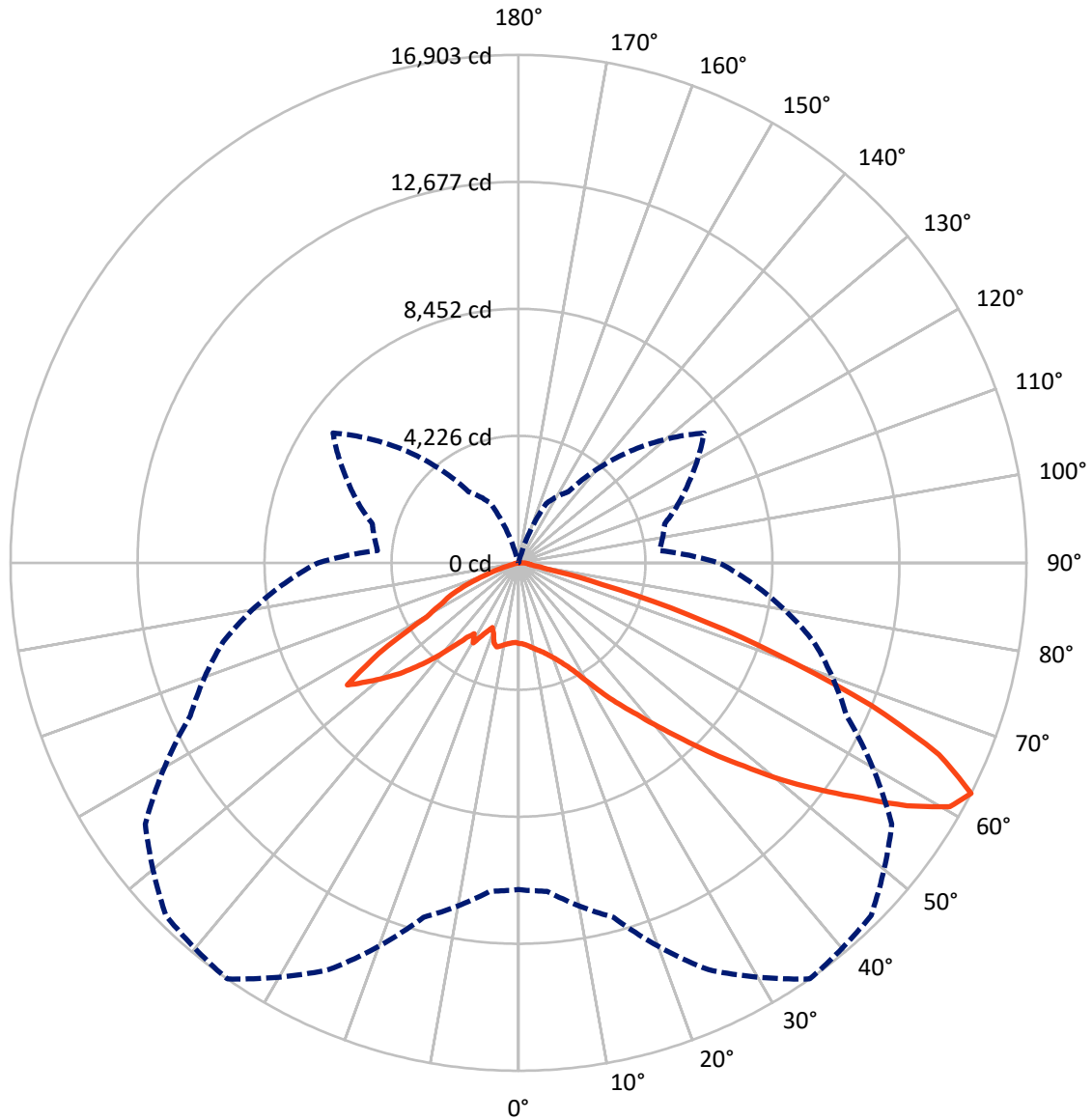
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.8 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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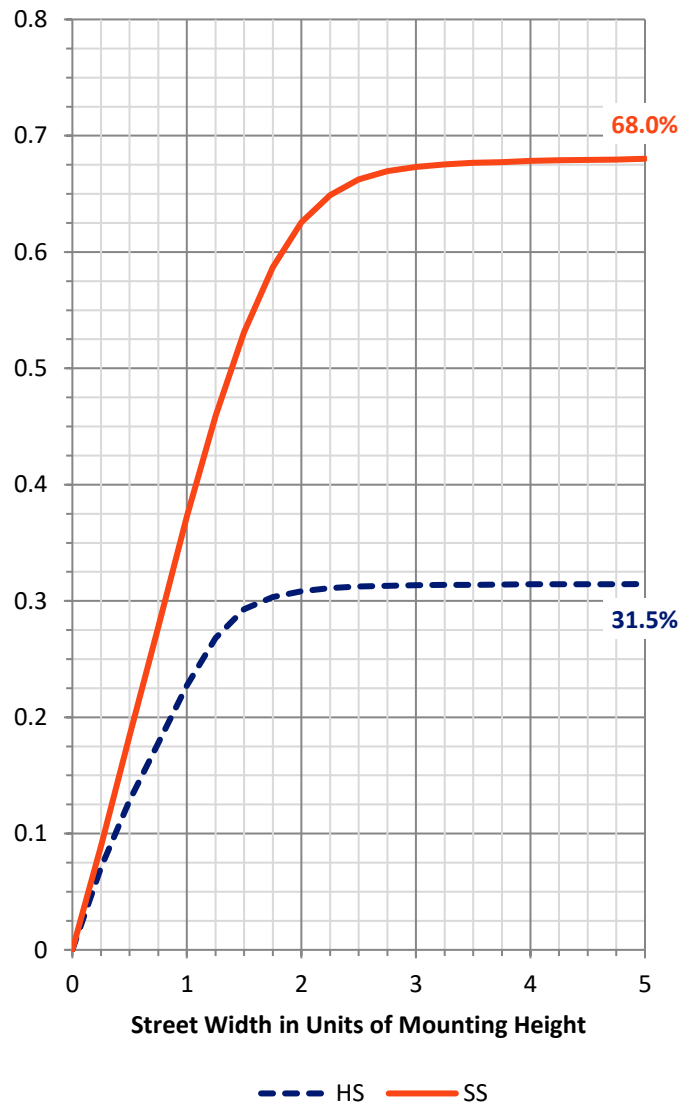
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	8746.6	0.0	8746.6
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	18885.6	15.8	18901.3
	% Fixture	68.3	0.1	68.4
Total	Lumens	27632.2	15.8	27648.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	264.6	1.0
10°-20°	850.9	3.1
20°-30°	1579.9	5.7
30°-40°	3115.0	11.3
40°-50°	5591.7	20.2
50°-60°	8128.2	29.4
60°-70°	6680.1	24.2
70°-80°	1269.8	4.6
80°-90°	152.0	0.5
90°-100°	14.4	0.1
100°-110°	1.4	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°	27632.2	99.9
0°-180°	27648.0	100.0

Coefficient of Utilization

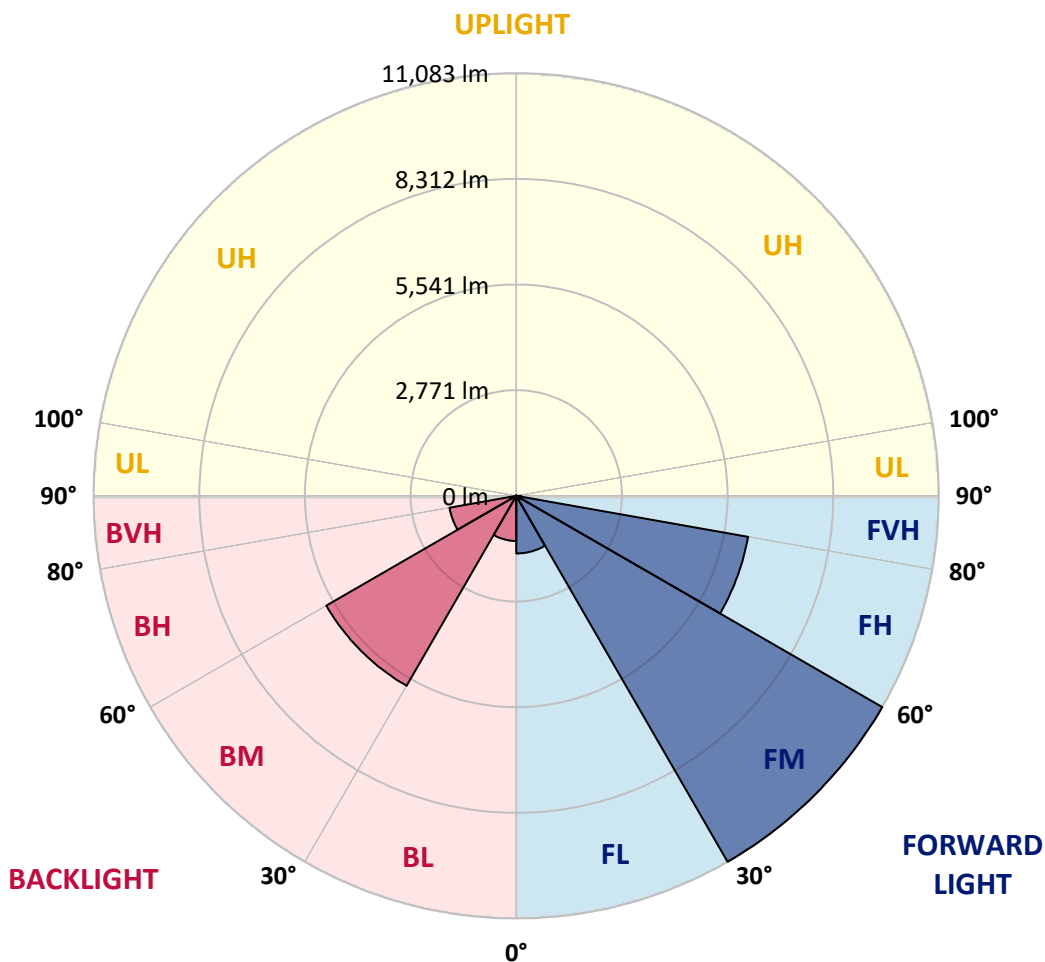


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1511.1	5.5			
FM	(30°-60°)	11082.6	40.1			
FH	(60°-80°)	6171.7	22.3			G3/7500
FVH	(80°-90°)	120.2	0.4			G2/225
BL	(0°-30°)	1184.3	4.3	B3/2500		
BM	(30°-60°)	5752.3	20.8	B4/8500		
BH	(60°-80°)	1778.2	6.4	B3/2500		G3/2500
BVH	(80°-90°)	31.8	0.1			G1/100
UL	(90°-100°)	14.4	0.1		U2/50	
UH	(100°-180°)	1.4	0.0		U1/10	

BUG Rating: B4-U2-G3
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7
2.5°	2752.2	2729.7	2732.0	2748.8	2698.3	2715.1	2691.5	2711.8	2702.8	2711.8	2717.4
5°	2807.3	2779.2	2778.1	2794.9	2754.5	2764.6	2737.6	2751.1	2738.7	2750.0	2750.0
7.5°	2874.7	2851.1	2845.5	2859.0	2823.0	2827.5	2800.5	2806.2	2791.6	2806.2	2794.9
10°	2959.0	2937.6	2928.7	2935.4	2902.8	2905.1	2875.8	2878.1	2856.7	2869.1	2860.1
12.5°	3047.8	3018.6	3014.1	3025.3	2991.6	2987.1	2962.4	2964.6	2941.0	2952.3	2945.5
15°	3139.9	3109.6	3110.7	3122.0	3088.2	3090.5	3064.6	3069.1	3045.5	3056.8	3047.8
17.5°	3262.4	3232.1	3229.8	3250.1	3222.0	3231.0	3204.0	3209.6	3192.8	3195.0	3184.9
20°	3437.7	3398.4	3390.5	3419.8	3382.7	3393.9	3379.3	3398.4	3391.7	3386.0	3378.2
22.5°	3646.8	3616.4	3600.7	3623.2	3579.3	3600.7	3608.6	3647.9	3658.0	3651.3	3527.6
25°	3926.6	3910.9	3895.1	3885.0	3832.2	3865.9	3906.4	3971.6	4014.3	4031.1	3859.2
27.5°	4304.2	4312.1	4243.5	4232.3	4172.7	4225.5	4298.6	4404.2	4490.8	4522.2	4290.7
30°	4789.7	4799.8	4706.5	4679.6	4643.6	4688.5	4824.5	4940.3	5068.4	5121.2	4812.2
32.5°	5434.8	5425.8	5288.7	5237.0	5204.4	5222.4	5365.1	5523.5	5667.4	5786.5	5406.7
35°	6222.6	6194.5	6048.4	5905.6	5776.4	5831.5	5936.0	6128.2	6346.2	6521.5	5993.3
37.5°	7137.3	7110.4	6887.9	6655.2	6400.1	6423.7	6517.0	6830.5	7111.5	7157.6	5893.3
40°	8082.5	8071.2	7861.1	7565.5	7168.8	7057.5	7181.2	7563.3	7859.9	7056.4	6125.9
42.5°	9026.5	8972.5	8854.5	8559.0	8030.8	7785.8	7952.1	8334.2	8653.4	7398.1	6665.3
45°	9978.3	9923.3	9823.2	9606.4	9056.8	8700.6	8748.9	9172.6	9461.4	8038.6	7227.2
47.5°	10823.4	10783.0	10711.1	10589.7	10099.7	9777.2	9683.9	9980.6	10177.3	8559.0	7658.8
50°	11551.7	11516.8	11544.9	11504.5	11360.6	11022.4	10714.4	10695.3	10789.7	9022.0	8055.5
52.5°	12192.2	12145.0	12265.3	12408.0	12540.6	12465.3	11720.2	11373.0	11287.6	9369.2	8321.8
55°	12721.6	12704.7	12911.5	13297.0	13801.5	13999.3	12795.7	11999.0	11732.6	9663.7	8346.6
57.5°	13038.5	13078.9	13516.1	14262.3	15249.0	15342.3	14054.4	12664.2	12124.8	9842.4	8464.6
60°	12496.8	12633.9	13420.6	14986.0	16480.7	16521.2	14959.1	12796.9	11611.2	9199.5	7834.1
62.5°	10874.0	10972.9	12210.2	14940.0	16903.3	16595.3	15161.4	12048.4	10176.1	7803.8	6663.1
65°	7683.5	7798.1	9289.4	13472.3	15378.3	15389.5	13888.1	10418.9	8134.2	6041.6	5144.8
67.5°	4634.6	4820.0	6232.7	9780.5	12662.0	12892.4	11586.5	7888.0	5821.4	3944.6	3329.9
70°	1520.5	1690.2	2845.5	5788.8	9127.6	10114.3	8701.7	5125.7	3039.9	1667.7	1343.0
72.5°	602.4	679.9	1002.4	2560.0	5882.0	6753.0	5361.7	2476.9	1020.4	442.8	385.5
75°	402.3	410.2	463.0	872.1	2878.1	3692.8	2584.8	720.4	378.7	276.5	242.7
77.5°	350.6	351.8	375.4	459.6	937.3	1416.0	744.0	386.6	313.5	227.0	201.2
80°	321.4	325.9	340.5	392.2	429.3	481.0	367.5	322.5	272.0	209.0	189.9
82.5°	307.9	311.3	320.3	355.1	347.3	360.7	296.7	256.2	229.3	192.2	182.1
85°	281.0	286.6	292.2	313.5	285.4	247.2	229.3	171.9	164.1	145.0	133.7
87.5°	212.4	211.3	205.7	209.0	191.0	156.2	129.2	96.6	78.7	65.2	53.9
90°	88.8	89.9	86.5	82.0	71.9	59.6	45.0	27.0	13.5	4.5	2.2
92.5°	67.4	68.6	66.3	59.6	51.7	41.6	30.3	15.7	9.0	3.4	1.1
95°	41.6	42.7	40.5	36.0	31.5	23.6	15.7	10.1	5.6	2.2	0.0
97.5°	24.7	25.8	23.6	21.4	16.9	11.2	9.0	6.7	4.5	2.2	0.0
100°	14.6	14.6	13.5	11.2	7.9	6.7	5.6	4.5	3.4	1.1	0.0
102.5°	6.7	6.7	6.7	4.5	3.4	3.4	3.4	3.4	3.4	1.1	0.0
105°	2.2	2.2	1.1	1.1	1.1	2.2	2.2	2.2	2.2	1.1	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	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	1.1	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°	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7	2683.7
2.5°	2711.8	2690.4	2693.8	2674.7	2670.2	2650.0	2685.9	2689.3	2679.2	2689.3
5°	2745.5	2719.6	2726.4	2705.0	2699.4	2671.3	2700.5	2698.3	2690.4	2700.5
7.5°	2794.9	2765.7	2769.1	2744.4	2738.7	2707.3	2734.2	2726.4	2717.4	2729.7
10°	2857.9	2829.8	2830.9	2797.2	2793.8	2757.8	2792.7	2778.1	2764.6	2782.6
12.5°	2945.5	2906.2	2902.8	2865.7	2864.6	2827.5	2863.5	2851.1	2833.1	2861.2
15°	3046.7	2993.8	2980.4	2933.2	2932.0	2892.7	2928.7	2909.6	2900.6	2934.3
17.5°	3178.1	3111.8	3009.6	2848.9	2775.8	2788.2	2915.2	2961.2	2841.0	2859.0
20°	3257.9	2936.5	2787.1	2720.8	2685.9	2485.9	2215.0	2237.5	2503.9	2630.8
22.5°	3123.1	3027.6	2972.5	2879.2	2393.7	2325.2	2340.9	2336.4	1992.5	1890.3
25°	3404.0	3314.1	3214.1	2638.7	2538.7	2509.5	2517.3	2194.8	2007.1	2015.0
27.5°	3808.6	3692.8	3059.0	2809.5	2789.3	2746.6	2591.5	2203.8	2227.4	2243.1
30°	4319.9	3908.6	3257.9	3148.9	3108.5	3062.4	2405.0	2462.3	2506.1	2554.4
32.5°	4814.4	3801.9	3638.9	3525.4	3462.5	2780.3	2712.9	2818.5	2862.4	2903.9
35°	4769.5	4259.3	4048.0	3904.1	3786.1	3000.6	3060.1	3220.8	3336.6	3335.5
37.5°	4893.1	4757.1	4513.2	4331.2	3286.0	3361.3	3486.1	3669.2	3809.7	3808.6
40°	5408.9	5261.7	5032.4	4641.3	3641.2	3816.5	3987.3	4159.2	4260.4	4268.2
42.5°	5921.4	5807.9	5601.1	4099.7	4076.1	4318.8	4497.5	4606.5	4668.3	4689.7
45°	6431.6	6324.8	5503.3	4534.6	4606.5	4847.0	4956.0	4977.4	5043.7	5041.4
47.5°	6837.3	6746.2	5062.8	5051.5	5230.2	5396.6	5361.7	5334.7	5351.6	5360.6
50°	7211.5	5873.0	5458.4	5622.4	5894.4	5914.6	5769.7	4570.5	5658.4	5639.3
52.5°	6699.0	5731.4	5827.0	6211.3	6674.3	6439.4	6156.2	4006.4	5306.6	5811.2
55°	5861.8	5958.5	6174.2	6819.3	7276.7	6998.0	6524.9	4125.5	3522.0	2866.8
57.5°	5978.7	6131.5	6541.7	7432.9	7831.9	5542.6	6089.9	2908.4	1968.9	1967.8
60°	5567.4	5798.9	6533.8	7708.2	6339.4	3551.2	2439.8	66.3	382.1	378.7
62.5°	4706.5	5035.8	6233.8	7534.0	5251.6	2886.0	2173.5	5.6	2.2	2.2
65°	3640.0	4027.7	5197.6	6523.7	4652.6	2485.9	1613.8	0.0	0.0	0.0
67.5°	2387.0	2746.6	3903.0	5419.0	3862.5	1879.0	1084.5	0.0	0.0	0.0
70°	994.6	1438.5	2425.2	3916.5	2841.0	1230.6	514.7	0.0	0.0	0.0
72.5°	287.7	438.3	1092.3	2338.7	1763.3	643.9	191.0	0.0	0.0	0.0
75°	189.9	200.0	330.4	940.6	857.5	236.0	77.5	0.0	0.0	0.0
77.5°	159.6	164.1	210.2	263.0	275.3	93.3	62.9	0.0	0.0	0.0
80°	147.2	148.3	188.8	195.5	147.2	77.5	61.8	0.0	0.0	0.0
82.5°	137.1	133.7	160.7	155.1	122.5	67.4	57.3	0.0	0.0	0.0
85°	94.4	96.6	109.0	138.2	74.2	33.7	40.5	0.0	0.0	0.0
87.5°	29.2	33.7	42.7	43.8	13.5	4.5	0.0	0.0	0.0	0.0
90°	1.1	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)