

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: P579413

Luminaire Tested: **CTN-CA8-330-722-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579413  
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-CA8-330-722-U-T5-HSS-HM-EX180  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (8) 2200K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 24601 lumens  
Efficiency: N/A  
Efficacy: 74.2 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U2 - G4

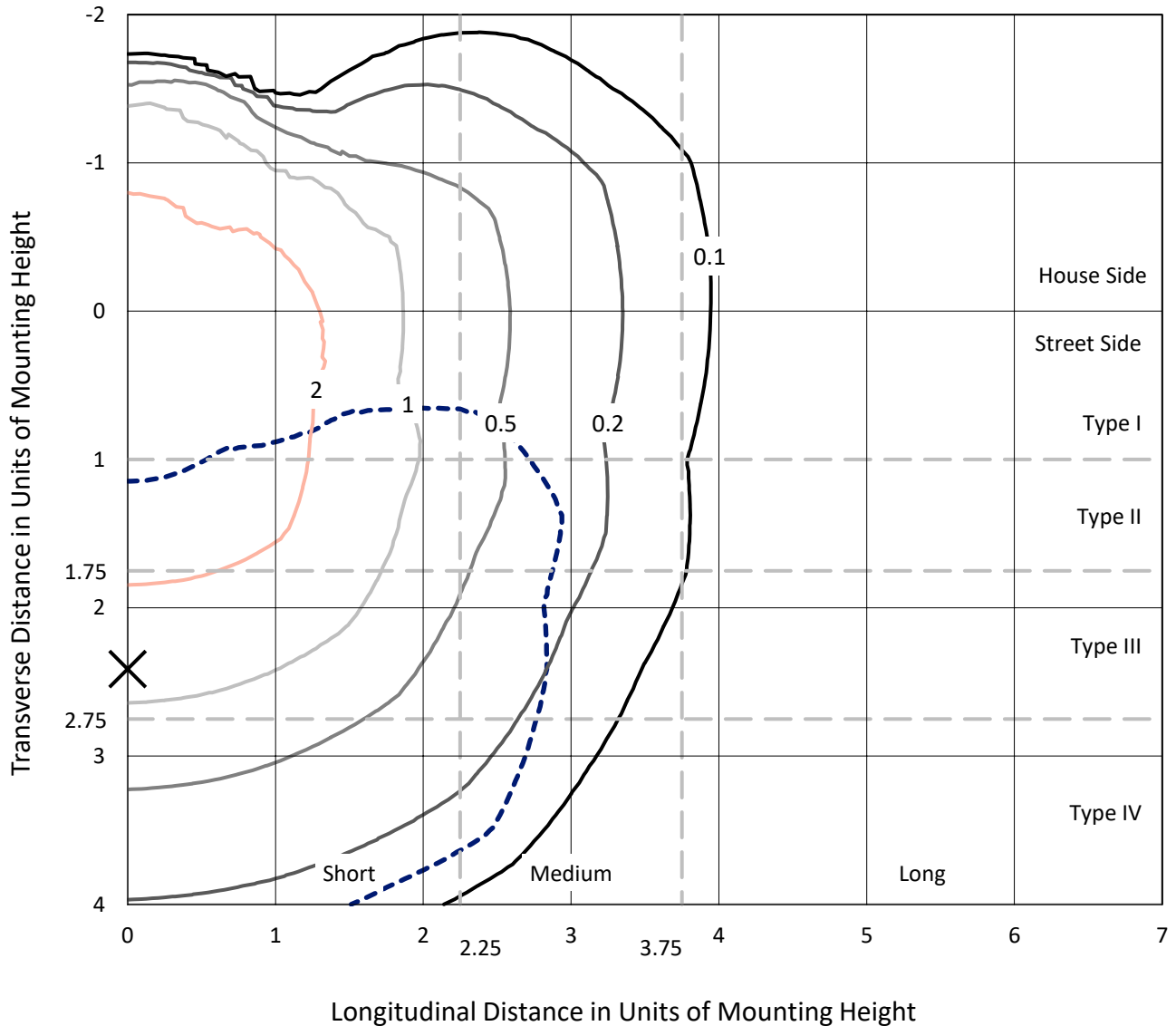
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

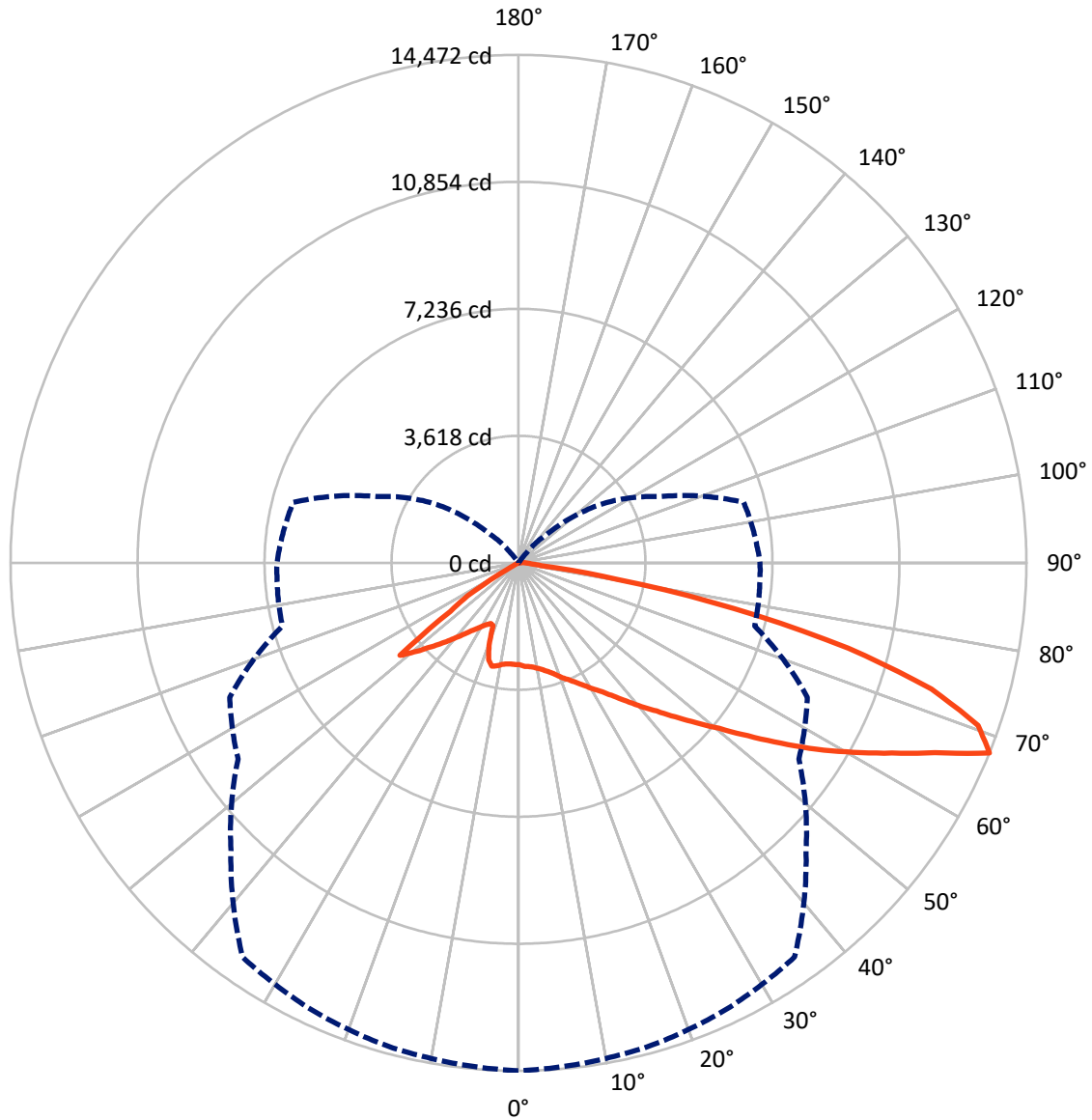
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.7 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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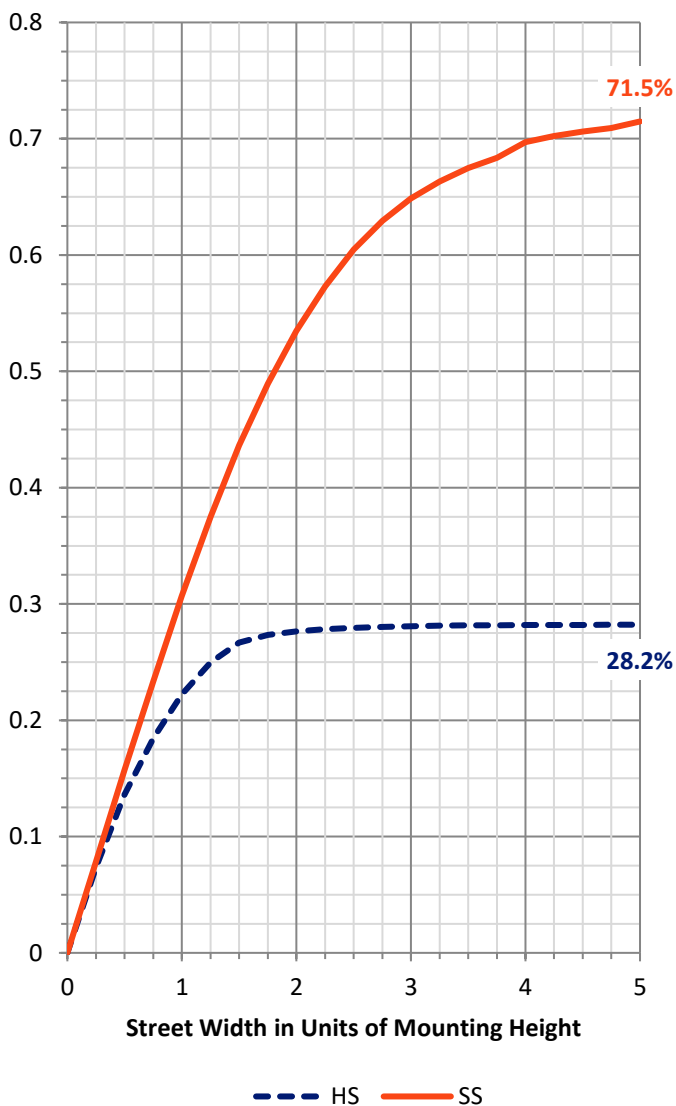
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6972.4	0.1	6972.5
	% Fixture	28.3	0.0	28.3
<b>Street Side</b>	Lumens	17597.2	31.3	17628.5
	% Fixture	71.5	0.1	71.7
<b>Total</b>	Lumens	24569.6	31.4	24601.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	279.4	1.1
10°-20°	860.2	3.5
20°-30°	1424.3	5.8
30°-40°	2242.1	9.1
40°-50°	3508.9	14.3
50°-60°	5066.2	20.6
60°-70°	6276.2	25.5
70°-80°	4570.8	18.6
80°-90°	341.5	1.4
90°-100°	26.8	0.1
100°-110°	4.5	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°	24569.6	99.9
0°-180°	24601.0	100.0

**Coefficient of Utilization**

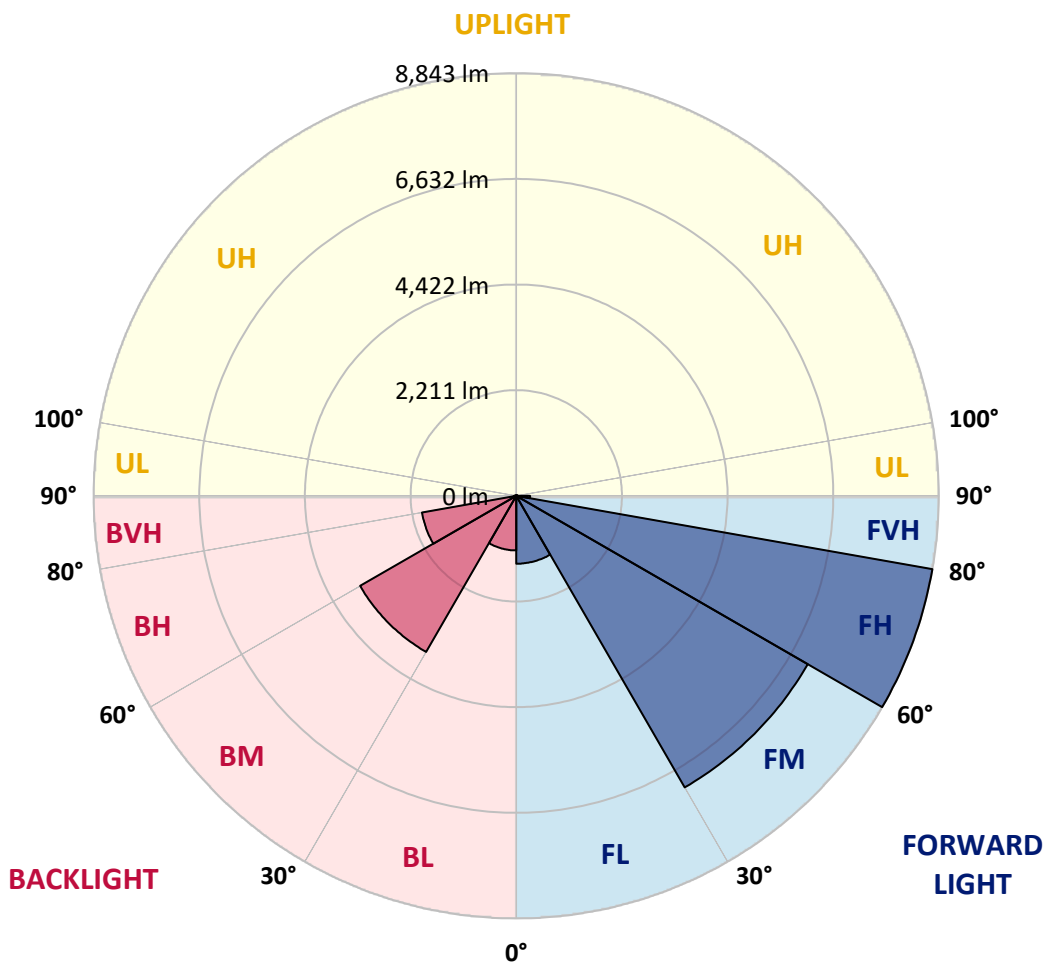


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1420.9	5.8			
FM	(30°-60°)	7045.0	28.6			
FH	(60°-80°)	8843.3	35.9			G4/12000
FVH	(80°-90°)	288.0	1.2			G3/500
BL	(0°-30°)	1143.0	4.6	B3/2500		
BM	(30°-60°)	3772.2	15.3	B3/5000		
BH	(60°-80°)	2003.8	8.1	B3/2500		G3/2500
BVH	(80°-90°)	53.4	0.2			G1/100
UL	(90°-100°)	26.8	0.1		U2/50	
UH	(100°-180°)	4.6	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°	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4
2.5°	2950.4	2934.4	2934.4	2951.6	2903.5	2918.3	2898.6	2915.9	2906.0	2910.9	2917.1
5°	2967.6	2949.1	2950.4	2971.3	2928.2	2940.5	2917.1	2925.7	2917.1	2920.8	2920.8
7.5°	2999.7	2983.7	2983.7	2996.0	2952.8	2956.5	2935.6	2935.6	2924.5	2933.1	2925.7
10°	3060.1	3042.8	3034.2	3040.4	3002.2	2997.2	2968.9	2968.9	2951.6	2965.2	2954.1
12.5°	3132.9	3108.2	3105.7	3107.0	3063.8	3055.2	3023.1	3024.4	2992.3	3010.8	2997.2
15°	3220.4	3189.6	3187.1	3192.0	3146.4	3130.4	3094.6	3094.6	3058.9	3068.7	3050.2
17.5°	3332.6	3296.8	3290.7	3299.3	3253.7	3238.9	3197.0	3189.6	3150.1	3142.7	3126.7
20°	3480.5	3439.8	3427.5	3446.0	3388.1	3374.5	3324.0	3307.9	3254.9	3167.4	3052.7
22.5°	3613.7	3581.6	3574.2	3586.6	3533.6	3520.0	3470.7	3437.4	3309.2	3132.9	3026.8
25°	3765.3	3753.0	3749.3	3741.9	3693.8	3670.4	3623.6	3576.7	3285.7	3044.1	3041.6
27.5°	3952.7	3946.6	3929.3	3923.2	3870.1	3855.3	3793.7	3491.6	3201.9	3184.6	3174.8
30°	4157.4	4145.1	4127.8	4129.1	4093.3	4066.2	3919.5	3416.4	3363.4	3363.4	3337.5
32.5°	4384.3	4370.7	4353.4	4357.1	4342.3	4318.9	3877.5	3614.9	3574.2	3585.3	3553.3
35°	4665.4	4643.2	4637.0	4651.8	4653.0	4501.4	3951.5	3884.9	3852.9	3845.5	3724.7
37.5°	4993.3	4974.8	4997.0	5031.6	4992.1	4548.2	4246.2	4225.2	4193.2	4014.4	3728.4
40°	5386.6	5353.3	5380.5	5402.7	5376.8	4826.9	4555.6	4563.0	4534.7	4004.5	3687.7
42.5°	5776.2	5744.2	5767.6	5823.1	5813.2	5172.1	4932.9	4948.9	4662.9	4028.0	4003.3
45°	6258.3	6247.2	6239.8	6285.4	6323.7	5585.1	5380.5	5379.2	4571.7	4400.3	4378.1
47.5°	6804.5	6789.7	6793.4	6851.3	6909.3	6078.3	5909.4	5413.8	4807.2	4824.4	4804.7
50°	7413.6	7397.5	7445.6	7529.4	7559.0	6631.9	6424.8	5320.1	5297.9	5316.4	5283.1
52.5°	8186.6	8150.8	8224.8	8314.8	8353.0	7286.6	6453.1	5873.6	5836.6	5840.3	5734.3
55°	9065.7	9037.3	9103.9	9205.0	9261.7	8017.7	7042.4	6412.4	6390.2	5761.4	5188.1
57.5°	10021.2	9989.1	10077.9	10107.5	10122.3	8773.5	7635.5	6996.8	5969.8	5260.9	5228.8
60°	10958.2	10923.7	11035.9	11040.8	11084.0	9528.0	8198.9	7560.3	5751.6	5657.9	5630.8
62.5°	11942.1	11898.9	11997.6	11993.9	11908.8	10218.4	8757.4	8101.5	6141.2	6067.2	6025.3
65°	13034.4	13002.4	13071.4	12960.5	12791.6	10932.3	9336.9	8690.9	6594.9	6581.3	6571.5
67.5°	14472.0	14409.1	14269.8	14033.1	13710.1	11587.0	9751.2	9079.2	6963.5	6900.7	6880.9
70°	13893.8	13819.8	13713.8	13453.6	13124.4	10971.8	9085.4	8492.4	6511.1	6513.5	6466.7
72.5°	12302.1	12173.9	12074.0	11709.1	11527.8	9582.3	7916.6	7370.4	5632.0	5736.8	5714.6
75°	9704.3	9573.6	9409.7	9266.6	9246.9	7772.3	6382.8	5989.5	4490.3	4566.7	4622.2
77.5°	6290.4	6242.3	6449.4	6313.8	6435.8	5352.1	4559.3	4221.5	3094.6	3288.2	3262.3
80°	2878.9	2823.4	3156.3	3062.6	3108.2	2628.6	2227.9	2140.4	1400.6	1410.5	1440.1
82.5°	651.0	628.8	652.2	599.2	584.4	494.4	435.2	394.5	247.8	262.6	276.2
85°	356.3	356.3	351.4	326.7	279.9	230.6	182.5	140.6	76.4	83.8	82.6
87.5°	250.3	244.1	242.9	217.0	186.2	157.8	125.8	90.0	43.2	29.6	27.1
90°	171.4	168.9	160.3	144.3	124.5	102.3	76.4	44.4	18.5	8.6	6.2
92.5°	124.5	122.1	115.9	102.3	85.1	69.0	50.5	29.6	14.8	6.2	1.2
95°	82.6	81.4	77.7	66.6	55.5	44.4	32.1	18.5	12.3	4.9	1.2
97.5°	56.7	55.5	51.8	44.4	35.8	28.4	19.7	13.6	9.9	3.7	1.2
100°	38.2	37.0	34.5	28.4	22.2	17.3	12.3	9.9	7.4	3.7	1.2
102.5°	24.7	23.4	21.0	17.3	12.3	9.9	8.6	7.4	4.9	2.5	1.2
105°	14.8	13.6	11.1	8.6	7.4	6.2	6.2	4.9	3.7	1.2	1.2
107.5°	7.4	6.2	4.9	4.9	4.9	3.7	3.7	3.7	2.5	1.2	0.0
110°	1.2	1.2	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.2	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°	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4	2897.4
2.5°	2910.9	2891.2	2902.3	2885.0	2881.3	2862.8	2892.4	2896.1	2893.7	2898.6
5°	2914.6	2893.7	2906.0	2885.0	2885.0	2865.3	2893.7	2893.7	2886.3	2888.7
7.5°	2924.5	2903.5	2912.2	2888.7	2890.0	2866.5	2901.1	2897.4	2891.2	2899.8
10°	2952.8	2929.4	2928.2	2906.0	2910.9	2886.3	2929.4	2929.4	2923.3	2939.3
12.5°	2998.5	2963.9	2957.8	2930.7	2940.5	2919.6	2972.6	2975.0	2976.3	3002.2
15°	3046.5	3004.6	3010.8	2978.7	2975.0	2963.9	3012.0	3009.6	3008.3	3044.1
17.5°	3114.4	2917.1	2885.0	2862.8	2857.9	2830.8	2875.2	2960.2	2915.9	2891.2
20°	3007.1	2903.5	2776.5	2733.4	2724.8	2489.3	2303.1	2386.9	2500.4	2510.2
22.5°	2909.7	2872.7	2862.8	2795.0	2419.0	2340.1	2347.5	2316.7	2047.9	1930.8
25°	3030.5	2998.5	2956.5	2542.3	2453.5	2425.2	2416.5	2100.9	1888.8	1902.4
27.5°	3164.9	3129.2	2764.2	2548.4	2568.2	2528.7	2333.9	1960.3	1948.0	1971.4
30°	3332.6	3046.5	2697.6	2685.3	2703.8	2653.2	2073.8	2046.6	2043.0	2067.6
32.5°	3523.7	2938.1	2875.2	2875.2	2866.5	2320.4	2184.7	2166.2	2176.1	2202.0
35°	3452.2	3108.2	3100.8	3131.6	2924.5	2380.8	2362.3	2330.2	2337.6	2346.2
37.5°	3373.3	3388.1	3391.8	3375.7	2133.0	2553.4	2538.6	2532.4	2525.0	2527.5
40°	3666.7	3676.6	3672.9	3526.2	2301.9	2586.7	2738.3	2727.2	2726.0	2740.8
42.5°	4009.5	4036.6	4015.6	3110.7	2527.5	2174.9	2968.9	2962.7	2960.2	2991.1
45°	4395.4	4421.3	3981.1	3331.4	2767.9	2251.3	2984.9	3214.2	3232.7	3259.8
47.5°	4813.3	4808.4	3674.1	3670.4	3050.2	2463.4	2481.9	3515.1	3545.9	3555.7
50°	5294.2	4503.9	4023.0	3887.4	3369.6	2701.3	2631.1	3225.3	3905.9	3915.8
52.5°	5191.8	4455.8	4423.7	3410.3	3655.6	2963.9	2894.9	2876.4	4048.9	4286.9
55°	4839.2	4876.2	4830.6	3741.9	2680.4	3198.2	3155.0	3136.6	3012.0	2384.5
57.5°	5231.3	5242.4	5202.9	4046.4	2726.0	1993.6	3105.7	2664.3	1731.0	1722.4
60°	5638.1	5656.6	3875.1	2972.6	1747.0	667.0	159.0	167.7	478.4	420.4
62.5°	6026.5	6045.0	4101.9	2716.1	1103.5	49.3	32.1	22.2	24.7	24.7
65°	6533.2	6540.6	4390.4	2875.2	1146.6	12.3	3.7	0.0	0.0	0.0
67.5°	6795.9	6644.2	4463.2	2947.9	1177.4	7.4	2.5	0.0	0.0	0.0
70°	6398.9	6236.1	4154.9	2763.0	1097.3	6.2	1.2	0.0	0.0	0.0
72.5°	5638.1	5559.2	3729.6	2449.8	971.5	3.7	1.2	0.0	0.0	0.0
75°	4672.8	4568.0	3092.2	2041.7	803.9	2.5	0.0	0.0	0.0	0.0
77.5°	3324.0	3336.3	2155.1	1488.1	547.4	2.5	0.0	0.0	0.0	0.0
80°	1454.8	1488.1	944.4	683.0	193.6	1.2	0.0	0.0	0.0	0.0
82.5°	277.4	255.2	123.3	97.4	24.7	0.0	0.0	0.0	0.0	0.0
85°	91.2	99.9	45.6	37.0	11.1	0.0	0.0	0.0	0.0	0.0
87.5°	32.1	40.7	13.6	11.1	2.5	0.0	0.0	0.0	0.0	0.0
90°	4.9	4.9	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



REPORT NUMBER: P579413  
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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)