

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: P579654

Luminaire Tested: **CTN-CA8-330-727-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579654  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-1)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-330-727-U-T5-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (8) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 33463 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B5 - U2 - G5

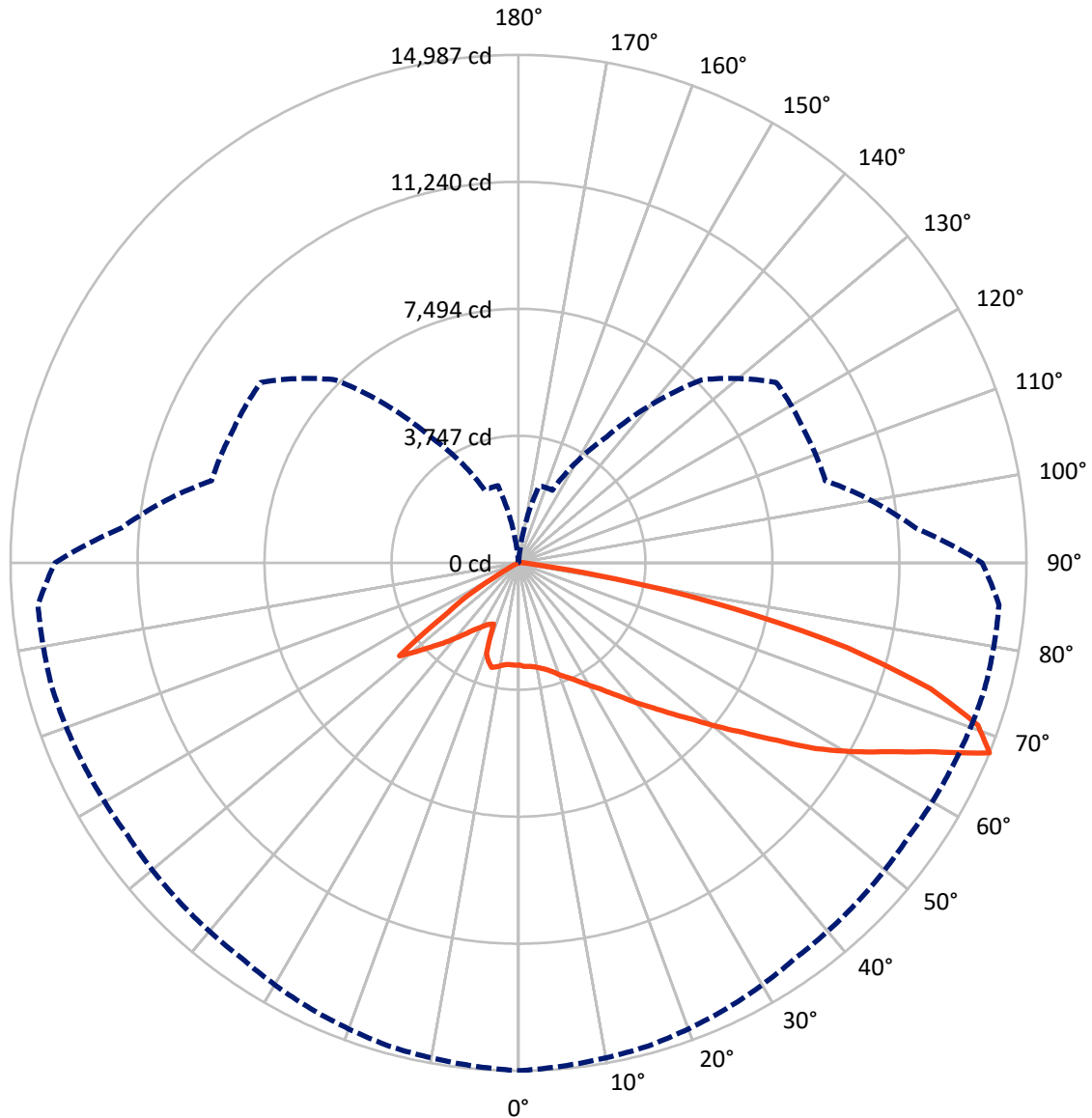
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT





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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 67.5-Deg Vertical

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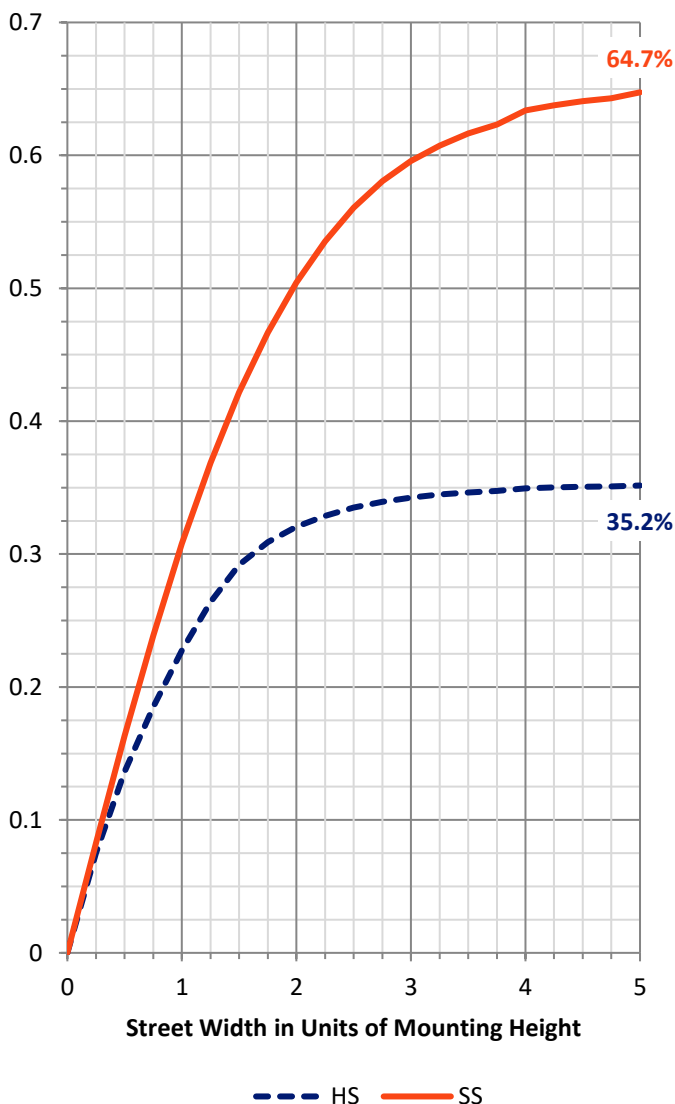
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	11778.9	0.7	11779.6
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	21659.8	23.6	21683.4
	% Fixture	64.7	0.1	64.8
<b>Total</b>	Lumens	33438.7	24.3	33463.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	290.1	0.9
10°-20°	901.2	2.7
20°-30°	1562.5	4.7
30°-40°	2563.9	7.7
40°-50°	4276.6	12.8
50°-60°	6921.1	20.7
60°-70°	9553.3	28.5
70°-80°	6892.3	20.6
80°-90°	477.7	1.4
90°-100°	20.7	0.1
100°-110°	3.5	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°	33438.7	99.9
0°-180°	33463.0	100.0

**Coefficient of Utilization**

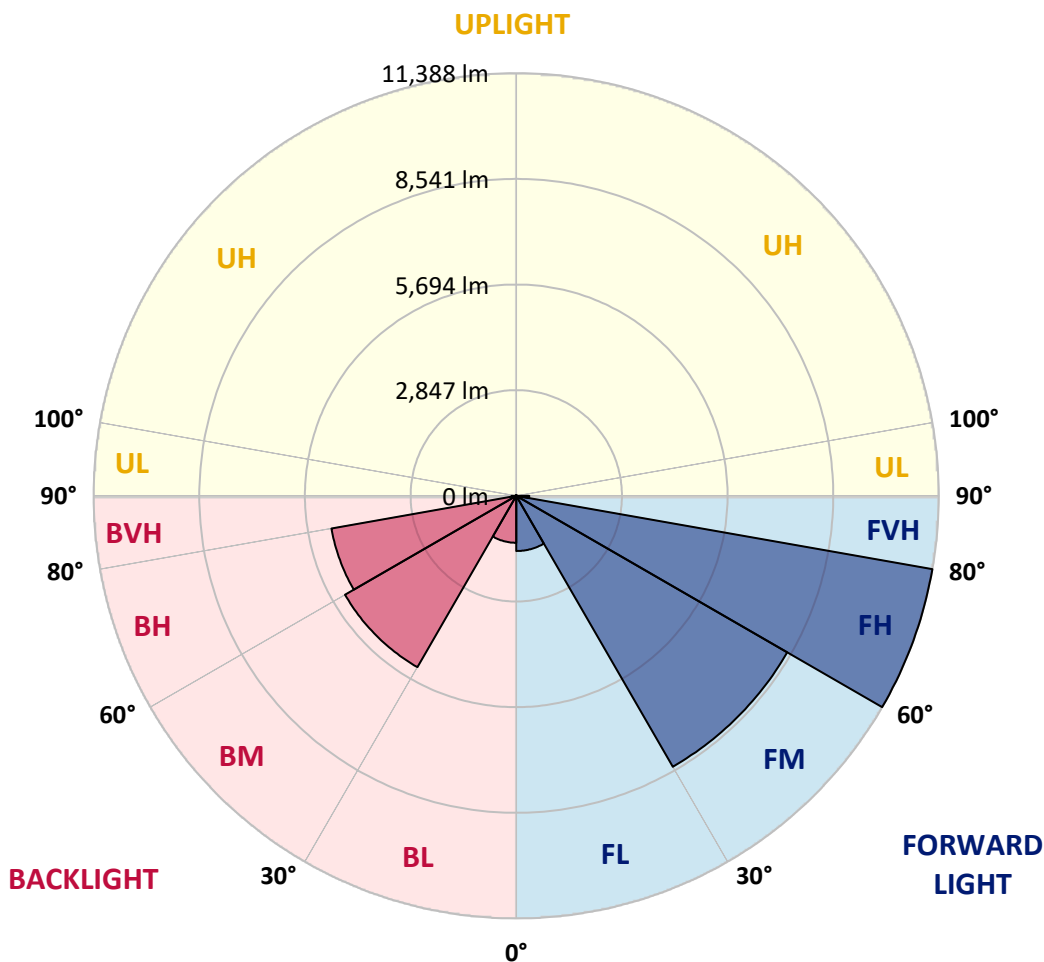


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1488.1	4.4			
FM (30°-60°)	8431.8	25.2			
FH (60°-80°)	11387.9	34.0			G4/12000
FVH (80°-90°)	352.0	1.1			G3/500
BL (0°-30°)	1265.8	3.8	B3/2500		
BM (30°-60°)	5329.7	15.9	B4/8500		
BH (60°-80°)	5057.7	15.1	B5		G5
BVH (80°-90°)	125.7	0.4			G2/225
UL (90°-100°)	20.7	0.1		U2/50	
UH (100°-180°)	3.6	0.0		U1/10	

**BUG Rating: B5-U2-G5**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6
2.5°	3061.7	3043.8	3045.1	3063.0	3014.3	3032.3	3011.8	3029.7	3020.7	3027.1	3034.8
5°	3070.7	3048.9	3051.5	3073.2	3034.8	3048.9	3024.6	3034.8	3027.1	3034.8	3036.1
7.5°	3093.7	3072.0	3073.2	3089.9	3050.2	3060.4	3037.4	3042.5	3029.7	3043.8	3039.9
10°	3142.4	3121.9	3114.2	3128.3	3093.7	3095.0	3068.1	3073.2	3054.0	3073.2	3065.6
12.5°	3207.8	3179.6	3182.1	3189.8	3147.6	3150.1	3118.1	3125.8	3093.7	3120.6	3111.7
15°	3287.2	3252.6	3256.4	3269.3	3228.3	3224.4	3194.9	3194.9	3166.8	3187.3	3178.3
17.5°	3397.4	3358.9	3356.4	3365.3	3332.0	3332.0	3298.7	3294.9	3266.7	3283.3	3280.8
20°	3540.8	3497.3	3489.6	3506.2	3464.0	3469.1	3426.8	3423.0	3392.2	3402.5	3403.8
22.5°	3670.2	3635.6	3634.4	3660.0	3610.0	3616.4	3578.0	3567.7	3542.1	3556.2	3560.0
25°	3818.8	3813.7	3809.9	3818.8	3768.9	3768.9	3742.0	3733.0	3716.3	3726.6	3736.8
27.5°	4005.9	4003.3	3993.0	3994.3	3952.1	3958.5	3929.0	3923.9	3916.2	3914.9	3909.8
30°	4212.1	4200.6	4186.5	4195.5	4176.2	4182.6	4157.0	4140.4	4137.8	4139.1	4131.4
32.5°	4441.4	4426.0	4417.1	4432.4	4440.1	4458.1	4456.8	4410.7	4410.7	4429.9	4395.3
35°	4725.8	4701.5	4709.2	4729.7	4745.0	4791.1	4783.5	4751.4	4761.7	4770.6	4729.7
37.5°	5060.2	5043.5	5078.1	5116.5	5117.8	5183.1	5167.8	5175.5	5174.2	5162.6	5135.7
40°	5461.1	5434.2	5470.1	5499.6	5481.6	5559.8	5557.2	5591.8	5614.9	5654.6	5639.2
42.5°	5859.5	5839.0	5873.6	5937.7	5927.4	6017.1	6029.9	6083.7	6115.8	6177.2	6141.4
45°	6350.2	6338.7	6370.7	6420.6	6455.2	6574.4	6621.8	6644.8	6725.5	6799.8	6716.6
47.5°	6899.8	6915.1	6910.0	7001.0	7077.8	7222.6	7241.8	7316.1	7386.6	7468.5	7387.8
50°	7583.8	7558.2	7581.3	7668.4	7793.9	7899.0	7997.6	8103.9	8173.1	8257.7	8109.1
52.5°	8320.4	8342.2	8393.5	8528.0	8620.2	8744.5	8834.1	8961.0	9028.9	9101.9	8908.5
55°	9249.2	9267.1	9323.5	9461.9	9527.2	9668.1	9729.6	9856.4	9921.8	9953.8	9706.5
57.5°	10338.1	10277.9	10324.0	10395.8	10497.0	10649.4	10666.1	10785.2	10785.2	10826.2	10511.0
60°	11310.4	11269.4	11318.1	11420.6	11460.3	11598.7	11584.6	11681.9	11707.6	11676.8	11300.2
62.5°	12268.7	12276.3	12339.1	12372.4	12357.0	12439.0	12472.3	12574.8	12532.6	12542.8	12108.5
65°	13431.9	13449.8	13443.4	13381.9	13243.5	13405.0	13396.0	13558.7	13568.9	13661.2	13156.4
67.5°	14987.1	14907.6	14762.9	14515.6	14241.5	14146.7	14063.4	14144.1	14247.9	14231.2	13677.8
70°	14382.4	14253.0	14177.4	13962.2	13595.8	13406.2	13233.3	13247.4	13398.5	13412.6	12846.4
72.5°	12714.5	12649.1	12358.3	12170.0	11918.9	11772.9	11564.1	11611.5	11808.8	11842.1	11391.1
75°	10029.4	9969.2	9706.5	9645.1	9520.8	9592.5	9541.3	9560.5	9719.4	9573.3	9303.0
77.5°	6491.1	6505.2	6464.2	6603.8	6598.7	6602.6	6789.6	6808.8	6963.8	6874.1	6612.8
80°	2910.6	2952.8	3052.8	3255.2	3132.2	3198.8	3270.5	3248.8	3405.0	3051.5	3178.3
82.5°	589.3	609.8	575.2	600.8	561.1	581.6	611.1	566.2	561.1	520.1	483.0
85°	303.6	307.5	306.2	299.8	263.9	243.4	234.4	197.3	178.1	174.2	161.4
87.5°	197.3	199.8	193.4	192.2	169.1	155.0	138.4	116.6	97.4	67.9	56.4
90°	120.4	120.4	114.0	107.6	96.1	85.8	69.2	50.0	29.5	11.5	6.4
92.5°	80.7	80.7	78.1	74.3	66.6	57.6	44.8	29.5	14.1	5.1	2.6
95°	51.2	51.2	50.0	48.7	43.6	37.2	28.2	17.9	9.0	3.8	1.3
97.5°	33.3	33.3	33.3	32.0	29.5	25.6	19.2	11.5	6.4	2.6	1.3
100°	20.5	21.8	20.5	20.5	19.2	16.7	12.8	7.7	5.1	2.6	1.3
102.5°	11.5	11.5	12.8	12.8	11.5	10.2	7.7	6.4	3.8	2.6	1.3
105°	5.1	5.1	6.4	6.4	6.4	5.1	5.1	3.8	2.6	2.6	1.3
107.5°	1.3	1.3	1.3	2.6	3.8	3.8	3.8	3.8	2.6	1.3	1.3
110°	0.0	0.0	0.0	1.3	1.3	2.6	2.6	2.6	2.6	1.3	1.3



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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°	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6	3015.6
2.5°	3027.1	3011.8	3023.3	3004.1	2998.9	2982.3	3014.3	3019.4	3016.9	3022.0
5°	3029.7	3010.5	3024.6	3005.4	3004.1	2986.1	3019.4	3020.7	3011.8	3015.6
7.5°	3037.4	3019.4	3029.7	3007.9	3010.5	2988.7	3027.1	3025.8	3020.7	3029.7
10°	3065.6	3045.1	3048.9	3025.8	3032.3	3009.2	3056.6	3059.2	3054.0	3070.7
12.5°	3114.2	3086.1	3095.0	3068.1	3073.2	3050.2	3107.8	3111.7	3111.7	3138.6
15°	3180.9	3151.4	3170.6	3136.0	3137.3	3102.7	3146.3	3146.3	3151.4	3188.5
17.5°	3278.2	3242.3	3268.0	3235.9	3036.1	2960.5	3109.1	3200.1	3048.9	3036.1
20°	3398.6	3382.0	3396.1	3343.6	3019.4	2673.6	2404.5	2390.4	2688.9	2837.5
22.5°	3546.0	3529.3	3535.7	3469.1	2695.3	2451.9	2448.1	2422.5	2049.7	1947.2
25°	3718.9	3709.9	3695.8	3137.3	2786.3	2553.1	2522.4	2188.0	1974.1	1993.3
27.5°	3904.7	3877.8	3402.5	3259.0	2925.9	2654.3	2480.1	2043.3	2035.6	2053.5
30°	4112.2	3970.0	3483.2	3434.5	3088.6	2779.9	2158.6	2133.0	2133.0	2161.1
32.5°	4376.1	3707.4	3707.4	3681.7	3289.7	2440.4	2272.6	2257.2	2275.2	2286.7
35°	4336.4	3987.9	4028.9	4017.4	3562.6	2485.2	2455.8	2430.2	2434.0	2434.0
37.5°	4349.2	4363.3	4412.0	4362.0	3107.8	2680.0	2632.6	2627.4	2631.3	2640.3
40°	4751.4	4759.1	4777.1	4666.9	3339.7	2906.7	2841.4	2828.6	2841.4	2860.6
42.5°	5184.4	5206.2	5226.7	4244.1	3663.8	3164.2	3098.9	3074.5	3097.6	3118.1
45°	5696.8	5730.2	5416.3	4619.5	4030.2	3457.6	3388.4	3358.9	3373.0	3391.0
47.5°	6273.3	6325.8	5107.6	5097.3	4460.6	3804.7	3725.3	3668.9	3690.7	3689.4
50°	6924.1	6045.3	5643.0	5636.6	4941.0	4191.6	4109.6	4058.4	4075.0	4062.2
52.5°	7627.4	6210.6	6223.4	6222.1	5443.2	4608.0	4532.4	4468.3	4336.4	4458.1
55°	8347.3	6781.9	6830.6	6822.9	5969.7	5038.4	4957.7	4897.5	3200.1	2703.0
57.5°	9063.5	7378.9	7394.2	7412.2	6515.4	5453.4	5098.6	4683.5	1825.5	1816.5
60°	9770.6	7947.7	7978.4	7988.7	6810.1	4514.4	2084.3	2122.7	552.1	659.7
62.5°	10503.4	8508.8	8536.9	8528.0	7103.4	4198.0	2189.3	2145.8	51.2	47.4
65°	11438.5	9212.1	9172.3	9142.9	7565.9	4479.8	2352.0	2340.5	16.7	11.5
67.5°	11766.5	9372.2	9291.5	9281.2	7632.5	4540.1	2364.8	2355.9	16.7	11.5
70°	11023.5	8763.7	8625.3	8629.2	7102.2	4246.7	2206.0	2193.2	15.4	11.5
72.5°	9654.0	7740.1	7682.5	7377.6	6150.3	3735.6	1956.2	1907.5	15.4	10.2
75°	7925.9	6252.8	6124.7	5782.7	4894.9	2969.5	1536.0	1473.2	14.1	9.0
77.5°	5502.1	4385.0	4140.4	3791.9	3274.4	1969.0	1032.5	951.8	12.8	9.0
80°	2494.2	1799.9	1808.8	1386.1	1110.7	667.4	327.9	297.2	11.5	7.7
82.5°	434.3	320.3	301.0	290.8	242.1	164.0	99.9	85.8	10.2	5.1
85°	151.2	121.7	134.5	158.9	140.9	98.6	61.5	58.9	6.4	2.6
87.5°	51.2	53.8	62.8	75.6	66.6	38.4	23.1	16.7	1.3	0.0
90°	5.1	6.4	6.4	6.4	3.8	0.0	0.0	0.0	0.0	0.0
92.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	1.3	1.3	1.3	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)