

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: STREETWORKS

Report Number: P579649

Luminaire Tested: **CST-CA8-230-727-U-T5N-HSS-HM-EX120**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579649  
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: STREETWORKS  
Catalog Number: CST-CA8-230-727-U-T5N-HSS-HM-EX120  
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: 23844 lumens  
Efficiency: N/A  
Efficacy: 104.4 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type III - Short  
BUG Rating: B3 - U2 - G3

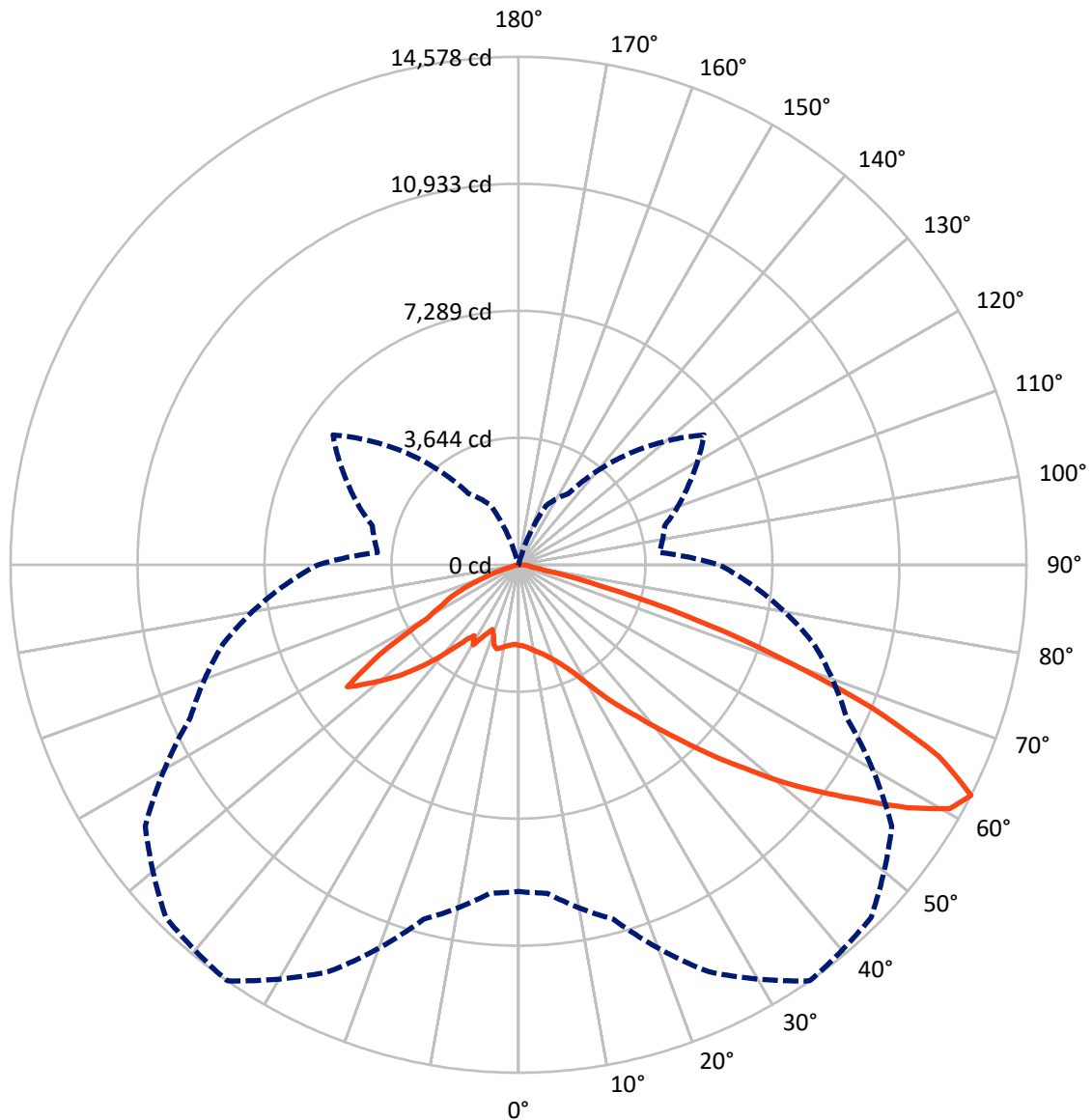
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT





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### Luminous Intensity Polar Plot



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

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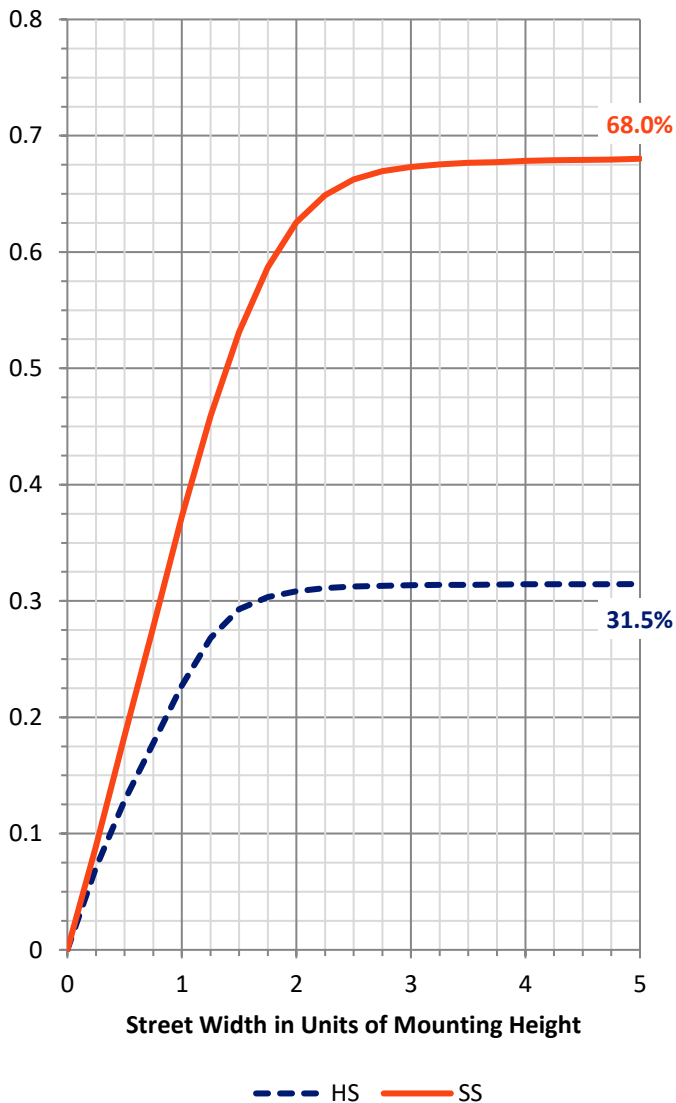
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7543.2	0.0	7543.2
	% Fixture	31.6	0.0	31.6
<b>Street Side</b>	Lumens	16287.2	13.6	16300.8
	% Fixture	68.3	0.1	68.4
<b>Total</b>	Lumens	23830.4	13.6	23844.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	228.2	1.0
10°-20°	733.8	3.1
20°-30°	1362.6	5.7
30°-40°	2686.4	11.3
40°-50°	4822.4	20.2
50°-60°	7009.9	29.4
60°-70°	5761.0	24.2
70°-80°	1095.1	4.6
80°-90°	131.1	0.5
90°-100°	12.4	0.1
100°-110°	1.2	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°	23830.4	99.9
0°-180°	23844.0	100.0

**Coefficient of Utilization**



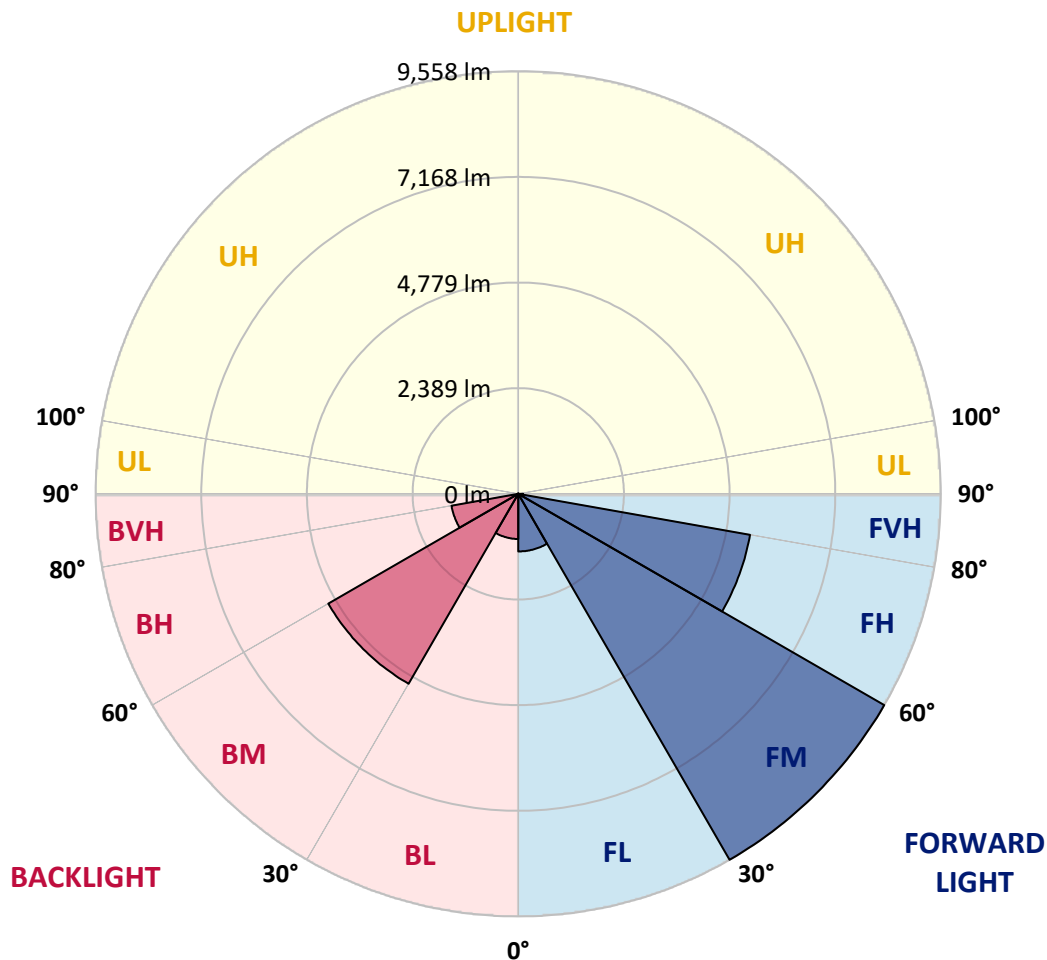
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1303.2	5.5			
FM (30°-60°)	9557.8	40.1			
FH (60°-80°)	5322.5	22.3			G3/7500
FVH (80°-90°)	103.7	0.4			G2/225
BL (0°-30°)	1021.4	4.3	B3/2500		
BM (30°-60°)	4960.9	20.8	B3/5000		
BH (60°-80°)	1533.5	6.4	B3/2500		G3/2500
BVH (80°-90°)	27.4	0.1			G1/100
UL (90°-100°)	12.4	0.1		U2/50	
UH (100°-180°)	1.2	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°	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4
2.5°	2373.5	2354.2	2356.1	2370.6	2327.0	2341.6	2321.2	2338.7	2330.9	2338.7	2343.5
5°	2421.0	2396.8	2395.8	2410.4	2375.5	2384.2	2360.9	2372.6	2361.9	2371.6	2371.6
7.5°	2479.2	2458.8	2454.0	2465.6	2434.6	2438.5	2415.2	2420.1	2407.5	2420.1	2410.4
10°	2551.9	2533.5	2525.7	2531.5	2503.4	2505.4	2480.2	2482.1	2463.7	2474.3	2466.6
12.5°	2628.4	2603.2	2599.4	2609.1	2580.0	2576.1	2554.8	2556.7	2536.4	2546.1	2540.3
15°	2707.9	2681.8	2682.7	2692.4	2663.3	2665.3	2643.0	2646.9	2626.5	2636.2	2628.4
17.5°	2813.6	2787.4	2785.5	2802.9	2778.7	2786.4	2763.2	2768.0	2753.5	2755.4	2746.7
20°	2964.8	2930.8	2924.0	2949.2	2917.3	2927.0	2914.4	2930.8	2925.0	2920.2	2913.4
22.5°	3145.0	3118.9	3105.3	3124.7	3086.9	3105.3	3112.1	3146.0	3154.7	3148.9	3042.3
25°	3386.4	3372.8	3359.2	3350.5	3304.9	3334.0	3368.9	3425.1	3462.0	3476.5	3328.2
27.5°	3712.0	3718.8	3659.7	3650.0	3598.6	3644.2	3707.2	3798.3	3872.9	3900.0	3700.4
30°	4130.7	4139.4	4059.0	4035.7	4004.7	4043.5	4160.7	4260.6	4371.1	4416.6	4150.1
32.5°	4687.0	4679.3	4561.0	4516.4	4488.3	4503.8	4626.9	4763.6	4887.6	4990.4	4662.8
35°	5366.4	5342.2	5216.2	5093.1	4981.6	5029.1	5119.3	5285.0	5473.0	5624.2	5168.7
37.5°	6155.3	6132.1	5940.2	5739.6	5519.5	5539.9	5620.3	5890.7	6133.0	6172.8	5082.4
40°	6970.4	6960.7	6779.5	6524.6	6182.5	6086.5	6193.1	6522.7	6778.5	6085.6	5283.1
42.5°	7784.5	7738.0	7636.3	7381.4	6925.8	6714.6	6858.0	7187.5	7462.8	6380.2	5748.3
45°	8605.4	8558.0	8471.7	8284.6	7810.7	7503.5	7545.2	7910.5	8159.6	6932.6	6232.9
47.5°	9334.3	9299.4	9237.4	9132.7	8710.1	8432.0	8351.5	8607.4	8777.0	7381.4	6605.0
50°	9962.3	9932.3	9956.5	9921.6	9797.6	9505.8	9240.3	9223.8	9305.2	7780.7	6947.2
52.5°	10514.8	10474.0	10577.8	10700.8	10815.2	10750.3	10107.7	9808.2	9734.6	8080.1	7176.9
55°	10971.2	10956.7	11135.0	11467.5	11902.6	12073.2	11035.2	10348.1	10118.4	8334.1	7198.2
57.5°	11244.6	11279.4	11656.5	12300.0	13151.0	13231.4	12120.7	10921.8	10456.6	8488.2	7299.9
60°	10777.4	10895.6	11574.1	12924.2	14213.2	14248.1	12900.9	11036.2	10013.7	7933.8	6756.2
62.5°	9377.9	9463.2	10530.3	12884.4	14577.6	14312.0	13075.4	10390.7	8776.0	6730.1	5746.3
65°	6626.4	6725.2	8011.3	11618.7	13262.4	13272.1	11977.3	8985.4	7015.0	5210.4	4437.0
67.5°	3996.9	4156.9	5375.1	8434.9	10919.9	11118.6	9992.4	6802.8	5020.4	3401.9	2871.7
70°	1311.3	1457.7	2454.0	4992.3	7871.8	8722.7	7504.4	4420.5	2621.7	1438.3	1158.2
72.5°	519.5	586.4	864.5	2207.8	5072.7	5823.9	4624.0	2136.1	880.0	381.9	332.4
75°	347.0	353.8	399.3	752.1	2482.1	3184.8	2229.1	621.3	326.6	238.4	209.3
77.5°	302.4	303.4	323.7	396.4	808.3	1221.2	641.6	333.4	270.4	195.8	173.5
80°	277.2	281.1	293.7	338.2	370.2	414.8	316.9	278.2	234.5	180.3	163.8
82.5°	265.6	268.5	276.2	306.3	299.5	311.1	255.9	221.0	197.7	165.7	157.0
85°	242.3	247.1	252.0	270.4	246.2	213.2	197.7	148.3	141.5	125.0	115.3
87.5°	183.2	182.2	177.4	180.3	164.8	134.7	111.5	83.4	67.8	56.2	46.5
90°	76.6	77.5	74.6	70.8	62.0	51.4	38.8	23.3	11.6	3.9	1.9
92.5°	58.2	59.1	57.2	51.4	44.6	35.9	26.2	13.6	7.8	2.9	1.0
95°	35.9	36.8	34.9	31.0	27.1	20.4	13.6	8.7	4.8	1.9	0.0
97.5°	21.3	22.3	20.4	18.4	14.5	9.7	7.8	5.8	3.9	1.9	0.0
100°	12.6	12.6	11.6	9.7	6.8	5.8	4.8	3.9	2.9	1.0	0.0
102.5°	5.8	5.8	5.8	3.9	2.9	2.9	2.9	2.9	2.9	1.0	0.0
105°	1.9	1.9	1.0	1.0	1.0	1.9	1.9	1.9	1.9	1.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.9	1.9	1.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0	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°	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4	2314.4
2.5°	2338.7	2320.2	2323.2	2306.7	2302.8	2285.4	2316.4	2319.3	2310.6	2319.3
5°	2367.7	2345.4	2351.3	2332.8	2328.0	2303.8	2329.0	2327.0	2320.2	2329.0
7.5°	2410.4	2385.2	2388.1	2366.8	2361.9	2334.8	2358.0	2351.3	2343.5	2354.2
10°	2464.7	2440.4	2441.4	2412.3	2409.4	2378.4	2408.4	2395.8	2384.2	2399.7
12.5°	2540.3	2506.3	2503.4	2471.4	2470.5	2438.5	2469.5	2458.8	2443.3	2467.6
15°	2627.5	2581.9	2570.3	2529.6	2528.6	2494.7	2525.7	2509.2	2501.5	2530.6
17.5°	2740.9	2683.7	2595.5	2456.9	2393.9	2404.6	2514.1	2553.8	2450.1	2465.6
20°	2809.7	2532.5	2403.6	2346.4	2316.4	2143.9	1910.3	1929.7	2159.4	2268.9
22.5°	2693.4	2611.0	2563.5	2483.1	2064.4	2005.3	2018.8	2014.9	1718.4	1630.2
25°	2935.7	2858.1	2771.9	2275.7	2189.4	2164.2	2171.0	1892.8	1731.0	1737.8
27.5°	3284.6	3184.8	2638.1	2423.0	2405.5	2368.7	2235.0	1900.6	1920.9	1934.5
30°	3725.6	3370.8	2809.7	2715.7	2680.8	2641.0	2074.1	2123.5	2161.3	2203.0
32.5°	4152.0	3278.8	3138.2	3040.4	2986.1	2397.8	2339.6	2430.7	2468.5	2504.4
35°	4113.2	3673.2	3491.0	3367.0	3265.2	2587.7	2639.1	2777.7	2877.5	2876.6
37.5°	4219.9	4102.6	3892.3	3735.3	2833.9	2898.9	3006.4	3164.4	3285.6	3284.6
40°	4664.7	4537.8	4340.0	4002.8	3140.2	3291.4	3438.7	3587.0	3674.2	3681.0
42.5°	5106.7	5008.8	4830.4	3535.6	3515.3	3724.6	3878.7	3972.7	4026.0	4044.4
45°	5546.7	5454.6	4746.1	3910.7	3972.7	4180.1	4274.1	4292.5	4349.7	4347.8
47.5°	5896.6	5818.1	4366.2	4356.5	4510.6	4654.1	4624.0	4600.8	4615.3	4623.0
50°	6219.3	5065.0	4707.4	4848.9	5083.4	5100.9	4975.8	3941.7	4879.9	4863.4
52.5°	5777.3	4942.9	5025.3	5356.7	5756.0	5553.5	5309.2	3455.2	4576.5	5011.7
55°	5055.3	5138.7	5324.7	5881.1	6275.5	6035.2	5627.1	3557.9	3037.4	2472.4
57.5°	5156.1	5287.9	5641.7	6410.2	6754.3	4780.1	5252.0	2508.3	1698.0	1697.1
60°	4801.4	5001.0	5634.9	6647.7	5467.2	3062.6	2104.1	57.2	329.5	326.6
62.5°	4059.0	4342.9	5376.1	6497.5	4529.0	2488.9	1874.4	4.8	1.9	1.9
65°	3139.2	3473.6	4482.5	5626.2	4012.5	2143.9	1391.8	0.0	0.0	0.0
67.5°	2058.6	2368.7	3366.0	4673.4	3331.1	1620.5	935.3	0.0	0.0	0.0
70°	857.7	1240.6	2091.5	3377.6	2450.1	1061.3	443.9	0.0	0.0	0.0
72.5°	248.1	378.0	942.1	2016.9	1520.7	555.3	164.8	0.0	0.0	0.0
75°	163.8	172.5	284.9	811.2	739.5	203.5	66.9	0.0	0.0	0.0
77.5°	137.6	141.5	181.2	226.8	237.5	80.4	54.3	0.0	0.0	0.0
80°	127.0	127.9	162.8	168.6	127.0	66.9	53.3	0.0	0.0	0.0
82.5°	118.2	115.3	138.6	133.7	105.6	58.2	49.4	0.0	0.0	0.0
85°	81.4	83.4	94.0	119.2	64.0	29.1	34.9	0.0	0.0	0.0
87.5°	25.2	29.1	36.8	37.8	11.6	3.9	0.0	0.0	0.0	0.0
90°	1.0	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



REPORT NUMBER: P579649  
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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)