

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: P579642

Luminaire Tested: **CTN-CA6-230-727-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579642  
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-CA6-230-727-U-T5-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (6) 2700K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 23554 lumens  
Efficiency: N/A  
Efficacy: 103.4 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G4

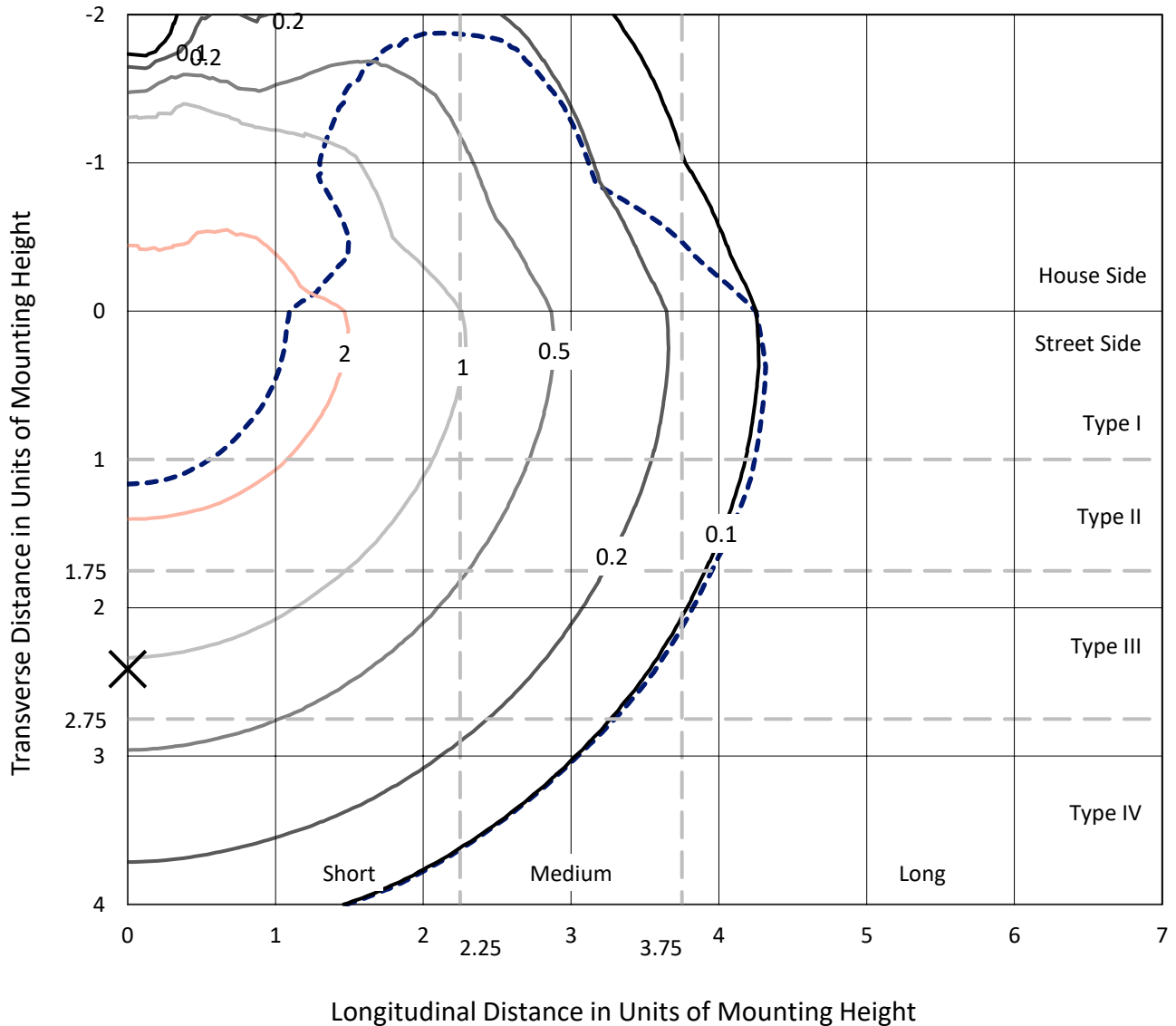
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

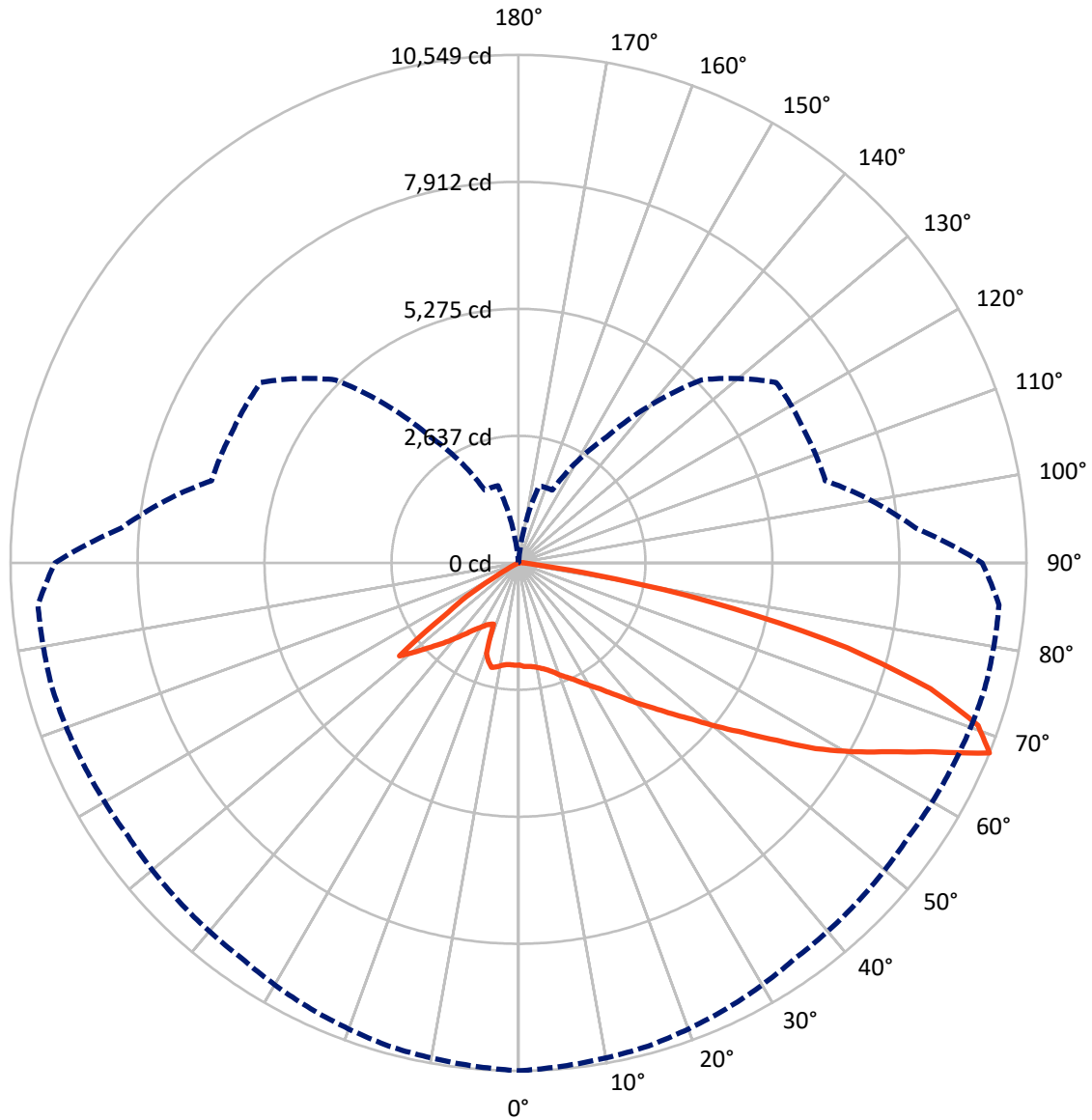
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.4 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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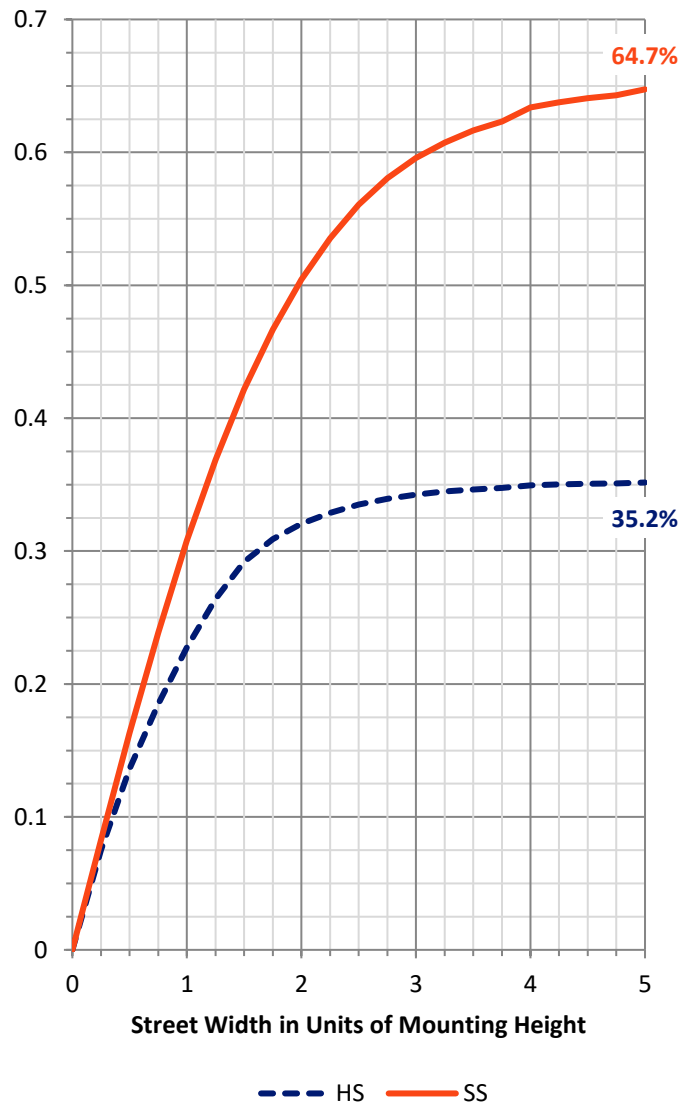
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	8291.0	0.5	8291.5
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	15245.9	16.6	15262.5
	% Fixture	64.7	0.1	64.8
<b>Total</b>	Lumens	23536.9	17.1	23554.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	204.2	0.9
10°-20°	634.4	2.7
20°-30°	1099.8	4.7
30°-40°	1804.7	7.7
40°-50°	3010.2	12.8
50°-60°	4871.6	20.7
60°-70°	6724.4	28.5
70°-80°	4851.4	20.6
80°-90°	336.3	1.4
90°-100°	14.6	0.1
100°-110°	2.4	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°	23536.9	99.9
0°-180°	23554.0	100.0

**Coefficient of Utilization**

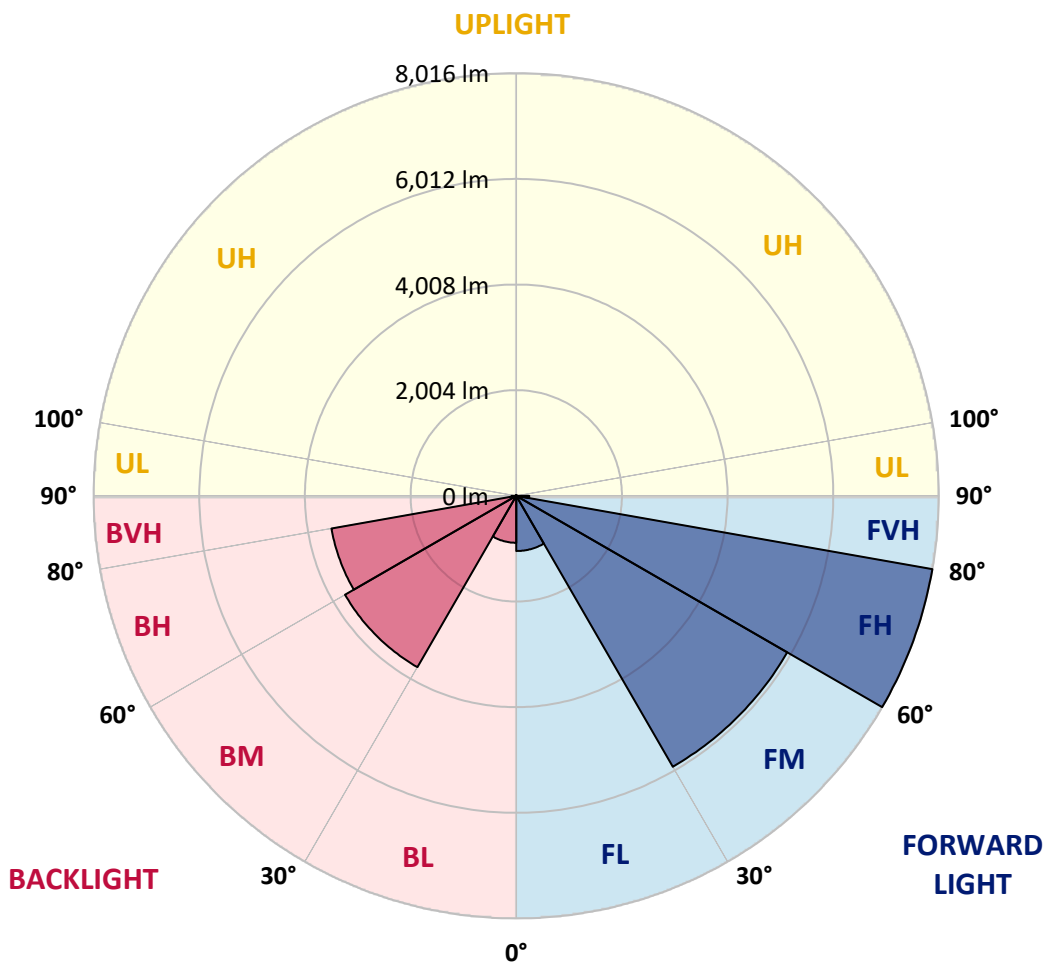


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1047.4	4.4			
FM	(30°-60°)	5935.0	25.2			
FH	(60°-80°)	8015.7	34.0			G4/12000
FVH	(80°-90°)	247.8	1.1			G3/500
BL	(0°-30°)	891.0	3.8	B2/1000		
BM	(30°-60°)	3751.5	15.9	B3/5000		
BH	(60°-80°)	3560.0	15.1	B4/5000		G4/5000
BVH	(80°-90°)	88.5	0.4			G1/100
UL	(90°-100°)	14.6	0.1		U2/50	
UH	(100°-180°)	2.5	0.0		U1/10	

**BUG Rating: B4-U2-G4**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6
2.5°	2155.1	2142.5	2143.4	2156.0	2121.7	2134.3	2119.9	2132.5	2126.2	2130.7	2136.2
5°	2161.4	2146.1	2147.9	2163.2	2136.2	2146.1	2128.9	2136.2	2130.7	2136.2	2137.1
7.5°	2177.6	2162.3	2163.2	2174.9	2147.0	2154.2	2138.0	2141.6	2132.5	2142.5	2139.8
10°	2211.9	2197.5	2192.1	2202.0	2177.6	2178.5	2159.6	2163.2	2149.7	2163.2	2157.8
12.5°	2257.9	2238.0	2239.8	2245.3	2215.5	2217.3	2194.8	2200.2	2177.6	2196.6	2190.3
15°	2313.8	2289.4	2292.1	2301.2	2272.3	2269.6	2248.9	2248.9	2229.0	2243.5	2237.1
17.5°	2391.3	2364.3	2362.5	2368.8	2345.3	2345.3	2321.9	2319.2	2299.4	2311.1	2309.3
20°	2492.3	2461.7	2456.3	2468.0	2438.2	2441.8	2412.1	2409.4	2387.7	2394.9	2395.8
22.5°	2583.4	2559.1	2558.2	2576.2	2541.0	2545.5	2518.5	2511.3	2493.2	2503.1	2505.9
25°	2688.0	2684.4	2681.7	2688.0	2652.8	2652.8	2633.9	2627.6	2615.9	2623.1	2630.3
27.5°	2819.6	2817.8	2810.6	2811.5	2781.8	2786.3	2765.5	2761.9	2756.5	2755.6	2752.0
30°	2964.8	2956.7	2946.8	2953.1	2939.6	2944.1	2926.1	2914.3	2912.5	2913.4	2908.0
32.5°	3126.2	3115.4	3109.1	3119.9	3125.3	3138.0	3137.1	3104.6	3104.6	3118.1	3093.8
35°	3326.4	3309.3	3314.7	3329.1	3339.9	3372.4	3367.0	3344.4	3351.7	3358.0	3329.1
37.5°	3561.8	3550.0	3574.4	3601.4	3602.3	3648.3	3637.5	3642.9	3642.0	3633.9	3615.0
40°	3844.0	3825.1	3850.3	3871.0	3858.4	3913.4	3911.6	3936.0	3952.2	3980.2	3969.3
42.5°	4124.4	4110.0	4134.3	4179.4	4172.2	4235.3	4244.4	4282.2	4304.8	4348.0	4322.8
45°	4469.8	4461.7	4484.2	4519.4	4543.7	4627.6	4660.9	4677.2	4734.0	4786.3	4727.7
47.5°	4856.6	4867.4	4863.8	4927.8	4982.0	5083.8	5097.4	5149.7	5199.3	5257.0	5200.2
50°	5338.1	5320.1	5336.3	5397.6	5486.0	5559.9	5629.4	5704.2	5752.9	5812.4	5707.8
52.5°	5856.6	5871.9	5908.0	6002.7	6067.6	6155.1	6218.2	6307.5	6355.3	6406.7	6270.5
55°	6510.4	6523.0	6562.7	6660.0	6706.0	6805.2	6848.5	6937.8	6983.8	7006.3	6832.3
57.5°	7276.8	7234.4	7266.9	7317.4	7388.6	7495.9	7507.6	7591.5	7591.5	7620.4	7398.5
60°	7961.2	7932.4	7966.6	8038.8	8066.7	8164.1	8154.2	8222.7	8240.7	8219.1	7954.0
62.5°	8635.7	8641.1	8685.3	8708.7	8697.9	8755.6	8779.1	8851.2	8821.4	8828.7	8523.0
65°	9454.4	9467.1	9462.6	9419.3	9321.9	9435.5	9429.2	9543.7	9550.9	9615.8	9260.6
67.5°	10549.1	10493.2	10391.3	10217.3	10024.3	9957.6	9899.0	9955.8	10028.8	10017.1	9627.6
70°	10123.5	10032.4	9979.2	9827.7	9569.9	9436.4	9314.7	9324.6	9431.0	9440.9	9042.4
72.5°	8949.5	8903.5	8698.8	8566.3	8389.5	8286.7	8139.7	8173.1	8312.0	8335.4	8018.0
75°	7059.5	7017.1	6832.3	6789.0	6701.5	6752.0	6715.9	6729.5	6841.3	6738.5	6548.2
77.5°	4569.0	4578.9	4550.0	4648.3	4644.7	4647.4	4779.1	4792.6	4901.7	4838.6	4654.6
80°	2048.7	2078.4	2148.8	2291.2	2204.7	2251.6	2302.1	2286.7	2396.7	2147.9	2237.1
82.5°	414.8	429.2	404.9	422.9	394.9	409.4	430.1	398.6	394.9	366.1	339.9
85°	213.7	216.4	215.5	211.0	185.8	171.3	165.0	138.9	125.3	122.6	113.6
87.5°	138.9	140.7	136.2	135.3	119.0	109.1	97.4	82.1	68.5	47.8	39.7
90°	84.8	84.8	80.3	75.7	67.6	60.4	48.7	35.2	20.7	8.1	4.5
92.5°	56.8	56.8	55.0	52.3	46.9	40.6	31.6	20.7	9.9	3.6	1.8
95°	36.1	36.1	35.2	34.3	30.7	26.1	19.8	12.6	6.3	2.7	0.9
97.5°	23.4	23.4	23.4	22.5	20.7	18.0	13.5	8.1	4.5	1.8	0.9
100°	14.4	15.3	14.4	14.4	13.5	11.7	9.0	5.4	3.6	1.8	0.9
102.5°	8.1	8.1	9.0	9.0	8.1	7.2	5.4	4.5	2.7	1.8	0.9
105°	3.6	3.6	4.5	4.5	4.5	3.6	3.6	2.7	1.8	1.8	0.9
107.5°	0.9	0.9	0.9	1.8	2.7	2.7	2.7	2.7	1.8	0.9	0.9
110°	0.0	0.0	0.0	0.9	0.9	1.8	1.8	1.8	1.8	0.9	0.9



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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°	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6	2122.6
2.5°	2130.7	2119.9	2128.0	2114.5	2110.9	2099.2	2121.7	2125.3	2123.5	2127.1
5°	2132.5	2119.0	2128.9	2115.4	2114.5	2101.9	2125.3	2126.2	2119.9	2122.6
7.5°	2138.0	2125.3	2132.5	2117.2	2119.0	2103.7	2130.7	2129.8	2126.2	2132.5
10°	2157.8	2143.4	2146.1	2129.8	2134.3	2118.1	2151.5	2153.3	2149.7	2161.4
12.5°	2192.1	2172.2	2178.5	2159.6	2163.2	2147.0	2187.6	2190.3	2190.3	2209.2
15°	2238.9	2218.2	2231.7	2207.4	2208.3	2183.9	2214.6	2214.6	2218.2	2244.4
17.5°	2307.5	2282.2	2300.3	2277.7	2137.1	2083.9	2188.5	2252.5	2146.1	2137.1
20°	2392.2	2380.5	2390.4	2353.5	2125.3	1881.9	1692.5	1682.6	1892.7	1997.3
22.5°	2495.9	2484.2	2488.7	2441.8	1897.2	1725.9	1723.2	1705.1	1442.7	1370.6
25°	2617.7	2611.4	2601.4	2208.3	1961.2	1797.1	1775.5	1540.1	1389.5	1403.1
27.5°	2748.4	2729.5	2394.9	2294.0	2059.5	1868.3	1745.7	1438.2	1432.8	1445.4
30°	2894.5	2794.4	2451.8	2417.5	2174.0	1956.7	1519.4	1501.3	1501.3	1521.2
32.5°	3080.2	2609.6	2609.6	2591.5	2315.6	1717.8	1599.6	1588.8	1601.4	1609.6
35°	3052.3	2807.0	2835.9	2827.8	2507.7	1749.3	1728.6	1710.5	1713.3	1713.3
37.5°	3061.3	3071.2	3105.5	3070.3	2187.6	1886.4	1853.0	1849.4	1852.1	1858.4
40°	3344.4	3349.9	3362.5	3284.9	2350.8	2046.0	2000.0	1991.0	2000.0	2013.5
42.5°	3649.2	3664.6	3679.0	2987.4	2578.9	2227.2	2181.2	2164.1	2180.3	2194.8
45°	4009.9	4033.4	3812.4	3251.6	2836.8	2433.7	2385.0	2364.3	2374.2	2386.8
47.5°	4415.7	4452.6	3595.1	3587.9	3139.8	2678.1	2622.2	2582.5	2597.8	2596.9
50°	4873.7	4255.2	3972.0	3967.5	3477.9	2950.4	2892.7	2856.6	2868.3	2859.3
52.5°	5368.8	4371.5	4380.5	4379.6	3831.4	3243.5	3190.3	3145.2	3052.3	3138.0
55°	5875.5	4773.7	4807.9	4802.5	4202.0	3546.4	3489.6	3447.2	2252.5	1902.6
57.5°	6379.6	5193.9	5204.7	5217.3	4586.1	3838.6	3588.8	3296.7	1284.9	1278.6
60°	6877.3	5594.2	5615.9	5623.1	4793.5	3177.6	1467.1	1494.1	388.6	464.4
62.5°	7393.1	5989.2	6009.0	6002.7	5000.0	2954.9	1541.0	1510.4	36.1	33.4
65°	8051.4	6484.2	6456.2	6435.5	5325.5	3153.3	1655.5	1647.4	11.7	8.1
67.5°	8282.2	6596.9	6540.1	6532.9	5372.4	3195.7	1664.6	1658.2	11.7	8.1
70°	7759.2	6168.6	6071.2	6073.9	4999.1	2989.2	1552.7	1543.7	10.8	8.1
72.5°	6795.3	5448.1	5407.6	5193.0	4329.1	2629.4	1376.9	1342.6	10.8	7.2
75°	5578.9	4401.3	4311.1	4070.3	3445.4	2090.2	1081.2	1037.0	9.9	6.3
77.5°	3872.8	3086.6	2914.3	2669.1	2304.8	1385.9	726.8	670.0	9.0	6.3
80°	1755.6	1266.9	1273.2	975.7	781.8	469.8	230.8	209.2	8.1	5.4
82.5°	305.7	225.4	211.9	204.7	170.4	115.4	70.3	60.4	7.2	3.6
85°	106.4	85.7	94.7	111.8	99.2	69.4	43.3	41.5	4.5	1.8
87.5°	36.1	37.9	44.2	53.2	46.9	27.1	16.2	11.7	0.9	0.0
90°	3.6	4.5	4.5	4.5	2.7	0.0	0.0	0.0	0.0	0.0
92.5°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.9	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.9	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.9	0.9	0.9	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)