

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: P579616

Luminaire Tested: **CTN-CA10-210-727-U-T5-HSS-HM-EX120**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579616  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-2)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 11/18/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA10-210-727-U-T5-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (10) 2700K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21727 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U2 - G4

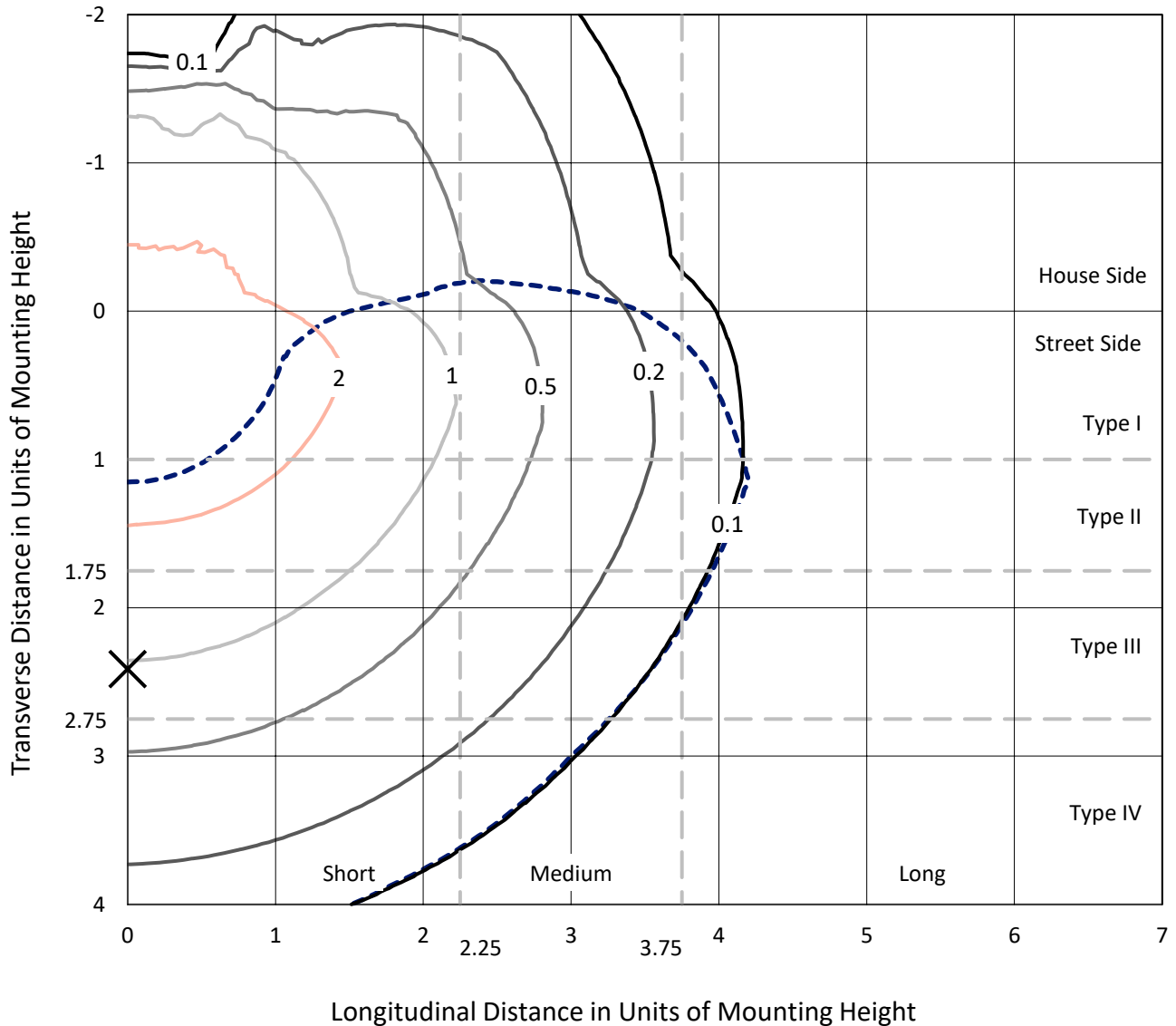
Input Watts (W): 212.9  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

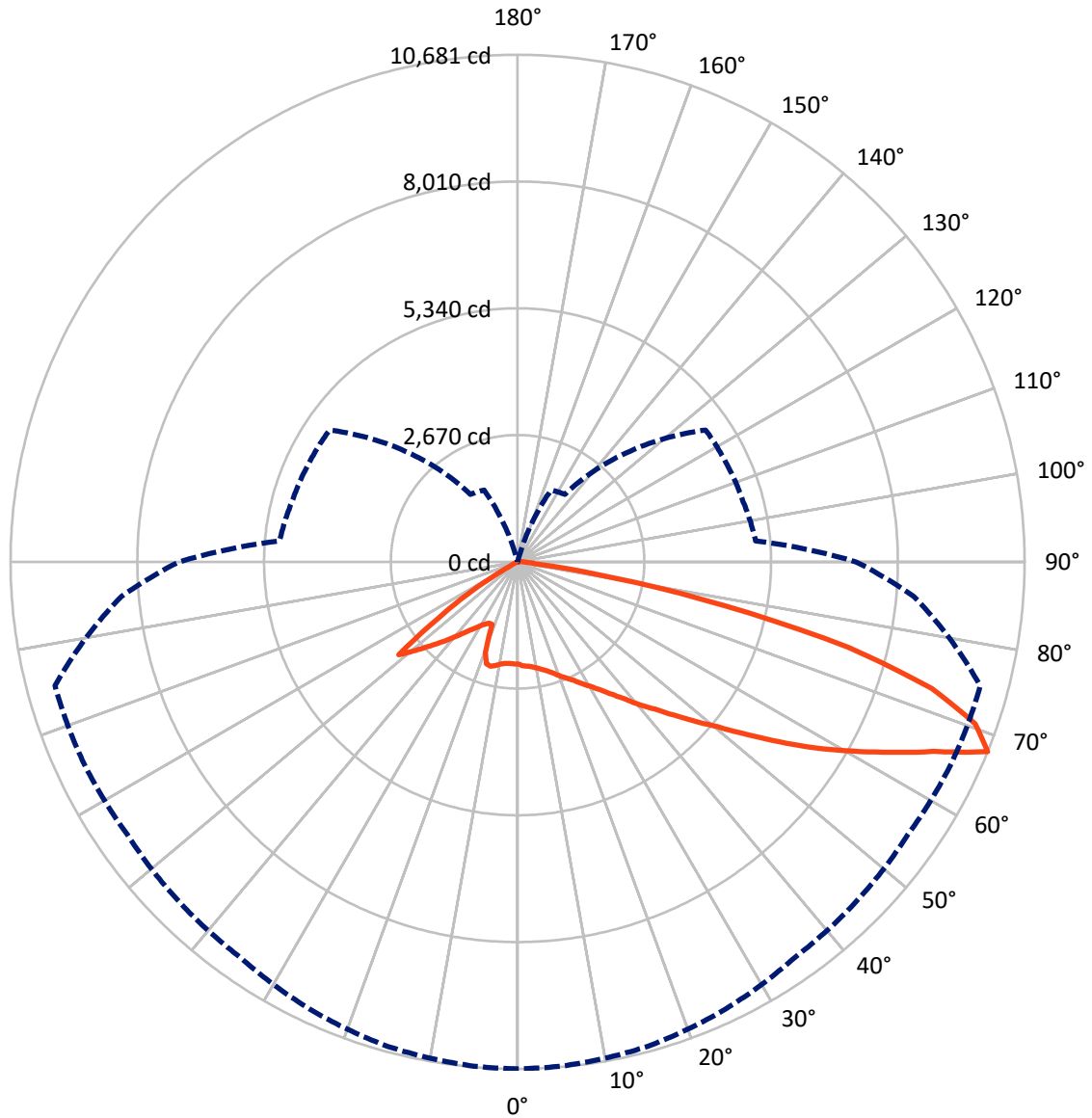
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.5 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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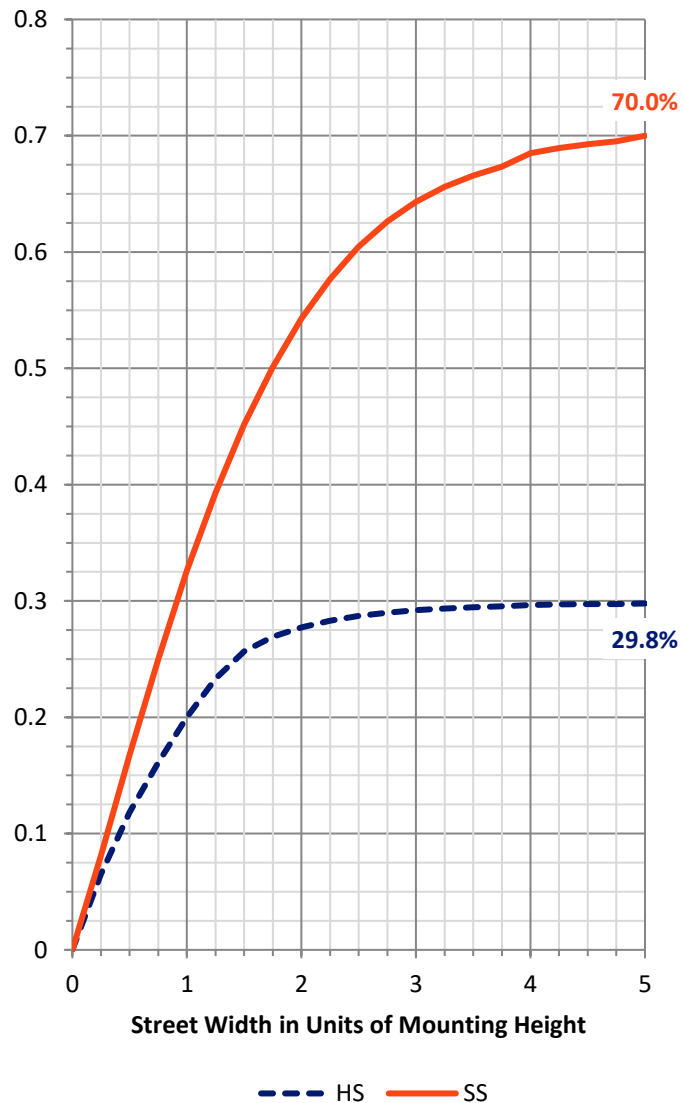
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	6485.6	2.2	6487.8
	% Fixture	29.9	0.0	29.9
<b>Street Side</b>	Lumens	15214.7	24.5	15239.2
	% Fixture	70.0	0.1	70.1
<b>Total</b>	Lumens	21700.4	26.6	21727.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	207.6	1.0
10°-20°	642.6	3.0
20°-30°	1078.3	5.0
30°-40°	1748.6	8.0
40°-50°	2857.4	13.2
50°-60°	4478.0	20.6
60°-70°	5997.4	27.6
70°-80°	4371.3	20.1
80°-90°	319.2	1.5
90°-100°	20.4	0.1
100°-110°	5.8	0.0
110°-120°	0.4	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°	21700.4	99.9
0°-180°	21727.0	100.0

**Coefficient of Utilization**

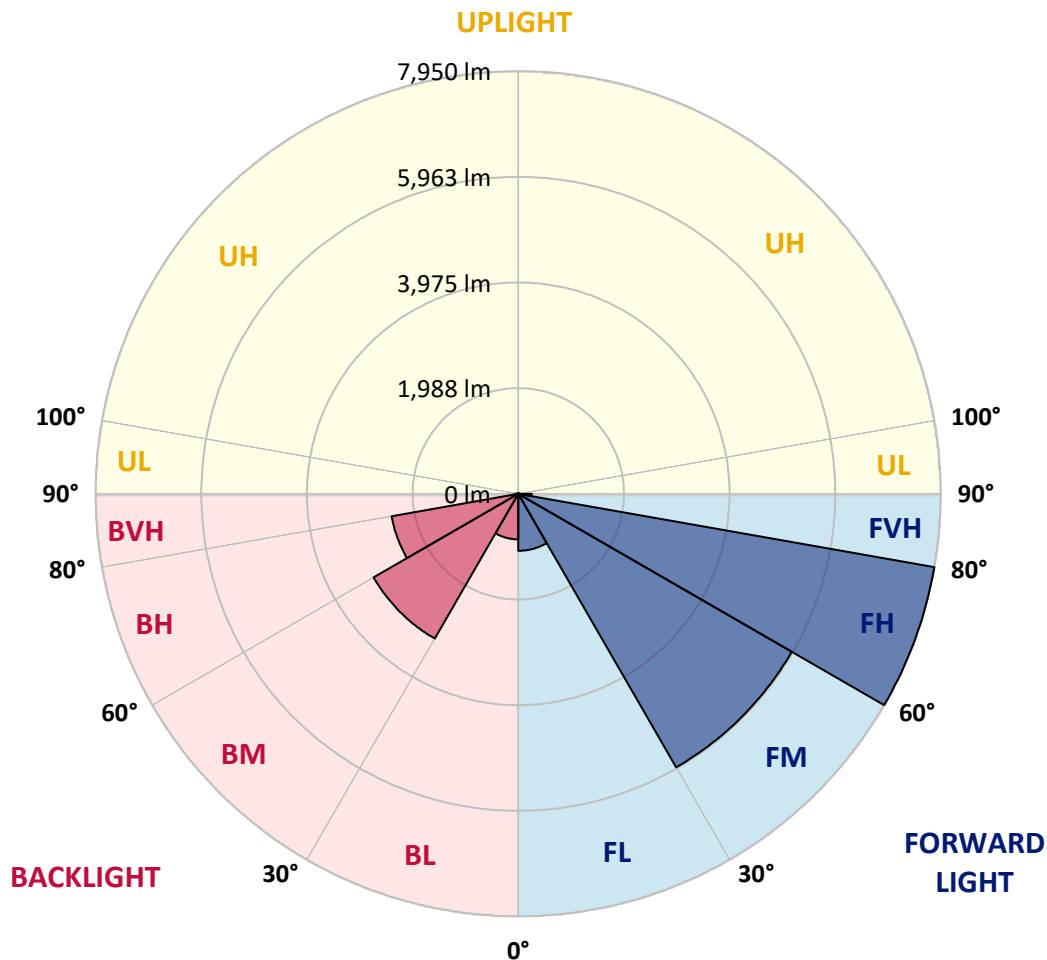


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1071.7	4.9			
FM	(30°-60°)	5940.6	27.3			
FH	(60°-80°)	7950.1	36.6			G4/12000
FVH	(80°-90°)	252.4	1.2			G3/500
BL	(0°-30°)	856.8	3.9	B2/1000		
BM	(30°-60°)	3143.4	14.5	B3/5000		
BH	(60°-80°)	2418.7	11.1	B3/2500		G3/2500
BVH	(80°-90°)	66.8	0.3			G1/100
UL	(90°-100°)	20.4	0.1		U2/50	
UH	(100°-180°)	6.2	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°	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9
2.5°	2194.0	2181.2	2182.1	2194.0	2158.4	2170.3	2154.7	2166.6	2158.4	2161.1	2166.6
5°	2207.7	2194.0	2194.9	2209.5	2177.6	2187.6	2166.6	2173.0	2165.7	2169.3	2169.3
7.5°	2235.1	2219.6	2218.7	2227.8	2194.9	2198.6	2179.4	2180.3	2169.3	2176.6	2173.0
10°	2276.2	2263.4	2254.3	2259.8	2230.5	2228.7	2204.0	2205.0	2191.3	2199.5	2193.1
12.5°	2326.4	2309.1	2307.3	2309.1	2277.1	2269.8	2244.2	2246.1	2221.4	2234.2	2226.9
15°	2390.4	2363.0	2363.0	2373.0	2331.9	2326.4	2295.4	2297.2	2271.6	2281.7	2274.4
17.5°	2468.9	2442.4	2437.9	2445.2	2409.6	2402.3	2370.3	2368.5	2340.1	2342.9	2336.5
20°	2570.3	2543.8	2532.9	2551.1	2506.4	2500.9	2462.5	2458.9	2428.7	2420.5	2416.9
22.5°	2664.4	2643.4	2637.9	2658.0	2611.4	2606.9	2570.3	2565.8	2537.4	2525.6	2453.4
25°	2770.4	2765.8	2764.0	2770.4	2726.5	2717.4	2689.1	2682.7	2658.9	2644.3	2556.6
27.5°	2907.4	2905.5	2900.1	2901.0	2860.8	2852.6	2826.1	2821.5	2796.8	2780.4	2668.1
30°	3050.8	3050.8	3038.9	3045.3	3025.2	3012.4	2991.4	2975.0	2959.4	2942.1	2800.5
32.5°	3216.1	3215.2	3204.2	3223.4	3208.8	3208.8	3196.0	3178.7	3151.3	3143.0	2971.3
35°	3428.9	3415.2	3410.7	3441.7	3437.1	3445.4	3440.8	3422.5	3399.7	3380.5	3172.3
37.5°	3664.6	3660.9	3674.6	3693.8	3703.9	3725.8	3712.1	3711.2	3707.5	3659.1	3118.4
40°	3955.0	3939.5	3958.7	3968.7	3961.4	3997.1	3985.2	3995.2	4022.6	3633.5	3114.7
42.5°	4244.6	4230.9	4244.6	4293.9	4283.0	4325.9	4320.4	4359.7	4375.2	3687.4	3367.7
45°	4600.8	4585.3	4596.3	4654.7	4660.2	4712.3	4740.6	4778.0	4785.3	4036.3	3672.8
47.5°	5010.0	4984.5	5005.5	5032.9	5116.0	5165.3	5192.7	5238.4	5285.0	4456.5	4019.9
50°	5461.3	5459.4	5482.3	5529.8	5624.8	5674.1	5721.6	5769.1	5845.8	4925.1	4409.0
52.5°	6034.9	6023.0	6062.3	6107.0	6191.1	6266.9	6323.5	6372.8	6455.0	5399.1	4830.1
55°	6690.7	6649.6	6724.5	6800.3	6835.9	6925.4	6964.7	7005.8	7084.4	5897.9	5075.8
57.5°	7398.6	7388.5	7440.6	7468.0	7544.7	7600.5	7621.5	7666.2	7665.3	6416.7	5494.1
60°	8095.5	8084.6	8145.8	8162.2	8223.4	8273.6	8266.3	8306.5	8321.1	6903.5	5904.3
62.5°	8829.0	8810.7	8867.3	8871.0	8834.5	8915.8	8907.5	8941.3	8928.5	7379.4	6308.0
65°	9631.0	9644.7	9662.9	9588.0	9500.3	9570.7	9568.8	9632.8	9678.4	8044.4	6848.7
67.5°	10680.5	10663.1	10569.0	10388.2	10175.3	10104.1	10028.3	10074.9	10087.7	8375.0	7125.5
70°	10227.4	10189.0	10147.0	9962.5	9705.9	9525.0	9407.2	9456.5	9508.6	7914.7	6692.5
72.5°	9123.1	9028.1	8832.6	8670.0	8522.1	8345.8	8202.4	8288.2	8402.4	7020.4	5926.2
75°	7197.6	7109.0	6966.5	6856.0	6776.6	6774.7	6768.3	6835.0	6818.6	5700.6	4818.2
77.5°	4457.4	4642.8	4774.4	4680.3	4713.2	4645.6	4794.5	4882.2	4961.6	4086.6	3432.6
80°	2057.9	2105.4	2338.3	2278.0	2229.6	2215.9	2225.1	2377.6	2422.4	1834.1	1536.3
82.5°	469.5	450.3	466.8	433.0	431.1	411.0	413.8	413.8	399.2	338.0	283.2
85°	237.5	243.0	244.8	234.7	207.3	186.3	172.6	146.1	126.1	107.8	91.3
87.5°	158.9	163.5	166.2	152.5	137.0	119.7	108.7	88.6	70.3	43.8	33.8
90°	108.7	107.8	105.0	97.7	87.7	74.9	60.3	42.0	24.7	9.1	6.4
92.5°	77.6	75.8	74.9	68.5	61.2	51.2	39.3	26.5	13.7	6.4	3.7
95°	51.2	50.2	50.2	46.6	41.1	33.8	26.5	17.4	10.0	5.5	3.7
97.5°	35.6	34.7	34.7	32.9	29.2	24.7	18.3	11.9	8.2	5.5	3.7
100°	24.7	24.7	24.7	22.8	21.0	17.4	13.7	9.1	7.3	5.5	3.7
102.5°	16.4	16.4	17.4	16.4	14.6	11.9	9.1	7.3	6.4	4.6	3.7
105°	11.0	11.0	11.0	11.0	10.0	8.2	7.3	6.4	5.5	4.6	3.7
107.5°	7.3	7.3	7.3	7.3	6.4	5.5	5.5	5.5	4.6	4.6	3.7
110°	4.6	4.6	4.6	5.5	4.6	4.6	4.6	4.6	4.6	3.7	3.7



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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°	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9	2152.9
2.5°	2162.0	2149.2	2155.6	2142.9	2137.4	2125.5	2148.3	2150.2	2148.3	2152.0
5°	2164.8	2150.2	2157.5	2142.9	2140.1	2126.4	2149.2	2149.2	2143.8	2146.5
7.5°	2171.2	2155.6	2161.1	2143.8	2143.8	2127.3	2154.7	2152.9	2148.3	2154.7
10°	2193.1	2174.8	2174.8	2158.4	2160.2	2142.9	2176.6	2176.6	2173.0	2184.0
12.5°	2226.9	2204.0	2205.0	2182.1	2185.8	2172.1	2213.2	2215.0	2215.0	2233.3
15°	2270.7	2236.0	2239.7	2215.0	2222.3	2205.9	2242.4	2240.6	2245.2	2271.6
17.5°	2324.6	2286.3	2254.3	2173.9	2126.4	2128.2	2236.9	2287.2	2228.7	2246.1
20°	2347.5	2161.1	2059.7	2030.5	2024.1	1922.7	1715.4	1747.3	1942.8	2027.8
22.5°	2194.0	2134.6	2124.6	2087.1	1810.4	1733.6	1746.4	1728.2	1536.3	1427.7
25°	2268.9	2229.6	2206.8	1877.0	1814.9	1801.2	1792.1	1618.6	1410.3	1420.3
27.5°	2374.9	2323.7	2049.7	1885.3	1897.1	1876.1	1823.2	1456.0	1449.6	1466.0
30°	2500.0	2371.2	1997.6	1982.1	1995.8	1968.4	1532.7	1518.1	1518.1	1534.5
32.5°	2653.4	2151.1	2120.0	2121.8	2112.7	1802.1	1613.1	1609.4	1620.4	1634.1
35°	2610.5	2294.5	2297.2	2312.7	2291.7	1762.9	1739.1	1725.4	1734.6	1740.0
37.5°	2526.5	2510.0	2510.0	2492.7	1956.5	1900.8	1875.2	1873.4	1872.5	1872.5
40°	2738.4	2722.9	2703.7	2673.5	2046.9	2061.6	2023.2	2018.6	2021.4	2031.4
42.5°	2979.5	2973.1	2971.3	2294.5	2235.1	2246.1	2205.0	2193.1	2193.1	2215.9
45°	3263.6	3255.4	3053.5	2452.5	2442.4	2455.2	2409.6	2381.2	2396.8	2413.2
47.5°	3589.7	3589.7	2703.7	2689.1	2689.1	2696.4	2650.7	2612.3	2627.9	2633.3
50°	3946.8	3388.7	2975.0	2961.3	2974.0	2970.4	2922.9	2566.7	2896.4	2899.2
52.5°	4046.4	3295.6	3272.7	3257.2	3272.7	3270.0	3220.7	2141.0	3133.0	3177.7
55°	3586.9	3589.7	3585.1	3562.3	3578.7	3572.3	3523.9	2337.4	2310.0	2058.8
57.5°	3878.3	3882.0	3880.1	3876.5	3891.1	2827.0	3650.0	2111.8	1289.7	1290.6
60°	4195.3	4177.0	4171.5	4163.3	3528.5	2004.0	1520.8	147.1	504.2	496.9
62.5°	4483.0	4476.6	4457.4	4452.9	2994.1	1578.4	1541.8	33.8	26.5	25.6
65°	4883.1	4826.4	4810.9	4762.5	3191.4	1680.7	1646.0	10.0	0.9	0.0
67.5°	5032.0	4916.9	4861.1	4835.6	3247.2	1733.6	1667.0	10.0	0.9	0.0
70°	4750.6	4608.1	4537.8	4509.5	3034.3	1620.4	1554.6	10.0	0.9	0.0
72.5°	4212.6	4107.6	4079.3	3988.8	2675.4	1422.2	1364.6	10.0	0.0	0.0
75°	3455.4	3417.1	3382.3	3286.4	2174.8	1129.9	1078.7	9.1	0.0	0.0
77.5°	2514.6	2458.0	2394.0	2289.9	1467.8	738.0	711.5	8.2	0.0	0.0
80°	1133.5	1087.0	1071.4	908.8	520.6	240.2	211.9	7.3	0.0	0.0
82.5°	220.1	198.2	188.2	180.9	116.9	64.9	56.6	5.5	0.0	0.0
85°	74.9	83.1	96.8	106.9	65.8	39.3	32.9	3.7	0.0	0.0
87.5°	29.2	39.3	47.5	49.3	24.7	16.4	9.1	1.8	0.0	0.0
90°	5.5	7.3	6.4	4.6	2.7	0.9	0.0	0.0	0.0	0.0
92.5°	2.7	3.7	2.7	2.7	1.8	0.9	0.0	0.0	0.0	0.0
95°	3.7	3.7	3.7	2.7	1.8	0.9	0.0	0.0	0.0	0.0
97.5°	3.7	3.7	3.7	2.7	1.8	0.9	0.0	0.0	0.0	0.0
100°	3.7	3.7	3.7	2.7	1.8	0.9	0.0	0.0	0.0	0.0
102.5°	3.7	3.7	3.7	2.7	1.8	0.9	0.0	0.0	0.0	0.0
105°	3.7	4.6	3.7	2.7	1.8	0.9	0.0	0.0	0.0	0.0
107.5°	3.7	4.6	3.7	2.7	1.8	0.9	0.0	0.0	0.0	0.0
110°	3.7	4.6	3.7	2.7	1.8	0.9	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)