

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: P579406

Luminaire Tested: **CTN-CA8-230-722-U-T5-HSS-HM-EX120**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579406
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-CA8-230-722-U-T5-HSS-HM-EX120
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: 21477 lumens
Efficiency: N/A
Efficacy: 94.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G4

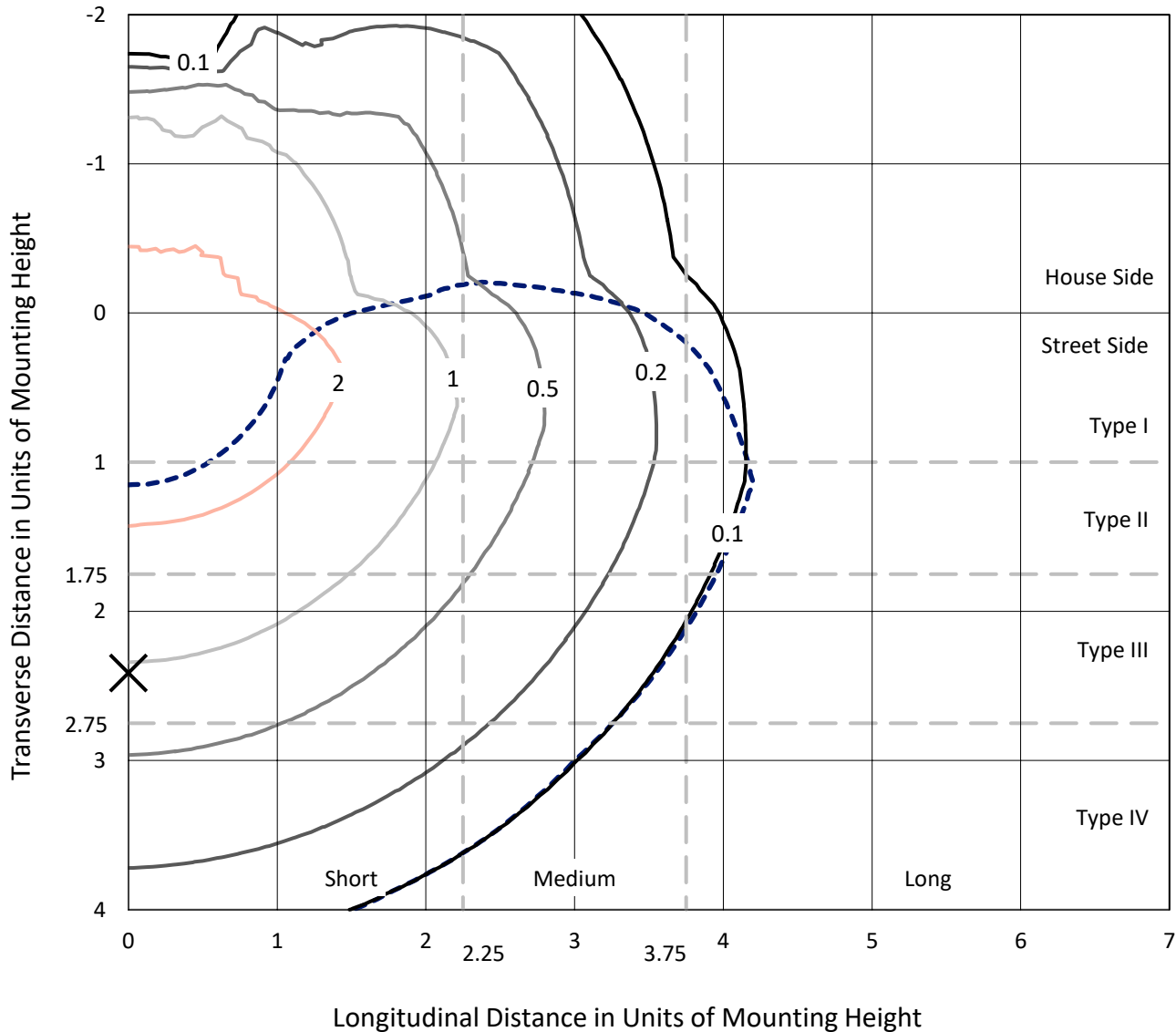
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

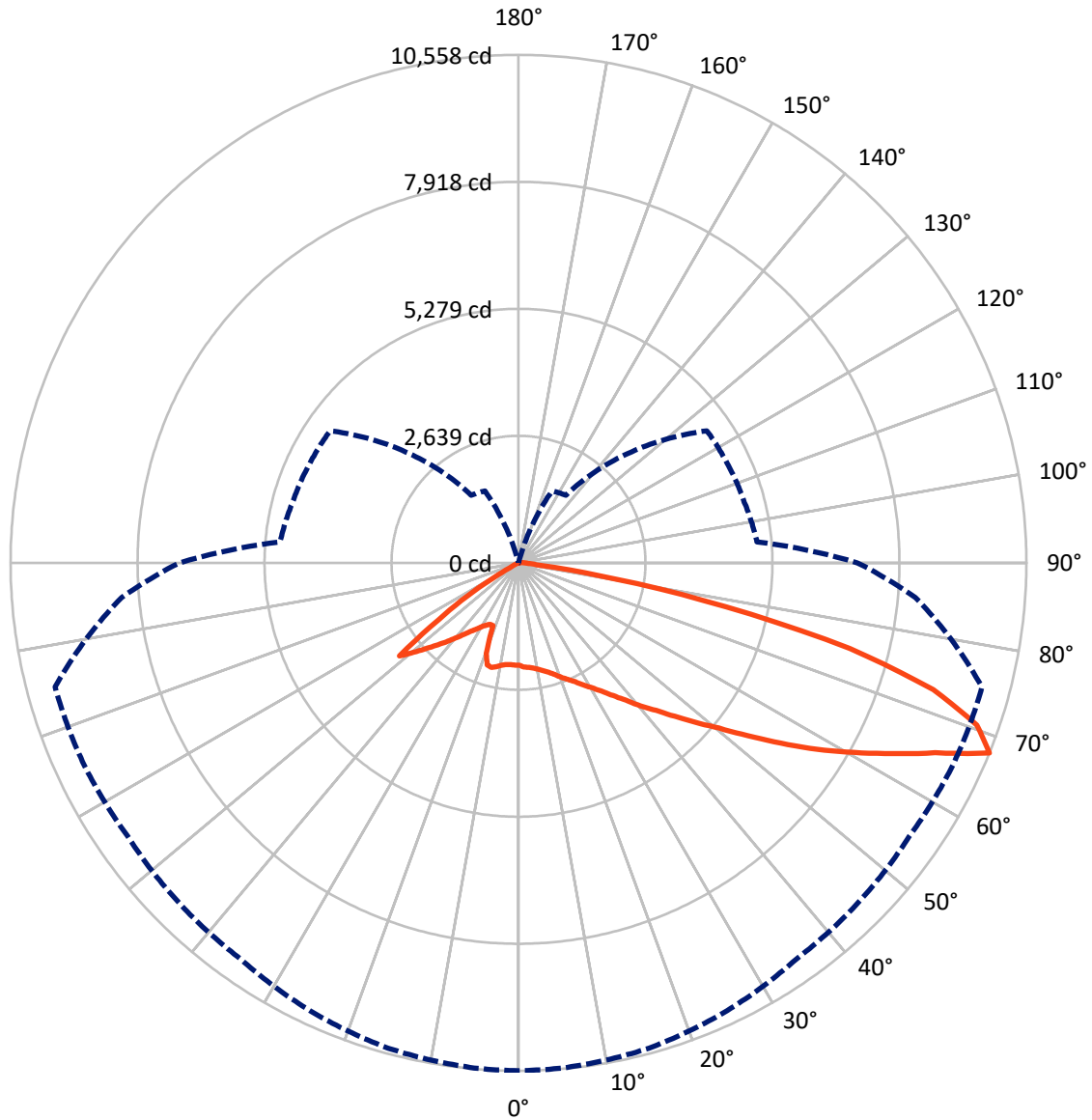
× Max cd
 - - - 1/2 Max cd



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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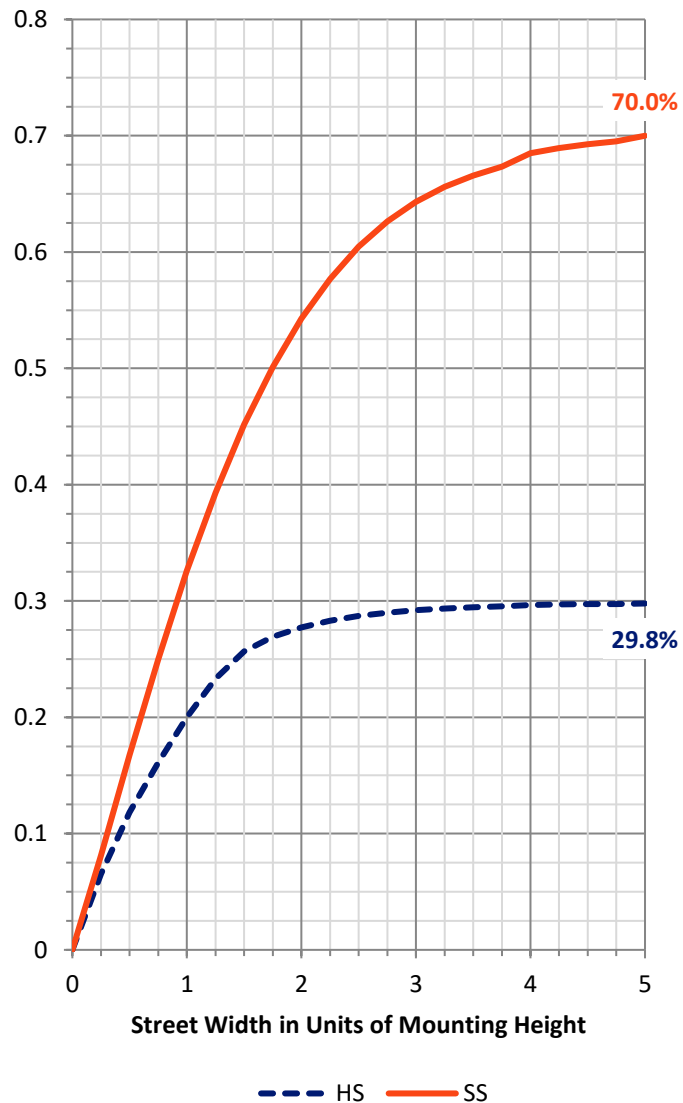
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6411.0	2.1	6413.1
	% Fixture	29.9	0.0	29.9
Street Side	Lumens	15039.7	24.2	15063.8
	% Fixture	70.0	0.1	70.1
Total	Lumens	21450.7	26.3	21477.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.2	1.0
10°-20°	635.2	3.0
20°-30°	1065.9	5.0
30°-40°	1728.5	8.0
40°-50°	2824.5	13.2
50°-60°	4426.5	20.6
60°-70°	5928.4	27.6
70°-80°	4321.0	20.1
80°-90°	315.6	1.5
90°-100°	20.2	0.1
100°-110°	5.7	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°	21450.7	99.9
0°-180°	21477.0	100.0

Coefficient of Utilization

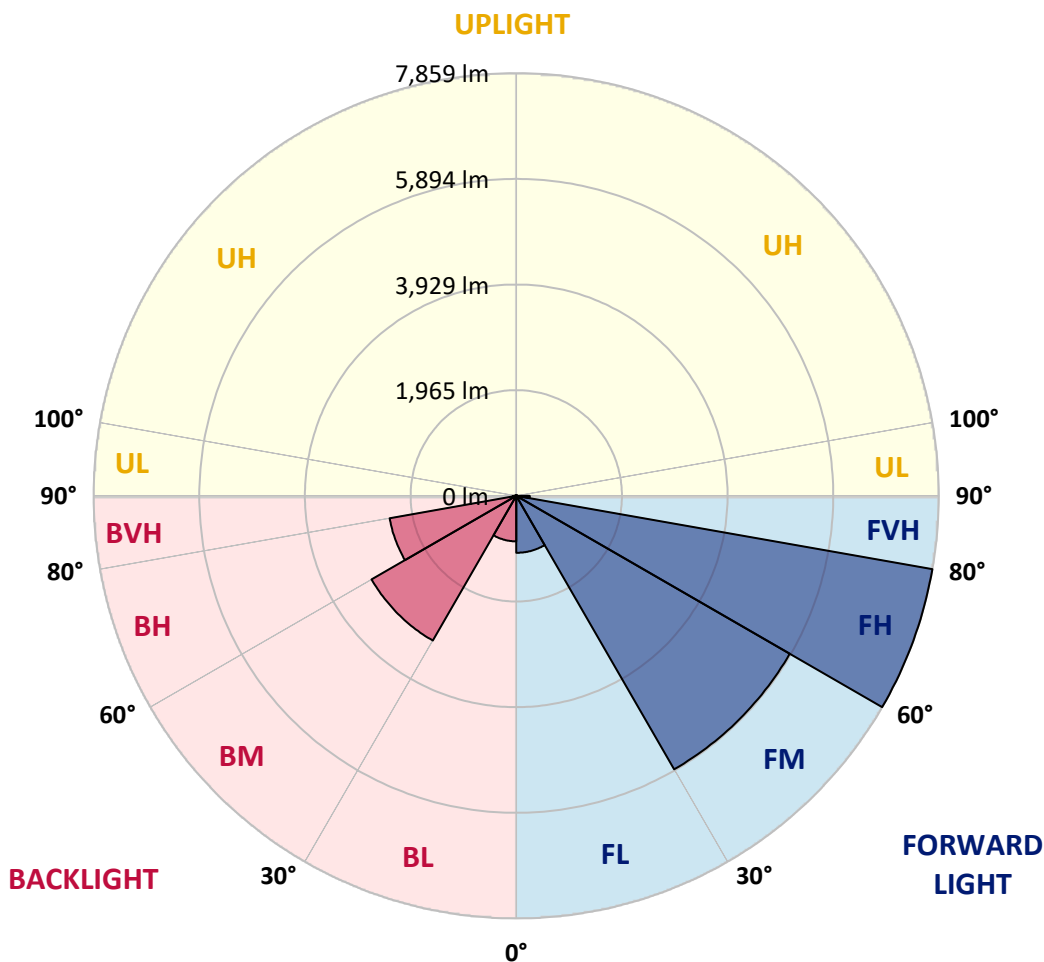


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1059.4	4.9			
FM (30°-60°)	5872.2	27.3			
FH (60°-80°)	7858.6	36.6			G4/12000
FVH (80°-90°)	249.5	1.2			G3/500
BL (0°-30°)	846.9	3.9	B2/1000		
BM (30°-60°)	3107.2	14.5	B3/5000		
BH (60°-80°)	2390.8	11.1	B3/2500		G3/2500
BVH (80°-90°)	66.0	0.3			G1/100
UL (90°-100°)	20.2	0.1		U2/50	
UH (100°-180°)	6.1	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°	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1
2.5°	2168.8	2156.1	2157.0	2168.8	2133.5	2145.3	2129.9	2141.7	2133.5	2136.3	2141.7
5°	2182.3	2168.8	2169.7	2184.1	2152.5	2162.4	2141.7	2148.0	2140.8	2144.4	2144.4
7.5°	2209.4	2194.0	2193.1	2202.2	2169.7	2173.3	2154.3	2155.2	2144.4	2151.6	2148.0
10°	2250.0	2237.4	2228.3	2233.8	2204.9	2203.1	2178.7	2179.6	2166.0	2174.2	2167.9
12.5°	2299.7	2282.5	2280.7	2282.5	2250.9	2243.7	2218.4	2220.2	2195.8	2208.5	2201.3
15°	2362.9	2335.8	2335.8	2345.7	2305.1	2299.7	2269.0	2270.8	2245.5	2255.4	2248.2
17.5°	2440.5	2414.3	2409.8	2417.1	2381.8	2374.6	2343.0	2341.2	2313.2	2315.9	2309.6
20°	2540.7	2514.6	2503.7	2521.8	2477.5	2472.1	2434.2	2430.6	2400.8	2392.7	2389.1
22.5°	2633.7	2613.0	2607.6	2627.4	2581.4	2576.9	2540.7	2536.2	2508.2	2496.5	2425.2
25°	2738.5	2734.0	2732.2	2738.5	2695.1	2686.1	2658.1	2651.8	2628.3	2613.9	2527.2
27.5°	2873.9	2872.1	2866.7	2867.6	2827.9	2819.7	2793.6	2789.0	2764.7	2748.4	2637.4
30°	3015.7	3015.7	3003.9	3010.3	2990.4	2977.8	2957.0	2940.7	2925.4	2908.2	2768.3
32.5°	3179.1	3178.2	3167.4	3186.3	3171.9	3171.9	3159.2	3142.1	3115.0	3106.9	2937.1
35°	3389.5	3375.9	3371.4	3402.1	3397.6	3405.7	3401.2	3383.2	3360.6	3341.6	3135.8
37.5°	3622.4	3618.8	3632.3	3651.3	3661.2	3682.9	3669.4	3668.5	3664.9	3617.0	3082.5
40°	3909.5	3894.2	3913.2	3923.1	3915.9	3951.1	3939.3	3949.3	3976.4	3591.7	3078.9
42.5°	4195.8	4182.2	4195.8	4244.5	4233.7	4276.1	4270.7	4309.5	4324.9	3645.0	3329.0
45°	4547.9	4532.5	4543.4	4601.2	4606.6	4658.0	4686.0	4723.0	4730.3	3989.9	3630.5
47.5°	4952.4	4927.1	4947.9	4975.0	5057.1	5105.9	5133.0	5178.1	5224.2	4405.2	3973.6
50°	5398.4	5396.6	5419.2	5466.1	5560.0	5608.8	5655.7	5702.7	5778.5	4868.4	4358.3
52.5°	5965.4	5953.7	5992.5	6036.8	6119.8	6194.8	6250.7	6299.5	6380.8	5337.0	4774.5
55°	6613.7	6573.1	6647.1	6722.1	6757.3	6845.8	6884.6	6925.2	7002.9	5830.0	5017.4
57.5°	7313.5	7303.5	7355.0	7382.1	7457.9	7513.0	7533.8	7578.0	7577.1	6342.8	5430.9
60°	8002.4	7991.5	8052.0	8068.3	8128.8	8178.4	8171.2	8210.9	8225.4	6824.1	5836.3
62.5°	8727.4	8709.3	8765.3	8768.9	8732.8	8813.2	8805.0	8838.4	8825.8	7294.5	6235.4
65°	9520.1	9533.7	9551.7	9477.7	9391.0	9460.5	9458.7	9521.9	9567.1	7951.8	6769.9
67.5°	10557.6	10540.4	10447.4	10268.6	10058.3	9987.8	9912.9	9958.9	9971.6	8278.7	7043.5
70°	10109.7	10071.8	10030.3	9847.9	9594.2	9415.4	9298.9	9347.7	9399.1	7823.6	6615.5
72.5°	9018.1	8924.2	8731.0	8570.3	8424.0	8249.8	8108.0	8192.9	8305.7	6939.7	5858.0
75°	7114.8	7027.2	6886.4	6777.1	6698.6	6696.8	6690.5	6756.4	6740.1	5635.0	4762.8
77.5°	4406.1	4589.4	4719.4	4626.4	4658.9	4592.1	4739.3	4826.0	4904.5	4039.6	3393.1
80°	2034.2	2081.2	2311.4	2251.8	2204.0	2190.4	2199.5	2350.2	2394.5	1813.0	1518.7
82.5°	464.1	445.1	461.4	428.0	426.2	406.3	409.0	409.0	394.6	334.1	279.9
85°	234.8	240.2	242.0	232.0	205.0	184.2	170.6	144.5	124.6	106.5	90.3
87.5°	157.1	161.6	164.3	150.8	135.4	118.3	107.4	87.6	69.5	43.3	33.4
90°	107.4	106.5	103.8	96.6	86.7	74.0	59.6	41.5	24.4	9.0	6.3
92.5°	76.7	74.9	74.0	67.7	60.5	50.6	38.8	26.2	13.5	6.3	3.6
95°	50.6	49.7	49.7	46.0	40.6	33.4	26.2	17.2	9.9	5.4	3.6
97.5°	35.2	34.3	34.3	32.5	28.9	24.4	18.1	11.7	8.1	5.4	3.6
100°	24.4	24.4	24.4	22.6	20.8	17.2	13.5	9.0	7.2	5.4	3.6
102.5°	16.3	16.3	17.2	16.3	14.4	11.7	9.0	7.2	6.3	4.5	3.6
105°	10.8	10.8	10.8	10.8	9.9	8.1	7.2	6.3	5.4	4.5	3.6
107.5°	7.2	7.2	7.2	7.2	6.3	5.4	5.4	5.4	4.5	4.5	3.6
110°	4.5	4.5	4.5	5.4	4.5	4.5	4.5	4.5	4.5	3.6	3.6



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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°	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1	2128.1
2.5°	2137.2	2124.5	2130.8	2118.2	2112.8	2101.0	2123.6	2125.4	2123.6	2127.2
5°	2139.9	2125.4	2132.6	2118.2	2115.5	2101.9	2124.5	2124.5	2119.1	2121.8
7.5°	2146.2	2130.8	2136.3	2119.1	2119.1	2102.8	2129.9	2128.1	2123.6	2129.9
10°	2167.9	2149.8	2149.8	2133.5	2135.3	2118.2	2151.6	2151.6	2148.0	2158.8
12.5°	2201.3	2178.7	2179.6	2157.0	2160.6	2147.1	2187.7	2189.5	2189.5	2207.6
15°	2244.6	2210.3	2213.9	2189.5	2196.7	2180.5	2216.6	2214.8	2219.3	2245.5
17.5°	2297.9	2259.9	2228.3	2148.9	2101.9	2103.7	2211.2	2260.9	2203.1	2220.2
20°	2320.4	2136.3	2036.0	2007.1	2000.8	1900.6	1695.6	1727.2	1920.5	2004.4
22.5°	2168.8	2110.1	2100.1	2063.1	1789.5	1713.7	1726.3	1708.3	1518.7	1411.2
25°	2242.8	2204.0	2181.4	1855.5	1794.1	1780.5	1771.5	1599.9	1394.1	1404.0
27.5°	2347.5	2297.0	2026.1	1863.6	1875.3	1854.5	1802.2	1439.2	1432.9	1449.1
30°	2471.2	2343.9	1974.6	1959.3	1972.8	1945.7	1515.1	1500.6	1500.6	1516.9
32.5°	2622.9	2126.3	2095.6	2097.4	2088.4	1781.4	1594.5	1590.9	1601.7	1615.3
35°	2580.5	2268.1	2270.8	2286.1	2265.4	1742.6	1719.1	1705.6	1714.6	1720.0
37.5°	2497.4	2481.2	2481.2	2464.0	1934.0	1878.9	1853.6	1851.8	1850.9	1850.9
40°	2706.9	2691.5	2672.6	2642.8	2023.4	2037.8	1999.9	1995.4	1998.1	2008.0
42.5°	2945.2	2938.9	2937.1	2268.1	2209.4	2220.2	2179.6	2167.9	2167.9	2190.4
45°	3226.0	3217.9	3018.4	2424.3	2414.3	2427.0	2381.8	2353.8	2369.2	2385.5
47.5°	3548.4	3548.4	2672.6	2658.1	2658.1	2665.3	2620.2	2582.3	2597.6	2603.0
50°	3901.4	3349.7	2940.7	2927.2	2939.8	2936.2	2889.3	2537.1	2863.1	2865.8
52.5°	3999.8	3257.6	3235.1	3219.7	3235.1	3232.4	3183.6	2116.4	3096.9	3141.2
55°	3545.7	3548.4	3543.9	3521.3	3537.5	3531.2	3483.4	2310.5	2283.4	2035.1
57.5°	3833.7	3837.3	3835.5	3831.9	3846.3	2794.5	3608.0	2087.5	1274.9	1275.8
60°	4147.0	4128.9	4123.5	4115.4	3487.9	1981.0	1503.3	145.4	498.4	491.2
62.5°	4431.4	4425.1	4406.1	4401.6	2959.7	1560.2	1524.1	33.4	26.2	25.3
65°	4826.9	4770.9	4755.6	4707.7	3154.7	1661.3	1627.0	9.9	0.9	0.0
67.5°	4974.1	4860.3	4805.2	4779.9	3209.8	1713.7	1647.8	9.9	0.9	0.0
70°	4696.0	4555.1	4485.6	4457.6	2999.4	1601.7	1536.7	9.9	0.9	0.0
72.5°	4164.2	4060.3	4032.3	3942.9	2644.6	1405.8	1348.9	9.9	0.0	0.0
75°	3415.7	3377.7	3343.4	3248.6	2149.8	1116.9	1066.3	9.0	0.0	0.0
77.5°	2485.7	2429.7	2366.5	2263.6	1451.0	729.5	703.4	8.1	0.0	0.0
80°	1120.5	1074.4	1059.1	898.4	514.7	237.5	209.5	7.2	0.0	0.0
82.5°	217.6	195.9	186.0	178.8	115.6	64.1	56.0	5.4	0.0	0.0
85°	74.0	82.2	95.7	105.6	65.0	38.8	32.5	3.6	0.0	0.0
87.5°	28.9	38.8	47.0	48.8	24.4	16.3	9.0	1.8	0.0	0.0
90°	5.4	7.2	6.3	4.5	2.7	0.9	0.0	0.0	0.0	0.0
92.5°	2.7	3.6	2.7	2.7	1.8	0.9	0.0	0.0	0.0	0.0
95°	3.6	3.6	3.6	2.7	1.8	0.9	0.0	0.0	0.0	0.0
97.5°	3.6	3.6	3.6	2.7	1.8	0.9	0.0	0.0	0.0	0.0
100°	3.6	3.6	3.6	2.7	1.8	0.9	0.0	0.0	0.0	0.0
102.5°	3.6	3.6	3.6	2.7	1.8	0.9	0.0	0.0	0.0	0.0
105°	3.6	4.5	3.6	2.7	1.8	0.9	0.0	0.0	0.0	0.0
107.5°	3.6	4.5	3.6	2.7	1.8	0.9	0.0	0.0	0.0	0.0
110°	3.6	4.5	3.6	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)