

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: P579641

Luminaire Tested: **CTN-CA6-230-727-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579641
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-3)
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-EX180
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: 17993 lumens
Efficiency: N/A
Efficacy: 79.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - U2 - G3

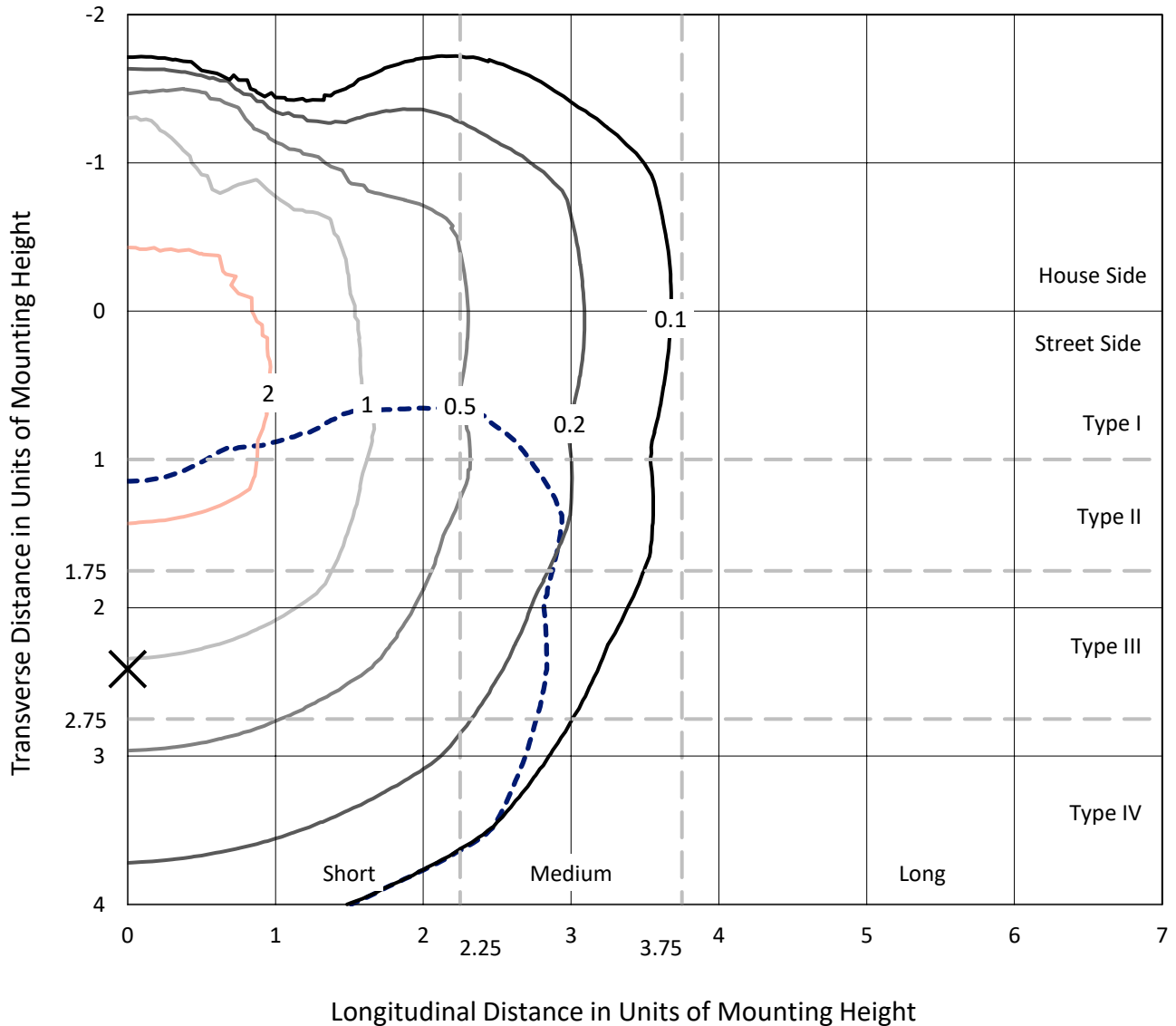
Input Watts (W): 227.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

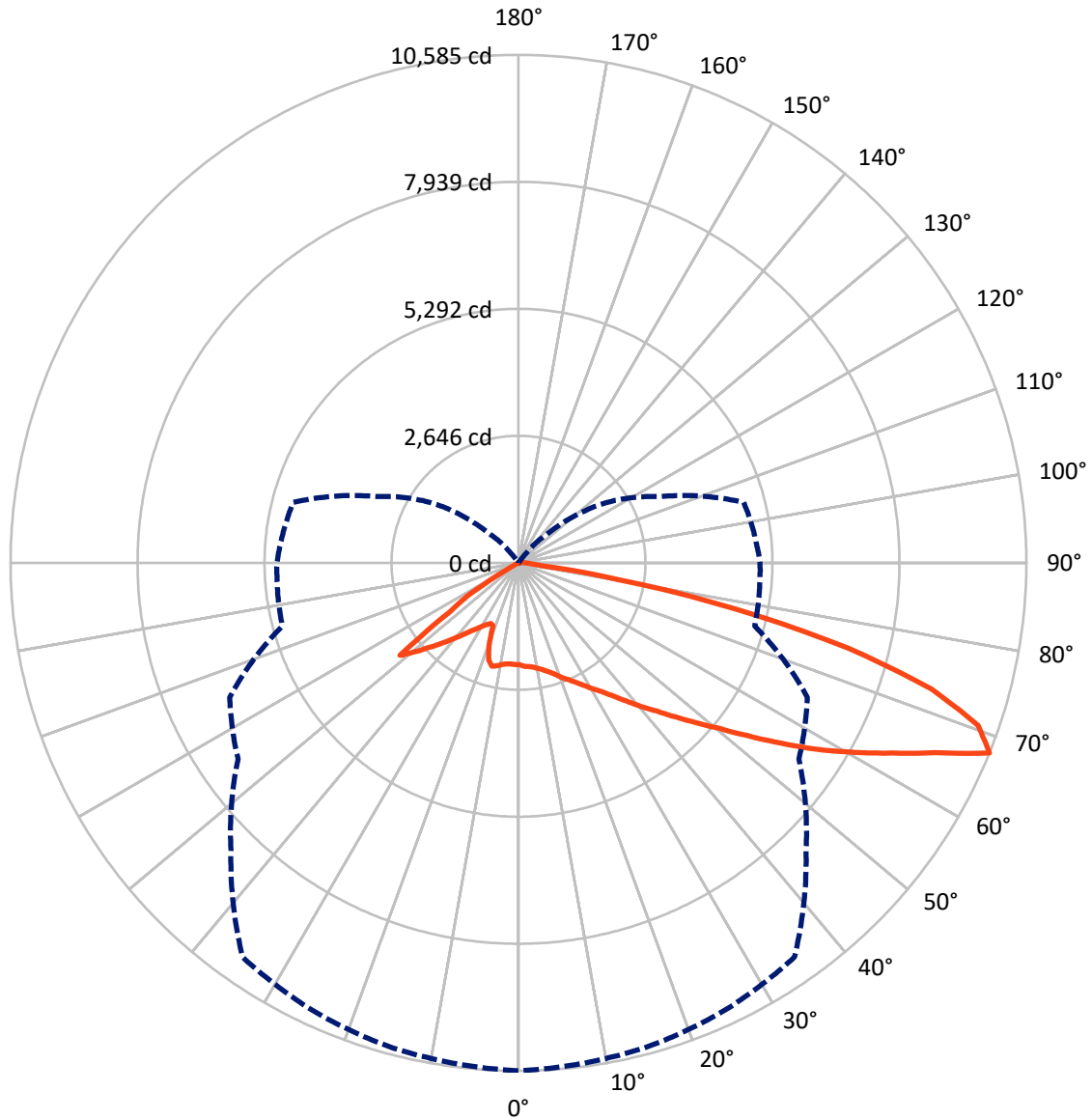
× Max cd
 - - - 1/2 Max cd



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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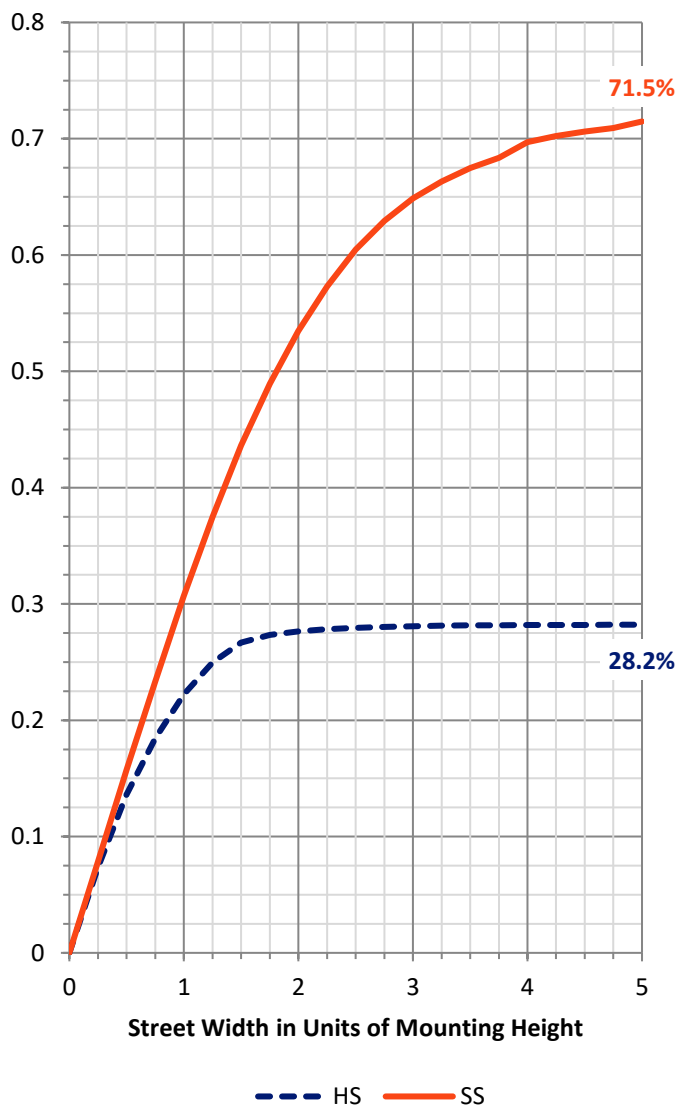
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	5099.5	0.1	5099.6
	% Fixture	28.3	0.0	28.3
Street Side	Lumens	12870.5	22.9	12893.4
	% Fixture	71.5	0.1	71.7
Total	Lumens	17970.0	23.0	17993.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.4	1.1
10°-20°	629.1	3.5
20°-30°	1041.7	5.8
30°-40°	1639.8	9.1
40°-50°	2566.4	14.3
50°-60°	3705.4	20.6
60°-70°	4590.4	25.5
70°-80°	3343.1	18.6
80°-90°	249.7	1.4
90°-100°	19.6	0.1
100°-110°	3.3	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°	17970.0	99.9
0°-180°	17993.0	100.0

Coefficient of Utilization



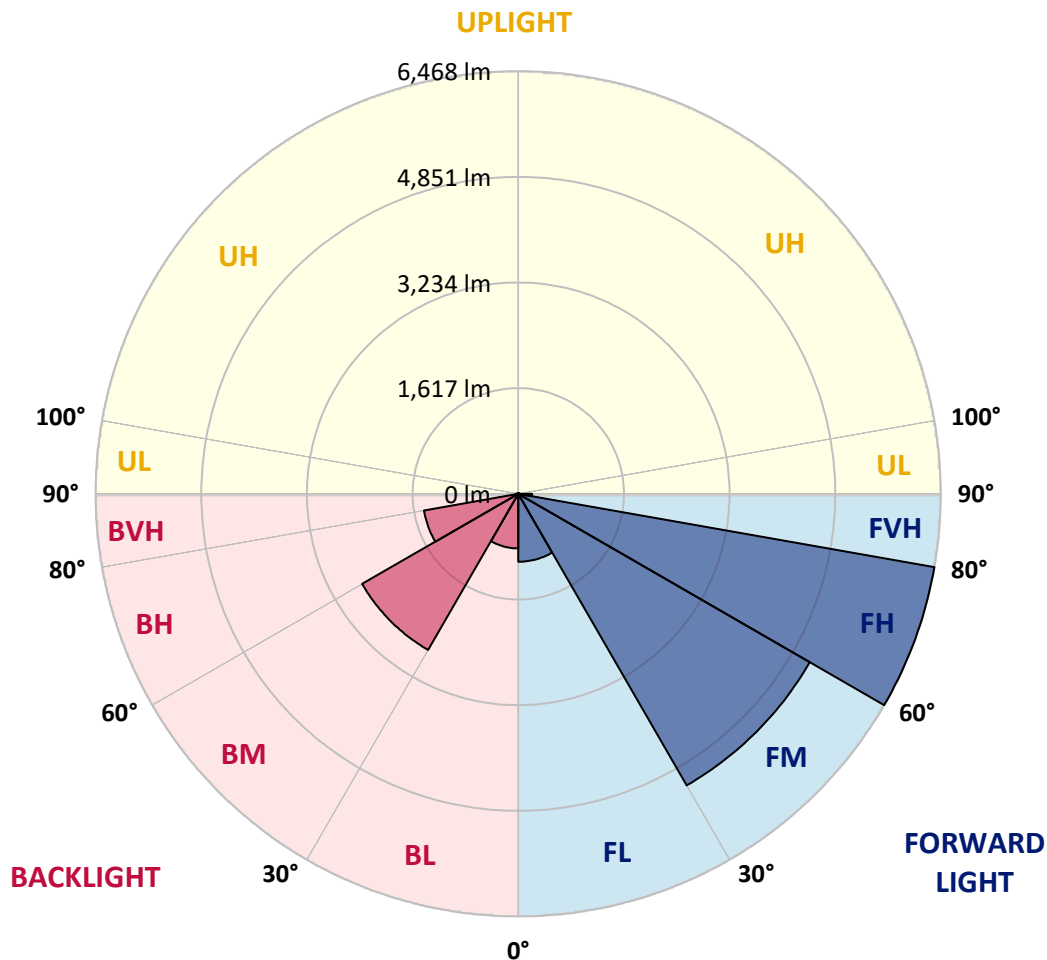
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1039.2	5.8			
FM	(30°-60°)	5152.7	28.6			
FH	(60°-80°)	6467.9	35.9			G3/7500
FVH	(80°-90°)	210.7	1.2			G2/225
BL	(0°-30°)	836.0	4.6	B2/1000		
BM	(30°-60°)	2759.0	15.3	B3/5000		
BH	(60°-80°)	1465.5	8.1	B3/2500		G3/2500
BVH	(80°-90°)	39.1	0.2			G1/100
UL	(90°-100°)	19.6	0.1		U2/50	
UH	(100°-180°)	3.4	0.0		U1/10	

BUG Rating: B3-U2-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1
2.5°	2157.9	2146.2	2146.2	2158.8	2123.6	2134.4	2120.0	2132.6	2125.4	2129.0	2133.5
5°	2170.5	2157.0	2157.9	2173.2	2141.7	2150.7	2133.5	2139.9	2133.5	2136.2	2136.2
7.5°	2194.0	2182.2	2182.2	2191.3	2159.7	2162.4	2147.1	2147.1	2139.0	2145.3	2139.9
10°	2238.1	2225.5	2219.2	2223.7	2195.8	2192.2	2171.4	2171.4	2158.8	2168.7	2160.6
12.5°	2291.3	2273.3	2271.5	2272.4	2240.8	2234.5	2211.1	2212.0	2188.5	2202.1	2192.2
15°	2355.4	2332.8	2331.0	2334.6	2301.3	2289.5	2263.4	2263.4	2237.2	2244.5	2230.9
17.5°	2437.4	2411.3	2406.8	2413.1	2379.7	2368.9	2338.2	2332.8	2304.0	2298.6	2286.8
20°	2545.6	2515.9	2506.9	2520.4	2478.0	2468.1	2431.1	2419.4	2380.6	2316.6	2232.7
22.5°	2643.0	2619.6	2614.2	2623.2	2584.4	2574.5	2538.4	2514.1	2420.3	2291.3	2213.8
25°	2753.9	2744.9	2742.2	2736.8	2701.6	2684.5	2650.2	2616.0	2403.2	2226.4	2224.6
27.5°	2891.0	2886.5	2873.9	2869.4	2830.6	2819.8	2774.7	2553.8	2341.8	2329.2	2322.0
30°	3040.7	3031.7	3019.1	3020.0	2993.8	2974.0	2866.7	2498.7	2460.0	2460.0	2441.0
32.5°	3206.6	3196.7	3184.1	3186.8	3176.0	3158.8	2836.0	2643.9	2614.2	2622.3	2598.8
35°	3412.2	3396.0	3391.5	3402.3	3403.2	3292.3	2890.1	2841.4	2818.0	2812.6	2724.2
37.5°	3652.1	3638.6	3654.8	3680.0	3651.2	3326.6	3105.6	3090.3	3066.9	2936.1	2726.9
40°	3939.7	3915.4	3935.2	3951.5	3932.5	3530.4	3332.0	3337.4	3316.6	2928.9	2697.1
42.5°	4224.7	4201.3	4218.4	4259.0	4251.8	3782.8	3607.9	3619.6	3410.4	2946.0	2928.0
45°	4577.3	4569.2	4563.8	4597.1	4625.1	4084.9	3935.2	3934.3	3343.7	3218.3	3202.1
47.5°	4976.8	4965.9	4968.6	5011.0	5053.4	4445.6	4322.1	3959.6	3515.9	3528.5	3514.1
50°	5422.2	5410.5	5445.7	5507.0	5528.6	4850.5	4699.0	3891.1	3874.8	3888.3	3864.0
52.5°	5987.6	5961.5	6015.6	6081.4	6109.4	5329.3	4719.8	4295.9	4268.9	4271.6	4194.0
55°	6630.6	6609.8	6658.5	6732.5	6773.9	5864.1	5150.8	4690.0	4673.8	4213.9	3794.6
57.5°	7329.4	7306.0	7370.9	7392.5	7403.4	6416.9	5584.5	5117.4	4366.3	3847.8	3824.3
60°	8014.8	7989.5	8071.6	8075.2	8106.7	6968.7	5996.6	5529.5	4206.7	4138.1	4118.3
62.5°	8734.3	8702.8	8774.9	8772.2	8710.0	7473.7	6405.1	5925.4	4491.6	4437.5	4406.9
65°	9533.3	9509.9	9560.4	9479.2	9355.7	7995.8	6829.0	6356.4	4823.5	4813.5	4806.3
67.5°	10584.7	10538.8	10436.9	10263.7	10027.5	8474.6	7131.9	6640.5	5093.1	5047.1	5032.7
70°	10161.8	10107.7	10030.2	9839.9	9599.1	8024.7	6645.0	6211.3	4762.1	4763.9	4729.7
72.5°	8997.7	8903.9	8830.8	8563.9	8431.4	7008.4	5790.1	5390.7	4119.2	4195.8	4179.6
75°	7097.7	7002.1	6882.2	6777.6	6763.1	5684.6	4668.4	4380.7	3284.2	3340.1	3380.7
77.5°	4600.7	4565.6	4717.1	4617.9	4707.1	3914.5	3334.7	3087.6	2263.4	2405.0	2386.0
80°	2105.6	2065.0	2308.5	2239.9	2273.3	1922.5	1629.5	1565.4	1024.4	1031.6	1053.2
82.5°	476.1	459.9	477.0	438.3	427.4	361.6	318.3	288.6	181.3	192.1	202.0
85°	260.6	260.6	257.0	239.0	204.7	168.6	133.5	102.8	55.9	61.3	60.4
87.5°	183.1	178.5	177.6	158.7	136.2	115.4	92.0	65.8	31.6	21.6	19.8
90°	125.3	123.5	117.2	105.5	91.1	74.8	55.9	32.5	13.5	6.3	4.5
92.5°	91.1	89.3	84.8	74.8	62.2	50.5	37.0	21.6	10.8	4.5	0.9
95°	60.4	59.5	56.8	48.7	40.6	32.5	23.4	13.5	9.0	3.6	0.9
97.5°	41.5	40.6	37.9	32.5	26.2	20.7	14.4	9.9	7.2	2.7	0.9
100°	28.0	27.1	25.2	20.7	16.2	12.6	9.0	7.2	5.4	2.7	0.9
102.5°	18.0	17.1	15.3	12.6	9.0	7.2	6.3	5.4	3.6	1.8	0.9
105°	10.8	9.9	8.1	6.3	5.4	4.5	4.5	3.6	2.7	0.9	0.9
107.5°	5.4	4.5	3.6	3.6	3.6	2.7	2.7	2.7	1.8	0.9	0.0
110°	0.9	0.9	1.8	1.8	1.8	1.8	1.8	1.8	1.8	0.9	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°	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1	2119.1
2.5°	2129.0	2114.6	2122.7	2110.1	2107.4	2093.9	2115.5	2118.2	2116.4	2120.0
5°	2131.7	2116.4	2125.4	2110.1	2110.1	2095.7	2116.4	2116.4	2111.0	2112.8
7.5°	2139.0	2123.6	2129.9	2112.8	2113.7	2096.6	2121.8	2119.1	2114.6	2120.9
10°	2159.7	2142.6	2141.7	2125.4	2129.0	2111.0	2142.6	2142.6	2138.0	2149.8
12.5°	2193.1	2167.8	2163.3	2143.5	2150.7	2135.3	2174.1	2175.9	2176.8	2195.8
15°	2228.2	2197.6	2202.1	2178.6	2175.9	2167.8	2203.0	2201.2	2200.3	2226.4
17.5°	2277.8	2133.5	2110.1	2093.9	2090.3	2070.4	2102.9	2165.1	2132.6	2114.6
20°	2199.4	2123.6	2030.7	1999.2	1992.9	1820.6	1684.5	1745.8	1828.7	1836.0
22.5°	2128.1	2101.1	2093.9	2044.3	1769.2	1711.5	1716.9	1694.4	1497.8	1412.1
25°	2216.5	2193.1	2162.4	1859.4	1794.5	1773.7	1767.4	1536.6	1381.5	1391.4
27.5°	2314.8	2288.6	2021.7	1863.9	1878.3	1849.5	1707.0	1433.8	1424.8	1441.9
30°	2437.4	2228.2	1973.0	1964.0	1977.5	1940.6	1516.7	1496.9	1494.2	1512.2
32.5°	2577.2	2148.9	2102.9	2102.9	2096.6	1697.1	1597.9	1584.4	1591.6	1610.5
35°	2524.9	2273.3	2267.9	2290.4	2139.0	1741.3	1727.8	1704.3	1709.7	1716.0
37.5°	2467.2	2478.0	2480.7	2469.0	1560.0	1867.5	1856.7	1852.2	1846.8	1848.6
40°	2681.8	2689.0	2686.3	2579.0	1683.6	1891.9	2002.8	1994.7	1993.8	2004.6
42.5°	2932.5	2952.3	2937.0	2275.1	1848.6	1590.7	2171.4	2166.9	2165.1	2187.6
45°	3214.7	3233.7	2911.8	2436.5	2024.4	1646.6	2183.1	2350.9	2364.4	2384.2
47.5°	3520.4	3516.8	2687.2	2684.5	2230.9	1801.7	1815.2	2570.9	2593.4	2600.6
50°	3872.1	3294.1	2942.4	2843.2	2464.5	1975.7	1924.3	2359.0	2856.7	2864.0
52.5°	3797.3	3258.9	3235.5	2494.2	2673.7	2167.8	2117.3	2103.8	2961.3	3135.4
55°	3539.4	3566.4	3533.1	2736.8	1960.4	2339.1	2307.6	2294.1	2203.0	1744.0
57.5°	3826.1	3834.2	3805.4	2959.5	1993.8	1458.1	2271.5	1948.7	1266.1	1259.7
60°	4123.7	4137.2	2834.2	2174.1	1277.8	487.8	116.3	122.6	349.9	307.5
62.5°	4407.8	4421.3	3000.1	1986.6	807.1	36.1	23.4	16.2	18.0	18.0
65°	4778.4	4783.8	3211.1	2102.9	838.6	9.0	2.7	0.0	0.0	0.0
67.5°	4970.4	4859.5	3264.3	2156.1	861.2	5.4	1.8	0.0	0.0	0.0
70°	4680.1	4561.1	3038.9	2020.8	802.6	4.5	0.9	0.0	0.0	0.0
72.5°	4123.7	4066.0	2727.8	1791.8	710.6	2.7	0.9	0.0	0.0	0.0
75°	3417.6	3341.0	2261.6	1493.3	587.9	1.8	0.0	0.0	0.0	0.0
77.5°	2431.1	2440.1	1576.3	1088.4	400.4	1.8	0.0	0.0	0.0	0.0
80°	1064.1	1088.4	690.7	499.6	141.6	0.9	0.0	0.0	0.0	0.0
82.5°	202.9	186.7	90.2	71.2	18.0	0.0	0.0	0.0	0.0	0.0
85°	66.7	73.0	33.4	27.1	8.1	0.0	0.0	0.0	0.0	0.0
87.5°	23.4	29.8	9.9	8.1	1.8	0.0	0.0	0.0	0.0	0.0
90°	3.6	3.6	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



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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)