

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: P579410

Luminaire Tested: **CTN-CA8-230-722-U-T5N-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579410
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-6)
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-T5N-HSS-HM-EX180
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: 19788 lumens
Efficiency: N/A
Efficacy: 86.6 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - U2 - G2

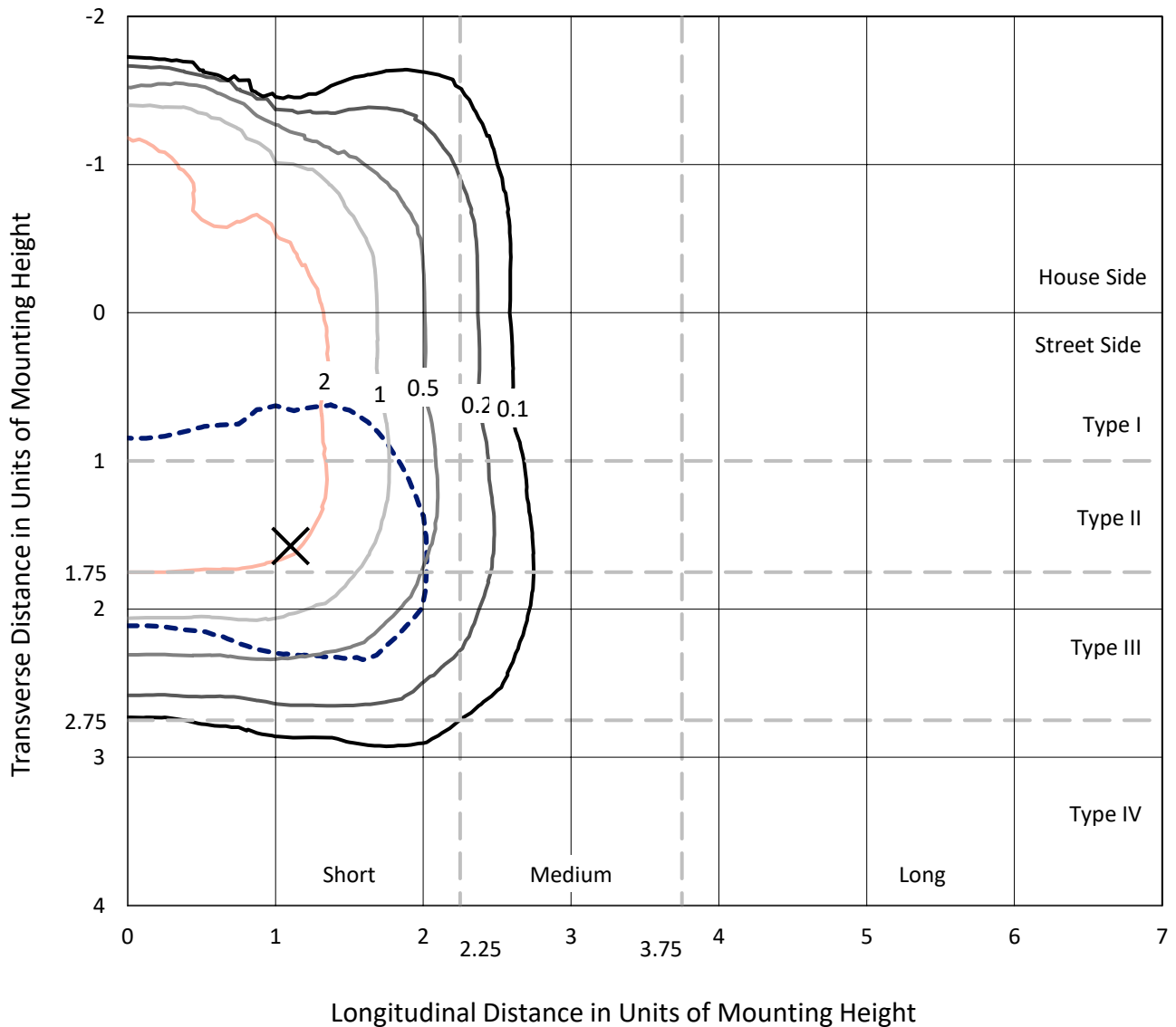
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

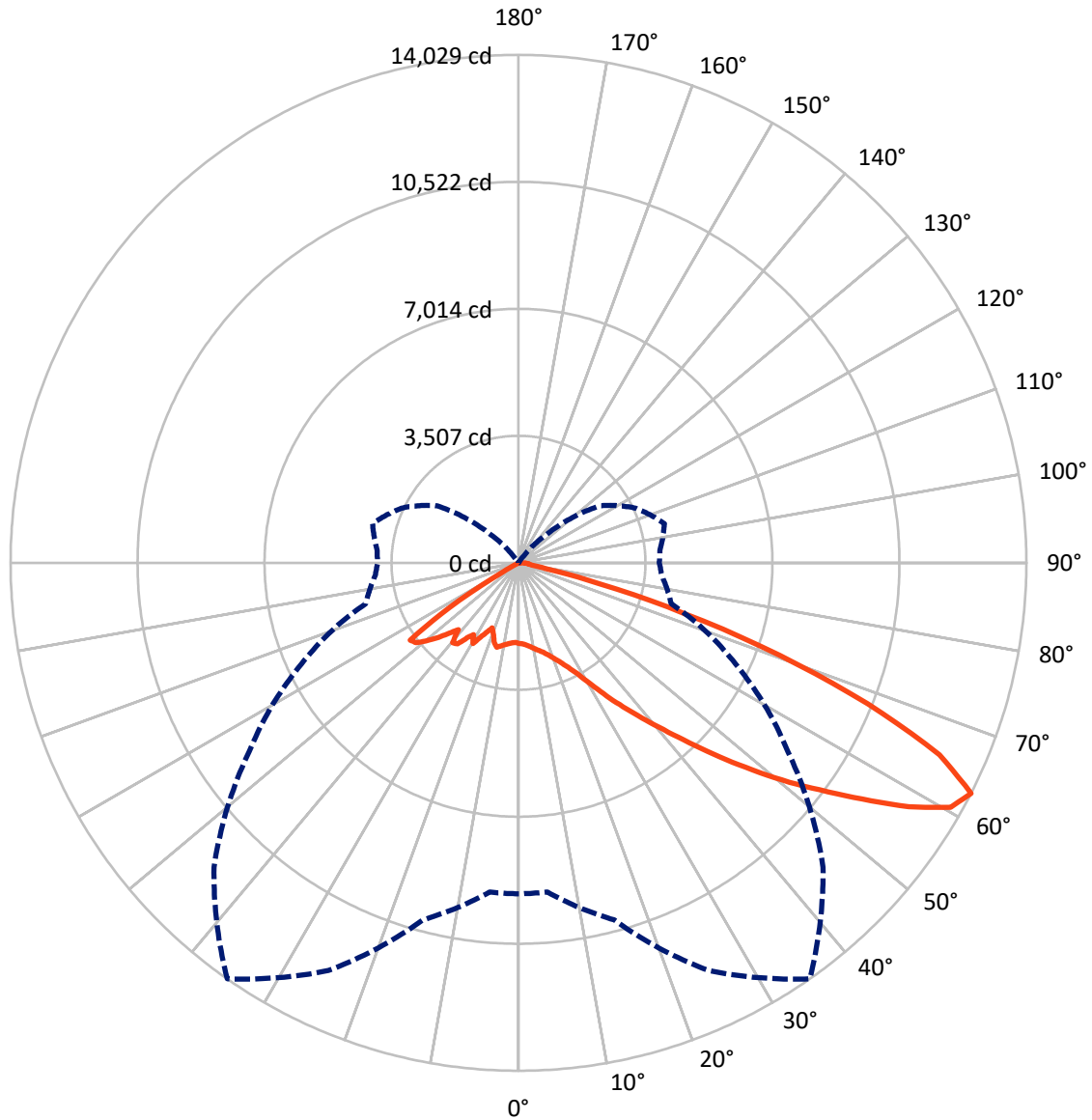
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type III - Short - N/A

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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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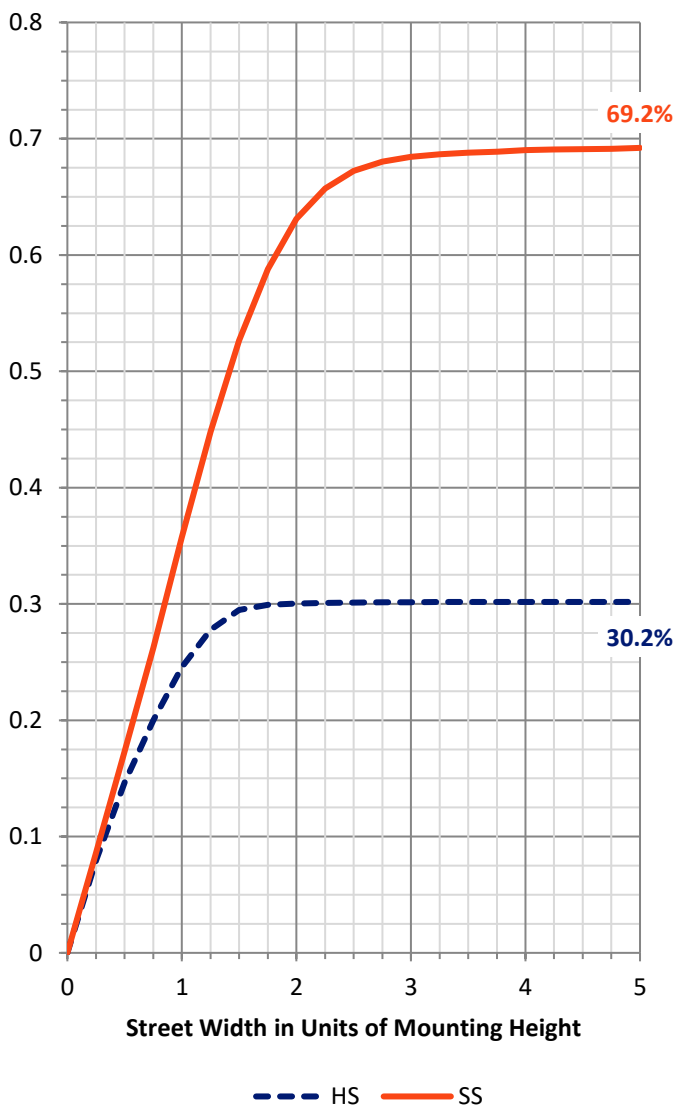
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6005.7	0.0	6005.7
	% Fixture	30.4	0.0	30.4
Street Side	Lumens	13765.1	17.2	13782.3
	% Fixture	69.6	0.1	69.6
Total	Lumens	19770.8	17.2	19788.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.9	1.1
10°-20°	705.6	3.6
20°-30°	1289.7	6.5
30°-40°	2457.8	12.4
40°-50°	4218.6	21.3
50°-60°	5659.4	28.6
60°-70°	4302.3	21.7
70°-80°	814.6	4.1
80°-90°	102.9	0.5
90°-100°	15.1	0.1
100°-110°	2.0	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°	19770.8	99.9
0°-180°	19788.0	100.0

Coefficient of Utilization

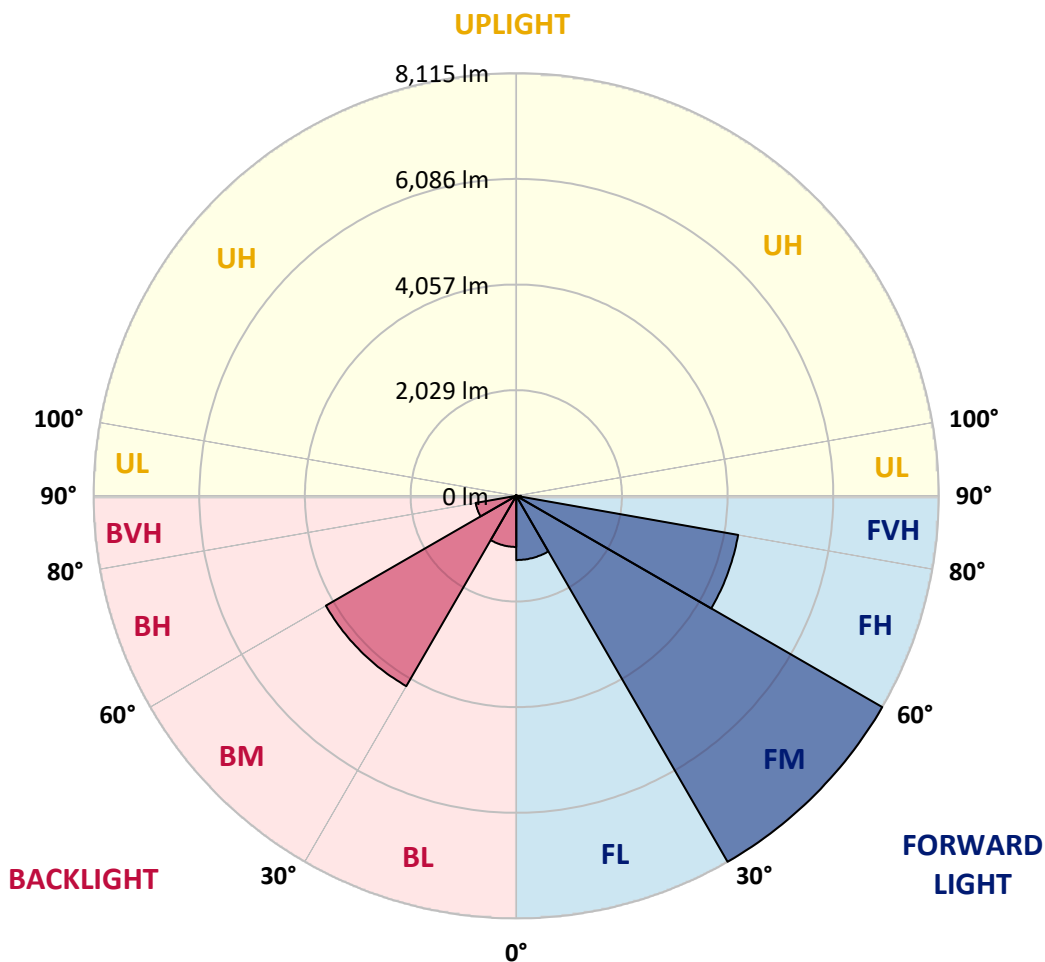


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1233.5	6.2			
FM	(30°-60°)	8114.7	41.0			
FH	(60°-80°)	4326.0	21.9			G2/5000
FVH	(80°-90°)	90.8	0.5			G1/100
BL	(0°-30°)	981.7	5.0	B2/1000		
BM	(30°-60°)	4221.1	21.3	B3/5000		
BH	(60°-80°)	790.9	4.0	B2/1000		G2/1000
BVH	(80°-90°)	12.0	0.1			G1/100
UL	(90°-100°)	15.1	0.1		U2/50	
UH	(100°-180°)	2.1	0.0		U1/10	

BUG Rating: B3-U2-G2
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4
2.5°	2283.4	2266.6	2267.5	2282.5	2239.6	2255.4	2236.8	2255.4	2245.2	2252.6	2256.4
5°	2323.5	2306.7	2304.9	2320.7	2284.3	2295.5	2276.9	2289.9	2275.9	2285.3	2285.3
7.5°	2384.1	2367.4	2361.8	2373.9	2340.3	2348.7	2329.1	2336.6	2320.7	2332.8	2326.3
10°	2456.0	2437.3	2430.8	2437.3	2408.4	2413.1	2389.7	2398.1	2374.8	2388.8	2379.5
12.5°	2532.5	2508.2	2508.2	2513.8	2483.0	2483.9	2462.5	2467.2	2443.8	2458.8	2447.6
15°	2615.5	2588.4	2592.1	2597.7	2565.1	2570.7	2548.3	2555.8	2531.5	2546.4	2535.3
17.5°	2725.5	2696.6	2692.9	2709.7	2678.9	2689.2	2664.0	2673.3	2651.8	2656.5	2650.9
20°	2877.6	2841.2	2832.8	2855.2	2820.7	2828.1	2809.5	2828.1	2805.8	2772.2	2678.0
22.5°	3059.5	3027.7	3013.8	3028.7	2987.6	3000.7	2999.8	3029.6	2968.1	2756.3	2662.1
25°	3299.2	3277.7	3250.7	3252.5	3203.1	3222.7	3258.1	3281.5	3019.4	2833.7	2835.6
27.5°	3619.1	3597.7	3560.4	3546.4	3474.5	3522.1	3577.1	3349.6	3143.4	3191.0	3164.9
30°	4027.7	4023.9	3948.4	3924.1	3845.8	3905.5	3857.9	3468.0	3538.9	3605.1	3565.0
32.5°	4571.5	4545.4	4436.2	4392.4	4310.3	4344.8	3925.1	3869.1	3974.5	4064.0	4022.1
35°	5229.1	5149.8	5038.8	4952.0	4809.3	4617.2	4180.6	4289.8	4447.4	4570.5	4367.2
37.5°	5993.0	5907.2	5733.7	5577.9	5353.1	4754.3	4565.9	4784.1	4981.9	4848.5	4379.3
40°	6779.3	6702.8	6539.6	6339.1	5959.4	5179.6	5033.2	5294.4	5519.2	4755.2	4522.0
42.5°	7560.0	7494.8	7363.2	7165.5	6676.7	5686.1	5545.3	5826.0	5614.3	4937.1	4929.7
45°	8347.3	8314.7	8165.4	7996.6	7526.5	6334.4	6118.9	6338.1	5402.6	5372.7	5355.0
47.5°	8985.3	8990.9	8938.7	8851.0	8433.1	7046.1	6765.3	6115.2	5660.0	5692.7	5701.0
50°	9642.9	9600.9	9598.1	9603.7	9429.3	7963.0	7205.6	6014.5	5996.7	5993.9	5986.5
52.5°	10169.9	10116.8	10226.8	10314.5	10418.0	8986.2	7139.4	6355.8	6254.2	6218.7	6001.4
55°	10599.0	10578.5	10757.6	11054.2	11515.0	10070.1	7725.1	6688.8	6485.5	5657.2	5103.1
57.5°	10859.2	10889.1	11258.5	11841.4	12704.2	10968.4	8407.0	7026.5	5552.7	4982.8	4947.4
60°	10361.1	10518.8	11147.5	12427.2	13709.8	11813.4	8914.4	7094.6	4996.8	4691.8	4620.9
62.5°	9142.0	9127.1	10207.2	12427.2	14028.8	11897.4	9074.9	6612.4	4365.3	3968.0	3888.7
65°	6470.6	6509.8	7663.6	11198.8	12779.8	11066.3	8370.6	5621.8	3482.0	3117.3	3010.0
67.5°	4004.4	4001.6	5131.1	8247.5	10403.1	9265.1	7047.0	4309.4	2416.8	2072.6	1956.0
70°	1383.3	1422.5	2307.7	4826.1	7658.0	7258.8	5273.8	2720.9	1274.2	908.5	766.7
72.5°	550.3	563.4	828.3	2151.9	4784.1	4849.4	3205.0	1321.7	381.5	242.5	227.6
75°	360.0	361.9	397.4	777.0	2321.6	2608.9	1488.7	379.6	177.2	162.3	158.6
77.5°	310.6	311.5	330.2	393.6	756.5	1014.8	423.5	224.8	148.3	133.4	129.7
80°	288.2	289.2	298.5	338.6	364.7	346.1	225.7	181.0	125.0	118.5	117.5
82.5°	272.4	276.1	280.8	305.0	294.8	260.2	187.5	146.4	96.1	102.6	105.4
85°	250.9	254.6	257.4	271.4	246.2	190.3	145.5	110.1	61.6	67.2	66.2
87.5°	188.4	190.3	186.6	184.7	171.6	133.4	96.1	70.0	24.3	22.4	20.5
90°	90.5	89.5	85.8	79.3	69.0	54.1	40.1	22.4	10.3	4.7	1.9
92.5°	71.8	70.9	69.0	62.5	54.1	40.1	28.9	15.9	9.3	3.7	0.9
95°	48.5	46.6	44.8	40.1	33.6	24.3	16.8	11.2	7.5	2.8	0.9
97.5°	31.7	30.8	28.0	24.3	18.7	13.1	10.3	8.4	6.5	2.8	0.9
100°	19.6	19.6	17.7	14.0	9.3	7.5	6.5	6.5	4.7	1.9	0.0
102.5°	12.1	11.2	10.3	6.5	4.7	4.7	4.7	4.7	3.7	1.9	0.0
105°	6.5	6.5	4.7	3.7	2.8	1.9	2.8	3.7	2.8	0.9	0.0
107.5°	1.9	1.9	1.9	0.9	0.9	0.0	0.9	1.9	1.9	0.9	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.9	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°	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4	2228.4
2.5°	2251.7	2234.0	2238.6	2220.9	2218.1	2199.5	2231.2	2233.0	2224.6	2234.0
5°	2280.6	2259.2	2267.5	2246.1	2242.4	2218.1	2243.3	2240.5	2234.0	2241.4
7.5°	2321.6	2300.2	2304.9	2279.7	2275.0	2248.0	2272.2	2262.9	2254.5	2264.7
10°	2378.5	2354.3	2358.0	2328.2	2324.4	2292.7	2320.7	2306.7	2294.6	2308.6
12.5°	2448.5	2416.8	2413.1	2381.3	2378.5	2348.7	2377.6	2363.6	2351.5	2373.9
15°	2528.7	2486.7	2481.2	2441.0	2436.4	2405.6	2433.6	2413.1	2403.7	2432.6
17.5°	2636.0	2487.7	2404.7	2345.9	2312.3	2295.5	2345.9	2414.0	2393.5	2394.4
20°	2592.1	2432.6	2321.6	2271.3	2234.9	2072.6	1848.7	1913.1	2043.7	2108.0
22.5°	2579.1	2523.1	2477.4	2392.5	2031.6	1940.1	1953.2	1938.3	1692.0	1597.8
25°	2829.1	2764.7	2665.8	2220.9	2116.4	2095.9	2103.4	1845.9	1660.3	1687.4
27.5°	3149.0	3082.8	2594.9	2345.9	2325.4	2298.3	2151.0	1829.1	1854.3	1880.5
30°	3552.0	3204.0	2705.9	2629.5	2591.2	2563.2	2016.6	2042.8	2084.7	2117.4
32.5°	3944.7	3193.8	3024.0	2928.9	2881.3	2338.4	2278.7	2339.4	2382.3	2407.5
35°	3949.3	3559.4	3380.3	3258.1	2955.9	2513.8	2568.8	2670.5	2775.9	2795.5
37.5°	4056.6	3973.6	3768.4	3614.5	2198.5	2805.8	2927.0	3043.6	3149.0	3155.5
40°	4483.8	4394.2	4202.1	3863.5	2428.0	2861.7	3321.6	3453.1	3541.7	3537.0
42.5°	4910.1	4848.5	4648.9	3433.5	2735.8	2479.3	3735.7	3822.5	3878.4	3917.6
45°	5339.1	5277.6	4603.2	3770.2	3102.4	2715.3	3635.0	4126.5	4188.1	4207.7
47.5°	5674.0	5522.0	4218.0	4217.0	3560.4	3017.5	3001.6	4400.8	4454.9	4440.9
50°	5983.7	4929.7	4559.3	4363.5	4034.2	3302.0	3191.9	3703.1	4696.5	4675.9
52.5°	5444.5	4784.1	4852.2	3968.9	4414.8	3584.6	3406.5	3320.6	4267.4	4816.8
55°	4869.0	4962.3	5151.7	4360.7	3203.1	3676.0	3588.3	3417.6	2879.4	2423.3
57.5°	4968.8	5107.8	5117.1	4723.5	3315.0	2296.5	2941.0	2574.4	1626.7	1630.5
60°	4635.8	4816.8	3740.4	3149.0	1782.5	478.5	46.6	41.0	283.6	345.1
62.5°	3919.5	4171.3	3570.6	2743.3	1143.6	17.7	4.7	0.9	0.0	0.0
65°	3035.2	3338.4	3017.5	2367.4	1014.8	5.6	0.0	0.0	0.0	0.0
67.5°	2001.7	2275.0	2292.7	1980.3	846.0	2.8	0.0	0.0	0.0	0.0
70°	838.6	1180.9	1427.1	1471.9	665.1	0.9	0.0	0.0	0.0	0.0
72.5°	242.5	375.0	686.5	884.3	422.5	0.0	0.0	0.0	0.0	0.0
75°	161.4	172.6	198.7	398.3	210.8	0.0	0.0	0.0	0.0	0.0
77.5°	133.4	136.2	113.8	109.1	60.6	0.0	0.0	0.0	0.0	0.0
80°	121.3	119.4	91.4	64.4	22.4	0.0	0.0	0.0	0.0	0.0
82.5°	111.9	106.3	66.2	33.6	14.9	0.0	0.0	0.0	0.0	0.0
85°	75.6	74.6	29.8	20.5	2.8	0.0	0.0	0.0	0.0	0.0
87.5°	20.5	26.1	6.5	2.8	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	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



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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)