

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: P579411

Luminaire Tested: **CTN-CA8-230-722-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579411
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)
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-EX90
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: 24884 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G3

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

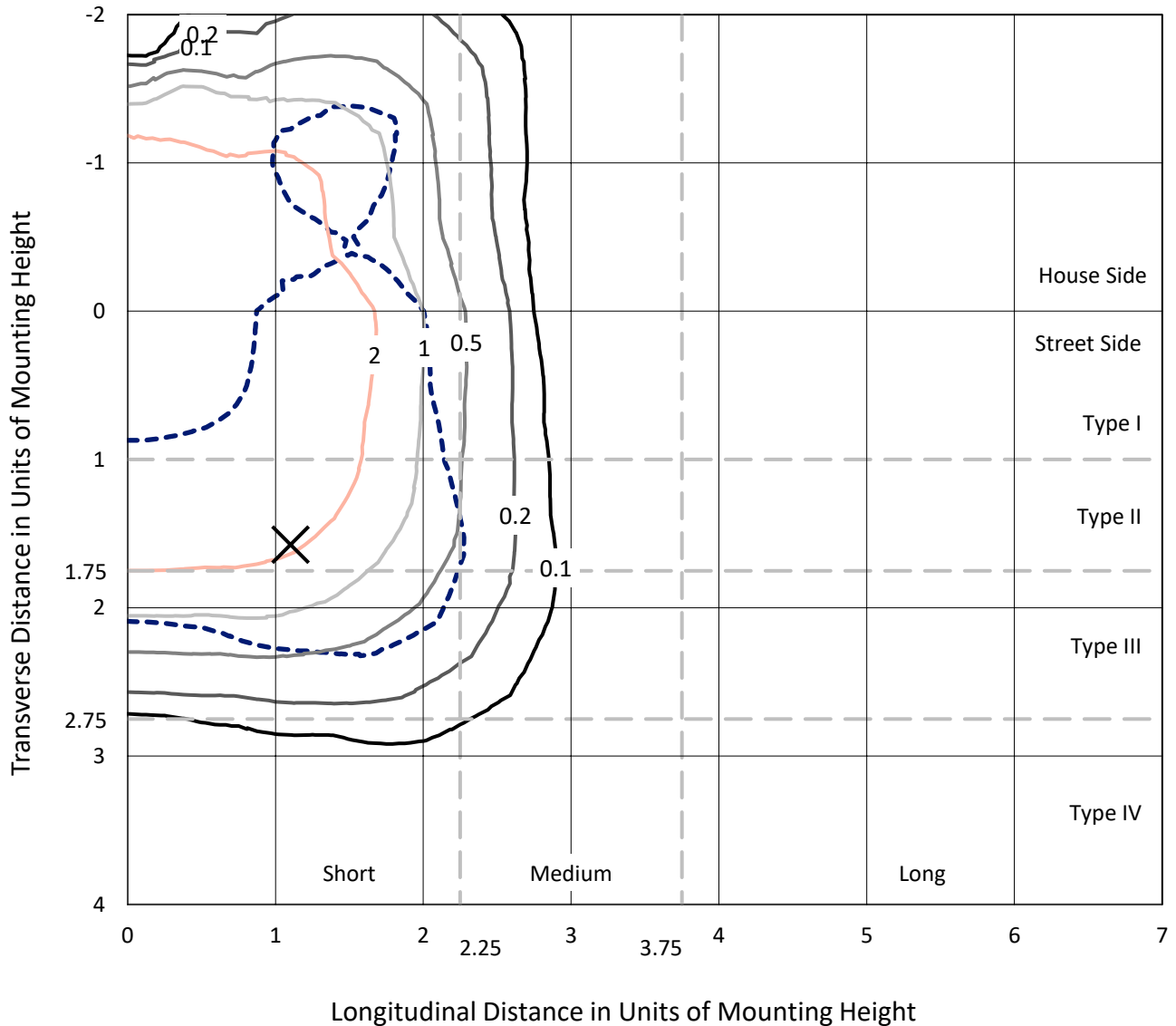




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Iso-Footcandle Lines of Horizontal Illumination

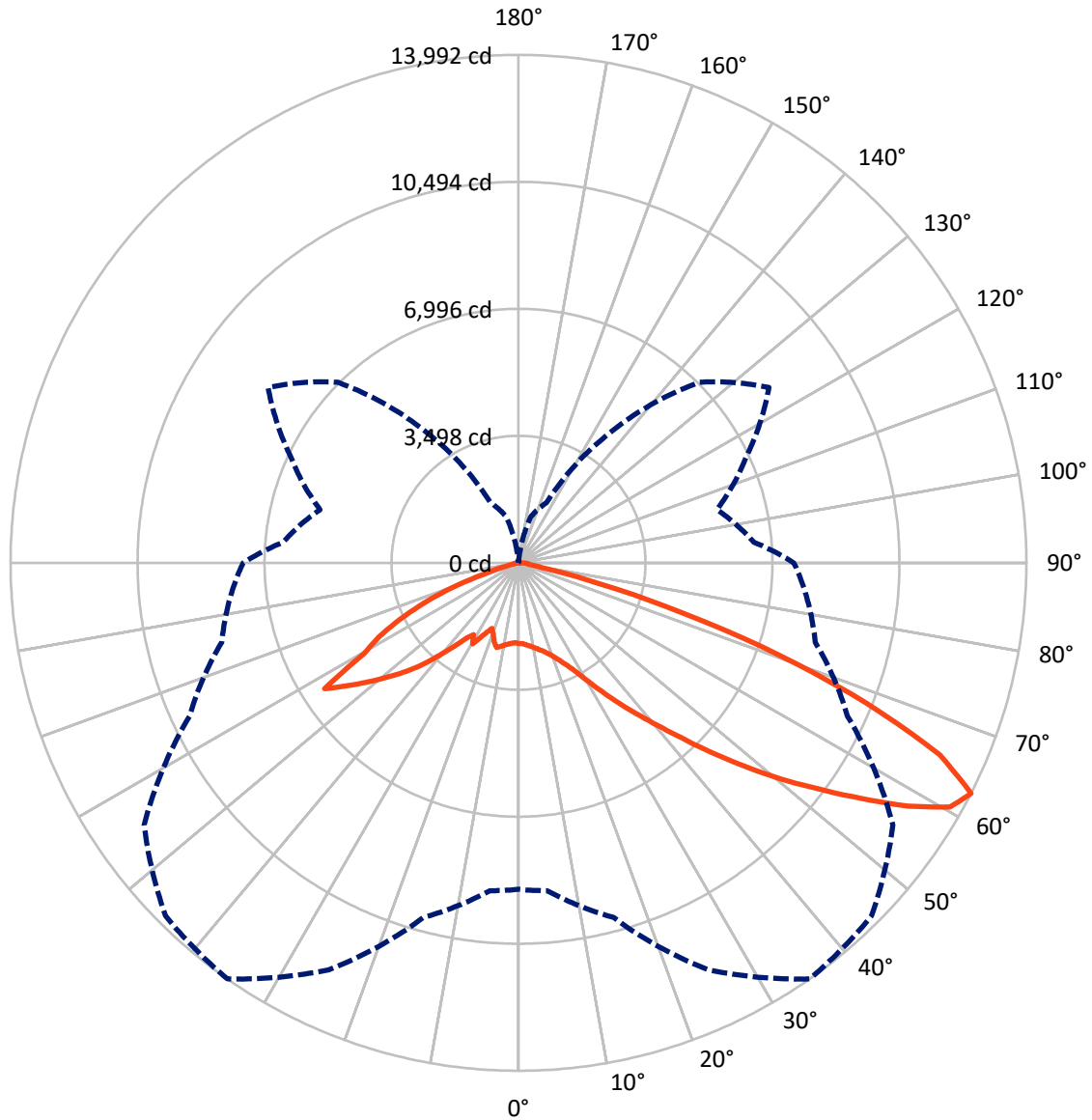
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 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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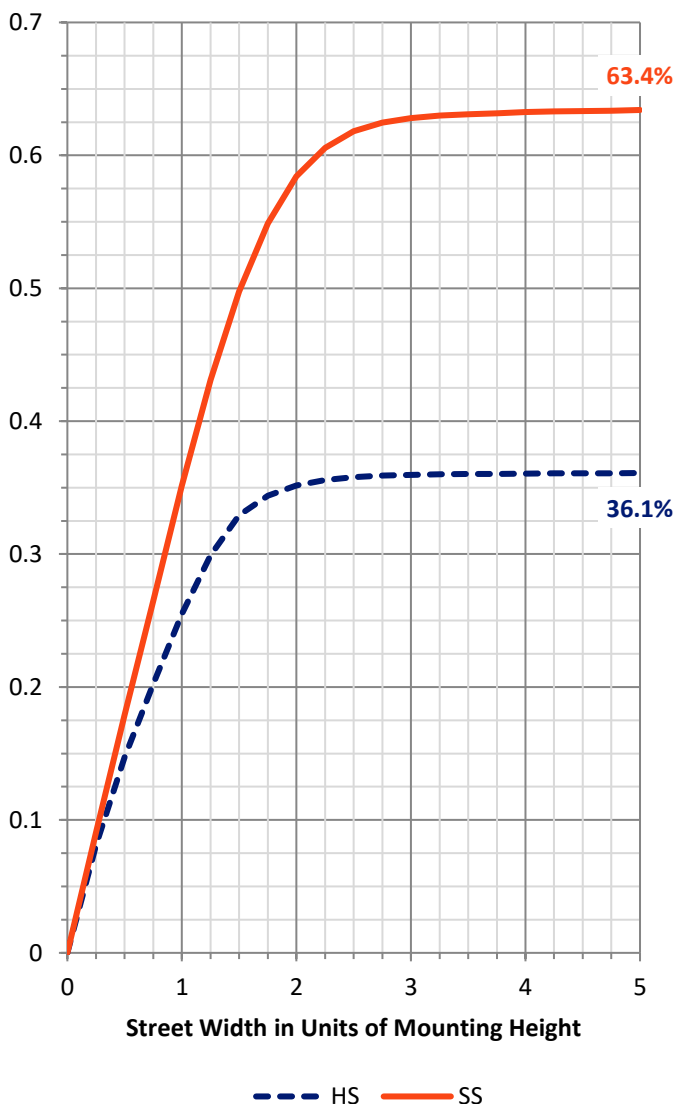
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9032.3	0.0	9032.3
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	15839.9	11.8	15851.7
	% Fixture	63.7	0.0	63.7
Total	Lumens	24872.2	11.8	24884.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	218.9	0.9
10°-20°	707.5	2.8
20°-30°	1361.1	5.5
30°-40°	2715.2	10.9
40°-50°	4957.8	19.9
50°-60°	7408.6	29.8
60°-70°	6207.7	24.9
70°-80°	1161.7	4.7
80°-90°	133.7	0.5
90°-100°	10.6	0.0
100°-110°	1.1	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°	24872.2	100.0
0°-180°	24884.0	100.0

Coefficient of Utilization



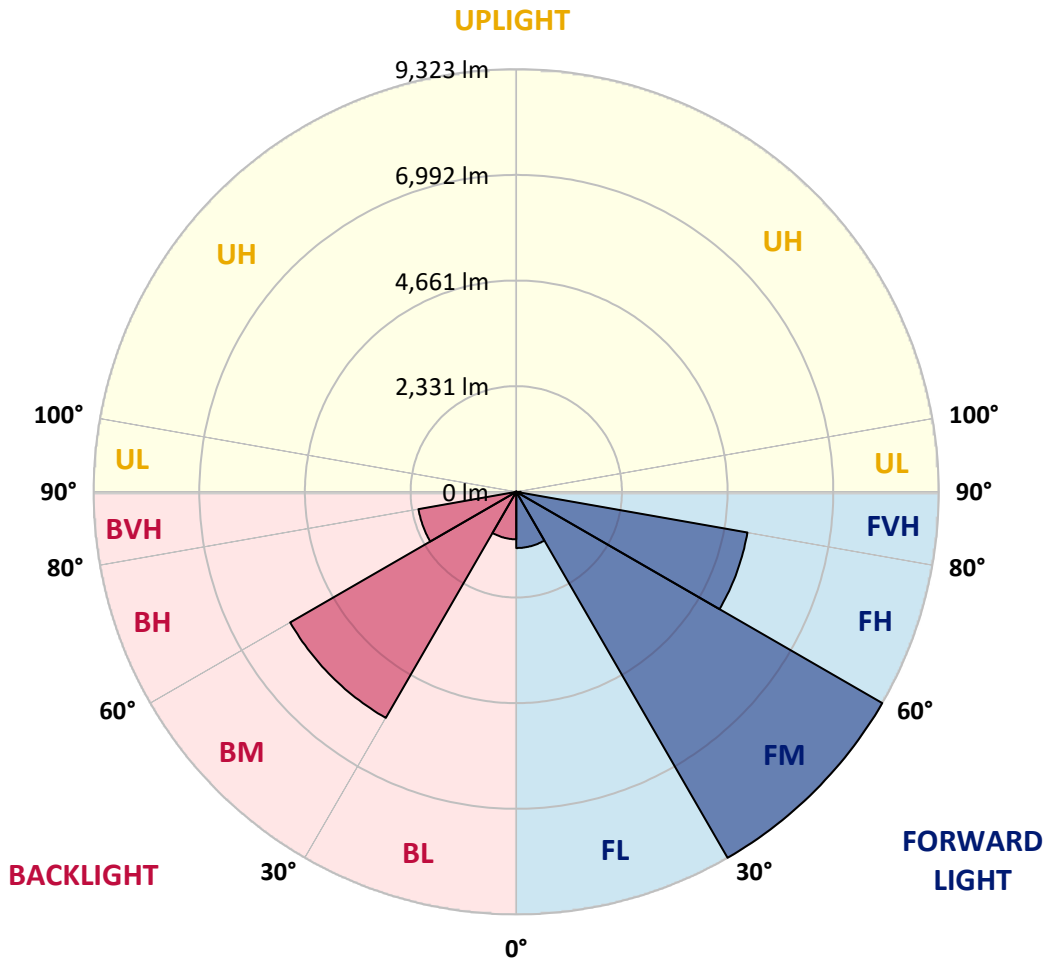
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1240.8	5.0			
FM (30°-60°)	9322.7	37.5			
FH (60°-80°)	5179.1	20.8			G3/7500
FVH (80°-90°)	97.4	0.4			G1/100
BL (0°-30°)	1046.7	4.2	B3/2500		
BM (30°-60°)	5758.9	23.1	B4/8500		
BH (60°-80°)	2190.4	8.8	B3/2500		G3/2500
BVH (80°-90°)	36.3	0.1			G1/100
UL (90°-100°)	10.6	0.0		U2/50	
UH (100°-180°)	1.2	0.0		U1/10	

BUG Rating: B4-U2-G3

Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5
2.5°	2274.1	2255.4	2258.2	2271.3	2230.3	2247.1	2229.3	2246.1	2240.5	2248.0	2253.6
5°	2306.8	2283.4	2285.3	2300.2	2268.5	2282.5	2264.8	2276.0	2266.6	2276.9	2277.8
7.5°	2351.5	2331.9	2329.1	2344.1	2317.0	2329.1	2311.4	2317.0	2307.7	2319.8	2316.1
10°	2411.2	2393.5	2388.8	2399.1	2377.6	2384.2	2365.5	2373.0	2359.0	2373.0	2366.4
12.5°	2477.5	2454.1	2455.1	2466.3	2444.8	2449.5	2434.5	2442.9	2426.1	2441.1	2436.4
15°	2555.8	2522.2	2528.8	2540.9	2520.4	2534.3	2516.6	2528.8	2512.9	2528.8	2523.2
17.5°	2657.5	2619.2	2623.9	2643.5	2626.7	2649.1	2628.6	2643.5	2636.0	2646.3	2644.4
20°	2786.2	2761.0	2756.3	2780.6	2756.3	2784.3	2773.1	2799.3	2801.1	2811.4	2816.0
22.5°	2957.8	2941.0	2929.8	2946.6	2925.2	2944.8	2960.6	3005.4	3022.2	3049.2	3051.1
25°	3186.4	3185.4	3160.2	3161.2	3134.1	3160.2	3205.0	3275.0	3319.7	3354.3	3341.2
27.5°	3495.1	3500.7	3462.5	3447.5	3415.8	3455.0	3547.3	3634.1	3715.2	3763.7	3763.7
30°	3898.1	3903.7	3847.7	3817.8	3788.9	3857.0	3967.1	4080.0	4195.6	4265.6	4249.7
32.5°	4431.6	4413.9	4333.7	4279.6	4230.1	4308.5	4435.3	4563.1	4720.8	4821.5	4809.4
35°	5079.0	5014.6	4934.4	4833.6	4727.3	4788.9	4908.3	5068.7	5287.9	5439.0	5400.8
37.5°	5830.8	5767.3	5630.2	5456.7	5271.1	5278.6	5372.8	5650.8	5925.0	6048.1	6022.0
40°	6611.5	6562.1	6436.1	6213.2	5877.4	5800.0	5954.8	6289.7	6551.8	6706.7	6662.8
42.5°	7407.2	7356.8	7261.7	7037.8	6592.9	6406.3	6567.7	6932.4	7212.2	7364.3	7313.9
45°	8201.0	8143.1	8067.6	7869.8	7445.4	7172.1	7262.6	7597.5	7853.0	8025.6	7922.1
47.5°	8898.7	8860.4	8809.1	8728.9	8357.7	8055.4	8048.9	8270.0	8446.3	8560.1	8433.2
50°	9505.9	9478.9	9507.8	9491.0	9355.7	9080.6	8911.7	8896.8	8953.7	9036.7	8855.8
52.5°	10050.6	10003.1	10110.3	10243.7	10343.5	10287.6	9741.0	9434.1	9371.6	9399.6	9194.4
55°	10496.5	10474.1	10654.2	10989.0	11450.7	11573.9	10592.6	9956.4	9726.0	9711.1	9477.9
57.5°	10768.9	10800.6	11160.7	11798.7	12645.6	12684.8	11638.2	10515.2	10071.2	9910.7	9642.1
60°	10335.1	10457.3	11072.0	12388.2	13659.6	13683.8	12405.9	10617.8	9640.2	9281.1	8948.1
62.5°	8993.8	9066.6	10112.2	12368.6	13991.6	13754.7	12588.7	9998.4	8464.0	7891.3	7583.5
65°	6335.4	6471.6	7591.9	11128.0	12750.1	12779.9	11548.7	8645.0	6758.9	6125.5	5926.9
67.5°	3826.2	3956.8	5149.9	8033.1	10365.0	10699.9	9633.7	6545.3	4846.7	4046.4	3845.8
70°	1242.5	1384.2	2346.9	4734.8	7624.5	8427.6	7249.5	4260.0	2538.1	1777.9	1562.4
72.5°	472.0	514.9	763.9	2068.0	4748.8	5626.5	4483.8	2137.0	786.3	468.3	411.4
75°	306.9	313.4	357.3	724.8	2290.0	3097.7	2161.2	625.9	315.3	279.8	259.3
77.5°	264.0	268.6	287.3	361.0	729.4	1184.6	620.3	319.9	263.0	233.2	219.2
80°	249.1	250.9	263.0	306.0	341.4	395.5	298.5	267.7	229.5	219.2	208.9
82.5°	236.0	242.5	249.1	278.0	277.0	284.5	239.7	209.9	194.9	205.2	201.5
85°	220.1	223.9	228.5	248.1	225.7	191.2	184.7	144.6	140.8	150.2	140.8
87.5°	154.8	164.2	158.6	167.0	156.7	122.2	103.5	82.1	65.3	54.1	52.2
90°	63.4	64.4	60.6	56.0	49.4	41.0	32.6	20.5	9.3	4.7	1.9
92.5°	49.4	49.4	47.6	42.9	37.3	30.8	23.3	13.1	6.5	2.8	0.9
95°	30.8	31.7	29.8	27.1	23.3	18.7	14.0	7.5	4.7	1.9	0.9
97.5°	19.6	19.6	17.7	15.9	13.1	9.3	6.5	5.6	3.7	1.9	0.0
100°	11.2	11.2	10.3	8.4	6.5	4.7	4.7	3.7	2.8	0.9	0.0
102.5°	6.5	6.5	4.7	3.7	2.8	2.8	2.8	2.8	1.9	0.9	0.0
105°	2.8	2.8	1.9	1.9	0.9	0.9	1.9	1.9	1.9	0.9	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	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	0.9



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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°	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5	2226.5
2.5°	2249.9	2233.1	2235.9	2220.0	2217.2	2201.3	2233.1	2236.8	2227.5	2235.9
5°	2276.0	2255.4	2262.0	2244.3	2241.5	2220.0	2248.0	2246.1	2238.7	2247.1
7.5°	2315.1	2293.7	2297.4	2277.8	2274.1	2250.8	2276.9	2268.5	2261.0	2271.3
10°	2370.2	2345.9	2347.8	2322.6	2325.4	2294.6	2326.3	2311.4	2302.1	2316.1
12.5°	2436.4	2409.4	2410.3	2384.2	2383.2	2353.4	2381.4	2373.0	2359.0	2380.4
15°	2522.2	2491.4	2488.6	2454.1	2444.8	2411.2	2437.3	2421.5	2412.2	2442.9
17.5°	2642.6	2608.0	2597.8	2555.8	2381.4	2280.6	2420.6	2468.1	2410.3	2401.0
20°	2803.0	2774.1	2750.8	2687.3	2394.4	2080.1	1847.8	1849.7	2094.1	2206.9
22.5°	3020.3	2985.8	2942.0	2851.5	2196.7	1948.6	1949.5	1946.7	1670.6	1554.0
25°	3317.9	3275.9	3186.4	2675.2	2331.9	2102.5	2096.9	1823.6	1671.5	1679.9
27.5°	3719.9	3634.1	3109.9	2898.1	2572.6	2302.1	2167.8	1835.7	1854.4	1867.4
30°	4231.1	3885.9	3360.8	3234.9	2861.8	2567.0	2004.5	2050.2	2087.6	2095.9
32.5°	4755.3	3897.1	3761.9	3628.5	3218.1	2335.7	2259.2	2345.9	2385.1	2389.8
35°	4750.6	4374.7	4200.3	4050.1	3548.3	2498.9	2547.4	2680.8	2780.6	2775.9
37.5°	5027.7	4901.7	4693.7	4503.4	3193.8	2815.1	2901.9	3053.0	3174.2	3170.5
40°	5606.9	5461.4	5241.3	4842.0	3536.1	3177.0	3298.3	3460.6	3546.4	3551.1
42.5°	6154.4	6034.1	5809.3	4524.0	3964.3	3612.6	3722.7	3831.8	3885.0	3901.8
45°	6699.2	6613.4	5865.3	4999.7	4482.0	4051.0	4123.8	4144.3	4200.3	4193.8
47.5°	7141.3	7046.2	5639.6	5596.6	5109.7	4467.1	4461.5	4434.4	4454.9	4459.6
50°	7545.2	6398.8	6092.9	6235.6	5768.3	4891.5	4785.1	4730.1	4702.1	4690.0
52.5°	7864.2	6400.7	6516.4	6896.0	6511.7	5352.3	5123.7	4968.9	4350.5	4834.6
55°	8135.7	6664.7	6917.5	7602.1	7152.5	5834.5	5429.7	5153.6	2903.7	2328.2
57.5°	8291.4	6865.2	7314.8	8263.5	7712.2	6370.9	4998.7	4322.5	1641.7	1639.8
60°	7689.8	6505.2	7303.6	8610.4	7550.8	4941.8	2035.3	1703.2	310.6	319.0
62.5°	6509.8	5659.1	6926.8	8420.2	7032.2	4347.7	1825.4	1311.5	10.3	8.4
65°	5043.5	4514.6	5832.6	7406.2	6397.9	3627.6	1360.9	944.9	2.8	0.0
67.5°	3299.2	3181.7	4303.8	6141.4	5217.9	2810.5	913.2	452.4	1.9	0.0
70°	1406.6	1629.6	2726.5	4453.1	3994.1	1933.6	440.3	163.2	0.9	0.0
72.5°	393.6	521.4	1213.5	2609.0	2512.0	1016.7	171.6	69.0	0.9	0.0
75°	233.2	200.5	347.9	1041.0	1222.9	357.3	79.3	53.2	0.9	0.0
77.5°	194.0	156.7	199.6	265.8	370.3	128.7	67.2	47.6	0.0	0.0
80°	181.9	139.0	172.6	185.6	182.8	107.3	66.2	47.6	0.0	0.0
82.5°	172.6	121.3	142.7	142.7	153.0	98.9	62.5	46.6	0.0	0.0
85°	129.7	84.9	95.1	123.1	110.1	70.0	45.7	37.3	0.0	0.0
87.5°	49.4	30.8	37.3	39.2	31.7	15.9	3.7	3.7	0.0	0.0
90°	0.9	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)