

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: P579409

Luminaire Tested: **CTN-CA8-230-722-U-T5N-HSS-HM-EX120**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579409
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-5)
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-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: 22948 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B3 - 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

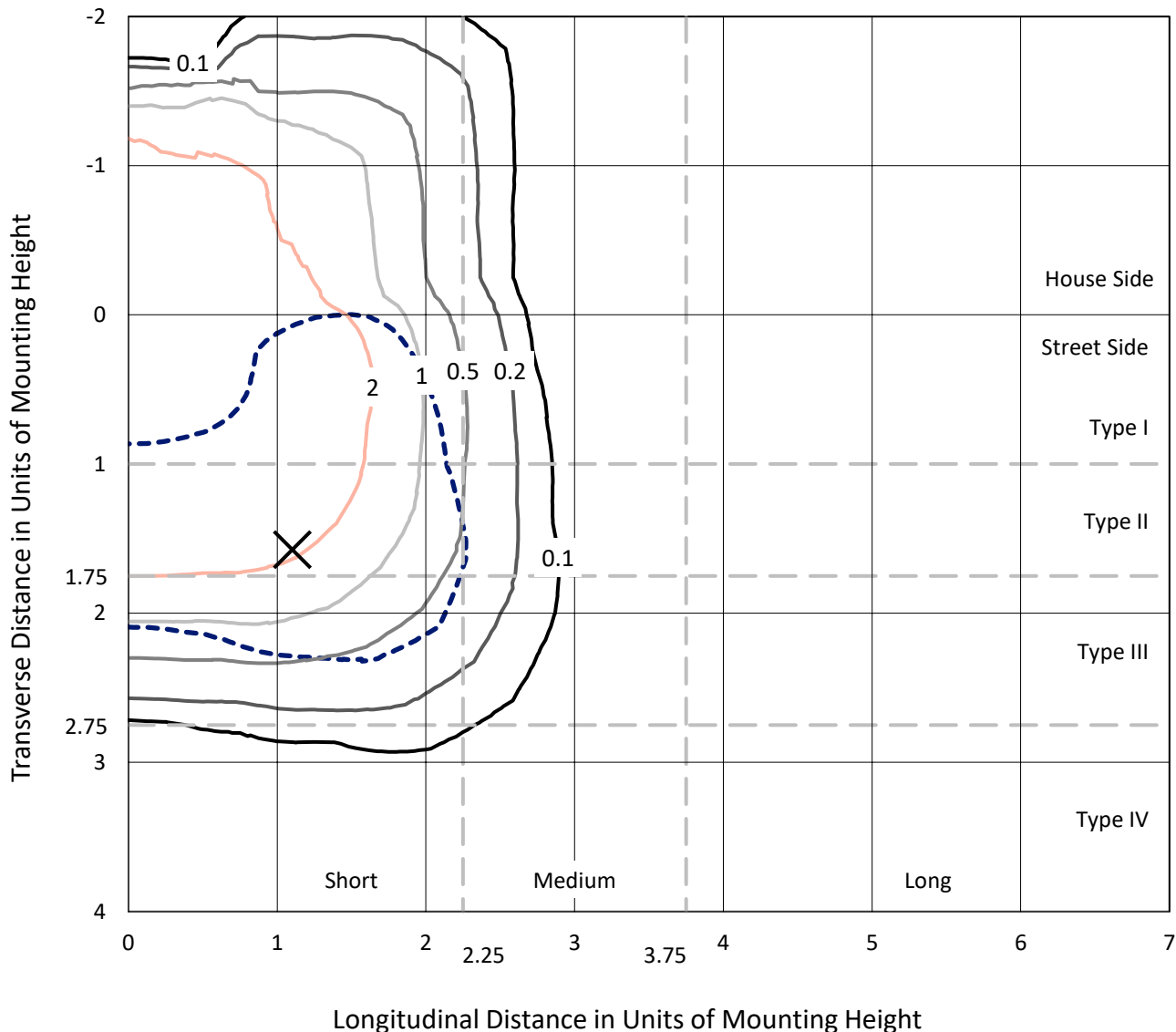




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Iso-Footcandle Lines of Horizontal Illumination

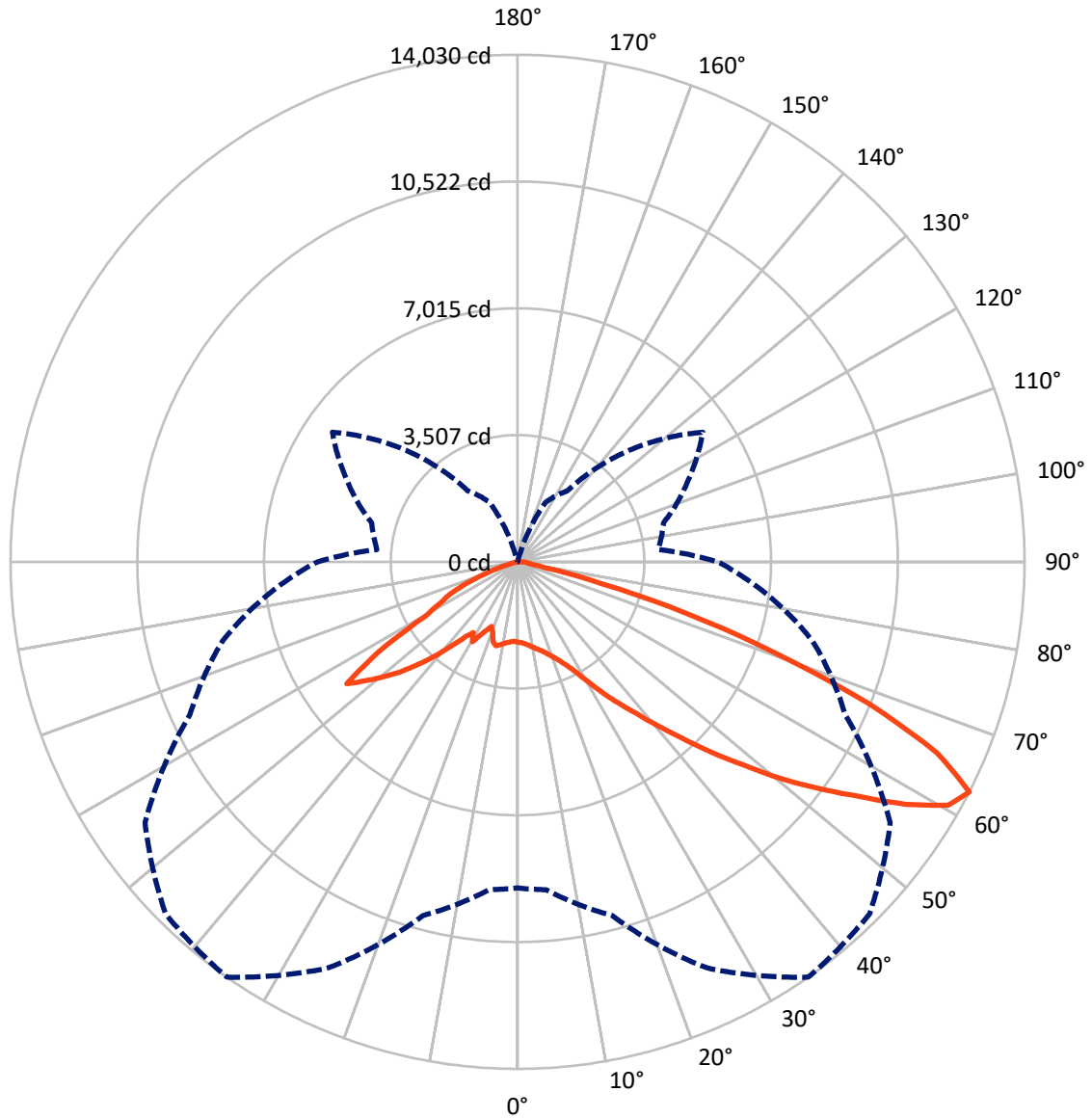
✕ Max cd
 - - - 1/2 Max cd



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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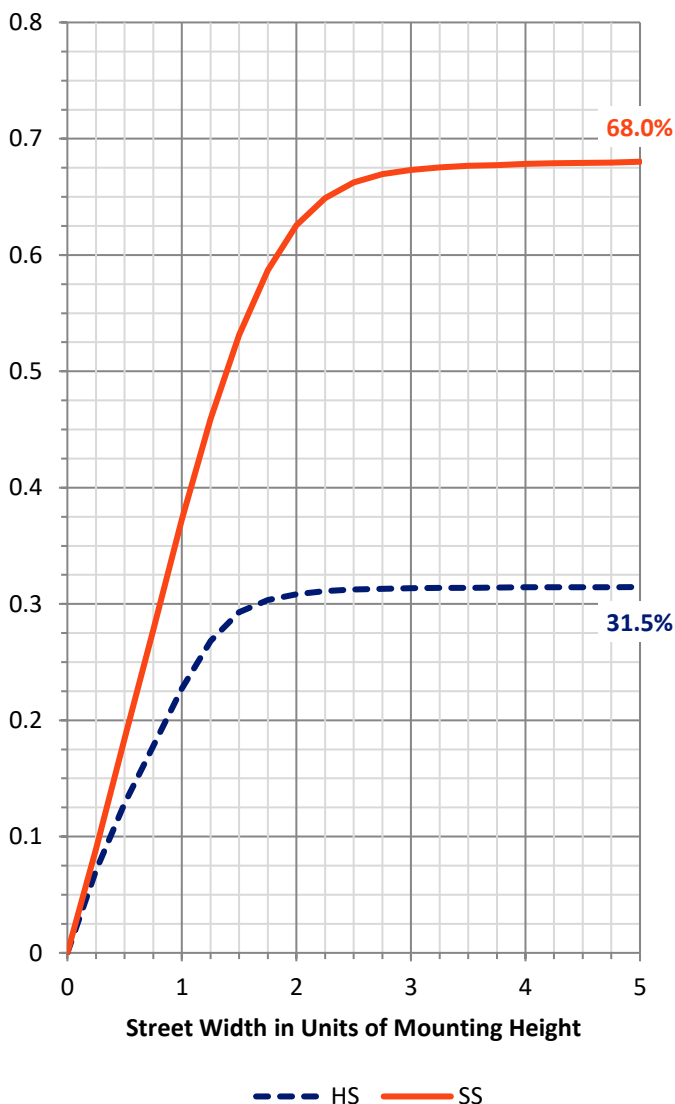
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7259.8	0.0	7259.8
	% Fixture	31.6	0.0	31.6
Street Side	Lumens	15675.1	13.1	15688.2
	% Fixture	68.3	0.1	68.4
Total	Lumens	22934.9	13.1	22948.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	219.6	1.0
10°-20°	706.2	3.1
20°-30°	1311.4	5.7
30°-40°	2585.4	11.3
40°-50°	4641.2	20.2
50°-60°	6746.5	29.4
60°-70°	5544.5	24.2
70°-80°	1053.9	4.6
80°-90°	126.2	0.5
90°-100°	11.9	0.1
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°	22934.9	99.9
0°-180°	22948.0	100.0

Coefficient of Utilization

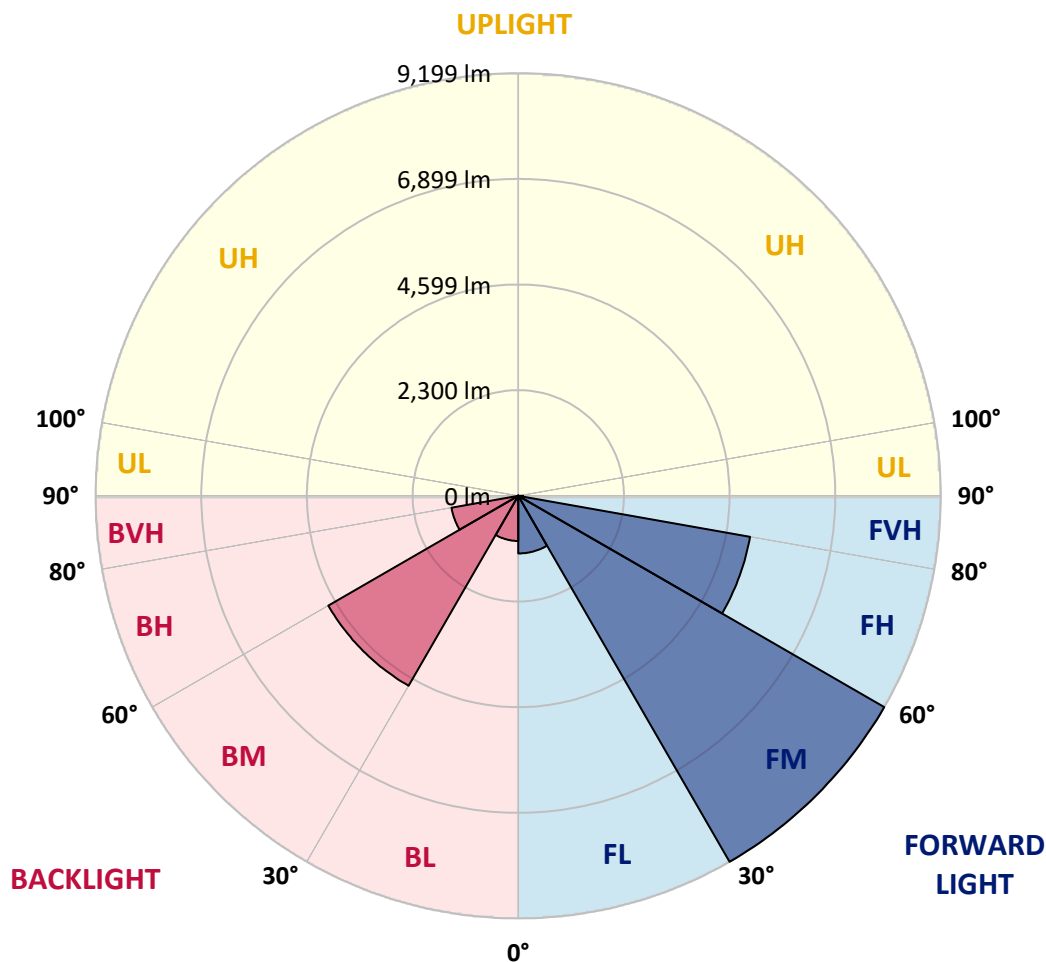


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1254.2	5.5			
FM (30°-60°)	9198.6	40.1			
FH (60°-80°)	5122.5	22.3			G3/7500
FVH (80°-90°)	99.8	0.4			G1/100
BL (0°-30°)	983.0	4.3	B2/1000		
BM (30°-60°)	4774.5	20.8	B3/5000		
BH (60°-80°)	1475.9	6.4	B3/2500		G3/2500
BVH (80°-90°)	26.4	0.1			G1/100
UL (90°-100°)	11.9	0.1		U2/50	
UH (100°-180°)	1.2	0.0		U1/10	

BUG Rating: B3-U2-G3
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5
2.5°	2284.4	2265.7	2267.6	2281.6	2239.6	2253.6	2234.0	2250.8	2243.3	2250.8	2255.4
5°	2330.1	2306.7	2305.8	2319.8	2286.2	2294.6	2272.2	2283.4	2273.2	2282.5	2282.5
7.5°	2386.0	2366.4	2361.8	2373.0	2343.1	2346.9	2324.5	2329.1	2317.0	2329.1	2319.8
10°	2456.0	2438.3	2430.8	2436.4	2409.3	2411.2	2387.0	2388.8	2371.1	2381.4	2373.9
12.5°	2529.7	2505.4	2501.7	2511.0	2483.0	2479.3	2458.8	2460.7	2441.1	2450.4	2444.8
15°	2606.2	2581.0	2581.9	2591.2	2563.3	2565.1	2543.7	2547.4	2527.8	2537.1	2529.7
17.5°	2707.8	2682.7	2680.8	2697.6	2674.3	2681.7	2659.3	2664.0	2650.0	2651.9	2643.5
20°	2853.3	2820.7	2814.2	2838.4	2807.6	2817.0	2804.8	2820.7	2815.1	2810.4	2803.9
22.5°	3026.8	3001.7	2988.6	3007.3	2970.9	2988.6	2995.1	3027.8	3036.2	3030.6	2928.0
25°	3259.1	3246.0	3233.0	3224.6	3180.8	3208.7	3242.3	3296.4	3331.9	3345.9	3203.1
27.5°	3572.5	3579.0	3522.1	3512.8	3463.4	3507.2	3567.9	3655.5	3727.4	3753.5	3561.3
30°	3975.5	3983.9	3906.4	3884.1	3854.2	3891.5	4004.4	4100.5	4206.8	4250.6	3994.1
32.5°	4510.9	4503.4	4389.6	4346.7	4319.7	4334.6	4453.1	4584.6	4704.0	4802.8	4487.6
35°	5164.8	5141.4	5020.2	4901.7	4794.4	4840.2	4926.9	5086.4	5267.4	5412.9	4974.5
37.5°	5924.0	5901.6	5717.0	5523.9	5312.1	5331.7	5409.1	5669.4	5902.6	5940.8	4891.5
40°	6708.5	6699.2	6524.7	6279.4	5950.1	5857.8	5960.4	6277.6	6523.8	5856.9	5084.5
42.5°	7492.0	7447.2	7349.3	7104.0	6665.6	6462.2	6600.3	6917.4	7182.3	6140.4	5532.3
45°	8282.1	8236.4	8153.4	7973.3	7517.2	7221.5	7261.6	7613.3	7853.0	6672.1	5998.7
47.5°	8983.5	8949.9	8890.2	8789.5	8382.8	8115.1	8037.7	8283.9	8447.2	7104.0	6356.8
50°	9588.0	9559.0	9582.4	9548.8	9429.4	9148.6	8893.0	8877.2	8955.5	7488.3	6686.1
52.5°	10119.6	10080.5	10180.3	10298.7	10408.8	10346.3	9727.9	9439.6	9368.8	7776.5	6907.2
55°	10559.0	10545.0	10716.6	11036.6	11455.4	11619.5	10620.5	9959.2	9738.1	8020.9	6927.7
57.5°	10822.0	10855.6	11218.4	11837.8	12656.8	12734.2	11665.2	10511.4	10063.7	8169.2	7025.6
60°	10372.4	10486.2	11139.2	12438.5	13679.1	13712.7	12416.1	10621.5	9637.4	7635.7	6502.3
62.5°	9025.5	9107.6	10134.6	12400.3	14029.8	13774.2	12584.0	10000.2	8446.2	6477.2	5530.4
65°	6377.4	6472.5	7710.3	11182.1	12764.0	12773.4	11527.2	8647.7	6751.4	5014.6	4270.2
67.5°	3846.7	4000.7	5173.1	8117.9	10509.5	10700.8	9616.9	6547.1	4831.8	3274.0	2763.8
70°	1262.0	1402.9	2361.8	4804.7	7576.0	8394.9	7222.4	4254.4	2523.1	1384.2	1114.7
72.5°	500.0	564.3	832.0	2124.9	4882.1	5605.0	4450.3	2055.8	847.0	367.5	319.9
75°	333.9	340.5	384.3	723.8	2388.8	3065.1	2145.4	597.9	314.3	229.5	201.5
77.5°	291.0	292.0	311.5	381.5	777.9	1175.3	617.5	320.9	260.2	188.4	167.0
80°	266.8	270.5	282.6	325.5	356.3	399.2	305.0	267.7	225.7	173.5	157.6
82.5°	255.6	258.4	265.8	294.8	288.2	299.4	246.3	212.7	190.3	159.5	151.1
85°	233.2	237.9	242.5	260.2	236.9	205.2	190.3	142.7	136.2	120.3	111.0
87.5°	176.3	175.4	170.7	173.5	158.6	129.7	107.3	80.2	65.3	54.1	44.8
90°	73.7	74.6	71.8	68.1	59.7	49.4	37.3	22.4	11.2	3.7	1.9
92.5°	56.0	56.9	55.0	49.4	42.9	34.5	25.2	13.1	7.5	2.8	0.9
95°	34.5	35.4	33.6	29.8	26.1	19.6	13.1	8.4	4.7	1.9	0.0
97.5°	20.5	21.5	19.6	17.7	14.0	9.3	7.5	5.6	3.7	1.9	0.0
100°	12.1	12.1	11.2	9.3	6.5	5.6	4.7	3.7	2.8	0.9	0.0
102.5°	5.6	5.6	5.6	3.7	2.8	2.8	2.8	2.8	2.8	0.9	0.0
105°	1.9	1.9	0.9	0.9	0.9	1.9	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	0.9	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°	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5	2227.5
2.5°	2250.8	2233.1	2235.9	2220.0	2216.3	2199.5	2229.3	2232.1	2223.7	2232.1
5°	2278.8	2257.3	2262.9	2245.2	2240.5	2217.2	2241.4	2239.6	2233.1	2241.4
7.5°	2319.8	2295.6	2298.3	2277.8	2273.2	2247.0	2269.4	2262.9	2255.4	2265.7
10°	2372.0	2348.7	2349.7	2321.7	2318.9	2289.0	2317.9	2305.8	2294.6	2309.5
12.5°	2444.8	2412.1	2409.3	2378.6	2377.6	2346.9	2376.7	2366.4	2351.5	2374.8
15°	2528.7	2484.9	2473.7	2434.5	2433.6	2401.0	2430.8	2414.9	2407.5	2435.5
17.5°	2637.9	2582.8	2498.0	2364.6	2303.9	2314.2	2419.6	2457.9	2358.0	2373.0
20°	2704.1	2437.3	2313.3	2258.2	2229.3	2063.3	1838.5	1857.1	2078.2	2183.6
22.5°	2592.2	2512.9	2467.2	2389.8	1986.8	1929.9	1943.0	1939.2	1653.8	1568.9
25°	2825.4	2750.7	2667.7	2190.1	2107.1	2082.9	2089.4	1821.7	1665.9	1672.5
27.5°	3161.2	3065.1	2539.0	2331.9	2315.1	2279.7	2151.0	1829.2	1848.8	1861.8
30°	3585.6	3244.2	2704.1	2613.6	2580.0	2541.8	1996.1	2043.7	2080.1	2120.2
32.5°	3996.0	3155.6	3020.3	2926.1	2873.9	2307.7	2251.7	2339.4	2375.8	2410.3
35°	3958.7	3535.2	3359.8	3240.4	3142.5	2490.5	2539.9	2673.3	2769.4	2768.5
37.5°	4061.3	3948.4	3746.0	3594.9	2727.4	2789.9	2893.5	3045.5	3162.1	3161.2
40°	4489.4	4367.2	4177.0	3852.3	3022.2	3167.7	3309.5	3452.2	3536.1	3542.7
42.5°	4914.8	4820.6	4648.9	3402.7	3383.2	3584.6	3733.0	3823.4	3874.7	3892.5
45°	5338.3	5249.6	4567.8	3763.7	3823.4	4023.0	4113.5	4131.2	4186.3	4184.4
47.5°	5675.0	5599.4	4202.1	4192.8	4341.1	4479.2	4450.3	4427.9	4441.9	4449.3
50°	5985.6	4874.7	4530.5	4666.7	4892.4	4909.2	4788.8	3793.6	4696.5	4680.6
52.5°	5560.2	4757.1	4836.4	5155.4	5539.7	5344.8	5109.7	3325.3	4404.5	4823.4
55°	4865.3	4945.6	5124.6	5660.1	6039.7	5808.4	5415.7	3424.2	2923.3	2379.5
57.5°	4962.3	5089.2	5429.7	6169.3	6500.5	4600.4	5054.7	2414.0	1634.2	1633.3
60°	4620.9	4813.1	5423.1	6397.9	5261.8	2947.6	2025.0	55.0	317.1	314.3
62.5°	3906.4	4179.7	5174.1	6253.3	4358.8	2395.4	1804.0	4.7	1.9	1.9
65°	3021.2	3343.1	4314.1	5414.7	3861.7	2063.3	1339.5	0.0	0.0	0.0
67.5°	1981.2	2279.7	3239.5	4497.8	3205.9	1559.6	900.1	0.0	0.0	0.0
70°	825.5	1193.9	2012.9	3250.7	2358.0	1021.4	427.2	0.0	0.0	0.0
72.5°	238.8	363.8	906.7	1941.1	1463.5	534.5	158.6	0.0	0.0	0.0
75°	157.6	166.0	274.2	780.7	711.7	195.9	64.4	0.0	0.0	0.0
77.5°	132.5	136.2	174.4	218.3	228.5	77.4	52.2	0.0	0.0	0.0
80°	122.2	123.1	156.7	162.3	122.2	64.4	51.3	0.0	0.0	0.0
82.5°	113.8	111.0	133.4	128.7	101.7	56.0	47.6	0.0	0.0	0.0
85°	78.4	80.2	90.5	114.7	61.6	28.0	33.6	0.0	0.0	0.0
87.5°	24.3	28.0	35.4	36.4	11.2	3.7	0.0	0.0	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)