

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: P522116

Luminaire Tested: **CTN-CA10-210-730-U-T5R-HSS-HM-EX90**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522116
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-5)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-210-730-U-T5R-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 3000K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29018 lumens
Efficiency: N/A
Efficacy: 136.3 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U1 - G4

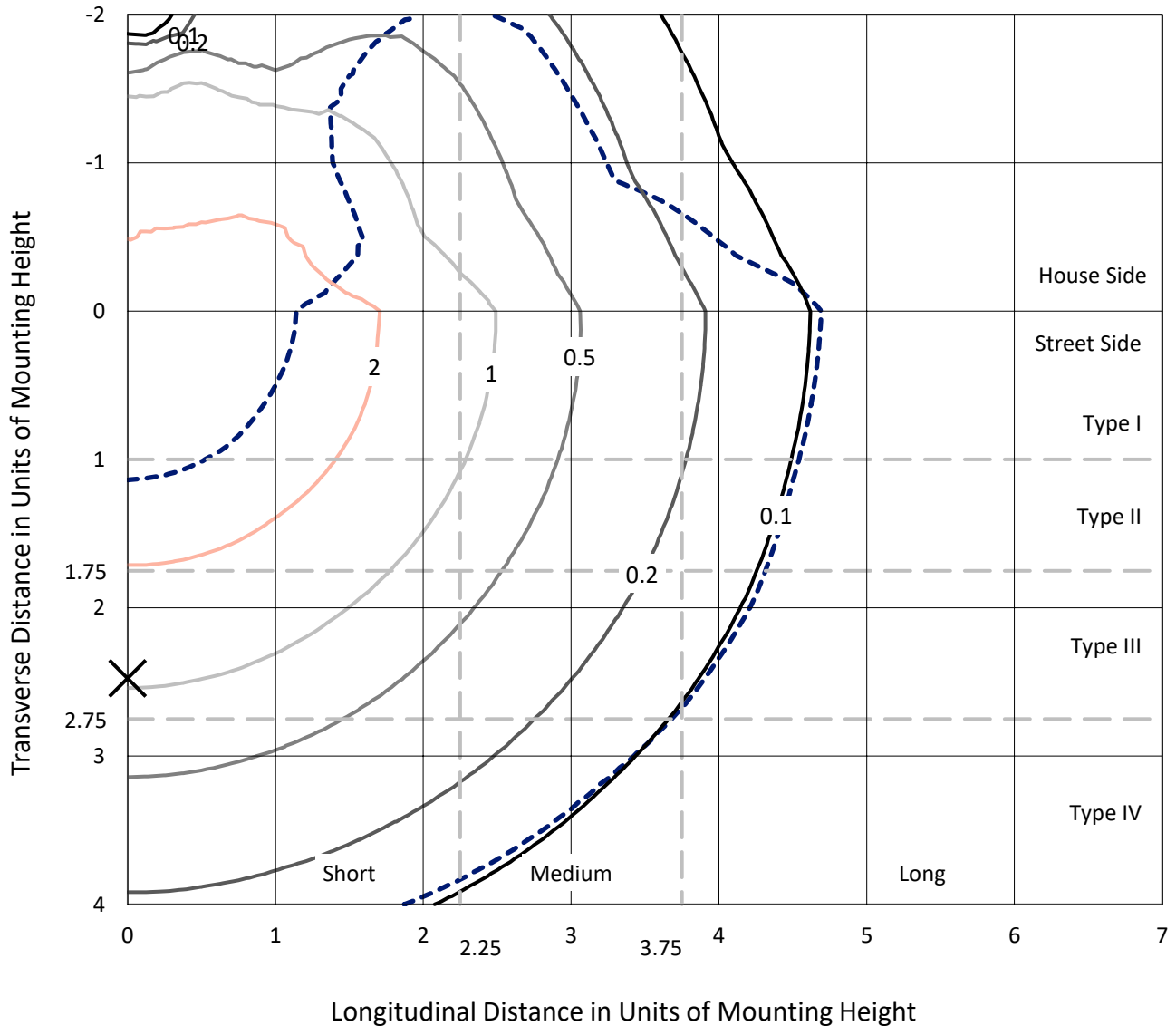
Input Watts (W): 212.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

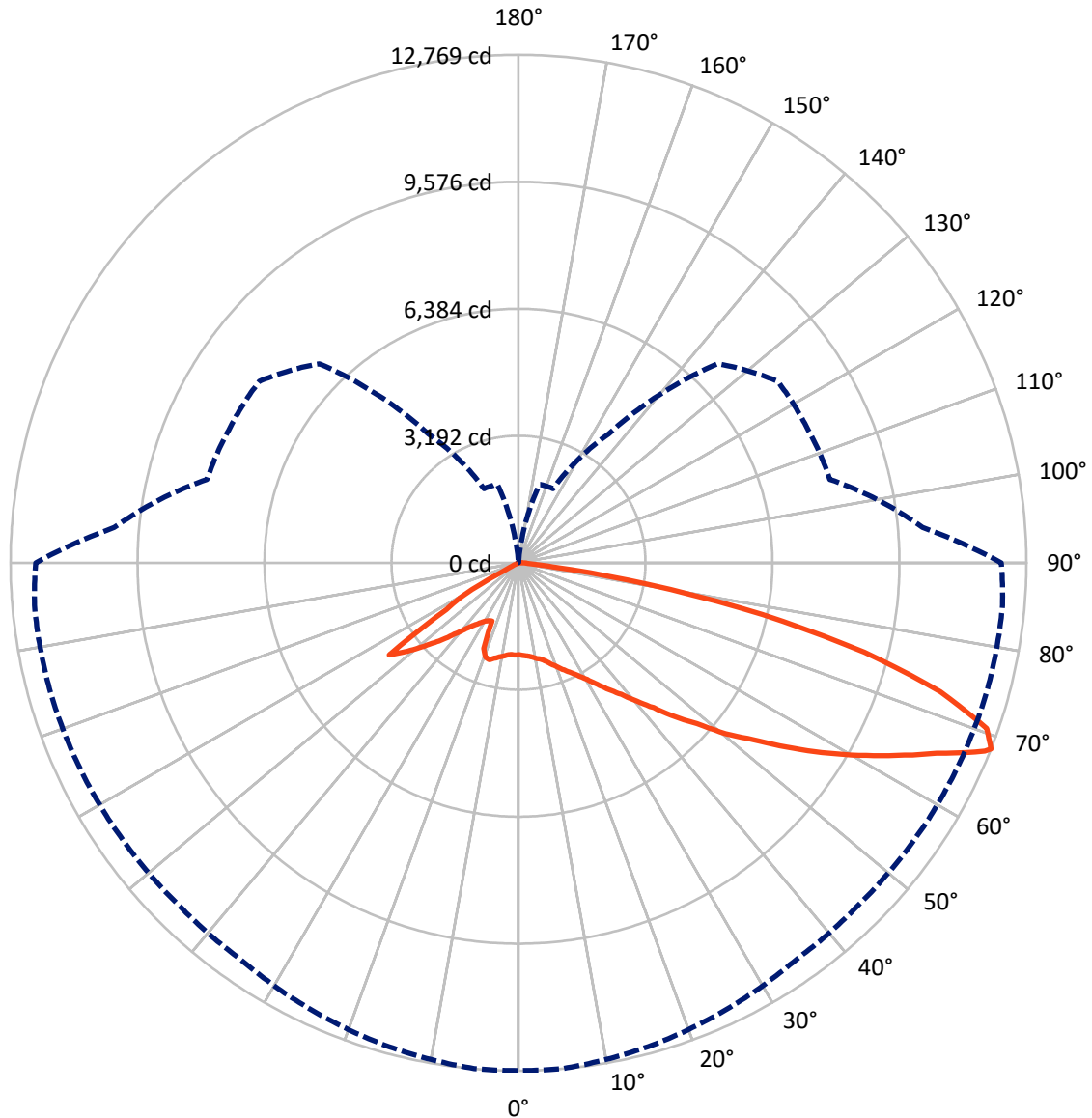
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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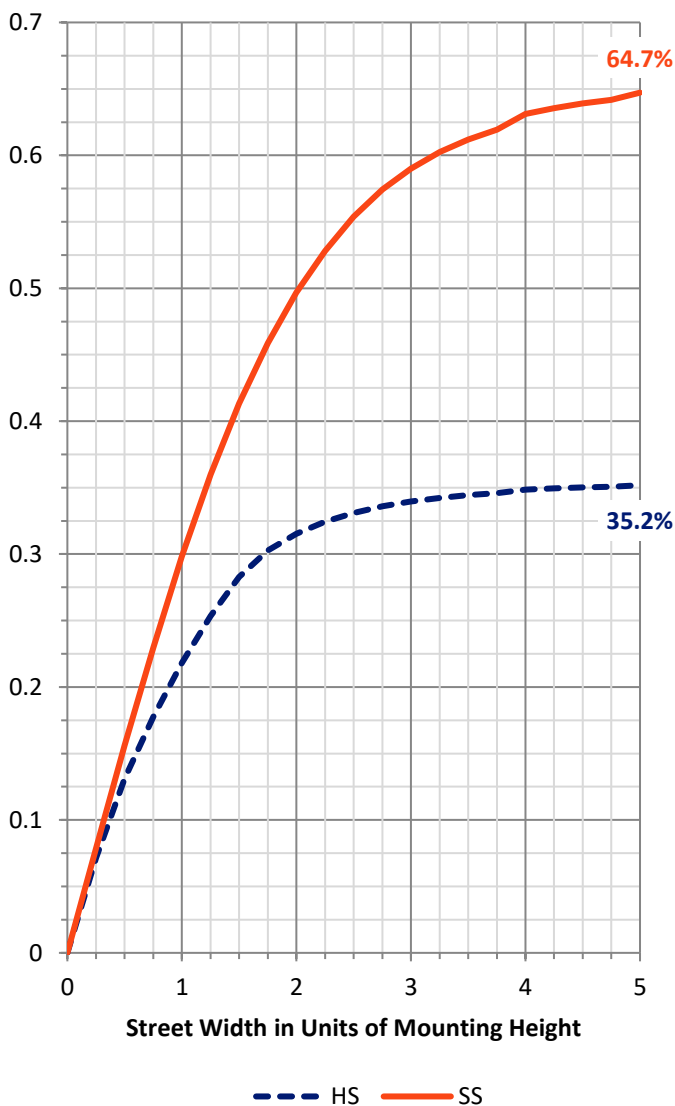
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10212.4	1.8	10214.1
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	18796.2	7.7	18803.9
	% Fixture	64.8	0.0	64.8
Total	Lumens	29008.6	9.4	29018.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	223.4	0.8
10°-20°	715.8	2.5
20°-30°	1277.8	4.4
30°-40°	2078.7	7.2
40°-50°	3549.9	12.2
50°-60°	5923.1	20.4
60°-70°	8240.3	28.4
70°-80°	6387.5	22.0
80°-90°	612.1	2.1
90°-100°	7.4	0.0
100°-110°	0.6	0.0
110°-120°	0.3	0.0
120°-130°	0.2	0.0
130°-140°	0.2	0.0
140°-150°	0.3	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.1	0.0
0°-90°	29008.6	100.0
0°-180°	29018.0	100.0

Coefficient of Utilization

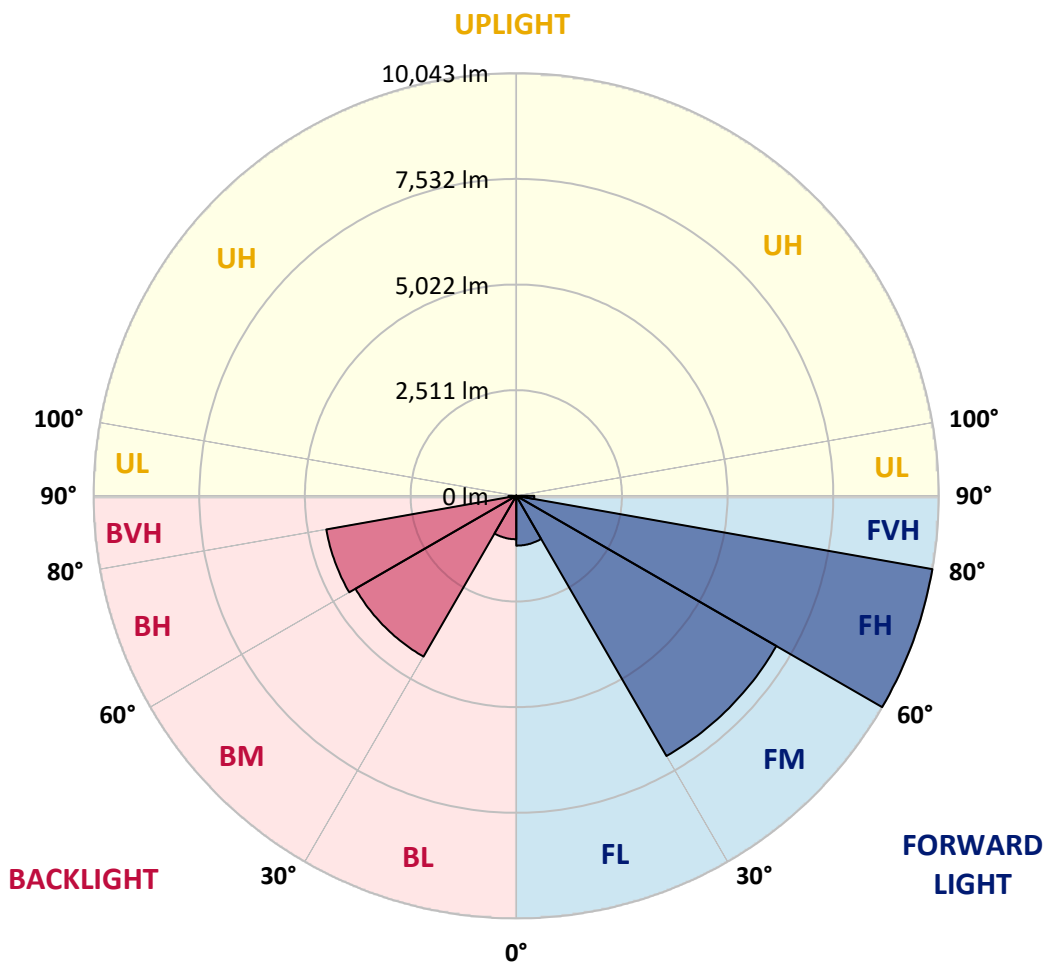


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1184.3	4.1			
FM (30°-60°)	7140.5	24.6			
FH (60°-80°)	10043.2	34.6			G4/12000
FVH (80°-90°)	428.2	1.5			G3/500
BL (0°-30°)	1032.7	3.6	B3/2500		
BM (30°-60°)	4411.3	15.2	B3/5000		
BH (60°-80°)	4584.5	15.8	B4/5000		G4/5000
BVH (80°-90°)	183.9	0.6			G2/225
UL (90°-100°)	7.4	0.0		U1/10	
UH (100°-180°)	2.0	0.0		U1/10	

BUG Rating: B4-U1-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3
2.5°	2335.5	2332.3	2330.1	2344.3	2303.9	2320.3	2309.3	2323.5	2320.3	2326.8	2327.9
5°	2351.9	2346.5	2338.8	2354.1	2330.1	2341.0	2329.0	2335.5	2314.8	2332.3	2334.5
7.5°	2389.1	2373.8	2372.7	2377.0	2360.7	2368.3	2347.6	2355.2	2344.3	2337.7	2344.3
10°	2444.7	2431.6	2417.4	2426.2	2398.9	2408.7	2386.9	2393.4	2388.0	2373.8	2386.9
12.5°	2483.0	2487.3	2477.5	2484.0	2460.0	2451.3	2443.6	2442.6	2439.3	2418.5	2415.3
15°	2568.1	2570.3	2552.8	2557.2	2551.7	2547.4	2536.5	2527.7	2510.3	2497.1	2488.4
17.5°	2679.5	2667.5	2651.1	2655.5	2670.8	2651.1	2644.6	2628.2	2603.1	2581.2	2576.9
20°	2796.3	2788.7	2773.4	2782.1	2781.0	2767.9	2771.2	2743.9	2707.9	2689.3	2675.1
22.5°	2926.3	2915.3	2904.4	2920.8	2907.7	2899.0	2895.7	2877.1	2832.4	2811.6	2808.3
25°	3056.2	3050.7	3058.4	3052.9	3034.4	3027.8	3032.2	3025.6	2973.2	2948.1	2932.8
27.5°	3218.9	3205.8	3217.8	3211.2	3191.6	3192.7	3193.8	3194.9	3135.9	3103.1	3081.3
30°	3404.5	3400.1	3415.4	3394.7	3376.1	3388.1	3398.0	3376.1	3324.8	3276.8	3269.1
32.5°	3645.8	3618.5	3636.0	3609.8	3581.4	3609.8	3627.3	3583.6	3542.1	3480.9	3491.9
35°	3913.3	3904.6	3904.6	3870.7	3855.5	3900.2	3917.7	3875.1	3810.7	3757.2	3744.1
37.5°	4197.2	4206.0	4233.3	4219.1	4204.9	4232.2	4271.5	4214.7	4131.7	4074.9	4059.6
40°	4573.9	4595.8	4614.3	4595.8	4579.4	4596.9	4641.6	4567.4	4509.5	4478.9	4446.2
42.5°	4979.0	5016.1	5004.1	5006.3	5020.5	5045.6	5090.4	5022.7	4956.1	4955.0	4906.9
45°	5527.1	5527.1	5502.0	5526.0	5523.9	5586.1	5605.8	5568.6	5512.9	5496.6	5455.1
47.5°	6039.2	6092.7	6082.9	6117.9	6090.6	6143.0	6209.6	6177.9	6113.5	6055.6	6046.9
50°	6753.3	6740.2	6727.1	6779.5	6775.2	6811.2	6872.3	6852.7	6763.2	6697.6	6685.6
52.5°	7381.2	7450.0	7433.6	7512.2	7468.5	7519.8	7593.0	7589.7	7480.5	7416.1	7397.5
55°	8173.9	8219.7	8216.5	8297.3	8237.2	8304.9	8366.0	8372.6	8253.6	8161.9	8190.3
57.5°	8999.3	9037.6	9015.7	9082.3	9023.4	9116.2	9153.3	9129.3	9059.4	8943.7	8986.2
60°	9825.9	9858.7	9883.8	9889.2	9855.4	9910.0	9944.9	9965.7	9855.4	9723.3	9774.6
62.5°	10665.6	10702.7	10680.9	10689.6	10595.7	10669.9	10713.6	10719.1	10592.4	10475.6	10511.6
65°	11550.0	11601.3	11522.7	11470.3	11354.5	11353.5	11411.3	11421.2	11331.6	11248.6	11234.4
67.5°	12645.2	12668.1	12499.9	12324.1	12128.7	12086.1	12126.5	12149.4	12200.8	12198.6	12134.2
68°	12768.5	12764.2	12593.8	12384.2	12174.6	12125.4	12145.1	12174.6	12208.4	12215.0	12137.4
70°	12487.9	12434.4	12337.2	12073.0	11865.6	11736.7	11667.9	11722.5	11630.8	11631.9	11486.7
72.5°	11092.5	11085.9	10906.9	10775.8	10591.3	10377.3	10279.0	10277.9	10286.7	10223.4	10073.8
75°	8985.2	8993.9	8785.3	8694.7	8637.9	8597.5	8618.3	8682.7	8689.2	8688.2	8635.7
77.5°	6266.3	6302.4	6246.7	6099.3	6257.6	6393.0	6654.0	6787.2	6744.6	6872.3	6953.1
80°	3284.4	3356.5	3358.6	3462.4	3590.1	3713.5	3938.4	4140.4	3991.9	3926.4	3858.7
82.5°	863.7	889.9	929.2	869.1	887.7	906.3	1081.0	1064.6	982.7	1026.4	1091.9
85°	246.8	254.4	243.5	220.6	202.0	185.6	190.0	160.5	139.8	138.7	134.3
87.5°	173.6	186.7	164.9	141.9	127.8	119.0	114.6	97.2	78.6	68.8	54.6
90°	80.8	79.7	68.8	53.5	47.0	44.8	44.8	34.9	19.7	12.0	10.9
92.5°	33.8	34.9	28.4	22.9	19.7	15.3	12.0	7.6	4.4	2.2	1.1
95°	12.0	13.1	10.9	8.7	7.6	6.6	5.5	4.4	2.2	1.1	1.1
97.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.2	2.2	1.1	1.1
100°	0.0	0.0	0.0	1.1	2.2	2.2	2.2	2.2	1.1	1.1	1.1
102.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
105°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
145°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
150°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
160°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1
165°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
167.5°	0.0	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1
170°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
172.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
175°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
177.5°	0.0	0.0	0.0	0.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1
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°	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3	2309.3
2.5°	2325.7	2320.3	2318.1	2290.8	2298.4	2282.0	2320.3	2309.3	2307.2	2322.4
5°	2331.2	2306.1	2321.4	2303.9	2308.3	2284.2	2314.8	2301.7	2302.8	2310.4
7.5°	2334.5	2320.3	2335.5	2305.0	2317.0	2308.3	2330.1	2317.0	2330.1	2336.6
10°	2367.2	2360.7	2349.7	2341.0	2349.7	2329.0	2356.3	2354.1	2361.8	2381.4
12.5°	2412.0	2404.3	2393.4	2378.1	2384.7	2377.0	2397.8	2400.0	2414.2	2424.0
15°	2478.6	2468.8	2463.3	2448.0	2450.2	2444.7	2456.7	2458.9	2487.3	2484.0
17.5°	2572.5	2561.6	2565.9	2551.7	2546.3	2533.2	2511.3	2503.7	2537.5	2547.4
20°	2675.1	2663.1	2668.6	2656.6	2555.0	2348.7	2487.3	2582.3	2510.3	2504.8
22.5°	2792.0	2778.9	2783.2	2764.7	2639.1	2252.6	1959.9	1935.9	2211.1	2322.4
25°	2920.8	2903.3	2901.1	2877.1	2464.4	2039.6	2006.9	1964.3	1763.4	1604.0
27.5°	3080.2	3054.0	3040.9	2678.4	2446.9	2119.4	2070.2	1918.4	1626.9	1636.7
30°	3252.7	3214.5	2968.8	2729.7	2574.7	2213.3	2147.7	1681.5	1683.7	1679.3
32.5°	3449.3	3364.1	2908.8	2887.0	2727.5	2313.7	1783.1	1763.4	1765.6	1772.1
35°	3707.0	3122.8	3110.8	3111.9	2914.3	2238.4	1889.0	1870.4	1872.6	1877.0
37.5°	3761.6	3366.3	3368.5	3343.4	3113.0	2045.1	2017.8	2016.7	2012.4	2008.0
40°	3805.2	3673.1	3641.4	3601.0	2885.9	2202.3	2193.6	2187.1	2190.3	2199.1
42.5°	4147.0	4047.6	4017.1	3969.0	2960.1	2440.4	2412.0	2404.3	2413.1	2408.7
45°	4601.2	4518.2	4458.2	3669.8	3270.2	2699.1	2676.2	2666.4	2669.7	2697.0
47.5°	5081.6	5032.5	4849.1	3964.6	3631.6	3004.9	2981.9	2966.7	2972.1	2965.6
50°	5604.7	5559.9	4488.8	4409.0	4031.3	3334.6	3300.8	3295.3	3297.5	3296.4
52.5°	6172.4	5236.7	4974.6	4891.7	4452.7	3679.7	3667.7	3638.2	3644.7	3638.2
55°	6838.5	5516.2	5509.7	5412.5	4926.6	4080.4	4066.2	4024.7	3763.7	3991.9
57.5°	7470.7	6050.2	6050.2	5956.3	5411.4	4478.9	4456.0	4425.4	2675.1	2157.6
60°	8163.0	6585.2	6569.9	6492.4	5878.7	4858.9	3949.4	3940.6	1616.0	1621.5
62.5°	8761.3	7062.3	7089.6	7017.6	6328.6	3638.2	1830.0	1792.9	159.4	245.7
65°	9431.7	7589.7	7622.5	7548.2	6815.6	3858.7	1986.1	1967.6	36.0	32.8
67.5°	10191.7	8116.0	8041.8	7959.9	7100.6	3973.4	2063.7	2047.3	9.8	6.6
68°	10198.2	8105.1	8009.0	7953.3	7073.3	3951.5	2057.1	2041.8	9.8	6.6
70°	9674.1	7696.7	7600.6	7614.8	6734.8	3779.0	1972.0	1943.6	9.8	6.6
72.5°	8487.2	6849.4	6741.3	6664.9	5972.6	3359.7	1767.8	1714.3	9.8	6.6
75°	7262.2	5804.5	5625.4	5457.3	4805.4	2749.4	1450.0	1390.0	9.8	6.6
77.5°	5723.7	4424.3	4169.9	4059.6	3610.9	2030.9	1077.7	1012.2	9.8	5.5
80°	3163.2	2538.6	2322.4	2254.7	2064.8	1193.4	618.0	578.7	8.7	5.5
82.5°	817.8	613.6	535.0	516.5	484.8	282.8	150.7	143.0	7.6	4.4
85°	116.8	86.3	95.0	112.5	108.1	73.2	52.4	44.8	6.6	3.3
87.5°	61.1	51.3	60.1	67.7	68.8	42.6	21.8	12.0	3.3	0.0
90°	9.8	9.8	10.9	12.0	12.0	5.5	4.4	0.0	0.0	0.0
92.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.1	2.2	1.1	1.1	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°
110°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.1	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.1	1.1	1.1	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)