

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: P522129

Luminaire Tested: **CTN-CA10-310-727-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

Test Information

Test Method: LM-79-08
Report Number: P522129
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 5/10/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA10-310-727-U-T5R-HSS-HM-EX120
Description: CELESTEON HIGH MAST LUMINAIRE
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31609 lumens
Efficiency: N/A
Efficacy: 101.2 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G4

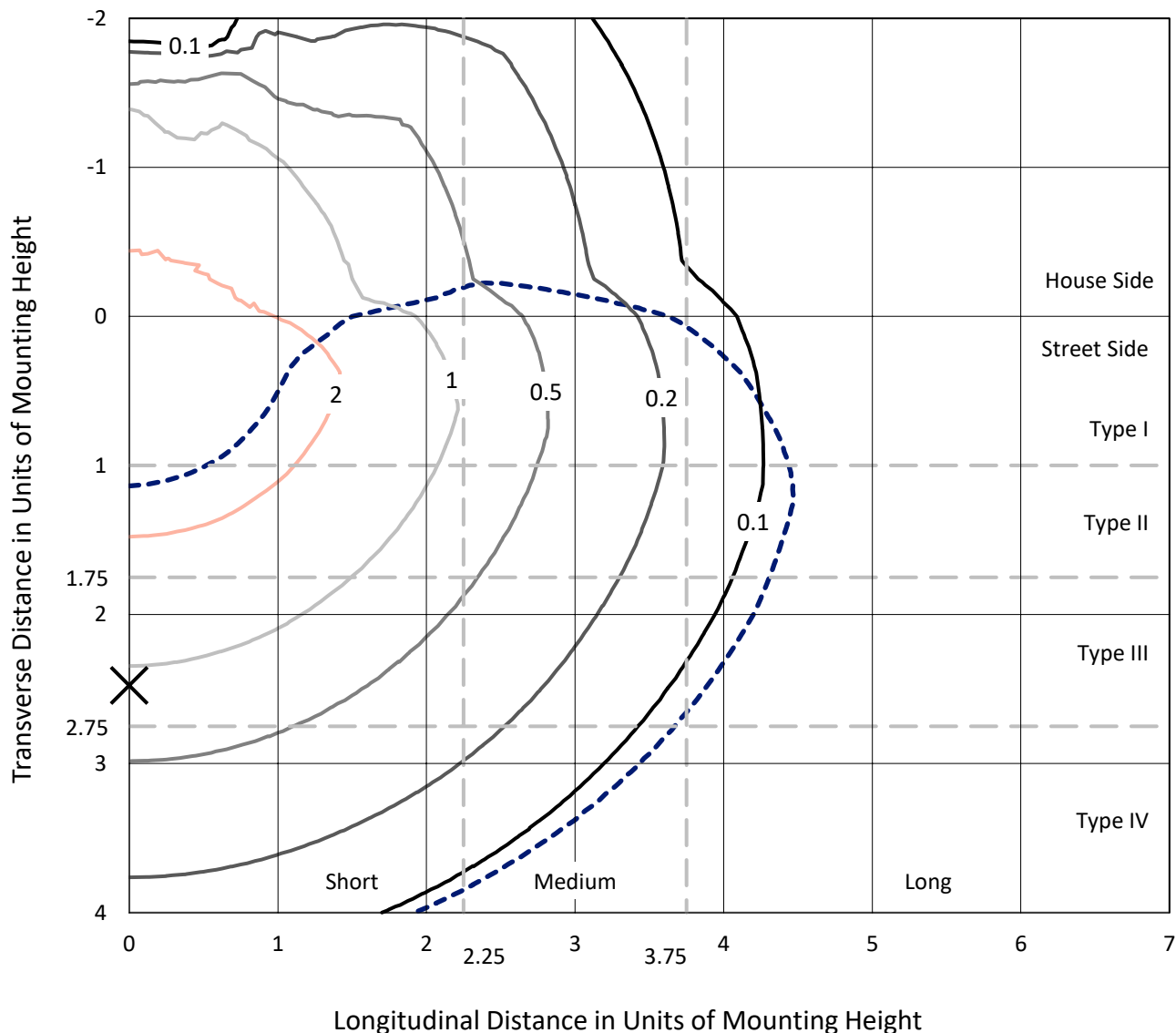
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

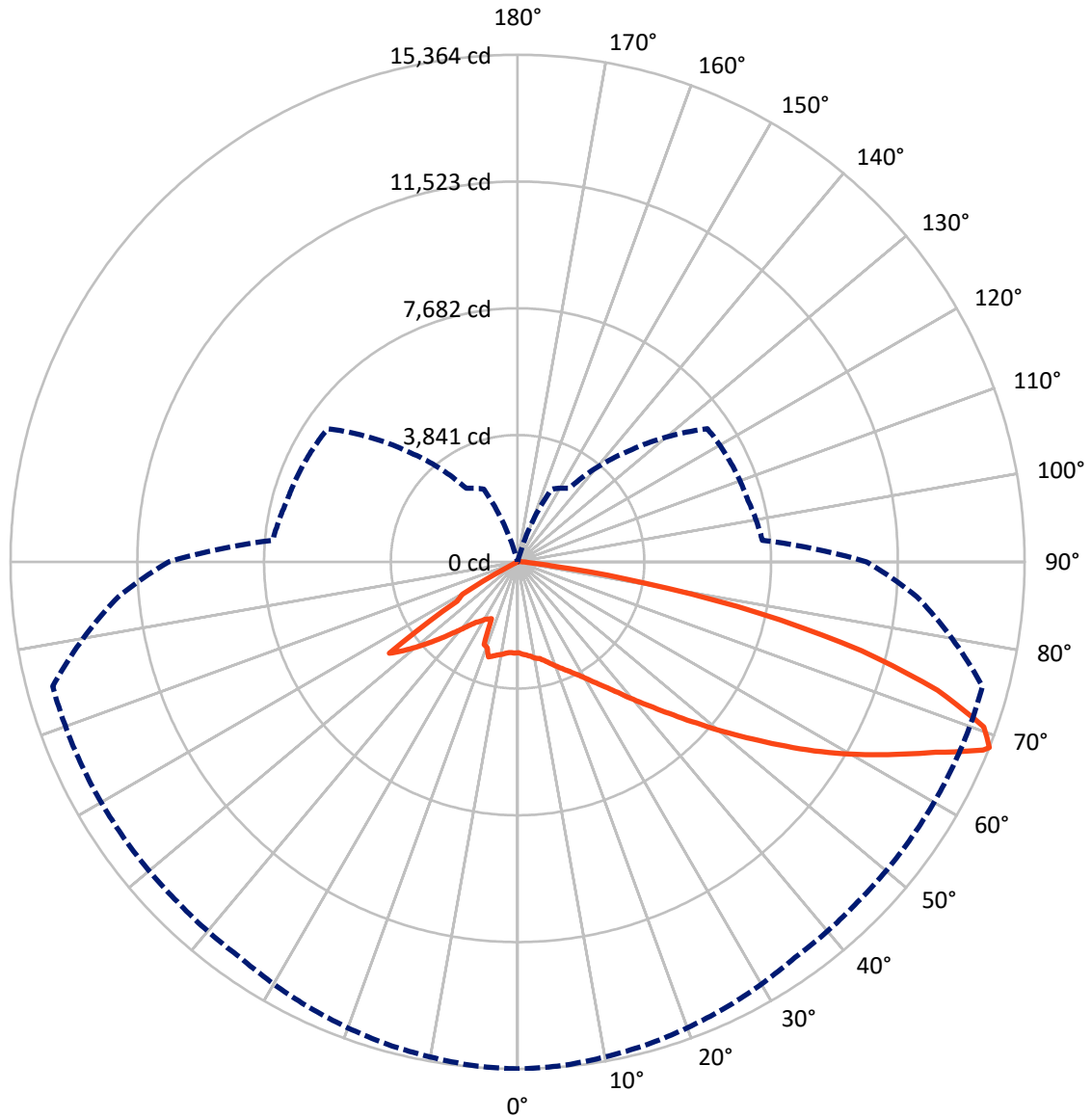
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.1 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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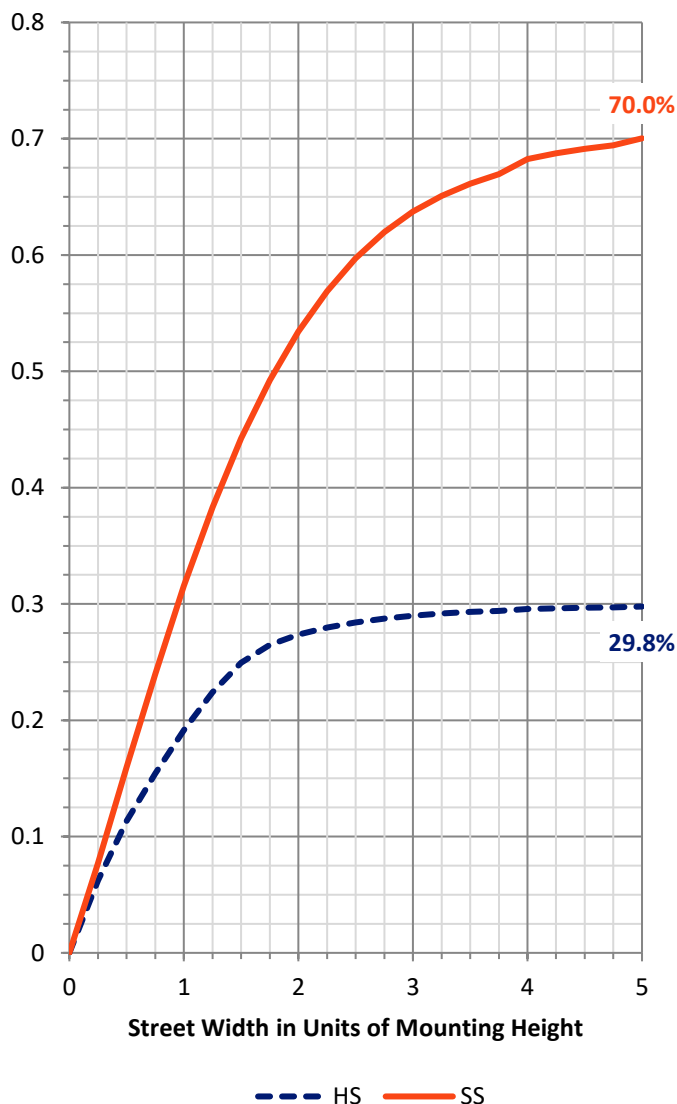
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	9422.3	1.5	9423.7
	% Fixture	29.8	0.0	29.8
Street Side	Lumens	22172.3	12.9	22185.2
	% Fixture	70.1	0.0	70.2
Total	Lumens	31594.6	14.4	31609.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.5	0.8
10°-20°	851.2	2.7
20°-30°	1458.1	4.6
30°-40°	2365.3	7.5
40°-50°	3989.0	12.6
50°-60°	6502.2	20.6
60°-70°	8720.5	27.6
70°-80°	6773.6	21.4
80°-90°	667.1	2.1
90°-100°	12.7	0.0
100°-110°	0.7	0.0
110°-120°	0.2	0.0
120°-130°	0.1	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	31594.6	100.0
0°-180°	31609.0	100.0

Coefficient of Utilization

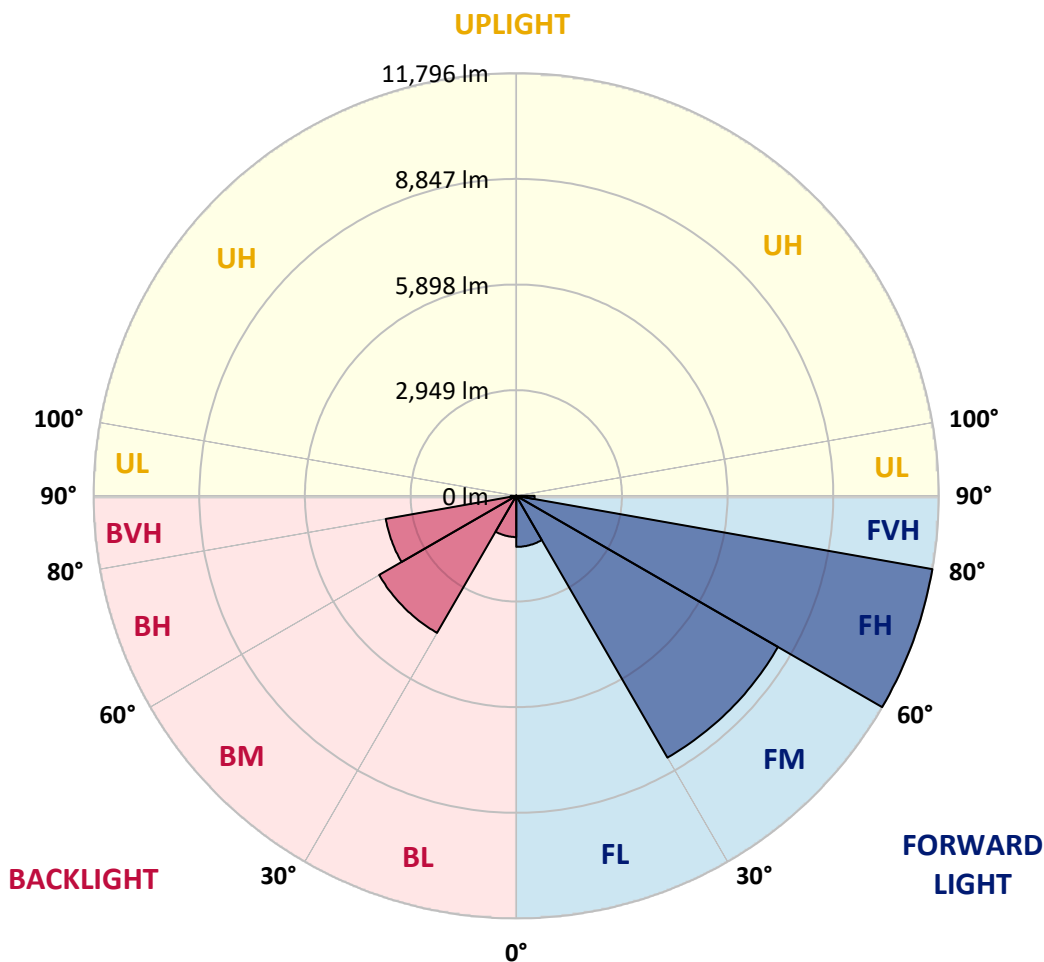


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1425.7	4.5			
FM (30°-60°)	8437.6	26.7			
FH (60°-80°)	11796.1	37.3			G4/12000
FVH (80°-90°)	512.9	1.6			G4/750
BL (0°-30°)	1151.0	3.6	B3/2500		
BM (30°-60°)	4419.0	14.0	B3/5000		
BH (60°-80°)	3698.0	11.7	B4/5000		G4/5000
BVH (80°-90°)	154.2	0.5			G2/225
UL (90°-100°)	12.7	0.0		U2/50	
UH (100°-180°)	1.7	0.0		U1/10	

BUG Rating: B4-U2-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7
2.5°	2801.5	2793.6	2792.3	2808.0	2758.3	2783.2	2760.9	2779.3	2767.5	2776.6	2777.9
5°	2839.4	2825.0	2815.9	2834.2	2802.8	2814.5	2789.7	2797.6	2764.9	2783.2	2785.8
7.5°	2894.3	2870.8	2868.1	2873.4	2845.9	2855.1	2814.5	2823.7	2800.2	2789.7	2798.9
10°	2968.8	2946.6	2929.6	2941.4	2904.7	2910.0	2866.8	2868.1	2851.2	2831.5	2847.2
12.5°	3010.6	3013.3	3005.4	3014.6	2984.5	2967.5	2937.4	2927.0	2910.0	2886.4	2878.6
15°	3115.2	3110.0	3094.3	3108.7	3104.8	3089.1	3052.5	3028.9	2992.3	2979.3	2966.2
17.5°	3243.3	3226.3	3213.3	3231.6	3251.2	3218.5	3183.2	3150.5	3102.1	3076.0	3060.3
20°	3378.0	3366.2	3353.1	3381.9	3388.4	3363.6	3337.5	3289.1	3232.9	3198.9	3166.2
22.5°	3528.3	3504.8	3508.7	3546.6	3534.9	3523.1	3489.1	3449.9	3381.9	3338.8	3244.6
25°	3683.9	3670.8	3689.1	3706.1	3697.0	3672.1	3655.1	3626.4	3550.5	3498.2	3361.0
27.5°	3877.4	3856.4	3880.0	3886.5	3878.7	3872.1	3848.6	3826.4	3744.0	3685.2	3513.9
30°	4104.8	4080.0	4117.9	4108.7	4100.9	4106.1	4091.7	4043.4	3970.2	3890.4	3719.2
32.5°	4375.4	4342.7	4385.9	4366.3	4348.0	4384.6	4350.6	4304.8	4218.6	4125.7	3958.4
35°	4689.2	4690.5	4712.7	4680.0	4673.5	4712.7	4690.5	4634.3	4554.5	4457.8	4219.9
37.5°	5069.6	5059.1	5115.3	5099.7	5076.1	5128.4	5134.9	5064.4	4920.6	4825.1	4544.1
40°	5532.4	5529.7	5548.0	5550.7	5544.1	5569.0	5580.7	5486.6	5393.8	5250.0	4287.8
42.5°	6026.5	6037.0	6069.6	6046.1	6077.5	6110.2	6114.1	6035.7	5902.3	5036.9	4554.5
45°	6620.0	6652.7	6674.9	6669.7	6684.1	6731.1	6735.0	6693.2	6562.5	5456.5	5038.2
47.5°	7301.1	7332.5	7339.0	7380.8	7367.8	7434.4	7425.3	7426.6	7286.7	6040.9	5565.0
50°	8084.1	8098.5	8152.1	8175.7	8143.0	8233.2	8209.6	8238.4	8065.8	6710.2	6131.1
52.5°	8915.6	8940.4	8962.6	9051.5	9009.7	9088.1	9056.8	9123.4	8923.4	7391.3	6759.9
55°	9860.7	9864.6	9902.6	9992.8	9937.9	10032.0	9986.2	10011.1	9851.6	8144.3	7414.8
57.5°	10862.1	10849.0	10863.4	10935.3	10885.6	10956.2	10937.9	10961.4	10812.4	8936.5	7893.3
60°	11853.0	11833.4	11854.3	11902.7	11834.7	11956.3	11890.9	11913.1	11752.3	9745.7	8575.7
62.5°	12849.1	12834.8	12811.2	12859.6	12760.2	12823.0	12850.4	12813.8	12672.7	10477.8	9169.2
65°	13918.5	13904.1	13817.8	13847.9	13670.1	13640.0	13650.5	13662.3	13568.1	11203.3	9820.2
67.5°	15217.9	15197.0	15034.9	14831.0	14574.7	14518.5	14523.7	14555.1	14568.2	12136.7	10582.3
68°	15364.3	15326.4	15146.0	14909.4	14641.4	14576.0	14569.5	14576.0	14582.6	12144.5	10574.5
70°	14990.4	14976.1	14838.8	14552.5	14278.0	14121.1	13985.2	13979.9	13917.2	11523.6	9990.1
72.5°	13302.8	13284.5	13121.0	12918.4	12748.5	12502.7	12326.2	12336.7	12233.4	10184.9	8744.3
75°	10765.4	10764.0	10568.0	10398.0	10400.6	10382.3	10323.5	10426.8	10319.6	8638.4	7458.0
77.5°	7502.4	7528.6	7515.5	7416.1	7556.0	7749.5	7960.0	8158.7	8097.2	6823.9	5946.8
80°	3919.2	3992.4	4251.2	4263.0	4361.0	4549.3	4693.1	4826.4	4835.6	3872.1	3435.5
82.5°	1041.9	1064.1	1151.7	1126.9	1119.0	1156.9	1188.3	1192.2	1194.8	1009.2	942.5
85°	324.2	333.4	322.9	308.5	286.3	261.5	254.9	207.9	164.7	136.0	119.0
87.5°	230.1	245.8	222.2	209.2	185.6	176.5	158.2	124.2	96.7	68.0	45.8
90°	119.0	121.6	108.5	92.8	86.3	81.1	69.3	49.7	24.8	13.1	11.8
92.5°	60.1	61.4	53.6	45.8	39.2	34.0	26.1	14.4	7.8	3.9	1.3
95°	23.5	24.8	22.2	19.6	15.7	11.8	10.5	7.8	5.2	2.6	1.3
97.5°	7.8	7.8	7.8	6.5	6.5	6.5	6.5	5.2	3.9	2.6	1.3
100°	0.0	0.0	0.0	1.3	2.6	3.9	3.9	3.9	2.6	1.3	1.3
102.5°	0.0	0.0	0.0	0.0	0.0	1.3	2.6	2.6	2.6	1.3	1.3
105°	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3



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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	0.0	1.3	1.3	1.3
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
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	1.3
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
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°	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7	2755.7
2.5°	2771.4	2763.6	2767.5	2734.8	2742.6	2721.7	2766.2	2754.4	2749.2	2767.5
5°	2777.9	2749.2	2772.7	2750.5	2754.4	2724.3	2760.9	2746.6	2745.3	2755.7
7.5°	2780.6	2766.2	2788.4	2751.8	2763.6	2751.8	2779.3	2764.9	2777.9	2787.1
10°	2817.2	2809.3	2806.7	2793.6	2802.8	2776.6	2810.6	2810.6	2817.2	2842.0
12.5°	2870.8	2860.3	2853.8	2830.2	2839.4	2831.5	2859.0	2864.2	2876.0	2886.4
15°	2944.0	2925.7	2919.1	2898.2	2904.7	2903.4	2923.1	2924.4	2950.5	2949.2
17.5°	3038.1	3011.9	3019.8	3004.1	3005.4	2995.0	2984.5	2984.5	3008.0	3013.3
20°	3150.5	3001.5	2805.4	2695.6	2676.0	2690.4	2746.6	2839.4	2723.0	2755.7
22.5°	2947.9	2813.2	2804.1	2779.3	2763.6	2413.2	2323.0	2294.3	2444.6	2703.4
25°	2974.0	2916.5	2899.5	2868.1	2405.4	2401.5	2375.3	2332.2	1906.0	1896.8
27.5°	3112.6	3056.4	3028.9	2512.6	2502.1	2500.8	2461.6	2028.9	1930.8	1943.9
30°	3274.7	3209.3	2717.8	2639.4	2630.2	2609.3	2384.5	2004.0	2002.7	2004.0
32.5°	3461.6	3244.6	2796.2	2792.3	2797.6	2733.5	2112.5	2104.7	2103.4	2116.5
35°	3717.9	3010.6	2992.3	3011.9	2984.5	2363.5	2239.3	2235.4	2236.7	2230.2
37.5°	3547.9	3245.9	3242.0	3242.0	3178.0	2418.4	2393.6	2411.9	2409.3	2400.1
40°	3619.8	3530.9	3507.4	3499.6	2686.4	2609.3	2594.9	2618.5	2622.4	2628.9
42.5°	3968.9	3887.8	3876.0	3783.2	2923.1	2898.2	2853.8	2878.6	2876.0	2883.8
45°	4397.6	4342.7	4291.8	3279.9	3242.0	3210.6	3164.9	3193.7	3201.5	3196.3
47.5°	4897.0	4836.9	4468.2	3606.8	3605.4	3580.6	3529.6	3553.2	3549.2	3549.2
50°	5399.0	5333.7	4059.1	4022.5	4009.4	3970.2	3928.3	3932.3	3933.6	3946.6
52.5°	5959.8	4763.7	4493.1	4419.9	4430.3	4404.2	4363.7	3303.5	4344.1	4355.8
55°	5570.3	4985.9	4970.2	4873.5	4898.3	4864.3	4838.2	3259.0	4320.5	4774.1
57.5°	5507.5	5465.7	5452.6	5353.3	5384.6	5061.7	5303.6	3566.2	2988.4	2183.1
60°	5987.3	5942.8	5935.0	5847.4	5844.8	4022.5	4821.2	2445.9	1911.2	1924.3
62.5°	6452.7	6380.8	6400.4	6297.1	4439.5	2451.1	2160.9	54.9	87.6	92.8
65°	6971.7	6851.4	6871.0	6775.6	4579.4	2584.5	2336.1	28.8	24.8	23.5
67.5°	7471.0	7260.6	7159.9	7059.2	4755.8	2721.7	2434.1	7.8	0.0	0.0
68°	7446.2	7224.0	7120.7	7025.3	4737.5	2717.8	2428.9	7.8	0.0	0.0
70°	7026.6	6826.6	6728.5	6655.3	4523.1	2625.0	2330.9	7.8	0.0	0.0
72.5°	6142.9	6031.7	5969.0	5904.9	4018.5	2347.9	2090.3	7.8	0.0	0.0
75°	5219.9	5188.5	5149.3	5008.1	3349.2	1921.7	1717.7	7.8	0.0	0.0
77.5°	4136.2	4134.9	4039.5	3873.4	2521.7	1410.5	1266.7	6.5	0.0	0.0
80°	2236.7	2438.1	2364.8	2279.9	1430.2	767.4	730.8	5.2	0.0	0.0
82.5°	628.8	594.8	571.3	534.7	300.7	167.3	163.4	5.2	0.0	0.0
85°	87.6	96.7	107.2	121.6	69.3	44.4	39.2	2.6	0.0	0.0
87.5°	49.7	56.2	69.3	71.9	26.1	20.9	6.5	0.0	0.0	0.0
90°	10.5	11.8	13.1	13.1	5.2	5.2	0.0	0.0	0.0	0.0
92.5°	0.0	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	1.3	1.3	1.3	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°
110°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.3	1.3	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)