

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: P579623

Luminaire Tested: **CTN-CA10-310-727-U-T5-HSS-HM-EX180**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579623
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-3)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: CTN-CA10-310-727-U-T5-HSS-HM-EX180
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (10) 2700K CCT, 70 CRI LEDS
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 25302 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B3 - 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

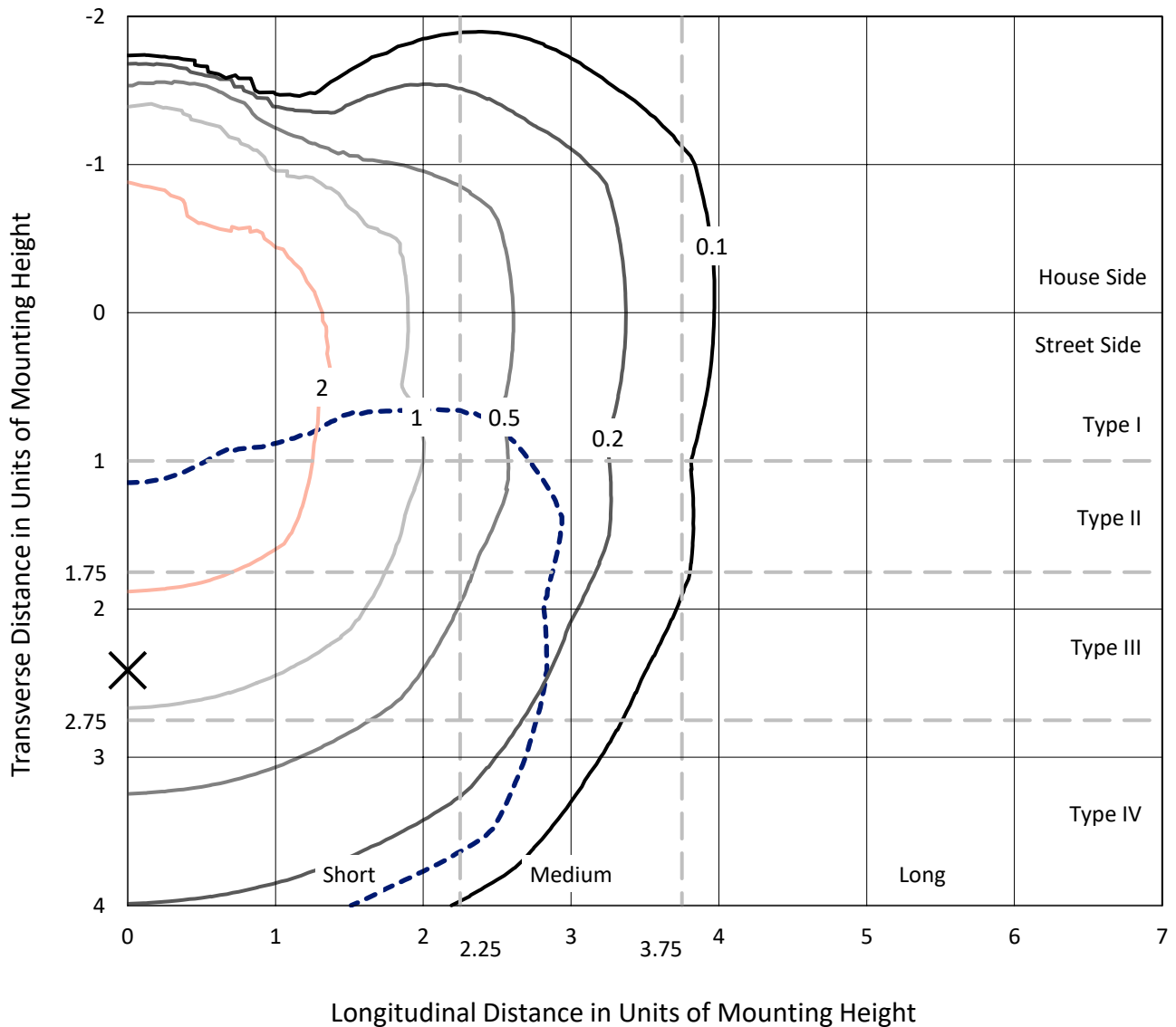




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Iso-Footcandle Lines of Horizontal Illumination

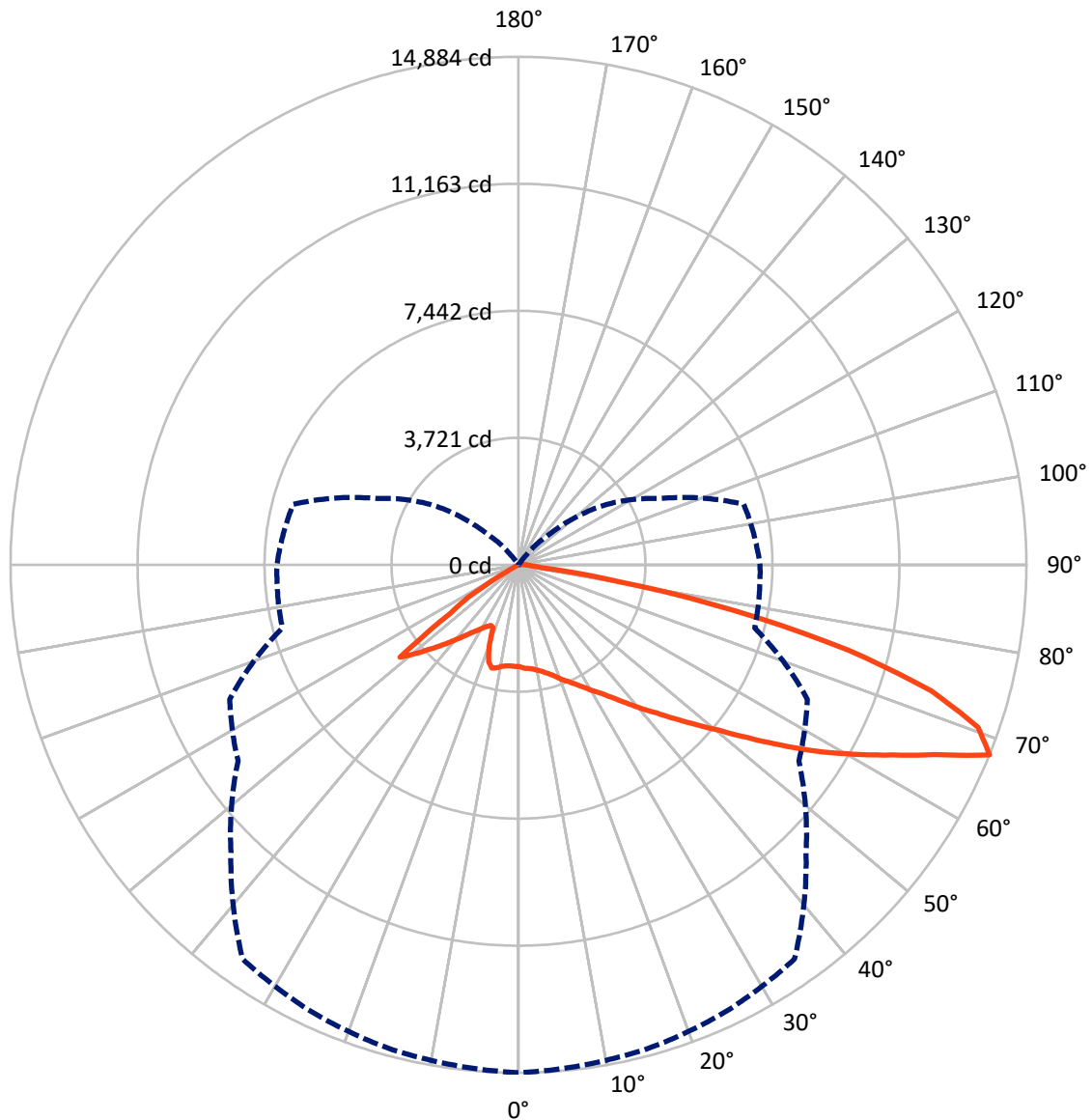
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical



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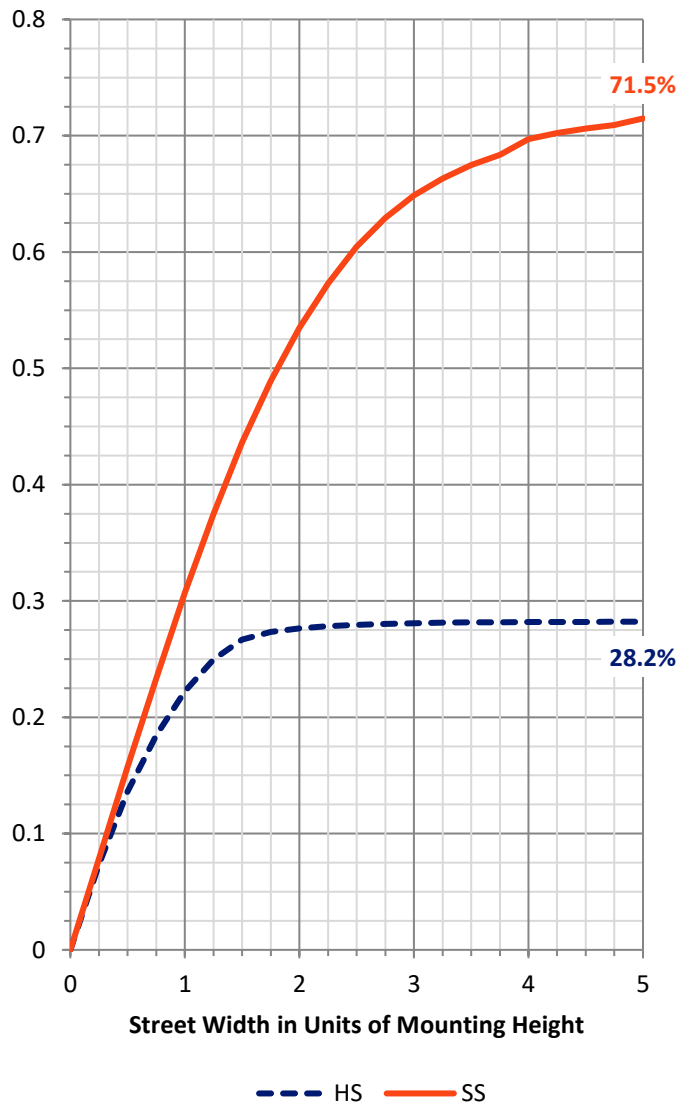
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7171.1	0.1	7171.2
	% Fixture	28.3	0.0	28.3
Street Side	Lumens	18098.6	32.2	18130.8
	% Fixture	71.5	0.1	71.7
Total	Lumens	25269.7	32.3	25302.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.4	1.1
10°-20°	884.7	3.5
20°-30°	1464.9	5.8
30°-40°	2306.0	9.1
40°-50°	3608.9	14.3
50°-60°	5210.6	20.6
60°-70°	6455.0	25.5
70°-80°	4701.1	18.6
80°-90°	351.2	1.4
90°-100°	27.6	0.1
100°-110°	4.6	0.0
110°-120°	0.1	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°	25269.7	99.9
0°-180°	25302.0	100.0

Coefficient of Utilization

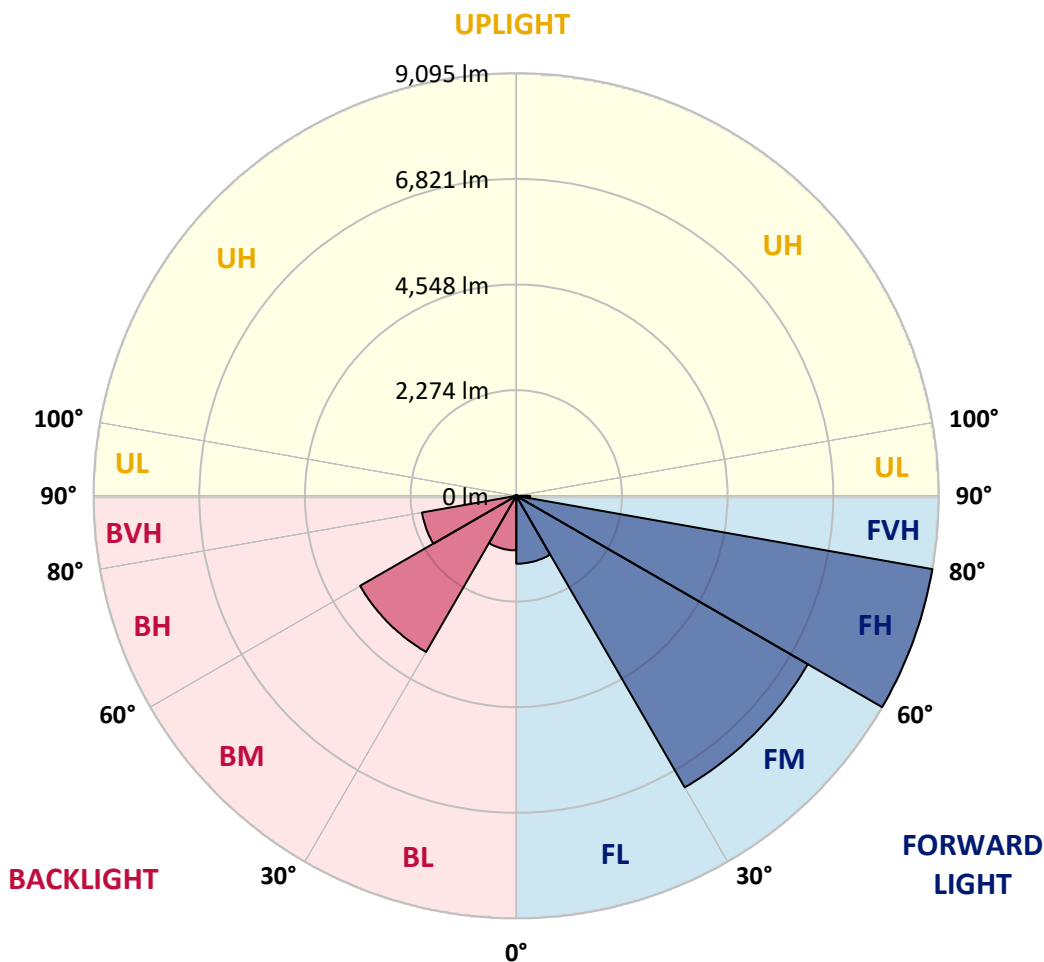


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1461.4	5.8			
FM (30°-60°)	7245.8	28.6			
FH (60°-80°)	9095.2	35.9			G4/12000
FVH (80°-90°)	296.2	1.2			G3/500
BL (0°-30°)	1175.6	4.6	B3/2500		
BM (30°-60°)	3879.7	15.3	B3/5000		
BH (60°-80°)	2060.9	8.1	B3/2500		G3/2500
BVH (80°-90°)	55.0	0.2			G1/100
UL (90°-100°)	27.6	0.1		U2/50	
UH (100°-180°)	4.7	0.0		U1/10	

BUG Rating: B3-U2-G4
 Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9
2.5°	3034.5	3018.0	3018.0	3035.7	2986.3	3001.5	2981.2	2998.9	2988.8	2993.9	3000.2
5°	3052.2	3033.2	3034.5	3056.0	3011.6	3024.3	3000.2	3009.1	3000.2	3004.0	3004.0
7.5°	3085.2	3068.7	3068.7	3081.4	3037.0	3040.8	3019.2	3019.2	3007.8	3016.7	3009.1
10°	3147.3	3129.6	3120.7	3127.0	3087.7	3082.6	3053.5	3053.5	3035.7	3049.7	3038.3
12.5°	3222.1	3196.8	3194.2	3195.5	3151.1	3142.2	3109.3	3110.5	3077.6	3096.6	3082.6
15°	3312.2	3280.5	3277.9	3283.0	3236.1	3219.6	3182.8	3182.8	3146.0	3156.2	3137.2
17.5°	3427.5	3390.8	3384.4	3393.3	3346.4	3331.2	3288.1	3280.5	3239.9	3232.3	3215.8
20°	3579.7	3537.9	3525.2	3544.2	3484.6	3470.7	3418.7	3402.2	3347.7	3257.6	3139.7
22.5°	3716.7	3683.7	3676.1	3688.8	3634.2	3620.3	3569.6	3535.3	3403.5	3222.1	3113.1
25°	3872.6	3860.0	3856.1	3848.5	3799.1	3775.0	3726.8	3678.6	3379.4	3130.8	3128.3
27.5°	4065.4	4059.0	4041.3	4034.9	3980.4	3965.2	3901.8	3591.1	3293.1	3275.4	3265.2
30°	4275.9	4263.2	4245.4	4246.7	4209.9	4182.0	4031.1	3513.8	3459.2	3459.2	3432.6
32.5°	4509.2	4495.2	4477.5	4481.3	4466.1	4442.0	3988.0	3717.9	3676.1	3687.5	3654.5
35°	4798.3	4775.5	4769.1	4784.4	4785.6	4629.7	4064.1	3995.6	3962.7	3955.1	3830.8
37.5°	5135.6	5116.6	5139.4	5174.9	5134.3	4677.8	4367.2	4345.6	4312.6	4128.8	3834.6
40°	5540.1	5505.9	5533.8	5556.6	5530.0	4964.4	4685.5	4693.1	4663.9	4118.6	3792.7
42.5°	5940.8	5907.9	5932.0	5989.0	5978.9	5319.5	5073.5	5090.0	4795.8	4142.7	4117.4
45°	6436.6	6425.2	6417.6	6464.5	6503.8	5744.3	5533.8	5532.5	4701.9	4525.7	4502.9
47.5°	6998.4	6983.2	6987.0	7046.6	7106.2	6251.5	6077.8	5568.0	4944.1	4961.9	4941.6
50°	7624.8	7608.3	7657.8	7744.0	7774.4	6820.9	6607.8	5471.6	5448.8	5467.8	5433.6
52.5°	8419.9	8383.1	8459.2	8551.7	8591.1	7494.2	6637.0	6041.0	6003.0	6006.8	5897.7
55°	9324.0	9294.8	9363.3	9467.3	9525.6	8246.1	7243.1	6595.1	6572.3	5925.6	5336.0
57.5°	10306.7	10273.8	10365.1	10395.5	10410.7	9023.5	7853.1	7196.2	6139.9	5410.8	5377.8
60°	11270.5	11234.9	11350.3	11355.4	11399.8	9799.5	8432.6	7775.7	5915.5	5819.1	5791.2
62.5°	12282.4	12238.0	12339.4	12335.6	12248.1	10509.6	9007.0	8332.4	6316.2	6240.1	6197.0
65°	13405.9	13372.9	13443.9	13329.8	13156.0	11243.8	9603.0	8938.5	6782.8	6768.9	6758.7
67.5°	14884.4	14819.7	14676.4	14433.0	14100.7	11917.2	10029.0	9337.9	7162.0	7097.3	7077.0
70°	14289.7	14213.6	14104.6	13837.0	13498.4	11284.4	9344.3	8734.3	6696.6	6699.1	6650.9
72.5°	12652.6	12520.8	12418.0	12042.7	11856.3	9855.3	8142.2	7580.4	5792.5	5900.3	5877.4
75°	9980.8	9846.4	9677.8	9530.7	9510.4	7993.8	6564.7	6160.2	4618.2	4696.9	4753.9
77.5°	6469.6	6420.2	6633.2	6493.7	6619.2	5504.6	4689.3	4341.8	3182.8	3381.9	3355.3
80°	2960.9	2903.8	3246.2	3149.8	3196.8	2703.5	2291.4	2201.3	1440.5	1450.7	1481.1
82.5°	669.5	646.7	670.8	616.3	601.1	508.5	447.6	405.8	254.9	270.1	284.0
85°	366.5	366.5	361.4	336.0	287.8	237.1	187.7	144.6	78.6	86.2	85.0
87.5°	257.4	251.1	249.8	223.2	191.5	162.3	129.3	92.6	44.4	30.4	27.9
90°	176.3	173.7	164.8	148.4	128.1	105.2	78.6	45.6	19.0	8.9	6.3
92.5°	128.1	125.5	119.2	105.2	87.5	71.0	52.0	30.4	15.2	6.3	1.3
95°	85.0	83.7	79.9	68.5	57.1	45.6	33.0	19.0	12.7	5.1	1.3
97.5°	58.3	57.1	53.3	45.6	36.8	29.2	20.3	13.9	10.1	3.8	1.3
100°	39.3	38.0	35.5	29.2	22.8	17.8	12.7	10.1	7.6	3.8	1.3
102.5°	25.4	24.1	21.6	17.8	12.7	10.1	8.9	7.6	5.1	2.5	1.3
105°	15.2	13.9	11.4	8.9	7.6	6.3	6.3	5.1	3.8	1.3	1.3
107.5°	7.6	6.3	5.1	5.1	5.1	3.8	3.8	3.8	2.5	1.3	0.0
110°	1.3	1.3	2.5	2.5	2.5	2.5	2.5	2.5	2.5	1.3	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°	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9	2979.9
2.5°	2993.9	2973.6	2985.0	2967.2	2963.4	2944.4	2974.9	2978.7	2976.1	2981.2
5°	2997.7	2976.1	2988.8	2967.2	2967.2	2947.0	2976.1	2976.1	2968.5	2971.0
7.5°	3007.8	2986.3	2995.1	2971.0	2972.3	2948.2	2983.7	2979.9	2973.6	2982.5
10°	3037.0	3012.9	3011.6	2988.8	2993.9	2968.5	3012.9	3012.9	3006.6	3023.0
12.5°	3083.9	3048.4	3042.1	3014.2	3024.3	3002.7	3057.3	3059.8	3061.1	3087.7
15°	3133.4	3090.2	3096.6	3063.6	3059.8	3048.4	3097.9	3095.3	3094.0	3130.8
17.5°	3203.1	3000.2	2967.2	2944.4	2939.3	2911.4	2957.1	3044.6	2998.9	2973.6
20°	3092.8	2986.3	2855.7	2811.3	2802.4	2560.2	2368.7	2455.0	2571.6	2581.8
22.5°	2992.6	2954.6	2944.4	2874.7	2487.9	2406.8	2414.4	2382.7	2106.2	1985.8
25°	3116.9	3083.9	3040.8	2614.7	2523.4	2494.3	2485.4	2160.8	1942.7	1956.6
27.5°	3255.1	3218.3	2843.0	2621.1	2641.4	2600.8	2400.4	2016.2	2003.5	2027.6
30°	3427.5	3133.4	2774.5	2761.8	2780.8	2728.8	2132.9	2105.0	2101.2	2126.5
32.5°	3624.1	3021.8	2957.1	2957.1	2948.2	2386.5	2247.0	2228.0	2238.1	2264.7
35°	3550.5	3196.8	3189.2	3220.9	3007.8	2448.6	2429.6	2396.6	2404.2	2413.1
37.5°	3469.4	3484.6	3488.4	3471.9	2193.7	2626.1	2610.9	2604.6	2597.0	2599.5
40°	3771.2	3781.3	3777.5	3626.6	2367.5	2660.4	2816.3	2804.9	2803.7	2818.9
42.5°	4123.7	4151.6	4130.0	3199.3	2599.5	2236.8	3053.5	3047.1	3044.6	3076.3
45°	4520.6	4547.2	4094.5	3426.3	2846.8	2315.5	3070.0	3305.8	3324.8	3352.7
47.5°	4950.5	4945.4	3778.8	3775.0	3137.2	2533.6	2552.6	3615.2	3646.9	3657.1
50°	5445.0	4632.2	4137.7	3998.2	3465.6	2778.3	2706.0	3317.2	4017.2	4027.3
52.5°	5339.8	4582.7	4549.8	3507.4	3759.8	3048.4	2977.4	2958.4	4164.3	4409.0
55°	4977.1	5015.1	4968.2	3848.5	2756.7	3289.3	3244.9	3225.9	3097.9	2452.4
57.5°	5380.3	5391.8	5351.2	4161.7	2803.7	2050.4	3194.2	2740.3	1780.3	1771.5
60°	5798.8	5817.8	3985.5	3057.3	1796.8	686.0	163.6	172.5	492.0	432.4
62.5°	6198.2	6217.3	4218.8	2793.5	1134.9	50.7	33.0	22.8	25.4	25.4
65°	6719.4	6727.0	4515.5	2957.1	1179.3	12.7	3.8	0.0	0.0	0.0
67.5°	6989.5	6833.5	4590.4	3031.9	1211.0	7.6	2.5	0.0	0.0	0.0
70°	6581.2	6413.8	4273.3	2841.7	1128.6	6.3	1.3	0.0	0.0	0.0
72.5°	5798.8	5717.7	3835.9	2519.6	999.2	3.8	1.3	0.0	0.0	0.0
75°	4805.9	4698.1	3180.3	2099.9	826.8	2.5	0.0	0.0	0.0	0.0
77.5°	3418.7	3431.4	2216.6	1530.5	563.0	2.5	0.0	0.0	0.0	0.0
80°	1496.3	1530.5	971.3	702.5	199.1	1.3	0.0	0.0	0.0	0.0
82.5°	285.3	262.5	126.8	100.2	25.4	0.0	0.0	0.0	0.0	0.0
85°	93.8	102.7	46.9	38.0	11.4	0.0	0.0	0.0	0.0	0.0
87.5°	33.0	41.8	13.9	11.4	2.5	0.0	0.0	0.0	0.0	0.0
90°	5.1	5.1	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)