

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: P579504

Luminaire Tested: **CTN-CA8-230-740-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579504
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-1)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-740-U-T5-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28939 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B4 - U2 - G4

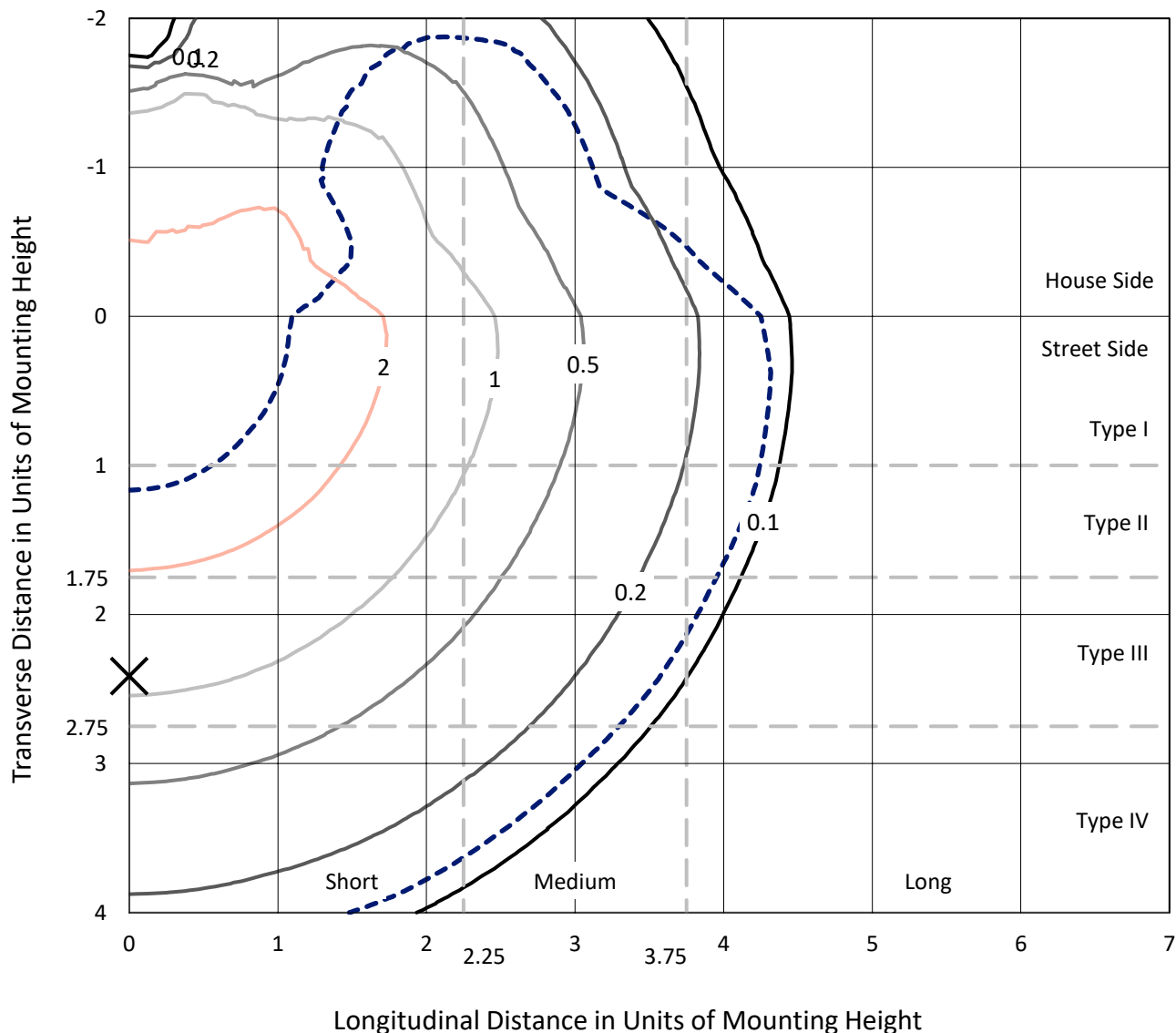
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

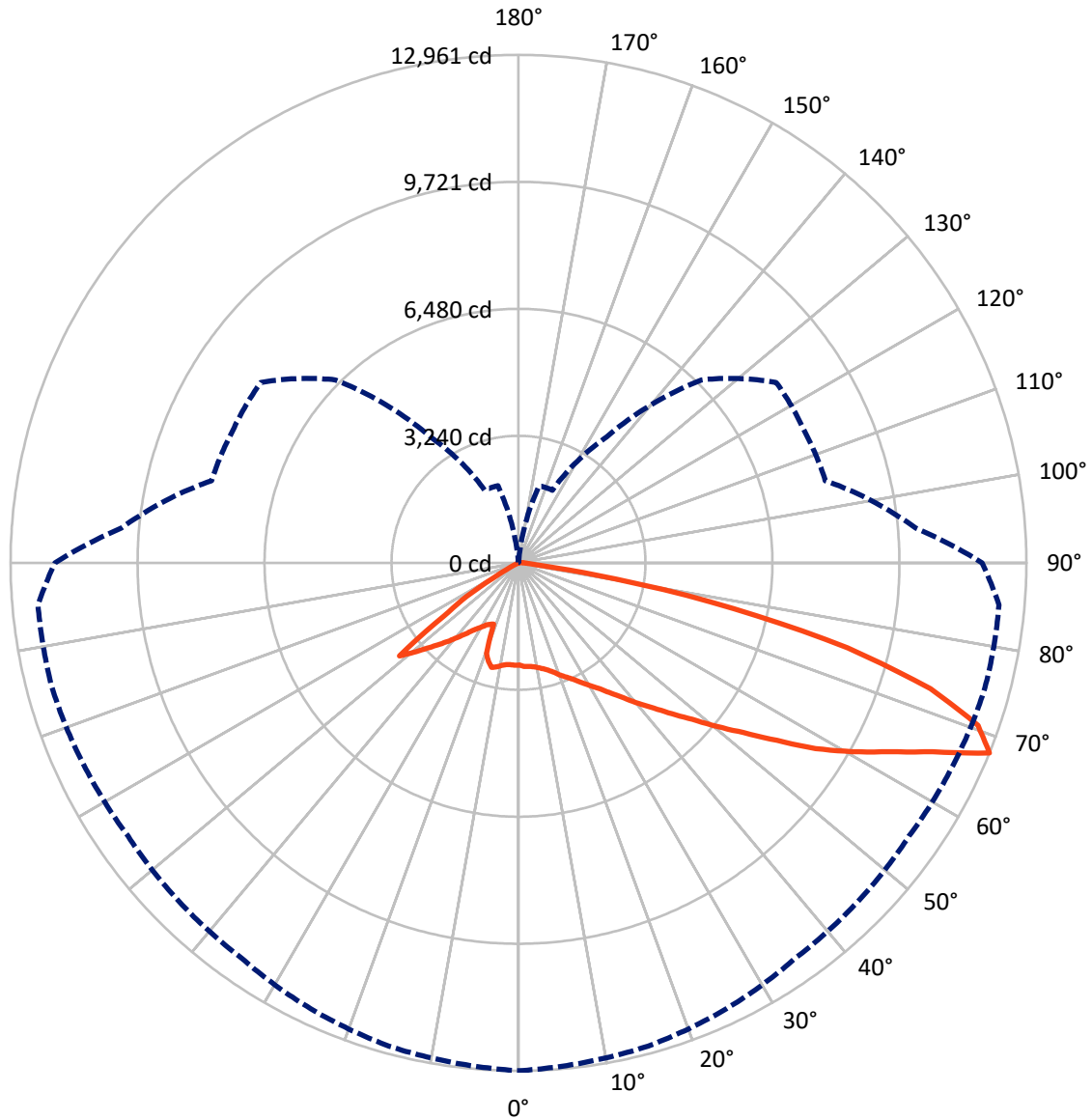
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.2 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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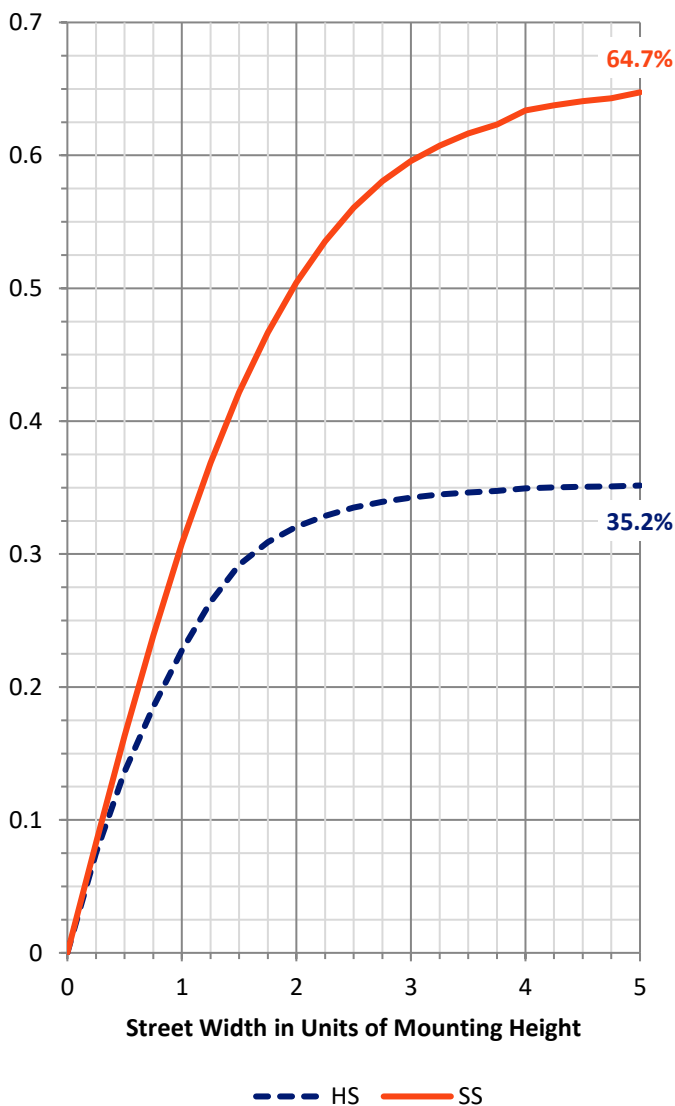
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10186.5	0.6	10187.1
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	18731.5	20.4	18751.9
	% Fixture	64.7	0.1	64.8
Total	Lumens	28918.0	21.0	28939.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	250.9	0.9
10°-20°	779.4	2.7
20°-30°	1351.3	4.7
30°-40°	2217.3	7.7
40°-50°	3698.4	12.8
50°-60°	5985.4	20.7
60°-70°	8261.8	28.5
70°-80°	5960.5	20.6
80°-90°	413.1	1.4
90°-100°	17.9	0.1
100°-110°	3.0	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°	28918.0	99.9
0°-180°	28939.0	100.0

Coefficient of Utilization



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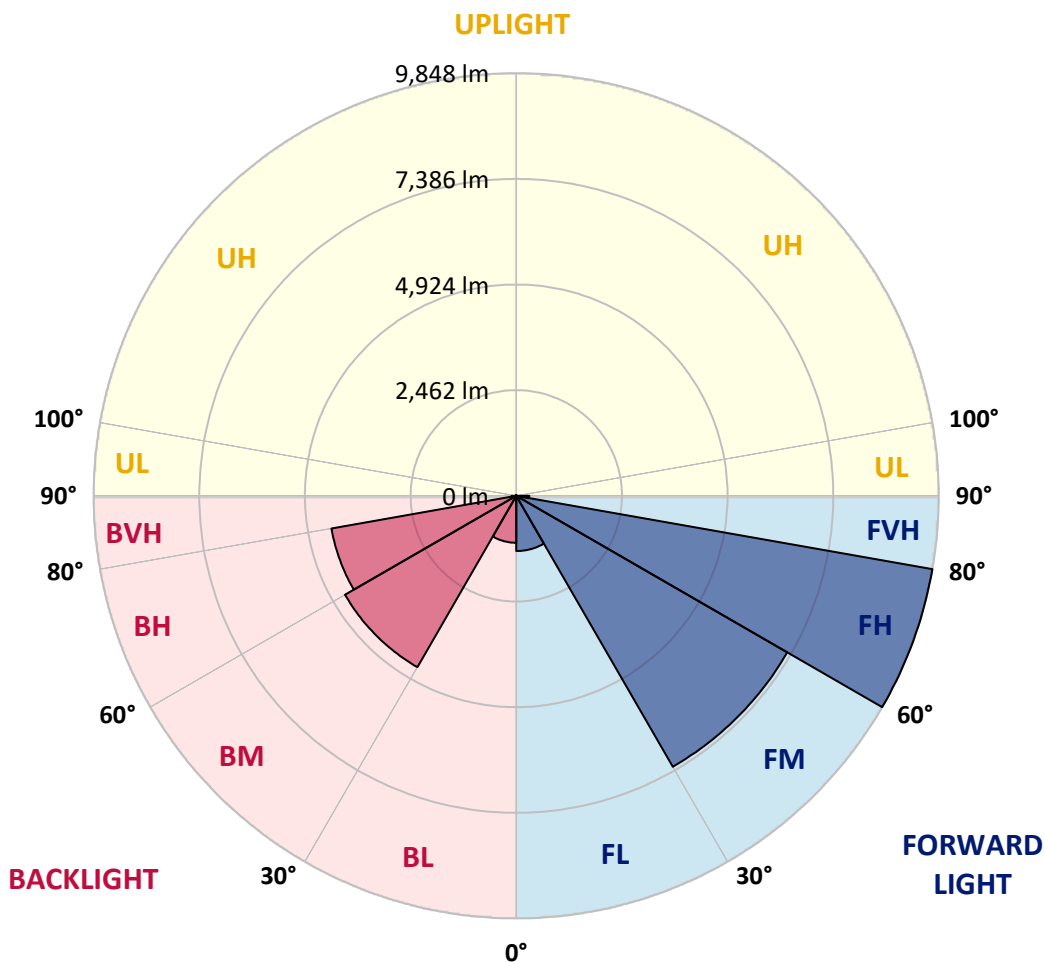
CATALOG NUMBER: CTN-CA8-230-740-U-T5-HSS-HM-EX90

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1286.9	4.4			
FM (30°-60°)	7291.9	25.2			
FH (60°-80°)	9848.3	34.0			G4/12000
FVH (80°-90°)	304.4	1.1			G3/500
BL (0°-30°)	1094.7	3.8	B3/2500		
BM (30°-60°)	4609.1	15.9	B3/5000		
BH (60°-80°)	4373.9	15.1	B4/5000		G4/5000
BVH (80°-90°)	108.7	0.4			G2/225
UL (90°-100°)	17.9	0.1		U2/50	
UH (100°-180°)	3.1	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°	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9
2.5°	2647.8	2632.3	2633.4	2648.9	2606.8	2622.3	2604.6	2620.1	2612.3	2617.9	2624.5
5°	2655.5	2636.7	2638.9	2657.8	2624.5	2636.7	2615.7	2624.5	2617.9	2624.5	2625.6
7.5°	2675.5	2656.7	2657.8	2672.2	2637.8	2646.7	2626.7	2631.2	2620.1	2632.3	2629.0
10°	2717.6	2699.9	2693.2	2705.4	2675.5	2676.6	2653.3	2657.8	2641.1	2657.8	2651.1
12.5°	2774.1	2749.7	2751.9	2758.6	2722.0	2724.2	2696.5	2703.2	2675.5	2698.8	2691.0
15°	2842.8	2812.9	2816.2	2827.3	2791.8	2788.5	2763.0	2763.0	2738.6	2756.4	2748.6
17.5°	2938.1	2904.8	2902.6	2910.4	2881.6	2881.6	2852.7	2849.4	2825.1	2839.5	2837.2
20°	3062.1	3024.5	3017.8	3032.2	2995.7	3000.1	2963.5	2960.2	2933.6	2942.5	2943.6
22.5°	3174.0	3144.1	3143.0	3165.2	3122.0	3127.5	3094.3	3085.4	3063.2	3075.4	3078.8
25°	3302.5	3298.1	3294.8	3302.5	3259.3	3259.3	3236.1	3228.3	3213.9	3222.8	3231.6
27.5°	3464.3	3462.1	3453.2	3454.3	3417.8	3423.3	3397.8	3393.4	3386.7	3385.6	3381.2
30°	3642.7	3632.7	3620.5	3628.3	3611.6	3617.2	3595.0	3580.6	3578.4	3579.5	3572.9
32.5°	3841.0	3827.7	3819.9	3833.2	3839.9	3855.4	3854.3	3814.4	3814.4	3831.0	3801.1
35°	4086.9	4065.9	4072.5	4090.2	4103.5	4143.4	4136.8	4109.1	4117.9	4125.7	4090.2
37.5°	4376.1	4361.7	4391.6	4424.8	4425.9	4482.4	4469.1	4475.8	4474.7	4464.7	4441.4
40°	4722.8	4699.6	4730.6	4756.1	4740.5	4808.1	4805.9	4835.8	4855.8	4890.1	4876.8
42.5°	5067.4	5049.6	5079.6	5134.9	5126.1	5203.6	5214.7	5261.2	5288.9	5342.1	5311.1
45°	5491.7	5481.7	5509.4	5552.6	5582.5	5685.6	5726.5	5746.5	5816.3	5880.5	5808.5
47.5°	5967.0	5980.2	5975.8	6054.5	6120.9	6246.1	6262.8	6327.0	6387.9	6458.8	6389.0
50°	6558.6	6536.4	6556.3	6631.7	6740.2	6831.1	6916.4	7008.3	7068.2	7141.3	7012.8
52.5°	7195.6	7214.4	7258.7	7375.0	7454.8	7562.3	7639.8	7749.5	7808.2	7871.4	7704.1
55°	7998.8	8014.3	8063.0	8182.7	8239.2	8361.0	8414.2	8523.9	8580.4	8608.1	8394.3
57.5°	8940.5	8888.4	8928.3	8990.3	9077.8	9209.7	9224.1	9327.1	9327.1	9362.6	9090.0
60°	9781.3	9745.9	9788.0	9876.6	9910.9	10030.6	10018.4	10102.6	10124.8	10098.2	9772.5
62.5°	10610.0	10616.7	10670.9	10699.7	10686.4	10757.4	10786.2	10874.8	10838.2	10847.1	10471.5
65°	11615.9	11631.5	11625.9	11572.7	11453.1	11592.7	11584.9	11725.6	11734.5	11814.3	11377.8
67.5°	12960.9	12892.2	12767.0	12553.2	12316.1	12234.1	12162.1	12231.9	12321.7	12307.3	11828.7
70°	12438.0	12326.1	12260.7	12074.6	11757.8	11593.8	11444.2	11456.4	11587.1	11599.3	11109.7
72.5°	10995.5	10939.0	10687.6	10524.7	10307.6	10181.3	10000.7	10041.7	10212.3	10241.1	9851.1
75°	8673.5	8621.4	8394.3	8341.1	8233.6	8295.7	8251.4	8268.0	8405.4	8279.1	8045.3
77.5°	5613.5	5625.7	5590.3	5711.0	5706.6	5709.9	5871.7	5888.3	6022.3	5944.8	5718.8
80°	2517.1	2553.6	2640.0	2815.1	2708.7	2766.3	2828.4	2809.5	2944.7	2638.9	2748.6
82.5°	509.6	527.3	497.4	519.6	485.2	503.0	528.5	489.7	485.2	449.8	417.7
85°	262.6	265.9	264.8	259.2	228.2	210.5	202.7	170.6	154.0	150.7	139.6
87.5°	170.6	172.8	167.3	166.2	146.2	134.1	119.6	100.8	84.2	58.7	48.7
90°	104.1	104.1	98.6	93.1	83.1	74.2	59.8	43.2	25.5	10.0	5.5
92.5°	69.8	69.8	67.6	64.3	57.6	49.9	38.8	25.5	12.2	4.4	2.2
95°	44.3	44.3	43.2	42.1	37.7	32.1	24.4	15.5	7.8	3.3	1.1
97.5°	28.8	28.8	28.8	27.7	25.5	22.2	16.6	10.0	5.5	2.2	1.1
100°	17.7	18.8	17.7	17.7	16.6	14.4	11.1	6.6	4.4	2.2	1.1
102.5°	10.0	10.0	11.1	11.1	10.0	8.9	6.6	5.5	3.3	2.2	1.1
105°	4.4	4.4	5.5	5.5	5.5	4.4	4.4	3.3	2.2	2.2	1.1
107.5°	1.1	1.1	1.1	2.2	3.3	3.3	3.3	3.3	2.2	1.1	1.1
110°	0.0	0.0	0.0	1.1	1.1	2.2	2.2	2.2	2.2	1.1	1.1



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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°	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9	2607.9
2.5°	2617.9	2604.6	2614.6	2597.9	2593.5	2579.1	2606.8	2611.2	2609.0	2613.4
5°	2620.1	2603.5	2615.7	2599.0	2597.9	2582.4	2611.2	2612.3	2604.6	2607.9
7.5°	2626.7	2611.2	2620.1	2601.3	2603.5	2584.6	2617.9	2616.8	2612.3	2620.1
10°	2651.1	2633.4	2636.7	2616.8	2622.3	2602.4	2643.4	2645.6	2641.1	2655.5
12.5°	2693.2	2668.8	2676.6	2653.3	2657.8	2637.8	2687.7	2691.0	2691.0	2714.3
15°	2750.8	2725.3	2742.0	2712.0	2713.2	2683.2	2720.9	2720.9	2725.3	2757.5
17.5°	2835.0	2804.0	2826.2	2798.5	2625.6	2560.3	2688.8	2767.4	2636.7	2625.6
20°	2939.2	2924.8	2936.9	2891.5	2611.2	2312.1	2079.5	2067.3	2325.4	2453.9
22.5°	3066.6	3052.2	3057.7	3000.1	2330.9	2120.5	2117.1	2095.0	1772.6	1684.0
25°	3216.1	3208.4	3196.2	2713.2	2409.6	2208.0	2181.4	1892.2	1707.2	1723.8
27.5°	3376.8	3353.5	2942.5	2818.4	2530.4	2295.5	2144.8	1767.0	1760.4	1775.9
30°	3556.2	3433.3	3012.3	2970.2	2671.1	2404.1	1866.7	1844.6	1844.6	1869.0
32.5°	3784.5	3206.2	3206.2	3184.0	2845.0	2110.5	1965.3	1952.1	1967.6	1977.5
35°	3750.1	3448.8	3484.2	3474.3	3081.0	2149.3	2123.8	2101.6	2104.9	2104.9
37.5°	3761.2	3773.4	3815.5	3772.3	2687.7	2317.6	2276.7	2272.2	2275.6	2283.3
40°	4109.1	4115.7	4131.2	4035.9	2888.2	2513.7	2457.2	2446.2	2457.2	2473.9
42.5°	4483.5	4502.4	4520.1	3670.4	3168.5	2736.4	2679.9	2658.9	2678.8	2696.5
45°	4926.7	4955.5	4684.0	3995.0	3485.3	2990.1	2930.3	2904.8	2917.0	2932.5
47.5°	5425.2	5470.6	4417.1	4408.2	3857.6	3290.4	3221.7	3172.9	3191.8	3190.6
50°	5988.0	5228.0	4880.1	4874.6	4273.0	3624.9	3554.0	3509.7	3524.1	3513.0
52.5°	6596.2	5370.9	5382.0	5380.9	4707.3	3985.0	3919.6	3864.2	3750.1	3855.4
55°	7218.8	5865.0	5907.1	5900.5	5162.6	4357.2	4287.4	4235.4	2767.4	2337.6
57.5°	7838.1	6381.3	6394.6	6410.1	5634.6	4716.2	4409.3	4050.3	1578.7	1571.0
60°	8449.7	6873.2	6899.8	6908.6	5889.4	3904.1	1802.5	1835.7	477.5	570.5
62.5°	9083.4	7358.4	7382.8	7375.0	6143.1	3630.5	1893.3	1855.7	44.3	41.0
65°	9892.1	7966.6	7932.3	7906.8	6543.0	3874.2	2034.0	2024.1	14.4	10.0
67.5°	10175.7	8105.1	8035.3	8026.5	6600.6	3926.3	2045.1	2037.4	14.4	10.0
70°	9533.2	7578.9	7459.2	7462.6	6142.0	3672.6	1907.7	1896.7	13.3	10.0
72.5°	8348.9	6693.7	6643.9	6380.2	5318.9	3230.5	1691.7	1649.6	13.3	8.9
75°	6854.3	5407.5	5296.7	5000.9	4233.1	2568.0	1328.3	1274.0	12.2	7.8
77.5°	4758.3	3792.2	3580.6	3279.3	2831.7	1702.8	892.9	823.1	11.1	7.8
80°	2157.0	1556.5	1564.3	1198.7	960.5	577.2	283.6	257.0	10.0	6.6
82.5°	375.6	277.0	260.3	251.5	209.4	141.8	86.4	74.2	8.9	4.4
85°	130.7	105.2	116.3	137.4	121.9	85.3	53.2	51.0	5.5	2.2
87.5°	44.3	46.5	54.3	65.4	57.6	33.2	19.9	14.4	1.1	0.0
90°	4.4	5.5	5.5	5.5	3.3	0.0	0.0	0.0	0.0	0.0
92.5°	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	1.1	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	1.1	1.1	1.1	0.0	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	0.0	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	1.1	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	1.1	1.1	1.1	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)