

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: P579624

Luminaire Tested: **CTN-CA10-310-727-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579624
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-CA10-310-727-U-T5-HSS-HM-EX90
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: 33123 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B5 - U2 - G5

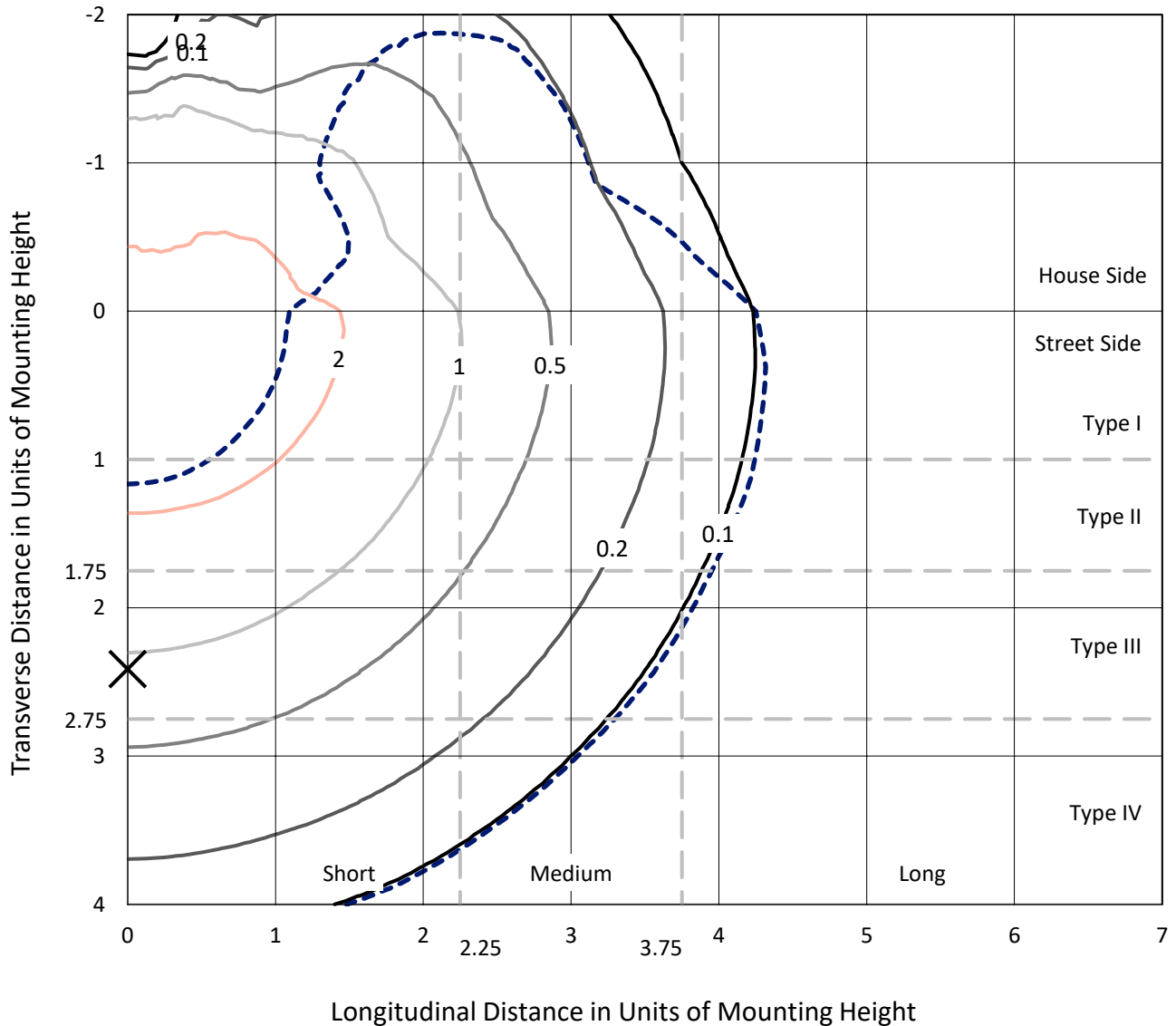
Input Watts (W): 312.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

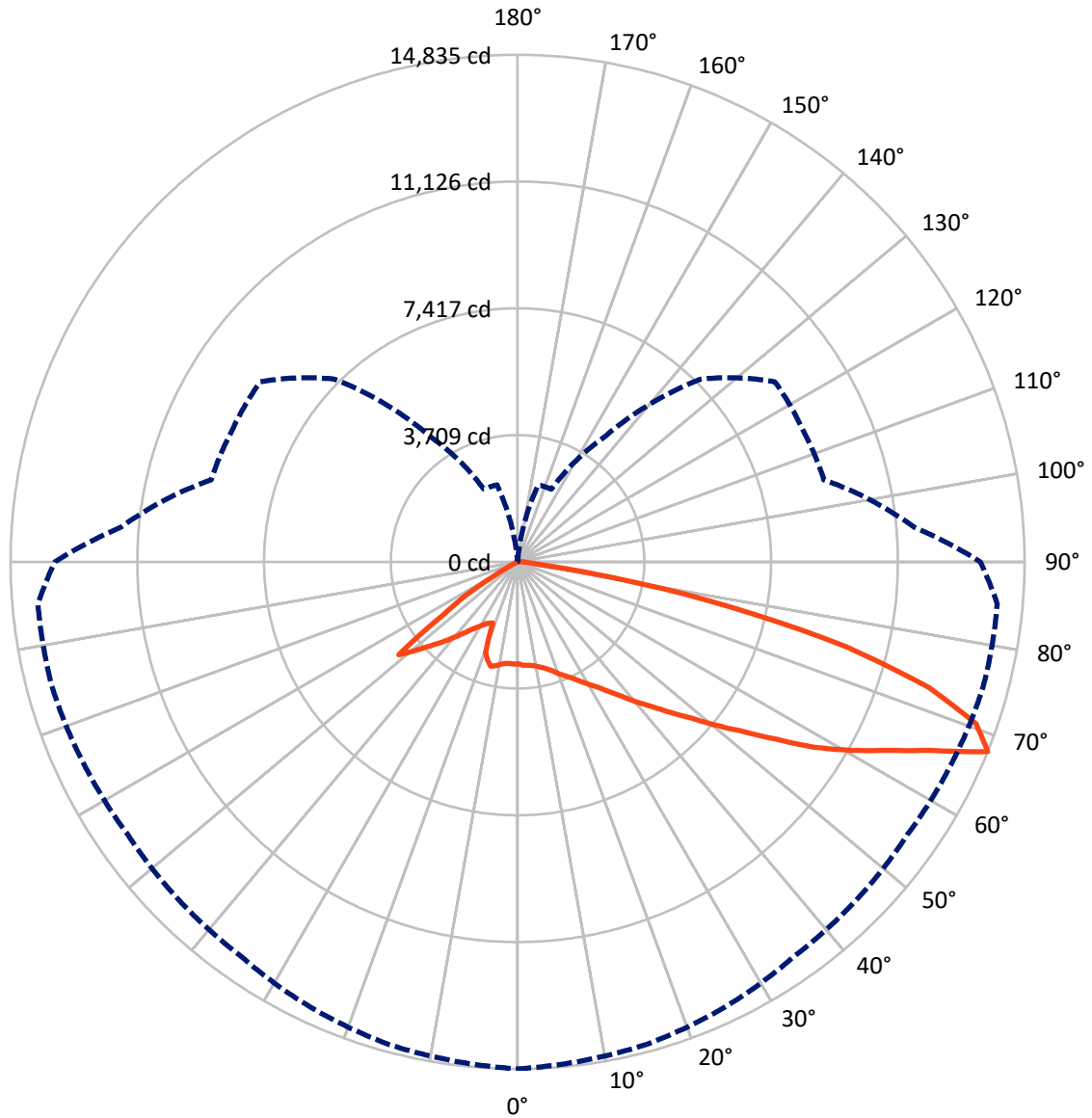
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3.3 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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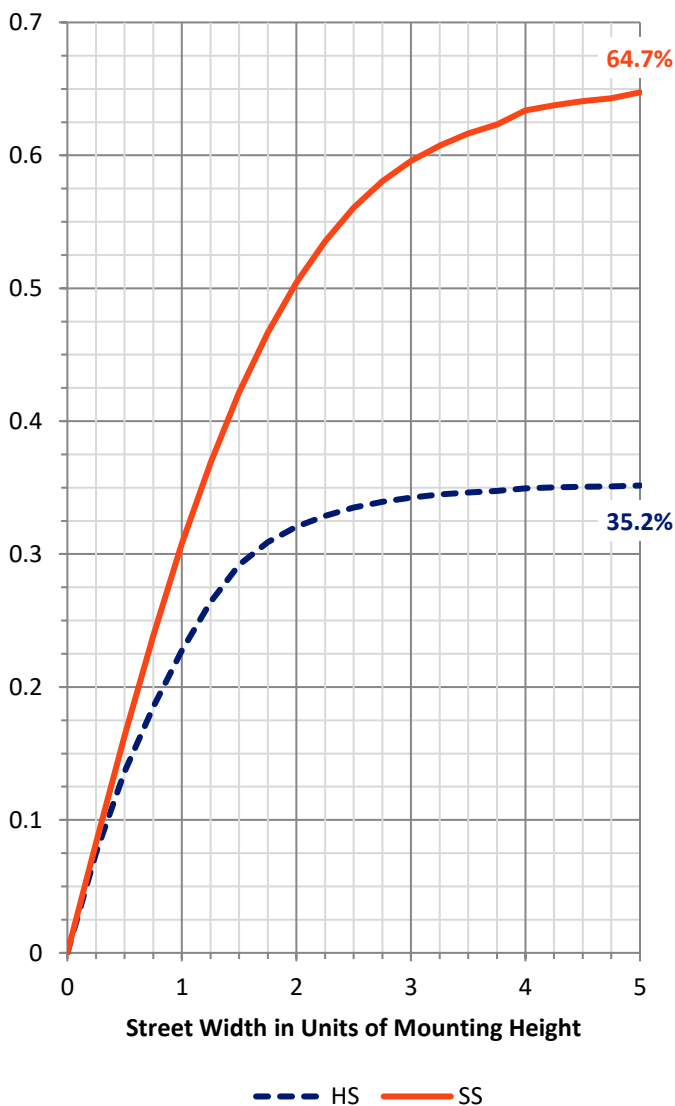
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	11659.2	0.7	11659.9
	% Fixture	35.2	0.0	35.2
Street Side	Lumens	21439.7	23.4	21463.1
	% Fixture	64.7	0.1	64.8
Total	Lumens	33098.9	24.1	33123.0
	% Fixture	99.9	0.1	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	287.2	0.9
10°-20°	892.1	2.7
20°-30°	1546.7	4.7
30°-40°	2537.8	7.7
40°-50°	4233.1	12.8
50°-60°	6850.8	20.7
60°-70°	9456.2	28.5
70°-80°	6822.3	20.6
80°-90°	472.9	1.4
90°-100°	20.5	0.1
100°-110°	3.4	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°	33098.9	99.9
0°-180°	33123.0	100.0

Coefficient of Utilization



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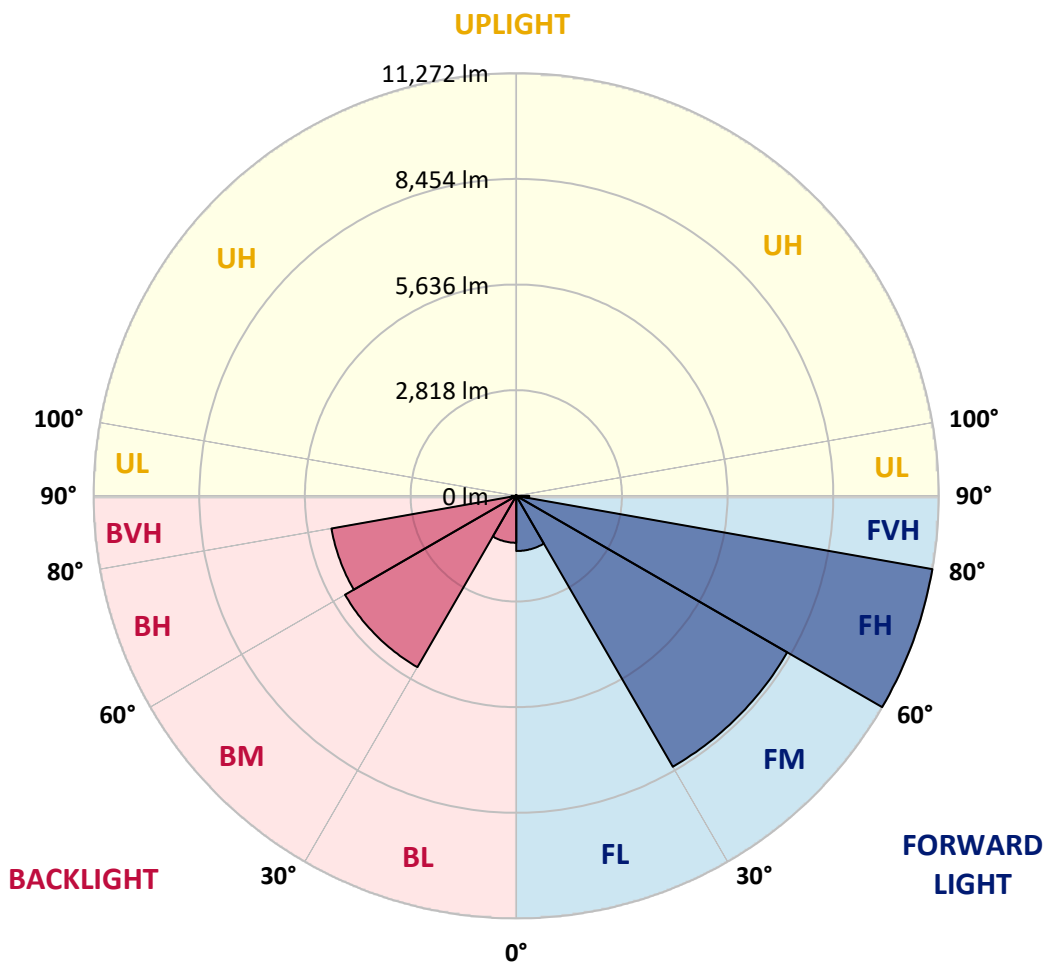
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1472.9	4.4			
FM (30°-60°)	8346.2	25.2			
FH (60°-80°)	11272.2	34.0			G4/12000
FVH (80°-90°)	348.4	1.1			G3/500
BL (0°-30°)	1252.9	3.8	B3/2500		
BM (30°-60°)	5275.5	15.9	B4/8500		
BH (60°-80°)	5006.3	15.1	B5		G5
BVH (80°-90°)	124.4	0.4			G2/225
UL (90°-100°)	20.5	0.1		U2/50	
UH (100°-180°)	3.6	0.0		U1/10	

BUG Rating: B5-U2-G5

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0
2.5°	3030.6	3012.9	3014.1	3031.9	2983.7	3001.4	2981.2	2998.9	2990.0	2996.4	3004.0
5°	3039.5	3017.9	3020.5	3042.0	3004.0	3017.9	2993.8	3004.0	2996.4	3004.0	3005.3
7.5°	3062.3	3040.8	3042.0	3058.5	3019.2	3029.3	3006.5	3011.6	2998.9	3012.9	3009.1
10°	3110.5	3090.2	3082.6	3096.5	3062.3	3063.6	3037.0	3042.0	3023.0	3042.0	3034.4
12.5°	3175.2	3147.3	3149.8	3157.4	3115.6	3118.1	3086.4	3094.0	3062.3	3088.9	3080.1
15°	3253.8	3219.5	3223.4	3236.0	3195.5	3191.7	3162.5	3162.5	3134.6	3154.9	3146.0
17.5°	3362.8	3324.8	3322.3	3331.1	3298.2	3298.2	3265.2	3261.4	3233.5	3250.0	3247.4
20°	3504.9	3461.7	3454.1	3470.6	3428.8	3433.8	3392.0	3388.2	3357.8	3367.9	3369.2
22.5°	3632.9	3598.7	3597.4	3622.8	3573.3	3579.7	3541.6	3531.5	3506.1	3520.1	3523.9
25°	3780.0	3774.9	3771.1	3780.0	3730.6	3730.6	3703.9	3695.1	3678.6	3688.7	3698.9
27.5°	3965.2	3962.6	3952.5	3953.7	3911.9	3918.2	3889.1	3884.0	3876.4	3875.1	3870.1
30°	4169.3	4157.9	4143.9	4152.8	4133.8	4140.1	4114.8	4098.3	4095.8	4097.0	4089.4
32.5°	4396.3	4381.1	4372.2	4387.4	4395.0	4412.8	4411.5	4365.9	4365.9	4384.9	4350.6
35°	4677.8	4653.7	4661.3	4681.6	4696.8	4742.5	4734.9	4703.2	4713.3	4722.2	4681.6
37.5°	5008.8	4992.3	5026.5	5064.5	5065.8	5130.5	5115.3	5122.9	5121.6	5110.2	5083.6
40°	5405.6	5379.0	5414.5	5443.7	5425.9	5503.3	5500.7	5535.0	5557.8	5597.1	5581.9
42.5°	5800.0	5779.7	5814.0	5877.4	5867.2	5956.0	5968.7	6021.9	6053.6	6114.5	6079.0
45°	6285.7	6274.3	6306.0	6355.4	6389.6	6507.6	6554.5	6577.3	6657.2	6730.7	6648.3
47.5°	6829.7	6844.9	6839.8	6929.8	7005.9	7149.2	7168.2	7241.8	7311.5	7392.7	7312.8
50°	7506.8	7481.4	7504.2	7590.5	7714.7	7818.7	7916.4	8021.6	8090.1	8173.8	8026.7
52.5°	8235.9	8257.5	8308.2	8441.3	8532.6	8655.6	8744.4	8869.9	8937.1	9009.4	8817.9
55°	9155.2	9173.0	9228.8	9365.7	9430.4	9569.9	9630.7	9756.3	9821.0	9852.7	9607.9
57.5°	10233.1	10173.5	10219.1	10290.1	10390.3	10541.2	10557.7	10675.6	10675.6	10716.2	10404.3
60°	11195.5	11154.9	11203.1	11304.6	11343.9	11480.8	11466.9	11563.2	11588.6	11558.2	11185.4
62.5°	12144.0	12151.6	12213.7	12246.7	12231.5	12312.6	12345.6	12447.1	12405.2	12415.4	11985.5
65°	13295.4	13313.1	13306.8	13245.9	13109.0	13268.8	13259.9	13420.9	13431.1	13522.4	13022.8
67.5°	14834.8	14756.2	14612.9	14368.1	14096.8	14002.9	13920.5	14000.4	14103.1	14086.6	13538.8
70°	14236.3	14108.2	14033.4	13820.3	13457.7	13270.0	13098.8	13112.8	13262.4	13276.4	12715.9
72.5°	12585.3	12520.6	12232.8	12046.4	11797.8	11653.3	11446.6	11493.5	11688.8	11721.7	11275.4
75°	9927.5	9867.9	9607.9	9547.1	9424.1	9495.1	9444.3	9463.4	9620.6	9476.0	9208.5
77.5°	6425.1	6439.1	6398.5	6536.7	6531.7	6535.5	6720.6	6739.6	6893.1	6804.3	6545.6
80°	2881.0	2922.8	3021.7	3222.1	3100.4	3166.3	3237.3	3215.7	3370.4	3020.5	3146.0
82.5°	583.3	603.6	569.3	594.7	555.4	575.7	604.9	560.5	555.4	514.8	478.1
85°	300.5	304.3	303.1	296.7	261.2	240.9	232.1	195.3	176.3	172.5	159.8
87.5°	195.3	197.8	191.5	190.2	167.4	153.4	136.9	115.4	96.4	67.2	55.8
90°	119.2	119.2	112.9	106.5	95.1	85.0	68.5	49.5	29.2	11.4	6.3
92.5°	79.9	79.9	77.4	73.5	65.9	57.1	44.4	29.2	13.9	5.1	2.5
95°	50.7	50.7	49.5	48.2	43.1	36.8	27.9	17.8	8.9	3.8	1.3
97.5°	33.0	33.0	33.0	31.7	29.2	25.4	19.0	11.4	6.3	2.5	1.3
100°	20.3	21.6	20.3	20.3	19.0	16.5	12.7	7.6	5.1	2.5	1.3
102.5°	11.4	11.4	12.7	12.7	11.4	10.1	7.6	6.3	3.8	2.5	1.3
105°	5.1	5.1	6.3	6.3	6.3	5.1	5.1	3.8	2.5	2.5	1.3
107.5°	1.3	1.3	1.3	2.5	3.8	3.8	3.8	3.8	2.5	1.3	1.3
110°	0.0	0.0	0.0	1.3	1.3	2.5	2.5	2.5	2.5	1.3	1.3



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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°	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0	2985.0
2.5°	2996.4	2981.2	2992.6	2973.5	2968.5	2952.0	2983.7	2988.8	2986.2	2991.3
5°	2998.9	2979.9	2993.8	2974.8	2973.5	2955.8	2988.8	2990.0	2981.2	2985.0
7.5°	3006.5	2988.8	2998.9	2977.4	2979.9	2958.3	2996.4	2995.1	2990.0	2998.9
10°	3034.4	3014.1	3017.9	2995.1	3001.4	2978.6	3025.5	3028.1	3023.0	3039.5
12.5°	3082.6	3054.7	3063.6	3037.0	3042.0	3019.2	3076.3	3080.1	3080.1	3106.7
15°	3148.5	3119.4	3138.4	3104.2	3105.4	3071.2	3114.3	3114.3	3119.4	3156.1
17.5°	3244.9	3209.4	3234.8	3203.1	3005.3	2930.4	3077.5	3167.6	3017.9	3005.3
20°	3364.1	3347.6	3361.6	3309.6	2988.8	2646.4	2380.1	2366.2	2661.6	2808.7
22.5°	3509.9	3493.4	3499.8	3433.8	2668.0	2427.0	2423.2	2397.9	2028.9	1927.4
25°	3681.1	3672.2	3658.3	3105.4	2758.0	2527.2	2496.8	2165.8	1954.0	1973.1
27.5°	3865.0	3838.4	3367.9	3225.9	2896.2	2627.4	2454.9	2022.5	2014.9	2032.7
30°	4070.4	3929.6	3447.8	3399.6	3057.2	2751.6	2136.6	2111.3	2111.3	2139.2
32.5°	4331.6	3669.7	3669.7	3644.3	3256.3	2415.6	2249.5	2234.3	2252.0	2263.4
35°	4292.3	3947.4	3988.0	3976.6	3526.4	2460.0	2430.8	2405.5	2409.3	2409.3
37.5°	4305.0	4318.9	4367.1	4317.7	3076.3	2652.7	2605.8	2600.7	2604.6	2613.4
40°	4703.2	4710.8	4728.5	4619.5	3305.8	2877.2	2812.5	2799.8	2812.5	2831.5
42.5°	5131.8	5153.3	5173.6	4201.0	3626.6	3132.1	3067.4	3043.3	3066.1	3086.4
45°	5639.0	5671.9	5361.3	4572.5	3989.2	3422.4	3354.0	3324.8	3338.7	3356.5
47.5°	6209.6	6261.6	5055.7	5045.5	4415.3	3766.1	3687.5	3631.7	3653.2	3651.9
50°	6853.7	5983.9	5585.7	5579.4	4890.8	4149.0	4067.9	4017.1	4033.6	4020.9
52.5°	7549.9	6147.4	6160.1	6158.9	5387.9	4561.1	4486.3	4422.9	4292.3	4412.8
55°	8262.5	6713.0	6761.2	6753.6	5909.1	4987.2	4907.3	4847.7	3167.6	2675.6
57.5°	8971.4	7303.9	7319.1	7336.9	6449.2	5398.0	5046.8	4635.9	1807.0	1798.1
60°	9671.3	7866.9	7897.3	7907.5	6740.9	4468.6	2063.1	2101.1	546.5	653.0
62.5°	10396.6	8422.3	8450.2	8441.3	7031.3	4155.4	2167.1	2124.0	50.7	46.9
65°	11322.3	9118.5	9079.2	9050.0	7489.0	4434.3	2328.1	2316.7	16.5	11.4
67.5°	11646.9	9277.0	9197.1	9186.9	7555.0	4493.9	2340.8	2331.9	16.5	11.4
70°	10911.5	8674.6	8537.7	8541.5	7030.0	4203.5	2183.6	2170.9	15.2	11.4
72.5°	9555.9	7661.5	7604.4	7302.6	6087.9	3697.6	1936.3	1888.1	15.2	10.1
75°	7845.4	6189.3	6062.5	5723.9	4845.2	2939.3	1520.4	1458.2	13.9	8.9
77.5°	5446.2	4340.5	4098.3	3753.4	3241.1	1949.0	1022.0	942.2	12.7	8.9
80°	2468.9	1781.6	1790.5	1372.0	1099.4	660.6	324.6	294.2	11.4	7.6
82.5°	429.9	317.0	298.0	287.8	239.7	162.3	98.9	85.0	10.1	5.1
85°	149.6	120.5	133.1	157.2	139.5	97.6	60.9	58.3	6.3	2.5
87.5°	50.7	53.3	62.1	74.8	65.9	38.0	22.8	16.5	1.3	0.0
90°	5.1	6.3	6.3	6.3	3.8	0.0	0.0	0.0	0.0	0.0
92.5°	1.3	1.3	0.0	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	1.3	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	1.3	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
110°	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°
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)