

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: P579459

Luminaire Tested: **CTN-CA8-230-730-U-T5N-HSS-HM-EX90**

Issue Date: 11/18/2021

Test Information

Test Method: LM-79-08
Report Number: P579459
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-4)
Test Lab: COOPER LIGHTING SOLUTIONS
Issue Date: 11/18/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: McGRAW-EDISON
Catalog Number: CTN-CA8-230-730-U-T5N-HSS-HM-EX90
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD
Light Source: (8) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29020 lumens
Efficiency: N/A
Efficacy: 127.1 lumens/watt
Luminous Opening: Circular (Dia: 2.08' x H: 0')
IES Classification: Type III - Short
BUG Rating: B4 - U2 - G4

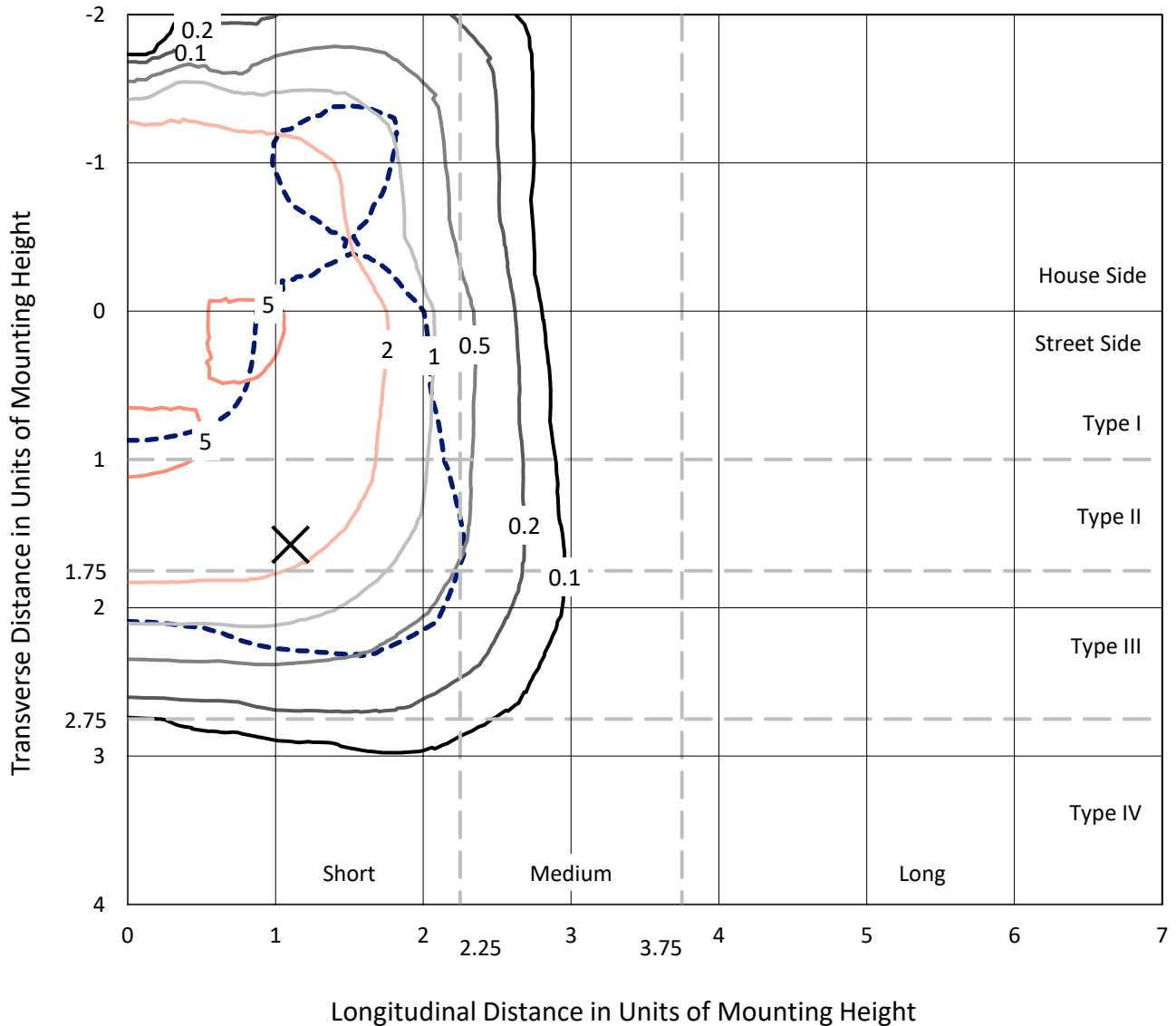
Input Watts (W): 228.4
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

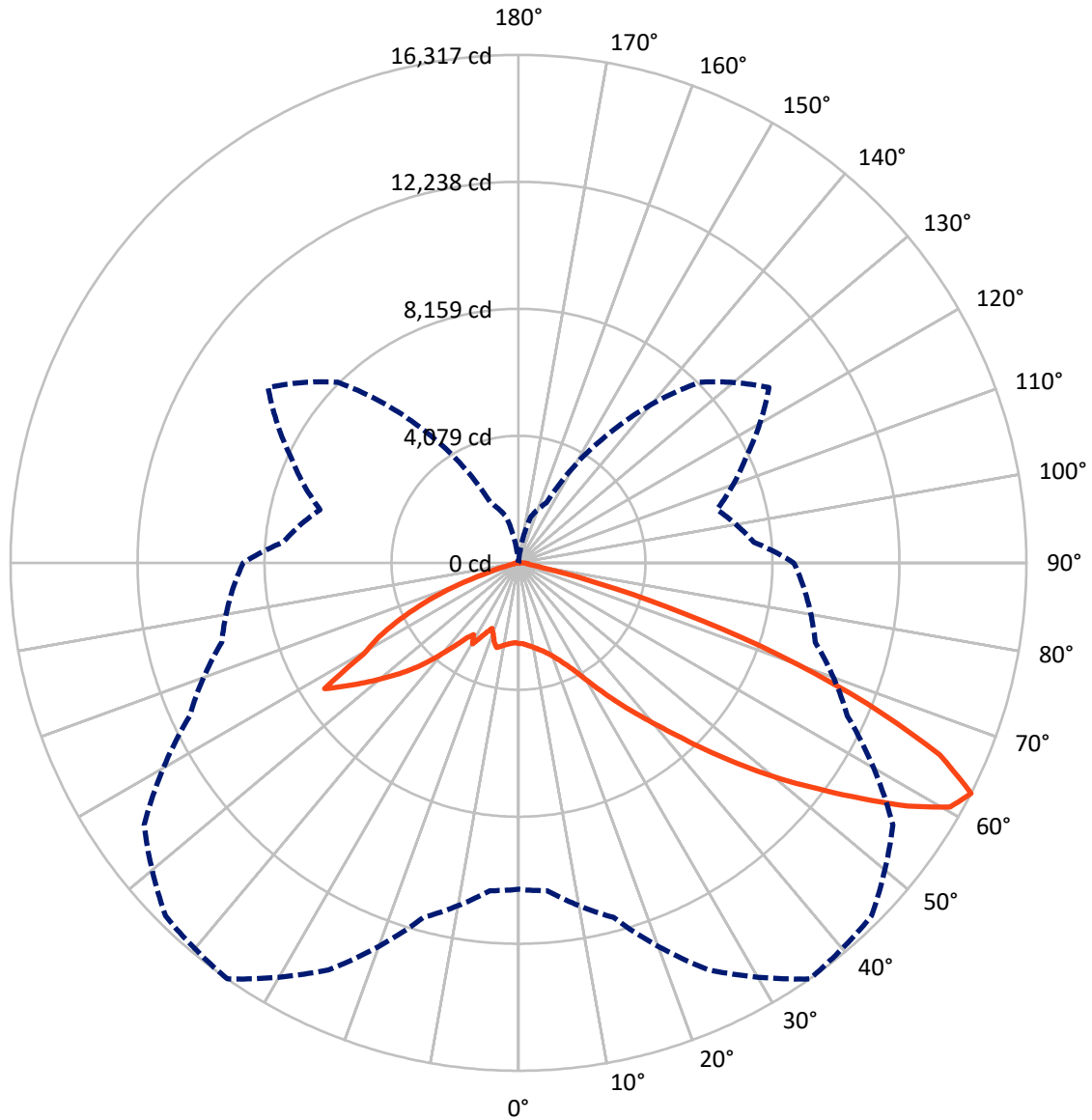
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5.6 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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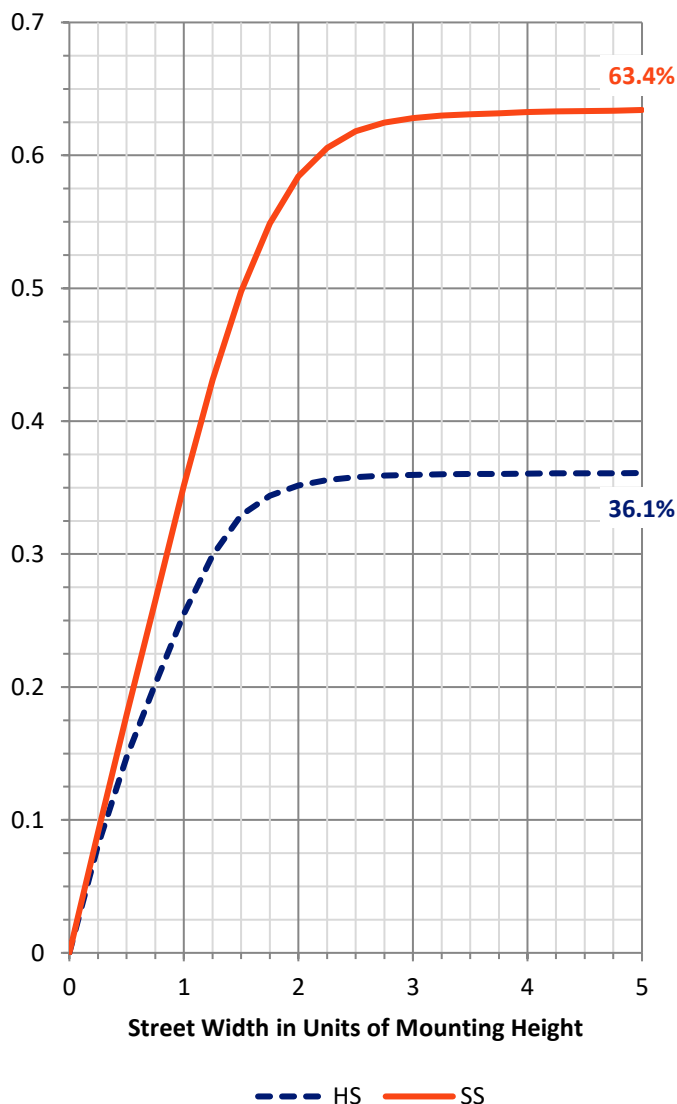
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	10533.6	0.0	10533.6
	% Fixture	36.3	0.0	36.3
Street Side	Lumens	18472.7	13.8	18486.4
	% Fixture	63.7	0.0	63.7
Total	Lumens	29006.2	13.8	29020.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.3	0.9
10°-20°	825.1	2.8
20°-30°	1587.3	5.5
30°-40°	3166.5	10.9
40°-50°	5781.8	19.9
50°-60°	8640.0	29.8
60°-70°	7239.5	24.9
70°-80°	1354.8	4.7
80°-90°	156.0	0.5
90°-100°	12.4	0.0
100°-110°	1.3	0.0
110°-120°	0.0	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°	29006.2	100.0
0°-180°	29020.0	100.0

Coefficient of Utilization

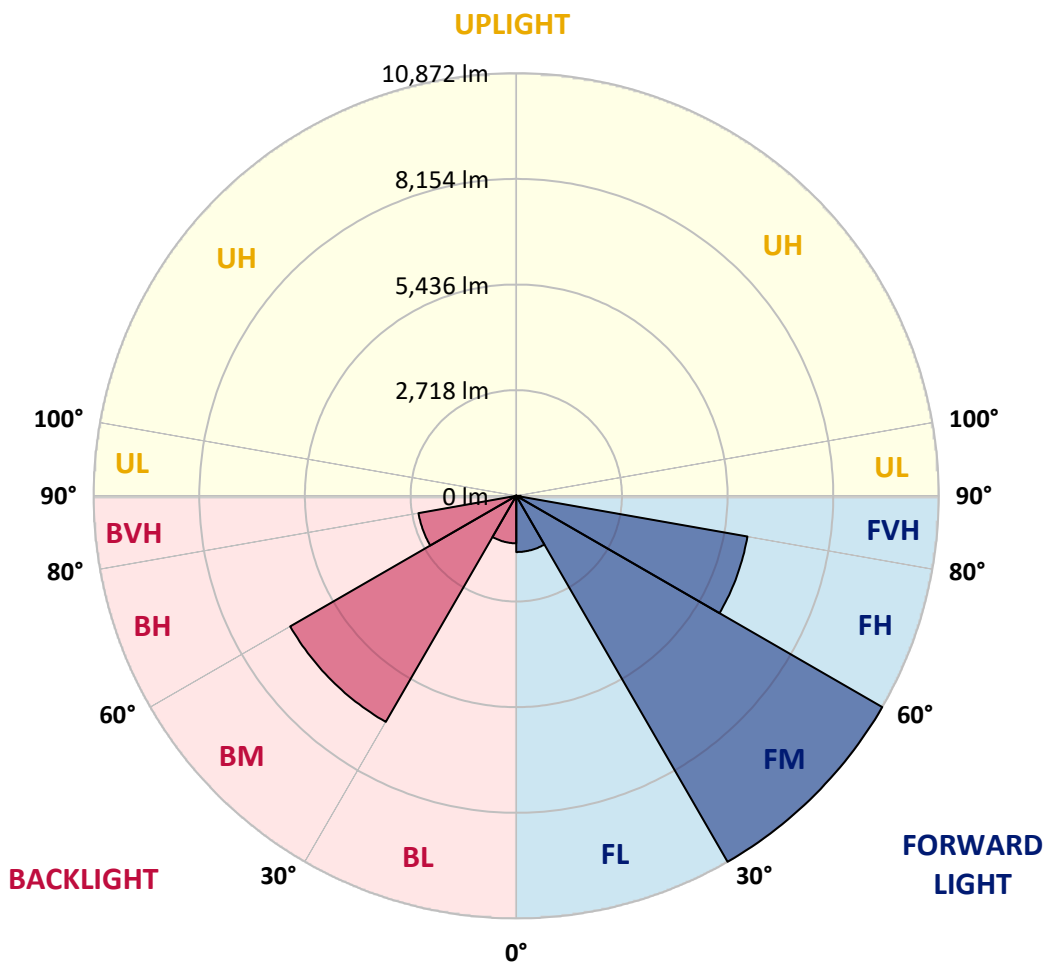


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1447.0	5.0			
FM	(30°-60°)	10872.2	37.5			
FH	(60°-80°)	6039.9	20.8			G3/7500
FVH	(80°-90°)	113.6	0.4			G2/225
BL	(0°-30°)	1220.6	4.2	B3/2500		
BM	(30°-60°)	6716.1	23.1	B4/8500		
BH	(60°-80°)	2554.5	8.8	B4/5000		G4/5000
BVH	(80°-90°)	42.4	0.1			G1/100
UL	(90°-100°)	12.4	0.0		U2/50	
UH	(100°-180°)	1.4	0.0		U1/10	

BUG Rating: B4-U2-G4
 Type III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6
2.5°	2652.1	2630.3	2633.6	2648.8	2601.0	2620.5	2599.9	2619.5	2612.9	2621.6	2628.2
5°	2690.2	2663.0	2665.1	2682.5	2645.6	2661.9	2641.2	2654.3	2643.4	2655.4	2656.4
7.5°	2742.4	2719.5	2716.3	2733.7	2702.1	2716.3	2695.6	2702.1	2691.2	2705.4	2701.0
10°	2812.0	2791.3	2785.9	2797.9	2772.8	2780.4	2758.7	2767.4	2751.1	2767.4	2759.8
12.5°	2889.2	2862.0	2863.1	2876.2	2851.2	2856.6	2839.2	2849.0	2829.4	2846.8	2841.4
15°	2980.6	2941.4	2949.1	2963.2	2939.3	2955.6	2934.9	2949.1	2930.6	2949.1	2942.5
17.5°	3099.2	3054.6	3060.0	3082.9	3063.3	3089.4	3065.5	3082.9	3074.2	3086.1	3083.9
20°	3249.3	3219.9	3214.5	3242.8	3214.5	3247.1	3234.1	3264.5	3266.7	3278.7	3284.1
22.5°	3449.5	3429.9	3416.8	3436.4	3411.4	3434.2	3452.7	3504.9	3524.5	3556.1	3558.2
25°	3716.0	3714.9	3685.5	3686.6	3655.1	3685.5	3737.7	3819.3	3871.5	3911.8	3896.5
27.5°	4076.0	4082.6	4038.0	4020.6	3983.6	4029.3	4137.0	4238.1	4332.8	4389.3	4389.3
30°	4546.0	4552.5	4487.2	4452.4	4418.7	4498.1	4626.5	4758.1	4893.0	4974.6	4956.1
32.5°	5168.2	5147.5	5054.0	4990.9	4933.2	5024.6	5172.5	5321.6	5505.4	5622.9	5608.8
35°	5923.1	5848.1	5754.5	5637.0	5513.0	5584.8	5724.1	5911.2	6166.8	6343.0	6298.4
37.5°	6799.9	6725.9	6566.0	6363.7	6147.2	6155.9	6265.8	6590.0	6909.8	7053.4	7022.9
40°	7710.4	7652.8	7505.9	7245.9	6854.3	6764.0	6944.6	7335.1	7640.8	7821.4	7770.2
42.5°	8638.3	8579.6	8468.6	8207.5	7688.7	7471.1	7659.3	8084.6	8411.0	8588.3	8529.5
45°	9564.0	9496.6	9408.5	9177.9	8682.9	8364.2	8469.7	8860.2	9158.3	9359.5	9238.8
47.5°	10377.7	10333.1	10273.3	10179.7	9746.8	9394.3	9386.7	9644.5	9850.1	9982.9	9834.9
50°	11085.9	11054.4	11088.1	11068.5	10910.8	10589.9	10393.0	10375.6	10441.9	10538.7	10327.7
52.5°	11721.2	11665.7	11790.8	11946.4	12062.8	11997.5	11360.0	11002.1	10929.3	10961.9	10722.6
55°	12241.2	12215.0	12425.0	12815.5	13354.0	13497.6	12353.2	11611.3	11342.6	11325.2	11053.3
57.5°	12558.8	12595.8	13015.7	13759.7	14747.5	14793.2	13572.6	12262.9	11745.1	11558.0	11244.7
60°	12053.0	12195.5	12912.3	14447.2	15929.9	15958.2	14467.9	12382.6	11242.5	10823.7	10435.4
62.5°	10488.7	10573.5	11793.0	14424.4	16317.2	16040.9	14681.1	11660.3	9870.8	9202.9	8843.9
65°	7388.4	7547.2	8853.7	12977.6	14869.3	14904.1	13468.2	10081.8	7882.3	7143.7	6912.0
67.5°	4462.2	4614.5	6005.8	9368.2	12087.8	12478.3	11234.9	7633.2	5652.3	4718.9	4485.1
70°	1449.0	1614.3	2736.9	5521.7	8891.8	9828.4	8454.5	4968.0	2959.9	2073.4	1822.1
72.5°	550.4	600.5	890.9	2411.7	5538.1	6561.7	5229.1	2492.2	917.0	546.1	479.7
75°	357.9	365.5	416.6	845.2	2670.6	3612.6	2520.5	729.9	367.7	326.3	302.4
77.5°	307.9	313.3	335.0	421.0	850.7	1381.5	723.4	373.1	306.8	272.0	255.6
80°	290.4	292.6	306.8	356.8	398.1	461.2	348.1	312.2	267.6	255.6	243.7
82.5°	275.2	282.8	290.4	324.2	323.1	331.8	279.6	244.8	227.4	239.3	235.0
85°	256.7	261.1	266.5	289.4	263.3	223.0	215.4	168.6	164.3	175.1	164.3
87.5°	180.6	191.5	184.9	194.7	182.8	142.5	120.7	95.7	76.1	63.1	60.9
90°	74.0	75.1	70.7	65.3	57.7	47.9	38.1	23.9	10.9	5.4	2.2
92.5°	57.7	57.7	55.5	50.0	43.5	35.9	27.2	15.2	7.6	3.3	1.1
95°	35.9	37.0	34.8	31.5	27.2	21.8	16.3	8.7	5.4	2.2	1.1
97.5°	22.8	22.8	20.7	18.5	15.2	10.9	7.6	6.5	4.4	2.2	0.0
100°	13.1	13.1	12.0	9.8	7.6	5.4	5.4	4.4	3.3	1.1	0.0
102.5°	7.6	7.6	5.4	4.4	3.3	3.3	3.3	3.3	2.2	1.1	0.0
105°	3.3	3.3	2.2	2.2	1.1	1.1	2.2	2.2	2.2	1.1	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.1	2.2	2.2	1.1	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	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°	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6	2596.6
2.5°	2623.8	2604.2	2607.5	2589.0	2585.7	2567.2	2604.2	2608.6	2597.7	2607.5
5°	2654.3	2630.3	2637.9	2617.3	2614.0	2589.0	2621.6	2619.5	2610.8	2620.5
7.5°	2700.0	2674.9	2679.3	2656.4	2652.1	2624.9	2655.4	2645.6	2636.9	2648.8
10°	2764.1	2735.8	2738.0	2708.7	2711.9	2676.0	2713.0	2695.6	2684.7	2701.0
12.5°	2841.4	2809.8	2810.9	2780.4	2779.4	2744.6	2777.2	2767.4	2751.1	2776.1
15°	2941.4	2905.5	2902.3	2862.0	2851.2	2812.0	2842.5	2824.0	2813.1	2849.0
17.5°	3081.8	3041.5	3029.6	2980.6	2777.2	2659.7	2822.9	2878.4	2810.9	2800.0
20°	3268.9	3235.2	3208.0	3134.0	2792.4	2425.8	2155.0	2157.1	2442.1	2573.8
22.5°	3522.3	3482.1	3431.0	3325.4	2561.8	2272.4	2273.5	2270.3	1948.3	1812.3
25°	3869.3	3820.4	3716.0	3119.8	2719.5	2451.9	2445.4	2126.7	1949.4	1959.2
27.5°	4338.2	4238.1	3626.8	3379.8	3000.2	2684.7	2528.1	2140.8	2162.6	2177.8
30°	4934.3	4531.8	3919.4	3772.5	3337.4	2993.7	2337.7	2391.0	2434.5	2444.3
32.5°	5545.7	4544.9	4387.1	4231.6	3753.0	2723.9	2634.7	2735.8	2781.5	2787.0
35°	5540.2	5101.8	4898.4	4723.3	4138.0	2914.2	2970.8	3126.4	3242.8	3237.3
37.5°	5863.3	5716.5	5473.9	5252.0	3724.7	3283.0	3384.2	3560.4	3701.8	3697.5
40°	6538.8	6369.1	6112.4	5646.8	4123.9	3705.1	3846.5	4035.8	4135.9	4141.3
42.5°	7177.4	7037.1	6774.9	5275.9	4623.2	4213.1	4341.5	4468.7	4530.7	4550.3
45°	7812.7	7712.6	6840.2	5830.7	5226.9	4724.4	4809.2	4833.2	4898.4	4890.8
47.5°	8328.3	8217.3	6576.9	6526.9	5959.0	5209.5	5203.0	5171.5	5195.4	5200.8
50°	8799.3	7462.4	7105.6	7272.0	6727.0	5704.5	5580.5	5516.3	5483.7	5469.5
52.5°	9171.3	7464.6	7599.5	8042.2	7594.0	6241.9	5975.4	5794.8	5073.6	5638.1
55°	9487.9	7772.4	8067.2	8865.7	8341.3	6804.3	6332.2	6010.2	3386.4	2715.2
57.5°	9669.6	8006.3	8530.6	9636.9	8994.0	7429.8	5829.6	5040.9	1914.6	1912.4
60°	8967.9	7586.4	8517.6	10041.6	8805.8	5763.2	2373.6	1986.3	362.2	372.0
62.5°	7591.8	6599.8	8078.1	9819.7	8201.0	5070.3	2128.8	1529.5	12.0	9.8
65°	5881.8	5265.0	6802.1	8637.2	7461.3	4230.5	1587.1	1102.0	3.3	0.0
67.5°	3847.6	3710.5	5019.2	7162.2	6085.2	3277.6	1065.0	527.6	2.2	0.0
70°	1640.4	1900.4	3179.7	5193.2	4658.0	2255.0	513.4	190.4	1.1	0.0
72.5°	459.1	608.1	1415.2	3042.6	2929.5	1185.7	200.2	80.5	1.1	0.0
75°	272.0	233.9	405.8	1214.0	1426.1	416.6	92.5	62.0	1.1	0.0
77.5°	226.3	182.8	232.8	310.0	431.9	150.1	78.3	55.5	0.0	0.0
80°	212.1	162.1	201.2	216.5	213.2	125.1	77.2	55.5	0.0	0.0
82.5°	201.2	141.4	166.4	166.4	178.4	115.3	72.9	54.4	0.0	0.0
85°	151.2	99.0	111.0	143.6	128.4	81.6	53.3	43.5	0.0	0.0
87.5°	57.7	35.9	43.5	45.7	37.0	18.5	4.4	4.4	0.0	0.0
90°	1.1	0.0	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)