

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: P579454

Luminaire Tested: **CTN-CA8-230-730-U-T5-HSS-HM-EX120**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579454  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2110-429-2)  
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-T5-HSS-HM-EX120  
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: 25875 lumens  
Efficiency: N/A  
Efficacy: 113.3 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G4

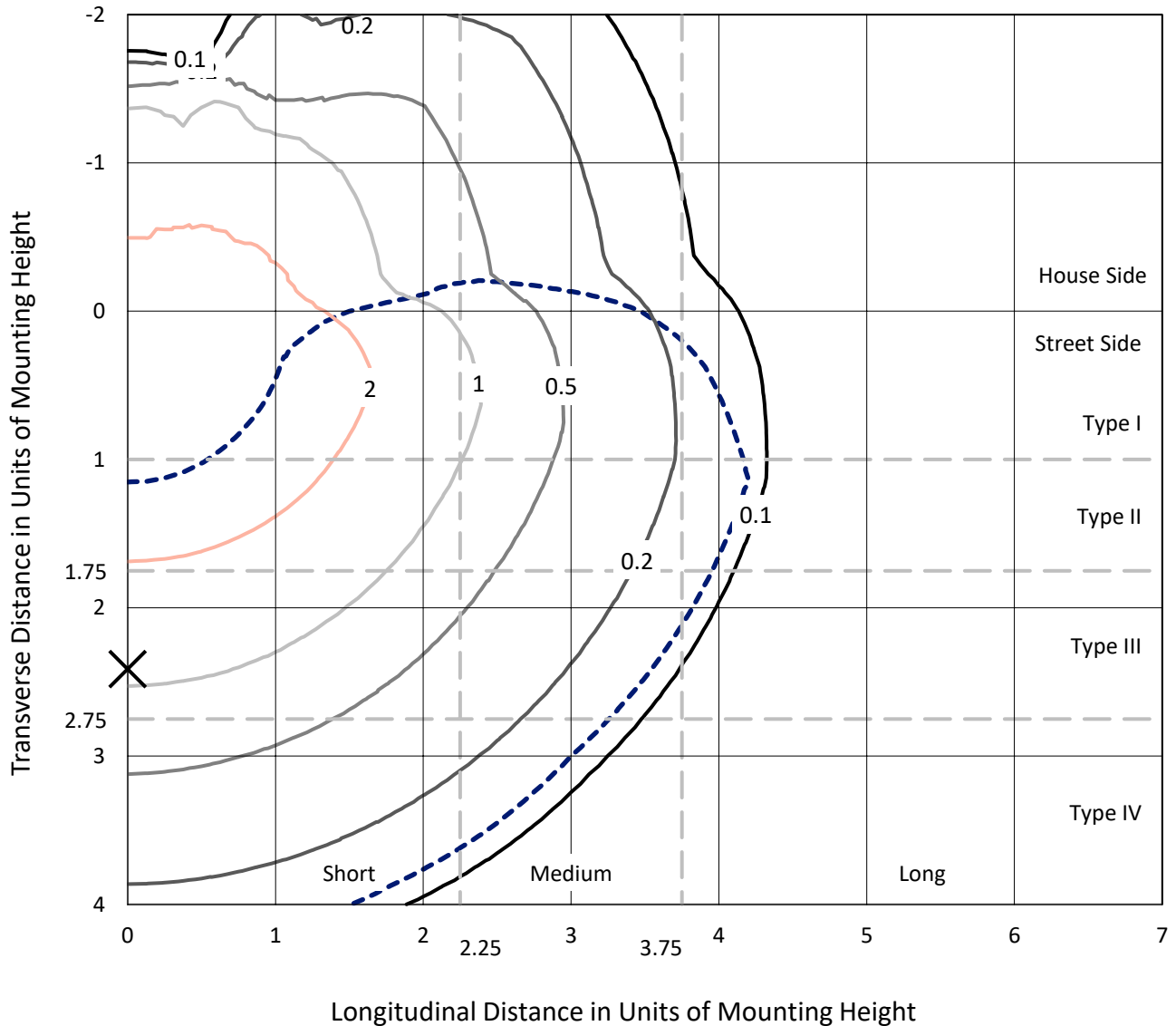
Input Watts (W): 228.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

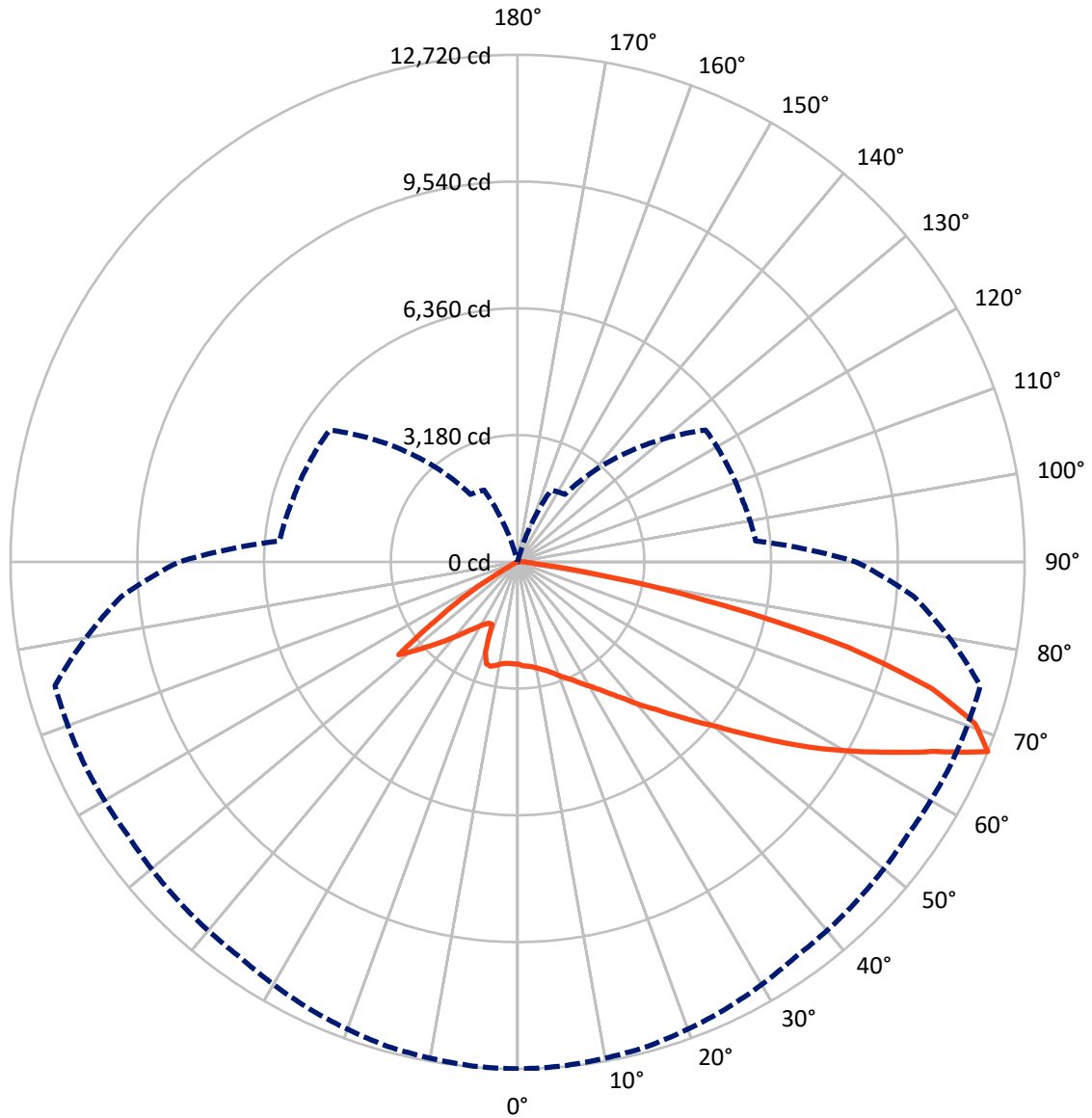
× Max cd  
 - - - 1/2 Max cd



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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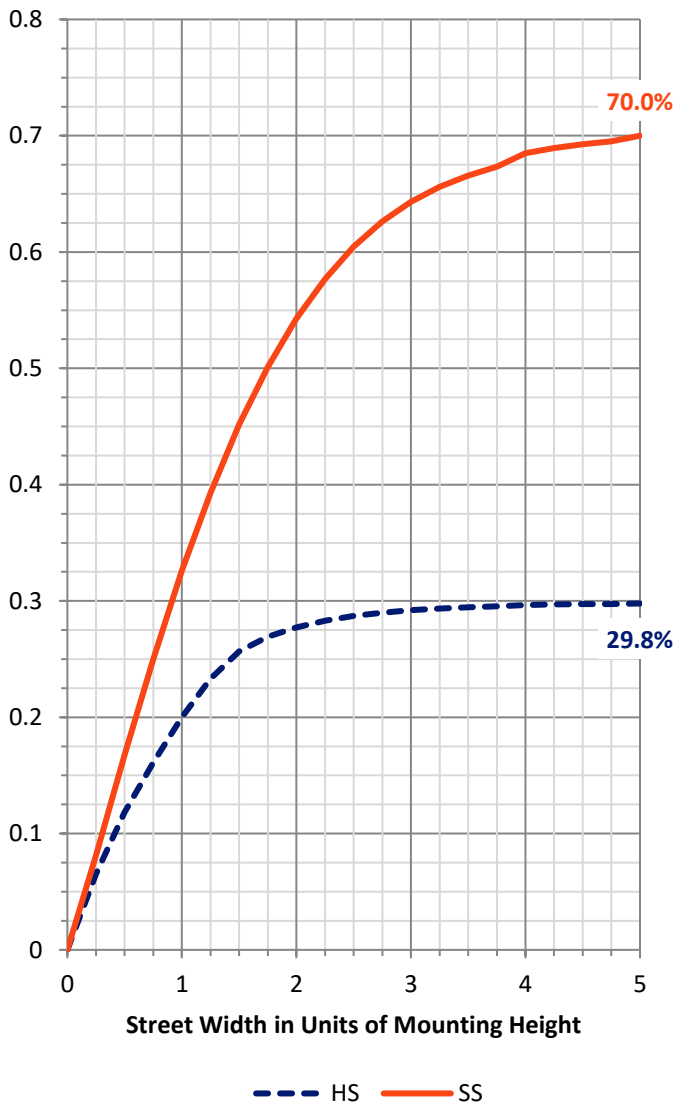
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	7723.8	2.6	7726.5
	% Fixture	29.9	0.0	29.9
<b>Street Side</b>	Lumens	18119.4	29.1	18148.6
	% Fixture	70.0	0.1	70.1
<b>Total</b>	Lumens	25843.3	31.7	25875.0
	% Fixture	99.9	0.1	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	247.2	1.0
10°-20°	765.2	3.0
20°-30°	1284.2	5.0
30°-40°	2082.4	8.0
40°-50°	3402.9	13.2
50°-60°	5332.9	20.6
60°-70°	7142.4	27.6
70°-80°	5205.9	20.1
80°-90°	380.2	1.5
90°-100°	24.3	0.1
100°-110°	6.9	0.0
110°-120°	0.5	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°	25843.3	99.9
0°-180°	25875.0	100.0

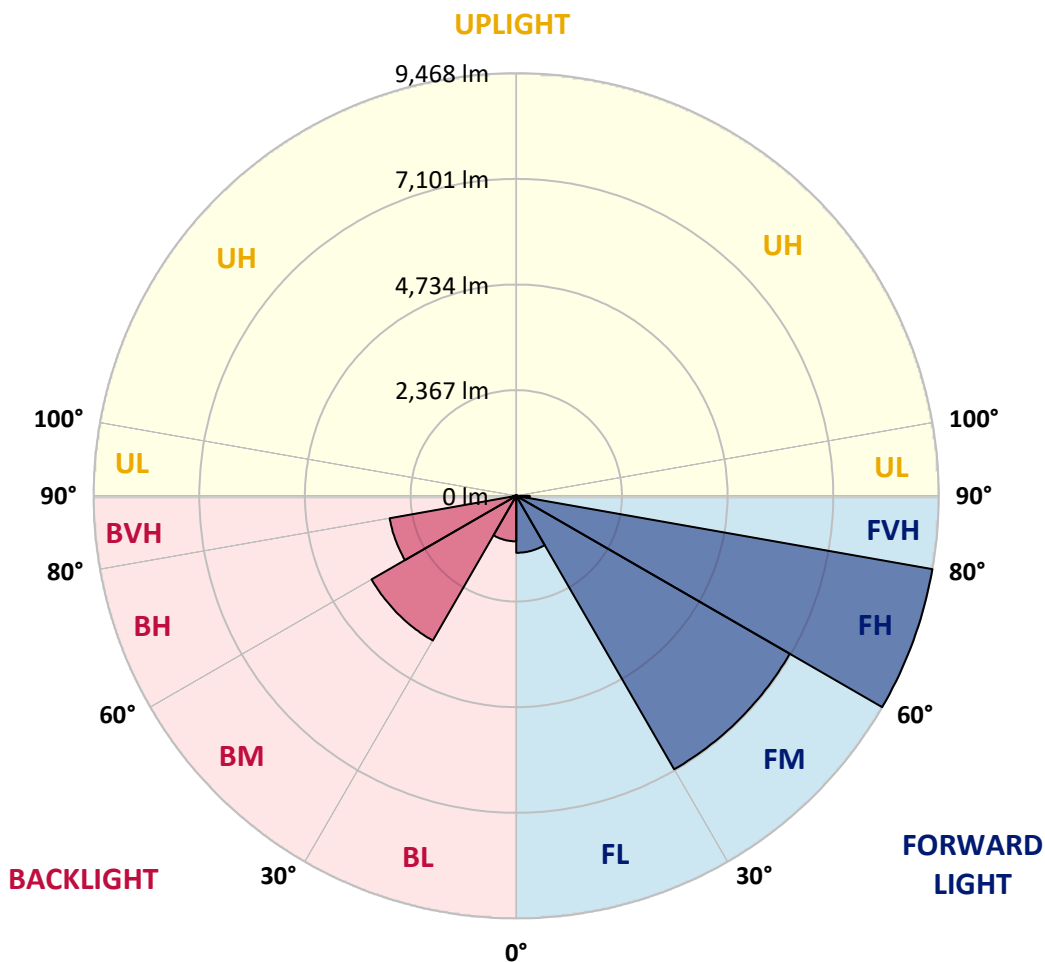


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1276.3	4.9			
FM (30°-60°)	7074.7	27.3			
FH (60°-80°)	9467.8	36.6			G4/12000
FVH (80°-90°)	300.6	1.2			G3/500
BL (0°-30°)	1020.3	3.9	B3/2500		
BM (30°-60°)	3743.5	14.5	B3/5000		
BH (60°-80°)	2880.4	11.1	B4/5000		G4/5000
BVH (80°-90°)	79.5	0.3			G1/100
UL (90°-100°)	24.3	0.1		U2/50	
UH (100°-180°)	7.4	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°	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9
2.5°	2612.9	2597.6	2598.7	2612.9	2570.4	2584.6	2566.1	2580.2	2570.4	2573.7	2580.2
5°	2629.2	2612.9	2614.0	2631.4	2593.3	2605.3	2580.2	2587.8	2579.1	2583.5	2583.5
7.5°	2661.8	2643.3	2642.2	2653.1	2614.0	2618.3	2595.5	2596.6	2583.5	2592.2	2587.8
10°	2710.8	2695.5	2684.7	2691.2	2656.4	2654.2	2624.8	2625.9	2609.6	2619.4	2611.8
12.5°	2770.6	2749.9	2747.8	2749.9	2711.9	2703.2	2672.7	2674.9	2645.5	2660.7	2652.0
15°	2846.7	2814.1	2814.1	2826.1	2777.1	2770.6	2733.6	2735.8	2705.3	2717.3	2708.6
17.5°	2940.3	2908.7	2903.3	2912.0	2869.6	2860.9	2822.8	2820.6	2786.9	2790.2	2782.6
20°	3061.0	3029.5	3016.4	3038.2	2984.9	2978.4	2932.7	2928.3	2892.4	2882.6	2878.3
22.5°	3173.1	3148.1	3141.5	3165.5	3110.0	3104.5	3061.0	3055.6	3021.9	3007.7	2921.8
25°	3299.3	3293.8	3291.6	3299.3	3247.0	3236.2	3202.4	3194.8	3166.6	3149.1	3044.7
27.5°	3462.4	3460.3	3453.7	3454.8	3407.0	3397.2	3365.6	3360.2	3330.8	3311.2	3177.4
30°	3633.2	3633.2	3619.1	3626.7	3602.8	3587.5	3562.5	3542.9	3524.4	3503.8	3335.2
32.5°	3830.1	3829.0	3816.0	3838.8	3821.4	3821.4	3806.2	3785.5	3752.9	3743.1	3538.6
35°	4083.6	4067.2	4061.8	4098.8	4093.3	4103.1	4097.7	4075.9	4048.7	4025.9	3777.9
37.5°	4364.2	4359.9	4376.2	4399.0	4411.0	4437.1	4420.8	4419.7	4415.3	4357.7	3713.7
40°	4710.1	4691.6	4714.5	4726.4	4717.7	4760.2	4746.0	4758.0	4790.6	4327.2	3709.4
42.5°	5055.0	5038.6	5055.0	5113.7	5100.6	5151.8	5145.2	5192.0	5210.5	4391.4	4010.7
45°	5479.2	5460.7	5473.8	5543.4	5549.9	5611.9	5645.6	5690.2	5698.9	4806.9	4374.0
47.5°	5966.5	5936.1	5961.1	5993.7	6092.7	6151.4	6184.1	6238.5	6293.9	5307.3	4787.4
50°	6503.9	6501.7	6528.9	6585.5	6698.6	6757.3	6813.9	6870.5	6961.8	5865.4	5250.8
52.5°	7187.0	7172.9	7219.7	7273.0	7373.0	7463.3	7530.8	7589.5	7687.4	6429.9	5752.2
55°	7968.0	7919.1	8008.3	8098.6	8141.0	8247.6	8294.4	8343.3	8436.9	7023.8	6044.8
57.5°	8811.1	8799.1	8861.1	8893.8	8985.1	9051.5	9076.5	9129.8	9128.7	7641.7	6543.0
60°	9641.1	9628.0	9700.9	9720.5	9793.4	9853.2	9844.5	9892.3	9909.8	8221.5	7031.5
62.5°	10514.6	10492.8	10560.2	10564.6	10521.1	10617.9	10608.1	10648.4	10633.1	8788.2	7512.3
65°	11469.6	11486.0	11507.7	11418.5	11314.1	11397.8	11395.7	11471.8	11526.2	9580.2	8156.2
67.5°	12719.5	12698.8	12586.8	12371.4	12118.0	12033.1	11942.8	11998.3	12013.5	9973.9	8485.8
70°	12180.0	12134.3	12084.2	11864.5	11558.8	11343.5	11203.1	11261.9	11323.9	9425.7	7970.2
72.5°	10864.8	10751.7	10518.9	10325.3	10149.1	9939.1	9768.3	9870.6	10006.6	8360.7	7057.6
75°	8571.8	8466.3	8296.6	8164.9	8070.3	8068.1	8060.5	8139.9	8120.3	6788.9	5738.1
77.5°	5308.4	5529.2	5685.9	5573.8	5613.0	5532.5	5709.8	5814.2	5908.9	4866.8	4087.9
80°	2450.8	2507.4	2784.7	2712.9	2655.3	2639.0	2649.9	2831.5	2884.8	2184.3	1829.7
82.5°	559.1	536.3	555.9	515.6	513.4	489.5	492.8	492.8	475.4	402.5	337.2
85°	282.8	289.4	291.5	279.6	246.9	221.9	205.6	174.0	150.1	128.4	108.8
87.5°	189.3	194.7	198.0	181.7	163.2	142.5	129.4	105.5	83.8	52.2	40.2
90°	129.4	128.4	125.1	116.4	104.4	89.2	71.8	50.0	29.4	10.9	7.6
92.5°	92.5	90.3	89.2	81.6	72.9	60.9	46.8	31.5	16.3	7.6	4.4
95°	60.9	59.8	59.8	55.5	49.0	40.2	31.5	20.7	12.0	6.5	4.4
97.5°	42.4	41.3	41.3	39.2	34.8	29.4	21.8	14.1	9.8	6.5	4.4
100°	29.4	29.4	29.4	27.2	25.0	20.7	16.3	10.9	8.7	6.5	4.4
102.5°	19.6	19.6	20.7	19.6	17.4	14.1	10.9	8.7	7.6	5.4	4.4
105°	13.1	13.1	13.1	13.1	12.0	9.8	8.7	7.6	6.5	5.4	4.4
107.5°	8.7	8.7	8.7	8.7	7.6	6.5	6.5	6.5	5.4	5.4	4.4
110°	5.4	5.4	5.4	6.5	5.4	5.4	5.4	5.4	5.4	4.4	4.4



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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°	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9	2563.9
2.5°	2574.8	2559.6	2567.2	2552.0	2545.4	2531.3	2558.5	2560.7	2558.5	2562.8
5°	2578.1	2560.7	2569.4	2552.0	2548.7	2532.4	2559.6	2559.6	2553.0	2556.3
7.5°	2585.7	2567.2	2573.7	2553.0	2553.0	2533.5	2566.1	2563.9	2558.5	2566.1
10°	2611.8	2590.0	2590.0	2570.4	2572.6	2552.0	2592.2	2592.2	2587.8	2600.9
12.5°	2652.0	2624.8	2625.9	2598.7	2603.1	2586.8	2635.7	2637.9	2637.9	2659.6
15°	2704.2	2662.9	2667.3	2637.9	2646.6	2627.0	2670.5	2668.3	2673.8	2705.3
17.5°	2768.4	2722.7	2684.7	2588.9	2532.4	2534.5	2664.0	2723.8	2654.2	2674.9
20°	2795.6	2573.7	2453.0	2418.2	2410.5	2289.8	2042.9	2080.9	2313.7	2414.9
22.5°	2612.9	2542.2	2530.2	2485.6	2156.0	2064.6	2079.9	2058.1	1829.7	1700.2
25°	2702.1	2655.3	2628.1	2235.4	2161.4	2145.1	2134.2	1927.6	1679.5	1691.5
27.5°	2828.2	2767.3	2441.0	2245.2	2259.3	2234.3	2171.2	1733.9	1726.3	1745.9
30°	2977.3	2823.9	2379.0	2360.5	2376.8	2344.2	1825.3	1807.9	1807.9	1827.5
32.5°	3160.0	2561.7	2524.8	2526.9	2516.1	2146.2	1921.0	1916.7	1929.7	1946.1
35°	3108.9	2732.5	2735.8	2754.3	2729.3	2099.4	2071.1	2054.8	2065.7	2072.2
37.5°	3008.8	2989.2	2989.2	2968.6	2330.0	2263.7	2233.2	2231.1	2230.0	2230.0
40°	3261.2	3242.7	3219.9	3184.0	2437.7	2455.1	2409.5	2404.0	2407.3	2419.2
42.5°	3548.4	3540.8	3538.6	2732.5	2661.8	2674.9	2625.9	2611.8	2611.8	2639.0
45°	3886.7	3876.9	3636.5	2920.7	2908.7	2924.0	2869.6	2835.9	2854.4	2873.9
47.5°	4275.0	4275.0	3219.9	3202.4	3202.4	3211.2	3156.8	3111.1	3129.6	3136.1
50°	4700.3	4035.7	3542.9	3526.6	3541.8	3537.5	3480.9	3056.7	3449.4	3452.6
52.5°	4818.9	3924.7	3897.5	3879.1	3897.5	3894.3	3835.5	2549.8	3731.1	3784.4
55°	4271.7	4275.0	4269.6	4242.4	4262.0	4254.3	4196.7	2783.7	2751.0	2451.9
57.5°	4618.7	4623.1	4620.9	4616.6	4634.0	3366.7	4346.8	2515.0	1536.0	1537.0
60°	4996.2	4974.5	4967.9	4958.1	4202.1	2386.6	1811.2	175.1	600.5	591.8
62.5°	5338.9	5331.3	5308.4	5303.0	3565.8	1879.7	1836.2	40.2	31.5	30.5
65°	5815.3	5747.9	5729.4	5671.7	3800.7	2001.5	1960.2	12.0	1.1	0.0
67.5°	5992.6	5855.6	5789.2	5758.8	3867.1	2064.6	1985.2	12.0	1.1	0.0
70°	5657.6	5487.9	5404.1	5370.4	3613.6	1929.7	1851.4	12.0	1.1	0.0
72.5°	5016.9	4891.8	4858.1	4750.4	3186.1	1693.7	1625.2	12.0	0.0	0.0
75°	4115.1	4069.4	4028.1	3913.9	2590.0	1345.6	1284.7	10.9	0.0	0.0
77.5°	2994.7	2927.2	2851.1	2727.1	1748.1	878.9	847.4	9.8	0.0	0.0
80°	1349.9	1294.5	1276.0	1082.3	620.0	286.1	252.4	8.7	0.0	0.0
82.5°	262.2	236.1	224.1	215.4	139.2	77.2	67.4	6.5	0.0	0.0
85°	89.2	99.0	115.3	127.3	78.3	46.8	39.2	4.4	0.0	0.0
87.5°	34.8	46.8	56.6	58.7	29.4	19.6	10.9	2.2	0.0	0.0
90°	6.5	8.7	7.6	5.4	3.3	1.1	0.0	0.0	0.0	0.0
92.5°	3.3	4.4	3.3	3.3	2.2	1.1	0.0	0.0	0.0	0.0
95°	4.4	4.4	4.4	3.3	2.2	1.1	0.0	0.0	0.0	0.0
97.5°	4.4	4.4	4.4	3.3	2.2	1.1	0.0	0.0	0.0	0.0
100°	4.4	4.4	4.4	3.3	2.2	1.1	0.0	0.0	0.0	0.0
102.5°	4.4	4.4	4.4	3.3	2.2	1.1	0.0	0.0	0.0	0.0
105°	4.4	5.4	4.4	3.3	2.2	1.1	0.0	0.0	0.0	0.0
107.5°	4.4	5.4	4.4	3.3	2.2	1.1	0.0	0.0	0.0	0.0
110°	4.4	5.4	4.4	3.3	2.2	1.1	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)