

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: P522216

Luminaire Tested: **CTN-CA8-330-722-U-T5R-HSS-HM-EX120**

Issue Date: 5/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P522216  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1808-894-6)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 5/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: McGRAW-EDISON  
Catalog Number: CTN-CA8-330-722-U-T5R-HSS-HM-EX120  
Description: CELESTEON HIGH MAST LUMINAIRE  
Light Source: (8) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 30733 lumens  
Efficiency: N/A  
Efficacy: 92.7 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G4

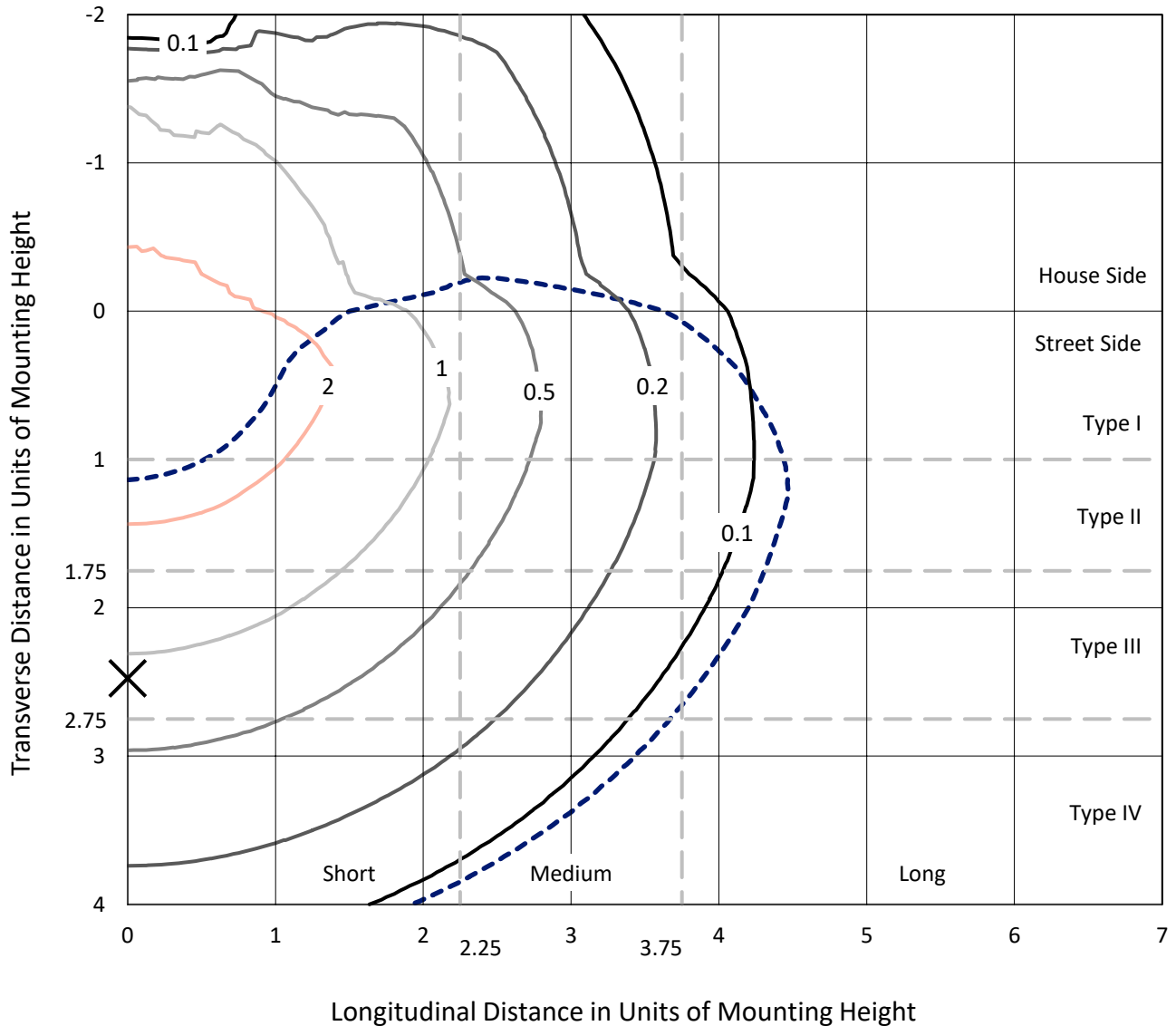
Input Watts (W): 331.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

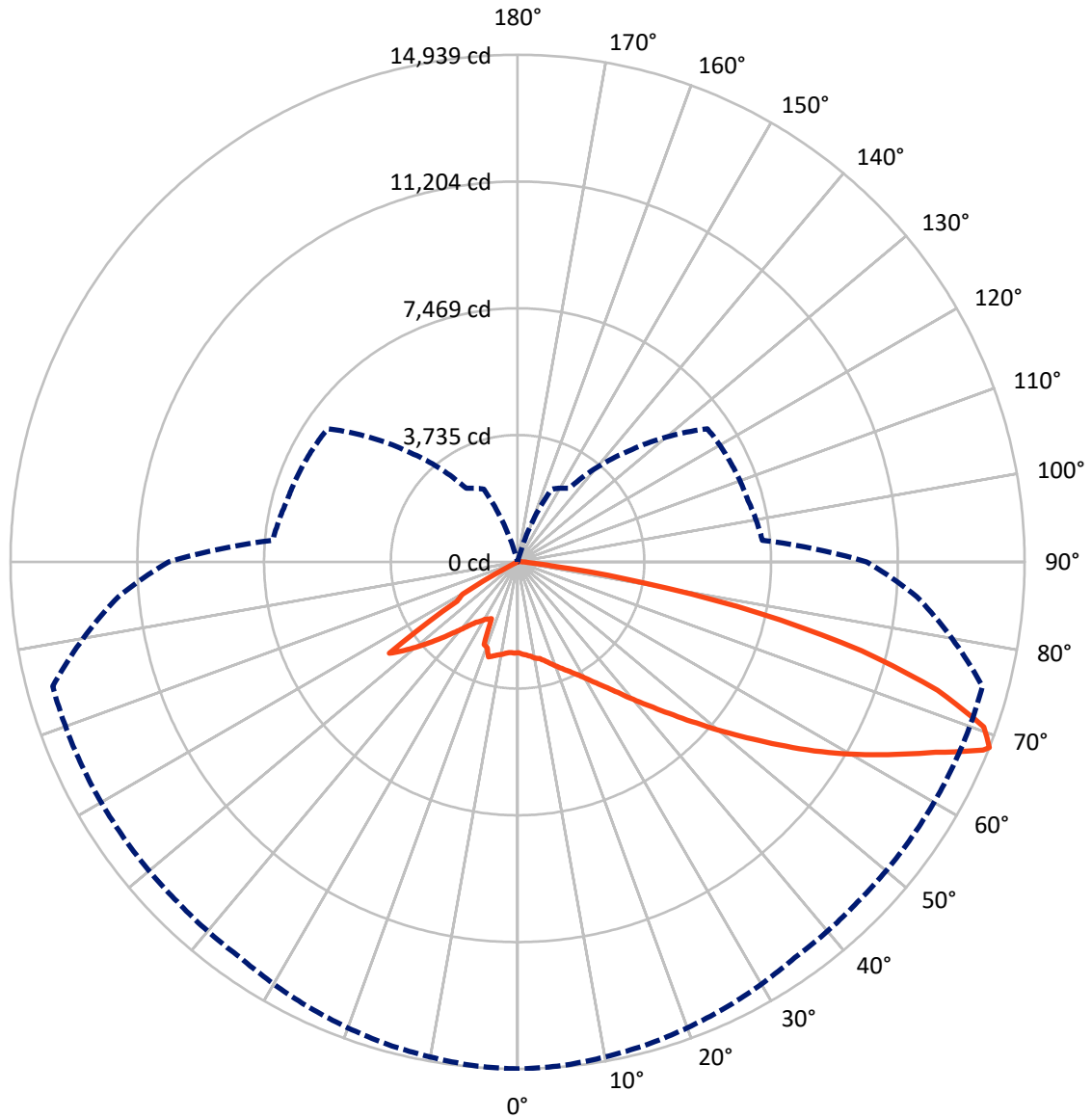
× Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 3 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 68-Deg Vertical

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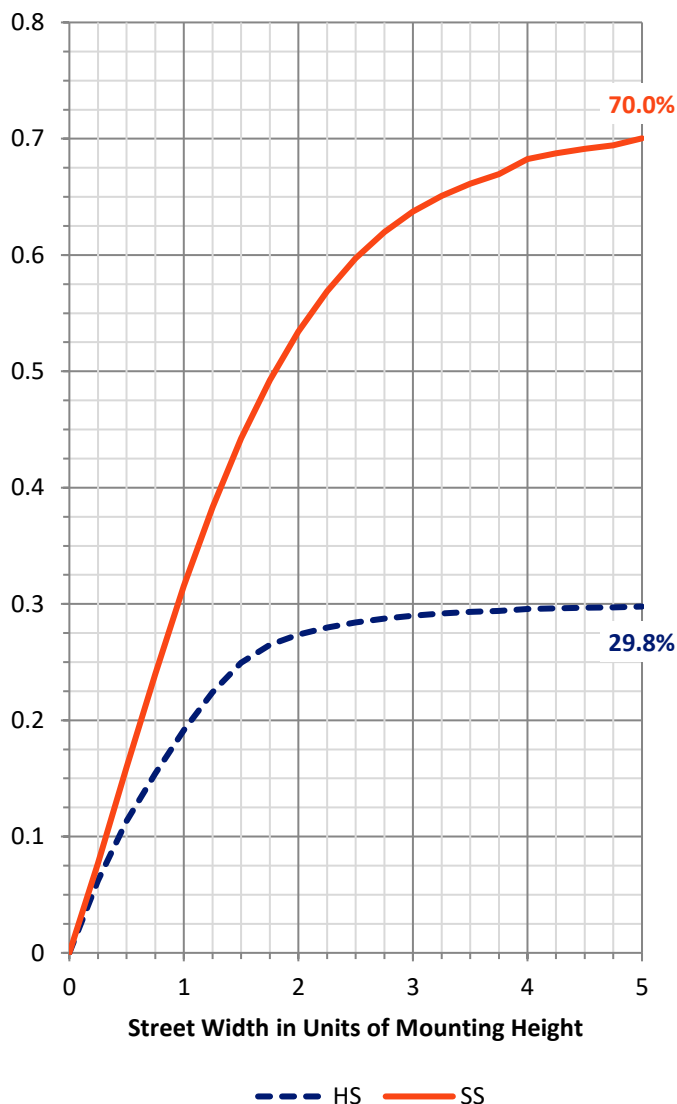
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9161.2	1.4	9162.6
	% Fixture	29.8	0.0	29.8
<b>Street Side</b>	Lumens	21557.8	12.6	21570.4
	% Fixture	70.1	0.0	70.2
<b>Total</b>	Lumens	30719.0	14.0	30733.0
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	260.0	0.8
10°-20°	827.7	2.7
20°-30°	1417.7	4.6
30°-40°	2299.8	7.5
40°-50°	3878.5	12.6
50°-60°	6322.0	20.6
60°-70°	8478.9	27.6
70°-80°	6585.9	21.4
80°-90°	648.6	2.1
90°-100°	12.3	0.0
100°-110°	0.7	0.0
110°-120°	0.2	0.0
120°-130°	0.1	0.0
130°-140°	0.2	0.0
140°-150°	0.2	0.0
150°-160°	0.2	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-90°	30719.0	100.0
0°-180°	30733.0	100.0

**Coefficient of Utilization**



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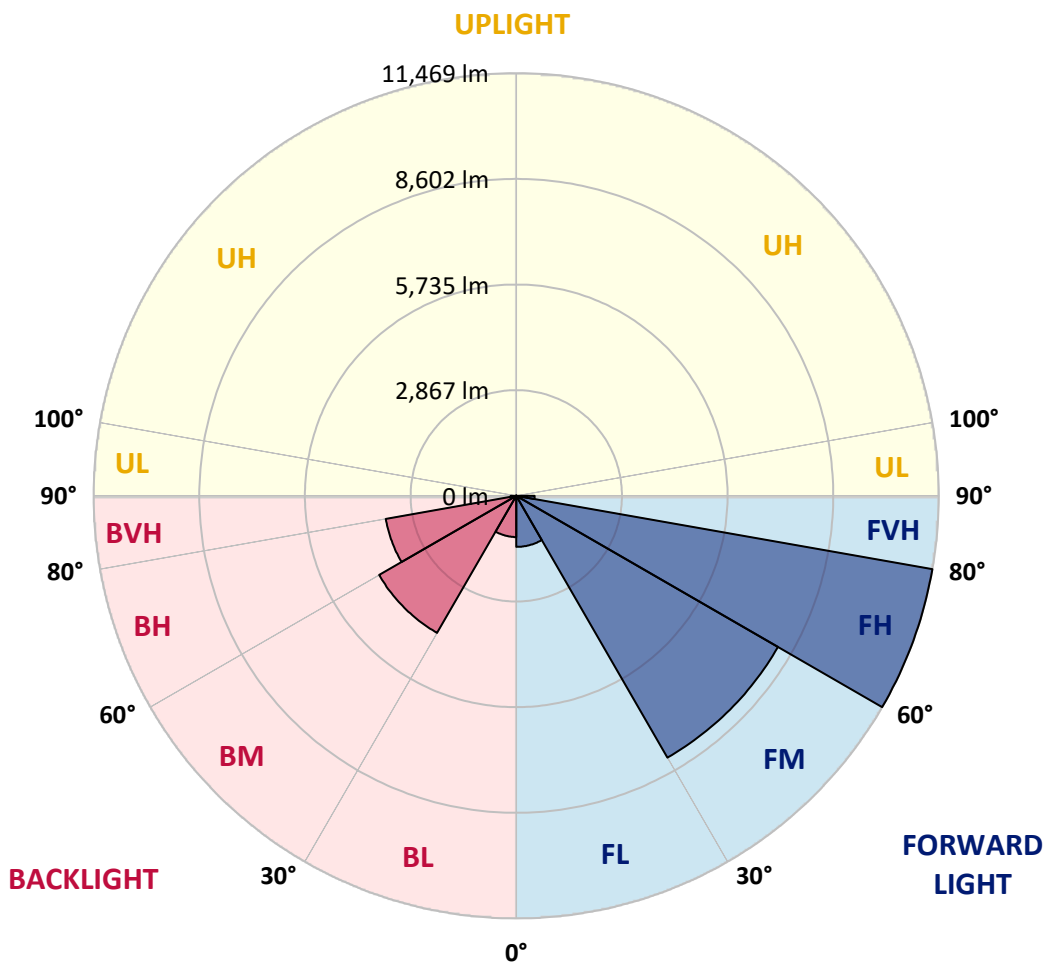
CATALOG NUMBER: CTN-CA8-330-722-U-T5R-HSS-HM-EX120

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1386.2	4.5			
FM (30°-60°)	8203.7	26.7			
FH (60°-80°)	11469.2	37.3			G4/12000
FVH (80°-90°)	498.7	1.6			G3/500
BL (0°-30°)	1119.1	3.6	B3/2500		
BM (30°-60°)	4296.6	14.0	B3/5000		
BH (60°-80°)	3595.5	11.7	B4/5000		G4/5000
BVH (80°-90°)	149.9	0.5			G2/225
UL (90°-100°)	12.3	0.0		U2/50	
UH (100°-180°)	1.7	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°	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3
2.5°	2723.8	2716.2	2714.9	2730.2	2681.9	2706.0	2684.4	2702.2	2690.8	2699.7	2701.0
5°	2760.7	2746.7	2737.8	2755.6	2725.1	2736.5	2712.4	2720.0	2688.2	2706.0	2708.6
7.5°	2814.1	2791.2	2788.7	2793.7	2767.1	2775.9	2736.5	2745.4	2722.6	2712.4	2721.3
10°	2886.5	2864.9	2848.4	2859.8	2824.2	2829.3	2787.4	2788.7	2772.1	2753.1	2768.3
12.5°	2927.2	2929.7	2922.1	2931.0	2901.8	2885.3	2856.0	2845.9	2829.3	2806.5	2798.8
15°	3028.9	3023.8	3008.5	3022.5	3018.7	3003.5	2967.9	2945.0	2909.4	2896.7	2884.0
17.5°	3153.4	3136.9	3124.2	3142.0	3161.1	3129.3	3095.0	3063.2	3016.2	2990.8	2975.5
20°	3284.4	3272.9	3260.2	3288.2	3294.5	3270.4	3245.0	3197.9	3143.3	3110.2	3078.5
22.5°	3430.5	3407.7	3411.5	3448.3	3436.9	3425.4	3392.4	3354.3	3288.2	3246.2	3154.7
25°	3581.8	3569.1	3586.9	3603.4	3594.5	3570.3	3553.8	3525.9	3452.1	3401.3	3267.8
27.5°	3769.9	3749.6	3772.4	3778.8	3771.2	3764.8	3741.9	3720.3	3640.3	3583.1	3416.6
30°	3991.1	3966.9	4003.8	3994.9	3987.2	3992.3	3978.4	3931.3	3860.1	3782.6	3616.1
32.5°	4254.2	4222.4	4264.3	4245.3	4227.5	4263.1	4230.0	4185.5	4101.6	4011.4	3848.7
35°	4559.2	4560.5	4582.1	4550.3	4544.0	4582.1	4560.5	4505.8	4428.3	4334.2	4102.9
37.5°	4929.1	4918.9	4973.6	4958.3	4935.4	4986.3	4992.6	4924.0	4784.2	4691.4	4418.1
40°	5379.0	5376.5	5394.3	5396.8	5390.5	5414.6	5426.1	5334.5	5244.3	5104.5	4169.0
42.5°	5859.5	5869.7	5901.4	5878.6	5909.1	5940.8	5944.6	5868.4	5738.7	4897.3	4428.3
45°	6436.5	6468.3	6489.9	6484.8	6498.8	6544.6	6548.4	6507.7	6380.6	5305.3	4898.6
47.5°	7098.8	7129.3	7135.6	7176.3	7163.6	7228.4	7219.5	7220.8	7084.8	5873.5	5410.8
50°	7860.1	7874.1	7926.2	7949.1	7917.3	8005.0	7982.1	8010.1	7842.3	6524.2	5961.2
52.5°	8668.5	8692.6	8714.2	8800.7	8760.0	8836.3	8805.8	8870.6	8676.1	7186.5	6572.5
55°	9587.4	9591.3	9628.1	9715.8	9662.4	9754.0	9709.5	9733.6	9578.5	7918.6	7209.3
57.5°	10561.1	10548.4	10562.3	10632.2	10583.9	10652.6	10634.8	10657.7	10512.8	8688.8	7674.5
60°	11524.5	11505.4	11525.8	11572.8	11506.7	11624.9	11561.4	11583.0	11426.6	9475.6	8338.0
62.5°	12493.0	12479.1	12456.2	12503.2	12406.6	12467.6	12494.3	12458.7	12321.4	10187.4	8915.1
65°	13532.7	13518.8	13434.9	13464.1	13291.3	13262.0	13272.2	13283.6	13192.1	10892.8	9548.0
67.5°	14796.2	14775.8	14618.2	14419.9	14170.8	14116.2	14121.2	14151.7	14164.5	11800.3	10289.1
68°	14938.5	14901.7	14726.3	14496.2	14235.6	14172.1	14165.7	14172.1	14178.4	11807.9	10281.4
70°	14575.0	14561.0	14427.6	14149.2	13882.3	13729.8	13597.6	13592.5	13531.5	11204.2	9713.3
72.5°	12934.1	12916.3	12757.4	12560.4	12395.2	12156.2	11984.6	11994.8	11894.4	9902.7	8502.0
75°	10467.0	10465.7	10275.1	10109.8	10112.4	10094.6	10037.4	10137.8	10033.6	8399.0	7251.3
77.5°	7294.5	7319.9	7307.2	7210.6	7346.6	7534.7	7739.4	7932.6	7872.8	6634.8	5782.0
80°	3810.6	3881.8	4133.4	4144.9	4240.2	4423.2	4563.0	4692.7	4701.6	3764.8	3340.3
82.5°	1013.0	1034.6	1119.8	1095.6	1088.0	1124.9	1155.4	1159.2	1161.7	981.2	916.4
85°	315.2	324.1	313.9	300.0	278.4	254.2	247.9	202.1	160.2	132.2	115.7
87.5°	223.7	239.0	216.1	203.4	180.5	171.6	153.8	120.7	94.1	66.1	44.5
90°	115.7	118.2	105.5	90.2	83.9	78.8	67.4	48.3	24.1	12.7	11.4
92.5°	58.5	59.7	52.1	44.5	38.1	33.0	25.4	14.0	7.6	3.8	1.3
95°	22.9	24.1	21.6	19.1	15.3	11.4	10.2	7.6	5.1	2.5	1.3
97.5°	7.6	7.6	7.6	6.4	6.4	6.4	6.4	5.1	3.8	2.5	1.3
100°	0.0	0.0	0.0	1.3	2.5	3.8	3.8	3.8	2.5	1.3	1.3
102.5°	0.0	0.0	0.0	0.0	0.0	1.3	2.5	2.5	2.5	1.3	1.3
105°	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3	1.3
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
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	1.3
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3
165°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
170°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
175°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	1.3	1.3	1.3	1.3	1.3
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°	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3	2679.3
2.5°	2694.6	2687.0	2690.8	2659.0	2666.6	2646.3	2689.5	2678.1	2673.0	2690.8
5°	2701.0	2673.0	2695.9	2674.3	2678.1	2648.8	2684.4	2670.5	2669.2	2679.3
7.5°	2703.5	2689.5	2711.1	2675.5	2687.0	2675.5	2702.2	2688.2	2701.0	2709.9
10°	2739.1	2731.5	2728.9	2716.2	2725.1	2699.7	2732.7	2732.7	2739.1	2763.2
12.5°	2791.2	2781.0	2774.7	2751.8	2760.7	2753.1	2779.8	2784.8	2796.3	2806.5
15°	2862.4	2844.6	2838.2	2817.9	2824.2	2823.0	2842.0	2843.3	2868.7	2867.5
17.5°	2953.9	2928.5	2936.1	2920.8	2922.1	2911.9	2901.8	2901.8	2924.7	2929.7
20°	3063.2	2918.3	2727.6	2620.9	2601.8	2615.8	2670.5	2760.7	2647.6	2679.3
22.5°	2866.2	2735.3	2726.4	2702.2	2687.0	2346.3	2258.6	2230.7	2376.8	2628.5
25°	2891.6	2835.7	2819.2	2788.7	2338.7	2334.9	2309.5	2267.5	1853.2	1844.3
27.5°	3026.3	2971.7	2945.0	2442.9	2432.8	2431.5	2393.4	1972.7	1877.3	1890.0
30°	3184.0	3120.4	2642.5	2566.2	2557.3	2537.0	2318.4	1948.5	1947.2	1948.5
32.5°	3365.7	3154.7	2718.8	2714.9	2720.0	2657.7	2054.0	2046.4	2045.1	2057.8
35°	3614.8	2927.2	2909.4	2928.5	2901.8	2298.0	2177.3	2173.5	2174.7	2168.4
37.5°	3449.6	3156.0	3152.2	3152.2	3089.9	2351.4	2327.3	2345.1	2342.5	2333.6
40°	3519.5	3433.1	3410.2	3402.6	2612.0	2537.0	2523.0	2545.9	2549.7	2556.1
42.5°	3858.9	3780.1	3768.6	3678.4	2842.0	2817.9	2774.7	2798.8	2796.3	2803.9
45°	4275.8	4222.4	4172.8	3189.0	3152.2	3121.7	3077.2	3105.1	3112.8	3107.7
47.5°	4761.3	4702.8	4344.4	3506.8	3505.5	3481.4	3431.8	3454.7	3450.9	3450.9
50°	5249.4	5185.8	3946.6	3911.0	3898.3	3860.1	3819.5	3823.3	3824.6	3837.3
52.5°	5794.7	4631.7	4368.6	4297.4	4307.6	4282.1	4242.7	3211.9	4223.7	4235.1
55°	5415.9	4847.7	4832.5	4738.4	4762.6	4729.5	4704.1	3168.7	4200.8	4641.8
57.5°	5354.9	5314.2	5301.5	5204.9	5235.4	4921.5	5156.6	3467.4	2905.6	2122.6
60°	5821.4	5778.1	5770.5	5685.4	5682.8	3911.0	4687.6	2378.1	1858.3	1871.0
62.5°	6273.8	6203.9	6223.0	6122.6	4316.4	2383.2	2101.0	53.4	85.2	90.2
65°	6778.4	6661.5	6680.6	6587.8	4452.4	2512.8	2271.3	28.0	24.1	22.9
67.5°	7264.0	7059.3	6961.5	6863.6	4624.0	2646.3	2366.7	7.6	0.0	0.0
68°	7239.8	7023.8	6923.3	6830.6	4606.2	2642.5	2361.6	7.6	0.0	0.0
70°	6831.8	6637.4	6542.0	6470.9	4397.8	2552.2	2266.3	7.6	0.0	0.0
72.5°	5972.6	5864.6	5803.6	5741.3	3907.2	2282.8	2032.4	7.6	0.0	0.0
75°	5075.3	5044.8	5006.6	4869.3	3256.4	1868.4	1670.1	7.6	0.0	0.0
77.5°	4021.6	4020.3	3927.5	3766.1	2451.8	1371.5	1231.6	6.4	0.0	0.0
80°	2174.7	2370.5	2299.3	2216.7	1390.5	746.1	710.5	5.1	0.0	0.0
82.5°	611.4	578.3	555.4	519.9	292.3	162.7	158.9	5.1	0.0	0.0
85°	85.2	94.1	104.2	118.2	67.4	43.2	38.1	2.5	0.0	0.0
87.5°	48.3	54.7	67.4	69.9	25.4	20.3	6.4	0.0	0.0	0.0
90°	10.2	11.4	12.7	12.7	5.1	5.1	0.0	0.0	0.0	0.0
92.5°	0.0	1.3	1.3	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	0.0	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	0.0	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



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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	1.3	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	1.3	1.3	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)