

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: P579498

Luminaire Tested: **CTN-CA6-230-740-U-T5-HSS-HM-EX90**

Issue Date: 11/18/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P579498  
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-CA6-230-740-U-T5-HSS-HM-EX90  
Description: CELESTEON HIGH MAST LUMINAIRE WITH FIELD INSTALLED SHIELD  
Light Source: (6) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 27816 lumens  
Efficiency: N/A  
Efficacy: 122.1 lumens/watt  
Luminous Opening: Circular (Dia: 2.08' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B4 - U2 - G4

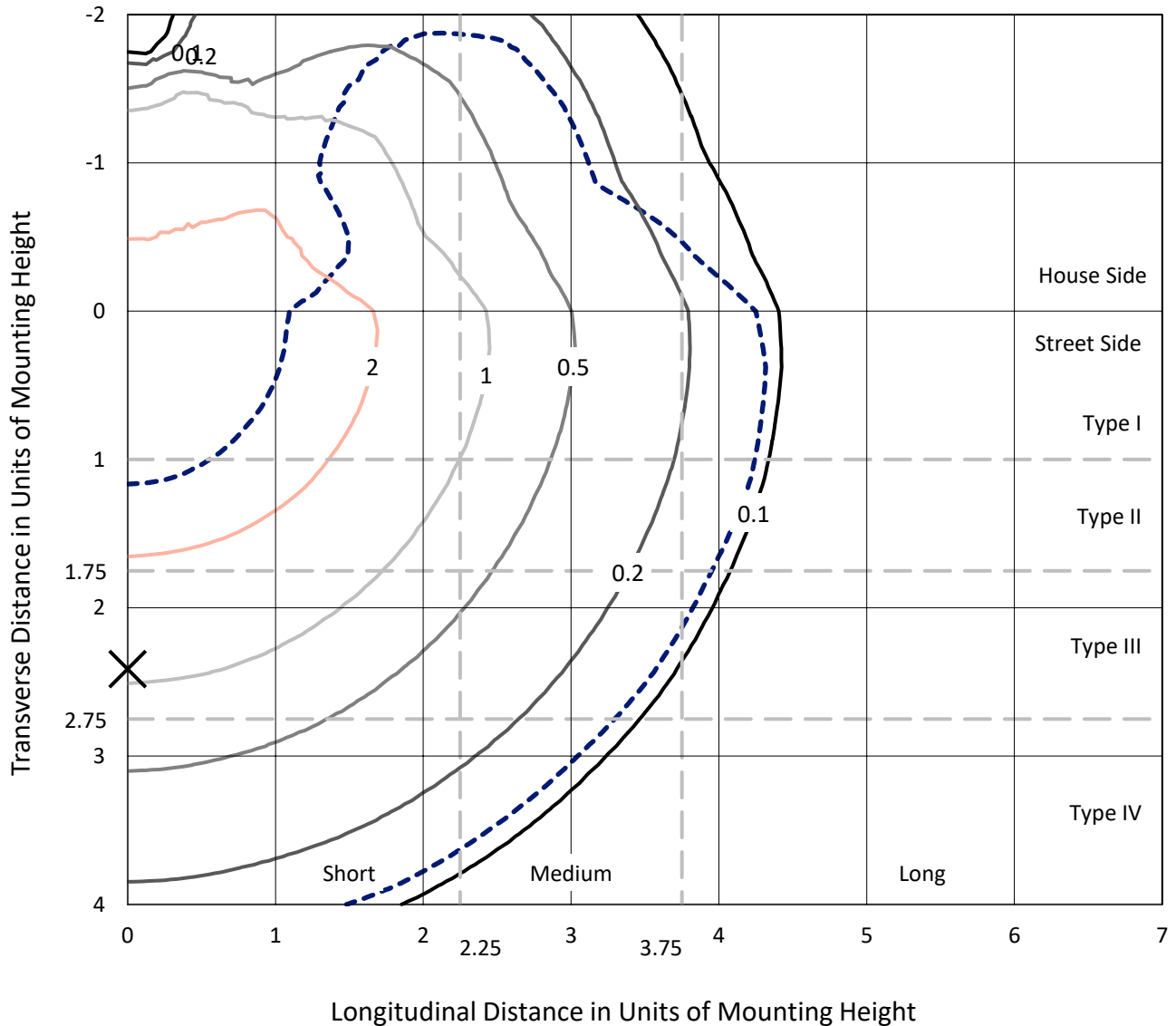
Input Watts (W): 227.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

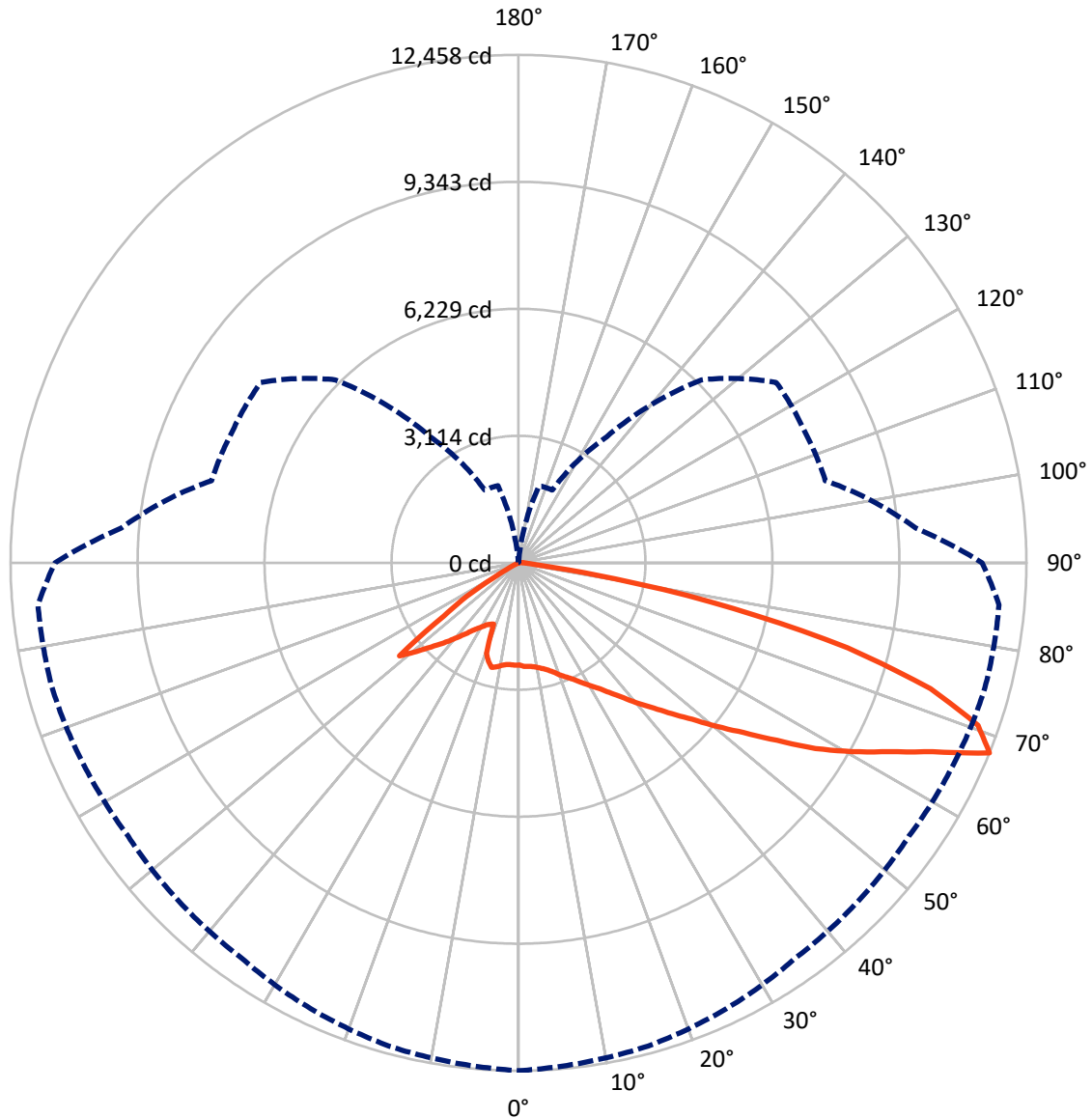
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4 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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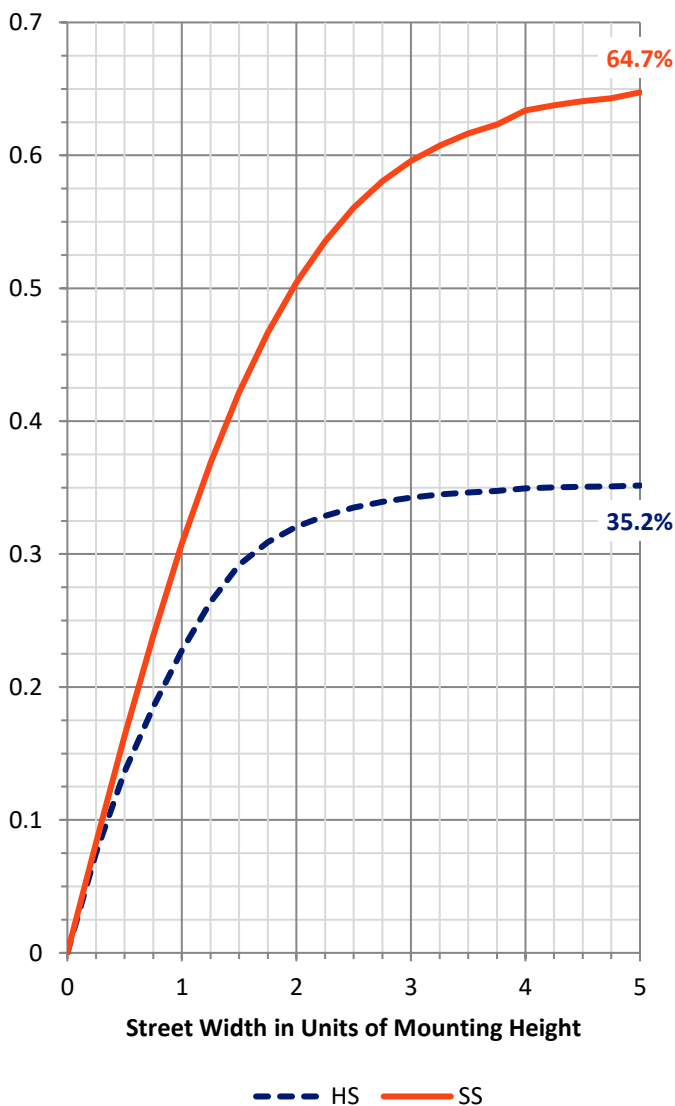
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	9791.2	0.6	9791.8
	% Fixture	35.2	0.0	35.2
<b>Street Side</b>	Lumens	18004.6	19.6	18024.2
	% Fixture	64.7	0.1	64.8
<b>Total</b>	Lumens	27795.8	20.2	27816.0
	% Fixture	99.9	0.1	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	241.1	0.9
10°-20°	749.1	2.7
20°-30°	1298.9	4.7
30°-40°	2131.2	7.7
40°-50°	3554.9	12.8
50°-60°	5753.1	20.7
60°-70°	7941.2	28.5
70°-80°	5729.2	20.6
80°-90°	397.1	1.4
90°-100°	17.2	0.1
100°-110°	2.9	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°	27795.8	99.9
0°-180°	27816.0	100.0

**Coefficient of Utilization**

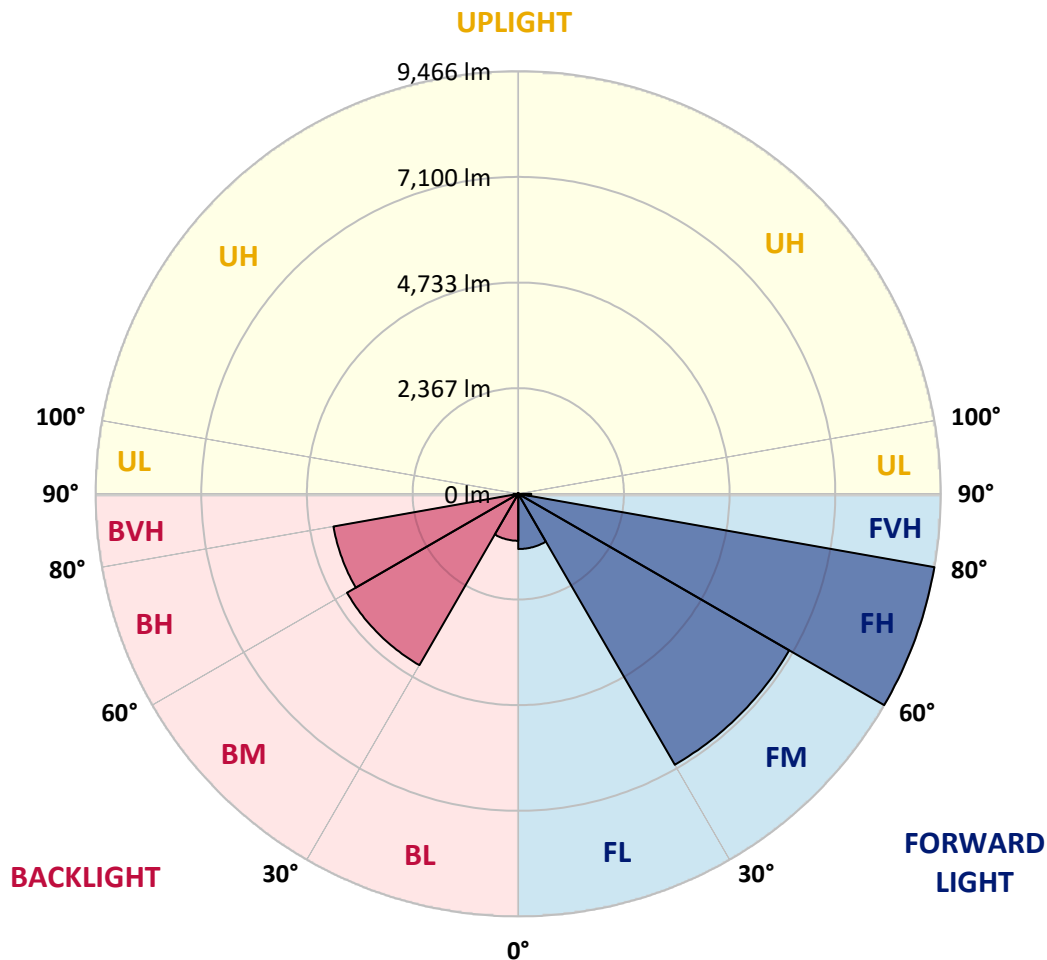


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1236.9	4.4			
FM	(30°-60°)	7008.9	25.2			
FH	(60°-80°)	9466.1	34.0			G4/12000
FVH	(80°-90°)	292.6	1.1			G3/500
BL	(0°-30°)	1052.2	3.8	B3/2500		
BM	(30°-60°)	4430.3	15.9	B3/5000		
BH	(60°-80°)	4204.2	15.1	B4/5000		G4/5000
BVH	(80°-90°)	104.5	0.4			G2/225
UL	(90°-100°)	17.2	0.1		U2/50	
UH	(100°-180°)	3.0	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°	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7
2.5°	2545.0	2530.1	2531.2	2546.1	2505.6	2520.6	2503.5	2518.4	2511.0	2516.3	2522.7
5°	2552.5	2534.4	2536.5	2554.6	2522.7	2534.4	2514.2	2522.7	2516.3	2522.7	2523.7
7.5°	2571.7	2553.6	2554.6	2568.5	2535.5	2544.0	2524.8	2529.1	2518.4	2530.1	2526.9
10°	2612.1	2595.1	2588.7	2600.4	2571.7	2572.7	2550.4	2554.6	2538.7	2554.6	2548.2
12.5°	2666.4	2643.0	2645.1	2651.5	2616.4	2618.5	2591.9	2598.3	2571.7	2594.0	2586.6
15°	2732.5	2703.7	2706.9	2717.6	2683.5	2680.3	2655.8	2655.8	2632.4	2649.4	2641.9
17.5°	2824.0	2792.1	2790.0	2797.4	2769.7	2769.7	2742.0	2738.9	2715.4	2729.3	2727.1
20°	2943.3	2907.1	2900.7	2914.6	2879.4	2883.7	2848.5	2845.3	2819.8	2828.3	2829.4
22.5°	3050.9	3022.1	3021.0	3042.3	3000.8	3006.1	2974.2	2965.7	2944.4	2956.1	2959.3
25°	3174.4	3170.1	3166.9	3174.4	3132.9	3132.9	3110.5	3103.0	3089.2	3097.7	3106.2
27.5°	3329.9	3327.7	3319.2	3320.3	3285.1	3290.5	3266.0	3261.7	3255.3	3254.2	3250.0
30°	3501.3	3491.7	3480.0	3487.5	3471.5	3476.8	3455.5	3441.7	3439.5	3440.6	3434.2
32.5°	3691.9	3679.1	3671.7	3684.5	3690.8	3705.8	3704.7	3666.4	3666.4	3682.3	3653.6
35°	3928.3	3908.1	3914.5	3931.5	3944.3	3982.6	3976.2	3949.6	3958.1	3965.6	3931.5
37.5°	4206.2	4192.4	4221.2	4253.1	4254.2	4308.5	4295.7	4302.1	4301.0	4291.4	4269.1
40°	4539.5	4517.2	4547.0	4571.5	4556.6	4621.5	4619.4	4648.2	4667.3	4700.3	4687.6
42.5°	4870.7	4853.7	4882.4	4935.7	4927.2	5001.7	5012.4	5057.1	5083.7	5134.8	5105.0
45°	5278.6	5269.0	5295.6	5337.1	5365.9	5464.9	5504.3	5523.5	5590.6	5652.3	5583.1
47.5°	5735.4	5748.2	5743.9	5819.5	5883.4	6003.7	6019.7	6081.5	6140.1	6208.2	6141.1
50°	6304.0	6282.7	6301.9	6374.3	6478.7	6566.0	6648.0	6736.4	6793.9	6864.2	6740.6
52.5°	6916.3	6934.4	6977.0	7088.9	7165.5	7268.8	7343.4	7448.8	7505.2	7565.9	7405.1
55°	7688.4	7703.3	7750.1	7865.1	7919.5	8036.6	8087.7	8193.1	8247.4	8274.1	8068.5
57.5°	8593.5	8543.5	8581.8	8641.4	8725.6	8852.3	8866.1	8965.2	8965.2	8999.2	8737.3
60°	9401.8	9367.7	9408.1	9493.3	9526.3	9641.3	9629.6	9710.6	9731.9	9706.3	9393.2
62.5°	10198.3	10204.7	10256.8	10284.5	10271.8	10339.9	10367.6	10452.8	10417.6	10426.2	10065.2
65°	11165.2	11180.1	11174.8	11123.7	11008.6	11142.8	11135.4	11270.6	11279.1	11355.8	10936.2
67.5°	12457.9	12391.9	12271.6	12066.1	11838.2	11759.4	11690.2	11757.2	11843.5	11829.7	11369.6
70°	11955.3	11847.8	11784.9	11606.0	11301.5	11143.9	11000.1	11011.8	11137.5	11149.2	10678.5
72.5°	10568.9	10514.5	10272.8	10116.3	9907.6	9786.2	9612.6	9652.0	9816.0	9843.7	9468.8
75°	8336.9	8286.8	8068.5	8017.4	7914.1	7973.8	7931.2	7947.1	8079.2	7957.8	7733.1
77.5°	5395.7	5407.4	5373.3	5489.4	5485.2	5488.3	5643.8	5659.8	5788.6	5714.1	5496.9
80°	2419.4	2454.5	2537.6	2705.8	2603.6	2659.0	2718.6	2700.5	2830.4	2536.5	2641.9
82.5°	489.8	506.9	478.1	499.4	466.4	483.5	507.9	470.7	466.4	432.3	401.5
85°	252.4	255.6	254.5	249.2	219.4	202.3	194.9	164.0	148.0	144.8	134.2
87.5°	164.0	166.1	160.8	159.7	140.6	128.8	115.0	96.9	80.9	56.4	46.9
90°	100.1	100.1	94.8	89.4	79.9	71.3	57.5	41.5	24.5	9.6	5.3
92.5°	67.1	67.1	65.0	61.8	55.4	47.9	37.3	24.5	11.7	4.3	2.1
95°	42.6	42.6	41.5	40.5	36.2	30.9	23.4	14.9	7.5	3.2	1.1
97.5°	27.7	27.7	27.7	26.6	24.5	21.3	16.0	9.6	5.3	2.1	1.1
100°	17.0	18.1	17.0	17.0	16.0	13.8	10.6	6.4	4.3	2.1	1.1
102.5°	9.6	9.6	10.6	10.6	9.6	8.5	6.4	5.3	3.2	2.1	1.1
105°	4.3	4.3	5.3	5.3	5.3	4.3	4.3	3.2	2.1	2.1	1.1
107.5°	1.1	1.1	1.1	2.1	3.2	3.2	3.2	3.2	2.1	1.1	1.1
110°	0.0	0.0	0.0	1.1	1.1	2.1	2.1	2.1	2.1	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°	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7	2506.7
2.5°	2516.3	2503.5	2513.1	2497.1	2492.9	2479.0	2505.6	2509.9	2507.8	2512.0
5°	2518.4	2502.4	2514.2	2498.2	2497.1	2482.2	2509.9	2511.0	2503.5	2506.7
7.5°	2524.8	2509.9	2518.4	2500.3	2502.4	2484.3	2516.3	2515.2	2511.0	2518.4
10°	2548.2	2531.2	2534.4	2515.2	2520.6	2501.4	2540.8	2542.9	2538.7	2552.5
12.5°	2588.7	2565.3	2572.7	2550.4	2554.6	2535.5	2583.4	2586.6	2586.6	2608.9
15°	2644.1	2619.6	2635.6	2606.8	2607.9	2579.1	2615.3	2615.3	2619.6	2650.5
17.5°	2725.0	2695.2	2716.5	2689.9	2523.7	2460.9	2584.4	2660.0	2534.4	2523.7
20°	2825.1	2811.3	2823.0	2779.3	2509.9	2222.4	1998.8	1987.1	2235.2	2358.7
22.5°	2947.6	2933.7	2939.0	2883.7	2240.5	2038.2	2035.0	2013.7	1703.8	1618.6
25°	3091.3	3083.9	3072.2	2607.9	2316.1	2122.3	2096.7	1818.8	1641.0	1656.9
27.5°	3245.7	3223.4	2828.3	2709.0	2432.2	2206.4	2061.6	1698.5	1692.1	1707.0
30°	3418.2	3300.0	2895.4	2854.9	2567.4	2310.8	1794.3	1773.0	1773.0	1796.4
32.5°	3637.6	3081.7	3081.7	3060.4	2734.6	2028.6	1889.1	1876.3	1891.2	1900.8
35°	3604.6	3314.9	3349.0	3339.4	2961.4	2065.9	2041.4	2020.1	2023.3	2023.3
37.5°	3615.2	3627.0	3667.4	3625.9	2583.4	2227.7	2188.3	2184.1	2187.2	2194.7
40°	3949.6	3956.0	3970.9	3879.3	2776.1	2416.2	2361.9	2351.2	2361.9	2377.9
42.5°	4309.5	4327.6	4344.7	3527.9	3045.5	2630.2	2575.9	2555.7	2574.9	2591.9
45°	4735.5	4763.2	4502.3	3839.9	3350.1	2874.1	2816.6	2792.1	2803.8	2818.7
47.5°	5214.7	5258.3	4245.6	4237.1	3707.9	3162.7	3096.6	3049.8	3067.9	3066.8
50°	5755.6	5025.1	4690.8	4685.4	4107.2	3484.3	3416.1	3373.5	3387.4	3376.7
52.5°	6340.2	5162.5	5173.1	5172.1	4524.6	3830.3	3767.5	3714.3	3604.6	3705.8
55°	6938.7	5637.4	5677.9	5671.5	4962.3	4188.1	4121.1	4071.0	2660.0	2246.9
57.5°	7534.0	6133.7	6146.4	6161.3	5415.9	4533.2	4238.2	3893.2	1517.4	1510.0
60°	8121.8	6606.5	6632.0	6640.5	5660.9	3752.6	1732.5	1764.5	459.0	548.4
62.5°	8730.9	7072.9	7096.3	7088.9	5904.7	3489.6	1819.9	1783.7	42.6	39.4
65°	9508.2	7657.5	7624.5	7600.0	6289.1	3723.9	1955.1	1945.5	13.8	9.6
67.5°	9780.8	7790.6	7723.5	7715.0	6344.5	3773.9	1965.8	1958.3	13.8	9.6
70°	9163.2	7284.8	7169.8	7173.0	5903.6	3530.0	1833.7	1823.1	12.8	9.6
72.5°	8024.9	6434.0	6386.0	6132.6	5112.4	3105.2	1626.1	1585.6	12.8	8.5
75°	6588.4	5197.6	5091.2	4806.8	4068.9	2468.4	1276.8	1224.6	11.7	7.5
77.5°	4573.6	3645.1	3441.7	3152.0	2721.8	1636.7	858.3	791.2	10.6	7.5
80°	2073.3	1496.1	1503.6	1152.2	923.2	554.8	272.6	247.1	9.6	6.4
82.5°	361.0	266.2	250.2	241.7	201.3	136.3	83.1	71.3	8.5	4.3
85°	125.7	101.2	111.8	132.0	117.1	82.0	51.1	49.0	5.3	2.1
87.5°	42.6	44.7	52.2	62.8	55.4	31.9	19.2	13.8	1.1	0.0
90°	4.3	5.3	5.3	5.3	3.2	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)