

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: HALO

Report Number: P407857

Luminaire Tested: **ALP10A40**

Issue Date: 08/27/2020

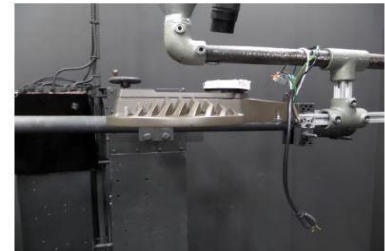
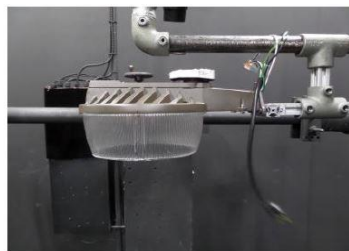
**Test Information**

Test Method: LM-79-08  
Report Number: P407857  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2006-852-7)  
Test Lab: INNOVATIONS CENTER(G1)  
Issue Date: 08/27/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: HALO  
Catalog Number: ALP10A40  
Description: HALO OUTDOOR BARN LIGHT PREMIUM 10000LM  
Light Source: (108) 4000K CCT, 70 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10637 lumens  
Efficiency: N/A  
Efficacy: 136.9 lumens/watt  
Luminous Opening: Circular (Dia: 0.67' x H: 0')  
IES Classification: Type V - Short - Full Cutoff  
BUG Rating: B3 - U0 - G1

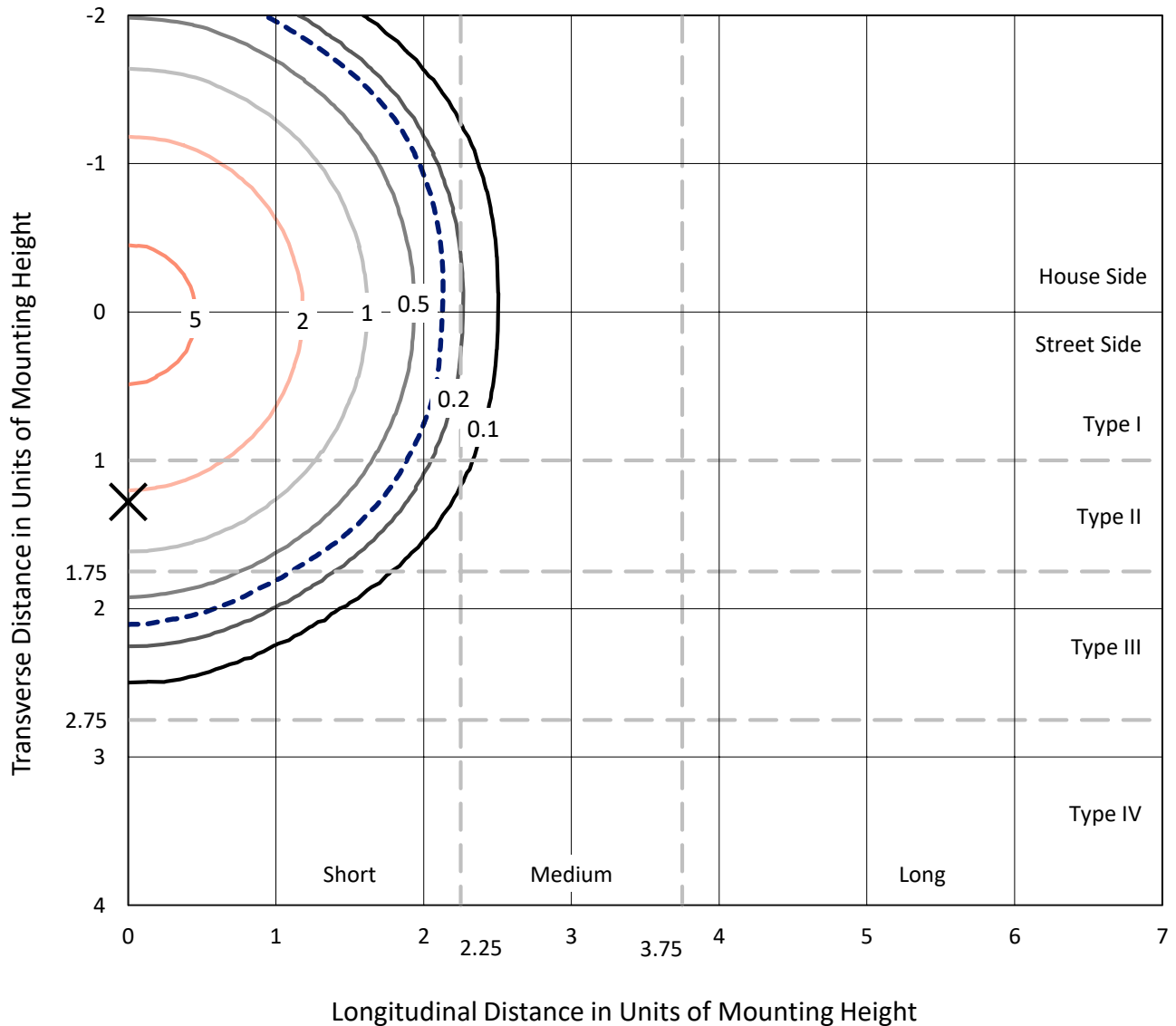
Input Watts (W): 77.7  
Input Voltage (V): 120.0  
Input Current (Ain): 0.658  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

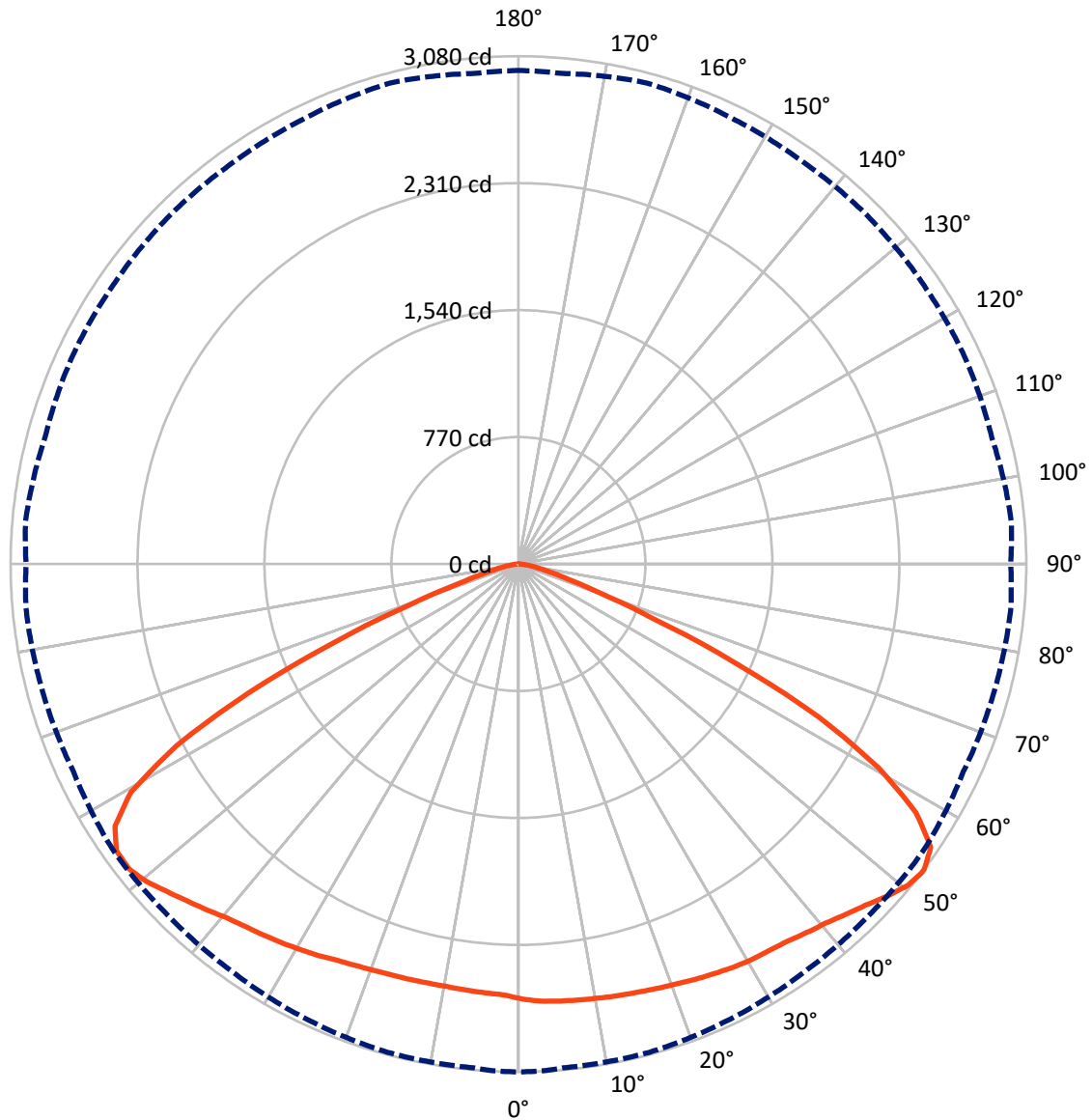
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.6 fc  
 Type V - Short - Full Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 52-Deg Vertical

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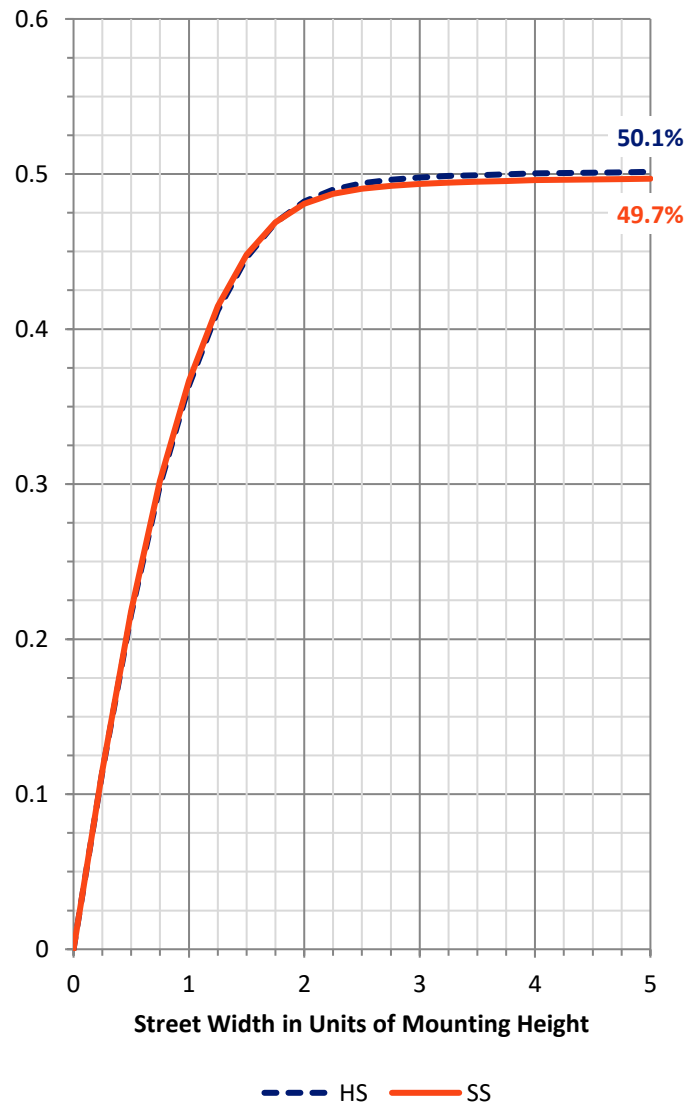
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5354.7	0.0	5354.7
	% Fixture	50.3	0.0	50.3
<b>Street Side</b>	Lumens	5282.3	0.0	5282.3
	% Fixture	49.7	0.0	49.7
<b>Total</b>	Lumens	10637.0	0.0	10637.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	251.9	2.4
10°-20°	751.3	7.1
20°-30°	1244.2	11.7
30°-40°	1735.6	16.3
40°-50°	2246.0	21.1
50°-60°	2604.4	24.5
60°-70°	1536.6	14.4
70°-80°	239.2	2.2
80°-90°	27.7	0.3
90°-100°	0.0	0.0
100°-110°	0.0	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°	10637.0	100.0
0°-180°	10637.0	100.0



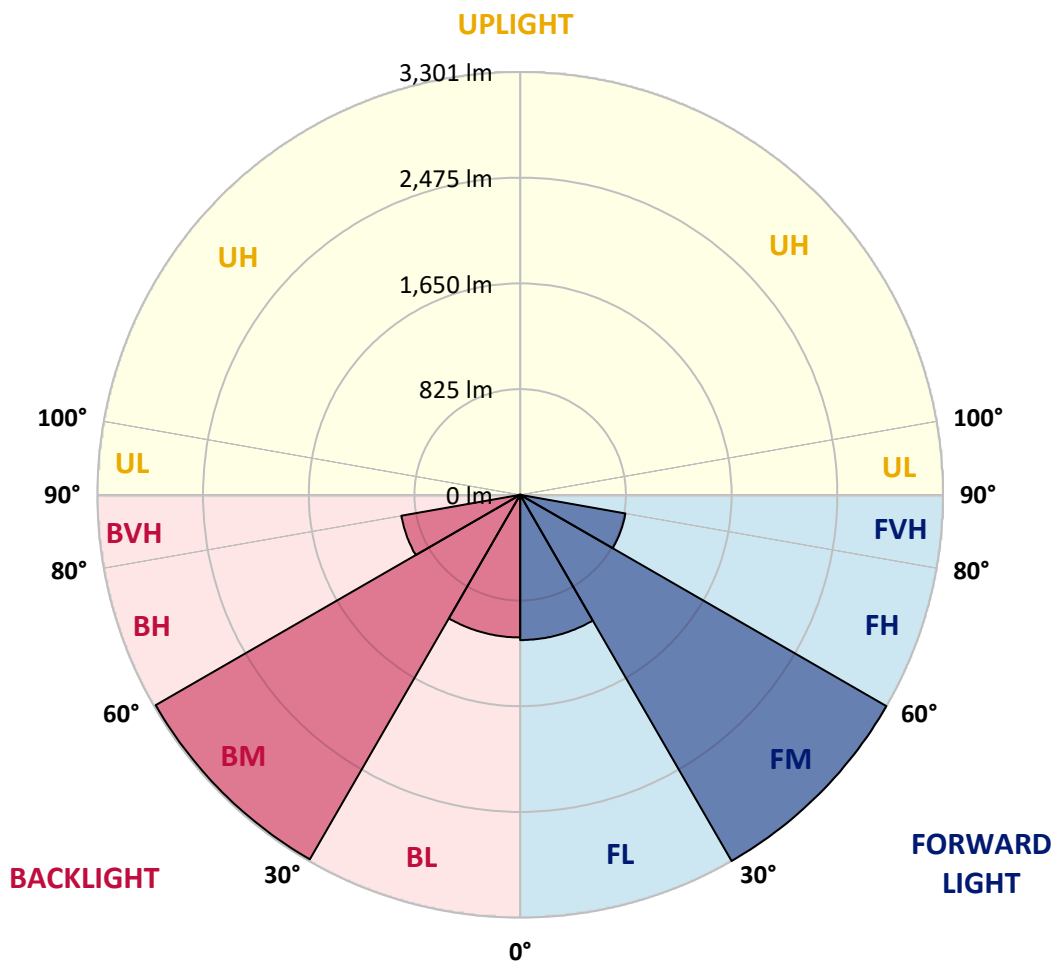
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1133.7	10.7			
FM	(30°-60°)	3300.6	31.0			
FH	(60°-80°)	834.3	7.8			G1/1800
FVH	(80°-90°)	13.6	0.1			G1/100
BL	(0°-30°)	1113.7	10.5	B3/2500		
BM	(30°-60°)	3285.5	30.9	B3/5000		
BH	(60°-80°)	941.5	8.9	B2/1000		G1/1800
BVH	(80°-90°)	14.1	0.1			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	3°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8
2.5°	2655.2	2647.0	2654.1	2661.3	2638.8	2636.8	2646.0	2648.0	2637.8	2629.6	2649.0
5°	2662.3	2655.2	2661.3	2670.5	2646.0	2642.9	2651.1	2652.1	2639.9	2632.7	2649.0
7.5°	2669.5	2662.3	2669.5	2675.6	2652.1	2648.0	2657.2	2658.2	2641.9	2635.8	2649.0
10°	2676.6	2668.4	2675.6	2683.8	2658.2	2654.1	2661.3	2663.3	2646.0	2638.8	2651.1
12.5°	2686.8	2676.6	2684.8	2689.9	2665.4	2660.3	2669.5	2668.4	2650.1	2641.9	2656.2
15°	2695.0	2686.8	2695.0	2698.1	2673.6	2667.4	2675.6	2674.6	2655.2	2649.0	2660.3
17.5°	2707.3	2700.1	2706.2	2707.3	2681.7	2674.6	2682.7	2681.7	2659.3	2656.2	2665.4
20°	2719.5	2712.4	2717.5	2720.5	2693.0	2683.8	2688.9	2688.9	2666.4	2663.3	2673.6
22.5°	2736.9	2726.7	2733.8	2733.8	2705.2	2695.0	2699.1	2697.0	2675.6	2671.5	2682.7
25°	2753.2	2747.1	2749.1	2749.1	2720.5	2707.3	2710.3	2710.3	2687.8	2684.8	2694.0
27.5°	2770.6	2763.4	2766.5	2764.4	2738.9	2720.5	2724.6	2723.6	2700.1	2699.1	2707.3
30°	2784.9	2777.7	2778.7	2779.8	2752.2	2736.9	2738.9	2739.9	2717.5	2715.4	2725.6
32.5°	2794.1	2787.9	2790.0	2792.0	2768.5	2754.2	2755.2	2757.3	2735.8	2735.8	2745.0
35°	2810.4	2804.3	2805.3	2806.3	2786.9	2772.6	2774.7	2779.8	2757.3	2757.3	2766.5
37.5°	2836.9	2828.8	2826.7	2830.8	2810.4	2796.1	2798.1	2804.3	2780.8	2783.8	2792.0
40°	2865.5	2860.4	2859.4	2862.5	2840.0	2827.8	2827.8	2832.9	2811.4	2815.5	2823.7
42.5°	2906.4	2900.3	2899.2	2901.3	2883.9	2866.6	2864.5	2870.6	2848.2	2853.3	2860.4
45°	2951.3	2950.3	2947.2	2951.3	2928.9	2911.5	2907.4	2909.5	2887.0	2896.2	2902.3
47.5°	3010.6	3008.5	2998.3	3002.4	2979.9	2960.5	2950.3	2955.4	2926.8	2936.0	2943.2
50°	3061.6	3053.4	3047.3	3046.3	3022.8	3003.4	2992.2	2994.2	2961.5	2970.7	2984.0
52°	3080.0	3076.9	3067.7	3065.7	3044.3	3020.8	3009.5	3008.5	2977.9	2987.1	2998.3
52.5°	3080.0	3078.0	3067.7	3066.7	3045.3	3020.8	3009.5	3009.5	2976.9	2987.1	2999.3
55°	3034.0	3023.8	3018.7	3010.6	2995.2	2972.8	2963.6	2967.7	2938.0	2948.3	2966.6
57.5°	2842.1	2852.3	2844.1	2821.6	2808.4	2804.3	2802.2	2822.6	2800.2	2822.6	2838.0
60°	2510.2	2534.7	2505.1	2482.6	2470.3	2482.6	2496.9	2540.8	2531.6	2553.0	2544.9
62.5°	2045.5	2030.2	2002.6	1989.3	1937.3	1962.8	2029.2	2063.9	2081.2	2106.8	2112.9
65°	1443.0	1453.2	1417.5	1395.0	1328.6	1336.8	1435.8	1508.3	1512.4	1535.9	1479.7
67.5°	877.2	875.2	900.7	838.4	791.4	793.5	873.1	963.0	970.2	940.5	915.0
70°	516.7	505.5	520.8	456.5	416.7	431.0	492.2	547.4	565.8	517.8	484.1
72.5°	312.5	309.4	294.1	271.6	246.1	248.2	279.8	327.8	331.9	298.2	264.5
75°	203.2	198.1	195.1	172.6	159.3	158.3	172.6	204.2	200.2	178.7	164.4
77.5°	133.8	132.8	132.8	114.4	104.2	105.2	113.4	133.8	133.8	114.4	107.2
80°	88.9	85.8	81.7	74.6	68.4	69.4	73.5	84.8	83.7	74.6	68.4
82.5°	49.0	48.0	47.0	43.9	41.9	41.9	44.9	49.0	48.0	44.9	40.9
85°	20.4	20.4	19.4	17.4	17.4	16.3	18.4	18.4	18.4	17.4	16.3
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8	2637.8
2.5°	2632.7	2637.8	2616.4	2637.8	2625.6	2631.7	2639.9	2630.7	2649.0	2633.7	2614.3
5°	2633.7	2636.8	2615.3	2634.7	2622.5	2627.6	2631.7	2624.5	2640.9	2626.6	2608.2
7.5°	2632.7	2638.8	2613.3	2634.7	2620.4	2624.5	2626.6	2618.4	2635.8	2617.4	2603.1
10°	2633.7	2639.9	2614.3	2632.7	2618.4	2621.5	2622.5	2615.3	2631.7	2614.3	2599.0
12.5°	2636.8	2643.9	2615.3	2633.7	2619.4	2620.4	2622.5	2613.3	2631.7	2612.3	2600.0
15°	2641.9	2647.0	2619.4	2635.8	2620.4	2621.5	2621.5	2616.4	2631.7	2614.3	2603.1
17.5°	2648.0	2654.1	2625.6	2640.9	2625.6	2624.5	2623.5	2617.4	2637.8	2617.4	2608.2
20°	2654.1	2661.3	2631.7	2648.0	2630.7	2629.6	2626.6	2623.5	2642.9	2624.5	2615.3
22.5°	2662.3	2671.5	2640.9	2654.1	2638.8	2637.8	2634.7	2631.7	2654.1	2633.7	2626.6
25°	2673.6	2683.8	2652.1	2666.4	2649.0	2650.1	2646.0	2647.0	2670.5	2652.1	2641.9
27.5°	2687.8	2700.1	2666.4	2682.7	2666.4	2665.4	2662.3	2665.4	2690.9	2671.5	2665.4
30°	2706.2	2717.5	2685.8	2700.1	2685.8	2683.8	2682.7	2684.8	2714.4	2694.0	2685.8
32.5°	2726.7	2735.8	2704.2	2720.5	2706.2	2705.2	2705.2	2708.3	2734.8	2713.4	2708.3
35°	2750.1	2759.3	2729.7	2744.0	2729.7	2730.7	2726.7	2733.8	2756.3	2733.8	2729.7
37.5°	2773.6	2784.9	2755.2	2771.6	2757.3	2759.3	2754.2	2760.4	2783.8	2756.3	2752.2
40°	2807.3	2818.6	2787.9	2803.2	2788.9	2790.0	2786.9	2790.0	2816.5	2783.8	2780.8
42.5°	2847.2	2858.4	2828.8	2839.0	2826.7	2826.7	2825.7	2832.9	2853.3	2820.6	2822.6
45°	2886.0	2899.2	2869.6	2880.9	2869.6	2871.7	2869.6	2877.8	2897.2	2862.5	2864.5
47.5°	2928.9	2943.2	2912.5	2924.8	2913.5	2918.6	2916.6	2925.8	2942.1	2912.5	2912.5
50°	2969.7	2984.0	2947.2	2965.6	2957.5	2963.6	2962.6	2969.7	2993.2	2958.5	2965.6
52°	2986.0	3000.3	2971.7	2984.0	2984.0	2990.1	2987.1	2998.3	3019.7	2987.1	2993.2
52.5°	2988.1	3002.4	2972.8	2988.1	2987.1	2992.2	2991.2	3003.4	3024.9	2990.1	2999.3
55°	2955.4	2972.8	2953.4	2967.7	2973.8	2979.9	2982.0	2993.2	3015.7	2987.1	2994.2
57.5°	2830.8	2849.2	2841.0	2857.4	2877.8	2894.1	2891.1	2904.3	2940.1	2914.6	2916.6
60°	2567.3	2580.6	2618.4	2629.6	2660.3	2679.7	2675.6	2684.8	2747.1	2710.3	2726.7
62.5°	2088.4	2139.5	2160.9	2232.4	2284.5	2262.0	2251.8	2291.6	2350.8	2347.8	2348.8
65°	1492.0	1521.6	1613.5	1680.9	1727.9	1705.4	1664.6	1671.7	1770.8	1774.9	1808.6
67.5°	903.8	924.2	993.6	1093.7	1114.2	1078.4	1018.2	1058.0	1155.0	1179.5	1201.0
70°	490.2	492.2	563.7	621.9	645.4	599.5	547.4	552.5	597.4	656.6	689.3
72.5°	260.4	270.6	309.4	345.2	363.6	312.5	291.1	285.9	319.6	358.5	368.7
75°	160.3	164.4	180.8	209.4	217.5	183.8	172.6	169.5	184.8	210.4	218.5
77.5°	104.2	105.2	115.4	133.8	134.8	120.5	106.2	106.2	114.4	133.8	138.9
80°	67.4	69.4	73.5	82.7	86.8	75.6	69.4	69.4	73.5	82.7	85.8
82.5°	40.9	41.9	44.9	47.0	50.0	44.9	41.9	41.9	43.9	48.0	48.0
85°	16.3	17.4	18.4	20.4	20.4	20.4	19.4	19.4	21.5	21.5	21.5
87.5°	0.0	1.0	0.0	1.0	1.0	1.0	1.0	1.0	1.0	0.0	1.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)