

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: INVUE

Report Number: P148810

Luminaire Tested: **VWM-E04-LED-E1-RW**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P148810
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33677)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: VWM-E04-LED-E1-RW
Description: VISION WALL MEDIUM LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (84) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12495.8 lumens
Efficiency: N/A
Efficacy: 128.6 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

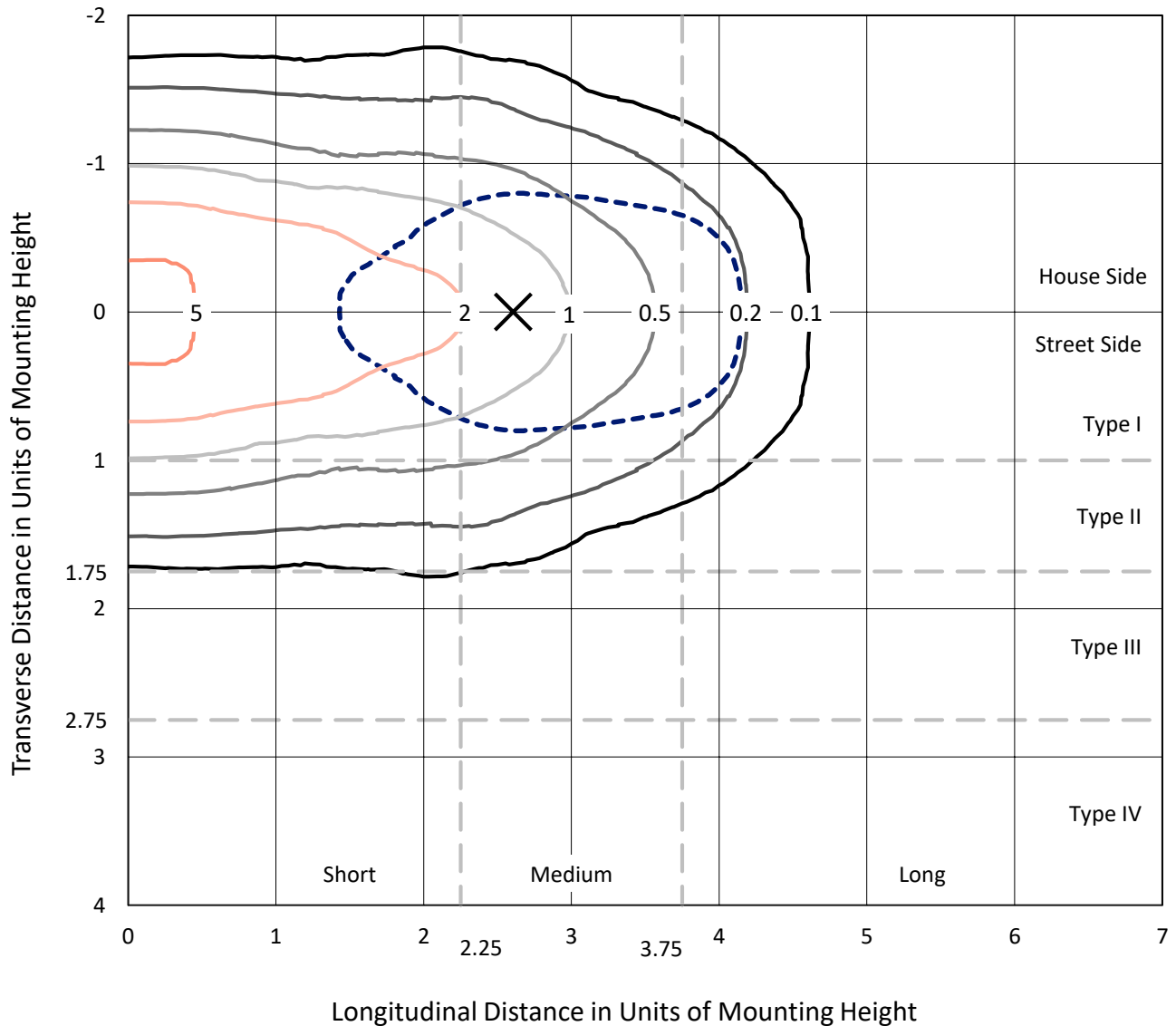
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

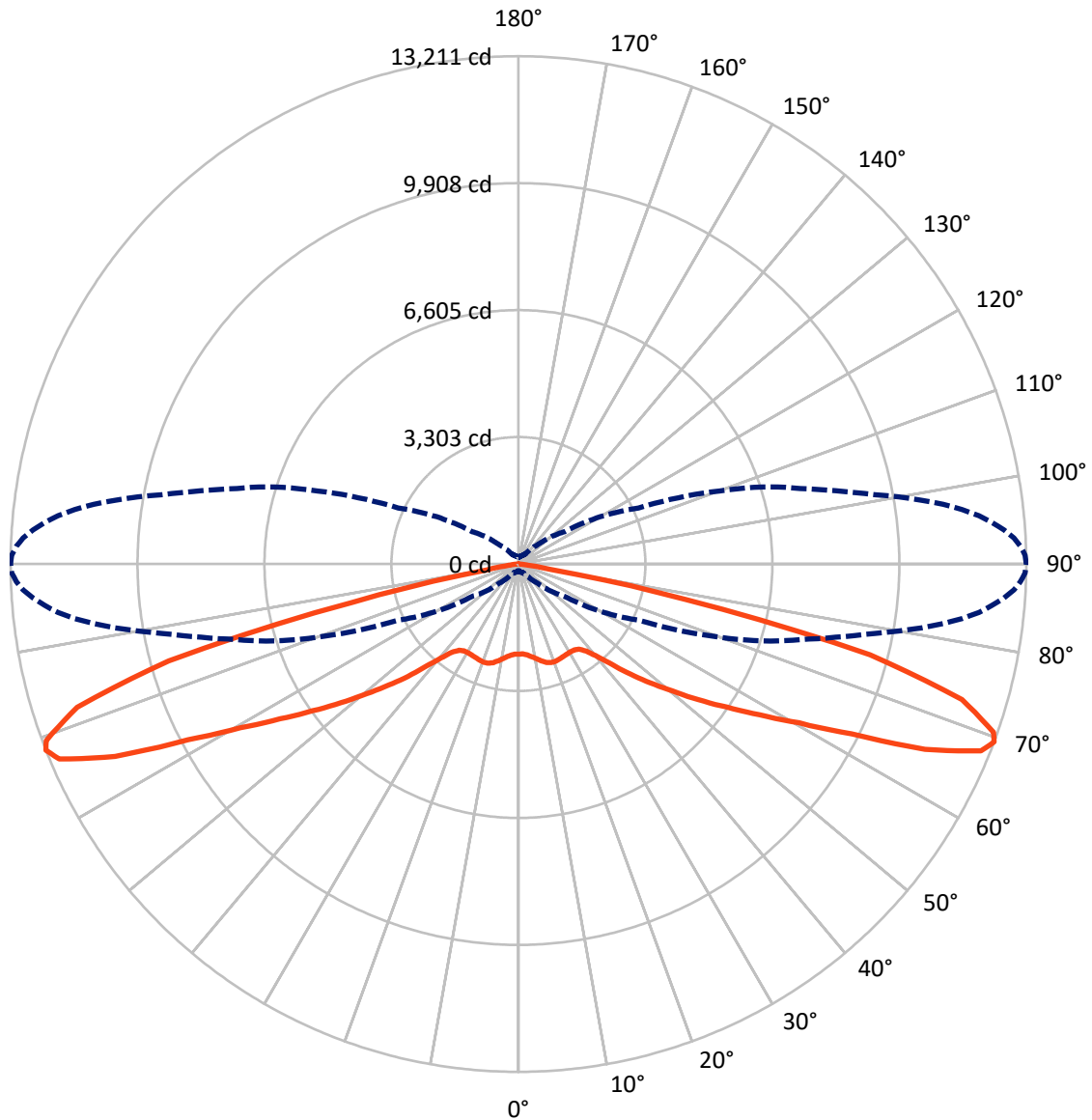
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6 fc
 Type I - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 90-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6247.9	0.0	6247.9
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6247.9	0.0	6247.9
	% Fixture	50.0	0.0	50.0
Total	Lumens	12495.8	0.0	12495.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	229.7	1.8
10°-20°	724.5	5.8
20°-30°	1173.7	9.4
30°-40°	1462.8	11.7
40°-50°	1827.9	14.6
50°-60°	2257.1	18.1
60°-70°	2804.5	22.4
70°-80°	1861.8	14.9
80°-90°	153.7	1.2
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°	12495.8	100.0
0°-180°	12495.8	100.0



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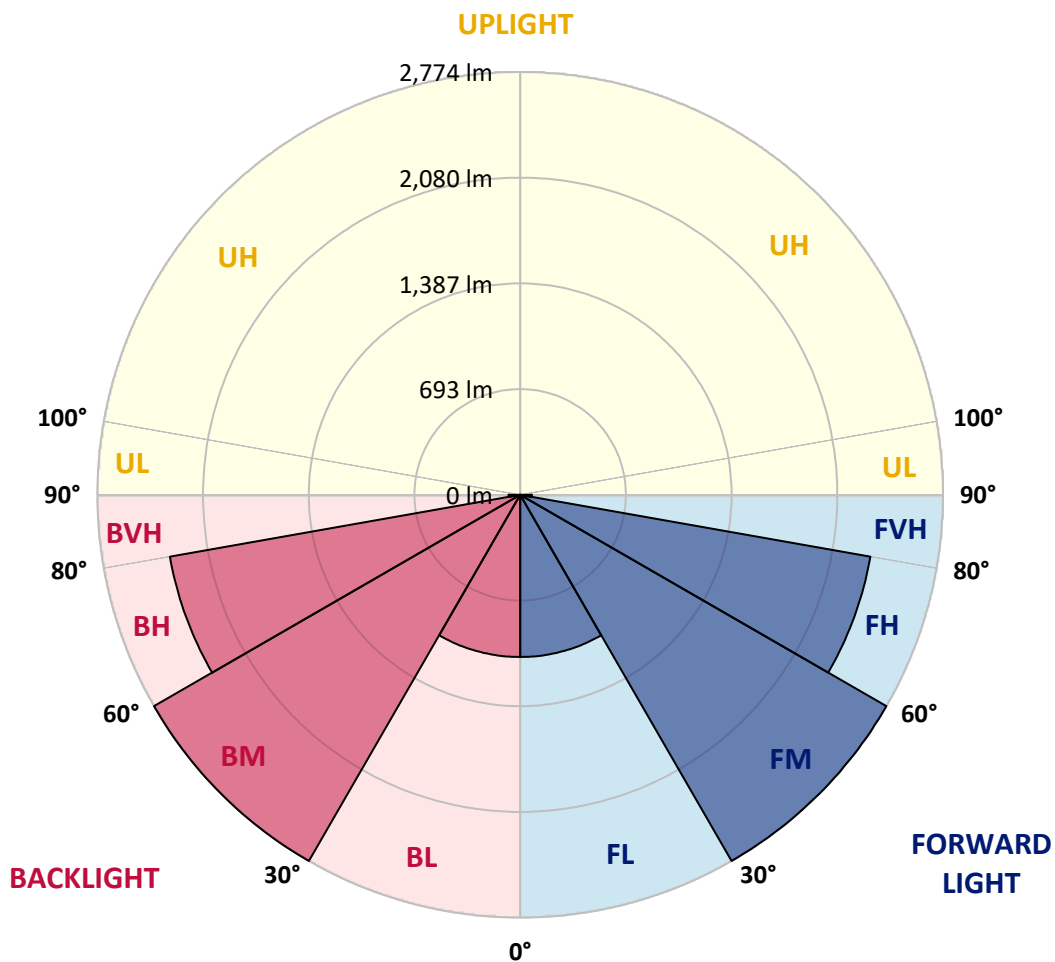
CATALOG NUMBER: VWM-E04-LED-E1-RW

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1063.9	8.5			
FM (30°-60°)	2773.9	22.2			
FH (60°-80°)	2333.2	18.7			G2/5000
FVH (80°-90°)	76.9	0.6			G1/100
BL (0°-30°)	1063.9	8.5	B3/2500		
BM (30°-60°)	2773.9	22.2	B3/5000		
BH (60°-80°)	2333.2	18.7	B3/2500		G3/2500
BVH (80°-90°)	76.9	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3
2.5°	2352.0	2354.0	2352.7	2355.4	2354.6	2354.6	2353.3	2350.6	2350.3	2350.0	2349.7
5°	2374.6	2372.0	2376.0	2380.0	2378.6	2379.3	2378.6	2378.6	2378.4	2378.1	2377.9
7.5°	2398.7	2398.0	2400.6	2411.3	2412.6	2416.7	2421.4	2424.7	2424.8	2425.0	2425.1
10°	2419.4	2420.0	2426.6	2442.0	2450.0	2462.6	2475.4	2485.4	2486.1	2486.8	2487.5
12.5°	2436.0	2436.6	2446.7	2470.6	2490.0	2514.0	2541.3	2556.7	2558.0	2559.4	2560.7
15°	2437.4	2439.4	2456.6	2496.0	2534.7	2574.0	2606.6	2627.4	2628.4	2629.5	2630.5
17.5°	2420.0	2421.4	2450.6	2508.7	2573.4	2634.6	2668.7	2678.0	2678.4	2678.8	2679.2
20°	2374.6	2378.0	2419.4	2505.4	2604.0	2684.0	2719.3	2706.7	2705.4	2704.1	2702.9
22.5°	2301.3	2300.6	2354.6	2470.6	2610.0	2722.7	2754.0	2720.6	2716.7	2712.8	2708.9
25°	2182.7	2190.6	2254.0	2392.6	2576.0	2731.4	2778.6	2728.0	2722.3	2716.7	2711.0
27.5°	2054.0	2058.6	2126.0	2274.6	2496.6	2701.3	2790.6	2742.7	2736.4	2730.0	2723.7
30°	1904.0	1910.0	1982.0	2137.4	2369.4	2624.0	2787.4	2776.0	2768.6	2761.2	2753.8
32.5°	1757.4	1764.0	1828.7	1998.7	2235.4	2518.0	2767.4	2823.4	2815.8	2808.1	2800.6
35°	1605.4	1615.3	1694.0	1866.0	2106.0	2400.0	2736.7	2884.0	2879.8	2875.6	2871.4
37.5°	1479.4	1481.3	1557.4	1738.0	1986.0	2287.4	2696.0	2960.7	2963.8	2966.8	2969.9
40°	1338.6	1351.3	1427.3	1618.0	1877.4	2192.0	2657.4	3064.6	3080.6	3096.5	3112.5
42.5°	1212.7	1214.0	1291.4	1488.0	1759.4	2115.3	2636.0	3190.0	3224.1	3258.1	3292.2
45°	1080.0	1085.4	1155.4	1345.4	1623.4	2024.6	2635.3	3334.6	3389.0	3443.4	3497.8
47.5°	954.6	956.6	1030.6	1207.4	1467.4	1898.0	2630.6	3490.0	3564.1	3638.1	3712.2
50°	834.6	832.6	905.4	1075.4	1313.4	1732.0	2590.0	3666.0	3759.5	3853.1	3946.6
52.5°	697.3	706.6	782.0	944.6	1173.4	1563.4	2471.4	3858.7	3970.6	4082.4	4194.3
55°	562.6	566.6	647.3	799.3	1031.4	1406.0	2264.7	4036.0	4167.9	4299.7	4431.6
57.5°	414.7	426.7	497.4	647.4	887.4	1273.4	2002.0	4128.0	4288.5	4448.9	4609.4
60°	292.7	302.0	364.7	490.6	729.3	1134.0	1776.0	4076.6	4285.2	4493.7	4702.3
62.5°	228.0	235.4	285.3	367.3	568.6	994.7	1614.0	3910.7	4194.4	4478.2	4761.9
65°	200.0	206.6	252.0	294.0	424.7	852.7	1525.3	3735.3	4110.4	4485.4	4860.5
67.5°	180.6	188.6	228.0	257.4	346.0	744.0	1502.0	3624.6	4049.4	4474.2	4899.0
69°	172.0	180.0	215.4	240.0	321.4	705.3	1462.0	3450.6	3873.0	4295.3	4717.7
70°	166.6	173.4	206.0	231.4	313.3	678.7	1395.4	3233.4	3648.1	4062.8	4477.5
72.5°	154.6	158.0	186.7	211.3	290.6	548.6	1073.4	2401.3	2760.8	3120.4	3479.9
75°	136.6	140.6	167.3	191.4	226.6	340.6	679.4	1485.4	1753.7	2022.1	2290.5
77.5°	118.0	121.4	144.7	182.6	176.0	212.6	406.0	826.7	982.4	1138.0	1293.7
80°	94.7	98.6	119.4	181.4	145.4	165.3	292.0	578.0	620.0	662.0	704.0
82.5°	69.4	72.7	93.4	146.6	111.3	124.6	222.6	490.0	504.6	519.2	533.8
85°	35.3	36.0	59.4	89.4	70.7	64.6	125.4	335.3	344.6	354.0	363.3
87.5°	6.0	6.0	13.3	15.3	17.4	10.7	16.0	57.3	59.1	60.9	62.7
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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CATALOG NUMBER: VWM-E04-LED-E1-RW

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3
2.5°	2349.3	2349.0	2347.9	2348.0	2348.9	2348.4	2349.3	2349.4	2350.3	2347.7	2347.2
5°	2377.6	2377.3	2377.2	2377.0	2377.6	2377.5	2378.0	2379.0	2378.8	2377.2	2377.0
7.5°	2425.2	2425.3	2426.0	2425.4	2426.7	2426.0	2424.6	2426.8	2428.2	2428.4	2429.9
10°	2488.3	2489.0	2491.4	2491.0	2493.4	2493.0	2493.4	2495.6	2497.2	2497.5	2499.1
12.5°	2562.0	2563.4	2564.6	2565.8	2568.3	2566.8	2570.0	2571.3	2573.4	2577.3	2575.3
15°	2631.6	2632.6	2636.2	2636.6	2638.8	2639.8	2642.6	2643.9	2644.4	2647.6	2648.1
17.5°	2679.6	2680.0	2681.3	2680.7	2682.6	2682.0	2684.0	2685.0	2686.8	2688.5	2691.6
20°	2701.6	2700.3	2699.6	2698.9	2697.5	2695.4	2696.0	2697.0	2697.2	2698.8	2701.0
22.5°	2704.9	2701.0	2696.9	2694.2	2690.1	2686.7	2683.3	2683.6	2683.8	2683.5	2685.1
25°	2705.3	2699.7	2693.3	2685.7	2680.0	2672.3	2666.0	2665.5	2663.6	2663.8	2664.5
27.5°	2717.3	2711.0	2702.1	2693.3	2681.1	2670.9	2660.7	2657.1	2653.5	2651.2	2650.3
30°	2746.4	2739.0	2728.4	2717.1	2703.9	2687.9	2673.4	2668.8	2663.6	2659.0	2655.2
32.5°	2793.0	2785.4	2773.6	2761.9	2744.1	2728.4	2714.0	2706.7	2699.4	2691.3	2684.0
35°	2867.2	2863.0	2852.7	2842.3	2829.3	2817.0	2804.0	2795.7	2783.5	2777.2	2768.3
37.5°	2972.9	2976.0	2976.0	2977.3	2973.3	2967.3	2958.0	2949.3	2945.3	2928.7	2918.0
40°	3128.4	3144.3	3159.0	3170.2	3180.1	3190.1	3198.7	3193.6	3195.2	3190.8	3184.4
42.5°	3326.3	3360.3	3391.5	3422.6	3445.1	3480.2	3504.7	3512.4	3532.2	3539.9	3554.3
45°	3552.2	3606.6	3659.0	3707.2	3752.2	3802.4	3851.4	3887.8	3927.4	3972.6	4017.6
47.5°	3786.3	3860.4	3937.3	4000.3	4065.4	4139.7	4204.7	4259.5	4330.9	4397.1	4469.8
50°	4040.1	4133.7	4221.4	4299.0	4382.7	4468.4	4557.4	4637.9	4734.4	4840.3	4954.8
52.5°	4306.1	4418.0	4519.5	4617.0	4715.1	4813.2	4908.0	5021.8	5140.8	5280.5	5423.6
55°	4563.5	4695.3	4810.4	4918.8	5031.2	5140.9	5238.6	5390.8	5536.9	5703.7	5890.6
57.5°	4769.9	4930.4	5063.1	5191.8	5318.5	5435.3	5555.3	5726.9	5913.2	6108.1	6345.1
60°	4910.8	5119.3	5288.8	5443.6	5599.1	5745.9	5884.0	6108.3	6329.9	6572.2	6867.1
62.5°	5045.6	5329.4	5550.4	5761.5	5971.2	6159.6	6331.3	6613.4	6902.9	7202.4	7553.2
65°	5235.6	5610.6	5936.3	6230.5	6520.8	6797.7	7054.7	7412.1	7777.6	8171.7	8590.5
67.5°	5323.8	5748.6	6172.6	6569.3	6938.0	7288.6	7618.6	8050.8	8480.9	8937.7	9443.9
69°	5140.0	5562.3	6015.6	6448.9	6856.1	7228.1	7585.4	8026.6	8473.8	8940.3	9450.8
70°	4892.3	5307.0	5764.5	6217.4	6607.0	6994.5	7364.7	7802.4	8255.5	8723.2	9257.6
72.5°	3839.4	4199.0	4645.2	5084.7	5475.6	5864.5	6224.0	6672.0	7128.0	7619.4	8125.4
75°	2558.9	2827.3	3159.7	3567.5	3925.9	4269.6	4618.0	4996.9	5441.9	5846.8	6309.7
77.5°	1449.3	1605.0	1798.2	2063.3	2320.4	2526.2	2774.7	2952.9	3211.2	3434.1	3669.7
80°	746.0	788.0	845.6	909.2	945.5	939.7	976.6	940.1	948.2	918.4	886.6
82.5°	548.4	563.0	589.1	601.8	600.5	558.6	514.0	452.2	397.6	340.4	287.8
85°	372.7	382.0	388.5	398.4	395.6	377.5	337.3	283.6	231.2	185.5	148.4
87.5°	64.5	66.3	65.9	71.4	71.6	66.5	54.6	46.7	39.3	29.4	20.7
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):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3	2341.3
2.5°	2346.7	2346.6	2348.0	2346.6	2346.6	2346.7	2346.0	2347.4	2346.7	2344.6	2342.7
5°	2377.4	2375.4	2374.6	2376.0	2377.3	2374.6	2376.6	2378.6	2375.4	2376.0	2374.7
7.5°	2428.6	2428.0	2427.3	2428.7	2428.7	2428.0	2428.6	2426.7	2425.4	2427.3	2429.3
10°	2497.4	2496.6	2498.0	2498.0	2500.6	2499.4	2498.6	2500.6	2499.3	2498.0	2498.7
12.5°	2578.0	2576.0	2579.4	2579.3	2581.4	2581.4	2580.6	2581.3	2580.6	2578.7	2577.3
15°	2650.0	2647.3	2648.0	2653.3	2652.7	2654.0	2654.0	2652.6	2652.0	2651.4	2652.0
17.5°	2693.4	2692.0	2692.0	2694.6	2696.6	2696.0	2696.0	2696.0	2695.3	2696.0	2697.3
20°	2701.4	2701.4	2702.0	2704.6	2708.0	2706.0	2706.0	2707.4	2706.0	2707.3	2708.0
22.5°	2686.0	2687.4	2688.6	2692.0	2692.6	2692.6	2692.6	2693.3	2694.6	2694.7	2696.0
25°	2664.7	2666.0	2668.0	2670.6	2673.4	2673.3	2673.3	2674.6	2674.7	2675.3	2676.0
27.5°	2648.7	2650.0	2652.0	2654.6	2658.0	2658.0	2658.0	2659.4	2659.4	2660.0	2661.3
30°	2650.6	2648.0	2650.0	2651.4	2653.3	2653.4	2652.7	2653.4	2654.0	2654.0	2654.7
32.5°	2679.4	2673.3	2671.4	2670.6	2671.4	2669.4	2668.6	2667.4	2666.0	2666.0	2665.3
35°	2755.4	2746.0	2745.4	2740.0	2734.6	2729.4	2730.0	2726.0	2727.4	2724.0	2721.3
37.5°	2911.4	2900.6	2907.4	2896.0	2888.7	2883.4	2877.3	2869.4	2864.7	2870.6	2870.7
40°	3190.6	3183.4	3181.3	3183.3	3176.7	3180.0	3165.4	3161.4	3152.6	3158.6	3166.7
42.5°	3576.6	3572.0	3597.3	3602.0	3604.6	3608.6	3611.3	3589.4	3588.6	3584.0	3570.7
45°	4053.4	4081.4	4080.0	4110.6	4112.0	4102.6	4106.6	4096.7	4092.6	4078.0	4096.0
47.5°	4543.3	4596.6	4616.7	4623.4	4648.6	4654.6	4630.6	4622.6	4636.6	4612.6	4616.0
50°	5069.4	5126.7	5173.4	5204.6	5222.6	5224.0	5206.0	5202.0	5214.6	5169.4	5190.7
52.5°	5586.6	5673.4	5761.3	5808.0	5841.3	5844.0	5858.0	5841.3	5848.0	5837.4	5858.7
55°	6096.7	6246.7	6350.0	6441.4	6499.4	6549.4	6554.0	6572.0	6573.4	6595.4	6573.3
57.5°	6595.4	6758.6	6938.6	7100.6	7190.6	7247.4	7300.6	7373.4	7389.4	7380.6	7394.7
60°	7184.0	7436.6	7681.3	7868.0	8023.3	8172.0	8252.0	8366.0	8384.0	8433.3	8390.7
62.5°	7928.0	8294.6	8626.6	8878.0	9114.0	9345.4	9520.0	9608.0	9661.4	9764.6	9730.7
65°	9069.4	9509.4	9948.6	10308.7	10639.4	10914.6	11180.0	11306.6	11446.6	11593.3	11620.0
67.5°	10009.4	10554.0	11049.3	11488.0	11888.6	12194.7	12470.7	12690.0	12860.6	12968.7	12977.3
69°	10052.0	10618.0	11156.0	11626.7	12044.6	12370.0	12660.7	12904.7	13070.7	13181.4	13210.7
70°	9848.0	10427.4	11000.7	11476.0	11904.0	12236.7	12544.7	12777.3	12962.6	13075.3	13114.7
72.5°	8700.6	9319.3	9932.0	10348.6	10786.0	11182.0	11428.7	11666.0	11927.4	11961.3	12069.3
75°	6858.6	7378.7	7854.0	8172.7	8538.0	8893.4	9135.4	9198.0	9334.6	9506.6	9445.3
77.5°	3974.6	4134.6	4441.4	4520.0	4453.4	4608.0	4659.3	4550.0	4544.6	4645.3	4445.3
80°	880.6	830.6	893.3	846.6	848.0	849.4	835.3	830.0	840.0	830.0	816.0
82.5°	244.0	236.0	237.4	234.6	239.4	236.0	234.0	239.4	238.6	238.0	242.7
85°	117.4	116.0	114.0	113.4	110.6	107.4	102.0	102.0	104.7	100.7	102.7
87.5°	15.4	14.7	14.6	17.3	15.3	12.6	12.6	12.6	12.0	12.0	12.0
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)