

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: LUMARK

Report Number: P144574

Luminaire Tested: **LDRL-RW-F06-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144574
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33700)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: LDRL-RW-F06-E-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13588.4 lumens
Efficiency: N/A
Efficacy: 86.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 156.5
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

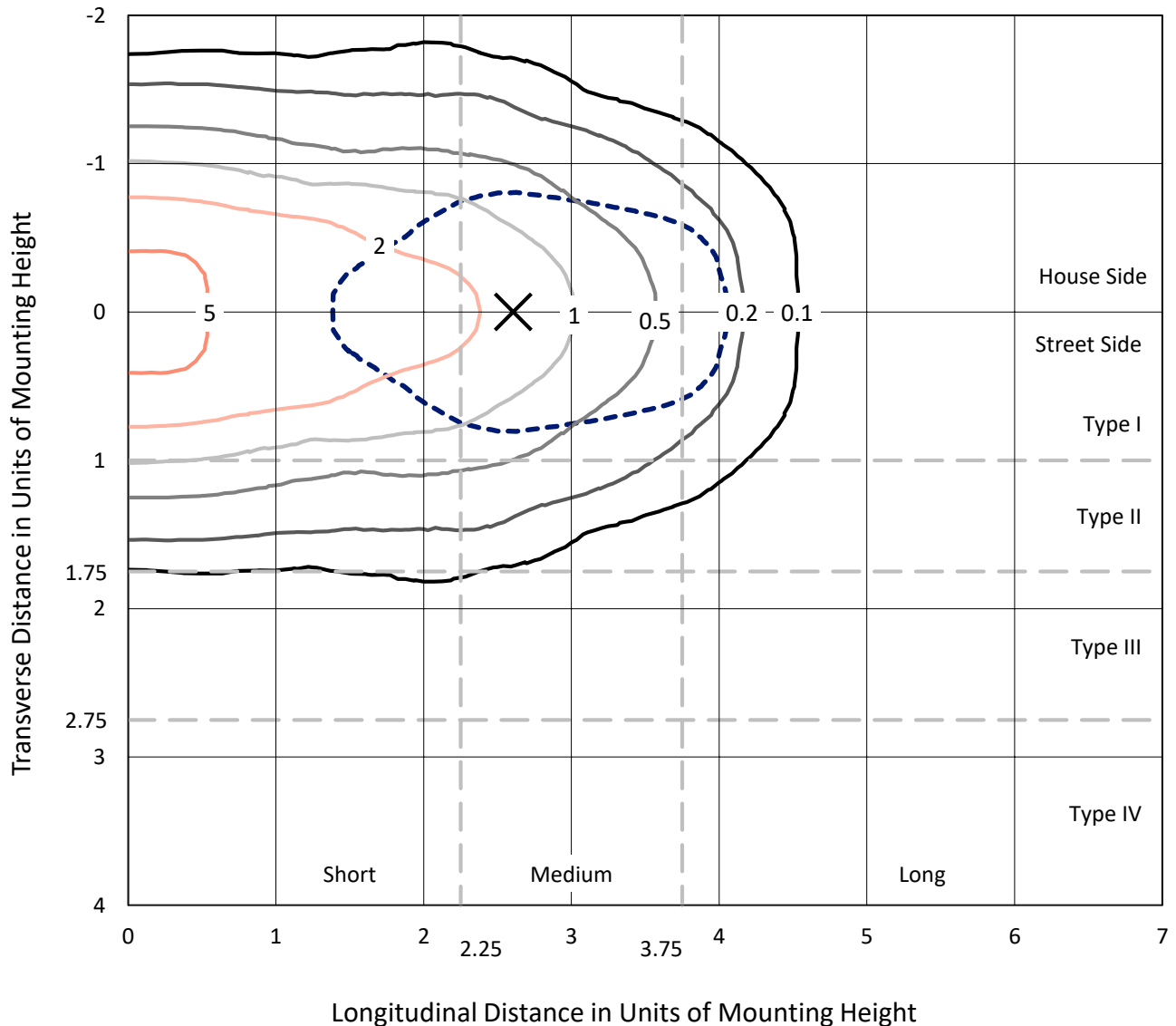


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Iso-Footcandle Lines of Horizontal Illumination

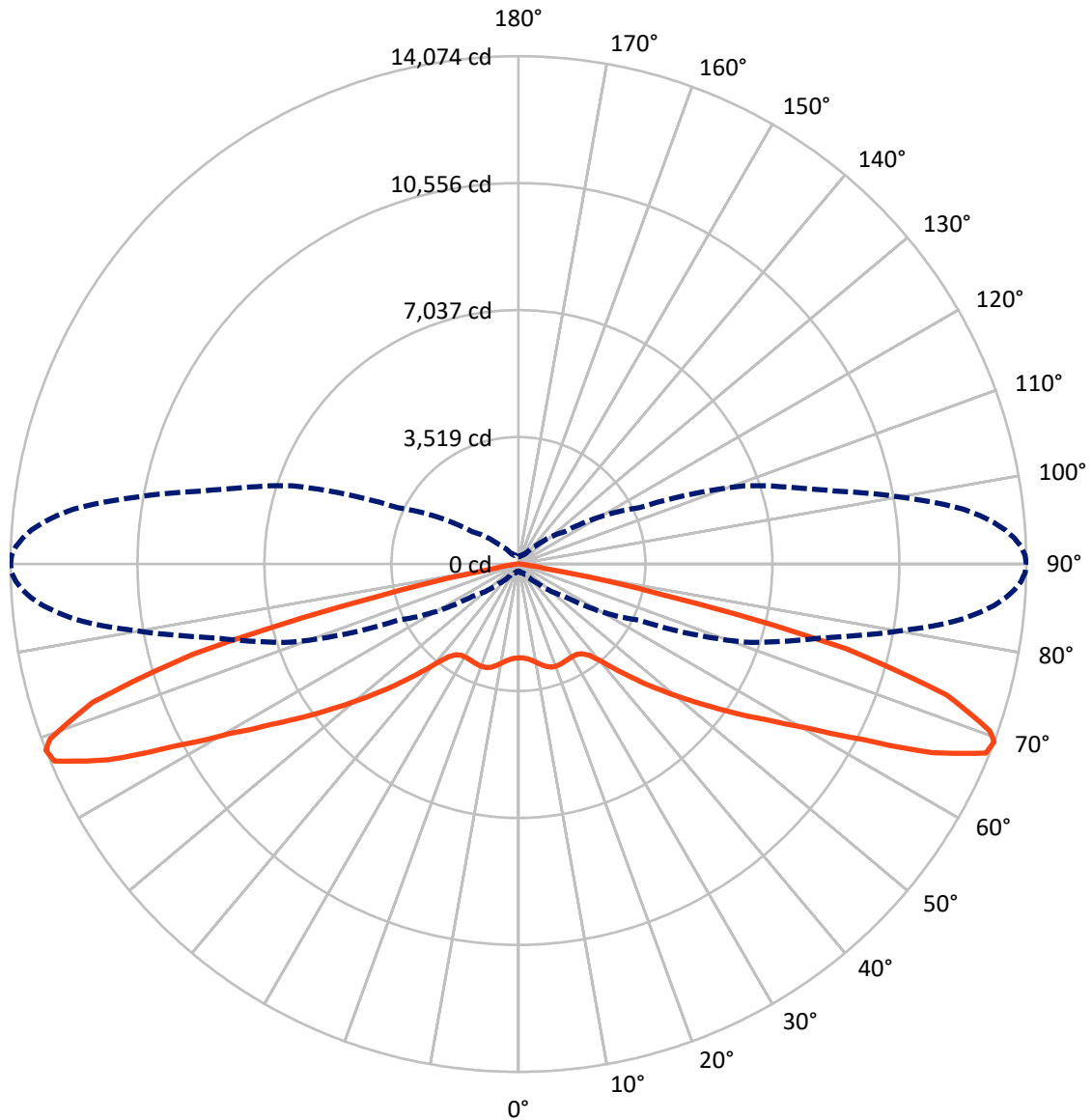
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.7 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	6794.2	0.0	6794.2
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6794.2	0.0	6794.2
	% Fixture	50.0	0.0	50.0
Total	Lumens	13588.4	0.0	13588.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	254.6	1.9
10°-20°	801.8	5.9
20°-30°	1298.6	9.6
30°-40°	1617.7	11.9
40°-50°	2013.9	14.8
50°-60°	2471.2	18.2
60°-70°	3047.7	22.4
70°-80°	1894.6	13.9
80°-90°	188.2	1.4
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°	13588.4	100.0
0°-180°	13588.4	100.0



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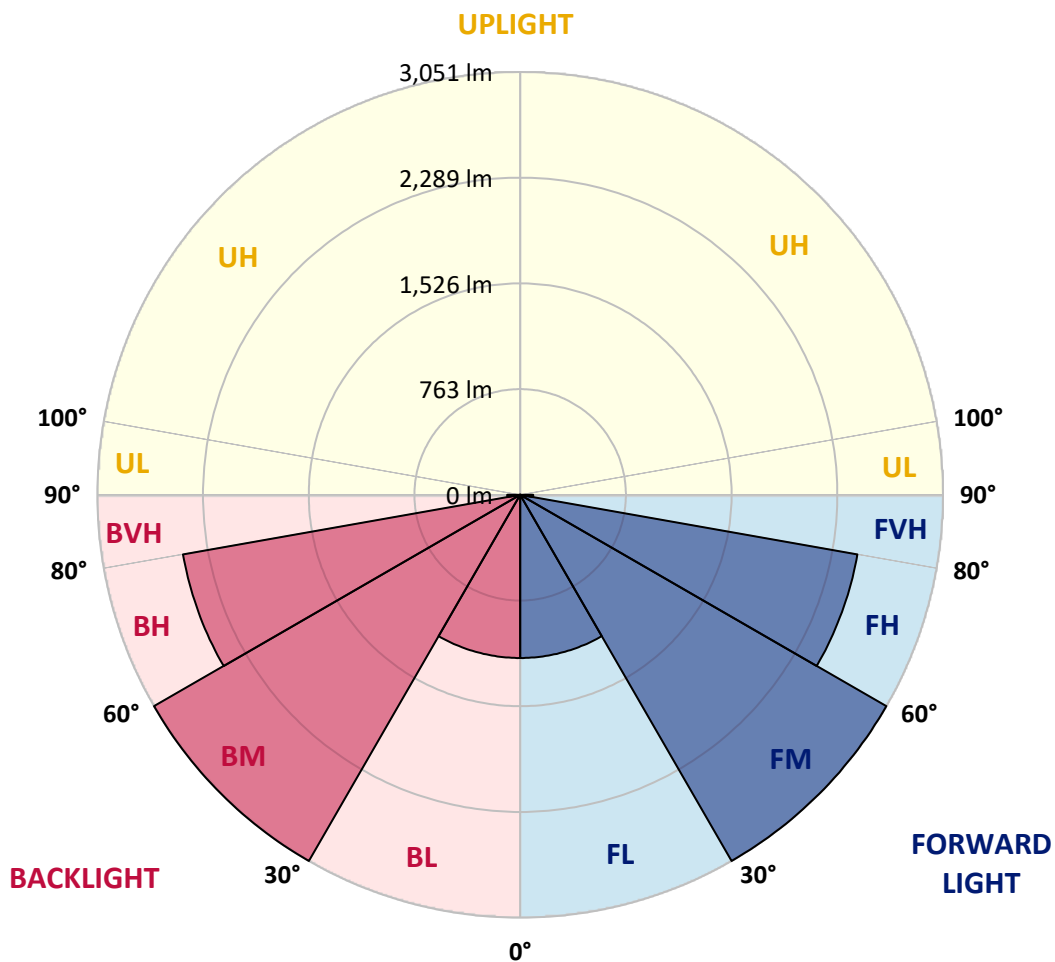
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1177.5	8.7			
FM	(30°-60°)	3051.4	22.5			
FH	(60°-80°)	2471.2	18.2			G2/5000
FVH	(80°-90°)	94.1	0.7			G1/100
BL	(0°-30°)	1177.5	8.7	B3/2500		
BM	(30°-60°)	3051.4	22.5	B3/5000		
BH	(60°-80°)	2471.2	18.2	B3/2500		G3/2500
BVH	(80°-90°)	94.1	0.7			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°	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2
2.5°	2609.0	2606.2	2611.2	2615.8	2614.4	2615.3	2613.5	2611.2	2611.4	2611.6	2611.7
5°	2629.3	2626.6	2631.1	2635.2	2636.6	2639.7	2640.6	2639.2	2639.9	2640.5	2641.2
7.5°	2653.8	2651.4	2657.4	2662.8	2673.2	2678.6	2684.0	2689.5	2690.0	2690.4	2690.9
10°	2676.8	2675.5	2685.0	2696.8	2713.5	2726.2	2741.6	2756.4	2757.6	2758.8	2760.0
12.5°	2691.8	2691.8	2706.2	2727.5	2756.5	2782.2	2808.4	2833.8	2836.2	2838.5	2840.9
15°	2690.8	2692.6	2714.8	2753.8	2803.5	2849.2	2881.3	2908.9	2911.2	2913.4	2915.7
17.5°	2672.3	2672.8	2704.4	2766.4	2844.2	2912.1	2953.7	2968.6	2969.5	2970.3	2971.1
20°	2620.3	2623.9	2668.6	2758.7	2875.8	2969.6	3008.9	3002.5	3001.2	2999.8	2998.5
22.5°	2531.2	2535.7	2595.4	2716.2	2881.8	3006.6	3047.4	3018.8	3014.5	3010.2	3005.8
25°	2407.2	2414.9	2479.6	2634.3	2842.0	3017.5	3072.2	3026.5	3019.8	3013.0	3006.2
27.5°	2263.8	2267.4	2343.9	2506.3	2749.2	2981.3	3083.6	3042.4	3033.8	3025.4	3016.8
30°	2097.8	2107.2	2186.9	2356.6	2618.4	2897.1	3079.0	3073.1	3063.6	3054.1	3044.6
32.5°	1932.6	1940.8	2019.0	2201.8	2467.8	2780.0	3056.4	3119.8	3111.8	3103.8	3095.8
35°	1766.2	1776.1	1856.6	2053.0	2318.0	2647.0	3020.6	3186.2	3182.8	3179.3	3175.9
37.5°	1620.0	1626.4	1705.5	1909.6	2186.9	2525.2	2974.0	3275.4	3283.1	3290.9	3298.7
40°	1471.2	1477.5	1560.4	1769.3	2066.1	2421.2	2931.0	3387.6	3408.8	3430.1	3451.3
42.5°	1328.2	1333.6	1413.8	1622.3	1931.7	2331.2	2905.3	3523.2	3564.1	3604.9	3645.7
45°	1181.6	1185.2	1260.4	1463.5	1778.4	2226.2	2898.5	3675.8	3734.6	3793.5	3852.4
47.5°	1037.4	1045.9	1123.3	1316.0	1603.2	2076.0	2888.5	3844.4	3922.5	4000.6	4078.7
50°	899.4	908.8	988.4	1171.2	1434.1	1897.8	2837.9	4035.8	4131.0	4226.2	4321.4
52.5°	758.6	768.2	847.8	1022.4	1277.1	1697.0	2696.8	4236.7	4349.9	4463.1	4576.3
55°	608.5	612.1	694.0	869.0	1120.2	1528.6	2471.9	4420.8	4557.9	4695.0	4832.0
57.5°	442.4	454.6	535.6	698.4	960.0	1379.8	2186.0	4515.0	4686.0	4857.1	5028.2
60°	319.4	327.6	398.6	526.6	778.6	1233.6	1932.2	4446.2	4674.5	4902.9	5131.3
62.5°	252.4	261.5	316.2	396.8	602.1	1073.1	1766.6	4257.5	4577.9	4898.3	5218.7
65°	223.5	231.6	282.3	322.1	460.6	908.0	1662.6	4070.6	4503.0	4935.4	5367.8
67.5°	204.0	212.6	257.0	284.1	380.5	801.6	1613.2	3929.5	4428.8	4928.2	5427.5
69°	195.0	202.6	243.4	268.7	358.8	765.4	1560.3	3690.6	4185.8	4680.8	5176.0
70°	190.0	196.8	233.9	259.2	350.2	735.6	1482.0	3406.6	3884.3	4362.0	4839.7
72.5°	176.0	180.5	211.7	235.2	320.2	587.2	1117.8	2403.6	2808.5	3213.5	3618.5
75°	156.0	161.5	189.1	210.8	244.3	352.8	699.8	1395.2	1672.7	1950.2	2227.7
77.5°	133.9	140.2	162.9	197.2	196.8	229.8	424.8	801.2	936.0	1070.8	1205.6
80°	114.9	120.3	140.7	195.0	164.7	181.8	316.7	597.6	651.9	706.2	760.5
82.5°	90.0	94.6	118.0	161.0	131.6	138.4	241.2	544.2	581.0	617.9	654.7
85°	56.6	58.4	86.0	111.2	93.6	83.7	155.2	418.9	445.7	472.5	499.2
87.5°	22.6	27.6	41.7	39.8	40.2	33.5	50.2	151.1	164.8	178.6	192.4
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2
2.5°	2611.9	2612.1	2611.2	2609.9	2611.2	2609.9	2610.4	2611.7	2611.2	2611.2	2610.4
5°	2641.8	2642.4	2642.4	2639.8	2641.1	2641.6	2642.0	2641.1	2641.6	2642.4	2640.6
7.5°	2691.3	2691.8	2693.1	2694.4	2693.6	2694.0	2695.0	2694.0	2692.7	2695.8	2693.6
10°	2761.2	2762.4	2762.4	2766.4	2764.6	2766.0	2770.0	2770.0	2767.8	2771.0	2770.0
12.5°	2843.2	2845.6	2845.1	2844.6	2846.5	2847.9	2852.4	2853.2	2854.1	2859.1	2857.3
15°	2917.9	2920.2	2922.0	2923.0	2926.1	2927.0	2929.7	2931.5	2932.9	2934.7	2935.6
17.5°	2971.9	2972.7	2975.4	2974.0	2978.6	2977.7	2980.8	2982.2	2983.6	2985.8	2987.1
20°	2997.1	2995.8	2996.2	2994.9	2994.9	2995.8	2996.2	2998.0	2997.2	2999.4	3001.2
22.5°	3001.5	2997.2	2994.4	2991.2	2989.9	2987.2	2987.2	2988.1	2984.9	2987.2	2989.9
25°	2999.4	2992.6	2987.6	2982.2	2977.2	2972.7	2970.0	2969.0	2966.8	2966.8	2969.0
27.5°	3008.4	2999.8	2992.6	2983.6	2977.2	2970.8	2965.0	2960.5	2956.0	2955.0	2955.0
30°	3035.1	3025.6	3017.5	3006.2	2996.2	2988.0	2979.9	2973.6	2965.0	2961.4	2957.4
32.5°	3087.9	3079.9	3068.6	3058.6	3046.9	3036.9	3026.0	3016.1	3006.2	2997.1	2993.5
35°	3172.5	3169.0	3162.7	3155.9	3144.6	3132.0	3122.9	3111.1	3099.8	3086.7	3083.0
37.5°	3306.5	3314.2	3310.6	3305.6	3302.5	3298.4	3286.2	3278.5	3270.8	3260.0	3257.7
40°	3472.6	3493.8	3515.1	3529.1	3524.2	3540.9	3543.6	3545.0	3538.2	3547.2	3549.0
42.5°	3686.5	3727.3	3765.8	3793.8	3826.4	3850.8	3882.5	3896.0	3921.8	3948.5	3963.9
45°	3911.3	3970.2	4025.4	4082.8	4139.4	4201.4	4261.6	4304.1	4366.1	4412.2	4441.2
47.5°	4156.8	4234.9	4301.0	4386.8	4468.8	4542.0	4647.4	4732.0	4807.6	4879.5	4955.1
50°	4416.6	4511.8	4593.2	4698.2	4797.6	4912.6	5036.1	5143.8	5262.3	5376.7	5478.6
52.5°	4689.5	4802.6	4912.5	5020.2	5141.0	5265.9	5399.8	5555.4	5697.4	5869.8	5993.4
55°	4969.1	5106.2	5223.4	5336.0	5464.0	5602.5	5761.7	5945.8	6126.4	6315.0	6502.3
57.5°	5199.3	5370.4	5498.5	5630.1	5768.0	5905.2	6102.8	6291.5	6520.4	6752.0	6986.4
60°	5359.6	5588.0	5743.2	5909.6	6069.4	6235.8	6448.9	6687.3	6973.7	7254.2	7572.6
62.5°	5539.1	5859.4	6077.0	6299.2	6493.2	6693.2	6978.2	7252.8	7620.6	7943.6	8344.4
65°	5800.2	6232.6	6553.0	6852.4	7113.0	7385.4	7723.3	8066.6	8487.4	8933.9	9436.5
67.5°	5926.9	6426.2	6845.6	7215.2	7548.2	7895.2	8244.0	8650.2	9124.4	9661.8	10213.8
69°	5671.0	6166.2	6648.4	7022.1	7372.7	7743.2	8116.4	8526.4	8993.2	9551.0	10135.9
70°	5317.5	5795.2	6307.8	6682.4	7036.1	7420.6	7800.6	8214.6	8661.1	9235.7	9827.4
72.5°	4023.5	4428.5	4926.2	5322.0	5693.8	6082.5	6473.8	6833.0	7285.8	7838.6	8383.8
75°	2505.2	2782.7	3230.1	3627.8	3926.8	4259.8	4627.1	4967.3	5422.0	5813.8	6338.1
77.5°	1340.4	1475.2	1736.3	2021.3	2187.8	2350.2	2589.5	2774.1	2965.4	3192.2	3408.8
80°	814.8	869.0	958.2	1019.7	996.6	930.2	908.8	842.4	866.4	825.6	796.2
82.5°	691.5	728.4	782.7	819.7	792.6	686.2	566.0	476.4	413.0	352.4	299.5
85°	526.0	552.8	580.8	597.7	596.2	543.3	431.6	334.3	260.6	201.8	167.8
87.5°	206.1	219.8	240.2	237.0	247.4	249.2	195.0	150.6	107.2	72.4	63.4
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°	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2	2602.2
2.5°	2608.6	2608.1	2608.5	2609.9	2609.8	2610.8	2609.8	2610.3	2609.0	2607.6	2608.5
5°	2640.6	2639.7	2640.6	2641.6	2641.6	2640.6	2642.9	2642.9	2642.0	2640.6	2641.1
7.5°	2695.8	2696.3	2694.9	2699.4	2695.4	2695.8	2698.6	2698.1	2697.2	2697.6	2698.1
10°	2772.8	2772.3	2773.2	2775.9	2771.8	2774.6	2777.7	2778.6	2776.4	2776.4	2776.8
12.5°	2857.8	2861.4	2861.9	2863.6	2863.6	2865.9	2866.4	2866.8	2868.6	2869.1	2866.4
15°	2939.2	2941.9	2943.8	2945.6	2943.3	2946.4	2950.0	2950.0	2949.6	2951.4	2948.7
17.5°	2989.4	2991.7	2994.9	2994.4	2994.9	2997.6	2999.9	3000.8	3001.6	3001.6	3002.1
20°	3005.2	3006.6	3008.4	3010.2	3011.2	3013.8	3015.6	3017.0	3018.0	3017.0	3017.5
22.5°	2992.6	2994.4	2998.0	2999.4	2999.8	3003.9	3005.8	3007.1	3008.0	3008.9	3007.5
25°	2970.9	2972.7	2976.4	2977.7	2978.6	2982.2	2984.4	2987.6	2988.6	2989.0	2989.4
27.5°	2956.0	2956.9	2959.6	2961.4	2961.9	2965.9	2969.0	2971.3	2971.8	2972.2	2972.2
30°	2956.4	2956.4	2959.6	2960.0	2959.6	2963.2	2965.0	2966.4	2967.3	2967.2	2967.7
32.5°	2987.6	2985.8	2988.6	2984.5	2984.9	2984.5	2984.0	2985.4	2984.4	2984.9	2983.1
35°	3075.8	3070.9	3066.8	3068.6	3062.2	3053.2	3058.2	3055.9	3051.0	3051.4	3052.8
37.5°	3245.0	3240.0	3244.6	3240.5	3241.8	3229.2	3232.4	3221.0	3217.8	3222.0	3210.2
40°	3545.4	3543.2	3551.8	3548.2	3550.4	3554.0	3557.2	3546.4	3528.2	3544.6	3545.0
42.5°	3961.6	3982.0	3990.2	4001.4	4013.6	4008.2	4019.1	4022.2	4002.4	4017.2	4020.9
45°	4483.7	4505.4	4530.8	4538.4	4558.4	4561.0	4569.2	4571.4	4553.4	4555.2	4559.2
47.5°	5030.6	5070.5	5100.3	5121.2	5142.0	5146.0	5150.6	5141.9	5143.3	5147.4	5147.4
50°	5568.1	5653.2	5706.1	5747.2	5783.0	5764.4	5780.2	5781.6	5787.0	5775.8	5782.5
52.5°	6133.2	6245.8	6334.4	6403.6	6425.4	6491.4	6464.3	6485.1	6499.2	6478.3	6491.9
55°	6685.0	6845.6	6988.2	7088.6	7159.2	7226.1	7236.5	7290.4	7284.0	7304.4	7295.3
57.5°	7209.8	7434.2	7637.8	7786.6	7888.0	7990.2	8059.4	8118.2	8124.1	8182.5	8149.5
60°	7844.6	8157.2	8419.1	8640.8	8790.5	8942.5	9062.4	9158.8	9181.0	9280.9	9247.9
62.5°	8701.0	9082.3	9417.1	9677.2	10010.6	10171.2	10404.6	10550.4	10641.2	10666.1	10712.7
65°	9904.8	10401.5	10843.0	11259.2	11634.3	11894.4	12164.5	12381.7	12555.8	12541.3	12612.8
67.5°	10799.2	11365.6	11897.1	12396.1	12799.7	13134.4	13444.8	13679.6	13835.2	13934.2	13976.3
69°	10706.0	11314.0	11900.2	12433.2	12849.4	13223.5	13525.8	13756.9	13935.2	14042.8	14074.0
70°	10396.0	11020.8	11632.0	12155.0	12579.3	12990.1	13297.8	13555.1	13724.8	13842.4	13860.5
72.5°	8992.2	9669.0	10209.7	10780.1	11188.6	11604.4	11798.0	12117.0	12338.2	12409.7	12408.3
75°	6782.3	7346.9	7821.9	8243.6	8609.1	8891.0	8982.3	9209.4	9393.1	9390.8	9373.6
77.5°	3652.2	3785.2	3963.0	4022.7	4135.4	4133.6	4020.4	4056.2	4160.2	3958.5	4023.6
80°	783.6	771.8	761.8	755.9	752.8	754.2	758.2	732.4	757.8	746.4	698.5
82.5°	272.8	266.4	260.2	264.6	261.4	264.2	263.3	266.4	266.0	265.1	258.8
85°	153.4	147.9	144.8	147.0	142.0	137.5	134.4	133.0	132.6	129.4	127.6
87.5°	58.4	57.9	57.4	55.2	49.8	45.7	42.9	37.6	35.3	32.2	29.9
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)