

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: P144573

Luminaire Tested: **LDRL-RW-F06-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144573
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-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (42) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12556.6 lumens
Efficiency: N/A
Efficacy: 80.2 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

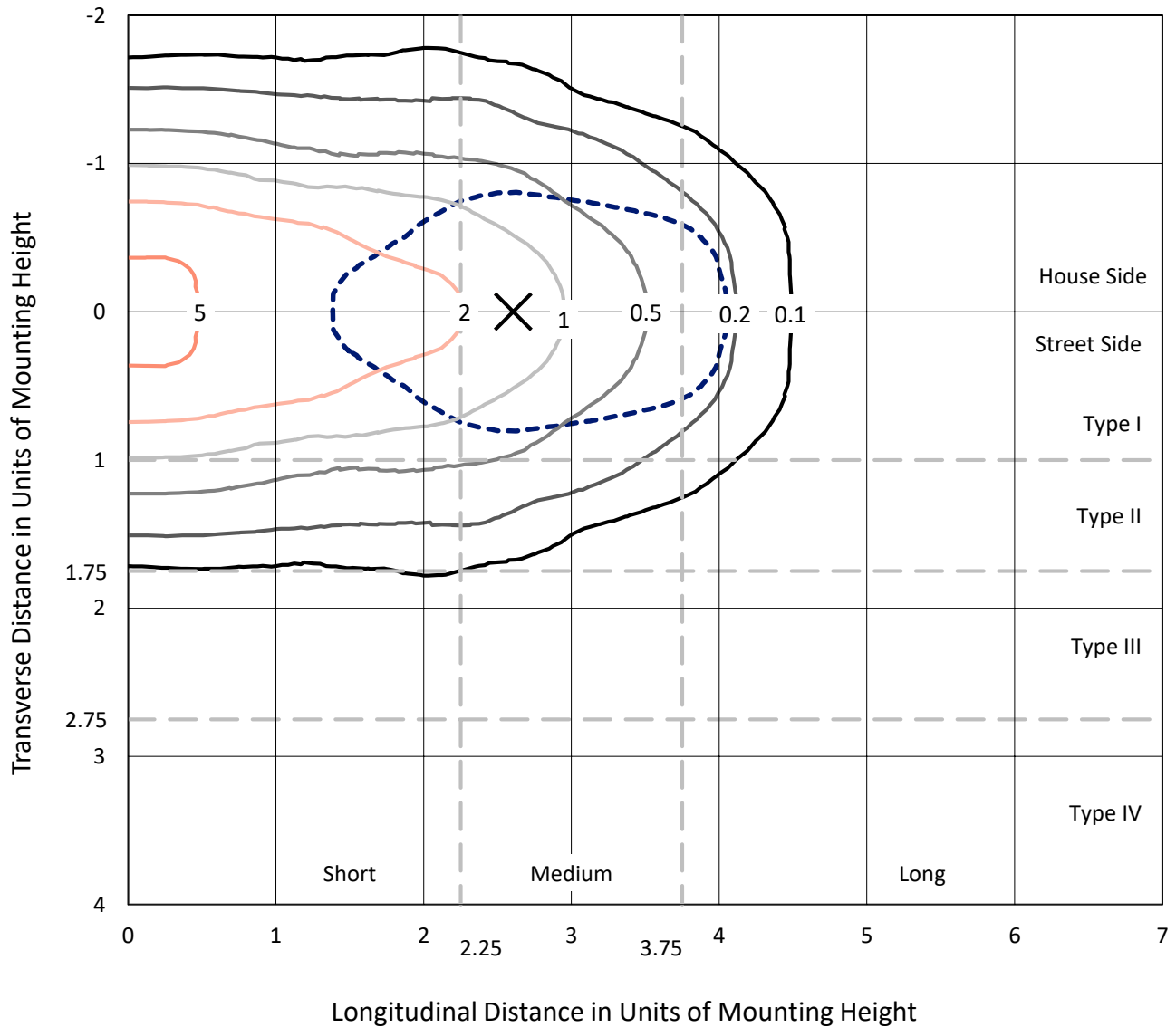
Input Watts (W): 156.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P144573
 CATALOG NUMBER: LDRL-RW-F06-E-8030

Iso-Footcandle Lines of Horizontal Illumination

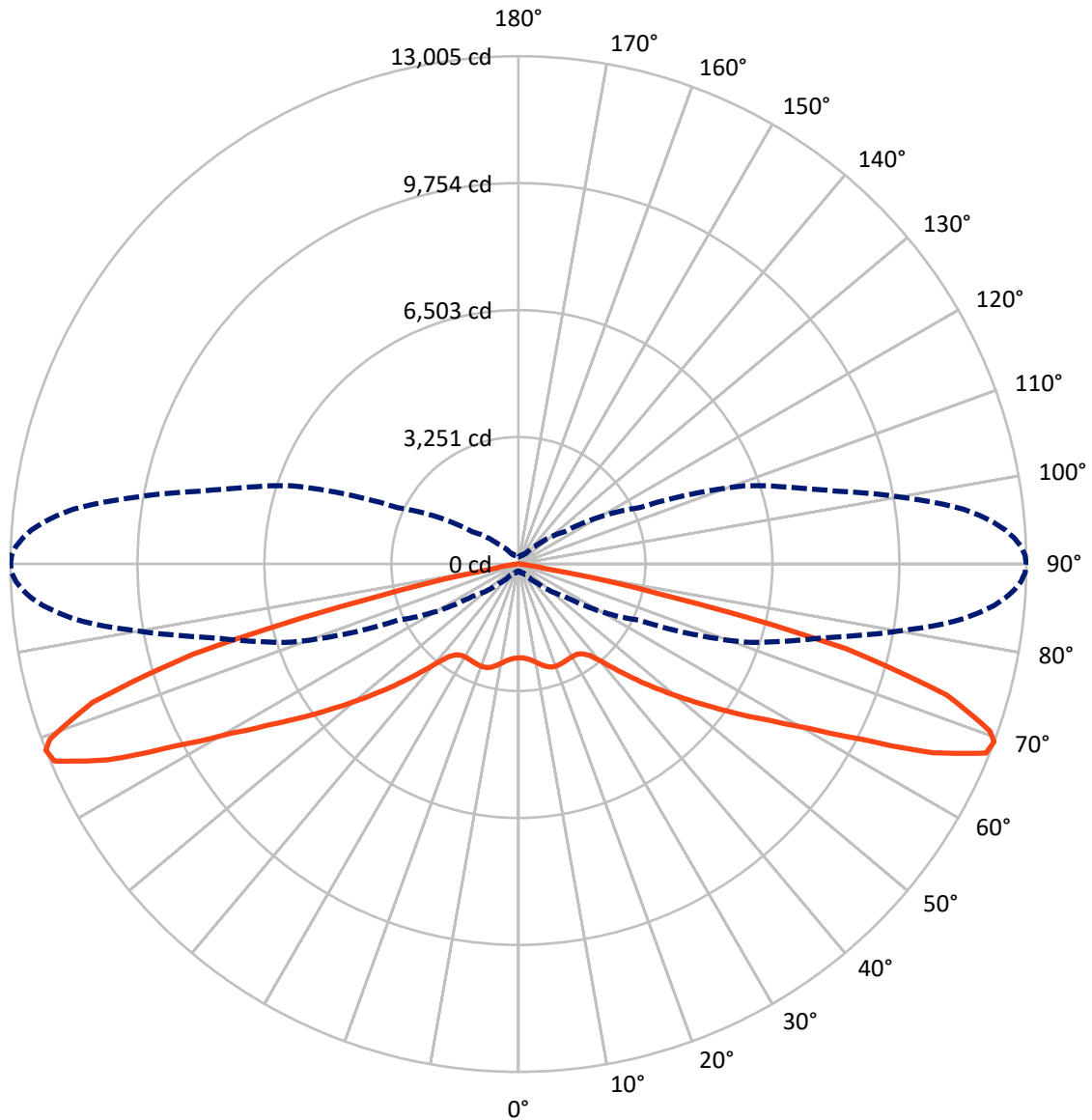
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.2 fc
 Type I - Short - Full Cutoff

REPORT NUMBER: P144573
CATALOG NUMBER: LDRL-RW-F06-E-8030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P144573

CATALOG NUMBER: LDRL-RW-F06-E-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6278.3	0.0	6278.3
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6278.3	0.0	6278.3
	% Fixture	50.0	0.0	50.0
Total	Lumens	12556.6	0.0	12556.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	235.3	1.9
10°-20°	740.9	5.9
20°-30°	1200.0	9.6
30°-40°	1494.9	11.9
40°-50°	1861.0	14.8
50°-60°	2283.5	18.2
60°-70°	2816.3	22.4
70°-80°	1750.8	13.9
80°-90°	173.9	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°	12556.6	100.0
0°-180°	12556.6	100.0



REPORT NUMBER: P144573

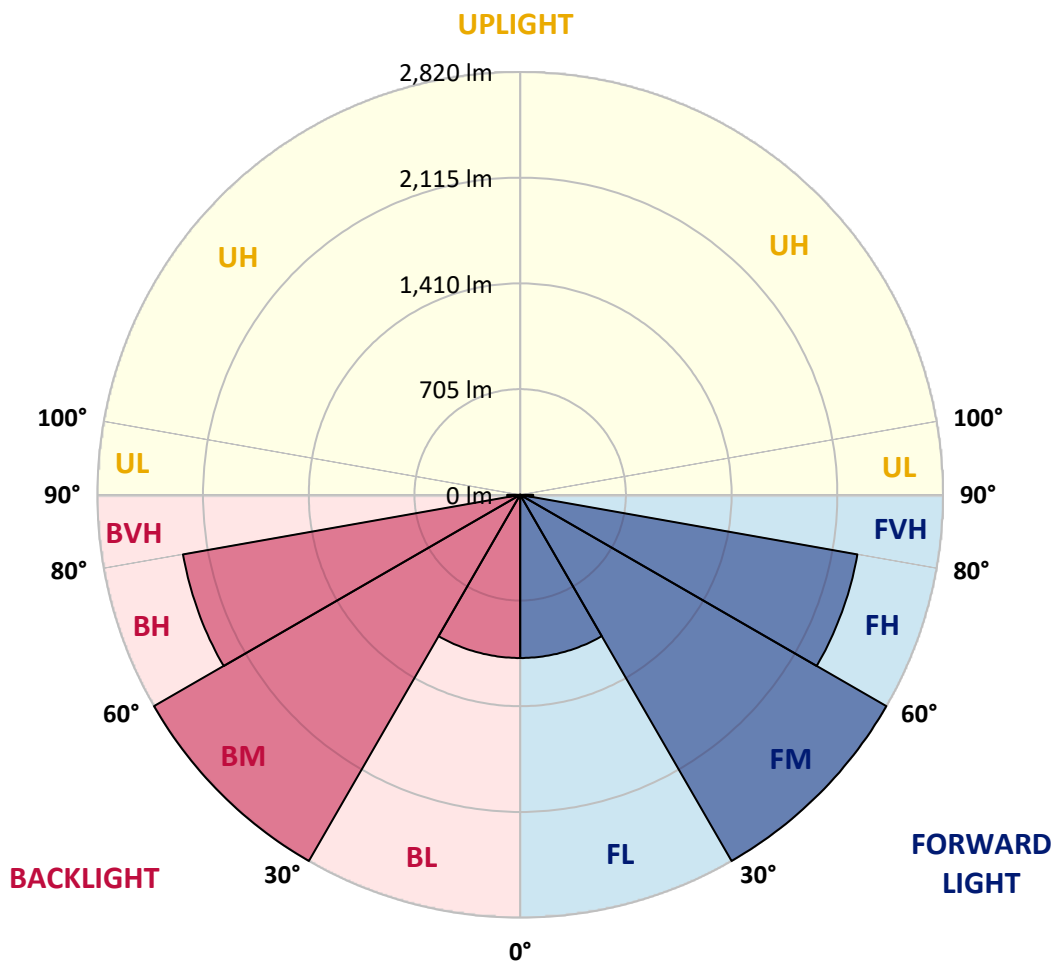
CATALOG NUMBER: LDRL-RW-F06-E-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1088.1	8.7			
FM	(30°-60°)	2819.7	22.5			
FH	(60°-80°)	2283.5	18.2			G2/5000
FVH	(80°-90°)	86.9	0.7			G1/100
BL	(0°-30°)	1088.1	8.7	B3/2500		
BM	(30°-60°)	2819.7	22.5	B3/5000		
BH	(60°-80°)	2283.5	18.2	B3/2500		G3/2500
BVH	(80°-90°)	86.9	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





REPORT NUMBER: P144573

CATALOG NUMBER: LDRL-RW-F06-E-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6
2.5°	2410.9	2408.4	2412.9	2417.1	2415.8	2416.7	2415.0	2413.0	2413.1	2413.3	2413.5
5°	2429.6	2427.2	2431.4	2435.0	2436.4	2439.3	2440.1	2438.9	2439.4	2440.0	2440.6
7.5°	2452.2	2450.1	2455.6	2460.6	2470.2	2475.2	2480.2	2485.2	2485.7	2486.1	2486.5
10°	2473.6	2472.3	2481.0	2491.9	2507.4	2519.1	2533.3	2547.2	2548.2	2549.3	2550.4
12.5°	2487.4	2487.3	2500.7	2520.4	2547.1	2571.0	2595.2	2618.6	2620.8	2622.9	2625.1
15°	2486.5	2488.2	2508.7	2544.6	2590.6	2632.8	2662.5	2688.0	2690.1	2692.2	2694.3
17.5°	2469.4	2469.8	2499.0	2556.3	2628.2	2691.0	2729.4	2743.2	2744.0	2744.7	2745.4
20°	2421.3	2424.6	2466.0	2549.2	2657.4	2744.0	2780.4	2774.5	2773.3	2772.0	2770.8
22.5°	2339.0	2343.1	2398.4	2510.0	2663.0	2778.3	2815.9	2789.6	2785.6	2781.6	2777.5
25°	2224.4	2231.5	2291.2	2434.2	2626.2	2788.3	2838.9	2796.7	2790.4	2784.2	2777.9
27.5°	2091.8	2095.2	2165.9	2316.0	2540.4	2754.9	2849.4	2811.3	2803.5	2795.6	2787.8
30°	1938.4	1947.2	2020.8	2177.6	2419.6	2677.2	2845.1	2839.8	2831.0	2822.2	2813.4
32.5°	1785.8	1793.4	1865.7	2034.6	2280.4	2568.8	2824.3	2882.8	2875.4	2868.1	2860.7
35°	1632.0	1641.2	1715.6	1897.1	2142.0	2446.0	2791.2	2944.2	2941.1	2937.9	2934.7
37.5°	1497.0	1502.9	1576.0	1764.6	2020.8	2333.5	2748.2	3026.6	3033.8	3041.0	3048.2
40°	1359.4	1365.4	1441.8	1635.0	1909.2	2237.4	2708.5	3130.3	3150.0	3169.6	3189.2
42.5°	1227.4	1232.4	1306.4	1499.1	1785.0	2154.2	2684.6	3255.7	3293.4	3331.1	3368.8
45°	1091.9	1095.3	1164.6	1352.4	1643.4	2057.2	2678.4	3396.6	3451.0	3505.4	3559.9
47.5°	958.6	966.5	1038.0	1216.1	1481.6	1918.4	2669.2	3552.5	3624.6	3696.8	3769.0
50°	831.1	839.8	913.4	1082.3	1325.2	1753.7	2622.4	3729.4	3817.3	3905.3	3993.2
52.5°	701.1	709.8	783.4	944.8	1180.2	1568.1	2492.0	3915.0	4019.6	4124.2	4228.8
55°	562.2	565.6	641.3	803.0	1035.0	1412.6	2284.2	4085.1	4211.8	4338.4	4465.1
57.5°	408.8	420.1	495.0	645.4	887.1	1275.1	2020.0	4172.0	4330.2	4488.2	4646.4
60°	295.1	302.6	368.3	486.6	719.4	1140.0	1785.4	4108.5	4319.5	4530.6	4741.6
62.5°	233.2	241.6	292.2	366.6	556.4	991.6	1632.4	3934.2	4230.2	4526.3	4822.4
65°	206.5	214.0	260.8	297.6	425.6	839.0	1536.3	3761.5	4161.1	4560.6	4960.2
67.5°	188.6	196.4	237.4	262.5	351.6	740.8	1490.8	3631.1	4092.5	4554.0	5015.4
69°	180.2	187.3	224.9	248.3	331.5	707.3	1441.8	3410.4	3867.9	4325.4	4782.9
70°	175.5	181.8	216.2	239.5	323.6	679.8	1369.5	3147.8	3589.3	4030.8	4472.2
72.5°	162.6	166.8	195.6	217.4	296.0	542.6	1033.0	2221.0	2595.3	2969.5	3343.7
75°	144.2	149.2	174.8	194.8	225.8	326.1	646.7	1289.2	1545.6	1802.1	2058.5
77.5°	123.7	129.6	150.5	182.3	181.9	212.4	392.6	740.4	864.9	989.5	1114.1
80°	106.2	111.2	130.0	180.2	152.2	168.0	292.6	552.2	602.4	652.6	702.8
82.5°	83.2	87.4	109.1	148.8	121.6	127.9	222.8	502.9	536.9	571.0	605.0
85°	52.2	53.9	79.4	102.8	86.6	77.3	143.4	387.1	411.8	436.6	461.4
87.5°	20.9	25.5	38.4	36.8	37.2	31.0	46.4	139.6	152.4	165.0	177.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P144573

CATALOG NUMBER: LDRL-RW-F06-E-8030

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6
2.5°	2413.6	2413.8	2412.9	2411.6	2412.9	2411.7	2412.1	2413.4	2413.0	2413.0	2412.1
5°	2441.2	2441.8	2441.8	2439.3	2440.5	2441.0	2441.4	2440.5	2441.0	2441.8	2440.1
7.5°	2486.9	2487.4	2488.6	2489.9	2489.0	2489.4	2490.3	2489.4	2488.2	2491.1	2489.0
10°	2551.5	2552.6	2552.6	2556.4	2554.6	2556.0	2559.6	2559.6	2557.6	2560.5	2559.6
12.5°	2627.3	2629.4	2629.0	2628.6	2630.4	2631.6	2635.8	2636.6	2637.4	2642.0	2640.4
15°	2696.4	2698.4	2700.2	2701.0	2703.9	2704.7	2707.2	2709.0	2710.2	2711.8	2712.6
17.5°	2746.2	2747.0	2749.5	2748.2	2752.4	2751.6	2754.5	2755.8	2757.0	2759.1	2760.4
20°	2769.6	2768.3	2768.6	2767.4	2767.4	2768.2	2768.6	2770.4	2769.5	2771.6	2773.3
22.5°	2773.5	2769.5	2767.0	2764.1	2762.9	2760.4	2760.4	2761.2	2758.2	2760.4	2762.8
25°	2771.6	2765.4	2760.8	2755.8	2751.1	2747.0	2744.4	2743.6	2741.5	2741.5	2743.6
27.5°	2779.9	2772.0	2765.4	2757.0	2751.2	2745.2	2739.8	2735.6	2731.5	2730.6	2730.6
30°	2804.6	2795.8	2788.3	2777.9	2768.7	2761.2	2753.6	2747.8	2739.8	2736.5	2732.8
32.5°	2853.4	2846.0	2835.6	2826.4	2815.5	2806.3	2796.2	2787.1	2777.9	2769.6	2766.1
35°	2931.6	2928.4	2922.5	2916.2	2905.8	2894.1	2885.8	2874.9	2864.4	2852.3	2849.0
37.5°	3055.4	3062.6	3059.2	3054.6	3051.7	3048.0	3036.6	3029.5	3022.4	3012.4	3010.3
40°	3208.9	3228.6	3248.2	3261.2	3256.6	3272.0	3274.6	3275.8	3269.5	3277.9	3279.5
42.5°	3406.5	3444.2	3479.8	3505.7	3535.8	3558.4	3587.6	3600.2	3624.0	3648.6	3662.9
45°	3614.3	3668.7	3719.8	3772.8	3825.0	3882.4	3938.0	3977.2	4034.6	4077.2	4104.0
47.5°	3841.1	3913.2	3974.3	4053.8	4129.4	4197.2	4294.5	4372.8	4442.5	4509.0	4578.8
50°	4081.2	4169.2	4244.4	4341.4	4433.4	4539.5	4653.6	4753.1	4862.6	4968.5	5062.5
52.5°	4333.4	4438.0	4539.5	4639.0	4750.6	4866.0	4989.8	5133.5	5264.8	5424.1	5538.2
55°	4591.8	4718.5	4826.7	4930.8	5049.1	5177.0	5324.2	5494.3	5661.1	5835.5	6008.5
57.5°	4804.4	4962.6	5080.9	5202.6	5330.0	5456.7	5639.4	5813.7	6025.2	6239.2	6455.8
60°	4952.6	5163.6	5307.0	5460.9	5608.4	5762.3	5959.2	6179.5	6444.1	6703.3	6997.6
62.5°	5118.4	5414.5	5615.6	5820.8	6000.2	6184.9	6448.2	6702.0	7042.0	7340.4	7710.8
65°	5359.8	5759.4	6055.3	6332.0	6572.8	6824.6	7136.8	7454.1	7842.8	8255.4	8720.0
67.5°	5476.9	5938.3	6325.8	6667.3	6975.0	7295.7	7618.0	7993.4	8431.4	8928.1	9438.1
69°	5240.4	5697.9	6143.6	6488.8	6812.8	7155.2	7500.1	7878.8	8310.2	8825.7	9366.2
70°	4913.6	5355.1	5828.8	6174.9	6501.8	6857.2	7208.3	7590.8	8003.4	8534.4	9081.2
72.5°	3718.0	4092.2	4552.1	4917.8	5261.5	5620.6	5982.2	6314.1	6732.6	7243.4	7747.2
75°	2315.0	2571.4	2984.8	3352.2	3628.6	3936.2	4275.7	4590.1	5010.2	5372.2	5856.8
77.5°	1238.7	1363.2	1604.4	1867.8	2021.6	2171.7	2392.9	2563.4	2740.2	2949.7	3149.9
80°	752.9	803.1	885.4	942.2	921.0	859.5	839.8	778.4	800.6	763.0	735.8
82.5°	639.0	673.0	723.2	757.5	732.4	634.2	523.0	440.2	381.6	325.6	276.8
85°	486.1	510.8	536.8	552.2	551.0	502.0	398.8	309.0	240.8	186.5	155.1
87.5°	190.4	203.1	222.0	219.0	228.6	230.4	180.2	139.2	99.1	66.9	58.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P144573
 CATALOG NUMBER: LDRL-RW-F06-E-8030

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6	2404.6
2.5°	2410.4	2410.0	2410.4	2411.6	2411.7	2412.5	2411.7	2412.1	2410.9	2409.6	2410.4
5°	2440.1	2439.3	2440.1	2441.0	2441.0	2440.1	2442.2	2442.2	2441.4	2440.1	2440.5
7.5°	2491.1	2491.5	2490.2	2494.4	2490.7	2491.1	2493.6	2493.2	2492.4	2492.8	2493.2
10°	2562.1	2561.8	2562.6	2565.1	2561.4	2563.8	2566.8	2567.6	2565.6	2565.5	2565.9
12.5°	2640.8	2644.1	2644.6	2646.2	2646.2	2648.3	2648.7	2649.2	2650.8	2651.2	2648.7
15°	2716.0	2718.5	2720.2	2721.9	2719.8	2722.7	2726.0	2726.0	2725.6	2727.3	2724.8
17.5°	2762.4	2764.5	2767.5	2767.0	2767.4	2770.0	2772.0	2772.9	2773.8	2773.8	2774.1
20°	2777.0	2778.3	2780.0	2781.6	2782.5	2785.0	2786.6	2787.9	2788.8	2787.9	2788.3
22.5°	2765.4	2767.0	2770.4	2771.6	2772.0	2775.8	2777.5	2778.8	2779.6	2780.4	2779.1
25°	2745.3	2747.0	2750.3	2751.6	2752.4	2755.8	2757.9	2760.8	2761.6	2762.0	2762.4
27.5°	2731.4	2732.3	2734.8	2736.5	2736.9	2740.7	2743.6	2745.7	2746.1	2746.6	2746.5
30°	2731.9	2731.9	2734.8	2735.2	2734.8	2738.2	2739.9	2741.1	2742.0	2742.0	2742.4
32.5°	2760.8	2759.0	2761.6	2757.8	2758.2	2757.8	2757.4	2758.6	2757.8	2758.2	2756.6
35°	2842.2	2837.6	2833.9	2835.6	2829.8	2821.4	2826.0	2823.9	2819.3	2819.6	2820.9
37.5°	2998.6	2994.0	2998.2	2994.4	2995.7	2984.0	2986.9	2976.4	2973.5	2977.3	2966.4
40°	3276.2	3274.1	3282.0	3278.7	3280.8	3284.2	3287.0	3277.0	3260.3	3275.4	3275.8
42.5°	3660.8	3679.6	3687.2	3697.6	3708.8	3703.8	3713.9	3716.8	3698.4	3712.2	3715.6
45°	4143.2	4163.2	4186.7	4193.8	4212.2	4214.7	4222.2	4224.3	4207.5	4209.2	4213.0
47.5°	4648.6	4685.5	4713.0	4732.2	4751.5	4755.2	4759.4	4751.5	4752.7	4756.5	4756.5
50°	5145.2	5223.8	5272.8	5310.8	5343.8	5326.7	5341.3	5342.6	5347.6	5337.2	5343.4
52.5°	5667.3	5771.4	5853.4	5917.4	5937.5	5998.5	5973.4	5992.6	6005.6	5986.4	5998.9
55°	6177.4	6325.8	6457.5	6550.3	6615.5	6677.4	6687.0	6736.8	6730.9	6749.7	6741.3
57.5°	6662.4	6869.6	7057.8	7195.4	7289.0	7383.4	7447.4	7501.8	7507.2	7561.2	7530.6
60°	7248.8	7537.7	7779.8	7984.6	8123.0	8263.4	8374.2	8463.2	8483.8	8576.1	8545.6
62.5°	8040.2	8392.6	8702.0	8942.4	9250.4	9398.8	9614.6	9749.2	9833.2	9856.2	9899.2
65°	9152.6	9611.6	10019.6	10404.2	10750.8	10991.2	11240.8	11441.4	11602.3	11589.0	11655.0
67.5°	9979.1	10502.4	10993.6	11454.8	11827.6	12137.0	12423.8	12640.7	12784.6	12876.0	12915.0
69°	9893.0	10454.8	10996.6	11489.1	11873.6	12219.4	12498.6	12712.2	12877.0	12976.4	13005.3
70°	9606.6	10183.9	10748.7	11232.0	11624.0	12003.6	12287.9	12525.8	12682.6	12791.2	12808.0
72.5°	8309.4	8934.8	9434.4	9961.5	10339.0	10723.2	10902.1	11196.8	11401.2	11467.3	11466.0
75°	6267.2	6789.0	7228.0	7617.6	7955.4	8215.8	8300.2	8510.0	8679.8	8677.7	8661.8
77.5°	3374.8	3497.8	3662.0	3717.2	3821.3	3819.6	3715.1	3748.2	3844.4	3657.9	3718.1
80°	724.0	713.2	704.0	698.6	695.6	696.8	700.7	676.8	700.2	689.8	645.5
82.5°	252.1	246.2	240.4	244.6	241.6	244.2	243.3	246.2	245.8	245.0	239.1
85°	141.7	136.7	133.8	135.9	131.2	127.0	124.2	122.9	122.5	119.6	117.9
87.5°	54.0	53.5	53.1	51.0	45.9	42.2	39.8	34.7	32.6	29.7	27.6
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)