

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: P144559

Luminaire Tested: **LDRL-RW-E05-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144559
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-E05-E-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (105) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13717 lumens
Efficiency: N/A
Efficacy: 107.8 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 127.3
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

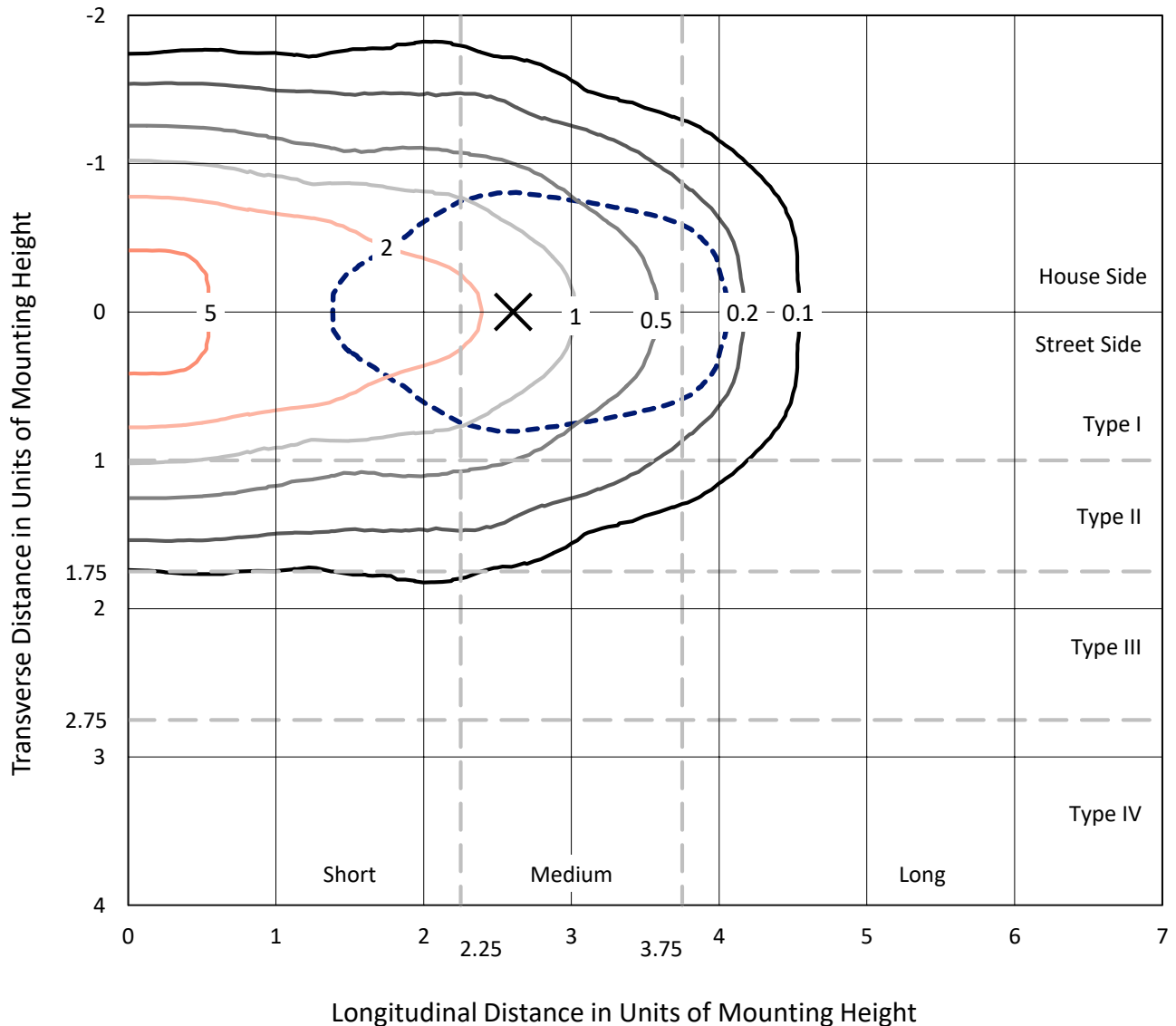


REPORT NUMBER: P144559

CATALOG NUMBER: LDRL-RW-E05-E-7030

Iso-Footcandle Lines of Horizontal Illumination

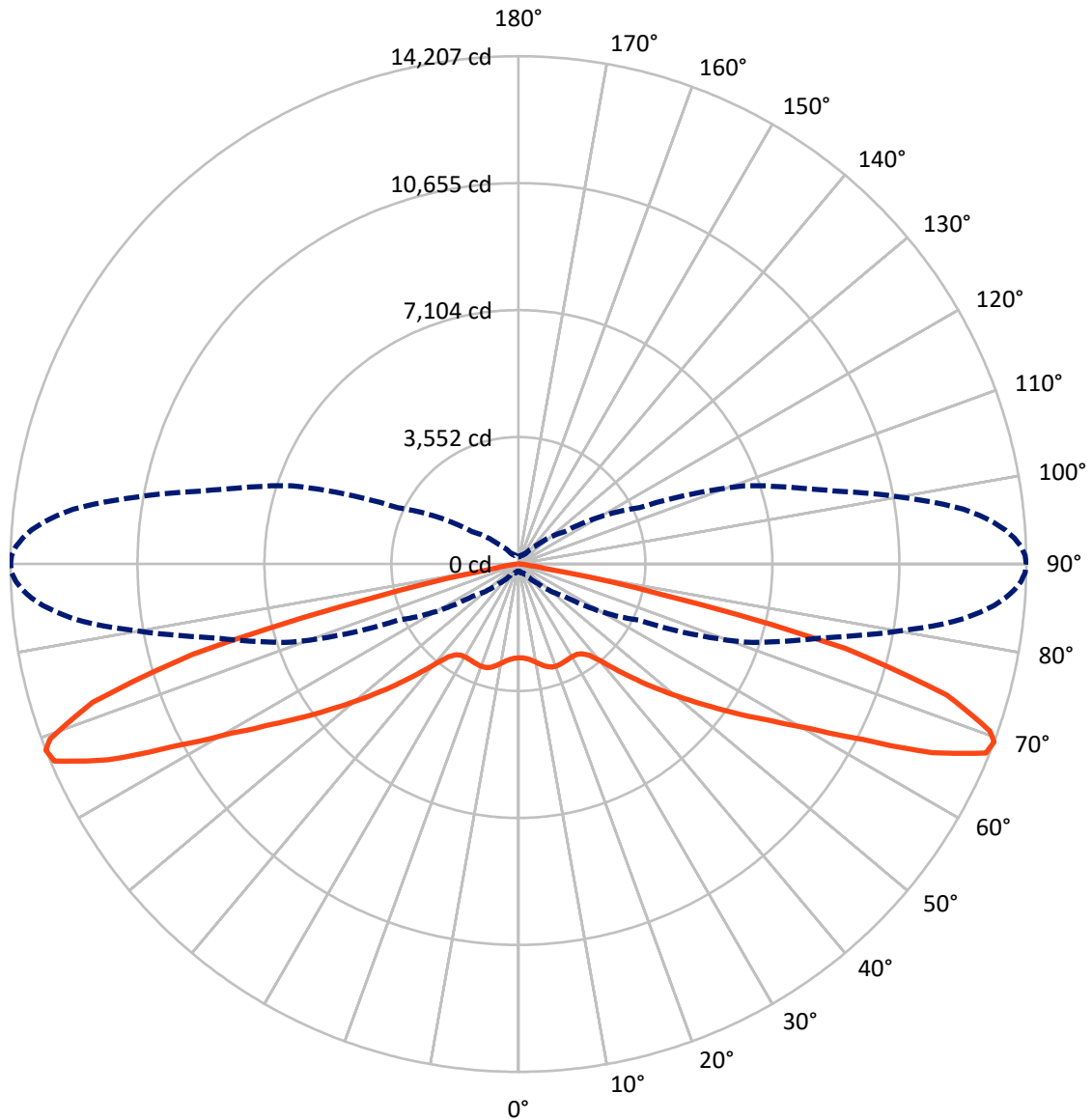
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.7 fc
 Type I - Short - Full Cutoff

REPORT NUMBER: P144559
CATALOG NUMBER: LDRL-RW-E05-E-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P144559

CATALOG NUMBER: LDRL-RW-E05-E-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	6858.5	0.0	6858.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	6858.5	0.0	6858.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	13717.0	0.0	13717.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	257.0	1.9
10°-20°	809.4	5.9
20°-30°	1310.9	9.6
30°-40°	1633.1	11.9
40°-50°	2033.0	14.8
50°-60°	2494.6	18.2
60°-70°	3076.6	22.4
70°-80°	1912.6	13.9
80°-90°	190.0	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°	13717.0	100.0
0°-180°	13717.0	100.0



REPORT NUMBER: P144559

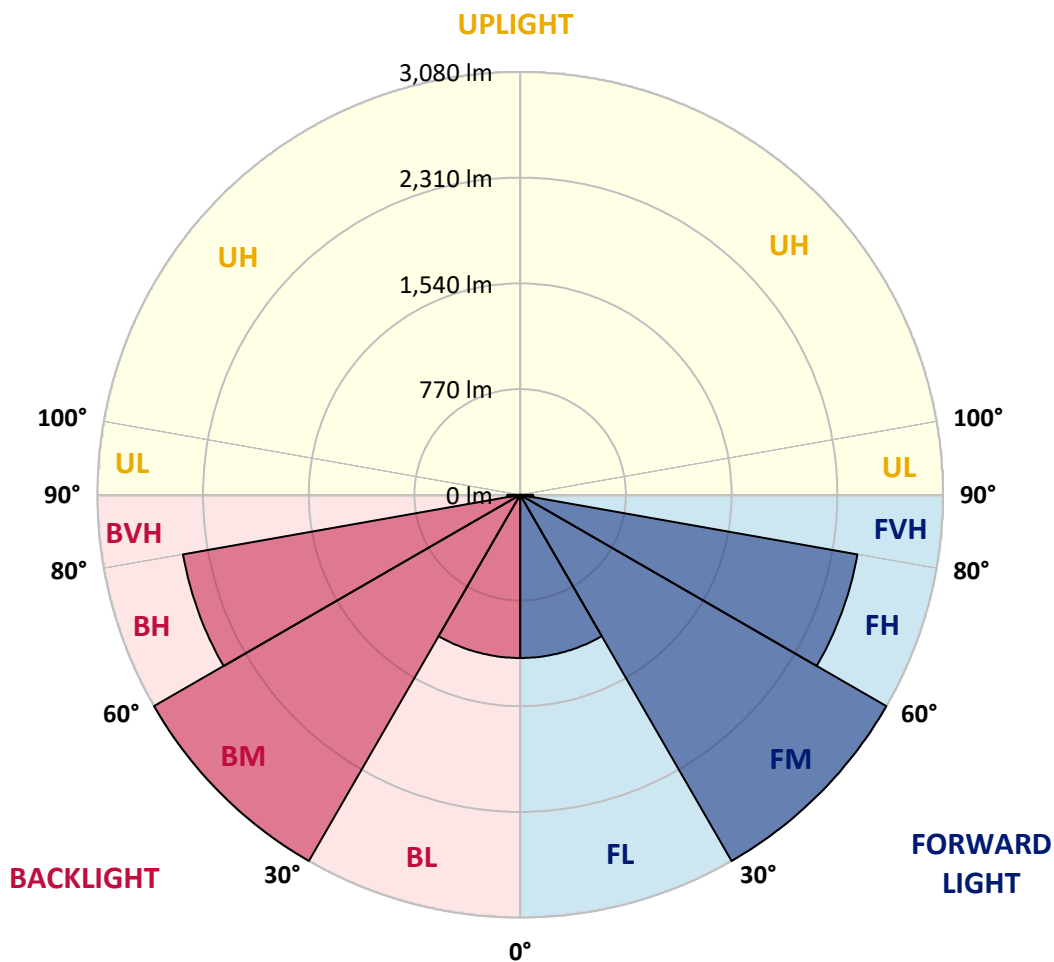
CATALOG NUMBER: LDRL-RW-E05-E-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1188.7	8.7			
FM (30°-60°)	3080.3	22.5			
FH (60°-80°)	2494.6	18.2			G2/5000
FVH (80°-90°)	95.0	0.7			G1/100
BL (0°-30°)	1188.7	8.7	B3/2500		
BM (30°-60°)	3080.3	22.5	B3/5000		
BH (60°-80°)	2494.6	18.2	B3/2500		G3/2500
BVH (80°-90°)	95.0	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: P144559

CATALOG NUMBER: LDRL-RW-E05-E-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8
2.5°	2633.6	2630.9	2635.9	2640.5	2639.2	2640.0	2638.2	2636.0	2636.1	2636.3	2636.5
5°	2654.2	2651.5	2656.0	2660.2	2661.5	2664.7	2665.6	2664.2	2664.9	2665.5	2666.1
7.5°	2678.9	2676.6	2682.5	2688.0	2698.5	2704.0	2709.4	2715.0	2715.4	2715.8	2716.3
10°	2702.2	2700.8	2710.4	2722.2	2739.2	2752.0	2767.5	2782.6	2783.7	2784.9	2786.1
12.5°	2717.2	2717.2	2731.8	2753.3	2782.6	2808.6	2835.0	2860.6	2863.0	2865.4	2867.7
15°	2716.4	2718.2	2740.5	2779.8	2830.0	2876.2	2908.6	2936.5	2938.7	2941.0	2943.3
17.5°	2697.6	2698.0	2730.0	2792.6	2871.1	2939.6	2981.6	2996.7	2997.5	2998.3	2999.2
20°	2645.0	2648.7	2694.0	2784.8	2903.0	2997.6	3037.4	3031.0	3029.6	3028.2	3026.8
22.5°	2555.1	2559.6	2620.0	2741.9	2909.0	3035.1	3076.2	3047.4	3043.0	3038.6	3034.2
25°	2430.0	2437.8	2503.0	2659.2	2868.8	3046.0	3101.3	3055.2	3048.3	3041.5	3034.6
27.5°	2285.2	2288.8	2366.0	2530.0	2775.2	3009.5	3112.7	3071.1	3062.5	3053.9	3045.4
30°	2117.6	2127.2	2207.6	2378.8	2643.2	2924.5	3108.2	3102.2	3092.6	3083.0	3073.4
32.5°	1951.0	1959.2	2038.2	2222.6	2491.1	2806.2	3085.3	3149.2	3141.2	3133.2	3125.1
35°	1782.8	1793.0	1874.2	2072.4	2340.0	2672.0	3049.2	3216.4	3212.9	3209.4	3206.0
37.5°	1635.4	1641.8	1721.6	1927.6	2207.6	2549.2	3002.2	3306.3	3314.2	3322.0	3329.9
40°	1485.1	1491.5	1575.1	1786.0	2085.6	2444.1	2958.8	3419.6	3441.0	3462.5	3484.0
42.5°	1340.8	1346.3	1427.1	1637.6	1950.0	2353.2	2932.8	3556.6	3597.8	3639.0	3680.2
45°	1192.8	1196.5	1272.3	1477.4	1795.2	2247.3	2925.9	3710.5	3770.0	3829.4	3888.9
47.5°	1047.2	1055.8	1133.9	1328.4	1618.4	2095.7	2915.9	3880.8	3959.7	4038.5	4117.3
50°	907.8	917.4	997.8	1182.4	1447.6	1915.8	2864.8	4074.0	4170.1	4266.2	4362.2
52.5°	765.8	775.4	855.8	1032.1	1289.2	1713.0	2722.2	4276.8	4391.0	4505.3	4619.5
55°	614.2	617.8	700.6	877.3	1130.7	1543.1	2495.2	4462.6	4601.0	4739.4	4877.8
57.5°	446.6	459.0	540.7	705.1	969.1	1392.9	2206.6	4557.6	4730.3	4903.0	5075.8
60°	322.4	330.6	402.3	531.6	786.0	1245.4	1950.4	4488.2	4718.7	4949.3	5179.8
62.5°	254.8	264.0	319.2	400.5	607.8	1083.2	1783.4	4297.8	4621.2	4944.6	5268.0
65°	225.6	233.8	285.0	325.2	464.9	916.5	1678.3	4109.2	4545.7	4982.2	5418.6
67.5°	206.0	214.6	259.4	286.8	384.0	809.2	1628.5	3966.7	4470.8	4974.8	5478.9
69°	196.8	204.6	245.7	271.2	362.2	772.7	1575.0	3725.6	4225.3	4725.1	5224.9
70°	191.8	198.6	236.1	261.7	353.5	742.6	1496.0	3438.8	3921.0	4403.3	4885.5
72.5°	177.6	182.2	213.8	237.5	323.4	592.8	1128.4	2426.4	2835.2	3244.0	3652.8
75°	157.6	163.0	190.9	212.8	246.6	356.2	706.5	1408.4	1688.5	1968.6	2248.8
77.5°	135.2	141.6	164.4	199.1	198.6	232.0	428.8	808.8	944.8	1081.0	1217.0
80°	116.0	121.5	142.0	196.8	166.2	183.6	319.7	603.3	658.1	712.9	767.7
82.5°	90.8	95.4	119.2	162.6	132.9	139.8	243.4	549.4	586.6	623.7	660.9
85°	57.0	59.0	86.8	112.4	94.6	84.4	156.6	422.9	449.9	477.0	504.0
87.5°	22.8	27.8	42.0	40.2	40.7	33.8	50.7	152.6	166.4	180.3	194.2
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: P144559

CATALOG NUMBER: LDRL-RW-E05-E-7030

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8
2.5°	2636.7	2636.8	2636.0	2634.6	2635.9	2634.6	2635.0	2636.4	2636.0	2636.0	2635.0
5°	2666.8	2667.4	2667.4	2664.6	2666.1	2666.6	2667.0	2666.0	2666.5	2667.4	2665.6
7.5°	2716.8	2717.2	2718.6	2720.0	2719.0	2719.5	2720.4	2719.5	2718.1	2721.3	2719.0
10°	2787.3	2788.4	2788.5	2792.6	2790.8	2792.1	2796.2	2796.2	2793.9	2797.1	2796.2
12.5°	2870.1	2872.5	2872.0	2871.6	2873.4	2874.8	2879.4	2880.2	2881.2	2886.2	2884.4
15°	2945.5	2947.8	2949.7	2950.6	2953.8	2954.7	2957.4	2959.2	2960.6	2962.4	2963.4
17.5°	3000.0	3000.8	3003.6	3002.2	3006.8	3005.8	3009.0	3010.4	3011.8	3014.0	3015.4
20°	3025.5	3024.1	3024.6	3023.2	3023.2	3024.1	3024.6	3026.4	3025.4	3027.8	3029.6
22.5°	3029.8	3025.5	3022.7	3019.5	3018.2	3015.4	3015.4	3016.4	3013.1	3015.4	3018.1
25°	3027.8	3021.0	3015.8	3010.4	3005.4	3000.8	2998.0	2997.2	2994.8	2994.9	2997.2
27.5°	3036.8	3028.2	3020.9	3011.8	3005.4	2999.0	2993.0	2988.5	2984.0	2983.0	2983.0
30°	3063.8	3054.2	3046.0	3034.6	3024.6	3016.4	3008.1	3001.8	2993.0	2989.4	2985.3
32.5°	3117.1	3109.0	3097.6	3087.6	3075.7	3065.6	3054.7	3044.6	3034.6	3025.5	3021.9
35°	3202.5	3199.0	3192.6	3185.8	3174.4	3161.6	3152.4	3140.6	3129.1	3115.9	3112.2
37.5°	3337.7	3345.6	3342.0	3337.0	3333.7	3329.6	3317.3	3309.6	3301.8	3290.8	3288.6
40°	3505.4	3526.9	3548.4	3562.5	3557.5	3574.4	3577.1	3578.5	3571.6	3580.8	3582.6
42.5°	3721.4	3762.6	3801.4	3829.6	3862.6	3887.2	3919.2	3932.8	3959.0	3985.8	4001.4
45°	3948.3	4007.8	4063.5	4121.5	4178.6	4241.2	4301.8	4344.8	4407.4	4454.0	4483.2
47.5°	4196.1	4274.9	4341.6	4428.4	4511.0	4585.0	4691.4	4776.8	4853.1	4925.7	5002.0
50°	4458.3	4554.4	4636.6	4742.6	4843.0	4959.0	5083.8	5192.4	5312.0	5427.6	5530.3
52.5°	4733.8	4848.0	4959.0	5067.7	5189.6	5315.7	5450.8	5608.0	5751.4	5925.4	6050.0
55°	5016.1	5154.5	5272.8	5386.5	5515.7	5655.5	5816.2	6002.1	6184.3	6374.8	6563.8
57.5°	5248.5	5421.2	5550.5	5683.3	5822.6	5961.0	6160.5	6351.0	6582.0	6815.8	7052.4
60°	5410.3	5640.8	5797.5	5965.6	6126.8	6294.8	6509.9	6750.6	7039.6	7322.8	7644.3
62.5°	5591.5	5914.9	6134.5	6358.8	6554.6	6756.5	7044.2	7321.4	7692.6	8018.8	8423.4
65°	5855.1	6291.6	6615.0	6917.2	7180.3	7455.2	7796.4	8143.0	8567.7	9018.4	9525.8
67.5°	5983.0	6487.0	6910.4	7283.5	7619.6	7969.9	8322.0	8732.1	9210.7	9753.2	10310.4
69°	5724.7	6224.4	6711.3	7088.5	7442.4	7816.4	8193.2	8607.0	9078.2	9641.4	10231.8
70°	5367.8	5850.0	6367.5	6745.6	7102.6	7490.8	7874.4	8292.4	8743.0	9323.0	9920.3
72.5°	4061.6	4470.4	4972.7	5372.4	5747.7	6140.0	6535.0	6897.6	7354.8	7912.8	8463.1
75°	2528.9	2809.0	3260.6	3662.0	3964.0	4300.0	4670.9	5014.3	5473.2	5868.7	6398.0
77.5°	1353.2	1489.2	1752.7	2040.4	2208.4	2372.4	2614.0	2800.3	2993.5	3222.3	3441.0
80°	822.5	877.2	967.2	1029.4	1006.0	939.0	917.4	850.4	874.6	833.4	803.8
82.5°	698.1	735.2	790.1	827.5	800.1	692.8	571.3	480.9	417.0	355.8	302.3
85°	531.0	558.0	586.3	603.2	601.9	548.4	435.7	337.5	263.0	203.7	169.4
87.5°	208.1	222.0	242.5	239.3	249.8	251.7	196.8	152.0	108.2	73.0	63.9
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: P144559

CATALOG NUMBER: LDRL-RW-E05-E-7030

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8	2626.8
2.5°	2633.2	2632.8	2633.2	2634.6	2634.6	2635.5	2634.6	2635.0	2633.6	2632.3	2633.2
5°	2665.6	2664.7	2665.6	2666.6	2666.6	2665.6	2667.9	2667.9	2667.0	2665.6	2666.1
7.5°	2721.3	2721.8	2720.4	2725.0	2720.9	2721.4	2724.0	2723.6	2722.7	2723.2	2723.6
10°	2799.0	2798.5	2799.4	2802.2	2798.0	2800.8	2804.0	2804.9	2802.6	2802.6	2803.1
12.5°	2884.8	2888.4	2889.0	2890.8	2890.8	2893.0	2893.5	2894.0	2895.8	2896.2	2893.5
15°	2967.0	2969.8	2971.6	2973.4	2971.1	2974.4	2978.0	2978.0	2977.5	2979.3	2976.6
17.5°	3017.7	3020.0	3023.2	3022.8	3023.2	3026.0	3028.2	3029.1	3030.0	3030.0	3030.5
20°	3033.7	3035.0	3036.9	3038.7	3039.6	3042.4	3044.2	3045.6	3046.5	3045.6	3046.0
22.5°	3020.9	3022.8	3026.4	3027.8	3028.2	3032.3	3034.2	3035.5	3036.4	3037.4	3036.0
25°	2999.0	3000.8	3004.4	3005.8	3006.8	3010.4	3012.7	3015.9	3016.8	3017.2	3017.7
27.5°	2983.9	2984.8	2987.6	2989.4	2989.8	2994.0	2997.1	2999.4	2999.9	3000.4	3000.4
30°	2984.4	2984.4	2987.6	2988.0	2987.6	2991.2	2993.0	2994.4	2995.3	2995.4	2995.8
32.5°	3015.9	3014.0	3016.8	3012.6	3013.2	3012.7	3012.2	3013.6	3012.6	3013.2	3011.3
35°	3104.9	3099.9	3095.8	3097.6	3091.2	3082.1	3087.1	3084.8	3079.8	3080.2	3081.6
37.5°	3275.8	3270.7	3275.2	3271.1	3272.5	3259.8	3263.0	3251.5	3248.3	3252.5	3240.6
40°	3579.0	3576.7	3585.4	3581.7	3584.0	3587.6	3590.8	3579.9	3561.6	3578.0	3578.5
42.5°	3999.1	4019.6	4027.8	4039.3	4051.6	4046.2	4057.1	4060.3	4040.2	4055.2	4058.9
45°	4526.1	4548.0	4573.6	4581.4	4601.4	4604.2	4612.5	4614.7	4596.4	4598.3	4602.4
47.5°	5078.2	5118.4	5148.6	5169.5	5190.6	5194.6	5199.2	5190.6	5191.9	5196.0	5196.1
50°	5620.8	5706.6	5760.0	5801.6	5837.6	5819.0	5835.0	5836.3	5841.8	5830.4	5837.2
52.5°	6191.2	6304.8	6394.4	6464.2	6486.2	6552.8	6525.4	6546.5	6560.6	6539.6	6553.3
55°	6748.3	6910.4	7054.2	7155.6	7226.8	7294.4	7305.0	7359.3	7353.0	7373.4	7364.3
57.5°	7278.0	7504.6	7710.0	7860.3	7962.6	8065.8	8135.6	8195.0	8201.0	8259.8	8226.5
60°	7918.8	8234.3	8498.8	8722.5	8873.7	9027.1	9148.1	9245.4	9267.8	9368.6	9335.4
62.5°	8783.2	9168.2	9506.2	9768.7	10105.4	10267.4	10503.1	10650.1	10741.9	10767.0	10814.1
65°	9998.4	10499.8	10945.6	11365.7	11744.4	12006.9	12279.6	12498.8	12674.6	12659.9	12732.1
67.5°	10901.3	11473.1	12009.7	12513.4	12920.7	13258.6	13571.9	13809.0	13966.0	14066.0	14108.5
69°	10807.2	11421.0	12012.8	12550.8	12971.0	13348.6	13653.6	13887.0	14067.0	14175.6	14207.2
70°	10494.4	11125.0	11742.0	12270.0	12698.3	13113.0	13423.6	13683.4	13854.6	13973.4	13991.6
72.5°	9077.4	9760.5	10306.2	10882.1	11294.4	11714.2	11909.7	12231.6	12454.9	12527.0	12525.7
75°	6846.4	7416.4	7895.9	8321.6	8690.6	8975.0	9067.3	9296.6	9481.9	9479.7	9462.3
77.5°	3686.8	3821.0	4000.5	4060.8	4174.5	4172.6	4058.4	4094.6	4199.6	3995.9	4061.7
80°	791.0	779.1	769.0	763.1	759.9	761.3	765.4	739.3	764.9	753.6	705.1
82.5°	275.4	269.0	262.6	267.2	264.0	266.7	265.8	269.0	268.5	267.6	261.2
85°	154.8	149.3	146.1	148.4	143.4	138.8	135.6	134.3	133.8	130.6	128.8
87.5°	59.0	58.4	58.0	55.7	50.2	46.2	43.4	37.9	35.6	32.4	30.1
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)