

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: P144577

Luminaire Tested: **LDRL-RW-F06-E-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144577
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-7060
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(6) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (42) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15266 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B4 - U0 - G4

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

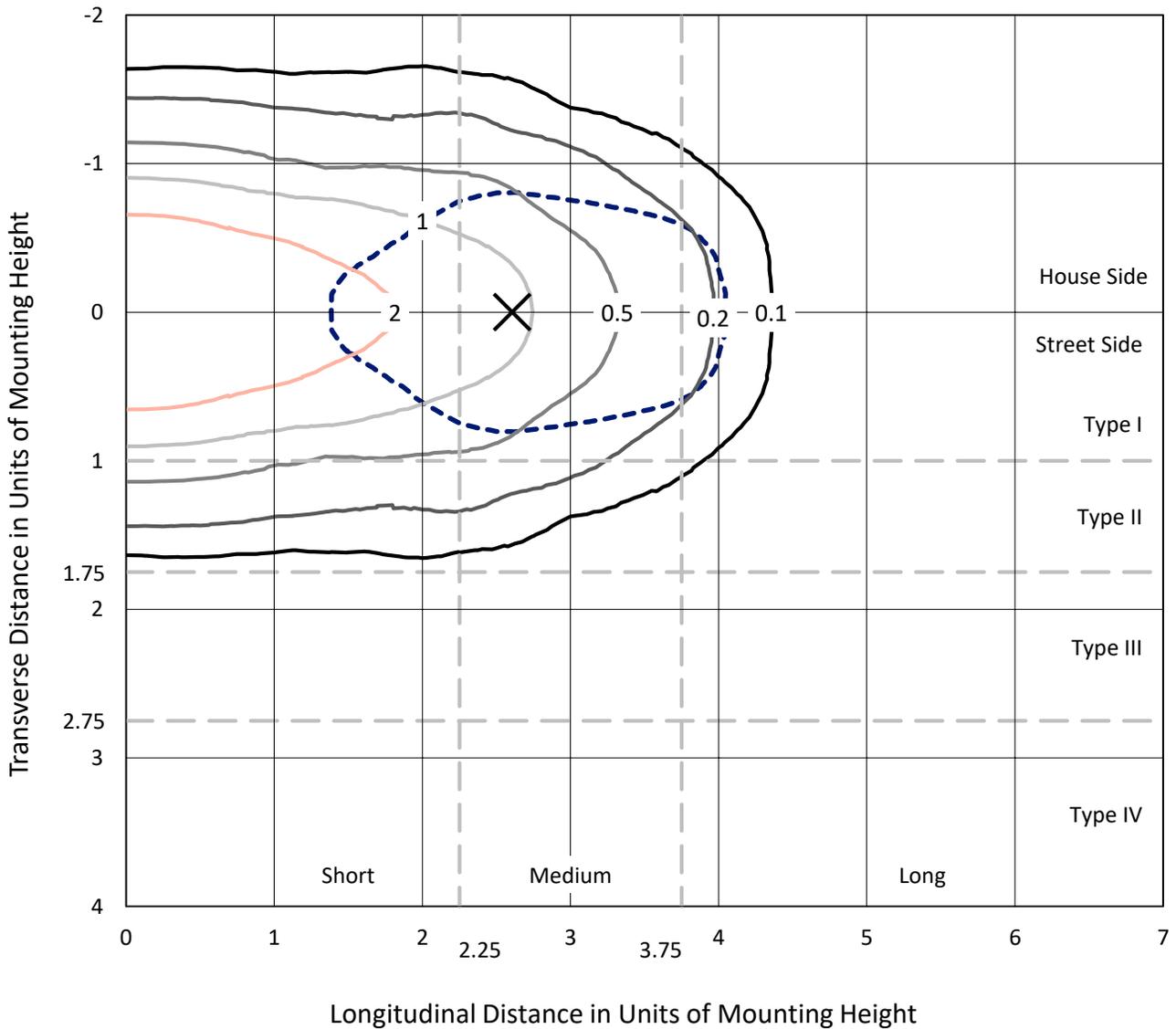


REPORT NUMBER: P144577

CATALOG NUMBER: LDRL-RW-F06-E-7060

Iso-Footcandle Lines of Horizontal Illumination

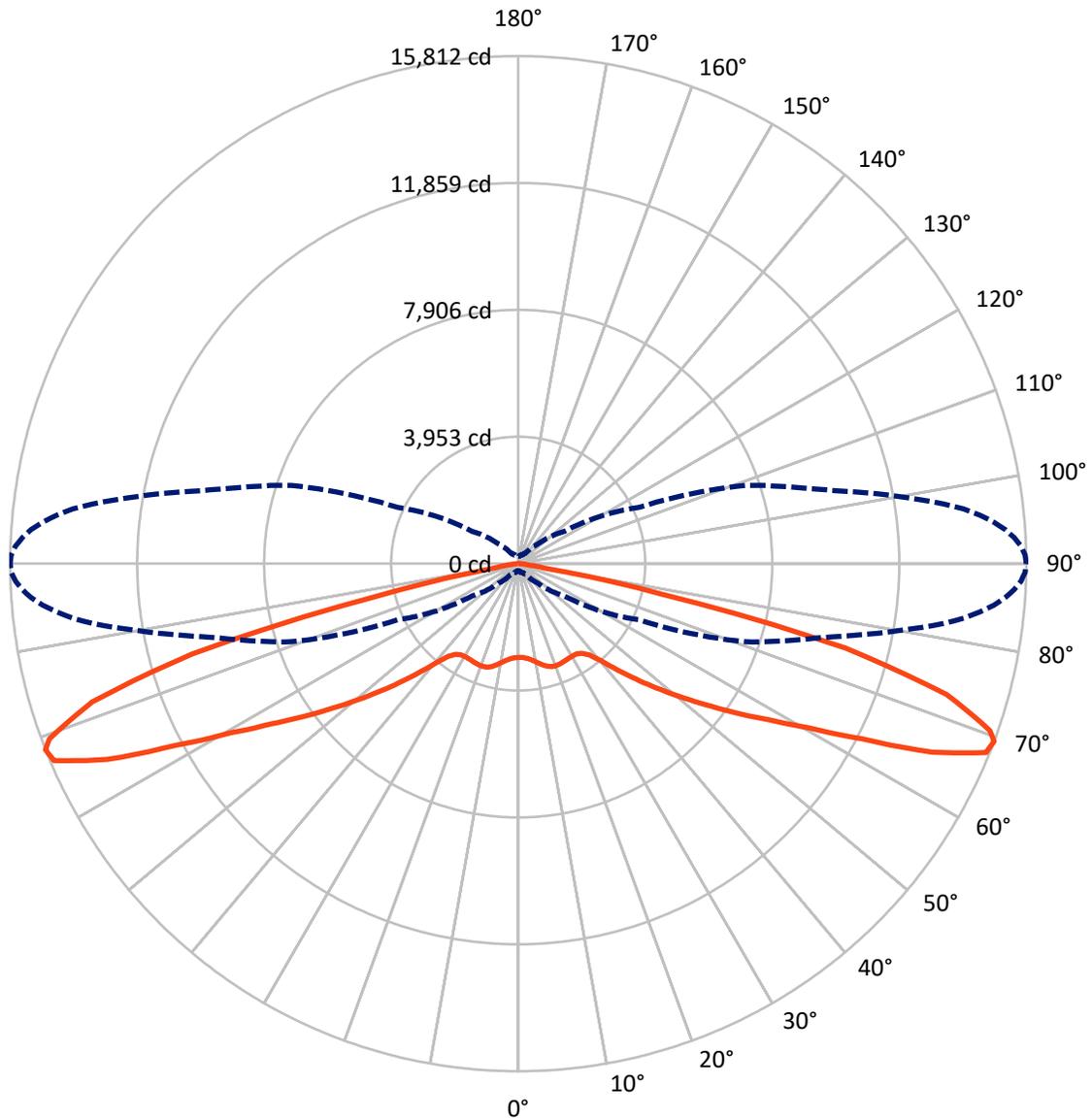
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.8 fc
 Type I - Short - Full Cutoff

REPORT NUMBER: P144577
CATALOG NUMBER: LDRL-RW-F06-E-7060

Luminous Intensity Polar Plot



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

REPORT NUMBER: P144577

CATALOG NUMBER: LDRL-RW-F06-E-7060

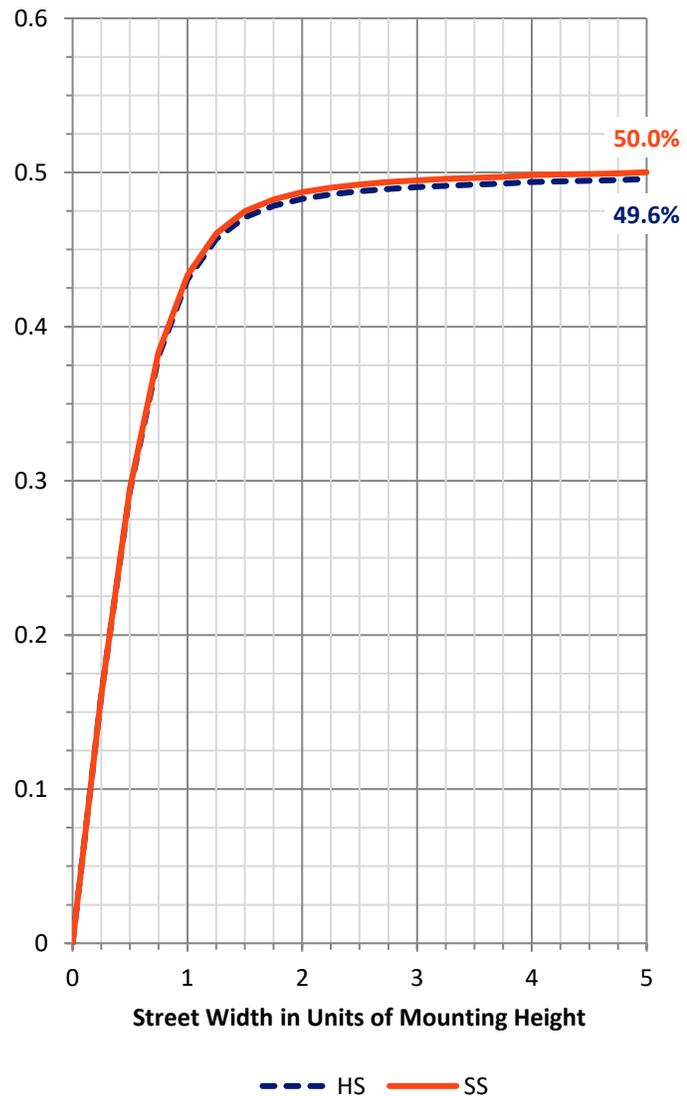
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	7633.0	0.0	7633.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	7633.0	0.0	7633.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	15266.0	0.0	15266.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	286.0	1.9
10°-20°	900.8	5.9
20°-30°	1458.9	9.6
30°-40°	1817.5	11.9
40°-50°	2262.6	14.8
50°-60°	2776.3	18.2
60°-70°	3424.0	22.4
70°-80°	2128.5	13.9
80°-90°	211.4	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°	15266.0	100.0
0°-180°	15266.0	100.0



REPORT NUMBER: P144577

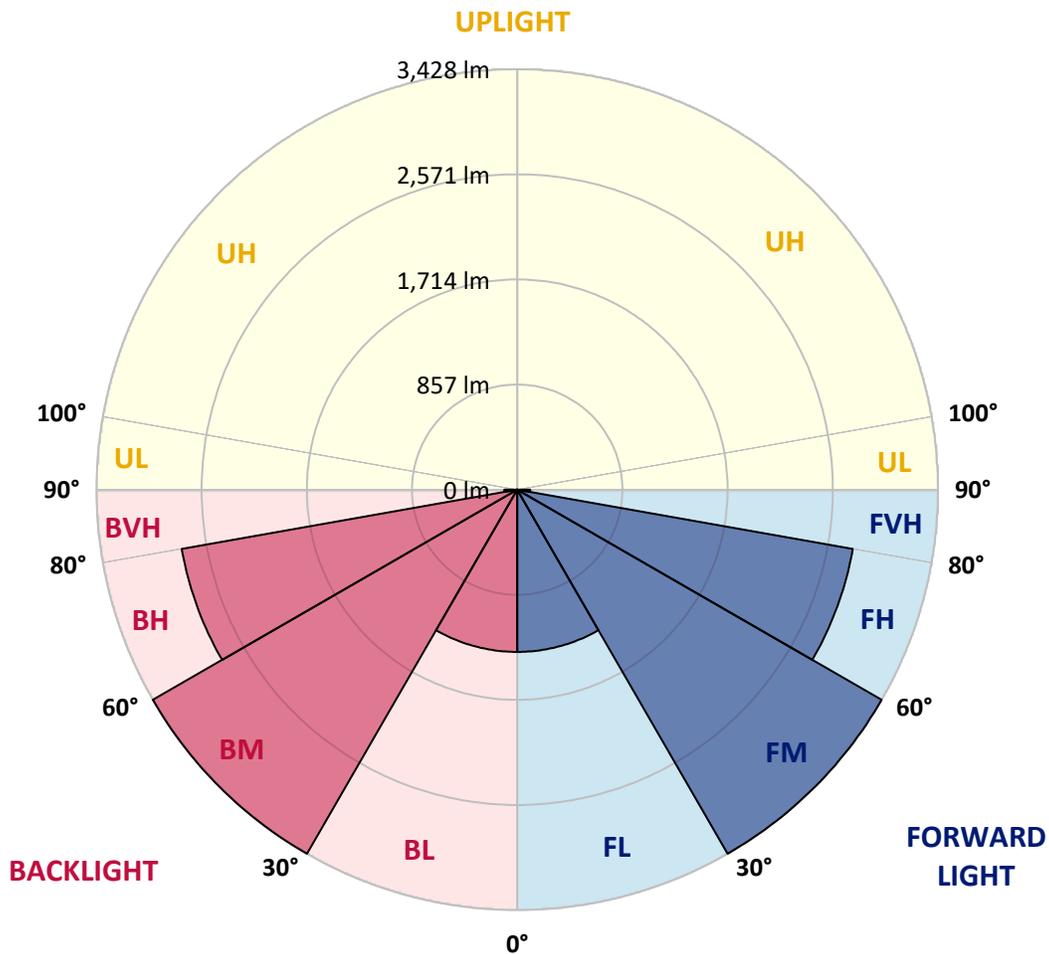
CATALOG NUMBER: LDRL-RW-F06-E-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1322.9	8.7			
FM (30°-60°)	3428.2	22.5			
FH (60°-80°)	2776.3	18.2			G2/5000
FVH (80°-90°)	105.7	0.7			G2/225
BL (0°-30°)	1322.9	8.7	B3/2500		
BM (30°-60°)	3428.2	22.5	B3/5000		
BH (60°-80°)	2776.3	18.2	B4/5000		G4/5000
BVH (80°-90°)	105.7	0.7			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B4-U0-G4

Type I Short





REPORT NUMBER: P144577

CATALOG NUMBER: LDRL-RW-F06-E-7060

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4
2.5°	2931.1	2928.0	2933.6	2938.7	2937.1	2938.1	2936.2	2933.6	2933.8	2934.0	2934.2
5°	2953.9	2950.9	2956.0	2960.5	2962.0	2965.6	2966.6	2965.1	2965.8	2966.5	2967.2
7.5°	2981.4	2978.8	2985.4	2991.6	3003.2	3009.4	3015.4	3021.5	3022.0	3022.5	3023.0
10°	3007.3	3005.8	3016.5	3029.6	3048.4	3062.7	3080.0	3096.8	3098.1	3099.4	3100.7
12.5°	3024.0	3024.1	3040.3	3064.2	3096.8	3125.8	3155.2	3183.6	3186.3	3188.9	3191.6
15°	3023.0	3025.1	3050.0	3093.7	3149.6	3201.0	3237.0	3268.0	3270.6	3273.1	3275.7
17.5°	3002.2	3002.7	3038.3	3108.0	3195.4	3271.6	3318.4	3335.1	3336.0	3336.9	3337.9
20°	2943.8	2947.8	2998.2	3099.3	3230.9	3336.1	3380.4	3373.2	3371.7	3370.2	3368.6
22.5°	2843.6	2848.7	2915.8	3051.5	3237.5	3377.8	3423.6	3391.6	3386.7	3381.8	3376.9
25°	2704.4	2713.0	2785.7	2959.5	3192.8	3390.0	3451.5	3400.2	3392.5	3384.9	3377.3
27.5°	2543.3	2547.4	2633.2	2815.6	3088.6	3349.3	3464.2	3418.0	3408.4	3398.8	3389.3
30°	2356.8	2367.4	2456.9	2647.4	2941.8	3254.8	3459.2	3452.6	3441.9	3431.2	3420.5
32.5°	2171.2	2180.4	2268.3	2473.6	2772.5	3123.2	3433.7	3504.8	3495.9	3487.0	3478.0
35°	1984.2	1995.4	2085.8	2306.4	2604.2	2973.8	3393.6	3579.6	3575.7	3571.8	3568.0
37.5°	1820.0	1827.2	1916.0	2145.3	2456.9	2837.0	3341.2	3679.7	3688.4	3697.2	3705.9
40°	1652.8	1660.0	1752.9	1987.8	2321.1	2720.1	3292.9	3805.8	3829.6	3853.5	3877.4
42.5°	1492.2	1498.3	1588.2	1822.6	2170.2	2619.0	3264.0	3958.2	4004.1	4049.9	4095.7
45°	1327.6	1331.6	1416.0	1644.2	1997.9	2501.1	3256.3	4129.5	4195.7	4261.8	4328.0
47.5°	1165.4	1175.0	1262.0	1478.4	1801.2	2332.4	3245.1	4319.1	4406.8	4494.5	4582.3
50°	1010.4	1021.1	1110.6	1315.8	1611.2	2132.1	3188.2	4534.0	4641.0	4747.9	4854.8
52.5°	852.3	863.0	952.4	1148.6	1434.8	1906.4	3029.6	4759.7	4886.9	5014.0	5141.2
55°	683.6	687.7	779.6	976.4	1258.4	1717.4	2777.0	4966.6	5120.6	5274.6	5428.6
57.5°	497.0	510.8	601.8	784.7	1078.5	1550.2	2455.9	5072.3	5264.5	5456.7	5649.0
60°	358.8	368.0	447.8	591.6	874.6	1386.0	2170.7	4995.0	5251.6	5508.2	5764.7
62.5°	283.6	293.8	355.2	445.8	676.5	1205.6	1984.7	4783.1	5143.0	5503.0	5862.9
65°	251.0	260.2	317.2	361.9	517.4	1020.0	1867.8	4573.2	5059.0	5544.8	6030.5
67.5°	229.2	238.8	288.7	319.2	427.4	900.6	1812.4	4414.6	4975.6	5536.6	6097.6
69°	219.0	227.7	273.4	301.8	403.0	860.0	1753.0	4146.2	4702.5	5258.7	5814.9
70°	213.4	221.1	262.8	291.2	393.4	826.4	1665.0	3827.1	4363.8	4900.5	5437.2
72.5°	197.7	202.8	237.8	264.3	359.8	659.7	1255.8	2700.3	3155.3	3610.3	4065.3
75°	175.4	181.4	212.4	236.8	274.5	396.4	786.2	1567.4	1879.2	2190.9	2502.7
77.5°	150.4	157.6	183.0	221.6	221.0	258.2	477.2	900.1	1051.6	1203.0	1354.4
80°	129.1	135.2	158.0	219.0	185.0	204.3	355.8	671.4	732.4	793.4	854.4
82.5°	101.2	106.2	132.6	181.0	147.9	155.6	270.8	611.4	652.8	694.2	735.5
85°	63.5	65.6	96.6	125.0	105.2	94.1	174.3	470.6	500.7	530.8	560.9
87.5°	25.4	31.0	46.8	44.7	45.2	37.6	56.4	169.8	185.2	200.7	216.1
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: P144577

CATALOG NUMBER: LDRL-RW-F06-E-7060

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4
2.5°	2934.4	2934.6	2933.6	2932.0	2933.6	2932.0	2932.6	2934.1	2933.6	2933.6	2932.6
5°	2967.9	2968.6	2968.6	2965.6	2967.2	2967.6	2968.2	2967.1	2967.6	2968.7	2966.6
7.5°	3023.5	3024.0	3025.6	3027.1	3026.1	3026.6	3027.6	3026.6	3025.1	3028.6	3026.1
10°	3102.0	3103.4	3103.4	3108.0	3105.9	3107.4	3112.0	3112.0	3109.4	3113.0	3112.0
12.5°	3194.2	3196.9	3196.4	3195.9	3197.9	3199.4	3204.5	3205.5	3206.5	3212.1	3210.1
15°	3278.2	3280.8	3282.8	3283.8	3287.3	3288.4	3291.4	3293.4	3295.0	3297.0	3298.0
17.5°	3338.8	3339.7	3342.7	3341.2	3346.3	3345.3	3348.8	3350.4	3351.8	3354.4	3356.0
20°	3367.1	3365.6	3366.1	3364.6	3364.6	3365.6	3366.2	3368.1	3367.1	3369.7	3371.7
22.5°	3372.0	3367.2	3364.0	3360.5	3359.0	3355.9	3356.0	3357.0	3353.4	3356.0	3359.0
25°	3369.7	3362.0	3356.4	3350.4	3344.8	3339.7	3336.6	3335.6	3333.0	3333.0	3335.6
27.5°	3379.7	3370.2	3362.0	3351.8	3344.8	3337.6	3331.0	3326.0	3320.8	3319.8	3319.8
30°	3409.8	3399.2	3390.0	3377.3	3366.1	3357.0	3347.8	3340.7	3331.0	3327.0	3322.4
32.5°	3469.1	3460.2	3447.4	3436.2	3423.0	3411.8	3399.6	3388.4	3377.3	3367.2	3363.0
35°	3564.1	3560.2	3553.2	3545.5	3532.8	3518.6	3508.4	3495.2	3482.5	3467.8	3463.7
37.5°	3714.7	3723.4	3719.3	3713.8	3710.2	3705.6	3691.9	3683.3	3674.6	3662.4	3659.9
40°	3901.3	3925.2	3949.0	3964.8	3959.2	3978.0	3981.1	3982.6	3975.0	3985.2	3987.2
42.5°	4141.6	4187.4	4230.6	4262.2	4298.8	4326.2	4361.8	4377.0	4406.0	4436.0	4453.2
45°	4394.2	4460.4	4522.4	4586.9	4650.5	4720.1	4787.7	4835.4	4905.1	4956.9	4989.5
47.5°	4670.0	4757.7	4831.9	4928.4	5020.5	5102.8	5221.2	5316.2	5401.1	5481.9	5566.8
50°	4961.8	5068.7	5160.2	5278.2	5390.0	5519.0	5657.8	5778.8	5911.9	6040.5	6154.8
52.5°	5268.4	5395.5	5519.0	5640.0	5775.7	5916.0	6066.4	6241.2	6400.8	6594.4	6733.2
55°	5582.6	5736.6	5868.2	5994.8	6138.6	6294.1	6473.0	6679.8	6882.6	7094.6	7305.0
57.5°	5841.2	6033.4	6177.2	6325.1	6480.1	6634.1	6856.2	7068.2	7325.4	7585.6	7848.8
60°	6021.3	6277.8	6452.2	6639.2	6818.6	7005.6	7245.0	7512.8	7834.6	8149.7	8507.6
62.5°	6222.9	6582.8	6827.2	7076.8	7294.8	7519.5	7839.6	8148.2	8561.4	8924.2	9374.6
65°	6516.3	7002.1	7362.0	7698.4	7991.2	8297.1	8676.8	9062.6	9535.2	10036.8	10601.5
67.5°	6658.6	7219.6	7690.8	8106.0	8480.0	8869.9	9261.8	9718.2	10250.8	10854.6	11474.6
69°	6371.1	6927.4	7469.2	7889.0	8282.8	8699.2	9118.4	9578.9	10103.4	10730.1	11387.2
70°	5973.9	6510.6	7086.4	7507.3	7904.8	8336.8	8763.7	9228.7	9730.4	10375.8	11040.6
72.5°	4520.3	4975.2	5534.3	5979.0	6396.8	6833.4	7273.0	7676.6	8185.2	8806.4	9418.8
75°	2814.4	3126.2	3628.9	4075.6	4411.6	4785.6	5198.4	5580.5	6091.3	6531.5	7120.6
77.5°	1505.9	1657.4	1950.6	2270.8	2457.9	2640.4	2909.2	3116.6	3331.6	3586.2	3829.6
80°	915.4	976.4	1076.5	1145.6	1119.6	1044.9	1021.1	946.4	973.2	927.6	894.5
82.5°	776.9	818.3	879.2	920.9	890.4	771.0	635.8	535.2	464.0	395.9	336.4
85°	591.0	621.1	652.6	671.4	669.8	610.4	484.9	375.6	292.8	226.6	188.5
87.5°	231.6	247.0	269.9	266.3	278.0	280.0	219.1	169.2	120.4	81.3	71.2
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: P144577

CATALOG NUMBER: LDRL-RW-F06-E-7060

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4	2923.4
2.5°	2930.6	2930.0	2930.5	2932.0	2932.0	2933.0	2932.0	2932.6	2931.0	2929.5	2930.5
5°	2966.6	2965.6	2966.6	2967.6	2967.6	2966.6	2969.2	2969.1	2968.1	2966.6	2967.1
7.5°	3028.6	3029.2	3027.6	3032.7	3028.1	3028.6	3031.7	3031.1	3030.2	3030.6	3031.2
10°	3115.0	3114.6	3115.6	3118.6	3114.0	3117.0	3120.6	3121.6	3119.1	3119.1	3119.6
12.5°	3210.6	3214.6	3215.2	3217.2	3217.2	3219.8	3220.2	3220.8	3222.8	3223.3	3220.2
15°	3302.1	3305.1	3307.2	3309.2	3306.6	3310.2	3314.2	3314.2	3313.8	3315.8	3312.7
17.5°	3358.5	3361.0	3364.6	3364.1	3364.6	3367.6	3370.2	3371.2	3372.2	3372.2	3372.7
20°	3376.2	3377.8	3379.8	3381.8	3382.8	3385.9	3388.0	3389.5	3390.5	3389.4	3390.0
22.5°	3362.0	3364.1	3368.2	3369.6	3370.2	3374.8	3376.8	3378.3	3379.4	3380.4	3378.8
25°	3337.6	3339.7	3343.8	3345.3	3346.3	3350.4	3352.9	3356.4	3357.5	3358.0	3358.5
27.5°	3320.9	3321.8	3325.0	3327.0	3327.5	3332.0	3335.6	3338.2	3338.6	3339.2	3339.2
30°	3321.4	3321.4	3324.9	3325.4	3325.0	3329.0	3331.0	3332.6	3333.6	3333.6	3334.1
32.5°	3356.4	3354.4	3357.4	3352.9	3353.4	3352.9	3352.4	3354.0	3352.9	3353.4	3351.4
35°	3455.6	3450.0	3445.4	3447.4	3440.3	3430.2	3435.8	3433.2	3427.6	3428.1	3429.6
37.5°	3645.6	3640.0	3645.2	3640.6	3642.1	3627.8	3631.4	3618.7	3615.2	3619.8	3606.5
40°	3983.2	3980.6	3990.2	3986.2	3988.7	3992.8	3996.4	3984.1	3963.8	3982.1	3982.6
42.5°	4450.7	4473.6	4482.8	4495.4	4509.2	4503.0	4515.2	4518.8	4496.4	4513.2	4517.3
45°	5037.2	5061.6	5090.1	5098.8	5121.0	5124.2	5133.3	5135.8	5115.5	5117.5	5122.1
47.5°	5651.7	5696.4	5730.0	5753.4	5776.8	5781.3	5786.4	5776.7	5778.2	5782.8	5782.8
50°	6255.4	6351.0	6410.5	6456.8	6496.9	6476.0	6493.8	6495.4	6501.5	6488.8	6496.4
52.5°	6890.2	7016.8	7116.4	7194.2	7218.6	7292.8	7262.3	7285.6	7301.4	7278.1	7293.3
55°	7510.4	7690.8	7850.8	7963.7	8043.0	8118.2	8129.9	8190.4	8183.2	8206.1	8196.0
57.5°	8099.9	8352.0	8580.8	8748.0	8861.8	8976.7	9054.4	9120.4	9127.0	9192.6	9155.5
60°	8813.0	9164.2	9458.4	9707.5	9875.8	10046.4	10181.2	10289.4	10314.3	10426.7	10389.6
62.5°	9775.0	10203.6	10579.6	10871.8	11246.4	11426.8	11689.2	11852.8	11955.0	11982.9	12035.3
65°	11127.5	11685.6	12181.6	12649.2	13070.6	13362.8	13666.2	13910.2	14105.8	14089.6	14169.9
67.5°	12132.3	12768.6	13365.8	13926.4	14379.8	14755.9	15104.6	15368.3	15543.2	15654.4	15701.7
69°	12027.6	12710.7	13369.4	13968.1	14435.7	14856.0	15195.6	15455.2	15655.5	15776.4	15811.5
70°	11679.5	12381.4	13068.0	13655.5	14132.2	14593.8	14939.4	15228.6	15419.2	15551.3	15571.6
72.5°	10102.4	10862.7	11470.1	12111.0	12570.0	13037.0	13254.6	13612.8	13861.4	13941.7	13940.2
75°	7619.6	8253.9	8787.6	9261.2	9671.9	9988.6	10091.2	10346.3	10552.7	10550.2	10530.8
77.5°	4103.0	4252.5	4452.2	4519.3	4645.8	4643.8	4516.8	4557.0	4673.8	4447.2	4520.3
80°	880.2	867.1	855.8	849.2	845.8	847.2	851.8	822.8	851.3	838.6	784.7
82.5°	306.5	299.4	292.2	297.3	293.8	296.8	295.8	299.4	298.8	297.8	290.7
85°	172.3	166.2	162.6	165.2	159.6	154.5	151.0	149.4	149.0	145.4	143.3
87.5°	65.6	65.1	64.6	62.0	55.9	51.3	48.3	42.2	39.6	36.1	33.5
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)