

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: P144519

Luminaire Tested: **LDRL-RW-E01-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144519
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-E01-E-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (21) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2743.4 lumens
Efficiency: N/A
Efficacy: 111.1 lumens/watt
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

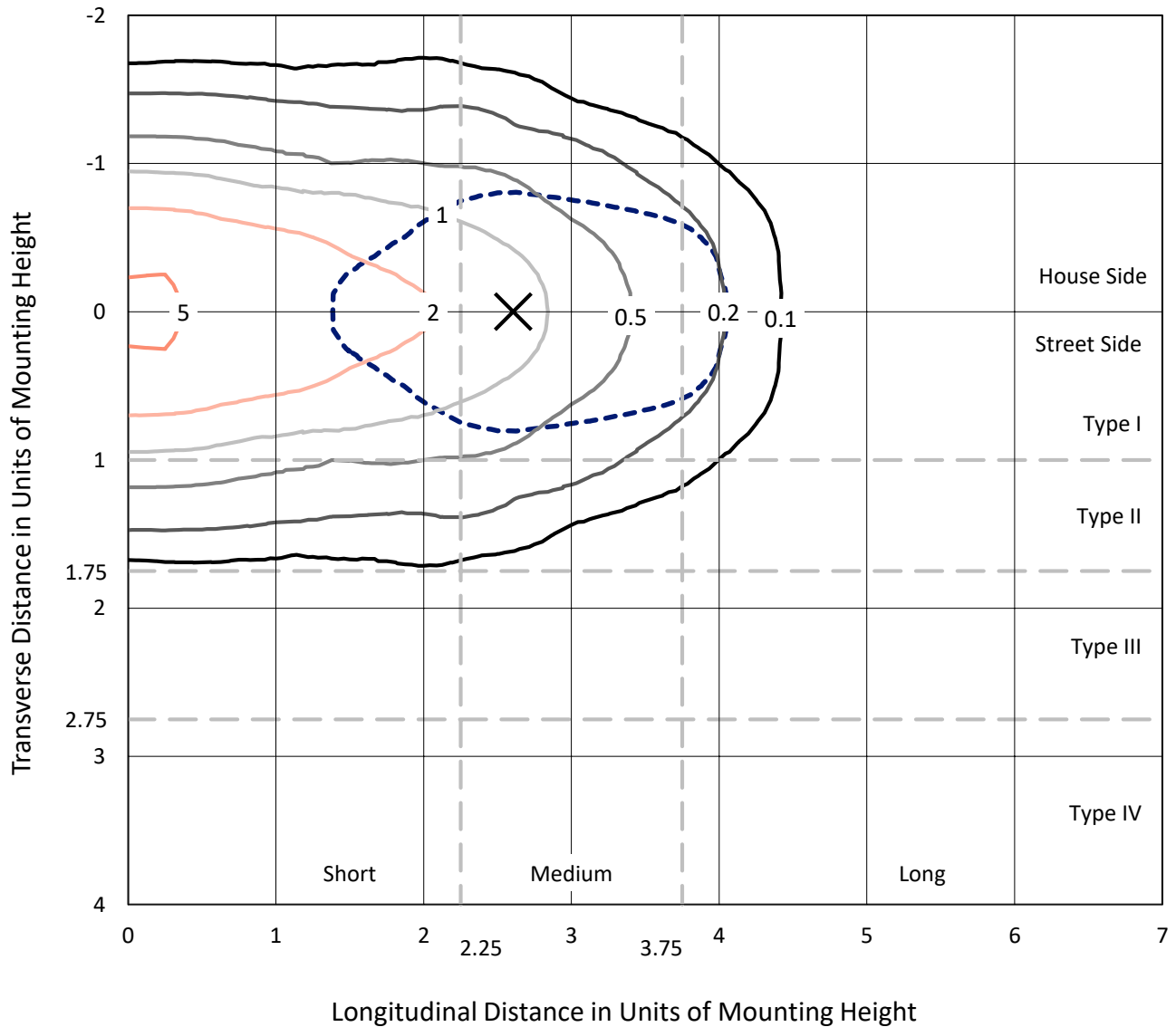
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P144519
 CATALOG NUMBER: LDRL-RW-E01-E-7030

Iso-Footcandle Lines of Horizontal Illumination

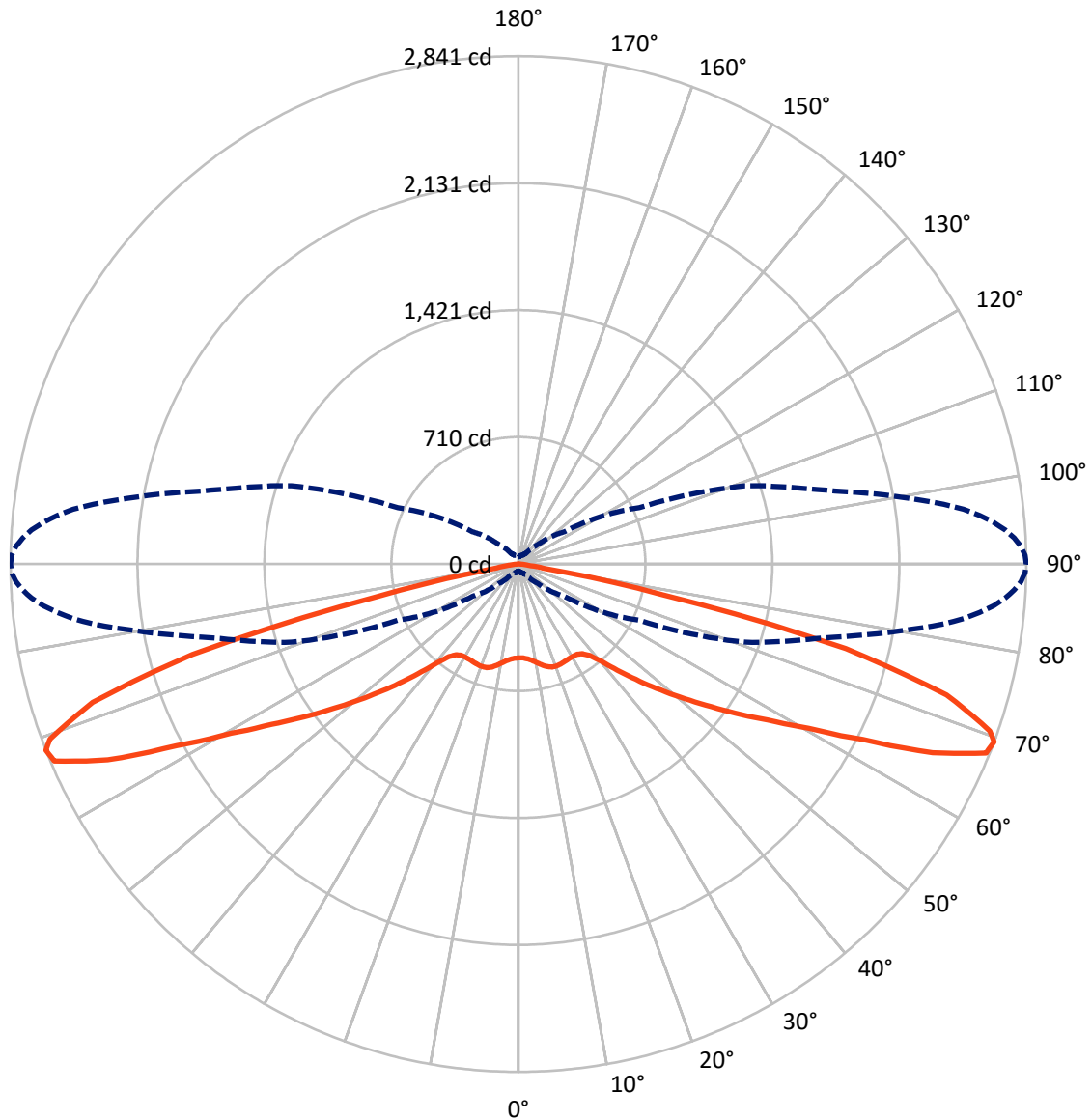
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
 Type I - Short - Full Cutoff

REPORT NUMBER: P144519
CATALOG NUMBER: LDRL-RW-E01-E-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P144519

CATALOG NUMBER: LDRL-RW-E01-E-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1371.7	0.0	1371.7
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1371.7	0.0	1371.7
	% Fixture	50.0	0.0	50.0
Total	Lumens	2743.4	0.0	2743.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.4	1.9
10°-20°	161.9	5.9
20°-30°	262.2	9.6
30°-40°	326.6	11.9
40°-50°	406.6	14.8
50°-60°	498.9	18.2
60°-70°	615.3	22.4
70°-80°	382.5	13.9
80°-90°	38.0	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°	2743.4	100.0
0°-180°	2743.4	100.0



REPORT NUMBER: P144519

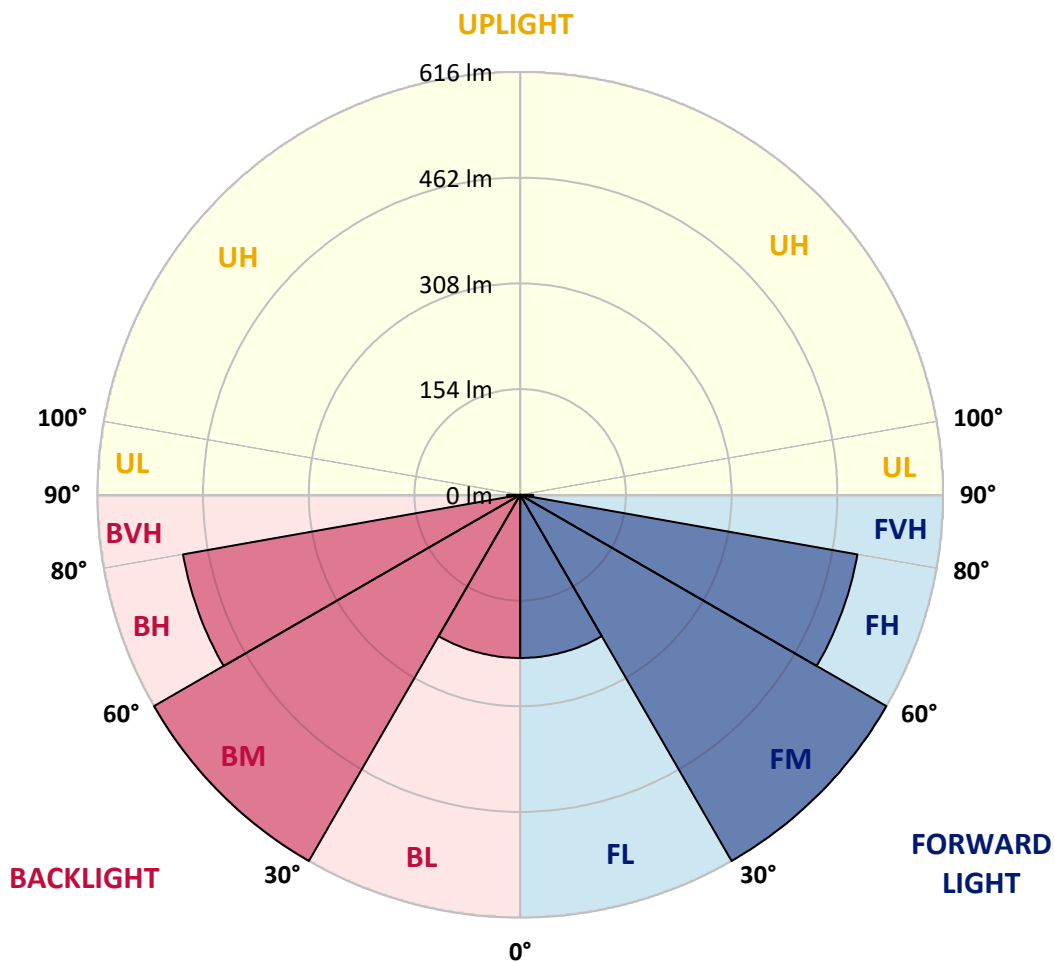
CATALOG NUMBER: LDRL-RW-E01-E-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	237.7	8.7			
FM (30°-60°)	616.1	22.5			
FH (60°-80°)	498.9	18.2			G0/660
FVH (80°-90°)	19.0	0.7			G1/100
BL (0°-30°)	237.7	8.7	B1/500		
BM (30°-60°)	616.1	22.5	B1/1000		
BH (60°-80°)	498.9	18.2	B1/500		G1/500
BVH (80°-90°)	19.0	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type I Short





REPORT NUMBER: P144519

CATALOG NUMBER: LDRL-RW-E01-E-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4
2.5°	526.8	526.2	527.2	528.1	527.8	528.0	527.7	527.2	527.2	527.2	527.3
5°	530.8	530.3	531.2	532.0	532.3	533.0	533.1	532.8	533.0	533.1	533.2
7.5°	535.8	535.3	536.5	537.6	539.7	540.8	541.9	543.0	543.1	543.2	543.3
10°	540.4	540.2	542.1	544.4	547.8	550.3	553.5	556.6	556.8	557.0	557.2
12.5°	543.4	543.4	546.4	550.7	556.5	561.7	567.0	572.1	572.6	573.1	573.5
15°	543.2	543.7	548.1	556.0	566.0	575.2	581.8	587.3	587.8	588.2	588.6
17.5°	539.6	539.6	546.0	558.5	574.2	588.0	596.4	599.3	599.5	599.7	599.8
20°	529.0	529.8	538.8	557.0	580.6	599.5	607.5	606.2	605.9	605.6	605.3
22.5°	511.0	512.0	524.0	548.4	581.8	607.0	615.2	609.5	608.6	607.7	606.9
25°	486.0	487.6	500.6	531.8	573.8	609.2	620.2	611.0	609.6	608.3	606.9
27.5°	457.0	457.8	473.2	506.0	555.0	601.9	622.6	614.2	612.5	610.8	609.0
30°	423.5	425.4	441.5	475.8	528.7	584.9	621.6	620.4	618.5	616.6	614.7
32.5°	390.2	391.8	407.6	444.6	498.2	561.2	617.1	629.8	628.2	626.6	625.0
35°	356.6	358.6	374.8	414.5	468.0	534.4	609.8	643.3	642.6	641.9	641.2
37.5°	327.1	328.4	344.3	385.5	441.6	509.8	600.4	661.2	662.8	664.4	666.0
40°	297.0	298.3	315.0	357.2	417.2	488.8	591.8	684.0	688.2	692.5	696.8
42.5°	268.2	269.3	285.4	327.5	390.0	470.6	586.6	711.3	719.5	727.8	736.0
45°	238.6	239.3	254.4	295.5	359.0	449.5	585.2	742.1	754.0	765.9	777.8
47.5°	209.4	211.2	226.8	265.7	323.7	419.1	583.2	776.2	792.0	807.7	823.5
50°	181.6	183.4	199.6	236.4	289.5	383.2	573.0	814.8	834.0	853.2	872.4
52.5°	153.2	155.1	171.2	206.4	257.8	342.6	544.4	855.4	878.2	901.0	923.9
55°	122.8	123.6	140.1	175.4	226.2	308.6	499.0	892.5	920.2	947.9	975.5
57.5°	89.3	91.8	108.1	141.0	193.9	278.6	441.3	911.5	946.0	980.6	1015.2
60°	64.5	66.1	80.5	106.3	157.2	249.0	390.1	897.6	943.8	989.8	1036.0
62.5°	51.0	52.8	63.9	80.1	121.6	216.6	356.7	859.6	924.2	988.9	1053.6
65°	45.2	46.8	57.0	65.0	93.0	183.3	335.6	821.8	909.2	996.4	1083.8
67.5°	41.2	43.0	51.9	57.4	76.8	161.9	325.7	793.4	894.2	995.0	1095.8
69°	39.4	40.9	49.2	54.2	72.4	154.6	315.0	745.1	845.1	945.0	1045.0
70°	38.4	39.8	47.2	52.4	70.7	148.5	299.2	687.8	784.2	880.6	977.1
72.5°	35.6	36.4	42.8	47.5	64.6	118.6	225.6	485.3	567.0	648.8	730.6
75°	31.5	32.6	38.2	42.6	49.3	71.2	141.3	281.6	337.7	393.7	449.7
77.5°	27.0	28.3	32.8	39.8	39.8	46.4	85.8	161.8	189.0	216.2	243.4
80°	23.2	24.3	28.4	39.4	33.2	36.7	63.9	120.6	131.6	142.6	153.5
82.5°	18.2	19.1	23.8	32.6	26.6	28.0	48.7	109.8	117.3	124.7	132.2
85°	11.4	11.8	17.4	22.4	18.9	16.8	31.4	84.6	90.0	95.4	100.8
87.5°	4.6	5.6	8.4	8.0	8.1	6.8	10.1	30.6	33.3	36.1	38.9
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: P144519
 CATALOG NUMBER: LDRL-RW-E01-E-7030

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4
2.5°	527.3	527.3	527.2	526.9	527.2	527.0	527.0	527.2	527.2	527.2	527.0
5°	533.4	533.5	533.4	532.9	533.2	533.3	533.4	533.2	533.3	533.5	533.1
7.5°	543.4	543.4	543.7	544.0	543.8	543.9	544.1	543.9	543.6	544.2	543.8
10°	557.5	557.7	557.7	558.6	558.2	558.4	559.2	559.2	558.8	559.4	559.2
12.5°	574.0	574.5	574.4	574.3	574.7	575.0	575.8	576.0	576.2	577.2	576.8
15°	589.1	589.6	590.0	590.2	590.8	591.0	591.4	591.8	592.1	592.5	592.6
17.5°	600.0	600.2	600.7	600.4	601.3	601.2	601.8	602.1	602.3	602.8	603.1
20°	605.1	604.8	604.9	604.6	604.6	604.8	604.9	605.3	605.1	605.6	606.0
22.5°	606.0	605.1	604.6	603.9	603.7	603.1	603.1	603.3	602.6	603.1	603.6
25°	605.6	604.2	603.2	602.1	601.1	600.2	599.6	599.4	599.0	599.0	599.4
27.5°	607.3	605.6	604.2	602.4	601.1	599.8	598.6	597.7	596.8	596.6	596.6
30°	612.8	610.8	609.2	607.0	604.9	603.2	601.6	600.4	598.7	597.8	597.1
32.5°	623.4	621.8	619.6	617.5	615.2	613.1	610.9	609.0	607.0	605.1	604.4
35°	640.5	639.8	638.6	637.2	634.9	632.3	630.5	628.2	625.8	623.2	622.4
37.5°	667.6	669.2	668.4	667.4	666.8	666.0	663.5	661.9	660.4	658.2	657.8
40°	701.1	705.4	709.7	712.5	711.5	714.9	715.4	715.7	714.3	716.2	716.5
42.5°	744.3	752.5	760.3	765.9	772.5	777.4	783.8	786.6	791.8	797.2	800.3
45°	789.7	801.6	812.7	824.3	835.8	848.2	860.4	869.0	881.5	890.8	896.6
47.5°	839.2	855.0	868.4	885.6	902.2	917.0	938.3	955.4	970.6	985.2	1000.4
50°	891.6	910.8	927.3	948.5	968.6	991.8	1016.8	1038.5	1062.4	1085.6	1106.1
52.5°	946.8	969.6	991.8	1013.5	1038.0	1063.1	1090.2	1121.6	1150.2	1185.0	1210.0
55°	1003.2	1030.9	1054.6	1077.3	1103.1	1131.1	1163.2	1200.4	1236.8	1274.9	1312.8
57.5°	1049.7	1084.2	1110.1	1136.6	1164.6	1192.2	1232.1	1270.2	1316.4	1363.2	1410.5
60°	1082.1	1128.2	1159.5	1193.1	1225.4	1259.0	1302.0	1350.2	1407.9	1464.6	1528.8
62.5°	1118.3	1183.0	1226.9	1271.8	1310.9	1351.3	1408.8	1464.3	1538.6	1603.8	1684.6
65°	1171.1	1258.4	1323.0	1383.4	1436.1	1491.0	1559.2	1628.6	1713.6	1803.7	1905.2
67.5°	1196.6	1297.4	1382.1	1456.7	1524.0	1594.0	1664.4	1746.4	1842.1	1950.6	2062.0
69°	1144.9	1244.9	1342.2	1417.7	1488.4	1563.3	1638.6	1721.4	1815.6	1928.2	2046.4
70°	1073.6	1170.0	1273.5	1349.1	1420.6	1498.2	1574.9	1658.5	1748.6	1864.6	1984.1
72.5°	812.3	894.0	994.6	1074.4	1149.6	1228.0	1307.0	1379.6	1470.9	1582.6	1692.6
75°	505.8	561.8	652.2	732.4	792.8	860.0	934.2	1002.8	1094.6	1173.7	1279.6
77.5°	270.6	297.8	350.5	408.1	441.7	474.4	522.8	560.1	598.7	644.4	688.2
80°	164.5	175.5	193.5	205.9	201.2	187.8	183.5	170.0	174.9	166.7	160.8
82.5°	139.6	147.0	158.0	165.5	160.0	138.6	114.2	96.2	83.4	71.2	60.4
85°	106.2	111.6	117.3	120.6	120.4	109.6	87.2	67.5	52.6	40.8	33.9
87.5°	41.6	44.4	48.5	47.8	50.0	50.3	39.3	30.4	21.7	14.6	12.8
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: P144519
 CATALOG NUMBER: LDRL-RW-E01-E-7030

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4	525.4
2.5°	526.6	526.6	526.6	526.9	527.0	527.1	527.0	527.0	526.7	526.5	526.6
5°	533.2	532.9	533.1	533.3	533.3	533.2	533.6	533.6	533.4	533.2	533.2
7.5°	544.3	544.3	544.1	545.0	544.2	544.2	544.8	544.8	544.5	544.7	544.7
10°	559.8	559.7	559.9	560.4	559.6	560.2	560.8	561.0	560.5	560.6	560.6
12.5°	577.0	577.7	577.8	578.2	578.2	578.6	578.7	578.8	579.2	579.2	578.7
15°	593.4	594.0	594.3	594.7	594.2	594.8	595.6	595.6	595.5	595.9	595.3
17.5°	603.5	604.0	604.6	604.6	604.6	605.2	605.7	605.8	606.0	606.0	606.1
20°	606.8	607.0	607.3	607.8	608.0	608.5	608.8	609.1	609.3	609.2	609.2
22.5°	604.2	604.6	605.3	605.6	605.7	606.4	606.8	607.1	607.2	607.4	607.2
25°	599.8	600.2	600.8	601.2	601.4	602.1	602.6	603.2	603.3	603.4	603.5
27.5°	596.8	597.0	597.5	597.9	598.0	598.8	599.4	599.8	600.0	600.0	600.1
30°	596.8	596.9	597.5	597.6	597.5	598.2	598.6	598.9	599.0	599.1	599.2
32.5°	603.2	602.8	603.4	602.6	602.6	602.6	602.4	602.8	602.6	602.6	602.3
35°	621.0	620.0	619.2	619.5	618.2	616.4	617.4	617.0	616.0	616.0	616.3
37.5°	655.2	654.1	655.0	654.2	654.5	652.0	652.6	650.3	649.7	650.5	648.1
40°	715.8	715.4	717.0	716.3	716.8	717.5	718.2	716.0	712.3	715.6	715.7
42.5°	799.8	804.0	805.6	807.8	810.3	809.2	811.4	812.0	808.0	811.0	811.8
45°	905.2	909.6	914.8	916.2	920.3	920.8	922.5	923.0	919.3	919.6	920.5
47.5°	1015.6	1023.7	1029.7	1033.9	1038.1	1039.0	1039.8	1038.2	1038.4	1039.2	1039.2
50°	1124.2	1141.4	1152.0	1160.3	1167.6	1163.8	1167.0	1167.2	1168.4	1166.1	1167.4
52.5°	1238.2	1261.0	1278.8	1292.8	1297.2	1310.6	1305.1	1309.3	1312.2	1308.0	1310.7
55°	1349.6	1382.1	1410.8	1431.2	1445.4	1458.9	1461.0	1471.9	1470.6	1474.7	1472.9
57.5°	1455.6	1500.9	1542.0	1572.0	1592.5	1613.2	1627.2	1639.0	1640.2	1652.0	1645.3
60°	1583.8	1646.8	1699.8	1744.5	1774.7	1805.4	1829.6	1849.0	1853.6	1873.8	1867.1
62.5°	1756.6	1833.6	1901.2	1953.8	2021.0	2053.5	2100.6	2130.0	2148.4	2153.4	2162.8
65°	1999.6	2100.0	2189.1	2273.2	2348.8	2401.4	2455.9	2499.8	2534.9	2532.0	2546.4
67.5°	2180.3	2294.6	2401.9	2502.6	2584.1	2651.7	2714.4	2761.8	2793.2	2813.2	2821.7
69°	2161.4	2284.2	2402.6	2510.1	2594.2	2669.8	2730.7	2777.4	2813.4	2835.2	2841.4
70°	2098.9	2225.0	2348.4	2454.0	2539.6	2622.6	2684.7	2736.6	2770.9	2794.6	2798.3
72.5°	1815.4	1952.1	2061.2	2176.4	2258.9	2342.9	2381.9	2446.3	2491.0	2505.4	2505.1
75°	1369.2	1483.3	1579.2	1664.4	1738.1	1795.0	1813.4	1859.3	1896.4	1896.0	1892.5
77.5°	737.4	764.2	800.1	812.2	834.9	834.6	811.7	818.9	839.9	799.2	812.3
80°	158.2	155.8	153.8	152.6	152.0	152.2	153.0	147.9	153.0	150.7	141.0
82.5°	55.0	53.8	52.5	53.4	52.8	53.4	53.2	53.8	53.7	53.6	52.2
85°	31.0	29.8	29.2	29.6	28.7	27.8	27.2	26.9	26.8	26.1	25.8
87.5°	11.8	11.7	11.6	11.1	10.0	9.2	8.7	7.6	7.1	6.5	6.0
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)