

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: P144529

Luminaire Tested: **LDRL-RW-E02-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144529
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-E02-E-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (42) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5486.8 lumens
Efficiency: N/A
Efficacy: 105.3 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 52.1
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

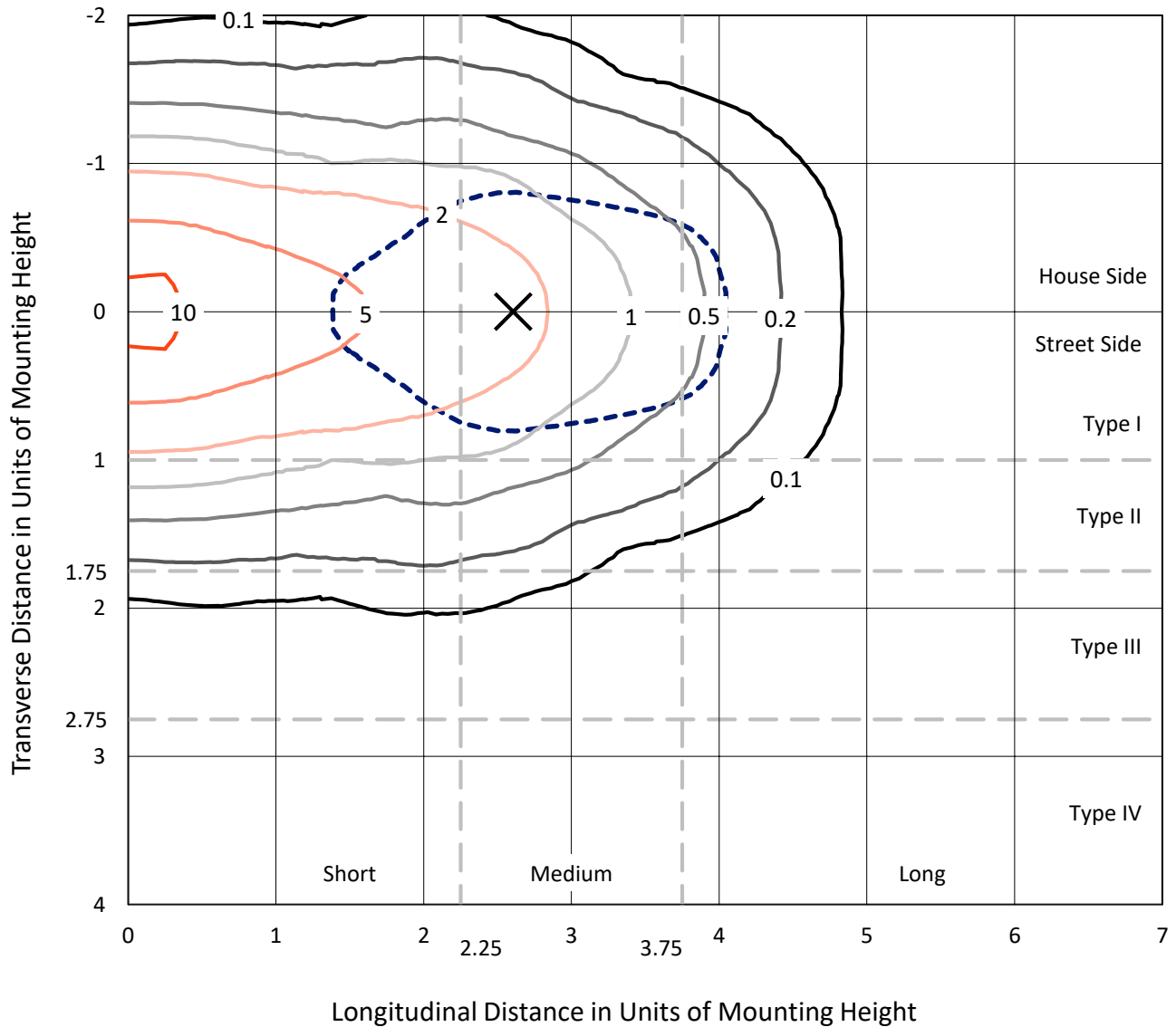


REPORT NUMBER: P144529

CATALOG NUMBER: LDRL-RW-E02-E-7030

Iso-Footcandle Lines of Horizontal Illumination

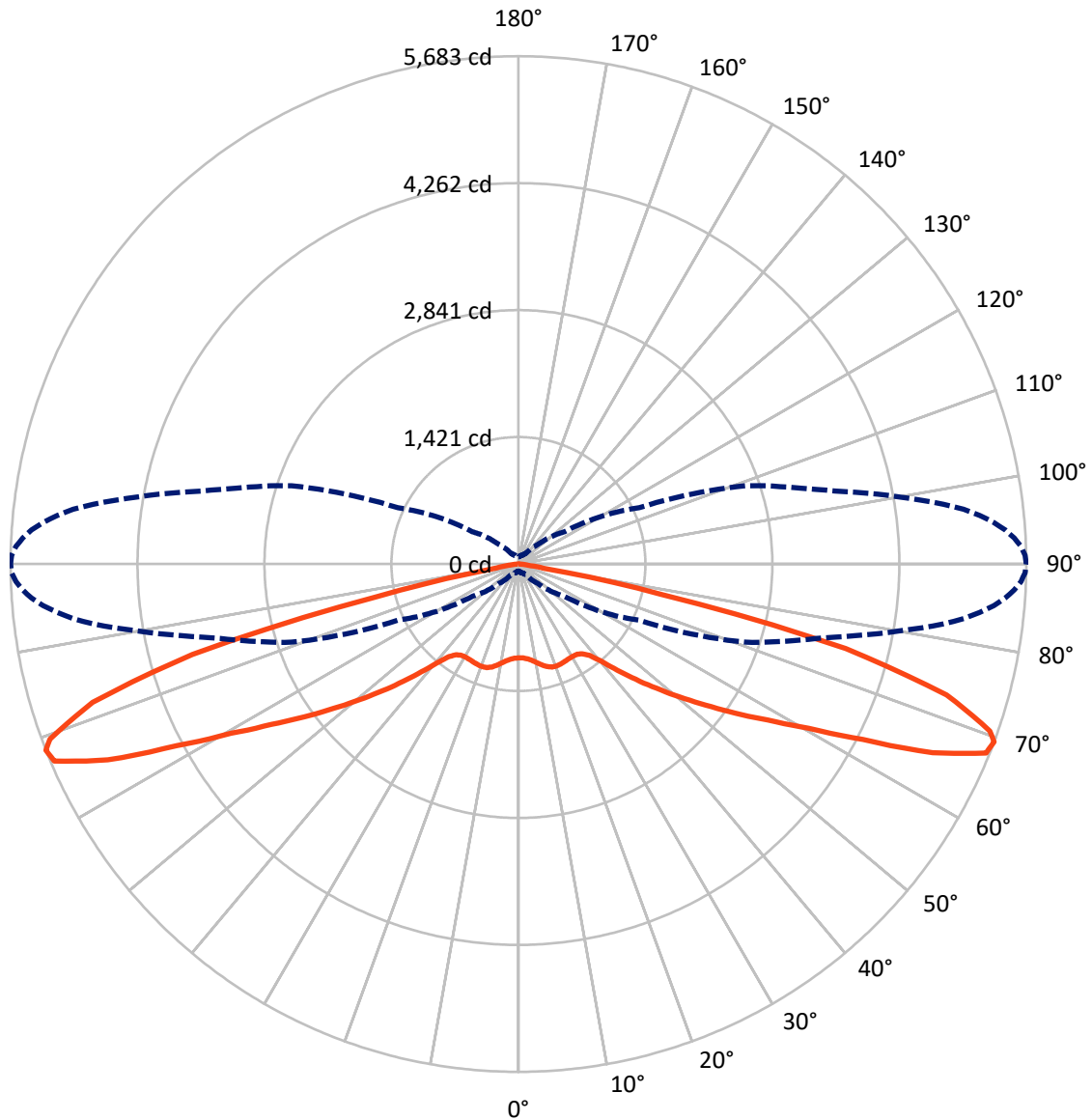
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 fc
 Type I - Short - Full Cutoff

REPORT NUMBER: P144529
CATALOG NUMBER: LDRL-RW-E02-E-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P144529

CATALOG NUMBER: LDRL-RW-E02-E-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2743.4	0.0	2743.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	2743.4	0.0	2743.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	5486.8	0.0	5486.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	102.8	1.9
10°-20°	323.8	5.9
20°-30°	524.4	9.6
30°-40°	653.2	11.9
40°-50°	813.2	14.8
50°-60°	997.8	18.2
60°-70°	1230.6	22.4
70°-80°	765.0	13.9
80°-90°	76.0	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°	5486.8	100.0
0°-180°	5486.8	100.0



REPORT NUMBER: P144529

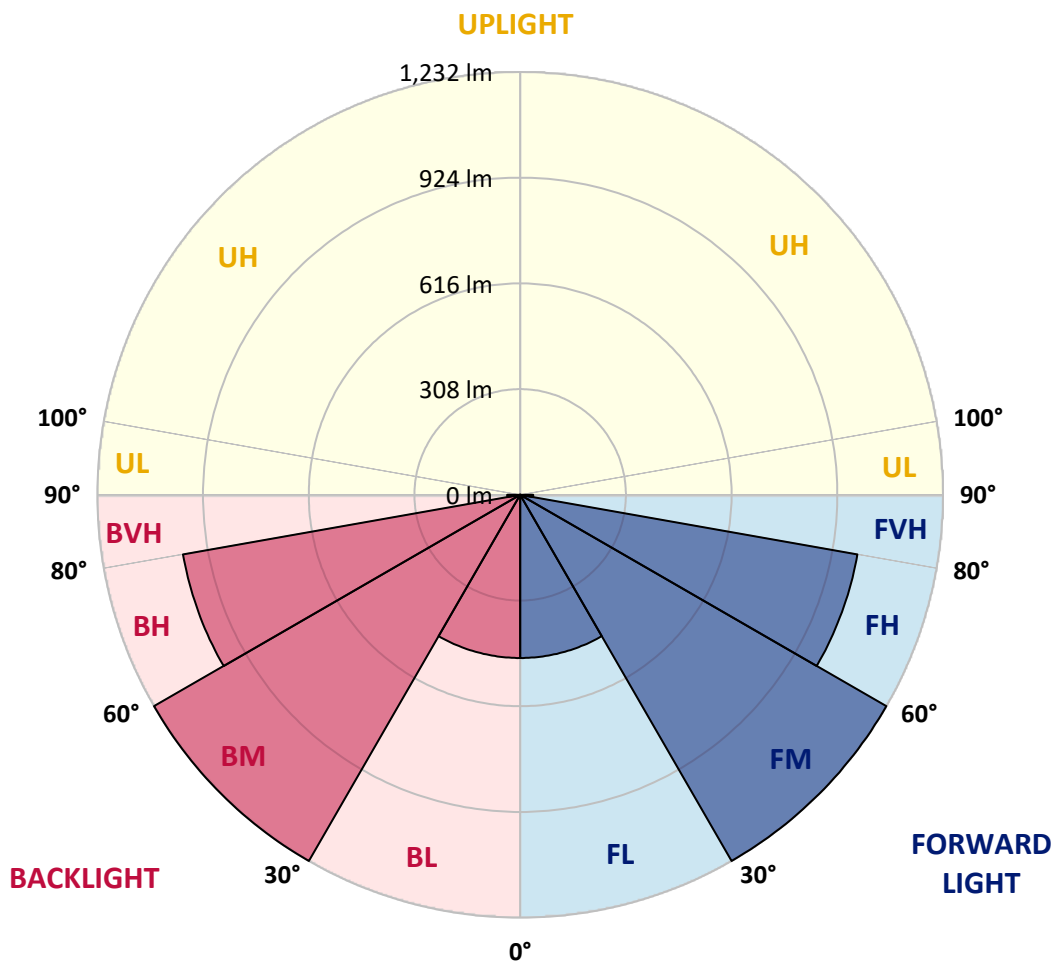
CATALOG NUMBER: LDRL-RW-E02-E-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	475.5	8.7			
FM (30°-60°)	1232.1	22.5			
FH (60°-80°)	997.8	18.2			G1/1800
FVH (80°-90°)	38.0	0.7			G1/100
BL (0°-30°)	475.5	8.7	B1/500		
BM (30°-60°)	1232.1	22.5	B2/2500		
BH (60°-80°)	997.8	18.2	B2/1000		G2/1000
BVH (80°-90°)	38.0	0.7			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type I Short





REPORT NUMBER: P144529

CATALOG NUMBER: LDRL-RW-E02-E-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1053.4	1052.4	1054.4	1056.2	1055.7	1056.0	1055.2	1054.4	1054.5	1054.5	1054.6
5°	1061.6	1060.6	1062.4	1064.0	1064.6	1065.9	1066.2	1065.7	1066.0	1066.2	1066.5
7.5°	1071.6	1070.6	1073.0	1075.2	1079.4	1081.6	1083.8	1086.0	1086.1	1086.3	1086.5
10°	1080.8	1080.4	1084.2	1088.9	1095.6	1100.8	1107.0	1113.0	1113.5	1114.0	1114.4
12.5°	1086.8	1086.9	1092.8	1101.3	1113.0	1123.4	1134.0	1144.2	1145.2	1146.2	1147.1
15°	1086.6	1087.3	1096.2	1111.9	1132.0	1150.4	1163.4	1174.6	1175.5	1176.4	1177.3
17.5°	1079.0	1079.2	1092.0	1117.0	1148.4	1175.8	1192.6	1198.6	1199.0	1199.3	1199.6
20°	1058.1	1059.4	1077.6	1113.9	1161.2	1199.1	1214.9	1212.4	1211.8	1211.3	1210.8
22.5°	1022.0	1023.8	1048.0	1096.8	1163.6	1214.0	1230.5	1218.9	1217.2	1215.4	1213.7
25°	972.0	975.1	1001.2	1063.6	1147.6	1218.4	1240.6	1222.0	1219.3	1216.6	1213.8
27.5°	914.1	915.6	946.4	1012.0	1110.1	1203.8	1245.1	1228.4	1225.0	1221.6	1218.2
30°	847.0	850.9	883.0	951.6	1057.3	1169.8	1243.2	1240.8	1237.0	1233.2	1229.4
32.5°	780.4	783.6	815.2	889.0	996.4	1122.5	1234.1	1259.7	1256.5	1253.3	1250.1
35°	713.2	717.2	749.7	829.0	936.0	1068.8	1219.6	1286.6	1285.2	1283.8	1282.4
37.5°	654.2	656.7	688.7	771.0	883.0	1019.6	1200.9	1322.6	1325.7	1328.8	1332.0
40°	594.0	596.6	630.0	714.4	834.2	977.6	1183.5	1367.8	1376.4	1385.0	1393.6
42.5°	536.4	538.5	570.8	655.0	780.0	941.3	1173.1	1422.6	1439.1	1455.6	1472.1
45°	477.2	478.6	509.0	591.0	718.0	898.9	1170.4	1484.2	1508.0	1531.8	1555.6
47.5°	418.8	422.4	453.6	531.4	647.4	838.3	1166.4	1552.3	1583.8	1615.4	1646.9
50°	363.2	367.0	399.1	473.0	579.0	766.3	1145.9	1629.6	1668.0	1706.5	1744.9
52.5°	306.3	310.2	342.3	412.8	515.7	685.2	1088.9	1710.7	1756.4	1802.1	1847.8
55°	245.6	247.2	280.2	351.0	452.3	617.2	998.1	1785.0	1840.4	1895.8	1951.1
57.5°	178.6	183.6	216.3	282.0	387.6	557.2	882.6	1823.0	1892.1	1961.2	2030.3
60°	129.0	132.2	161.0	212.6	314.4	498.2	780.2	1795.3	1887.5	1979.7	2071.9
62.5°	102.0	105.6	127.7	160.2	243.2	433.3	713.4	1719.2	1848.5	1977.9	2107.2
65°	90.2	93.6	114.0	130.0	186.0	366.6	671.3	1643.6	1818.2	1992.8	2167.4
67.5°	82.4	85.9	103.8	114.7	153.6	323.6	651.4	1586.6	1788.3	1989.9	2191.5
69°	78.8	81.8	98.2	108.5	144.9	309.0	630.0	1490.2	1690.1	1890.0	2090.0
70°	76.8	79.4	94.4	104.7	141.4	297.0	598.4	1375.5	1568.4	1761.3	1954.2
72.5°	71.0	72.9	85.5	95.0	129.4	237.1	451.4	970.5	1134.0	1297.6	1461.1
75°	63.0	65.2	76.4	85.1	98.6	142.4	282.6	563.4	675.4	787.4	899.5
77.5°	54.1	56.6	65.8	79.6	79.4	92.8	171.5	323.5	377.9	432.4	486.8
80°	46.4	48.6	56.8	78.8	66.5	73.4	127.9	241.3	263.2	285.1	307.1
82.5°	36.3	38.2	47.7	65.0	53.2	55.9	97.4	219.8	234.6	249.5	264.4
85°	22.8	23.5	34.7	44.9	37.8	33.8	62.6	169.2	180.0	190.8	201.6
87.5°	9.2	11.2	16.8	16.1	16.2	13.5	20.3	61.0	66.6	72.1	77.7
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: P144529

CATALOG NUMBER: LDRL-RW-E02-E-7030

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1054.7	1054.8	1054.4	1053.8	1054.4	1053.8	1054.0	1054.6	1054.4	1054.4	1054.0
5°	1066.7	1067.0	1067.0	1065.9	1066.4	1066.6	1066.8	1066.4	1066.6	1067.0	1066.2
7.5°	1086.7	1086.9	1087.4	1088.0	1087.6	1087.8	1088.2	1087.8	1087.2	1088.6	1087.6
10°	1114.9	1115.4	1115.4	1117.1	1116.2	1116.8	1118.5	1118.5	1117.6	1118.8	1118.5
12.5°	1148.0	1149.0	1148.8	1148.6	1149.4	1149.9	1151.8	1152.1	1152.5	1154.5	1153.8
15°	1178.2	1179.2	1179.8	1180.2	1181.5	1181.8	1183.0	1183.7	1184.2	1185.0	1185.3
17.5°	1200.0	1200.3	1201.4	1200.8	1202.7	1202.3	1203.6	1204.2	1204.7	1205.6	1206.2
20°	1210.2	1209.6	1209.8	1209.2	1209.3	1209.6	1209.8	1210.6	1210.2	1211.1	1211.8
22.5°	1211.9	1210.2	1209.1	1207.8	1207.2	1206.2	1206.2	1206.5	1205.2	1206.2	1207.2
25°	1211.1	1208.4	1206.4	1204.2	1202.2	1200.4	1199.2	1198.8	1197.9	1198.0	1198.8
27.5°	1214.7	1211.3	1208.4	1204.7	1202.2	1199.6	1197.2	1195.4	1193.6	1193.2	1193.2
30°	1225.5	1221.7	1218.4	1213.8	1209.8	1206.6	1203.2	1200.7	1197.2	1195.8	1194.1
32.5°	1246.9	1243.6	1239.1	1235.0	1230.3	1226.2	1221.9	1217.9	1213.8	1210.2	1208.8
35°	1281.0	1279.6	1277.1	1274.4	1269.8	1264.6	1261.0	1256.2	1251.6	1246.4	1244.8
37.5°	1335.1	1338.2	1336.8	1334.8	1333.5	1331.8	1326.9	1323.8	1320.7	1316.3	1315.4
40°	1402.2	1410.8	1419.4	1425.0	1423.0	1429.8	1430.8	1431.4	1428.6	1432.3	1433.0
42.5°	1488.5	1505.0	1520.6	1531.9	1545.0	1554.9	1567.7	1573.2	1583.6	1594.4	1600.6
45°	1579.4	1603.2	1625.4	1648.6	1671.4	1696.4	1720.8	1738.0	1763.0	1781.6	1793.2
47.5°	1678.4	1710.0	1736.6	1771.4	1804.4	1834.0	1876.6	1910.7	1941.2	1970.3	2000.8
50°	1783.3	1821.8	1854.6	1897.0	1937.2	1983.6	2033.5	2077.0	2124.8	2171.0	2212.1
52.5°	1893.5	1939.2	1983.6	2027.1	2075.8	2126.3	2180.4	2243.2	2300.6	2370.2	2420.0
55°	2006.4	2061.8	2109.1	2154.6	2206.3	2262.2	2326.5	2400.8	2473.8	2549.8	2625.5
57.5°	2099.4	2168.4	2220.1	2273.3	2329.0	2384.4	2464.2	2540.4	2632.9	2726.4	2821.0
60°	2164.1	2256.4	2319.0	2386.2	2450.7	2518.0	2604.0	2700.2	2815.9	2929.1	3057.7
62.5°	2236.6	2366.0	2453.8	2543.5	2621.9	2702.6	2817.7	2928.6	3077.0	3207.5	3369.4
65°	2342.0	2516.6	2646.0	2766.9	2872.2	2982.0	3118.6	3257.2	3427.1	3607.4	3810.3
67.5°	2393.2	2594.8	2764.1	2913.4	3047.8	3188.0	3328.8	3492.8	3684.3	3901.3	4124.1
69°	2289.9	2489.8	2684.6	2835.4	2977.0	3126.6	3277.3	3442.8	3631.3	3856.6	4092.8
70°	2147.1	2340.0	2547.0	2698.2	2841.1	2996.4	3149.8	3316.9	3497.2	3729.2	3968.2
72.5°	1624.6	1788.2	1989.1	2148.9	2299.0	2456.0	2614.0	2759.0	2941.9	3165.1	3385.2
75°	1011.6	1123.6	1304.2	1464.8	1585.6	1720.0	1868.4	2005.8	2189.3	2347.5	2559.2
77.5°	541.2	595.6	701.1	816.2	883.4	949.0	1045.6	1120.1	1197.4	1288.9	1376.4
80°	329.0	350.9	386.9	411.7	402.4	375.6	367.0	340.2	349.8	333.4	321.5
82.5°	279.2	294.1	316.0	331.0	320.0	277.1	228.6	192.4	166.8	142.3	121.0
85°	212.4	223.2	234.6	241.3	240.8	219.4	174.2	135.0	105.2	81.4	67.8
87.5°	83.2	88.8	97.0	95.7	99.9	100.6	78.8	60.8	43.3	29.2	25.6
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: P144529

CATALOG NUMBER: LDRL-RW-E02-E-7030

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7	1050.7
2.5°	1053.2	1053.1	1053.3	1053.8	1053.8	1054.2	1053.8	1054.0	1053.4	1052.9	1053.3
5°	1066.2	1065.9	1066.2	1066.6	1066.6	1066.2	1067.2	1067.2	1066.8	1066.2	1066.4
7.5°	1088.5	1088.8	1088.2	1090.0	1088.4	1088.6	1089.6	1089.4	1089.1	1089.2	1089.4
10°	1119.6	1119.4	1119.8	1120.8	1119.2	1120.3	1121.6	1121.9	1121.0	1121.0	1121.2
12.5°	1153.9	1155.4	1155.6	1156.3	1156.4	1157.2	1157.4	1157.6	1158.3	1158.5	1157.4
15°	1186.8	1187.9	1188.6	1189.4	1188.4	1189.8	1191.2	1191.2	1191.0	1191.7	1190.6
17.5°	1207.1	1208.0	1209.2	1209.0	1209.3	1210.4	1211.3	1211.6	1212.0	1212.0	1212.2
20°	1213.4	1214.0	1214.8	1215.4	1215.8	1216.9	1217.6	1218.2	1218.6	1218.2	1218.4
22.5°	1208.4	1209.1	1210.6	1211.1	1211.3	1212.9	1213.6	1214.2	1214.6	1214.9	1214.4
25°	1199.6	1200.4	1201.8	1202.4	1202.7	1204.2	1205.1	1206.4	1206.7	1206.9	1207.1
27.5°	1193.6	1193.9	1195.1	1195.8	1196.0	1197.6	1198.8	1199.8	1200.0	1200.2	1200.1
30°	1193.8	1193.8	1195.0	1195.2	1195.0	1196.5	1197.2	1197.8	1198.2	1198.2	1198.3
32.5°	1206.4	1205.6	1206.7	1205.1	1205.2	1205.0	1204.9	1205.4	1205.1	1205.2	1204.5
35°	1242.0	1240.0	1238.4	1239.1	1236.5	1232.8	1234.8	1234.0	1231.9	1232.2	1232.7
37.5°	1310.3	1308.3	1310.2	1308.4	1309.0	1303.9	1305.2	1300.6	1299.4	1300.9	1296.2
40°	1431.6	1430.6	1434.2	1432.6	1433.6	1435.1	1436.4	1432.0	1424.6	1431.2	1431.4
42.5°	1599.6	1607.8	1611.2	1615.8	1620.6	1618.4	1622.8	1624.2	1616.1	1622.1	1623.6
45°	1810.4	1819.2	1829.4	1832.6	1840.6	1841.7	1845.0	1845.9	1838.6	1839.3	1840.9
47.5°	2031.3	2047.4	2059.4	2067.9	2076.2	2077.8	2079.7	2076.2	2076.8	2078.4	2078.4
50°	2248.3	2282.6	2304.0	2320.6	2335.1	2327.6	2334.0	2334.5	2336.8	2332.1	2334.9
52.5°	2476.4	2521.9	2557.8	2585.7	2594.4	2621.2	2610.2	2618.6	2624.2	2615.9	2621.3
55°	2699.3	2764.2	2821.8	2862.3	2890.8	2917.8	2922.0	2943.7	2941.1	2949.4	2945.7
57.5°	2911.2	3001.8	3084.0	3144.1	3185.0	3226.4	3254.2	3278.0	3280.4	3304.0	3290.6
60°	3167.5	3293.7	3399.5	3489.0	3549.4	3610.8	3659.2	3698.2	3707.2	3747.4	3734.1
62.5°	3513.3	3667.3	3802.4	3907.5	4042.2	4107.0	4201.2	4260.0	4296.8	4306.8	4325.6
65°	3999.4	4200.0	4378.2	4546.3	4697.8	4802.8	4911.8	4999.5	5069.8	5064.0	5092.8
67.5°	4360.5	4589.2	4803.8	5005.4	5168.3	5303.4	5428.8	5523.6	5586.4	5626.4	5643.4
69°	4322.8	4568.4	4805.2	5020.3	5188.4	5339.5	5461.4	5554.8	5626.8	5670.2	5682.9
70°	4197.8	4450.0	4696.8	4908.0	5079.4	5245.2	5369.4	5473.4	5541.8	5589.4	5596.6
72.5°	3631.0	3904.2	4122.5	4352.8	4517.8	4685.6	4763.8	4892.6	4982.0	5010.8	5010.3
75°	2738.6	2966.5	3158.4	3328.6	3476.2	3590.0	3626.9	3718.6	3792.8	3791.8	3784.9
77.5°	1474.7	1528.4	1600.2	1624.3	1669.8	1669.0	1623.4	1637.8	1679.8	1598.4	1624.7
80°	316.4	311.6	307.6	305.2	304.0	304.5	306.2	295.8	306.0	301.4	282.0
82.5°	110.2	107.6	105.0	106.8	105.6	106.7	106.3	107.6	107.4	107.0	104.5
85°	61.9	59.8	58.4	59.4	57.4	55.6	54.2	53.7	53.5	52.2	51.5
87.5°	23.6	23.4	23.2	22.3	20.1	18.5	17.4	15.2	14.2	13.0	12.1
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)