

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: P144523

Luminaire Tested: **LDRL-RW-F01-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144523
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-F01-E-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (7) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2092.8 lumens
Efficiency: N/A
Efficacy: 80.8 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

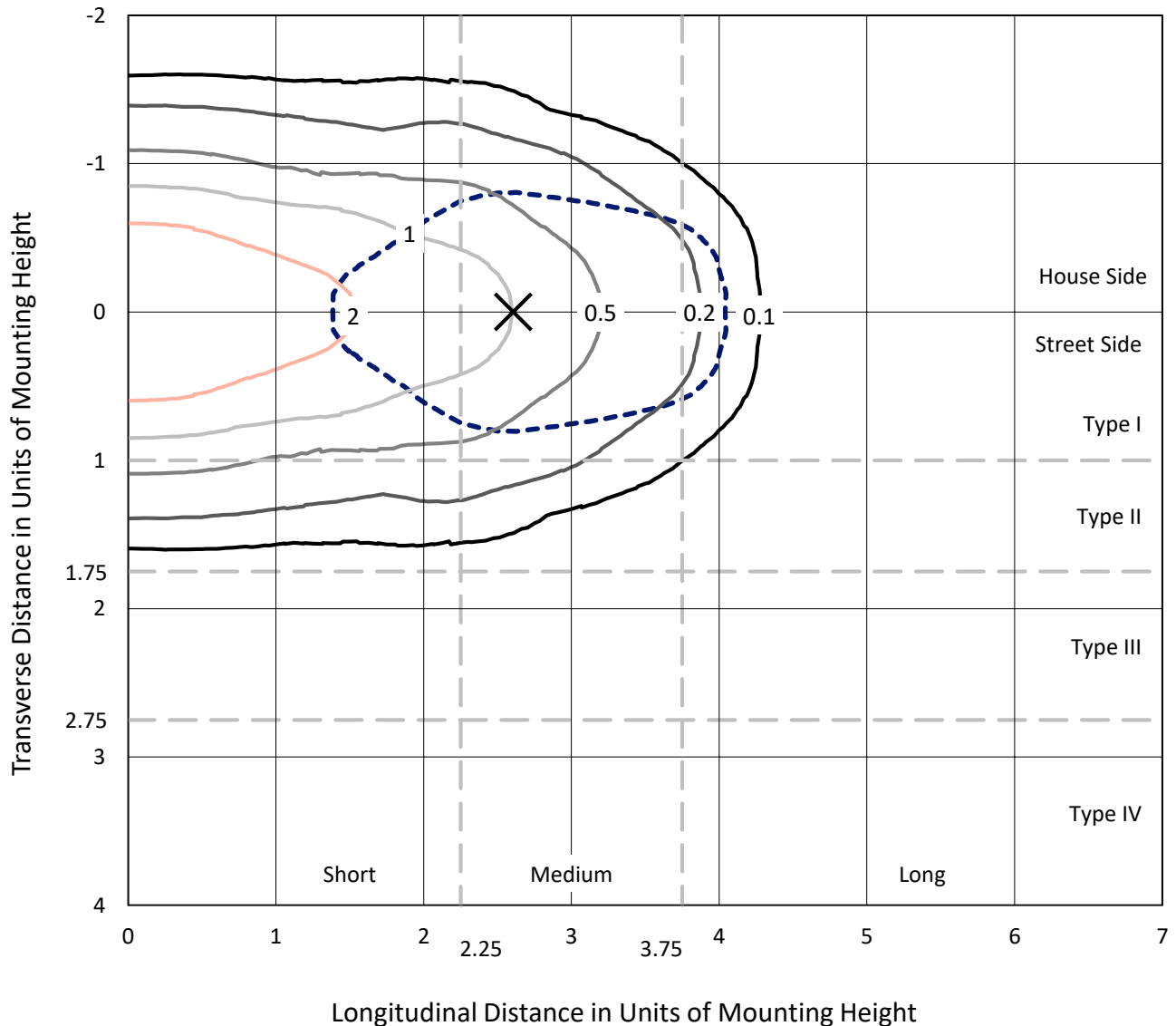
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P144523
 CATALOG NUMBER: LDRL-RW-F01-E-8030

Iso-Footcandle Lines of Horizontal Illumination

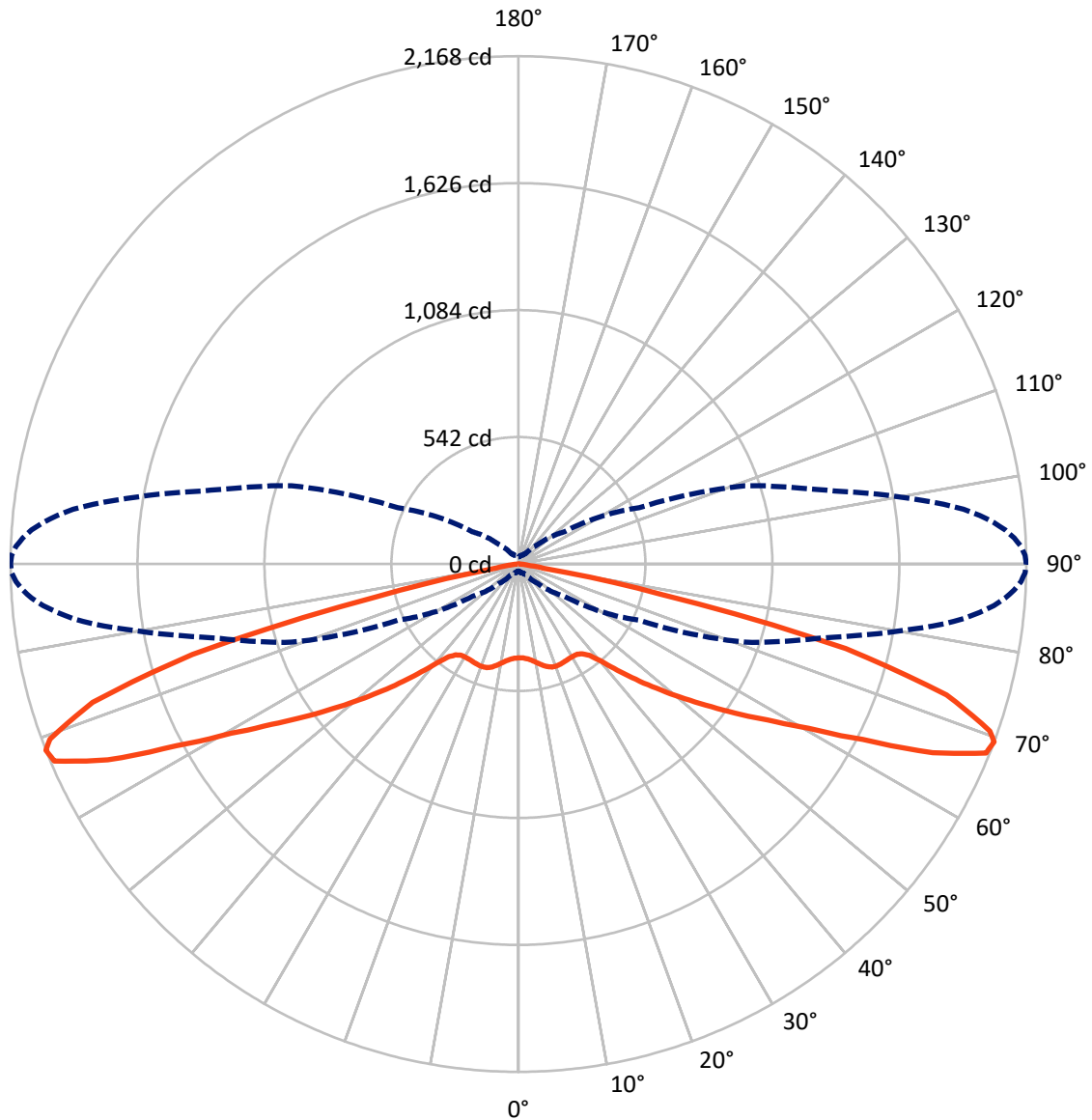
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.1 fc
 Type I - Short - Full Cutoff

REPORT NUMBER: P144523
CATALOG NUMBER: LDRL-RW-F01-E-8030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P144523

CATALOG NUMBER: LDRL-RW-F01-E-8030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1046.4	0.0	1046.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1046.4	0.0	1046.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	2092.8	0.0	2092.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	39.2	1.9
10°-20°	123.5	5.9
20°-30°	200.0	9.6
30°-40°	249.2	11.9
40°-50°	310.2	14.8
50°-60°	380.6	18.2
60°-70°	469.4	22.4
70°-80°	291.8	13.9
80°-90°	29.0	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°	2092.8	100.0
0°-180°	2092.8	100.0



REPORT NUMBER: P144523

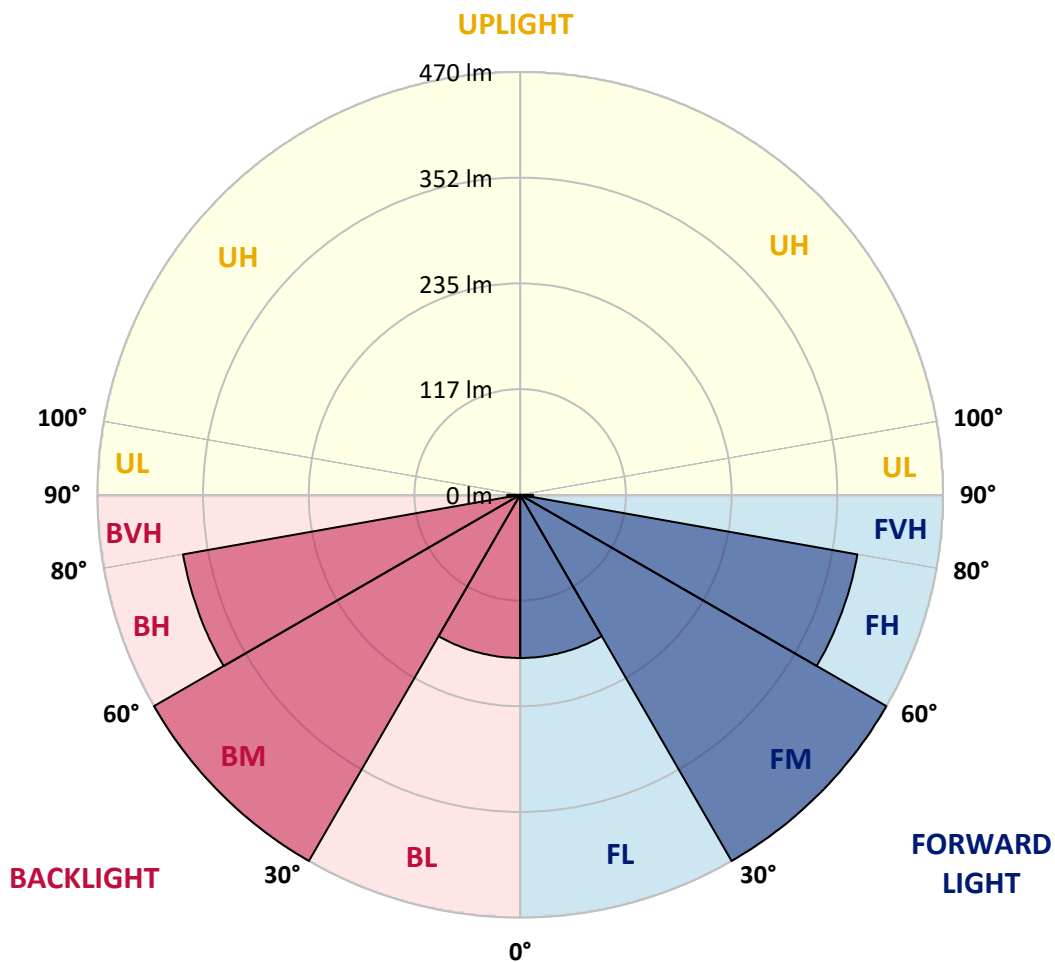
CATALOG NUMBER: LDRL-RW-F01-E-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	181.4	8.7			
FM (30°-60°)	470.0	22.5			
FH (60°-80°)	380.6	18.2			G0/660
FVH (80°-90°)	14.5	0.7			G1/100
BL (0°-30°)	181.4	8.7	B1/500		
BM (30°-60°)	470.0	22.5	B1/1000		
BH (60°-80°)	380.6	18.2	B1/500		G1/500
BVH (80°-90°)	14.5	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: P144523

CATALOG NUMBER: LDRL-RW-F01-E-8030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8
2.5°	401.8	401.4	402.2	402.8	402.6	402.8	402.5	402.2	402.2	402.2	402.2
5°	405.0	404.5	405.2	405.8	406.0	406.5	406.7	406.5	406.6	406.7	406.8
7.5°	408.7	408.4	409.3	410.1	411.7	412.6	413.4	414.2	414.3	414.4	414.4
10°	412.2	412.0	413.6	415.4	417.9	419.8	422.2	424.5	424.7	424.9	425.0
12.5°	414.6	414.6	416.8	420.0	424.6	428.5	432.5	436.4	436.8	437.2	437.5
15°	414.4	414.7	418.1	424.2	431.8	438.8	443.8	448.0	448.4	448.7	449.0
17.5°	411.6	411.6	416.5	426.0	438.0	448.4	454.9	457.2	457.3	457.5	457.6
20°	403.5	404.1	411.0	424.9	442.9	457.4	463.4	462.4	462.2	462.0	461.8
22.5°	389.8	390.5	399.7	418.4	443.8	463.0	469.3	465.0	464.3	463.6	462.9
25°	370.7	371.9	381.9	405.8	437.7	464.7	473.2	466.2	465.1	464.0	463.0
27.5°	348.6	349.2	361.0	386.0	423.4	459.2	474.9	468.6	467.2	466.0	464.6
30°	323.0	324.5	336.8	362.9	403.2	446.2	474.2	473.3	471.8	470.4	468.9
32.5°	297.6	298.9	311.0	339.1	380.1	428.2	470.7	480.4	479.2	478.0	476.8
35°	272.0	273.5	286.0	316.2	357.0	407.6	465.2	490.7	490.2	489.7	489.1
37.5°	249.5	250.5	262.7	294.1	336.8	389.0	458.0	504.4	505.6	506.8	508.0
40°	226.6	227.6	240.3	272.5	318.2	372.9	451.4	521.7	525.0	528.3	531.5
42.5°	204.6	205.4	217.8	249.8	297.5	359.0	447.4	542.6	548.9	555.2	561.5
45°	182.0	182.5	194.1	225.4	273.8	342.8	446.4	566.1	575.2	584.2	593.3
47.5°	159.8	161.1	173.0	202.6	246.9	319.7	444.8	592.1	604.1	616.1	628.2
50°	138.5	140.0	152.2	180.4	220.9	292.3	437.1	621.6	636.2	650.9	665.5
52.5°	116.8	118.3	130.6	157.4	196.7	261.4	415.4	652.5	669.9	687.4	704.8
55°	93.7	94.3	106.9	133.8	172.6	235.4	380.7	680.8	702.0	723.1	744.2
57.5°	68.2	70.0	82.5	107.6	147.9	212.5	336.7	695.3	721.7	748.0	774.4
60°	49.2	50.4	61.4	81.1	119.9	190.0	297.6	684.8	719.9	755.1	790.3
62.5°	38.8	40.2	48.7	61.1	92.8	165.3	272.0	655.7	705.0	754.4	803.7
65°	34.4	35.7	43.5	49.6	71.0	139.8	256.0	627.0	693.5	760.1	826.7
67.5°	31.4	32.8	39.6	43.8	58.6	123.4	248.4	605.2	682.1	759.0	835.9
69°	30.0	31.2	37.5	41.4	55.2	117.9	240.3	568.4	644.6	720.9	797.2
70°	29.2	30.3	36.0	40.0	54.0	113.3	228.2	524.6	598.2	671.8	745.4
72.5°	27.2	27.8	32.6	36.2	49.3	90.4	172.2	370.2	432.6	494.9	557.3
75°	24.0	24.8	29.2	32.4	37.6	54.4	107.8	214.9	257.6	300.4	343.1
77.5°	20.6	21.6	25.1	30.4	30.4	35.4	65.4	123.4	144.2	164.9	185.7
80°	17.7	18.5	21.7	30.0	25.3	28.0	48.8	92.1	100.4	108.8	117.1
82.5°	13.9	14.6	18.2	24.8	20.2	21.4	37.1	83.8	89.5	95.2	100.8
85°	8.7	9.0	13.2	17.2	14.4	12.9	23.9	64.5	68.6	72.7	76.9
87.5°	3.4	4.2	6.4	6.2	6.2	5.2	7.7	23.3	25.4	27.5	29.7
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: P144523

CATALOG NUMBER: LDRL-RW-F01-E-8030

CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8
2.5°	402.2	402.2	402.2	402.0	402.2	402.0	402.0	402.2	402.2	402.2	402.0
5°	406.9	407.0	407.0	406.6	406.8	406.8	406.9	406.8	406.8	407.0	406.7
7.5°	414.5	414.6	414.8	415.0	414.8	414.9	415.0	414.9	414.7	415.2	414.8
10°	425.2	425.4	425.4	426.0	425.8	426.0	426.6	426.6	426.3	426.8	426.6
12.5°	437.9	438.2	438.2	438.1	438.4	438.6	439.3	439.4	439.6	440.3	440.0
15°	449.4	449.8	450.0	450.2	450.6	450.8	451.2	451.5	451.7	452.0	452.1
17.5°	457.7	457.8	458.2	458.0	458.8	458.6	459.1	459.3	459.5	459.8	460.0
20°	461.6	461.4	461.4	461.2	461.2	461.4	461.4	461.7	461.6	461.9	462.2
22.5°	462.3	461.6	461.2	460.7	460.5	460.0	460.0	460.2	459.7	460.0	460.4
25°	462.0	460.9	460.2	459.3	458.6	457.8	457.4	457.2	456.9	456.9	457.2
27.5°	463.4	462.0	460.9	459.5	458.5	457.6	456.6	456.0	455.2	455.1	455.1
30°	467.5	466.0	464.7	463.0	461.4	460.2	459.0	458.0	456.6	456.1	455.4
32.5°	475.6	474.4	472.6	471.1	469.2	467.7	466.0	464.5	463.0	461.6	461.0
35°	488.6	488.1	487.1	486.0	484.3	482.4	481.0	479.2	477.4	475.4	474.8
37.5°	509.2	510.4	509.8	509.1	508.6	508.0	506.1	504.9	503.8	502.0	501.7
40°	534.8	538.1	541.4	543.5	542.8	545.3	545.8	546.0	545.0	546.3	546.6
42.5°	567.8	574.0	580.0	584.3	589.3	593.0	598.0	600.0	604.0	608.1	610.4
45°	602.4	611.4	620.0	628.8	637.5	647.0	656.3	662.8	672.4	679.6	684.0
47.5°	640.2	652.2	662.4	675.6	688.2	699.5	715.8	728.8	740.4	751.5	763.1
50°	680.2	694.8	707.4	723.6	738.8	756.6	775.6	792.2	810.4	828.0	843.8
52.5°	722.2	739.6	756.6	773.2	791.8	811.0	831.6	855.6	877.4	904.0	923.0
55°	765.3	786.4	804.4	821.8	841.5	862.8	887.4	915.7	943.6	972.6	1001.4
57.5°	800.8	827.1	846.8	867.1	888.4	909.4	939.9	969.0	1004.2	1039.9	1076.0
60°	825.4	860.6	884.5	910.2	934.7	960.4	993.2	1029.9	1074.0	1117.2	1166.2
62.5°	853.1	902.4	936.0	970.2	1000.0	1030.8	1074.8	1117.0	1173.6	1223.4	1285.2
65°	893.3	959.9	1009.2	1055.4	1095.5	1137.4	1189.5	1242.4	1307.2	1375.9	1453.3
67.5°	912.8	989.7	1054.3	1111.2	1162.5	1215.9	1269.6	1332.2	1405.2	1488.0	1573.0
69°	873.4	949.6	1023.9	1081.4	1135.4	1192.6	1250.1	1313.1	1385.1	1470.9	1561.1
70°	818.9	892.5	971.4	1029.2	1083.6	1142.8	1201.4	1265.2	1333.9	1422.4	1513.5
72.5°	619.6	682.0	758.7	819.6	876.9	936.8	997.0	1052.4	1122.0	1207.2	1291.2
75°	385.8	428.6	497.4	558.7	604.8	656.0	712.6	765.0	835.0	895.4	976.2
77.5°	206.5	227.2	267.4	311.3	336.9	362.0	398.8	427.2	456.7	491.6	525.0
80°	125.5	133.8	147.6	157.0	153.5	143.2	140.0	129.8	133.4	127.2	122.6
82.5°	106.5	112.2	120.6	126.2	122.0	105.7	87.1	73.4	63.6	54.3	46.1
85°	81.0	85.1	89.4	92.1	91.8	83.7	66.4	51.5	40.2	31.0	25.8
87.5°	31.8	33.9	37.0	36.5	38.1	38.4	30.0	23.2	16.5	11.2	9.8
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: P144523

CATALOG NUMBER: LDRL-RW-F01-E-8030

CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8	400.8
2.5°	401.7	401.7	401.8	402.0	402.0	402.1	402.0	402.0	401.8	401.6	401.7
5°	406.7	406.5	406.6	406.8	406.8	406.7	407.0	407.0	406.9	406.6	406.8
7.5°	415.2	415.2	415.0	415.8	415.1	415.2	415.6	415.6	415.4	415.4	415.5
10°	427.0	427.0	427.1	427.5	426.8	427.3	427.8	428.0	427.6	427.6	427.7
12.5°	440.2	440.7	440.8	441.0	441.0	441.4	441.4	441.5	441.8	441.8	441.5
15°	452.6	453.1	453.4	453.6	453.3	453.8	454.4	454.4	454.2	454.6	454.1
17.5°	460.4	460.8	461.2	461.2	461.2	461.6	462.0	462.2	462.3	462.3	462.4
20°	462.8	463.0	463.3	463.6	463.8	464.2	464.4	464.6	464.8	464.6	464.7
22.5°	460.9	461.2	461.7	462.0	462.0	462.6	463.0	463.2	463.2	463.4	463.2
25°	457.5	457.8	458.4	458.6	458.7	459.3	459.6	460.2	460.2	460.4	460.4
27.5°	455.2	455.4	455.8	456.1	456.2	456.8	457.2	457.6	457.7	457.8	457.8
30°	455.3	455.4	455.8	455.8	455.8	456.4	456.6	456.8	457.0	457.0	457.1
32.5°	460.2	459.8	460.2	459.6	459.7	459.6	459.6	459.8	459.6	459.7	459.4
35°	473.8	473.0	472.3	472.6	471.6	470.2	471.0	470.6	469.9	470.0	470.2
37.5°	499.8	499.0	499.6	499.1	499.3	497.3	497.8	496.0	495.6	496.2	494.4
40°	546.0	545.7	547.0	546.4	546.8	547.4	547.8	546.2	543.3	545.9	546.0
42.5°	610.1	613.2	614.6	616.3	618.2	617.3	619.0	619.4	616.4	618.7	619.3
45°	690.6	693.8	697.8	699.0	702.0	702.4	703.7	704.0	701.3	701.5	702.2
47.5°	774.8	780.9	785.5	788.7	791.9	792.5	793.2	792.0	792.2	792.8	792.7
50°	857.6	870.6	878.8	885.1	890.6	887.8	890.2	890.4	891.3	889.5	890.6
52.5°	944.6	961.9	975.6	986.2	989.6	999.8	995.6	998.8	1000.9	997.8	999.8
55°	1029.6	1054.3	1076.2	1091.7	1102.6	1112.9	1114.5	1122.8	1121.8	1124.9	1123.6
57.5°	1110.4	1145.0	1176.3	1199.2	1214.8	1230.6	1241.2	1250.3	1251.2	1260.2	1255.1
60°	1208.1	1256.3	1296.6	1330.8	1353.8	1377.2	1395.7	1410.6	1414.0	1429.4	1424.3
62.5°	1340.1	1398.8	1450.3	1490.4	1541.8	1566.5	1602.4	1624.8	1638.8	1642.7	1649.9
65°	1525.4	1602.0	1670.0	1734.0	1791.8	1831.8	1873.4	1906.9	1933.8	1931.5	1942.5
67.5°	1663.2	1750.4	1832.2	1909.2	1971.3	2022.8	2070.6	2106.8	2130.8	2146.0	2152.5
69°	1648.8	1742.5	1832.8	1914.8	1978.9	2036.5	2083.1	2118.7	2146.1	2162.7	2167.5
70°	1601.1	1697.3	1791.4	1872.0	1937.3	2000.6	2048.0	2087.6	2113.8	2131.9	2134.7
72.5°	1384.9	1489.2	1572.4	1660.2	1723.2	1787.2	1817.0	1866.1	1900.2	1911.2	1911.0
75°	1044.6	1131.5	1204.6	1269.6	1325.9	1369.2	1383.4	1418.4	1446.6	1446.3	1443.6
77.5°	562.4	583.0	610.4	619.6	636.9	636.6	619.2	624.7	640.8	609.6	619.7
80°	120.6	118.8	117.4	116.4	115.9	116.2	116.8	112.8	116.7	115.0	107.6
82.5°	42.0	41.0	40.0	40.8	40.2	40.6	40.6	41.0	41.0	40.8	39.9
85°	23.6	22.8	22.3	22.6	21.9	21.2	20.7	20.5	20.4	20.0	19.6
87.5°	9.0	9.0	8.8	8.5	7.6	7.0	6.6	5.8	5.4	5.0	4.6
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)