

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: P144524

Luminaire Tested: **LDRL-RW-F01-E-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144524
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-7030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (7) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2264.7 lumens
Efficiency: N/A
Efficacy: 87.4 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

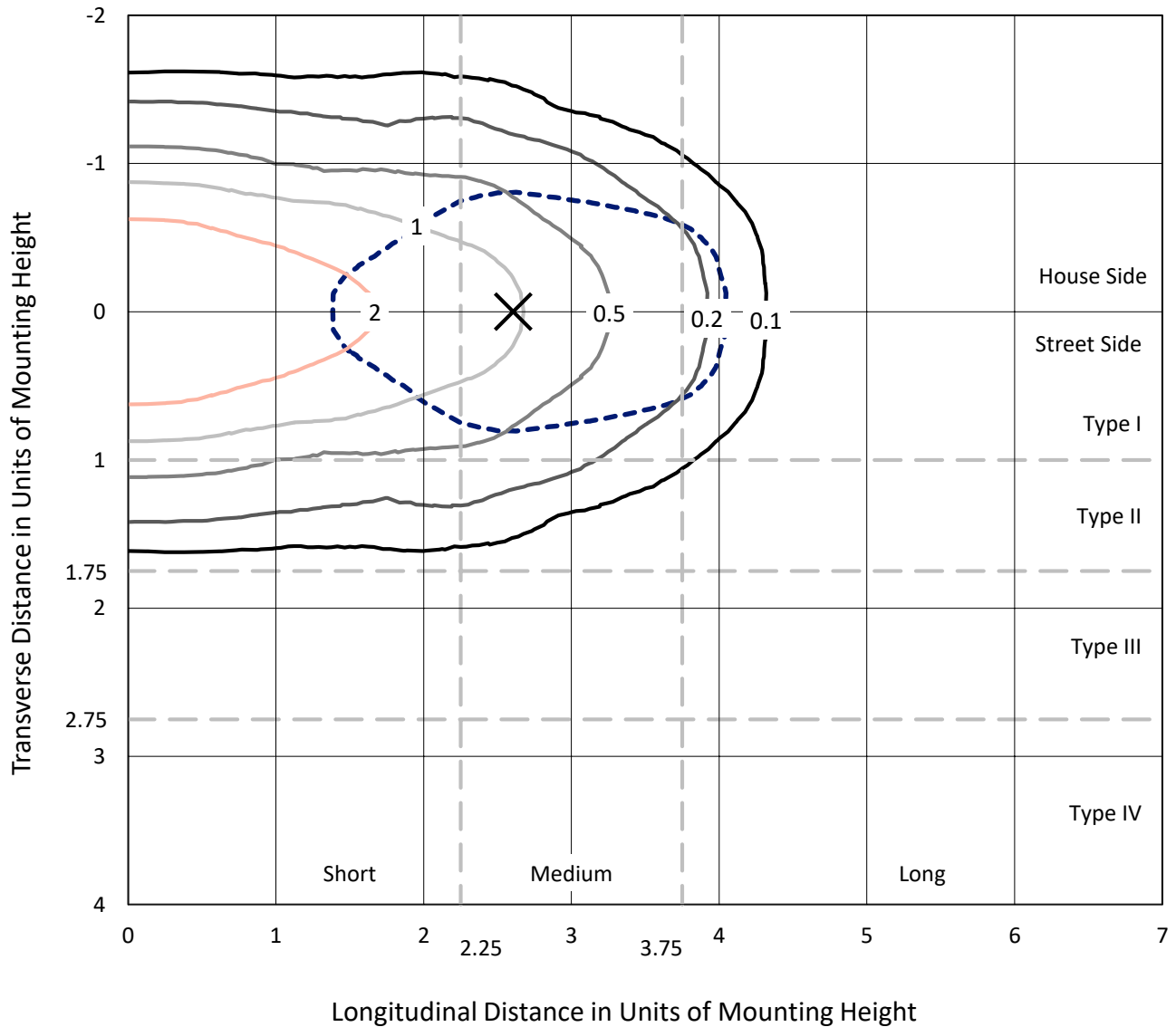
Input Watts (W): 25.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

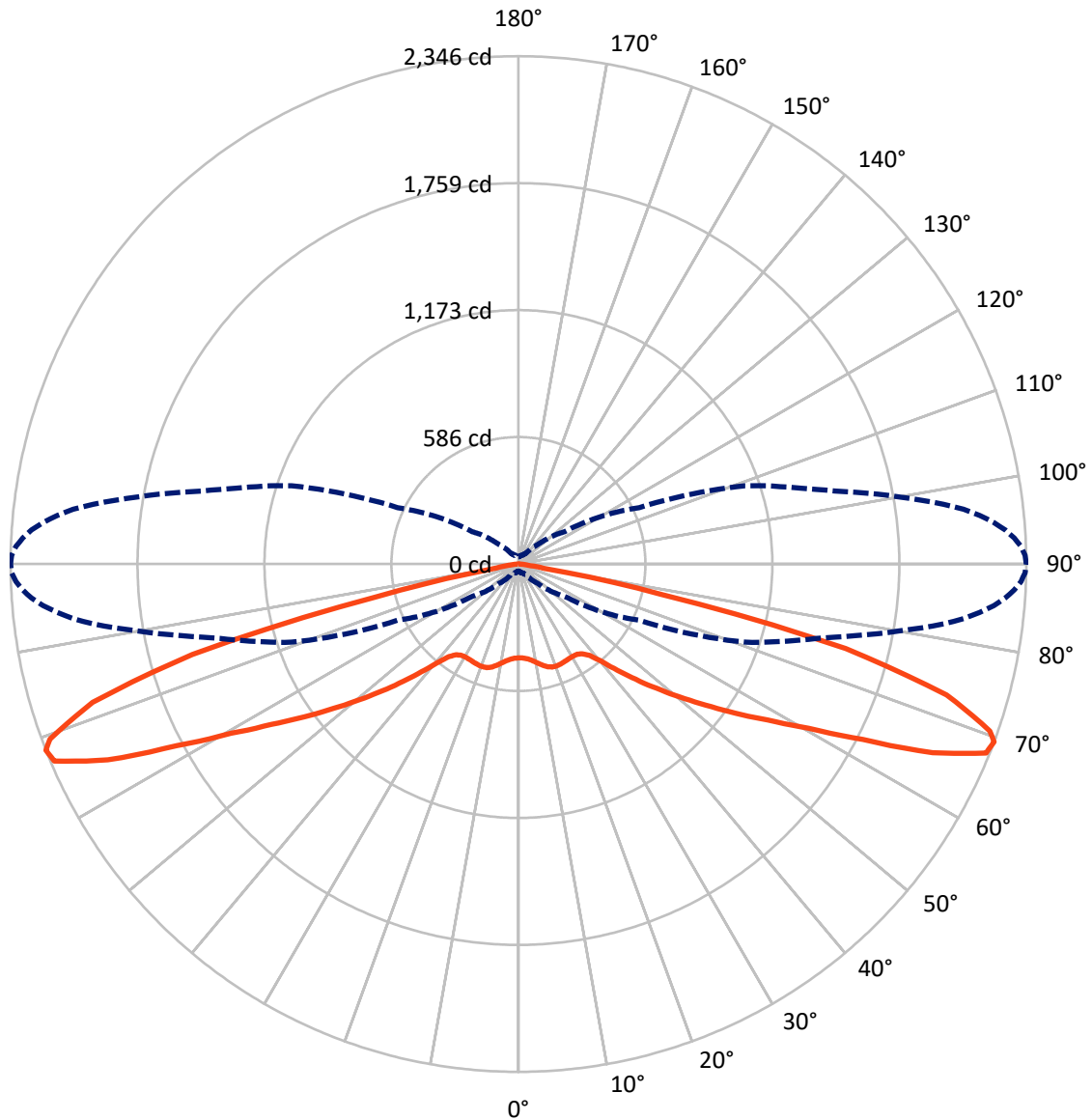
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 4.4 fc
 Type I - Short - Full Cutoff

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Luminous Intensity Polar Plot



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

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1132.4	0.0	1132.4
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1132.4	0.0	1132.4
	% Fixture	50.0	0.0	50.0
Total	Lumens	2264.7	0.0	2264.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.4	1.9
10°-20°	133.6	5.9
20°-30°	216.4	9.6
30°-40°	269.6	11.9
40°-50°	335.7	14.8
50°-60°	411.9	18.2
60°-70°	507.9	22.4
70°-80°	315.8	13.9
80°-90°	31.4	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°	2264.7	100.0
0°-180°	2264.7	100.0



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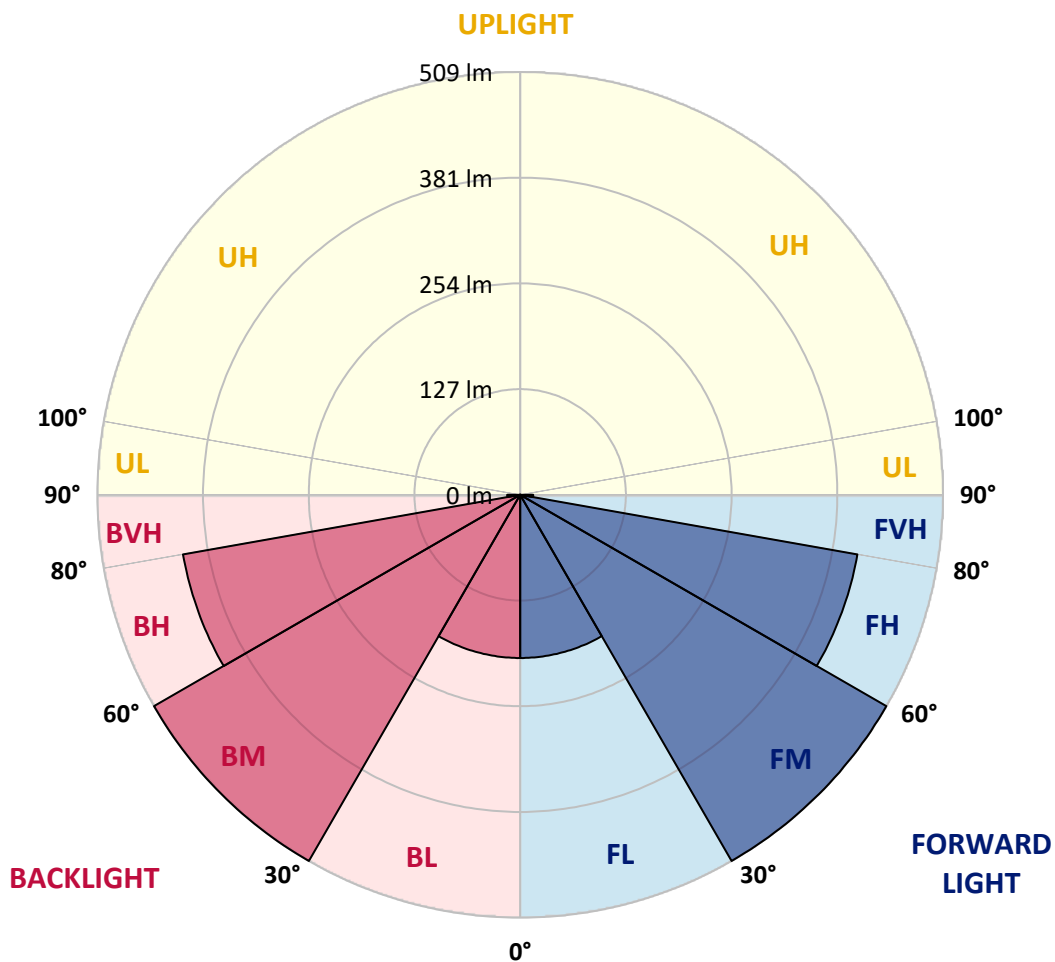
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	196.3	8.7			
FM	(30°-60°)	508.6	22.5			
FH	(60°-80°)	411.9	18.2			G0/660
FVH	(80°-90°)	15.7	0.7			G1/100
BL	(0°-30°)	196.3	8.7	B1/500		
BM	(30°-60°)	508.6	22.5	B1/1000		
BH	(60°-80°)	411.9	18.2	B1/500		G1/500
BVH	(80°-90°)	15.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7
2.5°	434.8	434.4	435.2	436.0	435.8	435.8	435.6	435.2	435.2	435.3	435.3
5°	438.2	437.8	438.6	439.2	439.4	440.0	440.1	439.9	440.0	440.1	440.2
7.5°	442.3	441.9	442.8	443.8	445.6	446.4	447.4	448.2	448.3	448.4	448.5
10°	446.2	445.9	447.5	449.4	452.2	454.4	457.0	459.4	459.6	459.8	460.0
12.5°	448.6	448.6	451.0	454.6	459.4	463.8	468.0	472.3	472.7	473.1	473.5
15°	448.4	448.8	452.4	459.0	467.2	474.8	480.2	484.8	485.2	485.6	485.9
17.5°	445.4	445.4	450.8	461.0	474.0	485.4	492.3	494.8	494.9	495.0	495.2
20°	436.8	437.4	444.8	459.8	479.4	494.9	501.5	500.4	500.2	500.0	499.8
22.5°	421.9	422.6	432.6	452.7	480.3	501.1	507.8	503.2	502.4	501.7	501.0
25°	401.2	402.5	413.2	439.0	473.7	503.0	512.0	504.4	503.3	502.2	501.0
27.5°	377.3	377.9	390.6	417.7	458.2	496.8	514.0	507.1	505.7	504.2	502.8
30°	349.6	351.2	364.5	392.8	436.4	482.8	513.2	512.2	510.6	509.0	507.4
32.5°	322.1	323.5	336.5	367.0	411.3	463.4	509.4	520.0	518.6	517.3	516.0
35°	294.4	296.0	309.4	342.2	386.4	441.2	503.4	531.0	530.5	529.9	529.3
37.5°	270.0	271.0	284.2	318.3	364.5	420.8	495.6	545.9	547.2	548.5	549.8
40°	245.2	246.2	260.0	294.8	344.4	403.5	488.5	564.6	568.1	571.7	575.2
42.5°	221.4	222.3	235.6	270.4	322.0	388.5	484.2	587.2	594.0	600.8	607.6
45°	196.9	197.6	210.0	244.0	296.4	371.0	483.1	612.6	622.4	632.2	642.1
47.5°	172.9	174.4	187.2	219.3	267.2	346.0	481.4	640.8	653.8	666.8	679.8
50°	149.8	151.5	164.8	195.2	239.0	316.3	473.0	672.6	688.5	704.4	720.2
52.5°	126.4	128.0	141.3	170.4	212.8	282.8	449.4	706.1	725.0	743.8	762.7
55°	101.4	102.0	115.7	144.9	186.7	254.8	412.0	736.8	759.7	782.5	805.4
57.5°	73.8	75.8	89.3	116.4	160.0	230.0	364.3	752.5	781.0	809.5	838.0
60°	53.2	54.6	66.4	87.8	129.8	205.6	322.0	741.0	779.1	817.2	855.2
62.5°	42.1	43.6	52.7	66.2	100.4	178.8	294.4	709.6	763.0	816.4	869.8
65°	37.2	38.6	47.0	53.6	76.8	151.3	277.0	678.4	750.5	822.6	894.7
67.5°	34.0	35.4	42.8	47.3	63.4	133.6	268.9	654.9	738.2	821.4	904.6
69°	32.5	33.8	40.6	44.8	59.8	127.5	260.0	615.2	697.7	780.2	862.7
70°	31.7	32.8	39.0	43.2	58.4	122.6	247.0	567.8	647.4	727.0	806.6
72.5°	29.4	30.1	35.2	39.2	53.4	97.8	186.3	400.6	468.1	535.6	603.1
75°	26.0	26.9	31.6	35.2	40.8	58.8	116.6	232.6	278.8	325.0	371.3
77.5°	22.3	23.4	27.1	32.9	32.8	38.3	70.8	133.6	156.0	178.5	201.0
80°	19.2	20.1	23.4	32.5	27.4	30.4	52.8	99.6	108.6	117.7	126.8
82.5°	15.0	15.8	19.7	26.8	22.0	23.0	40.2	90.7	96.8	103.0	109.1
85°	9.4	9.8	14.4	18.5	15.6	14.0	25.8	69.8	74.3	78.7	83.2
87.5°	3.8	4.6	7.0	6.6	6.7	5.6	8.4	25.2	27.5	29.8	32.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7
2.5°	435.3	435.4	435.2	435.0	435.2	435.0	435.0	435.2	435.2	435.2	435.0
5°	440.3	440.4	440.4	440.0	440.2	440.2	440.4	440.2	440.2	440.4	440.1
7.5°	448.6	448.6	448.9	449.1	448.9	449.0	449.2	449.0	448.8	449.3	448.9
10°	460.2	460.4	460.4	461.1	460.8	461.0	461.7	461.6	461.3	461.8	461.7
12.5°	473.9	474.2	474.2	474.1	474.4	474.6	475.4	475.6	475.7	476.5	476.2
15°	486.3	486.7	487.0	487.2	487.7	487.8	488.3	488.6	488.8	489.2	489.3
17.5°	495.3	495.4	495.9	495.7	496.4	496.2	496.8	497.0	497.2	497.6	497.8
20°	499.5	499.3	499.4	499.2	499.2	499.3	499.4	499.7	499.5	499.9	500.2
22.5°	500.2	499.5	499.0	498.6	498.3	497.9	497.8	498.0	497.4	497.8	498.3
25°	499.9	498.8	497.9	497.0	496.2	495.4	495.0	494.8	494.5	494.5	494.8
27.5°	501.4	500.0	498.8	497.2	496.2	495.2	494.2	493.4	492.6	492.5	492.5
30°	505.9	504.3	502.9	501.0	499.4	498.0	496.7	495.6	494.2	493.6	492.9
32.5°	514.7	513.4	511.4	509.8	507.8	506.2	504.4	502.7	501.0	499.5	498.9
35°	528.7	528.2	527.1	526.0	524.1	522.0	520.4	518.6	516.6	514.4	513.8
37.5°	551.1	552.4	551.8	551.0	550.4	549.8	547.7	546.4	545.2	543.4	543.0
40°	578.8	582.3	585.8	588.2	587.3	590.2	590.6	590.8	589.7	591.2	591.5
42.5°	614.4	621.2	627.6	632.3	637.7	641.8	647.0	649.4	653.7	658.0	660.6
45°	651.9	661.7	670.9	680.4	689.9	700.2	710.2	717.4	727.7	735.3	740.2
47.5°	692.8	705.8	716.8	731.2	744.8	757.0	774.6	788.6	801.2	813.3	825.8
50°	736.1	751.9	765.6	783.0	799.6	818.8	839.4	857.3	877.0	896.2	913.0
52.5°	781.6	800.4	818.8	836.7	856.8	877.6	900.0	926.0	949.6	978.3	998.9
55°	828.2	851.0	870.6	889.3	910.7	933.8	960.3	991.0	1021.0	1052.5	1083.8
57.5°	866.5	895.0	916.4	938.4	961.3	984.2	1017.2	1048.6	1086.8	1125.4	1164.4
60°	893.3	931.4	957.2	985.0	1011.6	1039.3	1074.8	1114.6	1162.3	1209.0	1262.1
62.5°	923.2	976.6	1012.8	1049.8	1082.2	1115.5	1163.0	1208.8	1270.1	1323.9	1390.8
65°	966.7	1038.8	1092.2	1142.0	1185.5	1230.9	1287.2	1344.4	1414.6	1489.0	1572.8
67.5°	987.8	1071.0	1141.0	1202.6	1258.0	1315.8	1374.0	1441.7	1520.7	1610.3	1702.3
69°	945.2	1027.7	1108.0	1170.4	1228.8	1290.6	1352.7	1421.1	1498.9	1591.8	1689.3
70°	886.2	965.8	1051.3	1113.8	1172.7	1236.8	1300.1	1369.1	1443.6	1539.3	1637.9
72.5°	670.6	738.1	821.0	887.0	949.0	1013.8	1079.0	1138.8	1214.3	1306.4	1397.3
75°	417.5	463.8	538.4	604.6	654.5	710.0	771.2	827.8	903.6	969.0	1056.4
77.5°	223.4	245.9	289.4	336.9	364.6	391.7	431.6	462.4	494.2	532.0	568.2
80°	135.8	144.8	159.7	170.0	166.1	155.0	151.5	140.4	144.4	137.6	132.7
82.5°	115.3	121.4	130.4	136.6	132.1	114.4	94.4	79.4	68.8	58.8	49.9
85°	87.7	92.1	96.8	99.6	99.4	90.6	71.9	55.8	43.4	33.6	28.0
87.5°	34.4	36.6	40.0	39.5	41.2	41.6	32.5	25.1	17.8	12.0	10.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	80°	81°	82°	83°	84°	85°	86°	87°	88°	89°	90°
0°	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7	433.7
2.5°	434.8	434.7	434.8	435.0	435.0	435.2	435.0	435.0	434.8	434.6	434.8
5°	440.1	440.0	440.1	440.2	440.2	440.1	440.4	440.4	440.4	440.1	440.2
7.5°	449.3	449.4	449.2	449.9	449.2	449.3	449.8	449.7	449.5	449.6	449.7
10°	462.1	462.0	462.2	462.6	462.0	462.4	463.0	463.2	462.8	462.7	462.8
12.5°	476.3	476.9	477.0	477.3	477.2	477.6	477.7	477.8	478.1	478.2	477.7
15°	489.9	490.3	490.6	490.9	490.6	491.0	491.7	491.7	491.6	491.9	491.5
17.5°	498.2	498.6	499.1	499.0	499.1	499.6	500.0	500.1	500.2	500.2	500.4
20°	500.9	501.1	501.4	501.8	501.9	502.3	502.6	502.8	503.0	502.8	502.9
22.5°	498.8	499.0	499.7	499.9	500.0	500.6	501.0	501.2	501.3	501.5	501.3
25°	495.2	495.4	496.0	496.3	496.4	497.0	497.4	498.0	498.0	498.2	498.2
27.5°	492.6	492.8	493.2	493.6	493.6	494.3	494.8	495.2	495.3	495.4	495.4
30°	492.7	492.7	493.3	493.4	493.2	493.8	494.2	494.4	494.6	494.6	494.6
32.5°	498.0	497.6	498.1	497.4	497.5	497.4	497.4	497.6	497.4	497.4	497.2
35°	512.7	511.8	511.2	511.4	510.4	508.9	509.7	509.4	508.4	508.6	508.8
37.5°	540.8	540.0	540.8	540.1	540.3	538.2	538.7	536.8	536.3	537.0	535.0
40°	590.9	590.6	592.0	591.3	591.8	592.4	592.8	591.0	588.0	590.8	590.8
42.5°	660.2	663.6	665.0	667.0	668.9	668.0	669.8	670.3	667.0	669.6	670.1
45°	747.3	750.9	755.1	756.4	759.7	760.2	761.6	761.9	758.8	759.2	759.9
47.5°	838.4	845.1	850.0	853.5	857.0	857.6	858.4	857.0	857.2	857.9	857.9
50°	928.0	942.2	951.0	957.9	963.8	960.7	963.4	963.6	964.5	962.6	963.8
52.5°	1022.2	1040.9	1055.7	1067.2	1070.9	1081.9	1077.4	1080.8	1083.2	1079.7	1082.0
55°	1114.2	1141.0	1164.7	1181.4	1193.2	1204.4	1206.1	1215.0	1214.0	1217.4	1215.9
57.5°	1201.6	1239.0	1272.9	1297.8	1314.6	1331.7	1343.2	1353.0	1354.0	1363.8	1358.2
60°	1307.4	1359.5	1403.2	1440.2	1465.1	1490.4	1510.4	1526.4	1530.2	1546.8	1541.3
62.5°	1450.2	1513.8	1569.5	1612.9	1668.4	1695.2	1734.1	1758.4	1773.6	1777.7	1785.5
65°	1650.8	1733.6	1807.2	1876.5	1939.0	1982.4	2027.4	2063.6	2092.6	2090.2	2102.1
67.5°	1799.8	1894.3	1982.9	2066.0	2133.2	2189.0	2240.8	2280.0	2305.9	2322.4	2329.4
69°	1784.3	1885.6	1983.4	2072.2	2141.6	2203.9	2254.2	2292.8	2322.5	2340.4	2345.7
70°	1732.6	1836.8	1938.6	2025.8	2096.6	2165.0	2216.3	2259.2	2287.5	2307.0	2310.1
72.5°	1498.7	1611.6	1701.6	1796.7	1864.8	1934.0	1966.4	2019.4	2056.4	2068.3	2068.1
75°	1130.4	1224.5	1303.6	1373.9	1434.9	1481.8	1497.0	1534.9	1565.6	1565.1	1562.3
77.5°	608.7	630.9	660.5	670.4	689.2	688.9	670.1	676.0	693.4	659.7	670.6
80°	130.6	128.6	127.0	126.0	125.4	125.7	126.4	122.1	126.2	124.4	116.4
82.5°	45.4	44.4	43.4	44.1	43.6	44.0	43.9	44.4	44.3	44.2	43.1
85°	25.6	24.6	24.2	24.5	23.6	23.0	22.4	22.2	22.1	21.5	21.3
87.5°	9.8	9.6	9.6	9.2	8.3	7.6	7.2	6.2	5.9	5.4	5.0
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)