

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: P144521

Luminaire Tested: **LDRL-RW-E01-E-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144521
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-7050
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (21) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3082.1 lumens
Efficiency: N/A
Efficacy: 124.8 lumens/watt
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

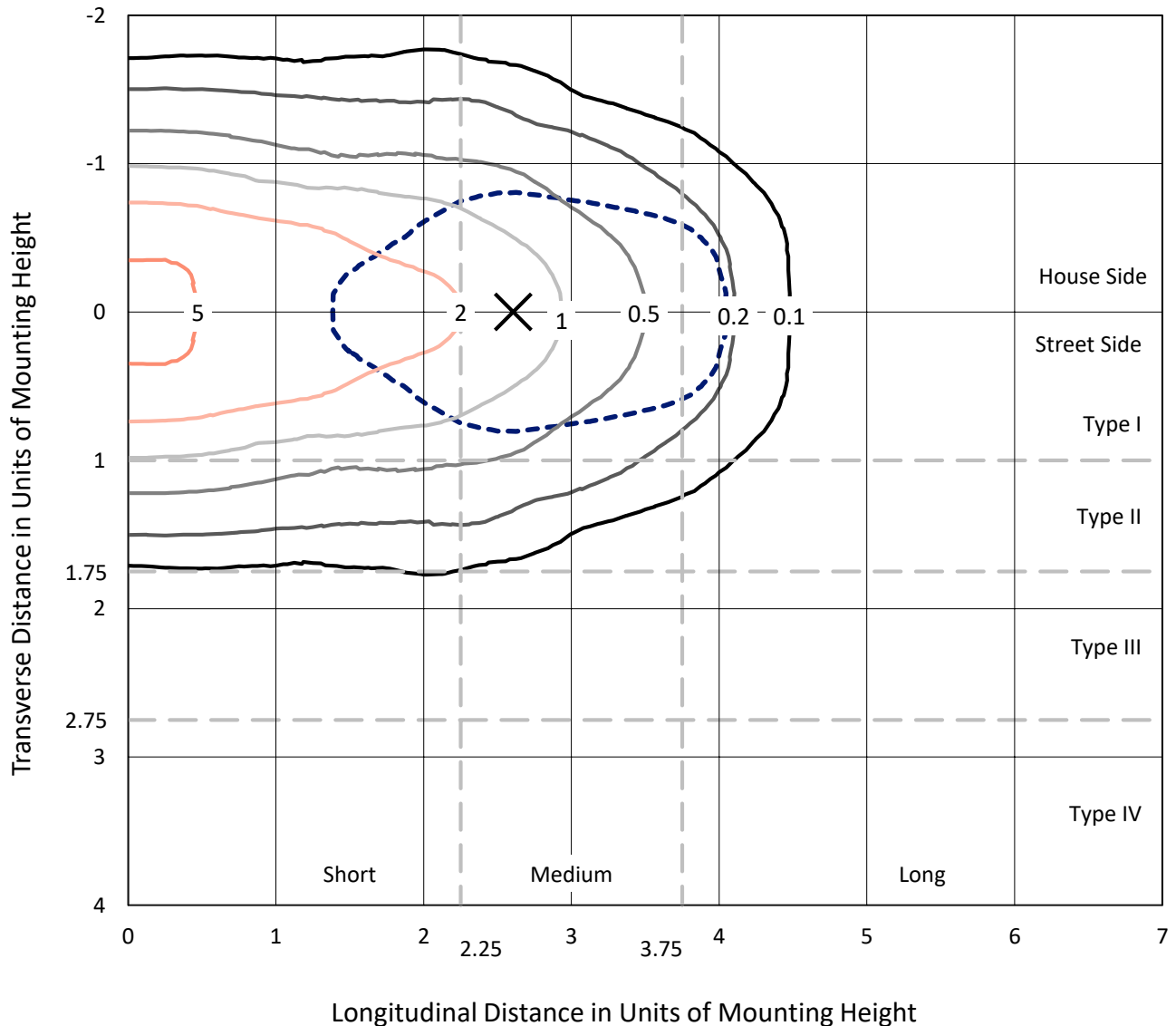
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

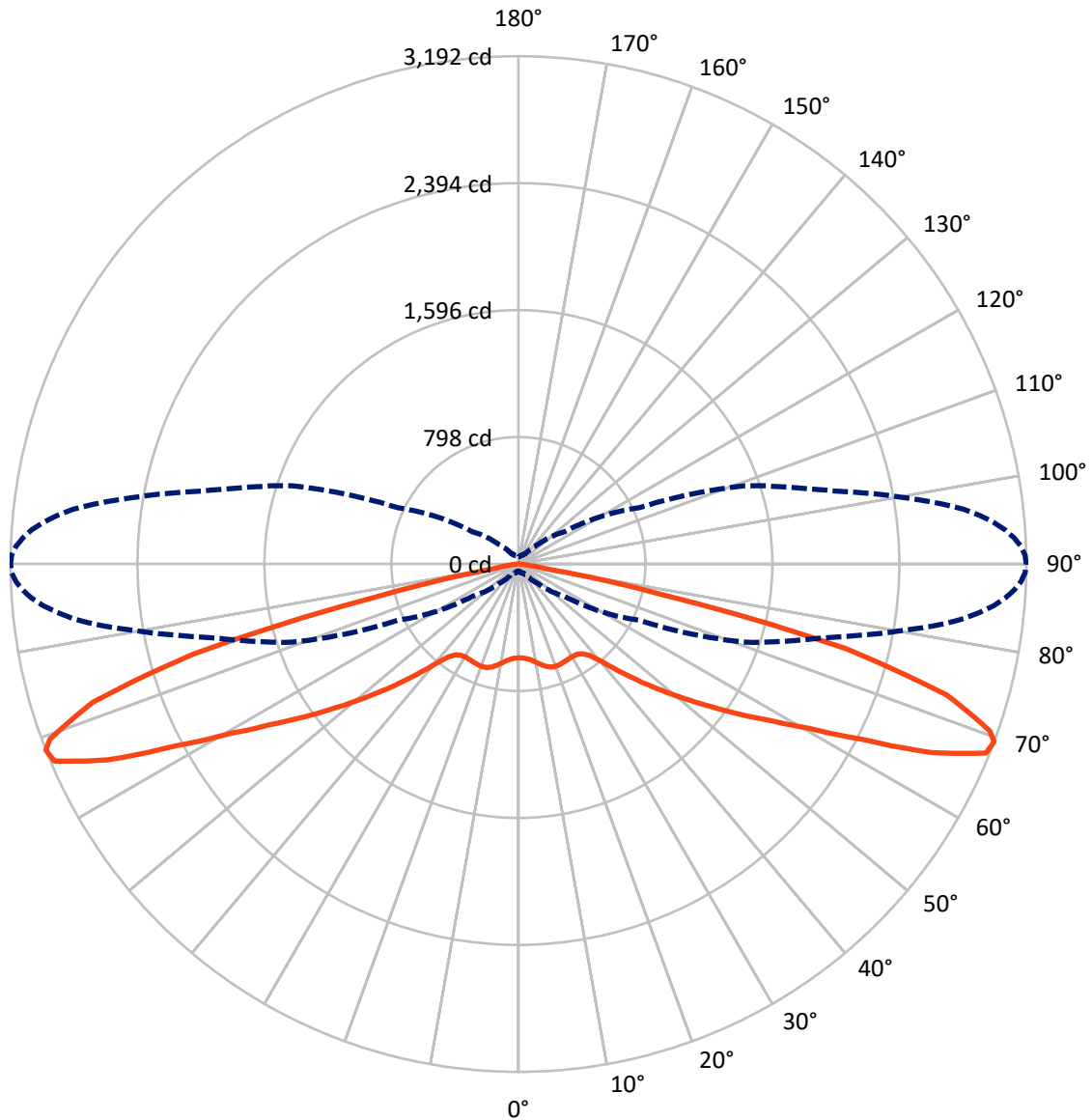
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6 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	1541.0	0.0	1541.0
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1541.0	0.0	1541.0
	% Fixture	50.0	0.0	50.0
Total	Lumens	3082.1	0.0	3082.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	57.7	1.9
10°-20°	181.9	5.9
20°-30°	294.5	9.6
30°-40°	366.9	11.9
40°-50°	456.8	14.8
50°-60°	560.5	18.2
60°-70°	691.3	22.4
70°-80°	429.7	13.9
80°-90°	42.7	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°	3082.1	100.0
0°-180°	3082.1	100.0



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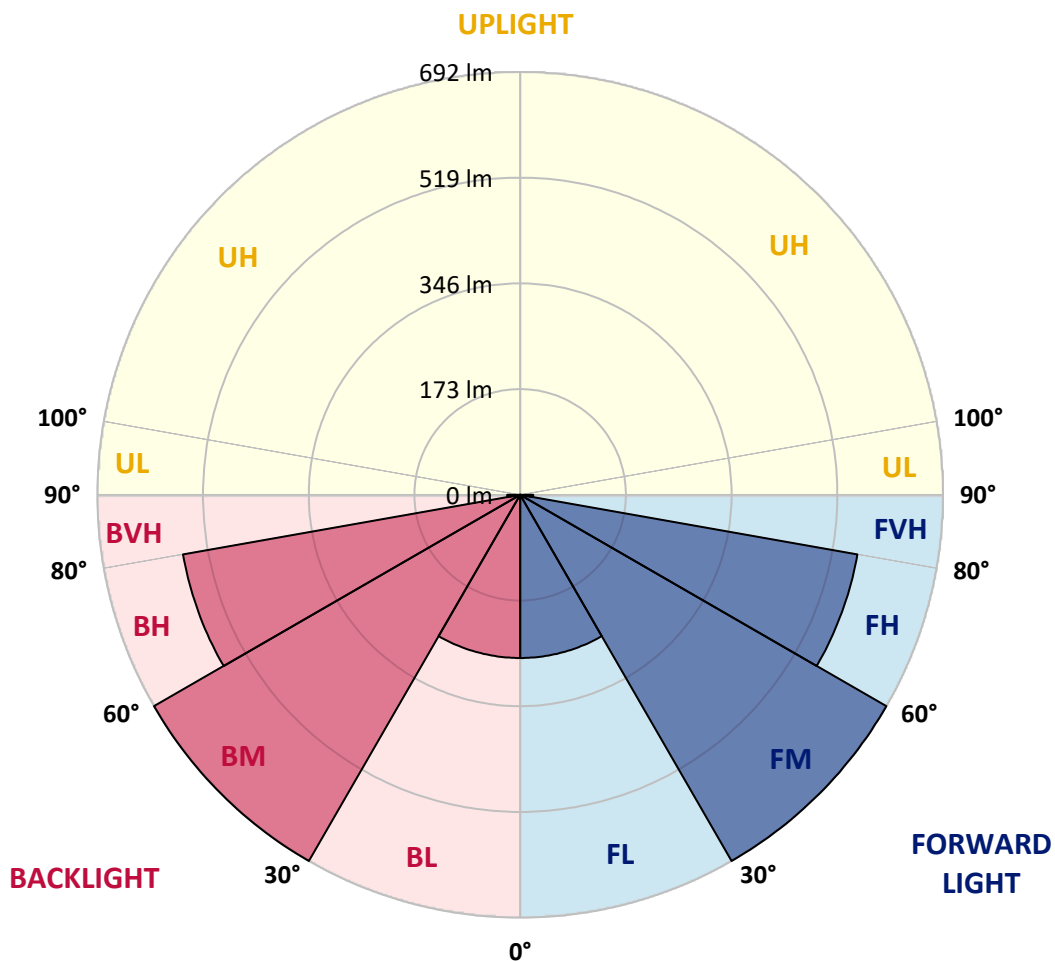
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	267.1	8.7			
FM (30°-60°)	692.1	22.5			
FH (60°-80°)	560.5	18.2			G0/660
FVH (80°-90°)	21.3	0.7			G1/100
BL (0°-30°)	267.1	8.7	B1/500		
BM (30°-60°)	692.1	22.5	B1/1000		
BH (60°-80°)	560.5	18.2	B2/1000		G2/1000
BVH (80°-90°)	21.3	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	66°	67°	68°
0°	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2
2.5°	591.8	591.2	592.2	593.3	593.0	593.2	592.8	592.3	592.3	592.4	592.4
5°	596.4	595.8	596.8	597.7	598.0	598.8	599.0	598.6	598.8	598.9	599.1
7.5°	602.0	601.4	602.8	604.0	606.3	607.6	608.8	610.0	610.1	610.2	610.3
10°	607.2	606.8	609.0	611.6	615.4	618.3	621.8	625.2	625.5	625.7	626.0
12.5°	610.6	610.6	613.8	618.7	625.2	631.1	637.0	642.8	643.3	643.8	644.4
15°	610.3	610.8	615.8	624.6	635.9	646.2	653.6	659.8	660.3	660.8	661.3
17.5°	606.2	606.2	613.4	627.5	645.2	660.5	670.0	673.3	673.5	673.7	673.9
20°	594.3	595.2	605.3	625.7	652.3	673.6	682.5	681.0	680.7	680.4	680.1
22.5°	574.1	575.1	588.7	616.1	653.7	682.0	691.2	684.7	683.7	682.7	681.8
25°	546.0	547.8	562.4	597.5	644.6	684.4	696.8	686.4	684.9	683.4	681.9
27.5°	513.4	514.3	531.6	568.4	623.6	676.2	699.4	690.0	688.1	686.2	684.3
30°	475.8	478.0	496.0	534.5	593.9	657.1	698.4	697.0	694.9	692.7	690.6
32.5°	438.4	440.2	458.0	499.4	559.8	630.6	693.2	707.6	705.8	704.0	702.2
35°	400.6	402.8	421.1	465.6	525.8	600.4	685.2	722.7	721.9	721.1	720.4
37.5°	367.5	368.9	386.8	433.2	496.0	572.8	674.6	742.9	744.7	746.4	748.2
40°	333.7	335.2	354.0	401.3	468.6	549.2	664.8	768.4	773.2	778.0	782.8
42.5°	301.3	302.5	320.6	368.0	438.2	528.8	659.0	799.2	808.4	817.6	826.9
45°	268.0	268.8	285.9	332.0	403.4	505.0	657.4	833.7	847.1	860.4	873.8
47.5°	235.3	237.2	254.8	298.5	363.7	470.8	655.2	872.0	889.7	907.4	925.1
50°	204.0	206.2	224.2	265.7	325.3	430.4	643.6	915.4	936.9	958.5	980.1
52.5°	172.0	174.2	192.3	231.9	289.6	384.9	611.6	961.0	986.6	1012.3	1038.0
55°	138.0	138.8	157.4	197.1	254.0	346.8	560.7	1002.7	1033.8	1064.9	1096.0
57.5°	100.4	103.2	121.5	158.4	217.8	313.0	495.8	1024.1	1062.9	1101.7	1140.5
60°	72.4	74.2	90.4	119.4	176.6	279.8	438.2	1008.4	1060.2	1112.1	1163.8
62.5°	57.2	59.3	71.8	90.0	136.6	243.4	400.7	965.7	1038.4	1111.0	1183.7
65°	50.7	52.5	64.0	73.0	104.4	206.0	377.1	923.3	1021.4	1119.4	1217.5
67.5°	46.3	48.2	58.3	64.4	86.3	181.8	365.9	891.2	1004.5	1117.8	1231.1
69°	44.2	46.0	55.2	61.0	81.4	173.6	353.9	837.1	949.4	1061.7	1174.0
70°	43.1	44.6	53.0	58.8	79.4	166.8	336.2	772.7	881.0	989.4	1097.7
72.5°	39.9	41.0	48.0	53.4	72.6	133.2	253.6	545.2	637.0	728.9	820.8
75°	35.4	36.6	42.9	47.8	55.4	80.0	158.8	316.4	379.4	442.3	505.3
77.5°	30.4	31.8	37.0	44.7	44.6	52.2	96.4	181.8	212.3	242.9	273.5
80°	26.1	27.3	31.9	44.2	37.4	41.2	71.8	135.6	147.9	160.2	172.5
82.5°	20.4	21.4	26.8	36.6	29.8	31.4	54.7	123.4	131.8	140.2	148.5
85°	12.8	13.2	19.5	25.2	21.2	19.0	35.2	95.0	101.1	107.2	113.2
87.5°	5.2	6.2	9.4	9.0	9.2	7.6	11.4	34.2	37.4	40.5	43.6
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):

	69°	70°	71°	72°	73°	74°	75°	76°	77°	78°	79°
0°	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2
2.5°	592.5	592.5	592.3	592.0	592.2	592.0	592.0	592.4	592.2	592.2	592.0
5°	599.2	599.4	599.4	598.8	599.0	599.2	599.2	599.0	599.1	599.4	599.0
7.5°	610.4	610.6	610.8	611.2	611.0	611.0	611.2	611.0	610.8	611.5	610.9
10°	626.3	626.6	626.6	627.4	627.0	627.3	628.2	628.3	627.8	628.5	628.3
12.5°	644.9	645.4	645.4	645.2	645.7	646.0	647.0	647.2	647.4	648.5	648.1
15°	661.8	662.3	662.8	663.0	663.7	663.9	664.5	664.9	665.2	665.6	665.8
17.5°	674.1	674.2	674.8	674.6	675.6	675.4	676.1	676.4	676.8	677.2	677.6
20°	679.8	679.4	679.6	679.3	679.3	679.5	679.6	680.0	679.8	680.3	680.7
22.5°	680.8	679.8	679.2	678.4	678.2	677.5	677.6	677.8	677.0	677.6	678.2
25°	680.3	678.8	677.6	676.4	675.2	674.2	673.6	673.4	673.0	672.9	673.4
27.5°	682.4	680.4	678.8	676.7	675.3	673.8	672.5	671.4	670.4	670.2	670.2
30°	688.4	686.2	684.4	681.8	679.6	677.8	675.9	674.4	672.6	671.7	670.8
32.5°	700.4	698.6	696.0	693.8	691.1	688.8	686.3	684.1	681.8	679.8	679.0
35°	719.6	718.8	717.4	715.8	713.2	710.4	708.3	705.7	703.0	700.1	699.2
37.5°	749.9	751.7	750.9	749.8	749.0	748.1	745.4	743.7	741.9	739.4	738.9
40°	787.6	792.4	797.3	800.4	799.3	803.1	803.8	804.0	802.6	804.6	805.0
42.5°	836.2	845.4	854.2	860.5	867.9	873.4	880.6	883.7	889.5	895.6	899.0
45°	887.1	900.5	913.0	926.1	938.9	952.9	966.6	976.2	990.3	1000.8	1007.4
47.5°	942.8	960.5	975.5	995.0	1013.6	1030.2	1054.1	1073.3	1090.4	1106.8	1123.9
50°	1001.7	1023.3	1041.8	1065.6	1088.2	1114.2	1142.2	1166.7	1193.6	1219.6	1242.6
52.5°	1063.6	1089.3	1114.2	1138.6	1166.1	1194.4	1224.8	1260.1	1292.2	1331.4	1359.4
55°	1127.1	1158.2	1184.8	1210.3	1239.3	1270.8	1306.8	1348.6	1389.6	1432.4	1474.8
57.5°	1179.3	1218.1	1247.2	1277.0	1308.3	1339.4	1384.2	1427.0	1478.9	1531.4	1584.6
60°	1215.6	1267.4	1302.6	1340.4	1376.6	1414.4	1462.8	1516.8	1581.8	1645.4	1717.6
62.5°	1256.3	1329.0	1378.4	1428.8	1472.8	1518.1	1582.8	1645.0	1728.4	1801.8	1892.6
65°	1315.6	1413.6	1486.3	1554.2	1613.4	1675.1	1751.8	1829.6	1925.1	2026.4	2140.4
67.5°	1344.3	1457.6	1552.7	1636.6	1712.0	1790.8	1869.8	1962.0	2069.6	2191.4	2316.6
69°	1286.3	1398.6	1507.9	1592.8	1672.2	1756.3	1841.0	1933.9	2039.8	2166.4	2299.0
70°	1206.1	1314.4	1430.7	1515.6	1595.9	1683.2	1769.4	1863.2	1964.4	2094.8	2229.0
72.5°	912.6	1004.4	1117.3	1207.1	1291.4	1379.6	1468.4	1549.8	1652.6	1778.0	1901.6
75°	568.2	631.2	732.6	822.8	890.6	966.2	1049.5	1126.6	1229.8	1318.6	1437.6
77.5°	304.1	334.6	393.8	458.4	496.2	533.0	587.4	629.2	672.6	724.0	773.2
80°	184.8	197.2	217.3	231.2	226.0	211.0	206.2	191.0	196.5	187.2	180.6
82.5°	156.9	165.2	177.5	186.0	179.8	155.6	128.4	108.0	93.7	80.0	68.0
85°	119.3	125.4	131.8	135.6	135.2	123.2	97.9	75.8	59.1	45.8	38.0
87.5°	46.7	49.8	54.5	53.8	56.1	56.5	44.2	34.2	24.3	16.4	14.4
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°	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2	590.2
2.5°	591.7	591.6	591.6	592.0	592.0	592.2	592.0	592.1	591.8	591.4	591.7
5°	599.0	598.8	599.0	599.2	599.2	599.0	599.4	599.4	599.2	599.0	599.0
7.5°	611.4	611.6	611.2	612.2	611.4	611.4	612.0	612.0	611.8	611.9	612.0
10°	628.9	628.8	629.0	629.6	628.7	629.4	630.0	630.2	629.7	629.7	629.8
12.5°	648.2	649.0	649.2	649.6	649.6	650.0	650.2	650.2	650.7	650.8	650.1
15°	666.7	667.2	667.7	668.1	667.6	668.3	669.1	669.1	669.0	669.4	668.8
17.5°	678.0	678.6	679.3	679.2	679.3	679.9	680.4	680.6	680.8	680.8	680.9
20°	681.7	682.0	682.3	682.8	683.0	683.6	684.0	684.3	684.5	684.3	684.4
22.5°	678.8	679.2	680.0	680.3	680.4	681.3	681.8	682.0	682.2	682.4	682.2
25°	673.8	674.2	675.1	675.4	675.6	676.4	676.9	677.7	677.8	678.0	678.1
27.5°	670.5	670.6	671.3	671.7	671.8	672.7	673.4	674.0	674.0	674.2	674.2
30°	670.6	670.6	671.3	671.4	671.3	672.1	672.5	672.8	673.0	673.0	673.1
32.5°	677.6	677.2	677.8	676.9	677.0	676.9	676.8	677.2	677.0	677.0	676.6
35°	697.6	696.5	695.6	696.0	694.6	692.5	693.7	693.2	692.0	692.1	692.4
37.5°	736.0	734.9	735.9	735.0	735.3	732.4	733.2	730.6	729.9	730.8	728.1
40°	804.2	803.6	805.6	804.8	805.3	806.1	806.8	804.3	800.2	804.0	804.1
42.5°	898.6	903.2	905.0	907.6	910.4	909.2	911.6	912.3	907.8	911.2	912.0
45°	1017.0	1021.9	1027.6	1029.4	1033.9	1034.5	1036.4	1036.9	1032.8	1033.2	1034.1
47.5°	1141.0	1150.1	1156.8	1161.6	1166.2	1167.2	1168.2	1166.2	1166.6	1167.5	1167.5
50°	1262.9	1282.2	1294.2	1303.6	1311.6	1307.4	1311.1	1311.4	1312.6	1310.0	1311.6
52.5°	1391.1	1416.6	1436.8	1452.4	1457.4	1472.4	1466.2	1470.9	1474.1	1469.4	1472.5
55°	1516.3	1552.7	1585.1	1607.8	1623.8	1639.0	1641.4	1653.6	1652.2	1656.8	1654.7
57.5°	1635.3	1686.2	1732.4	1766.2	1789.2	1812.3	1828.0	1841.4	1842.7	1855.9	1848.4
60°	1779.3	1850.2	1909.6	1959.8	1993.8	2028.3	2055.5	2077.4	2082.4	2105.0	2097.6
62.5°	1973.5	2060.0	2136.0	2195.0	2270.6	2307.0	2360.0	2393.0	2413.6	2419.2	2429.8
65°	2246.6	2359.2	2459.4	2553.8	2638.8	2697.9	2759.0	2808.4	2847.8	2844.6	2860.8
67.5°	2449.4	2577.9	2698.4	2811.6	2903.2	2979.1	3049.4	3102.8	3138.0	3160.5	3170.1
69°	2428.2	2566.2	2699.1	2820.0	2914.5	2999.4	3067.9	3120.3	3160.7	3185.1	3192.2
70°	2358.0	2499.7	2638.3	2757.0	2853.1	2946.4	3016.1	3074.6	3113.0	3139.6	3143.8
72.5°	2039.6	2193.1	2315.7	2445.1	2537.8	2632.0	2676.0	2748.3	2798.5	2814.7	2814.4
75°	1538.4	1666.4	1774.2	1869.8	1952.7	2016.6	2037.4	2088.9	2130.5	2130.0	2126.1
77.5°	828.4	858.5	898.8	912.4	938.0	937.6	911.9	920.0	943.6	897.8	912.6
80°	177.7	175.0	172.8	171.5	170.8	171.0	172.0	166.1	171.8	169.3	158.4
82.5°	61.9	60.4	59.0	60.0	59.4	60.0	59.8	60.4	60.3	60.1	58.7
85°	34.8	33.6	32.8	33.4	32.2	31.2	30.5	30.2	30.0	29.4	28.9
87.5°	13.2	13.2	13.0	12.5	11.3	10.4	9.8	8.5	8.0	7.3	6.8
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)