

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: P144518

Luminaire Tested: **LDRL-RW-E01-E-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P144518
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-8030
Description: RL LED ROADWAY LARGE CUTOFF COBRAHEAD LUMINAIRE
(1) LIGHTBARS WITH AccuLED OPTICS - RECTANGULAR WIDE
Light Source: (21) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2535.1 lumens
Efficiency: N/A
Efficacy: 102.6 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

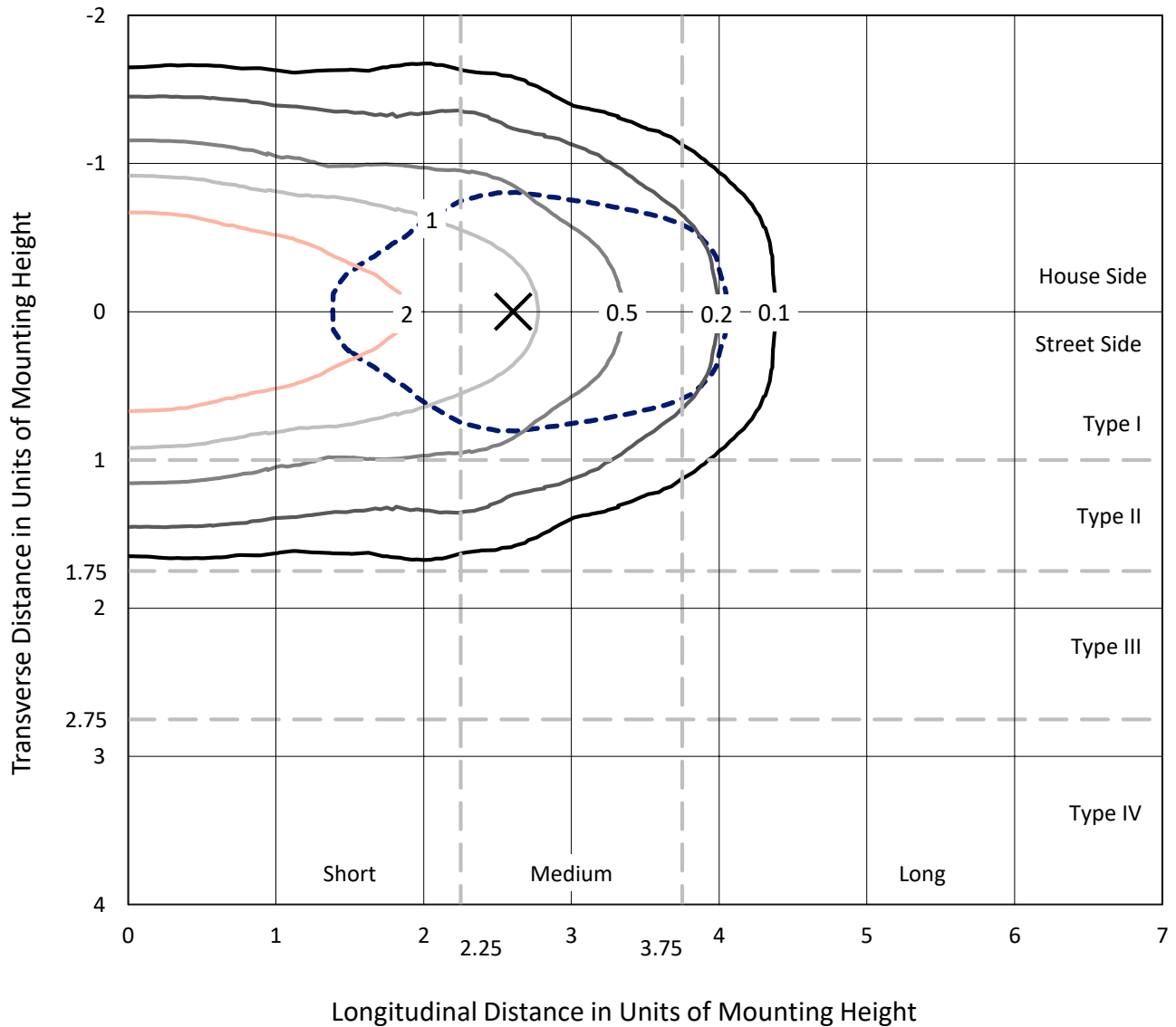
Input Watts (W): 24.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

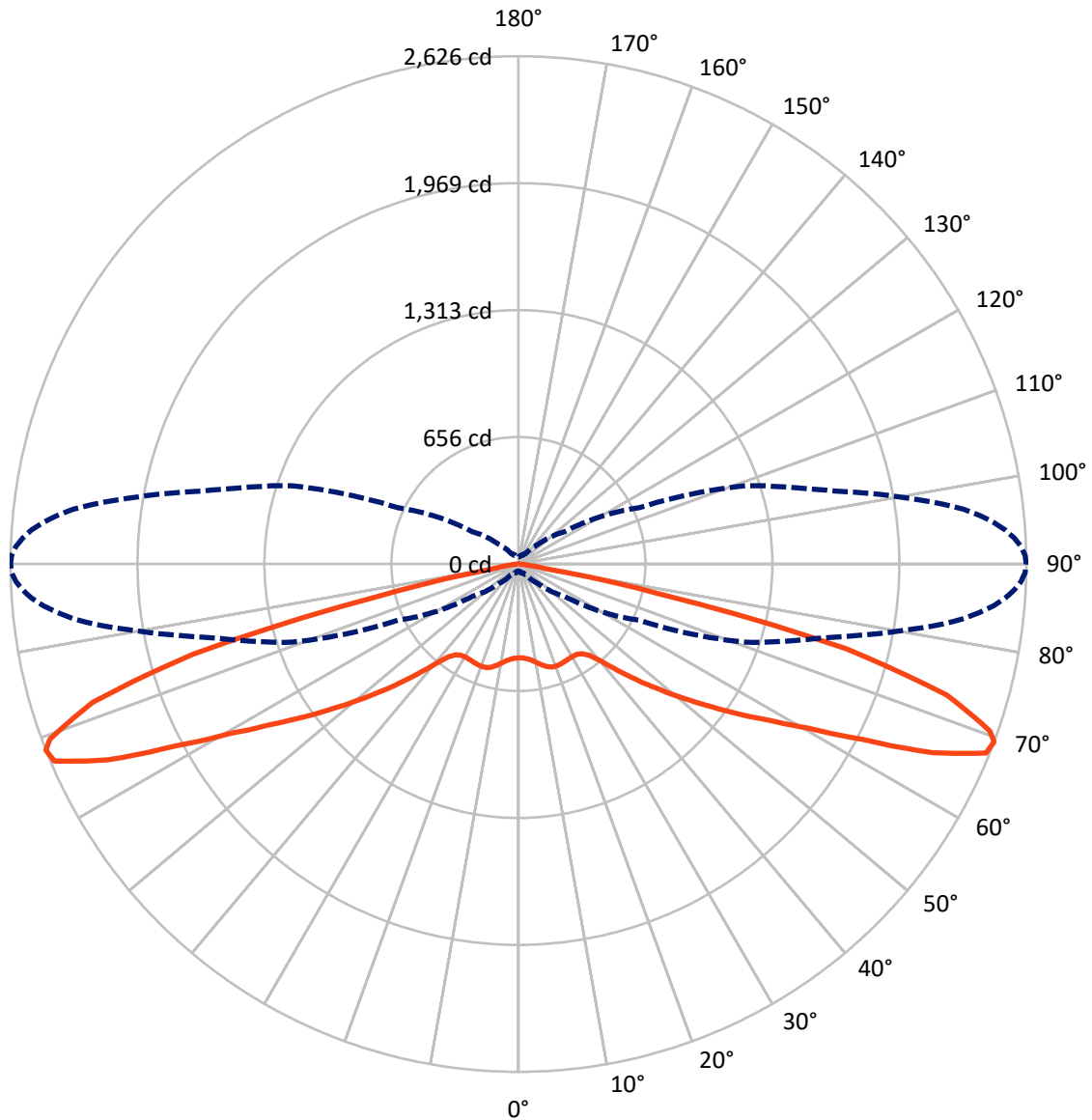
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5 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	1267.5	0.0	1267.5
	% Fixture	50.0	0.0	50.0
Street Side	Lumens	1267.5	0.0	1267.5
	% Fixture	50.0	0.0	50.0
Total	Lumens	2535.1	0.0	2535.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.5	1.9
10°-20°	149.6	5.9
20°-30°	242.3	9.6
30°-40°	301.8	11.9
40°-50°	375.7	14.8
50°-60°	461.0	18.2
60°-70°	568.6	22.4
70°-80°	353.5	13.9
80°-90°	35.1	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°	2535.1	100.0
0°-180°	2535.1	100.0



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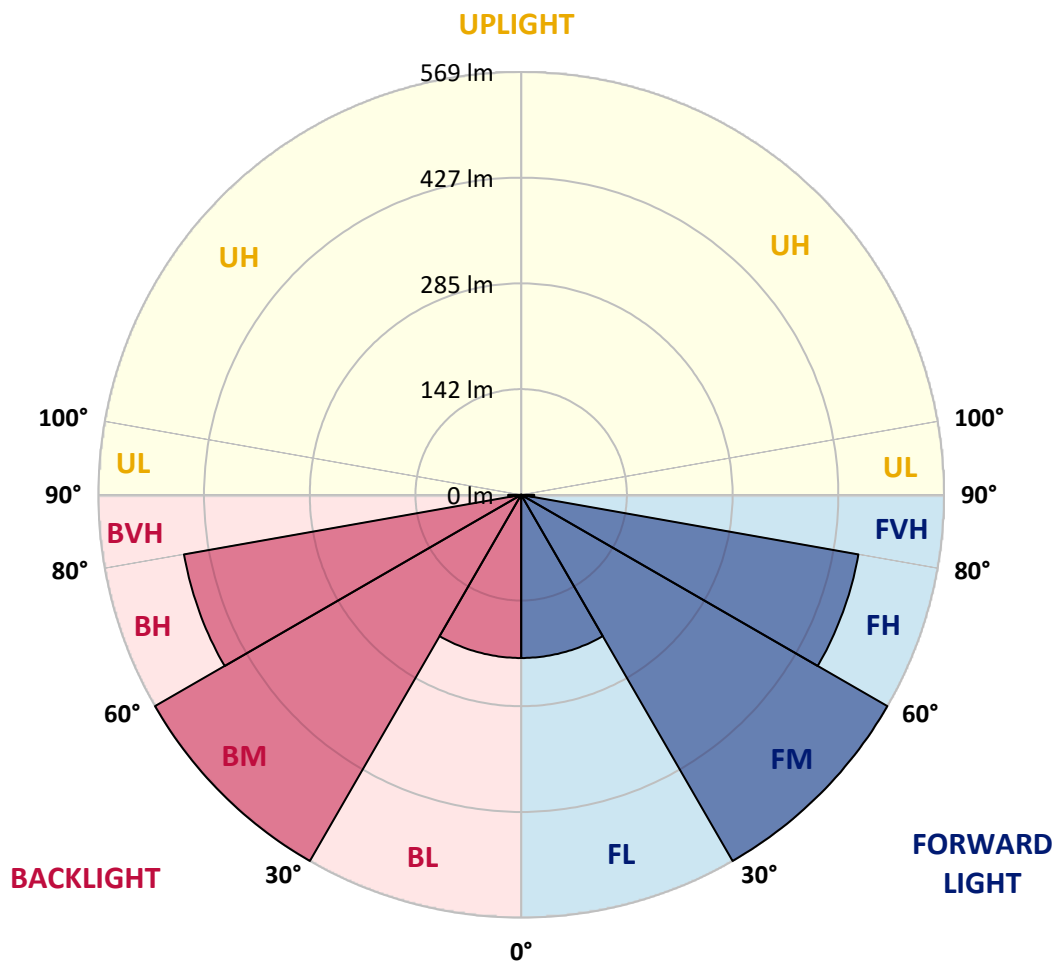
CATALOG NUMBER: LDRL-RW-E01-E-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	219.7	8.7			
FM (30°-60°)	569.3	22.5			
FH (60°-80°)	461.0	18.2			G0/660
FVH (80°-90°)	17.6	0.7			G1/100
BL (0°-30°)	219.7	8.7	B1/500		
BM (30°-60°)	569.3	22.5	B1/1000		
BH (60°-80°)	461.0	18.2	B1/500		G1/500
BVH (80°-90°)	17.6	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°	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5
2.5°	486.8	486.2	487.2	488.0	487.8	488.0	487.6	487.2	487.2	487.2	487.2
5°	490.6	490.0	490.8	491.6	491.9	492.4	492.6	492.4	492.5	492.6	492.7
7.5°	495.0	494.6	495.8	496.8	498.7	499.8	500.8	501.8	501.8	501.9	502.0
10°	499.4	499.2	500.9	503.1	506.2	508.6	511.4	514.2	514.5	514.7	514.9
12.5°	502.2	502.2	504.9	508.8	514.2	519.0	524.0	528.7	529.1	529.6	530.0
15°	502.0	502.4	506.4	513.8	523.0	531.6	537.6	542.7	543.1	543.5	544.0
17.5°	498.6	498.6	504.5	516.1	530.6	543.2	551.0	553.8	554.0	554.2	554.3
20°	488.8	489.5	497.8	514.6	536.6	554.0	561.3	560.2	559.9	559.7	559.4
22.5°	472.2	473.0	484.2	506.8	537.6	561.0	568.5	563.2	562.4	561.6	560.7
25°	449.1	450.6	462.6	491.4	530.2	562.9	573.2	564.6	563.3	562.1	560.8
27.5°	422.4	423.0	437.3	467.6	512.9	556.2	575.2	567.6	566.0	564.4	562.8
30°	391.4	393.2	408.0	439.6	488.5	540.5	574.4	573.3	571.6	569.8	568.0
32.5°	360.6	362.0	376.7	410.8	460.4	518.6	570.2	582.0	580.5	579.0	577.6
35°	329.5	331.4	346.4	383.0	432.5	493.8	563.5	594.4	593.8	593.2	592.5
37.5°	302.2	303.4	318.2	356.2	408.0	471.2	554.8	611.0	612.5	614.0	615.4
40°	274.5	275.6	291.1	330.0	385.4	451.7	546.8	632.0	636.0	639.9	643.9
42.5°	247.8	248.8	263.8	302.6	360.3	434.9	542.0	657.3	664.9	672.5	680.1
45°	220.4	221.2	235.2	273.0	331.8	415.3	540.8	685.8	696.7	707.7	718.7
47.5°	193.6	195.1	209.6	245.6	299.1	387.3	538.8	717.2	731.8	746.4	760.9
50°	167.8	169.6	184.4	218.5	267.6	354.0	529.4	752.9	770.7	788.4	806.2
52.5°	141.6	143.3	158.2	190.8	238.2	316.6	503.1	790.4	811.5	832.6	853.8
55°	113.6	114.2	129.4	162.1	209.0	285.2	461.2	824.8	850.3	875.9	901.5
57.5°	82.5	84.8	100.0	130.3	179.1	257.4	407.8	842.3	874.2	906.1	938.1
60°	59.6	61.1	74.4	98.2	145.2	230.2	360.5	829.5	872.1	914.7	957.3
62.5°	47.1	48.8	59.0	74.0	112.3	200.2	329.6	794.3	854.1	913.8	973.6
65°	41.7	43.2	52.6	60.0	85.9	169.4	310.2	759.4	840.1	920.8	1001.5
67.5°	38.0	39.6	48.0	53.0	71.0	149.6	301.0	733.1	826.3	919.4	1012.6
69°	36.4	37.8	45.4	50.1	66.9	142.8	291.1	688.5	780.9	873.2	965.6
70°	35.4	36.8	43.6	48.3	65.4	137.2	276.5	635.5	724.6	813.8	902.9
72.5°	32.8	33.7	39.5	43.9	59.8	109.6	208.6	448.4	524.0	599.6	675.1
75°	29.1	30.2	35.2	39.3	45.6	65.8	130.6	260.3	312.1	363.8	415.6
77.5°	25.0	26.2	30.4	36.8	36.7	42.8	79.2	149.4	174.6	199.8	224.9
80°	21.4	22.5	26.2	36.4	30.7	33.9	59.1	111.5	121.6	131.7	141.9
82.5°	16.8	17.6	22.0	30.0	24.5	25.8	45.0	101.6	108.4	115.3	122.2
85°	10.6	10.9	16.0	20.8	17.4	15.6	29.0	78.2	83.2	88.2	93.2
87.5°	4.2	5.2	7.8	7.5	7.5	6.2	9.4	28.2	30.7	33.3	35.9
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°	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5
2.5°	487.3	487.3	487.2	486.9	487.2	486.9	487.0	487.2	487.2	487.2	487.0
5°	492.9	493.0	493.0	492.5	492.7	492.8	492.8	492.7	492.8	493.0	492.6
7.5°	502.1	502.2	502.4	502.7	502.5	502.6	502.8	502.6	502.4	502.9	502.6
10°	515.1	515.4	515.4	516.1	515.8	516.0	516.8	516.8	516.4	517.0	516.8
12.5°	530.5	530.9	530.8	530.7	531.0	531.3	532.2	532.3	532.4	533.4	533.1
15°	544.4	544.8	545.2	545.3	545.8	546.0	546.6	546.9	547.2	547.5	547.7
17.5°	554.4	554.6	555.1	554.8	555.7	555.5	556.1	556.4	556.6	557.0	557.2
20°	559.2	558.9	559.0	558.8	558.8	558.9	559.0	559.3	559.2	559.6	559.9
22.5°	559.9	559.1	558.6	558.0	557.8	557.3	557.3	557.4	556.8	557.2	557.8
25°	559.6	558.3	557.4	556.4	555.4	554.6	554.1	553.9	553.5	553.5	554.0
27.5°	561.2	559.6	558.3	556.6	555.4	554.2	553.2	552.3	551.4	551.3	551.3
30°	566.3	564.5	563.0	560.8	559.0	557.5	556.0	554.8	553.2	552.5	551.8
32.5°	576.1	574.6	572.5	570.7	568.4	566.6	564.6	562.7	560.8	559.2	558.4
35°	591.8	591.2	590.0	588.8	586.6	584.3	582.6	580.4	578.3	575.8	575.2
37.5°	616.8	618.3	617.6	616.7	616.1	615.3	613.0	611.6	610.2	608.2	607.8
40°	647.9	651.8	655.8	658.4	657.5	660.6	661.1	661.4	660.1	661.8	662.1
42.5°	687.7	695.3	702.6	707.8	713.8	718.4	724.3	726.8	731.6	736.6	739.5
45°	729.7	740.7	751.0	761.7	772.2	783.8	795.0	803.0	814.5	823.1	828.6
47.5°	775.5	790.0	802.4	818.4	833.6	847.4	867.0	882.8	896.9	910.3	924.4
50°	824.0	841.8	856.9	876.5	895.0	916.5	939.6	959.6	981.8	1003.1	1022.1
52.5°	874.9	896.0	916.5	936.6	959.2	982.4	1007.4	1036.4	1062.9	1095.0	1118.2
55°	927.1	952.6	974.5	995.5	1019.4	1045.2	1074.9	1109.2	1142.9	1178.1	1213.1
57.5°	970.0	1001.9	1025.8	1050.4	1076.1	1101.6	1138.6	1173.8	1216.4	1259.6	1303.4
60°	999.9	1042.5	1071.4	1102.5	1132.3	1163.4	1203.1	1247.6	1301.0	1353.4	1412.8
62.5°	1033.4	1093.2	1133.8	1175.2	1211.4	1248.7	1301.8	1353.1	1421.7	1482.0	1556.8
65°	1082.1	1162.8	1222.5	1278.4	1327.0	1377.8	1440.8	1504.9	1583.4	1666.7	1760.5
67.5°	1105.7	1198.9	1277.2	1346.0	1408.2	1472.9	1538.0	1613.8	1702.2	1802.5	1905.5
69°	1058.0	1150.4	1240.4	1310.0	1375.4	1444.6	1514.2	1590.6	1677.8	1781.8	1891.0
70°	992.0	1081.2	1176.8	1246.7	1312.6	1384.4	1455.3	1532.5	1615.8	1723.0	1833.4
72.5°	750.6	826.2	919.0	992.8	1062.2	1134.8	1207.8	1274.8	1359.2	1462.4	1564.1
75°	467.4	519.2	602.6	676.8	732.6	794.7	863.2	926.7	1011.6	1084.6	1182.4
77.5°	250.1	275.2	324.0	377.1	408.2	438.4	483.1	517.5	553.2	595.6	635.9
80°	152.0	162.1	178.8	190.2	185.9	173.5	169.6	157.2	161.6	154.0	148.5
82.5°	129.0	135.9	146.0	152.9	147.9	128.0	105.6	88.9	77.1	65.8	55.8
85°	98.2	103.2	108.4	111.5	111.2	101.4	80.5	62.4	48.6	37.6	31.4
87.5°	38.5	41.0	44.8	44.2	46.2	46.5	36.4	28.2	20.0	13.5	11.8
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°	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5	485.5
2.5°	486.6	486.6	486.6	486.9	486.9	487.1	486.9	487.0	486.7	486.5	486.6
5°	492.6	492.4	492.6	492.8	492.8	492.6	493.0	493.1	492.9	492.6	492.7
7.5°	503.0	503.0	502.8	503.6	502.8	503.0	503.4	503.4	503.2	503.2	503.4
10°	517.3	517.2	517.4	517.9	517.1	517.7	518.2	518.4	518.0	518.0	518.0
12.5°	533.2	533.8	533.9	534.2	534.2	534.6	534.8	534.8	535.2	535.2	534.8
15°	548.4	548.8	549.2	549.6	549.1	549.7	550.4	550.4	550.3	550.6	550.1
17.5°	557.7	558.1	558.8	558.6	558.7	559.2	559.7	559.8	560.0	560.0	560.1
20°	560.6	560.9	561.2	561.6	561.8	562.3	562.6	562.8	563.0	562.8	562.9
22.5°	558.3	558.6	559.3	559.6	559.6	560.4	560.8	561.0	561.2	561.4	561.1
25°	554.2	554.6	555.2	555.6	555.7	556.4	556.8	557.4	557.6	557.7	557.7
27.5°	551.4	551.7	552.1	552.5	552.6	553.3	553.9	554.4	554.4	554.5	554.5
30°	551.6	551.6	552.1	552.2	552.2	552.8	553.2	553.4	553.6	553.6	553.7
32.5°	557.3	557.0	557.5	556.8	556.9	556.8	556.7	557.0	556.8	556.8	556.5
35°	573.8	572.9	572.1	572.5	571.3	569.6	570.6	570.1	569.2	569.2	569.5
37.5°	605.4	604.4	605.3	604.6	604.8	602.4	603.0	600.9	600.3	601.1	598.9
40°	661.4	661.0	662.6	662.0	662.4	663.0	663.7	661.6	658.2	661.2	661.4
42.5°	739.1	742.9	744.4	746.5	748.8	747.8	749.8	750.4	746.7	749.4	750.1
45°	836.4	840.6	845.2	846.7	850.4	850.9	852.4	852.8	849.5	849.8	850.6
47.5°	938.5	946.0	951.5	955.4	959.2	960.0	960.8	959.3	959.6	960.3	960.3
50°	1038.8	1054.6	1064.6	1072.2	1078.8	1075.4	1078.4	1078.6	1079.6	1077.5	1078.8
52.5°	1144.2	1165.2	1181.8	1194.6	1198.7	1211.0	1206.0	1209.8	1212.5	1208.6	1211.1
55°	1247.2	1277.2	1303.7	1322.4	1335.6	1348.1	1350.1	1360.1	1358.9	1362.7	1361.0
57.5°	1345.1	1386.9	1424.9	1452.6	1471.6	1490.6	1503.6	1514.5	1515.6	1526.5	1520.4
60°	1463.5	1521.8	1570.6	1612.0	1640.0	1668.3	1690.7	1708.6	1712.8	1731.4	1725.3
62.5°	1623.2	1694.4	1756.8	1805.4	1867.6	1897.6	1941.0	1968.2	1985.2	1989.9	1998.6
65°	1847.8	1940.5	2022.8	2100.5	2170.5	2219.0	2269.4	2310.0	2342.4	2339.8	2353.0
67.5°	2014.7	2120.4	2219.5	2312.6	2388.0	2450.4	2508.2	2552.0	2581.1	2599.6	2607.4
69°	1997.3	2110.8	2220.1	2319.6	2397.2	2467.0	2523.4	2566.5	2599.8	2619.9	2625.7
70°	1939.5	2056.0	2170.1	2267.6	2346.8	2423.4	2480.8	2528.9	2560.5	2582.4	2585.8
72.5°	1677.6	1803.9	1904.7	2011.2	2087.4	2164.9	2201.0	2260.6	2301.9	2315.1	2314.9
75°	1265.3	1370.6	1459.2	1537.9	1606.1	1658.6	1675.8	1718.1	1752.4	1752.0	1748.7
77.5°	681.4	706.2	739.4	750.4	771.5	771.2	750.1	756.8	776.2	738.5	750.6
80°	146.2	144.0	142.1	141.0	140.4	140.7	141.4	136.6	141.4	139.2	130.3
82.5°	50.9	49.7	48.6	49.4	48.8	49.3	49.1	49.7	49.6	49.5	48.3
85°	28.6	27.6	27.0	27.4	26.5	25.6	25.0	24.8	24.7	24.2	23.8
87.5°	10.9	10.8	10.8	10.3	9.3	8.5	8.0	7.0	6.6	6.0	5.6
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)