

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: INVUE

Report Number: P141729

Luminaire Tested: **ECM-E04-LED-E1-T2-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141729
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33682)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-E04-LED-E1-T2-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10770.5 lumens
Efficiency: N/A
Efficacy: 110.8 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

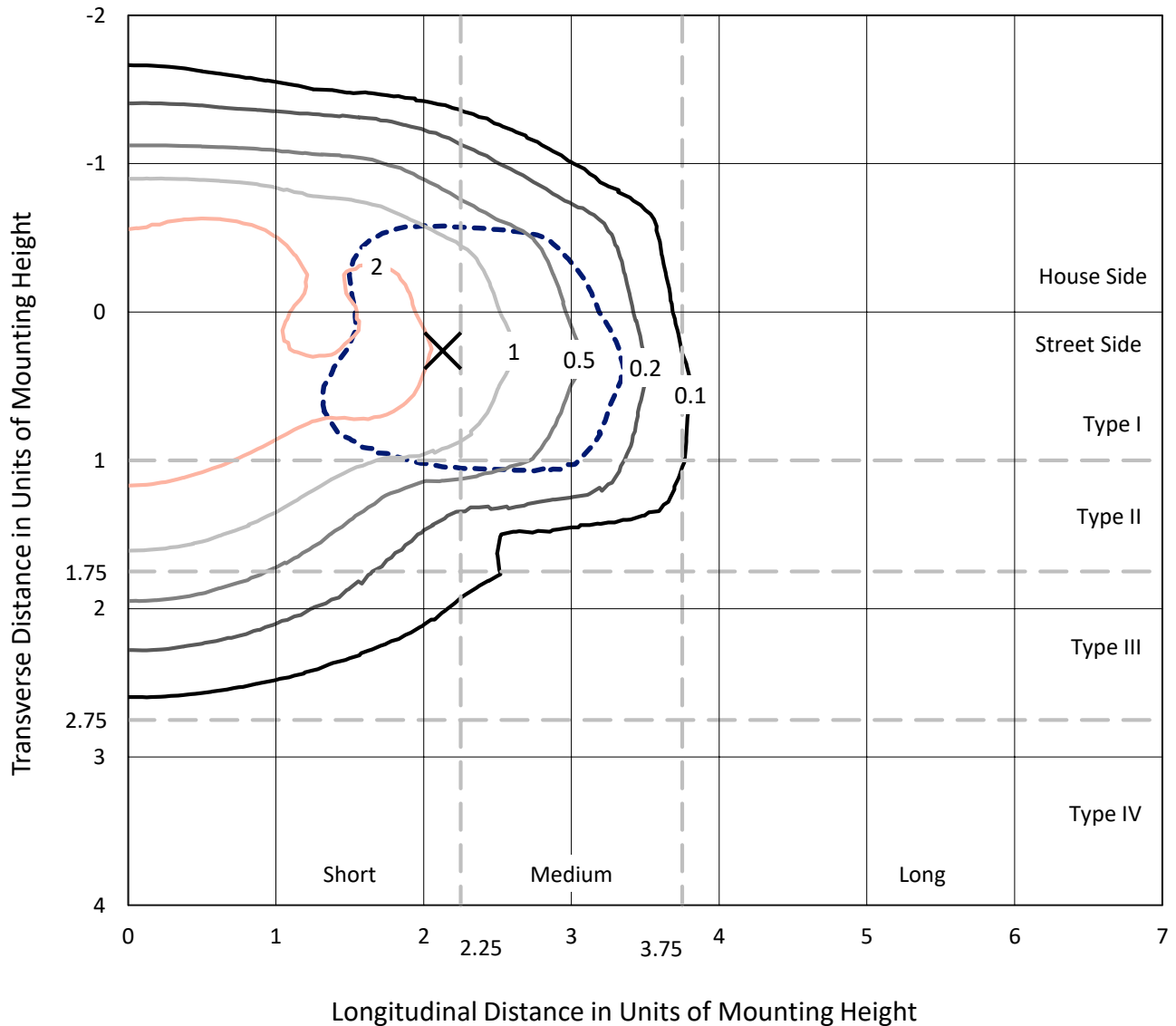
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

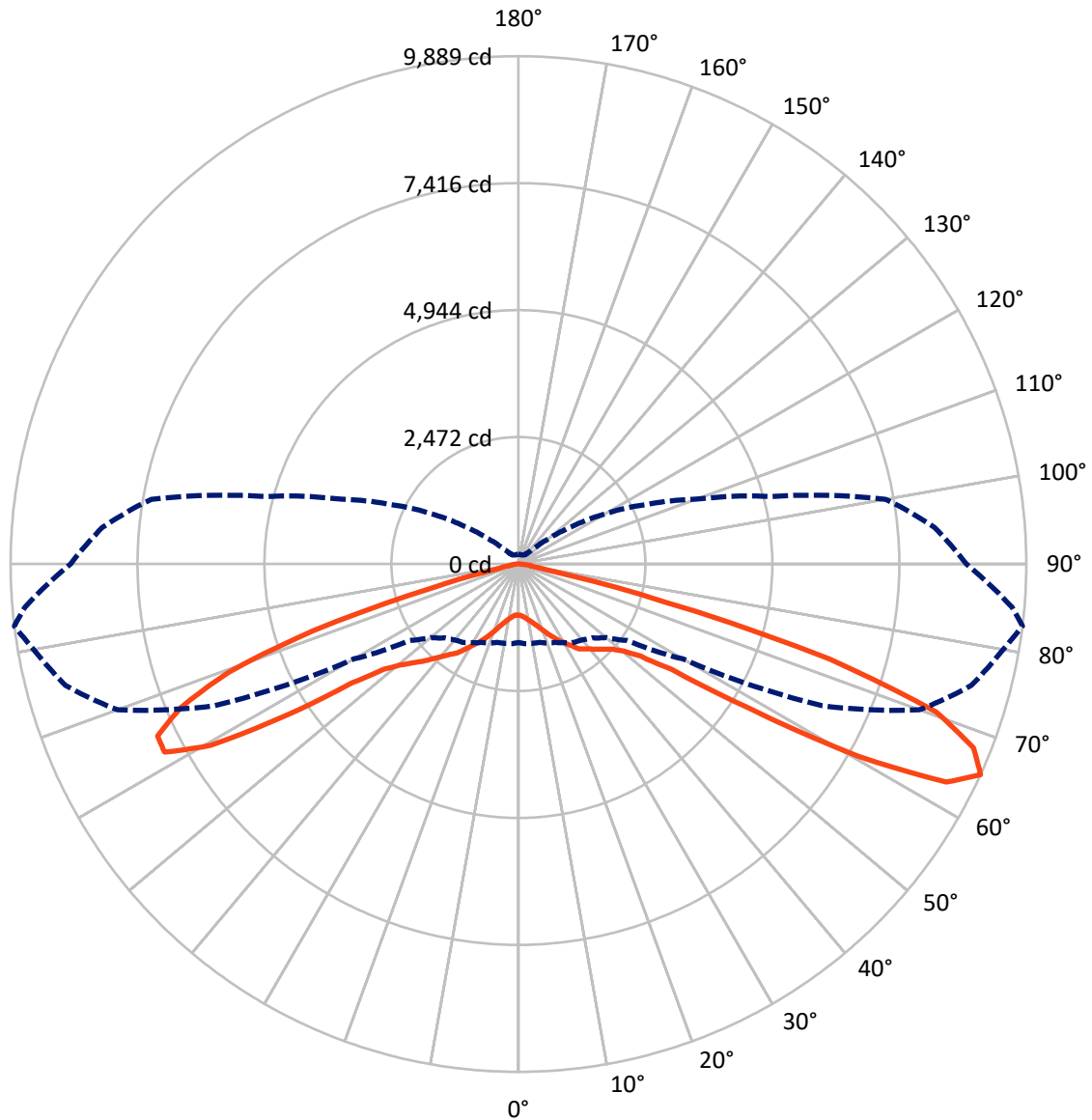
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 3.1 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 83-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3995.1	0.0	3995.1
	% Fixture	37.1	0.0	37.1
Street Side	Lumens	6775.4	0.0	6775.4
	% Fixture	62.9	0.0	62.9
Total	Lumens	10770.5	0.0	10770.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.3	0.9
10°-20°	351.5	3.3
20°-30°	694.5	6.4
30°-40°	1195.3	11.1
40°-50°	1803.3	16.7
50°-60°	2509.4	23.3
60°-70°	2896.4	26.9
70°-80°	1052.6	9.8
80°-90°	167.1	1.6
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°	10770.5	100.0
0°-180°	10770.5	100.0



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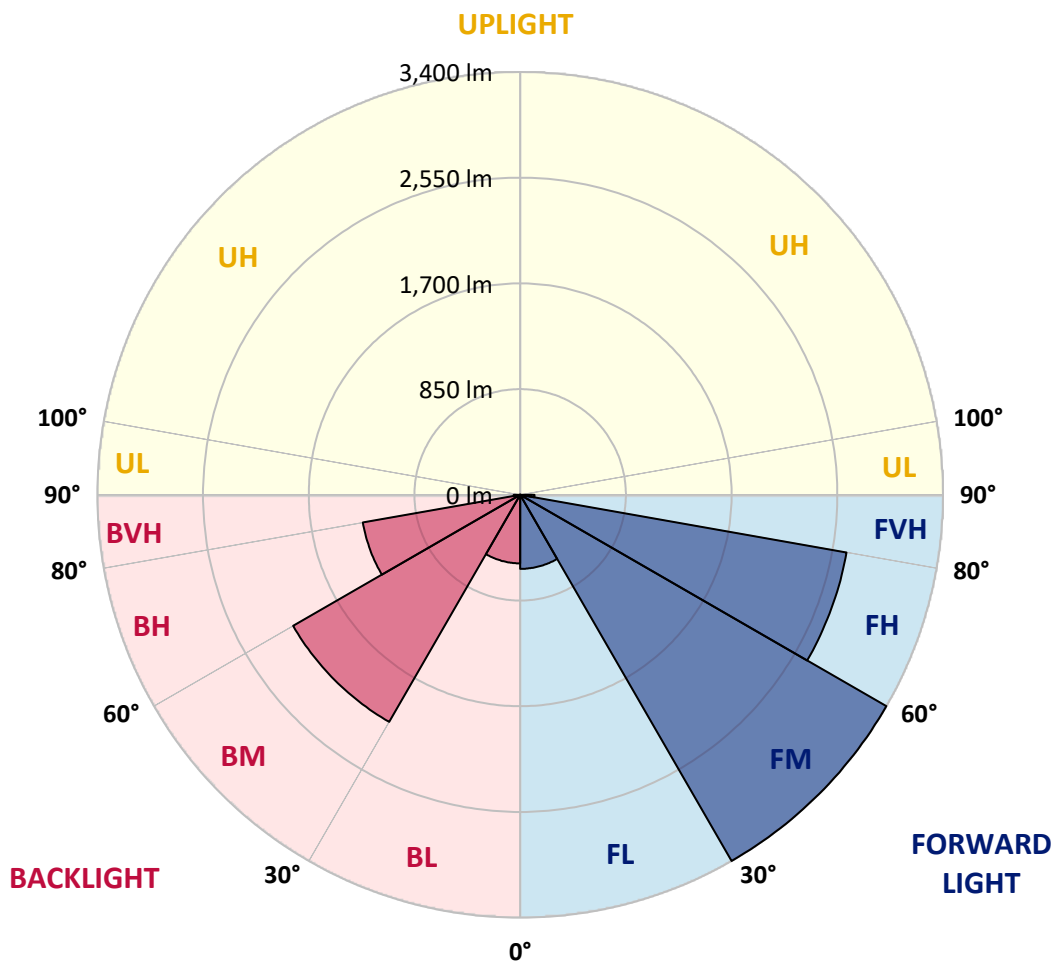
CATALOG NUMBER: ECM-E04-LED-E1-T2-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	595.4	5.5			
FM	(30°-60°)	3400.0	31.6			
FH	(60°-80°)	2664.6	24.7			G2/5000
FVH	(80°-90°)	115.5	1.1			G2/225
BL	(0°-30°)	551.0	5.1	B2/1000		
BM	(30°-60°)	2107.9	19.6	B2/2500		
BH	(60°-80°)	1284.5	11.9	B3/2500		G3/2500
BVH	(80°-90°)	51.7	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4
2.5°	1046.1	1048.5	1046.1	1046.1	1044.9	1043.7	1043.7	1042.4	1040.0	1037.6	1036.3
5°	1103.3	1104.5	1100.9	1100.9	1102.1	1100.9	1097.2	1098.5	1088.7	1085.1	1082.6
7.5°	1166.7	1170.3	1165.4	1163.0	1161.8	1159.3	1155.7	1149.6	1142.3	1136.2	1132.6
10°	1238.5	1242.2	1239.7	1234.8	1227.5	1223.9	1220.2	1210.5	1202.0	1192.2	1184.9
12.5°	1323.7	1325.0	1322.5	1312.8	1307.9	1297.0	1284.8	1273.8	1261.6	1247.0	1234.8
15°	1407.8	1409.0	1405.3	1395.6	1389.5	1376.1	1359.1	1344.5	1323.7	1306.7	1290.9
17.5°	1472.3	1474.8	1467.4	1460.1	1451.6	1434.6	1418.7	1401.7	1379.8	1361.5	1345.7
20°	1494.2	1497.9	1493.0	1489.4	1484.5	1476.0	1460.1	1445.5	1426.0	1412.6	1400.5
22.5°	1484.5	1488.2	1485.7	1485.7	1485.7	1484.5	1477.2	1473.5	1461.4	1455.3	1452.8
25°	1469.9	1473.5	1471.1	1473.5	1478.4	1484.5	1484.5	1491.8	1490.6	1500.3	1506.4
27.5°	1507.6	1510.1	1504.0	1504.0	1508.9	1518.6	1516.2	1530.8	1533.2	1552.7	1571.0
30°	1639.2	1639.2	1629.4	1619.7	1623.3	1620.9	1618.5	1628.2	1628.2	1646.5	1655.0
32.5°	1835.2	1821.8	1820.6	1819.4	1810.9	1817.0	1797.5	1798.7	1790.2	1792.6	1788.9
35°	2050.8	2049.6	2044.7	2042.3	2038.6	2056.9	2042.3	2054.4	2024.0	2013.0	1992.3
37.5°	2239.5	2244.4	2248.1	2266.3	2274.9	2311.4	2319.9	2326.0	2294.3	2295.6	2249.3
40°	2429.5	2435.6	2449.0	2481.9	2506.2	2540.3	2556.2	2581.7	2584.2	2589.0	2554.9
42.5°	2636.5	2626.8	2645.1	2686.5	2716.9	2751.0	2771.7	2819.2	2846.0	2859.4	2864.3
45°	2803.4	2792.4	2800.9	2825.3	2853.3	2897.1	2942.2	3012.8	3070.1	3132.2	3166.3
47.5°	2889.8	2892.3	2898.4	2913.0	2932.5	2975.1	3038.4	3128.5	3221.1	3320.9	3409.8
50°	2917.8	2919.1	2927.6	2942.2	2960.5	3005.5	3071.3	3173.6	3285.6	3425.7	3562.1
52.5°	2926.4	2921.5	2930.0	2937.3	2949.5	2987.3	3049.4	3156.5	3283.2	3452.5	3654.6
55°	2894.7	2888.6	2903.2	2913.0	2922.7	2953.2	3000.7	3099.3	3230.8	3423.2	3687.5
57.5°	2772.9	2774.1	2794.9	2820.4	2846.0	2887.4	2949.5	3043.3	3173.6	3363.6	3659.5
60°	2567.1	2563.5	2589.0	2620.7	2664.5	2730.3	2807.0	2902.0	3010.4	3168.7	3459.8
62.5°	2193.3	2207.9	2216.4	2263.9	2266.3	2360.1	2410.0	2505.0	2597.6	2719.3	2981.2
65°	1527.1	1558.8	1567.3	1579.5	1636.7	1685.4	1765.8	1865.7	1926.6	2033.7	2228.6
67.5°	951.1	974.2	975.5	1007.1	1057.1	1113.1	1175.2	1276.3	1368.8	1385.9	1483.3
70°	789.1	790.4	807.4	830.5	869.5	926.7	987.6	1058.3	1142.3	1195.9	1186.1
72.5°	654.0	661.3	673.4	696.6	739.2	790.4	868.3	958.4	1063.1	1170.3	1265.3
75°	438.4	450.6	454.2	465.2	485.9	532.2	590.6	675.9	811.1	970.6	1172.7
77.5°	232.6	235.0	243.6	252.1	263.0	291.1	328.8	372.6	461.5	599.2	836.6
80°	118.1	123.0	129.1	135.2	134.0	141.3	152.2	171.7	202.2	263.0	378.7
82.5°	42.6	54.8	71.9	80.4	80.4	82.8	86.5	90.1	87.7	97.4	121.8
85°	19.5	21.9	28.0	43.8	45.1	45.1	45.1	47.5	45.1	40.2	47.5
87.5°	0.0	3.7	3.7	11.0	12.2	11.0	12.2	15.8	12.2	9.7	8.5
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):

	55°	60°	65°	70°	75°	80°	83°	85°	90°	95°	100°
0°	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4
2.5°	1030.3	1027.8	1021.7	1019.3	1012.0	1007.1	1004.7	1002.2	998.6	993.7	990.1
5°	1075.3	1068.0	1059.5	1054.6	1044.9	1035.1	1031.5	1026.6	1018.1	1010.8	1002.2
7.5°	1122.8	1114.3	1104.5	1093.6	1083.8	1072.9	1068.0	1063.1	1051.0	1041.2	1029.0
10°	1174.0	1161.8	1150.8	1141.1	1132.6	1120.4	1111.9	1108.2	1097.2	1082.6	1070.4
12.5°	1222.7	1209.3	1198.3	1186.1	1177.6	1167.9	1159.3	1155.7	1147.2	1133.8	1124.0
15°	1273.8	1260.4	1248.2	1239.7	1230.0	1223.9	1219.0	1212.9	1209.3	1198.3	1193.4
17.5°	1328.6	1316.4	1305.5	1298.2	1294.5	1293.3	1292.1	1289.7	1286.0	1278.7	1275.0
20°	1390.7	1379.8	1376.1	1374.9	1376.1	1377.3	1379.8	1379.8	1381.0	1376.1	1374.9
22.5°	1450.4	1450.4	1456.5	1463.8	1471.1	1476.0	1479.6	1474.8	1476.0	1483.3	1489.4
25°	1516.2	1527.1	1543.0	1555.1	1566.1	1574.6	1579.5	1581.9	1584.4	1595.3	1606.3
27.5°	1586.8	1603.8	1627.0	1642.8	1663.5	1676.9	1686.7	1685.4	1689.1	1703.7	1723.2
30°	1674.5	1691.5	1715.9	1737.8	1765.8	1785.3	1788.9	1786.5	1791.4	1804.8	1843.7
32.5°	1797.5	1801.1	1817.0	1838.9	1869.3	1888.8	1892.5	1898.6	1909.5	1933.9	1981.4
35°	1970.4	1954.6	1953.4	1963.1	1992.3	2030.1	2033.7	2037.4	2042.3	2073.9	2137.2
37.5°	2204.2	2139.7	2100.7	2070.3	2073.9	2087.3	2094.6	2097.1	2109.2	2157.9	2265.1
40°	2497.7	2377.1	2290.7	2204.2	2172.6	2175.0	2177.4	2175.0	2199.3	2274.9	2414.9
42.5°	2819.2	2713.3	2562.3	2383.2	2293.1	2263.9	2267.5	2270.0	2307.7	2417.3	2573.2
45°	3160.2	3092.0	2916.6	2636.5	2442.9	2368.6	2366.2	2371.1	2433.2	2587.8	2752.2
47.5°	3459.8	3476.8	3347.7	3018.9	2686.5	2497.7	2481.9	2490.4	2591.5	2757.1	2923.9
50°	3697.2	3809.3	3799.5	3538.9	3081.0	2720.6	2664.5	2676.7	2796.1	2967.8	3117.6
52.5°	3876.3	4104.0	4250.1	4146.6	3748.4	3124.9	2980.0	2959.3	3109.0	3290.5	3383.0
55°	3995.6	4364.6	4748.2	4927.2	4765.3	3998.0	3619.3	3574.2	3736.2	3967.6	4007.8
57.5°	4074.8	4681.2	5506.9	6198.6	6419.0	5761.4	5286.5	5097.7	5215.8	5460.6	5408.3
60°	3943.2	4806.7	6422.7	7662.4	8289.6	8126.4	7597.9	7312.9	7092.5	7074.2	6783.1
62.5°	3439.1	4508.3	6794.1	8359.0	9240.7	9444.0	9350.3	9012.9	8402.8	8064.3	7406.7
65°	2593.9	3693.6	6529.8	8305.4	9132.3	9582.9	9888.5	9646.2	8720.7	8134.9	7260.5
67.5°	1657.4	2384.5	5431.4	7661.2	8438.1	8944.7	9556.1	9445.3	8262.8	7515.0	6563.9
70°	1210.5	1321.3	3685.1	6484.8	7339.7	7785.4	8625.7	8577.0	7245.9	6405.6	5463.1
72.5°	1394.4	985.2	2020.3	4844.4	5505.7	5856.4	6337.4	6219.3	5062.4	4479.1	3811.7
75°	1572.2	1102.1	1138.6	2874.0	3076.2	2830.2	2895.9	2514.8	1961.9	1739.0	1713.4
77.5°	1323.7	1382.2	1032.7	1234.8	1137.4	819.6	613.8	481.0	376.3	404.3	449.4
80°	769.6	1553.9	1366.4	643.0	720.9	573.6	255.7	211.9	175.4	177.8	180.2
82.5°	237.5	970.6	1922.9	785.5	713.6	808.6	235.0	143.7	115.7	130.3	147.4
85°	79.2	406.7	1541.7	824.5	461.5	431.1	103.5	70.6	58.5	81.6	115.7
87.5°	19.5	98.6	286.2	108.4	68.2	41.4	35.3	25.6	28.0	51.1	71.9
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4	997.4
2.5°	987.6	984.0	980.3	977.9	974.2	974.2	970.6	970.6	965.7	963.3	963.3
5°	994.9	987.6	981.5	975.5	969.4	966.9	962.1	959.6	954.8	951.1	948.7
7.5°	1019.3	1009.6	1002.2	994.9	987.6	984.0	979.1	974.2	973.0	970.6	968.2
10°	1060.7	1047.3	1041.2	1036.3	1026.6	1024.2	1019.3	1015.6	1012.0	1008.3	1009.6
12.5°	1114.3	1104.5	1102.1	1092.4	1089.9	1086.3	1079.0	1076.5	1066.8	1059.5	1055.8
15°	1182.5	1178.8	1178.8	1174.0	1166.7	1160.6	1149.6	1143.5	1126.5	1115.5	1103.3
17.5°	1272.6	1268.9	1270.2	1265.3	1256.8	1245.8	1233.6	1215.4	1189.8	1170.3	1146.0
20°	1377.3	1376.1	1378.6	1374.9	1363.9	1349.3	1320.1	1293.3	1258.0	1222.7	1195.9
22.5°	1494.2	1500.3	1502.8	1493.0	1480.8	1450.4	1418.7	1379.8	1332.3	1286.0	1248.2
25°	1618.5	1633.1	1641.6	1628.2	1613.6	1574.6	1527.1	1474.8	1407.8	1351.8	1301.8
27.5°	1740.2	1770.7	1782.9	1775.6	1752.4	1697.6	1634.3	1564.9	1483.3	1409.0	1344.5
30°	1885.2	1925.3	1947.3	1936.3	1891.2	1819.4	1742.7	1648.9	1545.4	1456.5	1378.6
32.5°	2037.4	2087.3	2103.1	2080.0	2014.2	1924.1	1824.3	1709.8	1592.9	1490.6	1402.9
35°	2206.7	2252.9	2256.6	2211.5	2125.1	2010.6	1886.4	1748.8	1614.8	1500.3	1404.1
37.5°	2354.0	2400.3	2396.6	2329.7	2224.9	2082.4	1924.1	1757.3	1601.4	1471.1	1366.4
40°	2508.7	2559.8	2531.8	2445.3	2310.2	2128.7	1929.0	1728.1	1550.3	1407.8	1293.3
42.5°	2671.9	2693.8	2643.8	2535.5	2361.3	2127.5	1887.6	1658.6	1469.9	1311.6	1191.0
45°	2821.6	2804.6	2732.7	2587.8	2357.7	2075.1	1806.0	1572.2	1362.7	1204.4	1086.3
47.5°	2955.6	2902.0	2791.2	2587.8	2300.4	1982.6	1701.3	1460.1	1251.9	1092.4	975.5
50°	3100.5	2988.5	2815.6	2542.8	2196.9	1870.5	1590.4	1348.1	1133.8	970.6	842.7
52.5°	3292.9	3092.0	2815.6	2461.2	2089.7	1757.3	1473.5	1217.8	996.2	825.7	699.0
55°	3743.5	3308.8	2864.3	2416.1	1994.8	1637.9	1334.7	1049.7	834.2	671.0	566.3
57.5°	4628.9	3783.7	3109.0	2498.9	1959.4	1508.9	1155.7	863.4	658.8	522.4	434.8
60°	5365.6	4167.3	3307.5	2562.3	1902.2	1342.0	936.5	661.3	489.6	386.0	328.8
62.5°	5555.6	4172.2	3226.0	2397.8	1670.8	1092.4	690.5	455.5	336.1	280.1	249.6
65°	5080.7	3689.9	2743.7	1955.8	1272.6	758.7	432.3	276.4	224.1	204.6	192.4
67.5°	4270.8	2939.8	2033.7	1363.9	802.5	417.7	242.3	190.0	170.5	164.4	158.3
70°	3275.9	2065.4	1323.7	798.9	420.1	216.8	172.9	155.9	147.4	143.7	138.8
72.5°	2019.1	1220.2	719.7	383.6	209.5	165.6	154.7	148.6	137.6	132.7	127.9
75°	857.3	523.7	298.4	194.8	168.1	158.3	149.8	142.5	134.0	126.7	121.8
77.5°	288.6	199.7	176.6	170.5	168.1	158.3	147.4	137.6	129.1	120.6	115.7
80°	175.4	159.5	163.2	162.0	168.1	157.1	142.5	131.5	121.8	113.3	107.2
82.5°	152.2	151.0	154.7	158.3	166.8	151.0	134.0	118.1	105.9	97.4	91.3
85°	131.5	134.0	136.4	138.8	143.7	127.9	108.4	93.8	84.0	73.1	68.2
87.5°	87.7	95.0	99.9	101.1	97.4	60.9	35.3	41.4	42.6	36.5	32.9
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):

	160°	165°	170°	175°	180°
0°	997.4	997.4	997.4	997.4	997.4
2.5°	959.6	958.4	962.1	958.4	958.4
5°	947.4	946.2	946.2	946.2	943.8
7.5°	966.9	965.7	964.5	964.5	963.3
10°	1004.7	1003.5	1003.5	1002.2	1002.2
12.5°	1049.7	1044.9	1043.7	1041.2	1042.4
15°	1093.6	1080.2	1076.5	1072.9	1069.2
17.5°	1127.7	1111.9	1103.3	1096.0	1096.0
20°	1170.3	1149.6	1138.6	1127.7	1127.7
22.5°	1219.0	1191.0	1176.4	1164.2	1159.3
25°	1259.2	1223.9	1203.2	1188.6	1184.9
27.5°	1289.7	1244.6	1217.8	1200.8	1195.9
30°	1314.0	1262.9	1231.2	1212.9	1205.6
32.5°	1329.8	1273.8	1239.7	1221.5	1214.1
35°	1321.3	1261.6	1220.2	1198.3	1193.4
37.5°	1278.7	1215.4	1166.7	1143.5	1135.0
40°	1200.8	1132.6	1081.4	1053.4	1048.5
42.5°	1098.5	1030.3	981.5	952.3	938.9
45°	988.9	918.2	871.9	845.2	829.3
47.5°	870.7	801.3	753.8	727.0	716.1
50°	746.5	679.5	639.3	610.1	599.2
52.5°	617.4	557.8	517.6	493.2	481.0
55°	494.4	445.7	411.6	395.8	387.3
57.5°	386.0	354.4	334.9	325.2	319.1
60°	299.6	283.7	276.4	269.1	270.4
62.5°	233.8	230.2	227.7	224.1	225.3
65°	188.8	186.3	187.5	186.3	187.5
67.5°	154.7	155.9	158.3	158.3	159.5
70°	136.4	137.6	140.0	140.0	140.0
72.5°	126.7	129.1	131.5	130.3	130.3
75°	119.3	125.4	130.3	125.4	120.6
77.5°	112.0	126.7	140.0	129.1	115.7
80°	102.3	134.0	149.8	130.3	110.8
82.5°	97.4	129.1	131.5	113.3	97.4
85°	90.1	146.1	152.2	103.5	74.3
87.5°	46.3	87.7	101.1	69.4	37.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)