

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: P141728

Luminaire Tested: **ECM-E04-LED-E1-T2-8030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141728
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-T2-8030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 2
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9952.6 lumens
Efficiency: N/A
Efficacy: 102.4 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

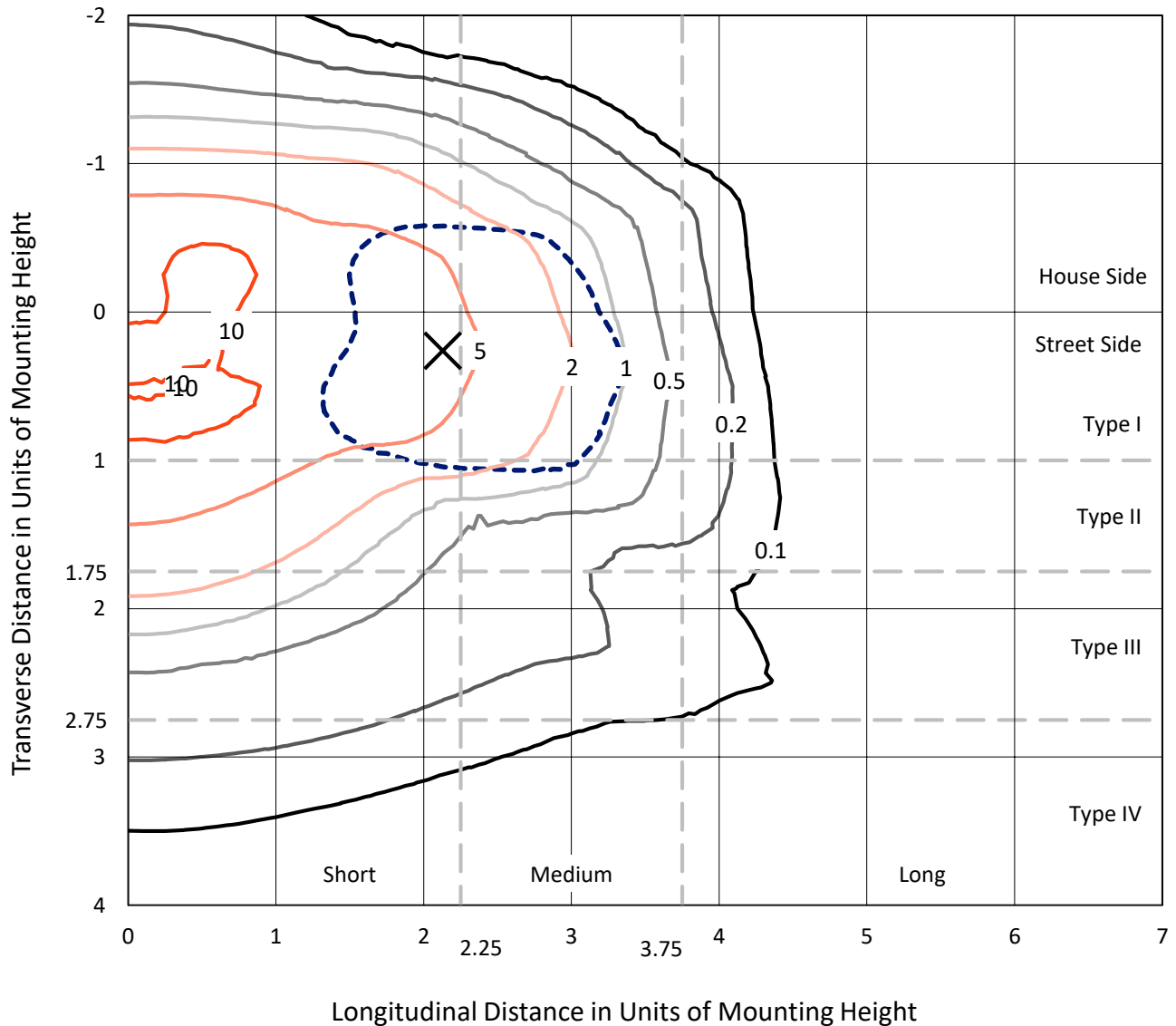


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

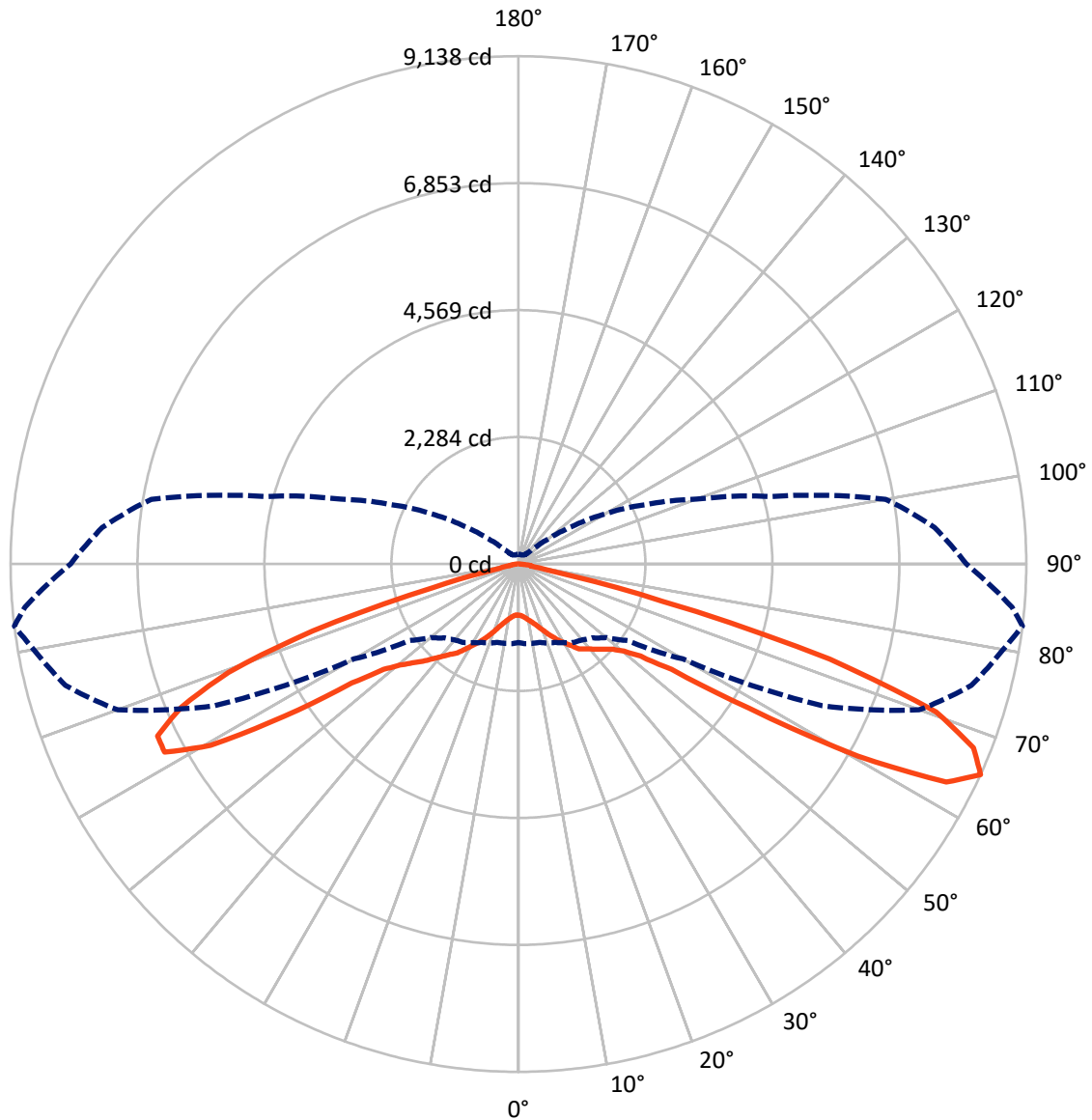


Based on 10 foot mounting height. Maximum calculated value = 11.6 fc
 Type II - Short - Semi-Cutoff

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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	3691.7	0.0	3691.7
	% Fixture	37.1	0.0	37.1
Street Side	Lumens	6260.9	0.0	6260.9
	% Fixture	62.9	0.0	62.9
Total	Lumens	9952.6	0.0	9952.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.7	0.9
10°-20°	324.8	3.3
20°-30°	641.8	6.4
30°-40°	1104.5	11.1
40°-50°	1666.3	16.7
50°-60°	2318.8	23.3
60°-70°	2676.5	26.9
70°-80°	972.7	9.8
80°-90°	154.5	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°	9952.6	100.0
0°-180°	9952.6	100.0



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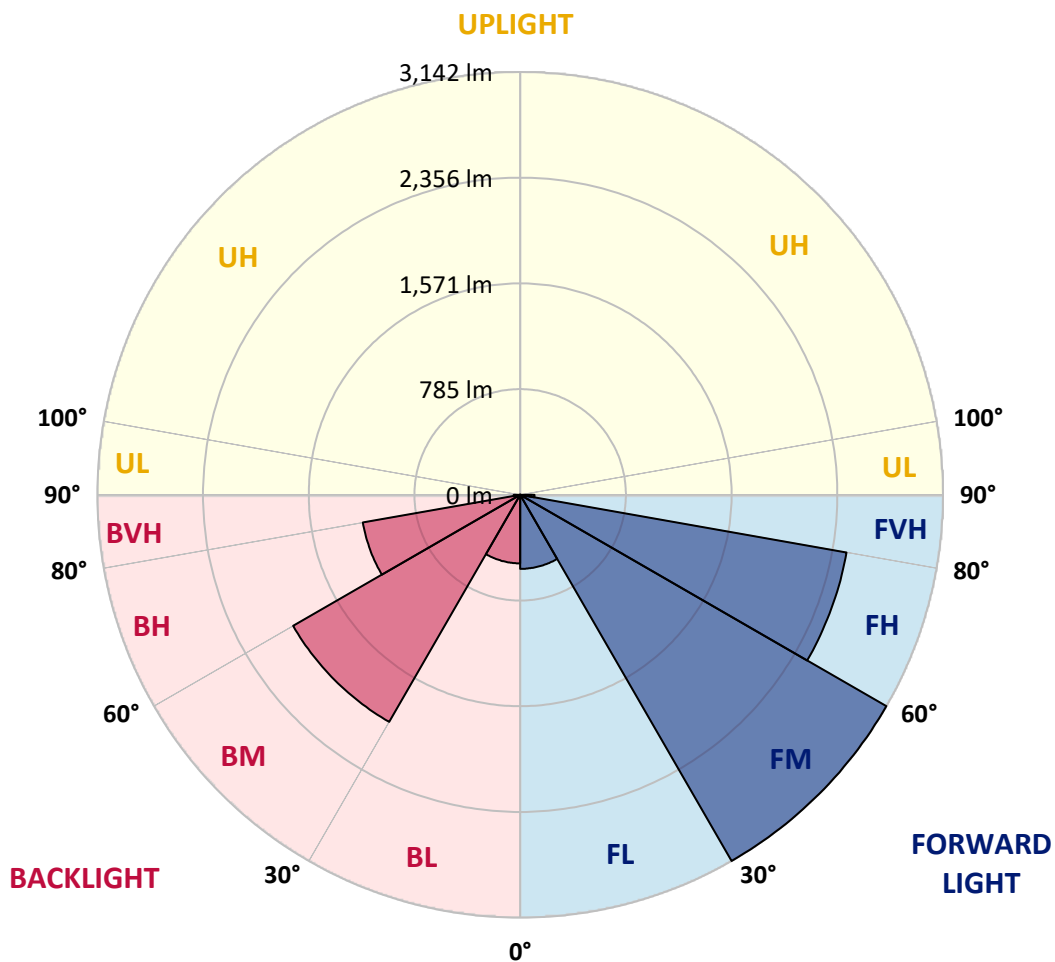
CATALOG NUMBER: ECM-E04-LED-E1-T2-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	550.2	5.5			
FM (30°-60°)	3141.8	31.6			
FH (60°-80°)	2462.2	24.7			G2/5000
FVH (80°-90°)	106.7	1.1			G2/225
BL (0°-30°)	509.1	5.1	B2/1000		
BM (30°-60°)	1947.9	19.6	B2/2500		
BH (60°-80°)	1187.0	11.9	B3/2500		G3/2500
BVH (80°-90°)	47.8	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°	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6
2.5°	966.7	968.9	966.7	966.7	965.5	964.4	964.4	963.3	961.0	958.8	957.6
5°	1019.5	1020.7	1017.3	1017.3	1018.4	1017.3	1013.9	1015.0	1006.0	1002.7	1000.4
7.5°	1078.1	1081.4	1076.9	1074.7	1073.6	1071.3	1067.9	1062.3	1055.6	1049.9	1046.5
10°	1144.5	1147.8	1145.6	1141.1	1134.3	1130.9	1127.6	1118.6	1110.7	1101.7	1094.9
12.5°	1223.2	1224.3	1222.1	1213.1	1208.6	1198.5	1187.2	1177.1	1165.8	1152.3	1141.1
15°	1300.9	1302.0	1298.6	1289.6	1284.0	1271.6	1255.9	1242.4	1223.2	1207.5	1192.8
17.5°	1360.5	1362.8	1356.0	1349.3	1341.4	1325.6	1311.0	1295.2	1275.0	1258.1	1243.5
20°	1380.8	1384.1	1379.6	1376.3	1371.8	1363.9	1349.3	1335.8	1317.8	1305.4	1294.1
22.5°	1371.8	1375.1	1372.9	1372.9	1372.9	1371.8	1365.0	1361.6	1350.4	1344.8	1342.5
25°	1358.3	1361.6	1359.4	1361.6	1366.1	1371.8	1371.8	1378.5	1377.4	1386.4	1392.0
27.5°	1393.1	1395.4	1389.8	1389.8	1394.3	1403.3	1401.0	1414.5	1416.8	1434.8	1451.7
30°	1514.7	1514.7	1505.7	1496.7	1500.1	1497.8	1495.6	1504.6	1504.6	1521.4	1529.3
32.5°	1695.9	1683.5	1682.4	1681.2	1673.4	1679.0	1661.0	1662.1	1654.2	1656.5	1653.1
35°	1895.0	1893.9	1889.4	1887.2	1883.8	1900.7	1887.2	1898.4	1870.3	1860.2	1841.0
37.5°	2069.5	2074.0	2077.3	2094.2	2102.1	2135.9	2143.7	2149.4	2120.1	2121.2	2078.5
40°	2245.0	2250.6	2263.0	2293.4	2315.9	2347.4	2362.0	2385.7	2387.9	2392.4	2360.9
42.5°	2436.3	2427.3	2444.2	2482.5	2510.6	2542.1	2561.2	2605.1	2629.9	2642.3	2646.8
45°	2590.5	2580.4	2588.2	2610.7	2636.6	2677.1	2718.8	2784.0	2836.9	2894.3	2925.8
47.5°	2670.4	2672.6	2678.3	2691.8	2709.8	2749.2	2807.7	2891.0	2976.5	3068.8	3150.9
50°	2696.3	2697.4	2705.3	2718.8	2735.7	2777.3	2838.1	2932.6	3036.1	3165.5	3291.6
52.5°	2704.1	2699.6	2707.5	2714.3	2725.5	2760.4	2817.8	2916.8	3033.9	3190.3	3377.1
55°	2674.9	2669.3	2682.8	2691.8	2700.8	2728.9	2772.8	2863.9	2985.5	3163.3	3407.5
57.5°	2562.4	2563.5	2582.6	2606.2	2629.9	2668.1	2725.5	2812.2	2932.6	3108.1	3381.6
60°	2372.2	2368.8	2392.4	2421.7	2462.2	2523.0	2593.9	2681.6	2781.8	2928.1	3197.0
62.5°	2026.7	2040.2	2048.1	2092.0	2094.2	2180.9	2227.0	2314.8	2400.3	2512.8	2754.8
65°	1411.2	1440.4	1448.3	1459.5	1512.4	1557.4	1631.7	1724.0	1780.3	1879.3	2059.3
67.5°	878.9	900.3	901.4	930.6	976.8	1028.5	1085.9	1179.3	1264.9	1280.6	1370.6
70°	729.2	730.3	746.1	767.5	803.5	856.4	912.6	977.9	1055.6	1105.1	1096.1
72.5°	604.3	611.0	622.3	643.7	683.1	730.3	802.4	885.6	982.4	1081.4	1169.2
75°	405.1	416.4	419.7	429.9	449.0	491.8	545.8	624.6	749.5	896.9	1083.7
77.5°	214.9	217.2	225.1	232.9	243.1	269.0	303.8	344.3	426.5	553.7	773.1
80°	109.2	113.7	119.3	124.9	123.8	130.5	140.7	158.7	186.8	243.1	350.0
82.5°	39.4	50.6	66.4	74.3	74.3	76.5	79.9	83.3	81.0	90.0	112.5
85°	18.0	20.3	25.9	40.5	41.6	41.6	41.6	43.9	41.6	37.1	43.9
87.5°	0.0	3.4	3.4	10.1	11.3	10.1	11.3	14.6	11.3	9.0	7.9
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):

	55°	60°	65°	70°	75°	80°	83°	85°	90°	95°	100°
0°	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6
2.5°	952.0	949.8	944.1	941.9	935.1	930.6	928.4	926.1	922.8	918.3	914.9
5°	993.7	986.9	979.0	974.5	965.5	956.5	953.1	948.6	940.8	934.0	926.1
7.5°	1037.5	1029.7	1020.7	1010.5	1001.5	991.4	986.9	982.4	971.2	962.1	950.9
10°	1084.8	1073.6	1063.4	1054.4	1046.5	1035.3	1027.4	1024.0	1013.9	1000.4	989.2
12.5°	1129.8	1117.4	1107.3	1096.1	1088.2	1079.2	1071.3	1067.9	1060.1	1047.7	1038.7
15°	1177.1	1164.7	1153.5	1145.6	1136.6	1130.9	1126.4	1120.8	1117.4	1107.3	1102.8
17.5°	1227.7	1216.5	1206.3	1199.6	1196.2	1195.1	1194.0	1191.7	1188.3	1181.6	1178.2
20°	1285.1	1275.0	1271.6	1270.5	1271.6	1272.7	1275.0	1275.0	1276.1	1271.6	1270.5
22.5°	1340.3	1340.3	1345.9	1352.6	1359.4	1363.9	1367.3	1362.8	1363.9	1370.6	1376.3
25°	1401.0	1411.2	1425.8	1437.0	1447.2	1455.0	1459.5	1461.8	1464.0	1474.2	1484.3
27.5°	1466.3	1482.0	1503.4	1518.1	1537.2	1549.6	1558.6	1557.4	1560.8	1574.3	1592.3
30°	1547.3	1563.1	1585.6	1605.8	1631.7	1649.7	1653.1	1650.8	1655.3	1667.7	1703.7
32.5°	1661.0	1664.4	1679.0	1699.2	1727.4	1745.4	1748.7	1754.4	1764.5	1787.0	1830.9
35°	1820.8	1806.1	1805.0	1814.0	1841.0	1875.9	1879.3	1882.7	1887.2	1916.4	1974.9
37.5°	2036.8	1977.2	1941.2	1913.0	1916.4	1928.8	1935.6	1937.8	1949.1	1994.1	2093.1
40°	2308.0	2196.6	2116.7	2036.8	2007.6	2009.8	2012.1	2009.8	2032.3	2102.1	2231.5
42.5°	2605.1	2507.2	2367.7	2202.3	2119.0	2092.0	2095.3	2097.6	2132.5	2233.8	2377.8
45°	2920.2	2857.2	2695.1	2436.3	2257.4	2188.7	2186.5	2191.0	2248.4	2391.3	2543.2
47.5°	3197.0	3212.8	3093.5	2789.7	2482.5	2308.0	2293.4	2301.3	2394.7	2547.7	2701.9
50°	3416.5	3520.0	3511.0	3270.2	2847.1	2514.0	2462.2	2473.5	2583.7	2742.4	2880.8
52.5°	3581.9	3792.3	3927.4	3831.7	3463.7	2887.6	2753.7	2734.5	2872.9	3040.6	3126.1
55°	3692.2	4033.2	4387.6	4553.0	4403.4	3694.4	3344.5	3302.8	3452.5	3666.3	3703.4
57.5°	3765.3	4325.7	5088.7	5727.9	5931.6	5323.9	4885.0	4710.6	4819.8	5045.9	4997.6
60°	3643.8	4441.6	5934.9	7080.5	7660.1	7509.3	7020.9	6757.6	6553.9	6537.0	6268.0
62.5°	3177.9	4165.9	6278.2	7724.2	8538.9	8726.9	8640.2	8328.5	7764.7	7451.9	6844.2
65°	2396.9	3413.1	6034.0	7674.7	8438.8	8855.2	9137.6	8913.7	8058.4	7517.1	6709.2
67.5°	1531.6	2203.4	5018.9	7079.4	7797.4	8265.5	8830.4	8728.0	7635.3	6944.4	6065.5
70°	1118.6	1221.0	3405.2	5992.3	6782.3	7194.2	7970.7	7925.6	6695.7	5919.2	5048.2
72.5°	1288.5	910.4	1866.9	4476.5	5087.6	5411.7	5856.2	5747.0	4678.0	4138.9	3522.3
75°	1452.8	1018.4	1052.2	2655.8	2842.6	2615.2	2676.0	2323.8	1812.9	1607.0	1583.3
77.5°	1223.2	1277.2	954.3	1141.1	1051.1	757.3	567.2	444.5	347.7	373.6	415.2
80°	711.2	1435.9	1262.6	594.2	666.2	530.0	236.3	195.8	162.0	164.3	166.5
82.5°	219.4	896.9	1776.9	725.8	659.4	747.2	217.2	132.8	106.9	120.4	136.2
85°	73.1	375.9	1424.7	761.8	426.5	398.4	95.7	65.3	54.0	75.4	106.9
87.5°	18.0	91.2	264.5	100.2	63.0	38.3	32.6	23.6	25.9	47.3	66.4
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6	921.6
2.5°	912.6	909.3	905.9	903.6	900.3	900.3	896.9	896.9	892.4	890.1	890.1
5°	919.4	912.6	907.0	901.4	895.8	893.5	889.0	886.8	882.3	878.9	876.6
7.5°	941.9	932.9	926.1	919.4	912.6	909.3	904.8	900.3	899.1	896.9	894.6
10°	980.2	967.8	962.1	957.6	948.6	946.4	941.9	938.5	935.1	931.8	932.9
12.5°	1029.7	1020.7	1018.4	1009.4	1007.2	1003.8	997.0	994.8	985.8	979.0	975.7
15°	1092.7	1089.3	1089.3	1084.8	1078.1	1072.4	1062.3	1056.7	1040.9	1030.8	1019.5
17.5°	1176.0	1172.6	1173.7	1169.2	1161.3	1151.2	1140.0	1123.1	1099.4	1081.4	1058.9
20°	1272.7	1271.6	1273.9	1270.5	1260.4	1246.9	1219.8	1195.1	1162.5	1129.8	1105.1
22.5°	1380.8	1386.4	1388.6	1379.6	1368.4	1340.3	1311.0	1275.0	1231.1	1188.3	1153.5
25°	1495.6	1509.1	1516.9	1504.6	1491.1	1455.0	1411.2	1362.8	1300.9	1249.1	1203.0
27.5°	1608.1	1636.2	1647.5	1640.7	1619.3	1568.7	1510.2	1446.0	1370.6	1302.0	1242.4
30°	1742.0	1779.1	1799.4	1789.3	1747.6	1681.2	1610.3	1523.7	1428.0	1345.9	1273.9
32.5°	1882.7	1928.8	1943.4	1922.0	1861.3	1778.0	1685.7	1580.0	1471.9	1377.4	1296.4
35°	2039.1	2081.8	2085.2	2043.6	1963.7	1857.9	1743.1	1616.0	1492.2	1386.4	1297.5
37.5°	2175.2	2218.0	2214.6	2152.7	2056.0	1924.3	1778.0	1623.8	1479.8	1359.4	1262.6
40°	2318.2	2365.4	2339.5	2259.6	2134.7	1967.1	1782.5	1596.8	1432.5	1300.9	1195.1
42.5°	2469.0	2489.2	2443.1	2342.9	2182.0	1965.9	1744.2	1532.7	1358.3	1212.0	1100.6
45°	2607.4	2591.6	2525.2	2391.3	2178.6	1917.5	1668.9	1452.8	1259.2	1112.9	1003.8
47.5°	2731.2	2681.6	2579.2	2391.3	2125.7	1832.0	1572.1	1349.3	1156.8	1009.4	901.4
50°	2865.1	2761.5	2601.7	2349.7	2030.1	1728.5	1469.7	1245.7	1047.7	896.9	778.7
52.5°	3042.9	2857.2	2601.7	2274.3	1931.1	1623.8	1361.6	1125.3	920.5	763.0	645.9
55°	3459.2	3057.5	2646.8	2232.6	1843.3	1513.6	1233.4	970.0	770.8	620.1	523.3
57.5°	4277.3	3496.4	2872.9	2309.2	1810.6	1394.3	1067.9	797.9	608.8	482.8	401.7
60°	4958.2	3850.8	3056.4	2367.7	1757.8	1240.1	865.4	611.0	452.4	356.7	303.8
62.5°	5133.7	3855.4	2981.0	2215.8	1543.9	1009.4	638.1	420.9	310.6	258.8	230.7
65°	4694.8	3409.7	2535.3	1807.3	1176.0	701.1	399.5	255.4	207.1	189.1	177.8
67.5°	3946.5	2716.5	1879.3	1260.4	741.6	386.0	223.9	175.6	157.5	151.9	146.3
70°	3027.1	1908.5	1223.2	738.2	388.2	200.3	159.8	144.0	136.2	132.8	128.3
72.5°	1865.8	1127.6	665.1	354.5	193.6	153.0	142.9	137.3	127.2	122.7	118.2
75°	792.2	483.9	275.7	180.1	155.3	146.3	138.4	131.7	123.8	117.0	112.5
77.5°	266.7	184.6	163.2	157.5	155.3	146.3	136.2	127.2	119.3	111.4	106.9
80°	162.0	147.4	150.8	149.7	155.3	145.2	131.7	121.5	112.5	104.7	99.0
82.5°	140.7	139.5	142.9	146.3	154.2	139.5	123.8	109.2	97.9	90.0	84.4
85°	121.5	123.8	126.0	128.3	132.8	118.2	100.2	86.6	77.6	67.5	63.0
87.5°	81.0	87.8	92.3	93.4	90.0	56.3	32.6	38.3	39.4	33.8	30.4
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):

	160°	165°	170°	175°	180°
0°	921.6	921.6	921.6	921.6	921.6
2.5°	886.8	885.6	889.0	885.6	885.6
5°	875.5	874.4	874.4	874.4	872.1
7.5°	893.5	892.4	891.3	891.3	890.1
10°	928.4	927.3	927.3	926.1	926.1
12.5°	970.0	965.5	964.4	962.1	963.3
15°	1010.5	998.2	994.8	991.4	988.0
17.5°	1042.0	1027.4	1019.5	1012.8	1012.8
20°	1081.4	1062.3	1052.2	1042.0	1042.0
22.5°	1126.4	1100.6	1087.1	1075.8	1071.3
25°	1163.6	1130.9	1111.8	1098.3	1094.9
27.5°	1191.7	1150.1	1125.3	1109.6	1105.1
30°	1214.2	1167.0	1137.7	1120.8	1114.1
32.5°	1228.9	1177.1	1145.6	1128.7	1121.9
35°	1221.0	1165.8	1127.6	1107.3	1102.8
37.5°	1181.6	1123.1	1078.1	1056.7	1048.8
40°	1109.6	1046.5	999.3	973.4	968.9
42.5°	1015.0	952.0	907.0	880.0	867.6
45°	913.8	848.5	805.7	781.0	766.3
47.5°	804.6	740.5	696.6	671.8	661.7
50°	689.8	627.9	590.8	563.8	553.7
52.5°	570.5	515.4	478.3	455.8	444.5
55°	456.9	411.9	380.4	365.7	357.9
57.5°	356.7	327.5	309.5	300.5	294.8
60°	276.8	262.2	255.4	248.7	249.8
62.5°	216.1	212.7	210.4	207.1	208.2
65°	174.4	172.2	173.3	172.2	173.3
67.5°	142.9	144.0	146.3	146.3	147.4
70°	126.0	127.2	129.4	129.4	129.4
72.5°	117.0	119.3	121.5	120.4	120.4
75°	110.3	115.9	120.4	115.9	111.4
77.5°	103.5	117.0	129.4	119.3	106.9
80°	94.5	123.8	138.4	120.4	102.4
82.5°	90.0	119.3	121.5	104.7	90.0
85°	83.3	135.0	140.7	95.7	68.6
87.5°	42.8	81.0	93.4	64.1	34.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)