

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: P141094

Luminaire Tested: **ECM-F04-LED-E1-SL3-7030**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P141094
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33691)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ECM-F04-LED-E1-SL3-7030
Description: EPIC CLASSICAL MEDIUM DECORATIVE LED LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (28) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8727.9 lumens
Efficiency: N/A
Efficacy: 85.4 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

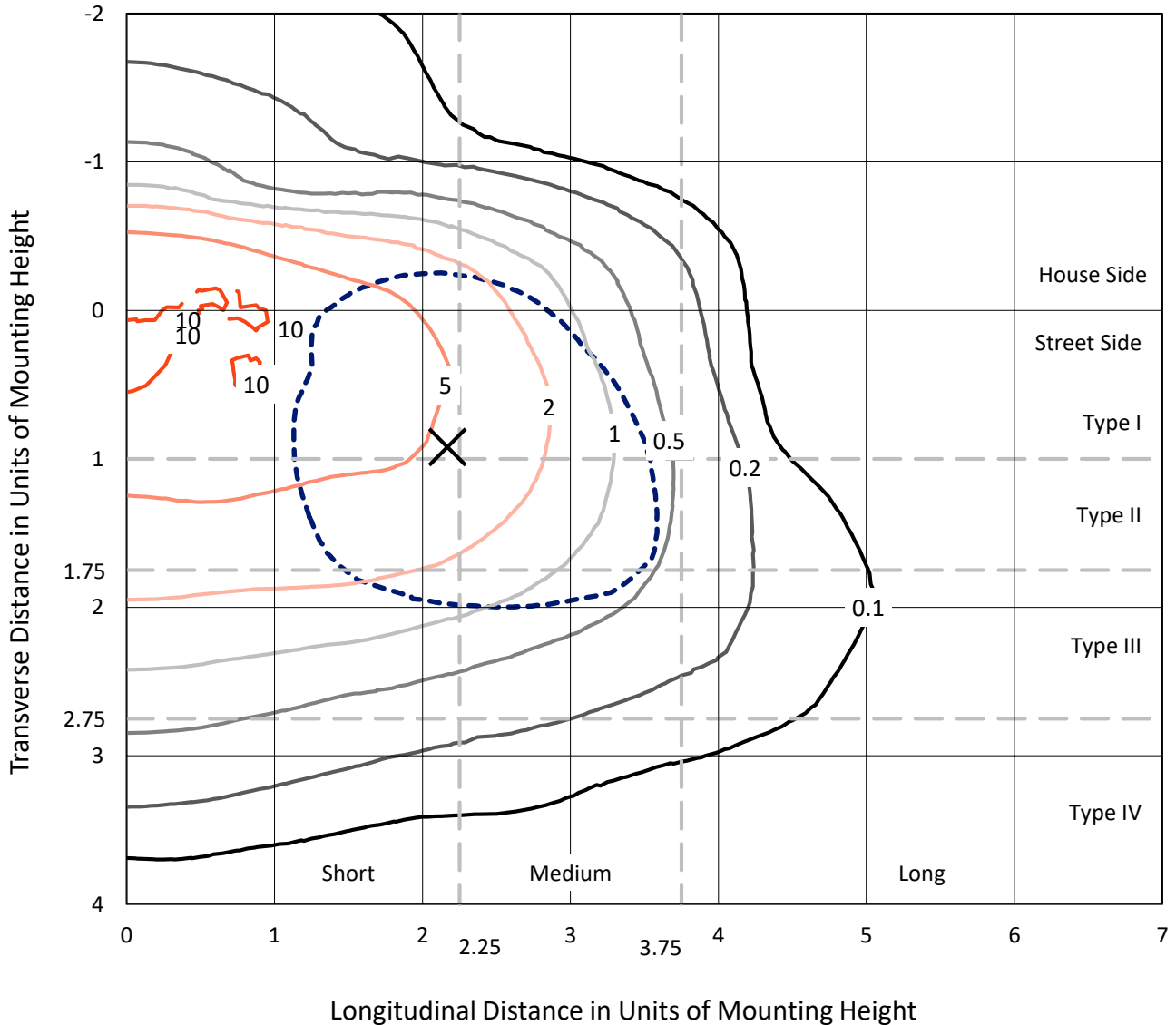
Input Watts (W): 102.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

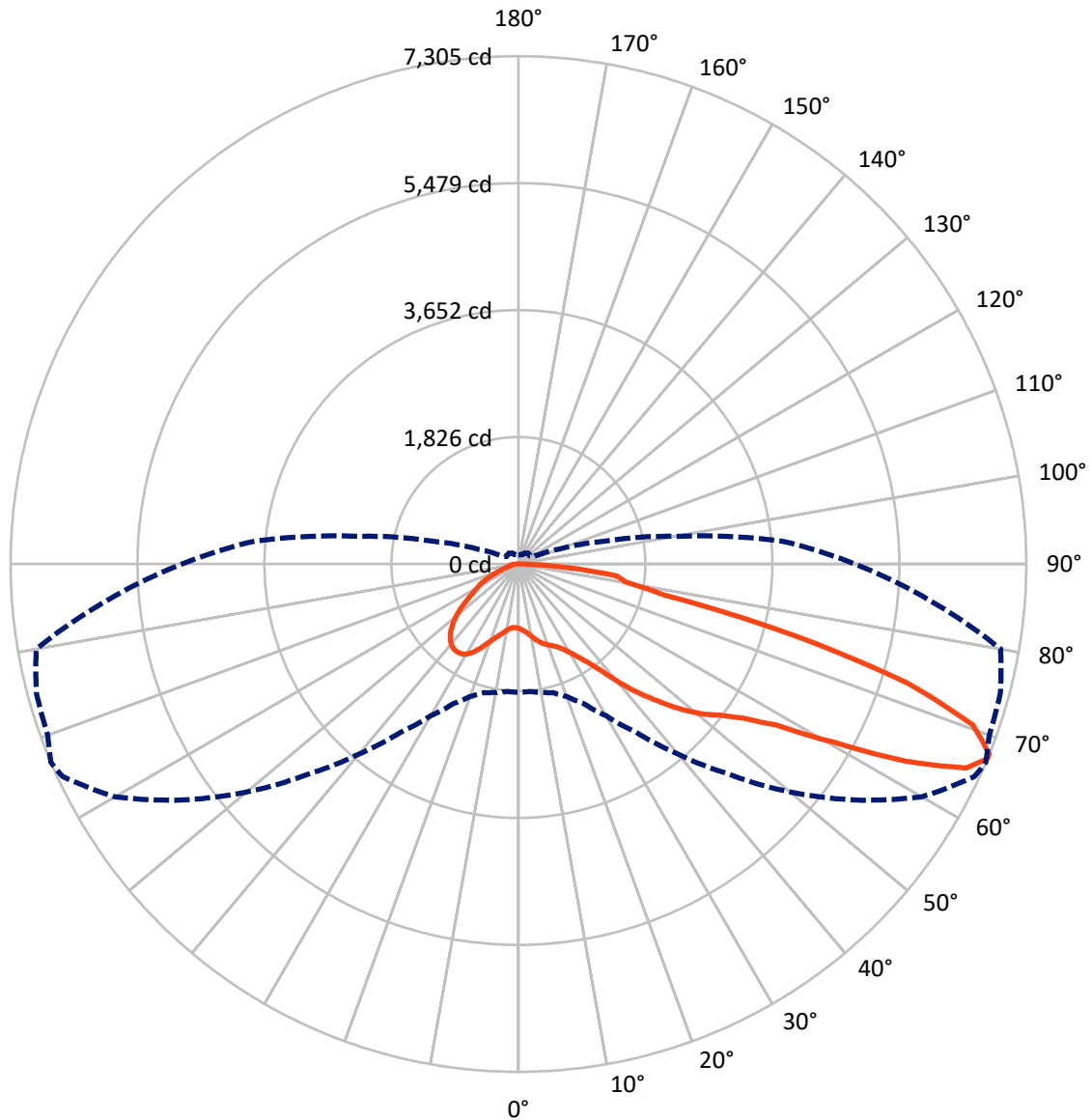
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.1 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2007.9	0.0	2007.9
	% Fixture	23.0	0.0	23.0
Street Side	Lumens	6720.0	0.0	6720.0
	% Fixture	77.0	0.0	77.0
Total	Lumens	8727.9	0.0	8727.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.8	1.1
10°-20°	320.9	3.7
20°-30°	571.3	6.5
30°-40°	821.3	9.4
40°-50°	1251.7	14.3
50°-60°	1828.4	20.9
60°-70°	2463.6	28.2
70°-80°	1209.6	13.9
80°-90°	168.2	1.9
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°	8727.9	100.0
0°-180°	8727.9	100.0



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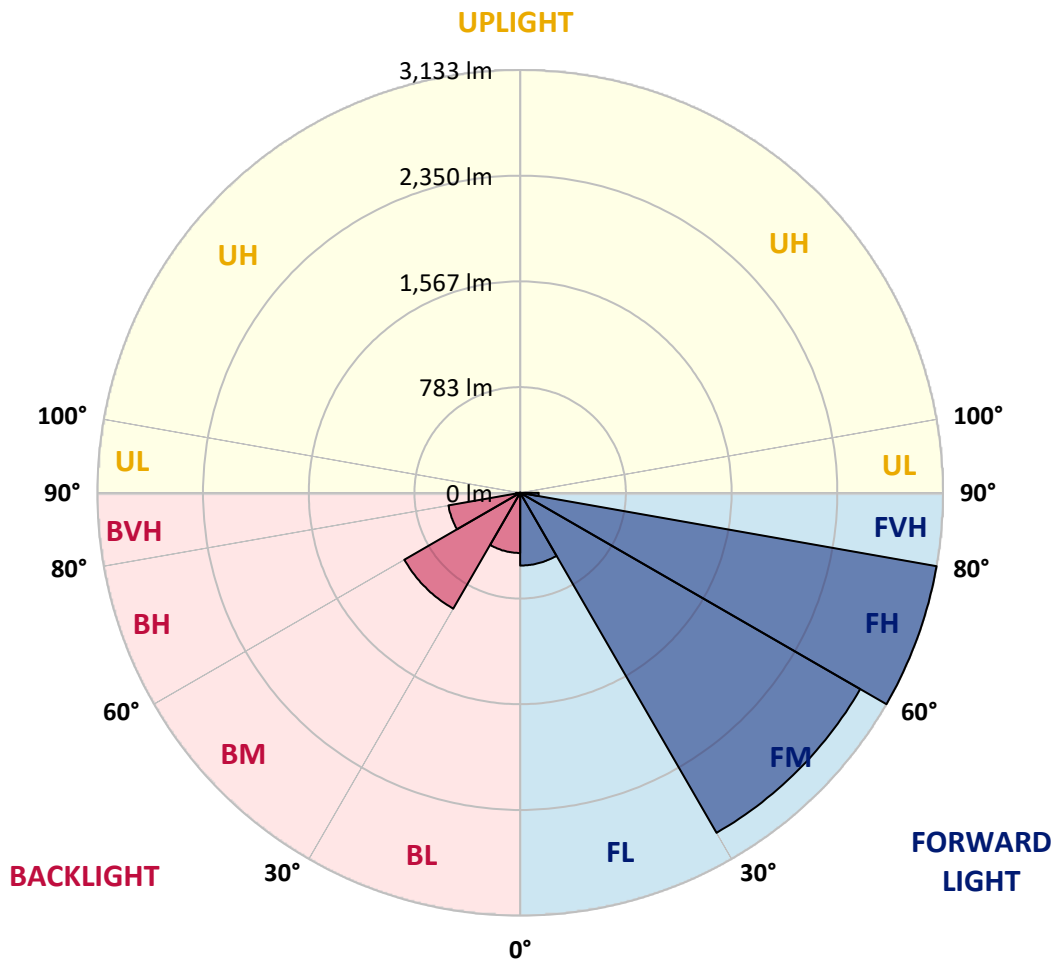
CATALOG NUMBER: ECM-F04-LED-E1-SL3-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	539.1	6.2			
FM	(30°-60°)	2909.7	33.3			
FH	(60°-80°)	3133.3	35.9			G2/5000
FVH	(80°-90°)	137.9	1.6			G2/225
BL	(0°-30°)	445.9	5.1	B1/500		
BM	(30°-60°)	991.8	11.4	B1/1000		
BH	(60°-80°)	539.9	6.2	B2/1000		G2/1000
BVH	(80°-90°)	30.3	0.3			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 III Short





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CATALOG NUMBER: ECM-F04-LED-E1-SL3-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9
2.5°	974.2	969.1	973.2	972.1	969.1	965.1	967.1	964.1	962.1	959.1	956.1
5°	1037.5	1034.5	1032.5	1029.5	1027.4	1024.4	1022.4	1017.4	1010.4	1005.3	1001.3
7.5°	1099.8	1098.8	1095.8	1091.8	1083.7	1081.7	1074.7	1069.7	1063.6	1053.6	1045.5
10°	1173.2	1172.2	1167.2	1161.1	1152.1	1143.1	1135.0	1122.9	1110.9	1101.8	1094.8
12.5°	1261.7	1256.7	1246.6	1238.6	1228.5	1214.4	1201.4	1187.3	1170.2	1156.1	1148.1
15°	1350.2	1344.1	1336.1	1325.0	1309.9	1290.8	1271.7	1250.6	1224.5	1206.4	1195.3
17.5°	1422.5	1418.5	1409.5	1394.4	1379.3	1356.2	1331.0	1301.9	1269.7	1242.6	1225.5
20°	1474.8	1470.8	1456.7	1438.6	1418.5	1392.4	1365.2	1333.1	1294.9	1261.7	1242.6
22.5°	1496.9	1490.9	1474.8	1450.7	1423.5	1391.4	1362.2	1335.1	1299.9	1274.8	1254.6
25°	1504.0	1496.9	1475.8	1445.7	1410.5	1369.3	1336.1	1315.0	1293.9	1284.8	1277.8
27.5°	1499.9	1493.9	1470.8	1433.6	1386.3	1338.1	1302.9	1287.8	1288.8	1305.9	1314.0
30°	1485.9	1478.8	1457.7	1416.5	1366.2	1314.0	1282.8	1277.8	1300.9	1344.1	1376.3
32.5°	1462.7	1457.7	1440.6	1405.4	1360.2	1315.0	1292.8	1303.9	1344.1	1411.5	1466.8
35°	1456.7	1455.7	1447.7	1428.6	1395.4	1366.2	1357.2	1388.4	1454.7	1547.2	1617.6
37.5°	1455.7	1460.7	1464.8	1464.8	1457.7	1455.7	1482.9	1526.1	1624.6	1740.2	1854.8
40°	1475.8	1484.9	1505.0	1531.1	1556.2	1592.4	1647.7	1729.2	1831.7	1972.4	2115.2
42.5°	1538.1	1558.3	1592.4	1637.7	1703.0	1770.4	1859.9	1961.4	2093.1	2234.8	2376.6
45°	1659.8	1688.9	1714.1	1785.5	1871.9	1951.3	2068.0	2201.7	2346.4	2524.4	2677.2
47.5°	1820.6	1841.8	1894.0	1969.4	2075.0	2188.6	2301.2	2417.8	2591.7	2777.7	2962.7
50°	1981.5	1997.6	2052.9	2141.3	2280.1	2404.7	2533.4	2649.0	2798.8	2995.9	3176.8
52.5°	2101.1	2123.2	2171.5	2258.0	2413.8	2555.5	2702.3	2830.0	2998.9	3175.8	3364.8
55°	2183.6	2197.6	2241.9	2326.3	2473.1	2635.0	2800.8	2957.7	3158.7	3358.8	3546.8
57.5°	2196.6	2210.7	2250.9	2325.3	2468.1	2638.0	2828.0	3020.0	3263.3	3527.7	3774.0
60°	2181.6	2192.6	2227.8	2289.1	2423.8	2609.8	2836.0	3077.3	3376.9	3717.7	4069.6
62.5°	2114.2	2125.3	2157.4	2207.7	2327.3	2528.4	2811.9	3161.7	3538.7	3967.0	4482.7
65°	1987.5	1994.6	2024.7	2064.9	2185.6	2389.7	2702.3	3144.7	3666.4	4249.5	4917.0
67°	1843.8	1840.7	1874.9	1915.1	2025.7	2213.7	2519.3	2954.6	3564.9	4271.6	5099.0
67.5°	1799.5	1807.6	1840.7	1868.9	1976.5	2158.4	2451.0	2881.3	3478.4	4221.4	5096.0
70°	1485.9	1500.9	1519.0	1537.1	1631.6	1765.4	1980.5	2396.7	2879.2	3583.0	4626.5
72.5°	1019.4	989.2	1002.3	996.3	1025.4	1109.9	1259.7	1625.6	2008.6	2613.8	3434.2
75°	516.7	549.9	545.9	571.0	612.2	665.5	734.9	871.6	1172.2	1528.1	2125.3
77.5°	289.5	281.5	309.6	315.7	339.8	396.1	518.7	698.7	836.4	982.2	1201.4
80°	131.7	145.8	154.8	140.7	145.8	157.8	205.1	321.7	540.9	823.4	947.0
82.5°	73.4	78.4	91.5	92.5	96.5	99.5	107.6	124.7	167.9	339.8	668.5
85°	46.2	48.3	61.3	67.4	70.4	70.4	70.4	74.4	85.5	100.5	172.9
87.5°	17.1	18.1	28.1	37.2	38.2	36.2	34.2	39.2	36.2	37.2	56.3
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°	67°	70°	75°	80°	85°	90°	95°	100°
0°	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9
2.5°	954.1	950.0	946.0	945.0	942.0	940.0	935.0	930.9	926.9	923.9	920.9
5°	992.3	984.2	977.2	974.2	970.1	965.1	955.1	948.0	942.0	936.0	929.9
7.5°	1035.5	1025.4	1015.4	1011.4	1005.3	996.3	985.2	977.2	967.1	958.1	950.0
10°	1083.7	1072.7	1064.6	1060.6	1055.6	1042.5	1035.5	1021.4	1010.4	998.3	988.2
12.5°	1136.0	1131.0	1119.9	1115.9	1110.9	1101.8	1091.8	1079.7	1065.6	1052.6	1040.5
15°	1183.3	1175.2	1168.2	1167.2	1164.2	1159.1	1146.1	1133.0	1120.9	1103.8	1093.8
17.5°	1212.4	1209.4	1208.4	1207.4	1205.4	1202.4	1196.3	1182.3	1171.2	1157.1	1143.1
20°	1230.5	1233.5	1238.6	1242.6	1244.6	1246.6	1243.6	1229.5	1218.5	1206.4	1194.3
22.5°	1249.6	1257.7	1270.7	1276.8	1283.8	1293.9	1291.8	1282.8	1276.8	1262.7	1253.6
25°	1276.8	1292.8	1315.0	1323.0	1336.1	1349.1	1352.2	1347.1	1341.1	1331.0	1331.0
27.5°	1323.0	1346.1	1375.3	1392.4	1405.4	1423.5	1429.6	1426.6	1427.6	1421.5	1435.6
30°	1395.4	1427.6	1466.8	1484.9	1500.9	1522.1	1526.1	1532.1	1528.1	1539.2	1556.2
32.5°	1505.0	1545.2	1585.4	1602.5	1616.6	1638.7	1651.7	1647.7	1661.8	1668.8	1693.0
35°	1673.9	1714.1	1745.2	1748.3	1764.3	1776.4	1788.5	1784.5	1822.7	1837.7	1850.8
37.5°	1907.1	1941.3	1960.4	1953.3	1934.2	1957.4	1973.5	1997.6	2021.7	2048.9	2000.6
40°	2209.7	2264.0	2255.9	2245.9	2209.7	2214.7	2221.8	2234.8	2275.0	2266.0	2128.3
42.5°	2497.2	2552.5	2543.5	2532.4	2484.2	2459.0	2478.1	2501.2	2523.4	2437.9	2232.8
45°	2787.8	2838.0	2794.8	2809.9	2766.7	2755.6	2792.8	2805.9	2780.7	2623.9	2321.3
47.5°	3089.4	3143.7	3122.5	3107.5	3076.3	3073.3	3094.4	3114.5	3015.0	2758.6	2387.6
50°	3320.6	3401.0	3390.0	3380.9	3346.7	3342.7	3393.0	3407.0	3228.1	2901.4	2454.0
52.5°	3498.5	3603.1	3623.2	3611.1	3603.1	3605.1	3749.9	3728.7	3481.4	3074.3	2531.4
55°	3708.6	3817.2	3890.6	3905.7	3925.8	3954.9	4241.5	4210.3	3831.3	3323.6	2612.8
57.5°	3987.1	4188.2	4298.8	4367.1	4422.4	4611.4	4975.4	4855.7	4315.9	3645.3	2709.3
60°	4397.3	4796.4	5025.6	5199.5	5309.1	5638.9	6080.2	5639.9	4878.8	4031.4	2836.0
62.5°	5055.8	5707.2	6145.5	6244.1	6290.3	6604.0	6919.6	6240.0	5285.0	4286.7	2856.1
65°	5694.2	6508.5	7020.2	7077.5	7043.3	7127.8	7216.2	6258.1	5190.5	4166.1	2620.9
67°	5919.4	6697.5	7235.3	7304.7	7204.2	7177.0	7042.3	5928.4	4837.6	3796.1	2293.1
67.5°	5907.3	6675.4	7233.3	7303.7	7204.2	7160.9	6962.9	5795.7	4698.9	3705.6	2229.8
70°	5444.8	6182.7	6804.0	6935.7	6880.4	6765.8	6239.0	4909.0	3893.6	3040.1	1719.1
72.5°	4420.4	5217.6	5710.2	5856.0	5895.2	5600.7	4646.6	3436.2	2806.9	2172.5	1246.6
75°	2967.7	3759.9	4163.0	4089.7	3851.4	3349.7	2453.0	1812.6	1538.1	1263.7	771.1
77.5°	1682.9	2294.2	2263.0	2136.3	1935.2	1432.6	695.7	377.0	359.9	420.2	326.7
80°	1124.0	1414.5	1511.0	1560.3	1549.2	1059.6	287.5	145.8	125.7	125.7	123.7
82.5°	938.0	1222.5	1384.3	1427.6	1330.0	805.3	171.9	95.5	76.4	85.5	95.5
85°	395.1	616.3	815.3	784.2	623.3	313.7	87.5	50.3	50.3	66.4	83.4
87.5°	95.5	141.8	200.1	194.0	155.8	72.4	44.2	31.2	31.2	51.3	72.4
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°	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9	925.9
2.5°	919.9	915.9	915.9	911.8	909.8	907.8	906.8	907.8	904.8	901.8	902.8
5°	924.9	918.9	915.9	908.8	904.8	900.8	897.8	896.7	891.7	888.7	888.7
7.5°	942.0	933.9	927.9	919.9	911.8	905.8	900.8	897.8	890.7	885.7	884.7
10°	977.2	966.1	957.1	945.0	933.9	925.9	916.9	911.8	903.8	898.8	896.7
12.5°	1029.5	1013.4	999.3	981.2	968.1	956.1	951.0	943.0	940.0	937.0	938.0
15°	1078.7	1059.6	1046.5	1032.5	1017.4	1010.4	1000.3	999.3	1000.3	995.3	995.3
17.5°	1129.0	1113.9	1098.8	1093.8	1079.7	1074.7	1067.7	1063.6	1054.6	1045.5	1034.5
20°	1181.3	1173.2	1167.2	1161.1	1158.1	1146.1	1128.0	1106.9	1077.7	1051.6	1029.5
22.5°	1248.6	1243.6	1244.6	1239.6	1223.5	1193.3	1152.1	1107.9	1060.6	1018.4	985.2
25°	1334.1	1339.1	1333.1	1307.9	1261.7	1200.4	1137.0	1074.7	1012.4	962.1	916.9
27.5°	1442.6	1438.6	1410.5	1346.1	1266.7	1179.2	1097.8	1023.4	949.0	890.7	834.4
30°	1561.3	1532.1	1458.7	1358.2	1246.6	1141.0	1040.5	954.1	867.6	799.2	735.9
32.5°	1680.9	1597.5	1478.8	1344.1	1211.4	1086.8	974.2	872.6	773.1	696.7	623.3
35°	1771.4	1637.7	1475.8	1314.0	1158.1	1015.4	884.7	759.0	643.4	551.9	477.5
37.5°	1854.8	1659.8	1455.7	1267.7	1084.7	920.9	758.0	622.3	505.7	414.2	349.9
40°	1906.1	1657.8	1416.5	1191.3	983.2	782.1	605.2	465.5	362.9	295.6	260.4
42.5°	1936.3	1636.7	1349.1	1089.8	843.5	626.3	446.4	320.7	258.4	229.2	213.1
45°	1951.3	1591.4	1265.7	954.1	674.6	447.4	307.6	231.2	206.1	198.0	194.0
47.5°	1942.3	1528.1	1146.1	801.2	502.7	306.6	220.2	195.0	187.0	183.0	182.0
50°	1921.2	1445.7	1020.4	635.4	356.9	220.2	185.0	177.9	174.9	173.9	171.9
52.5°	1891.0	1348.1	876.6	492.6	253.3	183.0	172.9	169.9	167.9	164.9	163.9
55°	1840.7	1227.5	729.9	362.9	203.1	172.9	167.9	166.9	162.9	159.8	157.8
57.5°	1780.4	1098.8	591.1	284.5	187.0	168.9	165.9	164.9	160.9	156.8	152.8
60°	1750.3	1008.3	486.6	246.3	184.0	170.9	168.9	166.9	161.9	155.8	150.8
62.5°	1675.9	910.8	419.2	234.2	188.0	177.9	176.9	172.9	165.9	159.8	151.8
65°	1483.9	773.1	356.9	222.2	194.0	189.0	191.0	186.0	177.9	167.9	154.8
67°	1253.6	628.3	301.6	213.1	201.1	204.1	207.1	204.1	191.0	175.9	158.8
67.5°	1191.3	585.1	286.5	210.1	203.1	207.1	212.1	209.1	195.0	177.9	160.9
70°	895.7	419.2	227.2	199.1	210.1	221.2	231.2	230.2	216.1	195.0	167.9
72.5°	619.3	286.5	184.0	186.0	204.1	224.2	237.3	243.3	229.2	204.1	171.9
75°	373.0	183.0	154.8	167.9	186.0	206.1	227.2	229.2	213.1	188.0	160.9
77.5°	183.0	131.7	127.7	132.7	149.8	166.9	175.9	164.9	154.8	137.7	127.7
80°	110.6	103.5	101.5	112.6	122.6	119.6	112.6	103.5	98.5	94.5	90.5
82.5°	92.5	93.5	95.5	97.5	95.5	84.4	72.4	66.4	62.3	62.3	63.3
85°	94.5	96.5	88.5	81.4	72.4	60.3	49.3	42.2	43.2	44.2	44.2
87.5°	73.4	70.4	62.3	51.3	41.2	30.2	24.1	20.1	22.1	21.1	23.1
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):

	160°	165°	170°	175°	180°
0°	925.9	925.9	925.9	925.9	925.9
2.5°	902.8	901.8	902.8	902.8	903.8
5°	886.7	884.7	884.7	885.7	885.7
7.5°	882.7	880.7	880.7	881.7	880.7
10°	896.7	895.7	897.8	896.7	896.7
12.5°	939.0	939.0	943.0	945.0	943.0
15°	996.3	994.3	997.3	998.3	999.3
17.5°	1028.4	1019.4	1016.4	1018.4	1014.4
20°	1010.4	995.3	989.2	988.2	981.2
22.5°	959.1	937.0	927.9	923.9	915.9
25°	886.7	860.6	848.5	838.4	833.4
27.5°	800.2	768.1	751.0	742.9	739.9
30°	691.7	660.5	635.4	622.3	618.3
32.5°	571.0	525.8	499.6	483.6	472.5
35°	426.3	383.0	363.9	351.9	337.8
37.5°	309.6	283.5	267.4	259.4	256.4
40°	239.3	226.2	218.2	217.2	216.1
42.5°	207.1	201.1	200.1	198.0	196.0
45°	191.0	189.0	190.0	187.0	185.0
47.5°	180.0	178.9	178.9	176.9	175.9
50°	170.9	170.9	169.9	168.9	168.9
52.5°	162.9	163.9	163.9	161.9	161.9
55°	155.8	155.8	156.8	155.8	155.8
57.5°	150.8	149.8	150.8	150.8	150.8
60°	147.8	145.8	144.8	145.8	145.8
62.5°	144.8	141.8	140.7	140.7	141.8
65°	144.8	139.7	137.7	137.7	136.7
67°	145.8	137.7	133.7	131.7	130.7
67.5°	145.8	136.7	131.7	130.7	129.7
70°	145.8	132.7	125.7	120.6	120.6
72.5°	144.8	128.7	117.6	112.6	110.6
75°	137.7	121.6	111.6	105.6	103.5
77.5°	115.6	105.6	100.5	95.5	94.5
80°	87.5	82.4	78.4	67.4	62.3
82.5°	62.3	59.3	52.3	48.3	45.2
85°	44.2	41.2	38.2	34.2	34.2
87.5°	24.1	23.1	22.1	20.1	18.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)