

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: P139851

Luminaire Tested: **ENV-E02-LED-E1-GZW-7050**

Issue Date: 03/03/2020

Test Information

Test Method: LM-79-08
Report Number: P139851
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33649)
Test Lab: INNOVATION CENTER-P3
Issue Date: 03/03/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENV-E02-LED-E1-GZW-7050
Description: ENTRI LED LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - WALL GRAZER WIDE
Light Source: (42) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5715 lumens
Efficiency: N/A
Efficacy: 121.9 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.33' x H: 0')
IES Classification: Type I - Short - Full Cutoff
BUG Rating: B3 - U0 - G3

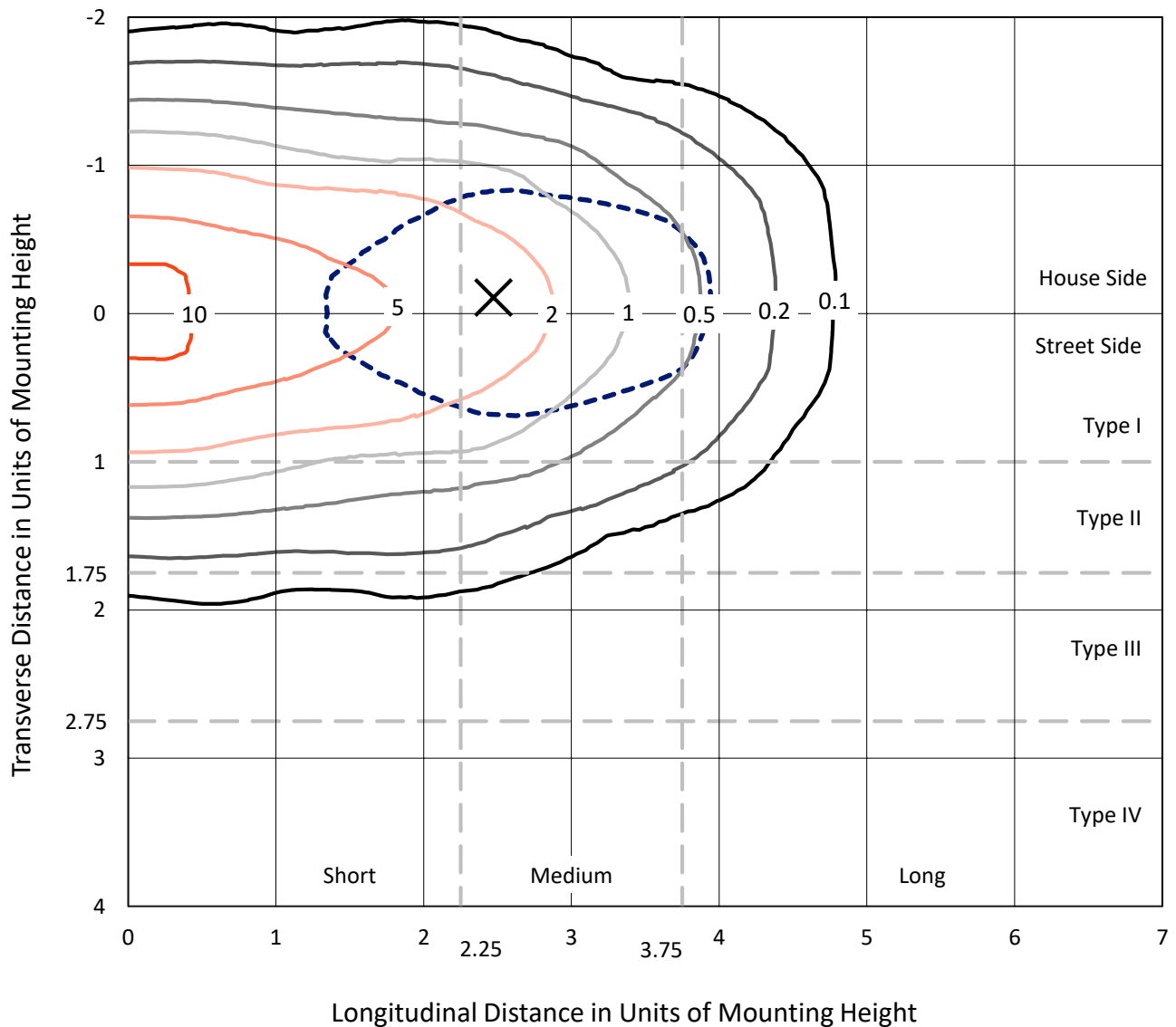
Input Watts (W): 46.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

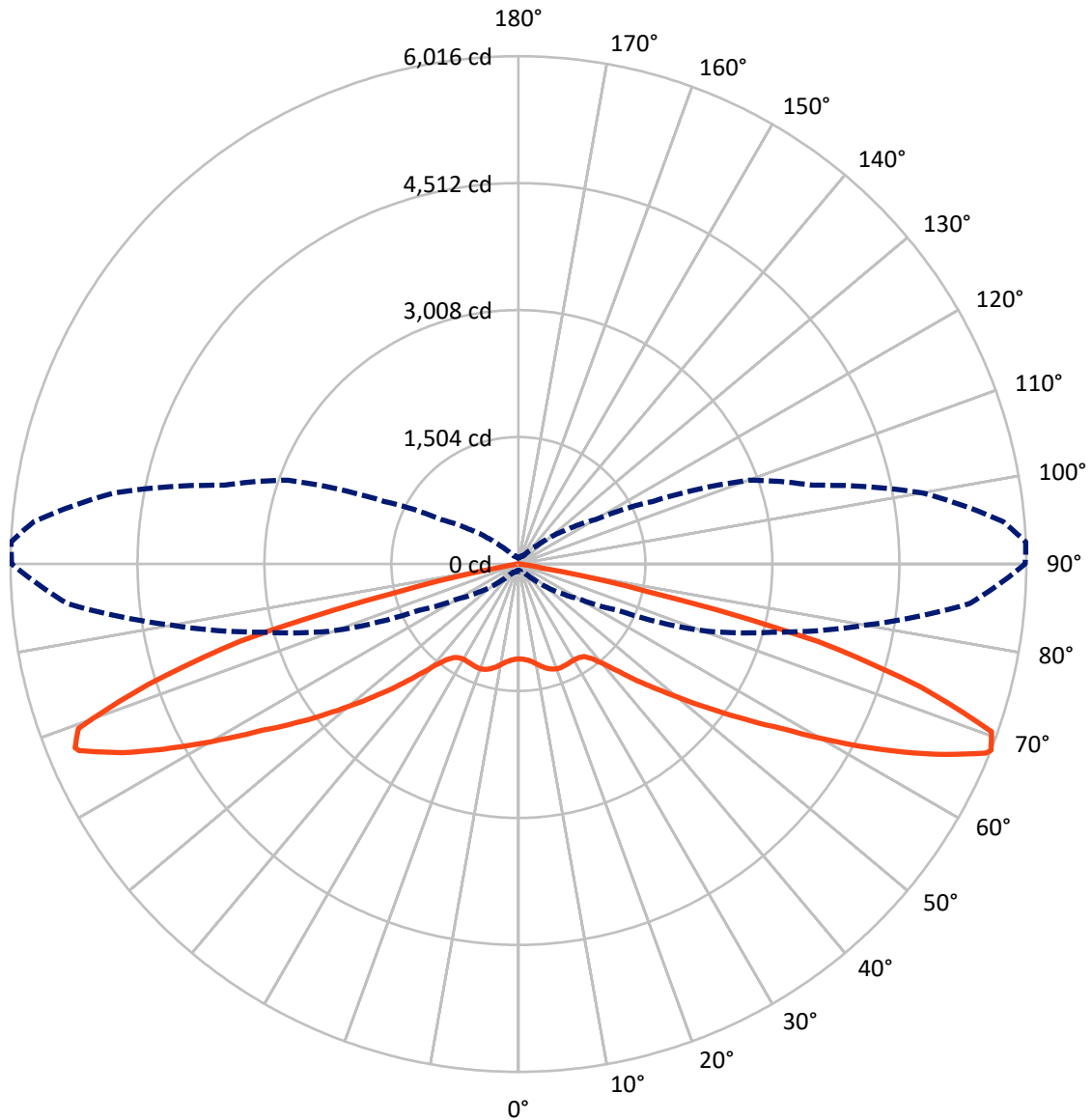
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 92.5-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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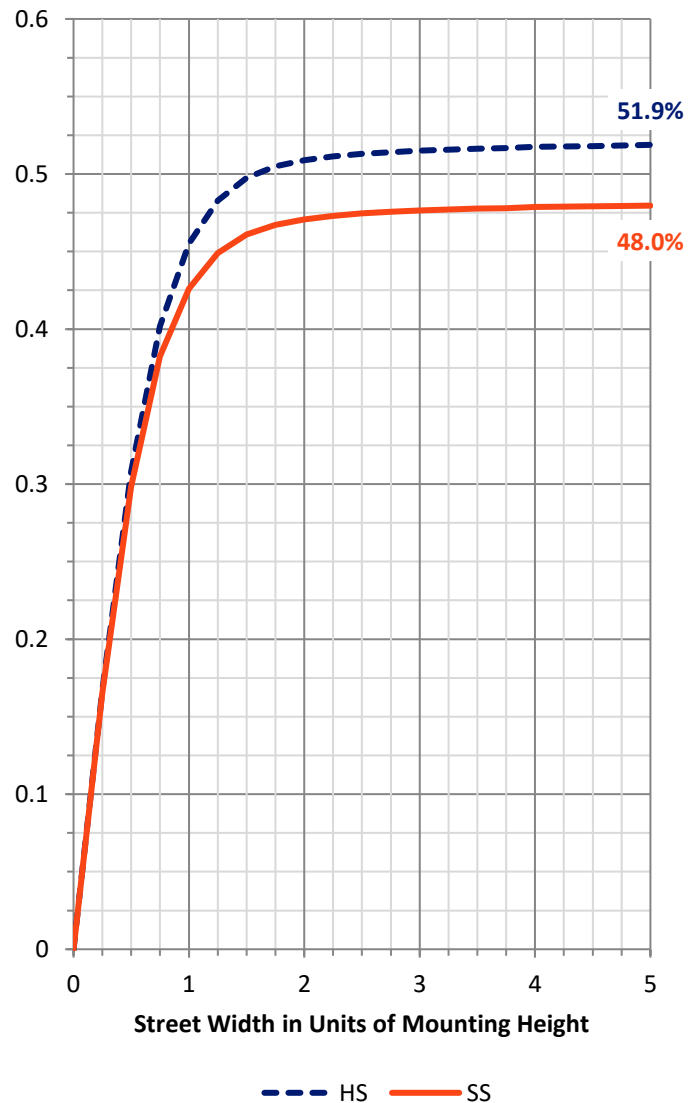
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2985.5	0.0	2985.5
	% Fixture	52.2	0.0	52.2
Street Side	Lumens	2729.5	0.0	2729.5
	% Fixture	47.8	0.0	47.8
Total	Lumens	5715.0	0.0	5715.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.4	1.9
10°-20°	349.4	6.1
20°-30°	566.7	9.9
30°-40°	704.5	12.3
40°-50°	875.9	15.3
50°-60°	1077.5	18.9
60°-70°	1273.9	22.3
70°-80°	713.4	12.5
80°-90°	43.3	0.8
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°	5715.0	100.0
0°-180°	5715.0	100.0



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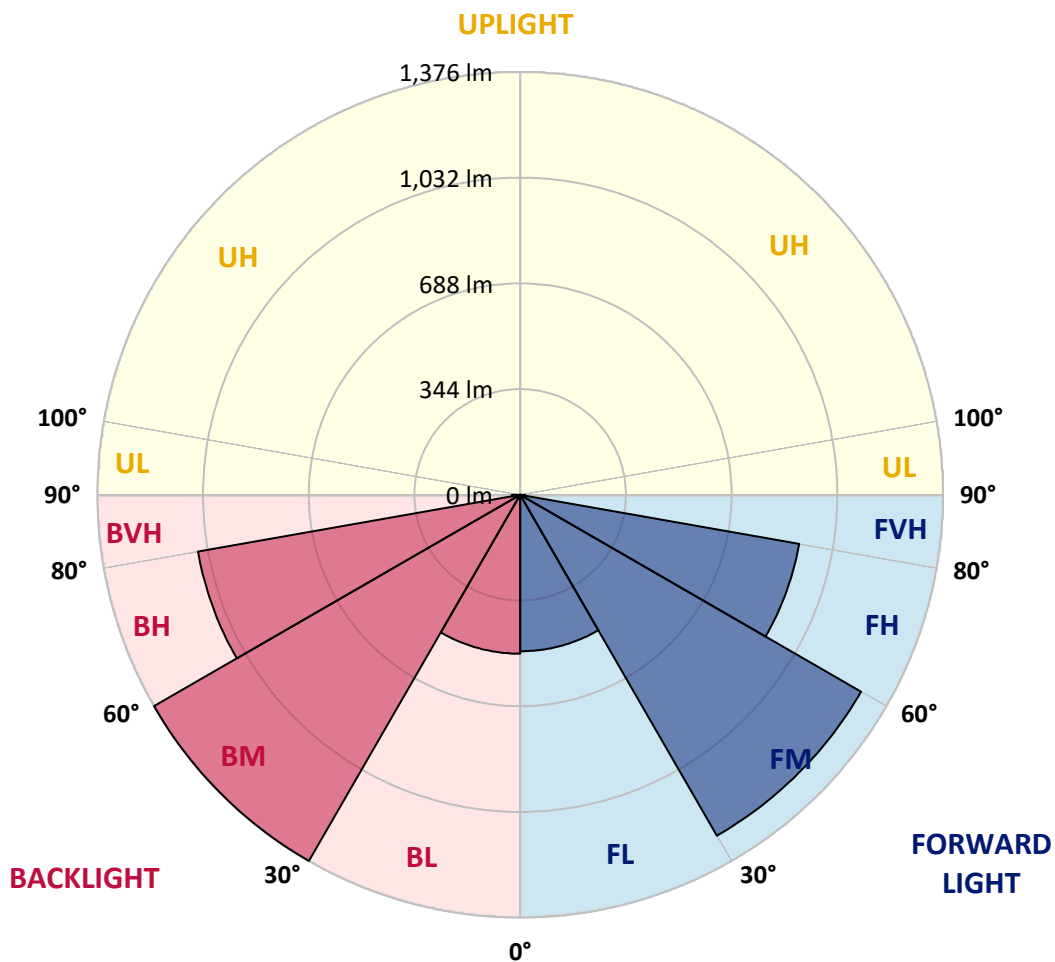
CATALOG NUMBER: ENV-E02-LED-E1-GZW-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	509.3	8.9			
FM (30°-60°)	1281.4	22.4			
FH (60°-80°)	922.3	16.1			G1/1800
FVH (80°-90°)	16.5	0.3			G1/100
BL (0°-30°)	517.3	9.1	B2/1000		
BM (30°-60°)	1376.5	24.1	B2/2500		
BH (60°-80°)	1064.9	18.6	B3/2500		G3/2500
BVH (80°-90°)	26.8	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 I Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6
2.5°	1128.7	1128.7	1128.7	1129.7	1130.8	1132.8	1131.8	1133.8	1130.8	1134.9	1134.9
5°	1142.1	1143.1	1144.1	1144.1	1146.2	1147.2	1146.2	1149.2	1146.2	1150.3	1151.3
7.5°	1154.4	1154.4	1155.4	1156.4	1158.5	1160.5	1161.6	1164.6	1163.6	1167.7	1171.8
10°	1163.6	1162.6	1163.6	1165.7	1170.8	1173.9	1178.0	1182.1	1184.1	1188.2	1194.4
12.5°	1167.7	1166.7	1169.8	1174.9	1180.0	1186.2	1192.3	1201.6	1207.7	1213.9	1223.1
15°	1165.7	1165.7	1169.8	1175.9	1186.2	1197.5	1208.8	1221.1	1232.4	1245.7	1254.9
17.5°	1146.2	1148.2	1154.4	1164.6	1180.0	1197.5	1215.9	1236.5	1254.9	1273.4	1285.7
20°	1111.3	1113.3	1124.6	1136.9	1157.4	1183.1	1211.8	1241.6	1270.3	1294.9	1312.4
22.5°	1068.2	1066.1	1076.4	1092.8	1120.5	1151.3	1188.2	1232.4	1271.3	1306.2	1330.9
25°	1001.5	1001.5	1012.8	1033.3	1063.0	1101.0	1146.2	1202.6	1254.9	1300.1	1335.0
27.5°	930.7	931.7	946.1	963.5	997.4	1033.3	1085.6	1151.3	1214.9	1274.4	1325.7
30°	859.9	863.0	875.3	892.7	928.6	966.6	1019.9	1084.6	1153.3	1227.2	1297.0
32.5°	787.0	791.1	801.4	821.9	860.9	903.0	957.4	1014.8	1080.5	1161.6	1251.8
35°	718.3	721.4	729.6	754.2	794.2	839.4	899.9	955.3	1022.0	1096.9	1196.4
37.5°	653.6	656.7	665.9	691.6	731.6	776.8	836.3	898.9	967.6	1041.5	1140.0
40°	583.9	591.0	603.4	628.0	664.9	716.2	776.8	842.4	915.3	999.4	1100.0
42.5°	520.2	526.4	537.7	559.2	596.2	650.6	714.2	781.9	860.9	956.3	1070.2
45°	461.7	466.9	478.2	497.7	536.7	579.7	637.2	708.0	790.1	899.9	1038.4
47.5°	405.3	410.4	422.8	446.4	478.2	520.2	571.5	634.1	710.1	821.9	977.9
50°	348.9	354.0	366.3	389.9	420.7	461.7	508.9	565.4	640.3	736.7	889.6
52.5°	287.3	292.4	304.8	328.4	358.1	397.1	445.3	503.8	573.6	664.9	791.1
55°	220.6	227.8	239.1	258.6	290.4	329.4	377.6	441.2	512.0	601.3	718.3
57.5°	159.0	164.2	177.5	192.9	219.6	260.6	303.7	369.4	448.4	539.7	655.7
60°	115.9	121.1	130.3	142.6	161.1	190.9	228.8	290.4	377.6	480.2	599.2
62.5°	96.5	100.6	109.8	122.1	132.4	146.7	169.3	216.5	301.7	415.6	540.8
65°	85.2	88.2	96.5	108.8	117.0	123.1	132.4	164.2	234.0	345.8	483.3
67.5°	75.9	79.0	85.2	95.4	104.7	107.7	112.9	134.4	183.7	281.2	422.8
68°	74.9	78.0	83.1	92.3	101.6	104.7	109.8	131.3	178.5	267.8	406.3
70°	69.8	71.8	77.0	84.1	91.3	93.4	99.5	121.1	167.3	234.0	329.4
72.5°	63.6	64.6	67.7	73.9	81.1	82.1	88.2	105.7	131.3	172.4	245.2
75°	53.4	54.4	58.5	63.6	67.7	69.8	71.8	80.0	89.3	106.7	144.7
77.5°	41.0	43.1	46.2	49.3	55.4	57.5	55.4	61.6	65.7	72.9	88.2
80°	24.6	24.6	27.7	30.8	33.9	39.0	36.9	43.1	46.2	50.3	59.5
82.5°	4.1	5.1	5.1	7.2	9.2	11.3	12.3	15.4	19.5	23.6	31.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	3.1
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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°	85°	90°	92.5°	95°	100°
0°	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6
2.5°	1128.7	1131.8	1131.8	1130.8	1130.8	1130.8	1127.7	1128.7	1129.7	1132.8	1128.7
5°	1145.1	1148.2	1147.2	1146.2	1146.2	1146.2	1142.1	1143.1	1144.1	1146.2	1142.1
7.5°	1166.7	1169.8	1170.8	1170.8	1170.8	1172.8	1166.7	1166.7	1168.7	1170.8	1164.6
10°	1198.5	1198.5	1201.6	1203.6	1205.7	1207.7	1203.6	1201.6	1205.7	1205.7	1198.5
12.5°	1228.2	1230.3	1235.4	1239.5	1240.6	1244.7	1244.7	1243.6	1246.7	1245.7	1237.5
15°	1262.1	1264.2	1268.3	1273.4	1274.4	1278.5	1278.5	1279.6	1282.6	1284.7	1272.4
17.5°	1293.9	1297.0	1297.0	1298.0	1300.1	1303.2	1305.2	1306.2	1309.3	1311.4	1299.0
20°	1320.6	1323.7	1318.5	1314.4	1310.3	1312.4	1316.5	1320.6	1322.6	1323.7	1308.3
22.5°	1341.1	1342.1	1333.9	1322.6	1311.4	1310.3	1315.5	1322.6	1324.7	1323.7	1302.1
25°	1352.4	1355.5	1347.3	1329.8	1309.3	1302.1	1307.3	1316.5	1320.6	1316.5	1290.8
27.5°	1352.4	1363.7	1359.6	1341.1	1313.4	1293.9	1297.0	1311.4	1314.4	1309.3	1279.6
30°	1342.1	1365.7	1370.9	1359.6	1330.9	1297.0	1292.9	1309.3	1313.4	1304.2	1274.4
32.5°	1321.6	1364.7	1385.2	1386.3	1363.7	1321.6	1301.1	1317.5	1320.6	1309.3	1284.7
35°	1292.9	1363.7	1403.7	1423.2	1416.0	1374.0	1338.0	1348.3	1346.3	1333.9	1324.7
37.5°	1261.1	1363.7	1430.4	1475.5	1492.0	1470.4	1423.2	1418.1	1423.2	1404.7	1399.6
40°	1226.2	1366.8	1468.4	1548.4	1597.6	1604.8	1562.8	1548.4	1554.5	1537.1	1544.3
42.5°	1205.7	1370.9	1518.6	1633.6	1729.0	1801.8	1783.4	1740.3	1737.2	1739.2	1754.6
45°	1195.4	1381.1	1568.9	1730.0	1863.4	2025.5	2043.0	1966.0	1970.1	1981.4	2005.0
47.5°	1184.1	1400.6	1627.4	1830.6	2010.1	2237.9	2323.1	2219.5	2211.3	2253.3	2260.5
50°	1143.1	1424.2	1694.1	1943.4	2164.1	2477.0	2611.4	2505.7	2507.8	2546.8	2532.4
52.5°	1048.7	1425.3	1764.9	2056.3	2318.0	2713.0	2917.2	2847.4	2842.3	2880.3	2804.3
55°	918.4	1360.6	1822.4	2167.1	2463.7	2932.6	3233.3	3248.6	3238.4	3244.5	3080.4
57.5°	813.7	1201.6	1828.5	2260.5	2586.8	3140.9	3557.5	3668.3	3669.4	3642.7	3351.3
60°	746.0	1023.0	1748.5	2337.5	2730.5	3406.7	3980.3	4228.6	4242.9	4134.2	3713.5
62.5°	689.5	932.7	1583.3	2416.5	2895.7	3675.5	4435.9	4844.2	4845.3	4663.6	4112.6
65°	645.4	883.5	1401.7	2386.7	3022.9	3936.1	4918.1	5464.0	5437.3	5237.2	4491.3
67.5°	596.2	839.4	1317.5	2340.5	3131.7	4177.3	5342.9	5969.9	5977.1	5730.8	4842.2
68°	585.9	822.9	1296.0	2301.6	3119.4	4169.1	5365.5	6003.7	6016.1	5762.6	4857.6
70°	504.8	718.3	1127.7	2010.1	2897.7	3946.4	5221.9	5908.3	5946.3	5663.1	4686.2
72.5°	336.6	496.6	753.2	1420.1	2232.8	3135.8	4274.8	4948.9	4980.7	4789.9	3892.0
75°	213.4	301.7	400.2	818.8	1500.2	2250.2	3223.0	3616.0	3668.3	3605.7	2914.1
77.5°	129.3	211.4	246.3	397.1	790.1	1052.8	1456.0	1481.7	1541.2	1504.3	1510.4
80°	85.2	146.7	179.6	269.9	274.0	226.8	257.6	259.6	275.0	292.4	304.8
82.5°	48.2	89.3	125.2	184.7	163.2	84.1	71.8	74.9	77.0	79.0	93.4
85°	7.2	16.4	34.9	57.5	58.5	27.7	25.7	23.6	24.6	26.7	33.9
87.5°	0.0	0.0	0.0	0.0	1.0	2.1	3.1	3.1	3.1	6.2	6.2
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°	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6	1123.6
2.5°	1127.7	1126.7	1127.7	1124.6	1127.7	1126.7	1126.7	1126.7	1125.6	1126.7	1126.7
5°	1140.0	1140.0	1140.0	1138.0	1140.0	1140.0	1140.0	1140.0	1139.0	1140.0	1141.0
7.5°	1163.6	1163.6	1162.6	1159.5	1161.6	1161.6	1160.5	1158.5	1156.4	1157.4	1156.4
10°	1195.4	1197.5	1191.3	1191.3	1188.2	1184.1	1181.0	1178.0	1176.9	1174.9	1170.8
12.5°	1234.4	1233.4	1225.2	1222.1	1220.0	1211.8	1205.7	1202.6	1198.5	1193.4	1187.2
15°	1269.3	1265.2	1259.0	1256.0	1252.9	1243.6	1235.4	1228.2	1223.1	1215.9	1206.7
17.5°	1292.9	1288.8	1285.7	1284.7	1284.7	1276.5	1269.3	1260.1	1248.8	1235.4	1220.0
20°	1298.0	1298.0	1299.0	1305.2	1311.4	1308.3	1300.1	1288.8	1272.4	1250.8	1227.2
22.5°	1290.8	1294.9	1304.2	1319.6	1332.9	1333.9	1325.7	1309.3	1281.6	1250.8	1215.9
25°	1278.5	1289.8	1309.3	1330.9	1349.3	1349.3	1335.0	1311.4	1273.4	1229.3	1183.1
27.5°	1272.4	1294.9	1322.6	1345.2	1357.5	1350.4	1324.7	1290.8	1238.5	1182.1	1128.7
30°	1279.6	1314.4	1344.2	1359.6	1361.6	1338.0	1293.9	1243.6	1182.1	1114.4	1060.0
32.5°	1306.2	1348.3	1370.9	1374.0	1359.6	1315.5	1246.7	1176.9	1108.2	1045.6	990.2
35°	1360.6	1396.5	1404.7	1392.4	1356.5	1282.6	1184.1	1102.0	1040.5	981.0	923.5
37.5°	1448.9	1465.3	1449.9	1414.0	1346.3	1242.6	1126.7	1046.6	981.0	922.5	858.9
40°	1574.0	1555.6	1511.5	1440.7	1335.0	1198.5	1081.5	1001.5	928.6	864.0	800.4
42.5°	1730.0	1665.4	1574.0	1471.4	1322.6	1169.8	1048.7	956.3	876.3	804.5	737.8
45°	1904.5	1784.4	1660.2	1506.3	1318.5	1152.3	1009.7	900.9	807.5	735.7	670.0
47.5°	2082.0	1910.6	1747.5	1544.3	1323.7	1121.5	950.2	828.1	730.6	660.8	599.2
50°	2261.5	2052.2	1849.0	1593.5	1320.6	1058.9	869.1	745.0	654.7	592.1	536.7
52.5°	2442.1	2203.0	1953.7	1637.7	1279.6	960.4	779.8	674.2	586.9	526.4	472.0
55°	2619.6	2349.8	2056.3	1651.0	1160.5	856.8	704.9	603.4	517.2	455.6	396.1
57.5°	2787.9	2482.1	2128.1	1573.0	1013.8	775.7	638.2	538.7	447.4	376.6	318.1
60°	2997.3	2608.4	2148.7	1384.2	896.8	708.0	577.7	463.8	361.2	286.3	232.9
62.5°	3226.1	2779.7	2116.9	1203.6	828.1	648.5	502.8	375.6	276.0	203.2	163.2
65°	3394.4	2850.5	1955.8	1107.2	785.0	590.0	422.8	291.4	190.9	139.6	124.2
67.5°	3618.0	2920.3	1789.5	1060.0	737.8	514.1	326.3	210.4	147.8	115.9	106.7
68°	3602.7	2900.8	1754.6	1047.7	723.4	487.4	307.8	206.2	143.7	112.9	103.6
70°	3394.4	2661.7	1523.8	928.6	599.2	379.7	264.7	187.8	132.4	102.6	94.4
72.5°	2784.9	2064.5	1092.8	611.6	389.9	278.1	196.0	141.6	109.8	90.3	84.1
75°	1971.1	1290.8	547.9	352.0	245.2	161.1	110.8	91.3	81.1	71.8	71.8
77.5°	1108.2	675.2	289.4	241.1	138.5	93.4	73.9	68.7	63.6	58.5	64.6
80°	361.2	352.0	213.4	165.2	96.5	68.7	57.5	54.4	51.3	46.2	57.5
82.5°	195.0	241.1	153.9	118.0	70.8	49.3	43.1	44.1	40.0	35.9	43.1
85°	87.2	114.9	102.6	82.1	44.1	27.7	22.6	26.7	23.6	21.5	20.5
87.5°	33.9	56.4	41.0	23.6	10.3	6.2	6.2	5.1	4.1	4.1	3.1
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°	1123.6	1123.6	1123.6	1123.6	1123.6
2.5°	1123.6	1123.6	1122.6	1121.5	1119.5
5°	1138.0	1138.0	1136.9	1135.9	1133.8
7.5°	1153.3	1152.3	1151.3	1150.3	1148.2
10°	1169.8	1167.7	1167.7	1168.7	1167.7
12.5°	1186.2	1183.1	1180.0	1179.0	1182.1
15°	1202.6	1196.4	1191.3	1190.3	1190.3
17.5°	1211.8	1201.6	1192.3	1189.3	1189.3
20°	1209.8	1191.3	1179.0	1172.8	1173.9
22.5°	1190.3	1164.6	1148.2	1140.0	1136.9
25°	1149.2	1118.5	1097.9	1086.6	1087.7
27.5°	1087.7	1054.8	1032.3	1026.1	1019.9
30°	1014.8	982.0	959.4	946.1	947.1
32.5°	943.0	907.1	886.6	871.2	869.1
35°	874.2	835.2	810.6	799.3	797.3
37.5°	806.5	765.5	742.9	732.6	725.5
40°	743.9	707.0	680.3	664.9	661.8
42.5°	682.4	640.3	613.6	602.3	599.2
45°	612.6	572.6	549.0	539.7	537.7
47.5°	550.0	512.0	492.5	480.2	476.1
50°	489.5	453.5	431.0	419.7	417.6
52.5°	425.8	389.9	366.3	357.1	348.9
55°	356.1	318.1	294.5	278.1	271.9
57.5°	275.0	241.1	216.5	205.2	193.9
60°	197.0	167.3	147.8	138.5	130.3
62.5°	139.6	120.1	107.7	98.5	93.4
65°	114.9	105.7	92.3	84.1	80.0
67.5°	101.6	92.3	82.1	74.9	71.8
68°	99.5	90.3	80.0	72.9	70.8
70°	91.3	82.1	72.9	67.7	65.7
72.5°	81.1	73.9	65.7	60.5	58.5
75°	69.8	62.6	57.5	53.4	50.3
77.5°	61.6	51.3	49.3	45.1	43.1
80°	51.3	46.2	42.1	39.0	36.9
82.5°	42.1	34.9	29.8	26.7	25.7
85°	23.6	21.5	17.4	13.3	12.3
87.5°	2.1	1.0	1.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)