

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: STREETWORKS

Report Number: P159538

Luminaire Tested: **VST-E04-LED-E-U-T3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159538
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E04-LED-E-U-T3-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10324.9 lumens
Efficiency: N/A
Efficacy: 106.2 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

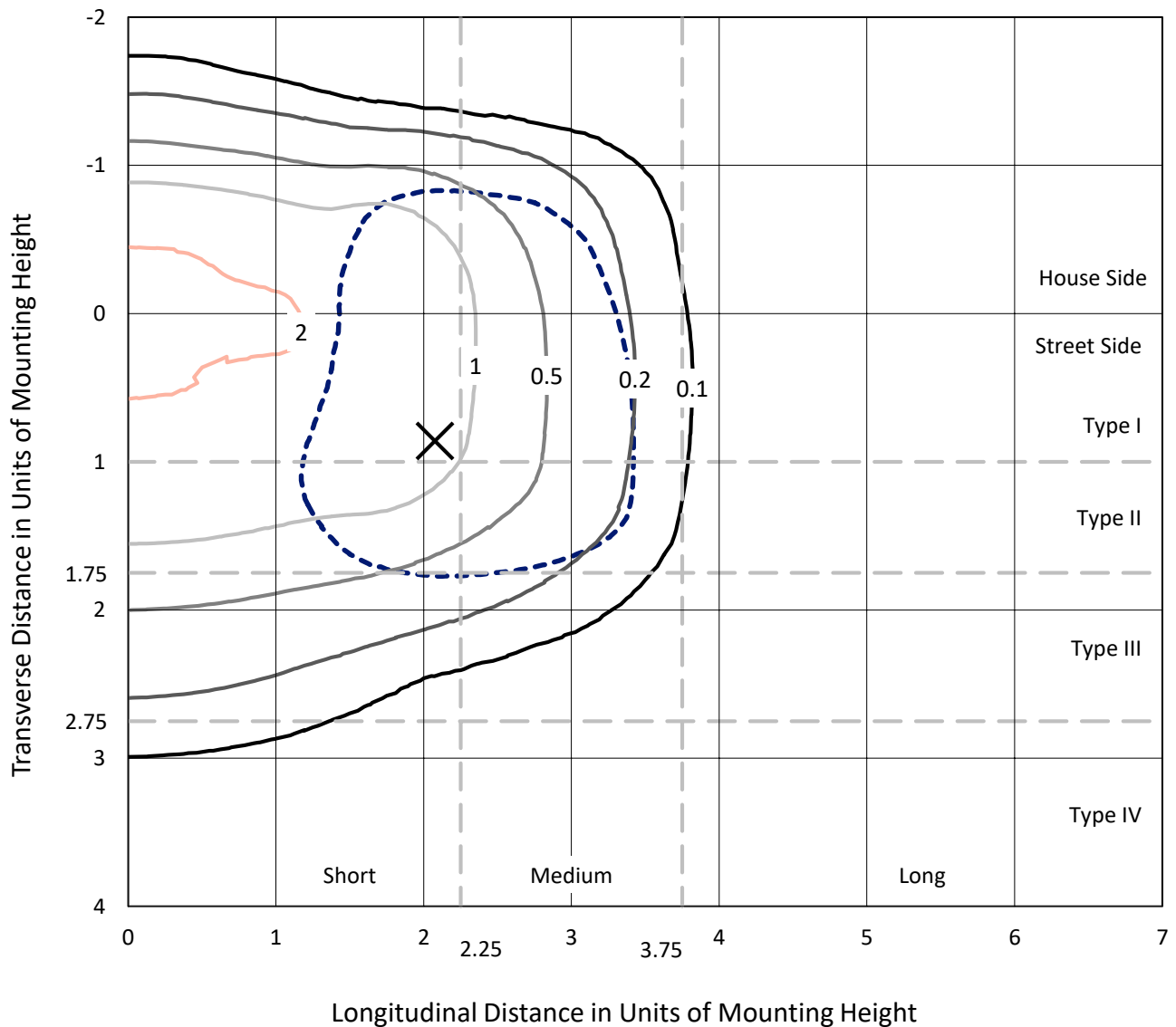
Input Watts (W): 97.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

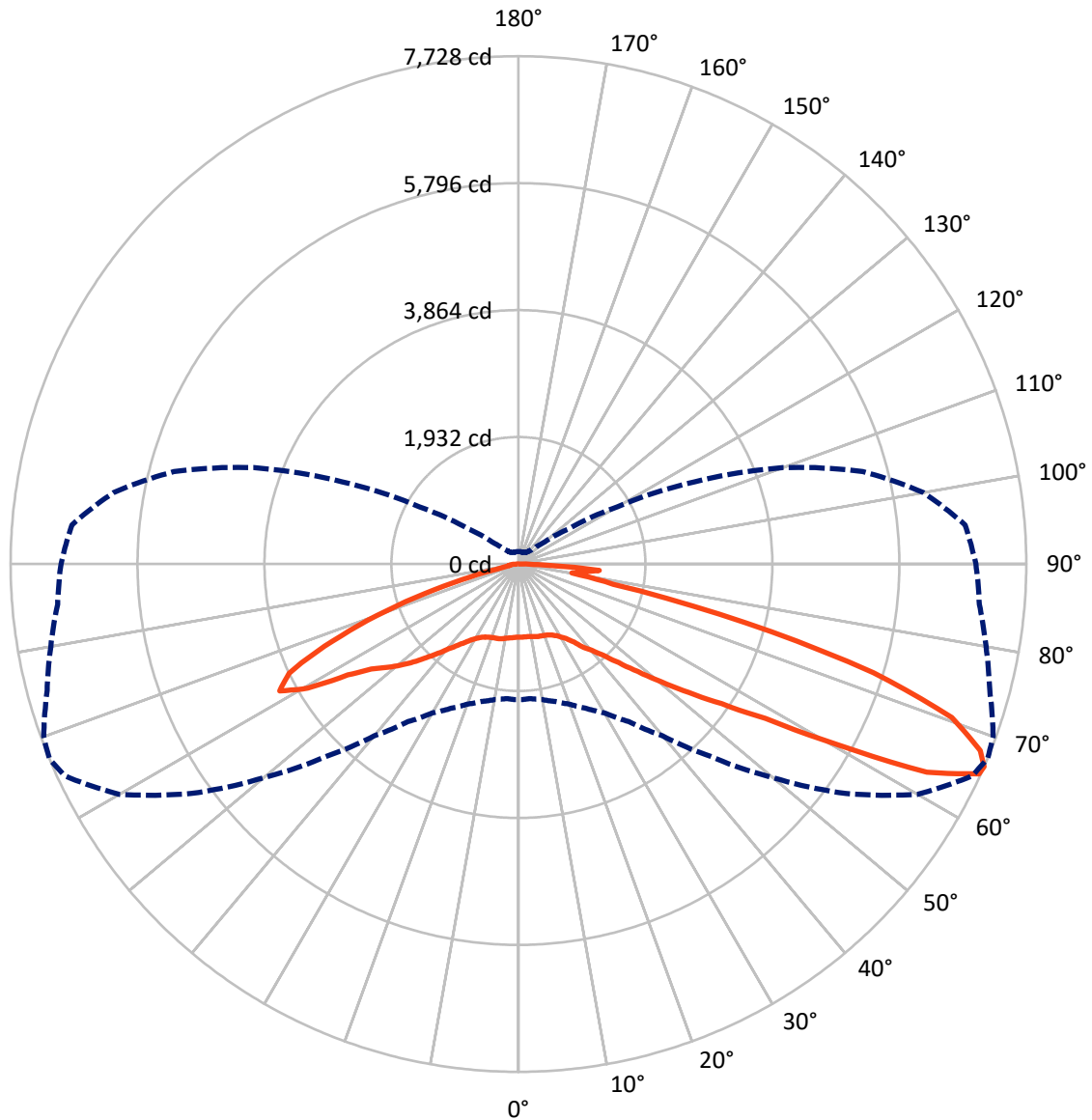


Based on 20 foot mounting height. Maximum calculated value = 2.8 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 67.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical



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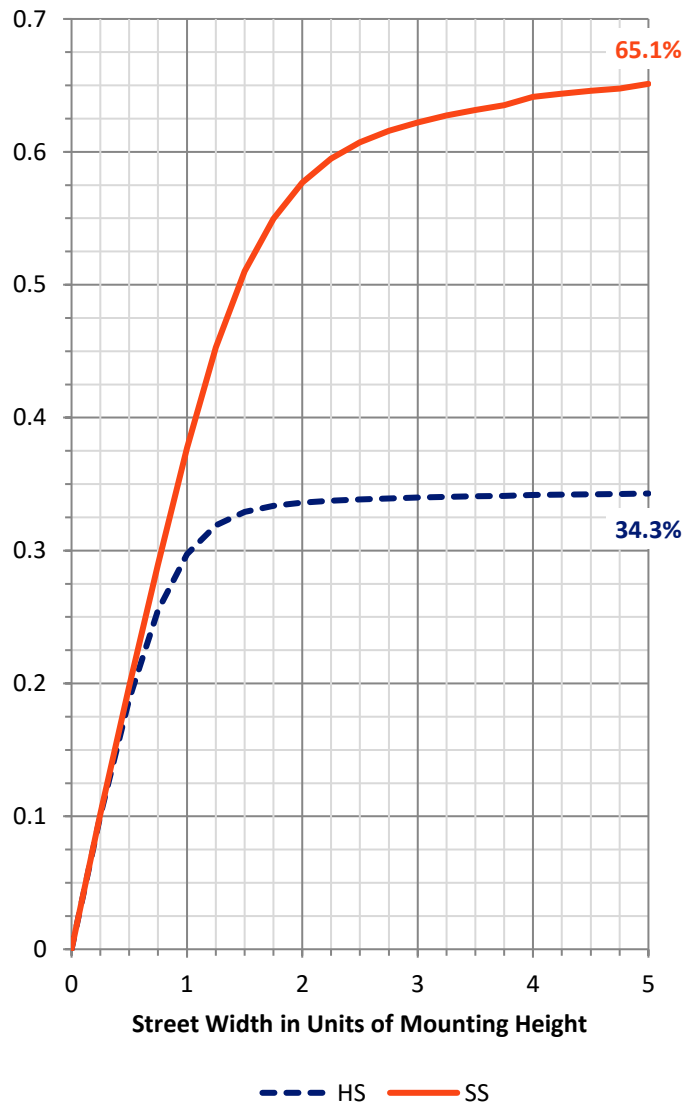
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3572.9	0.0	3572.9
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	6752.0	0.0	6752.0
	% Fixture	65.4	0.0	65.4
Total	Lumens	10324.9	0.0	10324.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.9	1.0
10°-20°	316.6	3.1
20°-30°	544.2	5.3
30°-40°	879.5	8.5
40°-50°	1457.5	14.1
50°-60°	2287.4	22.2
60°-70°	3127.4	30.3
70°-80°	1375.3	13.3
80°-90°	230.2	2.2
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°	10324.9	100.0
0°-180°	10324.9	100.0

Coefficient of Utilization



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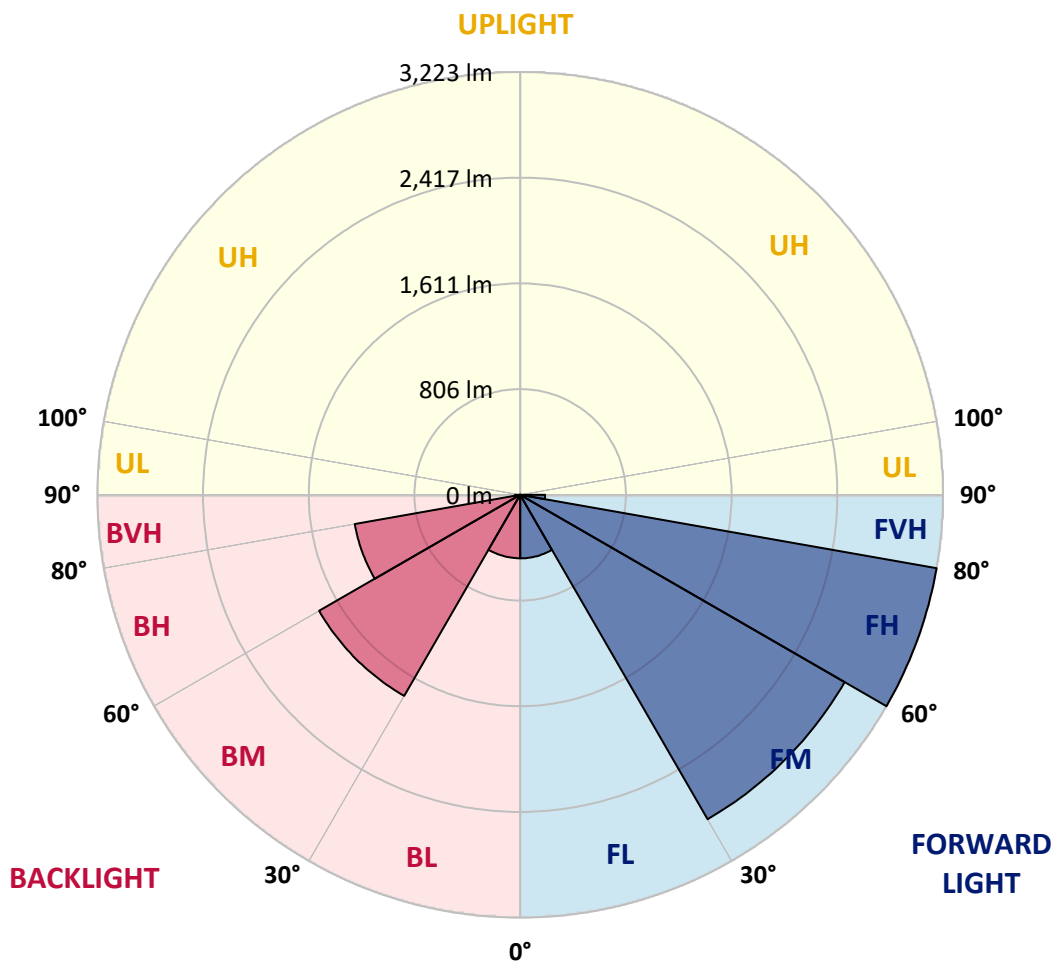
CATALOG NUMBER: VST-E04-LED-E-U-T3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	484.3	4.7			
FM	(30°-60°)	2855.2	27.7			
FH	(60°-80°)	3222.6	31.2			G2/5000
FVH	(80°-90°)	189.9	1.8			G2/225
BL	(0°-30°)	483.3	4.7	B1/500		
BM	(30°-60°)	1769.3	17.1	B2/2500		
BH	(60°-80°)	1280.0	12.4	B3/2500		G3/2500
BVH	(80°-90°)	40.3	0.4			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°	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1
2.5°	1112.0	1112.0	1112.7	1112.0	1112.0	1111.4	1114.1	1114.1	1114.1	1113.4	1115.4
5°	1109.3	1109.3	1110.0	1110.0	1110.7	1110.0	1112.0	1112.7	1112.7	1112.7	1114.7
7.5°	1102.6	1104.6	1103.3	1103.9	1104.6	1106.6	1109.3	1110.7	1112.0	1114.1	1114.7
10°	1088.4	1091.8	1091.1	1093.1	1093.8	1099.9	1101.9	1104.6	1109.3	1112.0	1114.1
12.5°	1068.8	1070.9	1071.5	1074.2	1076.9	1084.4	1089.8	1094.5	1101.2	1108.0	1114.7
15°	1053.3	1054.7	1054.7	1057.4	1061.4	1068.2	1074.9	1083.0	1093.1	1104.6	1115.4
17.5°	1058.0	1061.4	1058.7	1058.0	1059.4	1063.4	1069.5	1076.3	1088.4	1101.2	1114.1
20°	1089.1	1089.8	1088.4	1085.0	1082.3	1083.0	1083.0	1084.4	1091.8	1101.9	1112.0
22.5°	1114.7	1117.4	1116.8	1117.4	1116.8	1119.5	1118.1	1115.4	1112.7	1113.4	1118.1
25°	1137.0	1139.7	1139.7	1141.8	1145.1	1150.5	1154.6	1153.9	1149.9	1144.5	1142.4
27.5°	1173.5	1173.5	1173.5	1175.5	1180.2	1187.0	1193.7	1197.8	1201.2	1195.8	1184.3
30°	1230.9	1231.6	1229.5	1230.2	1233.6	1242.4	1250.5	1256.5	1263.3	1262.6	1247.8
32.5°	1293.7	1296.4	1295.7	1298.4	1303.1	1311.2	1320.0	1329.5	1338.2	1343.6	1334.2
35°	1374.7	1377.4	1378.1	1382.1	1387.5	1399.7	1411.8	1424.0	1433.4	1437.5	1435.5
37.5°	1507.7	1508.4	1505.7	1499.6	1501.6	1511.1	1525.3	1544.8	1550.9	1555.0	1564.4
40°	1706.9	1704.9	1694.1	1688.7	1685.3	1689.3	1686.6	1702.2	1716.3	1717.0	1716.3
42.5°	1948.6	1942.5	1932.4	1931.1	1929.7	1928.4	1920.9	1921.6	1934.4	1937.8	1933.8
45°	2189.0	2181.5	2174.1	2180.9	2172.8	2193.7	2199.8	2216.0	2218.0	2224.8	2214.6
47.5°	2386.1	2386.8	2386.8	2396.3	2412.5	2452.3	2488.1	2519.1	2530.6	2546.8	2548.9
50°	2535.3	2539.4	2552.2	2582.6	2617.0	2683.9	2744.0	2800.0	2850.7	2869.6	2919.5
52.5°	2622.4	2633.3	2660.3	2710.9	2772.3	2858.8	2953.3	3048.5	3136.3	3210.5	3270.0
55°	2606.9	2615.0	2662.3	2741.3	2837.2	2953.3	3085.6	3223.4	3360.4	3486.0	3583.2
57.5°	2507.0	2512.4	2559.7	2648.8	2768.3	2924.3	3111.3	3315.9	3508.3	3710.9	3877.0
60°	2376.0	2384.1	2428.0	2498.2	2623.1	2789.2	3006.0	3283.5	3590.7	3909.4	4220.0
62.5°	2292.3	2290.3	2328.7	2391.5	2485.4	2636.0	2844.6	3173.4	3598.8	4137.6	4751.3
65°	2153.2	2147.1	2186.9	2258.5	2360.5	2506.3	2704.1	3020.1	3513.7	4224.0	5094.3
66°	2066.8	2054.6	2094.4	2166.7	2268.6	2423.9	2613.7	2925.6	3410.4	4139.6	5057.9
67.5°	1915.5	1909.4	1928.4	1985.1	2060.7	2206.5	2404.4	2718.3	3166.0	3885.7	4790.5
70°	1557.0	1543.5	1558.3	1584.0	1613.0	1648.8	1770.4	2019.5	2398.3	3095.8	3859.4
72.5°	1060.7	1054.0	1081.7	1120.8	1198.5	1234.9	1282.9	1323.4	1457.1	1951.3	2692.0
75°	806.9	810.9	846.0	910.8	1010.8	1118.8	1224.1	1262.6	1218.0	1179.6	1528.0
77.5°	452.4	476.0	518.5	600.9	706.9	859.5	1043.2	1245.7	1347.0	1322.0	1236.3
80°	186.4	183.0	203.9	249.1	285.6	410.5	627.9	881.8	1166.7	1347.0	1318.7
82.5°	52.0	53.3	68.9	88.5	114.1	145.2	226.9	364.6	594.2	924.3	1209.9
85°	16.2	16.2	22.3	33.1	39.2	45.2	57.4	94.5	161.4	322.1	652.9
87.5°	3.4	3.4	4.7	9.5	10.1	10.1	12.8	17.6	15.5	14.2	63.5
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°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1
2.5°	1113.4	1112.0	1112.7	1113.4	1112.7	1112.7	1112.0	1111.4	1112.0	1112.0	1114.1
5°	1112.7	1112.0	1112.7	1112.7	1112.7	1113.4	1113.4	1113.4	1115.4	1115.4	1118.8
7.5°	1114.1	1114.1	1115.4	1115.4	1115.4	1115.4	1116.1	1117.4	1120.8	1120.1	1126.2
10°	1116.8	1118.1	1121.5	1122.2	1122.2	1124.2	1125.5	1128.2	1131.6	1133.0	1138.4
12.5°	1120.1	1126.9	1133.0	1134.3	1136.3	1139.7	1141.8	1143.1	1149.2	1151.2	1158.0
15°	1124.2	1133.6	1141.1	1143.8	1146.5	1150.5	1153.2	1155.3	1160.7	1163.4	1171.5
17.5°	1124.9	1135.7	1144.5	1148.5	1151.9	1156.6	1160.7	1164.7	1170.8	1174.8	1182.9
20°	1124.2	1138.4	1151.9	1157.3	1160.7	1169.4	1175.5	1180.9	1188.3	1192.4	1200.5
22.5°	1131.6	1147.8	1166.1	1172.8	1178.2	1190.4	1198.5	1207.2	1216.7	1219.4	1225.5
25°	1149.2	1166.1	1189.0	1198.5	1207.9	1224.1	1235.6	1248.4	1257.9	1259.2	1261.3
27.5°	1178.9	1194.4	1222.1	1236.3	1251.8	1274.8	1291.6	1304.5	1318.0	1318.0	1316.6
30°	1239.0	1242.4	1271.4	1289.6	1312.6	1346.3	1371.3	1385.5	1395.6	1395.6	1384.1
32.5°	1316.6	1312.6	1338.9	1358.5	1390.2	1437.5	1471.2	1482.0	1492.9	1489.5	1469.9
35°	1428.7	1417.2	1432.1	1461.8	1497.6	1562.4	1597.5	1621.8	1628.6	1619.1	1588.1
37.5°	1569.8	1568.5	1575.9	1609.0	1648.8	1732.5	1768.3	1783.9	1778.5	1761.6	1706.9
40°	1719.0	1715.0	1710.3	1732.5	1777.1	1877.7	1941.2	1949.3	1941.9	1916.9	1848.0
42.5°	1918.2	1918.2	1895.9	1902.0	1939.2	2051.9	2126.9	2152.5	2153.2	2116.7	2024.9
45°	2192.4	2189.7	2150.5	2141.0	2169.4	2280.1	2376.7	2390.9	2390.9	2342.9	2242.3
47.5°	2521.8	2518.5	2480.0	2446.9	2452.3	2571.8	2652.2	2673.8	2654.9	2619.1	2499.6
50°	2893.2	2887.1	2848.0	2816.9	2803.4	2924.3	2992.5	3002.6	2974.9	2932.4	2802.7
52.5°	3270.0	3288.2	3265.2	3248.4	3253.1	3331.4	3401.6	3353.7	3339.5	3293.6	3163.3
55°	3662.2	3718.3	3768.9	3754.1	3771.6	3847.9	3861.4	3798.0	3772.3	3739.2	3594.1
57.5°	4057.2	4220.6	4386.7	4433.3	4476.5	4585.9	4570.4	4466.4	4486.0	4535.3	4371.9
60°	4608.9	5080.8	5502.1	5579.8	5714.2	5807.3	5828.3	5808.0	5899.2	5873.5	5729.0
62.5°	5456.2	6242.8	6828.9	6974.7	7109.8	7105.1	7034.2	6961.2	7051.0	7051.0	6673.6
65°	6061.2	6953.8	7581.1	7701.9	7696.5	7533.8	7366.4	7220.5	7207.7	7107.8	6556.1
66°	6089.6	7008.5	7622.9	7728.3	7687.7	7425.8	7225.2	7040.2	6961.2	6822.1	6257.0
67.5°	5834.3	6853.9	7486.5	7578.4	7471.7	7096.3	6820.1	6572.3	6457.5	6223.3	5691.2
70°	4785.8	5890.4	6810.7	6998.4	6877.5	6402.2	6024.1	5689.2	5469.7	5131.5	4748.0
72.5°	3493.4	4348.9	5345.5	5650.7	5631.8	5194.3	4889.7	4583.2	4294.9	3987.0	3706.8
75°	2270.7	2829.1	3384.7	3563.0	3477.2	3224.0	3006.0	2827.0	2553.6	2339.5	2287.6
77.5°	1296.4	1584.0	1498.3	1476.0	1368.6	1104.6	734.6	515.2	465.2	580.7	636.7
80°	1233.6	1118.1	915.6	825.8	758.9	517.2	271.4	191.1	167.4	171.5	184.3
82.5°	1390.9	1449.6	1185.6	990.5	862.2	629.3	343.7	160.0	116.8	138.4	155.3
85°	1042.5	1467.9	1455.0	1232.9	1011.4	725.2	406.5	122.2	70.2	97.2	126.9
87.5°	211.3	347.7	334.9	294.4	250.5	174.9	68.2	38.5	35.1	47.9	72.9
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°	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1	1114.1
2.5°	1115.4	1115.4	1116.8	1118.8	1119.5	1119.5	1120.8	1119.5	1122.2	1122.8	1123.5
5°	1121.5	1123.5	1124.9	1128.2	1130.3	1131.6	1133.6	1132.3	1135.0	1135.7	1137.0
7.5°	1128.2	1131.6	1134.3	1135.7	1138.4	1138.4	1139.1	1137.7	1137.0	1135.0	1134.3
10°	1140.4	1142.4	1145.8	1144.5	1143.1	1138.4	1134.3	1128.2	1124.9	1118.8	1115.4
12.5°	1160.0	1161.3	1161.3	1155.3	1146.5	1135.7	1125.5	1115.4	1107.3	1100.6	1096.5
15°	1173.5	1176.2	1172.8	1164.0	1151.2	1136.3	1122.8	1109.3	1098.5	1089.8	1084.4
17.5°	1183.6	1182.9	1176.9	1164.7	1152.6	1139.7	1127.6	1113.4	1099.9	1087.1	1079.0
20°	1199.1	1192.4	1181.6	1168.8	1155.9	1145.1	1135.7	1122.2	1108.0	1090.4	1078.3
22.5°	1220.1	1207.9	1192.4	1178.9	1166.7	1156.6	1145.8	1134.3	1119.5	1099.9	1083.0
25°	1249.8	1228.9	1211.3	1197.8	1187.0	1175.5	1163.4	1148.5	1133.6	1113.4	1093.1
27.5°	1295.0	1264.0	1241.7	1229.5	1219.4	1203.9	1188.3	1170.8	1151.9	1130.9	1108.0
30°	1349.7	1312.6	1286.9	1276.1	1264.0	1246.4	1229.5	1205.2	1178.9	1153.9	1125.5
32.5°	1413.9	1376.0	1350.4	1342.3	1322.7	1302.4	1278.8	1246.4	1212.0	1174.8	1141.1
35°	1511.1	1463.1	1439.5	1420.6	1393.6	1369.3	1329.5	1286.9	1237.6	1188.3	1146.5
37.5°	1611.0	1562.4	1538.1	1511.8	1476.6	1432.1	1378.7	1318.0	1252.5	1191.7	1140.4
40°	1744.7	1692.0	1661.0	1620.5	1563.7	1494.2	1415.2	1332.2	1252.5	1176.9	1114.7
42.5°	1900.7	1852.1	1804.1	1737.3	1646.1	1544.8	1434.1	1327.4	1230.9	1143.8	1078.3
45°	2116.7	2033.7	1957.4	1850.0	1717.0	1574.5	1436.1	1305.1	1193.7	1097.2	1024.3
47.5°	2359.8	2252.4	2117.4	1949.3	1767.7	1586.0	1416.6	1263.3	1135.0	1030.3	950.7
50°	2640.0	2475.3	2268.0	2028.3	1793.3	1570.5	1370.0	1193.1	1054.0	933.8	848.7
52.5°	2960.7	2709.5	2404.4	2084.3	1789.3	1523.2	1293.0	1100.6	945.3	817.7	733.9
55°	3316.5	2964.8	2534.7	2120.1	1752.8	1431.4	1172.1	970.3	810.2	684.6	611.0
57.5°	3943.8	3412.4	2783.1	2168.0	1676.5	1292.3	1018.9	805.5	661.0	554.3	484.1
60°	5109.2	4195.0	3253.8	2280.8	1561.7	1118.1	825.8	632.0	511.1	433.5	381.5
62.5°	5830.3	4745.9	3483.3	2264.6	1375.4	879.8	613.1	468.6	373.4	322.1	289.7
65°	5659.5	4529.9	3203.1	1945.2	1070.2	623.9	405.8	306.5	256.6	230.2	214.7
66°	5427.2	4288.1	2966.1	1742.0	932.4	521.2	334.9	257.2	220.8	201.2	193.1
67.5°	4940.4	3846.6	2558.3	1394.9	698.8	388.2	247.1	201.9	179.6	169.5	164.1
70°	4134.9	3099.1	1809.5	823.7	378.8	210.7	158.0	140.4	135.0	131.7	129.6
72.5°	3197.0	2243.7	1057.4	405.1	191.1	136.4	120.2	112.8	110.7	110.7	111.4
75°	2014.1	1289.6	473.3	195.1	129.6	110.1	102.6	99.3	99.9	100.6	99.9
77.5°	669.1	445.0	197.2	138.4	112.8	99.9	93.9	92.5	93.9	94.5	94.5
80°	192.4	168.1	142.5	122.2	103.3	93.2	87.8	87.1	90.5	91.2	89.8
82.5°	147.9	138.4	129.0	118.2	99.3	87.8	85.7	86.4	88.5	87.1	81.0
85°	135.7	134.4	96.6	95.9	86.4	83.7	81.7	82.4	80.3	72.9	66.2
87.5°	76.3	70.9	54.7	55.4	64.1	66.2	54.7	58.1	54.0	47.3	43.2
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):

	160°	165°	170°	175°	180°
0°	1114.1	1114.1	1114.1	1114.1	1114.1
2.5°	1124.9	1124.2	1124.2	1126.2	1123.5
5°	1137.7	1137.0	1137.0	1139.1	1137.0
7.5°	1131.6	1129.6	1128.2	1127.6	1127.6
10°	1111.4	1109.3	1105.3	1103.9	1102.6
12.5°	1090.4	1088.4	1083.7	1083.7	1082.3
15°	1077.6	1074.9	1071.5	1069.5	1068.2
17.5°	1070.9	1066.8	1062.8	1060.7	1059.4
20°	1068.2	1062.8	1058.0	1054.7	1054.7
22.5°	1068.8	1062.1	1056.7	1052.6	1051.3
25°	1075.6	1065.5	1058.7	1054.7	1053.3
27.5°	1085.0	1072.9	1064.1	1058.7	1056.7
30°	1097.9	1081.0	1068.8	1062.1	1059.4
32.5°	1106.6	1083.0	1067.5	1058.0	1054.7
35°	1106.0	1075.6	1056.7	1044.5	1040.5
37.5°	1093.8	1058.0	1033.0	1018.2	1011.4
40°	1066.8	1025.6	999.3	985.1	977.0
42.5°	1027.6	983.1	959.4	943.9	935.1
45°	966.2	922.3	893.3	881.1	869.6
47.5°	881.1	836.6	811.6	794.0	786.6
50°	781.2	736.6	710.3	696.1	689.4
52.5°	671.8	629.3	610.4	596.9	587.4
55°	558.4	519.2	511.1	496.3	487.5
57.5°	451.7	428.7	421.3	406.5	399.0
60°	353.1	345.7	337.6	328.1	324.1
62.5°	273.5	266.7	264.7	258.6	257.9
65°	208.6	209.3	208.0	206.6	205.3
66°	189.7	189.1	189.7	188.4	187.7
67.5°	161.4	164.1	166.1	165.4	165.4
70°	131.0	133.0	135.7	135.0	135.0
72.5°	112.1	115.5	116.8	116.1	116.1
75°	101.3	104.7	104.7	103.3	102.6
77.5°	94.5	95.9	94.5	93.2	91.8
80°	87.8	86.4	84.4	82.4	81.0
82.5°	76.3	72.9	70.9	67.5	67.5
85°	61.4	58.7	54.0	50.6	47.3
87.5°	39.8	38.5	35.1	26.3	20.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)