

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: P159749

Luminaire Tested: **VST-E03-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159749
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E03-LED-E-U-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (63) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8155.4 lumens
Efficiency: N/A
Efficacy: 108.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G2

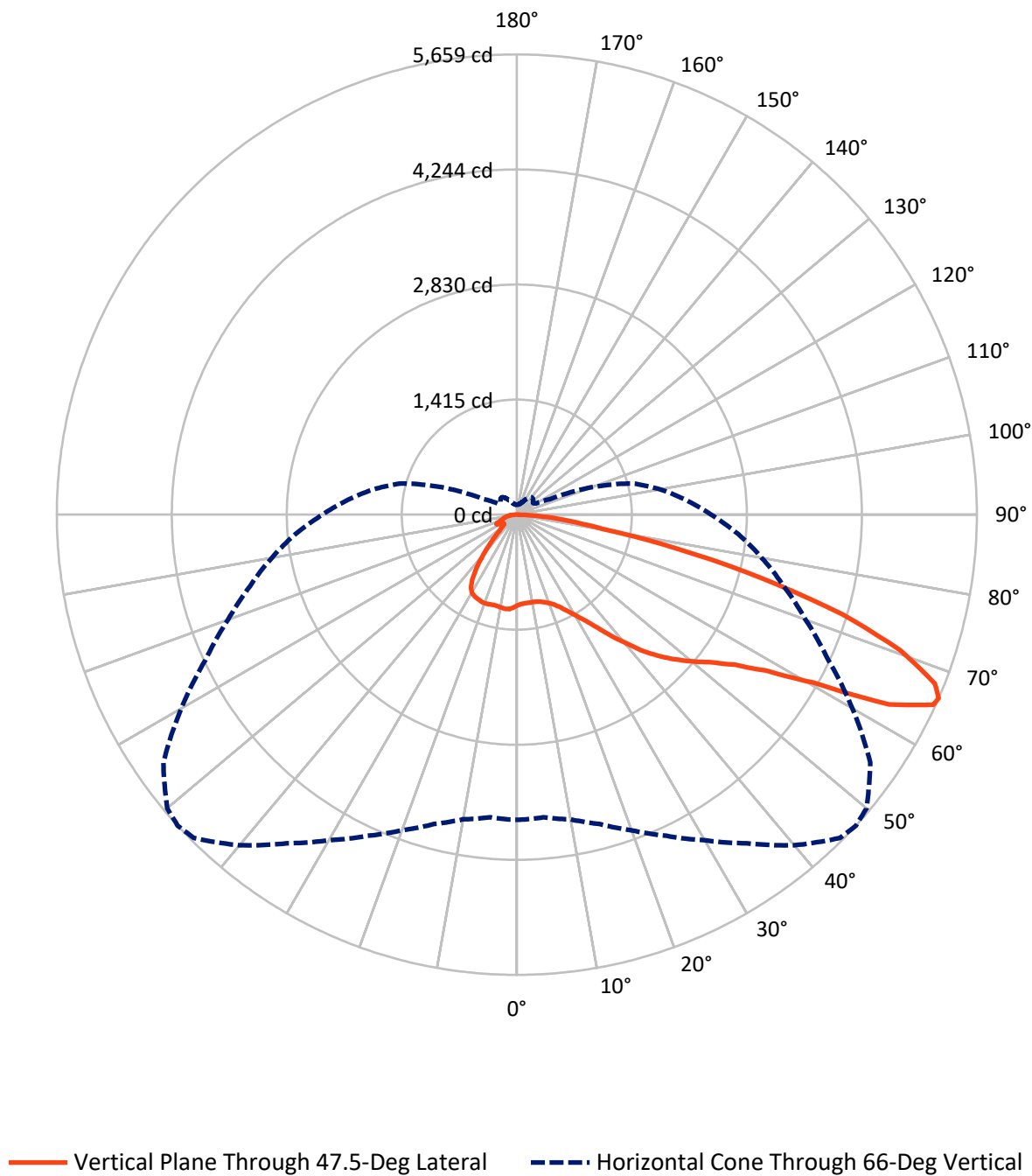
Input Watts (W): 75.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Luminous Intensity Polar Plot



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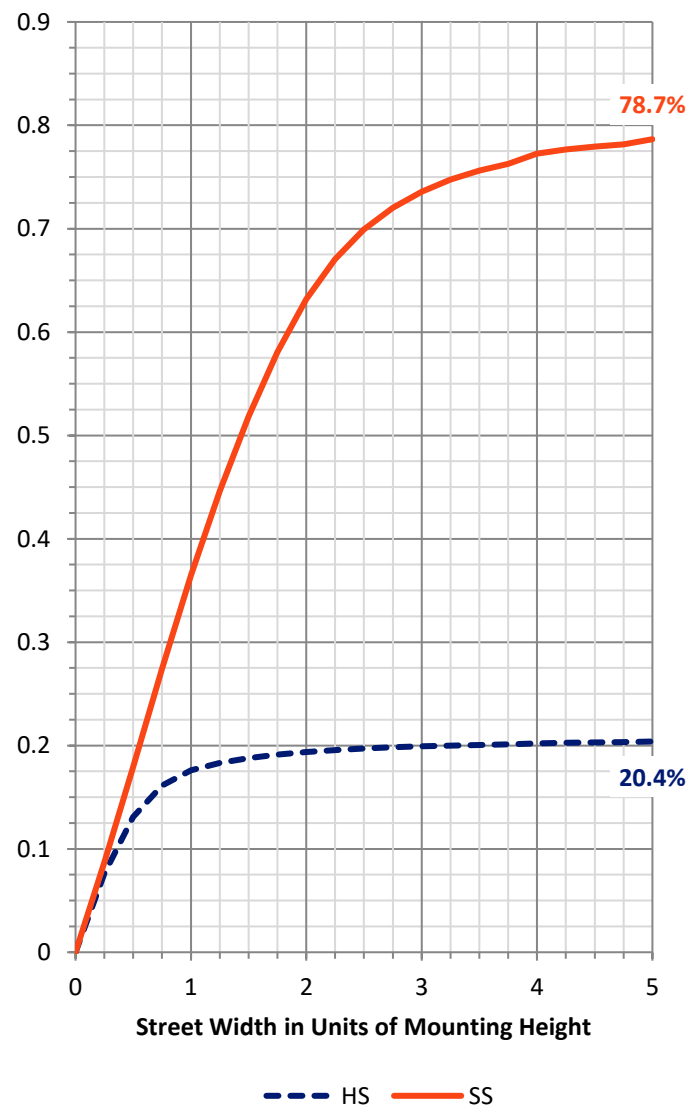
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1688.5	0.0	1688.5
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	6466.9	0.0	6466.9
	% Fixture	79.3	0.0	79.3
Total	Lumens	8155.4	0.0	8155.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	107.5	1.3
10°-20°	322.5	4.0
20°-30°	550.2	6.7
30°-40°	830.5	10.2
40°-50°	1079.5	13.2
50°-60°	1480.9	18.2
60°-70°	2278.1	27.9
70°-80°	1316.9	16.1
80°-90°	189.2	2.3
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°	8155.4	100.0
0°-180°	8155.4	100.0

Coefficient of Utilization



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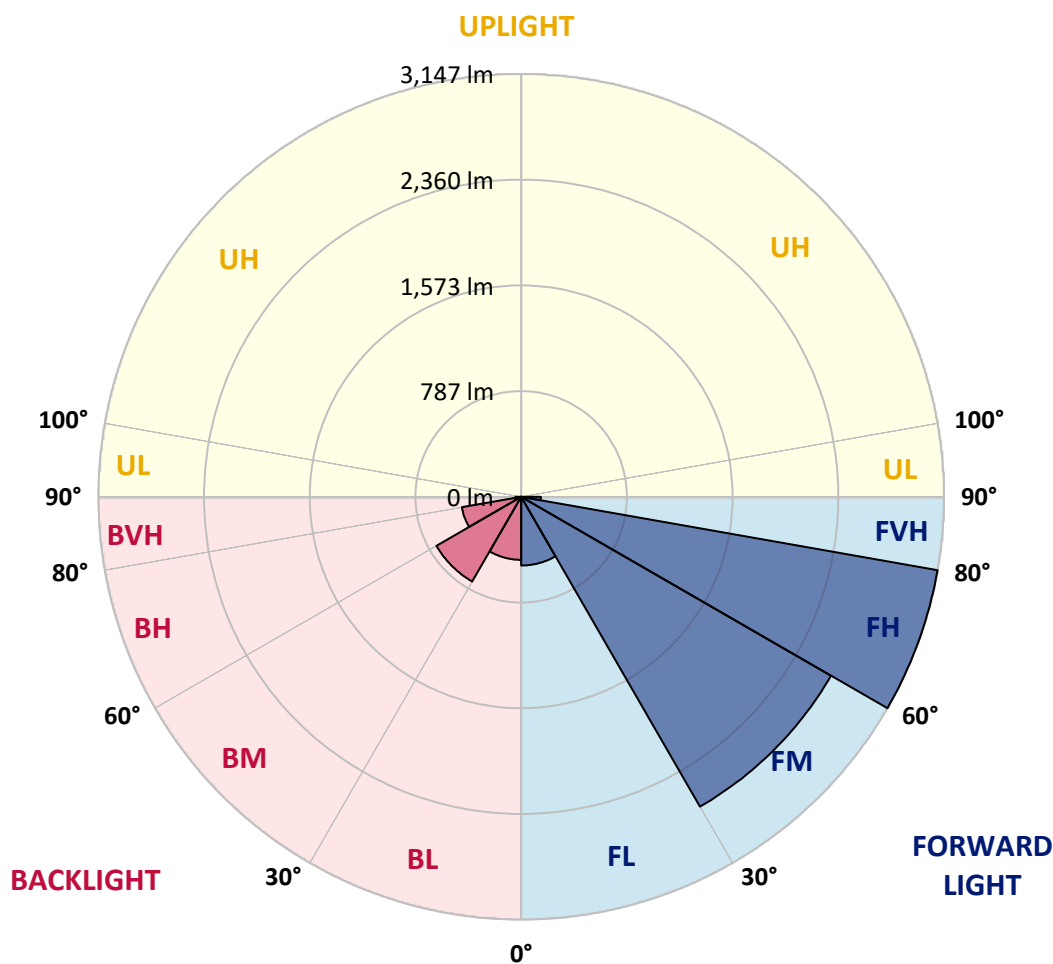
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	511.2	6.3			
FM	(30°-60°)	2662.4	32.6			
FH	(60°-80°)	3146.9	38.6			G2/5000
FVH	(80°-90°)	146.4	1.8			G2/225
BL	(0°-30°)	469.1	5.8	B1/500		
BM	(30°-60°)	728.5	8.9	B1/1000		
BH	(60°-80°)	448.1	5.5	B1/500		G1/500
BVH	(80°-90°)	42.8	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8
2.5°	1087.3	1087.8	1088.3	1088.3	1090.0	1090.0	1092.7	1094.4	1094.9	1098.2	1100.4
5°	1067.0	1066.4	1067.0	1068.1	1070.8	1073.0	1078.5	1082.3	1085.6	1091.1	1093.8
7.5°	1058.2	1059.3	1060.4	1060.9	1063.1	1068.6	1073.6	1077.4	1084.0	1090.6	1093.3
10°	1069.7	1071.4	1069.7	1070.8	1070.8	1075.7	1078.0	1080.7	1085.6	1091.6	1093.3
12.5°	1096.6	1099.9	1096.6	1093.8	1091.6	1096.0	1094.9	1092.7	1095.5	1097.1	1097.1
15°	1141.0	1141.0	1138.7	1134.9	1129.4	1130.0	1125.1	1120.1	1117.9	1114.1	1111.4
17.5°	1184.3	1183.1	1178.2	1173.3	1169.5	1167.8	1160.7	1154.1	1146.4	1140.4	1133.8
20°	1226.5	1230.8	1224.8	1217.7	1211.6	1207.8	1202.3	1189.2	1179.8	1170.0	1163.4
22.5°	1299.4	1295.5	1288.9	1278.5	1272.5	1265.9	1254.4	1240.1	1225.9	1213.9	1205.6
25°	1374.4	1370.6	1361.3	1353.6	1344.8	1339.3	1326.7	1309.2	1295.5	1276.9	1265.9
27.5°	1454.9	1451.7	1440.7	1434.7	1428.7	1422.1	1411.1	1393.0	1380.4	1359.1	1347.5
30°	1546.0	1545.4	1530.6	1529.5	1520.7	1513.6	1505.9	1490.6	1478.0	1456.6	1442.9
32.5°	1642.9	1640.8	1630.3	1627.0	1633.1	1628.2	1617.2	1601.3	1584.8	1572.2	1556.9
35°	1781.0	1777.2	1771.1	1773.9	1777.7	1791.4	1774.4	1760.8	1741.0	1724.6	1703.2
37.5°	1881.8	1876.4	1883.5	1898.9	1920.8	1931.2	1946.0	1946.5	1937.2	1915.3	1896.7
40°	1974.5	1972.3	1988.7	2010.1	2050.7	2080.3	2108.2	2121.9	2125.2	2110.9	2083.0
42.5°	2052.8	2059.4	2081.3	2114.2	2171.2	2216.2	2268.2	2300.5	2320.8	2313.2	2300.5
45°	2146.0	2149.3	2176.1	2217.8	2272.1	2346.6	2415.1	2469.9	2505.5	2504.9	2490.7
47.5°	2262.7	2263.3	2286.3	2335.1	2393.2	2468.8	2555.4	2628.2	2675.4	2677.6	2666.6
50°	2401.4	2400.3	2425.5	2471.5	2533.4	2606.3	2698.4	2789.4	2855.2	2855.2	2839.3
52.5°	2580.1	2577.8	2591.5	2632.1	2691.8	2768.5	2860.1	2965.3	3036.5	3051.8	3017.3
55°	2818.4	2821.7	2825.0	2860.6	2911.6	2972.4	3077.6	3174.6	3270.0	3278.8	3258.5
57.5°	3094.1	3083.1	3106.7	3164.8	3222.8	3299.0	3373.6	3488.1	3601.0	3620.2	3617.4
60°	3524.8	3510.5	3534.7	3608.6	3672.8	3792.8	3920.5	4068.4	4202.2	4241.6	4193.9
62.5°	3921.0	3938.5	3971.4	4057.4	4150.6	4310.6	4502.5	4756.2	5009.9	5148.0	5138.2
65°	3885.4	3869.0	3932.0	4049.2	4218.1	4421.9	4660.3	4966.1	5331.6	5608.9	5633.5
66°	3753.3	3736.3	3804.3	3938.5	4131.4	4358.3	4623.0	4934.3	5308.0	5621.5	5659.3
67.5°	3535.2	3518.2	3595.0	3717.2	3916.1	4201.6	4487.6	4828.0	5216.5	5516.8	5547.5
70°	3114.4	3091.3	3151.1	3289.1	3450.3	3726.5	3998.8	4359.4	4758.4	4998.4	5009.9
72.5°	2638.1	2584.4	2648.0	2754.3	2869.4	3097.9	3335.2	3581.8	3899.6	4121.6	4185.2
75°	1914.2	1942.1	1960.8	2030.9	2107.1	2296.1	2435.3	2642.0	2888.0	3048.6	3099.5
77.5°	1015.4	1057.7	1084.0	1154.1	1280.2	1424.3	1575.0	1702.7	1864.3	1954.2	2016.7
80°	569.9	599.5	642.2	697.6	759.0	869.7	959.0	1024.8	1047.8	1063.7	1078.0
82.5°	313.4	388.6	452.1	490.4	526.6	571.0	624.2	679.0	696.5	670.2	656.5
85°	48.8	71.8	218.6	266.9	290.5	324.4	362.8	403.3	403.9	347.5	379.2
87.5°	13.7	15.4	31.3	47.1	46.0	37.3	46.0	83.8	49.3	24.7	28.5
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8
2.5°	1101.5	1102.6	1105.3	1108.1	1110.8	1113.5	1115.2	1117.9	1120.1	1123.4	1127.3
5°	1097.1	1099.9	1104.8	1110.8	1116.3	1121.2	1125.1	1130.5	1135.5	1139.9	1146.4
7.5°	1097.1	1102.6	1110.8	1117.4	1122.3	1128.4	1134.4	1139.9	1145.3	1149.7	1154.1
10°	1097.6	1103.2	1111.4	1119.1	1124.5	1131.1	1136.0	1141.0	1147.0	1149.7	1155.2
12.5°	1099.9	1102.0	1108.1	1115.8	1122.3	1128.9	1133.8	1138.7	1145.3	1146.4	1150.3
15°	1110.8	1107.5	1109.2	1114.7	1121.8	1127.3	1132.7	1136.6	1141.0	1139.9	1143.1
17.5°	1131.1	1122.9	1119.6	1120.1	1123.4	1127.3	1129.4	1130.0	1130.5	1125.6	1126.1
20°	1158.5	1147.0	1139.3	1135.5	1131.1	1127.3	1121.2	1114.1	1107.5	1097.6	1096.6
22.5°	1199.6	1182.6	1174.4	1164.0	1150.8	1134.4	1119.6	1102.0	1087.8	1073.0	1067.5
25°	1259.3	1241.8	1233.0	1216.6	1193.0	1169.5	1148.1	1124.5	1103.7	1086.2	1078.0
27.5°	1339.3	1321.8	1312.5	1295.5	1266.5	1242.9	1213.3	1188.1	1162.9	1137.1	1126.7
30°	1436.3	1421.0	1410.6	1396.9	1371.7	1345.9	1311.4	1272.5	1232.5	1191.4	1171.1
32.5°	1550.9	1533.9	1526.2	1510.3	1484.0	1457.2	1418.8	1368.9	1302.1	1237.4	1196.9
35°	1693.9	1674.7	1666.0	1645.1	1614.4	1575.0	1533.9	1467.0	1376.6	1286.7	1220.4
37.5°	1885.1	1842.4	1813.4	1765.7	1716.4	1661.0	1602.4	1533.9	1427.0	1315.8	1223.7
40°	2054.5	2011.2	1955.3	1886.8	1810.1	1733.9	1667.0	1589.2	1473.1	1336.6	1213.3
42.5°	2264.9	2188.2	2098.9	2006.3	1904.3	1810.6	1731.2	1639.6	1504.3	1342.1	1184.3
45°	2457.3	2365.7	2246.3	2123.0	1996.4	1878.6	1789.3	1687.3	1531.1	1342.1	1149.2
47.5°	2632.6	2523.1	2380.0	2226.5	2079.2	1950.4	1849.0	1736.1	1568.9	1359.1	1138.7
50°	2794.9	2668.8	2506.1	2327.9	2162.5	2024.9	1915.9	1798.6	1626.5	1402.9	1164.0
52.5°	2965.9	2832.1	2633.8	2444.7	2262.2	2114.8	1998.6	1875.8	1701.0	1472.0	1208.3
55°	3190.0	3033.2	2808.0	2599.7	2399.2	2236.4	2104.4	1968.5	1782.7	1549.8	1262.6
57.5°	3543.4	3316.0	3090.8	2820.1	2631.0	2416.7	2272.1	2115.8	1915.3	1651.1	1344.2
60°	4162.1	3882.7	3611.9	3300.7	3067.2	2843.1	2624.4	2420.6	2178.9	1880.2	1523.5
62.5°	5045.5	4761.7	4336.4	3955.6	3603.2	3306.1	3021.2	2762.0	2451.8	2125.2	1744.3
65°	5573.3	5248.3	4741.4	4229.5	3801.5	3433.3	3107.2	2789.9	2455.1	2136.7	1811.2
66°	5615.5	5308.0	4766.6	4225.7	3781.3	3399.3	3060.1	2731.9	2388.8	2084.1	1789.3
67.5°	5537.1	5272.4	4715.1	4151.2	3696.9	3284.2	2935.7	2591.5	2246.8	1964.6	1716.4
70°	4984.1	4792.9	4315.0	3786.8	3333.5	2969.6	2602.0	2270.9	1944.4	1707.1	1522.9
72.5°	4085.9	3843.7	3509.5	3154.3	2797.6	2474.8	2140.5	1858.9	1584.8	1412.2	1281.8
75°	3001.4	2783.3	2415.1	2193.7	1958.0	1755.3	1530.1	1263.2	1068.6	982.0	950.2
77.5°	1902.7	1666.0	1355.2	1110.8	955.2	820.9	647.2	514.6	412.1	429.1	475.1
80°	961.2	828.1	619.8	489.4	423.1	351.8	278.4	211.0	154.0	175.9	198.9
82.5°	617.0	515.1	410.5	323.3	272.9	240.6	192.4	139.7	104.1	117.3	143.6
85°	371.6	314.0	250.4	205.0	178.1	148.5	109.1	77.3	76.7	82.2	101.4
87.5°	56.5	80.6	46.6	49.9	52.6	56.5	49.9	42.2	36.7	47.7	60.3
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8	1115.8
2.5°	1131.1	1132.2	1134.4	1137.1	1136.6	1140.4	1142.6	1140.4	1145.3	1145.3	1148.1
5°	1151.9	1153.6	1157.4	1160.2	1161.2	1164.5	1165.6	1165.1	1166.2	1166.7	1167.8
7.5°	1157.9	1162.3	1164.0	1165.6	1166.2	1167.2	1167.2	1166.2	1166.2	1165.6	1166.7
10°	1156.3	1157.9	1159.0	1158.5	1158.5	1157.4	1156.9	1156.3	1156.3	1155.2	1156.9
12.5°	1150.8	1150.8	1150.8	1149.7	1149.7	1149.2	1149.2	1149.2	1150.3	1150.8	1153.6
15°	1139.9	1139.9	1141.0	1140.4	1142.0	1144.8	1148.1	1150.3	1153.0	1153.6	1155.2
17.5°	1122.9	1123.4	1126.7	1133.8	1141.0	1149.2	1155.2	1156.9	1154.6	1149.2	1145.3
20°	1093.3	1100.4	1113.5	1130.5	1146.4	1156.9	1159.6	1153.0	1142.6	1128.4	1120.7
22.5°	1067.0	1081.2	1104.8	1132.7	1152.5	1159.6	1151.3	1136.0	1117.4	1100.9	1089.4
25°	1077.4	1093.8	1118.5	1142.6	1155.2	1151.3	1134.9	1113.0	1093.3	1074.1	1055.5
27.5°	1121.2	1137.7	1155.2	1162.3	1157.9	1143.7	1120.7	1097.1	1070.8	1043.4	1020.4
30°	1162.9	1172.2	1173.3	1166.2	1150.3	1127.3	1100.4	1073.0	1039.6	1006.7	977.6
32.5°	1176.0	1165.1	1145.3	1125.1	1103.2	1079.6	1048.3	1012.2	976.6	939.3	907.0
35°	1172.2	1127.8	1079.0	1035.7	1009.4	982.6	954.1	905.9	865.9	834.1	813.2
37.5°	1137.7	1056.5	981.5	918.5	877.4	845.6	803.4	763.4	728.9	714.6	697.6
40°	1089.4	965.6	861.5	773.2	730.5	689.9	642.8	612.1	602.3	589.1	589.7
42.5°	1020.4	859.3	725.0	623.6	577.1	532.7	499.3	481.1	481.7	470.8	472.9
45°	947.5	752.4	583.6	482.8	436.7	398.9	380.3	374.8	375.4	376.0	372.7
47.5°	903.1	669.1	468.0	366.1	325.5	304.1	294.3	291.5	292.1	292.6	288.8
50°	896.5	625.8	390.7	280.0	253.7	241.7	236.8	234.0	234.0	231.8	228.5
52.5°	915.2	614.9	352.9	242.8	217.6	206.6	202.7	200.6	197.3	192.9	186.9
55°	944.8	624.7	341.4	230.2	205.5	194.5	189.6	188.5	183.1	174.8	164.9
57.5°	999.6	660.4	349.1	233.5	207.7	197.8	194.5	193.4	185.8	173.2	160.6
60°	1156.9	763.9	387.4	252.1	223.6	215.3	215.3	213.7	203.3	185.2	167.2
62.5°	1373.9	915.7	439.5	277.9	245.5	244.4	253.7	254.3	235.6	206.6	178.1
65°	1478.5	986.9	457.6	283.3	251.5	264.1	282.8	282.8	256.4	216.5	179.8
66°	1479.1	985.3	452.1	276.7	245.0	261.4	280.6	280.6	253.2	213.7	177.0
67.5°	1441.3	954.7	434.0	264.7	230.2	245.5	262.5	262.0	237.3	202.7	169.3
70°	1292.8	844.5	382.5	245.0	212.6	213.2	219.2	215.3	198.9	175.4	154.0
72.5°	1114.7	706.4	331.6	232.4	198.9	188.5	183.6	180.3	169.9	155.6	142.5
75°	854.9	548.6	288.8	220.9	186.9	168.8	162.2	159.5	152.3	144.1	133.7
77.5°	523.9	376.0	245.0	202.2	173.2	156.7	149.6	144.1	137.0	129.4	122.2
80°	225.8	226.9	196.2	171.5	150.7	131.5	122.2	115.6	111.8	109.1	105.2
82.5°	157.8	162.8	149.6	133.1	115.1	101.4	93.2	91.5	92.0	92.0	91.0
85°	118.4	116.2	104.6	95.3	87.1	78.4	71.8	71.2	73.4	73.4	71.8
87.5°	68.5	69.1	59.2	55.3	57.5	49.3	44.9	45.5	50.9	50.4	49.3
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):

	160°	165°	170°	175°	180°
0°	1115.8	1115.8	1115.8	1115.8	1115.8
2.5°	1148.1	1149.7	1149.2	1150.8	1149.2
5°	1169.5	1168.9	1168.4	1170.5	1167.8
7.5°	1166.2	1166.7	1166.7	1166.7	1166.2
10°	1157.9	1160.2	1161.2	1163.4	1162.9
12.5°	1155.2	1158.5	1161.8	1165.1	1165.6
15°	1155.8	1157.9	1159.6	1161.2	1161.8
17.5°	1141.5	1141.0	1139.3	1138.2	1137.1
20°	1112.5	1109.7	1107.0	1102.6	1104.8
22.5°	1076.3	1068.6	1059.8	1052.7	1052.2
25°	1034.1	1019.8	1005.6	996.3	993.0
27.5°	996.8	979.9	965.0	956.8	954.7
30°	952.4	937.1	923.9	916.8	912.4
32.5°	886.7	874.6	858.2	852.7	852.2
35°	795.2	785.8	774.4	772.1	769.4
37.5°	691.6	688.3	682.8	676.3	675.1
40°	580.9	583.1	581.5	577.6	571.6
42.5°	474.0	477.8	478.4	481.1	483.9
45°	377.6	380.9	380.9	383.6	386.9
47.5°	289.9	287.7	289.3	292.1	293.8
50°	219.2	217.6	214.8	212.6	210.4
52.5°	176.5	173.2	165.5	163.3	161.1
55°	155.6	149.6	144.1	142.0	142.0
57.5°	149.6	142.0	135.9	133.1	132.1
60°	150.7	139.7	132.1	127.7	126.1
62.5°	155.6	140.3	129.9	124.9	123.3
65°	155.1	139.2	129.4	123.8	122.2
66°	152.3	137.6	128.2	123.3	122.2
67.5°	148.0	135.4	127.1	122.8	121.1
70°	139.2	131.0	124.9	121.1	119.5
72.5°	132.1	126.6	121.1	116.7	115.6
75°	125.5	120.0	115.1	112.9	111.2
77.5°	115.6	110.7	107.9	105.8	104.6
80°	102.5	99.2	95.9	93.7	92.0
82.5°	89.3	85.0	81.7	80.0	78.9
85°	72.9	70.1	65.2	61.9	61.4
87.5°	48.8	46.0	44.4	41.6	38.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)