

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: P158640

Luminaire Tested: **VST-E02-LED-E-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158640
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E02-LED-E-U-SL4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (42) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5801.9 lumens
Efficiency: N/A
Efficacy: 111.4 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

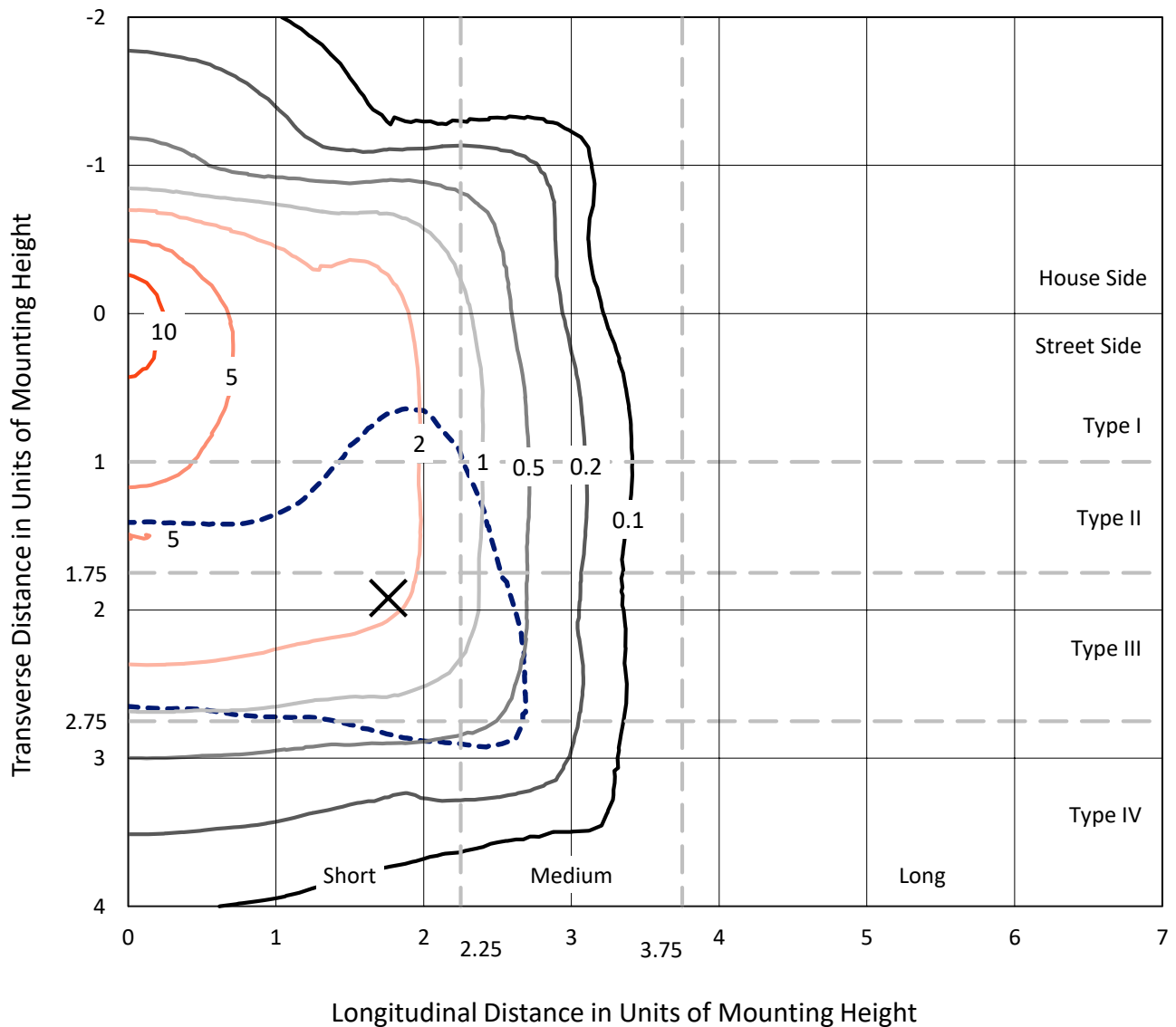
Input Watts (W): 52.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

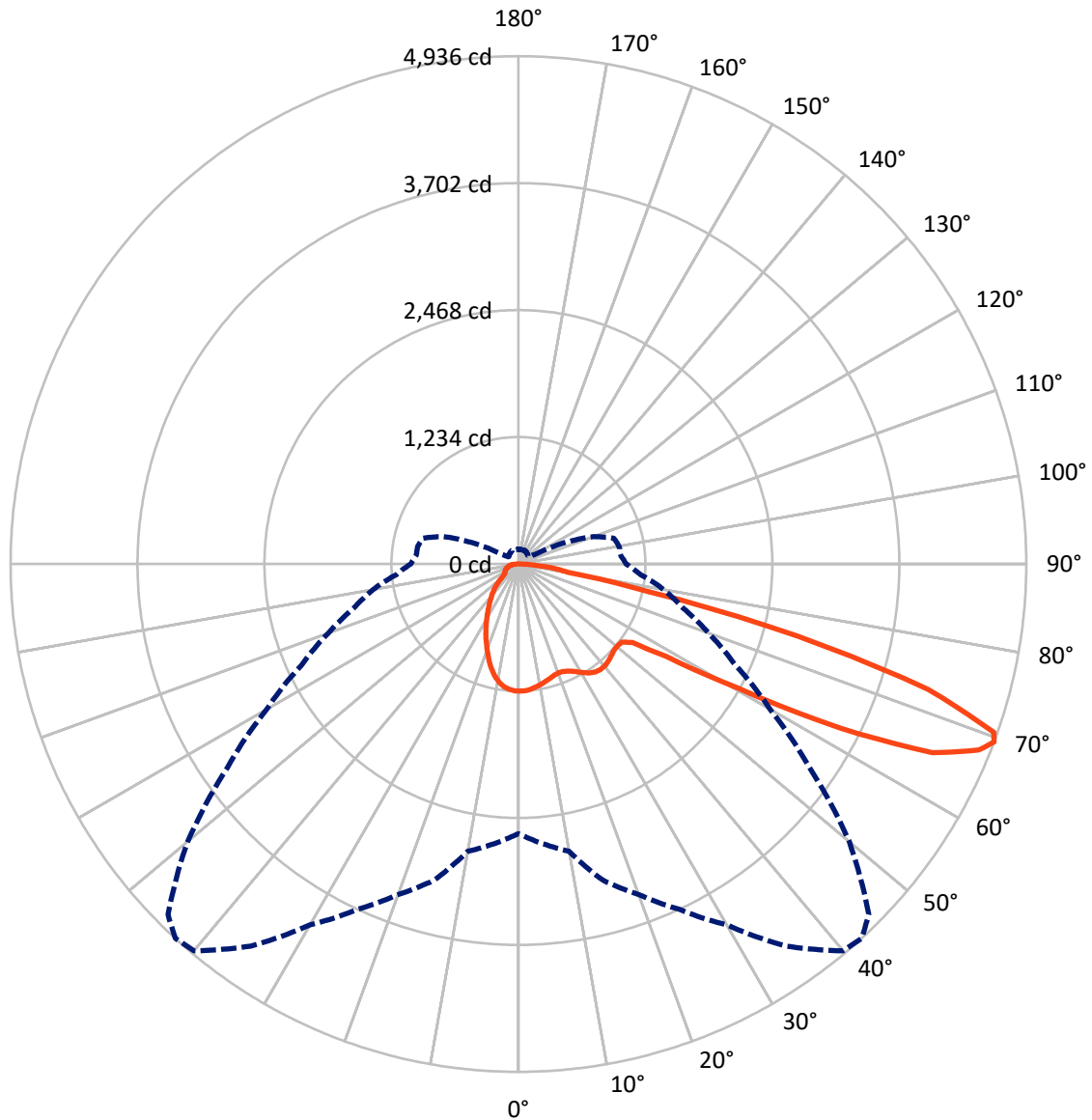


Based on 10 foot mounting height. Maximum calculated value = 12.4 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 42.5-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1289.8	0.0	1289.8
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	4512.0	0.0	4512.0
	% Fixture	77.8	0.0	77.8
Total	Lumens	5801.9	0.0	5801.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.0	2.0
10°-20°	310.0	5.3
20°-30°	452.0	7.8
30°-40°	576.3	9.9
40°-50°	670.5	11.6
50°-60°	1020.1	17.6
60°-70°	1802.0	31.1
70°-80°	743.6	12.8
80°-90°	112.3	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°	5801.9	100.0
0°-180°	5801.9	100.0

Coefficient of Utilization



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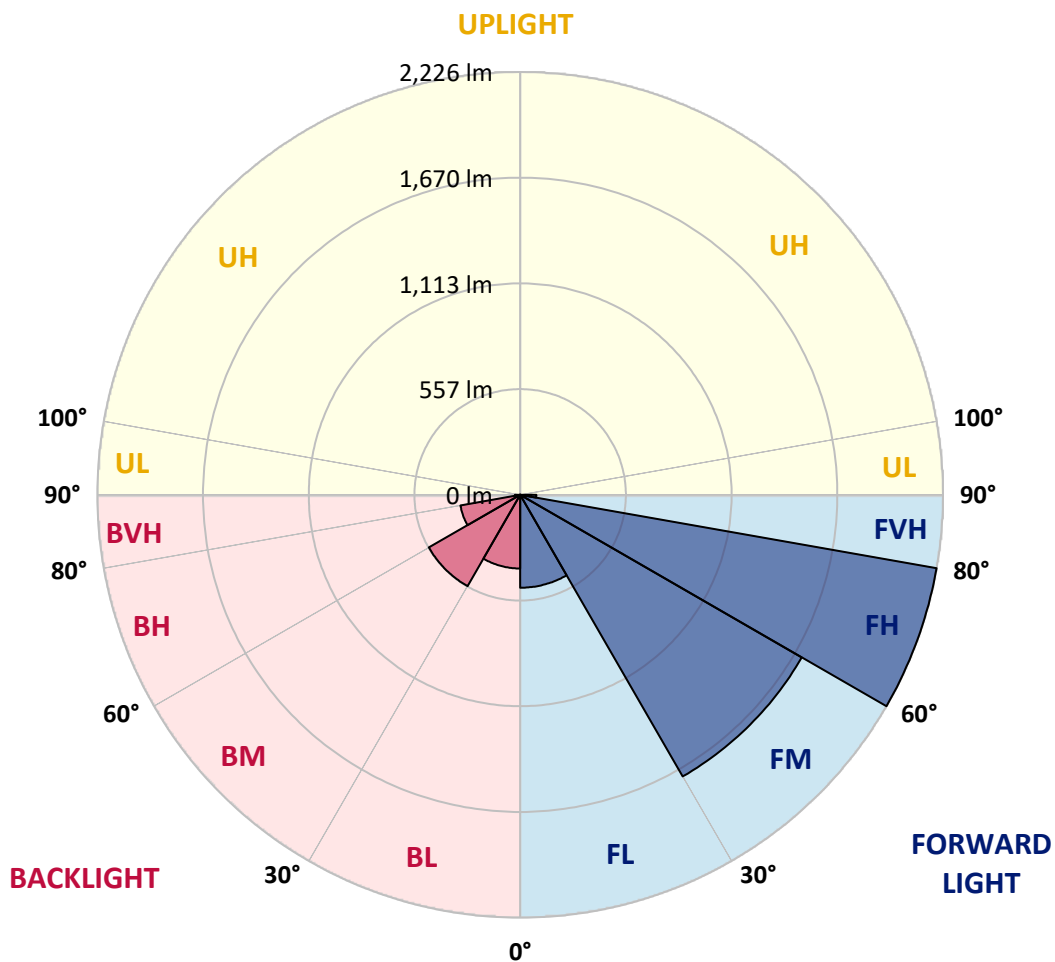
CATALOG NUMBER: VST-E02-LED-E-U-SL4

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	489.2	8.4			
FM (30°-60°)	1711.7	29.5			
FH (60°-80°)	2226.2	38.4			G2/5000
FVH (80°-90°)	84.9	1.5			G1/100
BL (0°-30°)	387.8	6.7	B1/500		
BM (30°-60°)	555.2	9.6	B1/1000		
BH (60°-80°)	319.5	5.5	B1/500		G1/500
BVH (80°-90°)	27.4	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°	42.5°	45°
0°	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6
2.5°	1231.6	1236.0	1234.4	1234.4	1235.6	1233.6	1233.6	1234.4	1232.4	1233.6	1233.2
5°	1227.2	1229.6	1228.8	1228.8	1228.8	1227.2	1226.4	1226.0	1223.2	1223.2	1222.0
7.5°	1217.6	1218.4	1219.6	1218.0	1217.6	1217.2	1214.4	1212.8	1209.6	1206.8	1207.6
10°	1204.8	1204.4	1206.4	1205.2	1203.6	1202.4	1200.0	1197.2	1193.6	1190.0	1189.6
12.5°	1190.4	1190.0	1191.6	1190.8	1189.6	1187.2	1185.2	1180.4	1174.8	1170.4	1170.0
15°	1181.2	1180.0	1181.6	1180.0	1178.0	1175.6	1172.0	1166.0	1156.0	1151.6	1148.0
17.5°	1190.0	1188.0	1188.8	1186.8	1184.0	1177.6	1169.2	1156.4	1142.0	1134.4	1128.8
20°	1220.8	1217.2	1218.0	1216.0	1209.6	1201.2	1185.2	1162.8	1138.4	1126.0	1117.2
22.5°	1264.8	1262.0	1263.2	1261.2	1254.8	1242.0	1218.0	1186.0	1151.2	1133.2	1119.2
25°	1331.6	1334.0	1334.8	1325.6	1322.0	1298.4	1265.2	1220.8	1174.4	1153.2	1134.0
27.5°	1406.8	1406.8	1410.4	1406.8	1399.6	1372.0	1325.2	1271.6	1212.0	1183.2	1160.0
30°	1480.0	1479.2	1486.0	1485.2	1473.6	1442.4	1389.2	1324.0	1256.0	1223.6	1194.0
32.5°	1557.6	1560.0	1564.4	1562.8	1547.6	1504.4	1440.4	1369.6	1298.0	1262.4	1229.2
35°	1641.6	1642.8	1644.4	1643.6	1612.8	1558.4	1478.0	1398.8	1324.4	1289.2	1254.8
37.5°	1725.6	1724.4	1722.4	1705.2	1670.0	1594.4	1500.8	1415.6	1337.6	1299.6	1264.0
40°	1800.8	1794.0	1787.6	1760.8	1706.8	1614.8	1509.6	1419.6	1336.4	1297.2	1262.4
42.5°	1842.0	1834.4	1821.2	1787.6	1722.0	1616.8	1503.6	1407.6	1324.0	1285.2	1250.8
45°	1849.6	1844.0	1831.2	1793.6	1718.4	1604.0	1485.2	1388.0	1305.6	1266.8	1234.4
47.5°	1831.6	1827.2	1814.8	1777.6	1702.8	1584.8	1464.0	1367.2	1287.6	1251.2	1220.0
50°	1804.0	1800.0	1790.4	1756.4	1685.2	1571.6	1453.2	1356.4	1281.6	1248.4	1219.6
52.5°	1848.8	1852.0	1824.0	1786.8	1704.0	1583.2	1465.2	1367.6	1292.4	1259.6	1229.6
55°	2545.2	2540.8	2372.4	2231.2	1978.8	1750.0	1579.2	1456.4	1376.0	1343.2	1315.2
57.5°	3307.2	3292.0	3222.8	3090.8	2819.6	2457.6	2128.4	1848.4	1738.0	1690.8	1694.0
60°	3556.0	3561.6	3546.8	3500.0	3402.8	3214.4	2964.0	2753.6	2546.4	2445.2	2456.8
62.5°	3694.0	3704.0	3716.8	3706.4	3674.8	3631.2	3599.6	3618.8	3590.0	3517.2	3459.2
65°	3713.2	3733.6	3776.0	3809.6	3826.0	3867.2	3964.0	4196.0	4408.0	4422.0	4320.0
67.5°	3333.2	3389.6	3481.6	3637.2	3770.4	3916.8	4150.4	4503.2	4816.0	4826.4	4731.2
69°	2620.8	2729.2	2836.8	3184.4	3418.4	3705.2	4050.8	4532.8	4907.6	4936.4	4816.4
70°	2100.0	2164.4	2257.2	2606.4	2956.0	3321.6	3822.4	4435.2	4844.8	4902.8	4770.4
72.5°	1260.8	1285.6	1317.6	1442.8	1622.8	1948.4	2612.4	3616.0	4086.8	4164.4	3996.0
75°	815.2	813.6	816.4	851.2	861.6	924.0	1133.2	1860.4	2666.0	2806.8	2605.2
77.5°	614.0	619.6	610.8	614.0	611.2	628.0	634.4	666.0	1052.4	1296.4	1159.2
80°	542.0	544.8	545.2	543.6	524.0	522.4	532.8	514.8	478.4	485.6	465.2
82.5°	309.2	308.8	312.4	339.6	350.8	387.6	402.8	411.2	379.6	356.0	322.0
85°	200.4	202.0	206.0	214.4	206.0	209.2	205.6	212.8	195.2	181.2	162.0
87.5°	82.0	82.0	87.2	94.8	88.4	86.8	74.4	73.6	62.4	56.4	44.0
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6
2.5°	1230.8	1233.2	1232.0	1233.6	1232.4	1232.4	1230.8	1230.4	1231.6	1230.0	1230.4
5°	1220.0	1220.4	1218.4	1219.2	1216.8	1216.0	1214.8	1211.6	1213.6	1211.6	1212.4
7.5°	1204.4	1203.2	1200.4	1196.4	1193.6	1192.4	1190.0	1185.6	1186.4	1182.8	1184.8
10°	1184.4	1180.4	1175.6	1169.6	1165.6	1162.0	1156.8	1151.6	1148.8	1145.6	1145.2
12.5°	1162.0	1157.2	1150.8	1141.6	1132.8	1126.8	1118.8	1109.6	1106.8	1101.6	1098.8
15°	1137.6	1130.0	1122.4	1112.0	1102.4	1093.2	1082.4	1070.8	1063.2	1055.2	1049.2
17.5°	1115.6	1106.8	1096.8	1086.8	1076.4	1065.2	1051.6	1037.2	1026.0	1011.2	999.2
20°	1098.4	1087.2	1077.2	1066.8	1055.2	1041.6	1025.2	1006.8	988.0	971.6	957.6
22.5°	1091.6	1074.0	1062.0	1051.6	1040.0	1024.0	1004.0	982.4	959.6	936.8	918.4
25°	1097.2	1071.2	1052.4	1040.0	1030.0	1013.6	991.2	964.8	938.4	911.2	886.4
27.5°	1113.6	1080.4	1053.2	1033.6	1022.0	1005.6	982.0	954.0	922.8	892.4	862.0
30°	1139.2	1096.0	1061.6	1034.0	1016.0	997.2	972.4	940.0	908.4	873.6	840.4
32.5°	1164.0	1112.4	1071.2	1035.6	1008.0	983.6	956.0	924.0	890.0	853.6	819.2
35°	1181.6	1123.2	1074.8	1032.0	995.6	965.2	935.6	903.6	870.4	833.2	798.0
37.5°	1190.0	1129.2	1075.2	1022.4	979.2	945.6	914.0	882.4	851.2	816.0	782.8
40°	1189.6	1128.8	1069.6	1010.0	959.6	924.0	892.8	862.0	832.8	802.0	772.0
42.5°	1180.8	1122.4	1061.6	998.0	945.6	906.0	873.6	844.0	819.2	792.0	766.8
45°	1167.2	1111.6	1053.2	992.4	941.6	902.0	867.6	838.8	816.8	792.0	770.4
47.5°	1156.8	1105.6	1054.4	1002.4	954.0	912.8	876.4	844.8	826.0	806.0	790.8
50°	1158.4	1108.4	1058.4	1008.4	962.8	921.2	886.0	857.2	843.6	838.4	834.8
52.5°	1166.8	1112.8	1070.4	1040.4	1024.8	993.6	972.8	954.8	964.8	945.2	922.0
55°	1274.0	1256.4	1297.6	1336.4	1385.6	1404.0	1386.4	1383.2	1399.2	1332.8	1180.4
57.5°	1716.8	1762.4	1826.0	1859.6	1900.4	1889.6	1848.8	1814.8	1774.8	1697.2	1507.2
60°	2470.0	2435.6	2406.8	2325.6	2259.2	2181.6	2095.2	2021.2	1950.4	1838.8	1633.2
62.5°	3246.0	3007.2	2807.6	2614.8	2459.6	2330.8	2205.6	2094.4	1987.2	1831.6	1610.4
65°	3917.2	3414.4	3039.6	2756.8	2530.0	2334.4	2173.6	2020.0	1883.6	1701.2	1482.4
67.5°	4218.8	3588.8	3043.6	2638.4	2324.4	2058.8	1850.8	1618.8	1466.0	1349.2	1226.0
69°	4196.4	3455.6	2826.4	2327.6	1966.8	1657.2	1434.0	1192.0	1045.6	996.0	993.2
70°	4090.0	3230.0	2572.8	2075.2	1662.4	1354.8	1140.8	923.6	787.2	753.2	813.6
72.5°	3339.2	2282.4	1612.4	1231.2	946.8	748.4	610.4	484.4	386.8	335.2	346.4
75°	1886.0	1056.8	683.2	516.4	436.4	360.8	309.6	264.0	238.8	194.0	153.6
77.5°	685.6	453.6	360.8	312.0	221.2	152.4	127.6	111.6	101.2	101.2	96.4
80°	433.6	341.6	238.4	163.2	120.8	105.2	92.0	80.8	74.4	72.8	74.4
82.5°	270.8	209.2	133.6	102.4	86.0	77.2	67.2	58.8	53.6	52.4	54.8
85°	133.6	103.6	81.2	72.4	68.0	63.2	55.6	47.6	46.0	49.2	57.6
87.5°	40.0	35.6	29.2	30.4	32.0	31.2	24.8	21.6	20.4	26.8	42.0
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6	1235.6
2.5°	1231.2	1230.8	1231.6	1230.4	1231.2	1231.6	1230.8	1234.4	1232.0	1232.4	1234.0
5°	1213.2	1212.4	1215.6	1214.8	1216.4	1218.0	1217.2	1222.4	1220.4	1222.0	1225.2
7.5°	1183.2	1184.8	1185.2	1185.2	1188.4	1193.6	1194.8	1198.0	1198.0	1202.4	1205.6
10°	1143.2	1143.6	1146.0	1145.6	1149.6	1155.2	1156.0	1161.6	1163.6	1170.8	1175.2
12.5°	1096.8	1094.8	1094.4	1094.0	1099.2	1105.2	1106.0	1115.6	1119.6	1126.0	1133.2
15°	1044.8	1039.6	1038.0	1041.2	1040.0	1043.6	1047.2	1052.4	1058.0	1070.8	1077.2
17.5°	994.0	983.6	980.8	977.2	973.6	973.6	975.2	981.6	993.2	1000.0	1014.4
20°	942.0	929.6	919.6	910.0	901.6	898.4	898.8	906.8	915.2	926.4	940.0
22.5°	898.4	879.6	862.4	849.6	832.4	832.0	829.6	832.0	841.2	844.0	851.6
25°	860.8	835.6	812.4	791.6	774.8	766.0	763.6	762.8	758.4	757.2	751.6
27.5°	831.6	801.2	771.2	746.0	725.2	713.2	698.0	687.2	671.6	667.6	657.6
30°	807.6	774.8	742.0	709.2	685.6	664.0	638.4	619.6	595.6	580.0	566.4
32.5°	784.4	751.2	718.0	685.6	649.2	615.6	582.0	552.8	526.0	502.0	482.0
35°	765.2	733.6	700.0	660.8	614.4	566.0	525.6	492.4	455.6	430.4	405.2
37.5°	752.8	724.0	690.4	636.4	576.8	524.8	478.8	438.4	400.8	362.8	334.4
40°	747.2	722.0	680.0	614.0	544.0	486.4	435.6	390.8	342.8	300.0	269.6
42.5°	746.8	721.2	665.6	589.2	516.8	454.0	397.6	344.0	290.8	246.8	216.8
45°	754.0	720.0	650.4	568.4	492.8	427.2	360.0	294.8	235.2	202.4	186.4
47.5°	773.2	722.0	638.0	549.2	470.0	394.8	316.8	240.8	191.6	176.4	176.4
50°	807.6	733.6	634.8	535.6	447.2	357.2	264.0	194.4	169.6	169.6	174.4
52.5°	860.4	758.0	640.4	526.0	418.8	307.6	208.0	167.6	162.8	167.2	173.6
55°	982.0	801.2	648.0	509.6	375.6	244.0	171.6	158.4	160.4	165.6	171.6
57.5°	1205.2	893.6	656.0	473.6	306.0	188.0	155.6	154.8	158.4	163.2	168.4
60°	1352.0	1011.2	676.4	419.2	231.6	155.2	147.6	152.4	156.8	160.8	164.8
62.5°	1352.0	1044.4	691.6	358.4	174.0	141.2	142.4	150.0	155.2	157.2	159.6
65°	1265.6	983.6	640.0	292.0	141.6	133.2	137.6	145.2	150.0	151.6	153.6
67.5°	1106.0	868.8	539.2	220.0	126.4	126.4	132.0	137.6	141.6	144.8	148.0
69°	961.6	779.6	474.8	186.4	120.4	121.2	126.8	131.6	136.4	140.4	144.4
70°	857.6	712.8	430.0	169.2	116.8	117.2	122.8	128.0	132.4	136.8	141.6
72.5°	459.2	492.4	326.8	138.8	107.6	108.8	114.0	118.8	122.8	127.2	131.6
75°	156.4	211.6	208.0	113.6	97.2	100.4	103.6	108.0	113.2	116.0	118.4
77.5°	91.6	94.8	110.8	92.4	87.6	89.2	92.8	96.4	100.8	103.6	105.6
80°	76.8	76.4	76.8	75.2	76.4	80.0	82.4	87.2	91.2	92.0	91.6
82.5°	62.4	65.6	66.0	65.2	68.8	71.6	73.6	76.4	76.0	76.8	78.4
85°	55.6	55.2	58.0	58.4	58.4	56.4	56.8	56.8	56.8	58.0	58.4
87.5°	55.6	46.4	36.0	32.4	34.0	32.0	30.4	30.0	33.2	36.4	35.6
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°	1235.6	1235.6	1235.6	1235.6	1235.6
2.5°	1234.8	1236.0	1235.2	1235.2	1236.0
5°	1226.4	1228.4	1227.6	1228.4	1228.4
7.5°	1207.2	1210.0	1212.0	1214.0	1212.8
10°	1179.6	1184.4	1187.6	1190.0	1188.8
12.5°	1138.4	1142.8	1149.6	1153.6	1150.4
15°	1082.0	1094.4	1098.4	1104.0	1100.8
17.5°	1023.2	1030.8	1035.6	1040.8	1044.0
20°	944.8	950.8	957.2	959.6	956.0
22.5°	850.4	853.6	852.4	856.0	848.8
25°	746.8	748.8	747.6	750.8	744.8
27.5°	648.8	648.4	648.8	644.8	640.8
30°	554.4	550.8	549.2	543.2	542.0
32.5°	470.0	457.6	451.2	442.4	440.4
35°	385.6	368.0	356.4	346.4	342.0
37.5°	310.0	288.8	275.2	266.4	265.2
40°	245.2	225.6	216.0	211.2	210.4
42.5°	200.0	191.6	189.2	189.2	189.2
45°	182.4	182.0	184.0	185.6	186.0
47.5°	178.8	181.2	184.0	186.4	187.2
50°	178.8	181.2	183.2	185.6	186.4
52.5°	178.0	180.0	180.8	182.4	183.2
55°	175.6	176.8	176.8	177.6	178.4
57.5°	171.6	172.4	171.2	172.0	174.0
60°	167.6	168.4	166.4	168.4	169.6
62.5°	163.2	163.6	162.8	164.4	164.4
65°	156.0	155.2	156.4	157.6	158.0
67.5°	148.8	146.8	148.0	148.4	149.2
69°	143.2	142.0	142.4	143.2	144.0
70°	139.2	138.4	139.2	140.4	141.6
72.5°	129.2	129.6	132.4	134.8	137.2
75°	120.0	122.8	126.4	131.6	134.4
77.5°	108.8	110.8	113.6	119.2	124.4
80°	94.0	95.2	95.6	97.6	97.2
82.5°	76.4	75.2	74.4	73.6	73.2
85°	54.8	54.4	51.2	48.8	48.8
87.5°	32.8	31.2	29.6	27.6	26.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)