

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: P158655

Luminaire Tested: **VST-F03-LED-E-U-SL4**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158655
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-F03-LED-E-U-SL4
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (21) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7184.4 lumens
Efficiency: N/A
Efficacy: 91.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

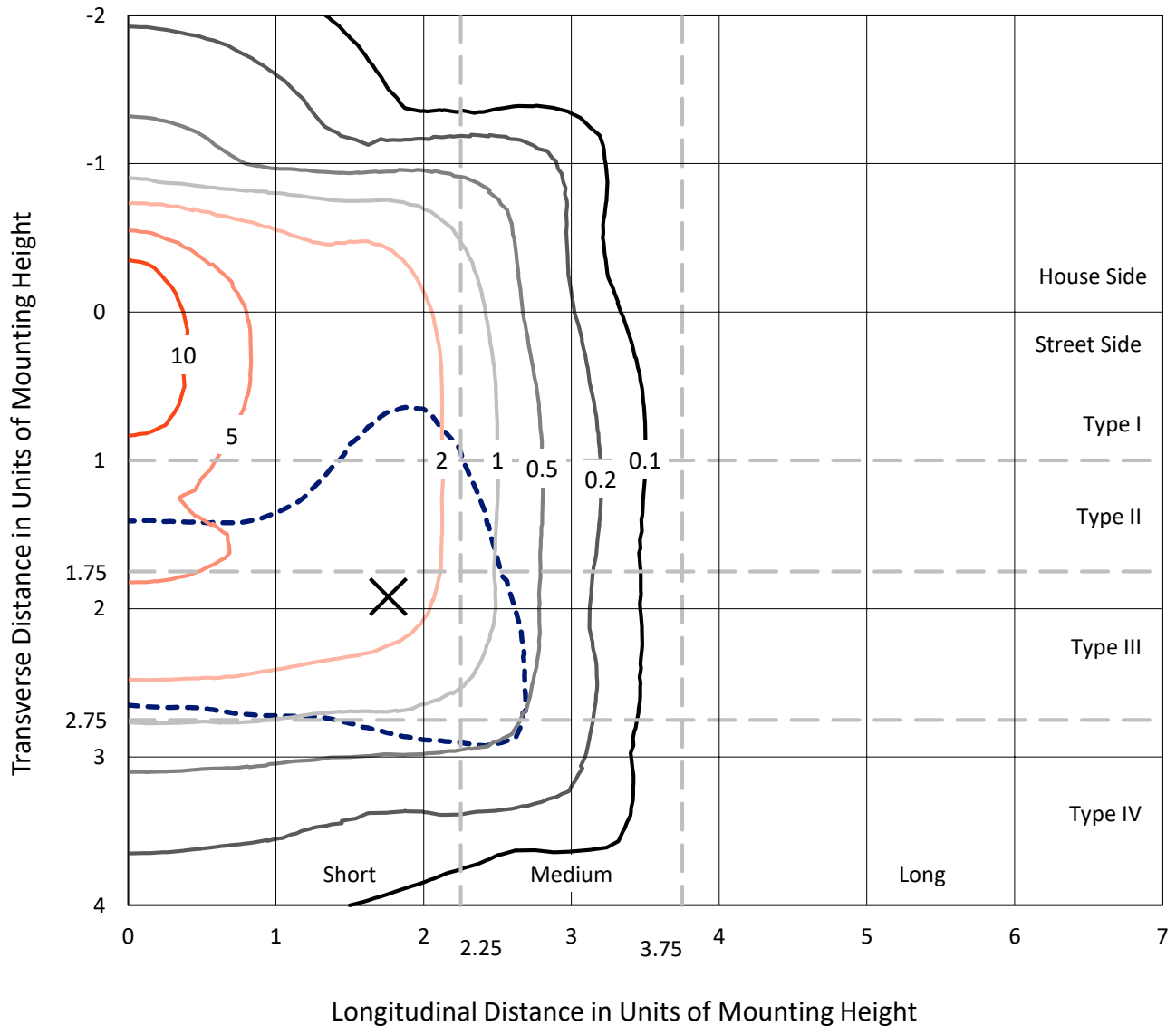
Input Watts (W): 78.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

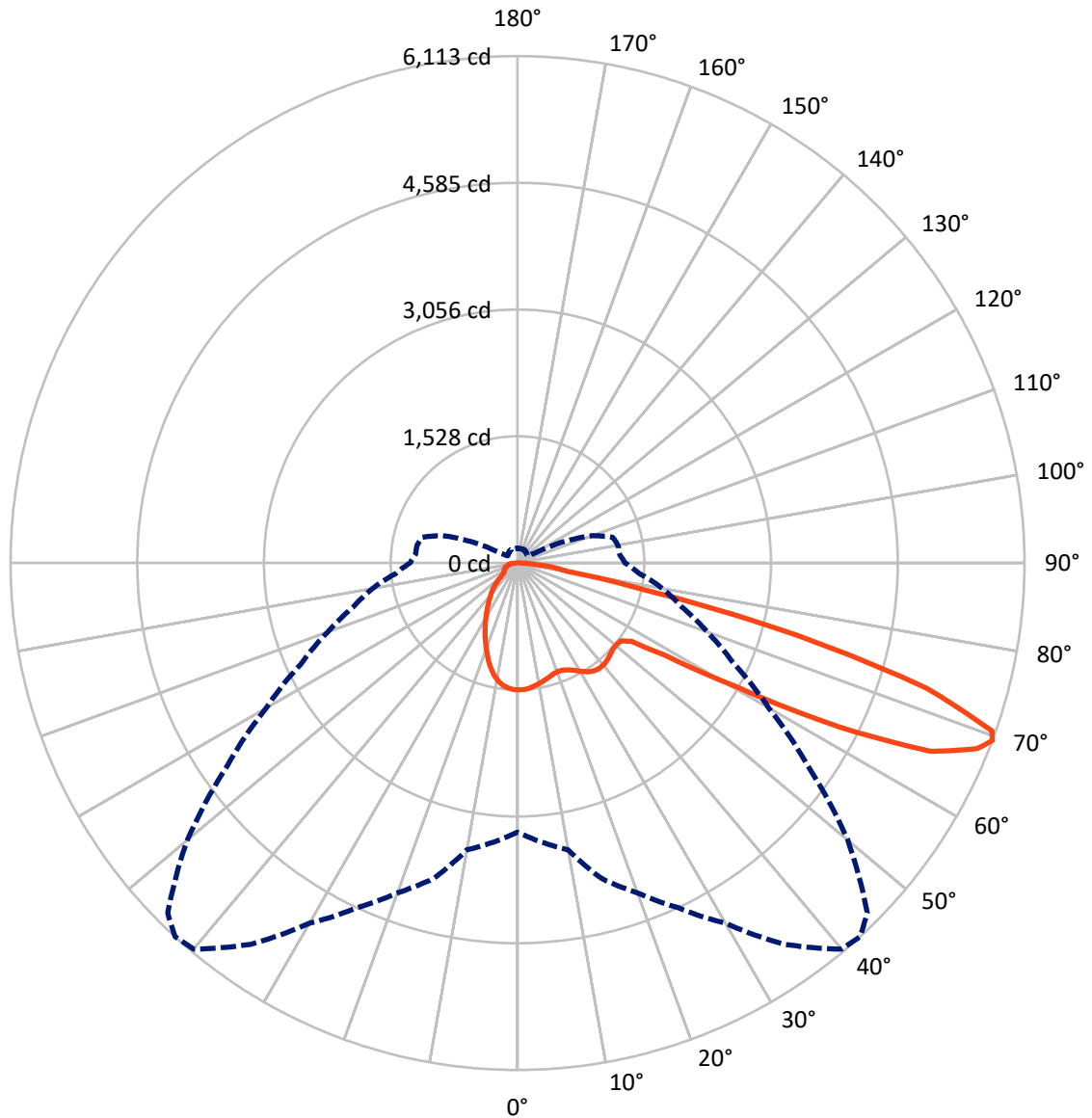


Based on 10 foot mounting height. Maximum calculated value = 15.3 fc
 Type IV - Short - Full Cutoff

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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	1597.2	0.0	1597.2
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	5587.2	0.0	5587.2
	% Fixture	77.8	0.0	77.8
Total	Lumens	7184.4	0.0	7184.4
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.4	2.0
10°-20°	383.9	5.3
20°-30°	559.7	7.8
30°-40°	713.6	9.9
40°-50°	830.2	11.6
50°-60°	1263.2	17.6
60°-70°	2231.4	31.1
70°-80°	920.8	12.8
80°-90°	139.0	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°	7184.4	100.0
0°-180°	7184.4	100.0



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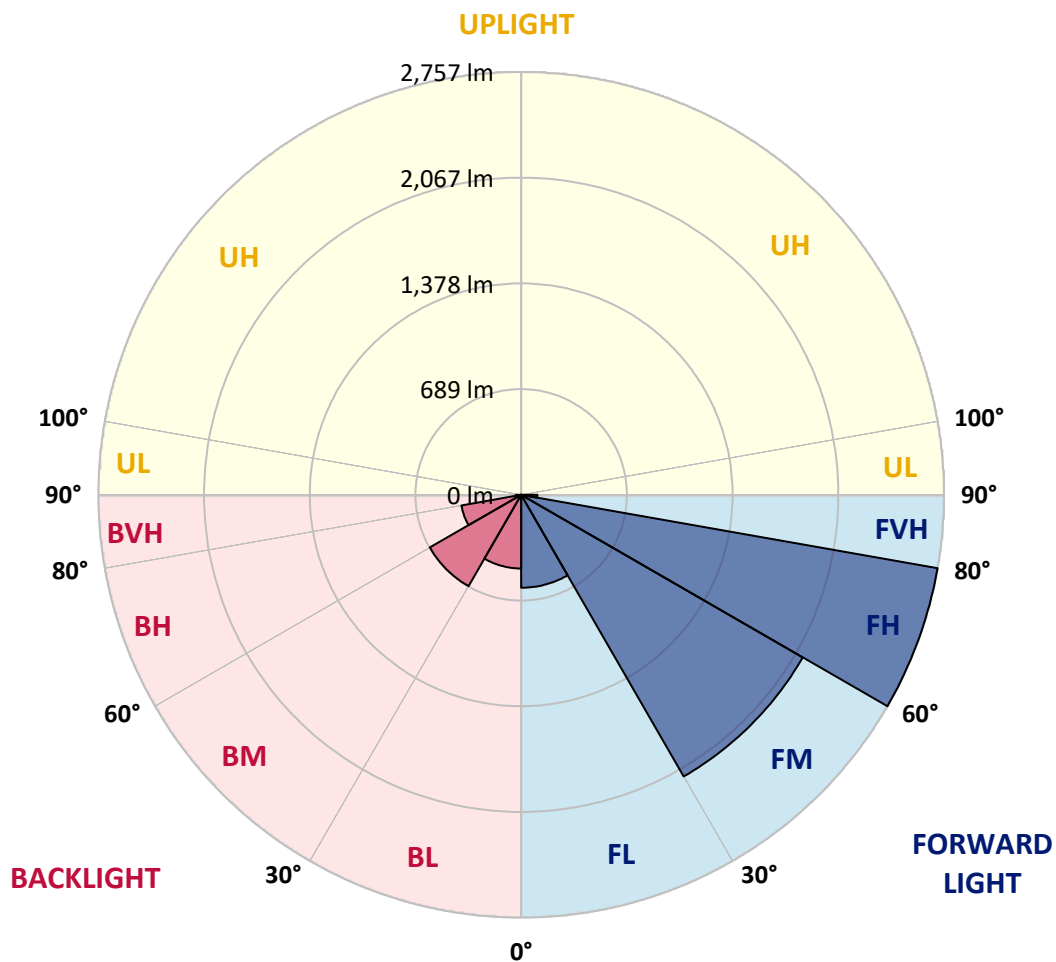
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	605.8	8.4			
FM	(30°-60°)	2119.6	29.5			
FH	(60°-80°)	2756.6	38.4			G2/5000
FVH	(80°-90°)	105.1	1.5			G2/225
BL	(0°-30°)	480.2	6.7	B1/500		
BM	(30°-60°)	687.5	9.6	B1/1000		
BH	(60°-80°)	395.6	5.5	B1/500		G1/500
BVH	(80°-90°)	33.9	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°	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0
2.5°	1525.1	1530.5	1528.6	1528.6	1530.0	1527.5	1527.5	1528.6	1526.0	1527.5	1527.1
5°	1519.6	1522.6	1521.6	1521.6	1521.6	1519.6	1518.7	1518.1	1514.7	1514.7	1513.2
7.5°	1507.7	1508.7	1510.2	1508.2	1507.7	1507.3	1503.8	1501.8	1497.8	1494.4	1495.4
10°	1491.9	1491.4	1493.9	1492.4	1490.4	1488.9	1486.0	1482.5	1478.0	1473.5	1473.1
12.5°	1474.1	1473.5	1475.5	1474.6	1473.1	1470.1	1467.6	1461.7	1454.8	1449.3	1448.8
15°	1462.7	1461.2	1463.2	1461.2	1458.7	1455.7	1451.3	1443.8	1431.5	1426.0	1421.6
17.5°	1473.5	1471.1	1472.1	1469.6	1466.2	1458.2	1447.8	1432.0	1414.1	1404.7	1397.8
20°	1511.7	1507.3	1508.2	1505.8	1497.8	1487.5	1467.6	1439.9	1409.6	1394.3	1383.4
22.5°	1566.2	1562.7	1564.2	1561.7	1553.8	1538.0	1508.2	1468.6	1425.5	1403.2	1385.9
25°	1648.9	1651.9	1652.9	1641.5	1637.0	1607.8	1566.7	1511.7	1454.2	1428.0	1404.2
27.5°	1742.0	1742.0	1746.5	1742.0	1733.1	1699.0	1641.0	1574.6	1500.8	1465.1	1436.4
30°	1832.6	1831.7	1840.1	1839.1	1824.7	1786.1	1720.2	1639.5	1555.3	1515.2	1478.5
32.5°	1928.8	1931.7	1937.2	1935.2	1916.4	1862.9	1783.6	1696.0	1607.3	1563.2	1522.1
35°	2032.8	2034.2	2036.2	2035.3	1997.1	1929.7	1830.2	1732.1	1640.0	1596.4	1553.8
37.5°	2136.8	2135.3	2132.8	2111.5	2068.0	1974.3	1858.4	1752.9	1656.4	1609.3	1565.2
40°	2229.9	2221.5	2213.6	2180.4	2113.5	1999.6	1869.3	1757.9	1654.9	1606.3	1563.2
42.5°	2280.9	2271.5	2255.2	2213.6	2132.3	2002.1	1861.9	1743.0	1639.5	1591.4	1548.8
45°	2290.3	2283.4	2267.6	2221.0	2127.9	1986.2	1839.1	1718.8	1616.7	1568.6	1528.6
47.5°	2268.1	2262.6	2247.2	2201.2	2108.6	1962.4	1812.8	1693.0	1594.4	1549.3	1510.7
50°	2233.9	2228.9	2217.0	2174.9	2086.7	1946.1	1799.5	1679.6	1587.0	1545.9	1510.2
52.5°	2289.4	2293.3	2258.6	2212.6	2110.0	1960.4	1814.3	1693.5	1600.4	1559.8	1522.6
55°	3151.7	3146.2	2937.7	2762.9	2450.3	2167.0	1955.5	1803.4	1703.9	1663.3	1628.6
57.5°	4095.2	4076.5	3990.8	3827.3	3491.5	3043.2	2635.6	2288.9	2152.1	2093.7	2097.7
60°	4403.3	4410.3	4391.9	4334.0	4213.6	3980.3	3670.3	3409.7	3153.2	3027.8	3042.2
62.5°	4574.2	4586.6	4602.5	4589.6	4550.5	4496.5	4457.3	4481.1	4445.5	4355.3	4283.5
65°	4598.0	4623.2	4675.8	4717.4	4737.7	4788.7	4908.6	5195.9	5458.4	5475.7	5349.4
67.5°	4127.5	4197.3	4311.2	4503.9	4668.8	4850.1	5139.4	5576.3	5963.6	5976.5	5858.6
69°	3245.3	3379.6	3512.8	3943.2	4232.9	4588.1	5016.1	5612.9	6077.0	6112.7	5964.1
70°	2600.4	2680.1	2795.0	3227.5	3660.4	4113.1	4733.2	5492.0	5999.3	6071.1	5907.1
72.5°	1561.3	1591.9	1631.6	1786.6	2009.5	2412.7	3234.9	4477.6	5060.6	5156.7	4948.2
75°	1009.4	1007.5	1010.9	1054.0	1066.9	1144.2	1403.2	2303.7	3301.3	3475.6	3226.0
77.5°	760.3	767.2	756.4	760.3	756.8	777.7	785.6	824.7	1303.2	1605.3	1435.4
80°	671.2	674.6	675.1	673.1	648.8	646.9	659.8	637.5	592.4	601.3	576.1
82.5°	382.9	382.4	386.8	420.5	434.4	479.9	498.8	509.2	470.0	440.8	398.7
85°	248.2	250.1	255.1	265.5	255.1	259.0	254.6	263.5	241.7	224.4	200.6
87.5°	101.5	101.5	108.0	117.4	109.4	107.5	92.1	91.1	77.3	69.8	54.5
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°	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0
2.5°	1524.1	1527.1	1525.6	1527.5	1526.0	1526.0	1524.1	1523.6	1525.1	1523.1	1523.6
5°	1510.7	1511.2	1508.7	1509.7	1506.7	1505.8	1504.3	1500.3	1502.8	1500.3	1501.3
7.5°	1491.4	1489.9	1486.4	1481.5	1478.0	1476.5	1473.5	1468.1	1469.1	1464.7	1467.1
10°	1466.6	1461.7	1455.7	1448.3	1443.4	1438.9	1432.4	1426.0	1422.5	1418.6	1418.1
12.5°	1438.9	1432.9	1425.0	1413.6	1402.7	1395.3	1385.4	1374.0	1370.5	1364.1	1360.6
15°	1408.7	1399.3	1389.8	1377.0	1365.1	1353.7	1340.3	1325.9	1316.5	1306.6	1299.2
17.5°	1381.4	1370.5	1358.2	1345.8	1332.9	1319.0	1302.2	1284.4	1270.5	1252.1	1237.3
20°	1360.1	1346.3	1333.9	1321.0	1306.6	1289.8	1269.5	1246.7	1223.4	1203.1	1185.8
22.5°	1351.7	1329.9	1315.1	1302.2	1287.8	1268.0	1243.3	1216.5	1188.2	1160.0	1137.2
25°	1358.6	1326.5	1303.2	1287.8	1275.4	1255.1	1227.4	1194.7	1162.0	1128.3	1097.6
27.5°	1379.0	1337.8	1304.2	1279.9	1265.5	1245.2	1216.0	1181.3	1142.7	1105.0	1067.4
30°	1410.7	1357.1	1314.5	1280.4	1258.1	1234.8	1204.1	1164.0	1124.9	1081.7	1040.6
32.5°	1441.4	1377.5	1326.5	1282.4	1248.2	1218.0	1183.8	1144.2	1102.1	1057.0	1014.4
35°	1463.2	1390.9	1330.9	1277.9	1232.8	1195.2	1158.5	1118.9	1077.8	1031.8	988.1
37.5°	1473.5	1398.3	1331.4	1266.0	1212.5	1170.9	1131.8	1092.7	1054.0	1010.5	969.4
40°	1473.1	1397.8	1324.5	1250.7	1188.2	1144.2	1105.6	1067.4	1031.2	993.1	956.0
42.5°	1462.1	1389.8	1314.5	1235.8	1170.9	1121.9	1081.7	1045.1	1014.4	980.7	949.5
45°	1445.3	1376.5	1304.2	1228.9	1166.0	1117.0	1074.4	1038.7	1011.4	980.7	954.0
47.5°	1432.4	1369.1	1305.7	1241.3	1181.3	1130.3	1085.2	1046.1	1022.8	998.0	979.3
50°	1434.4	1372.5	1310.6	1248.7	1192.2	1140.7	1097.1	1061.5	1044.6	1038.2	1033.7
52.5°	1444.9	1378.0	1325.5	1288.3	1269.0	1230.4	1204.6	1182.3	1194.7	1170.4	1141.7
55°	1577.6	1555.8	1606.8	1654.9	1715.8	1738.6	1716.8	1712.8	1732.6	1650.4	1461.7
57.5°	2125.9	2182.4	2261.1	2302.7	2353.3	2339.9	2289.4	2247.2	2197.7	2101.6	1866.4
60°	3058.6	3016.0	2980.3	2879.8	2797.6	2701.4	2594.5	2502.8	2415.2	2276.9	2022.4
62.5°	4019.5	3723.8	3476.6	3237.9	3045.7	2886.2	2731.1	2593.4	2460.7	2268.1	1994.2
65°	4850.6	4228.0	3763.9	3413.7	3132.8	2890.7	2691.5	2501.3	2332.4	2106.6	1835.6
67.5°	5224.1	4444.0	3768.8	3267.1	2878.3	2549.4	2291.8	2004.5	1815.3	1670.7	1518.1
69°	5196.4	4279.0	3499.9	2882.2	2435.5	2052.1	1775.7	1476.1	1294.7	1233.4	1229.9
70°	5064.6	3999.7	3185.9	2569.7	2058.5	1677.7	1412.6	1143.7	974.8	932.7	1007.5
72.5°	4134.9	2826.2	1996.6	1524.6	1172.4	926.8	755.9	599.8	479.0	415.1	428.9
75°	2335.4	1308.6	846.0	639.5	540.4	446.8	383.4	326.9	295.7	240.2	190.2
77.5°	848.9	561.7	446.8	386.3	273.9	188.7	158.0	138.2	125.3	125.3	119.4
80°	536.9	423.0	295.2	202.1	149.6	130.3	113.9	100.1	92.1	90.1	92.1
82.5°	335.3	259.0	165.4	126.8	106.5	95.6	83.2	72.8	66.4	64.9	67.9
85°	165.4	128.3	100.6	89.6	84.2	78.2	68.8	58.9	56.9	60.9	71.3
87.5°	49.6	44.1	36.2	37.6	39.6	38.6	30.7	26.8	25.3	33.2	52.0
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°	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0	1530.0
2.5°	1524.6	1524.1	1525.1	1523.6	1524.6	1525.1	1524.1	1528.6	1525.6	1526.0	1528.0
5°	1502.3	1501.3	1505.3	1504.3	1506.2	1508.2	1507.3	1513.7	1511.2	1513.2	1517.2
7.5°	1465.1	1467.1	1467.6	1467.6	1471.6	1478.0	1479.5	1483.4	1483.4	1488.9	1492.9
10°	1415.6	1416.1	1419.1	1418.6	1423.6	1430.5	1431.5	1438.4	1440.9	1449.8	1455.2
12.5°	1358.2	1355.7	1355.2	1354.7	1361.1	1368.5	1369.6	1381.4	1386.4	1394.3	1403.2
15°	1293.8	1287.3	1285.3	1289.3	1287.8	1292.3	1296.7	1303.2	1310.1	1325.9	1333.9
17.5°	1230.8	1218.0	1214.5	1210.1	1205.6	1205.6	1207.6	1215.5	1229.9	1238.3	1256.1
20°	1166.5	1151.1	1138.7	1126.9	1116.4	1112.5	1113.0	1122.9	1133.3	1147.1	1164.0
22.5°	1112.5	1089.2	1067.9	1052.0	1030.7	1030.3	1027.3	1030.3	1041.7	1045.1	1054.5
25°	1065.9	1034.7	1006.0	980.2	959.4	948.5	945.5	944.6	939.1	937.6	930.7
27.5°	1029.8	992.1	955.0	923.8	898.0	883.1	864.3	851.0	831.7	826.7	814.3
30°	1000.0	959.4	918.8	878.2	848.9	822.2	790.5	767.2	737.5	718.2	701.3
32.5°	971.3	930.2	889.1	848.9	803.9	762.3	720.7	684.5	651.4	621.6	596.9
35°	947.5	908.4	866.8	818.3	760.8	700.9	650.8	609.7	564.2	533.0	501.8
37.5°	932.2	896.5	854.9	788.0	714.2	649.9	592.9	542.9	496.3	449.3	414.1
40°	925.3	894.1	842.0	760.3	673.6	602.3	539.4	483.9	424.5	371.5	333.8
42.5°	924.8	893.0	824.2	729.6	640.0	562.2	492.4	426.0	360.1	305.6	268.4
45°	933.7	891.5	805.4	703.9	610.2	529.0	445.8	365.0	291.2	250.6	230.8
47.5°	957.4	894.1	790.0	680.0	582.0	488.9	392.3	298.2	237.2	218.5	218.5
50°	1000.0	908.4	786.1	663.2	553.7	442.3	326.9	240.7	210.0	210.0	215.9
52.5°	1065.4	938.6	793.0	651.4	518.6	380.9	257.6	207.5	201.6	207.1	215.0
55°	1216.0	992.1	802.4	631.0	465.1	302.2	212.5	196.1	198.6	205.1	212.5
57.5°	1492.4	1106.5	812.3	586.4	378.9	232.8	192.7	191.7	196.1	202.1	208.5
60°	1674.2	1252.1	837.6	519.1	286.8	192.2	182.8	188.7	194.2	199.1	204.1
62.5°	1674.2	1293.2	856.4	443.8	215.5	174.8	176.3	185.8	192.2	194.6	197.6
65°	1567.2	1218.0	792.5	361.6	175.3	164.9	170.4	179.8	185.8	187.7	190.2
67.5°	1369.6	1075.8	667.7	272.4	156.5	156.5	163.4	170.4	175.3	179.3	183.2
69°	1190.8	965.3	587.9	230.8	149.1	150.1	157.0	163.0	168.9	173.9	178.8
70°	1061.9	882.7	532.4	209.5	144.7	145.1	152.0	158.5	163.9	169.4	175.3
72.5°	568.6	609.7	404.7	171.9	133.3	134.7	141.2	147.1	152.0	157.5	163.0
75°	193.7	262.0	257.6	140.6	120.4	124.3	128.3	133.7	140.2	143.6	146.6
77.5°	113.4	117.4	137.2	114.4	108.5	110.5	114.9	119.4	124.8	128.3	130.7
80°	95.1	94.6	95.1	93.1	94.6	99.1	102.1	108.0	112.9	113.9	113.4
82.5°	77.3	81.2	81.7	80.8	85.2	88.7	91.1	94.6	94.1	95.1	97.1
85°	68.8	68.3	71.8	72.3	72.3	69.8	70.3	70.3	70.3	71.8	72.3
87.5°	68.8	57.5	44.6	40.1	42.1	39.6	37.6	37.1	41.1	45.1	44.1
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°	1530.0	1530.0	1530.0	1530.0	1530.0
2.5°	1529.0	1530.5	1529.5	1529.5	1530.5
5°	1518.7	1521.1	1520.1	1521.1	1521.1
7.5°	1494.8	1498.3	1500.8	1503.3	1501.8
10°	1460.7	1466.6	1470.6	1473.5	1472.1
12.5°	1409.6	1415.1	1423.6	1428.5	1424.5
15°	1339.8	1355.2	1360.1	1367.0	1363.1
17.5°	1267.0	1276.4	1282.4	1288.8	1292.8
20°	1169.9	1177.4	1185.3	1188.2	1183.8
22.5°	1053.1	1057.0	1055.5	1060.0	1051.1
25°	924.8	927.2	925.7	929.7	922.3
27.5°	803.4	802.9	803.4	798.4	793.5
30°	686.5	682.0	680.0	672.7	671.2
32.5°	582.0	566.6	558.7	547.8	545.3
35°	477.5	455.7	441.3	428.9	423.5
37.5°	383.9	357.6	340.8	329.9	328.4
40°	303.6	279.4	267.5	261.5	260.5
42.5°	247.7	237.2	234.3	234.3	234.3
45°	225.8	225.4	227.8	229.8	230.3
47.5°	221.4	224.4	227.8	230.8	231.8
50°	221.4	224.4	226.9	229.8	230.8
52.5°	220.4	222.9	223.9	225.8	226.9
55°	217.4	218.9	218.9	219.9	220.9
57.5°	212.5	213.5	212.0	213.0	215.5
60°	207.5	208.5	206.0	208.5	210.0
62.5°	202.1	202.6	201.6	203.6	203.6
65°	193.2	192.2	193.7	195.2	195.7
67.5°	184.3	181.8	183.2	183.8	184.7
69°	177.3	175.9	176.3	177.3	178.3
70°	172.4	171.4	172.4	173.9	175.3
72.5°	160.0	160.5	163.9	166.9	169.9
75°	148.6	152.0	156.5	163.0	166.4
77.5°	134.7	137.2	140.6	147.6	154.0
80°	116.4	117.9	118.4	120.8	120.4
82.5°	94.6	93.1	92.1	91.1	90.7
85°	67.9	67.4	63.4	60.4	60.4
87.5°	40.6	38.6	36.7	34.2	32.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)