

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: P158649

Luminaire Tested: **VST-E03-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158649
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-E03-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (63) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7948.7 lumens
Efficiency: N/A
Efficacy: 105.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B2 - 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

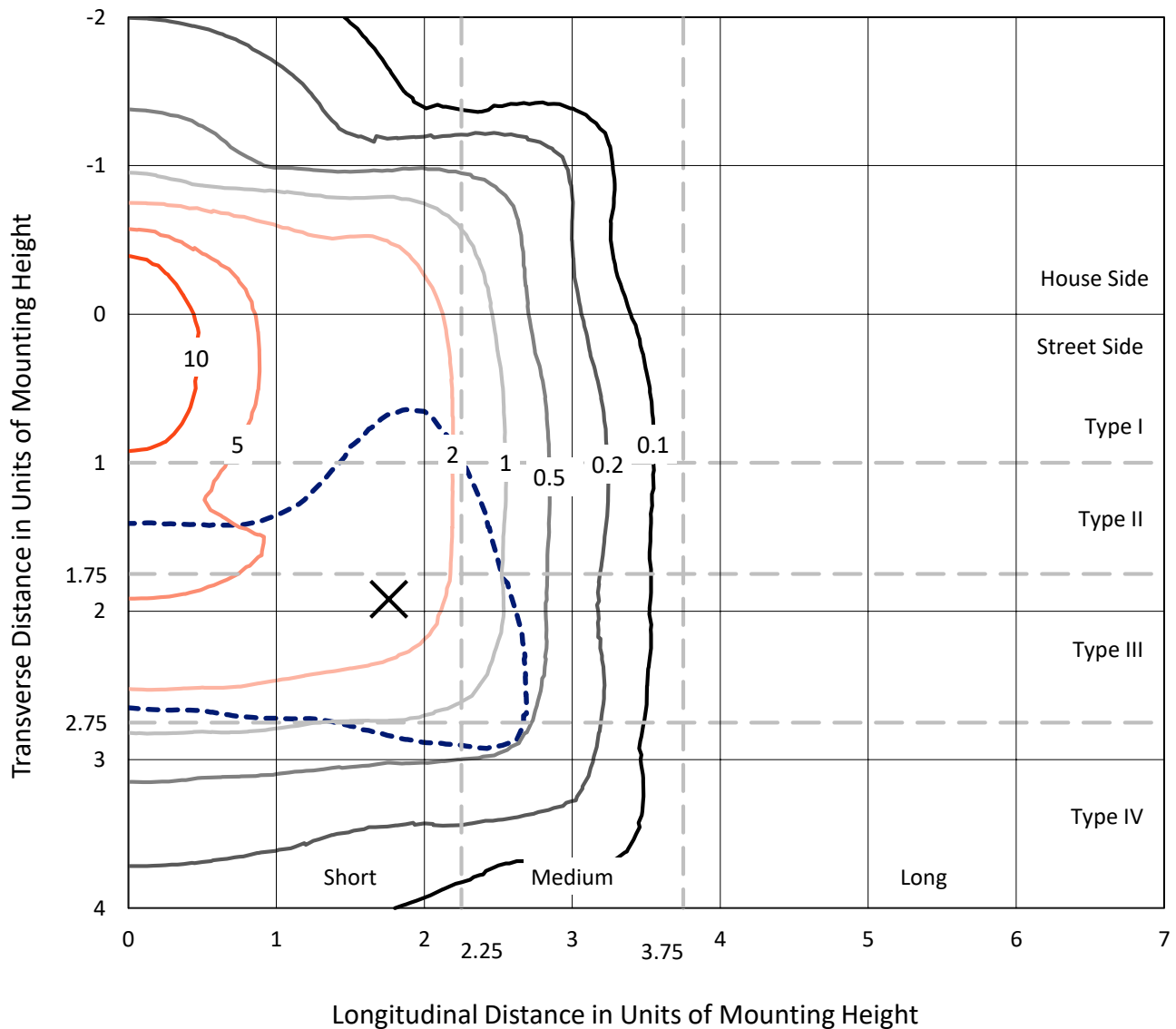


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

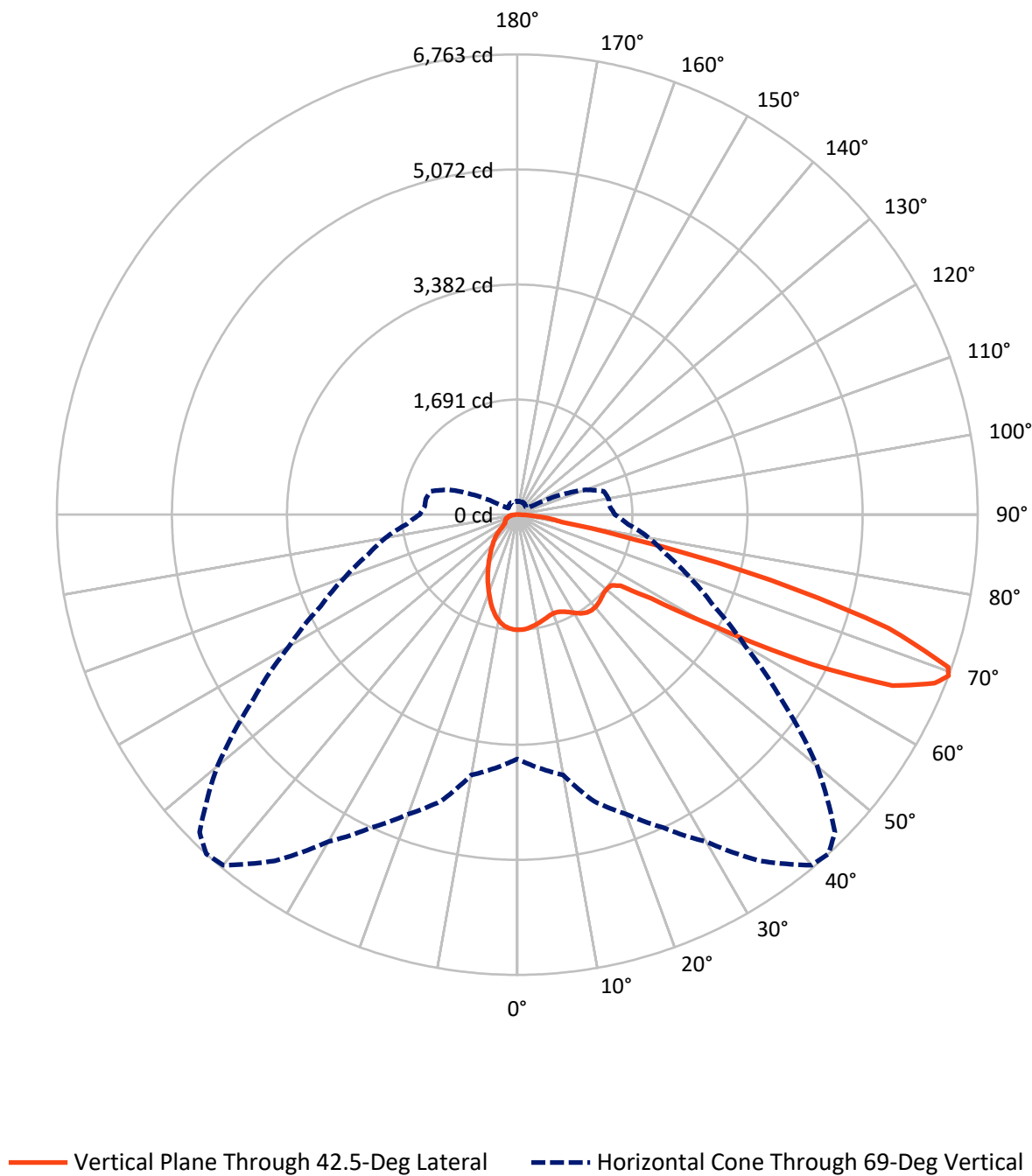


Based on 10 foot mounting height. Maximum calculated value = 16.9 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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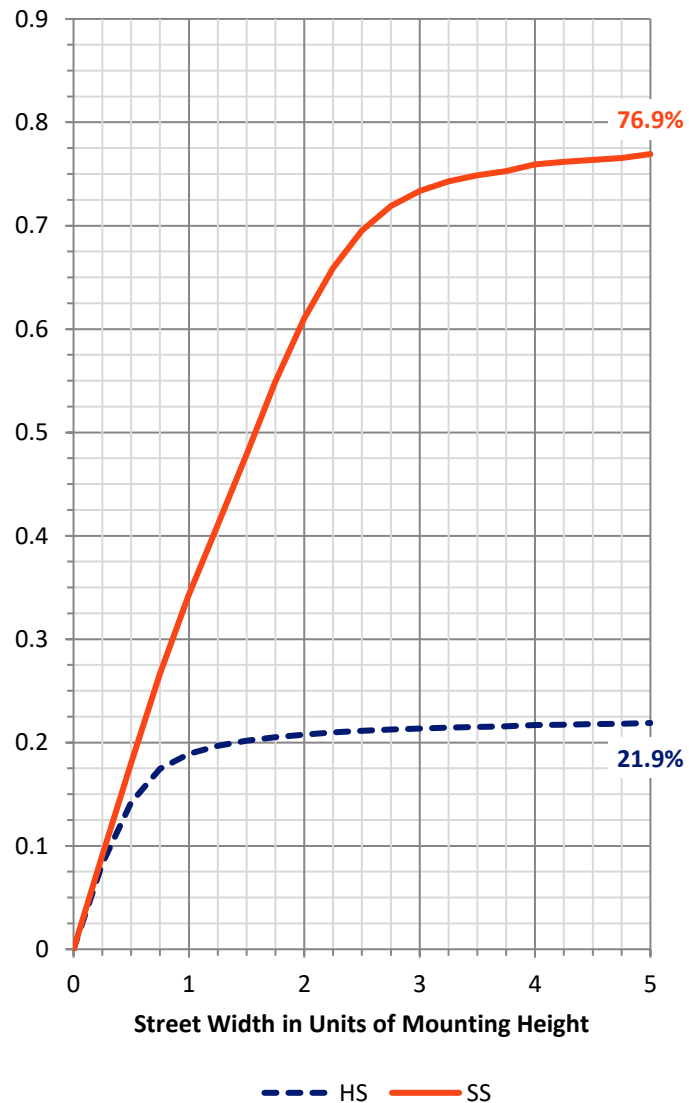
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1767.1	0.0	1767.1
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	6181.6	0.0	6181.6
	% Fixture	77.8	0.0	77.8
Total	Lumens	7948.7	0.0	7948.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	157.6	2.0
10°-20°	424.7	5.3
20°-30°	619.3	7.8
30°-40°	789.5	9.9
40°-50°	918.6	11.6
50°-60°	1397.6	17.6
60°-70°	2468.8	31.1
70°-80°	1018.8	12.8
80°-90°	153.8	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°	7948.7	100.0
0°-180°	7948.7	100.0

Coefficient of Utilization



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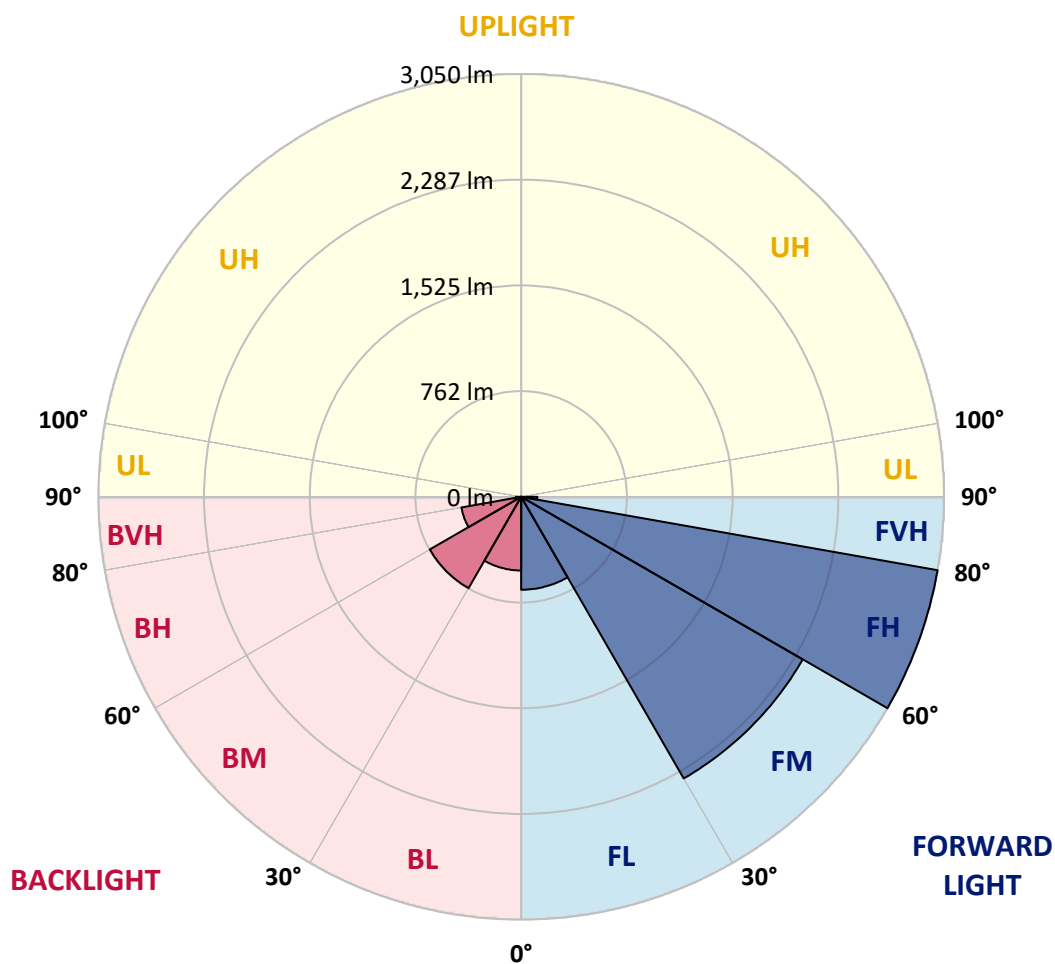
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	670.3	8.4			
FM	(30°-60°)	2345.1	29.5			
FH	(60°-80°)	3049.9	38.4			G2/5000
FVH	(80°-90°)	116.3	1.5			G2/225
BL	(0°-30°)	531.3	6.7	B2/1000		
BM	(30°-60°)	760.6	9.6	B1/1000		
BH	(60°-80°)	437.7	5.5	B1/500		G1/500
BVH	(80°-90°)	37.5	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-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°	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8
2.5°	1687.3	1693.4	1691.2	1691.2	1692.8	1690.1	1690.1	1691.2	1688.4	1690.1	1689.5
5°	1681.3	1684.6	1683.5	1683.5	1683.5	1681.3	1680.2	1679.6	1675.8	1675.8	1674.2
7.5°	1668.1	1669.3	1670.9	1668.7	1668.1	1667.6	1663.7	1661.6	1657.2	1653.4	1654.4
10°	1650.6	1650.1	1652.8	1651.1	1649.0	1647.3	1644.1	1640.2	1635.2	1630.3	1629.8
12.5°	1630.9	1630.3	1632.5	1631.4	1629.8	1626.5	1623.8	1617.2	1609.5	1603.5	1602.9
15°	1618.3	1616.6	1618.8	1616.6	1613.9	1610.6	1605.7	1597.4	1583.8	1577.7	1572.8
17.5°	1630.3	1627.6	1628.7	1625.9	1622.1	1613.3	1601.8	1584.3	1564.6	1554.2	1546.5
20°	1672.5	1667.6	1668.7	1666.0	1657.2	1645.7	1623.8	1593.1	1559.6	1542.7	1530.6
22.5°	1732.8	1729.0	1730.6	1727.9	1719.1	1701.6	1668.7	1624.9	1577.2	1552.5	1533.4
25°	1824.3	1827.6	1828.7	1816.1	1811.2	1778.8	1733.3	1672.5	1609.0	1579.9	1553.6
27.5°	1927.4	1927.4	1932.3	1927.4	1917.5	1879.7	1815.5	1742.1	1660.5	1621.0	1589.2
30°	2027.6	2026.6	2035.9	2034.8	2018.9	1976.1	1903.3	1813.9	1720.7	1676.3	1635.8
32.5°	2134.0	2137.3	2143.3	2141.1	2120.3	2061.1	1973.4	1876.4	1778.3	1729.5	1684.0
35°	2249.0	2250.7	2252.9	2251.8	2209.6	2135.0	2024.9	1916.4	1814.5	1766.2	1719.1
37.5°	2364.1	2362.5	2359.7	2336.2	2287.9	2184.4	2056.1	1939.4	1832.5	1780.5	1731.7
40°	2467.1	2457.8	2449.1	2412.4	2338.4	2212.3	2068.2	1944.9	1830.9	1777.2	1729.5
42.5°	2523.6	2513.2	2495.1	2449.1	2359.2	2215.1	2060.0	1928.5	1813.9	1760.8	1713.6
45°	2534.0	2526.3	2508.8	2457.3	2354.3	2197.5	2034.8	1901.6	1788.7	1735.6	1691.2
47.5°	2509.3	2503.3	2486.3	2435.3	2332.9	2171.2	2005.7	1873.1	1764.1	1714.2	1671.4
50°	2471.5	2466.1	2452.9	2406.3	2308.7	2153.2	1990.9	1858.3	1755.8	1710.4	1670.9
52.5°	2532.9	2537.3	2498.9	2447.9	2334.5	2169.0	2007.4	1873.6	1770.6	1725.7	1684.6
55°	3487.0	3481.0	3250.3	3056.8	2711.0	2397.5	2163.5	1995.3	1885.1	1840.2	1801.9
57.5°	4531.0	4510.1	4415.3	4234.5	3862.9	3367.0	2915.9	2532.4	2381.1	2316.4	2320.8
60°	4871.8	4879.5	4859.2	4795.1	4661.9	4403.8	4060.7	3772.5	3488.6	3350.0	3365.9
62.5°	5060.9	5074.6	5092.1	5077.9	5034.5	4974.8	4931.5	4957.9	4918.4	4818.7	4739.2
65°	5087.2	5115.1	5173.2	5219.2	5241.7	5298.2	5430.8	5748.6	6039.1	6058.3	5918.5
67.5°	4566.5	4643.8	4769.9	4983.1	5165.5	5366.1	5686.1	6169.5	6598.0	6612.3	6481.9
69°	3590.6	3739.1	3886.5	4362.7	4683.3	5076.2	5549.7	6210.1	6723.5	6763.0	6598.6
70°	2877.1	2965.3	3092.4	3570.8	4049.8	4550.7	5236.8	6076.3	6637.5	6716.9	6535.6
72.5°	1727.3	1761.3	1805.2	1976.7	2223.3	2669.3	3579.1	4954.0	5599.0	5705.3	5474.6
75°	1116.8	1114.7	1118.5	1166.2	1180.4	1265.9	1552.5	2548.8	3652.5	3845.4	3569.2
77.5°	841.2	848.9	836.8	841.2	837.4	860.4	869.2	912.4	1441.8	1776.1	1588.1
80°	742.6	746.4	746.9	744.7	717.9	715.7	730.0	705.3	655.4	665.3	637.3
82.5°	423.6	423.1	428.0	465.2	480.6	531.0	551.8	563.3	520.1	487.7	441.1
85°	274.6	276.7	282.2	293.8	282.2	286.6	281.7	291.5	267.4	248.2	221.9
87.5°	112.3	112.3	119.5	129.9	121.1	118.9	101.9	100.9	85.5	77.3	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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8
2.5°	1686.2	1689.5	1687.9	1690.1	1688.4	1688.4	1686.2	1685.7	1687.3	1685.2	1685.7
5°	1671.4	1672.0	1669.3	1670.3	1667.0	1666.0	1664.3	1659.9	1662.7	1659.9	1661.0
7.5°	1650.1	1648.4	1644.6	1639.1	1635.2	1633.6	1630.3	1624.3	1625.4	1620.5	1623.2
10°	1622.6	1617.2	1610.6	1602.4	1596.9	1592.0	1584.8	1577.7	1573.9	1569.5	1568.9
12.5°	1592.0	1585.4	1576.6	1564.0	1552.0	1543.7	1532.8	1520.2	1516.3	1509.2	1505.4
15°	1558.6	1548.1	1537.7	1523.5	1510.3	1497.7	1482.9	1467.0	1456.6	1445.6	1437.4
17.5°	1528.4	1516.3	1502.6	1489.0	1474.7	1459.4	1440.7	1421.0	1405.6	1385.3	1368.9
20°	1504.9	1489.5	1475.8	1461.5	1445.6	1427.0	1404.5	1379.3	1353.6	1331.1	1312.0
22.5°	1495.5	1471.4	1454.9	1440.7	1424.8	1402.9	1375.5	1345.9	1314.7	1283.5	1258.3
25°	1503.2	1467.6	1441.8	1424.8	1411.1	1388.6	1358.0	1321.8	1285.6	1248.4	1214.4
27.5°	1525.7	1480.2	1442.9	1416.1	1400.2	1377.7	1345.4	1307.0	1264.3	1222.6	1181.0
30°	1560.7	1501.6	1454.4	1416.6	1391.9	1366.2	1332.2	1287.8	1244.5	1196.9	1151.3
32.5°	1594.7	1524.0	1467.6	1418.8	1381.0	1347.5	1309.7	1265.9	1219.3	1169.5	1122.3
35°	1618.8	1538.8	1472.5	1413.8	1364.0	1322.3	1281.8	1238.0	1192.5	1141.5	1093.3
37.5°	1630.3	1547.0	1473.1	1400.7	1341.5	1295.5	1252.2	1208.9	1166.2	1117.9	1072.4
40°	1629.8	1546.5	1465.4	1383.7	1314.7	1265.9	1223.2	1181.0	1141.0	1098.8	1057.7
42.5°	1617.7	1537.7	1454.4	1367.3	1295.5	1241.2	1196.9	1156.3	1122.3	1085.0	1050.5
45°	1599.1	1522.9	1442.9	1359.6	1290.0	1235.8	1188.7	1149.2	1119.1	1085.0	1055.5
47.5°	1584.8	1514.7	1444.6	1373.3	1307.0	1250.6	1200.7	1157.4	1131.7	1104.2	1083.4
50°	1587.1	1518.5	1450.0	1381.6	1319.0	1262.0	1213.9	1174.4	1155.8	1148.6	1143.7
52.5°	1598.5	1524.5	1466.5	1425.4	1404.0	1361.3	1332.8	1308.1	1321.8	1294.9	1263.2
55°	1745.4	1721.3	1777.7	1830.9	1898.3	1923.5	1899.4	1895.0	1916.9	1826.0	1617.2
57.5°	2352.1	2414.5	2501.6	2547.7	2603.6	2588.8	2532.9	2486.3	2431.5	2325.2	2064.9
60°	3383.9	3336.8	3297.4	3186.1	3095.2	2988.8	2870.5	2769.1	2672.1	2519.2	2237.5
62.5°	4447.1	4120.0	3846.5	3582.4	3369.7	3193.3	3021.7	2869.4	2722.5	2509.3	2206.3
65°	5366.6	4677.8	4164.3	3776.9	3466.1	3198.2	2977.9	2767.4	2580.6	2330.7	2030.9
67.5°	5779.9	4916.8	4169.8	3614.7	3184.5	2820.6	2535.7	2217.8	2008.4	1848.4	1679.6
69°	5749.2	4734.2	3872.2	3188.9	2694.5	2270.4	1964.6	1633.1	1432.5	1364.5	1360.7
70°	5603.4	4425.2	3524.8	2843.1	2277.5	1856.1	1562.9	1265.3	1078.5	1031.9	1114.7
72.5°	4574.8	3127.0	2209.0	1686.8	1297.1	1025.3	836.3	663.7	529.9	459.2	474.6
75°	2583.8	1447.9	936.0	707.5	597.9	494.3	424.1	361.7	327.2	265.8	210.4
77.5°	939.3	621.4	494.3	427.4	303.1	208.8	174.8	152.9	138.7	138.7	132.1
80°	594.1	468.0	326.6	223.6	165.5	144.1	126.1	110.7	101.9	99.7	101.9
82.5°	371.0	286.6	183.1	140.3	117.8	105.8	92.0	80.6	73.4	71.8	75.1
85°	183.1	142.0	111.2	99.2	93.2	86.6	76.2	65.2	63.0	67.4	78.9
87.5°	54.8	48.8	40.0	41.6	43.9	42.7	34.0	29.6	28.0	36.7	57.5
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8	1692.8
2.5°	1686.8	1686.2	1687.3	1685.7	1686.8	1687.3	1686.2	1691.2	1687.9	1688.4	1690.6
5°	1662.1	1661.0	1665.4	1664.3	1666.5	1668.7	1667.6	1674.7	1672.0	1674.2	1678.6
7.5°	1621.0	1623.2	1623.8	1623.8	1628.2	1635.2	1636.9	1641.3	1641.3	1647.3	1651.7
10°	1566.2	1566.8	1570.0	1569.5	1575.0	1582.7	1583.8	1591.4	1594.1	1604.0	1610.0
12.5°	1502.6	1499.9	1499.3	1498.8	1505.9	1514.2	1515.2	1528.4	1533.9	1542.7	1552.5
15°	1431.4	1424.3	1422.1	1426.5	1424.8	1429.7	1434.7	1441.8	1449.5	1467.0	1475.8
17.5°	1361.8	1347.5	1343.7	1338.8	1333.9	1333.9	1336.0	1344.8	1360.7	1370.0	1389.8
20°	1290.5	1273.6	1259.9	1246.7	1235.2	1230.8	1231.4	1242.4	1253.8	1269.2	1287.8
22.5°	1230.8	1205.1	1181.5	1164.0	1140.4	1139.9	1136.6	1139.9	1152.5	1156.3	1166.7
25°	1179.3	1144.8	1113.0	1084.5	1061.5	1049.5	1046.2	1045.1	1039.0	1037.4	1029.7
27.5°	1139.3	1097.6	1056.5	1022.0	993.5	977.1	956.3	941.5	920.1	914.6	900.9
30°	1106.5	1061.5	1016.6	971.6	939.3	909.7	874.6	848.9	816.0	794.6	776.0
32.5°	1074.7	1029.2	983.7	939.3	889.4	843.4	797.3	757.4	720.7	687.8	660.4
35°	1048.3	1005.1	959.0	905.3	841.7	775.4	720.1	674.6	624.2	589.7	555.1
37.5°	1031.3	991.9	945.8	871.9	790.3	719.0	656.0	600.6	549.1	497.0	458.2
40°	1023.7	989.2	931.6	841.2	745.3	666.4	596.8	535.4	469.6	411.0	369.4
42.5°	1023.1	988.1	911.9	807.2	708.0	622.0	544.7	471.3	398.4	338.1	297.0
45°	1033.0	986.4	891.1	778.7	675.1	585.3	493.2	403.9	322.2	277.3	255.4
47.5°	1059.3	989.2	874.1	752.4	643.9	540.9	434.0	329.9	262.5	241.7	241.7
50°	1106.5	1005.1	869.7	733.8	612.7	489.4	361.7	266.3	232.4	232.4	238.9
52.5°	1178.8	1038.5	877.4	720.7	573.8	421.4	284.9	229.6	223.0	229.1	237.8
55°	1345.4	1097.6	887.8	698.2	514.6	334.3	235.1	217.0	219.8	226.9	235.1
57.5°	1651.1	1224.2	898.7	648.8	419.2	257.6	213.2	212.1	217.0	223.6	230.7
60°	1852.3	1385.3	926.7	574.3	317.3	212.6	202.2	208.8	214.8	220.3	225.8
62.5°	1852.3	1430.9	947.5	491.0	238.4	193.4	195.1	205.5	212.6	215.3	218.6
65°	1733.9	1347.5	876.8	400.0	194.0	182.5	188.5	198.9	205.5	207.7	210.4
67.5°	1515.2	1190.3	738.7	301.4	173.2	173.2	180.8	188.5	194.0	198.4	202.7
69°	1317.4	1068.1	650.5	255.4	164.9	166.0	173.7	180.3	186.9	192.4	197.8
70°	1174.9	976.6	589.1	231.8	160.0	160.6	168.2	175.4	181.4	187.4	194.0
72.5°	629.1	674.6	447.7	190.1	147.4	149.0	156.2	162.8	168.2	174.2	180.3
75°	214.3	289.9	284.9	155.6	133.1	137.6	142.0	148.0	155.1	158.9	162.2
77.5°	125.5	129.9	151.8	126.6	120.0	122.2	127.1	132.1	138.1	142.0	144.7
80°	105.2	104.6	105.2	103.0	104.6	109.6	112.9	119.5	124.9	126.1	125.5
82.5°	85.5	89.9	90.4	89.3	94.3	98.1	100.9	104.6	104.1	105.2	107.4
85°	76.2	75.6	79.4	80.0	80.0	77.3	77.8	77.8	77.8	79.4	80.0
87.5°	76.2	63.5	49.3	44.4	46.6	43.9	41.6	41.1	45.5	49.9	48.8
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°	1692.8	1692.8	1692.8	1692.8	1692.8
2.5°	1691.7	1693.4	1692.2	1692.2	1693.4
5°	1680.2	1682.9	1681.9	1682.9	1682.9
7.5°	1653.9	1657.7	1660.5	1663.2	1661.6
10°	1616.1	1622.6	1627.0	1630.3	1628.7
12.5°	1559.6	1565.6	1575.0	1580.5	1576.1
15°	1482.4	1499.3	1504.9	1512.5	1508.1
17.5°	1401.8	1412.2	1418.8	1425.9	1430.3
20°	1294.4	1302.6	1311.4	1314.7	1309.7
22.5°	1165.1	1169.5	1167.8	1172.8	1162.9
25°	1023.1	1025.9	1024.3	1028.6	1020.4
27.5°	888.9	888.3	888.9	883.4	877.9
30°	759.5	754.6	752.4	744.2	742.6
32.5°	643.9	626.9	618.2	606.1	603.4
35°	528.3	504.2	488.3	474.6	468.5
37.5°	424.7	395.6	377.0	365.0	363.4
40°	335.9	309.1	295.9	289.3	288.2
42.5°	274.0	262.5	259.2	259.2	259.2
45°	249.9	249.4	252.1	254.3	254.8
47.5°	245.0	248.2	252.1	255.4	256.4
50°	245.0	248.2	251.0	254.3	255.4
52.5°	243.8	246.6	247.7	249.9	251.0
55°	240.6	242.2	242.2	243.3	244.4
57.5°	235.1	236.2	234.5	235.6	238.4
60°	229.6	230.7	228.0	230.7	232.4
62.5°	223.6	224.2	223.0	225.2	225.2
65°	213.7	212.6	214.3	215.9	216.5
67.5°	203.9	201.1	202.7	203.3	204.4
69°	196.2	194.5	195.1	196.2	197.3
70°	190.7	189.6	190.7	192.4	194.0
72.5°	177.0	177.5	181.4	184.7	188.0
75°	164.4	168.2	173.2	180.3	184.1
77.5°	149.0	151.8	155.6	163.3	170.5
80°	128.8	130.4	131.0	133.7	133.1
82.5°	104.6	103.0	101.9	100.9	100.3
85°	75.1	74.5	70.1	66.8	66.8
87.5°	44.9	42.7	40.6	37.8	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)