

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: P158651

Luminaire Tested: **VST-E03-LED-E-U-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158651
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-SL4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (63) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8930 lumens
Efficiency: N/A
Efficacy: 118.7 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

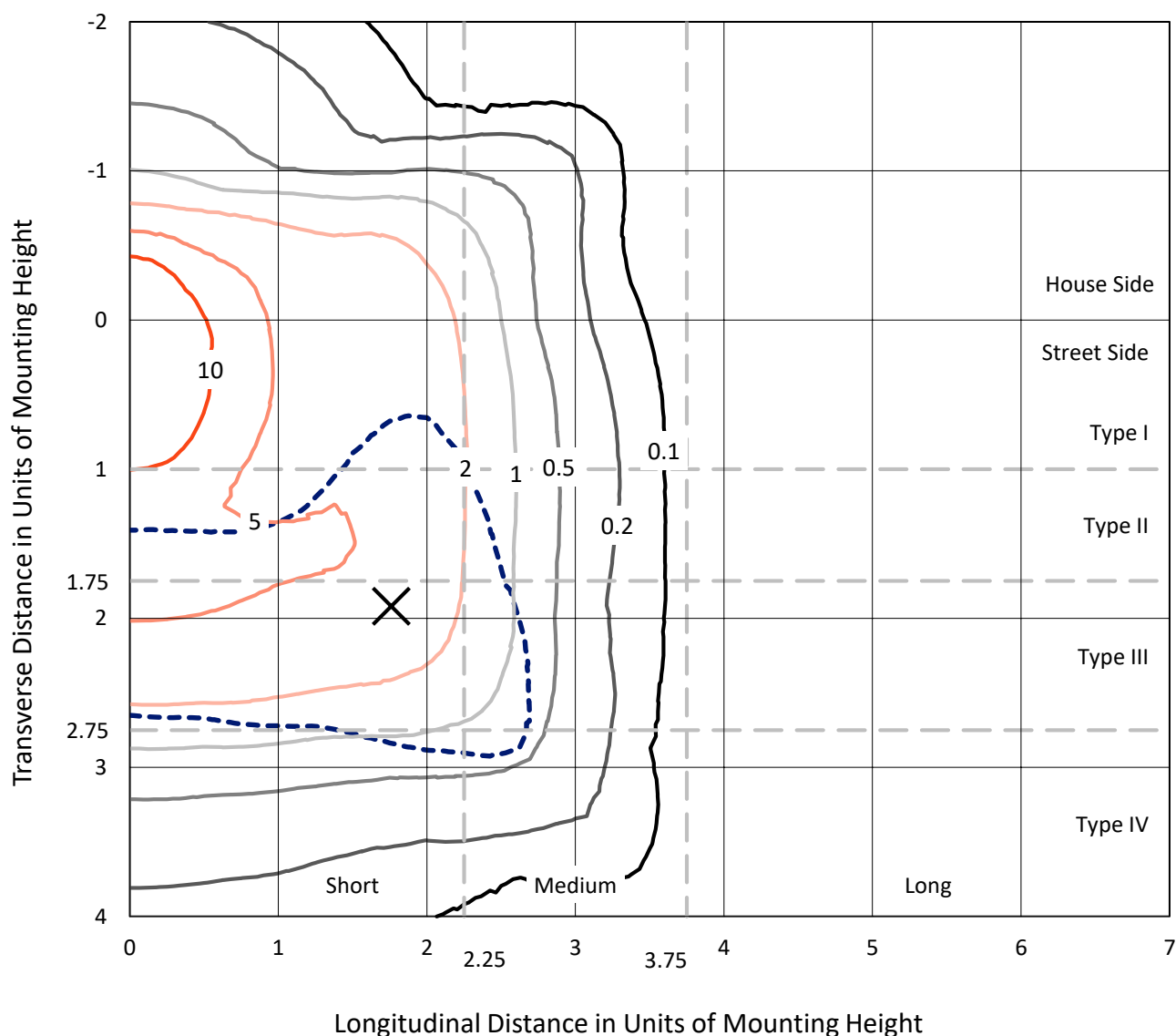


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

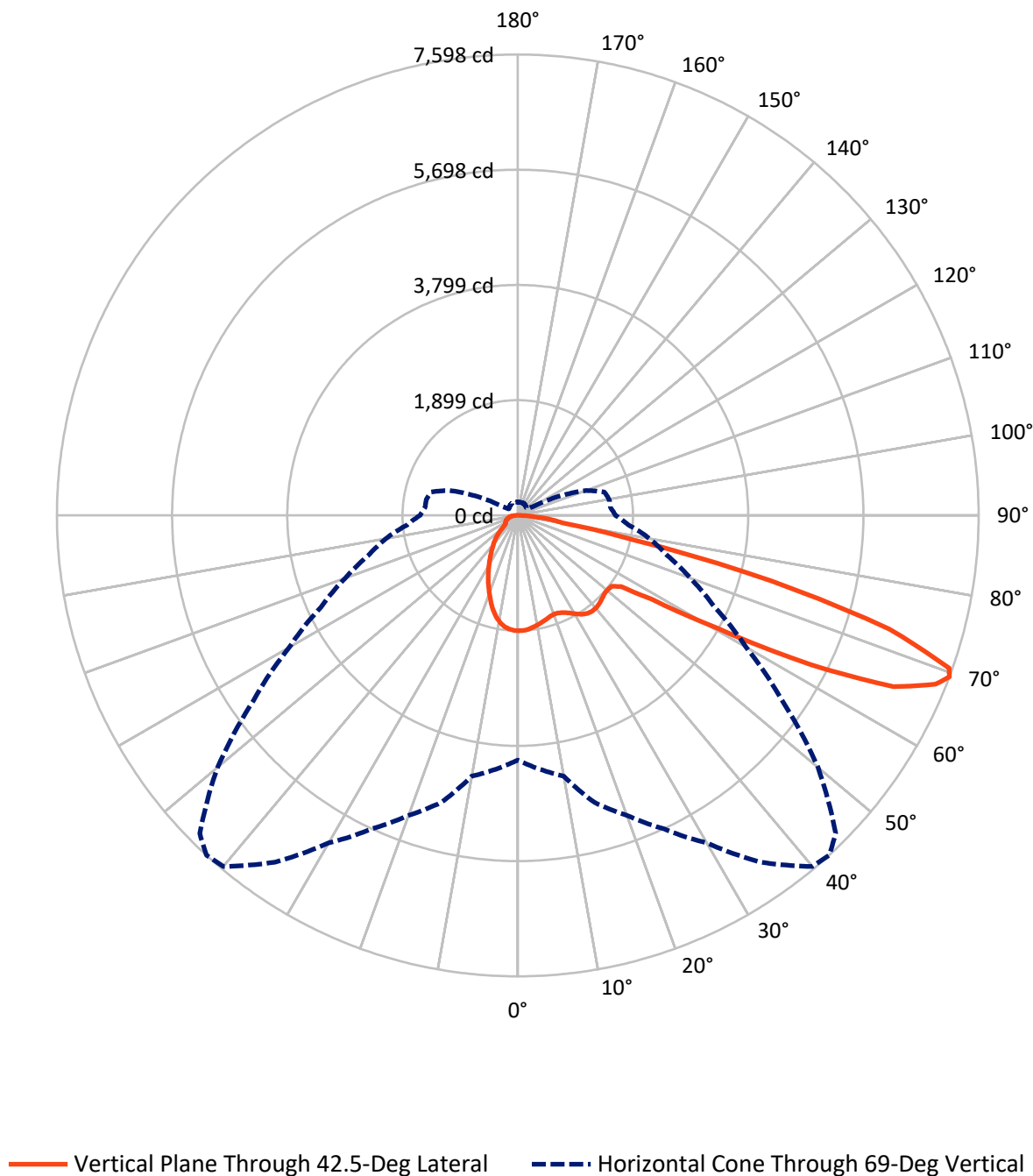


Based on 10 foot mounting height. Maximum calculated value = 19 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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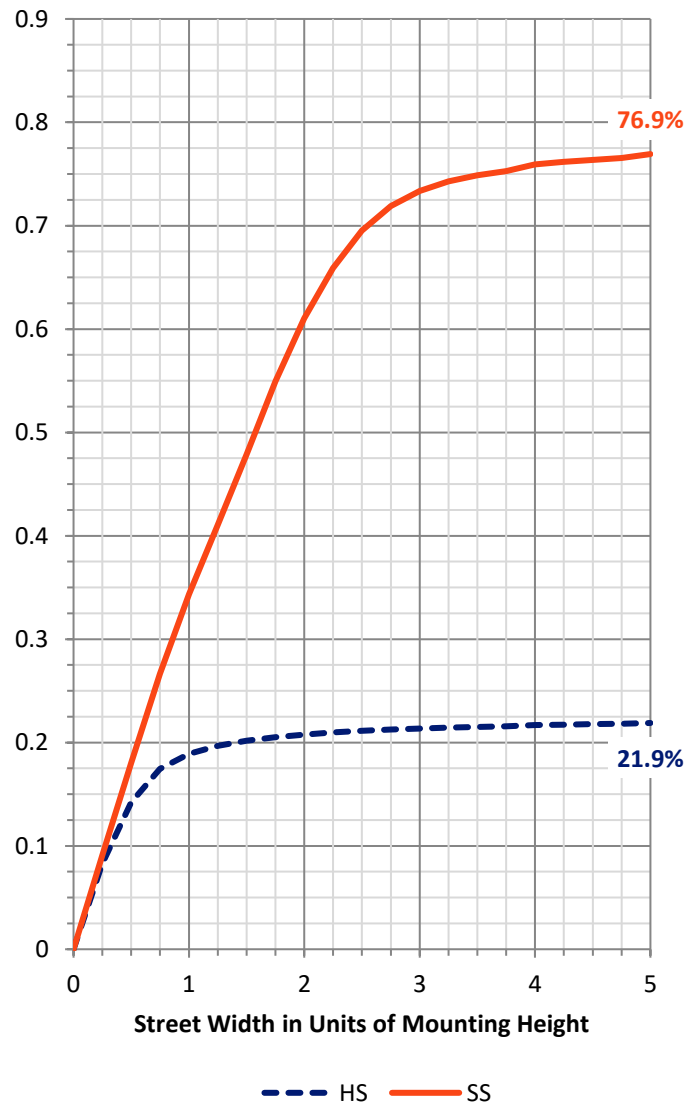
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1985.3	0.0	1985.3
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	6944.7	0.0	6944.7
	% Fixture	77.8	0.0	77.8
Total	Lumens	8930.0	0.0	8930.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	177.0	2.0
10°-20°	477.1	5.3
20°-30°	695.7	7.8
30°-40°	886.9	9.9
40°-50°	1032.0	11.6
50°-60°	1570.2	17.6
60°-70°	2773.6	31.1
70°-80°	1144.6	12.8
80°-90°	172.8	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°	8930.0	100.0
0°-180°	8930.0	100.0

Coefficient of Utilization



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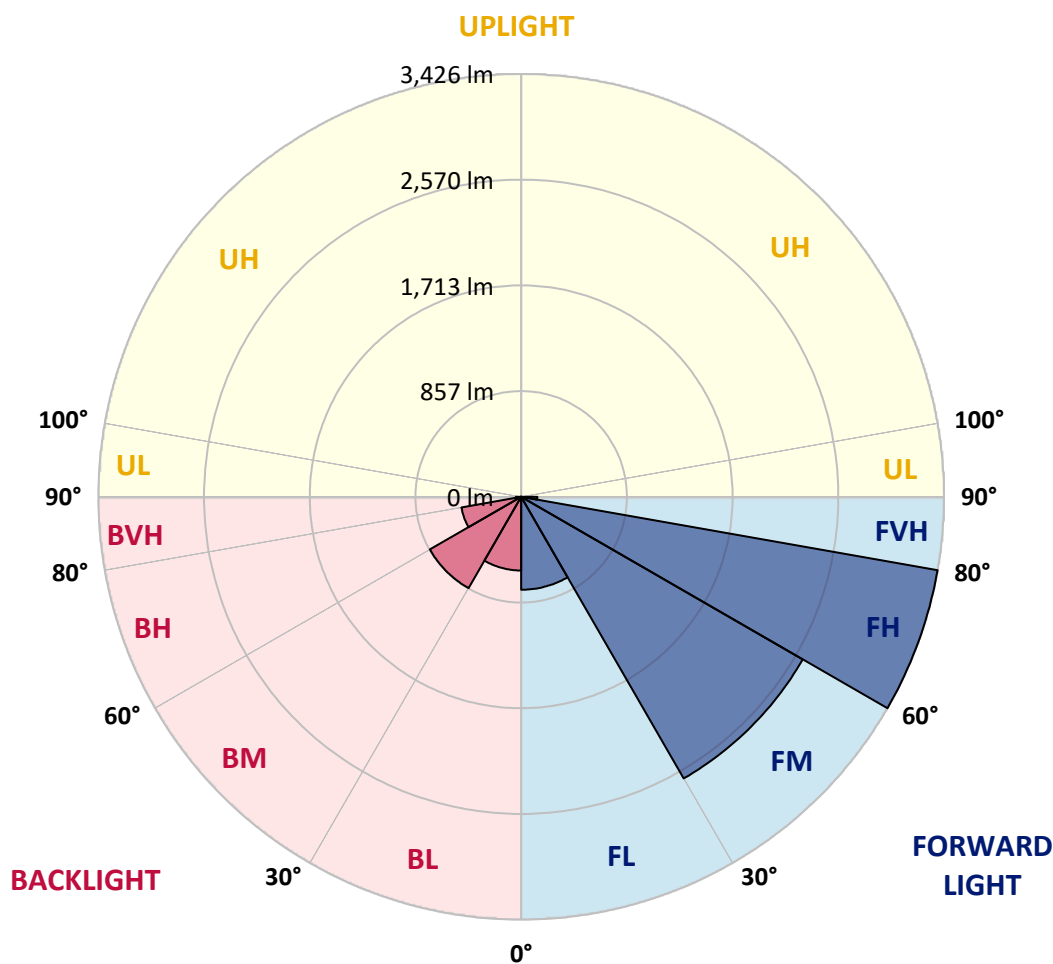
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	753.0	8.4			
FM	(30°-60°)	2634.6	29.5			
FH	(60°-80°)	3426.4	38.4			G2/5000
FVH	(80°-90°)	130.7	1.5			G2/225
BL	(0°-30°)	596.9	6.7	B2/1000		
BM	(30°-60°)	854.5	9.6	B1/1000		
BH	(60°-80°)	491.8	5.5	B1/500		G1/500
BVH	(80°-90°)	42.1	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°	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8
2.5°	1895.6	1902.4	1900.0	1900.0	1901.8	1898.7	1898.7	1900.0	1896.8	1898.7	1898.1
5°	1888.9	1892.5	1891.3	1891.3	1891.3	1888.9	1887.6	1887.0	1882.7	1882.7	1880.9
7.5°	1874.1	1875.3	1877.2	1874.7	1874.1	1873.4	1869.2	1866.7	1861.7	1857.5	1858.7
10°	1854.4	1853.8	1856.8	1855.0	1852.6	1850.7	1847.0	1842.7	1837.1	1831.6	1831.0
12.5°	1832.2	1831.6	1834.1	1832.8	1831.0	1827.3	1824.2	1816.8	1808.2	1801.4	1800.8
15°	1818.1	1816.2	1818.7	1816.2	1813.1	1809.4	1803.9	1794.7	1779.2	1772.5	1766.9
17.5°	1831.6	1828.5	1829.8	1826.7	1822.4	1812.5	1799.6	1779.9	1757.7	1746.0	1737.4
20°	1879.0	1873.4	1874.7	1871.6	1861.7	1848.8	1824.2	1789.7	1752.2	1733.1	1719.5
22.5°	1946.7	1942.4	1944.2	1941.2	1931.3	1911.7	1874.7	1825.4	1771.9	1744.2	1722.6
25°	2049.5	2053.3	2054.5	2040.3	2034.8	1998.4	1947.4	1879.0	1807.6	1775.0	1745.4
27.5°	2165.3	2165.3	2170.8	2165.3	2154.2	2111.7	2039.7	1957.2	1865.5	1821.1	1785.4
30°	2278.0	2276.7	2287.2	2285.9	2268.1	2220.1	2138.2	2037.8	1933.2	1883.3	1837.7
32.5°	2397.4	2401.1	2407.9	2405.4	2382.0	2315.5	2217.0	2108.0	1997.8	1943.0	1891.9
35°	2526.7	2528.5	2531.0	2529.8	2482.4	2398.6	2274.9	2153.0	2038.4	1984.3	1931.3
37.5°	2656.0	2654.1	2651.0	2624.6	2570.4	2454.1	2309.9	2178.8	2058.8	2000.3	1945.5
40°	2771.7	2761.3	2751.4	2710.1	2627.0	2485.4	2323.5	2185.0	2056.9	1996.6	1943.0
42.5°	2835.1	2823.4	2803.1	2751.4	2650.4	2488.5	2314.3	2166.5	2037.8	1978.1	1925.2
45°	2846.8	2838.2	2818.5	2760.7	2644.9	2468.8	2285.9	2136.4	2009.5	1949.8	1900.0
47.5°	2819.1	2812.3	2793.2	2736.0	2620.9	2439.2	2253.3	2104.3	1981.8	1925.8	1877.8
50°	2776.6	2770.5	2755.7	2703.4	2593.8	2419.0	2236.7	2087.7	1972.6	1921.5	1877.2
52.5°	2845.6	2850.5	2807.4	2750.2	2622.7	2436.8	2255.2	2105.0	1989.2	1938.7	1892.5
55°	3917.5	3910.7	3651.5	3434.2	3045.7	2693.5	2430.7	2241.6	2117.9	2067.4	2024.3
57.5°	5090.3	5066.9	4960.4	4757.2	4339.8	3782.6	3275.9	2845.0	2675.0	2602.4	2607.4
60°	5473.3	5481.8	5459.1	5387.0	5237.5	4947.5	4562.0	4238.2	3919.3	3763.6	3781.4
62.5°	5685.7	5701.0	5720.8	5704.7	5656.1	5589.0	5540.3	5569.9	5525.6	5413.5	5324.3
65°	5715.2	5746.6	5811.8	5863.6	5888.8	5952.2	6101.2	6458.3	6784.6	6806.2	6649.1
67.5°	5130.3	5217.1	5358.7	5598.2	5803.3	6028.6	6388.1	6931.1	7412.6	7428.6	7282.1
69°	4033.8	4200.7	4366.3	4901.3	5261.5	5702.9	6234.8	6976.7	7553.6	7597.9	7413.2
70°	3232.3	3331.4	3474.2	4011.7	4549.7	5112.5	5883.3	6826.5	7456.9	7546.2	7342.4
72.5°	1940.6	1978.7	2028.0	2220.7	2497.7	2998.9	4020.9	5565.6	6290.2	6409.7	6150.5
75°	1254.7	1252.3	1256.6	1310.2	1326.1	1422.2	1744.2	2863.4	4103.4	4320.1	4009.8
77.5°	945.1	953.6	940.1	945.1	940.7	966.6	976.4	1025.1	1619.8	1995.4	1784.2
80°	834.2	838.6	839.2	836.7	806.5	804.1	820.1	792.4	736.3	747.4	716.0
82.5°	475.9	475.3	480.8	522.7	539.9	596.6	620.0	632.9	584.3	547.9	495.6
85°	308.5	310.9	317.0	330.0	317.0	322.0	316.4	327.5	300.4	278.9	249.4
87.5°	126.2	126.2	134.2	145.9	136.1	133.6	114.5	113.3	96.1	86.8	67.7
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°	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8
2.5°	1894.4	1898.1	1896.2	1898.7	1896.8	1896.8	1894.4	1893.8	1895.6	1893.2	1893.8
5°	1877.8	1878.4	1875.3	1876.6	1872.8	1871.6	1869.8	1864.9	1867.9	1864.9	1866.1
7.5°	1853.8	1851.9	1847.6	1841.5	1837.1	1835.3	1831.6	1824.8	1826.0	1820.5	1823.6
10°	1823.0	1816.8	1809.4	1800.2	1794.1	1788.5	1780.5	1772.5	1768.2	1763.3	1762.6
12.5°	1788.5	1781.1	1771.3	1757.1	1743.5	1734.3	1722.0	1707.8	1703.5	1695.5	1691.2
15°	1750.9	1739.2	1727.6	1711.6	1696.7	1682.6	1666.0	1648.1	1636.4	1624.1	1614.9
17.5°	1717.1	1703.5	1688.2	1672.7	1656.7	1639.5	1618.6	1596.4	1579.2	1556.4	1537.9
20°	1690.6	1673.4	1658.0	1642.0	1624.1	1603.2	1577.9	1549.6	1520.7	1495.4	1473.9
22.5°	1680.1	1653.1	1634.6	1618.6	1600.7	1576.1	1545.3	1512.1	1477.0	1441.9	1413.5
25°	1688.8	1648.7	1619.8	1600.7	1585.3	1560.1	1525.6	1485.0	1444.3	1402.5	1364.3
27.5°	1714.0	1662.9	1621.0	1590.9	1573.0	1547.8	1511.5	1468.4	1420.3	1373.5	1326.8
30°	1753.4	1686.9	1634.0	1591.5	1563.8	1534.9	1496.7	1446.8	1398.2	1344.6	1293.5
32.5°	1791.6	1712.2	1648.7	1594.0	1551.5	1513.9	1471.4	1422.2	1369.9	1313.8	1260.9
35°	1818.7	1728.8	1654.3	1588.4	1532.4	1485.6	1440.1	1390.8	1339.7	1282.4	1228.3
37.5°	1831.6	1738.0	1654.9	1573.6	1507.1	1455.4	1406.8	1358.2	1310.2	1256.0	1204.9
40°	1831.0	1737.4	1646.3	1554.5	1477.0	1422.2	1374.2	1326.8	1281.8	1234.4	1188.2
42.5°	1817.5	1727.6	1634.0	1536.1	1455.4	1394.5	1344.6	1299.1	1260.9	1219.0	1180.2
45°	1796.5	1710.9	1621.0	1527.5	1449.3	1388.3	1335.4	1291.0	1257.2	1219.0	1185.8
47.5°	1780.5	1701.7	1622.9	1542.8	1468.4	1405.0	1348.9	1300.3	1271.3	1240.6	1217.2
50°	1783.0	1706.0	1629.1	1552.1	1481.9	1417.9	1363.7	1319.3	1298.5	1290.4	1284.9
52.5°	1795.9	1712.8	1647.5	1601.3	1577.3	1529.3	1497.3	1469.6	1485.0	1454.8	1419.1
55°	1960.9	1933.8	1997.2	2056.9	2132.6	2161.0	2133.9	2129.0	2153.6	2051.4	1816.8
57.5°	2642.4	2712.6	2810.5	2862.2	2925.0	2908.4	2845.6	2793.2	2731.7	2612.3	2319.8
60°	3801.7	3748.8	3704.5	3579.5	3477.2	3357.8	3224.8	3110.9	3002.0	2830.2	2513.8
62.5°	4996.1	4628.6	4321.3	4024.6	3785.7	3587.5	3394.7	3223.6	3058.6	2819.1	2478.7
65°	6029.2	5255.3	4678.4	4243.1	3894.1	3593.0	3345.5	3109.1	2899.1	2618.4	2281.6
67.5°	6493.4	5523.7	4684.6	4060.9	3577.6	3168.8	2848.7	2491.6	2256.4	2076.7	1887.0
69°	6458.9	5318.7	4350.3	3582.5	3027.2	2550.7	2207.2	1834.7	1609.3	1533.0	1528.7
70°	6295.1	4971.5	3959.9	3194.0	2558.7	2085.2	1755.9	1421.6	1211.6	1159.3	1252.3
72.5°	5139.5	3513.0	2481.7	1895.0	1457.3	1151.9	939.5	745.6	595.3	515.9	533.2
75°	2902.9	1626.6	1051.6	794.8	671.7	555.3	476.5	406.3	367.6	298.6	236.4
77.5°	1055.2	698.2	555.3	480.2	340.4	234.5	196.4	171.8	155.8	155.8	148.4
80°	667.4	525.8	367.0	251.2	185.9	161.9	141.6	124.4	114.5	112.1	114.5
82.5°	416.8	322.0	205.6	157.6	132.4	118.8	103.4	90.5	82.5	80.6	84.4
85°	205.6	159.5	125.0	111.4	104.6	97.3	85.6	73.3	70.8	75.7	88.7
87.5°	61.6	54.8	44.9	46.8	49.3	48.0	38.2	33.2	31.4	41.2	64.6
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8	1901.8
2.5°	1895.0	1894.4	1895.6	1893.8	1895.0	1895.6	1894.4	1900.0	1896.2	1896.8	1899.3
5°	1867.3	1866.1	1871.0	1869.8	1872.2	1874.7	1873.4	1881.5	1878.4	1880.9	1885.8
7.5°	1821.1	1823.6	1824.2	1824.2	1829.2	1837.1	1839.0	1843.9	1843.9	1850.7	1855.6
10°	1759.6	1760.2	1763.9	1763.3	1769.4	1778.0	1779.2	1787.9	1790.9	1802.0	1808.8
12.5°	1688.2	1685.1	1684.4	1683.8	1691.8	1701.1	1702.3	1717.1	1723.3	1733.1	1744.2
15°	1608.1	1600.1	1597.6	1602.6	1600.7	1606.3	1611.8	1619.8	1628.4	1648.1	1658.0
17.5°	1529.9	1513.9	1509.6	1504.1	1498.5	1498.5	1501.0	1510.9	1528.7	1539.2	1561.3
20°	1449.9	1430.8	1415.4	1400.6	1387.7	1382.8	1383.4	1395.7	1408.6	1425.9	1446.8
22.5°	1382.8	1353.8	1327.4	1307.6	1281.2	1280.6	1276.9	1280.6	1294.7	1299.1	1310.8
25°	1324.9	1286.1	1250.4	1218.4	1192.6	1179.0	1175.3	1174.1	1167.3	1165.4	1156.9
27.5°	1280.0	1233.2	1187.0	1148.2	1116.2	1097.7	1074.4	1057.7	1033.7	1027.6	1012.1
30°	1243.0	1192.6	1142.0	1091.6	1055.2	1022.0	982.6	953.6	916.7	892.7	871.8
32.5°	1207.3	1156.2	1105.1	1055.2	999.2	947.5	895.8	850.9	809.6	772.7	741.9
35°	1177.7	1129.1	1077.4	1017.1	945.7	871.1	809.0	757.9	701.2	662.5	623.6
37.5°	1158.7	1114.4	1062.7	979.5	887.8	807.8	736.9	674.8	616.9	558.4	514.7
40°	1150.1	1111.3	1046.6	945.1	837.3	748.6	670.4	601.5	527.6	461.8	415.0
42.5°	1149.4	1110.1	1024.4	906.9	795.4	698.8	611.9	529.5	447.6	379.9	333.7
45°	1160.5	1108.2	1001.0	874.9	758.5	657.5	554.1	453.7	362.0	311.5	286.9
47.5°	1190.1	1111.3	982.0	845.3	723.4	607.7	487.6	370.6	294.9	271.5	271.5
50°	1243.0	1129.1	977.0	824.4	688.3	549.8	406.3	299.2	261.1	261.1	268.4
52.5°	1324.3	1166.7	985.7	809.6	644.6	473.5	320.2	257.9	250.6	257.3	267.2
55°	1511.5	1233.2	997.4	784.4	578.1	375.5	264.1	243.8	246.9	254.9	264.1
57.5°	1855.0	1375.4	1009.7	728.9	471.0	289.4	239.5	238.3	243.8	251.2	259.2
60°	2080.9	1556.4	1041.1	645.2	356.5	238.9	227.2	234.5	241.3	247.5	253.7
62.5°	2080.9	1607.5	1064.5	551.6	267.8	217.3	219.2	230.9	238.9	242.0	245.6
65°	1948.0	1513.9	985.1	449.5	217.9	205.0	211.8	223.5	230.9	233.3	236.4
67.5°	1702.3	1337.2	829.9	338.6	194.5	194.5	203.2	211.8	217.9	222.9	227.8
69°	1480.1	1199.9	730.8	286.9	185.3	186.5	195.2	202.6	209.9	216.1	222.2
70°	1320.0	1097.1	661.9	260.4	179.8	180.4	189.0	197.0	203.8	210.5	217.9
72.5°	706.8	757.9	503.0	213.7	165.6	167.5	175.4	182.9	189.0	195.8	202.6
75°	240.7	325.7	320.2	174.8	149.6	154.6	159.5	166.2	174.2	178.6	182.2
77.5°	141.0	145.9	170.5	142.2	134.8	137.3	142.9	148.4	155.2	159.5	162.5
80°	118.2	117.6	118.2	115.7	117.6	123.1	126.8	134.2	140.4	141.6	141.0
82.5°	96.1	101.0	101.6	100.4	105.9	110.2	113.3	117.6	117.0	118.2	120.7
85°	85.6	85.0	89.3	89.9	89.9	86.8	87.4	87.4	87.4	89.3	89.9
87.5°	85.6	71.4	55.4	49.9	52.3	49.3	46.8	46.2	51.1	56.0	54.8
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°	1901.8	1901.8	1901.8	1901.8	1901.8
2.5°	1900.6	1902.4	1901.2	1901.2	1902.4
5°	1887.6	1890.7	1889.5	1890.7	1890.7
7.5°	1858.1	1862.4	1865.5	1868.5	1866.7
10°	1815.6	1823.0	1827.9	1831.6	1829.8
12.5°	1752.2	1759.0	1769.4	1775.6	1770.7
15°	1665.4	1684.4	1690.6	1699.3	1694.3
17.5°	1574.9	1586.6	1594.0	1601.9	1606.9
20°	1454.2	1463.5	1473.3	1477.0	1471.4
22.5°	1308.9	1313.8	1312.0	1317.5	1306.4
25°	1149.4	1152.5	1150.7	1155.6	1146.4
27.5°	998.6	998.0	998.6	992.5	986.3
30°	853.3	847.7	845.3	836.1	834.2
32.5°	723.4	704.3	694.4	680.9	677.8
35°	593.5	566.4	548.6	533.2	526.4
37.5°	477.1	444.5	423.6	410.0	408.2
40°	377.4	347.2	332.5	325.1	323.8
42.5°	307.9	294.9	291.2	291.2	291.2
45°	280.7	280.1	283.2	285.7	286.3
47.5°	275.2	278.9	283.2	286.9	288.1
50°	275.2	278.9	282.0	285.7	286.9
52.5°	274.0	277.0	278.3	280.7	282.0
55°	270.3	272.1	272.1	273.4	274.6
57.5°	264.1	265.4	263.5	264.7	267.8
60°	257.9	259.2	256.1	259.2	261.1
62.5°	251.2	251.8	250.6	253.0	253.0
65°	240.1	238.9	240.7	242.6	243.2
67.5°	229.0	226.0	227.8	228.4	229.6
69°	220.4	218.6	219.2	220.4	221.6
70°	214.3	213.0	214.3	216.1	217.9
72.5°	198.8	199.5	203.8	207.5	211.2
75°	184.7	189.0	194.5	202.6	206.9
77.5°	167.5	170.5	174.8	183.5	191.5
80°	144.7	146.5	147.1	150.2	149.6
82.5°	117.6	115.7	114.5	113.3	112.7
85°	84.4	83.8	78.8	75.1	75.1
87.5°	50.5	48.0	45.5	42.5	40.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)