

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: P158454

Luminaire Tested: **VST-F05-LED-E-U-SL3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158454
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33713)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F05-LED-E-U-SL3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (35) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11373.5 lumens
Efficiency: N/A
Efficacy: 85.3 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 133.3
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



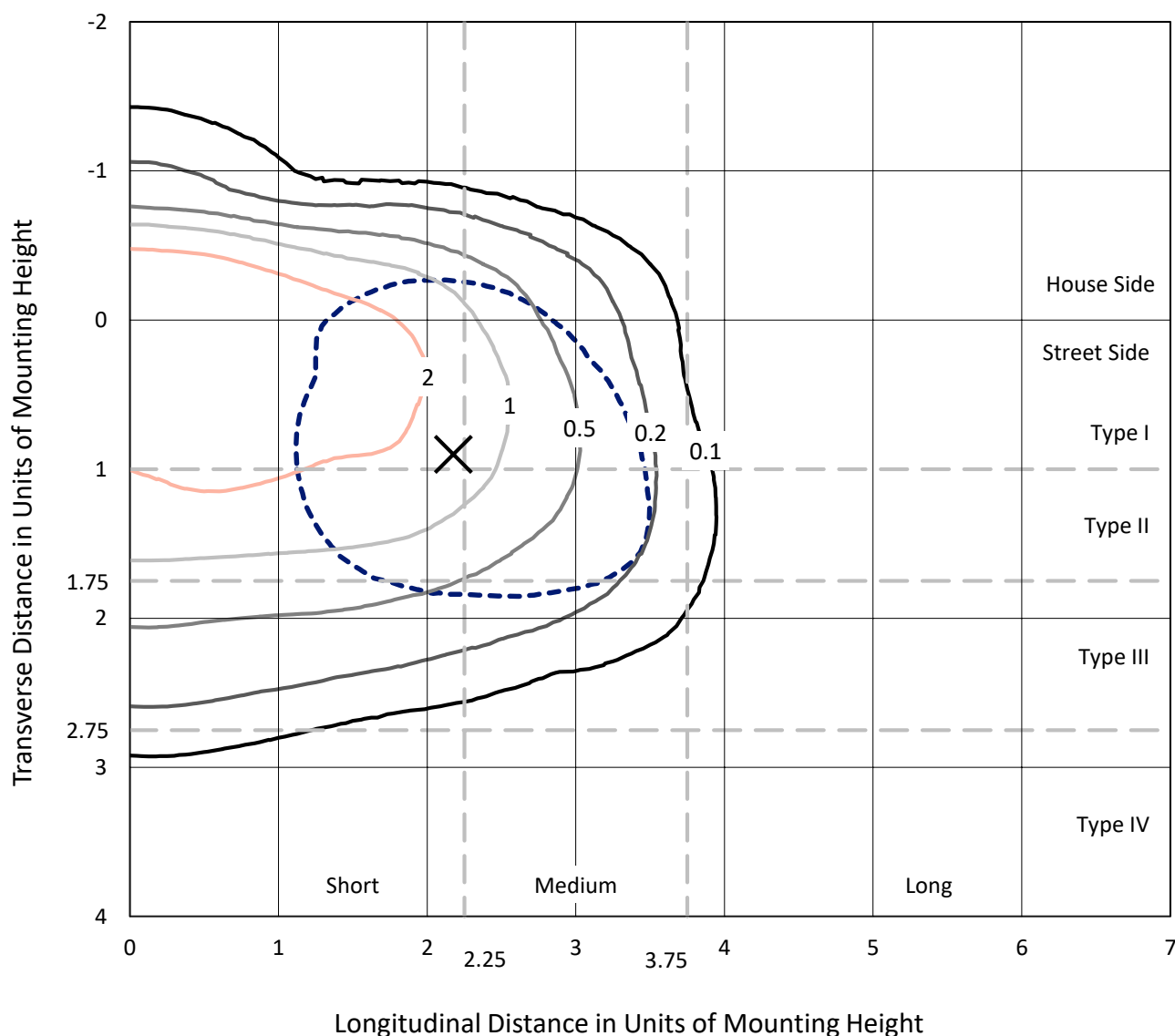
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

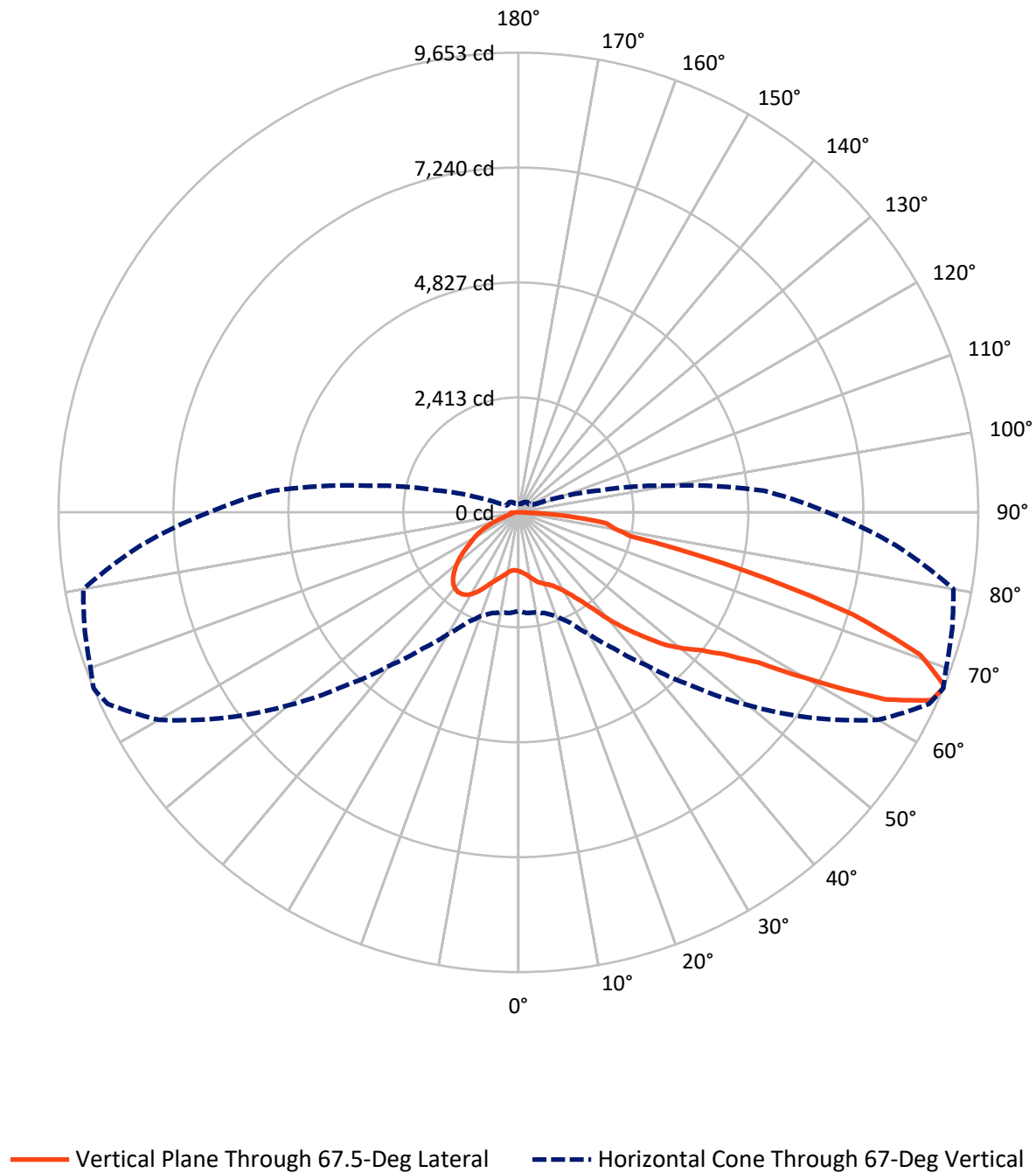


Based on 20 foot mounting height. Maximum calculated value = 3.9 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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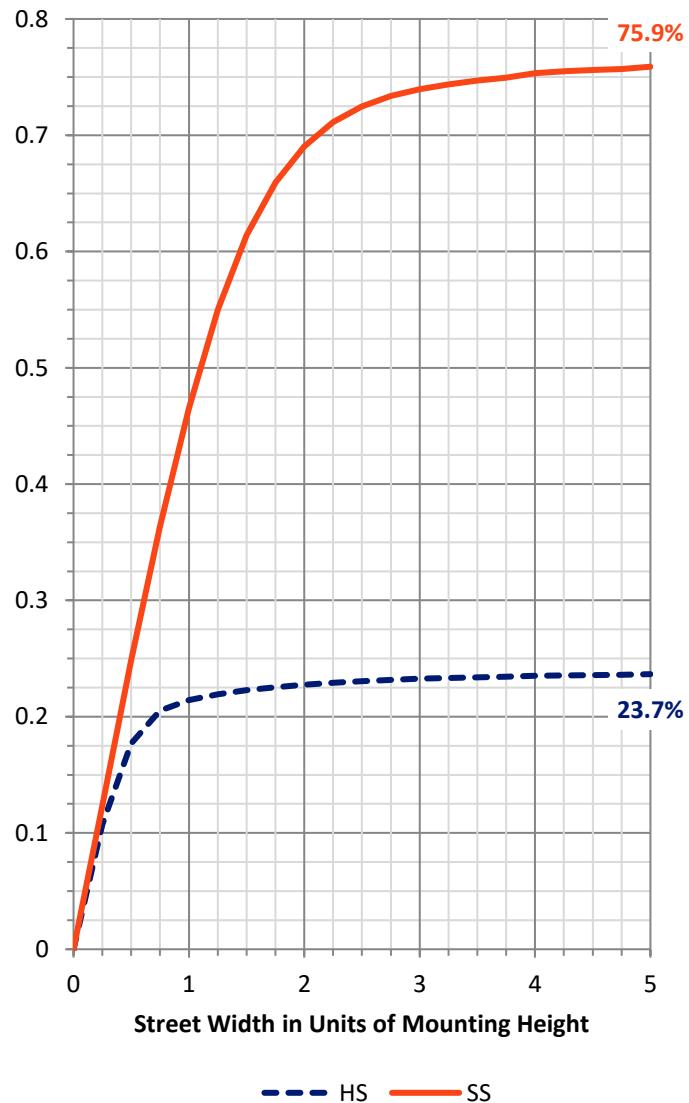
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2728.5	0.0	2728.5
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	8645.0	0.0	8645.0
	% Fixture	76.0	0.0	76.0
Total	Lumens	11373.5	0.0	11373.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.5	1.1
10°-20°	417.4	3.7
20°-30°	745.3	6.6
30°-40°	1092.2	9.6
40°-50°	1687.6	14.8
50°-60°	2457.5	21.6
60°-70°	3201.3	28.1
70°-80°	1433.0	12.6
80°-90°	216.7	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°	11373.5	100.0
0°-180°	11373.5	100.0

Coefficient of Utilization



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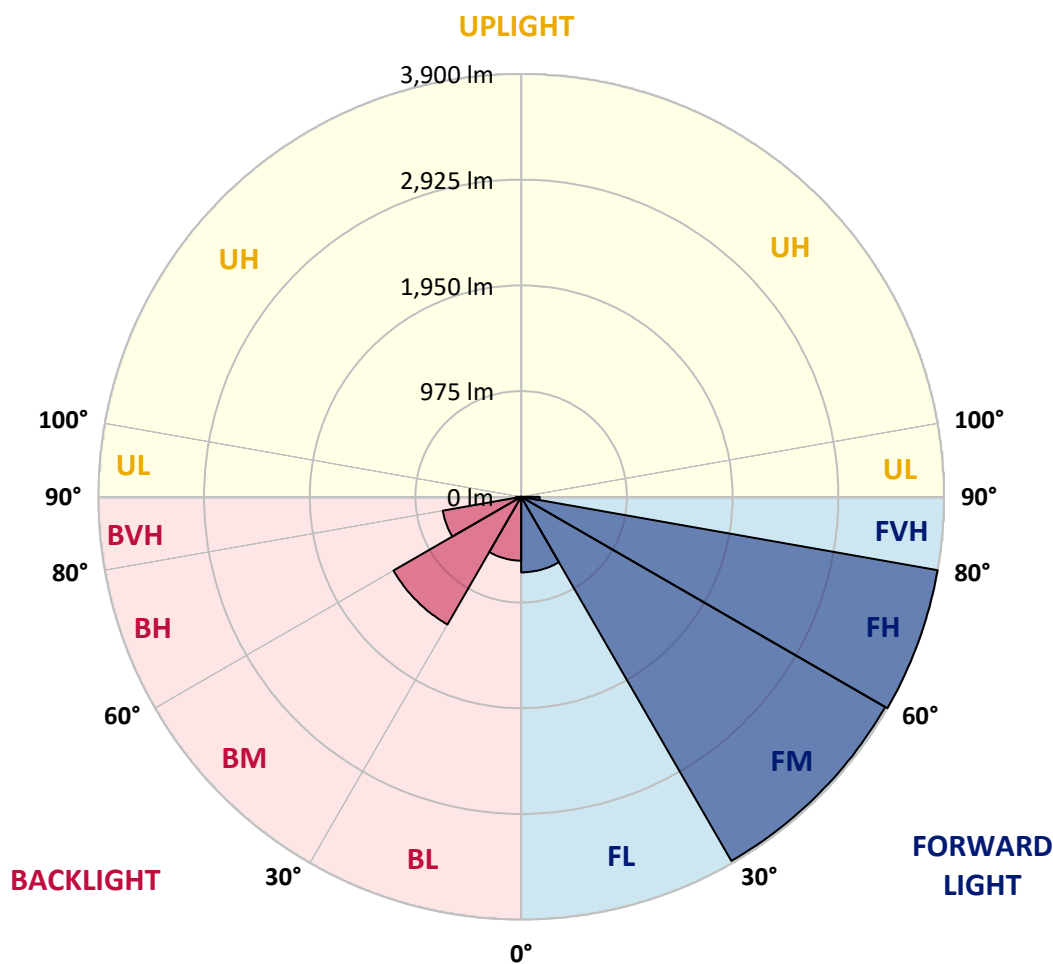
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	696.9	6.1			
FM	(30°-60°)	3877.8	34.1			
FH	(60°-80°)	3900.2	34.3			G2/5000
FVH	(80°-90°)	170.2	1.5			G2/225
BL	(0°-30°)	588.4	5.2	B2/1000		
BM	(30°-60°)	1359.6	12.0	B2/2500		
BH	(60°-80°)	734.1	6.5	B2/1000		G2/1000
BVH	(80°-90°)	46.5	0.4			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 III Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8
2.5°	1281.0	1284.1	1284.8	1284.1	1284.8	1281.8	1281.0	1276.5	1278.8	1272.7	1271.2
5°	1350.4	1352.7	1354.2	1348.1	1349.6	1346.6	1342.9	1338.3	1332.3	1324.0	1318.7
7.5°	1418.3	1422.0	1421.3	1419.0	1413.7	1410.7	1403.2	1396.4	1385.8	1376.0	1369.3
10°	1509.5	1508.7	1508.7	1495.9	1488.4	1481.6	1468.0	1457.5	1446.9	1432.6	1425.0
12.5°	1615.1	1609.8	1607.5	1598.5	1582.6	1570.6	1551.0	1530.6	1511.8	1496.7	1484.6
15°	1716.8	1716.8	1710.8	1696.5	1681.4	1665.6	1637.7	1608.3	1577.4	1553.2	1541.2
17.5°	1809.6	1801.3	1796.0	1777.2	1761.3	1735.7	1704.8	1673.1	1634.7	1600.7	1577.4
20°	1877.4	1870.7	1859.3	1836.0	1808.8	1778.7	1742.5	1705.5	1664.1	1627.1	1600.7
22.5°	1916.7	1908.4	1891.0	1860.1	1823.2	1780.9	1738.7	1704.0	1666.3	1638.4	1616.6
25°	1937.0	1928.7	1905.3	1864.6	1814.9	1759.1	1710.8	1676.9	1655.0	1648.2	1645.2
27.5°	1936.3	1929.5	1904.6	1857.8	1793.8	1729.7	1677.6	1649.0	1646.7	1673.1	1692.7
30°	1916.7	1912.1	1889.5	1842.8	1775.7	1708.5	1660.3	1645.2	1668.6	1724.4	1772.6
32.5°	1897.0	1894.8	1879.0	1836.7	1779.4	1722.9	1689.7	1691.2	1739.5	1825.4	1903.1
35°	1899.3	1902.3	1900.1	1877.4	1841.3	1811.8	1796.0	1829.2	1904.6	2008.6	2112.7
37.5°	1918.9	1930.2	1944.5	1946.8	1947.6	1943.0	1976.2	2046.3	2156.4	2292.1	2455.0
40°	1961.9	1974.7	2016.2	2052.4	2099.1	2154.9	2222.0	2319.3	2455.8	2623.1	2823.0
42.5°	2095.3	2113.4	2164.7	2231.8	2317.8	2405.2	2505.5	2638.2	2805.6	2982.0	3191.7
45°	2269.5	2307.2	2363.8	2438.4	2567.3	2690.2	2819.9	2968.5	3146.4	3367.3	3578.5
47.5°	2486.7	2524.4	2606.6	2686.5	2838.8	2991.8	3133.6	3288.9	3481.9	3708.1	3941.9
50°	2676.7	2719.7	2792.8	2900.6	3077.0	3264.8	3421.6	3589.8	3751.9	3990.1	4226.1
52.5°	2826.0	2856.9	2927.0	3025.8	3222.6	3428.4	3626.7	3813.7	4006.0	4244.2	4462.9
55°	2844.8	2873.5	2942.1	3055.2	3255.0	3483.4	3711.9	3933.6	4205.8	4465.9	4755.4
57.5°	2763.4	2786.8	2856.1	2957.2	3151.7	3411.8	3700.6	3984.9	4333.2	4684.6	5038.2
60°	2648.0	2671.4	2725.7	2806.4	2982.0	3262.5	3599.6	3988.6	4451.6	4959.0	5479.3
62.5°	2521.4	2541.7	2585.4	2642.7	2797.3	3055.9	3442.0	3963.7	4548.1	5232.0	6034.2
65°	2308.0	2357.0	2375.8	2434.6	2589.2	2833.5	3226.3	3795.6	4508.9	5353.4	6382.6
67°	2072.0	2121.7	2131.5	2191.1	2314.8	2549.3	2948.9	3484.2	4198.2	5143.7	6305.6
67.5°	1996.6	2038.8	2053.9	2113.4	2230.3	2451.2	2830.5	3371.9	4103.2	5029.1	6212.9
70°	1468.0	1514.8	1531.4	1556.2	1639.9	1823.9	2075.0	2544.7	3271.6	4104.0	5241.0
72.5°	785.7	823.4	839.2	876.1	919.1	1019.4	1211.7	1548.7	2007.9	2746.0	3728.5
75°	531.6	546.6	558.0	583.6	628.1	708.0	792.4	910.8	1188.3	1549.5	2121.7
77.5°	303.1	309.9	311.4	315.9	351.4	427.5	566.2	766.8	983.2	1122.7	1357.2
80°	131.2	144.8	155.3	148.5	146.3	162.1	202.8	302.4	592.6	941.0	1116.7
82.5°	70.9	76.9	86.0	86.7	91.2	96.5	104.8	124.4	174.9	352.9	769.8
85°	36.9	38.5	51.3	58.8	62.6	65.6	67.1	74.6	86.0	109.3	191.5
87.5°	5.3	7.5	9.0	12.1	13.6	14.3	16.6	21.1	24.9	30.2	51.3
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8
2.5°	1264.4	1262.9	1258.4	1255.4	1252.4	1249.4	1245.6	1242.6	1237.3	1233.5	1229.0
5°	1311.2	1302.1	1296.1	1287.8	1286.3	1276.5	1266.7	1262.2	1253.1	1245.6	1236.5
7.5°	1358.7	1348.1	1338.3	1331.6	1327.8	1314.2	1304.4	1293.1	1282.5	1272.7	1262.2
10°	1414.5	1403.9	1393.4	1388.9	1382.1	1369.3	1361.0	1346.6	1336.1	1324.0	1309.7
12.5°	1472.5	1465.0	1457.5	1451.4	1448.4	1442.4	1430.3	1418.3	1403.9	1391.9	1375.3
15°	1523.8	1518.5	1515.5	1514.0	1514.0	1510.2	1498.9	1487.6	1472.5	1459.0	1440.9
17.5°	1560.0	1557.8	1560.0	1562.3	1565.3	1562.3	1560.0	1547.2	1537.4	1520.8	1502.7
20°	1581.1	1585.6	1597.0	1604.5	1611.3	1616.6	1618.8	1608.3	1595.5	1583.4	1571.3
22.5°	1603.7	1616.6	1636.2	1647.5	1658.8	1677.6	1682.2	1674.6	1664.8	1657.3	1644.5
25°	1641.4	1660.3	1694.2	1712.3	1728.2	1756.1	1759.8	1761.3	1759.1	1753.0	1737.2
27.5°	1700.3	1737.2	1782.4	1805.8	1823.2	1859.3	1873.7	1873.7	1867.6	1874.4	1874.4
30°	1802.8	1851.8	1910.6	1924.2	1951.3	1983.0	2006.4	2009.4	2010.1	2024.5	2045.6
32.5°	1960.4	2007.1	2072.7	2087.8	2111.2	2141.3	2167.7	2164.7	2171.5	2202.4	2230.3
35°	2189.6	2237.1	2280.1	2300.4	2311.0	2338.1	2347.9	2364.5	2384.9	2423.3	2419.6
37.5°	2528.9	2571.1	2577.1	2590.0	2577.1	2582.4	2590.0	2609.6	2663.9	2698.5	2642.7
40°	2937.6	3007.7	3000.9	2985.8	2957.2	2918.7	2932.3	2962.4	3021.3	2991.1	2841.0
42.5°	3322.8	3395.2	3381.7	3364.3	3301.0	3286.7	3285.1	3310.0	3341.7	3255.7	2996.4
45°	3702.1	3776.0	3752.6	3742.8	3700.6	3669.7	3695.3	3696.8	3688.5	3504.6	3132.1
47.5°	4093.4	4161.3	4146.2	4154.5	4110.8	4090.4	4092.7	4082.1	4004.5	3715.7	3237.6
50°	4409.4	4500.6	4509.6	4490.8	4467.4	4436.5	4515.7	4487.0	4314.4	3920.8	3339.4
52.5°	4655.2	4778.1	4824.8	4812.7	4793.9	4797.7	4946.2	4978.6	4692.9	4179.4	3451.8
55°	4946.2	5140.0	5216.1	5261.4	5241.8	5317.2	5657.2	5673.8	5219.1	4517.2	3598.1
57.5°	5366.2	5643.6	5884.2	5948.3	6010.1	6255.1	6807.1	6638.9	5902.3	5028.4	3783.5
60°	6004.8	6612.5	7003.1	7208.2	7352.9	7695.3	8220.0	7794.0	6753.5	5636.9	4016.5
62.5°	6899.0	7787.2	8440.2	8646.0	8705.6	8902.4	9282.4	8467.3	7217.2	5909.8	4036.9
65°	7564.8	8630.2	9412.1	9517.7	9446.8	9450.6	9550.1	8431.9	7044.6	5671.5	3687.0
67°	7521.1	8713.9	9514.6	9653.4	9555.4	9426.4	9271.1	7951.6	6489.6	5172.4	3228.6
67.5°	7454.0	8633.2	9470.2	9616.4	9526.7	9379.7	9152.7	7765.4	6317.0	5017.1	3135.1
70°	6443.6	7614.6	8741.8	8947.6	8985.3	8851.1	8214.0	6547.7	5128.7	4081.4	2434.6
72.5°	5015.6	6058.3	7173.5	7352.2	7497.0	7110.2	5978.4	4522.5	3738.3	2941.3	1762.8
75°	3311.5	4372.4	4934.9	4961.3	4776.5	4060.3	2921.0	2265.0	2084.8	1728.9	1091.0
77.5°	1771.9	2571.1	2587.0	2395.4	2308.0	1720.6	698.2	385.3	429.0	487.1	434.3
80°	1321.8	1637.7	1897.8	2040.3	2082.5	1475.6	361.2	204.3	178.7	162.9	160.6
82.5°	1192.1	1581.9	1773.4	1851.1	1831.5	1213.9	202.8	137.2	113.9	123.7	141.0
85°	467.5	844.5	1110.6	1075.2	903.3	452.4	110.8	73.9	73.9	107.1	138.7
87.5°	95.8	173.4	235.2	224.7	202.1	87.5	54.3	44.5	45.2	86.7	131.2
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°	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8	1232.8
2.5°	1224.5	1220.0	1216.9	1213.9	1210.9	1209.4	1207.1	1207.1	1202.6	1201.1	1199.6
5°	1229.8	1222.2	1216.9	1210.2	1204.9	1200.4	1194.3	1192.8	1187.5	1183.8	1182.3
7.5°	1252.4	1241.1	1229.8	1221.5	1213.9	1204.1	1197.3	1191.3	1186.0	1182.3	1177.7
10°	1295.4	1283.3	1267.5	1252.4	1242.6	1227.5	1216.9	1206.4	1200.4	1195.8	1189.8
12.5°	1358.7	1341.4	1322.5	1304.4	1287.8	1268.2	1257.7	1244.8	1237.3	1233.5	1229.0
15°	1423.5	1404.7	1381.3	1364.0	1345.1	1330.0	1320.2	1308.9	1302.9	1298.4	1295.4
17.5°	1489.9	1468.0	1451.4	1434.1	1425.0	1413.7	1400.9	1386.6	1369.3	1358.7	1344.4
20°	1557.8	1541.2	1531.4	1521.6	1511.0	1495.2	1469.5	1440.1	1407.7	1376.8	1347.4
22.5°	1636.9	1627.1	1625.6	1616.6	1594.7	1557.0	1509.5	1454.5	1399.4	1348.1	1308.2
25°	1748.5	1748.5	1741.0	1704.0	1652.8	1584.9	1505.0	1425.8	1352.7	1282.5	1229.8
27.5°	1888.8	1883.5	1846.5	1770.4	1678.4	1572.8	1465.8	1365.5	1272.0	1195.1	1127.2
30°	2043.3	2006.4	1927.2	1807.3	1669.3	1533.6	1402.4	1286.3	1176.2	1082.0	1002.1
32.5°	2203.9	2114.2	1971.7	1807.3	1637.7	1474.8	1323.3	1180.8	1054.8	949.3	854.3
35°	2349.4	2185.8	1982.2	1777.9	1575.8	1388.1	1212.4	1051.1	900.3	786.4	682.4
37.5°	2481.4	2233.3	1970.9	1720.6	1486.1	1266.0	1060.1	882.2	711.8	601.7	512.7
40°	2567.3	2243.1	1924.2	1630.9	1357.9	1100.8	873.1	674.1	539.1	438.8	379.3
42.5°	2620.9	2224.3	1848.8	1508.0	1185.3	893.5	655.2	483.3	383.0	327.2	304.6
45°	2651.0	2175.3	1737.2	1339.8	976.4	679.3	465.2	349.1	294.8	275.2	267.7
47.5°	2649.5	2096.1	1597.7	1145.3	745.7	473.5	329.5	272.2	257.1	251.1	249.6
50°	2633.7	1998.8	1434.1	934.2	538.4	330.2	260.9	244.3	240.5	236.8	235.2
52.5°	2611.8	1878.2	1253.1	728.4	382.3	263.9	236.8	232.2	229.2	225.4	223.9
55°	2571.1	1729.7	1057.1	548.2	299.3	238.3	228.5	227.0	223.2	217.9	214.9
57.5°	2521.4	1578.9	869.4	428.3	264.7	232.2	227.0	224.7	219.4	213.4	207.3
60°	2503.3	1454.5	722.3	361.2	256.4	234.5	230.7	227.7	220.2	211.1	204.3
62.5°	2390.2	1314.2	616.8	334.8	260.9	244.3	242.8	238.3	227.0	216.4	205.8
65°	2097.6	1111.4	522.5	316.7	269.9	260.9	262.4	255.6	244.3	230.0	211.1
67°	1774.1	906.3	435.1	299.3	276.7	278.2	283.5	278.2	263.9	243.5	217.9
67.5°	1688.2	854.3	413.2	294.1	278.2	282.7	288.8	285.0	270.7	247.3	220.9
70°	1254.6	601.7	308.4	266.2	278.2	296.3	309.9	313.7	297.8	265.4	227.0
72.5°	883.7	388.3	236.8	230.7	252.6	276.7	302.4	315.2	297.1	261.6	218.7
75°	530.8	242.8	192.3	196.0	212.6	237.5	257.9	263.1	240.5	217.9	189.3
77.5°	245.8	161.4	150.8	156.1	171.9	183.2	183.2	172.7	155.3	141.8	135.7
80°	144.8	131.9	131.2	141.0	151.6	143.3	130.4	116.1	107.1	102.5	100.3
82.5°	135.7	141.0	150.0	152.3	144.0	123.7	107.8	93.5	89.0	86.7	84.4
85°	159.8	171.2	156.1	144.0	127.4	104.1	84.4	72.4	70.1	67.9	64.8
87.5°	147.8	141.0	122.9	105.6	87.5	63.3	46.0	41.5	44.5	43.7	42.2
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°	1232.8	1232.8	1232.8	1232.8	1232.8
2.5°	1200.4	1200.4	1197.3	1195.8	1199.6
5°	1179.2	1180.0	1177.7	1177.0	1177.7
7.5°	1174.7	1174.0	1172.5	1171.0	1172.5
10°	1188.3	1187.5	1185.3	1186.8	1184.5
12.5°	1229.0	1233.5	1232.8	1234.3	1237.3
15°	1295.4	1294.6	1292.3	1293.9	1296.1
17.5°	1333.1	1327.0	1321.8	1319.5	1319.5
20°	1324.0	1306.7	1297.6	1292.3	1290.8
22.5°	1270.5	1245.6	1226.7	1222.2	1218.5
25°	1183.0	1152.1	1128.0	1122.7	1112.9
27.5°	1081.2	1039.8	1011.1	1005.1	999.8
30°	947.8	900.3	867.1	846.0	852.8
32.5°	784.9	739.7	701.2	667.3	662.0
35°	606.2	556.4	522.5	507.4	497.6
37.5°	452.4	410.9	388.3	374.0	374.7
40°	346.1	324.2	312.2	302.4	303.1
42.5°	288.8	279.0	276.0	271.4	269.2
45°	261.6	258.6	259.4	254.8	253.3
47.5°	246.6	244.3	245.0	242.0	241.3
50°	234.5	233.0	233.7	231.5	230.7
52.5°	222.4	223.2	222.4	220.9	220.9
55°	211.9	211.1	212.6	210.4	210.4
57.5°	203.6	202.8	202.8	202.1	202.1
60°	199.1	196.0	195.3	195.3	196.0
62.5°	196.8	191.5	190.8	190.8	191.5
65°	197.5	189.3	186.2	185.5	184.7
67°	198.3	186.2	180.2	177.2	176.4
67.5°	199.1	184.7	177.9	174.9	173.4
70°	194.5	174.2	164.4	159.1	157.6
72.5°	183.2	161.4	149.3	142.5	141.0
75°	162.9	146.3	135.7	128.2	125.2
77.5°	125.9	118.4	114.6	110.1	108.6
80°	98.0	94.2	92.7	89.7	89.0
82.5°	81.4	77.7	75.4	71.6	69.4
85°	63.3	58.8	57.3	54.3	52.8
87.5°	41.5	39.2	38.5	34.7	33.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)