

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: P158449

Luminaire Tested: **VST-E05-LED-E-U-SL3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158449
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-E05-LED-E-U-SL3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (105) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13777.3 lumens
Efficiency: N/A
Efficacy: 108.2 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): 127.3
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



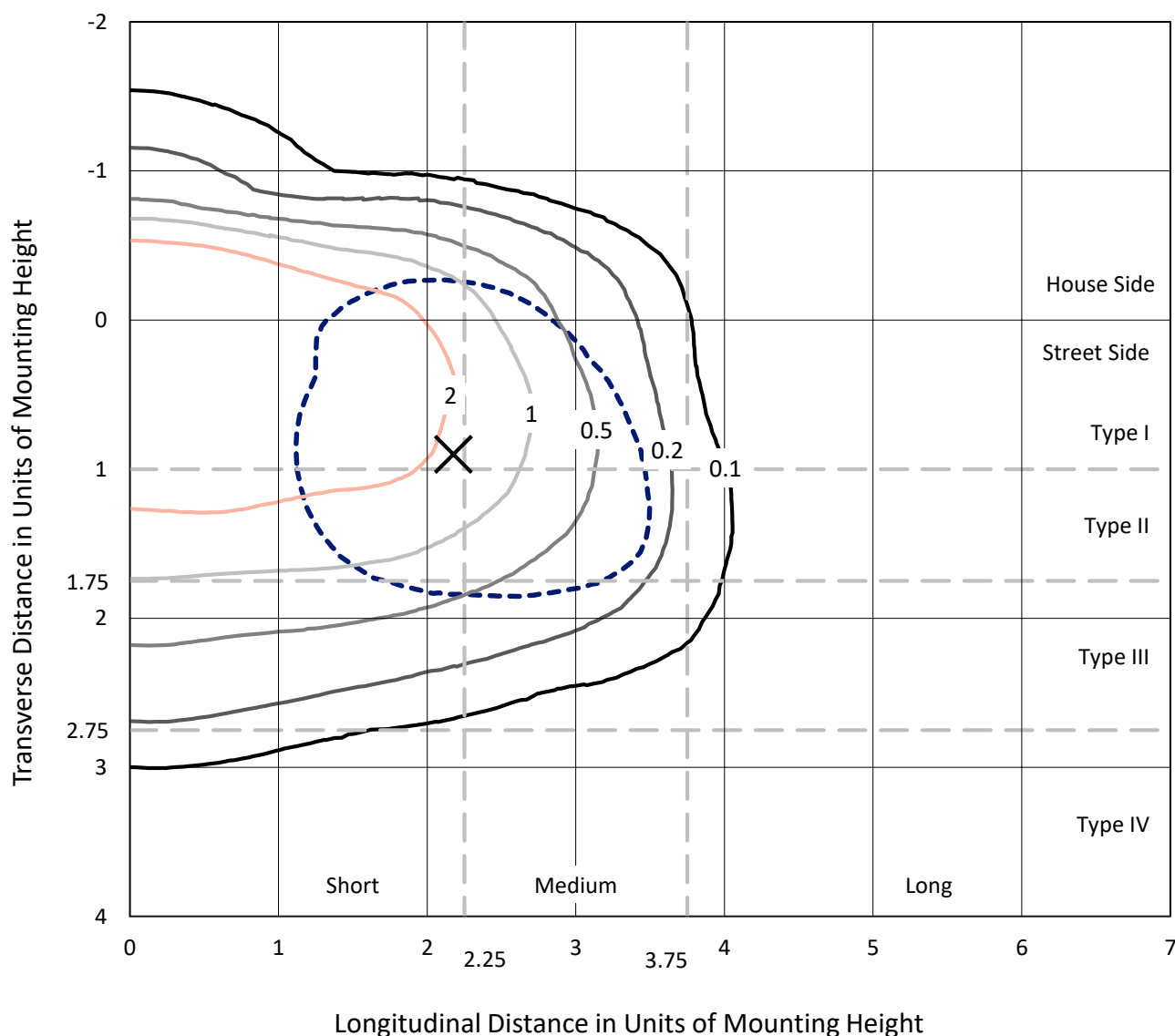
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

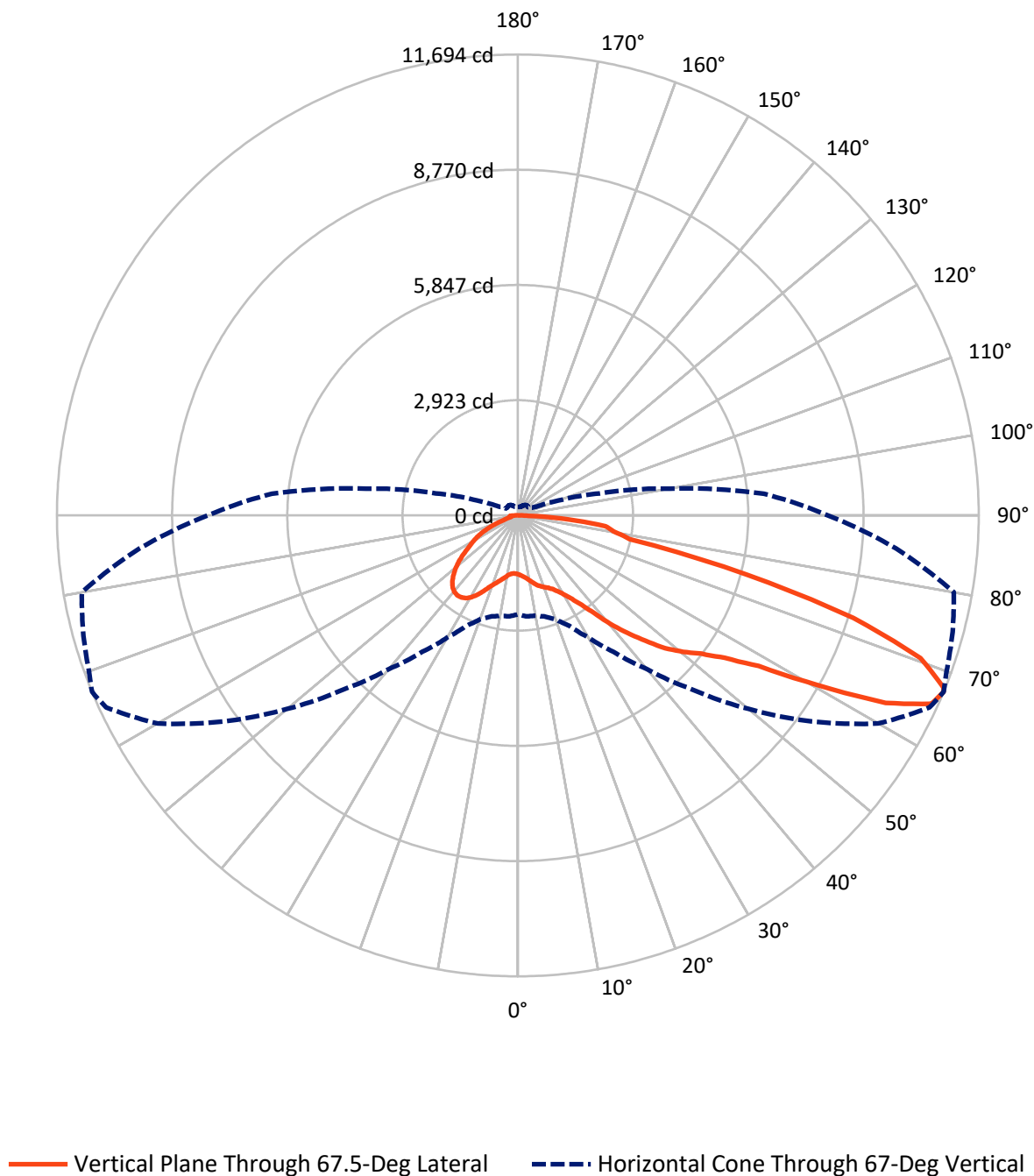


Based on 20 foot mounting height. Maximum calculated value = 4.7 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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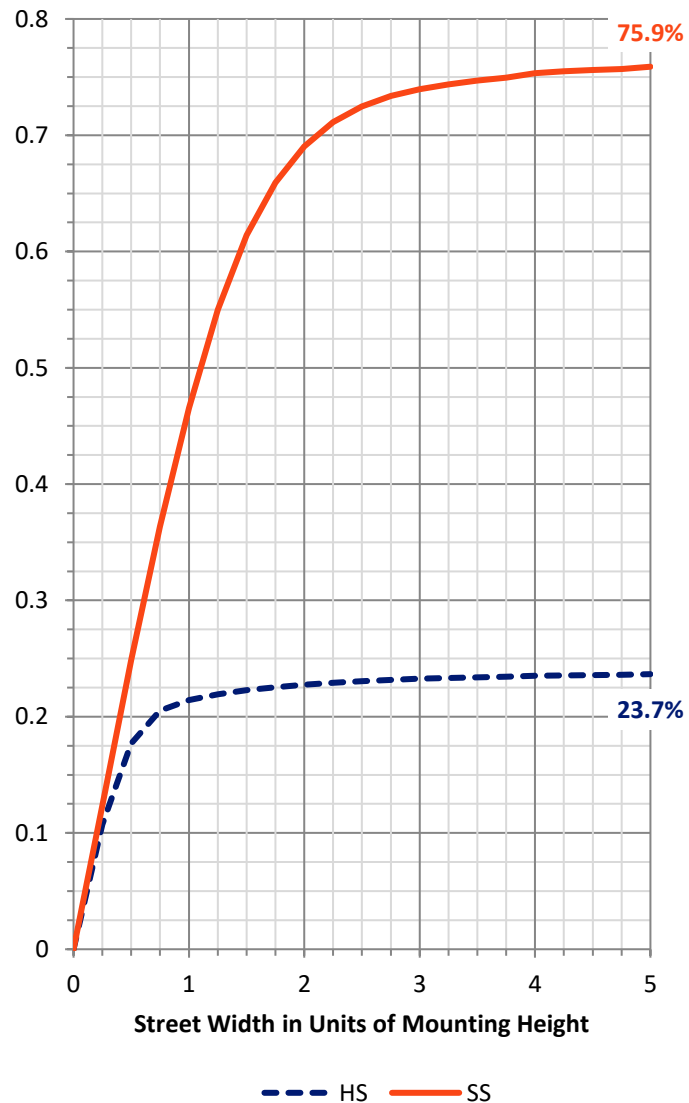
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3305.2	0.0	3305.2
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	10472.1	0.0	10472.1
	% Fixture	76.0	0.0	76.0
Total	Lumens	13777.3	0.0	13777.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	148.4	1.1
10°-20°	505.7	3.7
20°-30°	902.8	6.6
30°-40°	1323.1	9.6
40°-50°	2044.3	14.8
50°-60°	2976.9	21.6
60°-70°	3877.9	28.1
70°-80°	1735.9	12.6
80°-90°	262.5	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°	13777.3	100.0
0°-180°	13777.3	100.0

Coefficient of Utilization



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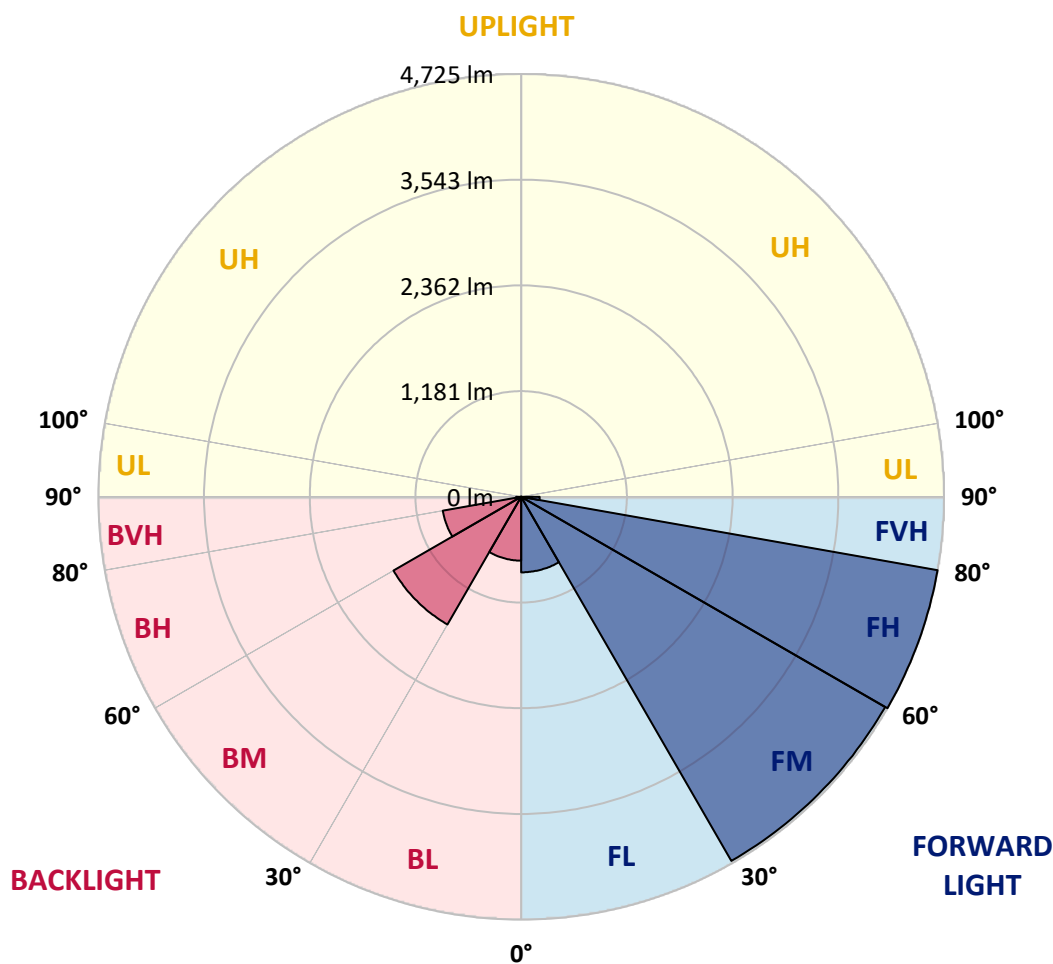
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	844.1	6.1			
FM	(30°-60°)	4697.3	34.1			
FH	(60°-80°)	4724.5	34.3			G2/5000
FVH	(80°-90°)	206.1	1.5			G2/225
BL	(0°-30°)	712.7	5.2	B2/1000		
BM	(30°-60°)	1646.9	12.0	B2/2500		
BH	(60°-80°)	889.2	6.5	B2/1000		G2/1000
BVH	(80°-90°)	56.4	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°	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3
2.5°	1551.8	1555.4	1556.3	1555.4	1556.3	1552.7	1551.8	1546.3	1549.0	1541.7	1539.9
5°	1635.8	1638.6	1640.4	1633.1	1634.9	1631.2	1626.7	1621.2	1613.9	1603.8	1597.4
7.5°	1718.0	1722.6	1721.7	1718.9	1712.5	1708.9	1699.7	1691.5	1678.7	1666.9	1658.6
10°	1828.5	1827.6	1827.6	1812.1	1803.0	1794.7	1778.3	1765.5	1752.7	1735.4	1726.2
12.5°	1956.4	1950.0	1947.3	1936.3	1917.1	1902.5	1878.8	1854.1	1831.3	1813.0	1798.4
15°	2079.7	2079.7	2072.4	2055.0	2036.8	2017.6	1983.8	1948.2	1910.7	1881.5	1866.9
17.5°	2192.0	2182.0	2175.6	2152.8	2133.6	2102.5	2065.1	2026.7	1980.1	1939.0	1910.7
20°	2274.2	2266.0	2252.3	2224.0	2191.1	2154.6	2110.8	2066.0	2015.8	1971.0	1939.0
22.5°	2321.7	2311.7	2290.7	2253.2	2208.5	2157.3	2106.2	2064.2	2018.5	1984.7	1958.2
25°	2346.4	2336.4	2308.0	2258.7	2198.4	2130.8	2072.4	2031.3	2004.8	1996.6	1992.9
27.5°	2345.5	2337.3	2307.1	2250.5	2172.9	2095.2	2032.2	1997.5	1994.8	2026.7	2050.5
30°	2321.7	2316.3	2288.9	2232.2	2150.9	2069.7	2011.2	1992.9	2021.2	2088.8	2147.3
32.5°	2298.0	2295.2	2276.1	2224.9	2155.5	2087.0	2046.8	2048.6	2107.1	2211.2	2305.3
35°	2300.7	2304.4	2301.6	2274.2	2230.4	2194.8	2175.6	2215.8	2307.1	2433.2	2559.2
37.5°	2324.5	2338.2	2355.5	2358.3	2359.2	2353.7	2393.9	2478.8	2612.2	2776.6	2973.9
40°	2376.5	2392.1	2442.3	2486.1	2542.8	2610.4	2691.6	2809.5	2974.8	3177.5	3419.6
42.5°	2538.2	2560.1	2622.2	2703.5	2807.6	2913.6	3035.1	3195.8	3398.6	3612.3	3866.2
45°	2749.2	2794.9	2863.4	2953.8	3110.0	3258.8	3415.9	3595.9	3811.4	4079.0	4334.8
47.5°	3012.2	3057.9	3157.5	3254.3	3438.8	3624.2	3795.9	3984.0	4217.9	4491.9	4775.0
50°	3242.4	3294.5	3383.0	3513.7	3727.4	3954.8	4144.8	4348.5	4544.8	4833.4	5119.3
52.5°	3423.2	3460.7	3545.6	3665.3	3903.7	4153.0	4393.2	4619.7	4852.6	5141.2	5406.1
55°	3446.1	3480.8	3563.9	3700.9	3942.9	4219.7	4496.4	4764.9	5094.7	5409.8	5760.5
57.5°	3347.4	3375.7	3459.8	3582.2	3817.8	4132.9	4482.7	4827.1	5249.0	5674.6	6103.0
60°	3207.7	3236.0	3301.8	3399.5	3612.3	3952.1	4360.3	4831.6	5392.4	6007.1	6637.3
62.5°	3054.2	3078.9	3131.9	3201.3	3388.5	3701.8	4169.4	4801.5	5509.3	6337.7	7309.5
65°	2795.8	2855.1	2878.0	2949.2	3136.4	3432.4	3908.2	4597.8	5461.8	6484.8	7731.5
67°	2509.9	2570.2	2582.0	2654.2	2804.0	3088.0	3572.1	4220.6	5085.5	6230.9	7638.3
67.5°	2418.6	2469.7	2488.0	2560.1	2701.7	2969.3	3428.7	4084.5	4970.5	6092.0	7526.0
70°	1778.3	1834.9	1855.0	1885.2	1986.5	2209.4	2513.5	3082.6	3963.0	4971.4	6348.7
72.5°	951.7	997.4	1016.6	1061.3	1113.4	1234.8	1467.8	1876.0	2432.3	3326.4	4516.5
75°	643.9	662.2	675.9	706.9	760.8	857.6	959.9	1103.3	1439.4	1876.9	2570.2
77.5°	367.2	375.4	377.2	382.7	425.6	517.9	685.9	928.9	1191.0	1360.0	1644.0
80°	158.9	175.4	188.2	179.9	177.2	196.4	245.7	366.3	717.9	1139.9	1352.7
82.5°	85.9	93.2	104.1	105.0	110.5	116.9	127.0	150.7	211.9	427.4	932.5
85°	44.8	46.6	62.1	71.2	75.8	79.5	81.3	90.4	104.1	132.4	232.0
87.5°	6.4	9.1	11.0	14.6	16.4	17.4	20.1	25.6	30.1	36.5	62.1
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3
2.5°	1531.7	1529.9	1524.4	1520.7	1517.1	1513.4	1508.9	1505.2	1498.8	1494.2	1488.8
5°	1588.3	1577.4	1570.0	1560.0	1558.2	1546.3	1534.4	1528.9	1518.0	1508.9	1497.9
7.5°	1645.9	1633.1	1621.2	1613.0	1608.4	1592.0	1580.1	1566.4	1553.6	1541.7	1528.9
10°	1713.4	1700.7	1687.9	1682.4	1674.2	1658.6	1648.6	1631.2	1618.5	1603.8	1586.5
12.5°	1783.8	1774.6	1765.5	1758.2	1754.5	1747.2	1732.6	1718.0	1700.7	1686.0	1666.0
15°	1845.9	1839.5	1835.8	1834.0	1834.0	1829.4	1815.7	1802.0	1783.8	1767.3	1745.4
17.5°	1889.7	1887.0	1889.7	1892.5	1896.1	1892.5	1889.7	1874.2	1862.3	1842.2	1820.3
20°	1915.3	1920.8	1934.5	1943.6	1951.8	1958.2	1961.0	1948.2	1932.6	1918.0	1903.4
22.5°	1942.7	1958.2	1982.0	1995.7	2009.4	2032.2	2037.7	2028.6	2016.7	2007.5	1992.0
25°	1988.4	2011.2	2052.3	2074.2	2093.4	2127.2	2131.8	2133.6	2130.8	2123.5	2104.4
27.5°	2059.6	2104.4	2159.2	2187.5	2208.5	2252.3	2269.7	2269.7	2262.4	2270.6	2270.6
30°	2183.8	2243.2	2314.4	2330.9	2363.8	2402.1	2430.4	2434.1	2435.0	2452.3	2477.9
32.5°	2374.7	2431.3	2510.8	2529.1	2557.4	2593.9	2625.9	2622.2	2630.4	2667.9	2701.7
35°	2652.4	2709.9	2762.0	2786.6	2799.4	2832.3	2844.2	2864.3	2888.9	2935.5	2930.9
37.5°	3063.4	3114.5	3121.8	3137.4	3121.8	3128.2	3137.4	3161.1	3226.9	3268.9	3201.3
40°	3558.4	3643.4	3635.1	3616.9	3582.2	3535.6	3552.0	3588.6	3659.8	3623.3	3441.5
42.5°	4025.1	4112.8	4096.4	4075.4	3998.6	3981.3	3979.5	4009.6	4048.0	3943.8	3629.7
45°	4484.6	4574.1	4545.7	4533.9	4482.7	4445.3	4476.3	4478.2	4468.1	4245.3	3794.1
47.5°	4958.6	5040.8	5022.5	5032.6	4979.6	4954.9	4957.7	4944.9	4850.8	4501.0	3921.9
50°	5341.3	5451.8	5462.7	5439.9	5411.6	5374.2	5470.1	5435.3	5226.2	4749.4	4045.2
52.5°	5639.0	5787.9	5844.5	5829.9	5807.1	5811.6	5991.6	6030.9	5684.7	5062.7	4181.3
55°	5991.6	6226.3	6318.6	6373.4	6349.6	6440.9	6852.9	6873.0	6322.2	5471.9	4358.5
57.5°	6500.3	6836.4	7127.8	7205.4	7280.3	7577.2	8245.7	8042.0	7149.7	6091.1	4583.2
60°	7273.9	8010.1	8483.2	8731.6	8907.0	9321.7	9957.3	9441.3	8180.9	6828.2	4865.4
62.5°	8357.2	9433.1	10224.0	10473.4	10545.5	10783.9	11244.3	10256.9	8742.6	7158.8	4890.1
65°	9163.6	10454.2	11401.4	11529.2	11443.4	11447.9	11568.5	10214.0	8533.4	6870.2	4466.3
67°	9110.7	10555.6	11525.6	11693.6	11574.9	11418.7	11230.6	9632.2	7861.2	6265.6	3911.0
67.5°	9029.4	10457.9	11471.7	11648.9	11540.2	11362.1	11087.2	9406.6	7652.0	6077.4	3797.7
70°	7805.5	9223.9	10589.4	10838.7	10884.4	10721.8	9950.0	7931.5	6212.6	4944.0	2949.2
72.5°	6075.6	7338.8	8689.6	8906.1	9081.4	8612.9	7242.0	5478.3	4528.4	3563.0	2135.4
75°	4011.4	5296.5	5977.9	6009.8	5786.1	4918.4	3538.3	2743.7	2525.4	2094.3	1321.6
77.5°	2146.4	3114.5	3133.7	2901.7	2795.8	2084.3	845.8	466.7	519.7	590.0	526.1
80°	1601.1	1983.8	2298.9	2471.5	2522.7	1787.4	437.5	247.5	216.5	197.3	194.5
82.5°	1444.0	1916.2	2148.2	2242.3	2218.5	1470.5	245.7	166.2	137.9	149.8	170.8
85°	566.3	1023.0	1345.4	1302.4	1094.2	548.0	134.3	89.5	89.5	129.7	168.1
87.5°	116.0	210.1	285.0	272.2	244.8	105.9	65.8	53.9	54.8	105.0	158.9
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°	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3	1493.3
2.5°	1483.3	1477.8	1474.1	1470.5	1466.8	1465.0	1462.3	1462.3	1456.8	1455.0	1453.1
5°	1489.7	1480.5	1474.1	1465.9	1459.5	1454.1	1446.7	1444.9	1438.5	1434.0	1432.1
7.5°	1517.1	1503.4	1489.7	1479.6	1470.5	1458.6	1450.4	1443.1	1436.7	1432.1	1426.7
10°	1569.1	1554.5	1535.3	1517.1	1505.2	1486.9	1474.1	1461.4	1454.1	1448.6	1441.3
12.5°	1645.9	1624.9	1602.0	1580.1	1560.0	1536.3	1523.5	1507.9	1498.8	1494.2	1488.8
15°	1724.4	1701.6	1673.3	1652.3	1629.4	1611.2	1599.3	1585.6	1578.3	1572.8	1569.1
17.5°	1804.8	1778.3	1758.2	1737.2	1726.2	1712.5	1697.0	1679.7	1658.6	1645.9	1628.5
20°	1887.0	1866.9	1855.0	1843.1	1830.4	1811.2	1780.1	1744.5	1705.2	1667.8	1632.2
22.5°	1982.9	1971.0	1969.2	1958.2	1931.7	1886.1	1828.5	1761.9	1695.2	1633.1	1584.7
25°	2118.1	2118.1	2108.9	2064.2	2002.1	1919.9	1823.0	1727.1	1638.6	1553.6	1489.7
27.5°	2287.9	2281.5	2236.8	2144.5	2033.1	1905.2	1775.6	1654.1	1540.8	1447.7	1365.5
30°	2475.2	2430.4	2334.5	2189.3	2022.2	1857.8	1698.8	1558.2	1424.8	1310.7	1213.8
32.5°	2669.7	2561.0	2388.4	2189.3	1983.8	1786.5	1602.9	1430.3	1277.8	1149.9	1034.8
35°	2846.0	2647.8	2401.2	2153.7	1908.9	1681.5	1468.7	1273.2	1090.5	952.6	826.6
37.5°	3005.8	2705.3	2387.5	2084.3	1800.2	1533.5	1284.2	1068.6	862.2	728.9	621.1
40°	3110.0	2717.2	2330.9	1975.6	1644.9	1333.5	1057.7	816.5	653.0	531.6	459.4
42.5°	3174.8	2694.4	2239.5	1826.7	1435.8	1082.3	793.7	585.5	464.0	396.4	369.0
45°	3211.3	2635.0	2104.4	1623.0	1182.8	822.9	563.5	422.9	357.1	333.4	324.2
47.5°	3209.5	2539.1	1935.4	1387.4	903.3	573.6	399.1	329.7	311.5	304.1	302.3
50°	3190.3	2421.3	1737.2	1131.6	652.1	400.0	316.0	295.9	291.4	286.8	285.0
52.5°	3163.8	2275.2	1518.0	882.3	463.1	319.7	286.8	281.3	277.7	273.1	271.3
55°	3114.5	2095.2	1280.5	664.0	362.6	288.6	276.7	274.9	270.4	264.0	260.3
57.5°	3054.2	1912.6	1053.1	518.8	320.6	281.3	274.9	272.2	265.8	258.5	251.2
60°	3032.3	1761.9	875.0	437.5	310.5	284.1	279.5	275.8	266.7	255.7	247.5
62.5°	2895.3	1592.0	747.1	405.5	316.0	295.9	294.1	288.6	274.9	262.1	249.3
65°	2540.9	1346.3	633.0	383.6	327.0	316.0	317.8	309.6	295.9	278.6	255.7
67°	2149.1	1097.8	527.0	362.6	335.2	337.0	343.4	337.0	319.7	295.0	264.0
67.5°	2045.0	1034.8	500.5	356.2	337.0	342.5	349.8	345.2	327.9	299.6	267.6
70°	1519.8	728.9	373.6	322.4	337.0	358.9	375.4	380.0	360.8	321.5	274.9
72.5°	1070.4	470.4	286.8	279.5	306.0	335.2	366.3	381.8	359.9	316.9	264.9
75°	643.0	294.1	232.9	237.5	257.6	287.7	312.4	318.8	291.4	264.0	229.3
77.5°	297.8	195.5	182.7	189.1	208.2	221.9	221.9	209.2	188.2	171.7	164.4
80°	175.4	159.8	158.9	170.8	183.6	173.5	158.0	140.7	129.7	124.2	121.5
82.5°	164.4	170.8	181.8	184.5	174.4	149.8	130.6	113.3	107.8	105.0	102.3
85°	193.6	207.3	189.1	174.4	154.4	126.0	102.3	87.7	84.9	82.2	78.5
87.5°	179.0	170.8	148.9	127.9	105.9	76.7	55.7	50.2	53.9	53.0	51.1
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°	1493.3	1493.3	1493.3	1493.3	1493.3
2.5°	1454.1	1454.1	1450.4	1448.6	1453.1
5°	1428.5	1429.4	1426.7	1425.7	1426.7
7.5°	1423.0	1422.1	1420.3	1418.4	1420.3
10°	1439.4	1438.5	1435.8	1437.6	1434.9
12.5°	1488.8	1494.2	1493.3	1495.2	1498.8
15°	1569.1	1568.2	1565.5	1567.3	1570.0
17.5°	1614.8	1607.5	1601.1	1598.4	1598.4
20°	1603.8	1582.8	1571.9	1565.5	1563.7
22.5°	1539.0	1508.9	1486.0	1480.5	1476.0
25°	1433.0	1395.6	1366.4	1360.0	1348.1
27.5°	1309.7	1259.5	1224.8	1217.5	1211.1
30°	1148.1	1090.5	1050.4	1024.8	1033.0
32.5°	950.8	896.0	849.4	808.3	801.9
35°	734.3	674.1	633.0	614.7	602.8
37.5°	548.0	497.8	470.4	453.0	453.9
40°	419.2	392.7	378.1	366.3	367.2
42.5°	349.8	337.9	334.3	328.8	326.1
45°	316.9	313.3	314.2	308.7	306.9
47.5°	298.7	295.9	296.8	293.2	292.3
50°	284.1	282.2	283.1	280.4	279.5
52.5°	269.4	270.4	269.4	267.6	267.6
55°	256.7	255.7	257.6	254.8	254.8
57.5°	246.6	245.7	245.7	244.8	244.8
60°	241.1	237.5	236.6	236.6	237.5
62.5°	238.4	232.0	231.1	231.1	232.0
65°	239.3	229.3	225.6	224.7	223.8
67°	240.2	225.6	218.3	214.6	213.7
67.5°	241.1	223.8	215.6	211.9	210.1
70°	235.6	211.0	199.1	192.7	190.9
72.5°	221.9	195.5	180.8	172.6	170.8
75°	197.3	177.2	164.4	155.3	151.6
77.5°	152.5	143.4	138.8	133.3	131.5
80°	118.7	114.2	112.3	108.7	107.8
82.5°	98.6	94.1	91.3	86.8	84.0
85°	76.7	71.2	69.4	65.8	63.9
87.5°	50.2	47.5	46.6	42.0	40.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)