

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: P159768

Luminaire Tested: **VST-E05-LED-E-U-T4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159768
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
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-T4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (105) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12560.1 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G3

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

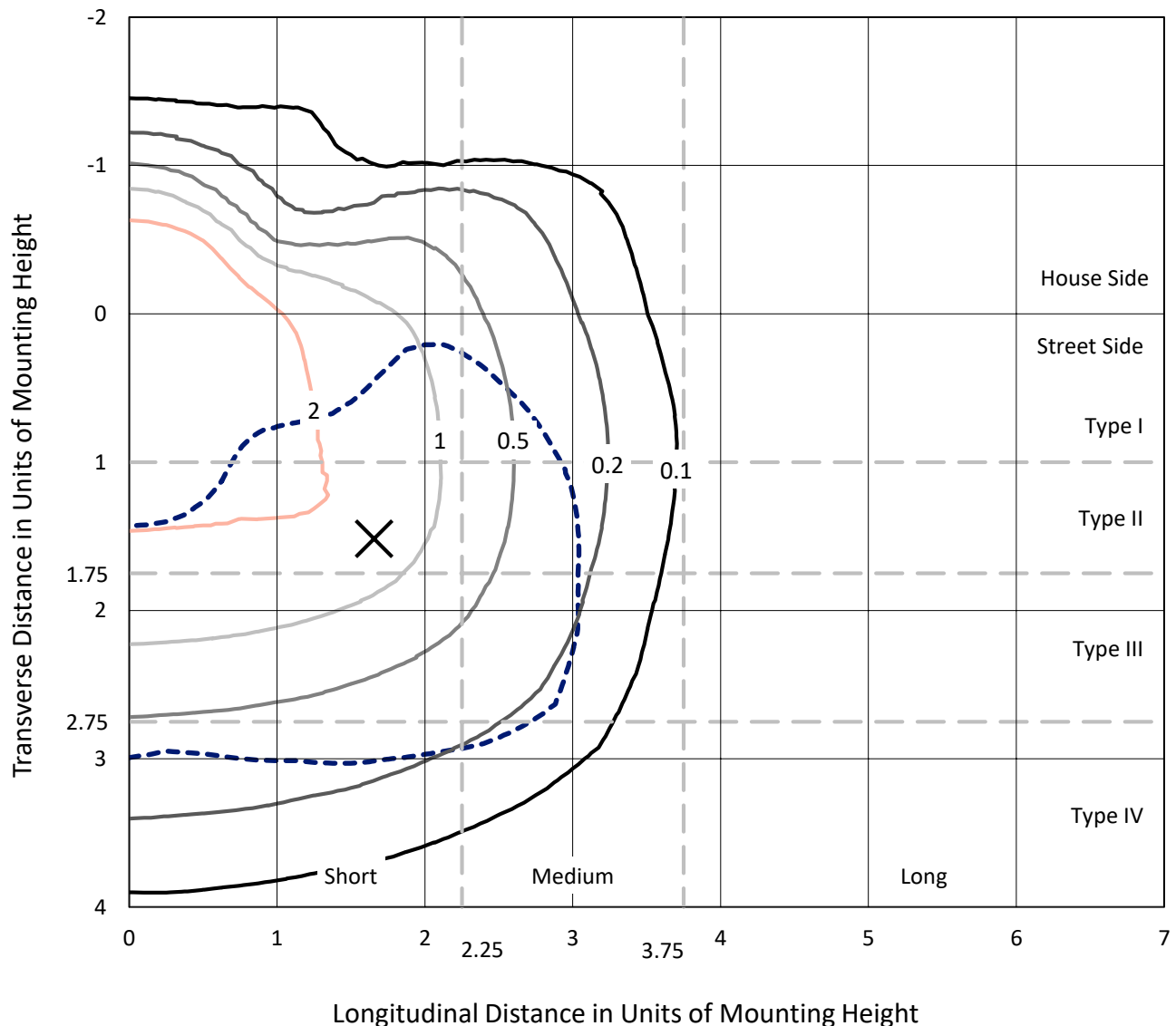


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

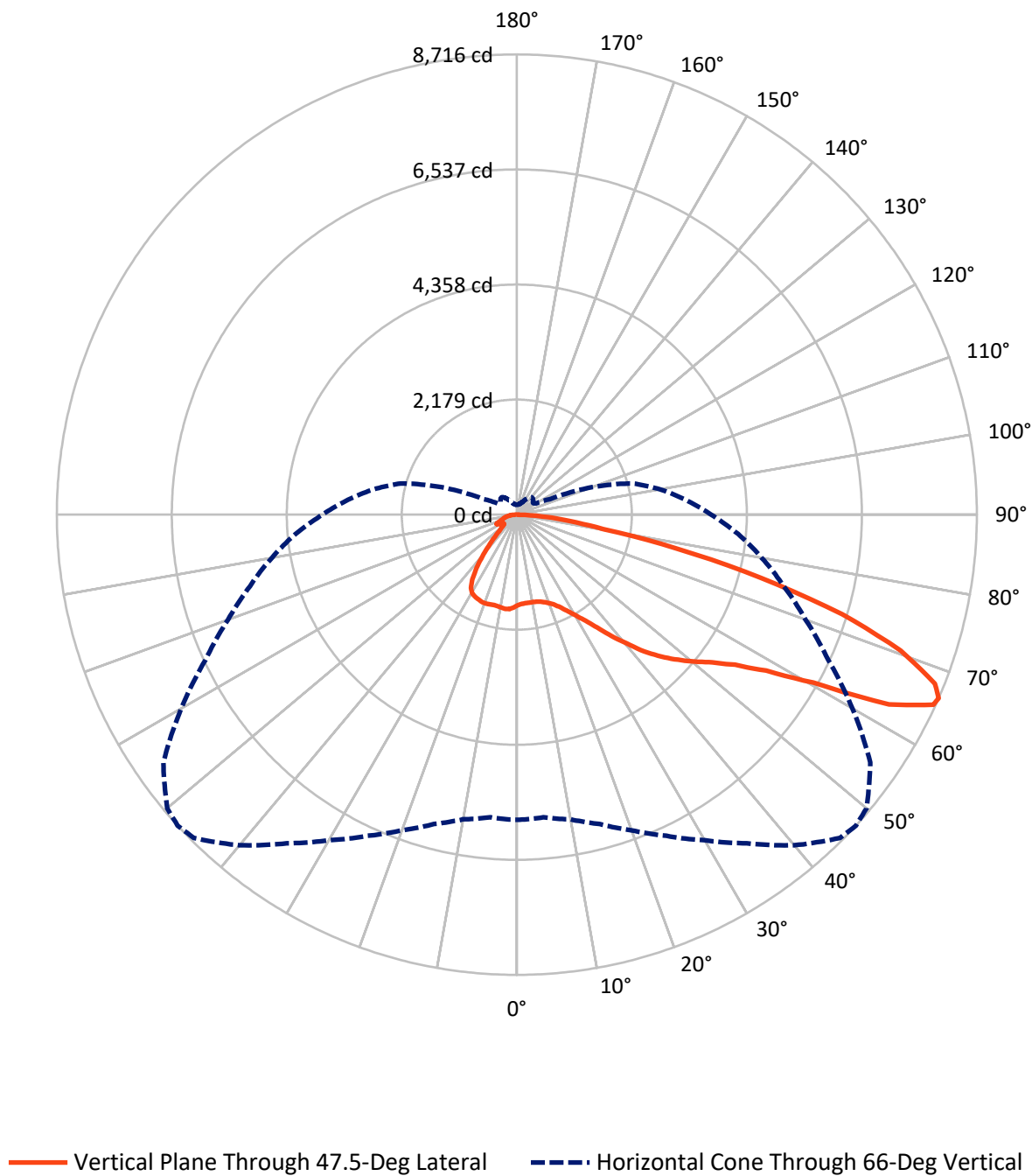


Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2600.5	0.0	2600.5
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	9959.6	0.0	9959.6
	% Fixture	79.3	0.0	79.3
Total	Lumens	12560.1	0.0	12560.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	165.6	1.3
10°-20°	496.7	4.0
20°-30°	847.4	6.7
30°-40°	1279.1	10.2
40°-50°	1662.5	13.2
50°-60°	2280.8	18.2
60°-70°	3508.6	27.9
70°-80°	2028.2	16.1
80°-90°	291.4	2.3
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°	12560.1	100.0
0°-180°	12560.1	100.0

Coefficient of Utilization



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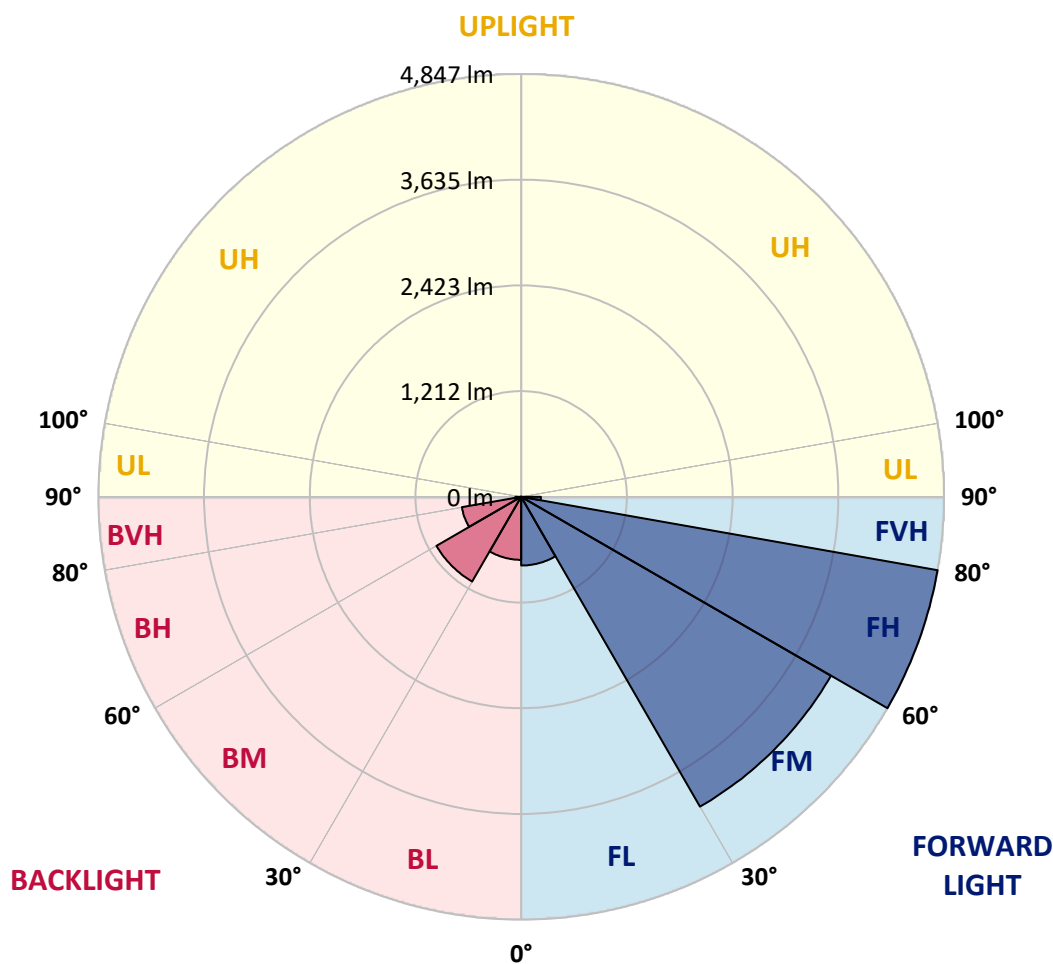
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	787.3	6.3			
FM	(30°-60°)	4100.3	32.6			
FH	(60°-80°)	4846.5	38.6			G2/5000
FVH	(80°-90°)	225.5	1.8			G3/500
BL	(0°-30°)	722.4	5.8	B2/1000		
BM	(30°-60°)	1122.0	8.9	B2/2500		
BH	(60°-80°)	690.2	5.5	B2/1000		G2/1000
BVH	(80°-90°)	65.9	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4
2.5°	1674.5	1675.3	1676.2	1676.2	1678.7	1678.7	1682.9	1685.4	1686.3	1691.4	1694.7
5°	1643.3	1642.4	1643.3	1644.9	1649.2	1652.5	1661.0	1666.9	1671.9	1680.4	1684.6
7.5°	1629.7	1631.4	1633.1	1634.0	1637.3	1645.8	1653.4	1659.3	1669.4	1679.5	1683.8
10°	1647.5	1650.0	1647.5	1649.2	1649.2	1656.8	1660.1	1664.4	1671.9	1681.2	1683.8
12.5°	1688.8	1693.9	1688.8	1684.6	1681.2	1688.0	1686.3	1682.9	1687.1	1689.7	1689.7
15°	1757.2	1757.2	1753.8	1747.9	1739.5	1740.3	1732.7	1725.1	1721.7	1715.8	1711.6
17.5°	1823.9	1822.2	1814.6	1807.0	1801.1	1798.5	1787.6	1777.4	1765.6	1756.3	1746.2
20°	1888.9	1895.6	1886.3	1875.3	1866.1	1860.2	1851.7	1831.5	1817.1	1801.9	1791.8
22.5°	2001.1	1995.2	1985.1	1969.0	1959.7	1949.6	1931.9	1910.0	1888.0	1869.4	1856.8
25°	2116.7	2110.8	2096.5	2084.7	2071.2	2062.7	2043.3	2016.3	1995.2	1966.5	1949.6
27.5°	2240.8	2235.7	2218.9	2209.6	2200.3	2190.2	2173.3	2145.4	2126.0	2093.1	2075.4
30°	2380.9	2380.1	2357.3	2355.6	2342.1	2331.1	2319.3	2295.7	2276.2	2243.3	2222.2
32.5°	2530.3	2526.9	2510.9	2505.8	2515.1	2507.5	2490.6	2466.1	2440.8	2421.4	2397.8
35°	2743.0	2737.1	2727.8	2732.0	2737.9	2759.0	2732.8	2711.7	2681.4	2656.0	2623.1
37.5°	2898.3	2889.8	2900.8	2924.4	2958.2	2974.2	2997.0	2997.9	2983.5	2949.7	2921.1
40°	3040.9	3037.5	3062.8	3095.8	3158.2	3203.8	3246.8	3267.9	3273.0	3251.1	3208.0
42.5°	3161.6	3171.7	3205.5	3256.1	3343.9	3413.1	3493.3	3543.1	3574.3	3562.5	3543.1
45°	3305.1	3310.1	3351.5	3415.6	3499.2	3614.0	3719.5	3803.9	3858.7	3857.9	3835.9
47.5°	3484.8	3485.7	3521.1	3596.2	3685.7	3802.2	3935.5	4047.8	4120.4	4123.7	4106.9
50°	3698.4	3696.7	3735.5	3806.4	3901.8	4014.0	4155.8	4295.9	4397.2	4397.2	4372.7
52.5°	3973.5	3970.1	3991.2	4053.7	4145.7	4263.8	4404.8	4566.8	4676.6	4700.2	4647.0
55°	4340.6	4345.7	4350.8	4405.6	4484.1	4577.8	4739.9	4889.2	5036.1	5049.6	5018.4
57.5°	4765.2	4748.3	4784.6	4874.0	4963.5	5080.8	5195.6	5372.0	5545.9	5575.4	5571.2
60°	5428.5	5406.6	5443.7	5557.7	5656.4	5841.3	6037.9	6265.8	6471.7	6532.5	6459.1
62.5°	6038.8	6065.8	6116.4	6248.9	6392.4	6638.8	6934.2	7325.0	7715.8	7928.5	7913.3
65°	5983.9	5958.6	6055.6	6236.2	6496.2	6810.2	7177.3	7648.2	8211.2	8638.2	8676.2
66°	5780.5	5754.3	5859.0	6065.8	6362.8	6712.3	7119.9	7599.3	8174.9	8657.7	8715.9
67.5°	5444.6	5418.4	5536.6	5724.8	6031.2	6470.9	6911.4	7435.6	8033.9	8496.5	8543.7
70°	4796.4	4761.0	4852.9	5065.6	5313.8	5739.1	6158.6	6713.9	7328.4	7698.0	7715.8
72.5°	4063.0	3980.3	4078.2	4241.9	4419.1	4771.1	5136.5	5516.3	6005.8	6347.7	6445.6
75°	2948.1	2991.1	3019.8	3127.8	3245.1	3536.3	3750.7	4068.9	4447.8	4695.1	4773.6
77.5°	1563.9	1628.9	1669.4	1777.4	1971.6	2193.5	2425.6	2622.3	2871.3	3009.7	3105.9
80°	877.8	923.3	989.2	1074.4	1168.9	1339.4	1477.0	1578.3	1613.7	1638.2	1660.1
82.5°	482.8	598.4	696.3	755.4	811.1	879.4	961.3	1045.7	1072.7	1032.2	1011.1
85°	75.1	110.6	336.8	411.0	447.3	499.6	558.7	621.2	622.0	535.1	584.0
87.5°	21.1	23.6	48.1	72.6	70.9	57.4	70.9	129.1	76.0	38.0	43.9
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4
2.5°	1696.4	1698.1	1702.3	1706.5	1710.8	1715.0	1717.5	1721.7	1725.1	1730.2	1736.1
5°	1689.7	1693.9	1701.5	1710.8	1719.2	1726.8	1732.7	1741.2	1748.7	1755.5	1765.6
7.5°	1689.7	1698.1	1710.8	1720.9	1728.5	1737.8	1747.1	1755.5	1763.9	1770.7	1777.4
10°	1690.5	1699.0	1711.6	1723.4	1731.9	1742.0	1749.6	1757.2	1766.5	1770.7	1779.1
12.5°	1693.9	1697.3	1706.5	1718.4	1728.5	1738.6	1746.2	1753.8	1763.9	1765.6	1771.5
15°	1710.8	1705.7	1708.2	1716.7	1727.6	1736.1	1744.5	1750.4	1757.2	1755.5	1760.6
17.5°	1742.0	1729.3	1724.3	1725.1	1730.2	1736.1	1739.5	1740.3	1741.2	1733.6	1734.4
20°	1784.2	1766.5	1754.7	1748.7	1742.0	1736.1	1726.8	1715.8	1705.7	1690.5	1688.8
22.5°	1847.5	1821.3	1808.7	1792.6	1772.4	1747.1	1724.3	1697.3	1675.3	1652.5	1644.1
25°	1939.5	1912.5	1899.0	1873.7	1837.4	1801.1	1768.2	1731.9	1699.8	1672.8	1660.1
27.5°	2062.7	2035.7	2021.4	1995.2	1950.5	1914.2	1868.6	1829.8	1790.9	1751.3	1735.2
30°	2212.1	2188.5	2172.4	2151.3	2112.5	2072.8	2019.7	1959.7	1898.1	1834.8	1803.6
32.5°	2388.5	2362.3	2350.5	2326.0	2285.5	2244.2	2185.1	2108.3	2005.3	1905.7	1843.3
35°	2608.8	2579.2	2565.7	2533.7	2486.4	2425.6	2362.3	2259.4	2120.1	1981.7	1879.6
37.5°	2903.3	2837.5	2792.8	2719.3	2643.4	2558.1	2467.8	2362.3	2197.8	2026.4	1884.6
40°	3164.1	3097.4	3011.4	2905.9	2787.7	2670.4	2567.4	2447.6	2268.6	2058.5	1868.6
42.5°	3488.2	3370.1	3232.5	3089.9	2932.9	2788.5	2666.2	2525.2	2316.8	2066.9	1823.9
45°	3784.5	3643.5	3459.5	3269.6	3074.7	2893.2	2755.6	2598.6	2358.1	2066.9	1769.8
47.5°	4054.5	3885.7	3665.5	3429.1	3202.1	3003.8	2847.6	2673.8	2416.3	2093.1	1753.8
50°	4304.4	4110.2	3859.6	3585.3	3330.4	3118.5	2950.6	2770.0	2505.0	2160.6	1792.6
52.5°	4567.7	4361.7	4056.2	3765.0	3484.0	3257.0	3078.0	2889.0	2619.7	2267.0	1861.0
55°	4912.9	4671.5	4324.6	4003.9	3695.0	3444.3	3240.9	3031.6	2745.5	2386.8	1944.6
57.5°	5457.2	5107.0	4760.1	4343.2	4052.0	3722.0	3499.2	3258.6	2949.7	2542.9	2070.3
60°	6410.1	5979.7	5562.7	5083.4	4723.8	4378.6	4041.9	3727.9	3355.7	2895.7	2346.3
62.5°	7770.6	7333.4	6678.5	6091.9	5549.2	5091.8	4652.9	4253.7	3776.0	3273.0	2686.4
65°	8583.4	8082.9	7302.2	6513.9	5854.8	5287.6	4785.4	4296.8	3781.1	3290.7	2789.4
66°	8648.4	8174.9	7341.0	6508.0	5823.5	5235.3	4712.8	4207.3	3679.0	3209.7	2755.6
67.5°	8527.7	8120.0	7261.7	6393.2	5693.6	5058.0	4521.3	3991.2	3460.4	3025.7	2643.4
70°	7676.1	7381.5	6645.6	5832.0	5134.0	4573.6	4007.3	3497.5	2994.5	2629.0	2345.5
72.5°	6292.8	5919.8	5404.9	4858.0	4308.6	3811.5	3296.6	2862.8	2440.8	2175.0	1974.1
75°	4622.5	4286.6	3719.5	3378.5	3015.6	2703.3	2356.4	1945.4	1645.8	1512.4	1463.5
77.5°	2930.3	2565.7	2087.2	1710.8	1471.1	1264.3	996.8	792.5	634.7	660.8	731.7
80°	1480.4	1275.3	954.6	753.7	651.6	541.8	428.7	324.9	237.2	270.9	306.4
82.5°	950.3	793.4	632.1	498.0	420.3	370.5	296.2	215.2	160.4	180.6	221.1
85°	572.2	483.6	385.7	315.7	274.3	228.7	168.0	119.0	118.2	126.6	156.1
87.5°	86.9	124.1	71.7	76.8	81.0	86.9	76.8	65.0	56.5	73.4	92.8
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4	1718.4
2.5°	1742.0	1743.7	1747.1	1751.3	1750.4	1756.3	1759.7	1756.3	1763.9	1763.9	1768.2
5°	1774.1	1776.6	1782.5	1786.7	1788.4	1793.5	1795.2	1794.3	1796.0	1796.9	1798.5
7.5°	1783.4	1790.1	1792.6	1795.2	1796.0	1797.7	1797.7	1796.0	1796.0	1795.2	1796.9
10°	1780.8	1783.4	1785.0	1784.2	1784.2	1782.5	1781.7	1780.8	1780.8	1779.1	1781.7
12.5°	1772.4	1772.4	1772.4	1770.7	1770.7	1769.8	1769.8	1769.8	1771.5	1772.4	1776.6
15°	1755.5	1755.5	1757.2	1756.3	1758.9	1763.1	1768.2	1771.5	1775.8	1776.6	1779.1
17.5°	1729.3	1730.2	1735.2	1746.2	1757.2	1769.8	1779.1	1781.7	1778.3	1769.8	1763.9
20°	1683.8	1694.7	1715.0	1741.2	1765.6	1781.7	1785.9	1775.8	1759.7	1737.8	1726.0
22.5°	1643.3	1665.2	1701.5	1744.5	1774.9	1785.9	1773.2	1749.6	1720.9	1695.6	1677.9
25°	1659.3	1684.6	1722.6	1759.7	1779.1	1773.2	1747.9	1714.1	1683.8	1654.2	1625.5
27.5°	1726.8	1752.1	1779.1	1790.1	1783.4	1761.4	1726.0	1689.7	1649.2	1607.0	1571.5
30°	1790.9	1805.3	1807.0	1796.0	1771.5	1736.1	1694.7	1652.5	1601.1	1550.4	1505.7
32.5°	1811.2	1794.3	1763.9	1732.7	1699.0	1662.7	1614.6	1558.9	1504.0	1446.6	1396.8
35°	1805.3	1736.9	1661.8	1595.1	1554.6	1513.3	1469.4	1395.1	1333.5	1284.6	1252.5
37.5°	1752.1	1627.2	1511.6	1414.5	1351.2	1302.3	1237.3	1175.7	1122.5	1100.6	1074.4
40°	1677.9	1487.1	1326.8	1190.9	1125.0	1062.6	990.0	942.7	927.5	907.3	908.1
42.5°	1571.5	1323.4	1116.6	960.5	888.7	820.4	768.9	741.0	741.9	725.0	728.4
45°	1459.3	1158.8	898.9	743.6	672.7	614.4	585.7	577.3	578.1	579.0	573.9
47.5°	1390.9	1030.5	720.8	563.8	501.3	468.4	453.2	449.0	449.8	450.7	444.8
50°	1380.8	963.8	601.8	431.3	390.8	372.2	364.6	360.4	360.4	357.0	351.9
52.5°	1409.5	947.0	543.5	373.9	335.1	318.2	312.3	308.9	303.8	297.1	287.8
55°	1455.0	962.1	525.8	354.5	316.5	299.6	292.0	290.3	281.9	269.2	254.0
57.5°	1539.4	1017.0	537.6	359.5	319.9	304.7	299.6	297.9	286.1	266.7	247.3
60°	1781.7	1176.5	596.7	388.2	344.3	331.7	331.7	329.2	313.1	285.3	257.4
62.5°	2115.9	1410.3	676.9	427.9	378.1	376.4	390.8	391.6	362.9	318.2	274.3
65°	2277.1	1520.0	704.7	436.3	387.4	406.8	435.5	435.5	395.0	333.4	276.8
66°	2277.9	1517.5	696.3	426.2	377.3	402.6	432.1	432.1	389.9	329.2	272.6
67.5°	2219.7	1470.2	668.4	407.6	354.5	378.1	404.3	403.4	365.4	312.3	260.8
70°	1991.0	1300.6	589.1	377.3	327.5	328.3	337.6	331.7	306.4	270.1	237.2
72.5°	1716.7	1087.9	510.6	357.9	306.4	290.3	282.7	277.7	261.6	239.7	219.4
75°	1316.6	844.8	444.8	340.1	287.8	259.9	249.8	245.6	234.6	222.0	205.9
77.5°	806.9	579.0	377.3	311.4	266.7	241.4	230.4	222.0	211.0	199.2	188.2
80°	347.7	349.4	302.1	264.2	232.1	202.6	188.2	178.1	172.2	168.0	162.0
82.5°	243.1	250.7	230.4	205.1	177.2	156.1	143.5	140.9	141.8	141.8	140.1
85°	182.3	178.9	161.2	146.9	134.2	120.7	110.6	109.7	113.1	113.1	110.6
87.5°	105.5	106.3	91.2	85.2	88.6	76.0	69.2	70.1	78.5	77.6	76.0
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):

	160°	165°	170°	175°	180°
0°	1718.4	1718.4	1718.4	1718.4	1718.4
2.5°	1768.2	1770.7	1769.8	1772.4	1769.8
5°	1801.1	1800.2	1799.4	1802.8	1798.5
7.5°	1796.0	1796.9	1796.9	1796.9	1796.0
10°	1783.4	1786.7	1788.4	1791.8	1790.9
12.5°	1779.1	1784.2	1789.3	1794.3	1795.2
15°	1780.0	1783.4	1785.9	1788.4	1789.3
17.5°	1758.0	1757.2	1754.7	1753.0	1751.3
20°	1713.3	1709.1	1704.9	1698.1	1701.5
22.5°	1657.6	1645.8	1632.3	1621.3	1620.5
25°	1592.6	1570.7	1548.7	1534.4	1529.3
27.5°	1535.2	1509.1	1486.3	1473.6	1470.2
30°	1466.9	1443.2	1423.0	1412.0	1405.2
32.5°	1365.6	1347.0	1321.7	1313.2	1312.4
35°	1224.6	1210.3	1192.6	1189.2	1185.0
37.5°	1065.1	1060.1	1051.6	1041.5	1039.8
40°	894.6	898.0	895.5	889.6	880.3
42.5°	730.1	736.0	736.8	741.0	745.2
45°	581.5	586.6	586.6	590.8	595.9
47.5°	446.5	443.1	445.6	449.8	452.4
50°	337.6	335.1	330.8	327.5	324.1
52.5°	271.8	266.7	254.9	251.5	248.1
55°	239.7	230.4	222.0	218.6	218.6
57.5°	230.4	218.6	209.3	205.1	203.4
60°	232.1	215.2	203.4	196.6	194.1
62.5°	239.7	216.1	200.0	192.4	189.9
65°	238.8	214.4	199.2	190.7	188.2
66°	234.6	211.8	197.5	189.9	188.2
67.5°	227.9	208.5	195.8	189.1	186.5
70°	214.4	201.7	192.4	186.5	184.0
72.5°	203.4	195.0	186.5	179.8	178.1
75°	193.3	184.8	177.2	173.9	171.3
77.5°	178.1	170.5	166.3	162.9	161.2
80°	157.8	152.8	147.7	144.3	141.8
82.5°	137.6	130.8	125.8	123.2	121.5
85°	112.3	108.0	100.4	95.4	94.5
87.5°	75.1	70.9	68.4	64.1	59.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)