

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: P159777

Luminaire Tested: **VST-F05-LED-E-U-T4-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159777
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-F05-LED-E-U-T4-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (35) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12606 lumens
Efficiency: N/A
Efficacy: 94.6 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): 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

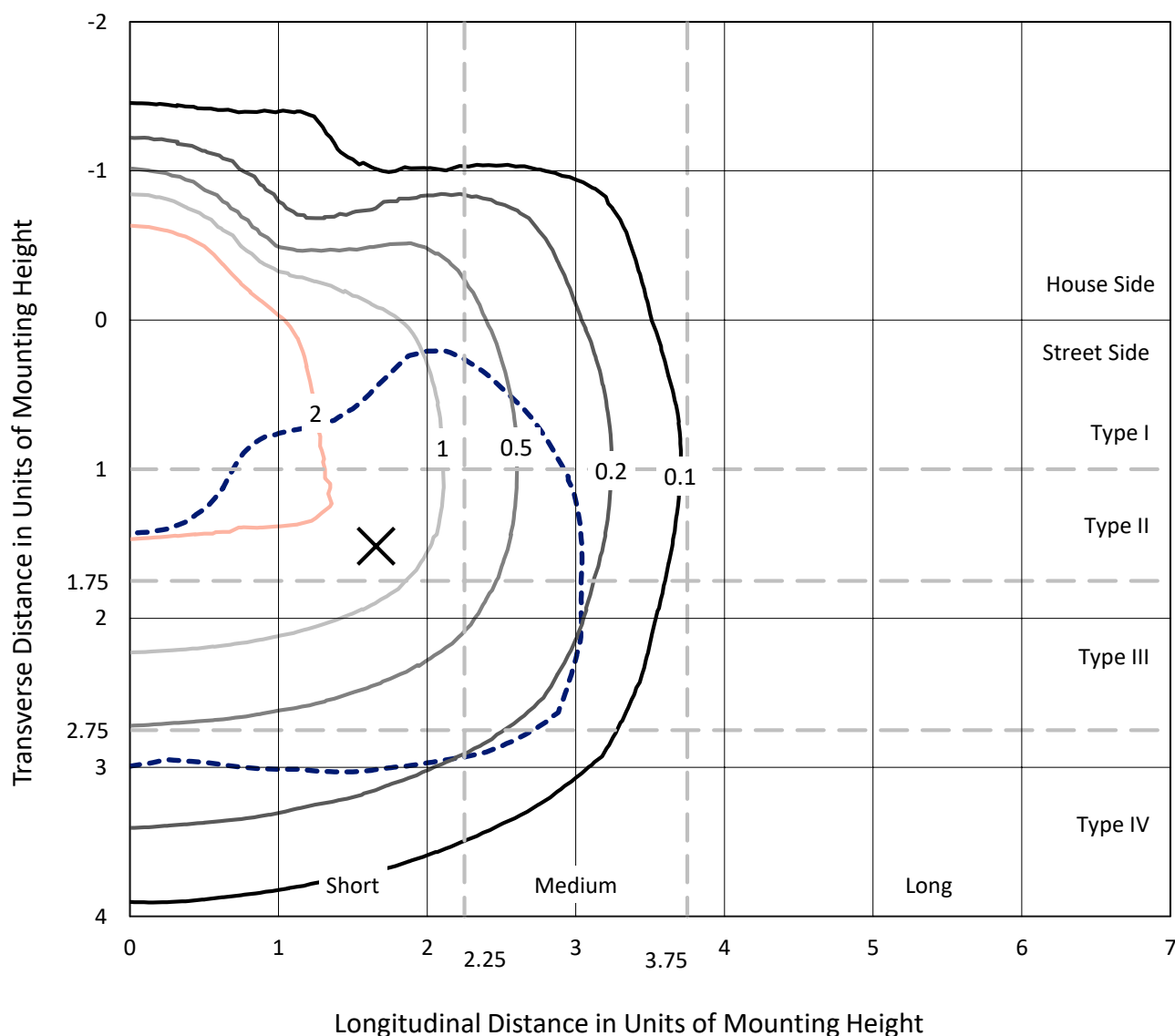


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

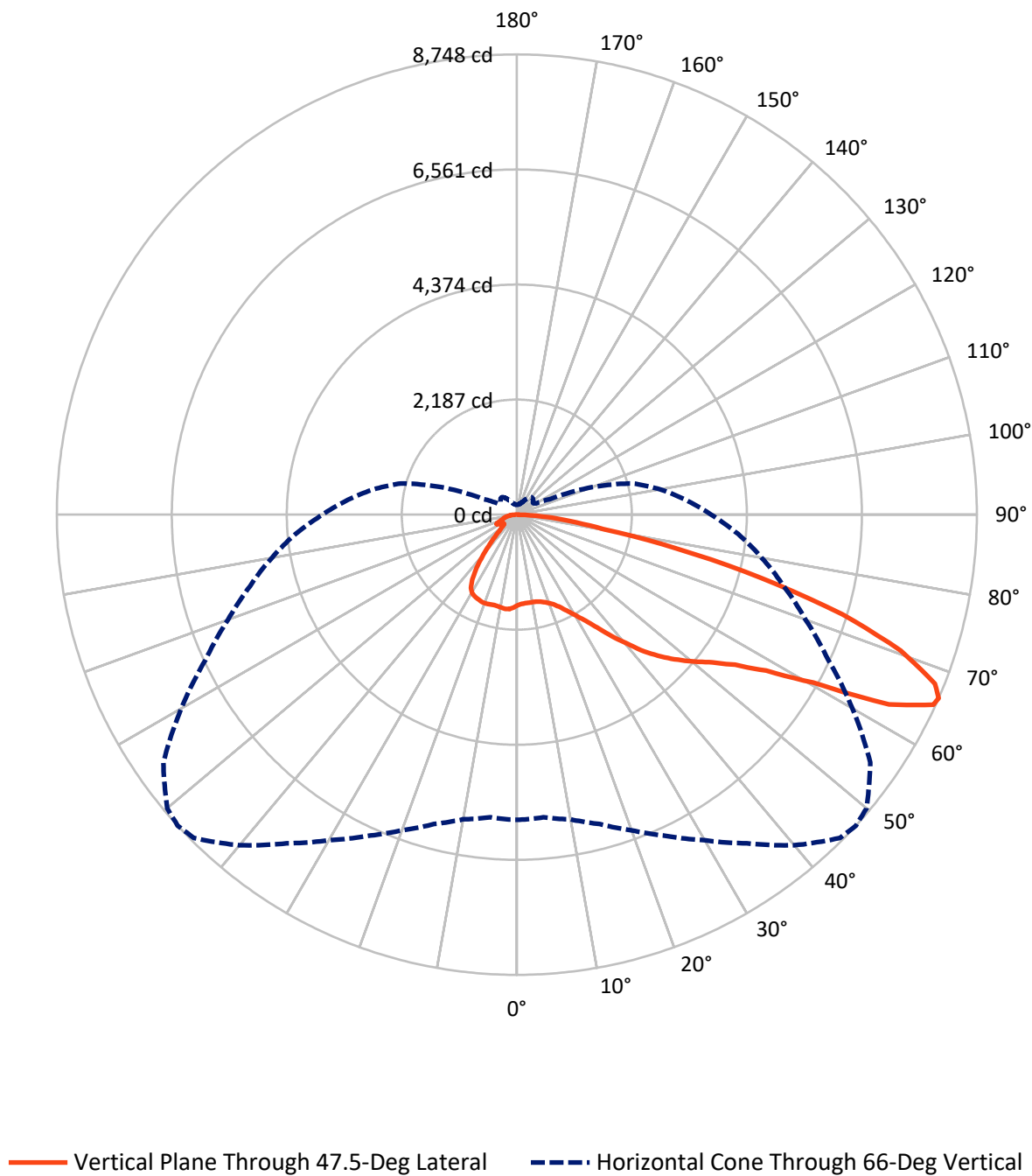


Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2610.0	0.0	2610.0
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	9996.0	0.0	9996.0
	% Fixture	79.3	0.0	79.3
Total	Lumens	12606.0	0.0	12606.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.2	1.3
10°-20°	498.5	4.0
20°-30°	850.5	6.7
30°-40°	1283.7	10.2
40°-50°	1668.6	13.2
50°-60°	2289.1	18.2
60°-70°	3521.4	27.9
70°-80°	2035.6	16.1
80°-90°	292.4	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°	12606.0	100.0
0°-180°	12606.0	100.0

Coefficient of Utilization



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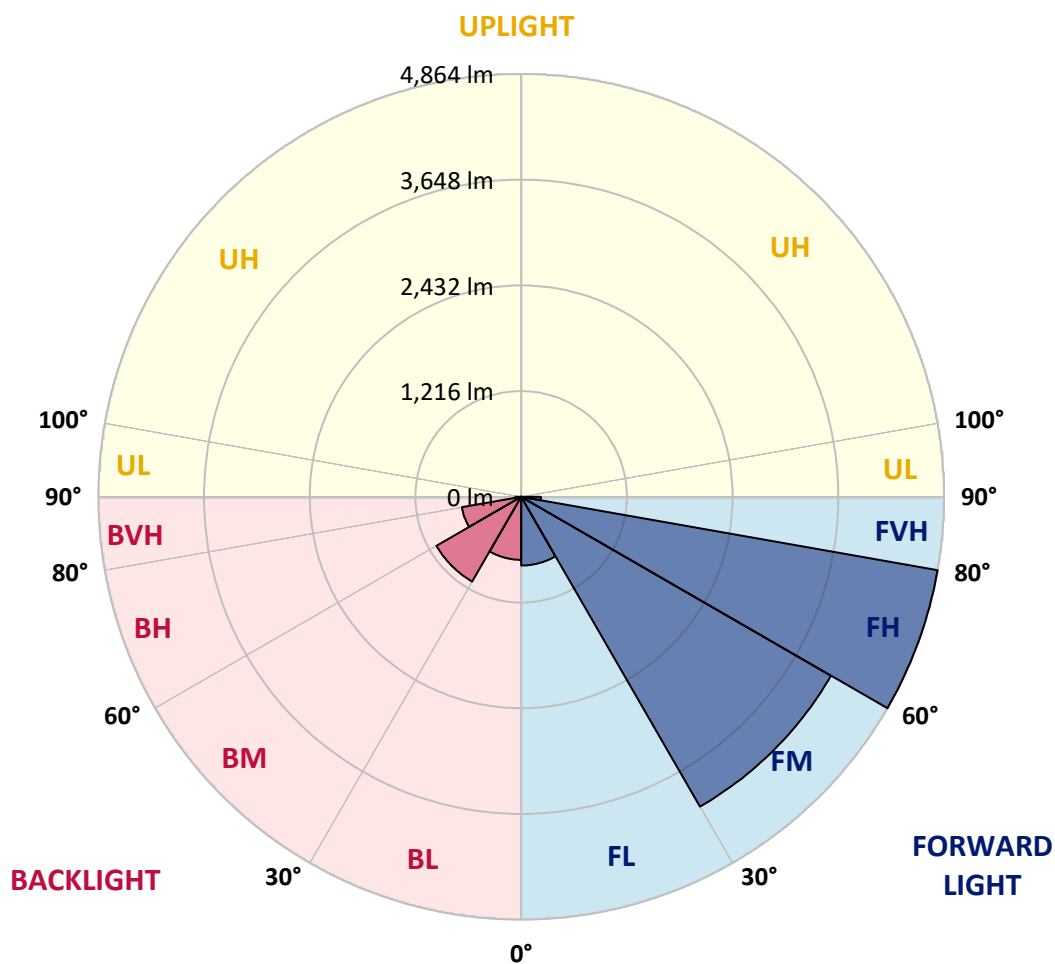
CATALOG NUMBER: VST-F05-LED-E-U-T4-7060

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	790.2	6.3			
FM	(30°-60°)	4115.3	32.6			
FH	(60°-80°)	4864.2	38.6			G2/5000
FVH	(80°-90°)	226.3	1.8			G3/500
BL	(0°-30°)	725.1	5.8	B2/1000		
BM	(30°-60°)	1126.1	8.9	B2/2500		
BH	(60°-80°)	692.7	5.5	B2/1000		G2/1000
BVH	(80°-90°)	66.1	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6
2.5°	1680.6	1681.4	1682.3	1682.3	1684.8	1684.8	1689.1	1691.6	1692.5	1697.5	1700.9
5°	1649.3	1648.4	1649.3	1651.0	1655.2	1658.6	1667.0	1673.0	1678.1	1686.5	1690.8
7.5°	1635.7	1637.4	1639.1	1639.9	1643.3	1651.8	1659.4	1665.4	1675.5	1685.7	1689.9
10°	1653.5	1656.0	1653.5	1655.2	1655.2	1662.8	1666.2	1670.4	1678.1	1687.4	1689.9
12.5°	1695.0	1700.1	1695.0	1690.8	1687.4	1694.2	1692.5	1689.1	1693.3	1695.8	1695.8
15°	1763.6	1763.6	1760.2	1754.3	1745.8	1746.7	1739.0	1731.4	1728.0	1722.1	1717.9
17.5°	1830.5	1828.8	1821.2	1813.6	1807.7	1805.1	1794.1	1783.9	1772.1	1762.8	1752.6
20°	1895.8	1902.5	1893.2	1882.2	1872.9	1867.0	1858.5	1838.2	1823.8	1808.5	1798.3
22.5°	2008.4	2002.5	1992.3	1976.2	1966.9	1956.7	1939.0	1916.9	1894.9	1876.3	1863.6
25°	2124.5	2118.5	2104.1	2092.3	2078.7	2070.3	2050.8	2023.7	2002.5	1973.7	1956.7
27.5°	2249.0	2243.9	2227.0	2217.6	2208.3	2198.2	2181.2	2153.3	2133.8	2100.7	2083.0
30°	2389.6	2388.8	2365.9	2364.2	2350.6	2339.6	2327.8	2304.0	2284.6	2251.5	2230.4
32.5°	2539.5	2536.1	2520.0	2515.0	2524.3	2516.7	2499.7	2475.2	2449.7	2430.3	2406.5
35°	2753.0	2747.1	2737.7	2742.0	2747.9	2769.1	2742.8	2721.7	2691.2	2665.7	2632.7
37.5°	2908.9	2900.4	2911.4	2935.1	2969.0	2985.1	3008.0	3008.8	2994.4	2960.5	2931.7
40°	3052.0	3048.6	3074.0	3107.1	3169.8	3215.5	3258.7	3279.9	3285.0	3262.9	3219.7
42.5°	3173.1	3183.3	3217.2	3268.0	3356.1	3425.6	3506.0	3556.0	3587.4	3575.5	3556.0
45°	3317.1	3322.2	3363.7	3428.1	3512.0	3627.2	3733.1	3817.8	3872.8	3872.0	3850.0
47.5°	3497.6	3498.4	3534.0	3609.4	3699.2	3816.1	3949.9	4062.6	4135.4	4138.8	4121.9
50°	3711.9	3710.2	3749.2	3820.3	3916.0	4028.7	4171.0	4311.6	4413.3	4413.3	4388.7
52.5°	3988.0	3984.6	4005.8	4068.5	4160.8	4279.4	4420.9	4583.5	4693.6	4717.4	4664.0
55°	4356.5	4361.6	4366.7	4421.7	4500.5	4594.5	4757.2	4907.1	5054.5	5068.1	5036.7
57.5°	4782.6	4765.6	4802.1	4891.9	4981.7	5099.4	5214.6	5391.6	5566.1	5595.8	5591.5
60°	5448.4	5426.4	5463.6	5578.0	5677.1	5862.6	6060.0	6288.7	6495.4	6556.4	6482.7
62.5°	6060.8	6087.9	6138.8	6271.7	6415.8	6663.1	6959.6	7351.8	7744.0	7957.4	7942.2
65°	6005.8	5980.4	6077.8	6259.0	6519.9	6835.1	7203.5	7676.2	8241.2	8669.8	8707.9
66°	5801.6	5775.4	5880.4	6087.9	6386.1	6736.8	7145.9	7627.1	8204.8	8689.3	8747.7
67.5°	5464.5	5438.2	5556.8	5745.7	6053.2	6494.5	6936.7	7462.7	8063.3	8527.5	8574.9
70°	4813.9	4778.4	4870.7	5084.1	5333.2	5760.1	6181.1	6738.5	7355.2	7726.2	7744.0
72.5°	4077.8	3994.8	4093.1	4257.4	4435.3	4788.5	5155.3	5536.5	6027.8	6370.9	6469.1
75°	2958.8	3002.0	3030.8	3139.3	3257.0	3549.2	3764.4	4083.8	4464.1	4712.3	4791.1
77.5°	1569.6	1634.9	1675.5	1783.9	1978.8	2201.5	2434.5	2631.9	2881.8	3020.7	3117.2
80°	881.0	926.7	992.8	1078.3	1173.2	1344.3	1482.4	1584.0	1619.6	1644.2	1666.2
82.5°	484.5	600.6	698.8	758.1	814.0	882.7	964.8	1049.5	1076.6	1036.0	1014.8
85°	75.4	111.0	338.0	412.5	449.0	501.5	560.8	623.4	624.3	537.0	586.2
87.5°	21.2	23.7	48.3	72.8	71.2	57.6	71.2	129.6	76.2	38.1	44.0
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6
2.5°	1702.6	1704.3	1708.6	1712.8	1717.0	1721.3	1723.8	1728.0	1731.4	1736.5	1742.4
5°	1695.8	1700.1	1707.7	1717.0	1725.5	1733.1	1739.0	1747.5	1755.1	1761.9	1772.1
7.5°	1695.8	1704.3	1717.0	1727.2	1734.8	1744.1	1753.4	1761.9	1770.4	1777.2	1783.9
10°	1696.7	1705.2	1717.9	1729.7	1738.2	1748.4	1756.0	1763.6	1772.9	1777.2	1785.6
12.5°	1700.1	1703.5	1712.8	1724.6	1734.8	1745.0	1752.6	1760.2	1770.4	1772.1	1778.0
15°	1717.0	1711.9	1714.5	1723.0	1734.0	1742.4	1750.9	1756.8	1763.6	1761.9	1767.0
17.5°	1748.4	1735.7	1730.6	1731.4	1736.5	1742.4	1745.8	1746.7	1747.5	1739.9	1740.7
20°	1790.7	1772.9	1761.1	1755.1	1748.4	1742.4	1733.1	1722.1	1711.9	1696.7	1695.0
22.5°	1854.2	1828.0	1815.3	1799.2	1778.9	1753.4	1730.6	1703.5	1681.4	1658.6	1650.1
25°	1946.6	1919.5	1905.9	1880.5	1844.1	1807.7	1774.6	1738.2	1706.0	1678.9	1666.2
27.5°	2070.3	2043.1	2028.7	2002.5	1957.6	1921.2	1875.4	1836.5	1797.5	1757.7	1741.6
30°	2220.2	2196.5	2180.4	2159.2	2120.2	2080.4	2027.1	1966.9	1905.1	1841.5	1810.2
32.5°	2397.2	2371.0	2359.1	2334.5	2293.9	2252.4	2193.1	2116.0	2012.7	1912.7	1850.0
35°	2618.3	2588.7	2575.1	2542.9	2495.5	2434.5	2371.0	2267.6	2127.9	1988.9	1886.4
37.5°	2913.9	2847.9	2803.0	2729.3	2653.0	2567.5	2476.8	2371.0	2205.8	2033.8	1891.5
40°	3175.7	3108.8	3022.4	2916.5	2797.9	2680.1	2576.8	2456.5	2276.9	2066.0	1875.4
42.5°	3501.0	3382.4	3244.3	3101.1	2943.6	2798.7	2675.9	2534.5	2325.2	2074.5	1830.5
45°	3798.3	3656.8	3472.2	3281.6	3085.9	2903.8	2765.7	2608.1	2366.7	2074.5	1776.3
47.5°	4069.4	3899.9	3678.8	3441.7	3213.8	3014.7	2858.0	2683.5	2425.2	2100.7	1760.2
50°	4320.1	4125.3	3873.7	3598.4	3342.6	3129.9	2961.4	2780.1	2514.1	2168.5	1799.2
52.5°	4584.4	4377.7	4071.0	3778.8	3496.7	3268.9	3089.3	2899.5	2629.3	2275.2	1867.8
55°	4930.8	4688.6	4340.4	4018.5	3708.5	3456.9	3252.8	3042.7	2755.5	2395.5	1951.7
57.5°	5477.2	5125.7	4777.5	4359.1	4066.8	3735.6	3512.0	3270.6	2960.5	2552.2	2077.9
60°	6433.5	6001.5	5583.1	5101.9	4741.1	4394.6	4056.6	3741.5	3368.0	2906.3	2354.9
62.5°	7799.0	7360.2	6702.9	6114.2	5569.5	5110.4	4669.9	4269.3	3789.8	3285.0	2696.2
65°	8614.8	8112.4	7328.9	6537.7	5876.2	5306.9	4802.9	4312.5	3794.9	3302.7	2799.6
66°	8680.0	8204.8	7367.9	6531.8	5844.8	5254.4	4730.1	4222.7	3692.4	3221.4	2765.7
67.5°	8558.9	8149.7	7288.2	6416.6	5714.4	5076.5	4537.8	4005.8	3473.0	3036.8	2653.0
70°	7704.2	7408.5	6669.9	5853.3	5152.8	4590.3	4021.9	3510.3	3005.4	2638.6	2354.0
72.5°	6315.8	5941.4	5424.7	4875.8	4324.3	3825.4	3308.7	2873.3	2449.7	2182.9	1981.3
75°	4639.4	4302.3	3733.1	3390.8	3026.6	2713.2	2365.0	1952.5	1651.8	1518.0	1468.8
77.5°	2941.0	2575.1	2094.8	1717.0	1476.5	1268.9	1000.4	795.4	637.0	663.3	734.4
80°	1485.8	1279.9	958.0	756.4	653.9	543.8	430.3	326.1	238.0	271.9	307.5
82.5°	953.8	796.3	634.5	499.8	421.8	371.9	297.3	216.0	160.9	181.3	221.9
85°	574.3	485.4	387.1	316.8	275.3	229.6	168.6	119.4	118.6	127.1	156.7
87.5°	87.2	124.5	72.0	77.1	81.3	87.2	77.1	65.2	56.8	73.7	93.2
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°	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6	1724.6
2.5°	1748.4	1750.1	1753.4	1757.7	1756.8	1762.8	1766.2	1762.8	1770.4	1770.4	1774.6
5°	1780.6	1783.1	1789.0	1793.3	1795.0	1800.0	1801.7	1800.9	1802.6	1803.4	1805.1
7.5°	1789.9	1796.6	1799.2	1801.7	1802.6	1804.3	1804.3	1802.6	1802.6	1801.7	1803.4
10°	1787.3	1789.9	1791.6	1790.7	1790.7	1789.0	1788.2	1787.3	1787.3	1785.6	1788.2
12.5°	1778.9	1778.9	1778.9	1777.2	1777.2	1776.3	1776.3	1776.3	1778.0	1778.9	1783.1
15°	1761.9	1761.9	1763.6	1762.8	1765.3	1769.5	1774.6	1778.0	1782.2	1783.1	1785.6
17.5°	1735.7	1736.5	1741.6	1752.6	1763.6	1776.3	1785.6	1788.2	1784.8	1776.3	1770.4
20°	1689.9	1700.9	1721.3	1747.5	1772.1	1788.2	1792.4	1782.2	1766.2	1744.1	1732.3
22.5°	1649.3	1671.3	1707.7	1750.9	1781.4	1792.4	1779.7	1756.0	1727.2	1701.8	1684.0
25°	1665.4	1690.8	1728.9	1766.2	1785.6	1779.7	1754.3	1720.4	1689.9	1660.3	1631.5
27.5°	1733.1	1758.5	1785.6	1796.6	1789.9	1767.8	1732.3	1695.8	1655.2	1612.8	1577.3
30°	1797.5	1811.9	1813.6	1802.6	1778.0	1742.4	1700.9	1658.6	1606.9	1556.1	1511.2
32.5°	1817.8	1800.9	1770.4	1739.0	1705.2	1668.7	1620.5	1564.5	1509.5	1451.9	1401.9
35°	1811.9	1743.3	1667.9	1601.0	1560.3	1518.8	1474.8	1400.2	1338.4	1289.2	1257.1
37.5°	1758.5	1633.2	1517.1	1419.7	1356.2	1307.0	1241.8	1180.0	1126.6	1104.6	1078.3
40°	1684.0	1492.5	1331.6	1195.2	1129.2	1066.5	993.6	946.2	930.9	910.6	911.5
42.5°	1577.3	1328.2	1120.7	964.0	892.0	823.4	771.7	743.7	744.6	727.6	731.0
45°	1464.6	1163.0	902.1	746.3	675.1	616.7	587.9	579.4	580.2	581.1	576.0
47.5°	1396.0	1034.3	723.4	565.8	503.2	470.1	454.9	450.6	451.5	452.3	446.4
50°	1385.8	967.4	604.0	432.9	392.2	373.6	365.9	361.7	361.7	358.3	353.2
52.5°	1414.6	950.4	545.5	375.3	336.3	319.3	313.4	310.0	304.9	298.2	288.9
55°	1460.4	965.7	527.7	355.8	317.7	300.7	293.1	291.4	282.9	270.2	255.0
57.5°	1545.1	1020.7	539.6	360.9	321.0	305.8	300.7	299.0	287.2	267.7	248.2
60°	1788.2	1180.8	598.9	389.7	345.6	332.9	332.9	330.4	314.3	286.3	258.4
62.5°	2123.6	1415.5	679.4	429.5	379.5	377.8	392.2	393.0	364.2	319.3	275.3
65°	2285.4	1525.6	707.3	437.9	388.8	408.3	437.1	437.1	396.4	334.6	277.8
66°	2286.3	1523.0	698.8	427.8	378.6	404.1	433.7	433.7	391.3	330.4	273.6
67.5°	2227.8	1475.6	670.9	409.1	355.8	379.5	405.7	404.9	366.8	313.4	261.7
70°	1998.3	1305.3	591.3	378.6	328.7	329.5	338.8	332.9	307.5	271.1	238.0
72.5°	1723.0	1091.9	512.5	359.2	307.5	291.4	283.8	278.7	262.6	240.6	220.2
75°	1321.4	847.9	446.4	341.4	288.9	260.9	250.7	246.5	235.5	222.8	206.7
77.5°	809.8	581.1	378.6	312.6	267.7	242.3	231.3	222.8	211.8	199.9	188.9
80°	349.0	350.7	303.3	265.1	232.9	203.3	188.9	178.7	172.8	168.6	162.6
82.5°	244.0	251.6	231.3	205.8	177.9	156.7	144.0	141.5	142.3	142.3	140.6
85°	183.0	179.6	161.8	147.4	134.7	121.1	111.0	110.1	113.5	113.5	111.0
87.5°	105.9	106.7	91.5	85.6	88.9	76.2	69.5	70.3	78.8	77.9	76.2
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°	1724.6	1724.6	1724.6	1724.6	1724.6
2.5°	1774.6	1777.2	1776.3	1778.9	1776.3
5°	1807.7	1806.8	1806.0	1809.4	1805.1
7.5°	1802.6	1803.4	1803.4	1803.4	1802.6
10°	1789.9	1793.3	1795.0	1798.3	1797.5
12.5°	1785.6	1790.7	1795.8	1800.9	1801.7
15°	1786.5	1789.9	1792.4	1795.0	1795.8
17.5°	1764.5	1763.6	1761.1	1759.4	1757.7
20°	1719.6	1715.3	1711.1	1704.3	1707.7
22.5°	1663.7	1651.8	1638.2	1627.2	1626.4
25°	1598.4	1576.4	1554.4	1540.0	1534.9
27.5°	1540.8	1514.6	1491.7	1479.0	1475.6
30°	1472.2	1448.5	1428.2	1417.2	1410.4
32.5°	1370.6	1351.9	1326.5	1318.0	1317.2
35°	1229.1	1214.7	1196.9	1193.5	1189.3
37.5°	1069.0	1063.9	1055.5	1045.3	1043.6
40°	897.9	901.3	898.7	892.8	883.5
42.5°	732.7	738.6	739.5	743.7	748.0
45°	583.6	588.7	588.7	593.0	598.0
47.5°	448.1	444.7	447.3	451.5	454.0
50°	338.8	336.3	332.1	328.7	325.3
52.5°	272.8	267.7	255.8	252.4	249.0
55°	240.6	231.3	222.8	219.4	219.4
57.5°	231.3	219.4	210.1	205.8	204.1
60°	232.9	216.0	204.1	197.4	194.8
62.5°	240.6	216.9	200.8	193.1	190.6
65°	239.7	215.2	199.9	191.4	188.9
66°	235.5	212.6	198.2	190.6	188.9
67.5°	228.7	209.2	196.5	189.7	187.2
70°	215.2	202.5	193.1	187.2	184.7
72.5°	204.1	195.7	187.2	180.4	178.7
75°	194.0	185.5	177.9	174.5	172.0
77.5°	178.7	171.1	166.9	163.5	161.8
80°	158.4	153.3	148.2	144.8	142.3
82.5°	138.1	131.3	126.2	123.7	122.0
85°	112.7	108.4	100.8	95.7	94.9
87.5°	75.4	71.2	68.6	64.4	60.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)