

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: P159769

Luminaire Tested: **VST-E05-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159769
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-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (105) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13592.3 lumens
Efficiency: N/A
Efficacy: 106.8 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



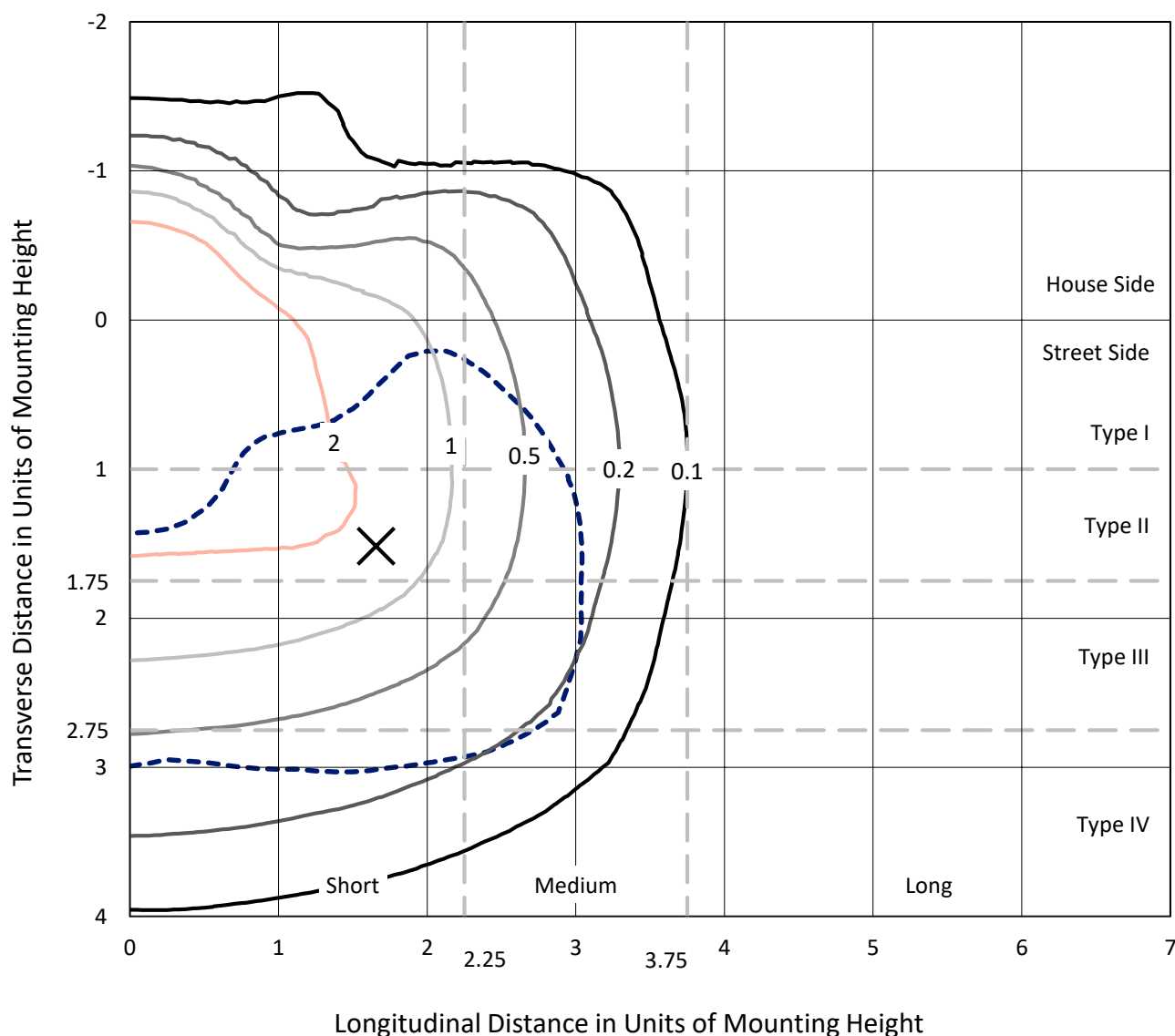
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

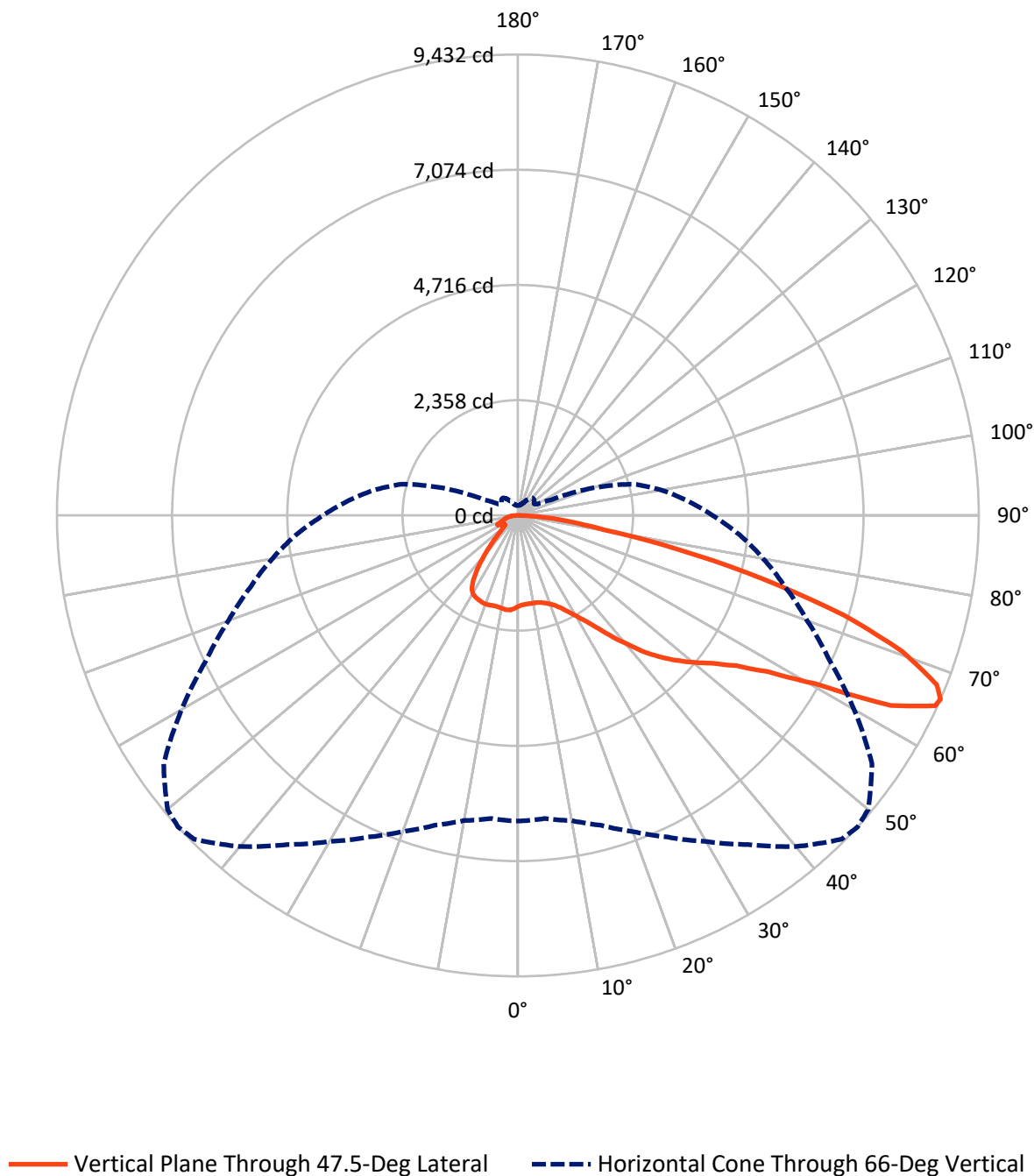


Based on 20 foot mounting height. Maximum calculated value = 4.7 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2814.2	0.0	2814.2
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	10778.1	0.0	10778.1
	% Fixture	79.3	0.0	79.3
Total	Lumens	13592.3	0.0	13592.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.2	1.3
10°-20°	537.5	4.0
20°-30°	917.1	6.7
30°-40°	1384.2	10.2
40°-50°	1799.1	13.2
50°-60°	2468.2	18.2
60°-70°	3796.9	27.9
70°-80°	2194.8	16.1
80°-90°	315.3	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°	13592.3	100.0
0°-180°	13592.3	100.0

Coefficient of Utilization



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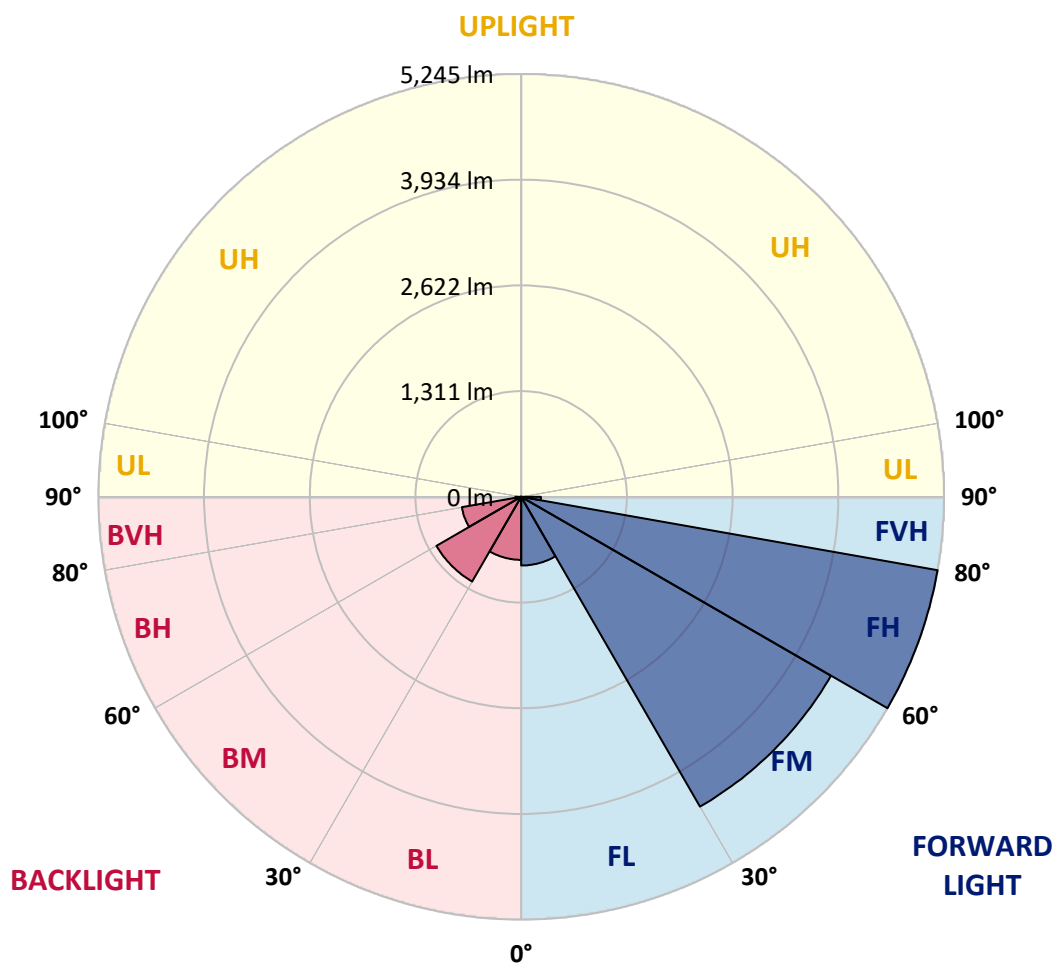
CATALOG NUMBER: VST-E05-LED-E-U-T4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	852.0	6.3			
FM	(30°-60°)	4437.3	32.6			
FH	(60°-80°)	5244.8	38.6			G3/7500
FVH	(80°-90°)	244.0	1.8			G3/500
BL	(0°-30°)	781.8	5.8	B2/1000		
BM	(30°-60°)	1214.2	8.9	B2/2500		
BH	(60°-80°)	746.9	5.5	B2/1000		G2/1000
BVH	(80°-90°)	71.3	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°	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6
2.5°	1812.1	1813.0	1813.9	1813.9	1816.7	1816.7	1821.2	1824.0	1824.9	1830.4	1834.0
5°	1778.3	1777.4	1778.3	1780.1	1784.7	1788.3	1797.5	1803.9	1809.3	1818.5	1823.0
7.5°	1763.7	1765.5	1767.3	1768.2	1771.9	1781.0	1789.3	1795.6	1806.6	1817.6	1822.1
10°	1782.9	1785.6	1782.9	1784.7	1784.7	1792.9	1796.6	1801.1	1809.3	1819.4	1822.1
12.5°	1827.6	1833.1	1827.6	1823.0	1819.4	1826.7	1824.9	1821.2	1825.8	1828.5	1828.5
15°	1901.6	1901.6	1897.9	1891.5	1882.4	1883.3	1875.1	1866.9	1863.2	1856.8	1852.3
17.5°	1973.8	1971.9	1963.7	1955.5	1949.1	1946.3	1934.5	1923.5	1910.7	1900.7	1889.7
20°	2044.1	2051.4	2041.3	2029.5	2019.4	2013.0	2003.9	1982.0	1966.4	1950.0	1939.0
22.5°	2165.6	2159.2	2148.2	2130.8	2120.8	2109.8	2090.7	2066.9	2043.2	2023.1	2009.4
25°	2290.7	2284.3	2268.8	2256.0	2241.4	2232.2	2211.2	2182.0	2159.2	2128.1	2109.8
27.5°	2424.9	2419.5	2401.2	2391.2	2381.1	2370.1	2351.9	2321.7	2300.7	2265.1	2245.9
30°	2576.6	2575.6	2551.0	2549.2	2534.5	2522.7	2509.9	2484.3	2463.3	2427.7	2404.9
32.5°	2738.2	2734.6	2717.2	2711.7	2721.8	2713.6	2695.3	2668.8	2641.4	2620.4	2594.8
35°	2968.4	2962.0	2951.9	2956.5	2962.9	2985.7	2957.4	2934.6	2901.7	2874.3	2838.7
37.5°	3136.4	3127.3	3139.2	3164.8	3201.3	3218.6	3243.3	3244.2	3228.7	3192.2	3161.1
40°	3290.8	3287.1	3314.5	3350.2	3417.8	3467.1	3513.7	3536.5	3542.0	3518.2	3471.6
42.5°	3421.4	3432.4	3468.9	3523.7	3618.7	3693.6	3780.4	3834.2	3868.0	3855.3	3834.2
45°	3576.7	3582.2	3626.9	3696.3	3786.8	3911.0	4025.1	4116.5	4175.8	4174.9	4151.2
47.5°	3771.2	3772.1	3810.5	3891.8	3988.6	4114.6	4259.0	4380.4	4459.0	4462.6	4444.4
50°	4002.3	4000.5	4042.5	4119.2	4222.4	4343.9	4497.3	4649.0	4758.6	4758.6	4732.1
52.5°	4300.1	4296.4	4319.2	4386.8	4486.4	4614.2	4766.8	4942.1	5060.9	5086.4	5028.9
55°	4697.4	4702.8	4708.3	4767.7	4852.6	4954.0	5129.4	5291.0	5450.0	5464.6	5430.8
57.5°	5156.8	5138.5	5177.8	5274.6	5371.4	5498.4	5622.6	5813.5	6001.6	6033.6	6029.0
60°	5874.7	5850.9	5891.1	6014.4	6121.3	6321.3	6534.1	6780.7	7003.6	7069.3	6989.9
62.5°	6535.0	6564.2	6619.0	6762.4	6917.7	7184.4	7504.1	7927.0	8349.8	8580.0	8563.6
65°	6475.7	6448.3	6553.3	6748.7	7030.1	7369.8	7767.1	8276.8	8886.0	9348.1	9389.2
66°	6255.5	6227.2	6340.5	6564.2	6885.7	7263.9	7705.0	8223.8	8846.7	9369.1	9432.2
67.5°	5892.0	5863.7	5991.6	6195.3	6526.8	7002.7	7479.4	8046.6	8694.2	9194.7	9245.8
70°	5190.6	5152.2	5251.8	5481.9	5750.5	6210.8	6664.7	7265.7	7930.6	8330.7	8349.8
72.5°	4396.9	4307.4	4413.3	4590.5	4782.3	5163.2	5558.7	5969.7	6499.4	6869.3	6975.3
75°	3190.3	3236.9	3268.0	3384.9	3511.8	3826.9	4058.9	4403.3	4813.4	5081.0	5165.9
77.5°	1692.4	1762.8	1806.6	1923.5	2133.6	2373.8	2625.0	2837.8	3107.2	3257.0	3361.1
80°	949.9	999.2	1070.4	1162.7	1265.0	1449.5	1598.4	1708.0	1746.3	1772.8	1796.6
82.5°	522.4	647.6	753.5	817.4	877.7	951.7	1040.3	1131.6	1160.9	1117.0	1094.2
85°	81.3	119.6	364.4	444.8	484.1	540.7	604.6	672.2	673.1	579.1	632.0
87.5°	22.8	25.6	52.1	78.5	76.7	62.1	76.7	139.7	82.2	41.1	47.5
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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CATALOG NUMBER: VST-E05-LED-E-U-T4-7030

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6
2.5°	1835.8	1837.7	1842.2	1846.8	1851.4	1855.9	1858.7	1863.2	1866.9	1872.4	1878.8
5°	1828.5	1833.1	1841.3	1851.4	1860.5	1868.7	1875.1	1884.2	1892.5	1899.8	1910.7
7.5°	1828.5	1837.7	1851.4	1862.3	1870.5	1880.6	1890.6	1899.8	1908.9	1916.2	1923.5
10°	1829.4	1838.6	1852.3	1865.1	1874.2	1885.2	1893.4	1901.6	1911.6	1916.2	1925.3
12.5°	1833.1	1836.7	1846.8	1859.6	1870.5	1881.5	1889.7	1897.9	1908.9	1910.7	1917.1
15°	1851.4	1845.9	1848.6	1857.8	1869.6	1878.8	1887.9	1894.3	1901.6	1899.8	1905.2
17.5°	1885.2	1871.5	1866.0	1866.9	1872.4	1878.8	1882.4	1883.3	1884.2	1876.0	1876.9
20°	1930.8	1911.6	1898.9	1892.5	1885.2	1878.8	1868.7	1856.8	1845.9	1829.4	1827.6
22.5°	1999.3	1971.0	1957.3	1940.0	1918.0	1890.6	1866.0	1836.7	1813.0	1788.3	1779.2
25°	2098.9	2069.7	2055.0	2027.6	1988.4	1949.1	1913.5	1874.2	1839.5	1810.3	1796.6
27.5°	2232.2	2203.0	2187.5	2159.2	2110.8	2071.5	2022.2	1980.1	1938.1	1895.2	1877.8
30°	2393.9	2368.3	2351.0	2328.1	2286.1	2243.2	2185.6	2120.8	2054.1	1985.6	1951.8
32.5°	2584.8	2556.5	2543.7	2517.2	2473.4	2428.6	2364.7	2281.5	2170.1	2062.3	1994.8
35°	2823.2	2791.2	2776.6	2741.9	2690.7	2625.0	2556.5	2445.0	2294.3	2144.5	2034.0
37.5°	3141.9	3070.7	3022.3	2942.8	2860.6	2768.4	2670.6	2556.5	2378.4	2193.0	2039.5
40°	3424.2	3352.0	3258.8	3144.7	3016.8	2889.8	2778.4	2648.7	2455.1	2227.7	2022.2
42.5°	3774.9	3647.0	3498.1	3343.8	3173.9	3017.7	2885.3	2732.7	2507.1	2236.8	1973.8
45°	4095.5	3942.9	3743.8	3538.3	3327.3	3131.0	2982.1	2812.2	2551.9	2236.8	1915.3
47.5°	4387.7	4205.1	3966.7	3710.9	3465.3	3250.6	3081.6	2893.5	2614.9	2265.1	1897.9
50°	4658.1	4448.0	4176.8	3879.9	3604.1	3374.8	3193.1	2997.6	2710.8	2338.2	1940.0
52.5°	4943.1	4720.2	4389.6	4074.5	3770.3	3524.6	3331.0	3126.4	2835.0	2453.3	2013.9
55°	5316.6	5055.4	4680.0	4332.9	3998.6	3727.4	3507.3	3280.8	2971.1	2583.0	2104.4
57.5°	5905.7	5526.7	5151.3	4700.1	4385.0	4027.9	3786.8	3526.4	3192.2	2751.9	2240.4
60°	6936.9	6471.1	6019.9	5501.1	5112.0	4738.5	4374.0	4034.3	3631.5	3133.7	2539.1
62.5°	8409.2	7936.1	7227.3	6592.6	6005.3	5510.2	5035.3	4603.3	4086.3	3542.0	2907.2
65°	9288.8	8747.2	7902.3	7049.2	6335.9	5722.1	5178.7	4649.9	4091.8	3561.2	3018.6
66°	9359.1	8846.7	7944.3	7042.8	6302.1	5665.5	5100.1	4553.1	3981.3	3473.5	2982.1
67.5°	9228.5	8787.3	7858.5	6918.6	6161.5	5473.7	4892.8	4319.2	3744.7	3274.4	2860.6
70°	8306.9	7988.2	7191.7	6311.3	5555.9	4949.4	4336.6	3784.9	3240.6	2845.1	2538.2
72.5°	6809.9	6406.2	5849.1	5257.2	4662.7	4124.7	3567.5	3098.1	2641.4	2353.7	2136.3
75°	5002.4	4638.9	4025.1	3656.1	3263.4	2925.5	2550.1	2105.3	1781.0	1636.7	1583.7
77.5°	3171.2	2776.6	2258.7	1851.4	1592.0	1368.2	1078.7	857.6	686.8	715.2	791.9
80°	1602.0	1380.1	1033.0	815.6	705.1	586.4	464.0	351.6	256.7	293.2	331.5
82.5°	1028.4	858.5	684.1	538.9	454.8	401.0	320.6	232.9	173.5	195.5	239.3
85°	619.3	523.3	417.4	341.6	296.8	247.5	181.8	128.8	127.9	137.0	169.0
87.5°	94.1	134.3	77.6	83.1	87.7	94.1	83.1	70.3	61.2	79.5	100.5
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°	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6	1859.6
2.5°	1885.2	1887.0	1890.6	1895.2	1894.3	1900.7	1904.3	1900.7	1908.9	1908.9	1913.5
5°	1919.9	1922.6	1929.0	1933.6	1935.4	1940.9	1942.7	1941.8	1943.6	1944.5	1946.3
7.5°	1929.9	1937.2	1940.0	1942.7	1943.6	1945.4	1945.4	1943.6	1943.6	1942.7	1944.5
10°	1927.2	1929.9	1931.7	1930.8	1930.8	1929.0	1928.1	1927.2	1927.2	1925.3	1928.1
12.5°	1918.0	1918.0	1918.0	1916.2	1916.2	1915.3	1915.3	1915.3	1917.1	1918.0	1922.6
15°	1899.8	1899.8	1901.6	1900.7	1903.4	1908.0	1913.5	1917.1	1921.7	1922.6	1925.3
17.5°	1871.5	1872.4	1877.8	1889.7	1901.6	1915.3	1925.3	1928.1	1924.4	1915.3	1908.9
20°	1822.1	1834.0	1855.9	1884.2	1910.7	1928.1	1932.6	1921.7	1904.3	1880.6	1867.8
22.5°	1778.3	1802.0	1841.3	1887.9	1920.8	1932.6	1918.9	1893.4	1862.3	1834.9	1815.7
25°	1795.6	1823.0	1864.1	1904.3	1925.3	1918.9	1891.5	1855.0	1822.1	1790.2	1759.1
27.5°	1868.7	1896.1	1925.3	1937.2	1929.9	1906.2	1867.8	1828.5	1784.7	1739.0	1700.7
30°	1938.1	1953.7	1955.5	1943.6	1917.1	1878.8	1834.0	1788.3	1732.6	1677.8	1629.4
32.5°	1960.0	1941.8	1908.9	1875.1	1838.6	1799.3	1747.2	1687.0	1627.6	1565.5	1511.6
35°	1953.7	1879.7	1798.4	1726.2	1682.4	1637.6	1590.1	1509.8	1443.1	1390.1	1355.4
37.5°	1896.1	1760.9	1635.8	1530.8	1462.3	1409.3	1339.0	1272.3	1214.8	1191.0	1162.7
40°	1815.7	1609.3	1435.8	1288.7	1217.5	1149.9	1071.4	1020.2	1003.8	981.9	982.8
42.5°	1700.7	1432.1	1208.4	1039.4	961.8	887.8	832.1	801.9	802.8	784.6	788.2
45°	1579.2	1254.0	972.7	804.7	727.9	664.9	633.9	624.7	625.6	626.6	621.1
47.5°	1505.2	1115.2	780.0	610.1	542.5	506.9	490.5	485.9	486.8	487.7	481.3
50°	1494.2	1043.0	651.2	466.7	422.9	402.8	394.6	390.0	390.0	386.3	380.9
52.5°	1525.3	1024.8	588.2	404.6	362.6	344.3	337.9	334.3	328.8	321.5	311.5
55°	1574.6	1041.2	569.0	383.6	342.5	324.2	316.0	314.2	305.1	291.4	274.9
57.5°	1666.0	1100.6	581.8	389.1	346.2	329.7	324.2	322.4	309.6	288.6	267.6
60°	1928.1	1273.2	645.7	420.1	372.6	358.9	358.9	356.2	338.9	308.7	278.6
62.5°	2289.8	1526.2	732.5	463.1	409.2	407.4	422.9	423.8	392.7	344.3	296.8
65°	2464.2	1644.9	762.6	472.2	419.2	440.2	471.3	471.3	427.4	360.8	299.6
66°	2465.1	1642.2	753.5	461.2	408.3	435.7	467.6	467.6	422.0	356.2	295.0
67.5°	2402.1	1591.1	723.4	441.1	383.6	409.2	437.5	436.6	395.5	337.9	282.2
70°	2154.6	1407.5	637.5	408.3	354.4	355.3	365.3	358.9	331.5	292.3	256.7
72.5°	1857.8	1177.3	552.6	387.3	331.5	314.2	306.0	300.5	283.1	259.4	237.5
75°	1424.8	914.3	481.3	368.1	311.5	281.3	270.4	265.8	253.9	240.2	222.9
77.5°	873.2	626.6	408.3	337.0	288.6	261.2	249.3	240.2	228.3	215.6	203.7
80°	376.3	378.1	327.0	285.9	251.2	219.2	203.7	192.7	186.3	181.8	175.4
82.5°	263.0	271.3	249.3	221.9	191.8	169.0	155.3	152.5	153.4	153.4	151.6
85°	197.3	193.6	174.4	158.9	145.2	130.6	119.6	118.7	122.4	122.4	119.6
87.5°	114.2	115.1	98.6	92.2	95.9	82.2	74.9	75.8	84.9	84.0	82.2
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°	1859.6	1859.6	1859.6	1859.6	1859.6
2.5°	1913.5	1916.2	1915.3	1918.0	1915.3
5°	1949.1	1948.2	1947.3	1950.9	1946.3
7.5°	1943.6	1944.5	1944.5	1944.5	1943.6
10°	1929.9	1933.6	1935.4	1939.0	1938.1
12.5°	1925.3	1930.8	1936.3	1941.8	1942.7
15°	1926.3	1929.9	1932.6	1935.4	1936.3
17.5°	1902.5	1901.6	1898.9	1897.0	1895.2
20°	1854.1	1849.5	1845.0	1837.7	1841.3
22.5°	1793.8	1781.0	1766.4	1754.5	1753.6
25°	1723.5	1699.7	1676.0	1660.5	1655.0
27.5°	1661.4	1633.1	1608.4	1594.7	1591.1
30°	1587.4	1561.8	1539.9	1528.0	1520.7
32.5°	1477.8	1457.7	1430.3	1421.2	1420.3
35°	1325.3	1309.7	1290.6	1286.9	1282.3
37.5°	1152.6	1147.2	1138.0	1127.1	1125.2
40°	968.2	971.8	969.1	962.7	952.6
42.5°	790.0	796.4	797.4	801.9	806.5
45°	629.3	634.8	634.8	639.3	644.8
47.5°	483.2	479.5	482.2	486.8	489.6
50°	365.3	362.6	358.0	354.4	350.7
52.5°	294.1	288.6	275.8	272.2	268.5
55°	259.4	249.3	240.2	236.6	236.6
57.5°	249.3	236.6	226.5	221.9	220.1
60°	251.2	232.9	220.1	212.8	210.1
62.5°	259.4	233.8	216.5	208.2	205.5
65°	258.5	232.0	215.6	206.4	203.7
66°	253.9	229.3	213.7	205.5	203.7
67.5°	246.6	225.6	211.9	204.6	201.9
70°	232.0	218.3	208.2	201.9	199.1
72.5°	220.1	211.0	201.9	194.5	192.7
75°	209.2	200.0	191.8	188.2	185.4
77.5°	192.7	184.5	179.9	176.3	174.4
80°	170.8	165.3	159.8	156.2	153.4
82.5°	148.9	141.6	136.1	133.3	131.5
85°	121.5	116.9	108.7	103.2	102.3
87.5°	81.3	76.7	74.0	69.4	64.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)