

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: P158659

Luminaire Tested: **VST-E04-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158659
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33714)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E04-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10598.3 lumens
Efficiency: N/A
Efficacy: 109.0 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 97.2
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

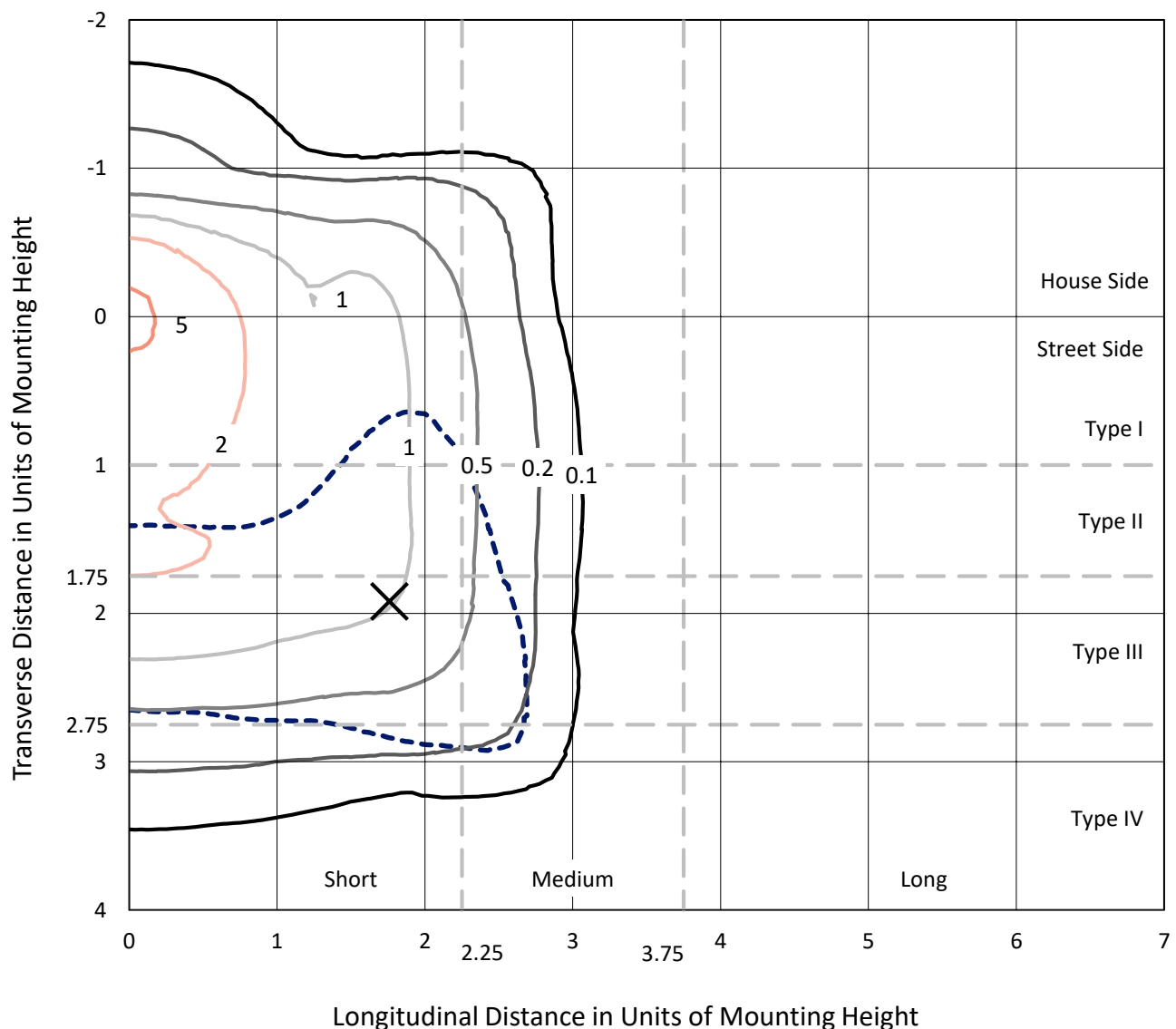


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

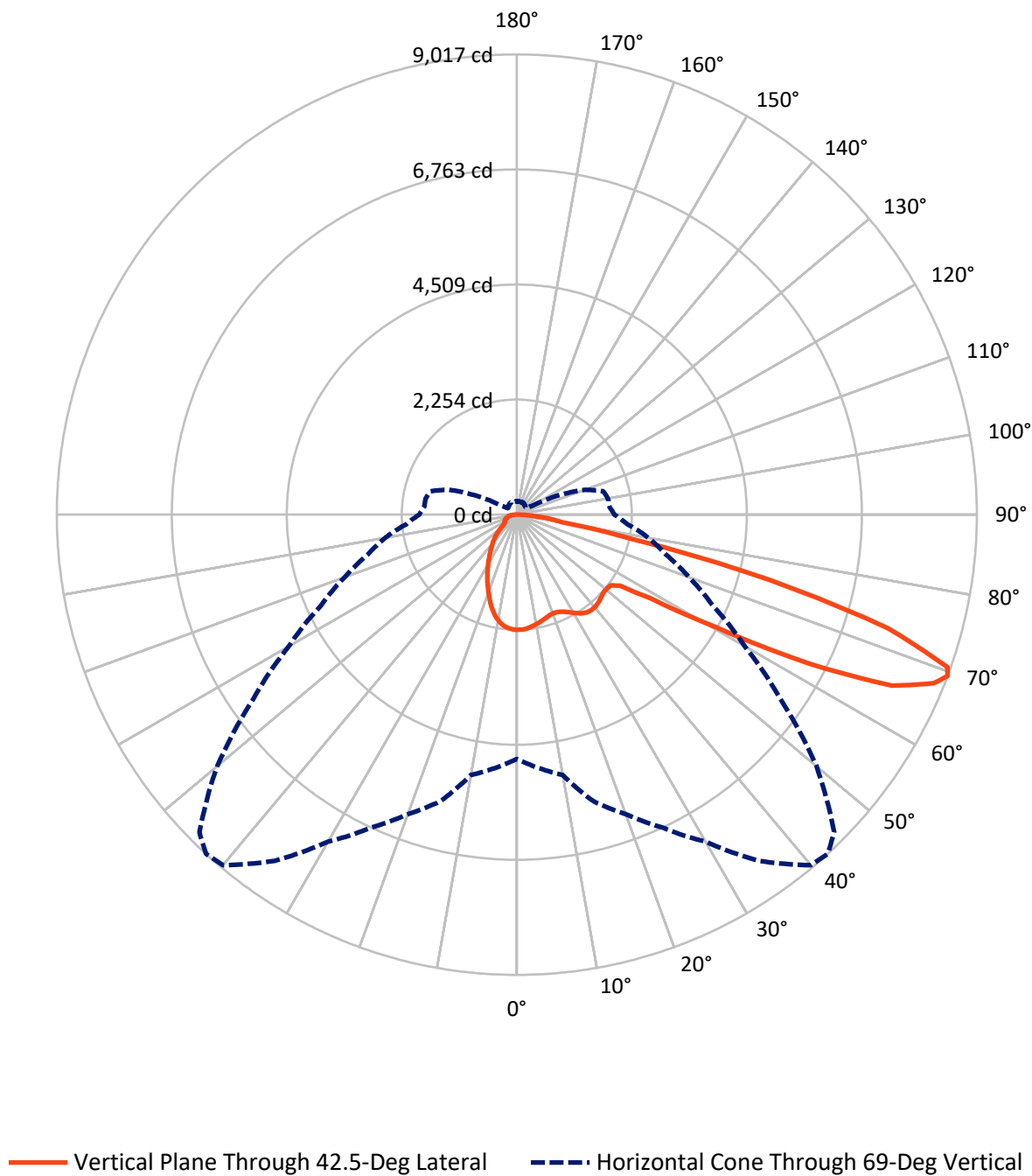


Based on 20 foot mounting height. Maximum calculated value = 5.6 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2356.2	0.0	2356.2
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	8242.1	0.0	8242.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	10598.3	0.0	10598.3
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	210.1	2.0
10°-20°	566.3	5.3
20°-30°	825.7	7.8
30°-40°	1052.6	9.9
40°-50°	1224.8	11.6
50°-60°	1863.5	17.6
60°-70°	3291.8	31.1
70°-80°	1358.4	12.8
80°-90°	205.1	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°	10598.3	100.0
0°-180°	10598.3	100.0

Coefficient of Utilization



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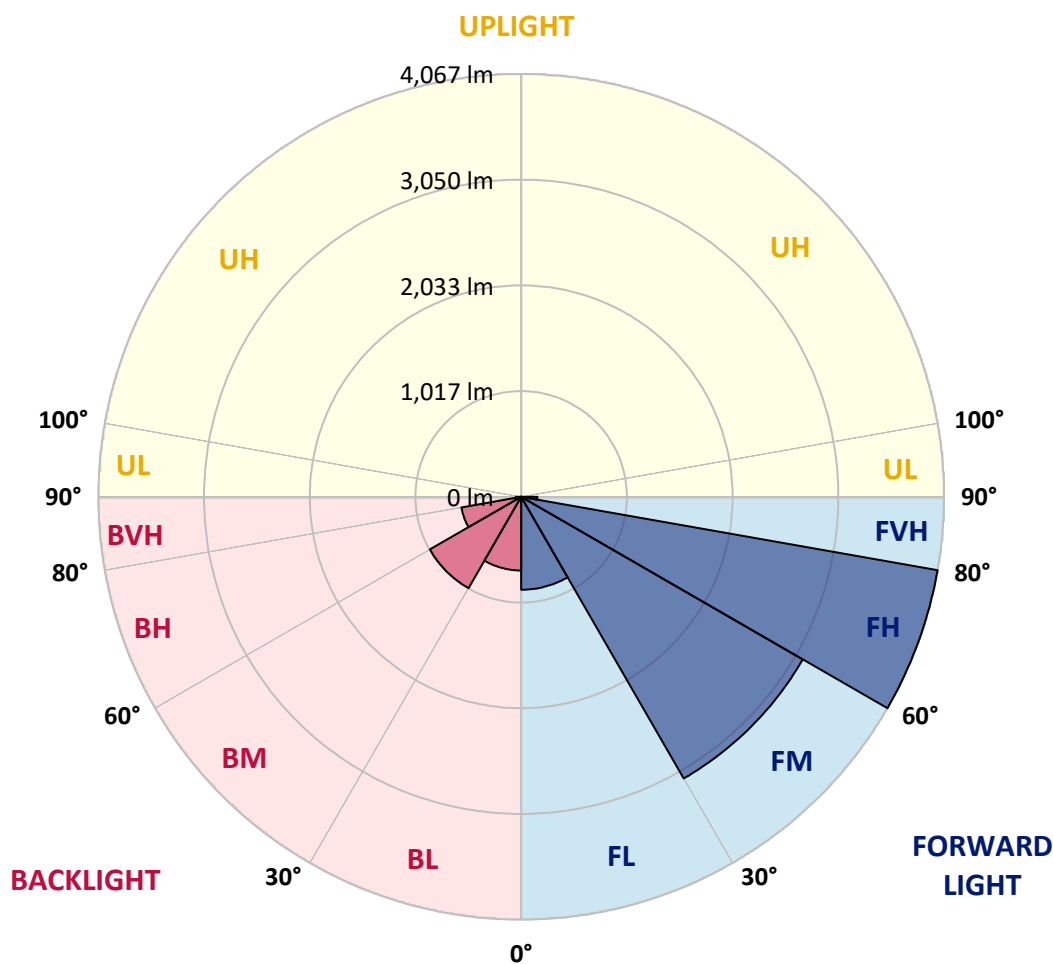
CATALOG NUMBER: VST-E04-LED-E-U-SL4-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	893.7	8.4			
FM	(30°-60°)	3126.8	29.5			
FH	(60°-80°)	4066.6	38.4			G2/5000
FVH	(80°-90°)	155.1	1.5			G2/225
BL	(0°-30°)	708.4	6.7	B2/1000		
BM	(30°-60°)	1014.1	9.6	B2/2500		
BH	(60°-80°)	583.6	5.5	B2/1000		G2/1000
BVH	(80°-90°)	50.0	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-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	42.5°	45°
0°	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1
2.5°	2249.8	2257.8	2254.9	2254.9	2257.1	2253.4	2253.4	2254.9	2251.2	2253.4	2252.7
5°	2241.7	2246.1	2244.6	2244.6	2244.6	2241.7	2240.3	2239.5	2234.4	2234.4	2232.2
7.5°	2224.2	2225.7	2227.8	2224.9	2224.2	2223.5	2218.3	2215.4	2209.6	2204.5	2205.9
10°	2200.8	2200.1	2203.7	2201.5	2198.6	2196.4	2192.0	2186.9	2180.3	2173.8	2173.0
12.5°	2174.5	2173.8	2176.7	2175.2	2173.0	2168.7	2165.0	2156.2	2146.0	2138.0	2137.2
15°	2157.7	2155.5	2158.4	2155.5	2151.9	2147.5	2140.9	2129.9	2111.7	2103.6	2097.1
17.5°	2173.8	2170.1	2171.6	2167.9	2162.8	2151.1	2135.8	2112.4	2086.1	2072.2	2062.0
20°	2230.0	2223.5	2224.9	2221.3	2209.6	2194.2	2165.0	2124.1	2079.5	2056.9	2040.8
22.5°	2310.4	2305.3	2307.5	2303.8	2292.1	2268.8	2224.9	2166.5	2102.9	2070.0	2044.4
25°	2432.4	2436.8	2438.3	2421.5	2414.9	2371.8	2311.1	2230.0	2145.3	2106.6	2071.5
27.5°	2569.8	2569.8	2576.4	2569.8	2556.7	2506.2	2420.7	2322.8	2214.0	2161.4	2119.0
30°	2703.5	2702.1	2714.5	2713.0	2691.8	2634.8	2537.7	2418.6	2294.3	2235.2	2181.1
32.5°	2845.3	2849.7	2857.7	2854.8	2827.0	2748.1	2631.2	2501.8	2371.1	2306.0	2245.4
35°	2998.7	3000.9	3003.8	3002.4	2946.1	2846.7	2699.9	2555.2	2419.3	2355.0	2292.1
37.5°	3152.2	3150.0	3146.3	3114.9	3050.6	2912.5	2741.5	2585.9	2443.4	2374.0	2308.9
40°	3289.5	3277.1	3265.4	3216.5	3117.8	2949.8	2757.6	2593.2	2441.2	2369.6	2306.0
42.5°	3364.8	3350.9	3326.8	3265.4	3145.6	2953.4	2746.6	2571.3	2418.6	2347.7	2284.8
45°	3378.7	3368.4	3345.1	3276.4	3139.0	2930.0	2713.0	2535.5	2384.9	2314.1	2254.9
47.5°	3345.8	3337.7	3315.1	3247.1	3110.5	2895.0	2674.3	2497.5	2352.1	2285.6	2228.6
50°	3295.4	3288.1	3270.5	3208.4	3078.4	2870.8	2654.6	2477.7	2341.1	2280.5	2227.8
52.5°	3377.2	3383.0	3331.9	3263.9	3112.7	2892.0	2676.5	2498.2	2360.8	2300.9	2246.1
55°	4649.3	4641.3	4333.7	4075.7	3614.7	3196.7	2884.7	2660.4	2513.5	2453.6	2402.5
57.5°	6041.3	6013.5	5887.1	5646.0	5150.6	4489.3	3887.9	3376.5	3174.8	3088.6	3094.4
60°	6495.7	6506.0	6478.9	6393.5	6215.9	5871.7	5414.3	5030.0	4651.5	4466.6	4487.8
62.5°	6747.8	6766.1	6789.5	6770.5	6712.8	6633.1	6575.4	6610.5	6557.9	6424.9	6318.9
65°	6782.9	6820.2	6897.6	6959.0	6989.0	7064.2	7241.0	7664.8	8052.1	8077.7	7891.3
67.5°	6088.8	6191.8	6359.8	6644.1	6887.4	7154.8	7581.5	8226.0	8797.4	8816.4	8642.5
69°	4787.4	4985.4	5182.0	5816.9	6244.4	6768.3	7399.6	8280.1	8964.7	9017.3	8798.1
70°	3836.1	3953.7	4123.2	4761.1	5399.7	6067.6	6982.4	8101.8	8850.0	8955.9	8714.1
72.5°	2303.1	2348.4	2406.9	2635.6	2964.4	3559.1	4772.1	6605.3	7465.4	7607.1	7299.5
75°	1489.1	1486.2	1491.3	1554.9	1573.9	1687.9	2070.0	3398.4	4870.0	5127.2	4758.9
77.5°	1121.6	1131.8	1115.7	1121.6	1116.5	1147.2	1158.9	1216.6	1922.4	2368.1	2117.5
80°	990.1	995.2	995.9	993.0	957.2	954.3	973.3	940.4	873.9	887.0	849.8
82.5°	564.8	564.1	570.7	620.3	640.8	708.0	735.8	751.1	693.4	650.3	588.2
85°	366.1	369.0	376.3	391.6	376.3	382.1	375.6	388.7	356.6	331.0	295.9
87.5°	149.8	149.8	159.3	173.2	161.5	158.6	135.9	134.4	114.0	103.0	80.4
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°	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1
2.5°	2248.3	2252.7	2250.5	2253.4	2251.2	2251.2	2248.3	2247.6	2249.8	2246.8	2247.6
5°	2228.6	2229.3	2225.7	2227.1	2222.7	2221.3	2219.1	2213.2	2216.9	2213.2	2214.7
7.5°	2200.1	2197.9	2192.8	2185.5	2180.3	2178.2	2173.8	2165.7	2167.2	2160.6	2164.3
10°	2163.5	2156.2	2147.5	2136.5	2129.2	2122.6	2113.1	2103.6	2098.5	2092.7	2091.9
12.5°	2122.6	2113.9	2102.2	2085.4	2069.3	2058.3	2043.7	2026.9	2021.8	2012.3	2007.2
15°	2078.1	2064.2	2050.3	2031.3	2013.8	1996.9	1977.2	1956.0	1942.1	1927.5	1916.6
17.5°	2037.9	2021.8	2003.5	1985.3	1966.3	1945.8	1921.0	1894.7	1874.2	1847.2	1825.2
20°	2006.4	1986.0	1967.7	1948.7	1927.5	1902.7	1872.7	1839.1	1804.8	1774.8	1749.2
22.5°	1994.0	1961.9	1940.0	1921.0	1899.8	1870.5	1834.0	1794.6	1752.9	1711.3	1677.6
25°	2004.3	1956.8	1922.4	1899.8	1881.5	1851.5	1810.6	1762.4	1714.2	1664.5	1619.2
27.5°	2034.2	1973.6	1923.9	1888.1	1866.9	1836.9	1793.8	1742.7	1685.7	1630.1	1574.6
30°	2081.0	2002.1	1939.2	1888.8	1855.9	1821.6	1776.3	1717.1	1659.4	1595.8	1535.2
32.5°	2126.3	2032.0	1956.8	1891.7	1841.3	1796.7	1746.3	1687.9	1625.8	1559.3	1496.4
35°	2158.4	2051.8	1963.3	1885.2	1818.7	1763.1	1709.1	1650.6	1590.0	1522.0	1457.7
37.5°	2173.8	2062.7	1964.1	1867.6	1788.7	1727.3	1669.6	1611.9	1554.9	1490.6	1429.9
40°	2173.0	2062.0	1953.8	1845.0	1752.9	1687.9	1630.9	1574.6	1521.3	1465.0	1410.2
42.5°	2157.0	2050.3	1939.2	1823.0	1727.3	1655.0	1595.8	1541.7	1496.4	1446.7	1400.7
45°	2132.1	2030.6	1923.9	1812.8	1720.0	1647.7	1584.8	1532.2	1492.0	1446.7	1407.3
47.5°	2113.1	2019.6	1926.1	1831.1	1742.7	1667.4	1600.9	1543.2	1508.9	1472.3	1444.6
50°	2116.1	2024.7	1933.4	1842.0	1758.7	1682.8	1618.5	1565.8	1541.0	1531.5	1524.9
52.5°	2131.4	2032.8	1955.3	1900.5	1872.0	1815.0	1777.0	1744.1	1762.4	1726.6	1684.2
55°	2327.2	2295.1	2370.3	2441.2	2531.1	2564.7	2532.5	2526.7	2555.9	2434.6	2156.2
57.5°	3136.1	3219.4	3335.6	3396.9	3471.5	3451.7	3377.2	3315.1	3242.0	3100.3	2753.2
60°	4512.0	4449.1	4396.5	4248.2	4126.9	3985.1	3827.3	3692.1	3562.8	3358.9	2983.4
62.5°	5929.5	5493.3	5128.6	4776.5	4493.0	4257.7	4029.0	3825.8	3630.0	3345.8	2941.7
65°	7155.6	6237.1	5552.4	5035.8	4621.6	4264.3	3970.5	3689.9	3440.8	3107.6	2707.9
67.5°	7706.5	6555.7	5559.7	4819.6	4246.0	3760.8	3380.9	2957.1	2677.9	2464.6	2239.5
69°	7665.6	6312.3	5163.0	4251.8	3592.8	3027.2	2619.5	2177.4	1910.0	1819.4	1814.3
70°	7471.2	5900.2	4699.7	3790.8	3036.7	2474.8	2083.9	1687.1	1438.0	1375.9	1486.2
72.5°	6099.7	4169.3	2945.4	2249.0	1729.5	1367.1	1115.0	884.9	706.6	612.3	632.8
75°	3445.2	1930.5	1248.0	943.3	797.2	659.1	565.5	482.2	436.2	354.4	280.6
77.5°	1252.4	828.6	659.1	569.9	404.1	278.4	233.1	203.9	184.9	184.9	176.1
80°	792.1	624.0	435.5	298.1	220.7	192.2	168.1	147.6	135.9	133.0	135.9
82.5°	494.7	382.1	244.0	187.1	157.1	141.0	122.8	107.4	97.9	95.7	100.1
85°	244.0	189.2	148.3	132.3	124.2	115.4	101.6	87.0	84.0	89.9	105.2
87.5°	73.1	65.0	53.3	55.5	58.5	57.0	45.3	39.5	37.3	49.0	76.7
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°	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1	2257.1
2.5°	2249.0	2248.3	2249.8	2247.6	2249.0	2249.8	2248.3	2254.9	2250.5	2251.2	2254.1
5°	2216.2	2214.7	2220.5	2219.1	2222.0	2224.9	2223.5	2233.0	2229.3	2232.2	2238.1
7.5°	2161.4	2164.3	2165.0	2165.0	2170.9	2180.3	2182.5	2188.4	2188.4	2196.4	2202.3
10°	2088.3	2089.0	2093.4	2092.7	2100.0	2110.2	2111.7	2121.9	2125.5	2138.7	2146.7
12.5°	2003.5	1999.9	1999.1	1998.4	2007.9	2018.9	2020.3	2037.9	2045.2	2056.9	2070.0
15°	1908.5	1899.0	1896.1	1902.0	1899.8	1906.3	1912.9	1922.4	1932.6	1956.0	1967.7
17.5°	1815.7	1796.7	1791.6	1785.1	1778.5	1778.5	1781.4	1793.1	1814.3	1826.7	1853.0
20°	1720.8	1698.1	1679.8	1662.3	1647.0	1641.1	1641.8	1656.5	1671.8	1692.3	1717.1
22.5°	1641.1	1606.8	1575.3	1552.0	1520.5	1519.8	1515.4	1519.8	1536.6	1541.7	1555.6
25°	1572.4	1526.4	1484.0	1446.0	1415.3	1399.3	1394.9	1393.4	1385.4	1383.2	1372.9
27.5°	1519.1	1463.6	1408.8	1362.7	1324.7	1302.8	1275.0	1255.3	1226.8	1219.5	1201.2
30°	1475.2	1415.3	1355.4	1295.5	1252.4	1212.9	1166.2	1131.8	1088.0	1059.5	1034.6
32.5°	1432.9	1372.2	1311.6	1252.4	1185.9	1124.5	1063.1	1009.8	960.8	917.0	880.5
35°	1397.8	1340.1	1278.7	1207.1	1122.3	1033.9	960.1	899.5	832.2	786.2	740.2
37.5°	1375.1	1322.5	1261.2	1162.5	1053.6	958.7	874.6	800.8	732.1	662.7	610.8
40°	1364.9	1318.9	1242.2	1121.6	993.7	888.5	795.7	713.9	626.2	548.0	492.5
42.5°	1364.2	1317.4	1215.9	1076.3	944.0	829.3	726.3	628.4	531.2	450.8	396.0
45°	1377.3	1315.2	1188.1	1038.3	900.2	780.4	657.6	538.5	429.6	369.7	340.5
47.5°	1412.4	1318.9	1165.4	1003.2	858.5	721.2	578.7	439.9	350.0	322.2	322.2
50°	1475.2	1340.1	1159.6	978.4	816.9	652.5	482.2	355.1	309.8	309.8	318.6
52.5°	1571.7	1384.6	1169.8	960.8	765.0	561.9	380.0	306.2	297.4	305.4	317.1
55°	1793.8	1463.6	1183.7	930.9	686.1	445.7	313.5	289.3	293.0	302.5	313.5
57.5°	2201.5	1632.3	1198.3	865.1	559.0	343.4	284.2	282.8	289.3	298.1	307.6
60°	2469.7	1847.2	1235.6	765.8	423.1	283.5	269.6	278.4	286.4	293.7	301.0
62.5°	2469.7	1907.8	1263.3	654.7	317.8	257.9	260.1	274.0	283.5	287.2	291.5
65°	2311.9	1796.7	1169.1	533.4	258.7	243.3	251.4	265.2	274.0	276.9	280.6
67.5°	2020.3	1587.0	985.0	401.9	230.9	230.9	241.1	251.4	258.7	264.5	270.4
69°	1756.6	1424.1	867.3	340.5	219.9	221.4	231.6	240.4	249.2	256.5	263.8
70°	1566.6	1302.1	785.5	309.1	213.4	214.1	224.3	233.8	241.9	249.9	258.7
72.5°	838.8	899.5	597.0	253.5	196.6	198.7	208.2	217.0	224.3	232.4	240.4
75°	285.7	386.5	380.0	207.5	177.6	183.4	189.2	197.3	206.8	211.9	216.3
77.5°	167.3	173.2	202.4	168.8	160.0	162.9	169.5	176.1	184.1	189.2	192.9
80°	140.3	139.6	140.3	137.4	139.6	146.1	150.5	159.3	166.6	168.1	167.3
82.5°	114.0	119.8	120.6	119.1	125.7	130.8	134.4	139.6	138.8	140.3	143.2
85°	101.6	100.8	105.9	106.7	106.7	103.0	103.8	103.8	103.8	105.9	106.7
87.5°	101.6	84.8	65.8	59.2	62.1	58.5	55.5	54.8	60.6	66.5	65.0
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°	2257.1	2257.1	2257.1	2257.1	2257.1
2.5°	2255.6	2257.8	2256.3	2256.3	2257.8
5°	2240.3	2243.9	2242.5	2243.9	2243.9
7.5°	2205.2	2210.3	2214.0	2217.6	2215.4
10°	2154.8	2163.5	2169.4	2173.8	2171.6
12.5°	2079.5	2087.6	2100.0	2107.3	2101.4
15°	1976.5	1999.1	2006.4	2016.7	2010.8
17.5°	1869.1	1883.0	1891.7	1901.2	1907.1
20°	1725.9	1736.8	1748.5	1752.9	1746.3
22.5°	1553.4	1559.3	1557.1	1563.7	1550.5
25°	1364.2	1367.8	1365.6	1371.5	1360.5
27.5°	1185.2	1184.4	1185.2	1177.9	1170.5
30°	1012.7	1006.1	1003.2	992.3	990.1
32.5°	858.5	835.9	824.2	808.1	804.5
35°	704.4	672.2	651.0	632.8	624.7
37.5°	566.3	527.6	502.7	486.6	484.4
40°	447.9	412.1	394.6	385.8	384.3
42.5°	365.3	350.0	345.6	345.6	345.6
45°	333.2	332.5	336.1	339.0	339.8
47.5°	326.6	331.0	336.1	340.5	342.0
50°	326.6	331.0	334.7	339.0	340.5
52.5°	325.2	328.8	330.3	333.2	334.7
55°	320.8	323.0	323.0	324.4	325.9
57.5°	313.5	314.9	312.7	314.2	317.8
60°	306.2	307.6	304.0	307.6	309.8
62.5°	298.1	298.8	297.4	300.3	300.3
65°	285.0	283.5	285.7	287.9	288.6
67.5°	271.8	268.2	270.4	271.1	272.5
69°	261.6	259.4	260.1	261.6	263.0
70°	254.3	252.8	254.3	256.5	258.7
72.5°	236.0	236.7	241.9	246.2	250.6
75°	219.2	224.3	230.9	240.4	245.5
77.5°	198.7	202.4	207.5	217.7	227.2
80°	171.7	173.9	174.6	178.3	177.6
82.5°	139.6	137.4	135.9	134.4	133.7
85°	100.1	99.4	93.5	89.1	89.1
87.5°	59.9	57.0	54.1	50.4	48.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)