

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: P158456

Luminaire Tested: **VST-F05-LED-E-U-SL3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158456
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-F05-LED-E-U-SL3-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (35) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12777.6 lumens
Efficiency: N/A
Efficacy: 95.9 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): 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



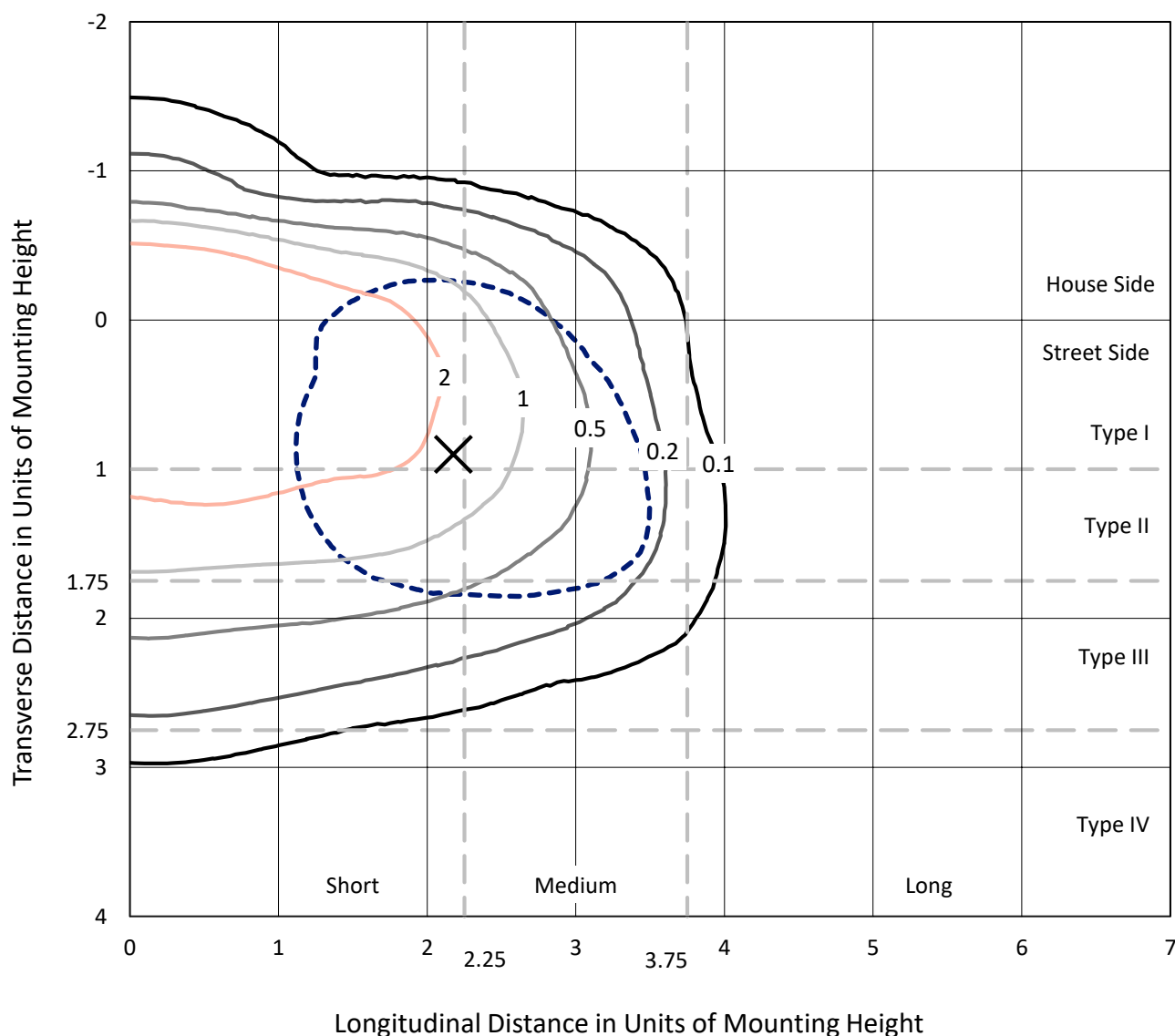
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

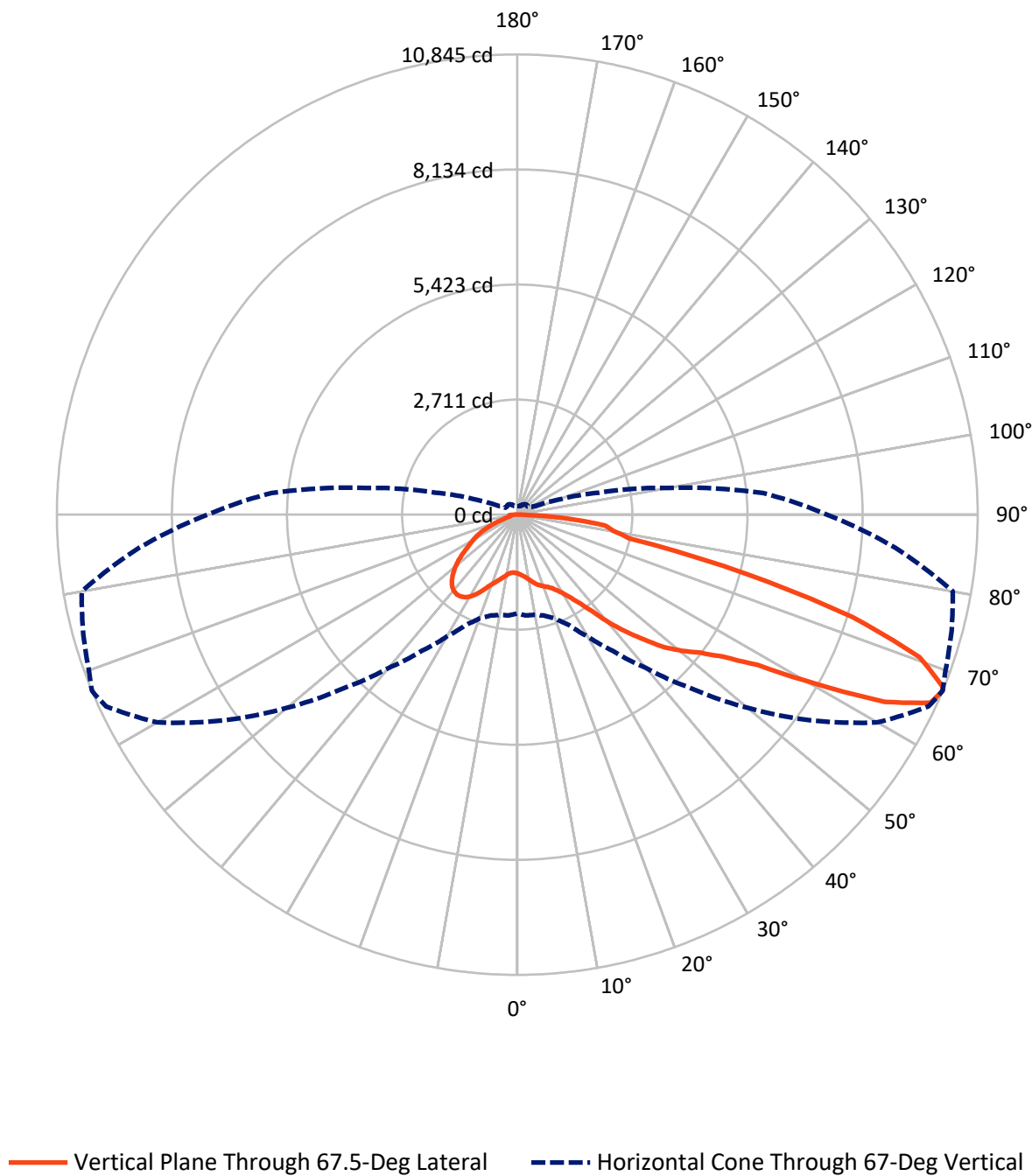


Based on 20 foot mounting height. Maximum calculated value = 4.3 fc
Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3065.4	0.0	3065.4
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	9712.2	0.0	9712.2
	% Fixture	76.0	0.0	76.0
Total	Lumens	12777.6	0.0	12777.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.6	1.1
10°-20°	469.0	3.7
20°-30°	837.3	6.6
30°-40°	1227.1	9.6
40°-50°	1896.0	14.8
50°-60°	2760.9	21.6
60°-70°	3596.5	28.1
70°-80°	1609.9	12.6
80°-90°	243.4	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°	12777.6	100.0
0°-180°	12777.6	100.0

Coefficient of Utilization



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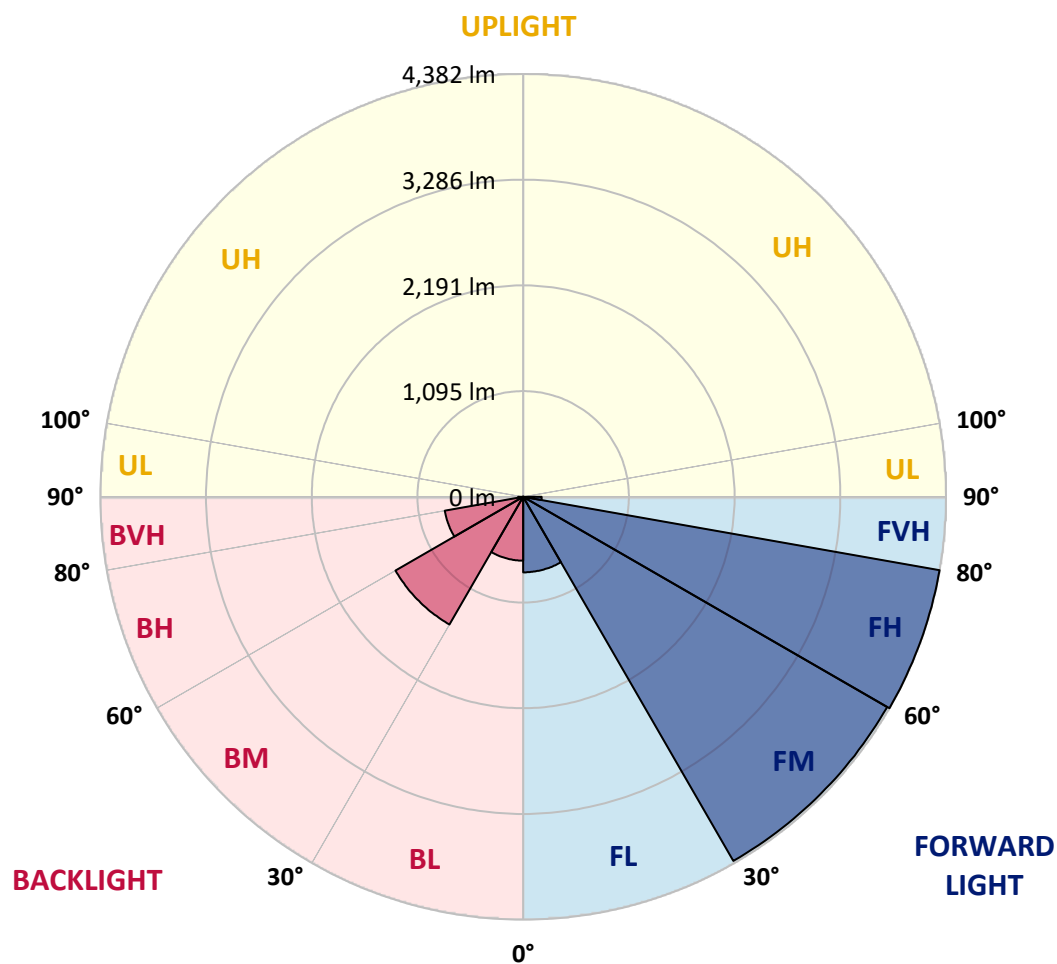
CATALOG NUMBER: VST-F05-LED-E-U-SL3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	782.9	6.1			
FM	(30°-60°)	4356.5	34.1			
FH	(60°-80°)	4381.7	34.3			G2/5000
FVH	(80°-90°)	191.2	1.5			G2/225
BL	(0°-30°)	661.0	5.2	B2/1000		
BM	(30°-60°)	1527.4	12.0	B2/2500		
BH	(60°-80°)	824.7	6.5	B2/1000		G2/1000
BVH	(80°-90°)	52.3	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°	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0
2.5°	1439.2	1442.6	1443.4	1442.6	1443.4	1440.0	1439.2	1434.1	1436.6	1429.9	1428.2
5°	1517.1	1519.7	1521.3	1514.6	1516.3	1512.9	1508.6	1503.6	1496.8	1487.5	1481.5
7.5°	1593.3	1597.6	1596.7	1594.2	1588.3	1584.9	1576.4	1568.8	1556.9	1545.9	1538.3
10°	1695.8	1695.0	1695.0	1680.6	1672.1	1664.5	1649.3	1637.4	1625.5	1609.4	1601.0
12.5°	1814.4	1808.5	1806.0	1795.8	1778.0	1764.5	1742.4	1719.6	1698.4	1681.4	1667.9
15°	1928.8	1928.8	1922.0	1905.9	1889.0	1871.2	1839.8	1806.8	1772.1	1745.0	1731.4
17.5°	2033.0	2023.7	2017.7	1996.6	1978.8	1950.0	1915.2	1879.7	1836.5	1798.3	1772.1
20°	2109.2	2101.6	2088.9	2062.6	2032.1	1998.3	1957.6	1916.1	1869.5	1828.0	1798.3
22.5°	2153.3	2143.9	2124.5	2089.7	2048.2	2000.8	1953.4	1914.4	1872.0	1840.7	1816.1
25°	2176.1	2166.8	2140.6	2094.8	2038.9	1976.2	1922.0	1883.9	1859.3	1851.7	1848.3
27.5°	2175.3	2167.7	2139.7	2087.2	2015.2	1943.2	1884.7	1852.6	1850.0	1879.7	1901.7
30°	2153.3	2148.2	2122.8	2070.3	1994.9	1919.5	1865.3	1848.3	1874.6	1937.3	1991.5
32.5°	2131.2	2128.7	2110.9	2063.5	1999.1	1935.6	1898.3	1900.0	1954.2	2050.8	2138.0
35°	2133.8	2137.2	2134.6	2109.2	2068.6	2035.5	2017.7	2055.0	2139.7	2256.6	2373.5
37.5°	2155.8	2168.5	2184.6	2187.1	2188.0	2182.9	2220.2	2299.0	2422.6	2575.1	2758.1
40°	2204.1	2218.5	2265.1	2305.7	2358.3	2420.9	2496.3	2605.6	2758.9	2947.0	3171.5
42.5°	2354.0	2374.4	2432.0	2507.3	2603.9	2702.2	2814.8	2963.9	3152.0	3350.2	3585.7
45°	2549.7	2592.1	2655.6	2739.4	2884.3	3022.4	3168.1	3334.9	3534.8	3783.0	4020.2
47.5°	2793.7	2836.0	2928.3	3018.1	3189.2	3361.2	3520.4	3694.9	3911.8	4165.9	4428.5
50°	3007.1	3055.4	3137.6	3258.7	3456.9	3667.8	3844.0	4032.9	4215.0	4482.7	4747.9
52.5°	3174.8	3209.6	3288.3	3399.3	3620.4	3851.7	4074.4	4284.5	4500.5	4768.2	5013.8
55°	3196.0	3228.2	3305.3	3432.4	3656.8	3913.5	4170.2	4419.2	4725.0	5017.2	5342.5
57.5°	3104.5	3130.8	3208.7	3322.2	3540.8	3833.0	4157.4	4476.8	4868.1	5262.9	5660.2
60°	2974.9	3001.2	3062.2	3152.8	3350.2	3665.3	4043.9	4481.0	5001.1	5571.2	6155.7
62.5°	2832.6	2855.5	2904.6	2969.0	3142.7	3433.2	3866.9	4453.1	5109.6	5877.9	6779.1
65°	2592.9	2648.0	2669.1	2735.2	2908.9	3183.3	3624.6	4264.2	5065.5	6014.2	7170.5
67°	2327.8	2383.7	2394.7	2461.6	2600.5	2864.0	3312.9	3914.3	4716.5	5778.7	7084.1
67.5°	2243.1	2290.5	2307.4	2374.4	2505.6	2753.8	3179.9	3788.1	4609.8	5650.0	6979.9
70°	1649.3	1701.8	1720.4	1748.4	1842.4	2049.1	2331.2	2858.9	3675.5	4610.6	5888.0
72.5°	882.7	925.0	942.8	984.3	1032.6	1145.2	1361.3	1739.9	2255.8	3085.0	4188.8
75°	597.2	614.1	626.8	655.6	705.6	795.4	890.3	1023.3	1335.0	1740.7	2383.7
77.5°	340.5	348.1	349.8	354.9	394.7	480.3	636.2	861.5	1104.6	1261.3	1524.7
80°	147.4	162.6	174.5	166.9	164.3	182.1	227.9	339.7	665.8	1057.2	1254.5
82.5°	79.6	86.4	96.6	97.4	102.5	108.4	117.7	139.8	196.5	396.4	864.9
85°	41.5	43.2	57.6	66.1	70.3	73.7	75.4	83.9	96.6	122.8	215.2
87.5°	5.9	8.5	10.2	13.6	15.2	16.1	18.6	23.7	28.0	33.9	57.6
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-F05-LED-E-U-SL3-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0
2.5°	1420.5	1418.9	1413.8	1410.4	1407.0	1403.6	1399.4	1396.0	1390.1	1385.8	1380.7
5°	1473.1	1462.9	1456.1	1446.8	1445.1	1434.1	1423.1	1418.0	1407.8	1399.4	1389.2
7.5°	1526.4	1514.6	1503.6	1495.9	1491.7	1476.5	1465.4	1452.7	1440.9	1429.9	1418.0
10°	1589.1	1577.3	1565.4	1560.3	1552.7	1538.3	1529.0	1512.9	1501.0	1487.5	1471.4
12.5°	1654.3	1645.9	1637.4	1630.6	1627.2	1620.5	1606.9	1593.3	1577.3	1563.7	1545.1
15°	1711.9	1706.0	1702.6	1700.9	1700.9	1696.7	1684.0	1671.3	1654.3	1639.1	1618.8
17.5°	1752.6	1750.1	1752.6	1755.1	1758.5	1755.1	1752.6	1738.2	1727.2	1708.6	1688.2
20°	1776.3	1781.4	1794.1	1802.6	1810.2	1816.1	1818.7	1806.8	1792.4	1778.9	1765.3
22.5°	1801.7	1816.1	1838.2	1850.9	1863.6	1884.7	1889.8	1881.4	1870.3	1861.9	1847.5
25°	1844.1	1865.3	1903.4	1923.7	1941.5	1972.8	1977.1	1978.8	1976.2	1969.5	1951.7
27.5°	1910.2	1951.7	2002.5	2028.7	2048.2	2088.9	2105.0	2105.0	2098.2	2105.8	2105.8
30°	2025.4	2080.4	2146.5	2161.7	2192.2	2227.8	2254.1	2257.5	2258.3	2274.4	2298.1
32.5°	2202.4	2254.9	2328.6	2345.6	2371.8	2405.7	2435.3	2432.0	2439.6	2474.3	2505.6
35°	2459.9	2513.3	2561.6	2584.4	2596.3	2626.8	2637.8	2656.4	2679.3	2722.5	2718.3
37.5°	2841.1	2888.5	2895.3	2909.7	2895.3	2901.2	2909.7	2931.7	2992.7	3031.7	2969.0
40°	3300.2	3379.0	3371.4	3354.4	3322.2	3279.0	3294.3	3328.2	3394.2	3360.3	3191.8
42.5°	3733.1	3814.4	3799.1	3779.7	3708.5	3692.4	3690.7	3718.7	3754.2	3657.7	3366.3
45°	4159.1	4242.2	4215.9	4204.9	4157.4	4122.7	4151.5	4153.2	4143.9	3937.2	3518.8
47.5°	4598.8	4675.0	4658.1	4667.4	4618.3	4595.4	4597.9	4586.1	4498.8	4174.4	3637.3
50°	4953.7	5056.2	5066.4	5045.2	5018.9	4984.2	5073.1	5040.9	4847.0	4404.8	3751.7
52.5°	5229.8	5367.9	5420.4	5406.9	5385.7	5389.9	5556.8	5593.2	5272.2	4695.3	3877.9
55°	5556.8	5774.5	5860.1	5910.9	5888.9	5973.6	6355.6	6374.2	5863.5	5074.8	4042.2
57.5°	6028.6	6340.4	6610.6	6682.6	6752.0	7027.3	7647.4	7458.5	6630.9	5649.1	4250.6
60°	6746.1	7428.9	7867.6	8098.0	8260.7	8645.3	9234.8	8756.2	7587.3	6332.7	4512.4
62.5°	7750.7	8748.6	9482.2	9713.4	9780.3	10001.4	10428.3	9512.7	8108.2	6639.4	4535.2
65°	8498.7	9695.6	10574.0	10692.6	10613.0	10617.2	10729.1	9472.8	7914.2	6371.7	4142.2
67°	8449.6	9789.7	10689.2	10845.1	10735.0	10590.1	10415.6	8933.3	7290.8	5810.9	3627.2
67.5°	8374.2	9699.0	10639.3	10803.6	10702.8	10537.6	10282.7	8724.0	7096.8	5636.4	3522.1
70°	7239.1	8554.6	9821.0	10052.2	10094.6	9943.8	9228.0	7356.0	5761.8	4585.2	2735.2
72.5°	5634.7	6806.3	8059.1	8259.8	8422.5	7987.9	6716.5	5080.8	4199.8	3304.4	1980.5
75°	3720.4	4912.2	5544.1	5573.8	5366.2	4561.5	3281.6	2544.6	2342.2	1942.3	1225.7
77.5°	1990.6	2888.5	2906.3	2691.2	2592.9	1933.0	784.4	432.9	482.0	547.2	487.9
80°	1484.9	1839.8	2132.1	2292.2	2339.6	1657.7	405.7	229.6	200.8	183.0	180.4
82.5°	1339.2	1777.2	1992.3	2079.6	2057.5	1363.8	227.9	154.2	127.9	138.9	158.4
85°	525.2	948.7	1247.7	1207.9	1014.8	508.2	124.5	83.0	83.0	120.3	155.9
87.5°	107.6	194.8	264.3	252.4	227.0	98.3	61.0	50.0	50.8	97.4	147.4
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0	1385.0
2.5°	1375.7	1370.6	1367.2	1363.8	1360.4	1358.7	1356.2	1356.2	1351.1	1349.4	1347.7
5°	1381.6	1373.1	1367.2	1359.6	1353.6	1348.5	1341.8	1340.1	1334.1	1329.9	1328.2
7.5°	1407.0	1394.3	1381.6	1372.3	1363.8	1352.8	1345.2	1338.4	1332.4	1328.2	1323.1
10°	1455.3	1441.7	1423.9	1407.0	1396.0	1379.0	1367.2	1355.3	1348.5	1343.5	1336.7
12.5°	1526.4	1506.9	1485.8	1465.4	1446.8	1424.8	1412.9	1398.5	1390.1	1385.8	1380.7
15°	1599.3	1578.1	1551.8	1532.4	1511.2	1494.2	1483.2	1470.5	1463.7	1458.7	1455.3
17.5°	1673.8	1649.3	1630.6	1611.1	1601.0	1588.3	1573.9	1557.8	1538.3	1526.4	1510.3
20°	1750.1	1731.4	1720.4	1709.4	1697.5	1679.8	1651.0	1617.9	1581.5	1546.8	1513.7
22.5°	1839.0	1828.0	1826.3	1816.1	1791.6	1749.2	1695.8	1634.0	1572.2	1514.6	1469.7
25°	1964.4	1964.4	1955.9	1914.4	1856.8	1780.6	1690.8	1601.8	1519.7	1440.9	1381.6
27.5°	2121.9	2116.0	2074.5	1988.9	1885.6	1767.0	1646.7	1534.1	1429.0	1342.6	1266.4
30°	2295.6	2254.1	2165.1	2030.4	1875.4	1723.0	1575.6	1445.1	1321.4	1215.6	1125.8
32.5°	2476.0	2375.2	2215.1	2030.4	1839.8	1656.9	1486.6	1326.5	1185.1	1066.5	959.7
35°	2639.5	2455.7	2227.0	1997.4	1770.4	1559.5	1362.1	1180.8	1011.4	883.5	766.6
37.5°	2787.7	2509.0	2214.3	1933.0	1669.6	1422.2	1191.0	991.1	799.6	676.0	576.0
40°	2884.3	2520.0	2161.7	1832.2	1525.6	1236.7	980.9	757.3	605.7	493.0	426.1
42.5°	2944.4	2498.9	2077.0	1694.2	1331.6	1003.8	736.1	543.0	430.3	367.6	342.2
45°	2978.3	2443.8	1951.7	1505.3	1097.0	763.2	522.6	392.2	331.2	309.2	300.7
47.5°	2976.6	2354.9	1795.0	1286.7	837.8	532.0	370.2	305.8	288.9	282.1	280.4
50°	2958.8	2245.6	1611.1	1049.5	604.8	371.0	293.1	274.5	270.2	266.0	264.3
52.5°	2934.3	2110.1	1407.8	818.3	429.5	296.5	266.0	260.9	257.5	253.3	251.6
55°	2888.5	1943.2	1187.6	615.8	336.3	267.7	256.7	255.0	250.7	244.8	241.4
57.5°	2832.6	1773.8	976.7	481.1	297.3	260.9	255.0	252.4	246.5	239.7	232.9
60°	2812.3	1634.0	811.5	405.7	288.0	263.4	259.2	255.8	247.3	237.2	229.6
62.5°	2685.2	1476.5	692.9	376.1	293.1	274.5	272.8	267.7	255.0	243.1	231.3
65°	2356.6	1248.6	587.0	355.8	303.3	293.1	294.8	287.2	274.5	258.4	237.2
67°	1993.2	1018.2	488.8	336.3	310.9	312.6	318.5	312.6	296.5	273.6	244.8
67.5°	1896.6	959.7	464.2	330.4	312.6	317.7	324.4	320.2	304.1	277.8	248.2
70°	1409.5	676.0	346.5	299.0	312.6	332.9	348.1	352.4	334.6	298.2	255.0
72.5°	992.8	436.2	266.0	259.2	283.8	310.9	339.7	354.1	333.7	293.9	245.7
75°	596.3	272.8	216.0	220.2	238.9	266.8	289.7	295.6	270.2	244.8	212.6
77.5°	276.1	181.3	169.4	175.3	193.1	205.8	205.8	194.0	174.5	159.3	152.5
80°	162.6	148.2	147.4	158.4	170.3	160.9	146.5	130.4	120.3	115.2	112.7
82.5°	152.5	158.4	168.6	171.1	161.8	138.9	121.1	105.0	100.0	97.4	94.9
85°	179.6	192.3	175.3	161.8	143.2	116.9	94.9	81.3	78.8	76.2	72.8
87.5°	166.0	158.4	138.1	118.6	98.3	71.2	51.7	46.6	50.0	49.1	47.4
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):

	160°	165°	170°	175°	180°
0°	1385.0	1385.0	1385.0	1385.0	1385.0
2.5°	1348.5	1348.5	1345.2	1343.5	1347.7
5°	1324.8	1325.7	1323.1	1322.3	1323.1
7.5°	1319.7	1318.9	1317.2	1315.5	1317.2
10°	1335.0	1334.1	1331.6	1333.3	1330.8
12.5°	1380.7	1385.8	1385.0	1386.7	1390.1
15°	1455.3	1454.4	1451.9	1453.6	1456.1
17.5°	1497.6	1490.9	1484.9	1482.4	1482.4
20°	1487.5	1468.0	1457.8	1451.9	1450.2
22.5°	1427.3	1399.4	1378.2	1373.1	1368.9
25°	1329.1	1294.3	1267.2	1261.3	1250.3
27.5°	1214.7	1168.1	1135.9	1129.2	1123.2
30°	1064.8	1011.4	974.1	950.4	958.0
32.5°	881.8	831.0	787.8	749.7	743.7
35°	681.0	625.1	587.0	570.1	559.1
37.5°	508.2	461.7	436.2	420.1	421.0
40°	388.8	364.2	350.7	339.7	340.5
42.5°	324.4	313.4	310.0	304.9	302.4
45°	293.9	290.5	291.4	286.3	284.6
47.5°	277.0	274.5	275.3	271.9	271.1
50°	263.4	261.7	262.6	260.1	259.2
52.5°	249.9	250.7	249.9	248.2	248.2
55°	238.0	237.2	238.9	236.3	236.3
57.5°	228.7	227.9	227.9	227.0	227.0
60°	223.6	220.2	219.4	219.4	220.2
62.5°	221.1	215.2	214.3	214.3	215.2
65°	221.9	212.6	209.2	208.4	207.5
67°	222.8	209.2	202.5	199.1	198.2
67.5°	223.6	207.5	199.9	196.5	194.8
70°	218.5	195.7	184.7	178.7	177.0
72.5°	205.8	181.3	167.7	160.1	158.4
75°	183.0	164.3	152.5	144.0	140.6
77.5°	141.5	133.0	128.8	123.7	122.0
80°	110.1	105.9	104.2	100.8	100.0
82.5°	91.5	87.2	84.7	80.5	77.9
85°	71.2	66.1	64.4	61.0	59.3
87.5°	46.6	44.0	43.2	39.0	37.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)