

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: P158455

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158455
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
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (35) 4000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12452.5 lumens
Efficiency: N/A
Efficacy: 93.4 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



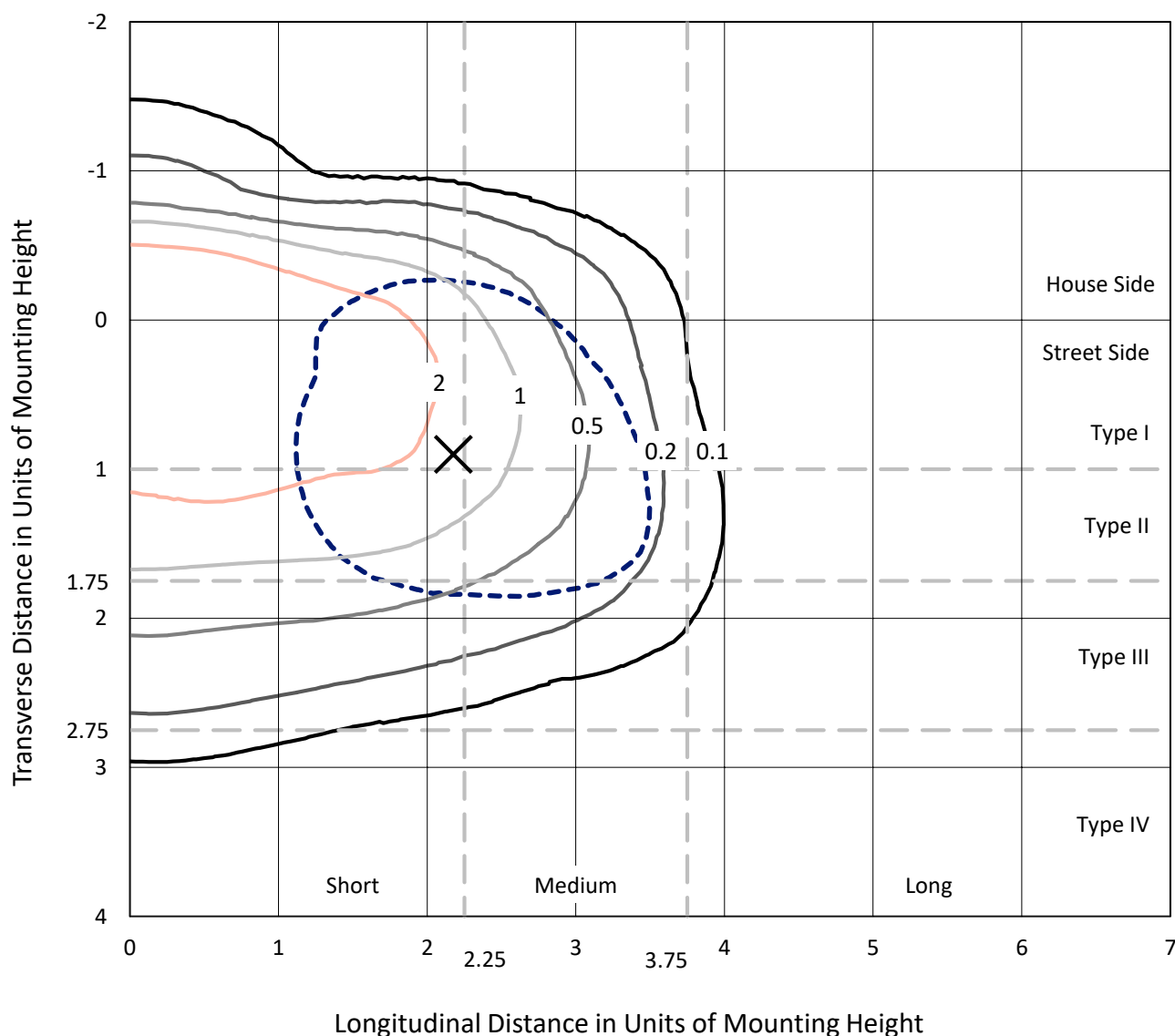
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

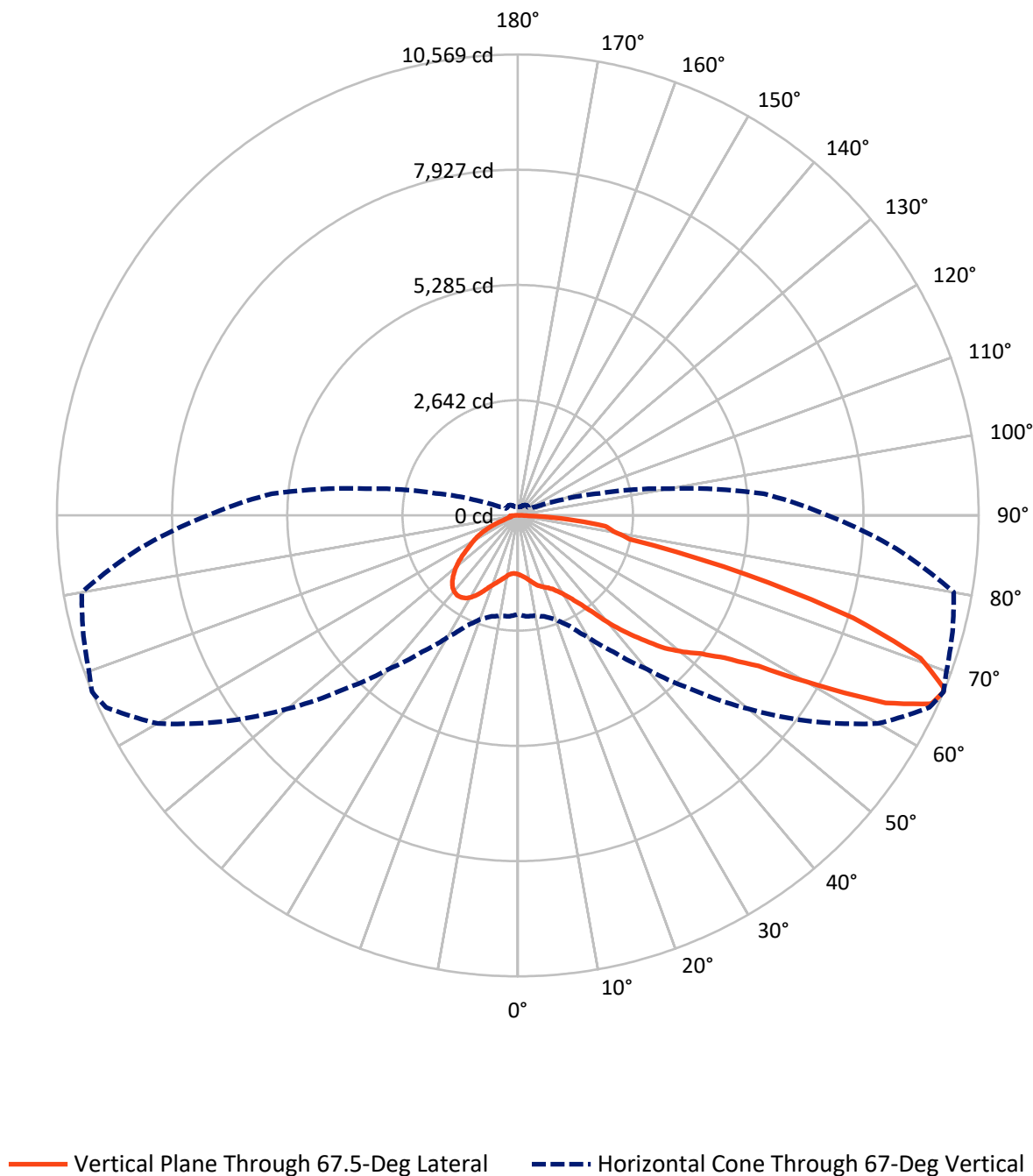


Based on 20 foot mounting height. Maximum calculated value = 4.2 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2987.4	0.0	2987.4
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	9465.1	0.0	9465.1
	% Fixture	76.0	0.0	76.0
Total	Lumens	12452.5	0.0	12452.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.1	1.1
10°-20°	457.0	3.7
20°-30°	816.0	6.6
30°-40°	1195.8	9.6
40°-50°	1847.7	14.8
50°-60°	2690.6	21.6
60°-70°	3505.0	28.1
70°-80°	1568.9	12.6
80°-90°	237.2	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°	12452.5	100.0
0°-180°	12452.5	100.0

Coefficient of Utilization



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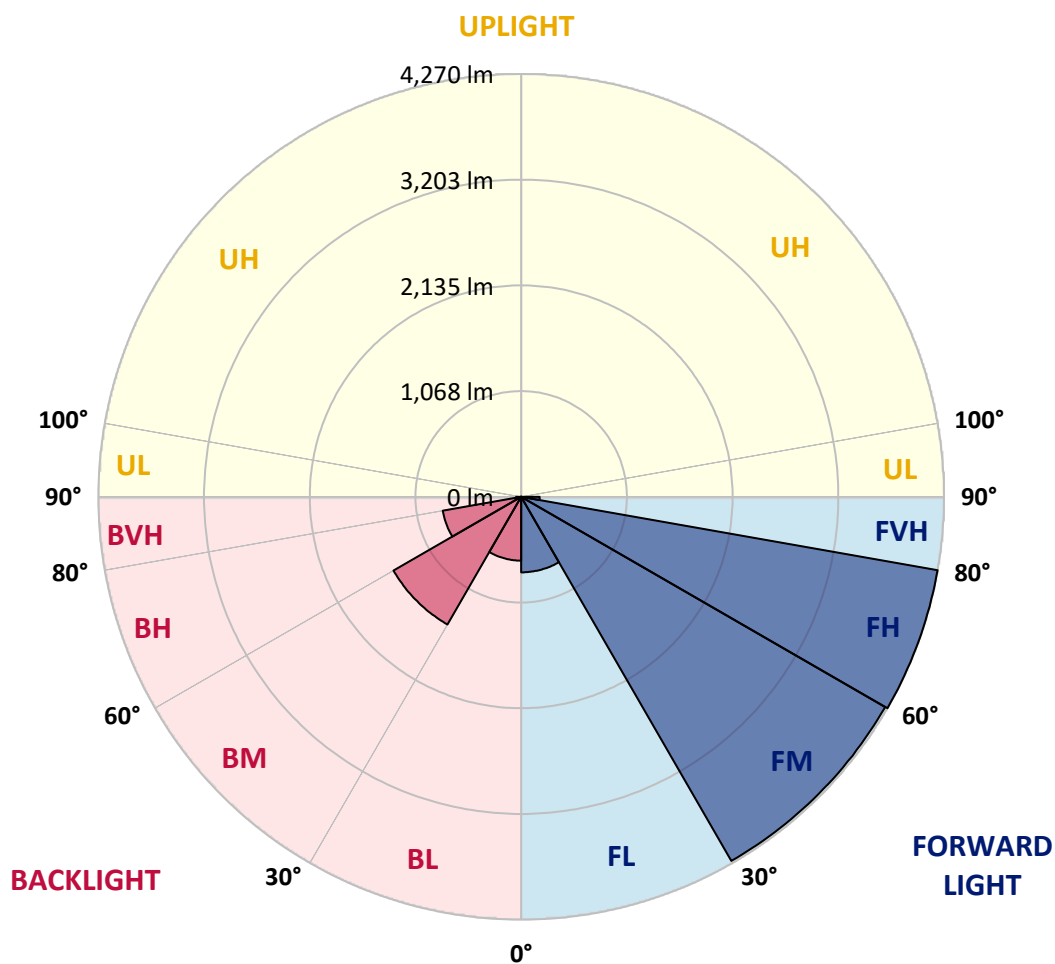
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	763.0	6.1			
FM	(30°-60°)	4245.7	34.1			
FH	(60°-80°)	4270.2	34.3			G2/5000
FVH	(80°-90°)	186.3	1.5			G2/225
BL	(0°-30°)	644.2	5.2	B2/1000		
BM	(30°-60°)	1488.5	12.0	B2/2500		
BH	(60°-80°)	803.7	6.5	B2/1000		G2/1000
BVH	(80°-90°)	50.9	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°	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7
2.5°	1402.6	1405.9	1406.7	1405.9	1406.7	1403.4	1402.6	1397.6	1400.1	1393.5	1391.8
5°	1478.5	1481.0	1482.6	1476.0	1477.7	1474.4	1470.3	1465.3	1458.7	1449.6	1443.8
7.5°	1552.8	1556.9	1556.1	1553.6	1547.9	1544.6	1536.3	1528.9	1517.3	1506.6	1499.2
10°	1652.7	1651.9	1651.9	1637.8	1629.6	1622.2	1607.3	1595.7	1584.2	1568.5	1560.2
12.5°	1768.3	1762.5	1760.0	1750.1	1732.8	1719.6	1698.1	1675.8	1655.2	1638.7	1625.5
15°	1879.7	1879.7	1873.1	1857.4	1840.9	1823.6	1793.0	1760.8	1727.0	1700.6	1687.4
17.5°	1981.3	1972.2	1966.4	1945.8	1928.4	1900.4	1866.5	1831.8	1789.7	1752.6	1727.0
20°	2055.6	2048.1	2035.7	2010.2	1980.4	1947.4	1907.8	1867.3	1821.9	1781.5	1752.6
22.5°	2098.5	2089.4	2070.4	2036.6	1996.1	1949.9	1903.7	1865.7	1824.4	1793.9	1769.9
25°	2120.8	2111.7	2086.1	2041.5	1987.0	1925.9	1873.1	1836.0	1812.0	1804.6	1801.3
27.5°	2119.9	2112.5	2085.3	2034.1	1963.9	1893.8	1836.8	1805.4	1802.9	1831.8	1853.3
30°	2098.5	2093.5	2068.8	2017.6	1944.1	1870.6	1817.8	1801.3	1826.9	1888.0	1940.8
32.5°	2077.0	2074.5	2057.2	2011.0	1948.2	1886.3	1850.0	1851.7	1904.5	1998.6	2083.6
35°	2079.5	2082.8	2080.3	2055.6	2015.9	1983.7	1966.4	2002.7	2085.3	2199.2	2313.1
37.5°	2101.0	2113.3	2129.0	2131.5	2132.3	2127.4	2163.7	2240.5	2361.0	2509.6	2687.9
40°	2148.0	2162.0	2207.5	2247.1	2298.3	2359.4	2432.8	2539.3	2688.7	2872.0	3090.8
42.5°	2294.1	2313.9	2370.1	2443.6	2537.7	2633.4	2743.2	2888.5	3071.8	3265.0	3494.4
45°	2484.8	2526.1	2588.0	2669.7	2810.9	2945.5	3087.5	3250.1	3444.9	3686.8	3917.9
47.5°	2722.6	2763.9	2853.8	2941.3	3108.1	3275.7	3430.9	3600.9	3812.3	4059.9	4315.8
50°	2930.6	2977.7	3057.7	3175.8	3369.0	3574.5	3746.2	3930.3	4107.8	4368.7	4627.1
52.5°	3094.1	3127.9	3204.7	3312.8	3528.3	3753.7	3970.8	4175.5	4386.0	4646.9	4886.3
55°	3114.7	3146.1	3221.2	3345.0	3563.8	3813.9	4064.1	4306.8	4604.8	4889.6	5206.6
57.5°	3025.5	3051.1	3127.1	3237.7	3450.7	3735.5	4051.7	4362.9	4744.3	5129.0	5516.2
60°	2899.2	2924.8	2984.3	3072.6	3265.0	3572.0	3941.1	4367.0	4873.9	5429.5	5999.1
62.5°	2760.6	2782.8	2830.7	2893.5	3062.7	3345.9	3768.5	4339.8	4979.6	5728.3	6606.7
65°	2526.9	2580.6	2601.2	2665.6	2834.9	3102.3	3532.4	4155.7	4936.6	5861.2	6988.1
67°	2268.5	2323.0	2333.8	2399.0	2534.4	2791.1	3228.6	3814.8	4596.5	5631.7	6903.9
67.5°	2186.0	2232.2	2248.7	2313.9	2441.9	2683.8	3099.0	3691.7	4492.5	5506.3	6802.3
70°	1607.3	1658.5	1676.6	1703.9	1795.5	1996.9	2271.8	2786.1	3582.0	4493.3	5738.2
72.5°	860.2	901.5	918.8	959.3	1006.3	1116.1	1326.6	1695.6	2198.4	3006.6	4082.2
75°	582.0	598.5	610.9	639.0	687.7	775.2	867.6	997.2	1301.0	1696.5	2323.0
77.5°	331.9	339.3	340.9	345.9	384.7	468.1	620.0	839.6	1076.5	1229.2	1485.9
80°	143.6	158.5	170.1	162.6	160.2	177.5	222.1	331.0	648.9	1030.3	1222.6
82.5°	77.6	84.2	94.1	94.9	99.9	105.7	114.7	136.2	191.5	386.3	842.9
85°	40.5	42.1	56.1	64.4	68.5	71.8	73.5	81.7	94.1	119.7	209.7
87.5°	5.8	8.3	9.9	13.2	14.9	15.7	18.2	23.1	27.2	33.0	56.1
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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7
2.5°	1384.4	1382.8	1377.8	1374.5	1371.2	1367.9	1363.8	1360.5	1354.7	1350.6	1345.6
5°	1435.6	1425.7	1419.1	1410.0	1408.3	1397.6	1386.9	1381.9	1372.0	1363.8	1353.9
7.5°	1487.6	1476.0	1465.3	1457.9	1453.7	1438.9	1428.2	1415.8	1404.2	1393.5	1381.9
10°	1548.7	1537.1	1525.6	1520.6	1513.2	1499.2	1490.1	1474.4	1462.8	1449.6	1433.9
12.5°	1612.3	1604.0	1595.7	1589.1	1585.8	1579.2	1566.0	1552.8	1537.1	1523.9	1505.8
15°	1668.4	1662.6	1659.3	1657.7	1657.7	1653.5	1641.1	1628.8	1612.3	1597.4	1577.6
17.5°	1708.0	1705.5	1708.0	1710.5	1713.8	1710.5	1708.0	1694.0	1683.2	1665.1	1645.3
20°	1731.1	1736.1	1748.5	1756.7	1764.1	1769.9	1772.4	1760.8	1746.8	1733.6	1720.4
22.5°	1755.9	1769.9	1791.4	1803.8	1816.2	1836.8	1841.7	1833.5	1822.8	1814.5	1800.5
25°	1797.2	1817.8	1855.0	1874.8	1892.1	1922.6	1926.8	1928.4	1925.9	1919.3	1902.0
27.5°	1861.6	1902.0	1951.5	1977.1	1996.1	2035.7	2051.4	2051.4	2044.8	2052.3	2052.3
30°	1973.8	2027.5	2091.9	2106.7	2136.5	2171.1	2196.7	2200.0	2200.8	2216.5	2239.6
32.5°	2146.4	2197.5	2269.4	2285.9	2311.5	2344.5	2373.4	2370.1	2377.5	2411.4	2441.9
35°	2397.3	2449.3	2496.4	2518.7	2530.2	2560.0	2570.7	2588.8	2611.1	2653.2	2649.1
37.5°	2768.8	2815.0	2821.6	2835.7	2821.6	2827.4	2835.7	2857.1	2916.6	2954.6	2893.5
40°	3216.2	3293.0	3285.6	3269.1	3237.7	3195.6	3210.5	3243.5	3307.9	3274.9	3110.6
42.5°	3638.1	3717.3	3702.5	3683.5	3614.1	3598.5	3596.8	3624.1	3658.7	3564.6	3280.6
45°	4053.3	4134.2	4108.6	4097.9	4051.7	4017.8	4045.9	4047.5	4038.5	3837.0	3429.2
47.5°	4481.8	4556.1	4539.6	4548.6	4500.8	4478.5	4480.9	4469.4	4384.4	4068.2	3544.8
50°	4827.7	4927.6	4937.5	4916.8	4891.2	4857.4	4944.1	4912.7	4723.7	4292.7	3656.2
52.5°	5096.8	5231.4	5282.5	5269.3	5248.7	5252.8	5415.4	5450.9	5138.1	4575.9	3779.3
55°	5415.4	5627.6	5711.0	5760.5	5739.0	5821.6	6193.9	6212.1	5714.3	4945.7	3939.4
57.5°	5875.3	6179.1	6442.4	6512.6	6580.3	6848.6	7452.8	7268.7	6462.2	5505.4	4142.5
60°	6574.5	7239.9	7667.5	7892.0	8050.5	8425.3	8999.9	8533.5	7394.2	6171.6	4397.6
62.5°	7553.6	8526.0	9240.9	9466.3	9531.5	9747.0	10163.0	9270.6	7901.9	6470.5	4419.9
65°	8282.5	9449.0	10305.0	10420.6	10343.0	10347.1	10456.1	9231.8	7712.9	6209.6	4036.8
67°	8234.6	9540.6	10417.3	10569.2	10461.9	10320.7	10150.7	8706.0	7105.3	5663.1	3534.9
67.5°	8161.1	9452.3	10368.6	10528.7	10430.5	10269.5	10021.0	8502.1	6916.2	5493.0	3432.5
70°	7054.9	8337.0	9571.1	9796.5	9837.8	9690.8	8993.3	7168.9	5615.2	4468.6	2665.6
72.5°	5491.4	6633.1	7854.0	8049.7	8208.2	7784.7	6545.6	4951.5	4093.0	3220.4	1930.1
75°	3625.7	4787.2	5403.1	5432.0	5229.7	4445.5	3198.1	2479.9	2282.6	1892.9	1194.5
77.5°	1940.0	2815.0	2832.4	2622.7	2526.9	1883.8	764.4	421.8	469.7	533.3	475.5
80°	1447.1	1793.0	2077.8	2233.9	2280.1	1615.6	395.4	223.7	195.6	178.3	175.8
82.5°	1305.2	1732.0	1941.6	2026.7	2005.2	1329.1	222.1	150.2	124.7	135.4	154.4
85°	511.8	924.6	1216.0	1177.2	989.0	495.3	121.4	80.9	80.9	117.2	151.9
87.5°	104.8	189.9	257.6	246.0	221.2	95.8	59.4	48.7	49.5	94.9	143.6
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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CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7	1349.7
2.5°	1340.7	1335.7	1332.4	1329.1	1325.8	1324.1	1321.7	1321.7	1316.7	1315.1	1313.4
5°	1346.4	1338.2	1332.4	1325.0	1319.2	1314.2	1307.6	1306.0	1300.2	1296.1	1294.4
7.5°	1371.2	1358.8	1346.4	1337.4	1329.1	1318.4	1310.9	1304.3	1298.6	1294.4	1289.5
10°	1418.3	1405.0	1387.7	1371.2	1360.5	1344.0	1332.4	1320.8	1314.2	1309.3	1302.7
12.5°	1487.6	1468.6	1448.0	1428.2	1410.0	1388.5	1377.0	1362.9	1354.7	1350.6	1345.6
15°	1558.6	1538.0	1512.4	1493.4	1472.7	1456.2	1445.5	1433.1	1426.5	1421.6	1418.3
17.5°	1631.2	1607.3	1589.1	1570.1	1560.2	1547.9	1533.8	1518.1	1499.2	1487.6	1471.9
20°	1705.5	1687.4	1676.6	1665.9	1654.4	1637.0	1608.9	1576.8	1541.3	1507.4	1475.2
22.5°	1792.2	1781.5	1779.8	1769.9	1746.0	1704.7	1652.7	1592.4	1532.2	1476.0	1432.3
25°	1914.4	1914.4	1906.1	1865.7	1809.6	1735.3	1647.7	1561.1	1481.0	1404.2	1346.4
27.5°	2067.9	2062.2	2021.7	1938.3	1837.6	1722.0	1604.8	1495.0	1392.7	1308.5	1234.2
30°	2237.2	2196.7	2110.0	1978.8	1827.7	1679.1	1535.5	1408.3	1287.8	1184.6	1097.1
32.5°	2413.0	2314.8	2158.7	1978.8	1793.0	1614.7	1448.8	1292.8	1154.9	1039.3	935.3
35°	2572.3	2393.2	2170.3	1946.6	1725.3	1519.8	1327.4	1150.8	985.7	861.0	747.1
37.5°	2716.8	2445.2	2157.9	1883.8	1627.1	1386.1	1160.7	965.9	779.3	658.8	561.4
40°	2810.9	2455.9	2106.7	1785.6	1486.8	1205.3	956.0	738.0	590.3	480.5	415.2
42.5°	2869.5	2435.3	2024.2	1651.0	1297.7	978.2	717.4	529.2	419.4	358.3	333.5
45°	2902.5	2381.6	1902.0	1467.0	1069.1	743.8	509.3	382.2	322.8	301.3	293.1
47.5°	2900.9	2295.0	1749.3	1254.0	816.4	518.4	360.8	298.0	281.5	274.9	273.2
50°	2883.6	2188.5	1570.1	1022.8	589.4	361.6	285.6	267.5	263.3	259.2	257.6
52.5°	2859.6	2056.4	1372.0	797.5	418.5	288.9	259.2	254.3	251.0	246.8	245.2
55°	2815.0	1893.8	1157.4	600.2	327.7	260.9	250.1	248.5	244.4	238.6	235.3
57.5°	2760.6	1728.6	951.8	468.9	289.8	254.3	248.5	246.0	240.2	233.6	227.0
60°	2740.7	1592.4	790.9	395.4	280.7	256.7	252.6	249.3	241.1	231.1	223.7
62.5°	2616.9	1438.9	675.3	366.5	285.6	267.5	265.8	260.9	248.5	236.9	225.4
65°	2296.6	1216.8	572.1	346.7	295.5	285.6	287.3	279.9	267.5	251.8	231.1
67°	1942.5	992.3	476.3	327.7	303.0	304.6	310.4	304.6	288.9	266.6	238.6
67.5°	1848.4	935.3	452.4	322.0	304.6	309.6	316.2	312.0	296.4	270.8	241.9
70°	1373.7	658.8	337.6	291.4	304.6	324.4	339.3	343.4	326.1	290.6	248.5
72.5°	967.5	425.1	259.2	252.6	276.6	303.0	331.0	345.1	325.3	286.5	239.4
75°	581.2	265.8	210.5	214.6	232.8	260.0	282.3	288.1	263.3	238.6	207.2
77.5°	269.1	176.7	165.1	170.9	188.2	200.6	200.6	189.0	170.1	155.2	148.6
80°	158.5	144.5	143.6	154.4	165.9	156.8	142.8	127.1	117.2	112.3	109.8
82.5°	148.6	154.4	164.3	166.8	157.7	135.4	118.1	102.4	97.4	94.9	92.5
85°	175.0	187.4	170.9	157.7	139.5	113.9	92.5	79.3	76.8	74.3	71.0
87.5°	161.8	154.4	134.6	115.6	95.8	69.3	50.4	45.4	48.7	47.9	46.2
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°	1349.7	1349.7	1349.7	1349.7	1349.7
2.5°	1314.2	1314.2	1310.9	1309.3	1313.4
5°	1291.1	1291.9	1289.5	1288.6	1289.5
7.5°	1286.2	1285.3	1283.7	1282.0	1283.7
10°	1301.0	1300.2	1297.7	1299.4	1296.9
12.5°	1345.6	1350.6	1349.7	1351.4	1354.7
15°	1418.3	1417.4	1414.9	1416.6	1419.1
17.5°	1459.5	1452.9	1447.1	1444.7	1444.7
20°	1449.6	1430.6	1420.7	1414.9	1413.3
22.5°	1391.0	1363.8	1343.1	1338.2	1334.0
25°	1295.2	1261.4	1235.0	1229.2	1218.5
27.5°	1183.8	1138.4	1107.0	1100.4	1094.6
30°	1037.7	985.7	949.4	926.2	933.7
32.5°	859.4	809.8	767.7	730.6	724.8
35°	663.7	609.2	572.1	555.6	544.8
37.5°	495.3	449.9	425.1	409.5	410.3
40°	378.9	355.0	341.8	331.0	331.9
42.5°	316.2	305.4	302.1	297.2	294.7
45°	286.5	283.2	284.0	279.0	277.4
47.5°	269.9	267.5	268.3	265.0	264.2
50°	256.7	255.1	255.9	253.4	252.6
52.5°	243.5	244.4	243.5	241.9	241.9
55°	232.0	231.1	232.8	230.3	230.3
57.5°	222.9	222.1	222.1	221.2	221.2
60°	217.9	214.6	213.8	213.8	214.6
62.5°	215.5	209.7	208.9	208.9	209.7
65°	216.3	207.2	203.9	203.1	202.3
67°	217.1	203.9	197.3	194.0	193.2
67.5°	217.9	202.3	194.8	191.5	189.9
70°	213.0	190.7	180.0	174.2	172.5
72.5°	200.6	176.7	163.5	156.0	154.4
75°	178.3	160.2	148.6	140.3	137.0
77.5°	137.9	129.6	125.5	120.5	118.9
80°	107.3	103.2	101.5	98.2	97.4
82.5°	89.2	85.0	82.6	78.4	75.9
85°	69.3	64.4	62.7	59.4	57.8
87.5°	45.4	42.9	42.1	38.0	36.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)