

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: P158676

Luminaire Tested: **VST-F05-LED-E-U-SL4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158676
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-F05-LED-E-U-SL4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (35) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12286.6 lumens
Efficiency: N/A
Efficacy: 92.2 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full 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

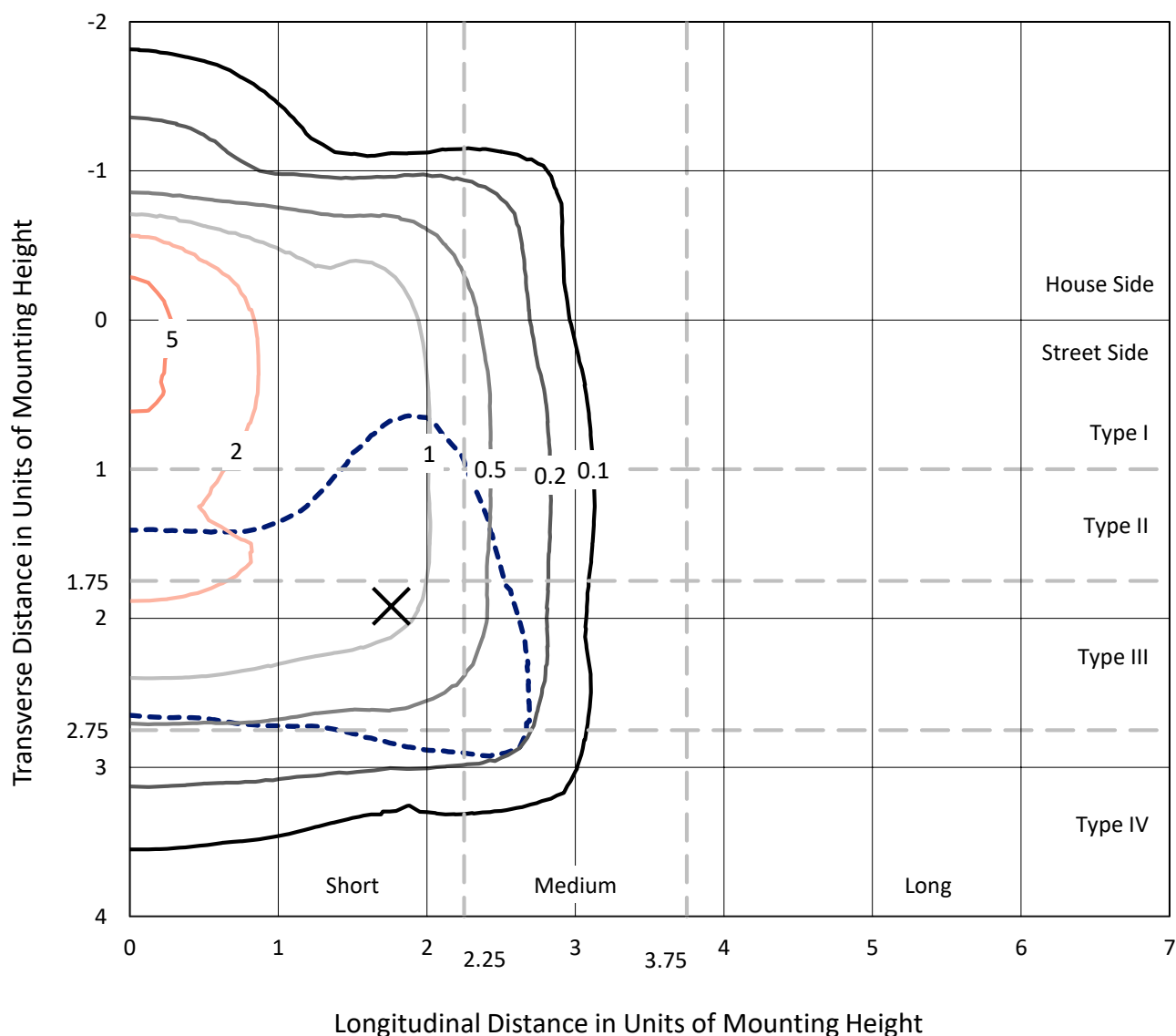


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

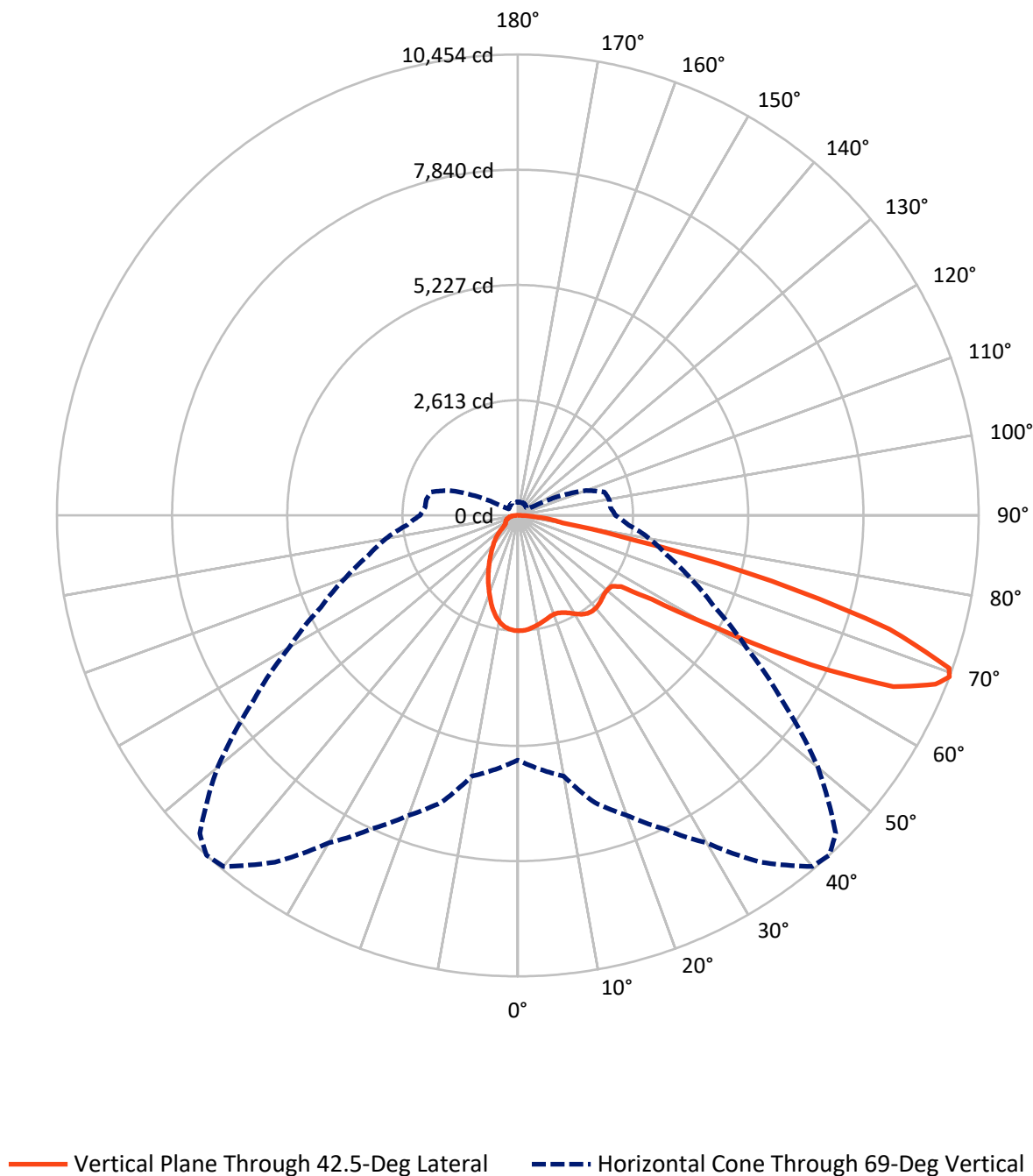


Based on 20 foot mounting height. Maximum calculated value = 6.5 fc
 Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2731.5	0.0	2731.5
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	9555.1	0.0	9555.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	12286.6	0.0	12286.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.6	2.0
10°-20°	656.5	5.3
20°-30°	957.3	7.8
30°-40°	1220.3	9.9
40°-50°	1419.9	11.6
50°-60°	2160.3	17.6
60°-70°	3816.2	31.1
70°-80°	1574.8	12.8
80°-90°	237.8	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°	12286.6	100.0
0°-180°	12286.6	100.0

Coefficient of Utilization



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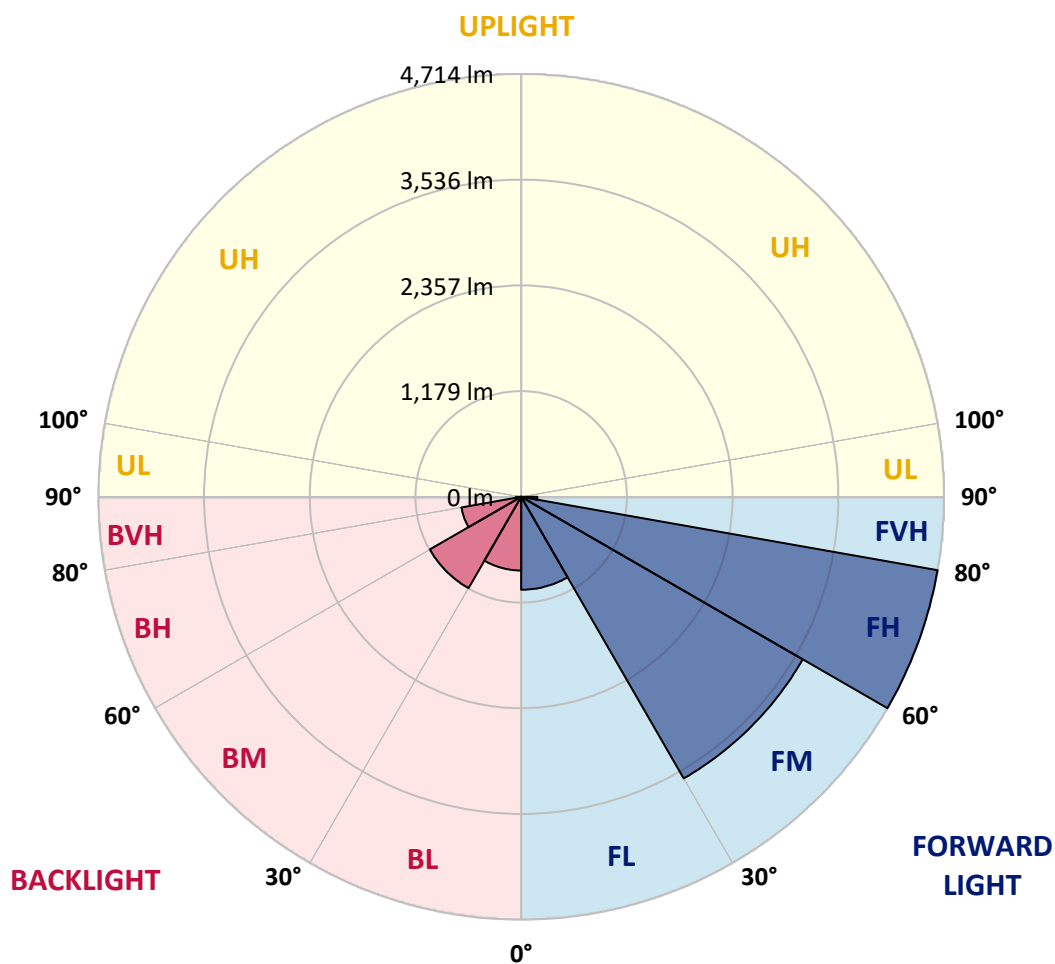
CATALOG NUMBER: VST-F05-LED-E-U-SL4-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1036.1	8.4			
FM	(30°-60°)	3624.9	29.5			
FH	(60°-80°)	4714.3	38.4			G2/5000
FVH	(80°-90°)	179.8	1.5			G2/225
BL	(0°-30°)	821.2	6.7	B2/1000		
BM	(30°-60°)	1175.7	9.6	B2/2500		
BH	(60°-80°)	676.6	5.5	B2/1000		G2/1000
BVH	(80°-90°)	58.0	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°	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6
2.5°	2608.1	2617.5	2614.1	2614.1	2616.6	2612.4	2612.4	2614.1	2609.8	2612.4	2611.5
5°	2598.8	2603.9	2602.2	2602.2	2602.2	2598.8	2597.1	2596.3	2590.4	2590.4	2587.8
7.5°	2578.5	2580.2	2582.7	2579.3	2578.5	2577.7	2571.7	2568.3	2561.6	2555.6	2557.3
10°	2551.4	2550.5	2554.8	2552.2	2548.9	2546.3	2541.2	2535.3	2527.7	2520.0	2519.2
12.5°	2520.9	2520.0	2523.4	2521.7	2519.2	2514.1	2509.9	2499.7	2487.9	2478.5	2477.7
15°	2501.4	2498.9	2502.3	2498.9	2494.6	2489.6	2481.9	2469.2	2448.0	2438.7	2431.1
17.5°	2520.0	2515.8	2517.5	2513.3	2507.3	2493.8	2476.0	2448.9	2418.4	2402.3	2390.4
20°	2585.3	2577.7	2579.3	2575.1	2561.6	2543.8	2509.9	2462.4	2410.8	2384.5	2365.9
22.5°	2678.5	2672.5	2675.1	2670.8	2657.3	2630.2	2579.3	2511.6	2437.9	2399.8	2370.1
25°	2819.9	2825.0	2826.7	2807.2	2799.6	2749.6	2679.3	2585.3	2487.0	2442.1	2401.5
27.5°	2979.2	2979.2	2986.8	2979.2	2963.9	2905.5	2806.4	2692.9	2566.6	2505.6	2456.5
30°	3134.2	3132.5	3146.9	3145.2	3120.6	3054.6	2941.9	2803.8	2659.8	2591.2	2528.5
32.5°	3298.5	3303.6	3312.9	3309.5	3277.3	3185.9	3050.3	2900.4	2748.8	2673.4	2603.1
35°	3476.4	3478.9	3482.3	3480.6	3415.4	3300.2	3129.9	2962.2	2804.7	2730.1	2657.3
37.5°	3654.3	3651.7	3647.5	3611.1	3536.5	3376.4	3178.2	2997.8	2832.6	2752.1	2676.8
40°	3813.5	3799.1	3785.6	3728.8	3614.5	3419.6	3196.9	3006.3	2830.1	2747.1	2673.4
42.5°	3900.8	3884.7	3856.7	3785.6	3646.7	3423.9	3184.2	2980.9	2803.8	2721.7	2648.8
45°	3916.9	3905.0	3877.9	3798.3	3639.0	3396.8	3145.2	2939.4	2764.9	2682.7	2614.1
47.5°	3878.8	3869.4	3843.2	3764.4	3606.0	3356.1	3100.3	2895.3	2726.7	2649.7	2583.6
50°	3820.3	3811.8	3791.5	3719.5	3568.7	3328.2	3077.4	2872.4	2714.0	2643.7	2582.7
52.5°	3915.2	3922.0	3862.7	3783.9	3608.5	3352.7	3102.8	2896.2	2736.9	2667.4	2603.9
55°	5389.9	5380.6	5024.0	4725.0	4190.5	3706.0	3344.3	3084.2	2913.9	2844.5	2785.2
57.5°	7003.6	6971.4	6824.9	6545.4	5971.0	5204.4	4507.3	3914.3	3680.5	3580.6	3587.4
60°	7530.5	7542.4	7511.0	7411.9	7206.1	6807.1	6276.8	5831.3	5392.5	5178.2	5202.7
62.5°	7822.7	7843.9	7871.0	7849.0	7782.1	7689.8	7622.8	7663.5	7602.5	7448.3	7325.5
65°	7863.4	7906.6	7996.4	8067.5	8102.3	8189.5	8394.5	8885.8	9334.8	9364.4	9148.4
67.5°	7058.7	7178.1	7372.9	7702.5	7984.5	8294.6	8789.3	9536.4	10198.8	10220.8	10019.2
69°	5550.0	5779.6	6007.5	6743.6	7239.1	7846.5	8578.3	9599.1	10392.8	10453.8	10199.6
70°	4447.1	4583.5	4780.0	5519.5	6259.9	7034.1	8094.7	9392.4	10259.8	10382.6	10102.2
72.5°	2670.0	2722.5	2790.3	3055.4	3436.6	4126.1	5532.3	7657.6	8654.6	8818.9	8462.3
75°	1726.3	1723.0	1728.9	1802.6	1824.6	1956.7	2399.8	3939.7	5645.8	5943.9	5517.0
77.5°	1300.3	1312.1	1293.5	1300.3	1294.3	1329.9	1343.5	1410.4	2228.7	2745.4	2454.8
80°	1147.8	1153.7	1154.6	1151.2	1109.7	1106.3	1128.3	1090.2	1013.1	1028.3	985.1
82.5°	654.8	653.9	661.6	719.2	742.9	820.8	853.0	870.8	803.9	753.9	681.9
85°	424.4	427.8	436.2	454.0	436.2	443.0	435.4	450.6	413.4	383.7	343.1
87.5°	173.7	173.7	184.7	200.8	187.2	183.8	157.6	155.9	132.1	119.4	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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6
2.5°	2606.5	2611.5	2609.0	2612.4	2609.8	2609.8	2606.5	2605.6	2608.1	2604.8	2605.6
5°	2583.6	2584.4	2580.2	2581.9	2576.8	2575.1	2572.6	2565.8	2570.0	2565.8	2567.5
7.5°	2550.5	2548.0	2542.1	2533.6	2527.7	2525.1	2520.0	2510.7	2512.4	2504.8	2509.0
10°	2508.2	2499.7	2489.6	2476.8	2468.4	2460.8	2449.7	2438.7	2432.8	2426.0	2425.2
12.5°	2460.8	2450.6	2437.0	2417.6	2398.9	2386.2	2369.3	2349.8	2343.9	2332.8	2326.9
15°	2409.1	2393.0	2376.9	2354.9	2334.5	2315.1	2292.2	2267.6	2251.5	2234.6	2221.9
17.5°	2362.5	2343.9	2322.7	2301.5	2279.5	2255.8	2227.0	2196.5	2172.7	2141.4	2116.0
20°	2326.1	2302.4	2281.2	2259.2	2234.6	2205.8	2171.1	2132.1	2092.3	2057.5	2027.9
22.5°	2311.7	2274.4	2249.0	2227.0	2202.4	2168.5	2126.2	2080.4	2032.1	1983.9	1944.9
25°	2323.5	2268.5	2228.7	2202.4	2181.2	2146.5	2099.1	2043.1	1987.2	1929.6	1877.1
27.5°	2358.3	2288.0	2230.4	2188.8	2164.3	2129.5	2079.6	2020.3	1954.2	1889.8	1825.4
30°	2412.5	2321.0	2248.1	2189.7	2151.6	2111.8	2059.2	1990.6	1923.7	1850.0	1779.7
32.5°	2465.0	2355.7	2268.5	2193.1	2134.6	2083.0	2024.5	1956.7	1884.7	1807.7	1734.8
35°	2502.3	2378.6	2276.1	2185.5	2108.4	2044.0	1981.3	1913.5	1843.2	1764.5	1689.9
37.5°	2520.0	2391.3	2276.9	2165.1	2073.6	2002.5	1935.6	1868.6	1802.6	1728.0	1657.7
40°	2519.2	2390.4	2265.1	2138.9	2032.1	1956.7	1890.7	1825.4	1763.6	1698.4	1634.9
42.5°	2500.6	2376.9	2248.1	2113.5	2002.5	1918.6	1850.0	1787.3	1734.8	1677.2	1623.8
45°	2471.8	2354.0	2230.4	2101.6	1994.0	1910.2	1837.3	1776.3	1729.7	1677.2	1631.5
47.5°	2449.7	2341.3	2232.9	2122.8	2020.3	1933.0	1855.9	1789.0	1749.2	1706.9	1674.7
50°	2453.1	2347.2	2241.4	2135.5	2038.9	1950.8	1876.3	1815.3	1786.5	1775.5	1767.8
52.5°	2470.9	2356.6	2266.8	2203.2	2170.2	2104.1	2060.1	2022.0	2043.1	2001.6	1952.5
55°	2697.9	2660.7	2747.9	2830.1	2934.3	2973.2	2936.0	2929.2	2963.1	2822.5	2499.7
57.5°	3635.6	3732.2	3866.9	3938.1	4024.5	4001.6	3915.2	3843.2	3758.5	3594.1	3191.8
60°	5230.7	5157.8	5096.9	4924.9	4784.3	4620.0	4437.0	4280.3	4130.3	3894.0	3458.6
62.5°	6874.0	6368.3	5945.6	5537.3	5208.7	4935.9	4670.8	4435.3	4208.3	3878.8	3410.3
65°	8295.4	7230.6	6436.9	5838.0	5357.8	4943.5	4603.0	4277.7	3988.9	3602.6	3139.3
67.5°	8934.1	7600.0	6445.4	5587.3	4922.4	4359.9	3919.4	3428.1	3104.5	2857.2	2596.3
69°	8886.7	7317.9	5985.4	4929.1	4165.1	3509.4	3036.8	2524.3	2214.3	2109.2	2103.3
70°	8661.3	6840.1	5448.4	4394.6	3520.4	2869.0	2415.9	1955.9	1667.0	1595.0	1723.0
72.5°	7071.4	4833.4	3414.6	2607.3	2005.0	1584.9	1292.6	1025.8	819.1	709.8	733.6
75°	3994.0	2238.0	1446.8	1093.6	924.2	764.1	655.6	559.1	505.7	410.8	325.3
77.5°	1451.9	960.6	764.1	660.7	468.4	322.7	270.2	236.3	214.3	214.3	204.1
80°	918.2	723.4	504.9	345.6	255.8	222.8	194.8	171.1	157.6	154.2	157.6
82.5°	573.5	443.0	282.9	216.9	182.1	163.5	142.3	124.5	113.5	111.0	116.0
85°	282.9	219.4	172.0	153.3	144.0	133.8	117.7	100.8	97.4	104.2	122.0
87.5°	84.7	75.4	61.8	64.4	67.8	66.1	52.5	45.7	43.2	56.8	88.9
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°	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6	2616.6
2.5°	2607.3	2606.5	2608.1	2605.6	2607.3	2608.1	2606.5	2614.1	2609.0	2609.8	2613.2
5°	2569.2	2567.5	2574.3	2572.6	2576.0	2579.3	2577.7	2588.7	2584.4	2587.8	2594.6
7.5°	2505.6	2509.0	2509.9	2509.9	2516.7	2527.7	2530.2	2537.0	2537.0	2546.3	2553.1
10°	2420.9	2421.8	2426.9	2426.0	2434.5	2446.4	2448.0	2459.9	2464.1	2479.4	2488.7
12.5°	2322.7	2318.4	2317.6	2316.8	2327.8	2340.5	2342.2	2362.5	2371.0	2384.5	2399.8
15°	2212.6	2201.5	2198.2	2204.9	2202.4	2210.0	2217.6	2228.7	2240.5	2267.6	2281.2
17.5°	2105.0	2083.0	2077.0	2069.4	2061.8	2061.8	2065.2	2078.7	2103.3	2117.7	2148.2
20°	1994.9	1968.6	1947.4	1927.1	1909.3	1902.5	1903.4	1920.3	1938.1	1961.8	1990.6
22.5°	1902.5	1862.7	1826.3	1799.2	1762.8	1761.9	1756.8	1761.9	1781.4	1787.3	1803.4
25°	1822.9	1769.5	1720.4	1676.4	1640.8	1622.1	1617.1	1615.4	1606.1	1603.5	1591.7
27.5°	1761.1	1696.7	1633.2	1579.8	1535.7	1510.3	1478.1	1455.3	1422.2	1413.8	1392.6
30°	1710.2	1640.8	1571.3	1501.9	1451.9	1406.1	1351.9	1312.1	1261.3	1228.3	1199.5
32.5°	1661.1	1590.8	1520.5	1451.9	1374.8	1303.6	1232.5	1170.7	1113.9	1063.1	1020.7
35°	1620.5	1553.5	1482.4	1399.4	1301.1	1198.6	1113.1	1042.8	964.8	911.5	858.1
37.5°	1594.2	1533.2	1462.1	1347.7	1221.5	1111.4	1013.9	928.4	848.8	768.3	708.2
40°	1582.3	1529.0	1440.0	1300.3	1152.0	1030.0	922.5	827.6	725.9	635.3	570.9
42.5°	1581.5	1527.3	1409.5	1247.7	1094.4	961.4	842.0	728.5	615.8	522.6	459.1
45°	1596.7	1524.7	1377.3	1203.7	1043.6	904.7	762.4	624.3	498.1	428.6	394.7
47.5°	1637.4	1529.0	1351.1	1163.0	995.3	836.1	670.9	509.9	405.7	373.6	373.6
50°	1710.2	1553.5	1344.3	1134.2	947.0	756.4	559.1	411.7	359.2	359.2	369.3
52.5°	1822.1	1605.2	1356.2	1113.9	886.9	651.4	440.5	354.9	344.8	354.1	367.6
55°	2079.6	1696.7	1372.3	1079.2	795.4	516.7	363.4	335.4	339.7	350.7	363.4
57.5°	2552.2	1892.4	1389.2	1002.9	648.0	398.1	329.5	327.8	335.4	345.6	356.6
60°	2863.1	2141.4	1432.4	887.7	490.5	328.7	312.6	322.7	332.1	340.5	349.0
62.5°	2863.1	2211.7	1464.6	759.0	368.5	299.0	301.6	317.7	328.7	332.9	338.0
65°	2680.1	2083.0	1355.3	618.4	299.9	282.1	291.4	307.5	317.7	321.0	325.3
67.5°	2342.2	1839.8	1141.9	465.9	267.7	267.7	279.5	291.4	299.9	306.6	313.4
69°	2036.4	1651.0	1005.5	394.7	255.0	256.7	268.5	278.7	288.9	297.3	305.8
70°	1816.1	1509.5	910.6	358.3	247.3	248.2	260.1	271.1	280.4	289.7	299.9
72.5°	972.4	1042.8	692.1	293.9	227.9	230.4	241.4	251.6	260.1	269.4	278.7
75°	331.2	448.1	440.5	240.6	205.8	212.6	219.4	228.7	239.7	245.7	250.7
77.5°	194.0	200.8	234.6	195.7	185.5	188.9	196.5	204.1	213.5	219.4	223.6
80°	162.6	161.8	162.6	159.3	161.8	169.4	174.5	184.7	193.1	194.8	194.0
82.5°	132.1	138.9	139.8	138.1	145.7	151.6	155.9	161.8	160.9	162.6	166.0
85°	117.7	116.9	122.8	123.7	123.7	119.4	120.3	120.3	120.3	122.8	123.7
87.5°	117.7	98.3	76.2	68.6	72.0	67.8	64.4	63.5	70.3	77.1	75.4
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°	2616.6	2616.6	2616.6	2616.6	2616.6
2.5°	2614.9	2617.5	2615.8	2615.8	2617.5
5°	2597.1	2601.4	2599.7	2601.4	2601.4
7.5°	2556.5	2562.4	2566.6	2570.9	2568.3
10°	2498.0	2508.2	2515.0	2520.0	2517.5
12.5°	2410.8	2420.1	2434.5	2443.0	2436.2
15°	2291.3	2317.6	2326.1	2337.9	2331.2
17.5°	2166.8	2182.9	2193.1	2204.1	2210.9
20°	2000.8	2013.5	2027.1	2032.1	2024.5
22.5°	1800.9	1807.7	1805.1	1812.7	1797.5
25°	1581.5	1585.7	1583.2	1590.0	1577.3
27.5°	1374.0	1373.1	1374.0	1365.5	1357.0
30°	1174.0	1166.4	1163.0	1150.3	1147.8
32.5°	995.3	969.1	955.5	936.9	932.6
35°	816.6	779.3	754.7	733.6	724.2
37.5°	656.5	611.6	582.8	564.2	561.6
40°	519.3	477.8	457.4	447.3	445.6
42.5°	423.5	405.7	400.7	400.7	400.7
45°	386.3	385.4	389.7	393.0	393.9
47.5°	378.6	383.7	389.7	394.7	396.4
50°	378.6	383.7	388.0	393.0	394.7
52.5°	376.9	381.2	382.9	386.3	388.0
55°	371.9	374.4	374.4	376.1	377.8
57.5°	363.4	365.1	362.5	364.2	368.5
60°	354.9	356.6	352.4	356.6	359.2
62.5°	345.6	346.5	344.8	348.1	348.1
65°	330.4	328.7	331.2	333.7	334.6
67.5°	315.1	310.9	313.4	314.3	316.0
69°	303.3	300.7	301.6	303.3	304.9
70°	294.8	293.1	294.8	297.3	299.9
72.5°	273.6	274.5	280.4	285.5	290.5
75°	254.1	260.1	267.7	278.7	284.6
77.5°	230.4	234.6	240.6	252.4	263.4
80°	199.1	201.6	202.5	206.7	205.8
82.5°	161.8	159.3	157.6	155.9	155.0
85°	116.0	115.2	108.4	103.3	103.3
87.5°	69.5	66.1	62.7	58.4	55.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)