

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: P158203

Luminaire Tested: **VST-F02-LED-E-U-SL2-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158203
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33712)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-F02-LED-E-U-SL2-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(2) LIGHTBARS WITH AccuLED OPTICS - TYPE 2 W/ SPILL LIGHT CONTROL
Light Source: (14) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4192.6 lumens
Efficiency: N/A
Efficacy: 76.2 lumens/watt
Luminous Opening: Rectangular (W 0.33' x L: 1' x H: 0')
IES Classification: Type II - Short - Non-Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 55
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



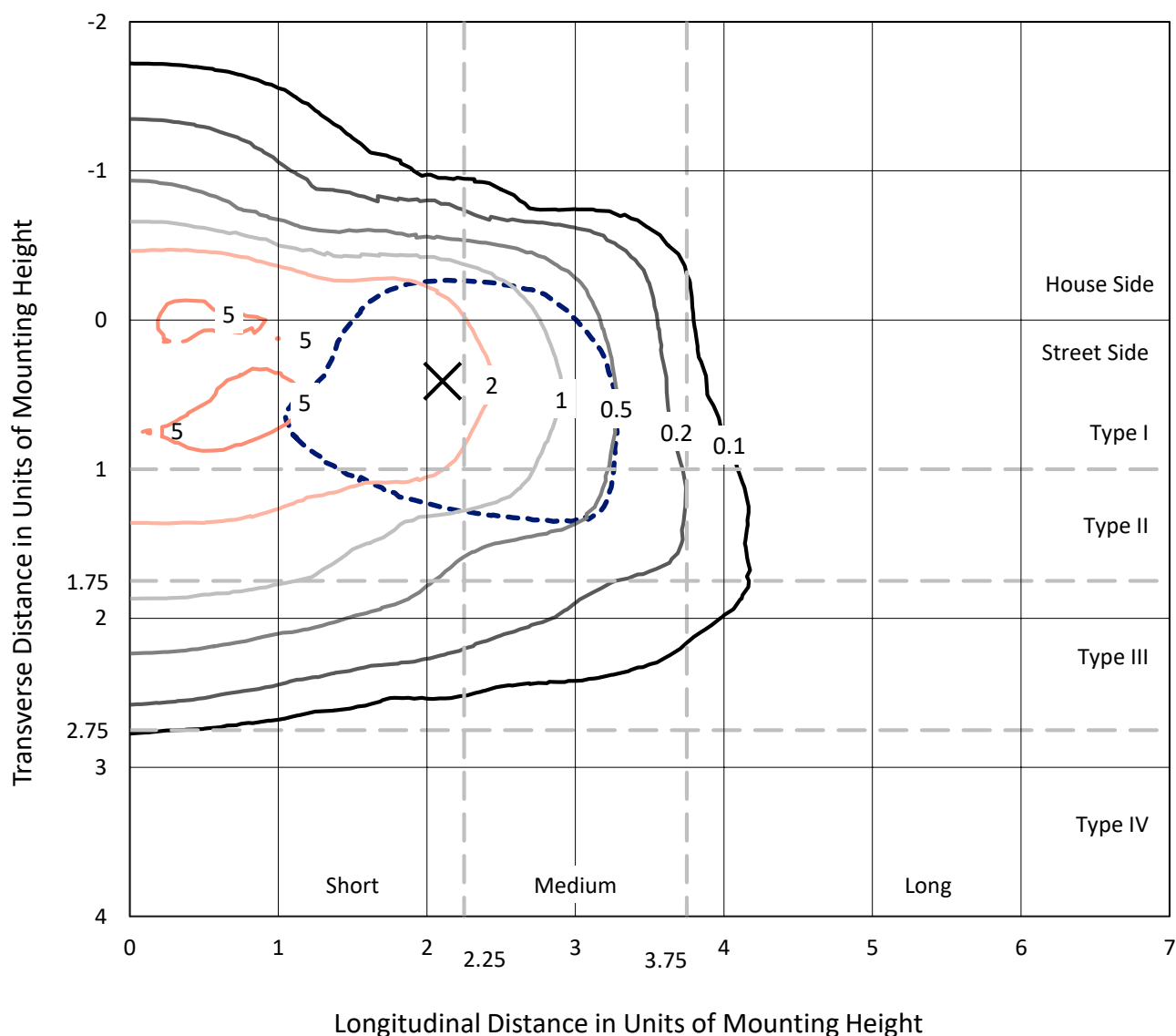
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

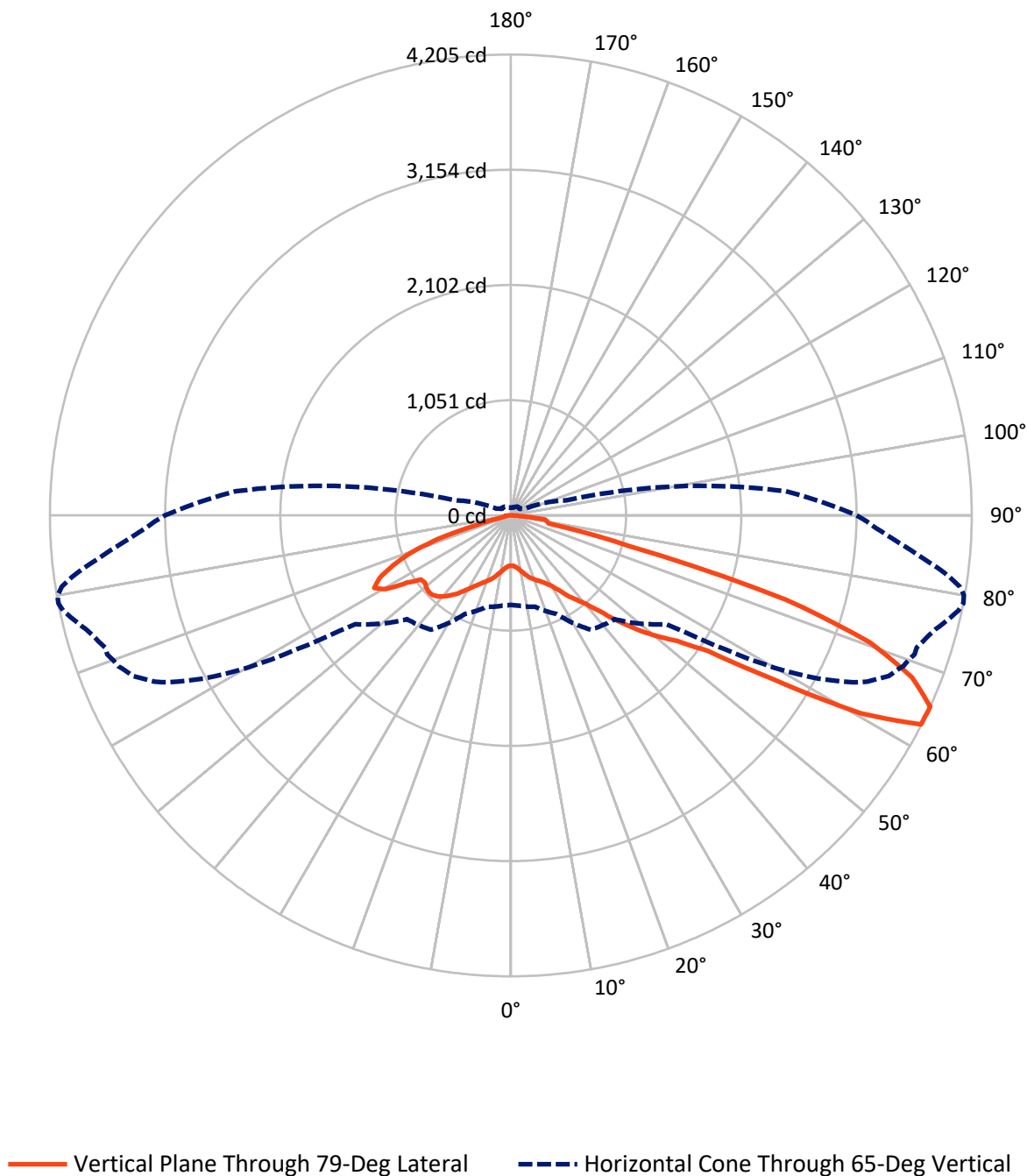


Based on 10 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Short - Non-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	963.4	0.0	963.4
	% Fixture	23.0	0.0	23.0
Street Side	Lumens	3229.2	0.0	3229.2
	% Fixture	77.0	0.0	77.0
Total	Lumens	4192.6	0.0	4192.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.4	1.1
10°-20°	147.4	3.5
20°-30°	254.1	6.1
30°-40°	416.2	9.9
40°-50°	697.0	16.6
50°-60°	942.8	22.5
60°-70°	1161.1	27.7
70°-80°	449.5	10.7
80°-90°	79.0	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°	4192.6	100.0
0°-180°	4192.6	100.0

Coefficient of Utilization



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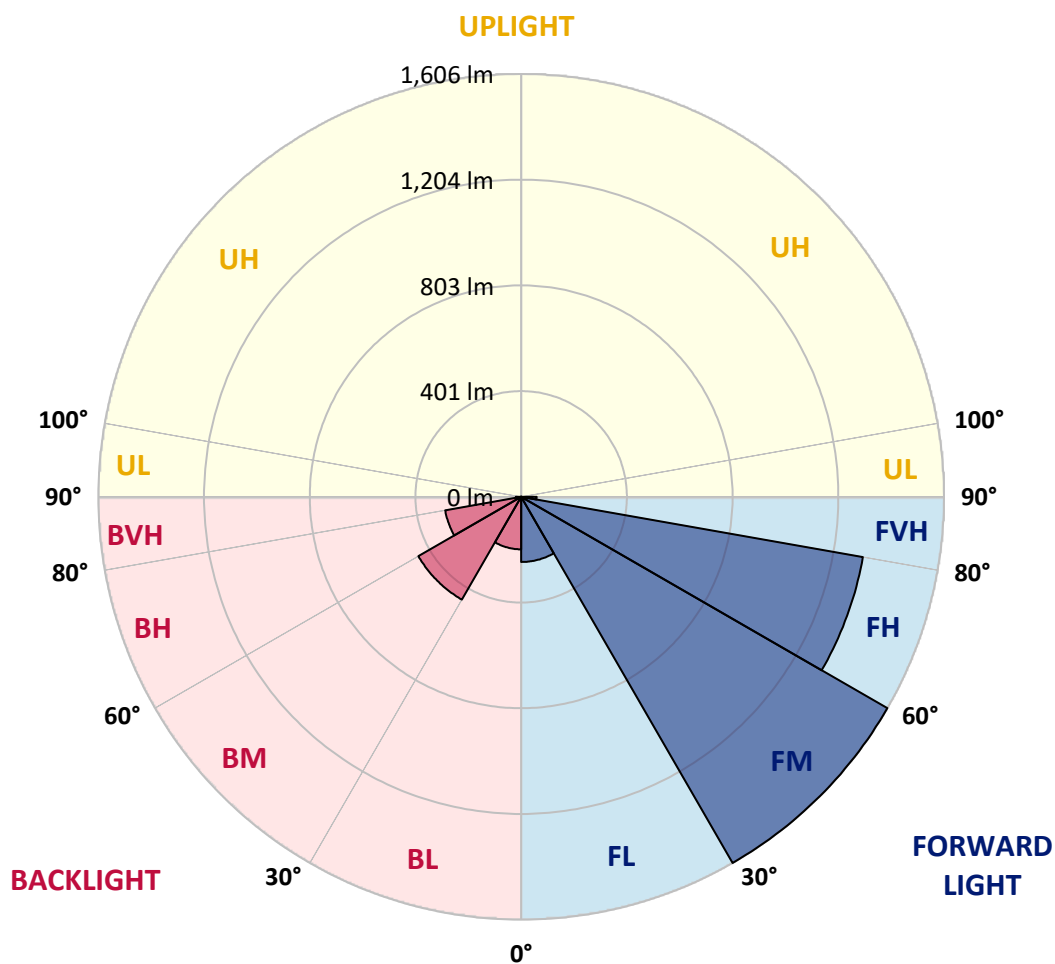
CATALOG NUMBER: VST-F02-LED-E-U-SL2-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	247.5	5.9			
FM	(30°-60°)	1605.6	38.3			
FH	(60°-80°)	1317.5	31.4			G1/1800
FVH	(80°-90°)	58.7	1.4			G1/100
BL	(0°-30°)	199.4	4.8	B1/500		
BM	(30°-60°)	450.5	10.7	B1/1000		
BH	(60°-80°)	293.1	7.0	B1/500		G1/500
BVH	(80°-90°)	20.4	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8
2.5°	459.5	458.2	459.5	460.7	461.5	462.7	462.4	462.1	461.8	462.1	462.1
5°	463.4	463.2	464.6	465.7	467.6	469.0	470.7	470.7	470.7	470.5	471.0
7.5°	476.0	475.7	477.1	478.3	479.9	482.7	484.9	486.1	485.8	485.8	485.8
10°	496.6	495.5	495.5	495.5	497.8	499.7	504.7	505.3	506.4	505.9	506.1
12.5°	516.7	517.0	516.1	515.3	515.6	519.5	526.7	528.1	528.4	529.3	529.8
15°	534.8	534.5	532.6	530.6	533.2	539.8	549.3	551.8	551.8	553.5	554.6
17.5°	551.5	551.0	547.4	544.0	546.5	557.9	572.7	574.4	576.9	577.7	578.8
20°	571.3	570.2	566.0	557.1	557.1	572.7	592.2	593.9	596.1	596.7	598.6
22.5°	598.9	596.1	587.2	571.0	566.6	584.7	608.6	609.5	611.2	613.4	615.1
25°	630.1	630.7	616.2	588.1	578.3	597.2	624.5	625.9	629.0	630.7	632.6
27.5°	662.5	663.3	647.1	612.0	595.6	614.5	646.0	647.7	651.3	653.3	656.3
30°	699.2	700.4	684.8	649.4	624.3	639.9	677.8	682.3	685.3	687.8	692.8
32.5°	787.6	780.9	770.0	732.4	692.8	691.7	729.1	734.1	738.2	743.6	748.3
35°	898.8	902.9	908.5	883.2	848.3	823.0	826.0	823.3	827.2	835.0	839.7
37.5°	986.9	996.1	1020.3	1036.7	1035.4	1030.3	983.5	983.5	986.0	981.8	981.3
40°	1056.0	1061.8	1111.4	1175.3	1229.0	1255.5	1218.5	1213.1	1216.0	1194.5	1195.3
42.5°	1091.6	1100.3	1171.6	1283.6	1390.4	1475.4	1464.0	1460.3	1452.0	1446.7	1443.4
45°	1109.8	1120.1	1205.1	1358.9	1514.4	1645.7	1704.8	1704.2	1696.7	1690.6	1687.8
47.5°	1100.6	1109.5	1200.1	1381.7	1579.6	1755.5	1886.2	1894.3	1892.0	1901.0	1904.6
50°	1040.3	1051.8	1142.6	1332.4	1552.3	1798.7	2011.9	2026.9	2047.3	2060.1	2077.1
52.5°	986.0	995.5	1077.4	1252.4	1462.6	1763.6	2087.7	2118.7	2146.5	2172.7	2193.1
55°	929.2	938.6	1010.5	1169.4	1372.0	1659.9	2122.3	2167.4	2210.9	2255.2	2295.9
57.5°	907.7	917.8	971.2	1105.0	1297.9	1557.1	2139.2	2213.4	2284.2	2359.4	2437.4
60°	963.4	972.4	1013.0	1106.7	1241.3	1454.2	2105.0	2221.5	2343.2	2467.3	2587.1
62.5°	946.4	951.2	1001.9	1147.1	1313.5	1352.8	1956.4	2110.3	2287.3	2468.9	2652.6
65°	816.6	825.8	863.9	991.6	1273.1	1339.1	1730.2	1884.8	2093.6	2308.4	2554.5
67.5°	585.8	573.0	602.5	714.3	987.7	1336.9	1475.4	1589.9	1753.6	1918.3	2120.0
70°	266.2	260.0	283.1	371.5	595.9	1056.5	1247.5	1286.2	1346.9	1457.8	1594.1
72.5°	105.1	104.8	119.8	153.5	281.8	680.0	1049.0	1071.3	1092.8	1141.0	1199.8
75°	68.8	68.8	73.3	82.8	138.8	328.3	887.3	907.7	940.6	954.2	979.3
77.5°	51.8	52.1	54.1	56.3	76.6	172.8	626.2	698.4	754.1	795.7	826.0
80°	36.8	38.5	42.1	43.5	49.9	98.4	353.9	406.1	469.0	536.2	620.6
82.5°	27.6	29.5	35.7	37.3	39.6	56.0	159.7	181.1	211.5	274.3	394.4
85°	12.8	14.2	24.5	26.8	28.7	32.3	81.1	90.6	102.8	112.6	131.3
87.5°	2.0	1.4	4.2	5.9	9.2	9.5	27.8	33.2	35.9	43.2	44.9
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):

	60°	61°	62°	64°	65°	66°	67°	68°	69°	70°	71°
0°	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8
2.5°	462.1	462.4	462.7	462.1	462.4	462.4	461.8	461.5	461.5	461.5	461.8
5°	471.0	471.5	471.0	471.3	472.4	472.1	471.5	471.3	472.4	472.7	471.8
7.5°	486.9	487.1	486.1	487.4	488.0	488.3	488.3	488.8	488.8	489.7	488.8
10°	507.2	507.2	509.2	508.9	509.2	509.8	510.0	511.1	512.0	512.0	512.5
12.5°	530.6	530.9	532.9	533.2	534.2	534.5	536.2	535.1	537.9	537.9	538.7
15°	554.9	556.9	557.1	559.9	560.5	560.8	563.0	563.0	564.9	565.2	565.7
17.5°	578.8	580.5	581.6	583.9	585.8	586.7	587.5	589.1	590.6	591.1	592.5
20°	599.5	601.1	602.3	604.5	606.2	607.6	608.4	610.3	611.8	612.3	614.2
22.5°	616.7	617.9	619.8	622.9	623.5	625.1	627.6	629.0	629.6	631.3	633.5
25°	635.2	636.8	637.9	640.7	643.0	645.7	647.9	650.2	650.8	653.0	655.0
27.5°	659.6	661.3	661.6	667.2	669.4	673.3	675.8	679.2	680.8	682.8	686.7
30°	695.9	699.8	701.5	707.9	709.0	713.5	717.9	719.0	721.6	721.8	728.2
32.5°	751.4	757.0	759.2	765.8	767.5	771.7	774.2	780.1	780.4	783.1	784.5
35°	842.2	840.8	849.5	851.2	856.1	859.8	862.3	862.3	867.6	867.8	869.5
37.5°	966.2	963.4	965.7	955.6	958.1	953.7	952.9	954.0	951.7	952.3	952.0
40°	1164.7	1152.1	1139.0	1108.1	1101.4	1088.6	1078.6	1070.5	1062.7	1054.3	1048.7
42.5°	1413.5	1395.4	1375.9	1326.3	1303.2	1278.4	1254.1	1240.2	1212.3	1195.3	1186.1
45°	1674.4	1653.2	1625.9	1584.7	1551.8	1525.3	1481.0	1460.1	1416.9	1395.4	1366.4
47.5°	1888.1	1888.4	1866.4	1824.6	1789.5	1771.9	1744.3	1703.9	1654.9	1627.3	1575.7
50°	2075.2	2074.9	2073.5	2048.4	2023.9	2004.7	1980.4	1943.9	1903.7	1872.5	1813.4
52.5°	2213.4	2231.8	2239.6	2239.3	2236.3	2227.3	2209.0	2177.5	2136.7	2119.2	2072.1
55°	2327.6	2367.8	2388.7	2434.4	2438.6	2453.3	2437.2	2437.4	2413.5	2415.2	2400.1
57.5°	2500.7	2574.0	2616.1	2717.3	2768.0	2829.3	2818.4	2869.7	2888.4	2912.1	2943.5
60°	2697.2	2834.0	2933.8	3135.1	3217.0	3316.2	3370.8	3429.1	3471.4	3514.9	3547.0
62.5°	2837.6	3017.4	3181.3	3468.1	3574.6	3679.0	3747.9	3818.4	3866.0	3897.2	3920.4
65°	2780.3	2978.9	3172.7	3473.3	3589.3	3665.1	3747.1	3787.7	3835.4	3861.3	3894.5
67.5°	2362.5	2561.8	2769.4	3124.1	3245.4	3350.2	3414.0	3466.7	3505.1	3538.0	3576.2
70°	1756.9	1974.8	2189.4	2578.5	2731.5	2882.8	2958.1	3023.3	3063.4	3096.6	3138.7
72.5°	1264.4	1401.0	1535.0	1970.6	2123.6	2319.3	2397.3	2469.8	2521.9	2520.2	2564.8
75°	1006.6	1062.1	1121.8	1346.6	1456.4	1621.4	1665.2	1705.9	1681.4	1634.3	1631.5
77.5°	838.0	860.9	881.0	951.5	967.6	1006.9	985.2	962.6	889.9	828.5	796.2
80°	680.3	725.5	755.0	805.1	825.8	837.5	840.5	832.7	806.0	768.9	709.9
82.5°	505.9	591.7	650.2	748.9	785.1	792.6	807.1	798.2	780.6	750.5	708.2
85°	148.3	167.8	192.3	260.9	305.7	343.9	382.9	402.2	414.1	397.4	353.6
87.5°	52.1	58.8	65.8	90.6	96.4	116.5	114.2	134.9	135.7	141.6	135.4
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):

	72°	73°	74°	75°	76°	77°	78°	79°	80°	81°	82°
0°	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8
2.5°	461.5	461.5	461.5	461.8	461.8	461.8	461.2	461.0	461.2	461.8	461.8
5°	472.4	472.7	473.2	472.1	472.4	473.2	472.7	472.4	472.7	473.2	472.7
7.5°	490.0	490.2	489.7	490.8	490.8	491.3	492.2	491.3	491.6	491.9	492.2
10°	512.8	513.1	513.7	514.4	514.7	515.3	515.9	516.7	516.7	516.1	517.6
12.5°	540.1	539.8	540.4	541.5	542.0	542.9	544.6	544.6	545.7	545.4	546.8
15°	566.9	568.3	568.6	570.5	571.3	572.7	574.7	575.8	575.8	577.4	578.0
17.5°	593.6	594.7	595.9	597.5	598.6	599.5	601.7	603.1	602.8	605.9	605.9
20°	614.2	616.5	617.9	619.0	620.9	622.3	624.0	625.7	626.8	628.7	629.3
22.5°	634.3	635.7	637.7	639.1	641.3	643.0	644.9	646.3	648.2	650.8	651.6
25°	656.6	658.9	661.1	663.0	664.7	666.7	670.0	673.0	675.8	678.1	678.9
27.5°	687.5	690.1	693.4	694.8	697.3	698.9	704.0	707.9	709.3	713.2	714.3
30°	729.4	732.1	735.5	737.2	741.6	743.8	749.2	753.3	754.7	759.4	760.3
32.5°	789.8	791.5	798.2	797.9	804.1	810.4	813.5	816.8	823.0	825.5	826.3
35°	873.7	877.6	882.4	882.1	889.9	893.5	899.6	903.2	907.7	907.4	912.2
37.5°	954.8	956.2	957.9	961.5	967.1	972.1	974.3	977.9	981.3	986.3	992.5
40°	1043.2	1046.5	1046.8	1048.7	1051.5	1057.9	1062.1	1066.0	1077.4	1084.7	1088.3
42.5°	1175.5	1174.7	1169.1	1172.8	1174.4	1184.2	1187.2	1199.2	1212.1	1227.4	1231.6
45°	1345.8	1334.6	1331.3	1329.9	1338.8	1343.9	1356.4	1378.7	1392.1	1406.6	1413.5
47.5°	1555.4	1520.6	1504.1	1500.5	1509.7	1531.1	1535.3	1557.4	1574.9	1585.5	1592.5
50°	1765.3	1738.0	1703.4	1691.7	1689.2	1709.0	1713.7	1732.1	1749.9	1753.0	1749.4
52.5°	2028.9	1984.3	1927.2	1906.6	1890.1	1891.5	1895.4	1903.2	1914.6	1909.9	1900.1
55°	2366.1	2315.4	2287.3	2248.2	2223.4	2219.0	2201.9	2178.5	2177.7	2180.8	2151.5
57.5°	2927.7	2906.5	2918.5	2914.3	2889.8	2904.5	2827.9	2806.2	2788.9	2758.8	2731.7
60°	3575.3	3597.1	3621.9	3679.0	3676.6	3733.9	3680.7	3667.3	3651.2	3558.4	3512.9
62.5°	3960.8	3969.4	4006.0	4059.2	4111.6	4166.5	4191.3	4199.9	4166.2	4090.4	3995.6
65°	3893.6	3931.8	3967.2	4013.2	4067.0	4121.9	4174.3	4204.9	4197.1	4147.0	4042.7
67.5°	3588.5	3628.6	3680.5	3728.6	3786.6	3834.3	3891.7	3948.0	3949.7	3924.6	3852.1
70°	3143.1	3189.7	3243.2	3270.2	3332.9	3376.1	3423.8	3479.5	3497.6	3500.7	3416.2
72.5°	2555.3	2574.8	2601.1	2586.8	2599.4	2627.0	2614.1	2618.6	2549.8	2562.6	2458.4
75°	1556.2	1538.4	1459.3	1387.1	1299.0	1231.3	1247.5	1118.1	990.8	984.4	892.4
77.5°	789.2	760.9	711.8	660.8	586.1	500.5	429.2	352.3	287.3	250.3	214.9
80°	672.2	652.1	625.1	588.1	533.7	470.5	396.0	337.5	283.1	226.6	181.4
82.5°	643.2	581.9	542.6	511.7	452.9	394.4	353.6	313.6	275.1	240.2	190.3
85°	319.1	282.3	238.9	211.8	163.0	127.6	119.6	98.4	91.7	70.8	59.6
87.5°	107.3	87.8	65.5	55.2	44.0	35.9	35.4	31.5	31.2	28.4	26.2
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):

	83°	84°	85°	86°	87°	88°	89°	90°	95°	105°	115°
0°	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8	458.8
2.5°	461.5	462.1	462.1	461.5	461.8	461.2	461.5	461.8	461.0	460.7	459.8
5°	472.9	472.7	472.7	472.9	473.8	474.1	472.7	473.2	473.5	472.1	469.0
7.5°	491.9	491.9	492.7	492.5	494.1	493.6	493.3	493.3	493.3	490.5	485.5
10°	517.6	517.6	518.4	519.5	519.8	519.2	519.2	519.5	520.9	515.3	507.5
12.5°	546.2	547.6	547.4	547.4	550.7	549.8	548.8	549.8	551.3	543.5	532.3
15°	578.3	579.1	579.7	581.6	581.1	583.0	583.6	583.0	584.4	574.4	555.7
17.5°	607.3	608.9	609.5	611.8	611.8	612.0	614.2	613.4	613.7	602.3	575.5
20°	631.3	632.9	633.8	636.2	636.8	637.9	638.8	639.3	640.7	627.1	591.7
22.5°	655.2	656.6	658.0	659.6	661.9	663.3	664.4	665.0	667.5	651.6	607.0
25°	682.0	685.0	686.4	689.2	691.4	693.7	695.3	695.6	699.8	680.0	619.6
27.5°	717.7	721.8	724.0	728.5	730.7	733.0	732.4	735.8	741.6	712.6	629.3
30°	764.5	769.7	771.1	775.6	779.2	781.4	784.0	786.8	790.7	748.9	634.0
32.5°	829.7	837.8	839.7	842.2	847.5	851.4	853.1	857.5	858.7	783.1	632.6
35°	919.1	915.5	925.0	927.2	934.7	937.8	939.8	945.6	941.2	820.5	623.5
37.5°	1000.0	998.8	1008.1	1013.0	1022.8	1020.6	1025.3	1029.2	1013.3	847.0	606.4
40°	1098.6	1097.2	1110.1	1111.7	1126.7	1123.4	1125.4	1128.4	1093.0	865.3	575.5
42.5°	1236.3	1236.8	1250.5	1252.2	1254.1	1260.2	1250.2	1250.8	1177.7	870.4	524.5
45°	1417.7	1427.5	1419.1	1419.4	1418.8	1407.1	1394.6	1379.8	1265.8	853.1	458.8
47.5°	1593.6	1586.9	1576.3	1566.5	1558.4	1540.1	1521.7	1496.6	1341.9	812.1	385.4
50°	1744.1	1729.0	1719.5	1692.5	1673.3	1649.3	1623.7	1595.0	1404.4	753.1	316.9
52.5°	1884.0	1868.3	1833.0	1804.8	1777.3	1745.5	1715.6	1681.9	1459.5	685.6	264.5
55°	2116.4	2102.8	2067.4	2015.8	1981.8	1938.1	1898.8	1853.0	1571.3	631.0	229.9
57.5°	2657.3	2645.6	2571.2	2538.6	2493.8	2384.0	2367.8	2296.4	1870.9	624.5	209.6
60°	3419.0	3368.9	3307.0	3217.8	3112.7	3076.5	2995.7	2900.6	2353.0	642.1	193.1
62.5°	3886.7	3772.4	3681.5	3578.7	3482.0	3398.9	3310.6	3216.7	2599.7	619.0	172.8
65°	3921.8	3787.4	3667.3	3546.7	3438.0	3334.6	3248.8	3154.8	2519.4	532.0	146.3
67.5°	3728.4	3586.8	3455.8	3319.0	3209.2	3115.8	3006.5	2916.2	2293.1	414.1	121.8
70°	3329.6	3205.3	3092.4	2945.0	2853.8	2740.1	2670.7	2557.9	1998.8	282.3	100.6
72.5°	2398.1	2304.5	2267.8	2164.9	2045.6	1978.7	1946.7	1837.1	1477.1	175.3	82.2
75°	810.2	833.3	780.4	699.2	738.8	677.8	702.6	650.5	624.8	100.6	69.1
77.5°	179.8	168.9	156.1	144.9	144.1	135.4	143.5	135.7	145.2	64.1	61.0
80°	141.8	112.0	95.3	86.9	82.5	80.0	78.1	75.8	69.1	54.6	56.3
82.5°	153.3	115.7	84.7	67.7	58.0	54.4	53.5	51.3	50.7	53.0	56.9
85°	49.1	41.0	34.9	32.9	30.4	29.0	28.4	27.6	33.4	57.7	54.6
87.5°	25.6	22.6	20.0	19.2	16.7	15.6	15.3	15.6	23.4	57.7	39.6
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):

	125°	135°	145°	155°	165°	175°	180°
0°	458.8	458.8	458.8	458.8	458.8	458.8	458.8
2.5°	459.0	458.8	458.2	457.9	457.6	456.2	457.3
5°	467.6	464.9	462.4	459.3	457.6	456.2	456.2
7.5°	480.7	472.9	466.6	459.5	454.8	451.2	450.7
10°	497.2	482.2	467.4	454.8	445.9	439.2	438.4
12.5°	512.8	490.0	466.6	445.9	432.0	422.5	421.9
15°	527.3	494.1	460.1	429.7	408.8	396.3	394.9
17.5°	538.7	491.6	445.6	407.2	378.7	364.0	363.1
20°	541.2	481.6	425.0	379.3	349.2	333.6	330.0
22.5°	539.0	463.4	399.4	348.7	314.1	298.5	296.5
25°	532.3	441.5	367.6	313.0	280.9	265.0	261.1
27.5°	520.3	415.6	333.3	278.4	246.7	231.3	227.4
30°	502.5	384.3	296.8	246.1	213.2	200.9	197.0
32.5°	477.7	346.4	260.9	212.9	185.6	175.9	174.2
35°	443.4	302.9	223.3	185.6	165.5	159.7	158.9
37.5°	399.7	259.4	191.8	166.1	151.6	148.0	147.4
40°	342.5	214.9	169.4	152.2	141.6	138.5	137.9
42.5°	283.7	181.4	153.0	141.0	132.4	129.6	128.8
45°	232.1	158.9	140.8	131.8	123.7	120.7	120.4
47.5°	193.7	145.7	130.7	123.5	115.4	111.8	112.0
50°	165.5	133.8	122.3	116.2	107.0	103.7	104.0
52.5°	146.3	121.8	114.5	107.6	99.8	96.4	96.4
55°	131.3	112.0	107.0	99.5	93.4	90.3	90.0
57.5°	119.0	104.2	99.8	93.7	87.5	83.9	83.9
60°	111.5	98.6	95.0	89.5	82.2	78.3	78.1
62.5°	107.0	97.0	93.9	86.1	78.1	74.2	73.3
65°	103.7	100.9	97.0	84.2	74.7	70.5	69.7
67.5°	104.0	110.1	104.5	85.3	73.6	67.4	66.3
70°	105.6	117.4	109.8	87.8	78.3	66.1	63.5
72.5°	97.3	106.2	98.9	83.6	76.4	63.5	60.5
75°	81.1	77.5	71.0	68.0	68.6	57.7	56.6
77.5°	65.8	57.7	51.5	54.1	57.7	49.3	48.2
80°	57.1	46.8	43.7	47.9	52.4	42.1	39.3
82.5°	53.5	39.6	37.6	49.9	54.9	36.2	31.8
85°	47.1	32.3	29.5	58.8	54.9	27.3	25.4
87.5°	31.5	19.2	18.4	43.2	37.6	19.0	15.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)