

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: P159751

Luminaire Tested: **VST-E03-LED-E-U-T4-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159751
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E03-LED-E-U-T4-7050
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (63) 5000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9162.2 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 75.2
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

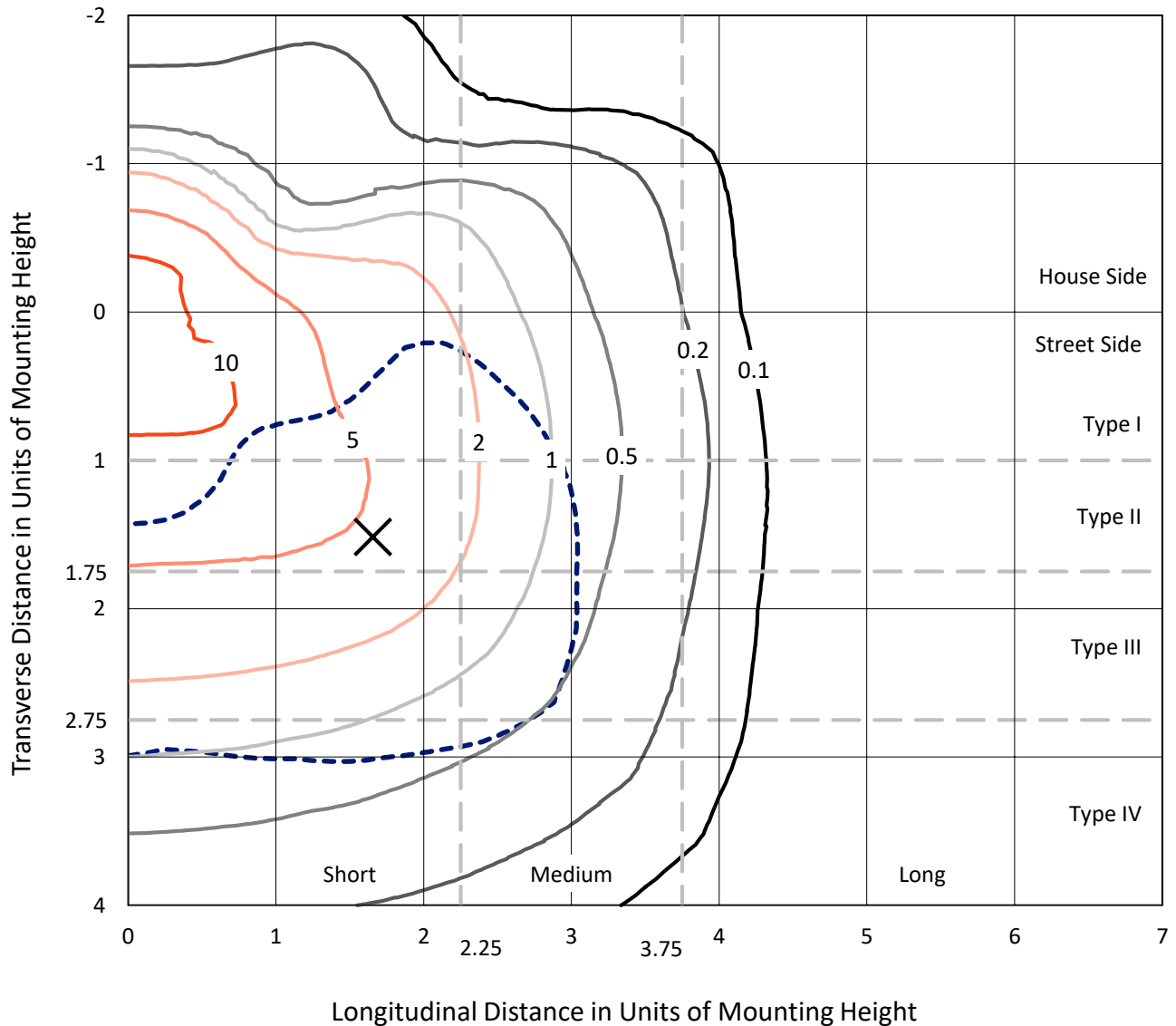


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

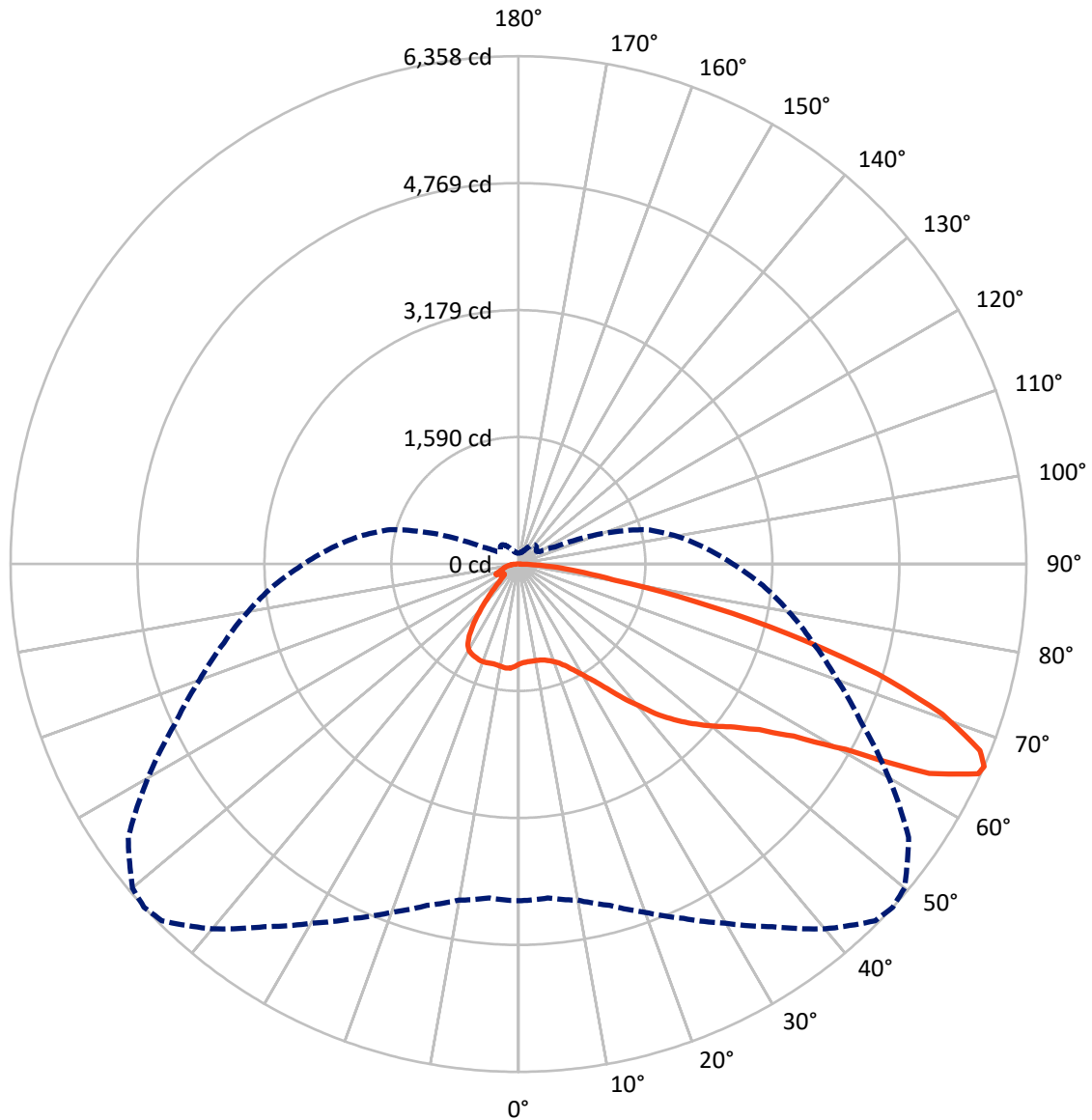


Based on 10 foot mounting height. Maximum calculated value = 12.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical

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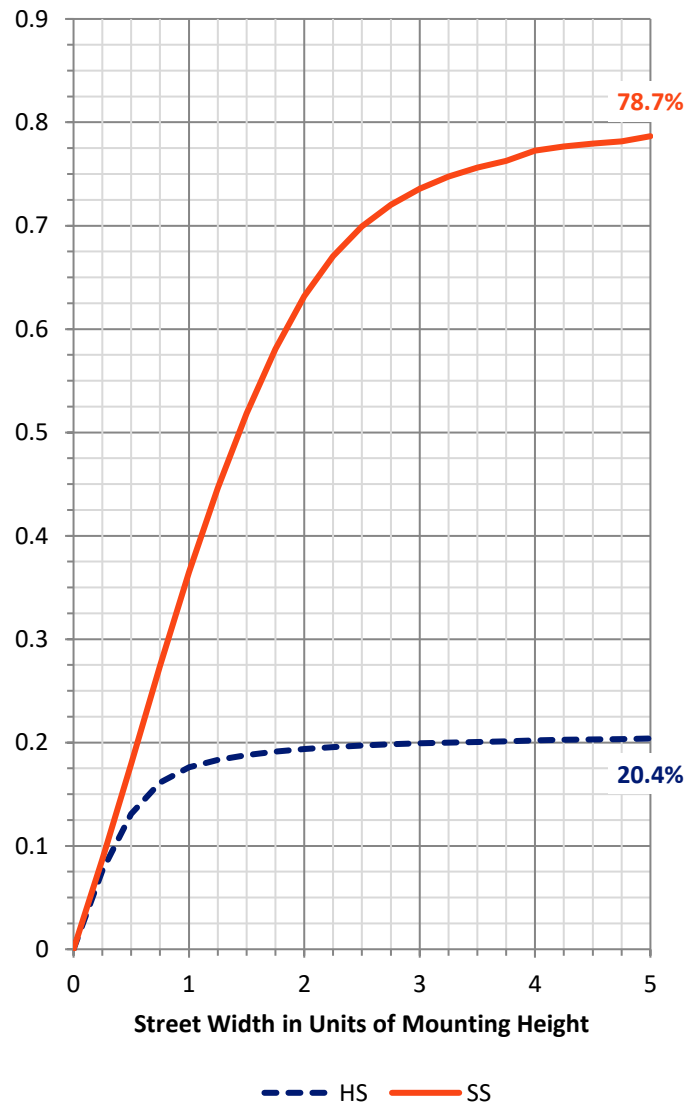
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1897.0	0.0	1897.0
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	7265.2	0.0	7265.2
	% Fixture	79.3	0.0	79.3
Total	Lumens	9162.2	0.0	9162.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.8	1.3
10°-20°	362.3	4.0
20°-30°	618.2	6.7
30°-40°	933.0	10.2
40°-50°	1212.7	13.2
50°-60°	1663.8	18.2
60°-70°	2559.4	27.9
70°-80°	1479.5	16.1
80°-90°	212.5	2.3
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°	9162.2	100.0
0°-180°	9162.2	100.0

Coefficient of Utilization



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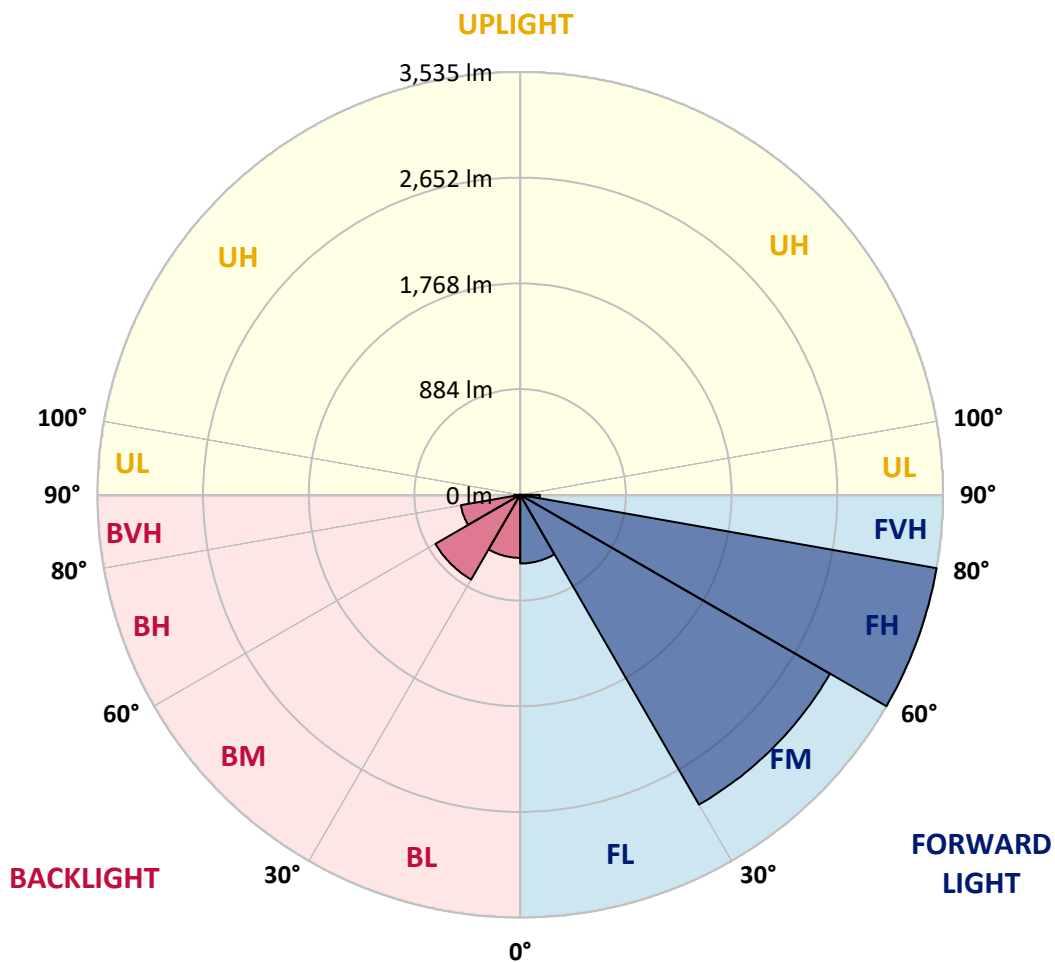
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	574.3	6.3			
FM (30°-60°)	2991.1	32.6			
FH (60°-80°)	3535.4	38.6			G2/5000
FVH (80°-90°)	164.5	1.8			G2/225
BL (0°-30°)	527.0	5.8	B2/1000		
BM (30°-60°)	818.4	8.9	B1/1000		
BH (60°-80°)	503.5	5.5	B2/1000		G2/1000
BVH (80°-90°)	48.1	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°	45°	47.5°	
0°	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5
2.5°	1221.5	1222.1	1222.7	1222.7	1224.5	1224.5	1227.7	1229.5	1230.1	1233.8	1233.8	1236.2
5°	1198.7	1198.1	1198.7	1199.9	1203.0	1205.5	1211.6	1216.0	1219.6	1225.8	1225.8	1228.9
7.5°	1188.8	1190.1	1191.3	1191.9	1194.4	1200.5	1206.1	1210.4	1217.8	1225.1	1225.1	1228.3
10°	1201.8	1203.6	1201.8	1203.0	1203.0	1208.5	1211.0	1214.1	1219.6	1226.4	1226.4	1228.3
12.5°	1231.9	1235.6	1231.9	1228.9	1226.4	1231.3	1230.1	1227.7	1230.7	1232.6	1232.6	1232.6
15°	1281.8	1281.8	1279.3	1275.1	1268.9	1269.5	1264.0	1258.4	1256.0	1251.7	1251.7	1248.5
17.5°	1330.4	1329.2	1323.7	1318.1	1313.8	1312.0	1304.0	1296.6	1288.0	1281.2	1281.2	1273.8
20°	1377.8	1382.8	1376.0	1368.0	1361.2	1356.9	1350.8	1336.0	1325.5	1314.4	1314.4	1307.0
22.5°	1459.7	1455.4	1448.0	1436.3	1429.6	1422.2	1409.3	1393.3	1377.2	1363.7	1363.7	1354.4
25°	1544.1	1539.8	1529.3	1520.7	1510.9	1504.7	1490.5	1470.8	1455.4	1434.5	1434.5	1422.2
27.5°	1634.6	1630.9	1618.6	1611.8	1605.1	1597.6	1585.3	1565.0	1550.9	1526.8	1526.8	1513.9
30°	1736.8	1736.2	1719.5	1718.3	1708.4	1700.5	1691.8	1674.6	1660.4	1636.4	1636.4	1621.0
32.5°	1845.8	1843.3	1831.6	1827.9	1834.7	1829.2	1816.8	1799.0	1780.5	1766.3	1766.3	1749.1
35°	2000.9	1996.6	1989.8	1992.9	1997.2	2012.6	1993.5	1978.1	1955.9	1937.5	1937.5	1913.5
37.5°	2114.2	2108.0	2116.0	2133.3	2157.9	2169.6	2186.2	2186.8	2176.4	2151.7	2151.7	2130.8
40°	2218.3	2215.8	2234.2	2258.3	2303.8	2337.1	2368.4	2383.9	2387.5	2371.6	2371.6	2340.1
42.5°	2306.3	2313.7	2338.3	2375.2	2439.2	2489.8	2548.3	2584.6	2607.4	2598.7	2598.7	2584.6
45°	2410.9	2414.6	2444.8	2491.6	2552.5	2636.3	2713.2	2774.8	2814.8	2814.2	2814.2	2798.2
47.5°	2542.1	2542.7	2568.5	2623.3	2688.6	2773.6	2870.8	2952.7	3005.6	3008.2	3008.2	2995.8
50°	2697.8	2696.6	2724.9	2776.6	2846.2	2928.1	3031.5	3133.7	3207.6	3207.6	3207.6	3189.8
52.5°	2898.5	2896.1	2911.5	2957.0	3024.1	3110.3	3213.1	3331.4	3411.4	3428.6	3428.6	3389.8
55°	3166.4	3170.0	3173.8	3213.8	3271.0	3339.4	3457.6	3566.5	3673.7	3683.5	3683.5	3660.7
57.5°	3476.0	3463.7	3490.2	3555.5	3620.7	3706.3	3790.0	3918.7	4045.5	4067.1	4067.1	4064.0
60°	3959.9	3943.9	3971.0	4054.1	4126.2	4261.0	4404.5	4570.7	4720.9	4765.3	4765.3	4711.7
62.5°	4405.1	4424.8	4461.7	4558.4	4663.0	4842.8	5058.3	5343.4	5628.4	5783.5	5783.5	5772.5
65°	4365.1	4346.6	4417.4	4549.1	4738.7	4967.8	5235.6	5579.2	5989.8	6301.3	6301.3	6329.0
66°	4216.7	4197.6	4273.9	4424.8	4641.5	4896.4	5193.7	5543.5	5963.3	6315.5	6315.5	6358.0
67.5°	3971.6	3952.6	4038.8	4176.1	4399.5	4720.3	5041.7	5424.0	5860.5	6197.9	6197.9	6232.4
70°	3498.8	3473.0	3540.1	3695.2	3876.2	4186.5	4492.5	4897.6	5345.8	5615.5	5615.5	5628.4
72.5°	2963.8	2903.5	2974.9	3094.3	3223.6	3480.4	3746.9	4024.0	4381.1	4630.4	4630.4	4701.8
75°	2150.5	2181.9	2202.8	2281.6	2367.2	2579.6	2736.0	2968.1	3244.6	3424.9	3424.9	3482.2
77.5°	1140.8	1188.2	1217.8	1296.6	1438.2	1600.1	1769.4	1912.9	2094.5	2195.5	2195.5	2265.7
80°	640.3	673.6	721.6	783.7	852.7	977.0	1077.4	1151.3	1177.1	1195.0	1195.0	1211.0
82.5°	352.1	436.5	507.9	551.0	591.7	641.5	701.2	762.8	782.5	752.9	752.9	737.6
85°	54.8	80.6	245.6	299.8	326.3	364.5	407.6	453.1	453.7	390.4	390.4	426.1
87.5°	15.4	17.2	35.1	52.9	51.7	41.9	51.7	94.2	55.4	27.7	27.7	32.0
90°	0.0	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°	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5
2.5°	1237.5	1238.7	1241.8	1244.9	1247.9	1251.0	1252.9	1256.0	1258.4	1262.1	1266.4
5°	1232.6	1235.6	1241.2	1247.9	1254.1	1259.6	1264.0	1270.1	1275.7	1280.6	1288.0
7.5°	1232.6	1238.7	1247.9	1255.3	1260.9	1267.7	1274.4	1280.6	1286.8	1291.7	1296.6
10°	1233.2	1239.4	1248.5	1257.2	1263.4	1270.7	1276.3	1281.8	1288.6	1291.7	1297.8
12.5°	1235.6	1238.1	1244.9	1253.5	1260.9	1268.3	1273.8	1279.3	1286.8	1288.0	1292.3
15°	1247.9	1244.3	1246.1	1252.3	1260.2	1266.4	1272.6	1276.9	1281.8	1280.6	1284.3
17.5°	1270.7	1261.5	1257.8	1258.4	1262.1	1266.4	1268.9	1269.5	1270.1	1264.6	1265.2
20°	1301.5	1288.6	1280.0	1275.7	1270.7	1266.4	1259.6	1251.7	1244.3	1233.2	1231.9
22.5°	1347.7	1328.6	1319.3	1307.6	1292.9	1274.4	1257.8	1238.1	1222.1	1205.5	1199.3
25°	1414.8	1395.1	1385.2	1366.8	1340.3	1313.8	1289.8	1263.4	1240.0	1220.2	1211.0
27.5°	1504.7	1485.0	1474.5	1455.4	1422.8	1396.3	1363.1	1334.8	1306.4	1277.5	1265.8
30°	1613.6	1596.4	1584.7	1569.3	1541.0	1512.1	1473.3	1429.6	1384.6	1338.5	1315.7
32.5°	1742.3	1723.3	1714.6	1696.7	1667.2	1637.0	1594.0	1537.9	1462.8	1390.1	1344.6
35°	1903.0	1881.5	1871.6	1848.2	1813.7	1769.4	1723.3	1648.1	1546.6	1445.6	1371.1
37.5°	2117.9	2069.9	2037.2	1983.7	1928.3	1866.1	1800.2	1723.3	1603.2	1478.2	1374.8
40°	2308.1	2259.5	2196.7	2119.7	2033.5	1948.0	1872.8	1785.4	1654.9	1501.6	1363.1
42.5°	2544.5	2458.3	2358.0	2254.0	2139.4	2034.2	1944.9	1842.1	1690.0	1507.7	1330.4
45°	2760.7	2657.8	2523.6	2385.1	2242.9	2110.5	2010.1	1895.6	1720.1	1507.7	1291.0
47.5°	2957.6	2834.5	2673.8	2501.5	2335.8	2191.1	2077.3	1950.4	1762.6	1526.8	1279.3
50°	3139.9	2998.3	2815.4	2615.3	2429.4	2274.9	2152.4	2020.6	1827.3	1576.1	1307.6
52.5°	3332.0	3181.7	2958.9	2746.5	2541.5	2375.8	2245.3	2107.4	1911.0	1653.7	1357.6
55°	3583.8	3407.7	3154.7	2920.7	2695.4	2512.5	2364.1	2211.5	2002.7	1741.1	1418.5
57.5°	3980.9	3725.4	3472.3	3168.2	2955.8	2715.1	2552.5	2377.1	2151.7	1855.0	1510.2
60°	4676.0	4362.0	4057.9	3708.1	3445.9	3194.0	2948.4	2719.4	2447.9	2112.4	1711.6
62.5°	5668.4	5349.5	4871.8	4443.8	4048.0	3714.3	3394.1	3103.0	2754.5	2387.5	1959.7
65°	6261.3	5896.2	5326.7	4751.7	4270.9	3857.2	3490.8	3134.3	2758.2	2400.5	2034.8
66°	6308.7	5963.3	5355.1	4747.4	4248.1	3818.9	3437.9	3069.1	2683.7	2341.4	2010.1
67.5°	6220.7	5923.3	5297.2	4663.6	4153.3	3689.6	3298.1	2911.5	2524.2	2207.2	1928.3
70°	5599.4	5384.6	4847.8	4254.2	3745.1	3336.3	2923.1	2551.3	2184.4	1917.8	1710.9
72.5°	4590.4	4318.3	3942.7	3543.8	3143.0	2780.3	2404.8	2088.3	1780.5	1586.6	1440.1
75°	3372.0	3127.0	2713.2	2464.5	2199.8	1972.0	1718.9	1419.1	1200.5	1103.3	1067.6
77.5°	2137.6	1871.6	1522.6	1247.9	1073.1	922.3	727.1	578.1	463.0	482.0	533.8
80°	1079.9	930.2	696.3	549.8	475.3	395.3	312.8	237.1	173.0	197.6	223.5
82.5°	693.2	578.7	461.2	363.2	306.6	270.3	216.1	157.0	117.0	131.8	161.3
85°	417.4	352.8	281.3	230.3	200.1	166.9	122.5	86.8	86.2	92.3	113.9
87.5°	63.4	90.5	52.3	56.0	59.1	63.4	56.0	47.4	41.2	53.6	67.7
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°	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5	1253.5
2.5°	1270.7	1271.9	1274.4	1277.5	1276.9	1281.2	1283.6	1281.2	1286.8	1286.8	1289.8
5°	1294.1	1296.0	1300.3	1303.4	1304.6	1308.3	1309.5	1308.9	1310.2	1310.8	1312.0
7.5°	1300.9	1305.8	1307.6	1309.5	1310.2	1311.4	1311.4	1310.2	1310.2	1309.5	1310.8
10°	1299.1	1300.9	1302.1	1301.5	1301.5	1300.3	1299.7	1299.1	1299.1	1297.8	1299.7
12.5°	1292.9	1292.9	1292.9	1291.7	1291.7	1291.0	1291.0	1291.0	1292.3	1292.9	1296.0
15°	1280.6	1280.6	1281.8	1281.2	1283.0	1286.1	1289.8	1292.3	1295.3	1296.0	1297.8
17.5°	1261.5	1262.1	1265.8	1273.8	1281.8	1291.0	1297.8	1299.7	1297.2	1291.0	1286.8
20°	1228.3	1236.2	1251.0	1270.1	1288.0	1299.7	1302.7	1295.3	1283.6	1267.7	1259.0
22.5°	1198.7	1214.7	1241.2	1272.6	1294.7	1302.7	1293.5	1276.3	1255.3	1236.8	1223.9
25°	1210.4	1228.9	1256.6	1283.6	1297.8	1293.5	1275.1	1250.4	1228.3	1206.7	1185.8
27.5°	1259.6	1278.1	1297.8	1305.8	1300.9	1284.9	1259.0	1232.6	1203.0	1172.2	1146.4
30°	1306.4	1316.9	1318.1	1310.2	1292.3	1266.4	1236.2	1205.5	1167.9	1131.0	1098.4
32.5°	1321.2	1308.9	1286.8	1264.0	1239.4	1212.8	1177.7	1137.1	1097.1	1055.2	1018.9
35°	1316.9	1267.0	1212.2	1163.6	1134.1	1103.9	1071.8	1017.7	972.7	937.0	913.6
37.5°	1278.1	1187.0	1102.7	1031.9	985.7	950.0	902.6	857.6	818.8	802.8	783.7
40°	1223.9	1084.8	967.8	868.7	820.7	775.1	722.2	687.7	676.6	661.9	662.5
42.5°	1146.4	965.3	814.5	700.6	648.3	598.4	560.9	540.5	541.1	528.8	531.3
45°	1064.5	845.3	655.7	542.4	490.7	448.2	427.3	421.1	421.7	422.3	418.7
47.5°	1014.6	751.7	525.8	411.2	365.7	341.7	330.6	327.5	328.1	328.7	324.5
50°	1007.2	703.1	439.0	314.6	285.1	271.5	266.0	262.9	262.9	260.4	256.7
52.5°	1028.2	690.8	396.5	272.8	244.4	232.1	227.8	225.4	221.6	216.7	209.9
55°	1061.4	701.9	383.6	258.6	230.9	218.6	213.0	211.8	205.6	196.4	185.3
57.5°	1123.0	741.9	392.2	262.3	233.3	222.2	218.6	217.3	208.7	194.5	180.4
60°	1299.7	858.2	435.3	283.2	251.2	242.0	242.0	240.1	228.4	208.1	187.8
62.5°	1543.4	1028.8	493.7	312.1	275.8	274.6	285.1	285.7	264.7	232.1	200.1
65°	1661.0	1108.8	514.1	318.3	282.6	296.8	317.7	317.7	288.1	243.2	202.0
66°	1661.7	1106.9	507.9	310.9	275.2	293.7	315.2	315.2	284.5	240.1	198.8
67.5°	1619.2	1072.5	487.6	297.4	258.6	275.8	294.9	294.3	266.6	227.8	190.3
70°	1452.4	948.7	429.7	275.2	238.9	239.5	246.2	242.0	223.5	197.0	173.0
72.5°	1252.3	793.6	372.5	261.1	223.5	211.8	206.2	202.6	190.9	174.8	160.1
75°	960.4	616.3	324.5	248.1	209.9	189.6	182.2	179.2	171.2	161.9	150.2
77.5°	588.6	422.3	275.2	227.2	194.5	176.1	168.1	161.9	153.9	145.3	137.3
80°	253.7	254.9	220.4	192.7	169.3	147.8	137.3	129.9	125.6	122.5	118.2
82.5°	177.3	182.9	168.1	149.6	129.3	113.9	104.6	102.8	103.4	103.4	102.2
85°	133.0	130.5	117.6	107.1	97.9	88.0	80.6	80.0	82.5	82.5	80.6
87.5°	77.0	77.6	66.5	62.2	64.6	55.4	50.5	51.1	57.2	56.6	55.4
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°	1253.5	1253.5	1253.5	1253.5	1253.5
2.5°	1289.8	1291.7	1291.0	1292.9	1291.0
5°	1313.8	1313.2	1312.6	1315.1	1312.0
7.5°	1310.2	1310.8	1310.8	1310.8	1310.2
10°	1300.9	1303.4	1304.6	1307.0	1306.4
12.5°	1297.8	1301.5	1305.2	1308.9	1309.5
15°	1298.5	1300.9	1302.7	1304.6	1305.2
17.5°	1282.4	1281.8	1280.0	1278.7	1277.5
20°	1249.8	1246.7	1243.6	1238.7	1241.2
22.5°	1209.2	1200.5	1190.7	1182.7	1182.1
25°	1161.8	1145.8	1129.7	1119.3	1115.6
27.5°	1119.9	1100.8	1084.2	1075.0	1072.5
30°	1070.0	1052.8	1038.0	1030.0	1025.1
32.5°	996.1	982.6	964.1	958.0	957.4
35°	893.3	882.8	869.9	867.5	864.4
37.5°	776.9	773.3	767.1	759.7	758.5
40°	652.6	655.1	653.2	648.9	642.1
42.5°	532.6	536.9	537.5	540.5	543.7
45°	424.2	427.9	427.9	431.0	434.6
47.5°	325.7	323.2	325.1	328.1	330.0
50°	246.2	244.4	241.3	238.9	236.4
52.5°	198.2	194.5	185.9	183.5	181.0
55°	174.8	168.1	161.9	159.5	159.5
57.5°	168.1	159.5	152.7	149.6	148.4
60°	169.3	157.0	148.4	143.5	141.6
62.5°	174.8	157.6	145.9	140.4	138.5
65°	174.2	156.4	145.3	139.1	137.3
66°	171.2	154.6	144.1	138.5	137.3
67.5°	166.2	152.0	142.9	137.9	136.1
70°	156.4	147.1	140.4	136.1	134.2
72.5°	148.4	142.2	136.1	131.2	129.9
75°	141.0	134.8	129.3	126.8	125.0
77.5°	129.9	124.4	121.3	118.8	117.6
80°	115.1	111.4	107.8	105.3	103.4
82.5°	100.4	95.4	91.7	89.9	88.7
85°	81.9	78.8	73.3	69.5	68.9
87.5°	54.8	51.7	49.9	46.8	43.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)