

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: P159539

Luminaire Tested: **VST-E04-LED-E-U-T3-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159539
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33706)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: VST-E04-LED-E-U-T3-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11173.4 lumens
Efficiency: N/A
Efficacy: 115.0 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 97.2
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

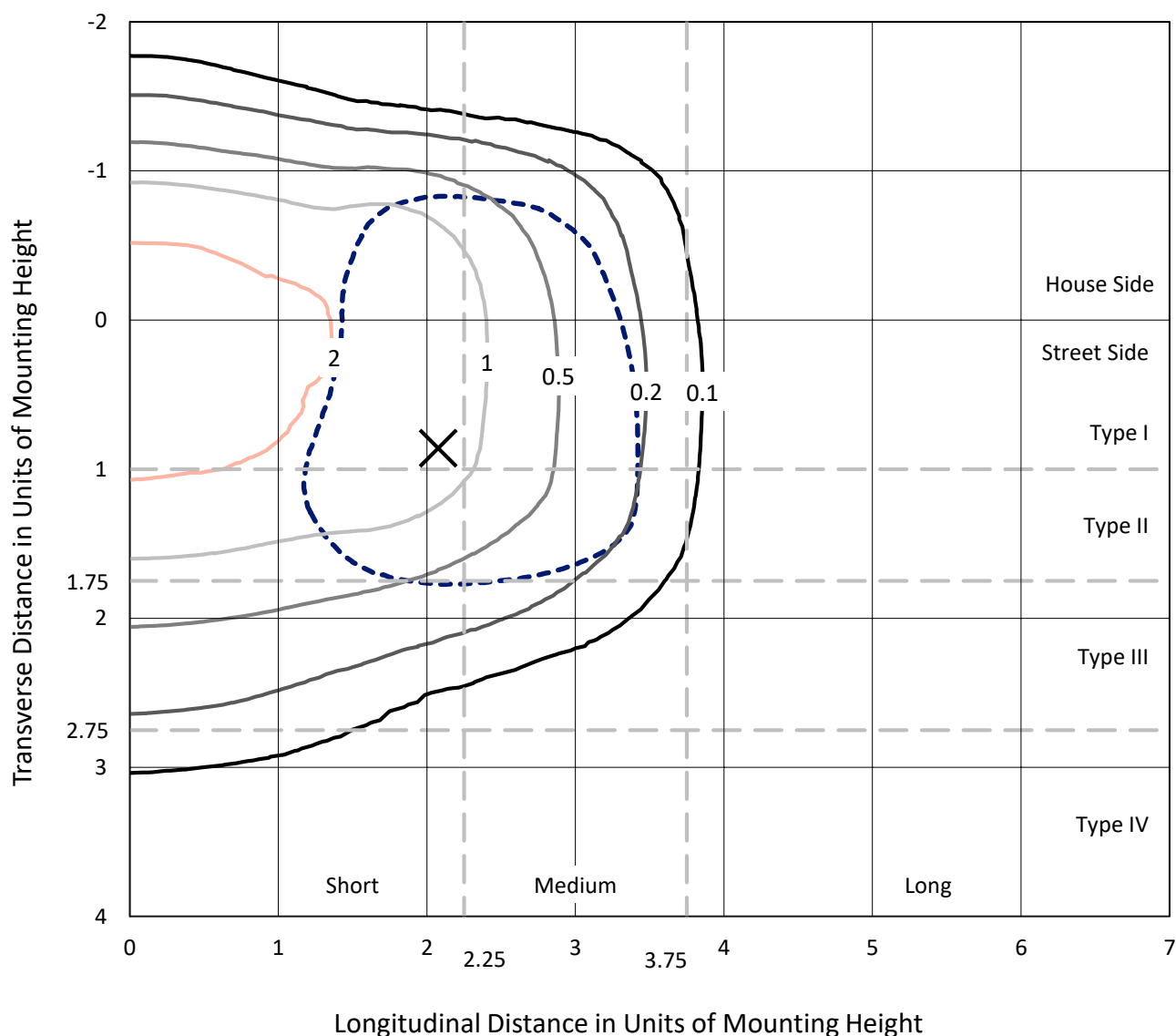


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

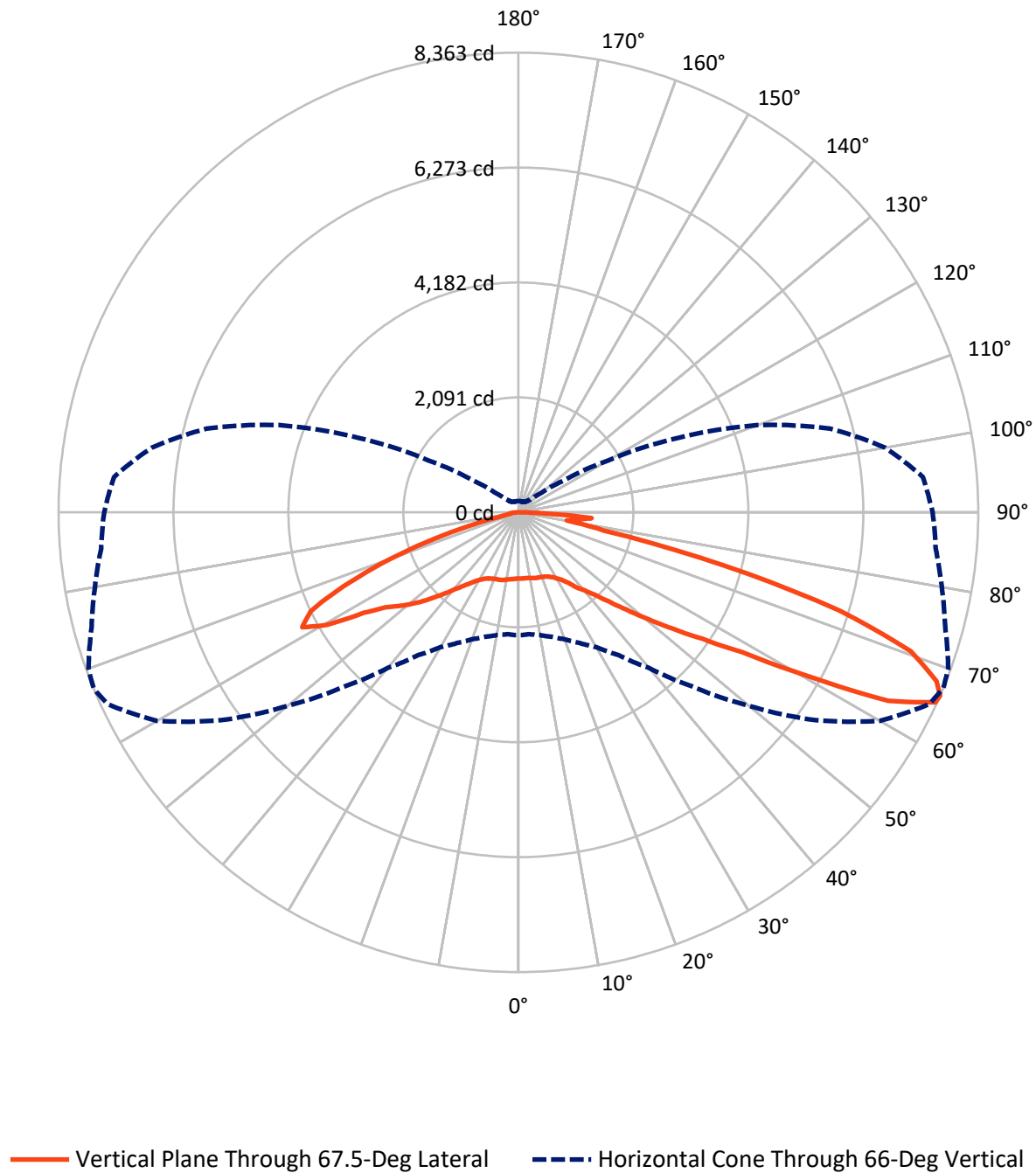


Based on 20 foot mounting height. Maximum calculated value = 3 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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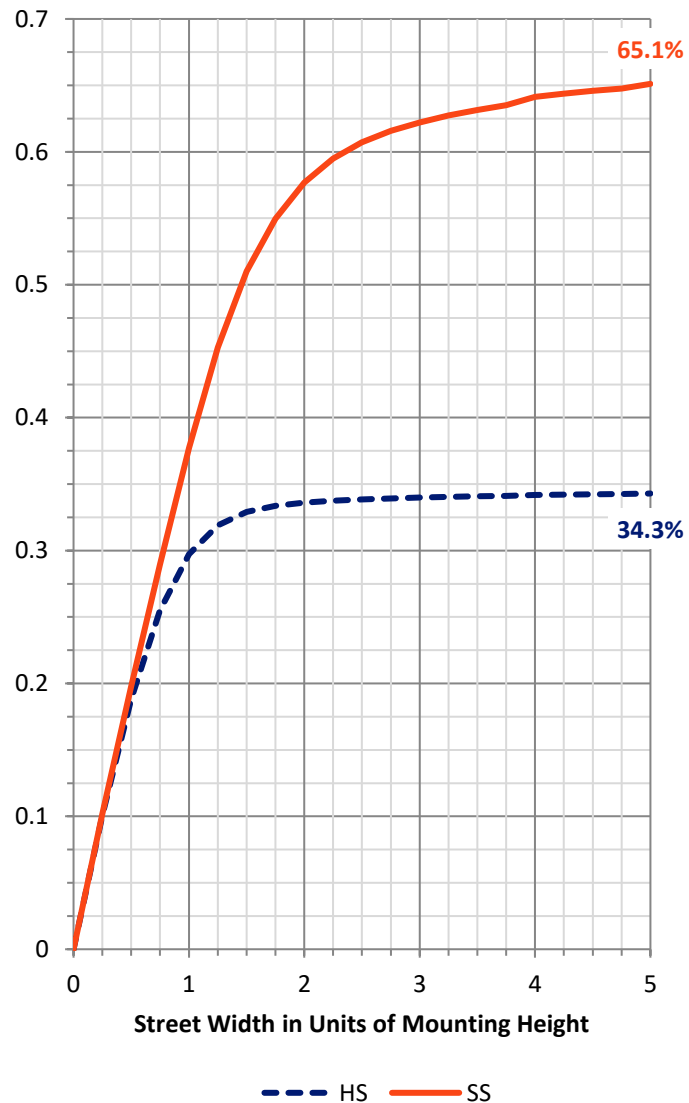
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3866.5	0.0	3866.5
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	7306.9	0.0	7306.9
	% Fixture	65.4	0.0	65.4
Total	Lumens	11173.4	0.0	11173.4
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.7	1.0
10°-20°	342.6	3.1
20°-30°	588.9	5.3
30°-40°	951.8	8.5
40°-50°	1577.3	14.1
50°-60°	2475.4	22.2
60°-70°	3384.4	30.3
70°-80°	1488.3	13.3
80°-90°	249.1	2.2
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°	11173.4	100.0
0°-180°	11173.4	100.0

Coefficient of Utilization



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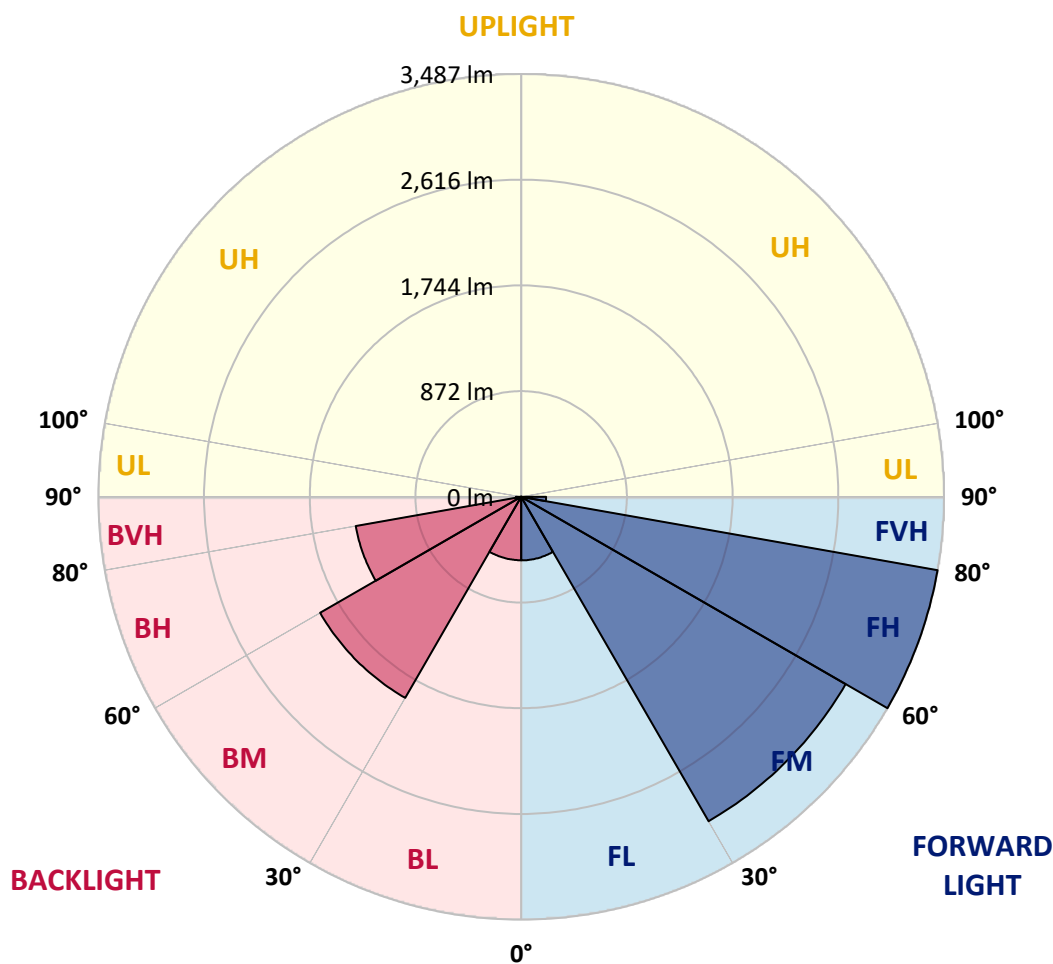
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	524.1	4.7			
FM	(30°-60°)	3089.8	27.7			
FH	(60°-80°)	3487.5	31.2			G2/5000
FVH	(80°-90°)	205.5	1.8			G2/225
BL	(0°-30°)	523.0	4.7	B2/1000		
BM	(30°-60°)	1914.7	17.1	B2/2500		
BH	(60°-80°)	1385.2	12.4	B3/2500		G3/2500
BVH	(80°-90°)	43.6	0.4			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6
2.5°	1203.4	1203.4	1204.2	1203.4	1203.4	1202.7	1205.6	1205.6	1205.6	1204.9	1207.1
5°	1200.5	1200.5	1201.2	1201.2	1202.0	1201.2	1203.4	1204.2	1204.2	1204.2	1206.4
7.5°	1193.2	1195.4	1193.9	1194.7	1195.4	1197.6	1200.5	1202.0	1203.4	1205.6	1206.4
10°	1177.9	1181.5	1180.8	1183.0	1183.7	1190.3	1192.5	1195.4	1200.5	1203.4	1205.6
12.5°	1156.7	1158.9	1159.6	1162.5	1165.4	1173.5	1179.3	1184.4	1191.7	1199.0	1206.4
15°	1139.9	1141.3	1141.3	1144.2	1148.6	1155.9	1163.2	1172.0	1183.0	1195.4	1207.1
17.5°	1145.0	1148.6	1145.7	1145.0	1146.4	1150.8	1157.4	1164.7	1177.9	1191.7	1205.6
20°	1178.6	1179.3	1177.9	1174.2	1171.3	1172.0	1172.0	1173.5	1181.5	1192.5	1203.4
22.5°	1206.4	1209.3	1208.5	1209.3	1208.5	1211.5	1210.0	1207.1	1204.2	1204.9	1210.0
25°	1230.5	1233.4	1233.4	1235.6	1239.2	1245.1	1249.5	1248.7	1244.3	1238.5	1236.3
27.5°	1269.9	1269.9	1269.9	1272.1	1277.2	1284.5	1291.8	1296.2	1299.9	1294.0	1281.6
30°	1332.0	1332.8	1330.6	1331.3	1335.0	1344.5	1353.2	1359.8	1367.1	1366.4	1350.3
32.5°	1400.0	1402.9	1402.2	1405.1	1410.2	1419.0	1428.5	1438.7	1448.2	1454.1	1443.8
35°	1487.7	1490.6	1491.3	1495.7	1501.5	1514.7	1527.9	1541.0	1551.2	1555.6	1553.4
37.5°	1631.6	1632.3	1629.4	1622.8	1625.0	1635.3	1650.6	1671.8	1678.4	1682.8	1693.0
40°	1847.2	1845.0	1833.3	1827.4	1823.8	1828.2	1825.2	1842.0	1857.4	1858.1	1857.4
42.5°	2108.7	2102.2	2091.2	2089.7	2088.3	2086.8	2078.8	2079.5	2093.4	2097.1	2092.7
45°	2368.9	2360.8	2352.8	2360.1	2351.3	2374.0	2380.6	2398.1	2400.3	2407.6	2396.6
47.5°	2582.2	2583.0	2583.0	2593.2	2610.7	2653.8	2692.6	2726.2	2738.6	2756.1	2758.3
50°	2743.7	2748.1	2762.0	2794.9	2832.1	2904.5	2969.5	3030.1	3084.9	3105.4	3159.5
52.5°	2838.0	2849.7	2878.9	2933.7	3000.2	3093.7	3196.0	3299.0	3394.0	3474.4	3538.7
55°	2821.2	2829.9	2881.1	2966.6	3070.3	3196.0	3339.2	3488.3	3636.6	3772.5	3877.7
57.5°	2713.0	2718.9	2770.0	2866.5	2995.8	3164.6	3367.0	3588.4	3796.6	4015.8	4195.6
60°	2571.3	2580.0	2627.5	2703.5	2838.7	3018.4	3253.0	3553.3	3885.8	4230.6	4566.8
62.5°	2480.7	2478.5	2520.1	2588.1	2689.6	2852.6	3078.4	3434.2	3894.5	4477.6	5141.8
65°	2330.1	2323.6	2366.7	2444.1	2554.5	2712.3	2926.4	3268.3	3802.5	4571.1	5513.0
66°	2236.6	2223.5	2266.6	2344.8	2455.1	2623.1	2828.5	3166.0	3690.7	4479.8	5473.5
67.5°	2072.9	2066.4	2086.8	2148.2	2230.0	2387.9	2602.0	2941.7	3426.2	4205.1	5184.2
70°	1684.9	1670.3	1686.4	1714.2	1745.6	1784.3	1915.8	2185.5	2595.4	3350.2	4176.6
72.5°	1147.9	1140.6	1170.5	1212.9	1297.0	1336.4	1388.3	1432.1	1576.8	2111.7	2913.2
75°	873.2	877.5	915.5	985.7	1093.8	1210.7	1324.7	1366.4	1318.1	1276.5	1653.5
77.5°	489.6	515.1	561.2	650.3	765.0	930.2	1128.9	1348.1	1457.7	1430.7	1337.9
80°	201.7	198.0	220.7	269.6	309.1	444.3	679.5	954.3	1262.6	1457.7	1427.0
82.5°	56.3	57.7	74.5	95.7	123.5	157.1	245.5	394.6	643.0	1000.3	1309.4
85°	17.5	17.5	24.1	35.8	42.4	49.0	62.1	102.3	174.6	348.5	706.6
87.5°	3.7	3.7	5.1	10.2	11.0	11.0	13.9	19.0	16.8	15.3	68.7
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6
2.5°	1204.9	1203.4	1204.2	1204.9	1204.2	1204.2	1203.4	1202.7	1203.4	1203.4	1205.6
5°	1204.2	1203.4	1204.2	1204.2	1204.2	1204.9	1204.9	1204.9	1207.1	1207.1	1210.7
7.5°	1205.6	1205.6	1207.1	1207.1	1207.1	1207.1	1207.8	1209.3	1212.9	1212.2	1218.8
10°	1208.5	1210.0	1213.7	1214.4	1214.4	1216.6	1218.0	1221.0	1224.6	1226.1	1231.9
12.5°	1212.2	1219.5	1226.1	1227.5	1229.7	1233.4	1235.6	1237.0	1243.6	1245.8	1253.1
15°	1216.6	1226.8	1234.8	1237.8	1240.7	1245.1	1248.0	1250.2	1256.0	1259.0	1267.7
17.5°	1217.3	1229.0	1238.5	1242.9	1246.5	1251.7	1256.0	1260.4	1267.0	1271.4	1280.2
20°	1216.6	1231.9	1246.5	1252.4	1256.0	1265.5	1272.1	1278.0	1286.0	1290.4	1299.1
22.5°	1224.6	1242.2	1261.9	1269.2	1275.0	1288.2	1297.0	1306.5	1316.7	1319.6	1326.2
25°	1243.6	1261.9	1286.7	1297.0	1307.2	1324.7	1337.1	1351.0	1361.3	1362.7	1364.9
27.5°	1275.8	1292.6	1322.5	1337.9	1354.7	1379.5	1397.8	1411.7	1426.3	1426.3	1424.8
30°	1340.8	1344.5	1375.9	1395.6	1420.4	1457.0	1484.0	1499.4	1510.3	1510.3	1497.9
32.5°	1424.8	1420.4	1448.9	1470.1	1504.5	1555.6	1592.2	1603.8	1615.5	1611.9	1590.7
35°	1546.1	1533.7	1549.8	1581.9	1620.6	1690.8	1728.8	1755.1	1762.4	1752.2	1718.6
37.5°	1698.8	1697.4	1705.4	1741.2	1784.3	1874.9	1913.7	1930.5	1924.6	1906.3	1847.2
40°	1860.3	1855.9	1850.8	1874.9	1923.2	2032.0	2100.7	2109.5	2101.4	2074.4	1999.9
42.5°	2075.9	2075.9	2051.8	2058.3	2098.5	2220.5	2301.6	2329.4	2330.1	2290.7	2191.3
45°	2372.5	2369.6	2327.2	2317.0	2347.7	2467.5	2572.0	2587.3	2587.3	2535.5	2426.6
47.5°	2729.1	2725.4	2683.8	2648.0	2653.8	2783.2	2870.1	2893.5	2873.0	2834.3	2705.0
50°	3131.0	3124.4	3082.0	3048.4	3033.8	3164.6	3238.4	3249.3	3219.4	3173.3	3033.1
52.5°	3538.7	3558.4	3533.6	3515.3	3520.4	3605.2	3681.2	3629.3	3613.9	3564.3	3423.2
55°	3963.2	4023.9	4078.7	4062.6	4081.6	4164.1	4178.8	4110.1	4082.3	4046.5	3889.4
57.5°	4390.7	4567.5	4747.2	4797.6	4844.4	4962.8	4946.0	4833.4	4854.6	4908.0	4731.2
60°	4987.6	5498.4	5954.3	6038.3	6183.7	6284.6	6307.2	6285.3	6384.0	6356.2	6199.8
62.5°	5904.6	6755.9	7390.1	7547.9	7694.1	7688.9	7612.2	7533.3	7630.5	7630.5	7222.0
65°	6559.3	7525.3	8204.1	8334.9	8329.0	8152.9	7971.7	7813.9	7800.0	7691.9	7094.9
66°	6590.0	7584.5	8249.4	8363.4	8319.5	8036.0	7819.0	7618.8	7533.3	7382.8	6771.2
67.5°	6313.8	7417.1	8101.8	8201.2	8085.7	7679.4	7380.6	7112.4	6988.2	6734.7	6158.9
70°	5179.1	6374.5	7370.4	7573.5	7442.7	6928.3	6519.1	6156.7	5919.2	5553.2	5138.1
72.5°	3780.5	4706.3	5784.8	6115.1	6094.6	5621.1	5291.6	4959.9	4647.9	4314.7	4011.4
75°	2457.3	3061.6	3662.9	3855.8	3763.0	3489.0	3253.0	3059.4	2763.4	2531.8	2475.5
77.5°	1402.9	1714.2	1621.4	1597.3	1481.1	1195.4	795.0	557.5	503.4	628.4	689.0
80°	1335.0	1210.0	990.8	893.6	821.3	559.7	293.7	206.8	181.2	185.6	199.5
82.5°	1505.2	1568.8	1283.1	1071.9	933.1	681.0	371.9	173.2	126.4	149.8	168.1
85°	1128.2	1588.5	1574.6	1334.2	1094.6	784.8	439.9	132.3	76.0	105.2	137.4
87.5°	228.7	376.3	362.4	318.6	271.1	189.2	73.8	41.6	38.0	51.9	78.9
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°	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6	1205.6
2.5°	1207.1	1207.1	1208.5	1210.7	1211.5	1211.5	1212.9	1211.5	1214.4	1215.1	1215.9
5°	1213.7	1215.9	1217.3	1221.0	1223.2	1224.6	1226.8	1225.4	1228.3	1229.0	1230.5
7.5°	1221.0	1224.6	1227.5	1229.0	1231.9	1231.9	1232.7	1231.2	1230.5	1228.3	1227.5
10°	1234.1	1236.3	1240.0	1238.5	1237.0	1231.9	1227.5	1221.0	1217.3	1210.7	1207.1
12.5°	1255.3	1256.8	1256.8	1250.2	1240.7	1229.0	1218.0	1207.1	1198.3	1191.0	1186.6
15°	1269.9	1272.8	1269.2	1259.7	1245.8	1229.7	1215.1	1200.5	1188.8	1179.3	1173.5
17.5°	1280.9	1280.2	1273.6	1260.4	1247.3	1233.4	1220.2	1204.9	1190.3	1176.4	1167.6
20°	1297.7	1290.4	1278.7	1264.8	1250.9	1239.2	1229.0	1214.4	1199.0	1180.0	1166.9
22.5°	1320.3	1307.2	1290.4	1275.8	1262.6	1251.7	1240.0	1227.5	1211.5	1190.3	1172.0
25°	1352.5	1329.8	1310.8	1296.2	1284.5	1272.1	1259.0	1242.9	1226.8	1204.9	1183.0
27.5°	1401.4	1367.8	1343.7	1330.6	1319.6	1302.8	1286.0	1267.0	1246.5	1223.9	1199.0
30°	1460.6	1420.4	1392.7	1381.0	1367.8	1348.8	1330.6	1304.3	1275.8	1248.7	1218.0
32.5°	1530.0	1489.1	1461.4	1452.6	1431.4	1409.5	1383.9	1348.8	1311.6	1271.4	1234.8
35°	1635.3	1583.4	1557.8	1537.4	1508.1	1481.8	1438.7	1392.7	1339.3	1286.0	1240.7
37.5°	1743.4	1690.8	1664.5	1636.0	1598.0	1549.8	1492.0	1426.3	1355.4	1289.7	1234.1
40°	1888.1	1831.1	1797.5	1753.6	1692.3	1617.0	1531.5	1441.6	1355.4	1273.6	1206.4
42.5°	2056.9	2004.3	1952.4	1880.0	1781.4	1671.8	1552.0	1436.5	1332.0	1237.8	1166.9
45°	2290.7	2200.8	2118.2	2002.1	1858.1	1703.9	1554.2	1412.4	1291.8	1187.4	1108.4
47.5°	2553.7	2437.5	2291.4	2109.5	1912.9	1716.4	1533.0	1367.1	1228.3	1115.0	1028.8
50°	2857.0	2678.7	2454.4	2195.0	1940.7	1699.6	1482.6	1291.1	1140.6	1010.5	918.5
52.5°	3204.0	2932.2	2602.0	2255.6	1936.3	1648.4	1399.3	1191.0	1023.0	884.9	794.2
55°	3589.1	3208.4	2743.0	2294.3	1896.8	1549.0	1268.5	1050.0	876.8	740.9	661.3
57.5°	4267.9	3692.9	3011.9	2346.2	1814.3	1398.5	1102.6	871.7	715.3	599.9	523.9
60°	5529.1	4539.7	3521.1	2468.2	1690.1	1210.0	893.6	683.9	553.1	469.1	412.8
62.5°	6309.4	5136.0	3769.6	2450.7	1488.4	952.1	663.5	507.1	404.1	348.5	313.5
65°	6124.6	4902.1	3466.3	2105.1	1158.1	675.1	439.1	331.7	277.7	249.2	232.4
66°	5873.2	4640.6	3209.9	1885.2	1009.1	564.1	362.4	278.4	238.9	217.7	209.0
67.5°	5346.4	4162.7	2768.5	1509.6	756.3	420.1	267.4	218.5	194.4	183.4	177.6
70°	4474.7	3353.8	1958.2	891.4	409.9	228.0	171.0	152.0	146.1	142.5	140.3
72.5°	3459.8	2428.1	1144.2	438.4	206.8	147.6	130.1	122.0	119.8	119.8	120.6
75°	2179.6	1395.6	512.2	211.2	140.3	119.1	111.1	107.4	108.1	108.9	108.1
77.5°	724.1	481.5	213.4	149.8	122.0	108.1	101.6	100.1	101.6	102.3	102.3
80°	208.2	181.9	154.2	132.3	111.8	100.8	95.0	94.3	97.9	98.6	97.2
82.5°	160.0	149.8	139.6	127.9	107.4	95.0	92.8	93.5	95.7	94.3	87.7
85°	146.9	145.4	104.5	103.8	93.5	90.6	88.4	89.1	87.0	78.9	71.6
87.5°	82.6	76.7	59.2	59.9	69.4	71.6	59.2	62.8	58.5	51.1	46.8
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°	1205.6	1205.6	1205.6	1205.6	1205.6
2.5°	1217.3	1216.6	1216.6	1218.8	1215.9
5°	1231.2	1230.5	1230.5	1232.7	1230.5
7.5°	1224.6	1222.4	1221.0	1220.2	1220.2
10°	1202.7	1200.5	1196.1	1194.7	1193.2
12.5°	1180.0	1177.9	1172.7	1172.7	1171.3
15°	1166.2	1163.2	1159.6	1157.4	1155.9
17.5°	1158.9	1154.5	1150.1	1147.9	1146.4
20°	1155.9	1150.1	1145.0	1141.3	1141.3
22.5°	1156.7	1149.4	1143.5	1139.1	1137.7
25°	1164.0	1153.0	1145.7	1141.3	1139.9
27.5°	1174.2	1161.1	1151.6	1145.7	1143.5
30°	1188.1	1169.8	1156.7	1149.4	1146.4
32.5°	1197.6	1172.0	1155.2	1145.0	1141.3
35°	1196.9	1164.0	1143.5	1130.4	1126.0
37.5°	1183.7	1145.0	1117.9	1101.9	1094.6
40°	1154.5	1109.9	1081.4	1066.1	1057.3
42.5°	1112.1	1063.9	1038.3	1021.5	1012.0
45°	1045.6	998.1	966.7	953.5	941.1
47.5°	953.5	905.3	878.3	859.3	851.2
50°	845.4	797.2	768.7	753.3	746.0
52.5°	727.0	681.0	660.5	645.9	635.7
55°	604.3	561.9	553.1	537.0	527.6
57.5°	488.8	464.0	455.9	439.9	431.8
60°	382.1	374.1	365.3	355.1	350.7
62.5°	295.9	288.6	286.4	279.9	279.1
65°	225.8	226.5	225.0	223.6	222.1
66°	205.3	204.6	205.3	203.9	203.1
67.5°	174.6	177.6	179.7	179.0	179.0
70°	141.8	143.9	146.9	146.1	146.1
72.5°	121.3	124.9	126.4	125.7	125.7
75°	109.6	113.3	113.3	111.8	111.1
77.5°	102.3	103.8	102.3	100.8	99.4
80°	95.0	93.5	91.3	89.1	87.7
82.5°	82.6	78.9	76.7	73.1	73.1
85°	66.5	63.6	58.5	54.8	51.1
87.5°	43.1	41.6	38.0	28.5	22.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)