

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: P158438

Luminaire Tested: **VST-E04-LED-E-U-SL3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158438
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-E04-LED-E-U-SL3-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 W/ SPILL LIGHT CONTROL
Light Source: (84) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10184.8 lumens
Efficiency: N/A
Efficacy: 104.8 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

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

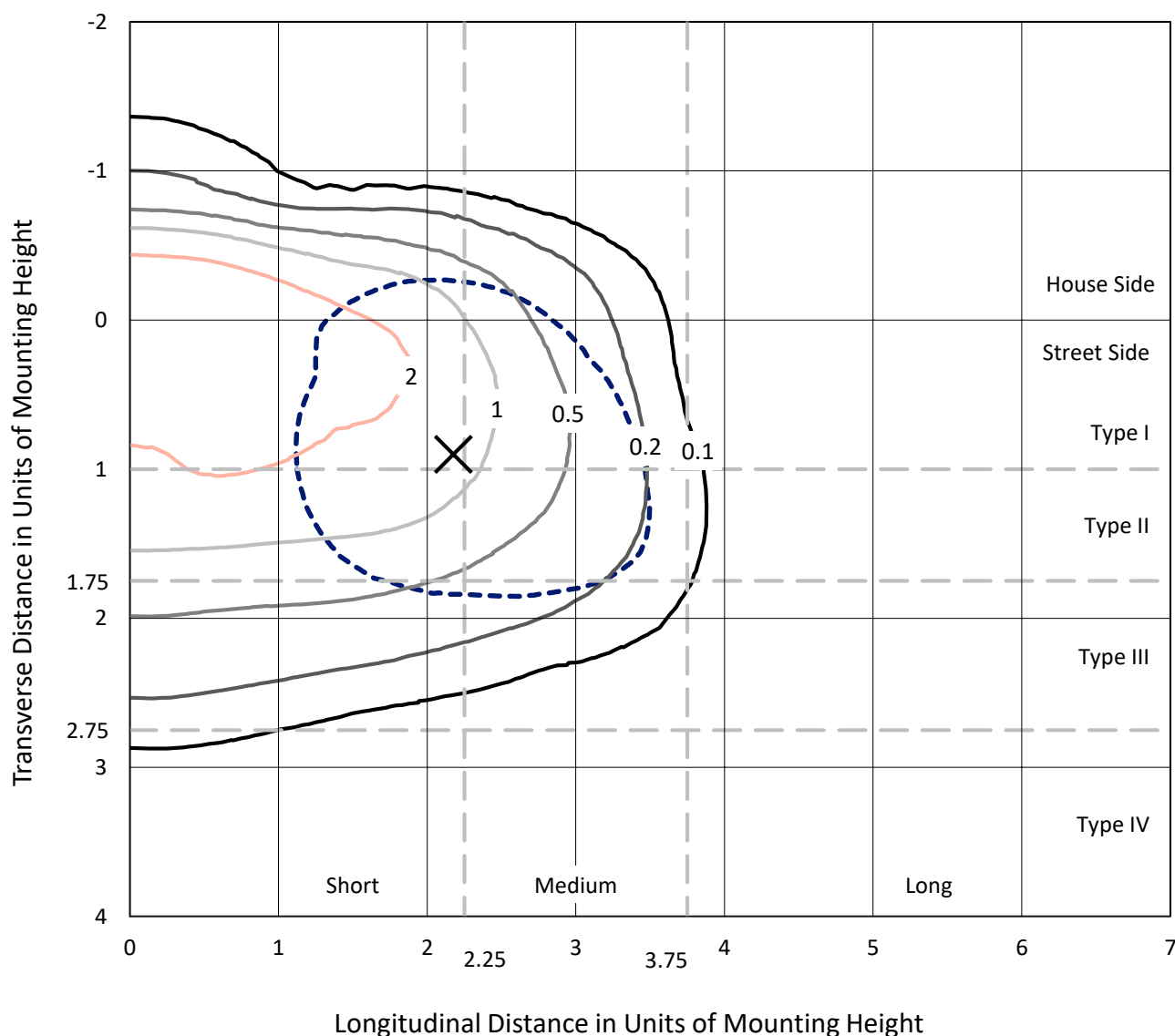


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

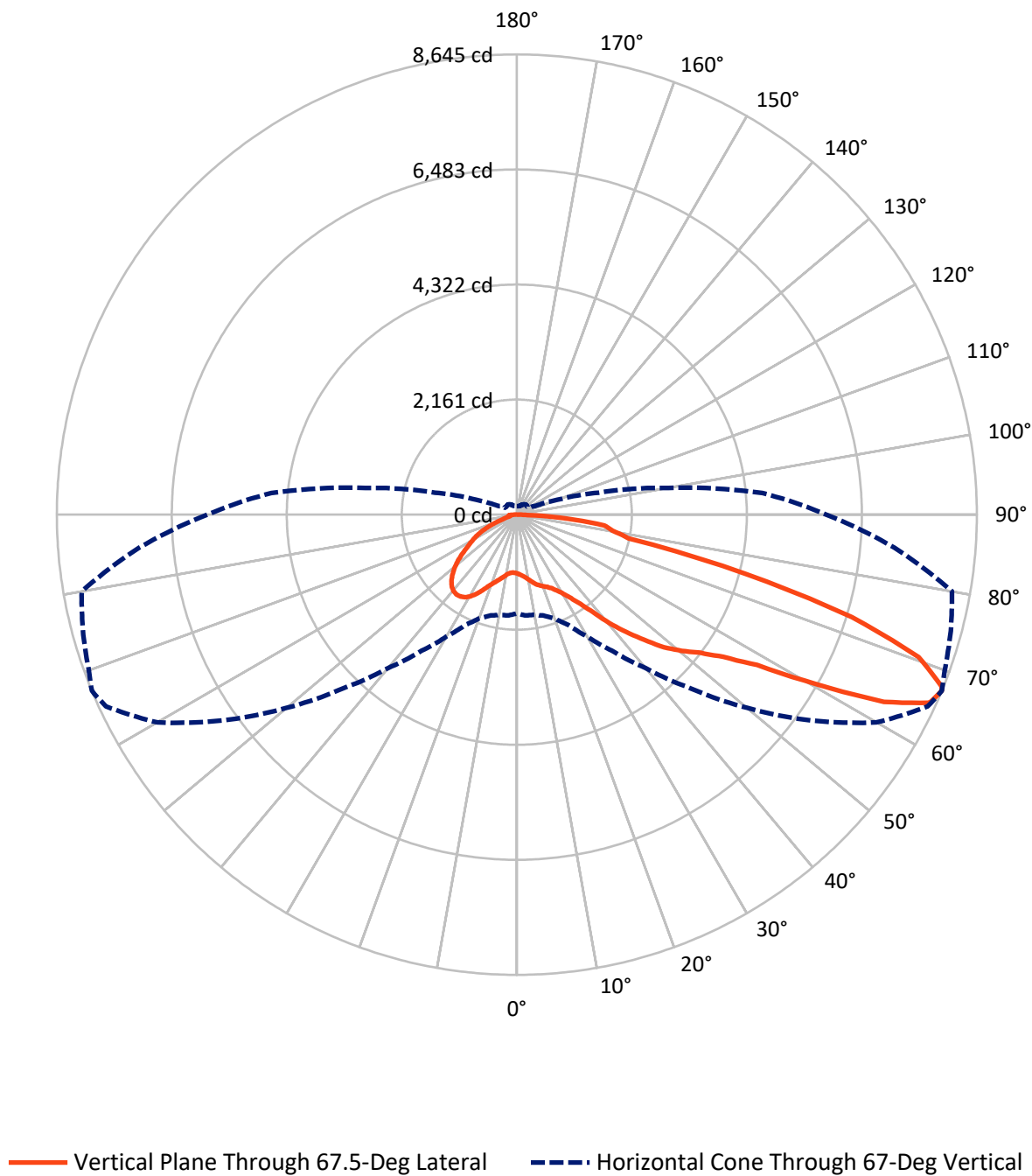


Based on 20 foot mounting height. Maximum calculated value = 3.5 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2443.4	0.0	2443.4
	% Fixture	24.0	0.0	24.0
Street Side	Lumens	7741.5	0.0	7741.5
	% Fixture	76.0	0.0	76.0
Total	Lumens	10184.8	0.0	10184.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.7	1.1
10°-20°	373.8	3.7
20°-30°	667.4	6.6
30°-40°	978.1	9.6
40°-50°	1511.3	14.8
50°-60°	2200.7	21.6
60°-70°	2866.7	28.1
70°-80°	1283.2	12.6
80°-90°	194.0	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°	10184.8	100.0
0°-180°	10184.8	100.0

Coefficient of Utilization



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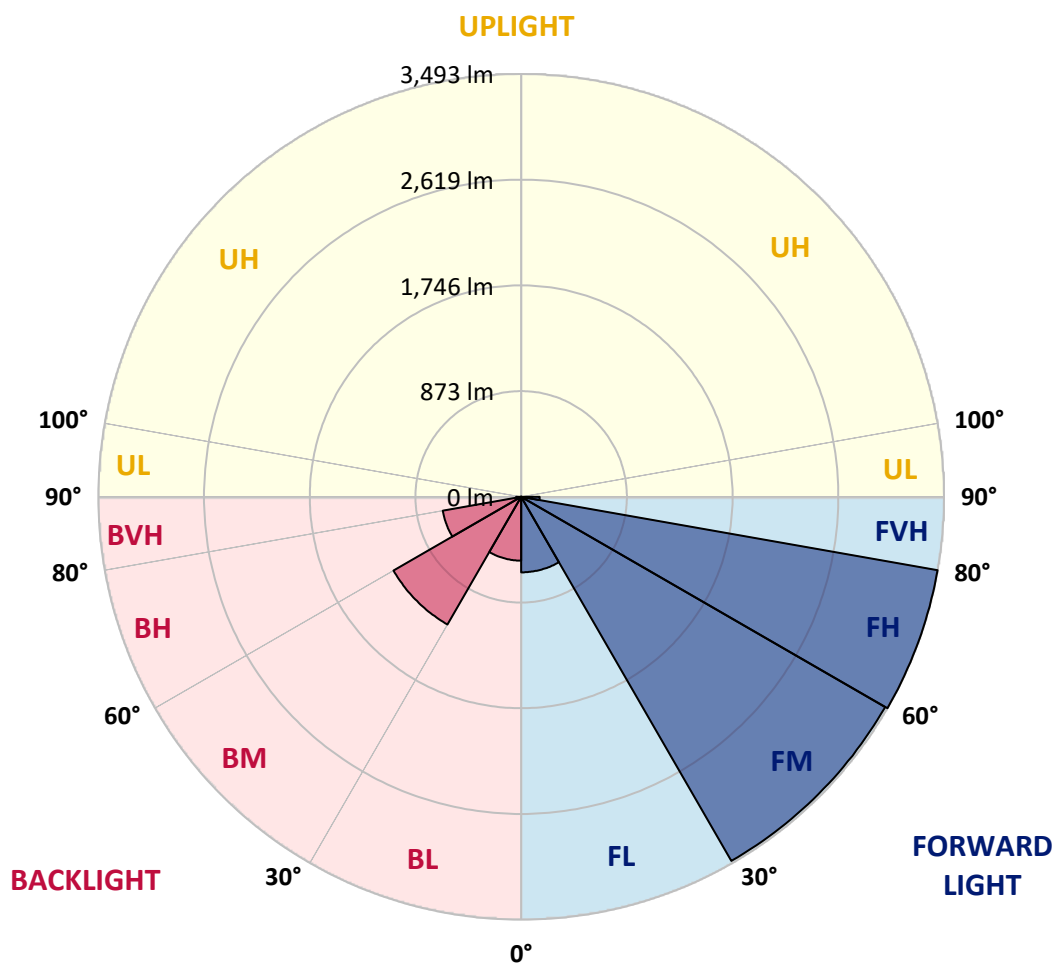
CATALOG NUMBER: VST-E04-LED-E-U-SL3-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	624.0	6.1			
FM	(30°-60°)	3472.5	34.1			
FH	(60°-80°)	3492.6	34.3			G2/5000
FVH	(80°-90°)	152.4	1.5			G2/225
BL	(0°-30°)	526.9	5.2	B2/1000		
BM	(30°-60°)	1217.5	12.0	B2/2500		
BH	(60°-80°)	657.4	6.5	B2/1000		G2/1000
BVH	(80°-90°)	41.7	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°	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9
2.5°	1147.2	1149.9	1150.5	1149.9	1150.5	1147.8	1147.2	1143.1	1145.1	1139.7	1138.4
5°	1209.3	1211.3	1212.6	1207.2	1208.6	1205.9	1202.5	1198.5	1193.1	1185.6	1180.9
7.5°	1270.0	1273.4	1272.7	1270.7	1266.0	1263.3	1256.5	1250.5	1241.0	1232.2	1226.2
10°	1351.7	1351.1	1351.1	1339.6	1332.8	1326.8	1314.6	1305.1	1295.7	1282.9	1276.1
12.5°	1446.3	1441.5	1439.5	1431.4	1417.2	1406.4	1388.9	1370.6	1353.8	1340.3	1329.5
15°	1537.4	1537.4	1532.0	1519.2	1505.7	1491.5	1466.5	1440.2	1412.5	1390.9	1380.1
17.5°	1620.5	1613.0	1608.3	1591.4	1577.3	1554.3	1526.6	1498.3	1463.8	1433.4	1412.5
20°	1681.2	1675.2	1665.0	1644.1	1619.8	1592.8	1560.4	1527.3	1490.2	1457.1	1433.4
22.5°	1716.3	1708.9	1693.4	1665.7	1632.6	1594.8	1557.0	1525.9	1492.2	1467.2	1447.6
25°	1734.6	1727.1	1706.2	1669.8	1625.2	1575.2	1532.0	1501.6	1482.0	1476.0	1473.3
27.5°	1733.9	1727.8	1705.5	1663.7	1606.3	1548.9	1502.3	1476.6	1474.6	1498.3	1515.8
30°	1716.3	1712.3	1692.0	1650.2	1590.1	1530.0	1486.8	1473.3	1494.2	1544.2	1587.4
32.5°	1698.8	1696.8	1682.6	1644.8	1593.5	1542.8	1513.1	1514.5	1557.7	1634.6	1704.2
35°	1700.8	1703.5	1701.5	1681.2	1648.8	1622.5	1608.3	1638.0	1705.5	1798.7	1891.9
37.5°	1718.4	1728.5	1741.3	1743.3	1744.0	1740.0	1769.7	1832.5	1931.1	2052.6	2198.4
40°	1756.9	1768.3	1805.5	1837.9	1879.7	1929.7	1989.8	2076.9	2199.1	2349.0	2527.9
42.5°	1876.4	1892.6	1938.5	1998.6	2075.5	2153.9	2243.7	2362.5	2512.4	2670.4	2858.1
45°	2032.3	2066.1	2116.7	2183.6	2299.0	2409.1	2525.2	2658.2	2817.6	3015.4	3204.5
47.5°	2226.8	2260.5	2334.1	2405.7	2542.1	2679.2	2806.1	2945.2	3118.0	3320.6	3529.9
50°	2396.9	2435.4	2500.9	2597.5	2755.5	2923.6	3064.0	3214.6	3359.8	3573.1	3784.5
52.5°	2530.6	2558.3	2621.1	2709.5	2885.8	3070.1	3247.7	3415.1	3587.3	3800.7	3996.5
55°	2547.5	2573.2	2634.6	2735.9	2914.8	3119.4	3324.0	3522.5	3766.2	3999.2	4258.4
57.5°	2474.6	2495.5	2557.6	2648.1	2822.3	3055.2	3313.8	3568.4	3880.3	4195.0	4511.6
60°	2371.3	2392.2	2440.8	2513.1	2670.4	2921.6	3223.4	3571.8	3986.3	4440.7	4906.6
62.5°	2257.8	2276.1	2315.2	2366.6	2505.0	2736.6	3082.3	3549.5	4072.8	4685.2	5403.6
65°	2066.8	2110.7	2127.5	2180.2	2318.6	2537.4	2889.1	3398.9	4037.7	4793.9	5715.5
67°	1855.4	1900.0	1908.8	1962.1	2072.8	2282.8	2640.7	3120.1	3759.5	4606.2	5646.6
67.5°	1787.9	1825.7	1839.2	1892.6	1997.2	2195.1	2534.7	3019.5	3674.4	4503.5	5563.6
70°	1314.6	1356.5	1371.3	1393.6	1468.5	1633.3	1858.1	2278.8	2929.7	3675.1	4693.3
72.5°	703.6	737.3	751.5	784.6	823.1	912.9	1085.0	1386.8	1798.0	2459.1	3338.8
75°	476.0	489.5	499.6	522.6	562.4	634.0	709.6	815.6	1064.1	1387.5	1900.0
77.5°	271.4	277.5	278.9	282.9	314.6	382.8	507.1	686.7	880.5	1005.4	1215.3
80°	117.5	129.6	139.1	133.0	131.0	145.2	181.6	270.8	530.7	842.6	1000.0
82.5°	63.5	68.9	77.0	77.6	81.7	86.4	93.9	111.4	156.6	316.0	689.4
85°	33.1	34.4	45.9	52.7	56.0	58.7	60.1	66.8	77.0	97.9	171.5
87.5°	4.7	6.8	8.1	10.8	12.2	12.8	14.9	18.9	22.3	27.0	45.9
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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CATALOG NUMBER: VST-E04-LED-E-U-SL3-8030

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9
2.5°	1132.3	1130.9	1126.9	1124.2	1121.5	1118.8	1115.4	1112.7	1108.0	1104.6	1100.6
5°	1174.2	1166.1	1160.7	1153.2	1151.9	1143.1	1134.3	1130.3	1122.2	1115.4	1107.3
7.5°	1216.7	1207.2	1198.5	1192.4	1189.0	1176.9	1168.1	1158.0	1148.5	1139.7	1130.3
10°	1266.7	1257.2	1247.8	1243.7	1237.6	1226.2	1218.7	1205.9	1196.4	1185.6	1172.8
12.5°	1318.7	1311.9	1305.1	1299.7	1297.0	1291.6	1280.8	1270.0	1257.2	1246.4	1231.6
15°	1364.6	1359.8	1357.1	1355.8	1355.8	1352.4	1342.3	1332.2	1318.7	1306.5	1290.3
17.5°	1397.0	1394.9	1397.0	1399.0	1401.7	1399.0	1397.0	1385.5	1376.7	1361.9	1345.7
20°	1415.9	1419.9	1430.1	1436.8	1442.9	1447.6	1449.6	1440.2	1428.7	1417.9	1407.1
22.5°	1436.1	1447.6	1465.2	1475.3	1485.4	1502.3	1506.4	1499.6	1490.8	1484.1	1472.6
25°	1469.9	1486.8	1517.2	1533.4	1547.5	1572.5	1575.9	1577.3	1575.2	1569.8	1555.6
27.5°	1522.6	1555.6	1596.2	1617.1	1632.6	1665.0	1677.9	1677.9	1672.5	1678.5	1678.5
30°	1614.4	1658.3	1710.9	1723.1	1747.4	1775.8	1796.7	1799.4	1800.1	1812.9	1831.8
32.5°	1755.5	1797.4	1856.1	1869.6	1890.5	1917.5	1941.2	1938.5	1944.6	1972.2	1997.2
35°	1960.8	2003.3	2041.8	2060.0	2069.5	2093.8	2102.6	2117.4	2135.6	2170.1	2166.7
37.5°	2264.6	2302.4	2307.8	2319.3	2307.8	2312.5	2319.3	2336.8	2385.5	2416.5	2366.6
40°	2630.6	2693.3	2687.3	2673.8	2648.1	2613.7	2625.8	2652.8	2705.5	2678.5	2544.1
42.5°	2975.6	3040.4	3028.2	3012.7	2956.0	2943.2	2941.8	2964.1	2992.5	2915.5	2683.2
45°	3315.2	3381.4	3360.4	3351.7	3313.8	3286.2	3309.1	3310.5	3303.0	3138.3	2804.8
47.5°	3665.6	3726.4	3712.9	3720.3	3681.2	3662.9	3664.9	3655.5	3585.9	3327.3	2899.3
50°	3948.5	4030.2	4038.3	4021.4	4000.5	3972.8	4043.7	4018.1	3863.5	3511.0	2990.4
52.5°	4168.6	4278.7	4320.6	4309.8	4292.9	4296.3	4429.3	4458.3	4202.4	3742.6	3091.0
55°	4429.3	4602.8	4671.0	4711.5	4693.9	4761.5	5066.0	5080.8	4673.7	4045.1	3222.0
57.5°	4805.3	5053.8	5269.2	5326.6	5382.0	5601.4	6095.6	5945.1	5285.4	4502.9	3388.1
60°	5377.2	5921.4	6271.2	6454.8	6584.5	6891.0	7361.0	6979.5	6047.7	5047.7	3596.8
62.5°	6178.0	6973.4	7558.1	7742.4	7795.8	7972.0	8312.3	7582.4	6462.9	5292.2	3615.0
65°	6774.2	7728.3	8428.4	8523.0	8459.5	8462.9	8552.0	7550.7	6308.3	5078.8	3301.7
67°	6735.0	7803.2	8520.3	8644.5	8556.7	8441.3	8302.2	7120.6	5811.4	4631.8	2891.2
67.5°	6675.0	7731.0	8480.4	8611.4	8531.1	8399.4	8196.2	6953.8	5656.8	4492.7	2807.5
70°	5770.2	6818.8	7828.2	8012.5	8046.3	7926.1	7355.5	5863.4	4592.7	3654.8	2180.2
72.5°	4491.4	5425.2	6423.8	6583.8	6713.4	6367.1	5353.6	4049.8	3347.6	2633.9	1578.6
75°	2965.4	3915.4	4419.1	4442.8	4277.3	3635.9	2615.7	2028.3	1866.9	1548.2	977.0
77.5°	1586.7	2302.4	2316.6	2145.1	2066.8	1540.8	625.2	345.0	384.2	436.2	388.9
80°	1183.6	1466.5	1699.5	1827.1	1864.9	1321.4	323.4	183.0	160.0	145.8	143.8
82.5°	1067.5	1416.6	1588.1	1657.6	1640.0	1087.1	181.6	122.9	102.0	110.7	126.3
85°	418.6	756.2	994.6	962.8	808.9	405.1	99.3	66.2	66.2	95.9	124.2
87.5°	85.7	155.3	210.7	201.2	181.0	78.3	48.6	39.8	40.5	77.6	117.5
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°	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9	1103.9
2.5°	1096.5	1092.5	1089.8	1087.1	1084.4	1083.0	1081.0	1081.0	1076.9	1075.6	1074.2
5°	1101.2	1094.5	1089.8	1083.7	1079.0	1074.9	1069.5	1068.2	1063.4	1060.1	1058.7
7.5°	1121.5	1111.4	1101.2	1093.8	1087.1	1078.3	1072.2	1066.8	1062.1	1058.7	1054.7
10°	1160.0	1149.2	1135.0	1121.5	1112.7	1099.2	1089.8	1080.3	1074.9	1070.9	1065.5
12.5°	1216.7	1201.2	1184.3	1168.1	1153.2	1135.7	1126.2	1114.7	1108.0	1104.6	1100.6
15°	1274.8	1257.9	1237.0	1221.4	1204.5	1191.0	1182.3	1172.1	1166.7	1162.7	1160.0
17.5°	1334.2	1314.6	1299.7	1284.2	1276.1	1266.0	1254.5	1241.7	1226.2	1216.7	1203.9
20°	1394.9	1380.1	1371.3	1362.5	1353.1	1338.9	1316.0	1289.6	1260.6	1232.9	1206.6
22.5°	1465.8	1457.1	1455.7	1447.6	1428.0	1394.3	1351.7	1302.4	1253.2	1207.2	1171.5
25°	1565.8	1565.8	1559.0	1525.9	1480.0	1419.3	1347.7	1276.8	1211.3	1148.5	1101.2
27.5°	1691.4	1686.6	1653.5	1585.4	1503.0	1408.5	1312.6	1222.8	1139.1	1070.2	1009.4
30°	1829.8	1796.7	1725.8	1618.4	1494.9	1373.3	1255.9	1151.9	1053.3	968.9	897.3
32.5°	1973.6	1893.2	1765.6	1618.4	1466.5	1320.7	1185.0	1057.4	944.6	850.1	765.0
35°	2103.9	1957.4	1775.1	1592.1	1411.2	1243.0	1085.7	941.2	806.2	704.2	611.0
37.5°	2222.1	1999.9	1765.0	1540.8	1330.8	1133.6	949.3	790.0	637.4	538.8	459.1
40°	2299.0	2008.7	1723.1	1460.4	1216.0	985.8	781.9	603.6	482.8	393.0	339.6
42.5°	2347.0	1991.8	1655.6	1350.4	1061.4	800.1	586.7	432.8	343.0	293.0	272.8
45°	2374.0	1947.9	1555.6	1199.8	874.4	608.3	416.6	312.6	264.0	246.4	239.7
47.5°	2372.6	1877.0	1430.7	1025.6	667.8	424.0	295.1	243.7	230.2	224.8	223.5
50°	2358.4	1789.9	1284.2	836.6	482.1	295.7	233.6	218.8	215.4	212.0	210.7
52.5°	2338.9	1681.9	1122.2	652.2	342.3	236.3	212.0	208.0	205.3	201.9	200.5
55°	2302.4	1548.9	946.6	490.9	268.1	213.4	204.6	203.2	199.9	195.1	192.4
57.5°	2257.8	1413.9	778.5	383.5	237.0	208.0	203.2	201.2	196.5	191.1	185.7
60°	2241.6	1302.4	646.8	323.4	229.6	210.0	206.6	203.9	197.2	189.1	183.0
62.5°	2140.4	1176.9	552.3	299.8	233.6	218.8	217.4	213.4	203.2	193.8	184.3
65°	1878.4	995.2	467.9	283.6	241.7	233.6	235.0	228.9	218.8	205.9	189.1
67°	1588.7	811.6	389.6	268.1	247.8	249.1	253.9	249.1	236.3	218.1	195.1
67.5°	1511.8	765.0	370.0	263.3	249.1	253.2	258.6	255.2	242.4	221.5	197.8
70°	1123.5	538.8	276.2	238.3	249.1	265.4	277.5	280.9	266.7	237.7	203.2
72.5°	791.3	347.7	212.0	206.6	226.2	247.8	270.8	282.2	266.0	234.3	195.8
75°	475.3	217.4	172.2	175.6	190.4	212.7	230.9	235.6	215.4	195.1	169.5
77.5°	220.1	144.5	135.0	139.8	153.9	164.1	164.1	154.6	139.1	126.9	121.5
80°	129.6	118.2	117.5	126.3	135.7	128.3	116.8	104.0	95.9	91.8	89.8
82.5°	121.5	126.3	134.4	136.4	129.0	110.7	96.6	83.7	79.7	77.6	75.6
85°	143.1	153.3	139.8	129.0	114.1	93.2	75.6	64.8	62.8	60.8	58.1
87.5°	132.3	126.3	110.1	94.5	78.3	56.7	41.2	37.1	39.8	39.2	37.8
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°	1103.9	1103.9	1103.9	1103.9	1103.9
2.5°	1074.9	1074.9	1072.2	1070.9	1074.2
5°	1056.0	1056.7	1054.7	1054.0	1054.7
7.5°	1052.0	1051.3	1049.9	1048.6	1049.9
10°	1064.1	1063.4	1061.4	1062.8	1060.7
12.5°	1100.6	1104.6	1103.9	1105.3	1108.0
15°	1160.0	1159.3	1157.3	1158.6	1160.7
17.5°	1193.7	1188.3	1183.6	1181.6	1181.6
20°	1185.6	1170.1	1162.0	1157.3	1155.9
22.5°	1137.7	1115.4	1098.5	1094.5	1091.1
25°	1059.4	1031.7	1010.1	1005.4	996.6
27.5°	968.2	931.1	905.4	900.0	895.3
30°	848.7	806.2	776.5	757.6	763.6
32.5°	702.9	662.4	627.9	597.5	592.8
35°	542.9	498.3	467.9	454.4	445.6
37.5°	405.1	368.0	347.7	334.9	335.6
40°	309.9	290.3	279.5	270.8	271.4
42.5°	258.6	249.8	247.1	243.1	241.0
45°	234.3	231.6	232.3	228.2	226.9
47.5°	220.8	218.8	219.4	216.7	216.1
50°	210.0	208.6	209.3	207.3	206.6
52.5°	199.2	199.9	199.2	197.8	197.8
55°	189.7	189.1	190.4	188.4	188.4
57.5°	182.3	181.6	181.6	181.0	181.0
60°	178.3	175.6	174.9	174.9	175.6
62.5°	176.2	171.5	170.8	170.8	171.5
65°	176.9	169.5	166.8	166.1	165.4
67°	177.6	166.8	161.4	158.7	158.0
67.5°	178.3	165.4	159.3	156.6	155.3
70°	174.2	156.0	147.2	142.5	141.1
72.5°	164.1	144.5	133.7	127.6	126.3
75°	145.8	131.0	121.5	114.8	112.1
77.5°	112.8	106.0	102.6	98.6	97.2
80°	87.8	84.4	83.0	80.3	79.7
82.5°	72.9	69.5	67.5	64.1	62.1
85°	56.7	52.7	51.3	48.6	47.3
87.5°	37.1	35.1	34.4	31.1	29.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)