

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: P158654

Luminaire Tested: **VST-F03-LED-E-U-SL4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158654
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-F03-LED-E-U-SL4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (21) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6561.9 lumens
Efficiency: N/A
Efficacy: 83.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Full Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 78.3
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

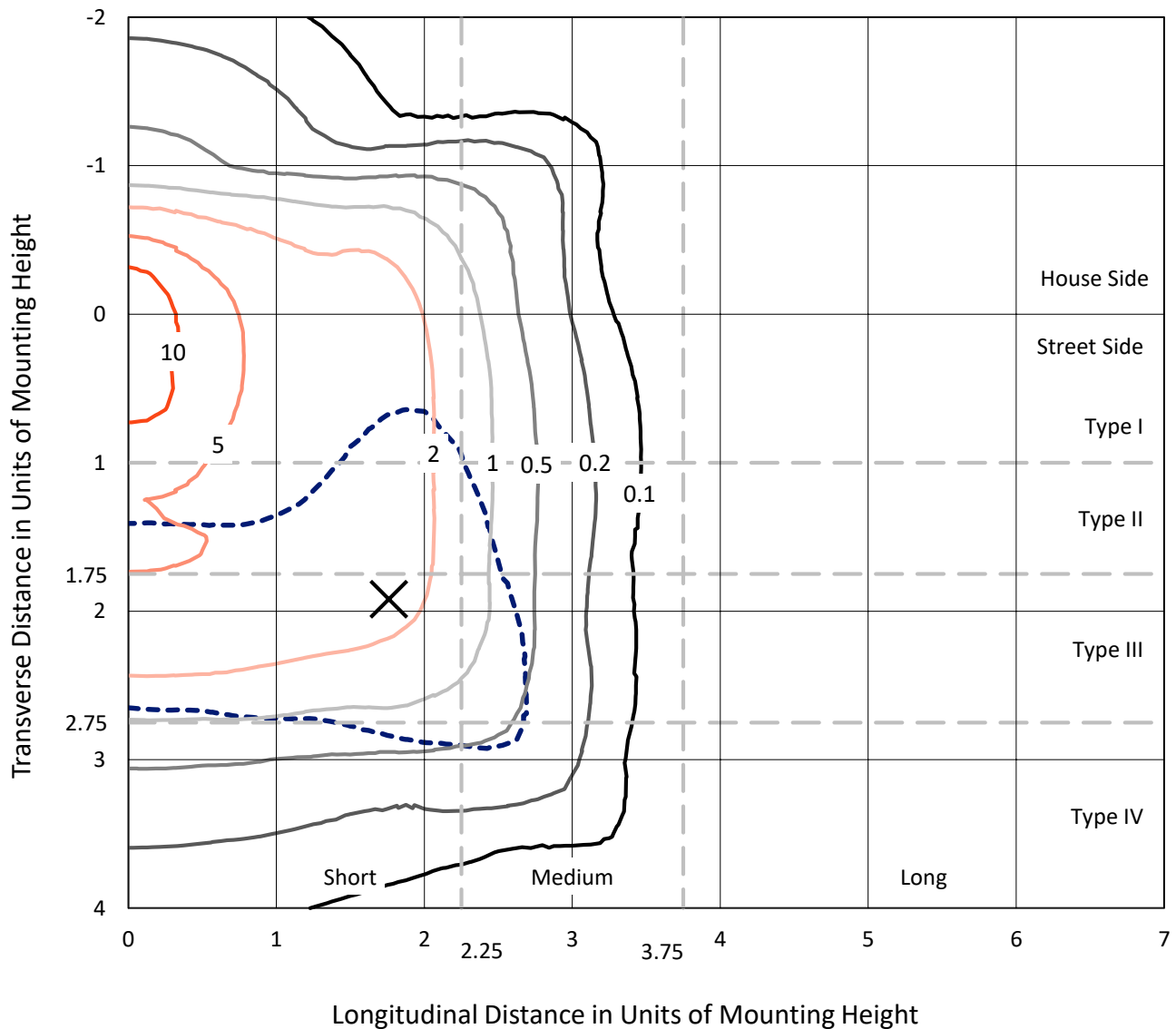


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

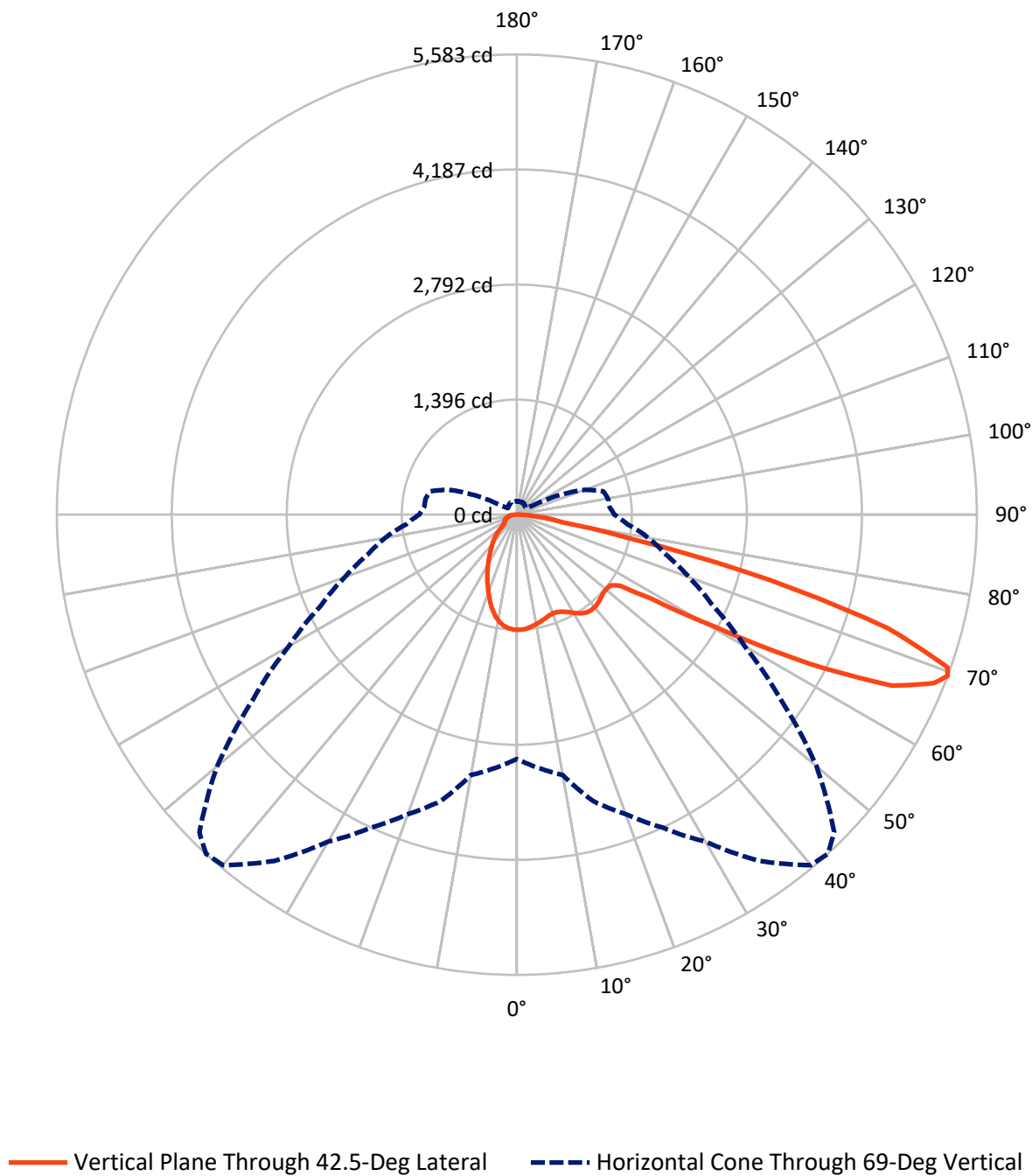


Based on 10 foot mounting height. Maximum calculated value = 14 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1458.8	0.0	1458.8
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	5103.1	0.0	5103.1
	% Fixture	77.8	0.0	77.8
Total	Lumens	6561.9	0.0	6561.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	130.1	2.0
10°-20°	350.6	5.3
20°-30°	511.2	7.8
30°-40°	651.7	9.9
40°-50°	758.3	11.6
50°-60°	1153.8	17.6
60°-70°	2038.1	31.1
70°-80°	841.0	12.8
80°-90°	127.0	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°	6561.9	100.0
0°-180°	6561.9	100.0

Coefficient of Utilization



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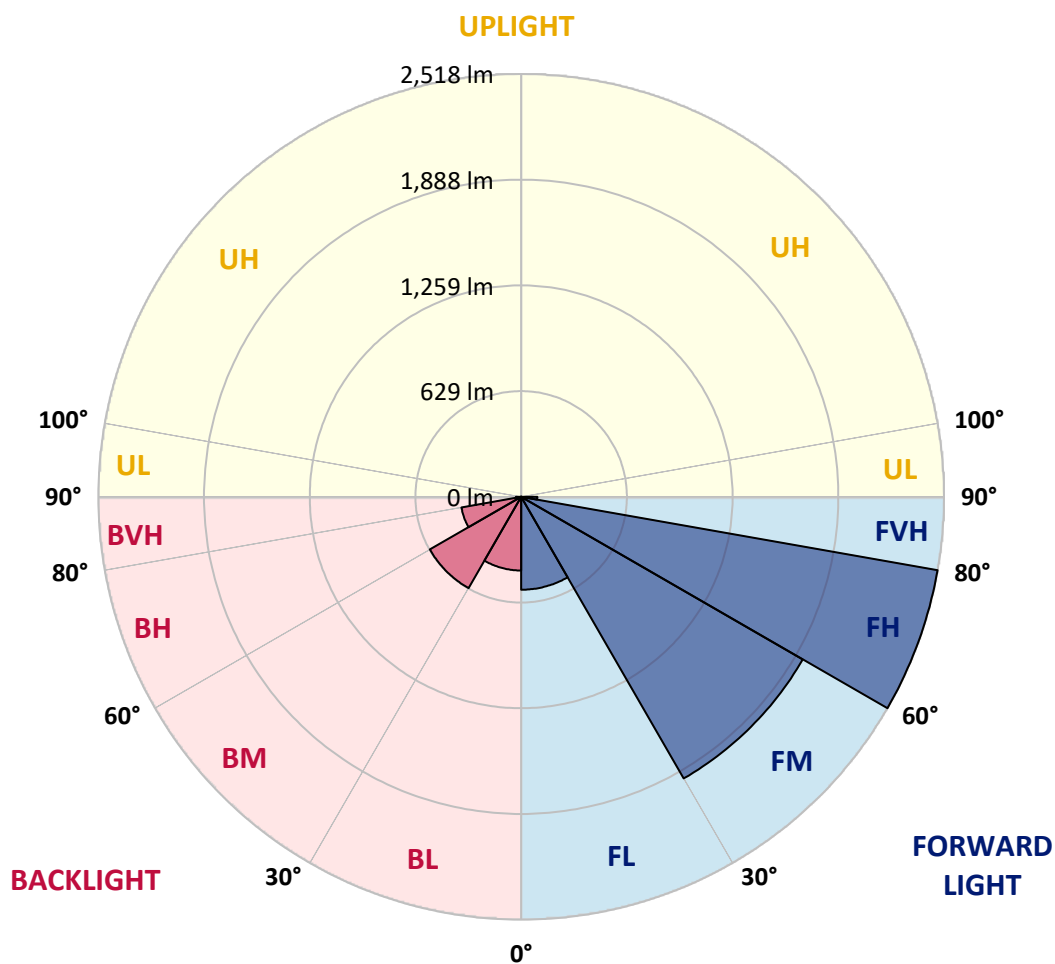
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	553.3	8.4			
FM	(30°-60°)	1935.9	29.5			
FH	(60°-80°)	2517.8	38.4			G2/5000
FVH	(80°-90°)	96.0	1.5			G1/100
BL	(0°-30°)	438.6	6.7	B1/500		
BM	(30°-60°)	627.9	9.6	B1/1000		
BH	(60°-80°)	361.3	5.5	B1/500		G1/500
BVH	(80°-90°)	31.0	0.5			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-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°	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5
2.5°	1392.9	1397.9	1396.1	1396.1	1397.5	1395.2	1395.2	1396.1	1393.9	1395.2	1394.8
5°	1388.0	1390.7	1389.8	1389.8	1389.8	1388.0	1387.0	1386.6	1383.4	1383.4	1382.1
7.5°	1377.1	1378.0	1379.3	1377.5	1377.1	1376.6	1373.5	1371.7	1368.1	1364.9	1365.8
10°	1362.6	1362.2	1364.4	1363.1	1361.3	1359.9	1357.2	1354.0	1349.9	1345.9	1345.4
12.5°	1346.3	1345.9	1347.7	1346.8	1345.4	1342.7	1340.5	1335.0	1328.7	1323.7	1323.2
15°	1335.9	1334.6	1336.4	1334.6	1332.3	1329.6	1325.5	1318.7	1307.4	1302.4	1298.4
17.5°	1345.9	1343.6	1344.5	1342.3	1339.1	1331.9	1322.3	1307.9	1291.6	1283.0	1276.7
20°	1380.7	1376.6	1377.5	1375.3	1368.1	1358.5	1340.5	1315.1	1287.5	1273.5	1263.5
22.5°	1430.5	1427.3	1428.7	1426.4	1419.2	1404.7	1377.5	1341.4	1302.0	1281.7	1265.8
25°	1506.0	1508.8	1509.7	1499.2	1495.1	1468.5	1430.9	1380.7	1328.2	1304.3	1282.6
27.5°	1591.1	1591.1	1595.2	1591.1	1582.9	1551.7	1498.8	1438.1	1370.8	1338.2	1312.0
30°	1673.9	1673.0	1680.7	1679.8	1666.6	1631.3	1571.2	1497.4	1420.5	1383.9	1350.4
32.5°	1761.7	1764.4	1769.3	1767.5	1750.3	1701.5	1629.1	1549.0	1468.0	1427.8	1390.2
35°	1856.6	1858.0	1859.8	1858.9	1824.1	1762.6	1671.6	1582.0	1497.9	1458.1	1419.2
37.5°	1951.6	1950.3	1948.0	1928.6	1888.7	1803.2	1697.4	1601.0	1512.8	1469.8	1429.6
40°	2036.7	2029.0	2021.8	1991.5	1930.4	1826.3	1707.4	1605.5	1511.5	1467.1	1427.8
42.5°	2083.3	2074.7	2059.7	2021.8	1947.5	1828.6	1700.6	1592.0	1497.4	1453.6	1414.6
45°	2091.9	2085.5	2071.1	2028.5	1943.5	1814.1	1679.8	1569.8	1476.6	1432.7	1396.1
47.5°	2071.5	2066.5	2052.5	2010.4	1925.9	1792.4	1655.8	1546.3	1456.3	1415.1	1379.8
50°	2040.3	2035.8	2024.9	1986.5	1906.0	1777.4	1643.6	1534.1	1449.5	1411.9	1379.3
52.5°	2091.0	2094.6	2062.9	2020.9	1927.2	1790.6	1657.1	1546.7	1461.7	1424.6	1390.7
55°	2878.6	2873.6	2683.1	2523.5	2238.0	1979.2	1786.1	1647.2	1556.2	1519.1	1487.5
57.5°	3740.4	3723.2	3644.9	3495.7	3188.9	2779.5	2407.2	2090.5	1965.7	1912.3	1915.9
60°	4021.8	4028.2	4011.4	3958.4	3848.5	3635.5	3352.3	3114.3	2879.9	2765.5	2778.6
62.5°	4177.9	4189.2	4203.7	4191.9	4156.1	4106.9	4071.1	4092.8	4060.3	3977.9	3912.3
65°	4199.6	4222.7	4270.6	4308.6	4327.1	4373.8	4483.3	4745.6	4985.4	5001.2	4885.9
67.5°	3769.8	3833.6	3937.7	4113.7	4264.3	4429.9	4694.0	5093.1	5446.9	5458.6	5350.9
69°	2964.1	3086.7	3208.4	3601.5	3866.2	4190.5	4581.4	5126.6	5550.4	5583.0	5447.3
70°	2375.1	2447.9	2552.9	2947.8	3343.2	3756.7	4323.1	5016.2	5479.4	5545.0	5395.3
72.5°	1426.0	1454.0	1490.2	1631.8	1835.4	2203.6	2954.6	4089.7	4622.2	4709.9	4519.4
75°	922.0	920.2	923.3	962.7	974.5	1045.0	1281.7	2104.1	3015.2	3174.5	2946.5
77.5°	694.4	700.7	690.8	694.4	691.3	710.3	717.5	753.2	1190.3	1466.2	1311.1
80°	613.0	616.1	616.6	614.8	592.6	590.8	602.6	582.2	541.1	549.2	526.1
82.5°	349.7	349.3	353.3	384.1	396.8	438.4	455.6	465.1	429.3	402.7	364.2
85°	226.7	228.5	233.0	242.5	233.0	236.6	232.6	240.7	220.7	205.0	183.2
87.5°	92.8	92.8	98.6	107.2	100.0	98.2	84.1	83.2	70.6	63.8	49.7
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5
2.5°	1392.0	1394.8	1393.4	1395.2	1393.9	1393.9	1392.0	1391.6	1392.9	1391.1	1391.6
5°	1379.8	1380.2	1378.0	1378.9	1376.2	1375.3	1373.9	1370.3	1372.6	1370.3	1371.2
7.5°	1362.2	1360.8	1357.6	1353.1	1349.9	1348.6	1345.9	1340.9	1341.8	1337.8	1340.0
10°	1339.6	1335.0	1329.6	1322.8	1318.3	1314.2	1308.3	1302.4	1299.3	1295.6	1295.2
12.5°	1314.2	1308.8	1301.5	1291.1	1281.2	1274.4	1265.3	1255.0	1251.8	1245.9	1242.7
15°	1286.6	1278.0	1269.4	1257.7	1246.8	1236.4	1224.2	1211.0	1202.5	1193.4	1186.6
17.5°	1261.7	1251.8	1240.5	1229.2	1217.4	1204.7	1189.3	1173.1	1160.4	1143.7	1130.1
20°	1242.3	1229.6	1218.3	1206.5	1193.4	1178.0	1159.5	1138.7	1117.4	1098.9	1083.1
22.5°	1234.6	1214.7	1201.1	1189.3	1176.2	1158.1	1135.5	1111.1	1085.3	1059.5	1038.7
25°	1240.9	1211.5	1190.3	1176.2	1164.9	1146.4	1121.0	1091.2	1061.3	1030.6	1002.5
27.5°	1259.5	1221.9	1191.2	1169.0	1155.9	1137.3	1110.7	1079.0	1043.7	1009.3	974.9
30°	1288.4	1239.5	1200.7	1169.5	1149.1	1127.8	1099.8	1063.1	1027.4	988.0	950.5
32.5°	1316.5	1258.1	1211.5	1171.3	1140.1	1112.5	1081.2	1045.0	1006.6	965.4	926.5
35°	1336.4	1270.3	1215.6	1167.2	1126.0	1091.6	1058.2	1022.0	984.4	942.4	902.5
37.5°	1345.9	1277.1	1216.0	1156.3	1107.5	1069.4	1033.7	998.0	962.7	922.9	885.4
40°	1345.4	1276.7	1209.7	1142.3	1085.3	1045.0	1009.7	974.9	941.9	907.1	873.1
42.5°	1335.5	1269.4	1200.7	1128.7	1069.4	1024.7	988.0	954.5	926.5	895.7	867.2
45°	1320.1	1257.2	1191.2	1122.4	1064.9	1020.2	981.2	948.7	923.8	895.7	871.3
47.5°	1308.3	1250.4	1192.5	1133.7	1079.0	1032.4	991.2	955.4	934.2	911.6	894.4
50°	1310.2	1253.6	1197.1	1140.5	1088.9	1041.8	1002.1	969.5	954.1	948.2	944.2
52.5°	1319.6	1258.6	1210.6	1176.7	1159.0	1123.7	1100.2	1079.9	1091.2	1069.0	1042.8
55°	1440.9	1421.0	1467.6	1511.5	1567.1	1587.9	1568.0	1564.4	1582.5	1507.4	1335.0
57.5°	1941.7	1993.3	2065.2	2103.2	2149.3	2137.1	2091.0	2052.5	2007.3	1919.5	1704.6
60°	2793.5	2754.7	2722.1	2630.2	2555.2	2467.4	2369.6	2285.9	2205.9	2079.7	1847.2
62.5°	3671.2	3401.1	3175.4	2957.3	2781.8	2636.1	2494.5	2368.7	2247.5	2071.5	1821.4
65°	4430.3	3861.7	3437.8	3117.9	2861.4	2640.2	2458.3	2284.6	2130.4	1924.0	1676.6
67.5°	4771.4	4058.9	3442.3	2984.0	2628.9	2328.5	2093.2	1830.8	1658.0	1525.9	1386.6
69°	4746.1	3908.2	3196.6	2632.5	2224.4	1874.3	1621.9	1348.1	1182.5	1126.4	1123.3
70°	4625.8	3653.1	2909.8	2347.0	1880.2	1532.3	1290.2	1044.6	890.3	851.9	920.2
72.5°	3776.6	2581.4	1823.6	1392.5	1070.8	846.4	690.4	547.9	437.5	379.1	391.8
75°	2133.1	1195.3	772.7	584.0	493.6	408.1	350.2	298.6	270.1	219.4	173.7
77.5°	775.4	513.0	408.1	352.9	250.2	172.4	144.3	126.2	114.5	114.5	109.0
80°	490.4	386.3	269.6	184.6	136.6	119.0	104.0	91.4	84.1	82.3	84.1
82.5°	306.3	236.6	151.1	115.8	97.3	87.3	76.0	66.5	60.6	59.3	62.0
85°	151.1	117.2	91.9	81.9	76.9	71.5	62.9	53.8	52.0	55.6	65.2
87.5°	45.2	40.3	33.0	34.4	36.2	35.3	28.0	24.4	23.1	30.3	47.5
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°	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5	1397.5
2.5°	1392.5	1392.0	1392.9	1391.6	1392.5	1392.9	1392.0	1396.1	1393.4	1393.9	1395.7
5°	1372.1	1371.2	1374.8	1373.9	1375.7	1377.5	1376.6	1382.5	1380.2	1382.1	1385.7
7.5°	1338.2	1340.0	1340.5	1340.5	1344.1	1349.9	1351.3	1354.9	1354.9	1359.9	1363.5
10°	1292.9	1293.4	1296.1	1295.6	1300.2	1306.5	1307.4	1313.8	1316.0	1324.1	1329.1
12.5°	1240.5	1238.2	1237.7	1237.3	1243.2	1250.0	1250.9	1261.7	1266.2	1273.5	1281.7
15°	1181.6	1175.8	1174.0	1177.6	1176.2	1180.3	1184.4	1190.3	1196.6	1211.0	1218.3
17.5°	1124.2	1112.5	1109.3	1105.2	1101.1	1101.1	1102.9	1110.2	1123.3	1131.0	1147.3
20°	1065.4	1051.4	1040.0	1029.2	1019.7	1016.1	1016.5	1025.6	1035.1	1047.7	1063.1
22.5°	1016.1	994.8	975.4	960.9	941.5	941.0	938.3	941.0	951.4	954.5	963.2
25°	973.6	945.1	918.8	895.3	876.3	866.3	863.6	862.7	857.8	856.4	850.1
27.5°	940.6	906.1	872.2	843.7	820.2	806.6	789.4	777.2	759.6	755.0	743.8
30°	913.4	876.3	839.2	802.1	775.4	751.0	722.0	700.7	673.6	656.0	640.6
32.5°	887.2	849.6	812.0	775.4	734.2	696.2	658.3	625.2	594.9	567.8	545.2
35°	865.4	829.7	791.7	747.4	694.9	640.1	594.4	556.9	515.3	486.8	458.3
37.5°	851.4	818.8	780.8	719.8	652.4	593.5	541.5	495.8	453.3	410.3	378.2
40°	845.1	816.6	769.1	694.4	615.2	550.1	492.7	442.0	387.7	339.3	304.9
42.5°	844.6	815.7	752.8	666.4	584.5	513.5	449.7	389.0	328.9	279.1	245.2
45°	852.8	814.3	735.6	642.8	557.3	483.2	407.2	333.4	266.0	228.9	210.8
47.5°	874.5	816.6	721.6	621.1	531.5	446.5	358.3	272.3	216.7	199.5	199.5
50°	913.4	829.7	718.0	605.8	505.8	404.0	298.6	219.8	191.8	191.8	197.2
52.5°	973.1	857.3	724.3	594.9	473.6	347.9	235.3	189.5	184.1	189.1	196.3
55°	1110.7	906.1	732.9	576.4	424.8	275.9	194.1	179.2	181.4	187.3	194.1
57.5°	1363.1	1010.6	741.9	535.6	346.1	212.6	176.0	175.1	179.2	184.6	190.4
60°	1529.1	1143.7	765.0	474.1	262.0	175.5	166.9	172.4	177.4	181.9	186.4
62.5°	1529.1	1181.2	782.2	405.4	196.8	159.7	161.0	169.6	175.5	177.8	180.5
65°	1431.4	1112.5	723.8	330.2	160.1	150.7	155.6	164.2	169.6	171.5	173.7
67.5°	1250.9	982.6	609.8	248.8	143.0	143.0	149.3	155.6	160.1	163.7	167.4
69°	1087.6	881.7	537.0	210.8	136.2	137.1	143.4	148.9	154.3	158.8	163.3
70°	970.0	806.2	486.3	191.3	132.1	132.5	138.9	144.8	149.8	154.7	160.1
72.5°	519.4	556.9	369.6	157.0	121.7	123.1	128.9	134.3	138.9	143.9	148.9
75°	176.9	239.3	235.3	128.5	109.9	113.6	117.2	122.2	128.0	131.2	133.9
77.5°	103.6	107.2	125.3	104.5	99.1	100.9	104.9	109.0	114.0	117.2	119.5
80°	86.9	86.4	86.9	85.1	86.4	90.5	93.2	98.6	103.1	104.0	103.6
82.5°	70.6	74.2	74.6	73.7	77.8	81.0	83.2	86.4	86.0	86.9	88.7
85°	62.9	62.5	65.6	66.1	66.1	63.8	64.3	64.3	64.3	65.6	66.1
87.5°	62.9	52.5	40.7	36.7	38.5	36.2	34.4	33.9	37.6	41.2	40.3
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°	1397.5	1397.5	1397.5	1397.5	1397.5
2.5°	1396.6	1397.9	1397.0	1397.0	1397.9
5°	1387.0	1389.3	1388.4	1389.3	1389.3
7.5°	1365.4	1368.5	1370.8	1373.0	1371.7
10°	1334.1	1339.6	1343.2	1345.9	1344.5
12.5°	1287.5	1292.5	1300.2	1304.7	1301.1
15°	1223.8	1237.7	1242.3	1248.6	1245.0
17.5°	1157.2	1165.8	1171.3	1177.1	1180.7
20°	1068.5	1075.3	1082.6	1085.3	1081.2
22.5°	961.8	965.4	964.1	968.1	960.0
25°	844.6	846.9	845.5	849.1	842.3
27.5°	733.8	733.3	733.8	729.2	724.7
30°	627.0	622.9	621.1	614.3	613.0
32.5°	531.5	517.6	510.3	500.3	498.1
35°	436.1	416.2	403.1	391.8	386.8
37.5°	350.6	326.6	311.2	301.3	299.9
40°	277.3	255.2	244.3	238.9	238.0
42.5°	226.2	216.7	214.0	214.0	214.0
45°	206.3	205.9	208.1	209.9	210.4
47.5°	202.2	205.0	208.1	210.8	211.7
50°	202.2	205.0	207.2	209.9	210.8
52.5°	201.3	203.6	204.5	206.3	207.2
55°	198.6	200.0	200.0	200.9	201.8
57.5°	194.1	195.0	193.6	194.5	196.8
60°	189.5	190.4	188.2	190.4	191.8
62.5°	184.6	185.0	184.1	185.9	185.9
65°	176.5	175.5	176.9	178.3	178.7
67.5°	168.3	166.0	167.4	167.8	168.7
69°	161.9	160.6	161.0	161.9	162.8
70°	157.4	156.5	157.4	158.8	160.1
72.5°	146.1	146.6	149.8	152.5	155.2
75°	135.7	138.9	143.0	148.9	152.0
77.5°	123.1	125.3	128.5	134.8	140.7
80°	106.3	107.7	108.1	110.4	109.9
82.5°	86.4	85.1	84.1	83.2	82.8
85°	62.0	61.5	57.9	55.2	55.2
87.5°	37.1	35.3	33.5	31.2	29.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)