

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: P158657

Luminaire Tested: **VST-F03-LED-E-U-SL4-7060**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P158657
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-SL4-7060
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(3) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 W/ SPILL LIGHT CONTROL
Light Source: (21) 5700K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7371.9 lumens
Efficiency: N/A
Efficacy: 94.1 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

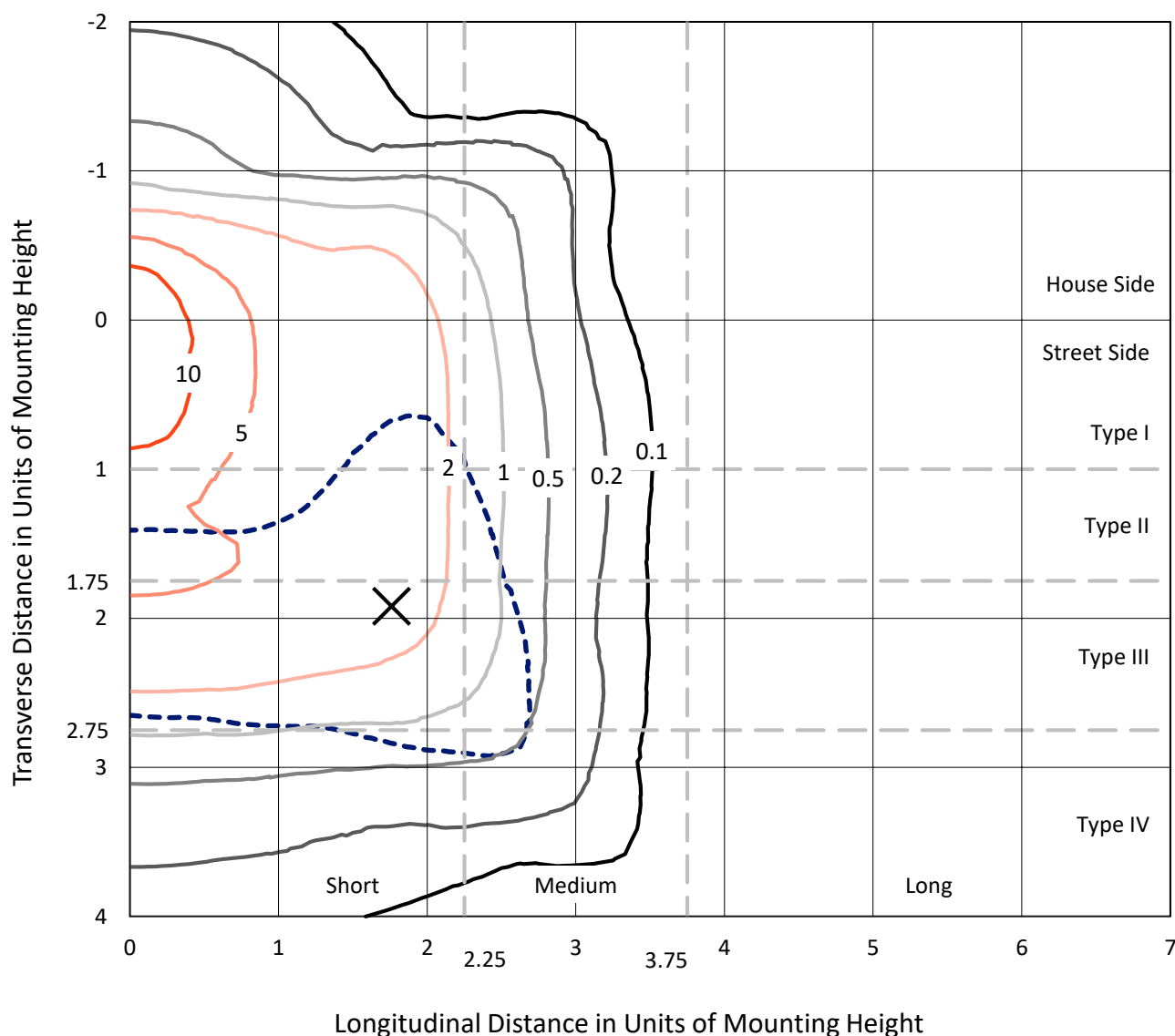


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

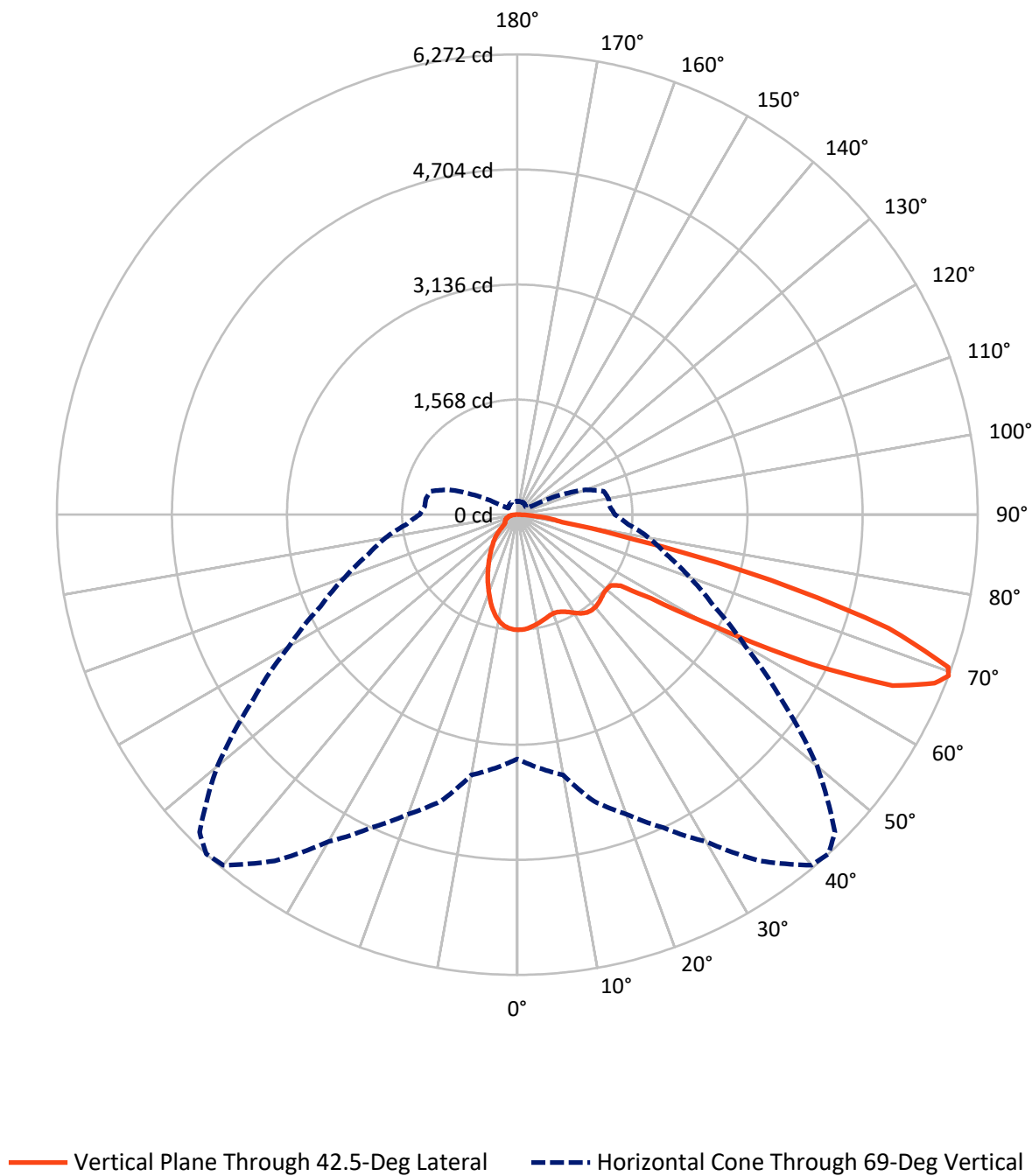


Based on 10 foot mounting height. Maximum calculated value = 15.7 fc
Type IV - Short - Full Cutoff

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Luminous Intensity Polar Plot



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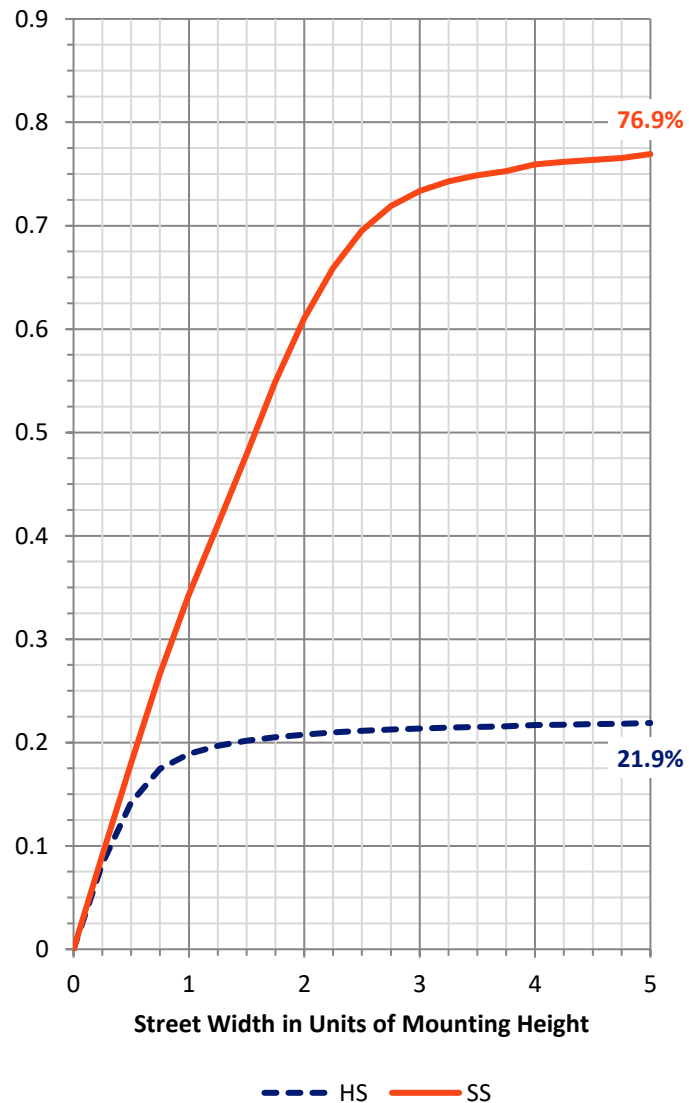
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1638.9	0.0	1638.9
	% Fixture	22.2	0.0	22.2
Street Side	Lumens	5733.0	0.0	5733.0
	% Fixture	77.8	0.0	77.8
Total	Lumens	7371.9	0.0	7371.9
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.1	2.0
10°-20°	393.9	5.3
20°-30°	574.4	7.8
30°-40°	732.2	9.9
40°-50°	851.9	11.6
50°-60°	1296.2	17.6
60°-70°	2289.7	31.1
70°-80°	944.9	12.8
80°-90°	142.7	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°	7371.9	100.0
0°-180°	7371.9	100.0

Coefficient of Utilization



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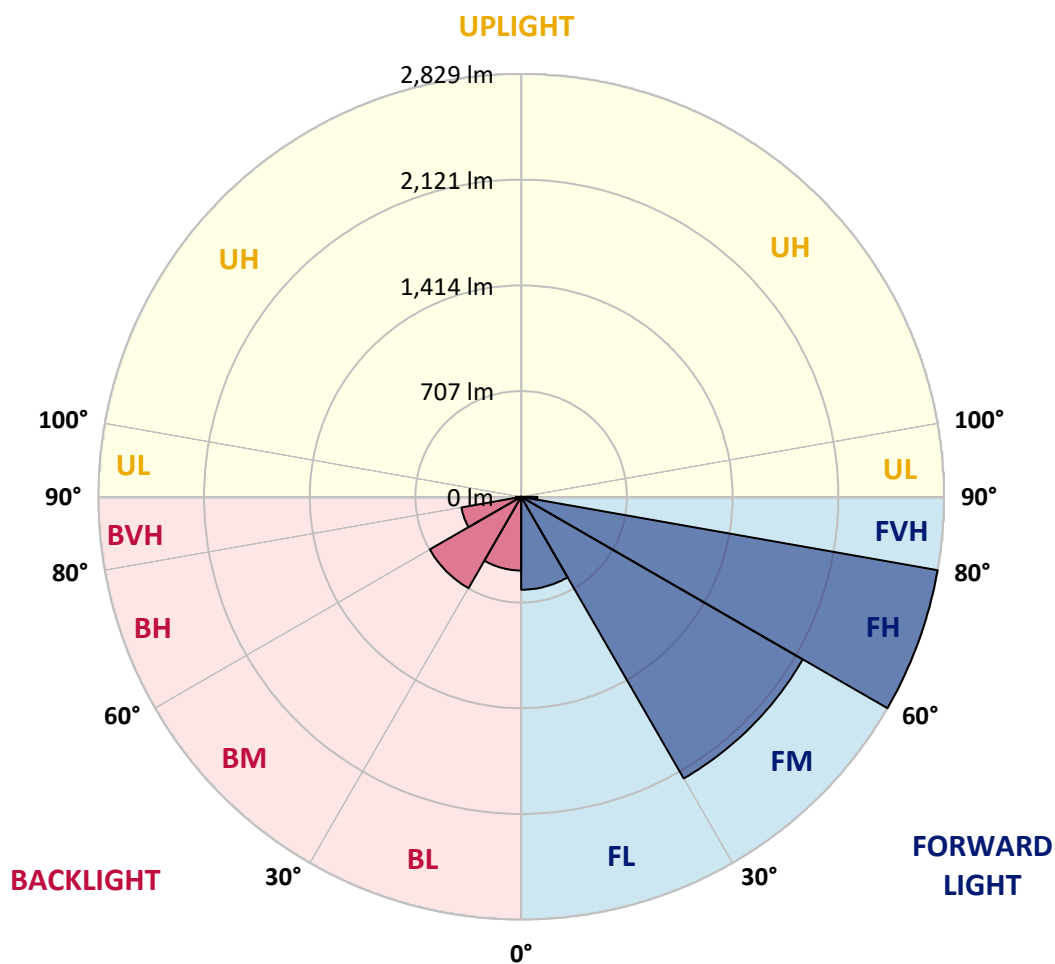
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	621.6	8.4			
FM	(30°-60°)	2174.9	29.5			
FH	(60°-80°)	2828.6	38.4			G2/5000
FVH	(80°-90°)	107.9	1.5			G2/225
BL	(0°-30°)	492.7	6.7	B1/500		
BM	(30°-60°)	705.4	9.6	B1/1000		
BH	(60°-80°)	406.0	5.5	B1/500		G1/500
BVH	(80°-90°)	34.8	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°	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0
2.5°	1564.9	1570.5	1568.5	1568.5	1570.0	1567.4	1567.4	1568.5	1565.9	1567.4	1566.9
5°	1559.3	1562.3	1561.3	1561.3	1561.3	1559.3	1558.3	1557.8	1554.2	1554.2	1552.7
7.5°	1547.1	1548.1	1549.6	1547.6	1547.1	1546.6	1543.0	1541.0	1537.0	1533.4	1534.4
10°	1530.8	1530.3	1532.9	1531.3	1529.3	1527.8	1524.7	1521.2	1516.6	1512.0	1511.5
12.5°	1512.5	1512.0	1514.0	1513.0	1511.5	1508.5	1505.9	1499.8	1492.7	1487.1	1486.6
15°	1500.8	1499.3	1501.4	1499.3	1496.8	1493.8	1489.1	1481.5	1468.8	1463.2	1458.7
17.5°	1512.0	1509.5	1510.5	1508.0	1504.4	1496.3	1485.6	1469.3	1451.0	1441.4	1434.2
20°	1551.2	1546.6	1547.6	1545.1	1537.0	1526.3	1505.9	1477.4	1446.5	1430.7	1419.5
22.5°	1607.1	1603.5	1605.1	1602.5	1594.4	1578.1	1547.6	1507.0	1462.7	1439.9	1422.1
25°	1691.9	1695.0	1696.0	1684.3	1679.8	1649.8	1607.6	1551.2	1492.2	1465.3	1440.9
27.5°	1787.5	1787.5	1792.1	1787.5	1778.3	1743.3	1683.8	1615.7	1540.0	1503.4	1473.9
30°	1880.5	1879.5	1888.1	1887.1	1872.4	1832.8	1765.1	1682.3	1595.9	1554.7	1517.1
32.5°	1979.1	1982.2	1987.7	1985.7	1966.4	1911.5	1830.2	1740.2	1649.3	1604.0	1561.9
35°	2085.8	2087.3	2089.4	2088.4	2049.2	1980.1	1877.9	1777.3	1682.8	1638.1	1594.4
37.5°	2192.6	2191.0	2188.5	2166.7	2121.9	2025.8	1906.9	1798.7	1699.6	1651.3	1606.1
40°	2288.1	2279.5	2271.4	2237.3	2168.7	2051.8	1918.1	1803.8	1698.1	1648.3	1604.0
42.5°	2340.5	2330.8	2314.0	2271.4	2188.0	2054.3	1910.5	1788.5	1682.3	1633.0	1589.3
45°	2350.1	2343.0	2326.7	2279.0	2183.4	2038.1	1887.1	1763.6	1658.9	1609.6	1568.5
47.5°	2327.3	2321.6	2305.9	2258.6	2163.6	2013.7	1860.2	1737.2	1636.0	1589.8	1550.2
50°	2292.2	2287.1	2274.9	2231.7	2141.2	1996.9	1846.4	1723.4	1628.4	1586.2	1549.6
52.5°	2349.1	2353.2	2317.6	2270.3	2165.1	2011.6	1861.7	1737.7	1642.1	1600.4	1562.3
55°	3233.9	3228.4	3014.4	2835.0	2514.3	2223.6	2006.6	1850.5	1748.3	1706.7	1671.1
57.5°	4202.2	4182.8	4094.9	3927.2	3582.6	3122.6	2704.4	2348.6	2208.3	2148.4	2152.4
60°	4518.3	4525.4	4506.6	4447.1	4323.7	4084.3	3766.1	3498.8	3235.5	3106.9	3121.6
62.5°	4693.6	4706.3	4722.6	4709.4	4669.3	4613.9	4573.7	4598.1	4561.5	4469.0	4395.3
65°	4718.0	4744.0	4797.8	4840.5	4861.4	4913.7	5036.7	5331.5	5600.9	5618.6	5489.0
67.5°	4235.2	4306.9	4423.7	4621.5	4790.7	4976.8	5273.6	5721.8	6119.3	6132.5	6011.5
69°	3330.0	3467.8	3604.5	4046.2	4343.5	4707.9	5147.0	5759.5	6235.7	6272.3	6119.8
70°	2668.3	2750.1	2868.0	3311.7	3755.9	4220.5	4856.8	5635.4	6155.9	6229.6	6061.3
72.5°	1602.0	1633.5	1674.2	1833.2	2062.0	2475.7	3319.4	4594.6	5192.8	5291.3	5077.4
75°	1035.8	1033.8	1037.3	1081.6	1094.8	1174.0	1439.9	2363.8	3387.5	3566.3	3310.2
77.5°	780.2	787.3	776.1	780.2	776.6	797.9	806.1	846.2	1337.2	1647.2	1472.9
80°	688.7	692.2	692.8	690.7	665.8	663.8	677.0	654.1	607.9	617.0	591.1
82.5°	392.9	392.3	397.0	431.5	445.7	492.5	511.8	522.5	482.3	452.3	409.1
85°	254.6	256.7	261.7	272.4	261.7	265.8	261.2	270.4	248.0	230.2	205.9
87.5°	104.2	104.2	110.8	120.5	112.3	110.3	94.6	93.5	79.3	71.6	55.9
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0
2.5°	1563.9	1566.9	1565.4	1567.4	1565.9	1565.9	1563.9	1563.4	1564.9	1562.9	1563.4
5°	1550.2	1550.6	1548.1	1549.1	1546.1	1545.1	1543.6	1539.5	1542.0	1539.5	1540.5
7.5°	1530.3	1528.8	1525.3	1520.2	1516.6	1515.1	1512.0	1506.4	1507.4	1502.9	1505.4
10°	1504.9	1499.8	1493.8	1486.1	1481.0	1476.5	1469.8	1463.2	1459.7	1455.6	1455.1
12.5°	1476.5	1470.4	1462.2	1450.6	1439.3	1431.7	1421.6	1409.9	1406.3	1399.7	1396.1
15°	1445.5	1435.8	1426.1	1412.9	1400.7	1389.1	1375.3	1360.6	1350.9	1340.8	1333.1
17.5°	1417.5	1406.3	1393.6	1380.9	1367.7	1353.5	1336.2	1317.9	1303.6	1284.8	1269.6
20°	1395.7	1381.4	1368.7	1355.5	1340.8	1323.5	1302.7	1279.3	1255.4	1234.5	1216.7
22.5°	1387.0	1364.6	1349.4	1336.2	1321.4	1301.1	1275.7	1248.2	1219.3	1190.3	1166.9
25°	1394.1	1361.1	1337.2	1321.4	1308.7	1287.9	1259.5	1225.9	1192.3	1157.8	1126.3
27.5°	1415.0	1372.8	1338.2	1313.3	1298.6	1277.7	1247.8	1212.2	1172.5	1133.9	1095.2
30°	1447.5	1392.6	1348.9	1313.8	1291.0	1267.1	1235.5	1194.4	1154.2	1110.0	1067.8
32.5°	1479.0	1413.4	1361.1	1315.9	1280.8	1249.8	1214.7	1174.0	1130.8	1084.6	1040.9
35°	1501.4	1427.2	1365.7	1311.3	1265.0	1226.4	1188.8	1148.1	1105.9	1058.7	1013.9
37.5°	1512.0	1434.8	1366.1	1299.1	1244.2	1201.5	1161.4	1121.2	1081.6	1036.8	994.6
40°	1511.5	1434.2	1359.1	1283.3	1219.3	1174.0	1134.4	1095.2	1058.2	1019.0	980.9
42.5°	1500.4	1426.1	1348.9	1268.1	1201.5	1151.2	1110.0	1072.4	1040.9	1006.3	974.3
45°	1483.1	1412.4	1338.2	1261.0	1196.4	1146.1	1102.4	1065.8	1037.8	1006.3	978.9
47.5°	1469.8	1404.8	1339.7	1273.7	1212.2	1159.8	1113.5	1073.4	1049.5	1024.1	1004.8
50°	1471.9	1408.3	1344.8	1281.3	1223.3	1170.5	1125.8	1089.2	1071.9	1065.3	1060.7
52.5°	1482.5	1414.0	1360.1	1321.9	1302.1	1262.5	1236.1	1213.2	1225.9	1201.0	1171.5
55°	1618.7	1596.4	1648.7	1698.1	1760.6	1783.9	1761.6	1757.5	1777.9	1693.5	1499.8
57.5°	2181.4	2239.3	2320.1	2362.9	2414.7	2401.0	2349.1	2305.9	2255.1	2156.5	1915.1
60°	3138.4	3094.7	3058.1	2954.9	2870.6	2772.0	2662.2	2568.2	2478.2	2336.4	2075.2
62.5°	4124.4	3821.0	3567.4	3322.4	3125.2	2961.5	2802.5	2661.2	2525.0	2327.3	2046.2
65°	4977.2	4338.4	3862.1	3502.8	3214.7	2966.1	2761.8	2566.6	2393.3	2161.6	1883.6
67.5°	5360.5	4560.0	3867.2	3352.4	2953.4	2615.9	2351.6	2056.9	1862.7	1714.3	1557.8
69°	5332.0	4390.7	3591.2	2957.5	2499.1	2105.6	1822.1	1514.6	1328.6	1265.5	1262.0
70°	5196.8	4104.1	3269.0	2636.8	2112.2	1721.4	1449.5	1173.5	1000.2	957.0	1033.8
72.5°	4242.8	2900.0	2048.8	1564.4	1203.0	950.9	775.6	615.5	491.5	425.9	440.2
75°	2396.4	1342.8	868.1	656.2	554.5	458.5	393.4	335.5	303.4	246.5	195.2
77.5°	871.1	576.4	458.5	396.4	281.0	193.6	162.1	141.8	128.6	128.6	122.5
80°	550.9	434.0	302.9	207.4	153.5	133.7	116.9	102.7	94.6	92.5	94.6
82.5°	344.1	265.8	169.7	130.1	109.3	98.1	85.4	74.7	68.1	66.6	69.6
85°	169.7	131.6	103.2	92.0	86.4	80.3	70.6	60.5	58.4	62.5	73.2
87.5°	50.8	45.2	37.1	38.6	40.7	39.7	31.5	27.4	25.9	34.1	53.3
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0	1570.0
2.5°	1564.4	1563.9	1564.9	1563.4	1564.4	1564.9	1563.9	1568.5	1565.4	1565.9	1567.9
5°	1541.5	1540.5	1544.6	1543.6	1545.6	1547.6	1546.6	1553.2	1550.6	1552.7	1556.8
7.5°	1503.4	1505.4	1505.9	1505.9	1510.0	1516.6	1518.1	1522.2	1522.2	1527.8	1531.9
10°	1452.5	1453.1	1456.1	1455.6	1460.7	1467.8	1468.8	1475.9	1478.5	1487.6	1493.2
12.5°	1393.6	1391.0	1390.6	1390.1	1396.7	1404.3	1405.3	1417.5	1422.6	1430.7	1439.9
15°	1327.6	1320.9	1318.9	1322.9	1321.4	1326.0	1330.6	1337.2	1344.3	1360.6	1368.7
17.5°	1263.0	1249.8	1246.2	1241.6	1237.1	1237.1	1239.1	1247.2	1262.0	1270.6	1288.9
20°	1196.9	1181.2	1168.4	1156.3	1145.6	1141.5	1142.0	1152.2	1162.9	1177.1	1194.4
22.5°	1141.5	1117.6	1095.8	1079.5	1057.7	1057.1	1054.1	1057.1	1068.8	1072.4	1082.0
25°	1093.7	1061.7	1032.2	1005.8	984.5	973.3	970.3	969.2	963.7	962.1	955.0
27.5°	1056.7	1018.0	979.9	947.9	921.4	906.2	886.9	873.2	853.3	848.3	835.6
30°	1026.1	984.5	942.8	901.1	871.1	843.7	811.1	787.3	756.8	737.0	719.7
32.5°	996.7	954.5	912.3	871.1	824.9	782.2	739.5	702.4	668.3	637.9	612.4
35°	972.3	932.1	889.4	839.6	780.7	719.2	667.9	625.7	578.9	546.9	514.9
37.5°	956.5	919.9	877.3	808.6	732.9	666.8	608.3	557.0	509.3	461.0	424.9
40°	949.4	917.4	864.0	780.2	691.2	618.0	553.5	496.6	435.5	381.2	342.5
42.5°	948.9	916.4	845.7	748.6	656.6	576.8	505.2	437.1	369.5	313.6	275.5
45°	958.0	914.8	826.4	722.2	626.2	542.8	457.4	374.6	298.9	257.2	236.8
47.5°	982.4	917.4	810.7	697.8	597.2	501.7	402.5	305.9	243.4	224.2	224.2
50°	1026.1	932.1	806.6	680.5	568.2	453.8	335.5	247.0	215.5	215.5	221.6
52.5°	1093.3	963.1	813.7	668.3	532.1	390.8	264.3	212.9	206.9	212.5	220.6
55°	1247.8	1018.0	823.4	647.5	477.2	310.0	218.0	201.2	203.8	210.4	218.0
57.5°	1531.3	1135.4	833.5	601.7	388.8	238.9	197.7	196.7	201.2	207.4	214.0
60°	1717.9	1284.8	859.4	532.6	294.3	197.2	187.6	193.6	199.3	204.3	209.4
62.5°	1717.9	1327.0	878.8	455.4	221.1	179.4	181.0	190.6	197.2	199.7	202.8
65°	1608.1	1249.8	813.2	371.0	179.9	169.3	174.8	184.5	190.6	192.6	195.2
67.5°	1405.3	1103.9	685.1	279.5	160.6	160.6	167.7	174.8	179.9	184.0	188.0
69°	1221.8	990.6	603.3	236.8	153.0	154.0	161.1	167.2	173.3	178.4	183.5
70°	1089.7	905.7	546.4	215.0	148.4	148.9	156.1	162.7	168.2	173.8	179.9
72.5°	583.4	625.7	415.3	176.3	136.7	138.2	144.8	151.0	156.1	161.6	167.2
75°	198.7	268.9	264.3	144.4	123.5	127.6	131.6	137.2	143.8	147.4	150.4
77.5°	116.4	120.5	140.8	117.4	111.3	113.3	117.9	122.5	128.1	131.6	134.2
80°	97.6	97.1	97.6	95.6	97.1	101.6	104.7	110.8	115.9	116.9	116.4
82.5°	79.3	83.3	83.9	82.9	87.4	91.0	93.5	97.1	96.5	97.6	99.6
85°	70.6	70.1	73.7	74.2	74.2	71.6	72.2	72.2	72.2	73.7	74.2
87.5°	70.6	59.0	45.7	41.2	43.2	40.7	38.6	38.1	42.2	46.3	45.2
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):

	160°	165°	170°	175°	180°
0°	1570.0	1570.0	1570.0	1570.0	1570.0
2.5°	1568.9	1570.5	1569.5	1569.5	1570.5
5°	1558.3	1560.8	1559.8	1560.8	1560.8
7.5°	1533.9	1537.4	1540.0	1542.5	1541.0
10°	1498.8	1504.9	1509.0	1512.0	1510.5
12.5°	1446.5	1452.1	1460.7	1465.8	1461.7
15°	1374.8	1390.6	1395.7	1402.7	1398.7
17.5°	1300.1	1309.7	1315.9	1322.5	1326.5
20°	1200.5	1208.1	1216.3	1219.3	1214.7
22.5°	1080.5	1084.6	1083.1	1087.6	1078.5
25°	948.9	951.4	949.9	954.0	946.4
27.5°	824.4	823.9	824.4	819.3	814.2
30°	704.4	699.8	697.8	690.2	688.7
32.5°	597.2	581.5	573.3	562.1	559.6
35°	490.0	467.6	452.8	440.2	434.5
37.5°	393.9	367.0	349.7	338.5	337.0
40°	311.6	286.7	274.4	268.4	267.4
42.5°	254.1	243.4	240.4	240.4	240.4
45°	231.8	231.2	233.8	235.8	236.3
47.5°	227.2	230.2	233.8	236.8	237.8
50°	227.2	230.2	232.8	235.8	236.8
52.5°	226.1	228.7	229.7	231.8	232.8
55°	223.1	224.6	224.6	225.7	226.7
57.5°	218.0	219.1	217.5	218.5	221.1
60°	212.9	214.0	211.4	214.0	215.5
62.5°	207.4	207.9	206.9	208.9	208.9
65°	198.2	197.2	198.7	200.2	200.8
67.5°	189.1	186.5	188.0	188.6	189.6
69°	182.0	180.4	181.0	182.0	182.9
70°	176.9	175.9	176.9	178.4	179.9
72.5°	164.2	164.7	168.2	171.3	174.3
75°	152.5	156.1	160.6	167.2	170.8
77.5°	138.2	140.8	144.4	151.4	158.0
80°	119.5	121.0	121.5	124.0	123.5
82.5°	97.1	95.6	94.6	93.5	93.0
85°	69.6	69.1	65.0	62.0	62.0
87.5°	41.7	39.7	37.6	35.0	33.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)