

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: P159548

Luminaire Tested: **VST-E05-LED-E-U-T3-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159548
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-E05-LED-E-U-T3-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 3 AREA
Light Source: (105) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12906.1 lumens
Efficiency: N/A
Efficacy: 101.4 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 127.3
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



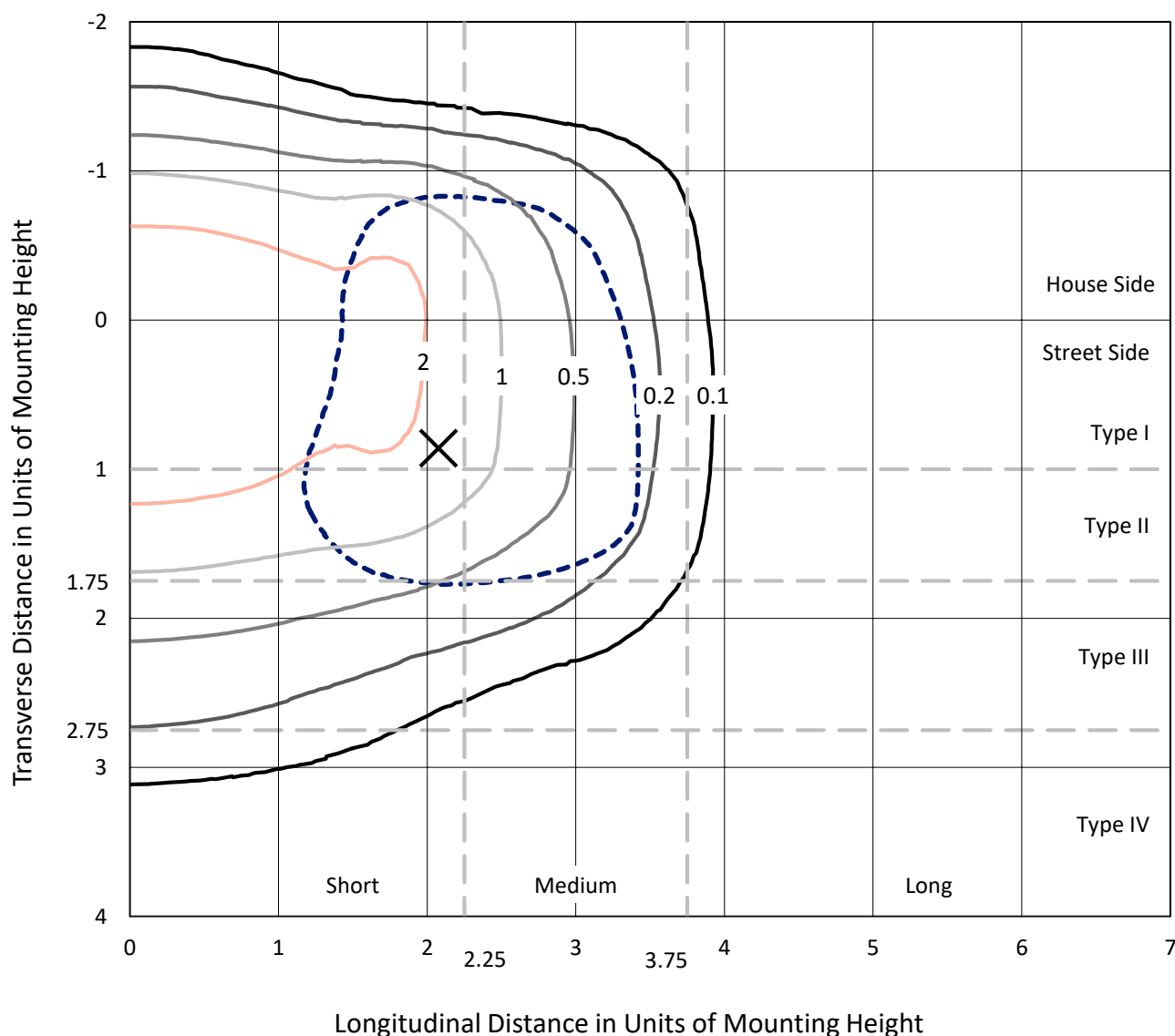
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Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

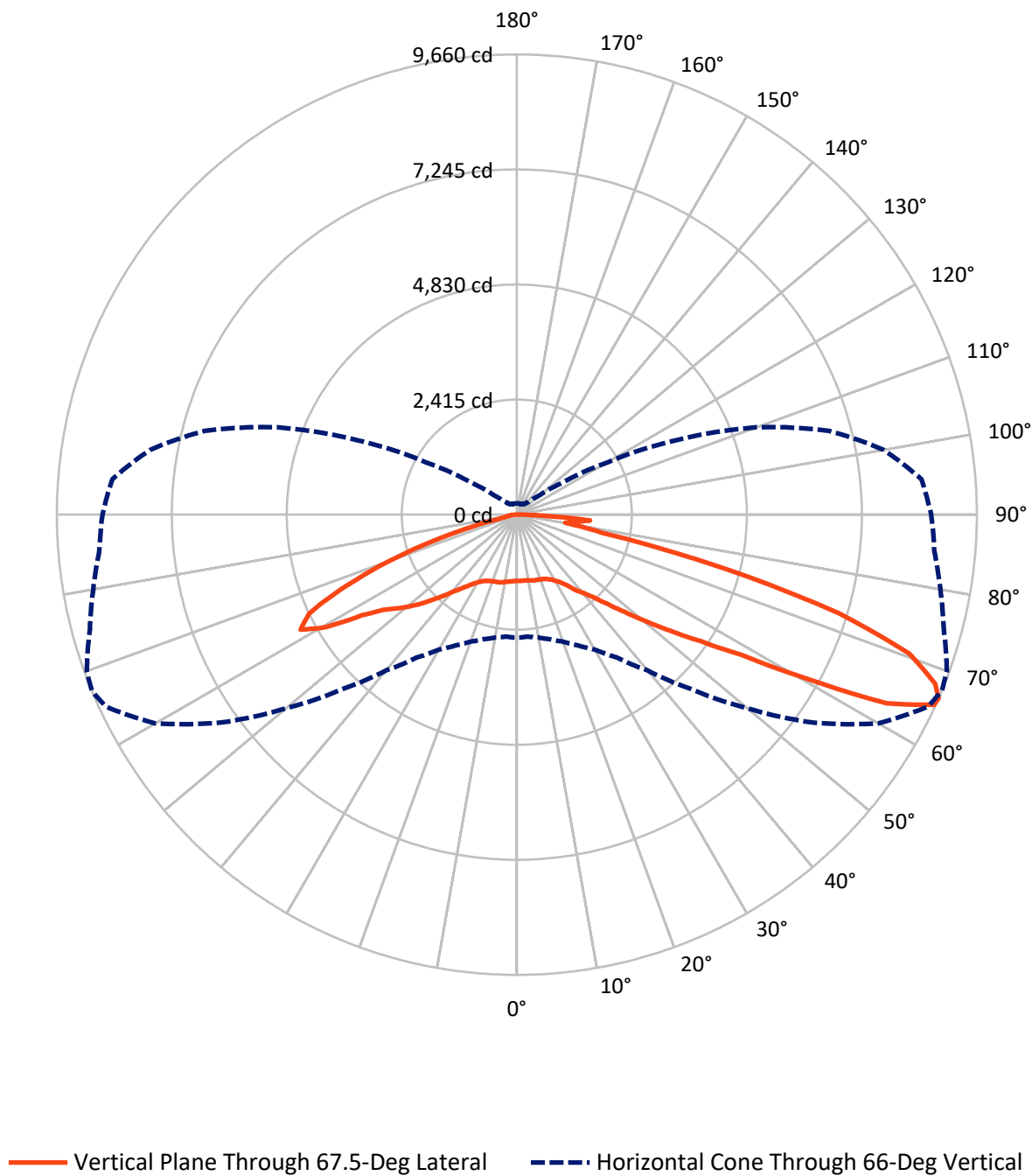


Based on 20 foot mounting height. Maximum calculated value = 3.5 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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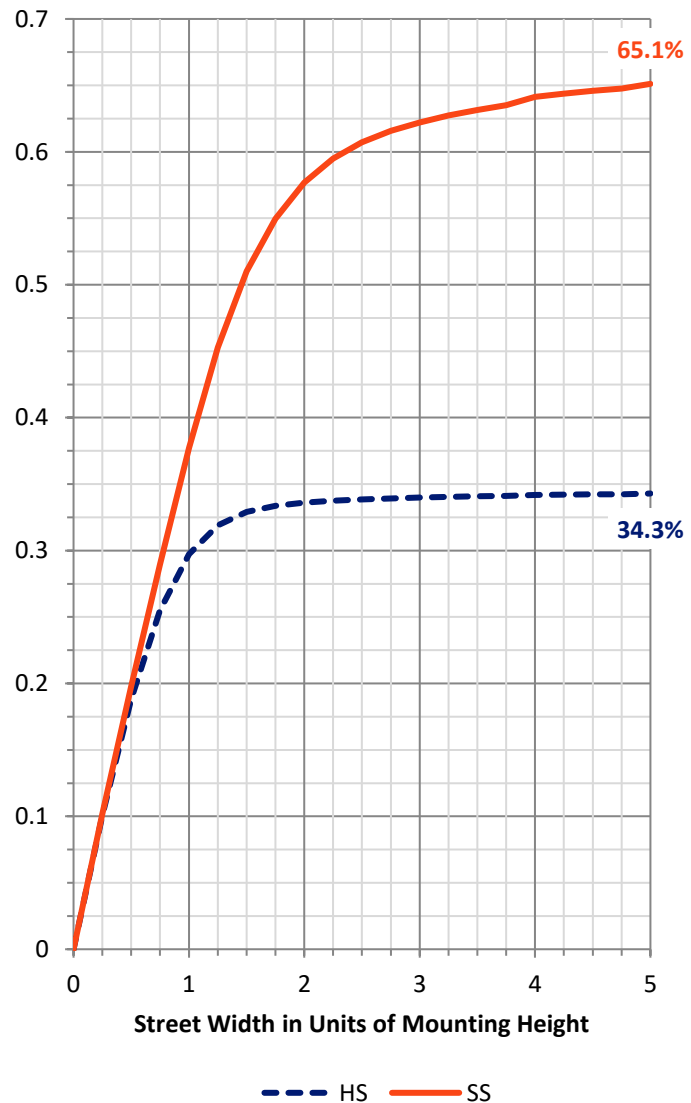
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4466.1	0.0	4466.1
	% Fixture	34.6	0.0	34.6
Street Side	Lumens	8440.1	0.0	8440.1
	% Fixture	65.4	0.0	65.4
Total	Lumens	12906.1	0.0	12906.1
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.6	1.0
10°-20°	395.7	3.1
20°-30°	680.2	5.3
30°-40°	1099.4	8.5
40°-50°	1821.9	14.1
50°-60°	2859.3	22.2
60°-70°	3909.2	30.3
70°-80°	1719.1	13.3
80°-90°	287.7	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°	12906.1	100.0
0°-180°	12906.1	100.0

Coefficient of Utilization



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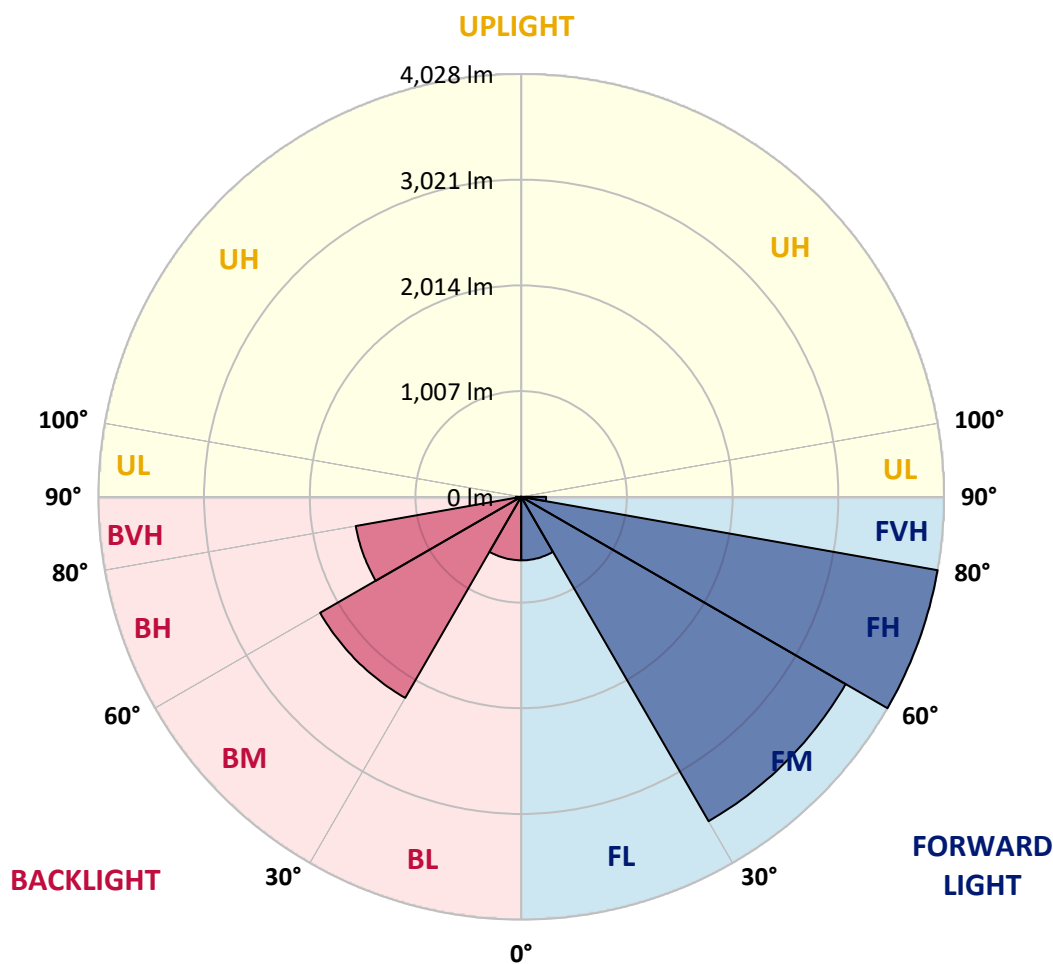
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	605.4	4.7			
FM	(30°-60°)	3568.9	27.7			
FH	(60°-80°)	4028.3	31.2			G2/5000
FVH	(80°-90°)	237.4	1.8			G3/500
BL	(0°-30°)	604.2	4.7	B2/1000		
BM	(30°-60°)	2211.6	17.1	B2/2500		
BH	(60°-80°)	1600.0	12.4	B3/2500		G3/2500
BVH	(80°-90°)	50.3	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°	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6
2.5°	1390.1	1390.1	1390.9	1390.1	1390.1	1389.2	1392.6	1392.6	1392.6	1391.7	1394.3
5°	1386.7	1386.7	1387.5	1387.5	1388.4	1387.5	1390.1	1390.9	1390.9	1390.9	1393.4
7.5°	1378.2	1380.8	1379.1	1379.9	1380.8	1383.3	1386.7	1388.4	1390.1	1392.6	1393.4
10°	1360.5	1364.7	1363.9	1366.4	1367.3	1374.9	1377.4	1380.8	1386.7	1390.1	1392.6
12.5°	1336.0	1338.6	1339.4	1342.8	1346.2	1355.4	1362.2	1368.1	1376.5	1385.0	1393.4
15°	1316.6	1318.3	1318.3	1321.7	1326.8	1335.2	1343.6	1353.8	1366.4	1380.8	1394.3
17.5°	1322.5	1326.8	1323.4	1322.5	1324.2	1329.3	1336.9	1345.3	1360.5	1376.5	1392.6
20°	1361.4	1362.2	1360.5	1356.3	1352.9	1353.8	1353.8	1355.4	1364.7	1377.4	1390.1
22.5°	1393.4	1396.8	1396.0	1396.8	1396.0	1399.3	1397.6	1394.3	1390.9	1391.7	1397.6
25°	1421.3	1424.7	1424.7	1427.2	1431.4	1438.2	1443.2	1442.4	1437.3	1430.6	1428.0
27.5°	1466.9	1466.9	1466.9	1469.4	1475.3	1483.7	1492.2	1497.2	1501.5	1494.7	1480.4
30°	1538.6	1539.4	1536.9	1537.8	1542.0	1552.9	1563.1	1570.7	1579.1	1578.3	1559.7
32.5°	1617.1	1620.5	1619.6	1623.0	1628.9	1639.0	1650.0	1661.8	1672.8	1679.5	1667.7
35°	1718.4	1721.7	1722.6	1727.6	1734.4	1749.6	1764.8	1780.0	1791.8	1796.9	1794.3
37.5°	1884.6	1885.5	1882.1	1874.5	1877.0	1888.9	1906.6	1931.1	1938.6	1943.7	1955.5
40°	2133.6	2131.1	2117.6	2110.8	2106.6	2111.7	2108.3	2127.7	2145.4	2146.3	2145.4
42.5°	2435.8	2428.2	2415.5	2413.8	2412.1	2410.4	2401.2	2402.0	2418.0	2422.3	2417.2
45°	2736.2	2726.9	2717.7	2726.1	2716.0	2742.1	2749.7	2770.0	2772.5	2781.0	2768.3
47.5°	2982.7	2983.5	2983.5	2995.3	3015.6	3065.4	3110.1	3148.9	3163.3	3183.5	3186.1
50°	3169.2	3174.2	3190.3	3228.3	3271.3	3354.9	3430.0	3500.0	3563.3	3587.0	3649.4
52.5°	3278.1	3291.6	3325.3	3388.6	3465.4	3573.5	3691.6	3810.6	3920.3	4013.2	4087.4
55°	3258.6	3268.8	3327.9	3426.6	3546.4	3691.6	3857.0	4029.2	4200.5	4357.5	4479.1
57.5°	3133.7	3140.5	3199.6	3311.0	3460.4	3655.3	3889.1	4144.8	4385.4	4638.6	4846.2
60°	2970.0	2980.1	3035.0	3122.8	3278.9	3486.5	3757.4	4104.3	4488.3	4886.7	5274.9
62.5°	2865.3	2862.8	2910.9	2989.4	3106.7	3294.9	3555.7	3966.8	4498.5	5172.0	5939.2
65°	2691.5	2683.9	2733.7	2823.1	2950.6	3132.9	3380.2	3775.2	4392.1	5280.0	6367.9
66°	2583.5	2568.3	2618.1	2708.4	2835.8	3029.9	3267.1	3657.0	4263.0	5174.5	6322.3
67.5°	2394.4	2386.8	2410.4	2481.3	2575.9	2758.2	3005.5	3397.9	3957.5	4857.2	5988.1
70°	1946.2	1929.4	1947.9	1980.0	2016.3	2061.0	2212.9	2524.4	2997.9	3869.7	4824.3
72.5°	1325.9	1317.5	1352.1	1401.0	1498.1	1543.7	1603.6	1654.2	1821.3	2439.1	3365.0
75°	1008.6	1013.6	1057.5	1138.5	1263.5	1398.5	1530.2	1578.3	1522.6	1474.5	1910.0
77.5°	565.5	595.0	648.2	751.2	883.7	1074.4	1304.0	1557.2	1683.8	1652.5	1545.3
80°	232.9	228.7	254.9	311.4	357.0	513.1	784.9	1102.3	1458.4	1683.8	1648.3
82.5°	65.0	66.7	86.1	110.6	142.6	181.5	283.6	455.8	742.7	1155.4	1512.4
85°	20.3	20.3	27.9	41.4	49.0	56.5	71.7	118.2	201.7	402.6	816.1
87.5°	4.2	4.2	5.9	11.8	12.7	12.7	16.0	21.9	19.4	17.7	79.3
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):

	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°	100°
0°	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6
2.5°	1391.7	1390.1	1390.9	1391.7	1390.9	1390.9	1390.1	1389.2	1390.1	1390.1	1392.6
5°	1390.9	1390.1	1390.9	1390.9	1390.9	1391.7	1391.7	1391.7	1394.3	1394.3	1398.5
7.5°	1392.6	1392.6	1394.3	1394.3	1394.3	1394.3	1395.1	1396.8	1401.0	1400.2	1407.8
10°	1396.0	1397.6	1401.9	1402.7	1402.7	1405.2	1406.9	1410.3	1414.5	1416.2	1423.0
12.5°	1400.2	1408.6	1416.2	1417.9	1420.4	1424.7	1427.2	1428.9	1436.5	1439.0	1447.4
15°	1405.2	1417.1	1426.3	1429.7	1433.1	1438.2	1441.5	1444.1	1450.8	1454.2	1464.3
17.5°	1406.1	1419.6	1430.6	1435.6	1439.8	1445.8	1450.8	1455.9	1463.5	1468.5	1478.7
20°	1405.2	1423.0	1439.8	1446.6	1450.8	1461.8	1469.4	1476.1	1485.4	1490.5	1500.6
22.5°	1414.5	1434.8	1457.6	1466.0	1472.8	1488.0	1498.1	1509.1	1520.9	1524.2	1531.8
25°	1436.5	1457.6	1486.3	1498.1	1509.9	1530.2	1544.5	1560.5	1572.4	1574.0	1576.6
27.5°	1473.6	1493.0	1527.6	1545.3	1564.8	1593.5	1614.6	1630.6	1647.5	1647.5	1645.8
30°	1548.7	1552.9	1589.2	1612.0	1640.7	1682.9	1714.1	1731.9	1744.5	1744.5	1730.2
32.5°	1645.8	1640.7	1673.6	1698.1	1737.8	1796.9	1839.1	1852.6	1866.1	1861.8	1837.4
35°	1785.9	1771.5	1790.1	1827.2	1872.0	1953.0	1996.9	2027.3	2035.7	2023.9	1985.1
37.5°	1962.3	1960.6	1969.9	2011.2	2061.0	2165.7	2210.4	2229.8	2223.1	2202.0	2133.6
40°	2148.8	2143.7	2137.8	2165.7	2221.4	2347.1	2426.5	2436.6	2427.3	2396.1	2310.0
42.5°	2397.8	2397.8	2369.9	2377.5	2423.9	2564.9	2658.6	2690.6	2691.5	2645.9	2531.1
45°	2740.4	2737.1	2688.1	2676.3	2711.7	2850.2	2970.8	2988.6	2988.6	2928.6	2802.9
47.5°	3152.3	3148.1	3100.0	3058.6	3065.4	3214.8	3315.2	3342.2	3318.6	3273.8	3124.5
50°	3616.5	3608.9	3560.0	3521.1	3504.3	3655.3	3740.6	3753.2	3718.6	3665.5	3503.4
52.5°	4087.4	4110.2	4081.5	4060.4	4066.3	4164.3	4252.0	4192.1	4174.4	4117.0	3954.1
55°	4577.8	4647.9	4711.2	4692.6	4714.5	4809.9	4826.8	4747.4	4715.4	4674.0	4492.6
57.5°	5071.5	5275.8	5483.4	5541.6	5595.7	5732.4	5713.0	5583.0	5607.5	5669.1	5464.8
60°	5761.1	6351.0	6877.7	6974.7	7142.7	7259.2	7285.3	7260.0	7373.9	7341.9	7161.3
62.5°	6820.3	7803.5	8536.1	8718.4	8887.2	8881.3	8792.7	8701.5	8813.8	8813.8	8342.0
65°	7576.5	8692.3	9476.3	9627.4	9620.7	9417.3	9207.9	9025.6	9009.6	8884.7	8195.2
66°	7612.0	8760.6	9528.7	9660.3	9609.7	9282.2	9031.5	8800.3	8701.5	8527.7	7821.3
67.5°	7292.9	8567.4	9358.2	9473.0	9339.6	8870.3	8525.2	8215.4	8071.9	7779.1	7114.0
70°	5982.2	7363.0	8513.3	8748.0	8596.9	8002.7	7530.1	7111.5	6837.2	6414.3	5934.9
72.5°	4366.8	5436.1	6681.9	7063.4	7039.7	6492.8	6112.2	5729.0	5368.6	4983.8	4633.5
75°	2838.3	3536.3	4230.9	4453.7	4346.6	4030.1	3757.4	3533.8	3192.0	2924.4	2859.4
77.5°	1620.5	1980.0	1872.8	1845.0	1710.8	1380.8	918.3	644.0	581.5	725.8	795.9
80°	1542.0	1397.6	1144.5	1032.2	948.6	646.5	339.3	238.8	209.3	214.4	230.4
82.5°	1738.6	1812.0	1482.0	1238.1	1077.8	786.6	429.6	200.0	146.0	173.0	194.1
85°	1303.1	1834.8	1818.8	1541.1	1264.3	906.4	508.1	152.8	87.8	121.5	158.7
87.5°	264.2	434.7	418.6	368.0	313.1	218.6	85.2	48.1	43.9	59.9	91.2
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6	1392.6
2.5°	1394.3	1394.3	1396.0	1398.5	1399.3	1399.3	1401.0	1399.3	1402.7	1403.6	1404.4
5°	1401.9	1404.4	1406.1	1410.3	1412.8	1414.5	1417.1	1415.4	1418.7	1419.6	1421.3
7.5°	1410.3	1414.5	1417.9	1419.6	1423.0	1423.0	1423.8	1422.1	1421.3	1418.7	1417.9
10°	1425.5	1428.0	1432.3	1430.6	1428.9	1423.0	1417.9	1410.3	1406.1	1398.5	1394.3
12.5°	1450.0	1451.7	1451.7	1444.1	1433.1	1419.6	1406.9	1394.3	1384.1	1375.7	1370.6
15°	1466.9	1470.2	1466.0	1455.0	1439.0	1420.4	1403.6	1386.7	1373.2	1362.2	1355.4
17.5°	1479.5	1478.7	1471.1	1455.9	1440.7	1424.7	1409.5	1391.7	1374.9	1358.8	1348.7
20°	1498.9	1490.5	1477.0	1460.9	1444.9	1431.4	1419.6	1402.7	1385.0	1363.0	1347.9
22.5°	1525.1	1509.9	1490.5	1473.6	1458.4	1445.8	1432.3	1417.9	1399.3	1374.9	1353.8
25°	1562.2	1536.1	1514.1	1497.2	1483.7	1469.4	1454.2	1435.6	1417.1	1391.7	1366.4
27.5°	1618.8	1580.0	1552.1	1536.9	1524.2	1504.8	1485.4	1463.5	1439.8	1413.7	1385.0
30°	1687.1	1640.7	1608.6	1595.1	1580.0	1558.0	1536.9	1506.5	1473.6	1442.4	1406.9
32.5°	1767.3	1720.1	1688.0	1677.9	1653.4	1628.1	1598.5	1558.0	1515.0	1468.5	1426.3
35°	1888.9	1828.9	1799.4	1775.8	1742.0	1711.6	1661.8	1608.6	1547.0	1485.4	1433.1
37.5°	2013.8	1953.0	1922.6	1889.7	1845.8	1790.1	1723.4	1647.5	1565.6	1489.6	1425.5
40°	2180.9	2115.0	2076.2	2025.6	1954.7	1867.8	1769.0	1665.2	1565.6	1471.1	1393.4
42.5°	2375.8	2315.1	2255.1	2171.6	2057.6	1931.1	1792.6	1659.3	1538.6	1429.7	1347.9
45°	2645.9	2542.1	2446.7	2312.5	2146.3	1968.2	1795.2	1631.4	1492.2	1371.5	1280.3
47.5°	2949.7	2815.6	2646.8	2436.6	2209.6	1982.5	1770.7	1579.1	1418.7	1287.9	1188.3
50°	3300.0	3094.1	2835.0	2535.3	2241.6	1963.1	1712.5	1491.3	1317.5	1167.2	1060.9
52.5°	3700.9	3386.9	3005.5	2605.4	2236.6	1904.0	1616.2	1375.7	1181.6	1022.1	917.4
55°	4145.7	3706.0	3168.3	2650.1	2191.0	1789.3	1465.2	1212.8	1012.8	855.8	763.8
57.5°	4929.8	4265.5	3478.9	2710.1	2095.6	1615.4	1273.6	1006.9	826.3	692.9	605.1
60°	6386.5	5243.7	4067.2	2851.0	1952.2	1397.6	1032.2	790.0	638.9	541.8	476.9
62.5°	7287.9	5932.4	4354.1	2830.7	1719.2	1099.7	766.3	585.7	466.7	402.6	362.1
65°	7074.3	5662.3	4003.9	2431.5	1337.7	779.8	507.2	383.2	320.7	287.8	268.4
66°	6784.0	5360.2	3707.7	2177.5	1165.6	651.6	418.6	321.6	276.0	251.5	241.4
67.5°	6175.5	4808.2	3197.9	1743.7	873.5	485.3	308.9	252.4	224.5	211.8	205.1
70°	5168.6	3873.9	2261.9	1029.7	473.5	263.3	197.5	175.6	168.8	164.6	162.0
72.5°	3996.3	2804.6	1321.7	506.4	238.8	170.5	150.2	140.9	138.4	138.4	139.3
75°	2517.6	1612.0	591.6	243.9	162.0	137.6	128.3	124.1	124.9	125.8	124.9
77.5°	836.4	556.2	246.4	173.0	140.9	124.9	117.3	115.6	117.3	118.2	118.2
80°	240.5	210.2	178.1	152.8	129.1	116.5	109.7	108.9	113.1	113.9	112.3
82.5°	184.8	173.0	161.2	147.7	124.1	109.7	107.2	108.0	110.6	108.9	101.3
85°	169.6	168.0	120.7	119.8	108.0	104.7	102.1	103.0	100.4	91.2	82.7
87.5°	95.4	88.6	68.4	69.2	80.2	82.7	68.4	72.6	67.5	59.1	54.0
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°	1392.6	1392.6	1392.6	1392.6	1392.6
2.5°	1406.1	1405.2	1405.2	1407.8	1404.4
5°	1422.1	1421.3	1421.3	1423.8	1421.3
7.5°	1414.5	1412.0	1410.3	1409.5	1409.5
10°	1389.2	1386.7	1381.6	1379.9	1378.2
12.5°	1363.0	1360.5	1354.6	1354.6	1352.9
15°	1347.0	1343.6	1339.4	1336.9	1335.2
17.5°	1338.6	1333.5	1328.4	1325.9	1324.2
20°	1335.2	1328.4	1322.5	1318.3	1318.3
22.5°	1336.0	1327.6	1320.8	1315.8	1314.1
25°	1344.5	1331.8	1323.4	1318.3	1316.6
27.5°	1356.3	1341.1	1330.1	1323.4	1320.8
30°	1372.3	1351.2	1336.0	1327.6	1324.2
32.5°	1383.3	1353.8	1334.3	1322.5	1318.3
35°	1382.5	1344.5	1320.8	1305.7	1300.6
37.5°	1367.3	1322.5	1291.3	1272.7	1264.3
40°	1333.5	1282.0	1249.1	1231.4	1221.3
42.5°	1284.6	1228.9	1199.3	1179.9	1168.9
45°	1207.8	1152.9	1116.6	1101.4	1087.1
47.5°	1101.4	1045.7	1014.5	992.5	983.2
50°	976.5	920.8	887.9	870.2	861.7
52.5°	839.8	786.6	763.0	746.1	734.3
55°	698.0	649.0	638.9	620.3	609.4
57.5°	564.6	535.9	526.7	508.1	498.8
60°	441.4	432.1	422.0	410.2	405.1
62.5°	341.8	333.4	330.8	323.2	322.4
65°	260.8	261.6	259.9	258.3	256.6
66°	237.2	236.3	237.2	235.5	234.6
67.5°	201.7	205.1	207.6	206.8	206.8
70°	163.7	166.3	169.6	168.8	168.8
72.5°	140.1	144.3	146.0	145.2	145.2
75°	126.6	130.8	130.8	129.1	128.3
77.5°	118.2	119.8	118.2	116.5	114.8
80°	109.7	108.0	105.5	103.0	101.3
82.5°	95.4	91.2	88.6	84.4	84.4
85°	76.8	73.4	67.5	63.3	59.1
87.5°	49.8	48.1	43.9	32.9	26.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)