

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: P159759

Luminaire Tested: **VST-E04-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159759
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33707)
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-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (84) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10873.8 lumens
Efficiency: N/A
Efficacy: 111.9 lumens/watt
Luminous Opening: Rectangular (W 0.67' x L: 1' x H: 0')
IES Classification: Type IV - 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

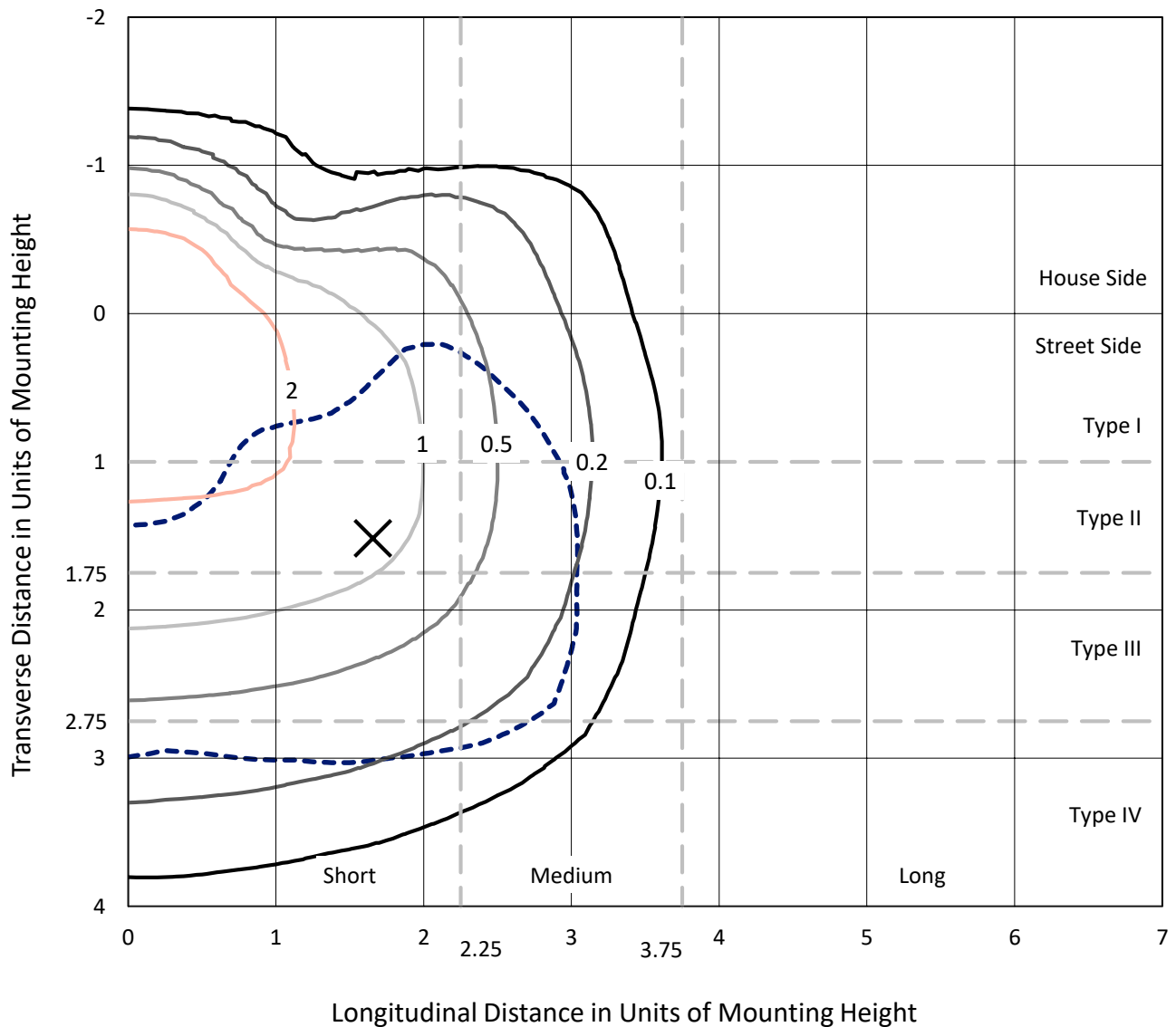


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

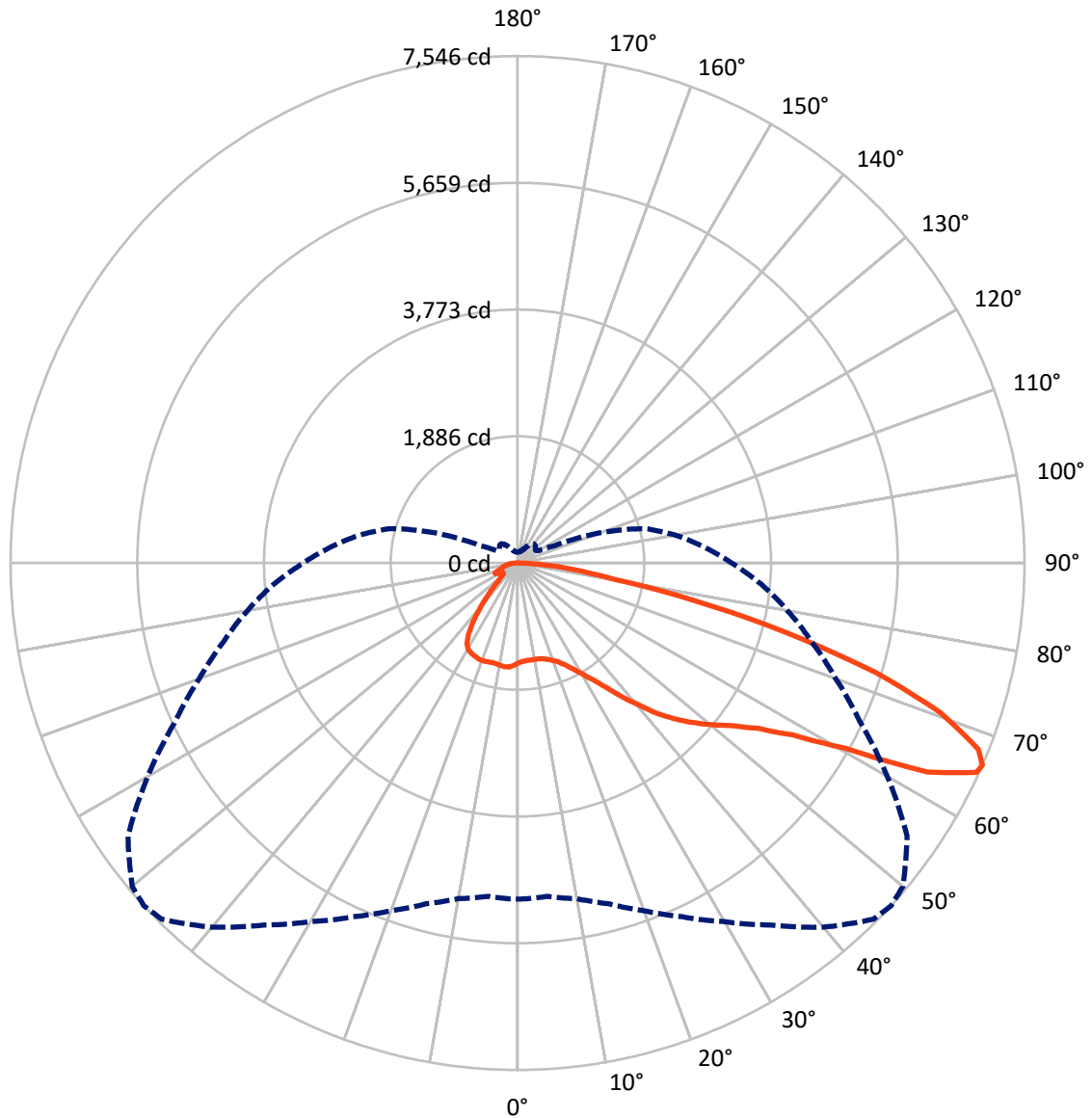


Based on 20 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 47.5-Deg Lateral - - - Horizontal Cone Through 66-Deg Vertical



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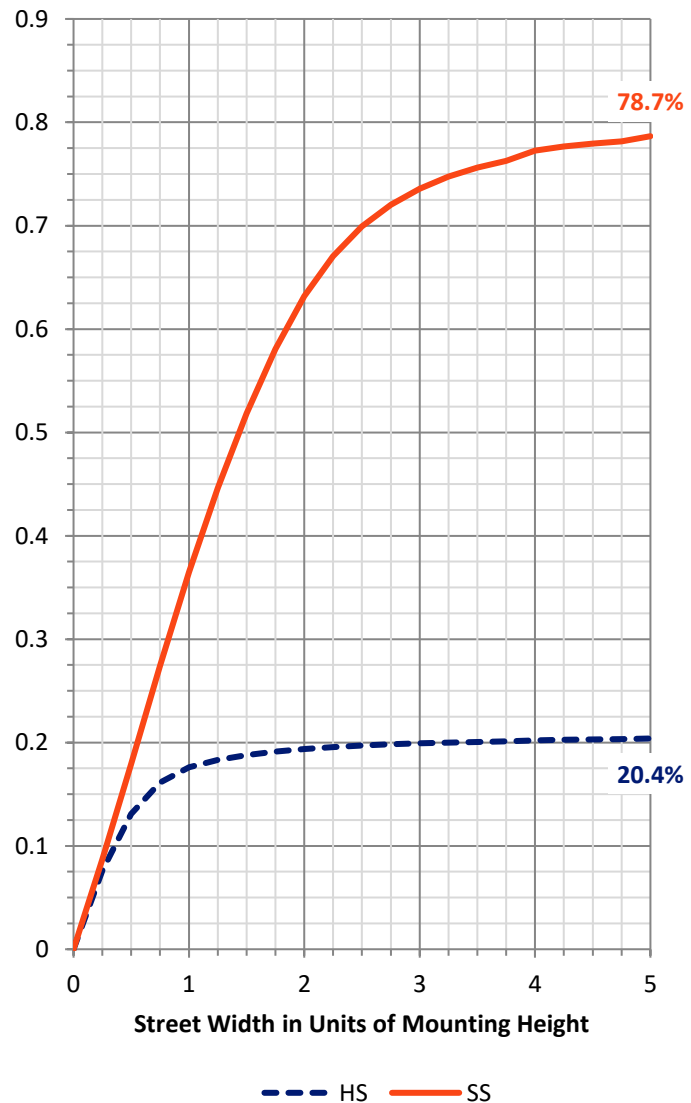
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2251.4	0.0	2251.4
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	8622.5	0.0	8622.5
	% Fixture	79.3	0.0	79.3
Total	Lumens	10873.8	0.0	10873.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	143.4	1.3
10°-20°	430.0	4.0
20°-30°	733.7	6.7
30°-40°	1107.3	10.2
40°-50°	1439.3	13.2
50°-60°	1974.6	18.2
60°-70°	3037.5	27.9
70°-80°	1755.9	16.1
80°-90°	252.2	2.3
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°	10873.8	100.0
0°-180°	10873.8	100.0

Coefficient of Utilization



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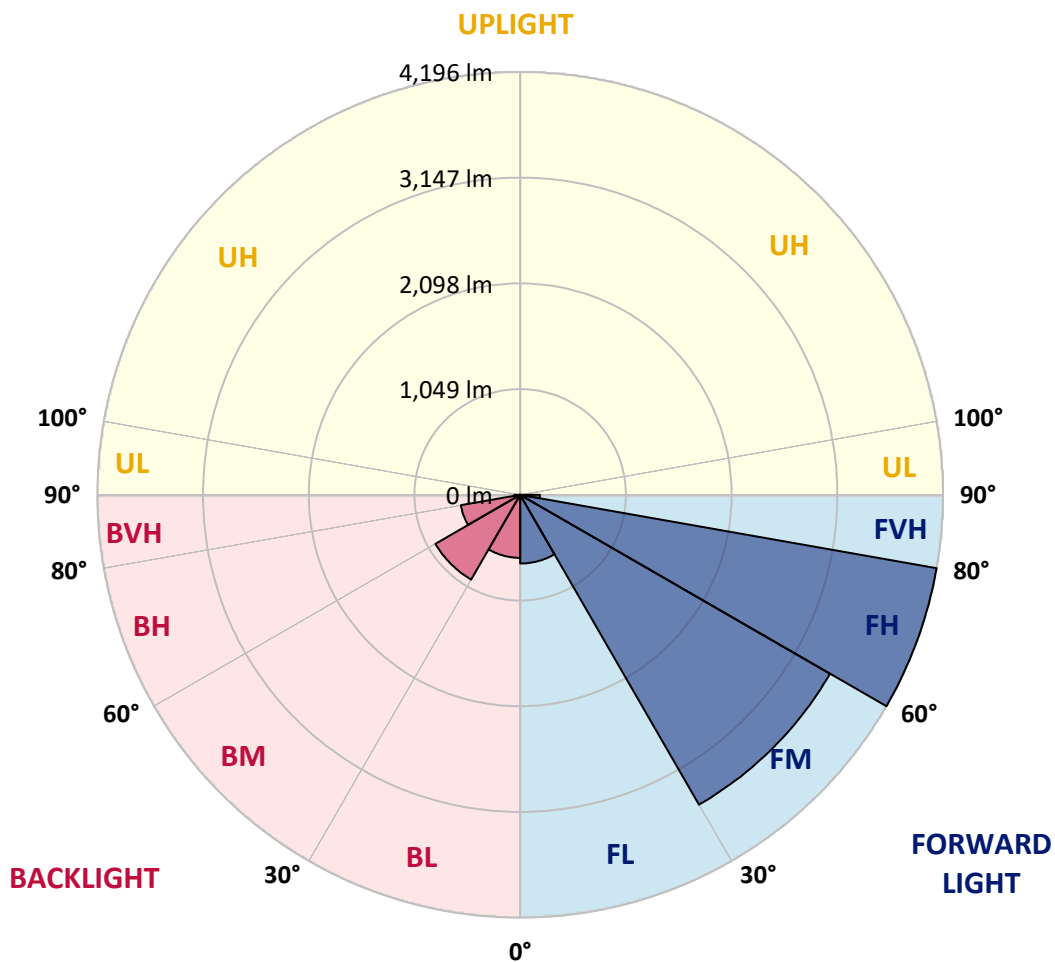
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	681.6	6.3			
FM (30°-60°)	3549.8	32.6			
FH (60°-80°)	4195.8	38.6			G2/5000
FVH (80°-90°)	195.2	1.8			G2/225
BL (0°-30°)	625.5	5.8	B2/1000		
BM (30°-60°)	971.3	8.9	B1/1000		
BH (60°-80°)	597.5	5.5	B2/1000		G2/1000
BVH (80°-90°)	57.0	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	47.5°
0°	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7
2.5°	1449.7	1450.4	1451.1	1451.1	1453.3	1453.3	1457.0	1459.2	1459.9	1464.3	1467.2
5°	1422.6	1421.9	1422.6	1424.1	1427.7	1430.7	1438.0	1443.1	1447.5	1454.8	1458.4
7.5°	1410.9	1412.4	1413.9	1414.6	1417.5	1424.8	1431.4	1436.5	1445.3	1454.1	1457.7
10°	1426.3	1428.5	1426.3	1427.7	1427.7	1434.3	1437.2	1440.9	1447.5	1455.5	1457.7
12.5°	1462.1	1466.5	1462.1	1458.4	1455.5	1461.4	1459.9	1457.0	1460.6	1462.8	1462.8
15°	1521.3	1521.3	1518.4	1513.2	1505.9	1506.7	1500.1	1493.5	1490.6	1485.5	1481.8
17.5°	1579.0	1577.5	1571.0	1564.4	1559.3	1557.1	1547.6	1538.8	1528.6	1520.5	1511.8
20°	1635.3	1641.1	1633.1	1623.6	1615.5	1610.4	1603.1	1585.6	1573.2	1560.0	1551.2
22.5°	1732.4	1727.3	1718.6	1704.7	1696.6	1687.9	1672.5	1653.5	1634.5	1618.5	1607.5
25°	1832.5	1827.4	1815.0	1804.8	1793.1	1785.8	1769.0	1745.6	1727.3	1702.5	1687.9
27.5°	1940.0	1935.6	1921.0	1912.9	1904.9	1896.1	1881.5	1857.4	1840.6	1812.1	1796.7
30°	2061.2	2060.5	2040.8	2039.3	2027.6	2018.1	2007.9	1987.5	1970.6	1942.1	1923.9
32.5°	2190.6	2187.7	2173.8	2169.4	2177.4	2170.9	2156.2	2135.0	2113.1	2096.3	2075.9
35°	2374.7	2369.6	2361.6	2365.2	2370.3	2388.6	2365.9	2347.7	2321.4	2299.5	2271.0
37.5°	2509.2	2501.8	2511.3	2531.8	2561.0	2574.9	2594.6	2595.4	2583.0	2553.7	2528.9
40°	2632.6	2629.7	2651.6	2680.1	2734.2	2773.7	2810.9	2829.2	2833.6	2814.6	2777.3
42.5°	2737.1	2745.9	2775.1	2819.0	2895.0	2954.9	3024.3	3067.4	3094.4	3084.2	3067.4
45°	2861.3	2865.7	2901.5	2957.1	3029.4	3128.8	3220.1	3293.2	3340.7	3339.9	3320.9
47.5°	3017.0	3017.7	3048.4	3113.4	3190.9	3291.7	3407.2	3504.3	3567.2	3570.1	3555.5
50°	3201.8	3200.4	3234.0	3295.4	3377.9	3475.1	3597.9	3719.2	3806.8	3806.8	3785.7
52.5°	3440.0	3437.1	3455.4	3509.5	3589.1	3691.4	3813.4	3953.7	4048.7	4069.2	4023.1
55°	3757.9	3762.3	3766.7	3814.2	3882.1	3963.2	4103.5	4232.8	4360.0	4371.7	4344.6
57.5°	4125.4	4110.8	4142.2	4219.7	4297.1	4398.7	4498.1	4650.8	4801.3	4826.9	4823.2
60°	4699.7	4680.7	4712.9	4811.5	4897.0	5057.0	5227.3	5424.6	5602.9	5655.5	5591.9
62.5°	5228.0	5251.4	5295.2	5410.0	5534.2	5747.5	6003.3	6341.6	6679.9	6864.0	6850.9
65°	5180.5	5158.6	5242.6	5399.0	5624.0	5895.9	6213.7	6621.4	7108.8	7478.5	7511.4
66°	5004.4	4981.8	5072.4	5251.4	5508.6	5811.1	6164.0	6579.0	7077.4	7495.3	7545.7
67.5°	4713.6	4691.0	4793.3	4956.2	5221.4	5602.1	5983.5	6437.3	6955.3	7355.8	7396.7
70°	4152.5	4121.8	4201.4	4385.5	4600.4	4968.6	5331.8	5812.6	6344.5	6664.5	6679.9
72.5°	3517.5	3445.9	3530.6	3672.4	3825.8	4130.5	4446.9	4775.7	5199.5	5495.4	5580.2
75°	2552.3	2589.5	2614.4	2707.9	2809.5	3061.6	3247.1	3522.6	3850.7	4064.8	4132.7
77.5°	1354.0	1410.2	1445.3	1538.8	1706.9	1899.0	2100.0	2270.2	2485.8	2605.6	2688.9
80°	759.9	799.4	856.4	930.2	1012.0	1159.6	1278.7	1366.4	1397.1	1418.3	1437.2
82.5°	417.9	518.1	602.8	654.0	702.2	761.4	832.2	905.3	928.7	893.6	875.4
85°	65.0	95.7	291.5	355.8	387.3	432.6	483.7	537.8	538.5	463.3	505.6
87.5°	18.3	20.5	41.6	62.8	61.4	49.7	61.4	111.8	65.8	32.9	38.0
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7
2.5°	1468.7	1470.1	1473.8	1477.4	1481.1	1484.7	1486.9	1490.6	1493.5	1497.9	1503.0
5°	1462.8	1466.5	1473.1	1481.1	1488.4	1495.0	1500.1	1507.4	1514.0	1519.8	1528.6
7.5°	1462.8	1470.1	1481.1	1489.9	1496.4	1504.5	1512.5	1519.8	1527.1	1533.0	1538.8
10°	1463.6	1470.9	1481.8	1492.0	1499.4	1508.1	1514.7	1521.3	1529.3	1533.0	1540.3
12.5°	1466.5	1469.4	1477.4	1487.7	1496.4	1505.2	1511.8	1518.4	1527.1	1528.6	1533.7
15°	1481.1	1476.7	1478.9	1486.2	1495.7	1503.0	1510.3	1515.4	1521.3	1519.8	1524.2
17.5°	1508.1	1497.2	1492.8	1493.5	1497.9	1503.0	1505.9	1506.7	1507.4	1500.8	1501.5
20°	1544.7	1529.3	1519.1	1514.0	1508.1	1503.0	1495.0	1485.5	1476.7	1463.6	1462.1
22.5°	1599.5	1576.8	1565.8	1552.0	1534.4	1512.5	1492.8	1469.4	1450.4	1430.7	1423.4
25°	1679.1	1655.7	1644.0	1622.1	1590.7	1559.3	1530.8	1499.4	1471.6	1448.2	1437.2
27.5°	1785.8	1762.4	1750.0	1727.3	1688.6	1657.2	1617.7	1584.1	1550.5	1516.2	1502.3
30°	1915.1	1894.7	1880.8	1862.5	1828.9	1794.6	1748.5	1696.6	1643.3	1588.5	1561.5
32.5°	2067.8	2045.2	2034.9	2013.8	1978.7	1942.9	1891.7	1825.2	1736.1	1649.9	1595.8
35°	2258.5	2233.0	2221.3	2193.5	2152.6	2100.0	2045.2	1956.0	1835.5	1715.6	1627.2
37.5°	2513.5	2456.5	2417.8	2354.3	2288.5	2214.7	2136.5	2045.2	1902.7	1754.4	1631.6
40°	2739.3	2681.6	2607.1	2515.7	2413.4	2311.9	2222.7	2119.0	1964.1	1782.1	1617.7
42.5°	3019.9	2917.6	2798.5	2675.0	2539.1	2414.2	2308.2	2186.2	2005.7	1789.4	1579.0
45°	3276.4	3154.3	2995.1	2830.7	2661.9	2504.8	2385.7	2249.8	2041.5	1789.4	1532.2
47.5°	3510.2	3364.1	3173.3	2968.8	2772.2	2600.5	2465.3	2314.8	2091.9	1812.1	1518.4
50°	3726.5	3558.4	3341.4	3103.9	2883.3	2699.9	2554.5	2398.1	2168.7	1870.5	1552.0
52.5°	3954.4	3776.2	3511.6	3259.6	3016.2	2819.7	2664.8	2501.1	2268.0	1962.6	1611.2
55°	4253.3	4044.3	3744.0	3466.3	3198.9	2981.9	2805.8	2624.6	2376.9	2066.4	1683.5
57.5°	4724.6	4421.3	4121.0	3760.1	3508.0	3222.3	3029.4	2821.2	2553.7	2201.5	1792.4
60°	5549.5	5176.9	4815.9	4400.9	4089.6	3790.8	3499.2	3227.4	2905.2	2507.0	2031.3
62.5°	6727.4	6348.9	5781.9	5274.1	4804.2	4408.2	4028.2	3682.6	3269.1	2833.6	2325.8
65°	7431.0	6997.7	6321.8	5639.4	5068.7	4577.7	4143.0	3719.9	3273.4	2848.9	2414.9
66°	7487.3	7077.4	6355.5	5634.3	5041.7	4532.4	4080.1	3642.4	3185.0	2778.8	2385.7
67.5°	7382.8	7029.9	6286.8	5534.9	4929.2	4379.0	3914.3	3455.4	2995.8	2619.5	2288.5
70°	6645.5	6390.5	5753.4	5049.0	4444.7	3959.6	3469.3	3027.9	2592.5	2276.1	2030.6
72.5°	5448.0	5125.0	4679.3	4205.8	3730.1	3299.8	2854.0	2478.5	2113.1	1883.0	1709.1
75°	4001.9	3711.1	3220.1	2924.9	2610.7	2340.4	2040.1	1684.2	1424.8	1309.4	1267.0
77.5°	2536.9	2221.3	1807.0	1481.1	1273.6	1094.6	862.9	686.1	549.5	572.1	633.5
80°	1281.6	1104.1	826.4	652.5	564.1	469.1	371.2	281.3	205.3	234.5	265.2
82.5°	822.7	686.8	547.3	431.1	363.9	320.8	256.5	186.3	138.8	156.4	191.4
85°	495.4	418.7	333.9	273.3	237.5	198.0	145.4	103.0	102.3	109.6	135.2
87.5°	75.3	107.4	62.1	66.5	70.1	75.3	66.5	56.3	49.0	63.6	80.4
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°	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7	1487.7
2.5°	1508.1	1509.6	1512.5	1516.2	1515.4	1520.5	1523.5	1520.5	1527.1	1527.1	1530.8
5°	1535.9	1538.1	1543.2	1546.9	1548.3	1552.7	1554.2	1553.4	1554.9	1555.6	1557.1
7.5°	1543.9	1549.8	1552.0	1554.2	1554.9	1556.3	1556.3	1554.9	1554.9	1554.2	1555.6
10°	1541.7	1543.9	1545.4	1544.7	1544.7	1543.2	1542.5	1541.7	1541.7	1540.3	1542.5
12.5°	1534.4	1534.4	1534.4	1533.0	1533.0	1532.2	1532.2	1532.2	1533.7	1534.4	1538.1
15°	1519.8	1519.8	1521.3	1520.5	1522.7	1526.4	1530.8	1533.7	1537.4	1538.1	1540.3
17.5°	1497.2	1497.9	1502.3	1511.8	1521.3	1532.2	1540.3	1542.5	1539.5	1532.2	1527.1
20°	1457.7	1467.2	1484.7	1507.4	1528.6	1542.5	1546.1	1537.4	1523.5	1504.5	1494.2
22.5°	1422.6	1441.6	1473.1	1510.3	1536.6	1546.1	1535.2	1514.7	1489.9	1467.9	1452.6
25°	1436.5	1458.4	1491.3	1523.5	1540.3	1535.2	1513.2	1484.0	1457.7	1432.1	1407.3
27.5°	1495.0	1516.9	1540.3	1549.8	1543.9	1524.9	1494.2	1462.8	1427.7	1391.2	1360.5
30°	1550.5	1562.9	1564.4	1554.9	1533.7	1503.0	1467.2	1430.7	1386.1	1342.3	1303.5
32.5°	1568.0	1553.4	1527.1	1500.1	1470.9	1439.4	1397.8	1349.6	1302.1	1252.4	1209.3
35°	1562.9	1503.7	1438.7	1381.0	1345.9	1310.1	1272.1	1207.8	1154.5	1112.1	1084.3
37.5°	1516.9	1408.8	1308.6	1224.6	1169.8	1127.4	1071.2	1017.8	971.8	952.8	930.2
40°	1452.6	1287.5	1148.6	1031.0	974.0	919.9	857.1	816.2	803.0	785.5	786.2
42.5°	1360.5	1145.7	966.7	831.5	769.4	710.2	665.6	641.5	642.3	627.7	630.6
45°	1263.3	1003.2	778.2	643.7	582.4	531.9	507.1	499.8	500.5	501.2	496.9
47.5°	1204.2	892.2	624.0	488.1	434.0	405.5	392.4	388.7	389.5	390.2	385.1
50°	1195.4	834.4	521.0	373.4	338.3	322.2	315.7	312.0	312.0	309.1	304.7
52.5°	1220.2	819.8	470.6	323.7	290.1	275.5	270.4	267.4	263.0	257.2	249.2
55°	1259.7	833.0	455.2	306.9	274.0	259.4	252.8	251.4	244.0	233.1	219.9
57.5°	1332.8	880.5	465.4	311.3	276.9	263.8	259.4	257.9	247.7	230.9	214.1
60°	1542.5	1018.6	516.6	336.1	298.1	287.2	287.2	285.0	271.1	247.0	222.9
62.5°	1831.8	1221.0	586.0	370.5	327.3	325.9	338.3	339.0	314.2	275.5	237.5
65°	1971.4	1316.0	610.1	377.8	335.4	352.2	377.0	377.0	342.0	288.6	239.7
66°	1972.1	1313.8	602.8	369.0	326.6	348.5	374.1	374.1	337.6	285.0	236.0
67.5°	1921.7	1272.8	578.7	352.9	306.9	327.3	350.0	349.3	316.4	270.4	225.8
70°	1723.7	1126.0	510.0	326.6	283.5	284.2	292.3	287.2	265.2	233.8	205.3
72.5°	1486.2	941.8	442.1	309.8	265.2	251.4	244.8	240.4	226.5	207.5	190.0
75°	1139.9	731.4	385.1	294.5	249.2	225.0	216.3	212.6	203.1	192.2	178.3
77.5°	698.5	501.2	326.6	269.6	230.9	209.0	199.5	192.2	182.7	172.4	162.9
80°	301.0	302.5	261.6	228.7	200.9	175.4	162.9	154.2	149.1	145.4	140.3
82.5°	210.4	217.0	199.5	177.6	153.4	135.2	124.2	122.0	122.8	122.8	121.3
85°	157.8	154.9	139.6	127.1	116.2	104.5	95.7	95.0	97.9	97.9	95.7
87.5°	91.3	92.1	78.9	73.8	76.7	65.8	59.9	60.6	68.0	67.2	65.8
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°	1487.7	1487.7	1487.7	1487.7	1487.7
2.5°	1530.8	1533.0	1532.2	1534.4	1532.2
5°	1559.3	1558.5	1557.8	1560.7	1557.1
7.5°	1554.9	1555.6	1555.6	1555.6	1554.9
10°	1543.9	1546.9	1548.3	1551.2	1550.5
12.5°	1540.3	1544.7	1549.0	1553.4	1554.2
15°	1541.0	1543.9	1546.1	1548.3	1549.0
17.5°	1522.0	1521.3	1519.1	1517.6	1516.2
20°	1483.3	1479.6	1476.0	1470.1	1473.1
22.5°	1435.1	1424.8	1413.1	1403.6	1402.9
25°	1378.8	1359.8	1340.8	1328.4	1324.0
27.5°	1329.1	1306.5	1286.7	1275.8	1272.8
30°	1269.9	1249.5	1231.9	1222.4	1216.6
32.5°	1182.2	1166.2	1144.2	1136.9	1136.2
35°	1060.2	1047.8	1032.5	1029.5	1025.9
37.5°	922.1	917.7	910.4	901.7	900.2
40°	774.5	777.4	775.3	770.1	762.1
42.5°	632.0	637.2	637.9	641.5	645.2
45°	503.4	507.8	507.8	511.5	515.9
47.5°	386.5	383.6	385.8	389.5	391.6
50°	292.3	290.1	286.4	283.5	280.6
52.5°	235.3	230.9	220.7	217.7	214.8
55°	207.5	199.5	192.2	189.2	189.2
57.5°	199.5	189.2	181.2	177.6	176.1
60°	200.9	186.3	176.1	170.2	168.1
62.5°	207.5	187.1	173.2	166.6	164.4
65°	206.8	185.6	172.4	165.1	162.9
66°	203.1	183.4	171.0	164.4	162.9
67.5°	197.3	180.5	169.5	163.7	161.5
70°	185.6	174.6	166.6	161.5	159.3
72.5°	176.1	168.8	161.5	155.6	154.2
75°	167.3	160.0	153.4	150.5	148.3
77.5°	154.2	147.6	143.9	141.0	139.6
80°	136.6	132.3	127.9	124.9	122.8
82.5°	119.1	113.3	108.9	106.7	105.2
85°	97.2	93.5	87.0	82.6	81.8
87.5°	65.0	61.4	59.2	55.5	51.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)