

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: P159773

Luminaire Tested: **VST-F05-LED-E-U-T4-8030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159773
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-F05-LED-E-U-T4-8030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(5) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (35) 3000K CCT, 80 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10368.7 lumens
Efficiency: N/A
Efficacy: 77.8 lumens/watt
Luminous Opening: Rectangular (W 0.83' x L: 1' x H: 0')
IES Classification: Type IV - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

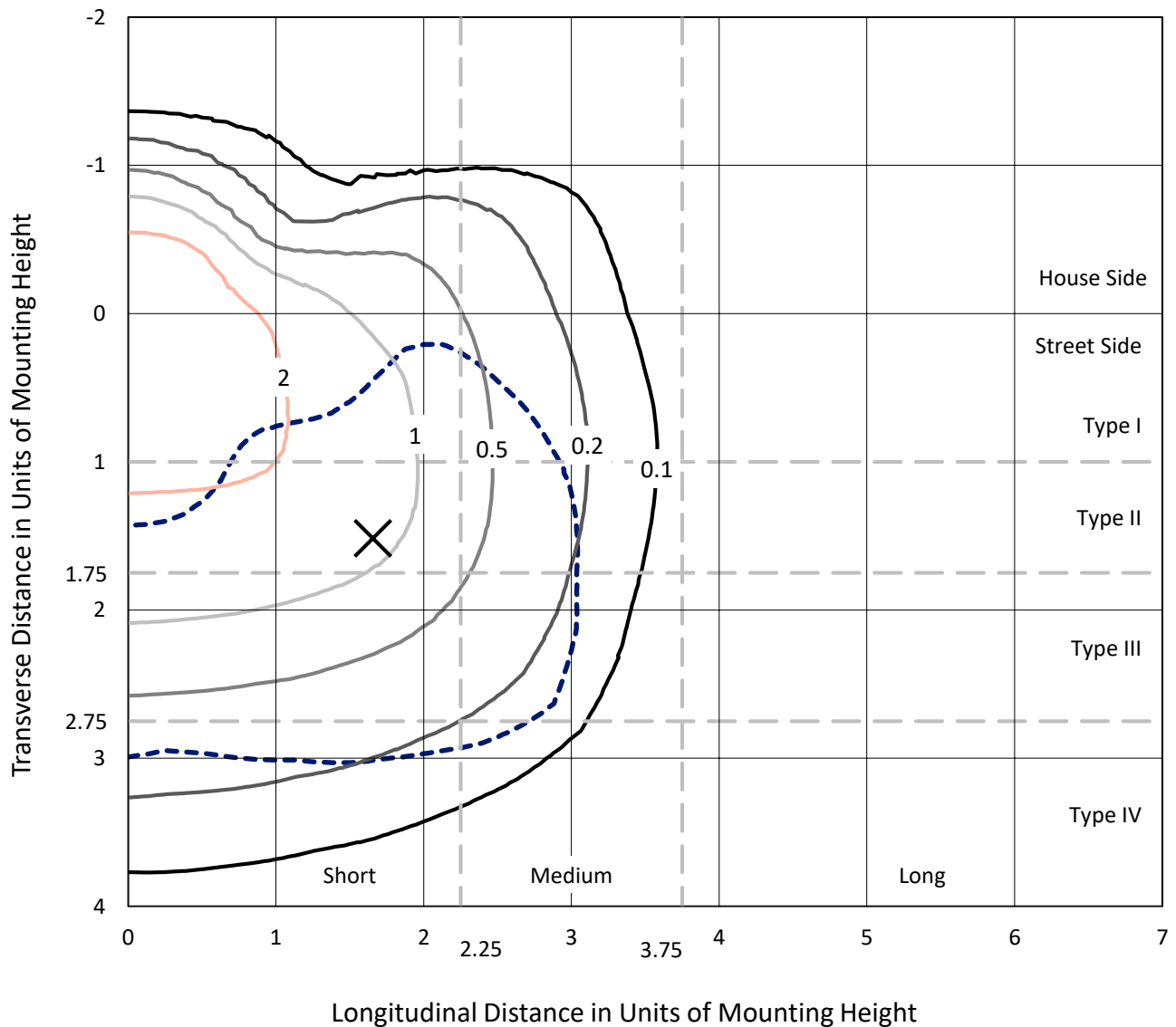
Input Watts (W): 133.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

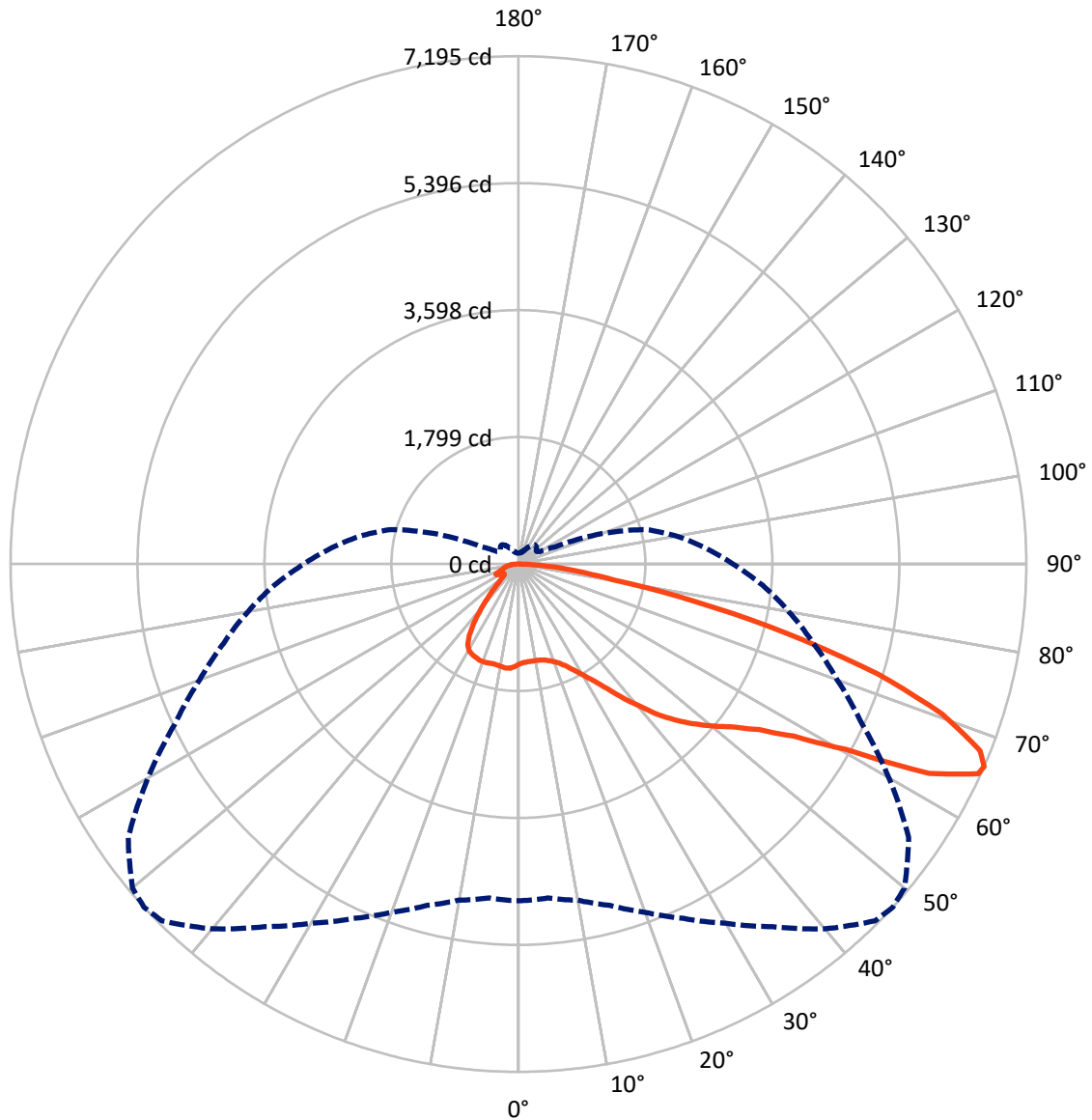


Based on 20 foot mounting height. Maximum calculated value = 3.6 fc
 Type IV - Short - Semi-Cutoff

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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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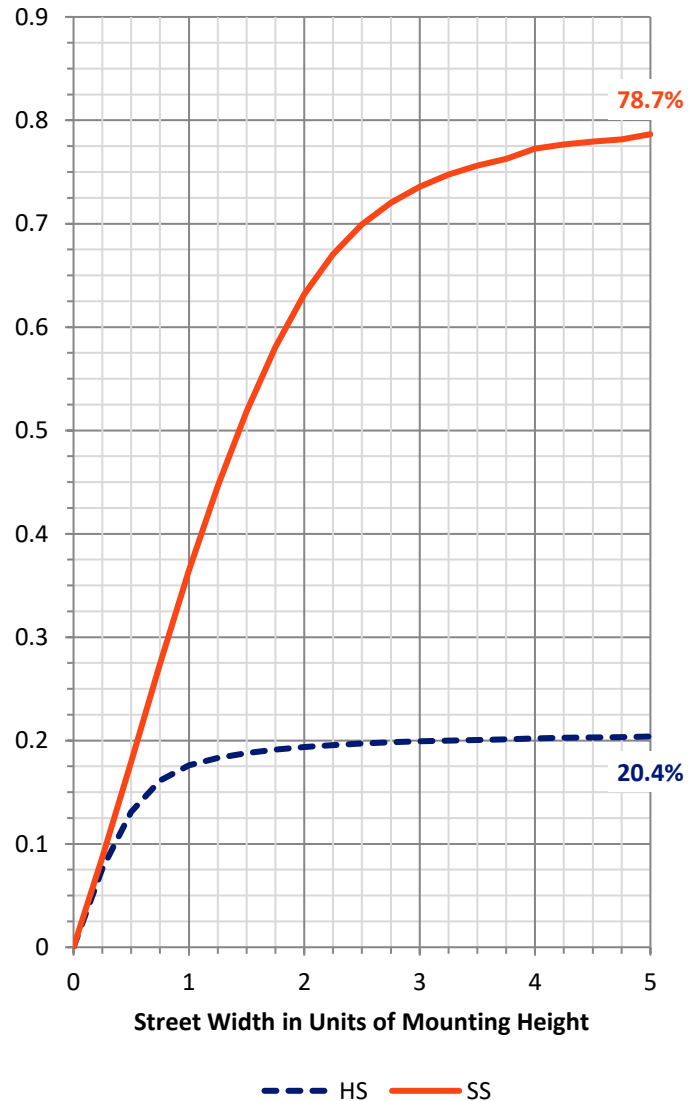
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2146.8	0.0	2146.8
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	8221.9	0.0	8221.9
	% Fixture	79.3	0.0	79.3
Total	Lumens	10368.7	0.0	10368.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.7	1.3
10°-20°	410.0	4.0
20°-30°	699.6	6.7
30°-40°	1055.9	10.2
40°-50°	1372.4	13.2
50°-60°	1882.8	18.2
60°-70°	2896.4	27.9
70°-80°	1674.3	16.1
80°-90°	240.5	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°	10368.7	100.0
0°-180°	10368.7	100.0

Coefficient of Utilization



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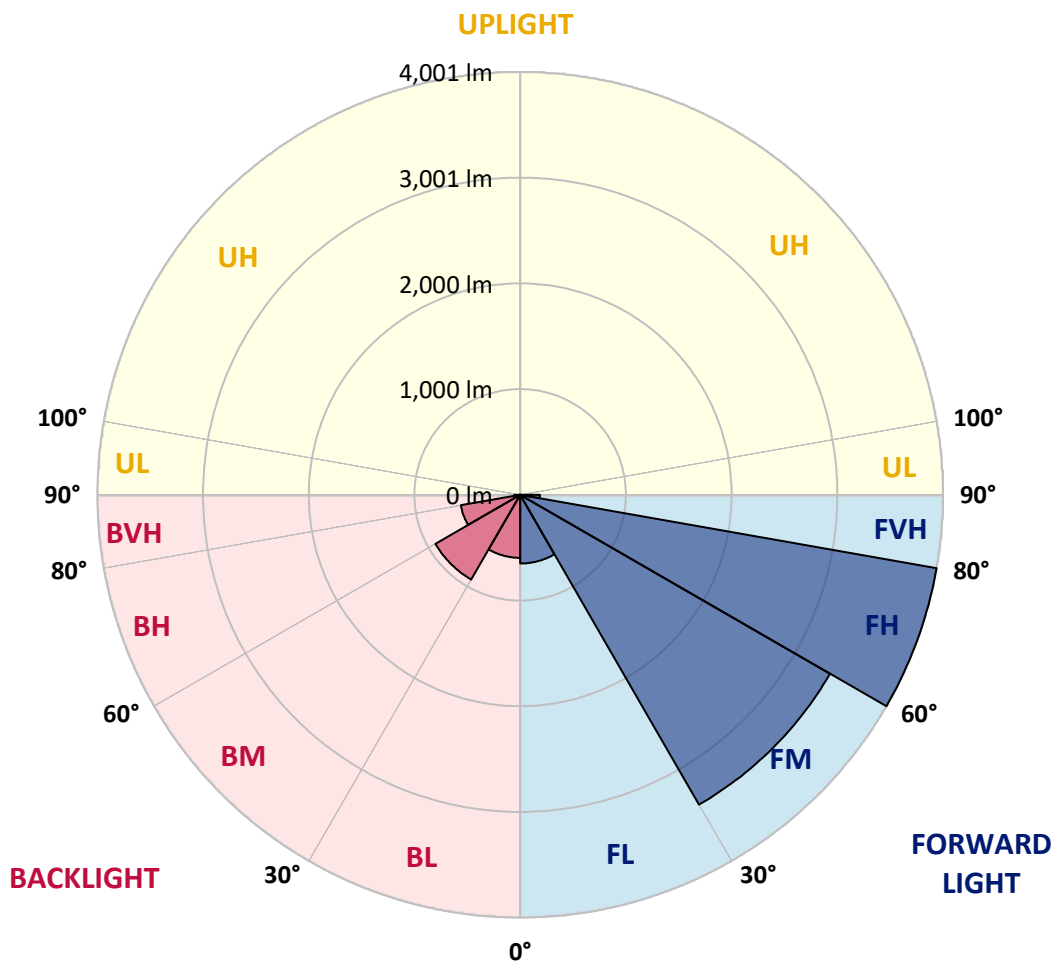
CATALOG NUMBER: VST-F05-LED-E-U-T4-8030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	649.9	6.3			
FM (30°-60°)	3384.9	32.6			
FH (60°-80°)	4000.9	38.6			G2/5000
FVH (80°-90°)	186.1	1.8			G2/225
BL (0°-30°)	596.4	5.8	B2/1000		
BM (30°-60°)	926.2	8.9	B1/1000		
BH (60°-80°)	569.8	5.5	B2/1000		G2/1000
BVH (80°-90°)	54.4	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°	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6
2.5°	1382.3	1383.0	1383.7	1383.7	1385.8	1385.8	1389.3	1391.4	1392.1	1396.3	1399.0
5°	1356.5	1355.8	1356.5	1357.9	1361.4	1364.2	1371.2	1376.1	1380.2	1387.2	1390.7
7.5°	1345.4	1346.8	1348.2	1348.9	1351.7	1358.6	1364.9	1369.8	1378.1	1386.5	1390.0
10°	1360.0	1362.1	1360.0	1361.4	1361.4	1367.7	1370.5	1374.0	1380.2	1387.9	1390.0
12.5°	1394.2	1398.3	1394.2	1390.7	1387.9	1393.5	1392.1	1389.3	1392.8	1394.9	1394.9
15°	1450.6	1450.6	1447.8	1442.9	1436.0	1436.7	1430.4	1424.1	1421.3	1416.5	1413.0
17.5°	1505.6	1504.3	1498.0	1491.7	1486.8	1484.7	1475.7	1467.3	1457.6	1449.9	1441.5
20°	1559.3	1564.9	1557.2	1548.1	1540.5	1535.6	1528.6	1511.9	1500.1	1487.5	1479.2
22.5°	1652.0	1647.1	1638.7	1625.5	1617.8	1609.5	1594.8	1576.7	1558.6	1543.3	1532.8
25°	1747.4	1742.5	1730.7	1720.9	1709.8	1702.8	1686.8	1664.5	1647.1	1623.4	1609.5
27.5°	1849.8	1845.7	1831.7	1824.1	1816.4	1808.0	1794.1	1771.1	1755.1	1727.9	1713.3
30°	1965.5	1964.8	1946.0	1944.6	1933.4	1924.4	1914.6	1895.1	1879.1	1851.9	1834.5
32.5°	2088.8	2086.0	2072.8	2068.6	2076.3	2070.0	2056.1	2035.9	2015.0	1998.9	1979.4
35°	2264.4	2259.5	2251.8	2255.3	2260.2	2277.6	2256.0	2238.6	2213.5	2192.6	2165.5
37.5°	2392.6	2385.6	2394.7	2414.2	2442.1	2455.3	2474.1	2474.8	2463.0	2435.1	2411.4
40°	2510.3	2507.6	2528.5	2555.6	2607.2	2644.8	2680.3	2697.8	2701.9	2683.8	2648.3
42.5°	2610.0	2618.3	2646.2	2688.0	2760.5	2817.6	2883.8	2924.9	2950.7	2940.9	2924.9
45°	2728.4	2732.6	2766.7	2819.7	2888.7	2983.4	3070.5	3140.2	3185.5	3184.8	3166.7
47.5°	2876.8	2877.5	2906.8	2968.8	3042.6	3138.8	3248.9	3341.5	3401.5	3404.2	3390.3
50°	3053.1	3051.7	3083.8	3142.3	3221.0	3313.7	3430.7	3546.4	3630.0	3630.0	3609.8
52.5°	3280.2	3277.4	3294.9	3346.4	3422.4	3519.9	3636.3	3770.0	3860.6	3880.1	3836.2
55°	3583.3	3587.5	3591.7	3637.0	3701.8	3779.1	3912.9	4036.2	4157.4	4168.6	4142.8
57.5°	3933.8	3919.8	3949.8	4023.6	4097.5	4194.3	4289.1	4434.7	4578.2	4602.6	4599.2
60°	4481.4	4463.3	4493.9	4588.0	4669.5	4822.1	4984.4	5172.6	5342.6	5392.7	5332.1
62.5°	4985.1	5007.4	5049.2	5158.6	5277.1	5480.5	5724.4	6047.0	6369.6	6545.1	6532.6
65°	4939.9	4919.0	4999.1	5148.2	5362.8	5622.0	5925.0	6313.8	6778.5	7131.1	7162.4
66°	4771.9	4750.3	4836.7	5007.4	5252.7	5541.1	5877.7	6273.4	6748.6	7147.1	7195.2
67.5°	4494.6	4473.0	4570.6	4726.0	4978.9	5341.9	5705.6	6138.2	6632.2	7014.0	7053.1
70°	3959.5	3930.3	4006.2	4181.8	4386.6	4737.8	5084.1	5542.5	6049.8	6354.9	6369.6
72.5°	3354.1	3285.8	3366.6	3501.8	3648.1	3938.6	4240.3	4553.9	4958.0	5240.1	5321.0
75°	2433.7	2469.2	2492.9	2582.1	2678.9	2919.3	3096.3	3359.0	3671.8	3875.9	3940.7
77.5°	1291.1	1344.7	1378.1	1467.3	1627.6	1810.8	2002.4	2164.8	2370.3	2484.6	2564.0
80°	724.6	762.2	816.6	886.9	965.0	1105.7	1219.3	1302.9	1332.2	1352.4	1370.5
82.5°	398.5	494.0	574.8	623.6	669.6	726.0	793.6	863.3	885.6	852.1	834.7
85°	62.0	91.3	278.0	339.3	369.3	412.5	461.2	512.8	513.5	441.7	482.1
87.5°	17.4	19.5	39.7	59.9	58.5	47.4	58.5	106.6	62.7	31.4	36.2
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6
2.5°	1400.4	1401.8	1405.3	1408.8	1412.3	1415.8	1417.9	1421.3	1424.1	1428.3	1433.2
5°	1394.9	1398.3	1404.6	1412.3	1419.3	1425.5	1430.4	1437.4	1443.6	1449.2	1457.6
7.5°	1394.9	1401.8	1412.3	1420.6	1426.9	1434.6	1442.2	1449.2	1456.2	1461.8	1467.3
10°	1395.6	1402.5	1413.0	1422.7	1429.7	1438.1	1444.3	1450.6	1458.3	1461.8	1468.7
12.5°	1398.3	1401.1	1408.8	1418.6	1426.9	1435.3	1441.5	1447.8	1456.2	1457.6	1462.4
15°	1412.3	1408.1	1410.2	1417.2	1426.2	1433.2	1440.2	1445.0	1450.6	1449.2	1453.4
17.5°	1438.1	1427.6	1423.4	1424.1	1428.3	1433.2	1436.0	1436.7	1437.4	1431.1	1431.8
20°	1472.9	1458.3	1448.5	1443.6	1438.1	1433.2	1425.5	1416.5	1408.1	1395.6	1394.2
22.5°	1525.2	1503.6	1493.1	1479.9	1463.1	1442.2	1423.4	1401.1	1383.0	1364.2	1357.2
25°	1601.1	1578.8	1567.7	1546.8	1516.8	1486.8	1459.7	1429.7	1403.2	1380.9	1370.5
27.5°	1702.8	1680.5	1668.7	1647.1	1610.2	1580.2	1542.6	1510.5	1478.5	1445.7	1432.5
30°	1826.1	1806.6	1793.4	1776.0	1743.9	1711.2	1667.3	1617.8	1567.0	1514.7	1488.9
32.5°	1971.8	1950.2	1940.4	1920.2	1886.8	1852.6	1803.8	1740.4	1655.4	1573.2	1521.7
35°	2153.6	2129.2	2118.1	2091.6	2052.6	2002.4	1950.2	1865.2	1750.2	1635.9	1551.6
37.5°	2396.8	2342.4	2305.5	2244.9	2182.2	2111.8	2037.3	1950.2	1814.3	1672.9	1555.8
40°	2612.1	2557.0	2486.0	2398.9	2301.3	2204.5	2119.5	2020.5	1872.8	1699.3	1542.6
42.5°	2879.6	2782.1	2668.5	2550.7	2421.2	2302.0	2201.0	2084.6	1912.5	1706.3	1505.6
45°	3124.2	3007.8	2855.9	2699.2	2538.2	2388.4	2274.8	2145.2	1946.7	1706.3	1461.1
47.5°	3347.1	3207.8	3025.9	2830.8	2643.4	2479.7	2350.8	2207.3	1994.8	1727.9	1447.8
50°	3553.4	3393.1	3186.2	2959.7	2749.3	2574.4	2435.8	2286.7	2067.9	1783.6	1479.9
52.5°	3770.7	3600.7	3348.5	3108.1	2876.1	2688.7	2541.0	2384.9	2162.7	1871.4	1536.3
55°	4055.7	3856.4	3570.1	3305.3	3050.3	2843.4	2675.5	2502.7	2266.5	1970.4	1605.3
57.5°	4505.1	4215.9	3929.6	3585.4	3345.0	3072.6	2888.7	2690.1	2435.1	2099.3	1709.1
60°	5291.7	4936.4	4592.2	4196.4	3899.6	3614.7	3336.7	3077.5	2770.2	2390.5	1936.9
62.5°	6414.8	6053.9	5513.3	5029.0	4581.0	4203.4	3841.1	3511.5	3117.2	2701.9	2217.7
65°	7085.8	6672.6	6028.2	5377.4	4833.3	4365.0	3950.5	3547.1	3121.4	2716.6	2302.7
66°	7139.4	6748.6	6060.2	5372.5	4807.5	4321.9	3890.6	3473.2	3037.1	2649.7	2274.8
67.5°	7039.8	6703.3	5994.7	5277.8	4700.2	4175.5	3732.4	3294.9	2856.6	2497.8	2182.2
70°	6336.8	6093.6	5486.1	4814.4	4238.2	3775.6	3308.1	2887.3	2472.0	2170.3	1936.2
72.5°	5194.9	4886.9	4461.9	4010.4	3556.8	3146.5	2721.4	2363.3	2015.0	1795.5	1629.7
75°	3816.0	3538.7	3070.5	2789.0	2489.4	2231.6	1945.3	1606.0	1358.6	1248.6	1208.1
77.5°	2419.1	2118.1	1723.0	1412.3	1214.4	1043.7	822.8	654.2	523.9	545.5	604.1
80°	1222.1	1052.8	788.0	622.2	537.9	447.3	353.9	268.2	195.8	223.7	252.9
82.5°	784.5	654.9	521.9	411.1	347.0	305.9	244.6	177.7	132.4	149.1	182.5
85°	472.4	399.2	318.4	260.6	226.4	188.8	138.7	98.2	97.5	104.5	128.9
87.5°	71.8	102.4	59.2	63.4	66.9	71.8	63.4	53.6	46.7	60.6	76.6
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°	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6	1418.6
2.5°	1438.1	1439.5	1442.2	1445.7	1445.0	1449.9	1452.7	1449.9	1456.2	1456.2	1459.7
5°	1464.5	1466.6	1471.5	1475.0	1476.4	1480.6	1482.0	1481.3	1482.7	1483.3	1484.7
7.5°	1472.2	1477.8	1479.9	1482.0	1482.7	1484.0	1484.0	1482.7	1482.7	1482.0	1483.3
10°	1470.1	1472.2	1473.6	1472.9	1472.9	1471.5	1470.8	1470.1	1470.1	1468.7	1470.8
12.5°	1463.1	1463.1	1463.1	1461.8	1461.8	1461.1	1461.1	1461.1	1462.4	1463.1	1466.6
15°	1449.2	1449.2	1450.6	1449.9	1452.0	1455.5	1459.7	1462.4	1465.9	1466.6	1468.7
17.5°	1427.6	1428.3	1432.5	1441.5	1450.6	1461.1	1468.7	1470.8	1468.0	1461.1	1456.2
20°	1390.0	1399.0	1415.8	1437.4	1457.6	1470.8	1474.3	1465.9	1452.7	1434.6	1424.8
22.5°	1356.5	1374.7	1404.6	1440.2	1465.2	1474.3	1463.8	1444.3	1420.6	1399.7	1385.1
25°	1369.8	1390.7	1422.0	1452.7	1468.7	1463.8	1442.9	1415.1	1390.0	1365.6	1341.9
27.5°	1425.5	1446.4	1468.7	1477.8	1472.2	1454.1	1424.8	1394.9	1361.4	1326.6	1297.3
30°	1478.5	1490.3	1491.7	1482.7	1462.4	1433.2	1399.0	1364.2	1321.7	1279.9	1243.0
32.5°	1495.2	1481.3	1456.2	1430.4	1402.5	1372.6	1332.9	1286.9	1241.6	1194.2	1153.1
35°	1490.3	1433.9	1371.9	1316.8	1283.4	1249.2	1213.0	1151.7	1100.8	1060.4	1034.0
37.5°	1446.4	1343.3	1247.9	1167.7	1115.5	1075.1	1021.4	970.6	926.7	908.5	886.9
40°	1385.1	1227.6	1095.3	983.1	928.7	877.2	817.3	778.3	765.7	749.0	749.7
42.5°	1297.3	1092.5	921.8	792.9	733.7	677.2	634.7	611.7	612.4	598.5	601.3
45°	1204.7	956.6	742.0	613.8	555.3	507.2	483.5	476.6	477.3	478.0	473.8
47.5°	1148.2	850.7	595.0	465.4	413.9	386.7	374.1	370.7	371.4	372.1	367.2
50°	1139.9	795.7	496.8	356.0	322.6	307.3	301.0	297.5	297.5	294.7	290.5
52.5°	1163.5	781.7	448.7	308.7	276.6	262.7	257.8	255.0	250.8	245.3	237.6
55°	1201.2	794.3	434.1	292.6	261.3	247.3	241.1	239.7	232.7	222.3	209.7
57.5°	1270.8	839.6	443.8	296.8	264.1	251.5	247.3	245.9	236.2	220.2	204.1
60°	1470.8	971.2	492.6	320.5	284.3	273.8	273.8	271.7	258.5	235.5	212.5
62.5°	1746.7	1164.2	558.8	353.2	312.1	310.7	322.6	323.3	299.6	262.7	226.4
65°	1879.8	1254.8	581.8	360.2	319.8	335.8	359.5	359.5	326.1	275.2	228.5
66°	1880.5	1252.7	574.8	351.9	311.4	332.3	356.7	356.7	321.9	271.7	225.0
67.5°	1832.4	1213.7	551.8	336.5	292.6	312.1	333.7	333.0	301.7	257.8	215.3
70°	1643.6	1073.7	486.3	311.4	270.3	271.0	278.7	273.8	252.9	223.0	195.8
72.5°	1417.2	898.1	421.5	295.4	252.9	239.7	233.4	229.2	216.0	197.9	181.2
75°	1086.9	697.4	367.2	280.8	237.6	214.6	206.2	202.8	193.7	183.2	170.0
77.5°	666.1	478.0	311.4	257.1	220.2	199.3	190.2	183.2	174.2	164.4	155.4
80°	287.1	288.4	249.4	218.1	191.6	167.2	155.4	147.0	142.1	138.7	133.8
82.5°	200.7	206.9	190.2	169.3	146.3	128.9	118.4	116.4	117.1	117.1	115.7
85°	150.5	147.7	133.1	121.2	110.8	99.6	91.3	90.6	93.4	93.4	91.3
87.5°	87.1	87.8	75.2	70.4	73.2	62.7	57.1	57.8	64.8	64.1	62.7
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):

	160°	165°	170°	175°	180°
0°	1418.6	1418.6	1418.6	1418.6	1418.6
2.5°	1459.7	1461.8	1461.1	1463.1	1461.1
5°	1486.8	1486.1	1485.4	1488.2	1484.7
7.5°	1482.7	1483.3	1483.3	1483.3	1482.7
10°	1472.2	1475.0	1476.4	1479.2	1478.5
12.5°	1468.7	1472.9	1477.1	1481.3	1482.0
15°	1469.4	1472.2	1474.3	1476.4	1477.1
17.5°	1451.3	1450.6	1448.5	1447.1	1445.7
20°	1414.4	1410.9	1407.4	1401.8	1404.6
22.5°	1368.4	1358.6	1347.5	1338.4	1337.7
25°	1314.7	1296.6	1278.5	1266.7	1262.5
27.5°	1267.4	1245.8	1227.0	1216.5	1213.7
30°	1210.9	1191.4	1174.7	1165.6	1160.1
32.5°	1127.3	1112.0	1091.1	1084.1	1083.4
35°	1011.0	999.1	984.5	981.7	978.2
37.5°	879.3	875.1	868.1	859.8	858.4
40°	738.5	741.3	739.2	734.4	726.7
42.5°	602.7	607.6	608.3	611.7	615.2
45°	480.1	484.2	484.2	487.7	491.9
47.5°	368.6	365.8	367.9	371.4	373.5
50°	278.7	276.6	273.1	270.3	267.5
52.5°	224.3	220.2	210.4	207.6	204.8
55°	197.9	190.2	183.2	180.5	180.5
57.5°	190.2	180.5	172.8	169.3	167.9
60°	191.6	177.7	167.9	162.3	160.2
62.5°	197.9	178.4	165.1	158.9	156.8
65°	197.2	177.0	164.4	157.5	155.4
66°	193.7	174.9	163.0	156.8	155.4
67.5°	188.1	172.1	161.6	156.1	154.0
70°	177.0	166.5	158.9	154.0	151.9
72.5°	167.9	160.9	154.0	148.4	147.0
75°	159.6	152.6	146.3	143.5	141.4
77.5°	147.0	140.7	137.3	134.5	133.1
80°	130.3	126.1	121.9	119.1	117.1
82.5°	113.6	108.0	103.8	101.7	100.3
85°	92.7	89.2	82.9	78.7	78.0
87.5°	62.0	58.5	56.4	53.0	49.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)