

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: P159764

Luminaire Tested: **VST-F04-LED-E-U-T4-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P159764
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-F04-LED-E-U-T4-7030
Description: VENTUS LED SITE/ROADWAY LUMINAIRE
(4) LIGHTBARS WITH AccuLED OPTICS - TYPE 4 SHORT
Light Source: (28) 3000K CCT, 70 CRI LEDs
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8976.6 lumens
Efficiency: N/A
Efficacy: 87.8 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): 102.2
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

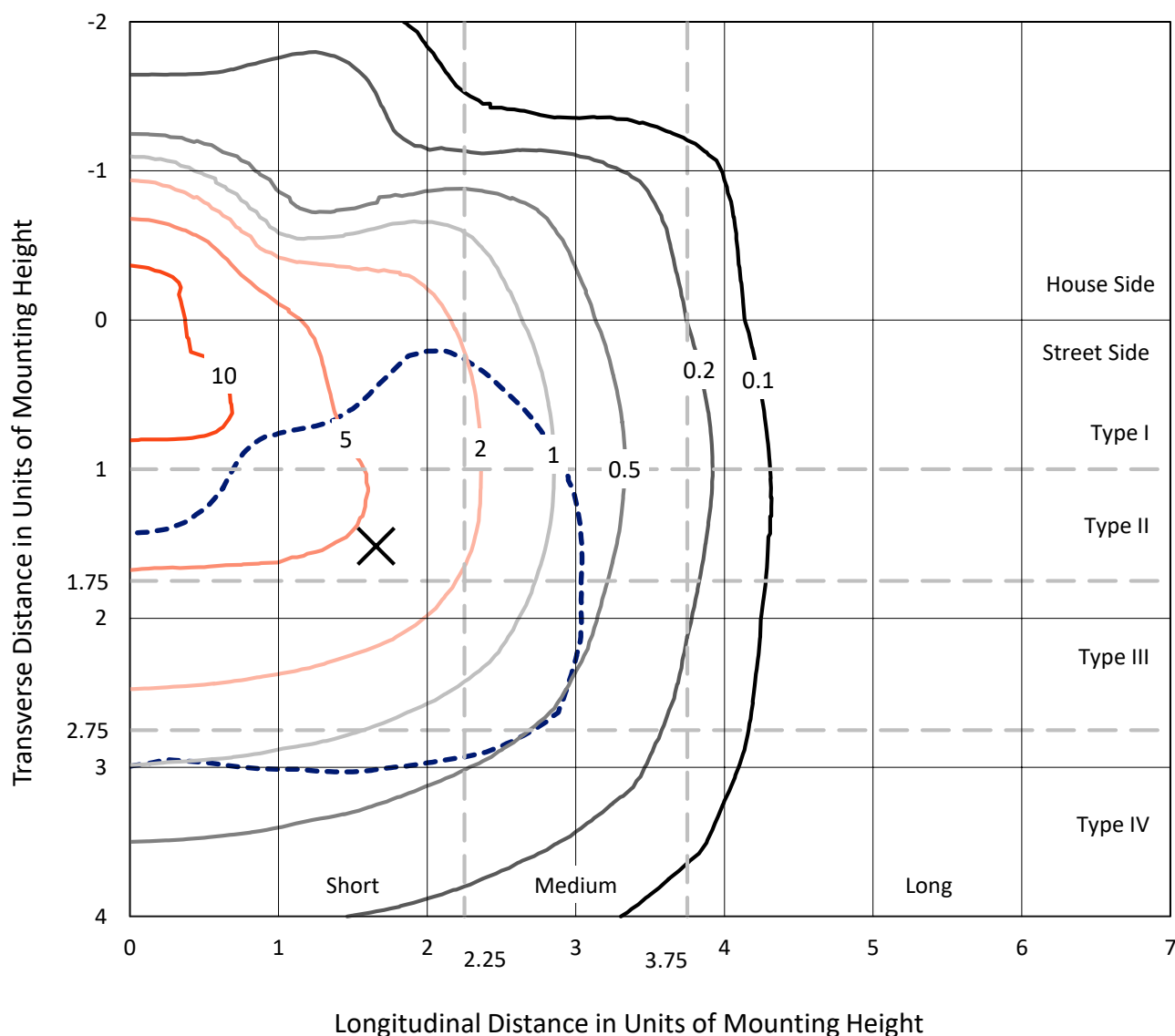


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

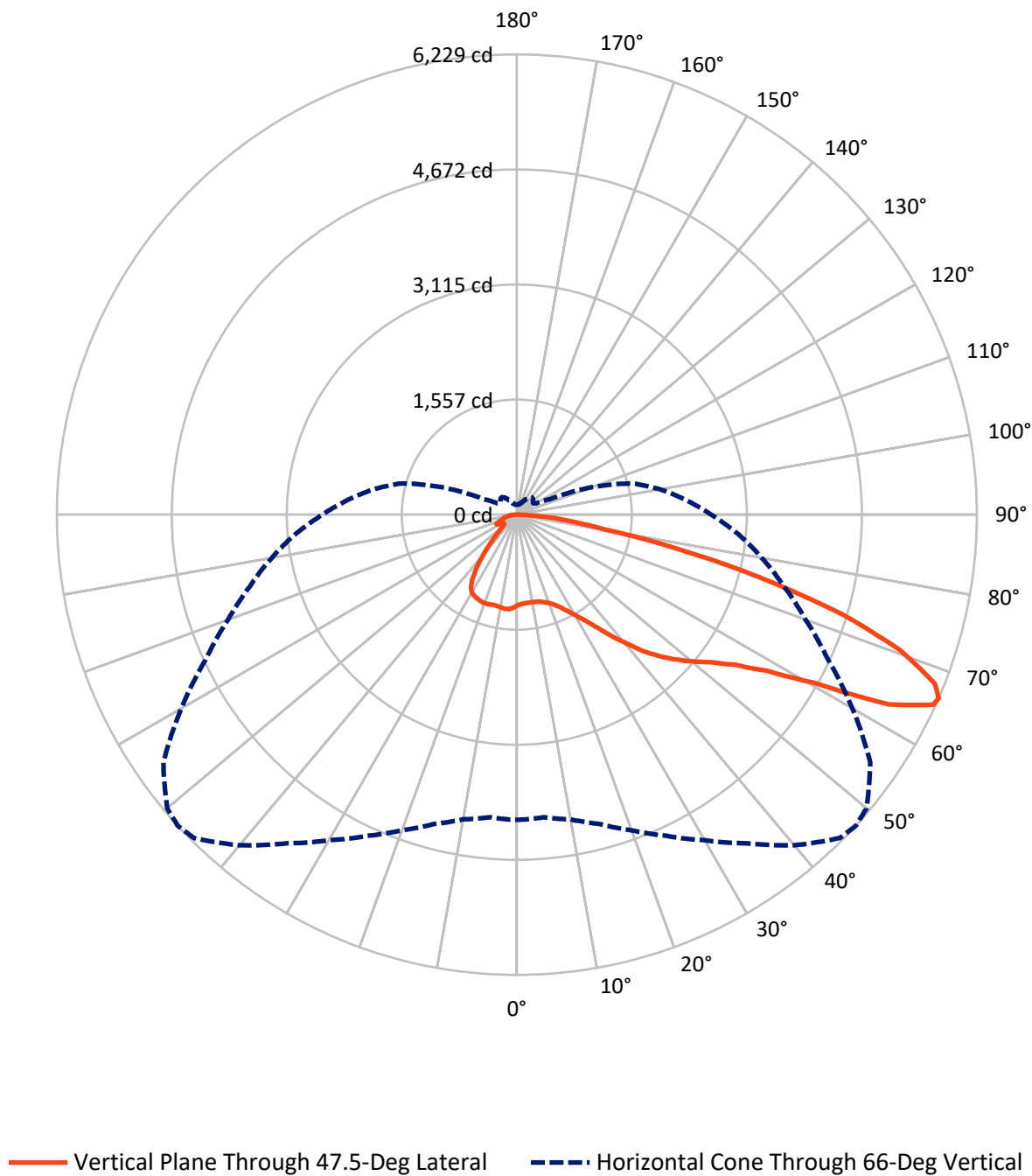


Based on 10 foot mounting height. Maximum calculated value = 12.5 fc
 Type IV - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1858.6	0.0	1858.6
	% Fixture	20.7	0.0	20.7
Street Side	Lumens	7118.1	0.0	7118.1
	% Fixture	79.3	0.0	79.3
Total	Lumens	8976.6	0.0	8976.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	118.4	1.3
10°-20°	355.0	4.0
20°-30°	605.6	6.7
30°-40°	914.1	10.2
40°-50°	1188.2	13.2
50°-60°	1630.1	18.2
60°-70°	2507.5	27.9
70°-80°	1449.5	16.1
80°-90°	208.2	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°	8976.6	100.0
0°-180°	8976.6	100.0

Coefficient of Utilization



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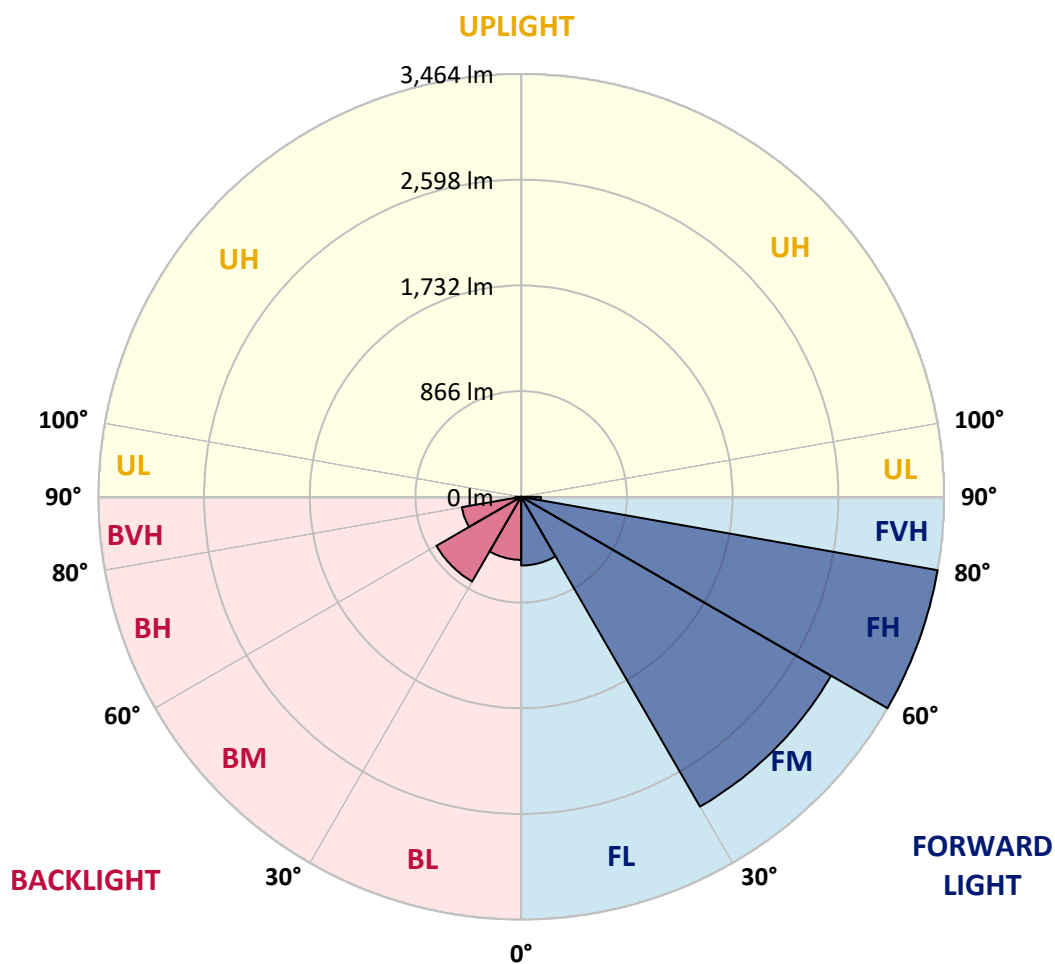
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	562.7	6.3			
FM	(30°-60°)	2930.5	32.6			
FH	(60°-80°)	3463.8	38.6			G2/5000
FVH	(80°-90°)	161.1	1.8			G2/225
BL	(0°-30°)	516.3	5.8	B2/1000		
BM	(30°-60°)	801.9	8.9	B1/1000		
BH	(60°-80°)	493.3	5.5	B1/500		G1/500
BVH	(80°-90°)	47.1	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°	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1
2.5°	1196.7	1197.3	1197.9	1197.9	1199.8	1199.8	1202.8	1204.6	1205.2	1208.8	1211.2
5°	1174.4	1173.8	1174.4	1175.6	1178.6	1181.1	1187.1	1191.3	1194.9	1201.0	1204.0
7.5°	1164.8	1166.0	1167.2	1167.8	1170.2	1176.2	1181.7	1185.9	1193.1	1200.4	1203.4
10°	1177.4	1179.2	1177.4	1178.6	1178.6	1184.1	1186.5	1189.5	1194.9	1201.6	1203.4
12.5°	1207.0	1210.6	1207.0	1204.0	1201.6	1206.4	1205.2	1202.8	1205.8	1207.6	1207.6
15°	1255.9	1255.9	1253.4	1249.2	1243.2	1243.8	1238.4	1232.9	1230.5	1226.3	1223.3
17.5°	1303.5	1302.3	1296.9	1291.4	1287.2	1285.4	1277.6	1270.3	1261.9	1255.2	1248.0
20°	1349.9	1354.8	1348.1	1340.3	1333.7	1329.4	1323.4	1308.9	1298.7	1287.8	1280.6
22.5°	1430.2	1426.0	1418.7	1407.3	1400.6	1393.4	1380.7	1365.0	1349.3	1336.1	1327.0
25°	1512.8	1508.6	1498.3	1489.9	1480.2	1474.2	1460.3	1441.0	1426.0	1405.4	1393.4
27.5°	1601.5	1597.9	1585.8	1579.2	1572.5	1565.3	1553.2	1533.3	1519.4	1495.9	1483.3
30°	1701.6	1701.0	1684.7	1683.5	1673.9	1666.0	1657.6	1640.7	1626.8	1603.3	1588.2
32.5°	1808.4	1806.0	1794.5	1790.9	1797.5	1792.1	1780.0	1762.5	1744.4	1730.6	1713.7
35°	1960.4	1956.2	1949.5	1952.5	1956.8	1971.8	1953.1	1938.1	1916.3	1898.3	1874.7
37.5°	2071.4	2065.3	2073.2	2090.1	2114.2	2125.7	2141.9	2142.5	2132.3	2108.2	2087.7
40°	2173.3	2170.9	2189.0	2212.5	2257.2	2289.7	2320.5	2335.6	2339.2	2323.5	2292.7
42.5°	2259.6	2266.8	2290.9	2327.1	2389.9	2439.3	2496.6	2532.2	2554.5	2546.1	2532.2
45°	2362.1	2365.7	2395.3	2441.1	2500.8	2582.9	2658.3	2718.6	2757.8	2757.2	2741.5
47.5°	2490.6	2491.2	2516.5	2570.2	2634.2	2717.4	2812.7	2892.9	2944.8	2947.2	2935.1
50°	2643.2	2642.0	2669.7	2720.4	2788.6	2868.8	2970.1	3070.3	3142.6	3142.6	3125.2
52.5°	2839.8	2837.4	2852.5	2897.1	2962.9	3047.3	3148.1	3263.9	3342.3	3359.2	3321.2
55°	3102.2	3105.8	3109.5	3148.7	3204.8	3271.7	3387.5	3494.3	3599.3	3608.9	3586.6
57.5°	3405.6	3393.6	3419.5	3483.4	3547.4	3631.2	3713.3	3839.3	3963.6	3984.7	3981.7
60°	3879.7	3864.1	3890.6	3972.0	4042.6	4174.7	4315.3	4478.1	4625.3	4668.7	4616.2
62.5°	4315.9	4335.2	4371.4	4466.1	4568.6	4744.7	4955.8	5235.1	5514.4	5666.4	5655.6
65°	4276.7	4258.6	4327.9	4457.0	4642.8	4867.2	5129.6	5466.2	5868.5	6173.7	6200.8
66°	4131.3	4112.6	4187.4	4335.2	4547.5	4797.2	5088.6	5431.2	5842.5	6187.6	6229.2
67.5°	3891.2	3872.5	3957.0	4091.5	4310.4	4624.7	4939.6	5314.1	5741.8	6072.4	6106.1
70°	3428.0	3402.6	3468.4	3620.4	3797.7	4101.7	4401.5	4798.4	5237.5	5501.7	5514.4
72.5°	2903.8	2844.7	2914.6	3031.7	3158.3	3409.9	3671.0	3942.5	4292.3	4536.6	4606.6
75°	2107.0	2137.7	2158.2	2235.4	2319.3	2527.4	2680.6	2908.0	3178.8	3355.6	3411.7
77.5°	1117.7	1164.2	1193.1	1270.3	1409.1	1567.7	1733.6	1874.1	2052.1	2151.0	2219.8
80°	627.3	659.9	706.9	767.9	835.4	957.3	1055.6	1128.0	1153.3	1170.8	1186.5
82.5°	345.0	427.7	497.6	539.9	579.7	628.5	687.0	747.4	766.7	737.7	722.6
85°	53.7	79.0	240.7	293.8	319.7	357.1	399.3	444.0	444.6	382.4	417.4
87.5°	15.1	16.9	34.4	51.9	50.7	41.0	50.7	92.3	54.3	27.1	31.4
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):

	50°	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1
2.5°	1212.4	1213.6	1216.6	1219.7	1222.7	1225.7	1227.5	1230.5	1232.9	1236.5	1240.8
5°	1207.6	1210.6	1216.0	1222.7	1228.7	1234.1	1238.4	1244.4	1249.8	1254.6	1261.9
7.5°	1207.6	1213.6	1222.7	1229.9	1235.3	1242.0	1248.6	1254.6	1260.7	1265.5	1270.3
10°	1208.2	1214.2	1223.3	1231.7	1237.8	1245.0	1250.4	1255.9	1262.5	1265.5	1271.5
12.5°	1210.6	1213.0	1219.7	1228.1	1235.3	1242.6	1248.0	1253.4	1260.7	1261.9	1266.1
15°	1222.7	1219.1	1220.9	1226.9	1234.7	1240.8	1246.8	1251.0	1255.9	1254.6	1258.3
17.5°	1245.0	1235.9	1232.3	1232.9	1236.5	1240.8	1243.2	1243.8	1244.4	1239.0	1239.6
20°	1275.2	1262.5	1254.0	1249.8	1245.0	1240.8	1234.1	1226.3	1219.1	1208.2	1207.0
22.5°	1320.4	1301.7	1292.6	1281.2	1266.7	1248.6	1232.3	1213.0	1197.3	1181.1	1175.0
25°	1386.1	1366.8	1357.2	1339.1	1313.2	1287.2	1263.7	1237.8	1214.8	1195.5	1186.5
27.5°	1474.2	1454.9	1444.7	1426.0	1394.0	1368.0	1335.5	1307.7	1280.0	1251.6	1240.2
30°	1581.0	1564.1	1552.6	1537.5	1509.8	1481.4	1443.4	1400.6	1356.6	1311.3	1289.0
32.5°	1707.0	1688.3	1679.9	1662.4	1633.5	1603.9	1561.7	1506.8	1433.2	1362.0	1317.4
35°	1864.5	1843.4	1833.7	1810.8	1777.0	1733.6	1688.3	1614.8	1515.2	1416.3	1343.3
37.5°	2075.0	2027.9	1996.0	1943.5	1889.2	1828.3	1763.7	1688.3	1570.7	1448.3	1346.9
40°	2261.4	2213.7	2152.2	2076.8	1992.4	1908.5	1834.9	1749.3	1621.4	1471.2	1335.5
42.5°	2493.0	2408.6	2310.2	2208.3	2096.1	1993.0	1905.5	1804.8	1655.8	1477.2	1303.5
45°	2704.7	2604.0	2472.5	2336.8	2197.4	2067.8	1969.4	1857.2	1685.3	1477.2	1264.9
47.5°	2897.7	2777.1	2619.7	2450.8	2288.5	2146.8	2035.2	1910.9	1726.9	1495.9	1253.4
50°	3076.3	2937.6	2758.4	2562.4	2380.2	2228.8	2108.8	1979.7	1790.3	1544.2	1281.2
52.5°	3264.5	3117.3	2899.0	2690.9	2490.0	2327.7	2199.9	2064.7	1872.3	1620.2	1330.0
55°	3511.2	3338.7	3090.8	2861.6	2640.8	2461.6	2316.3	2166.7	1962.2	1705.8	1389.8
57.5°	3900.3	3649.9	3402.0	3104.0	2895.9	2660.1	2500.8	2328.9	2108.2	1817.4	1479.6
60°	4581.3	4273.6	3975.7	3633.0	3376.1	3129.4	2888.7	2664.3	2398.3	2069.6	1676.9
62.5°	5553.6	5241.2	4773.1	4353.9	3966.0	3639.1	3325.4	3040.1	2698.7	2339.2	1920.0
65°	6134.5	5776.8	5218.8	4655.5	4184.4	3779.0	3420.1	3070.9	2702.3	2351.9	1993.6
66°	6180.9	5842.5	5246.6	4651.2	4162.0	3741.6	3368.2	3006.9	2629.3	2293.9	1969.4
67.5°	6094.7	5803.3	5189.9	4569.2	4069.2	3614.9	3231.3	2852.5	2473.1	2162.5	1889.2
70°	5486.1	5275.5	4749.6	4168.1	3669.2	3268.7	2864.0	2499.6	2140.1	1879.0	1676.3
72.5°	4497.4	4230.8	3862.9	3472.0	3079.3	2724.0	2356.1	2046.0	1744.4	1554.4	1410.9
75°	3303.7	3063.6	2658.3	2414.6	2155.2	1932.0	1684.1	1390.4	1176.2	1080.9	1045.9
77.5°	2094.3	1833.7	1491.7	1222.7	1051.4	903.6	712.4	566.4	453.6	472.3	523.0
80°	1058.0	911.4	682.2	538.7	465.7	387.3	306.4	232.2	169.5	193.6	219.0
82.5°	679.2	567.0	451.8	355.9	300.4	264.8	211.7	153.8	114.6	129.1	158.0
85°	409.0	345.6	275.7	225.6	196.0	163.5	120.0	85.1	84.4	90.5	111.6
87.5°	62.1	88.7	51.3	54.9	57.9	62.1	54.9	46.4	40.4	52.5	66.4
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°	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1	1228.1
2.5°	1245.0	1246.2	1248.6	1251.6	1251.0	1255.2	1257.7	1255.2	1260.7	1260.7	1263.7
5°	1267.9	1269.7	1273.9	1277.0	1278.2	1281.8	1283.0	1282.4	1283.6	1284.2	1285.4
7.5°	1274.6	1279.4	1281.2	1283.0	1283.6	1284.8	1284.8	1283.6	1283.6	1283.0	1284.2
10°	1272.7	1274.6	1275.8	1275.2	1275.2	1273.9	1273.3	1272.7	1272.7	1271.5	1273.3
12.5°	1266.7	1266.7	1266.7	1265.5	1265.5	1264.9	1264.9	1264.9	1266.1	1266.7	1269.7
15°	1254.6	1254.6	1255.9	1255.2	1257.1	1260.1	1263.7	1266.1	1269.1	1269.7	1271.5
17.5°	1235.9	1236.5	1240.2	1248.0	1255.9	1264.9	1271.5	1273.3	1270.9	1264.9	1260.7
20°	1203.4	1211.2	1225.7	1244.4	1261.9	1273.3	1276.4	1269.1	1257.7	1242.0	1233.5
22.5°	1174.4	1190.1	1216.0	1246.8	1268.5	1276.4	1267.3	1250.4	1229.9	1211.8	1199.2
25°	1185.9	1204.0	1231.1	1257.7	1271.5	1267.3	1249.2	1225.1	1203.4	1182.3	1161.8
27.5°	1234.1	1252.2	1271.5	1279.4	1274.6	1258.9	1233.5	1207.6	1178.6	1148.5	1123.1
30°	1280.0	1290.2	1291.4	1283.6	1266.1	1240.8	1211.2	1181.1	1144.3	1108.1	1076.1
32.5°	1294.5	1282.4	1260.7	1238.4	1214.2	1188.3	1153.9	1114.1	1074.9	1033.9	998.3
35°	1290.2	1241.4	1187.7	1140.0	1111.1	1081.5	1050.2	997.1	953.0	918.1	895.1
37.5°	1252.2	1163.0	1080.3	1011.0	965.7	930.7	884.3	840.3	802.2	786.6	767.9
40°	1199.2	1062.8	948.2	851.1	804.1	759.4	707.5	673.8	662.9	648.4	649.0
42.5°	1123.1	945.8	798.0	686.4	635.2	586.3	549.5	529.6	530.2	518.1	520.6
45°	1042.9	828.2	642.4	531.4	480.7	439.1	418.6	412.6	413.2	413.8	410.2
47.5°	994.1	736.5	515.1	402.9	358.3	334.8	323.9	320.9	321.5	322.1	317.9
50°	986.8	688.8	430.1	308.2	279.3	266.0	260.6	257.6	257.6	255.2	251.5
52.5°	1007.3	676.8	388.5	267.2	239.5	227.4	223.2	220.8	217.2	212.3	205.7
55°	1039.9	687.6	375.8	253.3	226.2	214.1	208.7	207.5	201.5	192.4	181.6
57.5°	1100.2	726.8	384.2	257.0	228.6	217.8	214.1	212.9	204.5	190.6	176.7
60°	1273.3	840.9	426.5	277.5	246.1	237.1	237.1	235.2	223.8	203.9	184.0
62.5°	1512.2	1007.9	483.8	305.8	270.2	269.0	279.3	279.9	259.4	227.4	196.0
65°	1627.4	1086.4	503.7	311.9	276.9	290.7	311.2	311.2	282.3	238.3	197.8
66°	1628.0	1084.5	497.6	304.6	269.6	287.7	308.8	308.8	278.7	235.2	194.8
67.5°	1586.4	1050.8	477.7	291.3	253.3	270.2	288.9	288.3	261.2	223.2	186.4
70°	1422.9	929.5	421.0	269.6	234.0	234.6	241.3	237.1	219.0	193.0	169.5
72.5°	1226.9	777.5	364.9	255.8	219.0	207.5	202.1	198.5	187.0	171.3	156.8
75°	941.0	603.8	317.9	243.1	205.7	185.8	178.5	175.5	167.7	158.6	147.2
77.5°	576.7	413.8	269.6	222.6	190.6	172.5	164.7	158.6	150.8	142.4	134.5
80°	248.5	249.7	215.9	188.8	165.9	144.8	134.5	127.3	123.1	120.0	115.8
82.5°	173.7	179.1	164.7	146.6	126.7	111.6	102.5	100.7	101.3	101.3	100.1
85°	130.3	127.9	115.2	105.0	95.9	86.3	79.0	78.4	80.8	80.8	79.0
87.5°	75.4	76.0	65.1	60.9	63.3	54.3	49.5	50.1	56.1	55.5	54.3
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°	1228.1	1228.1	1228.1	1228.1	1228.1
2.5°	1263.7	1265.5	1264.9	1266.7	1264.9
5°	1287.2	1286.6	1286.0	1288.4	1285.4
7.5°	1283.6	1284.2	1284.2	1284.2	1283.6
10°	1274.6	1277.0	1278.2	1280.6	1280.0
12.5°	1271.5	1275.2	1278.8	1282.4	1283.0
15°	1272.1	1274.6	1276.4	1278.2	1278.8
17.5°	1256.5	1255.9	1254.0	1252.8	1251.6
20°	1224.5	1221.5	1218.5	1213.6	1216.0
22.5°	1184.7	1176.2	1166.6	1158.7	1158.1
25°	1138.2	1122.5	1106.9	1096.6	1093.0
27.5°	1097.2	1078.5	1062.2	1053.2	1050.8
30°	1048.4	1031.5	1017.0	1009.1	1004.3
32.5°	976.0	962.7	944.6	938.6	938.0
35°	875.2	865.0	852.3	849.9	846.9
37.5°	761.2	757.6	751.6	744.3	743.1
40°	639.4	641.8	640.0	635.8	629.1
42.5°	521.8	526.0	526.6	529.6	532.6
45°	415.6	419.2	419.2	422.2	425.9
47.5°	319.1	316.7	318.5	321.5	323.3
50°	241.3	239.5	236.5	234.0	231.6
52.5°	194.2	190.6	182.2	179.8	177.3
55°	171.3	164.7	158.6	156.2	156.2
57.5°	164.7	156.2	149.6	146.6	145.4
60°	165.9	153.8	145.4	140.5	138.7
62.5°	171.3	154.4	143.0	137.5	135.7
65°	170.7	153.2	142.4	136.3	134.5
66°	167.7	151.4	141.1	135.7	134.5
67.5°	162.9	149.0	139.9	135.1	133.3
70°	153.2	144.2	137.5	133.3	131.5
72.5°	145.4	139.3	133.3	128.5	127.3
75°	138.1	132.1	126.7	124.3	122.4
77.5°	127.3	121.8	118.8	116.4	115.2
80°	112.8	109.2	105.6	103.1	101.3
82.5°	98.3	93.5	89.9	88.1	86.9
85°	80.2	77.2	71.8	68.2	67.6
87.5°	53.7	50.7	48.9	45.8	42.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)