

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: P265799

Luminaire Tested: **ARCH-M-AF48-90-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265799
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-1)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-90-D-U-T2U-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 600mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10627.5 lumens
Efficiency: N/A
Efficacy: 115.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

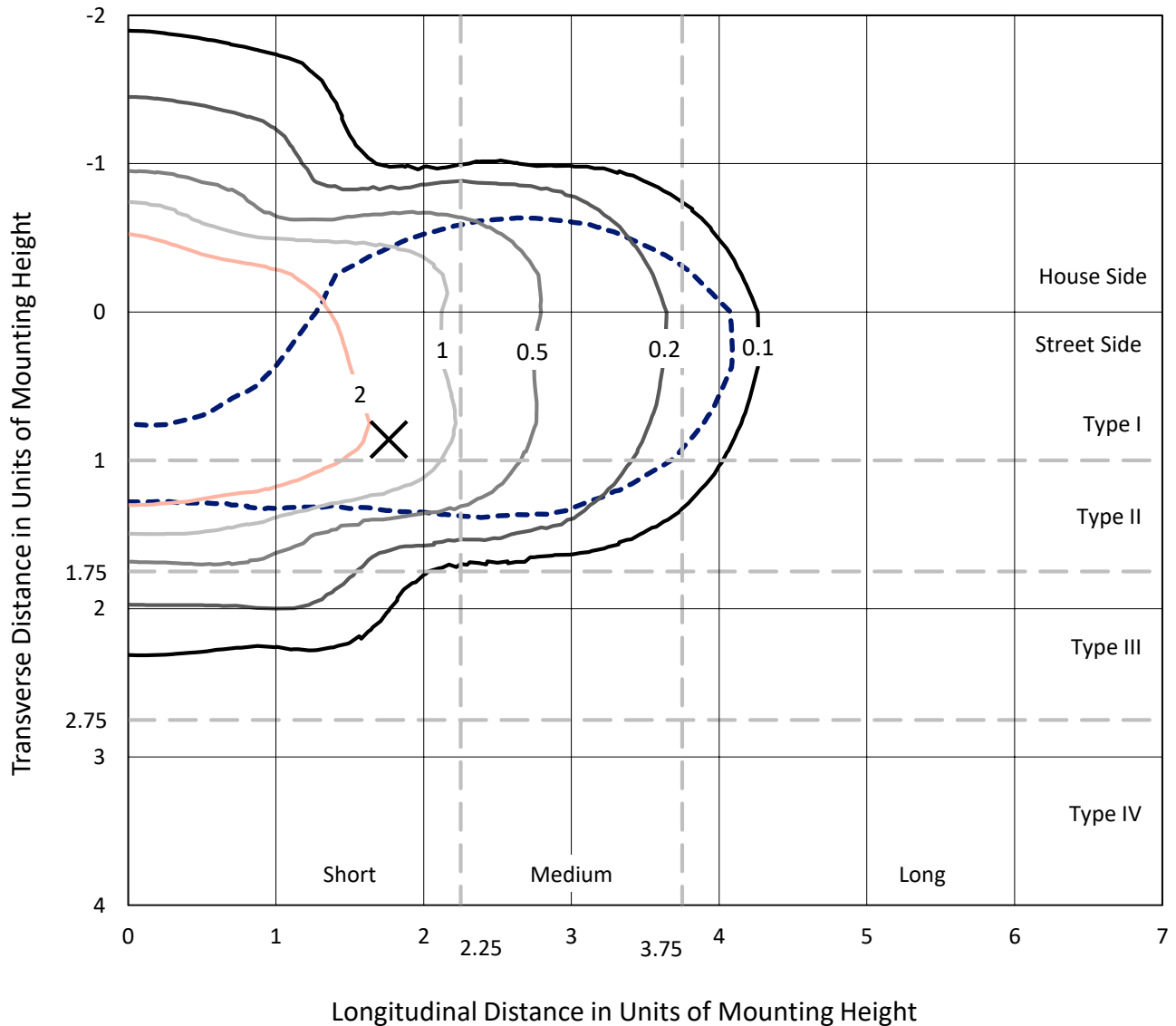
Input Watts (W): 92
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

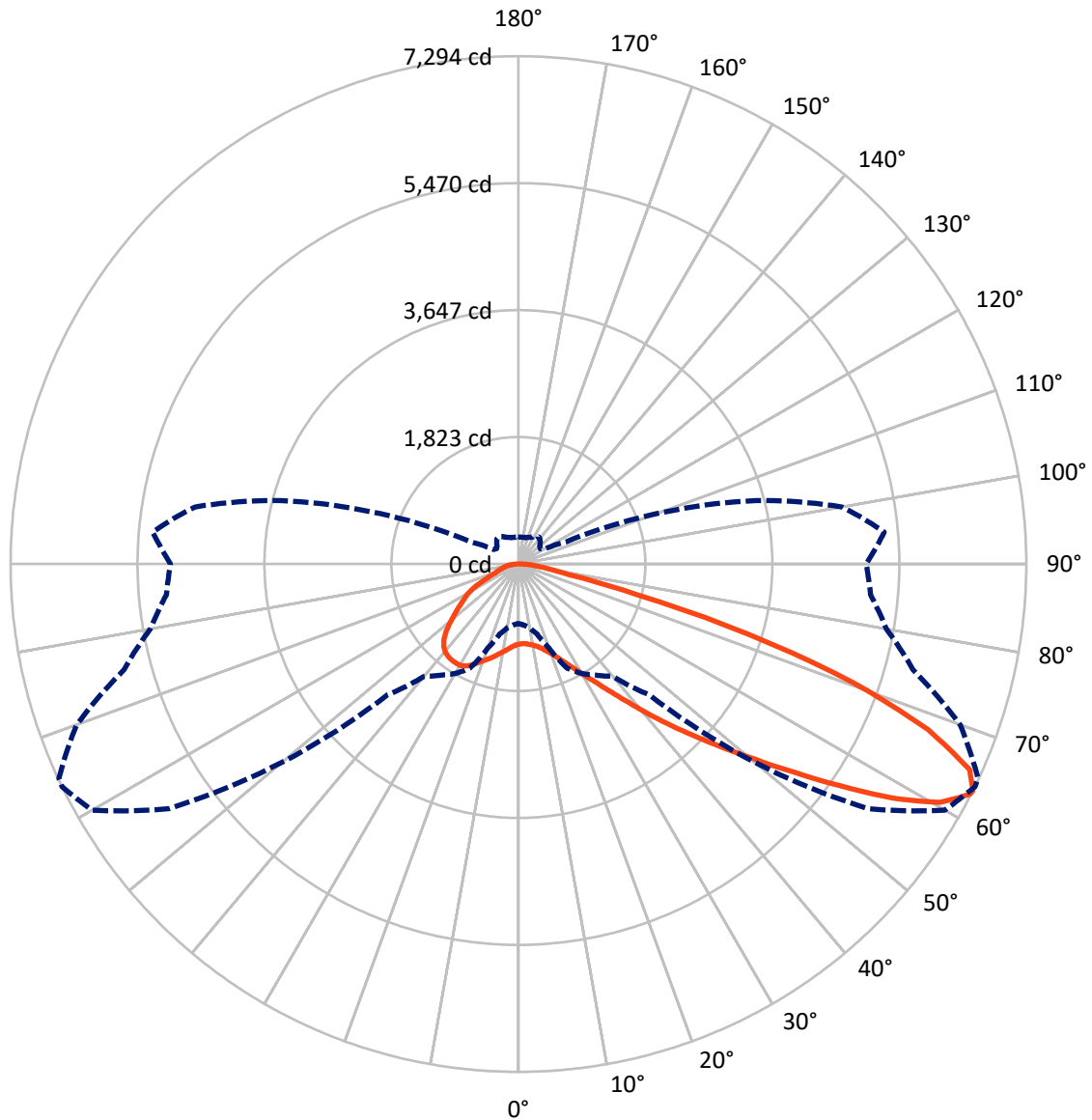
✕ Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3124.1	0.0	3124.1
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	7503.4	0.0	7503.4
	% Fixture	70.6	0.0	70.6
Total	Lumens	10627.5	0.0	10627.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	114.9	1.1
10°-20°	382.8	3.6
20°-30°	718.5	6.8
30°-40°	1204.2	11.3
40°-50°	2020.4	19.0
50°-60°	2561.3	24.1
60°-70°	2259.4	21.3
70°-80°	1166.4	11.0
80°-90°	199.6	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°	10627.5	100.0
0°-180°	10627.5	100.0



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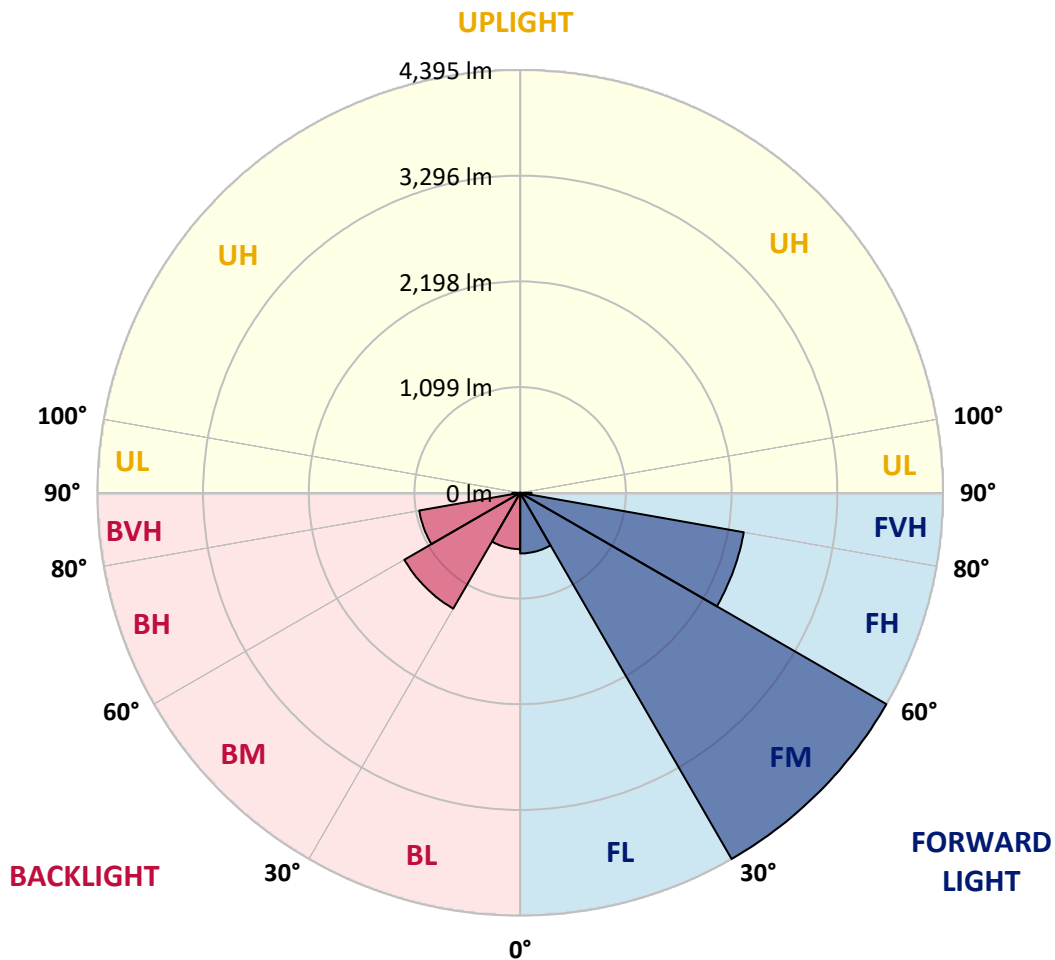
CATALOG NUMBER: ARCH-M-AF48-90-D-U-T2U-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	630.8	5.9			
FM	(30°-60°)	4395.3	41.4			
FH	(60°-80°)	2359.9	22.2			G2/5000
FVH	(80°-90°)	117.5	1.1			G2/225
BL	(0°-30°)	585.4	5.5	B2/1000		
BM	(30°-60°)	1390.7	13.1	B2/2500		
BH	(60°-80°)	1065.9	10.0	B3/2500		G3/2500
BVH	(80°-90°)	82.1	0.8			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°	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0
2.5°	1143.8	1142.0	1142.0	1142.0	1142.0	1140.3	1142.0	1145.6	1143.8	1142.0	1145.6
5°	1147.3	1145.6	1145.6	1145.6	1147.3	1145.6	1147.3	1152.7	1149.2	1149.2	1152.7
7.5°	1156.3	1154.5	1156.3	1154.5	1154.5	1154.5	1156.3	1161.6	1159.8	1161.6	1167.0
10°	1167.0	1167.0	1167.0	1167.0	1167.0	1167.0	1170.5	1174.1	1175.8	1177.7	1184.8
12.5°	1199.0	1199.0	1199.0	1197.3	1197.3	1192.0	1199.0	1202.6	1206.2	1209.7	1215.0
15°	1266.6	1266.6	1264.9	1257.6	1257.6	1246.9	1248.9	1250.6	1250.6	1254.2	1257.6
17.5°	1355.5	1353.7	1350.2	1344.9	1337.8	1325.3	1321.8	1318.2	1312.9	1311.0	1311.0
20°	1480.0	1478.3	1471.2	1457.0	1448.1	1428.5	1414.2	1400.0	1394.7	1385.7	1384.0
22.5°	1657.9	1657.9	1643.7	1622.3	1615.2	1574.3	1533.3	1503.1	1492.5	1480.0	1480.0
25°	1873.1	1871.3	1851.9	1827.0	1796.7	1754.0	1704.2	1663.3	1636.6	1608.1	1597.5
27.5°	2131.0	2125.7	2099.1	2068.8	2011.9	1958.6	1899.8	1857.2	1811.0	1775.3	1743.3
30°	2433.6	2428.2	2381.9	2325.1	2266.3	2213.0	2127.5	2076.1	2003.0	1960.3	1924.8
32.5°	2783.9	2778.6	2695.1	2639.8	2577.6	2511.8	2410.4	2328.5	2236.2	2175.7	2125.7
35°	3230.5	3209.1	3090.0	3013.5	2915.5	2849.9	2743.1	2632.8	2524.2	2438.9	2366.0
37.5°	3712.5	3687.6	3582.7	3468.9	3372.7	3292.7	3141.6	3002.8	2874.8	2757.3	2666.6
40°	4216.0	4150.2	4038.2	3954.5	3888.8	3812.1	3653.9	3508.1	3307.0	3175.4	3038.3
42.5°	4564.6	4500.6	4422.4	4367.2	4335.2	4276.6	4187.5	4061.2	3881.5	3885.1	3524.1
45°	4794.2	4699.8	4646.6	4650.0	4662.6	4662.6	4646.6	4626.9	4548.7	4602.0	4299.6
47.5°	4712.2	4650.0	4616.3	4687.4	4776.4	4865.3	4968.4	5080.5	5208.6	5359.8	4988.1
50°	4232.1	4255.1	4271.1	4422.4	4612.6	4815.5	5052.1	5358.1	5715.6	5785.1	5605.3
52.5°	3465.3	3515.1	3568.4	3799.7	4050.5	4400.9	4815.5	5320.8	5801.1	6083.9	6066.1
55°	2691.5	2753.8	2867.6	3040.1	3239.4	3570.3	4082.5	4861.7	5610.6	6060.8	6334.7
57.5°	1915.8	2006.6	2156.0	2396.1	2572.2	2759.1	3138.0	4002.6	4822.6	5660.5	6290.2
60°	1273.6	1316.3	1414.2	1713.1	2010.1	2205.9	2474.4	2787.5	3458.1	4612.6	5831.3
62.5°	903.7	932.1	992.6	1127.8	1396.4	1750.4	1912.3	2056.4	2271.6	2967.2	4682.1
63°	853.8	878.8	928.6	1042.5	1284.3	1650.8	1816.3	1948.0	2104.5	2654.1	4429.5
65°	708.0	718.6	745.4	800.5	930.4	1234.6	1504.9	1585.0	1611.6	1706.1	2775.1
67.5°	597.7	604.7	613.7	629.7	681.4	821.9	1122.5	1223.9	1193.7	1129.6	1371.5
70°	519.4	524.8	539.1	558.6	576.4	611.9	772.1	923.3	889.4	802.2	839.6
72.5°	414.5	423.5	439.5	473.1	508.8	555.1	594.1	688.5	667.1	583.4	592.4
75°	327.3	332.6	346.8	371.8	405.6	458.9	535.5	567.5	508.8	430.5	430.5
77.5°	259.7	265.1	277.4	297.1	318.4	355.8	409.2	492.8	457.1	323.7	322.0
80°	195.7	201.0	213.4	231.3	252.7	279.4	311.4	348.6	419.8	302.4	242.0
82.5°	144.1	145.9	167.3	179.8	186.8	208.1	234.7	256.1	288.1	279.4	215.2
85°	108.5	106.7	120.9	129.8	131.6	137.0	153.0	174.4	188.6	181.5	167.3
87.5°	60.5	53.4	62.3	71.1	71.1	72.9	76.4	88.9	101.4	97.8	88.9
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0
2.5°	1145.6	1145.6	1143.8	1143.8	1145.6	1145.6	1143.8	1149.2	1152.7	1152.7	1154.5
5°	1151.0	1152.7	1151.0	1151.0	1152.7	1152.7	1154.5	1159.8	1165.2	1168.8	1174.1
7.5°	1167.0	1168.8	1167.0	1167.0	1168.8	1170.5	1174.1	1181.2	1184.8	1192.0	1200.8
10°	1184.8	1186.5	1184.8	1186.5	1188.3	1190.1	1195.5	1200.8	1206.2	1213.3	1227.4
12.5°	1216.8	1218.6	1215.0	1216.8	1222.1	1222.1	1225.6	1229.2	1238.1	1246.9	1261.2
15°	1261.2	1261.2	1257.6	1259.5	1264.9	1264.9	1266.6	1270.2	1280.9	1291.6	1305.7
17.5°	1312.9	1316.3	1314.6	1316.3	1320.0	1321.8	1321.8	1325.3	1332.4	1339.6	1353.7
20°	1382.2	1384.0	1380.4	1384.0	1387.5	1384.0	1380.4	1378.7	1382.2	1385.7	1401.7
22.5°	1476.5	1474.7	1465.9	1465.9	1465.9	1458.7	1449.9	1439.2	1439.2	1433.9	1446.2
25°	1588.6	1583.3	1570.7	1572.6	1560.0	1549.4	1533.3	1517.3	1503.1	1497.8	1499.6
27.5°	1720.3	1709.6	1697.1	1693.6	1681.1	1661.4	1634.8	1604.6	1581.5	1563.7	1560.0
30°	1885.6	1862.5	1841.2	1837.7	1818.0	1786.0	1743.3	1702.4	1663.3	1632.9	1622.3
32.5°	2081.4	2045.7	2011.9	2008.4	1976.5	1933.7	1882.0	1825.1	1768.3	1720.3	1697.1
35°	2310.8	2257.4	2225.5	2216.5	2170.2	2116.9	2060.0	1987.1	1907.0	1839.4	1796.7
37.5°	2590.2	2534.9	2479.9	2481.6	2417.5	2355.3	2278.8	2189.9	2088.4	1994.1	1933.7
40°	2935.2	2856.9	2785.7	2769.7	2714.6	2627.5	2543.8	2440.7	2316.1	2191.7	2104.5
42.5°	3353.3	3225.2	3127.3	3113.0	3040.1	2933.4	2832.0	2695.1	2568.8	2417.5	2312.5
45°	3828.1	3623.7	3506.3	3484.9	3367.4	3259.0	3136.3	2990.4	2835.6	2664.8	2540.2
47.5°	4418.9	4127.1	3927.7	3892.3	3730.3	3588.1	3460.0	3298.0	3113.0	2922.7	2785.7
50°	5107.3	4676.8	4408.2	4352.9	4135.9	3968.7	3805.1	3602.4	3404.8	3205.6	3047.3
52.5°	5797.4	5334.9	4977.4	4909.7	4589.6	4365.5	4150.2	3947.4	3714.3	3517.0	3337.3
55°	6352.5	6044.8	5630.2	5536.0	5077.0	4772.9	4490.0	4258.8	4027.5	3870.8	3659.2
57.5°	6687.0	6671.0	6343.7	6213.8	5585.8	5135.7	4820.8	4557.6	4333.5	4267.6	3986.5
60°	6678.0	7092.5	6952.0	6854.1	6099.9	5507.5	5098.3	4813.7	4628.6	4703.4	4315.6
62.5°	6270.7	7110.3	7279.2	7252.6	6647.7	5806.4	5326.1	5032.6	4934.7	5157.0	4657.2
63°	6122.9	7069.4	7293.5	7282.9	6752.6	5863.2	5365.1	5075.2	4995.1	5272.7	4719.4
65°	5174.9	6711.7	7121.0	7169.1	6978.7	6059.0	5455.9	5183.7	5174.9	5530.7	4867.0
67.5°	3153.9	5671.2	6343.7	6436.0	6660.3	6121.2	5404.4	5146.4	5274.5	5568.0	4822.6
70°	1348.4	3742.8	5098.3	5247.8	5795.7	5811.7	5256.6	4993.4	5251.3	5276.3	4506.0
72.5°	798.8	1764.7	3470.6	3796.1	4585.9	5000.5	4918.7	4726.5	4947.1	4634.0	3837.1
75°	565.8	825.5	1763.0	2109.8	3193.1	3817.5	4132.5	4221.3	4212.4	3675.2	2880.1
77.5°	405.6	530.1	743.5	876.9	1782.4	2451.4	2835.6	3095.3	3011.7	2460.2	1775.3
80°	282.8	366.5	455.4	483.8	827.2	1259.5	1494.3	1608.1	1558.3	1229.2	795.2
82.5°	204.5	240.1	293.6	311.4	416.3	581.7	692.1	610.2	585.2	453.6	343.3
85°	158.3	154.8	183.3	190.4	243.7	304.2	311.4	242.0	211.7	188.6	192.1
87.5°	112.1	96.1	97.8	101.4	126.3	161.9	158.3	99.6	85.3	90.6	103.1
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°	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0	1151.0
2.5°	1158.0	1159.8	1163.5	1165.2	1168.8	1168.8	1172.3	1174.1	1177.7	1181.2	1183.0
5°	1179.5	1184.8	1192.0	1195.5	1202.6	1208.0	1215.0	1218.6	1225.6	1230.9	1238.1
7.5°	1211.5	1220.3	1229.2	1239.9	1250.6	1259.5	1266.6	1275.5	1287.9	1296.9	1302.2
10°	1241.6	1254.2	1270.2	1282.6	1298.6	1311.0	1321.8	1337.8	1351.9	1364.4	1371.5
12.5°	1280.9	1296.9	1312.9	1332.4	1353.7	1369.7	1385.7	1407.1	1426.7	1440.9	1448.1
15°	1327.1	1346.6	1364.4	1387.5	1412.5	1433.9	1457.0	1480.0	1494.3	1494.3	1490.6
17.5°	1375.0	1391.1	1412.5	1439.2	1473.0	1499.6	1512.0	1515.6	1510.3	1497.8	1488.9
20°	1423.2	1437.4	1460.5	1492.5	1528.0	1533.3	1521.0	1504.9	1488.9	1467.7	1453.4
22.5°	1462.4	1481.8	1517.3	1554.7	1556.6	1526.3	1492.5	1465.9	1440.9	1416.0	1389.3
25°	1508.6	1535.3	1583.3	1597.5	1551.3	1494.3	1446.2	1407.1	1366.2	1325.3	1295.0
27.5°	1565.4	1604.6	1652.6	1611.6	1521.0	1440.9	1375.0	1316.3	1263.0	1206.2	1172.3
30°	1625.9	1686.4	1697.1	1590.3	1469.4	1366.2	1277.3	1188.3	1120.7	1069.2	1049.6
32.5°	1698.9	1777.1	1713.1	1553.0	1400.0	1264.9	1145.6	1038.9	981.9	950.0	941.1
35°	1809.1	1873.1	1722.1	1513.9	1320.0	1143.8	994.5	909.1	873.4	852.1	841.4
37.5°	1967.5	1965.8	1720.3	1465.9	1227.4	1012.2	873.4	813.0	784.5	766.8	747.1
40°	2152.5	2036.8	1709.6	1396.4	1102.8	885.9	789.8	732.8	706.2	684.9	661.7
42.5°	2335.8	2084.8	1679.3	1293.3	948.2	795.2	729.3	677.9	649.4	626.2	594.1
45°	2494.1	2104.5	1620.6	1151.0	809.5	724.0	690.2	645.7	611.9	576.4	551.5
47.5°	2618.6	2100.9	1526.3	983.7	716.8	674.2	658.2	627.9	587.0	542.5	510.5
50°	2723.5	2074.1	1398.2	836.1	654.7	629.7	624.4	615.5	549.8	512.4	492.8
52.5°	2819.6	2035.1	1261.2	736.5	601.2	579.9	590.5	581.7	535.5	503.4	483.8
55°	2951.2	2008.4	1126.0	660.0	539.1	533.7	542.5	555.1	526.5	496.4	474.9
57.5°	3106.0	2022.7	1022.9	574.6	480.4	483.8	514.1	531.8	517.7	485.7	464.3
60°	3283.8	2065.4	932.1	492.8	432.3	441.2	485.7	510.5	508.8	471.4	446.5
62.5°	3483.1	2109.8	788.1	430.5	391.3	405.6	451.8	483.8	489.1	457.1	427.0
63°	3522.3	2113.4	750.8	418.0	384.2	400.3	443.0	476.7	483.8	453.6	423.5
65°	3618.4	2081.4	604.7	384.2	355.8	373.5	416.3	446.5	460.7	434.1	409.2
67.5°	3538.2	1819.8	455.4	343.3	332.6	345.0	382.5	411.0	423.5	411.0	386.0
70°	3235.9	1323.6	355.8	306.0	307.8	316.7	345.0	371.8	386.0	382.5	359.3
72.5°	2606.2	750.8	297.1	274.0	279.4	290.0	309.6	334.3	346.8	345.0	329.0
75°	1716.7	384.2	250.8	245.4	249.0	258.0	272.1	291.7	306.0	304.2	297.1
77.5°	850.3	266.8	215.2	217.0	218.7	226.0	236.7	254.4	263.3	265.1	263.3
80°	350.5	208.1	185.1	186.8	188.6	193.9	201.0	217.0	222.4	226.0	227.7
82.5°	209.9	158.3	147.6	151.3	153.0	158.3	163.6	177.9	183.3	188.6	188.6
85°	138.8	110.3	106.7	110.3	113.8	117.4	119.1	128.1	137.0	144.1	147.6
87.5°	74.6	65.8	64.0	65.8	65.8	69.3	72.9	81.8	92.4	99.6	103.1
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°	1151.0	1151.0	1151.0	1151.0	1151.0
2.5°	1179.5	1181.2	1179.5	1181.2	1183.0
5°	1238.1	1241.6	1239.9	1239.9	1246.9
7.5°	1305.7	1312.9	1312.9	1316.3	1320.0
10°	1378.7	1385.7	1391.1	1391.1	1396.4
12.5°	1451.7	1455.2	1460.5	1460.5	1460.5
15°	1488.9	1487.1	1485.3	1483.6	1483.6
17.5°	1483.6	1476.5	1473.0	1469.4	1471.2
20°	1444.5	1432.0	1428.5	1423.2	1426.7
22.5°	1376.9	1359.0	1351.9	1343.1	1346.6
25°	1275.5	1254.2	1250.6	1239.9	1245.2
27.5°	1158.0	1147.3	1145.6	1143.8	1152.7
30°	1047.8	1051.3	1053.2	1056.6	1065.6
32.5°	946.4	953.6	955.3	957.1	969.5
35°	846.7	837.8	846.7	843.1	853.8
37.5°	738.2	731.1	724.0	715.1	722.2
40°	647.5	635.1	613.7	603.0	604.7
42.5°	576.4	560.4	542.5	531.8	531.8
45°	530.1	510.5	494.5	487.4	487.4
47.5°	494.5	485.7	476.7	471.4	471.4
50°	480.4	469.6	464.3	460.7	460.7
52.5°	469.6	458.9	453.6	450.1	446.5
55°	460.7	444.8	439.5	437.7	437.7
57.5°	448.3	434.1	427.0	425.2	425.2
60°	428.8	418.0	411.0	409.2	409.2
62.5°	409.2	398.5	391.3	391.3	391.3
63°	405.6	393.2	387.8	387.8	387.8
65°	389.5	377.1	371.8	371.8	370.0
67.5°	368.2	355.8	352.2	352.2	348.6
70°	343.3	332.6	329.0	330.8	323.7
72.5°	318.4	307.8	302.4	302.4	295.4
75°	290.0	279.4	272.1	270.4	263.3
77.5°	258.0	249.0	242.0	234.7	231.3
80°	224.1	217.0	208.1	202.7	197.4
82.5°	188.6	181.5	176.1	183.3	156.6
85°	147.6	140.6	133.4	144.1	112.1
87.5°	108.5	104.9	97.8	85.3	74.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)