

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: P258168

Luminaire Tested: **ARCH-M-AF48-80-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258168
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-AF48-80-D-U-T2U-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 535mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10692.1 lumens
Efficiency: N/A
Efficacy: 128.8 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

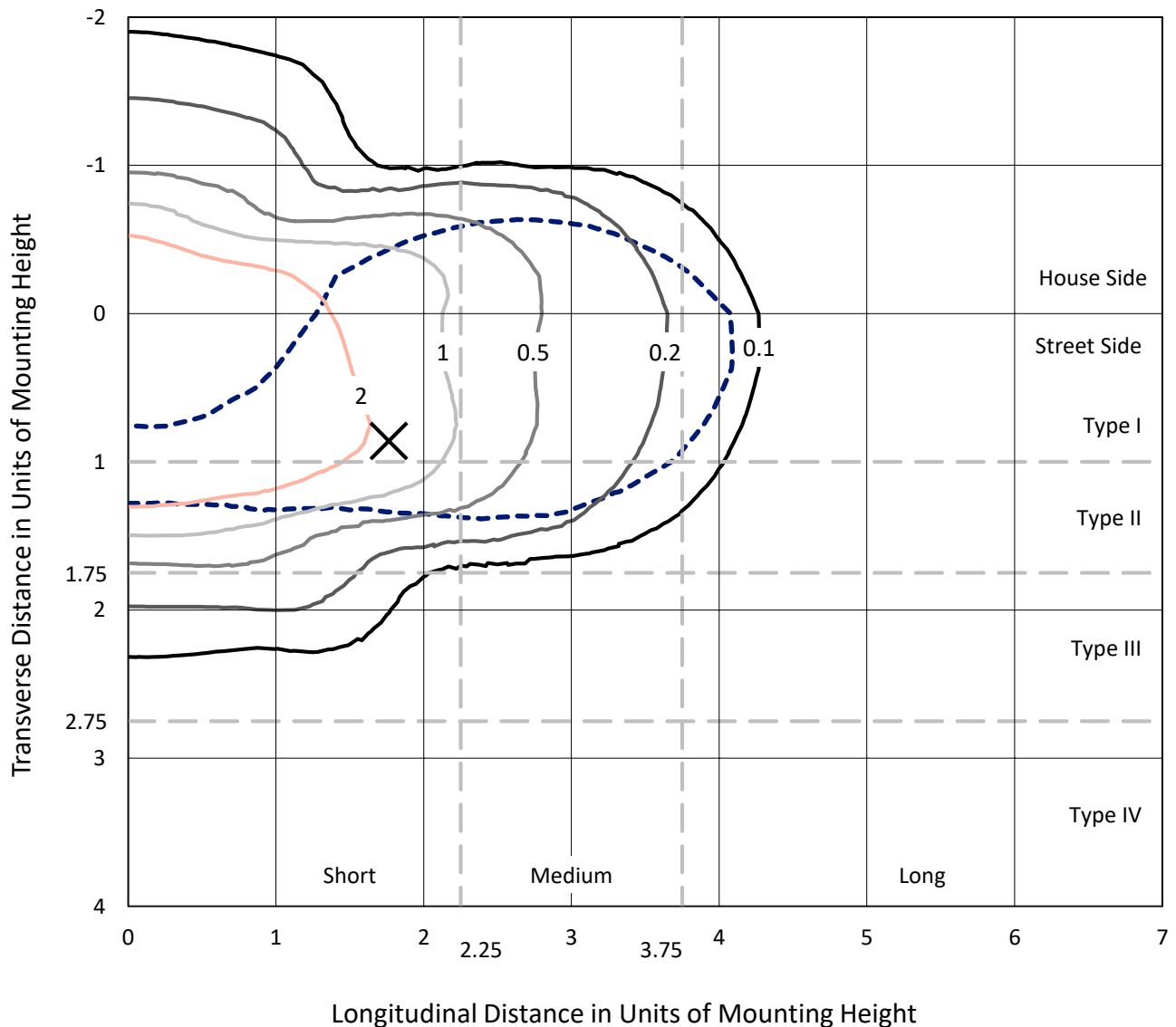
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

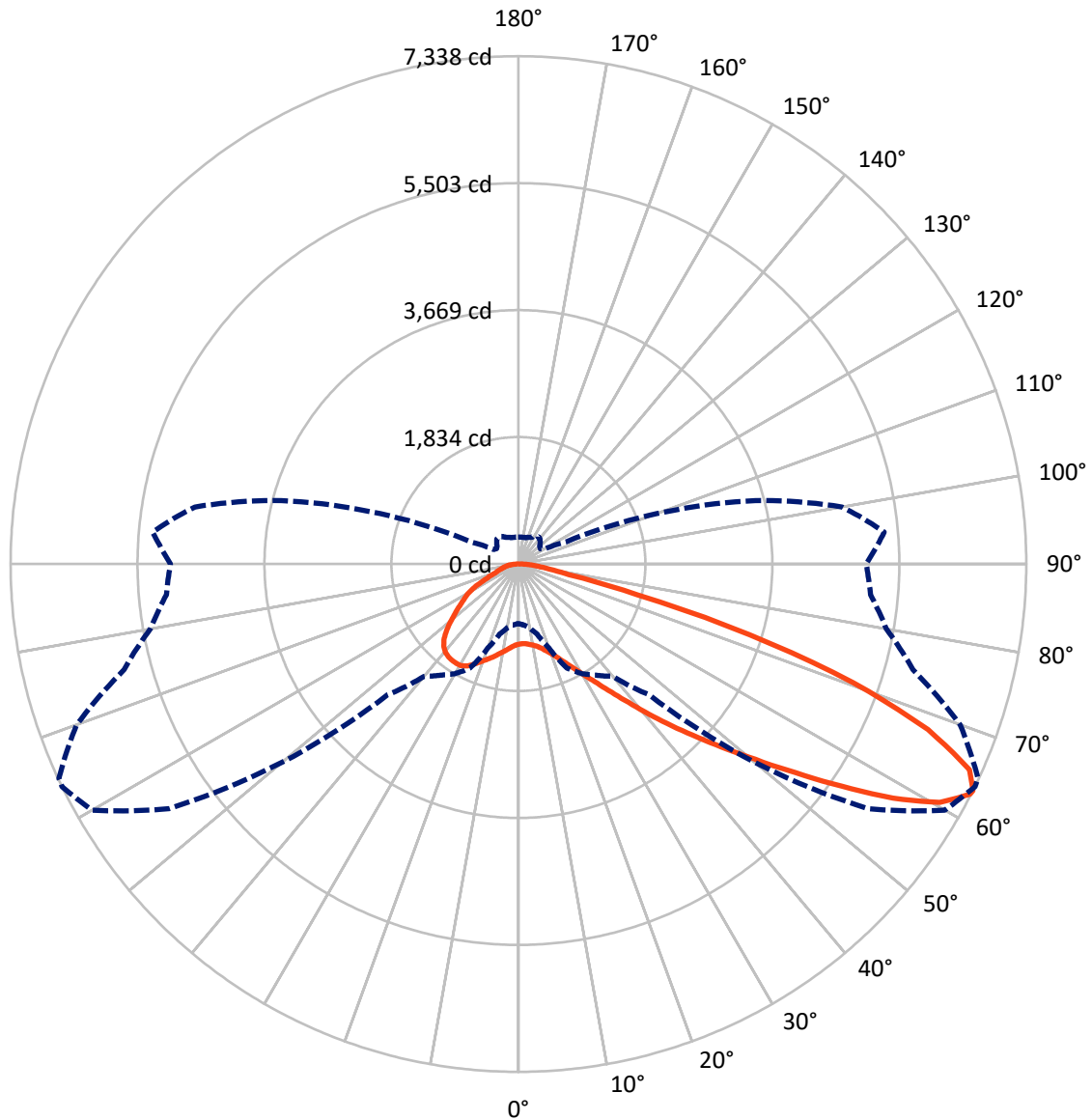


Based on 20 foot mounting height. Maximum calculated value = 4.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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

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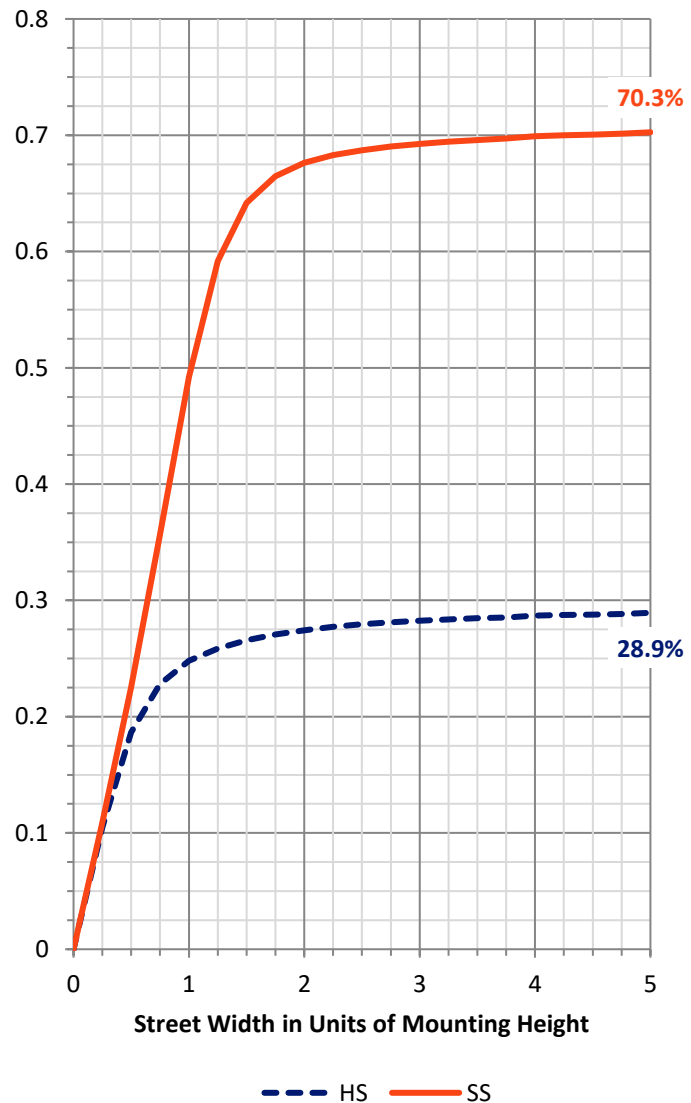
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3143.1	0.0	3143.1
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	7549.0	0.0	7549.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	10692.1	0.0	10692.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	115.6	1.1
10°-20°	385.1	3.6
20°-30°	722.8	6.8
30°-40°	1211.6	11.3
40°-50°	2032.7	19.0
50°-60°	2576.9	24.1
60°-70°	2273.2	21.3
70°-80°	1173.5	11.0
80°-90°	200.8	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°	10692.1	100.0
0°-180°	10692.1	100.0



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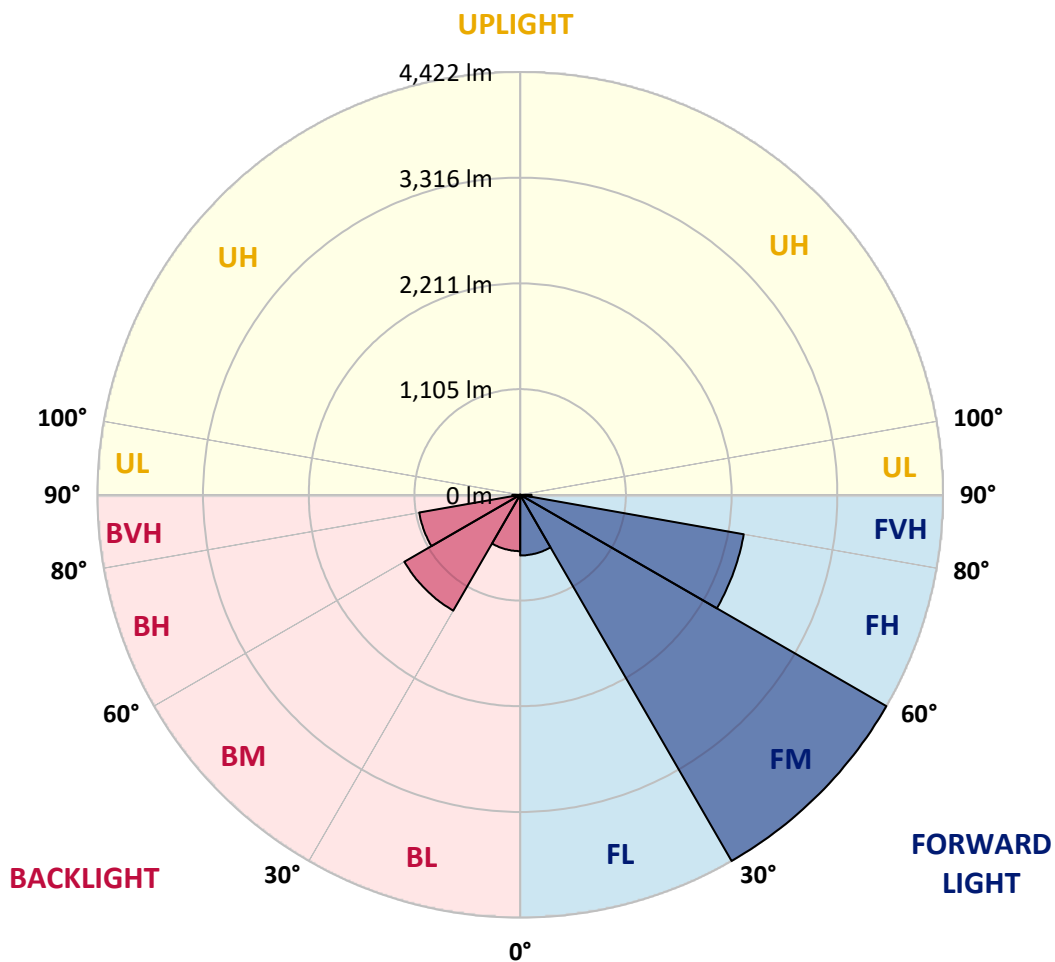
CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	634.6	5.9			
FM	(30°-60°)	4422.0	41.4			
FH	(60°-80°)	2374.3	22.2			G2/5000
FVH	(80°-90°)	118.2	1.1			G2/225
BL	(0°-30°)	588.9	5.5	B2/1000		
BM	(30°-60°)	1399.2	13.1	B2/2500		
BH	(60°-80°)	1072.4	10.0	B3/2500		G3/2500
BVH	(80°-90°)	82.6	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°	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9
2.5°	1150.8	1149.0	1149.0	1149.0	1149.0	1147.2	1149.0	1152.5	1150.8	1149.0	1152.5
5°	1154.4	1152.5	1152.5	1152.5	1154.4	1152.5	1154.4	1159.8	1156.2	1156.2	1159.8
7.5°	1163.3	1161.5	1163.3	1161.5	1161.5	1161.5	1163.3	1168.6	1166.9	1168.6	1174.1
10°	1174.1	1174.1	1174.1	1174.1	1174.1	1174.1	1177.6	1181.2	1183.1	1184.8	1191.9
12.5°	1206.2	1206.2	1206.2	1204.5	1204.5	1199.1	1206.2	1209.8	1213.5	1217.0	1222.4
15°	1274.3	1274.3	1272.6	1265.3	1265.3	1254.7	1256.4	1258.2	1258.2	1261.7	1265.3
17.5°	1363.8	1362.0	1358.4	1353.0	1345.8	1333.3	1329.8	1326.2	1320.8	1319.0	1319.0
20°	1489.1	1487.2	1480.1	1465.8	1456.9	1437.2	1422.9	1408.5	1403.1	1394.1	1392.4
22.5°	1668.1	1668.1	1653.7	1632.3	1625.1	1583.9	1542.7	1512.3	1501.5	1489.1	1489.1
25°	1884.6	1882.7	1863.1	1838.1	1807.5	1764.6	1714.6	1673.5	1646.5	1617.9	1607.2
27.5°	2144.1	2138.8	2111.9	2081.5	2024.1	1970.5	1911.4	1868.5	1821.9	1786.2	1753.9
30°	2448.4	2442.9	2396.5	2339.1	2280.1	2226.3	2140.5	2088.6	2015.2	1972.2	1936.5
32.5°	2801.0	2795.5	2711.4	2656.0	2593.3	2527.0	2425.1	2342.7	2249.6	2188.8	2138.8
35°	3250.1	3228.6	3108.8	3031.8	2933.4	2867.2	2759.8	2648.8	2539.6	2453.8	2380.3
37.5°	3735.1	3710.1	3604.5	3490.0	3393.3	3312.7	3160.7	3021.0	2892.2	2774.1	2682.8
40°	4241.7	4175.5	4062.7	3978.5	3912.3	3835.3	3676.1	3529.3	3327.1	3194.6	3056.8
42.5°	4592.3	4528.0	4449.2	4393.8	4361.5	4302.5	4213.0	4086.0	3905.2	3908.7	3545.5
45°	4823.4	4728.4	4674.7	4678.4	4690.8	4690.8	4674.7	4655.1	4576.4	4630.0	4325.8
47.5°	4741.0	4678.4	4644.3	4715.9	4805.4	4895.0	4998.7	5111.4	5240.3	5392.5	5018.4
50°	4257.8	4281.0	4297.1	4449.2	4640.8	4844.8	5082.8	5390.7	5750.5	5820.1	5639.4
52.5°	3486.4	3536.5	3590.2	3822.9	4075.2	4427.7	4844.8	5353.0	5836.3	6120.8	6103.0
55°	2707.9	2770.5	2885.0	3058.6	3259.1	3592.0	4107.4	4891.3	5644.8	6097.5	6373.2
57.5°	1927.6	2018.8	2169.2	2410.8	2588.0	2775.8	3157.0	4026.9	4851.9	5694.9	6328.6
60°	1281.4	1324.4	1422.9	1723.4	2022.4	2219.3	2489.5	2804.4	3479.3	4640.8	5866.6
62.5°	909.1	937.8	998.6	1134.6	1405.0	1761.0	1923.9	2069.0	2285.4	2985.3	4710.6
63°	859.1	884.1	934.2	1048.8	1292.2	1660.8	1827.4	1959.8	2117.2	2670.3	4456.3
65°	712.3	723.1	749.8	805.4	936.1	1242.1	1514.2	1594.6	1621.5	1716.4	2792.0
67.5°	601.4	608.5	617.5	633.6	685.5	826.9	1129.3	1231.4	1200.9	1136.6	1379.8
70°	522.6	527.9	542.3	561.9	579.8	615.6	776.8	928.8	894.9	807.2	844.8
72.5°	417.1	426.0	442.1	476.1	511.9	558.5	597.7	692.6	671.2	587.0	596.0
75°	329.3	334.7	349.0	374.1	408.1	461.7	538.7	570.9	511.9	433.1	433.1
77.5°	261.3	266.7	279.1	299.0	320.3	358.0	411.7	495.7	460.0	325.7	324.0
80°	196.8	202.2	214.8	232.6	254.1	281.1	313.2	350.8	422.4	304.3	243.4
82.5°	145.0	146.7	168.3	180.8	187.9	209.4	236.2	257.8	290.0	281.1	216.6
85°	109.2	107.4	121.8	130.7	132.4	137.7	153.9	175.4	189.7	182.6	168.3
87.5°	60.8	53.6	62.6	71.6	71.6	73.4	76.9	89.5	102.0	98.5	89.5
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°	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9
2.5°	1152.5	1152.5	1150.8	1150.8	1152.5	1152.5	1150.8	1156.2	1159.8	1159.8	1161.5
5°	1157.9	1159.8	1157.9	1157.9	1159.8	1159.8	1161.5	1166.9	1172.3	1175.8	1181.2
7.5°	1174.1	1175.8	1174.1	1174.1	1175.8	1177.6	1181.2	1188.4	1191.9	1199.1	1208.1
10°	1191.9	1193.7	1191.9	1193.7	1195.6	1197.4	1202.7	1208.1	1213.5	1220.7	1234.9
12.5°	1224.1	1226.0	1222.4	1224.1	1229.5	1229.5	1233.1	1236.7	1245.7	1254.7	1268.9
15°	1268.9	1268.9	1265.3	1267.1	1272.6	1272.6	1274.3	1277.9	1288.6	1299.3	1313.7
17.5°	1320.8	1324.4	1322.6	1324.4	1327.9	1329.8	1329.8	1333.3	1340.5	1347.7	1362.0
20°	1390.7	1392.4	1388.8	1392.4	1396.0	1392.4	1388.8	1387.0	1390.7	1394.1	1410.3
22.5°	1485.5	1483.6	1474.8	1474.8	1474.8	1467.6	1458.6	1447.9	1447.9	1442.5	1455.0
25°	1598.3	1592.9	1580.3	1582.1	1569.6	1558.8	1542.7	1526.7	1512.3	1506.9	1508.8
27.5°	1730.6	1720.0	1707.4	1703.8	1691.4	1671.5	1644.8	1614.3	1591.1	1573.2	1569.6
30°	1897.1	1873.8	1852.4	1848.7	1829.1	1796.9	1753.9	1712.7	1673.5	1642.9	1632.3
32.5°	2094.0	2058.2	2024.1	2020.6	1988.4	1945.5	1893.6	1836.2	1779.0	1730.6	1707.4
35°	2324.8	2271.2	2238.9	2230.0	2183.4	2129.8	2072.5	1999.1	1918.6	1850.6	1807.5
37.5°	2605.9	2550.3	2494.8	2496.7	2432.2	2369.7	2292.6	2203.1	2101.2	2006.3	1945.5
40°	2953.1	2874.3	2802.7	2786.5	2731.2	2643.4	2559.3	2455.5	2330.2	2205.0	2117.2
42.5°	3373.6	3244.8	3146.3	3132.0	3058.6	2951.2	2849.3	2711.4	2584.3	2432.2	2326.6
45°	3851.5	3645.7	3527.6	3506.0	3387.9	3278.8	3155.3	3008.6	2852.9	2681.0	2555.7
47.5°	4445.6	4152.2	3951.7	3916.0	3753.0	3609.9	3481.0	3318.1	3132.0	2940.5	2802.7
50°	5138.3	4705.1	4435.0	4379.4	4161.1	3992.9	3828.2	3624.2	3425.5	3225.2	3065.9
52.5°	5832.7	5367.4	5007.7	4939.6	4617.6	4392.0	4175.5	3971.3	3737.0	3538.3	3357.5
55°	6391.1	6081.5	5664.4	5569.6	5107.9	4801.8	4517.3	4284.6	4051.9	3894.4	3681.5
57.5°	6727.5	6711.5	6382.2	6251.5	5619.8	5167.0	4850.1	4585.3	4359.8	4293.6	4010.8
60°	6718.6	7135.6	6994.2	6895.8	6137.0	5541.0	5129.4	4843.0	4656.8	4732.0	4341.9
62.5°	6308.7	7153.5	7323.5	7296.7	6688.2	5841.6	5358.4	5063.1	4964.7	5188.4	4685.5
63°	6160.2	7112.3	7337.9	7327.2	6793.7	5898.9	5397.9	5106.1	5025.6	5304.7	4748.2
65°	5206.3	6752.7	7164.2	7212.5	7021.1	6095.8	5489.0	5215.3	5206.3	5564.2	4896.7
67.5°	3173.2	5705.6	6382.2	6475.2	6700.8	6158.4	5437.2	5177.7	5306.5	5601.8	4851.9
70°	1356.6	3765.6	5129.4	5279.7	5830.9	5847.0	5288.5	5023.7	5283.2	5308.4	4533.3
72.5°	803.6	1775.4	3491.7	3819.2	4613.9	5031.0	4948.6	4755.3	4977.2	4662.2	3860.4
75°	569.1	830.5	1773.6	2122.6	3212.5	3840.8	4157.6	4247.0	4238.0	3697.6	2897.5
77.5°	408.1	533.3	748.1	882.4	1793.3	2466.2	2852.9	3114.1	3030.0	2475.2	1786.2
80°	284.6	368.6	458.2	486.9	832.2	1267.1	1503.4	1617.9	1567.8	1236.7	800.0
82.5°	205.9	241.6	295.3	313.2	418.8	585.2	696.2	613.9	588.8	456.3	345.4
85°	159.3	155.7	184.3	191.5	245.2	306.0	313.2	243.4	212.9	189.7	193.3
87.5°	112.7	96.7	98.5	102.0	127.1	162.9	159.3	100.2	85.9	91.2	103.8
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9	1157.9
2.5°	1165.1	1166.9	1170.5	1172.3	1175.8	1175.8	1179.5	1181.2	1184.8	1188.4	1190.2
5°	1186.5	1191.9	1199.1	1202.7	1209.8	1215.2	1222.4	1226.0	1233.1	1238.5	1245.7
7.5°	1218.8	1227.7	1236.7	1247.4	1258.2	1267.1	1274.3	1283.2	1295.7	1304.7	1310.1
10°	1249.3	1261.7	1277.9	1290.4	1306.5	1319.0	1329.8	1345.8	1360.2	1372.8	1379.8
12.5°	1288.6	1304.7	1320.8	1340.5	1362.0	1378.1	1394.1	1415.7	1435.3	1449.7	1456.9
15°	1335.1	1354.9	1372.8	1396.0	1421.0	1442.5	1465.8	1489.1	1503.4	1503.4	1499.8
17.5°	1383.4	1399.6	1421.0	1447.9	1481.9	1508.8	1521.2	1524.8	1519.5	1506.9	1498.0
20°	1431.8	1446.0	1469.3	1501.5	1537.4	1542.7	1530.1	1514.2	1498.0	1476.5	1462.2
22.5°	1471.1	1490.9	1526.7	1564.3	1566.0	1535.5	1501.5	1474.8	1449.7	1424.6	1397.8
25°	1517.7	1544.5	1592.9	1607.2	1560.7	1503.4	1455.0	1415.7	1374.5	1333.3	1302.9
27.5°	1575.0	1614.3	1662.7	1621.5	1530.1	1449.7	1383.4	1324.4	1270.6	1213.5	1179.5
30°	1635.8	1696.7	1707.4	1600.0	1478.3	1374.5	1285.0	1195.6	1127.5	1075.6	1056.0
32.5°	1709.2	1787.9	1723.4	1562.4	1408.5	1272.6	1152.5	1045.2	987.9	955.7	946.7
35°	1820.2	1884.6	1732.5	1523.1	1327.9	1150.8	1000.5	914.5	878.8	857.2	846.5
37.5°	1979.4	1977.6	1730.6	1474.8	1234.9	1018.4	878.8	818.0	789.3	771.4	751.7
40°	2165.5	2049.2	1720.0	1405.0	1109.6	891.2	794.7	737.4	710.5	689.1	665.8
42.5°	2349.9	2097.6	1689.4	1301.2	954.0	800.0	733.7	681.9	653.3	630.0	597.7
45°	2509.1	2117.2	1630.4	1157.9	814.3	728.4	694.5	649.6	615.6	579.8	554.8
47.5°	2634.5	2113.6	1535.5	989.7	721.2	678.3	662.2	631.7	590.6	545.9	513.6
50°	2740.1	2086.9	1406.7	841.2	658.7	633.6	628.2	619.3	553.1	515.4	495.7
52.5°	2836.7	2047.4	1268.9	741.0	605.0	583.5	594.2	585.2	538.7	506.5	486.9
55°	2969.1	2020.6	1132.9	664.0	542.3	536.9	545.9	558.5	529.8	499.4	477.9
57.5°	3124.9	2035.0	1029.1	578.1	483.3	486.9	517.3	535.2	520.8	488.6	467.1
60°	3303.8	2077.9	937.8	495.7	434.9	443.8	488.6	513.6	511.9	474.3	449.3
62.5°	3504.3	2122.6	792.9	433.1	393.8	408.1	454.6	486.9	492.2	460.0	429.5
63°	3543.6	2126.1	755.3	420.5	386.6	402.7	445.7	479.6	486.9	456.3	426.0
65°	3640.3	2094.0	608.5	386.6	358.0	375.9	418.8	449.3	463.6	436.7	411.7
67.5°	3559.7	1830.8	458.2	345.4	334.7	347.2	384.8	413.4	426.0	413.4	388.4
70°	3255.5	1331.6	358.0	307.8	309.6	318.6	347.2	374.1	388.4	384.8	361.5
72.5°	2621.9	755.3	299.0	275.7	281.1	291.7	311.4	336.5	349.0	347.2	331.0
75°	1727.1	386.6	252.4	247.0	250.5	259.5	273.8	293.5	307.8	306.0	299.0
77.5°	855.5	268.4	216.6	218.3	220.1	227.3	238.0	255.8	264.9	266.7	264.9
80°	352.6	209.4	186.2	187.9	189.7	195.0	202.2	218.3	223.8	227.3	229.1
82.5°	211.2	159.3	148.6	152.1	153.9	159.3	164.7	178.9	184.3	189.7	189.7
85°	139.7	111.0	107.4	111.0	114.5	118.1	119.8	128.8	137.7	145.0	148.6
87.5°	75.2	66.2	64.5	66.2	66.2	69.8	73.4	82.4	93.1	100.2	103.8
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°	1157.9	1157.9	1157.9	1157.9	1157.9
2.5°	1186.5	1188.4	1186.5	1188.4	1190.2
5°	1245.7	1249.3	1247.4	1247.4	1254.7
7.5°	1313.7	1320.8	1320.8	1324.4	1327.9
10°	1387.0	1394.1	1399.6	1399.6	1405.0
12.5°	1460.5	1464.0	1469.3	1469.3	1469.3
15°	1498.0	1496.2	1494.4	1492.6	1492.6
17.5°	1492.6	1485.5	1481.9	1478.3	1480.1
20°	1453.2	1440.7	1437.2	1431.8	1435.3
22.5°	1385.3	1367.4	1360.2	1351.2	1354.9
25°	1283.2	1261.7	1258.2	1247.4	1252.7
27.5°	1165.1	1154.4	1152.5	1150.8	1159.8
30°	1054.2	1057.7	1059.5	1063.1	1072.1
32.5°	952.0	959.3	961.1	962.9	975.3
35°	851.9	842.9	851.9	848.3	859.1
37.5°	742.8	735.6	728.4	719.5	726.6
40°	651.5	638.9	617.5	606.7	608.5
42.5°	579.8	563.8	545.9	535.2	535.2
45°	533.3	513.6	497.5	490.3	490.3
47.5°	497.5	488.6	479.6	474.3	474.3
50°	483.3	472.4	467.1	463.6	463.6
52.5°	472.4	461.7	456.3	452.8	449.3
55°	463.6	447.4	442.1	440.4	440.4
57.5°	451.0	436.7	429.5	427.7	427.7
60°	431.3	420.5	413.4	411.7	411.7
62.5°	411.7	400.9	393.8	393.8	393.8
63°	408.1	395.5	390.2	390.2	390.2
65°	391.9	379.4	374.1	374.1	372.2
67.5°	370.5	358.0	354.3	354.3	350.8
70°	345.4	334.7	331.0	332.9	325.7
72.5°	320.3	309.6	304.3	304.3	297.0
75°	291.7	281.1	273.8	272.0	264.9
77.5°	259.5	250.5	243.4	236.2	232.6
80°	225.5	218.3	209.4	204.0	198.7
82.5°	189.7	182.6	177.2	184.3	157.5
85°	148.6	141.4	134.3	145.0	112.7
87.5°	109.2	105.6	98.5	85.9	75.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)