

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: P265808

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265808
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-AF48-100-D-U-T2U-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11501 lumens
Efficiency: N/A
Efficacy: 113.9 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): 101
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

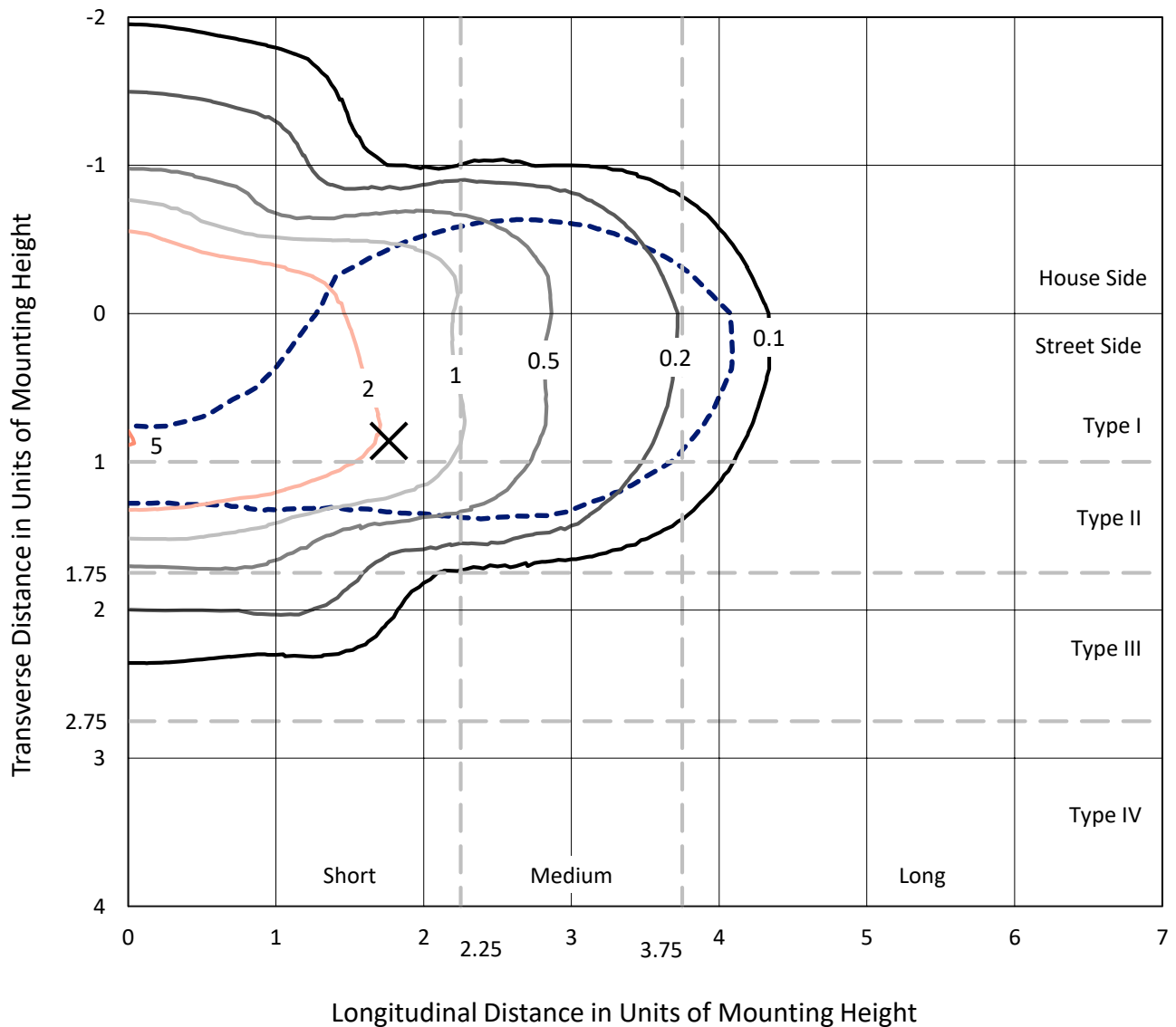


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

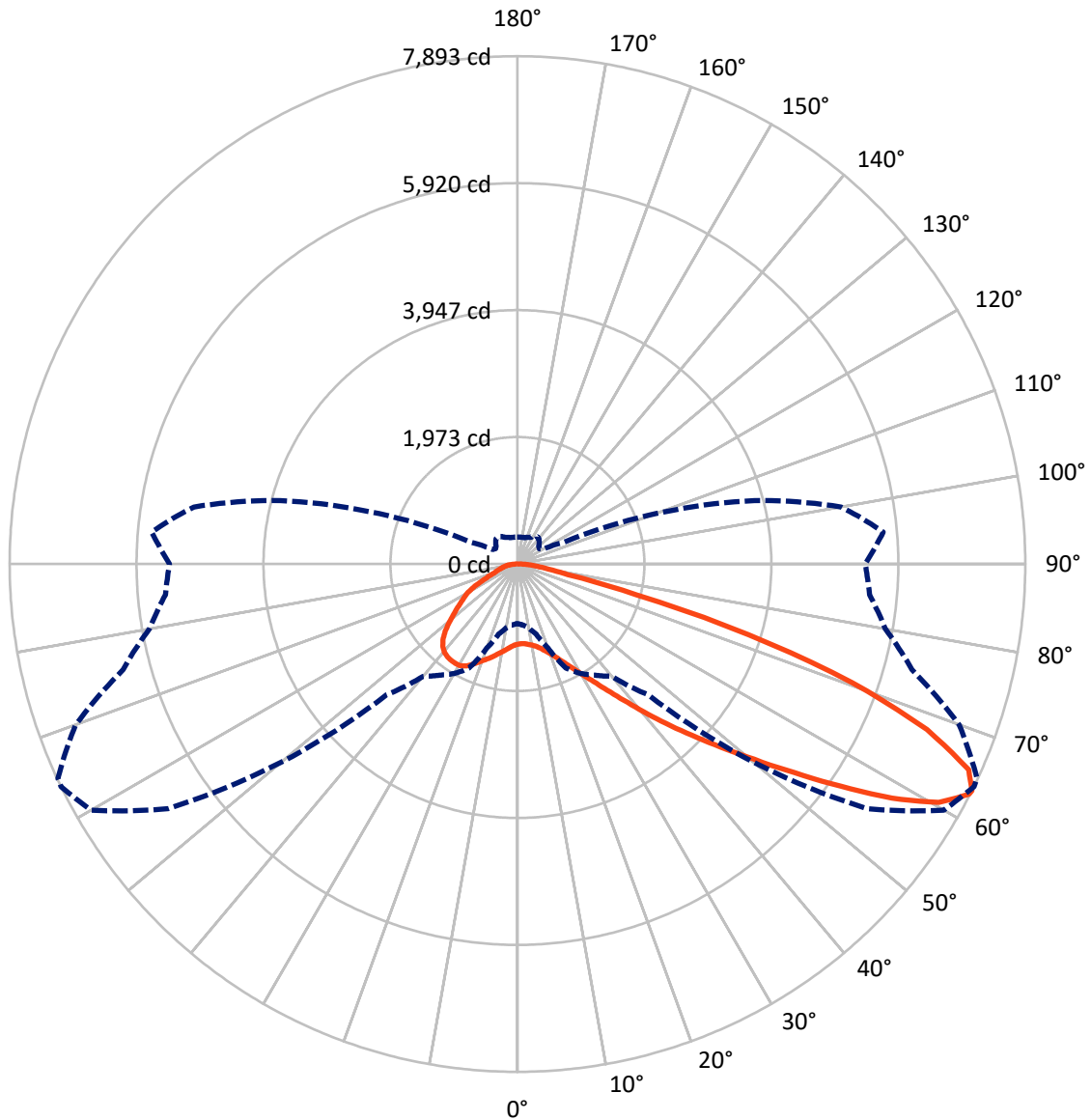


Based on 20 foot mounting height. Maximum calculated value = 5.1 fc
 Type II - Short - Semi-Cutoff

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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	3380.9	0.0	3380.9
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	8120.1	0.0	8120.1
	% Fixture	70.6	0.0	70.6
Total	Lumens	11501.0	0.0	11501.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	124.4	1.1
10°-20°	414.2	3.6
20°-30°	777.5	6.8
30°-40°	1303.2	11.3
40°-50°	2186.5	19.0
50°-60°	2771.8	24.1
60°-70°	2445.2	21.3
70°-80°	1262.2	11.0
80°-90°	216.0	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°	11501.0	100.0
0°-180°	11501.0	100.0



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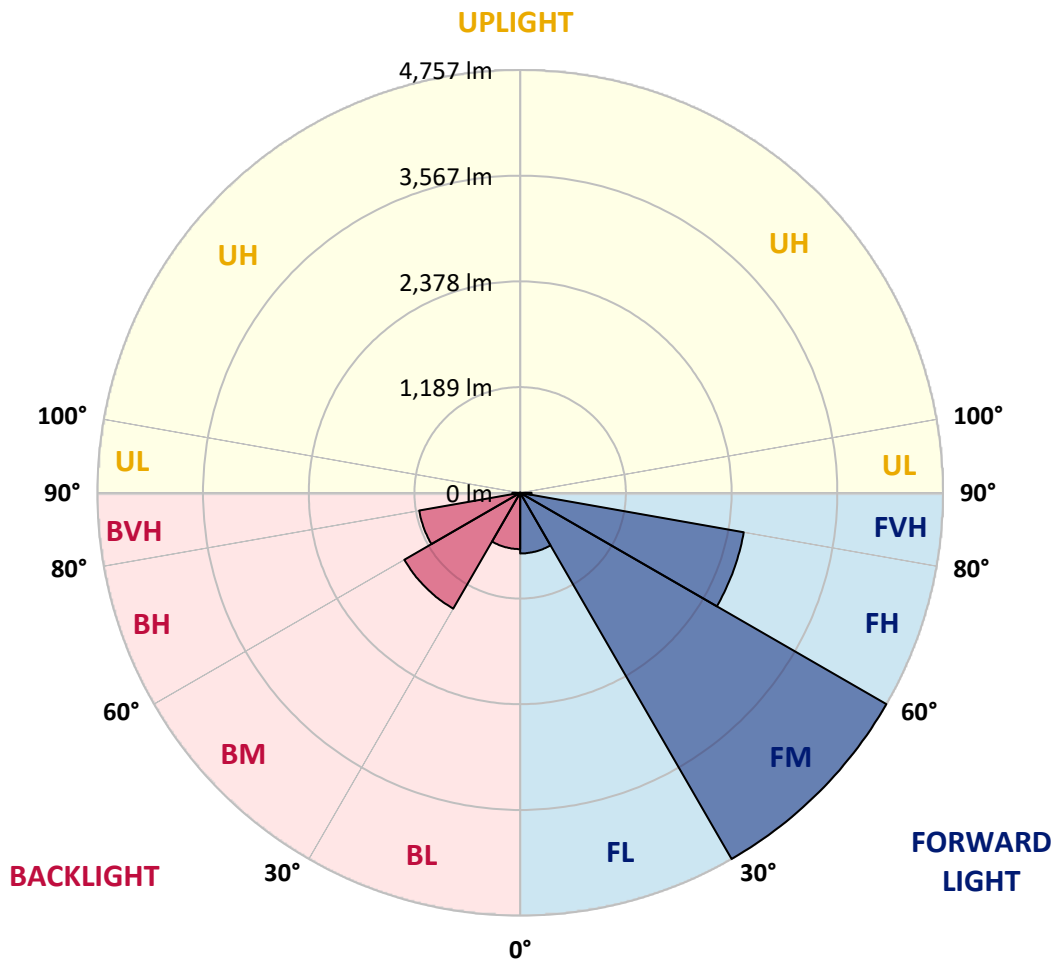
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	682.6	5.9			
FM	(30°-60°)	4756.5	41.4			
FH	(60°-80°)	2553.9	22.2			G2/5000
FVH	(80°-90°)	127.1	1.1			G2/225
BL	(0°-30°)	633.5	5.5	B2/1000		
BM	(30°-60°)	1505.0	13.1	B2/2500		
BH	(60°-80°)	1153.5	10.0	B3/2500		G3/2500
BVH	(80°-90°)	88.9	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°	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6
2.5°	1237.9	1235.9	1235.9	1235.9	1235.9	1234.0	1235.9	1239.8	1237.9	1235.9	1239.8
5°	1241.6	1239.8	1239.8	1239.8	1241.6	1239.8	1241.6	1247.4	1243.7	1243.7	1247.4
7.5°	1251.2	1249.5	1251.2	1249.5	1249.5	1249.5	1251.2	1257.1	1255.2	1257.1	1262.8
10°	1262.8	1262.8	1262.8	1262.8	1262.8	1262.8	1266.7	1270.7	1272.4	1274.4	1282.2
12.5°	1297.5	1297.5	1297.5	1295.6	1295.6	1289.8	1297.5	1301.4	1305.2	1309.1	1314.8
15°	1370.6	1370.6	1368.7	1361.0	1361.0	1349.6	1351.4	1353.3	1353.3	1357.2	1361.0
17.5°	1466.9	1465.0	1461.2	1455.4	1447.7	1434.2	1430.5	1426.5	1420.7	1418.9	1418.9
20°	1601.7	1599.8	1592.1	1576.6	1567.1	1545.9	1530.4	1515.1	1509.3	1499.7	1497.7
22.5°	1794.3	1794.3	1778.9	1755.6	1748.0	1703.7	1659.4	1626.7	1615.2	1601.7	1601.7
25°	2027.1	2025.1	2004.1	1977.1	1944.4	1898.2	1844.3	1800.1	1771.1	1740.2	1728.8
27.5°	2306.3	2300.5	2271.6	2238.9	2177.3	2119.6	2056.0	2009.8	1959.8	1921.3	1886.6
30°	2633.7	2627.8	2577.7	2516.2	2452.6	2394.8	2302.4	2246.7	2167.7	2121.4	2083.0
32.5°	3012.8	3007.0	2916.5	2856.9	2789.4	2718.4	2608.6	2519.9	2419.9	2354.4	2300.5
35°	3496.1	3472.8	3343.9	3261.1	3155.2	3084.1	2968.4	2849.2	2731.7	2639.3	2560.3
37.5°	4017.7	3990.8	3877.2	3753.9	3650.1	3563.3	3399.7	3249.6	3111.0	2983.9	2885.7
40°	4562.5	4491.3	4370.1	4279.5	4208.3	4125.6	3954.2	3796.3	3578.8	3436.3	3288.1
42.5°	4939.9	4870.6	4785.9	4726.2	4691.5	4628.0	4531.7	4395.0	4200.7	4204.4	3813.7
45°	5188.3	5086.2	5028.4	5032.2	5045.7	5045.7	5028.4	5007.2	4922.5	4980.4	4653.0
47.5°	5099.7	5032.2	4995.7	5072.6	5168.9	5265.2	5376.9	5498.2	5636.8	5800.4	5398.1
50°	4579.9	4604.9	4622.1	4785.9	4991.8	5211.2	5467.4	5798.5	6185.4	6260.5	6066.1
52.5°	3750.2	3804.1	3861.9	4112.0	4383.5	4762.8	5211.2	5758.0	6277.9	6583.9	6564.6
55°	2912.8	2980.0	3103.3	3290.0	3505.6	3863.7	4418.1	5261.4	6071.9	6558.9	6855.3
57.5°	2073.4	2171.6	2333.3	2593.1	2783.7	2985.8	3396.0	4331.4	5219.1	6125.7	6807.3
60°	1378.4	1424.6	1530.4	1853.9	2175.3	2387.2	2677.8	3016.7	3742.3	4991.8	6310.6
62.5°	978.0	1008.7	1074.3	1220.5	1511.2	1894.3	2069.5	2225.5	2458.4	3211.1	5066.9
63°	924.0	951.0	1004.9	1128.1	1389.9	1786.5	1965.5	2108.1	2277.5	2872.3	4793.5
65°	766.3	777.8	806.6	866.2	1006.8	1336.0	1628.6	1715.3	1744.1	1846.1	3003.3
67.5°	646.8	654.5	664.1	681.5	737.2	889.4	1214.8	1324.6	1291.8	1222.5	1484.3
70°	562.1	567.9	583.3	604.5	623.8	662.2	835.6	999.2	962.5	868.2	908.6
72.5°	448.6	458.1	475.6	512.0	550.7	600.6	642.9	745.1	721.9	631.5	641.1
75°	354.2	360.0	375.4	402.4	438.9	496.8	579.4	614.1	550.7	466.0	466.0
77.5°	281.1	286.9	300.4	321.6	344.6	385.1	442.8	533.2	494.7	350.3	348.5
80°	211.8	217.5	231.0	250.3	273.4	302.2	337.0	377.3	454.4	327.3	261.9
82.5°	155.9	157.8	181.0	194.5	202.2	225.2	254.1	277.1	311.9	302.2	232.9
85°	117.4	115.5	131.0	140.6	142.4	148.2	165.6	188.6	204.1	196.4	181.0
87.5°	65.4	57.8	67.5	77.1	77.1	79.0	82.7	96.3	109.8	105.9	96.3
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6
2.5°	1239.8	1239.8	1237.9	1237.9	1239.8	1239.8	1237.9	1243.7	1247.4	1247.4	1249.5
5°	1245.6	1247.4	1245.6	1245.6	1247.4	1247.4	1249.5	1255.2	1261.0	1264.9	1270.7
7.5°	1262.8	1264.9	1262.8	1262.8	1264.9	1266.7	1270.7	1278.3	1282.2	1289.8	1299.5
10°	1282.2	1284.0	1282.2	1284.0	1286.0	1287.9	1293.6	1299.5	1305.2	1313.0	1328.4
12.5°	1316.7	1318.7	1314.8	1316.7	1322.6	1322.6	1326.3	1330.3	1339.9	1349.6	1365.0
15°	1365.0	1365.0	1361.0	1363.0	1368.7	1368.7	1370.6	1374.5	1386.1	1397.7	1413.0
17.5°	1420.7	1424.6	1422.6	1424.6	1428.5	1430.5	1430.5	1434.2	1441.9	1449.7	1465.0
20°	1495.8	1497.7	1493.9	1497.7	1501.5	1497.7	1493.9	1491.9	1495.8	1499.7	1517.0
22.5°	1597.8	1595.8	1586.2	1586.2	1586.2	1578.6	1569.0	1557.4	1557.4	1551.6	1565.1
25°	1719.1	1713.3	1700.0	1701.7	1688.4	1676.7	1659.4	1642.1	1626.7	1620.9	1622.9
27.5°	1861.6	1850.0	1836.6	1832.7	1819.2	1798.0	1769.2	1736.5	1711.5	1692.1	1688.4
30°	2040.6	2015.5	1992.5	1988.7	1967.5	1932.9	1886.6	1842.3	1800.1	1767.2	1755.6
32.5°	2252.4	2214.0	2177.3	2173.4	2138.9	2092.6	2036.7	1975.2	1913.6	1861.6	1836.6
35°	2500.7	2443.0	2408.4	2398.7	2348.7	2290.9	2229.4	2150.4	2063.8	1990.6	1944.4
37.5°	2803.0	2743.3	2683.6	2685.6	2616.3	2548.9	2466.0	2369.8	2260.0	2158.1	2092.6
40°	3176.4	3091.7	3014.7	2997.5	2937.7	2843.4	2752.9	2641.2	2506.5	2371.7	2277.5
42.5°	3628.9	3490.3	3384.4	3369.0	3290.0	3174.5	3064.7	2916.5	2779.8	2616.3	2502.7
45°	4142.9	3921.6	3794.4	3771.4	3644.2	3526.8	3393.9	3236.1	3068.6	2883.7	2749.1
47.5°	4781.9	4466.4	4250.7	4212.2	4037.0	3883.0	3744.3	3569.1	3369.0	3163.0	3014.7
50°	5527.0	5061.1	4770.4	4710.8	4476.0	4294.9	4117.8	3898.4	3684.7	3469.1	3297.8
52.5°	6273.9	5773.4	5386.4	5313.4	4966.8	4724.2	4491.3	4271.8	4019.6	3805.9	3611.5
55°	6874.5	6541.5	6093.1	5990.9	5494.4	5165.2	4859.0	4608.8	4358.4	4189.1	3960.0
57.5°	7236.6	7219.1	6864.9	6724.4	6044.9	5557.9	5217.0	4932.1	4689.6	4618.4	4314.2
60°	7227.0	7675.5	7523.3	7417.5	6601.3	5960.2	5517.4	5209.5	5009.2	5090.1	4670.4
62.5°	6786.1	7694.7	7877.5	7848.8	7194.2	6283.6	5763.9	5446.2	5340.2	5580.9	5040.0
63°	6626.3	7650.4	7893.0	7881.5	7307.7	6345.2	5806.1	5492.3	5405.7	5706.0	5107.4
65°	5600.2	7263.4	7706.3	7758.2	7552.2	6557.0	5904.3	5609.7	5600.2	5985.1	5267.1
67.5°	3413.2	6137.3	6864.9	6965.1	7207.6	6624.3	5848.5	5569.4	5708.0	6025.7	5219.1
70°	1459.2	4050.5	5517.4	5679.2	6272.1	6289.4	5688.7	5403.8	5682.9	5709.8	4876.3
72.5°	864.3	1909.7	3756.0	4108.2	4963.0	5411.5	5322.9	5115.0	5353.8	5015.0	4152.4
75°	612.1	893.3	1907.8	2283.2	3455.6	4131.3	4472.0	4568.3	4558.7	3977.2	3116.8
77.5°	438.9	573.7	804.7	949.1	1929.0	2652.9	3068.6	3349.7	3259.2	2662.4	1921.3
80°	306.1	396.6	492.8	523.6	895.3	1363.0	1617.0	1740.2	1686.4	1330.3	860.5
82.5°	221.4	259.9	317.6	337.0	450.5	629.5	748.8	660.3	633.3	491.0	371.5
85°	171.3	167.4	198.3	206.0	263.7	329.1	337.0	261.9	229.1	204.1	207.9
87.5°	121.4	103.9	105.9	109.8	136.7	175.2	171.3	107.7	92.3	98.2	111.7
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6	1245.6
2.5°	1253.2	1255.2	1259.1	1261.0	1264.9	1264.9	1268.6	1270.7	1274.4	1278.3	1280.3
5°	1276.3	1282.2	1289.8	1293.6	1301.4	1307.2	1314.8	1318.7	1326.3	1332.1	1339.9
7.5°	1310.9	1320.7	1330.3	1341.8	1353.3	1363.0	1370.6	1380.3	1393.8	1403.4	1409.3
10°	1343.8	1357.2	1374.5	1388.1	1405.4	1418.9	1430.5	1447.7	1463.1	1476.5	1484.3
12.5°	1386.1	1403.4	1420.7	1441.9	1465.0	1482.4	1499.7	1522.7	1543.9	1559.4	1567.1
15°	1436.1	1457.3	1476.5	1501.5	1528.6	1551.6	1576.6	1601.7	1617.0	1617.0	1613.3
17.5°	1488.1	1505.4	1528.6	1557.4	1594.0	1622.9	1636.4	1640.2	1634.5	1620.9	1611.3
20°	1540.1	1555.4	1580.5	1615.2	1653.7	1659.4	1646.0	1628.6	1611.3	1588.3	1572.8
22.5°	1582.5	1603.7	1642.1	1682.5	1684.5	1651.8	1615.2	1586.2	1559.4	1532.4	1503.6
25°	1632.5	1661.3	1713.3	1728.8	1678.8	1617.0	1565.1	1522.7	1478.5	1434.2	1401.4
27.5°	1694.2	1736.5	1788.4	1744.1	1646.0	1559.4	1488.1	1424.6	1366.9	1305.2	1268.6
30°	1759.6	1824.9	1836.6	1721.1	1590.2	1478.5	1382.2	1286.0	1212.8	1156.9	1135.8
32.5°	1838.6	1923.2	1853.9	1680.5	1515.1	1368.7	1239.8	1124.3	1062.7	1028.0	1018.4
35°	1957.9	2027.1	1863.5	1638.2	1428.5	1237.9	1076.1	983.7	945.2	922.1	910.6
37.5°	2129.3	2127.2	1861.6	1586.2	1328.4	1095.5	945.2	879.8	849.0	829.8	808.6
40°	2329.3	2204.4	1850.0	1511.2	1193.6	958.8	854.7	793.2	764.3	741.2	716.2
42.5°	2527.7	2256.3	1817.4	1399.6	1026.0	860.5	789.3	733.5	702.7	677.6	642.9
45°	2699.0	2277.5	1753.9	1245.6	875.9	783.5	746.9	698.8	662.2	623.8	596.7
47.5°	2833.8	2273.6	1651.8	1064.6	775.9	729.7	712.3	679.6	635.3	587.1	552.5
50°	2947.3	2244.7	1513.1	904.9	708.5	681.5	675.7	666.2	594.9	554.4	533.2
52.5°	3051.4	2202.4	1365.0	796.9	650.7	627.6	639.1	629.5	579.4	544.8	523.6
55°	3193.7	2173.4	1218.6	714.2	583.3	577.5	587.1	600.6	569.9	537.0	514.0
57.5°	3361.3	2188.9	1106.9	621.7	519.8	523.6	556.4	575.6	560.3	525.6	502.4
60°	3553.8	2235.1	1008.7	533.2	467.7	477.4	525.6	552.5	550.7	510.1	483.2
62.5°	3769.4	2283.2	852.9	466.0	423.6	438.9	488.9	523.6	529.5	494.7	462.0
63°	3811.8	2287.1	812.3	452.3	415.8	433.2	479.3	515.9	523.6	491.0	458.1
65°	3915.7	2252.4	654.5	415.8	385.1	404.2	450.5	483.2	498.6	469.8	442.8
67.5°	3829.0	1969.4	492.8	371.5	360.0	373.4	413.8	444.8	458.1	444.8	417.7
70°	3501.9	1432.3	385.1	331.1	333.0	342.7	373.4	402.4	417.7	413.8	388.8
72.5°	2820.3	812.3	321.6	296.5	302.2	313.8	335.0	361.9	375.4	373.4	356.2
75°	1857.8	415.8	271.5	265.7	269.5	279.2	294.6	315.8	331.1	329.1	321.6
77.5°	920.3	288.7	232.9	234.8	236.9	244.5	256.0	275.3	284.9	286.9	284.9
80°	379.3	225.2	200.2	202.2	204.1	209.8	217.5	234.8	240.7	244.5	246.4
82.5°	227.2	171.3	159.8	163.6	165.6	171.3	177.1	192.4	198.3	204.1	204.1
85°	150.1	119.4	115.5	119.4	123.2	127.1	128.9	138.6	148.2	155.9	159.8
87.5°	80.8	71.2	69.3	71.2	71.2	75.1	79.0	88.6	100.2	107.7	111.7
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°	1245.6	1245.6	1245.6	1245.6	1245.6
2.5°	1276.3	1278.3	1276.3	1278.3	1280.3
5°	1339.9	1343.8	1341.8	1341.8	1349.6
7.5°	1413.0	1420.7	1420.7	1424.6	1428.5
10°	1491.9	1499.7	1505.4	1505.4	1511.2
12.5°	1570.9	1574.8	1580.5	1580.5	1580.5
15°	1611.3	1609.5	1607.4	1605.5	1605.5
17.5°	1605.5	1597.8	1594.0	1590.2	1592.1
20°	1563.2	1549.8	1545.9	1540.1	1543.9
22.5°	1490.1	1470.7	1463.1	1453.5	1457.3
25°	1380.3	1357.2	1353.3	1341.8	1347.5
27.5°	1253.2	1241.6	1239.8	1237.9	1247.4
30°	1133.9	1137.8	1139.7	1143.5	1153.2
32.5°	1024.2	1031.9	1033.8	1035.7	1049.2
35°	916.4	906.7	916.4	912.5	924.0
37.5°	799.0	791.2	783.5	773.9	781.5
40°	700.8	687.3	664.1	652.6	654.5
42.5°	623.8	606.4	587.1	575.6	575.6
45°	573.7	552.5	535.2	527.5	527.5
47.5°	535.2	525.6	515.9	510.1	510.1
50°	519.8	508.3	502.4	498.6	498.6
52.5°	508.3	496.8	491.0	487.1	483.2
55°	498.6	481.3	475.6	473.5	473.5
57.5°	485.2	469.8	462.0	460.1	460.1
60°	464.0	452.3	444.8	442.8	442.8
62.5°	442.8	431.2	423.6	423.6	423.6
63°	438.9	425.4	419.7	419.7	419.7
65°	421.7	408.1	402.4	402.4	400.5
67.5°	398.5	385.1	381.2	381.2	377.3
70°	371.5	360.0	356.2	358.1	350.3
72.5°	344.6	333.0	327.3	327.3	319.5
75°	313.8	302.2	294.6	292.6	284.9
77.5°	279.2	269.5	261.9	254.1	250.3
80°	242.5	234.8	225.2	219.5	213.6
82.5°	204.1	196.4	190.6	198.3	169.4
85°	159.8	152.2	144.4	155.9	121.4
87.5°	117.4	113.5	105.9	92.3	80.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)