

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: P265817

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265817
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-AF48-110-D-U-T2U-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12301.9 lumens
Efficiency: N/A
Efficacy: 110.8 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): 111
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

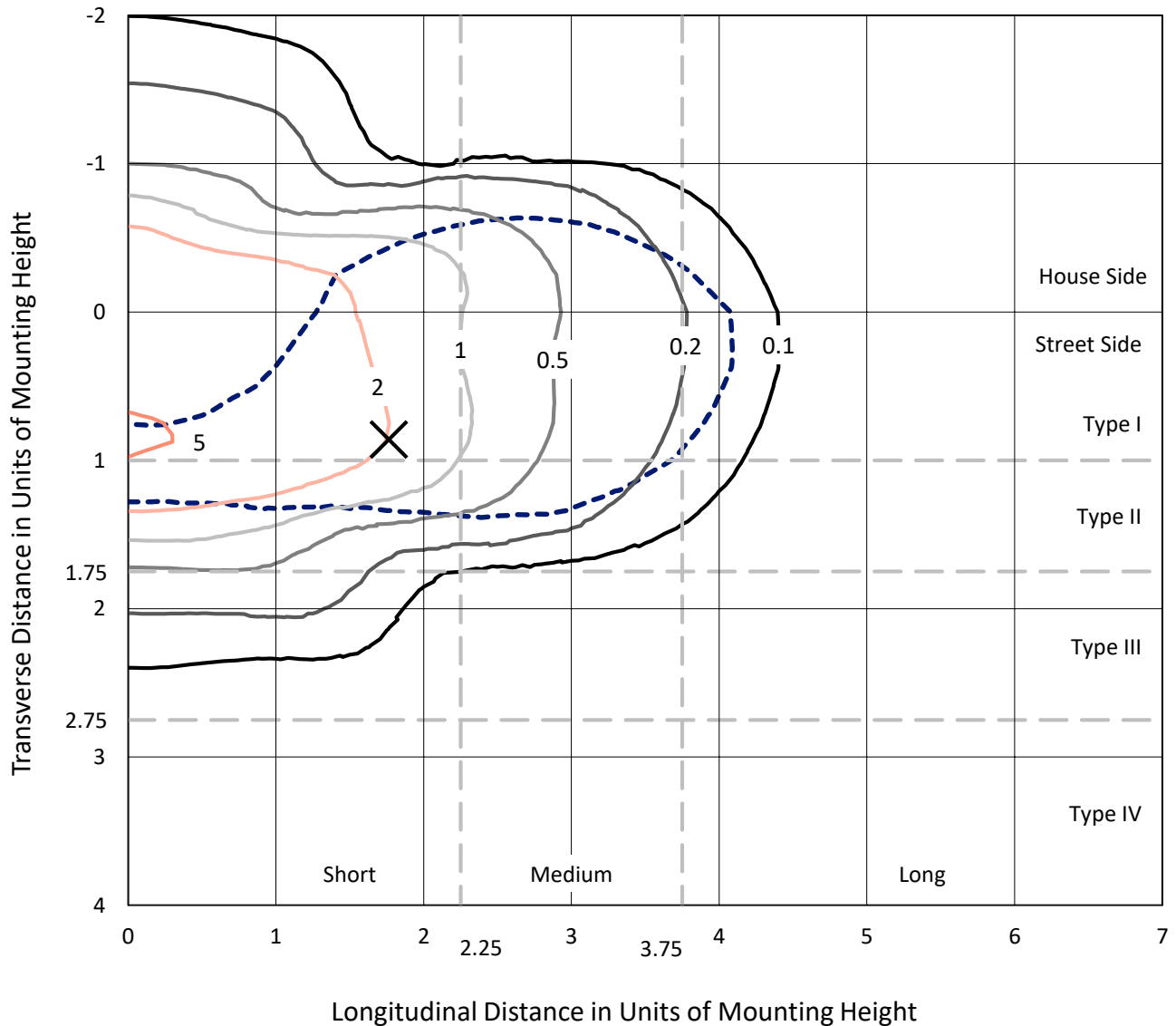


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

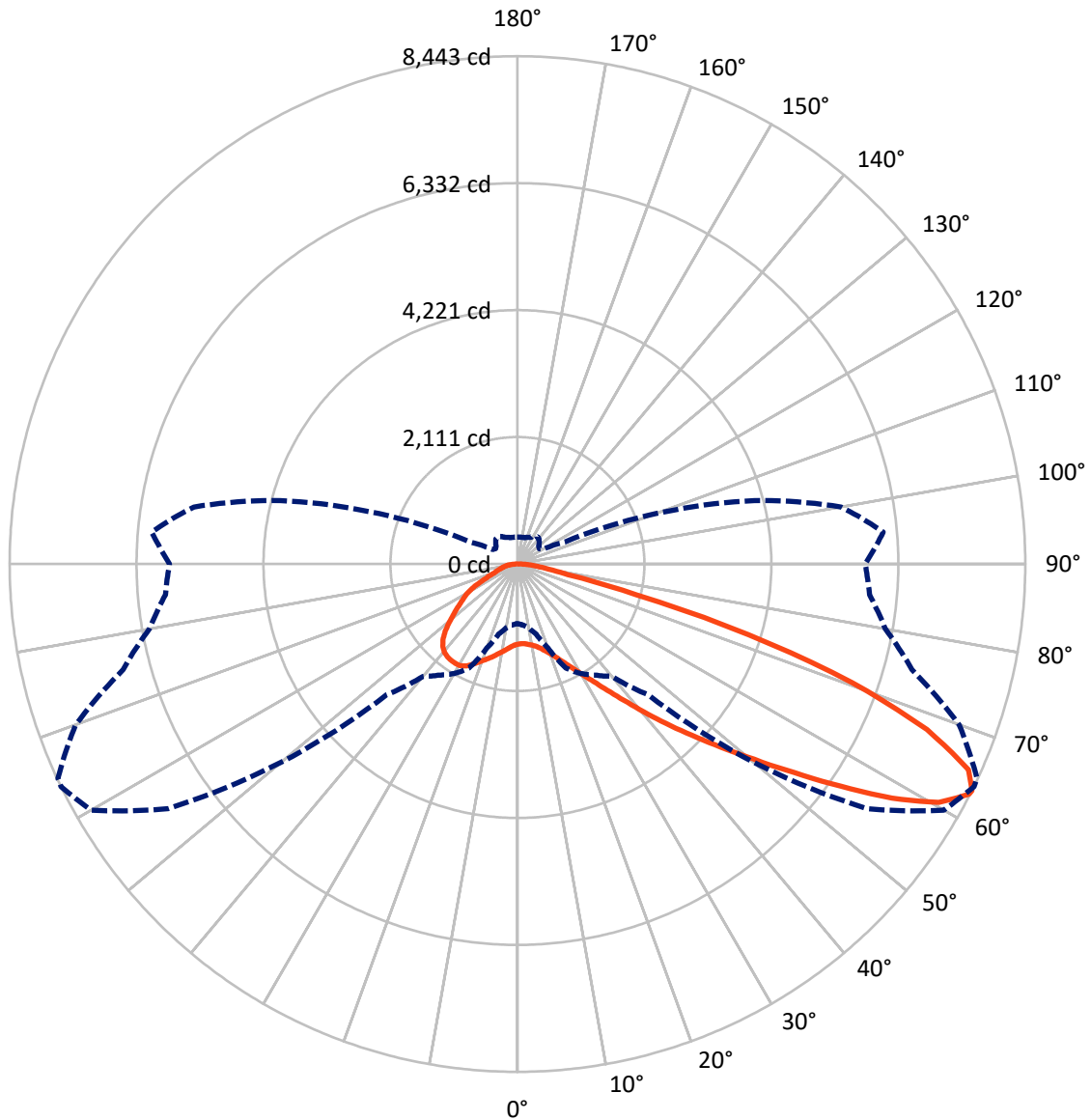


Based on 20 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Short - Semi-Cutoff

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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	3616.3	0.0	3616.3
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	8685.6	0.0	8685.6
	% Fixture	70.6	0.0	70.6
Total	Lumens	12301.9	0.0	12301.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	133.0	1.1
10°-20°	443.1	3.6
20°-30°	831.7	6.8
30°-40°	1394.0	11.3
40°-50°	2338.8	19.0
50°-60°	2964.8	24.1
60°-70°	2615.4	21.3
70°-80°	1350.1	11.0
80°-90°	231.0	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°	12301.9	100.0
0°-180°	12301.9	100.0



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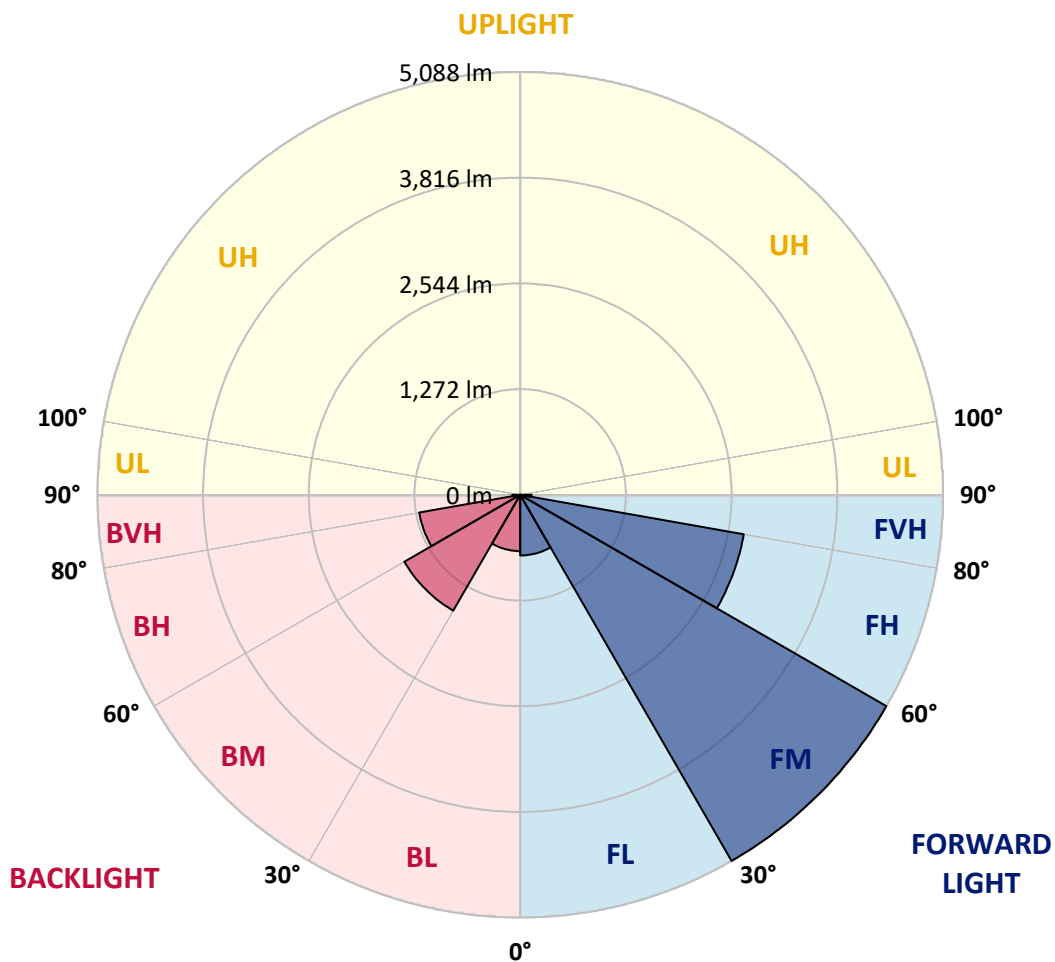
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	730.2	5.9			
FM (30°-60°)	5087.7	41.4			
FH (60°-80°)	2731.7	22.2			G2/5000
FVH (80°-90°)	136.0	1.1			G2/225
BL (0°-30°)	677.6	5.5	B2/1000		
BM (30°-60°)	1609.8	13.1	B2/2500		
BH (60°-80°)	1233.9	10.0	B3/2500		G3/2500
BVH (80°-90°)	95.1	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°	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2
2.5°	1324.0	1321.9	1321.9	1321.9	1321.9	1319.9	1321.9	1326.1	1324.0	1321.9	1326.1
5°	1328.1	1326.1	1326.1	1326.1	1328.1	1326.1	1328.1	1334.3	1330.2	1330.2	1334.3
7.5°	1338.5	1336.4	1338.5	1336.4	1336.4	1336.4	1338.5	1344.7	1342.5	1344.7	1350.8
10°	1350.8	1350.8	1350.8	1350.8	1350.8	1350.8	1355.0	1359.0	1361.1	1363.2	1371.4
12.5°	1387.9	1387.9	1387.9	1385.8	1385.8	1379.6	1387.9	1392.1	1396.1	1400.3	1406.4
15°	1466.2	1466.2	1464.1	1455.9	1455.9	1443.4	1445.6	1447.6	1447.6	1451.8	1455.9
17.5°	1569.1	1567.1	1563.0	1556.8	1548.5	1534.0	1530.0	1525.9	1519.7	1517.5	1517.5
20°	1713.2	1711.2	1702.9	1686.5	1676.1	1653.5	1637.0	1620.6	1614.4	1604.2	1602.0
22.5°	1919.1	1919.1	1902.7	1877.9	1869.7	1822.4	1775.1	1739.9	1727.6	1713.2	1713.2
25°	2168.2	2166.3	2143.6	2114.8	2079.8	2030.3	1972.7	1925.3	1894.4	1861.5	1849.2
27.5°	2466.8	2460.6	2429.8	2394.8	2328.9	2267.1	2199.2	2149.7	2096.3	2055.1	2018.0
30°	2816.9	2810.7	2757.3	2691.3	2623.4	2561.6	2462.8	2403.1	2318.6	2269.2	2228.1
32.5°	3222.6	3216.4	3119.6	3055.9	2983.7	2907.5	2790.1	2695.5	2588.3	2518.4	2460.6
35°	3739.5	3714.9	3576.8	3488.3	3375.0	3298.8	3175.2	3047.6	2921.9	2823.2	2738.8
37.5°	4297.5	4268.7	4147.1	4015.5	3904.3	3811.6	3636.5	3475.9	3327.6	3191.8	3086.8
40°	4880.2	4804.0	4674.3	4577.6	4501.3	4412.8	4229.6	4060.7	3827.9	3675.7	3517.0
42.5°	5283.9	5209.7	5119.1	5055.3	5018.2	4950.3	4847.3	4701.1	4493.1	4497.3	4079.3
45°	5549.5	5440.3	5378.6	5382.7	5397.0	5397.0	5378.6	5356.0	5265.3	5327.0	4977.0
47.5°	5454.8	5382.7	5343.6	5425.9	5528.9	5631.8	5751.3	5881.1	6029.2	6204.4	5773.9
50°	4898.7	4925.5	4944.1	5119.1	5339.4	5574.3	5848.1	6202.3	6616.1	6696.4	6488.5
52.5°	4011.3	4069.0	4130.8	4398.5	4688.8	5094.4	5574.3	6159.0	6715.0	7042.4	7021.8
55°	3115.5	3187.6	3319.3	3519.1	3749.7	4132.8	4725.9	5627.7	6494.7	7015.7	7332.8
57.5°	2217.7	2322.7	2495.8	2773.6	2977.6	3193.7	3632.3	4633.2	5582.4	6552.2	7281.2
60°	1474.4	1523.7	1637.0	1983.0	2326.9	2553.4	2864.3	3226.7	4003.0	5339.4	6750.0
62.5°	1046.0	1079.0	1149.0	1305.5	1616.5	2026.2	2213.7	2380.4	2629.6	3434.7	5419.7
63°	988.5	1017.2	1074.9	1206.7	1486.8	1911.0	2102.5	2254.7	2436.1	3072.4	5127.3
65°	819.6	831.9	862.8	926.6	1077.0	1429.1	1742.1	1834.7	1865.6	1974.7	3212.2
67.5°	691.9	700.0	710.4	729.0	788.6	951.3	1299.4	1416.6	1381.8	1307.7	1587.7
70°	601.2	607.4	624.0	646.6	667.3	708.4	893.6	1068.8	1029.5	928.7	972.0
72.5°	479.8	490.0	508.6	547.7	588.8	642.5	687.7	796.8	772.3	675.4	685.6
75°	378.8	385.1	401.5	430.4	469.5	531.3	619.8	656.9	588.8	498.3	498.3
77.5°	300.7	306.9	321.2	344.0	368.6	411.9	473.5	570.5	529.2	374.8	372.6
80°	226.6	232.8	247.2	267.6	292.4	323.3	360.4	403.6	486.0	350.1	280.0
82.5°	166.7	168.8	193.6	208.0	216.2	240.9	271.7	296.5	333.6	323.3	249.2
85°	125.7	123.5	140.0	150.3	152.4	158.6	177.1	201.8	218.3	210.1	193.6
87.5°	70.0	61.8	72.0	82.4	82.4	84.4	88.6	102.9	117.4	113.2	102.9
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°	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2
2.5°	1326.1	1326.1	1324.0	1324.0	1326.1	1326.1	1324.0	1330.2	1334.3	1334.3	1336.4
5°	1332.2	1334.3	1332.2	1332.2	1334.3	1334.3	1336.4	1342.5	1348.7	1352.8	1359.0
7.5°	1350.8	1352.8	1350.8	1350.8	1352.8	1355.0	1359.0	1367.3	1371.4	1379.6	1389.9
10°	1371.4	1373.5	1371.4	1373.5	1375.6	1377.6	1383.7	1389.9	1396.1	1404.4	1420.8
12.5°	1408.5	1410.6	1406.4	1408.5	1414.7	1414.7	1418.8	1422.8	1433.2	1443.4	1459.9
15°	1459.9	1459.9	1455.9	1457.9	1464.1	1464.1	1466.2	1470.3	1482.7	1495.0	1511.5
17.5°	1519.7	1523.7	1521.6	1523.7	1527.8	1530.0	1530.0	1534.0	1542.3	1550.6	1567.1
20°	1600.1	1602.0	1597.9	1602.0	1606.2	1602.0	1597.9	1595.8	1600.1	1604.2	1622.6
22.5°	1709.1	1707.0	1696.8	1696.8	1696.8	1688.5	1678.3	1665.8	1665.8	1659.7	1674.1
25°	1838.8	1832.6	1818.3	1820.3	1806.0	1793.6	1775.1	1756.5	1739.9	1733.8	1735.9
27.5°	1991.3	1978.8	1964.5	1960.3	1945.9	1923.4	1892.4	1857.3	1830.7	1810.1	1806.0
30°	2182.7	2155.9	2131.3	2127.1	2104.5	2067.4	2018.0	1970.6	1925.3	1890.4	1877.9
32.5°	2409.3	2368.0	2328.9	2324.9	2287.8	2238.3	2178.6	2112.8	2046.8	1991.3	1964.5
35°	2674.9	2613.1	2576.0	2565.6	2512.2	2450.4	2384.6	2300.1	2207.4	2129.3	2079.8
37.5°	2998.2	2934.4	2870.5	2872.6	2798.4	2726.4	2637.9	2534.8	2417.5	2308.4	2238.3
40°	3397.7	3307.0	3224.6	3206.1	3142.4	3041.4	2944.6	2825.2	2681.0	2537.0	2436.1
42.5°	3881.5	3733.3	3620.0	3603.6	3519.1	3395.7	3278.3	3119.6	2973.5	2798.4	2676.9
45°	4431.3	4194.5	4058.6	4033.8	3898.0	3772.4	3630.3	3461.4	3282.3	3084.7	2940.5
47.5°	5114.9	4777.2	4546.7	4505.4	4318.2	4153.4	4005.2	3817.7	3603.6	3383.2	3224.6
50°	5911.9	5413.5	5102.6	5038.9	4787.5	4594.0	4404.6	4169.8	3941.3	3710.7	3527.4
52.5°	6710.9	6175.5	5761.5	5683.3	5312.7	5053.2	4804.0	4569.3	4299.6	4070.9	3863.0
55°	7353.3	6997.1	6517.4	6408.1	5876.9	5524.8	5197.4	4929.7	4661.9	4480.7	4235.8
57.5°	7740.4	7219.9	7343.0	7192.6	6465.8	5944.9	5580.5	5275.7	5016.1	4940.0	4614.7
60°	7730.2	8210.0	8047.2	7934.0	7060.9	6375.2	5901.7	5572.1	5358.0	5444.4	4995.6
62.5°	7258.7	8230.5	8426.1	8395.3	7695.2	6721.2	6165.2	5825.4	5712.1	5969.5	5390.9
63°	7087.6	8183.2	8442.6	8430.2	7816.6	6787.1	6210.5	5874.8	5782.2	6103.4	5463.0
65°	5990.2	7769.4	8242.8	8298.5	8078.2	7013.5	6315.5	6000.5	5990.2	6402.0	5633.9
67.5°	3650.9	6564.6	7343.0	7450.2	7709.6	7085.7	6255.7	5957.2	6105.5	6445.2	5582.4
70°	1560.8	4332.5	5901.7	6074.6	6708.8	6727.3	6084.8	5780.1	6078.7	6107.5	5215.9
72.5°	924.5	2042.7	4017.5	4394.2	5308.5	5788.4	5693.6	5471.2	5726.5	5364.1	4441.7
75°	654.9	955.4	2040.7	2442.2	3696.3	4419.0	4783.5	4886.4	4876.1	4254.3	3333.8
77.5°	469.5	613.6	860.8	1015.2	2063.2	2837.6	3282.3	3583.0	3486.2	2847.8	2055.1
80°	327.4	424.2	527.1	560.2	957.6	1457.9	1729.6	1861.5	1803.8	1422.8	920.5
82.5°	236.9	277.9	339.7	360.4	481.9	673.4	801.0	706.2	677.5	525.1	397.4
85°	183.3	179.1	212.1	220.4	282.1	352.1	360.4	280.0	245.1	218.3	222.4
87.5°	129.7	111.2	113.2	117.4	146.2	187.3	183.3	115.3	98.9	105.0	119.5
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2	1332.2
2.5°	1340.5	1342.5	1346.6	1348.7	1352.8	1352.8	1357.0	1359.0	1363.2	1367.3	1369.3
5°	1365.2	1371.4	1379.6	1383.7	1392.1	1398.2	1406.4	1410.6	1418.8	1424.9	1433.2
7.5°	1402.3	1412.7	1422.8	1435.2	1447.6	1457.9	1466.2	1476.5	1490.8	1501.2	1507.4
10°	1437.3	1451.8	1470.3	1484.7	1503.3	1517.5	1530.0	1548.5	1564.9	1579.4	1587.7
12.5°	1482.7	1501.2	1519.7	1542.3	1567.1	1585.6	1604.2	1628.7	1651.4	1668.0	1676.1
15°	1536.1	1558.7	1579.4	1606.2	1634.9	1659.7	1686.5	1713.2	1729.6	1729.6	1725.6
17.5°	1591.7	1610.3	1634.9	1665.8	1705.1	1735.9	1750.3	1754.4	1748.2	1733.8	1723.6
20°	1647.3	1663.8	1690.6	1727.6	1768.9	1775.1	1760.6	1742.1	1723.6	1698.9	1682.3
22.5°	1692.6	1715.4	1756.5	1799.8	1801.8	1766.7	1727.6	1696.8	1668.0	1639.0	1608.2
25°	1746.1	1777.0	1832.6	1849.2	1795.6	1729.6	1674.1	1628.7	1581.5	1534.0	1499.1
27.5°	1812.2	1857.3	1913.0	1865.6	1760.6	1668.0	1591.7	1523.7	1462.0	1396.1	1357.0
30°	1882.0	1952.0	1964.5	1840.8	1700.9	1581.5	1478.5	1375.6	1297.3	1237.5	1214.9
32.5°	1966.5	2057.1	1983.0	1797.7	1620.6	1464.1	1326.1	1202.7	1136.6	1099.5	1089.4
35°	2094.2	2168.2	1993.2	1752.4	1527.8	1324.0	1151.1	1052.3	1011.0	986.3	974.0
37.5°	2277.5	2275.3	1991.3	1696.8	1420.8	1171.7	1011.0	941.1	908.0	887.5	864.9
40°	2491.5	2357.7	1978.8	1616.5	1276.8	1025.4	914.2	848.4	817.5	792.8	766.1
42.5°	2703.7	2413.3	1943.8	1497.0	1097.5	920.5	844.2	784.6	751.6	724.8	687.7
45°	2887.0	2436.1	1875.9	1332.2	936.9	838.1	799.0	747.5	708.4	667.3	638.3
47.5°	3031.2	2431.9	1766.7	1138.7	829.9	780.4	761.9	726.9	679.6	628.0	590.9
50°	3152.6	2401.0	1618.6	967.8	757.8	729.0	722.7	712.4	636.3	593.1	570.5
52.5°	3263.8	2355.6	1459.9	852.5	695.9	671.4	683.6	673.4	619.8	582.7	560.2
55°	3416.2	2324.9	1303.5	764.0	624.0	617.8	628.0	642.5	609.5	574.6	549.9
57.5°	3595.3	2341.3	1184.1	665.1	556.1	560.2	595.0	615.7	599.2	562.2	537.5
60°	3801.3	2390.7	1079.0	570.5	500.4	510.6	562.2	590.9	588.8	545.7	516.9
62.5°	4031.9	2442.2	912.1	498.3	453.0	469.5	523.1	560.2	566.3	529.2	494.2
63°	4077.1	2446.4	869.0	483.8	444.8	463.3	512.8	551.9	560.2	525.1	490.0
65°	4188.3	2409.3	700.0	444.8	411.9	432.4	481.9	516.9	533.4	502.4	473.5
67.5°	4095.7	2106.5	527.1	397.4	385.1	399.4	442.8	475.7	490.0	475.7	446.8
70°	3745.7	1532.0	411.9	354.2	356.3	366.5	399.4	430.4	446.8	442.8	415.9
72.5°	3016.7	869.0	344.0	317.1	323.3	335.6	358.3	387.1	401.5	399.4	380.9
75°	1987.1	444.8	290.3	284.1	288.3	298.5	315.0	337.8	354.2	352.1	344.0
77.5°	984.4	308.8	249.2	251.3	253.3	261.5	273.9	294.5	304.7	306.9	304.7
80°	405.7	240.9	214.2	216.2	218.3	224.4	232.8	251.3	257.5	261.5	263.6
82.5°	243.0	183.3	170.9	175.0	177.1	183.3	189.5	205.9	212.1	218.3	218.3
85°	160.5	127.6	123.5	127.6	131.8	136.0	138.0	148.3	158.6	166.7	170.9
87.5°	86.4	76.1	74.1	76.1	76.1	80.3	84.4	94.7	107.1	115.3	119.5
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):

	160°	165°	170°	175°	180°
0°	1332.2	1332.2	1332.2	1332.2	1332.2
2.5°	1365.2	1367.3	1365.2	1367.3	1369.3
5°	1433.2	1437.3	1435.2	1435.2	1443.4
7.5°	1511.5	1519.7	1519.7	1523.7	1527.8
10°	1595.8	1604.2	1610.3	1610.3	1616.5
12.5°	1680.3	1684.4	1690.6	1690.6	1690.6
15°	1723.6	1721.5	1719.4	1717.4	1717.4
17.5°	1717.4	1709.1	1705.1	1700.9	1702.9
20°	1672.0	1657.6	1653.5	1647.3	1651.4
22.5°	1593.9	1573.2	1564.9	1554.6	1558.7
25°	1476.5	1451.8	1447.6	1435.2	1441.4
27.5°	1340.5	1328.1	1326.1	1324.0	1334.3
30°	1212.8	1216.9	1219.0	1223.1	1233.5
32.5°	1095.6	1103.7	1105.8	1107.8	1122.3
35°	980.2	969.9	980.2	976.1	988.5
37.5°	854.6	846.4	838.1	827.8	836.1
40°	749.5	735.2	710.4	698.1	700.0
42.5°	667.3	648.7	628.0	615.7	615.7
45°	613.6	590.9	572.5	564.2	564.2
47.5°	572.5	562.2	551.9	545.7	545.7
50°	556.1	543.7	537.5	533.4	533.4
52.5°	543.7	531.3	525.1	520.9	516.9
55°	533.4	514.8	508.6	506.6	506.6
57.5°	519.0	502.4	494.2	492.1	492.1
60°	496.3	483.8	475.7	473.5	473.5
62.5°	473.5	461.3	453.0	453.0	453.0
63°	469.5	455.1	449.0	449.0	449.0
65°	450.9	436.5	430.4	430.4	428.3
67.5°	426.2	411.9	407.7	407.7	403.6
70°	397.4	385.1	380.9	382.9	374.8
72.5°	368.6	356.3	350.1	350.1	341.9
75°	335.6	323.3	315.0	313.0	304.7
77.5°	298.5	288.3	280.0	271.7	267.6
80°	259.5	251.3	240.9	234.7	228.6
82.5°	218.3	210.1	203.8	212.1	181.2
85°	170.9	162.7	154.5	166.7	129.7
87.5°	125.7	121.5	113.2	98.9	86.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)