

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: P257774

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257774
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
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 13541.8 lumens
Efficiency: N/A
Efficacy: 134.1 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

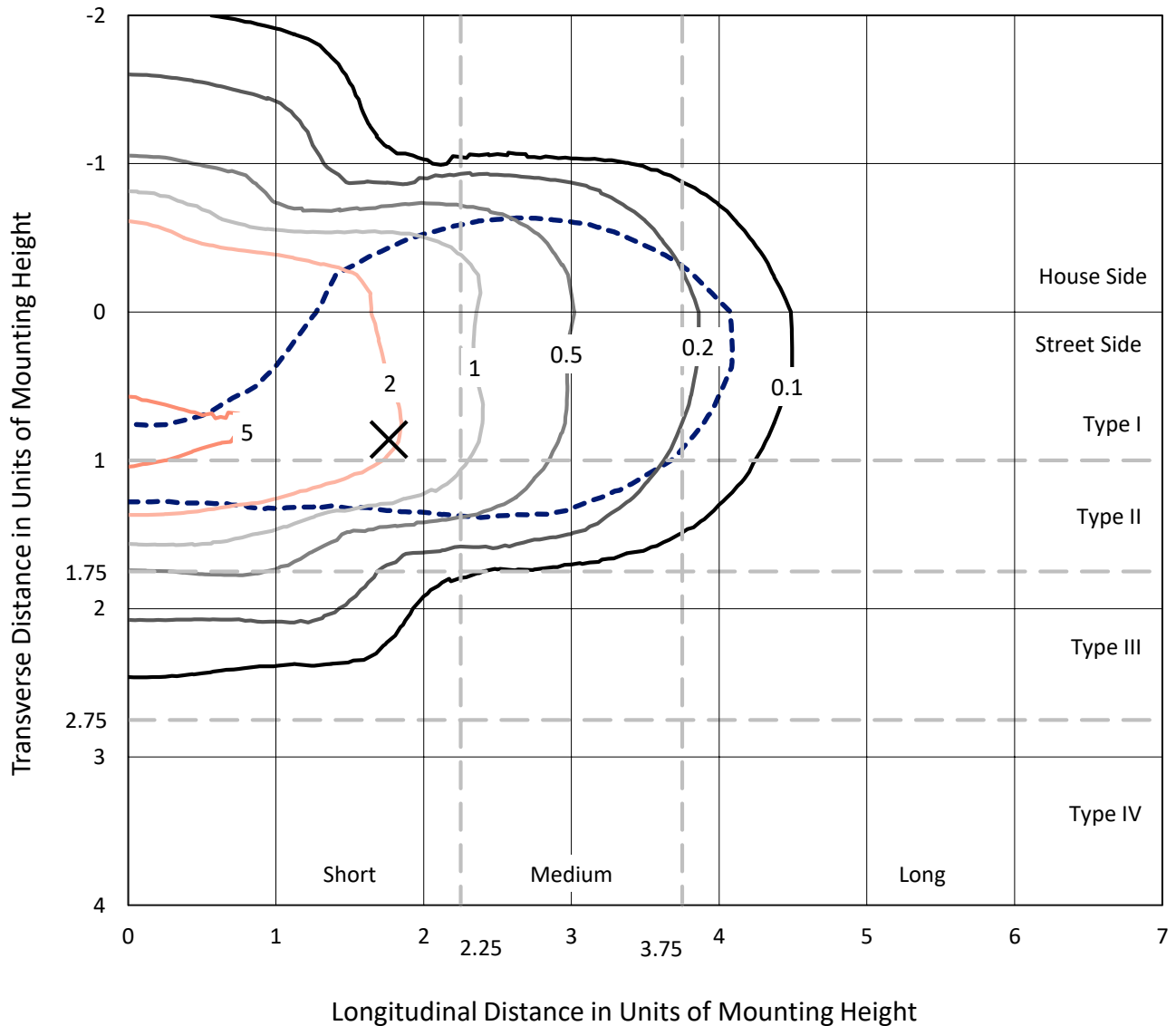


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

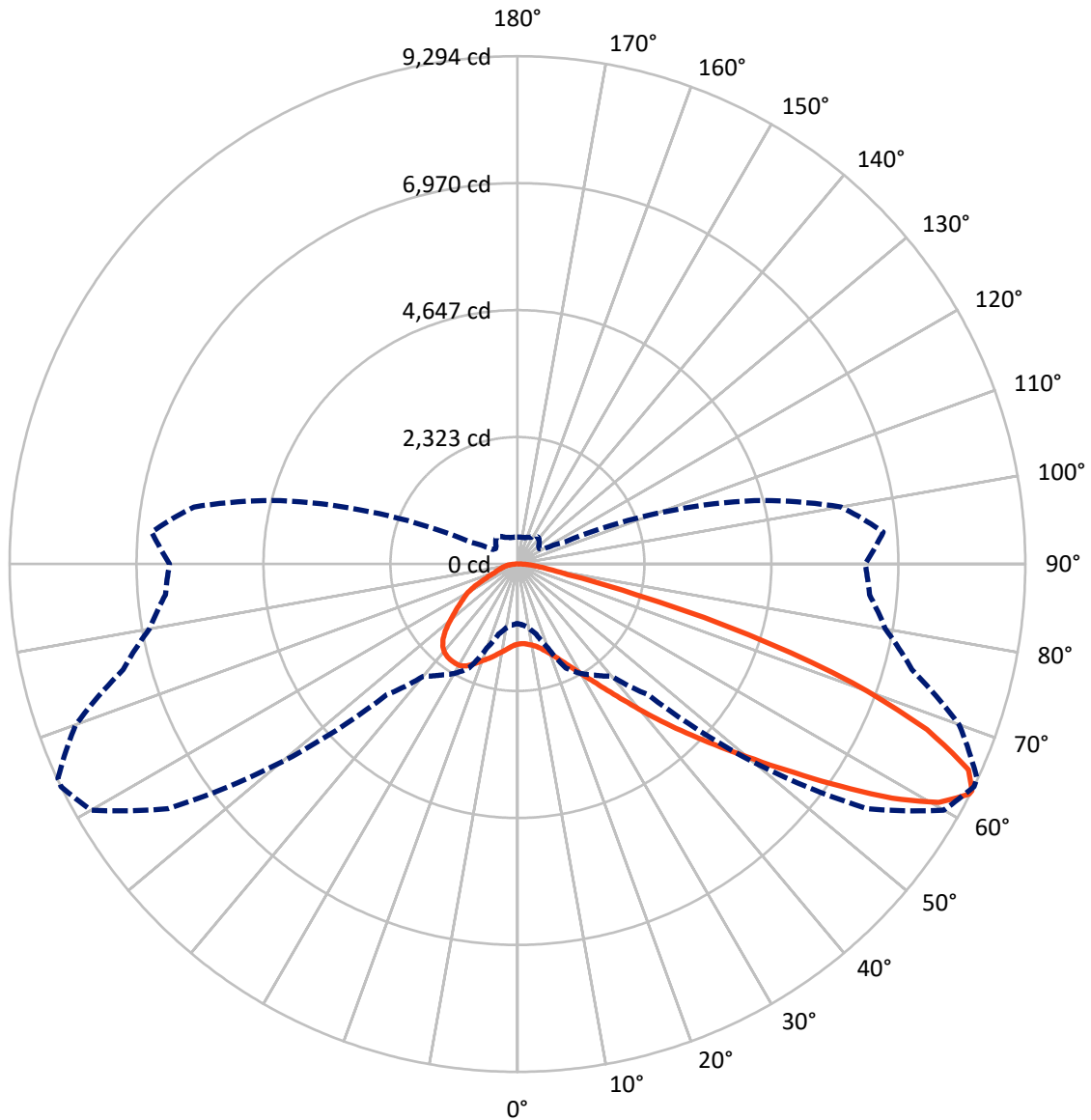


Based on 20 foot mounting height. Maximum calculated value = 5.9 fc
 Type II - Short - Semi-Cutoff

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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	3980.8	0.0	3980.8
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	9561.0	0.0	9561.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	13541.8	0.0	13541.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	146.4	1.1
10°-20°	487.7	3.6
20°-30°	915.5	6.8
30°-40°	1534.5	11.3
40°-50°	2574.5	19.0
50°-60°	3263.7	24.1
60°-70°	2879.1	21.3
70°-80°	1486.2	11.0
80°-90°	254.3	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°	13541.8	100.0
0°-180°	13541.8	100.0



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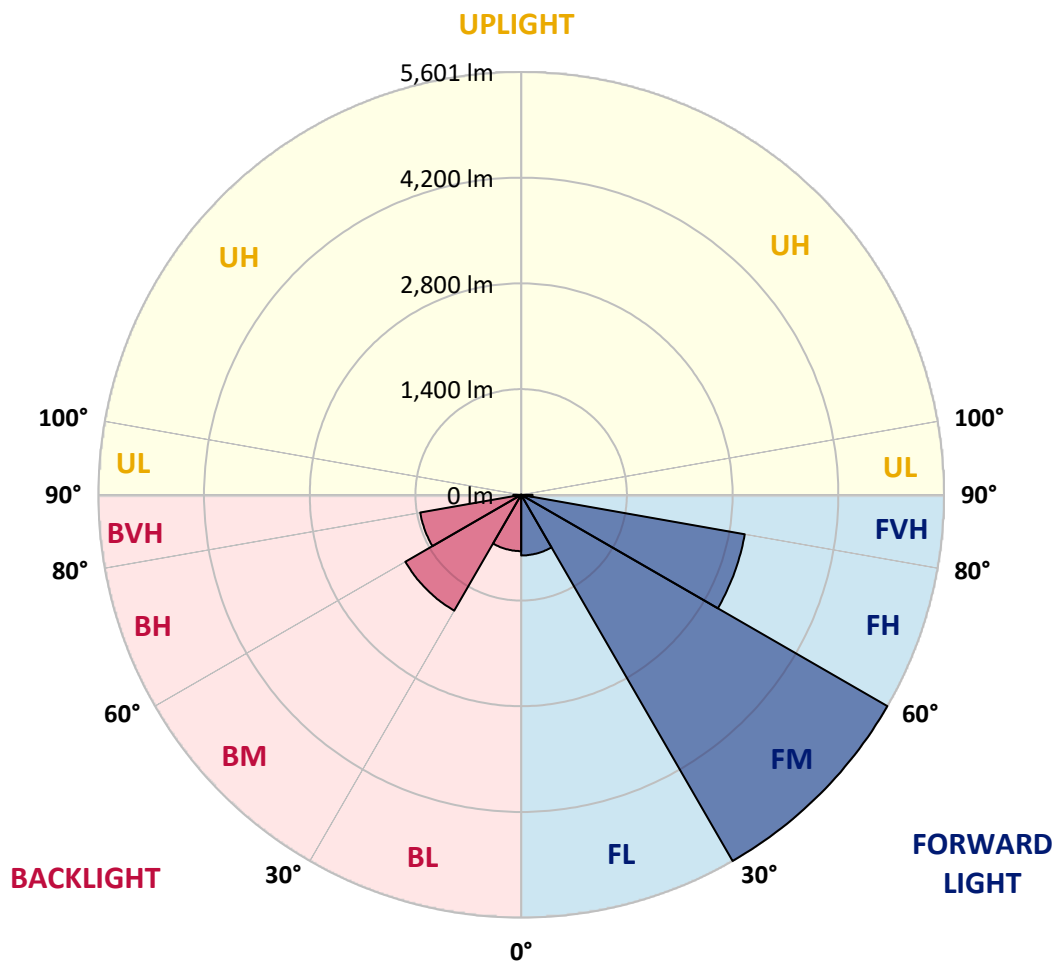
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	803.8	5.9			
FM	(30°-60°)	5600.5	41.4			
FH	(60°-80°)	3007.1	22.2			G2/5000
FVH	(80°-90°)	149.7	1.1			G2/225
BL	(0°-30°)	745.9	5.5	B2/1000		
BM	(30°-60°)	1772.1	13.1	B2/2500		
BH	(60°-80°)	1358.2	10.0	B3/2500		G3/2500
BVH	(80°-90°)	104.6	0.8			G2/225
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°	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6
2.5°	1457.5	1455.2	1455.2	1455.2	1455.2	1453.0	1455.2	1459.8	1457.5	1455.2	1459.8
5°	1462.0	1459.8	1459.8	1459.8	1462.0	1459.8	1462.0	1468.9	1464.4	1464.4	1468.9
7.5°	1473.4	1471.1	1473.4	1471.1	1471.1	1471.1	1473.4	1480.2	1477.9	1480.2	1487.0
10°	1487.0	1487.0	1487.0	1487.0	1487.0	1487.0	1491.5	1496.1	1498.3	1500.6	1509.7
12.5°	1527.8	1527.8	1527.8	1525.5	1525.5	1518.7	1527.8	1532.3	1536.9	1541.4	1548.1
15°	1613.9	1613.9	1611.7	1602.6	1602.6	1588.9	1591.2	1593.6	1593.6	1598.1	1602.6
17.5°	1727.3	1725.0	1720.4	1713.6	1704.5	1688.7	1684.2	1679.7	1672.8	1670.6	1670.6
20°	1885.9	1883.7	1874.6	1856.5	1845.1	1820.1	1802.0	1783.9	1777.1	1765.8	1763.5
22.5°	2112.6	2112.6	2094.5	2067.3	2058.2	2006.0	1953.9	1915.4	1901.8	1885.9	1885.9
25°	2386.9	2384.6	2359.6	2327.9	2289.4	2235.0	2171.5	2119.3	2085.4	2049.1	2035.6
27.5°	2715.5	2708.8	2674.7	2636.2	2563.7	2495.7	2420.9	2366.5	2307.6	2262.2	2221.4
30°	3100.9	3094.1	3035.2	2962.6	2887.8	2819.8	2711.0	2645.2	2552.4	2497.9	2452.6
32.5°	3547.4	3540.6	3434.0	3363.9	3284.5	3200.6	3071.4	2967.2	2849.3	2772.2	2708.8
35°	4116.4	4089.1	3937.3	3839.9	3715.2	3631.3	3495.3	3354.8	3216.5	3107.7	3014.7
37.5°	4730.6	4698.9	4565.2	4420.2	4297.7	4195.7	4003.0	3826.2	3663.1	3513.4	3397.8
40°	5372.1	5288.2	5145.4	5039.0	4955.1	4857.6	4655.9	4470.0	4213.8	4046.1	3871.6
42.5°	5816.4	5734.9	5635.1	5564.9	5524.0	5449.3	5335.9	5174.9	4946.0	4950.6	4490.3
45°	6108.9	5988.7	5920.7	5925.2	5941.1	5941.1	5920.7	5895.8	5796.0	5864.1	5478.7
47.5°	6004.5	5925.2	5882.2	5972.8	6086.1	6199.5	6330.9	6473.7	6637.0	6829.6	6355.9
50°	5392.6	5422.0	5442.4	5635.1	5877.7	6136.1	6437.5	6827.4	7283.0	7371.4	7142.4
52.5°	4415.6	4479.1	4547.0	4841.7	5161.3	5607.9	6136.1	6779.8	7391.8	7752.2	7729.5
55°	3429.5	3508.9	3654.0	3873.8	4127.7	4549.4	5202.1	6195.0	7149.3	7722.8	8071.8
57.5°	2441.3	2556.9	2747.2	3053.3	3277.7	3515.7	3998.5	5100.1	6145.1	7212.7	8015.1
60°	1623.0	1677.3	1802.0	2182.9	2561.4	2810.8	3153.0	3552.0	4406.6	5877.7	7430.3
62.5°	1151.5	1187.7	1264.9	1437.1	1779.4	2230.4	2436.8	2620.3	2894.6	3780.9	5966.1
63°	1088.0	1119.7	1183.2	1328.3	1636.6	2103.5	2314.3	2482.1	2681.6	3382.0	5644.1
65°	902.1	915.7	949.8	1020.0	1185.5	1573.1	1917.6	2019.6	2053.7	2173.8	3536.1
67.5°	761.6	770.7	782.0	802.4	868.2	1047.2	1430.3	1559.5	1521.0	1439.4	1747.6
70°	661.8	668.7	686.8	711.8	734.4	779.8	983.8	1176.4	1133.3	1022.3	1069.9
72.5°	528.1	539.5	559.9	602.9	648.2	707.3	757.1	877.2	850.1	743.5	754.8
75°	417.1	423.9	442.0	473.7	516.8	584.8	682.3	723.1	648.2	548.5	548.5
77.5°	330.9	337.8	353.6	378.6	405.7	453.4	521.4	627.9	582.6	412.6	410.3
80°	249.3	256.1	272.0	294.7	321.9	355.9	396.7	444.3	534.9	385.3	308.3
82.5°	183.6	185.9	213.1	228.9	238.0	265.3	299.2	326.4	367.2	355.9	274.3
85°	138.3	136.1	154.2	165.5	167.8	174.5	195.0	222.2	240.3	231.2	213.1
87.5°	77.0	68.0	79.4	90.6	90.6	93.0	97.5	113.3	129.2	124.7	113.3
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°	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6
2.5°	1459.8	1459.8	1457.5	1457.5	1459.8	1459.8	1457.5	1464.4	1468.9	1468.9	1471.1
5°	1466.6	1468.9	1466.6	1466.6	1468.9	1468.9	1471.1	1477.9	1484.7	1489.2	1496.1
7.5°	1487.0	1489.2	1487.0	1487.0	1489.2	1491.5	1496.1	1505.1	1509.7	1518.7	1530.0
10°	1509.7	1511.9	1509.7	1511.9	1514.2	1516.4	1523.3	1530.0	1536.9	1545.9	1564.1
12.5°	1550.5	1552.7	1548.1	1550.5	1557.2	1557.2	1561.7	1566.3	1577.6	1588.9	1607.2
15°	1607.2	1607.2	1602.6	1604.8	1611.7	1611.7	1613.9	1618.4	1632.0	1645.6	1663.8
17.5°	1672.8	1677.3	1675.1	1677.3	1681.9	1684.2	1684.2	1688.7	1697.8	1706.9	1725.0
20°	1761.2	1763.5	1759.0	1763.5	1768.1	1763.5	1759.0	1756.7	1761.2	1765.8	1786.2
22.5°	1881.4	1879.2	1867.8	1867.8	1867.8	1858.7	1847.3	1833.7	1833.7	1827.0	1842.8
25°	2024.2	2017.4	2001.5	2003.8	1987.9	1974.3	1953.9	1933.5	1915.4	1908.6	1910.9
27.5°	2191.9	2178.4	2162.4	2157.9	2142.1	2117.1	2083.1	2044.6	2015.1	1992.5	1987.9
30°	2402.7	2373.2	2346.0	2341.5	2316.6	2275.8	2221.4	2169.3	2119.3	2080.9	2067.3
32.5°	2652.1	2606.8	2563.7	2559.1	2518.3	2464.0	2398.2	2325.7	2253.2	2191.9	2162.4
35°	2944.5	2876.4	2835.7	2824.4	2765.4	2697.4	2624.9	2531.9	2429.9	2343.8	2289.4
37.5°	3300.3	3230.1	3159.8	3162.0	3080.5	3001.1	2903.6	2790.3	2661.1	2541.0	2464.0
40°	3740.1	3640.4	3549.7	3529.3	3459.0	3347.9	3241.4	3110.0	2951.3	2792.7	2681.6
42.5°	4272.8	4109.6	3984.9	3966.8	3873.8	3737.9	3608.7	3434.0	3273.1	3080.5	2946.7
45°	4878.0	4617.3	4467.7	4440.5	4290.9	4152.7	3996.3	3810.4	3613.2	3395.6	3236.9
47.5°	5630.5	5258.8	5004.9	4959.6	4753.3	4572.0	4408.8	4202.5	3966.8	3724.3	3549.7
50°	6507.8	5959.2	5616.9	5546.6	5270.1	5057.1	4848.6	4590.1	4338.5	4084.6	3882.9
52.5°	7387.2	6797.9	6342.3	6256.2	5848.2	5562.6	5288.2	5029.8	4732.9	4481.3	4252.4
55°	8094.5	7702.3	7174.2	7054.1	6469.2	6081.6	5721.3	5426.5	5131.8	4932.4	4662.7
57.5°	8520.7	8500.2	8083.2	7917.6	7117.5	6544.0	6142.8	5807.4	5521.8	5437.9	5079.8
60°	8509.3	9037.5	8858.3	8733.7	7772.6	7017.7	6496.5	6133.8	5898.0	5993.3	5499.1
62.5°	7990.3	9060.1	9275.5	9241.4	8470.7	7398.6	6786.6	6412.6	6287.9	6571.2	5934.3
63°	7802.0	9008.0	9293.6	9280.0	8604.6	7471.1	6836.5	6467.0	6365.0	6718.5	6013.6
65°	6593.9	8552.4	9073.7	9135.0	8892.4	7720.5	6952.1	6605.3	6593.9	7047.2	6201.7
67.5°	4018.9	7226.3	8083.2	8201.0	8486.6	7799.8	6886.3	6557.6	6720.9	7094.9	6145.1
70°	1718.1	4769.2	6496.5	6686.8	7385.0	7405.4	6698.2	6362.8	6691.4	6723.1	5741.6
72.5°	1017.7	2248.5	4422.4	4837.2	5843.6	6371.8	6267.5	6022.7	6303.7	5904.8	4889.3
75°	720.8	1051.8	2246.3	2688.3	4068.8	4864.4	5265.6	5379.0	5367.6	4683.1	3669.8
77.5°	516.8	675.5	947.5	1117.5	2271.3	3123.6	3613.2	3944.1	3837.6	3134.9	2262.2
80°	360.4	467.0	580.3	616.5	1054.0	1604.8	1904.0	2049.1	1985.6	1566.3	1013.2
82.5°	260.6	306.0	374.0	396.7	530.4	741.2	881.8	777.4	745.7	578.0	437.5
85°	201.7	197.2	233.4	242.5	310.6	387.6	396.7	308.3	269.8	240.3	244.8
87.5°	142.8	122.4	124.7	129.2	160.9	206.2	201.7	126.9	108.8	115.6	131.4
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°	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6	1466.6
2.5°	1475.6	1477.9	1482.5	1484.7	1489.2	1489.2	1493.8	1496.1	1500.6	1505.1	1507.4
5°	1502.8	1509.7	1518.7	1523.3	1532.3	1539.1	1548.1	1552.7	1561.7	1568.6	1577.6
7.5°	1543.6	1555.0	1566.3	1579.9	1593.6	1604.8	1613.9	1625.3	1641.1	1652.5	1659.2
10°	1582.2	1598.1	1618.4	1634.3	1654.7	1670.6	1684.2	1704.5	1722.8	1738.6	1747.6
12.5°	1632.0	1652.5	1672.8	1697.8	1725.0	1745.4	1765.8	1793.0	1817.9	1836.1	1845.1
15°	1690.9	1715.9	1738.6	1768.1	1799.8	1827.0	1856.5	1885.9	1904.0	1904.0	1899.5
17.5°	1752.2	1772.6	1799.8	1833.7	1876.8	1910.9	1926.7	1931.2	1924.5	1908.6	1897.3
20°	1813.4	1831.5	1861.0	1901.8	1947.1	1953.9	1938.1	1917.6	1897.3	1870.1	1852.0
22.5°	1863.2	1888.2	1933.5	1981.1	1983.4	1944.8	1901.8	1867.8	1836.1	1804.3	1770.3
25°	1922.2	1956.2	2017.4	2035.6	1976.5	1904.0	1842.8	1793.0	1740.9	1688.7	1650.2
27.5°	1994.8	2044.6	2105.7	2053.7	1938.1	1836.1	1752.2	1677.3	1609.4	1536.9	1493.8
30°	2071.8	2148.8	2162.4	2026.5	1872.3	1740.9	1627.5	1514.2	1428.0	1362.3	1337.4
32.5°	2164.8	2264.5	2182.9	1978.9	1783.9	1611.7	1459.8	1323.8	1251.3	1210.5	1199.1
35°	2305.2	2386.9	2194.2	1929.0	1681.9	1457.5	1267.1	1158.3	1113.0	1085.8	1072.2
37.5°	2507.0	2504.7	2191.9	1867.8	1564.1	1289.7	1113.0	1035.9	999.6	976.9	952.1
40°	2742.7	2595.4	2178.4	1779.4	1405.3	1128.8	1006.4	933.9	899.9	872.7	843.2
42.5°	2976.2	2656.6	2139.8	1647.9	1208.2	1013.2	929.4	863.6	827.4	797.9	757.1
45°	3178.0	2681.6	2065.0	1466.6	1031.3	922.6	879.5	822.9	779.8	734.4	702.7
47.5°	3336.7	2677.0	1944.8	1253.5	913.5	859.1	838.7	800.2	748.0	691.3	650.6
50°	3470.4	2643.0	1781.7	1065.4	834.1	802.4	795.7	784.3	700.4	652.8	627.9
52.5°	3592.8	2593.2	1607.2	938.5	766.2	739.0	752.6	741.2	682.3	641.5	616.5
55°	3760.5	2559.1	1434.8	841.0	686.8	680.1	691.3	707.3	671.0	632.4	605.2
57.5°	3957.7	2577.2	1303.3	732.1	612.0	616.5	655.1	677.7	659.6	618.8	591.6
60°	4184.4	2631.6	1187.7	627.9	550.9	562.1	618.8	650.6	648.2	600.7	569.0
62.5°	4438.3	2688.3	1004.1	548.5	498.7	516.8	575.7	616.5	623.4	582.6	544.0
63°	4488.1	2692.9	956.6	532.7	489.6	510.0	564.5	607.5	616.5	578.0	539.5
65°	4610.5	2652.1	770.7	489.6	453.4	476.0	530.4	569.0	587.1	553.1	521.4
67.5°	4508.6	2318.8	580.3	437.5	423.9	439.8	487.3	523.6	539.5	523.6	491.8
70°	4123.2	1686.4	453.4	389.8	392.1	403.5	439.8	473.7	491.8	487.3	457.9
72.5°	3320.8	956.6	378.6	349.0	355.9	369.5	394.4	426.2	442.0	439.8	419.3
75°	2187.4	489.6	319.6	312.8	317.3	328.7	346.8	371.7	389.8	387.6	378.6
77.5°	1083.5	340.0	274.3	276.5	278.9	287.9	301.5	324.2	335.4	337.8	335.4
80°	446.5	265.3	235.8	238.0	240.3	247.0	256.1	276.5	283.4	287.9	290.1
82.5°	267.5	201.7	188.1	192.6	195.0	201.7	208.6	226.7	233.4	240.3	240.3
85°	176.8	140.6	136.1	140.6	145.1	149.6	151.9	163.2	174.5	183.6	188.1
87.5°	95.2	83.9	81.6	83.9	83.9	88.4	93.0	104.2	117.8	126.9	131.4
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):

	160°	165°	170°	175°	180°
0°	1466.6	1466.6	1466.6	1466.6	1466.6
2.5°	1502.8	1505.1	1502.8	1505.1	1507.4
5°	1577.6	1582.2	1579.9	1579.9	1588.9
7.5°	1663.8	1672.8	1672.8	1677.3	1681.9
10°	1756.7	1765.8	1772.6	1772.6	1779.4
12.5°	1849.7	1854.2	1861.0	1861.0	1861.0
15°	1897.3	1895.0	1892.8	1890.4	1890.4
17.5°	1890.4	1881.4	1876.8	1872.3	1874.6
20°	1840.6	1824.7	1820.1	1813.4	1817.9
22.5°	1754.5	1731.8	1722.8	1711.4	1715.9
25°	1625.3	1598.1	1593.6	1579.9	1586.7
27.5°	1475.6	1462.0	1459.8	1457.5	1468.9
30°	1335.1	1339.7	1341.9	1346.4	1357.8
32.5°	1205.9	1215.0	1217.2	1219.5	1235.4
35°	1079.0	1067.7	1079.0	1074.4	1088.0
37.5°	940.7	931.6	922.6	911.2	920.2
40°	825.1	809.3	782.0	768.4	770.7
42.5°	734.4	714.0	691.3	677.7	677.7
45°	675.5	650.6	630.1	621.0	621.0
47.5°	630.1	618.8	607.5	600.7	600.7
50°	612.0	598.4	591.6	587.1	587.1
52.5°	598.4	584.8	578.0	573.5	569.0
55°	587.1	566.7	559.9	557.6	557.6
57.5°	571.2	553.1	544.0	541.8	541.8
60°	546.3	532.7	523.6	521.4	521.4
62.5°	521.4	507.8	498.7	498.7	498.7
63°	516.8	500.9	494.2	494.2	494.2
65°	496.4	480.6	473.7	473.7	471.5
67.5°	469.2	453.4	448.8	448.8	444.3
70°	437.5	423.9	419.3	421.7	412.6
72.5°	405.7	392.1	385.3	385.3	376.2
75°	369.5	355.9	346.8	344.5	335.4
77.5°	328.7	317.3	308.3	299.2	294.7
80°	285.6	276.5	265.3	258.4	251.6
82.5°	240.3	231.2	224.4	233.4	199.5
85°	188.1	179.1	170.0	183.6	142.8
87.5°	138.3	133.7	124.7	108.8	95.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)