

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: P265844

Luminaire Tested: **ARCH-M-AF48-140-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265844
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-AF48-140-D-U-T2U-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 905mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14674.1 lumens
Efficiency: N/A
Efficacy: 104.1 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): 141
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

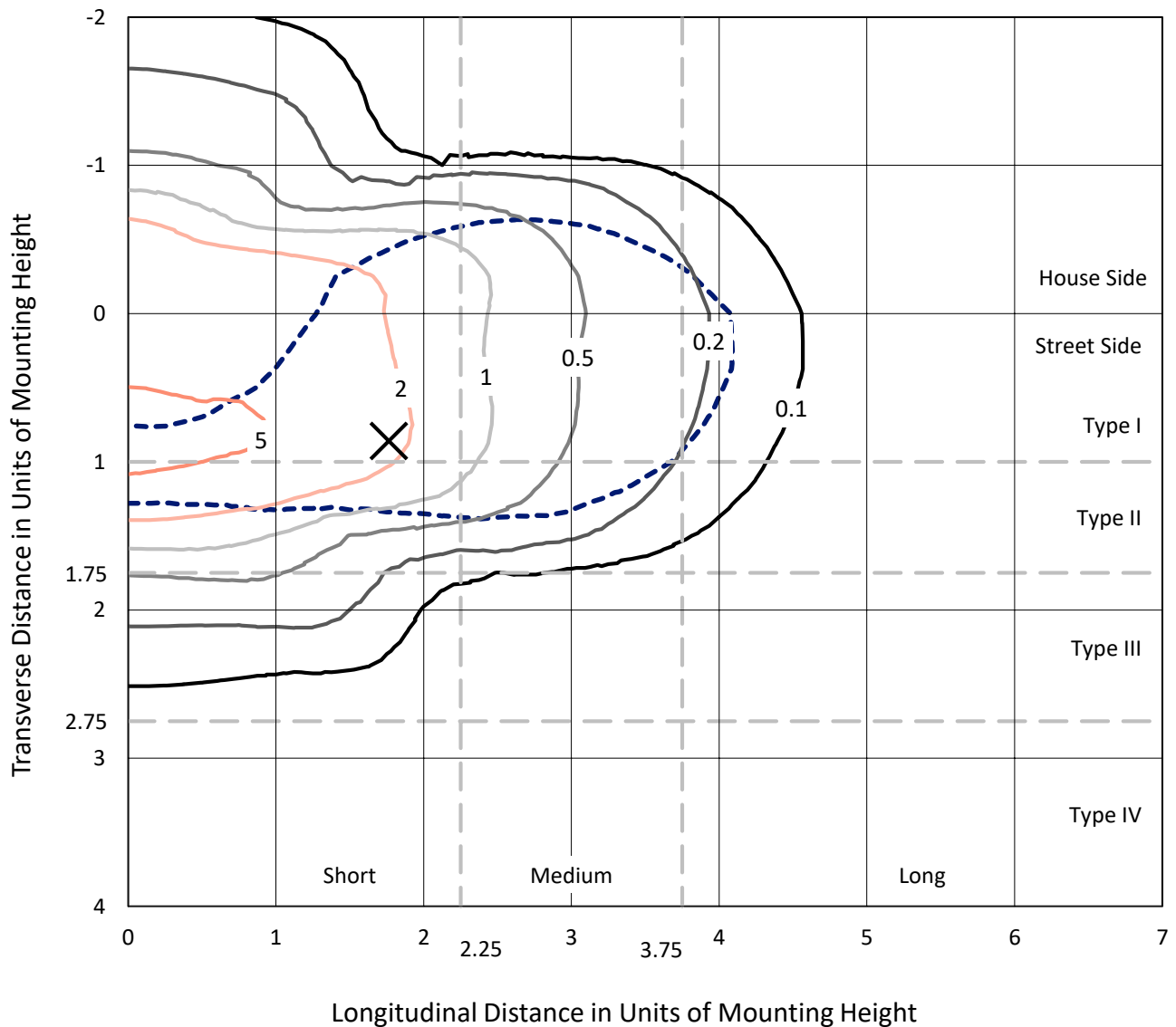


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

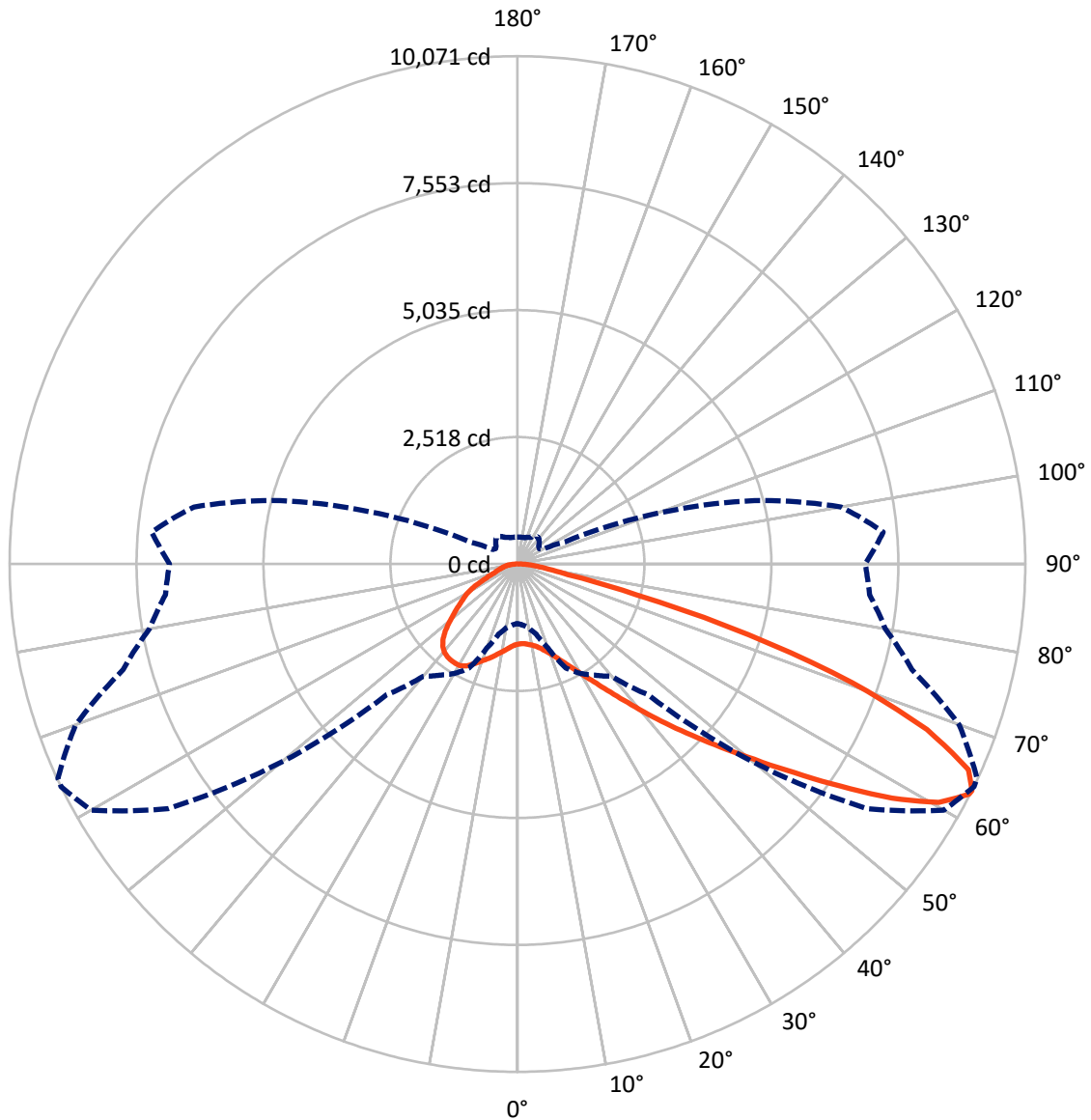


Based on 20 foot mounting height. Maximum calculated value = 6.4 fc
 Type II - Short - Semi-Cutoff

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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	4313.7	0.0	4313.7
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	10360.5	0.0	10360.5
	% Fixture	70.6	0.0	70.6
Total	Lumens	14674.1	0.0	14674.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	158.7	1.1
10°-20°	528.5	3.6
20°-30°	992.0	6.8
30°-40°	1662.8	11.3
40°-50°	2789.8	19.0
50°-60°	3536.6	24.1
60°-70°	3119.8	21.3
70°-80°	1610.5	11.0
80°-90°	275.6	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°	14674.1	100.0
0°-180°	14674.1	100.0



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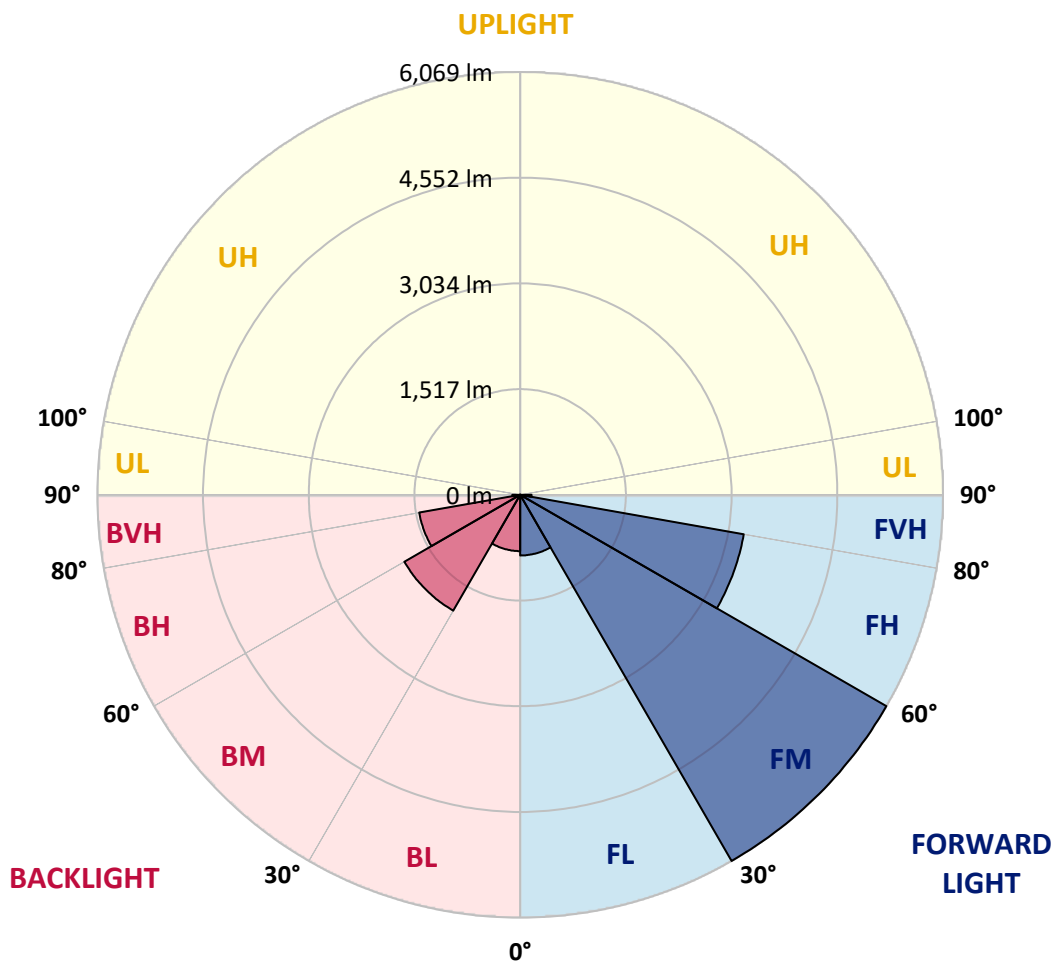
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	871.0	5.9			
FM	(30°-60°)	6068.8	41.4			
FH	(60°-80°)	3258.5	22.2			G2/5000
FVH	(80°-90°)	162.2	1.1			G2/225
BL	(0°-30°)	808.2	5.5	B2/1000		
BM	(30°-60°)	1920.2	13.1	B2/2500		
BH	(60°-80°)	1471.8	10.0	B3/2500		G3/2500
BVH	(80°-90°)	113.4	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°	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2
2.5°	1579.4	1577.0	1577.0	1577.0	1577.0	1574.5	1577.0	1581.8	1579.4	1577.0	1581.8
5°	1584.3	1581.8	1581.8	1581.8	1584.3	1581.8	1584.3	1591.6	1586.8	1586.8	1591.6
7.5°	1596.6	1594.1	1596.6	1594.1	1594.1	1594.1	1596.6	1604.0	1601.5	1604.0	1611.3
10°	1611.3	1611.3	1611.3	1611.3	1611.3	1611.3	1616.2	1621.1	1623.5	1626.0	1635.9
12.5°	1655.5	1655.5	1655.5	1653.2	1653.2	1645.7	1655.5	1660.4	1665.4	1670.3	1677.7
15°	1748.9	1748.9	1746.5	1736.6	1736.6	1721.8	1724.2	1726.7	1726.7	1731.7	1736.6
17.5°	1871.7	1869.3	1864.3	1856.9	1847.2	1829.8	1824.9	1820.1	1812.7	1810.3	1810.3
20°	2043.6	2041.2	2031.3	2011.7	1999.4	1972.4	1952.7	1933.2	1925.6	1913.4	1911.0
22.5°	2289.2	2289.2	2269.6	2240.2	2230.3	2173.8	2117.2	2075.5	2060.8	2043.6	2043.6
25°	2586.4	2584.0	2556.9	2522.6	2480.8	2421.9	2353.1	2296.5	2259.7	2220.5	2205.7
27.5°	2942.6	2935.2	2898.4	2856.6	2778.0	2704.3	2623.3	2564.3	2500.5	2451.4	2407.2
30°	3360.2	3352.8	3289.0	3210.4	3129.2	3055.6	2937.6	2866.4	2765.7	2706.9	2657.6
32.5°	3844.0	3836.8	3721.3	3645.1	3559.2	3468.3	3328.2	3215.3	3087.6	3004.0	2935.2
35°	4460.5	4431.1	4266.5	4160.9	4025.8	3934.9	3787.6	3635.4	3485.5	3367.6	3266.9
37.5°	5126.2	5091.9	4947.0	4789.8	4657.1	4546.5	4337.7	4146.1	3969.3	3807.1	3682.0
40°	5821.3	5730.5	5575.7	5460.3	5369.3	5263.8	5045.2	4843.8	4566.2	4384.4	4195.4
42.5°	6302.8	6214.4	6106.3	6030.1	5985.9	5904.9	5782.0	5607.7	5359.6	5364.5	4865.8
45°	6619.6	6489.4	6415.8	6420.6	6437.9	6437.9	6415.8	6388.7	6280.7	6354.3	5936.8
47.5°	6506.7	6420.6	6374.1	6472.3	6595.0	6717.9	6860.4	7015.0	7191.9	7400.7	6887.3
50°	5843.5	5875.4	5897.6	6106.3	6369.2	6649.2	6975.8	7398.4	7892.0	7987.8	7739.6
52.5°	4784.8	4853.6	4927.3	5246.6	5592.8	6076.9	6649.2	7346.7	8009.8	8400.4	8375.8
55°	3716.3	3802.3	3959.5	4197.8	4472.8	4929.7	5637.1	6712.9	7747.1	8368.5	8746.7
57.5°	2645.4	2770.6	2977.1	3308.5	3551.8	3809.6	4332.9	5526.6	6659.0	7815.9	8685.4
60°	1758.7	1817.6	1952.7	2365.3	2775.6	3045.8	3416.7	3849.0	4775.0	6369.2	8051.6
62.5°	1247.7	1287.1	1370.6	1557.3	1928.1	2417.0	2640.5	2839.5	3136.6	4097.0	6464.9
63°	1179.0	1213.4	1282.2	1439.4	1773.4	2279.4	2507.9	2689.6	2905.7	3664.7	6116.1
65°	977.5	992.4	1029.2	1105.4	1284.7	1704.7	2078.0	2188.5	2225.5	2355.5	3831.8
67.5°	825.4	835.2	847.5	869.5	940.7	1134.7	1549.8	1689.9	1648.1	1559.7	1893.7
70°	717.2	724.7	744.2	771.3	795.8	844.9	1066.0	1274.9	1228.2	1107.8	1159.4
72.5°	572.3	584.5	606.6	653.3	702.5	766.3	820.4	950.5	921.1	805.7	817.9
75°	451.9	459.4	478.9	513.3	560.1	633.8	739.3	783.5	702.5	594.4	594.4
77.5°	358.7	366.0	383.1	410.2	439.7	491.3	564.9	680.3	631.2	447.0	444.7
80°	270.2	277.5	294.7	319.3	348.8	385.6	429.8	481.4	579.6	417.5	334.1
82.5°	199.0	201.4	230.9	248.1	258.0	287.4	324.2	353.8	397.9	385.6	297.2
85°	149.8	147.4	167.1	179.3	181.7	189.2	211.2	240.7	260.4	250.5	230.9
87.5°	83.5	73.8	86.0	98.3	98.3	100.7	105.6	122.8	140.0	135.0	122.8
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2
2.5°	1581.8	1581.8	1579.4	1579.4	1581.8	1581.8	1579.4	1586.8	1591.6	1591.6	1594.1
5°	1589.2	1591.6	1589.2	1589.2	1591.6	1591.6	1594.1	1601.5	1608.9	1613.7	1621.1
7.5°	1611.3	1613.7	1611.3	1611.3	1613.7	1616.2	1621.1	1631.0	1635.9	1645.7	1658.0
10°	1635.9	1638.2	1635.9	1638.2	1640.8	1643.2	1650.6	1658.0	1665.4	1675.2	1694.8
12.5°	1680.1	1682.5	1677.7	1680.1	1687.5	1687.5	1692.3	1697.3	1709.6	1721.8	1741.5
15°	1741.5	1741.5	1736.6	1738.9	1746.5	1746.5	1748.9	1753.9	1768.6	1783.2	1802.9
17.5°	1812.7	1817.6	1815.1	1817.6	1822.5	1824.9	1824.9	1829.8	1839.8	1849.6	1869.3
20°	1908.4	1911.0	1906.1	1911.0	1915.8	1911.0	1906.1	1903.6	1908.4	1913.4	1935.6
22.5°	2038.8	2036.3	2023.9	2023.9	2023.9	2014.1	2001.9	1987.1	1987.1	1979.8	1996.9
25°	2193.4	2186.0	2168.9	2171.4	2154.1	2139.5	2117.2	2095.1	2075.5	2068.2	2070.7
27.5°	2375.2	2360.4	2343.3	2338.4	2321.2	2294.1	2257.4	2215.6	2183.6	2159.0	2154.1
30°	2603.6	2571.7	2542.3	2537.4	2510.4	2466.0	2407.2	2350.7	2296.5	2254.8	2240.2
32.5°	2873.9	2824.7	2778.0	2773.1	2729.0	2669.9	2598.7	2520.1	2441.6	2375.2	2343.3
35°	3190.7	3116.9	3072.8	3060.4	2996.7	2922.9	2844.4	2743.7	2633.1	2539.8	2480.8
37.5°	3576.3	3500.2	3424.0	3426.4	3338.0	3252.1	3146.5	3023.7	2883.6	2753.5	2669.9
40°	4052.9	3944.7	3846.5	3824.4	3748.3	3628.0	3512.5	3370.0	3198.1	3026.1	2905.7
42.5°	4630.0	4453.2	4318.2	4298.5	4197.8	4050.4	3910.4	3721.3	3546.9	3338.0	3193.1
45°	5285.8	5003.4	4841.2	4811.9	4649.6	4499.9	4330.4	4129.0	3915.4	3679.5	3507.5
47.5°	6101.4	5698.5	5423.4	5374.3	5150.8	4954.3	4777.5	4553.9	4298.5	4035.6	3846.5
50°	7052.0	6457.6	6086.6	6010.5	5710.9	5479.9	5253.9	4973.9	4701.3	4426.2	4207.7
52.5°	8004.9	7366.3	6872.7	6779.2	6337.2	6027.6	5730.5	5450.5	5128.7	4856.1	4607.9
55°	8771.3	8346.4	7774.1	7643.9	7010.2	6590.1	6199.7	5880.2	5561.0	5344.8	5052.5
57.5°	9233.0	9211.0	8759.1	8579.7	7712.7	7091.2	6656.5	6292.9	5983.5	5892.6	5504.5
60°	9220.8	9793.1	9599.1	9464.0	8422.5	7604.6	7039.7	6646.6	6391.3	6494.3	5958.8
62.5°	8658.4	9817.7	10051.0	10014.1	9179.1	8017.3	7354.1	6948.7	6813.6	7120.8	6430.4
63°	8454.5	9761.3	10070.7	10055.9	9324.0	8095.9	7408.1	7007.7	6897.1	7280.4	6516.5
65°	7145.3	9267.5	9832.4	9898.8	9635.8	8366.0	7533.4	7157.5	7145.3	7636.5	6720.3
67.5°	4355.0	7830.5	8759.1	8886.8	9196.3	8452.1	7462.1	7106.0	7282.7	7688.1	6659.0
70°	1861.8	5167.9	7039.7	7246.0	8002.6	8024.6	7258.2	6894.8	7250.8	7285.3	6221.8
72.5°	1102.8	2436.7	4792.2	5241.7	6332.2	6904.6	6791.5	6526.2	6830.9	6398.5	5298.2
75°	781.0	1139.7	2434.1	2913.2	4409.1	5271.2	5705.9	5828.7	5816.4	5074.6	3976.6
77.5°	560.1	731.9	1026.8	1210.9	2461.1	3384.8	3915.4	4273.9	4158.4	3397.0	2451.4
80°	390.6	505.9	628.9	668.1	1142.1	1738.9	2063.2	2220.5	2151.7	1697.3	1098.0
82.5°	282.4	331.7	405.2	429.8	574.7	803.3	955.4	842.5	808.1	626.4	474.0
85°	218.6	213.6	253.1	262.8	336.5	420.0	429.8	334.1	292.3	260.4	265.3
87.5°	154.8	132.6	135.0	140.0	174.5	223.5	218.6	137.5	117.9	125.3	142.6
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°	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2	1589.2
2.5°	1599.1	1601.5	1606.3	1608.9	1613.7	1613.7	1618.7	1621.1	1626.0	1631.0	1633.4
5°	1628.4	1635.9	1645.7	1650.6	1660.4	1667.9	1677.7	1682.5	1692.3	1699.8	1709.6
7.5°	1672.7	1685.0	1697.3	1712.0	1726.7	1738.9	1748.9	1761.1	1778.4	1790.6	1798.0
10°	1714.4	1731.7	1753.9	1771.0	1793.0	1810.3	1824.9	1847.2	1866.8	1883.9	1893.7
12.5°	1768.6	1790.6	1812.7	1839.8	1869.3	1891.3	1913.4	1942.9	1970.0	1989.6	1999.4
15°	1832.4	1859.4	1883.9	1915.8	1950.3	1979.8	2011.7	2043.6	2063.2	2063.2	2058.3
17.5°	1898.7	1920.8	1950.3	1987.1	2033.9	2070.7	2087.8	2092.7	2085.3	2068.2	2056.0
20°	1965.0	1984.6	2016.5	2060.8	2109.8	2117.2	2100.1	2078.0	2056.0	2026.4	2006.8
22.5°	2019.0	2046.1	2095.1	2146.8	2149.3	2107.5	2060.8	2023.9	1989.6	1955.3	1918.3
25°	2082.9	2119.8	2186.0	2205.7	2141.9	2063.2	1996.9	1942.9	1886.4	1829.8	1788.2
27.5°	2161.5	2215.6	2281.9	2225.5	2100.1	1989.6	1898.7	1817.6	1744.0	1665.4	1618.7
30°	2245.0	2328.5	2343.3	2195.8	2028.9	1886.4	1763.6	1640.8	1547.4	1476.3	1449.1
32.5°	2345.7	2453.8	2365.3	2144.3	1933.2	1746.5	1581.8	1434.5	1355.8	1311.6	1299.4
35°	2498.0	2586.4	2377.6	2090.3	1822.5	1579.4	1373.1	1255.1	1206.1	1176.5	1161.8
37.5°	2716.7	2714.1	2375.2	2023.9	1694.8	1397.7	1206.1	1122.5	1083.1	1058.7	1031.7
40°	2972.1	2812.5	2360.4	1928.1	1522.8	1223.2	1090.6	1012.0	975.1	945.6	913.8
42.5°	3225.1	2878.8	2318.7	1785.7	1309.2	1098.0	1007.1	935.9	896.6	864.6	820.4
45°	3443.7	2905.7	2237.7	1589.2	1117.6	999.8	953.0	891.6	844.9	795.8	761.5
47.5°	3615.6	2900.8	2107.5	1358.2	989.9	931.0	908.8	867.0	810.6	749.1	704.9
50°	3760.6	2863.9	1930.5	1154.4	904.0	869.5	862.2	849.8	759.0	707.4	680.3
52.5°	3893.2	2810.0	1741.5	1016.9	830.3	800.7	815.5	803.3	739.3	695.1	668.1
55°	4074.9	2773.1	1554.8	911.3	744.2	736.9	749.1	766.3	727.1	685.2	655.9
57.5°	4288.7	2792.8	1412.3	793.4	663.2	668.1	709.9	734.5	714.8	670.6	641.1
60°	4534.3	2851.7	1287.1	680.3	596.8	609.1	670.6	704.9	702.5	650.9	616.5
62.5°	4809.3	2913.2	1088.1	594.4	540.4	560.1	624.0	668.1	675.4	631.2	589.5
63°	4863.5	2918.1	1036.6	577.3	530.5	552.6	611.6	658.3	668.1	626.4	584.5
65°	4996.1	2873.9	835.2	530.5	491.3	515.7	574.7	616.5	636.2	599.3	564.9
67.5°	4885.5	2512.7	628.9	474.0	459.4	476.6	528.2	567.4	584.5	567.4	533.1
70°	4467.9	1827.4	491.3	422.5	425.0	437.2	476.6	513.3	533.1	528.2	496.1
72.5°	3598.4	1036.6	410.2	378.2	385.6	400.4	427.5	461.8	478.9	476.6	454.5
75°	2370.3	530.5	346.3	339.0	344.0	356.2	375.9	402.8	422.5	420.0	410.2
77.5°	1174.1	368.5	297.2	299.7	302.1	311.9	326.7	351.2	363.5	366.0	363.5
80°	483.8	287.4	255.5	258.0	260.4	267.8	277.5	299.7	307.0	311.9	314.3
82.5°	289.9	218.6	203.8	208.8	211.2	218.6	226.0	245.6	253.1	260.4	260.4
85°	191.6	152.4	147.4	152.4	157.3	162.1	164.6	176.8	189.2	199.0	203.8
87.5°	103.1	90.9	88.5	90.9	90.9	95.8	100.7	112.9	127.6	137.5	142.6
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°	1589.2	1589.2	1589.2	1589.2	1589.2
2.5°	1628.4	1631.0	1628.4	1631.0	1633.4
5°	1709.6	1714.4	1712.0	1712.0	1721.8
7.5°	1802.9	1812.7	1812.7	1817.6	1822.5
10°	1903.6	1913.4	1920.8	1920.8	1928.1
12.5°	2004.3	2009.1	2016.5	2016.5	2016.5
15°	2056.0	2053.4	2051.0	2048.6	2048.6
17.5°	2048.6	2038.8	2033.9	2028.9	2031.3
20°	1994.4	1977.3	1972.4	1965.0	1970.0
22.5°	1901.2	1876.6	1866.8	1854.6	1859.4
25°	1761.1	1731.7	1726.7	1712.0	1719.4
27.5°	1599.1	1584.3	1581.8	1579.4	1591.6
30°	1446.7	1451.7	1454.0	1458.9	1471.3
32.5°	1306.8	1316.6	1319.0	1321.4	1338.7
35°	1169.1	1156.8	1169.1	1164.3	1179.0
37.5°	1019.3	1009.5	999.8	987.3	997.3
40°	894.1	876.8	847.5	832.6	835.2
42.5°	795.8	773.7	749.1	734.5	734.5
45°	731.9	704.9	682.8	673.0	673.0
47.5°	682.8	670.6	658.3	650.9	650.9
50°	663.2	648.4	641.1	636.2	636.2
52.5°	648.4	633.8	626.4	621.4	616.5
55°	636.2	614.1	606.6	604.2	604.2
57.5°	619.0	599.3	589.5	587.0	587.0
60°	592.0	577.3	567.4	564.9	564.9
62.5°	564.9	550.2	540.4	540.4	540.4
63°	560.1	542.8	535.5	535.5	535.5
65°	537.9	520.7	513.3	513.3	510.9
67.5°	508.4	491.3	486.3	486.3	481.4
70°	474.0	459.4	454.5	456.9	447.0
72.5°	439.7	425.0	417.5	417.5	407.7
75°	400.4	385.6	375.9	373.3	363.5
77.5°	356.2	344.0	334.1	324.2	319.3
80°	309.5	299.7	287.4	280.0	272.6
82.5°	260.4	250.5	243.3	253.1	216.1
85°	203.8	194.0	184.2	199.0	154.8
87.5°	149.8	144.9	135.0	117.9	103.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)