

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: P265835

Luminaire Tested: **ARCH-M-AF48-130-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265835
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-AF48-130-D-U-T2U-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 845mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13947.8 lumens
Efficiency: N/A
Efficacy: 106.5 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): 131
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

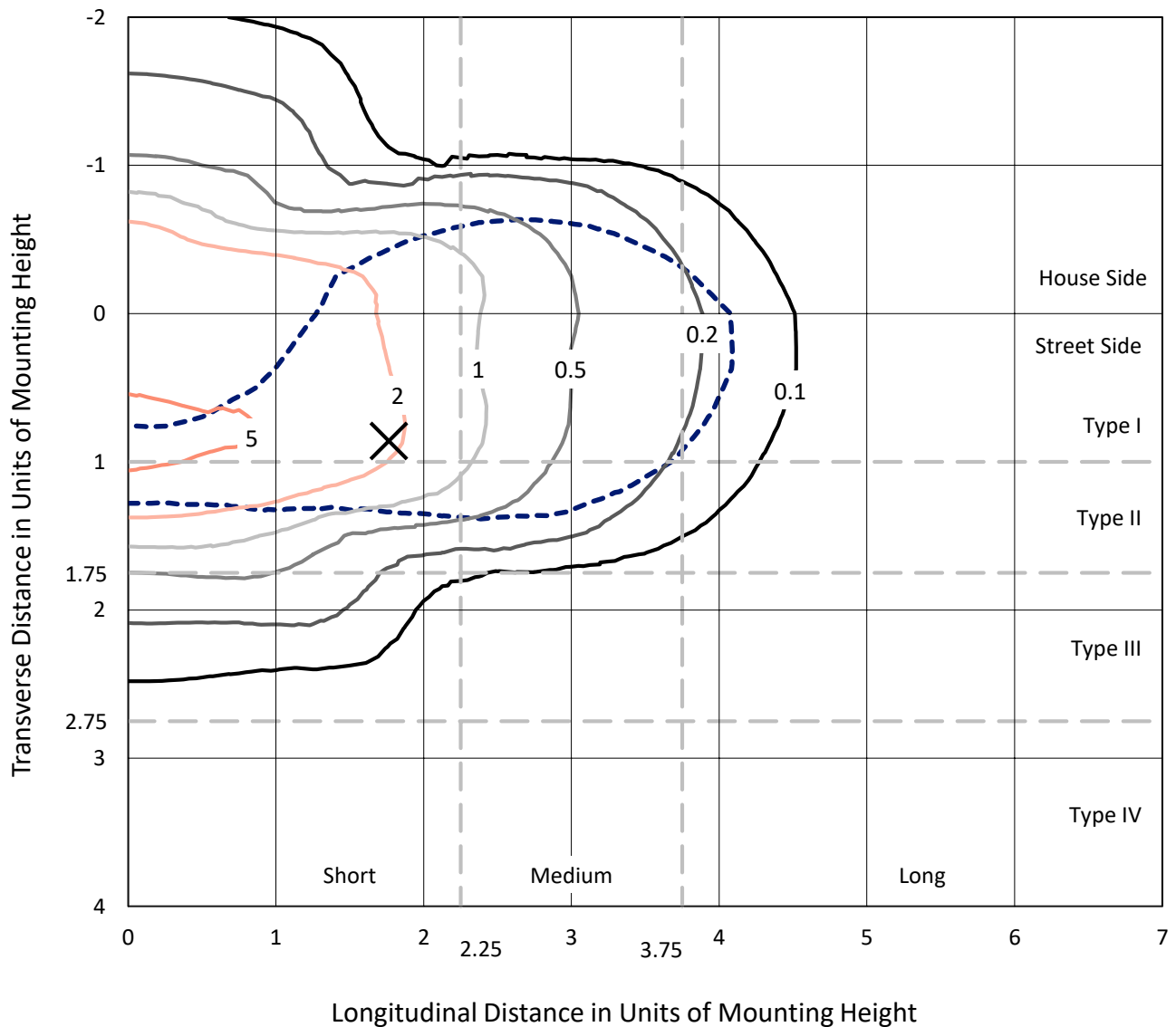


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

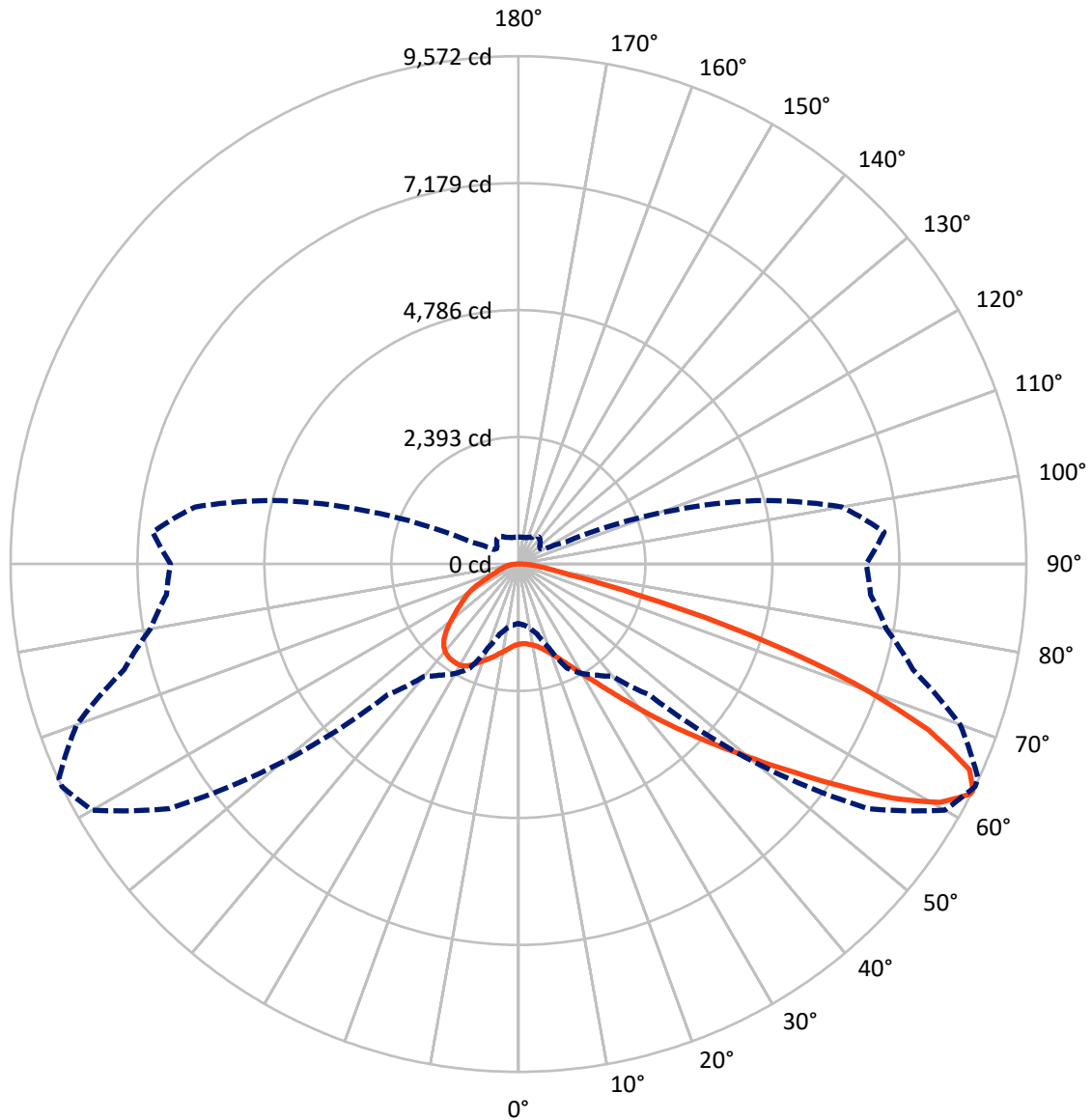


Based on 20 foot mounting height. Maximum calculated value = 6.1 fc
 Type II - Short - Semi-Cutoff

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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	4100.2	0.0	4100.2
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	9847.7	0.0	9847.7
	% Fixture	70.6	0.0	70.6
Total	Lumens	13947.8	0.0	13947.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	150.8	1.1
10°-20°	502.3	3.6
20°-30°	942.9	6.8
30°-40°	1580.5	11.3
40°-50°	2651.7	19.0
50°-60°	3361.5	24.1
60°-70°	2965.4	21.3
70°-80°	1530.8	11.0
80°-90°	261.9	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°	13947.8	100.0
0°-180°	13947.8	100.0



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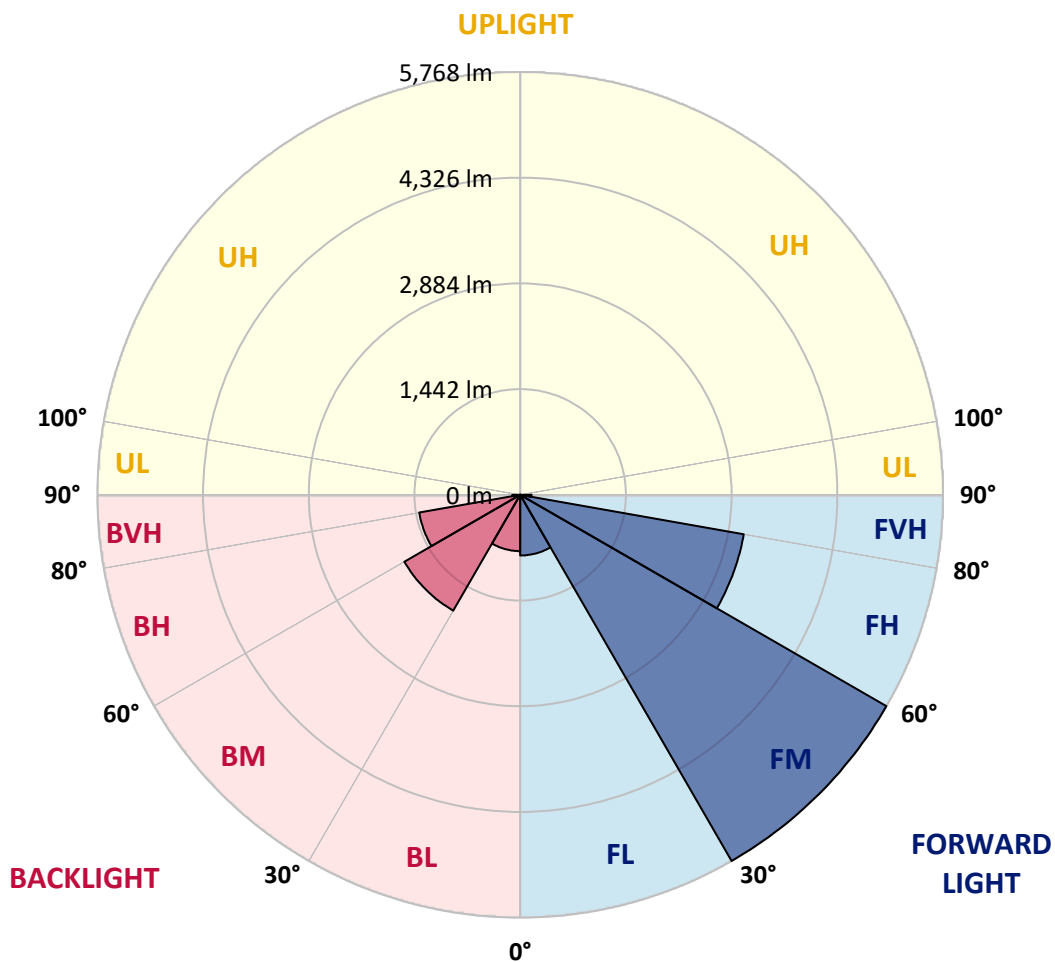
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	827.9	5.9			
FM	(30°-60°)	5768.5	41.4			
FH	(60°-80°)	3097.2	22.2			G2/5000
FVH	(80°-90°)	154.1	1.1			G2/225
BL	(0°-30°)	768.2	5.5	B2/1000		
BM	(30°-60°)	1825.2	13.1	B2/2500		
BH	(60°-80°)	1399.0	10.0	B3/2500		G3/2500
BVH	(80°-90°)	107.8	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°	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5
2.5°	1501.2	1498.9	1498.9	1498.9	1498.9	1496.5	1498.9	1503.6	1501.2	1498.9	1503.6
5°	1505.9	1503.6	1503.6	1503.6	1505.9	1503.6	1505.9	1512.8	1508.3	1508.3	1512.8
7.5°	1517.5	1515.3	1517.5	1515.3	1515.3	1515.3	1517.5	1524.6	1522.2	1524.6	1531.6
10°	1531.6	1531.6	1531.6	1531.6	1531.6	1531.6	1536.2	1541.0	1543.2	1545.5	1554.8
12.5°	1573.7	1573.7	1573.7	1571.2	1571.2	1564.3	1573.7	1578.2	1583.0	1587.6	1594.6
15°	1662.4	1662.4	1660.0	1650.6	1650.6	1636.6	1639.0	1641.4	1641.4	1646.0	1650.6
17.5°	1779.1	1776.7	1772.0	1765.0	1755.6	1739.4	1734.6	1730.0	1722.9	1720.7	1720.7
20°	1942.4	1940.1	1930.7	1912.1	1900.5	1874.8	1856.1	1837.5	1830.3	1818.7	1816.5
22.5°	2176.0	2176.0	2157.3	2129.3	2119.9	2066.2	2012.6	1972.8	1958.8	1942.4	1942.4
25°	2458.4	2456.1	2430.5	2397.8	2358.1	2301.9	2236.6	2182.9	2147.8	2110.6	2096.6
27.5°	2797.0	2790.0	2754.9	2715.2	2640.6	2570.5	2493.4	2437.5	2376.7	2330.1	2288.1
30°	3193.8	3186.8	3126.1	3051.5	2974.4	2904.4	2792.3	2724.6	2628.9	2572.8	2526.2
32.5°	3653.8	3646.8	3537.0	3464.8	3382.9	3296.6	3163.6	3056.2	2934.8	2855.4	2790.0
35°	4239.8	4211.8	4055.4	3955.0	3826.6	3740.2	3600.0	3455.3	3312.9	3200.9	3105.1
37.5°	4872.4	4839.8	4702.1	4552.6	4426.6	4321.4	4123.1	3941.0	3772.8	3618.7	3499.6
40°	5533.2	5446.9	5299.7	5190.0	5103.6	5003.2	4795.4	4604.1	4340.3	4167.4	3987.7
42.5°	5990.7	5906.7	5803.9	5731.6	5689.7	5612.6	5495.9	5330.2	5094.3	5099.0	4625.1
45°	6292.0	6168.2	6098.2	6102.8	6119.3	6119.3	6098.2	6072.5	5969.7	6039.8	5643.0
47.5°	6184.7	6102.8	6058.4	6152.0	6268.6	6385.4	6520.7	6667.8	6836.0	7034.4	6546.5
50°	5554.2	5584.6	5605.7	5803.9	6053.9	6320.0	6630.5	7032.1	7501.3	7592.5	7356.6
52.5°	4547.9	4613.3	4683.5	4986.9	5316.1	5776.0	6320.0	6983.1	7613.5	7984.7	7961.3
55°	3532.3	3614.2	3763.4	3990.0	4251.5	4685.6	5358.1	6380.8	7363.5	7954.3	8313.9
57.5°	2514.4	2633.6	2829.7	3144.8	3376.0	3621.1	4118.4	5253.1	6329.4	7429.1	8255.5
60°	1671.7	1727.7	1856.1	2248.3	2638.2	2895.0	3247.6	3658.4	4538.6	6053.9	7653.1
62.5°	1186.0	1223.4	1302.7	1480.1	1832.7	2297.3	2509.8	2698.9	2981.5	3894.2	6144.9
63°	1120.6	1153.3	1218.7	1368.1	1685.7	2166.6	2383.7	2556.4	2762.0	3483.4	5813.4
65°	929.1	943.2	978.3	1050.6	1221.1	1620.3	1975.2	2080.3	2115.1	2238.9	3642.1
67.5°	784.5	793.8	805.5	826.5	894.3	1078.7	1473.2	1606.3	1566.6	1482.6	1800.1
70°	681.8	688.7	707.4	733.0	756.5	803.2	1013.3	1211.8	1167.3	1053.0	1102.0
72.5°	544.0	555.6	576.6	621.0	667.7	728.4	779.8	903.5	875.5	765.7	777.5
75°	429.6	436.5	455.4	488.0	532.3	602.4	702.7	744.8	667.7	565.0	565.0
77.5°	340.8	347.9	364.3	389.9	417.9	466.8	536.9	646.7	600.0	424.9	422.7
80°	256.8	263.8	280.1	303.4	331.6	366.6	408.5	457.5	551.0	397.0	317.6
82.5°	189.2	191.5	219.5	235.9	245.1	273.2	308.2	336.1	378.2	366.6	282.4
85°	142.4	140.0	158.8	170.4	172.7	179.8	200.9	228.8	247.5	238.1	219.5
87.5°	79.4	70.1	81.7	93.3	93.3	95.7	100.4	116.7	133.0	128.4	116.7
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5
2.5°	1503.6	1503.6	1501.2	1501.2	1503.6	1503.6	1501.2	1508.3	1512.8	1512.8	1515.3
5°	1510.5	1512.8	1510.5	1510.5	1512.8	1512.8	1515.3	1522.2	1529.3	1533.9	1541.0
7.5°	1531.6	1533.9	1531.6	1531.6	1533.9	1536.2	1541.0	1550.2	1554.8	1564.3	1575.9
10°	1554.8	1557.2	1554.8	1557.2	1559.5	1562.0	1568.9	1575.9	1583.0	1592.2	1610.9
12.5°	1596.9	1599.3	1594.6	1596.9	1604.0	1604.0	1608.7	1613.3	1624.9	1636.6	1655.2
15°	1655.2	1655.2	1650.6	1652.9	1660.0	1660.0	1662.4	1667.0	1681.0	1695.0	1713.6
17.5°	1722.9	1727.7	1725.4	1727.7	1732.3	1734.6	1734.6	1739.4	1748.7	1758.1	1776.7
20°	1814.0	1816.5	1811.7	1816.5	1821.0	1816.5	1811.7	1809.4	1814.0	1818.7	1839.6
22.5°	1937.9	1935.5	1923.8	1923.8	1923.8	1914.5	1902.8	1888.7	1888.7	1881.8	1898.1
25°	2084.8	2077.9	2061.5	2063.9	2047.5	2033.6	2012.6	1991.5	1972.8	1965.9	1968.1
27.5°	2257.6	2243.6	2227.3	2222.6	2206.2	2180.5	2145.6	2105.8	2075.5	2052.2	2047.5
30°	2474.8	2444.4	2416.4	2411.7	2386.1	2344.0	2288.1	2234.4	2182.9	2143.3	2129.3
32.5°	2731.6	2684.9	2640.6	2635.8	2593.9	2537.8	2470.1	2395.4	2320.7	2257.6	2227.3
35°	3032.8	2962.7	2920.7	2909.0	2848.3	2778.3	2703.5	2607.9	2502.8	2414.0	2358.1
37.5°	3399.2	3327.0	3254.6	3256.9	3172.9	3091.2	2990.7	2873.9	2740.9	2617.2	2537.8
40°	3852.2	3749.5	3656.1	3635.1	3562.8	3448.4	3338.6	3203.1	3039.8	2876.4	2762.0
42.5°	4400.8	4232.9	4104.4	4085.8	3990.0	3849.9	3716.8	3537.0	3371.2	3172.9	3035.2
45°	5024.3	4755.7	4601.7	4573.7	4419.7	4277.2	4116.0	3924.6	3721.5	3497.5	3333.9
47.5°	5799.4	5416.5	5155.1	5108.3	4895.9	4709.1	4541.0	4328.6	4085.8	3835.9	3656.1
50°	6703.0	6137.8	5785.4	5713.0	5428.2	5208.7	4993.9	4727.8	4468.6	4207.1	3999.3
52.5°	7608.7	7001.7	6532.5	6443.7	6023.6	5729.3	5446.9	5180.6	4874.8	4615.8	4379.9
55°	8337.2	7933.3	7389.3	7265.5	6663.2	6264.1	5892.7	5589.3	5285.7	5080.3	4802.5
57.5°	8776.1	8755.2	8325.5	8155.1	7330.9	6740.3	6327.0	5981.5	5687.3	5600.9	5232.1
60°	8764.5	9308.3	9123.9	8995.5	8005.6	7228.2	6691.2	6317.7	6074.9	6173.0	5664.0
62.5°	8229.8	9331.8	9553.6	9518.5	8724.8	7620.4	6990.2	6604.9	6476.4	6768.3	6112.2
63°	8036.0	9278.1	9572.2	9558.2	8862.5	7695.2	7041.5	6660.8	6555.8	6920.1	6194.0
65°	6791.6	8808.8	9345.7	9408.8	9158.9	7951.9	7160.5	6803.4	6791.6	7258.6	6387.7
67.5°	4139.4	7442.9	8325.5	8446.9	8741.0	8033.6	7092.7	6754.3	6922.3	7307.6	6329.4
70°	1769.8	4912.2	6691.2	6887.3	7606.4	7627.4	6899.1	6553.5	6891.9	6924.7	5913.8
72.5°	1048.3	2316.0	4554.9	4982.2	6018.9	6562.7	6455.4	6203.2	6492.8	6081.9	5035.9
75°	742.4	1083.3	2313.7	2768.9	4190.8	5010.2	5423.4	5540.2	5528.6	4823.4	3779.9
77.5°	532.3	695.7	975.9	1151.0	2339.4	3217.2	3721.5	4062.3	3952.6	3228.9	2330.1
80°	371.2	481.0	597.7	635.0	1085.6	1652.9	1961.1	2110.6	2045.3	1613.3	1043.7
82.5°	268.6	315.1	385.3	408.5	546.3	763.4	908.1	800.7	768.1	595.3	450.6
85°	207.8	203.1	240.4	249.8	319.8	399.2	408.5	317.6	277.8	247.5	252.2
87.5°	147.1	126.1	128.4	133.0	165.7	212.4	207.8	130.8	112.1	119.0	135.5
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°	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5	1510.5
2.5°	1519.9	1522.2	1526.8	1529.3	1533.9	1533.9	1538.5	1541.0	1545.5	1550.2	1552.6
5°	1547.9	1554.8	1564.3	1568.9	1578.2	1585.2	1594.6	1599.3	1608.7	1615.6	1624.9
7.5°	1589.9	1601.6	1613.3	1627.3	1641.4	1652.9	1662.4	1674.0	1690.3	1702.0	1708.9
10°	1629.6	1646.0	1667.0	1683.3	1704.4	1720.7	1734.6	1755.6	1774.3	1790.7	1800.1
12.5°	1681.0	1702.0	1722.9	1748.7	1776.7	1797.7	1818.7	1846.7	1872.4	1891.1	1900.5
15°	1741.6	1767.3	1790.7	1821.0	1853.7	1881.8	1912.1	1942.4	1961.1	1961.1	1956.5
17.5°	1804.8	1825.7	1853.7	1888.7	1933.2	1968.1	1984.4	1989.1	1982.2	1965.9	1954.2
20°	1867.8	1886.4	1916.8	1958.8	2005.5	2012.6	1996.2	1975.2	1954.2	1926.1	1907.5
22.5°	1919.0	1944.8	1991.5	2040.5	2042.8	2003.2	1958.8	1923.8	1891.1	1858.5	1823.4
25°	1979.9	2014.9	2077.9	2096.6	2035.9	1961.1	1898.1	1846.7	1793.0	1739.4	1699.7
27.5°	2054.6	2105.8	2169.0	2115.1	1996.2	1891.1	1804.8	1727.7	1657.6	1583.0	1538.5
30°	2134.0	2213.2	2227.3	2087.2	1928.4	1793.0	1676.2	1559.5	1470.9	1403.2	1377.6
32.5°	2229.7	2332.4	2248.3	2038.2	1837.5	1660.0	1503.6	1363.4	1288.8	1246.7	1235.1
35°	2374.4	2458.4	2260.0	1986.8	1732.3	1501.2	1305.1	1192.9	1146.3	1118.3	1104.2
37.5°	2582.2	2579.8	2257.6	1923.8	1610.9	1328.5	1146.3	1066.9	1029.5	1006.2	980.6
40°	2825.0	2673.3	2243.6	1832.7	1447.4	1162.6	1036.6	961.8	927.0	898.8	868.5
42.5°	3065.5	2736.2	2203.9	1697.3	1244.4	1043.7	957.2	889.5	852.1	821.8	779.8
45°	3273.2	2762.0	2126.8	1510.5	1062.2	950.1	905.9	847.6	803.2	756.5	723.8
47.5°	3436.6	2757.3	2003.2	1291.0	940.9	884.8	863.8	824.1	770.4	712.0	670.0
50°	3574.4	2722.3	1835.1	1097.3	859.1	826.5	819.4	807.8	721.3	672.4	646.7
52.5°	3700.5	2670.9	1655.2	966.5	789.2	761.1	775.1	763.4	702.7	660.8	635.0
55°	3873.2	2635.8	1477.8	866.1	707.4	700.4	712.0	728.4	691.1	651.5	623.3
57.5°	4076.4	2654.5	1342.4	754.0	630.4	635.0	674.7	698.1	679.4	637.3	609.4
60°	4309.9	2710.5	1223.4	646.7	567.3	579.0	637.3	670.0	667.7	618.8	586.1
62.5°	4571.4	2768.9	1034.3	565.0	513.7	532.3	593.1	635.0	642.1	600.0	560.4
63°	4622.7	2773.5	985.3	548.7	504.3	525.2	581.4	625.7	635.0	595.3	555.6
65°	4748.8	2731.6	793.8	504.3	466.8	490.3	546.3	586.1	604.6	569.6	536.9
67.5°	4643.7	2388.5	597.7	450.6	436.5	452.9	502.0	539.3	555.6	539.3	506.6
70°	4246.7	1737.1	466.8	401.5	403.9	415.6	452.9	488.0	506.6	502.0	471.6
72.5°	3420.3	985.3	389.9	359.5	366.6	380.5	406.3	438.9	455.4	452.9	431.9
75°	2252.9	504.3	329.1	322.2	326.9	338.5	357.2	382.9	401.5	399.2	389.9
77.5°	1116.0	350.2	282.4	284.9	287.2	296.5	310.5	333.9	345.6	347.9	345.6
80°	459.9	273.2	242.8	245.1	247.5	254.5	263.8	284.9	291.8	296.5	298.9
82.5°	275.5	207.8	193.8	198.4	200.9	207.8	214.8	233.5	240.4	247.5	247.5
85°	182.0	144.7	140.0	144.7	149.4	154.1	156.5	168.2	179.8	189.2	193.8
87.5°	98.1	86.3	84.0	86.3	86.3	91.1	95.7	107.3	121.5	130.8	135.5
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°	1510.5	1510.5	1510.5	1510.5	1510.5
2.5°	1547.9	1550.2	1547.9	1550.2	1552.6
5°	1624.9	1629.6	1627.3	1627.3	1636.6
7.5°	1713.6	1722.9	1722.9	1727.7	1732.3
10°	1809.4	1818.7	1825.7	1825.7	1832.7
12.5°	1905.1	1909.7	1916.8	1916.8	1916.8
15°	1954.2	1951.7	1949.4	1947.2	1947.2
17.5°	1947.2	1937.9	1933.2	1928.4	1930.7
20°	1895.8	1879.4	1874.8	1867.8	1872.4
22.5°	1807.0	1783.8	1774.3	1762.7	1767.3
25°	1674.0	1646.0	1641.4	1627.3	1634.2
27.5°	1519.9	1505.9	1503.6	1501.2	1512.8
30°	1375.1	1379.7	1382.1	1386.9	1398.5
32.5°	1242.0	1251.3	1253.8	1256.1	1272.4
35°	1111.4	1099.6	1111.4	1106.6	1120.6
37.5°	968.9	959.6	950.1	938.5	947.9
40°	849.8	833.4	805.5	791.4	793.8
42.5°	756.5	735.4	712.0	698.1	698.1
45°	695.7	670.0	649.0	639.8	639.8
47.5°	649.0	637.3	625.7	618.8	618.8
50°	630.4	616.3	609.4	604.6	604.6
52.5°	616.3	602.4	595.3	590.6	586.1
55°	604.6	583.7	576.6	574.3	574.3
57.5°	588.3	569.6	560.4	557.9	557.9
60°	562.7	548.7	539.3	536.9	536.9
62.5°	536.9	523.0	513.7	513.7	513.7
63°	532.3	515.9	509.0	509.0	509.0
65°	511.2	495.0	488.0	488.0	485.7
67.5°	483.3	466.8	462.3	462.3	457.5
70°	450.6	436.5	431.9	434.2	424.9
72.5°	417.9	403.9	397.0	397.0	387.6
75°	380.5	366.6	357.2	354.9	345.6
77.5°	338.5	326.9	317.6	308.2	303.4
80°	294.1	284.9	273.2	266.2	259.2
82.5°	247.5	238.1	231.1	240.4	205.4
85°	193.8	184.4	175.1	189.2	147.1
87.5°	142.4	137.7	128.4	112.1	98.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)