

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: P257775

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P257775  
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  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 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: 14485 lumens  
Efficiency: N/A  
Efficacy: 130.5 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

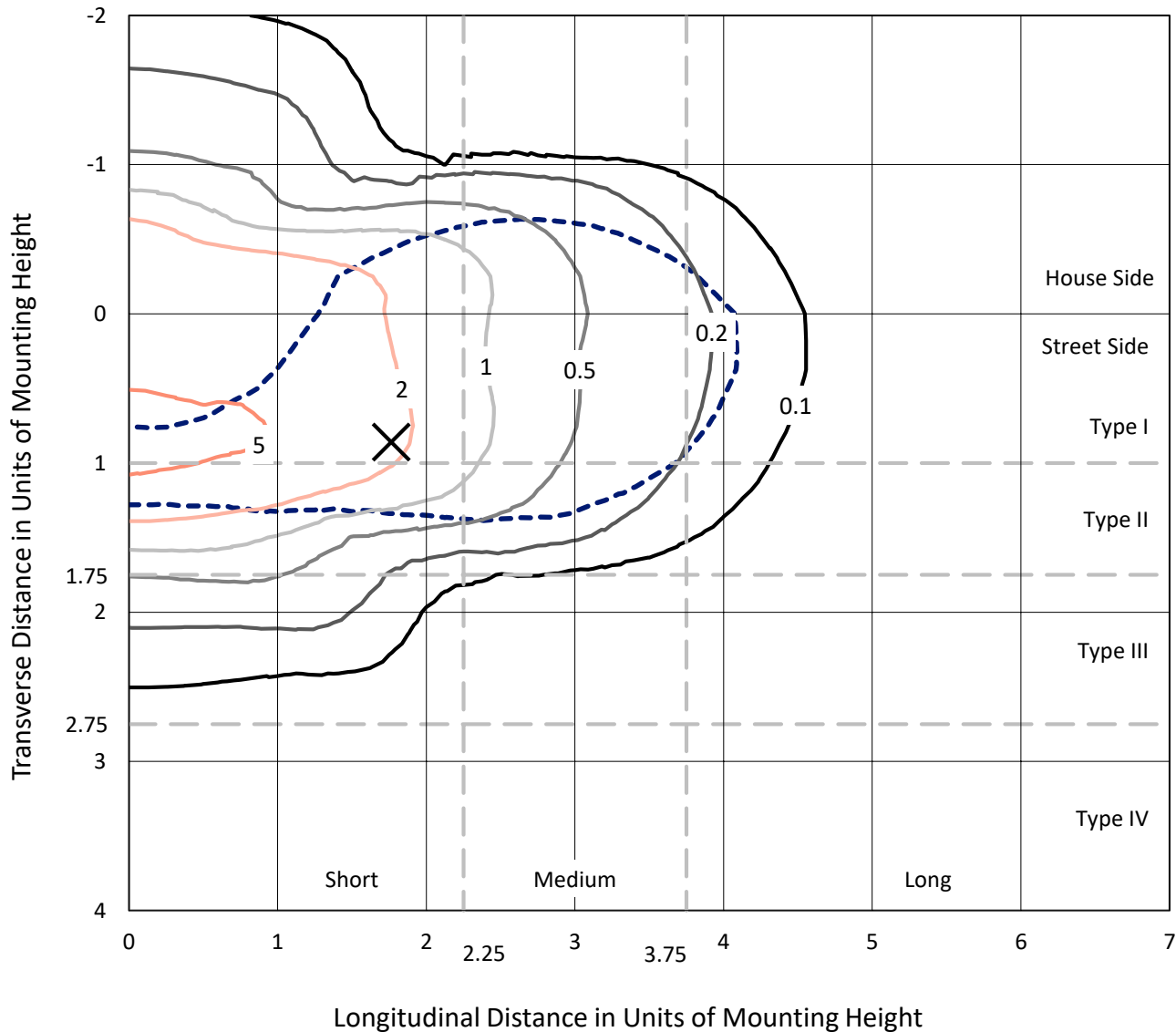
Input Watts (W): 111  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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 CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

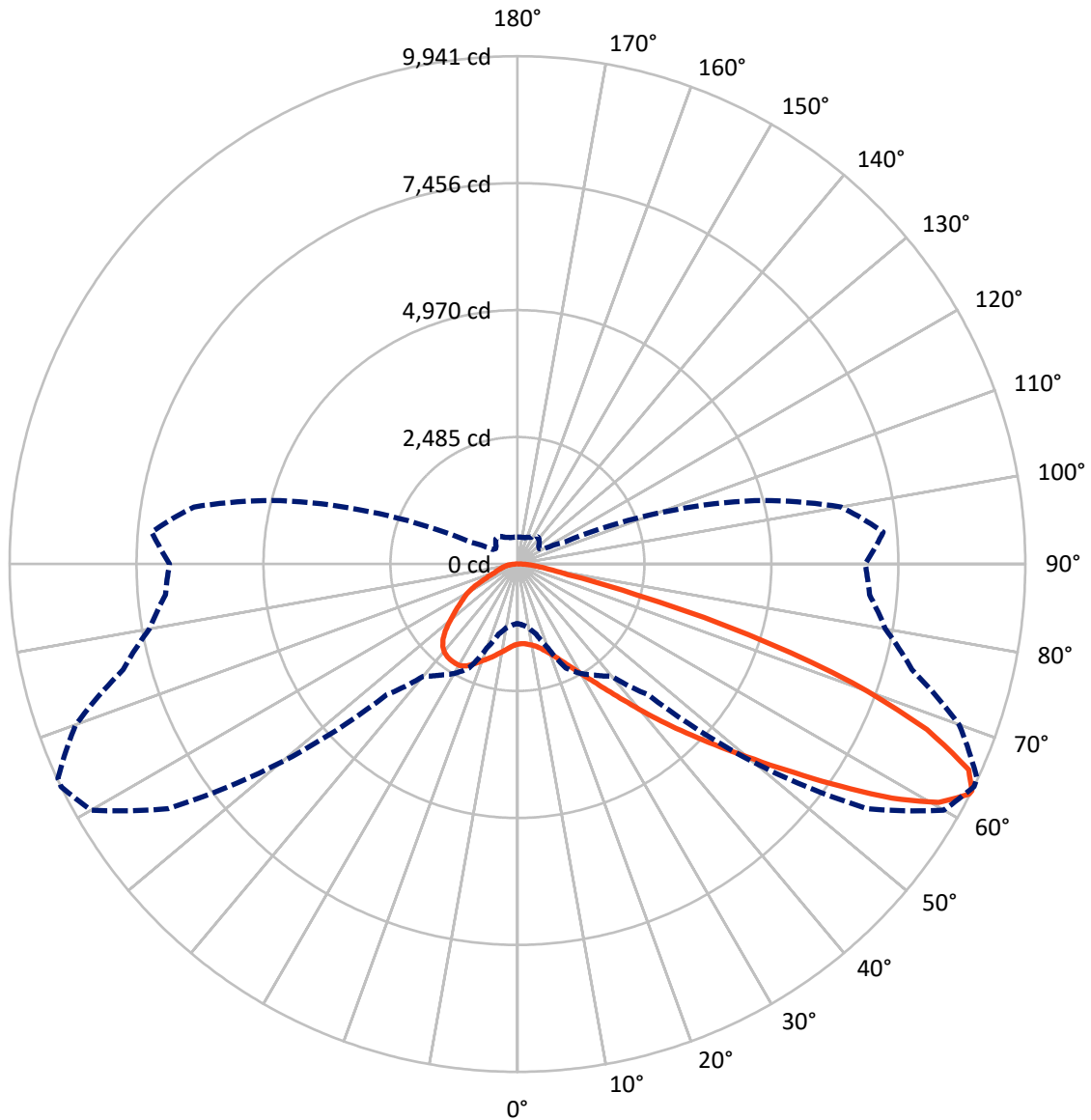


Based on 20 foot mounting height. Maximum calculated value = 6.4 fc  
 Type II - Short - Semi-Cutoff

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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
<b>House Side</b>	Lumens	4258.1	0.0	4258.1
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	10226.9	0.0	10226.9
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	14485.0	0.0	14485.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	156.6	1.1
10°-20°	521.7	3.6
20°-30°	979.3	6.8
30°-40°	1641.3	11.3
40°-50°	2753.8	19.0
50°-60°	3491.0	24.1
60°-70°	3079.6	21.3
70°-80°	1589.7	11.0
80°-90°	272.0	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°	14485.0	100.0
0°-180°	14485.0	100.0



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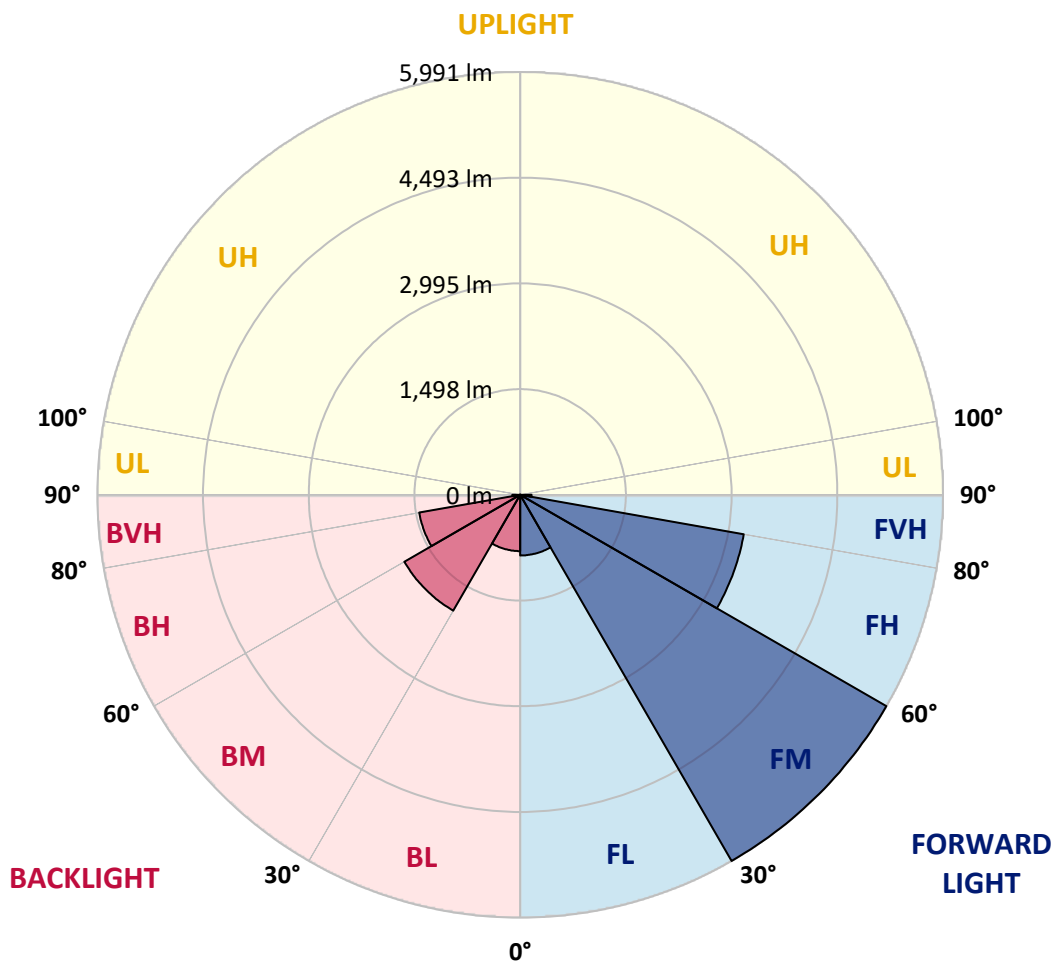
CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	859.7	5.9			
FM	(30°-60°)	5990.6	41.4			
FH	(60°-80°)	3216.5	22.2			G2/5000
FVH	(80°-90°)	160.1	1.1			G2/225
BL	(0°-30°)	797.8	5.5	B2/1000		
BM	(30°-60°)	1895.5	13.1	B2/2500		
BH	(60°-80°)	1452.8	10.0	B3/2500		G3/2500
BVH	(80°-90°)	111.9	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°	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7
2.5°	1559.0	1556.6	1556.6	1556.6	1556.6	1554.2	1556.6	1561.4	1559.0	1556.6	1561.4
5°	1563.9	1561.4	1561.4	1561.4	1563.9	1561.4	1563.9	1571.2	1566.3	1566.3	1571.2
7.5°	1576.0	1573.6	1576.0	1573.6	1573.6	1573.6	1576.0	1583.2	1580.9	1583.2	1590.6
10°	1590.6	1590.6	1590.6	1590.6	1590.6	1590.6	1595.4	1600.2	1602.7	1605.1	1614.8
12.5°	1634.2	1634.2	1634.2	1631.7	1631.7	1624.4	1634.2	1639.1	1643.9	1648.7	1656.0
15°	1726.3	1726.3	1723.9	1714.2	1714.2	1699.6	1702.1	1704.5	1704.5	1709.4	1714.2
17.5°	1847.6	1845.1	1840.3	1833.0	1823.3	1806.3	1801.5	1796.6	1789.3	1786.9	1786.9
20°	2017.3	2014.8	2005.2	1985.8	1973.6	1947.0	1927.5	1908.2	1900.8	1888.8	1886.3
22.5°	2259.7	2259.7	2240.4	2211.2	2201.5	2145.7	2090.0	2048.8	2034.2	2017.3	2017.3
25°	2553.1	2550.7	2524.0	2490.1	2448.8	2390.6	2322.8	2267.0	2230.6	2191.9	2177.2
27.5°	2904.7	2897.4	2861.0	2819.8	2742.2	2669.5	2589.5	2531.3	2468.3	2419.8	2376.1
30°	3316.8	3309.6	3246.5	3169.0	3088.9	3016.2	2899.9	2829.5	2730.1	2671.9	2623.5
32.5°	3794.5	3787.3	3673.3	3598.1	3513.2	3423.5	3285.3	3173.8	3047.7	2965.3	2897.4
35°	4403.1	4373.9	4211.5	4107.2	3974.0	3884.2	3738.8	3588.4	3440.5	3324.1	3224.8
37.5°	5060.1	5026.2	4883.2	4728.0	4597.0	4487.9	4281.9	4092.7	3918.1	3758.1	3634.4
40°	5746.3	5656.6	5503.9	5389.9	5300.2	5195.9	4980.1	4781.3	4507.3	4327.9	4141.2
42.5°	6221.5	6134.2	6027.5	5952.4	5908.8	5828.8	5707.6	5535.4	5290.5	5295.3	4803.2
45°	6534.3	6405.8	6333.1	6337.9	6354.9	6354.9	6333.1	6306.4	6199.7	6272.4	5860.3
47.5°	6422.8	6337.9	6291.9	6388.8	6510.1	6631.3	6771.9	6924.7	7099.3	7305.3	6798.6
50°	5768.1	5799.6	5821.5	6027.5	6287.0	6563.4	6885.9	7302.9	7790.3	7884.8	7639.9
52.5°	4723.2	4791.0	4863.7	5179.0	5520.9	5998.5	6563.4	7252.0	7906.6	8292.1	8267.9
55°	3668.4	3753.3	3908.5	4143.7	4415.2	4866.2	5564.4	6626.5	7647.2	8260.6	8634.0
57.5°	2611.3	2735.0	2938.6	3266.0	3506.0	3760.6	4277.0	5455.4	6573.1	7715.1	8573.4
60°	1736.0	1794.3	1927.5	2334.9	2739.8	3006.6	3372.7	3799.3	4713.5	6287.0	7947.8
62.5°	1231.7	1270.5	1353.0	1537.2	1903.3	2385.8	2606.5	2802.9	3096.3	4044.2	6381.6
63°	1163.8	1197.8	1265.6	1420.8	1750.6	2250.0	2475.5	2655.0	2868.4	3617.5	6037.3
65°	964.9	979.6	1015.9	1091.1	1268.0	1682.7	2051.2	2160.4	2196.7	2325.2	3782.4
67.5°	814.7	824.4	836.5	858.4	928.6	1120.1	1529.9	1668.1	1626.9	1539.6	1869.3
70°	708.0	715.2	734.7	761.3	785.5	834.1	1052.3	1258.3	1212.3	1093.5	1144.4
72.5°	565.0	577.0	598.8	645.0	693.5	756.5	809.8	938.4	909.2	795.2	807.4
75°	446.1	453.4	472.8	506.8	552.8	625.5	729.8	773.5	693.5	586.8	586.8
77.5°	353.9	361.3	378.3	404.9	434.0	484.9	557.6	671.6	623.1	441.3	438.8
80°	266.7	273.9	290.9	315.2	344.3	380.6	424.3	475.3	572.2	412.1	329.7
82.5°	196.4	198.9	227.9	244.9	254.6	283.7	320.1	349.1	392.8	380.6	293.4
85°	147.9	145.5	164.9	177.0	179.4	186.7	208.5	237.6	257.0	247.3	227.9
87.5°	82.4	72.7	84.9	97.0	97.0	99.4	104.2	121.2	138.2	133.4	121.2
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°	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7
2.5°	1561.4	1561.4	1559.0	1559.0	1561.4	1561.4	1559.0	1566.3	1571.2	1571.2	1573.6
5°	1568.7	1571.2	1568.7	1568.7	1571.2	1571.2	1573.6	1580.9	1588.1	1592.9	1600.2
7.5°	1590.6	1592.9	1590.6	1590.6	1592.9	1595.4	1600.2	1609.9	1614.8	1624.4	1636.6
10°	1614.8	1617.2	1614.8	1617.2	1619.6	1622.1	1629.4	1636.6	1643.9	1653.6	1672.9
12.5°	1658.4	1660.9	1656.0	1658.4	1665.7	1665.7	1670.6	1675.4	1687.6	1699.6	1719.1
15°	1719.1	1719.1	1714.2	1716.6	1723.9	1723.9	1726.3	1731.1	1745.7	1760.3	1779.6
17.5°	1789.3	1794.3	1791.8	1794.3	1799.1	1801.5	1801.5	1806.3	1816.0	1825.8	1845.1
20°	1883.9	1886.3	1881.5	1886.3	1891.2	1886.3	1881.5	1879.1	1883.9	1888.8	1910.6
22.5°	2012.5	2010.0	1997.8	1997.8	1997.8	1988.2	1976.0	1961.5	1961.5	1954.2	1971.2
25°	2165.2	2157.9	2140.9	2143.4	2126.4	2111.8	2090.0	2068.2	2048.8	2041.5	2044.0
27.5°	2344.6	2330.1	2313.1	2308.2	2291.2	2264.6	2228.2	2187.0	2155.5	2131.2	2126.4
30°	2570.1	2538.6	2509.5	2504.6	2477.9	2434.3	2376.1	2320.4	2267.0	2225.7	2211.2
32.5°	2836.7	2788.3	2742.2	2737.4	2693.7	2635.5	2565.3	2487.6	2410.1	2344.6	2313.1
35°	3149.6	3076.8	3033.2	3021.1	2958.0	2885.2	2807.7	2708.3	2599.2	2507.0	2448.8
37.5°	3530.2	3455.0	3379.9	3382.3	3295.0	3210.2	3105.9	2984.7	2846.5	2718.0	2635.5
40°	4000.6	3893.9	3796.9	3775.1	3699.9	3581.1	3467.2	3326.5	3156.8	2987.1	2868.4
42.5°	4570.3	4395.8	4262.4	4243.1	4143.7	3998.2	3860.0	3673.3	3501.2	3295.0	3152.0
45°	5217.8	4938.9	4778.9	4749.8	4589.8	4441.9	4274.6	4075.7	3864.8	3632.1	3462.4
47.5°	6022.7	5625.1	5353.5	5305.0	5084.4	4890.4	4715.8	4495.3	4243.1	3983.6	3796.9
50°	6961.1	6374.3	6008.2	5933.0	5637.2	5409.3	5186.3	4909.9	4640.7	4369.1	4153.4
52.5°	7901.8	7271.3	6784.0	6691.9	6255.4	5950.0	5656.6	5380.2	5062.6	4793.4	4548.6
55°	8658.3	8238.8	7673.9	7545.4	6919.9	6505.3	6119.7	5804.5	5489.3	5276.0	4987.4
57.5°	9114.1	9092.3	8646.1	8469.1	7613.2	6999.8	6570.7	6211.9	5906.3	5816.6	5433.5
60°	9101.9	9666.9	9475.4	9342.0	8313.9	7506.6	6948.9	6561.0	6308.8	6410.6	5882.1
62.5°	8546.8	9691.1	9921.5	9885.1	9060.8	7913.9	7259.3	6859.2	6725.8	7028.9	6347.6
63°	8345.4	9635.4	9940.8	9926.3	9203.8	7991.5	7312.6	6917.4	6808.2	7186.5	6432.5
65°	7053.1	9148.0	9705.7	9771.1	9511.7	8258.2	7436.2	7065.3	7053.1	7538.1	6633.7
67.5°	4298.8	7729.6	8646.1	8772.2	9077.7	8343.1	7366.0	7014.4	7189.0	7589.0	6573.1
70°	1837.8	5101.4	6948.9	7152.6	7899.3	7921.2	7164.7	6805.9	7157.4	7191.3	6141.5
72.5°	1088.6	2405.2	4730.4	5174.1	6250.6	6815.5	6704.0	6442.1	6742.8	6316.1	5229.8
75°	771.0	1125.0	2402.8	2875.6	4352.1	5203.2	5632.4	5753.6	5741.4	5009.2	3925.5
77.5°	552.8	722.5	1013.4	1195.3	2429.4	3341.1	3864.8	4218.9	4104.9	3353.2	2419.8
80°	385.6	499.5	620.7	659.5	1127.4	1716.6	2036.7	2191.9	2124.0	1675.4	1083.8
82.5°	278.9	327.3	400.1	424.3	567.3	792.9	943.2	831.7	797.7	618.3	467.9
85°	215.7	210.9	249.7	259.4	332.2	414.6	424.3	329.7	288.6	257.0	261.9
87.5°	152.7	130.9	133.4	138.2	172.2	220.7	215.7	135.7	116.4	123.7	140.7
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°	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7	1568.7
2.5°	1578.4	1580.9	1585.7	1588.1	1592.9	1592.9	1597.8	1600.2	1605.1	1609.9	1612.4
5°	1607.5	1614.8	1624.4	1629.4	1639.1	1646.3	1656.0	1660.9	1670.6	1677.8	1687.6
7.5°	1651.1	1663.3	1675.4	1689.9	1704.5	1716.6	1726.3	1738.4	1755.4	1767.6	1774.8
10°	1692.4	1709.4	1731.1	1748.1	1769.9	1786.9	1801.5	1823.3	1842.7	1859.6	1869.3
12.5°	1745.7	1767.6	1789.3	1816.0	1845.1	1867.0	1888.8	1917.8	1944.5	1964.0	1973.6
15°	1808.8	1835.4	1859.6	1891.2	1925.1	1954.2	1985.8	2017.3	2036.7	2036.7	2031.8
17.5°	1874.3	1896.0	1925.1	1961.5	2007.5	2044.0	2060.9	2065.7	2058.5	2041.5	2029.4
20°	1939.7	1959.1	1990.6	2034.2	2082.7	2090.0	2073.0	2051.2	2029.4	2000.3	1980.9
22.5°	1993.0	2019.7	2068.2	2119.1	2121.5	2080.3	2034.2	1997.8	1964.0	1930.0	1893.6
25°	2056.0	2092.4	2157.9	2177.2	2114.2	2036.7	1971.2	1917.8	1862.1	1806.3	1765.1
27.5°	2133.7	2187.0	2252.4	2196.7	2073.0	1964.0	1874.3	1794.3	1721.4	1643.9	1597.8
30°	2216.1	2298.6	2313.1	2167.6	2002.7	1862.1	1740.9	1619.6	1527.5	1457.2	1430.5
32.5°	2315.4	2422.1	2334.9	2116.7	1908.2	1723.9	1561.4	1416.0	1338.4	1294.7	1282.6
35°	2465.8	2553.1	2347.1	2063.3	1799.1	1559.0	1355.3	1239.0	1190.5	1161.4	1146.8
37.5°	2681.6	2679.2	2344.6	1997.8	1672.9	1379.6	1190.5	1108.1	1069.3	1045.0	1018.3
40°	2933.7	2776.2	2330.1	1903.3	1503.2	1207.5	1076.6	998.9	962.6	933.4	901.9
42.5°	3183.5	2841.7	2288.9	1762.6	1292.3	1083.8	994.1	923.7	885.0	853.4	809.8
45°	3399.3	2868.4	2208.9	1568.7	1103.2	986.8	940.7	880.1	834.1	785.5	751.7
47.5°	3569.0	2863.4	2080.3	1340.8	977.1	918.9	897.1	855.9	800.2	739.5	695.8
50°	3712.1	2827.1	1905.8	1139.6	892.2	858.4	851.0	838.9	749.2	698.3	671.6
52.5°	3843.0	2773.7	1719.1	1003.8	819.5	790.4	805.0	792.9	729.8	686.2	659.5
55°	4022.4	2737.4	1534.7	899.5	734.7	727.4	739.5	756.5	717.7	676.5	647.3
57.5°	4233.4	2756.8	1394.2	783.2	654.7	659.5	700.7	725.0	705.5	662.0	632.8
60°	4475.8	2815.0	1270.5	671.6	589.2	601.3	662.0	695.8	693.5	642.5	608.6
62.5°	4747.4	2875.6	1074.1	586.8	533.4	552.8	615.8	659.5	666.8	623.1	581.9
63°	4800.7	2880.4	1023.2	569.8	523.8	545.5	603.7	649.8	659.5	618.3	577.0
65°	4931.6	2836.7	824.4	523.8	484.9	509.1	567.3	608.6	628.0	591.6	557.6
67.5°	4822.5	2480.3	620.7	467.9	453.4	470.4	521.3	560.1	577.0	560.1	526.1
70°	4410.4	1803.9	484.9	417.1	419.4	431.6	470.4	506.8	526.1	521.3	489.8
72.5°	3552.0	1023.2	404.9	373.4	380.6	395.2	421.9	455.8	472.8	470.4	448.6
75°	2339.7	523.8	341.9	334.6	339.4	351.6	370.9	397.6	417.1	414.6	404.9
77.5°	1159.0	363.7	293.4	295.8	298.2	307.9	322.4	346.7	358.9	361.3	358.9
80°	477.6	283.7	252.2	254.6	257.0	264.3	273.9	295.8	303.1	307.9	310.4
82.5°	286.1	215.7	201.2	206.1	208.5	215.7	223.1	242.4	249.7	257.0	257.0
85°	189.1	150.4	145.5	150.4	155.2	160.0	162.4	174.6	186.7	196.4	201.2
87.5°	101.8	89.7	87.3	89.7	89.7	94.5	99.4	111.5	126.1	135.7	140.7
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°	1568.7	1568.7	1568.7	1568.7	1568.7
2.5°	1607.5	1609.9	1607.5	1609.9	1612.4
5°	1687.6	1692.4	1689.9	1689.9	1699.6
7.5°	1779.6	1789.3	1789.3	1794.3	1799.1
10°	1879.1	1888.8	1896.0	1896.0	1903.3
12.5°	1978.5	1983.3	1990.6	1990.6	1990.6
15°	2029.4	2027.0	2024.5	2022.2	2022.2
17.5°	2022.2	2012.5	2007.5	2002.7	2005.2
20°	1968.8	1951.8	1947.0	1939.7	1944.5
22.5°	1876.6	1852.4	1842.7	1830.6	1835.4
25°	1738.4	1709.4	1704.5	1689.9	1697.2
27.5°	1578.4	1563.9	1561.4	1559.0	1571.2
30°	1428.1	1432.9	1435.4	1440.2	1452.4
32.5°	1289.8	1299.6	1302.0	1304.5	1321.4
35°	1154.1	1142.0	1154.1	1149.3	1163.8
37.5°	1006.2	996.6	986.8	974.7	984.4
40°	882.6	865.6	836.5	821.9	824.4
42.5°	785.5	763.7	739.5	725.0	725.0
45°	722.5	695.8	674.0	664.3	664.3
47.5°	674.0	662.0	649.8	642.5	642.5
50°	654.7	640.1	632.8	628.0	628.0
52.5°	640.1	625.5	618.3	613.5	608.6
55°	628.0	606.2	598.8	596.5	596.5
57.5°	611.0	591.6	581.9	579.5	579.5
60°	584.3	569.8	560.1	557.6	557.6
62.5°	557.6	543.1	533.4	533.4	533.4
63°	552.8	535.8	528.6	528.6	528.6
65°	531.0	514.0	506.8	506.8	504.3
67.5°	501.9	484.9	480.1	480.1	475.3
70°	467.9	453.4	448.6	451.0	441.3
72.5°	434.0	419.4	412.1	412.1	402.5
75°	395.2	380.6	370.9	368.6	358.9
77.5°	351.6	339.4	329.7	320.1	315.2
80°	305.5	295.8	283.7	276.4	269.1
82.5°	257.0	247.3	240.1	249.7	213.4
85°	201.2	191.5	181.9	196.4	152.7
87.5°	147.9	143.0	133.4	116.4	101.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)