

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: P258171

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2U-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258171  
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-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 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: 13694.5 lumens  
Efficiency: N/A  
Efficacy: 123.4 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

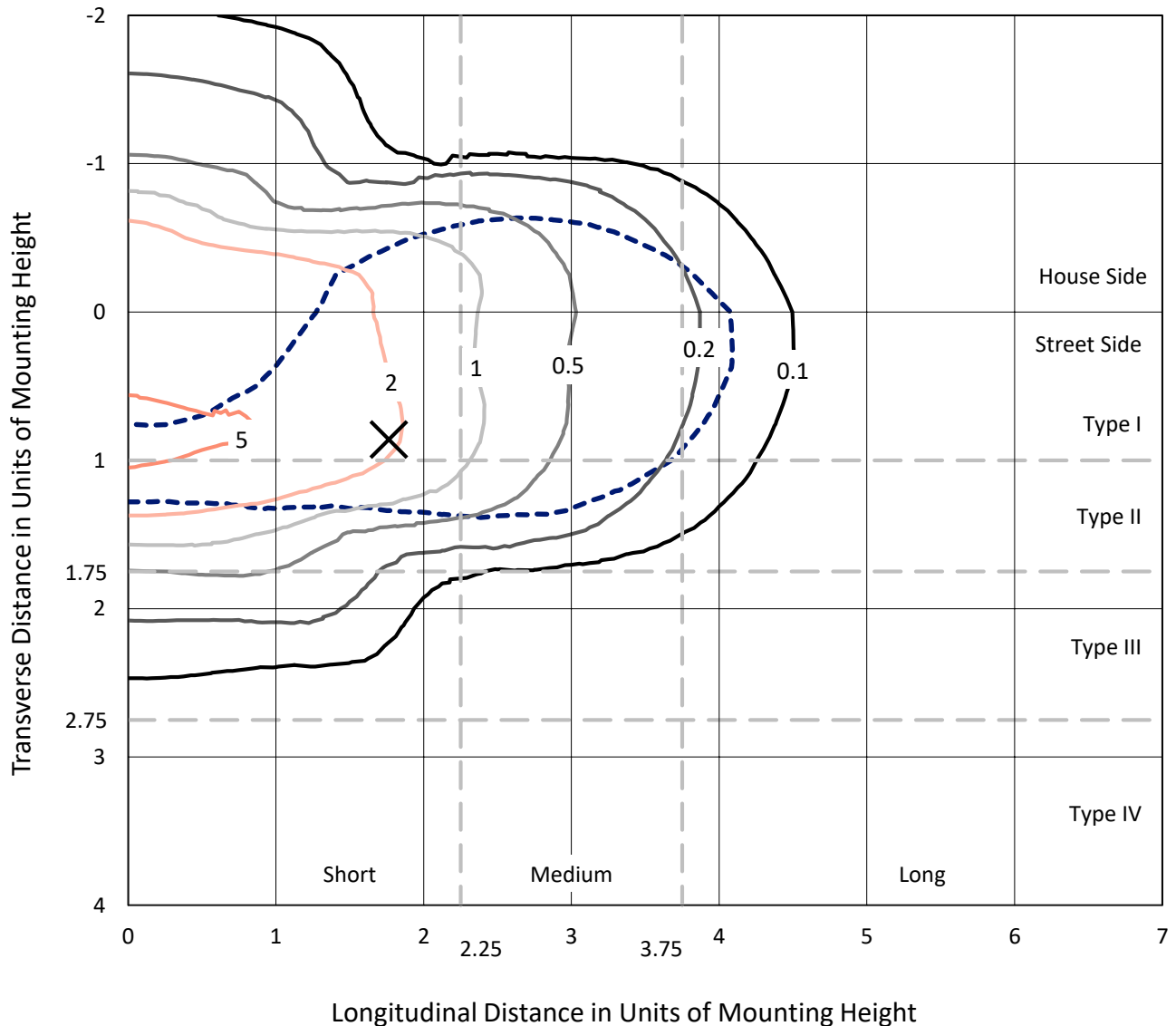


REPORT NUMBER: P258171

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

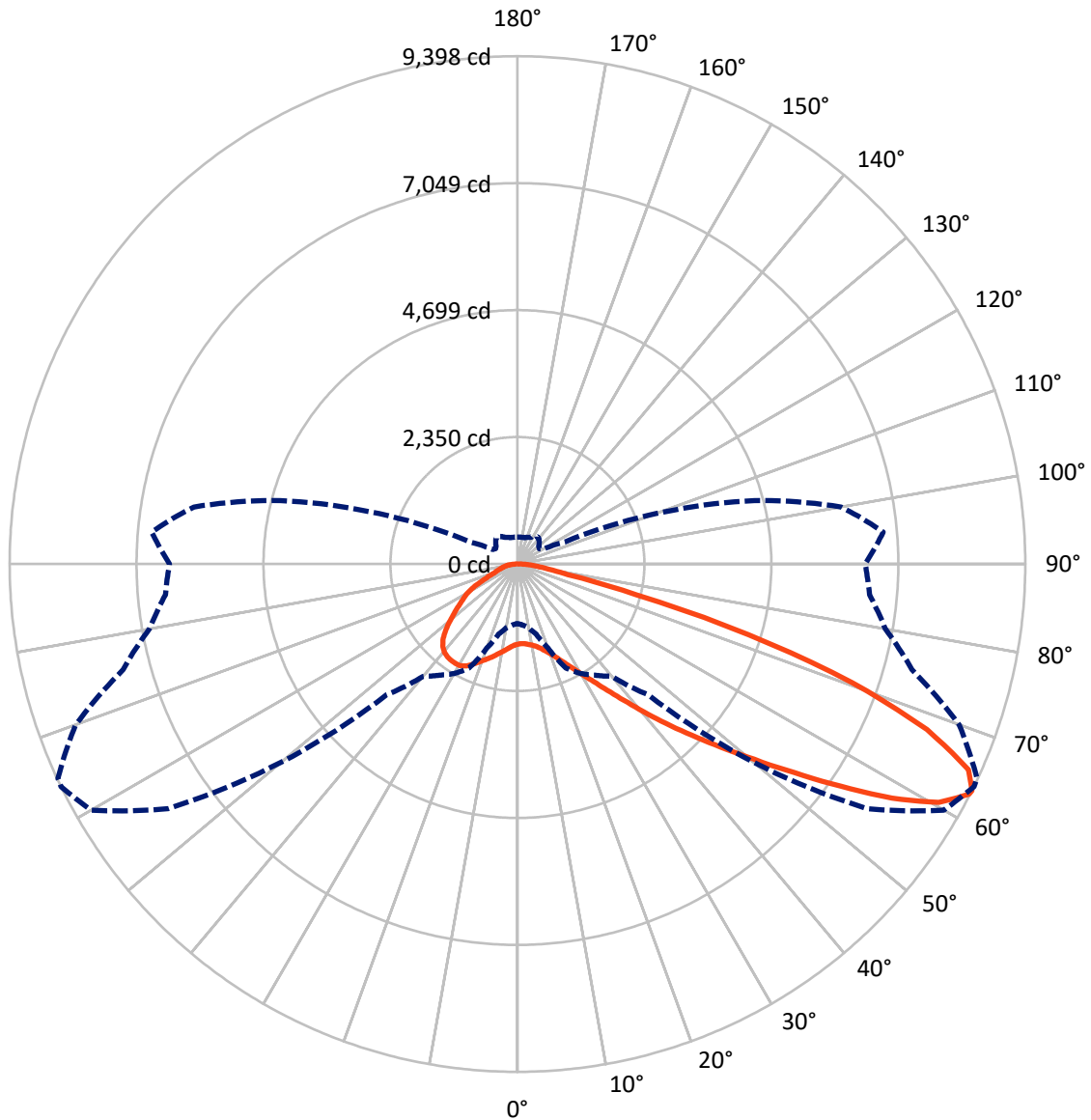


Based on 20 foot mounting height. Maximum calculated value = 6 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P258171

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030

### Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral      - - - Horizontal Cone Through 63-Deg Vertical

REPORT NUMBER: P258171

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030

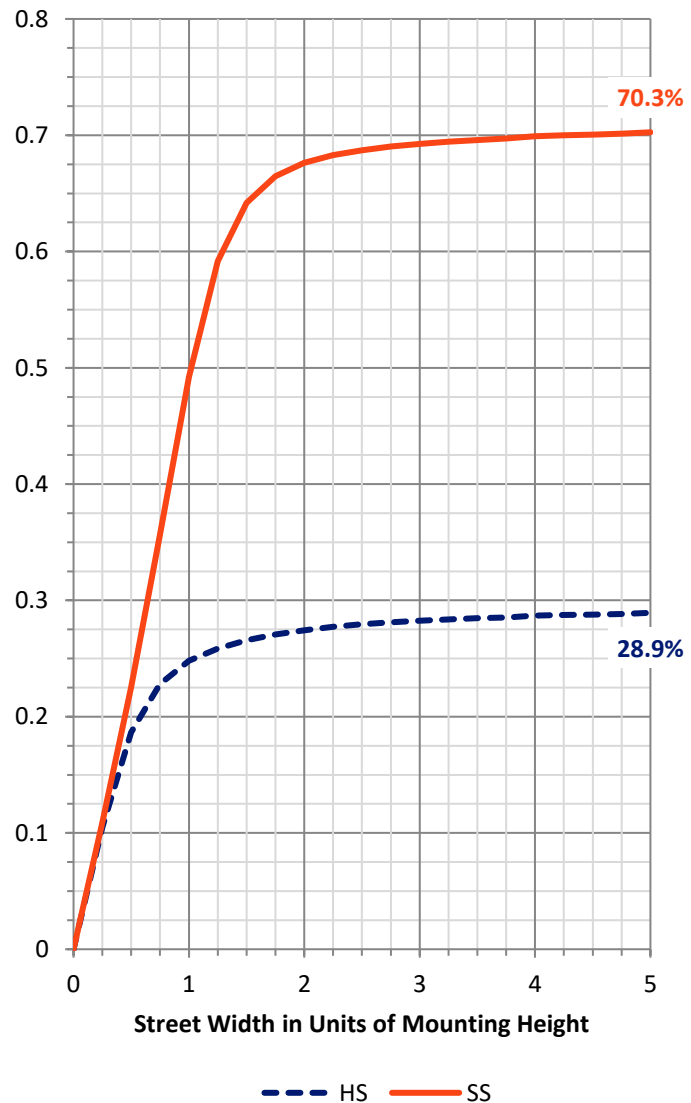
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	4025.7	0.0	4025.7
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	9668.8	0.0	9668.8
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	13694.5	0.0	13694.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	148.1	1.1
10°-20°	493.2	3.6
20°-30°	925.8	6.8
30°-40°	1551.8	11.3
40°-50°	2603.5	19.0
50°-60°	3300.5	24.1
60°-70°	2911.5	21.3
70°-80°	1503.0	11.0
80°-90°	257.2	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°	13694.5	100.0
0°-180°	13694.5	100.0



REPORT NUMBER: P258171

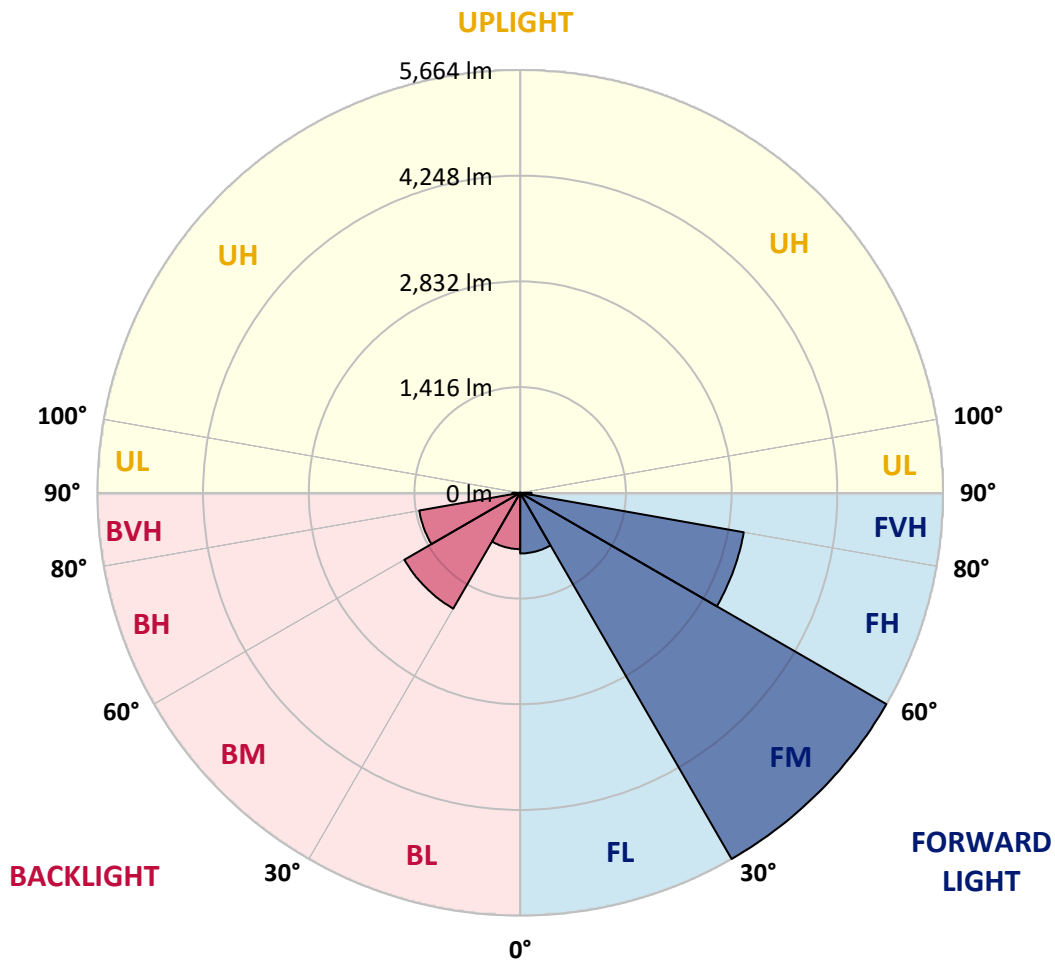
CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	812.8	5.9			
FM	(30°-60°)	5663.7	41.4			
FH	(60°-80°)	3041.0	22.2			G2/5000
FVH	(80°-90°)	151.4	1.1			G2/225
BL	(0°-30°)	754.3	5.5	B2/1000		
BM	(30°-60°)	1792.1	13.1	B2/2500		
BH	(60°-80°)	1373.5	10.0	B3/2500		G3/2500
BVH	(80°-90°)	105.8	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





REPORT NUMBER: P258171

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0
2.5°	1473.9	1471.6	1471.6	1471.6	1471.6	1469.3	1471.6	1476.2	1473.9	1471.6	1476.2
5°	1478.5	1476.2	1476.2	1476.2	1478.5	1476.2	1478.5	1485.4	1480.8	1480.8	1485.4
7.5°	1490.0	1487.7	1490.0	1487.7	1487.7	1487.7	1490.0	1496.9	1494.5	1496.9	1503.7
10°	1503.7	1503.7	1503.7	1503.7	1503.7	1503.7	1508.4	1512.9	1515.2	1517.5	1526.7
12.5°	1545.0	1545.0	1545.0	1542.7	1542.7	1535.8	1545.0	1549.7	1554.2	1558.8	1565.6
15°	1632.2	1632.2	1629.8	1620.7	1620.7	1606.8	1609.2	1611.5	1611.5	1616.1	1620.7
17.5°	1746.7	1744.5	1739.9	1733.0	1723.8	1707.7	1703.2	1698.6	1691.7	1689.3	1689.3
20°	1907.2	1904.9	1895.7	1877.4	1865.9	1840.7	1822.3	1804.1	1797.2	1785.8	1783.4
22.5°	2136.4	2136.4	2118.1	2090.5	2081.4	2028.7	1976.0	1936.9	1923.2	1907.2	1907.2
25°	2413.7	2411.5	2386.3	2354.2	2315.2	2260.2	2196.0	2143.3	2108.9	2072.2	2058.5
27.5°	2746.1	2739.2	2704.9	2665.9	2592.6	2523.8	2448.2	2393.1	2333.6	2287.7	2246.5
30°	3135.8	3128.9	3069.4	2996.0	2920.4	2851.6	2741.6	2675.1	2581.1	2526.1	2480.3
32.5°	3587.4	3580.5	3472.8	3401.8	3321.5	3236.7	3106.0	3000.6	2881.3	2803.5	2739.2
35°	4162.8	4135.4	3981.7	3883.2	3757.1	3672.2	3534.7	3392.6	3252.7	3142.8	3048.8
37.5°	4784.0	4751.9	4616.6	4470.1	4346.3	4243.1	4048.2	3869.4	3704.3	3553.1	3436.2
40°	5432.7	5347.9	5203.5	5095.8	5010.9	4912.4	4708.4	4520.4	4261.3	4091.8	3915.2
42.5°	5882.1	5799.5	5698.6	5627.6	5586.3	5510.7	5396.1	5233.3	5001.8	5006.4	4541.1
45°	6177.7	6056.2	5987.5	5992.1	6008.0	6008.0	5987.5	5962.3	5861.4	5930.1	5540.4
47.5°	6072.3	5992.1	5948.5	6040.2	6154.8	6269.4	6402.4	6546.9	6711.8	6906.8	6427.6
50°	5453.3	5483.1	5503.8	5698.6	5943.9	6205.3	6510.1	6904.4	7365.1	7454.5	7223.0
52.5°	4465.4	4529.6	4598.4	4896.4	5219.6	5671.1	6205.3	6856.2	7475.2	7839.7	7816.7
55°	3468.2	3548.5	3695.1	3917.5	4174.2	4600.7	5260.9	6264.8	7229.9	7809.9	8162.9
57.5°	2468.8	2585.7	2778.3	3087.6	3314.7	3555.3	4043.5	5157.7	6214.4	7294.0	8105.5
60°	1641.3	1696.2	1822.3	2207.5	2590.3	2842.5	3188.6	3592.0	4456.2	5943.9	7514.2
62.5°	1164.4	1201.2	1279.1	1453.3	1799.5	2255.6	2464.3	2649.9	2927.3	3823.5	6033.3
63°	1100.4	1132.4	1196.6	1343.3	1655.1	2127.3	2340.5	2510.0	2711.9	3420.2	5707.8
65°	912.4	926.1	960.5	1031.5	1198.9	1590.9	1939.3	2042.4	2076.8	2198.3	3575.9
67.5°	770.2	779.3	790.8	811.5	877.9	1059.0	1446.5	1577.0	1538.2	1455.7	1767.4
70°	669.3	676.2	694.6	719.8	742.8	788.6	994.8	1189.8	1146.1	1033.8	1082.0
72.5°	534.1	545.5	566.2	609.7	655.5	715.2	765.6	887.0	859.7	751.9	763.2
75°	421.7	428.7	447.0	479.1	522.7	591.4	690.0	731.3	655.5	554.7	554.7
77.5°	334.7	341.6	357.6	382.9	410.3	458.5	527.1	635.1	589.1	417.2	414.8
80°	252.2	259.1	275.2	297.9	325.5	359.9	401.2	449.3	541.0	389.7	311.7
82.5°	185.6	187.9	215.5	231.5	240.7	268.2	302.5	330.1	371.4	359.9	277.4
85°	139.9	137.5	155.9	167.3	169.7	176.5	197.1	224.6	243.0	233.9	215.5
87.5°	77.9	68.8	80.2	91.7	91.7	94.0	98.6	114.6	130.7	126.0	114.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P258171

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0
2.5°	1476.2	1476.2	1473.9	1473.9	1476.2	1476.2	1473.9	1480.8	1485.4	1485.4	1487.7
5°	1483.0	1485.4	1483.0	1483.0	1485.4	1485.4	1487.7	1494.5	1501.4	1506.0	1512.9
7.5°	1503.7	1506.0	1503.7	1503.7	1506.0	1508.4	1512.9	1522.1	1526.7	1535.8	1547.3
10°	1526.7	1529.0	1526.7	1529.0	1531.3	1533.6	1540.4	1547.3	1554.2	1563.4	1581.6
12.5°	1568.0	1570.3	1565.6	1568.0	1574.8	1574.8	1579.4	1583.9	1595.4	1606.8	1625.2
15°	1625.2	1625.2	1620.7	1622.9	1629.8	1629.8	1632.2	1636.7	1650.5	1664.2	1682.6
17.5°	1691.7	1696.2	1693.9	1696.2	1700.8	1703.2	1703.2	1707.7	1716.9	1726.1	1744.5
20°	1781.2	1783.4	1778.8	1783.4	1788.0	1783.4	1778.8	1776.5	1781.2	1785.8	1806.3
22.5°	1902.6	1900.3	1888.9	1888.9	1888.9	1879.7	1868.3	1854.4	1854.4	1847.6	1863.6
25°	2047.0	2040.1	2024.1	2026.4	2010.4	1996.6	1976.0	1955.3	1936.9	1930.1	1932.4
27.5°	2216.7	2202.8	2186.9	2182.2	2166.2	2141.1	2106.6	2067.6	2037.9	2015.0	2010.4
30°	2429.8	2400.0	2372.6	2367.9	2342.7	2301.4	2246.5	2193.7	2143.3	2104.4	2090.5
32.5°	2682.0	2636.1	2592.6	2588.1	2546.8	2491.7	2425.2	2352.0	2278.5	2216.7	2186.9
35°	2977.7	2908.9	2867.6	2856.1	2796.6	2727.8	2654.5	2560.5	2457.3	2370.3	2315.2
37.5°	3337.6	3266.6	3195.5	3197.8	3115.2	3035.0	2936.5	2821.8	2691.2	2569.7	2491.7
40°	3782.3	3681.4	3589.7	3569.1	3498.1	3385.7	3278.0	3145.0	2984.5	2824.2	2711.9
42.5°	4320.9	4155.9	4029.8	4011.6	3917.5	3780.1	3649.4	3472.8	3310.1	3115.2	2979.9
45°	4933.0	4669.4	4518.1	4490.5	4339.3	4199.5	4041.3	3853.3	3653.9	3433.9	3273.4
47.5°	5694.0	5318.0	5061.4	5015.5	4807.0	4623.6	4458.6	4249.9	4011.6	3766.2	3589.7
50°	6581.2	6026.4	5680.3	5609.3	5329.5	5114.1	4903.2	4641.9	4387.5	4130.8	3926.7
52.5°	7470.6	6874.6	6413.8	6326.7	5914.1	5625.3	5347.9	5086.6	4786.3	4531.8	4300.3
55°	8185.8	7789.2	7255.2	7133.6	6542.2	6150.2	5785.8	5487.8	5189.7	4988.0	4715.3
57.5°	8616.7	8596.1	8174.3	8006.9	7197.8	6617.9	6212.2	5872.9	5584.0	5499.2	5137.1
60°	8605.3	9139.4	8958.2	8832.2	7860.3	7096.9	6569.8	6202.9	5964.6	6060.8	5561.1
62.5°	8080.4	9162.3	9380.0	9345.7	8566.3	7482.1	6863.1	6484.9	6358.8	6645.3	6001.2
63°	7890.0	9109.6	9398.4	9384.6	8701.5	7555.4	6913.6	6539.9	6436.8	6794.4	6081.5
65°	6668.3	8648.9	9176.0	9238.0	8992.7	7807.5	7030.5	6679.8	6668.3	7126.8	6271.7
67.5°	4064.2	7307.8	8174.3	8293.6	8582.4	7887.8	6963.9	6631.6	6796.7	7174.8	6214.4
70°	1737.5	4823.0	6569.8	6762.3	7468.3	7488.9	6773.7	6434.5	6766.9	6798.9	5806.4
72.5°	1029.2	2273.9	4472.3	4891.7	5909.5	6443.7	6338.2	6090.6	6374.8	5971.4	4944.5
75°	729.0	1063.6	2271.7	2718.7	4114.7	4919.3	5325.0	5439.6	5428.1	4735.9	3711.2
77.5°	522.7	683.1	958.2	1130.1	2296.8	3158.8	3653.9	3988.6	3880.9	3170.2	2287.7
80°	364.5	472.2	586.8	623.6	1066.0	1622.9	1925.4	2072.2	2008.0	1583.9	1024.7
82.5°	263.7	309.4	378.2	401.2	536.4	749.6	891.7	786.2	754.2	584.5	442.4
85°	204.0	199.4	236.1	245.3	314.0	392.0	401.2	311.7	272.8	243.0	247.6
87.5°	144.4	123.8	126.0	130.7	162.8	208.5	204.0	128.4	110.1	116.9	133.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





REPORT NUMBER: P258171

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0	1483.0
2.5°	1492.3	1494.5	1499.1	1501.4	1506.0	1506.0	1510.6	1512.9	1517.5	1522.1	1524.3
5°	1519.8	1526.7	1535.8	1540.4	1549.7	1556.5	1565.6	1570.3	1579.4	1586.2	1595.4
7.5°	1561.1	1572.6	1583.9	1597.7	1611.5	1622.9	1632.2	1643.6	1659.6	1671.1	1678.0
10°	1600.0	1616.1	1636.7	1652.8	1673.5	1689.3	1703.2	1723.8	1742.1	1758.2	1767.4
12.5°	1650.5	1671.1	1691.7	1716.9	1744.5	1765.1	1785.8	1813.1	1838.4	1856.8	1865.9
15°	1710.0	1735.2	1758.2	1788.0	1820.0	1847.6	1877.4	1907.2	1925.4	1925.4	1921.0
17.5°	1771.9	1792.6	1820.0	1854.4	1898.1	1932.4	1948.4	1953.0	1946.1	1930.1	1918.7
20°	1833.8	1852.2	1882.0	1923.2	1969.1	1976.0	1959.9	1939.3	1918.7	1891.2	1872.8
22.5°	1884.2	1909.6	1955.3	2003.5	2005.8	1966.7	1923.2	1888.9	1856.8	1824.6	1790.3
25°	1943.8	1978.2	2040.1	2058.5	1998.9	1925.4	1863.6	1813.1	1760.5	1707.7	1668.8
27.5°	2017.3	2067.6	2129.6	2076.8	1959.9	1856.8	1771.9	1696.2	1627.5	1554.2	1510.6
30°	2095.1	2173.0	2186.9	2049.2	1893.5	1760.5	1645.9	1531.3	1444.2	1377.6	1352.4
32.5°	2189.1	2290.0	2207.5	2001.2	1804.1	1629.8	1476.2	1338.8	1265.3	1224.0	1212.7
35°	2331.3	2413.7	2218.9	1950.8	1700.8	1473.9	1281.4	1171.4	1125.5	1098.0	1084.3
37.5°	2535.3	2532.9	2216.7	1888.9	1581.6	1304.3	1125.5	1047.6	1010.8	988.0	962.8
40°	2773.6	2624.6	2202.8	1799.5	1421.3	1141.5	1017.7	944.4	910.0	882.5	852.8
42.5°	3009.8	2686.5	2163.9	1666.5	1221.8	1024.7	939.8	873.4	836.7	806.9	765.6
45°	3213.8	2711.9	2088.3	1483.0	1043.0	933.0	889.4	832.1	788.6	742.8	710.6
47.5°	3374.3	2707.2	1966.7	1267.6	923.8	868.8	848.2	809.2	756.5	699.1	657.8
50°	3509.5	2672.8	1801.8	1077.4	843.6	811.5	804.5	793.1	708.3	660.2	635.1
52.5°	3633.3	2622.3	1625.2	949.0	774.7	747.4	761.0	749.6	690.0	648.7	623.6
55°	3802.9	2588.1	1451.1	850.5	694.6	687.7	699.1	715.2	678.5	639.6	612.1
57.5°	4002.3	2606.4	1318.1	740.4	619.0	623.6	662.4	685.4	667.0	625.8	598.3
60°	4231.6	2661.3	1201.2	635.1	557.0	568.4	625.8	657.8	655.5	607.5	575.4
62.5°	4488.3	2718.7	1015.4	554.7	504.3	522.7	582.3	623.6	630.4	589.1	550.1
63°	4538.7	2723.3	967.4	538.6	495.2	515.8	570.8	614.4	623.6	584.5	545.5
65°	4662.5	2682.0	779.3	495.2	458.5	481.4	536.4	575.4	593.8	559.3	527.1
67.5°	4559.4	2345.0	586.8	442.4	428.7	444.6	492.9	529.5	545.5	529.5	497.4
70°	4169.7	1705.4	458.5	394.3	396.6	408.0	444.6	479.1	497.4	492.9	463.0
72.5°	3358.2	967.4	382.9	353.0	359.9	373.6	398.9	430.9	447.0	444.6	424.0
75°	2212.1	495.2	323.2	316.3	320.9	332.3	350.7	376.0	394.3	392.0	382.9
77.5°	1095.8	343.8	277.4	279.7	282.0	291.1	304.9	327.8	339.2	341.6	339.2
80°	451.6	268.2	238.4	240.7	243.0	249.8	259.1	279.7	286.6	291.1	293.4
82.5°	270.5	204.0	190.2	194.8	197.1	204.0	210.9	229.2	236.1	243.0	243.0
85°	178.7	142.1	137.5	142.1	146.7	151.4	153.6	165.1	176.5	185.6	190.2
87.5°	96.2	84.7	82.5	84.7	84.7	89.4	94.0	105.4	119.2	128.4	133.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



REPORT NUMBER: P258171

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	1483.0	1483.0	1483.0	1483.0	1483.0
2.5°	1519.8	1522.1	1519.8	1522.1	1524.3
5°	1595.4	1600.0	1597.7	1597.7	1606.8
7.5°	1682.6	1691.7	1691.7	1696.2	1700.8
10°	1776.5	1785.8	1792.6	1792.6	1799.5
12.5°	1870.5	1875.1	1882.0	1882.0	1882.0
15°	1918.7	1916.4	1914.1	1911.8	1911.8
17.5°	1911.8	1902.6	1898.1	1893.5	1895.7
20°	1861.3	1845.3	1840.7	1833.8	1838.4
22.5°	1774.3	1751.3	1742.1	1730.6	1735.2
25°	1643.6	1616.1	1611.5	1597.7	1604.6
27.5°	1492.3	1478.5	1476.2	1473.9	1485.4
30°	1350.1	1354.7	1357.0	1361.6	1373.1
32.5°	1219.6	1228.6	1231.0	1233.2	1249.3
35°	1091.2	1079.7	1091.2	1086.6	1100.4
37.5°	951.3	942.2	933.0	921.5	930.7
40°	834.4	818.4	790.8	777.1	779.3
42.5°	742.8	722.1	699.1	685.4	685.4
45°	683.1	657.8	637.3	628.1	628.1
47.5°	637.3	625.8	614.4	607.5	607.5
50°	619.0	605.2	598.3	593.8	593.8
52.5°	605.2	591.4	584.5	579.9	575.4
55°	593.8	573.1	566.2	563.9	563.9
57.5°	577.7	559.3	550.1	547.8	547.8
60°	552.5	538.6	529.5	527.1	527.1
62.5°	527.1	513.5	504.3	504.3	504.3
63°	522.7	506.6	499.8	499.8	499.8
65°	502.0	485.9	479.1	479.1	476.8
67.5°	474.5	458.5	453.9	453.9	449.3
70°	442.4	428.7	424.0	426.3	417.2
72.5°	410.3	396.6	389.7	389.7	380.6
75°	373.6	359.9	350.7	348.4	339.2
77.5°	332.3	320.9	311.7	302.5	297.9
80°	288.9	279.7	268.2	261.3	254.5
82.5°	243.0	233.9	226.9	236.1	201.7
85°	190.2	181.1	172.0	185.6	144.4
87.5°	139.9	135.3	126.0	110.1	96.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)