

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: P265826

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265826
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-AF48-120-D-U-T2U-7027
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 2700K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13201.9 lumens
Efficiency: N/A
Efficacy: 108.2 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): 122
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

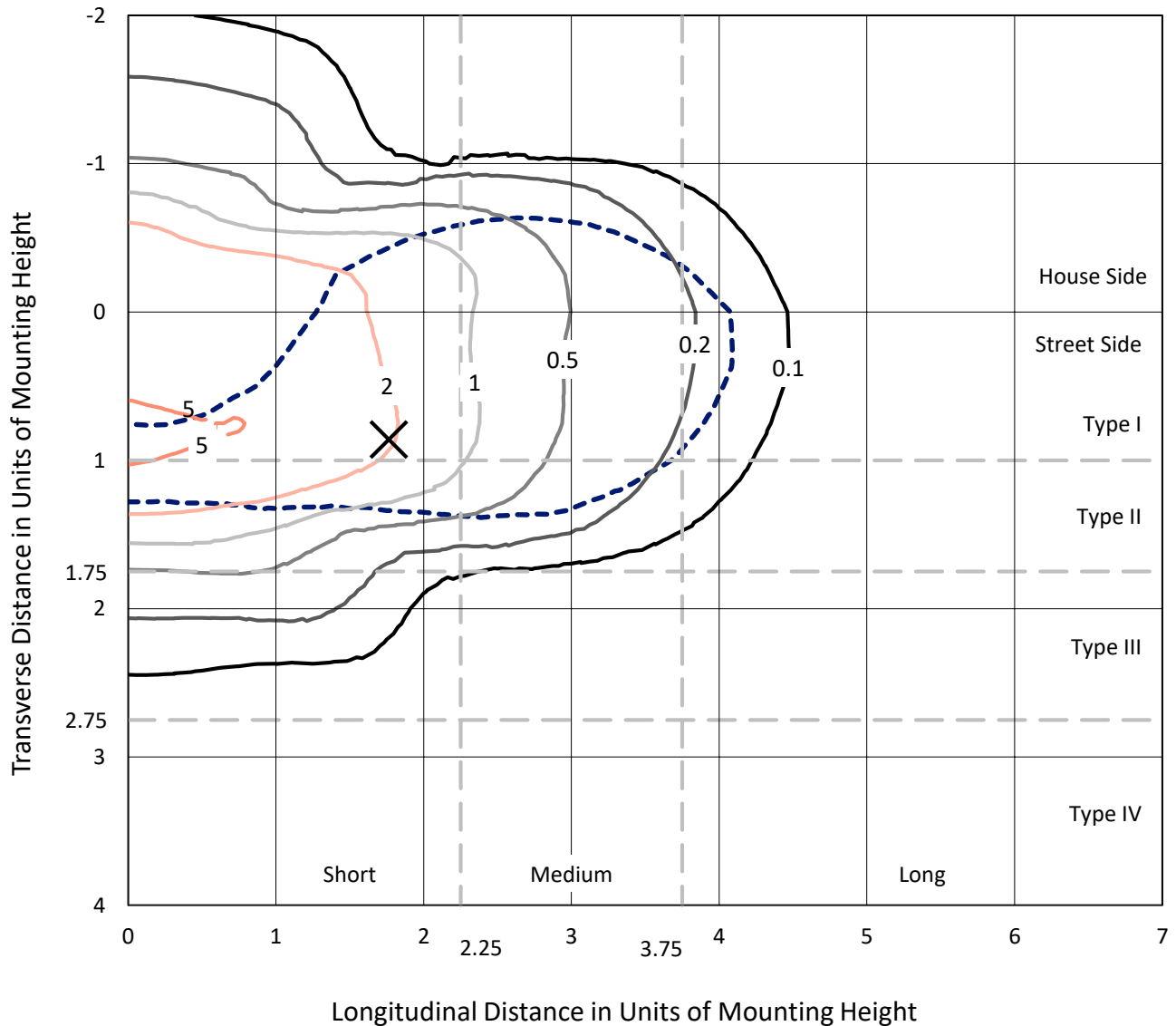


REPORT NUMBER: P265826

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7027

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

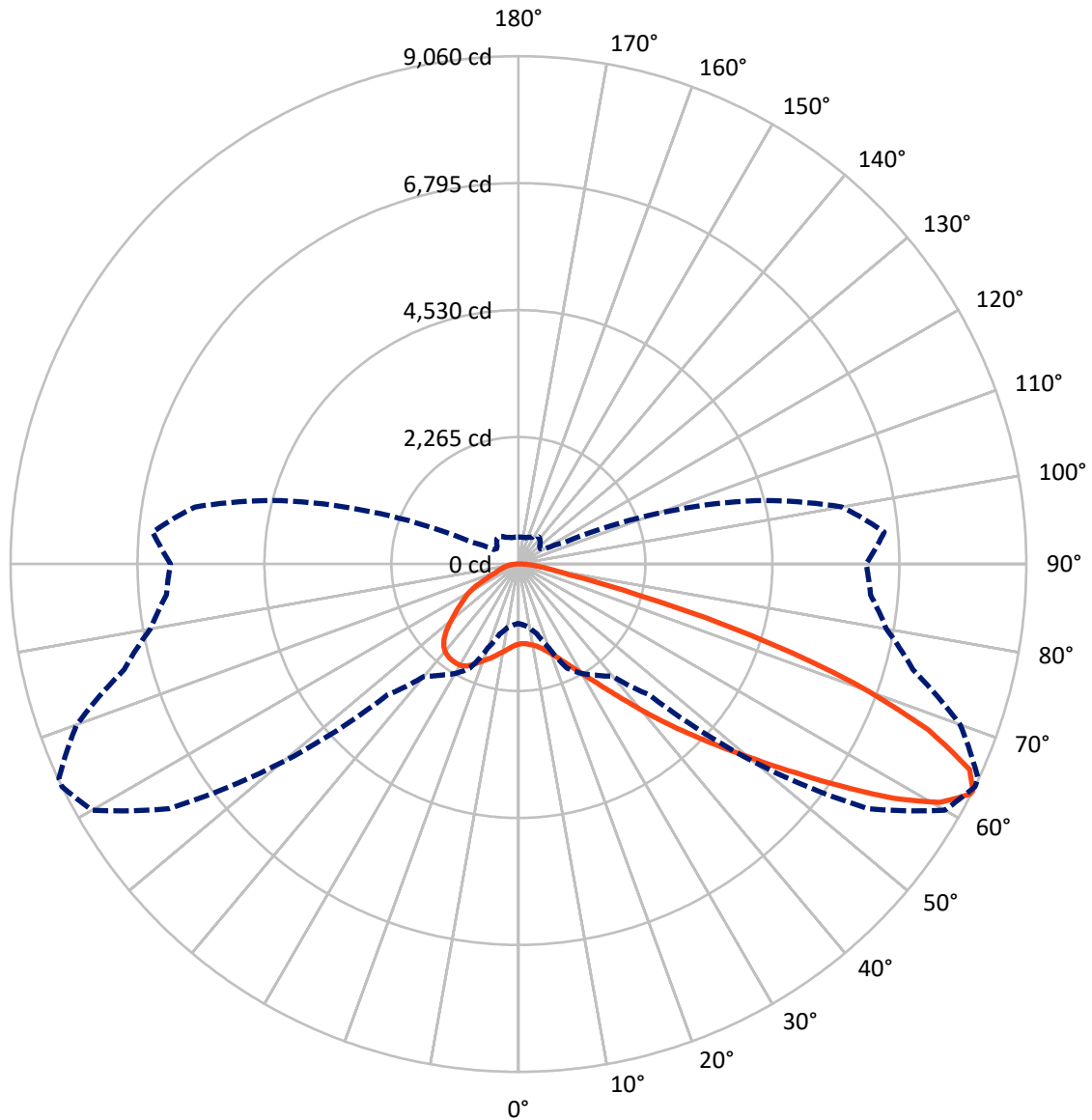


Based on 20 foot mounting height. Maximum calculated value = 5.8 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P265826

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P265826

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3880.9	0.0	3880.9
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	9321.0	0.0	9321.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	13201.9	0.0	13201.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	142.7	1.1
10°-20°	475.5	3.6
20°-30°	892.5	6.8
30°-40°	1495.9	11.3
40°-50°	2509.9	19.0
50°-60°	3181.8	24.1
60°-70°	2806.8	21.3
70°-80°	1448.9	11.0
80°-90°	247.9	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°	13201.9	100.0
0°-180°	13201.9	100.0



REPORT NUMBER: P265826

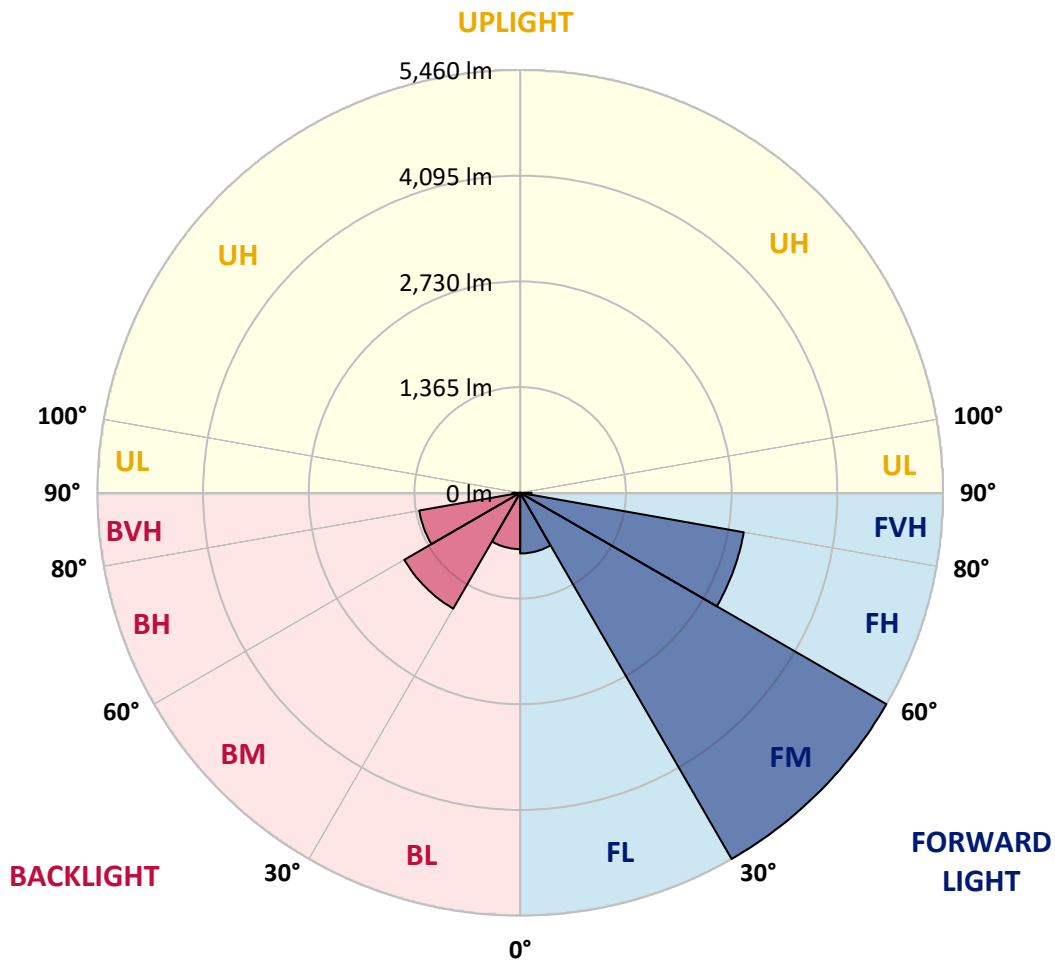
CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	783.6	5.9			
FM	(30°-60°)	5460.0	41.4			
FH	(60°-80°)	2931.6	22.2			G2/5000
FVH	(80°-90°)	145.9	1.1			G2/225
BL	(0°-30°)	727.1	5.5	B2/1000		
BM	(30°-60°)	1727.6	13.1	B2/2500		
BH	(60°-80°)	1324.1	10.0	B3/2500		G3/2500
BVH	(80°-90°)	102.0	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: P265826

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7027

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7
2.5°	1420.8	1418.8	1418.8	1418.8	1418.8	1416.4	1418.8	1423.2	1420.8	1418.8	1423.2
5°	1425.3	1423.2	1423.2	1423.2	1425.3	1423.2	1425.3	1432.0	1427.5	1427.5	1432.0
7.5°	1436.4	1434.1	1436.4	1434.1	1434.1	1434.1	1436.4	1442.9	1440.8	1442.9	1449.7
10°	1449.7	1449.7	1449.7	1449.7	1449.7	1449.7	1454.0	1458.5	1460.7	1462.9	1471.8
12.5°	1489.4	1489.4	1489.4	1487.2	1487.2	1480.5	1489.4	1493.8	1498.3	1502.7	1509.3
15°	1573.4	1573.4	1571.1	1562.3	1562.3	1549.0	1551.4	1553.4	1553.4	1557.9	1562.3
17.5°	1684.0	1681.6	1677.2	1670.7	1661.8	1646.4	1641.9	1637.5	1630.9	1628.6	1628.6
20°	1838.7	1836.3	1827.5	1809.8	1798.8	1774.5	1756.8	1739.2	1732.6	1721.4	1719.3
22.5°	2059.5	2059.5	2041.8	2015.3	2006.5	1955.7	1904.9	1867.2	1854.0	1838.7	1838.7
25°	2327.0	2324.8	2300.4	2269.5	2231.8	2178.8	2117.0	2066.2	2033.0	1997.7	1984.4
27.5°	2647.3	2640.7	2607.6	2570.1	2499.4	2433.0	2360.0	2307.0	2249.6	2205.3	2165.6
30°	3023.1	3016.4	2958.9	2888.2	2815.3	2749.1	2643.0	2578.9	2488.2	2435.2	2391.1
32.5°	3458.4	3451.7	3348.0	3279.4	3202.1	3120.4	2994.3	2892.6	2777.7	2702.6	2640.7
35°	4013.1	3986.6	3838.5	3743.4	3622.0	3540.1	3407.6	3270.5	3135.8	3029.7	2939.1
37.5°	4611.9	4580.9	4450.7	4309.2	4189.9	4090.4	3902.5	3730.2	3571.1	3425.2	3312.5
40°	5237.3	5155.6	5016.3	4912.4	4830.6	4735.7	4539.0	4357.8	4108.0	3944.5	3774.4
42.5°	5670.5	5591.0	5493.7	5425.1	5385.3	5312.4	5201.9	5045.1	4821.8	4826.2	4377.7
45°	5955.6	5838.4	5772.1	5776.6	5792.0	5792.0	5772.1	5747.7	5650.6	5716.9	5341.1
47.5°	5853.9	5776.6	5734.5	5823.0	5933.3	6043.8	6172.1	6311.3	6470.4	6658.1	6196.4
50°	5257.2	5285.9	5305.7	5493.7	5730.1	5982.1	6275.9	6656.0	7100.3	7186.4	6963.2
52.5°	4304.8	4366.7	4433.0	4720.2	5031.8	5467.2	5982.1	6609.5	7206.3	7557.6	7535.5
55°	3343.5	3420.8	3562.3	3776.7	4024.0	4435.1	5071.7	6039.5	6969.8	7529.0	7869.2
57.5°	2380.0	2492.6	2678.3	2976.7	3195.5	3427.5	3898.1	4972.1	5990.8	7031.8	7813.9
60°	1582.3	1635.3	1756.8	2128.1	2497.1	2740.2	3073.9	3462.7	4296.0	5730.1	7243.8
62.5°	1122.6	1157.9	1233.2	1401.0	1734.6	2174.4	2375.6	2554.6	2821.9	3685.9	5816.3
63°	1060.7	1091.7	1153.6	1294.9	1595.5	2050.7	2256.3	2419.8	2614.2	3297.0	5502.5
65°	879.5	892.7	926.0	994.5	1155.7	1533.6	1869.6	1968.9	2002.1	2119.2	3447.3
67.5°	742.4	751.3	762.4	782.2	846.4	1021.0	1394.3	1520.4	1482.8	1403.2	1703.7
70°	645.3	651.9	669.5	693.9	715.9	760.1	959.1	1146.9	1104.9	996.6	1043.0
72.5°	514.9	526.0	545.8	587.9	632.0	689.4	738.0	855.1	828.6	724.8	735.9
75°	406.7	413.2	430.8	461.9	503.8	570.2	665.1	704.9	632.0	534.9	534.9
77.5°	322.6	329.3	344.7	369.1	395.6	442.0	508.4	612.1	567.9	402.3	399.9
80°	243.1	249.6	265.2	287.3	313.8	346.9	386.7	433.2	521.6	375.8	300.6
82.5°	179.0	181.2	207.7	223.1	232.0	258.5	291.7	318.2	358.0	346.9	267.3
85°	134.7	132.6	150.2	161.3	163.5	170.1	190.0	216.5	234.3	225.5	207.7
87.5°	75.2	66.3	77.3	88.5	88.5	90.5	95.0	110.5	125.9	121.5	110.5
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: P265826

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7027

CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7
2.5°	1423.2	1423.2	1420.8	1420.8	1423.2	1423.2	1420.8	1427.5	1432.0	1432.0	1434.1
5°	1429.7	1432.0	1429.7	1429.7	1432.0	1432.0	1434.1	1440.8	1447.3	1451.9	1458.5
7.5°	1449.7	1451.9	1449.7	1449.7	1451.9	1454.0	1458.5	1467.3	1471.8	1480.5	1491.6
10°	1471.8	1473.9	1471.8	1473.9	1476.2	1478.4	1485.0	1491.6	1498.3	1507.0	1524.9
12.5°	1511.5	1513.7	1509.3	1511.5	1518.1	1518.1	1522.5	1526.9	1538.1	1549.0	1566.7
15°	1566.7	1566.7	1562.3	1564.6	1571.1	1571.1	1573.4	1577.9	1591.1	1604.4	1622.0
17.5°	1630.9	1635.3	1633.1	1635.3	1639.6	1641.9	1641.9	1646.4	1655.1	1664.0	1681.6
20°	1717.0	1719.3	1714.9	1719.3	1723.7	1719.3	1714.9	1712.6	1717.0	1721.4	1741.4
22.5°	1834.2	1832.0	1821.0	1821.0	1821.0	1812.2	1801.0	1787.7	1787.7	1781.1	1796.6
25°	1973.3	1966.7	1951.3	1953.5	1938.1	1924.8	1904.9	1885.1	1867.2	1860.7	1862.8
27.5°	2136.9	2123.7	2108.2	2103.8	2088.3	2063.9	2030.9	1993.2	1964.6	1942.4	1938.1
30°	2342.4	2313.7	2287.2	2282.8	2258.5	2218.6	2165.6	2114.8	2066.2	2028.6	2015.3
32.5°	2585.5	2541.3	2499.4	2495.0	2455.1	2402.1	2338.0	2267.3	2196.5	2136.9	2108.2
35°	2870.5	2804.2	2764.5	2753.5	2696.1	2629.7	2559.0	2468.5	2368.9	2285.0	2231.8
37.5°	3217.5	3149.0	3080.5	3082.8	3003.2	2925.8	2830.7	2720.2	2594.3	2477.3	2402.1
40°	3646.2	3549.1	3460.6	3440.7	3372.1	3263.9	3160.1	3031.9	2877.2	2722.6	2614.2
42.5°	4165.5	4006.4	3884.9	3867.3	3776.7	3644.1	3518.0	3348.0	3191.0	3003.2	2872.8
45°	4755.5	4501.4	4355.6	4329.0	4183.1	4048.4	3895.9	3714.8	3522.4	3310.3	3155.7
47.5°	5489.3	5126.7	4879.4	4835.0	4634.0	4457.2	4298.1	4097.0	3867.3	3630.8	3460.6
50°	6344.4	5809.7	5476.0	5407.4	5137.9	4930.2	4726.8	4474.8	4229.6	3982.1	3785.5
52.5°	7201.8	6627.2	6183.2	6099.1	5701.4	5422.9	5155.6	4903.6	4614.1	4368.8	4145.7
55°	7891.3	7509.0	6994.2	6877.1	6306.9	5929.0	5577.7	5290.4	5003.1	4808.5	4545.7
57.5°	8306.7	8286.9	7880.2	7719.0	6938.9	6379.9	5988.6	5661.6	5383.2	5301.3	4952.3
60°	8295.7	8810.5	8636.0	8514.5	7577.6	6841.6	6333.4	5979.7	5750.1	5842.8	5361.1
62.5°	7789.7	8832.8	9042.6	9009.6	8258.2	7212.9	6616.2	6251.7	6130.0	6406.4	5785.4
63°	7606.3	8781.9	9060.3	9047.0	8388.6	7283.5	6664.9	6304.7	6205.2	6549.9	5862.7
65°	6428.5	8337.7	8846.0	8905.6	8669.2	7526.7	6777.5	6439.4	6428.5	6870.3	6046.1
67.5°	3918.0	7045.0	7880.2	7995.2	8273.6	7604.1	6713.5	6393.1	6552.1	6916.8	5990.8
70°	1675.1	4649.4	6333.4	6519.0	7199.6	7219.5	6530.0	6202.9	6523.4	6554.4	5597.5
72.5°	992.2	2192.1	4311.3	4715.8	5697.0	6211.8	6110.2	5871.5	6145.6	5756.6	4766.5
75°	702.7	1025.3	2190.0	2620.8	3966.6	4742.3	5133.5	5243.9	5232.8	4565.5	3577.7
77.5°	503.8	658.5	923.6	1089.5	2214.2	3045.2	3522.4	3845.1	3741.3	3056.3	2205.3
80°	351.3	455.3	565.8	601.1	1027.7	1564.6	1856.3	1997.7	1935.8	1526.9	987.7
82.5°	254.1	298.3	364.6	386.7	517.2	722.5	859.6	758.0	727.1	563.4	426.4
85°	196.6	192.2	227.6	236.4	302.8	377.8	386.7	300.6	262.9	234.3	238.7
87.5°	139.1	119.4	121.5	125.9	156.9	201.1	196.6	123.7	106.1	112.6	128.2
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: P265826

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7027

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7	1429.7
2.5°	1438.5	1440.8	1445.3	1447.3	1451.9	1451.9	1456.3	1458.5	1462.9	1467.3	1469.5
5°	1465.1	1471.8	1480.5	1485.0	1493.8	1500.4	1509.3	1513.7	1522.5	1529.3	1538.1
7.5°	1504.9	1515.9	1526.9	1540.2	1553.4	1564.6	1573.4	1584.4	1599.9	1611.0	1617.6
10°	1542.5	1557.9	1577.9	1593.4	1613.1	1628.6	1641.9	1661.8	1679.6	1694.9	1703.7
12.5°	1591.1	1611.0	1630.9	1655.1	1681.6	1701.6	1721.4	1748.0	1772.3	1790.0	1798.8
15°	1648.5	1672.9	1694.9	1723.7	1754.6	1781.1	1809.8	1838.7	1856.3	1856.3	1851.9
17.5°	1708.1	1728.1	1754.6	1787.7	1829.8	1862.8	1878.4	1882.8	1876.1	1860.7	1849.6
20°	1767.9	1785.6	1814.2	1854.0	1898.3	1904.9	1889.4	1869.6	1849.6	1823.1	1805.5
22.5°	1816.6	1840.7	1885.1	1931.4	1933.6	1896.1	1854.0	1821.0	1790.0	1759.1	1725.9
25°	1874.0	1907.1	1966.7	1984.4	1927.0	1856.3	1796.6	1748.0	1697.2	1646.4	1608.8
27.5°	1944.7	1993.2	2052.9	2002.1	1889.4	1790.0	1708.1	1635.3	1569.0	1498.3	1456.3
30°	2019.7	2094.8	2108.2	1975.6	1825.4	1697.2	1586.6	1476.2	1392.3	1328.1	1303.8
32.5°	2110.4	2207.7	2128.1	1929.2	1739.2	1571.1	1423.2	1290.5	1219.8	1180.1	1169.1
35°	2247.4	2327.0	2139.1	1880.5	1639.6	1420.8	1235.3	1129.2	1085.1	1058.6	1045.3
37.5°	2444.1	2441.9	2136.9	1821.0	1524.9	1257.4	1085.1	1009.9	974.5	952.5	928.0
40°	2673.8	2530.3	2123.7	1734.6	1370.0	1100.6	981.2	910.4	877.4	850.8	822.0
42.5°	2901.5	2590.0	2086.0	1606.6	1177.9	987.7	906.0	841.9	806.6	777.8	738.0
45°	3098.2	2614.2	2013.1	1429.7	1005.5	899.5	857.4	802.1	760.1	715.9	685.0
47.5°	3252.9	2609.8	1896.1	1222.1	890.6	837.5	817.6	780.1	729.2	674.0	634.3
50°	3383.2	2576.7	1737.0	1038.6	813.2	782.2	775.6	764.5	682.8	636.4	612.1
52.5°	3502.6	2528.0	1566.7	914.8	746.9	720.4	733.6	722.5	665.1	625.4	601.1
55°	3666.2	2495.0	1398.8	819.9	669.5	662.9	674.0	689.4	654.1	616.5	590.0
57.5°	3858.4	2512.6	1270.7	713.8	596.7	601.1	638.6	660.8	643.0	603.3	576.7
60°	4079.4	2565.6	1157.9	612.1	536.9	548.1	603.3	634.3	632.0	585.6	554.7
62.5°	4326.9	2620.8	979.0	534.9	486.2	503.8	561.4	601.1	607.8	567.9	530.4
63°	4375.5	2625.2	932.5	519.3	477.3	497.2	550.2	592.3	601.1	563.4	526.0
65°	4494.8	2585.5	751.3	477.3	442.0	464.1	517.2	554.7	572.3	539.3	508.4
67.5°	4395.3	2260.7	565.8	426.4	413.2	428.8	475.2	510.4	526.0	510.4	479.5
70°	4019.6	1644.1	442.0	380.2	382.3	393.4	428.8	461.9	479.5	475.2	446.4
72.5°	3237.4	932.5	369.1	340.3	346.9	360.2	384.6	415.5	430.8	428.8	408.8
75°	2132.4	477.3	311.6	305.0	309.3	320.4	338.1	362.5	380.2	377.8	369.1
77.5°	1056.2	331.5	267.3	269.6	271.7	280.6	293.9	316.1	327.1	329.3	327.1
80°	435.4	258.5	229.8	232.0	234.3	240.8	249.6	269.6	276.1	280.6	282.8
82.5°	260.8	196.6	183.4	187.8	190.0	196.6	203.2	221.1	227.6	234.3	234.3
85°	172.4	137.0	132.6	137.0	141.5	145.9	148.1	159.1	170.1	179.0	183.4
87.5°	92.9	81.7	79.6	81.7	81.7	86.1	90.5	101.7	115.0	123.7	128.2
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: P265826

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2U-7027

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1429.7	1429.7	1429.7	1429.7	1429.7
2.5°	1465.1	1467.3	1465.1	1467.3	1469.5
5°	1538.1	1542.5	1540.2	1540.2	1549.0
7.5°	1622.0	1630.9	1630.9	1635.3	1639.6
10°	1712.6	1721.4	1728.1	1728.1	1734.6
12.5°	1803.2	1807.6	1814.2	1814.2	1814.2
15°	1849.6	1847.5	1845.2	1843.1	1843.1
17.5°	1843.1	1834.2	1829.8	1825.4	1827.5
20°	1794.4	1779.0	1774.5	1767.9	1772.3
22.5°	1710.5	1688.4	1679.6	1668.4	1672.9
25°	1584.4	1557.9	1553.4	1540.2	1546.9
27.5°	1438.5	1425.3	1423.2	1420.8	1432.0
30°	1301.6	1306.0	1308.2	1312.7	1323.7
32.5°	1175.6	1184.4	1186.8	1188.8	1204.4
35°	1051.8	1040.9	1051.8	1047.5	1060.7
37.5°	917.1	908.2	899.5	888.3	897.1
40°	804.4	788.9	762.4	749.1	751.3
42.5°	715.9	696.0	674.0	660.8	660.8
45°	658.5	634.3	614.4	605.5	605.5
47.5°	614.4	603.3	592.3	585.6	585.6
50°	596.7	583.4	576.7	572.3	572.3
52.5°	583.4	570.2	563.4	559.0	554.7
55°	572.3	552.5	545.8	543.7	543.7
57.5°	556.9	539.3	530.4	528.2	528.2
60°	532.5	519.3	510.4	508.4	508.4
62.5°	508.4	495.0	486.2	486.2	486.2
63°	503.8	488.4	481.8	481.8	481.8
65°	483.9	468.5	461.9	461.9	459.7
67.5°	457.4	442.0	437.6	437.6	433.2
70°	426.4	413.2	408.8	411.1	402.3
72.5°	395.6	382.3	375.8	375.8	366.9
75°	360.2	346.9	338.1	335.8	327.1
77.5°	320.4	309.3	300.6	291.7	287.3
80°	278.5	269.6	258.5	252.0	245.2
82.5°	234.3	225.5	218.7	227.6	194.5
85°	183.4	174.6	165.7	179.0	139.1
87.5°	134.7	130.3	121.5	106.1	92.9
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)