

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: P258170

Luminaire Tested: **ARCH-M-AF48-100-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258170
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-AF48-100-D-U-T2U-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12803 lumens
Efficiency: N/A
Efficacy: 126.8 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): 101
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

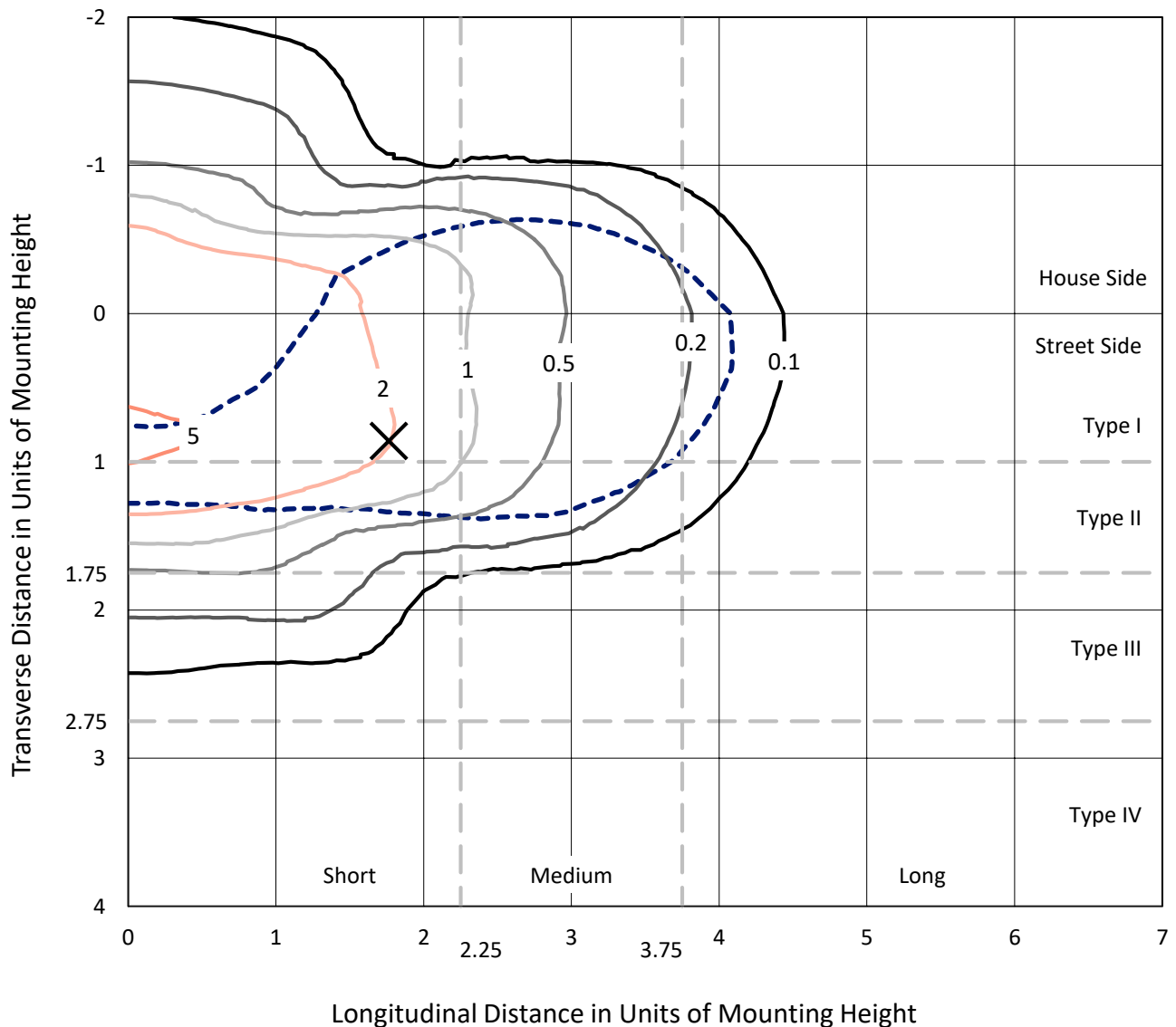


REPORT NUMBER: P258170

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T2U-7030

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

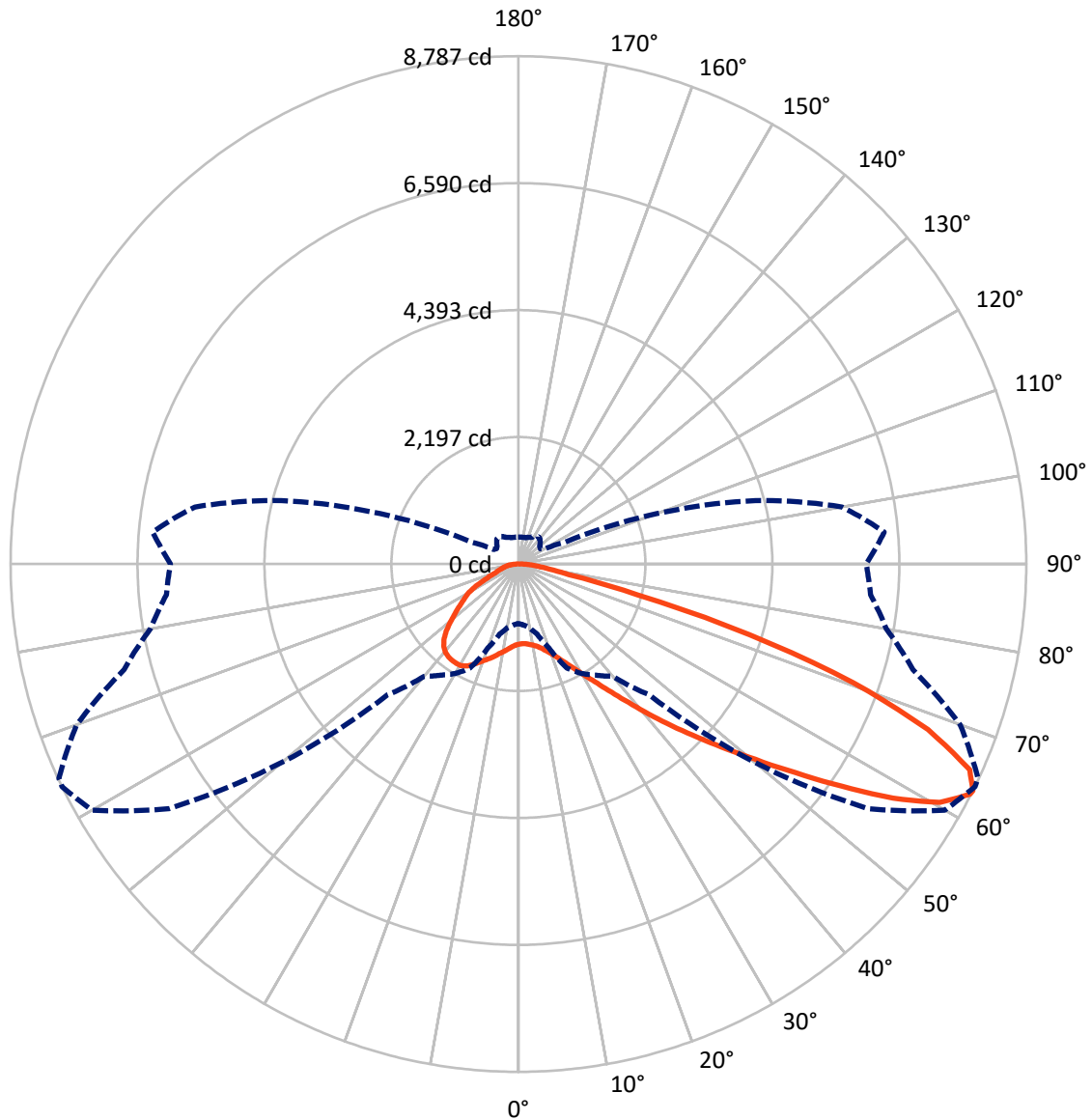


Based on 20 foot mounting height. Maximum calculated value = 5.6 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P258170

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T2U-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P258170

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T2U-7030

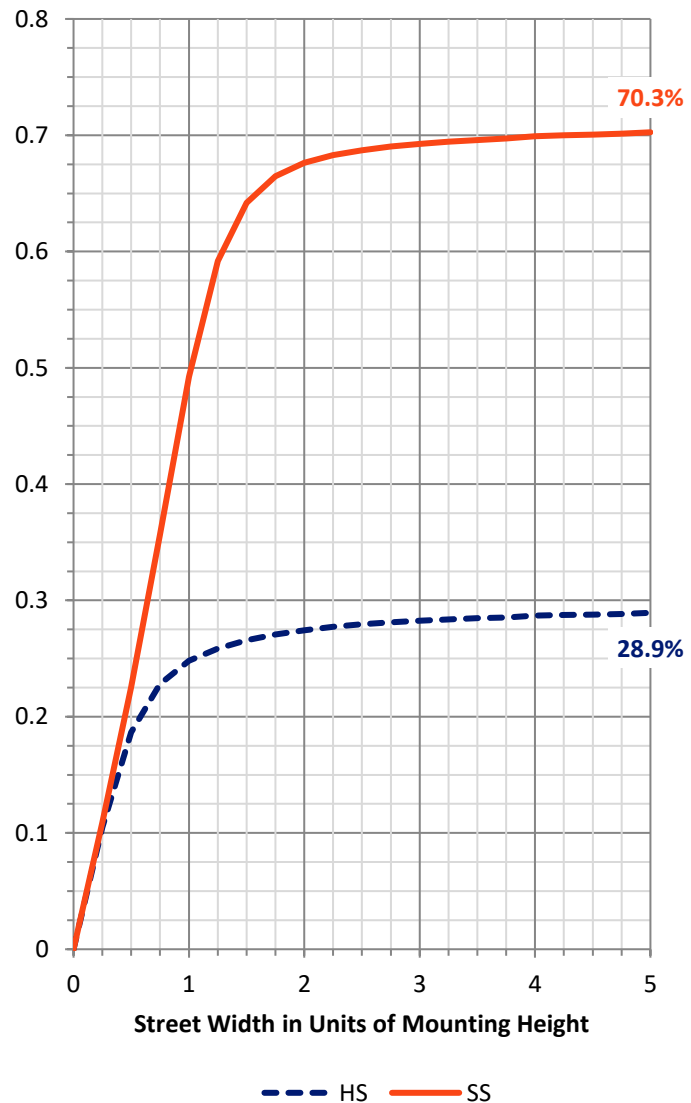
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3763.6	0.0	3763.6
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	9039.4	0.0	9039.4
	% Fixture	70.6	0.0	70.6
Total	Lumens	12803.0	0.0	12803.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	138.4	1.1
10°-20°	461.1	3.6
20°-30°	865.5	6.8
30°-40°	1450.7	11.3
40°-50°	2434.0	19.0
50°-60°	3085.6	24.1
60°-70°	2722.0	21.3
70°-80°	1405.1	11.0
80°-90°	240.4	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°	12803.0	100.0
0°-180°	12803.0	100.0



REPORT NUMBER: P258170

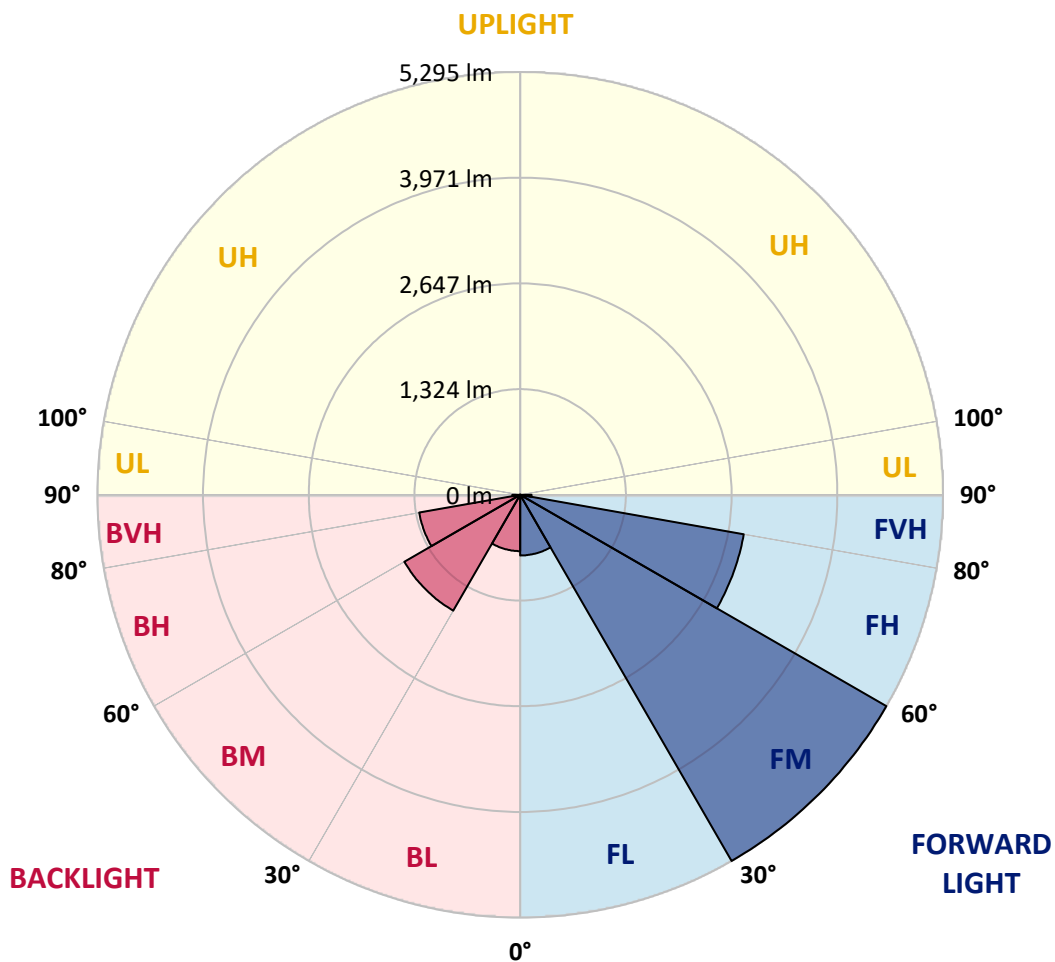
CATALOG NUMBER: ARCH-M-AF48-100-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	759.9	5.9			
FM (30°-60°)	5295.0	41.4			
FH (60°-80°)	2843.0	22.2			G2/5000
FVH (80°-90°)	141.5	1.1			G2/225
BL (0°-30°)	705.2	5.5	B2/1000		
BM (30°-60°)	1675.4	13.1	B2/2500		
BH (60°-80°)	1284.1	10.0	B3/2500		G3/2500
BVH (80°-90°)	98.9	0.8			G1/100
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: P258170

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T2U-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6
2.5°	1378.0	1375.8	1375.8	1375.8	1375.8	1373.7	1375.8	1380.2	1378.0	1375.8	1380.2
5°	1382.2	1380.2	1380.2	1380.2	1382.2	1380.2	1382.2	1388.6	1384.5	1384.5	1388.6
7.5°	1392.9	1390.9	1392.9	1390.9	1390.9	1390.9	1392.9	1399.4	1397.3	1399.4	1405.8
10°	1405.8	1405.8	1405.8	1405.8	1405.8	1405.8	1410.1	1414.5	1416.5	1418.7	1427.3
12.5°	1444.4	1444.4	1444.4	1442.3	1442.3	1435.8	1444.4	1448.7	1453.0	1457.3	1463.7
15°	1525.8	1525.8	1523.7	1515.1	1515.1	1502.4	1504.4	1506.5	1506.5	1510.8	1515.1
17.5°	1633.0	1630.9	1626.6	1620.2	1611.6	1596.6	1592.4	1588.0	1581.5	1579.5	1579.5
20°	1783.0	1780.9	1772.3	1755.1	1744.5	1720.9	1703.7	1686.6	1680.2	1669.5	1667.3
22.5°	1997.4	1997.4	1980.3	1954.4	1945.9	1896.6	1847.3	1810.9	1798.1	1783.0	1783.0
25°	2256.6	2254.4	2231.0	2200.9	2164.5	2113.1	2053.1	2003.9	1971.6	1937.2	1924.5
27.5°	2567.4	2560.9	2528.8	2492.4	2423.8	2359.6	2288.8	2237.3	2181.7	2138.8	2100.2
30°	2931.8	2925.3	2869.5	2801.0	2730.3	2665.9	2563.1	2501.0	2413.1	2361.6	2318.8
32.5°	3353.9	3347.4	3246.7	3180.3	3105.2	3026.1	2903.9	2805.2	2693.8	2620.9	2560.9
35°	3891.9	3866.0	3722.5	3630.3	3512.4	3433.2	3304.5	3171.7	3041.0	2938.1	2850.2
37.5°	4472.5	4442.6	4316.1	4178.9	4063.3	3966.7	3784.6	3617.5	3463.2	3321.7	3212.4
40°	5079.0	4999.7	4864.8	4764.0	4684.7	4592.6	4401.8	4226.1	3983.9	3825.3	3660.3
42.5°	5499.1	5422.0	5327.7	5261.2	5222.6	5151.9	5044.7	4892.6	4676.2	4680.4	4245.4
45°	5775.6	5662.0	5597.7	5601.9	5616.9	5616.9	5597.7	5574.1	5479.8	5544.2	5179.8
47.5°	5677.0	5601.9	5561.2	5646.9	5754.1	5861.3	5985.6	6120.6	6274.9	6457.0	6009.2
50°	5098.4	5126.2	5145.4	5327.7	5556.9	5801.2	6086.3	6454.9	6885.6	6969.2	6752.8
52.5°	4174.7	4234.7	4299.1	4577.5	4879.7	5302.0	5801.2	6409.9	6988.6	7329.2	7307.8
55°	3242.5	3317.4	3454.6	3662.5	3902.5	4301.1	4918.3	5857.0	6759.3	7301.4	7631.4
57.5°	2308.1	2417.4	2597.4	2886.7	3098.8	3323.8	3780.4	4821.8	5809.9	6819.2	7577.9
60°	1534.4	1585.9	1703.7	2063.8	2421.6	2657.4	2981.0	3358.2	4166.0	5556.9	7025.0
62.5°	1088.7	1122.9	1195.9	1358.7	1682.3	2108.8	2303.8	2477.4	2736.7	3574.6	5640.5
63°	1028.6	1058.7	1118.7	1255.8	1547.3	1988.7	2188.0	2346.7	2535.3	3197.5	5336.2
65°	853.0	865.8	897.9	964.3	1120.8	1487.2	1813.0	1909.5	1941.6	2055.1	3343.3
67.5°	720.0	728.6	739.3	758.7	820.7	990.1	1352.3	1474.5	1438.0	1360.9	1652.3
70°	625.7	632.2	649.3	672.9	694.4	737.2	930.2	1112.3	1071.5	966.5	1011.5
72.5°	499.4	510.0	529.4	570.0	613.0	668.6	715.7	829.4	803.6	703.0	713.7
75°	394.3	400.8	417.9	447.9	488.6	553.0	645.0	683.6	613.0	518.7	518.7
77.5°	312.9	319.4	334.4	358.0	383.6	428.7	492.9	593.6	550.7	390.0	387.9
80°	235.8	242.1	257.2	278.6	304.3	336.4	375.1	420.0	505.8	364.3	291.5
82.5°	173.6	175.7	201.5	216.5	225.1	250.7	282.9	308.5	347.2	336.4	259.3
85°	130.7	128.6	145.8	156.5	158.5	165.0	184.3	210.0	227.2	218.6	201.5
87.5°	72.8	64.3	75.1	85.8	85.8	87.9	92.1	107.2	122.2	117.9	107.2
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: P258170

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T2U-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6
2.5°	1380.2	1380.2	1378.0	1378.0	1380.2	1380.2	1378.0	1384.5	1388.6	1388.6	1390.9
5°	1386.6	1388.6	1386.6	1386.6	1388.6	1388.6	1390.9	1397.3	1403.7	1408.1	1414.5
7.5°	1405.8	1408.1	1405.8	1405.8	1408.1	1410.1	1414.5	1423.0	1427.3	1435.8	1446.6
10°	1427.3	1429.4	1427.3	1429.4	1431.6	1433.7	1440.1	1446.6	1453.0	1461.6	1478.8
12.5°	1465.8	1468.0	1463.7	1465.8	1472.3	1472.3	1476.5	1480.9	1491.6	1502.4	1519.5
15°	1519.5	1519.5	1515.1	1517.3	1523.7	1523.7	1525.8	1530.1	1543.0	1555.9	1573.0
17.5°	1581.5	1585.9	1583.7	1585.9	1590.2	1592.4	1592.4	1596.6	1605.1	1613.8	1630.9
20°	1665.1	1667.3	1663.0	1667.3	1671.5	1667.3	1663.0	1660.8	1665.1	1669.5	1688.7
22.5°	1778.7	1776.5	1765.8	1765.8	1765.8	1757.3	1746.6	1733.7	1733.7	1727.3	1742.3
25°	1913.7	1907.3	1892.4	1894.4	1879.5	1866.5	1847.3	1828.0	1810.9	1804.4	1806.6
27.5°	2072.3	2059.4	2044.5	2040.2	2025.2	2001.6	1969.5	1933.1	1905.2	1883.7	1879.5
30°	2271.6	2243.7	2218.1	2213.8	2190.2	2151.7	2100.2	2050.9	2003.9	1967.3	1954.4
32.5°	2507.4	2464.6	2423.8	2419.5	2381.0	2329.5	2267.3	2198.8	2130.2	2072.3	2044.5
35°	2783.8	2719.6	2681.0	2670.3	2614.6	2550.2	2481.8	2393.8	2297.4	2215.9	2164.5
37.5°	3120.3	3053.9	2987.4	2989.6	2912.5	2837.5	2745.2	2638.1	2515.9	2402.4	2329.5
40°	3536.0	3441.7	3356.0	3336.8	3270.3	3165.3	3064.6	2940.2	2790.3	2640.2	2535.3
42.5°	4039.7	3885.4	3767.5	3750.4	3662.5	3533.9	3411.7	3246.7	3094.5	2912.5	2786.0
45°	4611.9	4365.5	4224.0	4198.3	4056.8	3926.1	3778.1	3602.5	3416.0	3210.2	3060.3
47.5°	5323.3	4972.0	4731.9	4689.0	4494.0	4322.6	4168.2	3973.2	3750.4	3521.1	3356.0
50°	6152.7	5634.1	5310.5	5244.1	4982.7	4781.1	4584.0	4339.7	4101.8	3861.8	3671.1
52.5°	6984.2	6427.0	5996.2	5914.9	5529.1	5259.0	4999.7	4755.4	4474.7	4236.8	4020.4
55°	7652.8	7282.1	6782.9	6669.1	6116.4	5749.9	5409.1	5130.5	4851.8	4663.3	4408.3
57.5°	8055.8	8036.4	7642.1	7485.7	6729.2	6187.1	5807.6	5490.5	5220.5	5141.2	4802.6
60°	8045.1	8544.4	8375.0	8257.2	7348.6	6634.9	6142.0	5799.2	5576.3	5666.3	5199.1
62.5°	7554.3	8565.8	8769.3	8737.3	8008.6	6995.0	6416.4	6062.7	5944.8	6212.7	5610.6
63°	7376.4	8516.5	8786.5	8773.7	8135.0	7063.5	6463.4	6114.1	6017.7	6352.0	5685.6
65°	6234.2	8085.7	8578.7	8636.5	8407.2	7299.3	6572.7	6244.8	6234.2	6662.7	5863.4
67.5°	3799.6	6832.1	7642.1	7753.6	8023.6	7374.2	6510.6	6199.9	6354.2	6707.8	5809.9
70°	1624.4	4509.0	6142.0	6322.1	6982.1	7001.4	6332.7	6015.6	6326.3	6356.2	5428.3
72.5°	962.2	2125.9	4181.2	4573.3	5524.8	6024.1	5925.5	5694.1	5959.9	5582.7	4622.5
75°	681.4	994.4	2123.8	2541.7	3846.8	4599.0	4978.3	5085.5	5074.8	4427.5	3469.6
77.5°	488.6	638.6	895.8	1056.5	2147.4	2953.2	3416.0	3728.9	3628.2	2963.8	2138.8
80°	340.8	441.5	548.6	582.9	996.6	1517.3	1800.1	1937.2	1877.3	1480.9	957.9
82.5°	246.5	289.3	353.6	375.1	501.5	700.8	833.6	735.1	705.0	546.6	413.6
85°	190.7	186.4	220.7	229.3	293.6	366.4	375.1	291.5	255.0	227.2	231.4
87.5°	135.1	115.7	117.9	122.2	152.2	195.0	190.7	119.9	102.8	109.3	124.3
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: P258170

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T2U-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6	1386.6
2.5°	1395.1	1397.3	1401.6	1403.7	1408.1	1408.1	1412.2	1414.5	1418.7	1423.0	1425.2
5°	1420.8	1427.3	1435.8	1440.1	1448.7	1455.2	1463.7	1468.0	1476.5	1482.9	1491.6
7.5°	1459.3	1470.2	1480.9	1493.7	1506.5	1517.3	1525.8	1536.6	1551.6	1562.3	1568.8
10°	1495.9	1510.8	1530.1	1545.2	1564.5	1579.5	1592.4	1611.6	1628.7	1643.7	1652.3
12.5°	1543.0	1562.3	1581.5	1605.1	1630.9	1650.2	1669.5	1695.1	1718.7	1735.9	1744.5
15°	1598.7	1622.3	1643.7	1671.5	1701.6	1727.3	1755.1	1783.0	1800.1	1800.1	1795.9
17.5°	1656.6	1675.8	1701.6	1733.7	1774.5	1806.6	1821.6	1825.9	1819.5	1804.4	1793.7
20°	1714.5	1731.5	1759.4	1798.1	1840.9	1847.3	1832.3	1813.0	1793.7	1768.1	1750.9
22.5°	1761.6	1785.2	1828.0	1873.0	1875.2	1838.8	1798.1	1765.8	1735.9	1705.9	1673.8
25°	1817.3	1849.4	1907.3	1924.5	1868.8	1800.1	1742.3	1695.1	1645.9	1596.6	1560.1
27.5°	1886.0	1933.1	1990.9	1941.6	1832.3	1735.9	1656.6	1585.9	1521.6	1453.0	1412.2
30°	1958.8	2031.5	2044.5	1915.9	1770.2	1645.9	1538.7	1431.6	1350.1	1287.9	1264.4
32.5°	2046.7	2140.9	2063.8	1870.8	1686.6	1523.7	1380.2	1251.6	1183.0	1144.4	1133.7
35°	2179.5	2256.6	2074.5	1823.7	1590.2	1378.0	1197.9	1095.1	1052.2	1026.5	1013.7
37.5°	2370.3	2368.0	2072.3	1765.8	1478.8	1219.5	1052.2	979.4	945.1	923.7	900.1
40°	2593.0	2453.9	2059.4	1682.3	1328.7	1067.3	951.5	883.0	850.8	825.1	797.3
42.5°	2813.9	2511.7	2023.1	1558.0	1142.2	957.9	878.7	816.5	782.2	754.3	715.7
45°	3004.5	2535.3	1952.4	1386.6	975.1	872.2	831.5	777.9	737.2	694.4	664.3
47.5°	3154.6	2531.0	1838.8	1185.1	863.7	812.3	792.9	756.5	707.2	653.6	615.0
50°	3281.0	2498.8	1684.4	1007.3	788.7	758.7	752.2	741.6	662.2	617.2	593.6
52.5°	3396.8	2451.7	1519.5	887.1	724.4	698.6	711.5	700.8	645.0	606.5	582.9
55°	3555.3	2419.5	1356.6	795.1	649.3	642.9	653.6	668.6	634.4	597.8	572.2
57.5°	3741.8	2436.7	1232.2	692.1	578.6	582.9	619.4	640.8	623.7	585.1	559.3
60°	3956.1	2488.1	1122.9	593.6	520.7	531.4	585.1	615.0	613.0	567.9	537.9
62.5°	4196.1	2541.7	949.4	518.7	471.5	488.6	544.3	582.9	589.4	550.7	514.3
63°	4243.3	2546.0	904.3	503.5	462.9	482.2	533.6	574.3	582.9	546.6	510.0
65°	4359.0	2507.4	728.6	462.9	428.7	450.0	501.5	537.9	555.0	523.0	492.9
67.5°	4262.5	2192.4	548.6	413.6	400.8	415.7	460.7	495.1	510.0	495.1	465.0
70°	3898.3	1594.4	428.7	368.6	370.7	381.5	415.7	447.9	465.0	460.7	432.8
72.5°	3139.6	904.3	358.0	330.1	336.4	349.3	372.9	402.9	417.9	415.7	396.5
75°	2068.1	462.9	302.2	295.8	300.0	310.8	327.9	351.5	368.6	366.4	358.0
77.5°	1024.5	321.4	259.3	261.4	263.7	272.2	285.0	306.5	317.2	319.4	317.2
80°	422.2	250.7	222.9	225.1	227.2	233.6	242.1	261.4	267.9	272.2	274.3
82.5°	252.9	190.7	177.9	182.1	184.3	190.7	197.2	214.2	220.7	227.2	227.2
85°	167.1	132.9	128.6	132.9	137.1	141.5	143.5	154.3	165.0	173.6	177.9
87.5°	90.0	79.3	77.1	79.3	79.3	83.6	87.9	98.6	111.5	119.9	124.3
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: P258170

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T2U-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1386.6	1386.6	1386.6	1386.6	1386.6
2.5°	1420.8	1423.0	1420.8	1423.0	1425.2
5°	1491.6	1495.9	1493.7	1493.7	1502.4
7.5°	1573.0	1581.5	1581.5	1585.9	1590.2
10°	1660.8	1669.5	1675.8	1675.8	1682.3
12.5°	1748.7	1753.1	1759.4	1759.4	1759.4
15°	1793.7	1791.7	1789.4	1787.3	1787.3
17.5°	1787.3	1778.7	1774.5	1770.2	1772.3
20°	1740.2	1725.2	1720.9	1714.5	1718.7
22.5°	1658.8	1637.2	1628.7	1618.0	1622.3
25°	1536.6	1510.8	1506.5	1493.7	1500.1
27.5°	1395.1	1382.2	1380.2	1378.0	1388.6
30°	1262.3	1266.6	1268.7	1273.0	1283.7
32.5°	1140.1	1148.7	1150.8	1153.0	1168.0
35°	1020.1	1009.3	1020.1	1015.8	1028.6
37.5°	889.4	880.8	872.2	861.5	870.0
40°	780.1	765.1	739.3	726.5	728.6
42.5°	694.4	675.1	653.6	640.8	640.8
45°	638.6	615.0	595.8	587.2	587.2
47.5°	595.8	585.1	574.3	567.9	567.9
50°	578.6	565.8	559.3	555.0	555.0
52.5°	565.8	553.0	546.6	542.2	537.9
55°	555.0	535.8	529.4	527.1	527.1
57.5°	540.1	523.0	514.3	512.2	512.2
60°	516.5	503.5	495.1	492.9	492.9
62.5°	492.9	480.0	471.5	471.5	471.5
63°	488.6	473.6	467.2	467.2	467.2
65°	469.4	454.3	447.9	447.9	445.8
67.5°	443.6	428.7	424.4	424.4	420.0
70°	413.6	400.8	396.5	398.6	390.0
72.5°	383.6	370.7	364.3	364.3	355.7
75°	349.3	336.4	327.9	325.7	317.2
77.5°	310.8	300.0	291.5	282.9	278.6
80°	270.0	261.4	250.7	244.3	237.8
82.5°	227.2	218.6	212.2	220.7	188.6
85°	177.9	169.4	160.7	173.6	135.1
87.5°	130.7	126.4	117.9	102.8	90.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)