

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: P257771

Luminaire Tested: **ARCH-M-AF48-70-D-U-T2U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257771
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-AF48-70-D-U-T2U
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10112.9 lumens
Efficiency: N/A
Efficacy: 138.5 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): 73
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

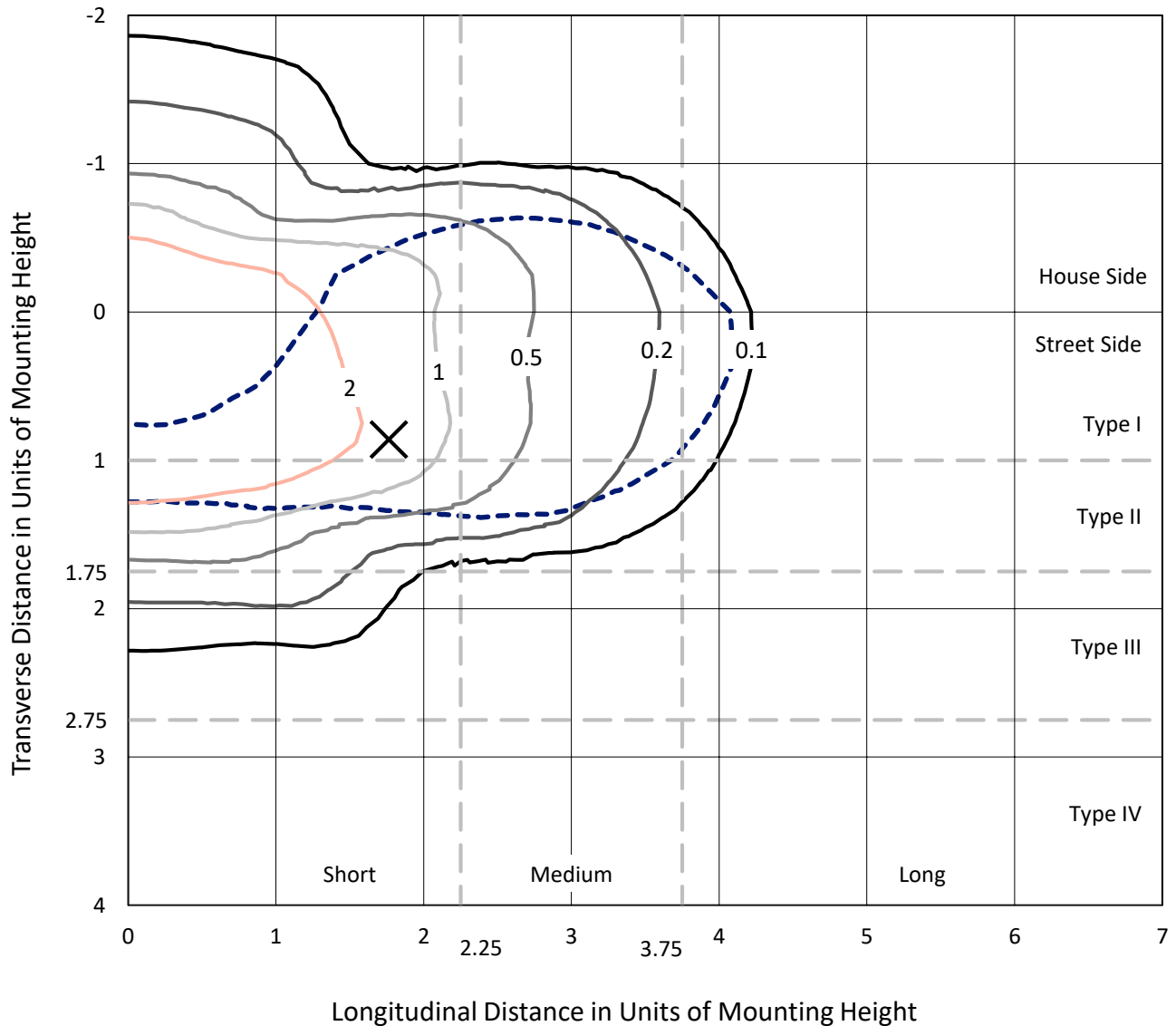


REPORT NUMBER: P257771

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2U

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

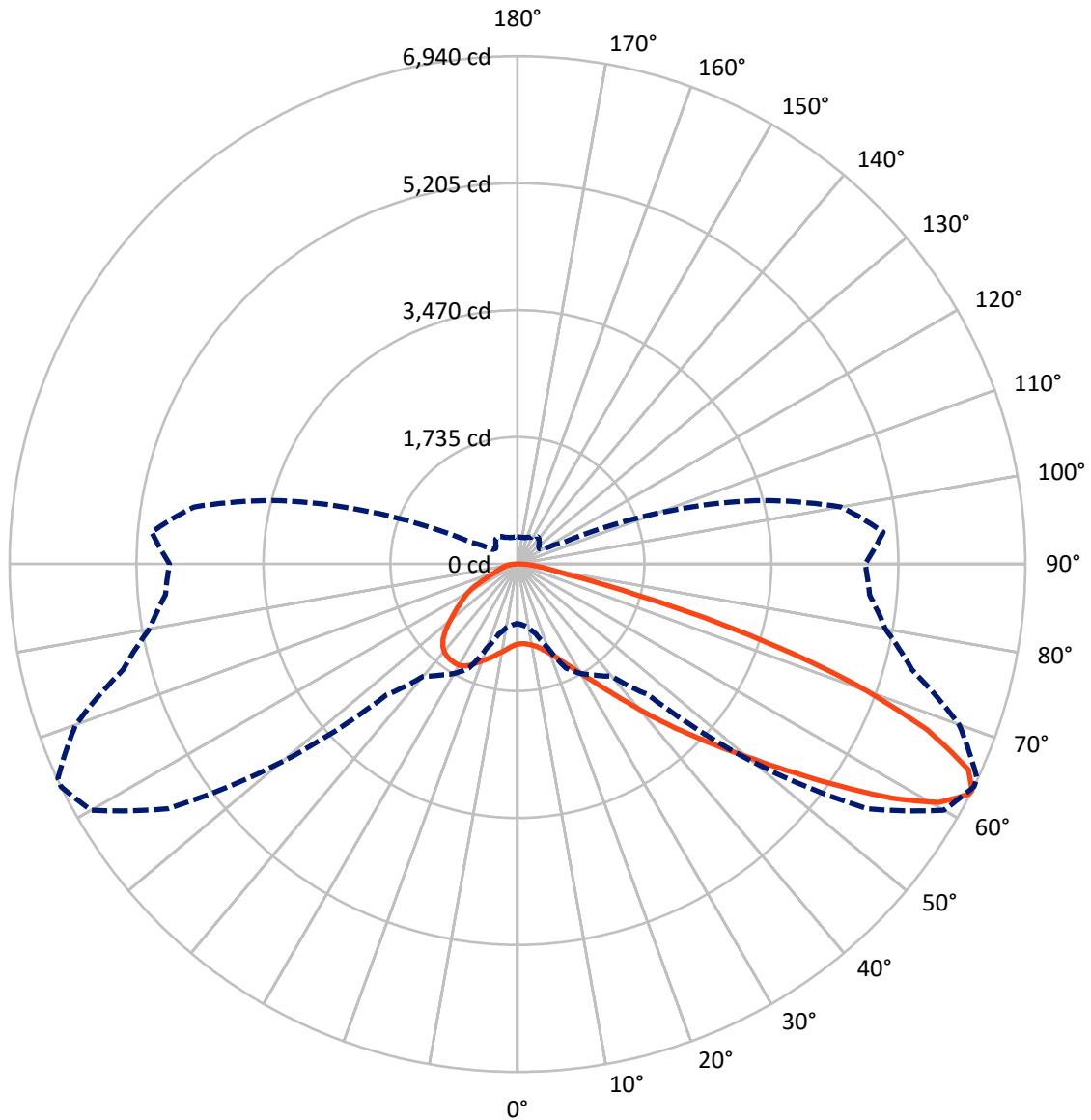


Based on 20 foot mounting height. Maximum calculated value = 4.4 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P257771

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2U

Luminous Intensity Polar Plot



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

REPORT NUMBER: P257771

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2U

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2972.8	0.0	2972.8
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	7140.1	0.0	7140.1
	% Fixture	70.6	0.0	70.6
Total	Lumens	10112.9	0.0	10112.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	109.3	1.1
10°-20°	364.2	3.6
20°-30°	683.7	6.8
30°-40°	1145.9	11.3
40°-50°	1922.6	19.0
50°-60°	2437.3	24.1
60°-70°	2150.0	21.3
70°-80°	1109.9	11.0
80°-90°	189.9	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°	10112.9	100.0
0°-180°	10112.9	100.0



REPORT NUMBER: P257771

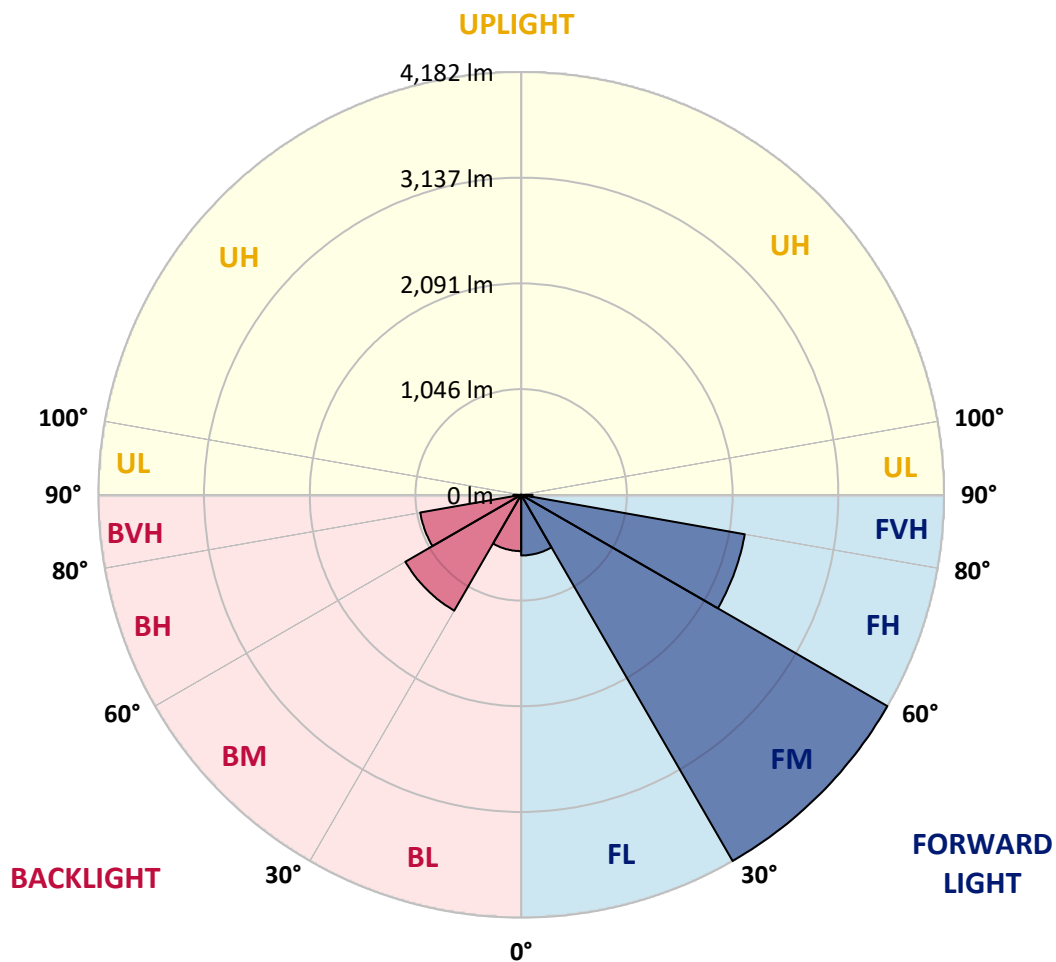
CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	600.2	5.9			
FM (30°-60°)	4182.4	41.4			
FH (60°-80°)	2245.6	22.2			G2/5000
FVH (80°-90°)	111.8	1.1			G2/225
BL (0°-30°)	557.0	5.5	B2/1000		
BM (30°-60°)	1323.4	13.1	B2/2500		
BH (60°-80°)	1014.3	10.0	B3/2500		G3/2500
BVH (80°-90°)	78.1	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: P257771

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2
2.5°	1088.4	1086.8	1086.8	1086.8	1086.8	1085.0	1086.8	1090.2	1088.4	1086.8	1090.2
5°	1091.8	1090.2	1090.2	1090.2	1091.8	1090.2	1091.8	1096.9	1093.5	1093.5	1096.9
7.5°	1100.3	1098.6	1100.3	1098.6	1098.6	1098.6	1100.3	1105.4	1103.7	1105.4	1110.4
10°	1110.4	1110.4	1110.4	1110.4	1110.4	1110.4	1113.9	1117.3	1118.9	1120.6	1127.4
12.5°	1140.9	1140.9	1140.9	1139.3	1139.3	1134.1	1140.9	1144.3	1147.6	1151.1	1156.1
15°	1205.2	1205.2	1203.6	1196.8	1196.8	1186.6	1188.4	1190.0	1190.0	1193.4	1196.8
17.5°	1289.9	1288.2	1284.8	1279.7	1273.0	1261.1	1257.7	1254.3	1249.2	1247.6	1247.6
20°	1408.4	1406.7	1399.9	1386.4	1377.9	1359.3	1345.8	1332.2	1327.2	1318.7	1316.9
22.5°	1577.7	1577.7	1564.1	1543.8	1537.1	1498.1	1459.1	1430.4	1420.3	1408.4	1408.4
25°	1782.5	1780.8	1762.1	1738.5	1709.7	1669.0	1621.7	1582.7	1557.3	1530.2	1520.1
27.5°	2027.9	2022.9	1997.5	1968.7	1914.6	1863.7	1807.9	1767.2	1723.3	1689.4	1658.9
30°	2315.8	2310.6	2266.7	2212.4	2156.6	2105.8	2024.5	1975.4	1906.1	1865.5	1831.6
32.5°	2649.1	2644.1	2564.5	2512.1	2452.8	2390.2	2293.7	2215.8	2127.8	2070.2	2022.9
35°	3074.1	3053.7	2940.4	2867.5	2774.4	2711.8	2610.3	2505.3	2402.0	2320.8	2251.4
37.5°	3532.8	3509.1	3409.2	3300.9	3209.5	3133.3	2989.5	2857.4	2735.5	2623.8	2537.4
40°	4011.9	3949.2	3842.6	3763.0	3700.4	3627.6	3476.9	3338.1	3146.9	3021.6	2891.3
42.5°	4343.7	4282.7	4208.2	4155.7	4125.3	4069.4	3984.8	3864.6	3693.7	3697.0	3353.3
45°	4562.1	4472.3	4421.5	4424.9	4436.7	4436.7	4421.5	4402.9	4328.4	4379.2	4091.4
47.5°	4484.1	4424.9	4392.8	4460.5	4545.1	4629.8	4727.9	4834.6	4956.4	5100.3	4746.5
50°	4027.1	4049.1	4064.4	4208.2	4389.4	4582.3	4807.5	5098.6	5438.8	5504.9	5333.9
52.5°	3297.5	3344.9	3395.7	3615.7	3854.5	4188.0	4582.3	5063.1	5520.1	5789.3	5772.3
55°	2561.2	2620.4	2728.7	2892.9	3082.6	3397.4	3884.9	4626.3	5339.0	5767.3	6027.9
57.5°	1823.1	1909.4	2051.6	2280.2	2447.7	2625.5	2986.1	3808.8	4589.1	5386.3	5985.6
60°	1212.0	1252.6	1345.8	1630.2	1912.8	2099.0	2354.6	2652.6	3290.7	4389.4	5548.9
62.5°	859.9	887.0	944.6	1073.2	1328.8	1665.7	1819.7	1956.8	2161.7	2823.5	4455.4
63°	812.5	836.3	883.6	992.0	1222.2	1570.8	1728.3	1853.6	2002.5	2525.6	4215.0
65°	673.7	683.8	709.3	761.8	885.4	1174.8	1432.1	1508.2	1533.6	1623.3	2640.7
67.5°	568.8	575.5	584.0	599.2	648.3	782.0	1068.2	1164.6	1135.9	1074.9	1305.1
70°	494.3	499.4	512.9	531.5	548.5	582.3	734.7	878.5	846.4	763.4	799.0
72.5°	394.4	402.8	418.1	450.3	484.2	528.1	565.4	655.1	634.7	555.3	563.6
75°	311.5	316.5	330.1	353.8	386.0	436.7	509.5	540.0	484.2	409.7	409.7
77.5°	247.1	252.3	264.0	282.7	303.0	338.6	389.3	468.9	435.1	308.1	306.4
80°	186.2	191.3	203.2	220.0	240.4	265.8	296.2	331.7	399.5	287.8	230.3
82.5°	137.1	138.8	159.2	170.9	177.8	198.0	223.4	243.8	274.3	265.8	204.8
85°	103.2	101.6	115.1	123.6	125.3	130.3	145.6	165.9	179.4	172.7	159.2
87.5°	57.6	50.7	59.2	67.7	67.7	69.4	72.8	84.6	96.5	93.1	84.6
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: P257771

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2U

CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2
2.5°	1090.2	1090.2	1088.4	1088.4	1090.2	1090.2	1088.4	1093.5	1096.9	1096.9	1098.6
5°	1095.2	1096.9	1095.2	1095.2	1096.9	1096.9	1098.6	1103.7	1108.8	1112.2	1117.3
7.5°	1110.4	1112.2	1110.4	1110.4	1112.2	1113.9	1117.3	1124.0	1127.4	1134.1	1142.6
10°	1127.4	1129.0	1127.4	1129.0	1130.8	1132.5	1137.5	1142.6	1147.6	1154.5	1168.0
12.5°	1157.9	1159.5	1156.1	1157.9	1162.9	1162.9	1166.4	1169.7	1178.1	1186.6	1200.1
15°	1200.1	1200.1	1196.8	1198.5	1203.6	1203.6	1205.2	1208.6	1218.7	1229.0	1242.5
17.5°	1249.2	1252.6	1251.0	1252.6	1256.1	1257.7	1257.7	1261.1	1267.8	1274.7	1288.2
20°	1315.3	1316.9	1313.6	1316.9	1320.3	1316.9	1313.6	1311.9	1315.3	1318.7	1333.9
22.5°	1405.0	1403.3	1394.8	1394.8	1394.8	1388.0	1379.7	1369.4	1369.4	1364.4	1376.2
25°	1511.6	1506.6	1494.7	1496.4	1484.6	1474.4	1459.1	1443.9	1430.4	1425.3	1427.0
27.5°	1636.9	1626.8	1614.9	1611.6	1599.7	1581.1	1555.7	1526.9	1504.9	1488.0	1484.6
30°	1794.4	1772.4	1752.0	1748.6	1730.0	1699.5	1658.9	1619.9	1582.7	1554.0	1543.8
32.5°	1980.5	1946.7	1914.6	1911.2	1880.7	1840.1	1791.0	1736.8	1682.7	1636.9	1614.9
35°	2198.9	2148.1	2117.6	2109.2	2065.1	2014.4	1960.2	1890.8	1814.6	1750.4	1709.7
37.5°	2464.7	2412.2	2359.7	2361.4	2300.5	2241.2	2168.5	2083.8	1987.3	1897.6	1840.1
40°	2793.1	2718.6	2650.9	2635.6	2583.2	2500.2	2420.7	2322.5	2203.9	2085.5	2002.5
42.5°	3190.9	3069.0	2975.9	2962.4	2892.9	2791.4	2694.9	2564.5	2444.3	2300.5	2200.6
45°	3642.8	3448.2	3336.5	3316.1	3204.4	3101.2	2984.4	2845.5	2698.2	2535.8	2417.2
47.5°	4204.8	3927.2	3737.7	3703.8	3549.7	3414.3	3292.5	3138.4	2962.4	2781.2	2650.9
50°	4859.9	4450.2	4194.7	4142.2	3935.7	3776.5	3620.8	3427.9	3240.0	3050.3	2899.8
52.5°	5516.8	5076.6	4736.4	4672.0	4367.4	4154.1	3949.2	3756.3	3534.5	3346.6	3175.6
55°	6044.9	5752.1	5357.6	5267.9	4831.2	4541.7	4272.6	4052.5	3832.4	3683.4	3482.0
57.5°	6363.2	6347.9	6036.4	5912.9	5315.3	4887.0	4587.4	4336.9	4123.6	4060.9	3793.5
60°	6354.7	6749.1	6615.3	6522.2	5804.5	5240.8	4851.4	4580.7	4404.6	4475.7	4106.6
62.5°	5967.0	6766.0	6926.8	6901.4	6325.9	5525.2	5068.1	4788.8	4695.8	4907.3	4431.6
63°	5826.5	6727.0	6940.3	6930.2	6425.8	5579.4	5105.3	4829.5	4753.3	5017.4	4491.0
65°	4924.3	6386.8	6776.1	6821.9	6640.7	5765.6	5191.7	4932.8	4924.3	5262.8	4631.4
67.5°	3001.2	5396.6	6036.4	6124.4	6337.7	5824.8	5142.7	4897.2	5019.1	5298.4	4589.1
70°	1283.1	3561.6	4851.4	4993.6	5515.0	5530.3	5002.1	4751.6	4997.0	5020.7	4287.8
72.5°	760.1	1679.3	3302.6	3612.3	4364.0	4758.4	4680.5	4497.7	4707.6	4409.6	3651.3
75°	538.3	785.4	1677.5	2007.6	3038.5	3632.7	3932.3	4016.9	4008.4	3497.3	2740.6
77.5°	386.0	504.4	707.6	834.5	1696.2	2332.6	2698.2	2945.4	2865.9	2341.1	1689.4
80°	269.1	348.7	433.3	460.4	787.2	1198.5	1421.9	1530.2	1482.9	1169.7	756.7
82.5°	194.7	228.5	279.3	296.2	396.1	553.5	658.5	580.6	556.9	431.7	326.7
85°	150.7	147.3	174.3	181.2	231.9	289.5	296.2	230.3	201.4	179.4	182.8
87.5°	106.7	91.5	93.1	96.5	120.2	154.1	150.7	94.8	81.2	86.3	98.2
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: P257771

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2U

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2	1095.2
2.5°	1102.0	1103.7	1107.0	1108.8	1112.2	1112.2	1115.5	1117.3	1120.6	1124.0	1125.7
5°	1122.3	1127.4	1134.1	1137.5	1144.3	1149.4	1156.1	1159.5	1166.4	1171.4	1178.1
7.5°	1152.8	1161.3	1169.7	1179.9	1190.0	1198.5	1205.2	1213.7	1225.6	1234.0	1239.1
10°	1181.5	1193.4	1208.6	1220.5	1235.7	1247.6	1257.7	1273.0	1286.5	1298.3	1305.1
12.5°	1218.7	1234.0	1249.2	1267.8	1288.2	1303.4	1318.7	1338.9	1357.6	1371.2	1377.9
15°	1262.8	1281.5	1298.3	1320.3	1344.1	1364.4	1386.4	1408.4	1421.9	1421.9	1418.5
17.5°	1308.6	1323.7	1344.1	1369.4	1401.6	1427.0	1438.9	1442.3	1437.1	1425.3	1416.9
20°	1354.2	1367.8	1389.8	1420.3	1454.1	1459.1	1447.3	1432.1	1416.9	1396.5	1383.0
22.5°	1391.4	1410.0	1443.9	1479.5	1481.1	1452.4	1420.3	1394.8	1371.2	1347.4	1322.1
25°	1435.5	1460.9	1506.6	1520.1	1476.1	1421.9	1376.2	1338.9	1300.1	1261.1	1232.3
27.5°	1489.6	1526.9	1572.6	1533.6	1447.3	1371.2	1308.6	1252.6	1201.9	1147.6	1115.5
30°	1547.2	1604.7	1614.9	1513.4	1398.3	1300.1	1215.4	1130.8	1066.4	1017.3	998.7
32.5°	1616.6	1691.0	1630.2	1477.8	1332.2	1203.6	1090.2	988.6	934.4	904.0	895.5
35°	1721.5	1782.5	1638.6	1440.5	1256.1	1088.4	946.2	865.0	831.1	810.8	800.7
37.5°	1872.2	1870.5	1636.9	1394.8	1168.0	963.2	831.1	773.6	746.5	729.6	711.0
40°	2048.3	1938.2	1626.8	1328.8	1049.5	843.0	751.6	697.4	672.1	651.7	629.7
42.5°	2222.6	1983.9	1598.0	1230.6	902.2	756.7	694.1	645.0	617.9	595.9	565.4
45°	2373.2	2002.5	1542.1	1095.2	770.2	689.0	656.8	614.5	582.3	548.5	524.8
47.5°	2491.8	1999.2	1452.4	936.1	682.2	641.6	626.4	597.5	558.6	516.3	485.8
50°	2591.6	1973.8	1330.6	795.7	623.0	599.2	594.1	585.7	523.0	487.5	468.9
52.5°	2683.0	1936.5	1200.1	700.8	572.1	551.9	562.0	553.5	509.5	479.0	460.4
55°	2808.3	1911.2	1071.5	628.0	512.9	507.8	516.3	528.1	501.0	472.3	451.9
57.5°	2955.6	1924.7	973.3	546.8	457.1	460.4	489.2	506.2	492.6	462.2	441.8
60°	3124.8	1965.3	887.0	468.9	411.3	419.8	462.2	485.8	484.2	448.6	424.9
62.5°	3314.5	2007.6	749.9	409.7	372.5	386.0	429.9	460.4	465.5	435.1	406.2
63°	3351.7	2011.0	714.3	397.8	365.6	380.8	421.5	453.7	460.4	431.7	402.8
65°	3443.0	1980.5	575.5	365.6	338.6	355.5	396.1	424.9	438.4	413.1	389.3
67.5°	3366.9	1731.8	433.3	326.7	316.5	328.4	364.0	391.1	402.8	391.1	367.3
70°	3079.2	1259.5	338.6	291.1	292.9	301.4	328.4	353.8	367.3	364.0	342.0
72.5°	2479.9	714.3	282.7	260.6	265.8	275.9	294.5	318.2	330.1	328.4	313.1
75°	1633.6	365.6	238.7	233.6	237.0	245.4	259.0	277.6	291.1	289.5	282.7
77.5°	809.2	253.9	204.8	206.5	208.2	215.0	225.2	242.0	250.5	252.3	250.5
80°	333.5	198.0	176.0	177.8	179.4	184.5	191.3	206.5	211.5	215.0	216.7
82.5°	199.8	150.7	140.5	143.9	145.6	150.7	155.7	169.3	174.3	179.4	179.4
85°	132.1	105.0	101.6	105.0	108.3	111.7	113.4	121.8	130.3	137.1	140.5
87.5°	71.1	62.6	61.0	62.6	62.6	66.0	69.4	77.8	88.0	94.8	98.2
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: P257771

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T2U

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	1095.2	1095.2	1095.2	1095.2	1095.2
2.5°	1122.3	1124.0	1122.3	1124.0	1125.7
5°	1178.1	1181.5	1179.9	1179.9	1186.6
7.5°	1242.5	1249.2	1249.2	1252.6	1256.1
10°	1311.9	1318.7	1323.7	1323.7	1328.8
12.5°	1381.3	1384.7	1389.8	1389.8	1389.8
15°	1416.9	1415.2	1413.5	1411.8	1411.8
17.5°	1411.8	1405.0	1401.6	1398.3	1399.9
20°	1374.5	1362.7	1359.3	1354.2	1357.6
22.5°	1310.2	1293.3	1286.5	1278.1	1281.5
25°	1213.7	1193.4	1190.0	1179.9	1185.0
27.5°	1102.0	1091.8	1090.2	1088.4	1096.9
30°	997.1	1000.4	1002.1	1005.5	1013.9
32.5°	900.5	907.4	909.0	910.7	922.6
35°	805.8	797.3	805.8	802.4	812.5
37.5°	702.5	695.7	689.0	680.5	687.2
40°	616.1	604.4	584.0	573.9	575.5
42.5°	548.5	533.3	516.3	506.2	506.2
45°	504.4	485.8	470.6	463.8	463.8
47.5°	470.6	462.2	453.7	448.6	448.6
50°	457.1	446.9	441.8	438.4	438.4
52.5°	446.9	436.7	431.7	428.3	424.9
55°	438.4	423.2	418.1	416.4	416.4
57.5°	426.6	413.1	406.2	404.6	404.6
60°	408.0	397.8	391.1	389.3	389.3
62.5°	389.3	379.2	372.5	372.5	372.5
63°	386.0	374.1	369.0	369.0	369.0
65°	370.7	358.9	353.8	353.8	352.1
67.5°	350.4	338.6	335.1	335.1	331.7
70°	326.7	316.5	313.1	314.9	308.1
72.5°	303.0	292.9	287.8	287.8	281.0
75°	275.9	265.8	259.0	257.3	250.5
77.5°	245.4	237.0	230.3	223.4	220.0
80°	213.3	206.5	198.0	192.9	187.9
82.5°	179.4	172.7	167.6	174.3	148.9
85°	140.5	133.7	126.9	137.1	106.7
87.5°	103.2	99.8	93.1	81.2	71.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)