

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: P231044

Luminaire Tested: **ARCH-M-AF48-120-D-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231044
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29635)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-120-D-U-T2R-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 785mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 15382 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - Semi-Cutoff
BUG Rating: B2 - U0 - G2

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

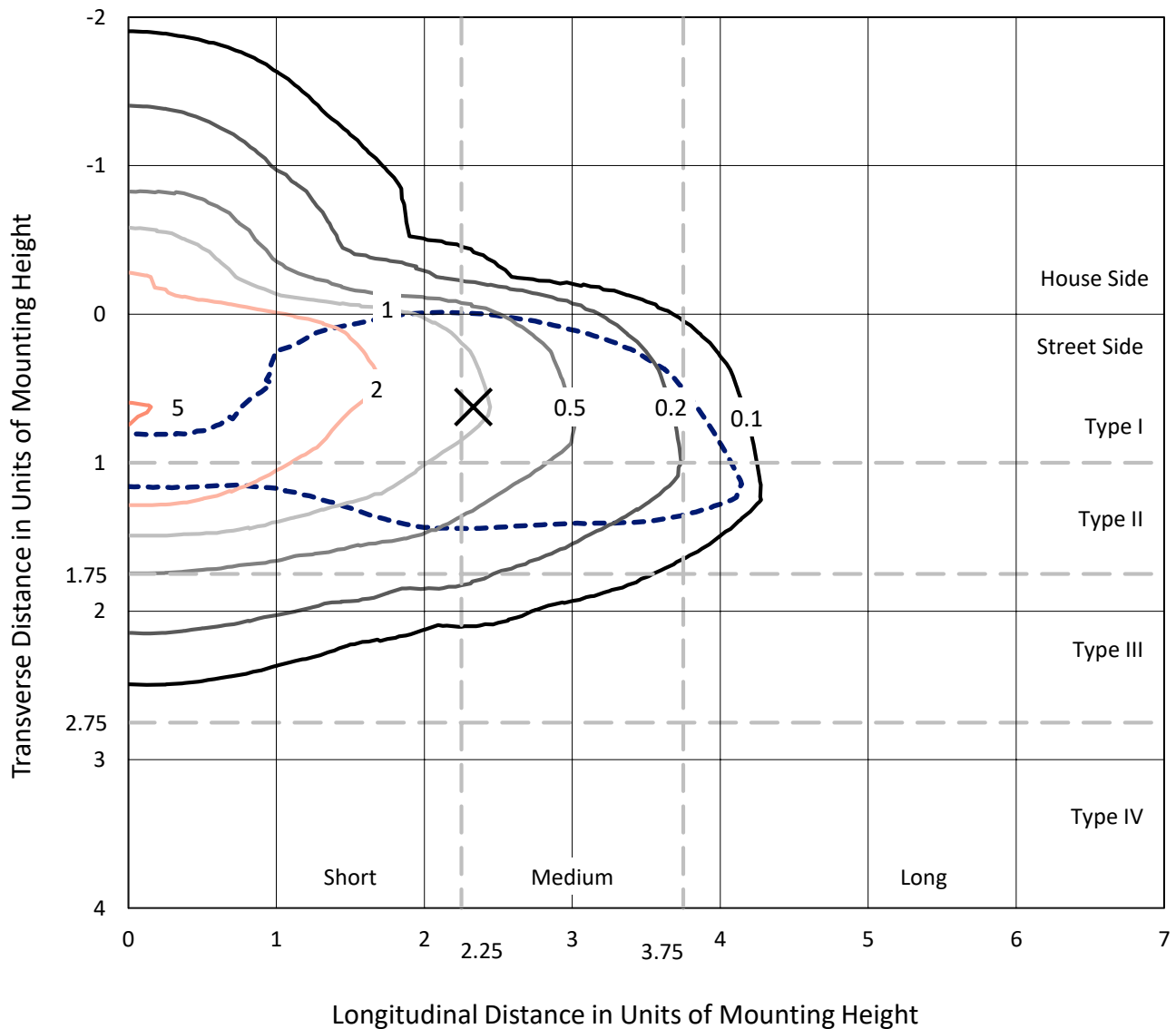


REPORT NUMBER: P231044

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
- - - 1/2 Max cd

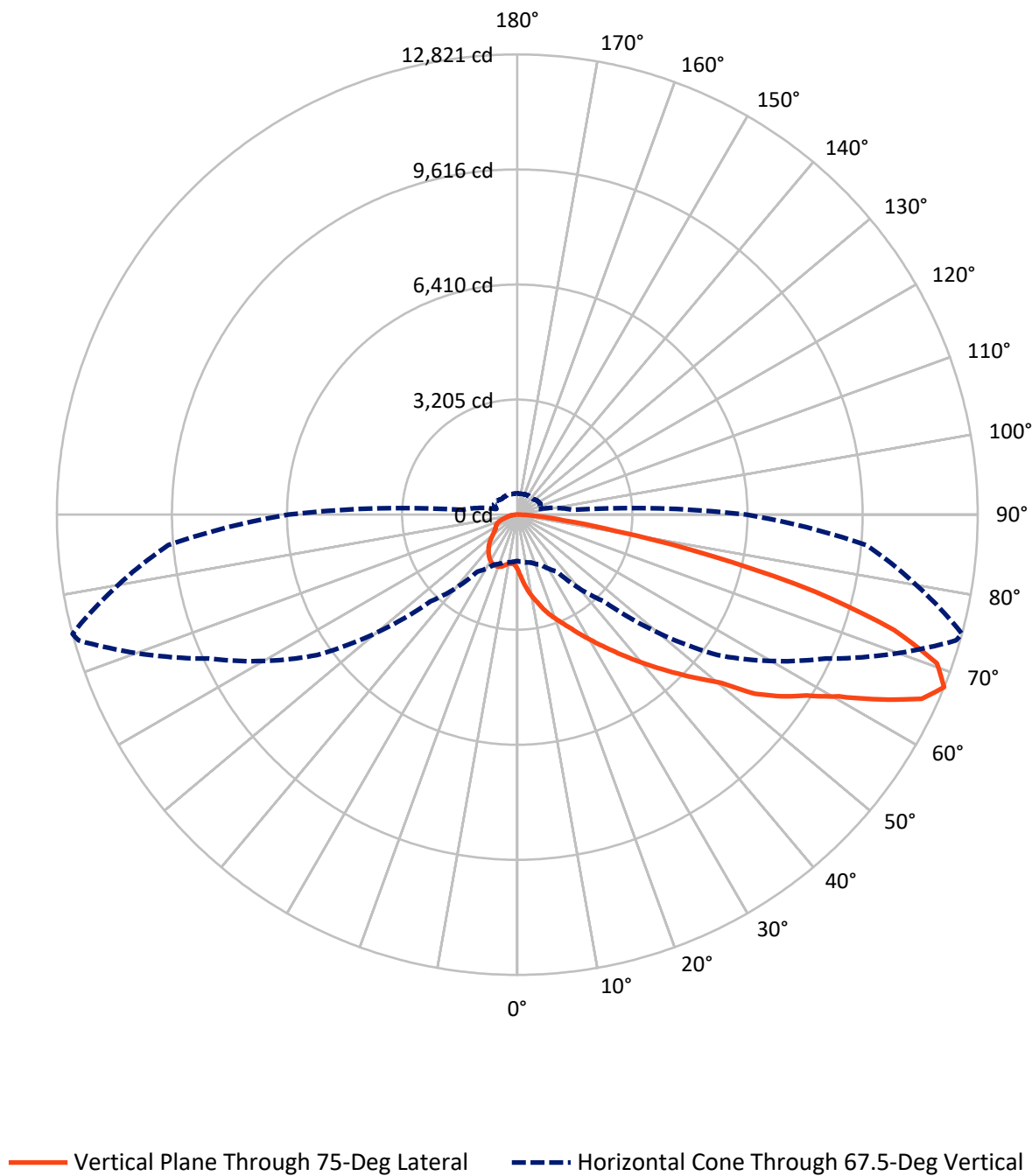


Based on 25 foot mounting height. Maximum calculated value = 5.1 fc
Type II - Medium - Semi-Cutoff

REPORT NUMBER: P231044

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-7050

Luminous Intensity Polar Plot



REPORT NUMBER: P231044

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-7050

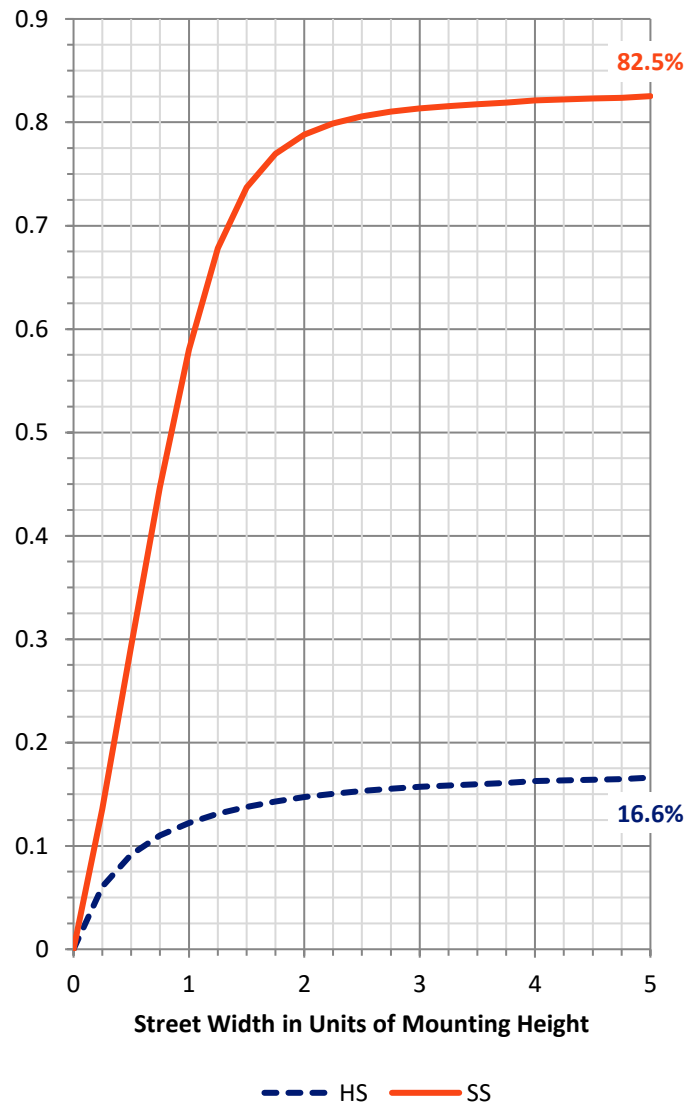
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2626.7	0.0	2626.7
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	12755.3	0.0	12755.3
	% Fixture	82.9	0.0	82.9
Total	Lumens	15382.0	0.0	15382.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.1	1.2
10°-20°	647.1	4.2
20°-30°	1180.3	7.7
30°-40°	1937.3	12.6
40°-50°	2801.6	18.2
50°-60°	3301.7	21.5
60°-70°	3208.5	20.9
70°-80°	1783.5	11.6
80°-90°	342.9	2.2
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°	15382.0	100.0
0°-180°	15382.0	100.0

Coefficient of Utilization



REPORT NUMBER: P231044

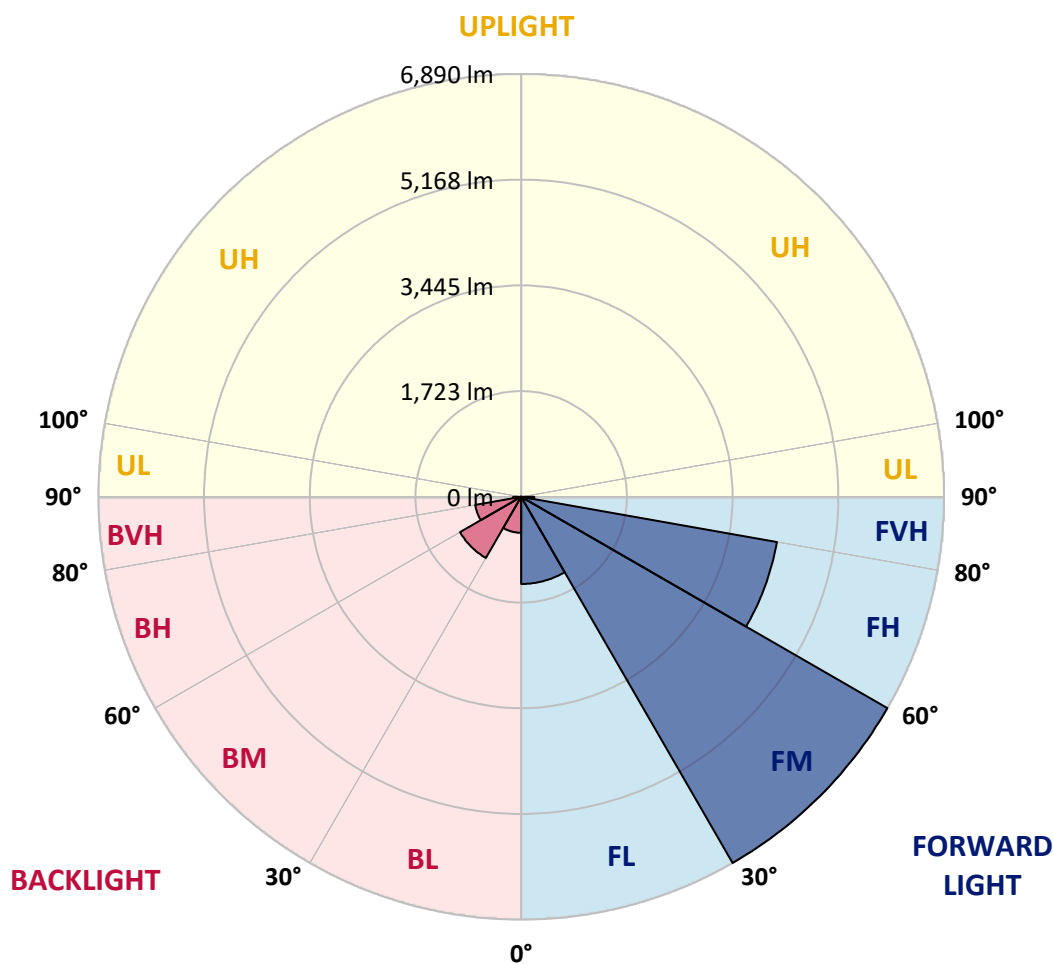
CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1420.2	9.2			
FM	(30°-60°)	6890.3	44.8			
FH	(60°-80°)	4231.4	27.5			G2/5000
FVH	(80°-90°)	213.4	1.4			G2/225
BL	(0°-30°)	586.3	3.8	B2/1000		
BM	(30°-60°)	1150.4	7.5	B2/2500		
BH	(60°-80°)	760.5	4.9	B2/1000		G2/1000
BVH	(80°-90°)	129.5	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





REPORT NUMBER: P231044

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2
2.5°	2160.9	2167.3	2154.5	2125.5	2083.7	2006.5	1939.0	1820.0	1713.9	1701.1	1588.5
5°	2540.3	2546.8	2530.7	2495.3	2450.3	2366.7	2273.4	2119.1	1948.7	1916.5	1678.6
7.5°	2800.8	2804.0	2784.7	2749.4	2714.0	2630.4	2537.1	2363.5	2154.5	2128.7	1794.3
10°	3022.7	3029.1	3003.4	2980.9	2942.3	2858.7	2762.2	2578.9	2363.5	2328.1	1913.3
12.5°	3228.5	3234.9	3218.8	3199.5	3186.7	3109.5	3003.4	2784.7	2553.2	2514.6	2054.8
15°	3366.8	3373.2	3376.4	3402.1	3418.2	3363.5	3257.4	3019.5	2759.0	2723.6	2222.0
17.5°	3328.2	3344.2	3392.5	3485.7	3585.4	3588.6	3501.8	3251.0	2961.6	2923.0	2392.4
20°	3215.6	3228.5	3286.4	3427.9	3624.0	3736.6	3730.1	3485.7	3151.3	3109.5	2550.0
22.5°	3308.9	3325.0	3325.0	3411.8	3604.7	3813.7	3897.3	3717.3	3341.0	3302.4	2707.6
25°	3707.6	3717.3	3649.7	3614.4	3685.1	3878.0	4035.6	3968.1	3572.6	3527.5	2878.0
27.5°	4263.9	4247.8	4164.2	4022.7	3945.6	3997.0	4157.8	4206.0	3839.5	3784.8	3054.8
30°	4817.0	4807.4	4710.9	4521.2	4347.5	4238.2	4292.9	4418.3	4128.9	4064.5	3225.3
32.5°	5334.7	5318.6	5212.5	4990.6	4794.5	4591.9	4485.8	4611.2	4437.6	4363.6	3415.0
35°	5810.6	5768.8	5662.7	5431.2	5228.6	5035.7	4775.2	4794.5	4772.0	4694.8	3624.0
37.5°	6196.5	6164.3	6048.6	5833.1	5617.7	5434.4	5161.1	5003.5	5132.1	5058.2	3865.2
40°	6537.4	6502.0	6383.0	6167.6	5968.2	5794.6	5579.1	5257.5	5537.3	5453.7	4135.3
42.5°	6794.6	6768.9	6672.4	6460.2	6267.2	6109.7	6003.6	5579.1	5958.5	5878.2	4431.1
45°	6932.9	6907.2	6855.7	6685.3	6508.4	6386.2	6395.9	5961.8	6399.1	6331.6	4781.6
47.5°	6762.5	6781.7	6826.8	6794.6	6685.3	6627.4	6746.4	6357.3	6891.1	6826.8	5161.1
50°	6305.8	6325.1	6505.2	6727.1	6765.7	6836.4	7061.5	6813.9	7412.0	7360.6	5630.6
52.5°	5183.6	5289.7	5788.1	6318.7	6682.1	6974.7	7412.0	7492.4	8289.9	8289.9	6460.2
55°	3916.6	4009.9	4579.0	5505.1	6357.3	6987.5	7669.3	7952.2	8923.4	8936.2	6894.3
57.5°	3173.8	3231.7	3511.5	4460.1	5675.6	6826.8	7974.7	8347.8	9450.7	9508.6	7453.8
60°	2575.7	2607.9	2791.2	3450.4	4733.4	6392.7	8193.4	8913.7	10203.2	10283.6	8167.7
62.5°	2070.9	2103.0	2225.2	2620.7	3714.0	5579.1	8154.8	9502.2	11206.4	11338.3	9103.4
65°	1652.8	1688.2	1768.6	2013.0	2752.6	4569.4	7759.3	9804.4	12245.1	12373.7	9724.0
67.5°	1289.5	1321.6	1376.3	1537.1	1939.0	3418.2	6823.6	9486.1	12711.4	12820.7	9756.2
70°	974.3	990.4	1035.4	1138.3	1385.9	2270.2	5341.2	8418.5	12293.3	12393.0	9113.1
72.5°	755.7	752.5	778.2	829.6	967.9	1562.8	3540.4	6846.1	10868.8	10971.7	7775.4
75°	617.4	614.2	630.3	646.3	701.0	1048.3	2090.2	5154.6	8772.2	8576.1	5833.1
77.5°	520.9	517.7	533.8	537.0	559.5	723.5	1189.8	3392.5	5852.4	5514.8	3286.4
80°	440.5	437.3	456.6	463.0	479.1	530.6	684.9	1836.1	2939.1	2784.7	1569.2
82.5°	331.2	344.1	379.4	395.5	414.8	392.3	424.5	810.3	1363.4	1302.3	681.7
85°	160.8	189.7	286.2	318.3	340.9	247.6	289.4	382.7	614.2	585.2	276.5
87.5°	54.7	48.2	170.4	202.6	221.9	112.5	160.8	212.2	254.0	231.5	86.8
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: P231044

CATALOG NUMBER: ARCH-M-AF48-120-D-U-T2R-7050

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2	1524.2
2.5°	1540.3	1492.0	1421.3	1366.6	1331.3	1302.3	1289.5	1286.2	1279.8	1276.6	1276.6
5°	1572.4	1485.6	1376.3	1318.4	1302.3	1289.5	1295.9	1299.1	1299.1	1299.1	1299.1
7.5°	1620.7	1498.5	1366.6	1328.1	1324.8	1324.8	1344.1	1353.8	1360.2	1360.2	1360.2
10°	1685.0	1521.0	1382.7	1350.6	1360.2	1366.6	1389.1	1402.0	1408.4	1411.7	1414.9
12.5°	1771.8	1569.2	1414.9	1389.1	1402.0	1405.2	1421.3	1427.7	1434.2	1437.4	1437.4
15°	1887.6	1640.0	1466.3	1434.2	1437.4	1434.2	1434.2	1427.7	1424.5	1424.5	1431.0
17.5°	2006.5	1707.5	1511.3	1466.3	1453.5	1427.7	1408.4	1392.4	1382.7	1376.3	1379.5
20°	2125.5	1768.6	1537.1	1472.8	1437.4	1395.6	1360.2	1337.7	1324.8	1312.0	1318.4
22.5°	2244.5	1826.5	1546.7	1453.5	1402.0	1340.9	1302.3	1267.0	1238.0	1218.7	1221.9
25°	2376.3	1890.8	1546.7	1431.0	1353.8	1289.5	1241.2	1183.3	1141.5	1125.5	1131.9
27.5°	2508.2	1945.5	1530.6	1389.1	1299.1	1234.8	1164.1	1096.5	1070.8	1061.2	1064.4
30°	2640.0	1987.3	1495.3	1337.7	1241.2	1170.5	1077.2	1032.2	1000.1	974.3	977.5
32.5°	2771.9	2016.2	1447.0	1273.4	1180.1	1090.1	1012.9	961.5	903.6	871.4	874.6
35°	2923.0	2038.7	1389.1	1209.1	1112.6	1019.4	961.5	877.9	816.8	791.0	784.6
37.5°	3080.6	2054.8	1328.1	1138.3	1045.1	967.9	910.0	807.1	749.2	713.9	710.7
40°	3251.0	2061.2	1254.1	1064.4	980.8	935.7	842.5	765.3	665.6	643.1	643.1
42.5°	3453.6	2058.0	1180.1	990.4	910.0	861.8	794.3	758.9	672.1	649.6	636.7
45°	3685.1	2058.0	1099.7	903.6	839.3	768.5	739.6	717.1	659.2	668.8	675.3
47.5°	3948.8	2051.6	1003.3	832.8	781.4	720.3	704.2	656.0	633.5	639.9	646.3
50°	4312.2	2061.2	916.5	775.0	739.6	688.1	668.8	643.1	633.5	636.7	633.5
52.5°	4817.0	2029.1	832.8	739.6	707.4	639.9	639.9	636.7	639.9	636.7	636.7
55°	5093.5	1958.3	771.7	720.3	684.9	617.4	630.3	636.7	643.1	639.9	639.9
57.5°	5485.9	1910.1	723.5	707.4	672.1	611.0	623.8	636.7	639.9	636.7	636.7
60°	5948.9	1877.9	691.4	710.7	662.4	611.0	627.0	636.7	633.5	630.3	630.3
62.5°	6485.9	1865.1	668.8	720.3	652.8	614.2	627.0	636.7	623.8	620.6	620.6
65°	6688.5	1749.3	639.9	726.7	659.2	614.2	623.8	627.0	611.0	607.8	604.5
67.5°	6376.6	1549.9	598.1	713.9	678.5	614.2	614.2	611.0	591.7	588.5	582.0
70°	5678.8	1286.2	533.8	672.1	691.4	617.4	601.3	585.2	565.9	565.9	553.1
72.5°	4649.8	1012.9	450.2	598.1	681.7	627.0	575.6	553.1	530.6	530.6	517.7
75°	3350.7	755.7	360.1	498.4	639.9	623.8	543.4	514.5	488.8	485.6	469.5
77.5°	1910.1	530.6	292.6	389.1	569.2	607.8	514.5	469.5	440.5	430.9	421.2
80°	980.8	356.9	238.0	305.5	472.7	562.7	492.0	418.0	385.9	369.8	353.7
82.5°	466.3	238.0	183.3	225.1	356.9	492.0	463.0	360.1	324.8	305.5	286.2
85°	209.0	141.5	122.2	144.7	254.0	382.7	408.4	295.8	254.0	318.3	234.7
87.5°	67.5	64.3	64.3	67.5	122.2	167.2	299.1	218.7	202.6	167.2	141.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)