

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: P231017

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231017
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-AF48-110-D-U-T2R-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12689 lumens
Efficiency: N/A
Efficacy: 114.3 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): 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

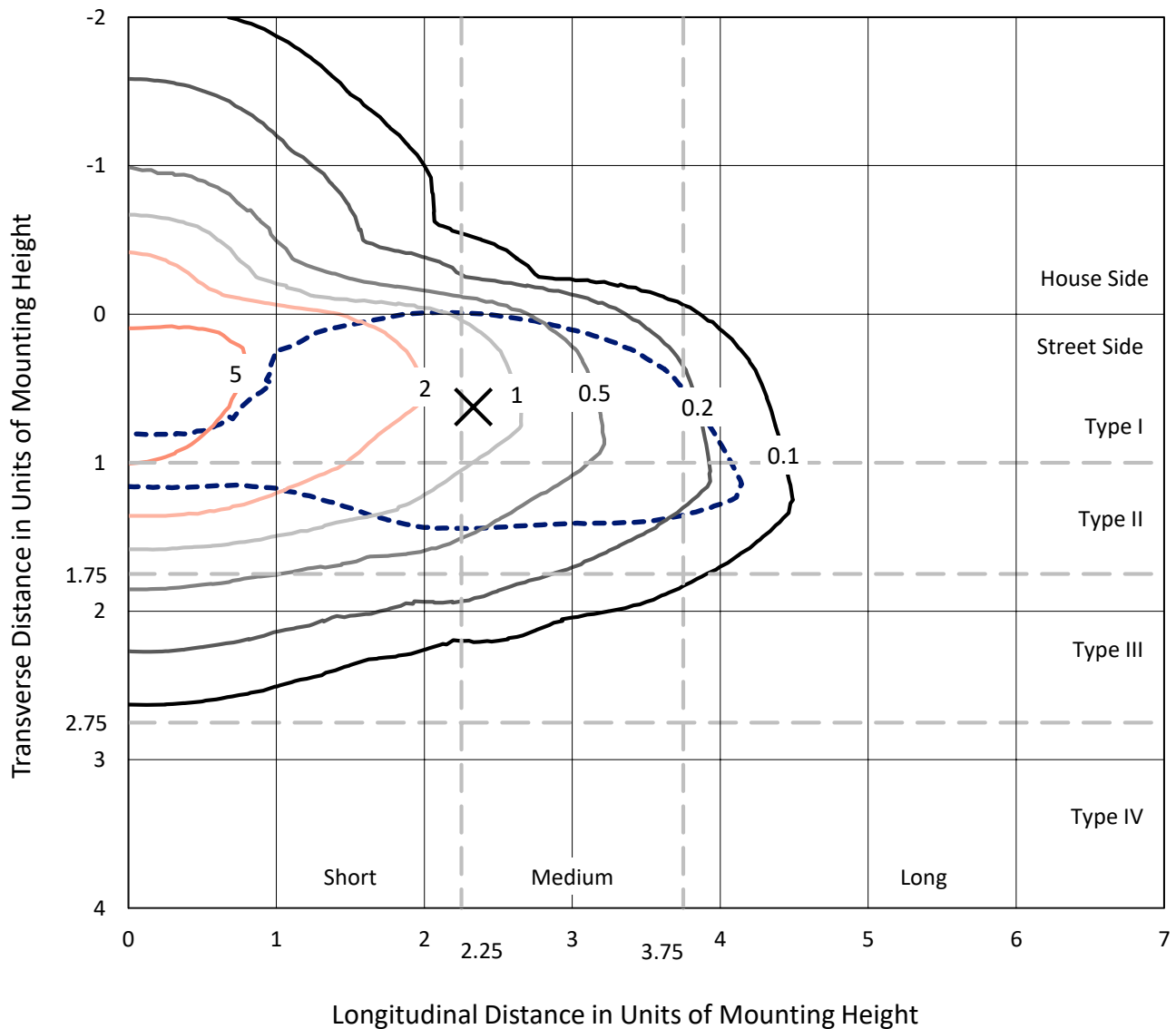


REPORT NUMBER: P231017

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7030

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

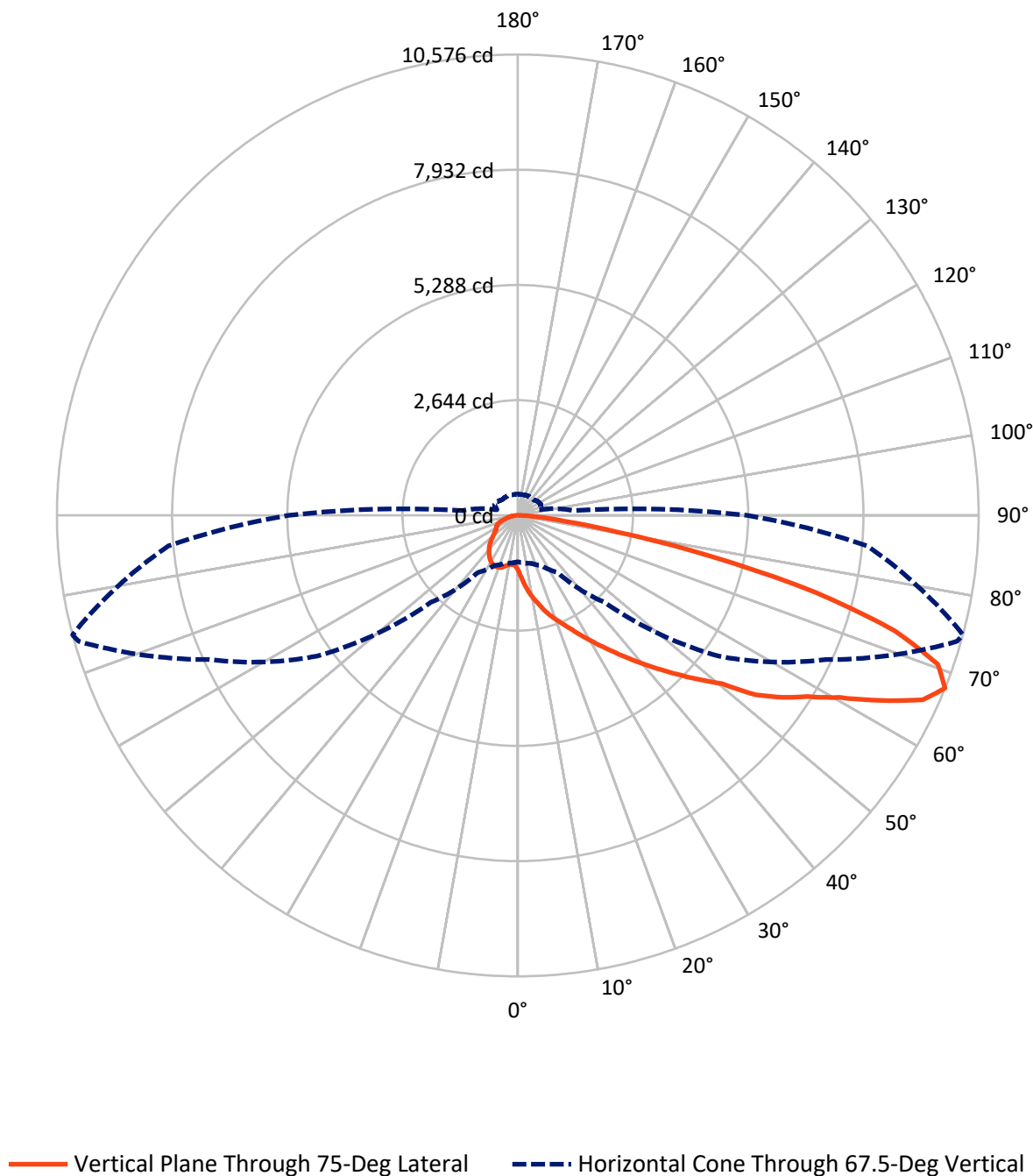


Based on 20 foot mounting height. Maximum calculated value = 6.6 fc
 Type II - Medium - Semi-Cutoff

REPORT NUMBER: P231017

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7030

Luminous Intensity Polar Plot



REPORT NUMBER: P231017

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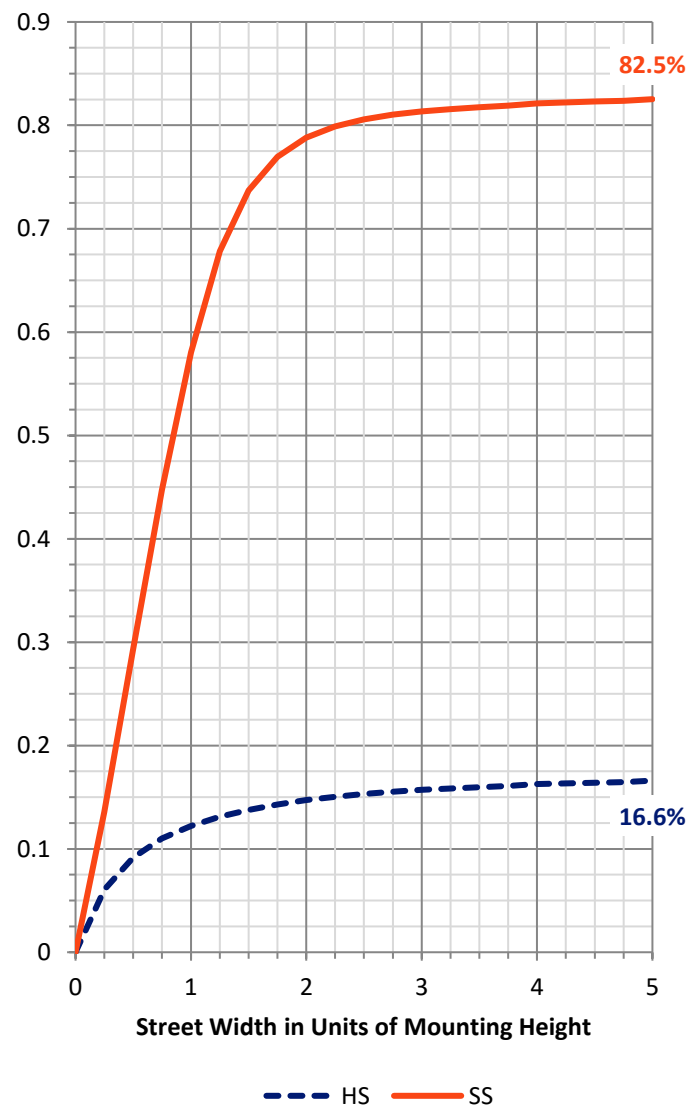
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2166.8	0.0	2166.8
	% Fixture	17.1	0.0	17.1
Street Side	Lumens	10522.2	0.0	10522.2
	% Fixture	82.9	0.0	82.9
Total	Lumens	12689.0	0.0	12689.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	147.7	1.2
10°-20°	533.8	4.2
20°-30°	973.6	7.7
30°-40°	1598.1	12.6
40°-50°	2311.1	18.2
50°-60°	2723.7	21.5
60°-70°	2646.8	20.9
70°-80°	1471.2	11.6
80°-90°	282.9	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°	12689.0	100.0
0°-180°	12689.0	100.0

Coefficient of Utilization



REPORT NUMBER: P231017

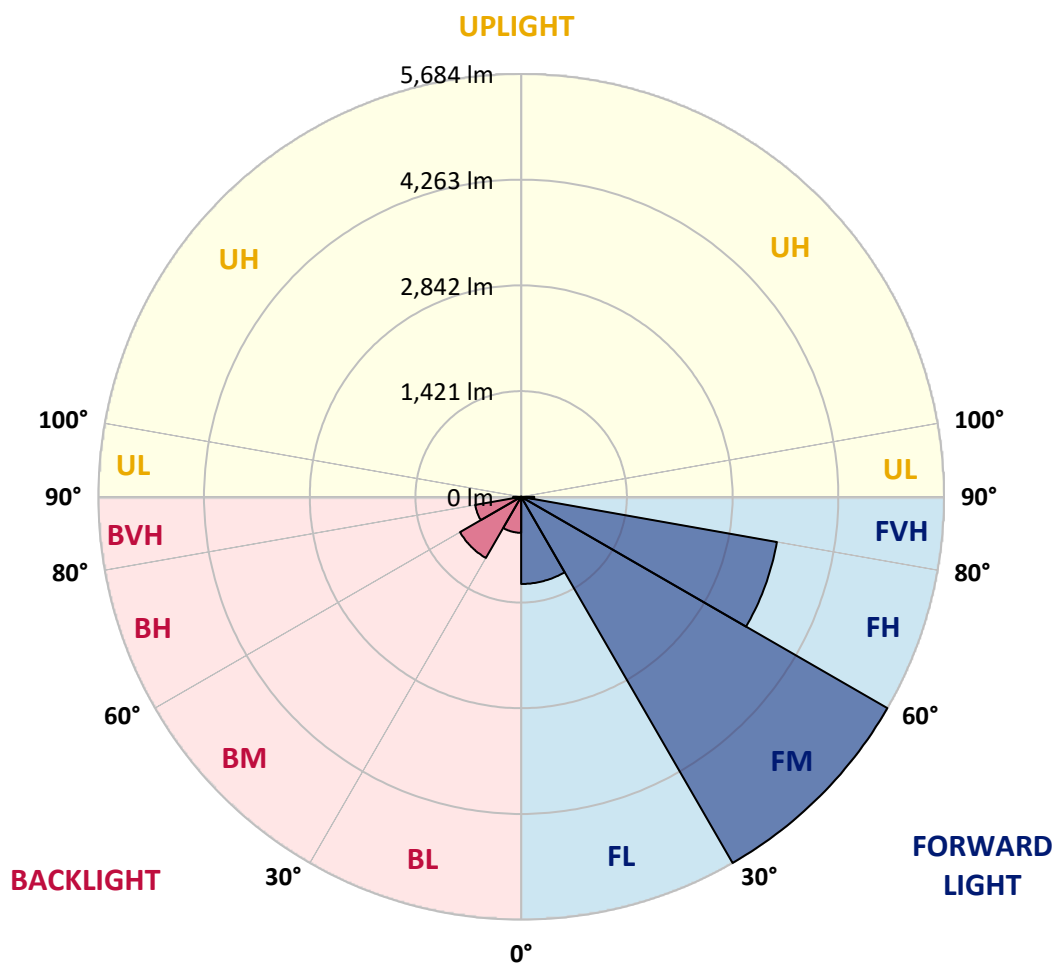
CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1171.5	9.2			
FM	(30°-60°)	5684.0	44.8			
FH	(60°-80°)	3490.6	27.5			G2/5000
FVH	(80°-90°)	176.1	1.4			G2/225
BL	(0°-30°)	483.6	3.8	B1/500		
BM	(30°-60°)	948.9	7.5	B1/1000		
BH	(60°-80°)	627.4	4.9	B2/1000		G2/1000
BVH	(80°-90°)	106.8	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Medium





REPORT NUMBER: P231017

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	74°	75°	85°
0°	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4
2.5°	1782.6	1787.9	1777.3	1753.4	1718.9	1655.3	1599.5	1501.4	1413.9	1403.3	1310.4
5°	2095.6	2100.9	2087.6	2058.5	2021.3	1952.3	1875.4	1748.1	1607.5	1581.0	1384.7
7.5°	2310.5	2313.1	2297.2	2268.0	2238.8	2169.9	2092.9	1949.7	1777.3	1756.1	1480.2
10°	2493.5	2498.8	2477.6	2459.0	2427.2	2358.2	2278.6	2127.4	1949.7	1920.5	1578.3
12.5°	2663.3	2668.6	2655.3	2639.4	2628.8	2565.1	2477.6	2297.2	2106.2	2074.4	1695.0
15°	2777.3	2782.6	2785.3	2806.5	2819.8	2774.7	2687.1	2490.8	2276.0	2246.8	1833.0
17.5°	2745.5	2758.8	2798.5	2875.5	2957.7	2960.4	2888.7	2681.8	2443.1	2411.3	1973.6
20°	2652.6	2663.3	2711.0	2827.7	2989.5	3082.4	3077.1	2875.5	2599.6	2565.1	2103.6
22.5°	2729.6	2742.8	2742.8	2814.5	2973.6	3146.0	3215.0	3066.5	2756.1	2724.3	2233.5
25°	3058.5	3066.5	3010.8	2981.6	3039.9	3199.1	3329.1	3273.4	2947.1	2910.0	2374.1
27.5°	3517.4	3504.1	3435.2	3318.5	3254.8	3297.2	3429.9	3469.7	3167.3	3122.2	2520.0
30°	3973.7	3965.7	3886.1	3729.6	3586.4	3496.2	3541.3	3644.7	3406.0	3352.9	2660.6
32.5°	4400.7	4387.5	4299.9	4116.9	3955.1	3788.0	3700.4	3803.9	3660.7	3599.6	2817.1
35°	4793.3	4758.9	4671.3	4480.3	4313.2	4154.0	3939.2	3955.1	3936.5	3872.9	2989.5
37.5°	5111.7	5085.1	4989.6	4811.9	4634.2	4483.0	4257.5	4127.5	4233.6	4172.6	3188.5
40°	5392.8	5363.7	5265.5	5087.8	4923.3	4780.1	4602.3	4337.1	4567.9	4498.9	3411.3
42.5°	5605.0	5583.8	5504.2	5329.2	5170.0	5040.0	4952.5	4602.3	4915.4	4849.0	3655.4
45°	5719.1	5697.9	5655.4	5514.9	5369.0	5268.2	5276.1	4918.0	5278.8	5223.1	3944.5
47.5°	5578.5	5594.4	5631.6	5605.0	5514.9	5467.1	5565.3	5244.3	5684.6	5631.6	4257.5
50°	5201.8	5217.8	5366.3	5549.3	5581.2	5639.5	5825.2	5621.0	6114.4	6071.9	4644.8
52.5°	4276.1	4363.6	4774.8	5212.5	5512.2	5753.6	6114.4	6180.7	6838.5	6838.5	5329.2
55°	3230.9	3307.9	3777.4	4541.3	5244.3	5764.2	6326.6	6560.0	7361.1	7371.7	5687.3
57.5°	2618.2	2665.9	2896.7	3679.2	4681.9	5631.6	6578.6	6886.3	7796.1	7843.9	6148.8
60°	2124.8	2151.3	2302.5	2846.3	3904.7	5273.5	6758.9	7353.1	8416.9	8483.2	6737.7
62.5°	1708.3	1734.8	1835.6	2161.9	3063.8	4602.3	6727.1	7838.6	9244.5	9353.2	7509.6
65°	1363.5	1392.6	1459.0	1660.6	2270.7	3769.4	6400.8	8087.9	10101.3	10207.4	8021.6
67.5°	1063.7	1090.2	1135.3	1268.0	1599.5	2819.8	5628.9	7825.3	10485.9	10576.1	8048.1
70°	803.8	817.0	854.2	939.0	1143.3	1872.8	4406.0	6944.6	10141.1	10223.3	7517.6
72.5°	623.4	620.7	641.9	684.4	798.4	1289.2	2920.6	5647.5	8966.0	9050.8	6414.1
75°	509.3	506.7	519.9	533.2	578.3	864.8	1724.2	4252.2	7236.4	7074.6	4811.9
77.5°	429.7	427.1	440.3	443.0	461.6	596.8	981.5	2798.5	4827.8	4549.3	2711.0
80°	363.4	360.8	376.7	382.0	395.2	437.7	565.0	1514.7	2424.5	2297.2	1294.5
82.5°	273.2	283.8	313.0	326.3	342.2	323.6	350.1	668.5	1124.7	1074.3	562.4
85°	132.6	156.5	236.1	262.6	281.2	204.3	238.7	315.7	506.7	482.8	228.1
87.5°	45.1	39.8	140.6	167.1	183.0	92.8	132.6	175.1	209.6	191.0	71.6
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: P231017

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7030

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4	1257.4
2.5°	1270.6	1230.8	1172.5	1127.4	1098.2	1074.3	1063.7	1061.1	1055.8	1053.1	1053.1
5°	1297.1	1225.5	1135.3	1087.6	1074.3	1063.7	1069.0	1071.7	1071.7	1071.7	1071.7
7.5°	1336.9	1236.1	1127.4	1095.5	1092.9	1092.9	1108.8	1116.8	1122.1	1122.1	1122.1
10°	1390.0	1254.7	1140.6	1114.1	1122.1	1127.4	1145.9	1156.6	1161.9	1164.5	1167.2
12.5°	1461.6	1294.5	1167.2	1145.9	1156.6	1159.2	1172.5	1177.8	1183.1	1185.7	1185.7
15°	1557.1	1352.9	1209.6	1183.1	1185.7	1183.1	1183.1	1177.8	1175.1	1175.1	1180.4
17.5°	1655.3	1408.6	1246.7	1209.6	1199.0	1177.8	1161.9	1148.6	1140.6	1135.3	1138.0
20°	1753.4	1459.0	1268.0	1214.9	1185.7	1151.2	1122.1	1103.5	1092.9	1082.3	1087.6
22.5°	1851.5	1506.7	1275.9	1199.0	1156.6	1106.2	1074.3	1045.1	1021.3	1005.4	1008.0
25°	1960.3	1559.8	1275.9	1180.4	1116.8	1063.7	1023.9	976.2	941.7	928.4	933.7
27.5°	2069.1	1604.9	1262.7	1145.9	1071.7	1018.6	960.3	904.6	883.3	875.4	878.0
30°	2177.8	1639.3	1233.5	1103.5	1023.9	965.6	888.6	851.5	825.0	803.8	806.4
32.5°	2286.6	1663.2	1193.7	1050.4	973.5	899.2	835.6	793.1	745.4	718.9	721.5
35°	2411.3	1681.8	1145.9	997.4	917.8	840.9	793.1	724.2	673.8	652.6	647.2
37.5°	2541.2	1695.0	1095.5	939.0	862.1	798.4	750.7	665.8	618.1	588.9	586.2
40°	2681.8	1700.3	1034.5	878.0	809.1	771.9	695.0	631.3	549.1	530.5	530.5
42.5°	2848.9	1697.7	973.5	817.0	750.7	710.9	655.2	626.0	554.4	535.8	525.2
45°	3039.9	1697.7	907.2	745.4	692.3	634.0	610.1	591.5	543.8	551.8	557.1
47.5°	3257.5	1692.4	827.6	687.0	644.6	594.2	580.9	541.1	522.6	527.9	533.2
50°	3557.2	1700.3	756.0	639.3	610.1	567.7	551.8	530.5	522.6	525.2	522.6
52.5°	3973.7	1673.8	687.0	610.1	583.6	527.9	527.9	525.2	527.9	525.2	525.2
55°	4201.8	1615.5	636.6	594.2	565.0	509.3	519.9	525.2	530.5	527.9	527.9
57.5°	4525.4	1575.7	596.8	583.6	554.4	504.0	514.6	525.2	527.9	525.2	525.2
60°	4907.4	1549.1	570.3	586.2	546.4	504.0	517.3	525.2	522.6	519.9	519.9
62.5°	5350.4	1538.5	551.8	594.2	538.5	506.7	517.3	525.2	514.6	512.0	512.0
65°	5517.5	1443.0	527.9	599.5	543.8	506.7	514.6	517.3	504.0	501.4	498.7
67.5°	5260.2	1278.6	493.4	588.9	559.7	506.7	506.7	504.0	488.1	485.4	480.1
70°	4684.6	1061.1	440.3	554.4	570.3	509.3	496.0	482.8	466.9	466.9	456.3
72.5°	3835.7	835.6	371.4	493.4	562.4	517.3	474.8	456.3	437.7	437.7	427.1
75°	2764.1	623.4	297.1	411.2	527.9	514.6	448.3	424.4	403.2	400.5	387.3
77.5°	1575.7	437.7	241.4	321.0	469.5	501.4	424.4	387.3	363.4	355.5	347.5
80°	809.1	294.4	196.3	252.0	389.9	464.2	405.9	344.8	318.3	305.1	291.8
82.5°	384.6	196.3	151.2	185.7	294.4	405.9	382.0	297.1	267.9	252.0	236.1
85°	172.4	116.7	100.8	119.4	209.6	315.7	336.9	244.0	209.6	262.6	193.6
87.5°	55.7	53.1	53.1	55.7	100.8	137.9	246.7	180.4	167.1	137.9	116.7
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)