

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: P231178

Luminaire Tested: **ARCH-M-AF48-160-D-U-T3-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231178
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29465)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-160-D-U-T3-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18556 lumens
Efficiency: N/A
Efficacy: 115.3 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Short - Non-Cutoff
BUG Rating: B3 - U0 - G3

Input Watts (W): 161
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



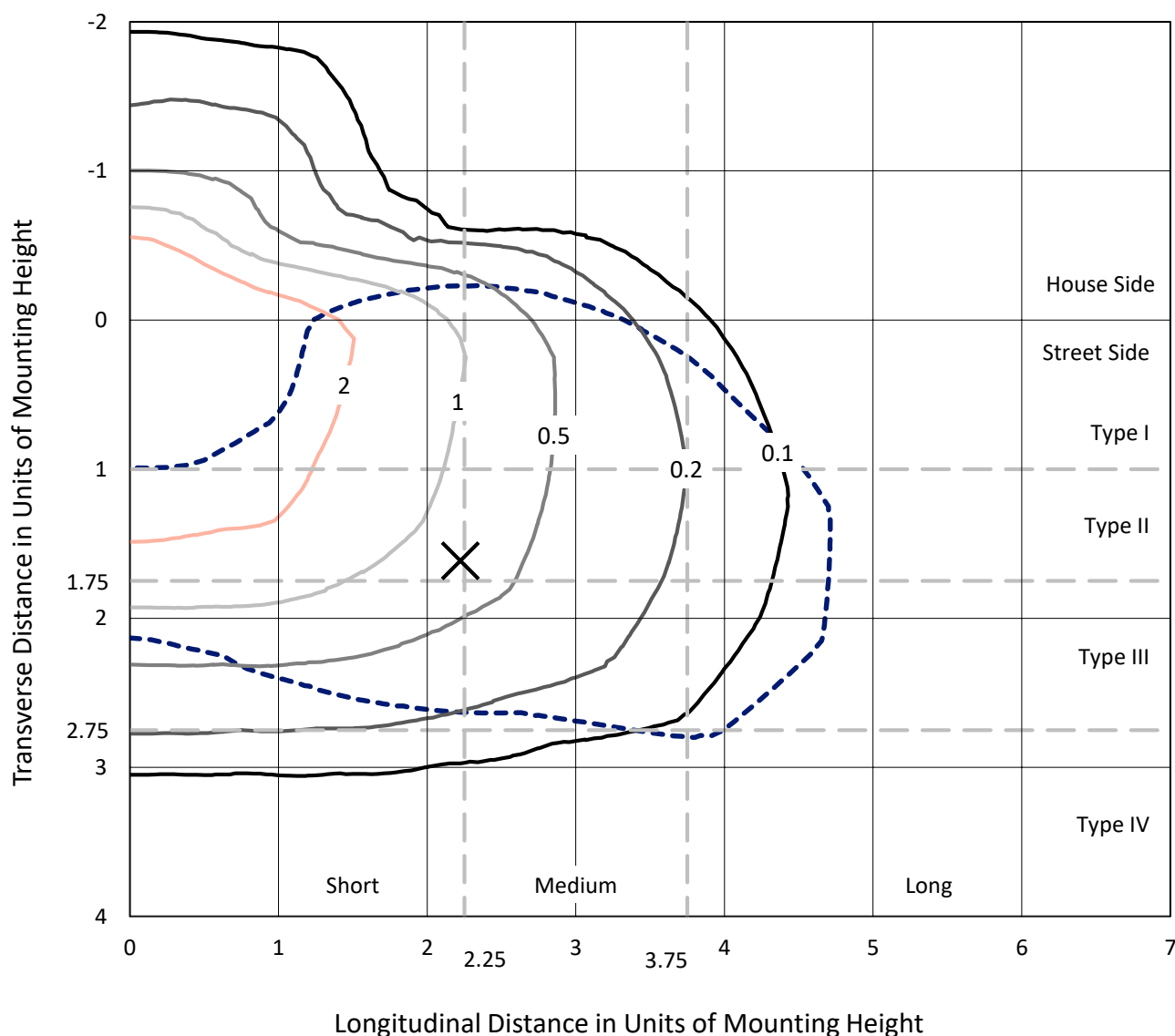
REPORT NUMBER: P231178

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T3-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

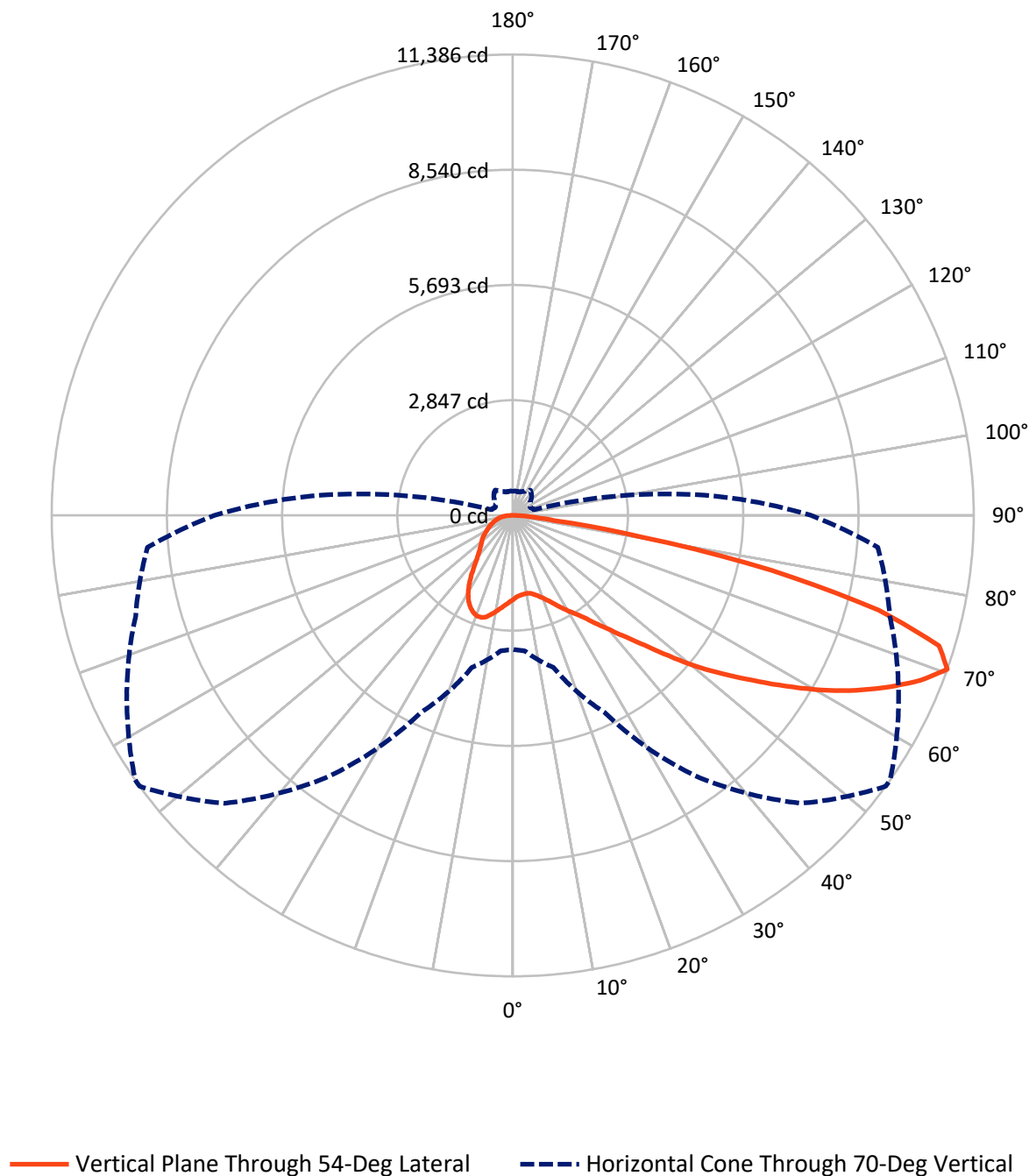


Based on 25 foot mounting height. Maximum calculated value = 3.9 fc
 Type III - Short - Non-Cutoff

REPORT NUMBER: P231178

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T3-7050

Luminous Intensity Polar Plot



REPORT NUMBER: P231178

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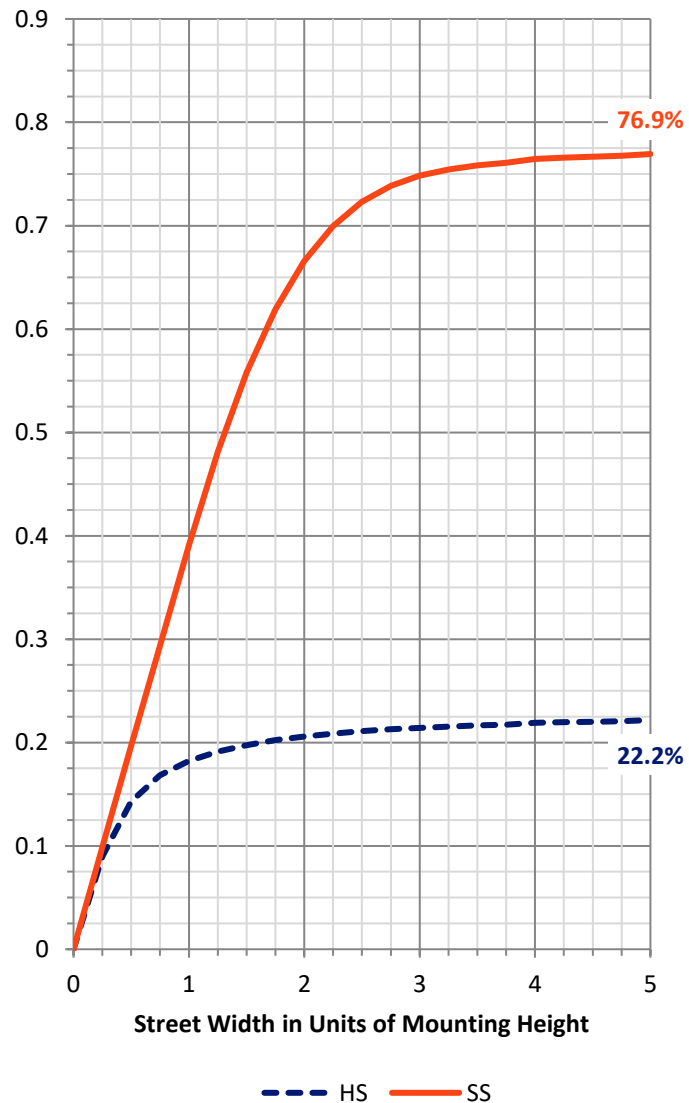
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4208.4	0.0	4208.4
	% Fixture	22.7	0.0	22.7
Street Side	Lumens	14347.6	0.0	14347.6
	% Fixture	77.3	0.0	77.3
Total	Lumens	18556.0	0.0	18556.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	203.7	1.1
10°-20°	651.0	3.5
20°-30°	1131.0	6.1
30°-40°	1652.8	8.9
40°-50°	2594.1	14.0
50°-60°	3989.1	21.5
60°-70°	4873.7	26.3
70°-80°	3021.7	16.3
80°-90°	439.0	2.4
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°	18556.0	100.0
0°-180°	18556.0	100.0

Coefficient of Utilization



REPORT NUMBER: P231178

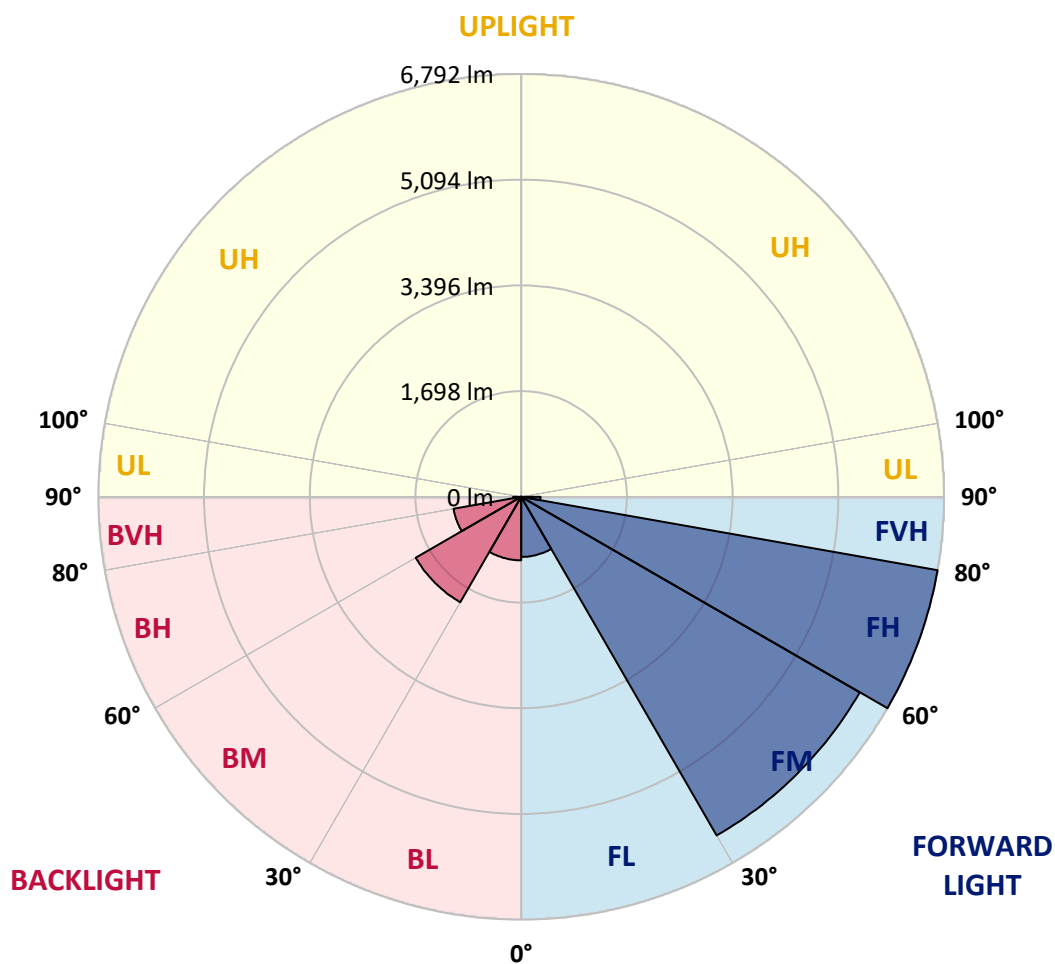
CATALOG NUMBER: ARCH-M-AF48-160-D-U-T3-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	965.5	5.2			
FM	(30°-60°)	6280.4	33.8			
FH	(60°-80°)	6791.8	36.6			G3/7500
FVH	(80°-90°)	310.0	1.7			G3/500
BL	(0°-30°)	1020.3	5.5	B3/2500		
BM	(30°-60°)	1955.6	10.5	B2/2500		
BH	(60°-80°)	1103.6	5.9	B3/2500		G3/2500
BVH	(80°-90°)	129.0	0.7			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 III Short





REPORT NUMBER: P231178

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T3-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0
2.5°	1994.5	1987.7	1987.7	1997.9	2001.3	2011.5	2011.5	2014.9	2025.1	2042.1	2062.5
5°	1933.3	1929.9	1933.3	1946.9	1953.7	1974.1	1980.9	1984.3	2004.7	2031.9	2062.5
7.5°	1872.2	1868.8	1875.6	1896.0	1916.3	1946.9	1963.9	1967.3	1997.9	2035.3	2076.0
10°	1851.8	1848.4	1858.6	1875.6	1896.0	1929.9	1957.1	1960.5	2004.7	2048.9	2106.6
12.5°	1879.0	1875.6	1885.8	1902.8	1923.1	1946.9	1977.5	1980.9	2038.7	2096.4	2157.6
15°	1946.9	1946.9	1950.3	1960.5	1980.9	2001.3	2028.5	2031.9	2093.0	2161.0	2222.1
17.5°	2052.3	2045.5	2045.5	2042.1	2055.7	2065.8	2099.8	2103.2	2167.8	2228.9	2290.1
20°	2181.4	2178.0	2164.4	2147.4	2144.0	2150.8	2184.8	2188.2	2252.7	2303.7	2361.5
22.5°	2337.7	2341.1	2310.5	2273.1	2256.1	2266.3	2296.9	2300.3	2347.9	2392.0	2443.0
25°	2544.9	2534.7	2490.6	2436.2	2402.2	2402.2	2432.8	2432.8	2477.0	2504.2	2538.1
27.5°	2742.0	2721.6	2680.8	2602.7	2548.3	2558.5	2589.1	2589.1	2629.9	2640.1	2657.1
30°	2956.1	2935.7	2884.7	2786.2	2714.8	2708.0	2745.4	2742.0	2796.4	2793.0	2779.4
32.5°	3217.7	3207.5	3122.6	2996.8	2901.7	2877.9	2911.9	2915.3	2949.3	2939.1	2894.9
35°	3584.7	3581.3	3503.1	3282.3	3156.5	3112.4	3132.8	3132.8	3156.5	3129.4	3054.6
37.5°	4046.8	4053.5	3985.6	3659.4	3482.7	3408.0	3411.4	3408.0	3414.8	3384.2	3306.0
40°	4508.8	4525.8	4522.4	4128.3	3904.0	3774.9	3727.4	3720.6	3737.6	3724.0	3649.2
42.5°	5117.1	5157.8	5062.7	4705.9	4454.5	4237.0	4107.9	4090.9	4128.3	4145.3	4073.9
45°	5749.0	5735.4	5585.9	5327.7	5100.1	4821.4	4576.8	4549.6	4576.8	4627.8	4553.0
47.5°	6078.6	6068.4	6031.1	5901.9	5868.0	5548.6	5178.2	5154.4	5103.5	5174.8	5086.5
50°	6622.3	6632.5	6479.6	6466.0	6608.7	6432.0	5857.8	5803.4	5711.7	5769.4	5694.7
52.5°	7016.4	6972.2	6877.1	6996.0	7441.1	7346.0	6496.5	6472.8	6387.8	6374.2	6340.3
55°	7176.1	7176.1	7193.1	7468.3	8103.7	7978.0	7189.7	7213.5	7098.0	7002.8	7047.0
57.5°	7223.7	7244.1	7390.2	7845.5	8881.8	8470.7	7954.2	7988.2	7821.7	7631.4	7770.7
60°	6989.2	7050.4	7400.4	8059.5	9320.1	8993.9	8759.5	8769.7	8528.4	8249.8	8494.4
62.5°	6387.8	6462.6	7087.8	8147.9	9248.7	9530.8	9520.6	9544.4	9214.8	8868.2	9174.0
65°	5650.5	5725.3	6391.2	7899.8	9194.4	9914.7	10217.1	10281.7	9857.0	9391.5	9598.7
67.5°	4566.6	4665.1	5297.1	7064.0	8929.4	10230.7	10869.5	10937.4	10353.0	9663.3	9561.3
70°	3309.4	3357.0	3887.1	5368.5	7848.9	10057.4	11386.0	11382.6	10516.1	9642.9	9051.7
72.5°	1593.6	1630.9	2089.6	3333.2	5613.1	8535.2	11012.2	11076.8	10291.9	9347.3	7886.2
75°	655.8	693.1	846.0	1406.7	2945.9	5640.3	9333.7	9486.6	9347.3	8389.1	6170.4
77.5°	407.7	421.3	496.1	727.1	1345.5	2633.3	6533.9	6741.2	7407.2	6720.8	4073.9
80°	305.8	316.0	370.4	509.7	849.4	971.8	3244.9	3506.5	4488.5	3856.5	1845.0
82.5°	254.8	258.2	295.6	370.4	577.6	557.2	1039.7	1158.6	2093.0	1471.2	635.4
85°	237.8	244.6	265.0	265.0	367.0	350.0	431.5	451.9	608.2	502.9	220.9
87.5°	122.3	115.5	234.4	207.3	190.3	169.9	183.5	197.1	227.7	241.2	98.5
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: P231178

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T3-7050

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0	2076.0
2.5°	2069.2	2079.4	2096.4	2113.4	2133.8	2157.6	2171.2	2188.2	2201.8	2195.0	2191.6
5°	2079.4	2096.4	2133.8	2167.8	2208.6	2256.1	2286.7	2320.7	2347.9	2354.7	2344.5
7.5°	2096.4	2127.0	2178.0	2239.1	2293.5	2354.7	2402.2	2449.8	2483.8	2490.6	2490.6
10°	2137.2	2171.2	2239.1	2320.7	2385.2	2449.8	2504.2	2541.5	2572.1	2585.7	2585.7
12.5°	2195.0	2235.7	2317.3	2415.8	2487.2	2548.3	2578.9	2595.9	2609.5	2623.1	2626.5
15°	2262.9	2307.1	2405.6	2511.0	2585.7	2616.3	2616.3	2612.9	2612.9	2619.7	2626.5
17.5°	2330.9	2378.4	2480.4	2592.5	2640.1	2623.1	2599.3	2589.1	2582.3	2578.9	2589.1
20°	2402.2	2449.8	2551.7	2657.1	2643.5	2572.1	2538.1	2514.4	2494.0	2483.8	2497.4
22.5°	2480.4	2524.5	2629.9	2701.2	2599.3	2490.6	2426.0	2388.6	2354.7	2334.3	2347.9
25°	2572.1	2616.3	2718.2	2714.8	2521.2	2368.3	2266.3	2205.2	2167.8	2147.4	2147.4
27.5°	2680.8	2718.2	2816.8	2680.8	2412.4	2205.2	2055.7	1997.9	1987.7	1970.7	1970.7
30°	2793.0	2823.6	2908.5	2602.7	2262.9	1991.1	1828.0	1800.8	1804.2	1787.2	1790.6
32.5°	2908.5	2939.1	2962.9	2487.2	2069.2	1749.9	1641.1	1620.7	1617.3	1603.8	1590.2
35°	3071.6	3115.8	2969.7	2330.9	1834.8	1549.4	1471.2	1450.9	1430.5	1382.9	1382.9
37.5°	3319.6	3367.2	2952.7	2137.2	1593.6	1393.1	1321.7	1294.6	1260.6	1213.0	1196.0
40°	3659.4	3659.4	2915.3	1919.7	1399.9	1267.4	1199.4	1165.4	1128.1	1080.5	1070.3
42.5°	4060.3	3965.2	2857.5	1698.9	1257.2	1182.4	1121.3	1083.9	1039.7	985.4	978.6
45°	4529.2	4271.0	2776.0	1501.8	1151.8	1131.5	1094.1	1029.5	954.8	897.0	886.8
47.5°	4984.5	4546.2	2697.8	1362.5	1063.5	1111.1	1080.5	971.8	869.8	788.3	778.1
50°	5484.0	4790.9	2606.1	1247.0	995.5	1097.5	1063.5	886.8	774.7	716.9	710.1
52.5°	5983.5	5038.9	2507.6	1124.7	937.8	1070.3	1022.7	825.7	771.3	693.1	683.0
55°	6510.1	5327.7	2392.0	988.8	869.8	1015.9	968.4	822.3	795.1	693.1	669.4
57.5°	7023.2	5647.1	2205.2	856.2	795.1	934.4	948.0	801.9	744.1	686.4	659.2
60°	7590.6	5986.9	1896.0	744.1	730.5	866.4	920.8	757.7	686.4	666.0	652.4
62.5°	8045.9	6292.7	1481.4	666.0	676.2	812.1	886.8	730.5	662.6	645.6	642.2
65°	8243.0	6299.5	1063.5	598.0	621.8	761.1	852.8	706.7	642.2	635.4	632.0
67.5°	8035.7	5952.9	747.5	533.5	564.0	713.5	808.7	683.0	621.8	625.2	618.4
70°	7366.4	5222.4	547.0	472.3	509.7	662.6	761.1	652.4	598.0	604.8	594.6
72.5°	6163.6	4070.5	438.3	421.3	465.5	608.2	713.5	618.4	560.6	564.0	543.6
75°	4553.0	2697.8	367.0	377.2	414.5	557.2	652.4	574.2	519.9	506.3	492.7
77.5°	2708.0	1386.3	302.4	329.6	370.4	496.1	584.4	519.9	475.7	451.9	441.7
80°	1117.9	560.6	248.0	278.6	322.8	441.7	516.5	455.3	424.7	400.9	387.3
82.5°	445.1	275.2	197.1	227.7	271.8	383.9	451.9	400.9	370.4	353.4	316.0
85°	169.9	135.9	132.5	159.7	203.9	295.6	373.8	336.4	312.6	268.4	258.2
87.5°	68.0	61.2	61.2	78.1	115.5	186.9	268.4	234.4	244.6	193.7	197.1
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)