

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: P231299

Luminaire Tested: **ARCH-M-AF48-70-D-U-T4W-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231299
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-70-D-U-T4W-7050
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 470mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9893 lumens
Efficiency: N/A
Efficacy: 135.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B2 - 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

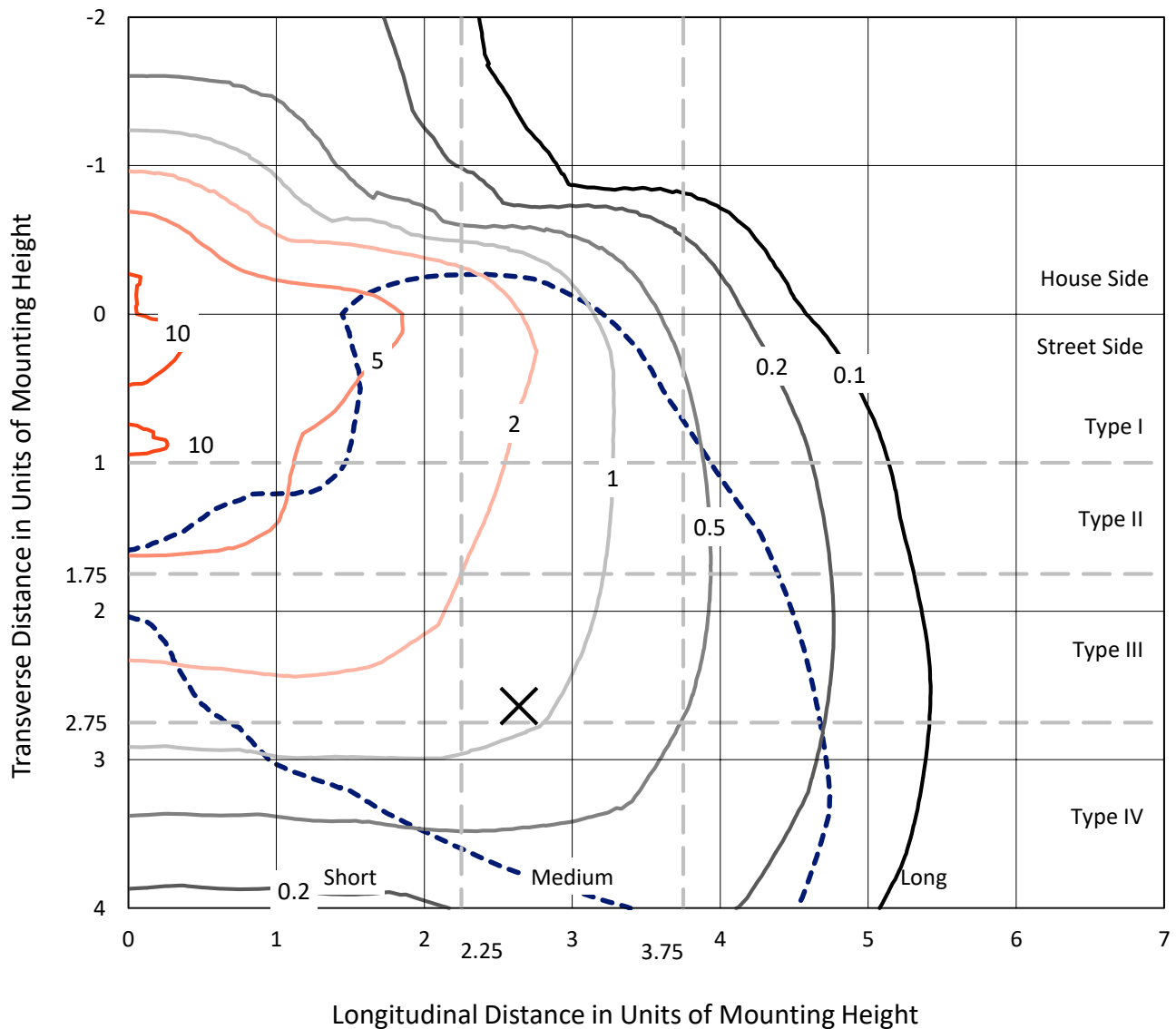


REPORT NUMBER: P231299

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-7050

Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 --- 1/2 Max cd

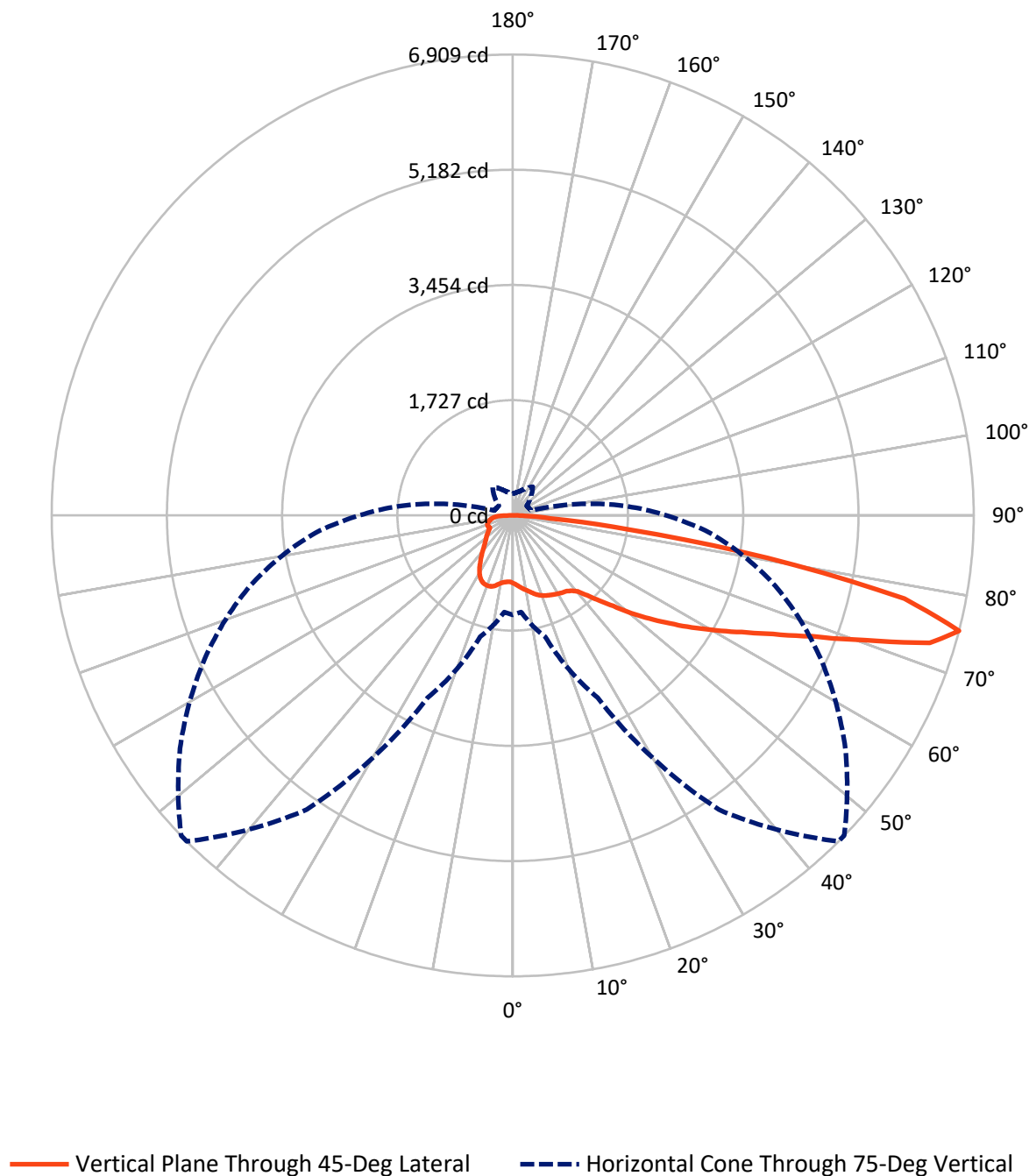


Based on 10 foot mounting height. Maximum calculated value = 11.9 fc
 Type IV - Medium - Non-Cutoff

REPORT NUMBER: P231299

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-7050

Luminous Intensity Polar Plot



REPORT NUMBER: P231299

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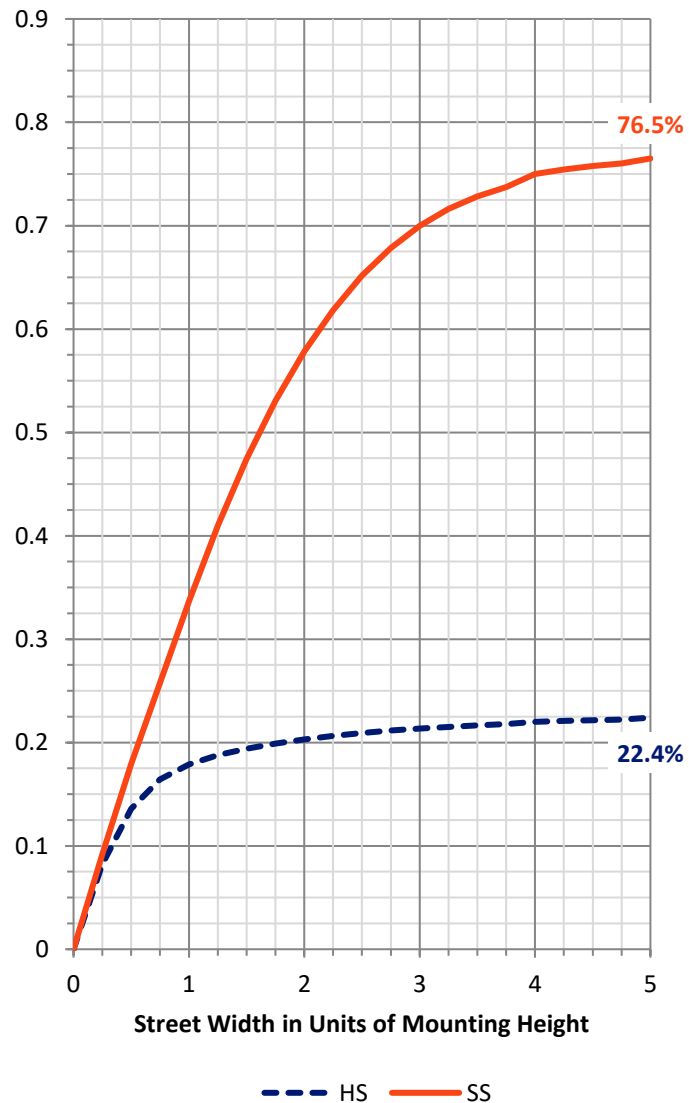
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2291.8	0.0	2291.8
	% Fixture	23.2	0.0	23.2
Street Side	Lumens	7601.2	0.0	7601.2
	% Fixture	76.8	0.0	76.8
Total	Lumens	9893.0	0.0	9893.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	100.5	1.0
10°-20°	325.7	3.3
20°-30°	558.9	5.6
30°-40°	781.7	7.9
40°-50°	1146.6	11.6
50°-60°	1786.1	18.1
60°-70°	2570.1	26.0
70°-80°	2238.8	22.6
80°-90°	384.5	3.9
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°	9893.0	100.0
0°-180°	9893.0	100.0

Coefficient of Utilization



REPORT NUMBER: P231299

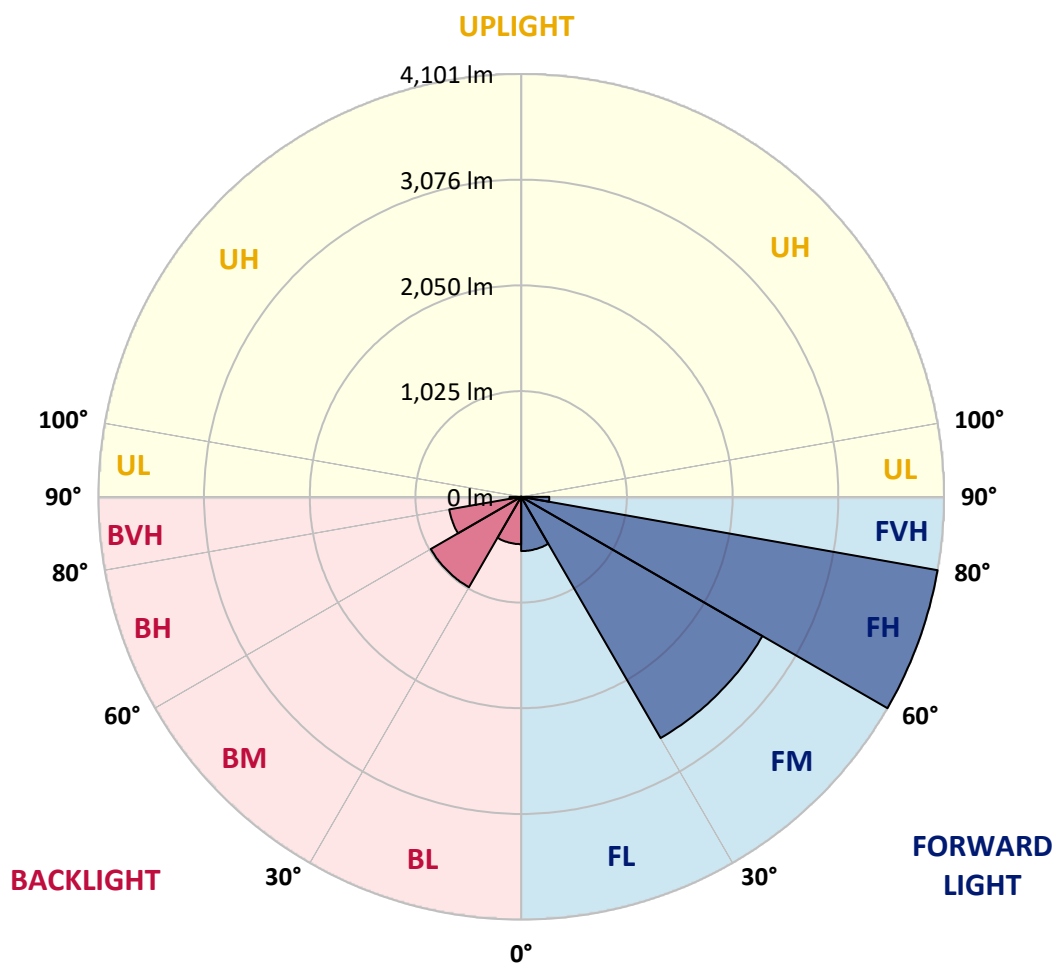
CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	526.1	5.3			
FM	(30°-60°)	2701.6	27.3			
FH	(60°-80°)	4100.7	41.5			G2/5000
FVH	(80°-90°)	272.8	2.8			G3/500
BL	(0°-30°)	459.0	4.6	B1/500		
BM	(30°-60°)	1012.8	10.2	B2/2500		
BH	(60°-80°)	708.2	7.2	B2/1000		G2/1000
BVH	(80°-90°)	111.7	1.1			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Medium





REPORT NUMBER: P231299

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	46°	55°	65°	75°	85°
0°	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2
2.5°	1064.2	1056.5	1056.5	1050.7	1050.7	1041.1	1037.3	1035.3	1025.7	1019.9	1014.2
5°	1125.8	1116.2	1114.2	1100.8	1095.0	1073.8	1071.9	1058.4	1041.1	1023.8	1010.3
7.5°	1181.6	1175.8	1166.2	1152.7	1135.4	1108.5	1106.5	1085.4	1056.5	1033.4	1014.2
10°	1222.0	1218.2	1204.7	1187.4	1168.1	1141.2	1139.3	1116.2	1081.5	1054.6	1027.6
12.5°	1270.1	1264.3	1247.0	1223.9	1202.8	1177.7	1175.8	1156.6	1118.1	1083.5	1048.8
15°	1316.3	1308.6	1287.4	1264.3	1241.3	1220.1	1220.1	1198.9	1158.5	1118.1	1077.7
17.5°	1339.4	1335.6	1314.4	1289.4	1270.1	1254.7	1252.8	1233.6	1193.1	1150.8	1106.5
20°	1347.1	1349.0	1329.8	1302.8	1289.4	1281.7	1279.7	1266.3	1222.0	1181.6	1139.3
22.5°	1345.2	1350.9	1335.6	1306.7	1302.8	1302.8	1302.8	1287.4	1252.8	1212.4	1170.1
25°	1352.9	1360.6	1349.0	1314.4	1314.4	1322.1	1322.1	1314.4	1283.6	1249.0	1206.6
27.5°	1379.8	1385.6	1376.0	1327.9	1329.8	1341.3	1339.4	1341.3	1322.1	1289.4	1247.0
30°	1412.5	1420.2	1408.7	1349.0	1347.1	1358.6	1358.6	1368.3	1354.8	1320.2	1285.5
32.5°	1501.1	1499.1	1462.6	1372.1	1366.3	1377.9	1377.9	1387.5	1379.8	1352.9	1320.2
35°	1764.7	1735.8	1655.0	1447.2	1389.4	1395.2	1395.2	1412.5	1416.4	1395.2	1366.3
37.5°	2034.1	2024.5	1962.9	1647.3	1474.1	1431.8	1429.8	1454.9	1472.2	1454.9	1435.6
40°	2305.5	2297.8	2284.3	1914.8	1651.2	1497.2	1491.4	1512.6	1543.4	1531.8	1520.3
42.5°	2557.6	2553.7	2567.2	2178.5	1876.3	1637.7	1620.4	1595.3	1639.6	1635.8	1635.8
45°	2755.8	2765.4	2773.1	2424.8	2120.7	1818.6	1797.4	1712.7	1772.4	1787.8	1799.3
47.5°	2867.4	2875.1	2902.0	2665.3	2365.1	2028.3	2013.0	1874.4	1953.3	1999.5	2032.2
50°	3027.1	3006.0	3029.0	2900.1	2659.6	2301.6	2259.3	2091.9	2191.9	2272.7	2349.7
52.5°	3181.1	3146.4	3165.7	3171.5	2994.4	2569.1	2524.8	2347.8	2472.9	2599.9	2736.5
55°	3319.6	3317.7	3337.0	3435.1	3317.7	2855.8	2805.8	2630.7	2811.6	2948.2	3179.2
57.5°	3431.3	3450.5	3535.2	3741.1	3691.1	3167.6	3111.8	2959.8	3173.4	3310.0	3693.0
60°	3562.1	3592.9	3733.4	4000.9	4031.7	3494.8	3437.0	3327.3	3544.8	3683.4	4287.6
62.5°	3606.4	3650.6	3939.3	4274.2	4387.7	3852.7	3800.7	3727.6	3935.5	4060.5	4880.3
65°	3311.9	3396.6	4052.8	4414.6	4770.7	4283.8	4239.5	4176.0	4324.2	4406.9	5282.6
67.5°	3231.1	3269.6	3831.5	4616.7	5130.5	4838.0	4793.7	4684.1	4687.9	4653.3	5413.4
70°	3117.6	3159.9	3604.5	4768.7	5646.3	5596.2	5542.3	5219.0	5020.8	4811.1	5155.5
72.5°	2655.7	2642.2	3106.0	4358.8	5894.5	6535.4	6471.8	5794.4	5267.2	4674.4	4351.1
75°	1491.4	1452.9	1884.0	3015.6	5382.6	6908.7	6906.8	6085.0	5094.0	4072.1	2961.7
77.5°	433.0	421.4	621.6	1264.3	3623.7	6002.3	6075.4	5488.5	4251.1	2925.1	1626.1
80°	204.0	207.8	267.5	417.6	1547.2	3873.9	4083.6	3614.1	2540.2	1349.0	671.6
82.5°	128.9	130.9	182.8	269.4	654.3	1758.9	1932.1	1626.1	1006.5	583.1	296.4
85°	80.8	80.8	121.2	177.0	390.7	561.9	610.0	554.2	431.1	317.5	161.7
87.5°	44.3	44.3	73.1	102.0	213.6	180.9	186.7	221.3	269.4	194.4	80.8
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: P231299

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T4W-7050

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2	1014.2
2.5°	1012.2	1008.4	1002.6	1000.7	998.8	996.9	998.8	1002.6	998.8	998.8	1000.7
5°	1006.5	1002.6	994.9	994.9	996.9	998.8	1008.4	1014.2	1016.1	1016.1	1016.1
7.5°	1006.5	1000.7	994.9	996.9	1000.7	1008.4	1023.8	1033.4	1041.1	1043.0	1043.0
10°	1016.1	1008.4	1004.6	1008.4	1019.9	1025.7	1041.1	1056.5	1066.1	1070.0	1070.0
12.5°	1033.4	1025.7	1025.7	1033.4	1048.8	1056.5	1070.0	1081.5	1093.1	1098.8	1098.8
15°	1062.3	1052.7	1054.6	1068.1	1085.4	1093.1	1102.7	1106.5	1116.2	1123.9	1123.9
17.5°	1089.2	1079.6	1083.5	1098.8	1110.4	1114.2	1120.0	1118.1	1121.9	1127.7	1129.6
20°	1120.0	1110.4	1112.3	1121.9	1123.9	1120.0	1120.0	1114.2	1112.3	1121.9	1125.8
22.5°	1150.8	1141.2	1139.3	1133.5	1123.9	1114.2	1108.5	1102.7	1098.8	1108.5	1112.3
25°	1187.4	1173.9	1164.3	1139.3	1114.2	1096.9	1089.2	1085.4	1083.5	1093.1	1096.9
27.5°	1227.8	1214.3	1185.4	1131.6	1091.1	1062.3	1056.5	1056.5	1060.4	1066.1	1070.0
30°	1266.3	1252.8	1200.8	1114.2	1050.7	1008.4	1002.6	1008.4	1018.0	1023.8	1029.6
32.5°	1304.8	1291.3	1210.5	1087.3	991.1	937.2	933.3	943.0	958.4	962.2	966.1
35°	1356.7	1343.2	1222.0	1048.8	916.0	858.3	854.4	860.2	873.7	879.5	885.2
37.5°	1429.8	1422.2	1239.3	1006.5	846.7	783.2	771.7	767.8	775.5	773.6	781.3
40°	1526.1	1531.8	1270.1	950.7	779.4	714.0	688.9	677.4	669.7	654.3	662.0
42.5°	1666.6	1670.4	1304.8	887.2	721.7	648.5	615.8	594.6	579.3	554.2	558.1
45°	1872.5	1839.8	1345.2	819.8	669.7	596.6	558.1	533.1	511.9	490.7	492.7
47.5°	2145.7	2045.7	1389.4	764.0	617.7	554.2	519.6	490.7	465.7	448.4	450.3
50°	2482.5	2301.6	1433.7	712.0	565.8	521.5	490.7	459.9	434.9	417.6	415.7
52.5°	2927.1	2609.5	1462.6	654.3	513.8	492.7	465.7	436.8	406.1	384.9	383.0
55°	3388.9	2967.5	1487.6	585.0	463.8	459.9	446.5	413.8	377.2	350.2	346.4
57.5°	3897.0	3350.4	1506.8	517.7	425.3	433.0	429.1	390.7	350.2	325.2	323.3
60°	4358.8	3746.9	1445.2	458.0	390.7	406.1	409.9	377.2	356.0	361.8	363.7
62.5°	4824.5	4052.8	1210.5	413.8	367.6	388.7	421.4	419.5	409.9	419.5	421.4
65°	4992.0	4116.3	858.3	377.2	344.5	396.4	458.0	454.2	409.9	392.6	388.7
67.5°	4897.7	3927.8	577.3	348.3	327.2	406.1	496.5	454.2	394.5	371.4	363.7
70°	4449.3	3464.0	423.4	319.5	311.8	404.1	517.7	452.2	386.8	361.8	352.2
72.5°	3548.6	2673.0	340.6	292.5	288.7	394.5	529.2	448.4	379.1	352.2	340.6
75°	2297.8	1662.7	286.7	265.6	254.0	379.1	523.4	436.8	369.5	334.9	327.2
77.5°	1066.1	715.9	244.4	234.8	221.3	356.0	506.1	413.8	348.3	315.6	306.0
80°	496.5	338.7	205.9	204.0	198.2	336.8	483.0	386.8	323.3	296.4	281.0
82.5°	265.6	204.0	167.4	167.4	173.2	313.7	454.2	354.1	290.6	277.1	236.7
85°	140.5	117.4	121.2	130.9	148.2	277.1	415.7	319.5	254.0	211.7	205.9
87.5°	71.2	75.1	75.1	88.5	113.5	225.2	342.5	263.6	215.5	173.2	169.3
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)