

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: P231237

Luminaire Tested: **ARCH-M-AF48-100-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231237
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29624)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-100-D-U-T3-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 660mA LIGHT ENGINES WITH 24 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10010 lumens
Efficiency: N/A
Efficacy: 99.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type III - Medium - Semi-Cutoff
BUG Rating: B1 - U0 - G2

Input Watts (W): 101
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



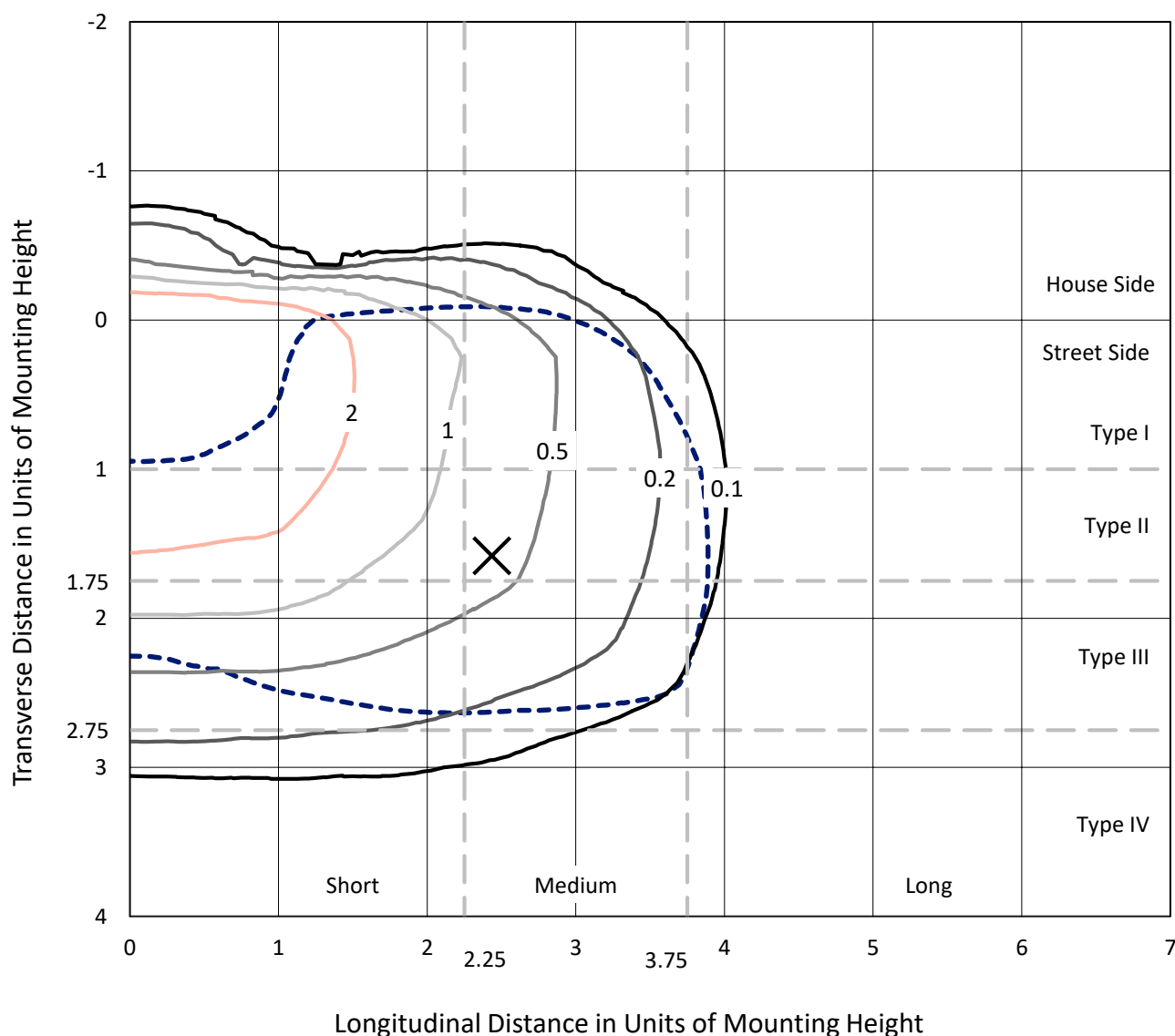
REPORT NUMBER: P231237

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7050-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

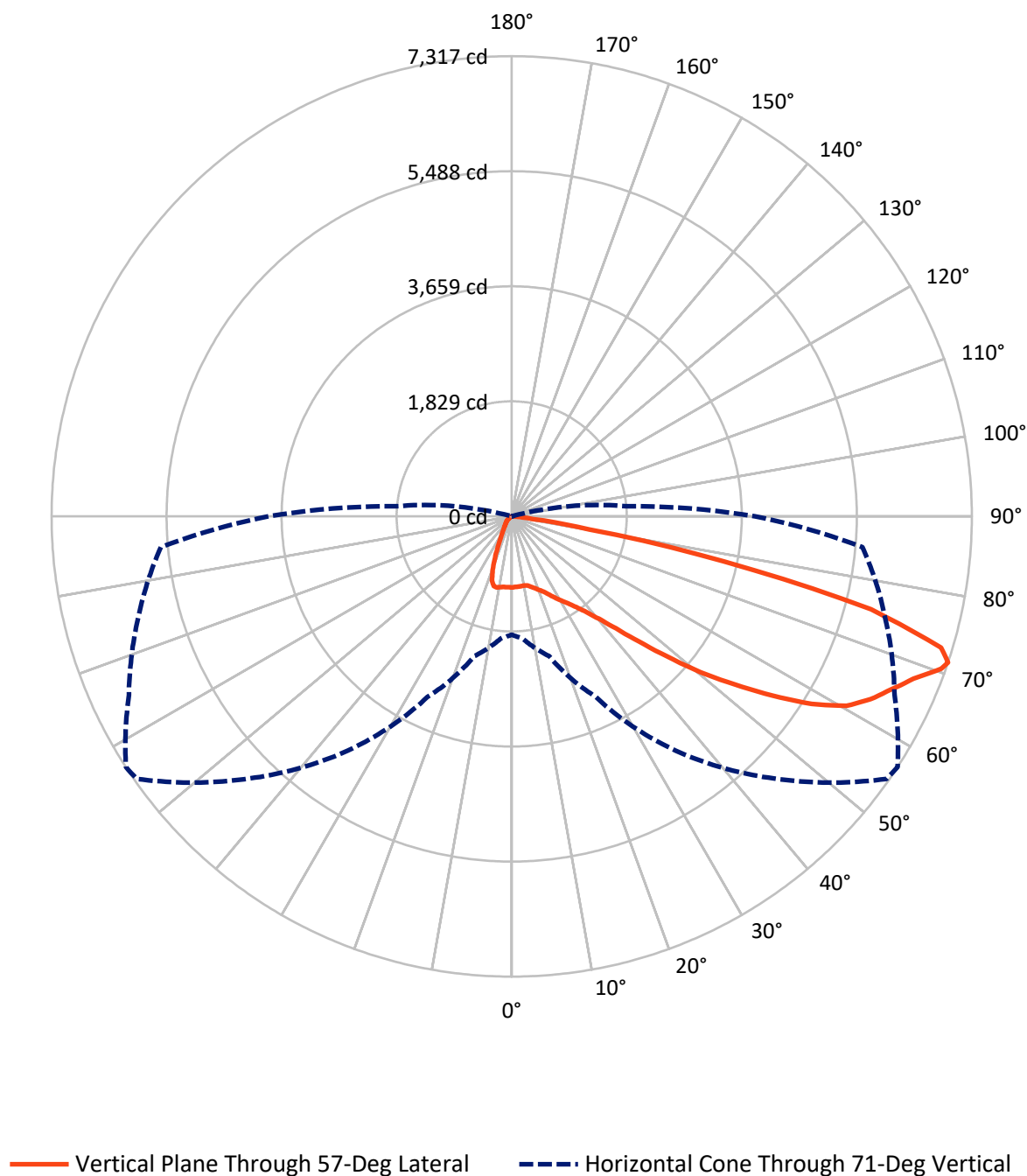


Based on 20 foot mounting height. Maximum calculated value = 3.5 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P231237

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7050-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P231237

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7050-HSS

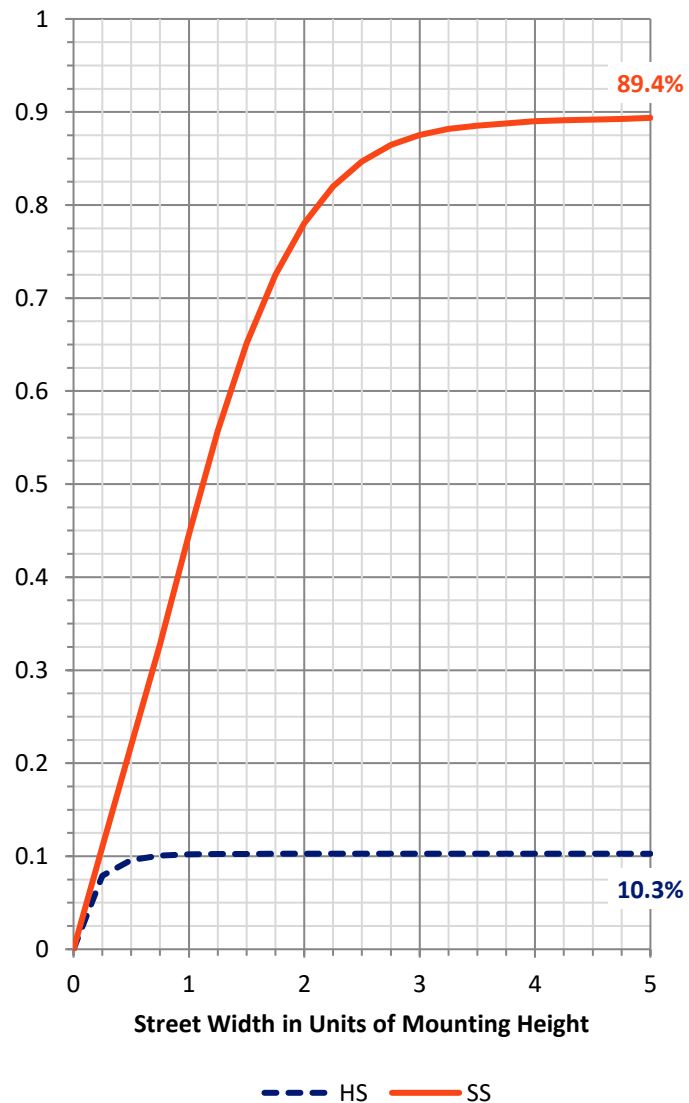
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1037.3	0.0	1037.3
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	8972.7	0.0	8972.7
	% Fixture	89.6	0.0	89.6
Total	Lumens	10010.0	0.0	10010.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.2	1.1
10°-20°	284.1	2.8
20°-30°	443.1	4.4
30°-40°	749.0	7.5
40°-50°	1454.7	14.5
50°-60°	2442.9	24.4
60°-70°	2915.4	29.1
70°-80°	1536.4	15.3
80°-90°	78.1	0.8
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°	10010.0	100.0
0°-180°	10010.0	100.0

Coefficient of Utilization



REPORT NUMBER: P231237

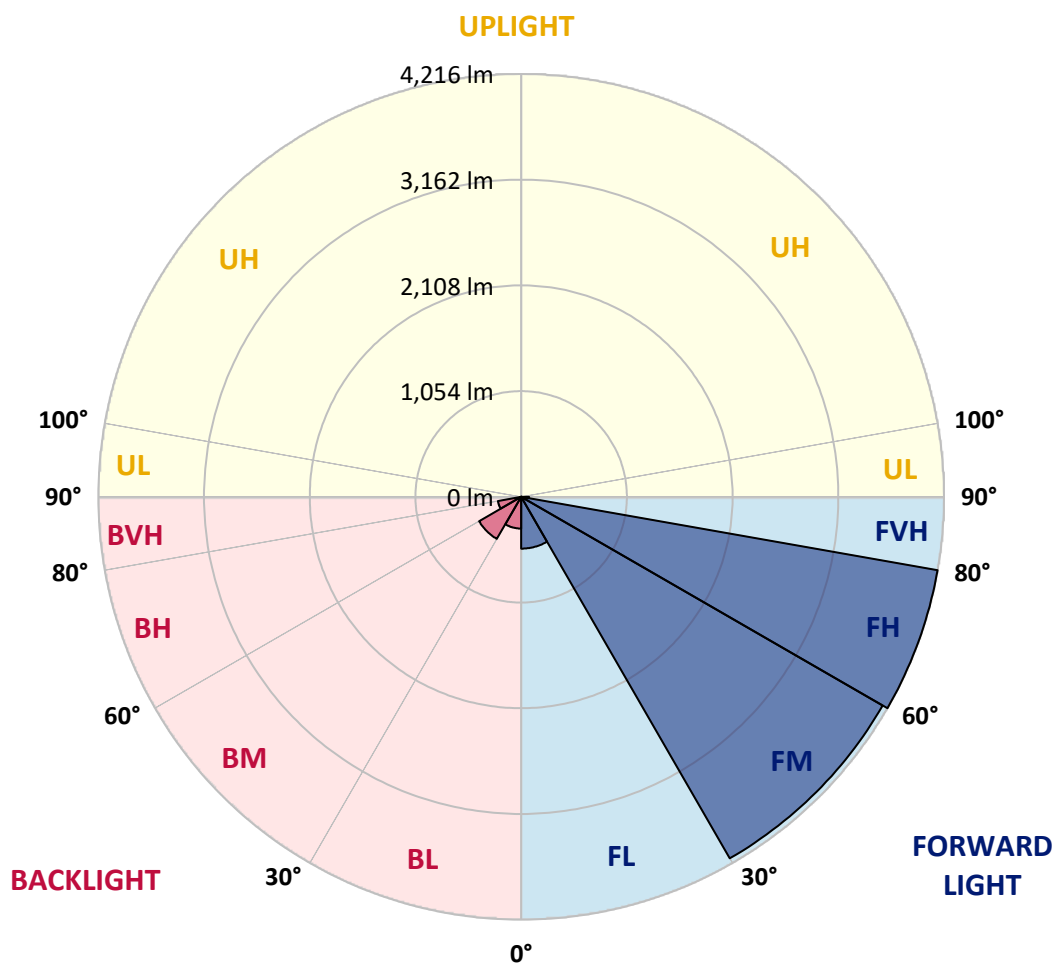
CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7050-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	516.8	5.2			
FM	(30°-60°)	4162.2	41.6			
FH	(60°-80°)	4216.3	42.1			G2/5000
FVH	(80°-90°)	77.3	0.8			G1/100
BL	(0°-30°)	316.7	3.2	B1/500		
BM	(30°-60°)	484.4	4.8	B1/1000		
BH	(60°-80°)	235.6	2.4	B1/500		G1/500
BVH	(80°-90°)	0.7	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type III Medium





REPORT NUMBER: P231237

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7050-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3
2.5°	1115.0	1115.0	1115.0	1117.3	1119.6	1119.6	1124.3	1122.0	1122.0	1122.0	1126.6
5°	1084.6	1087.0	1089.3	1094.0	1103.3	1110.3	1122.0	1122.0	1124.3	1128.9	1131.3
7.5°	1042.6	1045.0	1052.0	1061.3	1080.0	1096.3	1115.0	1119.6	1126.6	1138.3	1142.9
10°	1017.0	1021.7	1031.0	1042.6	1063.6	1084.6	1108.0	1115.0	1135.9	1156.9	1168.6
12.5°	1010.0	1012.3	1021.7	1040.3	1066.0	1091.6	1122.0	1128.9	1159.3	1191.9	1210.6
15°	1021.7	1024.0	1028.7	1049.6	1080.0	1112.6	1152.3	1161.6	1198.9	1236.2	1259.6
17.5°	1042.6	1042.6	1047.3	1066.0	1098.6	1135.9	1187.3	1201.3	1243.2	1285.2	1310.9
20°	1056.6	1056.6	1063.6	1082.3	1119.6	1168.6	1229.2	1247.9	1294.6	1341.2	1364.5
22.5°	1070.6	1073.0	1080.0	1101.0	1142.9	1210.6	1280.6	1299.2	1352.9	1401.9	1425.2
25°	1110.3	1108.0	1110.3	1128.9	1177.9	1261.9	1350.5	1373.9	1429.8	1483.5	1495.2
27.5°	1219.9	1215.3	1184.9	1173.3	1210.6	1315.6	1439.2	1462.5	1527.8	1581.5	1581.5
30°	1471.8	1462.5	1387.9	1292.2	1261.9	1364.5	1523.1	1555.8	1639.8	1686.4	1672.4
32.5°	1791.4	1770.4	1674.8	1511.5	1390.2	1429.8	1611.8	1649.1	1756.4	1796.1	1765.7
35°	2141.3	2138.9	2020.0	1810.1	1637.4	1565.1	1726.1	1770.4	1905.7	1940.7	1891.7
37.5°	2512.1	2521.5	2442.2	2152.9	1950.0	1786.7	1877.7	1929.0	2094.6	2136.6	2090.0
40°	2925.0	2922.7	2892.3	2549.5	2325.5	2101.6	2097.0	2143.6	2344.2	2409.5	2344.2
42.5°	3447.5	3442.8	3333.2	3025.3	2780.4	2512.1	2416.5	2432.8	2656.8	2764.1	2668.4
45°	3979.3	3946.7	3820.7	3554.8	3337.9	3020.6	2838.7	2838.7	3030.0	3176.9	3027.6
47.5°	4275.5	4242.9	4191.6	4044.6	3979.3	3624.8	3356.5	3323.9	3473.2	3622.4	3412.5
50°	4665.1	4665.1	4536.8	4480.8	4592.8	4343.2	3928.0	3895.3	3967.7	4086.6	3811.4
52.5°	4973.0	4917.0	4826.0	4875.0	5194.6	5080.3	4499.5	4436.5	4492.5	4522.8	4158.9
55°	5101.3	5047.6	5040.6	5220.2	5714.7	5556.1	5084.9	5029.0	5024.3	4875.0	4462.1
57.5°	5126.9	5080.3	5168.9	5483.8	6220.9	5945.6	5668.1	5626.1	5495.5	5122.3	4772.4
60°	4910.0	4933.3	5147.9	5628.4	6519.4	6283.9	6160.2	6115.9	5815.0	5332.2	5117.6
62.5°	4464.5	4520.5	4921.7	5642.4	6409.8	6421.5	6433.1	6402.8	6062.3	5523.5	5465.1
65°	3937.3	3953.7	4436.5	5448.8	6218.6	6379.5	6633.7	6631.4	6251.2	5738.0	5857.0
67.5°	3244.6	3272.6	3690.1	4795.7	5836.0	6360.8	6897.3	6890.3	6465.8	5983.0	6090.3
70°	2414.2	2449.2	2787.4	3729.7	4982.3	6127.6	7242.5	7247.2	6692.1	6169.6	5929.3
71°	1882.4	1945.3	2299.9	3167.6	4546.1	5892.0	7275.2	7317.2	6717.7	6143.9	5598.1
72.5°	923.7	998.3	1443.8	2229.9	3741.4	5364.8	7060.6	7142.2	6556.8	5824.4	4786.4
75°	240.3	254.2	431.5	912.0	2006.0	3554.8	5693.7	5901.3	5360.2	4434.2	2925.0
77.5°	151.6	156.3	202.9	354.5	751.1	1350.5	3344.9	3447.5	3062.6	2246.2	1031.0
80°	107.3	109.6	128.3	228.6	438.5	394.2	1203.6	1247.9	1108.0	594.8	184.3
82.5°	65.3	65.3	93.3	147.0	270.6	214.6	317.2	338.2	298.6	165.6	60.6
85°	37.3	39.7	58.3	100.3	128.3	105.0	119.0	126.0	128.3	109.6	25.7
87.5°	30.3	32.7	51.3	84.0	70.0	51.3	51.3	53.6	56.0	65.3	11.7
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: P231237

CATALOG NUMBER: ARCH-M-AF48-100-D-U-T3-7050-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3	1131.3
2.5°	1126.6	1126.6	1128.9	1126.6	1126.6	1126.6	1128.9	1128.9	1128.9	1133.6	1135.9
5°	1131.3	1131.3	1131.3	1128.9	1126.6	1126.6	1131.3	1133.6	1133.6	1140.6	1140.6
7.5°	1142.9	1142.9	1138.3	1133.6	1128.9	1122.0	1124.3	1126.6	1124.3	1126.6	1126.6
10°	1168.6	1168.6	1161.6	1152.3	1138.3	1117.3	1089.3	1054.3	1021.7	1010.0	1005.3
12.5°	1210.6	1208.3	1194.3	1177.9	1147.6	1075.3	970.3	846.7	744.1	716.1	706.8
15°	1257.2	1252.6	1236.2	1208.3	1126.6	935.3	716.1	557.5	459.5	436.2	431.5
17.5°	1306.2	1299.2	1275.9	1219.9	1031.0	695.1	461.8	349.9	296.2	291.6	293.9
20°	1357.5	1348.2	1315.6	1196.6	832.7	464.2	298.6	270.6	265.9	265.9	268.2
22.5°	1415.9	1404.2	1359.9	1112.6	606.5	307.9	256.6	254.2	251.9	249.6	249.6
25°	1483.5	1469.5	1401.9	961.0	417.5	251.9	244.9	237.9	233.3	228.6	226.3
27.5°	1565.1	1546.5	1434.5	774.4	286.9	235.6	230.9	219.3	209.9	200.6	200.6
30°	1646.8	1623.4	1425.2	583.1	233.3	219.3	209.9	195.9	181.9	172.6	170.3
32.5°	1733.1	1709.8	1364.5	391.9	212.3	200.6	188.9	167.9	151.6	140.0	137.6
35°	1861.4	1842.7	1245.6	258.9	191.3	177.3	160.9	140.0	119.0	107.3	105.0
37.5°	2052.6	2029.3	1098.6	198.3	167.9	147.0	133.0	109.6	88.6	77.0	74.6
40°	2309.2	2239.2	923.7	174.9	147.0	121.3	102.6	79.3	63.0	56.0	56.0
42.5°	2607.8	2442.2	734.8	158.6	130.6	100.3	74.6	53.6	44.3	42.0	42.0
45°	2925.0	2631.1	545.8	147.0	114.3	79.3	53.6	37.3	32.7	30.3	30.3
47.5°	3251.6	2785.1	380.2	133.0	95.6	60.6	37.3	28.0	23.3	21.0	21.0
50°	3557.1	2885.4	268.2	119.0	81.6	44.3	28.0	21.0	16.3	16.3	16.3
52.5°	3769.4	2876.0	193.6	102.6	63.0	30.3	18.7	14.0	14.0	14.0	14.0
55°	3956.0	2841.0	151.6	88.6	49.0	21.0	14.0	11.7	11.7	9.3	9.3
57.5°	4114.6	2785.1	128.3	72.3	35.0	16.3	9.3	9.3	7.0	7.0	7.0
60°	4249.9	2715.1	107.3	60.6	23.3	11.7	7.0	4.7	4.7	2.3	4.7
62.5°	4434.2	2670.8	93.3	46.7	16.3	7.0	4.7	2.3	2.3	0.0	0.0
65°	4569.4	2586.8	79.3	32.7	9.3	4.7	2.3	2.3	0.0	0.0	0.0
67.5°	4574.1	2435.2	58.3	18.7	7.0	4.7	2.3	0.0	0.0	0.0	0.0
70°	4205.6	2076.0	37.3	9.3	4.7	2.3	2.3	0.0	0.0	0.0	0.0
71°	3867.4	1838.0	30.3	7.0	4.7	2.3	0.0	0.0	0.0	0.0	0.0
72.5°	3186.2	1350.5	23.3	7.0	2.3	2.3	0.0	0.0	0.0	0.0	0.0
75°	1756.4	489.8	11.7	4.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	562.1	149.3	7.0	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	95.6	23.3	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	32.7	9.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	9.3	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	4.7	2.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)