

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: P258184

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2U-7030-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258184  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-3)  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-M-AF48-110-D-U-T2U-7030-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9590.8 lumens  
Efficiency: N/A  
Efficacy: 86.4 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - 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

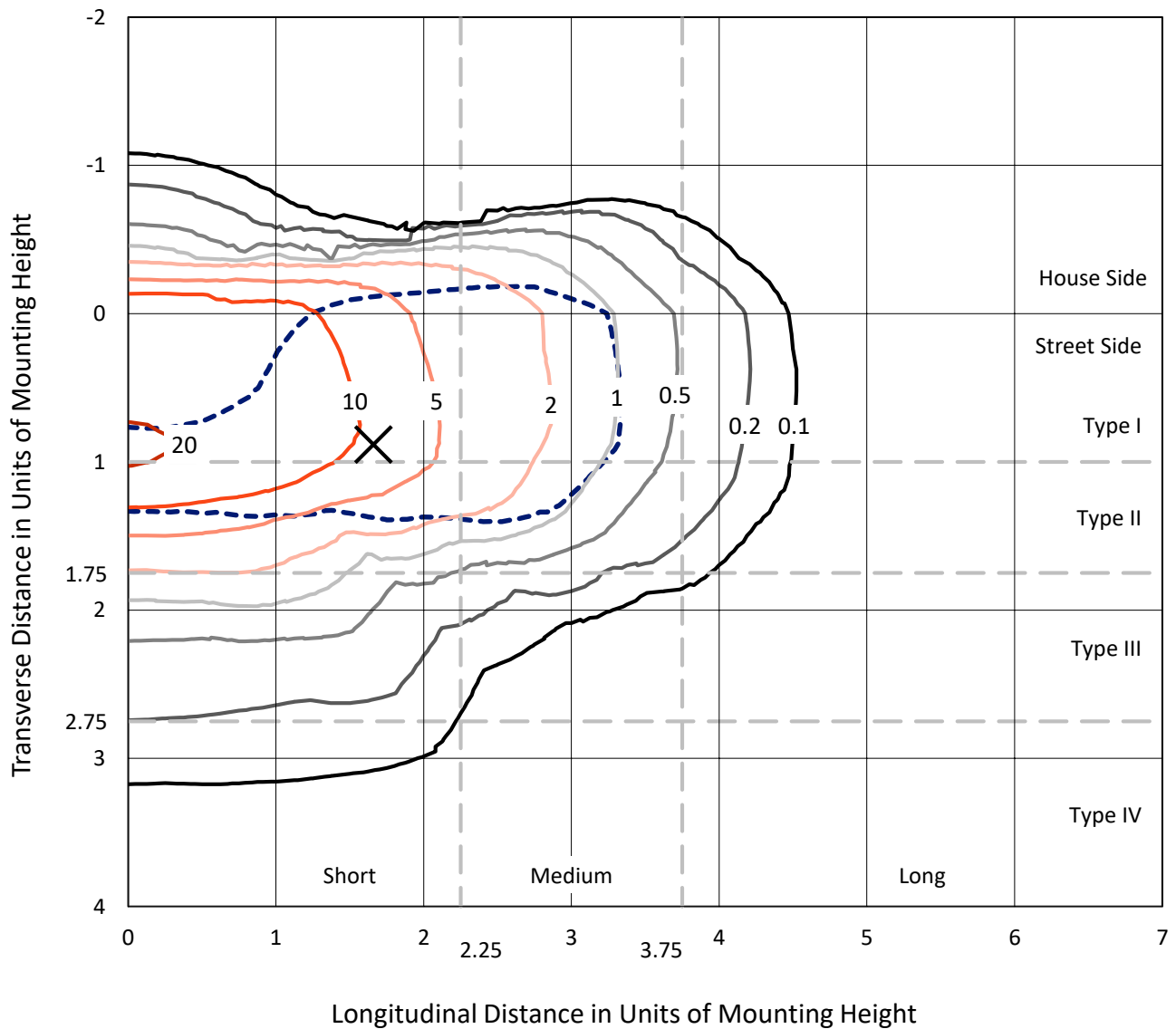


REPORT NUMBER: P258184

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030-HSS

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

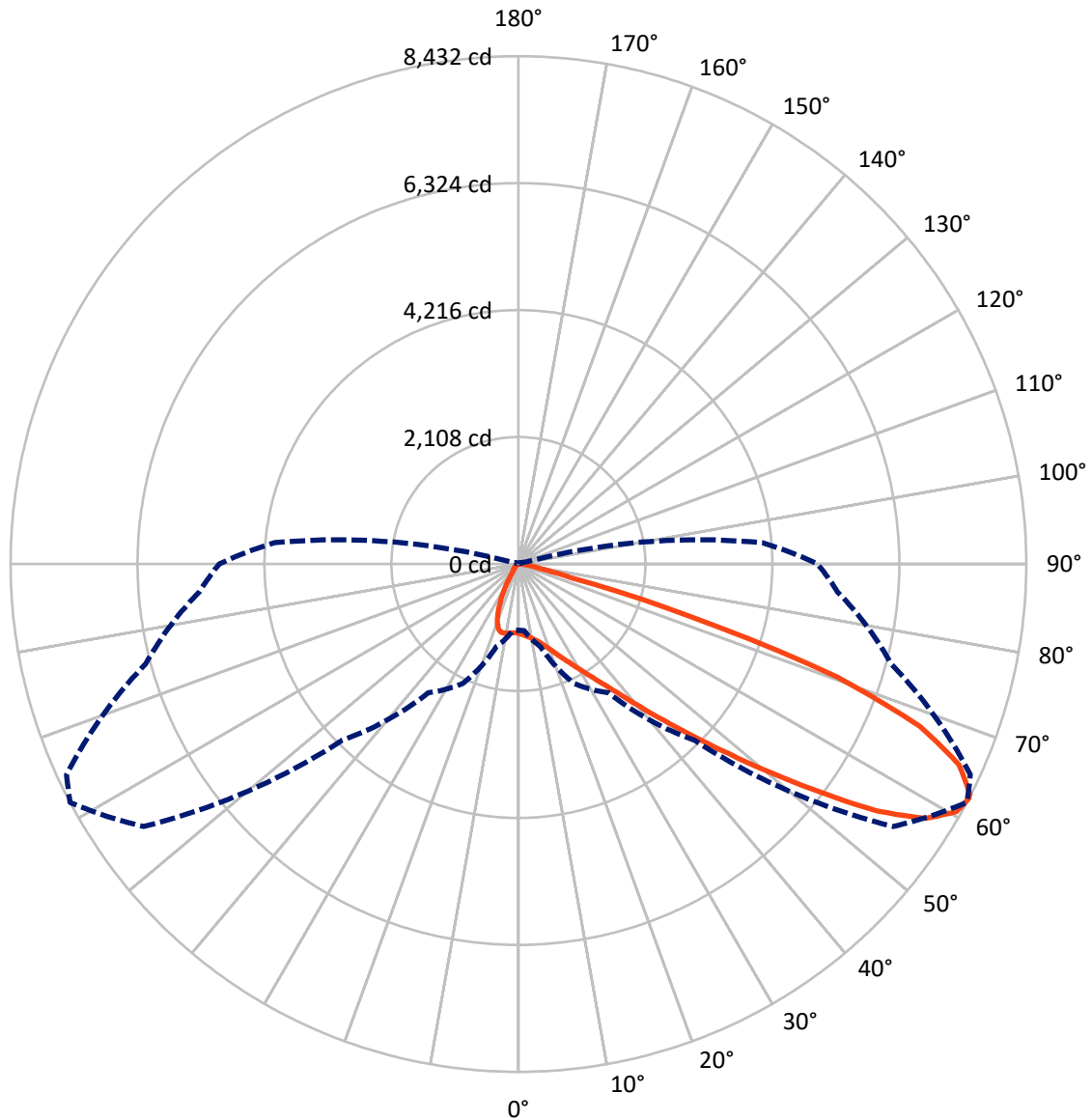


Based on 10 foot mounting height. Maximum calculated value = 22.1 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P258184

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 62-Deg Lateral      - - - Horizontal Cone Through 62-Deg Vertical

REPORT NUMBER: P258184

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030-HSS

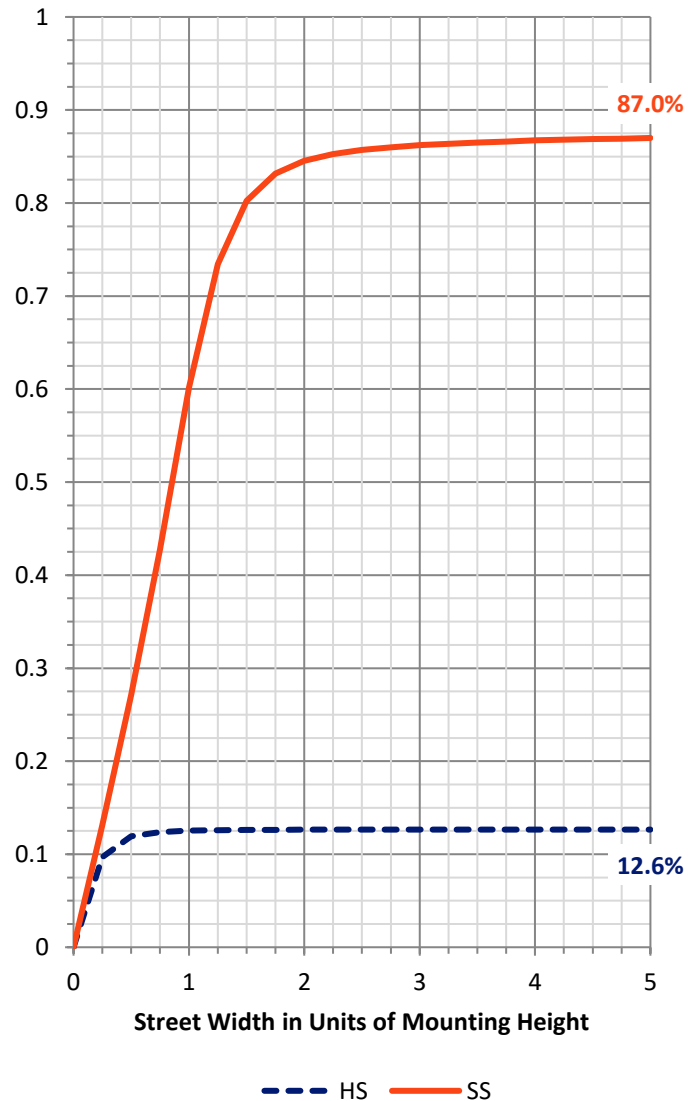
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1226.3	0.0	1226.3
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	8364.5	0.0	8364.5
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	9590.8	0.0	9590.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	111.2	1.2
10°-20°	310.5	3.2
20°-30°	521.5	5.4
30°-40°	999.6	10.4
40°-50°	2041.6	21.3
50°-60°	2701.8	28.2
60°-70°	2098.8	21.9
70°-80°	757.6	7.9
80°-90°	48.3	0.5
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°	9590.8	100.0
0°-180°	9590.8	100.0



REPORT NUMBER: P258184

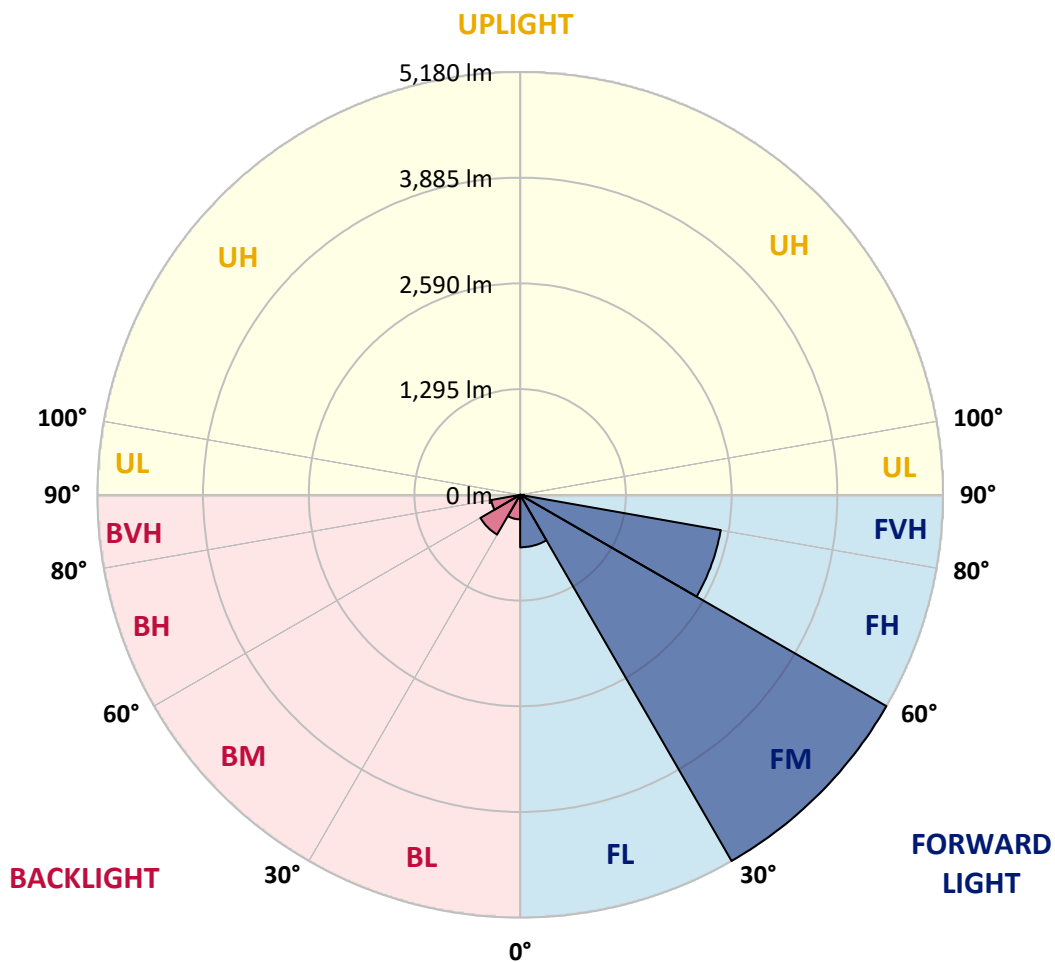
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	643.0	6.7			
FM (30°-60°)	5180.0	54.0			
FH (60°-80°)	2495.3	26.0			G2/5000
FVH (80°-90°)	46.2	0.5			G1/100
BL (0°-30°)	300.1	3.1	B1/500		
BM (30°-60°)	563.0	5.9	B1/1000		
BH (60°-80°)	361.1	3.8	B1/500		G1/500
BVH (80°-90°)	2.1	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 II Short





REPORT NUMBER: P258184

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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3
2.5°	1186.0	1183.6	1181.3	1178.9	1178.9	1176.5	1174.2	1169.5	1164.8	1160.0	1157.7
5°	1207.2	1204.8	1202.5	1204.8	1202.5	1202.5	1200.1	1195.4	1190.7	1183.6	1176.5
7.5°	1223.7	1221.3	1219.0	1221.3	1223.7	1226.1	1228.4	1223.7	1221.3	1211.9	1204.8
10°	1244.9	1242.6	1240.2	1244.9	1244.9	1256.7	1259.1	1256.7	1254.4	1247.3	1235.5
12.5°	1275.6	1277.9	1277.9	1282.7	1287.4	1301.5	1306.2	1299.2	1299.2	1289.7	1275.6
15°	1332.2	1332.2	1332.2	1336.9	1339.2	1358.1	1362.8	1355.8	1360.5	1344.0	1329.8
17.5°	1386.4	1388.8	1393.5	1402.9	1402.9	1419.4	1428.9	1428.9	1438.3	1417.1	1398.2
20°	1440.6	1443.0	1450.1	1471.2	1471.2	1492.5	1509.0	1516.1	1525.5	1504.3	1471.2
22.5°	1499.6	1499.6	1511.4	1544.4	1537.3	1579.8	1610.4	1622.2	1631.6	1603.3	1551.5
25°	1589.1	1579.8	1589.1	1619.9	1615.1	1674.1	1730.6	1742.4	1754.2	1721.2	1643.4
27.5°	1759.0	1744.8	1711.8	1714.2	1714.2	1782.6	1862.7	1879.2	1886.3	1858.0	1761.3
30°	2098.5	2098.5	1975.9	1893.4	1839.1	1900.4	2013.5	2041.8	2051.4	2008.8	1881.6
32.5°	2690.3	2690.3	2463.9	2254.1	2048.9	2048.9	2178.6	2230.5	2240.0	2190.4	2041.8
35°	3444.8	3440.0	3100.6	2812.9	2412.0	2261.1	2372.0	2459.2	2487.5	2421.5	2249.3
37.5°	4246.5	4215.8	3850.3	3520.3	2970.9	2600.7	2633.7	2749.2	2775.1	2720.9	2518.2
40°	4897.2	4861.8	4567.1	4291.2	3692.3	3143.0	3010.9	3117.0	3147.6	3072.3	2838.8
42.5°	5486.7	5399.4	5196.7	4998.6	4522.3	4081.4	3513.1	3555.7	3588.6	3508.5	3199.5
45°	5913.4	5779.0	5675.3	5614.0	5361.7	5111.8	4163.9	4079.0	4090.7	3991.8	3593.3
47.5°	5925.2	5830.9	5840.4	6000.6	6104.5	6095.0	5010.4	4708.5	4663.7	4498.8	4013.0
50°	5359.3	5413.6	5585.7	6043.1	6604.2	6943.8	6017.1	5453.6	5319.3	5022.2	4430.4
52.5°	4416.3	4501.1	4824.2	5595.1	6677.4	7502.7	7061.7	6304.8	6064.3	5540.9	4751.0
55°	3458.9	3463.6	3803.2	4588.4	6189.3	7604.0	7896.3	7240.8	6873.1	5934.6	4963.2
57.5°	2379.0	2508.7	2940.1	3468.3	5088.2	7099.4	8210.0	7967.0	7493.2	6177.5	5111.8
60°	1558.5	1565.5	2067.8	2678.5	3463.6	5776.6	8019.0	8351.4	7995.4	6321.3	5213.2
62°	1098.7	1110.5	1421.8	2188.0	2610.1	4140.4	7596.9	8431.5	8278.3	6406.2	5319.3
62.5°	1018.7	1028.0	1289.7	2065.4	2452.1	3713.6	7446.0	8412.8	8320.7	6434.5	5357.0
65°	747.5	747.5	844.1	1419.4	1796.7	2006.5	6309.5	8037.8	8264.2	6660.9	5498.5
67.5°	577.7	582.4	615.3	874.7	1355.8	1216.6	4027.2	7193.7	7674.7	6995.7	5578.6
70°	497.4	495.2	518.8	580.0	978.5	808.7	1773.1	5614.0	6427.4	6910.7	5505.6
72.5°	367.7	370.2	424.4	509.2	681.4	525.7	801.6	2980.3	4168.7	5408.9	4718.1
75°	235.8	238.1	299.5	400.9	490.5	344.2	462.1	889.0	1707.0	2999.1	2886.0
77.5°	158.0	162.7	195.7	280.6	429.2	214.5	290.0	372.6	513.9	1124.8	1035.1
80°	106.1	106.1	125.0	188.6	271.2	179.1	155.5	247.6	266.5	349.0	174.5
82.5°	70.7	70.7	82.5	125.0	176.9	160.3	94.3	134.4	155.5	174.5	61.3
85°	42.4	42.4	56.6	77.8	115.5	89.6	61.3	75.5	80.2	110.8	33.0
87.5°	25.9	23.6	37.7	54.2	61.3	54.2	40.1	40.1	42.4	61.3	16.5
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: P258184

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2U-7030-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3	1155.3
2.5°	1153.0	1150.6	1148.4	1143.5	1136.6	1131.7	1127.0	1122.3	1117.6	1117.6	1124.8
5°	1174.2	1167.1	1157.7	1148.4	1134.1	1124.8	1117.6	1108.2	1103.4	1103.4	1105.8
7.5°	1200.1	1193.1	1176.5	1160.0	1138.8	1122.3	1105.8	1084.6	1068.1	1061.0	1068.1
10°	1228.4	1219.0	1195.4	1169.5	1145.9	1103.4	1049.2	983.3	926.6	900.8	912.5
12.5°	1263.8	1252.0	1223.7	1188.3	1134.1	1030.5	895.9	742.8	646.0	601.3	610.6
15°	1315.7	1299.2	1259.1	1204.8	1084.6	860.6	641.4	464.5	374.9	337.2	341.9
17.5°	1377.0	1355.8	1301.5	1200.1	957.3	620.1	382.0	271.2	233.4	224.0	224.0
20°	1443.0	1414.7	1344.0	1164.8	763.9	389.1	238.1	207.5	193.4	186.3	186.3
22.5°	1511.4	1473.7	1379.3	1082.2	544.6	242.9	195.7	174.5	158.0	150.9	150.9
25°	1593.9	1544.4	1414.7	938.4	346.6	195.7	167.3	146.2	129.7	120.3	122.6
27.5°	1690.6	1626.9	1445.4	759.3	224.0	169.8	139.1	117.9	103.8	99.0	99.0
30°	1792.0	1716.5	1452.4	568.2	181.6	146.2	115.5	96.7	87.2	82.5	82.5
32.5°	1931.0	1832.1	1431.2	377.3	153.3	122.6	96.7	80.2	73.1	70.7	70.7
35°	2114.9	1982.9	1381.7	233.4	129.7	101.4	80.2	70.7	63.7	61.3	61.3
37.5°	2348.4	2192.8	1294.4	160.3	110.8	82.5	68.4	61.3	56.6	54.2	54.2
40°	2659.6	2447.4	1181.3	139.1	94.3	70.7	59.0	54.2	49.5	49.5	49.5
42.5°	2989.8	2756.3	1035.1	122.6	80.2	61.3	51.9	47.2	44.8	42.4	42.4
45°	3350.4	3072.3	853.6	108.5	68.4	54.2	47.2	40.1	37.7	37.7	37.7
47.5°	3708.8	3397.6	655.4	94.3	59.0	47.2	40.1	35.4	33.0	30.7	30.7
50°	4076.7	3692.3	481.0	82.5	51.9	42.4	35.4	30.7	25.9	23.6	23.6
52.5°	4343.2	3869.2	351.3	70.7	44.8	35.4	28.3	23.6	18.9	16.5	16.5
55°	4538.8	3977.7	257.0	59.0	40.1	30.7	23.6	18.9	14.1	14.1	11.8
57.5°	4692.0	4029.5	193.4	51.9	35.4	25.9	18.9	14.1	11.8	9.4	9.4
60°	4809.9	4031.8	143.7	42.4	30.7	21.2	14.1	9.4	7.1	7.1	7.1
62°	4965.7	4062.5	117.9	35.4	28.3	18.9	11.8	7.1	4.7	2.4	2.4
62.5°	5010.4	4074.3	113.2	35.4	25.9	16.5	9.4	7.1	4.7	2.4	2.4
65°	5217.9	4095.6	87.2	28.3	21.2	14.1	7.1	4.7	0.0	0.0	0.0
67.5°	5406.4	4062.5	63.7	21.2	16.5	9.4	7.1	2.4	0.0	0.0	0.0
70°	5387.7	3836.2	44.8	14.1	11.8	7.1	4.7	0.0	0.0	0.0	0.0
72.5°	4439.8	2871.9	30.7	11.8	7.1	4.7	2.4	0.0	0.0	0.0	0.0
75°	2680.9	1256.7	21.2	7.1	7.1	4.7	2.4	0.0	0.0	0.0	0.0
77.5°	879.4	455.1	14.1	4.7	4.7	2.4	2.4	0.0	0.0	0.0	0.0
80°	143.7	75.5	7.1	4.7	4.7	2.4	2.4	0.0	0.0	0.0	0.0
82.5°	44.8	18.9	4.7	4.7	2.4	2.4	0.0	0.0	0.0	0.0	0.0
85°	16.5	7.1	4.7	4.7	2.4	2.4	0.0	0.0	0.0	0.0	0.0
87.5°	7.1	4.7	4.7	4.7	2.4	2.4	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)