

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: P265854

Luminaire Tested: **ARCH-M-AF48-150-D-U-T2U-7027-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265854  
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-AF48-150-D-U-T2U-7027-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 970mA 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: 10785.5 lumens  
Efficiency: N/A  
Efficacy: 71.4 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): 151  
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

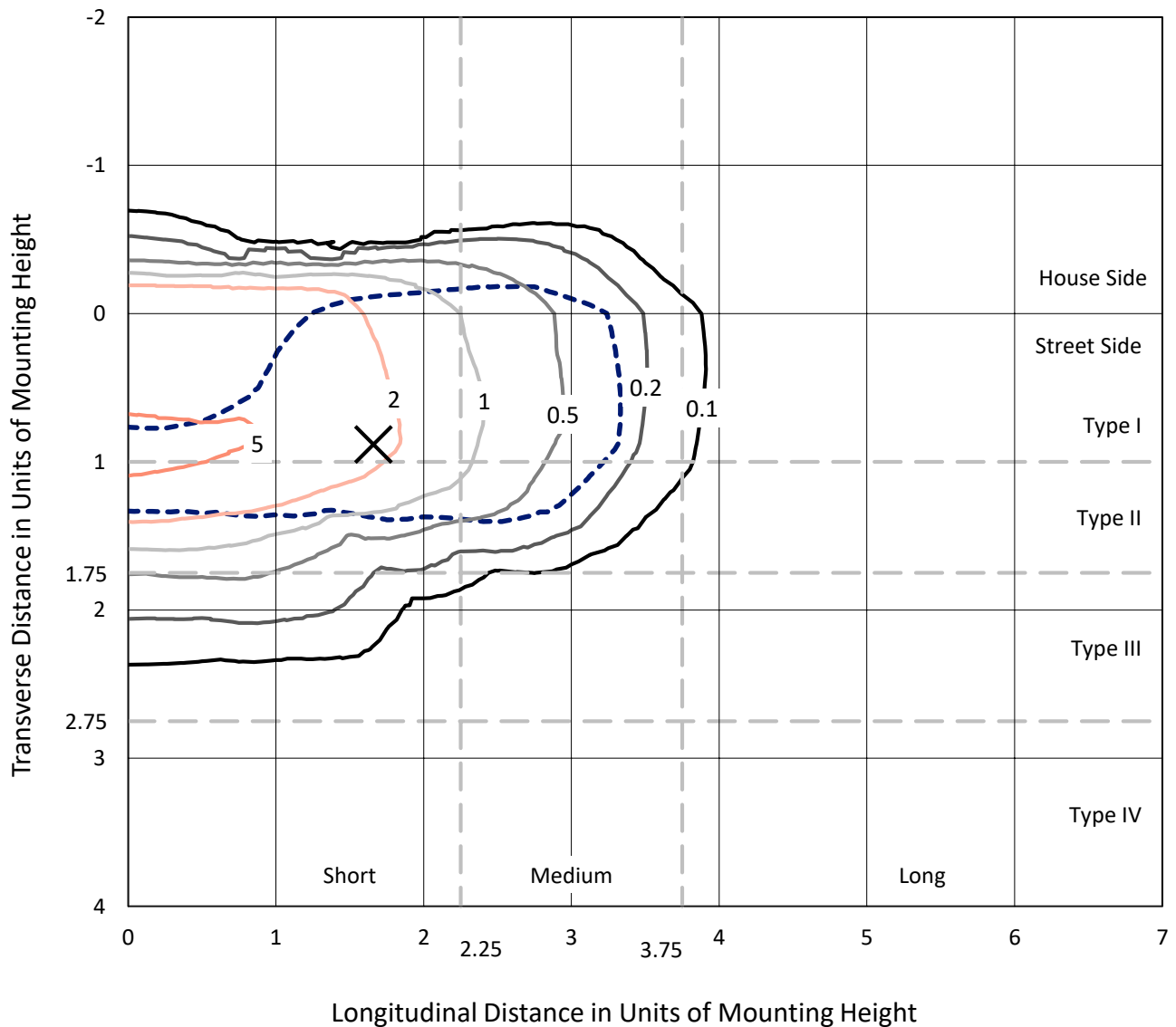


REPORT NUMBER: P265854

CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-7027-HSS

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

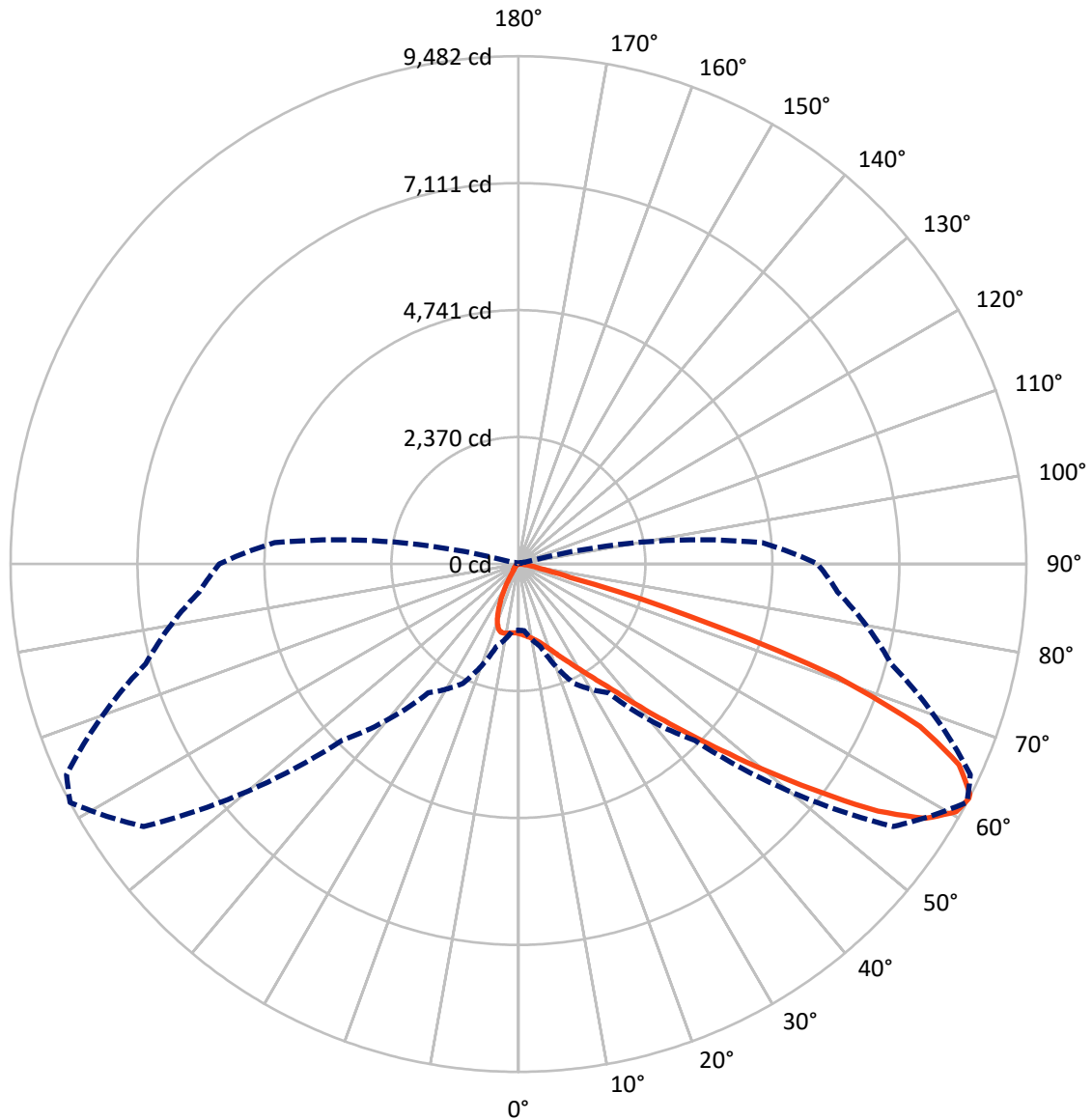


Based on 20 foot mounting height. Maximum calculated value = 6.2 fc  
 Type II - Short - Full Cutoff

REPORT NUMBER: P265854

CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-7027-HSS

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P265854

CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-7027-HSS

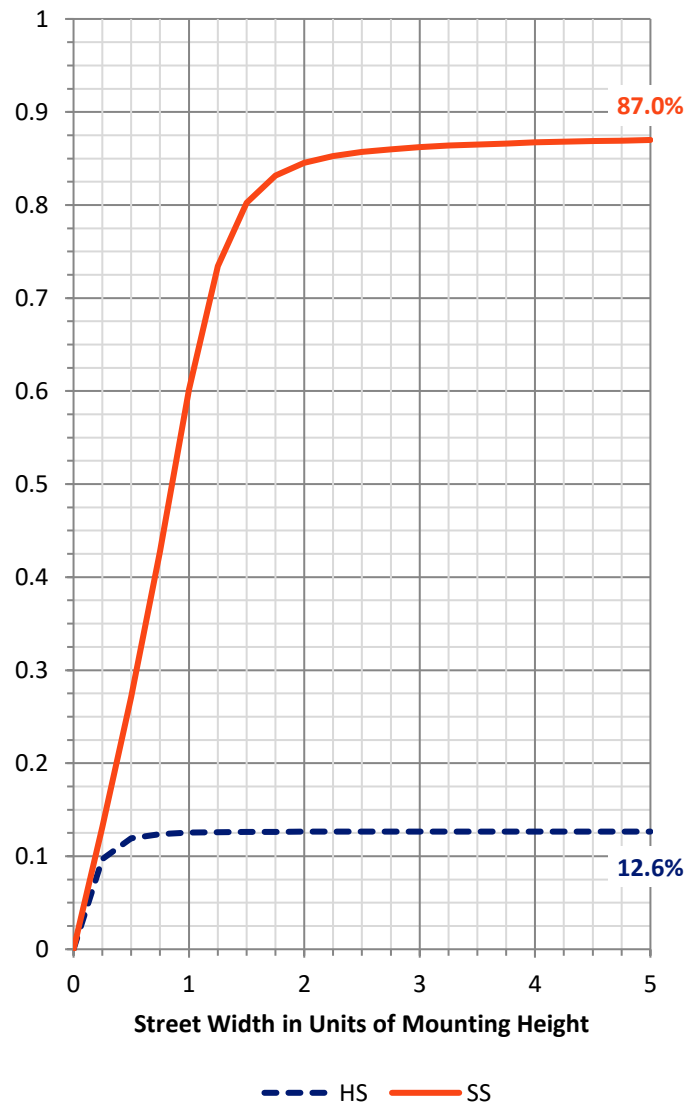
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1379.0	0.0	1379.0
	% Fixture	12.8	0.0	12.8
<b>Street Side</b>	Lumens	9406.5	0.0	9406.5
	% Fixture	87.2	0.0	87.2
<b>Total</b>	Lumens	10785.5	0.0	10785.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	125.0	1.2
10°-20°	349.2	3.2
20°-30°	586.4	5.4
30°-40°	1124.1	10.4
40°-50°	2295.9	21.3
50°-60°	3038.3	28.2
60°-70°	2360.3	21.9
70°-80°	851.9	7.9
80°-90°	54.3	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°	10785.5	100.0
0°-180°	10785.5	100.0



REPORT NUMBER: P265854

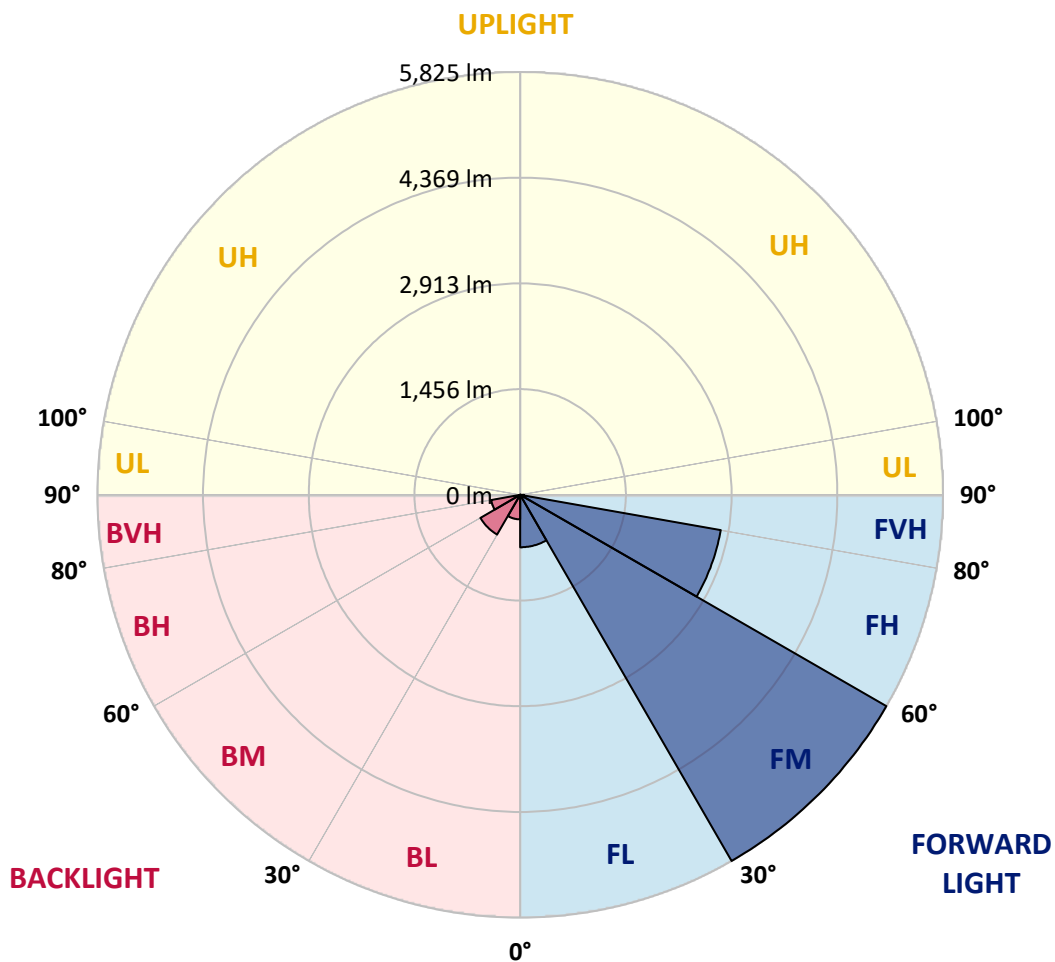
CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-7027-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	723.1	6.7			
FM	(30°-60°)	5825.3	54.0			
FH	(60°-80°)	2806.2	26.0			G2/5000
FVH	(80°-90°)	51.9	0.5			G1/100
BL	(0°-30°)	337.5	3.1	B1/500		
BM	(30°-60°)	633.1	5.9	B1/1000		
BH	(60°-80°)	406.1	3.8	B1/500		G1/500
BVH	(80°-90°)	2.4	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: P265854

CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-7027-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	62°	65°	75°	85°
0°	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3
2.5°	1333.8	1331.1	1328.5	1325.8	1325.8	1323.2	1320.5	1315.2	1309.9	1304.6	1302.0
5°	1357.6	1355.0	1352.3	1355.0	1352.3	1352.3	1349.7	1344.4	1339.1	1331.1	1323.2
7.5°	1376.2	1373.5	1370.9	1373.5	1376.2	1378.8	1381.5	1376.2	1373.5	1362.9	1355.0
10°	1400.0	1397.4	1394.7	1400.0	1400.0	1413.3	1415.9	1413.3	1410.6	1402.7	1389.4
12.5°	1434.5	1437.1	1437.1	1442.5	1447.8	1463.7	1469.0	1461.1	1461.1	1450.5	1434.5
15°	1498.2	1498.2	1498.2	1503.5	1506.1	1527.3	1532.6	1524.7	1530.0	1511.4	1495.5
17.5°	1559.1	1561.8	1567.1	1577.7	1577.7	1596.2	1606.9	1606.9	1617.5	1593.6	1572.4
20°	1620.2	1622.8	1630.8	1654.6	1654.6	1678.5	1697.0	1705.0	1715.6	1691.7	1654.6
22.5°	1686.4	1686.4	1699.7	1736.8	1728.8	1776.6	1811.1	1824.3	1834.9	1803.1	1744.7
25°	1787.2	1776.6	1787.2	1821.7	1816.4	1882.6	1946.3	1959.6	1972.8	1935.6	1848.2
27.5°	1978.1	1962.2	1925.0	1927.7	1927.7	2004.6	2094.7	2113.3	2121.3	2089.4	1980.8
30°	2359.8	2359.8	2222.0	2129.3	2068.2	2137.2	2264.4	2296.2	2306.8	2259.1	2116.0
32.5°	3025.4	3025.4	2770.8	2534.8	2304.2	2304.2	2449.9	2508.3	2518.9	2463.3	2296.2
35°	3873.9	3868.6	3486.9	3163.3	2712.5	2542.8	2667.4	2765.5	2797.4	2723.1	2529.5
37.5°	4775.4	4741.0	4330.0	3958.7	3340.9	2924.6	2961.8	3091.6	3120.8	3059.8	2831.8
40°	5507.2	5467.4	5136.0	4825.9	4152.3	3534.6	3386.0	3505.4	3539.9	3454.9	3192.4
42.5°	6170.1	6072.1	5844.1	5621.2	5085.7	4589.8	3950.7	3998.5	4035.6	3945.4	3598.2
45°	6650.1	6498.9	6382.3	6313.3	6029.7	5748.6	4682.7	4587.1	4600.4	4489.1	4040.9
47.5°	6663.3	6557.3	6567.9	6748.2	6864.8	6854.2	5634.4	5295.1	5244.8	5059.2	4512.9
50°	6027.0	6088.0	6281.5	6795.9	7426.9	7808.7	6766.8	6133.0	5981.9	5647.7	4982.2
52.5°	4966.3	5061.8	5425.0	6292.1	7509.1	8437.2	7941.3	7090.2	6819.8	6231.2	5342.8
55°	3889.8	3895.1	4276.9	5160.0	6960.2	8551.2	8880.0	8142.9	7729.2	6673.9	5581.4
57.5°	2675.4	2821.2	3306.5	3900.4	5722.1	7983.7	9232.7	8959.5	8426.6	6947.0	5748.6
60°	1752.7	1760.6	2325.4	3012.1	3895.1	6496.3	9017.8	9391.8	8991.3	7108.7	5862.6
62°	1235.6	1248.9	1598.9	2460.6	2935.2	4656.2	8543.3	9481.9	9309.6	7204.2	5981.9
62.5°	1145.5	1156.1	1450.5	2322.7	2757.5	4176.2	8373.6	9460.7	9357.3	7236.0	6024.4
65°	840.5	840.5	949.2	1596.2	2020.5	2256.5	7095.5	9039.0	9293.7	7490.5	6183.5
67.5°	649.7	655.0	692.1	983.7	1524.7	1368.2	4528.9	8089.9	8630.7	7867.1	6273.6
70°	559.5	556.8	583.3	652.3	1100.5	909.4	1994.0	6313.3	7228.1	7771.6	6191.4
72.5°	413.6	416.3	477.3	572.7	766.3	591.3	901.4	3351.5	4688.0	6082.7	5305.7
75°	265.2	267.9	336.8	450.8	551.5	387.1	519.7	999.6	1919.7	3372.7	3245.4
77.5°	177.7	183.0	220.1	315.6	482.6	241.3	326.2	418.9	578.0	1264.8	1164.1
80°	119.4	119.4	140.6	212.1	305.0	201.5	175.0	278.5	299.7	392.4	196.2
82.5°	79.5	79.5	92.9	140.6	198.9	180.3	106.1	151.2	175.0	196.2	68.9
85°	47.7	47.7	63.6	87.6	130.0	100.8	68.9	84.9	90.2	124.7	37.1
87.5°	29.1	26.5	42.4	60.9	68.9	60.9	45.0	45.0	47.7	68.9	18.5
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: P265854

CATALOG NUMBER: ARCH-M-AF48-150-D-U-T2U-7027-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3	1299.3
2.5°	1296.7	1294.0	1291.4	1286.1	1278.1	1272.8	1267.4	1262.1	1256.8	1256.8	1264.8
5°	1320.5	1312.6	1302.0	1291.4	1275.5	1264.8	1256.8	1246.2	1240.9	1240.9	1243.6
7.5°	1349.7	1341.7	1323.2	1304.6	1280.8	1262.1	1243.6	1219.7	1201.2	1193.2	1201.2
10°	1381.5	1370.9	1344.4	1315.2	1288.7	1240.9	1180.0	1105.8	1042.0	1012.8	1026.1
12.5°	1421.2	1408.0	1376.2	1336.4	1275.5	1158.8	1007.5	835.2	726.5	676.2	686.8
15°	1479.6	1461.1	1415.9	1355.0	1219.7	967.8	721.2	522.4	421.6	379.2	384.5
17.5°	1548.5	1524.7	1463.7	1349.7	1076.4	697.4	429.6	305.0	262.6	251.9	251.9
20°	1622.8	1590.9	1511.4	1309.9	859.0	437.6	267.9	233.3	217.4	209.5	209.5
22.5°	1699.7	1657.3	1551.2	1217.1	612.6	273.2	220.1	196.2	177.7	169.7	169.7
25°	1792.5	1736.8	1590.9	1055.2	389.8	220.1	188.3	164.4	145.9	135.3	137.9
27.5°	1901.2	1829.6	1625.5	853.7	251.9	190.9	156.5	132.6	116.7	111.4	111.4
30°	2015.2	1930.3	1633.4	639.1	204.2	164.4	130.0	108.8	98.2	92.9	92.9
32.5°	2171.7	2060.3	1609.6	424.3	172.4	137.9	108.8	90.2	82.1	79.5	79.5
35°	2378.4	2230.0	1553.8	262.6	145.9	114.1	90.2	79.5	71.5	68.9	68.9
37.5°	2640.9	2465.9	1455.8	180.3	124.7	92.9	76.8	68.9	63.6	60.9	60.9
40°	2990.9	2752.2	1328.5	156.5	106.1	79.5	66.3	60.9	55.7	55.7	55.7
42.5°	3362.1	3099.6	1164.1	137.9	90.2	68.9	58.3	53.0	50.3	47.7	47.7
45°	3767.9	3454.9	959.8	122.0	76.8	60.9	53.0	45.0	42.4	42.4	42.4
47.5°	4170.9	3820.9	737.1	106.1	66.3	53.0	45.0	39.7	37.1	34.5	34.5
50°	4584.5	4152.3	540.9	92.9	58.3	47.7	39.7	34.5	29.1	26.5	26.5
52.5°	4884.2	4351.2	395.1	79.5	50.3	39.7	31.8	26.5	21.2	18.5	18.5
55°	5104.2	4473.1	289.1	66.3	45.0	34.5	26.5	21.2	15.9	15.9	13.2
57.5°	5276.6	4531.5	217.4	58.3	39.7	29.1	21.2	15.9	13.2	10.6	10.6
60°	5409.1	4534.1	161.8	47.7	34.5	23.9	15.9	10.6	7.9	7.9	7.9
62°	5584.1	4568.6	132.6	39.7	31.8	21.2	13.2	7.9	5.3	2.6	2.6
62.5°	5634.4	4581.9	127.3	39.7	29.1	18.5	10.6	7.9	5.3	2.6	2.6
65°	5867.9	4605.7	98.2	31.8	23.9	15.9	7.9	5.3	0.0	0.0	0.0
67.5°	6080.0	4568.6	71.5	23.9	18.5	10.6	7.9	2.6	0.0	0.0	0.0
70°	6058.8	4314.1	50.3	15.9	13.2	7.9	5.3	0.0	0.0	0.0	0.0
72.5°	4992.9	3229.5	34.5	13.2	7.9	5.3	2.6	0.0	0.0	0.0	0.0
75°	3014.8	1413.3	23.9	7.9	7.9	5.3	2.6	0.0	0.0	0.0	0.0
77.5°	989.0	511.8	15.9	5.3	5.3	2.6	2.6	0.0	0.0	0.0	0.0
80°	161.8	84.9	7.9	5.3	5.3	2.6	2.6	0.0	0.0	0.0	0.0
82.5°	50.3	21.2	5.3	5.3	2.6	2.6	0.0	0.0	0.0	0.0	0.0
85°	18.5	7.9	5.3	5.3	2.6	2.6	0.0	0.0	0.0	0.0	0.0
87.5°	7.9	5.3	5.3	5.3	2.6	2.6	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)