

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: P231228

Luminaire Tested: **ARCH-M-AF48-140-D-U-T3-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231228  
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-AF48-140-D-U-T3-HSS  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 4000K, 905mA 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: 13065.1 lumens  
Efficiency: N/A  
Efficacy: 92.7 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 - G3

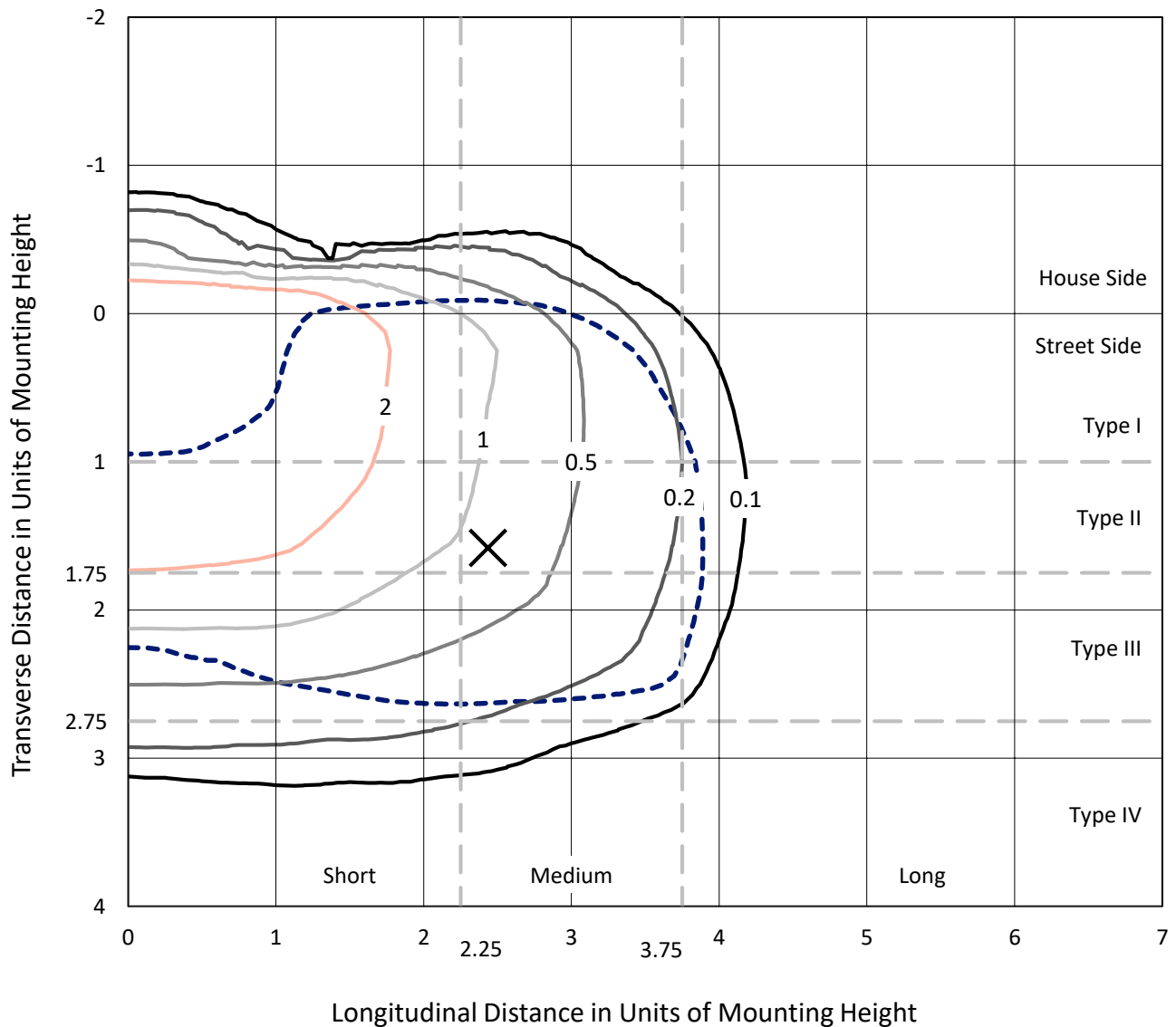
Input Watts (W): 141  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P231228  
 CATALOG NUMBER: ARCH-M-AF48-140-D-U-T3-HSS

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

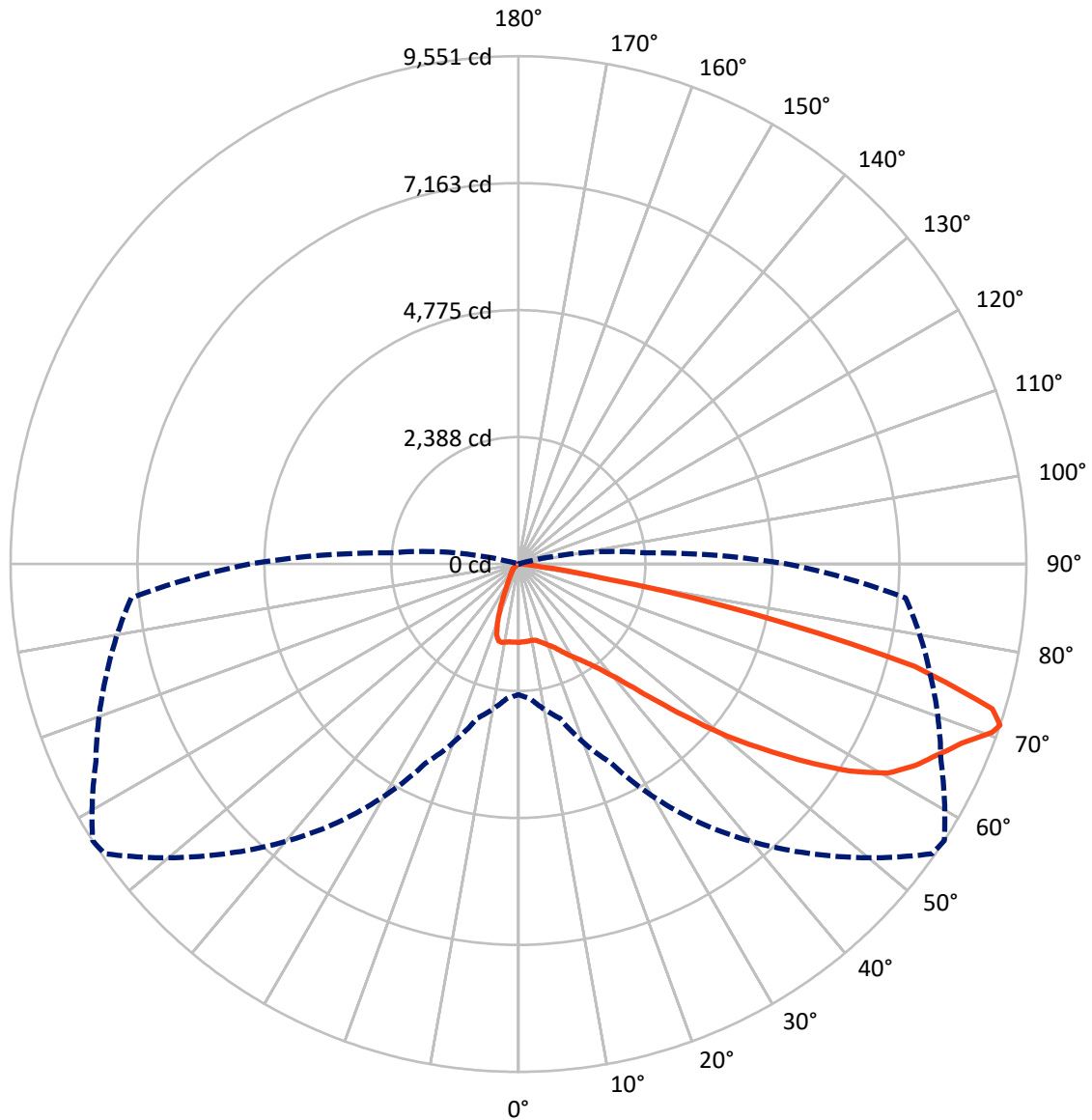


Based on 20 foot mounting height. Maximum calculated value = 4.6 fc  
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P231228

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T3-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 71-Deg Vertical

REPORT NUMBER: P231228

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T3-HSS

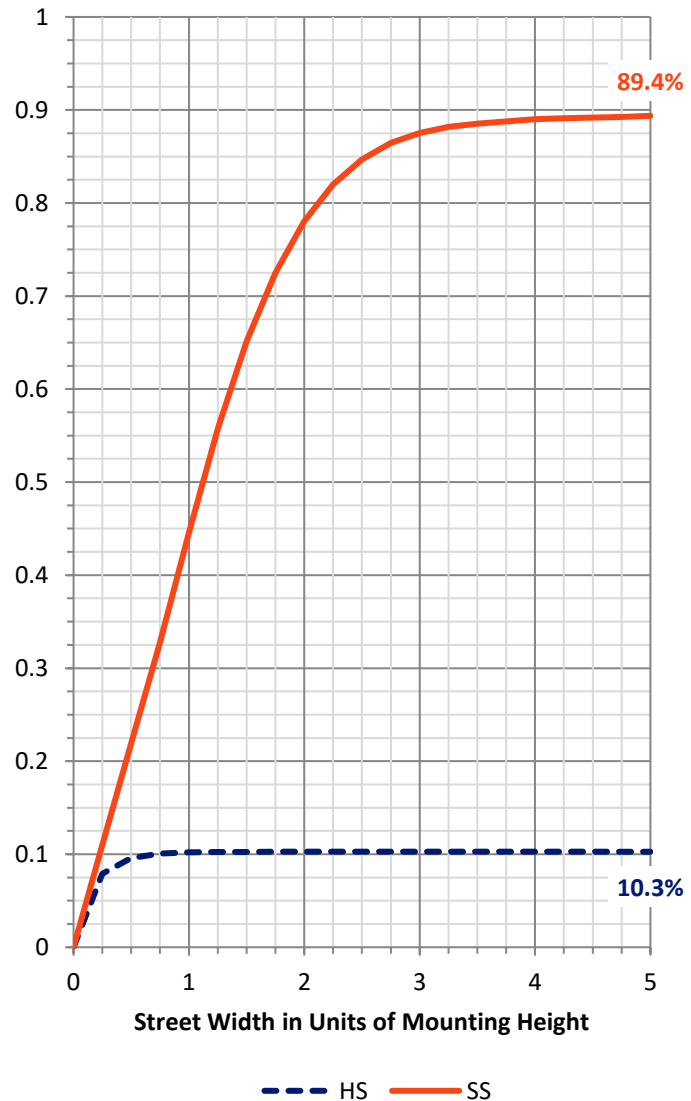
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1354.0	0.0	1354.0
	% Fixture	10.4	0.0	10.4
<b>Street Side</b>	Lumens	11711.2	0.0	11711.2
	% Fixture	89.6	0.0	89.6
<b>Total</b>	Lumens	13065.1	0.0	13065.1
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	138.7	1.1
10°-20°	370.8	2.8
20°-30°	578.4	4.4
30°-40°	977.6	7.5
40°-50°	1898.7	14.5
50°-60°	3188.5	24.4
60°-70°	3805.2	29.1
70°-80°	2005.4	15.3
80°-90°	101.9	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°	13065.1	100.0
0°-180°	13065.1	100.0

**Coefficient of Utilization**



REPORT NUMBER: P231228

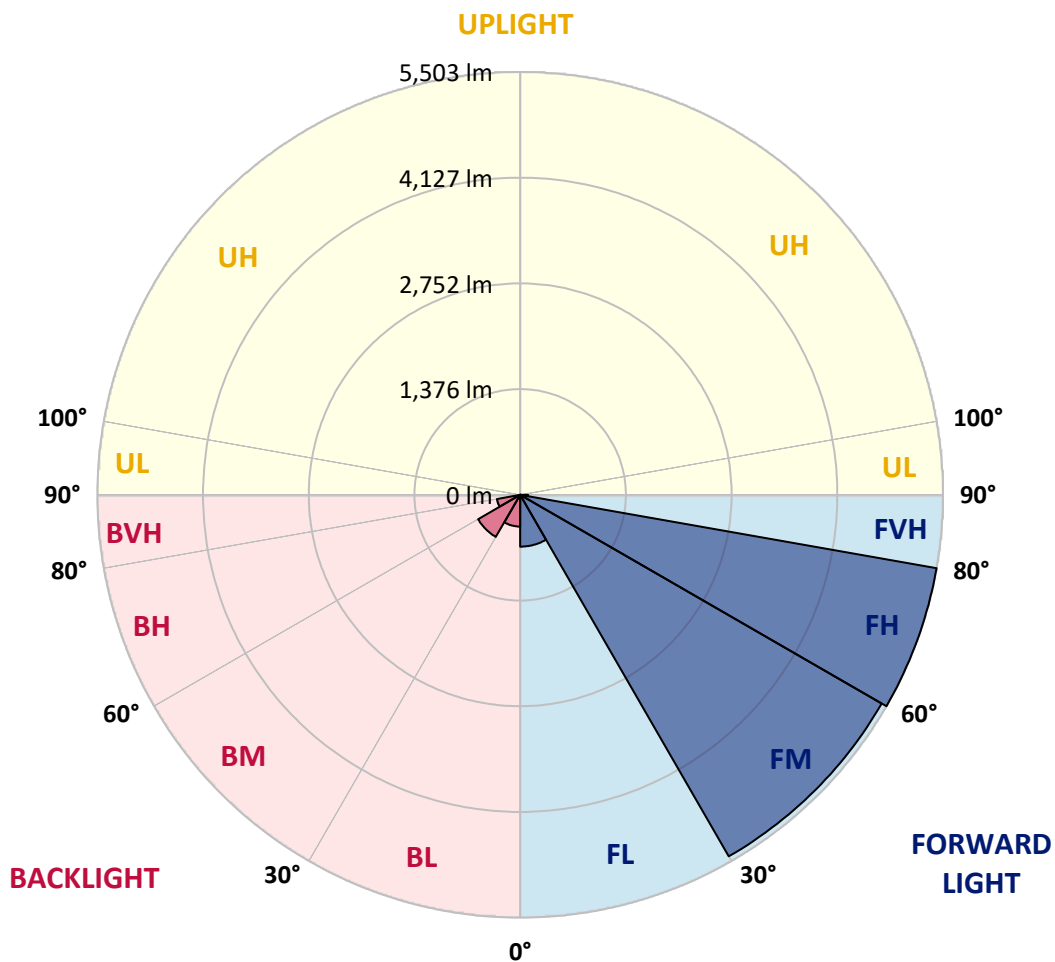
CATALOG NUMBER: ARCH-M-AF48-140-D-U-T3-HSS

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	674.5	5.2			
FM (30°-60°)	5432.6	41.6			
FH (60°-80°)	5503.1	42.1			G3/7500
FVH (80°-90°)	100.9	0.8			G2/225
BL (0°-30°)	413.3	3.2	B1/500		
BM (30°-60°)	632.2	4.8	B1/1000		
BH (60°-80°)	307.5	2.4	B1/500		G1/500
BVH (80°-90°)	1.0	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-G3**

Type III Medium





REPORT NUMBER: P231228

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T3-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5
2.5°	1455.2	1455.2	1455.2	1458.3	1461.3	1461.3	1467.4	1464.4	1464.4	1464.4	1470.5
5°	1415.7	1418.7	1421.8	1427.8	1440.0	1449.1	1464.4	1464.4	1467.4	1473.6	1476.5
7.5°	1360.8	1363.9	1373.0	1385.2	1409.6	1430.9	1455.2	1461.3	1470.5	1485.7	1491.8
10°	1327.4	1333.5	1345.7	1360.8	1388.2	1415.7	1446.1	1455.2	1482.7	1510.1	1525.2
12.5°	1318.3	1321.2	1333.5	1357.9	1391.3	1424.8	1464.4	1473.6	1513.0	1555.7	1580.0
15°	1333.5	1336.5	1342.6	1370.0	1409.6	1452.2	1503.9	1516.1	1564.8	1613.6	1644.0
17.5°	1360.8	1360.8	1367.0	1391.3	1434.0	1482.7	1549.7	1567.9	1622.7	1677.5	1711.0
20°	1379.1	1379.1	1388.2	1412.6	1461.3	1525.2	1604.4	1628.7	1689.7	1750.6	1781.0
22.5°	1397.4	1400.4	1409.6	1436.9	1491.8	1580.0	1671.4	1695.7	1765.8	1829.8	1860.1
25°	1449.1	1446.1	1449.1	1473.6	1537.5	1647.1	1762.7	1793.1	1866.3	1936.2	1951.5
27.5°	1592.2	1586.2	1546.6	1531.4	1580.0	1717.0	1878.4	1908.8	1994.1	2064.1	2064.1
30°	1921.0	1908.8	1811.4	1686.6	1647.1	1781.0	1988.0	2030.7	2140.2	2201.2	2182.9
32.5°	2338.2	2310.7	2185.9	1972.8	1814.5	1866.3	2103.7	2152.4	2292.4	2344.2	2304.6
35°	2794.8	2791.7	2636.5	2362.5	2137.3	2042.8	2252.8	2310.7	2487.3	2533.0	2469.1
37.5°	3278.9	3291.0	3187.5	2810.0	2545.2	2332.0	2450.8	2517.8	2733.9	2788.7	2727.8
40°	3817.8	3814.7	3775.1	3327.6	3035.3	2743.0	2737.0	2797.9	3059.6	3145.0	3059.6
42.5°	4499.7	4493.6	4350.5	3948.7	3629.0	3278.9	3154.1	3175.3	3467.6	3607.6	3482.8
45°	5193.8	5151.2	4986.8	4639.7	4356.6	3942.6	3705.1	3705.1	3954.7	4146.5	3951.7
47.5°	5580.5	5537.8	5470.8	5279.0	5193.8	4731.0	4381.0	4338.3	4533.2	4728.1	4454.0
50°	6088.9	6088.9	5921.5	5848.4	5994.5	5668.8	5126.8	5084.3	5178.6	5333.9	4974.6
52.5°	6490.7	6417.7	6298.9	6362.9	6780.0	6630.8	5872.8	5790.5	5863.7	5903.1	5428.3
55°	6658.2	6588.2	6579.0	6813.5	7458.9	7251.9	6636.9	6563.9	6557.7	6362.9	5824.1
57.5°	6691.7	6630.8	6746.5	7157.5	8119.6	7760.3	7398.0	7343.3	7172.7	6685.6	6229.0
60°	6408.6	6439.0	6719.0	7346.2	8509.2	8201.7	8040.4	7982.5	7589.8	6959.6	6679.6
62.5°	5827.0	5900.2	6423.8	7364.5	8366.1	8381.3	8396.6	8357.0	7912.5	7209.2	7133.1
65°	5139.0	5160.4	5790.5	7111.9	8116.5	8326.6	8658.5	8655.4	8159.2	7489.3	7644.6
67.5°	4234.8	4271.3	4816.4	6259.4	7617.2	8302.2	9002.5	8993.3	8439.2	7809.0	7949.0
70°	3151.0	3196.7	3638.1	4868.1	6502.9	7997.7	9453.0	9459.1	8734.6	8052.6	7739.0
71°	2456.8	2539.1	3001.8	4134.4	5933.6	7690.2	9495.6	9550.5	8768.0	8019.1	7306.6
72.5°	1205.6	1303.0	1884.5	2910.5	4883.3	7002.2	9215.6	9322.2	8557.9	7602.0	6247.2
75°	313.5	331.8	563.2	1190.4	2618.2	4639.7	7431.5	7702.4	6996.2	5787.4	3817.8
77.5°	197.8	204.0	264.8	462.8	980.3	1762.7	4365.7	4499.7	3997.4	2931.8	1345.7
80°	140.0	143.1	167.5	298.4	572.3	514.5	1570.9	1628.7	1446.1	776.3	240.5
82.5°	85.2	85.2	121.7	191.8	353.1	280.1	414.1	441.4	389.6	216.1	79.2
85°	48.7	51.8	76.1	130.9	167.5	137.0	155.3	164.4	167.5	143.1	33.5
87.5°	39.6	42.7	67.0	109.6	91.3	67.0	67.0	70.1	73.0	85.2	15.2
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: P231228

CATALOG NUMBER: ARCH-M-AF48-140-D-U-T3-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5	1476.5
2.5°	1470.5	1470.5	1473.6	1470.5	1470.5	1470.5	1473.6	1473.6	1473.6	1479.6	1482.7
5°	1476.5	1476.5	1476.5	1473.6	1470.5	1470.5	1476.5	1479.6	1479.6	1488.7	1488.7
7.5°	1491.8	1491.8	1485.7	1479.6	1473.6	1464.4	1467.4	1470.5	1467.4	1470.5	1470.5
10°	1525.2	1525.2	1516.1	1503.9	1485.7	1458.3	1421.8	1376.1	1333.5	1318.3	1312.1
12.5°	1580.0	1577.0	1558.8	1537.5	1497.9	1403.5	1266.5	1105.1	971.2	934.7	922.5
15°	1640.9	1634.9	1613.6	1577.0	1470.5	1220.8	934.7	727.6	599.8	569.3	563.2
17.5°	1704.8	1695.7	1665.4	1592.2	1345.7	907.3	602.8	456.6	386.7	380.5	383.6
20°	1771.9	1759.7	1717.0	1561.8	1086.9	605.9	389.6	353.1	347.1	347.1	350.2
22.5°	1848.0	1832.7	1774.9	1452.2	791.6	401.9	334.9	331.8	328.8	325.7	325.7
25°	1936.2	1918.0	1829.8	1254.3	544.9	328.8	319.7	310.6	304.4	298.4	295.3
27.5°	2042.8	2018.5	1872.3	1010.8	374.5	307.5	301.4	286.2	274.0	261.8	261.8
30°	2149.4	2118.9	1860.1	761.1	304.4	286.2	274.0	255.7	237.4	225.3	222.3
32.5°	2262.1	2231.6	1781.0	511.5	277.0	261.8	246.6	219.2	197.8	182.7	179.6
35°	2429.5	2405.2	1625.8	338.0	249.6	231.4	210.1	182.7	155.3	140.0	137.0
37.5°	2679.1	2648.6	1434.0	258.8	219.2	191.8	173.5	143.1	115.7	100.5	97.4
40°	3014.0	2922.7	1205.6	228.3	191.8	158.4	134.0	103.5	82.2	73.0	73.0
42.5°	3403.7	3187.5	959.0	207.0	170.5	130.9	97.4	70.1	57.8	54.8	54.8
45°	3817.8	3434.1	712.4	191.8	149.1	103.5	70.1	48.7	42.7	39.6	39.6
47.5°	4243.9	3635.1	496.2	173.5	124.8	79.2	48.7	36.5	30.5	27.4	27.4
50°	4642.8	3766.0	350.2	155.3	106.6	57.8	36.5	27.4	21.3	21.3	21.3
52.5°	4919.8	3753.8	252.7	134.0	82.2	39.6	24.3	18.3	18.3	18.3	18.3
55°	5163.3	3708.1	197.8	115.7	63.9	27.4	18.3	15.2	15.2	12.2	12.2
57.5°	5370.4	3635.1	167.5	94.4	45.6	21.3	12.2	12.2	9.1	9.1	9.1
60°	5547.0	3543.7	140.0	79.2	30.5	15.2	9.1	6.1	6.1	3.1	6.1
62.5°	5787.4	3485.9	121.7	60.9	21.3	9.1	6.1	3.1	3.1	0.0	0.0
65°	5964.1	3376.2	103.5	42.7	12.2	6.1	3.1	3.1	0.0	0.0	0.0
67.5°	5970.1	3178.4	76.1	24.3	9.1	6.1	3.1	0.0	0.0	0.0	0.0
70°	5489.2	2709.6	48.7	12.2	6.1	3.1	3.1	0.0	0.0	0.0	0.0
71°	5047.6	2399.0	39.6	9.1	6.1	3.1	0.0	0.0	0.0	0.0	0.0
72.5°	4158.7	1762.7	30.5	9.1	3.1	3.1	0.0	0.0	0.0	0.0	0.0
75°	2292.4	639.3	15.2	6.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	733.8	194.9	9.1	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	124.8	30.5	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	42.7	12.2	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	12.2	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	6.1	3.1	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)