

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: P231234

Luminaire Tested: **ARCH-M-AF48-70-D-U-T3-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231234
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-AF48-70-D-U-T3-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 470mA 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: 7475 lumens
Efficiency: N/A
Efficacy: 102.4 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): 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



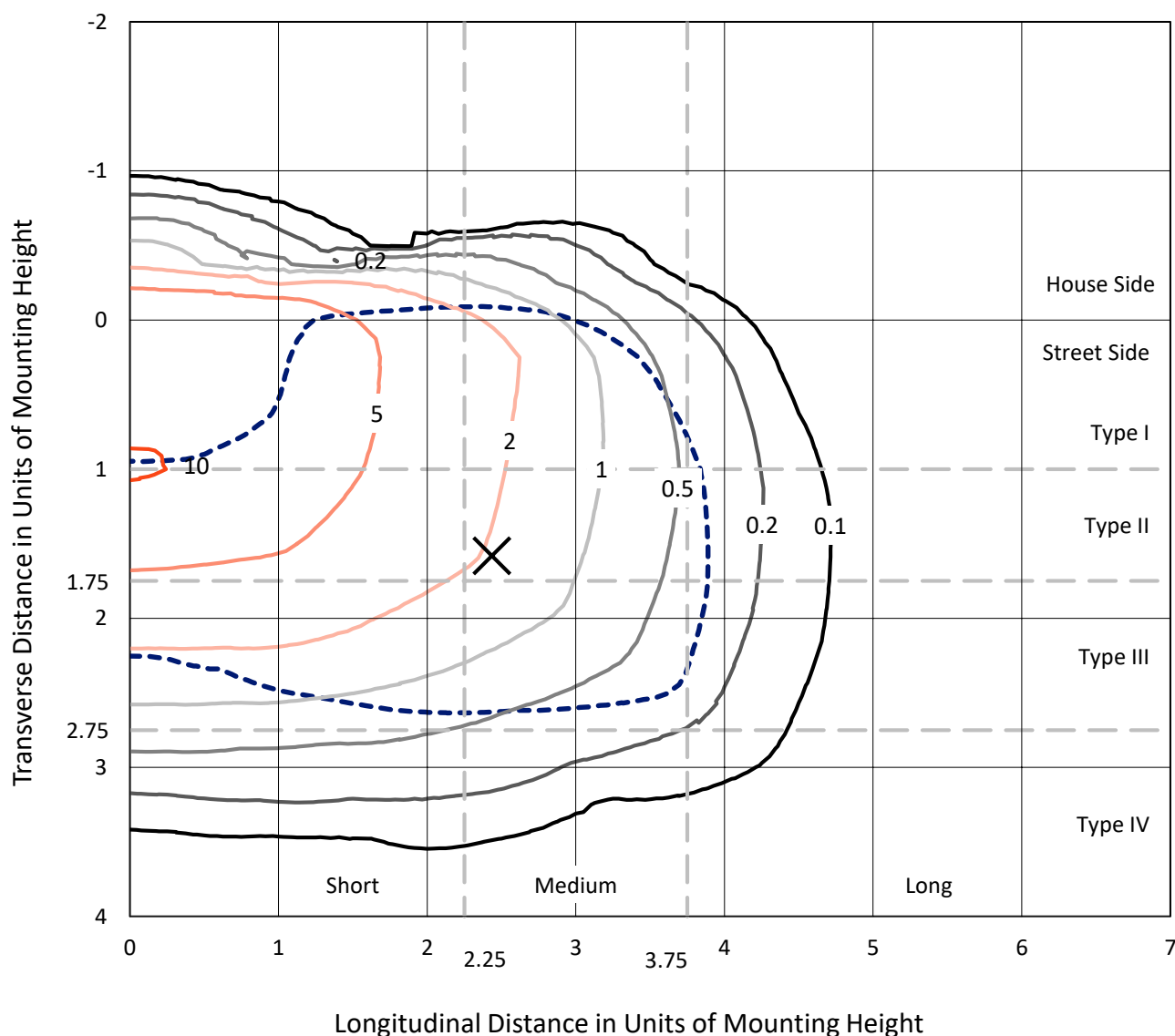
REPORT NUMBER: P231234

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7050-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

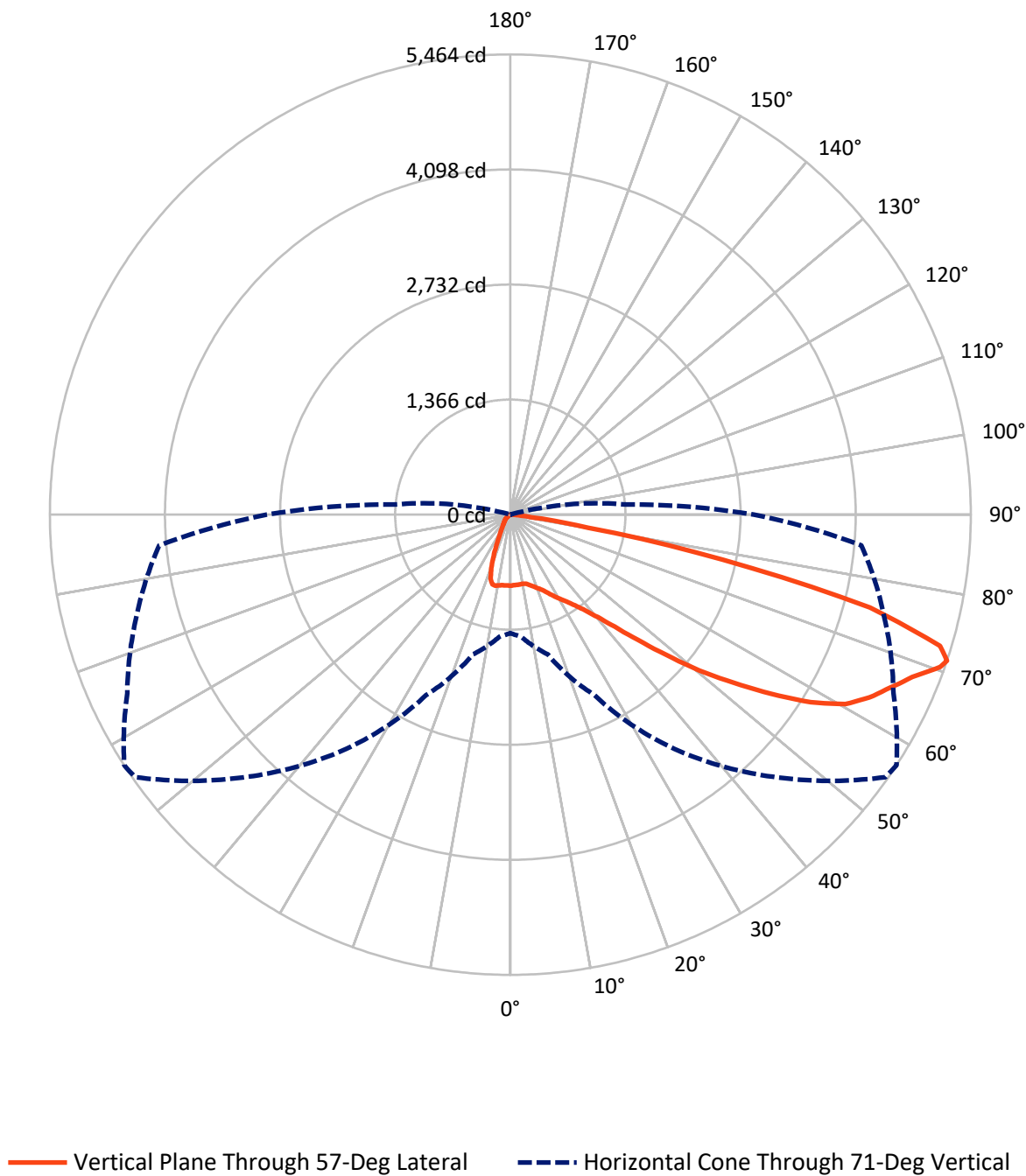


Based on 10 foot mounting height. Maximum calculated value = 10.5 fc
 Type III - Medium - Semi-Cutoff

REPORT NUMBER: P231234

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7050-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P231234

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7050-HSS

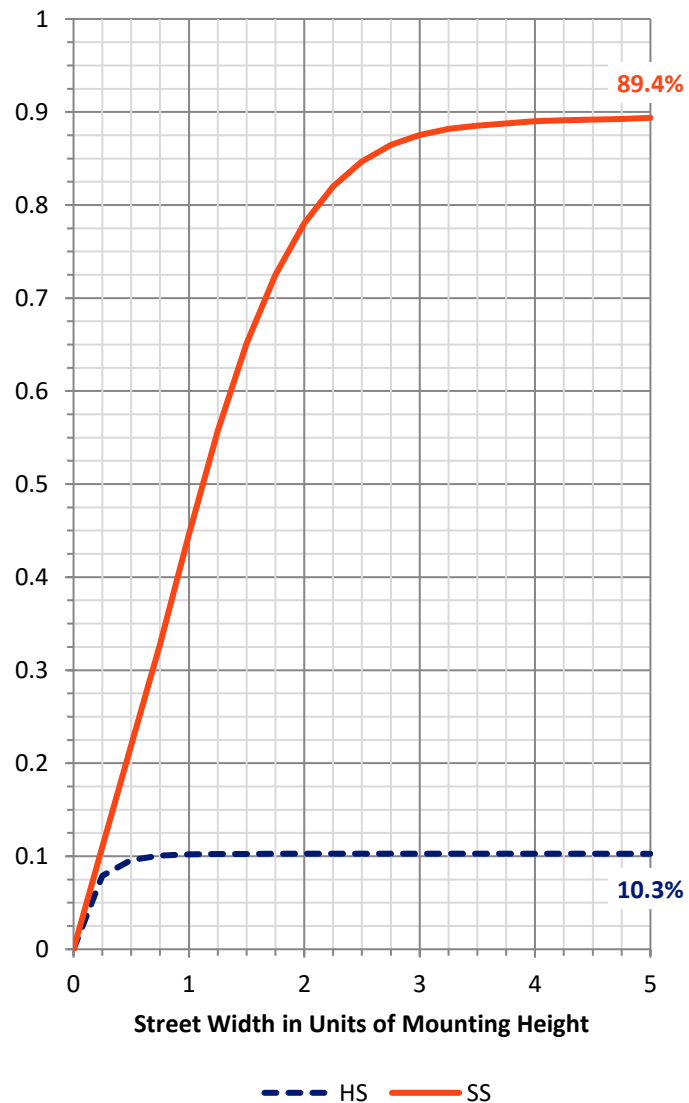
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	774.6	0.0	774.6
	% Fixture	10.4	0.0	10.4
Street Side	Lumens	6700.4	0.0	6700.4
	% Fixture	89.6	0.0	89.6
Total	Lumens	7475.0	0.0	7475.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.3	1.1
10°-20°	212.1	2.8
20°-30°	330.9	4.4
30°-40°	559.3	7.5
40°-50°	1086.3	14.5
50°-60°	1824.3	24.4
60°-70°	2177.1	29.1
70°-80°	1147.3	15.3
80°-90°	58.3	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°	7475.0	100.0
0°-180°	7475.0	100.0

Coefficient of Utilization



REPORT NUMBER: P231234

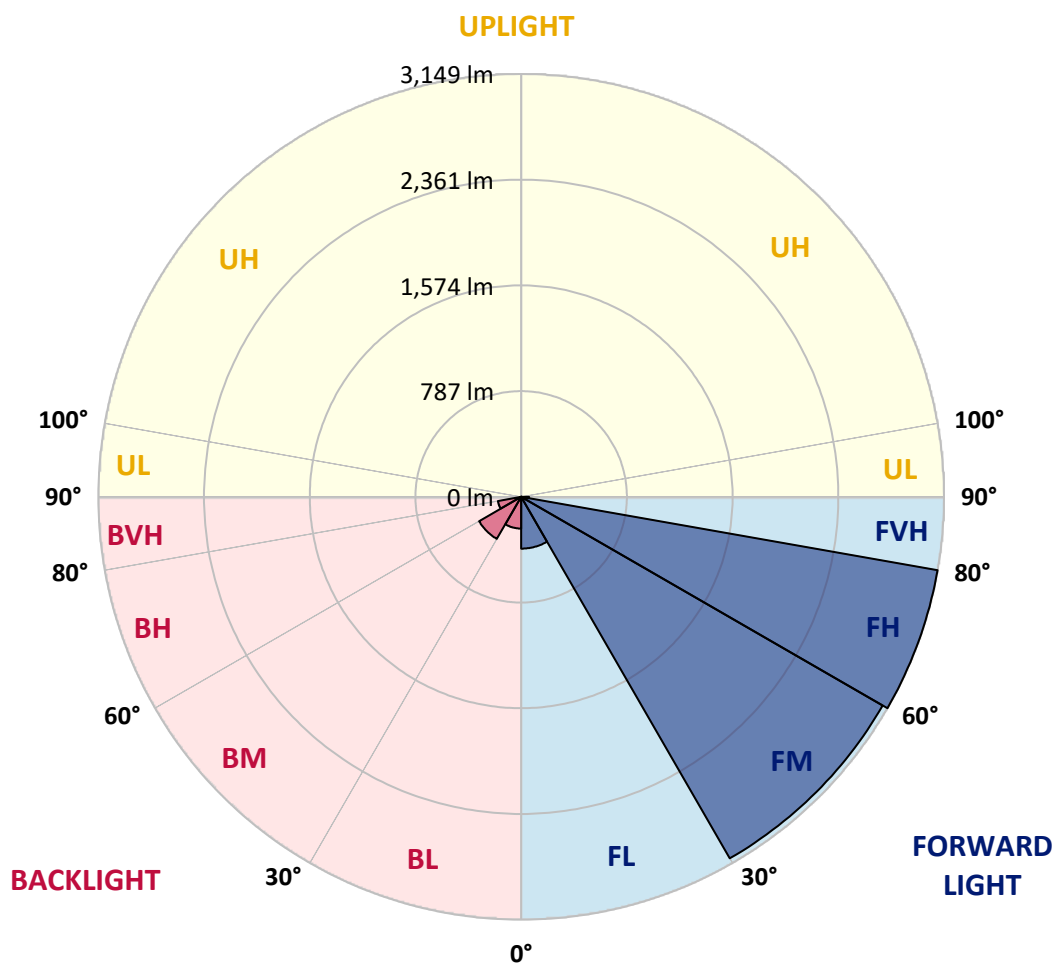
CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7050-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	385.9	5.2			
FM	(30°-60°)	3108.2	41.6			
FH	(60°-80°)	3148.5	42.1			G2/5000
FVH	(80°-90°)	57.8	0.8			G1/100
BL	(0°-30°)	236.5	3.2	B1/500		
BM	(30°-60°)	361.7	4.8	B1/1000		
BH	(60°-80°)	175.9	2.4	B1/500		G1/500
BVH	(80°-90°)	0.6	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: P231234

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7050-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	57°	65°	75°	85°
0°	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8
2.5°	832.6	832.6	832.6	834.3	836.1	836.1	839.6	837.8	837.8	837.8	841.3
5°	810.0	811.7	813.4	816.9	823.9	829.1	837.8	837.8	839.6	843.0	844.8
7.5°	778.6	780.3	785.6	792.5	806.5	818.7	832.6	836.1	841.3	850.0	853.5
10°	759.4	762.9	769.9	778.6	794.3	810.0	827.4	832.6	848.3	863.9	872.7
12.5°	754.2	756.0	762.9	776.9	796.0	815.2	837.8	843.0	865.7	890.1	904.0
15°	762.9	764.7	768.1	783.8	806.5	830.9	860.5	867.4	895.3	923.2	940.6
17.5°	778.6	778.6	782.1	796.0	820.4	848.3	886.6	897.0	928.4	959.7	978.9
20°	789.0	789.0	794.3	808.2	836.1	872.7	917.9	931.9	966.7	1001.6	1019.0
22.5°	799.5	801.2	806.5	822.1	853.5	904.0	956.3	970.2	1010.3	1046.8	1064.3
25°	829.1	827.4	829.1	843.0	879.6	942.3	1008.5	1025.9	1067.7	1107.8	1116.5
27.5°	911.0	907.5	884.9	876.1	904.0	982.4	1074.7	1092.1	1140.9	1181.0	1181.0
30°	1099.1	1092.1	1036.4	965.0	942.3	1019.0	1137.4	1161.8	1224.5	1259.3	1248.9
32.5°	1337.7	1322.1	1250.6	1128.7	1038.1	1067.7	1203.6	1231.5	1311.6	1341.2	1318.6
35°	1599.0	1597.3	1508.4	1351.7	1222.8	1168.8	1289.0	1322.1	1423.1	1449.2	1412.6
37.5°	1876.0	1882.9	1823.7	1607.7	1456.2	1334.2	1402.2	1440.5	1564.2	1595.5	1560.7
40°	2184.3	2182.5	2159.9	1903.8	1736.6	1569.4	1565.9	1600.7	1750.5	1799.3	1750.5
42.5°	2574.4	2570.9	2489.1	2259.2	2076.3	1876.0	1804.5	1816.7	1983.9	2064.1	1992.7
45°	2971.6	2947.2	2853.1	2654.6	2492.6	2255.7	2119.8	2119.8	2262.6	2372.4	2260.9
47.5°	3192.8	3168.4	3130.1	3020.3	2971.6	2706.8	2506.5	2482.1	2593.6	2705.1	2548.3
50°	3483.7	3483.7	3387.9	3346.1	3429.7	3243.3	2933.2	2908.9	2962.9	3051.7	2846.2
52.5°	3713.6	3671.8	3603.8	3640.4	3879.1	3793.7	3360.0	3313.0	3354.8	3377.4	3105.7
55°	3809.4	3769.3	3764.1	3898.2	4267.5	4149.0	3797.2	3755.4	3751.9	3640.4	3332.1
57.5°	3828.5	3793.7	3859.9	4095.0	4645.5	4439.9	4232.7	4201.3	4103.8	3825.1	3563.8
60°	3666.6	3684.0	3844.2	4203.0	4868.4	4692.5	4600.2	4567.1	4342.4	3981.8	3821.6
62.5°	3333.9	3375.7	3675.3	4213.5	4786.6	4795.3	4804.0	4781.3	4527.0	4124.7	4081.1
65°	2940.2	2952.4	3313.0	4068.9	4643.7	4763.9	4953.8	4952.0	4668.1	4284.9	4373.7
67.5°	2422.9	2443.8	2755.6	3581.2	4358.1	4750.0	5150.6	5145.4	4828.4	4467.8	4547.9
70°	1802.8	1828.9	2081.5	2785.2	3720.6	4575.8	5408.4	5411.9	4997.3	4607.1	4427.7
71°	1405.7	1452.7	1717.4	2365.4	3394.8	4399.9	5432.8	5464.1	5016.5	4588.0	4180.4
72.5°	689.8	745.5	1078.2	1665.2	2793.9	4006.2	5272.5	5333.5	4896.3	4349.4	3574.2
75°	179.4	189.9	322.2	681.1	1498.0	2654.6	4251.8	4406.8	4002.7	3311.2	2184.3
77.5°	113.2	116.7	151.5	264.8	560.9	1008.5	2497.8	2574.4	2287.0	1677.4	769.9
80°	80.1	81.9	95.8	170.7	327.5	294.4	898.8	931.9	827.4	444.2	137.6
82.5°	48.8	48.8	69.7	109.7	202.1	160.2	236.9	252.6	223.0	123.7	45.3
85°	27.9	29.6	43.5	74.9	95.8	78.4	88.8	94.1	95.8	81.9	19.2
87.5°	22.6	24.4	38.3	62.7	52.3	38.3	38.3	40.1	41.8	48.8	8.7
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: P231234

CATALOG NUMBER: ARCH-M-AF48-70-D-U-T3-7050-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8	844.8
2.5°	841.3	841.3	843.0	841.3	841.3	841.3	843.0	843.0	843.0	846.5	848.3
5°	844.8	844.8	844.8	843.0	841.3	841.3	844.8	846.5	846.5	851.8	851.8
7.5°	853.5	853.5	850.0	846.5	843.0	837.8	839.6	841.3	839.6	841.3	841.3
10°	872.7	872.7	867.4	860.5	850.0	834.3	813.4	787.3	762.9	754.2	750.7
12.5°	904.0	902.3	891.8	879.6	857.0	803.0	724.6	632.3	555.6	534.7	527.8
15°	938.8	935.4	923.2	902.3	841.3	698.5	534.7	416.3	343.1	325.7	322.2
17.5°	975.4	970.2	952.8	911.0	769.9	519.1	344.9	261.3	221.2	217.7	219.5
20°	1013.7	1006.8	982.4	893.6	621.8	346.6	223.0	202.1	198.6	198.6	200.3
22.5°	1057.3	1048.6	1015.5	830.9	452.9	229.9	191.6	189.9	188.1	186.4	186.4
25°	1107.8	1097.4	1046.8	717.6	311.8	188.1	182.9	177.7	174.2	170.7	169.0
27.5°	1168.8	1154.8	1071.2	578.3	214.2	175.9	172.4	163.7	156.8	149.8	149.8
30°	1229.7	1212.3	1064.3	435.5	174.2	163.7	156.8	146.3	135.9	128.9	127.2
32.5°	1294.2	1276.8	1019.0	292.6	158.5	149.8	141.1	125.4	113.2	104.5	102.8
35°	1390.0	1376.0	930.1	193.3	142.8	132.4	120.2	104.5	88.8	80.1	78.4
37.5°	1532.8	1515.4	820.4	148.1	125.4	109.7	99.3	81.9	66.2	57.5	55.7
40°	1724.4	1672.2	689.8	130.6	109.7	90.6	76.6	59.2	47.0	41.8	41.8
42.5°	1947.4	1823.7	548.7	118.4	97.5	74.9	55.7	40.1	33.1	31.4	31.4
45°	2184.3	1964.8	407.6	109.7	85.3	59.2	40.1	27.9	24.4	22.6	22.6
47.5°	2428.1	2079.7	283.9	99.3	71.4	45.3	27.9	20.9	17.4	15.7	15.7
50°	2656.3	2154.6	200.3	88.8	61.0	33.1	20.9	15.7	12.2	12.2	12.2
52.5°	2814.8	2147.7	144.6	76.6	47.0	22.6	13.9	10.5	10.5	10.5	10.5
55°	2954.1	2121.6	113.2	66.2	36.6	15.7	10.5	8.7	8.7	7.0	7.0
57.5°	3072.6	2079.7	95.8	54.0	26.1	12.2	7.0	7.0	5.2	5.2	5.2
60°	3173.6	2027.5	80.1	45.3	17.4	8.7	5.2	3.5	3.5	1.7	3.5
62.5°	3311.2	1994.4	69.7	34.8	12.2	5.2	3.5	1.7	1.7	0.0	0.0
65°	3412.2	1931.7	59.2	24.4	7.0	3.5	1.7	1.7	0.0	0.0	0.0
67.5°	3415.7	1818.5	43.5	13.9	5.2	3.5	1.7	0.0	0.0	0.0	0.0
70°	3140.5	1550.2	27.9	7.0	3.5	1.7	1.7	0.0	0.0	0.0	0.0
71°	2888.0	1372.6	22.6	5.2	3.5	1.7	0.0	0.0	0.0	0.0	0.0
72.5°	2379.3	1008.5	17.4	5.2	1.7	1.7	0.0	0.0	0.0	0.0	0.0
75°	1311.6	365.8	8.7	3.5	1.7	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	419.8	111.5	5.2	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	71.4	17.4	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	24.4	7.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.0	3.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.5	1.7	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)