

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: P231108

Luminaire Tested: **ARCH-M-AF48-110-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231108
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-M-AF48-110-D-U-T2R-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 720mA LIGHT ENGINES WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11614 lumens
Efficiency: N/A
Efficacy: 104.6 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Medium - 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



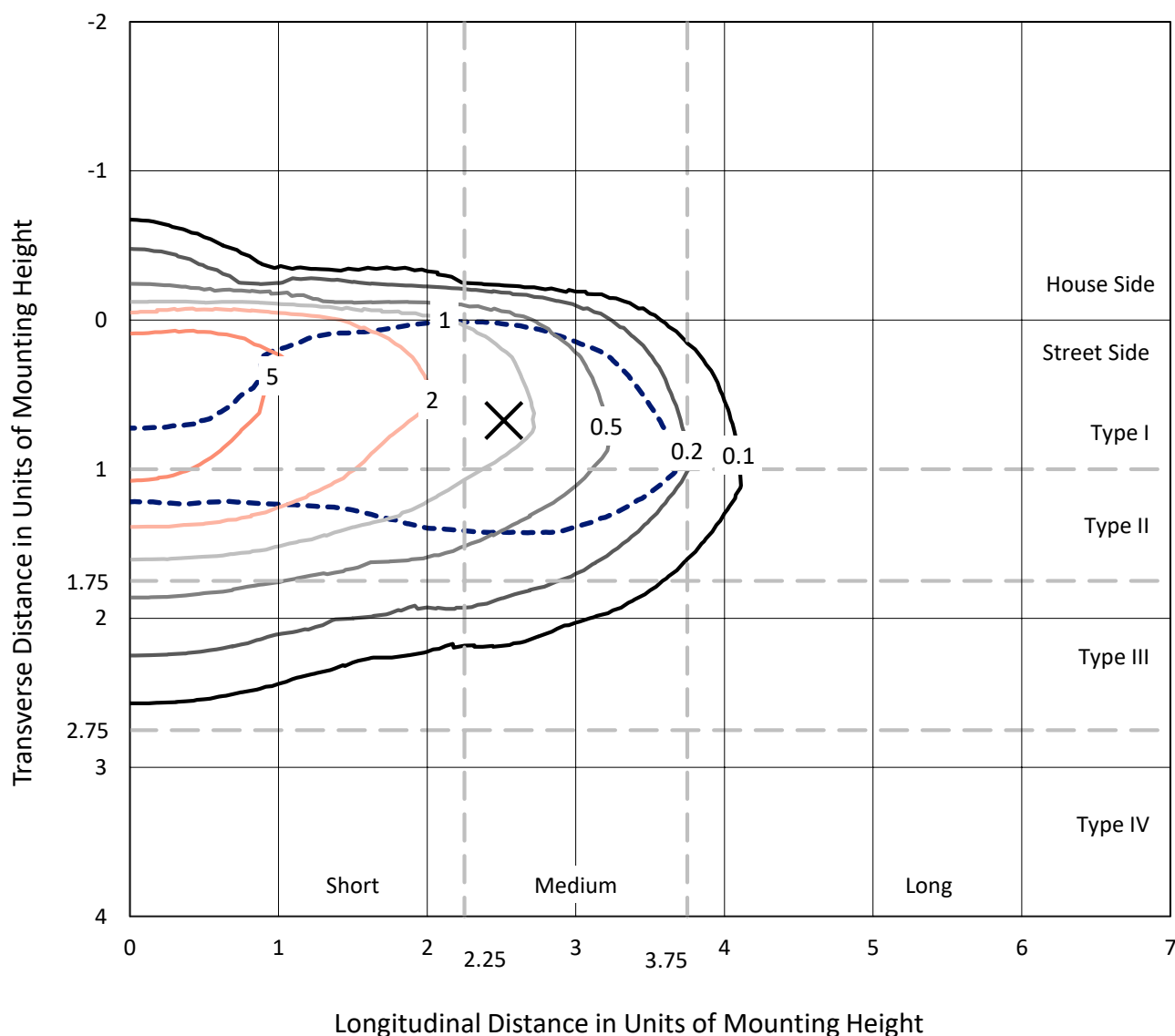
REPORT NUMBER: P231108

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7050-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

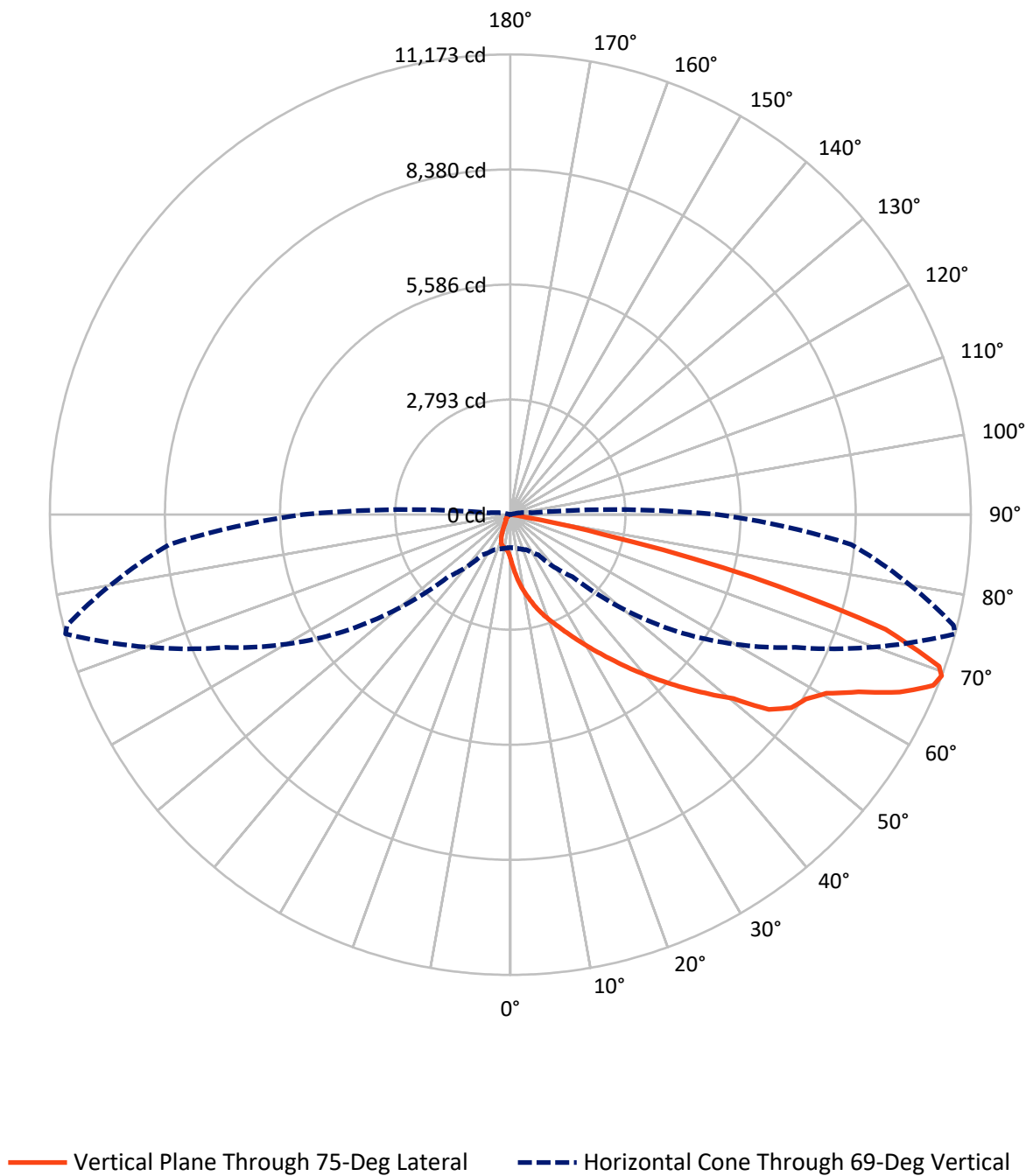


Based on 20 foot mounting height. Maximum calculated value = 7.4 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P231108

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7050-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P231108

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7050-HSS

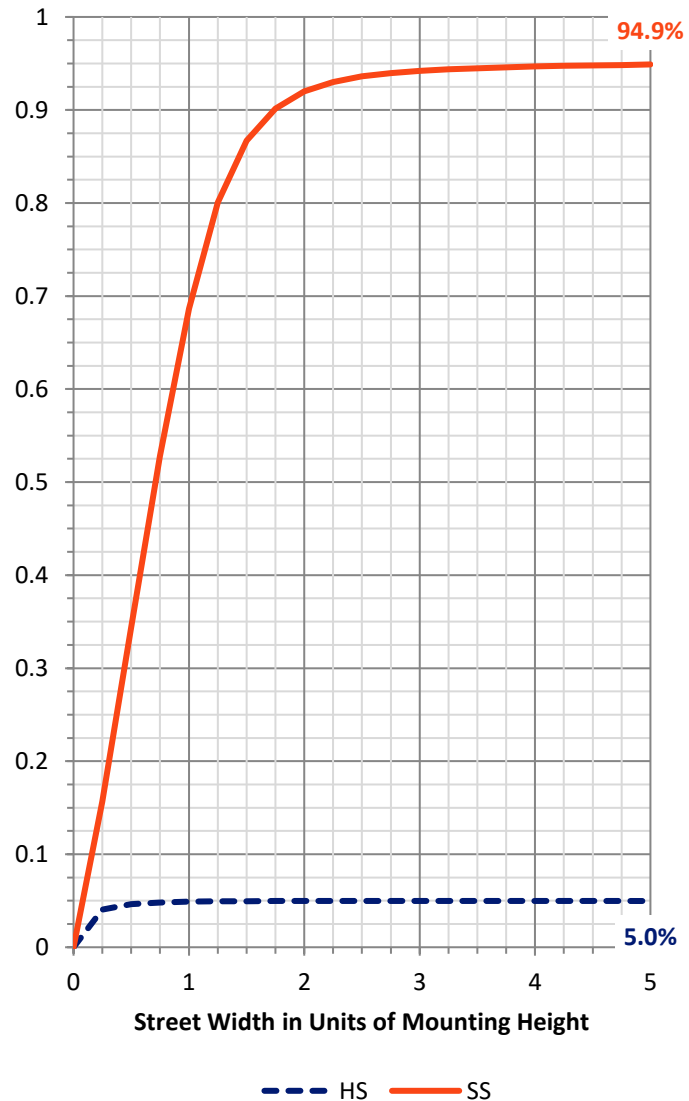
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	579.5	0.0	579.5
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	11034.5	0.0	11034.5
	% Fixture	95.0	0.0	95.0
Total	Lumens	11614.0	0.0	11614.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	126.0	1.1
10°-20°	450.5	3.9
20°-30°	860.0	7.4
30°-40°	1542.8	13.3
40°-50°	2363.6	20.4
50°-60°	2747.1	23.7
60°-70°	2432.6	20.9
70°-80°	1049.3	9.0
80°-90°	42.0	0.4
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°	11614.0	100.0
0°-180°	11614.0	100.0

Coefficient of Utilization



REPORT NUMBER: P231108

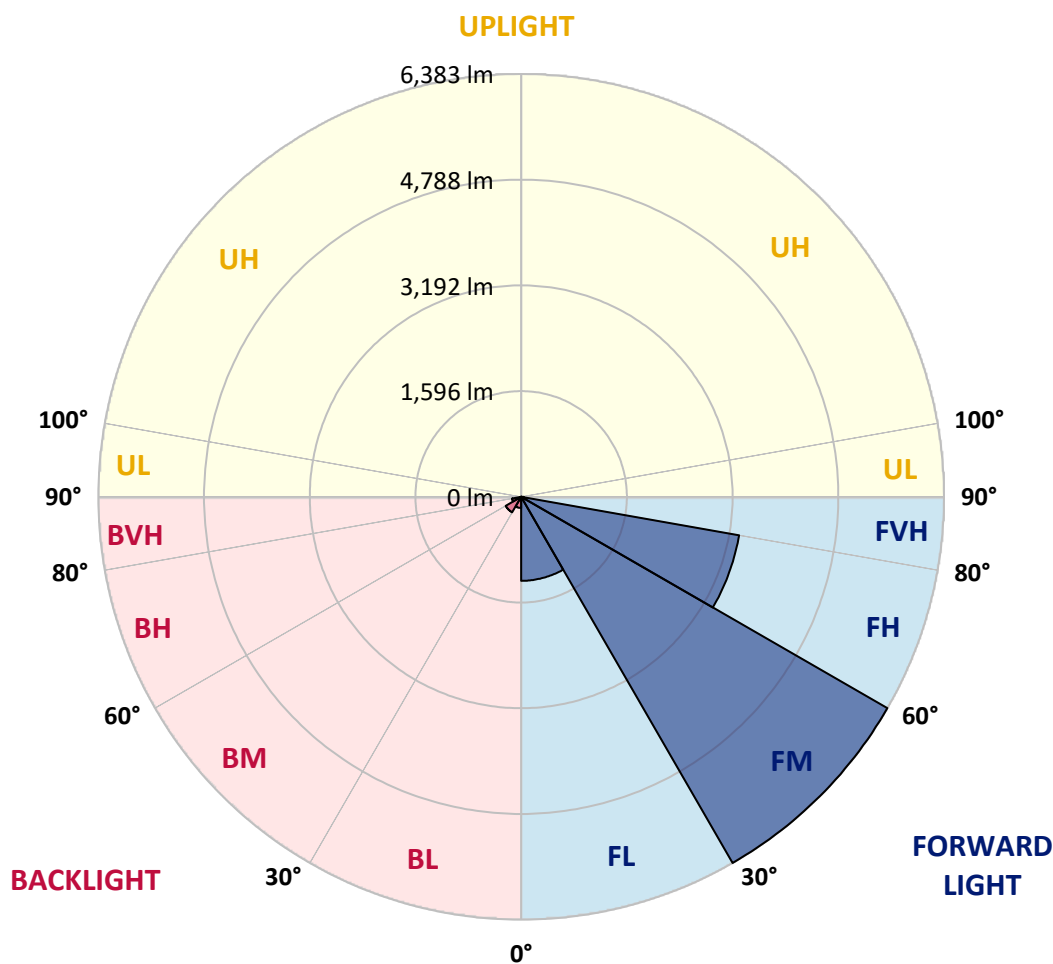
CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7050-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1268.3	10.9			
FM	(30°-60°)	6383.3	55.0			
FH	(60°-80°)	3341.5	28.8			G2/5000
FVH	(80°-90°)	41.4	0.4			G1/100
BL	(0°-30°)	168.3	1.4	B1/500		
BM	(30°-60°)	270.2	2.3	B1/1000		
BH	(60°-80°)	140.4	1.2	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 II Medium





REPORT NUMBER: P231108

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7050-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7
2.5°	1780.2	1762.7	1745.1	1725.1	1679.9	1602.2	1504.4	1399.1	1268.7	1246.2	1140.9
5°	2161.4	2153.8	2136.3	2108.7	2058.6	1973.3	1863.0	1707.5	1489.4	1451.8	1228.6
7.5°	2429.6	2424.6	2409.6	2377.0	2331.9	2246.6	2131.3	1963.3	1710.0	1667.4	1338.9
10°	2670.4	2667.8	2655.3	2625.2	2580.1	2487.3	2364.5	2188.9	1920.6	1873.0	1466.8
12.5°	2888.5	2891.0	2886.0	2870.9	2838.3	2750.6	2610.2	2419.6	2123.7	2071.1	1619.8
15°	3016.4	3023.9	3044.0	3074.0	3084.1	3013.9	2868.4	2657.8	2331.9	2286.7	1795.3
17.5°	2973.7	2981.3	3044.0	3146.8	3244.5	3254.6	3124.2	2883.5	2537.5	2492.3	1968.3
20°	2870.9	2881.0	2946.2	3086.6	3277.1	3410.0	3357.4	3129.2	2733.0	2677.9	2133.8
22.5°	2986.3	2986.3	3006.3	3091.6	3264.6	3472.7	3542.9	3374.9	2933.6	2865.9	2299.3
25°	3382.4	3374.9	3332.3	3297.2	3352.4	3537.9	3683.3	3625.7	3169.3	3091.6	2474.8
27.5°	3883.9	3919.0	3838.8	3710.9	3585.5	3665.8	3808.7	3873.9	3430.1	3349.9	2655.3
30°	4445.6	4460.6	4365.3	4194.8	3974.2	3896.5	3956.6	4087.0	3713.4	3625.7	2843.4
32.5°	4952.1	4939.5	4859.3	4681.3	4408.0	4240.0	4147.2	4257.5	4021.8	3921.5	3036.4
35°	5400.9	5410.9	5313.1	5107.5	4839.2	4661.2	4440.6	4450.6	4367.8	4252.5	3259.6
37.5°	5804.6	5787.0	5694.2	5488.6	5245.4	5052.4	4819.2	4651.2	4746.5	4626.1	3510.3
40°	6133.0	6115.5	6017.7	5817.1	5588.9	5431.0	5247.9	4919.5	5145.1	5007.2	3778.6
42.5°	6393.8	6373.7	6291.0	6097.9	5877.3	5736.9	5649.1	5250.4	5571.4	5433.5	4079.5
45°	6521.7	6504.1	6454.0	6308.6	6115.5	5992.6	6035.3	5631.6	6027.7	5912.4	4410.5
47.5°	6371.2	6363.7	6421.4	6396.3	6286.0	6220.8	6368.7	6047.8	6506.6	6393.8	4791.6
50°	5914.9	5927.4	6095.4	6303.5	6356.2	6433.9	6642.0	6486.6	7020.6	6900.3	5230.4
52.5°	4789.1	4874.3	5380.8	5882.3	6270.9	6564.3	6963.0	7113.4	7858.1	7740.3	5914.9
55°	3575.5	3610.6	4162.2	5019.8	5927.4	6554.3	7201.2	7482.0	8271.8	8151.5	6095.4
57.5°	2835.8	2848.4	3121.7	3996.8	5220.4	6328.6	7326.5	7614.9	8452.4	8352.1	6363.7
60°	2226.5	2241.6	2439.7	3041.4	4224.9	5719.3	7146.0	7730.2	8805.9	8725.7	6832.6
62.5°	1732.6	1747.6	1868.0	2221.5	3169.3	4781.6	6782.4	7915.8	9477.9	9440.3	7599.9
65°	1341.4	1346.5	1429.2	1594.7	2239.1	3766.1	6338.6	8088.8	10385.5	10352.9	8221.7
67.5°	990.4	997.9	1055.6	1158.4	1511.9	2705.5	5611.5	7955.9	11070.1	10974.8	8447.3
69°	799.9	807.4	857.5	940.3	1193.5	2131.3	4947.0	7627.4	11172.9	11082.6	8304.4
70°	684.5	689.5	739.7	809.9	1018.0	1810.3	4420.5	7344.1	11037.5	10949.7	7978.5
72.5°	438.8	463.9	514.0	559.1	674.5	1198.5	2983.8	6090.4	9523.0	9372.6	6248.4
75°	243.2	250.7	341.0	396.2	448.8	779.8	1659.9	3798.7	6057.8	5952.5	3342.3
77.5°	200.6	205.6	240.7	300.9	300.9	436.3	626.8	1496.9	2304.3	2078.6	905.2
80°	140.4	145.4	183.0	198.1	215.6	245.7	203.1	328.5	356.0	315.9	135.4
82.5°	97.8	102.8	125.4	163.0	173.0	115.3	75.2	97.8	102.8	102.8	52.7
85°	17.6	25.1	92.8	135.4	102.8	35.1	42.6	35.1	32.6	35.1	12.5
87.5°	0.0	0.0	57.7	65.2	55.2	15.0	17.6	12.5	7.5	10.0	5.0
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: P231108

CATALOG NUMBER: ARCH-M-AF48-110-D-U-T2R-7050-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7	1080.7
2.5°	1088.2	1035.5	945.3	880.1	824.9	782.3	764.7	737.2	717.1	727.1	714.6
5°	1118.3	1025.5	880.1	787.3	722.1	667.0	621.8	586.7	559.1	554.1	549.1
7.5°	1165.9	1033.0	842.5	727.1	629.4	544.1	473.9	421.2	381.1	381.1	366.1
10°	1231.1	1053.1	819.9	667.0	521.5	406.2	336.0	285.8	265.8	263.3	258.3
12.5°	1321.4	1090.7	802.4	589.2	406.2	295.9	253.2	235.7	228.2	225.7	223.2
15°	1444.2	1145.9	782.3	494.0	308.4	243.2	225.7	210.6	203.1	200.6	198.1
17.5°	1562.1	1196.0	739.7	396.2	250.7	220.6	200.6	188.1	178.0	175.5	175.5
20°	1672.4	1238.6	667.0	308.4	225.7	198.1	178.0	163.0	152.9	150.4	150.4
22.5°	1787.8	1273.7	576.7	250.7	205.6	175.5	155.5	140.4	130.4	127.9	125.4
25°	1910.6	1298.8	473.9	223.2	185.5	155.5	132.9	120.4	112.8	110.3	107.8
27.5°	2043.5	1308.8	376.1	203.1	163.0	135.4	115.3	102.8	97.8	95.3	95.3
30°	2163.9	1298.8	290.9	180.5	142.9	117.8	100.3	90.3	85.3	82.7	82.7
32.5°	2289.2	1273.7	233.2	160.5	125.4	100.3	85.3	77.7	75.2	72.7	72.7
35°	2422.1	1241.2	200.6	142.9	107.8	87.8	75.2	70.2	67.7	65.2	65.2
37.5°	2577.6	1201.0	183.0	127.9	95.3	77.7	65.2	62.7	60.2	60.2	60.2
40°	2753.1	1150.9	170.5	115.3	85.3	67.7	57.7	55.2	52.7	52.7	52.7
42.5°	2938.6	1093.2	158.0	102.8	75.2	57.7	50.1	50.1	47.6	47.6	45.1
45°	3146.8	1035.5	145.4	90.3	65.2	50.1	42.6	40.1	40.1	37.6	37.6
47.5°	3392.5	982.9	132.9	80.2	57.7	42.6	37.6	35.1	32.6	30.1	30.1
50°	3738.5	977.9	117.8	70.2	52.7	35.1	30.1	27.6	25.1	22.6	22.6
52.5°	4082.0	932.7	100.3	57.7	42.6	30.1	22.6	20.1	17.6	17.6	15.0
55°	4159.7	857.5	87.8	50.1	32.6	22.6	17.6	12.5	12.5	10.0	10.0
57.5°	4330.2	822.4	75.2	40.1	25.1	17.6	10.0	7.5	7.5	7.5	7.5
60°	4666.2	812.4	65.2	35.1	17.6	12.5	7.5	5.0	5.0	2.5	2.5
62.5°	5130.1	802.4	55.2	30.1	12.5	7.5	5.0	2.5	0.0	0.0	0.0
65°	5385.8	734.7	45.1	22.6	10.0	7.5	2.5	0.0	0.0	0.0	0.0
67.5°	5318.1	606.8	40.1	15.0	7.5	5.0	2.5	0.0	0.0	0.0	0.0
69°	5034.8	511.5	32.6	12.5	7.5	5.0	2.5	0.0	0.0	0.0	0.0
70°	4693.8	441.3	30.1	10.0	5.0	2.5	2.5	0.0	0.0	0.0	0.0
72.5°	3332.3	230.7	20.1	7.5	5.0	2.5	0.0	0.0	0.0	0.0	0.0
75°	1557.1	102.8	12.5	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0
77.5°	343.5	47.6	7.5	5.0	2.5	0.0	0.0	0.0	0.0	0.0	0.0
80°	65.2	17.6	5.0	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	22.6	7.5	2.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	7.5	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.5	0.0	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)