

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: P231105

Luminaire Tested: **ARCH-M-AF48-80-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P231105
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-AF48-80-D-U-T2R-7050-HSS
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 535mA 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: 9068 lumens
Efficiency: N/A
Efficacy: 109.3 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): 83
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



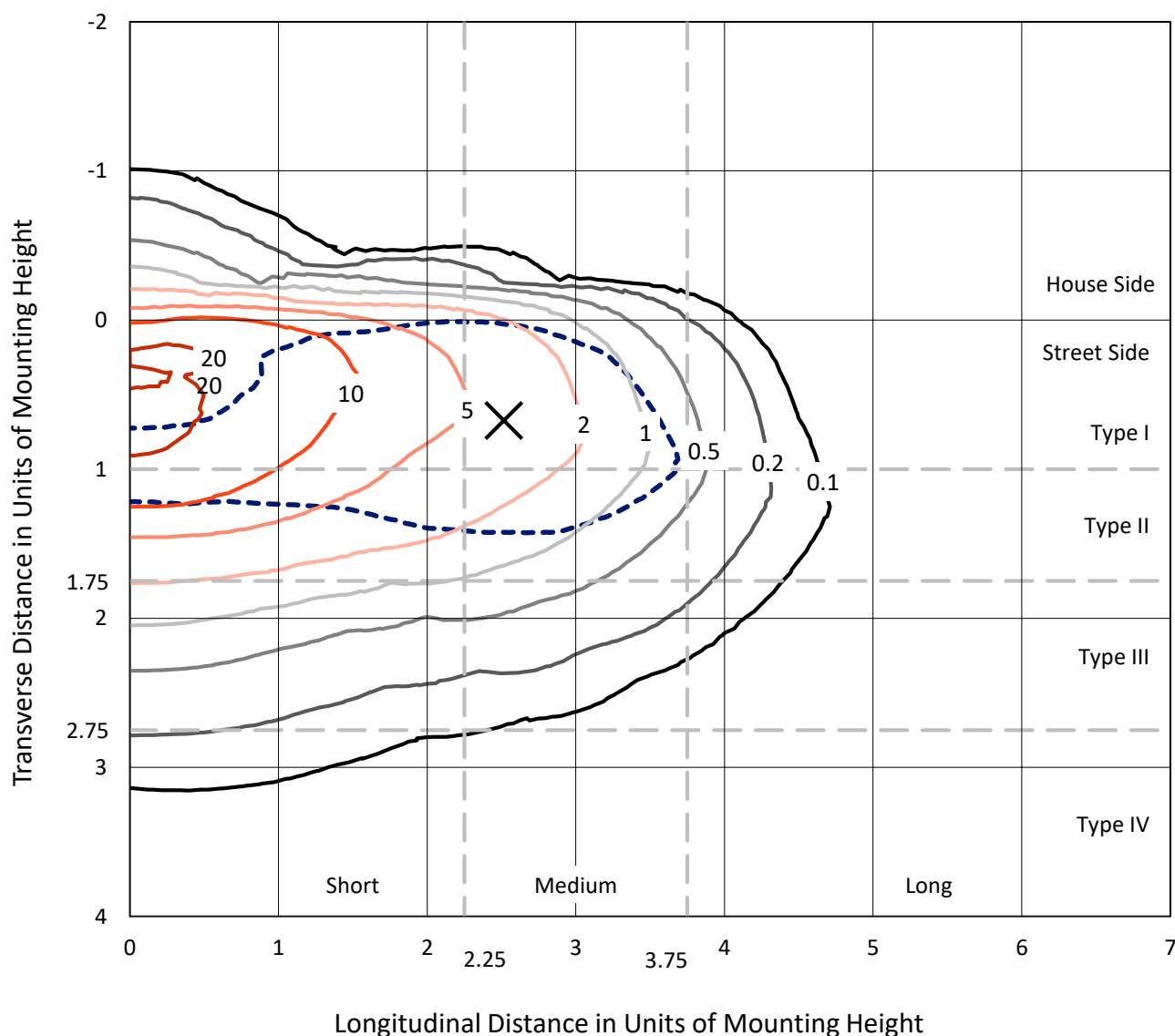
REPORT NUMBER: P231105

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-7050-HSS

Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

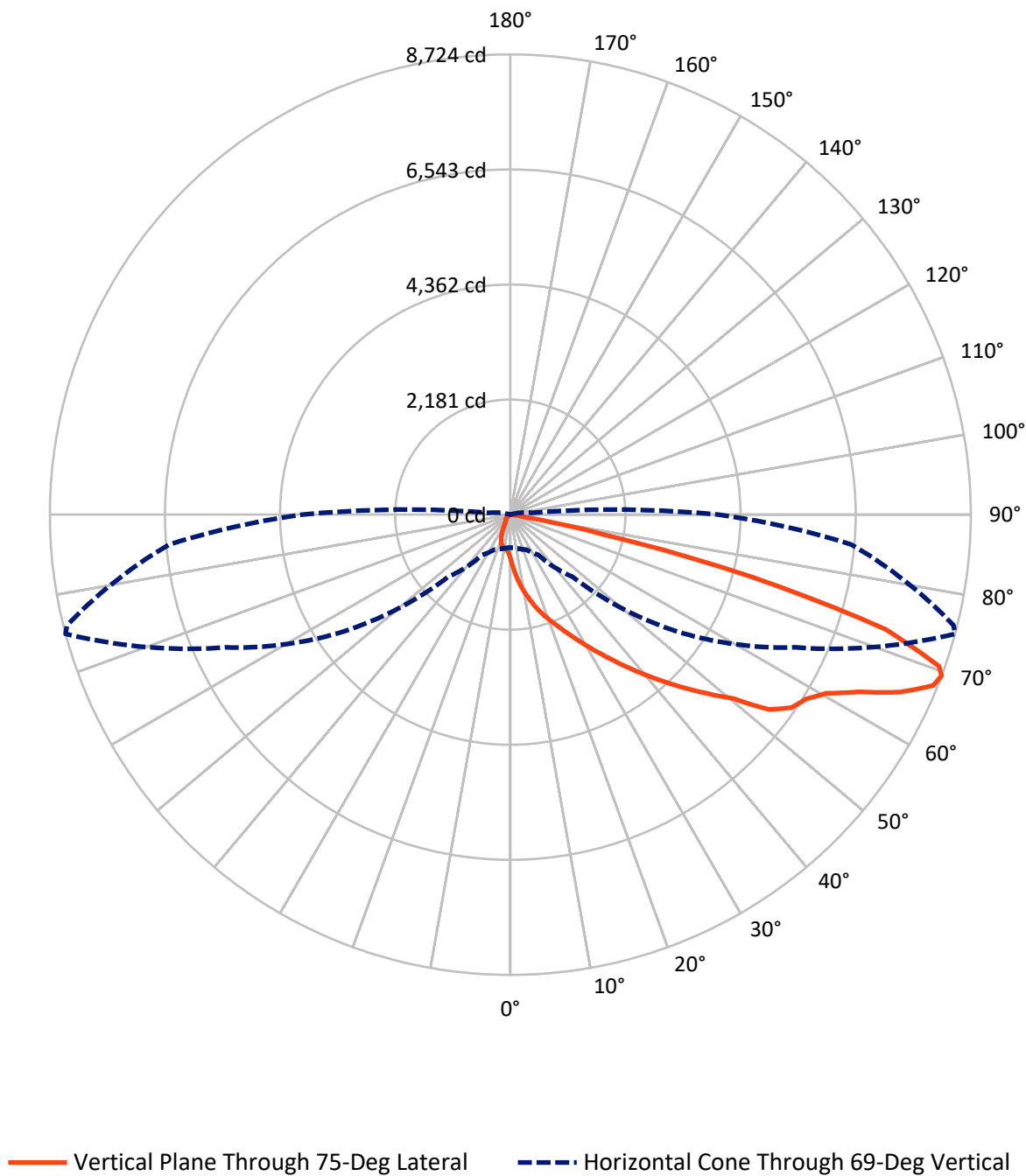


Based on 10 foot mounting height. Maximum calculated value = 23.1 fc
 Type II - Medium - Full Cutoff

REPORT NUMBER: P231105

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-7050-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P231105

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-7050-HSS

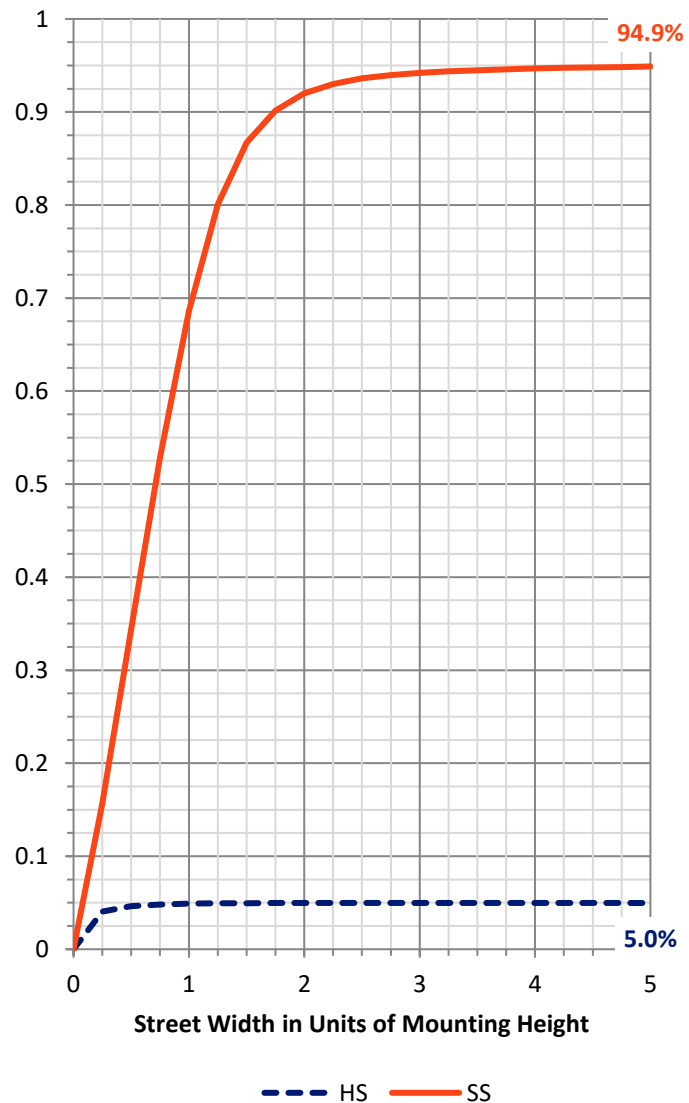
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	452.4	0.0	452.4
	% Fixture	5.0	0.0	5.0
Street Side	Lumens	8615.6	0.0	8615.6
	% Fixture	95.0	0.0	95.0
Total	Lumens	9068.0	0.0	9068.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.4	1.1
10°-20°	351.7	3.9
20°-30°	671.5	7.4
30°-40°	1204.6	13.3
40°-50°	1845.5	20.4
50°-60°	2144.9	23.7
60°-70°	1899.3	20.9
70°-80°	819.3	9.0
80°-90°	32.8	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°	9068.0	100.0
0°-180°	9068.0	100.0

Coefficient of Utilization



REPORT NUMBER: P231105

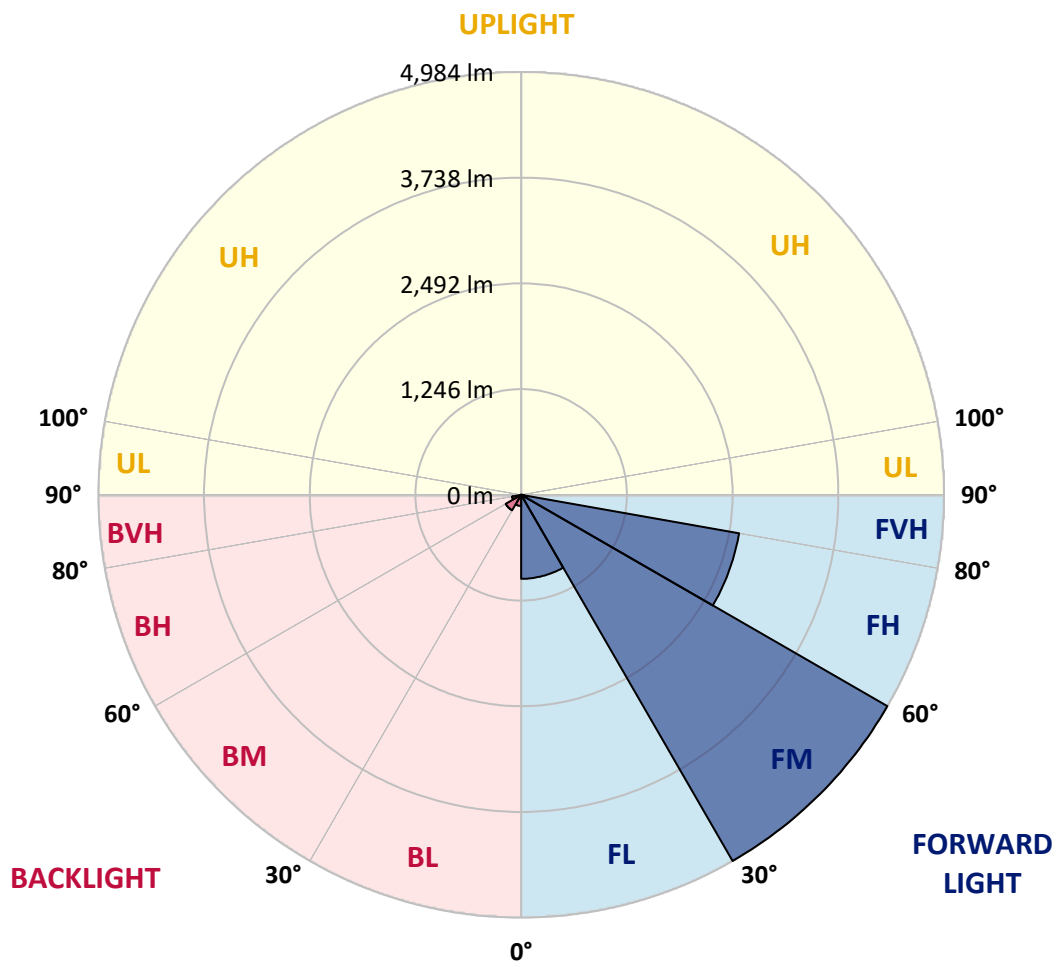
CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-7050-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	990.2	10.9			
FM	(30°-60°)	4984.0	55.0			
FH	(60°-80°)	2609.0	28.8			G2/5000
FVH	(80°-90°)	32.3	0.4			G1/100
BL	(0°-30°)	131.4	1.4	B1/500		
BM	(30°-60°)	210.9	2.3	B0/220		
BH	(60°-80°)	109.6	1.2	B0/110		G0/110
BVH	(80°-90°)	0.5	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: P231105

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-7050-HSS

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	843.8	843.8	843.8	843.8	843.8	843.8	843.8	843.8	843.8	843.8	843.8
2.5°	1390.0	1376.3	1362.6	1346.9	1311.7	1251.0	1174.6	1092.4	990.6	973.0	890.8
5°	1687.5	1681.7	1668.0	1646.4	1607.3	1540.7	1454.6	1333.2	1162.9	1133.5	959.3
7.5°	1897.0	1893.1	1881.4	1855.9	1820.7	1754.1	1664.1	1532.9	1335.2	1301.9	1045.4
10°	2085.0	2083.0	2073.2	2049.7	2014.5	1942.1	1846.1	1709.1	1499.6	1462.4	1145.3
12.5°	2255.3	2257.2	2253.3	2241.6	2216.1	2147.6	2038.0	1889.2	1658.2	1617.1	1264.7
15°	2355.1	2361.0	2376.7	2400.2	2408.0	2353.2	2239.6	2075.2	1820.7	1785.4	1401.7
17.5°	2321.8	2327.7	2376.7	2456.9	2533.3	2541.1	2439.3	2251.4	1981.2	1946.0	1536.8
20°	2241.6	2249.4	2300.3	2409.9	2558.7	2662.5	2621.4	2443.2	2133.9	2090.8	1666.0
22.5°	2331.6	2331.6	2347.3	2413.9	2548.9	2711.4	2766.2	2635.1	2290.5	2237.7	1795.2
25°	2641.0	2635.1	2601.8	2574.4	2617.5	2762.3	2875.9	2830.9	2474.5	2413.9	1932.3
27.5°	3032.5	3059.9	2997.3	2897.4	2799.5	2862.2	2973.8	3024.7	2678.2	2615.5	2073.2
30°	3471.0	3482.8	3408.4	3275.3	3103.0	3042.3	3089.3	3191.1	2899.4	2830.9	2220.0
32.5°	3866.5	3856.7	3794.0	3655.0	3441.7	3310.5	3238.1	3324.2	3140.2	3061.9	2370.8
35°	4216.9	4224.7	4148.4	3987.9	3778.4	3639.4	3467.1	3474.9	3410.3	3320.3	2545.0
37.5°	4532.1	4518.4	4446.0	4285.4	4095.5	3944.8	3762.7	3631.6	3705.9	3612.0	2740.8
40°	4788.6	4774.9	4698.5	4541.9	4363.7	4240.4	4097.5	3841.0	4017.2	3909.6	2950.3
42.5°	4992.2	4976.5	4911.9	4761.2	4588.9	4479.2	4410.7	4099.4	4350.0	4242.4	3185.2
45°	5092.0	5078.3	5039.2	4925.6	4774.9	4678.9	4712.2	4397.0	4706.3	4616.3	3443.6
47.5°	4974.5	4968.7	5013.7	4994.1	4908.0	4857.1	4972.6	4722.0	5080.3	4992.2	3741.2
50°	4618.2	4628.0	4759.2	4921.7	4962.8	5023.5	5186.0	5064.6	5481.6	5387.6	4083.8
52.5°	3739.2	3805.8	4201.3	4592.8	4896.2	5125.3	5436.6	5554.0	6135.5	6043.5	4618.2
55°	2791.7	2819.1	3249.8	3919.3	4628.0	5117.5	5622.5	5841.8	6458.5	6364.5	4759.2
57.5°	2214.2	2224.0	2437.4	3120.6	4076.0	4941.3	5720.4	5945.6	6599.4	6521.1	4968.7
60°	1738.4	1750.2	1904.9	2374.7	3298.7	4465.5	5579.5	6035.6	6875.5	6812.8	5334.8
62.5°	1352.8	1364.5	1458.5	1734.5	2474.5	3733.4	5295.6	6180.5	7400.2	7370.8	5933.8
65°	1047.4	1051.3	1115.9	1245.1	1748.2	2940.5	4949.1	6315.6	8108.8	8083.4	6419.3
67.5°	773.3	779.2	824.2	904.5	1180.5	2112.4	4381.4	6211.8	8643.3	8568.9	6595.5
69°	624.5	630.4	669.5	734.1	931.9	1664.1	3862.6	5955.4	8723.6	8653.1	6483.9
70°	534.5	538.4	577.5	632.3	794.8	1413.5	3451.4	5734.1	8617.8	8549.3	6229.4
72.5°	342.6	362.2	401.3	436.6	526.6	935.8	2329.7	4755.3	7435.4	7317.9	4878.6
75°	189.9	195.8	266.2	309.3	350.4	608.8	1296.0	2965.9	4729.8	4647.6	2609.6
77.5°	156.6	160.5	187.9	234.9	234.9	340.6	489.4	1168.8	1799.1	1622.9	706.7
80°	109.6	113.5	142.9	154.7	168.4	191.9	158.6	256.5	278.0	246.7	105.7
82.5°	76.4	80.3	97.9	127.3	135.1	90.1	58.7	76.4	80.3	80.3	41.1
85°	13.7	19.6	72.4	105.7	80.3	27.4	33.3	27.4	25.5	27.4	9.8
87.5°	0.0	0.0	45.0	50.9	43.1	11.7	13.7	9.8	5.9	7.8	3.9
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: P231105

CATALOG NUMBER: ARCH-M-AF48-80-D-U-T2R-7050-HSS

CANDELA DISTRIBUTION (continued):

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	843.8	843.8	843.8	843.8	843.8	843.8	843.8	843.8	843.8	843.8	843.8
2.5°	849.6	808.5	738.1	687.2	644.1	610.8	597.1	575.6	559.9	567.7	557.9
5°	873.1	800.7	687.2	614.7	563.8	520.8	485.5	458.1	436.6	432.7	428.7
7.5°	910.3	806.6	657.8	567.7	491.4	424.8	370.0	328.9	297.6	297.6	285.8
10°	961.2	822.2	640.2	520.8	407.2	317.1	262.3	223.2	207.5	205.6	201.6
12.5°	1031.7	851.6	626.5	460.1	317.1	231.0	197.7	184.0	178.2	176.2	174.2
15°	1127.6	894.7	610.8	385.7	240.8	189.9	176.2	164.4	158.6	156.6	154.7
17.5°	1219.7	933.8	577.5	309.3	195.8	172.3	156.6	146.8	139.0	137.0	137.0
20°	1305.8	967.1	520.8	240.8	176.2	154.7	139.0	127.3	119.4	117.5	117.5
22.5°	1395.8	994.5	450.3	195.8	160.5	137.0	121.4	109.6	101.8	99.8	97.9
25°	1491.8	1014.1	370.0	174.2	144.9	121.4	103.8	94.0	88.1	86.1	84.2
27.5°	1595.5	1021.9	293.7	158.6	127.3	105.7	90.1	80.3	76.4	74.4	74.4
30°	1689.5	1014.1	227.1	141.0	111.6	92.0	78.3	70.5	66.6	64.6	64.6
32.5°	1787.4	994.5	182.1	125.3	97.9	78.3	66.6	60.7	58.7	56.8	56.8
35°	1891.2	969.1	156.6	111.6	84.2	68.5	58.7	54.8	52.9	50.9	50.9
37.5°	2012.5	937.7	142.9	99.8	74.4	60.7	50.9	48.9	47.0	47.0	47.0
40°	2149.6	898.6	133.1	90.1	66.6	52.9	45.0	43.1	41.1	41.1	41.1
42.5°	2294.4	853.6	123.3	80.3	58.7	45.0	39.2	39.2	37.2	37.2	35.2
45°	2456.9	808.5	113.5	70.5	50.9	39.2	33.3	31.3	31.3	29.4	29.4
47.5°	2648.8	767.4	103.8	62.6	45.0	33.3	29.4	27.4	25.5	23.5	23.5
50°	2918.9	763.5	92.0	54.8	41.1	27.4	23.5	21.5	19.6	17.6	17.6
52.5°	3187.2	728.3	78.3	45.0	33.3	23.5	17.6	15.7	13.7	13.7	11.7
55°	3247.8	669.5	68.5	39.2	25.5	17.6	13.7	9.8	9.8	7.8	7.8
57.5°	3381.0	642.1	58.7	31.3	19.6	13.7	7.8	5.9	5.9	5.9	5.9
60°	3643.3	634.3	50.9	27.4	13.7	9.8	5.9	3.9	3.9	2.0	2.0
62.5°	4005.5	626.5	43.1	23.5	9.8	5.9	3.9	2.0	0.0	0.0	0.0
65°	4205.2	573.6	35.2	17.6	7.8	5.9	2.0	0.0	0.0	0.0	0.0
67.5°	4152.3	473.8	31.3	11.7	5.9	3.9	2.0	0.0	0.0	0.0	0.0
69°	3931.1	399.4	25.5	9.8	5.9	3.9	2.0	0.0	0.0	0.0	0.0
70°	3664.8	344.6	23.5	7.8	3.9	2.0	2.0	0.0	0.0	0.0	0.0
72.5°	2601.8	180.1	15.7	5.9	3.9	2.0	0.0	0.0	0.0	0.0	0.0
75°	1215.7	80.3	9.8	3.9	2.0	2.0	0.0	0.0	0.0	0.0	0.0
77.5°	268.2	37.2	5.9	3.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	50.9	13.7	3.9	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	17.6	5.9	2.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.9	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	2.0	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)