

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: P239107

Luminaire Tested: **ARCH-AF24-50-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239107
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1802-616-1)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF24-50-D-U-T2U-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5873 lumens
Efficiency: N/A
Efficacy: 108.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

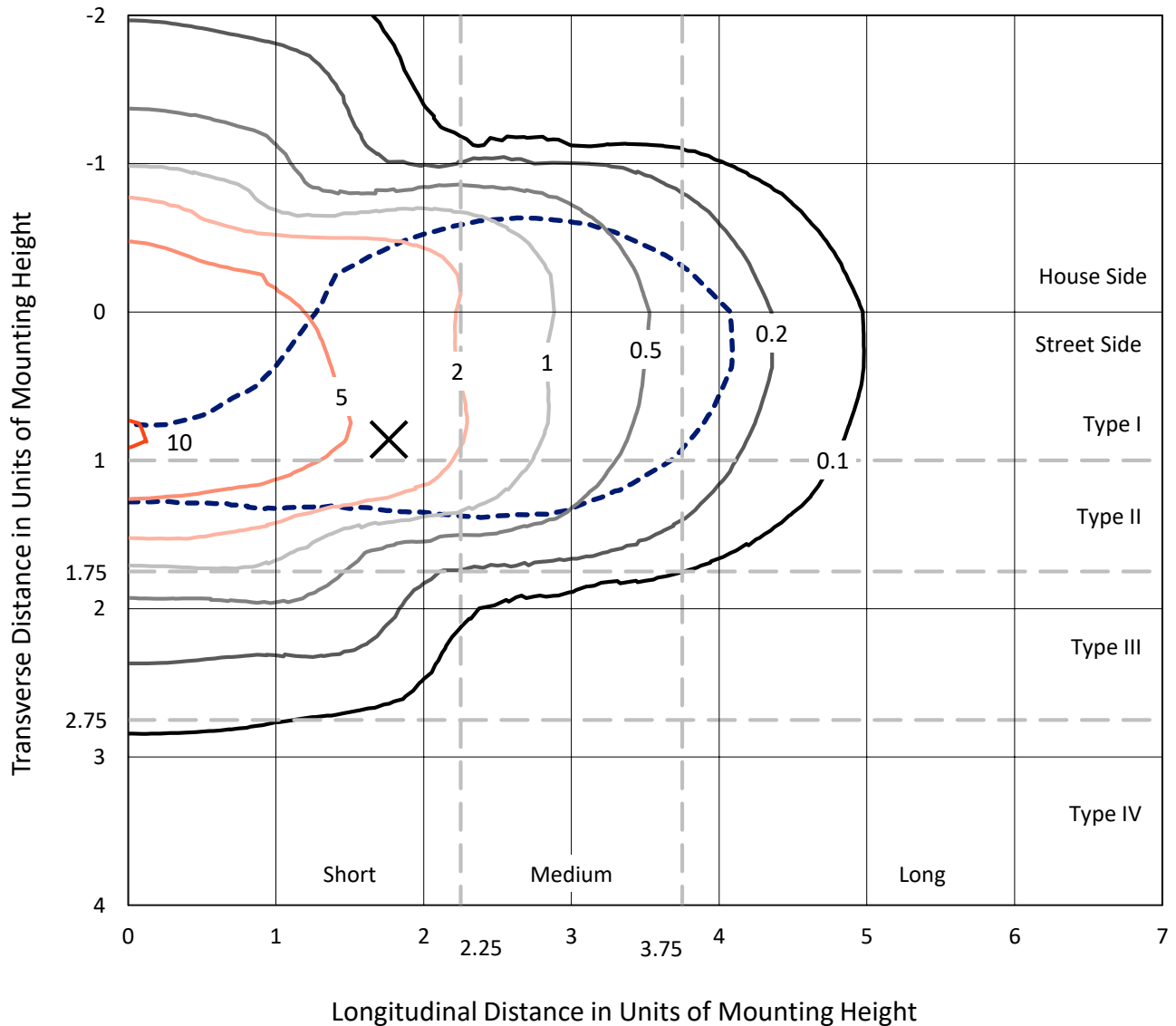
Input Watts (W): 54
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P239107
 CATALOG NUMBER: ARCH-AF24-50-D-U-T2U-7030

Iso-Footcandle Lines of Horizontal Illumination

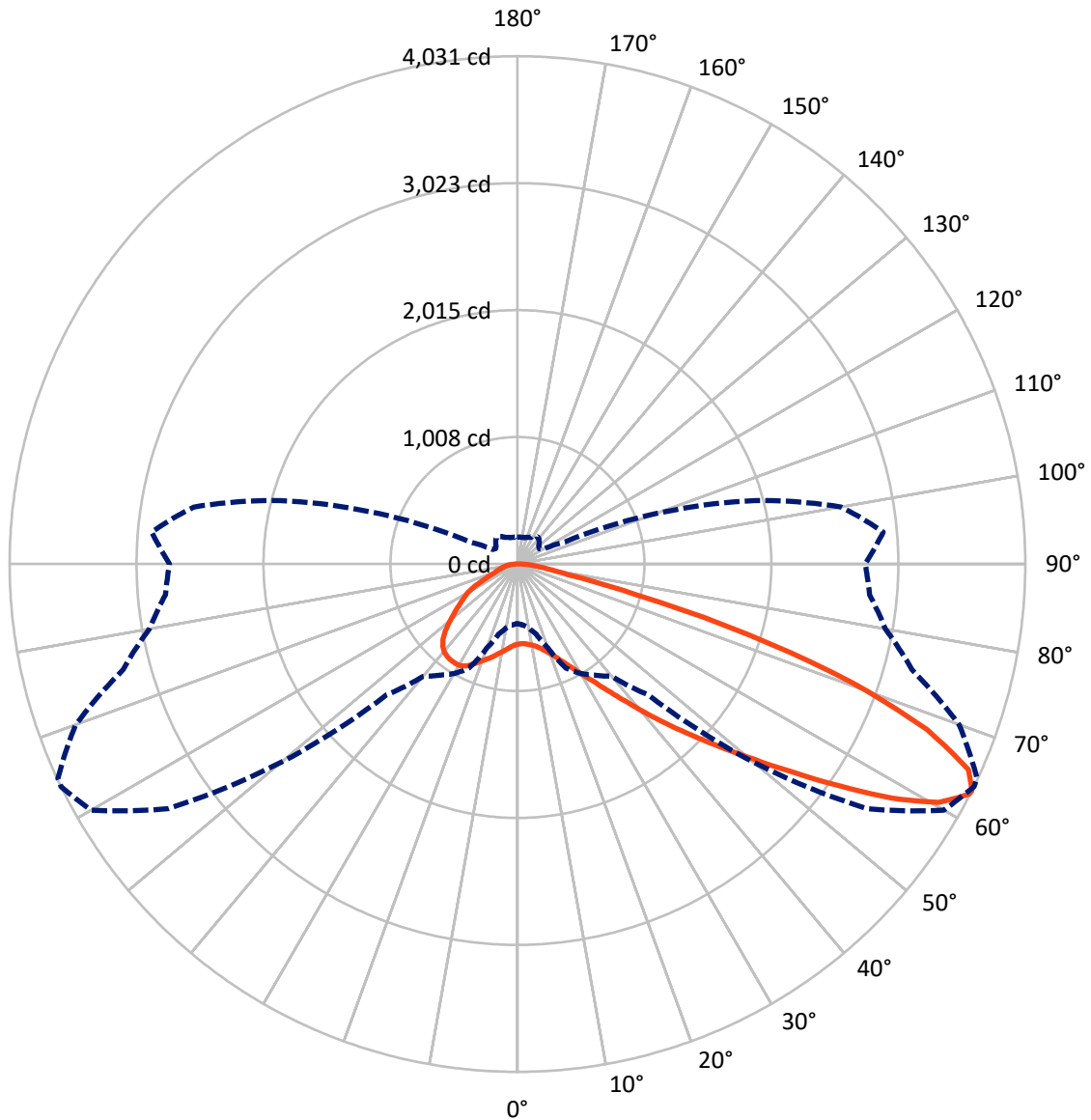
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.3 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P239107
CATALOG NUMBER: ARCH-AF24-50-D-U-T2U-7030

Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 63-Deg Vertical



REPORT NUMBER: P239107

CATALOG NUMBER: ARCH-AF24-50-D-U-T2U-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1726.5	0.0	1726.5
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	4146.6	0.0	4146.6
	% Fixture	70.6	0.0	70.6
Total	Lumens	5873.0	0.0	5873.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	63.5	1.1
10°-20°	211.5	3.6
20°-30°	397.0	6.8
30°-40°	665.5	11.3
40°-50°	1116.5	19.0
50°-60°	1415.4	24.1
60°-70°	1248.6	21.3
70°-80°	644.6	11.0
80°-90°	110.3	1.9
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°	5873.0	100.0
0°-180°	5873.0	100.0



REPORT NUMBER: P239107

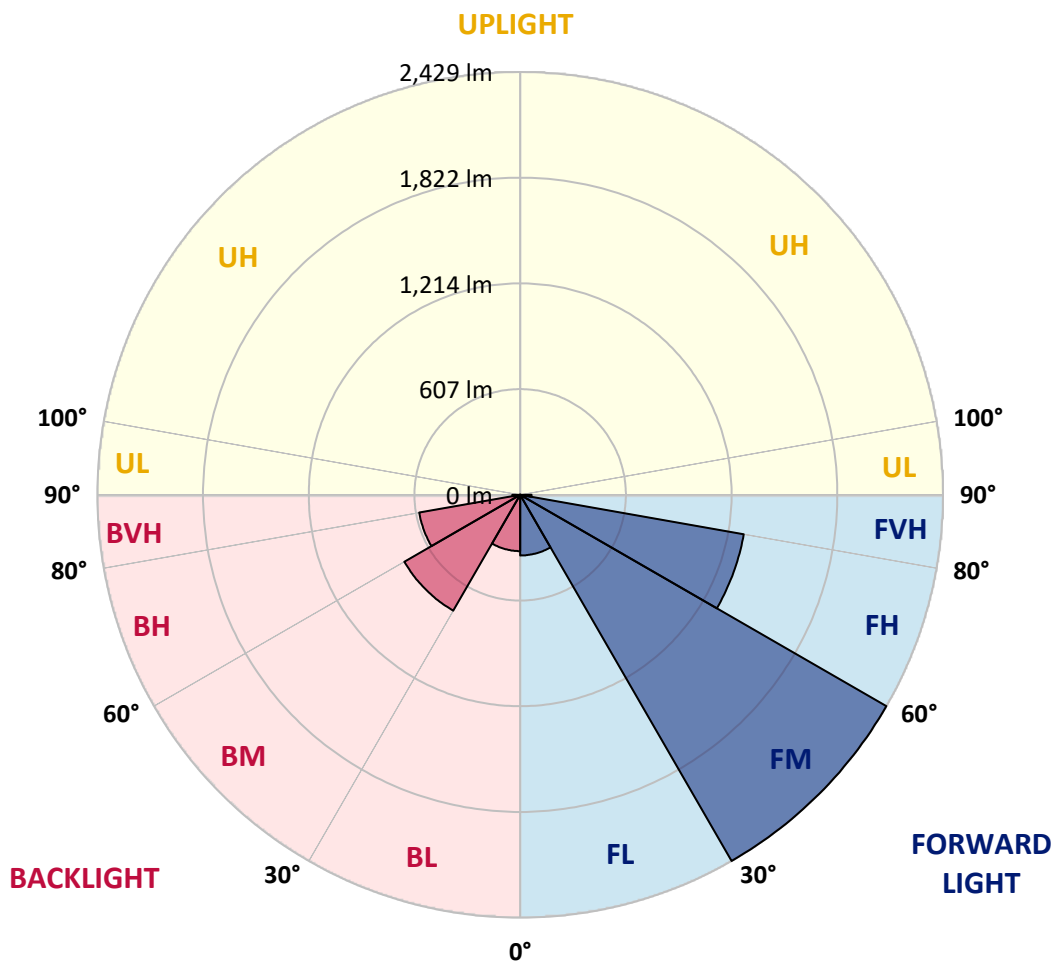
CATALOG NUMBER: ARCH-AF24-50-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	348.6	5.9			
FM	(30°-60°)	2428.9	41.4			
FH	(60°-80°)	1304.1	22.2			G1/1800
FVH	(80°-90°)	64.9	1.1			G1/100
BL	(0°-30°)	323.5	5.5	B1/500		
BM	(30°-60°)	768.5	13.1	B1/1000		
BH	(60°-80°)	589.1	10.0	B2/1000		G2/1000
BVH	(80°-90°)	45.4	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





REPORT NUMBER: P239107

CATALOG NUMBER: ARCH-AF24-50-D-U-T2U-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
2.5°	632.1	631.1	631.1	631.1	631.1	630.1	631.1	633.1	632.1	631.1	633.1
5°	634.1	633.1	633.1	633.1	634.1	633.1	634.1	637.0	635.1	635.1	637.0
7.5°	639.0	638.0	639.0	638.0	638.0	638.0	639.0	641.9	641.0	641.9	644.9
10°	644.9	644.9	644.9	644.9	644.9	644.9	646.9	648.8	649.8	650.8	654.7
12.5°	662.6	662.6	662.6	661.6	661.6	658.7	662.6	664.6	666.5	668.5	671.4
15°	699.9	699.9	699.0	695.0	695.0	689.1	690.1	691.1	691.1	693.1	695.0
17.5°	749.1	748.1	746.1	743.2	739.3	732.4	730.4	728.5	725.5	724.5	724.5
20°	817.9	816.9	813.0	805.1	800.2	789.4	781.5	773.7	770.7	765.8	764.8
22.5°	916.2	916.2	908.4	896.6	892.6	870.0	847.4	830.7	824.8	817.9	817.9
25°	1035.2	1034.2	1023.4	1009.6	992.9	969.3	941.8	919.2	904.4	888.7	882.8
27.5°	1177.7	1174.8	1160.0	1143.3	1111.8	1082.4	1049.9	1026.3	1000.8	981.1	963.4
30°	1344.8	1341.9	1316.3	1284.9	1252.4	1222.9	1175.7	1147.2	1106.9	1083.3	1063.7
32.5°	1538.5	1535.5	1489.3	1458.9	1424.5	1388.1	1332.1	1286.8	1235.7	1202.3	1174.8
35°	1785.2	1773.5	1707.6	1665.3	1611.2	1574.9	1515.9	1454.9	1395.0	1347.8	1307.5
37.5°	2051.7	2037.9	1979.9	1917.0	1863.9	1819.7	1736.1	1659.4	1588.6	1523.8	1473.6
40°	2329.9	2293.5	2231.6	2185.4	2149.0	2106.7	2019.2	1938.6	1827.5	1754.8	1679.1
42.5°	2522.5	2487.2	2443.9	2413.4	2395.7	2363.3	2314.1	2244.3	2145.0	2147.0	1947.5
45°	2649.4	2597.3	2567.8	2569.7	2576.6	2576.6	2567.8	2557.0	2513.7	2543.2	2376.1
47.5°	2604.1	2569.7	2551.1	2590.4	2639.5	2688.7	2745.7	2807.6	2878.4	2962.0	2756.5
50°	2338.7	2351.5	2360.3	2443.9	2549.1	2661.2	2791.9	2961.0	3158.6	3196.9	3097.6
52.5°	1915.0	1942.5	1972.0	2099.8	2238.4	2432.1	2661.2	2940.3	3205.8	3362.1	3352.3
55°	1487.4	1521.8	1584.7	1680.1	1790.2	1973.0	2256.1	2686.7	3100.6	3349.3	3500.7
57.5°	1058.8	1108.9	1191.5	1324.2	1421.5	1524.7	1734.1	2211.9	2665.1	3128.1	3476.1
60°	703.9	727.5	781.5	946.7	1110.9	1219.0	1367.4	1540.5	1911.1	2549.1	3222.5
62.5°	499.4	515.1	548.6	623.3	771.7	967.3	1056.8	1136.4	1255.4	1639.8	2587.4
63°	471.9	485.6	513.2	576.1	709.8	912.3	1003.7	1076.5	1163.0	1466.7	2447.8
65°	391.3	397.2	411.9	442.4	514.1	682.2	831.7	875.9	890.7	942.8	1533.6
67.5°	330.3	334.2	339.2	348.0	376.5	454.2	620.3	676.3	659.6	624.2	757.9
70°	287.1	290.0	297.9	308.7	318.5	338.2	426.7	510.2	491.5	443.4	464.0
72.5°	229.1	234.0	242.8	261.5	281.2	306.7	328.3	380.4	368.6	322.4	327.4
75°	180.9	183.8	191.7	205.5	224.1	253.6	295.9	313.6	281.2	237.9	237.9
77.5°	143.5	146.5	153.4	164.2	176.0	196.6	226.1	272.3	252.6	178.9	177.9
80°	108.1	111.1	118.0	127.8	139.6	154.3	172.0	192.7	232.0	167.1	133.7
82.5°	79.6	80.6	92.4	99.3	103.2	115.0	129.8	141.6	159.3	154.3	119.0
85°	60.0	59.0	66.8	71.8	72.7	75.7	84.5	96.3	104.2	100.3	92.4
87.5°	33.4	29.5	34.4	39.3	39.3	40.3	42.3	49.2	56.0	54.1	49.2
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: P239107

CATALOG NUMBER: ARCH-AF24-50-D-U-T2U-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
2.5°	633.1	633.1	632.1	632.1	633.1	633.1	632.1	635.1	637.0	637.0	638.0
5°	636.0	637.0	636.0	636.0	637.0	637.0	638.0	641.0	643.9	645.9	648.8
7.5°	644.9	645.9	644.9	644.9	645.9	646.9	648.8	652.8	654.7	658.7	663.6
10°	654.7	655.7	654.7	655.7	656.7	657.7	660.6	663.6	666.5	670.5	678.3
12.5°	672.4	673.4	671.4	672.4	675.4	675.4	677.3	679.3	684.2	689.1	697.0
15°	697.0	697.0	695.0	696.0	699.0	699.0	699.9	701.9	707.8	713.7	721.6
17.5°	725.5	727.5	726.5	727.5	729.4	730.4	730.4	732.4	736.3	740.2	748.1
20°	763.8	764.8	762.9	764.8	766.8	764.8	762.9	761.9	763.8	765.8	774.7
22.5°	815.9	815.0	810.0	810.0	810.0	806.1	801.2	795.3	795.3	792.4	799.2
25°	877.9	874.9	868.0	869.0	862.1	856.3	847.4	838.6	830.7	827.7	828.7
27.5°	950.6	944.7	937.8	935.9	929.0	918.2	903.4	886.7	873.9	864.1	862.1
30°	1042.0	1029.3	1017.5	1015.5	1004.7	987.0	963.4	940.8	919.2	902.5	896.6
32.5°	1150.2	1130.5	1111.8	1109.9	1092.2	1068.6	1040.1	1008.6	977.2	950.6	937.8
35°	1277.0	1247.5	1229.8	1224.9	1199.3	1169.8	1138.4	1098.1	1053.8	1016.5	992.9
37.5°	1431.3	1400.9	1370.4	1371.4	1336.0	1301.6	1259.3	1210.2	1154.1	1102.0	1068.6
40°	1622.1	1578.8	1539.5	1530.6	1500.2	1452.0	1405.8	1348.8	1280.0	1211.1	1163.0
42.5°	1853.1	1782.3	1728.2	1720.4	1680.1	1621.1	1565.0	1489.3	1419.5	1336.0	1278.0
45°	2115.6	2002.5	1937.6	1925.8	1860.9	1801.0	1733.1	1652.5	1567.0	1472.6	1403.8
47.5°	2441.9	2280.7	2170.6	2150.9	2061.5	1982.8	1912.1	1822.6	1720.4	1615.2	1539.5
50°	2822.4	2584.5	2436.0	2405.6	2285.6	2193.2	2102.8	1990.7	1881.6	1771.5	1684.0
52.5°	3203.8	2948.2	2750.6	2713.3	2536.3	2412.4	2293.5	2181.4	2052.6	1943.5	1844.2
55°	3510.5	3340.5	3111.4	3059.3	2805.7	2637.6	2481.3	2353.5	2225.7	2139.2	2022.2
57.5°	3695.3	3686.5	3505.6	3433.8	3086.8	2838.1	2664.1	2518.6	2394.7	2358.4	2203.0
60°	3690.4	3919.5	3841.8	3787.8	3370.9	3043.6	2817.5	2660.2	2557.9	2599.2	2384.9
62.5°	3465.3	3929.3	4022.7	4008.0	3673.7	3208.7	2943.3	2781.1	2727.0	2849.9	2573.7
63°	3383.7	3906.7	4030.6	4024.7	3731.7	3240.2	2964.9	2804.7	2760.4	2913.8	2608.1
65°	2859.7	3709.1	3935.2	3961.8	3856.6	3348.3	3015.1	2864.7	2859.7	3056.4	2689.7
67.5°	1743.0	3134.0	3505.6	3556.7	3680.6	3382.7	2986.6	2844.0	2914.8	3077.0	2665.1
70°	745.2	2068.4	2817.5	2900.0	3202.8	3211.7	2905.0	2759.5	2902.0	2915.8	2490.1
72.5°	441.4	975.2	1918.0	2097.9	2534.3	2763.4	2718.2	2612.0	2733.9	2560.9	2120.5
75°	312.6	456.1	974.2	1165.9	1764.6	2109.7	2283.7	2332.8	2327.9	2031.0	1591.6
77.5°	224.1	293.0	410.9	484.7	985.0	1354.7	1567.0	1710.5	1664.3	1359.6	981.1
80°	156.3	202.5	251.7	267.4	457.1	696.0	825.8	888.7	861.2	679.3	439.4
82.5°	113.1	132.7	162.2	172.0	230.0	321.5	382.4	337.2	323.4	250.7	189.7
85°	87.5	85.5	101.3	105.2	134.7	168.1	172.0	133.7	117.0	104.2	106.2
87.5°	61.9	53.1	54.1	56.0	69.8	89.5	87.5	55.1	47.2	50.1	57.0
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: P239107

CATALOG NUMBER: ARCH-AF24-50-D-U-T2U-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0	636.0
2.5°	640.0	641.0	642.9	643.9	645.9	645.9	647.8	648.8	650.8	652.8	653.7
5°	651.8	654.7	658.7	660.6	664.6	667.5	671.4	673.4	677.3	680.3	684.2
7.5°	669.5	674.4	679.3	685.2	691.1	696.0	699.9	704.9	711.7	716.7	719.6
10°	686.2	693.1	701.9	708.8	717.6	724.5	730.4	739.3	747.1	754.0	757.9
12.5°	707.8	716.7	725.5	736.3	748.1	757.0	765.8	777.6	788.4	796.3	800.2
15°	733.4	744.2	754.0	766.8	780.6	792.4	805.1	817.9	825.8	825.8	823.8
17.5°	759.9	768.8	780.6	795.3	814.0	828.7	835.6	837.6	834.6	827.7	822.8
20°	786.5	794.3	807.1	824.8	844.5	847.4	840.5	831.7	822.8	811.0	803.2
22.5°	808.1	818.9	838.6	859.2	860.2	843.5	824.8	810.0	796.3	782.5	767.8
25°	833.6	848.4	874.9	882.8	857.2	825.8	799.2	777.6	755.0	732.4	715.7
27.5°	865.1	886.7	913.3	890.7	840.5	796.3	759.9	727.5	698.0	666.5	647.8
30°	898.5	931.9	937.8	878.9	812.0	755.0	705.8	656.7	619.3	590.8	580.0
32.5°	938.8	982.1	946.7	858.2	773.7	699.0	633.1	574.1	542.7	525.0	520.0
35°	999.8	1035.2	951.6	836.6	729.4	632.1	549.5	502.3	482.7	470.9	465.0
37.5°	1087.3	1086.3	950.6	810.0	678.3	559.4	482.7	449.3	433.5	423.7	412.9
40°	1189.5	1125.6	944.7	771.7	609.5	489.6	436.5	405.0	390.3	378.5	365.7
42.5°	1290.8	1152.2	928.0	714.7	524.0	439.4	403.1	374.5	358.8	346.0	328.3
45°	1378.3	1163.0	895.6	636.0	447.3	400.1	381.4	356.9	338.2	318.5	304.8
47.5°	1447.1	1161.0	843.5	543.6	396.2	372.6	363.7	347.0	324.4	299.8	282.1
50°	1505.1	1146.3	772.7	462.0	361.8	348.0	345.1	340.1	303.8	283.1	272.3
52.5°	1558.2	1124.6	697.0	407.0	332.3	320.5	326.4	321.5	295.9	278.2	267.4
55°	1630.9	1109.9	622.3	364.7	297.9	294.9	299.8	306.7	291.0	274.3	262.5
57.5°	1716.4	1117.7	565.3	317.5	265.4	267.4	284.1	293.9	286.1	268.4	256.6
60°	1814.7	1141.3	515.1	272.3	238.9	243.8	268.4	282.1	281.2	260.5	246.7
62.5°	1924.8	1165.9	435.5	237.9	216.3	224.1	249.7	267.4	270.3	252.6	235.9
63°	1946.5	1167.9	414.9	231.0	212.3	221.2	244.8	263.5	267.4	250.7	234.0
65°	1999.6	1150.2	334.2	212.3	196.6	206.4	230.0	246.7	254.6	239.9	226.1
67.5°	1955.3	1005.7	251.7	189.7	183.8	190.7	211.4	227.1	234.0	227.1	213.3
70°	1788.2	731.4	196.6	169.1	170.1	175.0	190.7	205.5	213.3	211.4	198.6
72.5°	1440.2	414.9	164.2	151.4	154.3	160.2	171.1	184.8	191.7	190.7	181.9
75°	948.7	212.3	138.6	135.7	137.6	142.5	150.4	161.2	169.1	168.1	164.2
77.5°	469.9	147.5	119.0	119.9	120.9	124.8	130.7	140.6	145.5	146.5	145.5
80°	193.7	115.0	102.2	103.2	104.2	107.2	111.1	119.9	122.9	124.8	125.8
82.5°	116.0	87.5	81.6	83.6	84.5	87.5	90.4	98.3	101.3	104.2	104.2
85°	76.7	61.0	59.0	61.0	62.9	64.9	65.9	70.8	75.7	79.6	81.6
87.5°	41.3	36.4	35.4	36.4	36.4	38.3	40.3	45.2	51.1	55.1	57.0
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: P239107

CATALOG NUMBER: ARCH-AF24-50-D-U-T2U-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	636.0	636.0	636.0	636.0	636.0
2.5°	651.8	652.8	651.8	652.8	653.7
5°	684.2	686.2	685.2	685.2	689.1
7.5°	721.6	725.5	725.5	727.5	729.4
10°	761.9	765.8	768.8	768.8	771.7
12.5°	802.2	804.1	807.1	807.1	807.1
15°	822.8	821.8	820.9	819.9	819.9
17.5°	819.9	815.9	814.0	812.0	813.0
20°	798.2	791.4	789.4	786.5	788.4
22.5°	760.9	751.1	747.1	742.2	744.2
25°	704.9	693.1	691.1	685.2	688.1
27.5°	640.0	634.1	633.1	632.1	637.0
30°	579.0	581.0	582.0	583.9	588.9
32.5°	523.0	526.9	527.9	528.9	535.8
35°	467.9	463.0	467.9	466.0	471.9
37.5°	408.0	404.0	400.1	395.2	399.1
40°	357.8	351.0	339.2	333.3	334.2
42.5°	318.5	309.7	299.8	293.9	293.9
45°	293.0	282.1	273.3	269.4	269.4
47.5°	273.3	268.4	263.5	260.5	260.5
50°	265.4	259.5	256.6	254.6	254.6
52.5°	259.5	253.6	250.7	248.7	246.7
55°	254.6	245.8	242.8	241.8	241.8
57.5°	247.7	239.9	235.9	235.0	235.0
60°	236.9	231.0	227.1	226.1	226.1
62.5°	226.1	220.2	216.3	216.3	216.3
63°	224.1	217.3	214.3	214.3	214.3
65°	215.3	208.4	205.5	205.5	204.5
67.5°	203.5	196.6	194.6	194.6	192.7
70°	189.7	183.8	181.9	182.9	178.9
72.5°	176.0	170.1	167.1	167.1	163.2
75°	160.2	154.3	150.4	149.4	145.5
77.5°	142.5	137.6	133.7	129.8	127.8
80°	123.9	119.9	115.0	112.1	109.1
82.5°	104.2	100.3	97.3	101.3	86.5
85°	81.6	77.7	73.7	79.6	61.9
87.5°	60.0	58.0	54.1	47.2	41.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)