

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: P239134

Luminaire Tested: **ARCH-AF24-40-D-U-T2U-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239134
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-AF24-40-D-U-T2U-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 500mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5145 lumens
Efficiency: N/A
Efficacy: 128.6 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

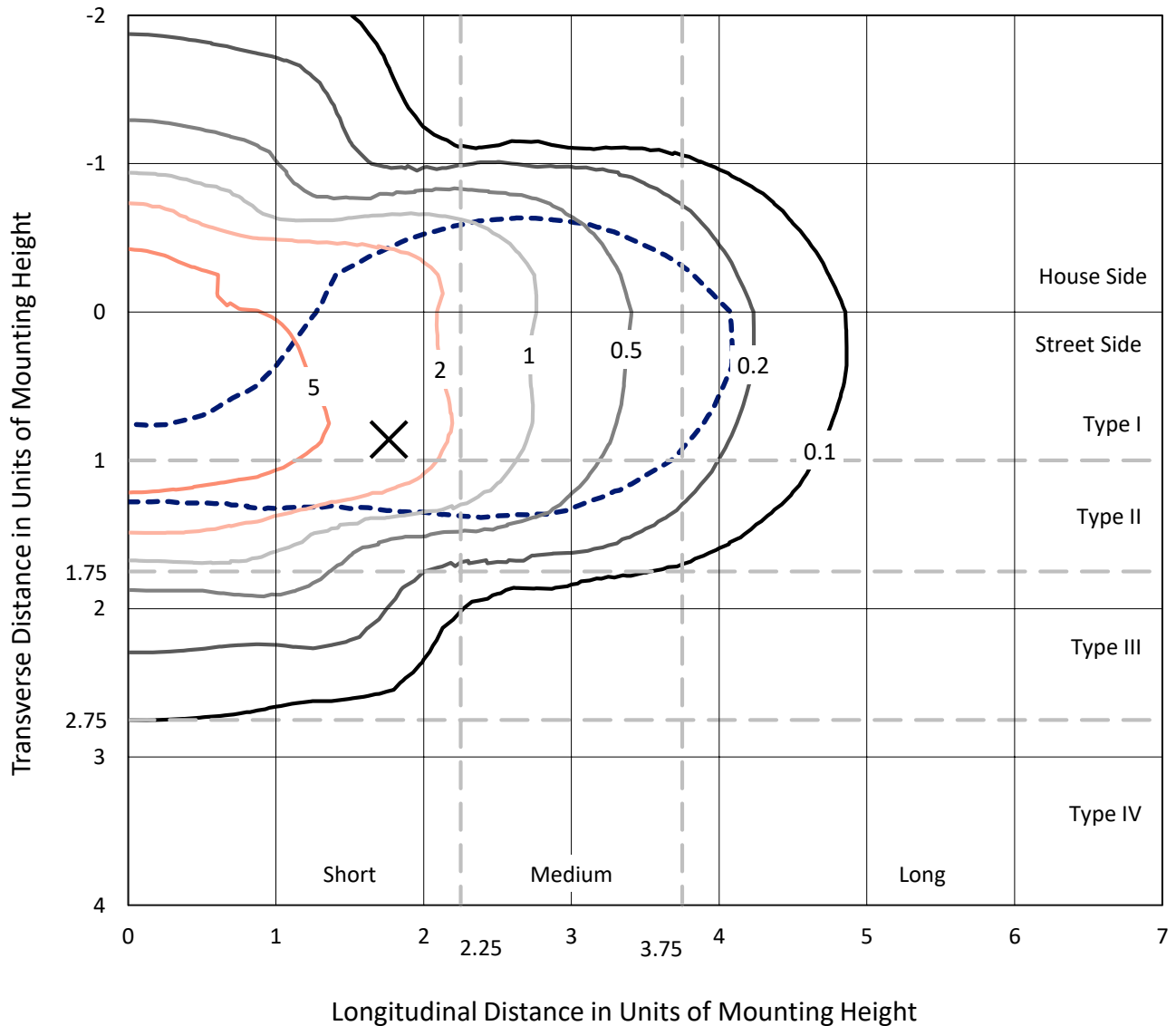
Input Watts (W): 40
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P239134
 CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7050

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

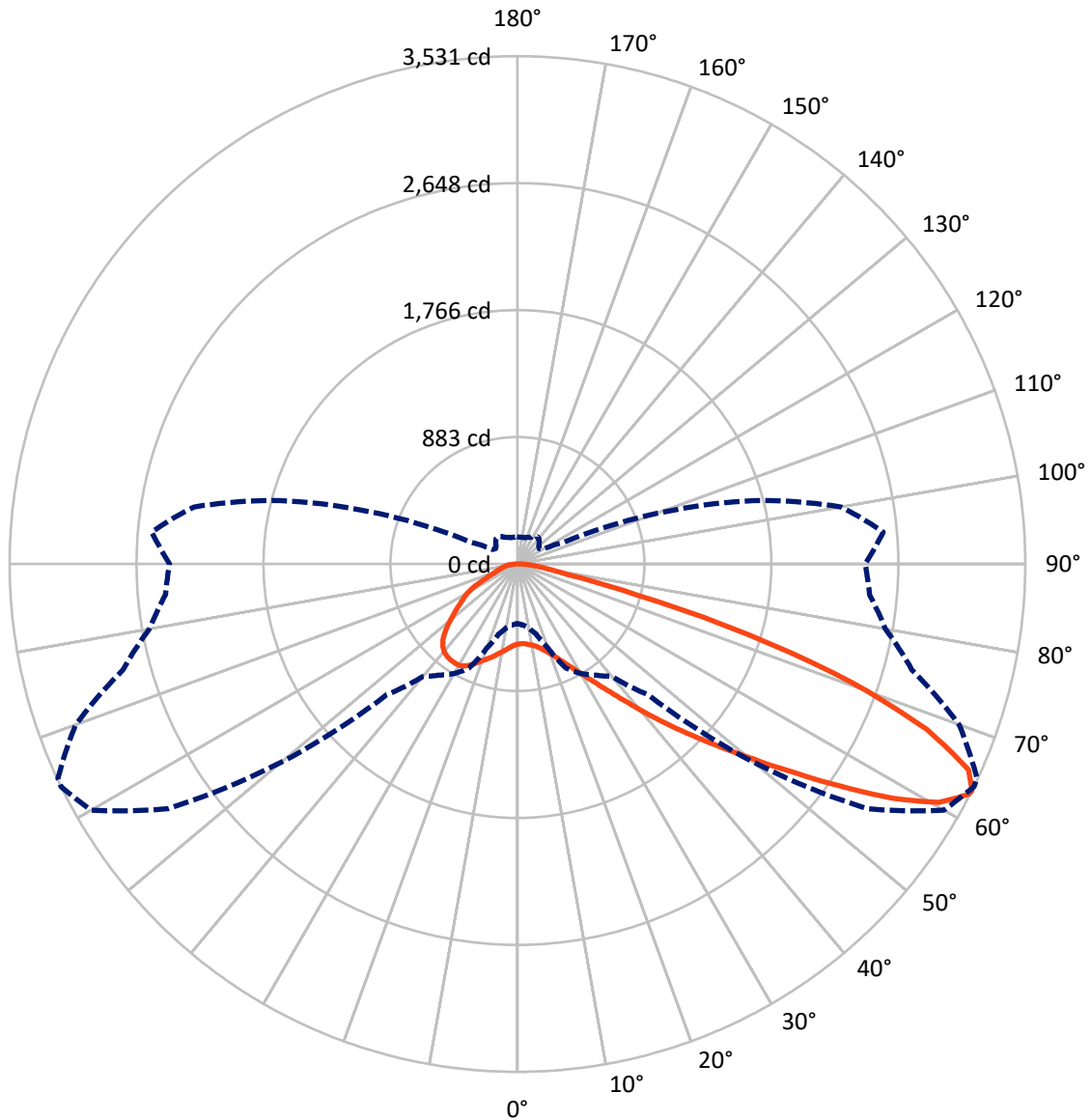


Based on 10 foot mounting height. Maximum calculated value = 9 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P239134

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7050

Luminous Intensity Polar Plot



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

REPORT NUMBER: P239134

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7050

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1512.4	0.0	1512.4
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	3632.6	0.0	3632.6
	% Fixture	70.6	0.0	70.6
Total	Lumens	5145.0	0.0	5145.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	55.6	1.1
10°-20°	185.3	3.6
20°-30°	347.8	6.8
30°-40°	583.0	11.3
40°-50°	978.1	19.0
50°-60°	1240.0	24.1
60°-70°	1093.9	21.3
70°-80°	564.7	11.0
80°-90°	96.6	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°	5145.0	100.0
0°-180°	5145.0	100.0



REPORT NUMBER: P239134

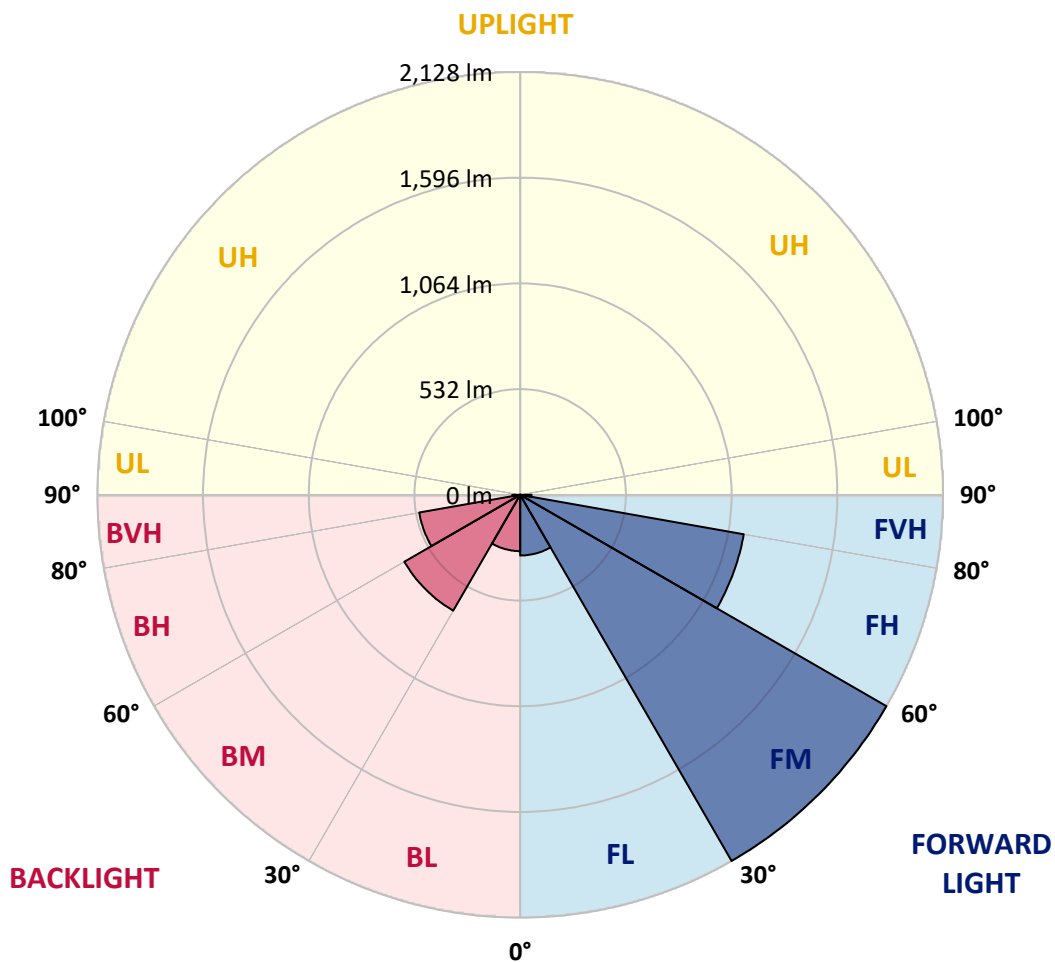
CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	305.4	5.9			
FM	(30°-60°)	2127.8	41.4			
FH	(60°-80°)	1142.5	22.2			G1/1800
FVH	(80°-90°)	56.9	1.1			G1/100
BL	(0°-30°)	283.4	5.5	B1/500		
BM	(30°-60°)	673.3	13.1	B1/1000		
BH	(60°-80°)	516.0	10.0	B2/1000		G2/1000
BVH	(80°-90°)	39.8	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: P239134

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7050

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2
2.5°	553.8	552.9	552.9	552.9	552.9	552.0	552.9	554.6	553.8	552.9	554.6
5°	555.5	554.6	554.6	554.6	555.5	554.6	555.5	558.1	556.3	556.3	558.1
7.5°	559.8	558.9	559.8	558.9	558.9	558.9	559.8	562.4	561.5	562.4	565.0
10°	565.0	565.0	565.0	565.0	565.0	565.0	566.7	568.4	569.3	570.1	573.6
12.5°	580.5	580.5	580.5	579.6	579.6	577.0	580.5	582.2	583.9	585.6	588.2
15°	613.2	613.2	612.3	608.9	608.9	603.7	604.6	605.4	605.4	607.2	608.9
17.5°	656.2	655.4	653.7	651.1	647.6	641.6	639.9	638.2	635.6	634.7	634.7
20°	716.5	715.7	712.2	705.3	701.0	691.5	684.7	677.8	675.2	670.9	670.0
22.5°	802.6	802.6	795.8	785.4	782.0	762.2	742.4	727.7	722.6	716.5	716.5
25°	906.9	906.0	896.5	884.5	869.8	849.2	825.0	805.2	792.3	778.5	773.4
27.5°	1031.7	1029.1	1016.2	1001.6	974.0	948.2	919.8	899.1	876.7	859.5	844.0
30°	1178.1	1175.5	1153.2	1125.6	1097.2	1071.3	1030.0	1005.0	969.7	949.1	931.8
32.5°	1347.8	1345.2	1304.7	1278.0	1247.9	1216.0	1166.9	1127.3	1082.5	1053.3	1029.1
35°	1564.0	1553.6	1495.9	1458.9	1411.5	1379.7	1328.0	1274.6	1222.1	1180.7	1145.4
37.5°	1797.3	1785.3	1734.5	1679.4	1632.8	1594.1	1520.9	1453.7	1391.7	1334.9	1291.0
40°	2041.1	2009.2	1954.9	1914.5	1882.6	1845.6	1768.9	1698.3	1601.0	1537.3	1470.9
42.5°	2209.9	2178.9	2141.0	2114.3	2098.8	2070.3	2027.3	1966.1	1879.2	1880.9	1706.1
45°	2321.0	2275.3	2249.5	2251.2	2257.2	2257.2	2249.5	2240.0	2202.1	2227.9	2081.5
47.5°	2281.3	2251.2	2234.8	2269.3	2312.3	2355.4	2405.4	2459.6	2521.6	2594.8	2414.8
50°	2048.8	2060.0	2067.8	2141.0	2233.1	2331.3	2445.8	2594.0	2767.1	2800.6	2713.7
52.5°	1677.6	1701.7	1727.6	1839.5	1961.0	2130.6	2331.3	2575.9	2808.4	2945.3	2936.7
55°	1303.0	1333.1	1388.3	1471.8	1568.3	1728.4	1976.5	2353.7	2716.2	2934.1	3066.8
57.5°	927.5	971.4	1043.8	1160.0	1245.3	1335.7	1519.2	1937.7	2334.7	2740.4	3045.2
60°	616.6	637.3	684.7	829.3	973.2	1067.9	1197.9	1349.5	1674.2	2233.1	2823.0
62.5°	437.5	451.3	480.6	546.0	676.0	847.4	925.8	995.6	1099.8	1436.5	2266.7
63°	413.4	425.4	449.6	504.7	621.8	799.2	879.3	943.0	1018.8	1284.9	2144.4
65°	342.8	347.9	360.8	387.5	450.4	597.7	728.6	767.3	780.3	825.9	1343.5
67.5°	289.4	292.8	297.1	304.9	329.8	397.9	543.4	592.5	577.9	546.9	664.0
70°	251.5	254.1	260.9	270.4	279.0	296.3	373.8	447.0	430.6	388.4	406.5
72.5°	200.7	205.0	212.7	229.1	246.3	268.7	287.6	333.3	323.0	282.5	286.8
75°	158.5	161.0	167.9	180.0	196.4	222.2	259.2	274.7	246.3	208.4	208.4
77.5°	125.7	128.3	134.3	143.8	154.2	172.2	198.1	238.6	221.3	156.7	155.9
80°	94.7	97.3	103.3	112.0	122.3	135.2	150.7	168.8	203.2	146.4	117.1
82.5°	69.8	70.6	81.0	87.0	90.4	100.8	113.7	124.0	139.5	135.2	104.2
85°	52.5	51.7	58.6	62.9	63.7	66.3	74.1	84.4	91.3	87.8	81.0
87.5°	29.3	25.8	30.1	34.4	34.4	35.3	37.0	43.1	49.1	47.4	43.1
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: P239134

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7050

CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2
2.5°	554.6	554.6	553.8	553.8	554.6	554.6	553.8	556.3	558.1	558.1	558.9
5°	557.2	558.1	557.2	557.2	558.1	558.1	558.9	561.5	564.1	565.8	568.4
7.5°	565.0	565.8	565.0	565.0	565.8	566.7	568.4	571.8	573.6	577.0	581.3
10°	573.6	574.4	573.6	574.4	575.3	576.1	578.7	581.3	583.9	587.3	594.2
12.5°	589.1	589.9	588.2	589.1	591.6	591.6	593.4	595.1	599.4	603.7	610.6
15°	610.6	610.6	608.9	609.7	612.3	612.3	613.2	614.9	620.1	625.2	632.1
17.5°	635.6	637.3	636.4	637.3	639.0	639.9	639.9	641.6	645.0	648.5	655.4
20°	669.2	670.0	668.3	670.0	671.7	670.0	668.3	667.4	669.2	670.9	678.6
22.5°	714.8	713.9	709.6	709.6	709.6	706.2	701.9	696.7	696.7	694.1	700.2
25°	769.1	766.5	760.4	761.3	755.3	750.1	742.4	734.6	727.7	725.1	726.0
27.5°	832.8	827.6	821.6	819.9	813.8	804.4	791.4	776.8	765.6	757.0	755.3
30°	912.9	901.7	891.3	889.6	880.2	864.7	844.0	824.2	805.2	790.6	785.4
32.5°	1007.6	990.4	974.0	972.3	956.8	936.1	911.2	883.6	856.0	832.8	821.6
35°	1118.7	1092.9	1077.4	1073.1	1050.7	1024.8	997.3	962.0	923.2	890.5	869.8
37.5°	1253.9	1227.2	1200.5	1201.4	1170.4	1140.2	1103.2	1060.1	1011.1	965.4	936.1
40°	1421.0	1383.1	1348.7	1340.9	1314.2	1272.0	1231.5	1181.6	1121.3	1061.0	1018.8
42.5°	1623.4	1561.4	1514.0	1507.1	1471.8	1420.1	1371.0	1304.7	1243.6	1170.4	1119.6
45°	1853.3	1754.3	1697.4	1687.1	1630.3	1577.7	1518.3	1447.7	1372.8	1290.1	1229.8
47.5°	2139.2	1998.0	1901.5	1884.3	1806.0	1737.1	1675.0	1596.7	1507.1	1415.0	1348.7
50°	2472.5	2264.1	2134.1	2107.4	2002.3	1921.4	1842.1	1743.9	1648.4	1551.9	1475.2
52.5°	2806.7	2582.8	2409.7	2376.9	2221.9	2113.4	2009.2	1911.0	1798.2	1702.6	1615.6
55°	3075.4	2926.4	2725.7	2680.1	2457.9	2310.6	2173.7	2061.7	1949.8	1874.0	1771.5
57.5°	3237.3	3229.5	3071.1	3008.2	2704.2	2486.3	2333.9	2206.4	2097.9	2066.0	1930.0
60°	3233.0	3433.6	3365.6	3318.2	2953.1	2666.3	2468.2	2330.4	2240.9	2277.0	2089.3
62.5°	3035.8	3442.2	3524.1	3511.1	3218.3	2811.0	2578.5	2436.4	2389.0	2496.6	2254.6
63°	2964.3	3422.4	3531.0	3525.8	3269.1	2838.5	2597.4	2457.0	2418.3	2552.6	2284.8
65°	2505.3	3249.3	3447.4	3470.7	3378.5	2933.3	2641.3	2509.6	2505.3	2677.5	2356.3
67.5°	1526.9	2745.5	3071.1	3115.8	3224.4	2963.4	2616.3	2491.5	2553.5	2695.6	2334.7
70°	652.8	1812.0	2468.2	2540.6	2805.8	2813.6	2544.9	2417.4	2542.3	2554.3	2181.4
72.5°	386.7	854.3	1680.2	1837.8	2220.2	2420.9	2381.2	2288.2	2395.0	2243.4	1857.6
75°	273.9	399.6	853.5	1021.4	1545.9	1848.2	2000.6	2043.6	2039.3	1779.3	1394.3
77.5°	196.4	256.6	360.0	424.6	862.9	1186.7	1372.8	1498.5	1458.0	1191.1	859.5
80°	136.9	177.4	220.5	234.2	400.5	609.7	723.4	778.5	754.4	595.1	385.0
82.5°	99.0	116.3	142.1	150.7	201.5	281.6	335.0	295.4	283.3	219.6	166.2
85°	76.6	74.9	88.7	92.1	118.0	147.3	150.7	117.1	102.5	91.3	93.0
87.5°	54.3	46.5	47.4	49.1	61.1	78.4	76.6	48.2	41.3	43.9	50.0
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: P239134

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7050

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2	557.2
2.5°	560.6	561.5	563.2	564.1	565.8	565.8	567.5	568.4	570.1	571.8	572.7
5°	571.0	573.6	577.0	578.7	582.2	584.8	588.2	589.9	593.4	596.0	599.4
7.5°	586.5	590.8	595.1	600.3	605.4	609.7	613.2	617.5	623.5	627.8	630.4
10°	601.1	607.2	614.9	620.9	628.7	634.7	639.9	647.6	654.5	660.5	664.0
12.5°	620.1	627.8	635.6	645.0	655.4	663.1	670.9	681.2	690.7	697.6	701.0
15°	642.5	651.9	660.5	671.7	683.8	694.1	705.3	716.5	723.4	723.4	721.7
17.5°	665.7	673.5	683.8	696.7	713.1	726.0	732.0	733.7	731.2	725.1	720.8
20°	689.0	695.9	707.1	722.6	739.8	742.4	736.3	728.6	720.8	710.5	703.6
22.5°	707.9	717.4	734.6	752.7	753.6	738.9	722.6	709.6	697.6	685.5	672.6
25°	730.3	743.2	766.5	773.4	751.0	723.4	700.2	681.2	661.4	641.6	627.0
27.5°	757.9	776.8	800.1	780.3	736.3	697.6	665.7	637.3	611.5	583.9	567.5
30°	787.1	816.4	821.6	769.9	711.4	661.4	618.3	575.3	542.6	517.6	508.1
32.5°	822.5	860.3	829.3	751.8	677.8	612.3	554.6	502.9	475.4	459.9	455.6
35°	875.8	906.9	833.6	732.9	639.0	553.8	481.4	440.1	422.9	412.5	407.4
37.5°	952.5	951.6	832.8	709.6	594.2	490.0	422.9	393.6	379.8	371.2	361.7
40°	1042.1	986.1	827.6	676.0	533.9	428.9	382.4	354.8	341.9	331.6	320.4
42.5°	1130.8	1009.3	813.0	626.1	459.0	385.0	353.1	328.1	314.3	303.1	287.6
45°	1207.4	1018.8	784.6	557.2	391.8	350.5	334.1	312.6	296.3	279.0	267.0
47.5°	1267.7	1017.1	738.9	476.2	347.1	326.4	318.6	304.0	284.2	262.7	247.2
50°	1318.5	1004.2	676.9	404.8	316.9	304.9	302.3	298.0	266.1	248.0	238.6
52.5°	1365.0	985.2	610.6	356.5	291.1	280.8	285.9	281.6	259.2	243.7	234.2
55°	1428.7	972.3	545.1	319.5	260.9	258.4	262.7	268.7	254.9	240.3	229.9
57.5°	1503.7	979.2	495.2	278.2	232.5	234.2	248.9	257.5	250.6	235.1	224.8
60°	1589.8	999.9	451.3	238.6	209.3	213.6	235.1	247.2	246.3	228.2	216.2
62.5°	1686.2	1021.4	381.5	208.4	189.5	196.4	218.7	234.2	236.8	221.3	206.7
63°	1705.2	1023.1	363.4	202.4	186.0	193.8	214.4	230.8	234.2	219.6	205.0
65°	1751.7	1007.6	292.8	186.0	172.2	180.9	201.5	216.2	223.1	210.1	198.1
67.5°	1712.9	881.0	220.5	166.2	161.0	167.1	185.2	198.9	205.0	198.9	186.9
70°	1566.5	640.7	172.2	148.1	149.0	153.3	167.1	180.0	186.9	185.2	174.0
72.5°	1261.7	363.4	143.8	132.6	135.2	140.4	149.9	161.9	167.9	167.1	159.3
75°	831.1	186.0	121.4	118.8	120.6	124.9	131.8	141.2	148.1	147.3	143.8
77.5°	411.7	129.2	104.2	105.1	105.9	109.4	114.5	123.2	127.5	128.3	127.5
80°	169.7	100.8	89.6	90.4	91.3	93.9	97.3	105.1	107.7	109.4	110.2
82.5°	101.6	76.6	71.5	73.2	74.1	76.6	79.2	86.1	88.7	91.3	91.3
85°	67.2	53.4	51.7	53.4	55.1	56.8	57.7	62.0	66.3	69.8	71.5
87.5°	36.2	31.9	31.0	31.9	31.9	33.6	35.3	39.6	44.8	48.2	50.0
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: P239134

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7050

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	557.2	557.2	557.2	557.2	557.2
2.5°	571.0	571.8	571.0	571.8	572.7
5°	599.4	601.1	600.3	600.3	603.7
7.5°	632.1	635.6	635.6	637.3	639.0
10°	667.4	670.9	673.5	673.5	676.0
12.5°	702.7	704.5	707.1	707.1	707.1
15°	720.8	720.0	719.1	718.2	718.2
17.5°	718.2	714.8	713.1	711.4	712.2
20°	699.3	693.3	691.5	689.0	690.7
22.5°	666.6	658.0	654.5	650.2	651.9
25°	617.5	607.2	605.4	600.3	602.8
27.5°	560.6	555.5	554.6	553.8	558.1
30°	507.3	509.0	509.8	511.6	515.9
32.5°	458.2	461.6	462.5	463.3	469.4
35°	409.9	405.6	409.9	408.2	413.4
37.5°	357.4	354.0	350.5	346.2	349.7
40°	313.5	307.5	297.1	291.9	292.8
42.5°	279.0	271.3	262.7	257.5	257.5
45°	256.6	247.2	239.4	236.0	236.0
47.5°	239.4	235.1	230.8	228.2	228.2
50°	232.5	227.4	224.8	223.1	223.1
52.5°	227.4	222.2	219.6	217.9	216.2
55°	223.1	215.3	212.7	211.9	211.9
57.5°	217.0	210.1	206.7	205.8	205.8
60°	207.6	202.4	198.9	198.1	198.1
62.5°	198.1	192.9	189.5	189.5	189.5
63°	196.4	190.3	187.7	187.7	187.7
65°	188.6	182.6	180.0	180.0	179.1
67.5°	178.3	172.2	170.5	170.5	168.8
70°	166.2	161.0	159.3	160.2	156.7
72.5°	154.2	149.0	146.4	146.4	143.0
75°	140.4	135.2	131.8	130.9	127.5
77.5°	124.9	120.6	117.1	113.7	112.0
80°	108.5	105.1	100.8	98.2	95.6
82.5°	91.3	87.8	85.3	88.7	75.8
85°	71.5	68.0	64.6	69.8	54.3
87.5°	52.5	50.8	47.4	41.3	36.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)