

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: P239133

Luminaire Tested: **ARCH-AF24-30-D-U-T2U-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P239133  
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-AF24-30-D-U-T2U-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 375mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3988 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: B1 - U0 - G1

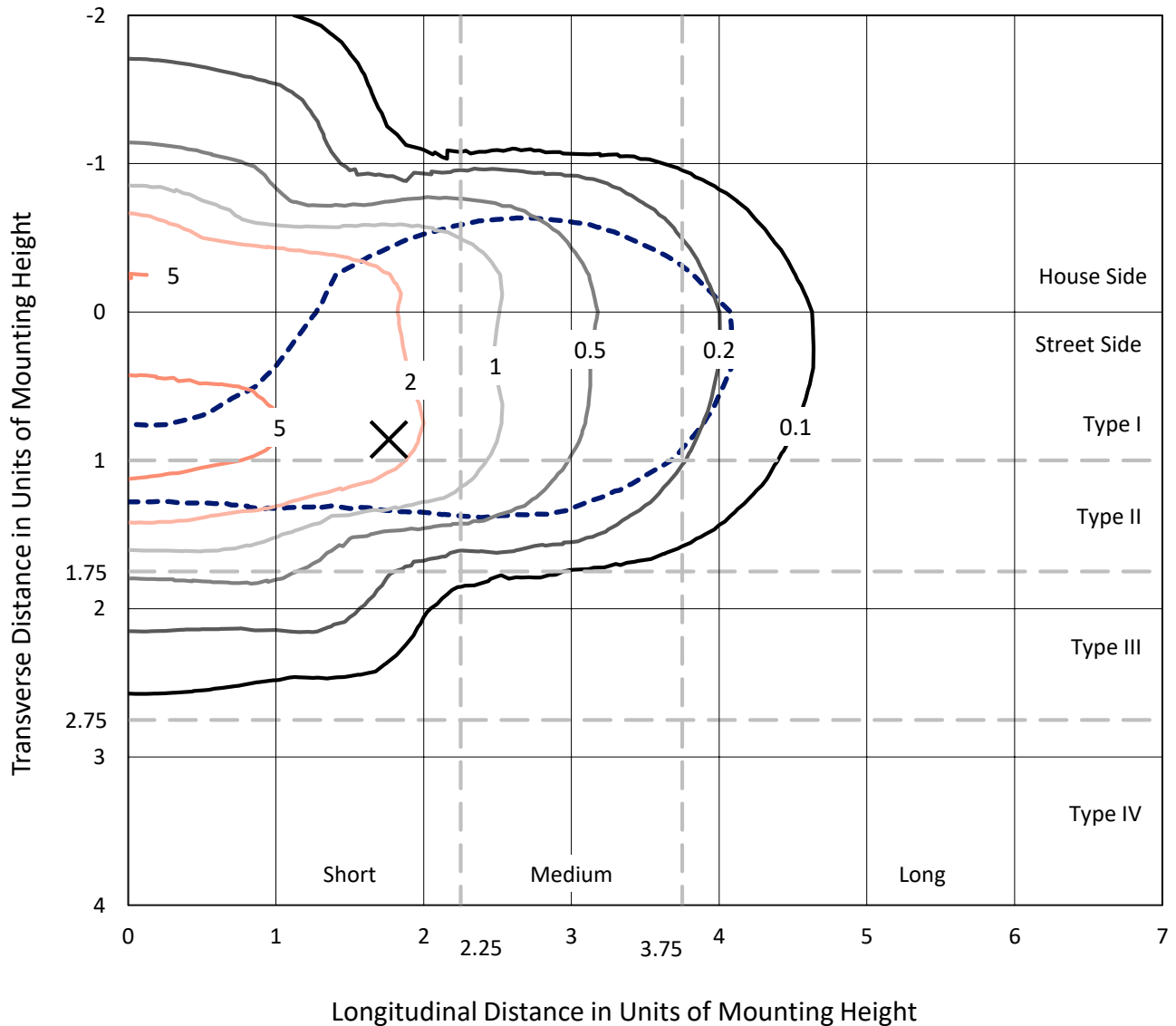
Input Watts (W): 31  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P239133  
 CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-7050

### Iso-Footcandle Lines of Horizontal Illumination

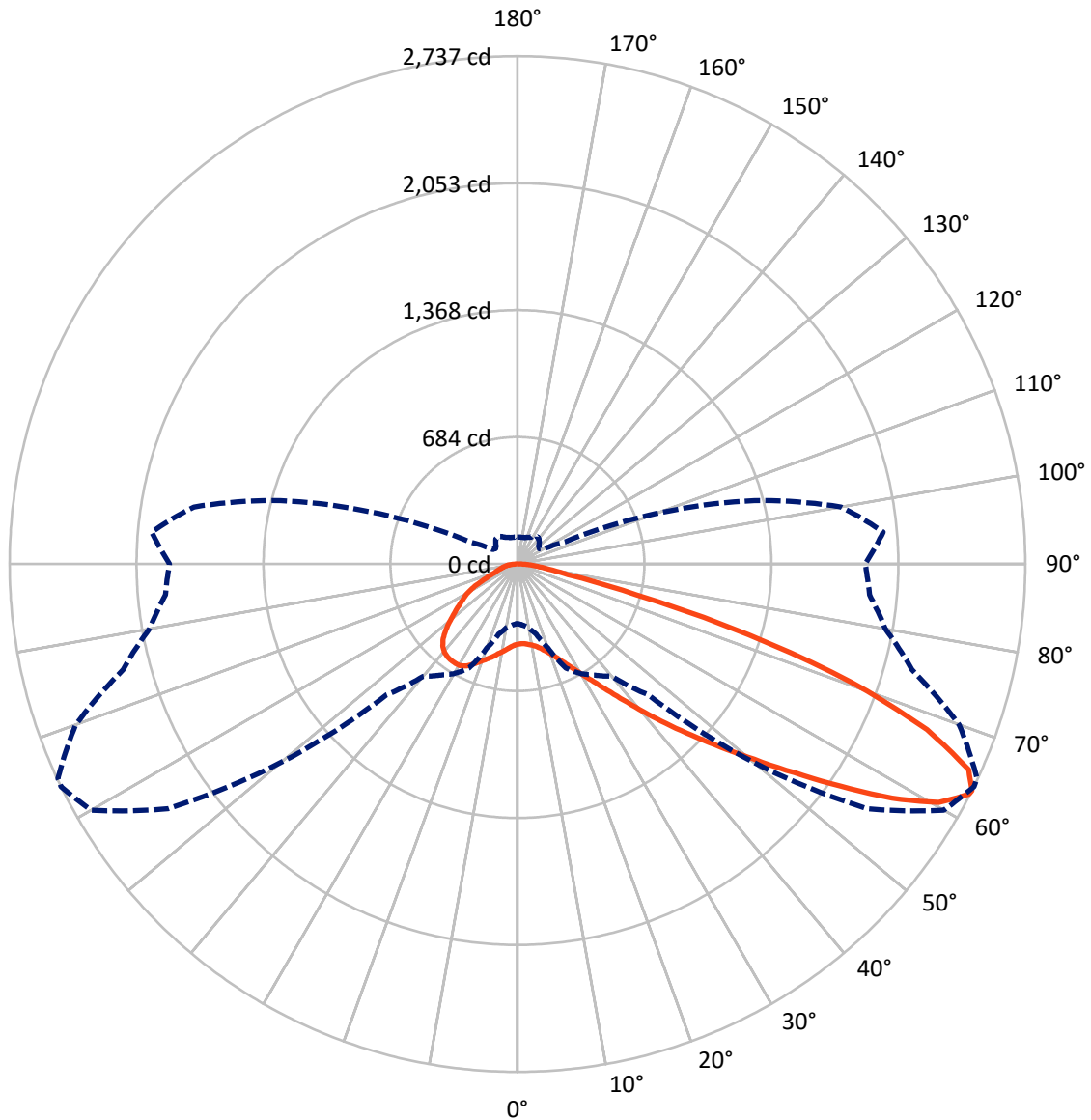
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P239133  
CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-7050

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P239133

CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-7050

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1172.3	0.0	1172.3
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	2815.7	0.0	2815.7
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	3988.0	0.0	3988.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.1	1.1
10°-20°	143.6	3.6
20°-30°	269.6	6.8
30°-40°	451.9	11.3
40°-50°	758.2	19.0
50°-60°	961.1	24.1
60°-70°	847.9	21.3
70°-80°	437.7	11.0
80°-90°	74.9	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°	3988.0	100.0
0°-180°	3988.0	100.0



REPORT NUMBER: P239133

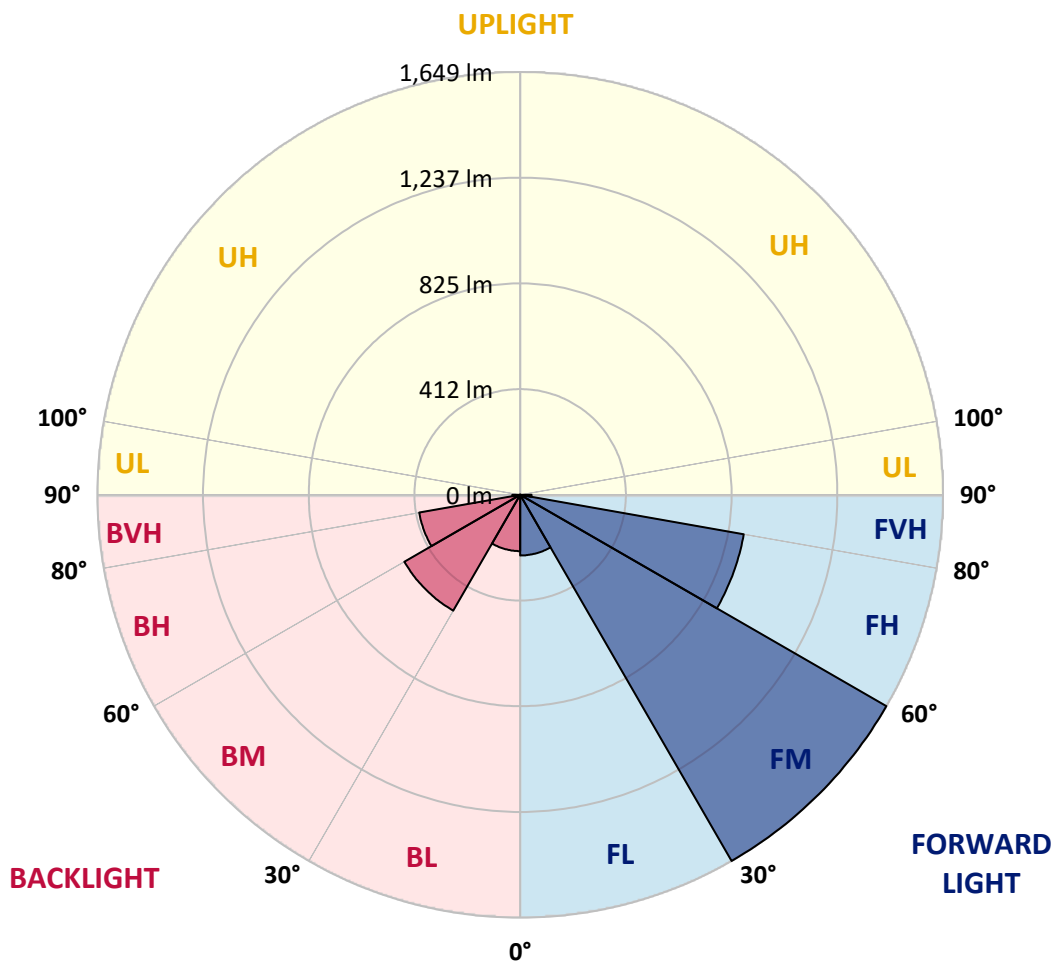
CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-7050

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	236.7	5.9			
FM	(30°-60°)	1649.3	41.4			
FH	(60°-80°)	885.6	22.2			G1/1800
FVH	(80°-90°)	44.1	1.1			G1/100
BL	(0°-30°)	219.7	5.5	B1/500		
BM	(30°-60°)	521.9	13.1	B1/1000		
BH	(60°-80°)	400.0	10.0	B1/500		G1/500
BVH	(80°-90°)	30.8	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





REPORT NUMBER: P239133

CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-7050

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9
2.5°	429.2	428.6	428.6	428.6	428.6	427.9	428.6	429.9	429.2	428.6	429.9
5°	430.6	429.9	429.9	429.9	430.6	429.9	430.6	432.6	431.2	431.2	432.6
7.5°	433.9	433.2	433.9	433.2	433.2	433.2	433.9	435.9	435.2	435.9	437.9
10°	437.9	437.9	437.9	437.9	437.9	437.9	439.2	440.6	441.2	441.9	444.6
12.5°	449.9	449.9	449.9	449.3	449.3	447.3	449.9	451.3	452.6	453.9	455.9
15°	475.3	475.3	474.6	472.0	472.0	467.9	468.6	469.3	469.3	470.6	472.0
17.5°	508.7	508.0	506.7	504.7	502.0	497.3	496.0	494.6	492.6	492.0	492.0
20°	555.4	554.7	552.1	546.7	543.4	536.0	530.7	525.4	523.4	520.0	519.3
22.5°	622.1	622.1	616.8	608.8	606.1	590.8	575.4	564.1	560.1	555.4	555.4
25°	702.9	702.3	694.9	685.6	674.2	658.2	639.5	624.2	614.1	603.5	599.5
27.5°	799.7	797.7	787.7	776.3	755.0	735.0	712.9	696.9	679.6	666.2	654.2
30°	913.2	911.2	893.8	872.5	850.4	830.4	798.4	779.0	751.7	735.6	722.3
32.5°	1044.7	1042.7	1011.3	990.6	967.3	942.6	904.5	873.8	839.1	816.4	797.7
35°	1212.3	1204.2	1159.5	1130.8	1094.1	1069.4	1029.3	988.0	947.2	915.2	887.8
37.5°	1393.2	1383.8	1344.4	1301.7	1265.7	1235.6	1178.9	1126.8	1078.7	1034.7	1000.6
40°	1582.1	1557.4	1515.3	1483.9	1459.2	1430.5	1371.1	1316.4	1241.0	1191.6	1140.2
42.5°	1712.9	1688.9	1659.5	1638.8	1626.8	1604.8	1571.4	1524.0	1456.6	1457.9	1322.4
45°	1799.0	1763.6	1743.6	1745.0	1749.6	1749.6	1743.6	1736.3	1706.9	1726.9	1613.4
47.5°	1768.3	1745.0	1732.3	1759.0	1792.3	1825.7	1864.4	1906.5	1954.6	2011.3	1871.8
50°	1588.1	1596.8	1602.8	1659.5	1730.9	1807.0	1895.8	2010.6	2144.8	2170.8	2103.4
52.5°	1300.4	1319.1	1339.1	1425.9	1520.0	1651.5	1807.0	1996.6	2176.8	2283.0	2276.3
55°	1010.0	1033.4	1076.1	1140.8	1215.6	1339.8	1532.0	1824.4	2105.4	2274.3	2377.1
57.5°	718.9	753.0	809.1	899.2	965.3	1035.4	1177.5	1502.0	1809.7	2124.1	2360.4
60°	478.0	494.0	530.7	642.8	754.3	827.8	928.5	1046.0	1297.7	1730.9	2188.2
62.5°	339.1	349.8	372.5	423.2	524.0	656.9	717.6	771.7	852.4	1113.5	1757.0
63°	320.4	329.8	348.5	391.2	482.0	619.5	681.6	731.0	789.7	996.0	1662.2
65°	265.7	269.7	279.7	300.4	349.1	463.3	564.7	594.8	604.8	640.2	1041.4
67.5°	224.3	227.0	230.3	236.3	255.7	308.4	421.2	459.3	447.9	423.9	514.7
70°	194.9	196.9	202.3	209.6	216.3	229.6	289.7	346.5	333.8	301.1	315.1
72.5°	155.5	158.9	164.9	177.6	190.9	208.3	223.0	258.3	250.3	219.0	222.3
75°	122.8	124.8	130.2	139.5	152.2	172.2	200.9	212.9	190.9	161.5	161.5
77.5°	97.5	99.5	104.1	111.5	119.5	133.5	153.5	184.9	171.6	121.5	120.8
80°	73.4	75.4	80.1	86.8	94.8	104.8	116.8	130.8	157.5	113.5	90.8
82.5°	54.1	54.7	62.7	67.4	70.1	78.1	88.1	96.1	108.1	104.8	80.8
85°	40.7	40.1	45.4	48.7	49.4	51.4	57.4	65.4	70.8	68.1	62.7
87.5°	22.7	20.0	23.4	26.7	26.7	27.4	28.7	33.4	38.0	36.7	33.4
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: P239133

CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-7050

**CANDELA DISTRIBUTION (continued):**

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9
2.5°	429.9	429.9	429.2	429.2	429.9	429.9	429.2	431.2	432.6	432.6	433.2
5°	431.9	432.6	431.9	431.9	432.6	432.6	433.2	435.2	437.2	438.6	440.6
7.5°	437.9	438.6	437.9	437.9	438.6	439.2	440.6	443.2	444.6	447.3	450.6
10°	444.6	445.2	444.6	445.2	445.9	446.6	448.6	450.6	452.6	455.3	460.6
12.5°	456.6	457.3	455.9	456.6	458.6	458.6	459.9	461.3	464.6	467.9	473.3
15°	473.3	473.3	472.0	472.6	474.6	474.6	475.3	476.6	480.6	484.6	490.0
17.5°	492.6	494.0	493.3	494.0	495.3	496.0	496.0	497.3	500.0	502.7	508.0
20°	518.7	519.3	518.0	519.3	520.7	519.3	518.0	517.3	518.7	520.0	526.0
22.5°	554.1	553.4	550.1	550.1	550.1	547.4	544.0	540.0	540.0	538.0	542.7
25°	596.1	594.1	589.4	590.1	585.4	581.4	575.4	569.4	564.1	562.1	562.7
27.5°	645.5	641.5	636.8	635.5	630.8	623.5	613.5	602.1	593.4	586.8	585.4
30°	707.6	698.9	690.9	689.6	682.2	670.2	654.2	638.8	624.2	612.8	608.8
32.5°	781.0	767.7	755.0	753.7	741.6	725.6	706.3	684.9	663.5	645.5	636.8
35°	867.1	847.1	835.1	831.8	814.4	794.4	773.0	745.6	715.6	690.2	674.2
37.5°	971.9	951.2	930.6	931.2	907.2	883.8	855.1	821.7	783.7	748.3	725.6
40°	1101.4	1072.1	1045.4	1039.4	1018.7	986.0	954.6	915.9	869.1	822.4	789.7
42.5°	1258.3	1210.3	1173.5	1168.2	1140.8	1100.8	1062.7	1011.3	963.9	907.2	867.8
45°	1436.5	1359.8	1315.7	1307.7	1263.7	1222.9	1176.9	1122.1	1064.1	1000.0	953.2
47.5°	1658.2	1548.7	1473.9	1460.6	1399.8	1346.4	1298.4	1237.6	1168.2	1096.8	1045.4
50°	1916.5	1755.0	1654.2	1633.5	1552.0	1489.3	1427.9	1351.8	1277.7	1202.9	1143.5
52.5°	2175.5	2002.0	1867.8	1842.4	1722.3	1638.1	1557.4	1481.3	1393.8	1319.7	1252.3
55°	2383.8	2268.3	2112.8	2077.4	1905.2	1791.0	1684.9	1598.1	1511.3	1452.6	1373.1
57.5°	2509.3	2503.3	2380.4	2331.7	2096.1	1927.2	1809.0	1710.2	1626.1	1601.4	1496.0
60°	2505.9	2661.5	2608.7	2572.0	2289.0	2066.7	1913.2	1806.4	1736.9	1765.0	1619.5
62.5°	2353.1	2668.2	2731.6	2721.6	2494.6	2178.9	1998.6	1888.5	1851.8	1935.2	1747.6
63°	2297.7	2652.8	2736.9	2732.9	2534.0	2200.2	2013.3	1904.5	1874.5	1978.6	1771.0
65°	1941.9	2518.6	2672.2	2690.2	2618.8	2273.6	2047.3	1945.2	1941.9	2075.4	1826.4
67.5°	1183.5	2128.1	2380.4	2415.2	2499.3	2297.0	2028.0	1931.2	1979.3	2089.4	1809.7
70°	506.0	1404.5	1913.2	1969.2	2174.8	2180.9	1972.6	1873.8	1970.6	1979.9	1690.9
72.5°	299.7	662.2	1302.4	1424.5	1720.9	1876.5	1845.7	1773.7	1856.4	1738.9	1439.9
75°	212.3	309.7	661.5	791.7	1198.2	1432.5	1550.7	1584.1	1580.7	1379.1	1080.7
77.5°	152.2	198.9	279.0	329.1	668.9	919.9	1064.1	1161.5	1130.1	923.2	666.2
80°	106.1	137.5	170.9	181.6	310.4	472.6	560.7	603.5	584.8	461.3	298.4
82.5°	76.8	90.1	110.1	116.8	156.2	218.3	259.7	229.0	219.6	170.2	128.8
85°	59.4	58.1	68.8	71.4	91.5	114.1	116.8	90.8	79.4	70.8	72.1
87.5°	42.1	36.0	36.7	38.0	47.4	60.7	59.4	37.4	32.0	34.0	38.7
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: P239133

CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-7050

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9	431.9
2.5°	434.6	435.2	436.6	437.2	438.6	438.6	439.9	440.6	441.9	443.2	443.9
5°	442.6	444.6	447.3	448.6	451.3	453.3	455.9	457.3	459.9	461.9	464.6
7.5°	454.6	457.9	461.3	465.3	469.3	472.6	475.3	478.6	483.3	486.6	488.6
10°	465.9	470.6	476.6	481.3	487.3	492.0	496.0	502.0	507.3	512.0	514.7
12.5°	480.6	486.6	492.6	500.0	508.0	514.0	520.0	528.0	535.4	540.7	543.4
15°	498.0	505.3	512.0	520.7	530.0	538.0	546.7	555.4	560.7	560.7	559.4
17.5°	516.0	522.0	530.0	540.0	552.7	562.7	567.4	568.7	566.7	562.1	558.7
20°	534.0	539.4	548.1	560.1	573.4	575.4	570.7	564.7	558.7	550.7	545.4
22.5°	548.7	556.1	569.4	583.4	584.1	572.7	560.1	550.1	540.7	531.4	521.3
25°	566.1	576.1	594.1	599.5	582.1	560.7	542.7	528.0	512.7	497.3	486.0
27.5°	587.4	602.1	620.1	604.8	570.7	540.7	516.0	494.0	474.0	452.6	439.9
30°	610.1	632.8	636.8	596.8	551.4	512.7	479.3	445.9	420.6	401.2	393.8
32.5°	637.5	666.9	642.8	582.8	525.4	474.6	429.9	389.8	368.5	356.5	353.1
35°	678.9	702.9	646.2	568.1	495.3	429.2	373.2	341.1	327.8	319.8	315.7
37.5°	738.3	737.6	645.5	550.1	460.6	379.8	327.8	305.1	294.4	287.7	280.4
40°	807.7	764.3	641.5	524.0	413.9	332.4	296.4	275.0	265.0	257.0	248.3
42.5°	876.5	782.4	630.2	485.3	355.8	298.4	273.7	254.3	243.7	235.0	223.0
45°	935.9	789.7	608.1	431.9	303.7	271.7	259.0	242.3	229.6	216.3	206.9
47.5°	982.6	788.4	572.7	369.1	269.0	253.0	247.0	235.6	220.3	203.6	191.6
50°	1022.0	778.4	524.7	313.7	245.7	236.3	234.3	231.0	206.3	192.3	184.9
52.5°	1058.1	763.7	473.3	276.4	225.6	217.6	221.6	218.3	200.9	188.9	181.6
55°	1107.4	753.7	422.6	247.7	202.3	200.3	203.6	208.3	197.6	186.2	178.2
57.5°	1165.5	759.0	383.8	215.6	180.2	181.6	192.9	199.6	194.3	182.2	174.2
60°	1232.3	775.0	349.8	184.9	162.2	165.6	182.2	191.6	190.9	176.9	167.6
62.5°	1307.0	791.7	295.7	161.5	146.9	152.2	169.6	181.6	183.6	171.6	160.2
63°	1321.7	793.0	281.7	156.9	144.2	150.2	166.2	178.9	181.6	170.2	158.9
65°	1357.8	781.0	227.0	144.2	133.5	140.2	156.2	167.6	172.9	162.9	153.5
67.5°	1327.7	682.9	170.9	128.8	124.8	129.5	143.5	154.2	158.9	154.2	144.9
70°	1214.3	496.7	133.5	114.8	115.5	118.8	129.5	139.5	144.9	143.5	134.8
72.5°	977.9	281.7	111.5	102.8	104.8	108.8	116.2	125.5	130.2	129.5	123.5
75°	644.2	144.2	94.1	92.1	93.5	96.8	102.1	109.5	114.8	114.1	111.5
77.5°	319.1	100.1	80.8	81.4	82.1	84.8	88.8	95.5	98.8	99.5	98.8
80°	131.5	78.1	69.4	70.1	70.8	72.8	75.4	81.4	83.4	84.8	85.4
82.5°	78.8	59.4	55.4	56.7	57.4	59.4	61.4	66.8	68.8	70.8	70.8
85°	52.1	41.4	40.1	41.4	42.7	44.1	44.7	48.1	51.4	54.1	55.4
87.5°	28.0	24.7	24.0	24.7	24.7	26.0	27.4	30.7	34.7	37.4	38.7
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: P239133

CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-7050

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	431.9	431.9	431.9	431.9	431.9
2.5°	442.6	443.2	442.6	443.2	443.9
5°	464.6	465.9	465.3	465.3	467.9
7.5°	490.0	492.6	492.6	494.0	495.3
10°	517.3	520.0	522.0	522.0	524.0
12.5°	544.7	546.0	548.1	548.1	548.1
15°	558.7	558.1	557.4	556.7	556.7
17.5°	556.7	554.1	552.7	551.4	552.1
20°	542.0	537.4	536.0	534.0	535.4
22.5°	516.7	510.0	507.3	504.0	505.3
25°	478.6	470.6	469.3	465.3	467.3
27.5°	434.6	430.6	429.9	429.2	432.6
30°	393.2	394.5	395.2	396.5	399.9
32.5°	355.1	357.8	358.5	359.1	363.8
35°	317.7	314.4	317.7	316.4	320.4
37.5°	277.0	274.4	271.7	268.4	271.0
40°	243.0	238.3	230.3	226.3	227.0
42.5°	216.3	210.3	203.6	199.6	199.6
45°	198.9	191.6	185.6	182.9	182.9
47.5°	185.6	182.2	178.9	176.9	176.9
50°	180.2	176.2	174.2	172.9	172.9
52.5°	176.2	172.2	170.2	168.9	167.6
55°	172.9	166.9	164.9	164.2	164.2
57.5°	168.2	162.9	160.2	159.5	159.5
60°	160.9	156.9	154.2	153.5	153.5
62.5°	153.5	149.5	146.9	146.9	146.9
63°	152.2	147.5	145.5	145.5	145.5
65°	146.2	141.5	139.5	139.5	138.8
67.5°	138.2	133.5	132.2	132.2	130.8
70°	128.8	124.8	123.5	124.2	121.5
72.5°	119.5	115.5	113.5	113.5	110.8
75°	108.8	104.8	102.1	101.5	98.8
77.5°	96.8	93.5	90.8	88.1	86.8
80°	84.1	81.4	78.1	76.1	74.1
82.5°	70.8	68.1	66.1	68.8	58.7
85°	55.4	52.7	50.1	54.1	42.1
87.5°	40.7	39.4	36.7	32.0	28.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)