

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: P239106

Luminaire Tested: **ARCH-AF24-40-D-U-T2U-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P239106  
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-7030  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 3000K, 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: 4554 lumens  
Efficiency: N/A  
Efficacy: 113.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

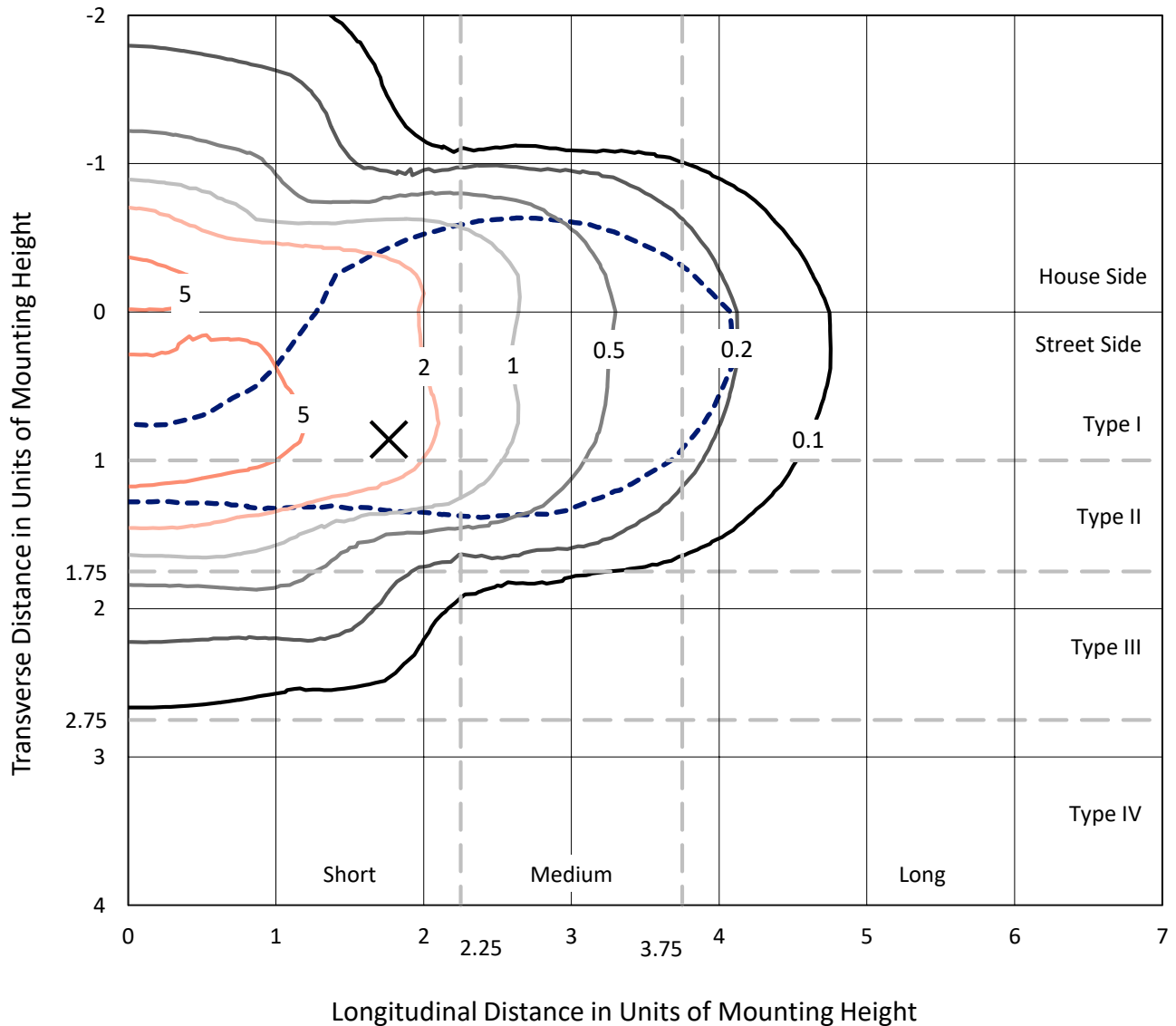
Input Watts (W): 40  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P239106  
 CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7030

### Iso-Footcandle Lines of Horizontal Illumination

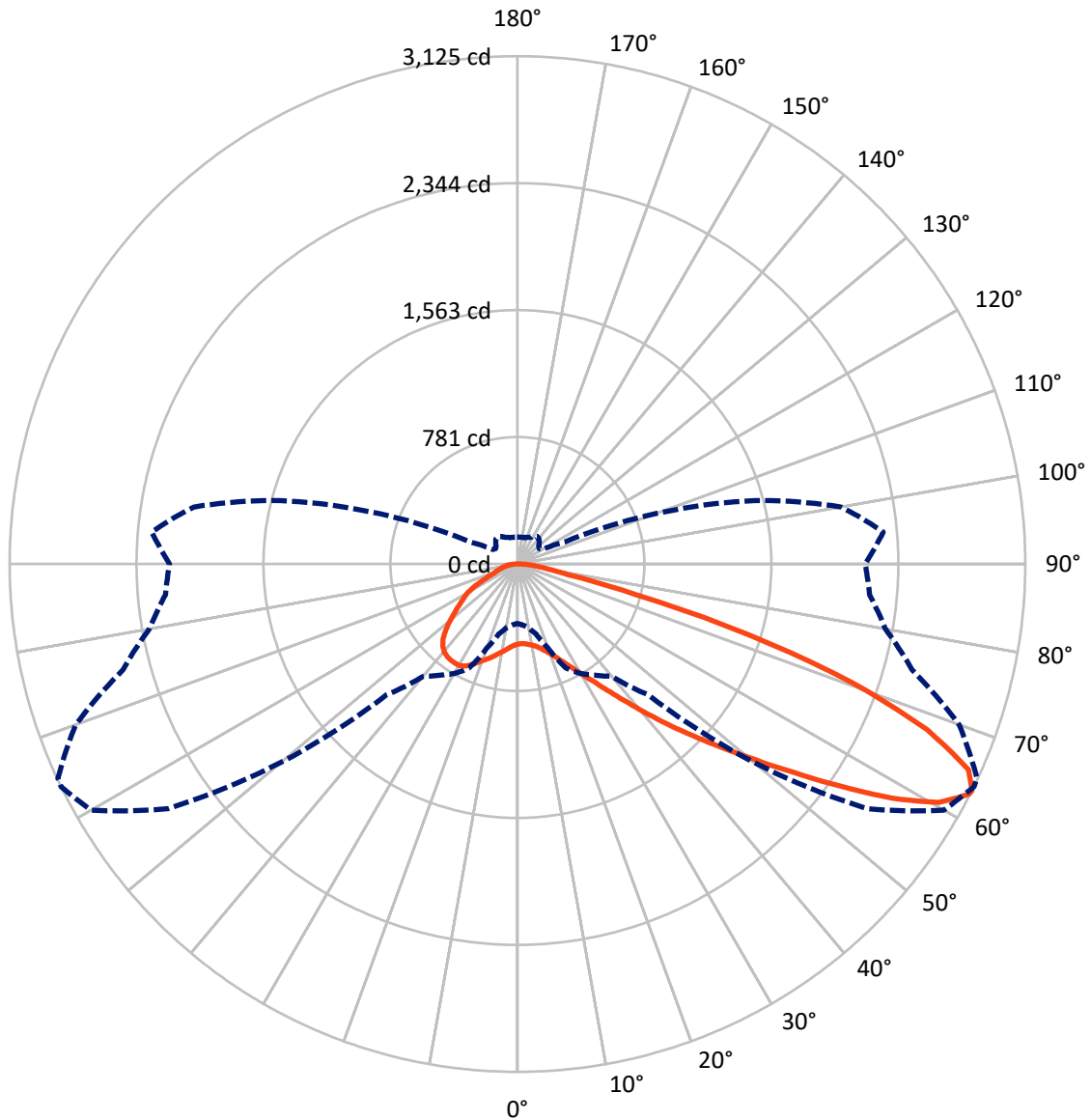
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P239106  
CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7030

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P239106

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7030

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1338.7	0.0	1338.7
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	3215.3	0.0	3215.3
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	4554.0	0.0	4554.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	49.2	1.1
10°-20°	164.0	3.6
20°-30°	307.9	6.8
30°-40°	516.0	11.3
40°-50°	865.8	19.0
50°-60°	1097.5	24.1
60°-70°	968.2	21.3
70°-80°	499.8	11.0
80°-90°	85.5	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°	4554.0	100.0
0°-180°	4554.0	100.0



REPORT NUMBER: P239106

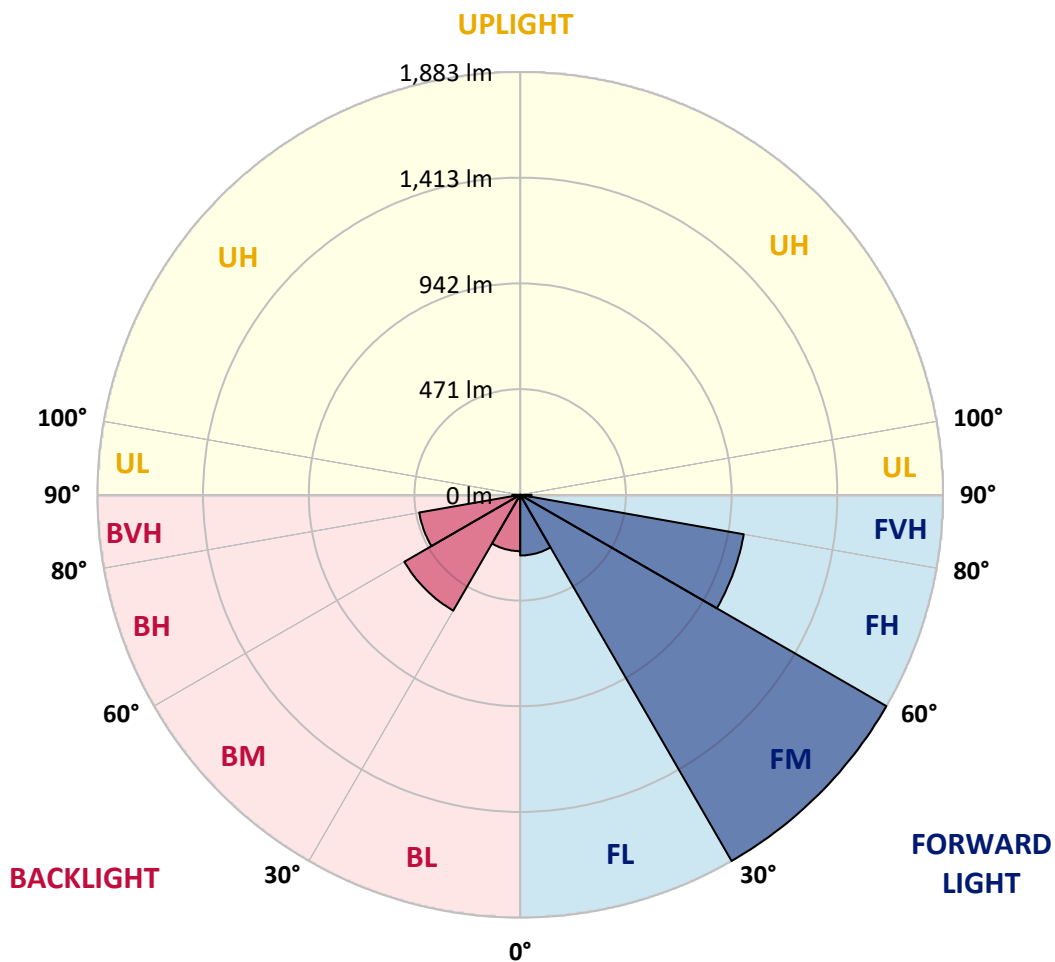
CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	270.3	5.9			
FM	(30°-60°)	1883.4	41.4			
FH	(60°-80°)	1011.2	22.2			G1/1800
FVH	(80°-90°)	50.3	1.1			G1/100
BL	(0°-30°)	250.8	5.5	B1/500		
BM	(30°-60°)	595.9	13.1	B1/1000		
BH	(60°-80°)	456.8	10.0	B1/500		G1/500
BVH	(80°-90°)	35.2	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: P239106

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2
2.5°	490.1	489.4	489.4	489.4	489.4	488.6	489.4	490.9	490.1	489.4	490.9
5°	491.7	490.9	490.9	490.9	491.7	490.9	491.7	494.0	492.4	492.4	494.0
7.5°	495.5	494.7	495.5	494.7	494.7	494.7	495.5	497.8	497.0	497.8	500.1
10°	500.1	500.1	500.1	500.1	500.1	500.1	501.6	503.1	503.9	504.6	507.7
12.5°	513.8	513.8	513.8	513.0	513.0	510.7	513.8	515.3	516.8	518.4	520.6
15°	542.7	542.7	542.0	538.9	538.9	534.4	535.1	535.9	535.9	537.4	538.9
17.5°	580.9	580.1	578.6	576.3	573.2	567.9	566.4	564.9	562.6	561.8	561.8
20°	634.2	633.5	630.4	624.3	620.5	612.1	606.0	599.9	597.6	593.8	593.1
22.5°	710.4	710.4	704.3	695.2	692.2	674.6	657.1	644.1	639.6	634.2	634.2
25°	802.7	801.9	793.5	782.9	769.9	751.6	730.3	712.7	701.3	689.1	684.5
27.5°	913.2	910.9	899.5	886.5	862.1	839.3	814.1	795.8	776.0	760.8	747.0
30°	1042.8	1040.5	1020.7	996.3	971.1	948.3	911.7	889.6	858.3	840.0	824.8
32.5°	1193.0	1190.7	1154.9	1131.2	1104.5	1076.3	1032.9	997.8	958.2	932.3	910.9
35°	1384.3	1375.2	1324.1	1291.3	1249.4	1221.2	1175.4	1128.2	1081.7	1045.1	1013.8
37.5°	1590.9	1580.2	1535.2	1486.4	1445.3	1411.0	1346.2	1286.7	1231.8	1181.5	1142.7
40°	1806.6	1778.4	1730.4	1694.6	1666.3	1633.6	1565.7	1503.2	1417.1	1360.7	1302.0
42.5°	1956.0	1928.6	1895.0	1871.4	1857.7	1832.5	1794.4	1740.3	1663.3	1664.8	1510.1
45°	2054.3	2013.9	1991.1	1992.6	1997.9	1997.9	1991.1	1982.7	1949.2	1972.0	1842.4
47.5°	2019.3	1992.6	1978.1	2008.6	2046.7	2084.8	2129.1	2177.1	2232.0	2296.8	2137.4
50°	1813.5	1823.4	1830.2	1895.0	1976.6	2063.5	2164.9	2296.0	2449.2	2478.9	2401.9
52.5°	1484.9	1506.3	1529.1	1628.2	1735.7	1885.9	2063.5	2280.0	2485.8	2607.0	2599.4
55°	1153.3	1180.0	1228.8	1302.7	1388.1	1529.9	1749.4	2083.3	2404.2	2597.1	2714.5
57.5°	821.0	859.9	923.9	1026.8	1102.3	1182.3	1344.7	1715.1	2066.5	2425.6	2695.4
60°	545.8	564.1	606.0	734.1	861.4	945.2	1060.3	1194.5	1481.9	1976.6	2498.8
62.5°	387.2	399.4	425.4	483.3	598.4	750.1	819.5	881.2	973.4	1271.5	2006.3
63°	365.9	376.6	397.9	446.7	550.4	707.4	778.3	834.7	901.8	1137.3	1898.1
65°	303.4	308.0	319.4	343.0	398.7	529.0	644.9	679.2	690.6	731.0	1189.2
67.5°	256.1	259.2	263.0	269.8	292.0	352.2	481.0	524.4	511.5	484.0	587.7
70°	222.6	224.9	231.0	239.4	247.0	262.2	330.8	395.6	381.1	343.8	359.8
72.5°	177.6	181.4	188.3	202.8	218.0	237.8	254.6	295.0	285.9	250.0	253.8
75°	140.3	142.5	148.6	159.3	173.8	196.7	229.4	243.2	218.0	184.5	184.5
77.5°	111.3	113.6	118.9	127.3	136.4	152.5	175.3	211.2	195.9	138.7	138.0
80°	83.9	86.1	91.5	99.1	108.2	119.7	133.4	149.4	179.9	129.6	103.7
82.5°	61.7	62.5	71.7	77.0	80.0	89.2	100.6	109.8	123.5	119.7	92.2
85°	46.5	45.7	51.8	55.6	56.4	58.7	65.6	74.7	80.8	77.8	71.7
87.5°	25.9	22.9	26.7	30.5	30.5	31.3	32.8	38.1	43.5	41.9	38.1
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: P239106

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2
2.5°	490.9	490.9	490.1	490.1	490.9	490.9	490.1	492.4	494.0	494.0	494.7
5°	493.2	494.0	493.2	493.2	494.0	494.0	494.7	497.0	499.3	500.8	503.1
7.5°	500.1	500.8	500.1	500.1	500.8	501.6	503.1	506.2	507.7	510.7	514.5
10°	507.7	508.4	507.7	508.4	509.2	510.0	512.3	514.5	516.8	519.9	526.0
12.5°	521.4	522.2	520.6	521.4	523.7	523.7	525.2	526.7	530.5	534.4	540.5
15°	540.5	540.5	538.9	539.7	542.0	542.0	542.7	544.3	548.8	553.4	559.5
17.5°	562.6	564.1	563.3	564.1	565.6	566.4	566.4	567.9	570.9	574.0	580.1
20°	592.3	593.1	591.5	593.1	594.6	593.1	591.5	590.8	592.3	593.8	600.7
22.5°	632.7	631.9	628.1	628.1	628.1	625.1	621.3	616.7	616.7	614.4	619.7
25°	680.7	678.4	673.1	673.9	668.5	663.9	657.1	650.2	644.1	641.8	642.6
27.5°	737.1	732.6	727.2	725.7	720.4	712.0	700.5	687.6	677.7	670.0	668.5
30°	808.0	798.1	789.0	787.4	779.1	765.3	747.0	729.5	712.7	699.8	695.2
32.5°	891.9	876.6	862.1	860.6	846.9	828.6	806.5	782.1	757.7	737.1	727.2
35°	990.2	967.3	953.6	949.8	930.0	907.1	882.7	851.5	817.2	788.2	769.9
37.5°	1109.9	1086.3	1062.6	1063.4	1035.9	1009.3	976.5	938.4	894.9	854.5	828.6
40°	1257.8	1224.2	1193.7	1186.9	1163.2	1125.9	1090.1	1045.9	992.5	939.1	901.8
42.5°	1436.9	1382.0	1340.1	1334.0	1302.7	1257.0	1213.6	1154.9	1100.7	1035.9	991.0
45°	1640.4	1552.8	1502.5	1493.3	1443.0	1396.5	1343.9	1281.4	1215.1	1141.9	1088.5
47.5°	1893.5	1768.5	1683.1	1667.9	1598.5	1537.5	1482.6	1413.3	1334.0	1252.4	1193.7
50°	2188.5	2004.0	1888.9	1865.3	1772.3	1700.7	1630.5	1543.6	1459.0	1373.6	1305.8
52.5°	2484.3	2286.1	2132.9	2103.9	1966.7	1870.6	1778.4	1691.5	1591.6	1507.0	1430.0
55°	2722.1	2590.2	2412.6	2372.2	2175.6	2045.2	1924.0	1824.9	1725.8	1658.7	1568.0
57.5°	2865.4	2858.6	2718.3	2662.7	2393.6	2200.7	2065.8	1953.0	1856.9	1828.7	1708.3
60°	2861.6	3039.2	2979.0	2937.1	2613.9	2360.0	2184.7	2062.7	1983.5	2015.5	1849.3
62.5°	2687.0	3046.8	3119.3	3107.8	2848.6	2488.1	2282.3	2156.5	2114.6	2209.9	1995.7
63°	2623.8	3029.3	3125.4	3120.8	2893.6	2512.5	2299.0	2174.8	2140.5	2259.4	2022.3
65°	2217.5	2876.1	3051.4	3072.0	2990.4	2596.3	2337.9	2221.3	2217.5	2369.9	2085.6
67.5°	1351.5	2430.2	2718.3	2757.9	2854.0	2623.0	2315.8	2205.3	2260.2	2385.9	2066.5
70°	577.8	1603.8	2184.7	2248.7	2483.5	2490.4	2252.5	2139.7	2250.3	2260.9	1930.9
72.5°	342.3	756.2	1487.2	1626.7	1965.2	2142.8	2107.7	2025.4	2119.9	1985.7	1644.2
75°	242.4	353.7	755.4	904.1	1368.3	1635.9	1770.8	1808.9	1805.1	1574.9	1234.1
77.5°	173.8	227.2	318.6	375.8	763.8	1050.4	1215.1	1326.4	1290.5	1054.2	760.8
80°	121.2	157.0	195.1	207.3	354.5	539.7	640.3	689.1	667.8	526.7	340.7
82.5°	87.7	102.9	125.8	133.4	178.4	249.3	296.5	261.5	250.8	194.4	147.1
85°	67.8	66.3	78.5	81.6	104.4	130.4	133.4	103.7	90.7	80.8	82.3
87.5°	48.0	41.2	41.9	43.5	54.1	69.4	67.8	42.7	36.6	38.9	44.2
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: P239106

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7030

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2	493.2
2.5°	496.2	497.0	498.5	499.3	500.8	500.8	502.3	503.1	504.6	506.2	506.9
5°	505.4	507.7	510.7	512.3	515.3	517.6	520.6	522.2	525.2	527.5	530.5
7.5°	519.1	522.9	526.7	531.3	535.9	539.7	542.7	546.6	551.9	555.7	558.0
10°	532.1	537.4	544.3	549.6	556.5	561.8	566.4	573.2	579.3	584.7	587.7
12.5°	548.8	555.7	562.6	570.9	580.1	587.0	593.8	603.0	611.3	617.4	620.5
15°	568.7	577.0	584.7	594.6	605.3	614.4	624.3	634.2	640.3	640.3	638.8
17.5°	589.2	596.1	605.3	616.7	631.2	642.6	647.9	649.5	647.2	641.8	638.0
20°	609.8	615.9	625.8	639.6	654.8	657.1	651.8	644.9	638.0	628.9	622.8
22.5°	626.6	635.0	650.2	666.2	667.0	654.0	639.6	628.1	617.4	606.8	595.3
25°	646.4	657.8	678.4	684.5	664.7	640.3	619.7	603.0	585.4	567.9	554.9
27.5°	670.8	687.6	708.2	690.6	651.8	617.4	589.2	564.1	541.2	516.8	502.3
30°	696.7	722.6	727.2	681.5	629.6	585.4	547.3	509.2	480.2	458.1	449.7
32.5°	728.0	761.5	734.1	665.5	599.9	542.0	490.9	445.2	420.8	407.1	403.2
35°	775.2	802.7	737.9	648.7	565.6	490.1	426.1	389.5	374.3	365.1	360.6
37.5°	843.1	842.3	737.1	628.1	526.0	433.7	374.3	348.4	336.2	328.5	320.2
40°	922.4	872.8	732.6	598.4	472.6	379.6	338.5	314.1	302.6	293.5	283.6
42.5°	1000.9	893.4	719.6	554.2	406.3	340.7	312.5	290.4	278.2	268.3	254.6
45°	1068.7	901.8	694.4	493.2	346.8	310.2	295.8	276.7	262.2	247.0	236.3
47.5°	1122.1	900.3	654.0	421.5	307.2	288.9	282.0	269.1	251.6	232.5	218.8
50°	1167.1	888.8	599.2	358.3	280.5	269.8	267.6	263.7	235.5	219.5	211.2
52.5°	1208.2	872.1	540.5	315.6	257.7	248.5	253.1	249.3	229.4	215.7	207.3
55°	1264.6	860.6	482.5	282.8	231.0	228.7	232.5	237.8	225.6	212.7	203.5
57.5°	1330.9	866.7	438.3	246.2	205.8	207.3	220.3	227.9	221.8	208.1	199.0
60°	1407.2	885.0	399.4	211.2	185.2	189.0	208.1	218.8	218.0	202.0	191.3
62.5°	1492.5	904.1	337.7	184.5	167.7	173.8	193.6	207.3	209.6	195.9	182.9
63°	1509.3	905.6	321.7	179.1	164.7	171.5	189.8	204.3	207.3	194.4	181.4
65°	1550.5	891.9	259.2	164.7	152.5	160.1	178.4	191.3	197.4	186.0	175.3
67.5°	1516.2	779.8	195.1	147.1	142.5	147.9	163.9	176.1	181.4	176.1	165.4
70°	1386.6	567.1	152.5	131.1	131.9	135.7	147.9	159.3	165.4	163.9	154.0
72.5°	1116.7	321.7	127.3	117.4	119.7	124.3	132.6	143.3	148.6	147.9	141.0
75°	735.6	164.7	107.5	105.2	106.7	110.5	116.6	125.0	131.1	130.4	127.3
77.5°	364.4	114.3	92.2	93.0	93.8	96.8	101.4	109.0	112.8	113.6	112.8
80°	150.2	89.2	79.3	80.0	80.8	83.1	86.1	93.0	95.3	96.8	97.6
82.5°	89.9	67.8	63.3	64.8	65.6	67.8	70.1	76.2	78.5	80.8	80.8
85°	59.5	47.3	45.7	47.3	48.8	50.3	51.1	54.9	58.7	61.7	63.3
87.5°	32.0	28.2	27.4	28.2	28.2	29.7	31.3	35.1	39.6	42.7	44.2
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: P239106

CATALOG NUMBER: ARCH-AF24-40-D-U-T2U-7030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	493.2	493.2	493.2	493.2	493.2
2.5°	505.4	506.2	505.4	506.2	506.9
5°	530.5	532.1	531.3	531.3	534.4
7.5°	559.5	562.6	562.6	564.1	565.6
10°	590.8	593.8	596.1	596.1	598.4
12.5°	622.0	623.5	625.8	625.8	625.8
15°	638.0	637.3	636.5	635.7	635.7
17.5°	635.7	632.7	631.2	629.6	630.4
20°	619.0	613.6	612.1	609.8	611.3
22.5°	590.0	582.4	579.3	575.5	577.0
25°	546.6	537.4	535.9	531.3	533.6
27.5°	496.2	491.7	490.9	490.1	494.0
30°	449.0	450.5	451.3	452.8	456.6
32.5°	405.5	408.6	409.3	410.1	415.4
35°	362.8	359.0	362.8	361.3	365.9
37.5°	316.3	313.3	310.2	306.4	309.5
40°	277.5	272.1	263.0	258.4	259.2
42.5°	247.0	240.1	232.5	227.9	227.9
45°	227.2	218.8	211.9	208.9	208.9
47.5°	211.9	208.1	204.3	202.0	202.0
50°	205.8	201.2	199.0	197.4	197.4
52.5°	201.2	196.7	194.4	192.9	191.3
55°	197.4	190.6	188.3	187.5	187.5
57.5°	192.1	186.0	182.9	182.2	182.2
60°	183.7	179.1	176.1	175.3	175.3
62.5°	175.3	170.8	167.7	167.7	167.7
63°	173.8	168.5	166.2	166.2	166.2
65°	166.9	161.6	159.3	159.3	158.6
67.5°	157.8	152.5	150.9	150.9	149.4
70°	147.1	142.5	141.0	141.8	138.7
72.5°	136.4	131.9	129.6	129.6	126.5
75°	124.3	119.7	116.6	115.9	112.8
77.5°	110.5	106.7	103.7	100.6	99.1
80°	96.0	93.0	89.2	86.9	84.6
82.5°	80.8	77.8	75.5	78.5	67.1
85°	63.3	60.2	57.2	61.7	48.0
87.5°	46.5	45.0	41.9	36.6	32.0
90°	0.0	0.0	0.0	0.0	0.0

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