

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: P239161

Luminaire Tested: **ARCH-AF24-30-D-U-T2U-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239161
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-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 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: 3099 lumens
Efficiency: N/A
Efficacy: 100.0 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

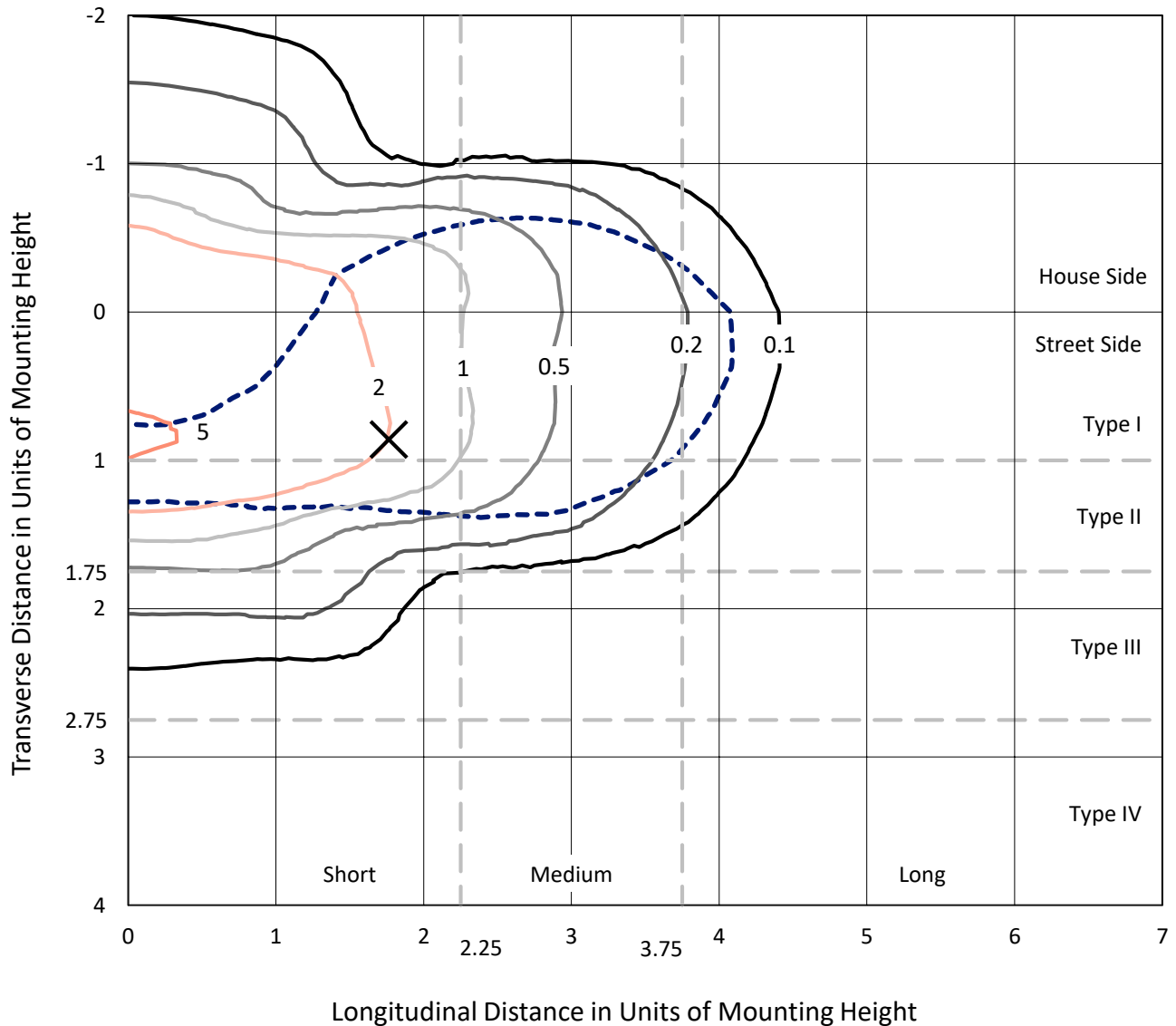
Input Watts (W): 31
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P239161
 CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-8027

Iso-Footcandle Lines of Horizontal Illumination

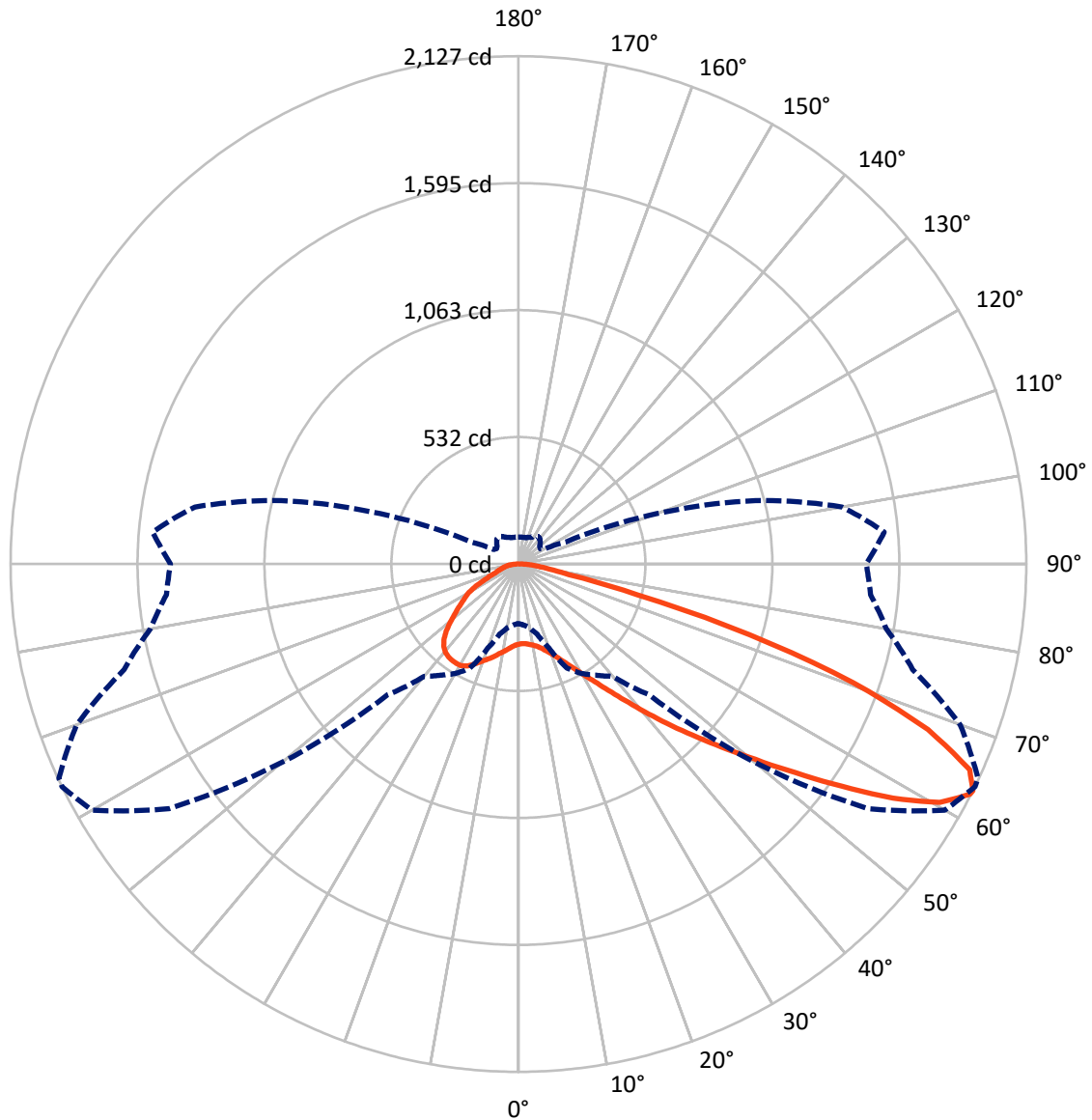
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P239161
CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-8027

Luminous Intensity Polar Plot



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



REPORT NUMBER: P239161
 CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-8027

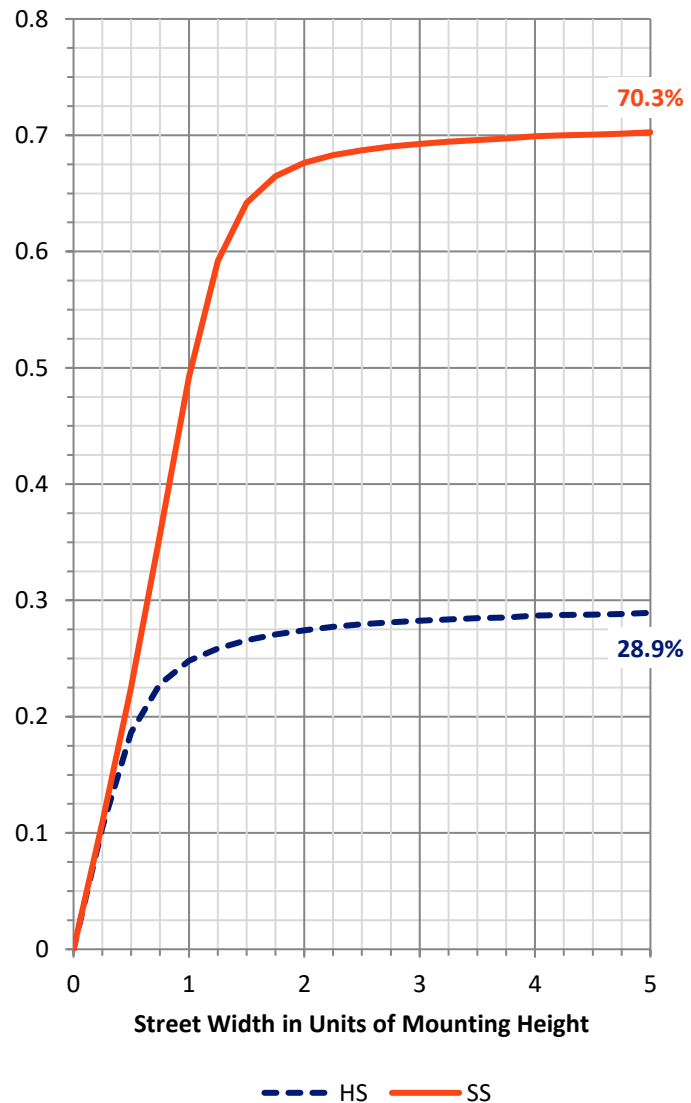
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	911.0	0.0	911.0
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	2188.0	0.0	2188.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	3099.0	0.0	3099.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	33.5	1.1
10°-20°	111.6	3.6
20°-30°	209.5	6.8
30°-40°	351.2	11.3
40°-50°	589.2	19.0
50°-60°	746.9	24.1
60°-70°	658.9	21.3
70°-80°	340.1	11.0
80°-90°	58.2	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°	3099.0	100.0
0°-180°	3099.0	100.0



REPORT NUMBER: P239161

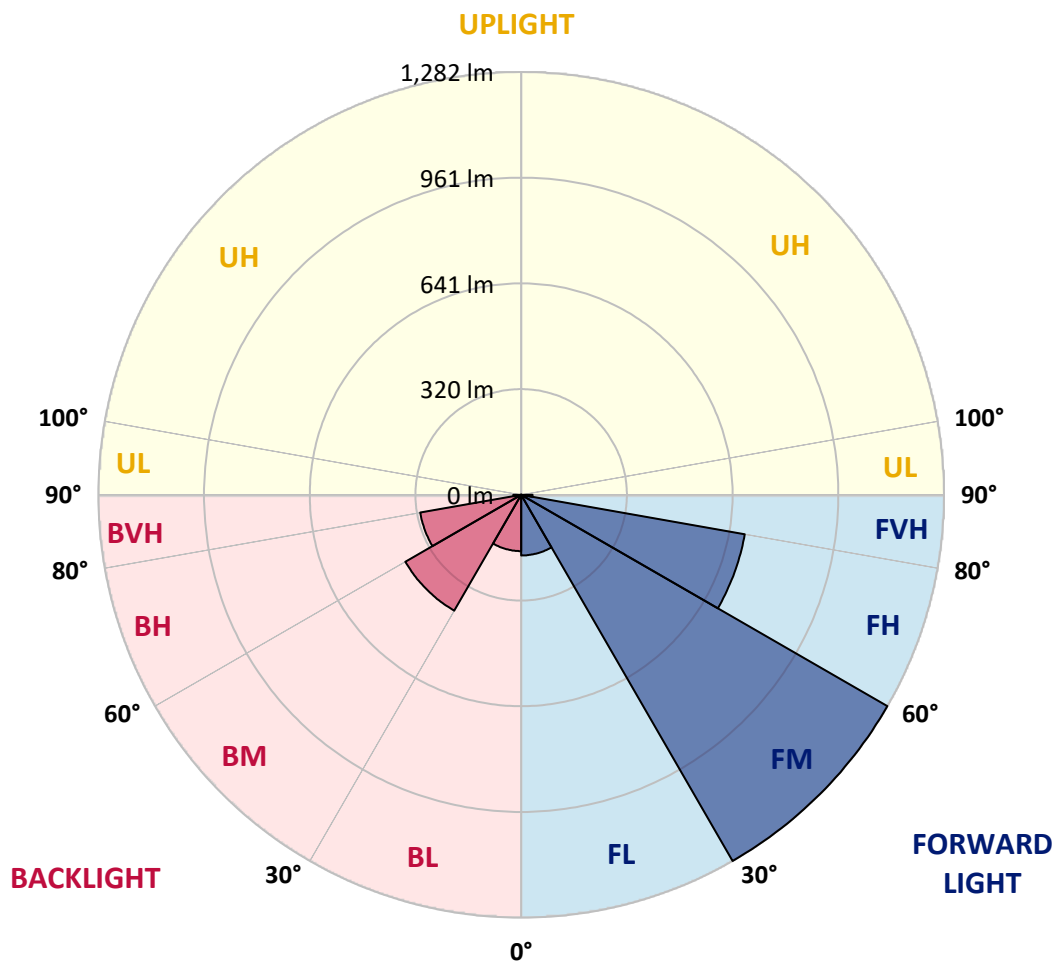
CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-8027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	183.9	5.9			
FM	(30°-60°)	1281.7	41.4			
FH	(60°-80°)	688.2	22.2			G1/1800
FVH	(80°-90°)	34.2	1.1			G1/100
BL	(0°-30°)	170.7	5.5	B1/500		
BM	(30°-60°)	405.5	13.1	B1/1000		
BH	(60°-80°)	310.8	10.0	B1/500		G1/500
BVH	(80°-90°)	24.0	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: P239161

CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6
2.5°	333.5	333.0	333.0	333.0	333.0	332.5	333.0	334.1	333.5	333.0	334.1
5°	334.6	334.1	334.1	334.1	334.6	334.1	334.6	336.1	335.1	335.1	336.1
7.5°	337.2	336.7	337.2	336.7	336.7	336.7	337.2	338.7	338.2	338.7	340.3
10°	340.3	340.3	340.3	340.3	340.3	340.3	341.3	342.4	342.9	343.4	345.5
12.5°	349.6	349.6	349.6	349.1	349.1	347.6	349.6	350.7	351.7	352.7	354.3
15°	369.3	369.3	368.8	366.7	366.7	363.6	364.2	364.7	364.7	365.7	366.7
17.5°	395.3	394.8	393.7	392.2	390.1	386.5	385.4	384.4	382.8	382.3	382.3
20°	431.6	431.1	429.0	424.8	422.2	416.5	412.4	408.2	406.7	404.1	403.6
22.5°	483.5	483.5	479.3	473.1	471.0	459.1	447.1	438.3	435.2	431.6	431.6
25°	546.2	545.7	540.0	532.7	523.9	511.5	496.9	485.0	477.2	468.9	465.8
27.5°	621.4	619.9	612.1	603.3	586.7	571.1	554.0	541.6	528.1	517.7	508.4
30°	709.6	708.1	694.6	678.0	660.9	645.3	620.4	605.4	584.1	571.6	561.3
32.5°	811.8	810.3	785.9	769.8	751.6	732.5	702.9	679.0	652.0	634.4	619.9
35°	942.0	935.8	901.0	878.7	850.2	831.0	799.9	767.7	736.1	711.2	689.9
37.5°	1082.6	1075.3	1044.7	1011.5	983.5	960.2	916.1	875.6	838.3	804.0	777.6
40°	1229.4	1210.2	1177.5	1153.1	1134.0	1111.6	1065.5	1022.9	964.3	925.9	886.0
42.5°	1331.1	1312.4	1289.6	1273.5	1264.2	1247.0	1221.1	1184.3	1131.9	1132.9	1027.6
45°	1398.0	1370.5	1354.9	1356.0	1359.6	1359.6	1354.9	1349.2	1326.4	1342.0	1253.8
47.5°	1374.1	1356.0	1346.1	1366.9	1392.8	1418.7	1448.8	1481.5	1518.9	1562.9	1454.5
50°	1234.1	1240.8	1245.5	1289.6	1345.1	1404.2	1473.2	1562.4	1666.7	1686.9	1634.5
52.5°	1010.5	1025.0	1040.6	1108.0	1181.2	1283.3	1404.2	1551.5	1691.6	1774.1	1768.9
55°	784.8	803.0	836.2	886.5	944.6	1041.1	1190.5	1417.7	1636.1	1767.3	1847.2
57.5°	558.7	585.1	628.7	698.7	750.1	804.6	915.0	1167.1	1406.3	1650.6	1834.2
60°	371.4	383.9	412.4	499.5	586.2	643.2	721.6	812.9	1008.4	1345.1	1700.4
62.5°	263.5	271.8	289.5	328.9	407.2	510.4	557.6	599.7	662.4	865.2	1365.3
63°	249.0	256.3	270.8	304.0	374.5	481.4	529.6	568.0	613.7	773.9	1291.6
65°	206.5	209.6	217.3	233.4	271.3	360.0	438.8	462.2	470.0	497.5	809.2
67.5°	174.3	176.4	179.0	183.6	198.7	239.7	327.3	356.9	348.1	329.4	399.9
70°	151.5	153.0	157.2	162.9	168.1	178.4	225.1	269.2	259.4	233.9	244.8
72.5°	120.9	123.5	128.1	138.0	148.4	161.8	173.3	200.7	194.5	170.1	172.7
75°	95.4	97.0	101.2	108.4	118.3	133.8	156.1	165.5	148.4	125.5	125.5
77.5°	75.7	77.3	80.9	86.6	92.9	103.7	119.3	143.7	133.3	94.4	93.9
80°	57.1	58.6	62.2	67.4	73.7	81.4	90.8	101.7	122.4	88.2	70.5
82.5°	42.0	42.5	48.8	52.4	54.5	60.7	68.5	74.7	84.0	81.4	62.8
85°	31.6	31.1	35.3	37.9	38.4	39.9	44.6	50.8	55.0	52.9	48.8
87.5°	17.6	15.6	18.2	20.7	20.7	21.3	22.3	25.9	29.6	28.5	25.9
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: P239161

CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-8027

CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6
2.5°	334.1	334.1	333.5	333.5	334.1	334.1	333.5	335.1	336.1	336.1	336.7
5°	335.6	336.1	335.6	335.6	336.1	336.1	336.7	338.2	339.8	340.8	342.4
7.5°	340.3	340.8	340.3	340.3	340.8	341.3	342.4	344.4	345.5	347.6	350.1
10°	345.5	346.0	345.5	346.0	346.5	347.0	348.6	350.1	351.7	353.8	357.9
12.5°	354.8	355.3	354.3	354.8	356.4	356.4	357.4	358.4	361.0	363.6	367.8
15°	367.8	367.8	366.7	367.3	368.8	368.8	369.3	370.4	373.5	376.6	380.8
17.5°	382.8	383.9	383.3	383.9	384.9	385.4	385.4	386.5	388.5	390.6	394.8
20°	403.1	403.6	402.5	403.6	404.6	403.6	402.5	402.0	403.1	404.1	408.8
22.5°	430.5	430.0	427.4	427.4	427.4	425.4	422.8	419.7	419.7	418.1	421.7
25°	463.2	461.7	458.0	458.6	454.9	451.8	447.1	442.5	438.3	436.8	437.3
27.5°	501.6	498.5	494.9	493.8	490.2	484.5	476.7	467.9	461.2	456.0	454.9
30°	549.9	543.1	536.9	535.9	530.1	520.8	508.4	496.4	485.0	476.2	473.1
32.5°	606.9	596.5	586.7	585.6	576.3	563.9	548.8	532.2	515.6	501.6	494.9
35°	673.8	658.3	648.9	646.3	632.9	617.3	600.7	579.4	556.1	536.4	523.9
37.5°	755.3	739.2	723.1	723.6	705.0	686.8	664.5	638.6	609.0	581.5	563.9
40°	855.9	833.1	812.3	807.7	791.6	766.2	741.8	711.7	675.4	639.1	613.7
42.5°	977.8	940.5	911.9	907.8	886.5	855.4	825.8	785.9	749.1	705.0	674.4
45°	1116.3	1056.7	1022.4	1016.2	982.0	950.3	914.5	872.0	826.9	777.1	740.8
47.5°	1288.5	1203.5	1145.4	1135.0	1087.8	1046.3	1008.9	961.7	907.8	852.3	812.3
50°	1489.3	1363.7	1285.4	1269.3	1206.1	1157.3	1109.6	1050.4	992.9	934.8	888.6
52.5°	1690.6	1555.7	1451.4	1431.7	1338.3	1273.0	1210.2	1151.1	1083.1	1025.5	973.1
55°	1852.4	1762.7	1641.8	1614.3	1480.5	1391.8	1309.3	1241.8	1174.4	1128.8	1067.0
57.5°	1949.9	1945.2	1849.8	1811.9	1628.8	1497.6	1405.8	1329.0	1263.6	1244.4	1162.5
60°	1947.3	2068.2	2027.2	1998.7	1778.7	1606.0	1486.7	1403.7	1349.7	1371.5	1258.4
62.5°	1828.5	2073.4	2122.7	2114.9	1938.5	1693.1	1553.1	1467.5	1439.0	1503.8	1358.0
63°	1785.5	2061.4	2126.8	2123.7	1969.1	1709.7	1564.5	1479.9	1456.6	1537.5	1376.2
65°	1509.0	1957.2	2076.5	2090.5	2035.0	1766.8	1591.0	1511.6	1509.0	1612.7	1419.3
67.5°	919.7	1653.7	1849.8	1876.8	1942.1	1785.0	1575.9	1500.7	1538.0	1623.6	1406.3
70°	393.2	1091.4	1486.7	1530.3	1690.0	1694.7	1532.9	1456.1	1531.3	1538.6	1314.0
72.5°	232.9	514.6	1012.0	1107.0	1337.3	1458.2	1434.3	1378.3	1442.6	1351.3	1118.9
75°	165.0	240.7	514.1	615.2	931.1	1113.2	1205.0	1231.0	1228.4	1071.7	839.8
77.5°	118.3	154.6	216.8	255.7	519.8	714.8	826.9	902.6	878.2	717.4	517.7
80°	82.5	106.9	132.8	141.1	241.2	367.3	435.7	468.9	454.4	358.4	231.9
82.5°	59.7	70.0	85.6	90.8	121.4	169.6	201.8	177.9	170.7	132.3	100.1
85°	46.2	45.1	53.4	55.5	71.1	88.7	90.8	70.5	61.7	55.0	56.0
87.5°	32.7	28.0	28.5	29.6	36.8	47.2	46.2	29.0	24.9	26.5	30.1
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: P239161

CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-8027

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6	335.6
2.5°	337.7	338.2	339.3	339.8	340.8	340.8	341.8	342.4	343.4	344.4	345.0
5°	343.9	345.5	347.6	348.6	350.7	352.2	354.3	355.3	357.4	359.0	361.0
7.5°	353.3	355.9	358.4	361.6	364.7	367.3	369.3	371.9	375.6	378.2	379.7
10°	362.1	365.7	370.4	374.0	378.7	382.3	385.4	390.1	394.2	397.9	399.9
12.5°	373.5	378.2	382.8	388.5	394.8	399.4	404.1	410.3	416.0	420.2	422.2
15°	387.0	392.7	397.9	404.6	411.9	418.1	424.8	431.6	435.7	435.7	434.7
17.5°	401.0	405.6	411.9	419.7	429.5	437.3	440.9	442.0	440.4	436.8	434.2
20°	415.0	419.1	425.9	435.2	445.6	447.1	443.5	438.8	434.2	428.0	423.8
22.5°	426.4	432.1	442.5	453.4	453.9	445.1	435.2	427.4	420.2	412.9	405.1
25°	439.9	447.7	461.7	465.8	452.3	435.7	421.7	410.3	398.4	386.5	377.6
27.5°	456.5	467.9	481.9	470.0	443.5	420.2	401.0	383.9	368.3	351.7	341.8
30°	474.1	491.8	494.9	463.7	428.5	398.4	372.5	346.5	326.8	311.8	306.1
32.5°	495.4	518.2	499.5	452.9	408.2	368.8	334.1	302.9	286.3	277.0	274.4
35°	527.6	546.2	502.1	441.4	384.9	333.5	290.0	265.1	254.7	248.5	245.4
37.5°	573.7	573.2	501.6	427.4	357.9	295.2	254.7	237.1	228.8	223.6	217.9
40°	627.7	593.9	498.5	407.2	321.6	258.3	230.3	213.7	205.9	199.7	193.0
42.5°	681.1	608.0	489.7	377.1	276.5	231.9	212.7	197.6	189.3	182.6	173.3
45°	727.3	613.7	472.6	335.6	236.0	211.1	201.3	188.3	178.4	168.1	160.8
47.5°	763.6	612.6	445.1	286.9	209.0	196.6	191.9	183.1	171.2	158.2	148.9
50°	794.2	604.8	407.7	243.8	190.9	183.6	182.1	179.5	160.3	149.4	143.7
52.5°	822.2	593.4	367.8	214.8	175.3	169.1	172.2	169.6	156.1	146.8	141.1
55°	860.6	585.6	328.4	192.5	157.2	155.6	158.2	161.8	153.5	144.7	138.5
57.5°	905.7	589.8	298.3	167.6	140.1	141.1	149.9	155.1	151.0	141.6	135.4
60°	957.6	602.2	271.8	143.7	126.1	128.6	141.6	148.9	148.4	137.5	130.2
62.5°	1015.7	615.2	229.8	125.5	114.1	118.3	131.8	141.1	142.7	133.3	124.5
63°	1027.1	616.3	218.9	121.9	112.0	116.7	129.2	139.0	141.1	132.3	123.5
65°	1055.1	606.9	176.4	112.0	103.7	108.9	121.4	130.2	134.4	126.6	119.3
67.5°	1031.8	530.7	132.8	100.1	97.0	100.6	111.5	119.8	123.5	119.8	112.6
70°	943.6	385.9	103.7	89.2	89.7	92.3	100.6	108.4	112.6	111.5	104.8
72.5°	759.9	218.9	86.6	79.9	81.4	84.6	90.3	97.5	101.2	100.6	96.0
75°	500.6	112.0	73.1	71.6	72.6	75.2	79.4	85.1	89.2	88.7	86.6
77.5°	248.0	77.8	62.8	63.3	63.8	65.9	69.0	74.2	76.8	77.3	76.8
80°	102.2	60.7	53.9	54.5	55.0	56.5	58.6	63.3	64.8	65.9	66.4
82.5°	61.2	46.2	43.1	44.1	44.6	46.2	47.7	51.9	53.4	55.0	55.0
85°	40.5	32.2	31.1	32.2	33.2	34.2	34.8	37.3	39.9	42.0	43.1
87.5°	21.8	19.2	18.7	19.2	19.2	20.2	21.3	23.9	27.0	29.0	30.1
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: P239161

CATALOG NUMBER: ARCH-AF24-30-D-U-T2U-8027

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	335.6	335.6	335.6	335.6	335.6
2.5°	343.9	344.4	343.9	344.4	345.0
5°	361.0	362.1	361.6	361.6	363.6
7.5°	380.8	382.8	382.8	383.9	384.9
10°	402.0	404.1	405.6	405.6	407.2
12.5°	423.3	424.3	425.9	425.9	425.9
15°	434.2	433.7	433.1	432.6	432.6
17.5°	432.6	430.5	429.5	428.5	429.0
20°	421.2	417.6	416.5	415.0	416.0
22.5°	401.5	396.3	394.2	391.6	392.7
25°	371.9	365.7	364.7	361.6	363.1
27.5°	337.7	334.6	334.1	333.5	336.1
30°	305.5	306.6	307.1	308.1	310.7
32.5°	276.0	278.0	278.6	279.1	282.7
35°	246.9	244.3	246.9	245.9	249.0
37.5°	215.3	213.2	211.1	208.5	210.6
40°	188.8	185.2	179.0	175.9	176.4
42.5°	168.1	163.4	158.2	155.1	155.1
45°	154.6	148.9	144.2	142.1	142.1
47.5°	144.2	141.6	139.0	137.5	137.5
50°	140.1	136.9	135.4	134.4	134.4
52.5°	136.9	133.8	132.3	131.2	130.2
55°	134.4	129.7	128.1	127.6	127.6
57.5°	130.7	126.6	124.5	124.0	124.0
60°	125.0	121.9	119.8	119.3	119.3
62.5°	119.3	116.2	114.1	114.1	114.1
63°	118.3	114.6	113.1	113.1	113.1
65°	113.6	110.0	108.4	108.4	107.9
67.5°	107.4	103.7	102.7	102.7	101.7
70°	100.1	97.0	96.0	96.5	94.4
72.5°	92.9	89.7	88.2	88.2	86.1
75°	84.6	81.4	79.4	78.8	76.8
77.5°	75.2	72.6	70.5	68.5	67.4
80°	65.4	63.3	60.7	59.1	57.6
82.5°	55.0	52.9	51.4	53.4	45.6
85°	43.1	41.0	38.9	42.0	32.7
87.5°	31.6	30.6	28.5	24.9	21.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)