

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: P239160

Luminaire Tested: **ARCH-AF24-20-D-U-T2U-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239160
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-AF24-20-D-U-T2U-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 260mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2214 lumens
Efficiency: N/A
Efficacy: 105.4 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

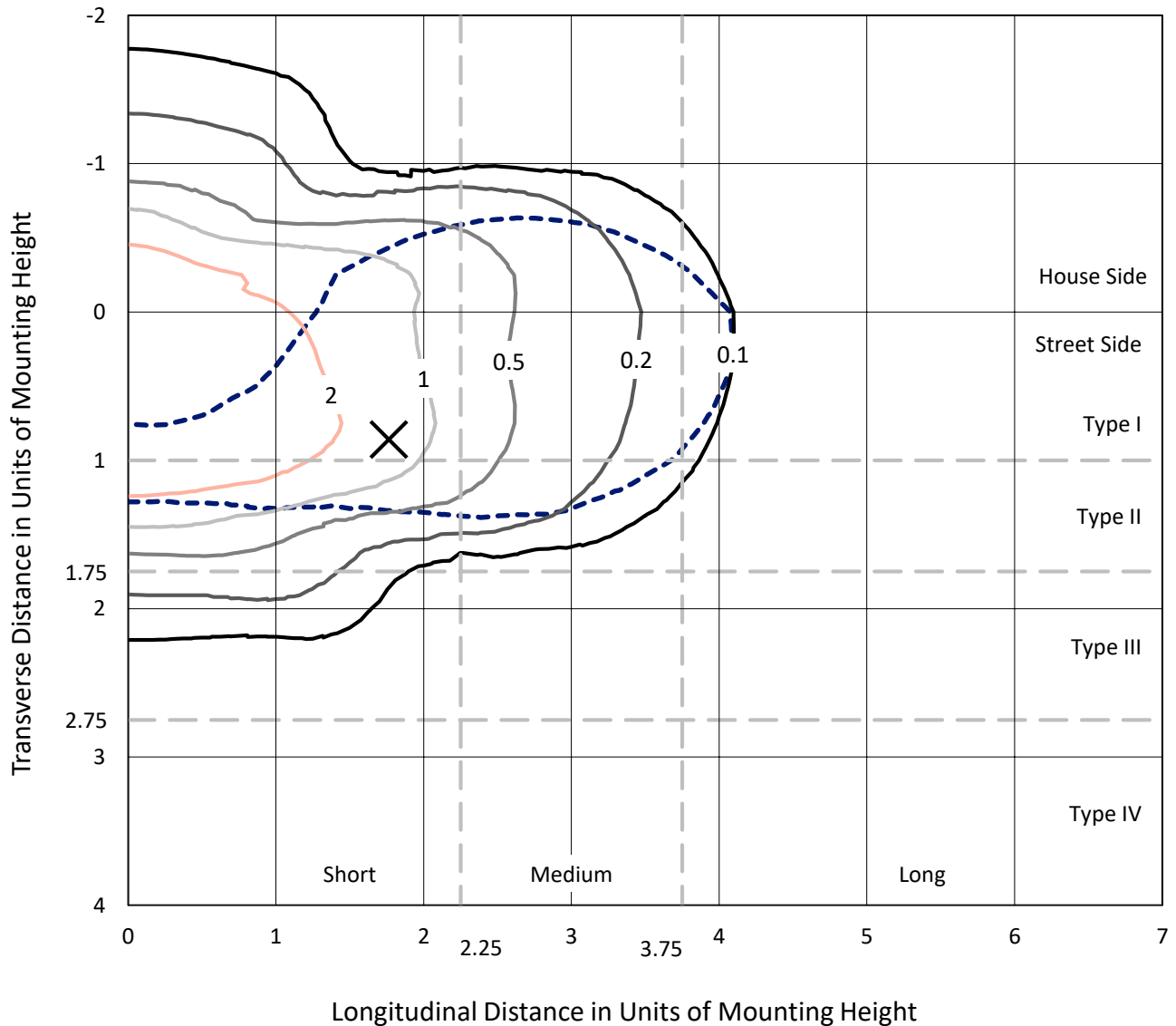
Input Watts (W): 21
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P239160
 CATALOG NUMBER: ARCH-AF24-20-D-U-T2U-8027

Iso-Footcandle Lines of Horizontal Illumination

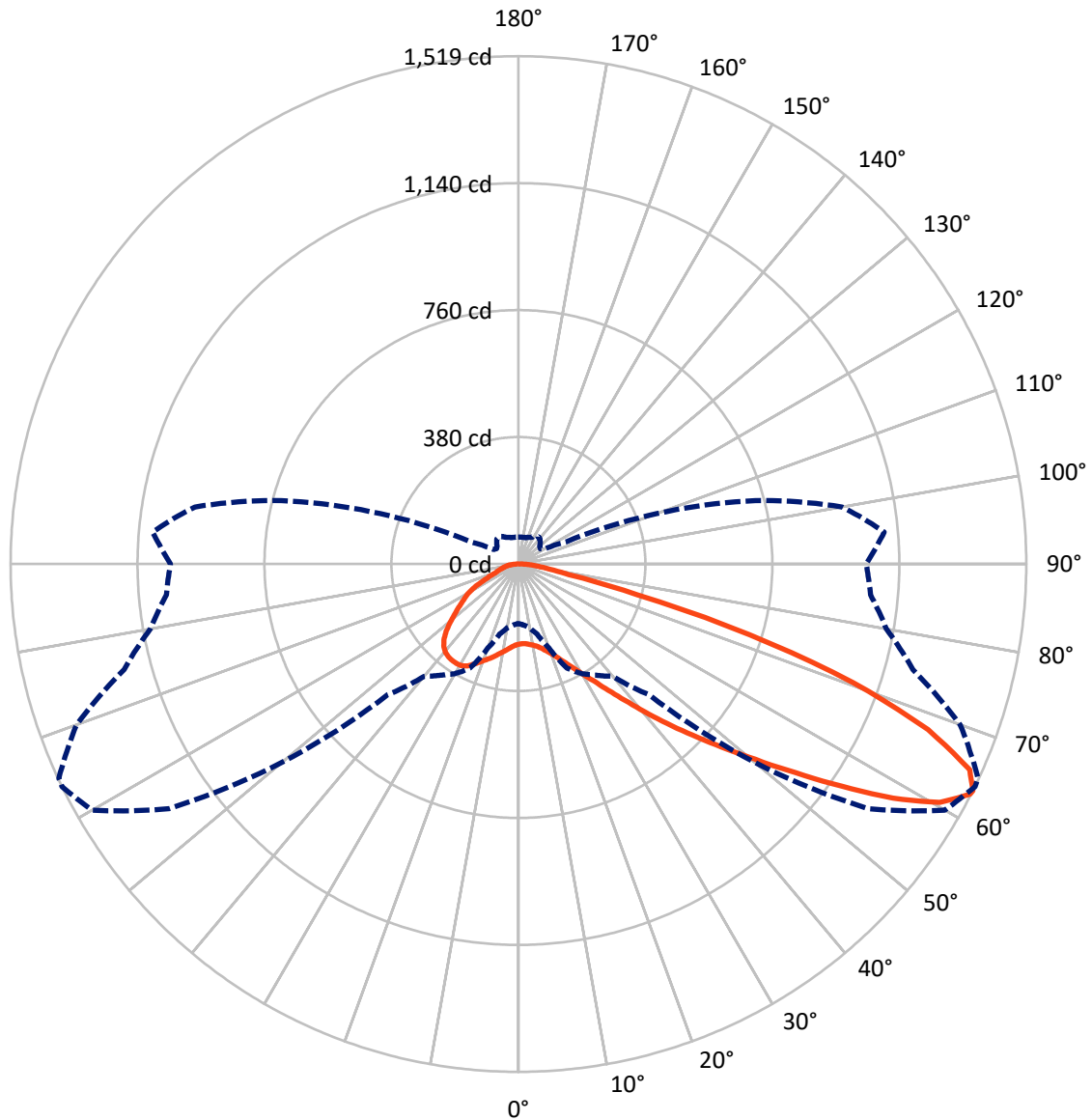
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.9 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P239160
CATALOG NUMBER: ARCH-AF24-20-D-U-T2U-8027

Luminous Intensity Polar Plot



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

REPORT NUMBER: P239160

CATALOG NUMBER: ARCH-AF24-20-D-U-T2U-8027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	650.8	0.0	650.8
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	1563.2	0.0	1563.2
	% Fixture	70.6	0.0	70.6
Total	Lumens	2214.0	0.0	2214.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	23.9	1.1
10°-20°	79.7	3.6
20°-30°	149.7	6.8
30°-40°	250.9	11.3
40°-50°	420.9	19.0
50°-60°	533.6	24.1
60°-70°	470.7	21.3
70°-80°	243.0	11.0
80°-90°	41.6	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°	2214.0	100.0
0°-180°	2214.0	100.0



REPORT NUMBER: P239160

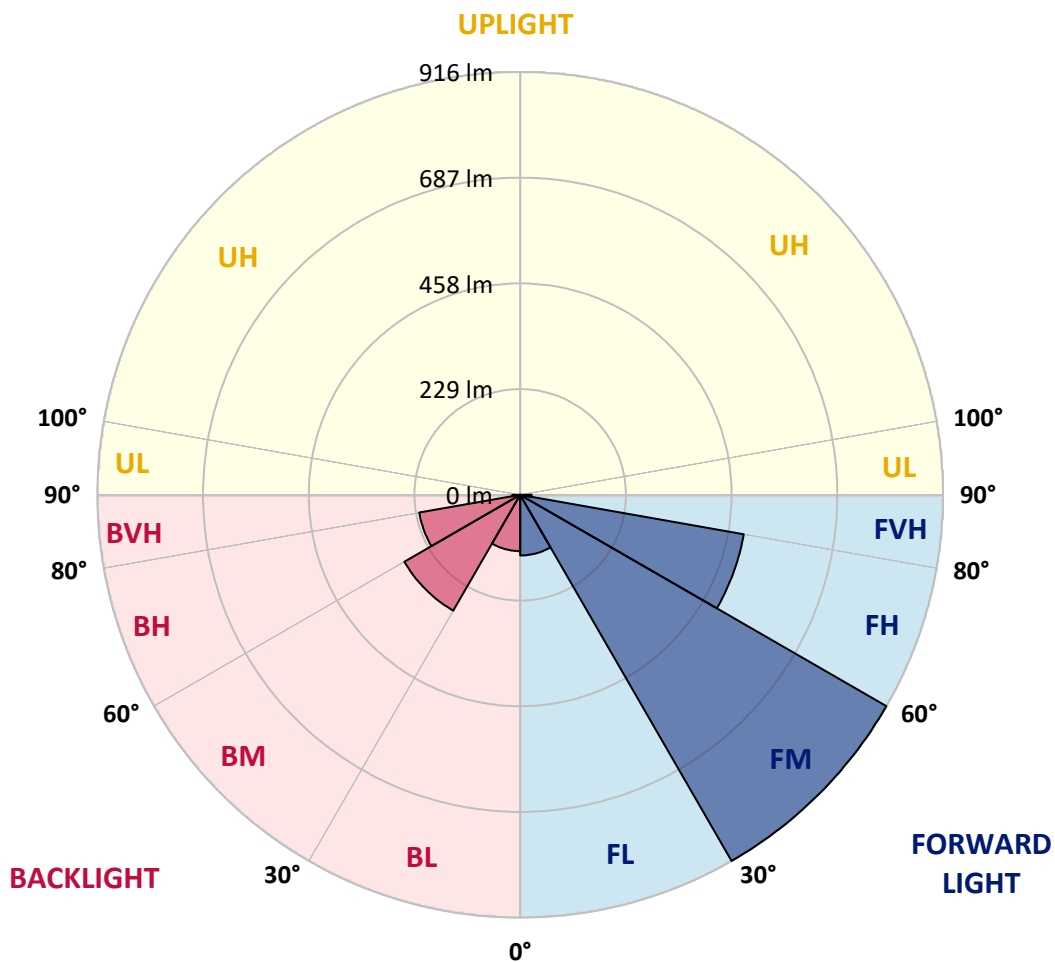
CATALOG NUMBER: ARCH-AF24-20-D-U-T2U-8027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	131.4	5.9			
FM (30°-60°)	915.7	41.4			
FH (60°-80°)	491.6	22.2			G0/660
FVH (80°-90°)	24.5	1.1			G1/100
BL (0°-30°)	121.9	5.5	B1/500		
BM (30°-60°)	289.7	13.1	B1/1000		
BH (60°-80°)	222.1	10.0	B1/500		G1/500
BVH (80°-90°)	17.1	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: P239160

CATALOG NUMBER: ARCH-AF24-20-D-U-T2U-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8
2.5°	238.3	237.9	237.9	237.9	237.9	237.6	237.9	238.7	238.3	237.9	238.7
5°	239.0	238.7	238.7	238.7	239.0	238.7	239.0	240.1	239.4	239.4	240.1
7.5°	240.9	240.5	240.9	240.5	240.5	240.5	240.9	242.0	241.6	242.0	243.1
10°	243.1	243.1	243.1	243.1	243.1	243.1	243.9	244.6	245.0	245.3	246.8
12.5°	249.8	249.8	249.8	249.4	249.4	248.3	249.8	250.5	251.3	252.0	253.1
15°	263.9	263.9	263.5	262.0	262.0	259.8	260.2	260.5	260.5	261.3	262.0
17.5°	282.4	282.0	281.3	280.2	278.7	276.1	275.4	274.6	273.5	273.1	273.1
20°	308.3	308.0	306.5	303.5	301.7	297.6	294.6	291.7	290.5	288.7	288.3
22.5°	345.4	345.4	342.4	338.0	336.5	328.0	319.5	313.2	310.9	308.3	308.3
25°	390.2	389.9	385.8	380.6	374.3	365.4	355.0	346.5	340.9	335.0	332.8
27.5°	444.0	442.9	437.3	431.0	419.1	408.0	395.8	386.9	377.3	369.9	363.2
30°	507.0	505.9	496.2	484.4	472.1	461.0	443.2	432.5	417.3	408.4	401.0
32.5°	580.0	578.9	561.5	550.0	537.0	523.3	502.2	485.1	465.8	453.2	442.9
35°	673.0	668.6	643.7	627.8	607.4	593.7	571.5	548.5	525.9	508.1	492.9
37.5°	773.4	768.2	746.4	722.7	702.6	686.0	654.5	625.6	598.9	574.4	555.5
40°	878.3	864.6	841.3	823.8	810.1	794.2	761.2	730.8	688.9	661.5	633.0
42.5°	950.9	937.6	921.3	909.8	903.1	890.9	872.4	846.1	808.6	809.4	734.1
45°	998.8	979.1	968.0	968.7	971.3	971.3	968.0	963.9	947.6	958.7	895.7
47.5°	981.7	968.7	961.7	976.5	995.0	1013.6	1035.1	1058.4	1085.1	1116.6	1039.1
50°	881.6	886.5	889.8	921.3	961.0	1003.2	1052.5	1116.2	1190.7	1205.2	1167.7
52.5°	721.9	732.3	743.4	791.6	843.8	916.9	1003.2	1108.5	1208.5	1267.4	1263.7
55°	560.7	573.7	597.4	633.3	674.9	743.8	850.5	1012.8	1168.9	1262.6	1319.7
57.5°	399.1	418.0	449.2	499.2	535.9	574.8	653.7	833.8	1004.7	1179.2	1310.4
60°	265.3	274.2	294.6	356.9	418.8	459.5	515.5	580.7	720.4	961.0	1214.8
62.5°	188.3	194.2	206.8	235.0	290.9	364.7	398.4	428.4	473.3	618.2	975.4
63°	177.9	183.1	193.5	217.2	267.6	343.9	378.4	405.8	438.4	552.9	922.8
65°	147.5	149.7	155.3	166.8	193.8	257.2	313.5	330.2	335.8	355.4	578.1
67.5°	124.5	126.0	127.9	131.2	141.9	171.2	233.8	255.0	248.7	235.3	285.7
70°	108.2	109.3	112.3	116.4	120.1	127.5	160.8	192.3	185.3	167.1	174.9
72.5°	86.3	88.2	91.5	98.6	106.0	115.6	123.8	143.4	139.0	121.6	123.4
75°	68.2	69.3	72.3	77.5	84.5	95.6	111.5	118.2	106.0	89.7	89.7
77.5°	54.1	55.2	57.8	61.9	66.3	74.1	85.2	102.7	95.2	67.4	67.1
80°	40.8	41.9	44.5	48.2	52.6	58.2	64.9	72.6	87.5	63.0	50.4
82.5°	30.0	30.4	34.8	37.4	38.9	43.4	48.9	53.4	60.0	58.2	44.8
85°	22.6	22.2	25.2	27.1	27.4	28.5	31.9	36.3	39.3	37.8	34.8
87.5°	12.6	11.1	13.0	14.8	14.8	15.2	15.9	18.5	21.1	20.4	18.5
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: P239160

CATALOG NUMBER: ARCH-AF24-20-D-U-T2U-8027

CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8
2.5°	238.7	238.7	238.3	238.3	238.7	238.7	238.3	239.4	240.1	240.1	240.5
5°	239.8	240.1	239.8	239.8	240.1	240.1	240.5	241.6	242.7	243.5	244.6
7.5°	243.1	243.5	243.1	243.1	243.5	243.9	244.6	246.1	246.8	248.3	250.2
10°	246.8	247.2	246.8	247.2	247.6	247.9	249.0	250.2	251.3	252.7	255.7
12.5°	253.5	253.9	253.1	253.5	254.6	254.6	255.3	256.1	257.9	259.8	262.8
15°	262.8	262.8	262.0	262.4	263.5	263.5	263.9	264.6	266.8	269.1	272.0
17.5°	273.5	274.2	273.9	274.2	275.0	275.4	275.4	276.1	277.6	279.1	282.0
20°	288.0	288.3	287.6	288.3	289.1	288.3	287.6	287.2	288.0	288.7	292.0
22.5°	307.6	307.2	305.4	305.4	305.4	303.9	302.0	299.8	299.8	298.7	301.3
25°	330.9	329.8	327.2	327.6	325.0	322.8	319.5	316.1	313.2	312.0	312.4
27.5°	358.4	356.1	353.5	352.8	350.2	346.1	340.6	334.3	329.5	325.8	325.0
30°	392.8	388.0	383.6	382.8	378.7	372.1	363.2	354.7	346.5	340.2	338.0
32.5°	433.6	426.2	419.1	418.4	411.7	402.8	392.1	380.2	368.4	358.4	353.5
35°	481.4	470.3	463.6	461.8	452.1	441.0	429.1	414.0	397.3	383.2	374.3
37.5°	539.6	528.1	516.6	517.0	503.6	490.7	474.7	456.2	435.1	415.4	402.8
40°	611.5	595.2	580.4	577.0	565.5	547.4	530.0	508.5	482.5	456.6	438.4
42.5°	698.6	671.9	651.5	648.5	633.3	611.1	590.0	561.5	535.1	503.6	481.8
45°	797.5	754.9	730.4	726.0	701.5	678.9	653.4	623.0	590.7	555.2	529.2
47.5°	920.6	859.8	818.3	810.9	777.1	747.5	720.8	687.1	648.5	608.9	580.4
50°	1064.0	974.3	918.3	906.8	861.6	826.8	792.7	750.5	709.3	667.8	634.8
52.5°	1207.8	1111.4	1036.9	1022.8	956.1	909.4	864.6	822.4	773.8	732.7	695.2
55°	1323.4	1259.3	1172.9	1153.3	1057.7	994.3	935.4	887.2	839.0	806.4	762.3
57.5°	1393.1	1389.7	1321.5	1294.5	1163.7	1069.9	1004.3	949.5	902.8	889.1	830.5
60°	1391.2	1477.6	1448.3	1427.9	1270.8	1147.4	1062.1	1002.8	964.3	979.9	899.1
62.5°	1306.3	1481.3	1516.5	1510.9	1384.9	1209.6	1109.6	1048.4	1028.0	1074.4	970.2
63°	1275.6	1472.7	1519.4	1517.2	1406.8	1221.5	1117.7	1057.3	1040.6	1098.4	983.2
65°	1078.1	1398.3	1483.5	1493.5	1453.8	1262.2	1136.6	1079.9	1078.1	1152.2	1013.9
67.5°	657.1	1181.5	1321.5	1340.8	1387.5	1275.2	1125.9	1072.1	1098.8	1160.0	1004.7
70°	280.9	779.7	1062.1	1093.3	1207.4	1210.7	1095.1	1040.3	1094.0	1099.2	938.7
72.5°	166.4	367.6	723.0	790.9	955.4	1041.7	1024.7	984.7	1030.6	965.4	799.4
75°	117.8	172.0	367.3	439.5	665.2	795.3	860.9	879.4	877.6	765.7	600.0
77.5°	84.5	110.4	154.9	182.7	371.3	510.7	590.7	644.8	627.4	512.5	369.9
80°	58.9	76.3	94.9	100.8	172.3	262.4	311.3	335.0	324.6	256.1	165.7
82.5°	42.6	50.0	61.1	64.9	86.7	121.2	144.2	127.1	121.9	94.5	71.5
85°	33.0	32.2	38.2	39.7	50.8	63.4	64.9	50.4	44.1	39.3	40.0
87.5°	23.3	20.0	20.4	21.1	26.3	33.7	33.0	20.8	17.8	18.9	21.5
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: P239160

CATALOG NUMBER: ARCH-AF24-20-D-U-T2U-8027

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8	239.8
2.5°	241.3	241.6	242.4	242.7	243.5	243.5	244.2	244.6	245.3	246.1	246.4
5°	245.7	246.8	248.3	249.0	250.5	251.6	253.1	253.9	255.3	256.5	257.9
7.5°	252.4	254.2	256.1	258.3	260.5	262.4	263.9	265.7	268.3	270.2	271.3
10°	258.7	261.3	264.6	267.2	270.5	273.1	275.4	278.7	281.7	284.2	285.7
12.5°	266.8	270.2	273.5	277.6	282.0	285.4	288.7	293.1	297.2	300.2	301.7
15°	276.5	280.5	284.2	289.1	294.3	298.7	303.5	308.3	311.3	311.3	310.6
17.5°	286.5	289.8	294.3	299.8	306.9	312.4	315.0	315.7	314.6	312.0	310.2
20°	296.5	299.4	304.3	310.9	318.3	319.5	316.9	313.5	310.2	305.7	302.8
22.5°	304.6	308.7	316.1	323.9	324.3	318.0	310.9	305.4	300.2	295.0	289.4
25°	314.3	319.8	329.8	332.8	323.2	311.3	301.3	293.1	284.6	276.1	269.8
27.5°	326.1	334.3	344.3	335.8	316.9	300.2	286.5	274.2	263.1	251.3	244.2
30°	338.7	351.3	353.5	331.3	306.1	284.6	266.1	247.6	233.5	222.7	218.7
32.5°	353.9	370.2	356.9	323.5	291.7	263.5	238.7	216.4	204.6	197.9	196.0
35°	376.9	390.2	358.7	315.4	275.0	238.3	207.2	189.4	182.0	177.5	175.3
37.5°	409.9	409.5	358.4	305.4	255.7	210.9	182.0	169.4	163.4	159.7	155.7
40°	448.4	424.3	356.1	290.9	229.8	184.6	164.5	152.7	147.1	142.7	137.9
42.5°	486.6	434.3	349.8	269.4	197.5	165.7	151.9	141.2	135.3	130.4	123.8
45°	519.6	438.4	337.6	239.8	168.6	150.8	143.8	134.5	127.5	120.1	114.9
47.5°	545.5	437.7	318.0	204.9	149.3	140.5	137.1	130.8	122.3	113.0	106.4
50°	567.4	432.1	291.3	174.2	136.4	131.2	130.1	128.2	114.5	106.7	102.7
52.5°	587.4	424.0	262.8	153.4	125.3	120.8	123.0	121.2	111.5	104.9	100.8
55°	614.8	418.4	234.6	137.5	112.3	111.2	113.0	115.6	109.7	103.4	98.9
57.5°	647.1	421.4	213.1	119.7	100.1	100.8	107.1	110.8	107.8	101.2	96.7
60°	684.1	430.3	194.2	102.7	90.1	91.9	101.2	106.4	106.0	98.2	93.0
62.5°	725.6	439.5	164.2	89.7	81.5	84.5	94.1	100.8	101.9	95.2	88.9
63°	733.8	440.3	156.4	87.1	80.0	83.4	92.3	99.3	100.8	94.5	88.2
65°	753.8	433.6	126.0	80.0	74.1	77.8	86.7	93.0	96.0	90.4	85.2
67.5°	737.1	379.1	94.9	71.5	69.3	71.9	79.7	85.6	88.2	85.6	80.4
70°	674.1	275.7	74.1	63.7	64.1	66.0	71.9	77.5	80.4	79.7	74.9
72.5°	542.9	156.4	61.9	57.1	58.2	60.4	64.5	69.7	72.3	71.9	68.6
75°	357.6	80.0	52.3	51.1	51.9	53.7	56.7	60.8	63.7	63.4	61.9
77.5°	177.1	55.6	44.8	45.2	45.6	47.1	49.3	53.0	54.8	55.2	54.8
80°	73.0	43.4	38.5	38.9	39.3	40.4	41.9	45.2	46.3	47.1	47.4
82.5°	43.7	33.0	30.8	31.5	31.9	33.0	34.1	37.1	38.2	39.3	39.3
85°	28.9	23.0	22.2	23.0	23.7	24.5	24.8	26.7	28.5	30.0	30.8
87.5°	15.6	13.7	13.3	13.7	13.7	14.5	15.2	17.0	19.3	20.8	21.5
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: P239160

CATALOG NUMBER: ARCH-AF24-20-D-U-T2U-8027

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	239.8	239.8	239.8	239.8	239.8
2.5°	245.7	246.1	245.7	246.1	246.4
5°	257.9	258.7	258.3	258.3	259.8
7.5°	272.0	273.5	273.5	274.2	275.0
10°	287.2	288.7	289.8	289.8	290.9
12.5°	302.4	303.1	304.3	304.3	304.3
15°	310.2	309.8	309.4	309.1	309.1
17.5°	309.1	307.6	306.9	306.1	306.5
20°	300.9	298.3	297.6	296.5	297.2
22.5°	286.8	283.1	281.7	279.8	280.5
25°	265.7	261.3	260.5	258.3	259.4
27.5°	241.3	239.0	238.7	238.3	240.1
30°	218.3	219.0	219.4	220.1	222.0
32.5°	197.2	198.6	199.0	199.4	202.0
35°	176.4	174.6	176.4	175.7	177.9
37.5°	153.8	152.3	150.8	149.0	150.5
40°	134.9	132.3	127.9	125.6	126.0
42.5°	120.1	116.7	113.0	110.8	110.8
45°	110.4	106.4	103.0	101.5	101.5
47.5°	103.0	101.2	99.3	98.2	98.2
50°	100.1	97.8	96.7	96.0	96.0
52.5°	97.8	95.6	94.5	93.8	93.0
55°	96.0	92.6	91.5	91.2	91.2
57.5°	93.4	90.4	88.9	88.6	88.6
60°	89.3	87.1	85.6	85.2	85.2
62.5°	85.2	83.0	81.5	81.5	81.5
63°	84.5	81.9	80.8	80.8	80.8
65°	81.2	78.6	77.5	77.5	77.1
67.5°	76.7	74.1	73.4	73.4	72.6
70°	71.5	69.3	68.6	68.9	67.4
72.5°	66.3	64.1	63.0	63.0	61.5
75°	60.4	58.2	56.7	56.3	54.8
77.5°	53.7	51.9	50.4	48.9	48.2
80°	46.7	45.2	43.4	42.2	41.1
82.5°	39.3	37.8	36.7	38.2	32.6
85°	30.8	29.3	27.8	30.0	23.3
87.5°	22.6	21.9	20.4	17.8	15.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)