

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: P239115

Luminaire Tested: **ARCH-AF16-40-D-U-T2U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239115
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-AF16-40-D-U-T2U
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4865.2 lumens
Efficiency: N/A
Efficacy: 115.8 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): 42
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

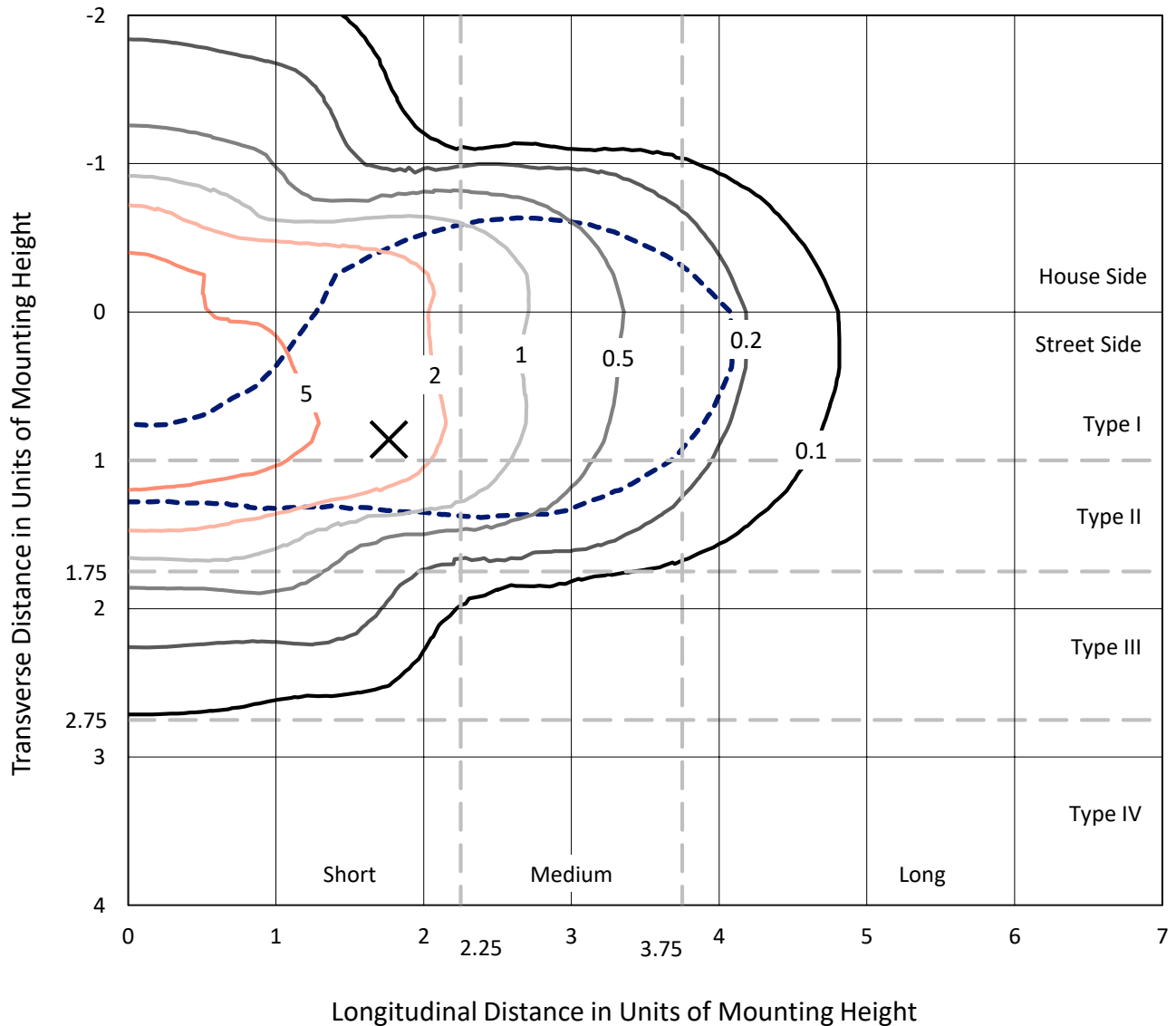


REPORT NUMBER: P239115

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U

Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

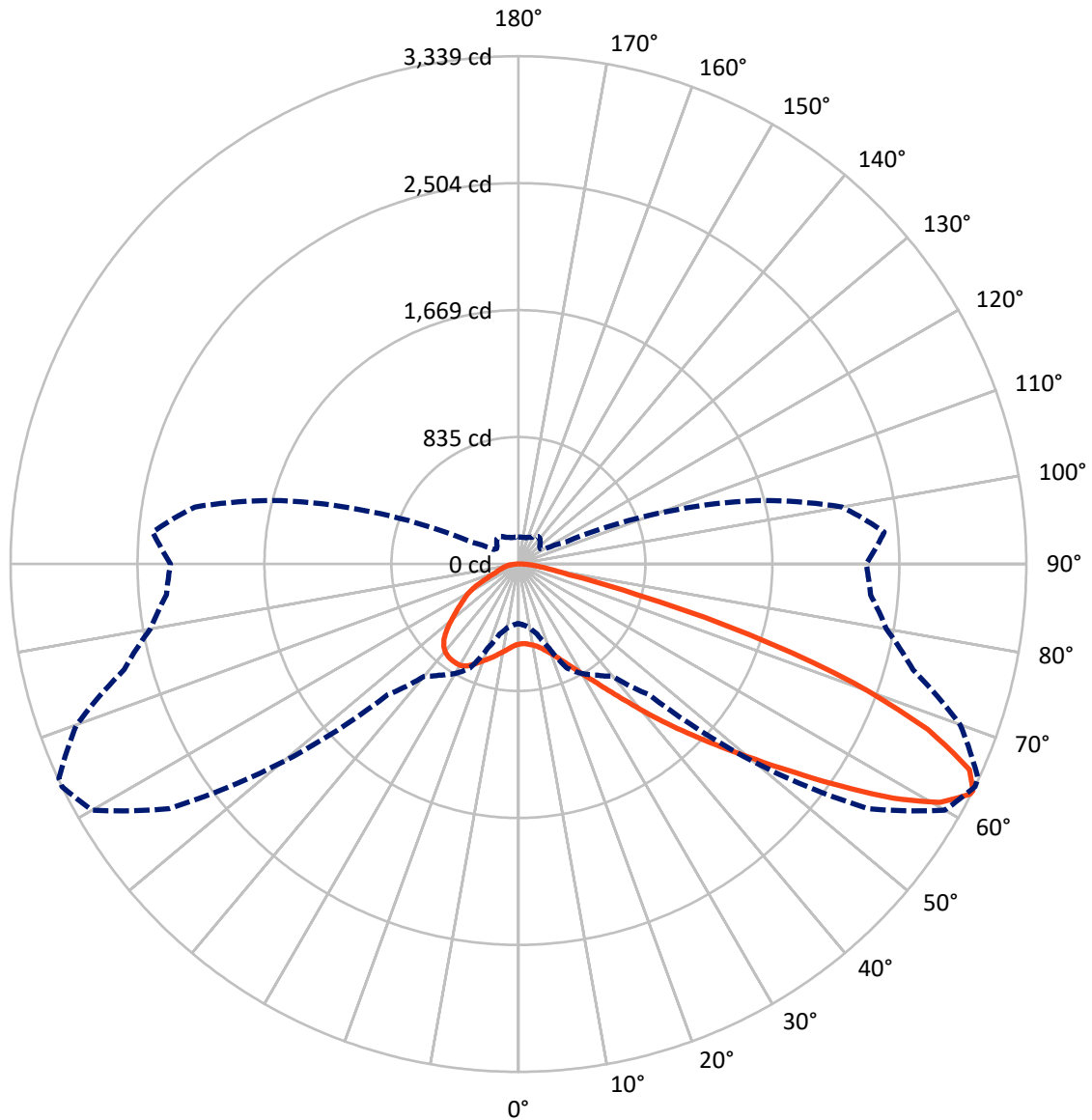


Based on 10 foot mounting height. Maximum calculated value = 8.5 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P239115

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U

Luminous Intensity Polar Plot



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



REPORT NUMBER: P239115

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U

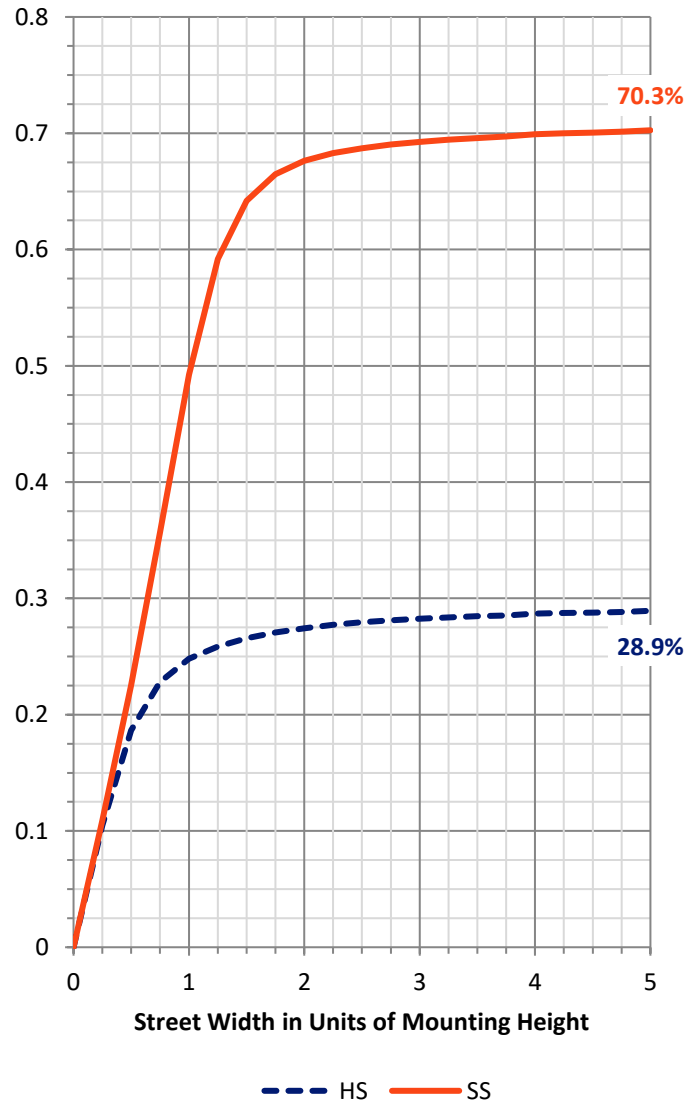
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1430.2	0.0	1430.2
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	3435.0	0.0	3435.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	4865.2	0.0	4865.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	52.6	1.1
10°-20°	175.2	3.6
20°-30°	328.9	6.8
30°-40°	551.3	11.3
40°-50°	924.9	19.0
50°-60°	1172.5	24.1
60°-70°	1034.4	21.3
70°-80°	534.0	11.0
80°-90°	91.4	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°	4865.2	100.0
0°-180°	4865.2	100.0



REPORT NUMBER: P239115

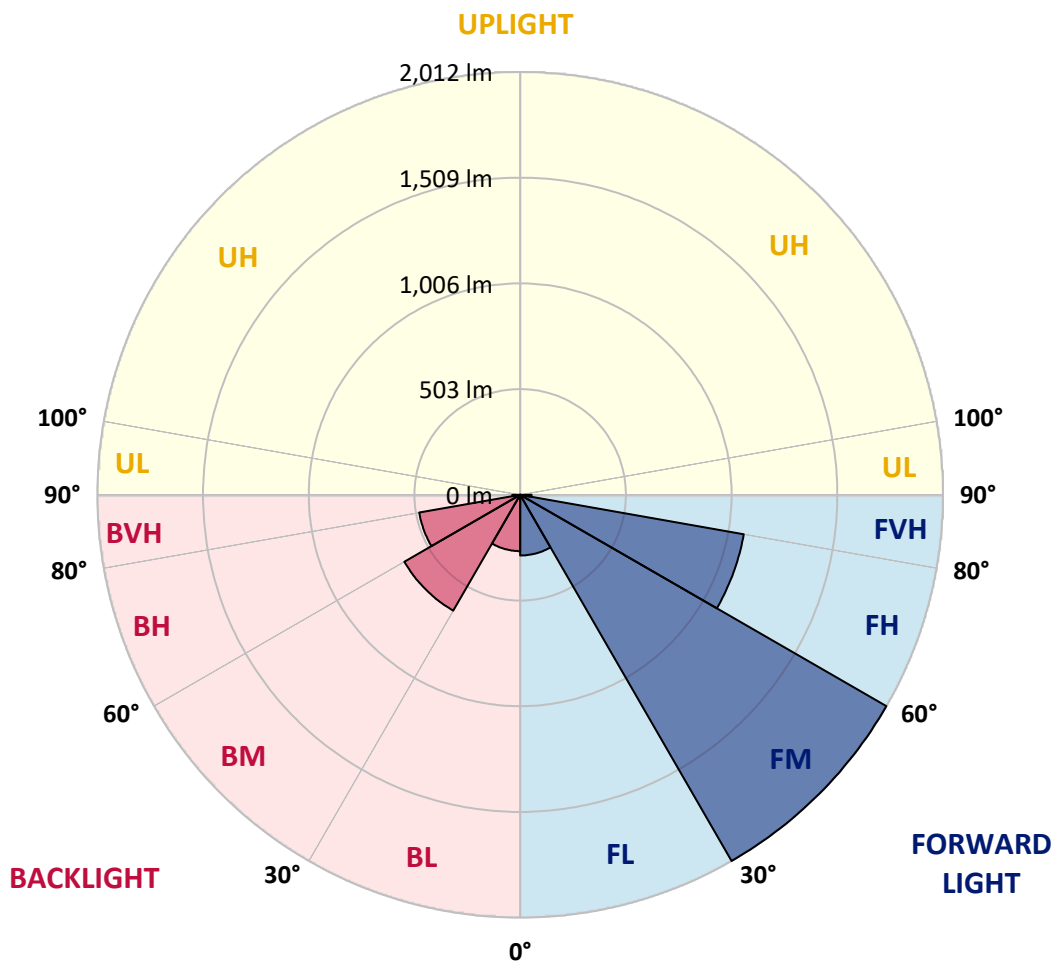
CATALOG NUMBER: ARCH-AF16-40-D-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	288.8	5.9			
FM	(30°-60°)	2012.1	41.4			
FH	(60°-80°)	1080.3	22.2			G1/1800
FVH	(80°-90°)	53.8	1.1			G1/100
BL	(0°-30°)	268.0	5.5	B1/500		
BM	(30°-60°)	636.6	13.1	B1/1000		
BH	(60°-80°)	488.0	10.0	B1/500		G1/500
BVH	(80°-90°)	37.6	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: P239115

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9
2.5°	523.6	522.8	522.8	522.8	522.8	522.0	522.8	524.5	523.6	522.8	524.5
5°	525.3	524.5	524.5	524.5	525.3	524.5	525.3	527.7	526.1	526.1	527.7
7.5°	529.4	528.6	529.4	528.6	528.6	528.6	529.4	531.7	531.0	531.7	534.2
10°	534.2	534.2	534.2	534.2	534.2	534.2	535.8	537.5	538.3	539.1	542.4
12.5°	548.9	548.9	548.9	548.1	548.1	545.6	548.9	550.6	552.2	553.7	556.2
15°	579.8	579.8	579.0	575.7	575.7	570.9	571.7	572.5	572.5	574.1	575.7
17.5°	620.5	619.7	618.1	615.6	612.4	606.7	605.1	603.4	601.0	600.2	600.2
20°	677.6	676.8	673.5	667.0	662.9	654.0	647.4	640.9	638.4	634.4	633.6
22.5°	759.0	759.0	752.5	742.7	739.5	720.7	701.9	688.1	683.2	677.6	677.6
25°	857.5	856.7	847.7	836.4	822.6	802.9	780.2	761.4	749.2	736.2	731.3
27.5°	975.6	973.1	961.0	947.2	921.1	896.6	869.7	850.2	829.0	812.7	798.1
30°	1114.1	1111.6	1090.5	1064.4	1037.5	1013.0	974.0	950.3	917.0	897.4	881.2
32.5°	1274.5	1272.0	1233.8	1208.5	1180.0	1149.9	1103.5	1066.0	1023.7	995.9	973.1
35°	1478.9	1469.2	1414.5	1379.6	1334.7	1304.6	1255.8	1205.2	1155.6	1116.4	1083.1
37.5°	1699.5	1688.2	1640.1	1588.0	1544.0	1507.4	1438.2	1374.6	1316.0	1262.2	1220.7
40°	1930.0	1899.9	1848.6	1810.3	1780.2	1745.2	1672.7	1605.9	1513.9	1453.6	1390.9
42.5°	2089.7	2060.3	2024.5	1999.3	1984.6	1957.7	1917.0	1859.2	1777.0	1778.6	1613.3
45°	2194.7	2151.6	2127.1	2128.8	2134.5	2134.5	2127.1	2118.1	2082.3	2106.8	1968.4
47.5°	2157.3	2128.8	2113.3	2145.8	2186.6	2227.3	2274.5	2325.8	2384.5	2453.6	2283.4
50°	1937.4	1948.0	1955.3	2024.5	2111.7	2204.5	2312.8	2452.8	2616.5	2648.3	2566.1
52.5°	1586.4	1609.2	1633.7	1739.5	1854.3	2014.7	2204.5	2435.7	2655.7	2785.1	2777.0
55°	1232.1	1260.7	1312.8	1391.7	1483.0	1634.5	1868.9	2225.6	2568.5	2774.5	2900.0
57.5°	877.1	918.6	987.0	1096.9	1177.6	1263.0	1436.5	1832.3	2207.7	2591.3	2879.6
60°	583.1	602.6	647.4	784.2	920.2	1009.9	1132.8	1276.1	1583.1	2111.7	2669.5
62.5°	413.7	426.8	454.4	516.3	639.2	801.4	875.4	941.4	1039.9	1358.4	2143.4
63°	390.9	402.3	425.1	477.2	588.0	755.8	831.5	891.7	963.4	1215.1	2027.8
65°	324.1	329.0	341.3	366.4	426.0	565.2	689.0	725.6	737.9	781.0	1270.4
67.5°	273.6	276.9	281.0	288.3	311.9	376.2	513.8	560.3	546.5	517.1	627.9
70°	237.8	240.2	246.7	255.7	263.8	280.2	353.4	422.7	407.1	367.2	384.4
72.5°	189.8	193.8	201.1	216.7	232.9	254.1	272.0	315.2	305.4	267.1	271.2
75°	149.9	152.3	158.8	170.2	185.7	210.1	245.1	259.8	232.9	197.1	197.1
77.5°	118.9	121.3	127.1	136.0	145.8	162.9	187.3	225.6	209.3	148.2	147.4
80°	89.6	92.1	97.7	105.9	115.6	127.9	142.5	159.6	192.2	138.4	110.8
82.5°	66.0	66.8	76.5	82.2	85.5	95.2	107.5	117.2	132.0	127.9	98.5
85°	49.7	48.9	55.3	59.4	60.3	62.7	70.1	79.8	86.3	83.1	76.5
87.5°	27.7	24.4	28.5	32.5	32.5	33.3	35.0	40.7	46.4	44.8	40.7
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: P239115

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U

CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9
2.5°	524.5	524.5	523.6	523.6	524.5	524.5	523.6	526.1	527.7	527.7	528.6
5°	526.9	527.7	526.9	526.9	527.7	527.7	528.6	531.0	533.4	535.0	537.5
7.5°	534.2	535.0	534.2	534.2	535.0	535.8	537.5	540.7	542.4	545.6	549.7
10°	542.4	543.2	542.4	543.2	544.0	544.8	547.3	549.7	552.2	555.4	561.9
12.5°	557.0	557.8	556.2	557.0	559.5	559.5	561.1	562.7	566.8	570.9	577.4
15°	577.4	577.4	575.7	576.5	579.0	579.0	579.8	581.4	586.4	591.3	597.7
17.5°	601.0	602.6	601.8	602.6	604.3	605.1	605.1	606.7	610.0	613.3	619.7
20°	632.8	633.6	632.0	633.6	635.3	633.6	632.0	631.2	632.8	634.4	641.7
22.5°	676.0	675.1	671.1	671.1	671.1	667.8	663.7	658.8	658.8	656.4	662.1
25°	727.2	724.8	719.1	719.9	714.2	709.3	701.9	694.7	688.1	685.7	686.5
27.5°	787.5	782.6	776.9	775.3	769.6	760.7	748.4	734.6	723.9	715.9	714.2
30°	863.3	852.6	842.9	841.3	832.3	817.6	798.1	779.4	761.4	747.6	742.7
32.5°	952.8	936.5	921.1	919.4	904.8	885.3	861.6	835.5	809.5	787.5	776.9
35°	1057.8	1033.4	1018.8	1014.7	993.5	969.1	943.1	909.6	873.0	842.1	822.6
37.5°	1185.7	1160.4	1135.3	1136.1	1106.7	1078.2	1043.2	1002.5	956.0	912.9	885.3
40°	1343.7	1307.8	1275.3	1267.9	1242.7	1202.8	1164.5	1117.3	1060.3	1003.3	963.4
42.5°	1535.0	1476.4	1431.6	1425.2	1391.7	1342.9	1296.5	1233.8	1176.0	1106.7	1058.7
45°	1752.5	1658.8	1605.1	1595.3	1541.6	1491.9	1435.7	1368.9	1298.1	1219.9	1162.9
47.5°	2022.9	1889.3	1798.1	1781.9	1707.7	1642.6	1583.9	1509.9	1425.2	1338.0	1275.3
50°	2338.1	2140.9	2018.0	1992.7	1893.4	1816.9	1741.9	1649.1	1558.7	1467.5	1395.0
52.5°	2654.0	2442.3	2278.6	2247.6	2101.0	1998.4	1899.9	1807.0	1700.3	1610.0	1527.8
55°	2908.1	2767.2	2577.4	2534.3	2324.2	2184.9	2055.4	1949.5	1843.8	1772.1	1675.2
57.5°	3061.2	3053.9	2904.1	2844.6	2557.1	2351.0	2206.9	2086.4	1983.8	1953.6	1824.9
60°	3057.1	3246.8	3182.5	3137.8	2792.5	2521.3	2334.0	2203.6	2118.9	2153.2	1975.6
62.5°	2870.6	3255.0	3332.4	3320.2	3043.3	2658.1	2438.2	2303.8	2259.1	2360.9	2132.0
63°	2803.1	3236.3	3338.9	3334.0	3091.4	2684.1	2456.1	2323.4	2286.7	2413.8	2160.5
65°	2368.9	3072.6	3259.9	3281.9	3194.8	2773.7	2497.6	2373.0	2368.9	2531.9	2228.1
67.5°	1443.9	2596.1	2904.1	2946.4	3049.0	2802.3	2474.0	2356.0	2414.6	2549.0	2207.7
70°	617.2	1713.4	2334.0	2402.4	2653.2	2660.5	2406.5	2285.9	2404.0	2415.4	2062.8
72.5°	365.6	807.8	1588.8	1737.9	2099.4	2289.2	2251.7	2163.7	2264.7	2121.4	1756.6
75°	259.0	377.9	807.0	965.9	1461.8	1747.6	1891.7	1932.5	1928.5	1682.4	1318.5
77.5°	185.7	242.6	340.4	401.5	816.0	1122.2	1298.1	1417.0	1378.7	1126.3	812.7
80°	129.5	167.8	208.5	221.5	378.7	576.5	684.0	736.2	713.4	562.7	364.1
82.5°	93.7	110.0	134.4	142.5	190.6	266.3	316.8	279.4	267.9	207.7	157.1
85°	72.5	70.9	83.9	87.2	111.6	139.2	142.5	110.8	96.9	86.3	88.0
87.5°	51.4	44.0	44.8	46.4	57.8	74.1	72.5	45.6	39.1	41.5	47.3
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: P239115

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9	526.9
2.5°	530.2	531.0	532.5	533.4	535.0	535.0	536.6	537.5	539.1	540.7	541.6
5°	539.9	542.4	545.6	547.3	550.6	552.9	556.2	557.8	561.1	563.5	566.8
7.5°	554.5	558.6	562.7	567.6	572.5	576.5	579.8	583.9	589.6	593.7	596.1
10°	568.5	574.1	581.4	587.2	594.4	600.2	605.1	612.4	618.9	624.6	627.9
12.5°	586.4	593.7	601.0	610.0	619.7	627.1	634.4	644.2	653.2	659.6	662.9
15°	607.5	616.4	624.6	635.3	646.6	656.4	667.0	677.6	684.0	684.0	682.4
17.5°	629.5	636.8	646.6	658.8	674.3	686.5	692.2	693.9	691.4	685.7	681.6
20°	651.5	658.0	668.6	683.2	699.5	701.9	696.3	689.0	681.6	671.9	665.3
22.5°	669.4	678.3	694.7	711.8	712.6	698.7	683.2	671.1	659.6	648.2	636.0
25°	690.6	702.8	724.8	731.3	710.1	684.0	662.1	644.2	625.4	606.7	592.9
27.5°	716.7	734.6	756.6	737.9	696.3	659.6	629.5	602.6	578.2	552.2	536.6
30°	744.3	772.0	776.9	728.0	672.7	625.4	584.7	544.0	513.0	489.5	480.5
32.5°	777.7	813.6	784.2	711.0	640.9	579.0	524.5	475.6	449.5	434.9	430.8
35°	828.2	857.5	788.3	693.0	604.3	523.6	455.2	416.1	399.9	390.1	385.2
37.5°	900.7	899.9	787.5	671.1	561.9	463.4	399.9	372.1	359.2	351.0	342.1
40°	985.4	932.4	782.6	639.2	504.9	405.6	361.6	335.5	323.3	313.5	302.9
42.5°	1069.3	954.4	768.7	592.1	434.0	364.1	333.9	310.3	297.3	286.6	272.0
45°	1141.7	963.4	741.8	526.9	370.5	331.4	316.0	295.6	280.2	263.8	252.5
47.5°	1198.8	961.8	698.7	450.3	328.2	308.6	301.4	287.4	268.7	248.4	233.7
50°	1246.8	949.5	640.1	382.8	299.7	288.3	285.8	281.7	251.6	234.6	225.6
52.5°	1290.8	931.6	577.4	337.2	275.3	265.5	270.4	266.3	245.1	230.5	221.5
55°	1351.0	919.4	515.5	302.2	246.7	244.3	248.4	254.1	241.0	227.2	217.5
57.5°	1421.9	926.0	468.3	263.0	219.8	221.5	235.4	243.5	237.0	222.3	212.6
60°	1503.3	945.5	426.8	225.6	197.9	201.9	222.3	233.7	232.9	215.8	204.4
62.5°	1594.6	965.9	360.8	197.1	179.1	185.7	206.8	221.5	223.9	209.3	195.5
63°	1612.5	967.5	343.7	191.4	175.9	183.2	202.7	218.3	221.5	207.7	193.8
65°	1656.5	952.8	276.9	175.9	162.9	171.0	190.6	204.4	210.9	198.7	187.3
67.5°	1619.7	833.1	208.5	157.1	152.3	157.9	175.1	188.1	193.8	188.1	176.8
70°	1481.3	605.9	162.9	140.0	140.9	145.0	157.9	170.2	176.8	175.1	164.5
72.5°	1193.1	343.7	136.0	125.4	127.9	132.8	141.7	153.1	158.8	157.9	150.7
75°	785.8	175.9	114.8	112.4	114.1	118.0	124.6	133.6	140.0	139.2	136.0
77.5°	389.2	122.1	98.5	99.3	100.1	103.4	108.3	116.4	120.5	121.3	120.5
80°	160.4	95.2	84.7	85.5	86.3	88.8	92.1	99.3	101.8	103.4	104.2
82.5°	96.1	72.5	67.6	69.3	70.1	72.5	74.9	81.4	83.9	86.3	86.3
85°	63.5	50.5	48.9	50.5	52.2	53.7	54.5	58.6	62.7	66.0	67.6
87.5°	34.2	30.2	29.4	30.2	30.2	31.7	33.3	37.4	42.4	45.6	47.3
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: P239115

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	526.9	526.9	526.9	526.9	526.9
2.5°	539.9	540.7	539.9	540.7	541.6
5°	566.8	568.5	567.6	567.6	570.9
7.5°	597.7	601.0	601.0	602.6	604.3
10°	631.2	634.4	636.8	636.8	639.2
12.5°	664.5	666.1	668.6	668.6	668.6
15°	681.6	680.8	680.0	679.1	679.1
17.5°	679.1	676.0	674.3	672.7	673.5
20°	661.2	655.6	654.0	651.5	653.2
22.5°	630.3	622.2	618.9	614.9	616.4
25°	583.9	574.1	572.5	567.6	570.1
27.5°	530.2	525.3	524.5	523.6	527.7
30°	479.7	481.3	482.1	483.8	487.8
32.5°	433.2	436.5	437.3	438.1	443.9
35°	387.6	383.6	387.6	386.0	390.9
37.5°	338.0	334.7	331.4	327.3	330.6
40°	296.5	290.7	281.0	276.1	276.9
42.5°	263.8	256.6	248.4	243.5	243.5
45°	242.6	233.7	226.4	223.1	223.1
47.5°	226.4	222.3	218.3	215.8	215.8
50°	219.8	215.0	212.6	210.9	210.9
52.5°	215.0	210.1	207.7	206.0	204.4
55°	210.9	203.6	201.1	200.3	200.3
57.5°	205.2	198.7	195.5	194.7	194.7
60°	196.3	191.4	188.1	187.3	187.3
62.5°	187.3	182.4	179.1	179.1	179.1
63°	185.7	179.9	177.5	177.5	177.5
65°	178.3	172.7	170.2	170.2	169.4
67.5°	168.6	162.9	161.2	161.2	159.6
70°	157.1	152.3	150.7	151.5	148.2
72.5°	145.8	140.9	138.4	138.4	135.2
75°	132.8	127.9	124.6	123.8	120.5
77.5°	118.0	114.1	110.8	107.5	105.9
80°	102.6	99.3	95.2	92.9	90.4
82.5°	86.3	83.1	80.6	83.9	71.7
85°	67.6	64.3	61.1	66.0	51.4
87.5°	49.7	48.1	44.8	39.1	34.2
90°	0.0	0.0	0.0	0.0	0.0

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