

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: P239101

Luminaire Tested: **ARCH-AF16-40-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239101
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-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 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: 4599.8 lumens
Efficiency: N/A
Efficacy: 109.5 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

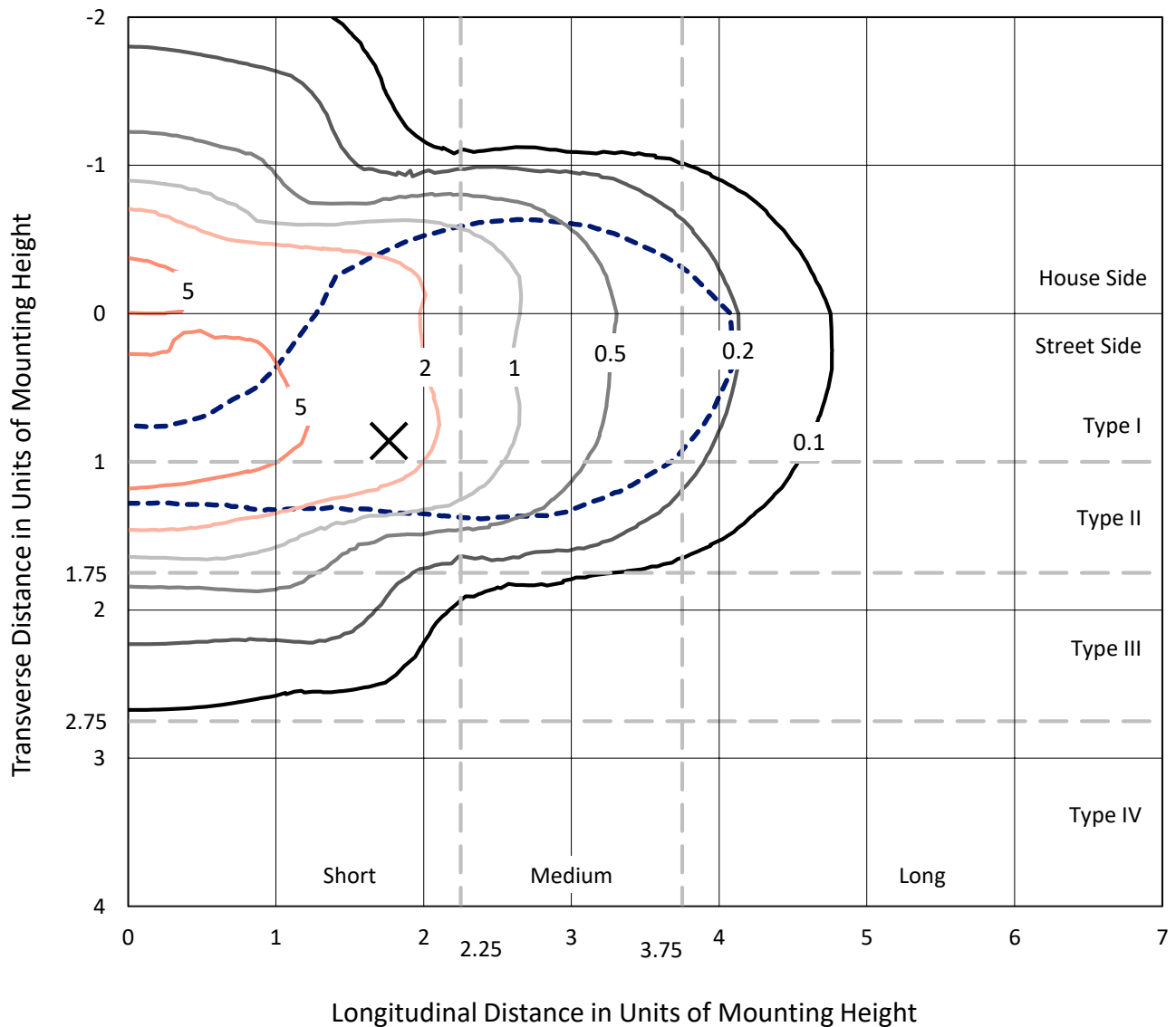
Input Watts (W): 42
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P239101
 CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7030

Iso-Footcandle Lines of Horizontal Illumination

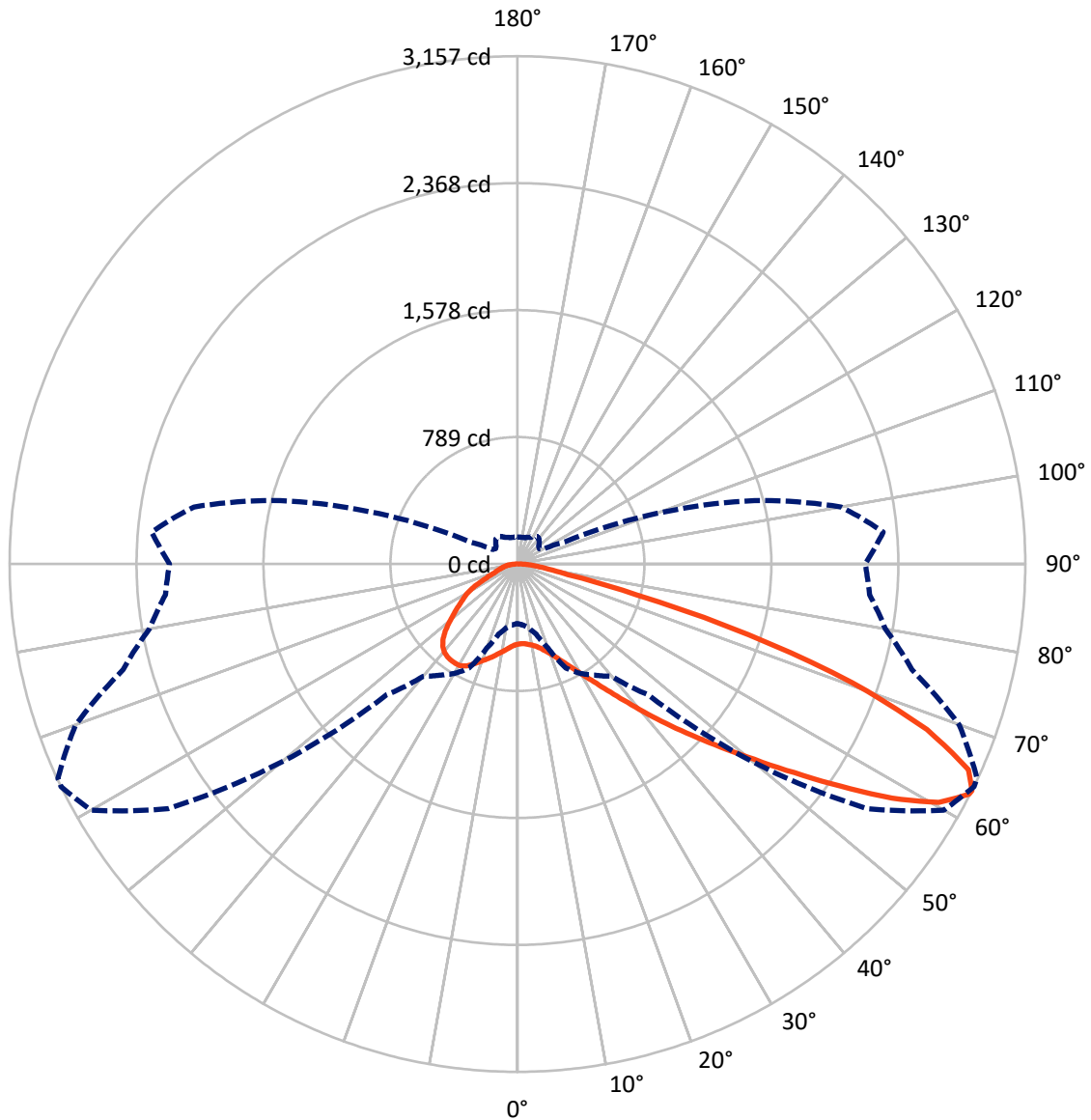
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 8.1 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P239101
CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7030

Luminous Intensity Polar Plot



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

REPORT NUMBER: P239101

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7030

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1352.2	0.0	1352.2
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	3247.6	0.0	3247.6
	% Fixture	70.6	0.0	70.6
Total	Lumens	4599.8	0.0	4599.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.7	1.1
10°-20°	165.7	3.6
20°-30°	311.0	6.8
30°-40°	521.2	11.3
40°-50°	874.5	19.0
50°-60°	1108.6	24.1
60°-70°	977.9	21.3
70°-80°	504.8	11.0
80°-90°	86.4	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°	4599.8	100.0
0°-180°	4599.8	100.0



REPORT NUMBER: P239101

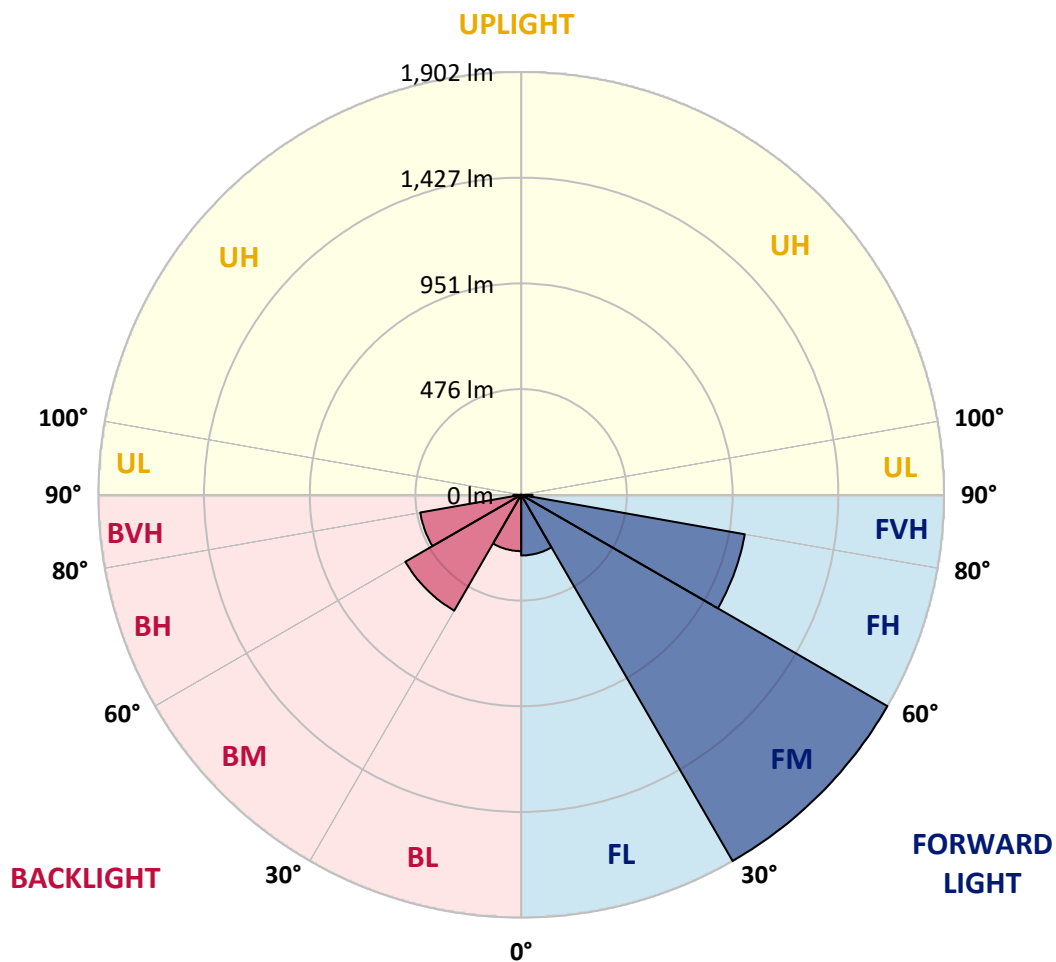
CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	273.0	5.9			
FM	(30°-60°)	1902.4	41.4			
FH	(60°-80°)	1021.4	22.2			G1/1800
FVH	(80°-90°)	50.8	1.1			G1/100
BL	(0°-30°)	253.4	5.5	B1/500		
BM	(30°-60°)	601.9	13.1	B1/1000		
BH	(60°-80°)	461.3	10.0	B1/500		G1/500
BVH	(80°-90°)	35.5	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: P239101

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7030

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1
2.5°	495.1	494.3	494.3	494.3	494.3	493.6	494.3	495.8	495.1	494.3	495.8
5°	496.6	495.8	495.8	495.8	496.6	495.8	496.6	498.9	497.3	497.3	498.9
7.5°	500.5	499.8	500.5	499.8	499.8	499.8	500.5	502.8	502.0	502.8	505.1
10°	505.1	505.1	505.1	505.1	505.1	505.1	506.6	508.2	508.9	509.7	512.8
12.5°	519.0	519.0	519.0	518.2	518.2	515.8	519.0	520.5	522.0	523.6	525.9
15°	548.2	548.2	547.4	544.3	544.3	539.7	540.5	541.3	541.3	542.8	544.3
17.5°	586.7	585.9	584.4	582.2	579.0	573.6	572.1	570.6	568.2	567.5	567.5
20°	640.6	639.8	636.8	630.5	626.7	618.3	612.1	606.0	603.6	599.9	599.1
22.5°	717.7	717.7	711.4	702.2	699.1	681.4	663.8	650.6	645.9	640.6	640.6
25°	810.7	809.9	801.5	790.7	777.6	759.2	737.6	719.9	708.3	696.0	691.4
27.5°	922.3	920.1	908.5	895.5	870.8	847.8	822.2	803.8	783.8	768.4	754.6
30°	1053.3	1051.0	1031.0	1006.3	980.9	957.7	920.8	898.5	867.0	848.5	833.1
32.5°	1205.0	1202.6	1166.5	1142.7	1115.6	1087.1	1043.3	1007.9	967.8	941.6	920.1
35°	1398.2	1389.0	1337.5	1304.3	1262.0	1233.4	1187.2	1139.6	1092.6	1055.6	1024.1
37.5°	1606.8	1596.1	1550.7	1501.4	1459.8	1425.2	1359.7	1299.6	1244.3	1193.4	1154.1
40°	1824.7	1796.3	1747.8	1711.5	1683.1	1650.1	1581.5	1518.3	1431.3	1374.4	1315.1
42.5°	1975.7	1948.0	1914.1	1890.1	1876.4	1851.0	1812.5	1757.8	1680.1	1681.6	1525.3
45°	2075.1	2034.2	2011.1	2012.7	2018.0	2018.0	2011.1	2002.6	1968.8	1991.9	1861.0
47.5°	2039.7	2012.7	1998.1	2028.8	2067.3	2105.9	2150.4	2199.0	2254.4	2319.9	2159.0
50°	1831.7	1841.7	1848.6	1914.1	1996.5	2084.2	2186.6	2319.1	2473.8	2503.9	2426.1
52.5°	1499.9	1521.4	1544.5	1644.6	1753.2	1904.8	2084.2	2302.9	2510.8	2633.2	2625.5
55°	1164.9	1191.9	1241.1	1315.8	1402.2	1545.3	1767.0	2104.3	2428.4	2623.2	2741.8
57.5°	829.3	868.5	933.2	1037.1	1113.4	1194.2	1358.2	1732.5	2087.3	2450.0	2722.5
60°	551.3	569.8	612.1	741.5	870.0	954.7	1071.0	1206.5	1496.8	1996.5	2523.9
62.5°	391.1	403.5	429.6	488.2	604.4	757.6	827.7	890.0	983.3	1284.3	2026.5
63°	369.7	380.3	402.0	451.2	555.9	714.5	786.1	843.1	910.9	1148.8	1917.2
65°	306.5	311.1	322.7	346.5	402.7	534.4	651.4	686.0	697.6	738.4	1201.1
67.5°	258.7	261.7	265.6	272.6	294.9	355.7	485.8	529.7	516.7	488.9	593.6
70°	224.8	227.2	233.3	241.8	249.4	264.9	334.2	399.6	385.0	347.2	363.4
72.5°	179.4	183.2	190.2	204.9	220.1	240.3	257.2	297.9	288.8	252.5	256.4
75°	141.7	144.0	150.1	160.9	175.6	198.7	231.7	245.7	220.1	186.3	186.3
77.5°	112.4	114.7	120.0	128.6	137.7	153.9	177.1	213.3	197.9	140.2	139.5
80°	84.6	87.0	92.5	100.1	109.4	120.8	134.7	150.9	181.7	130.9	104.7
82.5°	62.4	63.2	72.3	77.8	80.9	90.0	101.6	110.9	124.8	120.8	93.2
85°	47.0	46.2	52.3	56.2	57.0	59.3	66.2	75.5	81.6	78.5	72.3
87.5°	26.2	23.1	27.0	30.8	30.8	31.5	33.1	38.5	43.9	42.4	38.5
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: P239101

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7030

CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1
2.5°	495.8	495.8	495.1	495.1	495.8	495.8	495.1	497.3	498.9	498.9	499.8
5°	498.1	498.9	498.1	498.1	498.9	498.9	499.8	502.0	504.3	505.9	508.2
7.5°	505.1	505.9	505.1	505.1	505.9	506.6	508.2	511.3	512.8	515.8	519.7
10°	512.8	513.5	512.8	513.5	514.3	515.0	517.5	519.7	522.0	525.1	531.2
12.5°	526.6	527.4	525.9	526.6	529.0	529.0	530.5	532.0	535.9	539.7	545.9
15°	545.9	545.9	544.3	545.1	547.4	547.4	548.2	549.8	554.4	559.0	565.2
17.5°	568.2	569.8	569.0	569.8	571.3	572.1	572.1	573.6	576.7	579.7	585.9
20°	598.3	599.1	597.4	599.1	600.6	599.1	597.4	596.7	598.3	599.9	606.7
22.5°	639.0	638.3	634.5	634.5	634.5	631.4	627.4	622.9	622.9	620.6	625.9
25°	687.6	685.3	679.9	680.6	675.2	670.7	663.8	656.7	650.6	648.4	649.1
27.5°	744.5	739.9	734.6	733.0	727.5	719.2	707.6	694.5	684.5	676.8	675.2
30°	816.1	806.2	796.9	795.4	786.8	773.0	754.6	736.9	719.9	706.8	702.2
32.5°	900.9	885.4	870.8	869.2	855.4	836.9	814.6	790.0	765.4	744.5	734.6
35°	1000.2	977.1	963.2	959.4	939.3	916.2	891.5	860.1	825.4	796.2	777.6
37.5°	1121.0	1097.2	1073.4	1074.1	1046.3	1019.4	986.3	947.9	903.9	863.1	836.9
40°	1270.4	1236.5	1205.7	1198.8	1175.0	1137.2	1101.0	1056.3	1002.5	948.6	910.9
42.5°	1451.4	1395.9	1353.6	1347.3	1315.8	1269.7	1225.8	1166.5	1111.8	1046.3	1001.0
45°	1656.9	1568.4	1517.6	1508.4	1457.5	1410.5	1357.4	1294.2	1227.3	1153.3	1099.4
47.5°	1912.6	1786.3	1700.1	1684.7	1614.7	1553.0	1497.5	1427.5	1347.3	1265.0	1205.7
50°	2210.6	2024.2	1907.8	1884.0	1790.1	1717.8	1647.0	1559.1	1473.7	1387.5	1319.0
52.5°	2509.2	2309.0	2154.4	2125.1	1986.5	1889.4	1796.3	1708.5	1607.6	1522.2	1444.4
55°	2749.5	2616.3	2436.9	2396.0	2197.4	2065.8	1943.4	1843.3	1743.1	1675.4	1583.8
57.5°	2894.3	2887.2	2745.6	2689.4	2417.7	2222.9	2086.6	1972.5	1875.7	1847.1	1725.4
60°	2890.4	3069.7	3009.0	2966.6	2640.1	2383.8	2206.7	2083.5	2003.4	2035.7	1867.9
62.5°	2714.1	3077.5	3150.6	3139.1	2877.4	2513.1	2305.3	2178.2	2135.8	2232.0	2015.8
63°	2650.2	3059.8	3156.8	3152.1	2922.6	2537.8	2322.2	2196.6	2162.0	2282.1	2042.7
65°	2239.9	2904.9	3082.1	3102.9	3020.5	2622.4	2361.4	2243.6	2239.9	2393.8	2106.6
67.5°	1365.0	2454.6	2745.6	2785.7	2882.7	2649.4	2339.1	2227.5	2282.9	2409.9	2087.3
70°	583.7	1620.0	2206.7	2271.4	2508.5	2515.4	2275.3	2161.2	2272.9	2283.6	1950.3
72.5°	345.7	763.8	1502.2	1643.0	1984.9	2164.3	2128.9	2045.8	2141.3	2005.7	1660.7
75°	244.8	357.3	763.0	913.2	1382.0	1652.3	1788.6	1827.2	1823.2	1590.7	1246.5
77.5°	175.6	229.5	321.9	379.5	771.5	1061.0	1227.3	1339.7	1303.6	1064.8	768.4
80°	122.4	158.7	197.1	209.4	358.1	545.1	646.7	696.0	674.4	532.0	344.1
82.5°	88.5	103.9	127.1	134.7	180.2	251.8	299.5	264.1	253.3	196.3	148.6
85°	68.5	66.9	79.3	82.4	105.4	131.6	134.7	104.7	91.7	81.6	83.1
87.5°	48.5	41.6	42.4	43.9	54.6	70.0	68.5	43.1	36.9	39.3	44.7
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: P239101

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7030

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1	498.1
2.5°	501.3	502.0	503.5	504.3	505.9	505.9	507.4	508.2	509.7	511.3	512.0
5°	510.5	512.8	515.8	517.5	520.5	522.8	525.9	527.4	530.5	532.8	535.9
7.5°	524.3	528.2	532.0	536.7	541.3	545.1	548.2	552.1	557.4	561.3	563.6
10°	537.4	542.8	549.8	555.1	562.0	567.5	572.1	579.0	585.2	590.5	593.6
12.5°	554.4	561.3	568.2	576.7	585.9	592.8	599.9	609.0	617.6	623.7	626.7
15°	574.3	582.9	590.5	600.6	611.3	620.6	630.5	640.6	646.7	646.7	645.1
17.5°	595.1	602.1	611.3	622.9	637.5	649.1	654.5	656.0	653.7	648.4	644.4
20°	616.0	622.1	632.2	645.9	661.3	663.8	658.3	651.4	644.4	635.3	629.0
22.5°	632.9	641.4	656.7	672.9	673.7	660.6	645.9	634.5	623.7	612.8	601.4
25°	653.0	664.6	685.3	691.4	671.4	646.7	625.9	609.0	591.3	573.6	560.5
27.5°	677.5	694.5	715.3	697.6	658.3	623.7	595.1	569.8	546.7	522.0	507.4
30°	703.7	730.0	734.6	688.4	636.0	591.3	552.9	514.3	485.1	462.7	454.3
32.5°	735.4	769.1	741.5	672.2	606.0	547.4	495.8	449.6	425.0	411.2	407.3
35°	783.1	810.7	745.3	655.2	571.3	495.1	430.4	393.5	378.0	368.9	364.2
37.5°	851.5	850.8	744.5	634.5	531.2	438.1	378.0	351.9	339.6	331.8	323.4
40°	931.7	881.6	739.9	604.4	477.4	383.4	341.9	317.2	305.7	296.4	286.4
42.5°	1010.9	902.4	726.8	559.7	410.4	344.1	315.6	293.4	281.1	271.1	257.2
45°	1079.5	910.9	701.5	498.1	350.2	313.3	298.8	279.4	264.9	249.4	238.7
47.5°	1133.3	909.4	660.6	425.8	310.3	291.8	284.8	271.8	254.1	234.8	220.9
50°	1178.8	897.8	605.2	361.8	283.3	272.6	270.2	266.4	237.9	221.8	213.3
52.5°	1220.4	880.8	545.9	318.7	260.2	251.0	255.6	251.8	231.7	217.9	209.4
55°	1277.4	869.2	487.4	285.6	233.3	231.0	234.8	240.3	228.0	214.8	205.6
57.5°	1344.3	875.3	442.7	248.7	207.9	209.4	222.6	230.2	224.1	210.3	200.9
60°	1421.4	894.0	403.5	213.3	187.1	190.9	210.3	220.9	220.1	204.0	193.3
62.5°	1507.6	913.2	341.1	186.3	169.4	175.6	195.6	209.4	211.8	197.9	184.7
63°	1524.5	914.7	324.9	181.0	166.3	173.2	191.7	206.4	209.4	196.3	183.2
65°	1566.1	900.9	261.7	166.3	153.9	161.7	180.2	193.3	199.4	187.8	177.1
67.5°	1531.4	787.6	197.1	148.6	144.0	149.3	165.5	177.9	183.2	177.9	167.0
70°	1400.6	572.8	153.9	132.4	133.2	137.0	149.3	160.9	167.0	165.5	155.4
72.5°	1128.0	324.9	128.6	118.5	120.8	125.5	134.0	144.8	150.1	149.3	142.5
75°	743.0	166.3	108.6	106.2	107.8	111.7	117.8	126.3	132.4	131.6	128.6
77.5°	367.9	115.5	93.2	94.0	94.7	97.8	102.3	110.2	113.9	114.7	113.9
80°	151.7	90.0	80.1	80.9	81.6	83.9	87.0	94.0	96.2	97.8	98.6
82.5°	90.9	68.5	63.9	65.4	66.2	68.5	70.8	77.0	79.3	81.6	81.6
85°	60.1	47.7	46.2	47.7	49.2	50.8	51.6	55.4	59.3	62.4	63.9
87.5°	32.3	28.5	27.8	28.5	28.5	30.0	31.5	35.4	40.0	43.1	44.7
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: P239101

CATALOG NUMBER: ARCH-AF16-40-D-U-T2U-7030

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	498.1	498.1	498.1	498.1	498.1
2.5°	510.5	511.3	510.5	511.3	512.0
5°	535.9	537.4	536.7	536.7	539.7
7.5°	565.2	568.2	568.2	569.8	571.3
10°	596.7	599.9	602.1	602.1	604.4
12.5°	628.2	629.8	632.2	632.2	632.2
15°	644.4	643.6	642.9	642.1	642.1
17.5°	642.1	639.0	637.5	636.0	636.8
20°	625.2	619.8	618.3	616.0	617.6
22.5°	595.9	588.3	585.2	581.3	582.9
25°	552.1	542.8	541.3	536.7	538.9
27.5°	501.3	496.6	495.8	495.1	498.9
30°	453.5	455.1	455.8	457.4	461.2
32.5°	409.6	412.7	413.4	414.2	419.7
35°	366.4	362.6	366.4	364.9	369.7
37.5°	319.6	316.5	313.3	309.5	312.6
40°	280.2	274.9	265.6	261.0	261.7
42.5°	249.4	242.5	234.8	230.2	230.2
45°	229.5	220.9	214.0	211.0	211.0
47.5°	214.0	210.3	206.4	204.0	204.0
50°	207.9	203.2	200.9	199.4	199.4
52.5°	203.2	198.7	196.3	194.8	193.3
55°	199.4	192.6	190.2	189.4	189.4
57.5°	194.1	187.8	184.7	184.0	184.0
60°	185.5	181.0	177.9	177.1	177.1
62.5°	177.1	172.5	169.4	169.4	169.4
63°	175.6	170.1	167.8	167.8	167.8
65°	168.6	163.3	160.9	160.9	160.2
67.5°	159.4	153.9	152.4	152.4	150.9
70°	148.6	144.0	142.5	143.2	140.2
72.5°	137.7	133.2	130.9	130.9	127.9
75°	125.5	120.8	117.8	117.0	113.9
77.5°	111.7	107.8	104.7	101.6	100.1
80°	97.0	94.0	90.0	87.7	85.4
82.5°	81.6	78.5	76.3	79.3	67.7
85°	63.9	60.8	57.8	62.4	48.5
87.5°	47.0	45.5	42.4	36.9	32.3
90°	0.0	0.0	0.0	0.0	0.0

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