

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: P239159

Luminaire Tested: **ARCH-AF16-60-D-U-T2U-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239159
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-AF16-60-D-U-T2U-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5210 lumens
Efficiency: N/A
Efficacy: 82.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

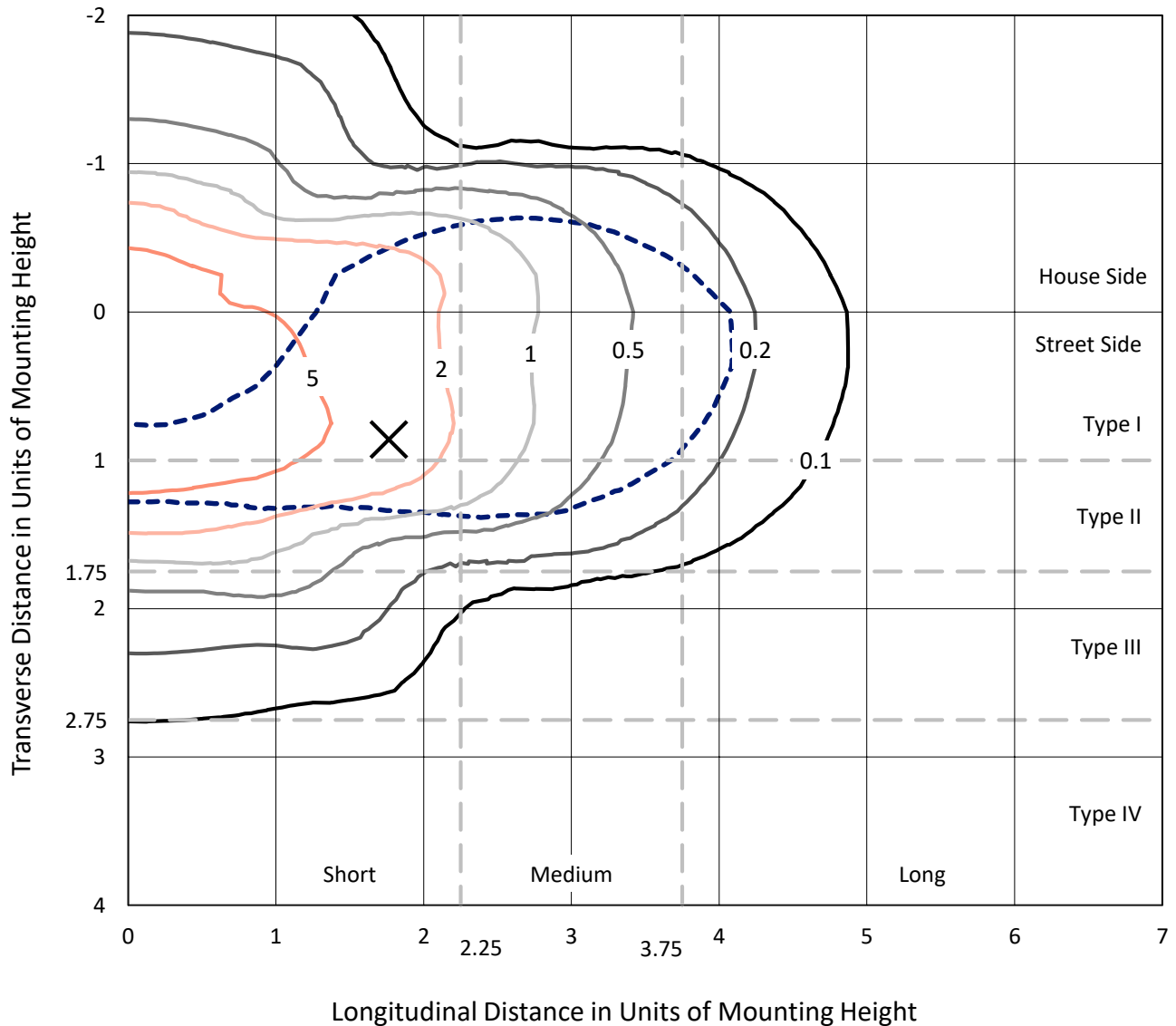
Input Watts (W): 63
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



REPORT NUMBER: P239159
 CATALOG NUMBER: ARCH-AF16-60-D-U-T2U-8027

Iso-Footcandle Lines of Horizontal Illumination

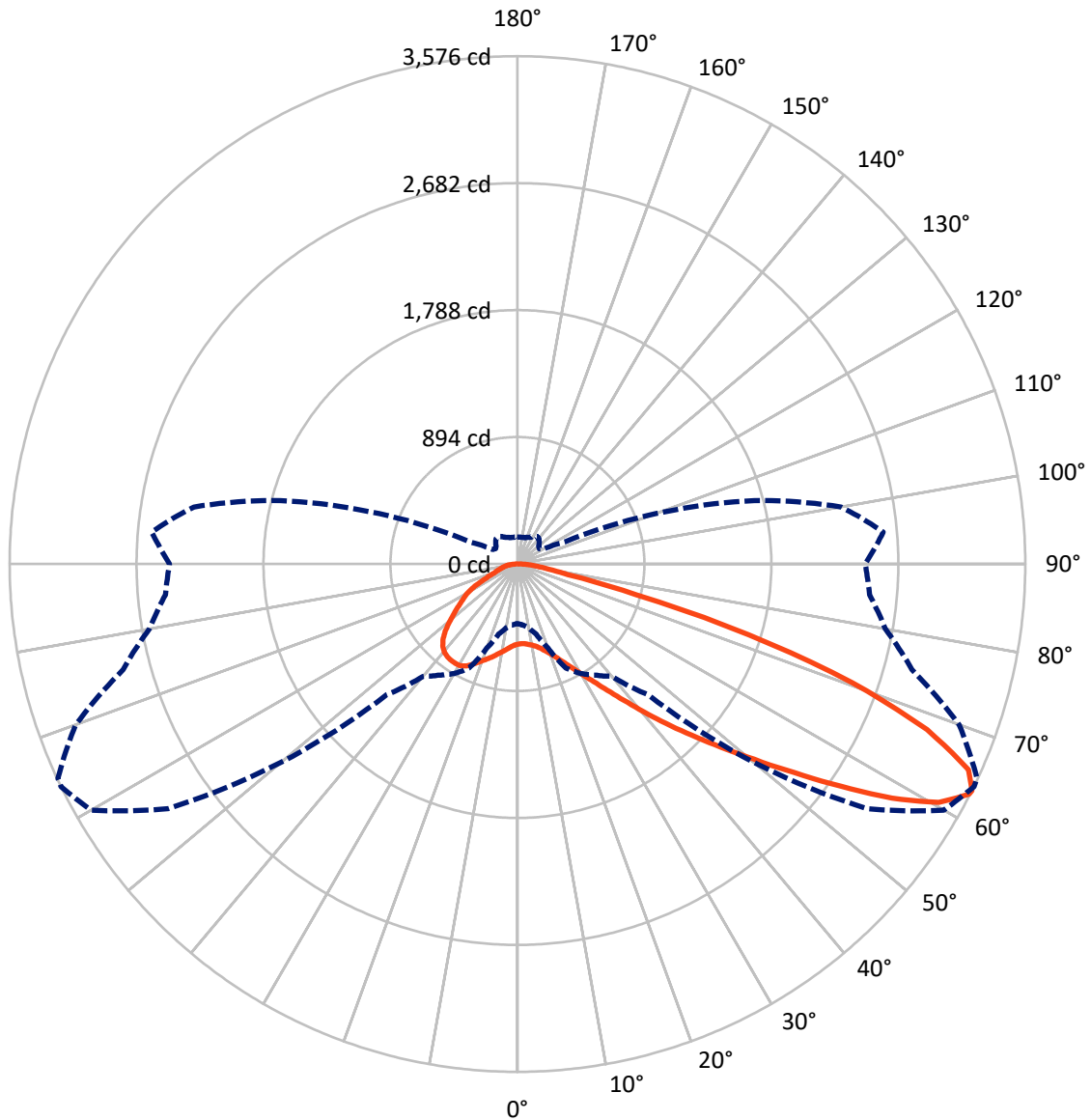
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.2 fc
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P239159
CATALOG NUMBER: ARCH-AF16-60-D-U-T2U-8027

Luminous Intensity Polar Plot



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



REPORT NUMBER: P239159

CATALOG NUMBER: ARCH-AF16-60-D-U-T2U-8027

FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1531.6	0.0	1531.6
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	3678.4	0.0	3678.4
	% Fixture	70.6	0.0	70.6
Total	Lumens	5210.0	0.0	5210.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	56.3	1.1
10°-20°	187.6	3.6
20°-30°	352.2	6.8
30°-40°	590.4	11.3
40°-50°	990.5	19.0
50°-60°	1255.6	24.1
60°-70°	1107.7	21.3
70°-80°	571.8	11.0
80°-90°	97.8	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°	5210.0	100.0
0°-180°	5210.0	100.0



REPORT NUMBER: P239159

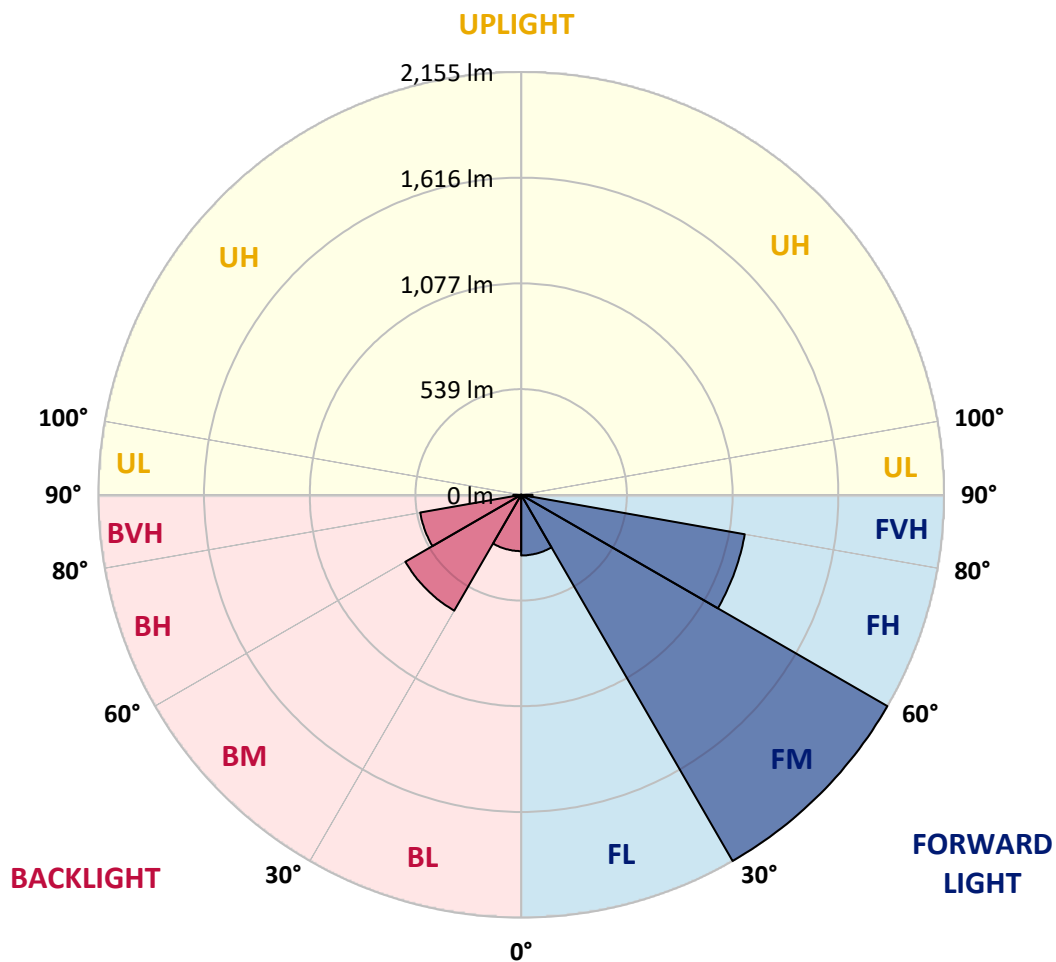
CATALOG NUMBER: ARCH-AF16-60-D-U-T2U-8027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	309.2	5.9			
FM	(30°-60°)	2154.7	41.4			
FH	(60°-80°)	1156.9	22.2			G1/1800
FVH	(80°-90°)	57.6	1.1			G1/100
BL	(0°-30°)	287.0	5.5	B1/500		
BM	(30°-60°)	681.8	13.1	B1/1000		
BH	(60°-80°)	522.6	10.0	B2/1000		G2/1000
BVH	(80°-90°)	40.3	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





REPORT NUMBER: P239159

CATALOG NUMBER: ARCH-AF16-60-D-U-T2U-8027

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2
2.5°	560.8	559.9	559.9	559.9	559.9	559.9	559.9	561.6	560.8	559.9	561.6
5°	562.5	561.6	561.6	561.6	562.5	561.6	562.5	565.1	563.4	563.4	565.1
7.5°	566.9	566.0	566.9	566.0	566.0	566.0	566.9	569.5	568.6	569.5	572.1
10°	572.1	572.1	572.1	572.1	572.1	572.1	573.8	575.6	576.5	577.3	580.8
12.5°	587.8	587.8	587.8	586.9	586.9	584.3	587.8	589.5	591.3	593.0	595.6
15°	620.9	620.9	620.1	616.6	616.6	611.3	612.2	613.1	613.1	614.8	616.6
17.5°	664.5	663.7	661.9	659.3	655.8	649.7	648.0	646.2	643.6	642.7	642.7
20°	725.6	724.7	721.2	714.2	709.9	700.3	693.3	686.3	683.7	679.4	678.5
22.5°	812.8	812.8	805.8	795.3	791.9	771.8	751.7	736.9	731.7	725.6	725.6
25°	918.3	917.4	907.8	895.6	880.8	859.9	835.5	815.4	802.3	788.4	783.1
27.5°	1044.8	1042.1	1029.1	1014.2	986.3	960.2	931.4	910.5	887.8	870.3	854.6
30°	1193.0	1190.4	1167.7	1139.8	1111.0	1084.9	1043.0	1017.7	982.0	961.0	943.6
32.5°	1364.8	1362.2	1321.2	1294.2	1263.7	1231.4	1181.7	1141.6	1096.2	1066.6	1042.1
35°	1583.7	1573.2	1514.8	1477.3	1429.4	1397.1	1344.8	1290.7	1237.5	1195.6	1159.9
37.5°	1820.0	1807.8	1756.4	1700.6	1653.5	1614.2	1540.1	1472.1	1409.3	1351.7	1307.3
40°	2066.8	2034.6	1979.6	1938.7	1906.4	1868.9	1791.3	1719.8	1621.2	1556.7	1489.5
42.5°	2237.8	2206.4	2168.0	2141.0	2125.3	2096.5	2052.9	1991.0	1902.9	1904.6	1727.6
45°	2350.3	2304.1	2277.9	2279.6	2285.7	2285.7	2277.9	2268.3	2229.9	2256.1	2107.8
47.5°	2310.2	2279.6	2263.1	2298.0	2341.6	2385.2	2435.7	2490.7	2553.5	2627.6	2445.3
50°	2074.7	2086.0	2093.9	2168.0	2261.3	2360.7	2476.7	2626.7	2802.0	2836.0	2747.9
52.5°	1698.8	1723.2	1749.4	1862.8	1985.7	2157.5	2360.7	2608.4	2843.9	2982.5	2973.8
55°	1319.5	1350.0	1405.8	1490.4	1588.1	1750.3	2001.4	2383.4	2750.6	2971.2	3105.5
57.5°	939.2	983.7	1057.0	1174.7	1261.0	1352.6	1538.4	1962.2	2364.2	2775.0	3083.7
60°	624.4	645.3	693.3	839.8	985.5	1081.4	1213.1	1366.6	1695.3	2261.3	2858.7
62.5°	443.0	457.0	486.6	552.9	684.6	858.1	937.5	1008.1	1113.7	1454.6	2295.3
63°	418.6	430.8	455.2	511.0	629.6	809.3	890.4	954.9	1031.7	1301.2	2171.5
65°	347.1	352.3	365.4	392.4	456.1	605.2	737.8	777.0	790.1	836.3	1360.5
67.5°	293.0	296.5	300.9	308.7	334.0	402.9	550.3	600.0	585.2	553.8	672.4
70°	254.6	257.3	264.2	273.8	282.6	300.0	378.5	452.6	436.0	393.3	411.6
72.5°	203.2	207.6	215.4	232.0	249.4	272.1	291.3	337.5	327.0	286.0	290.4
75°	160.5	163.1	170.1	182.3	198.8	225.0	262.5	278.2	249.4	211.0	211.0
77.5°	127.3	129.9	136.0	145.6	156.1	174.4	200.6	241.6	224.1	158.7	157.8
80°	95.9	98.5	104.7	113.4	123.8	136.9	152.6	170.9	205.8	148.3	118.6
82.5°	70.6	71.5	82.0	88.1	91.6	102.0	115.1	125.6	141.3	136.9	105.5
85°	53.2	52.3	59.3	63.7	64.5	67.2	75.0	85.5	92.4	89.0	82.0
87.5°	29.7	26.2	30.5	34.9	34.9	35.8	37.5	43.6	49.7	48.0	43.6
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: P239159

CATALOG NUMBER: ARCH-AF16-60-D-U-T2U-8027

CANDELA DISTRIBUTION (continued):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2
2.5°	561.6	561.6	560.8	560.8	561.6	561.6	560.8	563.4	565.1	565.1	566.0
5°	564.2	565.1	564.2	564.2	565.1	565.1	566.0	568.6	571.2	573.0	575.6
7.5°	572.1	573.0	572.1	572.1	573.0	573.8	575.6	579.1	580.8	584.3	588.7
10°	580.8	581.7	580.8	581.7	582.6	583.4	586.0	588.7	591.3	594.8	601.7
12.5°	596.5	597.4	595.6	596.5	599.1	599.1	600.9	602.6	607.0	611.3	618.3
15°	618.3	618.3	616.6	617.4	620.1	620.1	620.9	622.7	627.9	633.1	640.1
17.5°	643.6	645.3	644.5	645.3	647.1	648.0	648.0	649.7	653.2	656.7	663.7
20°	677.6	678.5	676.7	678.5	680.2	678.5	676.7	675.9	677.6	679.4	687.2
22.5°	723.8	723.0	718.6	718.6	718.6	715.1	710.8	705.5	705.5	702.9	709.0
25°	778.8	776.2	770.1	770.9	764.8	759.6	751.7	743.9	736.9	734.3	735.2
27.5°	843.3	838.1	832.0	830.2	824.1	814.5	801.4	786.6	775.3	766.6	764.8
30°	924.4	913.1	902.6	900.9	891.3	875.6	854.6	834.6	815.4	800.6	795.3
32.5°	1020.3	1002.9	986.3	984.6	968.9	948.0	922.7	894.8	866.9	843.3	832.0
35°	1132.8	1106.7	1091.0	1086.6	1063.9	1037.8	1009.9	974.1	934.9	901.7	880.8
37.5°	1269.8	1242.7	1215.7	1216.6	1185.2	1154.6	1117.1	1073.5	1023.8	977.6	948.0
40°	1438.9	1400.6	1365.7	1357.8	1330.8	1288.1	1247.1	1196.5	1135.5	1074.4	1031.7
42.5°	1643.9	1581.1	1533.1	1526.2	1490.4	1438.1	1388.4	1321.2	1259.3	1185.2	1133.7
45°	1876.7	1776.4	1718.9	1708.4	1650.9	1597.7	1537.5	1466.0	1390.1	1306.4	1245.3
47.5°	2166.3	2023.2	1925.6	1908.1	1828.8	1759.0	1696.2	1616.9	1526.2	1432.8	1365.7
50°	2503.8	2292.7	2161.0	2134.0	2027.6	1945.6	1865.4	1766.0	1669.2	1571.5	1493.9
52.5°	2842.1	2615.4	2440.1	2407.0	2250.0	2140.1	2034.6	1935.2	1820.9	1724.1	1636.0
55°	3114.2	2963.4	2760.2	2713.9	2488.9	2339.8	2201.1	2087.8	1974.4	1897.7	1793.9
57.5°	3278.2	3270.3	3109.9	3046.2	2738.4	2517.7	2363.4	2234.3	2124.4	2092.1	1954.3
60°	3273.8	3477.0	3408.1	3360.2	2990.4	2700.0	2499.4	2359.9	2269.2	2305.8	2115.7
62.5°	3074.1	3485.7	3568.6	3555.5	3259.0	2846.5	2611.0	2467.1	2419.2	2528.2	2283.1
63°	3001.7	3465.7	3575.6	3570.3	3310.4	2874.4	2630.2	2488.1	2448.8	2584.9	2313.6
65°	2536.9	3290.4	3491.0	3514.5	3421.2	2970.3	2674.7	2541.3	2536.9	2711.3	2386.0
67.5°	1546.2	2780.2	3109.9	3155.2	3265.1	3000.9	2649.4	2523.0	2585.7	2729.6	2364.2
70°	661.0	1834.9	2499.4	2572.7	2841.3	2849.1	2577.0	2448.0	2574.4	2586.6	2209.0
72.5°	391.6	865.1	1701.4	1861.0	2248.2	2451.4	2411.3	2317.1	2425.3	2271.8	1881.1
75°	277.3	404.6	864.2	1034.3	1565.4	1871.5	2025.9	2069.5	2065.1	1801.7	1411.9
77.5°	198.8	259.9	364.5	429.9	873.8	1201.7	1390.1	1517.4	1476.4	1206.1	870.3
80°	138.7	179.7	223.3	237.2	405.5	617.4	732.6	788.4	763.9	602.6	389.8
82.5°	100.3	117.7	143.9	152.6	204.1	285.2	339.2	299.1	286.9	222.4	168.3
85°	77.6	75.9	89.8	93.3	119.5	149.1	152.6	118.6	103.8	92.4	94.2
87.5°	54.9	47.1	48.0	49.7	61.9	79.4	77.6	48.8	41.9	44.5	50.6
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: P239159

CATALOG NUMBER: ARCH-AF16-60-D-U-T2U-8027

CANDELA DISTRIBUTION (continued):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2	564.2
2.5°	567.7	568.6	570.3	571.2	573.0	573.0	574.7	575.6	577.3	579.1	579.9
5°	578.2	580.8	584.3	586.0	589.5	592.1	595.6	597.4	600.9	603.5	607.0
7.5°	593.9	598.3	602.6	607.8	613.1	617.4	620.9	625.3	631.4	635.8	638.4
10°	608.7	614.8	622.7	628.8	636.6	642.7	648.0	655.8	662.8	668.9	672.4
12.5°	627.9	635.8	643.6	653.2	663.7	671.5	679.4	689.8	699.4	706.4	709.9
15°	650.6	660.2	668.9	680.2	692.4	702.9	714.2	725.6	732.6	732.6	730.8
17.5°	674.1	682.0	692.4	705.5	722.1	735.2	741.3	743.0	740.4	734.3	729.9
20°	697.7	704.6	716.0	731.7	749.1	751.7	745.6	737.8	729.9	719.5	712.5
22.5°	716.9	726.4	743.9	762.2	763.1	748.3	731.7	718.6	706.4	694.2	681.1
25°	739.5	752.6	776.2	783.1	760.5	732.6	709.0	689.8	669.8	649.7	634.9
27.5°	767.4	786.6	810.2	790.1	745.6	706.4	674.1	645.3	619.2	591.3	574.7
30°	797.1	826.7	832.0	779.6	720.3	669.8	626.2	582.6	549.4	524.1	514.5
32.5°	832.8	871.2	839.8	761.3	686.3	620.1	561.6	509.3	481.4	465.7	461.3
35°	886.9	918.3	844.2	742.1	647.1	560.8	487.5	445.6	428.2	417.7	412.5
37.5°	964.5	963.7	843.3	718.6	601.7	496.2	428.2	398.5	384.6	375.9	366.3
40°	1055.2	998.5	838.1	684.6	540.7	434.3	387.2	359.3	346.2	335.8	324.4
42.5°	1145.1	1022.1	823.3	634.0	464.8	389.8	357.6	332.3	318.3	307.0	291.3
45°	1222.7	1031.7	794.5	564.2	396.8	354.9	338.4	316.6	300.0	282.6	270.3
47.5°	1283.7	1029.9	748.3	482.3	351.5	330.5	322.7	307.8	287.8	266.0	250.3
50°	1335.2	1016.9	685.5	409.9	320.9	308.7	306.1	301.7	269.5	251.2	241.6
52.5°	1382.3	997.7	618.3	361.0	294.8	284.3	289.5	285.2	262.5	246.8	237.2
55°	1446.8	984.6	552.0	323.5	264.2	261.6	266.0	272.1	258.1	243.3	232.8
57.5°	1522.7	991.6	501.5	281.7	235.5	237.2	252.0	260.8	253.8	238.1	227.6
60°	1609.9	1012.5	457.0	241.6	211.9	216.3	238.1	250.3	249.4	231.1	218.9
62.5°	1707.5	1034.3	386.3	211.0	191.9	198.8	221.5	237.2	239.8	224.1	209.3
63°	1726.7	1036.0	368.0	204.9	188.4	196.2	217.1	233.7	237.2	222.4	207.6
65°	1773.8	1020.3	296.5	188.4	174.4	183.1	204.1	218.9	225.9	212.8	200.6
67.5°	1734.6	892.1	223.3	168.3	163.1	169.2	187.5	201.5	207.6	201.5	189.2
70°	1586.3	648.8	174.4	150.0	150.9	155.2	169.2	182.3	189.2	187.5	176.2
72.5°	1277.6	368.0	145.6	134.3	136.9	142.2	151.7	164.0	170.1	169.2	161.3
75°	841.6	188.4	123.0	120.3	122.1	126.5	133.4	143.0	150.0	149.1	145.6
77.5°	416.9	130.8	105.5	106.4	107.3	110.8	116.0	124.7	129.1	129.9	129.1
80°	171.8	102.0	90.7	91.6	92.4	95.1	98.5	106.4	109.0	110.8	111.6
82.5°	102.9	77.6	72.4	74.1	75.0	77.6	80.2	87.2	89.8	92.4	92.4
85°	68.0	54.1	52.3	54.1	55.8	57.6	58.4	62.8	67.2	70.6	72.4
87.5°	36.6	32.3	31.4	32.3	32.3	34.0	35.8	40.1	45.3	48.8	50.6
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: P239159

CATALOG NUMBER: ARCH-AF16-60-D-U-T2U-8027

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	564.2	564.2	564.2	564.2	564.2
2.5°	578.2	579.1	578.2	579.1	579.9
5°	607.0	608.7	607.8	607.8	611.3
7.5°	640.1	643.6	643.6	645.3	647.1
10°	675.9	679.4	682.0	682.0	684.6
12.5°	711.6	713.4	716.0	716.0	716.0
15°	729.9	729.1	728.2	727.3	727.3
17.5°	727.3	723.8	722.1	720.3	721.2
20°	708.1	702.0	700.3	697.7	699.4
22.5°	675.0	666.3	662.8	658.4	660.2
25°	625.3	614.8	613.1	607.8	610.5
27.5°	567.7	562.5	561.6	560.8	565.1
30°	513.7	515.4	516.3	518.0	522.4
32.5°	464.0	467.4	468.3	469.2	475.3
35°	415.1	410.8	415.1	413.4	418.6
37.5°	361.9	358.4	354.9	350.6	354.1
40°	317.4	311.3	300.9	295.6	296.5
42.5°	282.6	274.7	266.0	260.8	260.8
45°	259.9	250.3	242.4	239.0	239.0
47.5°	242.4	238.1	233.7	231.1	231.1
50°	235.5	230.2	227.6	225.9	225.9
52.5°	230.2	225.0	222.4	220.6	218.9
55°	225.9	218.0	215.4	214.5	214.5
57.5°	219.8	212.8	209.3	208.4	208.4
60°	210.2	204.9	201.5	200.6	200.6
62.5°	200.6	195.3	191.9	191.9	191.9
63°	198.8	192.7	190.1	190.1	190.1
65°	191.0	184.9	182.3	182.3	181.4
67.5°	180.5	174.4	172.7	172.7	170.9
70°	168.3	163.1	161.3	162.2	158.7
72.5°	156.1	150.9	148.3	148.3	144.8
75°	142.2	136.9	133.4	132.6	129.1
77.5°	126.5	122.1	118.6	115.1	113.4
80°	109.9	106.4	102.0	99.4	96.8
82.5°	92.4	89.0	86.3	89.8	76.7
85°	72.4	68.9	65.4	70.6	54.9
87.5°	53.2	51.5	48.0	41.9	36.6
90°	0.0	0.0	0.0	0.0	0.0

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