

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: P265988

Luminaire Tested: **ARCH-AF24-100-D-U-T2U-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265988  
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-AF24-100-D-U-T2U-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8634.1 lumens  
Efficiency: N/A  
Efficacy: 89.9 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): 96  
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

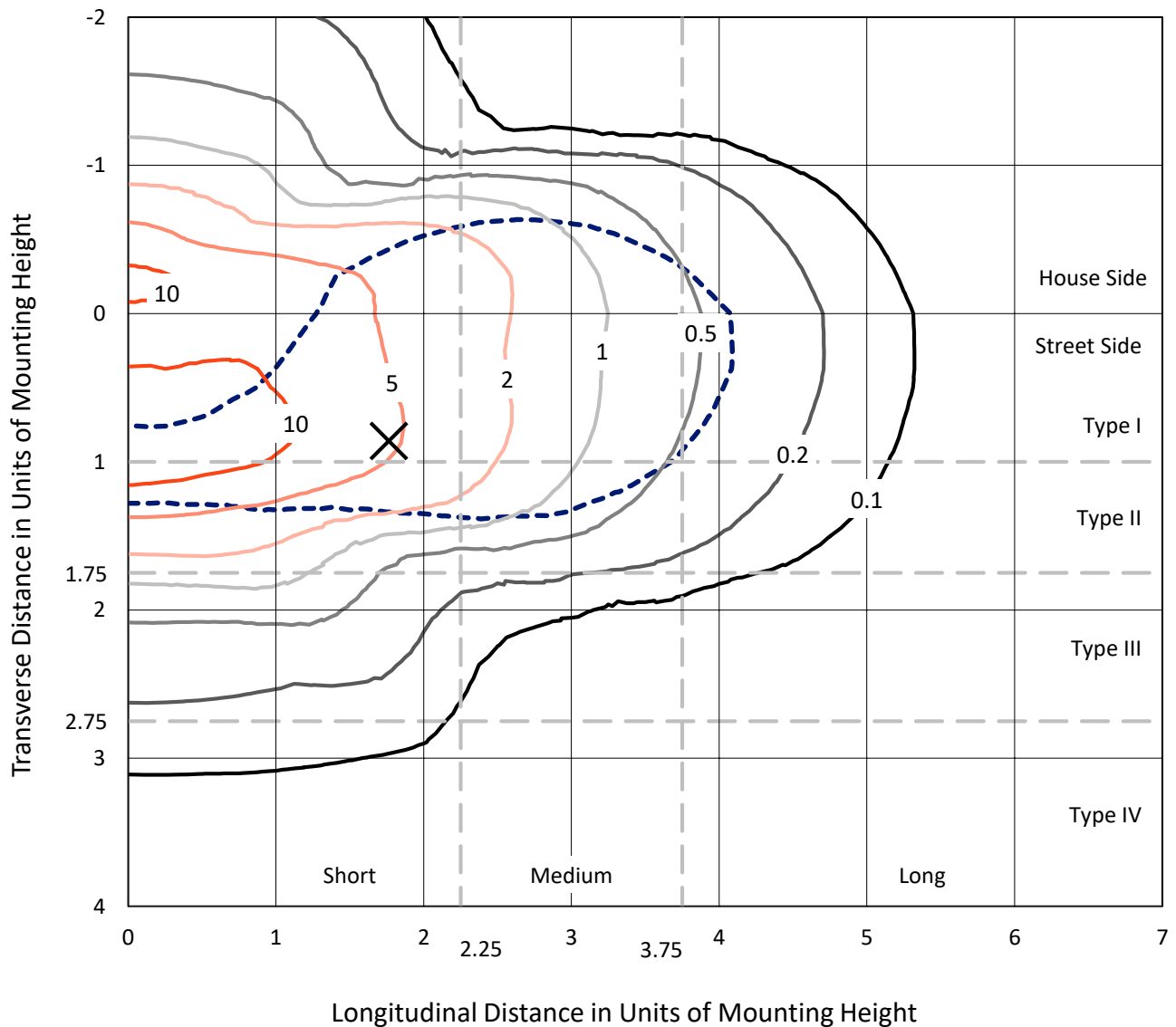


REPORT NUMBER: P265988

CATALOG NUMBER: ARCH-AF24-100-D-U-T2U-7027

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

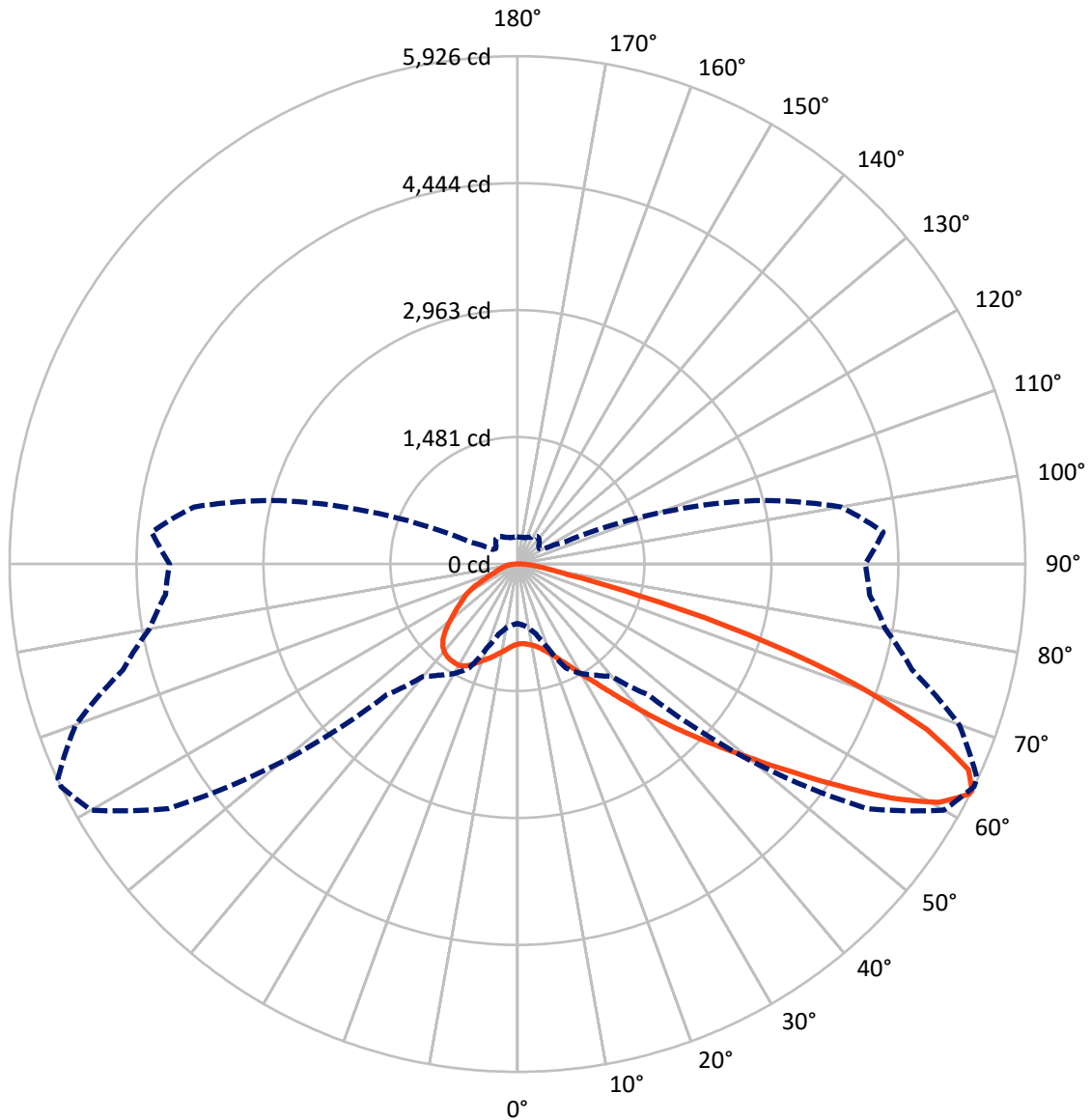


Based on 10 foot mounting height. Maximum calculated value = 15.2 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P265988

CATALOG NUMBER: ARCH-AF24-100-D-U-T2U-7027

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P265988

CATALOG NUMBER: ARCH-AF24-100-D-U-T2U-7027

**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	2538.1	0.0	2538.1
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	6096.0	0.0	6096.0
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	8634.1	0.0	8634.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.4	1.1
10°-20°	311.0	3.6
20°-30°	583.7	6.8
30°-40°	978.4	11.3
40°-50°	1641.5	19.0
50°-60°	2080.9	24.1
60°-70°	1835.7	21.3
70°-80°	947.6	11.0
80°-90°	162.2	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°	8634.1	100.0
0°-180°	8634.1	100.0



REPORT NUMBER: P265988

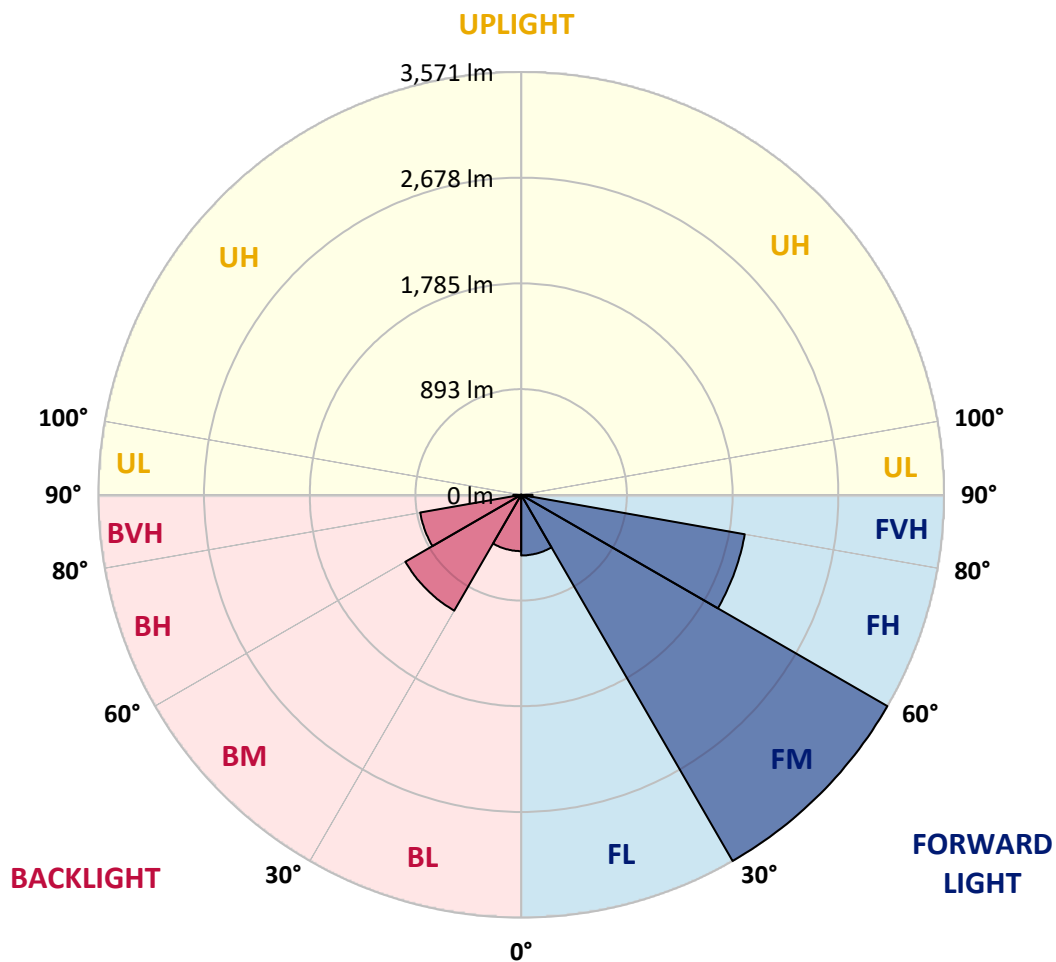
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	512.5	5.9			
FM	(30°-60°)	3570.8	41.4			
FH	(60°-80°)	1917.3	22.2			G2/5000
FVH	(80°-90°)	95.4	1.1			G1/100
BL	(0°-30°)	475.6	5.5	B1/500		
BM	(30°-60°)	1129.8	13.1	B2/2500		
BH	(60°-80°)	866.0	10.0	B2/1000		G2/1000
BVH	(80°-90°)	66.7	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: P265988

CATALOG NUMBER: ARCH-AF24-100-D-U-T2U-7027

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0
2.5°	929.2	927.8	927.8	927.8	927.8	926.4	927.8	930.7	929.2	927.8	930.7
5°	932.3	930.7	930.7	930.7	932.3	930.7	932.3	936.6	933.6	933.6	936.6
7.5°	939.4	938.0	939.4	938.0	938.0	938.0	939.4	943.7	942.3	943.7	948.2
10°	948.2	948.2	948.2	948.2	948.2	948.2	950.9	953.9	955.3	956.8	962.5
12.5°	974.1	974.1	974.1	972.7	972.7	968.4	974.1	976.9	980.0	982.7	987.1
15°	1029.0	1029.0	1027.7	1021.8	1021.8	1013.1	1014.5	1016.1	1016.1	1018.9	1021.8
17.5°	1101.2	1099.9	1096.9	1092.6	1086.8	1076.7	1073.8	1070.9	1066.6	1065.1	1065.1
20°	1202.4	1201.0	1195.3	1183.6	1176.4	1160.5	1148.9	1137.4	1133.0	1125.8	1124.4
22.5°	1347.0	1347.0	1335.4	1318.1	1312.2	1279.0	1245.8	1221.2	1212.5	1202.4	1202.4
25°	1521.8	1520.4	1504.5	1484.3	1459.7	1425.0	1384.6	1351.3	1329.6	1306.5	1297.8
27.5°	1731.5	1727.0	1705.4	1680.8	1634.6	1591.2	1543.5	1508.9	1471.2	1442.4	1416.4
30°	1977.1	1972.8	1935.2	1889.0	1841.3	1797.9	1728.5	1686.6	1627.3	1592.7	1563.8
32.5°	2261.8	2257.5	2189.4	2144.8	2094.2	2040.7	1958.2	1891.8	1816.6	1767.5	1727.0
35°	2624.6	2607.2	2510.4	2448.2	2368.7	2315.3	2228.5	2139.0	2050.8	1981.4	1922.2
37.5°	3016.1	2995.9	2910.7	2818.3	2740.2	2675.2	2552.3	2439.5	2335.6	2240.2	2166.4
40°	3425.1	3371.8	3280.7	3212.8	3159.2	3097.1	2968.4	2850.1	2686.7	2579.8	2468.5
42.5°	3708.6	3656.5	3593.0	3548.0	3522.1	3474.4	3402.2	3299.5	3153.5	3156.5	2863.0
45°	3895.0	3818.3	3774.9	3777.8	3788.0	3788.0	3774.9	3759.0	3695.4	3738.8	3493.1
47.5°	3828.4	3777.8	3750.5	3808.3	3880.5	3952.7	4036.5	4127.6	4231.6	4354.5	4052.4
50°	3438.3	3456.9	3470.1	3593.0	3747.5	3912.3	4104.4	4353.0	4643.6	4699.9	4554.0
52.5°	2815.3	2855.8	2899.1	3087.0	3290.9	3575.6	3912.3	4322.7	4712.9	4942.7	4928.2
55°	2186.7	2237.1	2329.8	2469.9	2631.8	2900.5	3316.8	3949.8	4558.3	4923.9	5146.5
57.5°	1556.6	1630.2	1751.7	1946.7	2089.7	2241.6	2549.4	3251.8	3918.0	4598.8	5110.4
60°	1034.8	1069.5	1148.9	1391.7	1633.1	1792.1	2010.3	2264.6	2809.5	3747.5	4737.5
62.5°	734.2	757.4	806.5	916.4	1134.5	1422.0	1553.6	1670.7	1845.6	2410.6	3803.9
63°	693.8	714.0	754.3	846.9	1043.4	1341.2	1475.6	1582.5	1709.7	2156.3	3598.6
65°	575.3	583.9	605.5	650.4	755.8	1003.0	1222.7	1287.7	1309.4	1385.9	2254.6
67.5°	485.7	491.5	498.6	511.7	553.5	667.7	912.0	994.3	969.8	917.7	1114.3
70°	422.1	426.3	438.0	453.9	468.2	497.1	627.2	750.1	722.6	651.8	682.2
72.5°	336.8	344.1	356.9	384.5	413.3	450.9	482.7	559.4	541.9	474.0	481.2
75°	265.9	270.3	281.8	302.1	329.5	372.8	435.0	461.0	413.3	349.7	349.7
77.5°	211.0	215.4	225.5	241.4	258.7	289.1	332.5	400.4	371.4	263.1	261.5
80°	159.0	163.3	173.5	187.8	205.3	226.9	253.0	283.2	341.0	245.6	196.5
82.5°	117.0	118.4	135.9	146.0	151.8	169.2	190.8	208.0	234.1	226.9	174.9
85°	88.2	86.7	98.3	105.6	107.0	111.3	124.2	141.7	153.3	147.4	135.9
87.5°	49.1	43.4	50.6	57.9	57.9	59.3	62.2	72.3	82.4	79.5	72.3
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: P265988

CATALOG NUMBER: ARCH-AF24-100-D-U-T2U-7027

**CANDELA DISTRIBUTION (continued):**

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0
2.5°	930.7	930.7	929.2	929.2	930.7	930.7	929.2	933.6	936.6	936.6	938.0
5°	935.0	936.6	935.0	935.0	936.6	936.6	938.0	942.3	946.6	949.5	953.9
7.5°	948.2	949.5	948.2	948.2	949.5	950.9	953.9	959.6	962.5	968.4	975.5
10°	962.5	964.1	962.5	964.1	965.4	966.8	971.2	975.5	980.0	985.6	997.2
12.5°	988.6	990.0	987.1	988.6	992.8	992.8	995.9	998.6	1005.9	1013.1	1024.6
15°	1024.6	1024.6	1021.8	1023.2	1027.7	1027.7	1029.0	1032.0	1040.5	1049.2	1060.8
17.5°	1066.6	1069.5	1068.1	1069.5	1072.3	1073.8	1073.8	1076.7	1082.5	1088.2	1099.9
20°	1122.9	1124.4	1121.5	1124.4	1127.4	1124.4	1121.5	1120.0	1122.9	1125.8	1138.8
22.5°	1199.5	1198.1	1190.9	1190.9	1190.9	1185.1	1177.9	1169.2	1169.2	1164.8	1175.0
25°	1290.5	1286.3	1276.1	1277.6	1267.5	1258.9	1245.8	1232.7	1221.2	1216.9	1218.3
27.5°	1397.6	1388.9	1378.8	1375.8	1365.8	1349.9	1328.1	1303.6	1284.8	1270.4	1267.5
30°	1532.0	1513.1	1495.8	1493.0	1477.1	1451.0	1416.4	1383.1	1351.3	1326.7	1318.1
32.5°	1690.9	1662.0	1634.6	1631.7	1605.7	1571.0	1529.1	1482.8	1436.6	1397.6	1378.8
35°	1877.4	1834.0	1808.0	1800.7	1763.3	1719.8	1673.6	1614.3	1549.2	1494.4	1459.7
37.5°	2104.3	2059.5	2014.7	2016.1	1964.1	1913.5	1851.3	1779.2	1696.7	1620.2	1571.0
40°	2384.6	2321.0	2263.2	2250.3	2205.3	2134.6	2066.7	1982.9	1881.7	1780.5	1709.7
42.5°	2724.3	2620.3	2540.8	2529.2	2469.9	2383.3	2300.7	2189.4	2086.9	1964.1	1878.8
45°	3110.1	2943.9	2848.5	2831.2	2735.9	2647.7	2548.0	2429.5	2303.8	2164.9	2063.8
47.5°	3589.9	3353.0	3191.0	3162.2	3030.6	2915.0	2810.9	2679.5	2529.2	2374.5	2263.2
50°	4149.4	3799.6	3581.4	3536.4	3360.2	3224.3	3091.3	2926.6	2766.2	2604.4	2475.6
52.5°	4710.1	4334.2	4043.8	3988.8	3728.8	3546.6	3371.8	3206.9	3017.6	2857.1	2711.3
55°	5160.9	4910.9	4574.2	4497.5	4124.7	3877.5	3647.7	3459.9	3272.0	3144.8	2972.9
57.5°	5432.7	5419.7	5153.8	5048.3	4538.1	4172.4	3916.6	3702.8	3520.5	3467.1	3238.7
60°	5425.5	5762.2	5648.1	5568.6	4955.7	4474.5	4142.1	3910.9	3760.6	3821.2	3506.2
62.5°	5094.5	5776.6	5913.9	5892.3	5400.9	4717.3	4327.0	4088.5	4009.0	4189.8	3783.7
63°	4974.5	5743.4	5925.5	5916.7	5486.0	4763.5	4358.8	4123.3	4058.3	4283.7	3834.2
65°	4204.2	5452.9	5785.3	5824.3	5669.7	4922.5	4432.5	4211.4	4204.2	4493.2	3954.2
67.5°	2562.4	4607.3	5153.8	5228.9	5411.0	4973.0	4390.6	4181.2	4285.2	4523.5	3918.0
70°	1095.6	3040.9	4142.1	4263.4	4708.6	4721.6	4270.7	4056.7	4266.3	4286.6	3660.9
72.5°	648.9	1433.7	2819.7	3084.2	3725.8	4062.6	3996.1	3840.0	4019.1	3764.8	3117.4
75°	459.7	670.6	1432.3	1714.1	2594.1	3101.5	3357.2	3429.5	3422.4	2985.8	2339.8
77.5°	329.5	430.6	604.1	712.4	1448.2	1991.5	2303.8	2514.7	2446.9	1998.8	1442.4
80°	229.7	297.7	370.0	393.1	672.0	1023.2	1214.0	1306.5	1266.0	998.6	646.1
82.5°	166.1	195.1	238.5	253.0	338.2	472.6	562.2	495.8	475.6	368.6	279.0
85°	128.6	125.8	148.8	154.7	197.9	247.2	253.0	196.5	171.9	153.3	156.0
87.5°	91.1	78.1	79.5	82.4	102.5	131.5	128.6	80.9	69.3	73.8	83.8
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: P265988

CATALOG NUMBER: ARCH-AF24-100-D-U-T2U-7027

**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0	935.0
2.5°	940.9	942.3	945.1	946.6	949.5	949.5	952.5	953.9	956.8	959.6	961.0
5°	958.2	962.5	968.4	971.2	976.9	981.3	987.1	990.0	995.9	1000.2	1005.9
7.5°	984.3	991.4	998.6	1007.3	1016.1	1023.2	1029.0	1036.3	1046.3	1053.6	1057.9
10°	1008.7	1018.9	1032.0	1042.0	1055.0	1065.1	1073.8	1086.8	1098.4	1108.5	1114.3
12.5°	1040.5	1053.6	1066.6	1082.5	1099.9	1112.8	1125.8	1143.3	1159.1	1170.6	1176.4
15°	1078.1	1094.0	1108.5	1127.4	1147.6	1164.8	1183.6	1202.4	1214.0	1214.0	1211.2
17.5°	1117.1	1130.2	1147.6	1169.2	1196.6	1218.3	1228.4	1231.3	1227.1	1216.9	1209.7
20°	1156.2	1167.7	1186.5	1212.5	1241.5	1245.8	1235.7	1222.7	1209.7	1192.3	1180.7
22.5°	1188.0	1203.9	1232.7	1263.1	1264.5	1240.0	1212.5	1190.9	1170.6	1150.4	1128.7
25°	1225.6	1247.2	1286.3	1297.8	1260.2	1214.0	1175.0	1143.3	1109.9	1076.7	1052.2
27.5°	1271.8	1303.6	1342.6	1309.4	1235.7	1170.6	1117.1	1069.5	1026.1	980.0	952.5
30°	1321.0	1370.0	1378.8	1292.0	1193.8	1109.9	1037.7	965.4	910.5	868.7	852.8
32.5°	1380.2	1443.8	1391.7	1261.7	1137.4	1027.7	930.7	844.0	797.8	771.7	764.5
35°	1469.7	1521.8	1399.0	1229.9	1072.3	929.2	807.8	738.5	709.7	692.2	683.6
37.5°	1598.4	1596.9	1397.6	1190.9	997.2	822.4	709.7	660.4	637.3	623.0	607.1
40°	1748.7	1654.8	1388.9	1134.5	896.1	719.7	641.7	595.4	573.7	556.4	537.6
42.5°	1897.6	1693.8	1364.3	1050.7	770.2	646.1	592.5	550.7	527.6	508.7	482.7
45°	2026.2	1709.7	1316.6	935.0	657.6	588.2	560.7	524.6	497.1	468.2	448.1
47.5°	2127.4	1706.8	1240.0	799.2	582.5	547.7	534.8	510.1	476.9	440.8	414.7
50°	2212.6	1685.1	1135.9	679.3	531.8	511.7	507.3	500.0	446.5	416.3	400.4
52.5°	2290.7	1653.3	1024.6	598.4	488.5	471.2	479.9	472.6	435.0	409.0	393.1
55°	2397.7	1631.7	914.8	536.2	438.0	433.6	440.8	450.9	427.9	403.2	385.9
57.5°	2523.3	1643.2	831.0	466.8	390.3	393.1	417.7	432.2	420.5	394.5	377.2
60°	2667.8	1677.9	757.4	400.4	351.1	358.5	394.5	414.7	413.3	382.9	362.7
62.5°	2829.8	1714.1	640.2	349.7	318.0	329.5	367.0	393.1	397.4	371.4	346.8
63°	2861.6	1716.9	609.9	339.6	312.3	325.1	360.0	387.3	393.1	368.6	344.1
65°	2939.7	1690.9	491.5	312.3	289.1	303.4	338.2	362.7	374.4	352.7	332.5
67.5°	2874.5	1478.5	370.0	279.0	270.3	280.5	310.8	333.8	344.1	333.8	313.6
70°	2628.9	1075.2	289.1	248.7	250.0	257.3	280.5	302.1	313.6	310.8	291.9
72.5°	2117.2	609.9	241.4	222.6	226.9	235.5	251.4	271.6	281.8	280.5	267.3
75°	1394.7	312.3	203.7	199.5	202.4	209.6	221.2	237.1	248.7	247.2	241.4
77.5°	690.8	216.9	174.9	176.2	177.8	183.6	192.1	206.7	213.8	215.4	213.8
80°	284.8	169.2	150.2	151.8	153.3	157.6	163.3	176.2	180.6	183.6	185.1
82.5°	170.6	128.6	120.0	122.9	124.2	128.6	132.9	144.5	148.8	153.3	153.3
85°	112.7	89.7	86.7	89.7	92.4	95.4	96.8	104.1	111.3	117.0	120.0
87.5°	60.6	53.4	52.0	53.4	53.4	56.4	59.3	66.5	75.2	80.9	83.8
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: P265988

CATALOG NUMBER: ARCH-AF24-100-D-U-T2U-7027

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	935.0	935.0	935.0	935.0	935.0
2.5°	958.2	959.6	958.2	959.6	961.0
5°	1005.9	1008.7	1007.3	1007.3	1013.1
7.5°	1060.8	1066.6	1066.6	1069.5	1072.3
10°	1120.0	1125.8	1130.2	1130.2	1134.5
12.5°	1179.4	1182.2	1186.5	1186.5	1186.5
15°	1209.7	1208.2	1206.8	1205.3	1205.3
17.5°	1205.3	1199.5	1196.6	1193.8	1195.3
20°	1173.5	1163.5	1160.5	1156.2	1159.1
22.5°	1118.6	1104.1	1098.4	1091.1	1094.0
25°	1036.3	1018.9	1016.1	1007.3	1011.8
27.5°	940.9	932.3	930.7	929.2	936.6
30°	851.2	854.2	855.5	858.5	865.6
32.5°	768.9	774.7	776.0	777.6	787.6
35°	687.9	680.7	687.9	685.0	693.8
37.5°	599.8	594.0	588.2	580.9	586.8
40°	526.0	515.9	498.6	489.9	491.5
42.5°	468.2	455.3	440.8	432.2	432.2
45°	430.6	414.7	401.8	396.1	396.1
47.5°	401.8	394.5	387.3	382.9	382.9
50°	390.3	381.5	377.2	374.4	374.4
52.5°	381.5	372.8	368.6	365.6	362.7
55°	374.4	361.3	356.9	355.5	355.5
57.5°	364.3	352.7	346.8	345.4	345.4
60°	348.4	339.6	333.8	332.5	332.5
62.5°	332.5	323.7	318.0	318.0	318.0
63°	329.5	319.3	315.0	315.0	315.0
65°	316.6	306.4	302.1	302.1	300.7
67.5°	299.1	289.1	286.2	286.2	283.2
70°	279.0	270.3	267.3	268.9	263.1
72.5°	258.7	250.0	245.6	245.6	239.8
75°	235.5	226.9	221.2	219.6	213.8
77.5°	209.6	202.4	196.5	190.8	187.8
80°	182.0	176.2	169.2	164.7	160.3
82.5°	153.3	147.4	143.1	148.8	127.2
85°	120.0	114.2	108.3	117.0	91.1
87.5°	88.2	85.2	79.5	69.3	60.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)