

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: P214679

Luminaire Tested: **ARCH-AF24-100-D-U-T2R-7050-HSS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P214679  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-AF24-100-D-U-T2R-7050-HSS  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 1200mA LIGHT ENGINE WITH 24 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7686 lumens  
Efficiency: N/A  
Efficacy: 80.1 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Medium - Full Cutoff  
BUG Rating: B1 - 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

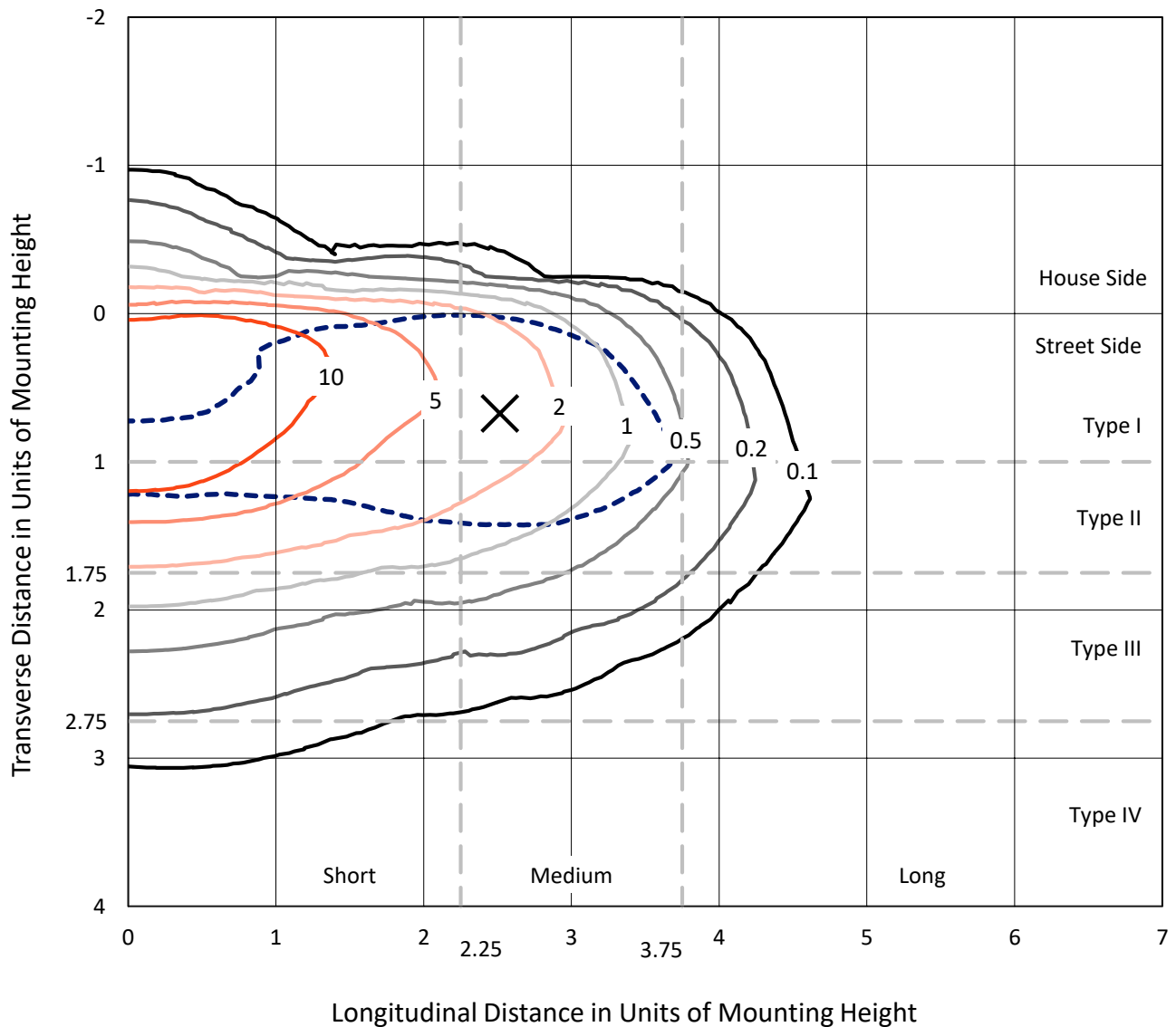


REPORT NUMBER: P214679

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7050-HSS

### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

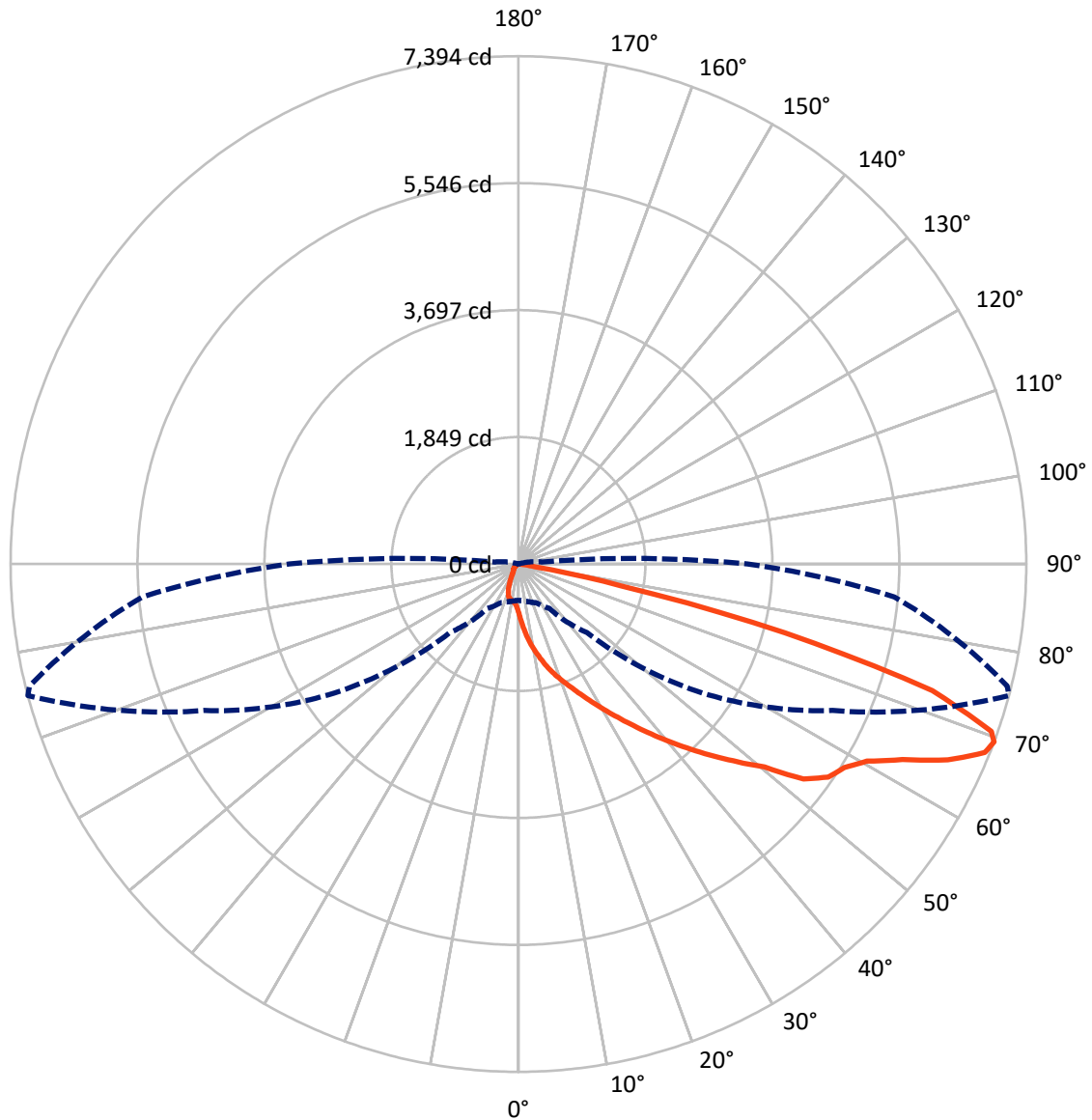


Based on 10 foot mounting height. Maximum calculated value = 19.6 fc  
 Type II - Medium - Full Cutoff

REPORT NUMBER: P214679

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7050-HSS

### Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical

REPORT NUMBER: P214679

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7050-HSS

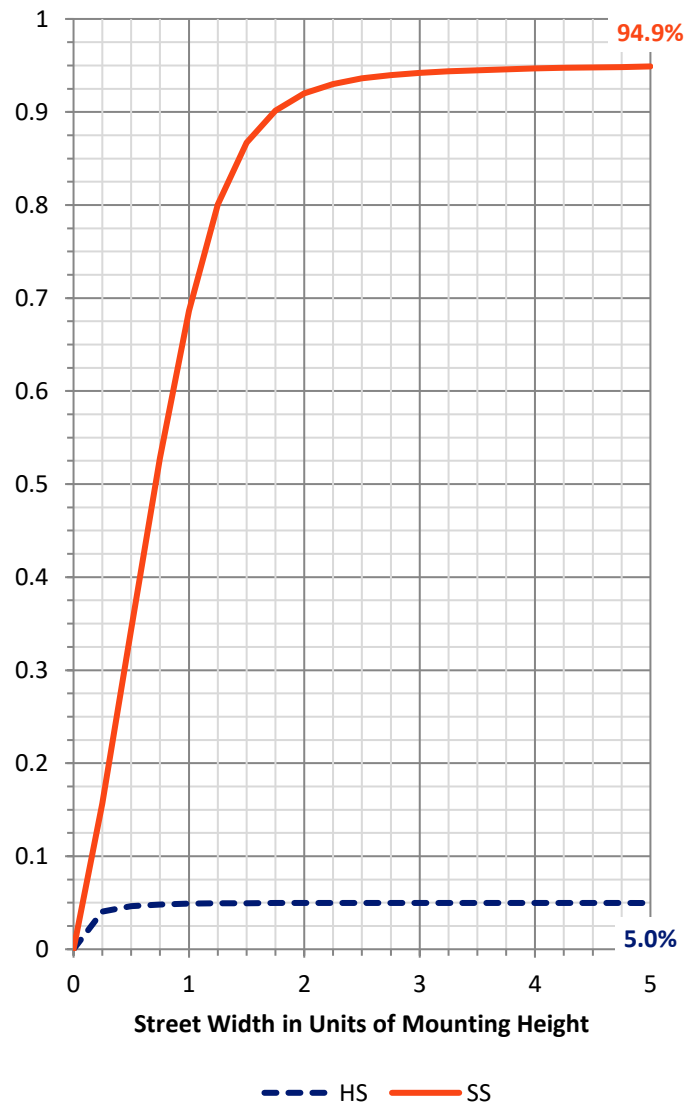
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	383.5	0.0	383.5
	% Fixture	5.0	0.0	5.0
<b>Street Side</b>	Lumens	7302.5	0.0	7302.5
	% Fixture	95.0	0.0	95.0
<b>Total</b>	Lumens	7686.0	0.0	7686.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	83.4	1.1
10°-20°	298.1	3.9
20°-30°	569.2	7.4
30°-40°	1021.0	13.3
40°-50°	1564.2	20.4
50°-60°	1818.0	23.7
60°-70°	1609.9	20.9
70°-80°	694.4	9.0
80°-90°	27.8	0.4
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°	7686.0	100.0
0°-180°	7686.0	100.0



REPORT NUMBER: P214679

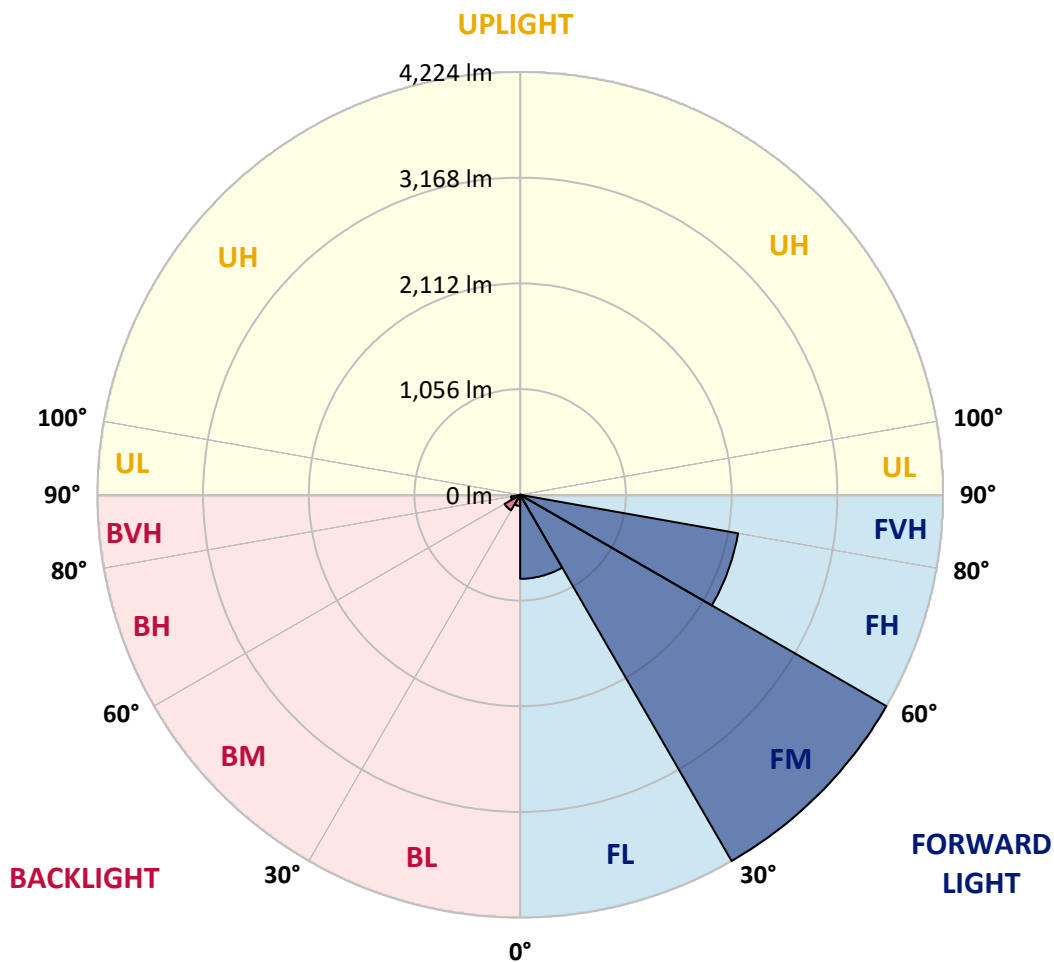
CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7050-HSS

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	839.3	10.9			
FM	(30°-60°)	4224.4	55.0			
FH	(60°-80°)	2211.4	28.8			G2/5000
FVH	(80°-90°)	27.4	0.4			G1/100
BL	(0°-30°)	111.4	1.4	B1/500		
BM	(30°-60°)	178.8	2.3	B0/220		
BH	(60°-80°)	92.9	1.2	B0/110		G0/110
BVH	(80°-90°)	0.4	0.0			G0/10
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G2**

Type II Medium





REPORT NUMBER: P214679

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7050-HSS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	76°	85°
0°	715.2	715.2	715.2	715.2	715.2	715.2	715.2	715.2	715.2	715.2	715.2
2.5°	1178.1	1166.5	1154.9	1141.6	1111.8	1060.3	995.6	925.9	839.6	824.7	755.0
5°	1430.4	1425.4	1413.8	1395.5	1362.3	1305.9	1232.9	1130.0	985.7	960.8	813.1
7.5°	1607.9	1604.6	1594.6	1573.1	1543.2	1486.8	1410.4	1299.3	1131.7	1103.5	886.1
10°	1767.2	1765.5	1757.3	1737.3	1707.5	1646.1	1564.8	1448.6	1271.1	1239.5	970.7
12.5°	1911.6	1913.2	1909.9	1900.0	1878.4	1820.3	1727.4	1601.3	1405.5	1370.6	1071.9
15°	1996.2	2001.2	2014.4	2034.4	2041.0	1994.5	1898.3	1758.9	1543.2	1513.3	1188.1
17.5°	1968.0	1973.0	2014.4	2082.5	2147.2	2153.8	2067.5	1908.3	1679.3	1649.4	1302.6
20°	1900.0	1906.6	1949.7	2042.7	2168.8	2256.7	2221.9	2070.9	1808.7	1772.2	1412.1
22.5°	1976.3	1976.3	1989.6	2046.0	2160.5	2298.2	2344.7	2233.5	1941.4	1896.6	1521.6
25°	2238.5	2233.5	2205.3	2182.0	2218.5	2341.3	2437.6	2399.4	2097.4	2046.0	1637.8
27.5°	2570.3	2593.6	2540.5	2455.8	2372.9	2426.0	2520.6	2563.7	2270.0	2216.9	1757.3
30°	2942.0	2952.0	2888.9	2776.1	2630.1	2578.6	2618.5	2704.7	2457.5	2399.4	1881.7
32.5°	3277.2	3268.9	3215.8	3098.0	2917.1	2806.0	2744.6	2817.6	2661.6	2595.2	2009.5
35°	3574.2	3580.9	3516.2	3380.1	3202.5	3084.7	2938.7	2945.3	2890.6	2814.3	2157.2
37.5°	3841.4	3829.8	3768.4	3632.3	3471.4	3343.6	3189.3	3078.1	3141.1	3061.5	2323.1
40°	4058.8	4047.2	3982.4	3849.7	3698.7	3594.2	3473.0	3255.6	3405.0	3313.7	2500.6
42.5°	4231.3	4218.1	4163.3	4035.5	3889.5	3796.6	3738.5	3474.7	3687.1	3595.8	2699.8
45°	4316.0	4304.4	4271.2	4174.9	4047.2	3965.8	3994.1	3726.9	3989.1	3912.7	2918.8
47.5°	4216.4	4211.4	4249.6	4233.0	4160.0	4116.8	4214.7	4002.3	4306.0	4231.3	3171.0
50°	3914.4	3922.7	4033.9	4171.6	4206.4	4257.9	4395.6	4292.7	4646.2	4566.5	3461.4
52.5°	3169.4	3225.8	3561.0	3892.8	4150.0	4344.2	4608.0	4707.6	5200.4	5122.4	3914.4
55°	2366.2	2389.5	2754.5	3322.0	3922.7	4337.5	4765.7	4951.5	5474.2	5394.5	4033.9
57.5°	1876.7	1885.0	2065.9	2645.0	3454.8	4188.2	4848.6	5039.4	5593.7	5527.3	4211.4
60°	1473.5	1483.5	1614.5	2012.8	2796.0	3785.0	4729.1	5115.8	5827.6	5774.5	4521.7
62.5°	1146.6	1156.6	1236.2	1470.2	2097.4	3164.4	4488.5	5238.6	6272.3	6247.4	5029.5
65°	887.8	891.1	945.8	1055.3	1481.8	2492.3	4194.8	5353.1	6873.0	6851.5	5441.0
67.5°	655.4	660.4	698.6	766.6	1000.6	1790.4	3713.6	5265.1	7326.0	7263.0	5590.3
69°	529.3	534.3	567.5	622.3	789.9	1410.4	3273.9	5047.7	7394.1	7334.3	5495.8
70°	453.0	456.3	489.5	536.0	673.7	1198.1	2925.4	4860.2	7304.5	7246.4	5280.0
72.5°	290.4	307.0	340.2	370.0	446.4	793.2	1974.6	4030.6	6302.2	6202.6	4135.1
75°	161.0	165.9	225.7	262.2	297.0	516.1	1098.5	2513.9	4009.0	3939.3	2211.9
77.5°	132.7	136.1	159.3	199.1	199.1	288.7	414.8	990.6	1524.9	1375.6	599.0
80°	92.9	96.2	121.1	131.1	142.7	162.6	134.4	217.4	235.6	209.1	89.6
82.5°	64.7	68.0	83.0	107.9	114.5	76.3	49.8	64.7	68.0	68.0	34.8
85°	11.6	16.6	61.4	89.6	68.0	23.2	28.2	23.2	21.6	23.2	8.3
87.5°	0.0	0.0	38.2	43.1	36.5	10.0	11.6	8.3	5.0	6.6	3.3
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: P214679

CATALOG NUMBER: ARCH-AF24-100-D-U-T2R-7050-HSS

**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	715.2	715.2	715.2	715.2	715.2	715.2	715.2	715.2	715.2	715.2	715.2
2.5°	720.2	685.3	625.6	582.4	545.9	517.7	506.1	487.8	474.6	481.2	472.9
5°	740.1	678.7	582.4	521.0	477.9	441.4	411.5	388.3	370.0	366.7	363.4
7.5°	771.6	683.7	557.5	481.2	416.5	360.1	313.6	278.8	252.2	252.2	242.3
10°	814.7	696.9	542.6	441.4	345.1	268.8	222.4	189.2	175.9	174.2	170.9
12.5°	874.5	721.8	531.0	389.9	268.8	195.8	167.6	156.0	151.0	149.3	147.7
15°	955.8	758.3	517.7	326.9	204.1	161.0	149.3	139.4	134.4	132.7	131.1
17.5°	1033.8	791.5	489.5	262.2	165.9	146.0	132.7	124.5	117.8	116.2	116.2
20°	1106.8	819.7	441.4	204.1	149.3	131.1	117.8	107.9	101.2	99.6	99.6
22.5°	1183.1	842.9	381.7	165.9	136.1	116.2	102.9	92.9	86.3	84.6	83.0
25°	1264.4	859.5	313.6	147.7	122.8	102.9	87.9	79.6	74.7	73.0	71.4
27.5°	1352.4	866.2	248.9	134.4	107.9	89.6	76.3	68.0	64.7	63.1	63.1
30°	1432.0	859.5	192.5	119.5	94.6	78.0	66.4	59.7	56.4	54.8	54.8
32.5°	1515.0	842.9	154.3	106.2	83.0	66.4	56.4	51.4	49.8	48.1	48.1
35°	1602.9	821.4	132.7	94.6	71.4	58.1	49.8	46.5	44.8	43.1	43.1
37.5°	1705.8	794.8	121.1	84.6	63.1	51.4	43.1	41.5	39.8	39.8	39.8
40°	1822.0	761.6	112.8	76.3	56.4	44.8	38.2	36.5	34.8	34.8	34.8
42.5°	1944.8	723.5	104.5	68.0	49.8	38.2	33.2	33.2	31.5	31.5	29.9
45°	2082.5	685.3	96.2	59.7	43.1	33.2	28.2	26.5	26.5	24.9	24.9
47.5°	2245.1	650.5	87.9	53.1	38.2	28.2	24.9	23.2	21.6	19.9	19.9
50°	2474.1	647.1	78.0	46.5	34.8	23.2	19.9	18.3	16.6	14.9	14.9
52.5°	2701.4	617.3	66.4	38.2	28.2	19.9	14.9	13.3	11.6	11.6	10.0
55°	2752.9	567.5	58.1	33.2	21.6	14.9	11.6	8.3	8.3	6.6	6.6
57.5°	2865.7	544.3	49.8	26.5	16.6	11.6	6.6	5.0	5.0	5.0	5.0
60°	3088.0	537.6	43.1	23.2	11.6	8.3	5.0	3.3	3.3	1.7	1.7
62.5°	3395.0	531.0	36.5	19.9	8.3	5.0	3.3	1.7	0.0	0.0	0.0
65°	3564.3	486.2	29.9	14.9	6.6	5.0	1.7	0.0	0.0	0.0	0.0
67.5°	3519.5	401.6	26.5	10.0	5.0	3.3	1.7	0.0	0.0	0.0	0.0
69°	3332.0	338.5	21.6	8.3	5.0	3.3	1.7	0.0	0.0	0.0	0.0
70°	3106.3	292.0	19.9	6.6	3.3	1.7	1.7	0.0	0.0	0.0	0.0
72.5°	2205.3	152.7	13.3	5.0	3.3	1.7	0.0	0.0	0.0	0.0	0.0
75°	1030.5	68.0	8.3	3.3	1.7	1.7	0.0	0.0	0.0	0.0	0.0
77.5°	227.3	31.5	5.0	3.3	1.7	0.0	0.0	0.0	0.0	0.0	0.0
80°	43.1	11.6	3.3	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	14.9	5.0	1.7	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	5.0	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	1.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)