

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: P258176

Luminaire Tested: **ARCH-M-AF48-160-D-U-T2U-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258176  
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-M-AF48-160-D-U-T2U-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 1030mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 17839.8 lumens  
Efficiency: N/A  
Efficacy: 110.8 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

Input Watts (W): 161  
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

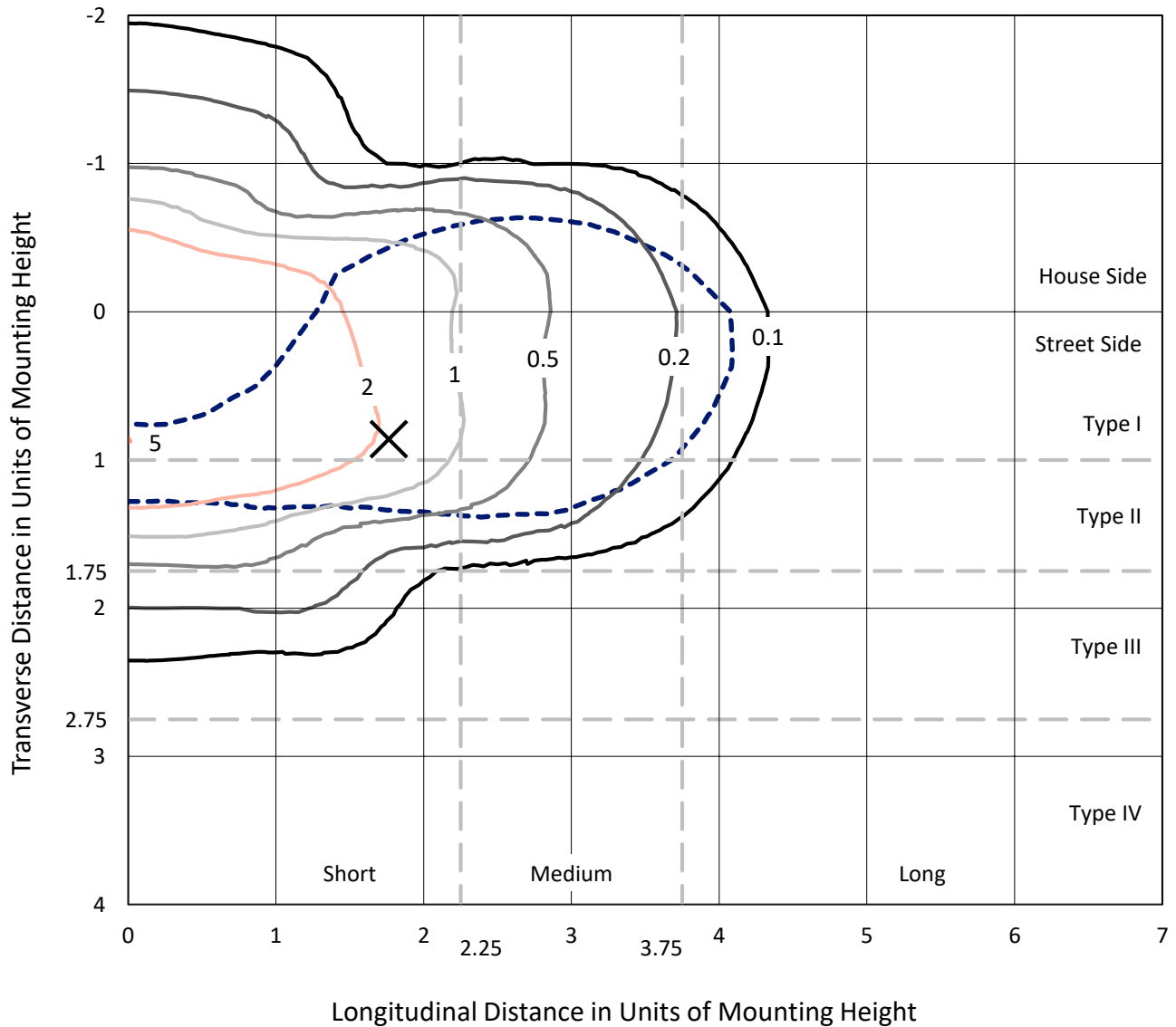


REPORT NUMBER: P258176

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2U-7030

### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

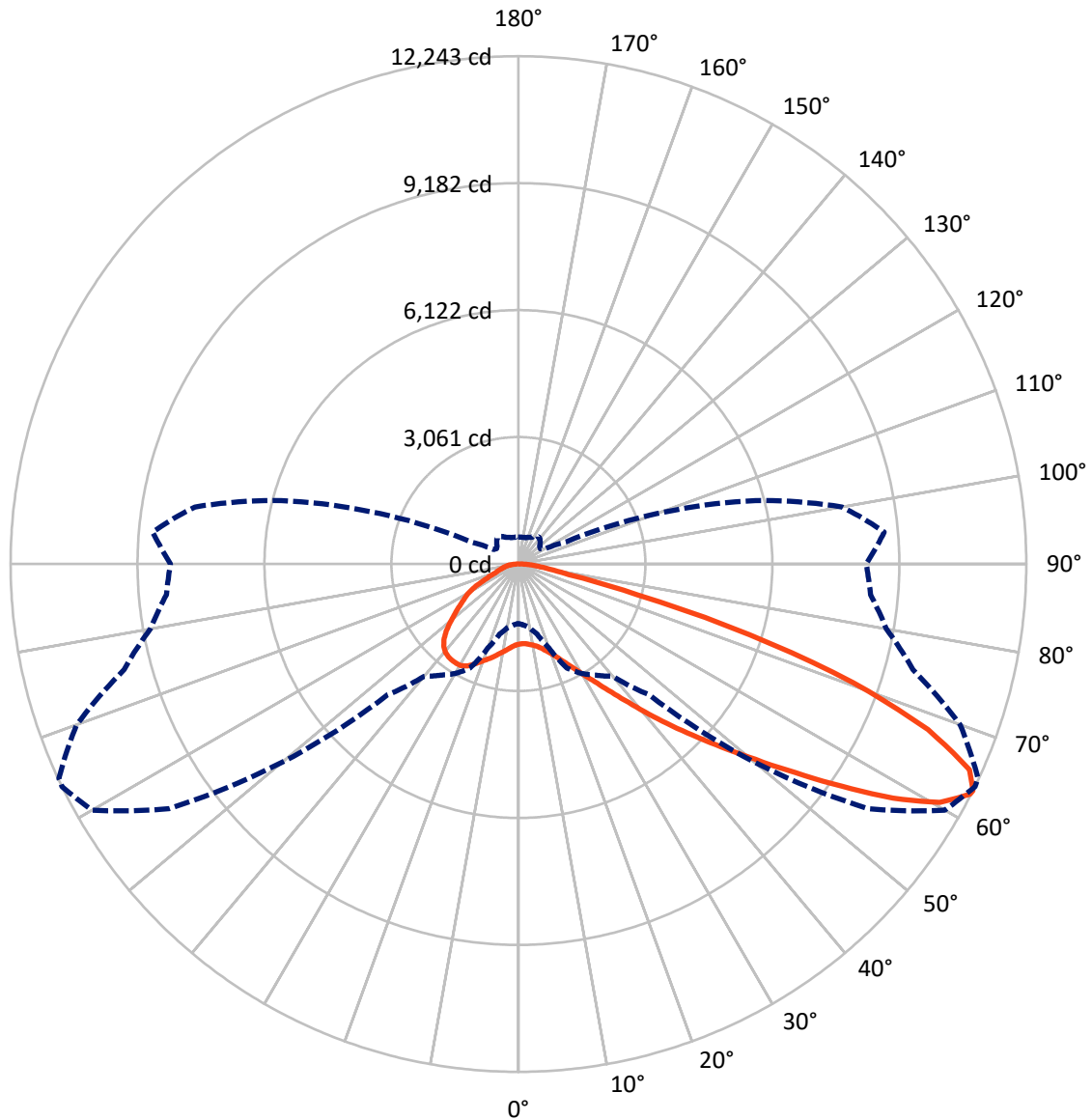


Based on 25 foot mounting height. Maximum calculated value = 5 fc  
 Type II - Short - Semi-Cutoff

REPORT NUMBER: P258176

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2U-7030

### Luminous Intensity Polar Plot



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

REPORT NUMBER: P258176

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2U-7030

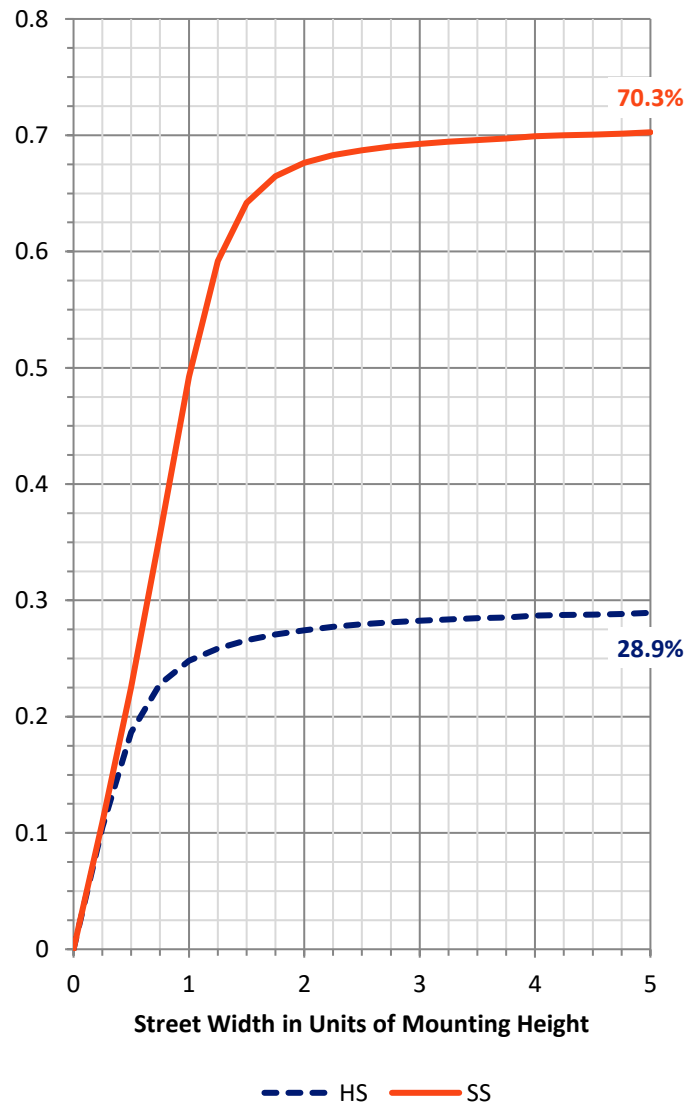
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	5244.3	0.0	5244.3
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	12595.6	0.0	12595.6
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	17839.8	0.0	17839.8
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	192.9	1.1
10°-20°	642.5	3.6
20°-30°	1206.1	6.8
30°-40°	2021.5	11.3
40°-50°	3391.6	19.0
50°-60°	4299.5	24.1
60°-70°	3792.8	21.3
70°-80°	1957.9	11.0
80°-90°	335.0	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°	17839.8	100.0
0°-180°	17839.8	100.0



REPORT NUMBER: P258176

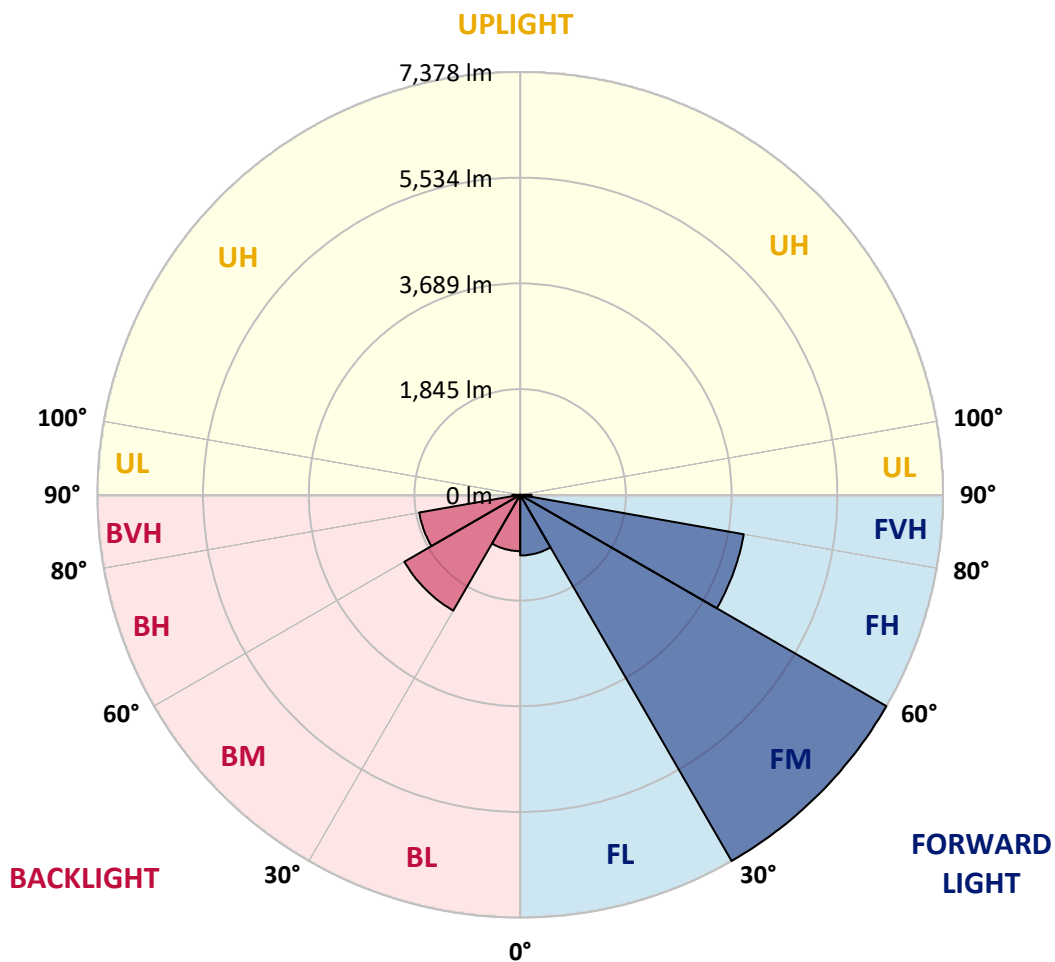
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1058.9	5.9			
FM (30°-60°)	7378.1	41.4			
FH (60°-80°)	3961.5	22.2			G2/5000
FVH (80°-90°)	197.2	1.1			G2/225
BL (0°-30°)	982.6	5.5	B2/1000		
BM (30°-60°)	2334.5	13.1	B2/2500		
BH (60°-80°)	1789.3	10.0	B3/2500		G3/2500
BVH (80°-90°)	137.9	0.8			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





REPORT NUMBER: P258176

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2U-7030

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1920.1	1917.2	1917.2	1917.2	1917.2	1914.1	1917.2	1923.1	1920.1	1917.2	1923.1
5°	1926.0	1923.1	1923.1	1923.1	1926.0	1923.1	1926.0	1935.0	1929.1	1929.1	1935.0
7.5°	1941.0	1938.0	1941.0	1938.0	1938.0	1938.0	1941.0	1950.0	1947.0	1950.0	1958.9
10°	1958.9	1958.9	1958.9	1958.9	1958.9	1958.9	1964.9	1970.8	1973.9	1976.8	1988.7
12.5°	2012.7	2012.7	2012.7	2009.8	2009.8	2000.7	2012.7	2018.7	2024.6	2030.6	2039.6
15°	2126.1	2126.1	2123.1	2111.2	2111.2	2093.3	2096.2	2099.3	2099.3	2105.2	2111.2
17.5°	2275.5	2272.5	2266.5	2257.6	2245.6	2224.7	2218.7	2212.7	2203.8	2200.8	2200.8
20°	2484.4	2481.5	2469.6	2445.7	2430.7	2397.9	2373.9	2350.0	2341.2	2326.2	2323.3
22.5°	2783.1	2783.1	2759.3	2723.4	2711.5	2642.8	2574.0	2523.4	2505.5	2484.4	2484.4
25°	3144.5	3141.4	3108.7	3066.8	3016.0	2944.3	2860.7	2792.0	2747.4	2699.5	2681.5
27.5°	3577.4	3568.5	3523.7	3473.0	3377.3	3287.7	3189.3	3117.6	3039.9	2980.1	2926.4
30°	4085.1	4076.1	3998.5	3903.0	3804.4	3714.9	3571.4	3484.9	3362.5	3290.8	3231.1
32.5°	4673.3	4664.4	4524.0	4431.4	4327.0	4216.5	4046.3	3908.9	3753.6	3652.1	3568.5
35°	5422.9	5387.0	5187.0	5058.6	4894.4	4783.8	4604.6	4419.5	4237.4	4094.1	3971.6
37.5°	6232.1	6190.3	6014.1	5823.0	5661.9	5527.4	5273.6	5040.6	4825.7	4628.6	4476.3
40°	7077.2	6966.7	6778.6	6638.3	6527.8	6399.4	6133.6	5888.7	5551.3	5330.3	5100.3
42.5°	7662.5	7554.9	7423.6	7331.1	7277.3	7178.8	7029.4	6817.4	6515.7	6521.8	5915.7
45°	8047.7	7889.4	7799.9	7805.8	7826.8	7826.8	7799.9	7767.0	7635.6	7725.1	7217.5
47.5°	7910.4	7805.8	7749.1	7868.6	8017.9	8167.1	8340.3	8528.4	8743.5	8997.3	8373.2
50°	7104.0	7143.0	7169.8	7423.6	7743.1	8083.5	8480.7	8994.3	9594.5	9711.0	9409.4
52.5°	5817.1	5900.6	5990.2	6378.4	6799.5	7387.8	8083.5	8931.6	9737.8	10212.7	10182.9
55°	4518.1	4622.5	4813.8	5103.4	5437.9	5993.2	6853.3	8161.2	9418.3	10173.9	10633.7
57.5°	3216.0	3368.4	3619.2	4022.4	4318.0	4631.5	5267.6	6718.9	8095.4	9501.9	10559.1
60°	2138.1	2209.8	2373.9	2875.7	3374.4	3702.8	4153.7	4679.3	5805.1	7743.1	9788.6
62.5°	1516.9	1564.7	1666.3	1893.3	2344.1	2938.4	3210.1	3452.0	3813.3	4980.9	7859.6
63°	1433.4	1475.2	1558.8	1749.9	2156.0	2771.2	3048.9	3269.8	3532.7	4455.4	7435.5
65°	1188.5	1206.4	1251.2	1343.8	1561.8	2072.4	2526.3	2660.7	2705.5	2863.6	4658.4
67.5°	1003.3	1015.3	1030.2	1057.1	1143.7	1379.6	1884.2	2054.5	2003.7	1896.2	2302.3
70°	872.0	880.9	904.7	937.7	967.5	1027.2	1296.1	1549.9	1493.0	1346.7	1409.5
72.5°	695.8	710.7	737.6	794.4	854.1	931.7	997.4	1155.6	1119.8	979.5	994.4
75°	549.5	558.5	582.4	624.1	680.8	770.4	898.8	952.6	854.1	722.6	722.6
77.5°	436.0	444.9	465.9	498.7	534.5	597.2	686.8	827.2	767.4	543.4	540.5
80°	328.5	337.4	358.4	388.2	424.0	468.8	522.6	585.3	704.7	507.6	406.1
82.5°	241.9	244.8	280.7	301.5	313.6	349.4	394.2	430.1	483.8	468.8	361.3
85°	182.1	179.1	203.1	218.0	220.9	229.9	256.8	292.6	316.6	304.7	280.7
87.5°	101.5	89.6	104.6	119.4	119.4	122.5	128.4	149.3	170.2	164.2	149.3
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: P258176

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2U-7030

**CANDELA DISTRIBUTION (continued):**

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1923.1	1923.1	1920.1	1920.1	1923.1	1923.1	1920.1	1929.1	1935.0	1935.0	1938.0
5°	1932.0	1935.0	1932.0	1932.0	1935.0	1935.0	1938.0	1947.0	1956.0	1961.9	1970.8
7.5°	1958.9	1961.9	1958.9	1958.9	1961.9	1964.9	1970.8	1982.8	1988.7	2000.7	2015.7
10°	1988.7	1991.8	1988.7	1991.8	1994.7	1997.7	2006.6	2015.7	2024.6	2036.6	2060.4
12.5°	2042.5	2045.6	2039.6	2042.5	2051.5	2051.5	2057.5	2063.5	2078.3	2093.3	2117.2
15°	2117.2	2117.2	2111.2	2114.1	2123.1	2123.1	2126.1	2132.0	2150.0	2167.9	2191.8
17.5°	2203.8	2209.8	2206.8	2209.8	2215.8	2218.7	2218.7	2224.7	2236.6	2248.5	2272.5
20°	2320.2	2323.3	2317.3	2323.3	2329.2	2323.3	2317.3	2314.3	2320.2	2326.2	2353.1
22.5°	2478.5	2475.5	2460.6	2460.6	2460.6	2448.6	2433.8	2415.8	2415.8	2406.9	2427.7
25°	2666.7	2657.7	2636.8	2639.8	2618.8	2600.9	2574.0	2547.2	2523.4	2514.4	2517.4
27.5°	2887.6	2869.7	2848.8	2842.8	2821.9	2789.1	2744.3	2693.6	2654.7	2624.9	2618.8
30°	3165.3	3126.6	3090.7	3084.7	3051.8	2998.1	2926.4	2857.7	2792.0	2741.4	2723.4
32.5°	3493.8	3434.1	3377.3	3371.4	3317.6	3246.0	3159.3	3063.8	2968.2	2887.6	2848.8
35°	3879.0	3789.4	3735.7	3720.8	3643.1	3553.5	3457.9	3335.5	3201.2	3087.6	3016.0
37.5°	4347.9	4255.3	4162.7	4165.7	4058.2	3953.6	3825.2	3675.9	3505.8	3347.4	3246.0
40°	4927.1	4795.8	4676.3	4649.4	4556.8	4410.6	4270.2	4097.0	3888.0	3679.0	3532.7
42.5°	5628.9	5413.9	5249.7	5225.8	5103.4	4924.2	4754.0	4524.0	4312.0	4058.2	3882.0
45°	6426.2	6082.8	5885.7	5849.8	5652.8	5470.6	5264.6	5019.7	4760.0	4473.3	4264.3
47.5°	7417.6	6927.9	6593.5	6533.7	6261.9	6023.1	5808.1	5536.3	5225.8	4906.3	4676.3
50°	8573.2	7850.6	7399.7	7307.2	6942.9	6662.1	6387.4	6047.0	5715.6	5381.0	5115.3
52.5°	9731.9	8955.6	8355.3	8241.9	7704.3	7328.0	6966.7	6626.2	6235.1	5903.6	5602.0
55°	10663.6	10147.0	9451.3	9292.9	8522.6	8011.9	7537.0	7148.9	6760.6	6497.8	6142.5
57.5°	11225.0	11198.1	10648.6	10430.7	9376.5	8621.1	8092.5	7650.6	7274.3	7163.8	6692.0
60°	11210.1	11905.9	11670.0	11505.6	10239.6	9245.2	8558.4	8080.6	7770.0	7895.4	7244.4
62.5°	10526.2	11935.7	12219.3	12174.5	11159.3	9746.8	8940.5	8447.8	8283.6	8656.9	7817.8
63°	10278.3	11866.9	12243.3	12225.3	11335.4	9842.4	9006.2	8519.5	8385.1	8851.0	7922.3
65°	8686.7	11266.9	11953.6	12034.3	11714.8	10170.8	9158.5	8701.7	8686.7	9284.0	8170.2
67.5°	5294.4	9519.9	10648.6	10804.0	11180.2	10275.4	9072.1	8639.0	8854.0	9346.7	8095.4
70°	2263.6	6282.9	8558.4	8809.1	9728.9	9755.8	8824.1	8382.2	8815.1	8857.0	7563.9
72.5°	1340.8	2962.2	5826.0	6372.4	7698.3	8394.1	8256.7	7934.2	8304.6	7778.9	6441.2
75°	949.6	1385.6	2959.3	3541.6	5360.2	6408.3	6936.9	7086.1	7071.3	6169.5	4834.6
77.5°	680.8	889.9	1248.2	1472.2	2992.2	4114.9	4760.0	5196.0	5055.5	4129.9	2980.1
80°	474.8	615.1	764.5	812.3	1388.5	2114.1	2508.4	2699.5	2615.8	2063.5	1334.8
82.5°	343.4	403.1	492.8	522.6	698.7	976.4	1161.7	1024.3	982.5	761.4	576.4
85°	265.7	259.8	307.6	319.5	409.0	510.7	522.6	406.1	355.3	316.6	322.6
87.5°	188.2	161.2	164.2	170.2	212.1	271.7	265.7	167.2	143.3	152.3	173.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





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**CANDELA DISTRIBUTION (continued):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1943.9	1947.0	1952.9	1956.0	1961.9	1961.9	1967.9	1970.8	1976.8	1982.8	1985.8
5°	1979.8	1988.7	2000.7	2006.6	2018.7	2027.7	2039.6	2045.6	2057.5	2066.4	2078.3
7.5°	2033.6	2048.5	2063.5	2081.4	2099.3	2114.1	2126.1	2141.1	2162.0	2176.9	2185.8
10°	2084.3	2105.2	2132.0	2153.1	2179.9	2200.8	2218.7	2245.6	2269.6	2290.4	2302.3
12.5°	2150.0	2176.9	2203.8	2236.6	2272.5	2299.4	2326.2	2362.0	2394.9	2418.8	2430.7
15°	2227.7	2260.6	2290.4	2329.2	2371.0	2406.9	2445.7	2484.4	2508.4	2508.4	2502.4
17.5°	2308.3	2335.2	2371.0	2415.8	2472.5	2517.4	2538.2	2544.2	2535.3	2514.4	2499.5
20°	2389.0	2412.8	2451.7	2505.5	2565.1	2574.0	2553.2	2526.3	2499.5	2463.6	2439.6
22.5°	2454.6	2487.5	2547.2	2609.8	2612.9	2562.1	2505.5	2460.6	2418.8	2376.9	2332.2
25°	2532.3	2577.1	2657.7	2681.5	2603.9	2508.4	2427.7	2362.0	2293.4	2224.7	2173.9
27.5°	2627.8	2693.6	2774.1	2705.5	2553.2	2418.8	2308.3	2209.8	2120.1	2024.6	1967.9
30°	2729.4	2830.9	2848.8	2669.6	2466.5	2293.4	2144.1	1994.7	1881.3	1794.7	1761.8
32.5°	2851.7	2983.3	2875.7	2606.9	2350.0	2123.1	1923.1	1743.9	1648.4	1594.6	1579.7
35°	3037.0	3144.5	2890.6	2541.3	2215.8	1920.1	1669.3	1526.0	1466.3	1430.4	1412.5
37.5°	3302.7	3299.7	2887.6	2460.6	2060.4	1699.1	1466.3	1364.6	1316.9	1287.1	1254.2
40°	3613.3	3419.2	2869.7	2344.1	1851.4	1487.1	1325.9	1230.3	1185.5	1149.6	1110.8
42.5°	3920.9	3499.8	2818.9	2171.0	1591.6	1334.8	1224.4	1137.7	1090.0	1051.2	997.4
45°	4186.6	3532.7	2720.4	1932.0	1358.7	1215.4	1158.5	1084.0	1027.2	967.5	925.8
47.5°	4395.6	3526.7	2562.1	1651.4	1203.4	1131.7	1104.8	1054.2	985.4	910.7	857.0
50°	4571.9	3481.9	2347.1	1403.6	1098.9	1057.1	1048.2	1033.3	922.7	860.0	827.2
52.5°	4733.1	3416.2	2117.2	1236.3	1009.3	973.5	991.4	976.4	898.8	845.1	812.3
55°	4954.1	3371.4	1890.3	1107.9	904.7	895.8	910.7	931.7	883.9	833.1	797.3
57.5°	5213.9	3395.2	1717.0	964.5	806.3	812.3	863.0	892.8	868.9	815.2	779.3
60°	5512.4	3466.9	1564.7	827.2	725.6	740.6	815.2	857.0	854.1	791.4	749.5
62.5°	5846.9	3541.6	1322.9	722.6	656.9	680.8	758.5	812.3	821.2	767.4	716.6
63°	5912.6	3547.5	1260.2	701.8	644.9	671.8	743.5	800.4	812.3	761.4	710.7
65°	6073.8	3493.8	1015.3	644.9	597.2	627.1	698.7	749.5	773.4	728.6	686.8
67.5°	5939.5	3054.9	764.5	576.4	558.5	579.3	642.0	689.8	710.7	689.8	648.0
70°	5431.9	2221.7	597.2	513.6	516.6	531.5	579.3	624.1	648.0	642.0	603.2
72.5°	4374.7	1260.2	498.7	459.9	468.8	486.7	519.6	561.4	582.4	579.3	552.5
75°	2881.6	644.9	421.0	412.1	418.0	433.0	456.9	489.7	513.6	510.7	498.7
77.5°	1427.4	448.0	361.3	364.3	367.3	379.2	397.1	426.9	442.0	444.9	442.0
80°	588.3	349.4	310.6	313.6	316.6	325.5	337.4	364.3	373.2	379.2	382.2
82.5°	352.4	265.7	247.8	253.8	256.8	265.7	274.7	298.6	307.6	316.6	316.6
85°	232.9	185.2	179.1	185.2	191.1	197.1	200.1	215.0	229.9	241.9	247.8
87.5°	125.4	110.5	107.5	110.5	110.5	116.5	122.5	137.3	155.2	167.2	173.1
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: P258176

CATALOG NUMBER: ARCH-M-AF48-160-D-U-T2U-7030

**CANDELA DISTRIBUTION (continued):**

	160°	165°	170°	175°	180°
0°	1932.0	1932.0	1932.0	1932.0	1932.0
2.5°	1979.8	1982.8	1979.8	1982.8	1985.8
5°	2078.3	2084.3	2081.4	2081.4	2093.3
7.5°	2191.8	2203.8	2203.8	2209.8	2215.8
10°	2314.3	2326.2	2335.2	2335.2	2344.1
12.5°	2436.7	2442.7	2451.7	2451.7	2451.7
15°	2499.5	2496.5	2493.4	2490.4	2490.4
17.5°	2490.4	2478.5	2472.5	2466.5	2469.6
20°	2424.8	2403.8	2397.9	2389.0	2394.9
22.5°	2311.3	2281.5	2269.6	2254.6	2260.6
25°	2141.1	2105.2	2099.3	2081.4	2090.3
27.5°	1943.9	1926.0	1923.1	1920.1	1935.0
30°	1758.8	1764.9	1767.9	1773.9	1788.7
32.5°	1588.6	1600.5	1603.6	1606.5	1627.4
35°	1421.5	1406.5	1421.5	1415.5	1433.4
37.5°	1239.2	1227.3	1215.4	1200.4	1212.3
40°	1086.9	1066.1	1030.2	1012.3	1015.3
42.5°	967.5	940.6	910.7	892.8	892.8
45°	889.9	857.0	830.2	818.3	818.3
47.5°	830.2	815.2	800.4	791.4	791.4
50°	806.3	788.3	779.3	773.4	773.4
52.5°	788.3	770.4	761.4	755.5	749.5
55°	773.4	746.6	737.6	734.6	734.6
57.5°	752.5	728.6	716.6	713.7	713.7
60°	719.7	701.8	689.8	686.8	686.8
62.5°	686.8	668.8	656.9	656.9	656.9
63°	680.8	659.9	650.9	650.9	650.9
65°	653.9	633.0	624.1	624.1	621.1
67.5°	618.2	597.2	591.3	591.3	585.3
70°	576.4	558.5	552.5	555.5	543.4
72.5°	534.5	516.6	507.6	507.6	495.7
75°	486.7	468.8	456.9	453.9	442.0
77.5°	433.0	418.0	406.1	394.2	388.2
80°	376.3	364.3	349.4	340.5	331.5
82.5°	316.6	304.7	295.6	307.6	262.8
85°	247.8	235.9	224.0	241.9	188.2
87.5°	182.1	176.2	164.2	143.3	125.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)