

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: P257768

Luminaire Tested: **ARCH-M-AF48-40-D-U-T2U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P257768
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-AF48-40-D-U-T2U
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5518.8 lumens
Efficiency: N/A
Efficacy: 145.2 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 38
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

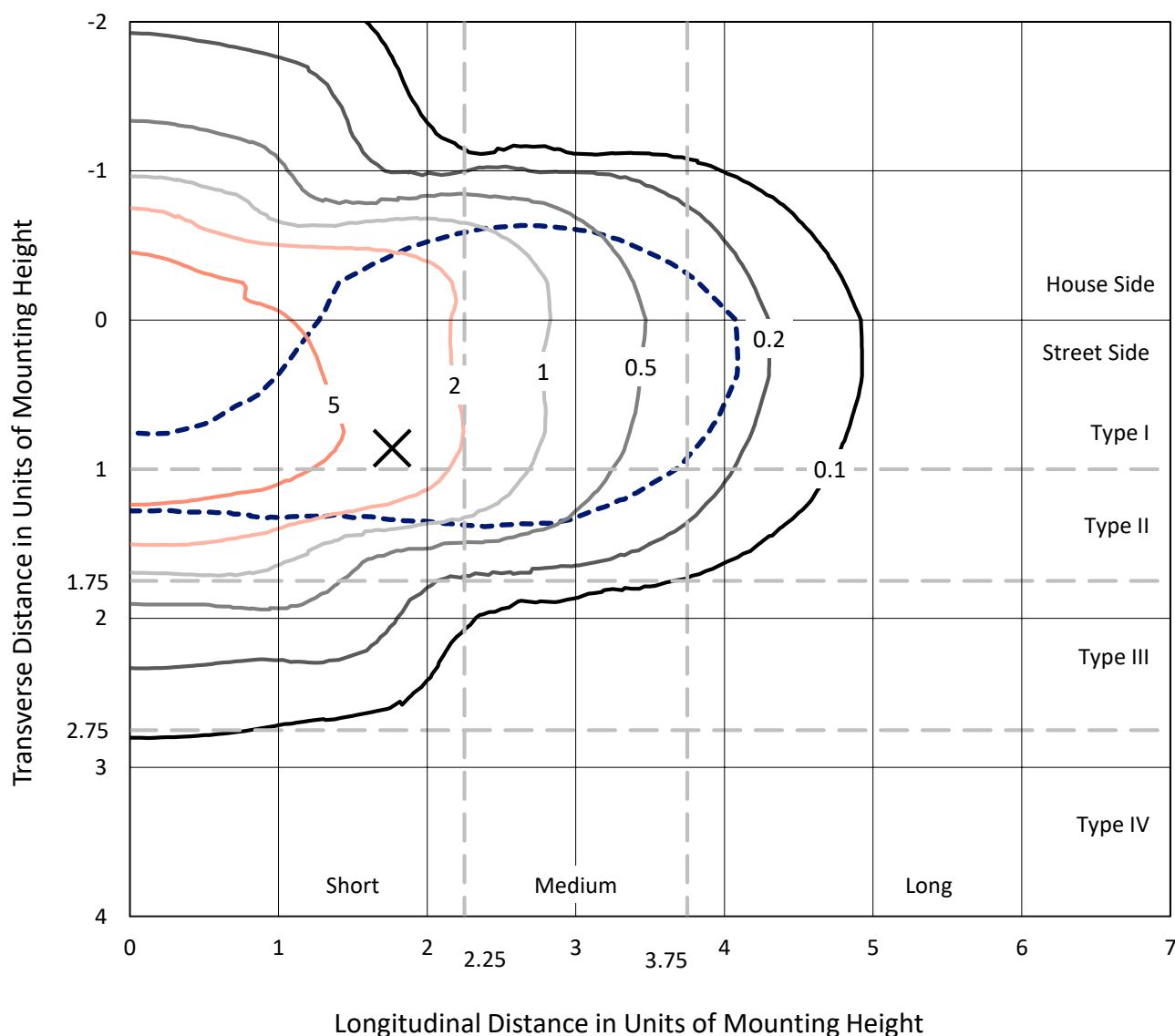


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

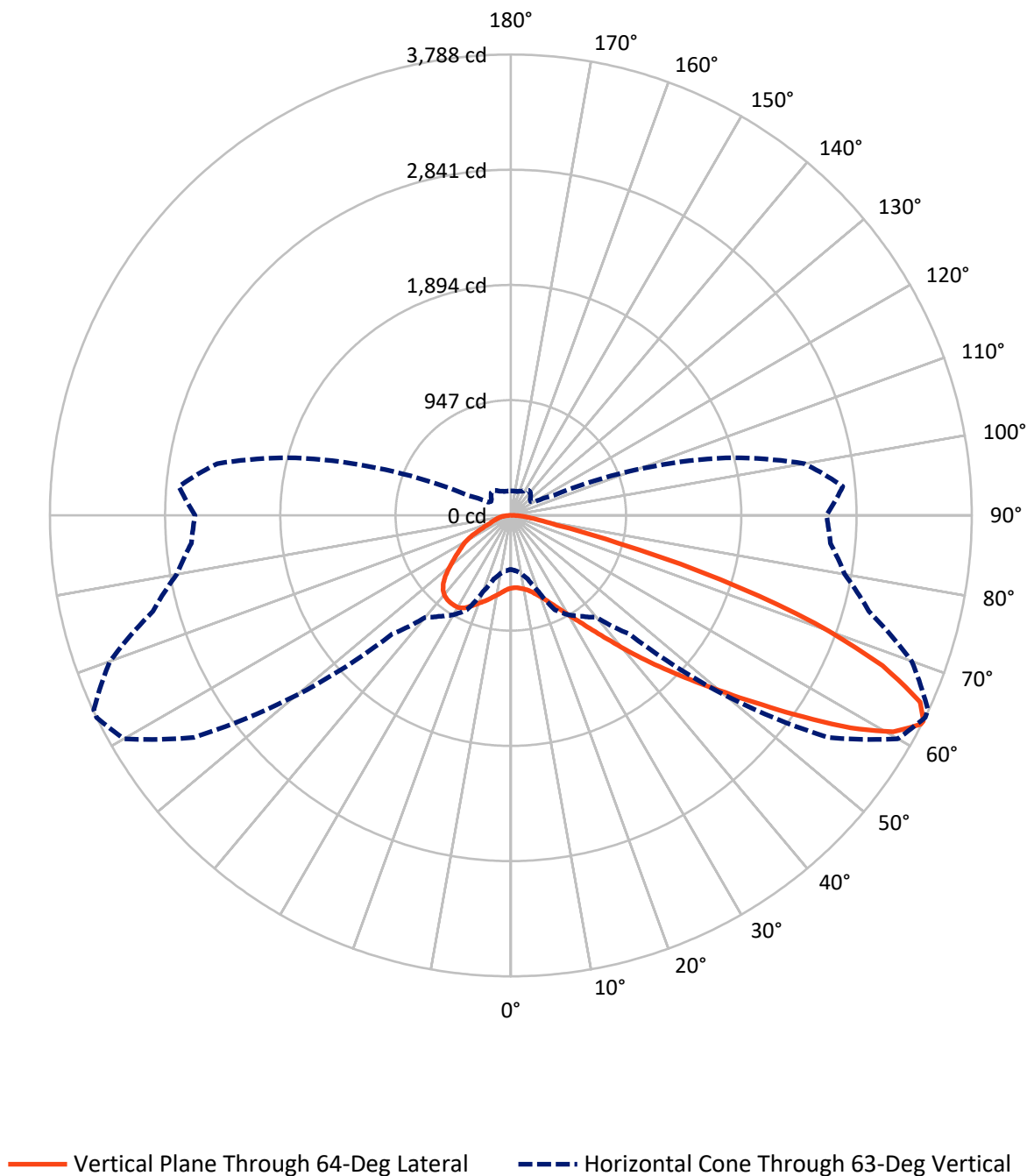


Based on 10 foot mounting height. Maximum calculated value = 9.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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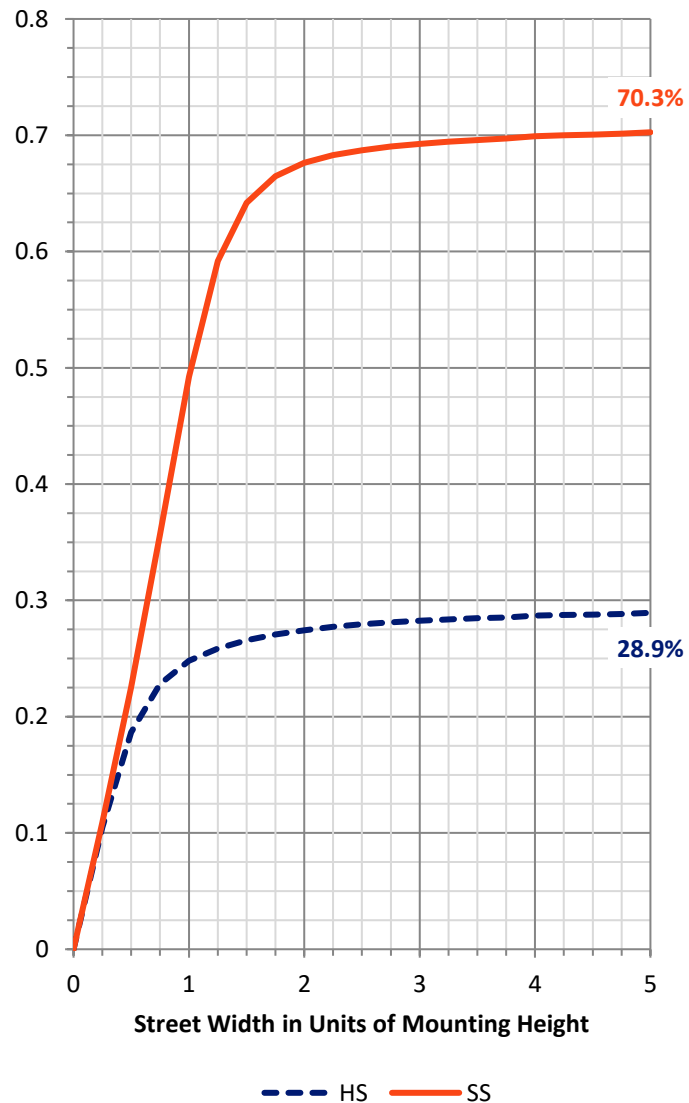
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1622.3	0.0	1622.3
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	3896.5	0.0	3896.5
	% Fixture	70.6	0.0	70.6
Total	Lumens	5518.8	0.0	5518.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	59.7	1.1
10°-20°	198.8	3.6
20°-30°	373.1	6.8
30°-40°	625.4	11.3
40°-50°	1049.2	19.0
50°-60°	1330.1	24.1
60°-70°	1173.3	21.3
70°-80°	605.7	11.0
80°-90°	103.6	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°	5518.8	100.0
0°-180°	5518.8	100.0

Coefficient of Utilization



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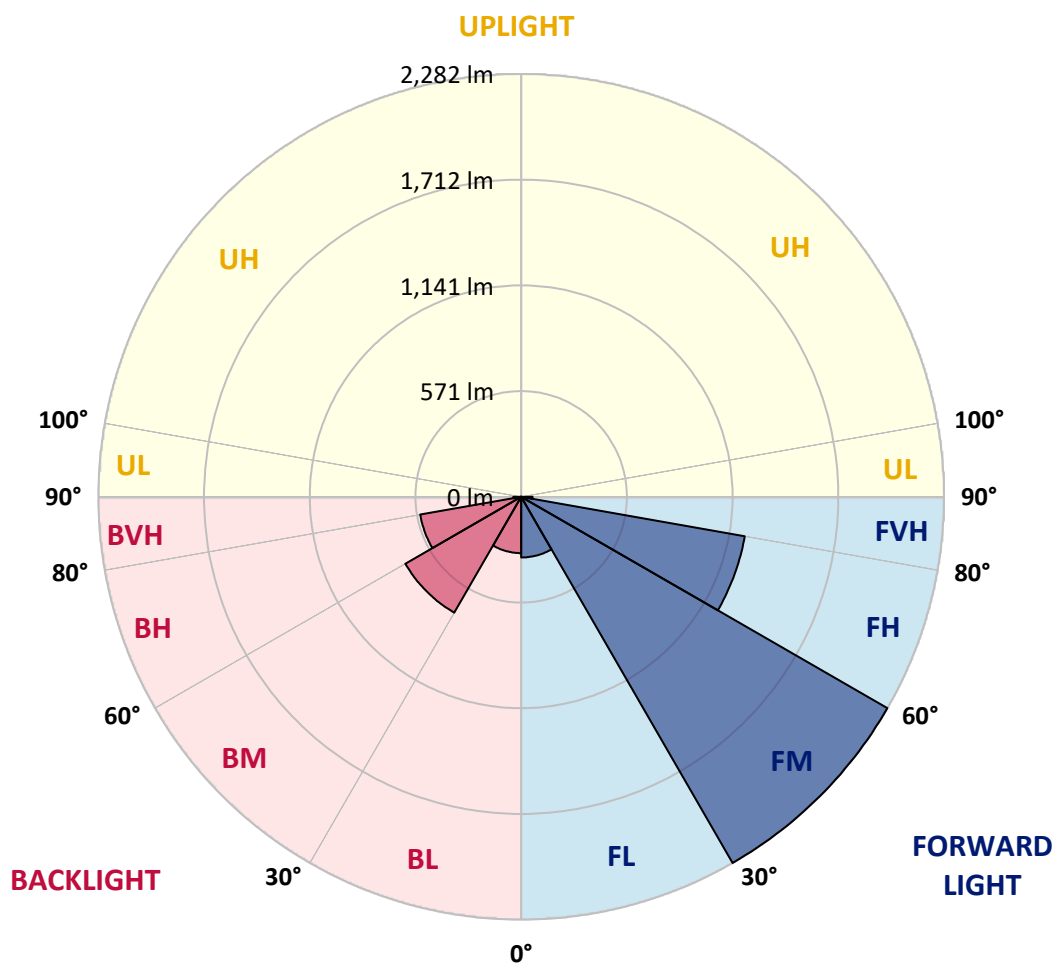
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	327.6	5.9			
FM	(30°-60°)	2282.4	41.4			
FH	(60°-80°)	1225.5	22.2			G1/1800
FVH	(80°-90°)	61.0	1.1			G1/100
BL	(0°-30°)	304.0	5.5	B1/500		
BM	(30°-60°)	722.2	13.1	B1/1000		
BH	(60°-80°)	553.5	10.0	B2/1000		G2/1000
BVH	(80°-90°)	42.6	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7
2.5°	594.0	593.1	593.1	593.1	593.1	592.2	593.1	594.9	594.0	593.1	594.9
5°	595.9	594.9	594.9	594.9	595.9	594.9	595.9	598.6	596.8	596.8	598.6
7.5°	600.5	599.6	600.5	599.6	599.6	599.6	600.5	603.2	602.3	603.2	606.0
10°	606.0	606.0	606.0	606.0	606.0	606.0	607.8	609.7	610.6	611.5	615.2
12.5°	622.7	622.7	622.7	621.7	621.7	618.9	622.7	624.5	626.4	628.2	631.0
15°	657.8	657.8	656.8	653.2	653.2	647.5	648.4	649.4	649.4	651.3	653.2
17.5°	703.9	703.0	701.1	698.4	694.7	688.2	686.4	684.6	681.8	680.9	680.9
20°	768.5	767.6	763.9	756.6	752.0	741.8	734.4	727.0	724.2	719.6	718.7
22.5°	860.9	860.9	853.6	842.5	838.8	817.5	796.3	780.6	775.1	768.5	768.5
25°	972.7	971.8	961.7	948.7	933.0	910.8	885.0	863.8	849.9	835.1	829.5
27.5°	1106.7	1104.0	1090.1	1074.4	1044.8	1017.1	986.6	964.4	940.4	921.9	905.3
30°	1263.8	1261.0	1237.0	1207.4	1176.9	1149.2	1104.9	1078.1	1040.1	1018.0	999.5
32.5°	1445.7	1443.0	1399.5	1370.9	1338.5	1304.4	1251.7	1209.2	1161.2	1129.7	1104.0
35°	1677.5	1666.5	1604.6	1564.9	1514.1	1479.9	1424.5	1367.2	1310.8	1266.5	1228.7
37.5°	1928.0	1915.0	1860.5	1801.4	1751.5	1710.0	1631.4	1559.4	1492.8	1431.8	1384.8
40°	2189.3	2155.2	2096.9	2053.6	2019.4	1979.6	1897.5	1821.7	1717.3	1649.0	1577.8
42.5°	2370.4	2337.1	2296.5	2267.9	2251.2	2220.7	2174.6	2109.0	2015.7	2017.6	1830.1
45°	2489.6	2440.7	2412.9	2414.8	2421.2	2421.2	2412.9	2402.7	2362.1	2389.8	2232.8
47.5°	2447.1	2414.8	2397.2	2434.1	2480.3	2526.6	2580.1	2638.3	2704.8	2783.3	2590.3
50°	2197.7	2209.7	2218.0	2296.5	2395.3	2500.7	2623.6	2782.4	2968.1	3004.1	2910.8
52.5°	1799.6	1825.4	1853.1	1973.2	2103.5	2285.5	2500.7	2763.0	3012.5	3159.3	3150.1
55°	1397.7	1430.0	1489.1	1578.7	1682.2	1854.0	2120.1	2524.6	2913.6	3147.3	3289.6
57.5°	994.9	1042.0	1119.6	1244.3	1335.8	1432.7	1629.6	2078.5	2504.4	2939.4	3266.5
60°	661.4	683.6	734.4	889.6	1043.9	1145.5	1284.9	1447.6	1795.8	2395.3	3028.1
62.5°	469.3	484.1	515.5	585.6	725.2	909.0	993.1	1067.9	1179.7	1540.9	2431.3
63°	443.4	456.3	482.2	541.3	667.0	857.2	943.2	1011.5	1092.8	1378.3	2300.2
65°	367.6	373.2	387.1	415.7	483.1	641.1	781.5	823.1	837.0	885.9	1441.1
67.5°	310.4	314.0	318.8	327.0	353.8	426.8	582.9	635.6	619.8	586.6	712.3
70°	269.8	272.5	279.9	290.1	299.3	317.8	400.9	479.5	461.9	416.6	436.0
72.5°	215.2	219.8	228.2	245.7	264.2	288.3	308.5	357.5	346.4	303.0	307.6
75°	170.0	172.8	180.1	193.0	210.6	238.3	278.0	294.7	264.2	223.5	223.5
77.5°	134.8	137.7	144.1	154.3	165.3	184.7	212.5	255.8	237.4	168.2	167.3
80°	101.6	104.3	110.9	120.1	131.1	145.1	161.6	181.1	218.0	157.0	125.6
82.5°	74.8	75.8	86.8	93.3	97.0	108.1	121.9	133.0	149.7	145.1	111.8
85°	56.4	55.4	62.8	67.4	68.3	71.1	79.5	90.5	97.9	94.2	86.8
87.5°	31.4	27.7	32.3	36.9	36.9	37.8	39.7	46.2	52.7	50.8	46.2
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7
2.5°	594.9	594.9	594.0	594.0	594.9	594.9	594.0	596.8	598.6	598.6	599.6
5°	597.7	598.6	597.7	597.7	598.6	598.6	599.6	602.3	605.1	606.9	609.7
7.5°	606.0	606.9	606.0	606.0	606.9	607.8	609.7	613.4	615.2	618.9	623.6
10°	615.2	616.1	615.2	616.1	617.0	618.0	620.8	623.6	626.4	630.0	637.4
12.5°	631.9	632.8	631.0	631.9	634.6	634.6	636.5	638.3	642.9	647.5	655.0
15°	655.0	655.0	653.2	654.1	656.8	656.8	657.8	659.6	665.1	670.6	678.0
17.5°	681.8	683.6	682.7	683.6	685.5	686.4	686.4	688.2	691.9	695.6	703.0
20°	717.8	718.7	716.9	718.7	720.6	718.7	716.9	716.0	717.8	719.6	727.9
22.5°	766.7	765.8	761.2	761.2	761.2	757.5	752.9	747.4	747.4	744.6	751.1
25°	824.9	822.1	815.7	816.6	810.2	804.7	796.3	788.0	780.6	777.9	778.8
27.5°	893.3	887.7	881.3	879.4	873.0	862.9	848.9	833.3	821.2	812.0	810.2
30°	979.2	967.2	956.2	954.3	944.1	927.5	905.3	884.0	863.8	848.0	842.5
32.5°	1080.8	1062.3	1044.8	1042.9	1026.3	1004.1	977.3	947.8	918.2	893.3	881.3
35°	1200.0	1172.3	1155.6	1151.0	1127.0	1099.3	1069.7	1031.9	990.3	955.2	933.0
37.5°	1345.0	1316.4	1287.8	1288.7	1255.5	1223.0	1183.3	1137.2	1084.5	1035.5	1004.1
40°	1524.2	1483.6	1446.7	1438.4	1409.7	1364.4	1321.0	1267.4	1202.8	1138.1	1092.8
42.5°	1741.4	1674.8	1624.0	1616.6	1578.7	1523.3	1470.7	1399.5	1333.9	1255.5	1200.9
45°	1988.0	1881.7	1820.8	1809.7	1748.7	1692.4	1628.6	1552.8	1472.5	1383.8	1319.2
47.5°	2294.7	2143.2	2039.7	2021.2	1937.2	1863.3	1796.7	1712.7	1616.6	1517.8	1446.7
50°	2652.2	2428.6	2289.2	2260.5	2147.8	2060.9	1975.9	1870.7	1768.1	1664.6	1582.4
52.5°	3010.6	2770.5	2584.7	2549.6	2383.4	2267.0	2155.2	2049.9	1928.9	1826.3	1733.0
55°	3298.8	3139.0	2923.8	2874.8	2636.5	2478.5	2331.6	2211.5	2091.4	2010.1	1900.2
57.5°	3472.5	3464.2	3294.2	3226.8	2900.7	2666.9	2503.5	2366.7	2250.3	2216.1	2070.1
60°	3467.9	3683.1	3610.1	3559.4	3167.7	2860.1	2647.6	2499.8	2403.6	2442.5	2241.1
62.5°	3256.4	3692.3	3780.1	3766.3	3452.2	3015.2	2765.8	2613.3	2562.6	2678.1	2418.5
63°	3179.6	3671.1	3787.5	3782.0	3506.7	3044.8	2786.1	2635.5	2594.0	2738.1	2450.8
65°	2687.3	3485.4	3697.9	3722.8	3624.0	3146.4	2833.3	2691.9	2687.3	2872.0	2527.5
67.5°	1637.8	2945.0	3294.2	3342.3	3458.6	3178.7	2806.5	2672.5	2739.1	2891.5	2504.4
70°	700.2	1943.6	2647.6	2725.1	3009.7	3018.0	2729.7	2593.1	2727.0	2740.0	2339.9
72.5°	414.8	916.4	1802.3	1971.3	2381.5	2596.8	2554.2	2454.5	2569.0	2406.5	1992.6
75°	293.8	428.6	915.4	1095.6	1658.2	1982.5	2145.9	2192.1	2187.5	1908.5	1495.6
77.5°	210.6	275.3	386.2	455.4	925.7	1273.0	1472.5	1607.4	1564.0	1277.6	921.9
80°	146.9	190.3	236.5	251.2	429.5	654.1	776.0	835.1	809.3	638.3	413.0
82.5°	106.3	124.7	152.4	161.6	216.1	302.1	359.4	316.8	303.9	235.6	178.3
85°	82.2	80.4	95.1	98.8	126.5	157.9	161.6	125.6	110.0	97.9	99.7
87.5°	58.2	49.9	50.8	52.7	65.6	84.1	82.2	51.8	44.3	47.2	53.6
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°	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7	597.7
2.5°	601.4	602.3	604.2	605.1	606.9	606.9	608.8	609.7	611.5	613.4	614.3
5°	612.4	615.2	618.9	620.8	624.5	627.3	631.0	632.8	636.5	639.2	642.9
7.5°	629.1	633.7	638.3	643.8	649.4	654.1	657.8	662.4	668.8	673.4	676.2
10°	644.8	651.3	659.6	666.0	674.3	680.9	686.4	694.7	702.1	708.5	712.3
12.5°	665.1	673.4	681.8	691.9	703.0	711.4	719.6	730.7	740.8	748.3	752.0
15°	689.2	699.3	708.5	720.6	733.5	744.6	756.6	768.5	776.0	776.0	774.2
17.5°	714.1	722.4	733.5	747.4	764.9	778.8	785.2	787.1	784.3	777.9	773.2
20°	739.0	746.4	758.4	775.1	793.5	796.3	789.8	781.5	773.2	762.1	754.7
22.5°	759.3	769.5	788.0	807.4	808.3	792.6	775.1	761.2	748.3	735.3	721.5
25°	783.4	797.2	822.1	829.5	805.6	776.0	751.1	730.7	709.4	688.2	672.5
27.5°	812.9	833.3	858.2	837.0	789.8	748.3	714.1	683.6	655.9	626.4	608.8
30°	844.3	875.7	881.3	825.8	763.0	709.4	663.3	617.0	582.0	555.2	545.0
32.5°	882.2	922.9	889.6	806.5	727.0	656.8	594.9	539.5	509.9	493.3	488.7
35°	939.5	972.7	894.3	786.1	685.5	594.0	516.4	472.1	453.6	442.5	436.9
37.5°	1021.7	1020.8	893.3	761.2	637.4	525.6	453.6	422.2	407.3	398.1	388.0
40°	1117.8	1057.7	887.7	725.2	572.8	460.0	410.2	380.6	366.7	355.7	343.6
42.5°	1212.9	1082.7	872.1	671.6	492.3	413.0	378.8	352.0	337.2	325.2	308.5
45°	1295.2	1092.8	841.6	597.7	420.3	375.9	358.4	335.3	317.8	299.3	286.3
47.5°	1359.8	1091.0	792.6	510.9	372.3	350.2	341.8	326.1	304.8	281.7	265.1
50°	1414.3	1077.2	726.1	434.1	339.9	327.0	324.3	319.7	285.4	266.1	255.8
52.5°	1464.1	1056.8	655.0	382.5	312.2	301.2	306.7	302.1	278.0	261.5	251.2
55°	1532.6	1042.9	584.7	342.7	279.9	277.1	281.7	288.3	273.4	257.8	246.6
57.5°	1612.9	1050.4	531.2	298.4	249.4	251.2	267.0	276.2	268.8	252.2	241.1
60°	1705.3	1072.5	484.1	255.8	224.4	229.1	252.2	265.1	264.2	244.8	231.9
62.5°	1808.8	1095.6	409.3	223.5	203.3	210.6	234.7	251.2	254.0	237.4	221.7
63°	1829.0	1097.4	389.8	217.1	199.6	207.9	230.1	247.6	251.2	235.6	219.8
65°	1879.0	1080.8	314.0	199.6	184.7	194.0	216.1	231.9	239.3	225.4	212.5
67.5°	1837.4	945.0	236.5	178.3	172.8	179.2	198.7	213.4	219.8	213.4	200.5
70°	1680.4	687.3	184.7	158.9	159.8	164.4	179.2	193.0	200.5	198.7	186.6
72.5°	1353.4	389.8	154.3	142.3	145.1	150.6	160.7	173.7	180.1	179.2	170.9
75°	891.4	199.6	130.2	127.5	129.3	133.9	141.4	151.5	158.9	157.9	154.3
77.5°	441.6	138.6	111.8	112.7	113.6	117.3	122.9	132.1	136.8	137.7	136.8
80°	182.0	108.1	96.1	97.0	97.9	100.7	104.3	112.7	115.5	117.3	118.3
82.5°	109.0	82.2	76.7	78.6	79.5	82.2	85.0	92.4	95.1	97.9	97.9
85°	72.0	57.3	55.4	57.3	59.1	61.0	61.9	66.5	71.1	74.8	76.7
87.5°	38.8	34.2	33.2	34.2	34.2	36.0	37.8	42.5	48.1	51.8	53.6
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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CATALOG NUMBER: ARCH-M-AF48-40-D-U-T2U

CANDELA DISTRIBUTION (continued):

	160°	165°	170°	175°	180°
0°	597.7	597.7	597.7	597.7	597.7
2.5°	612.4	613.4	612.4	613.4	614.3
5°	642.9	644.8	643.8	643.8	647.5
7.5°	678.0	681.8	681.8	683.6	685.5
10°	716.0	719.6	722.4	722.4	725.2
12.5°	753.8	755.7	758.4	758.4	758.4
15°	773.2	772.3	771.4	770.4	770.4
17.5°	770.4	766.7	764.9	763.0	763.9
20°	750.1	743.7	741.8	739.0	740.8
22.5°	715.0	705.7	702.1	697.4	699.3
25°	662.4	651.3	649.4	643.8	646.6
27.5°	601.4	595.9	594.9	594.0	598.6
30°	544.1	545.9	546.9	548.7	553.3
32.5°	491.4	495.1	496.0	496.9	503.5
35°	439.8	435.1	439.8	437.8	443.4
37.5°	383.4	379.7	375.9	371.3	375.0
40°	336.2	329.8	318.8	313.1	314.0
42.5°	299.3	291.0	281.7	276.2	276.2
45°	275.3	265.1	256.8	253.1	253.1
47.5°	256.8	252.2	247.6	244.8	244.8
50°	249.4	243.9	241.1	239.3	239.3
52.5°	243.9	238.3	235.6	233.7	231.9
55°	239.3	231.0	228.2	227.3	227.3
57.5°	232.8	225.4	221.7	220.8	220.8
60°	222.6	217.1	213.4	212.5	212.5
62.5°	212.5	206.9	203.3	203.3	203.3
63°	210.6	204.2	201.4	201.4	201.4
65°	202.3	195.8	193.0	193.0	192.1
67.5°	191.2	184.7	182.9	182.9	181.1
70°	178.3	172.8	170.9	171.9	168.2
72.5°	165.3	159.8	157.0	157.0	153.3
75°	150.6	145.1	141.4	140.5	136.8
77.5°	133.9	129.3	125.6	121.9	120.1
80°	116.4	112.7	108.1	105.3	102.5
82.5°	97.9	94.2	91.5	95.1	81.3
85°	76.7	72.9	69.3	74.8	58.2
87.5°	56.4	54.5	50.8	44.3	38.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)