

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: P258166

Luminaire Tested: **ARCH-M-AF48-60-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258166
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-AF48-60-D-U-T2U-7030
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 3000K, 405mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8387.8 lumens
Efficiency: N/A
Efficacy: 133.1 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

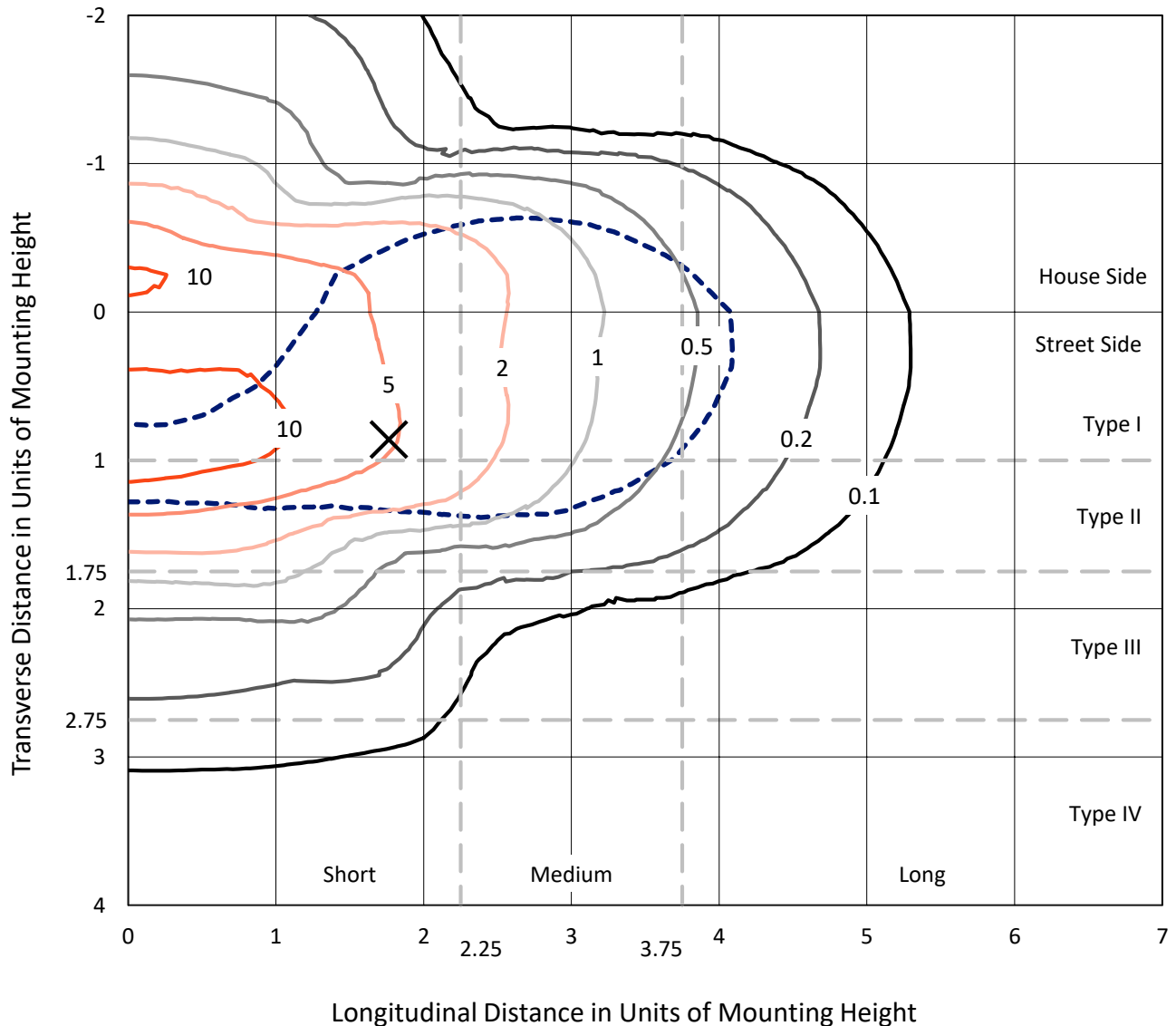
Input Watts (W): 63
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

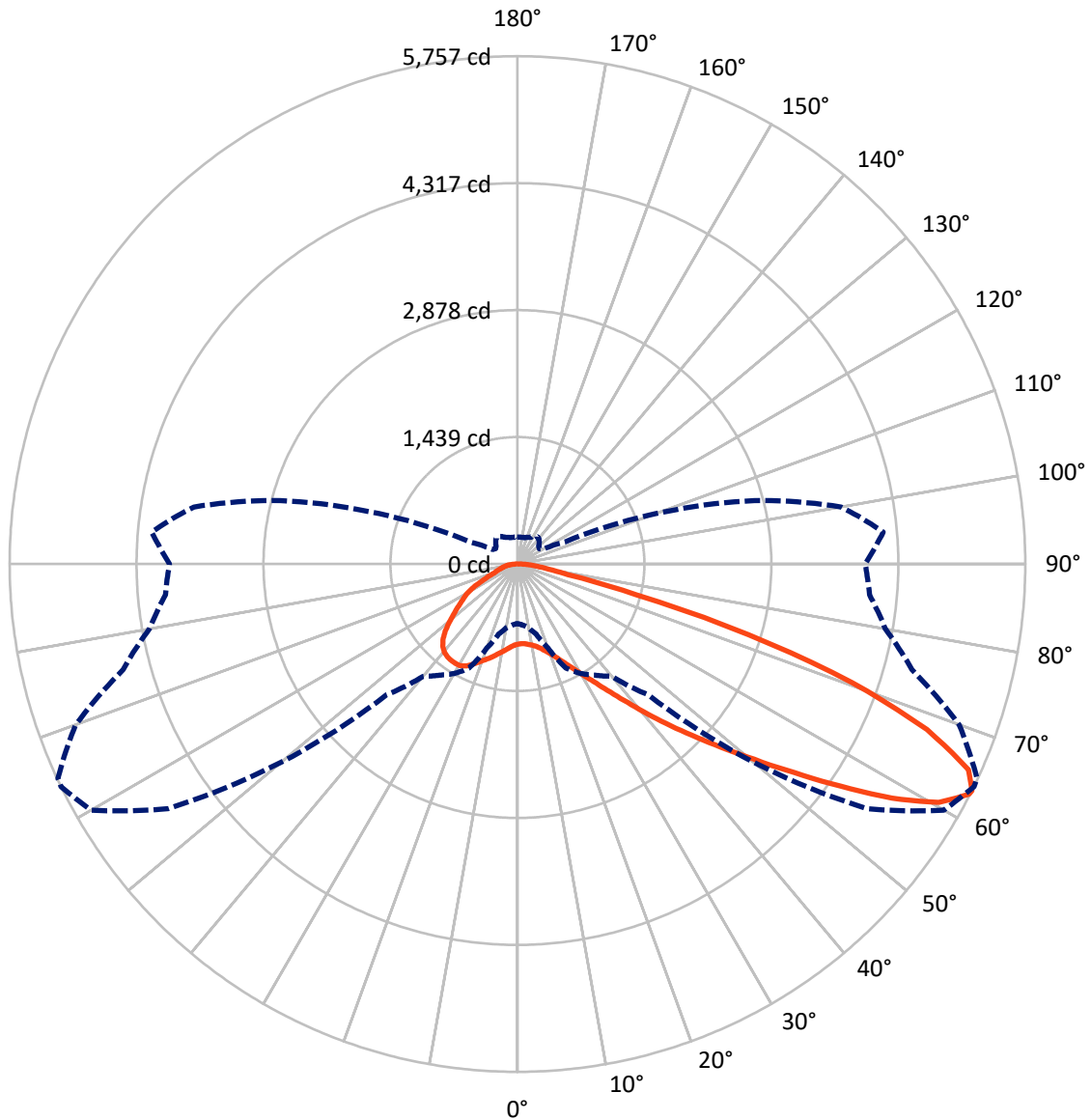
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14.7 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



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



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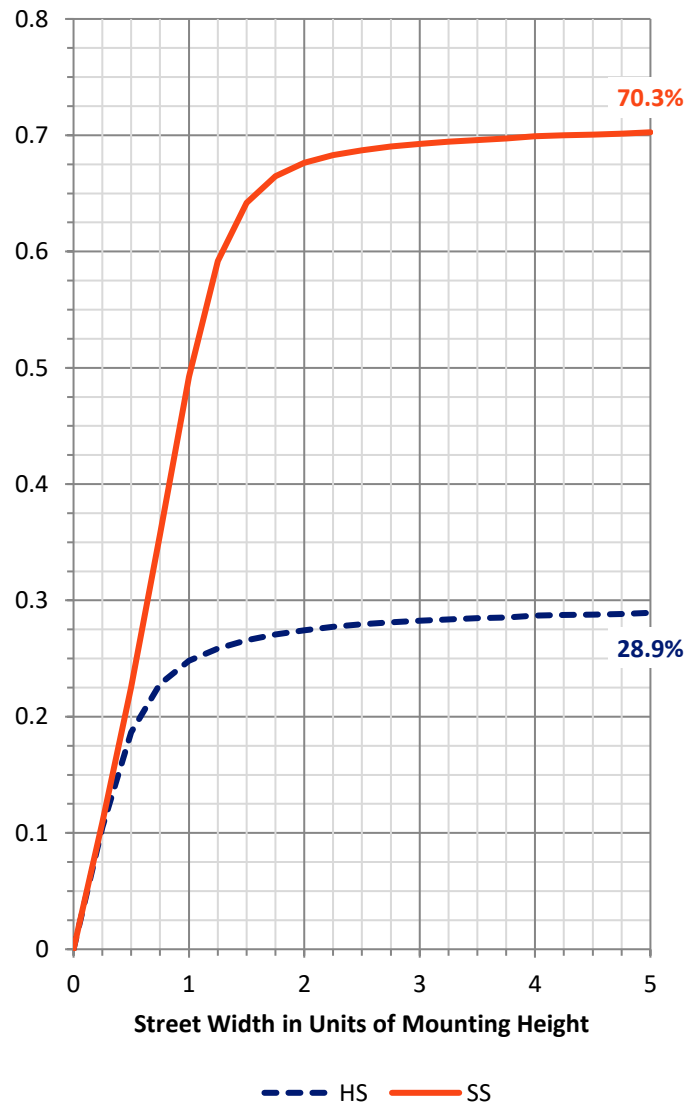
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2465.7	0.0	2465.7
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	5922.1	0.0	5922.1
	% Fixture	70.6	0.0	70.6
Total	Lumens	8387.8	0.0	8387.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	90.7	1.1
10°-20°	302.1	3.6
20°-30°	567.1	6.8
30°-40°	950.4	11.3
40°-50°	1594.6	19.0
50°-60°	2021.5	24.1
60°-70°	1783.3	21.3
70°-80°	920.6	11.0
80°-90°	157.5	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°	8387.8	100.0
0°-180°	8387.8	100.0



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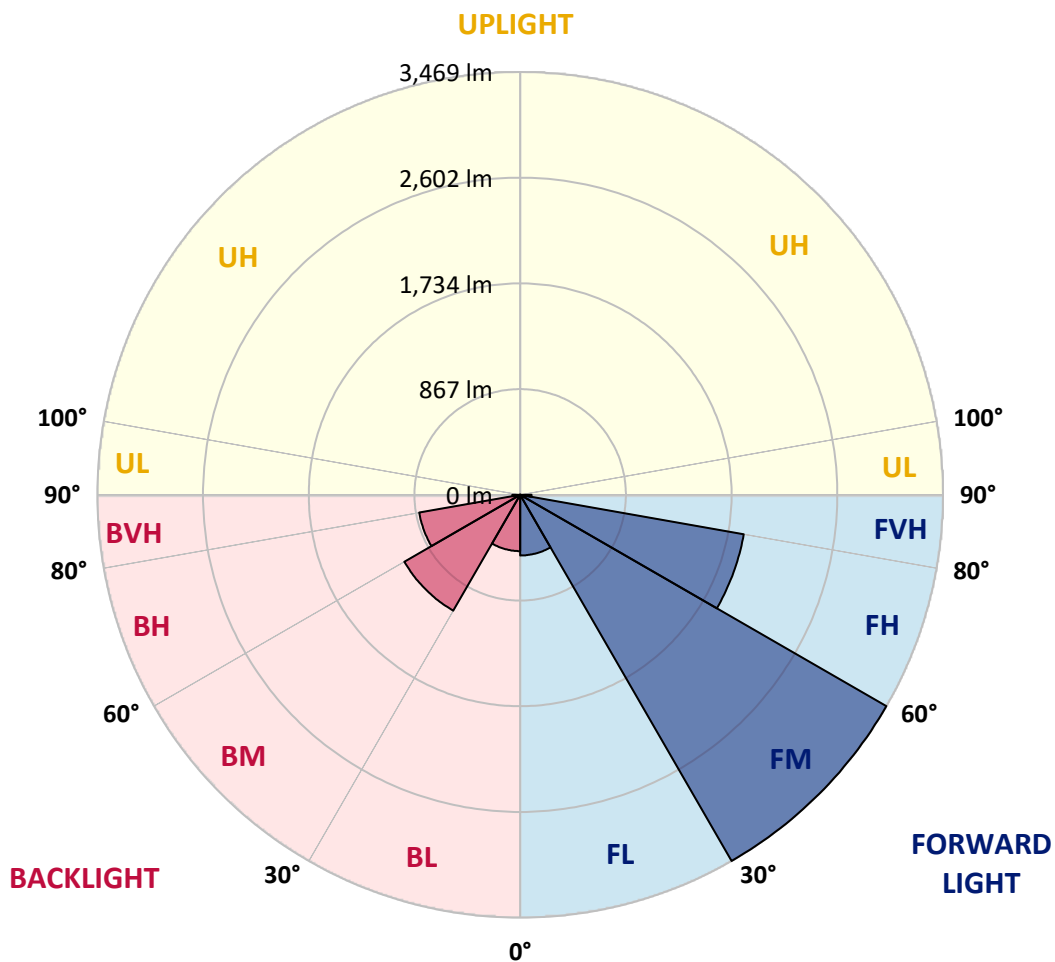
CATALOG NUMBER: ARCH-M-AF48-60-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	497.8	5.9			
FM (30°-60°)	3469.0	41.4			
FH (60°-80°)	1862.6	22.2			G2/5000
FVH (80°-90°)	92.7	1.1			G1/100
BL (0°-30°)	462.0	5.5	B1/500		
BM (30°-60°)	1097.6	13.1	B2/2500		
BH (60°-80°)	841.3	10.0	B2/1000		G2/1000
BVH (80°-90°)	64.8	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°	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4
2.5°	902.8	901.4	901.4	901.4	901.4	900.0	901.4	904.2	902.8	901.4	904.2
5°	905.5	904.2	904.2	904.2	905.5	904.2	905.5	909.8	907.0	907.0	909.8
7.5°	912.7	911.2	912.7	911.2	911.2	911.2	912.7	916.8	915.4	916.8	921.0
10°	921.0	921.0	921.0	921.0	921.0	921.0	923.9	926.6	928.0	929.5	935.0
12.5°	946.3	946.3	946.3	944.9	944.9	940.7	946.3	949.1	951.9	954.7	959.0
15°	999.6	999.6	998.3	992.6	992.6	984.2	985.6	987.0	987.0	989.8	992.6
17.5°	1069.8	1068.4	1065.6	1061.5	1055.8	1045.9	1043.2	1040.3	1036.3	1034.8	1034.8
20°	1168.1	1166.8	1161.1	1149.9	1142.9	1127.4	1116.2	1104.9	1100.8	1093.6	1092.4
22.5°	1308.6	1308.6	1297.4	1280.4	1274.8	1242.6	1210.3	1186.4	1178.0	1168.1	1168.1
25°	1478.4	1477.0	1461.6	1441.9	1418.0	1384.4	1345.1	1312.8	1291.7	1269.3	1260.9
27.5°	1682.0	1677.7	1656.7	1632.9	1588.0	1545.8	1499.5	1465.8	1429.3	1401.2	1375.9
30°	1920.7	1916.5	1880.1	1835.0	1788.7	1746.6	1679.2	1638.5	1580.9	1547.2	1519.1
32.5°	2197.3	2193.1	2127.1	2083.6	2034.4	1982.5	1902.4	1837.8	1764.9	1717.1	1677.7
35°	2549.7	2532.8	2438.7	2378.3	2301.2	2249.2	2165.0	2077.9	1992.4	1924.9	1867.4
37.5°	2930.3	2910.5	2827.7	2737.8	2662.0	2598.8	2479.5	2370.0	2268.9	2176.2	2104.7
40°	3327.5	3275.6	3187.1	3121.1	3069.2	3008.8	2883.9	2768.7	2610.1	2506.2	2398.0
42.5°	3602.8	3552.1	3490.4	3446.9	3421.6	3375.2	3305.1	3205.3	3063.5	3066.4	2781.3
45°	3783.8	3709.5	3667.3	3670.1	3680.0	3680.0	3667.3	3651.9	3590.0	3632.3	3393.5
47.5°	3719.3	3670.1	3643.5	3699.6	3769.8	3840.0	3921.5	4010.0	4111.0	4230.3	3936.8
50°	3340.2	3358.4	3371.0	3490.4	3640.6	3800.7	3987.4	4228.9	4511.1	4565.8	4424.0
52.5°	2735.0	2774.3	2816.4	2998.9	3196.9	3473.6	3800.7	4199.4	4578.5	4801.7	4787.7
55°	2124.3	2173.3	2263.3	2399.5	2556.6	2817.9	3222.2	3837.1	4428.3	4783.5	4999.7
57.5°	1512.1	1583.7	1701.7	1891.2	2030.2	2177.6	2476.7	3159.0	3806.3	4467.6	4964.6
60°	1005.3	1038.9	1116.2	1352.1	1586.6	1740.9	1953.0	2200.1	2729.4	3640.6	4602.3
62.5°	713.3	735.8	783.4	890.1	1102.2	1381.6	1509.3	1623.0	1793.0	2341.9	3695.3
63°	673.9	693.6	732.9	822.7	1013.7	1302.9	1433.5	1537.4	1661.0	2094.8	3496.0
65°	558.8	567.3	588.3	631.8	734.3	974.4	1187.7	1251.0	1272.0	1346.4	2190.3
67.5°	471.8	477.4	484.3	497.0	537.8	648.7	886.0	966.0	942.2	891.5	1082.5
70°	409.9	414.2	425.4	440.9	454.9	483.0	609.3	728.6	702.0	633.1	662.6
72.5°	327.1	334.2	346.8	373.4	401.5	438.0	468.9	543.3	526.5	460.5	467.5
75°	258.3	262.6	273.8	293.5	320.1	362.2	422.7	447.9	401.5	339.8	339.8
77.5°	205.0	209.2	219.1	234.5	251.3	280.8	323.0	389.0	360.9	255.5	254.1
80°	154.5	158.7	168.5	182.6	199.4	220.4	245.8	275.3	331.4	238.7	190.9
82.5°	113.7	115.2	131.9	141.8	147.4	164.2	185.3	202.1	227.5	220.4	169.9
85°	85.7	84.2	95.5	102.4	103.9	108.0	120.7	137.5	148.8	143.2	131.9
87.5°	47.7	42.2	49.1	56.2	56.2	57.6	60.4	70.3	80.0	77.2	70.3
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°	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4
2.5°	904.2	904.2	902.8	902.8	904.2	904.2	902.8	907.0	909.8	909.8	911.2
5°	908.4	909.8	908.4	908.4	909.8	909.8	911.2	915.4	919.6	922.4	926.6
7.5°	921.0	922.4	921.0	921.0	922.4	923.9	926.6	932.3	935.0	940.7	947.8
10°	935.0	936.5	935.0	936.5	937.9	939.3	943.5	947.8	951.9	957.5	968.8
12.5°	960.4	961.7	959.0	960.4	964.5	964.5	967.4	970.2	977.3	984.2	995.5
15°	995.5	995.5	992.6	994.0	998.3	998.3	999.6	1002.5	1010.8	1019.3	1030.6
17.5°	1036.3	1038.9	1037.5	1038.9	1041.8	1043.2	1043.2	1045.9	1051.6	1057.2	1068.4
20°	1091.0	1092.4	1089.6	1092.4	1095.1	1092.4	1089.6	1088.1	1091.0	1093.6	1106.4
22.5°	1165.4	1163.9	1156.9	1156.9	1156.9	1151.3	1144.3	1135.9	1135.9	1131.6	1141.4
25°	1253.8	1249.6	1239.8	1241.1	1231.4	1222.9	1210.3	1197.6	1186.4	1182.1	1183.6
27.5°	1357.6	1349.3	1339.4	1336.7	1326.9	1311.3	1290.3	1266.5	1248.2	1234.1	1231.4
30°	1488.2	1470.0	1453.1	1450.3	1434.9	1409.7	1375.9	1343.7	1312.8	1288.9	1280.4
32.5°	1642.7	1614.7	1588.0	1585.2	1559.9	1526.2	1485.5	1440.5	1395.6	1357.6	1339.4
35°	1823.9	1781.7	1756.5	1749.5	1712.8	1670.8	1625.9	1568.3	1505.1	1451.7	1418.0
37.5°	2044.2	2000.7	1957.2	1958.6	1908.1	1858.9	1798.5	1728.4	1648.2	1573.9	1526.2
40°	2316.7	2254.9	2198.8	2186.1	2142.6	2073.7	2007.7	1926.4	1828.0	1729.8	1661.0
42.5°	2646.6	2545.5	2468.2	2457.0	2399.5	2315.2	2235.2	2127.1	2027.5	1908.1	1825.1
45°	3021.4	2860.0	2767.3	2750.5	2657.8	2572.2	2475.3	2360.1	2237.9	2103.2	2004.9
47.5°	3487.5	3257.3	3100.1	3072.1	2944.2	2831.9	2730.8	2603.0	2457.0	2306.8	2198.8
50°	4030.9	3691.1	3479.2	3435.6	3264.3	3132.4	3003.2	2843.2	2687.3	2530.0	2405.2
52.5°	4575.7	4210.7	3928.4	3875.1	3622.4	3445.5	3275.6	3115.5	2931.5	2775.7	2633.9
55°	5013.8	4770.8	4443.7	4369.3	4007.1	3766.9	3543.8	3361.3	3178.7	3055.1	2888.0
57.5°	5277.7	5265.1	5006.7	4904.2	4408.6	4053.4	3804.9	3597.2	3420.2	3368.3	3146.4
60°	5270.6	5597.8	5486.9	5409.7	4814.4	4346.9	4023.9	3799.3	3653.3	3712.2	3406.1
62.5°	4949.1	5611.9	5745.3	5724.2	5246.8	4582.7	4203.6	3972.0	3894.8	4070.2	3675.7
63°	4832.6	5579.6	5756.5	5748.0	5329.6	4627.6	4234.6	4005.7	3942.5	4161.4	3724.8
65°	4084.3	5297.3	5620.3	5658.2	5508.0	4782.1	4306.1	4091.3	4084.3	4365.1	3841.3
67.5°	2489.4	4476.1	5006.7	5079.7	5256.7	4831.2	4265.4	4061.8	4162.9	4394.6	3806.3
70°	1064.3	2954.1	4023.9	4141.8	4574.2	4586.9	4148.9	3941.1	4144.6	4164.3	3556.4
72.5°	630.4	1392.8	2739.2	2996.2	3619.5	3946.7	3882.1	3730.4	3904.6	3657.5	3028.4
75°	446.5	651.5	1391.4	1665.1	2520.2	3013.1	3261.5	3331.8	3324.8	2900.8	2273.1
77.5°	320.1	418.4	586.8	692.1	1406.8	1934.8	2237.9	2443.0	2377.1	1941.7	1401.2
80°	223.2	289.2	359.5	381.9	652.9	994.0	1179.4	1269.3	1229.9	970.2	627.5
82.5°	161.4	189.6	231.6	245.8	328.6	459.1	546.2	481.7	461.9	358.1	271.0
85°	125.0	122.2	144.7	150.2	192.3	240.1	245.8	190.9	167.0	148.8	151.7
87.5°	88.5	75.8	77.2	80.0	99.7	127.8	125.0	78.6	67.4	71.6	81.4
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°	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4	908.4
2.5°	914.1	915.4	918.3	919.6	922.4	922.4	925.2	926.6	929.5	932.3	933.6
5°	930.9	935.0	940.7	943.5	949.1	953.3	959.0	961.7	967.4	971.6	977.3
7.5°	956.1	963.1	970.2	978.6	987.0	994.0	999.6	1006.8	1016.5	1023.5	1027.7
10°	980.0	989.8	1002.5	1012.3	1025.0	1034.8	1043.2	1055.8	1067.0	1076.9	1082.5
12.5°	1010.8	1023.5	1036.3	1051.6	1068.4	1081.1	1093.6	1110.6	1126.0	1137.3	1142.9
15°	1047.4	1062.9	1076.9	1095.1	1114.8	1131.6	1149.9	1168.1	1179.4	1179.4	1176.6
17.5°	1085.3	1097.9	1114.8	1135.9	1162.5	1183.6	1193.4	1196.2	1192.0	1182.1	1175.2
20°	1123.1	1134.4	1152.6	1178.0	1206.0	1210.3	1200.4	1187.7	1175.2	1158.3	1147.1
22.5°	1154.1	1169.5	1197.6	1227.1	1228.5	1204.7	1178.0	1156.9	1137.3	1117.6	1096.5
25°	1190.6	1211.6	1249.6	1260.9	1224.2	1179.4	1141.4	1110.6	1078.3	1045.9	1022.1
27.5°	1235.5	1266.5	1304.3	1272.0	1200.4	1137.3	1085.3	1038.9	996.9	951.9	925.2
30°	1283.2	1331.0	1339.4	1255.2	1159.7	1078.3	1008.1	937.9	884.6	843.8	828.4
32.5°	1340.8	1402.6	1352.1	1225.7	1104.9	998.3	904.2	820.0	774.9	749.7	742.8
35°	1427.9	1478.4	1359.0	1194.9	1041.8	902.8	784.8	717.5	689.4	672.5	664.1
37.5°	1552.8	1551.5	1357.6	1156.9	968.8	798.9	689.4	641.7	619.2	605.1	589.7
40°	1698.9	1607.6	1349.3	1102.2	870.5	699.1	623.5	578.4	557.4	540.5	522.3
42.5°	1843.4	1645.6	1325.5	1020.7	748.3	627.5	575.7	535.0	512.4	494.2	468.9
45°	1968.5	1661.0	1279.1	908.4	638.8	571.4	544.7	509.7	483.0	454.9	435.3
47.5°	2066.7	1658.1	1204.7	776.4	565.9	532.1	519.5	495.6	463.4	428.2	402.9
50°	2149.5	1637.0	1103.5	659.9	516.7	497.0	492.8	485.7	433.9	404.4	389.0
52.5°	2225.4	1606.2	995.5	581.3	474.5	457.7	466.1	459.1	422.7	397.3	381.9
55°	2329.3	1585.2	888.8	520.8	425.4	421.2	428.2	438.0	415.6	391.7	374.9
57.5°	2451.4	1596.4	807.3	453.5	379.1	381.9	405.8	419.8	408.5	383.3	366.4
60°	2591.8	1630.0	735.8	389.0	341.2	348.2	383.3	402.9	401.5	372.0	352.4
62.5°	2749.1	1665.1	622.0	339.8	308.8	320.1	356.6	381.9	386.1	360.9	336.9
63°	2780.0	1668.0	592.5	330.0	303.3	315.9	349.6	376.3	381.9	358.1	334.2
65°	2855.8	1642.7	477.4	303.3	280.8	294.9	328.6	352.4	363.7	342.5	323.0
67.5°	2792.5	1436.3	359.5	271.0	262.6	272.4	301.9	324.3	334.2	324.3	304.8
70°	2553.9	1044.6	280.8	241.5	242.9	249.8	272.4	293.5	304.8	301.9	283.6
72.5°	2057.0	592.5	234.5	216.3	220.4	228.9	244.3	264.0	273.8	272.4	259.7
75°	1355.0	303.3	198.0	193.7	196.5	203.5	214.8	230.2	241.5	240.1	234.5
77.5°	671.1	210.7	169.9	171.3	172.7	178.3	186.8	200.8	207.8	209.2	207.8
80°	276.7	164.2	146.0	147.4	148.8	153.1	158.7	171.3	175.5	178.3	179.7
82.5°	165.6	125.0	116.6	119.3	120.7	125.0	129.2	140.4	144.7	148.8	148.8
85°	109.5	87.1	84.2	87.1	89.8	92.7	94.1	101.1	108.0	113.7	116.6
87.5°	59.0	51.9	50.6	51.9	51.9	54.7	57.6	64.6	72.9	78.6	81.4
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):

	160°	165°	170°	175°	180°
0°	908.4	908.4	908.4	908.4	908.4
2.5°	930.9	932.3	930.9	932.3	933.6
5°	977.3	980.0	978.6	978.6	984.2
7.5°	1030.6	1036.3	1036.3	1038.9	1041.8
10°	1088.1	1093.6	1097.9	1097.9	1102.2
12.5°	1145.7	1148.6	1152.6	1152.6	1152.6
15°	1175.2	1173.8	1172.4	1170.9	1170.9
17.5°	1170.9	1165.4	1162.5	1159.7	1161.1
20°	1140.0	1130.3	1127.4	1123.1	1126.0
22.5°	1086.7	1072.7	1067.0	1060.1	1062.9
25°	1006.8	989.8	987.0	978.6	982.8
27.5°	914.1	905.5	904.2	902.8	909.8
30°	827.0	829.9	831.1	833.9	841.0
32.5°	746.9	752.6	754.0	755.3	765.2
35°	668.3	661.3	668.3	665.5	673.9
37.5°	582.7	577.0	571.4	564.5	570.0
40°	511.2	501.3	484.3	476.0	477.4
42.5°	454.9	442.3	428.2	419.8	419.8
45°	418.4	402.9	390.3	384.7	384.7
47.5°	390.3	383.3	376.3	372.0	372.0
50°	379.1	370.6	366.4	363.7	363.7
52.5°	370.6	362.2	358.1	355.2	352.4
55°	363.7	351.0	346.8	345.4	345.4
57.5°	353.8	342.5	336.9	335.5	335.5
60°	338.3	330.0	324.3	323.0	323.0
62.5°	323.0	314.4	308.8	308.8	308.8
63°	320.1	310.3	306.0	306.0	306.0
65°	307.4	297.6	293.5	293.5	292.0
67.5°	290.6	280.8	277.9	277.9	275.3
70°	271.0	262.6	259.7	261.1	255.5
72.5°	251.3	242.9	238.7	238.7	233.0
75°	228.9	220.4	214.8	213.4	207.8
77.5°	203.5	196.5	190.9	185.3	182.6
80°	176.9	171.3	164.2	160.1	155.8
82.5°	148.8	143.2	139.0	144.7	123.6
85°	116.6	110.9	105.3	113.7	88.5
87.5°	85.7	82.8	77.2	67.4	59.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)