

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: P239168

Luminaire Tested: **ARCH-AF24-100-D-U-T2U-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239168
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-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 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: 7722 lumens
Efficiency: N/A
Efficacy: 80.4 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

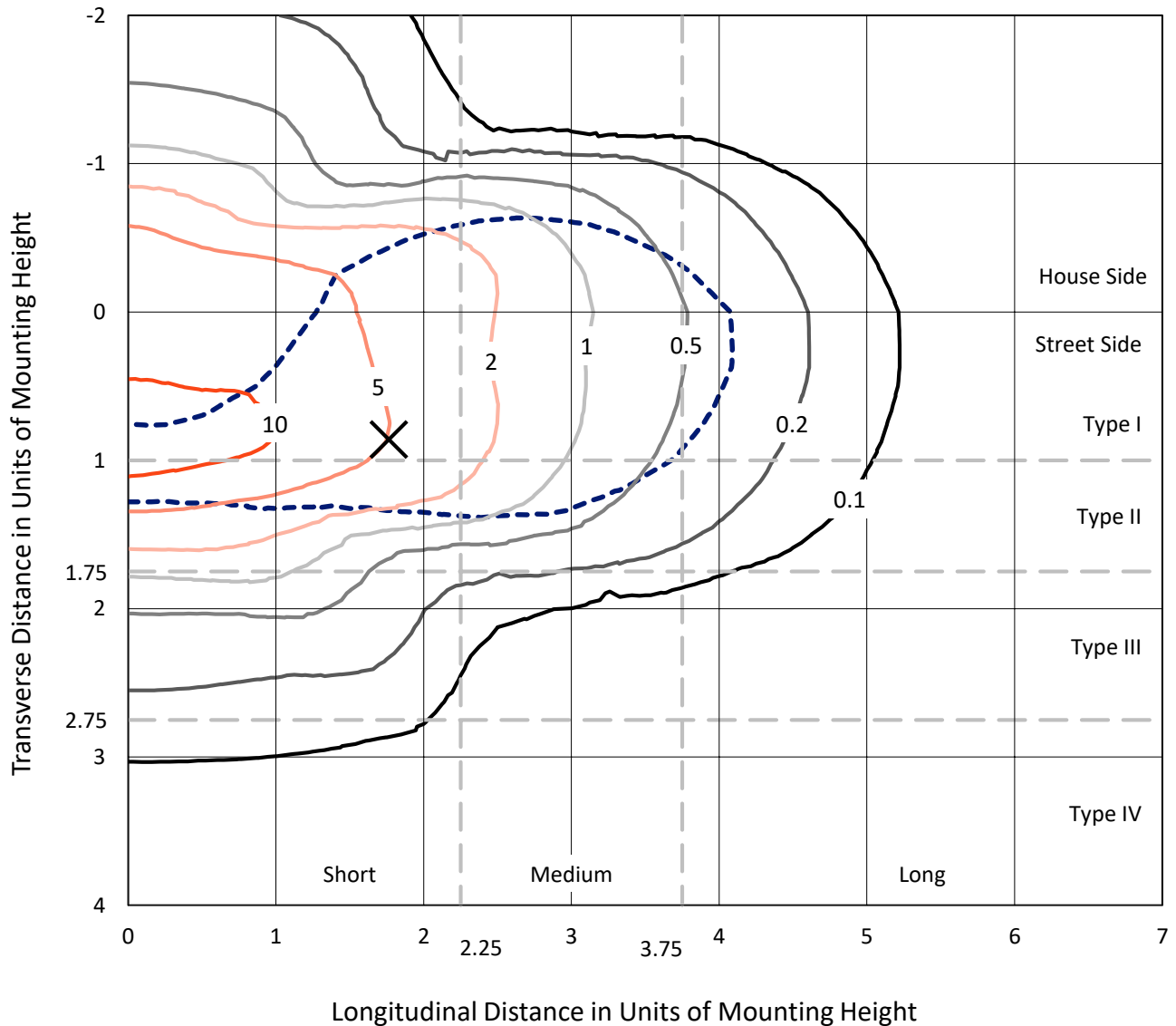
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

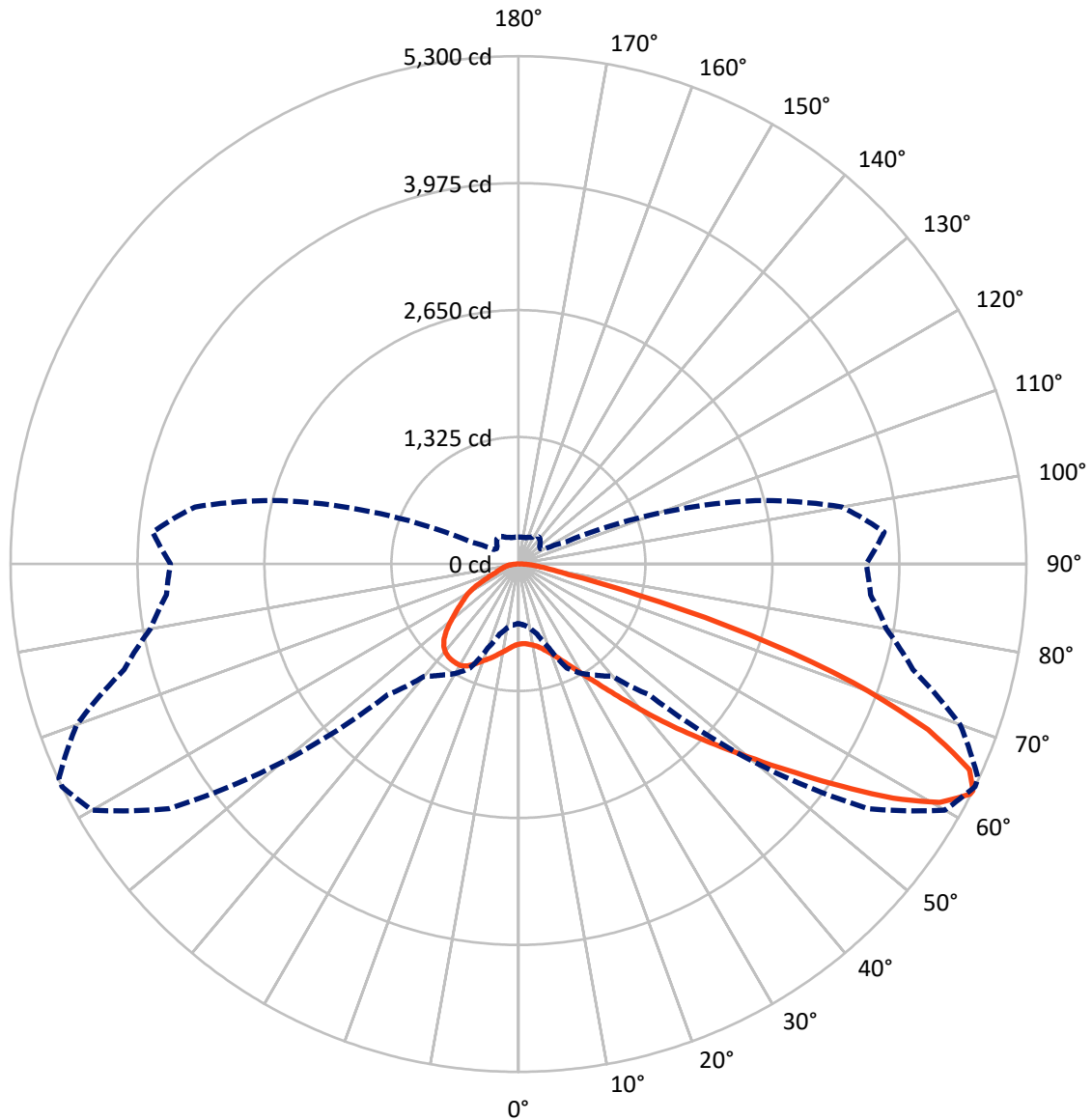
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.6 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	2270.0	0.0	2270.0
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	5452.0	0.0	5452.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	7722.0	0.0	7722.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	83.5	1.1
10°-20°	278.1	3.6
20°-30°	522.0	6.8
30°-40°	875.0	11.3
40°-50°	1468.1	19.0
50°-60°	1861.1	24.1
60°-70°	1641.7	21.3
70°-80°	847.5	11.0
80°-90°	145.0	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°	7722.0	100.0
0°-180°	7722.0	100.0



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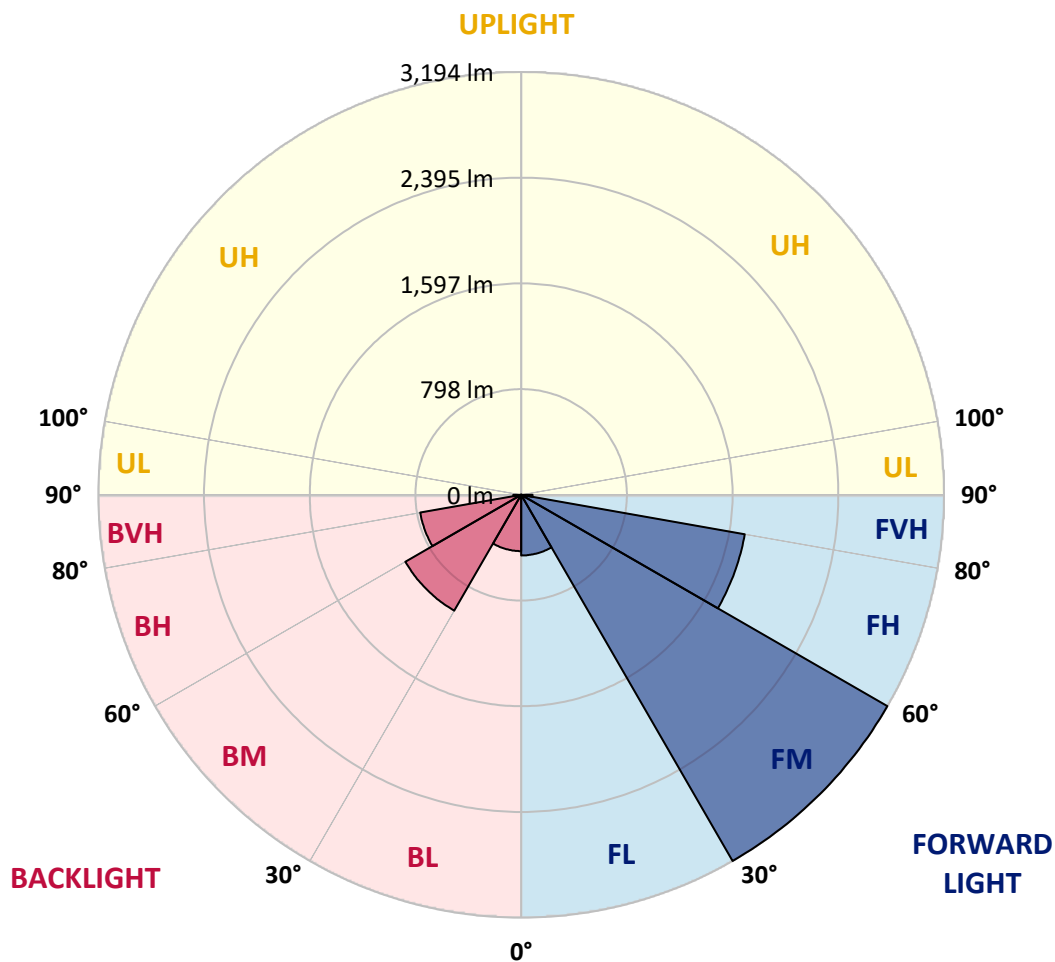
CATALOG NUMBER: ARCH-AF24-100-D-U-T2U-8027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	458.3	5.9			
FM	(30°-60°)	3193.6	41.4			
FH	(60°-80°)	1714.7	22.2			G1/1800
FVH	(80°-90°)	85.3	1.1			G1/100
BL	(0°-30°)	425.3	5.5	B1/500		
BM	(30°-60°)	1010.5	13.1	B2/2500		
BH	(60°-80°)	774.5	10.0	B2/1000		G2/1000
BVH	(80°-90°)	59.7	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





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3
2.5°	831.1	829.8	829.8	829.8	829.8	828.5	829.8	832.4	831.1	829.8	832.4
5°	833.7	832.4	832.4	832.4	833.7	832.4	833.7	837.6	835.0	835.0	837.6
7.5°	840.2	838.9	840.2	838.9	838.9	838.9	840.2	844.0	842.8	844.0	847.9
10°	847.9	847.9	847.9	847.9	847.9	847.9	850.5	853.1	854.4	855.7	860.8
12.5°	871.2	871.2	871.2	869.9	869.9	866.0	871.2	873.8	876.4	878.9	882.8
15°	920.3	920.3	919.0	913.8	913.8	906.1	907.4	908.7	908.7	911.3	913.8
17.5°	984.9	983.6	981.1	977.2	972.0	963.0	960.4	957.8	953.9	952.6	952.6
20°	1075.4	1074.1	1069.0	1058.6	1052.1	1037.9	1027.6	1017.2	1013.4	1006.9	1005.6
22.5°	1204.7	1204.7	1194.3	1178.8	1173.6	1143.9	1114.2	1092.2	1084.5	1075.4	1075.4
25°	1361.1	1359.8	1345.6	1327.5	1305.5	1274.5	1238.3	1208.5	1189.2	1168.5	1160.7
27.5°	1548.5	1544.6	1525.2	1503.3	1461.9	1423.1	1380.5	1349.4	1315.8	1290.0	1266.7
30°	1768.2	1764.4	1730.7	1689.4	1646.7	1608.0	1545.9	1508.4	1455.4	1424.4	1398.6
32.5°	2022.9	2019.0	1958.2	1918.2	1872.9	1825.1	1751.4	1692.0	1624.8	1580.8	1544.6
35°	2347.3	2331.8	2245.2	2189.6	2118.5	2070.7	1993.1	1913.0	1834.1	1772.1	1719.1
37.5°	2697.6	2679.5	2603.2	2520.5	2450.7	2392.5	2282.7	2181.8	2088.8	2003.5	1937.6
40°	3063.4	3015.6	2934.1	2873.4	2825.5	2770.0	2654.9	2548.9	2402.9	2307.2	2207.7
42.5°	3316.7	3270.2	3213.3	3173.2	3150.0	3107.3	3042.7	2950.9	2820.4	2823.0	2560.6
45°	3483.5	3415.0	3376.2	3378.8	3387.8	3387.8	3376.2	3362.0	3305.1	3343.9	3124.1
47.5°	3424.0	3378.8	3354.2	3405.9	3470.5	3535.2	3610.1	3691.6	3784.6	3894.5	3624.4
50°	3075.0	3091.8	3103.4	3213.3	3351.6	3499.0	3670.9	3893.2	4153.0	4203.4	4072.9
52.5°	2517.9	2554.1	2592.9	2760.9	2943.2	3197.8	3499.0	3866.1	4215.1	4420.6	4407.6
55°	1955.7	2000.9	2083.6	2209.0	2353.8	2594.2	2966.4	3532.6	4076.7	4403.8	4602.8
57.5°	1392.1	1458.0	1566.6	1741.1	1869.0	2004.8	2280.1	2908.3	3504.1	4112.9	4570.5
60°	925.5	956.5	1027.6	1244.7	1460.6	1602.8	1798.0	2025.4	2512.7	3351.6	4237.0
62.5°	656.6	677.3	721.3	819.5	1014.7	1271.9	1389.5	1494.2	1650.6	2156.0	3402.0
63°	620.4	638.5	674.7	757.4	933.2	1199.5	1319.7	1415.4	1529.1	1928.5	3218.5
65°	514.4	522.2	541.6	581.7	676.0	897.0	1093.5	1151.7	1171.1	1239.6	2016.4
67.5°	434.3	439.5	445.9	457.6	495.1	597.2	815.6	889.3	867.3	820.8	996.6
70°	377.4	381.3	391.6	405.9	418.8	444.6	561.0	670.8	646.3	582.9	610.1
72.5°	301.2	307.6	319.3	343.8	369.7	403.3	431.7	500.2	484.7	424.0	430.4
75°	237.8	241.7	252.1	270.1	294.7	333.5	389.1	412.3	369.7	312.8	312.8
77.5°	188.7	192.6	201.6	215.9	231.4	258.5	297.3	358.0	332.2	235.2	234.0
80°	142.2	146.1	155.1	168.0	183.5	202.9	226.2	253.3	305.0	219.7	175.8
82.5°	104.7	106.0	121.5	130.5	135.7	151.2	170.6	186.1	209.4	202.9	156.4
85°	78.8	77.6	87.9	94.4	95.6	99.5	111.2	126.7	137.0	131.8	121.5
87.5°	43.9	38.8	45.2	51.7	51.7	53.0	55.6	64.6	73.7	71.1	64.6
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3
2.5°	832.4	832.4	831.1	831.1	832.4	832.4	831.1	835.0	837.6	837.6	838.9
5°	836.3	837.6	836.3	836.3	837.6	837.6	838.9	842.8	846.6	849.2	853.1
7.5°	847.9	849.2	847.9	847.9	849.2	850.5	853.1	858.3	860.8	866.0	872.5
10°	860.8	862.1	860.8	862.1	863.4	864.7	868.6	872.5	876.4	881.5	891.9
12.5°	884.1	885.4	882.8	884.1	888.0	888.0	890.6	893.2	899.6	906.1	916.4
15°	916.4	916.4	913.8	915.1	919.0	919.0	920.3	922.9	930.6	938.4	948.7
17.5°	953.9	956.5	955.2	956.5	959.1	960.4	960.4	963.0	968.1	973.3	983.6
20°	1004.3	1005.6	1003.0	1005.6	1008.2	1005.6	1003.0	1001.7	1004.3	1006.9	1018.5
22.5°	1072.8	1071.5	1065.1	1065.1	1065.1	1059.9	1053.4	1045.7	1045.7	1041.8	1050.9
25°	1154.3	1150.4	1141.3	1142.6	1133.6	1125.8	1114.2	1102.6	1092.2	1088.3	1089.6
27.5°	1249.9	1242.2	1233.1	1230.5	1221.5	1207.3	1187.9	1165.9	1149.1	1136.2	1133.6
30°	1370.1	1353.3	1337.8	1335.2	1321.0	1297.7	1266.7	1237.0	1208.5	1186.6	1178.8
32.5°	1512.3	1486.4	1461.9	1459.3	1436.0	1405.0	1367.5	1326.2	1284.8	1249.9	1233.1
35°	1679.0	1640.3	1617.0	1610.5	1576.9	1538.2	1496.8	1443.8	1385.6	1336.5	1305.5
37.5°	1882.0	1841.9	1801.8	1803.1	1756.6	1711.4	1655.8	1591.1	1517.5	1449.0	1405.0
40°	2132.7	2075.9	2024.2	2012.5	1972.5	1909.1	1848.4	1773.4	1682.9	1592.4	1529.1
42.5°	2436.5	2343.4	2272.3	2262.0	2209.0	2131.4	2057.8	1958.2	1866.5	1756.6	1680.3
45°	2781.6	2633.0	2547.6	2532.1	2446.8	2368.0	2278.8	2172.8	2060.3	1936.3	1845.8
47.5°	3210.7	2998.8	2854.0	2828.1	2710.5	2607.1	2514.0	2396.4	2262.0	2123.7	2024.2
50°	3711.0	3398.2	3203.0	3162.9	3005.2	2883.7	2764.8	2617.4	2474.0	2329.2	2214.2
52.5°	4212.5	3876.4	3616.6	3567.5	3334.8	3172.0	3015.6	2868.2	2698.9	2555.4	2424.9
55°	4615.7	4392.1	4091.0	4022.5	3689.0	3468.0	3262.4	3094.4	2926.4	2812.6	2658.8
57.5°	4858.8	4847.1	4609.3	4514.9	4058.7	3731.6	3502.9	3311.6	3148.7	3100.9	2896.6
60°	4852.3	5153.5	5051.3	4980.3	4432.2	4001.8	3704.5	3497.7	3363.3	3417.5	3135.8
62.5°	4556.3	5166.4	5289.2	5269.8	4830.3	4218.9	3869.9	3656.7	3585.6	3747.1	3383.9
63°	4449.0	5136.7	5299.5	5291.8	4906.6	4260.3	3898.4	3687.7	3629.5	3831.2	3429.2
65°	3760.1	4876.8	5174.1	5209.0	5070.7	4402.5	3964.3	3766.5	3760.1	4018.6	3536.5
67.5°	2291.7	4120.7	4609.3	4676.5	4839.4	4447.7	3926.8	3739.4	3832.5	4045.7	3504.1
70°	979.8	2719.6	3704.5	3813.1	4211.2	4222.8	3819.5	3628.2	3815.7	3833.7	3274.1
72.5°	580.4	1282.2	2521.8	2758.3	3332.2	3633.4	3573.9	3434.3	3594.6	3367.1	2788.1
75°	411.0	599.8	1280.9	1533.0	2320.2	2773.8	3002.6	3067.3	3060.8	2670.4	2092.7
77.5°	294.7	385.2	540.3	637.2	1295.1	1781.2	2060.3	2249.1	2188.3	1787.6	1290.0
80°	205.5	266.3	330.9	351.6	601.0	915.1	1085.8	1168.5	1132.3	893.2	577.8
82.5°	148.6	174.5	213.3	226.2	302.5	422.7	502.8	443.3	425.3	329.6	249.5
85°	115.0	112.5	133.1	138.3	177.1	221.0	226.2	175.8	153.8	137.0	139.6
87.5°	81.4	69.8	71.1	73.7	91.8	117.6	115.0	72.4	62.0	65.9	75.0
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°	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3	836.3
2.5°	841.5	842.8	845.3	846.6	849.2	849.2	851.8	853.1	855.7	858.3	859.6
5°	857.0	860.8	866.0	868.6	873.8	877.7	882.8	885.4	890.6	894.5	899.6
7.5°	880.2	886.7	893.2	900.9	908.7	915.1	920.3	926.8	935.8	942.3	946.2
10°	902.2	911.3	922.9	931.9	943.6	952.6	960.4	972.0	982.3	991.4	996.6
12.5°	930.6	942.3	953.9	968.1	983.6	995.3	1006.9	1022.4	1036.6	1047.0	1052.1
15°	964.3	978.5	991.4	1008.2	1026.3	1041.8	1058.6	1075.4	1085.8	1085.8	1083.2
17.5°	999.2	1010.8	1026.3	1045.7	1070.2	1089.6	1098.7	1101.3	1097.4	1088.3	1081.9
20°	1034.1	1044.4	1061.2	1084.5	1110.3	1114.2	1105.1	1093.5	1081.9	1066.4	1056.0
22.5°	1062.5	1076.7	1102.6	1129.7	1131.0	1109.0	1084.5	1065.1	1047.0	1028.9	1009.5
25°	1096.1	1115.5	1150.4	1160.7	1127.1	1085.8	1050.9	1022.4	992.7	963.0	941.0
27.5°	1137.5	1165.9	1200.8	1171.1	1105.1	1047.0	999.2	956.5	917.7	876.4	851.8
30°	1181.4	1225.4	1233.1	1155.6	1067.7	992.7	928.1	863.4	814.3	776.8	762.6
32.5°	1234.4	1291.3	1244.7	1128.4	1017.2	919.0	832.4	754.9	713.5	690.2	683.8
35°	1314.5	1361.1	1251.2	1100.0	959.1	831.1	722.5	660.5	634.6	619.1	611.4
37.5°	1429.6	1428.3	1249.9	1065.1	891.9	735.5	634.6	590.7	570.0	557.1	542.9
40°	1564.0	1480.0	1242.2	1014.7	801.4	643.7	573.9	532.5	513.1	497.6	480.8
42.5°	1697.1	1514.9	1220.2	939.7	688.9	577.8	530.0	492.5	471.8	455.0	431.7
45°	1812.2	1529.1	1177.5	836.3	588.1	526.1	501.5	469.2	444.6	418.8	400.7
47.5°	1902.7	1526.5	1109.0	714.8	520.9	489.9	478.2	456.3	426.5	394.2	371.0
50°	1978.9	1507.1	1016.0	607.5	475.7	457.6	453.7	447.2	399.4	372.3	358.0
52.5°	2048.7	1478.7	916.4	535.1	436.9	421.4	429.1	422.7	389.1	365.8	351.6
55°	2144.4	1459.3	818.2	479.5	391.6	387.8	394.2	403.3	382.6	360.6	345.1
57.5°	2256.8	1469.6	743.2	417.5	349.0	351.6	373.6	386.5	376.1	352.9	337.4
60°	2386.1	1500.7	677.3	358.0	314.1	320.6	352.9	371.0	369.7	342.5	324.4
62.5°	2530.8	1533.0	572.6	312.8	284.4	294.7	328.3	351.6	355.5	332.2	310.2
63°	2559.3	1535.6	545.5	303.8	279.2	290.8	321.8	346.4	351.6	329.6	307.6
65°	2629.1	1512.3	439.5	279.2	258.5	271.4	302.5	324.4	334.8	315.4	297.3
67.5°	2570.9	1322.3	330.9	249.5	241.7	250.8	277.9	298.6	307.6	298.6	280.5
70°	2351.2	961.7	258.5	222.3	223.6	230.1	250.8	270.1	280.5	277.9	261.1
72.5°	1893.6	545.5	215.9	199.1	202.9	210.7	224.9	243.0	252.1	250.8	239.1
75°	1247.3	279.2	182.3	178.4	181.0	187.4	197.8	212.0	222.3	221.0	215.9
77.5°	617.8	193.9	156.4	157.7	159.0	164.2	171.9	184.8	191.3	192.6	191.3
80°	254.6	151.2	134.4	135.7	137.0	140.9	146.1	157.7	161.6	164.2	165.4
82.5°	152.5	115.0	107.3	109.9	111.2	115.0	118.9	129.3	133.1	137.0	137.0
85°	100.8	80.1	77.6	80.1	82.7	85.3	86.6	93.1	99.5	104.7	107.3
87.5°	54.3	47.8	46.5	47.8	47.8	50.4	53.0	59.5	67.2	72.4	75.0
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°	836.3	836.3	836.3	836.3	836.3
2.5°	857.0	858.3	857.0	858.3	859.6
5°	899.6	902.2	900.9	900.9	906.1
7.5°	948.7	953.9	953.9	956.5	959.1
10°	1001.7	1006.9	1010.8	1010.8	1014.7
12.5°	1054.7	1057.3	1061.2	1061.2	1061.2
15°	1081.9	1080.6	1079.3	1078.0	1078.0
17.5°	1078.0	1072.8	1070.2	1067.7	1069.0
20°	1049.6	1040.5	1037.9	1034.1	1036.6
22.5°	1000.4	987.5	982.3	975.9	978.5
25°	926.8	911.3	908.7	900.9	904.8
27.5°	841.5	833.7	832.4	831.1	837.6
30°	761.3	763.9	765.2	767.8	774.2
32.5°	687.6	692.8	694.1	695.4	704.4
35°	615.3	608.8	615.3	612.7	620.4
37.5°	536.4	531.2	526.1	519.6	524.8
40°	470.5	461.4	445.9	438.2	439.5
42.5°	418.8	407.2	394.2	386.5	386.5
45°	385.2	371.0	359.3	354.2	354.2
47.5°	359.3	352.9	346.4	342.5	342.5
50°	349.0	341.2	337.4	334.8	334.8
52.5°	341.2	333.5	329.6	327.0	324.4
55°	334.8	323.1	319.3	318.0	318.0
57.5°	325.7	315.4	310.2	308.9	308.9
60°	311.5	303.8	298.6	297.3	297.3
62.5°	297.3	289.5	284.4	284.4	284.4
63°	294.7	285.7	281.8	281.8	281.8
65°	283.1	274.0	270.1	270.1	268.9
67.5°	267.6	258.5	255.9	255.9	253.3
70°	249.5	241.7	239.1	240.4	235.2
72.5°	231.4	223.6	219.7	219.7	214.6
75°	210.7	202.9	197.8	196.5	191.3
77.5°	187.4	181.0	175.8	170.6	168.0
80°	162.9	157.7	151.2	147.4	143.5
82.5°	137.0	131.8	128.0	133.1	113.7
85°	107.3	102.1	96.9	104.7	81.4
87.5°	78.8	76.3	71.1	62.0	54.3
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)