

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: P239166

Luminaire Tested: **ARCH-AF24-80-D-U-T2U-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239166
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-AF24-80-D-U-T2U-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7131 lumens
Efficiency: N/A
Efficacy: 85.9 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

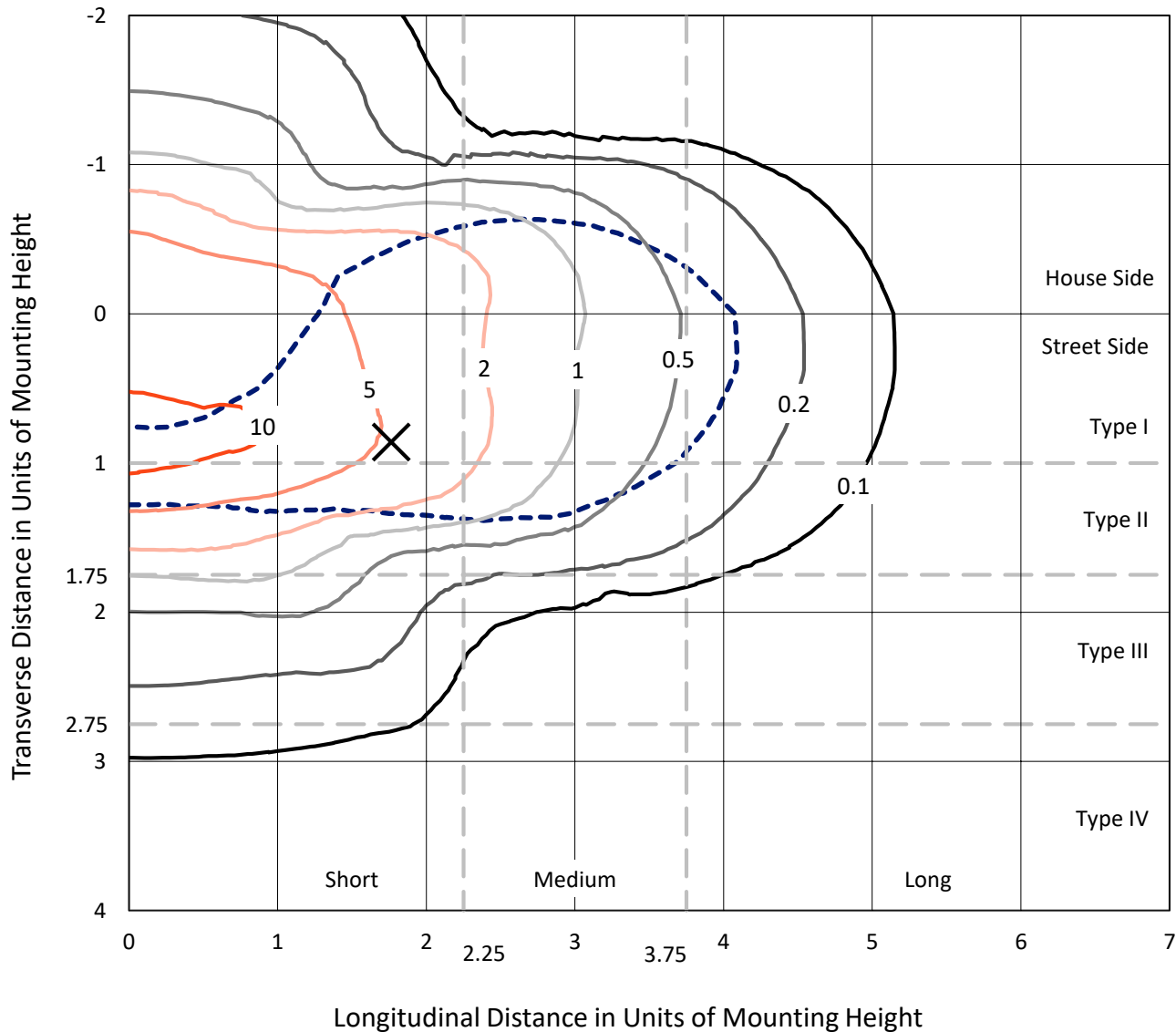
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

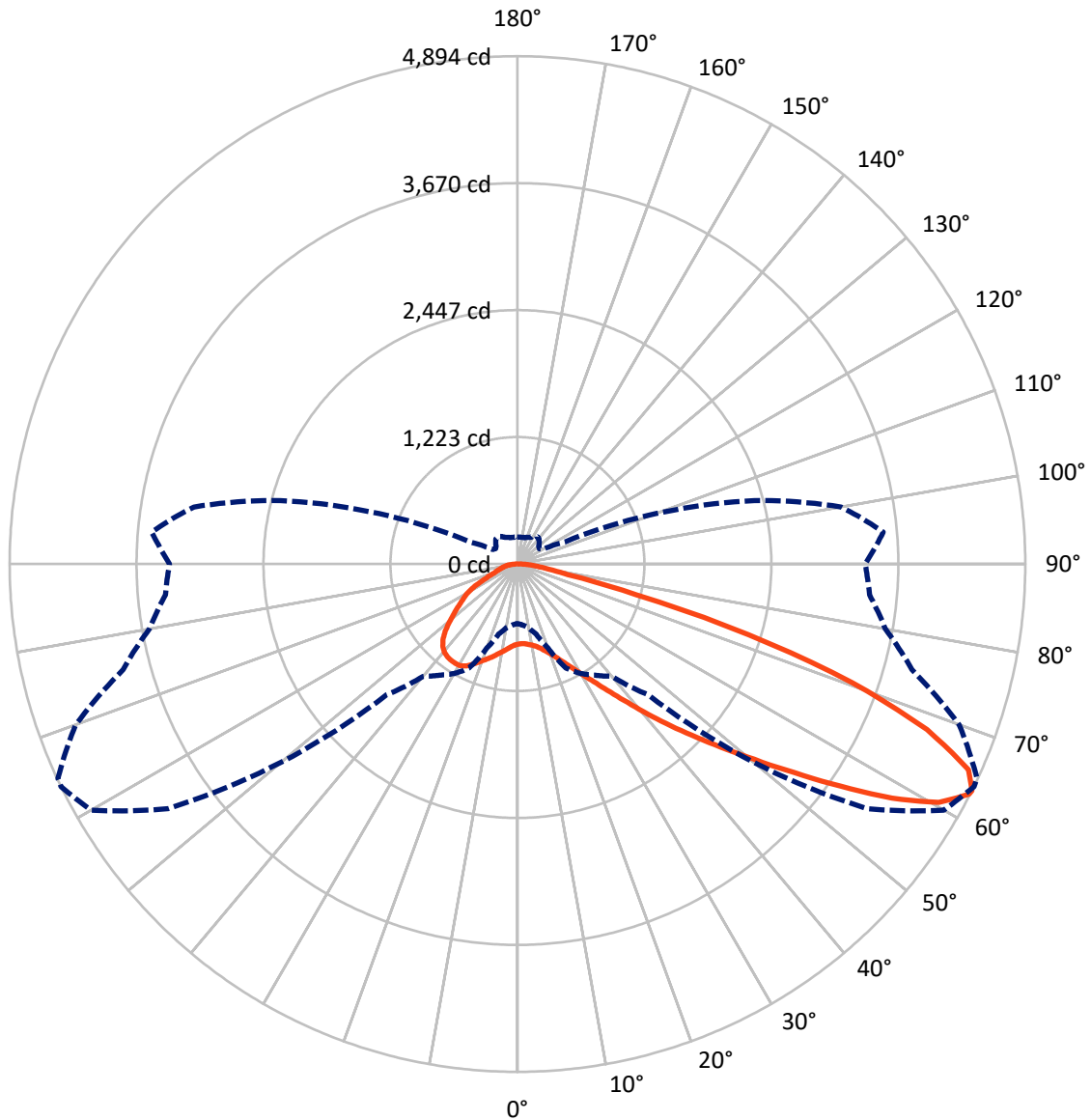
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 12.5 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	2096.3	0.0	2096.3
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	5034.7	0.0	5034.7
	% Fixture	70.6	0.0	70.6
Total	Lumens	7131.0	0.0	7131.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	77.1	1.1
10°-20°	256.8	3.6
20°-30°	482.1	6.8
30°-40°	808.0	11.3
40°-50°	1355.7	19.0
50°-60°	1718.6	24.1
60°-70°	1516.1	21.3
70°-80°	782.6	11.0
80°-90°	133.9	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°	7131.0	100.0
0°-180°	7131.0	100.0



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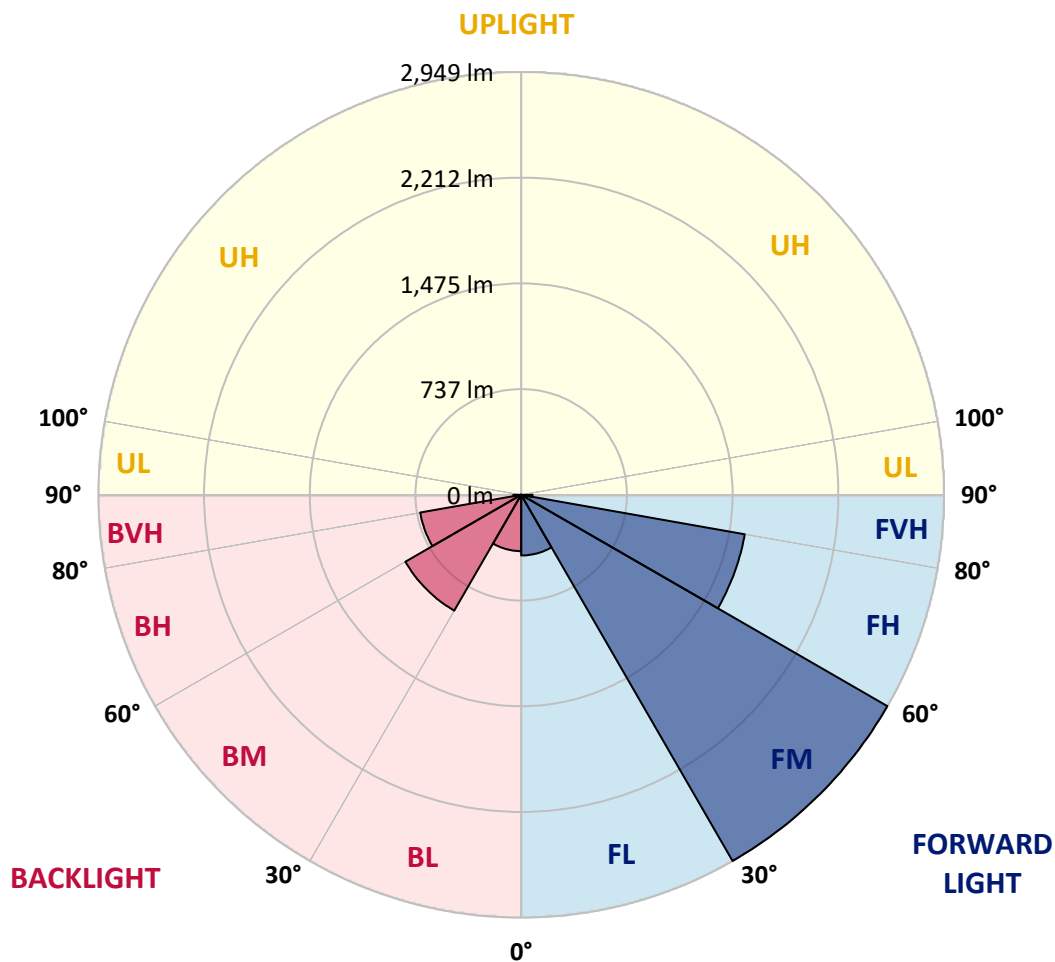
CATALOG NUMBER: ARCH-AF24-80-D-U-T2U-8027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	423.3	5.9			
FM	(30°-60°)	2949.2	41.4			
FH	(60°-80°)	1583.5	22.2			G1/1800
FVH	(80°-90°)	78.8	1.1			G1/100
BL	(0°-30°)	392.8	5.5	B1/500		
BM	(30°-60°)	933.2	13.1	B1/1000		
BH	(60°-80°)	715.2	10.0	B2/1000		G2/1000
BVH	(80°-90°)	55.1	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°	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3
2.5°	767.5	766.3	766.3	766.3	766.3	765.1	766.3	768.7	767.5	766.3	768.7
5°	769.9	768.7	768.7	768.7	769.9	768.7	769.9	773.5	771.1	771.1	773.5
7.5°	775.9	774.7	775.9	774.7	774.7	774.7	775.9	779.4	778.3	779.4	783.0
10°	783.0	783.0	783.0	783.0	783.0	783.0	785.4	787.8	789.0	790.2	795.0
12.5°	804.5	804.5	804.5	803.3	803.3	799.7	804.5	806.9	809.3	811.7	815.3
15°	849.9	849.9	848.7	843.9	843.9	836.7	837.9	839.1	839.1	841.5	843.9
17.5°	909.6	908.4	906.0	902.4	897.6	889.3	886.9	884.5	880.9	879.7	879.7
20°	993.1	991.9	987.1	977.6	971.6	958.5	948.9	939.4	935.8	929.8	928.7
22.5°	1112.5	1112.5	1102.9	1088.6	1083.8	1056.4	1028.9	1008.6	1001.5	993.1	993.1
25°	1256.9	1255.7	1242.6	1225.9	1205.6	1176.9	1143.5	1116.1	1098.1	1079.0	1071.9
27.5°	1430.0	1426.4	1408.5	1388.2	1350.0	1314.2	1274.8	1246.2	1215.1	1191.3	1169.8
30°	1632.9	1629.3	1598.3	1560.1	1520.7	1484.9	1427.6	1393.0	1344.0	1315.4	1291.5
32.5°	1868.0	1864.5	1808.4	1771.4	1729.6	1685.4	1617.4	1562.5	1500.4	1459.8	1426.4
35°	2167.6	2153.3	2073.4	2022.0	1956.4	1912.2	1840.6	1766.6	1693.8	1636.5	1587.5
37.5°	2491.1	2474.4	2404.0	2327.6	2263.1	2209.4	2108.0	2014.9	1928.9	1850.1	1789.3
40°	2828.9	2784.8	2709.6	2653.5	2609.3	2558.0	2451.7	2353.9	2219.0	2130.6	2038.7
42.5°	3062.9	3019.9	2967.4	2930.4	2908.9	2869.5	2809.8	2725.1	2604.5	2606.9	2364.6
45°	3216.9	3153.6	3117.8	3120.2	3128.5	3128.5	3117.8	3104.7	3052.1	3087.9	2885.0
47.5°	3161.9	3120.2	3097.5	3145.2	3204.9	3264.6	3333.8	3409.0	3495.0	3596.4	3347.0
50°	2839.7	2855.2	2865.9	2967.4	3095.1	3231.2	3389.9	3595.2	3835.2	3881.7	3761.2
52.5°	2325.2	2358.6	2394.4	2549.6	2717.9	2953.1	3231.2	3570.2	3892.5	4082.2	4070.3
55°	1806.0	1847.8	1924.1	2039.9	2173.6	2395.6	2739.4	3262.2	3764.7	4066.7	4250.5
57.5°	1285.5	1346.4	1446.7	1607.8	1726.0	1851.3	2105.6	2685.7	3236.0	3798.2	4220.7
60°	854.6	883.3	948.9	1149.5	1348.8	1480.1	1660.4	1870.4	2320.4	3095.1	3912.7
62.5°	606.4	625.5	666.1	756.8	937.0	1174.5	1283.2	1379.8	1524.3	1991.0	3141.7
63°	572.9	589.7	623.1	699.5	861.8	1107.7	1218.7	1307.0	1412.1	1780.9	2972.2
65°	475.1	482.2	500.1	537.1	624.3	828.4	1009.8	1063.5	1081.4	1144.7	1862.1
67.5°	401.1	405.8	411.8	422.5	457.2	551.5	753.2	821.2	800.9	758.0	920.3
70°	348.5	352.1	361.7	374.8	386.7	410.6	518.0	619.5	596.8	538.3	563.4
72.5°	278.1	284.1	294.8	317.5	341.4	372.4	398.7	461.9	447.6	391.5	397.5
75°	219.6	223.2	232.8	249.5	272.1	308.0	359.3	380.8	341.4	288.9	288.9
77.5°	174.3	177.9	186.2	199.3	213.7	238.7	274.5	330.6	306.8	217.2	216.0
80°	131.3	134.9	143.2	155.2	169.5	187.4	208.9	234.0	281.7	202.9	162.3
82.5°	96.7	97.9	112.2	120.6	125.3	139.7	157.6	171.9	193.4	187.4	144.4
85°	72.8	71.6	81.2	87.1	88.3	91.9	102.7	117.0	126.5	121.8	112.2
87.5°	40.6	35.8	41.8	47.7	47.7	48.9	51.3	59.7	68.0	65.7	59.7
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°	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3
2.5°	768.7	768.7	767.5	767.5	768.7	768.7	767.5	771.1	773.5	773.5	774.7
5°	772.3	773.5	772.3	772.3	773.5	773.5	774.7	778.3	781.8	784.2	787.8
7.5°	783.0	784.2	783.0	783.0	784.2	785.4	787.8	792.6	795.0	799.7	805.7
10°	795.0	796.2	795.0	796.2	797.4	798.5	802.1	805.7	809.3	814.1	823.6
12.5°	816.4	817.6	815.3	816.4	820.0	820.0	822.4	824.8	830.8	836.7	846.3
15°	846.3	846.3	843.9	845.1	848.7	848.7	849.9	852.3	859.4	866.6	876.1
17.5°	880.9	883.3	882.1	883.3	885.7	886.9	886.9	889.3	894.0	898.8	908.4
20°	927.5	928.7	926.3	928.7	931.0	928.7	926.3	925.1	927.5	929.8	940.6
22.5°	990.7	989.5	983.6	983.6	983.6	978.8	972.8	965.7	965.7	962.1	970.4
25°	1065.9	1062.3	1054.0	1055.2	1046.8	1039.7	1028.9	1018.2	1008.6	1005.0	1006.2
27.5°	1154.2	1147.1	1138.7	1136.3	1128.0	1114.9	1097.0	1076.7	1061.1	1049.2	1046.8
30°	1265.3	1249.7	1235.4	1233.0	1219.9	1198.4	1169.8	1142.3	1116.1	1095.8	1088.6
32.5°	1396.6	1372.7	1350.0	1347.6	1326.1	1297.5	1262.9	1224.7	1186.5	1154.2	1138.7
35°	1550.5	1514.7	1493.2	1487.3	1456.2	1420.4	1382.2	1333.3	1279.6	1234.2	1205.6
37.5°	1737.9	1700.9	1663.9	1665.1	1622.2	1580.4	1529.1	1469.4	1401.3	1338.1	1297.5
40°	1969.5	1917.0	1869.2	1858.5	1821.5	1763.0	1706.9	1637.7	1554.1	1470.6	1412.1
42.5°	2250.0	2164.1	2098.4	2088.9	2039.9	1968.3	1900.3	1808.4	1723.6	1622.2	1551.7
45°	2568.7	2431.4	2352.7	2338.3	2259.6	2186.7	2104.4	2006.5	1902.7	1788.1	1704.5
47.5°	2965.0	2769.2	2635.6	2611.7	2503.1	2407.6	2321.6	2213.0	2088.9	1961.1	1869.2
50°	3426.9	3138.1	2957.8	2920.8	2775.2	2663.0	2553.2	2417.1	2284.6	2150.9	2044.7
52.5°	3890.1	3579.7	3339.8	3294.4	3079.6	2929.2	2784.8	2648.7	2492.3	2359.8	2239.3
55°	4262.5	4056.0	3777.9	3714.6	3406.6	3202.5	3012.7	2857.6	2702.4	2597.4	2455.3
57.5°	4486.9	4476.1	4256.5	4169.4	3748.0	3446.0	3234.8	3058.1	2907.7	2863.5	2674.9
60°	4480.9	4759.0	4664.7	4599.1	4093.0	3695.5	3421.0	3230.0	3105.8	3156.0	2895.8
62.5°	4207.6	4771.0	4884.4	4866.5	4460.6	3896.0	3573.8	3376.8	3311.2	3460.4	3124.9
63°	4108.5	4743.5	4893.9	4886.8	4531.1	3934.2	3600.0	3405.5	3351.7	3537.9	3166.7
65°	3472.3	4503.6	4778.1	4810.4	4682.6	4065.5	3660.9	3478.3	3472.3	3711.0	3265.8
67.5°	2116.3	3805.3	4256.5	4318.6	4469.0	4107.3	3626.3	3453.2	3539.1	3736.1	3236.0
70°	904.8	2511.4	3421.0	3521.2	3888.9	3899.6	3527.2	3350.5	3523.6	3540.3	3023.5
72.5°	535.9	1184.1	2328.8	2547.2	3077.2	3355.3	3300.4	3171.5	3319.5	3109.4	2574.7
75°	379.6	553.8	1182.9	1415.7	2142.6	2561.5	2772.8	2832.5	2826.5	2466.1	1932.5
77.5°	272.1	355.7	498.9	588.5	1196.0	1644.8	1902.7	2076.9	2020.8	1650.8	1191.3
80°	189.8	245.9	305.6	324.7	555.0	845.1	1002.7	1079.0	1045.6	824.8	533.6
82.5°	137.3	161.1	197.0	208.9	279.3	390.3	464.3	409.4	392.7	304.4	230.4
85°	106.2	103.8	122.9	127.7	163.5	204.1	208.9	162.3	142.0	126.5	128.9
87.5°	75.2	64.5	65.7	68.0	84.7	108.6	106.2	66.8	57.3	60.9	69.2
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3	772.3
2.5°	777.1	778.3	780.6	781.8	784.2	784.2	786.6	787.8	790.2	792.6	793.8
5°	791.4	795.0	799.7	802.1	806.9	810.5	815.3	817.6	822.4	826.0	830.8
7.5°	812.9	818.8	824.8	832.0	839.1	845.1	849.9	855.8	864.2	870.2	873.7
10°	833.2	841.5	852.3	860.6	871.4	879.7	886.9	897.6	907.2	915.5	920.3
12.5°	859.4	870.2	880.9	894.0	908.4	919.1	929.8	944.2	957.3	966.8	971.6
15°	890.5	903.6	915.5	931.0	947.7	962.1	977.6	993.1	1002.7	1002.7	1000.3
17.5°	922.7	933.4	947.7	965.7	988.3	1006.2	1014.6	1017.0	1013.4	1005.0	999.1
20°	954.9	964.5	980.0	1001.5	1025.3	1028.9	1020.6	1009.8	999.1	984.8	975.2
22.5°	981.2	994.3	1018.2	1043.2	1044.4	1024.1	1001.5	983.6	966.8	950.1	932.2
25°	1012.2	1030.1	1062.3	1071.9	1040.9	1002.7	970.4	944.2	916.7	889.3	869.0
27.5°	1050.4	1076.7	1108.9	1081.4	1020.6	966.8	922.7	883.3	847.5	809.3	786.6
30°	1091.0	1131.6	1138.7	1067.1	985.9	916.7	857.0	797.4	752.0	717.4	704.2
32.5°	1139.9	1192.4	1149.5	1042.0	939.4	848.7	768.7	697.1	658.9	637.4	631.4
35°	1213.9	1256.9	1155.4	1015.8	885.7	767.5	667.2	609.9	586.1	571.8	564.6
37.5°	1320.2	1319.0	1154.2	983.6	823.6	679.2	586.1	545.5	526.4	514.5	501.3
40°	1444.3	1366.7	1147.1	937.0	740.1	594.4	530.0	491.8	473.9	459.6	444.0
42.5°	1567.2	1398.9	1126.8	867.8	636.2	533.6	489.4	454.8	435.7	420.2	398.7
45°	1673.5	1412.1	1087.4	772.3	543.1	485.8	463.1	433.3	410.6	386.7	370.0
47.5°	1757.0	1409.7	1024.1	660.1	481.0	452.4	441.6	421.4	393.9	364.1	342.6
50°	1827.5	1391.8	938.2	561.0	439.3	422.5	419.0	413.0	368.8	343.8	330.6
52.5°	1891.9	1365.5	846.3	494.2	403.4	389.1	396.3	390.3	359.3	337.8	324.7
55°	1980.2	1347.6	755.6	442.8	361.7	358.1	364.1	372.4	353.3	333.0	318.7
57.5°	2084.1	1357.2	686.3	385.5	322.3	324.7	345.0	356.9	347.3	325.9	311.5
60°	2203.5	1385.8	625.5	330.6	290.1	296.0	325.9	342.6	341.4	316.3	299.6
62.5°	2337.1	1415.7	528.8	288.9	262.6	272.1	303.2	324.7	328.3	306.8	286.5
63°	2363.4	1418.0	503.7	280.5	257.8	268.6	297.2	319.9	324.7	304.4	284.1
65°	2427.9	1396.6	405.8	257.8	238.7	250.7	279.3	299.6	309.2	291.2	274.5
67.5°	2374.1	1221.1	305.6	230.4	223.2	231.6	256.6	275.7	284.1	275.7	259.0
70°	2171.2	888.1	238.7	205.3	206.5	212.5	231.6	249.5	259.0	256.6	241.1
72.5°	1748.7	503.7	199.3	183.8	187.4	194.6	207.7	224.4	232.8	231.6	220.8
75°	1151.9	257.8	168.3	164.7	167.1	173.1	182.6	195.8	205.3	204.1	199.3
77.5°	570.6	179.0	144.4	145.6	146.8	151.6	158.8	170.7	176.7	177.9	176.7
80°	235.1	139.7	124.1	125.3	126.5	130.1	134.9	145.6	149.2	151.6	152.8
82.5°	140.8	106.2	99.1	101.5	102.7	106.2	109.8	119.4	122.9	126.5	126.5
85°	93.1	74.0	71.6	74.0	76.4	78.8	80.0	85.9	91.9	96.7	99.1
87.5°	50.1	44.2	43.0	44.2	44.2	46.6	48.9	54.9	62.1	66.8	69.2
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):

	160°	165°	170°	175°	180°
0°	772.3	772.3	772.3	772.3	772.3
2.5°	791.4	792.6	791.4	792.6	793.8
5°	830.8	833.2	832.0	832.0	836.7
7.5°	876.1	880.9	880.9	883.3	885.7
10°	925.1	929.8	933.4	933.4	937.0
12.5°	974.0	976.4	980.0	980.0	980.0
15°	999.1	997.9	996.7	995.5	995.5
17.5°	995.5	990.7	988.3	985.9	987.1
20°	969.2	960.9	958.5	954.9	957.3
22.5°	923.9	911.9	907.2	901.2	903.6
25°	855.8	841.5	839.1	832.0	835.5
27.5°	777.1	769.9	768.7	767.5	773.5
30°	703.1	705.4	706.6	709.0	715.0
32.5°	635.0	639.8	641.0	642.2	650.5
35°	568.2	562.2	568.2	565.8	572.9
37.5°	495.4	490.6	485.8	479.8	484.6
40°	434.5	426.1	411.8	404.6	405.8
42.5°	386.7	376.0	364.1	356.9	356.9
45°	355.7	342.6	331.8	327.1	327.1
47.5°	331.8	325.9	319.9	316.3	316.3
50°	322.3	315.1	311.5	309.2	309.2
52.5°	315.1	308.0	304.4	302.0	299.6
55°	309.2	298.4	294.8	293.6	293.6
57.5°	300.8	291.2	286.5	285.3	285.3
60°	287.7	280.5	275.7	274.5	274.5
62.5°	274.5	267.4	262.6	262.6	262.6
63°	272.1	263.8	260.2	260.2	260.2
65°	261.4	253.1	249.5	249.5	248.3
67.5°	247.1	238.7	236.3	236.3	234.0
70°	230.4	223.2	220.8	222.0	217.2
72.5°	213.7	206.5	202.9	202.9	198.1
75°	194.6	187.4	182.6	181.4	176.7
77.5°	173.1	167.1	162.3	157.6	155.2
80°	150.4	145.6	139.7	136.1	132.5
82.5°	126.5	121.8	118.2	122.9	105.0
85°	99.1	94.3	89.5	96.7	75.2
87.5°	72.8	70.4	65.7	57.3	50.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)