

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: P265979

Luminaire Tested: **ARCH-AF24-90-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265979
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-AF24-90-D-U-T2U-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1180mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8545.7 lumens
Efficiency: N/A
Efficacy: 90.9 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

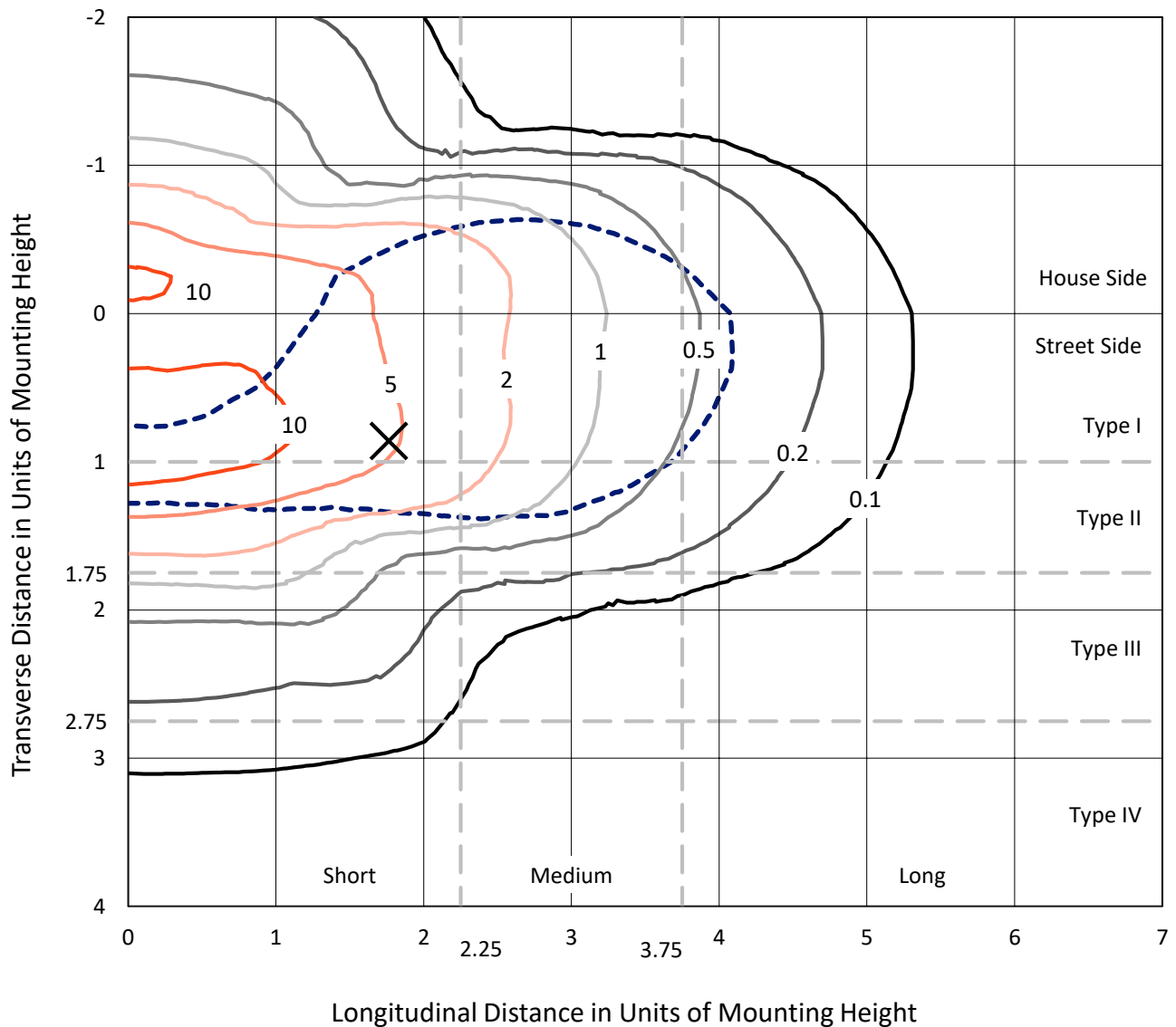
Input Watts (W): 94
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

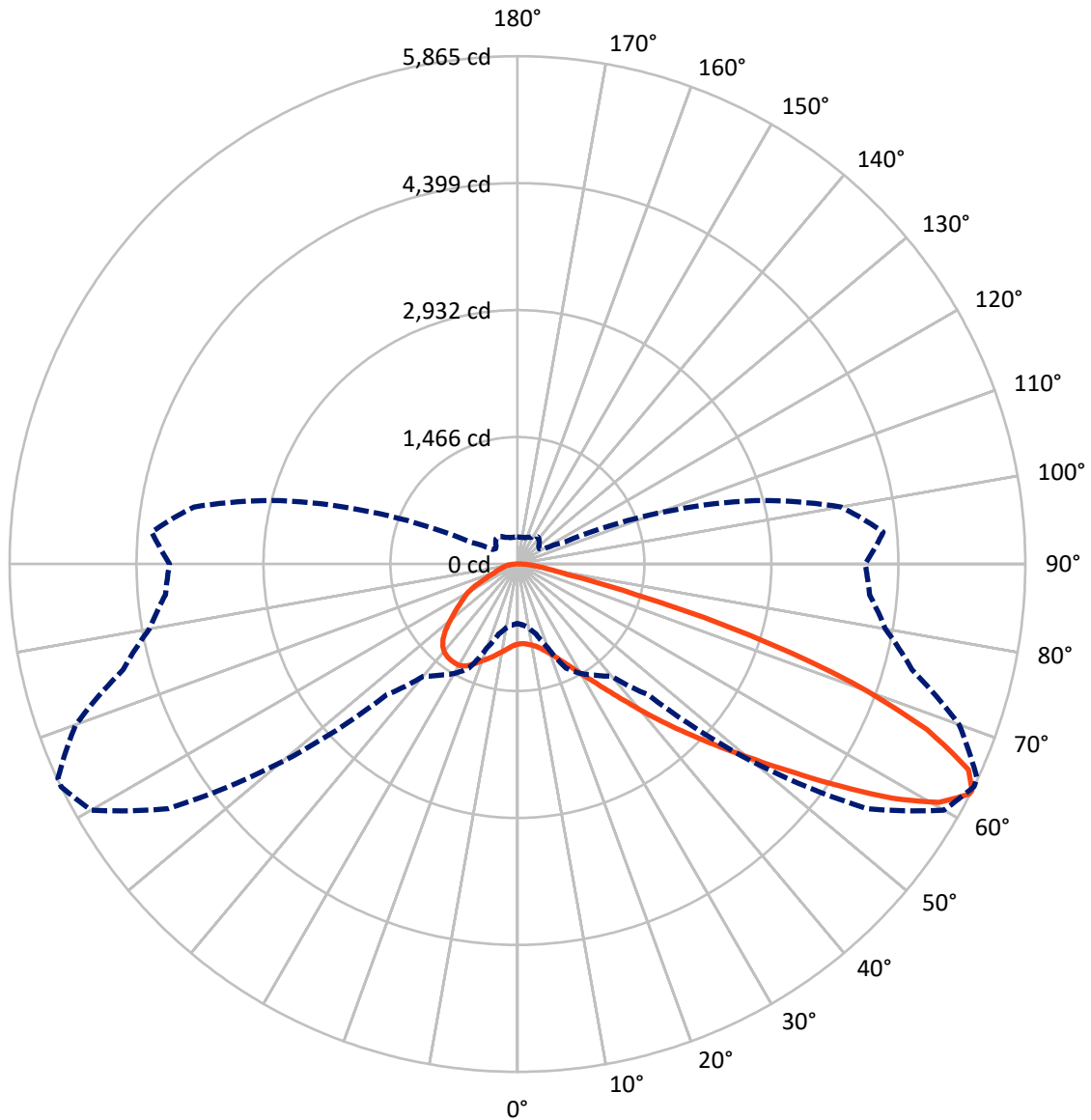
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15 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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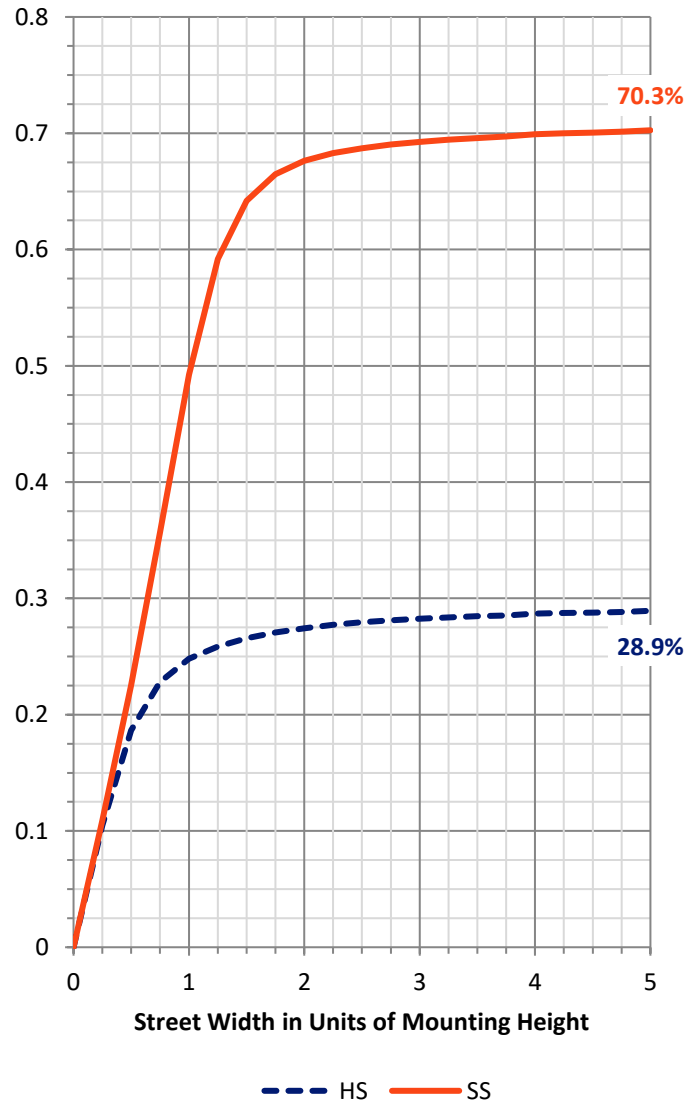
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2512.1	0.0	2512.1
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	6033.6	0.0	6033.6
	% Fixture	70.6	0.0	70.6
Total	Lumens	8545.7	0.0	8545.7
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	92.4	1.1
10°-20°	307.8	3.6
20°-30°	577.7	6.8
30°-40°	968.3	11.3
40°-50°	1624.7	19.0
50°-60°	2059.6	24.1
60°-70°	1816.9	21.3
70°-80°	937.9	11.0
80°-90°	160.5	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°	8545.7	100.0
0°-180°	8545.7	100.0



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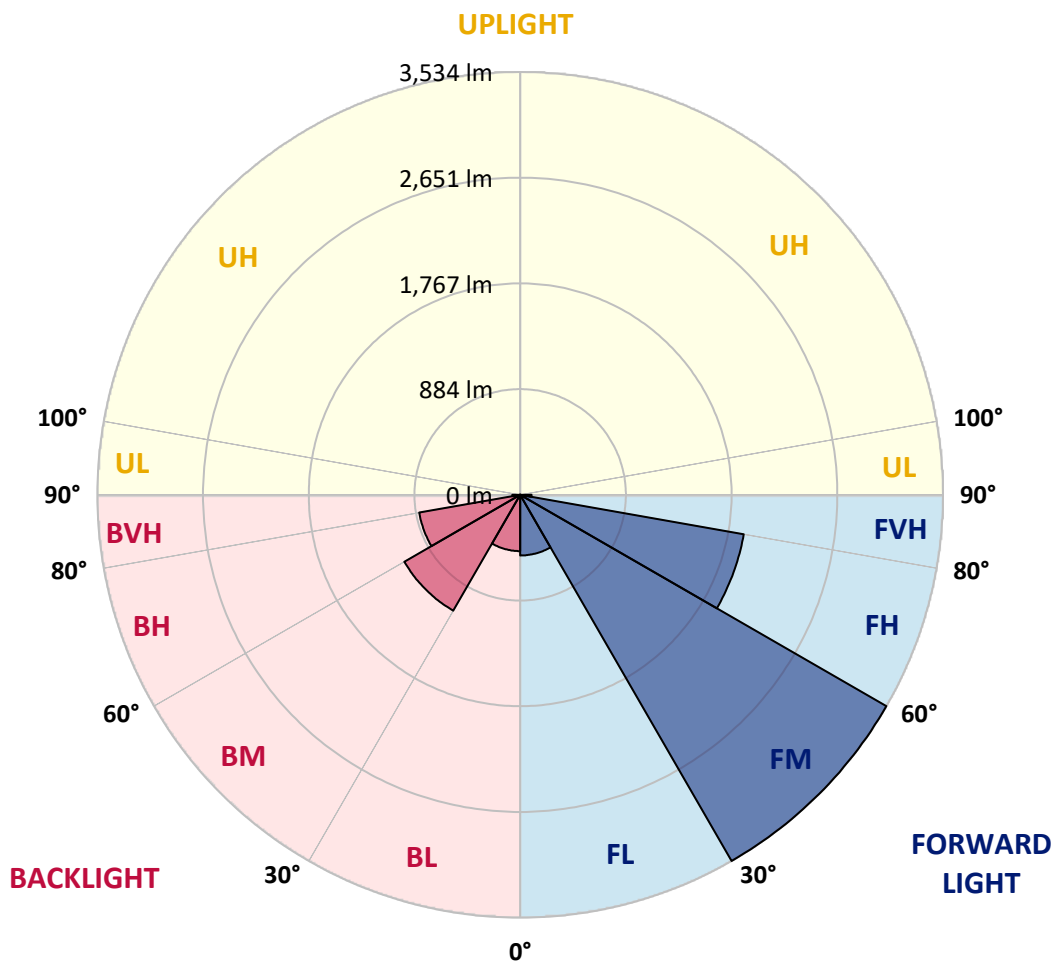
CATALOG NUMBER: ARCH-AF24-90-D-U-T2U-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	507.2	5.9			
FM	(30°-60°)	3534.3	41.4			
FH	(60°-80°)	1897.6	22.2			G2/5000
FVH	(80°-90°)	94.4	1.1			G1/100
BL	(0°-30°)	470.7	5.5	B1/500		
BM	(30°-60°)	1118.3	13.1	B2/2500		
BH	(60°-80°)	857.1	10.0	B2/1000		G2/1000
BVH	(80°-90°)	66.0	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°	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6
2.5°	919.8	918.3	918.3	918.3	918.3	916.9	918.3	921.2	919.8	918.3	921.2
5°	922.6	921.2	921.2	921.2	922.6	921.2	922.6	927.0	924.0	924.0	927.0
7.5°	929.7	928.4	929.7	928.4	928.4	928.4	929.7	934.1	932.7	934.1	938.4
10°	938.4	938.4	938.4	938.4	938.4	938.4	941.2	944.1	945.6	947.0	952.7
12.5°	964.2	964.2	964.2	962.8	962.8	958.4	964.2	966.9	969.8	972.8	976.9
15°	1018.5	1018.5	1017.1	1011.3	1011.3	1002.8	1004.1	1005.7	1005.7	1008.4	1011.3
17.5°	1090.1	1088.6	1085.7	1081.4	1075.7	1065.7	1062.9	1060.0	1055.7	1054.3	1054.3
20°	1190.2	1188.6	1183.0	1171.5	1164.5	1148.7	1137.3	1125.8	1121.4	1114.3	1112.9
22.5°	1333.2	1333.2	1321.8	1304.6	1298.9	1265.9	1233.1	1208.7	1200.1	1190.2	1190.2
25°	1506.3	1504.8	1489.1	1469.1	1444.7	1410.3	1370.4	1337.4	1315.9	1293.1	1284.5
27.5°	1713.6	1709.4	1687.9	1663.7	1617.8	1574.9	1527.7	1493.4	1456.2	1427.5	1401.8
30°	1956.9	1952.6	1915.4	1869.6	1822.4	1779.5	1710.8	1669.3	1610.8	1576.3	1547.8
32.5°	2238.7	2234.4	2167.2	2122.8	2072.7	2019.7	1938.3	1872.4	1798.0	1749.4	1709.4
35°	2597.7	2580.6	2484.7	2423.2	2344.4	2291.5	2205.8	2117.0	2029.8	1961.2	1902.5
37.5°	2985.3	2965.3	2881.0	2789.3	2712.2	2647.8	2526.2	2414.6	2311.6	2217.1	2144.3
40°	3390.2	3337.3	3247.2	3179.9	3127.0	3065.5	2938.1	2820.9	2659.3	2553.3	2443.2
42.5°	3670.6	3619.0	3556.1	3511.7	3486.1	3438.8	3367.2	3265.7	3121.3	3124.1	2833.8
45°	3855.0	3779.3	3736.3	3739.3	3749.3	3749.3	3736.3	3720.6	3657.7	3700.6	3457.3
47.5°	3789.3	3739.3	3712.1	3769.3	3840.8	3912.3	3995.2	4085.4	4188.3	4310.0	4011.0
50°	3403.0	3421.6	3434.5	3556.1	3709.1	3872.2	4062.4	4308.5	4596.1	4651.9	4507.3
52.5°	2786.5	2826.5	2869.5	3055.4	3257.2	3539.0	3872.2	4278.4	4664.7	4892.1	4877.8
55°	2164.2	2214.3	2305.9	2444.6	2604.8	2871.0	3282.9	3909.5	4511.6	4873.6	5093.7
57.5°	1540.7	1613.5	1733.6	1926.9	2068.4	2218.6	2523.2	3218.4	3878.0	4551.7	5058.0
60°	1024.2	1058.6	1137.3	1377.6	1616.4	1773.8	1989.7	2241.5	2780.9	3709.1	4689.1
62.5°	726.6	749.5	798.2	906.8	1122.9	1407.6	1537.7	1653.6	1826.8	2386.0	3764.9
63°	686.7	706.6	746.8	838.3	1032.8	1327.4	1460.5	1566.4	1692.2	2134.3	3561.8
65°	569.3	577.9	599.3	643.6	748.1	992.7	1210.1	1274.5	1296.0	1371.8	2231.5
67.5°	480.7	486.3	493.4	506.4	547.8	660.9	902.5	984.2	959.7	908.4	1102.8
70°	417.7	421.9	433.4	449.2	463.4	492.1	620.8	742.4	715.2	645.2	675.2
72.5°	333.4	340.5	353.4	380.5	409.1	446.3	477.8	553.5	536.4	469.2	476.3
75°	263.3	267.4	279.0	299.0	326.2	369.1	430.6	456.2	409.1	346.1	346.1
77.5°	208.9	213.2	223.1	238.9	256.0	286.1	329.0	396.2	367.6	260.4	258.9
80°	157.4	161.7	171.7	185.9	203.1	224.5	250.4	280.5	337.7	243.3	194.6
82.5°	115.9	117.3	134.4	144.4	150.1	167.4	188.9	206.0	231.8	224.5	173.2
85°	87.2	85.8	97.2	104.5	105.9	110.1	123.0	140.1	151.6	146.0	134.4
87.5°	48.7	42.8	50.0	57.2	57.2	58.7	61.5	71.5	81.6	78.7	71.5
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°	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6
2.5°	921.2	921.2	919.8	919.8	921.2	921.2	919.8	924.0	927.0	927.0	928.4
5°	925.6	927.0	925.6	925.6	927.0	927.0	928.4	932.7	936.9	939.7	944.1
7.5°	938.4	939.7	938.4	938.4	939.7	941.2	944.1	949.8	952.7	958.4	965.6
10°	952.7	954.1	952.7	954.1	955.5	957.0	961.2	965.6	969.8	975.6	987.0
12.5°	978.4	979.8	976.9	978.4	982.7	982.7	985.6	988.5	995.6	1002.8	1014.1
15°	1014.1	1014.1	1011.3	1012.7	1017.1	1017.1	1018.5	1021.4	1029.9	1038.5	1049.9
17.5°	1055.7	1058.6	1057.0	1058.6	1061.3	1062.9	1062.9	1065.7	1071.4	1077.2	1088.6
20°	1111.5	1112.9	1110.0	1112.9	1115.8	1112.9	1110.0	1108.6	1111.5	1114.3	1127.3
22.5°	1187.3	1185.9	1178.7	1178.7	1178.7	1172.9	1165.8	1157.2	1157.2	1153.0	1162.9
25°	1277.4	1273.1	1263.0	1264.5	1254.6	1245.9	1233.1	1220.2	1208.7	1204.4	1205.9
27.5°	1383.2	1374.6	1364.6	1361.8	1351.8	1336.0	1314.6	1290.2	1271.7	1257.4	1254.6
30°	1516.2	1497.7	1480.5	1477.6	1461.9	1436.2	1401.8	1368.9	1337.4	1313.1	1304.6
32.5°	1673.6	1645.1	1617.8	1615.1	1589.2	1554.8	1513.5	1467.7	1421.8	1383.2	1364.6
35°	1858.1	1815.2	1789.6	1782.3	1745.1	1702.3	1656.5	1597.8	1533.4	1479.1	1444.7
37.5°	2082.7	2038.4	1994.1	1995.4	1944.0	1893.9	1832.5	1760.9	1679.3	1603.6	1554.8
40°	2360.2	2297.3	2240.2	2227.2	2182.9	2112.8	2045.5	1962.5	1862.5	1762.4	1692.2
42.5°	2696.4	2593.3	2514.7	2503.2	2444.6	2358.8	2277.3	2167.2	2065.6	1944.0	1859.6
45°	3078.3	2913.8	2819.4	2802.3	2707.9	2620.5	2521.9	2404.7	2280.2	2142.7	2042.7
47.5°	3553.2	3318.7	3158.4	3129.9	2999.7	2885.3	2782.2	2652.1	2503.2	2350.2	2240.2
50°	4106.8	3760.7	3544.6	3500.3	3325.9	3191.4	3059.7	2896.7	2737.9	2577.6	2450.3
52.5°	4661.8	4289.9	4002.4	3948.1	3690.5	3510.3	3337.3	3174.3	2986.8	2828.0	2683.5
55°	5108.1	4860.6	4527.4	4451.6	4082.4	3837.9	3610.5	3424.5	3238.5	3112.6	2942.5
57.5°	5377.1	5364.1	5100.9	4996.6	4491.6	4129.7	3876.5	3664.8	3484.5	3431.6	3205.6
60°	5369.9	5703.2	5590.2	5511.6	4905.0	4428.6	4099.7	3870.7	3722.0	3782.1	3470.3
62.5°	5042.4	5717.5	5853.4	5831.9	5345.6	4669.0	4282.8	4046.8	3968.1	4146.8	3744.9
63°	4923.6	5684.7	5864.9	5856.3	5430.0	4714.8	4314.2	4081.1	4016.7	4239.9	3795.0
65°	4161.2	5397.0	5726.1	5764.8	5611.6	4872.0	4387.2	4168.3	4161.2	4447.2	3913.7
67.5°	2536.2	4560.2	5100.9	5175.3	5355.6	4922.3	4345.7	4138.3	4241.3	4477.3	3878.0
70°	1084.3	3009.7	4099.7	4219.9	4660.3	4673.3	4227.0	4015.2	4222.8	4242.8	3623.4
72.5°	642.3	1419.1	2790.9	3052.6	3687.7	4021.1	3955.1	3800.6	3978.1	3726.3	3085.5
75°	454.9	663.8	1417.5	1696.4	2567.6	3069.8	3322.9	3394.4	3387.2	2955.3	2315.9
77.5°	326.2	426.2	597.9	705.2	1433.3	1971.2	2280.2	2488.9	2421.7	1978.2	1427.5
80°	227.5	294.6	366.1	389.1	665.1	1012.7	1201.7	1293.1	1253.0	988.5	639.5
82.5°	164.5	193.1	236.1	250.4	334.7	467.7	556.4	490.7	470.6	364.7	276.0
85°	127.3	124.4	147.3	153.0	196.0	244.6	250.4	194.6	170.1	151.6	154.5
87.5°	90.1	77.3	78.7	81.6	101.6	130.2	127.3	80.0	68.7	72.9	83.0
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°	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6	925.6
2.5°	931.3	932.7	935.6	936.9	939.7	939.7	942.7	944.1	947.0	949.8	951.2
5°	948.4	952.7	958.4	961.2	966.9	971.2	976.9	979.8	985.6	989.8	995.6
7.5°	974.1	981.3	988.5	996.9	1005.7	1012.7	1018.5	1025.7	1035.7	1042.8	1047.1
10°	998.5	1008.4	1021.4	1031.3	1044.2	1054.3	1062.9	1075.7	1087.2	1097.2	1102.8
12.5°	1029.9	1042.8	1055.7	1071.4	1088.6	1101.4	1114.3	1131.4	1147.2	1158.6	1164.5
15°	1067.1	1082.8	1097.2	1115.8	1135.7	1153.0	1171.5	1190.2	1201.7	1201.7	1198.7
17.5°	1105.8	1118.6	1135.7	1157.2	1184.4	1205.9	1215.9	1218.7	1214.5	1204.4	1197.4
20°	1144.4	1155.8	1174.4	1200.1	1228.7	1233.1	1223.0	1210.1	1197.4	1180.2	1168.7
22.5°	1175.8	1191.5	1220.2	1250.3	1251.7	1227.4	1200.1	1178.7	1158.6	1138.6	1117.2
25°	1213.0	1234.5	1273.1	1284.5	1247.3	1201.7	1162.9	1131.4	1098.5	1065.7	1041.3
27.5°	1258.7	1290.2	1329.0	1296.0	1223.0	1158.6	1105.8	1058.6	1015.7	969.8	942.7
30°	1307.5	1356.1	1364.6	1278.8	1181.5	1098.5	1027.0	955.5	901.2	859.7	844.0
32.5°	1366.1	1429.1	1377.6	1248.7	1125.8	1017.1	921.2	835.3	789.6	763.9	756.7
35°	1454.7	1506.3	1384.6	1217.4	1061.3	919.8	799.6	731.0	702.4	685.1	676.7
37.5°	1582.1	1580.7	1383.2	1178.7	987.0	814.0	702.4	653.7	630.8	616.5	600.7
40°	1730.9	1637.9	1374.6	1122.9	886.8	712.4	635.1	589.4	567.9	550.8	532.2
42.5°	1878.1	1676.4	1350.3	1040.0	762.4	639.5	586.6	545.0	522.2	503.5	477.8
45°	2005.5	1692.2	1303.1	925.6	650.8	582.2	555.1	519.3	492.1	463.4	443.5
47.5°	2105.6	1689.4	1227.4	791.0	576.4	542.1	529.3	504.9	472.1	436.2	410.5
50°	2190.0	1668.0	1124.3	672.3	526.3	506.4	502.2	495.0	442.0	412.0	396.2
52.5°	2267.2	1636.4	1014.1	592.3	483.5	466.3	474.9	467.7	430.6	404.9	389.1
55°	2373.1	1615.1	905.5	530.7	433.4	429.1	436.2	446.3	423.5	399.0	381.9
57.5°	2497.6	1626.4	822.5	462.1	386.2	389.1	413.4	427.8	416.3	390.6	373.3
60°	2640.6	1660.7	749.5	396.2	347.6	354.7	390.6	410.5	409.1	379.1	359.1
62.5°	2800.8	1696.4	633.7	346.1	314.6	326.2	363.4	389.1	393.4	367.6	343.3
63°	2832.3	1699.4	603.7	336.1	308.9	321.9	356.2	383.3	389.1	364.7	340.5
65°	2909.5	1673.6	486.3	308.9	286.1	300.5	334.7	359.1	370.6	349.0	329.0
67.5°	2845.2	1463.3	366.1	276.0	267.4	277.4	307.5	330.4	340.5	330.4	310.5
70°	2602.0	1064.2	286.1	246.0	247.5	254.6	277.4	299.0	310.5	307.5	289.0
72.5°	2095.7	603.7	238.9	220.3	224.5	233.2	248.9	269.0	279.0	277.4	264.6
75°	1380.3	308.9	201.7	197.4	200.2	207.4	218.8	234.5	246.0	244.6	238.9
77.5°	683.8	214.5	173.2	174.5	176.0	181.6	190.3	204.5	211.7	213.2	211.7
80°	281.8	167.4	148.8	150.1	151.6	155.9	161.7	174.5	178.9	181.6	183.2
82.5°	168.8	127.3	118.8	121.6	123.0	127.3	131.6	143.0	147.3	151.6	151.6
85°	111.6	88.8	85.8	88.8	91.5	94.4	95.8	102.9	110.1	115.9	118.8
87.5°	60.0	52.9	51.6	52.9	52.9	55.8	58.7	65.8	74.4	80.0	83.0
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°	925.6	925.6	925.6	925.6	925.6
2.5°	948.4	949.8	948.4	949.8	951.2
5°	995.6	998.5	996.9	996.9	1002.8
7.5°	1049.9	1055.7	1055.7	1058.6	1061.3
10°	1108.6	1114.3	1118.6	1118.6	1122.9
12.5°	1167.3	1170.1	1174.4	1174.4	1174.4
15°	1197.4	1195.9	1194.4	1192.9	1192.9
17.5°	1192.9	1187.3	1184.4	1181.5	1183.0
20°	1161.5	1151.4	1148.7	1144.4	1147.2
22.5°	1107.3	1092.9	1087.2	1080.0	1082.8
25°	1025.7	1008.4	1005.7	996.9	1001.3
27.5°	931.3	922.6	921.2	919.8	927.0
30°	842.5	845.3	846.8	849.6	856.9
32.5°	761.0	766.8	768.1	769.6	779.5
35°	680.8	673.8	680.8	678.0	686.7
37.5°	593.6	587.9	582.2	575.0	580.8
40°	520.7	510.6	493.4	484.9	486.3
42.5°	463.4	450.6	436.2	427.8	427.8
45°	426.2	410.5	397.7	391.9	391.9
47.5°	397.7	390.6	383.3	379.1	379.1
50°	386.2	377.6	373.3	370.6	370.6
52.5°	377.6	369.1	364.7	361.8	359.1
55°	370.6	357.6	353.4	351.9	351.9
57.5°	360.5	349.0	343.3	341.9	341.9
60°	344.7	336.1	330.4	329.0	329.0
62.5°	329.0	320.4	314.6	314.6	314.6
63°	326.2	316.2	311.8	311.8	311.8
65°	313.2	303.3	299.0	299.0	297.5
67.5°	296.1	286.1	283.2	283.2	280.5
70°	276.0	267.4	264.6	266.1	260.4
72.5°	256.0	247.5	243.3	243.3	237.4
75°	233.2	224.5	218.8	217.4	211.7
77.5°	207.4	200.2	194.6	188.9	185.9
80°	180.2	174.5	167.4	163.0	158.8
82.5°	151.6	146.0	141.7	147.3	125.9
85°	118.8	112.9	107.3	115.9	90.1
87.5°	87.2	84.4	78.7	68.7	60.0
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)