

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: P239112

Luminaire Tested: **ARCH-AF24-100-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239112
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-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 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: 8797 lumens
Efficiency: N/A
Efficacy: 91.6 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

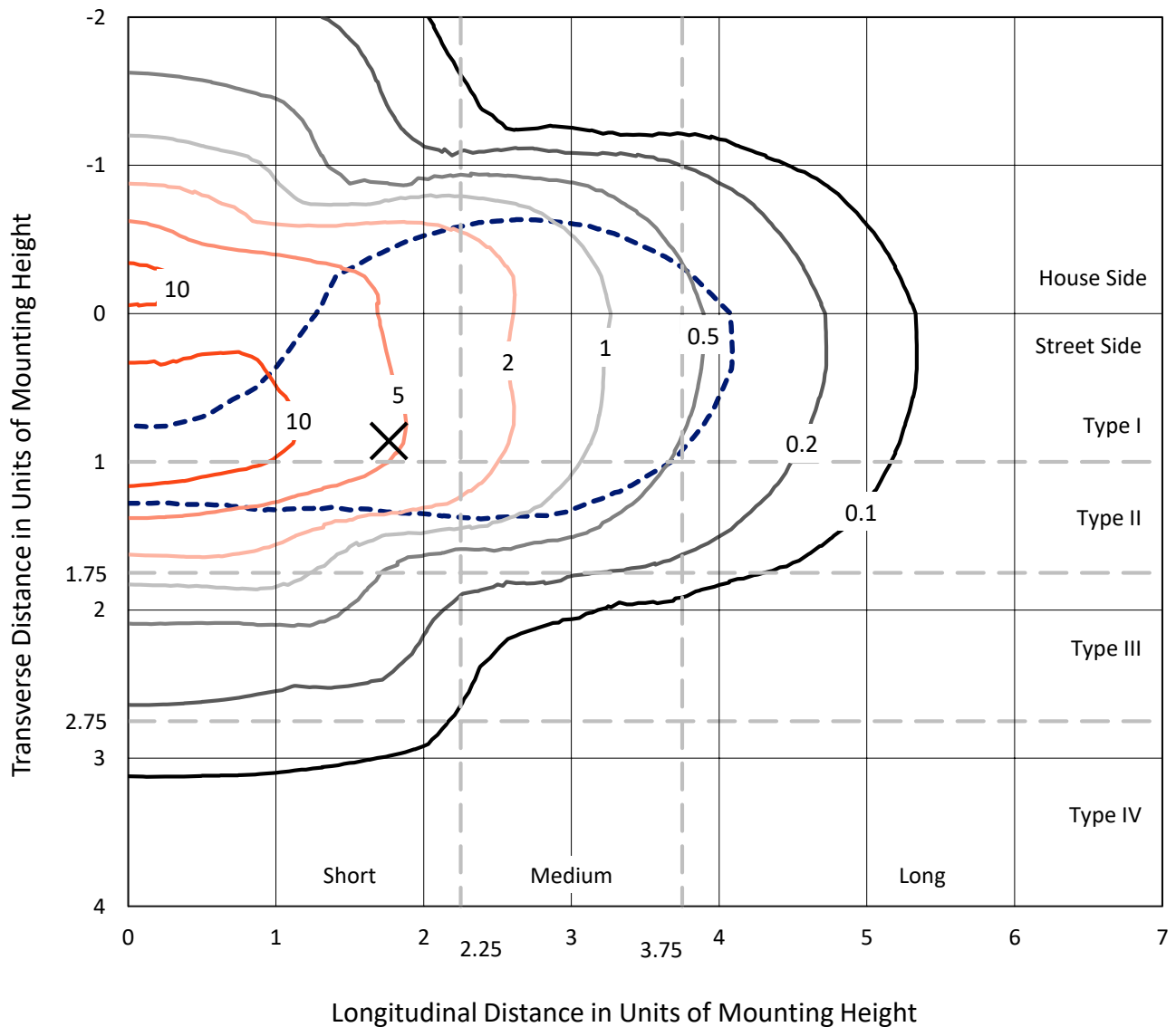
Input Watts (W): 96
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

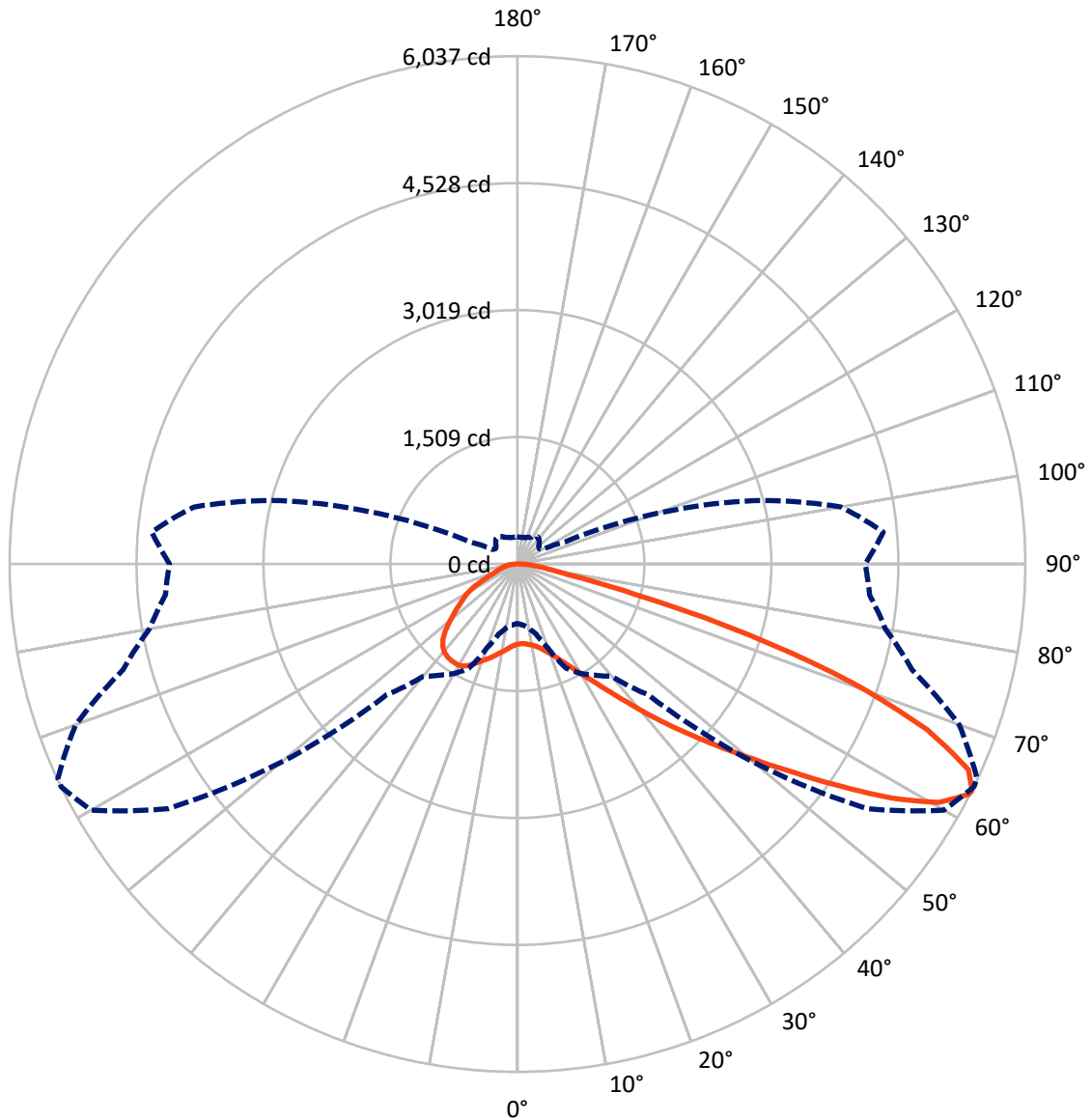
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 15.5 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	2586.0	0.0	2586.0
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	6211.0	0.0	6211.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	8797.0	0.0	8797.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	95.1	1.1
10°-20°	316.8	3.6
20°-30°	594.7	6.8
30°-40°	996.8	11.3
40°-50°	1672.4	19.0
50°-60°	2120.1	24.1
60°-70°	1870.3	21.3
70°-80°	965.5	11.0
80°-90°	165.2	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°	8797.0	100.0
0°-180°	8797.0	100.0



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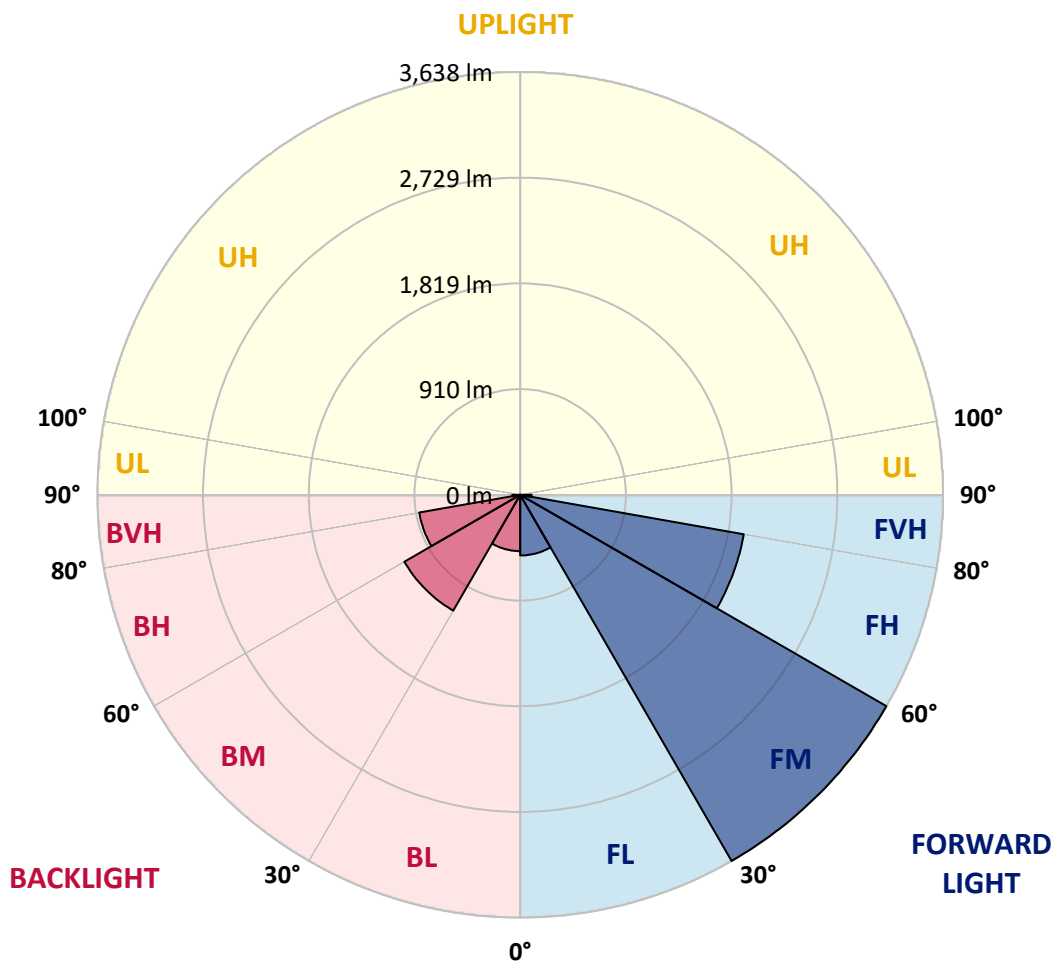
CATALOG NUMBER: ARCH-AF24-100-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	522.1	5.9			
FM	(30°-60°)	3638.2	41.4			
FH	(60°-80°)	1953.4	22.2			G2/5000
FVH	(80°-90°)	97.2	1.1			G1/100
BL	(0°-30°)	484.5	5.5	B1/500		
BM	(30°-60°)	1151.2	13.1	B2/2500		
BH	(60°-80°)	882.3	10.0	B2/1000		G2/1000
BVH	(80°-90°)	68.0	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°	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7
2.5°	946.8	945.3	945.3	945.3	945.3	943.9	945.3	948.3	946.8	945.3	948.3
5°	949.8	948.3	948.3	948.3	949.8	948.3	949.8	954.2	951.2	951.2	954.2
7.5°	957.1	955.7	957.1	955.7	955.7	955.7	957.1	961.5	960.1	961.5	966.0
10°	966.0	966.0	966.0	966.0	966.0	966.0	968.9	971.9	973.3	974.8	980.7
12.5°	992.5	992.5	992.5	991.0	991.0	986.6	992.5	995.4	998.4	1001.3	1005.7
15°	1048.4	1048.4	1047.0	1041.1	1041.1	1032.2	1033.7	1035.2	1035.2	1038.1	1041.1
17.5°	1122.0	1120.6	1117.6	1113.2	1107.3	1097.0	1094.1	1091.1	1086.7	1085.2	1085.2
20°	1225.1	1223.7	1217.8	1206.0	1198.6	1182.4	1170.6	1158.9	1154.4	1147.1	1145.6
22.5°	1372.4	1372.4	1360.6	1342.9	1337.0	1303.2	1269.3	1244.3	1235.4	1225.1	1225.1
25°	1550.5	1549.1	1532.9	1512.3	1487.2	1451.9	1410.7	1376.8	1354.7	1331.1	1322.3
27.5°	1764.1	1759.6	1737.6	1712.5	1665.4	1621.2	1572.6	1537.3	1499.0	1469.6	1443.1
30°	2014.4	2010.0	1971.7	1924.6	1876.0	1831.8	1761.1	1718.4	1658.0	1622.7	1593.3
32.5°	2304.5	2300.1	2230.8	2185.2	2133.7	2079.2	1995.2	1927.5	1850.9	1800.9	1759.6
35°	2674.1	2656.4	2557.7	2494.4	2413.4	2359.0	2270.6	2179.3	2089.5	2018.8	1958.4
37.5°	3073.1	3052.5	2965.6	2871.4	2791.9	2725.6	2600.4	2485.6	2379.6	2282.4	2207.3
40°	3489.8	3435.4	3342.6	3273.4	3218.9	3155.6	3024.5	2903.8	2737.4	2628.4	2515.0
42.5°	3778.5	3725.4	3660.7	3615.0	3588.5	3539.9	3466.3	3361.7	3213.0	3216.0	2917.0
45°	3968.4	3890.4	3846.2	3849.1	3859.4	3859.4	3846.2	3830.0	3765.2	3809.4	3559.0
47.5°	3900.7	3849.1	3821.2	3880.1	3953.7	4027.3	4112.7	4205.5	4311.5	4436.7	4128.9
50°	3503.1	3522.2	3535.5	3660.7	3818.2	3986.1	4181.9	4435.2	4731.2	4788.6	4639.9
52.5°	2868.4	2909.7	2953.8	3145.3	3352.9	3643.0	3986.1	4404.3	4801.8	5036.0	5021.2
55°	2227.9	2279.4	2373.7	2516.5	2681.4	2955.3	3379.4	4024.4	4644.3	5016.8	5243.6
57.5°	1585.9	1661.0	1784.7	1983.5	2129.2	2283.9	2597.5	3313.1	3992.0	4685.5	5206.8
60°	1054.3	1089.7	1170.6	1418.0	1663.9	1825.9	2048.3	2307.4	2862.6	3818.2	4826.9
62.5°	748.0	771.6	821.7	933.6	1155.9	1448.9	1582.9	1702.2	1880.4	2456.1	3875.6
63°	706.8	727.4	768.6	862.9	1063.1	1366.5	1503.4	1612.4	1742.0	2197.0	3666.5
65°	586.1	594.9	617.0	662.6	770.1	1021.9	1245.7	1312.0	1334.1	1412.1	2297.1
67.5°	494.8	500.7	508.0	521.3	564.0	680.3	929.2	1013.1	988.1	935.0	1135.3
70°	430.0	434.4	446.2	462.4	477.1	506.5	639.1	764.2	736.3	664.1	695.0
72.5°	343.1	350.5	363.7	391.7	421.1	459.4	491.8	569.9	552.2	483.0	490.3
75°	270.9	275.4	287.1	307.8	335.7	379.9	443.2	469.7	421.1	356.3	356.3
77.5°	215.0	219.4	229.7	245.9	263.6	294.5	338.7	407.9	378.4	268.0	266.5
80°	162.0	166.4	176.7	191.4	209.1	231.2	257.7	288.6	347.5	250.3	200.3
82.5°	119.3	120.7	138.4	148.7	154.6	172.3	194.4	212.0	238.5	231.2	178.2
85°	89.8	88.4	100.1	107.5	109.0	113.4	126.6	144.3	156.1	150.2	138.4
87.5°	50.1	44.2	51.5	58.9	58.9	60.4	63.3	73.6	83.9	81.0	73.6
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°	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7
2.5°	948.3	948.3	946.8	946.8	948.3	948.3	946.8	951.2	954.2	954.2	955.7
5°	952.7	954.2	952.7	952.7	954.2	954.2	955.7	960.1	964.5	967.4	971.9
7.5°	966.0	967.4	966.0	966.0	967.4	968.9	971.9	977.7	980.7	986.6	993.9
10°	980.7	982.2	980.7	982.2	983.6	985.1	989.5	993.9	998.4	1004.2	1016.0
12.5°	1007.2	1008.7	1005.7	1007.2	1011.6	1011.6	1014.6	1017.5	1024.9	1032.2	1044.0
15°	1044.0	1044.0	1041.1	1042.5	1047.0	1047.0	1048.4	1051.4	1060.2	1069.0	1080.8
17.5°	1086.7	1089.7	1088.2	1089.7	1092.6	1094.1	1094.1	1097.0	1102.9	1108.8	1120.6
20°	1144.1	1145.6	1142.7	1145.6	1148.6	1145.6	1142.7	1141.2	1144.1	1147.1	1160.3
22.5°	1222.2	1220.7	1213.3	1213.3	1213.3	1207.5	1200.1	1191.3	1191.3	1186.8	1197.1
25°	1314.9	1310.5	1300.2	1301.7	1291.4	1282.6	1269.3	1256.0	1244.3	1239.9	1241.3
27.5°	1423.9	1415.1	1404.8	1401.8	1391.5	1375.3	1353.2	1328.2	1309.1	1294.3	1291.4
30°	1560.9	1541.7	1524.0	1521.1	1504.9	1478.4	1443.1	1409.2	1376.8	1351.8	1342.9
32.5°	1722.8	1693.4	1665.4	1662.5	1636.0	1600.6	1557.9	1510.8	1463.7	1423.9	1404.8
35°	1912.8	1868.6	1842.1	1834.7	1796.5	1752.3	1705.2	1644.8	1578.5	1522.6	1487.2
37.5°	2144.0	2098.3	2052.7	2054.1	2001.1	1949.6	1886.3	1812.7	1728.7	1650.7	1600.6
40°	2429.6	2364.8	2305.9	2292.7	2247.0	2174.9	2105.7	2020.3	1917.2	1814.1	1742.0
42.5°	2775.7	2669.7	2588.7	2576.9	2516.5	2428.2	2344.2	2230.8	2126.3	2001.1	1914.3
45°	3168.8	2999.5	2902.3	2884.6	2787.5	2697.6	2596.0	2475.3	2347.2	2205.8	2102.7
47.5°	3657.7	3416.2	3251.3	3221.8	3087.8	2970.0	2864.0	2730.0	2576.9	2419.3	2305.9
50°	4227.6	3871.2	3648.9	3603.2	3423.6	3285.2	3149.7	2981.8	2818.4	2653.5	2522.4
52.5°	4798.9	4416.0	4120.1	4064.1	3799.1	3613.5	3435.4	3267.5	3074.6	2911.1	2762.4
55°	5258.3	5003.6	4660.5	4582.4	4202.5	3950.7	3716.6	3525.2	3333.8	3204.2	3028.9
57.5°	5535.2	5521.9	5251.0	5143.5	4623.7	4251.1	3990.5	3772.6	3587.0	3532.5	3299.9
60°	5527.8	5870.9	5754.6	5673.6	5049.2	4558.9	4220.2	3984.6	3831.5	3893.3	3572.3
62.5°	5190.6	5885.6	6025.5	6003.4	5502.8	4806.3	4408.7	4165.7	4084.7	4268.8	3855.0
63°	5068.4	5851.7	6037.3	6028.4	5589.6	4853.4	4441.1	4201.1	4134.8	4364.5	3906.6
65°	4283.5	5555.8	5894.4	5934.2	5776.6	5015.4	4516.2	4290.9	4283.5	4578.0	4028.8
67.5°	2610.8	4694.3	5251.0	5327.5	5513.1	5066.9	4473.5	4260.0	4366.0	4608.9	3992.0
70°	1116.2	3098.2	4220.2	4343.9	4797.4	4810.7	4351.3	4133.3	4346.8	4367.5	3729.9
72.5°	661.2	1460.7	2872.9	3142.3	3796.1	4139.2	4071.5	3912.4	4095.0	3835.9	3176.2
75°	468.3	683.2	1459.3	1746.4	2643.1	3160.0	3420.6	3494.3	3486.9	3042.2	2384.0
77.5°	335.7	438.8	615.5	725.9	1475.5	2029.1	2347.2	2562.2	2493.0	2036.5	1469.6
80°	234.1	303.3	377.0	400.5	684.7	1042.5	1236.9	1331.1	1289.9	1017.5	658.2
82.5°	169.3	198.8	243.0	257.7	344.6	481.5	572.8	505.1	484.5	375.5	284.2
85°	131.1	128.1	151.7	157.6	201.7	251.8	257.7	200.3	175.2	156.1	159.0
87.5°	92.8	79.5	81.0	83.9	104.5	134.0	131.1	82.5	70.7	75.1	85.4
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°	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7	952.7
2.5°	958.6	960.1	963.0	964.5	967.4	967.4	970.4	971.9	974.8	977.7	979.2
5°	976.3	980.7	986.6	989.5	995.4	999.8	1005.7	1008.7	1014.6	1019.0	1024.9
7.5°	1002.8	1010.1	1017.5	1026.3	1035.2	1042.5	1048.4	1055.8	1066.1	1073.5	1077.9
10°	1027.8	1038.1	1051.4	1061.7	1074.9	1085.2	1094.1	1107.3	1119.1	1129.4	1135.3
12.5°	1060.2	1073.5	1086.7	1102.9	1120.6	1133.8	1147.1	1164.8	1180.9	1192.7	1198.6
15°	1098.5	1114.7	1129.4	1148.6	1169.2	1186.8	1206.0	1225.1	1236.9	1236.9	1234.0
17.5°	1138.2	1151.5	1169.2	1191.3	1219.2	1241.3	1251.6	1254.6	1250.2	1239.9	1232.5
20°	1178.0	1189.8	1208.9	1235.4	1264.9	1269.3	1259.0	1245.7	1232.5	1214.8	1203.0
22.5°	1210.4	1226.6	1256.0	1287.0	1288.4	1263.4	1235.4	1213.3	1192.7	1172.1	1150.0
25°	1248.7	1270.8	1310.5	1322.3	1284.0	1236.9	1197.1	1164.8	1130.9	1097.0	1072.0
27.5°	1295.8	1328.2	1368.0	1334.1	1259.0	1192.7	1138.2	1089.7	1045.5	998.4	970.4
30°	1345.9	1395.9	1404.8	1316.4	1216.3	1130.9	1057.3	983.6	927.7	885.0	868.8
32.5°	1406.2	1471.0	1418.0	1285.5	1158.9	1047.0	948.3	859.9	812.8	786.3	779.0
35°	1497.5	1550.5	1425.4	1253.1	1092.6	946.8	823.1	752.5	723.0	705.3	696.5
37.5°	1628.6	1627.1	1423.9	1213.3	1016.0	837.9	723.0	672.9	649.4	634.7	618.5
40°	1781.7	1686.0	1415.1	1155.9	913.0	733.3	653.8	606.7	584.6	566.9	547.8
42.5°	1933.4	1725.8	1390.0	1070.5	784.8	658.2	603.7	561.0	537.5	518.3	491.8
45°	2064.5	1742.0	1341.5	952.7	670.0	599.3	571.3	534.5	506.5	477.1	456.5
47.5°	2167.5	1739.0	1263.4	814.3	593.4	558.1	544.8	519.8	485.9	449.1	422.6
50°	2254.4	1716.9	1157.4	692.1	541.9	521.3	516.8	509.5	455.0	424.1	407.9
52.5°	2333.9	1684.5	1044.0	609.6	497.7	480.0	488.9	481.5	443.2	416.7	400.5
55°	2442.9	1662.5	932.1	546.3	446.2	441.8	449.1	459.4	435.9	410.8	393.2
57.5°	2571.0	1674.2	846.7	475.6	397.6	400.5	425.6	440.3	428.5	402.0	384.3
60°	2718.2	1709.6	771.6	407.9	357.8	365.2	402.0	422.6	421.1	390.2	369.6
62.5°	2883.2	1746.4	652.3	356.3	324.0	335.7	374.0	400.5	404.9	378.4	353.4
63°	2915.6	1749.3	621.4	346.0	318.1	331.3	366.7	394.6	400.5	375.5	350.5
65°	2995.1	1722.8	500.7	318.1	294.5	309.2	344.6	369.6	381.4	359.3	338.7
67.5°	2928.8	1506.4	377.0	284.2	275.4	285.7	316.6	340.1	350.5	340.1	319.5
70°	2678.5	1095.5	294.5	253.3	254.7	262.1	285.7	307.8	319.5	316.6	297.4
72.5°	2157.2	621.4	245.9	226.8	231.2	240.0	256.2	276.8	287.1	285.7	272.4
75°	1421.0	318.1	207.6	203.2	206.2	213.5	225.3	241.5	253.3	251.8	245.9
77.5°	703.9	220.9	178.2	179.6	181.1	187.0	195.8	210.6	217.9	219.4	217.9
80°	290.1	172.3	153.1	154.6	156.1	160.5	166.4	179.6	184.1	187.0	188.5
82.5°	173.8	131.1	122.2	125.2	126.6	131.1	135.5	147.3	151.7	156.1	156.1
85°	114.9	91.3	88.4	91.3	94.2	97.2	98.7	106.0	113.4	119.3	122.2
87.5°	61.8	54.5	53.0	54.5	54.5	57.4	60.4	67.7	76.6	82.5	85.4
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°	952.7	952.7	952.7	952.7	952.7
2.5°	976.3	977.7	976.3	977.7	979.2
5°	1024.9	1027.8	1026.3	1026.3	1032.2
7.5°	1080.8	1086.7	1086.7	1089.7	1092.6
10°	1141.2	1147.1	1151.5	1151.5	1155.9
12.5°	1201.6	1204.5	1208.9	1208.9	1208.9
15°	1232.5	1231.0	1229.5	1228.1	1228.1
17.5°	1228.1	1222.2	1219.2	1216.3	1217.8
20°	1195.7	1185.4	1182.4	1178.0	1180.9
22.5°	1139.7	1125.0	1119.1	1111.7	1114.7
25°	1055.8	1038.1	1035.2	1026.3	1030.8
27.5°	958.6	949.8	948.3	946.8	954.2
30°	867.3	870.3	871.7	874.7	882.0
32.5°	783.4	789.3	790.7	792.2	802.5
35°	700.9	693.6	700.9	698.0	706.8
37.5°	611.1	605.2	599.3	591.9	597.8
40°	536.0	525.7	508.0	499.2	500.7
42.5°	477.1	463.8	449.1	440.3	440.3
45°	438.8	422.6	409.4	403.5	403.5
47.5°	409.4	402.0	394.6	390.2	390.2
50°	397.6	388.7	384.3	381.4	381.4
52.5°	388.7	379.9	375.5	372.5	369.6
55°	381.4	368.1	363.7	362.2	362.2
57.5°	371.1	359.3	353.4	351.9	351.9
60°	354.9	346.0	340.1	338.7	338.7
62.5°	338.7	329.8	324.0	324.0	324.0
63°	335.7	325.4	321.0	321.0	321.0
65°	322.5	312.2	307.8	307.8	306.3
67.5°	304.8	294.5	291.6	291.6	288.6
70°	284.2	275.4	272.4	273.9	268.0
72.5°	263.6	254.7	250.3	250.3	244.4
75°	240.0	231.2	225.3	223.8	217.9
77.5°	213.5	206.2	200.3	194.4	191.4
80°	185.5	179.6	172.3	167.9	163.4
82.5°	156.1	150.2	145.8	151.7	129.6
85°	122.2	116.3	110.4	119.3	92.8
87.5°	89.8	86.9	81.0	70.7	61.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)