

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: P239123

Luminaire Tested: **ARCH-AF24-70-D-U-T2U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P239123  
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-AF24-70-D-U-T2U  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8686.9 lumens  
Efficiency: N/A  
Efficacy: 117.4 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

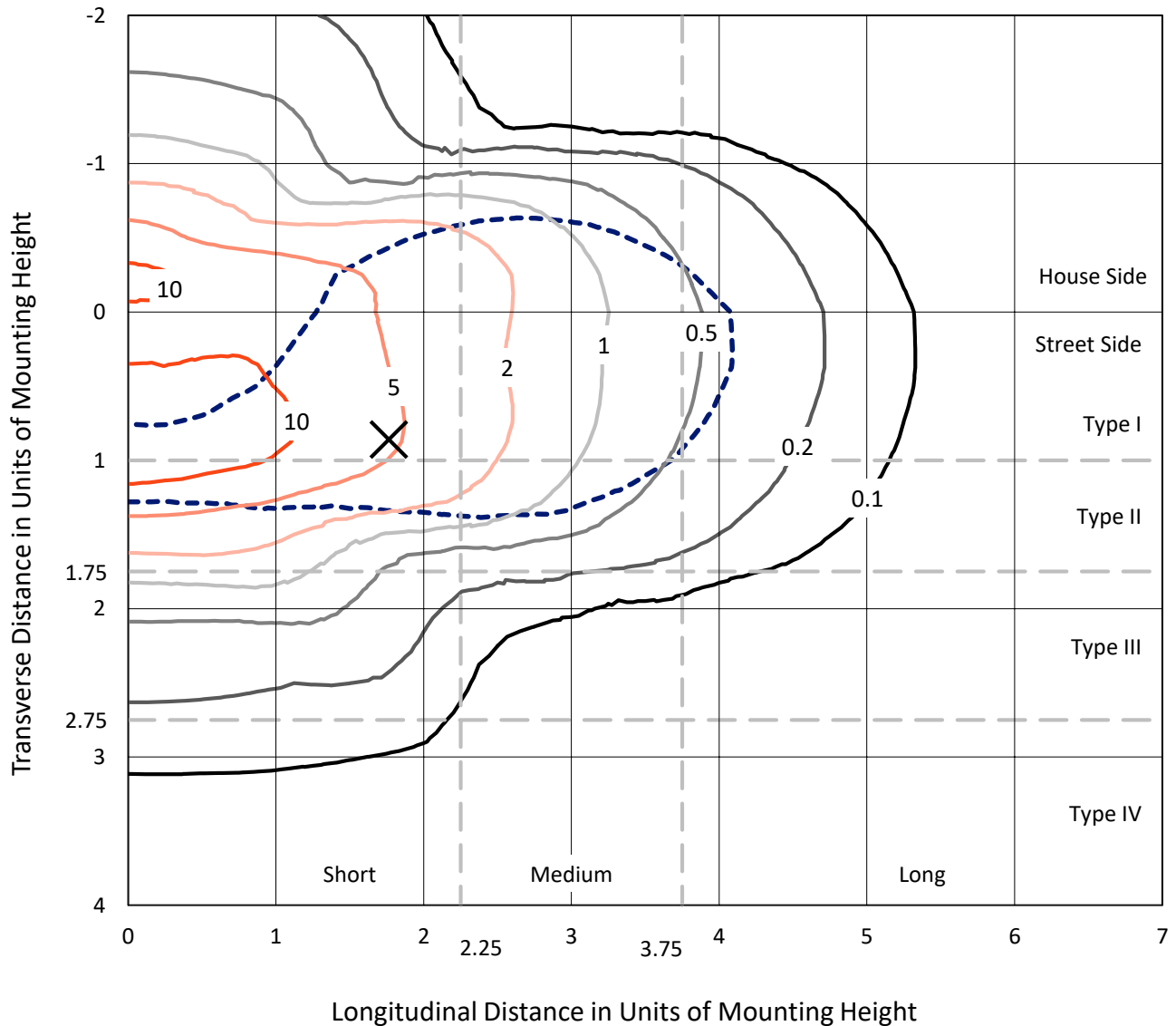
Input Watts (W): 74  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

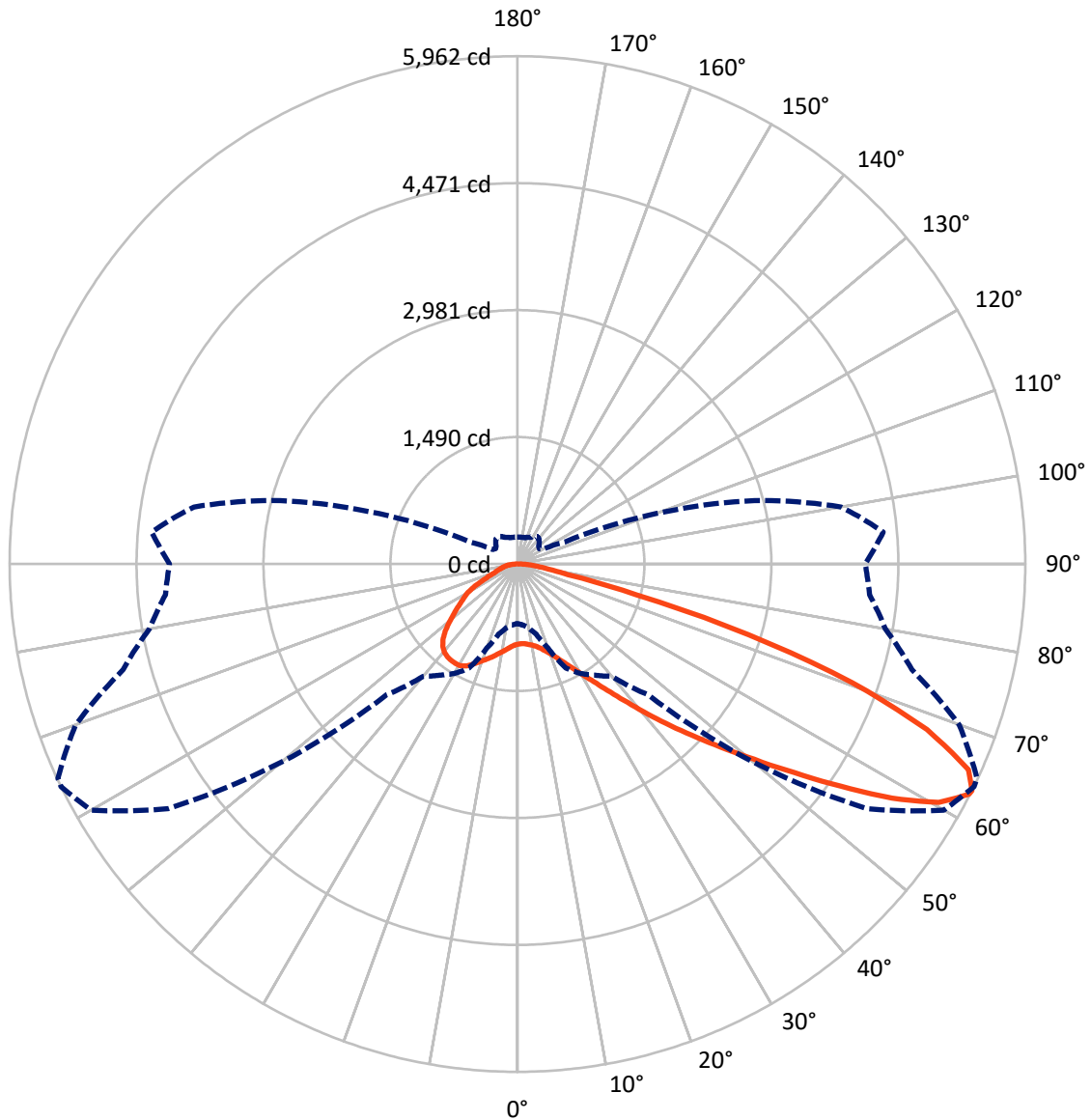


Based on 10 foot mounting height. Maximum calculated value = 15.3 fc  
 Type II - Short - Semi-Cutoff

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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
<b>House Side</b>	Lumens	2553.6	0.0	2553.6
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	6133.3	0.0	6133.3
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	8686.9	0.0	8686.9
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	93.9	1.1
10°-20°	312.9	3.6
20°-30°	587.3	6.8
30°-40°	984.3	11.3
40°-50°	1651.5	19.0
50°-60°	2093.6	24.1
60°-70°	1846.9	21.3
70°-80°	953.4	11.0
80°-90°	163.1	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°	8686.9	100.0
0°-180°	8686.9	100.0



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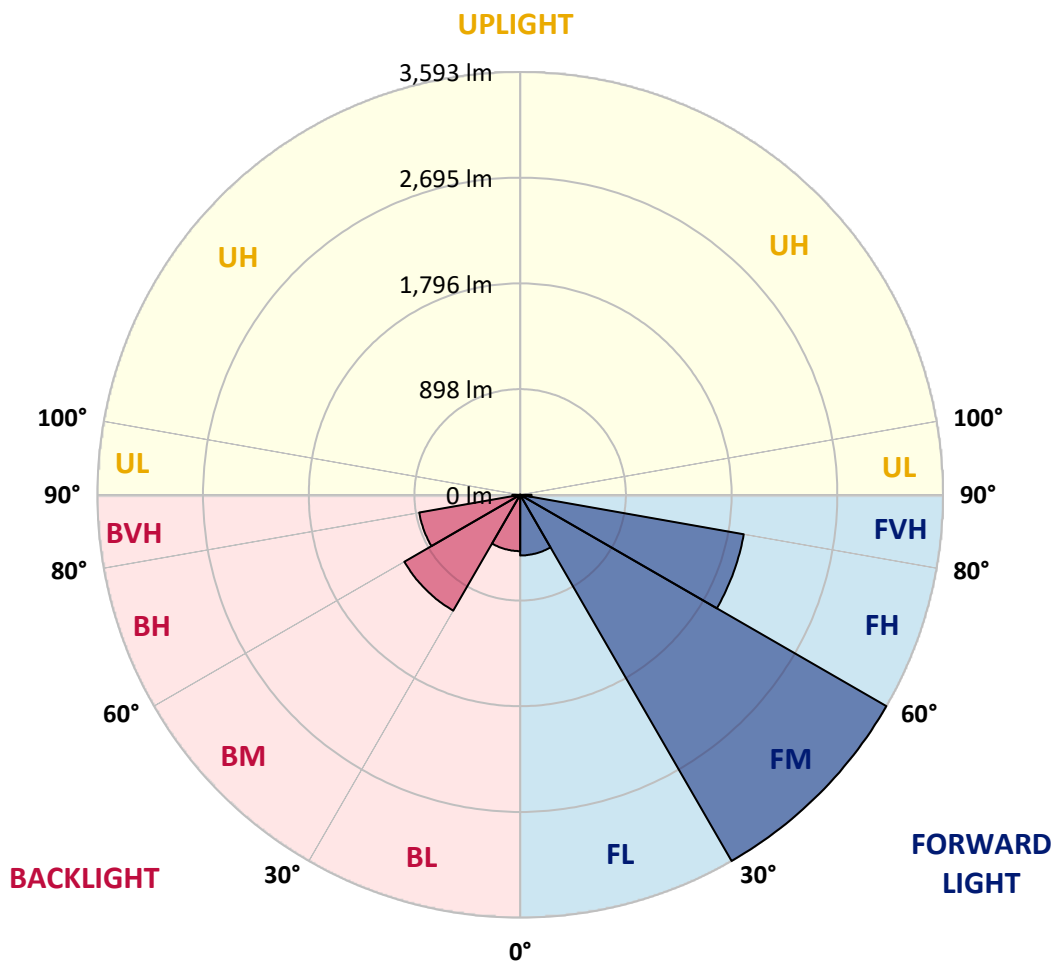
CATALOG NUMBER: ARCH-AF24-70-D-U-T2U

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	515.6	5.9			
FM (30°-60°)	3592.7	41.4			
FH (60°-80°)	1929.0	22.2			G2/5000
FVH (80°-90°)	96.0	1.1			G1/100
BL (0°-30°)	478.5	5.5	B1/500		
BM (30°-60°)	1136.8	13.1	B2/2500		
BH (60°-80°)	871.3	10.0	B2/1000		G2/1000
BVH (80°-90°)	67.1	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°	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8
2.5°	935.0	933.5	933.5	933.5	933.5	932.1	933.5	936.4	935.0	933.5	936.4
5°	937.8	936.4	936.4	936.4	937.8	936.4	937.8	942.2	939.4	939.4	942.2
7.5°	945.1	943.7	945.1	943.7	943.7	943.7	945.1	949.5	948.1	949.5	953.9
10°	953.9	953.9	953.9	953.9	953.9	953.9	956.8	959.7	961.2	962.6	968.4
12.5°	980.1	980.1	980.1	978.6	978.6	974.3	980.1	983.0	985.8	988.8	993.2
15°	1035.3	1035.3	1033.9	1028.1	1028.1	1019.3	1020.8	1022.2	1022.2	1025.1	1028.1
17.5°	1108.0	1106.5	1103.7	1099.3	1093.4	1083.3	1080.3	1077.5	1073.1	1071.6	1071.6
20°	1209.7	1208.3	1202.5	1190.9	1183.7	1167.6	1156.0	1144.4	1140.0	1132.7	1131.3
22.5°	1355.2	1355.2	1343.5	1326.2	1320.3	1286.9	1253.4	1228.7	1220.0	1209.7	1209.7
25°	1531.2	1529.7	1513.7	1493.3	1468.7	1433.8	1393.1	1359.6	1337.7	1314.5	1305.8
27.5°	1742.0	1737.6	1715.8	1691.0	1644.6	1600.9	1552.9	1518.1	1480.2	1451.2	1425.0
30°	1989.1	1984.8	1947.0	1900.4	1852.5	1808.9	1739.1	1696.9	1637.3	1602.4	1573.3
32.5°	2275.7	2271.3	2202.9	2157.8	2107.0	2053.2	1970.3	1903.4	1827.8	1778.3	1737.6
35°	2640.6	2623.2	2525.8	2463.2	2383.3	2329.5	2242.2	2152.1	2063.3	1993.5	1933.9
37.5°	3034.7	3014.3	2928.5	2835.4	2757.0	2691.5	2567.9	2454.5	2349.8	2253.9	2179.7
40°	3446.1	3392.3	3300.8	3232.4	3178.6	3116.1	2986.7	2867.4	2703.1	2595.5	2483.5
42.5°	3731.1	3678.8	3614.8	3569.8	3543.6	3495.6	3422.9	3319.7	3172.8	3175.8	2880.5
45°	3918.7	3841.7	3798.0	3801.0	3811.1	3811.1	3798.0	3782.1	3718.1	3761.7	3514.6
47.5°	3851.8	3801.0	3773.4	3831.5	3904.2	3976.9	4061.2	4152.9	4257.5	4381.1	4077.3
50°	3459.2	3478.1	3491.2	3614.8	3770.4	3936.2	4129.6	4379.7	4671.9	4728.7	4581.8
52.5°	2832.6	2873.3	2916.8	3105.9	3310.9	3597.4	3936.2	4349.2	4741.8	4973.0	4958.4
55°	2200.1	2250.9	2344.0	2485.1	2647.9	2918.4	3337.1	3974.0	4586.2	4954.0	5178.0
57.5°	1566.0	1640.2	1762.3	1958.6	2102.6	2255.3	2564.9	3271.7	3942.0	4626.9	5141.7
60°	1041.2	1076.0	1156.0	1400.3	1643.1	1803.1	2022.6	2278.5	2826.7	3770.4	4766.4
62.5°	738.7	761.9	811.4	921.9	1141.4	1430.8	1563.2	1680.9	1856.9	2425.4	3827.2
63°	698.0	718.3	759.0	852.1	1049.9	1349.4	1484.6	1592.2	1720.2	2169.5	3620.6
65°	578.7	587.5	609.3	654.4	760.5	1009.1	1230.1	1295.6	1317.4	1394.5	2268.4
67.5°	488.6	494.4	501.7	514.7	556.9	671.8	917.5	1000.4	975.7	923.3	1121.1
70°	424.6	428.9	440.6	456.5	471.2	500.2	631.1	754.6	727.0	655.8	686.3
72.5°	338.8	346.1	359.2	386.8	415.8	453.7	485.7	562.7	545.2	476.9	484.2
75°	267.5	271.9	283.6	303.9	331.5	375.1	437.7	463.8	415.8	351.9	351.9
77.5°	212.3	216.7	226.8	242.8	260.2	290.8	334.4	402.7	373.7	264.6	263.2
80°	160.0	164.3	174.5	189.0	206.4	228.3	254.5	285.0	343.2	247.1	197.7
82.5°	117.7	119.3	136.7	146.9	152.7	170.1	191.9	209.4	235.6	228.3	175.9
85°	88.7	87.3	98.9	106.2	107.6	112.0	125.0	142.5	154.2	148.3	136.7
87.5°	49.4	43.6	50.9	58.2	58.2	59.6	62.5	72.7	82.9	80.0	72.7
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°	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8
2.5°	936.4	936.4	935.0	935.0	936.4	936.4	935.0	939.4	942.2	942.2	943.7
5°	940.8	942.2	940.8	940.8	942.2	942.2	943.7	948.1	952.5	955.3	959.7
7.5°	953.9	955.3	953.9	953.9	955.3	956.8	959.7	965.5	968.4	974.3	981.5
10°	968.4	969.9	968.4	969.9	971.3	972.8	977.1	981.5	985.8	991.6	1003.3
12.5°	994.6	996.0	993.2	994.6	998.9	998.9	1001.9	1004.7	1012.0	1019.3	1030.9
15°	1030.9	1030.9	1028.1	1029.5	1033.9	1033.9	1035.3	1038.2	1046.9	1055.7	1067.2
17.5°	1073.1	1076.0	1074.6	1076.0	1078.9	1080.3	1080.3	1083.3	1089.1	1095.0	1106.5
20°	1129.8	1131.3	1128.3	1131.3	1134.1	1131.3	1128.3	1126.9	1129.8	1132.7	1145.8
22.5°	1206.9	1205.4	1198.2	1198.2	1198.2	1192.4	1185.1	1176.4	1176.4	1172.0	1182.1
25°	1298.5	1294.1	1283.9	1285.4	1275.2	1266.5	1253.4	1240.3	1228.7	1224.4	1225.8
27.5°	1406.0	1397.4	1387.2	1384.3	1374.1	1358.1	1336.3	1311.6	1292.7	1278.2	1275.2
30°	1541.3	1522.5	1505.0	1502.1	1486.0	1459.9	1425.0	1391.5	1359.6	1334.8	1326.2
32.5°	1701.3	1672.2	1644.6	1641.6	1615.4	1580.6	1538.4	1491.9	1445.3	1406.0	1387.2
35°	1888.9	1845.2	1819.0	1811.7	1774.0	1730.3	1683.8	1624.2	1558.8	1503.5	1468.7
37.5°	2117.1	2072.1	2027.0	2028.4	1976.1	1925.2	1862.7	1790.0	1707.1	1630.0	1580.6
40°	2399.2	2335.3	2277.1	2264.0	2218.9	2147.7	2079.4	1995.0	1893.2	1791.4	1720.2
42.5°	2740.9	2636.2	2556.3	2544.6	2485.1	2397.8	2314.9	2202.9	2099.7	1976.1	1890.3
45°	3129.2	2962.0	2866.0	2848.5	2752.6	2663.9	2563.5	2444.3	2317.8	2178.2	2076.4
47.5°	3611.9	3373.5	3210.6	3181.5	3049.2	2932.9	2828.2	2695.9	2544.6	2389.0	2277.1
50°	4174.7	3822.8	3603.2	3558.1	3380.8	3244.1	3110.3	2944.5	2783.1	2620.3	2490.8
52.5°	4738.8	4360.7	4068.5	4013.2	3751.5	3568.3	3392.3	3226.6	3036.1	2874.7	2727.8
55°	5192.5	4941.0	4602.2	4525.1	4149.9	3901.3	3670.0	3481.1	3292.1	3164.1	2991.0
57.5°	5465.8	5452.7	5185.2	5079.1	4565.8	4197.9	3940.5	3725.4	3542.2	3488.4	3258.6
60°	5458.6	5797.4	5682.5	5602.6	4986.1	4501.8	4167.4	3934.8	3783.5	3844.6	3527.5
62.5°	5125.6	5811.9	5950.1	5928.3	5433.9	4746.1	4353.5	4113.6	4033.6	4215.4	3806.8
63°	5004.9	5778.5	5961.8	5953.0	5519.6	4792.6	4385.5	4148.5	4083.0	4309.9	3857.6
65°	4229.9	5486.2	5820.7	5860.0	5704.4	4952.6	4459.7	4237.2	4229.9	4520.7	3978.4
67.5°	2578.0	4635.6	5185.2	5260.8	5444.0	5003.5	4417.5	4206.7	4311.3	4551.2	3942.0
70°	1102.2	3059.3	4167.4	4289.5	4737.4	4750.5	4296.8	4081.6	4292.4	4312.8	3683.1
72.5°	652.8	1442.5	2836.9	3103.0	3748.6	4087.4	4020.5	3863.5	4043.8	3787.9	3136.5
75°	462.4	674.7	1441.0	1724.5	2610.1	3120.4	3377.8	3450.5	3443.3	3004.1	2354.1
77.5°	331.5	433.3	607.8	716.9	1457.0	2003.8	2317.8	2530.1	2461.7	2011.0	1451.2
80°	231.2	299.5	372.3	395.5	676.2	1029.5	1221.4	1314.5	1273.8	1004.7	650.0
82.5°	167.3	196.3	239.9	254.5	340.2	475.5	565.6	498.8	478.4	370.8	280.6
85°	129.4	126.5	149.8	155.6	199.2	248.7	254.5	197.7	173.1	154.2	157.0
87.5°	91.7	78.6	80.0	82.9	103.2	132.4	129.4	81.4	69.8	74.2	84.3
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8	940.8
2.5°	946.6	948.1	950.9	952.5	955.3	955.3	958.2	959.7	962.6	965.5	967.0
5°	964.0	968.4	974.3	977.1	983.0	987.4	993.2	996.0	1001.9	1006.2	1012.0
7.5°	990.2	997.5	1004.7	1013.5	1022.2	1029.5	1035.3	1042.6	1052.7	1060.0	1064.4
10°	1015.0	1025.1	1038.2	1048.4	1061.5	1071.6	1080.3	1093.4	1105.1	1115.3	1121.1
12.5°	1046.9	1060.0	1073.1	1089.1	1106.5	1119.6	1132.7	1150.2	1166.2	1177.8	1183.7
15°	1084.7	1100.7	1115.3	1134.1	1154.5	1172.0	1190.9	1209.7	1221.4	1221.4	1218.5
17.5°	1124.0	1137.1	1154.5	1176.4	1204.0	1225.8	1235.9	1238.9	1234.5	1224.4	1217.1
20°	1163.3	1174.9	1193.8	1220.0	1249.0	1253.4	1243.2	1230.1	1217.1	1199.6	1188.0
22.5°	1195.2	1211.3	1240.3	1270.8	1272.3	1247.6	1220.0	1198.2	1177.8	1157.5	1135.7
25°	1233.1	1254.9	1294.1	1305.8	1267.9	1221.4	1182.1	1150.2	1116.8	1083.3	1058.5
27.5°	1279.6	1311.6	1350.8	1317.4	1243.2	1177.8	1124.0	1076.0	1032.4	985.8	958.2
30°	1329.0	1378.4	1387.2	1300.0	1201.0	1116.8	1044.0	971.3	916.1	873.9	857.9
32.5°	1388.7	1452.6	1400.3	1269.4	1144.4	1033.9	936.4	849.2	802.6	776.5	769.2
35°	1478.8	1531.2	1407.6	1237.5	1078.9	935.0	812.8	743.1	713.9	696.5	687.7
37.5°	1608.2	1606.7	1406.0	1198.2	1003.3	827.4	713.9	664.5	641.3	626.7	610.7
40°	1759.5	1665.0	1397.4	1141.4	901.5	724.1	645.6	599.0	577.3	559.9	540.9
42.5°	1909.2	1704.1	1372.7	1057.1	775.0	650.0	596.2	554.0	530.7	511.9	485.7
45°	2038.6	1720.2	1324.6	940.8	661.6	591.8	564.2	527.8	500.2	471.2	450.8
47.5°	2140.4	1717.2	1247.6	804.1	585.9	551.1	538.0	513.3	479.9	443.4	417.4
50°	2226.1	1695.4	1142.9	683.4	535.1	514.7	510.4	503.1	449.3	418.8	402.7
52.5°	2304.7	1663.4	1030.9	602.0	491.5	474.0	482.7	475.5	437.7	411.5	395.5
55°	2412.3	1641.6	920.5	539.5	440.6	436.2	443.4	453.7	430.5	405.7	388.2
57.5°	2538.9	1653.3	836.1	469.6	392.6	395.5	420.2	434.8	423.1	397.0	379.5
60°	2684.2	1688.2	761.9	402.7	353.3	360.6	397.0	417.4	415.8	385.3	365.0
62.5°	2847.1	1724.5	644.2	351.9	319.9	331.5	369.3	395.5	399.9	373.7	348.9
63°	2879.1	1727.5	613.7	341.7	314.0	327.1	362.0	389.6	395.5	370.8	346.1
65°	2957.6	1701.3	494.4	314.0	290.8	305.4	340.2	365.0	376.7	354.8	334.4
67.5°	2892.2	1487.5	372.3	280.6	271.9	282.1	312.6	335.9	346.1	335.9	315.6
70°	2644.9	1081.9	290.8	250.1	251.5	258.8	282.1	303.9	315.6	312.6	293.7
72.5°	2130.2	613.7	242.8	223.9	228.3	237.0	253.0	273.3	283.6	282.1	269.0
75°	1403.2	314.0	205.0	200.7	203.6	210.8	222.5	238.4	250.1	248.7	242.8
77.5°	695.1	218.1	175.9	177.4	178.8	184.6	193.4	208.0	215.2	216.7	215.2
80°	286.4	170.1	151.2	152.7	154.2	158.5	164.3	177.4	181.8	184.6	186.1
82.5°	171.5	129.4	120.7	123.6	125.0	129.4	133.8	145.4	149.8	154.2	154.2
85°	113.4	90.1	87.3	90.1	93.1	96.0	97.4	104.6	112.0	117.7	120.7
87.5°	61.1	53.8	52.4	53.8	53.8	56.7	59.6	66.9	75.6	81.4	84.3
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):**

	160°	165°	170°	175°	180°
0°	940.8	940.8	940.8	940.8	940.8
2.5°	964.0	965.5	964.0	965.5	967.0
5°	1012.0	1015.0	1013.5	1013.5	1019.3
7.5°	1067.2	1073.1	1073.1	1076.0	1078.9
10°	1126.9	1132.7	1137.1	1137.1	1141.4
12.5°	1186.5	1189.4	1193.8	1193.8	1193.8
15°	1217.1	1215.6	1214.1	1212.7	1212.7
17.5°	1212.7	1206.9	1204.0	1201.0	1202.5
20°	1180.7	1170.6	1167.6	1163.3	1166.2
22.5°	1125.5	1110.9	1105.1	1097.8	1100.7
25°	1042.6	1025.1	1022.2	1013.5	1017.8
27.5°	946.6	937.8	936.4	935.0	942.2
30°	856.4	859.4	860.8	863.7	871.0
32.5°	773.6	779.4	780.8	782.3	792.5
35°	692.1	684.9	692.1	689.3	698.0
37.5°	603.4	597.6	591.8	584.5	590.3
40°	529.3	519.1	501.7	493.0	494.4
42.5°	471.2	458.1	443.4	434.8	434.8
45°	433.3	417.4	404.3	398.4	398.4
47.5°	404.3	397.0	389.6	385.3	385.3
50°	392.6	383.9	379.5	376.7	376.7
52.5°	383.9	375.1	370.8	367.9	365.0
55°	376.7	363.6	359.2	357.7	357.7
57.5°	366.4	354.8	348.9	347.5	347.5
60°	350.5	341.7	335.9	334.4	334.4
62.5°	334.4	325.7	319.9	319.9	319.9
63°	331.5	321.3	317.0	317.0	317.0
65°	318.4	308.2	303.9	303.9	302.5
67.5°	301.0	290.8	287.9	287.9	285.0
70°	280.6	271.9	269.0	270.5	264.6
72.5°	260.2	251.5	247.1	247.1	241.4
75°	237.0	228.3	222.5	221.1	215.2
77.5°	210.8	203.6	197.7	191.9	189.0
80°	183.2	177.4	170.1	165.7	161.4
82.5°	154.2	148.3	143.9	149.8	128.0
85°	120.7	114.9	109.0	117.7	91.7
87.5°	88.7	85.8	80.0	69.8	61.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)