

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: P239136

Luminaire Tested: **ARCH-AF24-60-D-U-T2U-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P239136  
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-AF24-60-D-U-T2U-7050  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 5000K, 800mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7618 lumens  
Efficiency: N/A  
Efficacy: 119.0 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

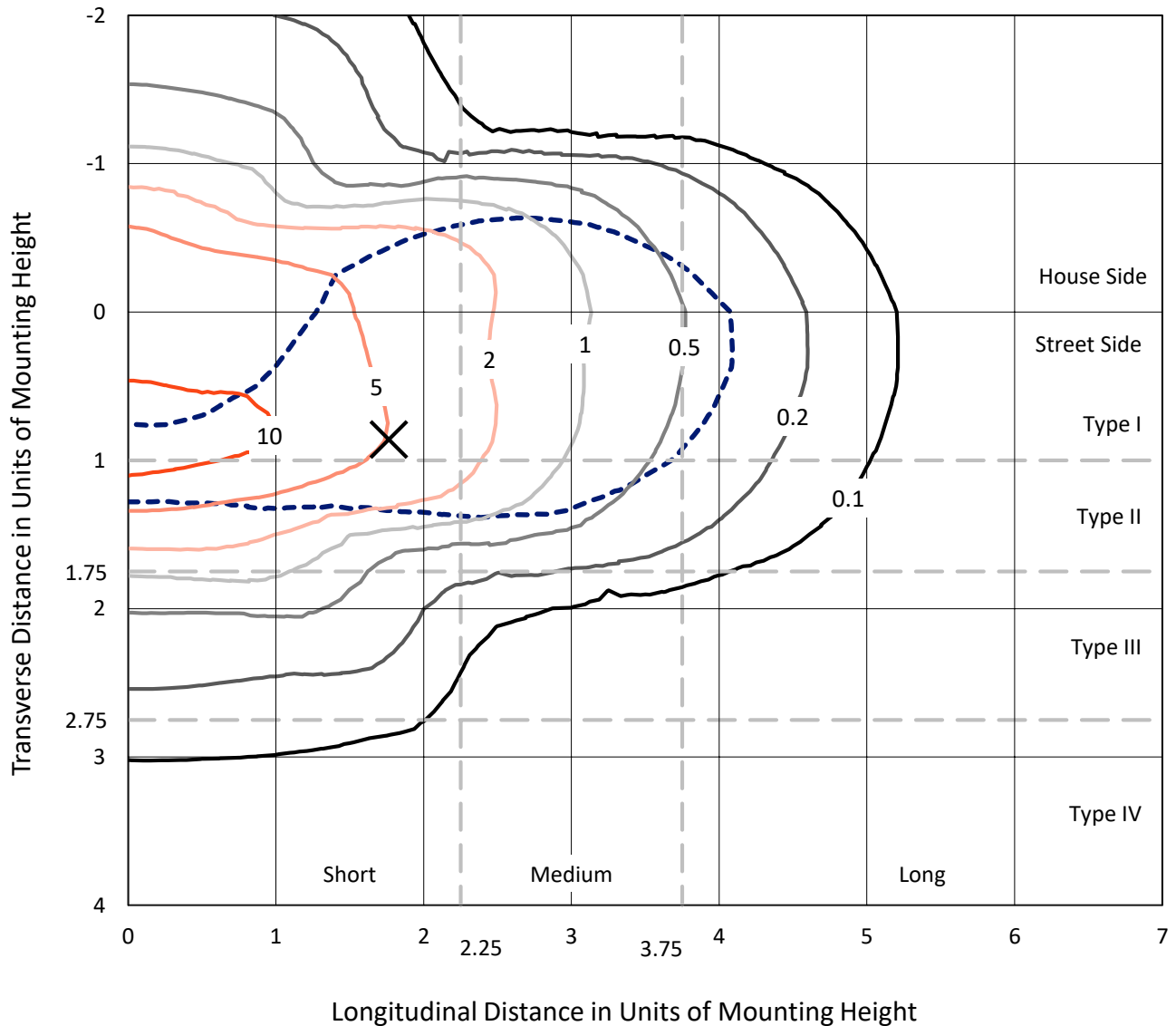
Input Watts (W): 64  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

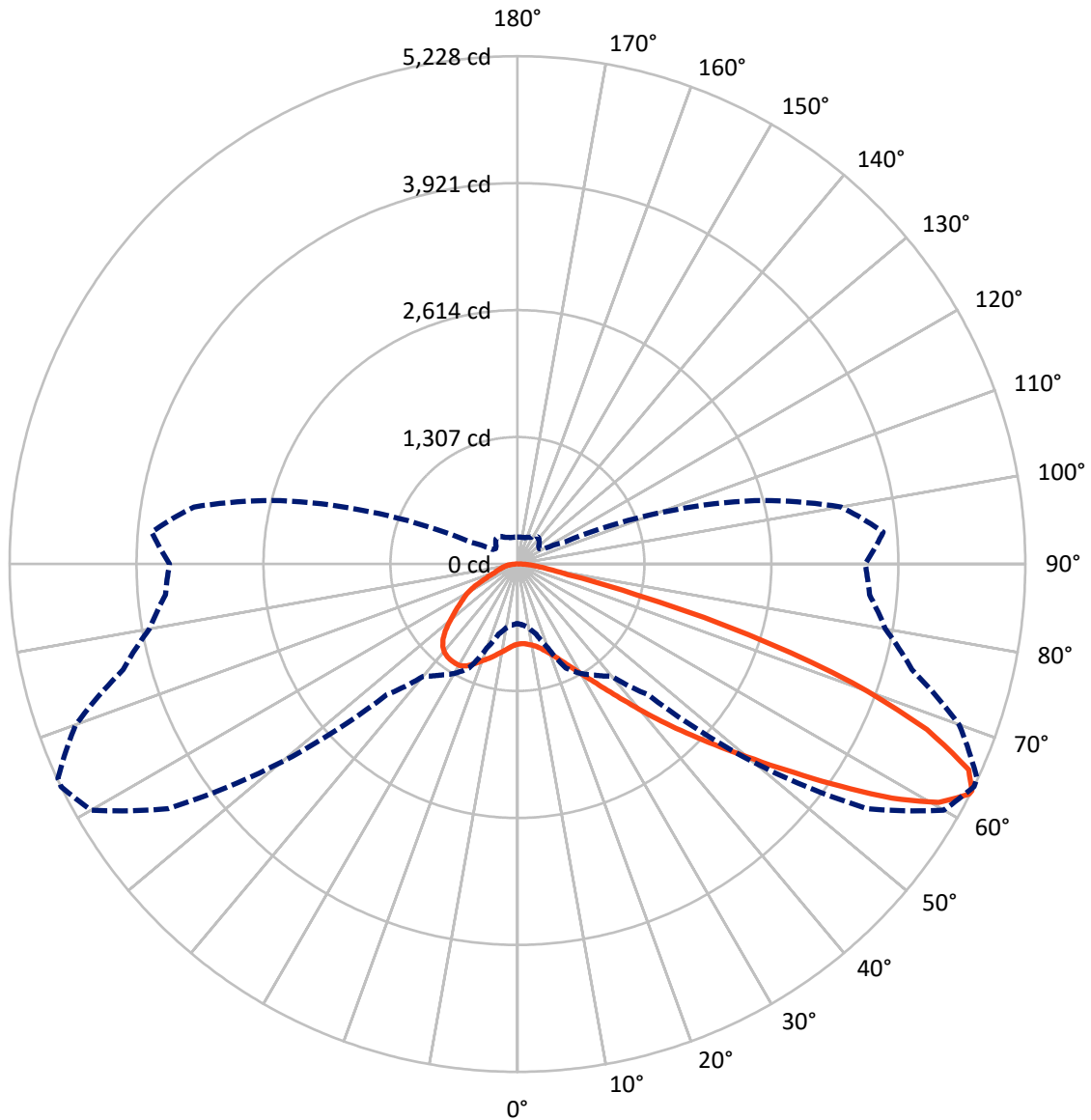
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.4 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	2239.4	0.0	2239.4
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	5378.6	0.0	5378.6
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	7618.0	0.0	7618.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	82.4	1.1
10°-20°	274.4	3.6
20°-30°	515.0	6.8
30°-40°	863.2	11.3
40°-50°	1448.3	19.0
50°-60°	1836.0	24.1
60°-70°	1619.6	21.3
70°-80°	836.1	11.0
80°-90°	143.1	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°	7618.0	100.0
0°-180°	7618.0	100.0



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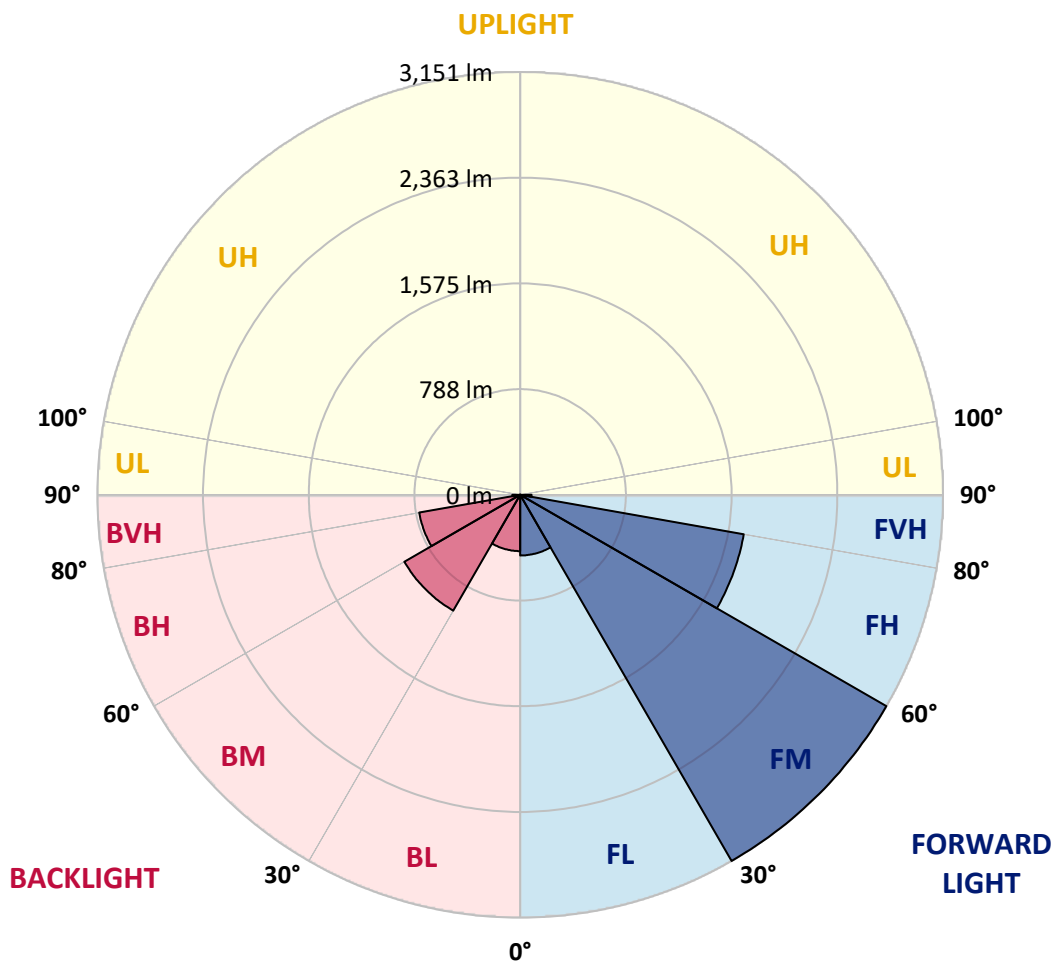
CATALOG NUMBER: ARCH-AF24-60-D-U-T2U-7050

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	452.2	5.9			
FM	(30°-60°)	3150.6	41.4			
FH	(60°-80°)	1691.6	22.2			G1/1800
FVH	(80°-90°)	84.2	1.1			G1/100
BL	(0°-30°)	419.6	5.5	B1/500		
BM	(30°-60°)	996.9	13.1	B1/1000		
BH	(60°-80°)	764.1	10.0	B2/1000		G2/1000
BVH	(80°-90°)	58.9	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°	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0
2.5°	819.9	818.7	818.7	818.7	818.7	817.4	818.7	821.2	819.9	818.7	821.2
5°	822.5	821.2	821.2	821.2	822.5	821.2	822.5	826.3	823.8	823.8	826.3
7.5°	828.9	827.6	828.9	827.6	827.6	827.6	828.9	832.7	831.4	832.7	836.5
10°	836.5	836.5	836.5	836.5	836.5	836.5	839.1	841.6	842.9	844.2	849.3
12.5°	859.5	859.5	859.5	858.2	858.2	854.4	859.5	862.0	864.6	867.1	870.9
15°	907.9	907.9	906.6	901.5	901.5	893.9	895.2	896.4	896.4	899.0	901.5
17.5°	971.7	970.4	967.8	964.0	958.9	950.0	947.4	944.9	941.1	939.8	939.8
20°	1060.9	1059.7	1054.6	1044.4	1038.0	1024.0	1013.7	1003.5	999.7	993.3	992.1
22.5°	1188.4	1188.4	1178.2	1162.9	1157.8	1128.5	1099.2	1077.5	1069.9	1060.9	1060.9
25°	1342.7	1341.5	1327.4	1309.6	1287.9	1257.3	1221.6	1192.3	1173.1	1152.7	1145.1
27.5°	1527.6	1523.8	1504.7	1483.0	1442.2	1403.9	1361.9	1331.3	1298.1	1272.6	1249.7
30°	1744.4	1740.6	1707.4	1666.6	1624.5	1586.3	1525.1	1488.1	1435.8	1405.2	1379.7
32.5°	1995.6	1991.8	1931.9	1892.3	1847.7	1800.5	1727.8	1669.2	1602.9	1559.5	1523.8
35°	2315.7	2300.4	2214.9	2160.1	2090.0	2042.8	1966.3	1887.2	1809.4	1748.2	1696.0
37.5°	2661.3	2643.4	2568.2	2486.6	2417.7	2360.3	2251.9	2152.5	2060.7	1976.5	1911.5
40°	3022.1	2974.9	2894.6	2834.7	2787.5	2732.7	2619.2	2514.6	2370.5	2276.2	2178.0
42.5°	3272.1	3226.1	3170.0	3130.5	3107.6	3065.5	3001.7	2911.2	2782.4	2784.9	2526.1
45°	3436.5	3369.0	3330.7	3333.3	3342.2	3342.2	3330.7	3316.7	3260.6	3298.8	3082.1
47.5°	3377.9	3333.3	3309.0	3360.0	3423.8	3487.6	3561.5	3641.8	3733.7	3842.0	3575.5
50°	3033.6	3050.2	3061.7	3170.0	3306.5	3451.8	3621.4	3840.8	4097.1	4146.8	4018.0
52.5°	2484.0	2519.7	2558.0	2723.7	2903.5	3154.7	3451.8	3814.0	4158.3	4361.0	4348.3
55°	1929.3	1973.9	2055.6	2179.2	2322.1	2559.2	2926.5	3485.0	4021.8	4344.5	4540.8
57.5°	1373.3	1438.4	1545.5	1717.6	1843.9	1977.8	2249.4	2869.1	3456.9	4057.5	4509.0
60°	913.0	943.6	1013.7	1228.0	1440.9	1581.2	1773.7	1998.2	2478.9	3306.5	4180.0
62.5°	647.8	668.2	711.5	808.4	1001.0	1254.8	1370.8	1474.1	1628.4	2127.0	3356.2
63°	612.1	629.9	665.6	747.2	920.7	1183.3	1301.9	1396.3	1508.5	1902.5	3175.1
65°	507.5	515.2	534.3	573.8	666.9	885.0	1078.8	1136.2	1155.3	1222.9	1989.2
67.5°	428.5	433.6	439.9	451.4	488.4	589.1	804.6	877.3	855.6	809.7	983.1
70°	372.3	376.2	386.4	400.4	413.2	438.7	553.4	661.8	637.6	575.1	601.9
72.5°	297.1	303.5	315.0	339.2	364.7	397.8	425.9	493.5	478.2	418.3	424.6
75°	234.6	238.5	248.7	266.5	290.7	329.0	383.8	406.8	364.7	308.6	308.6
77.5°	186.2	190.0	198.9	213.0	228.3	255.0	293.3	353.2	327.7	232.1	230.8
80°	140.3	144.1	153.0	165.8	181.1	200.2	223.2	249.9	300.9	216.8	173.4
82.5°	103.3	104.6	119.9	128.8	133.9	149.2	168.3	183.6	206.6	200.2	154.3
85°	77.8	76.5	86.7	93.1	94.4	98.2	109.7	125.0	135.2	130.1	119.9
87.5°	43.4	38.3	44.6	51.0	51.0	52.3	54.8	63.8	72.7	70.1	63.8
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°	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0
2.5°	821.2	821.2	819.9	819.9	821.2	821.2	819.9	823.8	826.3	826.3	827.6
5°	825.0	826.3	825.0	825.0	826.3	826.3	827.6	831.4	835.2	837.8	841.6
7.5°	836.5	837.8	836.5	836.5	837.8	839.1	841.6	846.7	849.3	854.4	860.7
10°	849.3	850.5	849.3	850.5	851.8	853.1	856.9	860.7	864.6	869.7	879.9
12.5°	872.2	873.5	870.9	872.2	876.0	876.0	878.6	881.1	887.5	893.9	904.1
15°	904.1	904.1	901.5	902.8	906.6	906.6	907.9	910.5	918.1	925.8	936.0
17.5°	941.1	943.6	942.3	943.6	946.2	947.4	947.4	950.0	955.1	960.2	970.4
20°	990.8	992.1	989.5	992.1	994.6	992.1	989.5	988.2	990.8	993.3	1004.8
22.5°	1058.4	1057.1	1050.7	1050.7	1050.7	1045.6	1039.3	1031.6	1031.6	1027.8	1036.7
25°	1138.7	1134.9	1126.0	1127.2	1118.3	1110.7	1099.2	1087.7	1077.5	1073.7	1075.0
27.5°	1233.1	1225.4	1216.5	1213.9	1205.0	1191.0	1171.9	1150.2	1133.6	1120.9	1118.3
30°	1351.7	1335.1	1319.8	1317.2	1303.2	1280.3	1249.7	1220.3	1192.3	1170.6	1162.9
32.5°	1491.9	1466.4	1442.2	1439.7	1416.7	1386.1	1349.1	1308.3	1267.5	1233.1	1216.5
35°	1656.4	1618.2	1595.2	1588.8	1555.7	1517.4	1476.6	1424.3	1367.0	1318.5	1287.9
37.5°	1856.6	1817.1	1777.6	1778.8	1732.9	1688.3	1633.5	1569.7	1497.0	1429.5	1386.1
40°	2104.0	2047.9	1996.9	1985.4	1945.9	1883.4	1823.5	1749.5	1660.3	1571.0	1508.5
42.5°	2403.7	2311.9	2241.7	2231.5	2179.2	2102.7	2030.0	1931.9	1841.3	1732.9	1657.7
45°	2744.1	2597.5	2513.3	2498.0	2413.9	2336.1	2248.1	2143.5	2032.6	1910.2	1820.9
47.5°	3167.5	2958.4	2815.5	2790.0	2674.0	2572.0	2480.2	2364.1	2231.5	2095.1	1996.9
50°	3661.0	3352.4	3159.8	3120.3	2964.7	2844.9	2727.6	2582.2	2440.6	2297.8	2184.3
52.5°	4155.7	3824.2	3567.9	3519.4	3289.9	3129.2	2974.9	2829.6	2662.5	2521.0	2392.2
55°	4553.6	4333.0	4035.9	3968.3	3639.3	3421.2	3218.5	3052.7	2887.0	2774.7	2623.0
57.5°	4793.3	4781.8	4547.2	4454.1	4004.0	3681.4	3455.7	3267.0	3106.3	3059.1	2857.6
60°	4786.9	5084.0	4983.3	4913.2	4372.5	3947.9	3654.6	3450.6	3318.0	3371.5	3093.5
62.5°	4494.9	5096.8	5217.9	5198.8	4765.3	4162.1	3817.8	3607.4	3537.3	3696.7	3338.4
63°	4389.1	5067.5	5228.1	5220.5	4840.5	4202.9	3845.9	3638.0	3580.6	3779.6	3383.0
65°	3709.4	4811.2	5104.5	5138.9	5002.4	4343.2	3910.9	3715.8	3709.4	3964.5	3488.8
67.5°	2260.9	4065.2	4547.2	4613.5	4774.2	4387.8	3873.9	3689.0	3780.8	3991.2	3456.9
70°	966.6	2682.9	3654.6	3761.7	4154.5	4165.9	3768.1	3579.4	3764.3	3782.1	3230.0
72.5°	572.5	1265.0	2487.8	2721.2	3287.4	3584.5	3525.8	3388.1	3546.2	3321.8	2750.5
75°	405.5	591.7	1263.7	1512.3	2288.9	2736.5	2962.2	3025.9	3019.6	2634.5	2064.5
77.5°	290.7	380.0	533.0	628.7	1277.7	1757.2	2032.6	2218.8	2158.8	1763.5	1272.6
80°	202.7	262.7	326.4	346.8	592.9	902.8	1071.1	1152.7	1117.0	881.1	570.0
82.5°	146.6	172.1	210.4	223.2	298.4	417.0	496.0	437.4	419.5	325.2	246.1
85°	113.5	110.9	131.3	136.4	174.7	218.1	223.2	173.4	151.7	135.2	137.7
87.5°	80.3	68.9	70.1	72.7	90.5	116.0	113.5	71.4	61.2	65.0	74.0
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°	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0	825.0
2.5°	830.1	831.4	834.0	835.2	837.8	837.8	840.3	841.6	844.2	846.7	848.0
5°	845.4	849.3	854.4	856.9	862.0	865.8	870.9	873.5	878.6	882.4	887.5
7.5°	868.4	874.8	881.1	888.8	896.4	902.8	907.9	914.3	923.2	929.6	933.4
10°	890.1	899.0	910.5	919.4	930.9	939.8	947.4	958.9	969.1	978.0	983.1
12.5°	918.1	929.6	941.1	955.1	970.4	981.9	993.3	1008.6	1022.7	1032.9	1038.0
15°	951.3	965.3	978.0	994.6	1012.5	1027.8	1044.4	1060.9	1071.1	1071.1	1068.6
17.5°	985.7	997.2	1012.5	1031.6	1055.8	1075.0	1083.9	1086.4	1082.6	1073.7	1067.3
20°	1020.1	1030.3	1046.9	1069.9	1095.4	1099.2	1090.3	1078.8	1067.3	1052.0	1041.8
22.5°	1048.2	1062.2	1087.7	1114.5	1115.8	1094.1	1069.9	1050.7	1032.9	1015.0	995.9
25°	1081.3	1100.5	1134.9	1145.1	1111.9	1071.1	1036.7	1008.6	979.3	950.0	928.3
27.5°	1122.1	1150.2	1184.6	1155.3	1090.3	1032.9	985.7	943.6	905.4	864.6	840.3
30°	1165.5	1208.8	1216.5	1140.0	1053.3	979.3	915.6	851.8	803.3	766.4	752.3
32.5°	1217.8	1273.9	1228.0	1113.2	1003.5	906.6	821.2	744.7	703.9	680.9	674.6
35°	1296.8	1342.7	1234.4	1085.2	946.2	819.9	712.8	651.6	626.1	610.8	603.1
37.5°	1410.3	1409.0	1233.1	1050.7	879.9	725.6	626.1	582.7	562.3	549.6	535.6
40°	1542.9	1460.1	1225.4	1001.0	790.6	635.0	566.2	525.4	506.2	490.9	474.4
42.5°	1674.3	1494.5	1203.7	927.0	679.7	570.0	522.8	485.8	465.4	448.9	425.9
45°	1787.8	1508.5	1161.7	825.0	580.2	519.0	494.8	462.9	438.7	413.2	395.3
47.5°	1877.0	1506.0	1094.1	705.2	513.9	483.3	471.8	450.1	420.8	388.9	366.0
50°	1952.3	1486.8	1002.3	599.3	469.3	451.4	447.6	441.2	394.0	367.2	353.2
52.5°	2021.1	1458.8	904.1	527.9	431.0	415.7	423.4	417.0	383.8	360.9	346.8
55°	2115.5	1439.7	807.2	473.1	386.4	382.5	388.9	397.8	377.4	355.8	340.5
57.5°	2226.4	1449.9	733.2	411.9	344.3	346.8	368.5	381.3	371.1	348.1	332.8
60°	2353.9	1480.5	668.2	353.2	309.9	316.2	348.1	366.0	364.7	337.9	320.1
62.5°	2496.8	1512.3	564.9	308.6	280.5	290.7	323.9	346.8	350.7	327.7	306.0
63°	2524.8	1514.9	538.1	299.7	275.4	286.9	317.5	341.7	346.8	325.2	303.5
65°	2593.7	1491.9	433.6	275.4	255.0	267.8	298.4	320.1	330.3	311.1	293.3
67.5°	2536.3	1304.5	326.4	246.1	238.5	247.4	274.2	294.6	303.5	294.6	276.7
70°	2319.5	948.7	255.0	219.3	220.6	227.0	247.4	266.5	276.7	274.2	257.6
72.5°	1868.1	538.1	213.0	196.4	200.2	207.9	221.9	239.7	248.7	247.4	235.9
75°	1230.5	275.4	179.8	176.0	178.5	184.9	195.1	209.1	219.3	218.1	213.0
77.5°	609.5	191.3	154.3	155.6	156.8	161.9	169.6	182.3	188.7	190.0	188.7
80°	251.2	149.2	132.6	133.9	135.2	139.0	144.1	155.6	159.4	161.9	163.2
82.5°	150.5	113.5	105.8	108.4	109.7	113.5	117.3	127.5	131.3	135.2	135.2
85°	99.5	79.1	76.5	79.1	81.6	84.2	85.4	91.8	98.2	103.3	105.8
87.5°	53.6	47.2	45.9	47.2	47.2	49.7	52.3	58.7	66.3	71.4	74.0
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°	825.0	825.0	825.0	825.0	825.0
2.5°	845.4	846.7	845.4	846.7	848.0
5°	887.5	890.1	888.8	888.8	893.9
7.5°	936.0	941.1	941.1	943.6	946.2
10°	988.2	993.3	997.2	997.2	1001.0
12.5°	1040.5	1043.1	1046.9	1046.9	1046.9
15°	1067.3	1066.0	1064.8	1063.5	1063.5
17.5°	1063.5	1058.4	1055.8	1053.3	1054.6
20°	1035.4	1026.5	1024.0	1020.1	1022.7
22.5°	987.0	974.2	969.1	962.7	965.3
25°	914.3	899.0	896.4	888.8	892.6
27.5°	830.1	822.5	821.2	819.9	826.3
30°	751.1	753.6	754.9	757.4	763.8
32.5°	678.4	683.5	684.8	686.0	695.0
35°	607.0	600.6	607.0	604.4	612.1
37.5°	529.2	524.1	519.0	512.6	517.7
40°	464.2	455.2	439.9	432.3	433.6
42.5°	413.2	401.7	388.9	381.3	381.3
45°	380.0	366.0	354.5	349.4	349.4
47.5°	354.5	348.1	341.7	337.9	337.9
50°	344.3	336.6	332.8	330.3	330.3
52.5°	336.6	329.0	325.2	322.6	320.1
55°	330.3	318.8	315.0	313.7	313.7
57.5°	321.3	311.1	306.0	304.8	304.8
60°	307.3	299.7	294.6	293.3	293.3
62.5°	293.3	285.6	280.5	280.5	280.5
63°	290.7	281.8	278.0	278.0	278.0
65°	279.3	270.3	266.5	266.5	265.2
67.5°	264.0	255.0	252.5	252.5	249.9
70°	246.1	238.5	235.9	237.2	232.1
72.5°	228.3	220.6	216.8	216.8	211.7
75°	207.9	200.2	195.1	193.8	188.7
77.5°	184.9	178.5	173.4	168.3	165.8
80°	160.7	155.6	149.2	145.4	141.5
82.5°	135.2	130.1	126.2	131.3	112.2
85°	105.8	100.7	95.6	103.3	80.3
87.5°	77.8	75.2	70.1	61.2	53.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)