

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: P239126

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P239126  
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  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 4000K, 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: 10166.1 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B3 - U0 - G3

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

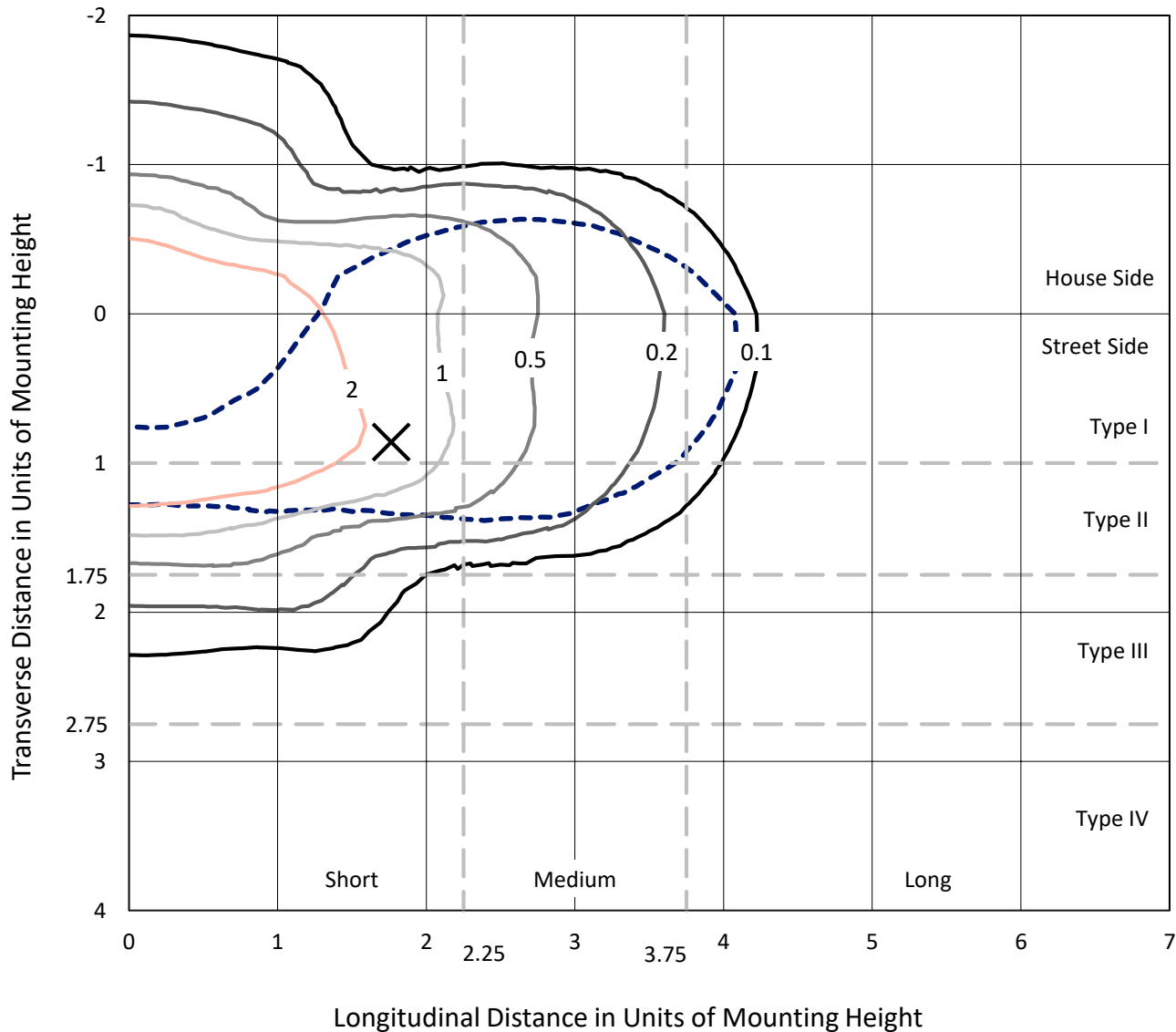


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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

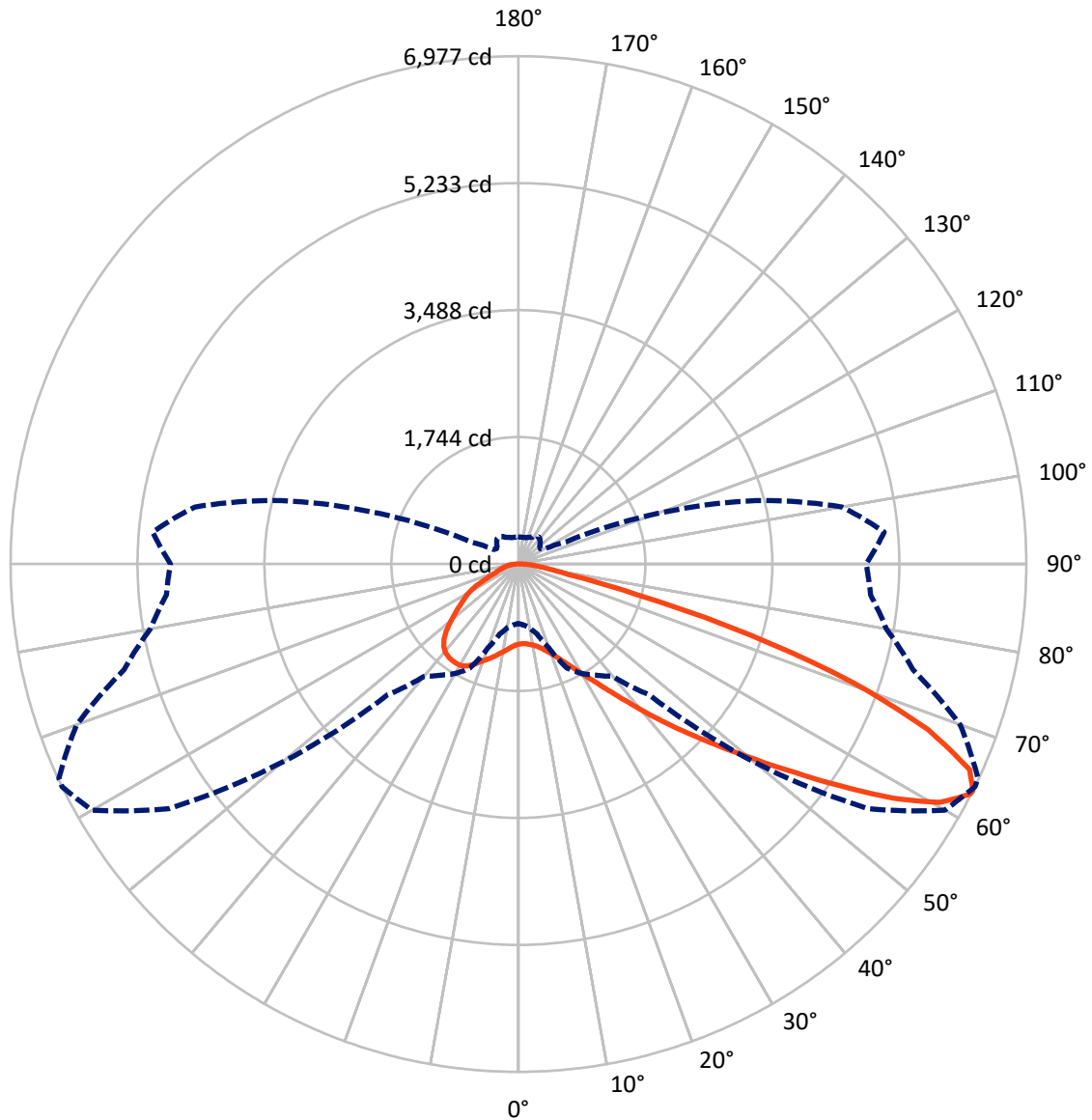


Based on 20 foot mounting height. Maximum calculated value = 4.5 fc  
 Type II - Short - Semi-Cutoff

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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
<b>House Side</b>	Lumens	2988.5	0.0	2988.5
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	7177.6	0.0	7177.6
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	10166.1	0.0	10166.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	109.9	1.1
10°-20°	366.1	3.6
20°-30°	687.3	6.8
30°-40°	1151.9	11.3
40°-50°	1932.7	19.0
50°-60°	2450.1	24.1
60°-70°	2161.4	21.3
70°-80°	1115.7	11.0
80°-90°	190.9	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°	10166.1	100.0
0°-180°	10166.1	100.0



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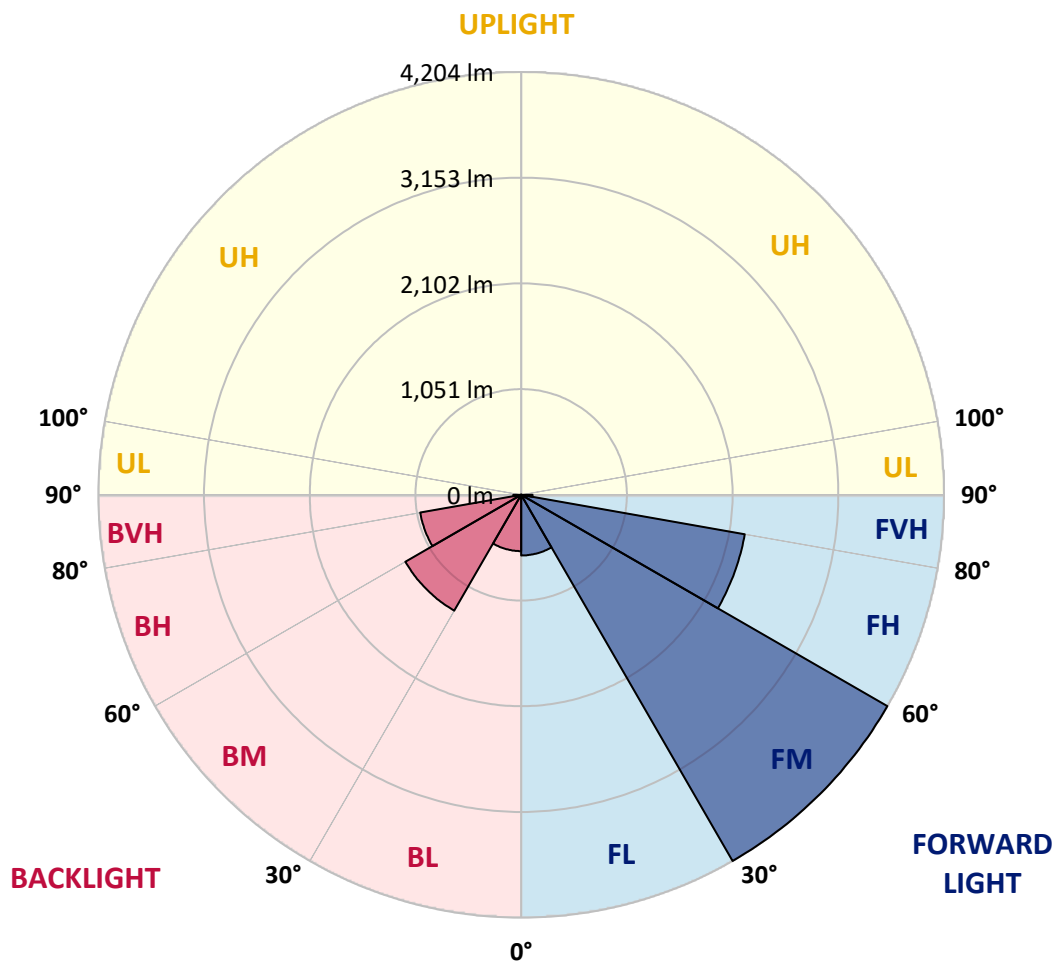
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	603.4	5.9			
FM	(30°-60°)	4204.4	41.4			
FH	(60°-80°)	2257.4	22.2			G2/5000
FVH	(80°-90°)	112.4	1.1			G2/225
BL	(0°-30°)	559.9	5.5	B2/1000		
BM	(30°-60°)	1330.3	13.1	B2/2500		
BH	(60°-80°)	1019.6	10.0	B3/2500		G3/2500
BVH	(80°-90°)	78.6	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G3**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0
2.5°	1094.1	1092.5	1092.5	1092.5	1092.5	1090.8	1092.5	1095.9	1094.1	1092.5	1095.9
5°	1097.6	1095.9	1095.9	1095.9	1097.6	1095.9	1097.6	1102.6	1099.3	1099.3	1102.6
7.5°	1106.1	1104.4	1106.1	1104.4	1104.4	1104.4	1106.1	1111.2	1109.5	1111.2	1116.3
10°	1116.3	1116.3	1116.3	1116.3	1116.3	1116.3	1119.7	1123.1	1124.8	1126.5	1133.3
12.5°	1146.9	1146.9	1146.9	1145.2	1145.2	1140.1	1146.9	1150.3	1153.7	1157.2	1162.3
15°	1211.6	1211.6	1209.8	1203.1	1203.1	1192.9	1194.6	1196.2	1196.2	1199.7	1203.1
17.5°	1296.7	1295.0	1291.6	1286.5	1279.6	1267.7	1264.4	1260.9	1255.9	1254.1	1254.1
20°	1415.8	1414.1	1407.3	1393.7	1385.2	1366.5	1352.9	1339.2	1334.1	1325.6	1323.9
22.5°	1586.0	1586.0	1572.4	1551.9	1545.2	1506.0	1466.8	1438.0	1427.7	1415.8	1415.8
25°	1791.9	1790.2	1771.4	1747.6	1718.7	1677.8	1630.2	1591.1	1565.5	1538.3	1528.1
27.5°	2038.6	2033.5	2008.0	1979.0	1924.6	1873.5	1817.4	1776.6	1732.3	1698.3	1667.6
30°	2327.9	2322.8	2278.5	2224.1	2167.9	2116.9	2035.2	1985.9	1916.1	1875.3	1841.2
32.5°	2663.2	2658.0	2578.0	2525.3	2465.7	2402.8	2305.7	2227.5	2139.0	2081.2	2033.5
35°	3090.2	3069.8	2955.8	2882.7	2789.1	2726.1	2624.0	2518.5	2414.7	2333.0	2263.2
37.5°	3551.4	3527.5	3427.2	3318.2	3226.4	3149.8	3005.1	2872.4	2749.9	2637.6	2550.8
40°	4033.0	3970.0	3862.8	3782.8	3719.9	3646.7	3495.2	3355.7	3163.4	3037.4	2906.4
42.5°	4366.5	4305.2	4230.3	4177.6	4146.9	4090.8	4005.8	3885.0	3713.0	3716.5	3371.0
45°	4586.0	4495.9	4444.7	4448.2	4460.1	4460.1	4444.7	4426.1	4351.2	4402.3	4113.0
47.5°	4507.7	4448.2	4415.9	4483.9	4569.0	4654.1	4752.7	4859.9	4982.5	5127.1	4771.5
50°	4048.3	4070.4	4085.8	4230.3	4412.4	4606.4	4832.7	5125.4	5467.5	5533.9	5362.0
52.5°	3314.9	3362.5	3413.6	3634.7	3874.7	4210.0	4606.4	5089.7	5549.2	5819.8	5802.7
55°	2574.7	2634.2	2743.1	2908.1	3098.7	3415.2	3905.3	4650.6	5367.1	5797.6	6059.7
57.5°	1832.7	1919.5	2062.5	2292.1	2460.6	2639.3	3001.7	3828.8	4613.2	5414.7	6017.1
60°	1218.4	1259.3	1352.9	1638.7	1922.8	2110.0	2367.0	2666.5	3308.0	4412.4	5578.0
62.5°	864.5	891.7	949.5	1078.9	1335.8	1674.5	1829.3	1967.1	2173.1	2838.4	4478.8
63°	816.8	840.7	888.2	997.2	1228.6	1579.1	1737.4	1863.3	2013.1	2538.9	4237.2
65°	677.3	687.5	713.0	765.8	890.0	1181.0	1439.6	1516.2	1541.7	1631.9	2654.7
67.5°	571.7	578.6	587.1	602.4	651.7	786.1	1073.8	1170.8	1141.8	1080.5	1312.0
70°	496.8	502.0	515.6	534.3	551.4	585.3	738.6	883.2	850.8	767.4	803.2
72.5°	396.5	405.0	420.3	452.7	486.7	530.9	568.4	658.6	638.1	558.1	566.6
75°	313.1	318.2	331.8	355.7	388.0	439.1	512.2	542.9	486.7	411.8	411.8
77.5°	248.5	253.6	265.5	284.2	304.6	340.3	391.4	471.4	437.3	309.7	308.0
80°	187.2	192.3	204.2	221.3	241.6	267.2	297.8	333.5	401.6	289.3	231.4
82.5°	137.8	139.5	160.0	171.9	178.7	199.1	224.6	245.0	275.7	267.2	205.9
85°	103.8	102.1	115.7	124.2	125.9	131.0	146.4	166.7	180.3	173.6	160.0
87.5°	57.9	51.0	59.5	68.0	68.0	69.8	73.1	85.1	97.0	93.6	85.1
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°	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0
2.5°	1095.9	1095.9	1094.1	1094.1	1095.9	1095.9	1094.1	1099.3	1102.6	1102.6	1104.4
5°	1101.0	1102.6	1101.0	1101.0	1102.6	1102.6	1104.4	1109.5	1114.6	1118.0	1123.1
7.5°	1116.3	1118.0	1116.3	1116.3	1118.0	1119.7	1123.1	1130.0	1133.3	1140.1	1148.7
10°	1133.3	1135.1	1133.3	1135.1	1136.7	1138.4	1143.6	1148.7	1153.7	1160.5	1174.1
12.5°	1163.9	1165.7	1162.3	1163.9	1169.0	1169.0	1172.4	1175.9	1184.4	1192.9	1206.5
15°	1206.5	1206.5	1203.1	1204.8	1209.8	1209.8	1211.6	1215.0	1225.2	1235.4	1249.0
17.5°	1255.9	1259.3	1257.5	1259.3	1262.6	1264.4	1264.4	1267.7	1274.6	1281.3	1295.0
20°	1322.2	1323.9	1320.5	1323.9	1327.3	1323.9	1320.5	1318.8	1322.2	1325.6	1340.9
22.5°	1412.4	1410.6	1402.2	1402.2	1402.2	1395.4	1386.8	1376.7	1376.7	1371.6	1383.4
25°	1519.6	1514.5	1502.6	1504.2	1492.4	1482.2	1466.8	1451.6	1438.0	1432.8	1434.5
27.5°	1645.5	1635.3	1623.4	1619.9	1608.1	1589.4	1563.9	1534.9	1512.7	1495.8	1492.4
30°	1803.8	1781.7	1761.2	1757.8	1739.1	1708.4	1667.6	1628.5	1591.1	1562.1	1551.9
32.5°	1991.0	1956.9	1924.6	1921.2	1890.5	1849.7	1800.4	1745.9	1691.4	1645.5	1623.4
35°	2210.5	2159.4	2128.8	2120.3	2076.1	2025.0	1970.5	1900.7	1824.2	1759.6	1718.7
37.5°	2477.6	2424.9	2372.1	2373.9	2312.6	2253.0	2179.8	2094.8	1997.7	1907.6	1849.7
40°	2807.8	2732.9	2664.8	2649.5	2596.8	2513.4	2433.4	2334.7	2215.6	2096.4	2013.1
42.5°	3207.7	3085.1	2991.5	2977.9	2908.1	2806.1	2709.1	2578.0	2457.2	2312.6	2212.1
45°	3662.0	3466.3	3353.9	3333.6	3221.3	3117.4	3000.0	2860.5	2712.5	2549.1	2430.0
47.5°	4226.9	3947.9	3757.3	3723.2	3568.4	3432.3	3309.8	3154.9	2977.9	2795.8	2664.8
50°	4885.5	4473.7	4216.7	4164.0	3956.4	3796.5	3639.9	3445.9	3257.0	3066.4	2915.0
52.5°	5545.7	5103.3	4761.3	4696.6	4390.3	4175.9	3970.0	3776.0	3553.1	3364.2	3192.3
55°	6076.6	5782.3	5385.8	5295.6	4856.6	4565.6	4295.1	4073.8	3852.6	3702.9	3500.3
57.5°	6396.6	6381.3	6068.1	5944.0	5343.3	4912.7	4611.6	4359.7	4145.3	4082.3	3813.5
60°	6388.1	6784.6	6650.1	6556.5	5835.0	5268.4	4877.0	4604.7	4427.7	4499.2	4128.2
62.5°	5998.4	6801.6	6963.2	6937.8	6359.2	5554.2	5094.8	4814.0	4720.4	4933.2	4455.0
63°	5857.1	6762.4	6976.8	6966.6	6459.5	5608.7	5132.2	4854.9	4778.3	5043.8	4514.6
65°	4950.2	6420.4	6811.8	6857.8	6675.7	5795.9	5219.0	4958.7	4950.2	5290.5	4655.8
67.5°	3017.1	5424.9	6068.1	6156.6	6371.0	5855.5	5169.7	4923.0	5045.5	5326.2	4613.2
70°	1289.8	3580.3	4877.0	5019.9	5544.1	5559.3	5028.4	4776.6	5023.3	5047.1	4310.3
72.5°	764.0	1688.1	3320.0	3631.4	4386.9	4783.4	4705.2	4521.3	4732.4	4432.9	3670.6
75°	541.1	789.6	1686.3	2018.2	3054.5	3651.8	3953.0	4038.1	4029.6	3515.7	2755.0
77.5°	388.0	507.1	711.3	838.9	1705.1	2344.9	2712.5	2960.9	2880.9	2353.4	1698.3
80°	270.6	350.6	435.7	462.9	791.3	1204.8	1429.4	1538.3	1490.6	1175.9	760.7
82.5°	195.7	229.8	280.8	297.8	398.2	556.5	662.0	583.7	559.9	433.9	328.5
85°	151.5	148.0	175.2	182.1	233.1	291.0	297.8	231.4	202.5	180.3	183.8
87.5°	107.2	91.9	93.6	97.0	120.8	154.9	151.5	95.3	81.6	86.7	98.7
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0	1101.0
2.5°	1107.8	1109.5	1112.9	1114.6	1118.0	1118.0	1121.4	1123.1	1126.5	1130.0	1131.6
5°	1128.2	1133.3	1140.1	1143.6	1150.3	1155.4	1162.3	1165.7	1172.4	1177.5	1184.4
7.5°	1158.8	1167.4	1175.9	1186.1	1196.2	1204.8	1211.6	1220.1	1232.0	1240.5	1245.6
10°	1187.7	1199.7	1215.0	1226.9	1242.3	1254.1	1264.4	1279.6	1293.3	1305.2	1312.0
12.5°	1225.2	1240.5	1255.9	1274.6	1295.0	1310.3	1325.6	1346.0	1364.7	1378.3	1385.2
15°	1269.5	1288.2	1305.2	1327.3	1351.1	1371.6	1393.7	1415.8	1429.4	1429.4	1426.0
17.5°	1315.4	1330.8	1351.1	1376.7	1409.0	1434.5	1446.5	1449.8	1444.7	1432.8	1424.3
20°	1361.3	1374.9	1397.0	1427.7	1461.7	1466.8	1454.9	1439.6	1424.3	1403.9	1390.3
22.5°	1398.8	1417.5	1451.6	1487.3	1489.0	1460.1	1427.7	1402.2	1378.3	1354.5	1329.0
25°	1443.0	1468.5	1514.5	1528.1	1483.9	1429.4	1383.4	1346.0	1306.9	1267.7	1238.8
27.5°	1497.5	1534.9	1580.9	1541.7	1454.9	1378.3	1315.4	1259.3	1208.2	1153.7	1121.4
30°	1555.3	1613.2	1623.4	1521.3	1405.5	1306.9	1221.8	1136.7	1072.1	1022.7	1004.0
32.5°	1625.1	1699.9	1638.7	1485.5	1339.2	1209.8	1095.9	993.8	939.3	908.7	900.2
35°	1730.6	1791.9	1647.3	1448.1	1262.6	1094.1	951.2	869.5	835.5	815.1	804.9
37.5°	1882.0	1880.4	1645.5	1402.2	1174.1	968.2	835.5	777.6	750.4	733.5	714.7
40°	2059.0	1948.4	1635.3	1335.8	1055.1	847.4	755.6	701.1	675.6	655.1	633.0
42.5°	2234.3	1994.3	1606.3	1237.2	906.9	760.7	697.7	648.3	621.1	599.0	568.4
45°	2385.7	2013.1	1550.2	1101.0	774.3	692.5	660.2	617.7	585.3	551.4	527.5
47.5°	2504.9	2009.7	1460.1	941.0	685.8	645.0	629.6	600.7	561.6	519.0	488.4
50°	2605.3	1984.1	1337.5	799.7	626.3	602.4	597.3	588.8	525.8	490.1	471.4
52.5°	2697.1	1946.7	1206.5	704.5	575.2	554.7	565.0	556.5	512.2	481.6	462.9
55°	2823.0	1921.2	1077.2	631.4	515.6	510.5	519.0	530.9	503.7	474.8	454.4
57.5°	2971.2	1934.8	978.5	549.6	459.4	462.9	491.8	508.8	495.2	464.5	444.2
60°	3141.3	1975.6	891.7	471.4	413.5	422.0	464.5	488.4	486.7	450.9	427.1
62.5°	3331.9	2018.2	753.8	411.8	374.4	388.0	432.2	462.9	468.0	437.3	408.4
63°	3369.3	2021.6	718.1	399.9	367.5	382.9	423.7	456.0	462.9	433.9	405.0
65°	3461.2	1991.0	578.6	367.5	340.3	357.3	398.2	427.1	440.7	415.2	391.4
67.5°	3384.6	1740.9	435.7	328.5	318.2	330.1	365.9	393.1	405.0	393.1	369.3
70°	3095.3	1266.0	340.3	292.7	294.4	302.9	330.1	355.7	369.3	365.9	343.7
72.5°	2492.9	718.1	284.2	262.1	267.2	277.3	296.0	319.9	331.8	330.1	314.8
75°	1642.1	367.5	240.0	234.9	238.2	246.7	260.3	279.1	292.7	291.0	284.2
77.5°	813.5	255.2	205.9	207.6	209.3	216.1	226.3	243.4	251.9	253.6	251.9
80°	335.2	199.1	177.0	178.7	180.3	185.5	192.3	207.6	212.7	216.1	217.8
82.5°	200.8	151.5	141.3	144.6	146.4	151.5	156.5	170.1	175.2	180.3	180.3
85°	132.8	105.5	102.1	105.5	108.9	112.3	114.1	122.5	131.0	137.8	141.3
87.5°	71.5	62.9	61.3	62.9	62.9	66.4	69.8	78.3	88.5	95.3	98.7
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):**

	160°	165°	170°	175°	180°
0°	1101.0	1101.0	1101.0	1101.0	1101.0
2.5°	1128.2	1130.0	1128.2	1130.0	1131.6
5°	1184.4	1187.7	1186.1	1186.1	1192.9
7.5°	1249.0	1255.9	1255.9	1259.3	1262.6
10°	1318.8	1325.6	1330.8	1330.8	1335.8
12.5°	1388.6	1391.9	1397.0	1397.0	1397.0
15°	1424.3	1422.6	1420.9	1419.2	1419.2
17.5°	1419.2	1412.4	1409.0	1405.5	1407.3
20°	1381.8	1369.8	1366.5	1361.3	1364.7
22.5°	1317.0	1300.1	1293.3	1284.7	1288.2
25°	1220.1	1199.7	1196.2	1186.1	1191.1
27.5°	1107.8	1097.6	1095.9	1094.1	1102.6
30°	1002.3	1005.7	1007.4	1010.8	1019.3
32.5°	905.3	912.1	913.8	915.5	927.4
35°	810.0	801.5	810.0	806.6	816.8
37.5°	706.2	699.4	692.5	684.0	690.9
40°	619.4	607.5	587.1	576.8	578.6
42.5°	551.4	536.0	519.0	508.8	508.8
45°	507.1	488.4	473.1	466.3	466.3
47.5°	473.1	464.5	456.0	450.9	450.9
50°	459.4	449.3	444.2	440.7	440.7
52.5°	449.3	439.1	433.9	430.6	427.1
55°	440.7	425.4	420.3	418.6	418.6
57.5°	428.8	415.2	408.4	406.7	406.7
60°	410.1	399.9	393.1	391.4	391.4
62.5°	391.4	381.2	374.4	374.4	374.4
63°	388.0	376.0	370.9	370.9	370.9
65°	372.7	360.8	355.7	355.7	353.9
67.5°	352.2	340.3	337.0	337.0	333.5
70°	328.5	318.2	314.8	316.5	309.7
72.5°	304.6	294.4	289.3	289.3	282.4
75°	277.3	267.2	260.3	258.7	251.9
77.5°	246.7	238.2	231.4	224.6	221.3
80°	214.4	207.6	199.1	194.0	188.8
82.5°	180.3	173.6	168.5	175.2	149.8
85°	141.3	134.4	127.7	137.8	107.2
87.5°	103.8	100.4	93.6	81.6	71.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)