

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: P265898

Luminaire Tested: **ARCH-AF16-50-D-U-T2U-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265898  
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-AF16-50-D-U-T2U-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5190.1 lumens  
Efficiency: N/A  
Efficacy: 97.9 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

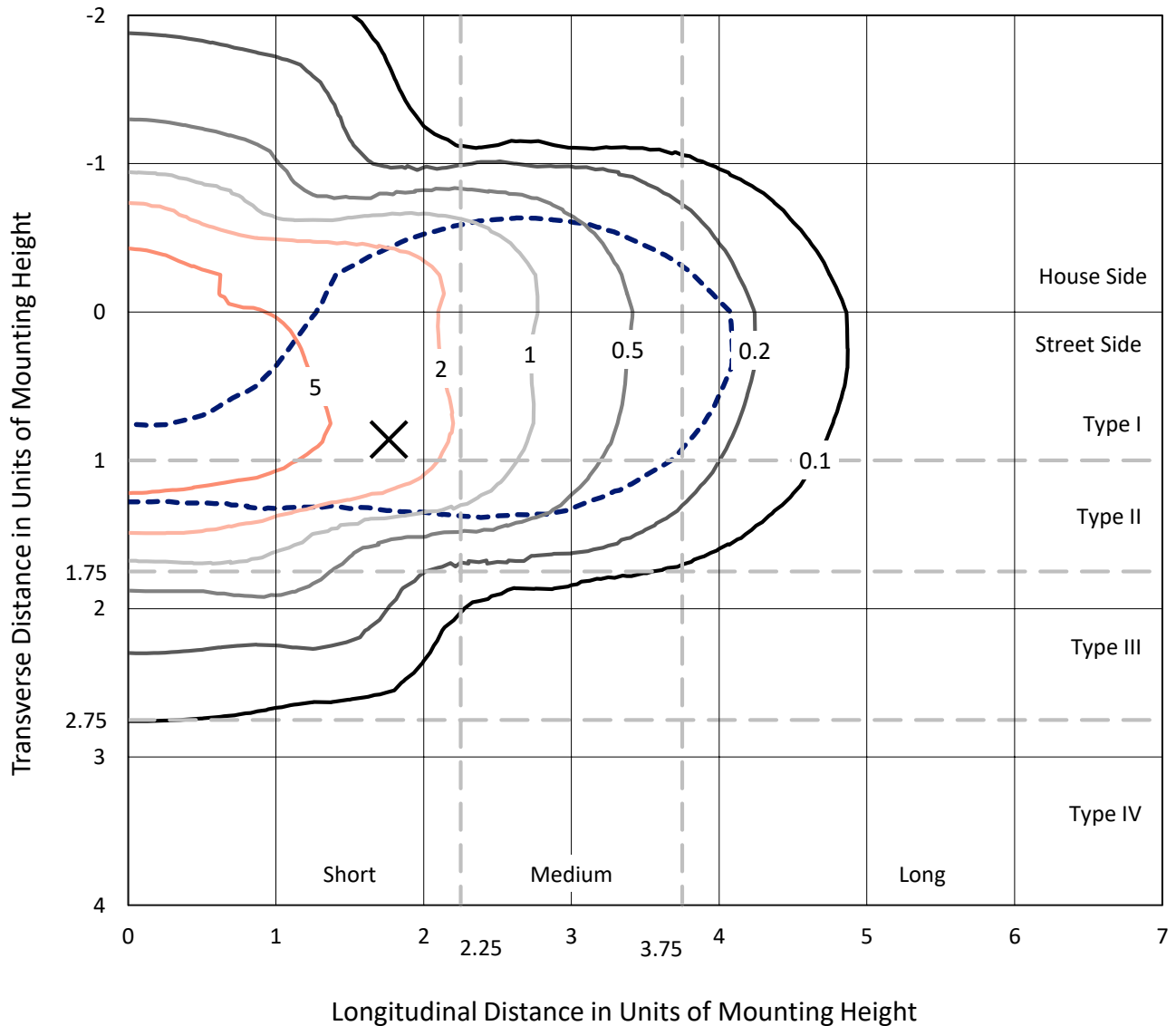
Input Watts (W): 53  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

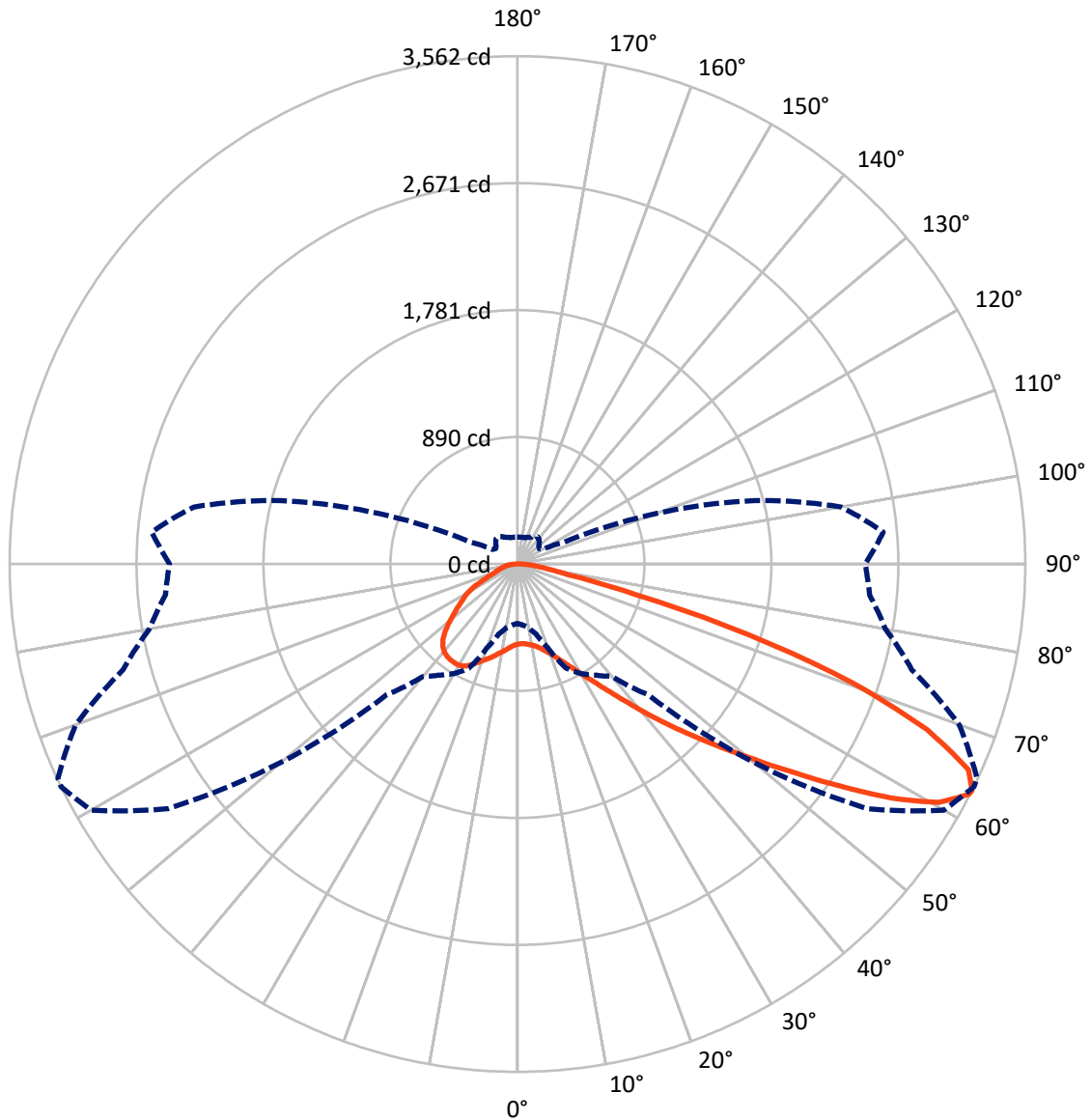
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.1 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	1525.7	0.0	1525.7
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	3664.4	0.0	3664.4
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	5190.1	0.0	5190.1
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.1	1.1
10°-20°	186.9	3.6
20°-30°	350.9	6.8
30°-40°	588.1	11.3
40°-50°	986.7	19.0
50°-60°	1250.8	24.1
60°-70°	1103.4	21.3
70°-80°	569.6	11.0
80°-90°	97.5	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°	5190.1	100.0
0°-180°	5190.1	100.0



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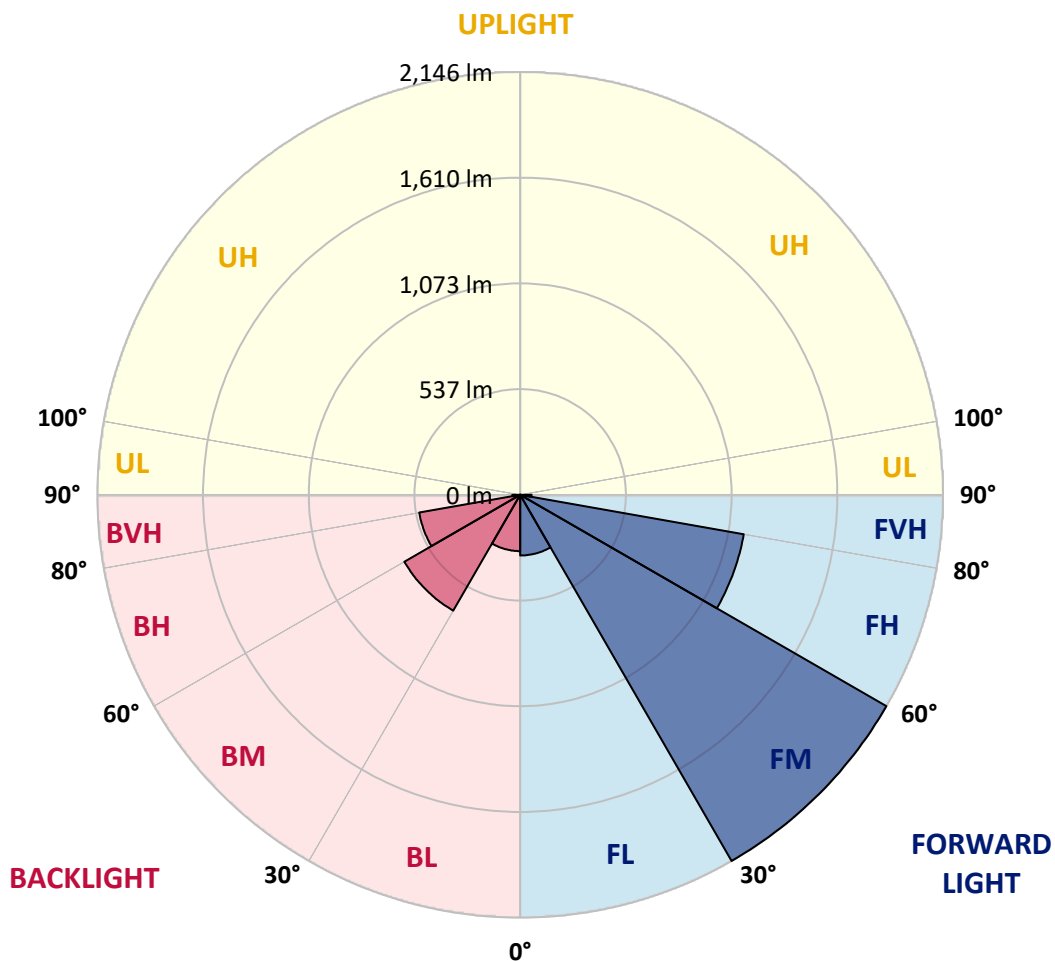
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	308.1	5.9			
FM	(30°-60°)	2146.5	41.4			
FH	(60°-80°)	1152.5	22.2			G1/1800
FVH	(80°-90°)	57.4	1.1			G1/100
BL	(0°-30°)	285.9	5.5	B1/500		
BM	(30°-60°)	679.2	13.1	B1/1000		
BH	(60°-80°)	520.6	10.0	B2/1000		G2/1000
BVH	(80°-90°)	40.1	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°	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1
2.5°	558.6	557.8	557.8	557.8	557.8	556.9	557.8	559.5	558.6	557.8	559.5
5°	560.4	559.5	559.5	559.5	560.4	559.5	560.4	563.0	561.3	561.3	563.0
7.5°	564.7	563.9	564.7	563.9	563.9	563.9	564.7	567.3	566.4	567.3	570.0
10°	570.0	570.0	570.0	570.0	570.0	570.0	571.6	573.4	574.2	575.2	578.6
12.5°	585.5	585.5	585.5	584.6	584.6	582.0	585.5	587.3	589.0	590.7	593.4
15°	618.6	618.6	617.7	614.3	614.3	609.1	609.9	610.8	610.8	612.5	614.3
17.5°	662.1	661.2	659.4	656.8	653.2	647.1	645.5	643.7	641.1	640.3	640.3
20°	722.7	722.0	718.5	711.5	707.1	697.7	690.6	683.7	681.2	676.8	675.9
22.5°	809.7	809.7	802.7	792.3	788.8	768.9	748.8	734.0	728.9	722.7	722.7
25°	914.8	913.9	904.4	892.1	877.5	856.7	832.3	812.2	799.2	785.4	780.2
27.5°	1040.7	1038.1	1025.1	1010.4	982.6	956.4	927.8	907.0	884.4	867.0	851.4
30°	1188.5	1185.9	1163.2	1135.5	1106.8	1080.8	1039.0	1013.8	978.3	957.4	939.9
32.5°	1359.7	1357.0	1316.1	1289.2	1258.9	1226.6	1177.1	1137.3	1092.0	1062.4	1038.1
35°	1577.7	1567.3	1509.1	1471.7	1424.0	1391.7	1339.6	1285.7	1232.7	1191.1	1155.4
37.5°	1813.0	1800.9	1749.7	1694.1	1647.1	1608.1	1534.2	1466.5	1404.0	1346.6	1302.3
40°	2058.9	2026.8	1972.0	1931.3	1899.0	1861.7	1784.5	1713.2	1615.1	1550.7	1483.8
42.5°	2229.2	2198.0	2159.7	2132.8	2117.1	2088.5	2045.0	1983.4	1895.7	1897.4	1721.1
45°	2341.3	2295.3	2269.2	2270.9	2277.1	2277.1	2269.2	2259.6	2221.4	2247.5	2099.8
47.5°	2301.3	2270.9	2254.3	2289.2	2332.5	2376.0	2426.4	2481.2	2543.7	2617.5	2435.9
50°	2066.8	2078.0	2085.9	2159.7	2252.7	2351.8	2467.3	2616.8	2791.4	2825.2	2737.4
52.5°	1692.3	1716.7	1742.7	1855.7	1978.2	2149.3	2351.8	2598.4	2833.1	2971.1	2962.4
55°	1314.4	1344.9	1400.5	1484.7	1581.9	1743.6	1993.8	2374.3	2740.0	2959.8	3093.7
57.5°	935.7	980.0	1053.0	1170.2	1256.2	1347.5	1532.5	1954.7	2355.1	2764.4	3071.9
60°	622.0	642.8	690.6	836.6	981.7	1077.2	1208.4	1361.3	1688.9	2252.7	2847.7
62.5°	441.3	455.3	484.7	550.8	682.0	854.8	933.9	1004.2	1109.3	1449.1	2286.5
63°	417.1	429.2	453.5	509.1	627.2	806.1	886.9	951.2	1027.8	1296.2	2163.2
65°	345.8	351.0	364.1	390.9	454.4	602.9	735.0	774.1	787.0	833.2	1355.3
67.5°	291.9	295.4	299.8	307.5	332.7	401.4	548.1	597.7	582.9	551.6	669.7
70°	253.7	256.2	263.3	272.7	281.4	298.9	377.1	450.9	434.4	391.8	410.0
72.5°	202.4	206.8	214.5	231.0	248.6	271.1	290.2	336.2	325.7	284.9	289.3
75°	159.9	162.5	169.4	181.5	198.0	224.1	261.4	277.1	248.6	210.3	210.3
77.5°	126.8	129.4	135.6	145.0	155.4	173.7	199.9	240.7	223.3	158.1	157.3
80°	95.6	98.2	104.3	112.9	123.3	136.5	152.1	170.3	205.1	147.7	118.1
82.5°	70.3	71.2	81.7	87.8	91.2	101.7	114.7	125.1	140.8	136.5	105.1
85°	53.0	52.1	59.1	63.4	64.3	67.0	74.6	85.1	92.0	88.7	81.7
87.5°	29.6	26.1	30.5	34.8	34.8	35.7	37.4	43.5	49.5	47.8	43.5
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°	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1
2.5°	559.5	559.5	558.6	558.6	559.5	559.5	558.6	561.3	563.0	563.0	563.9
5°	562.1	563.0	562.1	562.1	563.0	563.0	563.9	566.4	569.0	570.8	573.4
7.5°	570.0	570.8	570.0	570.0	570.8	571.6	573.4	576.8	578.6	582.0	586.5
10°	578.6	579.4	578.6	579.4	580.3	581.3	583.8	586.5	589.0	592.5	599.3
12.5°	594.1	595.0	593.4	594.1	596.8	596.8	598.6	600.2	604.6	609.1	616.0
15°	616.0	616.0	614.3	615.1	617.7	617.7	618.6	620.3	625.5	630.7	637.6
17.5°	641.1	642.8	642.0	642.8	644.7	645.5	645.5	647.1	650.7	654.1	661.2
20°	675.0	675.9	674.2	675.9	677.6	675.9	674.2	673.3	675.0	676.8	684.6
22.5°	721.1	720.3	715.9	715.9	715.9	712.4	708.0	702.8	702.8	700.1	706.2
25°	775.7	773.3	767.2	768.1	761.9	756.7	748.8	741.0	734.0	731.5	732.4
27.5°	840.0	834.9	828.7	827.1	821.1	811.3	798.4	783.6	772.4	763.6	761.9
30°	920.9	909.5	899.2	897.4	887.9	872.3	851.4	831.4	812.2	797.5	792.3
32.5°	1016.4	999.0	982.6	980.8	965.1	944.4	919.1	891.4	863.5	840.0	828.7
35°	1128.5	1102.4	1086.8	1082.5	1059.9	1033.8	1006.0	970.3	931.4	898.2	877.5
37.5°	1265.0	1238.0	1211.0	1212.0	1180.6	1150.2	1112.9	1069.4	1019.9	973.9	944.4
40°	1433.4	1395.2	1360.5	1352.7	1325.7	1283.1	1242.4	1192.0	1131.1	1070.3	1027.8
42.5°	1637.6	1575.1	1527.3	1520.3	1484.7	1432.5	1383.0	1316.1	1254.5	1180.6	1129.3
45°	1869.6	1769.7	1712.3	1701.8	1644.5	1591.5	1531.6	1460.4	1384.7	1301.4	1240.6
47.5°	2158.0	2015.4	1918.2	1900.9	1821.8	1752.2	1689.7	1610.8	1520.3	1427.3	1360.5
50°	2494.1	2283.9	2152.8	2125.7	2019.8	1938.3	1858.2	1759.2	1662.9	1565.4	1488.2
52.5°	2831.3	2605.4	2430.8	2397.8	2241.5	2131.9	2026.8	1927.8	1813.9	1717.5	1629.7
55°	3102.2	2952.0	2749.6	2703.5	2479.4	2330.8	2192.8	2079.8	1966.8	1890.5	1787.0
57.5°	3265.7	3257.9	3098.0	3034.6	2728.0	2508.1	2354.3	2225.7	2116.2	2084.2	1946.8
60°	3261.2	3463.8	3395.1	3347.4	2979.0	2689.6	2489.8	2350.9	2260.4	2297.0	2107.7
62.5°	3062.3	3472.4	3555.0	3541.8	3246.6	2835.6	2601.0	2457.8	2410.0	2518.5	2274.4
63°	2990.3	3452.5	3561.9	3556.7	3297.8	2863.3	2620.1	2478.6	2439.4	2575.0	2304.8
65°	2527.2	3277.7	3477.6	3501.1	3408.1	2958.9	2664.5	2531.6	2527.2	2700.9	2376.9
67.5°	1540.4	2769.6	3098.0	3143.2	3252.7	2989.4	2639.3	2513.3	2575.9	2719.2	2355.1
70°	658.5	1827.8	2489.8	2562.9	2830.4	2838.3	2567.1	2438.5	2564.5	2576.7	2200.6
72.5°	390.0	861.8	1694.9	1853.9	2239.7	2442.0	2402.1	2308.3	2416.0	2263.1	1874.0
75°	276.3	403.1	860.9	1030.4	1559.4	1864.3	2018.1	2061.5	2057.2	1794.9	1406.4
77.5°	198.0	258.9	363.2	428.3	870.5	1197.1	1384.7	1511.7	1470.7	1201.6	867.0
80°	138.1	178.9	222.4	236.3	404.0	615.1	729.8	785.4	761.0	600.2	388.3
82.5°	99.9	117.3	143.3	152.1	203.2	284.0	337.9	298.0	285.8	221.5	167.7
85°	77.3	75.5	89.6	93.0	119.0	148.6	152.1	118.1	103.3	92.0	93.9
87.5°	54.7	46.9	47.8	49.5	61.7	79.1	77.3	48.7	41.7	44.2	50.3
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°	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1	562.1
2.5°	565.6	566.4	568.2	569.0	570.8	570.8	572.5	573.4	575.2	576.8	577.7
5°	576.1	578.6	582.0	583.8	587.3	589.8	593.4	595.0	598.6	601.1	604.6
7.5°	591.7	595.9	600.2	605.5	610.8	615.1	618.6	622.9	629.0	633.3	635.9
10°	606.4	612.5	620.3	626.4	634.3	640.3	645.5	653.2	660.3	666.4	669.7
12.5°	625.5	633.3	641.1	650.7	661.2	669.0	676.8	687.2	696.7	703.7	707.1
15°	648.0	657.6	666.4	677.6	689.8	700.1	711.5	722.7	729.8	729.8	728.0
17.5°	671.6	679.4	689.8	702.8	719.4	732.4	738.4	740.2	737.6	731.5	727.2
20°	695.0	701.9	713.3	728.9	746.2	748.8	742.8	735.0	727.2	716.7	709.8
22.5°	714.2	723.7	741.0	759.2	760.1	745.5	728.9	715.9	703.7	691.5	678.5
25°	736.7	749.7	773.3	780.2	757.5	729.8	706.2	687.2	667.3	647.1	632.4
27.5°	764.5	783.6	807.0	787.0	742.8	703.7	671.6	642.8	616.9	589.0	572.5
30°	794.0	823.6	828.7	776.7	717.6	667.3	623.8	580.3	547.2	522.2	512.6
32.5°	829.7	867.9	836.6	758.3	683.7	617.7	559.5	507.4	479.5	464.0	459.6
35°	883.6	914.8	841.0	739.3	644.7	558.6	485.7	443.9	426.5	416.2	411.0
37.5°	960.8	960.0	840.0	715.9	599.3	494.2	426.5	397.1	383.0	374.5	364.9
40°	1051.1	994.8	834.9	682.0	538.7	432.7	385.7	358.0	344.9	334.4	323.2
42.5°	1140.7	1018.1	820.2	631.6	463.0	388.3	356.2	330.9	317.1	305.9	290.2
45°	1218.0	1027.8	791.4	562.1	395.3	353.7	337.0	315.3	298.9	281.4	269.3
47.5°	1278.7	1026.0	745.5	480.5	350.1	329.3	321.5	306.7	286.6	265.0	249.3
50°	1330.1	1013.0	682.8	408.3	319.6	307.5	305.0	300.7	268.5	250.2	240.7
52.5°	1377.0	993.9	616.0	359.6	293.7	283.2	288.4	284.0	261.4	245.9	236.3
55°	1441.3	980.8	549.9	322.3	263.3	260.6	265.0	271.1	257.2	242.5	231.9
57.5°	1516.9	987.7	499.5	280.6	234.5	236.3	251.0	259.8	252.9	237.2	226.7
60°	1603.7	1008.6	455.3	240.7	211.1	215.5	237.2	249.3	248.6	230.2	218.1
62.5°	1701.0	1030.4	384.8	210.3	191.1	198.0	220.7	236.3	238.9	223.3	208.4
63°	1720.2	1032.2	366.6	204.2	187.7	195.6	216.3	232.8	236.3	221.5	206.8
65°	1767.1	1016.4	295.4	187.7	173.7	182.4	203.2	218.1	225.0	212.0	199.9
67.5°	1728.0	888.8	222.4	167.7	162.5	168.5	186.8	200.7	206.8	200.7	188.6
70°	1580.3	646.3	173.7	149.4	150.2	154.7	168.5	181.5	188.6	186.8	175.4
72.5°	1272.7	366.6	145.0	133.8	136.5	141.7	151.2	163.3	169.4	168.5	160.7
75°	838.4	187.7	122.4	119.8	121.6	125.9	132.9	142.6	149.4	148.6	145.0
77.5°	415.2	130.3	105.1	106.0	106.9	110.3	115.5	124.2	128.5	129.4	128.5
80°	171.1	101.7	90.4	91.2	92.0	94.7	98.2	106.0	108.5	110.3	111.2
82.5°	102.4	77.3	72.1	73.8	74.6	77.3	79.9	86.9	89.6	92.0	92.0
85°	67.7	53.9	52.1	53.9	55.5	57.3	58.2	62.5	67.0	70.3	72.1
87.5°	36.6	32.2	31.4	32.2	32.2	33.9	35.7	40.0	45.2	48.7	50.3
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°	562.1	562.1	562.1	562.1	562.1
2.5°	576.1	576.8	576.1	576.8	577.7
5°	604.6	606.4	605.5	605.5	609.1
7.5°	637.6	641.1	641.1	642.8	644.7
10°	673.3	676.8	679.4	679.4	682.0
12.5°	708.9	710.6	713.3	713.3	713.3
15°	727.2	726.3	725.4	724.6	724.6
17.5°	724.6	721.1	719.4	717.6	718.5
20°	705.3	699.3	697.7	695.0	696.7
22.5°	672.4	663.8	660.3	655.9	657.6
25°	622.9	612.5	610.8	605.5	608.2
27.5°	565.6	560.4	559.5	558.6	563.0
30°	511.7	513.4	514.3	516.0	520.4
32.5°	462.2	465.6	466.5	467.4	473.4
35°	413.5	409.2	413.5	411.9	417.1
37.5°	360.5	357.0	353.7	349.3	352.8
40°	316.3	310.2	299.8	294.6	295.4
42.5°	281.4	273.7	265.0	259.8	259.8
45°	258.9	249.3	241.6	238.1	238.1
47.5°	241.6	237.2	232.8	230.2	230.2
50°	234.5	229.3	226.7	225.0	225.0
52.5°	229.3	224.1	221.5	219.7	218.1
55°	225.0	217.2	214.5	213.6	213.6
57.5°	218.9	212.0	208.4	207.6	207.6
60°	209.3	204.2	200.7	199.9	199.9
62.5°	199.9	194.7	191.1	191.1	191.1
63°	198.0	192.0	189.5	189.5	189.5
65°	190.3	184.2	181.5	181.5	180.6
67.5°	179.8	173.7	172.0	172.0	170.3
70°	167.7	162.5	160.7	161.5	158.1
72.5°	155.4	150.2	147.7	147.7	144.2
75°	141.7	136.5	132.9	132.1	128.5
77.5°	125.9	121.6	118.1	114.7	112.9
80°	109.5	106.0	101.7	99.1	96.5
82.5°	92.0	88.7	86.0	89.6	76.4
85°	72.1	68.6	65.1	70.3	54.7
87.5°	53.0	51.3	47.8	41.7	36.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)