

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: P239164

Luminaire Tested: **ARCH-AF24-60-D-U-T2U-8027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P239164  
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-8027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 80 CRI, 2700K, 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: 5919 lumens  
Efficiency: N/A  
Efficacy: 92.5 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

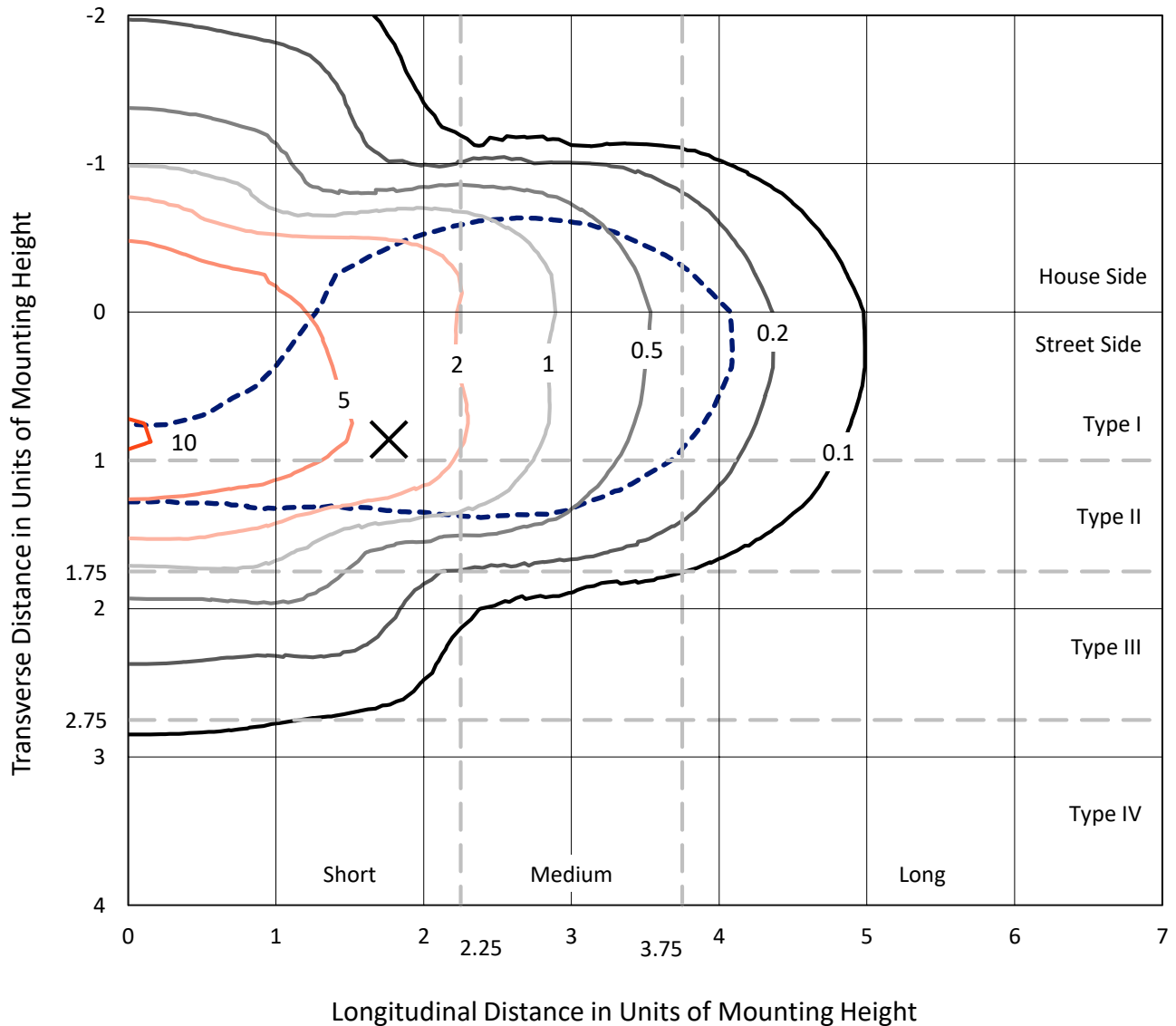
Input Watts (W): 64  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

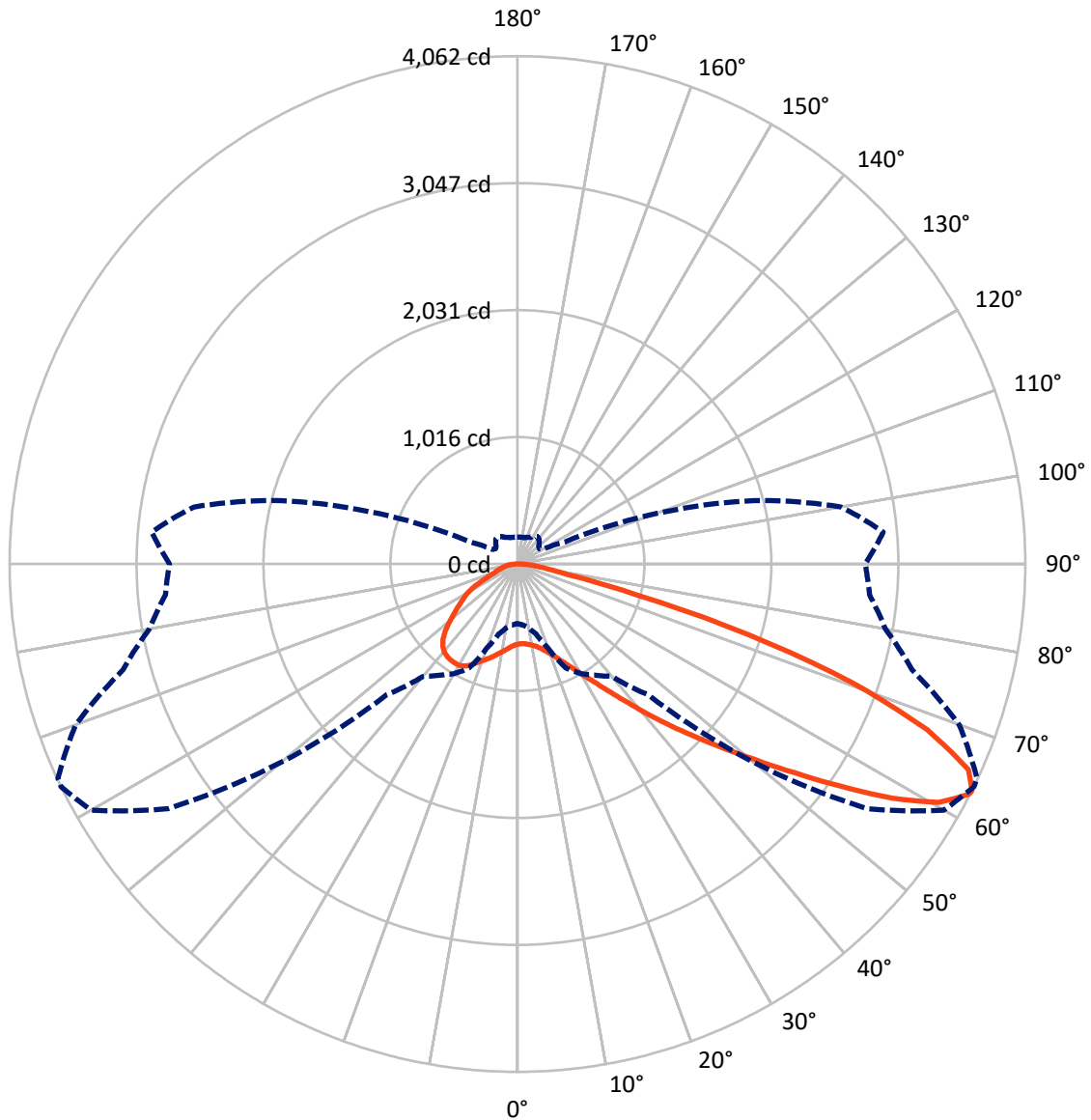
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.4 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	1740.0	0.0	1740.0
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	4179.0	0.0	4179.0
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	5919.0	0.0	5919.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	64.0	1.1
10°-20°	213.2	3.6
20°-30°	400.2	6.8
30°-40°	670.7	11.3
40°-50°	1125.3	19.0
50°-60°	1426.5	24.1
60°-70°	1258.4	21.3
70°-80°	649.6	11.0
80°-90°	111.2	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°	5919.0	100.0
0°-180°	5919.0	100.0



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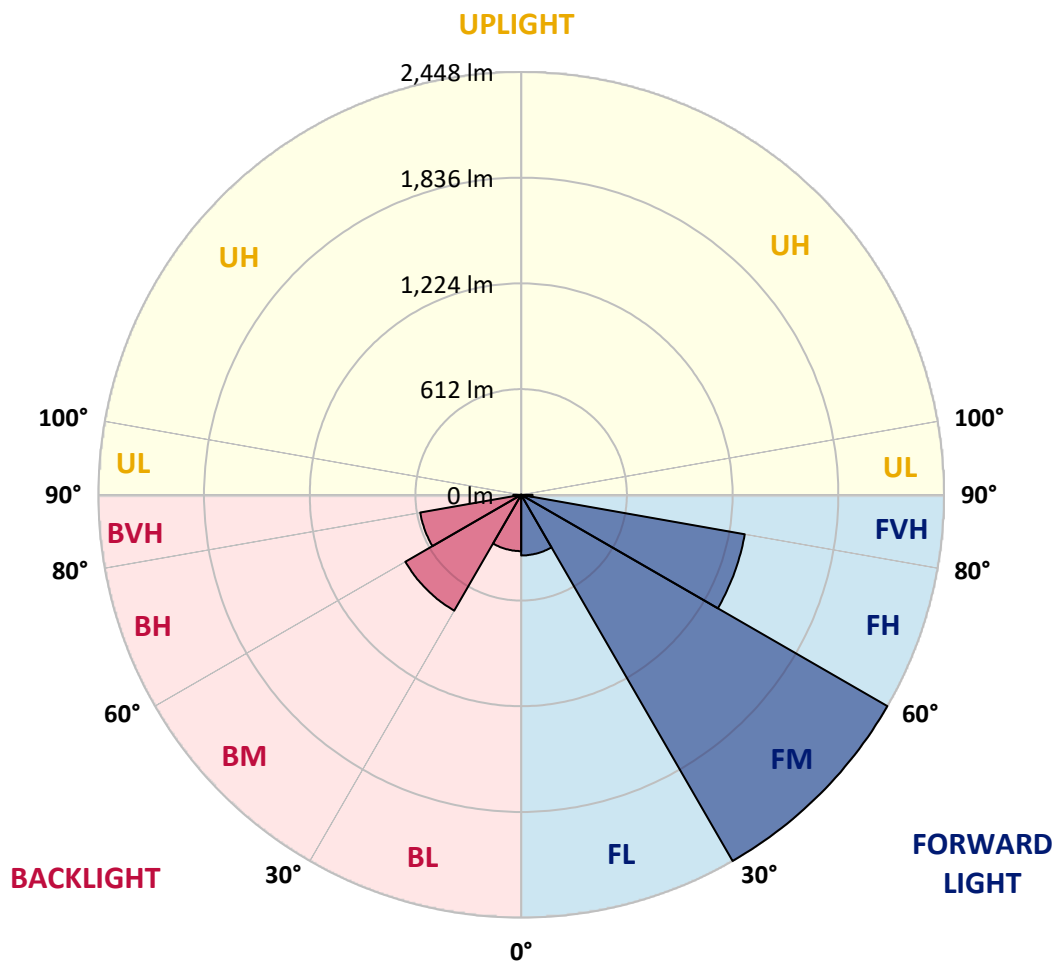
CATALOG NUMBER: ARCH-AF24-60-D-U-T2U-8027

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	351.3	5.9			
FM	(30°-60°)	2447.9	41.4			
FH	(60°-80°)	1314.4	22.2			G1/1800
FVH	(80°-90°)	65.4	1.1			G1/100
BL	(0°-30°)	326.0	5.5	B1/500		
BM	(30°-60°)	774.6	13.1	B1/1000		
BH	(60°-80°)	593.7	10.0	B2/1000		G2/1000
BVH	(80°-90°)	45.7	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°	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
2.5°	637.1	636.1	636.1	636.1	636.1	635.1	636.1	638.1	637.1	636.1	638.1
5°	639.0	638.1	638.1	638.1	639.0	638.1	639.0	642.0	640.0	640.0	642.0
7.5°	644.0	643.0	644.0	643.0	643.0	643.0	644.0	647.0	646.0	647.0	649.9
10°	649.9	649.9	649.9	649.9	649.9	649.9	651.9	653.9	654.9	655.9	659.8
12.5°	667.8	667.8	667.8	666.8	666.8	663.8	667.8	669.8	671.7	673.7	676.7
15°	705.4	705.4	704.4	700.5	700.5	694.5	695.5	696.5	696.5	698.5	700.5
17.5°	755.0	754.0	752.0	749.0	745.1	738.1	736.1	734.2	731.2	730.2	730.2
20°	824.3	823.3	819.4	811.4	806.5	795.6	787.7	779.7	776.8	771.8	770.8
22.5°	923.4	923.4	915.5	903.6	899.6	876.8	854.0	837.2	831.3	824.3	824.3
25°	1043.3	1042.3	1031.4	1017.5	1000.7	976.9	949.2	926.4	911.5	895.7	889.7
27.5°	1186.9	1184.0	1169.1	1152.3	1120.6	1090.8	1058.1	1034.4	1008.6	988.8	971.0
30°	1355.4	1352.4	1326.6	1294.9	1262.2	1232.5	1185.0	1156.2	1115.6	1091.8	1072.0
32.5°	1550.5	1547.6	1501.0	1470.3	1435.6	1399.0	1342.5	1296.9	1245.4	1211.7	1184.0
35°	1799.2	1787.3	1721.0	1678.4	1623.9	1587.2	1527.8	1466.3	1405.9	1358.3	1317.7
37.5°	2067.7	2053.9	1995.4	1932.0	1878.5	1833.9	1749.7	1672.4	1601.1	1535.7	1485.2
40°	2348.1	2311.5	2249.0	2202.5	2165.8	2123.2	2035.0	1953.8	1841.8	1768.5	1692.2
42.5°	2542.3	2506.6	2463.0	2432.3	2414.5	2381.8	2332.3	2261.9	2161.9	2163.8	1962.7
45°	2670.1	2617.6	2587.9	2589.9	2596.8	2596.8	2587.9	2577.0	2533.4	2563.1	2394.7
47.5°	2624.5	2589.9	2571.0	2610.7	2660.2	2709.7	2767.2	2829.6	2901.0	2985.2	2778.1
50°	2357.0	2369.9	2378.8	2463.0	2569.1	2682.0	2813.8	2984.2	3183.3	3222.0	3121.9
52.5°	1930.0	1957.8	1987.5	2116.3	2256.0	2451.2	2682.0	2963.4	3230.9	3388.4	3378.5
55°	1499.0	1533.7	1597.1	1693.2	1804.2	1988.5	2273.8	2707.8	3124.9	3375.5	3528.1
57.5°	1067.1	1117.6	1200.8	1334.6	1432.6	1536.7	1747.7	2229.2	2686.0	3152.6	3503.3
60°	709.4	733.2	787.7	954.1	1119.6	1228.5	1378.2	1552.5	1926.0	2569.1	3247.7
62.5°	503.3	519.2	552.8	628.1	777.8	974.9	1065.1	1145.3	1265.2	1652.6	2607.7
63°	475.6	489.4	517.2	580.6	715.3	919.4	1011.6	1084.9	1172.1	1478.2	2467.0
65°	394.3	400.3	415.1	445.8	518.2	687.6	838.2	882.8	897.6	950.1	1545.6
67.5°	332.9	336.9	341.8	350.7	379.5	457.7	625.2	681.6	664.8	629.1	763.9
70°	289.3	292.3	300.2	311.1	321.0	340.8	430.0	514.2	495.4	446.8	467.6
72.5°	230.8	235.8	244.7	263.5	283.4	309.1	330.9	383.4	371.5	325.0	329.9
75°	182.3	185.3	193.2	207.1	225.9	255.6	298.2	316.1	283.4	239.8	239.8
77.5°	144.7	147.6	154.6	165.5	177.3	198.2	227.9	274.4	254.6	180.3	179.3
80°	109.0	112.0	118.9	128.8	140.7	155.6	173.4	194.2	233.8	168.4	134.7
82.5°	80.3	81.2	93.1	100.1	104.0	115.9	130.8	142.7	160.5	155.6	119.9
85°	60.4	59.4	67.4	72.3	73.3	76.3	85.2	97.1	105.0	101.1	93.1
87.5°	33.7	29.7	34.7	39.6	39.6	40.6	42.6	49.5	56.5	54.5	49.5
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°	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
2.5°	638.1	638.1	637.1	637.1	638.1	638.1	637.1	640.0	642.0	642.0	643.0
5°	641.0	642.0	641.0	641.0	642.0	642.0	643.0	646.0	649.0	650.9	653.9
7.5°	649.9	650.9	649.9	649.9	650.9	651.9	653.9	657.9	659.8	663.8	668.8
10°	659.8	660.8	659.8	660.8	661.8	662.8	665.8	668.8	671.7	675.7	683.6
12.5°	677.7	678.7	676.7	677.7	680.7	680.7	682.6	684.6	689.6	694.5	702.5
15°	702.5	702.5	700.5	701.5	704.4	704.4	705.4	707.4	713.4	719.3	727.2
17.5°	731.2	733.2	732.2	733.2	735.1	736.1	736.1	738.1	742.1	746.0	754.0
20°	769.8	770.8	768.8	770.8	772.8	770.8	768.8	767.8	769.8	771.8	780.7
22.5°	822.3	821.3	816.4	816.4	816.4	812.4	807.5	801.5	801.5	798.6	805.5
25°	884.8	881.8	874.8	875.8	868.9	863.0	854.0	845.1	837.2	834.2	835.2
27.5°	958.1	952.1	945.2	943.2	936.3	925.4	910.5	893.7	880.8	870.9	868.9
30°	1050.2	1037.3	1025.4	1023.5	1012.6	994.7	971.0	948.2	926.4	909.5	903.6
32.5°	1159.2	1139.4	1120.6	1118.6	1100.7	1077.0	1048.2	1016.5	984.8	958.1	945.2
35°	1287.0	1257.3	1239.4	1234.5	1208.7	1179.0	1147.3	1106.7	1062.1	1024.5	1000.7
37.5°	1442.6	1411.8	1381.1	1382.1	1346.5	1311.8	1269.2	1219.6	1163.2	1110.6	1077.0
40°	1634.8	1591.2	1551.5	1542.6	1511.9	1463.4	1416.8	1359.3	1290.0	1220.6	1172.1
42.5°	1867.6	1796.3	1741.8	1733.8	1693.2	1633.8	1577.3	1501.0	1430.7	1346.5	1288.0
45°	2132.1	2018.2	1952.8	1940.9	1875.5	1815.1	1746.7	1665.5	1579.3	1484.2	1414.8
47.5°	2461.1	2298.6	2187.6	2167.8	2077.6	1998.4	1927.0	1836.9	1733.8	1627.8	1551.5
50°	2844.5	2604.7	2455.1	2424.4	2303.5	2210.4	2119.2	2006.3	1896.3	1785.4	1697.2
52.5°	3228.9	2971.3	2772.2	2734.5	2556.2	2431.3	2311.5	2198.5	2068.7	1958.7	1858.7
55°	3538.0	3366.6	3135.8	3083.3	2827.6	2658.2	2500.7	2371.9	2243.1	2155.9	2038.0
57.5°	3724.3	3715.4	3533.1	3460.7	3111.0	2860.3	2685.0	2538.3	2413.5	2376.8	2220.3
60°	3719.3	3950.2	3871.9	3817.4	3397.3	3067.4	2839.5	2681.0	2578.0	2619.6	2403.6
62.5°	3492.4	3960.1	4054.2	4039.4	3702.5	3233.9	2966.4	2802.9	2748.4	2872.2	2593.8
63°	3410.2	3937.3	4062.1	4056.2	3760.9	3265.6	2988.1	2826.7	2782.1	2936.6	2628.5
65°	2882.1	3738.2	3966.0	3992.8	3886.8	3374.5	3038.7	2887.1	2882.1	3080.3	2710.7
67.5°	1756.6	3158.6	3533.1	3584.6	3709.4	3409.2	3009.9	2866.3	2937.6	3101.1	2686.0
70°	751.0	2084.6	2839.5	2922.8	3227.9	3236.8	2927.7	2781.1	2924.7	2938.6	2509.6
72.5°	444.9	982.8	1933.0	2114.3	2554.2	2785.0	2739.5	2632.5	2755.3	2580.9	2137.1
75°	315.1	459.7	981.8	1175.0	1778.4	2126.2	2301.5	2351.1	2346.1	2046.9	1604.0
77.5°	225.9	295.2	414.1	488.4	992.7	1365.3	1579.3	1723.9	1677.4	1370.2	988.8
80°	157.5	204.1	253.6	269.5	460.7	701.5	832.2	895.7	867.9	684.6	442.9
82.5°	113.9	133.8	163.5	173.4	231.8	324.0	385.4	339.8	326.0	252.6	191.2
85°	88.2	86.2	102.0	106.0	135.7	169.4	173.4	134.7	117.9	105.0	107.0
87.5°	62.4	53.5	54.5	56.5	70.3	90.2	88.2	55.5	47.6	50.5	57.5
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):**

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0	641.0
2.5°	645.0	646.0	648.0	649.0	650.9	650.9	652.9	653.9	655.9	657.9	658.9
5°	656.9	659.8	663.8	665.8	669.8	672.7	676.7	678.7	682.6	685.6	689.6
7.5°	674.7	679.7	684.6	690.6	696.5	701.5	705.4	710.4	717.3	722.3	725.2
10°	691.6	698.5	707.4	714.3	723.3	730.2	736.1	745.1	753.0	759.9	763.9
12.5°	713.4	722.3	731.2	742.1	754.0	762.9	771.8	783.7	794.6	802.5	806.5
15°	739.1	750.0	759.9	772.8	786.7	798.6	811.4	824.3	832.2	832.2	830.3
17.5°	765.9	774.8	786.7	801.5	820.4	835.2	842.2	844.1	841.2	834.2	829.3
20°	792.6	800.5	813.4	831.3	851.1	854.0	847.1	838.2	829.3	817.4	809.5
22.5°	814.4	825.3	845.1	865.9	866.9	850.1	831.3	816.4	802.5	788.6	773.8
25°	840.2	855.0	881.8	889.7	863.9	832.2	805.5	783.7	760.9	738.1	721.3
27.5°	871.9	893.7	920.4	897.6	847.1	802.5	765.9	733.2	703.4	671.7	652.9
30°	905.6	939.2	945.2	885.7	818.4	760.9	711.4	661.8	624.2	595.5	584.6
32.5°	946.2	989.8	954.1	864.9	779.7	704.4	638.1	578.6	546.9	529.1	524.1
35°	1007.6	1043.3	959.1	843.1	735.1	637.1	553.8	506.3	486.5	474.6	468.6
37.5°	1095.8	1094.8	958.1	816.4	683.6	563.7	486.5	452.8	436.9	427.0	416.1
40°	1198.8	1134.4	952.1	777.8	614.3	493.4	439.9	408.2	393.3	381.4	368.6
42.5°	1300.9	1161.2	935.3	720.3	528.1	442.9	406.2	377.5	361.6	348.7	330.9
45°	1389.1	1172.1	902.6	641.0	450.8	403.2	384.4	359.6	340.8	321.0	307.1
47.5°	1458.4	1170.1	850.1	547.9	399.3	375.5	366.6	349.7	327.0	302.2	284.3
50°	1516.9	1155.2	778.7	465.7	364.6	350.7	347.8	342.8	306.1	285.3	274.4
52.5°	1570.4	1133.4	702.5	410.2	334.9	323.0	328.9	324.0	298.2	280.4	269.5
55°	1643.7	1118.6	627.2	367.6	300.2	297.2	302.2	309.1	293.3	276.4	264.5
57.5°	1729.9	1126.5	569.7	320.0	267.5	269.5	286.3	296.2	288.3	270.5	258.6
60°	1829.0	1150.3	519.2	274.4	240.8	245.7	270.5	284.3	283.4	262.6	248.7
62.5°	1939.9	1175.0	438.9	239.8	218.0	225.9	251.7	269.5	272.5	254.6	237.8
63°	1961.7	1177.0	418.1	232.8	214.0	222.9	246.7	265.5	269.5	252.6	235.8
65°	2015.2	1159.2	336.9	214.0	198.2	208.1	231.8	248.7	256.6	241.7	227.9
67.5°	1970.6	1013.6	253.6	191.2	185.3	192.2	213.0	228.9	235.8	228.9	215.0
70°	1802.2	737.1	198.2	170.4	171.4	176.4	192.2	207.1	215.0	213.0	200.1
72.5°	1451.5	418.1	165.5	152.6	155.6	161.5	172.4	186.3	193.2	192.2	183.3
75°	956.1	214.0	139.7	136.7	138.7	143.7	151.6	162.5	170.4	169.4	165.5
77.5°	473.6	148.6	119.9	120.9	121.9	125.8	131.8	141.7	146.6	147.6	146.6
80°	195.2	115.9	103.0	104.0	105.0	108.0	112.0	120.9	123.8	125.8	126.8
82.5°	116.9	88.2	82.2	84.2	85.2	88.2	91.2	99.1	102.0	105.0	105.0
85°	77.3	61.4	59.4	61.4	63.4	65.4	66.4	71.3	76.3	80.3	82.2
87.5°	41.6	36.7	35.7	36.7	36.7	38.6	40.6	45.6	51.5	55.5	57.5
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):**

	160°	165°	170°	175°	180°
0°	641.0	641.0	641.0	641.0	641.0
2.5°	656.9	657.9	656.9	657.9	658.9
5°	689.6	691.6	690.6	690.6	694.5
7.5°	727.2	731.2	731.2	733.2	735.1
10°	767.8	771.8	774.8	774.8	777.8
12.5°	808.5	810.4	813.4	813.4	813.4
15°	829.3	828.3	827.3	826.3	826.3
17.5°	826.3	822.3	820.4	818.4	819.4
20°	804.5	797.6	795.6	792.6	794.6
22.5°	766.9	756.9	753.0	748.0	750.0
25°	710.4	698.5	696.5	690.6	693.5
27.5°	645.0	639.0	638.1	637.1	642.0
30°	583.6	585.5	586.5	588.5	593.5
32.5°	527.1	531.1	532.0	533.0	540.0
35°	471.6	466.7	471.6	469.6	475.6
37.5°	411.2	407.2	403.2	398.3	402.3
40°	360.6	353.7	341.8	335.9	336.9
42.5°	321.0	312.1	302.2	296.2	296.2
45°	295.2	284.3	275.4	271.5	271.5
47.5°	275.4	270.5	265.5	262.6	262.6
50°	267.5	261.6	258.6	256.6	256.6
52.5°	261.6	255.6	252.6	250.7	248.7
55°	256.6	247.7	244.7	243.7	243.7
57.5°	249.7	241.7	237.8	236.8	236.8
60°	238.8	232.8	228.9	227.9	227.9
62.5°	227.9	221.9	218.0	218.0	218.0
63°	225.9	219.0	216.0	216.0	216.0
65°	217.0	210.0	207.1	207.1	206.1
67.5°	205.1	198.2	196.2	196.2	194.2
70°	191.2	185.3	183.3	184.3	180.3
72.5°	177.3	171.4	168.4	168.4	164.5
75°	161.5	155.6	151.6	150.6	146.6
77.5°	143.7	138.7	134.7	130.8	128.8
80°	124.8	120.9	115.9	112.9	110.0
82.5°	105.0	101.1	98.1	102.0	87.2
85°	82.2	78.3	74.3	80.3	62.4
87.5°	60.4	58.5	54.5	47.6	41.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)