

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: P258164

Luminaire Tested: **ARCH-M-AF48-40-D-U-T2U-7030**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258164  
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-M-AF48-40-D-U-T2U-7030  
Description: ARCHEON-M ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 3000K, 240mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5218.2 lumens  
Efficiency: N/A  
Efficacy: 137.3 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B2 - U0 - G2

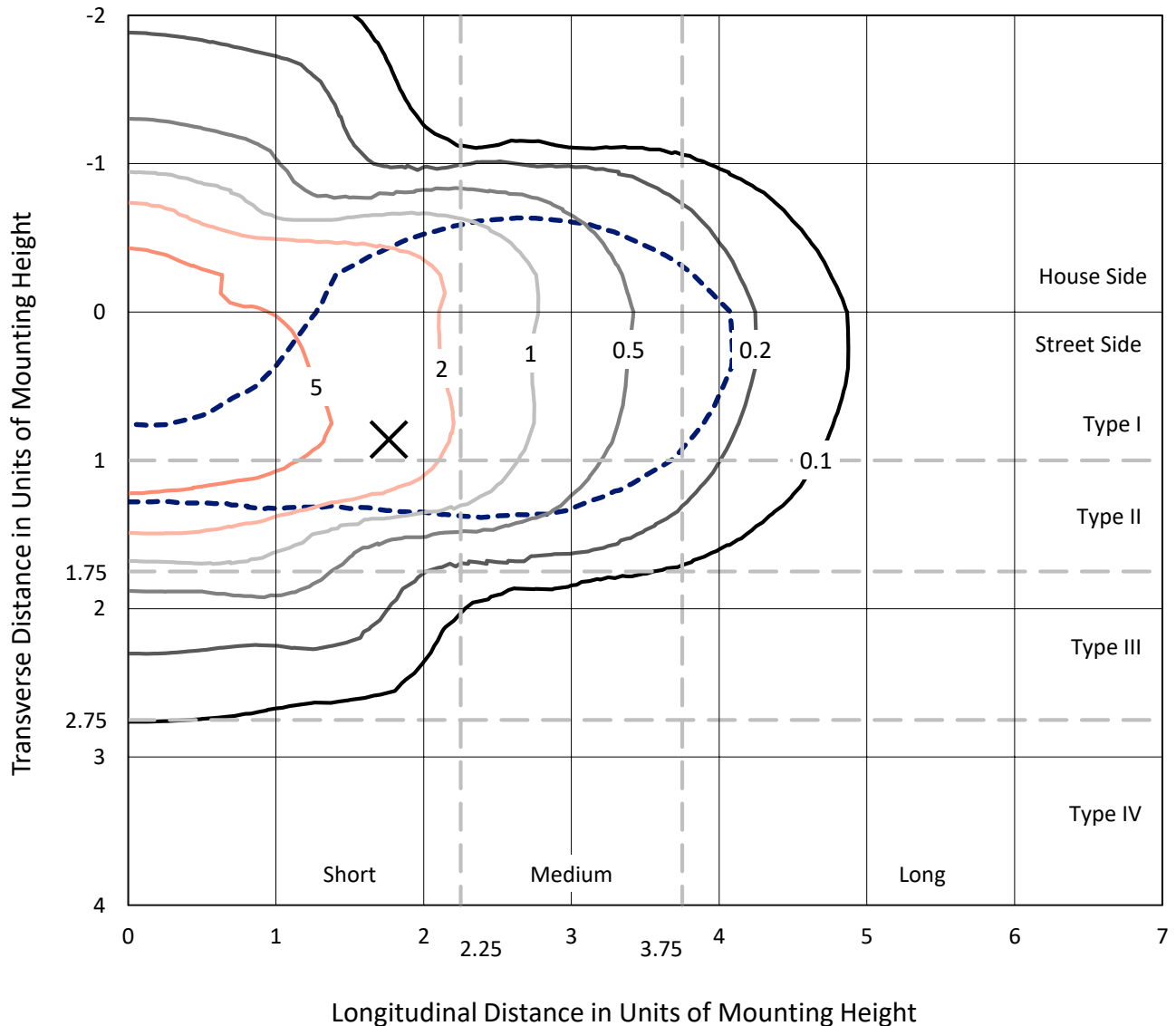
Input Watts (W): 38  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

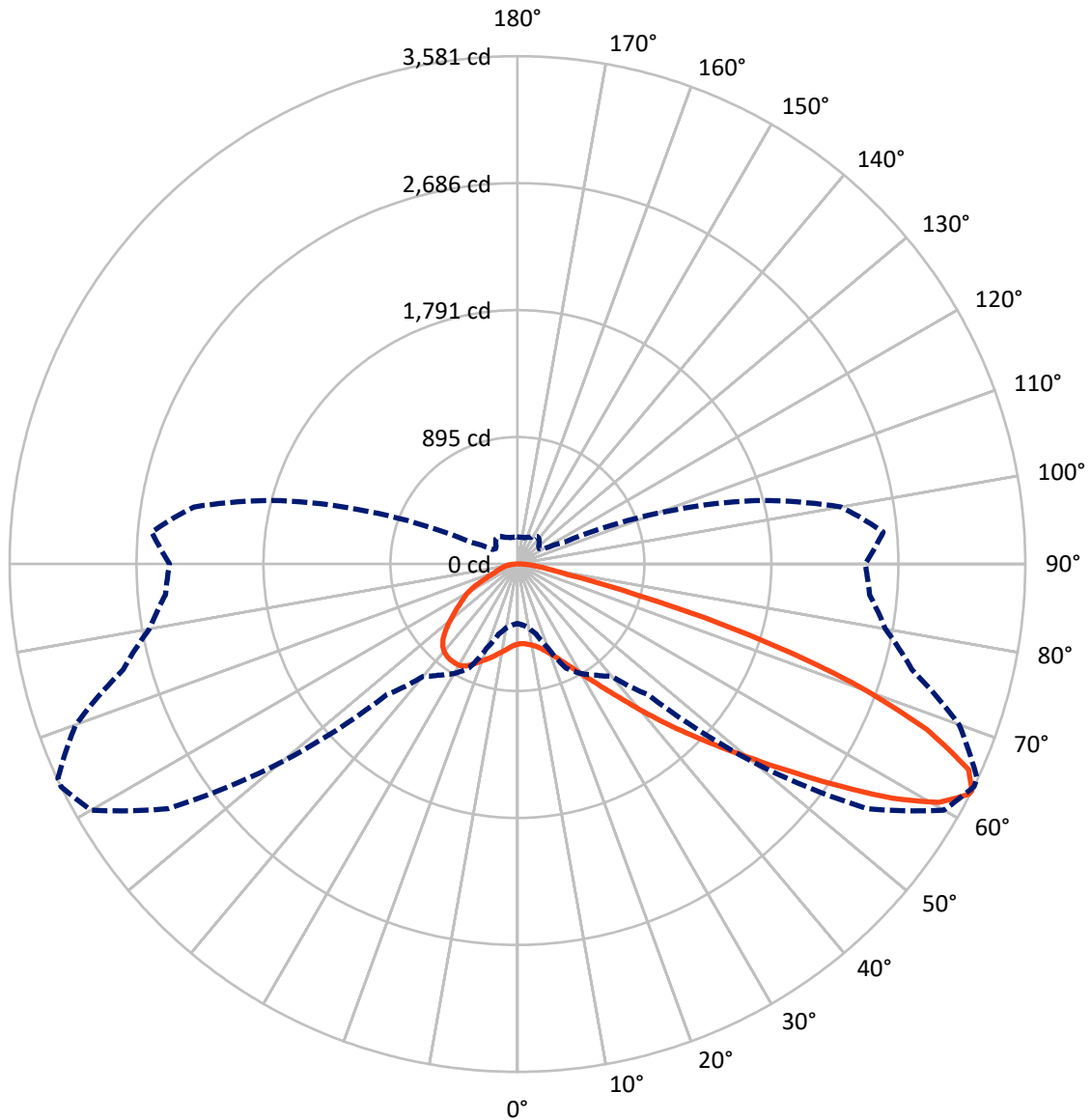
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.2 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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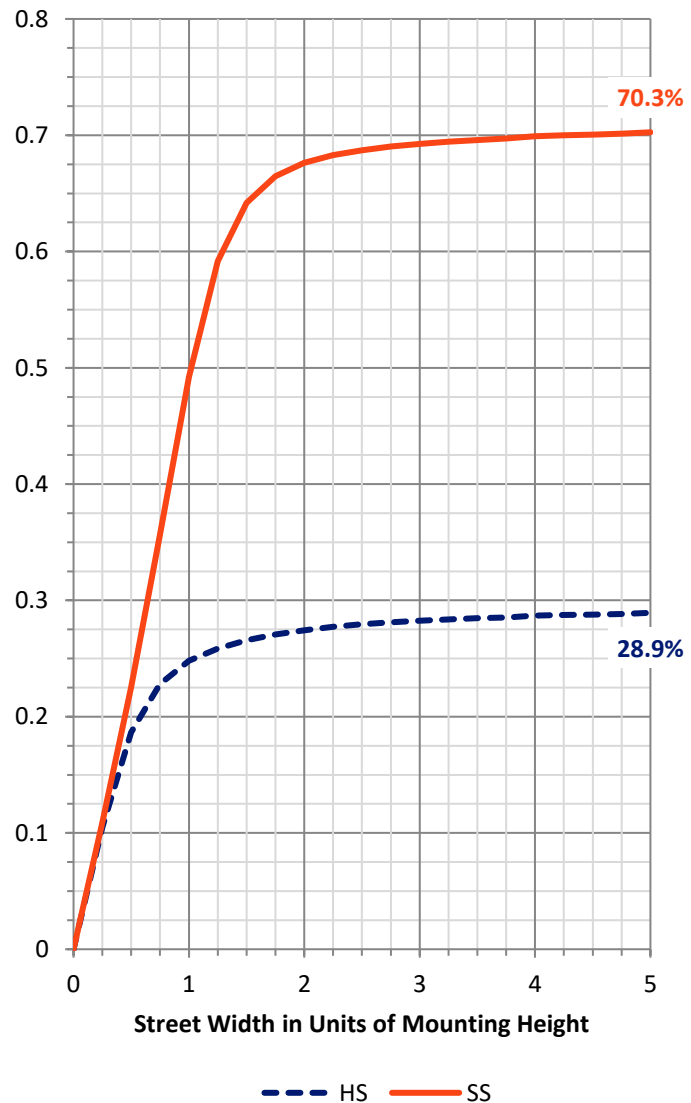
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1534.0	0.0	1534.0
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	3684.2	0.0	3684.2
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	5218.2	0.0	5218.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	56.4	1.1
10°-20°	187.9	3.6
20°-30°	352.8	6.8
30°-40°	591.3	11.3
40°-50°	992.0	19.0
50°-60°	1257.6	24.1
60°-70°	1109.4	21.3
70°-80°	572.7	11.0
80°-90°	98.0	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°	5218.2	100.0
0°-180°	5218.2	100.0



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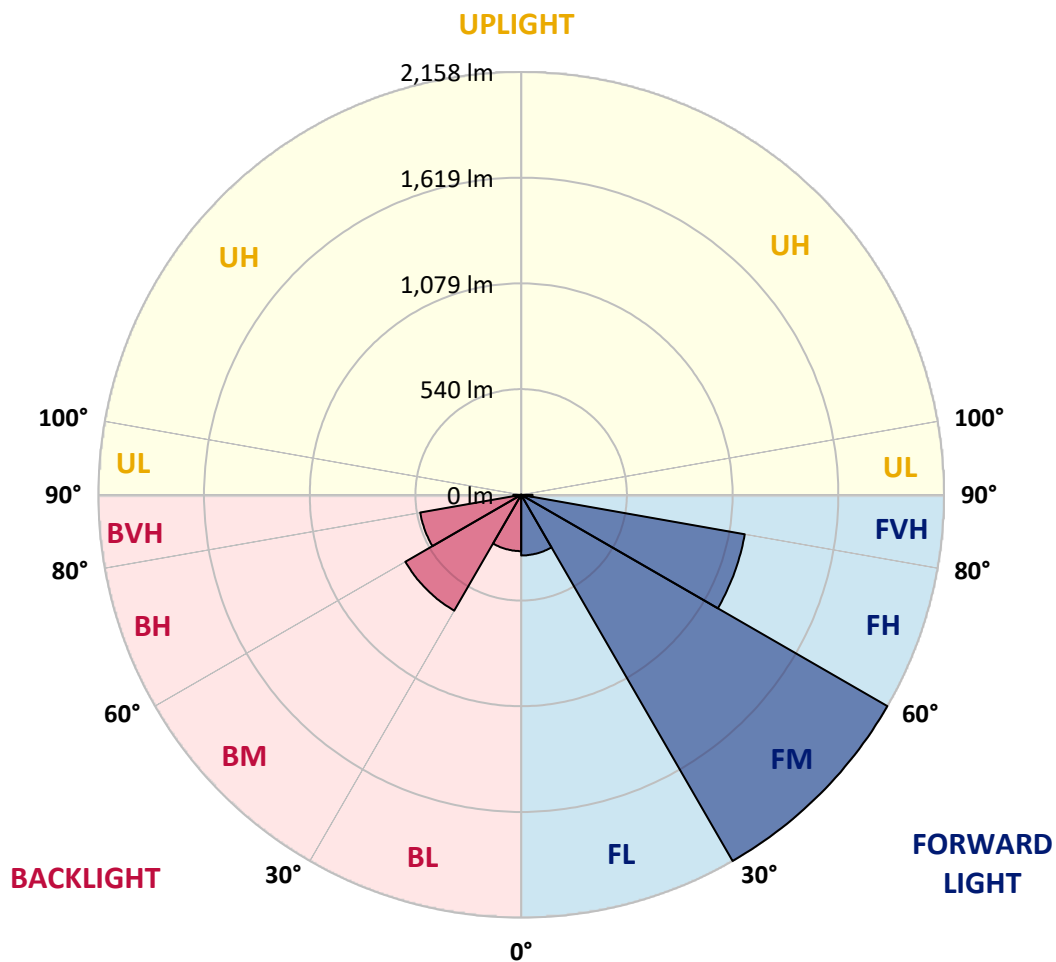
CATALOG NUMBER: ARCH-M-AF48-40-D-U-T2U-7030

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

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	309.7	5.9			
FM	(30°-60°)	2158.1	41.4			
FH	(60°-80°)	1158.7	22.2			G1/1800
FVH	(80°-90°)	57.7	1.1			G1/100
BL	(0°-30°)	287.4	5.5	B1/500		
BM	(30°-60°)	682.9	13.1	B1/1000		
BH	(60°-80°)	523.4	10.0	B2/1000		G2/1000
BVH	(80°-90°)	40.3	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°	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1
2.5°	561.6	560.7	560.7	560.7	560.7	559.9	560.7	562.4	561.6	560.7	562.4
5°	563.3	562.4	562.4	562.4	563.3	562.4	563.3	566.0	564.3	564.3	566.0
7.5°	567.7	566.8	567.7	566.8	566.8	566.8	567.7	570.4	569.5	570.4	572.9
10°	572.9	572.9	572.9	572.9	572.9	572.9	574.7	576.5	577.3	578.2	581.7
12.5°	588.7	588.7	588.7	587.9	587.9	585.2	588.7	590.4	592.1	594.0	596.5
15°	621.9	621.9	621.0	617.6	617.6	612.3	613.2	614.0	614.0	615.7	617.6
17.5°	665.6	664.8	662.9	660.4	656.8	650.7	649.0	647.3	644.6	643.7	643.7
20°	726.7	725.8	722.3	715.3	710.9	701.5	694.5	687.5	684.8	680.4	679.6
22.5°	814.1	814.1	807.1	796.6	793.1	773.0	752.9	738.0	732.8	726.7	726.7
25°	919.8	918.9	909.2	897.0	882.2	861.2	836.8	816.7	803.6	789.6	784.4
27.5°	1046.3	1043.8	1030.7	1015.9	987.9	961.7	932.8	911.9	889.2	871.7	856.0
30°	1194.9	1192.2	1169.6	1141.6	1112.8	1086.6	1044.6	1019.3	983.6	962.6	945.1
32.5°	1367.0	1364.3	1323.3	1296.3	1265.7	1233.3	1183.5	1143.4	1097.9	1068.2	1043.8
35°	1586.2	1575.7	1517.2	1479.7	1431.7	1399.3	1346.8	1292.7	1239.4	1197.5	1161.8
37.5°	1822.9	1810.7	1759.2	1703.3	1656.1	1616.8	1542.5	1474.5	1411.5	1353.8	1309.4
40°	2070.1	2037.8	1982.7	1941.7	1909.5	1871.8	1794.1	1722.5	1623.8	1559.1	1491.8
42.5°	2241.4	2209.9	2171.4	2144.3	2128.6	2099.9	2056.1	1994.1	1905.9	1907.6	1730.3
45°	2354.0	2307.7	2281.5	2283.2	2289.3	2289.3	2281.5	2271.8	2233.5	2259.7	2111.2
47.5°	2313.8	2283.2	2266.7	2301.5	2345.2	2389.0	2439.5	2494.6	2557.5	2631.7	2449.1
50°	2078.0	2089.4	2097.2	2171.4	2265.0	2364.5	2480.6	2630.9	2806.5	2840.5	2752.2
52.5°	1701.5	1726.0	1752.2	1865.7	1988.8	2160.9	2364.5	2612.5	2848.4	2987.2	2978.5
55°	1321.6	1352.1	1408.1	1492.7	1590.6	1753.1	2004.6	2387.2	2754.9	2975.9	3110.4
57.5°	940.7	985.3	1058.6	1176.5	1263.0	1354.7	1540.8	1965.2	2367.9	2779.3	3088.5
60°	625.4	646.4	694.5	841.2	987.0	1083.1	1215.0	1368.7	1698.0	2265.0	2863.2
62.5°	443.7	457.7	487.4	553.7	685.7	859.6	939.0	1009.8	1115.4	1457.0	2299.0
63°	419.2	431.5	455.9	511.9	630.7	810.6	891.8	956.4	1033.3	1303.3	2175.0
65°	347.7	352.9	366.0	393.0	456.8	606.2	738.9	778.3	791.4	837.7	1362.6
67.5°	293.5	296.9	301.3	309.2	334.6	403.5	551.1	600.9	586.0	554.6	673.5
70°	255.0	257.7	264.6	274.2	283.0	300.5	379.1	453.3	436.7	393.9	412.2
72.5°	203.5	207.9	215.8	232.4	249.7	272.5	291.7	338.0	327.6	286.5	290.8
75°	160.7	163.4	170.3	182.6	199.2	225.4	262.9	278.6	249.7	211.4	211.4
77.5°	127.5	130.1	136.2	145.9	156.3	174.7	200.9	241.9	224.5	159.0	158.1
80°	96.0	98.7	104.8	113.5	124.0	137.1	152.9	171.2	206.2	148.5	118.8
82.5°	70.8	71.7	82.1	88.2	91.7	102.1	115.3	125.7	141.5	137.1	105.7
85°	53.3	52.5	59.4	63.8	64.7	67.3	75.2	85.5	92.6	89.0	82.1
87.5°	29.7	26.2	30.6	35.0	35.0	35.8	37.5	43.7	49.8	48.1	43.7
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°	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1
2.5°	562.4	562.4	561.6	561.6	562.4	562.4	561.6	564.3	566.0	566.0	566.8
5°	565.1	566.0	565.1	565.1	566.0	566.0	566.8	569.5	572.1	573.8	576.5
7.5°	572.9	573.8	572.9	572.9	573.8	574.7	576.5	579.9	581.7	585.2	589.6
10°	581.7	582.6	581.7	582.6	583.5	584.3	586.9	589.6	592.1	595.7	602.7
12.5°	597.4	598.3	596.5	597.4	600.1	600.1	601.8	603.5	607.9	612.3	619.3
15°	619.3	619.3	617.6	618.4	621.0	621.0	621.9	623.7	628.9	634.1	641.2
17.5°	644.6	646.4	645.5	646.4	648.1	649.0	649.0	650.7	654.3	657.7	664.8
20°	678.7	679.6	677.9	679.6	681.3	679.6	677.9	677.0	678.7	680.4	688.4
22.5°	724.9	724.1	719.7	719.7	719.7	716.2	711.9	706.6	706.6	704.0	710.0
25°	780.0	777.4	771.3	772.1	766.0	760.8	752.9	745.0	738.0	735.5	736.3
27.5°	844.7	839.4	833.3	831.6	825.5	815.8	802.7	787.9	776.5	767.8	766.0
30°	925.9	914.5	904.0	902.3	892.6	877.0	856.0	836.0	816.7	801.9	796.6
32.5°	1021.9	1004.5	987.9	986.2	970.4	949.5	924.2	896.2	868.2	844.7	833.3
35°	1134.6	1108.4	1092.7	1088.3	1065.6	1039.4	1011.5	975.6	936.4	903.1	882.2
37.5°	1271.8	1244.7	1217.5	1218.5	1187.0	1156.5	1119.0	1075.2	1025.4	979.2	949.5
40°	1441.2	1402.8	1367.8	1360.0	1332.9	1290.2	1249.1	1198.3	1137.3	1076.1	1033.3
42.5°	1646.4	1583.6	1535.5	1528.5	1492.7	1440.4	1390.6	1323.3	1261.3	1187.0	1135.5
45°	1879.7	1779.3	1721.6	1711.1	1653.4	1600.2	1539.9	1468.3	1392.3	1308.5	1247.3
47.5°	2169.7	2026.4	1928.7	1911.2	1831.6	1761.8	1698.9	1619.4	1528.5	1435.1	1367.8
50°	2507.7	2296.3	2164.4	2137.3	2030.8	1948.7	1868.4	1768.8	1671.7	1574.0	1496.2
52.5°	2846.6	2619.5	2443.9	2410.8	2253.6	2143.4	2037.8	1938.3	1823.7	1726.9	1638.7
55°	3119.2	2968.0	2764.5	2718.3	2492.9	2343.5	2204.7	2091.1	1977.5	1900.7	1796.8
57.5°	3283.3	3275.5	3114.8	3050.9	2742.6	2521.7	2367.1	2237.8	2127.8	2095.5	1957.4
60°	3279.0	3482.5	3413.5	3365.4	2995.2	2704.2	2503.3	2363.6	2272.7	2309.4	2119.0
62.5°	3078.9	3491.3	3574.2	3561.1	3264.1	2851.0	2615.1	2471.0	2423.1	2532.2	2286.7
63°	3006.5	3471.1	3581.2	3575.9	3315.7	2879.0	2634.3	2491.9	2452.7	2588.9	2317.3
65°	2541.0	3295.6	3496.6	3520.2	3426.6	2975.0	2678.9	2545.3	2541.0	2715.6	2389.8
67.5°	1548.6	2784.6	3114.8	3160.3	3270.2	3005.6	2653.6	2526.9	2589.8	2734.0	2367.9
70°	662.1	1837.7	2503.3	2576.8	2845.7	2853.7	2581.1	2451.8	2578.5	2590.6	2212.5
72.5°	392.1	866.4	1704.1	1864.0	2251.9	2455.3	2415.1	2320.7	2429.1	2275.4	1884.0
75°	277.7	405.3	865.6	1035.9	1567.9	1874.5	2029.1	2072.7	2068.4	1804.5	1414.2
77.5°	199.2	260.2	365.2	430.6	875.1	1203.6	1392.3	1519.8	1478.9	1208.0	871.7
80°	138.9	180.0	223.7	237.5	406.1	618.4	733.6	789.6	765.2	603.5	390.5
82.5°	100.4	117.9	144.1	152.9	204.5	285.6	339.8	299.6	287.4	222.8	168.6
85°	77.8	76.1	89.9	93.4	119.6	149.3	152.9	118.8	103.9	92.6	94.3
87.5°	55.0	47.2	48.1	49.8	62.1	79.4	77.8	48.9	41.9	44.6	50.7
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°	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1	565.1
2.5°	568.5	569.5	571.2	572.1	573.8	573.8	575.6	576.5	578.2	579.9	580.8
5°	579.1	581.7	585.2	586.9	590.4	593.1	596.5	598.3	601.8	604.4	607.9
7.5°	594.8	599.2	603.5	608.8	614.0	618.4	621.9	626.3	632.4	636.8	639.3
10°	609.6	615.7	623.7	629.8	637.6	643.7	649.0	656.8	663.9	670.0	673.5
12.5°	628.9	636.8	644.6	654.3	664.8	672.6	680.4	690.9	700.6	707.5	710.9
15°	651.6	661.2	670.0	681.3	693.6	704.0	715.3	726.7	733.6	733.6	731.9
17.5°	675.2	683.1	693.6	706.6	723.2	736.3	742.4	744.2	741.6	735.5	731.1
20°	698.8	705.7	717.1	732.8	750.3	752.9	746.8	738.9	731.1	720.6	713.6
22.5°	718.0	727.5	745.0	763.4	764.3	749.4	732.8	719.7	707.5	695.3	682.3
25°	740.7	753.8	777.4	784.4	761.6	733.6	710.0	690.9	670.9	650.7	635.9
27.5°	768.6	787.9	811.5	791.4	746.8	707.5	675.2	646.4	620.1	592.1	575.6
30°	798.3	828.0	833.3	780.8	721.4	670.9	627.1	583.5	550.2	525.0	515.3
32.5°	834.2	872.6	841.2	762.5	687.5	621.0	562.4	510.1	482.2	466.4	462.0
35°	888.3	919.8	845.5	743.3	648.1	561.6	488.3	446.4	428.9	418.4	413.1
37.5°	966.1	965.2	844.7	719.7	602.7	497.0	428.9	399.2	385.2	376.5	366.9
40°	1056.9	1000.2	839.4	685.7	541.6	435.0	387.9	359.9	346.8	336.3	324.9
42.5°	1146.9	1023.6	824.6	635.1	465.6	390.5	358.2	332.8	318.8	307.4	291.7
45°	1224.6	1033.3	795.7	565.1	397.3	355.5	338.9	317.1	300.5	283.0	270.8
47.5°	1285.8	1031.5	749.4	483.0	352.1	331.0	323.2	308.3	288.2	266.4	250.6
50°	1337.3	1018.4	686.5	410.5	321.4	309.2	306.6	302.2	269.9	251.6	241.9
52.5°	1384.5	999.2	619.3	361.6	295.2	284.7	290.0	285.6	262.9	247.2	237.5
55°	1449.1	986.2	552.9	324.1	264.6	262.0	266.4	272.5	258.5	243.6	233.3
57.5°	1525.0	993.1	502.3	282.1	235.8	237.5	252.4	261.1	254.1	238.4	228.1
60°	1612.4	1014.2	457.7	241.9	212.3	216.7	238.4	250.6	249.7	231.5	219.3
62.5°	1710.2	1035.9	387.0	211.4	192.2	199.2	221.9	237.5	240.2	224.5	209.7
63°	1729.5	1037.6	368.6	205.3	188.7	196.5	217.5	234.2	237.5	222.8	207.9
65°	1776.7	1021.9	296.9	188.7	174.7	183.4	204.5	219.3	226.2	213.2	200.9
67.5°	1737.3	893.5	223.7	168.6	163.4	169.5	187.8	201.8	207.9	201.8	189.6
70°	1588.8	649.9	174.7	150.2	151.1	155.4	169.5	182.6	189.6	187.8	176.5
72.5°	1279.7	368.6	145.9	134.5	137.1	142.4	152.0	164.2	170.3	169.5	161.6
75°	842.9	188.7	123.1	120.5	122.3	126.6	133.7	143.2	150.2	149.3	145.9
77.5°	417.5	131.0	105.7	106.5	107.4	110.9	116.2	124.9	129.3	130.1	129.3
80°	172.1	102.1	90.8	91.7	92.6	95.2	98.7	106.5	109.2	110.9	111.8
82.5°	103.0	77.8	72.5	74.3	75.2	77.8	80.3	87.3	89.9	92.6	92.6
85°	68.2	54.2	52.5	54.2	55.9	57.7	58.6	63.0	67.3	70.8	72.5
87.5°	36.7	32.3	31.4	32.3	32.3	34.1	35.8	40.2	45.5	48.9	50.7
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°	565.1	565.1	565.1	565.1	565.1
2.5°	579.1	579.9	579.1	579.9	580.8
5°	607.9	609.6	608.8	608.8	612.3
7.5°	641.2	644.6	644.6	646.4	648.1
10°	677.0	680.4	683.1	683.1	685.7
12.5°	712.7	714.4	717.1	717.1	717.1
15°	731.1	730.2	729.3	728.4	728.4
17.5°	728.4	724.9	723.2	721.4	722.3
20°	709.2	703.2	701.5	698.8	700.6
22.5°	676.1	667.3	663.9	659.5	661.2
25°	626.3	615.7	614.0	608.8	611.5
27.5°	568.5	563.3	562.4	561.6	566.0
30°	514.5	516.2	517.2	518.9	523.3
32.5°	464.7	468.1	469.0	470.0	476.1
35°	415.7	411.4	415.7	414.0	419.2
37.5°	362.5	359.0	355.5	351.2	354.6
40°	318.0	311.8	301.3	296.1	296.9
42.5°	283.0	275.2	266.4	261.1	261.1
45°	260.2	250.6	242.8	239.3	239.3
47.5°	242.8	238.4	234.2	231.5	231.5
50°	235.8	230.6	228.1	226.2	226.2
52.5°	230.6	225.4	222.8	221.0	219.3
55°	226.2	218.4	215.8	214.9	214.9
57.5°	220.1	213.2	209.7	208.8	208.8
60°	210.6	205.3	201.8	200.9	200.9
62.5°	200.9	195.7	192.2	192.2	192.2
63°	199.2	193.1	190.4	190.4	190.4
65°	191.3	185.2	182.6	182.6	181.7
67.5°	180.9	174.7	172.9	172.9	171.2
70°	168.6	163.4	161.6	162.5	159.0
72.5°	156.3	151.1	148.5	148.5	145.0
75°	142.4	137.1	133.7	132.8	129.3
77.5°	126.6	122.3	118.8	115.3	113.5
80°	110.1	106.5	102.1	99.5	96.9
82.5°	92.6	89.0	86.5	89.9	76.9
85°	72.5	69.1	65.5	70.8	55.0
87.5°	53.3	51.6	48.1	41.9	36.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)