

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: P265871

Luminaire Tested: **ARCH-AF16-20-D-U-T2U-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265871  
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-AF16-20-D-U-T2U-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 420mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2587.2 lumens  
Efficiency: N/A  
Efficacy: 107.8 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G1

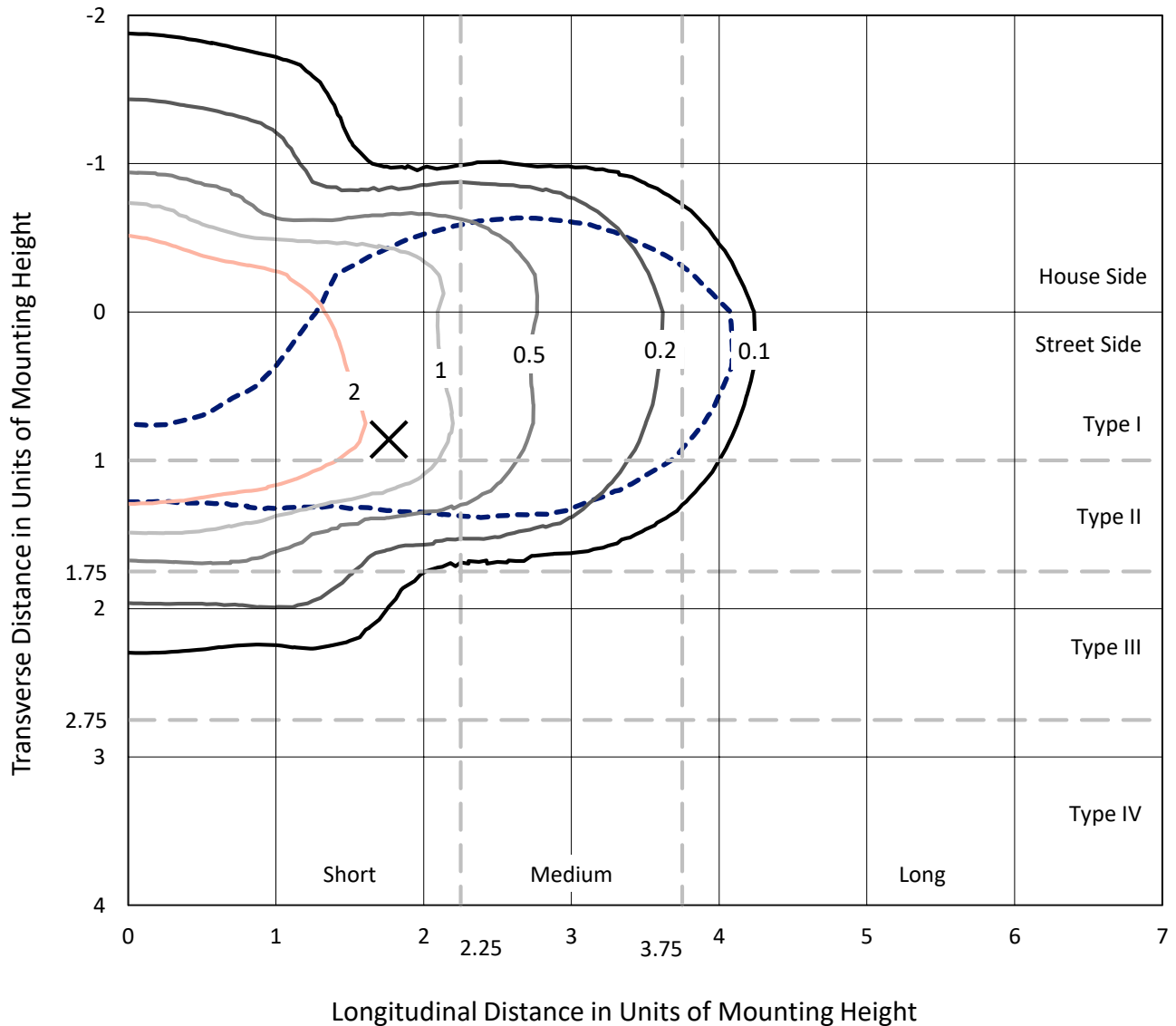
Input Watts (W): 24  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

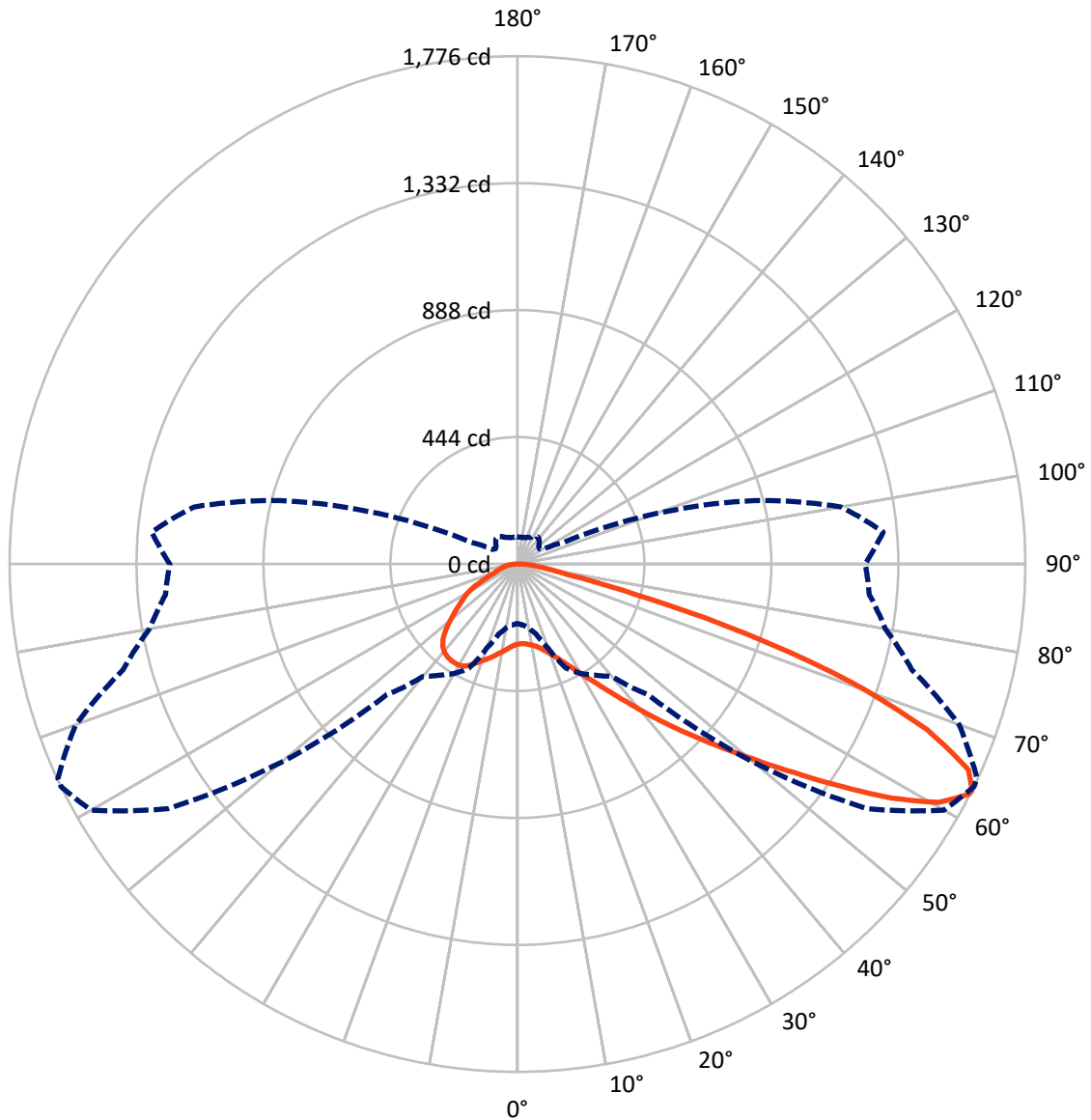
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 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	760.5	0.0	760.5
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	1826.6	0.0	1826.6
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	2587.2	0.0	2587.2
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	28.0	1.1
10°-20°	93.2	3.6
20°-30°	174.9	6.8
30°-40°	293.2	11.3
40°-50°	491.9	19.0
50°-60°	623.5	24.1
60°-70°	550.0	21.3
70°-80°	283.9	11.0
80°-90°	48.6	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°	2587.2	100.0
0°-180°	2587.2	100.0



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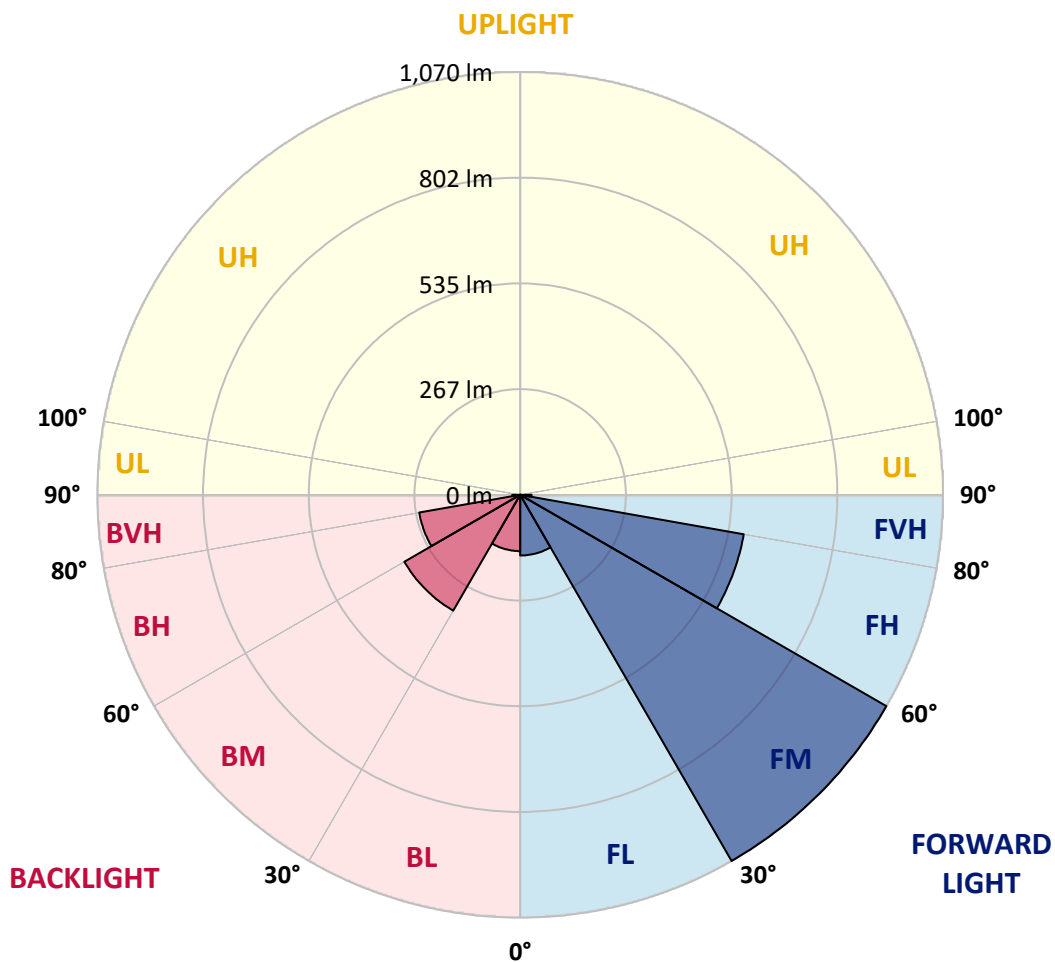
CATALOG NUMBER: ARCH-AF16-20-D-U-T2U-7027

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	153.6	5.9			
FM (30°-60°)	1070.0	41.4			
FH (60°-80°)	574.5	22.2			G0/660
FVH (80°-90°)	28.6	1.1			G1/100
BL (0°-30°)	142.5	5.5	B1/500		
BM (30°-60°)	338.6	13.1	B1/1000		
BH (60°-80°)	259.5	10.0	B1/500		G1/500
BVH (80°-90°)	20.0	0.8			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2
2.5°	278.5	278.0	278.0	278.0	278.0	277.5	278.0	279.0	278.5	278.0	279.0
5°	279.4	279.0	279.0	279.0	279.4	279.0	279.4	280.6	279.7	279.7	280.6
7.5°	281.4	281.1	281.4	281.1	281.1	281.1	281.4	282.7	282.3	282.7	284.0
10°	284.0	284.0	284.0	284.0	284.0	284.0	284.9	285.8	286.3	286.6	288.4
12.5°	291.9	291.9	291.9	291.4	291.4	290.2	291.9	292.8	293.7	294.5	295.8
15°	308.4	308.4	307.8	306.2	306.2	303.5	303.9	304.4	304.4	305.3	306.2
17.5°	329.9	329.6	328.7	327.4	325.6	322.6	321.8	321.0	319.5	319.2	319.2
20°	360.3	360.0	358.2	354.7	352.6	347.7	344.3	340.8	339.5	337.4	337.0
22.5°	403.6	403.6	400.1	395.0	393.2	383.2	373.2	365.9	363.4	360.3	360.3
25°	456.0	455.6	450.8	444.8	437.4	427.1	414.8	405.0	398.4	391.5	388.8
27.5°	518.9	517.6	511.0	503.7	489.8	476.8	462.4	452.0	440.9	432.3	424.4
30°	592.4	591.2	579.9	566.0	551.6	538.8	518.0	505.3	487.6	477.2	468.6
32.5°	677.7	676.5	656.1	642.6	627.5	611.4	586.9	566.9	544.4	529.6	517.6
35°	786.5	781.3	752.2	733.6	709.8	693.9	667.8	640.9	614.5	593.7	576.0
37.5°	903.9	897.8	872.2	844.4	821.1	801.6	764.7	731.0	699.8	671.3	649.1
40°	1026.4	1010.4	983.0	962.8	946.6	928.0	889.5	854.0	805.2	773.0	739.7
42.5°	1111.3	1095.7	1076.6	1063.1	1055.4	1041.0	1019.4	988.7	944.9	945.8	857.9
45°	1167.1	1144.1	1131.1	1132.0	1135.1	1135.1	1131.1	1126.4	1107.3	1120.4	1046.7
47.5°	1147.1	1132.0	1123.8	1141.0	1162.8	1184.4	1209.6	1236.8	1268.0	1304.8	1214.2
50°	1030.3	1035.8	1039.8	1076.6	1122.9	1172.3	1229.9	1304.3	1391.5	1408.4	1364.5
52.5°	843.6	855.7	868.8	925.1	986.1	1071.4	1172.3	1295.3	1412.2	1481.0	1476.8
55°	655.3	670.3	698.2	740.2	788.6	869.2	993.9	1183.5	1365.9	1475.5	1542.1
57.5°	466.4	488.5	524.9	583.3	626.2	671.8	763.9	974.4	1174.1	1378.0	1531.3
60°	310.1	320.4	344.3	417.1	489.3	536.9	602.5	678.6	841.9	1122.9	1419.6
62.5°	219.9	226.9	241.6	274.5	340.0	426.2	465.5	500.6	553.0	722.3	1139.8
63°	207.9	213.9	226.1	253.9	312.7	401.9	442.1	474.2	512.4	646.2	1078.3
65°	172.4	175.0	181.5	194.9	226.6	300.6	366.4	385.8	392.4	415.2	675.5
67.5°	145.5	147.2	149.4	153.3	165.8	200.1	273.3	298.0	290.6	275.1	333.9
70°	126.4	127.7	131.2	136.0	140.3	148.9	187.9	224.8	216.5	195.3	204.5
72.5°	100.9	103.0	107.0	115.3	123.8	135.1	144.6	167.7	162.5	142.0	144.2
75°	79.7	80.9	84.4	90.5	98.8	111.7	130.3	138.2	123.8	104.8	104.8
77.5°	63.2	64.5	67.6	72.4	77.6	86.5	99.6	120.0	111.3	78.8	78.4
80°	47.6	49.0	51.9	56.4	61.5	68.0	75.7	84.9	102.1	73.7	58.8
82.5°	35.0	35.6	40.8	43.7	45.5	50.7	57.1	62.3	70.2	68.0	52.5
85°	26.4	26.1	29.5	31.6	32.1	33.3	37.2	42.4	46.0	44.1	40.8
87.5°	14.7	12.9	15.1	17.2	17.2	17.7	18.7	21.6	24.8	23.9	21.6
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°	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2
2.5°	279.0	279.0	278.5	278.5	279.0	279.0	278.5	279.7	280.6	280.6	281.1
5°	280.2	280.6	280.2	280.2	280.6	280.6	281.1	282.3	283.7	284.6	285.8
7.5°	284.0	284.6	284.0	284.0	284.6	284.9	285.8	287.5	288.4	290.2	292.3
10°	288.4	288.9	288.4	288.9	289.3	289.8	291.1	292.3	293.7	295.4	298.9
12.5°	296.3	296.6	295.8	296.3	297.5	297.5	298.3	299.2	301.4	303.5	307.0
15°	307.0	307.0	306.2	306.6	307.8	307.8	308.4	309.1	311.8	314.3	317.9
17.5°	319.5	320.4	320.1	320.4	321.4	321.8	321.8	322.6	324.4	326.1	329.6
20°	336.4	337.0	336.1	337.0	337.9	337.0	336.1	335.6	336.4	337.4	341.3
22.5°	359.4	359.1	356.8	356.8	356.8	355.1	352.9	350.3	350.3	349.0	352.0
25°	386.7	385.5	382.4	382.8	379.9	377.2	373.2	369.5	365.9	364.6	365.2
27.5°	418.8	416.2	413.1	412.3	409.3	404.4	397.9	390.7	385.1	380.6	379.9
30°	459.0	453.5	448.3	447.4	442.5	434.8	424.4	414.5	405.0	397.6	395.0
32.5°	506.6	498.0	489.8	488.9	481.1	470.7	458.1	444.3	430.5	418.8	413.1
35°	562.6	549.6	541.8	539.6	528.4	515.4	501.4	483.7	464.2	447.7	437.4
37.5°	630.5	617.1	603.8	604.1	588.5	573.4	554.8	533.1	508.4	485.4	470.7
40°	714.5	695.5	678.2	674.3	660.9	639.7	619.3	594.1	563.9	533.6	512.4
42.5°	816.3	785.2	761.4	757.9	740.2	714.2	689.4	656.1	625.3	588.5	563.0
45°	931.9	882.1	853.6	848.4	819.9	793.4	763.5	727.9	690.3	648.8	618.5
47.5°	1075.7	1004.8	956.2	947.5	908.1	873.5	842.3	802.8	757.9	711.5	678.2
50°	1243.3	1138.5	1073.1	1059.7	1006.9	966.1	926.3	876.9	828.9	780.4	741.8
52.5°	1411.3	1298.8	1211.8	1195.3	1117.3	1062.8	1010.4	960.9	904.2	856.2	812.4
55°	1546.4	1471.6	1370.6	1347.6	1236.0	1161.9	1093.1	1036.7	980.5	942.3	890.8
57.5°	1627.9	1624.0	1544.2	1512.7	1359.9	1250.3	1173.5	1109.4	1054.9	1038.9	970.4
60°	1625.8	1726.6	1692.3	1668.6	1485.0	1340.8	1241.2	1171.8	1126.8	1145.0	1050.6
62.5°	1526.5	1730.9	1772.0	1765.6	1618.3	1413.6	1296.7	1225.1	1201.4	1255.4	1133.8
63°	1490.6	1721.1	1775.6	1773.0	1643.9	1427.3	1306.1	1235.4	1216.0	1283.6	1148.9
65°	1259.8	1633.9	1733.5	1745.2	1699.0	1474.9	1328.2	1261.9	1259.8	1346.4	1184.9
67.5°	767.8	1380.7	1544.2	1566.9	1621.4	1490.2	1315.7	1252.9	1284.0	1355.5	1174.1
70°	328.3	911.2	1241.2	1277.5	1410.9	1414.8	1279.6	1215.5	1278.4	1284.4	1096.9
72.5°	194.5	429.6	844.9	924.1	1116.5	1217.4	1197.4	1150.6	1204.4	1128.1	934.1
75°	137.7	201.0	429.2	513.7	777.4	929.3	1006.0	1027.7	1025.4	894.7	701.1
77.5°	98.8	129.0	181.0	213.4	433.9	596.7	690.3	753.5	733.1	598.9	432.3
80°	68.9	89.2	110.9	117.8	201.4	306.6	363.8	391.5	379.4	299.2	193.6
82.5°	49.8	58.5	71.4	75.7	101.2	141.7	168.4	148.5	142.6	110.4	83.6
85°	38.5	37.6	44.6	46.4	59.3	74.1	75.7	58.8	51.6	46.0	46.8
87.5°	27.3	23.4	23.9	24.8	30.7	39.4	38.5	24.3	20.8	22.1	25.2
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°	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2	280.2
2.5°	281.9	282.3	283.2	283.7	284.6	284.6	285.4	285.8	286.6	287.5	287.9
5°	287.1	288.4	290.2	291.1	292.8	294.0	295.8	296.6	298.3	299.7	301.4
7.5°	295.0	297.1	299.2	301.8	304.4	306.6	308.4	310.5	313.6	315.8	317.0
10°	302.3	305.3	309.1	312.3	316.2	319.2	321.8	325.6	329.0	332.2	333.9
12.5°	311.8	315.8	319.5	324.4	329.6	333.5	337.4	342.6	347.4	350.8	352.6
15°	323.1	327.8	332.2	337.9	343.8	349.0	354.7	360.3	363.8	363.8	362.9
17.5°	334.8	338.7	343.8	350.3	358.6	365.2	368.0	368.9	367.6	364.6	362.5
20°	346.4	349.9	355.5	363.4	372.0	373.2	370.3	366.4	362.5	357.3	353.8
22.5°	356.0	360.7	369.5	378.5	378.9	371.5	363.4	356.8	350.8	344.7	338.2
25°	367.2	373.8	385.5	388.8	377.6	363.8	352.0	342.6	332.6	322.6	315.2
27.5°	381.2	390.7	402.4	392.4	370.3	350.8	334.8	320.4	307.5	293.7	285.4
30°	395.9	410.5	413.1	387.2	357.7	332.6	311.0	289.3	272.8	260.2	255.5
32.5°	413.6	432.7	417.1	378.0	340.8	307.8	279.0	253.0	239.0	231.3	229.1
35°	440.3	456.0	419.1	368.6	321.4	278.5	242.1	221.3	212.5	207.5	204.9
37.5°	478.9	478.5	418.8	356.8	298.9	246.4	212.5	197.8	191.0	186.7	181.8
40°	524.0	495.9	416.2	340.0	268.6	215.7	192.2	178.5	171.9	166.7	161.1
42.5°	568.5	507.5	408.8	314.9	230.9	193.6	177.5	165.0	158.1	152.4	144.6
45°	607.2	512.4	394.5	280.2	197.1	176.2	168.1	157.3	148.9	140.3	134.2
47.5°	637.4	511.5	371.5	239.5	174.5	164.1	160.3	152.9	142.9	132.1	124.2
50°	662.9	504.9	340.4	203.6	159.4	153.3	152.1	149.8	133.8	124.8	120.0
52.5°	686.5	495.4	307.0	179.3	146.3	141.2	143.8	141.7	130.3	122.6	117.8
55°	718.5	488.9	274.2	160.6	131.2	130.0	132.1	135.1	128.2	120.8	115.6
57.5°	756.2	492.5	249.0	139.9	116.9	117.8	125.1	129.4	126.0	118.2	113.0
60°	799.4	502.8	226.9	120.0	105.2	107.3	118.2	124.2	123.8	114.8	108.7
62.5°	847.9	513.7	191.9	104.8	95.3	98.8	110.0	117.8	119.0	111.3	103.9
63°	857.4	514.5	182.7	101.8	93.6	97.5	107.8	116.2	117.8	110.4	103.0
65°	880.9	506.6	147.2	93.6	86.5	91.0	101.2	108.7	112.2	105.7	99.6
67.5°	861.4	443.0	110.9	83.6	80.9	84.0	93.2	100.0	103.0	100.0	94.0
70°	787.8	322.2	86.5	74.5	74.9	77.1	84.0	90.5	94.0	93.2	87.5
72.5°	634.5	182.7	72.4	66.7	68.0	70.5	75.4	81.4	84.4	84.0	80.0
75°	417.9	93.6	61.1	59.7	60.6	62.8	66.3	71.1	74.5	74.1	72.4
77.5°	207.0	64.9	52.5	52.8	53.3	54.9	57.6	62.0	64.0	64.5	64.0
80°	85.2	50.7	45.0	45.5	46.0	47.3	49.0	52.8	54.2	54.9	55.4
82.5°	51.2	38.5	35.9	36.8	37.2	38.5	39.9	43.3	44.6	46.0	46.0
85°	33.7	26.9	26.1	26.9	27.7	28.6	29.0	31.3	33.3	35.0	35.9
87.5°	18.1	16.0	15.6	16.0	16.0	16.9	17.7	19.9	22.5	24.3	25.2
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°	280.2	280.2	280.2	280.2	280.2
2.5°	287.1	287.5	287.1	287.5	287.9
5°	301.4	302.3	301.8	301.8	303.5
7.5°	317.9	319.5	319.5	320.4	321.4
10°	335.6	337.4	338.7	338.7	340.0
12.5°	353.4	354.2	355.5	355.5	355.5
15°	362.5	362.0	361.6	361.2	361.2
17.5°	361.2	359.4	358.6	357.7	358.2
20°	351.6	348.6	347.7	346.4	347.4
22.5°	335.2	330.8	329.0	327.0	327.8
25°	310.5	305.3	304.4	301.8	303.2
27.5°	281.9	279.4	279.0	278.5	280.6
30°	255.1	255.9	256.3	257.3	259.4
32.5°	230.3	232.1	232.5	233.0	236.1
35°	206.2	203.9	206.2	205.3	207.9
37.5°	179.8	178.0	176.2	174.1	175.8
40°	157.7	154.6	149.4	146.9	147.2
42.5°	140.3	136.5	132.1	129.4	129.4
45°	129.0	124.2	120.5	118.7	118.7
47.5°	120.5	118.2	116.2	114.8	114.8
50°	116.9	114.4	113.0	112.2	112.2
52.5°	114.4	111.7	110.4	109.6	108.7
55°	112.2	108.2	107.0	106.4	106.4
57.5°	109.1	105.7	103.9	103.6	103.6
60°	104.4	101.8	100.0	99.6	99.6
62.5°	99.6	96.9	95.3	95.3	95.3
63°	98.8	95.7	94.4	94.4	94.4
65°	94.9	91.7	90.5	90.5	90.1
67.5°	89.7	86.5	85.8	85.8	84.9
70°	83.6	80.9	80.0	80.6	78.8
72.5°	77.6	74.9	73.7	73.7	71.9
75°	70.5	68.0	66.3	65.8	64.0
77.5°	62.8	60.6	58.8	57.1	56.4
80°	54.5	52.8	50.7	49.3	48.1
82.5°	46.0	44.1	42.8	44.6	38.1
85°	35.9	34.2	32.5	35.0	27.3
87.5°	26.4	25.5	23.9	20.8	18.1
90°	0.0	0.0	0.0	0.0	0.0

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