

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: P265889

Luminaire Tested: **ARCH-AF16-40-D-U-T2U-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P265889  
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-AF16-40-D-U-T2U-7027  
Description: ARCHEON ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 740mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4132 lumens  
Efficiency: N/A  
Efficacy: 98.4 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

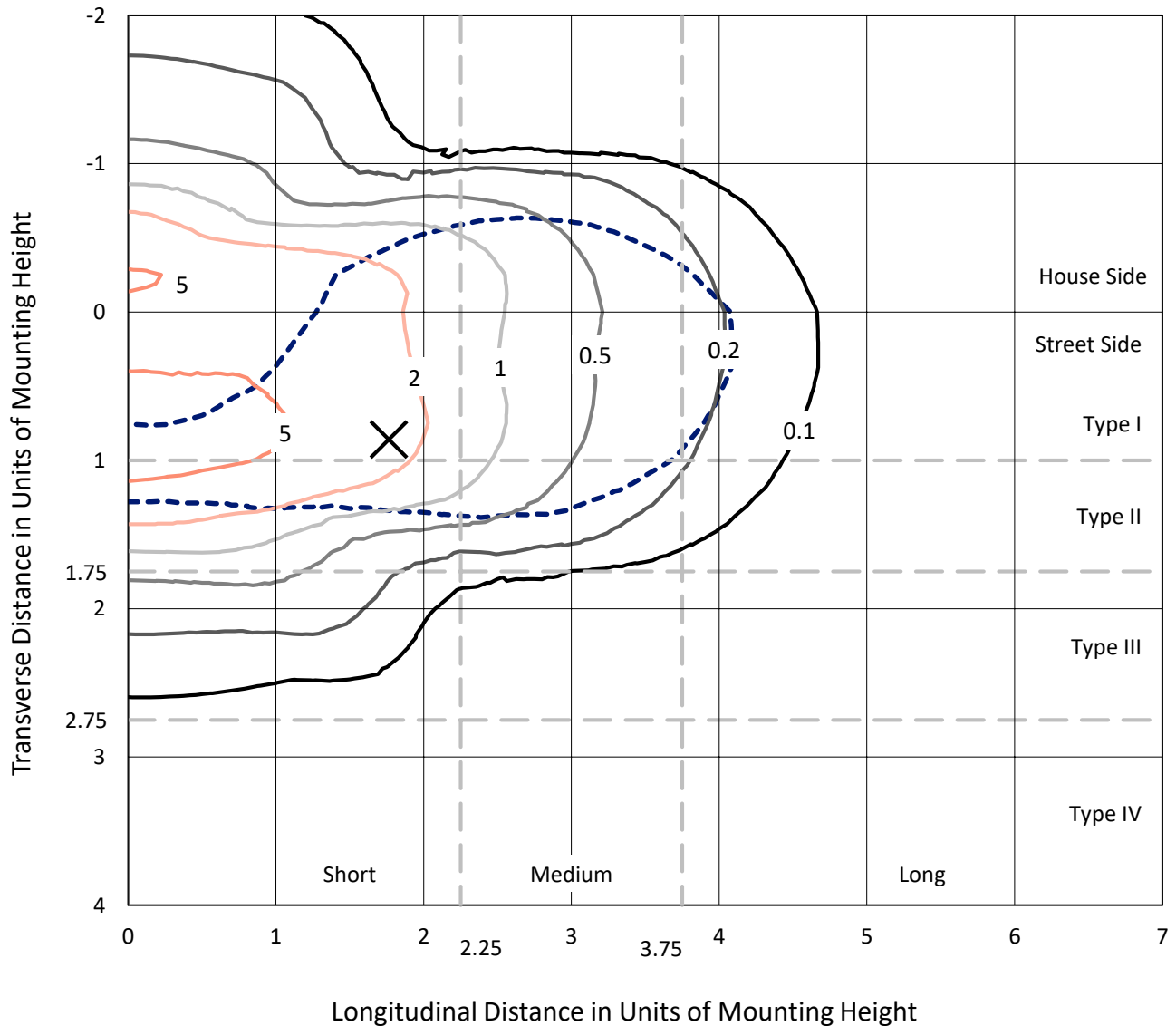
Input Watts (W): 42  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

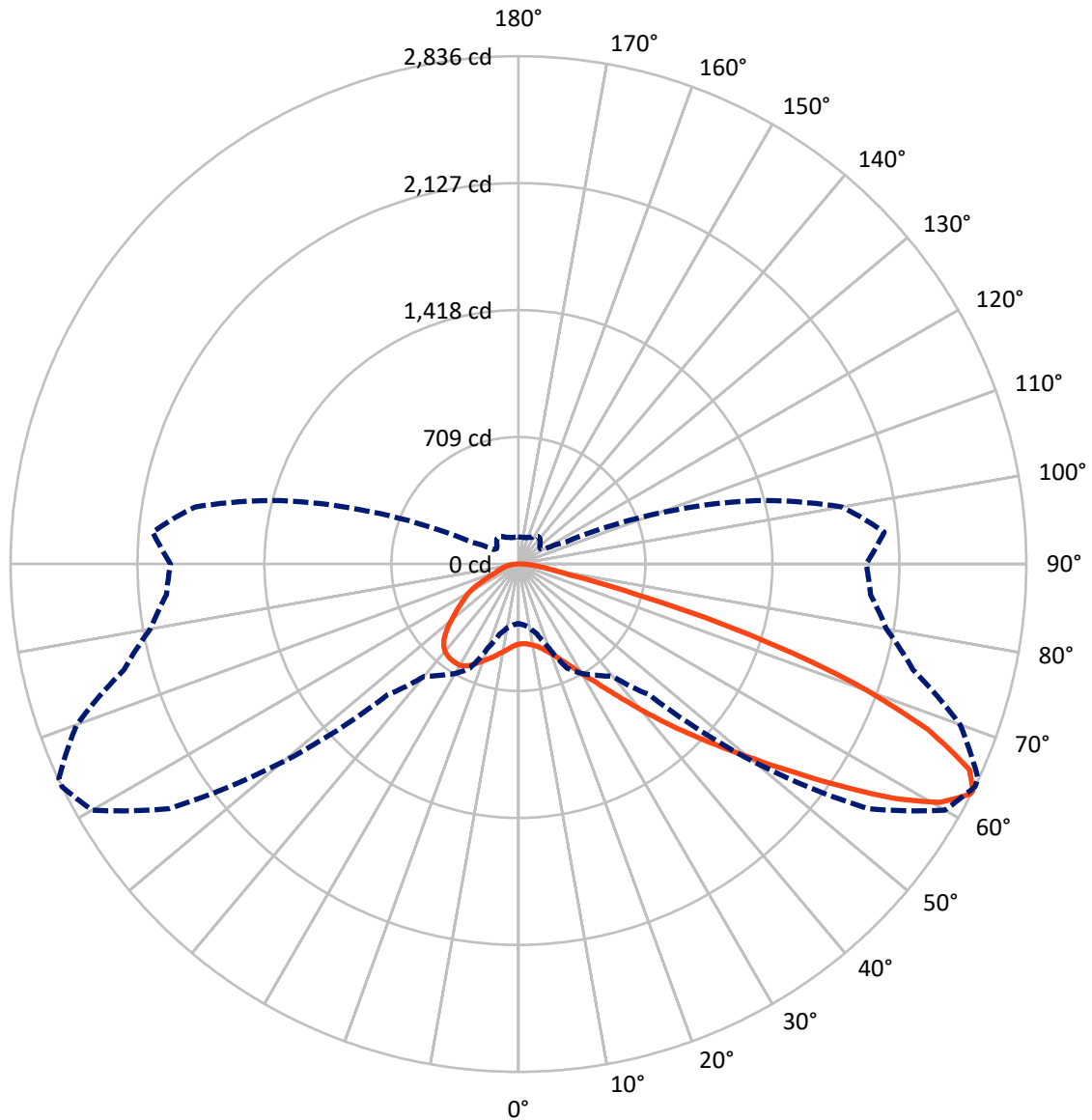


Based on 10 foot mounting height. Maximum calculated value = 7.3 fc  
 Type II - Short - Semi-Cutoff

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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	1214.7	0.0	1214.7
	% Fixture	29.4	0.0	29.4
<b>Street Side</b>	Lumens	2917.4	0.0	2917.4
	% Fixture	70.6	0.0	70.6
<b>Total</b>	Lumens	4132.0	0.0	4132.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.7	1.1
10°-20°	148.8	3.6
20°-30°	279.3	6.8
30°-40°	468.2	11.3
40°-50°	785.6	19.0
50°-60°	995.8	24.1
60°-70°	878.5	21.3
70°-80°	453.5	11.0
80°-90°	77.6	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°	4132.0	100.0
0°-180°	4132.0	100.0



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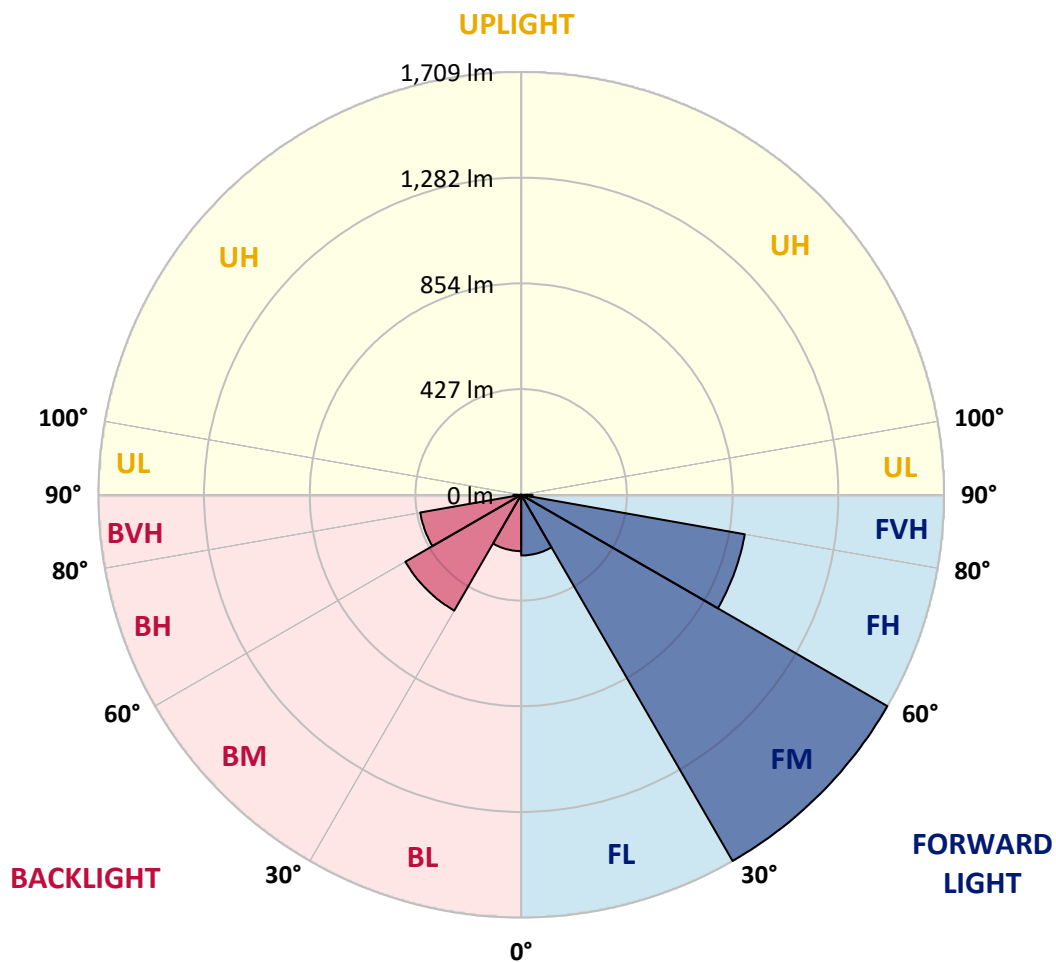
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	245.3	5.9			
FM	(30°-60°)	1708.9	41.4			
FH	(60°-80°)	917.5	22.2			G1/1800
FVH	(80°-90°)	45.7	1.1			G1/100
BL	(0°-30°)	227.6	5.5	B1/500		
BM	(30°-60°)	540.7	13.1	B1/1000		
BH	(60°-80°)	414.4	10.0	B1/500		G1/500
BVH	(80°-90°)	31.9	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°	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4
2.5°	444.8	444.0	444.0	444.0	444.0	443.4	444.0	445.4	444.8	444.0	445.4
5°	446.1	445.4	445.4	445.4	446.1	445.4	446.1	448.2	446.7	446.7	448.2
7.5°	449.6	449.0	449.6	449.0	449.0	449.0	449.6	451.7	450.9	451.7	453.7
10°	453.7	453.7	453.7	453.7	453.7	453.7	455.1	456.5	457.1	457.9	460.7
12.5°	466.2	466.2	466.2	465.5	465.5	463.3	466.2	467.6	468.9	470.4	472.4
15°	492.5	492.5	491.7	488.9	488.9	484.8	485.5	486.3	486.3	487.6	488.9
17.5°	527.0	526.3	525.0	523.0	520.1	515.3	513.9	512.6	510.4	509.8	509.8
20°	575.5	574.7	572.0	566.4	563.0	555.4	549.9	544.4	542.2	538.9	538.2
22.5°	644.7	644.7	639.1	630.8	628.0	612.1	596.3	584.4	580.2	575.5	575.5
25°	728.3	727.5	720.0	710.3	698.5	682.0	662.6	646.7	636.3	625.2	621.1
27.5°	828.5	826.5	816.1	804.4	782.2	761.6	738.6	722.1	704.1	690.3	677.9
30°	946.2	944.1	926.2	904.0	881.1	860.3	827.2	807.1	778.8	762.2	748.4
32.5°	1082.5	1080.3	1047.9	1026.5	1002.1	976.5	937.2	905.4	869.4	845.8	826.5
35°	1256.0	1247.7	1201.5	1171.7	1133.7	1108.0	1066.5	1023.7	981.5	948.3	920.0
37.5°	1443.4	1433.8	1393.0	1348.7	1311.3	1280.3	1221.4	1167.4	1117.8	1072.0	1036.7
40°	1639.1	1613.6	1570.1	1537.4	1511.9	1482.3	1420.7	1363.9	1285.7	1234.6	1181.4
42.5°	1774.8	1749.9	1719.4	1697.9	1685.6	1662.8	1628.2	1579.0	1509.2	1510.6	1370.2
45°	1864.1	1827.3	1806.6	1808.0	1812.8	1812.8	1806.6	1798.9	1768.6	1789.3	1671.7
47.5°	1832.3	1808.0	1794.9	1822.5	1857.1	1891.7	1931.7	1975.4	2025.1	2084.0	1939.4
50°	1645.4	1654.4	1660.6	1719.4	1793.5	1872.2	1964.2	2083.3	2222.2	2249.3	2179.4
52.5°	1347.4	1366.7	1387.4	1477.4	1574.9	1711.1	1872.2	2068.7	2255.5	2365.4	2358.5
55°	1046.4	1070.7	1114.9	1182.0	1259.6	1388.2	1587.3	1890.3	2181.4	2356.4	2463.0
57.5°	745.0	780.2	838.3	931.6	1000.2	1072.8	1220.1	1556.3	1875.0	2200.8	2445.6
60°	495.2	511.9	549.9	666.1	781.5	857.6	962.1	1083.8	1344.6	1793.5	2267.2
62.5°	351.3	362.5	385.9	438.6	542.9	680.6	743.5	799.5	883.3	1153.7	1820.4
63°	332.1	341.6	361.1	405.3	499.4	641.8	706.2	757.4	818.3	1032.0	1722.2
65°	275.3	279.5	289.9	311.3	361.7	480.1	585.2	616.2	626.7	663.3	1079.0
67.5°	232.4	235.1	238.6	244.9	264.9	319.5	436.4	475.8	464.2	439.2	533.2
70°	201.9	204.1	209.6	217.2	224.0	238.0	300.2	359.0	345.8	311.9	326.4
72.5°	161.2	164.6	170.9	184.1	197.7	215.9	231.0	267.6	259.4	226.8	230.3
75°	127.3	129.4	134.8	144.5	157.7	178.5	208.1	220.7	197.7	167.4	167.4
77.5°	101.0	103.0	107.8	115.5	123.7	138.2	159.1	191.6	177.8	125.9	125.3
80°	76.0	78.2	83.1	89.9	98.3	108.5	121.0	135.6	163.2	117.6	94.1
82.5°	56.1	56.8	64.9	69.9	72.7	80.8	91.3	99.6	112.1	108.5	83.7
85°	42.2	41.5	47.0	50.5	51.2	53.3	59.5	67.8	73.3	70.5	64.9
87.5°	23.5	20.8	24.3	27.7	27.7	28.3	29.7	34.6	39.4	38.1	34.6
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°	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4
2.5°	445.4	445.4	444.8	444.8	445.4	445.4	444.8	446.7	448.2	448.2	449.0
5°	447.4	448.2	447.4	447.4	448.2	448.2	449.0	450.9	453.0	454.5	456.5
7.5°	453.7	454.5	453.7	453.7	454.5	455.1	456.5	459.3	460.7	463.3	466.8
10°	460.7	461.3	460.7	461.3	462.0	462.6	464.9	466.8	468.9	471.7	477.2
12.5°	473.0	473.8	472.4	473.0	475.2	475.2	476.6	477.9	481.4	484.8	490.4
15°	490.4	490.4	488.9	489.7	491.7	491.7	492.5	493.9	498.0	502.2	507.7
17.5°	510.4	511.9	511.1	511.9	513.2	513.9	513.9	515.3	518.1	520.7	526.3
20°	537.5	538.2	536.6	538.2	539.5	538.2	536.6	536.0	537.5	538.9	545.0
22.5°	574.0	573.4	570.0	570.0	570.0	567.2	563.6	559.6	559.6	557.5	562.2
25°	617.7	615.6	610.8	611.4	606.5	602.5	596.3	589.9	584.4	582.5	583.1
27.5°	668.8	664.7	659.9	658.5	653.5	646.1	635.6	623.9	614.9	608.0	606.5
30°	733.1	724.2	715.9	714.5	706.8	694.4	677.9	662.0	646.7	634.9	630.8
32.5°	809.3	795.4	782.2	780.8	768.4	751.8	731.8	709.7	687.6	668.8	659.9
35°	898.5	877.7	865.2	861.8	843.8	823.0	800.8	772.6	741.5	715.2	698.5
37.5°	1007.0	985.6	964.2	964.9	939.9	915.7	886.0	851.5	812.0	775.3	751.8
40°	1141.2	1110.8	1083.1	1076.9	1055.5	1021.6	989.0	948.9	900.6	852.1	818.3
42.5°	1303.8	1253.9	1215.9	1210.3	1182.0	1140.6	1101.1	1047.9	998.7	939.9	899.2
45°	1488.4	1408.9	1363.3	1355.0	1309.3	1267.1	1219.4	1162.6	1102.5	1036.0	987.6
47.5°	1718.1	1604.6	1527.2	1513.4	1450.5	1395.1	1345.2	1282.3	1210.3	1136.4	1083.1
50°	1985.8	1818.3	1713.8	1692.4	1608.1	1543.1	1479.5	1400.5	1323.8	1246.4	1184.9
52.5°	2254.0	2074.2	1935.3	1909.0	1784.5	1697.3	1613.6	1534.8	1444.1	1367.4	1297.5
55°	2469.9	2350.2	2189.1	2152.3	1973.9	1855.7	1745.8	1655.8	1565.8	1505.0	1422.7
57.5°	2600.0	2593.6	2466.4	2415.9	2171.8	1996.8	1874.4	1771.9	1685.0	1659.3	1549.9
60°	2596.5	2757.5	2703.0	2664.9	2371.6	2141.4	1982.3	1871.6	1799.7	1828.7	1677.9
62.5°	2438.1	2764.5	2830.2	2819.9	2584.8	2257.5	2070.9	1956.7	1918.6	2005.0	1810.8
63°	2380.7	2748.6	2835.8	2831.5	2625.4	2279.7	2086.0	1973.2	1942.1	2050.0	1835.0
65°	2012.1	2609.5	2768.7	2787.4	2713.3	2355.7	2121.3	2015.4	2012.1	2150.4	1892.4
67.5°	1226.2	2205.0	2466.4	2502.4	2589.5	2380.0	2101.2	2001.0	2050.7	2164.8	1875.0
70°	524.3	1455.3	1982.3	2040.4	2253.4	2259.6	2043.9	1941.4	2041.8	2051.4	1752.0
72.5°	310.5	686.1	1349.4	1475.9	1783.0	1944.2	1912.4	1837.8	1923.5	1801.7	1491.8
75°	219.9	321.0	685.4	820.3	1241.5	1484.3	1606.7	1641.4	1637.8	1428.9	1119.7
77.5°	157.7	206.2	289.2	340.9	693.0	953.1	1102.5	1203.5	1171.0	956.5	690.3
80°	110.0	142.6	177.1	188.1	321.7	489.7	580.9	625.2	605.8	477.9	309.1
82.5°	79.5	93.3	114.2	121.0	161.9	226.2	269.0	237.2	227.5	176.3	133.5
85°	61.5	60.1	71.2	74.0	94.7	118.2	121.0	94.1	82.4	73.3	74.6
87.5°	43.6	37.4	38.1	39.4	49.0	62.9	61.5	38.7	33.1	35.3	40.2
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°	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4	447.4
2.5°	450.3	450.9	452.3	453.0	454.5	454.5	455.8	456.5	457.9	459.3	459.9
5°	458.6	460.7	463.3	464.9	467.6	469.6	472.4	473.8	476.6	478.6	481.4
7.5°	471.0	474.5	477.9	482.1	486.3	489.7	492.5	496.0	500.7	504.2	506.3
10°	482.7	487.6	493.9	498.6	504.8	509.8	513.9	520.1	525.7	530.4	533.2
12.5°	498.0	504.2	510.4	518.1	526.3	532.5	538.9	547.1	554.8	560.3	563.0
15°	515.9	523.6	530.4	539.5	549.1	557.5	566.4	575.5	580.9	580.9	579.5
17.5°	534.6	540.9	549.1	559.6	572.7	583.1	587.9	589.3	587.2	582.5	578.9
20°	553.4	558.8	567.9	580.2	594.0	596.3	591.4	585.2	578.9	570.7	565.0
22.5°	568.5	576.2	589.9	604.5	605.2	593.4	580.2	570.0	560.3	550.5	540.2
25°	586.6	597.0	615.6	621.1	603.1	580.9	562.2	547.1	531.2	515.3	503.5
27.5°	608.6	623.9	642.6	626.7	591.4	560.3	534.6	511.9	491.1	468.9	455.8
30°	632.1	655.8	659.9	618.4	571.3	531.2	496.7	462.0	435.8	415.6	408.1
32.5°	660.6	690.9	666.1	603.8	544.4	491.7	445.4	403.9	381.8	369.4	365.9
35°	703.5	728.3	669.5	588.6	513.2	444.8	386.6	353.5	339.6	331.4	327.2
37.5°	764.9	764.3	668.8	570.0	477.2	393.5	339.6	316.1	305.1	298.1	290.5
40°	837.0	791.9	664.7	542.9	428.9	344.4	307.1	284.9	274.6	266.3	257.3
42.5°	908.1	810.6	652.9	502.8	368.7	309.1	283.5	263.6	252.5	243.5	231.0
45°	969.7	818.3	630.2	447.4	314.6	281.4	268.4	251.0	238.0	224.0	214.4
47.5°	1018.0	816.9	593.4	382.5	278.7	262.1	255.8	244.2	228.3	210.9	198.4
50°	1058.9	806.5	543.7	325.0	254.5	244.9	242.7	239.3	213.7	199.2	191.6
52.5°	1096.3	791.2	490.4	286.3	233.7	225.5	229.6	226.2	208.1	195.7	188.1
55°	1147.5	780.8	437.8	256.6	209.6	207.5	210.9	215.9	204.8	193.0	184.7
57.5°	1207.6	786.3	397.7	223.4	186.8	188.1	200.0	206.8	201.3	188.9	180.5
60°	1276.9	803.1	362.5	191.6	168.1	171.5	188.9	198.4	197.7	183.3	173.6
62.5°	1354.3	820.3	306.4	167.4	152.2	157.7	175.7	188.1	190.3	177.8	165.9
63°	1369.5	821.7	291.9	162.6	149.4	155.6	172.2	185.4	188.1	176.3	164.6
65°	1406.8	809.3	235.1	149.4	138.2	145.3	161.9	173.6	179.1	168.7	159.1
67.5°	1375.7	707.5	177.1	133.5	129.4	134.1	148.7	159.8	164.6	159.8	150.0
70°	1258.2	514.5	138.2	118.9	119.7	123.1	134.1	144.5	150.0	148.7	139.6
72.5°	1013.3	291.9	115.5	106.4	108.5	112.7	120.4	130.1	134.8	134.1	128.0
75°	667.4	149.4	97.6	95.4	96.8	100.3	105.8	113.5	118.9	118.2	115.5
77.5°	330.5	103.8	83.7	84.4	85.1	87.9	91.9	99.0	102.3	103.0	102.3
80°	136.3	80.8	72.0	72.7	73.3	75.4	78.2	84.4	86.4	87.9	88.6
82.5°	81.7	61.5	57.4	58.7	59.5	61.5	63.6	69.2	71.2	73.3	73.3
85°	54.0	42.8	41.5	42.8	44.2	45.6	46.4	49.8	53.3	56.1	57.4
87.5°	29.0	25.6	25.0	25.6	25.6	26.9	28.3	31.8	35.9	38.7	40.2
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°	447.4	447.4	447.4	447.4	447.4
2.5°	458.6	459.3	458.6	459.3	459.9
5°	481.4	482.7	482.1	482.1	484.8
7.5°	507.7	510.4	510.4	511.9	513.2
10°	536.0	538.9	540.9	540.9	542.9
12.5°	564.3	565.8	567.9	567.9	567.9
15°	578.9	578.1	577.5	576.8	576.8
17.5°	576.8	574.0	572.7	571.3	572.0
20°	561.6	556.8	555.4	553.4	554.8
22.5°	535.3	528.5	525.7	522.2	523.6
25°	496.0	487.6	486.3	482.1	484.1
27.5°	450.3	446.1	445.4	444.8	448.2
30°	407.4	408.8	409.4	410.9	414.3
32.5°	367.9	370.7	371.4	372.1	377.0
35°	329.1	325.7	329.1	327.8	332.1
37.5°	287.1	284.3	281.4	278.0	280.8
40°	251.7	246.9	238.6	234.5	235.1
42.5°	224.0	217.8	210.9	206.8	206.8
45°	206.2	198.4	192.2	189.5	189.5
47.5°	192.2	188.9	185.4	183.3	183.3
50°	186.8	182.5	180.5	179.1	179.1
52.5°	182.5	178.5	176.3	175.0	173.6
55°	179.1	173.0	170.9	170.1	170.1
57.5°	174.4	168.7	165.9	165.3	165.3
60°	166.6	162.6	159.8	159.1	159.1
62.5°	159.1	155.0	152.2	152.2	152.2
63°	157.7	152.8	150.7	150.7	150.7
65°	151.5	146.7	144.5	144.5	143.9
67.5°	143.2	138.2	136.9	136.9	135.6
70°	133.5	129.4	128.0	128.6	125.9
72.5°	123.7	119.7	117.6	117.6	114.9
75°	112.7	108.5	105.8	105.1	102.3
77.5°	100.3	96.8	94.1	91.3	89.9
80°	87.1	84.4	80.8	78.8	76.7
82.5°	73.3	70.5	68.5	71.2	60.8
85°	57.4	54.6	51.9	56.1	43.6
87.5°	42.2	40.9	38.1	33.1	29.0
90°	0.0	0.0	0.0	0.0	0.0

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