

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: P239113

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239113
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
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 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: 3046.3 lumens
Efficiency: N/A
Efficacy: 126.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: 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

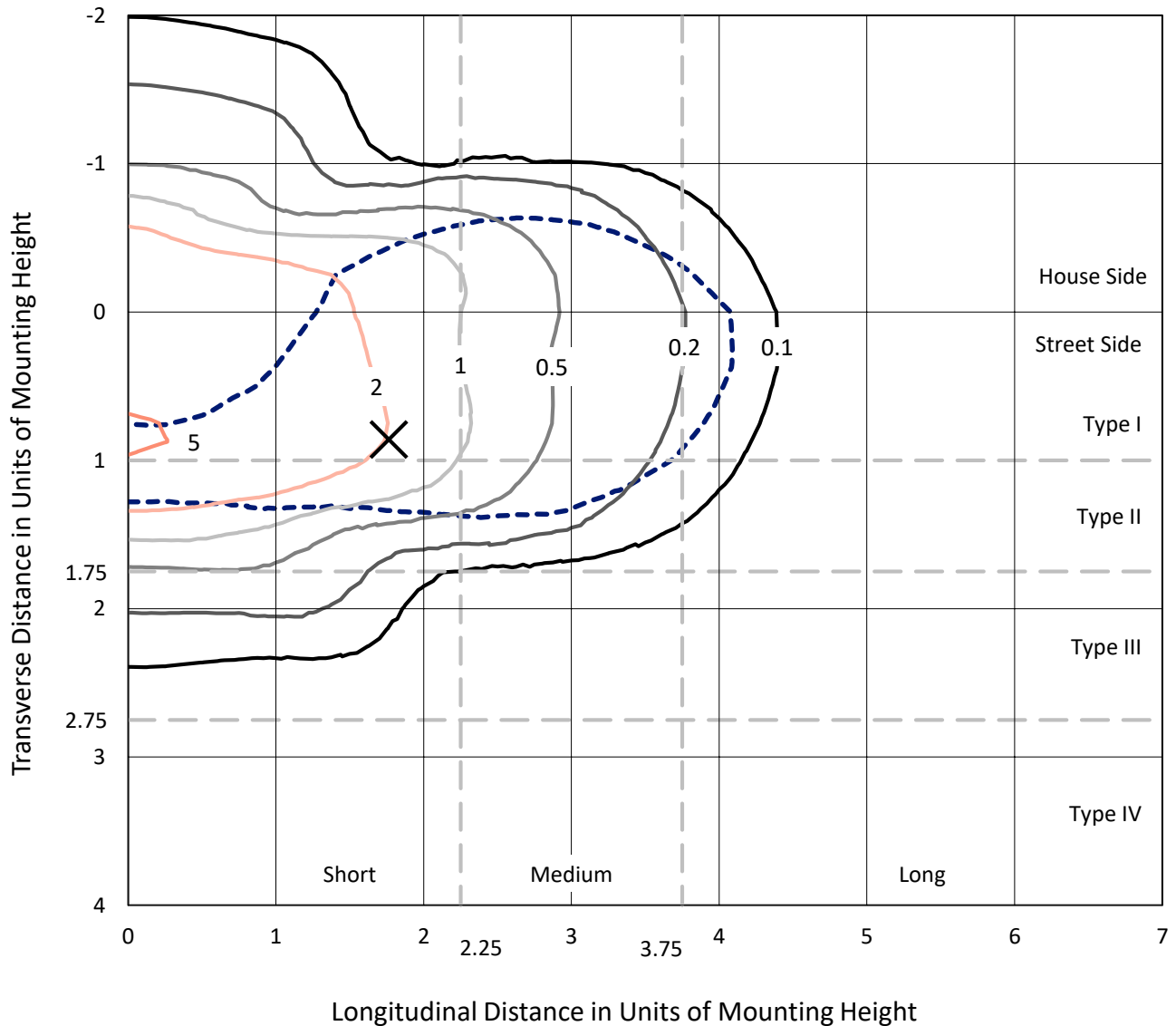


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

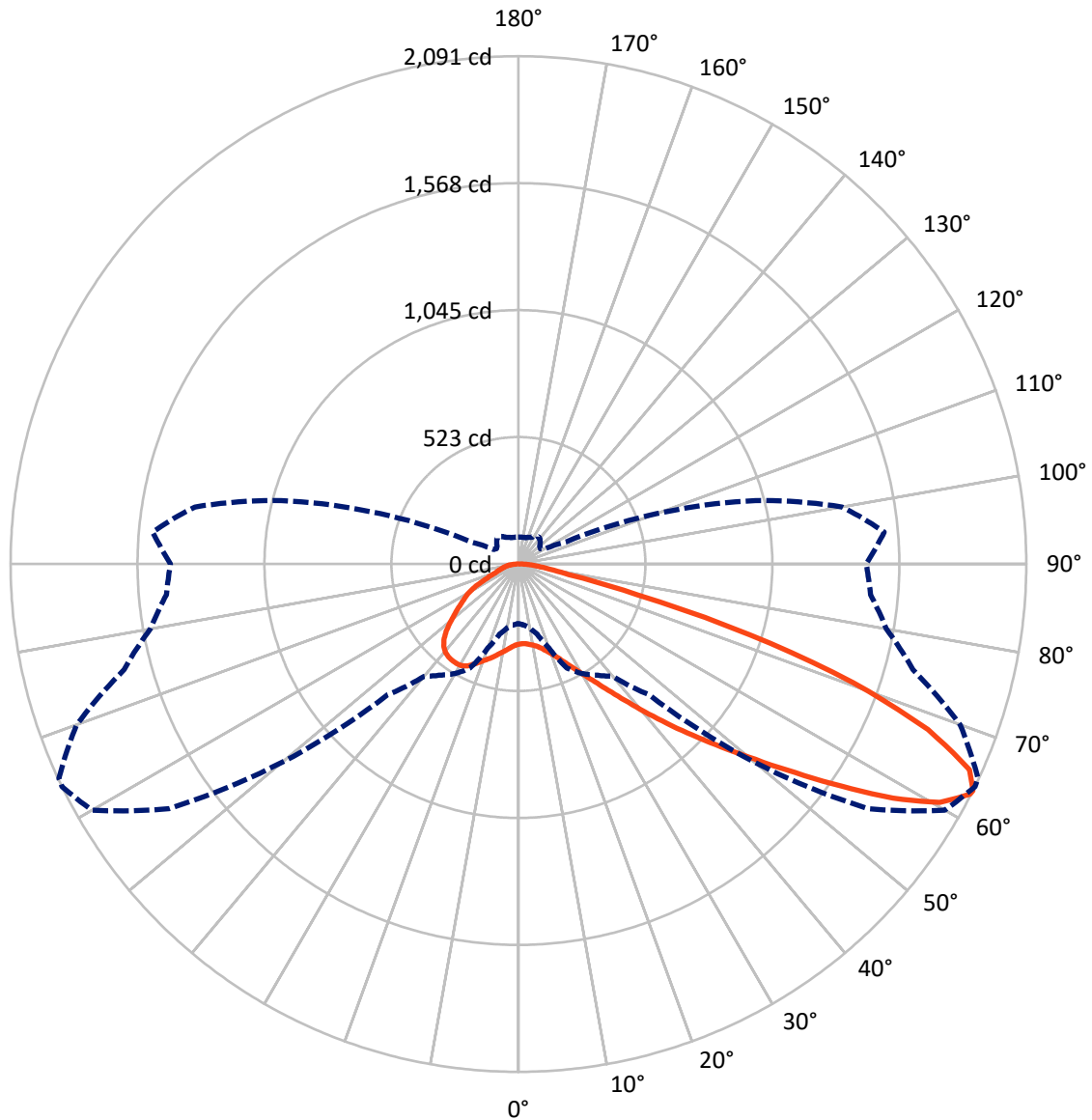


Based on 10 foot mounting height. Maximum calculated value = 5.4 fc
 Type II - Short - Semi-Cutoff

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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
House Side	Lumens	895.5	0.0	895.5
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	2150.8	0.0	2150.8
	% Fixture	70.6	0.0	70.6
Total	Lumens	3046.3	0.0	3046.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	32.9	1.1
10°-20°	109.7	3.6
20°-30°	205.9	6.8
30°-40°	345.2	11.3
40°-50°	579.1	19.0
50°-60°	734.2	24.1
60°-70°	647.7	21.3
70°-80°	334.3	11.0
80°-90°	57.2	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°	3046.3	100.0
0°-180°	3046.3	100.0



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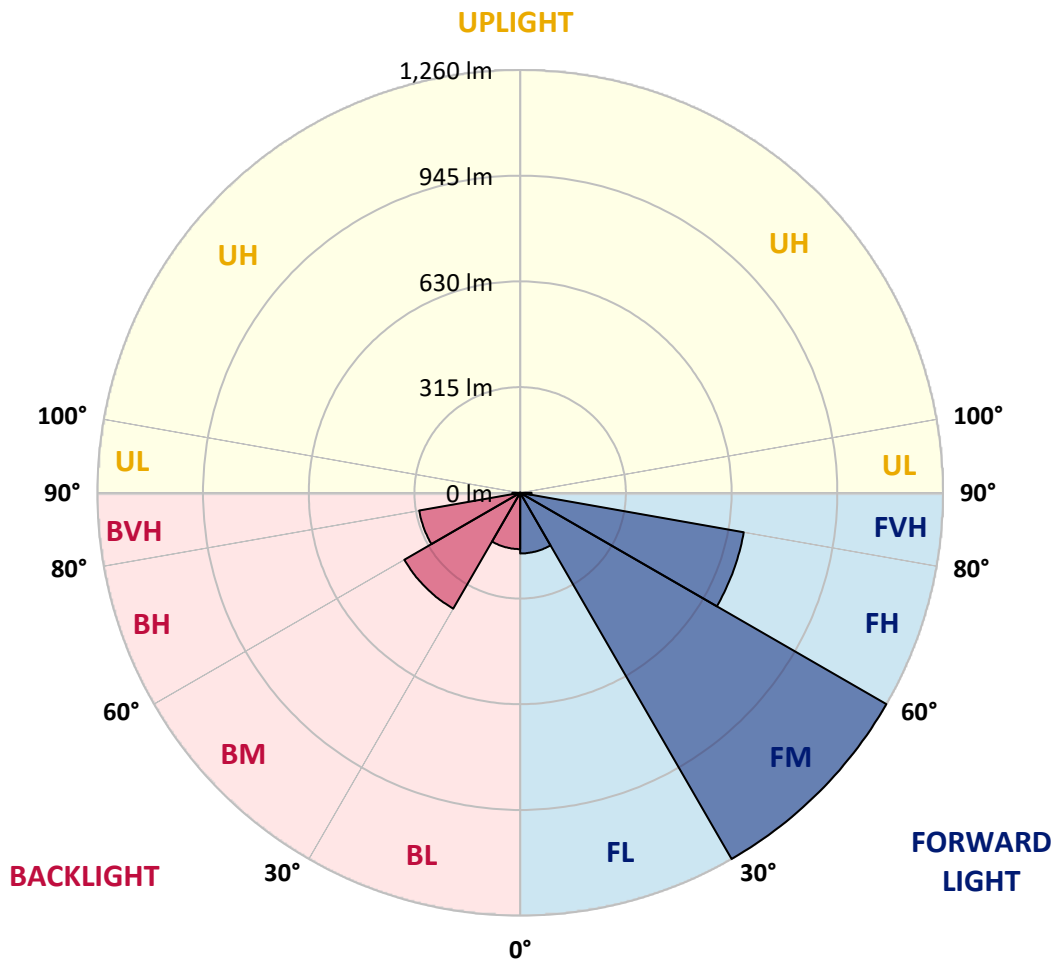
CATALOG NUMBER: ARCH-AF16-20-D-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	180.8	5.9			
FM	(30°-60°)	1259.9	41.4			
FH	(60°-80°)	676.5	22.2			G1/1800
FVH	(80°-90°)	33.7	1.1			G1/100
BL	(0°-30°)	167.8	5.5	B1/500		
BM	(30°-60°)	398.6	13.1	B1/1000		
BH	(60°-80°)	305.5	10.0	B1/500		G1/500
BVH	(80°-90°)	23.5	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°	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9
2.5°	327.9	327.3	327.3	327.3	327.3	326.8	327.3	328.4	327.9	327.3	328.4
5°	328.9	328.4	328.4	328.4	328.9	328.4	328.9	330.4	329.4	329.4	330.4
7.5°	331.4	330.9	331.4	330.9	330.9	330.9	331.4	333.0	332.5	333.0	334.5
10°	334.5	334.5	334.5	334.5	334.5	334.5	335.5	336.6	337.1	337.6	339.6
12.5°	343.7	343.7	343.7	343.2	343.2	341.7	343.7	344.7	345.8	346.8	348.3
15°	363.0	363.0	362.5	360.5	360.5	357.4	357.9	358.4	358.4	359.5	360.5
17.5°	388.5	388.0	387.0	385.6	383.5	379.9	378.9	377.9	376.3	375.8	375.8
20°	424.2	423.7	421.7	417.7	415.1	409.5	405.4	401.3	399.8	397.2	396.7
22.5°	475.3	475.3	471.2	465.0	463.0	451.3	439.6	430.9	427.8	424.2	424.2
25°	536.9	536.4	530.8	523.6	515.1	502.8	488.5	476.8	469.1	460.9	457.9
27.5°	610.9	609.4	601.7	593.0	576.7	561.4	544.6	532.3	519.1	508.9	499.7
30°	697.6	696.0	682.8	666.5	649.7	634.3	609.9	595.1	574.2	561.9	551.8
32.5°	798.0	796.5	772.5	756.7	738.9	720.1	690.9	667.5	641.0	623.6	609.4
35°	926.0	919.9	885.8	863.8	835.8	816.9	786.3	754.6	723.5	699.1	678.2
37.5°	1064.2	1057.0	1026.9	994.3	966.8	943.9	900.5	860.7	824.0	790.3	764.3
40°	1208.5	1189.7	1157.5	1133.5	1114.7	1092.7	1047.4	1005.6	948.0	910.2	870.9
42.5°	1308.5	1290.1	1267.6	1251.9	1242.7	1225.8	1200.3	1164.1	1112.7	1113.7	1010.2
45°	1374.2	1347.2	1331.9	1332.9	1336.5	1336.5	1331.9	1326.3	1303.9	1319.2	1232.5
47.5°	1350.8	1332.9	1323.3	1343.6	1369.1	1394.6	1424.3	1456.4	1493.0	1536.4	1429.8
50°	1213.1	1219.8	1224.3	1267.6	1322.3	1380.4	1448.2	1535.9	1638.4	1658.3	1606.7
52.5°	993.3	1007.6	1022.8	1089.2	1161.0	1261.5	1380.4	1525.2	1662.8	1743.9	1738.8
55°	771.5	789.3	821.9	871.5	928.5	1023.4	1170.3	1393.6	1608.3	1737.3	1815.8
57.5°	549.2	575.2	618.1	686.9	737.3	790.8	899.5	1147.3	1382.4	1622.6	1803.1
60°	365.1	377.4	405.4	491.0	576.2	632.3	709.3	799.0	991.2	1322.3	1671.5
62.5°	259.0	267.2	284.6	323.3	400.3	501.8	548.2	589.4	651.2	850.6	1342.1
63°	244.8	251.9	266.2	298.8	368.2	473.2	520.6	558.3	603.2	760.8	1269.7
65°	203.0	206.0	213.7	229.4	266.7	353.8	431.4	454.3	462.0	489.0	795.4
67.5°	171.3	173.4	175.9	180.6	195.3	235.6	321.7	350.9	342.2	323.8	393.1
70°	148.9	150.5	154.5	160.1	165.2	175.4	221.3	264.6	254.9	230.0	240.7
72.5°	118.8	121.3	125.9	135.6	145.9	159.1	170.3	197.3	191.2	167.3	169.8
75°	93.8	95.3	99.4	106.6	116.3	131.6	153.4	162.6	145.9	123.4	123.4
77.5°	74.5	76.0	79.6	85.1	91.2	102.0	117.3	141.3	131.0	92.8	92.3
80°	56.1	57.6	61.2	66.3	72.4	80.1	89.2	99.9	120.3	86.6	69.4
82.5°	41.3	41.8	48.0	51.5	53.5	59.6	67.3	73.4	82.7	80.1	61.7
85°	31.1	30.6	34.7	37.2	37.7	39.3	43.9	50.0	54.0	52.0	48.0
87.5°	17.3	15.3	17.8	20.4	20.4	20.9	21.9	25.5	29.1	28.0	25.5
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°	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9
2.5°	328.4	328.4	327.9	327.9	328.4	328.4	327.9	329.4	330.4	330.4	330.9
5°	329.9	330.4	329.9	329.9	330.4	330.4	330.9	332.5	334.0	335.0	336.6
7.5°	334.5	335.0	334.5	334.5	335.0	335.5	336.6	338.6	339.6	341.7	344.2
10°	339.6	340.1	339.6	340.1	340.6	341.2	342.7	344.2	345.8	347.8	351.9
12.5°	348.8	349.3	348.3	348.8	350.4	350.4	351.4	352.3	354.9	357.4	361.5
15°	361.5	361.5	360.5	361.0	362.5	362.5	363.0	364.1	367.1	370.2	374.3
17.5°	376.3	377.4	376.9	377.4	378.4	378.9	378.9	379.9	382.0	384.0	388.0
20°	396.2	396.7	395.7	396.7	397.7	396.7	395.7	395.2	396.2	397.2	401.8
22.5°	423.2	422.7	420.1	420.1	420.1	418.2	415.6	412.6	412.6	411.0	414.6
25°	455.3	453.8	450.3	450.8	447.2	444.2	439.6	435.0	430.9	429.3	429.8
27.5°	493.1	490.0	486.4	485.5	481.9	476.3	468.6	459.9	453.3	448.3	447.2
30°	540.5	533.9	527.7	526.7	521.1	512.0	499.7	487.9	476.8	468.1	465.0
32.5°	596.6	586.5	576.7	575.7	566.5	554.2	539.5	523.1	506.9	493.1	486.4
35°	662.4	647.1	637.9	635.4	622.1	606.8	590.4	569.6	546.7	527.2	515.1
37.5°	742.5	726.6	710.8	711.4	692.9	675.1	653.3	627.7	598.6	571.6	554.2
40°	841.4	819.0	798.5	793.9	778.2	753.2	729.2	699.6	663.9	628.2	603.2
42.5°	961.2	924.4	896.4	892.3	871.5	840.9	811.8	772.5	736.3	692.9	662.9
45°	1097.3	1038.7	1005.0	998.9	965.3	934.2	899.0	857.1	812.8	763.8	728.1
47.5°	1266.6	1183.0	1125.9	1115.7	1069.3	1028.5	991.8	945.4	892.3	837.8	798.5
50°	1463.9	1340.6	1263.5	1247.8	1185.6	1137.6	1090.7	1032.6	976.0	918.9	873.5
52.5°	1661.8	1529.2	1426.7	1407.4	1315.6	1251.4	1189.7	1131.5	1064.7	1008.1	956.6
55°	1821.0	1732.7	1613.9	1586.9	1455.4	1368.1	1287.1	1220.8	1154.5	1109.6	1048.9
57.5°	1916.8	1912.2	1818.4	1781.2	1601.1	1472.1	1381.9	1306.4	1242.2	1223.3	1142.7
60°	1914.2	2033.0	1992.8	1964.7	1748.5	1578.7	1461.4	1379.9	1326.8	1348.2	1237.1
62.5°	1797.4	2038.1	2086.6	2078.9	1905.6	1664.3	1526.7	1442.6	1414.5	1478.3	1335.0
63°	1755.2	2026.5	2090.7	2087.6	1935.6	1680.7	1537.9	1454.8	1431.8	1511.4	1352.9
65°	1483.4	1924.0	2041.2	2055.0	2000.4	1736.8	1563.9	1485.9	1483.4	1585.4	1395.1
67.5°	904.1	1625.7	1818.4	1844.9	1909.1	1754.7	1549.2	1475.2	1511.9	1596.0	1382.4
70°	386.5	1072.9	1461.4	1504.2	1661.3	1665.9	1506.8	1431.3	1505.3	1512.4	1291.6
72.5°	228.9	505.8	994.8	1088.2	1314.6	1433.4	1409.9	1354.9	1418.1	1328.3	1099.9
75°	162.1	236.6	505.3	604.8	915.3	1094.3	1184.6	1210.0	1207.5	1053.5	825.5
77.5°	116.3	151.9	213.2	251.4	511.0	702.7	812.8	887.3	863.3	705.2	508.9
80°	81.1	105.1	130.5	138.7	237.1	361.0	428.3	460.9	446.7	352.3	227.9
82.5°	58.6	68.8	84.1	89.2	119.3	166.7	198.4	174.9	167.8	130.0	98.4
85°	45.4	44.4	52.5	54.5	69.9	87.2	89.2	69.4	60.7	54.0	55.0
87.5°	32.1	27.5	28.0	29.1	36.2	46.4	45.4	28.5	24.4	26.0	29.6
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9	329.9
2.5°	331.9	332.5	333.5	334.0	335.0	335.0	336.0	336.6	337.6	338.6	339.1
5°	338.1	339.6	341.7	342.7	344.7	346.3	348.3	349.3	351.4	352.8	354.9
7.5°	347.3	349.8	352.3	355.4	358.4	361.0	363.0	365.6	369.2	371.7	373.3
10°	355.9	359.5	364.1	367.6	372.3	375.8	378.9	383.5	387.5	391.1	393.1
12.5°	367.1	371.7	376.3	382.0	388.0	392.6	397.2	403.3	409.0	413.1	415.1
15°	380.4	386.0	391.1	397.7	404.9	411.0	417.7	424.2	428.3	428.3	427.3
17.5°	394.1	398.7	404.9	412.6	422.2	429.8	433.4	434.4	432.9	429.3	426.8
20°	408.0	412.0	418.7	427.8	438.0	439.6	436.0	431.4	426.8	420.6	416.6
22.5°	419.2	424.7	435.0	445.7	446.2	437.5	427.8	420.1	413.1	405.9	398.2
25°	432.4	440.1	453.8	457.9	444.7	428.3	414.6	403.3	391.6	379.9	371.2
27.5°	448.8	459.9	473.7	462.0	436.0	413.1	394.1	377.4	362.0	345.8	336.0
30°	466.1	483.4	486.4	455.8	421.1	391.6	366.1	340.6	321.2	306.5	300.8
32.5°	486.9	509.4	491.0	445.2	401.3	362.5	328.4	297.8	281.5	272.3	269.8
35°	518.6	536.9	493.6	433.9	378.4	327.9	285.0	260.5	250.4	244.3	241.2
37.5°	564.0	563.4	493.1	420.1	351.9	290.1	250.4	233.0	224.8	219.7	214.2
40°	617.0	583.9	490.0	400.3	316.2	253.9	226.4	210.1	202.4	196.3	189.7
42.5°	669.5	597.6	481.4	370.7	271.8	227.9	209.1	194.3	186.1	179.5	170.3
45°	714.9	603.2	464.5	329.9	232.0	207.6	197.8	185.1	175.4	165.2	158.0
47.5°	750.6	602.2	437.5	282.0	205.5	193.2	188.6	180.0	168.3	155.5	146.4
50°	780.7	594.5	400.8	239.7	187.6	180.6	179.0	176.5	157.5	146.9	141.3
52.5°	808.2	583.4	361.5	211.1	172.4	166.2	169.3	166.7	153.4	144.3	138.7
55°	846.0	575.7	322.7	189.1	154.5	152.9	155.5	159.1	150.9	142.3	136.2
57.5°	890.3	579.8	293.2	164.7	137.7	138.7	147.4	152.4	148.4	139.2	133.1
60°	941.3	592.0	267.2	141.3	123.9	126.4	139.2	146.4	145.9	135.1	128.0
62.5°	998.4	604.8	225.9	123.4	112.2	116.3	129.5	138.7	140.2	131.0	122.3
63°	1009.7	605.8	215.2	119.8	110.2	114.8	126.9	136.7	138.7	130.0	121.3
65°	1037.2	596.6	173.4	110.2	102.0	107.1	119.3	128.0	132.1	124.4	117.3
67.5°	1014.3	521.6	130.5	98.4	95.3	98.9	109.7	117.7	121.3	117.7	110.7
70°	927.5	379.4	102.0	87.7	88.2	90.7	98.9	106.6	110.7	109.7	103.0
72.5°	747.1	215.2	85.1	78.6	80.1	83.2	88.7	95.9	99.4	98.9	94.3
75°	492.0	110.2	71.9	70.4	71.4	74.0	78.1	83.7	87.7	87.2	85.1
77.5°	243.8	76.5	61.7	62.2	62.7	64.8	67.8	72.9	75.5	76.0	75.5
80°	100.5	59.6	53.0	53.5	54.0	55.5	57.6	62.2	63.7	64.8	65.3
82.5°	60.1	45.4	42.4	43.4	43.9	45.4	47.0	50.9	52.5	54.0	54.0
85°	39.8	31.6	30.6	31.6	32.6	33.7	34.2	36.7	39.3	41.3	42.4
87.5°	21.4	18.8	18.3	18.8	18.8	19.8	20.9	23.4	26.5	28.5	29.6
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):

	160°	165°	170°	175°	180°
0°	329.9	329.9	329.9	329.9	329.9
2.5°	338.1	338.6	338.1	338.6	339.1
5°	354.9	355.9	355.4	355.4	357.4
7.5°	374.3	376.3	376.3	377.4	378.4
10°	395.2	397.2	398.7	398.7	400.3
12.5°	416.1	417.2	418.7	418.7	418.7
15°	426.8	426.3	425.8	425.2	425.2
17.5°	425.2	423.2	422.2	421.1	421.7
20°	414.1	410.5	409.5	408.0	409.0
22.5°	394.7	389.5	387.5	385.0	386.0
25°	365.6	359.5	358.4	355.4	356.9
27.5°	331.9	328.9	328.4	327.9	330.4
30°	300.3	301.4	301.9	302.9	305.5
32.5°	271.3	273.3	273.8	274.4	277.9
35°	242.7	240.2	242.7	241.7	244.8
37.5°	211.6	209.6	207.6	205.0	207.0
40°	185.6	182.1	175.9	172.9	173.4
42.5°	165.2	160.6	155.5	152.4	152.4
45°	151.9	146.4	141.8	139.7	139.7
47.5°	141.8	139.2	136.7	135.1	135.1
50°	137.7	134.6	133.1	132.1	132.1
52.5°	134.6	131.6	130.0	129.0	128.0
55°	132.1	127.5	125.9	125.4	125.4
57.5°	128.5	124.4	122.3	121.8	121.8
60°	122.9	119.8	117.7	117.3	117.3
62.5°	117.3	114.3	112.2	112.2	112.2
63°	116.3	112.7	111.2	111.2	111.2
65°	111.7	108.1	106.6	106.6	106.1
67.5°	105.6	102.0	101.0	101.0	99.9
70°	98.4	95.3	94.3	94.8	92.8
72.5°	91.2	88.2	86.6	86.6	84.6
75°	83.2	80.1	78.1	77.5	75.5
77.5°	74.0	71.4	69.4	67.3	66.3
80°	64.2	62.2	59.6	58.1	56.6
82.5°	54.0	52.0	50.4	52.5	44.9
85°	42.4	40.3	38.3	41.3	32.1
87.5°	31.1	30.1	28.0	24.4	21.4
90°	0.0	0.0	0.0	0.0	0.0

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