

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: P239099

Luminaire Tested: **ARCH-AF16-20-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239099
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-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 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: 2880.1 lumens
Efficiency: N/A
Efficacy: 120.0 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

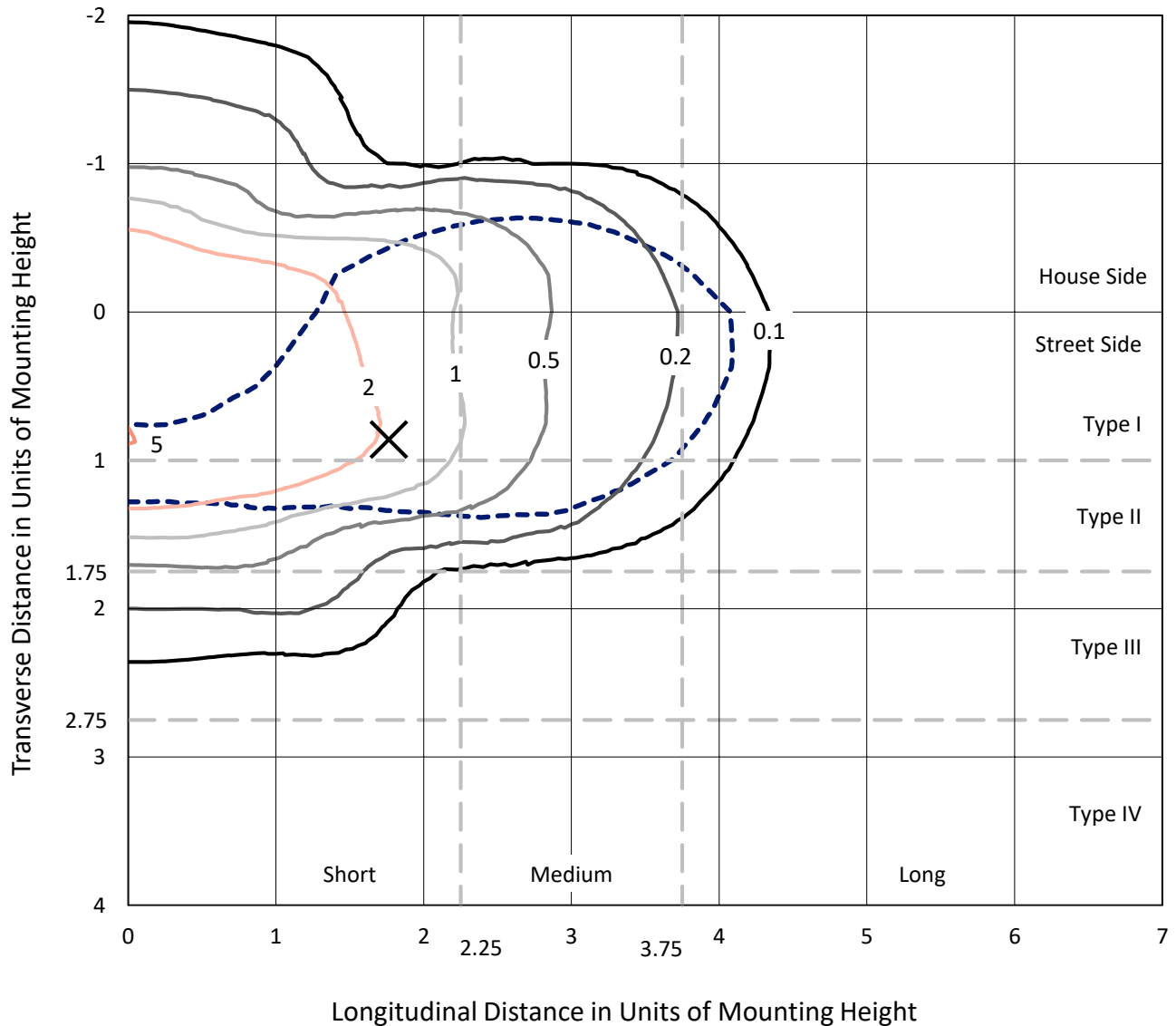
Input Watts (W): 24
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

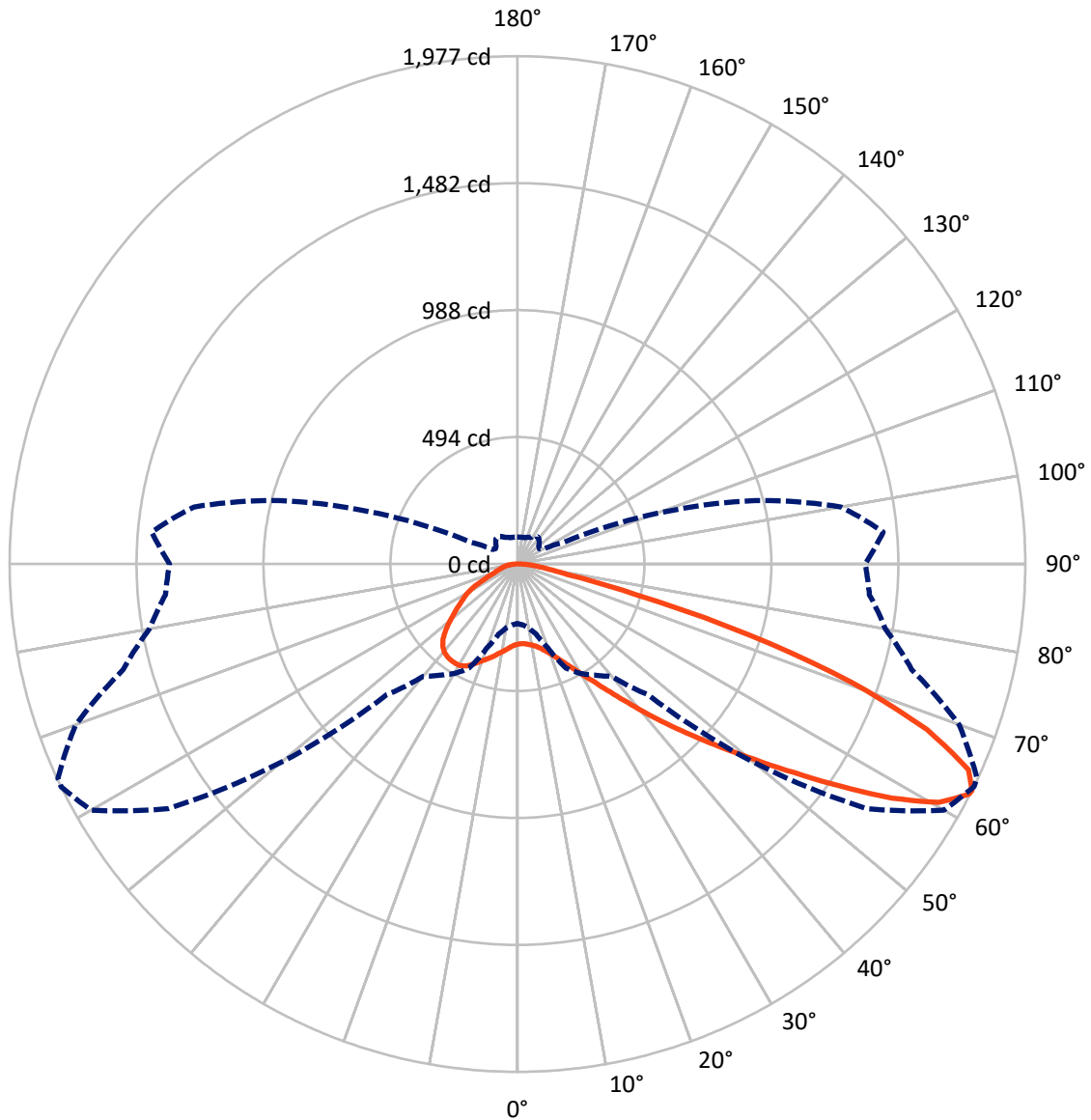
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 5.1 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	846.6	0.0	846.6
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	2033.4	0.0	2033.4
	% Fixture	70.6	0.0	70.6
Total	Lumens	2880.1	0.0	2880.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	31.1	1.1
10°-20°	103.7	3.6
20°-30°	194.7	6.8
30°-40°	326.4	11.3
40°-50°	547.5	19.0
50°-60°	694.1	24.1
60°-70°	612.3	21.3
70°-80°	316.1	11.0
80°-90°	54.1	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°	2880.1	100.0
0°-180°	2880.1	100.0



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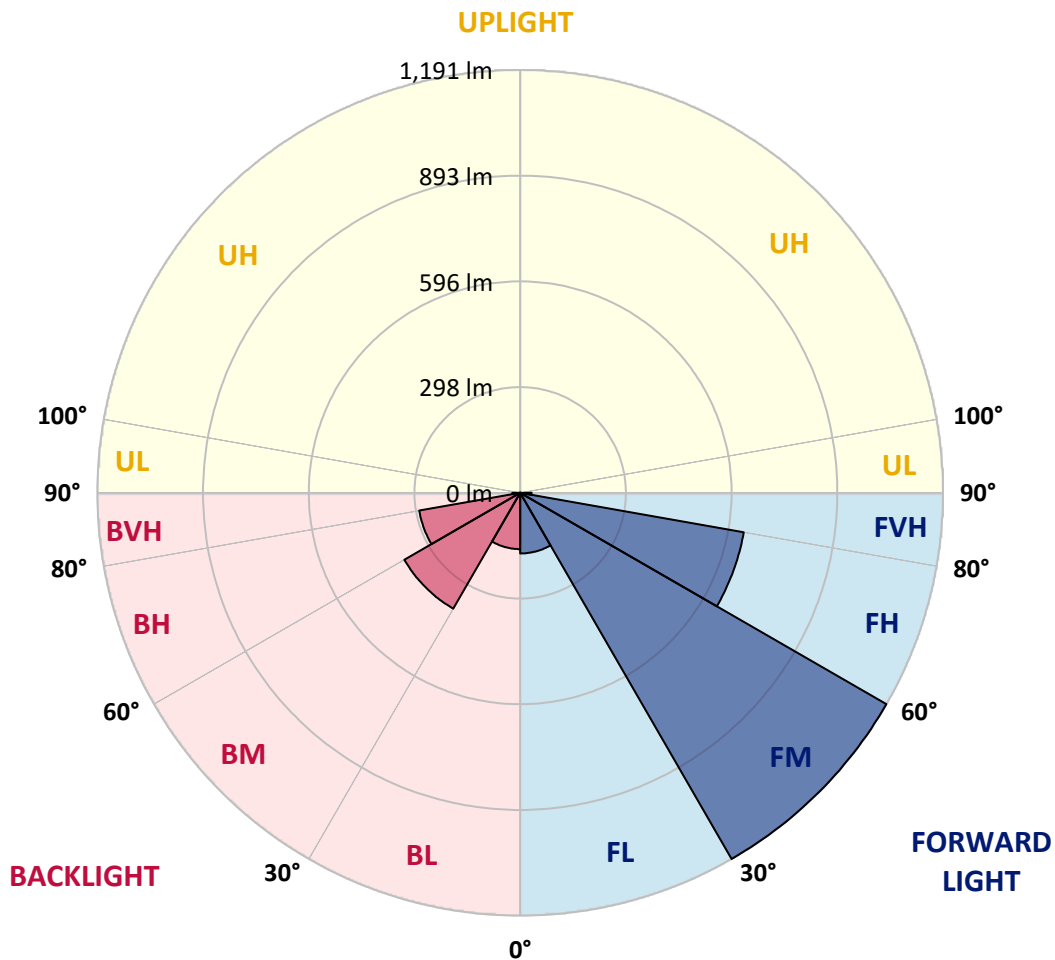
CATALOG NUMBER: ARCH-AF16-20-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	170.9	5.9			
FM	(30°-60°)	1191.1	41.4			
FH	(60°-80°)	639.5	22.2			G0/660
FVH	(80°-90°)	31.8	1.1			G1/100
BL	(0°-30°)	158.6	5.5	B1/500		
BM	(30°-60°)	376.9	13.1	B1/1000		
BH	(60°-80°)	288.9	10.0	B1/500		G1/500
BVH	(80°-90°)	22.3	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: 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°	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9
2.5°	310.0	309.5	309.5	309.5	309.5	308.9	309.5	310.6	310.0	309.5	310.6
5°	311.0	310.6	310.6	310.6	311.0	310.6	311.0	312.4	311.4	311.4	312.4
7.5°	313.3	312.9	313.3	312.9	312.9	312.9	313.3	314.7	314.3	314.7	316.2
10°	316.2	316.2	316.2	316.2	316.2	316.2	317.2	318.2	318.7	319.1	321.1
12.5°	324.9	324.9	324.9	324.4	324.4	323.0	324.9	325.9	326.9	327.8	329.3
15°	343.3	343.3	342.7	340.9	340.9	337.9	338.3	338.9	338.9	339.9	340.9
17.5°	367.3	366.9	365.9	364.5	362.5	359.1	358.2	357.3	355.7	355.3	355.3
20°	401.1	400.7	398.7	394.9	392.5	387.1	383.3	379.4	377.9	375.6	375.1
22.5°	449.3	449.3	445.4	439.7	437.7	426.6	415.5	407.3	404.5	401.1	401.1
25°	507.6	507.2	501.8	495.1	486.9	475.4	461.8	450.8	443.5	435.8	432.8
27.5°	577.6	576.2	568.9	560.7	545.2	530.8	514.8	503.2	490.8	481.2	472.4
30°	659.5	658.1	645.5	630.1	614.1	599.8	576.6	562.5	542.8	531.2	521.6
32.5°	754.4	753.1	730.4	715.4	698.5	680.6	653.3	631.1	606.0	589.6	576.2
35°	875.5	869.7	837.4	816.6	790.2	772.4	743.4	713.5	684.1	660.9	641.2
37.5°	1006.2	999.4	970.9	940.0	914.1	892.3	851.3	813.8	779.0	747.3	722.6
40°	1142.6	1124.8	1094.3	1071.8	1053.8	1033.1	990.2	950.7	896.3	860.5	823.4
42.5°	1237.1	1219.7	1198.5	1183.5	1174.9	1158.9	1134.8	1100.6	1051.9	1052.9	955.0
45°	1299.2	1273.6	1259.2	1260.2	1263.6	1263.6	1259.2	1253.9	1232.7	1247.2	1165.2
47.5°	1277.0	1260.2	1251.0	1270.2	1294.4	1318.5	1346.5	1376.8	1411.5	1452.5	1351.7
50°	1146.9	1153.1	1157.5	1198.5	1250.0	1305.0	1369.1	1452.0	1549.0	1567.8	1519.0
52.5°	939.1	952.6	967.1	1029.8	1097.7	1192.7	1305.0	1441.9	1572.1	1648.7	1644.0
55°	729.5	746.2	777.2	824.0	877.9	967.6	1106.4	1317.5	1520.5	1642.5	1716.7
57.5°	519.2	543.8	584.3	649.3	697.1	747.8	850.4	1084.7	1307.0	1534.0	1704.7
60°	345.2	356.7	383.3	464.3	544.7	597.7	670.7	755.4	937.2	1250.0	1580.3
62.5°	244.8	252.6	269.0	305.6	378.5	474.4	518.2	557.3	615.6	804.1	1268.8
63°	231.4	238.1	251.7	282.6	348.1	447.4	492.2	527.9	570.4	719.3	1200.4
65°	191.9	194.8	202.0	217.0	252.2	334.6	407.9	429.5	436.8	462.2	752.0
67.5°	162.0	163.9	166.3	170.7	184.6	222.7	304.2	331.7	323.5	306.2	371.7
70°	140.7	142.2	146.1	151.4	156.2	165.8	209.2	250.2	241.0	217.4	227.6
72.5°	112.3	114.7	119.1	128.3	137.8	150.4	161.0	186.7	180.9	158.1	160.5
75°	88.7	90.1	94.0	100.7	110.0	124.3	145.1	153.8	137.8	116.7	116.7
77.5°	70.4	71.8	75.2	80.6	86.4	96.3	110.9	133.6	123.9	87.7	87.3
80°	53.0	54.5	57.8	62.8	68.5	75.7	84.3	94.5	113.7	82.0	65.5
82.5°	39.0	39.6	45.4	48.7	50.6	56.4	63.6	69.4	78.1	75.7	58.4
85°	29.4	29.0	32.8	35.2	35.7	37.1	41.4	47.2	51.2	49.1	45.4
87.5°	16.4	14.4	16.8	19.2	19.2	19.7	20.8	24.1	27.6	26.6	24.1
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°	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9
2.5°	310.6	310.6	310.0	310.0	310.6	310.6	310.0	311.4	312.4	312.4	312.9
5°	311.9	312.4	311.9	311.9	312.4	312.4	312.9	314.3	315.8	316.8	318.2
7.5°	316.2	316.8	316.2	316.2	316.8	317.2	318.2	320.1	321.1	323.0	325.4
10°	321.1	321.6	321.1	321.6	322.0	322.6	324.0	325.4	326.9	328.8	332.7
12.5°	329.8	330.2	329.3	329.8	331.2	331.2	332.1	333.1	335.5	337.9	341.8
15°	341.8	341.8	340.9	341.3	342.7	342.7	343.3	344.1	347.1	349.9	353.9
17.5°	355.7	356.7	356.3	356.7	357.8	358.2	358.2	359.1	361.1	363.0	366.9
20°	374.5	375.1	374.1	375.1	376.1	375.1	374.1	373.6	374.5	375.6	379.9
22.5°	400.1	399.7	397.2	397.2	397.2	395.3	392.9	390.0	390.0	388.5	391.9
25°	430.5	429.1	425.7	426.1	422.9	419.9	415.5	411.3	407.3	405.9	406.5
27.5°	466.2	463.3	459.9	459.0	455.6	450.2	443.0	434.9	428.7	423.7	422.9
30°	511.0	504.8	499.0	498.0	492.6	484.0	472.4	461.4	450.8	442.6	439.7
32.5°	564.0	554.4	545.2	544.3	535.6	524.0	510.0	494.6	479.2	466.2	459.9
35°	626.3	611.8	603.1	600.7	588.2	573.7	558.2	538.5	516.8	498.4	486.9
37.5°	701.9	687.0	672.1	672.5	655.1	638.3	617.6	593.5	566.0	540.4	524.0
40°	795.4	774.2	755.0	750.6	735.7	712.1	689.4	661.4	627.7	594.0	570.4
42.5°	908.7	874.1	847.6	843.7	824.0	795.0	767.4	730.4	696.1	655.1	626.7
45°	1037.4	982.0	950.2	944.4	912.7	883.2	849.9	810.3	768.4	722.2	688.5
47.5°	1197.5	1118.5	1064.4	1054.8	1010.9	972.4	937.7	893.7	843.7	792.0	755.0
50°	1384.1	1267.4	1194.6	1179.7	1120.9	1075.5	1031.2	976.2	922.7	868.7	825.8
52.5°	1571.1	1445.8	1349.0	1330.6	1243.8	1183.1	1124.8	1069.7	1006.6	953.1	904.4
55°	1721.5	1638.2	1525.8	1500.2	1375.9	1293.4	1216.8	1154.1	1091.5	1049.0	991.6
57.5°	1812.2	1807.8	1719.0	1683.9	1513.8	1391.8	1306.4	1235.0	1174.3	1156.5	1080.3
60°	1809.8	1922.1	1883.9	1857.5	1653.1	1492.6	1381.7	1304.5	1254.4	1274.6	1169.5
62.5°	1699.3	1926.9	1972.6	1965.5	1801.5	1573.6	1443.5	1363.8	1337.4	1397.5	1262.1
63°	1659.3	1915.9	1976.6	1973.7	1830.0	1588.9	1454.0	1375.3	1353.7	1428.9	1279.0
65°	1402.4	1818.9	1929.8	1942.8	1891.3	1641.9	1478.6	1404.8	1402.4	1498.8	1319.0
67.5°	854.7	1537.0	1719.0	1744.3	1805.0	1658.9	1464.6	1394.7	1429.4	1509.0	1307.0
70°	365.5	1014.4	1381.7	1422.1	1570.6	1575.0	1424.5	1353.1	1423.1	1429.8	1221.1
72.5°	216.5	478.2	940.5	1028.7	1242.9	1355.2	1333.0	1280.9	1340.7	1255.8	1039.8
75°	153.3	223.7	477.8	571.8	865.4	1034.5	1119.9	1144.0	1141.5	996.0	780.5
77.5°	110.0	143.6	201.5	237.6	483.0	664.3	768.4	838.8	816.1	666.7	481.2
80°	76.7	99.3	123.5	131.1	224.2	341.3	405.0	435.8	422.3	333.1	215.5
82.5°	55.4	65.1	79.5	84.3	112.7	157.7	187.5	165.3	158.7	122.9	93.1
85°	42.9	41.9	49.6	51.6	66.0	82.5	84.3	65.5	57.4	51.2	52.1
87.5°	30.4	26.0	26.6	27.6	34.2	43.9	42.9	27.0	23.2	24.6	28.0
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°	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9	311.9
2.5°	313.8	314.3	315.3	315.8	316.8	316.8	317.7	318.2	319.1	320.1	320.5
5°	319.6	321.1	323.0	324.0	325.9	327.3	329.3	330.2	332.1	333.6	335.5
7.5°	328.4	330.7	333.1	336.0	338.9	341.3	343.3	345.7	349.1	351.5	352.9
10°	336.5	339.9	344.1	347.6	352.0	355.3	358.2	362.5	366.3	369.8	371.7
12.5°	347.1	351.5	355.7	361.1	366.9	371.2	375.6	381.4	386.7	390.5	392.5
15°	359.7	364.9	369.8	376.1	382.7	388.5	394.9	401.1	405.0	405.0	404.0
17.5°	372.7	377.0	382.7	390.0	399.2	406.5	409.7	410.7	409.2	405.9	403.5
20°	385.6	389.5	395.8	404.5	414.1	415.5	412.2	407.9	403.5	397.7	393.9
22.5°	396.3	401.5	411.3	421.3	421.8	413.6	404.5	397.2	390.5	383.7	376.5
25°	408.8	416.1	429.1	432.8	420.4	405.0	391.9	381.4	370.3	359.1	350.9
27.5°	424.3	434.9	447.9	436.8	412.2	390.5	372.7	356.7	342.3	326.9	317.7
30°	440.7	457.0	459.9	431.0	398.2	370.3	346.2	322.0	303.7	289.7	284.4
32.5°	460.4	481.7	464.3	420.8	379.4	342.7	310.6	281.6	266.1	257.5	255.0
35°	490.2	507.6	466.6	410.3	357.8	310.0	269.5	246.4	236.6	231.0	228.1
37.5°	533.1	532.7	466.2	397.2	332.7	274.3	236.6	220.2	212.6	207.8	202.4
40°	583.3	552.0	463.3	378.5	299.0	240.1	214.0	198.7	191.4	185.6	179.3
42.5°	632.9	565.0	455.1	350.5	257.0	215.5	197.6	183.7	176.0	169.7	161.0
45°	675.9	570.4	439.2	311.9	219.4	196.2	187.1	175.1	165.8	156.2	149.4
47.5°	709.6	569.4	413.6	266.6	194.3	182.7	178.4	170.2	159.1	147.1	138.3
50°	738.0	562.1	378.9	226.6	177.4	170.7	169.3	166.8	148.9	138.9	133.6
52.5°	764.2	551.5	341.8	199.6	162.9	157.2	160.1	157.7	145.1	136.5	131.1
55°	799.8	544.3	305.2	178.8	146.1	144.7	147.1	150.4	142.7	134.5	128.7
57.5°	841.8	548.2	277.2	155.7	130.1	131.1	139.3	144.1	140.3	131.6	125.8
60°	889.9	559.7	252.6	133.6	117.1	119.5	131.6	138.3	137.8	127.8	121.0
62.5°	943.9	571.8	213.6	116.7	106.1	110.0	122.5	131.1	132.5	123.9	115.7
63°	954.5	572.7	203.4	113.3	104.2	108.5	120.0	129.3	131.1	122.9	114.7
65°	980.6	564.0	163.9	104.2	96.3	101.3	112.7	121.0	124.9	117.7	110.9
67.5°	958.9	493.2	123.5	93.1	90.1	93.5	103.7	111.3	114.7	111.3	104.6
70°	877.0	358.7	96.3	82.9	83.4	85.8	93.5	100.7	104.6	103.7	97.4
72.5°	706.3	203.4	80.6	74.2	75.7	78.5	83.9	90.6	94.0	93.5	89.1
75°	465.2	104.2	68.0	66.5	67.5	69.9	73.8	79.1	82.9	82.5	80.6
77.5°	230.4	72.3	58.4	58.8	59.3	61.1	64.1	69.0	71.3	71.8	71.3
80°	94.9	56.4	50.1	50.6	51.2	52.6	54.5	58.8	60.3	61.1	61.7
82.5°	57.0	42.9	40.0	41.0	41.4	42.9	44.4	48.2	49.6	51.2	51.2
85°	37.5	29.9	29.0	29.9	30.8	31.8	32.3	34.8	37.1	39.0	40.0
87.5°	20.2	17.8	17.4	17.8	17.8	18.8	19.7	22.2	25.0	27.0	28.0
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°	311.9	311.9	311.9	311.9	311.9
2.5°	319.6	320.1	319.6	320.1	320.5
5°	335.5	336.5	336.0	336.0	337.9
7.5°	353.9	355.7	355.7	356.7	357.8
10°	373.6	375.6	377.0	377.0	378.5
12.5°	393.4	394.3	395.8	395.8	395.8
15°	403.5	403.0	402.5	402.1	402.1
17.5°	402.1	400.1	399.2	398.2	398.7
20°	391.4	388.1	387.1	385.6	386.7
22.5°	373.1	368.3	366.3	364.0	364.9
25°	345.7	339.9	338.9	336.0	337.5
27.5°	313.8	311.0	310.6	310.0	312.4
30°	284.0	284.9	285.3	286.4	288.8
32.5°	256.4	258.4	258.8	259.4	262.8
35°	229.5	227.0	229.5	228.5	231.4
37.5°	200.1	198.1	196.2	193.8	195.7
40°	175.5	172.1	166.3	163.5	163.9
42.5°	156.2	151.9	147.1	144.1	144.1
45°	143.6	138.3	134.1	132.1	132.1
47.5°	134.1	131.6	129.3	127.8	127.8
50°	130.1	127.3	125.8	124.9	124.9
52.5°	127.3	124.3	122.9	122.0	121.0
55°	124.9	120.5	119.1	118.5	118.5
57.5°	121.5	117.7	115.7	115.3	115.3
60°	116.2	113.3	111.3	110.9	110.9
62.5°	110.9	107.9	106.1	106.1	106.1
63°	110.0	106.5	105.1	105.1	105.1
65°	105.6	102.1	100.7	100.7	100.3
67.5°	99.8	96.3	95.5	95.5	94.5
70°	93.1	90.1	89.1	89.7	87.7
72.5°	86.4	83.4	82.0	82.0	80.0
75°	78.5	75.7	73.8	73.3	71.3
77.5°	69.9	67.5	65.5	63.6	62.8
80°	60.7	58.8	56.4	54.9	53.5
82.5°	51.2	49.1	47.7	49.6	42.4
85°	40.0	38.1	36.2	39.0	30.4
87.5°	29.4	28.4	26.6	23.2	20.2
90°	0.0	0.0	0.0	0.0	0.0

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