

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: P239128

Luminaire Tested: **ARCH-AF16-30-D-U-T2U-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239128
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-AF16-30-D-U-T2U-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 560mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3780 lumens
Efficiency: N/A
Efficacy: 118.1 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

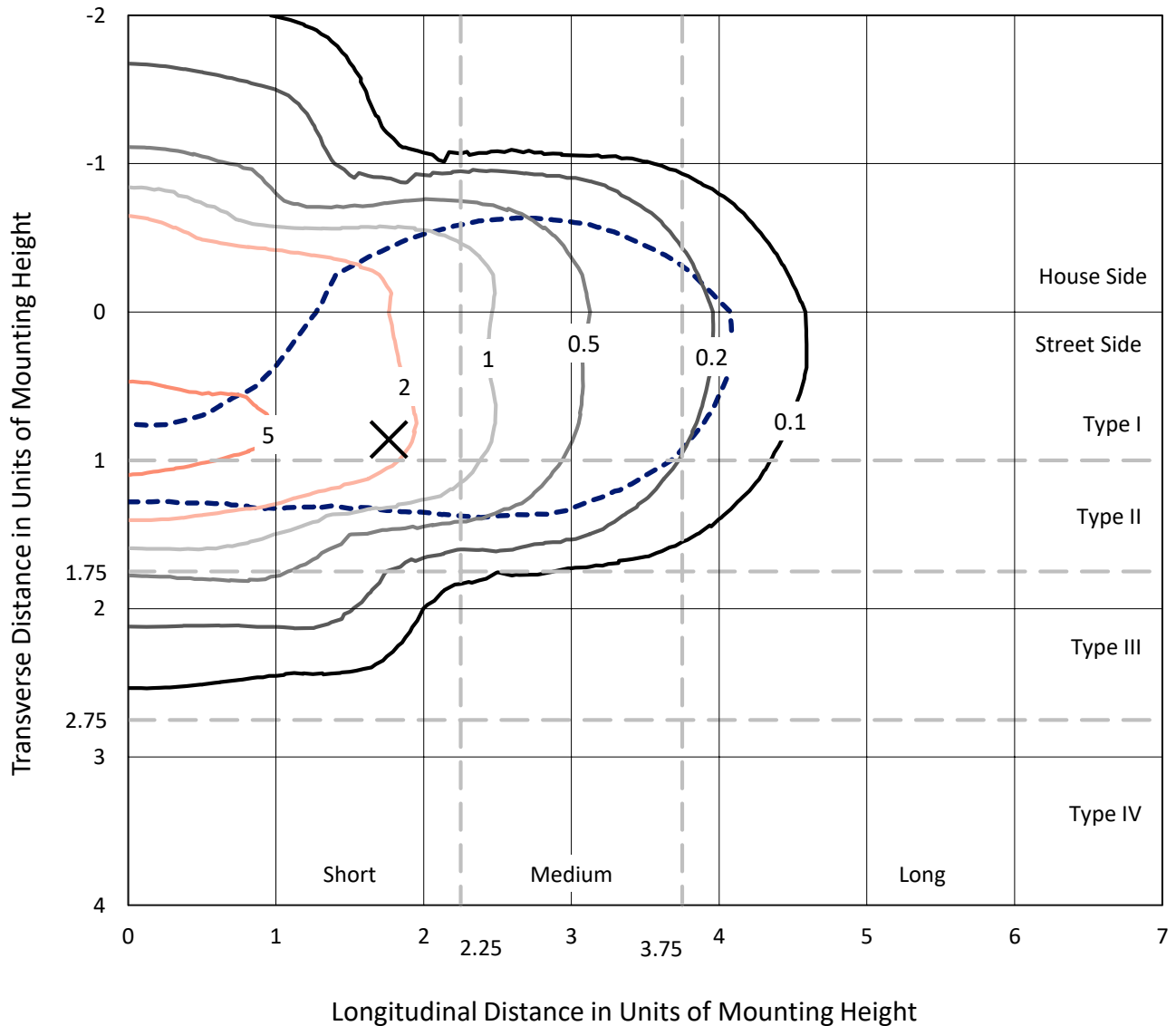
Input Watts (W): 32
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

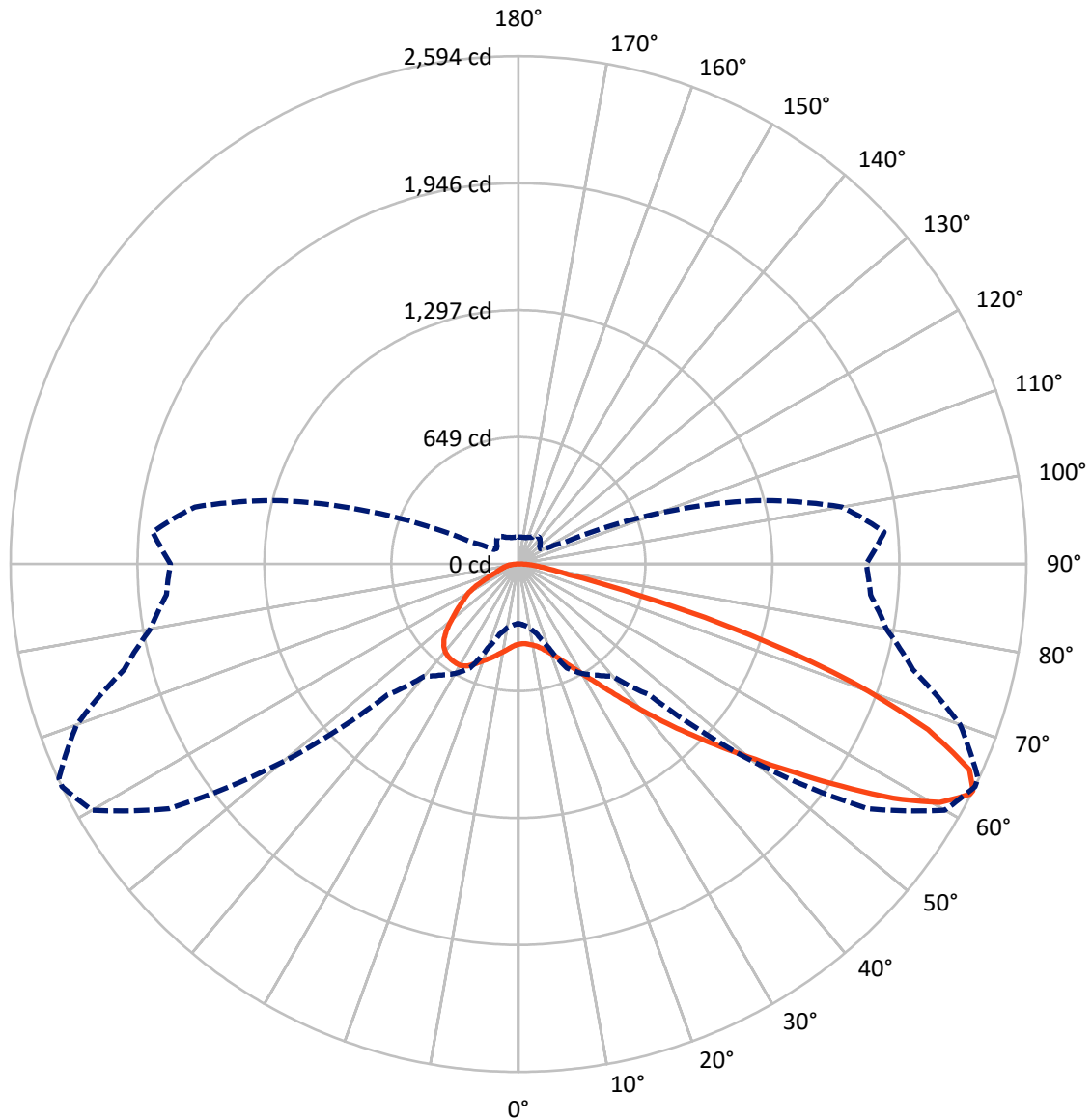
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.6 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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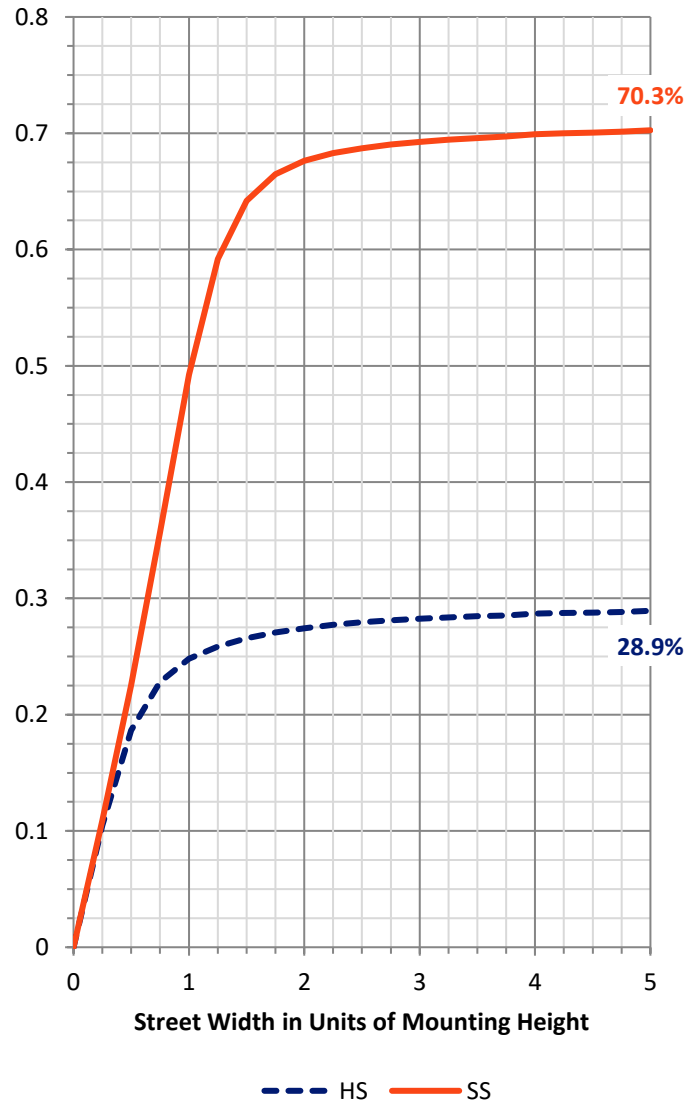
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1111.2	0.0	1111.2
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	2668.8	0.0	2668.8
	% Fixture	70.6	0.0	70.6
Total	Lumens	3780.0	0.0	3780.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.9	1.1
10°-20°	136.1	3.6
20°-30°	255.5	6.8
30°-40°	428.3	11.3
40°-50°	718.6	19.0
50°-60°	911.0	24.1
60°-70°	803.6	21.3
70°-80°	414.9	11.0
80°-90°	71.0	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°	3780.0	100.0
0°-180°	3780.0	100.0



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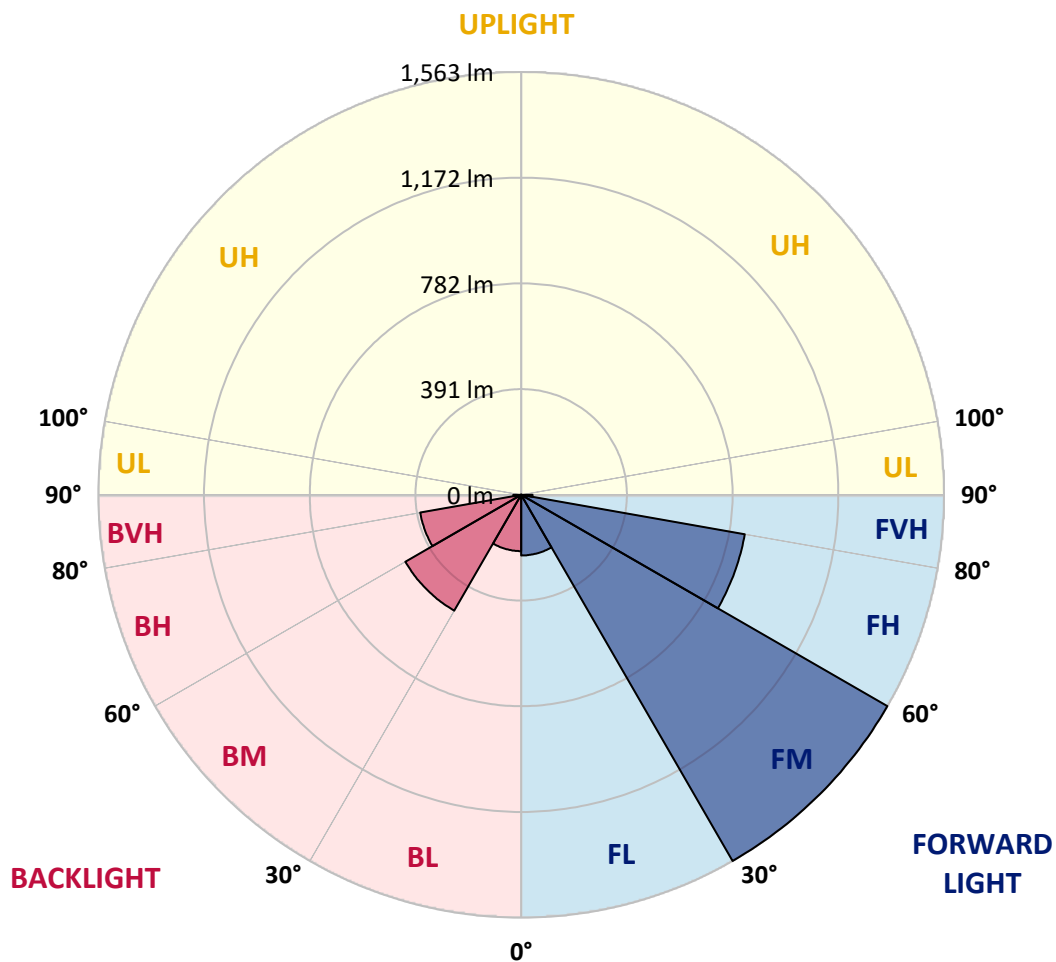
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	224.4	5.9			
FM	(30°-60°)	1563.3	41.4			
FH	(60°-80°)	839.4	22.2			G1/1800
FVH	(80°-90°)	41.8	1.1			G1/100
BL	(0°-30°)	208.2	5.5	B1/500		
BM	(30°-60°)	494.6	13.1	B1/1000		
BH	(60°-80°)	379.1	10.0	B1/500		G1/500
BVH	(80°-90°)	29.2	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°	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4
2.5°	406.8	406.2	406.2	406.2	406.2	405.6	406.2	407.5	406.8	406.2	407.5
5°	408.1	407.5	407.5	407.5	408.1	407.5	408.1	410.0	408.7	408.7	410.0
7.5°	411.3	410.6	411.3	410.6	410.6	410.6	411.3	413.2	412.5	413.2	415.1
10°	415.1	415.1	415.1	415.1	415.1	415.1	416.3	417.6	418.2	418.9	421.4
12.5°	426.5	426.5	426.5	425.8	425.8	423.9	426.5	427.7	429.0	430.3	432.2
15°	450.5	450.5	449.9	447.3	447.3	443.5	444.2	444.8	444.8	446.1	447.3
17.5°	482.1	481.5	480.2	478.3	475.8	471.4	470.1	468.8	467.0	466.3	466.3
20°	526.4	525.8	523.3	518.2	515.0	508.1	503.0	498.0	496.1	492.9	492.3
22.5°	589.7	589.7	584.6	577.0	574.5	560.0	545.4	534.7	530.9	526.4	526.4
25°	666.3	665.6	658.7	649.8	639.1	623.9	606.1	591.6	582.1	572.0	568.2
27.5°	758.0	756.1	746.6	735.9	715.6	696.6	675.7	660.6	644.1	631.5	620.1
30°	865.6	863.7	847.2	827.0	806.1	787.1	756.7	738.4	712.4	697.3	684.6
32.5°	990.2	988.3	958.6	939.0	916.8	893.4	857.3	828.2	795.3	773.8	756.1
35°	1149.0	1141.4	1099.0	1071.8	1037.0	1013.6	975.7	936.4	897.8	867.5	841.5
37.5°	1320.5	1311.6	1274.3	1233.8	1199.6	1171.2	1117.4	1068.0	1022.5	980.7	948.5
40°	1499.6	1476.1	1436.3	1406.5	1383.1	1355.9	1299.6	1247.7	1176.2	1129.4	1080.7
42.5°	1623.6	1600.8	1573.0	1553.3	1541.9	1521.1	1489.4	1444.5	1380.6	1381.9	1253.4
45°	1705.2	1671.7	1652.7	1653.9	1658.4	1658.4	1652.7	1645.7	1617.9	1636.9	1529.3
47.5°	1676.1	1653.9	1641.9	1667.2	1698.9	1730.5	1767.2	1807.1	1852.6	1906.4	1774.2
50°	1505.3	1513.5	1519.2	1573.0	1640.7	1712.8	1796.9	1905.8	2032.9	2057.6	1993.7
52.5°	1232.5	1250.3	1269.2	1351.5	1440.7	1565.4	1712.8	1892.5	2063.3	2163.9	2157.6
55°	957.3	979.5	1020.0	1081.3	1152.2	1269.9	1452.1	1729.2	1995.6	2155.7	2253.1
57.5°	681.4	713.7	766.9	852.3	914.9	981.4	1116.1	1423.6	1715.3	2013.3	2237.3
60°	453.0	468.2	503.0	609.3	715.0	784.6	880.1	991.5	1230.0	1640.7	2074.1
62.5°	321.4	331.5	353.1	401.1	496.7	622.6	680.2	731.4	808.0	1055.4	1665.3
63°	303.7	312.6	330.3	370.8	456.8	587.2	646.0	692.8	748.5	944.0	1575.5
65°	251.8	255.6	265.1	284.7	330.9	439.1	535.3	563.8	573.2	606.8	987.0
67.5°	212.6	215.1	218.3	224.0	242.3	292.3	399.2	435.3	424.6	401.8	487.8
70°	184.8	186.7	191.7	198.7	205.0	217.7	274.6	328.4	316.4	285.4	298.6
72.5°	147.4	150.6	156.3	168.3	181.0	197.4	211.3	244.9	237.3	207.5	210.7
75°	116.4	118.3	123.4	132.2	144.3	163.2	190.4	201.8	181.0	153.1	153.1
77.5°	92.4	94.3	98.7	105.7	113.3	126.5	145.5	175.3	162.6	115.2	114.5
80°	69.6	71.5	75.9	82.3	89.8	99.3	110.7	124.0	149.3	107.6	86.1
82.5°	51.3	51.9	59.5	63.9	66.4	74.0	83.5	91.1	102.5	99.3	76.6
85°	38.6	38.0	43.0	46.2	46.8	48.7	54.4	62.0	67.1	64.5	59.5
87.5°	21.5	19.0	22.1	25.3	25.3	25.9	27.2	31.6	36.1	34.8	31.6
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°	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4
2.5°	407.5	407.5	406.8	406.8	407.5	407.5	406.8	408.7	410.0	410.0	410.6
5°	409.4	410.0	409.4	409.4	410.0	410.0	410.6	412.5	414.4	415.7	417.6
7.5°	415.1	415.7	415.1	415.1	415.7	416.3	417.6	420.1	421.4	423.9	427.1
10°	421.4	422.0	421.4	422.0	422.7	423.3	425.2	427.1	429.0	431.5	436.6
12.5°	432.8	433.4	432.2	432.8	434.7	434.7	435.9	437.2	440.4	443.5	448.6
15°	448.6	448.6	447.3	448.0	449.9	449.9	450.5	451.8	455.6	459.4	464.4
17.5°	467.0	468.2	467.6	468.2	469.5	470.1	470.1	471.4	473.9	476.4	481.5
20°	491.6	492.3	491.0	492.3	493.5	492.3	491.0	490.4	491.6	492.9	498.6
22.5°	525.2	524.5	521.4	521.4	521.4	518.8	515.7	511.9	511.9	510.0	514.4
25°	565.0	563.1	558.7	559.3	554.9	551.1	545.4	539.7	534.7	532.8	533.4
27.5°	611.8	608.0	603.6	602.4	597.9	591.0	581.5	570.7	562.5	556.2	554.9
30°	670.7	662.5	654.9	653.6	646.6	635.3	620.1	605.5	591.6	580.8	577.0
32.5°	740.3	727.6	715.6	714.3	703.0	687.8	669.4	649.2	628.9	611.8	603.6
35°	821.9	802.9	791.5	788.4	771.9	752.9	732.7	706.8	678.3	654.2	639.1
37.5°	921.2	901.6	882.0	882.6	859.9	837.7	810.5	778.9	742.8	709.3	687.8
40°	1044.0	1016.2	990.8	985.2	965.5	934.5	904.8	868.1	823.8	779.5	748.5
42.5°	1192.7	1147.1	1112.3	1107.3	1081.3	1043.4	1007.3	958.6	913.7	859.9	822.5
45°	1361.6	1288.9	1247.1	1239.5	1197.7	1159.2	1115.5	1063.6	1008.6	947.8	903.5
47.5°	1571.7	1467.9	1397.1	1384.4	1326.8	1276.2	1230.6	1173.1	1107.3	1039.6	990.8
50°	1816.6	1663.4	1567.9	1548.3	1471.1	1411.6	1353.4	1281.3	1211.0	1140.2	1083.9
52.5°	2062.0	1897.5	1770.4	1746.3	1632.4	1552.7	1476.1	1404.0	1321.1	1250.9	1187.0
55°	2259.5	2150.0	2002.6	1969.0	1805.8	1697.6	1597.0	1514.7	1432.5	1376.8	1301.5
57.5°	2378.4	2372.7	2256.3	2210.1	1986.8	1826.7	1714.7	1621.0	1541.3	1517.9	1417.9
60°	2375.2	2522.7	2472.7	2437.9	2169.6	1958.9	1813.4	1712.2	1646.3	1672.9	1535.0
62.5°	2230.4	2529.0	2589.1	2579.6	2364.5	2065.2	1894.4	1790.0	1755.2	1834.3	1656.5
63°	2177.8	2514.4	2594.2	2590.4	2401.8	2085.5	1908.3	1805.2	1776.7	1875.4	1678.6
65°	1840.6	2387.3	2532.8	2549.9	2482.2	2155.1	1940.6	1843.8	1840.6	1967.1	1731.1
67.5°	1121.8	2017.1	2256.3	2289.2	2368.9	2177.2	1922.2	1830.5	1876.0	1980.4	1715.3
70°	479.6	1331.3	1813.4	1866.5	2061.4	2067.1	1869.7	1776.1	1867.8	1876.7	1602.7
72.5°	284.1	627.7	1234.4	1350.2	1631.2	1778.6	1749.5	1681.1	1759.6	1648.2	1364.8
75°	201.2	293.6	627.0	750.4	1135.7	1357.8	1469.8	1501.5	1498.3	1307.2	1024.4
77.5°	144.3	188.6	264.5	311.9	634.0	871.9	1008.6	1100.9	1071.2	875.1	631.5
80°	100.6	130.3	162.0	172.1	294.2	448.0	531.5	572.0	554.3	437.2	282.8
82.5°	72.8	85.4	104.4	110.7	148.1	206.9	246.1	217.0	208.2	161.3	122.1
85°	56.3	55.0	65.2	67.7	86.7	108.2	110.7	86.1	75.3	67.1	68.3
87.5°	39.9	34.2	34.8	36.1	44.9	57.6	56.3	35.4	30.4	32.3	36.7
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°	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4	409.4
2.5°	411.9	412.5	413.8	414.4	415.7	415.7	417.0	417.6	418.9	420.1	420.8
5°	419.5	421.4	423.9	425.2	427.7	429.6	432.2	433.4	435.9	437.8	440.4
7.5°	430.9	434.0	437.2	441.0	444.8	448.0	450.5	453.7	458.1	461.3	463.2
10°	441.6	446.1	451.8	456.2	461.9	466.3	470.1	475.8	480.9	485.3	487.8
12.5°	455.6	461.3	467.0	473.9	481.5	487.2	492.9	500.5	507.4	512.5	515.0
15°	472.0	479.0	485.3	493.5	502.4	510.0	518.2	526.4	531.5	531.5	530.2
17.5°	489.1	494.8	502.4	511.9	523.9	533.4	537.8	539.1	537.2	532.8	529.6
20°	506.2	511.2	519.5	530.9	543.5	545.4	541.0	535.3	529.6	522.0	516.9
22.5°	520.1	527.1	539.7	553.0	553.6	542.9	530.9	521.4	512.5	503.6	494.2
25°	536.5	546.0	563.1	568.2	551.7	531.5	514.4	500.5	485.9	471.4	460.6
27.5°	556.8	570.7	587.8	573.2	541.0	512.5	489.1	468.2	449.2	429.0	417.0
30°	578.3	599.8	603.6	565.7	522.6	485.9	454.3	422.7	398.6	380.3	373.3
32.5°	604.3	632.1	609.3	552.4	498.0	449.9	407.5	369.5	349.3	337.9	334.7
35°	643.5	666.3	612.5	538.4	469.5	406.8	353.7	323.3	310.7	303.1	299.3
37.5°	699.8	699.2	611.8	521.4	436.6	360.0	310.7	289.2	279.0	272.7	265.7
40°	765.6	724.5	608.0	496.7	392.3	315.1	280.9	260.7	251.2	243.6	235.4
42.5°	830.8	741.6	597.3	460.0	337.2	282.8	259.4	241.1	230.9	222.7	211.3
45°	887.1	748.5	576.4	409.4	287.9	257.5	245.5	229.7	217.7	205.0	196.1
47.5°	931.4	747.2	542.9	349.9	255.0	239.8	234.1	223.4	208.8	193.0	181.6
50°	968.7	737.8	497.3	297.4	232.8	224.0	222.1	218.9	195.5	182.2	175.3
52.5°	1002.9	723.8	448.6	261.9	213.9	206.3	210.1	206.9	190.4	179.1	172.1
55°	1049.7	714.3	400.5	234.7	191.7	189.8	193.0	197.4	187.3	176.5	168.9
57.5°	1104.7	719.4	363.8	204.4	170.8	172.1	182.9	189.2	184.1	172.7	165.1
60°	1168.0	734.6	331.5	175.3	153.8	156.9	172.7	181.6	181.0	167.7	158.8
62.5°	1238.9	750.4	280.3	153.1	139.2	144.3	160.7	172.1	174.0	162.6	151.9
63°	1252.8	751.7	267.0	148.7	136.7	142.4	157.5	169.6	172.1	161.3	150.6
65°	1287.0	740.3	215.1	136.7	126.5	132.9	148.1	158.8	163.9	154.4	145.5
67.5°	1258.5	647.3	162.0	122.1	118.3	122.7	136.0	146.2	150.6	146.2	137.3
70°	1150.9	470.7	126.5	108.8	109.5	112.6	122.7	132.2	137.3	136.0	127.8
72.5°	926.9	267.0	105.7	97.4	99.3	103.1	110.1	119.0	123.4	122.7	117.1
75°	610.6	136.7	89.2	87.3	88.6	91.7	96.8	103.8	108.8	108.2	105.7
77.5°	302.4	94.9	76.6	77.2	77.8	80.4	84.2	90.5	93.6	94.3	93.6
80°	124.6	74.0	65.8	66.4	67.1	69.0	71.5	77.2	79.1	80.4	81.0
82.5°	74.7	56.3	52.5	53.8	54.4	56.3	58.2	63.3	65.2	67.1	67.1
85°	49.4	39.2	38.0	39.2	40.5	41.8	42.4	45.6	48.7	51.3	52.5
87.5°	26.6	23.4	22.8	23.4	23.4	24.7	25.9	29.1	32.9	35.4	36.7
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°	409.4	409.4	409.4	409.4	409.4
2.5°	419.5	420.1	419.5	420.1	420.8
5°	440.4	441.6	441.0	441.0	443.5
7.5°	464.4	467.0	467.0	468.2	469.5
10°	490.4	492.9	494.8	494.8	496.7
12.5°	516.3	517.6	519.5	519.5	519.5
15°	529.6	529.0	528.3	527.7	527.7
17.5°	527.7	525.2	523.9	522.6	523.3
20°	513.8	509.3	508.1	506.2	507.4
22.5°	489.7	483.4	480.9	477.7	479.0
25°	453.7	446.1	444.8	441.0	442.9
27.5°	411.9	408.1	407.5	406.8	410.0
30°	372.7	373.9	374.6	375.8	379.0
32.5°	336.6	339.1	339.8	340.4	344.8
35°	301.2	298.0	301.2	299.9	303.7
37.5°	262.6	260.0	257.5	254.4	256.9
40°	230.3	225.9	218.3	214.5	215.1
42.5°	205.0	199.3	193.0	189.2	189.2
45°	188.6	181.6	175.9	173.4	173.4
47.5°	175.9	172.7	169.6	167.7	167.7
50°	170.8	167.0	165.1	163.9	163.9
52.5°	167.0	163.2	161.3	160.1	158.8
55°	163.9	158.2	156.3	155.7	155.7
57.5°	159.4	154.4	151.9	151.2	151.2
60°	152.5	148.7	146.2	145.5	145.5
62.5°	145.5	141.7	139.2	139.2	139.2
63°	144.3	139.8	137.9	137.9	137.9
65°	138.6	134.1	132.2	132.2	131.6
67.5°	131.0	126.5	125.3	125.3	124.0
70°	122.1	118.3	117.1	117.7	115.2
72.5°	113.3	109.5	107.6	107.6	105.0
75°	103.1	99.3	96.8	96.2	93.6
77.5°	91.7	88.6	86.1	83.5	82.3
80°	79.7	77.2	74.0	72.1	70.2
82.5°	67.1	64.5	62.6	65.2	55.7
85°	52.5	50.0	47.5	51.3	39.9
87.5°	38.6	37.3	34.8	30.4	26.6
90°	0.0	0.0	0.0	0.0	0.0

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