

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: P239114

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239114
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
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 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: 3866.8 lumens
Efficiency: N/A
Efficacy: 120.8 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): 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

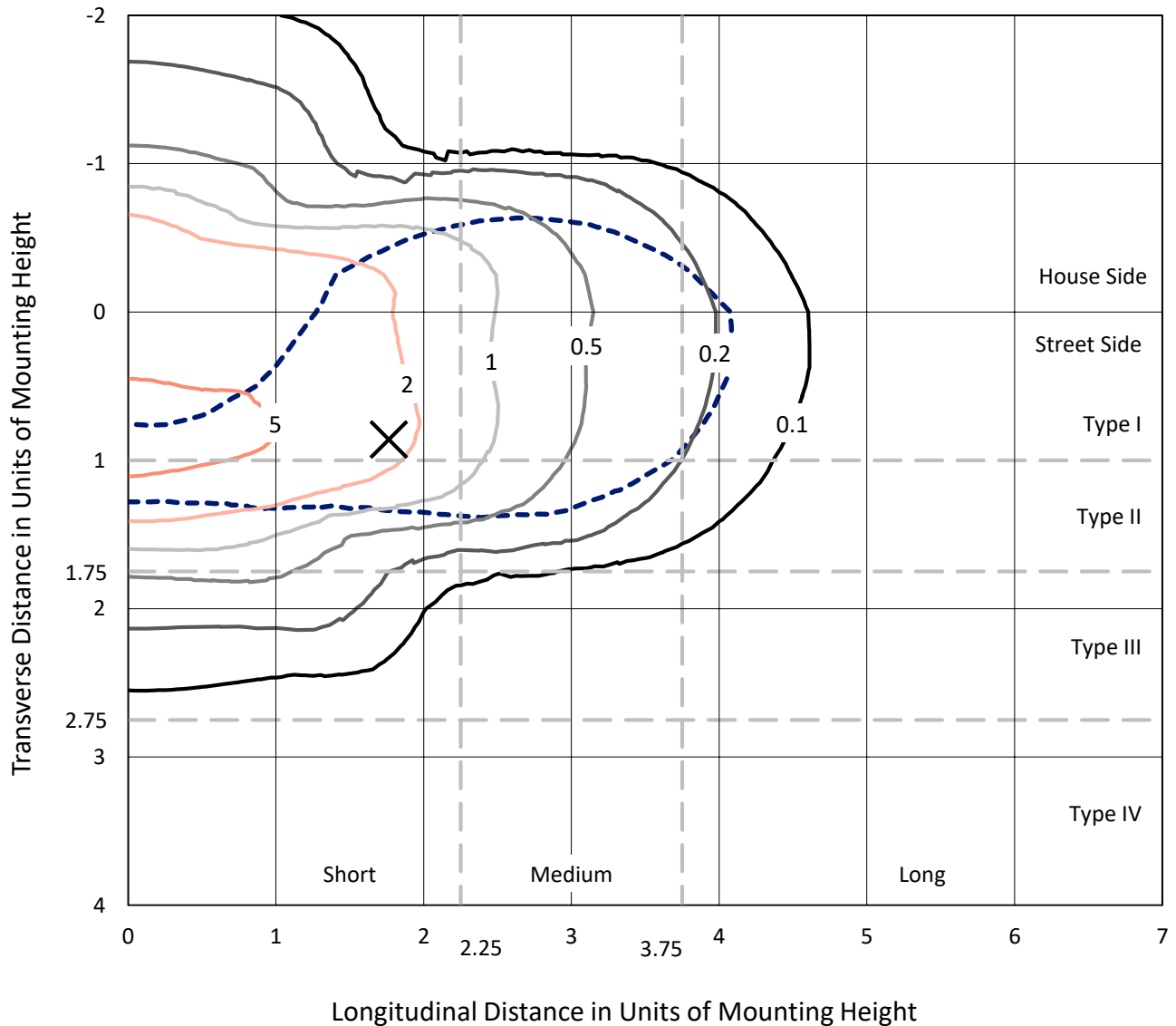


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

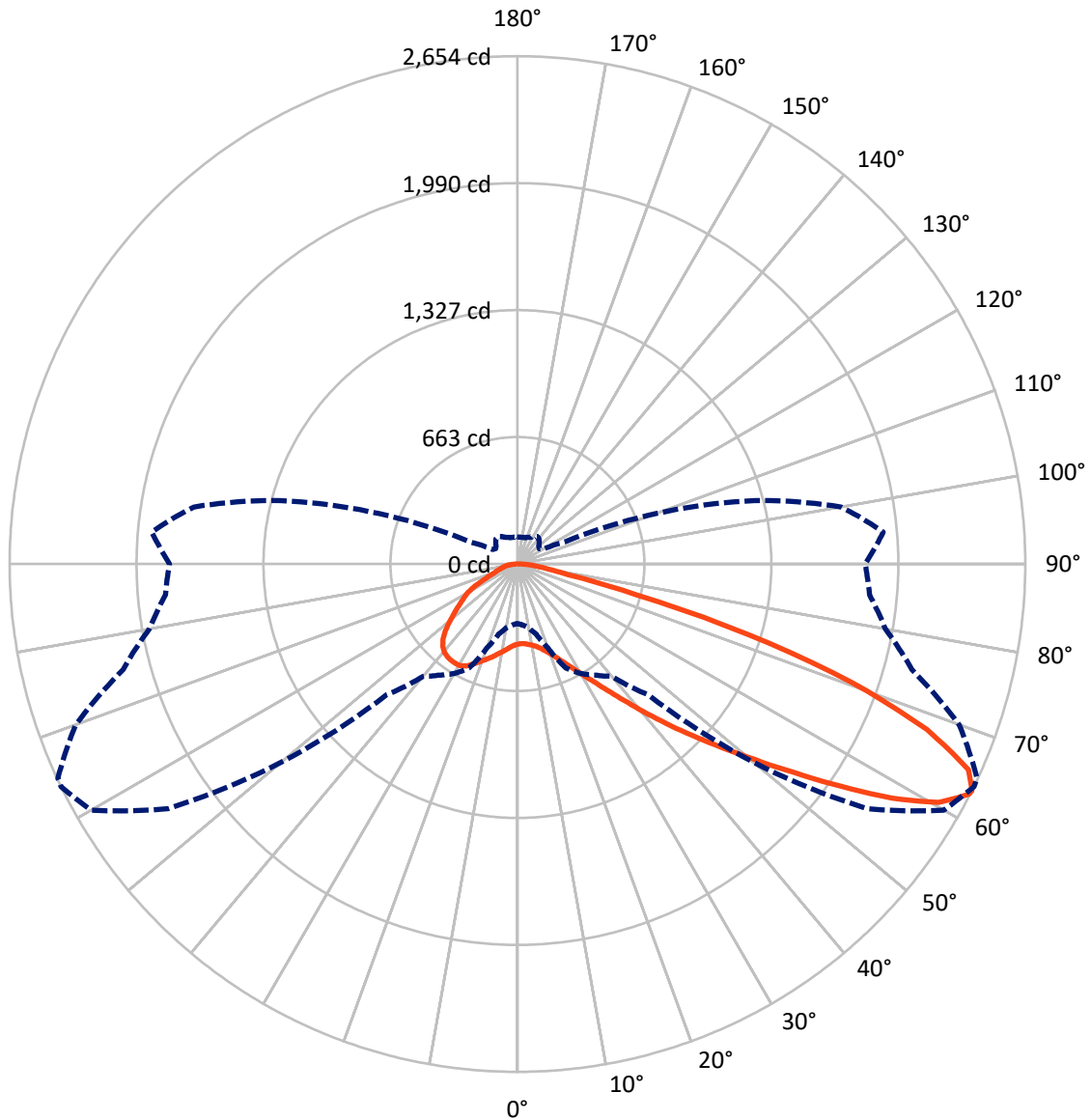


Based on 10 foot mounting height. Maximum calculated value = 6.8 fc
 Type II - Short - Semi-Cutoff

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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	1136.7	0.0	1136.7
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	2730.1	0.0	2730.1
	% Fixture	70.6	0.0	70.6
Total	Lumens	3866.8	0.0	3866.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.8	1.1
10°-20°	139.3	3.6
20°-30°	261.4	6.8
30°-40°	438.2	11.3
40°-50°	735.1	19.0
50°-60°	931.9	24.1
60°-70°	822.1	21.3
70°-80°	424.4	11.0
80°-90°	72.6	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°	3866.8	100.0
0°-180°	3866.8	100.0



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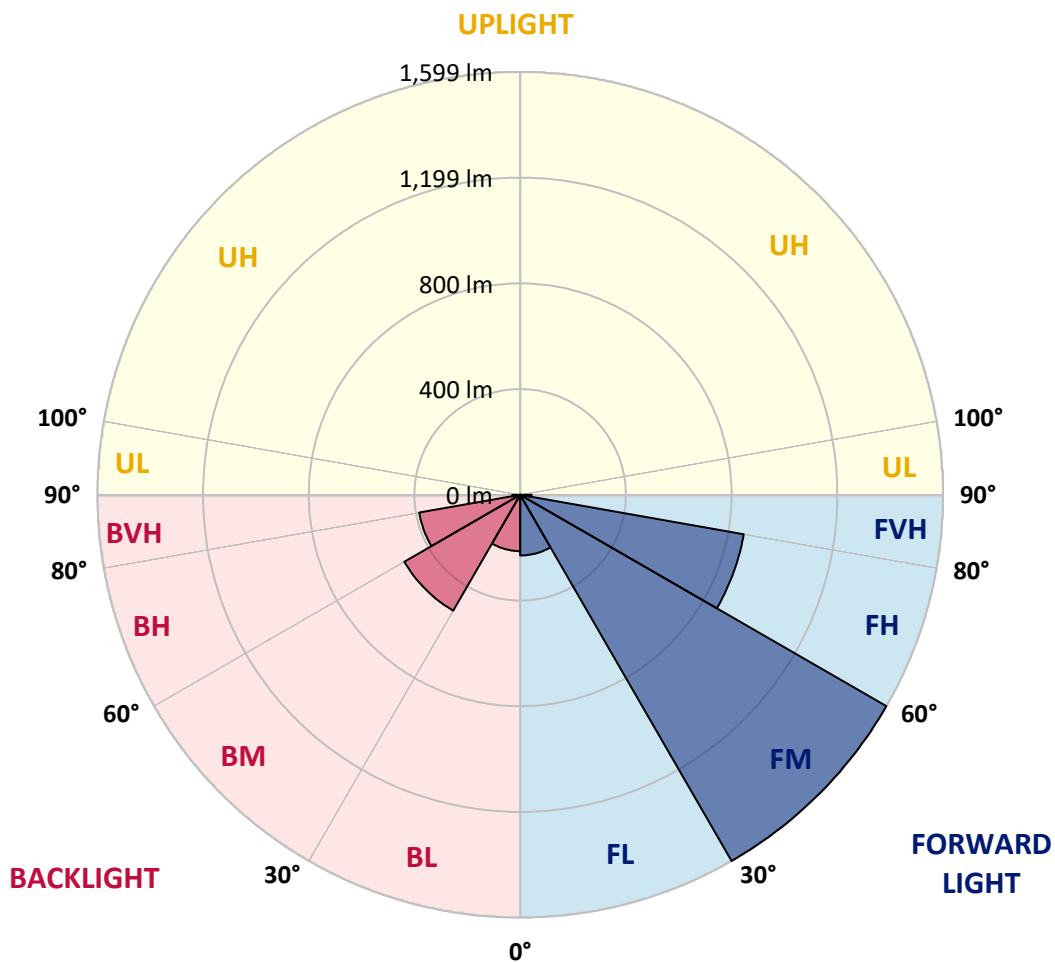
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	229.5	5.9			
FM	(30°-60°)	1599.2	41.4			
FH	(60°-80°)	858.6	22.2			G1/1800
FVH	(80°-90°)	42.7	1.1			G1/100
BL	(0°-30°)	213.0	5.5	B1/500		
BM	(30°-60°)	506.0	13.1	B1/1000		
BH	(60°-80°)	387.8	10.0	B1/500		G1/500
BVH	(80°-90°)	29.9	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°	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8
2.5°	416.1	415.5	415.5	415.5	415.5	414.9	415.5	416.9	416.1	415.5	416.9
5°	417.5	416.9	416.9	416.9	417.5	416.9	417.5	419.4	418.1	418.1	419.4
7.5°	420.7	420.0	420.7	420.0	420.0	420.0	420.7	422.7	422.0	422.7	424.6
10°	424.6	424.6	424.6	424.6	424.6	424.6	425.9	427.2	427.8	428.5	431.1
12.5°	436.3	436.3	436.3	435.6	435.6	433.6	436.3	437.5	438.8	440.2	442.1
15°	460.8	460.8	460.2	457.6	457.6	453.7	454.4	455.0	455.0	456.3	457.6
17.5°	493.2	492.6	491.2	489.3	486.7	482.2	480.9	479.6	477.7	477.0	477.0
20°	538.5	537.9	535.3	530.1	526.8	519.8	514.5	509.4	507.5	504.2	503.6
22.5°	603.2	603.2	598.0	590.2	587.7	572.9	557.9	547.0	543.1	538.5	538.5
25°	681.6	680.9	673.8	664.7	653.8	638.2	620.0	605.2	595.5	585.1	581.2
27.5°	775.4	773.5	763.7	752.8	732.0	712.6	691.2	675.8	658.9	646.0	634.3
30°	885.5	883.5	866.6	846.0	824.6	805.2	774.1	755.3	728.8	713.3	700.3
32.5°	1012.9	1011.0	980.6	960.6	937.8	913.9	877.0	847.2	813.6	791.6	773.5
35°	1175.4	1167.6	1124.2	1096.4	1060.8	1036.9	998.1	957.9	918.4	887.4	860.8
37.5°	1350.8	1341.7	1303.5	1262.1	1227.1	1198.1	1143.0	1092.5	1046.0	1003.2	970.3
40°	1534.0	1510.0	1469.3	1438.8	1414.8	1387.0	1329.4	1276.3	1203.2	1155.3	1105.5
42.5°	1660.9	1637.5	1609.1	1588.9	1577.3	1556.0	1523.6	1477.7	1412.3	1413.6	1282.2
45°	1744.3	1710.1	1690.6	1691.9	1696.5	1696.5	1690.6	1683.5	1655.0	1674.5	1564.4
47.5°	1714.6	1691.9	1679.6	1705.5	1737.9	1770.2	1807.8	1848.6	1895.1	1950.2	1814.9
50°	1539.8	1548.2	1554.1	1609.1	1678.4	1752.1	1838.1	1949.5	2079.6	2104.8	2039.5
52.5°	1260.8	1279.0	1298.3	1382.5	1473.8	1601.3	1752.1	1935.9	2110.7	2213.6	2207.1
55°	979.3	1002.0	1043.4	1106.1	1178.6	1299.0	1485.4	1768.9	2041.4	2205.2	2304.8
57.5°	697.0	730.1	784.5	871.9	935.9	1003.9	1141.7	1456.3	1754.7	2059.5	2288.6
60°	463.4	478.9	514.5	623.3	731.4	802.6	900.3	1014.3	1258.2	1678.4	2121.7
62.5°	328.8	339.1	361.2	410.3	508.1	636.9	695.8	748.2	826.5	1079.6	1703.5
63°	310.7	319.8	337.9	379.3	467.3	600.7	660.8	708.7	765.7	965.7	1611.7
65°	257.6	261.5	271.2	291.2	338.5	449.2	547.6	576.7	586.4	620.7	1009.7
67.5°	217.5	220.0	223.3	229.1	247.9	299.0	408.4	445.3	434.3	411.0	499.0
70°	189.0	191.0	196.1	203.3	209.7	222.7	280.9	335.9	323.7	292.0	305.5
72.5°	150.8	154.1	159.9	172.2	185.2	201.9	216.1	250.5	242.7	212.3	215.5
75°	119.1	121.0	126.2	135.2	147.6	166.9	194.8	206.4	185.2	156.6	156.6
77.5°	94.5	96.5	101.0	108.1	115.9	129.4	148.8	179.3	166.3	117.8	117.1
80°	71.2	73.1	77.6	84.2	91.9	101.6	113.2	126.8	152.7	110.1	88.1
82.5°	52.5	53.1	60.9	65.4	67.9	75.7	85.4	93.2	104.9	101.6	78.4
85°	39.5	38.9	44.0	47.3	47.9	49.8	55.6	63.4	68.6	66.0	60.9
87.5°	22.0	19.4	22.6	25.9	25.9	26.5	27.8	32.3	36.9	35.6	32.3
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°	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8
2.5°	416.9	416.9	416.1	416.1	416.9	416.9	416.1	418.1	419.4	419.4	420.0
5°	418.8	419.4	418.8	418.8	419.4	419.4	420.0	422.0	423.9	425.2	427.2
7.5°	424.6	425.2	424.6	424.6	425.2	425.9	427.2	429.7	431.1	433.6	436.9
10°	431.1	431.7	431.1	431.7	432.4	433.0	435.0	436.9	438.8	441.4	446.6
12.5°	442.7	443.3	442.1	442.7	444.7	444.7	445.9	447.2	450.5	453.7	458.9
15°	458.9	458.9	457.6	458.3	460.2	460.2	460.8	462.2	466.1	469.9	475.1
17.5°	477.7	478.9	478.3	478.9	480.3	480.9	480.9	482.2	484.8	487.3	492.6
20°	502.9	503.6	502.3	503.6	504.8	503.6	502.3	501.7	502.9	504.2	510.0
22.5°	537.3	536.5	533.4	533.4	533.4	530.7	527.5	523.6	523.6	521.7	526.2
25°	578.0	576.0	571.5	572.1	567.6	563.7	557.9	552.1	547.0	545.0	545.6
27.5°	625.8	622.0	617.5	616.2	611.6	604.6	594.8	583.8	575.4	569.0	567.6
30°	686.1	677.7	669.9	668.6	661.4	649.9	634.3	619.4	605.2	594.1	590.2
32.5°	757.3	744.3	732.0	730.7	719.1	703.6	684.8	664.1	643.3	625.8	617.5
35°	840.8	821.3	809.7	806.5	789.6	770.2	749.5	723.0	693.9	669.2	653.8
37.5°	942.3	922.3	902.2	902.9	879.6	856.9	829.1	796.8	759.8	725.6	703.6
40°	1068.0	1039.5	1013.5	1007.8	987.7	955.9	925.6	888.0	842.7	797.4	765.7
42.5°	1220.1	1173.4	1137.8	1132.7	1106.1	1067.3	1030.4	980.6	934.7	879.6	841.4
45°	1392.8	1318.5	1275.7	1267.9	1225.2	1185.8	1141.1	1088.0	1031.7	969.6	924.2
47.5°	1607.8	1501.6	1429.2	1416.2	1357.3	1305.5	1258.8	1200.0	1132.7	1063.5	1013.5
50°	1858.3	1701.6	1603.9	1583.8	1504.9	1444.0	1384.5	1310.7	1238.8	1166.4	1108.8
52.5°	2109.3	1941.0	1811.0	1786.4	1669.9	1588.3	1510.0	1436.2	1351.4	1279.6	1214.2
55°	2311.4	2199.3	2048.6	2014.2	1847.2	1736.6	1633.7	1549.5	1465.4	1408.4	1331.4
57.5°	2433.0	2427.2	2308.1	2260.8	2032.4	1868.6	1754.1	1658.2	1576.7	1552.7	1450.4
60°	2429.7	2580.6	2529.5	2493.9	2219.4	2003.9	1855.0	1751.5	1684.1	1711.3	1570.2
62.5°	2281.6	2587.0	2648.5	2638.8	2418.8	2112.6	1937.9	1831.1	1795.5	1876.4	1694.5
63°	2227.8	2572.1	2653.7	2649.9	2456.9	2133.4	1952.1	1846.6	1817.5	1918.4	1717.1
65°	1882.8	2442.1	2590.9	2608.4	2539.2	2204.6	1985.1	1886.1	1882.8	2012.2	1770.8
67.5°	1147.5	2063.4	2308.1	2341.7	2423.3	2227.2	1966.3	1872.5	1919.1	2025.9	1754.7
70°	490.6	1361.9	1855.0	1909.3	2108.7	2114.5	1912.6	1816.9	1910.7	1919.8	1639.5
72.5°	290.6	642.1	1262.7	1381.2	1668.6	1819.4	1789.7	1719.7	1800.0	1686.0	1396.1
75°	205.8	300.3	641.4	767.6	1161.8	1389.0	1503.5	1536.0	1532.7	1337.2	1047.9
77.5°	147.6	192.9	270.6	319.1	648.6	891.9	1031.7	1126.2	1095.8	895.2	646.0
80°	102.9	133.3	165.7	176.0	301.0	458.3	543.7	585.1	567.0	447.2	289.3
82.5°	74.5	87.4	106.8	113.2	151.5	211.6	251.7	222.0	213.0	165.0	124.9
85°	57.6	56.3	66.7	69.3	88.7	110.7	113.2	88.1	77.0	68.6	69.9
87.5°	40.8	35.0	35.6	36.9	45.9	58.9	57.6	36.2	31.1	33.0	37.5
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8	418.8
2.5°	421.4	422.0	423.3	423.9	425.2	425.2	426.6	427.2	428.5	429.7	430.5
5°	429.1	431.1	433.6	435.0	437.5	439.5	442.1	443.3	445.9	447.8	450.5
7.5°	440.8	444.0	447.2	451.1	455.0	458.3	460.8	464.1	468.6	471.9	473.8
10°	451.7	456.3	462.2	466.7	472.5	477.0	480.9	486.7	491.9	496.4	499.0
12.5°	466.1	471.9	477.7	484.8	492.6	498.4	504.2	512.0	519.0	524.3	526.8
15°	482.8	490.0	496.4	504.8	513.9	521.7	530.1	538.5	543.7	543.7	542.4
17.5°	500.3	506.2	513.9	523.6	535.9	545.6	550.1	551.5	549.5	545.0	541.8
20°	517.8	522.9	531.4	543.1	556.0	557.9	553.4	547.6	541.8	534.0	528.8
22.5°	532.0	539.2	552.1	565.7	566.3	555.4	543.1	533.4	524.3	515.2	505.5
25°	548.8	558.5	576.0	581.2	564.4	543.7	526.2	512.0	497.1	482.2	471.2
27.5°	569.6	583.8	601.3	586.4	553.4	524.3	500.3	478.9	459.5	438.8	426.6
30°	591.6	613.6	617.5	578.7	534.6	497.1	464.7	432.4	407.7	389.0	381.9
32.5°	618.2	646.6	623.3	565.1	509.4	460.2	416.9	378.0	357.3	345.7	342.4
35°	658.3	681.6	626.6	550.8	480.3	416.1	361.8	330.7	317.8	310.1	306.2
37.5°	715.9	715.2	625.8	533.4	446.6	368.3	317.8	295.8	285.4	279.0	271.8
40°	783.2	741.1	622.0	508.1	401.3	322.3	287.3	266.7	257.0	249.2	240.8
42.5°	849.9	758.6	611.0	470.6	344.9	289.3	265.4	246.6	236.2	227.8	216.1
45°	907.5	765.7	589.6	418.8	294.5	263.4	251.1	235.0	222.7	209.7	200.6
47.5°	952.8	764.3	555.4	357.9	260.9	245.3	239.5	228.5	213.6	197.4	185.8
50°	990.9	754.7	508.7	304.2	238.1	229.1	227.2	223.9	200.0	186.4	179.3
52.5°	1025.9	740.4	458.9	267.9	218.8	211.0	214.9	211.6	194.8	183.2	176.0
55°	1073.8	730.7	409.7	240.1	196.1	194.2	197.4	201.9	191.6	180.6	172.8
57.5°	1130.1	735.9	372.1	209.1	174.7	176.0	187.1	193.5	188.3	176.7	168.9
60°	1194.8	751.5	339.1	179.3	157.3	160.5	176.7	185.8	185.2	171.5	162.4
62.5°	1267.3	767.6	286.7	156.6	142.4	147.6	164.4	176.0	178.0	166.3	155.4
63°	1281.6	769.0	273.1	152.1	139.8	145.7	161.1	173.5	176.0	165.0	154.1
65°	1316.5	757.3	220.0	139.8	129.4	136.0	151.5	162.4	167.7	157.9	148.8
67.5°	1287.4	662.2	165.7	124.9	121.0	125.5	139.1	149.6	154.1	149.6	140.5
70°	1177.3	481.5	129.4	111.3	112.0	115.2	125.5	135.2	140.5	139.1	130.7
72.5°	948.2	273.1	108.1	99.6	101.6	105.5	112.6	121.7	126.2	125.5	119.8
75°	624.6	139.8	91.2	89.3	90.6	93.8	99.0	106.2	111.3	110.7	108.1
77.5°	309.3	97.1	78.4	79.0	79.6	82.2	86.1	92.6	95.7	96.5	95.7
80°	127.5	75.7	67.3	67.9	68.6	70.6	73.1	79.0	80.9	82.2	82.9
82.5°	76.4	57.6	53.7	55.0	55.6	57.6	59.5	64.8	66.7	68.6	68.6
85°	50.5	40.1	38.9	40.1	41.4	42.8	43.4	46.6	49.8	52.5	53.7
87.5°	27.2	23.9	23.3	23.9	23.9	25.3	26.5	29.8	33.7	36.2	37.5
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):

	160°	165°	170°	175°	180°
0°	418.8	418.8	418.8	418.8	418.8
2.5°	429.1	429.7	429.1	429.7	430.5
5°	450.5	451.7	451.1	451.1	453.7
7.5°	475.1	477.7	477.7	478.9	480.3
10°	501.7	504.2	506.2	506.2	508.1
12.5°	528.1	529.5	531.4	531.4	531.4
15°	541.8	541.1	540.4	539.8	539.8
17.5°	539.8	537.3	535.9	534.6	535.3
20°	525.6	521.0	519.8	517.8	519.0
22.5°	500.9	494.5	491.9	488.7	490.0
25°	464.1	456.3	455.0	451.1	453.1
27.5°	421.4	417.5	416.9	416.1	419.4
30°	381.3	382.5	383.2	384.4	387.7
32.5°	344.3	346.9	347.6	348.2	352.7
35°	308.1	304.8	308.1	306.8	310.7
37.5°	268.6	266.0	263.4	260.2	262.8
40°	235.6	231.1	223.3	219.4	220.0
42.5°	209.7	203.9	197.4	193.5	193.5
45°	192.9	185.8	179.9	177.4	177.4
47.5°	179.9	176.7	173.5	171.5	171.5
50°	174.7	170.8	168.9	167.7	167.7
52.5°	170.8	166.9	165.0	163.8	162.4
55°	167.7	161.8	159.9	159.3	159.3
57.5°	163.1	157.9	155.4	154.7	154.7
60°	156.0	152.1	149.6	148.8	148.8
62.5°	148.8	145.0	142.4	142.4	142.4
63°	147.6	143.0	141.1	141.1	141.1
65°	141.8	137.2	135.2	135.2	134.6
67.5°	134.0	129.4	128.2	128.2	126.8
70°	124.9	121.0	119.8	120.4	117.8
72.5°	115.9	112.0	110.1	110.1	107.4
75°	105.5	101.6	99.0	98.4	95.7
77.5°	93.8	90.6	88.1	85.4	84.2
80°	81.5	79.0	75.7	73.8	71.8
82.5°	68.6	66.0	64.0	66.7	57.0
85°	53.7	51.1	48.6	52.5	40.8
87.5°	39.5	38.2	35.6	31.1	27.2
90°	0.0	0.0	0.0	0.0	0.0

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