

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: P239117

Luminaire Tested: **ARCH-AF16-60-D-U-T2U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239117
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-AF16-60-D-U-T2U
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1160mA LIGHT ENGINE WITH 16 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6858.9 lumens
Efficiency: N/A
Efficacy: 108.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

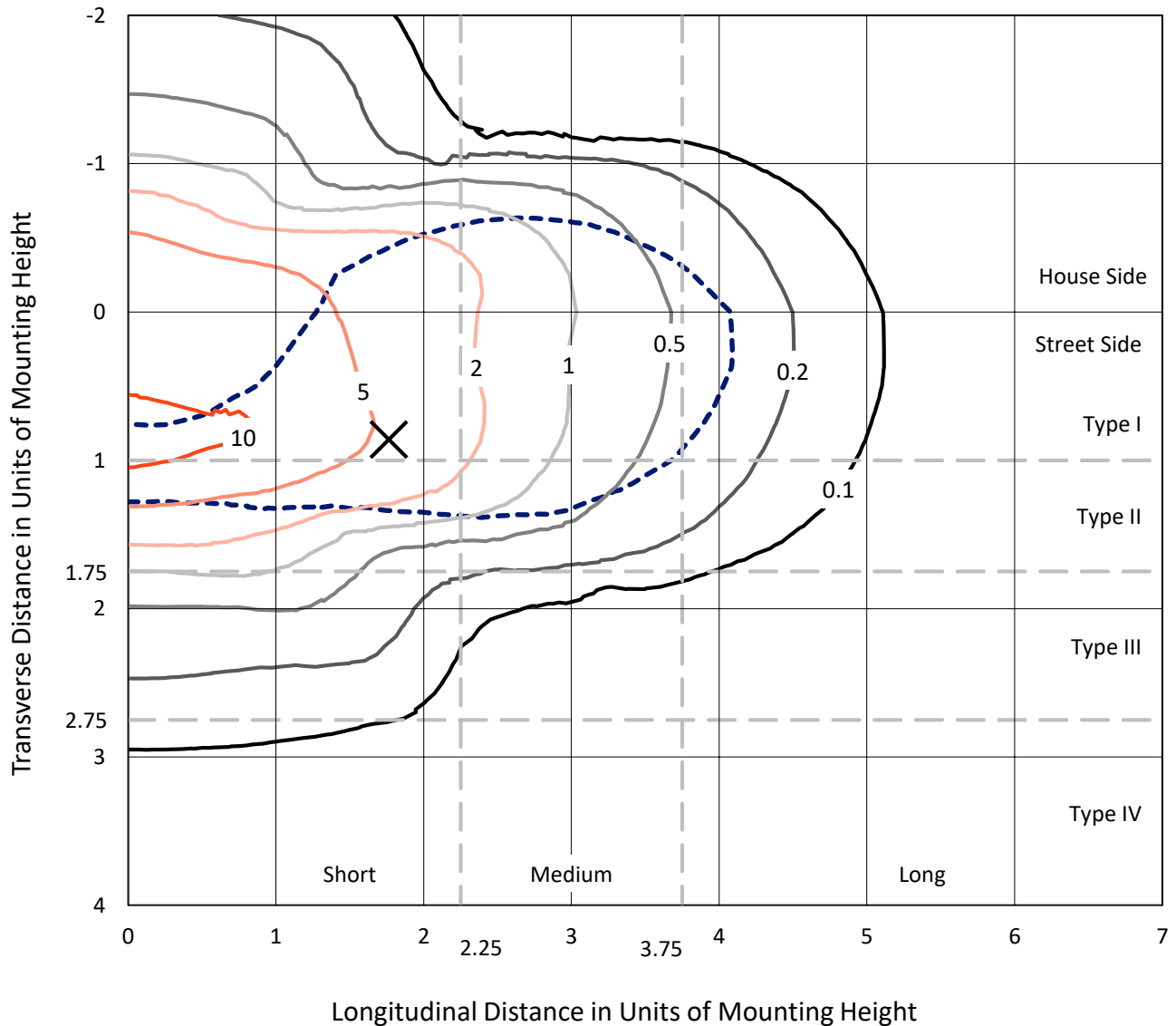
Input Watts (W): 63
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

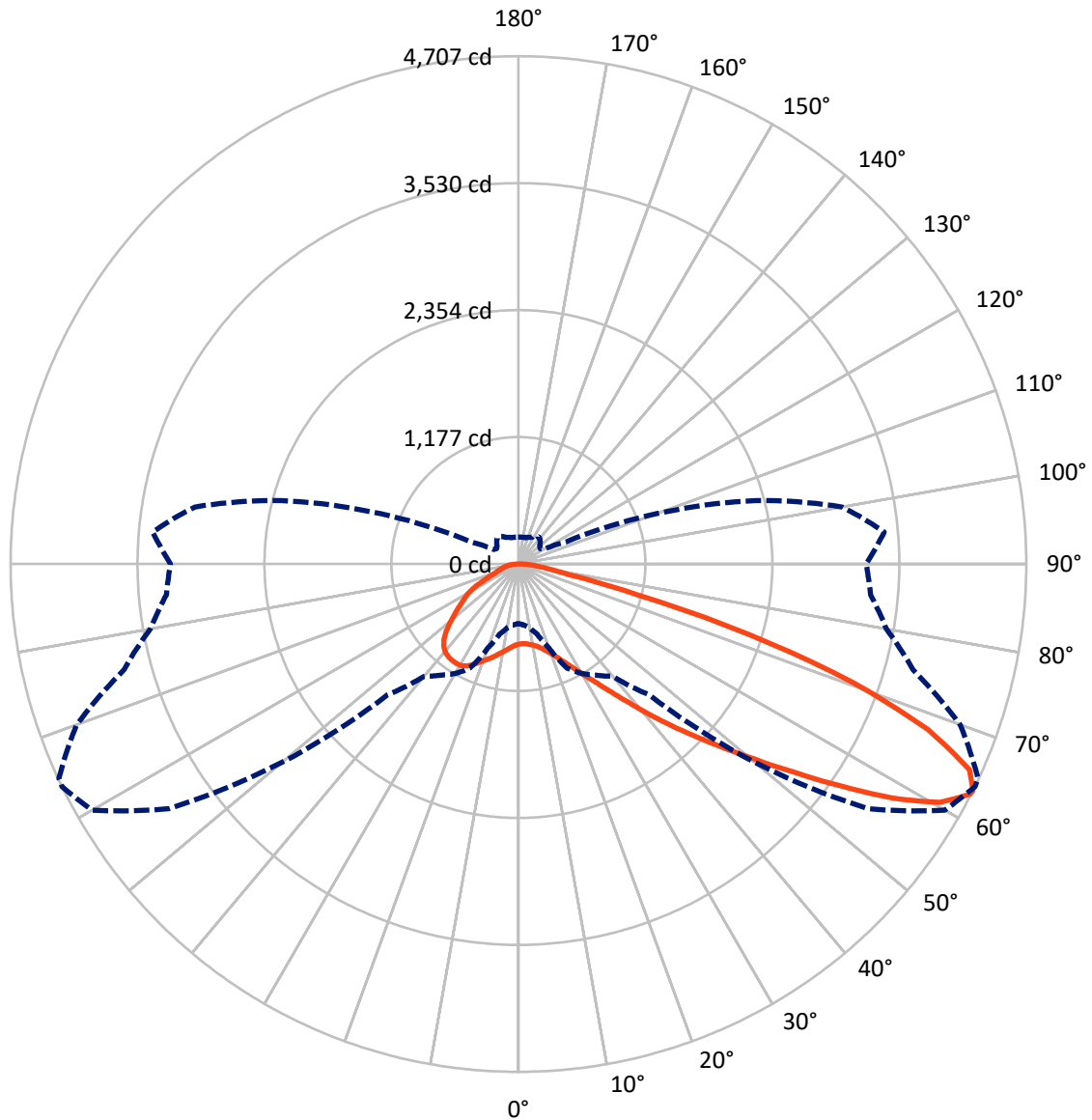


Based on 10 foot mounting height. Maximum calculated value = 12.1 fc
 Type II - Short - Semi-Cutoff

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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	2016.3	0.0	2016.3
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	4842.6	0.0	4842.6
	% Fixture	70.6	0.0	70.6
Total	Lumens	6858.9	0.0	6858.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	74.2	1.1
10°-20°	247.0	3.6
20°-30°	463.7	6.8
30°-40°	777.2	11.3
40°-50°	1304.0	19.0
50°-60°	1653.0	24.1
60°-70°	1458.2	21.3
70°-80°	752.8	11.0
80°-90°	128.8	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°	6858.9	100.0
0°-180°	6858.9	100.0



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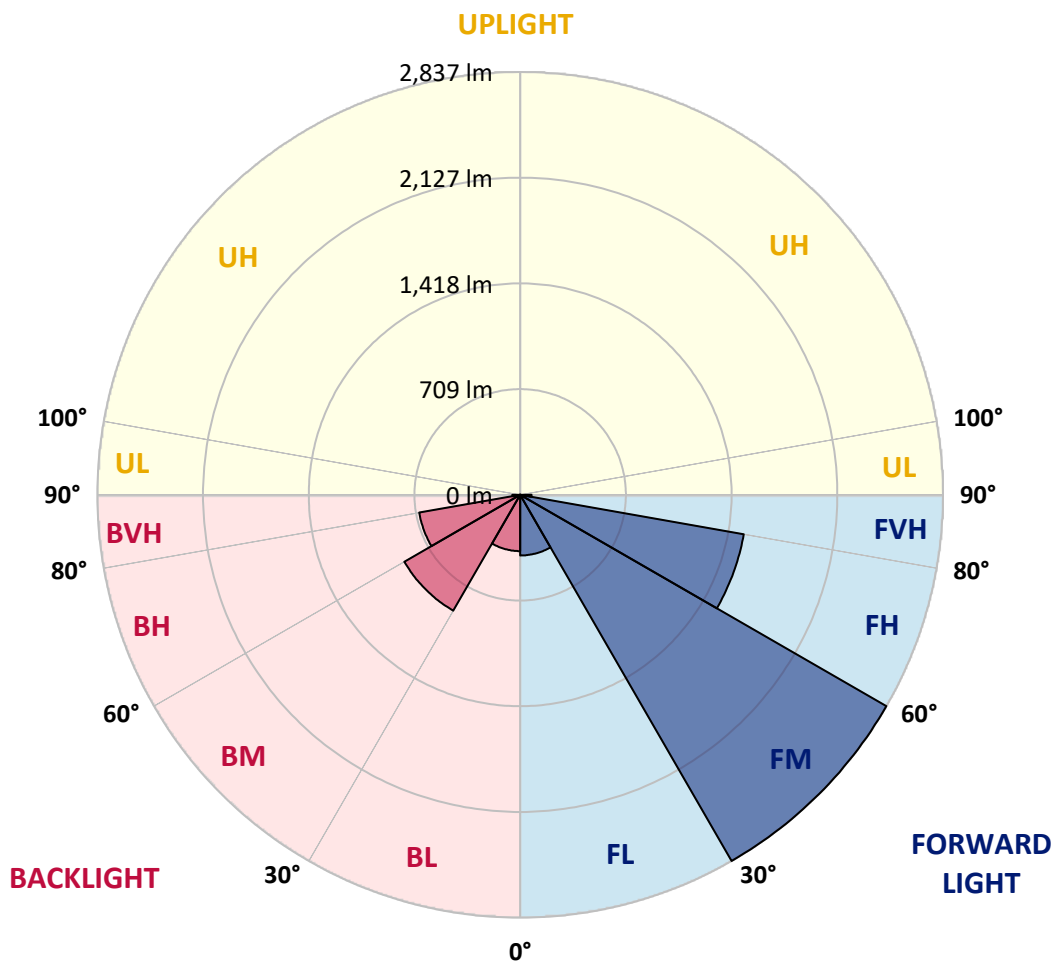
CATALOG NUMBER: ARCH-AF16-60-D-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	407.1	5.9			
FM	(30°-60°)	2836.7	41.4			
FH	(60°-80°)	1523.1	22.2			G1/1800
FVH	(80°-90°)	75.8	1.1			G1/100
BL	(0°-30°)	377.8	5.5	B1/500		
BM	(30°-60°)	897.5	13.1	B1/1000		
BH	(60°-80°)	687.9	10.0	B2/1000		G2/1000
BVH	(80°-90°)	53.0	0.8			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8
2.5°	738.3	737.0	737.0	737.0	737.0	735.9	737.0	739.4	738.3	737.0	739.4
5°	740.5	739.4	739.4	739.4	740.5	739.4	740.5	744.0	741.6	741.6	744.0
7.5°	746.2	745.1	746.2	745.1	745.1	745.1	746.2	749.7	748.6	749.7	753.1
10°	753.1	753.1	753.1	753.1	753.1	753.1	755.4	757.7	758.9	760.1	764.7
12.5°	773.9	773.9	773.9	772.6	772.6	769.3	773.9	776.1	778.4	780.7	784.2
15°	817.4	817.4	816.3	811.7	811.7	804.9	806.0	807.1	807.1	809.4	811.7
17.5°	874.8	873.7	871.3	868.0	863.4	855.3	853.0	850.7	847.3	846.2	846.2
20°	955.2	954.1	949.5	940.3	934.6	921.9	912.8	903.6	900.1	894.4	893.2
22.5°	1070.0	1070.0	1060.8	1047.1	1042.5	1016.1	989.7	970.2	963.2	955.2	955.2
25°	1208.9	1207.8	1195.1	1179.1	1159.6	1132.0	1099.9	1073.5	1056.2	1037.9	1031.0
27.5°	1375.5	1372.0	1354.8	1335.3	1298.5	1264.1	1226.2	1198.6	1168.7	1145.8	1125.1
30°	1570.5	1567.2	1537.3	1500.6	1462.7	1428.2	1373.1	1339.9	1292.7	1265.2	1242.3
32.5°	1796.7	1793.3	1739.3	1703.7	1663.6	1621.1	1555.7	1502.8	1443.2	1404.1	1372.0
35°	2085.0	2071.2	1994.2	1944.8	1881.7	1839.3	1770.3	1699.2	1629.2	1574.0	1527.0
37.5°	2396.1	2380.0	2312.3	2238.7	2176.7	2125.1	2027.5	1938.0	1855.3	1779.5	1721.0
40°	2720.9	2678.5	2606.2	2552.2	2509.7	2460.4	2358.2	2264.0	2134.3	2049.4	1960.9
42.5°	2946.0	2904.7	2854.1	2818.5	2797.9	2760.0	2702.6	2621.1	2505.1	2507.5	2274.3
45°	3094.1	3033.3	2998.8	3001.1	3009.1	3009.1	2998.8	2986.2	2935.7	2970.1	2775.0
47.5°	3041.3	3001.1	2979.3	3025.2	3082.7	3140.0	3206.6	3279.0	3361.6	3459.2	3219.2
50°	2731.3	2746.2	2756.5	2854.1	2977.0	3107.9	3260.6	3458.1	3688.9	3733.6	3617.7
52.5°	2236.5	2268.6	2303.1	2452.3	2614.2	2840.3	3107.9	3433.9	3743.9	3926.5	3915.0
55°	1737.1	1777.3	1850.7	1962.1	2090.7	2304.2	2634.9	3137.7	3621.0	3911.6	4088.3
57.5°	1236.5	1295.1	1391.5	1546.5	1660.1	1780.7	2025.2	2583.2	3112.4	3653.3	4059.7
60°	822.0	849.6	912.8	1105.6	1297.3	1423.6	1597.0	1799.1	2231.9	2977.0	3763.4
62.5°	583.2	601.6	640.7	727.9	901.2	1129.7	1234.2	1327.2	1466.1	1915.0	3021.8
63°	551.1	567.1	599.3	672.8	828.9	1065.4	1172.2	1257.2	1358.2	1712.9	2858.7
65°	457.0	463.8	481.1	516.6	600.5	796.8	971.3	1023.0	1040.1	1101.0	1791.0
67.5°	385.8	390.4	396.1	406.4	439.8	530.4	724.5	789.9	770.4	729.1	885.2
70°	335.2	338.7	347.9	360.5	371.9	395.0	498.3	595.9	574.1	517.8	541.9
72.5°	267.5	273.2	283.6	305.4	328.4	358.2	383.5	444.3	430.6	376.5	382.3
75°	211.2	214.7	223.9	240.0	261.8	296.2	345.6	366.2	328.4	277.8	277.8
77.5°	167.7	171.0	179.1	191.7	205.5	229.7	264.0	318.0	295.0	209.0	207.8
80°	126.3	129.7	137.8	149.2	163.1	180.2	200.9	225.0	271.0	195.2	156.1
82.5°	93.0	94.1	107.9	116.0	120.5	134.3	151.5	165.3	186.0	180.2	138.9
85°	70.1	68.8	78.1	83.8	85.0	88.4	98.7	112.5	121.7	117.1	107.9
87.5°	39.1	34.5	40.2	45.9	45.9	47.1	49.4	57.4	65.5	63.1	57.4
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°	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8
2.5°	739.4	739.4	738.3	738.3	739.4	739.4	738.3	741.6	744.0	744.0	745.1
5°	742.8	744.0	742.8	742.8	744.0	744.0	745.1	748.6	752.0	754.3	757.7
7.5°	753.1	754.3	753.1	753.1	754.3	755.4	757.7	762.3	764.7	769.3	775.0
10°	764.7	765.8	764.7	765.8	766.9	768.0	771.5	775.0	778.4	783.0	792.2
12.5°	785.3	786.4	784.2	785.3	788.7	788.7	791.0	793.3	799.0	804.9	814.0
15°	814.0	814.0	811.7	812.8	816.3	816.3	817.4	819.7	826.6	833.5	842.7
17.5°	847.3	849.6	848.4	849.6	851.9	853.0	853.0	855.3	859.9	864.5	873.7
20°	892.1	893.2	890.9	893.2	895.5	893.2	890.9	889.8	892.1	894.4	904.7
22.5°	952.9	951.8	946.0	946.0	946.0	941.4	935.7	928.8	928.8	925.4	933.4
25°	1025.2	1021.8	1013.7	1014.9	1006.9	1000.0	989.7	979.3	970.2	966.7	967.8
27.5°	1110.2	1103.4	1095.3	1093.0	1084.9	1072.4	1055.1	1035.5	1020.7	1009.1	1006.9
30°	1217.0	1202.1	1188.3	1186.0	1173.3	1152.7	1125.1	1098.8	1073.5	1053.9	1047.1
32.5°	1343.2	1320.3	1298.5	1296.2	1275.5	1248.0	1214.7	1177.9	1141.2	1110.2	1095.3
35°	1491.4	1456.9	1436.2	1430.5	1400.6	1366.3	1329.5	1282.4	1230.7	1187.1	1159.6
37.5°	1671.6	1636.0	1600.4	1601.6	1560.2	1520.1	1470.7	1413.3	1347.8	1287.0	1248.0
40°	1894.3	1843.9	1797.9	1787.6	1752.0	1695.7	1641.7	1575.1	1494.8	1414.4	1358.2
42.5°	2164.2	2081.5	2018.4	2009.2	1962.1	1893.2	1827.8	1739.3	1657.8	1560.2	1492.5
45°	2470.7	2338.7	2262.9	2249.1	2173.4	2103.3	2024.1	1929.9	1830.1	1719.9	1639.5
47.5°	2851.9	2663.6	2535.0	2512.1	2407.5	2315.7	2233.0	2128.6	2009.2	1886.3	1797.9
50°	3296.2	3018.3	2844.9	2809.3	2669.3	2561.4	2455.8	2324.9	2197.4	2068.8	1966.7
52.5°	3741.6	3443.2	3212.4	3168.7	2962.1	2817.4	2678.5	2547.7	2397.2	2269.8	2153.8
55°	4099.8	3901.2	3633.7	3572.9	3276.6	3080.3	2897.8	2748.6	2599.3	2498.3	2361.6
57.5°	4315.6	4305.3	4094.1	4010.3	3605.0	3314.6	3111.3	2941.4	2796.7	2754.3	2572.8
60°	4309.9	4577.4	4486.8	4423.5	3936.8	3554.4	3290.4	3106.7	2987.3	3035.5	2785.3
62.5°	4047.0	4589.0	4698.0	4680.7	4290.5	3747.4	3437.4	3248.0	3184.8	3328.3	3005.7
63°	3951.8	4562.5	4707.2	4700.3	4358.2	3784.1	3462.7	3275.5	3223.8	3402.9	3045.8
65°	3339.8	4331.8	4595.8	4626.8	4504.0	3910.4	3521.2	3345.6	3339.8	3569.4	3141.2
67.5°	2035.6	3660.1	4094.1	4153.8	4298.4	3950.5	3487.9	3321.4	3404.1	3593.5	3112.4
70°	870.2	2415.6	3290.4	3386.9	3740.5	3750.9	3392.6	3222.7	3389.1	3405.2	2908.1
72.5°	515.5	1139.0	2240.0	2450.1	2959.8	3227.3	3174.4	3050.4	3192.8	2990.8	2476.5
75°	365.1	532.8	1137.7	1361.6	2060.8	2463.8	2667.0	2724.4	2718.7	2371.9	1858.8
77.5°	261.8	342.2	479.9	566.0	1150.4	1582.1	1830.1	1997.7	1943.7	1587.8	1145.8
80°	182.6	236.5	293.9	312.3	533.9	812.8	964.4	1037.9	1005.8	793.3	513.2
82.5°	132.1	155.0	189.5	200.9	268.6	375.4	446.6	393.8	377.7	292.8	221.6
85°	102.2	99.8	118.3	122.9	157.3	196.3	200.9	156.1	136.7	121.7	124.0
87.5°	72.3	62.0	63.1	65.5	81.5	104.4	102.2	64.3	55.1	58.5	66.6
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°	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8	742.8
2.5°	747.4	748.6	750.8	752.0	754.3	754.3	756.6	757.7	760.1	762.3	763.5
5°	761.2	764.7	769.3	771.5	776.1	779.6	784.2	786.4	791.0	794.5	799.0
7.5°	781.8	787.6	793.3	800.3	807.1	812.8	817.4	823.2	831.2	837.0	840.4
10°	801.4	809.4	819.7	827.8	838.1	846.2	853.0	863.4	872.6	880.6	885.2
12.5°	826.6	837.0	847.3	859.9	873.7	884.0	894.4	908.2	920.8	930.0	934.6
15°	856.5	869.1	880.6	895.5	911.6	925.4	940.3	955.2	964.4	964.4	962.1
17.5°	887.5	897.8	911.6	928.8	950.6	967.8	975.9	978.1	974.8	966.7	961.0
20°	918.5	927.6	942.5	963.2	986.2	989.7	981.6	971.3	961.0	947.2	937.9
22.5°	943.8	956.4	979.3	1003.4	1004.5	985.1	963.2	946.0	930.0	913.9	896.6
25°	973.5	990.8	1021.8	1031.0	1001.2	964.4	933.4	908.2	881.8	855.3	835.9
27.5°	1010.4	1035.5	1066.5	1040.1	981.6	930.0	887.5	849.6	815.2	778.4	756.6
30°	1049.3	1088.4	1095.3	1026.4	948.3	881.8	824.3	766.9	723.3	690.0	677.4
32.5°	1096.4	1146.9	1105.6	1002.3	903.6	816.3	739.4	670.4	633.7	613.1	607.3
35°	1167.6	1208.9	1111.3	977.0	851.9	738.3	641.8	586.7	563.7	549.9	543.1
37.5°	1269.8	1268.7	1110.2	946.0	792.2	653.3	563.7	524.7	506.3	494.8	482.2
40°	1389.2	1314.6	1103.4	901.2	711.8	571.7	509.7	473.0	455.8	442.0	427.1
42.5°	1507.4	1345.6	1083.8	834.6	611.9	513.2	470.8	437.4	419.1	404.2	383.5
45°	1609.6	1358.2	1045.9	742.8	522.4	467.3	445.5	416.8	395.0	371.9	355.9
47.5°	1690.0	1355.9	985.1	634.8	462.7	435.2	424.8	405.3	378.9	350.2	329.5
50°	1757.7	1338.6	902.4	539.6	422.5	406.4	402.9	397.2	354.8	330.6	318.0
52.5°	1819.7	1313.4	814.0	475.3	388.0	374.3	381.2	375.4	345.6	324.9	312.3
55°	1904.6	1296.2	726.7	426.0	347.9	344.4	350.2	358.2	339.8	320.3	306.6
57.5°	2004.6	1305.4	660.1	370.8	310.0	312.3	331.8	343.3	334.1	313.4	299.6
60°	2119.3	1332.9	601.6	318.0	279.0	284.7	313.4	329.5	328.4	304.2	288.2
62.5°	2247.9	1361.6	508.6	277.8	252.6	261.8	291.6	312.3	315.7	295.0	275.6
63°	2273.2	1363.9	484.5	269.8	248.0	258.3	285.9	307.7	312.3	292.8	273.2
65°	2335.2	1343.2	390.4	248.0	229.7	241.1	268.6	288.2	297.4	280.1	264.0
67.5°	2283.5	1174.4	293.9	221.6	214.7	222.7	246.8	265.3	273.2	265.3	249.1
70°	2088.4	854.2	229.7	197.4	198.7	204.4	222.7	240.0	249.1	246.8	231.9
72.5°	1681.9	484.5	191.7	176.8	180.2	187.1	199.8	215.8	223.9	222.7	212.4
75°	1108.0	248.0	161.8	158.5	160.7	166.4	175.6	188.3	197.4	196.3	191.7
77.5°	548.8	172.2	138.9	140.0	141.2	145.8	152.7	164.2	169.9	171.0	169.9
80°	226.2	134.3	119.4	120.5	121.7	125.1	129.7	140.0	143.5	145.8	147.0
82.5°	135.4	102.2	95.3	97.6	98.7	102.2	105.7	114.8	118.3	121.7	121.7
85°	89.5	71.2	68.8	71.2	73.4	75.8	76.9	82.7	88.4	93.0	95.3
87.5°	48.2	42.5	41.3	42.5	42.5	44.8	47.1	52.8	59.7	64.3	66.6
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°	742.8	742.8	742.8	742.8	742.8
2.5°	761.2	762.3	761.2	762.3	763.5
5°	799.0	801.4	800.3	800.3	804.9
7.5°	842.7	847.3	847.3	849.6	851.9
10°	889.8	894.4	897.8	897.8	901.2
12.5°	936.8	939.2	942.5	942.5	942.5
15°	961.0	959.8	958.6	957.5	957.5
17.5°	957.5	952.9	950.6	948.3	949.5
20°	932.2	924.2	921.9	918.5	920.8
22.5°	888.6	877.2	872.6	866.8	869.1
25°	823.2	809.4	807.1	800.3	803.6
27.5°	747.4	740.5	739.4	738.3	744.0
30°	676.3	678.5	679.6	682.0	687.7
32.5°	610.8	615.4	616.5	617.7	625.7
35°	546.5	540.7	546.5	544.2	551.1
37.5°	476.5	471.9	467.3	461.6	466.2
40°	417.9	409.9	396.1	389.2	390.4
42.5°	371.9	361.6	350.2	343.3	343.3
45°	342.2	329.5	319.2	314.6	314.6
47.5°	319.2	313.4	307.7	304.2	304.2
50°	310.0	303.1	299.6	297.4	297.4
52.5°	303.1	296.2	292.8	290.4	288.2
55°	297.4	287.0	283.6	282.4	282.4
57.5°	289.3	280.1	275.6	274.4	274.4
60°	276.7	269.8	265.3	264.0	264.0
62.5°	264.0	257.2	252.6	252.6	252.6
63°	261.8	253.7	250.3	250.3	250.3
65°	251.4	243.4	240.0	240.0	238.8
67.5°	237.6	229.7	227.3	227.3	225.0
70°	221.6	214.7	212.4	213.6	209.0
72.5°	205.5	198.7	195.2	195.2	190.6
75°	187.1	180.2	175.6	174.5	169.9
77.5°	166.4	160.7	156.1	151.5	149.2
80°	144.6	140.0	134.3	130.8	127.5
82.5°	121.7	117.1	113.6	118.3	101.1
85°	95.3	90.7	86.1	93.0	72.3
87.5°	70.1	67.7	63.1	55.1	48.2
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)