

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: P265646

Luminaire Tested: **ARCH-L-AF72-170-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265646
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-L-AF72-170-D-U-T2U-7027
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 2700K, 750mA LIGHT ENGINES WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 19038.8 lumens
Efficiency: N/A
Efficacy: 110.1 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G3

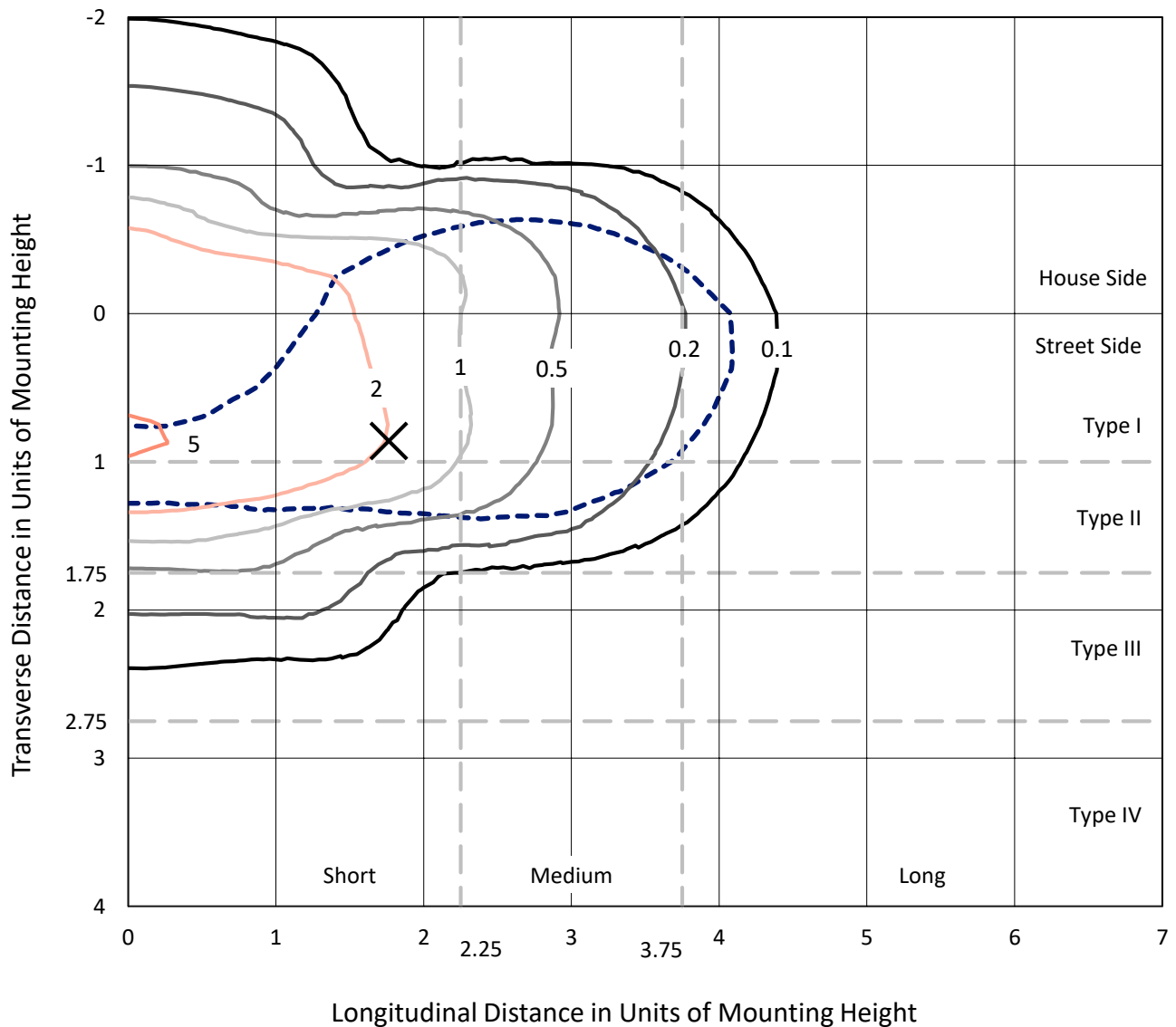
Input Watts (W): 173
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

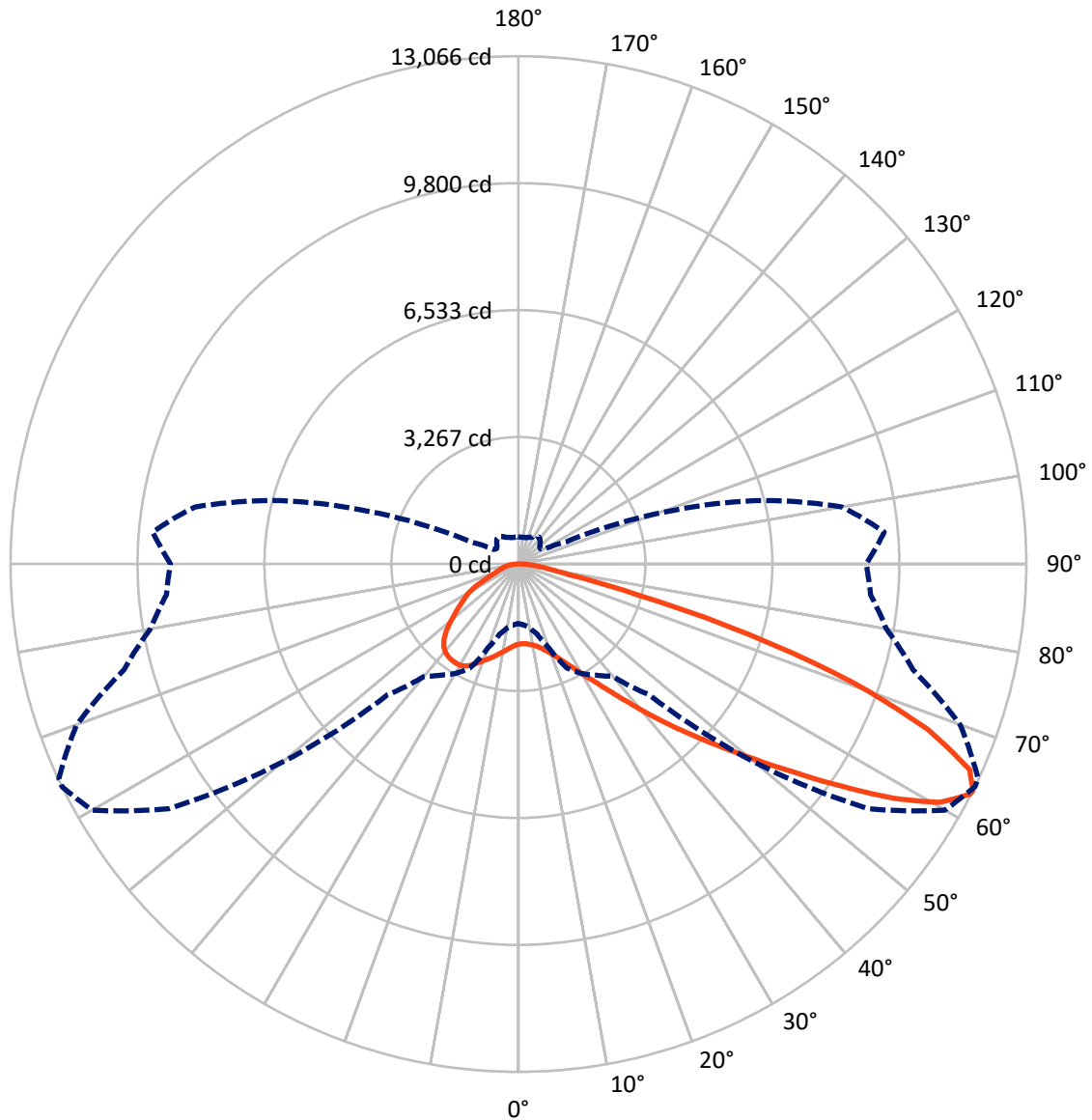
✕ Max cd
 - - - 1/2 Max cd



Based on 25 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	5596.7	0.0	5596.7
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	13442.1	0.0	13442.1
	% Fixture	70.6	0.0	70.6
Total	Lumens	19038.8	0.0	19038.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	205.9	1.1
10°-20°	685.7	3.6
20°-30°	1287.1	6.8
30°-40°	2157.3	11.3
40°-50°	3619.5	19.0
50°-60°	4588.5	24.1
60°-70°	4047.7	21.3
70°-80°	2089.5	11.0
80°-90°	357.6	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°	19038.8	100.0
0°-180°	19038.8	100.0



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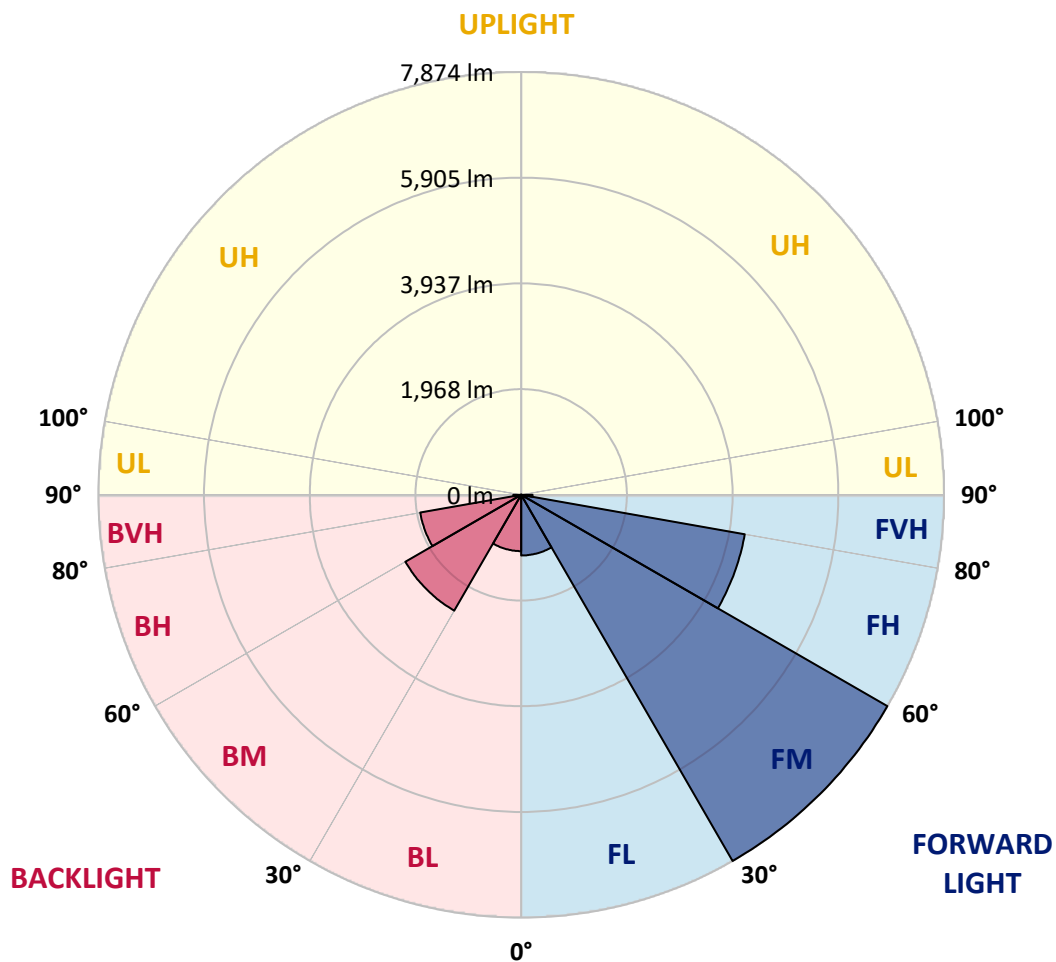
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1130.0	5.9			
FM	(30°-60°)	7873.9	41.4			
FH	(60°-80°)	4227.7	22.2			G2/5000
FVH	(80°-90°)	210.4	1.1			G2/225
BL	(0°-30°)	1048.6	5.5	B3/2500		
BM	(30°-60°)	2491.4	13.1	B2/2500		
BH	(60°-80°)	1909.6	10.0	B3/2500		G3/2500
BVH	(80°-90°)	147.1	0.8			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9
2.5°	2049.2	2046.0	2046.0	2046.0	2046.0	2042.7	2046.0	2052.4	2049.2	2046.0	2052.4
5°	2055.5	2052.4	2052.4	2052.4	2055.5	2052.4	2055.5	2065.1	2058.6	2058.6	2065.1
7.5°	2071.4	2068.3	2071.4	2068.3	2068.3	2068.3	2071.4	2081.1	2077.8	2081.1	2090.5
10°	2090.5	2090.5	2090.5	2090.5	2090.5	2090.5	2097.0	2103.3	2106.5	2109.7	2122.4
12.5°	2147.9	2147.9	2147.9	2144.8	2144.8	2135.2	2147.9	2154.3	2160.8	2167.0	2176.7
15°	2268.9	2268.9	2265.9	2253.0	2253.0	2233.9	2237.1	2240.4	2240.4	2246.8	2253.0
17.5°	2428.4	2425.2	2418.9	2409.3	2396.5	2374.2	2367.8	2361.5	2351.9	2348.7	2348.7
20°	2651.4	2648.3	2635.5	2610.0	2594.0	2559.0	2533.5	2508.1	2498.5	2482.6	2479.3
22.5°	2970.2	2970.2	2944.6	2906.3	2893.7	2820.4	2747.0	2692.8	2673.7	2651.4	2651.4
25°	3355.8	3352.6	3317.5	3272.9	3218.6	3142.2	3053.0	2979.7	2931.9	2881.0	2861.8
27.5°	3817.8	3808.3	3760.5	3706.2	3604.3	3508.7	3403.6	3327.1	3244.1	3180.4	3123.0
30°	4359.7	4350.0	4267.2	4165.3	4060.1	3964.4	3811.5	3719.1	3588.4	3512.0	3448.1
32.5°	4987.4	4977.9	4828.1	4729.2	4617.7	4499.8	4318.2	4171.5	4005.9	3897.6	3808.3
35°	5787.3	5749.1	5535.5	5398.5	5223.3	5105.3	4914.1	4716.6	4522.2	4369.1	4238.6
37.5°	6651.0	6606.3	6418.3	6214.4	6042.3	5898.9	5628.1	5379.4	5150.0	4939.6	4777.0
40°	7552.8	7434.9	7234.1	7084.4	6966.4	6829.5	6545.8	6284.5	5924.3	5688.5	5443.1
42.5°	8177.5	8062.7	7922.5	7823.7	7766.3	7661.1	7501.8	7275.6	6953.7	6960.1	6313.2
45°	8588.5	8419.6	8324.1	8330.4	8352.7	8352.7	8324.1	8289.0	8148.7	8244.4	7702.5
47.5°	8441.9	8330.4	8269.8	8397.4	8556.6	8716.1	8900.9	9101.6	9331.1	9602.0	8935.9
50°	7581.5	7622.9	7651.7	7922.5	8263.5	8626.9	9050.7	9598.7	10239.3	10363.7	10041.8
52.5°	6207.9	6297.2	6392.8	6807.0	7256.5	7884.2	8626.9	9531.8	10392.3	10899.0	10867.2
55°	4821.7	4933.2	5137.1	5446.3	5803.2	6396.0	7313.8	8709.6	10051.3	10857.6	11348.4
57.5°	3432.2	3594.7	3862.4	4292.7	4608.1	4942.8	5621.7	7170.5	8639.5	10140.5	11268.7
60°	2281.8	2358.3	2533.5	3068.9	3601.1	3951.7	4432.9	4993.8	6195.3	8263.5	10446.5
62.5°	1618.9	1669.9	1778.3	2020.5	2501.7	3135.9	3425.9	3683.9	4069.6	5315.7	8387.7
63°	1529.6	1574.3	1663.5	1867.4	2300.9	2957.4	3253.8	3489.6	3770.0	4754.8	7935.3
65°	1268.3	1287.5	1335.3	1434.1	1666.7	2211.6	2696.1	2839.5	2887.3	3056.3	4971.5
67.5°	1070.8	1083.5	1099.4	1128.1	1220.5	1472.3	2010.9	2192.6	2138.3	2023.6	2457.0
70°	930.6	940.2	965.6	1000.7	1032.5	1096.3	1383.1	1654.0	1593.5	1437.3	1504.2
72.5°	742.4	758.4	787.2	847.7	911.4	994.3	1064.4	1233.4	1195.0	1045.3	1061.2
75°	586.4	595.9	621.4	666.1	726.5	822.2	959.2	1016.6	911.4	771.3	771.3
77.5°	465.3	474.8	497.1	532.2	570.5	637.3	732.9	882.8	819.1	580.0	576.8
80°	350.6	360.1	382.4	414.3	452.6	500.4	557.7	624.6	752.2	541.8	433.4
82.5°	258.2	261.3	299.6	321.9	334.6	372.8	420.6	458.9	516.3	500.4	385.6
85°	194.5	191.2	216.8	232.7	235.9	245.3	274.1	312.3	337.9	325.0	299.6
87.5°	108.3	95.6	111.5	127.5	127.5	130.7	137.0	159.3	181.6	175.3	159.3
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°	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9
2.5°	2052.4	2052.4	2049.2	2049.2	2052.4	2052.4	2049.2	2058.6	2065.1	2065.1	2068.3
5°	2061.9	2065.1	2061.9	2061.9	2065.1	2065.1	2068.3	2077.8	2087.4	2093.8	2103.3
7.5°	2090.5	2093.8	2090.5	2090.5	2093.8	2097.0	2103.3	2116.0	2122.4	2135.2	2151.1
10°	2122.4	2125.6	2122.4	2125.6	2128.9	2131.9	2141.6	2151.1	2160.8	2173.4	2199.0
12.5°	2179.7	2183.1	2176.7	2179.7	2189.3	2189.3	2195.7	2202.1	2218.1	2233.9	2259.4
15°	2259.4	2259.4	2253.0	2256.4	2265.9	2265.9	2268.9	2275.3	2294.5	2313.7	2339.1
17.5°	2351.9	2358.3	2355.0	2358.3	2364.7	2367.8	2367.8	2374.2	2386.9	2399.7	2425.2
20°	2476.2	2479.3	2473.0	2479.3	2485.7	2479.3	2473.0	2469.8	2476.2	2482.6	2511.2
22.5°	2645.1	2641.8	2625.9	2625.9	2625.9	2613.2	2597.3	2578.1	2578.1	2568.7	2590.9
25°	2845.9	2836.3	2814.0	2817.2	2794.8	2775.8	2747.0	2718.5	2692.8	2683.3	2686.6
27.5°	3081.6	3062.5	3040.3	3033.8	3011.6	2976.5	2928.7	2874.5	2833.2	2801.3	2794.8
30°	3378.0	3336.7	3298.3	3292.0	3257.0	3199.7	3123.0	3049.8	2979.7	2925.5	2906.3
32.5°	3728.7	3664.8	3604.3	3597.9	3540.6	3464.1	3371.7	3269.7	3167.8	3081.6	3040.3
35°	4139.7	4044.1	3986.8	3970.8	3888.0	3792.4	3690.3	3559.8	3416.3	3295.3	3218.6
37.5°	4640.0	4541.2	4442.5	4445.6	4330.9	4219.3	4082.3	3923.0	3741.4	3572.5	3464.1
40°	5258.3	5118.1	4990.7	4961.9	4863.2	4706.9	4557.2	4372.4	4149.4	3926.2	3770.0
42.5°	6007.2	5777.8	5602.5	5576.9	5446.3	5255.2	5073.4	4828.1	4601.7	4330.9	4143.0
45°	6858.1	6491.6	6281.3	6243.0	6032.7	5838.4	5618.4	5357.1	5079.8	4774.0	4550.9
47.5°	7916.1	7393.5	7036.6	6972.9	6682.9	6427.9	6198.5	5908.4	5576.9	5236.0	4990.7
50°	9149.4	8378.2	7897.0	7798.2	7409.4	7109.8	6816.7	6453.3	6099.6	5742.8	5459.1
52.5°	10385.9	9557.3	8916.8	8795.8	8222.0	7820.6	7434.9	7071.5	6654.1	6300.4	5978.5
55°	11380.3	10828.9	10086.3	9917.5	9095.2	8550.2	8043.7	7629.3	7215.0	6934.6	6555.3
57.5°	11979.3	11950.7	11364.3	11131.6	10006.7	9200.4	8636.3	8164.8	7763.2	7645.3	7141.7
60°	11963.4	12705.9	12454.2	12278.9	10927.7	9866.4	9133.4	8623.5	8292.2	8426.0	7731.4
62.5°	11233.7	12737.8	13040.5	12992.7	11909.3	10401.8	9541.4	9015.6	8840.3	9238.7	8343.2
63°	10969.2	12664.6	13066.0	13047.0	12097.2	10503.8	9611.5	9092.0	8948.6	9445.8	8454.7
65°	9270.6	12024.1	12757.0	12843.0	12502.0	10854.4	9774.1	9286.5	9270.6	9907.9	8719.2
67.5°	5650.2	10159.7	11364.3	11530.0	11931.6	10966.0	9681.7	9219.6	9449.0	9974.8	8639.5
70°	2415.6	6705.0	9133.4	9401.2	10382.8	10411.4	9417.1	8945.5	9407.6	9452.1	8072.3
72.5°	1430.9	3161.3	6217.6	6800.8	8215.7	8958.3	8811.7	8467.5	8862.6	8301.7	6874.0
75°	1013.4	1478.7	3158.3	3779.6	5720.3	6838.9	7403.0	7562.4	7546.4	6584.0	5159.5
77.5°	726.5	949.7	1332.0	1571.1	3193.2	4391.5	5079.8	5545.1	5395.3	4407.4	3180.4
80°	506.7	656.5	815.8	866.9	1481.8	2256.4	2676.9	2881.0	2791.8	2202.1	1424.5
82.5°	366.5	430.2	525.9	557.7	745.8	1042.2	1239.8	1093.1	1048.5	812.6	615.1
85°	283.7	277.2	328.2	340.9	436.5	544.9	557.7	433.4	379.3	337.9	344.2
87.5°	200.9	172.0	175.3	181.6	226.3	290.1	283.7	178.5	153.0	162.6	184.8
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°	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9	2061.9
2.5°	2074.6	2077.8	2084.2	2087.4	2093.8	2093.8	2100.1	2103.3	2109.7	2116.0	2119.2
5°	2112.9	2122.4	2135.2	2141.6	2154.3	2163.8	2176.7	2183.1	2195.7	2205.2	2218.1
7.5°	2170.2	2186.1	2202.1	2221.1	2240.4	2256.4	2268.9	2285.0	2307.2	2323.1	2332.8
10°	2224.5	2246.8	2275.3	2297.8	2326.4	2348.7	2367.8	2396.5	2422.0	2444.3	2457.0
12.5°	2294.5	2323.1	2351.9	2386.9	2425.2	2453.9	2482.6	2520.9	2555.9	2581.4	2594.0
15°	2377.4	2412.5	2444.3	2485.7	2530.3	2568.7	2610.0	2651.4	2676.9	2676.9	2670.7
17.5°	2463.4	2492.1	2530.3	2578.1	2638.7	2686.6	2708.7	2715.1	2705.7	2683.3	2667.3
20°	2549.5	2575.0	2616.5	2673.7	2737.6	2747.0	2724.7	2696.1	2667.3	2629.2	2603.6
22.5°	2619.5	2654.6	2718.5	2785.4	2788.5	2734.4	2673.7	2625.9	2581.4	2536.8	2488.9
25°	2702.5	2750.3	2836.3	2861.8	2778.9	2676.9	2590.9	2520.9	2447.5	2374.2	2320.1
27.5°	2804.4	2874.5	2960.5	2887.3	2724.7	2581.4	2463.4	2358.3	2262.7	2160.8	2100.1
30°	2912.8	3021.1	3040.3	2849.1	2632.4	2447.5	2288.2	2128.9	2007.7	1915.2	1880.2
32.5°	3043.5	3183.7	3068.9	2782.1	2508.1	2265.9	2052.4	1861.1	1759.2	1701.7	1685.8
35°	3241.1	3355.8	3084.9	2712.1	2364.7	2049.2	1781.5	1628.4	1564.8	1526.5	1507.4
37.5°	3524.7	3521.4	3081.6	2625.9	2199.0	1813.3	1564.8	1456.4	1405.4	1373.5	1338.5
40°	3856.1	3648.9	3062.5	2501.7	1975.8	1587.0	1415.0	1313.1	1265.3	1226.9	1185.6
42.5°	4184.3	3735.1	3008.3	2316.9	1698.5	1424.5	1306.7	1214.1	1163.1	1121.8	1064.4
45°	4468.0	3770.0	2903.2	2061.9	1450.0	1297.1	1236.4	1156.8	1096.3	1032.5	988.0
47.5°	4691.0	3763.7	2734.4	1762.4	1284.2	1207.9	1179.1	1124.9	1051.6	972.0	914.7
50°	4879.1	3715.8	2504.8	1497.8	1172.7	1128.1	1118.6	1102.7	984.7	917.8	882.8
52.5°	5051.2	3645.7	2259.4	1319.3	1077.2	1038.9	1058.1	1042.2	959.2	901.9	866.9
55°	5287.0	3597.9	2017.2	1182.3	965.6	956.1	972.0	994.3	943.3	889.1	850.9
57.5°	5564.2	3623.5	1832.5	1029.4	860.4	866.9	921.0	952.8	927.4	870.0	831.8
60°	5882.9	3699.8	1669.9	882.8	774.3	790.4	870.0	914.7	911.4	844.4	799.9
62.5°	6239.8	3779.6	1411.7	771.3	701.0	726.5	809.5	866.9	876.3	819.1	764.8
63°	6310.0	3785.9	1344.9	748.8	688.3	717.0	793.6	854.1	866.9	812.6	758.4
65°	6482.1	3728.7	1083.5	688.3	637.3	669.2	745.8	799.9	825.5	777.7	732.9
67.5°	6338.6	3260.2	815.8	615.1	595.9	618.3	685.1	736.3	758.4	736.3	691.5
70°	5796.9	2371.0	637.3	548.1	551.3	567.3	618.3	666.1	691.5	685.1	643.7
72.5°	4668.8	1344.9	532.2	490.7	500.4	519.5	554.6	599.1	621.4	618.3	589.6
75°	3075.3	688.3	449.3	439.8	446.2	462.1	487.6	522.6	548.1	544.9	532.2
77.5°	1523.3	478.0	385.6	388.7	392.0	404.7	423.8	455.7	471.7	474.8	471.7
80°	627.8	372.8	331.5	334.6	337.9	347.4	360.1	388.7	398.4	404.7	407.9
82.5°	376.0	283.7	264.6	270.8	274.1	283.7	293.1	318.7	328.2	337.9	337.9
85°	248.7	197.5	191.2	197.5	203.9	210.4	213.4	229.4	245.3	258.2	264.6
87.5°	133.8	117.9	114.8	117.9	117.9	124.2	130.7	146.7	165.6	178.5	184.8
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°	2061.9	2061.9	2061.9	2061.9	2061.9
2.5°	2112.9	2116.0	2112.9	2116.0	2119.2
5°	2218.1	2224.5	2221.1	2221.1	2233.9
7.5°	2339.1	2351.9	2351.9	2358.3	2364.7
10°	2469.8	2482.6	2492.1	2492.1	2501.7
12.5°	2600.5	2606.8	2616.5	2616.5	2616.5
15°	2667.3	2664.3	2661.0	2657.8	2657.8
17.5°	2657.8	2645.1	2638.7	2632.4	2635.5
20°	2587.7	2565.4	2559.0	2549.5	2555.9
22.5°	2466.7	2434.8	2422.0	2406.1	2412.5
25°	2285.0	2246.8	2240.4	2221.1	2230.9
27.5°	2074.6	2055.5	2052.4	2049.2	2065.1
30°	1877.1	1883.4	1886.6	1893.0	1908.9
32.5°	1695.5	1708.1	1711.4	1714.5	1736.9
35°	1517.0	1501.0	1517.0	1510.6	1529.6
37.5°	1322.6	1309.8	1297.1	1281.2	1293.9
40°	1160.0	1137.8	1099.4	1080.3	1083.5
42.5°	1032.5	1003.9	972.0	952.8	952.8
45°	949.7	914.7	886.0	873.2	873.2
47.5°	886.0	870.0	854.1	844.4	844.4
50°	860.4	841.4	831.8	825.5	825.5
52.5°	841.4	822.2	812.6	806.3	799.9
55°	825.5	796.6	787.2	784.0	784.0
57.5°	803.1	777.7	764.8	761.7	761.7
60°	768.1	748.8	736.3	732.9	732.9
62.5°	732.9	713.9	701.0	701.0	701.0
63°	726.5	704.4	694.7	694.7	694.7
65°	698.0	675.6	666.1	666.1	662.9
67.5°	659.6	637.3	631.0	631.0	624.6
70°	615.1	595.9	589.6	592.7	580.0
72.5°	570.5	551.3	541.8	541.8	529.0
75°	519.5	500.4	487.6	484.4	471.7
77.5°	462.1	446.2	433.4	420.6	414.3
80°	401.5	388.7	372.8	363.4	353.8
82.5°	337.9	325.0	315.6	328.2	280.5
85°	264.6	251.7	238.9	258.2	200.9
87.5°	194.5	188.0	175.3	153.0	133.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)