

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: P239165

Luminaire Tested: **ARCH-AF24-70-D-U-T2U-8027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239165
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-AF24-70-D-U-T2U-8027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 80 CRI, 2700K, 930mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6598 lumens
Efficiency: N/A
Efficacy: 89.2 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

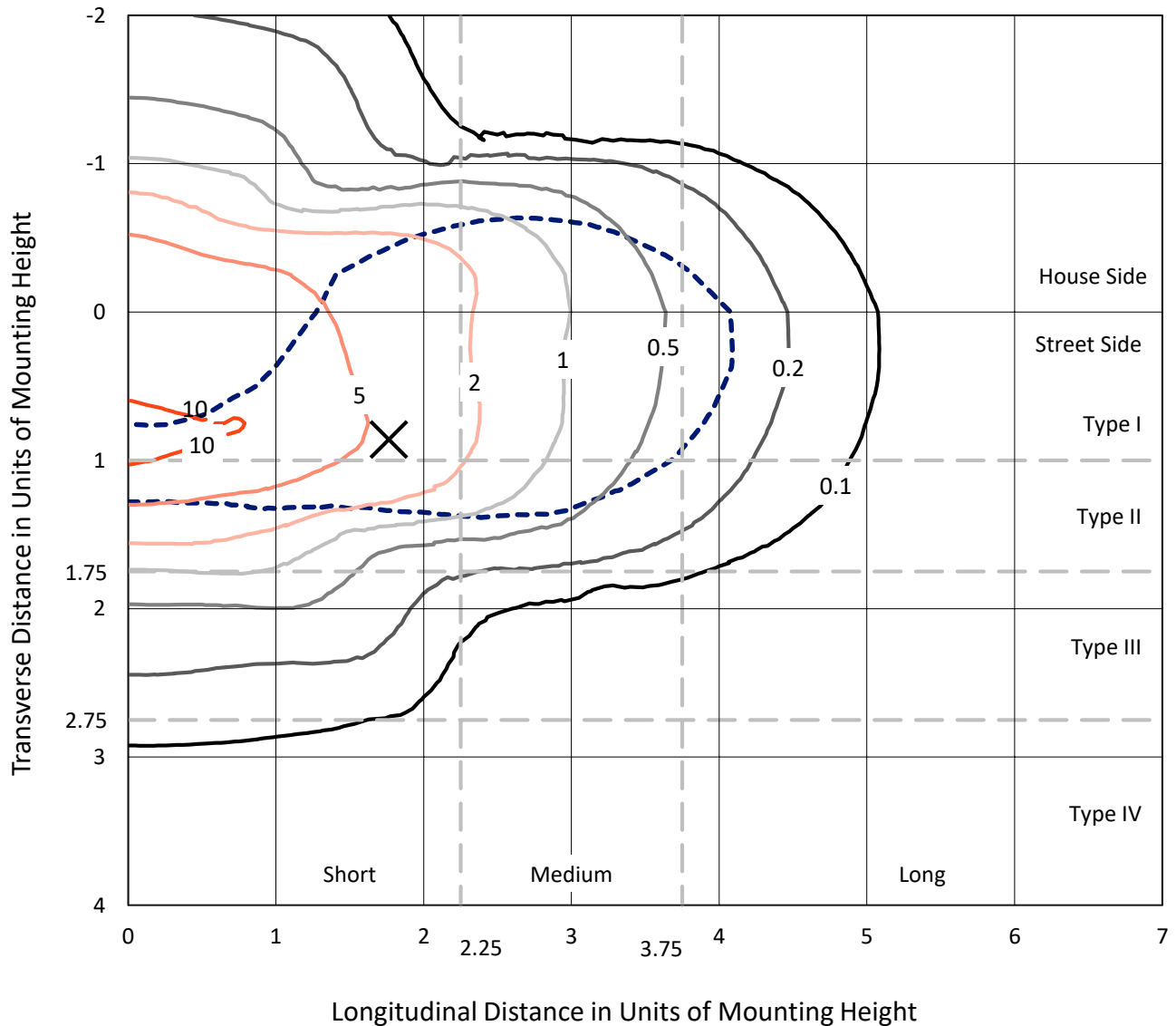
Input Watts (W): 74
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

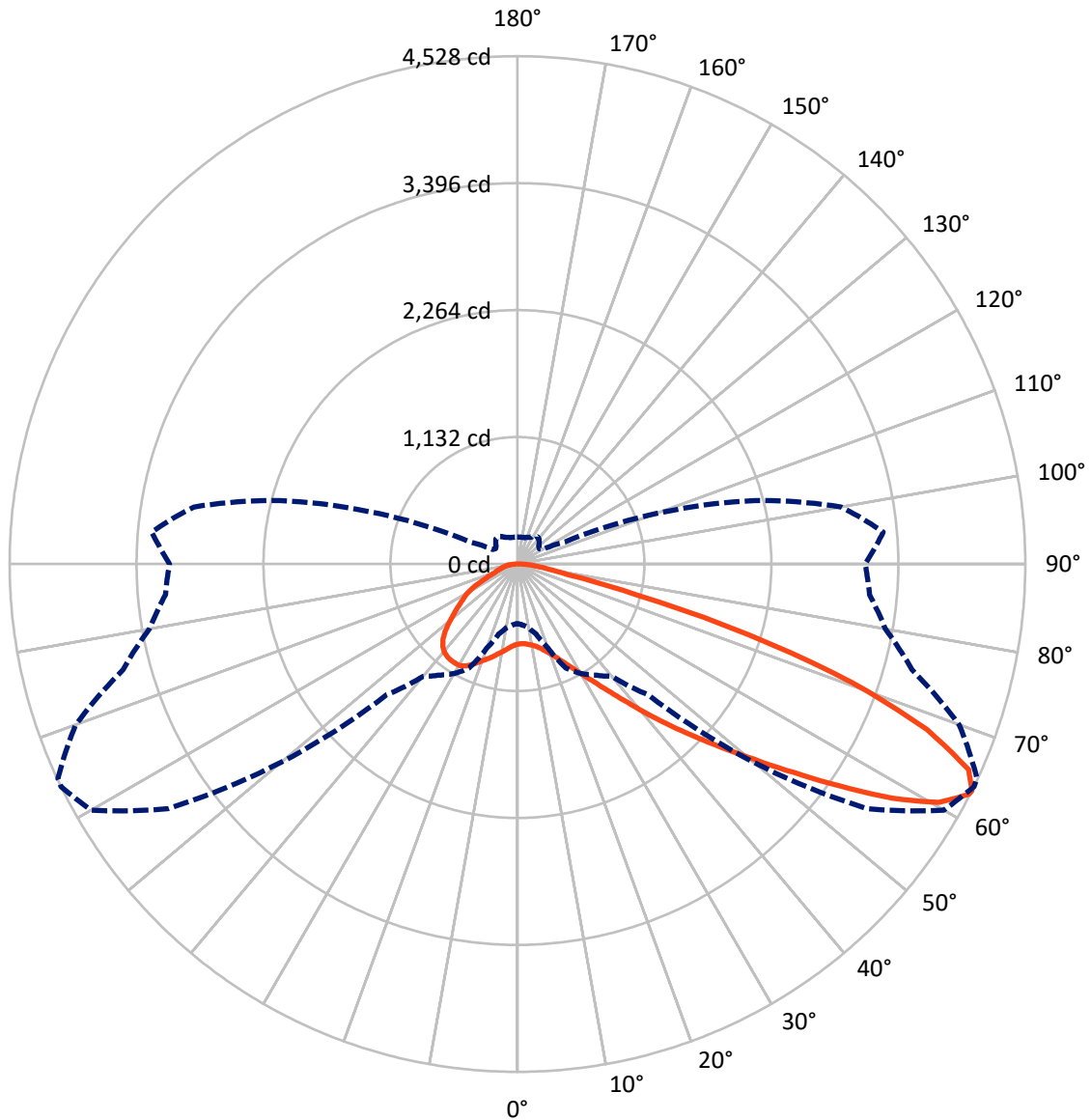
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.6 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	1939.6	0.0	1939.6
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	4658.4	0.0	4658.4
	% Fixture	70.6	0.0	70.6
Total	Lumens	6598.0	0.0	6598.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.3	1.1
10°-20°	237.6	3.6
20°-30°	446.1	6.8
30°-40°	747.6	11.3
40°-50°	1254.4	19.0
50°-60°	1590.2	24.1
60°-70°	1402.8	21.3
70°-80°	724.1	11.0
80°-90°	123.9	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°	6598.0	100.0
0°-180°	6598.0	100.0



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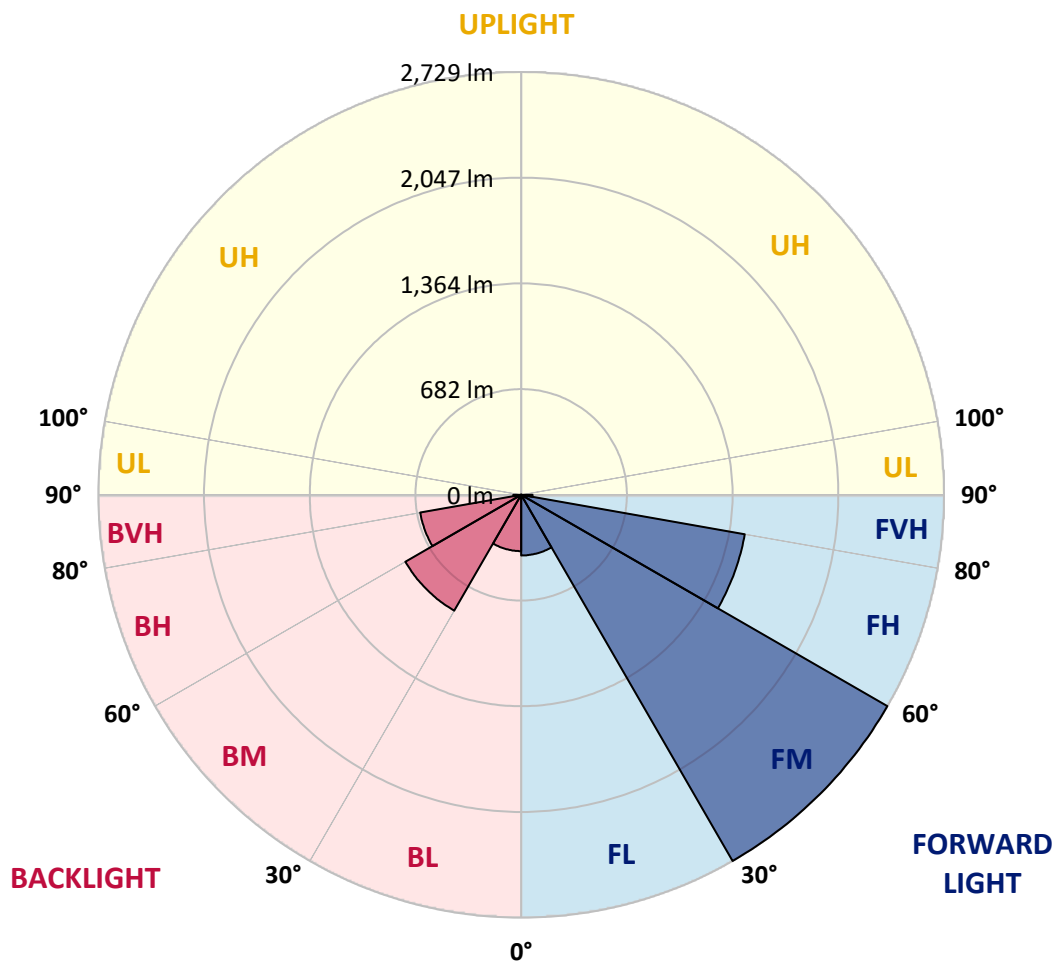
CATALOG NUMBER: ARCH-AF24-70-D-U-T2U-8027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	391.6	5.9			
FM	(30°-60°)	2728.8	41.4			
FH	(60°-80°)	1465.1	22.2			G1/1800
FVH	(80°-90°)	72.9	1.1			G1/100
BL	(0°-30°)	363.4	5.5	B1/500		
BM	(30°-60°)	863.4	13.1	B1/1000		
BH	(60°-80°)	661.8	10.0	B2/1000		G2/1000
BVH	(80°-90°)	51.0	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°	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6
2.5°	710.1	709.0	709.0	709.0	709.0	707.9	709.0	711.2	710.1	709.0	711.2
5°	712.4	711.2	711.2	711.2	712.4	711.2	712.4	715.7	713.5	713.5	715.7
7.5°	717.9	716.8	717.9	716.8	716.8	716.8	717.9	721.2	720.1	721.2	724.5
10°	724.5	724.5	724.5	724.5	724.5	724.5	726.7	728.9	730.0	731.1	735.5
12.5°	744.4	744.4	744.4	743.3	743.3	740.0	744.4	746.6	748.8	751.0	754.3
15°	786.3	786.3	785.2	780.8	780.8	774.2	775.3	776.4	776.4	778.6	780.8
17.5°	841.6	840.5	838.3	834.9	830.5	822.8	820.6	818.4	815.1	814.0	814.0
20°	918.9	917.8	913.4	904.5	899.0	886.9	878.0	869.2	865.9	860.3	859.2
22.5°	1029.3	1029.3	1020.5	1007.2	1002.8	977.4	952.0	933.2	926.6	918.9	918.9
25°	1163.0	1161.9	1149.7	1134.2	1115.5	1089.0	1058.0	1032.6	1016.1	998.4	991.8
27.5°	1323.1	1319.8	1303.2	1284.4	1249.1	1216.0	1179.5	1153.0	1124.3	1102.2	1082.3
30°	1510.8	1507.5	1478.8	1443.5	1407.0	1373.9	1320.9	1288.9	1243.6	1217.1	1195.0
32.5°	1728.4	1725.1	1673.2	1639.0	1600.3	1559.4	1496.5	1445.7	1388.3	1350.7	1319.8
35°	2005.6	1992.4	1918.4	1870.9	1810.1	1769.3	1703.0	1634.5	1567.2	1514.2	1468.9
37.5°	2304.9	2289.5	2224.3	2153.6	2094.0	2044.3	1950.4	1864.3	1784.7	1711.9	1655.5
40°	2617.5	2576.6	2507.0	2455.1	2414.3	2366.8	2268.5	2177.9	2053.1	1971.4	1886.4
42.5°	2833.9	2794.2	2745.6	2711.4	2691.5	2655.0	2599.8	2521.4	2409.8	2412.1	2187.9
45°	2976.4	2917.9	2884.7	2887.0	2894.7	2894.7	2884.7	2872.6	2824.0	2857.1	2669.4
47.5°	2925.6	2887.0	2866.0	2910.2	2965.4	3020.6	3084.6	3154.2	3233.7	3327.6	3096.8
50°	2627.4	2641.8	2651.7	2745.6	2863.8	2989.7	3136.6	3326.5	3548.5	3591.6	3480.0
52.5°	2151.4	2182.3	2215.5	2359.0	2514.8	2732.3	2989.7	3303.3	3601.5	3777.1	3766.1
55°	1671.0	1709.6	1780.3	1887.5	2011.2	2216.6	2534.6	3018.4	3483.3	3762.8	3932.8
57.5°	1189.5	1245.8	1338.6	1487.7	1597.0	1713.0	1948.2	2484.9	2994.1	3514.3	3905.2
60°	790.8	817.3	878.0	1063.6	1248.0	1369.5	1536.3	1730.6	2147.0	2863.8	3620.3
62.5°	561.0	578.7	616.3	700.2	867.0	1086.8	1187.3	1276.7	1410.3	1842.2	2906.8
63°	530.1	545.6	576.5	647.2	797.4	1024.9	1127.6	1209.3	1306.5	1647.8	2750.0
65°	439.6	446.2	462.8	497.0	577.6	766.5	934.3	984.0	1000.6	1059.1	1722.9
67.5°	371.1	375.5	381.0	391.0	423.0	510.2	696.9	759.8	741.1	701.3	851.5
70°	322.5	325.8	334.6	346.8	357.8	379.9	479.3	573.2	552.2	498.1	521.3
72.5°	257.3	262.9	272.8	293.8	315.9	344.6	368.9	427.4	414.2	362.3	367.8
75°	203.2	206.5	215.4	230.8	251.8	284.9	332.4	352.3	315.9	267.3	267.3
77.5°	161.2	164.6	172.3	184.4	197.7	220.9	254.0	305.9	283.8	201.0	199.9
80°	121.5	124.8	132.5	143.6	156.8	173.4	193.3	216.5	260.6	187.8	150.2
82.5°	89.5	90.6	103.8	111.5	116.0	129.2	145.8	159.0	178.9	173.4	133.6
85°	67.4	66.3	75.1	80.6	81.7	85.0	95.0	108.2	117.1	112.7	103.8
87.5°	37.6	33.1	38.7	44.2	44.2	45.3	47.5	55.2	63.0	60.7	55.2
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°	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6
2.5°	711.2	711.2	710.1	710.1	711.2	711.2	710.1	713.5	715.7	715.7	716.8
5°	714.6	715.7	714.6	714.6	715.7	715.7	716.8	720.1	723.4	725.6	728.9
7.5°	724.5	725.6	724.5	724.5	725.6	726.7	728.9	733.3	735.5	740.0	745.5
10°	735.5	736.6	735.5	736.6	737.8	738.9	742.2	745.5	748.8	753.2	762.1
12.5°	755.4	756.5	754.3	755.4	758.7	758.7	760.9	763.2	768.7	774.2	783.0
15°	783.0	783.0	780.8	781.9	785.2	785.2	786.3	788.6	795.2	801.8	810.6
17.5°	815.1	817.3	816.2	817.3	819.5	820.6	820.6	822.8	827.2	831.6	840.5
20°	858.1	859.2	857.0	859.2	861.4	859.2	857.0	855.9	858.1	860.3	870.3
22.5°	916.7	915.6	910.0	910.0	910.0	905.6	900.1	893.5	893.5	890.2	897.9
25°	986.2	982.9	975.2	976.3	968.6	962.0	952.0	942.1	933.2	929.9	931.0
27.5°	1068.0	1061.3	1053.6	1051.4	1043.7	1031.5	1015.0	996.2	981.8	970.8	968.6
30°	1170.7	1156.3	1143.1	1140.9	1128.7	1108.8	1082.3	1056.9	1032.6	1013.9	1007.2
32.5°	1292.2	1270.1	1249.1	1246.9	1227.0	1200.5	1168.5	1133.1	1097.8	1068.0	1053.6
35°	1434.6	1401.5	1381.6	1376.1	1347.4	1314.3	1278.9	1233.6	1183.9	1142.0	1115.5
37.5°	1608.0	1573.8	1539.6	1540.7	1500.9	1462.3	1414.8	1359.5	1296.6	1238.1	1200.5
40°	1822.3	1773.7	1729.5	1719.6	1685.3	1631.2	1579.3	1515.3	1438.0	1360.6	1306.5
42.5°	2081.8	2002.3	1941.6	1932.7	1887.5	1821.2	1758.2	1673.2	1594.8	1500.9	1435.7
45°	2376.7	2249.7	2176.8	2163.6	2090.7	2023.3	1947.1	1856.5	1760.4	1654.4	1577.1
47.5°	2743.4	2562.3	2438.6	2416.5	2316.0	2227.6	2148.1	2047.6	1932.7	1814.6	1729.5
50°	3170.8	2903.5	2736.8	2702.5	2567.8	2464.0	2362.4	2236.5	2113.9	1990.2	1891.9
52.5°	3599.3	3312.2	3090.2	3048.2	2849.4	2710.3	2576.6	2450.7	2306.0	2183.4	2071.9
55°	3943.9	3752.8	3495.5	3437.0	3152.0	2963.2	2787.6	2644.0	2500.4	2403.2	2271.8
57.5°	4151.5	4141.6	3938.4	3857.7	3467.9	3188.5	2993.0	2829.5	2690.4	2649.5	2475.0
60°	4146.0	4403.3	4316.1	4255.3	3787.1	3419.3	3165.3	2988.6	2873.7	2920.1	2679.3
62.5°	3893.1	4414.4	4519.3	4502.7	4127.2	3604.8	3306.6	3124.4	3063.7	3201.7	2891.4
63°	3801.4	4389.0	4528.1	4521.5	4192.4	3640.2	3330.9	3150.9	3101.2	3273.5	2930.0
65°	3212.8	4167.0	4421.0	4450.8	4332.6	3761.7	3387.3	3218.3	3212.8	3433.6	3021.7
67.5°	1958.1	3520.9	3938.4	3995.8	4135.0	3800.3	3355.2	3195.1	3274.6	3456.8	2994.1
70°	837.2	2323.7	3165.3	3258.0	3598.2	3608.1	3263.6	3100.1	3260.3	3275.7	2797.5
72.5°	495.9	1095.6	2154.7	2356.8	2847.2	3104.5	3053.7	2934.4	3071.4	2877.0	2382.2
75°	351.2	512.5	1094.5	1309.8	1982.4	2370.1	2565.6	2620.8	2615.3	2281.7	1788.1
77.5°	251.8	329.1	461.6	544.5	1106.6	1521.9	1760.4	1921.7	1869.8	1527.4	1102.2
80°	175.6	227.5	282.7	300.4	513.6	781.9	927.7	998.4	967.5	763.2	493.7
82.5°	127.0	149.1	182.2	193.3	258.4	361.1	429.6	378.8	363.4	281.6	213.2
85°	98.3	96.1	113.8	118.2	151.3	188.9	193.3	150.2	131.4	117.1	119.3
87.5°	69.6	59.6	60.7	63.0	78.4	100.5	98.3	61.8	53.0	56.3	64.1
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6	714.6
2.5°	719.0	720.1	722.3	723.4	725.6	725.6	727.8	728.9	731.1	733.3	734.4
5°	732.2	735.5	740.0	742.2	746.6	749.9	754.3	756.5	760.9	764.3	768.7
7.5°	752.1	757.6	763.2	769.8	776.4	781.9	786.3	791.9	799.6	805.1	808.4
10°	770.9	778.6	788.6	796.3	806.2	814.0	820.6	830.5	839.4	847.1	851.5
12.5°	795.2	805.1	815.1	827.2	840.5	850.4	860.3	873.6	885.7	894.6	899.0
15°	823.9	836.0	847.1	861.4	876.9	890.2	904.5	918.9	927.7	927.7	925.5
17.5°	853.7	863.7	876.9	893.5	914.5	931.0	938.8	941.0	937.7	929.9	924.4
20°	883.5	892.4	906.7	926.6	948.7	952.0	944.3	934.3	924.4	911.1	902.3
22.5°	907.8	920.0	942.1	965.3	966.4	947.6	926.6	910.0	894.6	879.1	862.6
25°	936.5	953.1	982.9	991.8	963.1	927.7	897.9	873.6	848.2	822.8	804.0
27.5°	971.9	996.2	1026.0	1000.6	944.3	894.6	853.7	817.3	784.1	748.8	727.8
30°	1009.4	1047.0	1053.6	987.4	912.3	848.2	793.0	737.8	695.8	663.8	651.6
32.5°	1054.7	1103.3	1063.6	964.2	869.2	785.2	711.2	645.0	609.6	589.8	584.2
35°	1123.2	1163.0	1069.1	939.9	819.5	710.1	617.4	564.4	542.3	529.0	522.4
37.5°	1221.5	1220.4	1068.0	910.0	762.1	628.4	542.3	504.7	487.0	476.0	463.9
40°	1336.3	1264.6	1061.3	867.0	684.7	550.0	490.4	455.0	438.5	425.2	410.8
42.5°	1450.1	1294.4	1042.6	802.9	588.7	493.7	452.8	420.8	403.1	388.8	368.9
45°	1548.4	1306.5	1006.1	714.6	502.5	449.5	428.5	400.9	379.9	357.8	342.4
47.5°	1625.7	1304.3	947.6	610.7	445.1	418.6	408.6	389.9	364.5	336.8	317.0
50°	1690.9	1287.8	868.1	519.1	406.4	391.0	387.7	382.1	341.3	318.1	305.9
52.5°	1750.5	1263.5	783.0	457.2	373.3	360.0	366.7	361.1	332.4	312.6	300.4
55°	1832.2	1246.9	699.1	409.7	334.6	331.3	336.8	344.6	326.9	308.1	294.9
57.5°	1928.3	1255.7	635.0	356.7	298.2	300.4	319.2	330.2	321.4	301.5	288.3
60°	2038.8	1282.2	578.7	305.9	268.4	273.9	301.5	317.0	315.9	292.7	277.2
62.5°	2162.5	1309.8	489.3	267.3	243.0	251.8	280.5	300.4	303.7	283.8	265.1
63°	2186.8	1312.1	466.1	259.5	238.6	248.5	275.0	296.0	300.4	281.6	262.9
65°	2246.4	1292.2	375.5	238.6	220.9	231.9	258.4	277.2	286.0	269.5	254.0
67.5°	2196.7	1129.8	282.7	213.2	206.5	214.3	237.5	255.1	262.9	255.1	239.7
70°	2008.9	821.7	220.9	190.0	191.1	196.6	214.3	230.8	239.7	237.5	223.1
72.5°	1618.0	466.1	184.4	170.1	173.4	180.0	192.2	207.6	215.4	214.3	204.3
75°	1065.8	238.6	155.7	152.4	154.6	160.1	169.0	181.1	190.0	188.9	184.4
77.5°	527.9	165.7	133.6	134.7	135.8	140.3	146.9	157.9	163.5	164.6	163.5
80°	217.6	129.2	114.9	116.0	117.1	120.4	124.8	134.7	138.1	140.3	141.4
82.5°	130.3	98.3	91.7	93.9	95.0	98.3	101.6	110.4	113.8	117.1	117.1
85°	86.1	68.5	66.3	68.5	70.7	72.9	74.0	79.5	85.0	89.5	91.7
87.5°	46.4	40.9	39.8	40.9	40.9	43.1	45.3	50.8	57.4	61.8	64.1
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):

	160°	165°	170°	175°	180°
0°	714.6	714.6	714.6	714.6	714.6
2.5°	732.2	733.3	732.2	733.3	734.4
5°	768.7	770.9	769.8	769.8	774.2
7.5°	810.6	815.1	815.1	817.3	819.5
10°	855.9	860.3	863.7	863.7	867.0
12.5°	901.2	903.4	906.7	906.7	906.7
15°	924.4	923.3	922.2	921.1	921.1
17.5°	921.1	916.7	914.5	912.3	913.4
20°	896.8	889.1	886.9	883.5	885.7
22.5°	854.8	843.8	839.4	833.8	836.0
25°	791.9	778.6	776.4	769.8	773.1
27.5°	719.0	712.4	711.2	710.1	715.7
30°	650.5	652.7	653.8	656.0	661.5
32.5°	587.6	592.0	593.1	594.2	601.9
35°	525.7	520.2	525.7	523.5	530.1
37.5°	458.3	453.9	449.5	444.0	448.4
40°	402.0	394.3	381.0	374.4	375.5
42.5°	357.8	347.9	336.8	330.2	330.2
45°	329.1	317.0	307.0	302.6	302.6
47.5°	307.0	301.5	296.0	292.7	292.7
50°	298.2	291.6	288.3	286.0	286.0
52.5°	291.6	284.9	281.6	279.4	277.2
55°	286.0	276.1	272.8	271.7	271.7
57.5°	278.3	269.5	265.1	264.0	264.0
60°	266.2	259.5	255.1	254.0	254.0
62.5°	254.0	247.4	243.0	243.0	243.0
63°	251.8	244.1	240.8	240.8	240.8
65°	241.9	234.1	230.8	230.8	229.7
67.5°	228.6	220.9	218.7	218.7	216.5
70°	213.2	206.5	204.3	205.4	201.0
72.5°	197.7	191.1	187.8	187.8	183.3
75°	180.0	173.4	169.0	167.9	163.5
77.5°	160.1	154.6	150.2	145.8	143.6
80°	139.2	134.7	129.2	125.9	122.6
82.5°	117.1	112.7	109.3	113.8	97.2
85°	91.7	87.2	82.8	89.5	69.6
87.5°	67.4	65.2	60.7	53.0	46.4
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)