

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: P239109

Luminaire Tested: **ARCH-AF24-70-D-U-T2U-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239109
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-7030
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 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: 7517 lumens
Efficiency: N/A
Efficacy: 101.6 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

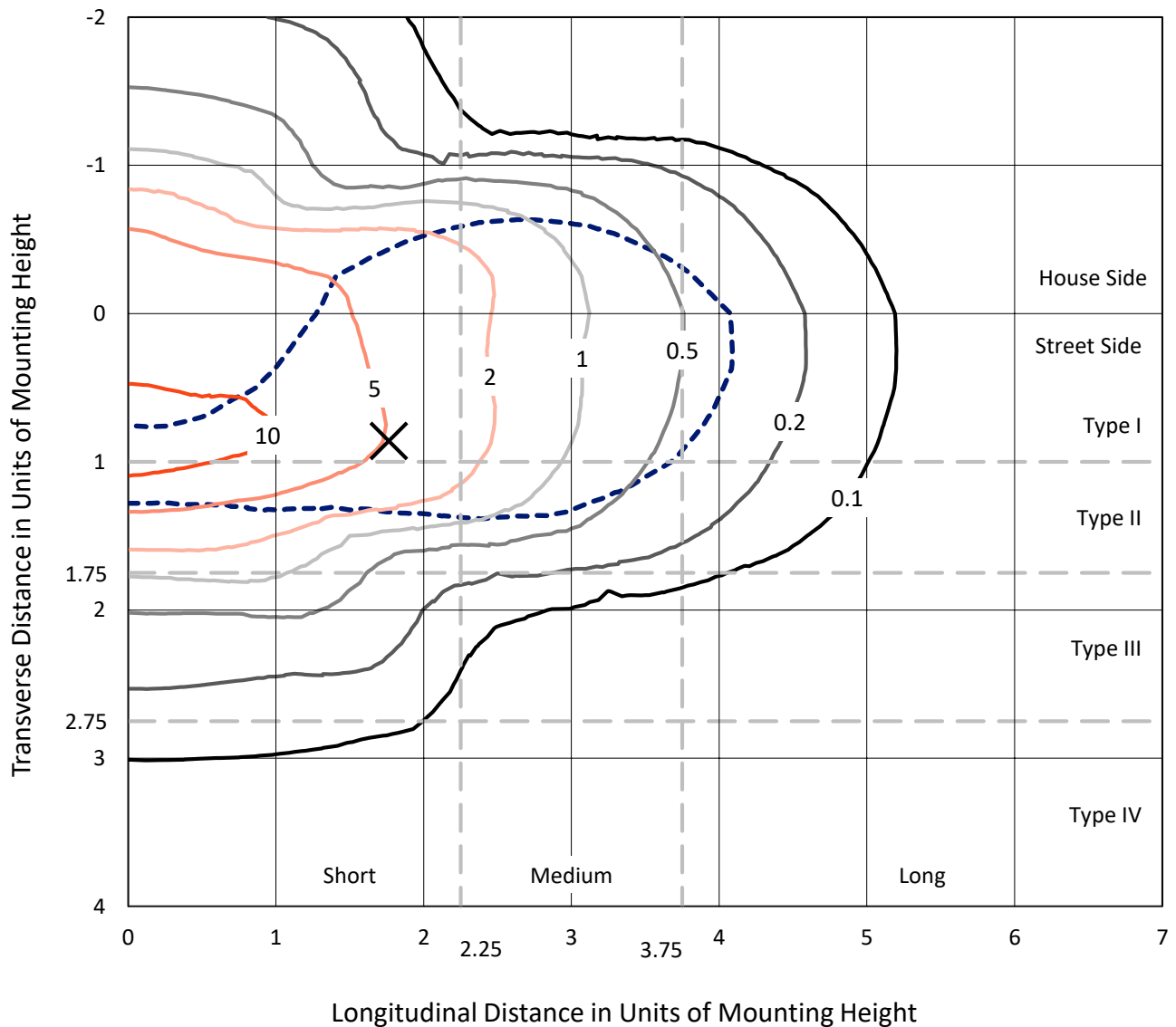
Input Watts (W): 74
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

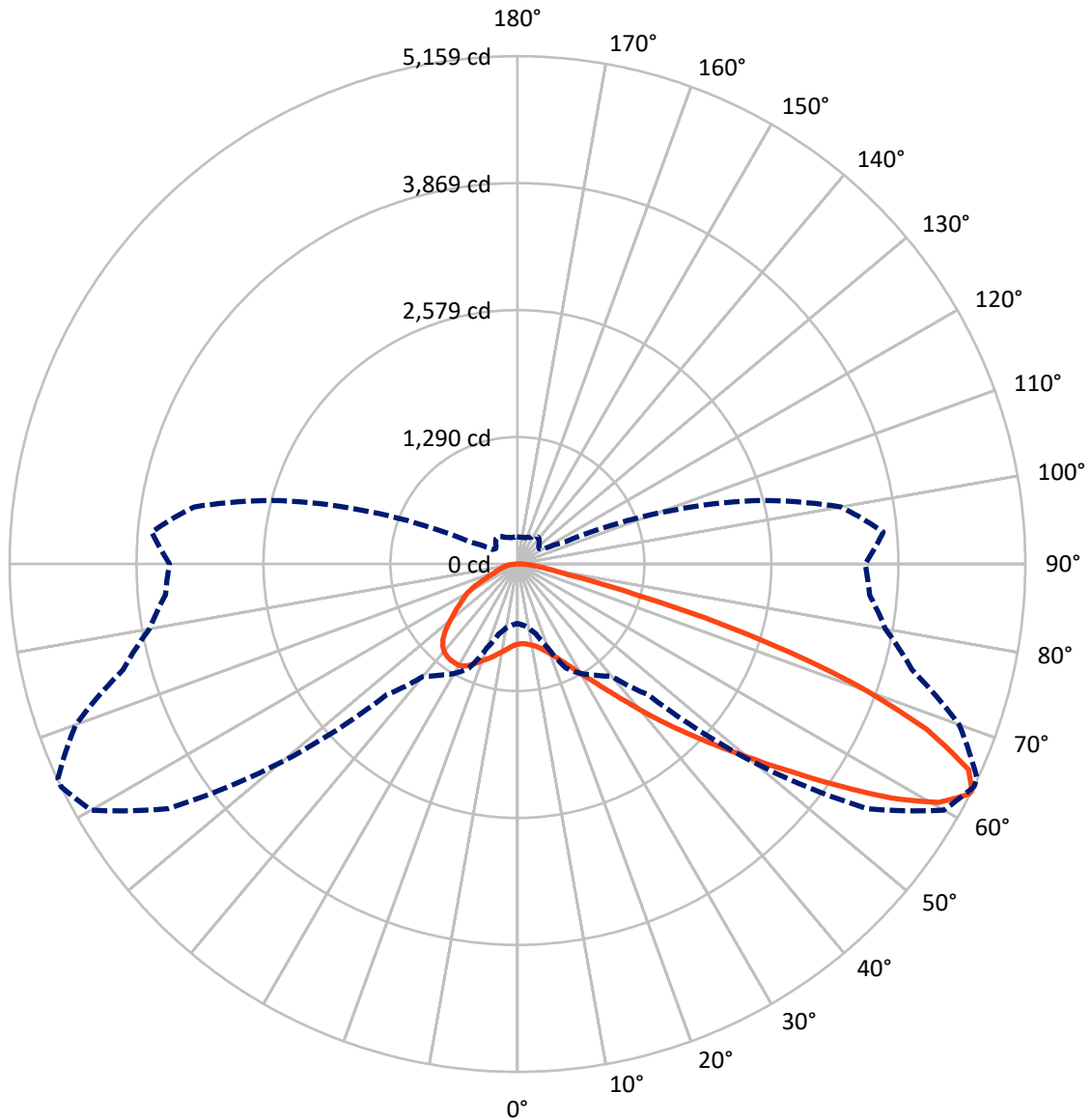
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13.2 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	2209.7	0.0	2209.7
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	5307.3	0.0	5307.3
	% Fixture	70.6	0.0	70.6
Total	Lumens	7517.0	0.0	7517.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	81.3	1.1
10°-20°	270.7	3.6
20°-30°	508.2	6.8
30°-40°	851.8	11.3
40°-50°	1429.1	19.0
50°-60°	1811.6	24.1
60°-70°	1598.1	21.3
70°-80°	825.0	11.0
80°-90°	141.2	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°	7517.0	100.0
0°-180°	7517.0	100.0



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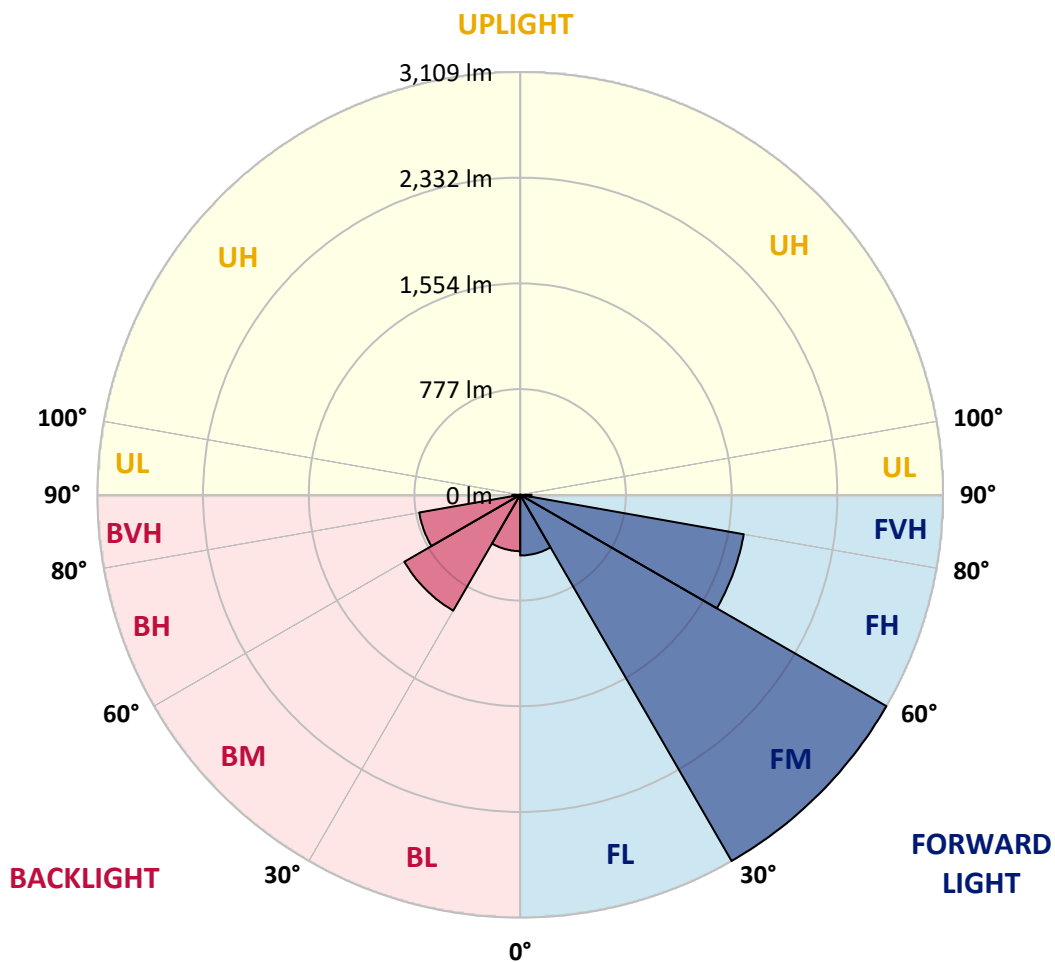
CATALOG NUMBER: ARCH-AF24-70-D-U-T2U-7030

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	446.2	5.9			
FM	(30°-60°)	3108.8	41.4			
FH	(60°-80°)	1669.2	22.2			G1/1800
FVH	(80°-90°)	83.1	1.1			G1/100
BL	(0°-30°)	414.0	5.5	B1/500		
BM	(30°-60°)	983.7	13.1	B1/1000		
BH	(60°-80°)	753.9	10.0	B2/1000		G2/1000
BVH	(80°-90°)	58.1	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°	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1
2.5°	809.1	807.8	807.8	807.8	807.8	806.5	807.8	810.3	809.1	807.8	810.3
5°	811.6	810.3	810.3	810.3	811.6	810.3	811.6	815.3	812.8	812.8	815.3
7.5°	817.9	816.6	817.9	816.6	816.6	816.6	817.9	821.6	820.4	821.6	825.4
10°	825.4	825.4	825.4	825.4	825.4	825.4	827.9	830.4	831.7	833.0	838.0
12.5°	848.1	848.1	848.1	846.8	846.8	843.0	848.1	850.6	853.1	855.6	859.4
15°	895.9	895.9	894.6	889.6	889.6	882.0	883.3	884.5	884.5	887.1	889.6
17.5°	958.8	957.5	955.0	951.2	946.2	937.4	934.9	932.4	928.6	927.3	927.3
20°	1046.9	1045.6	1040.6	1030.5	1024.2	1010.4	1000.3	990.2	986.5	980.2	978.9
22.5°	1172.7	1172.7	1162.6	1147.5	1142.5	1113.6	1084.6	1063.2	1055.7	1046.9	1046.9
25°	1324.9	1323.7	1309.8	1292.2	1270.8	1240.6	1205.4	1176.5	1157.6	1137.5	1129.9
27.5°	1507.4	1503.6	1484.7	1463.3	1423.1	1385.3	1343.8	1313.6	1280.9	1255.7	1233.1
30°	1721.3	1717.5	1684.8	1644.5	1603.0	1565.3	1504.9	1468.4	1416.8	1386.6	1361.4
32.5°	1969.2	1965.4	1906.2	1867.2	1823.2	1776.6	1704.9	1647.0	1581.6	1538.8	1503.6
35°	2285.0	2269.9	2185.6	2131.5	2062.3	2015.7	1940.2	1862.2	1785.5	1725.1	1673.5
37.5°	2626.0	2608.4	2534.1	2453.6	2385.6	2329.0	2222.1	2123.9	2033.3	1950.3	1886.1
40°	2982.1	2935.5	2856.2	2797.1	2750.5	2696.4	2584.4	2481.3	2339.1	2246.0	2149.1
42.5°	3228.7	3183.4	3128.0	3089.0	3066.4	3024.8	2961.9	2872.6	2745.5	2748.0	2492.6
45°	3391.0	3324.3	3286.5	3289.1	3297.9	3297.9	3286.5	3272.7	3217.3	3255.1	3041.2
47.5°	3333.1	3289.1	3265.2	3315.5	3378.4	3441.3	3514.3	3593.6	3684.2	3791.1	3528.1
50°	2993.4	3009.7	3021.1	3128.0	3262.6	3406.1	3573.4	3789.8	4042.8	4091.8	3964.7
52.5°	2451.1	2486.3	2524.1	2687.6	2865.0	3112.9	3406.1	3763.4	4103.2	4303.2	4290.6
55°	1903.7	1947.8	2028.3	2150.3	2291.3	2525.3	2887.7	3438.8	3968.5	4286.9	4480.6
57.5°	1355.1	1419.3	1525.0	1694.9	1819.4	1951.5	2219.6	2831.1	3411.1	4003.8	4449.2
60°	900.9	931.1	1000.3	1211.7	1421.8	1560.2	1750.2	1971.7	2446.0	3262.6	4124.5
62.5°	639.2	659.3	702.1	797.7	987.7	1238.1	1352.6	1454.5	1606.8	2098.8	3311.7
63°	604.0	621.6	656.8	737.3	908.5	1167.7	1284.7	1377.8	1488.5	1877.3	3133.0
65°	500.8	508.3	527.2	566.2	658.1	873.2	1064.5	1121.1	1140.0	1206.7	1962.9
67.5°	422.8	427.8	434.1	445.4	481.9	581.3	794.0	865.7	844.3	799.0	970.1
70°	367.4	371.2	381.2	395.1	407.7	432.8	546.1	653.0	629.1	567.5	593.9
72.5°	293.2	299.5	310.8	334.7	359.9	392.6	420.3	486.9	471.8	412.7	419.0
75°	231.5	235.3	245.4	263.0	286.9	324.6	378.7	401.4	359.9	304.5	304.5
77.5°	183.7	187.5	196.3	210.1	225.2	251.7	289.4	348.5	323.4	229.0	227.7
80°	138.4	142.2	151.0	163.6	178.7	197.5	220.2	246.6	296.9	213.9	171.1
82.5°	101.9	103.2	118.3	127.1	132.1	147.2	166.1	181.2	203.8	197.5	152.2
85°	76.8	75.5	85.6	91.9	93.1	96.9	108.2	123.3	133.4	128.3	118.3
87.5°	42.8	37.7	44.0	50.3	50.3	51.6	54.1	62.9	71.7	69.2	62.9
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°	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1
2.5°	810.3	810.3	809.1	809.1	810.3	810.3	809.1	812.8	815.3	815.3	816.6
5°	814.1	815.3	814.1	814.1	815.3	815.3	816.6	820.4	824.2	826.7	830.4
7.5°	825.4	826.7	825.4	825.4	826.7	827.9	830.4	835.5	838.0	843.0	849.3
10°	838.0	839.3	838.0	839.3	840.5	841.8	845.5	849.3	853.1	858.1	868.2
12.5°	860.6	861.9	859.4	860.6	864.4	864.4	866.9	869.5	875.7	882.0	892.1
15°	892.1	892.1	889.6	890.8	894.6	894.6	895.9	898.4	905.9	913.5	923.6
17.5°	928.6	931.1	929.8	931.1	933.6	934.9	934.9	937.4	942.4	947.5	957.5
20°	977.7	978.9	976.4	978.9	981.4	978.9	976.4	975.1	977.7	980.2	991.5
22.5°	1044.3	1043.1	1036.8	1036.8	1036.8	1031.8	1025.5	1017.9	1017.9	1014.1	1023.0
25°	1123.6	1119.8	1111.0	1112.3	1103.5	1095.9	1084.6	1073.3	1063.2	1059.4	1060.7
27.5°	1216.7	1209.2	1200.4	1197.9	1189.0	1175.2	1156.3	1134.9	1118.6	1106.0	1103.5
30°	1333.7	1317.4	1302.3	1299.8	1285.9	1263.3	1233.1	1204.1	1176.5	1155.1	1147.5
32.5°	1472.2	1447.0	1423.1	1420.6	1397.9	1367.7	1331.2	1291.0	1250.7	1216.7	1200.4
35°	1634.5	1596.7	1574.1	1567.8	1535.1	1497.3	1457.1	1405.5	1348.8	1301.0	1270.8
37.5°	1832.0	1793.0	1754.0	1755.3	1710.0	1665.9	1611.8	1548.9	1477.2	1410.5	1367.7
40°	2076.1	2020.8	1970.4	1959.1	1920.1	1858.4	1799.3	1726.3	1638.2	1550.2	1488.5
42.5°	2371.8	2281.2	2212.0	2201.9	2150.3	2074.9	2003.1	1906.2	1816.9	1710.0	1635.7
45°	2707.8	2563.1	2480.0	2464.9	2381.9	2305.1	2218.3	2115.1	2005.7	1884.9	1796.8
47.5°	3125.5	2919.1	2778.2	2753.1	2638.6	2537.9	2447.3	2332.8	2201.9	2067.3	1970.4
50°	3612.4	3307.9	3117.9	3078.9	2925.4	2807.2	2691.4	2548.0	2408.3	2267.4	2155.4
52.5°	4100.6	3773.5	3520.6	3472.8	3246.3	3087.7	2935.5	2792.1	2627.2	2487.6	2360.5
55°	4493.2	4275.5	3982.4	3915.7	3591.0	3375.9	3175.8	3012.3	2848.7	2738.0	2588.2
57.5°	4729.8	4718.4	4486.9	4395.1	3950.9	3632.6	3409.9	3223.6	3065.1	3018.5	2819.7
60°	4723.5	5016.6	4917.2	4848.0	4314.5	3895.5	3606.1	3404.8	3274.0	3326.8	3052.5
62.5°	4435.3	5029.2	5148.8	5129.9	4702.1	4106.9	3767.2	3559.6	3490.4	3647.7	3294.1
63°	4330.9	5000.3	5158.8	5151.3	4776.3	4147.2	3794.9	3589.8	3533.2	3729.5	3338.1
65°	3660.3	4747.4	5036.8	5070.7	4936.1	4285.6	3859.1	3666.5	3660.3	3911.9	3442.6
67.5°	2230.9	4011.3	4486.9	4552.3	4710.9	4329.6	3822.6	3640.1	3730.7	3938.3	3411.1
70°	953.8	2647.4	3606.1	3711.8	4099.4	4110.7	3718.1	3531.9	3714.4	3732.0	3187.1
72.5°	565.0	1248.2	2454.8	2685.1	3243.8	3536.9	3479.1	3343.2	3499.2	3277.7	2714.0
75°	400.1	583.8	1246.9	1492.3	2258.6	2700.2	2922.9	2985.8	2979.5	2599.5	2037.1
77.5°	286.9	375.0	525.9	620.3	1260.8	1733.9	2005.7	2189.4	2130.2	1740.2	1255.7
80°	200.1	259.2	322.1	342.2	585.1	890.8	1056.9	1137.5	1102.2	869.5	562.4
82.5°	144.7	169.9	207.6	220.2	294.4	411.4	489.5	431.6	414.0	320.9	242.8
85°	112.0	109.5	129.6	134.6	172.4	215.2	220.2	171.1	149.7	133.4	135.9
87.5°	79.3	67.9	69.2	71.7	89.3	114.5	112.0	70.5	60.4	64.2	73.0
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°	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1	814.1
2.5°	819.1	820.4	822.9	824.2	826.7	826.7	829.2	830.4	833.0	835.5	836.7
5°	834.2	838.0	843.0	845.5	850.6	854.4	859.4	861.9	866.9	870.7	875.7
7.5°	856.9	863.2	869.5	877.0	884.5	890.8	895.9	902.2	911.0	917.3	921.0
10°	878.3	887.1	898.4	907.2	918.5	927.3	934.9	946.2	956.3	965.1	970.1
12.5°	905.9	917.3	928.6	942.4	957.5	968.9	980.2	995.3	1009.1	1019.2	1024.2
15°	938.7	952.5	965.1	981.4	999.1	1014.1	1030.5	1046.9	1056.9	1056.9	1054.4
17.5°	972.6	984.0	999.1	1017.9	1041.8	1060.7	1069.5	1072.0	1068.3	1059.4	1053.2
20°	1006.6	1016.7	1033.0	1055.7	1080.8	1084.6	1075.8	1064.5	1053.2	1038.1	1028.0
22.5°	1034.3	1048.1	1073.3	1099.7	1101.0	1079.6	1055.7	1036.8	1019.2	1001.6	982.7
25°	1067.0	1085.9	1119.8	1129.9	1097.2	1056.9	1023.0	995.3	966.3	937.4	916.0
27.5°	1107.3	1134.9	1168.9	1140.0	1075.8	1019.2	972.6	931.1	893.4	853.1	829.2
30°	1150.0	1192.8	1200.4	1124.9	1039.3	966.3	903.4	840.5	792.7	756.2	742.4
32.5°	1201.6	1257.0	1211.7	1098.5	990.2	894.6	810.3	734.8	694.6	671.9	665.6
35°	1279.6	1324.9	1218.0	1070.8	933.6	809.1	703.4	643.0	617.8	602.7	595.2
37.5°	1391.6	1390.4	1216.7	1036.8	868.2	715.9	617.8	575.0	554.9	542.3	528.5
40°	1522.5	1440.7	1209.2	987.7	780.1	626.6	558.7	518.4	499.5	484.4	468.1
42.5°	1652.1	1474.7	1187.8	914.7	670.6	562.4	515.9	479.4	459.3	442.9	420.3
45°	1764.1	1488.5	1146.3	814.1	572.5	512.1	488.2	456.7	432.8	407.7	390.1
47.5°	1852.1	1486.0	1079.6	695.8	507.1	476.9	465.6	444.2	415.2	383.8	361.1
50°	1926.4	1467.1	989.0	591.4	463.0	445.4	441.6	435.4	388.8	362.4	348.5
52.5°	1994.3	1439.4	892.1	520.9	425.3	410.2	417.7	411.4	378.7	356.1	342.2
55°	2087.4	1420.6	796.5	466.8	381.2	377.5	383.8	392.6	372.4	351.1	336.0
57.5°	2196.9	1430.6	723.5	406.4	339.7	342.2	363.6	376.2	366.2	343.5	328.4
60°	2322.7	1460.8	659.3	348.5	305.8	312.0	343.5	361.1	359.9	333.4	315.8
62.5°	2463.7	1492.3	557.4	304.5	276.8	286.9	319.6	342.2	346.0	323.4	302.0
63°	2491.3	1494.8	531.0	295.7	271.8	283.1	313.3	337.2	342.2	320.9	299.5
65°	2559.3	1472.2	427.8	271.8	251.7	264.2	294.4	315.8	325.9	307.0	289.4
67.5°	2502.7	1287.2	322.1	242.8	235.3	244.1	270.5	290.7	299.5	290.7	273.0
70°	2288.8	936.1	251.7	216.4	217.7	224.0	244.1	263.0	273.0	270.5	254.2
72.5°	1843.3	531.0	210.1	193.8	197.5	205.1	218.9	236.6	245.4	244.1	232.8
75°	1214.2	271.8	177.4	173.6	176.2	182.4	192.5	206.4	216.4	215.2	210.1
77.5°	601.4	188.7	152.2	153.5	154.8	159.8	167.3	179.9	186.2	187.5	186.2
80°	247.9	147.2	130.9	132.1	133.4	137.1	142.2	153.5	157.3	159.8	161.1
82.5°	148.5	112.0	104.4	107.0	108.2	112.0	115.8	125.8	129.6	133.4	133.4
85°	98.1	78.0	75.5	78.0	80.5	83.0	84.3	90.6	96.9	101.9	104.4
87.5°	52.8	46.6	45.3	46.6	46.6	49.1	51.6	57.9	65.4	70.5	73.0
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°	814.1	814.1	814.1	814.1	814.1
2.5°	834.2	835.5	834.2	835.5	836.7
5°	875.7	878.3	877.0	877.0	882.0
7.5°	923.6	928.6	928.6	931.1	933.6
10°	975.1	980.2	984.0	984.0	987.7
12.5°	1026.7	1029.2	1033.0	1033.0	1033.0
15°	1053.2	1051.9	1050.6	1049.4	1049.4
17.5°	1049.4	1044.3	1041.8	1039.3	1040.6
20°	1021.7	1012.9	1010.4	1006.6	1009.1
22.5°	973.9	961.3	956.3	950.0	952.5
25°	902.2	887.1	884.5	877.0	880.8
27.5°	819.1	811.6	810.3	809.1	815.3
30°	741.1	743.6	744.9	747.4	753.7
32.5°	669.4	674.4	675.7	676.9	685.7
35°	598.9	592.6	598.9	596.4	604.0
37.5°	522.2	517.1	512.1	505.8	510.8
40°	458.0	449.2	434.1	426.5	427.8
42.5°	407.7	396.3	383.8	376.2	376.2
45°	375.0	361.1	349.8	344.8	344.8
47.5°	349.8	343.5	337.2	333.4	333.4
50°	339.7	332.2	328.4	325.9	325.9
52.5°	332.2	324.6	320.9	318.3	315.8
55°	325.9	314.6	310.8	309.5	309.5
57.5°	317.1	307.0	302.0	300.7	300.7
60°	303.2	295.7	290.7	289.4	289.4
62.5°	289.4	281.8	276.8	276.8	276.8
63°	286.9	278.1	274.3	274.3	274.3
65°	275.6	266.7	263.0	263.0	261.7
67.5°	260.5	251.7	249.1	249.1	246.6
70°	242.8	235.3	232.8	234.0	229.0
72.5°	225.2	217.7	213.9	213.9	208.9
75°	205.1	197.5	192.5	191.3	186.2
77.5°	182.4	176.2	171.1	166.1	163.6
80°	158.5	153.5	147.2	143.4	139.7
82.5°	133.4	128.3	124.6	129.6	110.7
85°	104.4	99.4	94.4	101.9	79.3
87.5°	76.8	74.2	69.2	60.4	52.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)