

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: P239122

Luminaire Tested: **ARCH-AF24-60-D-U-T2U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239122
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-AF24-60-D-U-T2U
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 800mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7792.8 lumens
Efficiency: N/A
Efficacy: 121.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

Input Watts (W): 64
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

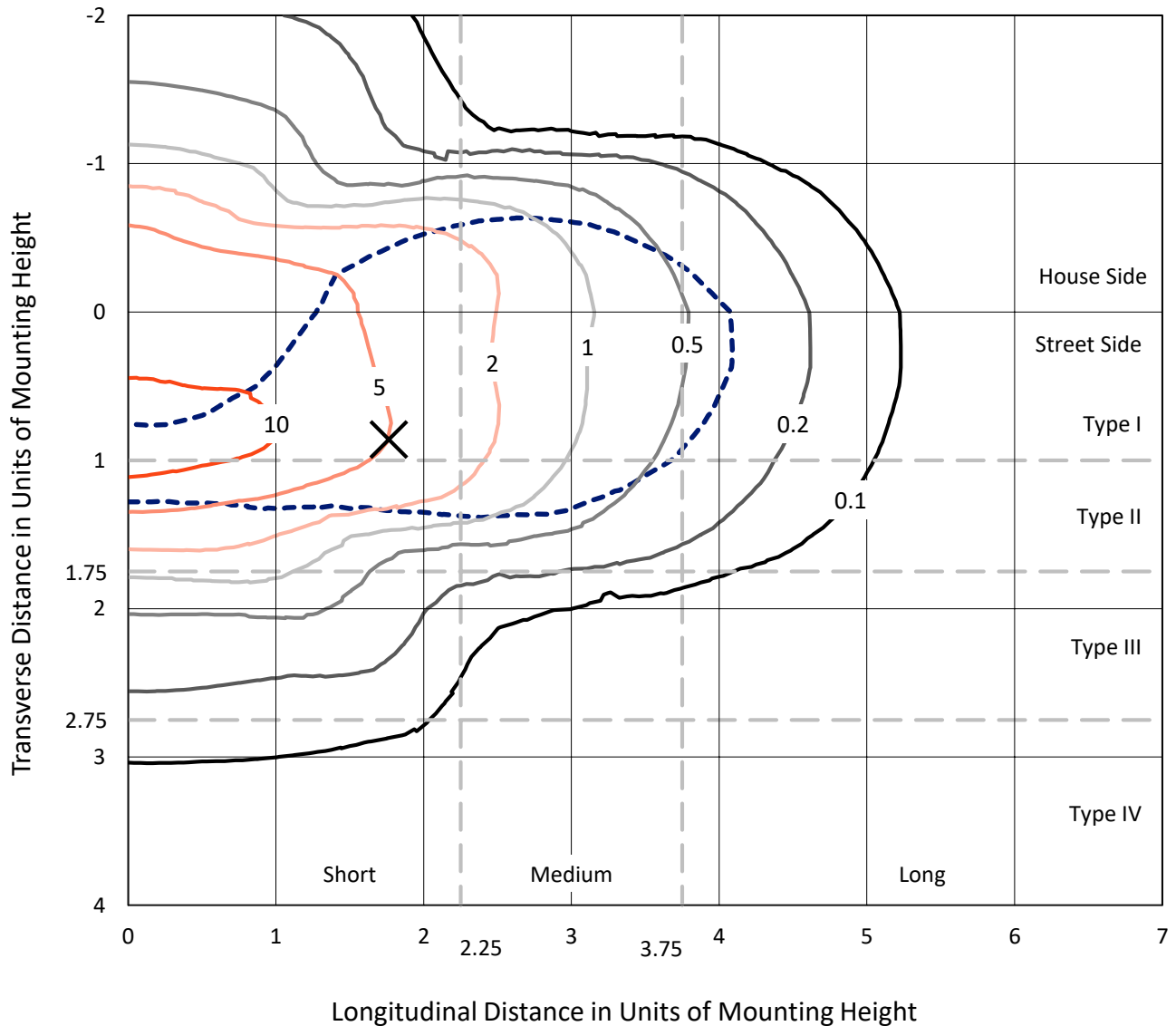


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

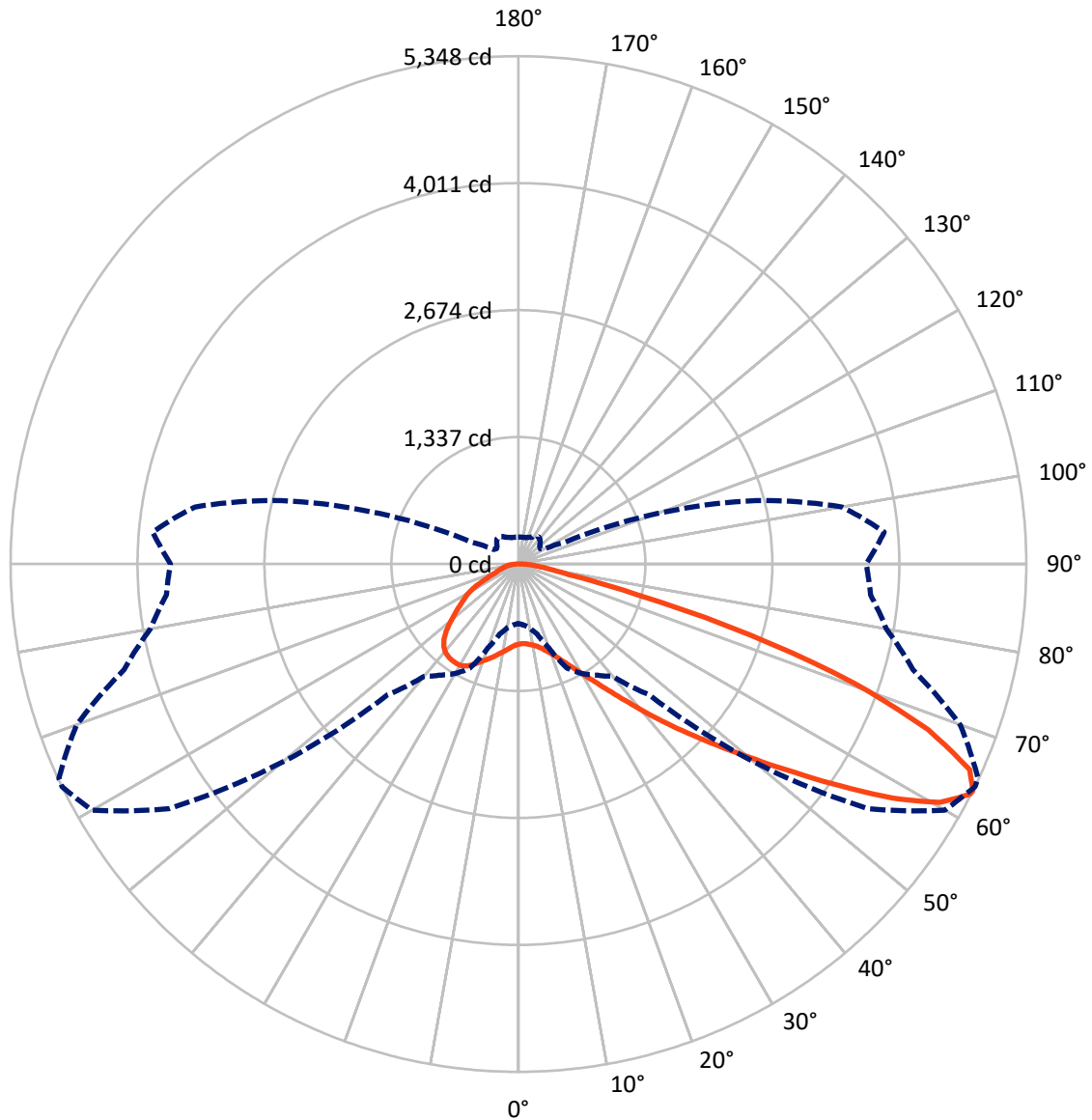


Based on 10 foot mounting height. Maximum calculated value = 13.7 fc
 Type II - Short - Semi-Cutoff

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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	2290.8	0.0	2290.8
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	5502.0	0.0	5502.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	7792.8	0.0	7792.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	84.3	1.1
10°-20°	280.7	3.6
20°-30°	526.8	6.8
30°-40°	883.0	11.3
40°-50°	1481.5	19.0
50°-60°	1878.1	24.1
60°-70°	1656.8	21.3
70°-80°	855.3	11.0
80°-90°	146.4	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°	7792.8	100.0
0°-180°	7792.8	100.0



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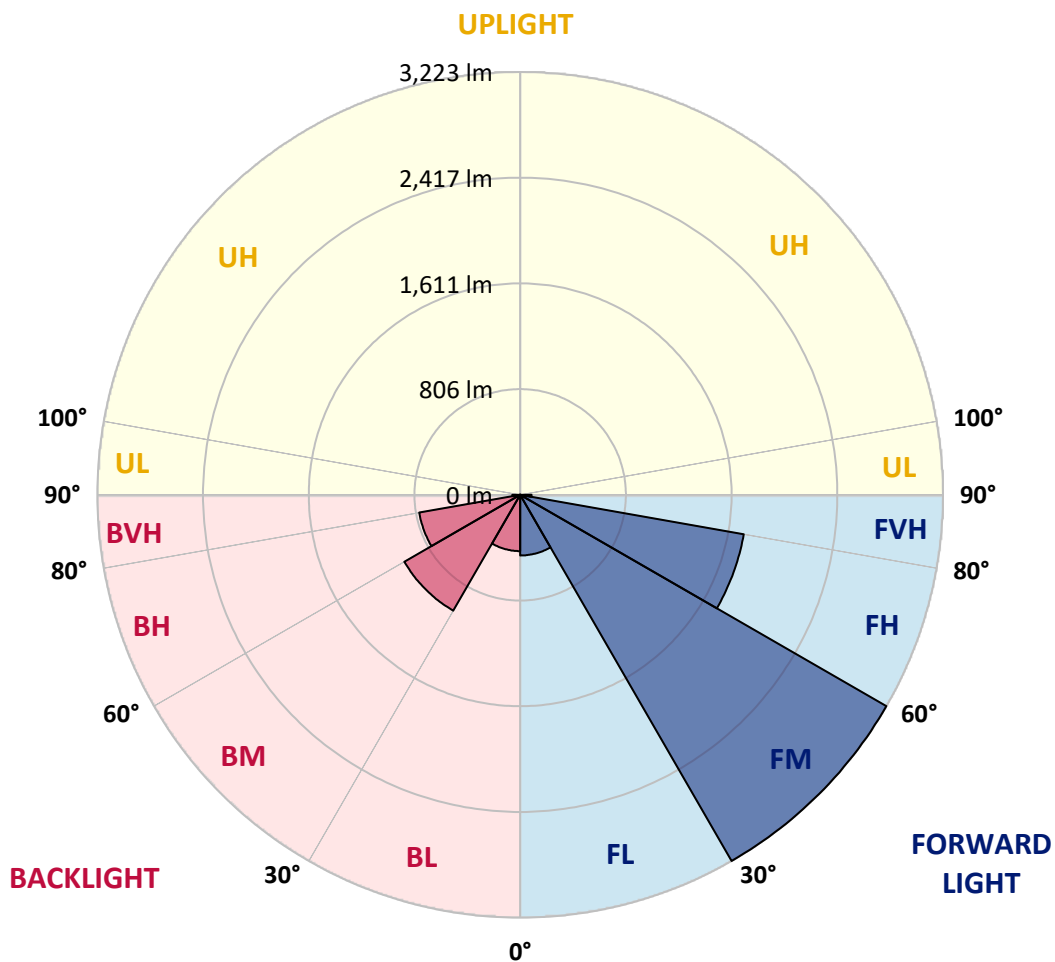
CATALOG NUMBER: ARCH-AF24-60-D-U-T2U

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	462.5	5.9			
FM	(30°-60°)	3222.9	41.4			
FH	(60°-80°)	1730.5	22.2			G1/1800
FVH	(80°-90°)	86.1	1.1			G1/100
BL	(0°-30°)	429.2	5.5	B1/500		
BM	(30°-60°)	1019.8	13.1	B2/2500		
BH	(60°-80°)	781.6	10.0	B2/1000		G2/1000
BVH	(80°-90°)	60.2	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°	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9
2.5°	838.7	837.5	837.5	837.5	837.5	836.2	837.5	840.0	838.7	837.5	840.0
5°	841.4	840.0	840.0	840.0	841.4	840.0	841.4	845.3	842.7	842.7	845.3
7.5°	847.9	846.6	847.9	846.6	846.6	846.6	847.9	851.8	850.5	851.8	855.7
10°	855.7	855.7	855.7	855.7	855.7	855.7	858.4	860.9	862.2	863.6	868.8
12.5°	879.2	879.2	879.2	877.9	877.9	874.0	879.2	881.8	884.4	887.0	890.9
15°	928.7	928.7	927.4	922.2	922.2	914.4	915.7	917.0	917.0	919.6	922.2
17.5°	994.0	992.7	990.0	986.1	980.9	971.8	969.1	966.6	962.7	961.4	961.4
20°	1085.2	1084.0	1078.8	1068.4	1061.8	1047.5	1037.0	1026.5	1022.6	1016.1	1014.9
22.5°	1215.7	1215.7	1205.2	1189.6	1184.4	1154.4	1124.4	1102.2	1094.5	1085.2	1085.2
25°	1373.5	1372.3	1357.9	1339.7	1317.5	1286.2	1249.6	1219.7	1200.0	1179.2	1171.4
27.5°	1562.7	1558.8	1539.2	1517.0	1475.3	1436.1	1393.2	1361.9	1327.9	1301.8	1278.4
30°	1784.4	1780.5	1746.6	1704.8	1661.8	1622.7	1560.1	1522.3	1468.8	1437.5	1411.4
32.5°	2041.4	2037.5	1976.2	1935.7	1890.1	1841.8	1767.5	1707.5	1639.7	1595.3	1558.8
35°	2368.8	2353.2	2265.7	2209.7	2138.0	2089.7	2011.4	1930.5	1850.9	1788.3	1734.9
37.5°	2722.4	2704.1	2627.1	2543.7	2473.2	2414.5	2303.6	2201.9	2108.0	2021.9	1955.4
40°	3091.5	3043.2	2961.0	2899.8	2851.5	2795.4	2679.3	2572.3	2424.9	2328.4	2228.0
42.5°	3347.2	3300.1	3242.8	3202.3	3178.9	3135.9	3070.6	2978.0	2846.3	2848.8	2584.1
45°	3515.4	3446.3	3407.1	3409.8	3418.9	3418.9	3407.1	3392.8	3335.4	3374.5	3152.8
47.5°	3455.4	3409.8	3384.9	3437.1	3502.4	3567.6	3643.2	3725.4	3819.4	3930.2	3657.6
50°	3103.2	3120.2	3132.0	3242.8	3382.4	3531.0	3704.5	3928.9	4191.1	4242.0	4110.2
52.5°	2541.0	2577.5	2616.7	2786.2	2970.1	3227.1	3531.0	3901.5	4253.7	4461.1	4448.1
55°	1973.6	2019.2	2102.8	2229.2	2375.4	2617.9	2993.7	3565.0	4114.1	4444.2	4645.0
57.5°	1404.8	1471.4	1581.0	1757.0	1886.2	2023.2	2301.0	2934.9	3536.2	4150.6	4612.5
60°	934.0	965.3	1037.0	1256.2	1474.0	1617.5	1814.4	2044.1	2535.8	3382.4	4275.9
62.5°	662.7	683.5	727.8	827.0	1024.0	1283.6	1402.3	1507.9	1665.8	2175.8	3433.2
63°	626.1	644.4	680.9	764.3	941.8	1210.5	1331.8	1428.3	1543.1	1946.2	3248.0
65°	519.1	527.0	546.6	587.0	682.2	905.3	1103.6	1162.3	1181.8	1251.0	2034.9
67.5°	438.3	443.6	450.0	461.8	499.6	602.6	823.1	897.4	875.2	828.3	1005.7
70°	380.8	384.8	395.3	409.6	422.7	448.8	566.1	677.0	652.2	588.3	615.7
72.5°	303.9	310.5	322.2	347.0	373.1	406.9	435.7	504.8	489.2	427.9	434.3
75°	240.0	244.0	254.4	272.6	297.4	336.6	392.6	416.1	373.1	315.7	315.7
77.5°	190.5	194.4	203.5	217.9	233.5	260.9	300.0	361.3	335.2	237.4	236.1
80°	143.5	147.4	156.5	169.6	185.3	204.8	228.3	255.6	307.8	221.8	177.4
82.5°	105.7	107.0	122.7	131.8	137.0	152.6	172.2	187.8	211.3	204.8	157.8
85°	79.6	78.3	88.7	95.2	96.6	100.5	112.2	127.9	138.3	133.1	122.7
87.5°	44.4	39.2	45.6	52.2	52.2	53.5	56.1	65.3	74.4	71.7	65.3
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°	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9
2.5°	840.0	840.0	838.7	838.7	840.0	840.0	838.7	842.7	845.3	845.3	846.6
5°	843.9	845.3	843.9	843.9	845.3	845.3	846.6	850.5	854.4	857.0	860.9
7.5°	855.7	857.0	855.7	855.7	857.0	858.4	860.9	866.1	868.8	874.0	880.5
10°	868.8	870.0	868.8	870.0	871.3	872.7	876.6	880.5	884.4	889.7	900.1
12.5°	892.2	893.5	890.9	892.2	896.1	896.1	898.8	901.3	907.9	914.4	924.8
15°	924.8	924.8	922.2	923.5	927.4	927.4	928.7	931.4	939.2	947.0	957.5
17.5°	962.7	965.3	963.9	965.3	967.9	969.1	969.1	971.8	977.0	982.2	992.7
20°	1013.5	1014.9	1012.2	1014.9	1017.4	1014.9	1012.2	1010.9	1013.5	1016.1	1027.9
22.5°	1082.7	1081.4	1074.8	1074.8	1074.8	1069.6	1063.2	1055.3	1055.3	1051.4	1060.5
25°	1164.8	1160.9	1151.8	1153.1	1144.0	1136.2	1124.4	1112.7	1102.2	1098.3	1099.7
27.5°	1261.4	1253.5	1244.4	1241.8	1232.7	1218.3	1198.8	1176.6	1159.6	1146.6	1144.0
30°	1382.7	1365.7	1350.1	1347.4	1333.1	1309.7	1278.4	1248.3	1219.7	1197.5	1189.6
32.5°	1526.1	1500.1	1475.3	1472.7	1449.2	1417.9	1380.1	1338.3	1296.6	1261.4	1244.4
35°	1694.4	1655.3	1631.8	1625.3	1591.4	1552.2	1510.5	1457.0	1398.4	1348.8	1317.5
37.5°	1899.2	1858.8	1818.4	1819.6	1772.7	1727.0	1671.0	1605.7	1531.4	1462.3	1417.9
40°	2152.3	2094.9	2042.7	2031.0	1990.6	1926.6	1865.4	1789.7	1698.4	1607.1	1543.1
42.5°	2458.9	2365.0	2293.1	2282.7	2229.2	2151.0	2076.6	1976.2	1883.6	1772.7	1695.7
45°	2807.1	2657.1	2571.0	2555.3	2469.3	2389.7	2299.7	2192.7	2079.2	1954.0	1862.7
47.5°	3240.2	3026.3	2880.1	2854.0	2735.4	2631.0	2537.1	2418.4	2282.7	2143.2	2042.7
50°	3745.0	3429.3	3232.3	3191.9	3032.7	2910.2	2790.2	2641.5	2496.6	2350.5	2234.4
52.5°	4251.1	3912.0	3649.8	3600.2	3365.4	3201.0	3043.2	2894.5	2723.6	2578.9	2447.1
55°	4658.1	4432.4	4128.5	4059.4	3722.8	3499.7	3292.4	3122.8	2953.3	2838.4	2683.2
57.5°	4903.3	4891.5	4651.6	4556.3	4095.9	3765.9	3535.0	3342.0	3177.6	3129.3	2923.2
60°	4896.8	5200.7	5097.7	5026.0	4472.9	4038.5	3738.5	3529.8	3394.2	3448.9	3164.5
62.5°	4598.1	5213.8	5337.7	5318.1	4874.7	4257.6	3905.4	3690.2	3618.5	3781.5	3415.0
63°	4489.8	5183.8	5348.1	5340.3	4951.6	4299.4	3934.2	3721.5	3662.8	3866.3	3460.6
65°	3794.5	4921.6	5221.7	5256.8	5117.2	4442.9	4000.7	3801.1	3794.5	4055.5	3568.9
67.5°	2312.8	4158.5	4651.6	4719.4	4883.8	4488.5	3962.8	3773.7	3867.6	4082.8	3536.2
70°	988.8	2744.5	3738.5	3848.0	4249.8	4261.5	3854.6	3661.6	3850.7	3868.9	3304.1
72.5°	585.6	1294.0	2544.9	2783.7	3362.8	3666.8	3606.7	3465.9	3627.6	3398.0	2813.6
75°	414.8	605.3	1292.7	1547.0	2341.4	2799.3	3030.2	3095.3	3088.9	2695.0	2111.9
77.5°	297.4	388.7	545.2	643.1	1307.0	1797.5	2079.2	2269.7	2208.3	1804.0	1301.8
80°	207.4	268.7	333.9	354.8	606.5	923.5	1095.7	1179.2	1142.6	901.3	583.1
82.5°	150.0	176.0	215.2	228.3	305.2	426.6	507.4	447.4	429.1	332.7	251.7
85°	116.1	113.4	134.3	139.5	178.7	223.1	228.3	177.4	155.2	138.3	140.9
87.5°	82.1	70.5	71.7	74.4	92.6	118.7	116.1	73.0	62.6	66.5	75.7
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°	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9	843.9
2.5°	849.2	850.5	853.1	854.4	857.0	857.0	859.6	860.9	863.6	866.1	867.5
5°	864.8	868.8	874.0	876.6	881.8	885.7	890.9	893.5	898.8	902.7	907.9
7.5°	888.3	894.9	901.3	909.2	917.0	923.5	928.7	935.3	944.4	950.9	954.8
10°	910.5	919.6	931.4	940.5	952.3	961.4	969.1	980.9	991.3	1000.4	1005.7
12.5°	939.2	950.9	962.7	977.0	992.7	1004.4	1016.1	1031.7	1046.2	1056.6	1061.8
15°	973.1	987.5	1000.4	1017.4	1035.7	1051.4	1068.4	1085.2	1095.7	1095.7	1093.1
17.5°	1008.3	1020.1	1035.7	1055.3	1080.0	1099.7	1108.8	1111.3	1107.4	1098.3	1091.8
20°	1043.5	1053.9	1070.9	1094.5	1120.5	1124.4	1115.3	1103.6	1091.8	1076.1	1065.7
22.5°	1072.3	1086.6	1112.7	1140.1	1141.4	1119.2	1094.5	1074.8	1056.6	1038.3	1018.8
25°	1106.1	1125.8	1160.9	1171.4	1137.4	1095.7	1060.5	1031.7	1001.8	971.8	949.6
27.5°	1147.9	1176.6	1211.8	1181.8	1115.3	1056.6	1008.3	965.3	926.2	884.4	859.6
30°	1192.2	1236.5	1244.4	1166.2	1077.5	1001.8	936.6	871.3	821.7	784.0	769.6
32.5°	1245.7	1303.1	1256.2	1138.7	1026.5	927.4	840.0	761.8	720.1	696.5	690.1
35°	1326.6	1373.5	1262.7	1110.1	967.9	838.7	729.2	666.6	640.5	624.8	616.9
37.5°	1442.7	1441.3	1261.4	1074.8	900.1	742.3	640.5	596.1	575.2	562.2	547.9
40°	1578.3	1493.6	1253.5	1024.0	808.7	649.6	579.2	537.5	517.8	502.2	485.3
42.5°	1712.7	1528.8	1231.3	948.3	695.3	583.1	534.8	496.9	476.1	459.2	435.7
45°	1828.8	1543.1	1188.4	843.9	593.5	530.9	506.2	473.5	448.8	422.7	404.4
47.5°	1920.1	1540.6	1119.2	721.4	525.7	494.4	482.6	460.4	430.5	397.8	374.4
50°	1997.1	1520.9	1025.3	613.1	480.1	461.8	457.9	451.3	403.0	375.6	361.3
52.5°	2067.5	1492.3	924.8	540.0	440.9	425.2	433.1	426.6	392.6	369.2	354.8
55°	2164.1	1472.7	825.7	484.0	395.3	391.3	397.8	406.9	386.1	364.0	348.3
57.5°	2277.5	1483.2	750.0	421.4	352.2	354.8	377.0	390.1	379.6	356.1	340.4
60°	2407.9	1514.5	683.5	361.3	317.0	323.5	356.1	374.4	373.1	345.7	327.4
62.5°	2554.1	1547.0	577.9	315.7	286.9	297.4	331.3	354.8	358.7	335.2	313.0
63°	2582.7	1549.7	550.4	306.6	281.7	293.5	324.8	349.5	354.8	332.7	310.5
65°	2653.2	1526.1	443.6	281.7	260.9	273.9	305.2	327.4	337.9	318.2	300.0
67.5°	2594.5	1334.4	333.9	251.7	244.0	253.1	280.5	301.4	310.5	301.4	283.1
70°	2372.7	970.5	260.9	224.3	225.7	232.2	253.1	272.6	283.1	280.5	263.5
72.5°	1911.0	550.4	217.9	200.9	204.8	212.7	227.0	245.2	254.4	253.1	241.3
75°	1258.7	281.7	183.9	180.0	182.6	189.1	199.6	213.9	224.3	223.1	217.9
77.5°	623.5	195.7	157.8	159.2	160.4	165.6	173.5	186.5	193.0	194.4	193.0
80°	257.0	152.6	135.6	137.0	138.3	142.2	147.4	159.2	163.1	165.6	166.9
82.5°	154.0	116.1	108.2	110.9	112.2	116.1	120.0	130.4	134.3	138.3	138.3
85°	101.8	80.9	78.3	80.9	83.5	86.1	87.4	93.9	100.5	105.7	108.2
87.5°	54.8	48.3	47.0	48.3	48.3	50.8	53.5	60.0	67.8	73.0	75.7
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°	843.9	843.9	843.9	843.9	843.9
2.5°	864.8	866.1	864.8	866.1	867.5
5°	907.9	910.5	909.2	909.2	914.4
7.5°	957.5	962.7	962.7	965.3	967.9
10°	1010.9	1016.1	1020.1	1020.1	1024.0
12.5°	1064.4	1067.0	1070.9	1070.9	1070.9
15°	1091.8	1090.5	1089.2	1087.9	1087.9
17.5°	1087.9	1082.7	1080.0	1077.5	1078.8
20°	1059.2	1050.1	1047.5	1043.5	1046.2
22.5°	1009.7	996.6	991.3	984.8	987.5
25°	935.3	919.6	917.0	909.2	913.1
27.5°	849.2	841.4	840.0	838.7	845.3
30°	768.3	770.9	772.2	774.8	781.3
32.5°	694.0	699.2	700.5	701.7	711.0
35°	620.9	614.4	620.9	618.3	626.1
37.5°	541.3	536.1	530.9	524.4	529.6
40°	474.9	465.6	450.0	442.2	443.6
42.5°	422.7	410.9	397.8	390.1	390.1
45°	388.7	374.4	362.6	357.4	357.4
47.5°	362.6	356.1	349.5	345.7	345.7
50°	352.2	344.3	340.4	337.9	337.9
52.5°	344.3	336.6	332.7	330.0	327.4
55°	337.9	326.1	322.2	320.9	320.9
57.5°	328.7	318.2	313.0	311.8	311.8
60°	314.4	306.6	301.4	300.0	300.0
62.5°	300.0	292.2	286.9	286.9	286.9
63°	297.4	288.3	284.4	284.4	284.4
65°	285.7	276.5	272.6	272.6	271.3
67.5°	270.1	260.9	258.3	258.3	255.6
70°	251.7	244.0	241.3	242.6	237.4
72.5°	233.5	225.7	221.8	221.8	216.6
75°	212.7	204.8	199.6	198.2	193.0
77.5°	189.1	182.6	177.4	172.2	169.6
80°	164.4	159.2	152.6	148.7	144.7
82.5°	138.3	133.1	129.1	134.3	114.8
85°	108.2	103.0	97.8	105.7	82.1
87.5°	79.6	76.9	71.7	62.6	54.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)