

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: P265970

Luminaire Tested: **ARCH-AF24-80-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265970
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-AF24-80-D-U-T2U-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 1050mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7972.6 lumens
Efficiency: N/A
Efficacy: 96.1 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

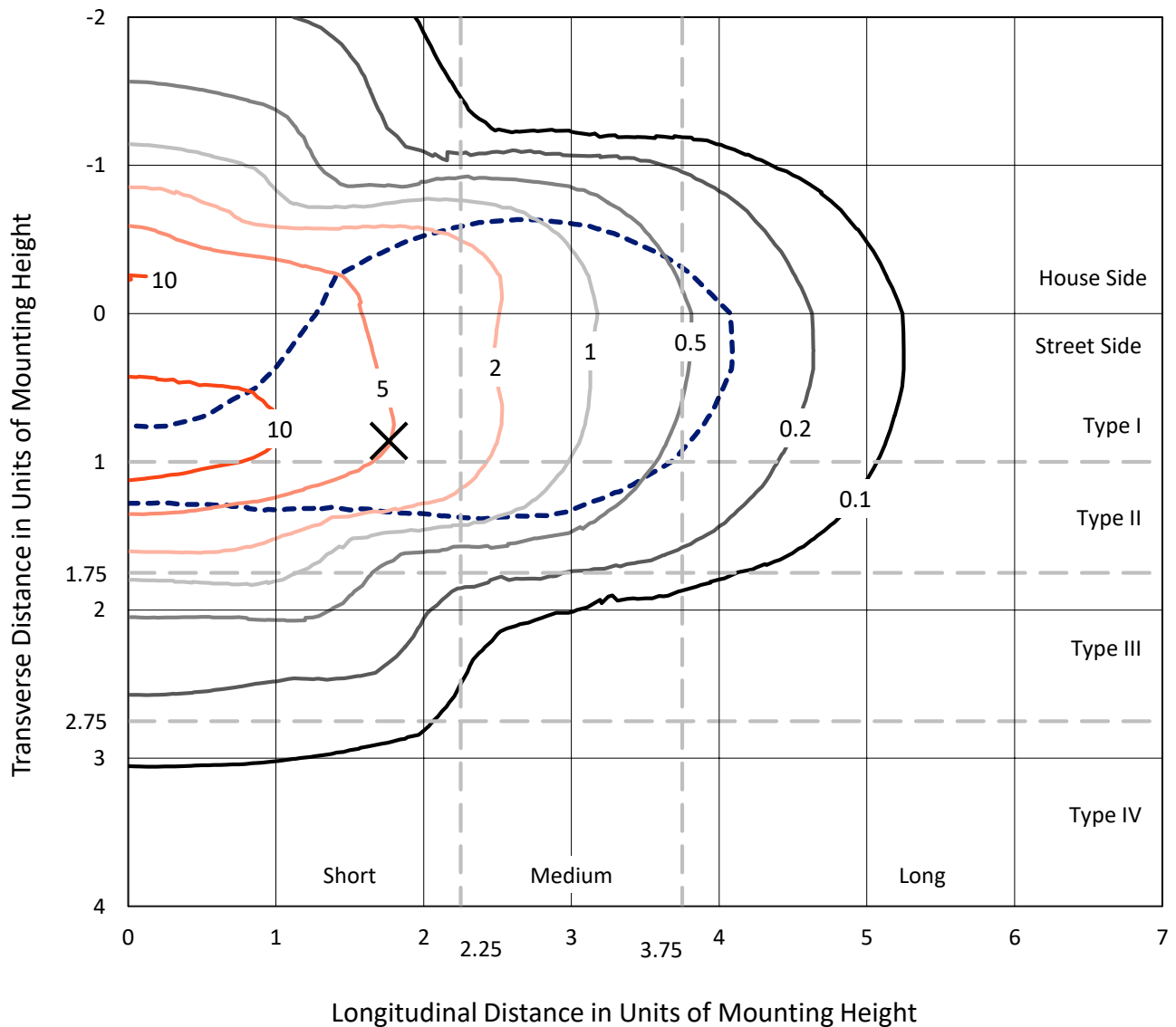
Input Watts (W): 83
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

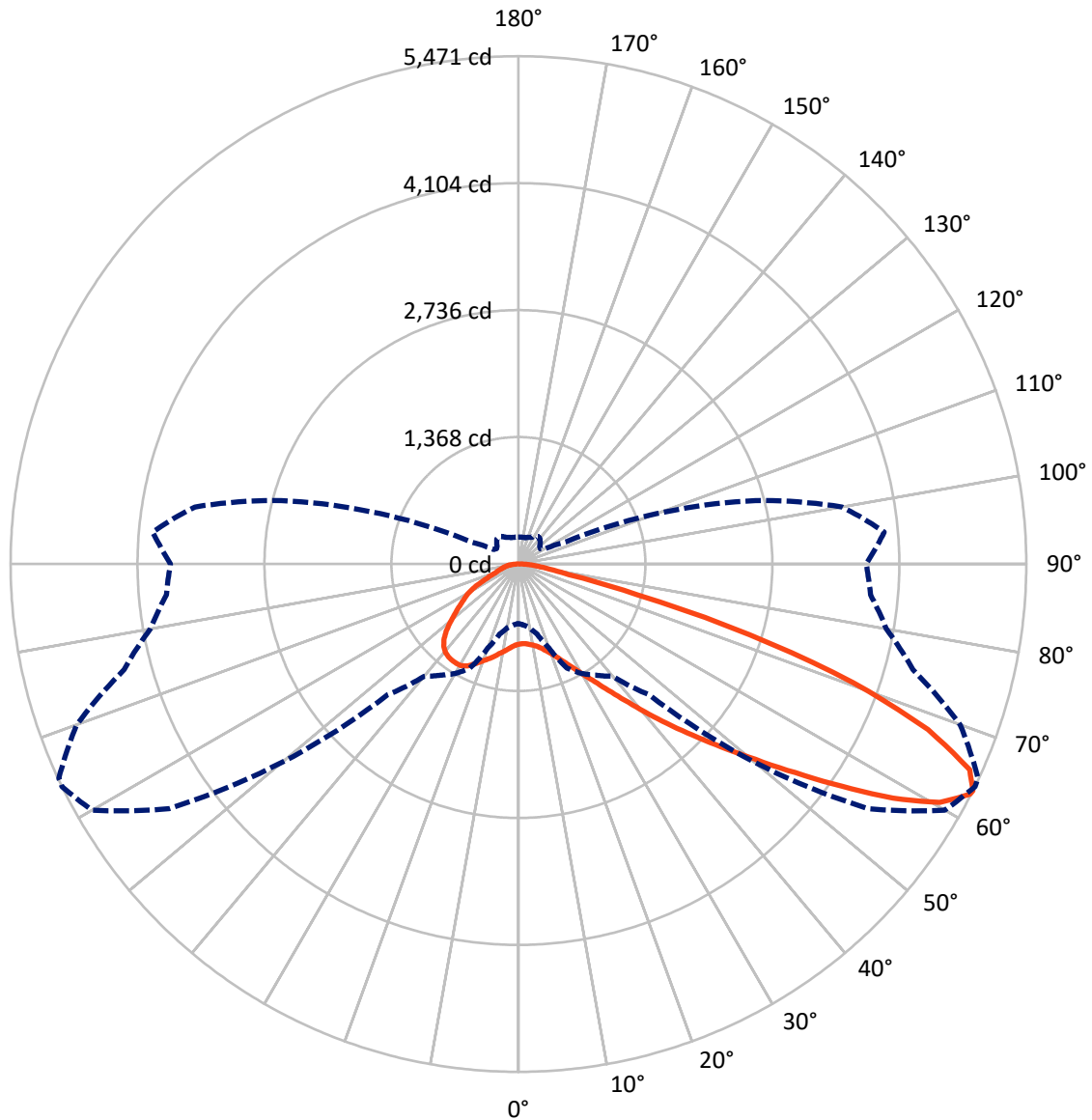
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 14 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	2343.6	0.0	2343.6
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	5628.9	0.0	5628.9
	% Fixture	70.6	0.0	70.6
Total	Lumens	7972.6	0.0	7972.6
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	86.2	1.1
10°-20°	287.1	3.6
20°-30°	539.0	6.8
30°-40°	903.4	11.3
40°-50°	1515.7	19.0
50°-60°	1921.4	24.1
60°-70°	1695.0	21.3
70°-80°	875.0	11.0
80°-90°	149.7	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°	7972.6	100.0
0°-180°	7972.6	100.0



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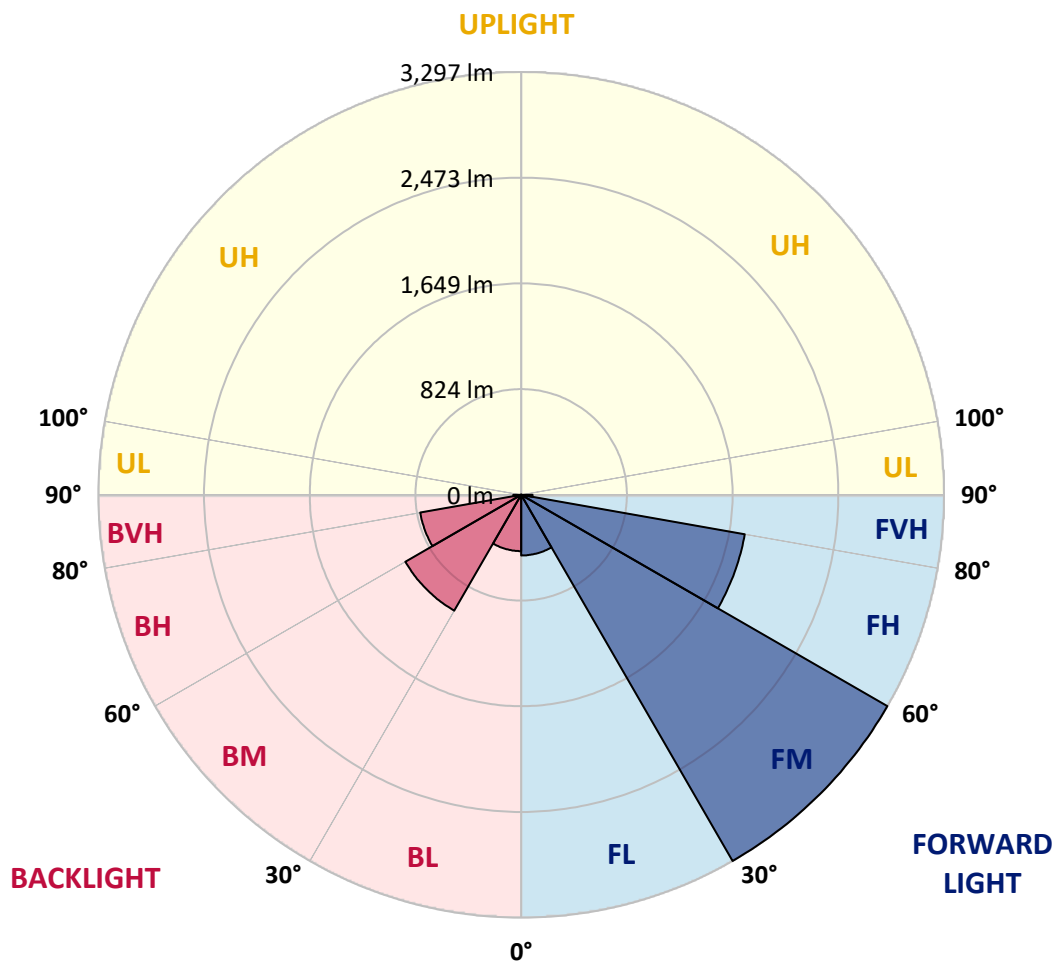
CATALOG NUMBER: ARCH-AF24-80-D-U-T2U-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	473.2	5.9			
FM	(30°-60°)	3297.3	41.4			
FH	(60°-80°)	1770.4	22.2			G1/1800
FVH	(80°-90°)	88.1	1.1			G1/100
BL	(0°-30°)	439.1	5.5	B1/500		
BM	(30°-60°)	1043.3	13.1	B2/2500		
BH	(60°-80°)	799.6	10.0	B2/1000		G2/1000
BVH	(80°-90°)	61.6	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°	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5
2.5°	858.2	856.8	856.8	856.8	856.8	855.5	856.8	859.4	858.2	856.8	859.4
5°	860.8	859.4	859.4	859.4	860.8	859.4	860.8	864.8	862.2	862.2	864.8
7.5°	867.5	866.1	867.5	866.1	866.1	866.1	867.5	871.4	870.1	871.4	875.5
10°	875.5	875.5	875.5	875.5	875.5	875.5	878.2	880.8	882.1	883.5	888.9
12.5°	899.5	899.5	899.5	898.1	898.1	894.2	899.5	902.1	904.9	907.5	911.5
15°	950.1	950.1	948.8	943.5	943.5	935.5	936.8	938.2	938.2	940.9	943.5
17.5°	1016.9	1015.5	1012.8	1008.8	1003.5	994.2	991.5	988.9	984.8	983.6	983.6
20°	1110.3	1109.0	1103.7	1093.0	1086.3	1071.6	1061.0	1050.3	1046.3	1039.6	1038.3
22.5°	1243.8	1243.8	1233.2	1217.1	1211.8	1181.0	1150.4	1127.6	1119.6	1110.3	1110.3
25°	1405.3	1404.0	1389.1	1370.5	1347.8	1315.8	1278.5	1247.7	1227.8	1206.5	1198.3
27.5°	1598.8	1594.8	1574.6	1552.0	1509.3	1469.3	1425.3	1393.2	1358.5	1331.8	1307.8
30°	1825.6	1821.7	1786.9	1744.1	1700.1	1660.2	1596.1	1557.4	1502.7	1470.6	1443.9
32.5°	2088.5	2084.4	2021.7	1980.5	1933.7	1884.4	1808.3	1746.8	1677.5	1632.1	1594.8
35°	2423.4	2407.5	2318.0	2260.7	2187.3	2137.8	2057.7	1975.1	1893.6	1829.6	1775.0
37.5°	2785.1	2766.4	2687.6	2602.3	2530.3	2470.2	2356.8	2252.7	2156.7	2068.4	2000.4
40°	3162.8	3113.3	3029.4	2966.7	2917.2	2859.8	2741.1	2631.7	2480.8	2382.0	2279.3
42.5°	3424.3	3376.3	3317.6	3276.2	3252.3	3208.1	3141.5	3046.7	2911.9	2914.6	2643.6
45°	3596.5	3525.8	3485.8	3488.4	3497.7	3497.7	3485.8	3471.1	3412.3	3452.4	3225.5
47.5°	3535.1	3488.4	3463.1	3516.4	3583.2	3649.9	3727.2	3811.4	3907.4	4020.9	3742.0
50°	3174.8	3192.1	3204.2	3317.6	3460.5	3612.5	3789.9	4019.6	4287.8	4339.8	4205.1
52.5°	2599.7	2637.0	2676.9	2850.5	3038.6	3301.6	3612.5	3991.4	4351.7	4564.0	4550.6
55°	2019.1	2065.8	2151.3	2280.6	2430.2	2678.3	3062.7	3647.2	4209.1	4546.7	4752.2
57.5°	1437.3	1505.3	1617.4	1797.6	1929.6	2069.9	2354.1	3002.7	3617.8	4246.4	4718.8
60°	955.4	987.5	1061.0	1285.1	1508.0	1654.8	1856.3	2091.2	2594.2	3460.5	4374.6
62.5°	678.0	699.3	744.7	846.1	1047.7	1313.1	1434.7	1542.7	1704.2	2226.0	3512.5
63°	640.5	659.3	696.6	782.1	963.5	1238.5	1362.5	1461.4	1578.7	1991.2	3322.9
65°	531.2	539.2	559.1	600.5	698.0	926.2	1129.0	1189.0	1209.1	1279.7	2081.8
67.5°	448.4	453.7	460.4	472.4	511.1	616.5	842.2	918.2	895.4	847.5	1028.9
70°	389.7	393.6	404.3	419.0	432.4	459.0	579.1	692.7	667.3	601.9	629.9
72.5°	311.0	317.6	329.6	355.0	381.7	416.4	445.6	516.4	500.4	437.7	444.4
75°	245.5	249.5	260.1	279.0	304.3	344.3	401.7	425.6	381.7	322.9	322.9
77.5°	194.8	198.9	208.1	222.9	238.9	266.8	307.0	369.7	343.0	242.9	241.6
80°	146.9	150.7	160.2	173.6	189.5	209.6	233.5	261.5	314.9	226.8	181.5
82.5°	108.1	109.5	125.5	134.7	140.1	156.1	176.2	192.1	216.2	209.6	161.4
85°	81.3	80.0	90.8	97.5	98.8	102.8	114.8	130.8	141.5	136.2	125.5
87.5°	45.4	40.1	46.7	53.4	53.4	54.6	57.4	66.7	76.0	73.4	66.7
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5
2.5°	859.4	859.4	858.2	858.2	859.4	859.4	858.2	862.2	864.8	864.8	866.1
5°	863.5	864.8	863.5	863.5	864.8	864.8	866.1	870.1	874.1	876.7	880.8
7.5°	875.5	876.7	875.5	875.5	876.7	878.2	880.8	886.1	888.9	894.2	900.8
10°	888.9	890.1	888.9	890.1	891.5	892.7	896.8	900.8	904.9	910.2	920.9
12.5°	912.8	914.1	911.5	912.8	916.8	916.8	919.4	922.1	928.8	935.5	946.2
15°	946.2	946.2	943.5	944.8	948.8	948.8	950.1	952.8	960.8	968.8	979.5
17.5°	984.8	987.5	986.2	987.5	990.2	991.5	991.5	994.2	999.5	1004.8	1015.5
20°	1037.0	1038.3	1035.6	1038.3	1041.0	1038.3	1035.6	1034.3	1037.0	1039.6	1051.6
22.5°	1107.6	1106.4	1099.6	1099.6	1099.6	1094.2	1087.6	1079.7	1079.7	1075.6	1085.0
25°	1191.7	1187.6	1178.3	1179.7	1170.3	1162.3	1150.4	1138.3	1127.6	1123.7	1124.9
27.5°	1290.4	1282.5	1273.1	1270.5	1261.1	1246.4	1226.5	1203.6	1186.4	1173.0	1170.3
30°	1414.7	1397.3	1381.2	1378.5	1363.8	1339.8	1307.8	1277.1	1247.7	1225.1	1217.1
32.5°	1561.3	1534.7	1509.3	1506.6	1482.7	1450.7	1411.9	1369.1	1326.4	1290.4	1273.1
35°	1733.5	1693.5	1669.5	1662.9	1628.1	1588.1	1545.4	1490.6	1430.6	1379.8	1347.8
37.5°	1943.0	1901.7	1860.3	1861.6	1813.6	1766.8	1709.6	1642.8	1566.7	1495.9	1450.7
40°	2201.9	2143.3	2089.8	2077.8	2036.5	1971.2	1908.4	1830.9	1737.5	1644.1	1578.7
42.5°	2515.6	2419.4	2346.1	2335.5	2280.6	2200.6	2124.5	2021.7	1927.0	1813.6	1734.8
45°	2871.8	2718.5	2630.2	2614.2	2526.3	2444.7	2352.8	2243.2	2127.1	1999.1	1905.7
47.5°	3314.9	3096.1	2946.6	2919.9	2798.5	2691.7	2595.7	2474.2	2335.5	2192.7	2089.8
50°	3831.5	3508.4	3306.9	3265.6	3102.7	2977.3	2854.5	2702.5	2554.2	2404.9	2285.9
52.5°	4349.1	4002.2	3734.0	3683.2	3443.1	3275.0	3113.3	2961.3	2786.5	2638.3	2503.5
55°	4765.5	4534.6	4223.7	4153.0	3808.6	3580.5	3368.4	3194.8	3021.3	2904.0	2745.1
57.5°	5016.4	5004.4	4758.9	4661.5	4190.4	3852.7	3616.5	3418.9	3250.8	3201.5	2990.6
60°	5009.8	5320.8	5215.3	5141.9	4576.1	4131.7	3824.8	3611.1	3472.4	3528.5	3237.5
62.5°	4704.2	5334.0	5460.7	5440.8	4987.1	4355.8	3995.5	3775.3	3701.9	3868.7	3493.8
63°	4593.4	5303.4	5471.4	5463.5	5065.8	4398.6	4024.9	3807.3	3747.3	3955.4	3540.4
65°	3882.0	5035.1	5342.0	5378.1	5235.3	4545.3	4092.9	3888.8	3882.0	4149.0	3651.3
67.5°	2366.0	4254.5	4758.9	4828.2	4996.5	4592.0	4054.2	3860.7	3956.9	4176.9	3617.8
70°	1011.5	2807.8	3824.8	3936.8	4347.8	4359.8	3943.5	3745.9	3939.4	3958.1	3380.3
72.5°	599.2	1323.8	2603.6	2847.8	3440.4	3751.3	3689.9	3545.8	3711.3	3476.4	2878.4
75°	424.4	619.2	1322.5	1582.8	2395.4	2863.8	3100.1	3166.7	3160.1	2757.1	2160.6
77.5°	304.3	397.7	557.8	657.9	1337.1	1838.9	2127.1	2322.1	2259.3	1845.6	1331.8
80°	212.2	274.9	341.6	362.9	620.5	944.8	1120.9	1206.5	1169.1	922.1	596.6
82.5°	153.5	180.2	220.2	233.5	312.3	436.3	519.1	457.7	439.0	340.3	257.5
85°	118.8	116.2	137.4	142.8	182.8	228.2	233.5	181.5	158.8	141.5	144.1
87.5°	84.1	72.0	73.4	76.0	94.7	121.5	118.8	74.6	64.0	68.0	77.4
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):

	105°	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°
0°	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5	863.5
2.5°	868.8	870.1	872.8	874.1	876.7	876.7	879.4	880.8	883.5	886.1	887.4
5°	884.8	888.9	894.2	896.8	902.1	906.1	911.5	914.1	919.4	923.5	928.8
7.5°	908.7	915.5	922.1	930.1	938.2	944.8	950.1	956.9	966.1	972.9	976.8
10°	931.5	940.9	952.8	962.2	974.2	983.6	991.5	1003.5	1014.2	1023.6	1028.9
12.5°	960.8	972.9	984.8	999.5	1015.5	1027.7	1039.6	1055.6	1070.3	1080.9	1086.3
15°	995.5	1010.2	1023.6	1041.0	1059.6	1075.6	1093.0	1110.3	1120.9	1120.9	1118.3
17.5°	1031.6	1043.7	1059.6	1079.7	1104.9	1124.9	1134.3	1137.1	1133.0	1123.7	1117.0
20°	1067.5	1078.2	1095.7	1119.6	1146.3	1150.4	1140.9	1129.0	1117.0	1101.0	1090.4
22.5°	1097.0	1111.7	1138.3	1166.4	1167.6	1145.0	1119.6	1099.6	1080.9	1062.2	1042.3
25°	1131.7	1151.6	1187.6	1198.3	1163.7	1120.9	1085.0	1055.6	1024.8	994.2	971.5
27.5°	1174.4	1203.6	1239.8	1209.1	1140.9	1080.9	1031.6	987.5	947.5	904.9	879.4
30°	1219.8	1265.2	1273.1	1193.0	1102.3	1024.8	958.2	891.5	840.8	802.0	787.4
32.5°	1274.4	1333.2	1285.1	1165.0	1050.3	948.8	859.4	779.4	736.6	712.6	706.0
35°	1357.2	1405.3	1291.9	1135.6	990.2	858.2	746.0	682.0	655.3	639.2	631.1
37.5°	1475.9	1474.7	1290.4	1099.6	920.9	759.3	655.3	609.9	588.5	575.2	560.5
40°	1614.8	1527.9	1282.5	1047.7	827.3	664.6	592.5	549.9	529.8	513.8	496.5
42.5°	1752.2	1564.0	1259.8	970.2	711.3	596.6	547.2	508.4	487.2	469.8	445.6
45°	1871.0	1578.7	1215.8	863.5	607.3	543.1	517.9	484.5	459.0	432.4	413.7
47.5°	1964.5	1576.0	1145.0	738.0	537.8	505.7	493.8	471.2	440.3	407.0	382.9
50°	2043.1	1556.0	1049.0	627.2	491.2	472.4	468.5	461.8	412.3	384.4	369.7
52.5°	2115.1	1526.7	946.2	552.5	451.0	435.0	443.0	436.3	401.7	377.6	362.9
55°	2214.0	1506.6	844.8	495.1	404.3	400.4	407.0	416.4	395.1	372.3	356.3
57.5°	2330.1	1517.3	767.3	431.0	360.3	362.9	385.6	398.9	388.3	364.4	348.4
60°	2463.5	1549.3	699.3	369.7	324.3	330.9	364.4	382.9	381.7	353.7	335.0
62.5°	2613.0	1582.8	591.2	322.9	293.6	304.3	339.0	362.9	367.0	343.0	320.2
63°	2642.4	1585.4	563.1	313.6	288.3	300.3	332.4	357.6	362.9	340.3	317.6
65°	2714.4	1561.3	453.7	288.3	266.8	280.2	312.3	335.0	345.7	325.6	307.0
67.5°	2654.3	1365.2	341.6	257.5	249.5	258.9	286.9	308.3	317.6	308.3	289.7
70°	2427.5	992.8	266.8	229.5	230.9	237.5	258.9	279.0	289.7	286.9	269.6
72.5°	1955.0	563.1	222.9	205.5	209.6	217.5	232.2	250.8	260.1	258.9	246.9
75°	1287.8	288.3	188.1	184.2	186.8	193.6	204.2	218.8	229.5	228.2	222.9
77.5°	637.8	200.2	161.4	162.9	164.1	169.5	177.4	190.8	197.4	198.9	197.4
80°	262.9	156.1	138.8	140.1	141.5	145.4	150.7	162.9	166.8	169.5	170.8
82.5°	157.5	118.8	110.9	113.5	114.8	118.8	122.8	133.5	137.4	141.5	141.5
85°	104.2	82.7	80.0	82.7	85.3	88.0	89.4	96.1	102.8	108.1	110.9
87.5°	56.1	49.3	48.0	49.3	49.3	52.0	54.6	61.4	69.3	74.6	77.4
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):

	160°	165°	170°	175°	180°
0°	863.5	863.5	863.5	863.5	863.5
2.5°	884.8	886.1	884.8	886.1	887.4
5°	928.8	931.5	930.1	930.1	935.5
7.5°	979.5	984.8	984.8	987.5	990.2
10°	1034.3	1039.6	1043.7	1043.7	1047.7
12.5°	1088.9	1091.6	1095.7	1095.7	1095.7
15°	1117.0	1115.7	1114.3	1113.0	1113.0
17.5°	1113.0	1107.6	1104.9	1102.3	1103.7
20°	1083.6	1074.3	1071.6	1067.5	1070.3
22.5°	1033.0	1019.5	1014.2	1007.5	1010.2
25°	956.9	940.9	938.2	930.1	934.1
27.5°	868.8	860.8	859.4	858.2	864.8
30°	786.0	788.7	790.0	792.8	799.4
32.5°	710.0	715.3	716.7	717.9	727.3
35°	635.2	628.5	635.2	632.5	640.5
37.5°	553.9	548.4	543.1	536.5	541.8
40°	485.8	476.5	460.4	452.3	453.7
42.5°	432.4	420.3	407.0	398.9	398.9
45°	397.7	382.9	371.0	365.7	365.7
47.5°	371.0	364.4	357.6	353.7	353.7
50°	360.3	352.3	348.4	345.7	345.7
52.5°	352.3	344.3	340.3	337.7	335.0
55°	345.7	333.6	329.6	328.3	328.3
57.5°	336.2	325.6	320.2	319.0	319.0
60°	321.7	313.6	308.3	307.0	307.0
62.5°	307.0	299.0	293.6	293.6	293.6
63°	304.3	295.0	291.0	291.0	291.0
65°	292.3	283.0	279.0	279.0	277.5
67.5°	276.3	266.8	264.2	264.2	261.5
70°	257.5	249.5	246.9	248.2	242.9
72.5°	238.9	230.9	226.8	226.8	221.5
75°	217.5	209.6	204.2	202.8	197.4
77.5°	193.6	186.8	181.5	176.2	173.6
80°	168.2	162.9	156.1	152.2	148.1
82.5°	141.5	136.2	132.1	137.4	117.5
85°	110.9	105.5	100.2	108.1	84.1
87.5°	81.3	78.7	73.4	64.0	56.1
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)