

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: P265961

Luminaire Tested: **ARCH-AF24-70-D-U-T2U-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265961
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-7027
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 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: 7377.8 lumens
Efficiency: N/A
Efficacy: 99.7 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

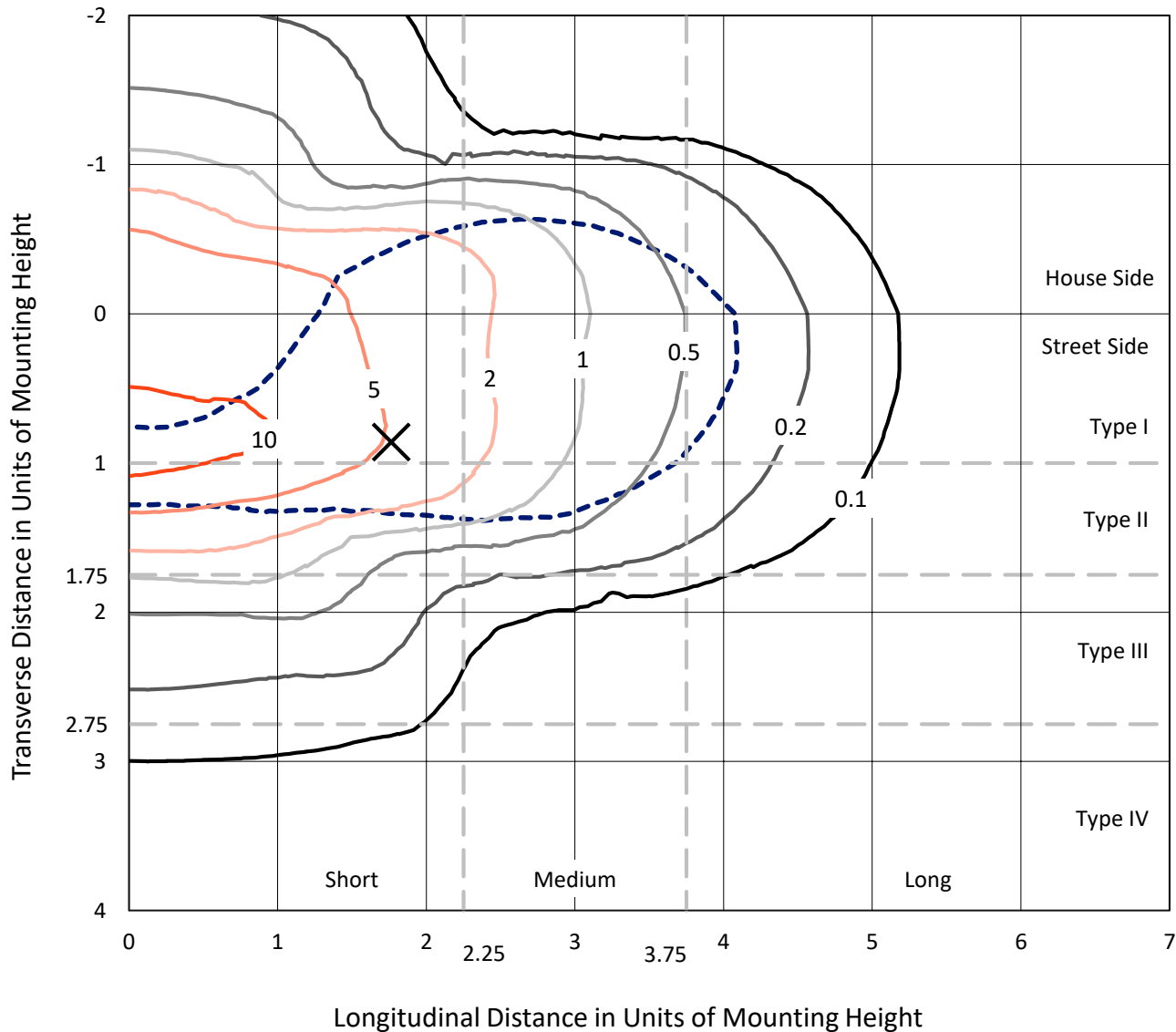
Input Watts (W): 74
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

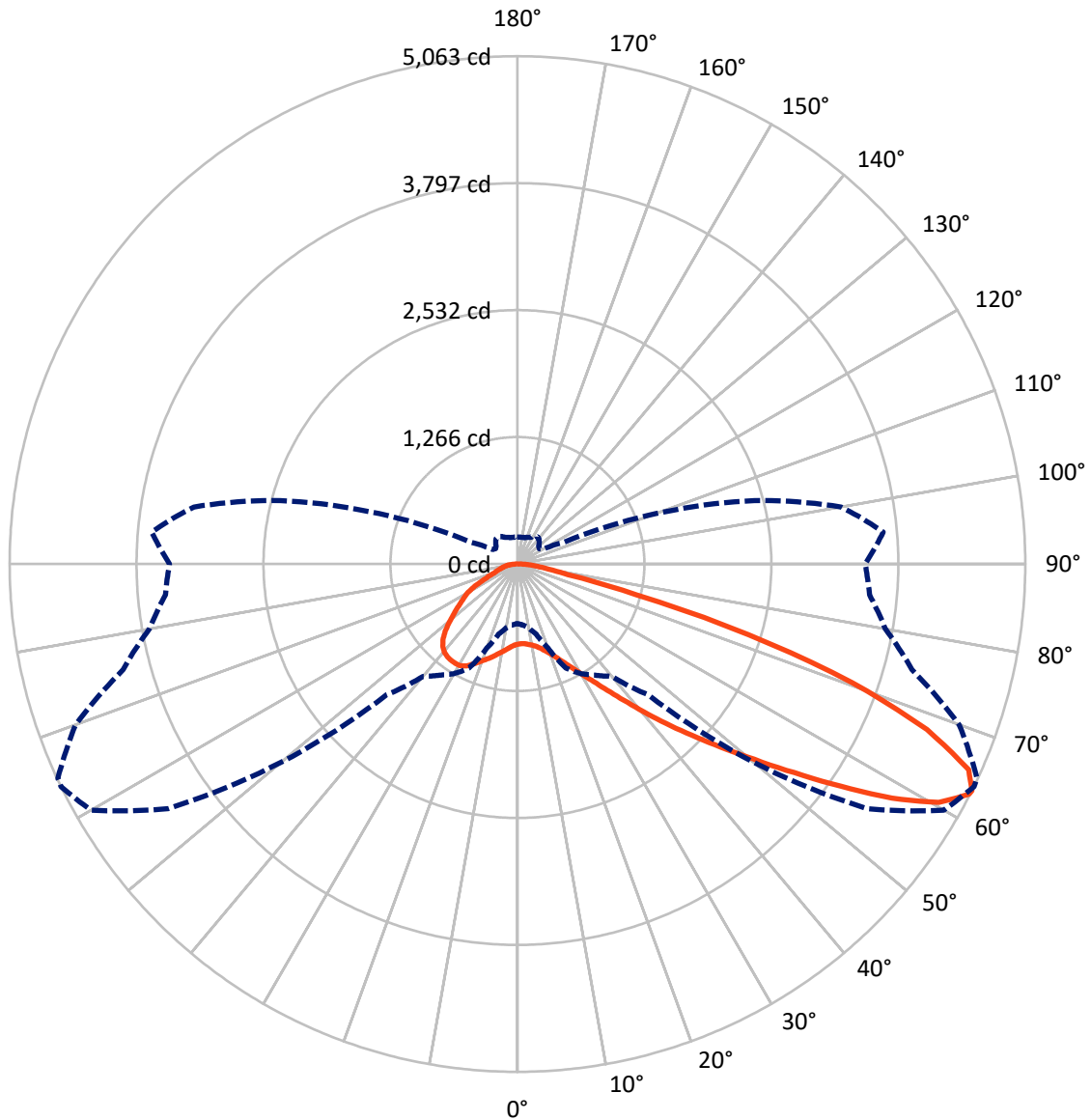
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 13 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	2168.8	0.0	2168.8
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	5209.0	0.0	5209.0
	% Fixture	70.6	0.0	70.6
Total	Lumens	7377.8	0.0	7377.8
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	79.8	1.1
10°-20°	265.7	3.6
20°-30°	498.8	6.8
30°-40°	836.0	11.3
40°-50°	1402.6	19.0
50°-60°	1778.1	24.1
60°-70°	1568.5	21.3
70°-80°	809.7	11.0
80°-90°	138.6	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°	7377.8	100.0
0°-180°	7377.8	100.0



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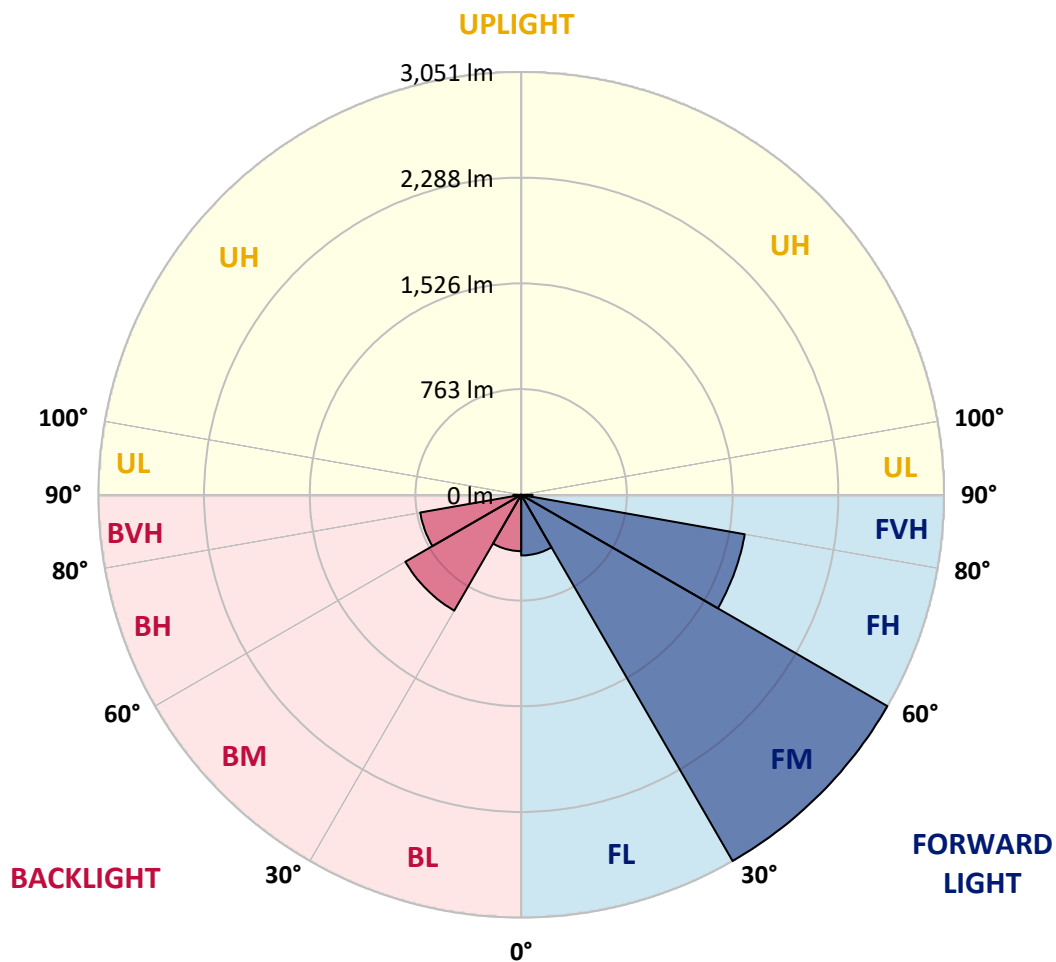
CATALOG NUMBER: ARCH-AF24-70-D-U-T2U-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	437.9	5.9			
FM	(30°-60°)	3051.3	41.4			
FH	(60°-80°)	1638.3	22.2			G1/1800
FVH	(80°-90°)	81.5	1.1			G1/100
BL	(0°-30°)	406.4	5.5	B1/500		
BM	(30°-60°)	965.4	13.1	B1/1000		
BH	(60°-80°)	740.0	10.0	B2/1000		G2/1000
BVH	(80°-90°)	57.0	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°	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0
2.5°	794.1	792.8	792.8	792.8	792.8	791.5	792.8	795.3	794.1	792.8	795.3
5°	796.5	795.3	795.3	795.3	796.5	795.3	796.5	800.2	797.8	797.8	800.2
7.5°	802.7	801.5	802.7	801.5	801.5	801.5	802.7	806.4	805.2	806.4	810.1
10°	810.1	810.1	810.1	810.1	810.1	810.1	812.5	815.0	816.3	817.5	822.5
12.5°	832.4	832.4	832.4	831.1	831.1	827.3	832.4	834.9	837.3	839.7	843.5
15°	879.4	879.4	878.1	873.2	873.2	865.6	867.0	868.1	868.1	870.6	873.2
17.5°	941.1	939.7	937.3	933.6	928.7	920.0	917.6	915.2	911.4	910.2	910.2
20°	1027.5	1026.3	1021.4	1011.4	1005.3	991.6	981.8	971.8	968.3	962.1	960.7
22.5°	1151.0	1151.0	1141.0	1126.3	1121.4	1093.0	1064.5	1043.6	1036.1	1027.5	1027.5
25°	1300.3	1299.2	1285.6	1268.2	1247.2	1217.7	1183.1	1154.7	1136.1	1116.5	1109.0
27.5°	1479.5	1475.7	1457.2	1436.2	1396.8	1359.7	1318.9	1289.2	1257.2	1232.5	1210.2
30°	1689.4	1685.7	1653.6	1614.1	1573.3	1536.3	1477.1	1441.2	1390.5	1360.9	1336.1
32.5°	1932.8	1929.0	1870.9	1832.6	1789.5	1743.7	1673.4	1616.5	1552.4	1510.3	1475.7
35°	2242.7	2227.8	2145.2	2092.1	2024.2	1978.3	1904.2	1827.7	1752.5	1693.1	1642.6
37.5°	2577.3	2560.1	2487.1	2408.1	2341.4	2285.8	2180.9	2084.5	1995.7	1914.2	1851.1
40°	2926.9	2881.1	2803.3	2745.3	2699.5	2646.4	2536.5	2435.3	2295.8	2204.4	2109.3
42.5°	3169.0	3124.5	3070.0	3031.8	3009.6	2968.8	2907.1	2819.4	2694.6	2697.2	2446.4
45°	3328.2	3262.7	3225.6	3228.1	3236.9	3236.9	3225.6	3212.1	3157.7	3194.8	2984.9
47.5°	3271.4	3228.1	3204.8	3254.1	3315.9	3377.5	3449.2	3527.0	3615.9	3720.9	3462.7
50°	2937.9	2953.9	2965.1	3070.0	3202.2	3343.0	3507.3	3719.6	3968.0	4016.1	3891.3
52.5°	2405.8	2440.2	2477.3	2637.9	2812.0	3055.2	3343.0	3693.7	4027.2	4223.6	4211.2
55°	1868.5	1911.8	1990.7	2110.5	2248.8	2478.6	2834.2	3375.1	3895.1	4207.5	4397.7
57.5°	1330.0	1393.0	1496.8	1663.5	1785.7	1915.4	2178.5	2778.6	3348.0	3929.6	4366.8
60°	884.2	913.8	981.8	1189.3	1395.4	1531.3	1717.7	1935.2	2400.7	3202.2	4048.1
62.5°	627.3	647.0	689.1	783.0	969.5	1215.1	1327.5	1427.5	1577.1	2060.0	3250.3
63°	592.8	610.0	644.7	723.7	891.7	1146.1	1261.0	1352.3	1461.0	1842.6	3075.0
65°	491.6	498.9	517.5	555.7	645.9	857.1	1044.8	1100.3	1118.8	1184.3	1926.5
67.5°	414.9	419.9	426.1	437.1	473.0	570.6	779.3	849.6	828.6	784.2	952.2
70°	360.6	364.4	374.1	387.8	400.1	424.8	536.0	640.9	617.5	556.9	582.9
72.5°	287.7	293.9	305.1	328.5	353.3	385.4	412.5	477.9	463.0	405.0	411.2
75°	227.2	231.0	240.8	258.2	281.6	318.5	371.7	393.9	353.3	298.9	298.9
77.5°	180.3	184.1	192.6	206.3	221.1	247.0	284.0	342.1	317.5	224.8	223.5
80°	135.9	139.5	148.2	160.5	175.3	193.9	216.1	242.1	291.4	209.9	168.0
82.5°	100.0	101.2	116.2	124.8	129.6	144.4	163.0	177.9	200.1	193.9	149.4
85°	75.4	74.1	84.0	90.2	91.4	95.1	106.2	121.0	131.0	125.9	116.2
87.5°	42.0	37.0	43.2	49.3	49.3	50.7	53.1	61.8	70.3	67.9	61.8
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):

	55°	60°	64°	65°	70°	75°	80°	85°	90°	95°	100°
0°	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0
2.5°	795.3	795.3	794.1	794.1	795.3	795.3	794.1	797.8	800.2	800.2	801.5
5°	799.0	800.2	799.0	799.0	800.2	800.2	801.5	805.2	809.0	811.3	815.0
7.5°	810.1	811.3	810.1	810.1	811.3	812.5	815.0	820.1	822.5	827.3	833.5
10°	822.5	823.7	822.5	823.7	825.0	826.3	829.9	833.5	837.3	842.3	852.1
12.5°	844.6	845.9	843.5	844.6	848.4	848.4	850.9	853.4	859.5	865.6	875.6
15°	875.6	875.6	873.2	874.3	878.1	878.1	879.4	881.7	889.1	896.6	906.5
17.5°	911.4	913.8	912.6	913.8	916.4	917.6	917.6	920.0	925.0	929.9	939.7
20°	959.6	960.7	958.3	960.7	963.3	960.7	958.3	957.1	959.6	962.1	973.1
22.5°	1025.0	1023.8	1017.6	1017.6	1017.6	1012.7	1006.6	999.0	999.0	995.3	1004.0
25°	1102.8	1099.0	1090.5	1091.7	1083.0	1075.6	1064.5	1053.4	1043.6	1039.8	1041.0
27.5°	1194.1	1186.8	1178.1	1175.7	1167.0	1153.5	1134.9	1113.9	1097.9	1085.5	1083.0
30°	1309.0	1293.0	1278.2	1275.8	1262.1	1239.9	1210.2	1181.8	1154.7	1133.8	1126.3
32.5°	1445.0	1420.2	1396.8	1394.3	1372.0	1342.3	1306.6	1267.1	1227.5	1194.1	1178.1
35°	1604.3	1567.2	1544.9	1538.7	1506.6	1469.5	1430.1	1379.4	1323.8	1276.9	1247.2
37.5°	1798.0	1759.8	1721.5	1722.8	1678.4	1635.1	1581.9	1520.2	1449.9	1384.4	1342.3
40°	2037.6	1983.4	1934.0	1922.8	1884.6	1824.0	1766.0	1694.4	1607.8	1521.5	1461.0
42.5°	2327.9	2238.9	2171.1	2161.1	2110.5	2036.5	1966.0	1870.9	1783.2	1678.4	1605.5
45°	2657.6	2515.7	2434.0	2419.2	2337.7	2262.4	2177.2	2076.0	1968.5	1850.0	1763.6
47.5°	3067.6	2865.1	2726.7	2702.1	2589.8	2490.9	2402.0	2289.6	2161.1	2029.0	1934.0
50°	3545.5	3246.7	3060.2	3021.9	2871.3	2755.2	2641.6	2500.8	2363.7	2225.5	2115.5
52.5°	4024.6	3703.6	3455.4	3408.4	3186.2	3030.5	2881.1	2740.4	2578.6	2441.6	2316.8
55°	4410.0	4196.3	3908.6	3843.2	3524.5	3313.4	3116.9	2956.5	2796.0	2687.3	2540.2
57.5°	4642.3	4631.0	4403.9	4313.8	3877.8	3565.4	3346.7	3163.9	3008.3	2962.6	2767.5
60°	4636.1	4923.7	4826.1	4758.2	4234.6	3823.4	3539.3	3341.8	3213.3	3265.2	2995.9
62.5°	4353.1	4936.0	5053.4	5034.9	4615.0	4030.9	3697.5	3493.7	3425.7	3580.1	3233.1
63°	4250.7	4907.7	5063.2	5055.9	4687.9	4070.4	3724.6	3523.3	3467.7	3660.5	3276.3
65°	3592.5	4659.5	4943.6	4976.8	4844.6	4206.3	3787.7	3598.6	3592.5	3839.4	3378.9
67.5°	2189.6	3937.0	4403.9	4468.0	4623.7	4249.4	3751.9	3572.6	3661.6	3865.3	3348.0
70°	936.2	2598.3	3539.3	3643.0	4023.5	4034.6	3649.3	3466.5	3645.6	3662.8	3128.1
72.5°	554.6	1225.1	2409.3	2635.4	3183.8	3471.4	3414.6	3281.2	3434.4	3217.0	2663.7
75°	392.6	572.9	1223.9	1464.6	2216.7	2650.2	2868.7	2930.5	2924.3	2551.4	1999.4
77.5°	281.6	368.0	516.2	608.8	1237.4	1701.7	1968.5	2148.8	2090.7	1707.9	1232.5
80°	196.4	254.4	316.2	335.8	574.2	874.3	1037.4	1116.5	1081.7	853.4	552.0
82.5°	142.0	166.7	203.7	216.1	289.0	403.8	480.5	423.6	406.4	314.9	238.3
85°	110.0	107.4	127.2	132.1	169.2	211.2	216.1	168.0	147.0	131.0	133.4
87.5°	77.9	66.7	67.9	70.3	87.7	112.4	110.0	69.2	59.3	63.1	71.7
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°	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0	799.0
2.5°	804.0	805.2	807.7	809.0	811.3	811.3	813.9	815.0	817.5	820.1	821.2
5°	818.7	822.5	827.3	829.9	834.9	838.6	843.5	845.9	850.9	854.6	859.5
7.5°	841.1	847.2	853.4	860.8	868.1	874.3	879.4	885.5	894.2	900.3	904.0
10°	862.1	870.6	881.7	890.4	901.4	910.2	917.6	928.7	938.5	947.3	952.2
12.5°	889.1	900.3	911.4	925.0	939.7	950.9	962.1	976.8	990.4	1000.4	1005.3
15°	921.3	934.9	947.3	963.3	980.6	995.3	1011.4	1027.5	1037.4	1037.4	1034.8
17.5°	954.5	965.8	980.6	999.0	1022.5	1041.0	1049.7	1052.2	1048.5	1039.8	1033.7
20°	988.0	997.8	1013.8	1036.1	1060.8	1064.5	1055.9	1044.8	1033.7	1018.9	1008.9
22.5°	1015.2	1028.6	1053.4	1079.4	1080.7	1059.6	1036.1	1017.6	1000.4	983.0	964.5
25°	1047.2	1065.7	1099.0	1109.0	1076.9	1037.4	1004.0	976.8	948.4	920.0	899.1
27.5°	1086.8	1113.9	1147.2	1118.8	1055.9	1000.4	954.5	913.8	876.8	837.3	813.9
30°	1128.7	1170.8	1178.1	1104.0	1020.0	948.4	886.6	825.0	778.0	742.2	728.6
32.5°	1179.4	1233.7	1189.3	1078.1	971.8	878.1	795.3	721.2	681.8	659.4	653.2
35°	1255.9	1300.3	1195.5	1050.9	916.4	794.1	690.3	631.1	606.4	591.5	584.2
37.5°	1365.9	1364.6	1194.1	1017.6	852.1	702.7	606.4	564.3	544.6	532.2	518.7
40°	1494.3	1414.0	1186.8	969.5	765.6	615.0	548.3	508.8	490.3	475.5	459.5
42.5°	1621.5	1447.3	1165.8	897.8	658.2	552.0	506.4	470.5	450.8	434.7	412.5
45°	1731.5	1461.0	1125.0	799.0	561.9	502.6	479.2	448.3	424.8	400.1	382.9
47.5°	1817.8	1458.5	1059.6	682.9	497.8	468.0	457.0	435.9	407.6	376.7	354.4
50°	1890.8	1440.0	970.7	580.5	454.5	437.1	433.4	427.4	381.6	355.6	342.1
52.5°	1957.3	1412.8	875.6	511.2	417.4	402.6	409.9	403.8	371.7	349.5	335.8
55°	2048.8	1394.3	781.7	458.1	374.1	370.6	376.7	385.4	365.5	344.6	329.8
57.5°	2156.2	1404.1	710.1	398.8	333.5	335.8	356.8	369.3	359.4	337.1	322.3
60°	2279.7	1433.8	647.0	342.1	300.2	306.2	337.1	354.4	353.3	327.3	309.9
62.5°	2418.1	1464.6	547.1	298.9	271.6	281.6	313.7	335.8	339.6	317.5	296.4
63°	2445.1	1467.1	521.1	290.2	266.7	277.8	307.5	330.9	335.8	314.9	293.9
65°	2511.9	1445.0	419.9	266.7	247.0	259.3	289.0	309.9	319.8	301.3	284.0
67.5°	2456.3	1263.3	316.2	238.3	231.0	239.6	265.4	285.3	293.9	285.3	268.0
70°	2246.4	918.7	247.0	212.4	213.6	219.8	239.6	258.2	268.0	265.4	249.5
72.5°	1809.1	521.1	206.3	190.3	193.9	201.3	214.9	232.2	240.8	239.6	228.4
75°	1191.7	266.7	174.1	170.4	173.0	179.0	189.0	202.6	212.4	211.2	206.3
77.5°	590.2	185.2	149.4	150.6	152.0	156.8	164.2	176.5	182.7	184.1	182.7
80°	243.4	144.4	128.5	129.6	131.0	134.6	139.5	150.6	154.4	156.8	158.1
82.5°	145.7	110.0	102.4	105.0	106.2	110.0	113.6	123.4	127.2	131.0	131.0
85°	96.3	76.5	74.1	76.5	79.1	81.4	82.7	88.9	95.1	100.0	102.4
87.5°	51.8	45.8	44.5	45.8	45.8	48.1	50.7	56.9	64.1	69.2	71.7
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°	799.0	799.0	799.0	799.0	799.0
2.5°	818.7	820.1	818.7	820.1	821.2
5°	859.5	862.1	860.8	860.8	865.6
7.5°	906.5	911.4	911.4	913.8	916.4
10°	957.1	962.1	965.8	965.8	969.5
12.5°	1007.7	1010.1	1013.8	1013.8	1013.8
15°	1033.7	1032.4	1031.2	1029.9	1029.9
17.5°	1029.9	1025.0	1022.5	1020.0	1021.4
20°	1002.8	994.2	991.6	988.0	990.4
22.5°	955.8	943.5	938.5	932.4	934.9
25°	885.5	870.6	868.1	860.8	864.4
27.5°	804.0	796.5	795.3	794.1	800.2
30°	727.4	729.9	731.1	733.6	739.8
32.5°	657.0	662.0	663.2	664.3	673.0
35°	587.9	581.7	587.9	585.3	592.8
37.5°	512.6	507.5	502.6	496.5	501.3
40°	449.5	440.9	426.1	418.6	419.9
42.5°	400.1	389.0	376.7	369.3	369.3
45°	368.0	354.4	343.3	338.4	338.4
47.5°	343.3	337.1	330.9	327.3	327.3
50°	333.5	326.1	322.3	319.8	319.8
52.5°	326.1	318.5	314.9	312.4	309.9
55°	319.8	308.7	305.1	303.7	303.7
57.5°	311.3	301.3	296.4	295.2	295.2
60°	297.6	290.2	285.3	284.0	284.0
62.5°	284.0	276.6	271.6	271.6	271.6
63°	281.6	272.9	269.2	269.2	269.2
65°	270.5	261.8	258.2	258.2	256.8
67.5°	255.7	247.0	244.5	244.5	242.1
70°	238.3	231.0	228.4	229.6	224.8
72.5°	221.1	213.6	209.9	209.9	205.1
75°	201.3	193.9	189.0	187.7	182.7
77.5°	179.0	173.0	168.0	163.0	160.5
80°	155.5	150.6	144.4	140.8	137.1
82.5°	131.0	125.9	122.3	127.2	108.7
85°	102.4	97.6	92.6	100.0	77.9
87.5°	75.4	72.9	67.9	59.3	51.8
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)