

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: P239135

Luminaire Tested: **ARCH-AF24-50-D-U-T2U-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P239135
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-AF24-50-D-U-T2U-7050
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 5000K, 670mA LIGHT ENGINE WITH 24 LEDS AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 6635 lumens
Efficiency: N/A
Efficacy: 122.9 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

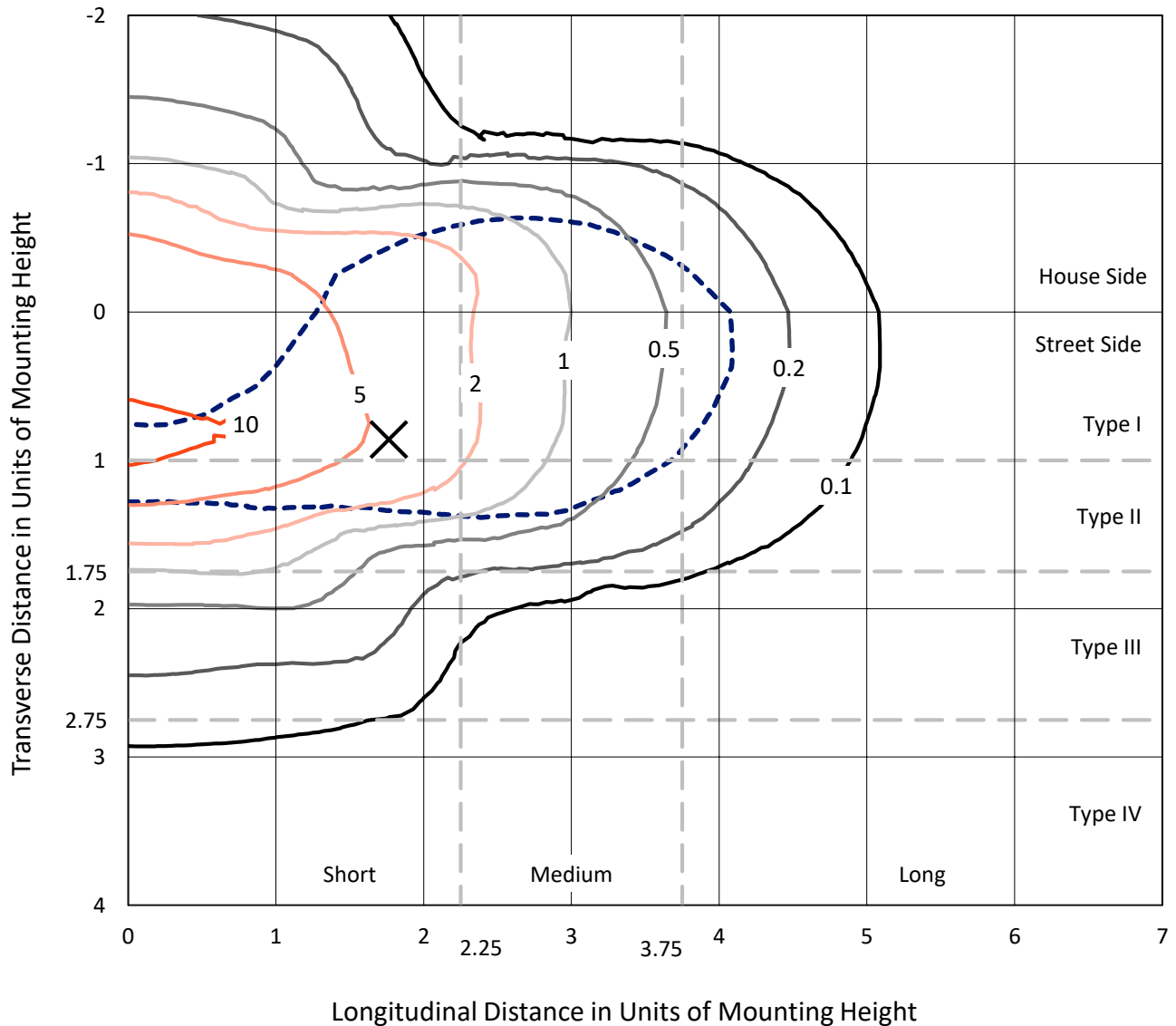
Input Watts (W): 54
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

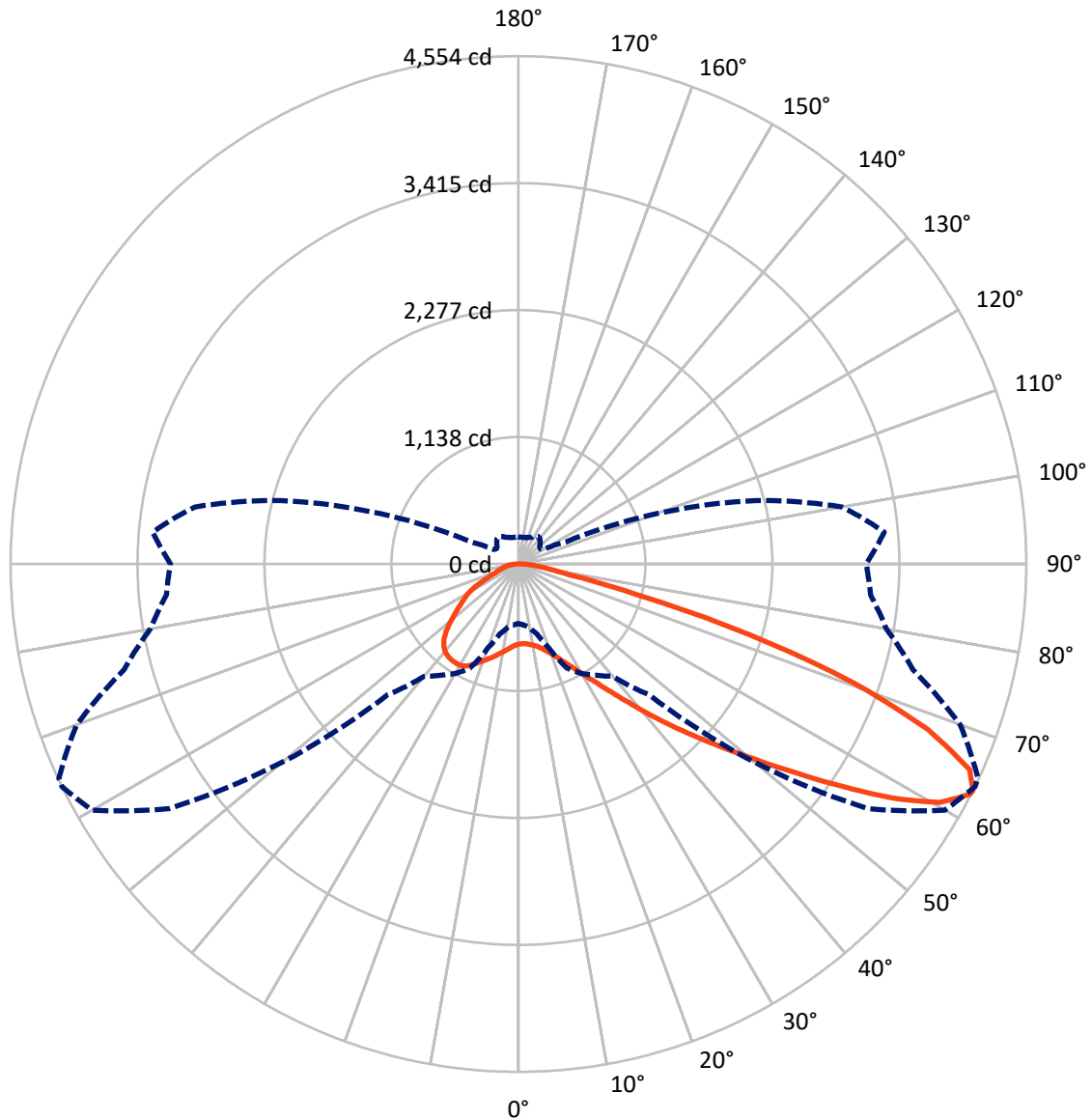
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.7 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	1950.4	0.0	1950.4
	% Fixture	29.4	0.0	29.4
Street Side	Lumens	4684.5	0.0	4684.5
	% Fixture	70.6	0.0	70.6
Total	Lumens	6635.0	0.0	6635.0
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	71.7	1.1
10°-20°	239.0	3.6
20°-30°	448.6	6.8
30°-40°	751.8	11.3
40°-50°	1261.4	19.0
50°-60°	1599.1	24.1
60°-70°	1410.6	21.3
70°-80°	728.2	11.0
80°-90°	124.6	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°	6635.0	100.0
0°-180°	6635.0	100.0



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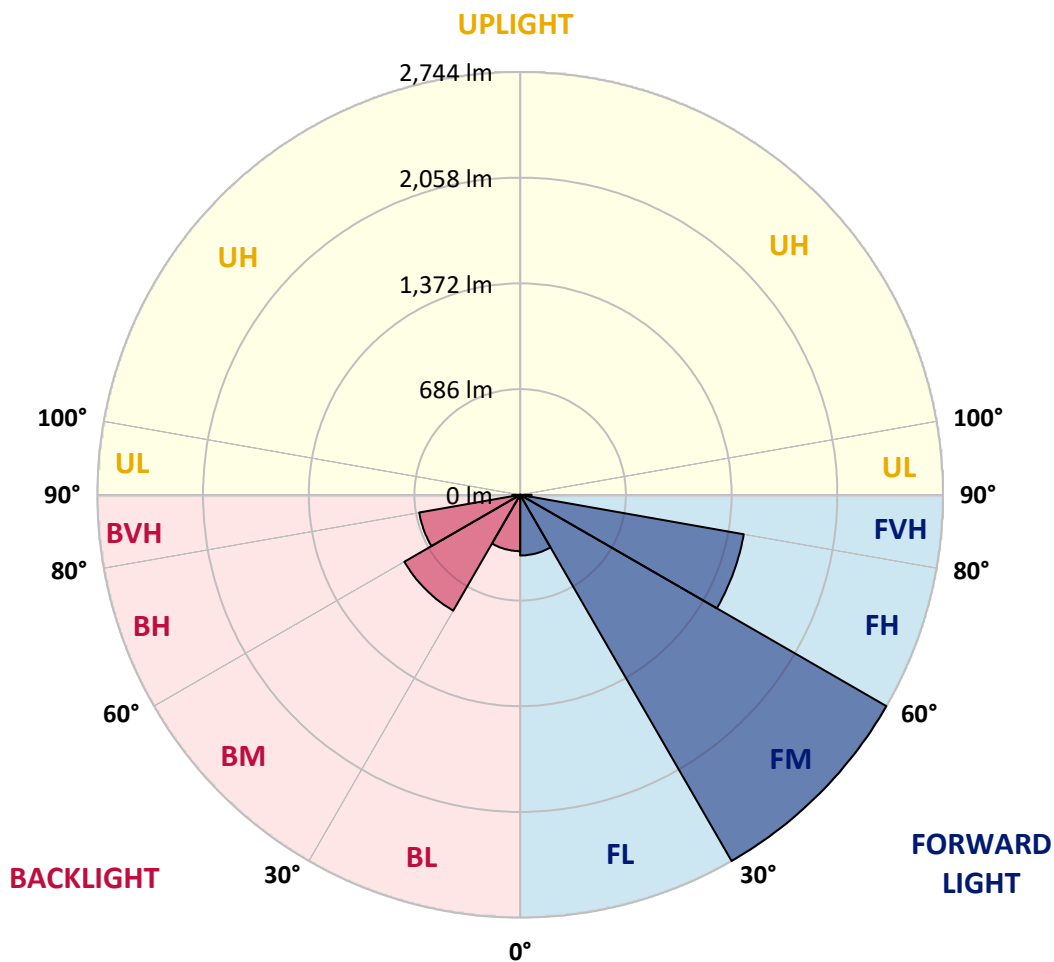
CATALOG NUMBER: ARCH-AF24-50-D-U-T2U-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	393.8	5.9			
FM	(30°-60°)	2744.1	41.4			
FH	(60°-80°)	1473.3	22.2			G1/1800
FVH	(80°-90°)	73.3	1.1			G1/100
BL	(0°-30°)	365.4	5.5	B1/500		
BM	(30°-60°)	868.2	13.1	B1/1000		
BH	(60°-80°)	665.5	10.0	B2/1000		G2/1000
BVH	(80°-90°)	51.3	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°	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6
2.5°	714.1	713.0	713.0	713.0	713.0	711.9	713.0	715.2	714.1	713.0	715.2
5°	716.3	715.2	715.2	715.2	716.3	715.2	716.3	719.7	717.5	717.5	719.7
7.5°	721.9	720.8	721.9	720.8	720.8	720.8	721.9	725.2	724.1	725.2	728.6
10°	728.6	728.6	728.6	728.6	728.6	728.6	730.8	733.0	734.1	735.2	739.7
12.5°	748.6	748.6	748.6	747.4	747.4	744.1	748.6	750.8	753.0	755.2	758.5
15°	790.8	790.8	789.6	785.2	785.2	778.5	779.7	780.8	780.8	783.0	785.2
17.5°	846.3	845.2	843.0	839.6	835.2	827.4	825.2	823.0	819.6	818.5	818.5
20°	924.0	922.9	918.5	909.6	904.0	891.8	882.9	874.1	870.7	865.2	864.1
22.5°	1035.1	1035.1	1026.2	1012.9	1008.4	982.9	957.3	938.5	931.8	924.0	924.0
25°	1169.5	1168.4	1156.1	1140.6	1121.7	1095.1	1064.0	1038.4	1021.8	1004.0	997.3
27.5°	1330.5	1327.2	1310.5	1291.6	1256.1	1222.8	1186.1	1159.5	1130.6	1108.4	1088.4
30°	1519.3	1516.0	1487.1	1451.6	1414.9	1381.6	1328.3	1296.1	1250.6	1223.9	1201.7
32.5°	1738.1	1734.8	1682.6	1648.2	1609.3	1568.2	1504.9	1453.8	1396.0	1358.3	1327.2
35°	2016.9	2003.5	1929.1	1881.4	1820.3	1779.2	1712.6	1643.7	1576.0	1522.7	1477.1
37.5°	2317.9	2302.3	2236.8	2165.7	2105.7	2055.7	1961.3	1874.7	1794.8	1721.5	1664.8
40°	2632.2	2591.1	2521.1	2468.9	2427.8	2380.0	2281.2	2190.1	2064.6	1982.4	1896.9
42.5°	2849.8	2809.9	2761.0	2726.6	2706.6	2669.9	2614.4	2535.5	2423.4	2425.6	2200.1
45°	2993.1	2934.2	2900.9	2903.1	2910.9	2910.9	2900.9	2888.7	2839.8	2873.2	2684.4
47.5°	2942.0	2903.1	2882.0	2926.5	2982.0	3037.5	3101.9	3171.9	3251.9	3346.3	3114.2
50°	2642.2	2656.6	2666.6	2761.0	2879.8	3006.4	3154.1	3345.2	3568.4	3611.7	3499.5
52.5°	2163.5	2194.6	2227.9	2372.3	2528.9	2747.7	3006.4	3321.8	3621.7	3798.3	3787.2
55°	1680.4	1719.2	1790.3	1898.0	2022.4	2229.0	2548.9	3035.3	3502.9	3783.9	3954.9
57.5°	1196.1	1252.8	1346.1	1496.0	1605.9	1722.6	1959.1	2498.9	3010.9	3534.0	3927.1
60°	795.2	821.9	882.9	1069.5	1255.0	1377.2	1544.9	1740.3	2159.0	2879.8	3640.6
62.5°	564.2	582.0	619.7	704.1	871.8	1092.8	1193.9	1283.9	1418.3	1852.5	2923.1
63°	533.1	548.6	579.7	650.8	801.9	1030.7	1133.9	1216.1	1313.9	1657.0	2765.4
65°	442.0	448.7	465.3	499.8	580.9	770.8	939.6	989.6	1006.2	1065.1	1732.6
67.5°	373.2	377.6	383.2	393.2	425.4	513.1	700.8	764.1	745.2	705.2	856.3
70°	324.3	327.6	336.5	348.7	359.8	382.1	482.0	576.4	555.3	500.9	524.2
72.5°	258.8	264.3	274.3	295.4	317.6	346.5	370.9	429.8	416.5	364.3	369.8
75°	204.4	207.7	216.6	232.1	253.2	286.5	334.3	354.3	317.6	268.8	268.8
77.5°	162.1	165.5	173.3	185.5	198.8	222.1	255.4	307.6	285.4	202.1	201.0
80°	122.2	125.5	133.3	144.4	157.7	174.4	194.4	217.7	262.1	188.8	151.0
82.5°	90.0	91.1	104.4	112.2	116.6	129.9	146.6	159.9	179.9	174.4	134.4
85°	67.7	66.6	75.5	81.1	82.2	85.5	95.5	108.8	117.7	113.3	104.4
87.5°	37.8	33.3	38.9	44.4	44.4	45.5	47.8	55.5	63.3	61.1	55.5
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°	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6
2.5°	715.2	715.2	714.1	714.1	715.2	715.2	714.1	717.5	719.7	719.7	720.8
5°	718.6	719.7	718.6	718.6	719.7	719.7	720.8	724.1	727.5	729.7	733.0
7.5°	728.6	729.7	728.6	728.6	729.7	730.8	733.0	737.4	739.7	744.1	749.7
10°	739.7	740.8	739.7	740.8	741.9	743.0	746.3	749.7	753.0	757.4	766.3
12.5°	759.7	760.8	758.5	759.7	763.0	763.0	765.2	767.4	773.0	778.5	787.4
15°	787.4	787.4	785.2	786.3	789.6	789.6	790.8	793.0	799.6	806.3	815.2
17.5°	819.6	821.9	820.7	821.9	824.1	825.2	825.2	827.4	831.9	836.3	845.2
20°	862.9	864.1	861.8	864.1	866.3	864.1	861.8	860.7	862.9	865.2	875.2
22.5°	921.8	920.7	915.1	915.1	915.1	910.7	905.2	898.5	898.5	895.2	902.9
25°	991.8	988.4	980.7	981.8	974.0	967.3	957.3	947.4	938.5	935.1	936.2
27.5°	1074.0	1067.3	1059.5	1057.3	1049.5	1037.3	1020.7	1001.8	987.3	976.2	974.0
30°	1177.3	1162.8	1149.5	1147.3	1135.0	1115.1	1088.4	1062.9	1038.4	1019.5	1012.9
32.5°	1299.4	1277.2	1256.1	1253.9	1233.9	1207.2	1175.0	1139.5	1104.0	1074.0	1059.5
35°	1442.7	1409.4	1389.4	1383.8	1354.9	1321.6	1286.1	1240.6	1190.6	1148.4	1121.7
37.5°	1617.1	1582.6	1548.2	1549.3	1509.3	1470.5	1422.7	1367.2	1303.9	1245.0	1207.2
40°	1832.5	1783.6	1739.2	1729.2	1694.8	1640.4	1588.2	1523.8	1446.0	1368.3	1313.9
42.5°	2093.5	2013.5	1952.5	1943.6	1898.0	1831.4	1768.1	1682.6	1603.7	1509.3	1443.8
45°	2390.0	2262.3	2189.0	2175.7	2102.4	2034.6	1958.0	1866.9	1770.3	1663.7	1586.0
47.5°	2758.8	2576.6	2452.2	2430.0	2329.0	2240.1	2160.1	2059.1	1943.6	1824.7	1739.2
50°	3188.6	2919.8	2752.1	2717.7	2582.2	2477.8	2375.6	2249.0	2125.7	2001.3	1902.5
52.5°	3619.5	3330.7	3107.5	3065.3	2865.4	2725.4	2591.1	2464.5	2319.0	2195.7	2083.5
55°	3966.0	3773.9	3515.1	3456.2	3169.7	2979.8	2803.2	2658.8	2514.4	2416.7	2284.5
57.5°	4174.8	4164.8	3960.5	3879.4	3487.3	3206.3	3009.8	2845.4	2705.5	2664.4	2488.9
60°	4169.2	4428.0	4340.3	4279.2	3808.3	3438.5	3183.0	3005.3	2889.8	2936.5	2694.4
62.5°	3914.9	4439.1	4544.6	4528.0	4150.4	3625.0	3325.2	3141.9	3080.8	3219.7	2907.6
63°	3822.7	4413.6	4553.5	4546.9	4215.9	3660.6	3349.6	3168.6	3118.6	3291.9	2946.5
65°	3230.8	4190.3	4445.8	4475.8	4356.9	3782.8	3406.3	3236.3	3230.8	3452.9	3038.6
67.5°	1969.1	3540.6	3960.5	4018.2	4158.1	3821.6	3374.0	3213.0	3293.0	3476.2	3010.9
70°	841.8	2336.7	3183.0	3276.3	3618.4	3628.4	3281.9	3117.5	3278.5	3294.1	2813.2
72.5°	498.7	1101.7	2166.8	2370.1	2863.2	3121.9	3070.8	2950.9	3088.6	2893.2	2395.6
75°	353.2	515.3	1100.6	1317.2	1993.6	2383.4	2580.0	2635.5	2629.9	2294.5	1798.1
77.5°	253.2	331.0	464.2	547.5	1112.8	1530.4	1770.3	1932.5	1880.3	1536.0	1108.4
80°	176.6	228.8	284.3	302.1	516.4	786.3	932.9	1004.0	972.9	767.4	496.4
82.5°	127.7	149.9	183.3	194.4	259.9	363.2	432.0	380.9	365.4	283.2	214.3
85°	98.8	96.6	114.4	118.8	152.2	189.9	194.4	151.0	132.2	117.7	119.9
87.5°	70.0	60.0	61.1	63.3	78.9	101.1	98.8	62.2	53.3	56.6	64.4
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°	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6	718.6
2.5°	723.0	724.1	726.3	727.5	729.7	729.7	731.9	733.0	735.2	737.4	738.6
5°	736.3	739.7	744.1	746.3	750.8	754.1	758.5	760.8	765.2	768.5	773.0
7.5°	756.3	761.9	767.4	774.1	780.8	786.3	790.8	796.3	804.1	809.6	813.0
10°	775.2	783.0	793.0	800.8	810.7	818.5	825.2	835.2	844.1	851.8	856.3
12.5°	799.6	809.6	819.6	831.9	845.2	855.2	865.2	878.5	890.7	899.6	904.0
15°	828.5	840.7	851.8	866.3	881.8	895.2	909.6	924.0	932.9	932.9	930.7
17.5°	858.5	868.5	881.8	898.5	919.6	936.2	944.0	946.2	942.9	935.1	929.6
20°	888.5	897.4	911.8	931.8	954.0	957.3	949.6	939.6	929.6	916.3	907.4
22.5°	912.9	925.1	947.4	970.7	971.8	952.9	931.8	915.1	899.6	884.0	867.4
25°	941.8	958.5	988.4	997.3	968.5	932.9	902.9	878.5	853.0	827.4	808.5
27.5°	977.3	1001.8	1031.8	1006.2	949.6	899.6	858.5	821.9	788.5	753.0	731.9
30°	1015.1	1052.9	1059.5	992.9	917.4	853.0	797.4	741.9	699.7	667.5	655.3
32.5°	1060.6	1109.5	1069.5	969.6	874.1	789.6	715.2	648.6	613.1	593.1	587.5
35°	1129.5	1169.5	1075.1	945.1	824.1	714.1	620.8	567.5	545.3	532.0	525.3
37.5°	1228.3	1227.2	1074.0	915.1	766.3	631.9	545.3	507.6	489.8	478.7	466.5
40°	1343.8	1271.7	1067.3	871.8	688.6	553.1	493.1	457.6	440.9	427.6	413.1
42.5°	1458.2	1301.6	1048.4	807.4	592.0	496.4	455.4	423.1	405.4	390.9	370.9
45°	1557.1	1313.9	1011.8	718.6	505.3	452.0	430.9	403.2	382.1	359.8	344.3
47.5°	1634.8	1311.6	952.9	614.2	447.6	420.9	410.9	392.0	366.5	338.7	318.7
50°	1700.4	1295.0	872.9	522.0	408.7	393.2	389.8	384.3	343.2	319.9	307.6
52.5°	1760.3	1270.5	787.4	459.8	375.4	362.1	368.7	363.2	334.3	314.3	302.1
55°	1842.5	1253.9	703.0	412.0	336.5	333.2	338.7	346.5	328.7	309.9	296.5
57.5°	1939.1	1262.8	638.6	358.7	299.9	302.1	321.0	332.1	323.2	303.2	289.9
60°	2050.2	1289.4	582.0	307.6	269.9	275.4	303.2	318.7	317.6	294.3	278.8
62.5°	2174.6	1317.2	492.0	268.8	244.3	253.2	282.1	302.1	305.4	285.4	266.5
63°	2199.0	1319.4	468.7	261.0	239.9	249.9	276.5	297.6	302.1	283.2	264.3
65°	2259.0	1299.4	377.6	239.9	222.1	233.2	259.9	278.8	287.6	271.0	255.4
67.5°	2209.0	1136.2	284.3	214.3	207.7	215.5	238.8	256.6	264.3	256.6	241.0
70°	2020.2	826.3	222.1	191.0	192.1	197.7	215.5	232.1	241.0	238.8	224.3
72.5°	1627.1	468.7	185.5	171.0	174.4	181.0	193.2	208.8	216.6	215.5	205.5
75°	1071.7	239.9	156.6	153.3	155.5	161.0	169.9	182.1	191.0	189.9	185.5
77.5°	530.9	166.6	134.4	135.5	136.6	141.0	147.7	158.8	164.4	165.5	164.4
80°	218.8	129.9	115.5	116.6	117.7	121.1	125.5	135.5	138.8	141.0	142.2
82.5°	131.1	98.8	92.2	94.4	95.5	98.8	102.2	111.1	114.4	117.7	117.7
85°	86.6	68.9	66.6	68.9	71.1	73.3	74.4	80.0	85.5	90.0	92.2
87.5°	46.6	41.1	40.0	41.1	41.1	43.3	45.5	51.1	57.8	62.2	64.4
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°	718.6	718.6	718.6	718.6	718.6
2.5°	736.3	737.4	736.3	737.4	738.6
5°	773.0	775.2	774.1	774.1	778.5
7.5°	815.2	819.6	819.6	821.9	824.1
10°	860.7	865.2	868.5	868.5	871.8
12.5°	906.3	908.5	911.8	911.8	911.8
15°	929.6	928.5	927.4	926.3	926.3
17.5°	926.3	921.8	919.6	917.4	918.5
20°	901.8	894.0	891.8	888.5	890.7
22.5°	859.6	848.5	844.1	838.5	840.7
25°	796.3	783.0	780.8	774.1	777.4
27.5°	723.0	716.3	715.2	714.1	719.7
30°	654.2	656.4	657.5	659.7	665.3
32.5°	590.8	595.3	596.4	597.5	605.3
35°	528.7	523.1	528.7	526.4	533.1
37.5°	460.9	456.5	452.0	446.5	450.9
40°	404.3	396.5	383.2	376.5	377.6
42.5°	359.8	349.8	338.7	332.1	332.1
45°	331.0	318.7	308.8	304.3	304.3
47.5°	308.8	303.2	297.6	294.3	294.3
50°	299.9	293.2	289.9	287.6	287.6
52.5°	293.2	286.5	283.2	281.0	278.8
55°	287.6	277.7	274.3	273.2	273.2
57.5°	279.9	271.0	266.5	265.4	265.4
60°	267.7	261.0	256.6	255.4	255.4
62.5°	255.4	248.8	244.3	244.3	244.3
63°	253.2	245.4	242.1	242.1	242.1
65°	243.2	235.5	232.1	232.1	231.0
67.5°	229.9	222.1	219.9	219.9	217.7
70°	214.3	207.7	205.5	206.6	202.1
72.5°	198.8	192.1	188.8	188.8	184.4
75°	181.0	174.4	169.9	168.8	164.4
77.5°	161.0	155.5	151.0	146.6	144.4
80°	139.9	135.5	129.9	126.6	123.3
82.5°	117.7	113.3	110.0	114.4	97.7
85°	92.2	87.7	83.3	90.0	70.0
87.5°	67.7	65.5	61.1	53.3	46.6
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)