

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: P198927

Luminaire Tested: **XNV2-AF-02-LED-U-T2R-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198927
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24459)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: XNV2-AF-02-LED-U-T2R-7050
Description: XNV2 ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12637 lumens
Efficiency: N/A
Efficacy: 113.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Semi-Cutoff
BUG Rating: B2 - U0 - G2

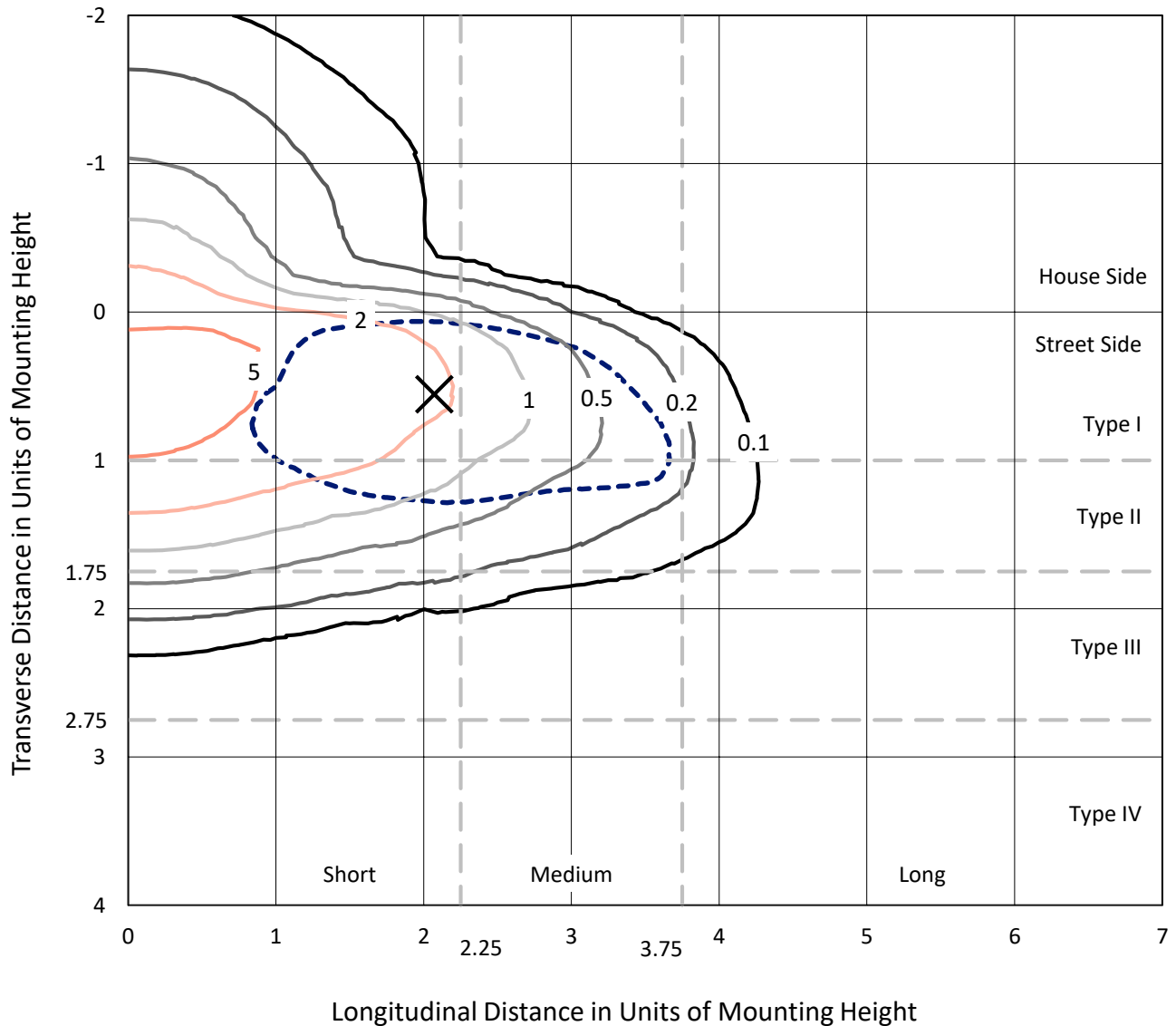
Input Watts (W): 111
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

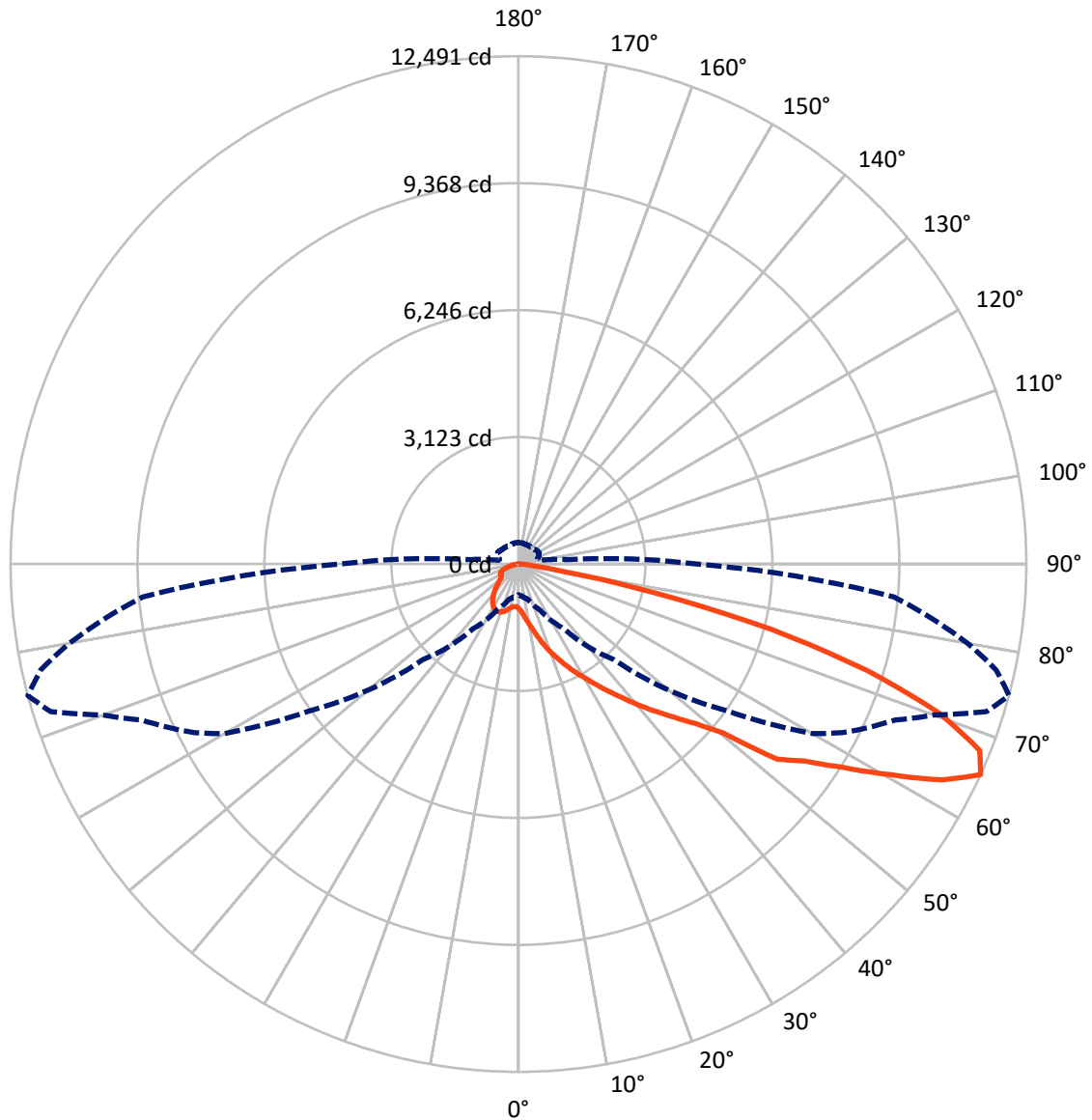
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 7.9 fc
 Type II - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1898.9	0.0	1898.9
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	10738.1	0.0	10738.1
	% Fixture	85.0	0.0	85.0
Total	Lumens	12637.0	0.0	12637.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	1.0
10°-20°	493.7	3.9
20°-30°	996.4	7.9
30°-40°	1692.1	13.4
40°-50°	2360.1	18.7
50°-60°	2892.6	22.9
60°-70°	2721.5	21.5
70°-80°	1193.4	9.4
80°-90°	157.9	1.2
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°	12637.0	100.0
0°-180°	12637.0	100.0

Coefficient of Utilization



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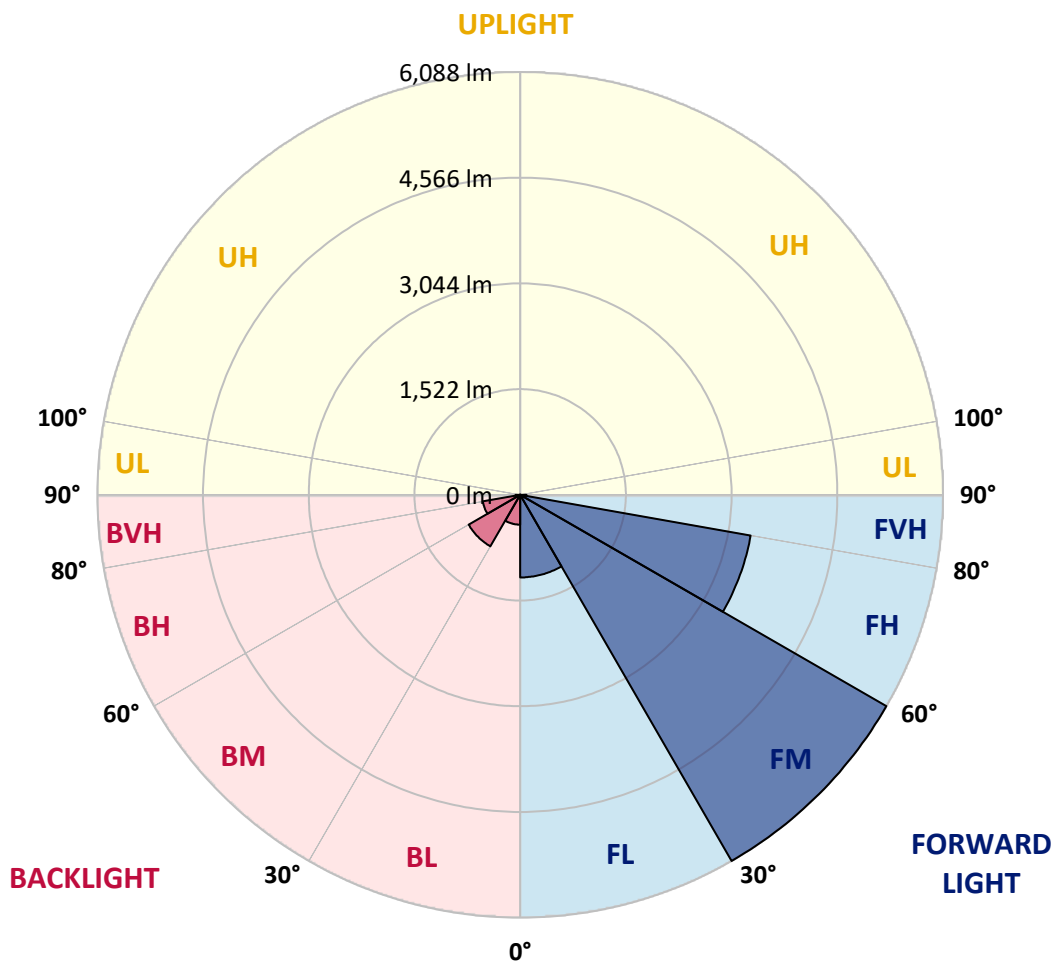
CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1189.5	9.4			
FM	(30°-60°)	6087.9	48.2			
FH	(60°-80°)	3369.1	26.7			G2/5000
FVH	(80°-90°)	91.5	0.7			G1/100
BL	(0°-30°)	429.9	3.4	B1/500		
BM	(30°-60°)	856.9	6.8	B1/1000		
BH	(60°-80°)	545.8	4.3	B2/1000		G2/1000
BVH	(80°-90°)	66.4	0.5			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°	15°	25°	35°	45°	55°	57.5°	60°	62.5°	65°
0°	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9
2.5°	1378.7	1362.6	1364.2	1341.7	1308.8	1272.6	1242.8	1226.8	1213.1	1209.1	1186.6
5°	1803.2	1783.1	1775.8	1724.4	1647.2	1555.6	1464.7	1429.3	1400.4	1382.7	1339.3
7.5°	2150.4	2140.0	2130.3	2082.9	2006.5	1889.2	1742.9	1690.6	1642.4	1589.3	1537.1
10°	2386.8	2382.8	2378.8	2345.8	2282.3	2180.2	2022.6	1965.5	1905.3	1837.7	1769.4
12.5°	2565.3	2565.3	2568.5	2541.1	2502.6	2423.8	2280.7	2227.6	2166.5	2095.8	2017.8
15°	2685.0	2688.3	2705.1	2713.2	2693.1	2642.4	2517.0	2470.4	2412.5	2342.6	2265.4
17.5°	2764.6	2771.1	2796.0	2822.5	2848.2	2830.5	2737.3	2693.9	2641.6	2577.3	2505.0
20°	2949.5	2941.5	2942.3	2934.3	2972.0	2985.7	2934.3	2898.1	2856.3	2797.6	2731.7
22.5°	3337.8	3322.5	3283.1	3182.7	3136.8	3132.0	3101.5	3082.2	3050.0	3013.0	2947.1
25°	3844.3	3826.6	3748.6	3583.0	3446.3	3320.1	3263.9	3251.8	3230.9	3206.0	3158.5
27.5°	4367.6	4348.3	4247.8	4038.8	3860.4	3605.5	3430.3	3414.2	3394.9	3384.4	3361.9
30°	4828.3	4807.4	4708.5	4496.2	4280.8	3976.9	3654.6	3598.3	3565.3	3568.5	3555.7
32.5°	5232.6	5214.1	5103.2	4886.9	4668.3	4373.2	3945.6	3857.9	3784.0	3756.6	3766.3
35°	5571.9	5555.0	5433.6	5215.7	4995.5	4750.3	4320.2	4188.3	4067.8	3992.2	3983.3
37.5°	5771.2	5761.6	5676.4	5491.5	5272.8	5092.7	4739.8	4593.5	4415.9	4305.7	4257.5
40°	5760.0	5770.4	5756.0	5672.4	5502.7	5371.7	5177.1	5032.4	4858.8	4694.8	4596.7
42.5°	5596.0	5610.5	5675.6	5719.0	5673.2	5593.6	5559.0	5451.3	5295.3	5121.7	4985.8
45°	5370.9	5383.8	5468.2	5624.9	5756.0	5778.5	5893.4	5839.6	5707.7	5559.8	5410.3
47.5°	5026.0	5050.9	5149.0	5398.2	5710.1	5927.2	6174.0	6198.9	6122.5	6000.3	5860.5
50°	4526.8	4559.7	4697.2	5051.7	5536.5	6079.9	6591.2	6686.1	6655.5	6531.7	6390.2
52.5°	4015.5	4048.5	4231.8	4608.8	5256.7	6142.6	7002.0	7244.8	7420.0	7547.9	7572.8
55°	3483.3	3520.3	3721.3	4155.4	4883.7	6063.1	7295.4	7571.2	7748.8	7882.3	7936.2
57.5°	2882.8	2924.6	3119.2	3558.1	4356.4	5743.1	7621.8	8012.5	8277.0	8482.8	8598.6
60°	2193.9	2246.1	2447.9	2890.0	3663.4	5130.5	7767.3	8345.3	8765.8	9074.5	9257.8
62.5°	1390.8	1443.8	1653.6	2112.7	2874.8	4293.7	7355.7	8199.0	8916.1	9372.7	9708.8
65°	758.9	782.2	898.8	1244.4	1938.2	3331.4	6312.3	7306.7	8339.7	8986.9	9503.0
67.5°	569.2	572.4	584.4	668.8	1032.2	2249.3	4935.2	5846.0	6993.2	7826.0	8442.6
70°	498.4	498.4	500.0	500.8	560.3	1218.7	3343.4	4181.9	5233.4	6075.9	6842.0
72.5°	447.0	442.1	440.5	430.9	438.9	624.6	1820.0	2573.3	3460.0	4405.4	5120.1
75°	385.9	385.1	385.1	375.4	380.2	439.7	789.4	1234.8	1922.1	2802.4	3505.8
77.5°	333.6	328.0	328.8	323.2	338.4	336.8	374.6	508.9	836.9	1472.0	2055.6
80°	274.9	270.9	273.3	270.1	294.2	249.2	252.4	311.1	415.6	645.5	910.0
82.5°	203.4	205.0	220.3	218.7	247.6	168.0	184.9	232.3	279.8	321.6	349.7
85°	119.0	121.4	158.4	166.4	181.7	88.4	113.4	138.3	156.0	172.8	180.1
87.5°	12.9	16.9	88.4	90.8	81.2	26.5	45.8	57.9	61.9	65.9	57.9
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):

	67.5°	70°	72.5°	75°	77.5°	80°	85°	90°	95°	100°	102.5°
0°	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9
2.5°	1179.3	1168.9	1157.6	1151.2	1139.9	1130.3	1112.6	1098.1	1082.1	1070.8	1066.0
5°	1317.6	1292.7	1266.2	1246.9	1222.7	1201.8	1161.6	1113.4	1098.1	1066.0	1057.9
7.5°	1497.7	1452.7	1407.6	1370.7	1328.9	1294.3	1226.8	1139.9	1128.7	1077.2	1066.0
10°	1709.1	1643.2	1576.5	1519.4	1458.3	1405.2	1305.5	1183.3	1171.3	1105.4	1094.1
12.5°	1945.5	1865.1	1779.0	1693.8	1621.5	1546.7	1410.9	1250.9	1231.6	1153.6	1138.3
15°	2189.0	2102.2	2002.5	1899.6	1810.4	1711.5	1540.3	1339.3	1303.9	1212.3	1191.4
17.5°	2429.4	2335.3	2230.8	2115.9	2011.4	1893.2	1680.2	1438.2	1377.1	1270.2	1243.6
20°	2661.7	2566.1	2455.9	2343.4	2213.2	2078.1	1823.3	1535.5	1442.2	1318.4	1283.8
22.5°	2873.2	2791.2	2681.0	2551.6	2419.8	2267.8	1968.8	1632.7	1499.3	1355.4	1311.2
25°	3095.8	3021.1	2911.7	2787.1	2633.6	2464.8	2119.1	1725.2	1545.1	1375.5	1320.8
27.5°	3320.9	3256.6	3153.7	3022.7	2857.9	2670.6	2271.8	1810.4	1582.1	1381.9	1316.0
30°	3561.3	3511.5	3416.6	3270.3	3103.9	2896.5	2438.2	1894.0	1605.4	1373.1	1294.3
32.5°	3788.8	3787.2	3702.8	3550.8	3371.6	3143.3	2613.5	1978.4	1617.5	1348.1	1256.5
35°	4025.2	4058.1	3994.6	3849.9	3661.0	3407.8	2807.2	2068.4	1618.3	1303.9	1207.5
37.5°	4293.7	4352.3	4324.2	4186.7	3988.2	3709.2	3034.7	2169.7	1613.4	1242.8	1135.9
40°	4599.1	4679.5	4678.7	4563.0	4350.7	4046.9	3299.2	2283.1	1602.2	1166.5	1051.5
42.5°	4948.8	5044.5	5071.0	4956.9	4742.2	4415.9	3602.3	2407.7	1584.5	1090.9	962.3
45°	5349.2	5433.6	5483.4	5377.3	5161.9	4817.8	3950.4	2549.2	1562.8	993.6	860.2
47.5°	5777.7	5875.7	5950.5	5859.7	5629.7	5276.0	4362.8	2731.7	1554.8	882.7	750.0
50°	6309.0	6410.3	6571.9	6530.9	6404.7	6120.1	5235.0	3162.6	1558.0	777.4	657.6
52.5°	7627.5	7859.8	8064.0	7973.1	7673.3	7185.3	5944.1	3402.1	1490.4	691.4	593.3
55°	8025.4	8289.1	8590.5	8552.7	8264.9	7773.0	6504.4	3602.3	1425.3	628.7	551.5
57.5°	8721.6	9032.7	9453.9	9445.9	9093.0	8539.1	7225.5	3841.9	1397.2	592.5	530.6
60°	9458.7	9855.1	10437.1	10527.9	10144.5	9568.1	8077.6	4136.1	1401.2	572.4	518.5
62.5°	9997.4	10578.6	11425.1	11696.8	11245.0	10609.9	8961.9	4430.3	1377.1	549.1	504.0
65°	10030.3	10867.2	12068.2	12491.1	12033.7	11217.7	9273.8	4372.4	1232.4	517.7	480.7
67.5°	9226.4	10316.5	11775.6	12239.5	11771.6	10843.1	8727.2	3822.6	1001.7	463.0	440.5
70°	7684.5	8949.9	10464.4	10981.3	10594.7	9654.9	7595.3	3053.2	748.4	390.7	380.2
72.5°	5938.4	7118.6	8494.1	8972.4	8676.5	7850.1	5990.7	2225.2	534.6	316.7	308.7
75°	4245.4	5250.3	6248.8	6431.2	6139.4	5380.5	3886.9	1390.0	374.6	259.7	248.4
77.5°	2628.8	3282.3	3640.9	3406.1	3033.9	2521.9	1582.1	686.5	249.2	211.4	200.2
80°	1166.5	1369.1	1278.2	1139.1	899.6	739.6	483.1	304.7	160.8	163.2	156.8
82.5°	392.3	414.8	403.6	401.1	361.8	316.7	205.0	131.8	90.0	104.5	102.1
85°	191.3	200.2	201.0	208.2	180.9	140.7	55.5	52.3	38.6	56.3	58.7
87.5°	57.9	58.7	53.1	57.9	46.6	32.2	10.5	14.5	7.2	13.7	13.7
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°	107.5°	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°
0°	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9
2.5°	1057.1	1053.9	1048.3	1041.9	1040.3	1032.2	1029.8	1025.8	1023.4	1019.4	1016.1
5°	1047.5	1041.9	1035.4	1028.2	1028.2	1016.9	1012.1	1007.3	1007.3	1000.1	996.8
7.5°	1057.1	1049.9	1042.7	1036.2	1038.6	1025.8	1021.0	1016.1	1015.3	1008.1	1004.9
10°	1084.5	1077.2	1068.4	1062.0	1059.5	1049.1	1043.5	1036.2	1031.4	1026.6	1021.8
12.5°	1126.3	1116.6	1105.4	1091.7	1086.1	1077.2	1068.4	1058.7	1047.5	1042.7	1035.4
15°	1176.1	1160.0	1144.8	1127.9	1112.6	1103.8	1091.7	1076.4	1061.2	1054.7	1045.1
17.5°	1217.1	1200.2	1178.5	1158.4	1131.1	1123.9	1107.0	1088.5	1063.6	1061.2	1046.7
20°	1251.7	1226.0	1199.4	1175.3	1133.5	1129.5	1108.6	1086.9	1051.5	1051.5	1033.8
22.5°	1271.0	1235.6	1204.2	1172.1	1119.8	1116.6	1092.5	1066.8	1023.4	1025.0	1003.3
25°	1274.2	1231.6	1192.2	1153.6	1093.3	1087.7	1057.1	1029.0	981.6	978.4	955.8
27.5°	1261.3	1211.5	1165.7	1119.0	1053.9	1041.9	1008.1	974.3	927.7	919.7	895.6
30°	1231.6	1172.9	1121.4	1067.6	999.3	980.0	944.6	910.0	862.6	852.1	829.6
32.5°	1184.2	1117.4	1060.4	1006.5	930.9	906.8	871.4	836.9	791.0	783.0	762.1
35°	1121.4	1046.7	986.4	929.3	853.7	828.8	795.1	764.5	722.7	719.5	705.0
37.5°	1042.7	964.7	900.4	845.7	774.2	761.3	726.7	704.2	669.7	672.9	665.6
40°	953.4	873.8	812.7	764.5	702.6	691.4	670.5	653.6	623.8	632.7	633.5
42.5°	863.4	783.8	728.3	684.9	631.9	624.6	610.2	600.5	578.0	595.7	602.9
45°	761.3	687.3	639.9	606.9	567.6	567.6	560.3	559.5	544.2	569.2	576.4
47.5°	662.4	604.5	571.6	551.5	524.1	537.0	534.6	541.0	529.8	555.5	561.9
50°	587.7	547.5	527.4	517.7	498.4	518.5	523.3	532.2	522.5	545.0	549.9
52.5°	540.2	513.7	502.4	500.0	486.4	511.3	519.3	527.4	516.1	537.0	536.2
55°	513.7	496.0	492.0	496.8	486.4	510.5	518.5	524.1	514.5	529.0	528.2
57.5°	504.0	494.4	496.8	504.0	496.8	516.9	520.9	527.4	517.7	524.1	527.4
60°	503.2	503.2	512.9	522.5	517.7	532.2	534.6	533.8	525.0	525.8	527.4
62.5°	498.4	510.5	526.6	541.8	540.2	557.9	559.5	549.1	541.8	533.8	531.4
65°	483.1	503.2	526.6	547.5	550.7	578.0	581.2	570.8	565.9	552.3	541.8
67.5°	449.4	475.1	502.4	528.2	533.8	570.8	578.0	582.0	584.4	575.6	561.9
70°	392.3	418.8	447.0	476.7	484.8	525.8	541.0	559.5	574.0	586.9	582.0
72.5°	319.2	343.3	367.4	394.7	406.8	449.4	469.5	501.6	524.1	557.1	570.8
75°	253.2	267.7	282.2	299.1	308.7	350.5	375.4	414.0	444.6	490.4	520.9
77.5°	199.4	206.6	213.8	221.1	225.1	248.4	268.5	307.1	342.5	400.3	445.4
80°	153.5	157.6	158.4	160.8	159.2	170.4	177.7	201.0	231.5	288.6	341.7
82.5°	98.9	102.1	103.7	107.7	99.7	114.2	119.0	121.4	137.5	179.3	217.1
85°	55.5	56.3	57.1	58.7	47.4	61.9	62.7	58.7	57.1	74.0	83.6
87.5°	13.7	12.9	13.7	13.7	5.6	12.9	12.9	8.8	6.4	12.1	9.6
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):

	135°	145°	155°	165°	175°	180°
0°	1094.9	1094.9	1094.9	1094.9	1094.9	1094.9
2.5°	1008.9	1007.3	1008.1	1004.1	1002.5	1003.3
5°	992.8	989.6	989.6	987.2	984.0	984.0
7.5°	1000.1	993.6	991.2	986.4	981.6	982.4
10°	1011.3	1000.1	992.0	984.8	979.2	979.2
12.5°	1018.5	998.5	986.4	976.7	970.3	970.3
15°	1020.2	989.6	971.9	961.5	955.0	955.0
17.5°	1010.5	971.9	949.4	935.7	928.5	930.1
20°	986.4	939.0	912.4	898.0	890.7	891.5
22.5°	948.6	893.9	863.4	846.5	839.3	839.3
25°	897.2	837.7	804.7	791.0	784.6	784.6
27.5°	838.5	777.4	748.4	738.0	734.0	734.0
30°	772.6	721.9	701.0	693.8	687.3	687.3
32.5°	717.1	680.9	673.7	664.0	647.1	646.3
35°	672.9	668.8	663.2	634.3	610.2	606.9
37.5°	648.8	672.9	637.5	587.7	568.4	567.6
40°	635.9	658.4	597.3	573.2	570.8	570.8
42.5°	605.3	621.4	594.9	581.2	581.2	582.0
45°	573.2	586.9	600.5	588.5	592.5	593.3
47.5°	550.7	578.0	600.5	590.1	598.1	602.9
50°	529.8	570.0	588.5	588.5	597.3	598.1
52.5°	525.0	558.7	577.2	586.0	586.9	582.8
55°	525.8	549.9	568.4	579.6	574.8	574.8
57.5°	525.0	545.0	561.1	565.1	567.6	567.6
60°	525.8	538.6	551.5	549.9	557.9	557.9
62.5°	528.2	529.8	536.2	534.6	546.7	546.7
65°	533.8	518.5	514.5	516.1	530.6	529.8
67.5°	544.2	503.2	490.4	491.2	512.1	508.9
70°	559.5	482.3	463.0	458.2	493.6	488.0
72.5°	564.3	458.2	427.7	422.9	443.8	427.7
75°	541.8	438.9	389.9	373.8	365.0	360.1
77.5°	483.1	426.9	350.5	316.7	303.1	299.9
80°	400.3	402.0	299.1	258.9	300.7	299.9
82.5°	302.3	347.3	239.6	224.3	217.9	181.7
85°	146.3	261.3	184.1	154.3	92.4	87.6
87.5°	12.9	109.3	106.1	69.1	31.4	29.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)