

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: P198767

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198767
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
Description: XNV2 ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 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: 12927 lumens
Efficiency: N/A
Efficacy: 116.5 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 (A_{in}): 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

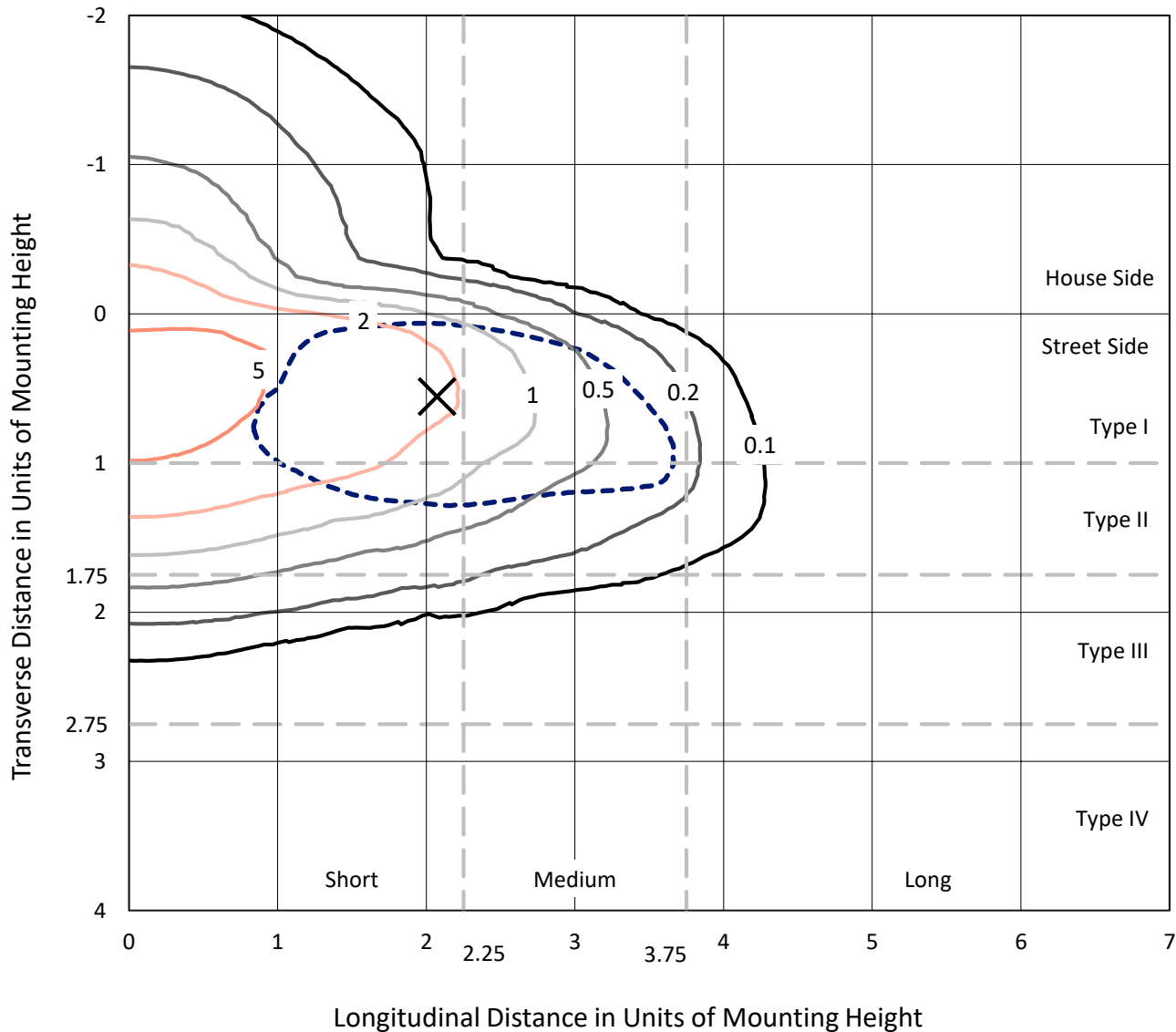


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

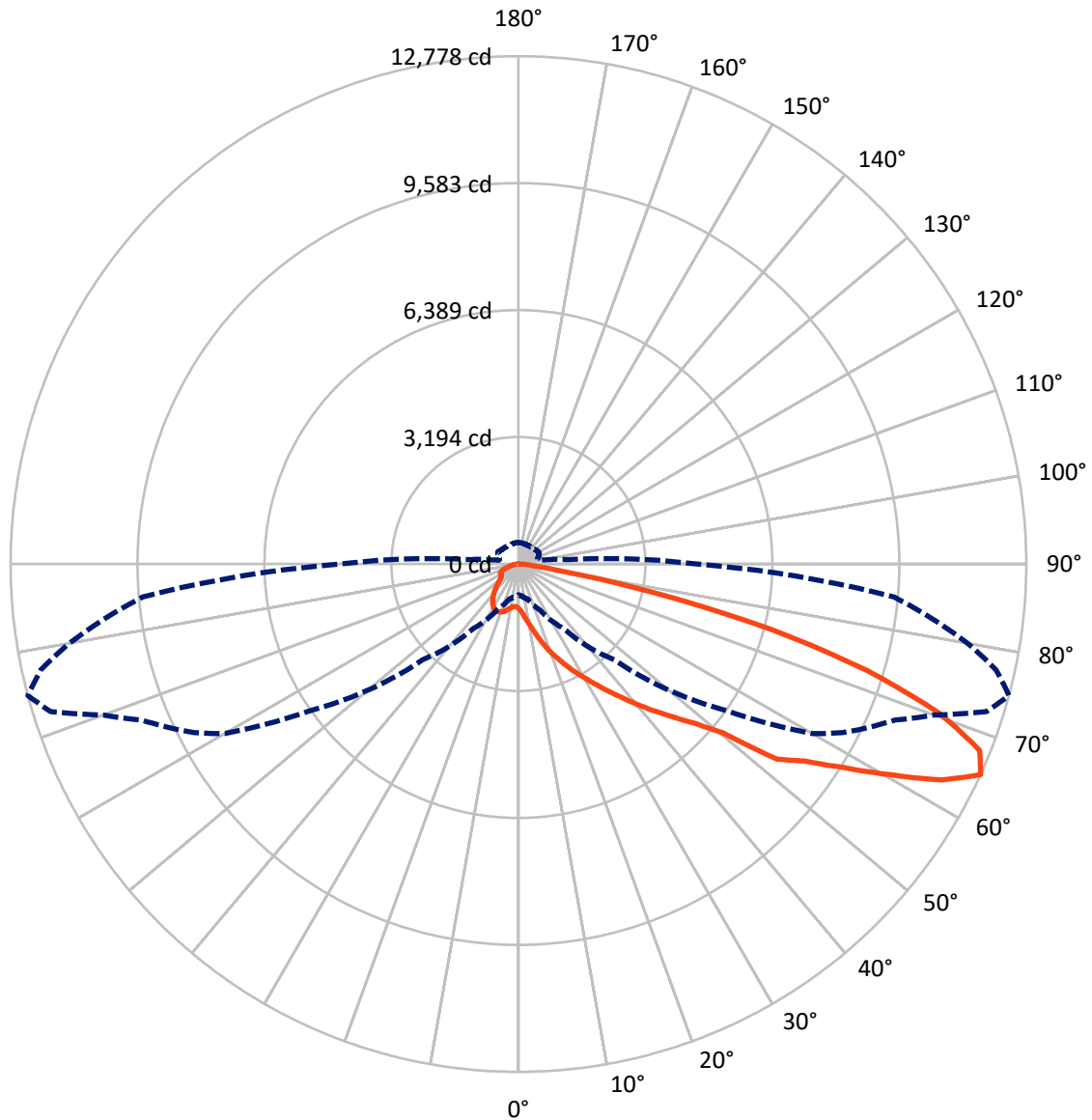


Based on 20 foot mounting height. Maximum calculated value = 8 fc
 Type II - Short - Semi-Cutoff

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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	1942.5	0.0	1942.5
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	10984.5	0.0	10984.5
	% Fixture	85.0	0.0	85.0
Total	Lumens	12927.0	0.0	12927.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	132.2	1.0
10°-20°	505.1	3.9
20°-30°	1019.2	7.9
30°-40°	1731.0	13.4
40°-50°	2414.3	18.7
50°-60°	2959.0	22.9
60°-70°	2784.0	21.5
70°-80°	1220.8	9.4
80°-90°	161.5	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°	12927.0	100.0
0°-180°	12927.0	100.0

Coefficient of Utilization



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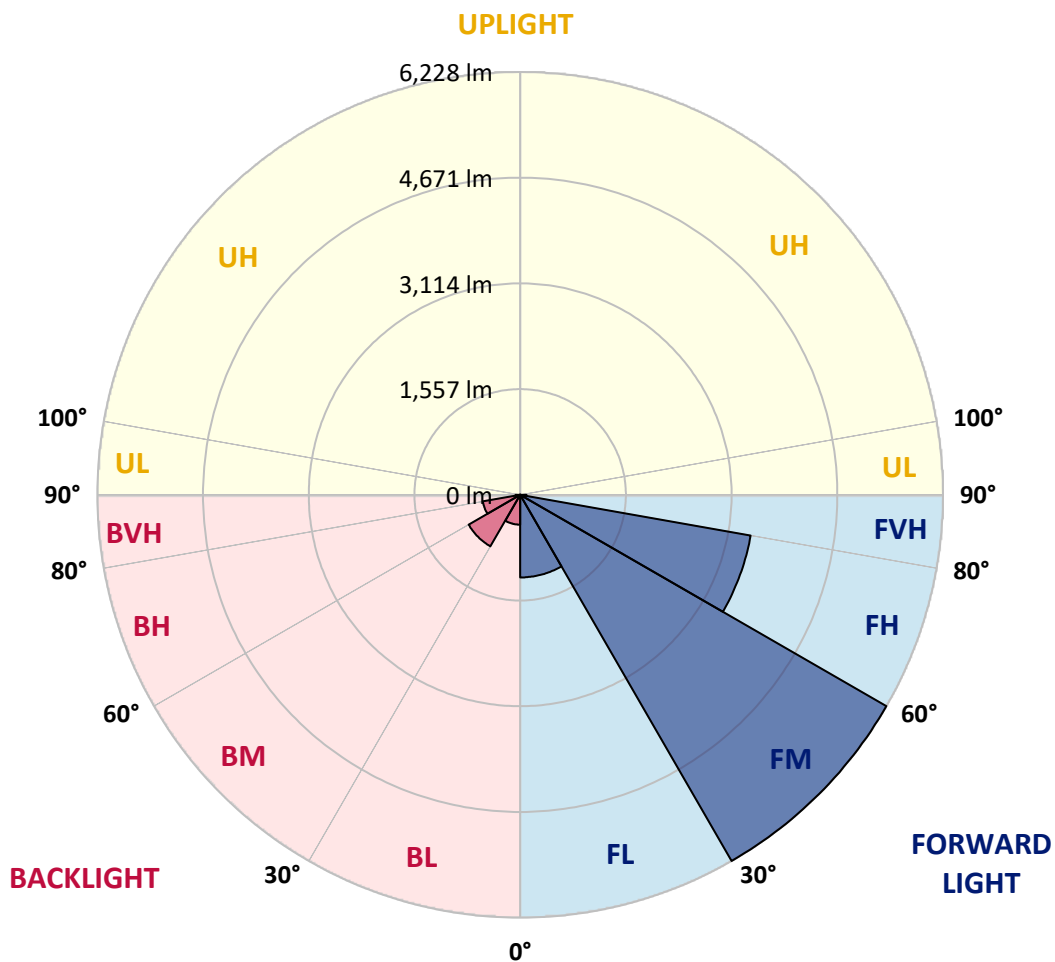
CATALOG NUMBER: XNV2-AF-02-LED-U-T2R

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1216.8	9.4			
FM (30°-60°)	6227.7	48.2			
FH (60°-80°)	3446.5	26.7			G2/5000
FVH (80°-90°)	93.6	0.7			G1/100
BL (0°-30°)	439.7	3.4	B1/500		
BM (30°-60°)	876.6	6.8	B1/1000		
BH (60°-80°)	558.3	4.3	B2/1000		G2/1000
BVH (80°-90°)	67.9	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°	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0
2.5°	1410.3	1393.9	1395.5	1372.5	1338.8	1301.8	1271.3	1255.0	1240.9	1236.8	1213.8
5°	1844.6	1824.0	1816.6	1764.0	1685.0	1591.3	1498.3	1462.1	1432.5	1414.4	1370.0
7.5°	2199.8	2189.1	2179.2	2130.7	2052.6	1932.6	1782.9	1729.4	1680.1	1625.8	1572.4
10°	2441.6	2437.5	2433.4	2399.6	2334.7	2230.2	2069.0	2010.6	1949.0	1879.9	1810.0
12.5°	2624.2	2624.2	2627.4	2599.4	2560.0	2479.4	2333.0	2278.7	2216.2	2143.9	2064.1
15°	2746.6	2750.0	2767.2	2775.5	2754.9	2703.0	2574.8	2527.1	2467.9	2396.4	2317.4
17.5°	2828.0	2834.7	2860.2	2887.3	2913.6	2895.5	2800.1	2755.7	2702.2	2636.5	2562.5
20°	3017.2	3009.0	3009.8	3001.6	3040.2	3054.2	3001.6	2964.6	2921.9	2861.8	2794.4
22.5°	3414.4	3398.8	3358.4	3255.7	3208.8	3203.9	3172.7	3152.9	3120.0	3082.2	3014.7
25°	3932.5	3914.4	3834.6	3665.2	3525.4	3396.3	3338.8	3326.4	3305.1	3279.6	3231.0
27.5°	4467.8	4448.1	4345.3	4131.5	3949.0	3688.2	3509.0	3492.6	3472.8	3462.1	3439.1
30°	4939.1	4917.7	4816.6	4599.4	4379.0	4068.2	3738.5	3680.9	3647.1	3650.4	3637.3
32.5°	5352.7	5333.8	5220.3	4999.1	4775.4	4473.6	4036.2	3946.4	3870.8	3842.8	3852.7
35°	5699.8	5682.5	5558.3	5335.4	5110.2	4859.3	4419.4	4284.4	4161.2	4083.8	4074.7
37.5°	5903.7	5893.8	5806.7	5617.5	5393.8	5209.6	4848.6	4698.9	4517.2	4404.5	4355.2
40°	5892.2	5902.8	5888.1	5802.6	5629.0	5495.0	5295.9	5147.9	4970.3	4802.5	4702.2
42.5°	5724.4	5739.3	5805.9	5850.3	5803.4	5722.0	5686.6	5576.4	5416.8	5239.2	5100.2
45°	5494.2	5507.4	5593.7	5754.0	5888.1	5911.1	6028.7	5973.6	5838.7	5687.4	5534.5
47.5°	5141.4	5166.8	5267.2	5522.1	5841.2	6063.2	6315.7	6341.2	6263.0	6138.0	5995.0
50°	4630.7	4664.3	4805.0	5167.6	5663.6	6219.4	6742.5	6839.6	6808.2	6681.6	6536.9
52.5°	4107.7	4141.4	4328.9	4714.6	5377.3	6283.6	7162.7	7411.1	7590.3	7721.1	7746.6
55°	3563.2	3601.1	3806.7	4250.8	4995.8	6202.3	7462.8	7745.0	7926.6	8063.2	8118.3
57.5°	2949.0	2991.7	3190.8	3639.8	4456.4	5874.9	7796.7	8196.4	8467.0	8677.5	8795.9
60°	2244.3	2297.6	2504.1	2956.3	3747.5	5248.2	7945.6	8536.8	8967.0	9282.8	9470.3
62.5°	1422.7	1476.9	1691.6	2161.2	2940.8	4392.2	7524.5	8387.2	9120.7	9587.8	9931.6
65°	776.3	800.2	919.4	1273.0	1982.7	3407.9	6457.2	7474.4	8531.1	9193.2	9721.1
67.5°	582.3	585.5	597.8	684.1	1055.9	2300.9	5048.5	5980.2	7153.7	8005.6	8636.4
70°	509.8	509.8	511.5	512.3	573.2	1246.7	3420.1	4277.9	5353.5	6215.3	6999.0
72.5°	457.3	452.2	450.6	440.8	449.0	638.9	1861.8	2632.4	3539.4	4506.5	5237.6
75°	394.8	393.9	393.9	384.0	388.9	449.8	807.5	1263.1	1966.2	2866.7	3586.3
77.5°	341.3	335.5	336.3	330.6	346.2	344.5	383.2	520.6	856.1	1505.8	2102.8
80°	281.2	277.1	279.6	276.3	301.0	254.9	258.2	318.2	425.1	660.3	930.9
82.5°	208.1	209.7	225.4	223.7	253.3	171.9	189.1	237.6	286.2	329.0	357.7
85°	121.7	124.2	162.0	170.2	185.9	90.4	116.0	141.5	159.6	176.8	184.2
87.5°	13.2	17.3	90.4	92.9	83.1	27.1	46.9	59.2	63.3	67.4	59.2
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°	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0
2.5°	1206.4	1195.7	1184.2	1177.6	1166.1	1156.2	1138.1	1123.3	1106.9	1095.4	1090.5
5°	1347.8	1322.4	1295.3	1275.5	1250.8	1229.4	1188.3	1139.0	1123.3	1090.5	1082.2
7.5°	1532.1	1486.0	1439.9	1402.2	1359.4	1324.0	1255.0	1166.1	1154.6	1101.9	1090.5
10°	1748.3	1680.9	1612.7	1554.3	1491.8	1437.5	1335.5	1210.5	1198.2	1130.8	1119.2
12.5°	1990.2	1907.9	1819.8	1732.7	1658.7	1582.2	1443.3	1279.6	1259.9	1180.1	1164.4
15°	2239.2	2150.4	2048.5	1943.2	1852.0	1750.8	1575.7	1370.0	1333.8	1240.1	1218.7
17.5°	2485.2	2388.9	2282.0	2164.5	2057.6	1936.7	1718.8	1471.2	1408.7	1299.4	1272.1
20°	2722.8	2625.0	2512.3	2397.2	2264.0	2125.8	1865.1	1570.7	1475.3	1348.7	1313.3
22.5°	2939.1	2855.3	2742.5	2610.2	2475.3	2319.8	2014.0	1670.2	1533.7	1386.5	1341.3
25°	3166.9	3090.4	2978.5	2851.1	2694.0	2521.4	2167.7	1764.8	1580.6	1407.1	1351.1
27.5°	3397.1	3331.3	3226.1	3092.1	2923.5	2731.9	2323.9	1852.0	1618.4	1413.6	1346.2
30°	3643.0	3592.1	3495.0	3345.4	3175.1	2963.0	2494.2	1937.5	1642.2	1404.6	1324.0
32.5°	3875.8	3874.1	3787.8	3632.3	3449.0	3215.4	2673.5	2023.8	1654.6	1379.0	1285.3
35°	4117.6	4151.2	4086.3	3938.3	3745.0	3486.0	2871.6	2115.9	1655.4	1333.8	1235.2
37.5°	4392.2	4452.2	4423.4	4282.8	4079.7	3794.3	3104.3	2219.5	1650.4	1271.3	1162.0
40°	4704.7	4786.9	4786.1	4667.7	4450.6	4139.8	3374.9	2335.5	1639.0	1193.3	1075.6
42.5°	5062.4	5160.3	5187.4	5070.7	4851.0	4517.2	3685.0	2463.0	1620.9	1115.9	984.4
45°	5472.0	5558.3	5609.2	5500.7	5280.4	4928.4	4041.1	2607.7	1598.7	1016.4	879.9
47.5°	5910.3	6010.6	6087.1	5994.2	5758.9	5397.1	4462.9	2794.4	1590.5	903.0	767.2
50°	6453.8	6557.4	6722.7	6680.8	6551.7	6260.6	5355.1	3235.2	1593.8	795.2	672.7
52.5°	7802.6	8040.2	8249.1	8156.1	7849.4	7350.2	6080.5	3480.2	1524.6	707.3	606.9
55°	8209.6	8479.3	8787.7	8749.0	8454.6	7951.4	6653.7	3685.0	1458.0	643.1	564.2
57.5°	8921.8	9240.0	9670.9	9662.7	9301.7	8735.1	7391.3	3930.1	1429.3	606.1	542.8
60°	9675.8	10081.3	10676.6	10769.5	10377.3	9787.7	8263.0	4231.0	1433.4	585.5	530.4
62.5°	10226.8	10821.4	11687.3	11965.3	11503.1	10853.4	9167.6	4532.0	1408.7	561.7	515.6
65°	10260.5	11116.6	12345.2	12777.8	12309.9	11475.2	9486.6	4472.8	1260.7	529.6	491.7
67.5°	9438.2	10553.3	12045.9	12520.4	12041.8	11092.0	8927.5	3910.3	1024.7	473.6	450.6
70°	7860.9	9155.3	10704.6	11233.3	10837.9	9876.5	7769.6	3123.3	765.6	399.7	388.9
72.5°	6074.7	7282.0	8689.0	9178.3	8875.6	8030.3	6128.2	2276.3	546.9	324.0	315.8
75°	4342.8	5370.8	6392.2	6578.8	6280.3	5504.0	3976.1	1421.9	383.2	265.7	254.1
77.5°	2689.1	3357.6	3724.5	3484.3	3103.5	2579.8	1618.4	702.3	254.9	216.3	204.8
80°	1193.3	1400.5	1307.5	1165.2	920.2	756.6	494.2	311.7	164.5	166.9	160.4
82.5°	401.3	424.3	412.9	410.3	370.1	324.0	209.7	134.8	92.1	106.9	104.4
85°	195.7	204.8	205.6	213.0	185.1	143.9	56.8	53.5	39.5	57.6	60.0
87.5°	59.2	60.0	54.3	59.2	47.7	32.9	10.7	14.8	7.4	14.0	14.0
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°	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0
2.5°	1081.4	1078.1	1072.4	1065.8	1064.2	1055.9	1053.4	1049.3	1046.9	1042.8	1039.4
5°	1071.5	1065.8	1059.2	1051.8	1051.8	1040.2	1035.3	1030.4	1030.4	1023.1	1019.7
7.5°	1081.4	1074.0	1066.6	1060.0	1062.4	1049.3	1044.4	1039.4	1038.6	1031.2	1028.0
10°	1109.4	1101.9	1092.9	1086.4	1083.8	1073.2	1067.4	1060.0	1055.1	1050.2	1045.3
12.5°	1152.1	1142.2	1130.8	1116.8	1111.0	1101.9	1092.9	1083.0	1071.5	1066.6	1059.2
15°	1203.1	1186.6	1171.1	1153.8	1138.1	1129.1	1116.8	1101.1	1085.6	1078.9	1069.1
17.5°	1245.0	1227.7	1205.5	1185.0	1157.1	1149.7	1132.4	1113.5	1088.0	1085.6	1070.7
20°	1280.4	1254.1	1226.9	1202.3	1159.5	1155.4	1134.0	1111.8	1075.6	1075.6	1057.5
22.5°	1300.2	1264.0	1231.8	1199.0	1145.5	1142.2	1117.6	1091.3	1046.9	1048.5	1026.3
25°	1303.4	1259.9	1219.6	1180.1	1118.4	1112.7	1081.4	1052.6	1004.1	1000.9	977.7
27.5°	1290.2	1239.3	1192.5	1144.7	1078.1	1065.8	1031.2	996.7	949.0	940.8	916.2
30°	1259.9	1199.8	1147.1	1092.1	1022.2	1002.5	966.3	930.9	882.4	871.7	848.6
32.5°	1211.4	1143.0	1084.7	1029.6	952.3	927.6	891.4	856.1	809.2	801.0	779.6
35°	1147.1	1070.7	1009.0	950.6	873.3	847.8	813.3	782.0	739.3	736.0	721.2
37.5°	1066.6	986.8	921.1	865.1	792.0	778.8	743.4	720.4	685.1	688.3	680.9
40°	975.3	893.9	831.4	782.0	718.7	707.3	685.9	668.6	638.1	647.2	648.0
42.5°	883.2	801.8	745.0	700.6	646.4	638.9	624.2	614.3	591.3	609.4	616.7
45°	778.8	703.1	654.6	620.8	580.6	580.6	573.2	572.3	556.7	582.3	589.6
47.5°	677.6	618.4	584.7	564.2	536.1	549.3	546.9	553.4	542.0	568.2	574.8
50°	601.2	560.1	539.5	529.6	509.8	530.4	535.3	544.4	534.5	557.5	562.5
52.5°	552.6	525.5	513.9	511.5	497.6	523.0	531.2	539.5	527.9	549.3	548.5
55°	525.5	507.4	503.3	508.2	497.6	522.2	530.4	536.1	526.3	541.1	540.3
57.5°	515.6	505.7	508.2	515.6	508.2	528.8	532.9	539.5	529.6	536.1	539.5
60°	514.7	514.7	524.7	534.5	529.6	544.4	546.9	546.1	537.0	537.9	539.5
62.5°	509.8	522.2	538.7	554.2	552.6	570.7	572.3	561.7	554.2	546.1	543.6
65°	494.2	514.7	538.7	560.1	563.3	591.3	594.5	583.9	578.9	565.0	554.2
67.5°	459.7	486.0	513.9	540.3	546.1	583.9	591.3	595.4	597.8	588.8	574.8
70°	401.3	428.4	457.3	487.6	495.9	537.9	553.4	572.3	587.2	600.4	595.4
72.5°	326.5	351.2	375.8	403.8	416.1	459.7	480.3	513.1	536.1	569.9	583.9
75°	259.0	273.8	288.7	306.0	315.8	358.5	384.0	423.5	454.8	501.7	532.9
77.5°	204.0	211.3	218.7	226.2	230.3	254.1	274.7	314.1	350.4	409.5	455.6
80°	157.0	161.2	162.0	164.5	162.9	174.3	181.8	205.6	236.8	295.2	349.5
82.5°	101.2	104.4	106.1	110.2	102.0	116.8	121.7	124.2	140.7	183.4	222.1
85°	56.8	57.6	58.4	60.0	48.5	63.3	64.1	60.0	58.4	75.7	85.5
87.5°	14.0	13.2	14.0	14.0	5.7	13.2	13.2	9.0	6.5	12.4	9.8
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):

	135°	145°	155°	165°	175°	180°
0°	1120.0	1120.0	1120.0	1120.0	1120.0	1120.0
2.5°	1032.1	1030.4	1031.2	1027.1	1025.5	1026.3
5°	1015.6	1012.3	1012.3	1009.9	1006.6	1006.6
7.5°	1023.1	1016.4	1013.9	1009.0	1004.1	1004.9
10°	1034.5	1023.1	1014.8	1007.4	1001.7	1001.7
12.5°	1041.9	1021.4	1009.0	999.1	992.6	992.6
15°	1043.6	1012.3	994.2	983.6	976.9	976.9
17.5°	1033.7	994.2	971.2	957.2	949.8	951.4
20°	1009.0	960.6	933.3	918.6	911.1	912.0
22.5°	970.4	914.4	883.2	865.9	858.6	858.6
25°	917.8	856.9	823.2	809.2	802.6	802.6
27.5°	857.7	795.2	765.6	754.9	750.8	750.8
30°	790.3	738.5	717.1	709.7	703.1	703.1
32.5°	733.6	696.5	689.2	679.2	662.0	661.1
35°	688.3	684.1	678.4	648.9	624.2	620.8
37.5°	663.7	688.3	652.1	601.2	581.4	580.6
40°	650.5	673.5	611.0	586.4	583.9	583.9
42.5°	619.2	635.7	608.6	594.5	594.5	595.4
45°	586.4	600.4	614.3	602.0	606.1	606.9
47.5°	563.3	591.3	614.3	603.6	611.8	616.7
50°	542.0	583.1	602.0	602.0	611.0	611.8
52.5°	537.0	571.5	590.4	599.4	600.4	596.2
55°	537.9	562.5	581.4	592.9	588.0	588.0
57.5°	537.0	557.5	574.0	578.1	580.6	580.6
60°	537.9	551.0	564.2	562.5	570.7	570.7
62.5°	540.3	542.0	548.5	546.9	559.2	559.2
65°	546.1	530.4	526.3	527.9	542.8	542.0
67.5°	556.7	514.7	501.7	502.5	523.9	520.6
70°	572.3	493.4	473.6	468.7	504.9	499.2
72.5°	577.3	468.7	437.5	432.6	454.0	437.5
75°	554.2	449.0	398.8	382.4	373.4	368.4
77.5°	494.2	436.7	358.5	324.0	310.1	306.8
80°	409.5	411.2	306.0	264.8	307.6	306.8
82.5°	309.2	355.3	245.1	229.4	222.9	185.9
85°	149.7	267.3	188.3	157.8	94.5	89.6
87.5°	13.2	111.8	108.5	70.7	32.1	30.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)