

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: P271341

Luminaire Tested: **XNV2-AF-02-LED-U-T2R-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P271341  
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-7027  
Description: XNV2 ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 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: 10978.9 lumens  
Efficiency: N/A  
Efficacy: 98.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

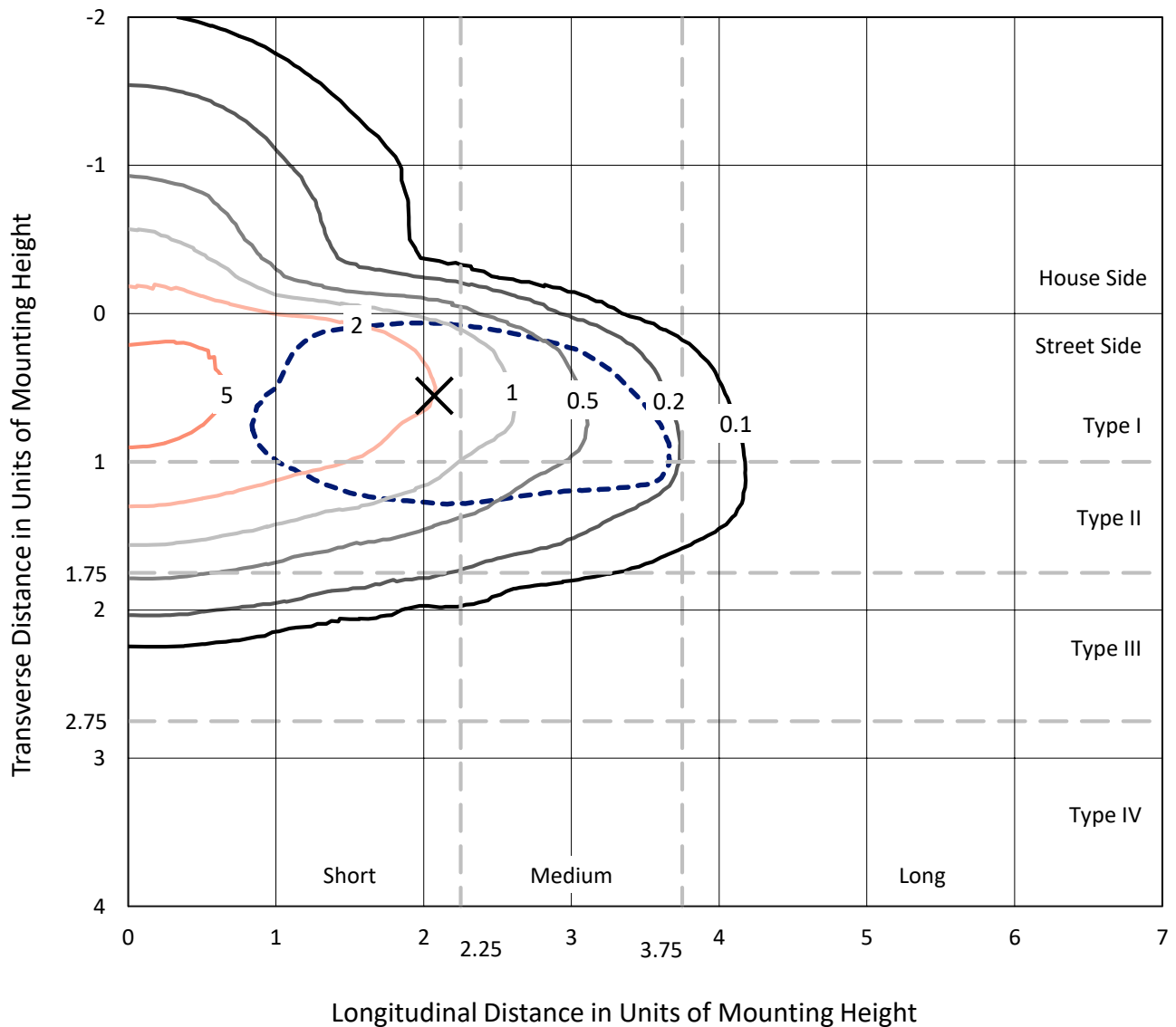
Input Watts (W): 111  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

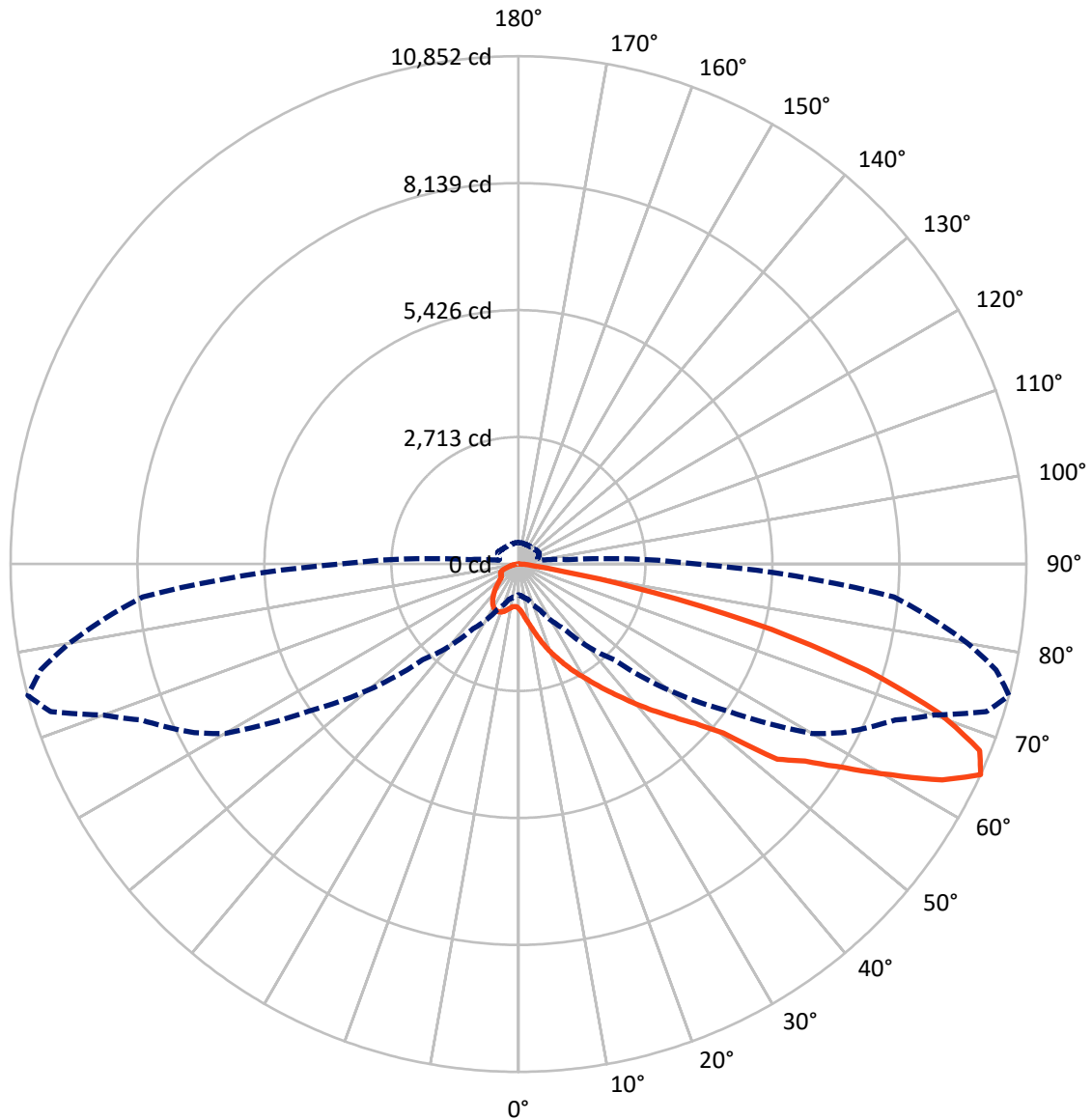
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.8 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
<b>House Side</b>	Lumens	1649.7	0.0	1649.7
	% Fixture	15.0	0.0	15.0
<b>Street Side</b>	Lumens	9329.1	0.0	9329.1
	% Fixture	85.0	0.0	85.0
<b>Total</b>	Lumens	10978.9	0.0	10978.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	112.3	1.0
10°-20°	428.9	3.9
20°-30°	865.6	7.9
30°-40°	1470.1	13.4
40°-50°	2050.4	18.7
50°-60°	2513.1	22.9
60°-70°	2364.4	21.5
70°-80°	1036.8	9.4
80°-90°	137.2	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°	10978.9	100.0
0°-180°	10978.9	100.0

**Coefficient of Utilization**



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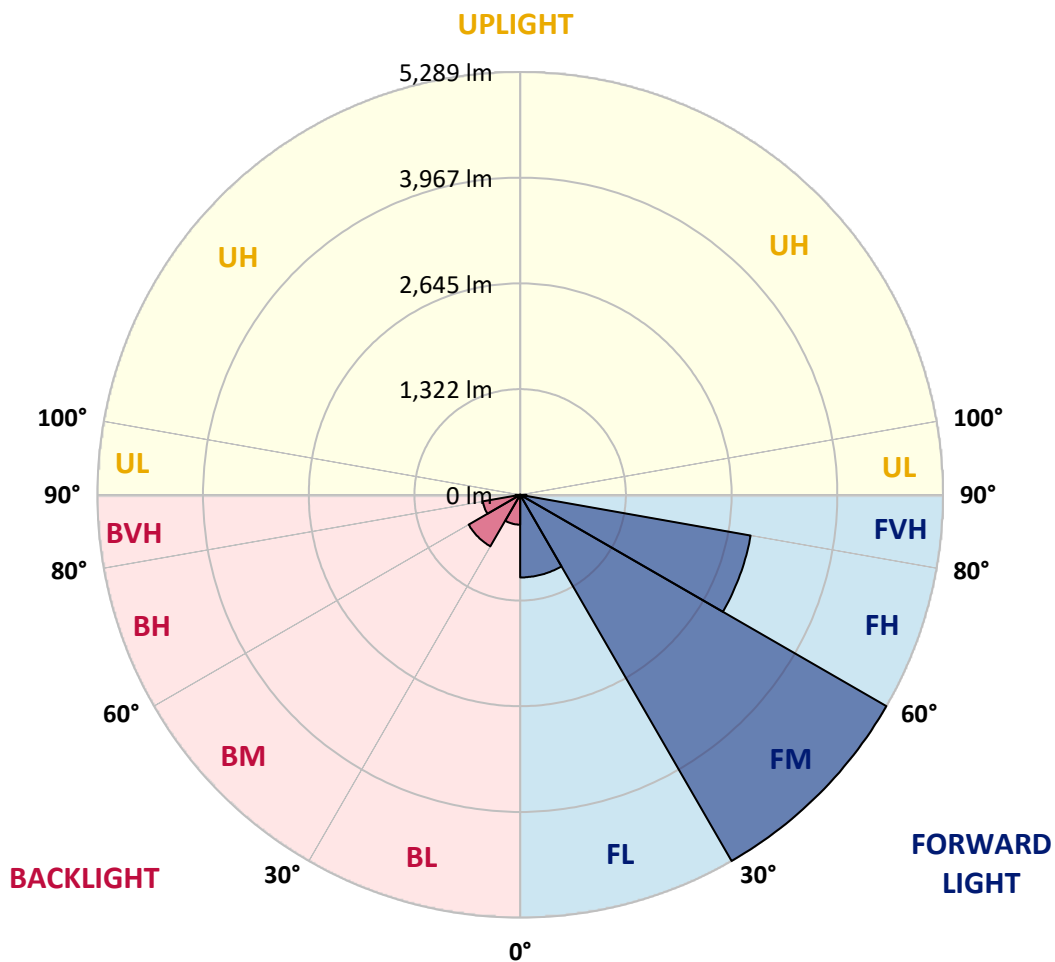
CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-7027

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1033.4	9.4			
FM (30°-60°)	5289.1	48.2			
FH (60°-80°)	2927.1	26.7			G2/5000
FVH (80°-90°)	79.5	0.7			G1/100
BL (0°-30°)	373.5	3.4	B1/500		
BM (30°-60°)	744.5	6.8	B1/1000		
BH (60°-80°)	474.2	4.3	B1/500		G1/500
BVH (80°-90°)	57.7	0.5			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B1-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°	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2
2.5°	1197.8	1183.8	1185.3	1165.7	1137.1	1105.6	1079.8	1065.7	1053.9	1050.4	1030.8
5°	1566.6	1549.0	1542.7	1498.2	1431.1	1351.4	1272.4	1241.7	1216.7	1201.4	1163.6
7.5°	1868.3	1859.2	1850.8	1809.6	1743.3	1641.4	1514.2	1468.8	1426.9	1380.8	1335.4
10°	2073.6	2070.1	2066.6	2038.0	1982.7	1894.2	1757.3	1707.7	1655.2	1596.6	1537.2
12.5°	2228.7	2228.7	2231.5	2207.8	2174.2	2105.7	1981.4	1935.3	1882.3	1820.8	1753.0
15°	2332.7	2335.6	2350.1	2357.2	2339.7	2295.7	2186.7	2146.2	2095.9	2035.2	1968.1
17.5°	2401.9	2407.5	2429.0	2452.2	2474.6	2459.1	2378.2	2340.4	2295.0	2239.1	2176.2
20°	2562.5	2555.5	2556.2	2549.2	2582.1	2593.9	2549.2	2517.8	2481.5	2430.5	2373.2
22.5°	2899.9	2886.6	2852.4	2765.1	2725.3	2721.1	2694.6	2677.8	2649.8	2617.8	2560.3
25°	3339.9	3324.4	3256.7	3112.8	2994.1	2884.5	2835.6	2825.1	2806.9	2785.4	2744.1
27.5°	3794.5	3777.7	3690.4	3508.9	3353.8	3132.4	2980.1	2966.3	2949.4	2940.3	2920.7
30°	4194.7	4176.6	4090.6	3906.3	3719.2	3455.2	3175.0	3126.1	3097.4	3100.3	3089.1
32.5°	4546.1	4530.0	4433.6	4245.7	4055.8	3799.4	3427.8	3351.8	3287.4	3263.7	3272.0
35°	4840.7	4826.1	4720.7	4531.4	4340.0	4127.0	3753.3	3638.8	3534.0	3468.4	3460.7
37.5°	5014.0	5005.5	4931.5	4770.9	4580.9	4424.5	4117.9	3990.8	3836.4	3740.7	3698.9
40°	5004.2	5013.4	5000.8	4928.0	4780.7	4666.9	4497.9	4372.1	4221.2	4078.8	3993.5
42.5°	4861.6	4874.4	4930.8	4968.5	4928.8	4859.7	4829.6	4736.0	4600.5	4449.7	4331.5
45°	4666.2	4677.4	4750.6	4886.9	5000.8	5020.3	5120.1	5073.4	4958.9	4830.2	4700.4
47.5°	4366.5	4388.2	4473.4	4690.0	4960.9	5149.4	5363.9	5385.5	5319.1	5213.0	5091.6
50°	3932.8	3961.4	4080.9	4388.8	4810.1	5282.2	5726.3	5808.8	5782.2	5674.7	5551.7
52.5°	3488.6	3517.3	3676.6	4004.0	4567.0	5336.7	6083.2	6294.2	6446.4	6557.4	6579.1
55°	3026.3	3058.4	3233.0	3610.2	4243.0	5267.5	6338.3	6577.7	6732.1	6848.0	6894.9
57.5°	2504.6	2540.9	2709.8	3091.2	3784.7	4989.5	6621.8	6961.1	7190.9	7369.8	7470.3
60°	1906.1	1951.4	2126.6	2510.9	3182.8	4457.3	6748.2	7250.3	7615.7	7883.7	8043.1
62.5°	1208.3	1254.4	1436.7	1835.4	2497.6	3730.3	6390.5	7123.2	7746.2	8142.9	8434.8
65°	659.3	679.6	780.8	1081.2	1684.0	2894.2	5484.1	6348.0	7245.4	7807.7	8256.1
67.5°	494.4	497.3	507.7	581.2	896.8	1954.3	4287.6	5078.9	6075.5	6799.1	7334.8
70°	433.1	433.1	434.4	435.0	486.8	1058.8	2904.7	3633.1	4546.7	5278.7	5944.3
72.5°	388.2	384.1	382.8	374.4	381.3	542.7	1581.2	2235.6	3006.0	3827.4	4448.2
75°	335.2	334.6	334.6	326.2	330.3	382.0	685.9	1072.8	1669.9	2434.6	3045.9
77.5°	289.9	284.9	285.7	280.8	294.0	292.7	325.5	442.1	727.1	1278.7	1785.9
80°	238.9	235.4	237.4	234.6	255.6	216.5	219.2	270.3	361.1	560.8	790.6
82.5°	176.6	178.1	191.3	190.0	215.1	146.0	160.6	201.8	243.0	279.4	303.7
85°	103.3	105.6	137.6	144.5	157.8	76.8	98.5	120.2	135.6	150.1	156.5
87.5°	11.1	14.6	76.8	79.0	70.5	23.0	39.9	50.2	53.8	57.3	50.2
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°	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2
2.5°	1024.5	1015.5	1005.7	1000.2	990.3	981.9	966.7	954.0	940.0	930.4	926.2
5°	1144.7	1123.2	1100.1	1083.3	1062.2	1044.1	1009.2	967.4	954.0	926.2	919.1
7.5°	1301.1	1262.1	1223.0	1190.9	1154.5	1124.5	1065.7	990.3	980.6	935.9	926.2
10°	1484.9	1427.5	1369.6	1320.0	1266.9	1220.8	1134.2	1028.1	1017.6	960.3	950.5
12.5°	1690.3	1620.4	1545.7	1471.6	1408.7	1343.8	1225.7	1086.7	1070.1	1002.1	988.9
15°	1901.8	1826.3	1739.7	1650.4	1572.8	1487.0	1338.1	1163.6	1132.9	1053.3	1035.0
17.5°	2110.7	2028.9	1938.2	1838.2	1747.5	1644.7	1459.7	1249.5	1196.5	1103.5	1080.4
20°	2312.4	2229.4	2133.7	2035.9	1922.7	1805.5	1584.0	1334.1	1253.0	1145.3	1115.3
22.5°	2496.2	2425.0	2329.2	2216.7	2102.3	1970.3	1710.5	1418.6	1302.5	1177.6	1139.1
25°	2689.6	2624.7	2529.6	2421.4	2288.1	2141.4	1841.0	1498.8	1342.3	1194.9	1147.6
27.5°	2885.1	2829.3	2739.9	2626.0	2482.8	2320.1	1973.8	1572.8	1374.4	1200.6	1143.4
30°	3094.0	3050.7	2968.3	2841.2	2696.6	2516.4	2118.4	1645.4	1394.8	1192.9	1124.5
32.5°	3291.7	3290.2	3216.9	3084.9	2929.2	2730.8	2270.6	1718.7	1405.2	1171.3	1091.6
35°	3497.0	3525.7	3470.4	3344.7	3180.5	2960.6	2438.9	1797.0	1405.8	1132.9	1049.0
37.5°	3730.3	3781.2	3756.8	3637.3	3464.9	3222.5	2636.5	1885.1	1401.7	1079.8	986.9
40°	3995.8	4065.5	4064.8	3964.2	3779.9	3515.8	2866.3	1983.5	1392.0	1013.4	913.5
42.5°	4299.5	4382.7	4405.6	4306.5	4119.9	3836.4	3129.7	2091.8	1376.7	947.7	836.1
45°	4647.3	4720.7	4763.9	4671.7	4484.6	4185.7	3432.1	2214.7	1357.7	863.2	747.3
47.5°	5019.5	5104.8	5169.7	5090.8	4891.0	4583.7	3790.4	2373.2	1350.7	766.9	651.6
50°	5481.2	5569.2	5709.5	5674.0	5564.3	5317.1	4548.1	2747.6	1353.6	675.3	571.3
52.5°	6626.6	6828.5	7005.9	6926.9	6666.4	6242.5	5164.1	2955.8	1294.8	600.6	515.4
55°	6972.4	7201.4	7463.4	7430.5	7180.5	6753.1	5651.0	3129.7	1238.4	546.2	479.2
57.5°	7577.2	7847.5	8213.5	8206.5	7899.9	7418.7	6277.4	3337.7	1213.9	514.6	461.0
60°	8217.6	8561.9	9067.6	9146.5	8813.5	8312.6	7017.7	3593.4	1217.4	497.3	450.5
62.5°	8685.6	9190.5	9926.0	10162.0	9769.5	9217.8	7786.0	3849.0	1196.5	477.0	438.0
65°	8714.2	9441.2	10484.7	10852.1	10454.7	9745.8	8057.0	3798.8	1070.7	449.8	417.6
67.5°	8015.8	8962.8	10230.4	10633.4	10227.1	9420.3	7582.1	3321.0	870.3	402.4	382.8
70°	6676.3	7775.5	9091.3	9540.4	9204.6	8388.1	6598.7	2652.7	650.3	339.4	330.3
72.5°	5159.2	6184.6	7379.5	7795.1	7538.0	6820.1	5204.6	1933.2	464.5	275.2	268.2
75°	3688.4	4561.5	5428.8	5587.4	5333.9	4674.5	3376.9	1207.6	325.5	225.6	215.9
77.5°	2283.9	2851.7	3163.1	2959.1	2635.8	2191.0	1374.4	596.5	216.5	183.8	173.9
80°	1013.4	1189.4	1110.5	989.7	781.5	642.6	419.8	264.7	139.6	141.8	136.3
82.5°	340.8	360.4	350.6	348.5	314.2	275.2	178.1	114.5	78.2	90.8	88.8
85°	166.2	173.9	174.6	180.9	157.2	122.2	48.1	45.5	33.5	48.9	50.9
87.5°	50.2	50.9	46.2	50.2	40.6	27.9	9.2	12.5	6.3	11.9	11.9
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):**

	105°	107.5°	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°
0°	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2	951.2
2.5°	918.4	915.6	910.7	905.1	903.8	896.8	894.7	891.2	889.1	885.5	882.9
5°	910.1	905.1	899.6	893.3	893.3	883.6	879.4	875.0	875.0	868.8	866.1
7.5°	918.4	912.0	905.9	900.3	902.3	891.2	886.9	882.9	882.1	875.8	873.1
10°	942.1	935.9	928.2	922.6	920.6	911.4	906.6	900.3	896.1	891.8	887.6
12.5°	978.6	970.1	960.3	948.5	943.6	935.9	928.2	919.9	910.1	905.9	899.6
15°	1021.8	1007.8	994.6	980.0	966.7	958.9	948.5	935.1	921.9	916.4	907.9
17.5°	1057.5	1042.8	1023.9	1006.5	982.7	976.4	961.7	945.6	923.9	921.9	909.4
20°	1087.5	1065.1	1042.0	1021.2	984.8	981.3	963.2	944.3	913.5	913.5	898.1
22.5°	1104.1	1073.5	1046.3	1018.3	973.0	970.1	949.1	926.8	889.1	890.5	871.6
25°	1107.0	1070.1	1035.7	1002.1	949.9	944.9	918.4	894.0	852.9	849.9	830.5
27.5°	1095.8	1052.5	1012.7	972.1	915.6	905.1	875.8	846.6	806.0	799.0	778.0
30°	1070.1	1018.9	974.3	927.5	868.1	851.4	820.6	790.6	749.4	740.4	720.8
32.5°	1028.7	970.8	921.2	874.4	808.7	787.9	757.1	727.1	687.3	680.2	662.1
35°	974.3	909.4	857.0	807.3	741.7	720.1	690.7	664.1	627.8	625.1	612.6
37.5°	905.9	838.1	782.2	734.8	672.7	661.4	631.4	611.8	581.8	584.5	578.2
40°	828.3	759.2	706.1	664.1	610.4	600.6	582.6	567.8	541.9	549.7	550.3
42.5°	750.2	680.9	632.8	595.0	549.0	542.7	530.1	521.7	502.2	517.6	523.8
45°	661.4	597.2	556.0	527.3	493.1	493.1	486.8	486.2	472.9	494.4	500.7
47.5°	575.5	525.1	496.6	479.2	455.4	466.5	464.5	470.1	460.2	482.6	488.1
50°	510.5	475.7	458.1	449.8	433.1	450.5	454.7	462.4	454.0	473.5	477.7
52.5°	469.4	446.3	436.4	434.4	422.6	444.2	451.2	458.1	448.3	466.5	465.9
55°	446.3	430.9	427.5	431.6	422.6	443.6	450.5	455.4	446.9	459.6	458.9
57.5°	438.0	429.5	431.6	438.0	431.6	449.2	452.6	458.1	449.8	455.4	458.1
60°	437.2	437.2	445.6	454.0	449.8	462.4	464.5	463.7	456.1	456.8	458.1
62.5°	433.1	443.6	457.4	470.7	469.4	484.7	486.2	477.0	470.7	463.7	461.6
65°	419.8	437.2	457.4	475.7	478.3	502.2	504.9	495.9	491.7	479.9	470.7
67.5°	390.5	412.9	436.4	458.9	463.7	495.9	502.2	505.7	507.7	500.0	488.1
70°	340.8	363.9	388.2	414.2	421.1	456.8	470.1	486.2	498.6	509.9	505.7
72.5°	277.2	298.2	319.2	343.0	353.5	390.5	407.9	435.8	455.4	483.9	495.9
75°	220.1	232.7	245.1	259.8	268.2	304.5	326.2	359.7	386.2	426.1	452.6
77.5°	173.3	179.5	185.8	192.1	195.6	215.9	233.3	266.7	297.5	347.9	386.9
80°	133.4	136.9	137.6	139.6	138.2	148.1	154.4	174.6	201.1	250.7	296.8
82.5°	85.9	88.8	90.1	93.7	86.5	99.2	103.3	105.6	119.5	155.8	188.6
85°	48.1	48.9	49.5	50.9	41.2	53.8	54.4	50.9	49.5	64.3	72.7
87.5°	11.9	11.1	11.9	11.9	4.9	11.1	11.1	7.6	5.6	10.5	8.4
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):**

	135°	145°	155°	165°	175°	180°
0°	951.2	951.2	951.2	951.2	951.2	951.2
2.5°	876.6	875.0	875.8	872.3	870.9	871.6
5°	862.6	859.8	859.8	857.6	854.8	854.8
7.5°	868.8	863.2	861.1	857.0	852.9	853.5
10°	878.6	868.8	861.8	855.5	850.7	850.7
12.5°	884.9	867.5	857.0	848.5	843.0	843.0
15°	886.3	859.8	844.3	835.3	829.8	829.8
17.5°	878.0	844.3	824.9	813.0	806.7	808.0
20°	857.0	815.8	792.8	780.2	773.9	774.6
22.5°	824.1	776.7	750.2	735.4	729.2	729.2
25°	779.4	727.7	699.2	687.3	681.6	681.6
27.5°	728.4	675.3	650.3	641.1	637.6	637.6
30°	671.2	627.1	609.1	602.8	597.2	597.2
32.5°	623.0	591.5	585.2	576.9	562.2	561.5
35°	584.5	581.2	576.3	551.1	530.1	527.3
37.5°	563.6	584.5	553.9	510.5	493.8	493.1
40°	552.5	572.0	519.0	498.0	495.9	495.9
42.5°	525.9	539.9	516.9	504.9	504.9	505.7
45°	498.0	509.9	521.7	511.2	514.6	515.4
47.5°	478.3	502.2	521.7	512.7	519.6	523.8
50°	460.2	495.1	511.2	511.2	519.0	519.6
52.5°	456.1	485.4	501.4	509.2	509.9	506.4
55°	456.8	477.7	493.8	503.6	499.4	499.4
57.5°	456.1	473.5	487.5	491.1	493.1	493.1
60°	456.8	467.9	479.2	477.7	484.7	484.7
62.5°	458.9	460.2	465.9	464.5	474.9	474.9
65°	463.7	450.5	446.9	448.3	461.0	460.2
67.5°	472.9	437.2	426.1	426.8	444.9	442.1
70°	486.2	419.1	402.4	398.0	428.9	423.9
72.5°	490.3	398.0	371.5	367.3	385.6	371.5
75°	470.7	381.3	338.8	324.7	317.1	312.9
77.5°	419.8	370.9	304.5	275.2	263.4	260.5
80°	347.9	349.3	259.8	224.8	261.1	260.5
82.5°	262.7	301.7	208.1	194.8	189.3	157.8
85°	127.1	227.0	160.0	134.0	80.3	76.1
87.5°	11.1	95.0	92.2	60.0	27.3	25.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)