

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: P198765

Luminaire Tested: **XNV2-AF-02-LED-U-T2R-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198765
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-800
Description: XNV2 ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 10444.3 lumens
Efficiency: N/A
Efficacy: 122.9 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

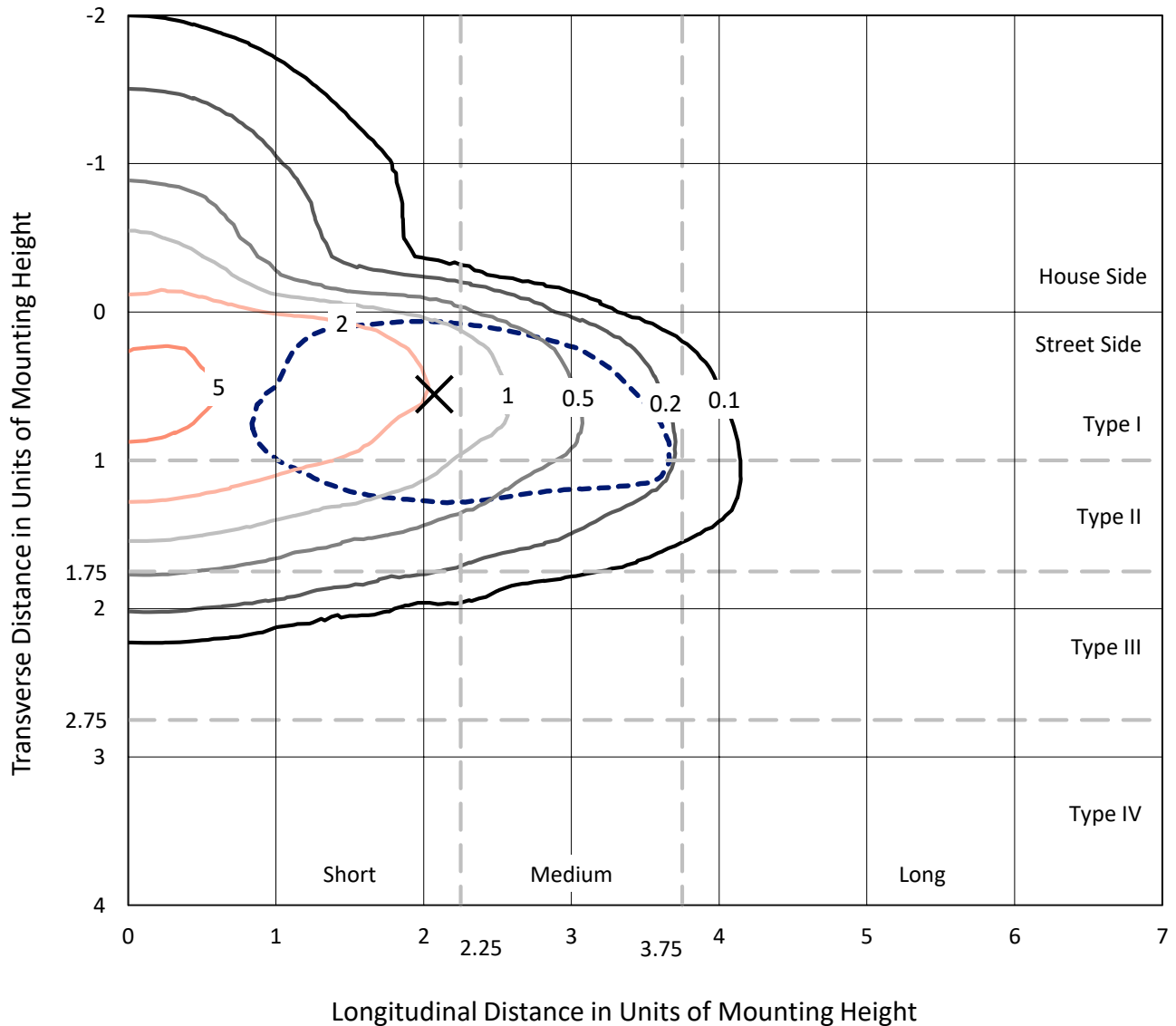
Input Watts (W): 85
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

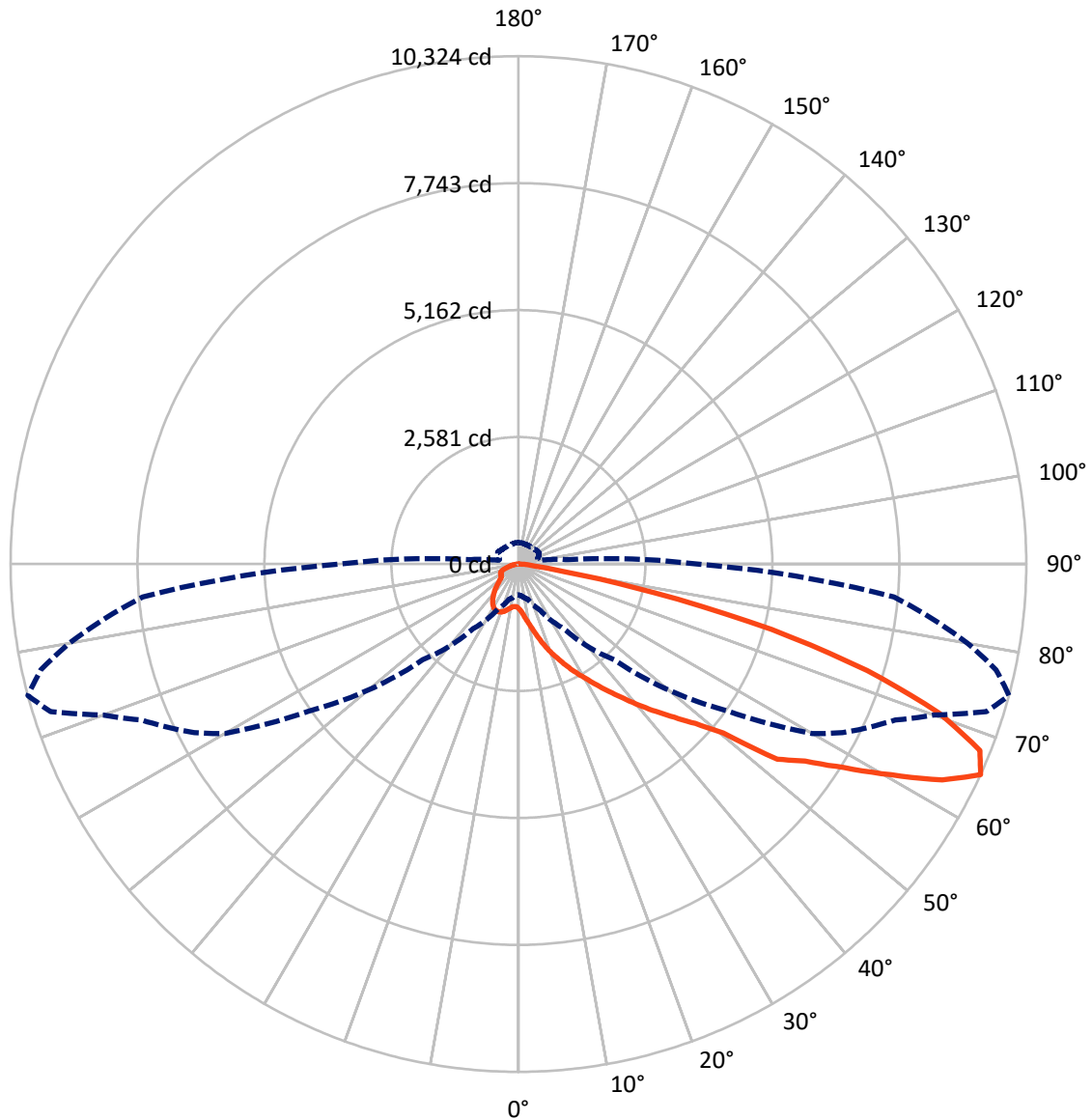
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 6.5 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	1569.4	0.0	1569.4
	% Fixture	15.0	0.0	15.0
Street Side	Lumens	8874.9	0.0	8874.9
	% Fixture	85.0	0.0	85.0
Total	Lumens	10444.3	0.0	10444.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.8	1.0
10°-20°	408.1	3.9
20°-30°	823.5	7.9
30°-40°	1398.5	13.4
40°-50°	1950.6	18.7
50°-60°	2390.7	22.9
60°-70°	2249.3	21.5
70°-80°	986.3	9.4
80°-90°	130.5	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°	10444.3	100.0
0°-180°	10444.3	100.0



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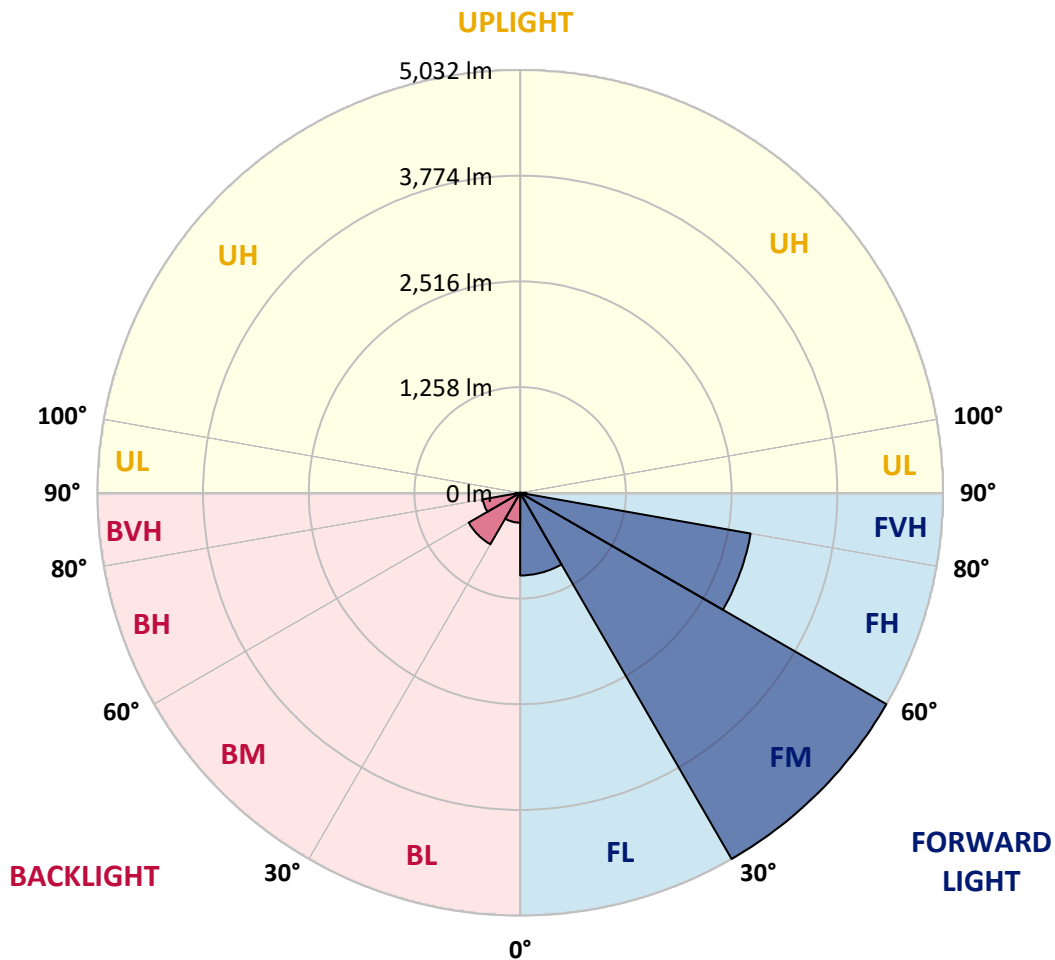
CATALOG NUMBER: XNV2-AF-02-LED-U-T2R-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	983.1	9.4			
FM	(30°-60°)	5031.6	48.2			
FH	(60°-80°)	2784.5	26.7			G2/5000
FVH	(80°-90°)	75.7	0.7			G1/100
BL	(0°-30°)	355.3	3.4	B1/500		
BM	(30°-60°)	708.2	6.8	B1/1000		
BH	(60°-80°)	451.1	4.3	B1/500		G1/500
BVH	(80°-90°)	54.8	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°	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9
2.5°	1139.5	1126.2	1127.5	1108.9	1081.7	1051.8	1027.1	1013.9	1002.6	999.3	980.7
5°	1490.3	1473.7	1467.7	1425.2	1361.3	1285.6	1210.6	1181.3	1157.4	1142.8	1106.9
7.5°	1777.3	1768.7	1760.7	1721.5	1658.4	1561.4	1440.4	1397.2	1357.5	1313.6	1270.4
10°	1972.7	1969.4	1966.0	1938.8	1886.3	1801.9	1671.7	1624.5	1574.6	1518.9	1462.4
12.5°	2120.2	2120.2	2122.8	2100.2	2068.3	2003.2	1885.0	1841.1	1790.6	1732.2	1667.7
15°	2219.2	2221.8	2235.8	2242.4	2225.8	2183.9	2080.3	2041.7	1993.9	1936.1	1872.3
17.5°	2285.0	2290.3	2310.8	2332.7	2354.0	2339.4	2262.4	2226.5	2183.3	2130.1	2070.4
20°	2437.8	2431.1	2431.8	2425.1	2456.3	2467.7	2425.1	2395.2	2360.7	2312.2	2257.7
22.5°	2758.7	2746.0	2713.5	2630.4	2592.6	2588.6	2563.3	2547.4	2520.8	2490.3	2435.7
25°	3177.3	3162.7	3098.2	2961.3	2848.4	2744.1	2697.5	2687.6	2670.3	2649.7	2610.5
27.5°	3609.8	3593.8	3510.8	3338.0	3190.6	2980.0	2835.1	2821.8	2805.9	2797.2	2778.6
30°	3990.5	3973.2	3891.5	3716.1	3538.0	3286.8	3020.5	2973.9	2946.7	2949.4	2938.7
32.5°	4324.7	4309.4	4217.7	4039.0	3858.3	3614.4	3261.0	3188.5	3127.4	3104.9	3112.8
35°	4605.1	4591.1	4490.8	4310.7	4128.7	3926.1	3570.6	3461.7	3361.9	3299.5	3292.2
37.5°	4769.8	4761.8	4691.5	4538.6	4357.9	4209.1	3917.4	3796.5	3649.7	3558.6	3518.7
40°	4760.5	4769.2	4757.2	4688.1	4547.9	4439.6	4278.9	4159.2	4015.7	3880.2	3799.1
42.5°	4625.0	4636.9	4690.7	4726.6	4688.8	4623.0	4594.5	4505.4	4376.5	4233.0	4120.8
45°	4439.0	4449.6	4519.4	4648.9	4757.2	4775.9	4870.9	4826.3	4717.3	4595.1	4471.5
47.5°	4153.9	4174.6	4255.6	4461.6	4719.4	4898.7	5102.7	5123.3	5060.2	4959.3	4843.6
50°	3741.3	3768.6	3882.2	4175.2	4575.9	5025.0	5447.5	5526.0	5500.7	5398.4	5281.5
52.5°	3318.8	3346.0	3497.5	3809.1	4344.7	5076.8	5787.0	5987.7	6132.6	6238.3	6258.8
55°	2878.9	2909.5	3075.6	3434.4	4036.4	5011.0	6029.6	6257.5	6404.3	6514.7	6559.2
57.5°	2382.6	2417.1	2577.9	2940.7	3600.5	4746.6	6299.3	6622.3	6840.9	7010.9	7106.6
60°	1813.2	1856.3	2023.2	2388.6	3027.7	4240.3	6419.6	6897.3	7244.8	7500.0	7651.5
62.5°	1149.5	1193.3	1366.7	1746.1	2376.0	3548.6	6079.4	6776.4	7369.0	7746.4	8024.1
65°	627.2	646.5	742.9	1028.5	1601.9	2753.4	5217.0	6038.9	6892.6	7427.5	7854.1
67.5°	470.5	473.1	483.0	552.8	853.1	1859.0	4078.8	4831.6	5779.8	6468.1	6977.8
70°	411.9	411.9	413.3	413.9	463.1	1007.3	2763.3	3456.3	4325.3	5021.7	5654.9
72.5°	369.4	365.4	364.1	356.1	362.7	516.3	1504.2	2126.8	2859.7	3641.0	4231.6
75°	319.0	318.2	318.2	310.3	314.3	363.5	652.4	1020.5	1588.6	2316.2	2897.5
77.5°	275.7	271.1	271.8	267.1	279.7	278.3	309.6	420.5	691.6	1216.6	1698.9
80°	227.2	223.9	225.9	223.2	243.2	205.9	208.6	257.2	343.5	533.6	752.1
82.5°	168.1	169.4	182.1	180.8	204.6	138.8	152.8	192.0	231.2	265.8	289.0
85°	98.3	100.4	130.9	137.5	150.2	73.0	93.7	114.3	128.9	142.8	148.8
87.5°	10.6	13.9	73.0	75.1	67.1	21.9	37.8	47.9	51.1	54.5	47.9
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°	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9
2.5°	974.7	966.1	956.8	951.4	942.1	934.2	919.5	907.6	894.3	885.0	881.1
5°	1088.9	1068.4	1046.5	1030.5	1010.6	993.3	960.0	920.2	907.6	881.1	874.4
7.5°	1237.8	1200.6	1163.4	1132.8	1098.2	1069.7	1013.9	942.1	932.8	890.3	881.1
10°	1412.6	1358.1	1302.9	1255.8	1205.2	1161.4	1079.0	978.0	968.0	913.6	904.3
12.5°	1607.9	1541.5	1470.4	1399.9	1340.2	1278.4	1166.1	1033.8	1017.9	953.4	940.8
15°	1809.2	1737.5	1655.0	1570.0	1496.3	1414.5	1273.1	1106.9	1077.7	1002.0	984.7
17.5°	2007.8	1930.1	1843.8	1748.7	1662.4	1564.7	1388.7	1188.7	1138.1	1049.8	1027.9
20°	2199.9	2120.8	2029.8	1936.8	1829.1	1717.5	1506.9	1269.1	1191.9	1089.6	1061.1
22.5°	2374.7	2306.9	2215.8	2108.8	1999.9	1874.4	1627.2	1349.5	1239.1	1120.2	1083.7
25°	2558.7	2496.9	2406.5	2303.6	2176.6	2037.1	1751.4	1425.9	1277.1	1136.8	1091.6
27.5°	2744.7	2691.6	2606.5	2498.3	2362.0	2207.2	1877.6	1496.3	1307.5	1142.1	1087.6
30°	2943.3	2902.2	2823.8	2702.8	2565.4	2393.9	2015.2	1565.3	1326.9	1134.9	1069.7
32.5°	3131.4	3130.0	3060.3	2934.7	2786.5	2597.9	2160.1	1635.1	1336.8	1114.2	1038.5
35°	3326.7	3353.9	3301.5	3181.9	3025.8	2816.5	2320.2	1709.6	1337.5	1077.7	998.0
37.5°	3548.6	3597.2	3573.9	3460.3	3296.2	3065.6	2508.2	1793.2	1333.5	1027.1	938.9
40°	3801.2	3867.6	3867.0	3771.2	3595.9	3344.6	2726.8	1886.9	1324.2	964.0	869.1
42.5°	4090.2	4169.2	4191.1	4096.8	3919.4	3649.7	2977.3	1989.9	1309.6	901.6	795.3
45°	4421.0	4490.8	4532.0	4444.3	4266.2	3981.8	3265.0	2106.9	1291.6	821.2	711.0
47.5°	4775.1	4856.3	4918.0	4843.0	4652.9	4360.5	3605.8	2257.7	1285.0	729.6	619.9
50°	5214.4	5298.1	5431.7	5397.7	5293.5	5058.2	4326.7	2613.8	1287.7	642.5	543.5
52.5°	6304.0	6496.0	6664.7	6589.7	6341.9	5938.5	4912.7	2811.8	1231.8	571.4	490.3
55°	6632.9	6850.8	7100.0	7068.7	6830.9	6424.2	5375.8	2977.3	1178.0	519.6	455.8
57.5°	7208.2	7465.4	7813.5	7807.0	7515.2	7057.4	5971.8	3175.2	1154.8	489.7	438.5
60°	7817.5	8145.1	8626.1	8701.2	8384.3	7907.9	6676.1	3418.4	1158.1	473.1	428.5
62.5°	8262.7	8743.1	9442.8	9667.3	9293.9	8768.9	7406.9	3661.7	1138.1	453.8	416.5
65°	8289.9	8981.6	9974.3	10323.7	9945.6	9271.3	7664.8	3613.8	1018.6	427.9	397.3
67.5°	7625.5	8526.5	9732.4	10115.8	9729.1	8961.7	7212.9	3159.3	827.9	382.7	364.1
70°	6351.2	7397.0	8648.7	9075.9	8756.4	7979.6	6277.4	2523.4	618.6	322.9	314.3
72.5°	4908.0	5883.4	7020.2	7415.6	7171.1	6488.1	4951.3	1839.1	441.8	261.8	255.1
75°	3508.8	4339.4	5164.5	5315.4	5074.1	4447.0	3212.5	1148.8	309.6	214.6	205.3
77.5°	2172.6	2712.9	3009.1	2815.2	2507.6	2084.3	1307.5	567.4	205.9	174.7	165.4
80°	964.0	1131.5	1056.4	941.5	743.5	611.3	399.4	251.9	132.9	134.9	129.6
82.5°	324.3	342.8	333.6	331.5	299.0	261.8	169.4	108.9	74.4	86.3	84.4
85°	158.1	165.4	166.1	172.1	149.5	116.3	45.8	43.2	31.9	46.5	48.5
87.5°	47.9	48.5	43.9	47.9	38.6	26.6	8.6	12.0	5.9	11.3	11.3
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°	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9	904.9
2.5°	873.7	871.0	866.4	861.1	859.8	853.1	851.1	847.8	845.8	842.5	839.8
5°	865.7	861.1	855.8	849.8	849.8	840.5	836.5	832.5	832.5	826.5	823.9
7.5°	873.7	867.8	861.7	856.4	858.5	847.8	843.8	839.8	839.1	833.2	830.5
10°	896.3	890.3	883.0	877.7	875.7	867.1	862.4	856.4	852.4	848.4	844.4
12.5°	930.9	922.9	913.6	902.2	897.6	890.3	883.0	875.0	865.7	861.7	855.8
15°	972.0	958.7	946.1	932.2	919.5	912.3	902.2	889.7	877.1	871.8	863.8
17.5°	1006.0	992.0	974.1	957.4	934.9	928.8	914.9	899.6	879.0	877.1	865.1
20°	1034.5	1013.2	991.3	971.4	936.8	933.5	916.3	898.3	869.1	869.1	854.5
22.5°	1050.5	1021.2	995.3	968.7	925.6	922.9	903.0	881.7	845.8	847.1	829.2
25°	1053.1	1017.9	985.3	953.4	903.6	899.0	873.7	850.5	811.3	808.6	790.0
27.5°	1042.5	1001.3	963.4	924.8	871.0	861.1	833.2	805.3	766.7	760.1	740.2
30°	1017.9	969.3	926.9	882.4	825.8	810.0	780.7	752.1	712.9	704.3	685.7
32.5°	978.7	923.5	876.4	831.9	769.4	749.4	720.3	691.6	653.8	647.1	629.8
35°	926.9	865.1	815.3	768.0	705.6	685.0	657.1	631.9	597.3	594.6	582.7
37.5°	861.7	797.3	744.2	699.0	639.9	629.2	600.7	582.1	553.4	556.1	550.1
40°	788.0	722.2	671.8	631.9	580.7	571.4	554.1	540.2	515.6	522.9	523.5
42.5°	713.6	647.8	602.0	566.1	522.2	516.3	504.3	496.3	477.7	492.3	498.3
45°	629.2	568.0	528.9	501.7	469.1	469.1	463.1	462.5	449.8	470.5	476.4
47.5°	547.5	499.6	472.4	455.8	433.2	443.9	441.8	447.1	437.8	459.1	464.4
50°	485.7	452.5	435.9	427.9	411.9	428.5	432.5	439.9	431.9	450.5	454.5
52.5°	446.5	424.5	415.2	413.3	402.0	422.6	429.2	435.9	426.6	443.9	443.1
55°	424.5	409.9	406.6	410.6	402.0	421.9	428.5	433.2	425.2	437.2	436.5
57.5°	416.5	408.6	410.6	416.5	410.6	427.2	430.6	435.9	427.9	433.2	435.9
60°	415.9	415.9	423.9	431.9	427.9	439.9	441.8	441.2	433.8	434.5	435.9
62.5°	411.9	421.9	435.2	447.8	446.5	461.1	462.5	453.8	447.8	441.2	439.2
65°	399.4	415.9	435.2	452.5	455.1	477.7	480.4	471.8	467.8	456.4	447.8
67.5°	371.4	392.7	415.2	436.5	441.2	471.8	477.7	481.0	483.0	475.7	464.4
70°	324.3	346.2	369.4	394.0	400.7	434.5	447.1	462.5	474.4	485.0	481.0
72.5°	263.8	283.7	303.6	326.2	336.2	371.4	388.0	414.6	433.2	460.4	471.8
75°	209.3	221.3	233.2	247.1	255.1	289.7	310.3	342.2	367.4	405.3	430.6
77.5°	164.8	170.7	176.8	182.7	186.1	205.3	221.9	253.8	283.1	330.9	368.1
80°	126.9	130.2	130.9	132.9	131.6	140.9	146.8	166.1	191.4	238.6	282.3
82.5°	81.7	84.4	85.7	89.0	82.3	94.3	98.3	100.4	113.6	148.1	179.4
85°	45.8	46.5	47.2	48.5	39.2	51.1	51.9	48.5	47.2	61.2	69.0
87.5°	11.3	10.6	11.3	11.3	4.6	10.6	10.6	7.3	5.3	9.9	8.0
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):

	135°	145°	155°	165°	175°	180°
0°	904.9	904.9	904.9	904.9	904.9	904.9
2.5°	833.8	832.5	833.2	829.8	828.5	829.2
5°	820.5	817.8	817.8	815.9	813.2	813.2
7.5°	826.5	821.2	819.2	815.3	811.3	811.9
10°	835.9	826.5	819.9	814.0	809.3	809.3
12.5°	841.8	825.2	815.3	807.3	802.0	802.0
15°	843.1	817.8	803.3	794.6	789.3	789.3
17.5°	835.1	803.3	784.7	773.4	767.4	768.7
20°	815.3	776.0	754.1	742.2	736.2	736.8
22.5°	784.0	738.9	713.6	699.6	693.7	693.7
25°	741.5	692.3	665.1	653.8	648.4	648.4
27.5°	692.9	642.5	618.6	610.0	606.6	606.6
30°	638.5	596.7	579.4	573.4	568.0	568.0
32.5°	592.7	562.7	556.8	548.8	534.9	534.2
35°	556.1	552.8	548.1	524.3	504.3	501.7
37.5°	536.2	556.1	526.9	485.7	469.7	469.1
40°	525.6	544.1	493.7	473.7	471.8	471.8
42.5°	500.3	513.6	491.6	480.4	480.4	481.0
45°	473.7	485.0	496.3	486.3	489.7	490.3
47.5°	455.1	477.7	496.3	487.6	494.3	498.3
50°	437.8	471.1	486.3	486.3	493.7	494.3
52.5°	433.8	461.8	477.0	484.4	485.0	481.7
55°	434.5	454.5	469.7	479.0	475.1	475.1
57.5°	433.8	450.5	463.8	467.1	469.1	469.1
60°	434.5	445.2	455.8	454.5	461.1	461.1
62.5°	436.5	437.8	443.1	441.8	451.8	451.8
65°	441.2	428.5	425.2	426.6	438.5	437.8
67.5°	449.8	415.9	405.3	406.0	423.2	420.5
70°	462.5	398.6	382.7	378.7	408.0	403.3
72.5°	466.5	378.7	353.4	349.4	366.7	353.4
75°	447.8	362.7	322.2	308.9	301.7	297.7
77.5°	399.4	352.8	289.7	261.8	250.5	247.9
80°	330.9	332.3	247.1	213.9	248.5	247.9
82.5°	249.8	287.0	198.0	185.4	180.0	150.2
85°	120.9	215.9	152.1	127.6	76.4	72.4
87.5°	10.6	90.3	87.7	57.2	25.9	24.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)