

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: P271343

Luminaire Tested: **XNV2-AF-02-LED-U-T2R-7027-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P271343  
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-7027-800  
Description: XNV2 ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 2700K, 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: 8870.6 lumens  
Efficiency: N/A  
Efficacy: 104.4 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

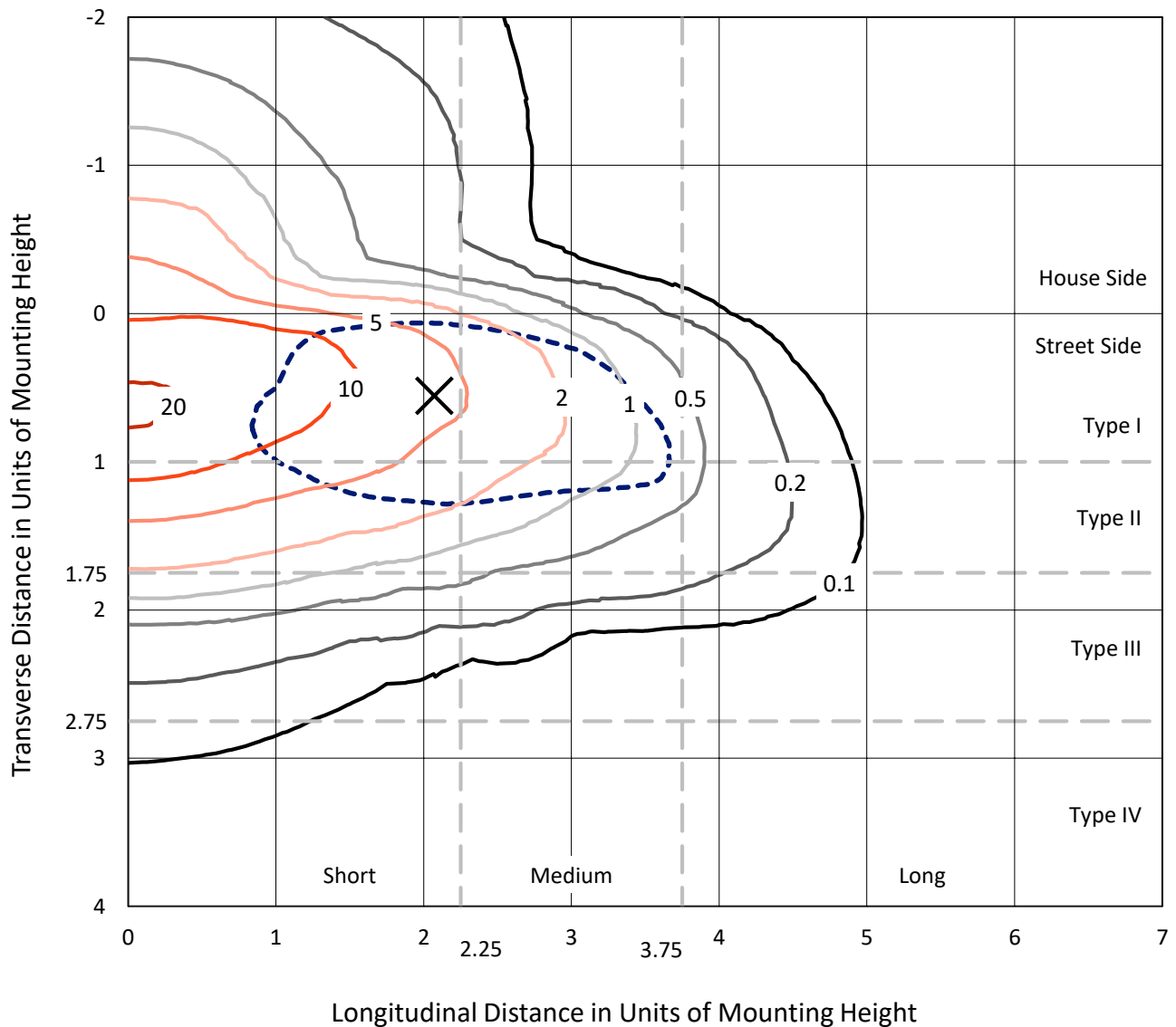


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

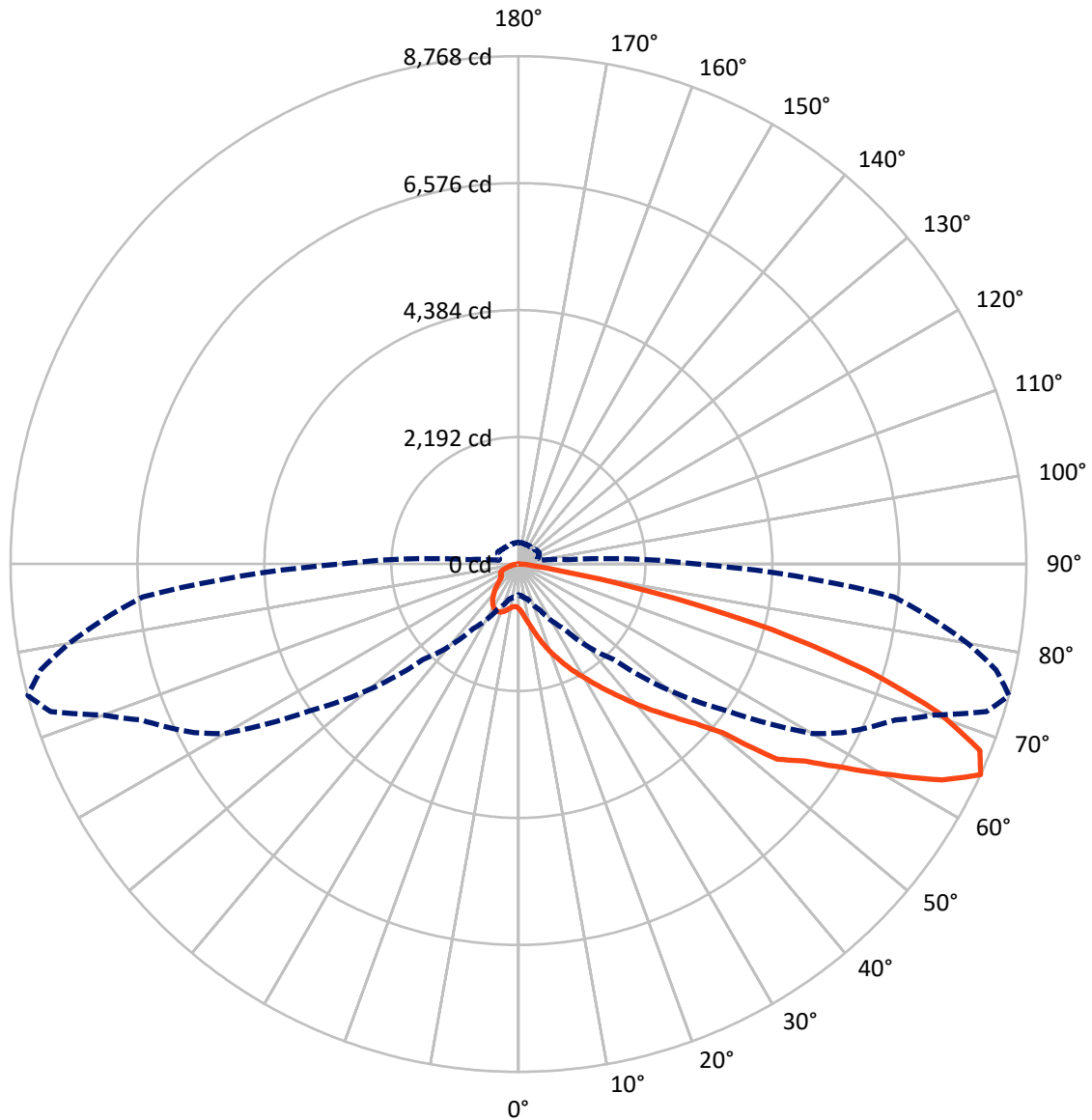


Based on 10 foot mounting height. Maximum calculated value = 22.1 fc  
 Type II - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



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

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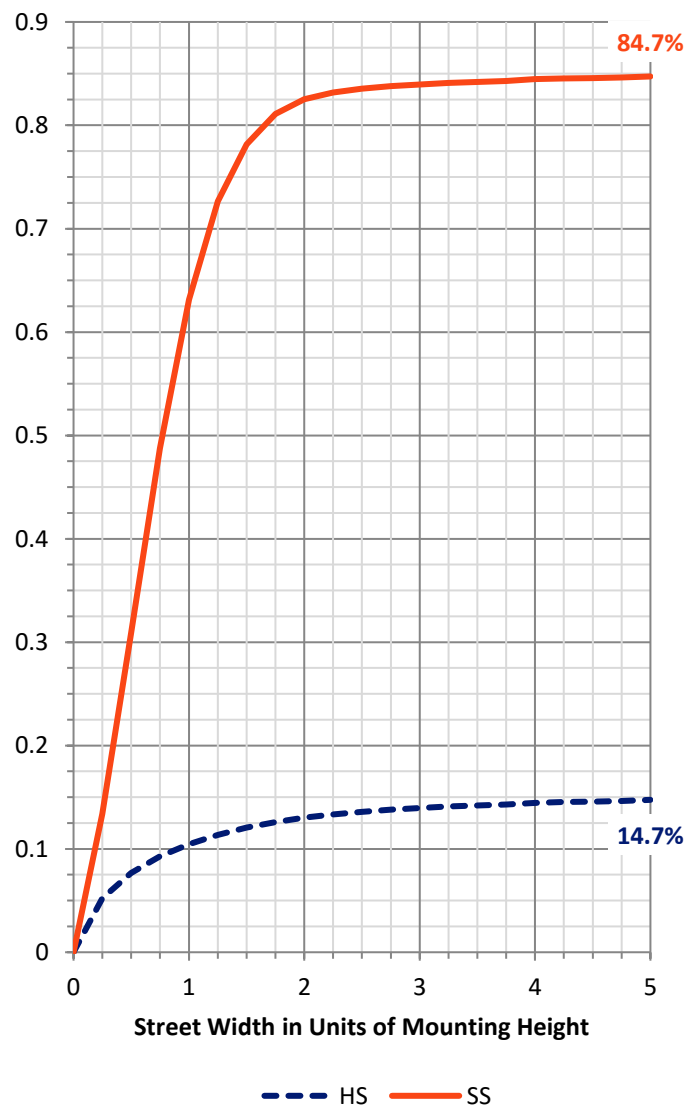
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1332.9	0.0	1332.9
	% Fixture	15.0	0.0	15.0
<b>Street Side</b>	Lumens	7537.7	0.0	7537.7
	% Fixture	85.0	0.0	85.0
<b>Total</b>	Lumens	8870.6	0.0	8870.6
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	90.7	1.0
10°-20°	346.6	3.9
20°-30°	699.4	7.9
30°-40°	1187.8	13.4
40°-50°	1656.7	18.7
50°-60°	2030.5	22.9
60°-70°	1910.4	21.5
70°-80°	837.7	9.4
80°-90°	110.8	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°	8870.6	100.0
0°-180°	8870.6	100.0

**Coefficient of Utilization**



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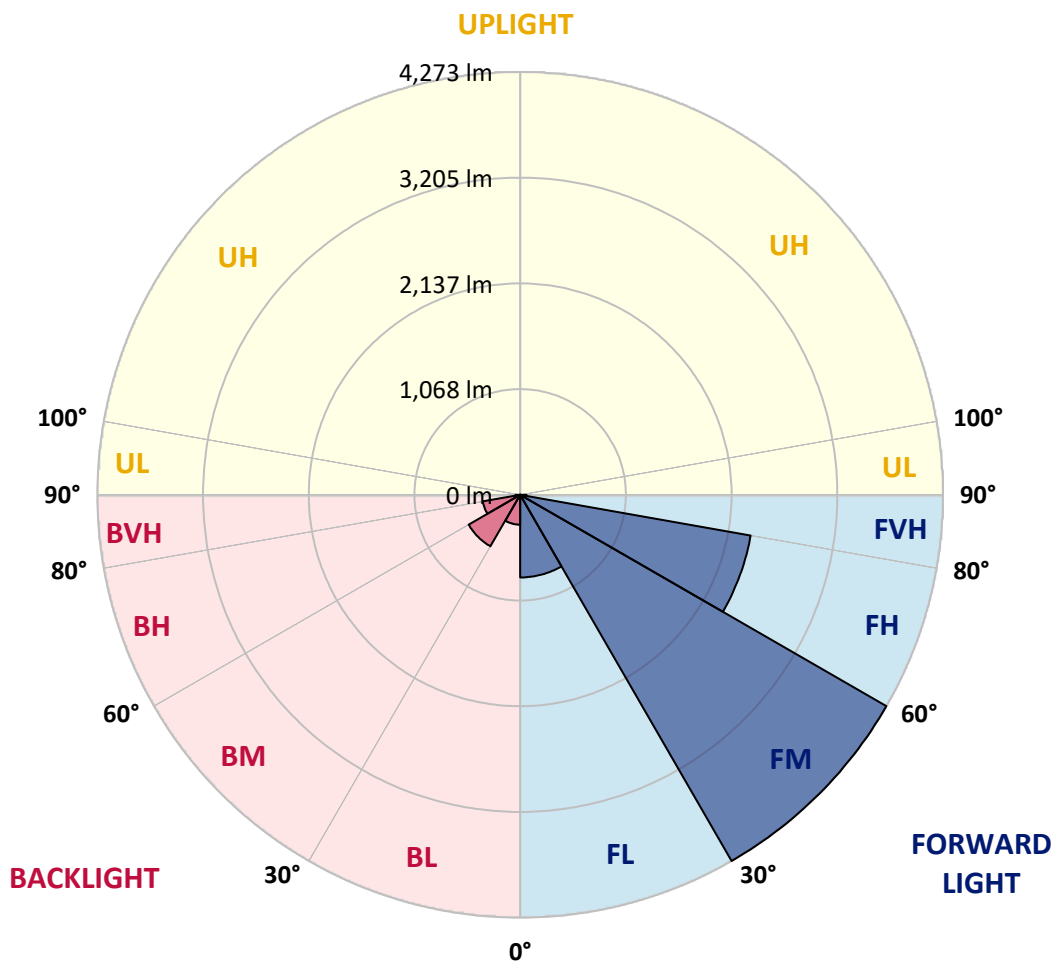
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	835.0	9.4			
FM	(30°-60°)	4273.5	48.2			
FH	(60°-80°)	2365.0	26.7			G2/5000
FVH	(80°-90°)	64.3	0.7			G1/100
BL	(0°-30°)	301.8	3.4	B1/500		
BM	(30°-60°)	601.5	6.8	B1/1000		
BH	(60°-80°)	383.1	4.3	B1/500		G1/500
BVH	(80°-90°)	46.6	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°	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6
2.5°	967.7	956.4	957.7	941.9	918.6	893.4	872.4	861.1	851.6	848.7	832.9
5°	1265.7	1251.6	1246.6	1210.5	1156.3	1091.9	1028.2	1003.3	983.0	970.6	940.2
7.5°	1509.5	1502.1	1495.4	1462.1	1408.5	1326.1	1223.4	1186.8	1152.9	1115.7	1079.0
10°	1675.3	1672.6	1669.8	1646.7	1602.0	1530.4	1419.9	1379.7	1337.3	1290.0	1242.0
12.5°	1800.7	1800.7	1803.0	1783.8	1756.6	1701.4	1600.9	1563.7	1520.8	1471.2	1416.4
15°	1884.7	1887.0	1898.8	1904.5	1890.5	1854.9	1766.8	1734.1	1693.5	1644.3	1590.2
17.5°	1940.7	1945.2	1962.6	1981.3	1999.4	1987.0	1921.5	1891.0	1854.3	1809.1	1758.4
20°	2070.5	2064.8	2065.4	2059.8	2086.3	2095.8	2059.8	2034.3	2004.9	1963.8	1917.5
22.5°	2343.0	2332.3	2304.6	2234.1	2201.9	2198.5	2177.1	2163.6	2141.0	2115.0	2068.7
25°	2698.5	2686.1	2631.3	2515.2	2419.1	2330.7	2291.0	2282.7	2268.0	2250.4	2217.1
27.5°	3065.8	3052.4	2981.8	2835.1	2709.7	2531.0	2407.8	2396.6	2383.1	2375.7	2359.9
30°	3389.2	3374.6	3305.1	3156.1	3004.9	2791.7	2565.3	2525.9	2502.7	2505.0	2495.9
32.5°	3673.1	3660.1	3582.3	3430.4	3276.9	3069.9	2769.7	2708.1	2656.2	2637.1	2643.8
35°	3911.2	3899.4	3814.2	3661.2	3506.7	3334.5	3032.6	2940.1	2855.4	2802.4	2796.2
37.5°	4051.1	4044.3	3984.6	3854.7	3701.2	3574.9	3327.1	3224.5	3099.7	3022.4	2988.7
40°	4043.2	4050.5	4040.4	3981.7	3862.7	3770.6	3634.2	3532.6	3410.7	3295.5	3226.7
42.5°	3928.2	3938.3	3984.1	4014.4	3982.4	3926.4	3902.1	3826.6	3717.0	3595.1	3499.8
45°	3770.1	3779.2	3838.4	3948.5	4040.4	4056.2	4137.0	4099.1	4006.6	3902.7	3797.8
47.5°	3528.1	3545.5	3614.4	3789.3	4008.2	4160.6	4333.9	4351.4	4297.9	4212.1	4113.8
50°	3177.7	3200.8	3297.3	3546.1	3886.3	4267.8	4626.7	4693.4	4671.8	4584.9	4485.6
52.5°	2818.7	2841.9	2970.5	3235.2	3690.0	4311.9	4915.0	5085.6	5208.6	5298.3	5315.8
55°	2445.1	2471.1	2612.2	2916.8	3428.1	4256.0	5121.1	5314.6	5439.3	5533.0	5570.7
57.5°	2023.6	2052.9	2189.4	2497.6	3058.0	4031.5	5350.1	5624.5	5810.1	5954.5	6035.8
60°	1540.0	1576.6	1718.3	2028.7	2571.6	3601.5	5452.4	5858.0	6153.2	6369.9	6498.6
62.5°	976.3	1013.5	1160.8	1483.0	2018.0	3014.0	5163.4	5755.4	6258.8	6579.2	6815.1
65°	532.8	549.0	630.9	873.5	1360.6	2338.5	4430.9	5129.1	5854.2	6308.3	6670.6
67.5°	399.6	401.8	410.3	469.5	724.6	1579.0	3464.3	4103.6	4908.9	5493.6	5926.4
70°	349.9	349.9	351.0	351.5	393.3	855.5	2346.9	2935.5	3673.7	4265.1	4802.8
72.5°	313.8	310.4	309.2	302.5	308.1	438.5	1277.6	1806.3	2428.7	3092.3	3594.1
75°	270.8	270.3	270.3	263.6	266.9	308.7	554.2	866.8	1349.3	1967.2	2460.9
77.5°	234.2	230.2	230.9	226.8	237.6	236.4	262.9	357.2	587.4	1033.2	1442.9
80°	193.0	190.3	191.9	189.6	206.5	174.9	177.1	218.4	291.8	453.1	638.8
82.5°	142.8	143.9	154.6	153.5	173.8	117.9	129.7	163.1	196.4	225.7	245.4
85°	83.5	85.2	111.2	116.8	127.5	62.1	79.6	97.0	109.5	121.4	126.4
87.5°	9.1	11.9	62.1	63.8	57.0	18.7	32.2	40.7	43.5	46.3	40.7
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):**

	67.5°	70°	72.5°	75°	77.5°	80°	85°	90°	95°	100°	102.5°
0°	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6
2.5°	827.9	820.5	812.5	808.0	800.2	793.5	780.9	770.8	759.5	751.6	748.3
5°	924.9	907.4	888.9	875.3	858.3	843.7	815.4	781.5	770.8	748.3	742.5
7.5°	1051.2	1019.7	988.0	962.2	932.8	908.5	861.1	800.2	792.2	756.2	748.3
10°	1199.7	1153.5	1106.6	1066.6	1023.7	986.3	916.5	830.7	822.2	776.0	768.1
12.5°	1365.7	1309.2	1248.9	1188.9	1138.2	1085.7	990.3	878.1	864.4	809.8	799.0
15°	1536.6	1475.6	1405.7	1333.4	1270.8	1201.5	1081.2	940.2	915.4	851.0	836.3
17.5°	1705.3	1639.2	1565.9	1485.3	1411.9	1329.0	1179.5	1009.5	966.7	891.6	873.1
20°	1868.5	1801.3	1723.9	1644.9	1553.4	1458.8	1279.8	1077.8	1012.4	925.4	901.2
22.5°	2016.9	1959.3	1881.9	1791.1	1698.5	1591.8	1382.0	1146.1	1052.5	951.5	920.5
25°	2173.1	2120.7	2044.0	1956.5	1848.6	1730.1	1487.6	1211.0	1084.7	965.5	927.1
27.5°	2331.1	2285.9	2213.8	2121.7	2006.2	1874.7	1594.8	1270.8	1110.6	970.0	923.7
30°	2499.9	2464.9	2398.4	2295.6	2178.7	2033.3	1711.5	1329.5	1127.0	963.8	908.5
32.5°	2659.6	2658.4	2599.2	2492.5	2366.8	2206.4	1834.6	1388.8	1135.4	946.4	882.0
35°	2825.4	2848.6	2804.0	2702.6	2569.8	2392.0	1970.5	1452.0	1135.9	915.4	847.6
37.5°	3014.0	3055.1	3035.5	2939.0	2799.5	2603.6	2130.3	1523.0	1132.6	872.4	797.3
40°	3228.4	3284.8	3284.3	3202.9	3054.1	2840.7	2315.9	1602.7	1124.7	818.9	738.0
42.5°	3473.8	3540.9	3559.7	3479.6	3328.8	3099.7	2528.6	1690.2	1112.2	765.7	675.4
45°	3754.8	3814.2	3849.1	3774.7	3623.5	3381.8	2773.0	1789.5	1097.0	697.4	603.8
47.5°	4055.7	4124.5	4176.9	4113.2	3951.9	3703.5	3062.5	1917.5	1091.4	619.7	526.4
50°	4428.6	4499.8	4613.2	4584.4	4495.8	4296.1	3674.7	2220.0	1093.6	545.7	461.5
52.5°	5354.2	5517.2	5660.6	5596.8	5386.2	5043.8	4172.4	2388.1	1046.3	485.4	416.5
55°	5633.5	5818.6	6030.2	6003.6	5801.7	5456.2	4565.8	2528.6	1000.5	441.2	387.1
57.5°	6122.2	6340.5	6636.3	6630.6	6382.8	5994.1	5072.0	2696.8	980.8	415.8	372.4
60°	6639.6	6917.8	7326.3	7390.1	7121.0	6716.4	5670.1	2903.3	983.6	401.8	364.0
62.5°	7017.6	7425.7	8019.9	8210.7	7893.5	7447.7	6290.9	3109.9	966.7	385.5	353.8
65°	7040.8	7628.2	8471.3	8768.1	8447.1	7874.4	6509.8	3069.2	865.1	363.5	337.5
67.5°	6476.5	7241.7	8265.9	8591.6	8263.1	7611.3	6126.1	2683.2	703.2	325.0	309.2
70°	5394.2	6282.4	7345.6	7708.4	7437.0	6777.4	5331.6	2143.3	525.4	274.3	266.9
72.5°	4168.6	4996.9	5962.5	6298.2	6090.6	5510.5	4205.2	1562.1	375.2	222.3	216.8
75°	2980.0	3685.4	4386.3	4514.4	4309.6	3777.0	2728.4	975.6	262.9	182.3	174.5
77.5°	1845.3	2304.1	2555.8	2391.0	2129.7	1770.2	1110.6	481.9	174.9	148.4	140.6
80°	818.9	960.9	897.2	799.6	631.5	519.2	339.1	213.8	112.8	114.5	110.0
82.5°	275.4	291.2	283.2	281.6	254.0	222.3	143.9	92.5	63.2	73.3	71.7
85°	134.2	140.6	141.0	146.2	127.0	98.8	38.9	36.7	27.0	39.4	41.2
87.5°	40.7	41.2	37.2	40.7	32.7	22.5	7.4	10.2	5.1	9.6	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):**

	105°	107.5°	110°	112.5°	115°	117.5°	120°	122.5°	125°	127.5°	130°
0°	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6	768.6
2.5°	742.1	739.8	735.8	731.3	730.2	724.6	722.9	720.0	718.4	715.5	713.3
5°	735.4	731.3	726.8	721.8	721.8	713.9	710.5	707.1	707.1	701.9	699.7
7.5°	742.1	737.0	731.8	727.4	729.1	720.0	716.7	713.3	712.7	707.7	705.3
10°	761.3	756.2	749.9	745.5	743.7	736.4	732.5	727.4	724.0	720.6	717.2
12.5°	790.6	783.9	776.0	766.3	762.4	756.2	749.9	743.2	735.4	731.8	726.8
15°	825.6	814.4	803.5	791.8	780.9	774.8	766.3	755.7	744.9	740.4	733.6
17.5°	854.4	842.5	827.2	813.1	794.0	788.9	777.0	764.1	746.6	744.9	734.8
20°	878.6	860.5	841.9	825.1	795.7	792.8	778.2	762.9	738.0	738.0	725.7
22.5°	892.1	867.4	845.3	822.8	786.0	783.9	767.0	748.8	718.4	719.5	704.2
25°	894.4	864.4	837.0	809.8	767.4	763.5	742.1	722.2	689.0	686.8	670.9
27.5°	885.4	850.4	818.3	785.5	739.8	731.3	707.7	683.9	651.2	645.5	628.6
30°	864.4	823.3	787.3	749.4	701.4	687.9	663.0	638.8	605.5	598.2	582.5
32.5°	831.2	784.4	744.3	706.4	653.4	636.4	611.7	587.4	555.3	549.7	535.0
35°	787.3	734.8	692.5	652.3	599.3	581.8	558.0	536.6	507.4	505.0	494.8
37.5°	731.8	677.1	632.0	593.7	543.5	534.4	510.1	494.3	470.1	472.2	467.3
40°	669.2	613.5	570.6	536.6	493.2	485.4	470.6	458.8	438.0	444.1	444.8
42.5°	606.0	550.2	511.2	480.9	443.6	438.5	428.3	421.6	405.8	418.2	423.2
45°	534.4	482.5	449.2	426.1	398.4	398.4	393.3	392.7	382.0	399.6	404.5
47.5°	465.1	424.4	401.3	387.1	367.9	377.0	375.2	379.8	371.9	390.0	394.4
50°	412.5	384.2	370.2	363.5	349.9	364.0	367.3	373.5	366.8	382.6	386.0
52.5°	379.3	360.6	352.7	351.0	341.4	359.0	364.5	370.2	362.2	377.0	376.4
55°	360.6	348.2	345.4	348.7	341.4	358.3	364.0	367.9	361.2	371.3	370.7
57.5°	353.8	347.0	348.7	353.8	348.7	362.8	365.7	370.2	363.5	367.9	370.2
60°	353.3	353.3	360.0	366.8	363.5	373.5	375.2	374.8	368.5	369.1	370.2
62.5°	349.9	358.3	369.7	380.3	379.3	391.7	392.7	385.5	380.3	374.8	372.9
65°	339.1	353.3	369.7	384.2	386.5	405.8	408.0	400.6	397.3	387.7	380.3
67.5°	315.5	333.5	352.7	370.7	374.8	400.6	405.8	408.5	410.3	404.1	394.4
70°	275.4	294.0	313.8	334.6	340.3	369.1	379.8	392.7	402.9	412.0	408.5
72.5°	224.0	240.9	258.0	277.0	285.5	315.5	329.6	352.1	367.9	391.0	400.6
75°	177.8	187.9	198.0	209.9	216.8	246.0	263.6	290.6	312.0	344.2	365.7
77.5°	140.0	145.0	150.0	155.1	158.0	174.5	188.5	215.6	240.3	281.0	312.6
80°	107.7	110.6	111.2	112.8	111.7	119.7	124.8	141.0	162.6	202.6	239.8
82.5°	69.3	71.7	72.9	75.5	70.0	80.0	83.5	85.2	96.5	125.9	152.4
85°	38.9	39.4	40.1	41.2	33.2	43.5	43.9	41.2	40.1	51.9	58.7
87.5°	9.6	9.1	9.6	9.6	4.0	9.1	9.1	6.2	4.5	8.4	6.7
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):**

	135°	145°	155°	165°	175°	180°
0°	768.6	768.6	768.6	768.6	768.6	768.6
2.5°	708.3	707.1	707.7	704.8	703.7	704.2
5°	696.9	694.7	694.7	693.0	690.6	690.6
7.5°	701.9	697.4	695.7	692.5	689.0	689.5
10°	709.9	701.9	696.4	691.2	687.4	687.4
12.5°	715.1	700.9	692.5	685.6	681.2	681.2
15°	716.0	694.7	682.3	674.8	670.3	670.3
17.5°	709.3	682.3	666.5	656.8	651.8	652.9
20°	692.5	659.0	640.5	630.3	625.2	625.8
22.5°	665.9	627.5	606.0	594.1	589.2	589.2
25°	629.7	588.0	564.9	555.3	550.8	550.8
27.5°	588.6	545.7	525.4	518.1	515.2	515.2
30°	542.2	506.7	492.1	487.1	482.5	482.5
32.5°	503.4	478.0	472.9	466.1	454.3	453.7
35°	472.2	469.5	465.5	445.2	428.3	426.1
37.5°	455.4	472.2	447.4	412.5	398.9	398.4
40°	446.4	462.2	419.2	402.4	400.6	400.6
42.5°	424.9	436.1	417.6	408.0	408.0	408.5
45°	402.4	412.0	421.6	413.1	415.8	416.5
47.5°	386.5	405.8	421.6	414.2	419.9	423.2
50°	371.9	400.0	413.1	413.1	419.2	419.9
52.5°	368.5	392.2	405.1	411.3	412.0	409.1
55°	369.1	386.0	398.9	406.8	403.5	403.5
57.5°	368.5	382.6	393.8	396.7	398.4	398.4
60°	369.1	378.0	387.1	386.0	391.7	391.7
62.5°	370.7	371.9	376.4	375.2	383.8	383.8
65°	374.8	364.0	361.2	362.2	372.4	371.9
67.5°	382.0	353.3	344.2	344.8	359.4	357.2
70°	392.7	338.7	325.0	321.7	346.4	342.6
72.5°	396.2	321.7	300.3	296.8	311.5	300.3
75°	380.3	308.1	273.8	262.5	256.1	252.9
77.5°	339.1	299.7	246.0	222.3	212.8	210.6
80°	281.0	282.2	209.9	181.6	211.0	210.6
82.5°	212.2	243.8	168.2	157.5	152.9	127.5
85°	102.6	183.4	129.3	108.3	64.9	61.5
87.5°	9.1	76.7	74.5	48.5	22.0	20.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)