

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: McGRAW-EDISON

Report Number: P301686

Luminaire Tested: **GLNA-AF-02-LED-E1-T2R-7027-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P301686  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194759)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GLNA-AF-02-LED-E1-T2R-7027-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II  
Roadway OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7235.9 lumens  
Efficiency: N/A  
Efficacy: 109.6 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Short - Full Cutoff  
BUG Rating: B1 - U0 - G2

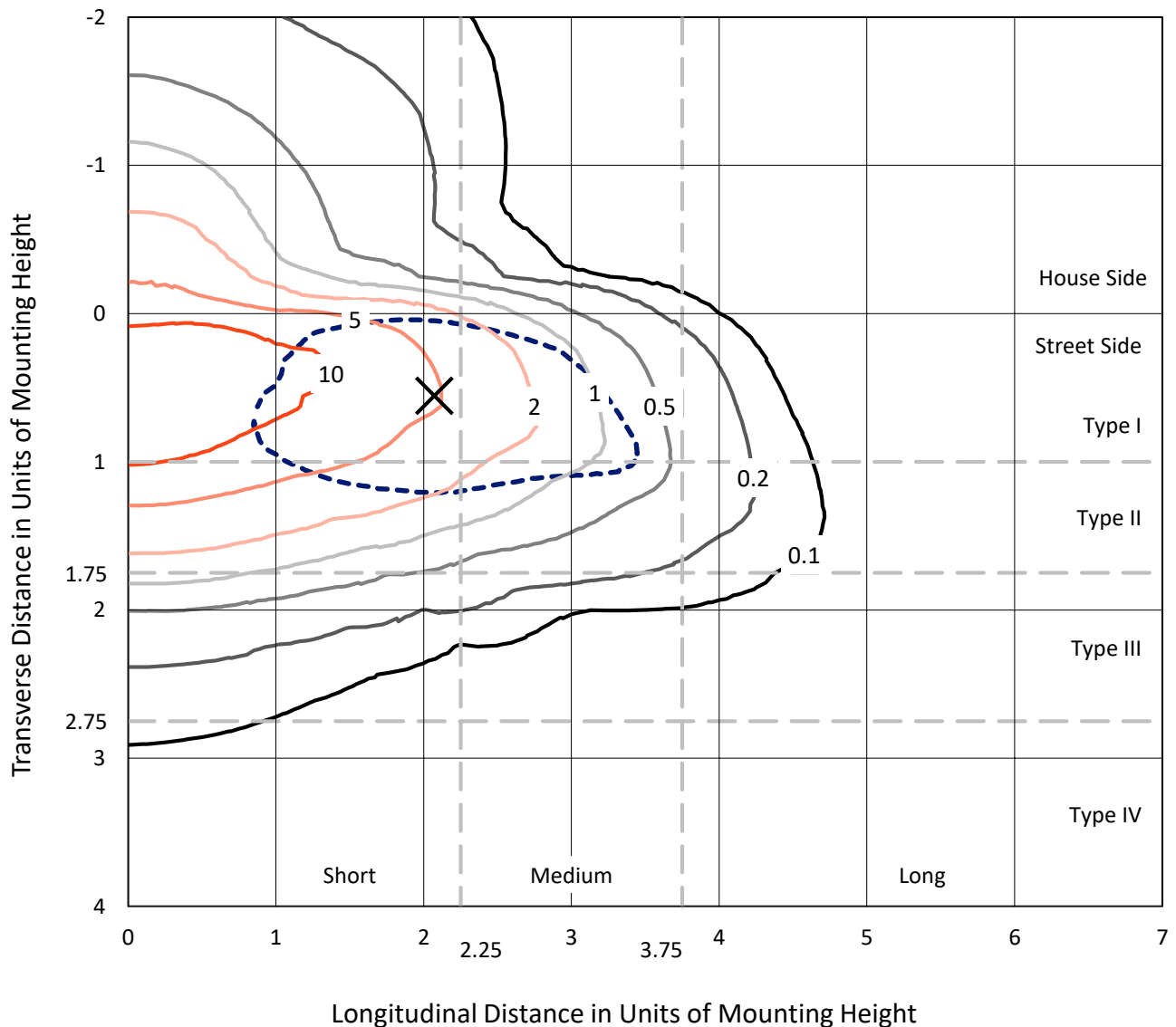
Input Watts (W): 66  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

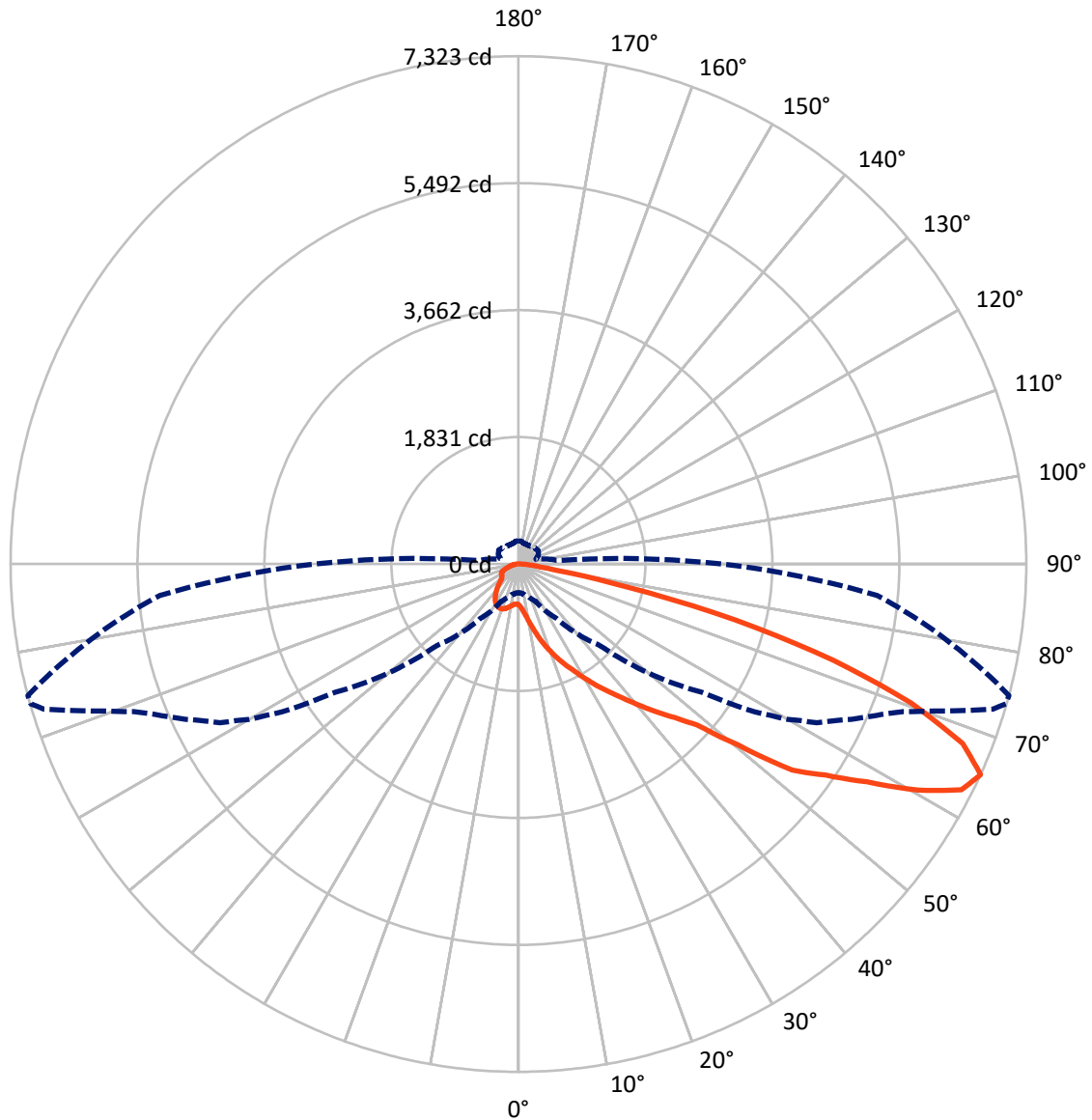
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 18.3 fc  
 Type II - Short - Full 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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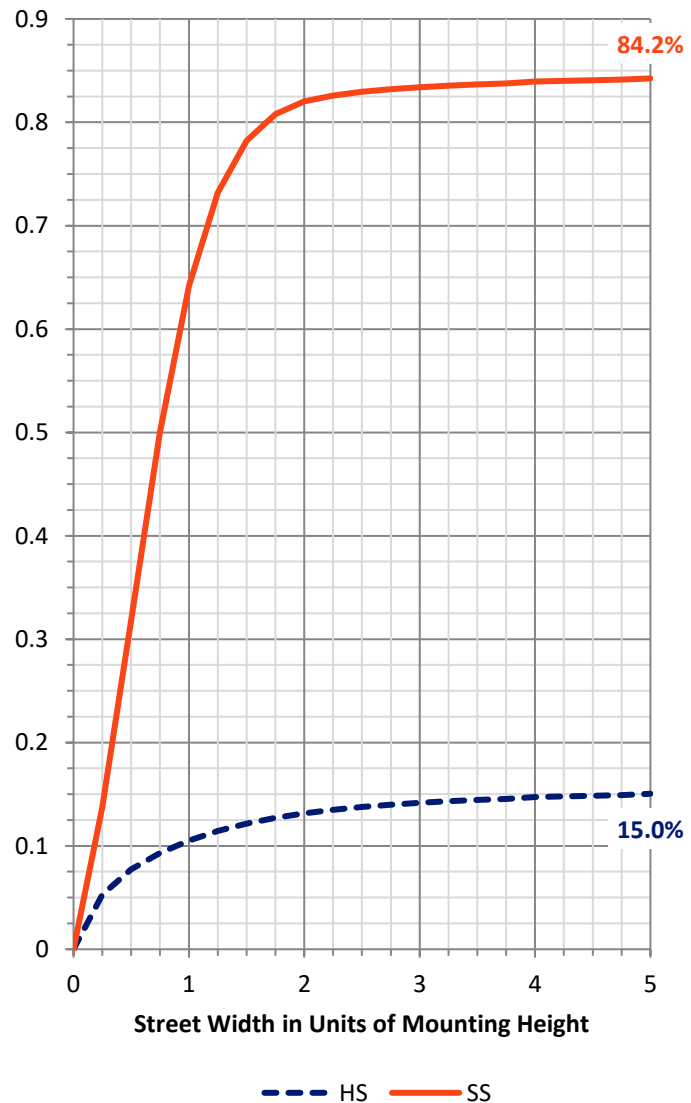
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	1115.6	0.0	1115.6
	% Fixture	15.4	0.0	15.4
<b>Street Side</b>	Lumens	6120.3	0.0	6120.3
	% Fixture	84.6	0.0	84.6
<b>Total</b>	Lumens	7235.9	0.0	7235.9
	% Fixture	100.0	0.0	100.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	72.7	1.0
10°-20°	284.0	3.9
20°-30°	582.7	8.1
30°-40°	980.3	13.5
40°-50°	1354.5	18.7
50°-60°	1690.8	23.4
60°-70°	1521.6	21.0
70°-80°	637.8	8.8
80°-90°	111.4	1.5
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°	7235.9	100.0
0°-180°	7235.9	100.0

**Coefficient of Utilization**



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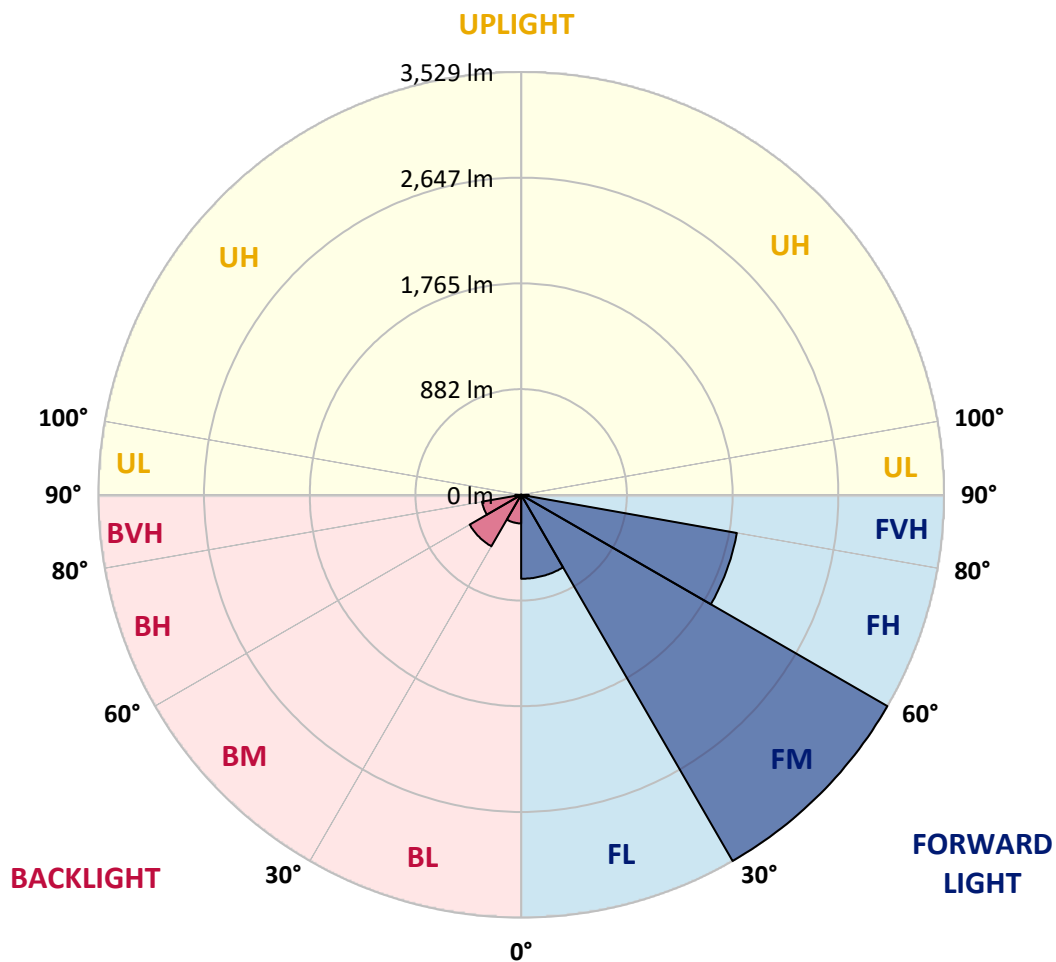
CATALOG NUMBER: GLNA-AF-02-LED-E1-T2R-7027-600

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	700.8	9.7			
FM (30°-60°)	3529.1	48.8			
FH (60°-80°)	1827.8	25.3			G2/5000
FVH (80°-90°)	62.6	0.9			G1/100
BL (0°-30°)	238.6	3.3	B1/500		
BM (30°-60°)	496.6	6.9	B1/1000		
BH (60°-80°)	331.7	4.6	B1/500		G1/500
BVH (80°-90°)	48.8	0.7			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°	56°	57°	58°	59°
0°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1
2.5°	746.7	738.4	740.5	726.7	710.0	688.0	663.7	663.4	663.7	661.3	652.5
5°	1035.3	1025.4	1021.7	990.8	945.6	881.3	811.4	803.9	800.7	792.9	774.7
7.5°	1246.0	1240.5	1234.6	1211.4	1170.3	1098.4	1004.5	988.5	973.0	969.3	948.7
10°	1382.0	1380.5	1368.2	1362.0	1336.4	1274.1	1182.6	1167.2	1150.4	1144.6	1123.0
12.5°	1489.4	1489.1	1483.3	1485.1	1462.7	1417.6	1338.8	1324.8	1312.5	1294.6	1279.2
15°	1563.8	1564.1	1572.8	1582.3	1578.9	1548.4	1474.4	1468.2	1457.6	1445.4	1427.2
17.5°	1624.8	1626.5	1635.3	1652.8	1671.7	1669.3	1610.8	1605.6	1596.3	1579.6	1570.0
20°	1762.4	1768.9	1751.9	1751.9	1753.9	1763.2	1735.0	1730.9	1717.9	1709.0	1701.5
22.5°	1995.0	2002.5	1963.8	1924.5	1885.8	1857.6	1829.6	1834.7	1825.8	1819.6	1815.2
25°	2297.1	2303.0	2240.3	2173.8	2095.0	1992.3	1922.8	1919.6	1914.8	1911.1	1909.1
27.5°	2581.3	2583.8	2524.5	2427.2	2335.8	2188.1	2017.3	2013.5	2007.7	2000.5	1994.3
30°	2824.6	2823.9	2762.9	2670.0	2572.1	2408.7	2160.8	2149.1	2132.0	2112.5	2097.4
32.5°	3035.2	3034.2	2967.3	2871.1	2768.4	2627.3	2357.4	2333.4	2306.7	2268.6	2245.8
35°	3200.9	3200.3	3137.2	3036.9	2919.0	2833.1	2582.8	2553.3	2519.4	2468.4	2433.1
37.5°	3263.6	3263.6	3228.3	3159.8	3055.7	2996.8	2833.1	2797.4	2761.2	2703.3	2663.5
40°	3226.9	3227.6	3235.1	3222.5	3171.8	3126.6	3066.7	3045.4	3014.2	2962.2	2920.8
42.5°	3104.0	3107.7	3157.8	3219.1	3244.4	3237.3	3273.8	3264.3	3242.3	3202.3	3169.4
45°	2948.1	2959.8	3014.6	3130.4	3264.6	3332.8	3447.5	3448.5	3444.4	3422.9	3397.5
47.5°	2734.1	2750.5	2822.8	2979.3	3217.3	3425.6	3623.8	3633.1	3641.7	3627.7	3616.0
50°	2449.9	2469.4	2577.6	2785.1	3121.1	3521.8	3957.1	3998.9	4038.0	4033.2	4041.0
52.5°	2145.4	2168.3	2300.8	2532.1	2955.7	3544.1	4170.1	4238.3	4306.5	4362.3	4421.5
55°	1870.6	1858.4	1990.9	2234.4	2683.7	3443.7	4361.7	4443.9	4519.8	4588.3	4658.9
57.5°	1498.4	1518.6	1651.5	1892.3	2323.8	3160.4	4493.4	4613.7	4722.9	4836.3	4936.3
60°	1095.2	1115.5	1259.6	1504.2	1933.0	2731.0	4392.7	4575.0	4750.0	4923.6	5059.2
62.5°	661.3	676.4	803.4	1036.4	1490.6	2221.8	3944.1	4183.1	4440.7	4648.3	4856.1
65°	411.7	420.2	467.2	595.3	957.3	1658.7	3222.5	3483.1	3760.5	4023.9	4240.0
67.5°	337.0	340.1	348.7	376.0	525.7	1081.6	2398.5	2629.3	2879.6	3134.4	3374.9
70°	303.1	301.0	301.0	302.8	337.0	581.6	1570.3	1720.7	1929.3	2150.9	2370.7
72.5°	273.6	271.6	267.8	262.7	275.0	354.8	811.7	925.1	1075.4	1272.3	1482.9
75°	245.9	243.1	238.8	232.3	240.8	267.8	389.7	437.4	510.6	615.5	732.9
77.5°	217.1	213.7	209.6	204.8	215.8	208.3	228.4	245.6	273.6	307.2	351.4
80°	184.6	181.6	180.1	177.8	190.8	158.6	161.3	171.9	188.4	206.6	227.1
82.5°	144.6	144.6	150.0	151.1	165.4	114.1	120.6	129.8	138.4	147.9	157.6
85°	95.2	95.9	114.4	121.6	130.5	76.7	90.4	93.5	100.4	105.9	109.9
87.5°	29.8	32.2	69.9	77.4	75.0	43.5	55.5	56.9	61.7	65.4	68.9
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):**

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1
2.5°	652.5	648.3	644.5	644.2	641.5	637.7	639.1	633.3	633.6	630.5	627.1
5°	767.2	764.4	750.7	747.0	736.7	730.2	729.2	715.5	713.7	705.9	697.3
7.5°	932.3	923.3	904.1	894.9	877.4	864.4	858.3	840.1	831.2	810.7	801.4
10°	1105.2	1093.9	1070.2	1057.2	1040.5	1019.5	1008.3	982.0	971.6	952.8	930.2
12.5°	1265.5	1254.2	1229.9	1219.9	1197.7	1175.4	1163.1	1133.3	1119.9	1089.8	1072.0
15°	1413.8	1402.5	1381.2	1371.0	1348.7	1330.5	1314.1	1284.7	1269.0	1240.8	1217.6
17.5°	1557.6	1545.6	1527.1	1517.9	1496.4	1477.9	1460.1	1432.2	1416.2	1388.2	1367.2
20°	1691.2	1682.3	1669.0	1656.6	1635.0	1618.3	1597.0	1573.1	1549.8	1529.2	1509.4
22.5°	1807.7	1804.2	1789.9	1784.4	1765.9	1751.5	1733.0	1709.4	1692.5	1666.5	1648.0
25°	1908.0	1907.0	1900.1	1898.4	1885.4	1871.7	1867.6	1848.1	1832.6	1809.7	1790.6
27.5°	1994.3	1995.3	1993.7	1998.5	1995.0	1988.8	1989.2	1982.7	1973.8	1954.6	1937.8
30°	2090.2	2084.7	2087.9	2094.7	2096.7	2097.4	2108.7	2112.5	2111.8	2099.1	2090.9
32.5°	2225.8	2212.8	2200.8	2199.8	2206.6	2209.4	2228.6	2238.5	2247.1	2250.1	2251.5
35°	2398.8	2372.8	2347.8	2334.4	2322.8	2325.8	2339.5	2355.7	2374.5	2387.5	2402.9
37.5°	2616.6	2584.8	2540.6	2509.1	2501.2	2484.1	2492.9	2505.6	2524.1	2544.4	2571.1
40°	2880.6	2832.4	2782.7	2740.9	2718.4	2686.8	2686.5	2684.1	2695.4	2714.2	2751.9
42.5°	3134.8	3092.0	3039.2	2995.5	2966.0	2923.8	2915.3	2893.0	2898.1	2914.6	2951.3
45°	3372.8	3337.5	3305.3	3254.7	3229.6	3184.1	3169.7	3143.4	3128.6	3136.2	3172.8
47.5°	3603.3	3580.8	3547.1	3514.3	3495.1	3454.4	3435.9	3417.0	3398.2	3397.5	3435.9
50°	4052.7	4040.7	4001.0	3966.7	3976.0	3926.0	3929.0	3878.4	3901.3	3904.1	3984.5
52.5°	4474.9	4516.8	4546.3	4582.1	4605.5	4610.0	4625.3	4648.3	4676.0	4730.8	4805.4
55°	4716.7	4769.2	4799.7	4827.1	4872.3	4881.8	4907.6	4938.0	4962.3	5024.0	5087.4
57.5°	5004.2	5101.4	5148.6	5192.1	5253.1	5276.4	5319.2	5352.5	5384.0	5456.9	5533.6
60°	5181.2	5299.7	5395.9	5464.7	5541.1	5596.0	5660.7	5712.7	5786.7	5874.1	5988.5
62.5°	5040.4	5214.4	5342.2	5460.4	5564.1	5668.9	5761.7	5859.0	5971.3	6103.5	6281.0
65°	4479.8	4656.8	4875.6	4998.3	5135.6	5297.3	5438.4	5596.0	5749.0	5941.5	6203.9
67.5°	3606.5	3812.2	4058.2	4181.8	4339.7	4520.2	4678.4	4870.9	5049.7	5282.9	5607.3
70°	2599.5	2865.6	3072.5	3201.6	3385.9	3571.8	3724.6	3948.6	4096.5	4335.5	4670.9
72.5°	1646.0	1855.9	2109.4	2272.1	2435.7	2624.2	2780.4	2973.5	3111.5	3329.3	3633.1
75°	885.0	1039.8	1262.4	1416.9	1592.3	1753.2	1936.1	2065.5	2167.6	2339.9	2586.5
77.5°	414.7	508.9	621.6	740.5	859.3	983.3	1103.9	1208.6	1252.5	1351.2	1496.7
80°	251.8	282.2	315.1	351.7	401.4	441.4	494.6	532.9	535.6	566.8	611.3
82.5°	168.1	179.4	189.4	198.6	211.3	221.3	232.6	245.9	251.4	258.6	273.0
85°	114.7	120.2	122.2	128.1	126.7	130.1	134.6	139.1	141.4	141.1	147.6
87.5°	70.5	73.3	74.7	76.0	75.0	73.7	75.7	78.1	78.7	76.7	77.4
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):**

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1	588.1
2.5°	627.8	624.7	621.6	619.6	618.8	600.8	592.8	587.8	576.8	567.8	560.6
5°	692.5	686.0	680.9	674.7	671.3	625.3	608.6	597.0	577.8	566.5	556.2
7.5°	796.6	778.5	767.9	755.9	745.6	662.7	635.0	616.8	590.1	575.1	563.4
10°	914.8	896.0	879.1	860.6	844.6	712.4	672.0	643.8	608.6	589.1	573.6
12.5°	1046.7	1028.2	1007.0	983.3	962.8	775.4	719.2	679.2	630.8	604.8	583.3
15°	1202.5	1169.9	1144.2	1116.9	1092.9	850.8	774.4	718.9	654.5	619.2	590.5
17.5°	1347.3	1313.1	1278.2	1254.2	1226.5	935.3	829.9	759.3	674.0	628.5	591.8
20°	1488.8	1451.4	1421.4	1389.2	1360.0	1023.0	889.1	794.9	686.7	628.8	583.3
22.5°	1613.5	1590.1	1556.6	1521.7	1492.2	1110.7	944.6	825.1	691.5	621.0	568.1
25°	1755.2	1730.6	1689.5	1660.0	1627.2	1200.1	999.0	848.4	688.7	606.2	544.9
27.5°	1906.6	1879.3	1837.1	1806.3	1766.6	1292.9	1049.0	865.1	678.5	582.3	513.7
30°	2064.5	2039.5	1998.1	1967.0	1926.8	1391.2	1104.9	876.4	658.0	549.0	477.4
32.5°	2234.1	2213.1	2172.1	2139.6	2096.7	1497.7	1156.9	879.9	626.8	509.6	439.1
35°	2395.0	2380.7	2346.0	2315.5	2271.0	1598.4	1212.1	878.1	589.8	466.4	404.2
37.5°	2576.3	2567.6	2550.5	2511.8	2457.4	1735.0	1278.2	870.9	544.6	423.7	377.4
40°	2769.4	2770.1	2751.6	2725.2	2674.5	1900.8	1357.0	856.9	495.2	386.0	353.1
42.5°	2973.8	2984.5	2975.5	2956.7	2908.1	2068.0	1451.1	839.8	447.3	349.3	329.2
45°	3208.1	3221.1	3234.8	3207.1	3159.8	2288.5	1575.1	817.6	395.5	318.8	312.7
47.5°	3478.4	3498.9	3511.2	3511.6	3464.3	2561.8	1776.5	804.2	349.7	298.3	304.8
50°	4048.5	4055.1	4084.2	4134.9	4098.6	3194.4	2128.2	795.9	318.5	285.6	299.0
52.5°	4870.2	4941.8	4992.2	4988.7	4939.4	3596.1	2322.1	753.5	300.0	280.8	296.3
55°	5204.8	5294.2	5387.4	5412.0	5373.7	3939.0	2505.3	711.0	291.1	284.3	297.3
57.5°	5650.8	5801.4	5929.2	5983.0	5927.5	4377.7	2746.4	688.7	288.3	293.5	303.8
60°	6171.7	6358.0	6525.8	6622.3	6622.3	4881.8	2996.5	679.5	284.6	307.2	314.8
62.5°	6506.3	6779.9	7033.4	7174.8	7170.7	5232.9	3107.4	648.0	276.0	316.8	329.8
65°	6507.6	6833.1	7155.9	7314.9	7323.1	5189.8	2924.2	572.3	260.3	318.2	344.9
67.5°	5965.2	6312.1	6688.5	6866.3	6907.3	4777.4	2531.3	470.6	234.6	304.5	350.4
70°	5038.0	5376.7	5761.0	5935.7	6008.7	4072.5	2038.8	362.7	201.8	274.3	339.0
72.5°	3969.1	4301.3	4568.8	4696.5	4753.4	3112.9	1484.7	274.0	165.4	231.1	308.6
75°	2810.1	3059.5	3201.6	3230.0	3238.9	1876.5	902.1	203.8	136.3	179.8	260.6
77.5°	1586.1	1692.9	1681.3	1694.0	1588.5	724.4	392.9	145.9	112.4	136.7	202.1
80°	619.2	638.5	599.7	587.8	539.1	269.5	173.3	101.7	89.7	103.4	141.4
82.5°	273.0	281.8	273.6	275.7	263.8	139.1	103.7	73.7	68.5	75.7	93.9
85°	150.4	153.1	152.4	156.9	150.4	55.5	49.3	45.2	48.0	51.4	60.2
87.5°	73.3	74.0	71.6	75.4	72.9	28.0	24.3	25.7	28.0	28.8	28.8
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°	588.1	588.1	588.1	588.1	588.1	588.1
2.5°	555.5	552.8	553.1	552.4	551.1	551.1
5°	550.8	548.0	548.0	547.3	545.6	545.9
7.5°	555.5	551.1	549.3	546.9	544.6	544.6
10°	561.0	553.1	548.3	544.3	541.1	541.1
12.5°	565.1	552.8	544.9	539.4	536.3	536.3
15°	566.5	550.4	539.4	532.9	530.1	529.8
17.5°	562.0	541.1	527.8	520.3	516.8	515.8
20°	548.3	524.4	508.3	499.7	494.9	493.2
22.5°	527.8	500.4	481.6	472.6	466.4	465.4
25°	499.1	469.6	451.1	442.5	439.1	438.0
27.5°	465.4	438.0	422.2	416.8	413.7	413.4
30°	433.6	410.3	398.7	394.5	390.8	390.1
32.5°	403.8	389.0	384.7	378.8	369.9	368.9
35°	382.5	381.2	378.2	365.0	354.2	351.0
37.5°	369.5	382.2	366.5	340.8	332.9	332.2
40°	362.0	371.7	344.5	335.7	336.3	335.7
42.5°	344.9	354.8	345.2	341.2	343.8	344.5
45°	327.8	338.7	350.4	347.7	354.2	354.2
47.5°	318.2	334.6	350.0	350.0	359.7	363.0
50°	307.2	331.2	344.5	349.3	356.9	354.2
52.5°	306.5	325.3	336.7	345.2	348.7	345.5
55°	307.5	320.5	328.8	338.4	342.5	342.8
57.5°	309.0	317.8	323.3	327.8	340.1	340.1
60°	312.3	315.5	318.5	321.0	337.0	337.3
62.5°	317.8	313.0	312.3	314.8	335.3	334.0
65°	326.4	309.6	304.5	306.8	333.6	329.5
67.5°	338.0	304.5	294.5	296.3	332.2	323.3
70°	348.7	296.3	282.2	280.5	319.2	303.5
72.5°	349.7	286.7	265.1	260.0	277.5	262.3
75°	332.5	280.1	246.3	231.1	229.1	227.1
77.5°	299.7	276.4	224.3	200.7	196.6	197.9
80°	250.7	262.3	197.9	169.9	192.1	189.8
82.5°	187.3	231.5	168.1	150.4	150.0	132.6
85°	104.1	180.5	137.0	112.7	78.4	76.0
87.5°	29.2	100.4	95.9	63.7	43.5	45.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)