

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: P301684

Luminaire Tested: **GLNA-AF-01-LED-E1-T2R-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301684
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-01-LED-E1-T2R-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4262 lumens
Efficiency: N/A
Efficacy: 125.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 34
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

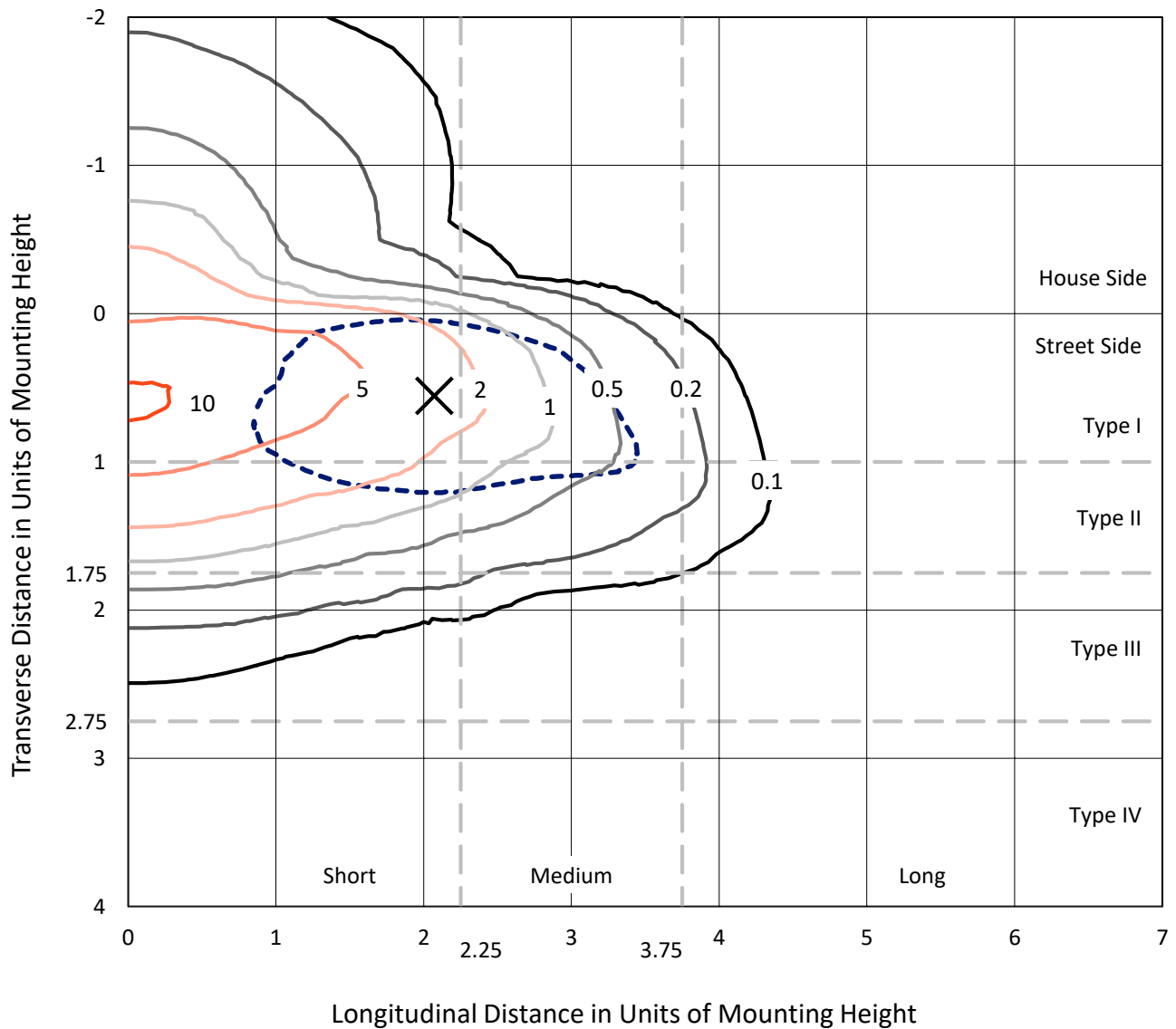


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Iso-Footcandle Lines of Horizontal Illumination

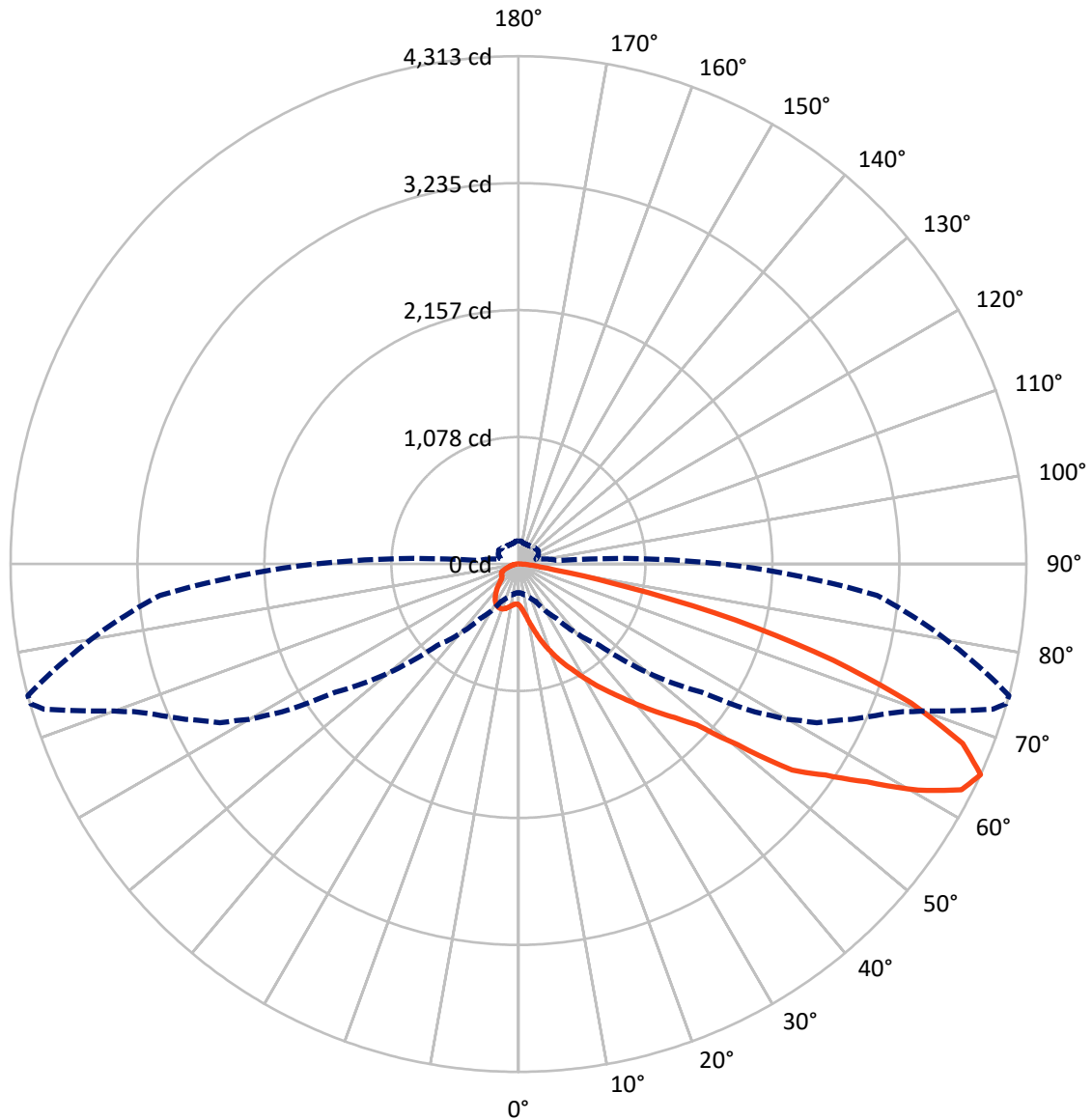
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.8 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
House Side	Lumens	657.1	0.0	657.1
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	3604.9	0.0	3604.9
	% Fixture	84.6	0.0	84.6
Total	Lumens	4262.0	0.0	4262.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.8	1.0
10°-20°	167.3	3.9
20°-30°	343.2	8.1
30°-40°	577.4	13.5
40°-50°	797.8	18.7
50°-60°	995.9	23.4
60°-70°	896.2	21.0
70°-80°	375.7	8.8
80°-90°	65.6	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°	4262.0	100.0
0°-180°	4262.0	100.0

Coefficient of Utilization



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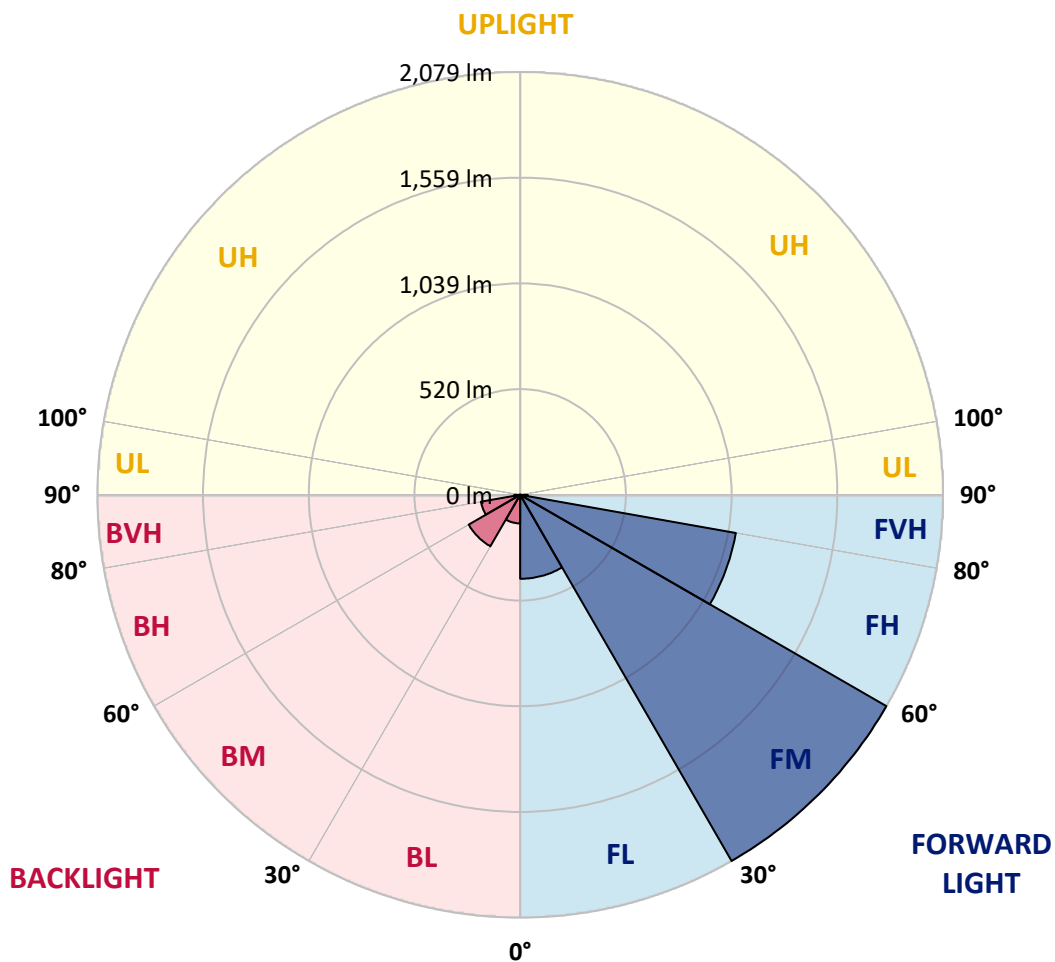
CATALOG NUMBER: GLNA-AF-01-LED-E1-T2R-7050-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	412.8	9.7			
FM (30°-60°)	2078.7	48.8			
FH (60°-80°)	1076.6	25.3			G1/1800
FVH (80°-90°)	36.9	0.9			G1/100
BL (0°-30°)	140.5	3.3	B1/500		
BM (30°-60°)	292.5	6.9	B1/1000		
BH (60°-80°)	195.3	4.6	B1/500		G1/500
BVH (80°-90°)	28.7	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-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4
2.5°	439.8	434.9	436.1	428.1	418.2	405.3	391.0	390.8	391.0	389.5	384.3
5°	609.8	604.0	601.8	583.6	557.0	519.1	477.9	473.5	471.6	467.0	456.3
7.5°	733.9	730.7	727.2	713.5	689.3	647.0	591.7	582.2	573.1	570.9	558.8
10°	814.0	813.1	805.9	802.3	787.2	750.4	696.6	687.5	677.6	674.2	661.4
12.5°	877.3	877.1	873.7	874.7	861.6	835.0	788.6	780.3	773.1	762.5	753.5
15°	921.1	921.3	926.4	932.0	930.0	912.0	868.4	864.8	858.6	851.3	840.6
17.5°	957.0	958.0	963.2	973.5	984.7	983.2	948.8	945.7	940.3	930.4	924.8
20°	1038.1	1041.9	1031.9	1031.9	1033.1	1038.5	1021.9	1019.5	1011.9	1006.6	1002.2
22.5°	1175.1	1179.5	1156.7	1133.5	1110.7	1094.2	1077.7	1080.6	1075.4	1071.8	1069.2
25°	1353.0	1356.5	1319.5	1280.4	1234.0	1173.5	1132.5	1130.7	1127.9	1125.7	1124.5
27.5°	1520.4	1521.9	1487.0	1429.7	1375.8	1288.8	1188.2	1186.0	1182.6	1178.3	1174.7
30°	1663.7	1663.3	1627.4	1572.7	1515.0	1418.8	1272.7	1265.9	1255.7	1244.3	1235.4
32.5°	1787.8	1787.2	1747.8	1691.1	1630.6	1547.5	1388.5	1374.4	1358.7	1336.2	1322.8
35°	1885.4	1885.0	1847.8	1788.8	1719.4	1668.7	1521.3	1503.9	1483.9	1453.9	1433.1
37.5°	1922.3	1922.3	1901.5	1861.2	1799.8	1765.1	1668.7	1647.7	1626.4	1592.2	1568.8
40°	1900.7	1901.1	1905.5	1898.1	1868.2	1841.6	1806.3	1793.8	1775.4	1744.8	1720.4
42.5°	1828.3	1830.5	1860.0	1896.1	1911.0	1906.8	1928.3	1922.7	1909.8	1886.2	1866.8
45°	1736.5	1743.4	1775.6	1843.8	1922.9	1963.0	2030.6	2031.2	2028.8	2016.1	2001.2
47.5°	1610.4	1620.1	1662.7	1754.8	1895.1	2017.7	2134.5	2139.9	2145.0	2136.8	2129.9
50°	1443.0	1454.5	1518.2	1640.5	1838.4	2074.4	2330.8	2355.4	2378.4	2375.6	2380.2
52.5°	1263.6	1277.2	1355.2	1491.4	1741.0	2087.5	2456.3	2496.4	2536.6	2569.4	2604.3
55°	1101.8	1094.6	1172.7	1316.1	1580.8	2028.4	2569.1	2617.5	2662.2	2702.6	2744.2
57.5°	882.6	894.5	972.8	1114.6	1368.7	1861.5	2646.7	2717.5	2781.9	2848.7	2907.5
60°	645.1	657.0	741.9	886.0	1138.6	1608.6	2587.4	2694.7	2797.8	2900.1	2980.0
62.5°	389.5	398.4	473.2	610.5	878.0	1308.7	2323.1	2463.9	2615.6	2737.9	2860.3
65°	242.5	247.5	275.2	350.6	563.8	977.0	1898.1	2051.6	2215.0	2370.1	2497.4
67.5°	198.5	200.3	205.4	221.5	309.6	637.1	1412.7	1548.7	1696.1	1846.2	1987.9
70°	178.5	177.3	177.3	178.3	198.5	342.5	924.9	1013.5	1136.4	1266.9	1396.4
72.5°	161.2	160.0	157.7	154.8	162.0	209.0	478.1	544.9	633.4	749.4	873.5
75°	144.8	143.2	140.6	136.8	141.8	157.7	229.6	257.6	300.8	362.5	431.7
77.5°	127.9	125.9	123.5	120.6	127.1	122.7	134.5	144.6	161.2	181.0	207.0
80°	108.7	106.9	106.1	104.7	112.4	93.4	95.0	101.3	110.9	121.7	133.7
82.5°	85.2	85.2	88.3	89.0	97.4	67.2	71.0	76.5	81.5	87.1	92.8
85°	56.1	56.5	67.4	71.6	76.8	45.2	53.3	55.1	59.1	62.4	64.8
87.5°	17.5	19.0	41.2	45.6	44.2	25.6	32.7	33.5	36.3	38.5	40.6
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4
2.5°	384.3	381.9	379.6	379.5	377.8	375.6	376.4	373.0	373.2	371.4	369.4
5°	451.9	450.3	442.2	440.0	433.9	430.1	429.5	421.4	420.4	415.8	410.7
7.5°	549.1	543.9	532.5	527.1	516.8	509.1	505.6	494.8	489.6	477.5	472.0
10°	651.0	644.3	630.4	622.7	612.9	600.5	593.9	578.4	572.3	561.2	547.9
12.5°	745.4	738.8	724.4	718.5	705.4	692.3	685.1	667.6	659.7	641.9	631.4
15°	832.7	826.1	813.6	807.5	794.4	783.7	774.0	756.7	747.4	730.9	717.2
17.5°	917.5	910.4	899.5	894.1	881.4	870.5	860.0	843.6	834.2	817.6	805.3
20°	996.1	990.9	983.0	975.7	963.1	953.2	940.7	926.6	912.8	900.7	889.0
22.5°	1064.7	1062.7	1054.3	1051.0	1040.1	1031.6	1020.7	1006.9	996.9	981.6	970.7
25°	1123.9	1123.3	1119.2	1118.2	1110.5	1102.4	1100.0	1088.5	1079.5	1065.9	1054.7
27.5°	1174.7	1175.3	1174.3	1177.1	1175.1	1171.4	1171.7	1167.8	1162.6	1151.3	1141.4
30°	1231.2	1227.9	1229.8	1233.8	1235.0	1235.4	1242.0	1244.3	1243.9	1236.4	1231.6
32.5°	1311.0	1303.4	1296.3	1295.7	1299.7	1301.4	1312.7	1318.5	1323.6	1325.3	1326.2
35°	1412.9	1397.6	1382.9	1375.0	1368.1	1369.9	1378.0	1387.5	1398.6	1406.3	1415.4
37.5°	1541.2	1522.5	1496.4	1477.9	1473.2	1463.2	1468.4	1475.9	1486.7	1498.7	1514.4
40°	1696.7	1668.3	1639.0	1614.4	1601.2	1582.6	1582.4	1580.9	1587.6	1598.7	1620.9
42.5°	1846.5	1821.2	1790.1	1764.4	1747.0	1722.2	1717.1	1704.0	1707.0	1716.7	1738.3
45°	1986.6	1965.8	1946.9	1917.1	1902.3	1875.5	1867.0	1851.5	1842.8	1847.2	1868.8
47.5°	2122.4	2109.1	2089.3	2070.0	2058.7	2034.7	2023.8	2012.6	2001.6	2001.2	2023.8
50°	2387.1	2380.0	2356.6	2336.5	2341.9	2312.5	2314.3	2284.4	2297.9	2299.5	2346.9
52.5°	2635.8	2660.4	2677.8	2698.9	2712.7	2715.3	2724.4	2737.9	2754.2	2786.5	2830.5
55°	2778.2	2809.1	2827.1	2843.2	2869.8	2875.5	2890.6	2908.6	2922.9	2959.2	2996.5
57.5°	2947.5	3004.8	3032.6	3058.2	3094.1	3107.8	3133.1	3152.7	3171.2	3214.2	3259.4
60°	3051.8	3121.6	3178.3	3218.8	3263.8	3296.1	3334.2	3364.9	3408.4	3459.9	3527.3
62.5°	2968.9	3071.3	3146.6	3216.2	3277.3	3339.1	3393.7	3451.0	3517.2	3595.0	3699.6
65°	2638.7	2742.9	2871.8	2944.0	3025.0	3120.2	3203.3	3296.1	3386.2	3499.6	3654.1
67.5°	2124.3	2245.4	2390.3	2463.1	2556.1	2662.4	2755.7	2869.0	2974.3	3111.7	3302.7
70°	1531.1	1687.9	1809.7	1885.8	1994.3	2103.8	2193.9	2325.7	2412.9	2553.7	2751.2
72.5°	969.5	1093.2	1242.5	1338.3	1434.7	1545.7	1637.7	1751.4	1832.7	1961.0	2139.9
75°	521.3	612.4	743.6	834.6	937.9	1032.7	1140.4	1216.6	1276.8	1378.2	1523.5
77.5°	244.3	299.8	366.1	436.1	506.2	579.2	650.2	711.9	737.7	795.9	881.6
80°	148.3	166.2	185.6	207.2	236.4	260.0	291.3	313.9	315.5	333.9	360.1
82.5°	99.0	105.7	111.5	117.0	124.5	130.3	137.0	144.8	148.1	152.3	160.8
85°	67.6	70.8	72.0	75.5	74.6	76.7	79.3	81.9	83.3	83.1	87.0
87.5°	41.5	43.1	44.0	44.8	44.2	43.4	44.6	46.0	46.4	45.2	45.6
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4	346.4
2.5°	369.8	368.0	366.1	364.9	364.5	353.9	349.2	346.2	339.7	334.5	330.2
5°	407.9	404.1	401.1	397.4	395.4	368.3	358.5	351.6	340.3	333.7	327.6
7.5°	469.2	458.5	452.3	445.2	439.2	390.4	374.0	363.3	347.6	338.7	331.8
10°	538.8	527.8	517.8	506.9	497.5	419.6	395.8	379.2	358.5	347.0	337.9
12.5°	616.5	605.6	593.1	579.2	567.1	456.7	423.6	400.1	371.6	356.2	343.6
15°	708.3	689.1	674.0	657.9	643.7	501.1	456.1	423.5	385.5	364.7	347.8
17.5°	793.6	773.4	752.9	738.8	722.4	550.9	488.8	447.2	397.0	370.2	348.6
20°	876.9	854.9	837.2	818.2	801.1	602.6	523.7	468.2	404.5	370.4	343.6
22.5°	950.4	936.6	916.9	896.3	878.9	654.2	556.4	486.0	407.3	365.8	334.6
25°	1033.9	1019.4	995.1	977.8	958.4	706.9	588.4	499.7	405.7	357.1	320.9
27.5°	1123.0	1106.9	1082.1	1064.0	1040.6	761.5	617.9	509.6	399.6	343.0	302.6
30°	1216.0	1201.3	1176.9	1158.6	1134.9	819.4	650.8	516.2	387.5	323.4	281.2
32.5°	1315.9	1303.6	1279.4	1260.2	1235.0	882.1	681.4	518.2	369.2	300.2	258.6
35°	1410.7	1402.2	1381.8	1363.9	1337.7	941.5	713.9	517.2	347.4	274.7	238.1
37.5°	1517.4	1512.4	1502.3	1479.5	1447.4	1021.9	752.9	513.0	320.8	249.5	222.3
40°	1631.2	1631.6	1620.7	1605.2	1575.3	1119.6	799.3	504.7	291.7	227.3	208.0
42.5°	1751.6	1757.9	1752.6	1741.6	1712.9	1218.0	854.7	494.7	263.5	205.7	193.9
45°	1889.6	1897.3	1905.3	1889.0	1861.2	1348.0	927.7	481.6	233.0	187.8	184.2
47.5°	2048.8	2060.9	2068.1	2068.4	2040.5	1508.9	1046.4	473.7	206.0	175.7	179.5
50°	2384.6	2388.5	2405.6	2435.5	2414.1	1881.5	1253.5	468.8	187.6	168.2	176.1
52.5°	2868.6	2910.8	2940.5	2938.4	2909.3	2118.2	1367.7	443.8	176.7	165.4	174.5
55°	3065.7	3118.4	3173.2	3187.7	3165.2	2320.1	1475.7	418.8	171.5	167.4	175.1
57.5°	3328.4	3417.1	3492.4	3524.0	3491.4	2578.5	1617.7	405.7	169.8	172.9	178.9
60°	3635.2	3744.9	3843.8	3900.6	3900.6	2875.5	1765.0	400.2	167.6	181.0	185.4
62.5°	3832.3	3993.5	4142.8	4226.1	4223.6	3082.2	1830.3	381.7	162.6	186.6	194.3
65°	3833.1	4024.8	4214.9	4308.6	4313.4	3056.9	1722.4	337.1	153.3	187.4	203.2
67.5°	3513.6	3717.9	3939.6	4044.3	4068.5	2813.9	1491.0	277.2	138.2	179.4	206.4
70°	2967.4	3167.0	3393.3	3496.2	3539.2	2398.8	1200.9	213.6	118.8	161.6	199.7
72.5°	2337.8	2533.5	2691.1	2766.3	2799.8	1833.5	874.5	161.4	97.4	136.1	181.7
75°	1655.2	1802.1	1885.8	1902.5	1907.7	1105.3	531.3	120.0	80.3	105.9	153.5
77.5°	934.2	997.2	990.3	997.8	935.6	426.7	231.4	85.9	66.2	80.5	119.0
80°	364.7	376.1	353.3	346.2	317.5	158.8	102.1	59.9	52.8	60.9	83.3
82.5°	160.8	166.0	161.2	162.4	155.4	81.9	61.1	43.4	40.3	44.6	55.3
85°	88.6	90.2	89.8	92.4	88.6	32.7	29.0	26.6	28.2	30.3	35.5
87.5°	43.1	43.6	42.2	44.4	43.0	16.5	14.3	15.1	16.5	16.9	16.9
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):

	135°	145°	155°	165°	175°	180°
0°	346.4	346.4	346.4	346.4	346.4	346.4
2.5°	327.2	325.6	325.8	325.4	324.6	324.6
5°	324.4	322.8	322.8	322.4	321.4	321.5
7.5°	327.2	324.6	323.6	322.1	320.8	320.8
10°	330.5	325.8	323.0	320.6	318.7	318.7
12.5°	332.8	325.6	320.9	317.7	315.9	315.9
15°	333.7	324.2	317.7	313.9	312.3	312.1
17.5°	331.1	318.7	310.9	306.5	304.4	303.8
20°	323.0	308.9	299.4	294.3	291.5	290.5
22.5°	310.9	294.7	283.7	278.4	274.7	274.1
25°	293.9	276.6	265.7	260.6	258.6	258.0
27.5°	274.1	258.0	248.7	245.5	243.7	243.5
30°	255.4	241.6	234.8	232.4	230.2	229.8
32.5°	237.8	229.1	226.6	223.1	217.9	217.3
35°	225.3	224.5	222.7	215.0	208.6	206.8
37.5°	217.6	225.1	215.9	200.7	196.1	195.7
40°	213.2	218.9	202.9	197.7	198.1	197.7
42.5°	203.2	209.0	203.3	201.0	202.5	202.9
45°	193.1	199.5	206.4	204.8	208.6	208.6
47.5°	187.4	197.1	206.2	206.2	211.8	213.8
50°	181.0	195.1	202.9	205.7	210.2	208.6
52.5°	180.5	191.6	198.3	203.3	205.4	203.5
55°	181.1	188.8	193.7	199.3	201.7	201.9
57.5°	182.0	187.2	190.4	193.1	200.3	200.3
60°	184.0	185.8	187.6	189.0	198.5	198.7
62.5°	187.2	184.4	184.0	185.4	197.5	196.7
65°	192.3	182.3	179.4	180.7	196.5	194.1
67.5°	199.1	179.4	173.5	174.5	195.7	190.4
70°	205.4	174.5	166.2	165.2	188.0	178.8
72.5°	206.0	168.9	156.1	153.1	163.4	154.5
75°	195.9	165.0	145.1	136.1	134.9	133.7
77.5°	176.5	162.8	132.1	118.2	115.8	116.6
80°	147.7	154.5	116.6	100.1	113.2	111.8
82.5°	110.4	136.4	99.0	88.6	88.3	78.1
85°	61.3	106.3	80.7	66.4	46.2	44.8
87.5°	17.2	59.1	56.5	37.5	25.6	26.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

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