

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: P301620

Luminaire Tested: **GLNA-AF-01-LED-E1-T2R-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301620
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-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4541.2 lumens
Efficiency: N/A
Efficacy: 103.2 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

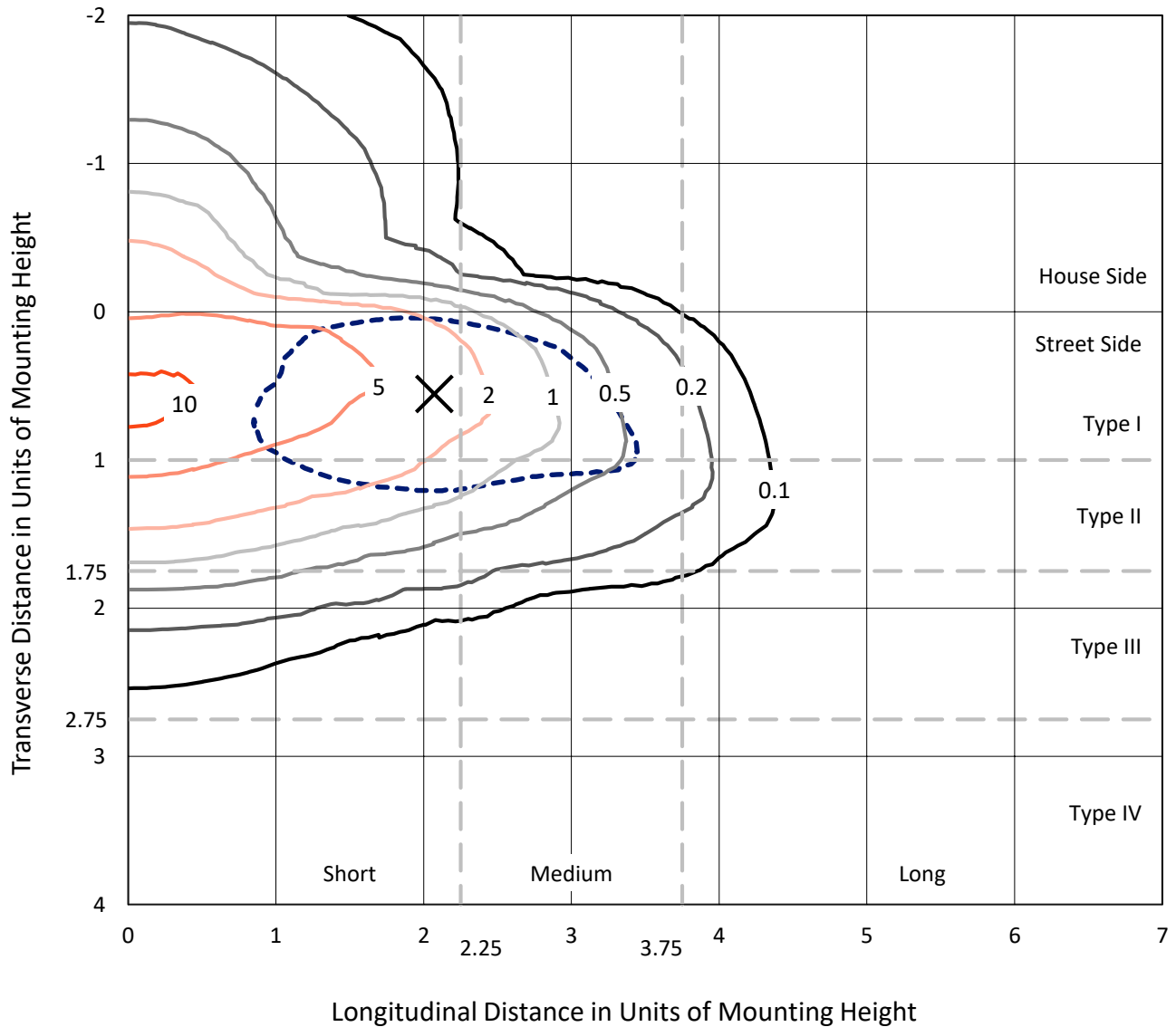
Input Watts (W): 44
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

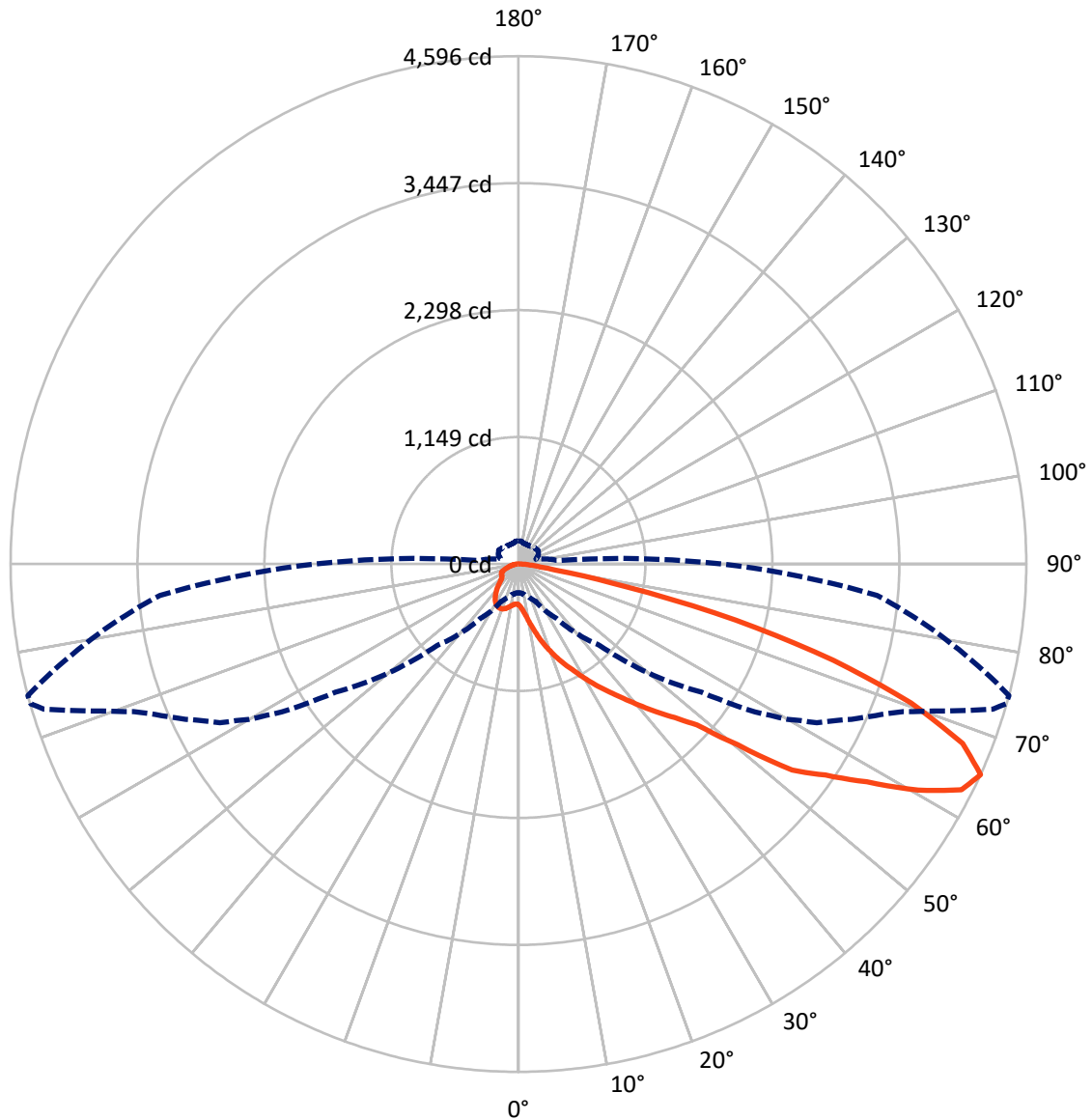
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 11.5 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	700.2	0.0	700.2
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	3841.1	0.0	3841.1
	% Fixture	84.6	0.0	84.6
Total	Lumens	4541.2	0.0	4541.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.6	1.0
10°-20°	178.2	3.9
20°-30°	365.7	8.1
30°-40°	615.2	13.5
40°-50°	850.1	18.7
50°-60°	1061.2	23.4
60°-70°	954.9	21.0
70°-80°	400.3	8.8
80°-90°	69.9	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°	4541.2	100.0
0°-180°	4541.2	100.0



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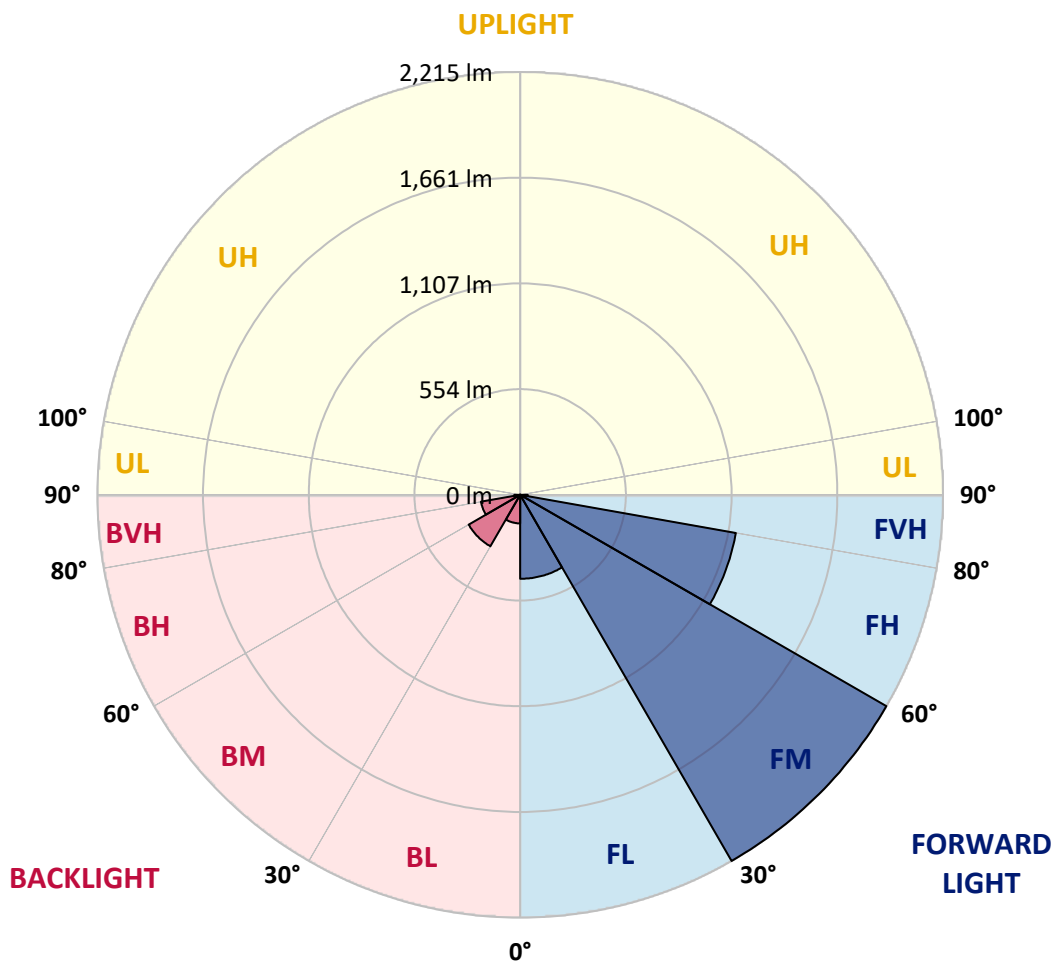
CATALOG NUMBER: GLNA-AF-01-LED-E1-T2R-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	439.8	9.7			
FM	(30°-60°)	2214.9	48.8			
FH	(60°-80°)	1147.1	25.3			G1/1800
FVH	(80°-90°)	39.3	0.9			G1/100
BL	(0°-30°)	149.7	3.3	B1/500		
BM	(30°-60°)	311.6	6.9	B1/1000		
BH	(60°-80°)	208.1	4.6	B1/500		G1/500
BVH	(80°-90°)	30.6	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°	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1
2.5°	468.6	463.4	464.7	456.1	445.6	431.8	416.6	416.4	416.6	415.0	409.5
5°	649.7	643.6	641.2	621.8	593.4	553.1	509.2	504.5	502.5	497.6	486.2
7.5°	782.0	778.6	774.9	760.3	734.5	689.3	630.4	620.4	610.7	608.3	595.4
10°	867.3	866.4	858.7	854.8	838.7	799.6	742.2	732.5	722.0	718.4	704.8
12.5°	934.8	934.6	930.9	932.0	918.0	889.7	840.2	831.4	823.7	812.5	802.8
15°	981.4	981.6	987.1	993.1	990.9	971.8	925.3	921.4	914.8	907.1	895.7
17.5°	1019.7	1020.8	1026.3	1037.3	1049.2	1047.6	1010.9	1007.7	1001.9	991.3	985.3
20°	1106.1	1110.2	1099.5	1099.5	1100.7	1106.6	1088.9	1086.3	1078.2	1072.6	1067.8
22.5°	1252.1	1256.8	1232.5	1207.8	1183.5	1165.9	1148.3	1151.4	1145.9	1142.0	1139.2
25°	1441.6	1445.3	1406.0	1364.3	1314.8	1250.3	1206.7	1204.7	1201.7	1199.4	1198.1
27.5°	1620.0	1621.6	1584.4	1523.3	1465.9	1373.3	1266.0	1263.7	1260.0	1255.5	1251.6
30°	1772.7	1772.2	1734.0	1675.7	1614.2	1511.7	1356.1	1348.8	1338.0	1325.8	1316.3
32.5°	1904.9	1904.2	1862.3	1801.9	1737.4	1648.9	1479.5	1464.5	1447.7	1423.8	1409.4
35°	2008.9	2008.5	1968.9	1906.0	1832.0	1778.0	1620.9	1602.4	1581.1	1549.1	1527.0
37.5°	2048.2	2048.2	2026.1	1983.1	1917.7	1880.8	1778.0	1755.7	1732.9	1696.6	1671.6
40°	2025.2	2025.6	2030.4	2022.4	1990.6	1962.3	1924.6	1911.3	1891.7	1859.1	1833.1
42.5°	1948.0	1950.4	1981.8	2020.3	2036.2	2031.7	2054.6	2048.7	2034.9	2009.8	1989.1
45°	1850.2	1857.6	1891.9	1964.6	2048.8	2091.6	2163.6	2164.3	2161.7	2148.2	2132.2
47.5°	1715.9	1726.2	1771.6	1869.8	2019.2	2149.9	2274.3	2280.1	2285.5	2276.7	2269.4
50°	1537.5	1549.8	1617.7	1747.9	1958.8	2210.3	2483.5	2509.7	2534.2	2531.2	2536.1
52.5°	1346.4	1360.8	1444.0	1589.1	1855.0	2224.3	2617.2	2660.0	2702.7	2737.7	2774.9
55°	1174.0	1166.3	1249.5	1402.3	1684.3	2161.3	2737.4	2788.9	2836.6	2879.6	2923.9
57.5°	940.4	953.1	1036.5	1187.6	1458.4	1983.5	2820.1	2895.6	2964.1	3035.3	3098.0
60°	687.4	700.1	790.5	944.0	1213.2	1714.0	2756.9	2871.3	2981.1	3090.0	3175.2
62.5°	415.0	424.5	504.2	650.5	935.5	1394.4	2475.3	2625.3	2787.0	2917.2	3047.7
65°	258.4	263.7	293.2	373.6	600.8	1041.0	2022.4	2186.0	2360.1	2525.4	2661.0
67.5°	211.5	213.4	218.8	236.0	329.9	678.8	1505.3	1650.1	1807.2	1967.2	2118.1
70°	190.2	188.9	188.9	190.0	211.5	365.0	985.5	1079.9	1210.8	1349.9	1487.9
72.5°	171.7	170.4	168.1	164.9	172.6	222.7	509.4	580.6	674.9	798.5	930.7
75°	154.3	152.6	149.8	145.8	151.1	168.1	244.6	274.5	320.5	386.3	460.0
77.5°	136.3	134.1	131.5	128.5	135.4	130.7	143.3	154.1	171.7	192.8	220.6
80°	115.9	113.9	113.1	111.6	119.7	99.5	101.3	107.9	118.2	129.6	142.5
82.5°	90.7	90.7	94.1	94.8	103.8	71.6	75.7	81.5	86.8	92.8	98.9
85°	59.7	60.2	71.8	76.3	81.9	48.1	56.7	58.7	63.0	66.4	69.0
87.5°	18.7	20.2	43.9	48.6	47.1	27.3	34.8	35.7	38.7	41.1	43.2
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1
2.5°	409.5	406.9	404.5	404.3	402.6	400.2	401.1	397.4	397.6	395.7	393.5
5°	481.5	479.8	471.1	468.8	462.3	458.3	457.6	449.0	447.9	443.0	437.6
7.5°	585.1	579.5	567.4	561.6	550.7	542.5	538.7	527.3	521.6	508.8	503.0
10°	693.6	686.5	671.7	663.5	653.0	639.9	632.8	616.3	609.8	598.0	583.8
12.5°	794.2	787.2	771.9	765.6	751.6	737.7	730.0	711.3	702.9	683.9	672.8
15°	887.3	880.2	866.9	860.4	846.5	835.0	824.7	806.3	796.4	778.7	764.1
17.5°	977.6	970.0	958.4	952.6	939.1	927.5	916.3	898.9	888.8	871.2	858.1
20°	1061.4	1055.8	1047.4	1039.7	1026.1	1015.6	1002.3	987.2	972.6	959.7	947.3
22.5°	1134.5	1132.3	1123.3	1119.9	1108.3	1099.2	1087.6	1072.8	1062.2	1045.9	1034.3
25°	1197.5	1196.8	1192.5	1191.4	1183.3	1174.6	1172.1	1159.9	1150.2	1135.8	1123.8
27.5°	1251.6	1252.2	1251.2	1254.2	1252.1	1248.2	1248.4	1244.3	1238.7	1226.7	1216.2
30°	1311.8	1308.4	1310.3	1314.6	1315.9	1316.3	1323.4	1325.8	1325.4	1317.4	1312.3
32.5°	1396.9	1388.8	1381.2	1380.6	1384.9	1386.6	1398.7	1404.9	1410.3	1412.2	1413.1
35°	1505.5	1489.1	1473.4	1465.1	1457.8	1459.7	1468.3	1478.4	1490.2	1498.4	1508.1
37.5°	1642.2	1622.2	1594.5	1574.7	1569.7	1559.0	1564.6	1572.5	1584.1	1596.8	1613.6
40°	1807.9	1777.6	1746.4	1720.2	1706.1	1686.2	1686.0	1684.5	1691.6	1703.4	1727.1
42.5°	1967.4	1940.5	1907.4	1879.9	1861.4	1835.0	1829.6	1815.7	1818.9	1829.2	1852.2
45°	2116.8	2094.6	2074.4	2042.7	2026.9	1998.3	1989.3	1972.8	1963.5	1968.2	1991.3
47.5°	2261.4	2247.3	2226.2	2205.6	2193.5	2168.0	2156.4	2144.5	2132.7	2132.2	2156.4
50°	2543.5	2535.9	2511.0	2489.5	2495.3	2463.9	2465.9	2434.0	2448.5	2450.2	2500.7
52.5°	2808.5	2834.7	2853.2	2875.7	2890.4	2893.2	2902.8	2917.2	2934.6	2969.0	3015.9
55°	2960.2	2993.1	3012.2	3029.5	3057.8	3063.8	3080.0	3099.1	3114.3	3153.0	3192.8
57.5°	3140.6	3201.6	3231.3	3258.6	3296.8	3311.4	3338.3	3359.2	3379.0	3424.7	3472.9
60°	3251.7	3326.1	3386.5	3429.6	3477.6	3512.0	3552.6	3585.3	3631.7	3686.5	3758.3
62.5°	3163.4	3272.5	3352.7	3426.9	3492.0	3557.8	3616.0	3677.1	3747.6	3830.5	3941.9
65°	2811.5	2922.6	3059.9	3136.9	3223.1	3324.6	3413.1	3512.0	3608.1	3728.9	3893.5
67.5°	2263.4	2392.5	2546.9	2624.5	2723.6	2836.8	2936.2	3056.9	3169.2	3315.5	3519.1
70°	1631.5	1798.4	1928.3	2009.3	2125.0	2241.7	2337.6	2478.1	2570.9	2721.0	2931.5
72.5°	1033.0	1164.8	1323.9	1425.9	1528.7	1646.9	1744.9	1866.2	1952.8	2089.5	2280.1
75°	555.4	652.6	792.3	889.2	999.3	1100.3	1215.1	1296.3	1360.4	1468.5	1623.3
77.5°	260.3	319.4	390.1	464.7	539.3	617.1	692.8	758.5	786.1	848.0	939.3
80°	158.0	177.1	197.7	220.7	251.9	277.1	310.4	334.4	336.2	355.7	383.7
82.5°	105.5	112.6	118.9	124.7	132.6	138.9	146.0	154.3	157.8	162.3	171.3
85°	72.0	75.4	76.7	80.4	79.5	81.7	84.5	87.3	88.8	88.6	92.6
87.5°	44.3	46.0	46.9	47.7	47.1	46.2	47.5	49.0	49.4	48.1	48.6
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°	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1	369.1
2.5°	394.0	392.1	390.1	388.8	388.4	377.0	372.1	368.9	362.0	356.4	351.8
5°	434.6	430.5	427.3	423.5	421.3	392.5	381.9	374.7	362.6	355.5	349.0
7.5°	500.0	488.6	481.9	474.4	468.0	415.9	398.5	387.1	370.3	360.9	353.6
10°	574.1	562.3	551.7	540.1	530.1	447.1	421.7	404.1	381.9	369.7	360.0
12.5°	656.9	645.3	632.0	617.1	604.2	486.6	451.4	426.3	395.9	379.6	366.1
15°	754.7	734.2	718.1	701.0	685.9	534.0	486.0	451.2	410.8	388.6	370.6
17.5°	845.6	824.1	802.2	787.2	769.8	587.0	520.8	476.5	423.0	394.4	371.4
20°	934.4	910.9	892.1	871.8	853.5	642.0	558.0	498.9	431.0	394.6	366.1
22.5°	1012.6	998.0	976.9	955.0	936.5	697.1	592.8	517.8	434.0	389.7	356.6
25°	1101.6	1086.1	1060.3	1041.8	1021.2	753.2	627.0	532.4	432.3	380.5	342.0
27.5°	1196.6	1179.4	1153.0	1133.6	1108.7	811.4	658.4	542.9	425.8	365.4	322.4
30°	1295.7	1280.0	1254.0	1234.5	1209.3	873.1	693.4	550.0	412.9	344.6	299.6
32.5°	1402.1	1389.0	1363.2	1342.8	1315.9	939.9	726.1	552.2	393.4	319.8	275.6
35°	1503.1	1494.1	1472.4	1453.2	1425.3	1003.1	760.7	551.1	370.1	292.7	253.7
37.5°	1616.8	1611.4	1600.7	1576.4	1542.2	1088.9	802.2	546.6	341.8	265.9	236.9
40°	1738.1	1738.5	1726.9	1710.3	1678.5	1192.9	851.6	537.8	310.8	242.2	221.6
42.5°	1866.4	1873.1	1867.4	1855.6	1825.1	1297.8	910.7	527.1	280.8	219.2	206.6
45°	2013.4	2021.6	2030.2	2012.8	1983.1	1436.3	988.5	513.1	248.2	200.1	196.3
47.5°	2183.0	2195.9	2203.6	2203.9	2174.2	1607.8	1114.9	504.7	219.5	187.2	191.3
50°	2540.8	2545.0	2563.2	2595.0	2572.3	2004.8	1335.7	499.5	199.9	179.2	187.7
52.5°	3056.5	3101.5	3133.1	3130.9	3099.9	2256.9	1457.3	472.9	188.3	176.2	185.9
55°	3266.5	3322.6	3381.1	3396.5	3372.5	2472.1	1572.3	446.2	182.7	178.4	186.6
57.5°	3546.4	3641.0	3721.2	3754.9	3720.1	2747.4	1723.7	432.3	181.0	184.2	190.7
60°	3873.3	3990.3	4095.6	4156.2	4156.2	3063.8	1880.6	426.4	178.6	192.8	197.5
62.5°	4083.3	4255.1	4414.2	4502.9	4500.3	3284.1	1950.2	406.7	173.2	198.8	207.0
65°	4084.2	4288.4	4491.0	4590.8	4595.9	3257.1	1835.2	359.2	163.4	199.7	216.5
67.5°	3743.7	3961.4	4197.7	4309.3	4335.0	2998.3	1588.7	295.4	147.2	191.1	219.9
70°	3161.8	3374.4	3615.6	3725.3	3771.0	2555.9	1279.5	227.6	126.6	172.2	212.8
72.5°	2491.0	2699.5	2867.4	2947.5	2983.2	1953.6	931.8	172.0	103.8	145.1	193.6
75°	1763.6	1920.1	2009.3	2027.2	2032.7	1177.7	566.2	127.9	85.6	112.9	163.6
77.5°	995.4	1062.5	1055.2	1063.1	996.9	454.6	246.6	91.6	70.5	85.8	126.8
80°	388.6	400.7	376.4	368.9	338.3	169.2	108.8	63.8	56.3	64.9	88.8
82.5°	171.3	176.9	171.7	173.1	165.5	87.3	65.1	46.2	43.0	47.5	58.9
85°	94.4	96.1	95.6	98.5	94.4	34.8	30.9	28.4	30.1	32.3	37.8
87.5°	46.0	46.4	45.0	47.3	45.8	17.6	15.2	16.1	17.6	18.0	18.0
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°	369.1	369.1	369.1	369.1	369.1	369.1
2.5°	348.7	346.9	347.1	346.7	345.9	345.9
5°	345.7	343.9	343.9	343.5	342.4	342.6
7.5°	348.7	345.9	344.8	343.2	341.8	341.8
10°	352.1	347.1	344.1	341.6	339.6	339.6
12.5°	354.7	346.9	342.0	338.5	336.6	336.6
15°	355.5	345.4	338.5	334.4	332.7	332.5
17.5°	352.7	339.6	331.3	326.5	324.4	323.7
20°	344.1	329.1	319.0	313.6	310.6	309.5
22.5°	331.3	314.0	302.2	296.6	292.7	292.1
25°	313.2	294.7	283.1	277.7	275.6	274.9
27.5°	292.1	274.9	265.0	261.6	259.6	259.5
30°	272.1	257.5	250.2	247.6	245.2	244.9
32.5°	253.4	244.2	241.4	237.7	232.2	231.5
35°	240.1	239.2	237.3	229.1	222.3	220.3
37.5°	231.9	239.9	230.0	213.9	209.0	208.5
40°	227.2	233.2	216.2	210.7	211.1	210.7
42.5°	216.5	222.7	216.7	214.1	215.8	216.2
45°	205.7	212.6	219.9	218.2	222.3	222.3
47.5°	199.7	210.0	219.7	219.7	225.7	227.8
50°	192.8	207.9	216.2	219.2	224.0	222.3
52.5°	192.4	204.2	211.3	216.7	218.8	216.9
55°	193.0	201.2	206.3	212.4	214.9	215.1
57.5°	193.9	199.5	202.9	205.7	213.4	213.4
60°	196.0	198.0	199.9	201.4	211.5	211.7
62.5°	199.5	196.5	196.0	197.5	210.4	209.6
65°	204.9	194.3	191.1	192.6	209.3	206.8
67.5°	212.1	191.1	184.9	185.9	208.5	202.9
70°	218.8	185.9	177.1	176.1	200.3	190.5
72.5°	219.5	179.9	166.4	163.2	174.1	164.6
75°	208.7	175.8	154.6	145.1	143.8	142.5
77.5°	188.1	173.4	140.8	125.9	123.4	124.2
80°	157.4	164.6	124.2	106.6	120.6	119.1
82.5°	117.6	145.3	105.5	94.4	94.1	83.2
85°	65.4	113.3	86.0	70.7	49.2	47.7
87.5°	18.3	63.0	60.2	40.0	27.3	28.4
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)