

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: P298861

Luminaire Tested: **GLNA-AF-02-LED-E1-SLL-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298861
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191289)
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-SLL-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9268.2 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

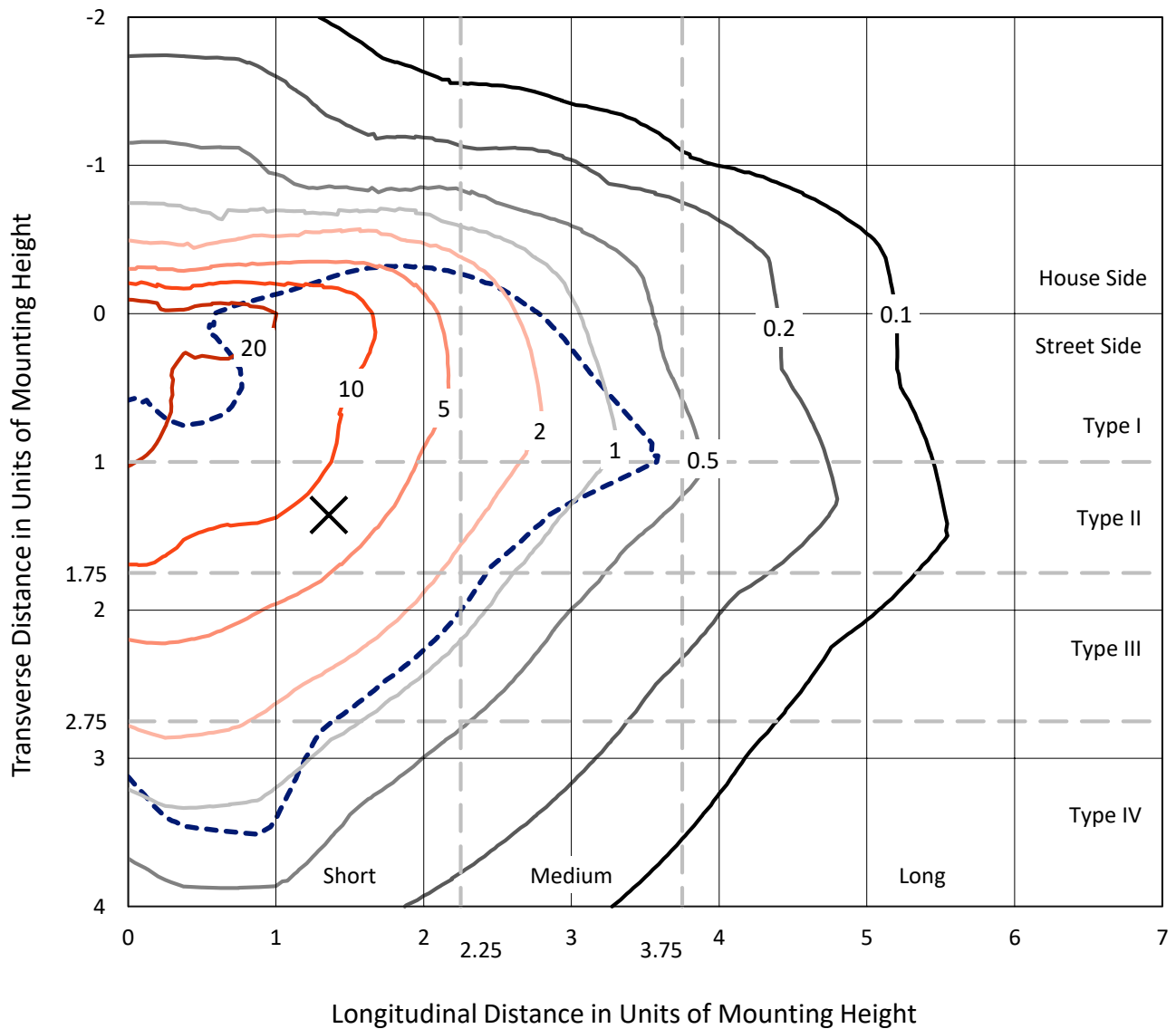
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

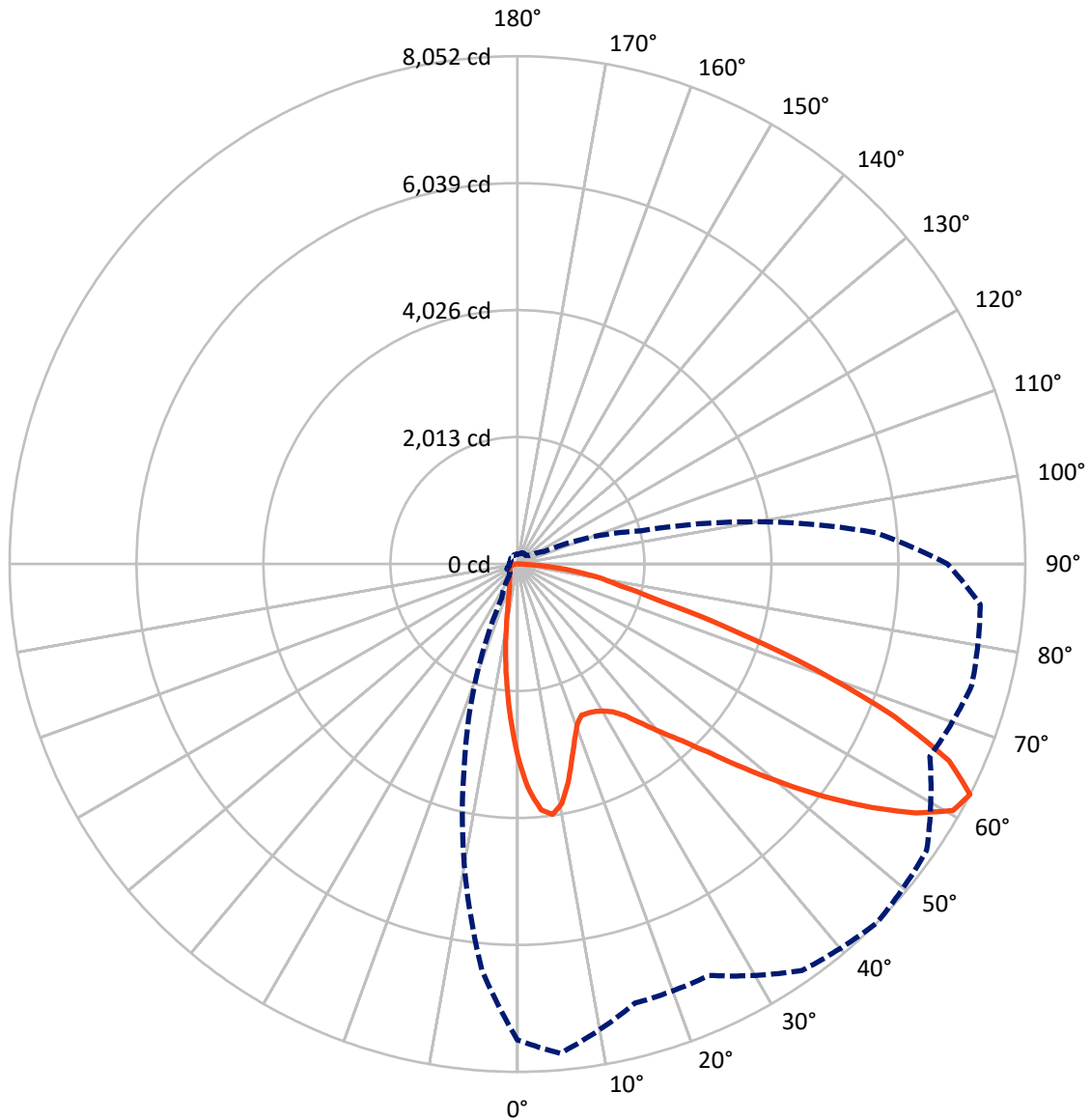
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 36.9 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1533.8	0.0	1533.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	7734.5	0.0	7734.5
	% Fixture	83.5	0.0	83.5
Total	Lumens	9268.2	0.0	9268.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.9	2.5
10°-20°	418.0	4.5
20°-30°	609.4	6.6
30°-40°	938.6	10.1
40°-50°	1381.4	14.9
50°-60°	2026.2	21.9
60°-70°	2265.0	24.4
70°-80°	1108.9	12.0
80°-90°	292.8	3.2
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°	9268.2	100.0
0°-180°	9268.2	100.0



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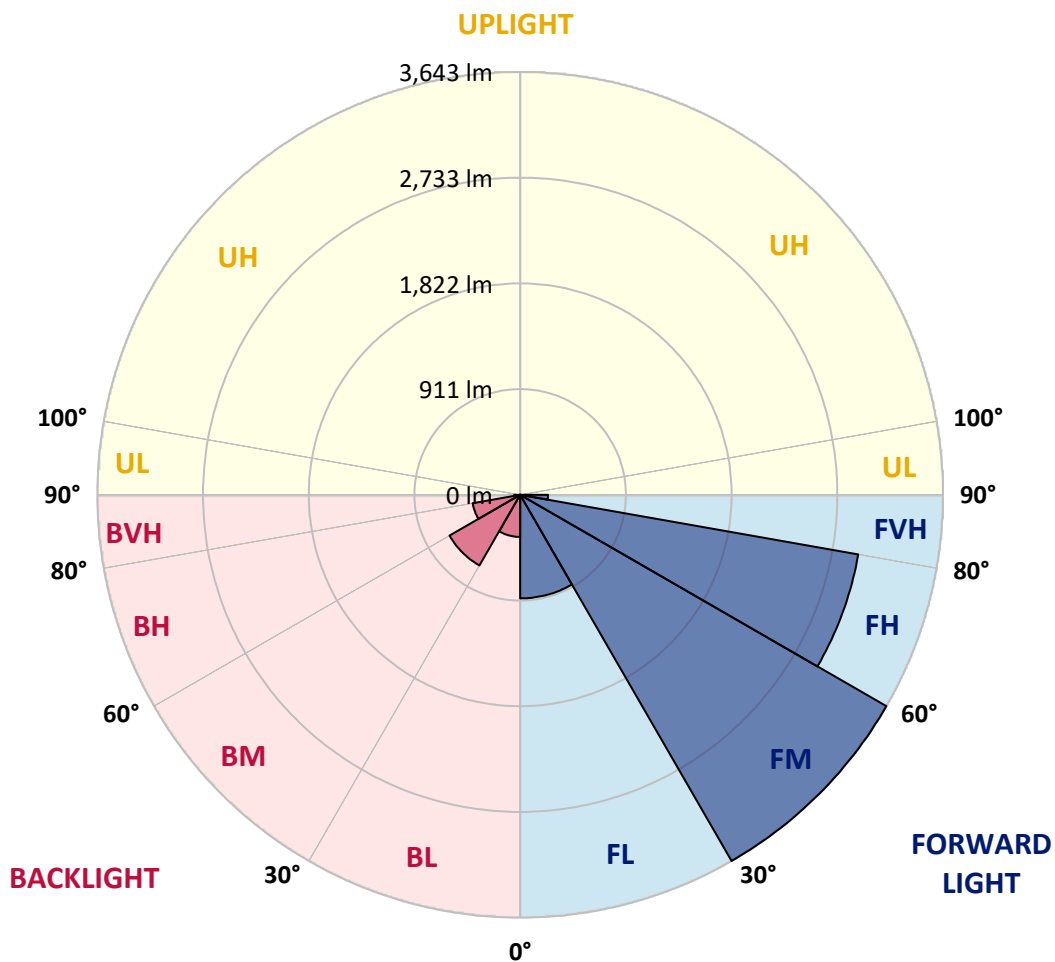
CATALOG NUMBER: GLNA-AF-02-LED-E1-SLL-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	892.5	9.6			
FM	(30°-60°)	3643.4	39.3			
FH	(60°-80°)	2958.1	31.9			G2/5000
FVH	(80°-90°)	240.4	2.6			G3/500
BL	(0°-30°)	362.9	3.9	B1/500		
BM	(30°-60°)	702.8	7.6	B1/1000		
BH	(60°-80°)	415.8	4.5	B1/500		G1/500
BVH	(80°-90°)	52.3	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4
2.5°	3253.5	3305.6	3407.0	3482.7	3575.2	3596.5	3626.1	3597.0	3545.6	3477.3	3454.9
5°	3059.5	3170.6	3416.6	3633.2	3825.7	3915.4	3940.5	3866.4	3717.2	3521.1	3401.3
7.5°	2748.2	2906.1	3239.2	3558.3	3841.9	4009.7	4005.5	3833.8	3559.3	3239.7	3047.7
10°	2479.6	2660.0	3042.3	3398.9	3699.9	3862.5	3799.6	3580.3	3252.5	2884.6	2676.4
12.5°	2329.4	2506.2	2893.9	3252.0	3503.7	3559.8	3511.8	3296.8	2988.0	2616.2	2433.8
15°	2303.3	2497.6	2834.9	3126.3	3267.4	3218.6	3161.3	3065.1	2846.9	2529.5	2339.5
17.5°	2416.1	2629.9	2902.7	3038.6	3014.6	2929.5	2913.3	2924.0	2871.6	2625.8	2406.8
20°	2632.1	2888.8	3064.1	2997.4	2822.6	2705.4	2709.5	2873.1	3028.4	2869.9	2619.7
22.5°	2935.1	3228.2	3296.8	3019.3	2741.6	2602.5	2636.2	2901.2	3278.6	3226.7	2907.1
25°	3327.4	3594.5	3545.1	3098.7	2749.7	2615.2	2642.2	2997.9	3574.0	3583.3	3262.9
27.5°	3707.5	3955.2	3753.3	3204.2	2783.4	2645.3	2681.0	3150.1	3856.3	3970.5	3669.4
30°	4004.0	4176.4	3835.8	3300.4	2849.6	2703.9	2748.2	3294.8	3984.8	4231.8	3982.2
32.5°	4249.6	4373.4	3967.3	3419.7	2971.3	2796.0	2874.1	3470.6	4169.8	4480.5	4288.3
35°	4563.4	4598.6	4130.9	3552.7	3159.4	2956.6	3053.3	3642.8	4346.1	4731.6	4590.0
37.5°	4931.4	4886.1	4285.2	3734.6	3402.5	3207.7	3287.7	3831.9	4491.1	5016.4	4898.2
40°	5295.1	5185.9	4479.0	4016.8	3757.1	3503.7	3598.5	4033.6	4626.7	5301.7	5199.3
42.5°	5604.4	5442.8	4669.9	4327.0	4087.1	3830.4	3943.5	4236.9	4756.1	5545.2	5460.7
45°	5833.1	5632.3	4851.8	4625.1	4542.1	4264.4	4318.0	4469.6	4896.2	5748.6	5675.7
47.5°	6037.4	5822.9	5057.6	4925.8	4940.0	4828.9	4742.7	4740.7	5061.4	5914.7	5878.9
50°	6311.0	6087.3	5278.7	5235.4	5537.1	5463.1	5273.1	5057.1	5270.1	6103.2	6099.1
52.5°	6688.1	6506.3	5548.8	5569.2	6094.6	6142.9	5907.4	5437.3	5597.1	6449.1	6424.7
55°	7134.0	7027.8	5916.8	5952.9	6778.2	6812.9	6578.9	5912.5	6078.2	6950.0	6882.2
57.5°	7481.8	7459.5	6320.2	6413.5	7288.8	7444.7	7229.7	6462.9	6620.2	7371.8	7201.6
60°	7620.4	7728.9	6749.7	6878.1	7761.1	7933.6	7745.3	6946.2	7100.7	7546.6	7179.8
62.5°	7545.6	7787.9	7207.2	7196.5	7866.5	8052.4	7919.9	7215.3	7457.0	7366.2	6816.6
65°	7199.6	7575.6	7472.7	7114.4	7505.8	7521.0	7478.1	7095.1	7541.0	6796.1	6114.3
67.5°	6445.9	6987.1	7123.0	6411.5	6532.6	6433.3	6361.4	6436.8	7102.7	5941.6	5138.6
70°	5250.3	6064.5	6129.5	5128.1	5073.0	5006.2	4863.1	5277.2	6238.2	4869.7	4077.5
72.5°	3860.5	4716.4	4916.5	3761.1	3506.4	3519.9	3407.0	3976.9	5072.0	3617.3	3044.2
75°	2641.2	3415.1	3846.7	2624.3	2318.8	2324.3	2309.9	2818.0	4039.8	2516.3	2278.0
77.5°	1929.5	2439.9	2901.2	1764.3	1712.8	1681.2	1673.6	1971.7	3097.2	1827.1	1768.9
80°	1548.3	1802.6	1948.7	1222.8	1314.9	1312.4	1270.1	1355.7	2022.6	1336.4	1323.0
82.5°	1074.1	1385.3	1578.9	958.3	887.5	872.6	883.0	1009.7	1429.7	913.5	868.7
85°	566.6	920.1	1563.6	849.3	526.8	420.3	522.8	826.8	1238.6	484.1	423.7
87.5°	72.4	266.0	1035.2	338.9	207.9	112.0	248.3	465.6	795.4	98.7	86.2
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4
2.5°	3397.4	3329.6	3240.9	3158.7	3073.7	2989.0	2878.5	2809.2	2761.4	2752.2	2732.0
5°	3314.8	3089.6	2919.4	2772.2	2638.7	2450.0	2345.6	2259.0	2212.6	2208.2	2196.9
7.5°	2934.1	2623.3	2393.6	2185.2	1996.1	1843.8	1675.6	1597.4	1565.1	1572.7	1580.3
10°	2538.1	2190.8	1926.8	1713.8	1547.3	1418.9	1284.0	1192.8	1129.5	1116.7	1114.3
12.5°	2248.9	1867.8	1611.6	1461.1	1332.4	1211.5	1068.4	960.8	878.9	850.8	832.1
15°	2126.5	1709.8	1441.4	1279.3	1137.1	983.8	850.8	738.2	662.9	638.4	624.7
17.5°	2152.6	1666.0	1324.1	1116.7	935.0	774.9	607.3	510.9	465.6	454.0	454.0
20°	2289.2	1657.9	1227.2	967.1	740.1	554.7	417.3	362.2	347.5	346.0	350.0
22.5°	2480.7	1686.5	1155.1	837.2	575.2	405.1	325.0	304.7	298.0	299.7	304.2
25°	2766.1	1782.8	1102.7	721.5	451.4	331.6	289.8	277.7	274.6	278.7	284.3
27.5°	3104.3	1879.0	1069.9	634.3	381.1	303.2	275.5	263.0	265.0	270.1	275.1
30°	3401.3	1958.1	1018.5	572.3	359.2	304.7	275.5	258.3	256.4	257.4	258.8
32.5°	3668.0	2011.5	958.3	513.1	309.8	270.6	257.4	254.9	243.5	239.3	240.0
35°	3897.7	2011.5	922.2	478.5	277.7	240.0	218.7	205.9	200.1	200.6	206.4
37.5°	4119.3	1971.2	904.4	459.0	260.3	228.2	209.4	198.1	190.5	189.0	190.0
40°	4314.8	1912.6	884.0	450.9	247.1	221.1	203.4	194.0	185.9	183.4	183.9
42.5°	4471.8	1865.2	861.5	440.3	238.8	216.0	199.1	191.0	181.9	179.3	178.8
45°	4641.5	1849.4	832.1	418.8	243.0	216.5	198.1	189.5	180.3	177.3	176.3
47.5°	4865.1	1898.9	801.5	393.3	251.7	219.1	199.6	189.5	179.8	177.3	176.3
50°	5146.7	2015.0	762.6	356.1	243.0	226.3	199.1	187.9	179.8	177.3	175.3
52.5°	5508.6	2172.0	711.9	313.4	237.8	243.5	198.1	184.9	177.3	173.8	170.2
55°	5948.2	2300.3	651.0	278.2	226.3	238.8	196.7	181.4	173.3	168.2	165.1
57.5°	6270.3	2346.6	573.3	255.4	209.9	231.2	194.5	176.8	168.2	164.1	160.1
60°	6206.6	2257.0	507.4	241.0	200.1	208.9	193.0	172.7	163.6	160.6	156.8
62.5°	5696.7	2022.6	465.1	234.4	194.0	190.5	194.5	168.7	159.6	156.3	155.3
65°	4931.9	1676.6	448.4	232.9	189.0	179.8	180.9	164.1	154.8	152.3	151.3
67.5°	4068.2	1353.3	433.7	237.8	182.4	172.2	167.2	158.0	150.2	147.7	145.7
70°	3208.2	1125.5	426.9	234.9	174.3	164.6	159.1	151.3	144.7	142.1	140.6
72.5°	2583.5	950.7	423.2	231.7	163.6	154.3	149.2	142.6	135.5	134.5	133.0
75°	2186.3	747.4	387.8	222.1	151.3	142.1	138.6	132.5	125.4	125.4	124.4
77.5°	1686.5	540.5	322.5	196.7	138.6	128.3	125.4	120.7	112.6	114.1	113.6
80°	1245.8	352.6	252.2	163.1	122.9	113.1	111.5	107.0	98.2	100.4	100.4
82.5°	853.4	231.2	181.4	133.5	104.9	95.8	95.8	91.1	81.5	82.5	85.7
85°	428.5	159.1	135.5	103.4	81.5	76.9	76.9	73.4	63.7	64.2	68.3
87.5°	130.5	95.8	89.6	73.9	58.5	57.6	54.9	52.4	46.3	45.8	48.5
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4
2.5°	2700.7	2671.6	2636.7	2559.1	2533.2	2531.5	2555.2	2530.5	2577.5	2557.7	2579.5
5°	2177.9	2149.6	2110.3	2011.5	1951.3	1910.5	1891.3	1834.2	1875.4	1845.3	1870.4
7.5°	1601.8	1608.5	1582.5	1524.4	1393.4	1327.8	1289.1	1254.4	1284.5	1281.3	1329.3
10°	1126.0	1143.7	1125.5	1067.0	960.8	924.7	931.8	945.6	984.9	1005.1	1079.0
12.5°	810.6	809.6	797.9	745.4	675.6	679.6	708.7	732.5	768.8	790.3	865.5
15°	605.2	596.1	591.0	548.1	508.4	517.2	531.4	533.9	556.9	569.6	630.8
17.5°	457.5	462.1	467.6	437.1	407.0	401.4	390.3	376.4	383.2	385.7	416.1
20°	363.2	381.6	395.5	374.0	343.5	327.0	312.8	303.7	303.7	303.2	311.8
22.5°	317.4	330.6	345.5	330.6	303.2	288.8	280.7	273.6	272.6	272.6	280.7
25°	292.6	302.2	316.4	306.3	285.8	275.1	267.4	258.3	254.9	253.7	259.3
27.5°	280.2	284.3	291.4	282.2	265.0	259.8	257.8	249.7	244.9	242.5	248.3
30°	259.3	258.3	258.8	249.7	235.9	235.4	238.8	240.5	238.8	238.3	247.1
32.5°	240.0	237.8	237.3	229.2	216.5	213.5	216.5	219.6	223.1	228.2	238.3
35°	215.5	220.6	223.6	216.5	201.1	192.0	188.5	182.9	179.8	179.8	191.5
37.5°	196.2	207.9	212.5	205.9	189.0	176.3	170.2	169.2	169.7	171.7	182.9
40°	189.5	198.1	202.1	195.7	178.8	167.2	163.6	162.6	163.6	166.7	177.8
42.5°	185.4	191.5	191.0	182.9	169.2	161.1	159.1	158.0	159.1	162.1	174.3
45°	181.9	185.9	181.9	172.2	159.6	155.3	155.8	155.3	156.3	159.6	171.2
47.5°	178.8	180.3	175.3	165.6	152.3	151.3	153.3	154.8	155.8	158.6	170.7
50°	174.3	174.3	169.7	159.6	146.2	146.7	149.2	152.8	153.3	156.3	166.2
52.5°	168.7	168.2	165.1	155.3	141.1	142.6	142.6	146.7	147.7	151.3	161.6
55°	164.1	163.1	161.6	152.3	136.6	139.1	137.6	139.1	141.6	145.2	156.3
57.5°	160.1	158.0	158.0	149.7	133.0	134.0	130.5	132.5	135.5	138.6	150.2
60°	155.8	153.8	154.8	146.2	127.4	126.4	124.9	128.8	130.0	133.5	145.2
62.5°	151.3	149.7	150.2	142.1	123.4	120.7	120.7	124.4	124.9	130.0	141.1
65°	147.7	145.7	145.2	138.1	118.8	115.8	117.3	118.8	119.7	124.9	135.5
67.5°	144.2	140.1	140.1	134.5	113.6	110.5	113.6	113.1	114.8	119.2	127.8
70°	139.6	134.0	134.5	132.0	108.5	104.9	107.5	107.0	108.0	111.0	119.7
72.5°	132.5	127.8	128.8	127.8	103.4	98.2	99.2	99.2	99.2	101.9	111.0
75°	123.4	119.7	122.9	125.4	97.3	90.1	91.1	91.1	89.6	91.1	102.4
77.5°	112.0	110.0	120.2	116.8	90.1	81.5	81.5	80.5	77.6	79.6	91.6
80°	99.9	98.2	111.0	97.7	82.0	71.0	69.8	67.2	64.2	65.7	78.1
82.5°	87.2	85.7	93.3	74.9	71.0	58.5	56.1	51.4	48.5	49.9	61.0
85°	71.5	71.5	71.9	56.6	53.9	44.8	41.8	35.7	32.1	33.1	43.8
87.5°	50.9	52.4	48.5	38.7	32.1	25.0	23.0	19.4	16.2	18.9	23.0
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4
2.5°	2691.6	2747.7	2811.4	2892.7	2962.7	3077.2	3187.3	3253.5
5°	2012.5	2105.8	2221.7	2371.3	2510.4	2719.1	2926.5	3059.5
7.5°	1440.3	1540.2	1665.5	1851.9	2048.7	2315.0	2589.2	2748.2
10°	1191.8	1294.2	1399.6	1525.4	1686.5	1976.3	2300.3	2479.6
12.5°	985.9	1095.4	1209.0	1341.5	1490.7	1749.5	2123.0	2329.4
15°	754.5	876.8	1010.7	1178.4	1365.3	1664.5	2079.2	2303.3
17.5°	517.2	653.8	818.2	1025.1	1253.9	1636.9	2157.7	2416.1
20°	356.1	455.5	631.3	873.8	1149.0	1633.4	2308.4	2632.1
22.5°	298.0	342.4	470.7	734.7	1069.9	1677.3	2542.4	2935.1
25°	275.5	302.2	375.9	613.9	1012.4	1778.2	2864.5	3327.4
27.5°	262.5	286.3	341.4	535.1	967.1	1895.3	3177.7	3707.5
30°	267.4	291.9	331.6	494.7	905.4	1993.0	3455.9	4004.0
32.5°	241.0	251.7	284.3	459.0	861.0	2075.0	3699.4	4249.6
35°	205.4	224.1	253.7	442.3	862.0	2130.1	3964.8	4563.4
37.5°	195.7	214.5	235.9	436.1	873.8	2188.8	4269.5	4931.4
40°	189.5	206.9	225.3	432.7	885.0	2242.3	4568.2	5295.1
42.5°	185.4	201.1	224.1	420.3	890.6	2290.2	4813.6	5604.4
45°	184.9	201.1	228.2	408.0	899.2	2341.7	5019.6	5833.1
47.5°	185.4	207.9	220.6	393.3	899.2	2427.7	5261.0	6037.4
50°	183.4	219.1	212.5	372.5	878.4	2590.7	5592.1	6311.0
52.5°	182.4	217.7	196.7	340.4	842.2	2849.6	6016.6	6688.1
55°	179.8	209.9	185.4	292.6	800.0	3131.9	6471.1	7134.0
57.5°	177.3	185.9	179.3	250.7	734.7	3330.5	6783.8	7481.8
60°	198.6	162.6	174.3	230.2	647.5	3385.0	6771.7	7620.4
62.5°	183.9	152.3	167.7	225.8	586.5	3232.1	6458.8	7545.6
65°	144.2	145.7	161.1	238.8	570.1	2827.3	5904.4	7199.6
67.5°	132.0	139.1	154.3	255.9	571.8	2263.6	5076.1	6445.9
70°	124.4	132.0	146.7	264.5	575.7	1687.5	4013.1	5250.3
72.5°	115.8	122.4	138.1	266.0	549.1	1225.7	3093.2	3860.5
75°	105.4	111.5	125.9	231.7	455.0	850.3	2366.1	2641.2
77.5°	93.8	98.2	110.5	178.8	337.9	544.1	1776.0	1929.5
80°	80.1	82.5	92.8	131.0	231.2	340.4	1405.2	1548.3
82.5°	64.2	65.2	71.9	98.2	150.2	218.7	941.1	1074.1
85°	45.3	45.3	49.5	71.5	102.4	138.6	510.9	566.6
87.5°	21.3	21.8	21.8	39.2	53.4	70.5	117.8	72.4
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)