

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: P298993

Luminaire Tested: **GLNA-AF-04-LED-E1-SLL-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298993
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-04-LED-E1-SLL-7027-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12038 lumens
Efficiency: N/A
Efficacy: 93.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 129
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

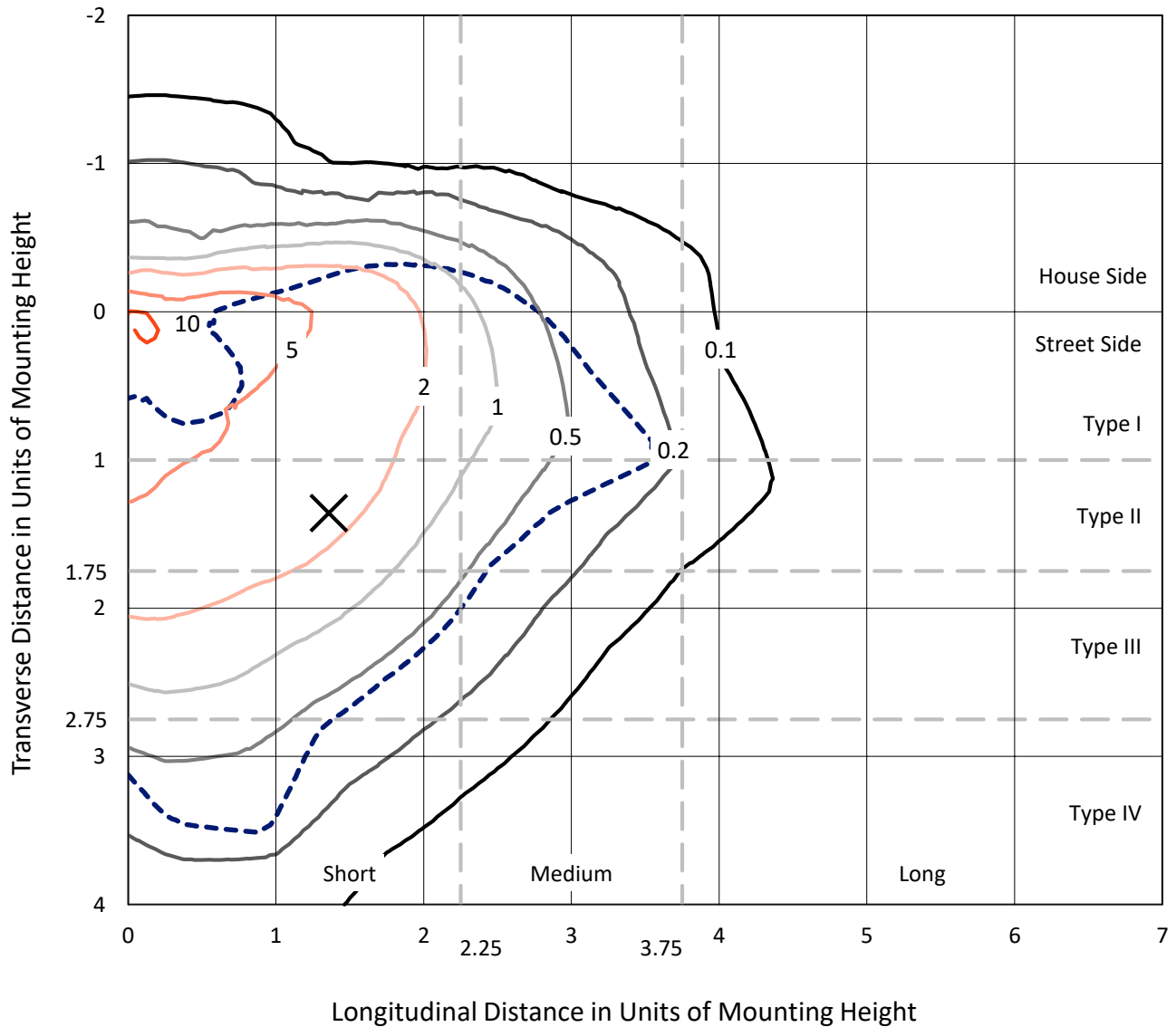


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Iso-Footcandle Lines of Horizontal Illumination

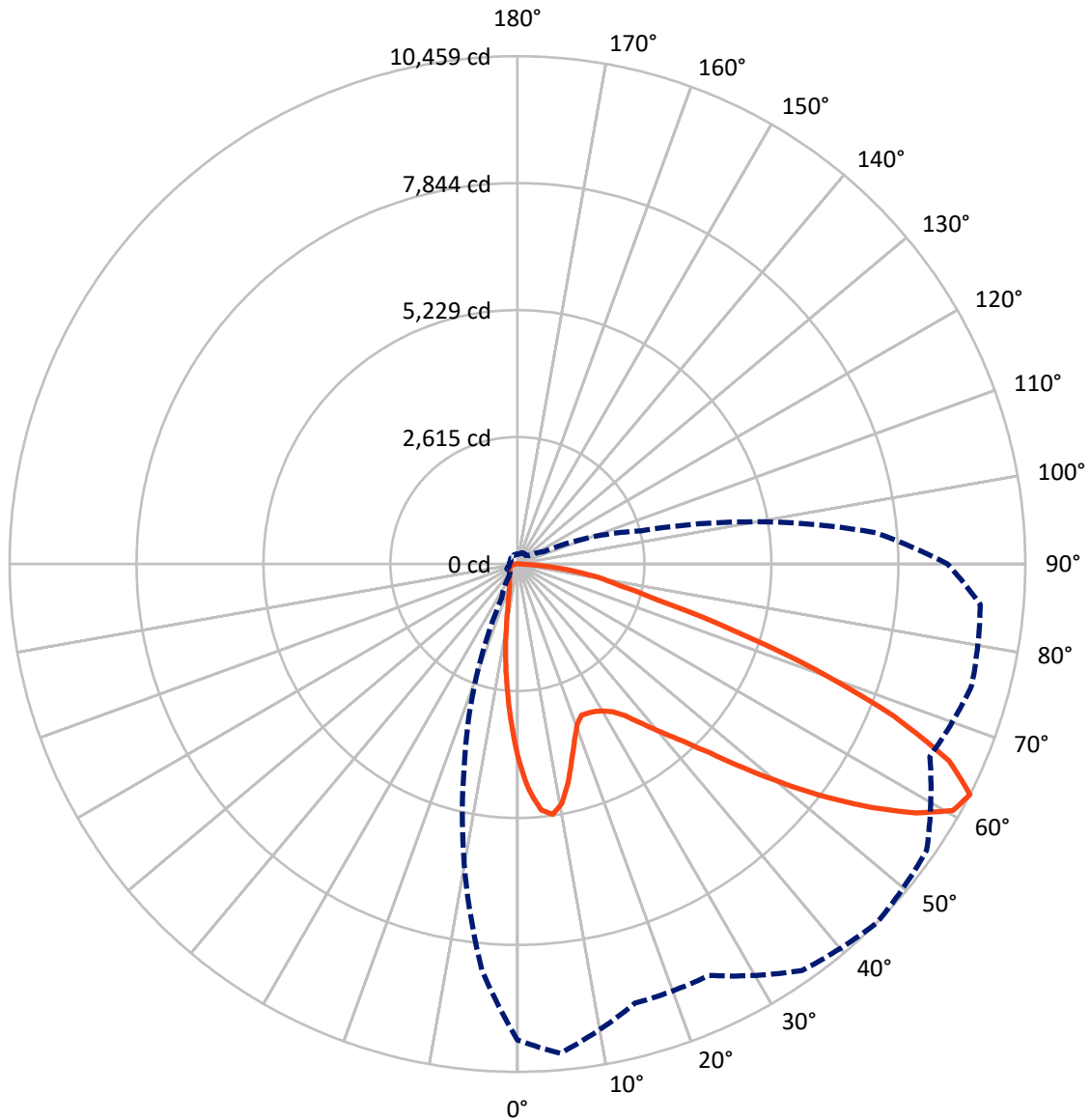
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 12 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	1992.1	0.0	1992.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	10045.9	0.0	10045.9
	% Fixture	83.5	0.0	83.5
Total	Lumens	12038.0	0.0	12038.0
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	296.1	2.5
10°-20°	542.9	4.5
20°-30°	791.6	6.6
30°-40°	1219.1	10.1
40°-50°	1794.2	14.9
50°-60°	2631.7	21.9
60°-70°	2941.9	24.4
70°-80°	1440.3	12.0
80°-90°	380.3	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°	12038.0	100.0
0°-180°	12038.0	100.0

Coefficient of Utilization



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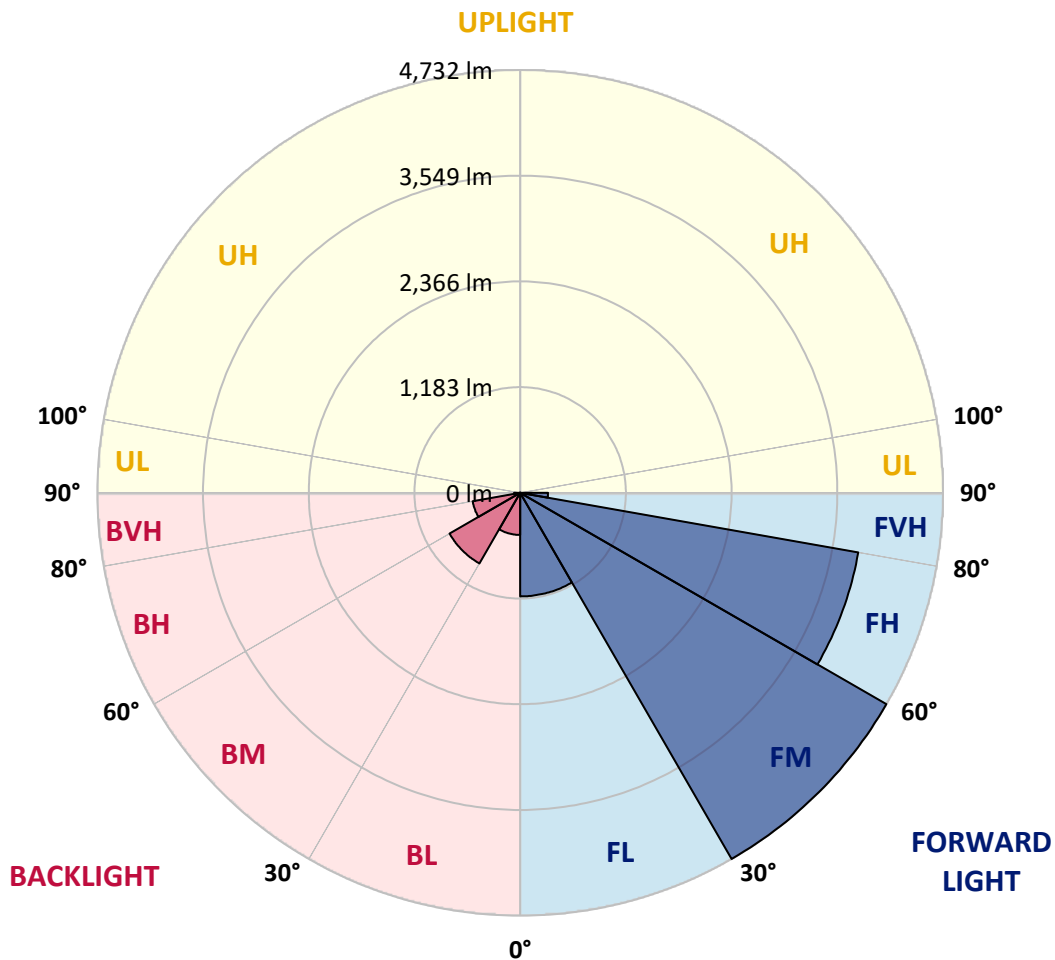
CATALOG NUMBER: GLNA-AF-04-LED-E1-SLL-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1159.2	9.6			
FM	(30°-60°)	4732.2	39.3			
FH	(60°-80°)	3842.1	31.9			G2/5000
FVH	(80°-90°)	312.3	2.6			G3/500
BL	(0°-30°)	471.3	3.9	B1/500		
BM	(30°-60°)	912.8	7.6	B1/1000		
BH	(60°-80°)	540.1	4.5	B2/1000		G2/1000
BVH	(80°-90°)	68.0	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2
2.5°	4225.7	4293.4	4425.1	4523.5	4643.6	4671.3	4709.7	4671.9	4605.1	4516.4	4487.4
5°	3973.8	4118.1	4437.6	4719.0	4969.0	5085.5	5118.1	5021.9	4828.1	4573.3	4417.8
7.5°	3569.5	3774.6	4207.3	4621.7	4990.1	5207.9	5202.5	4979.6	4622.9	4207.9	3958.5
10°	3220.6	3455.0	3951.4	4414.6	4805.5	5016.7	4935.1	4650.2	4224.5	3746.7	3476.2
12.5°	3025.5	3255.2	3758.7	4223.8	4550.8	4623.6	4561.3	4282.0	3881.0	3398.0	3161.1
15°	2991.6	3244.0	3682.0	4060.5	4243.8	4180.4	4106.1	3981.1	3697.7	3285.5	3038.6
17.5°	3138.1	3415.9	3770.1	3946.7	3915.5	3804.9	3783.9	3797.8	3729.7	3410.5	3126.1
20°	3418.7	3752.1	3979.8	3893.2	3666.1	3513.8	3519.2	3731.7	3933.4	3727.6	3402.6
22.5°	3812.2	4192.9	4282.0	3921.6	3560.9	3380.2	3424.0	3768.2	4258.4	4190.9	3775.9
25°	4321.8	4668.7	4604.5	4024.7	3571.4	3396.8	3431.8	3893.8	4642.1	4654.1	4238.0
27.5°	4815.4	5137.2	4874.9	4161.7	3615.2	3435.8	3482.2	4091.5	5008.8	5157.0	4766.0
30°	5200.6	5424.4	4982.1	4286.8	3701.2	3511.9	3569.5	4279.4	5175.7	5496.4	5172.2
32.5°	5519.6	5680.3	5152.9	4441.6	3859.3	3631.5	3732.9	4507.8	5415.9	5819.5	5569.9
35°	5927.1	5972.9	5365.4	4614.4	4103.5	3840.1	3965.8	4731.4	5644.9	6145.6	5961.7
37.5°	6405.1	6346.2	5565.8	4850.7	4419.3	4166.2	4270.2	4977.0	5833.3	6515.5	6361.9
40°	6877.5	6735.7	5817.6	5217.1	4879.9	4550.8	4673.9	5239.1	6009.4	6886.1	6753.1
42.5°	7279.2	7069.3	6065.5	5620.1	5308.4	4975.0	5122.0	5503.1	6177.4	7202.3	7092.5
45°	7576.3	7315.5	6301.8	6007.3	5899.4	5538.7	5608.3	5805.3	6359.3	7466.5	7371.8
47.5°	7841.6	7563.0	6569.0	6397.8	6416.3	6271.9	6160.0	6157.4	6574.0	7682.2	7635.8
50°	8196.9	7906.5	6856.2	6799.9	7191.8	7095.8	6848.9	6568.4	6845.1	7927.1	7921.7
52.5°	8686.7	8450.6	7207.0	7233.5	7915.9	7978.7	7672.8	7062.2	7269.8	8376.3	8344.7
55°	9265.9	9128.0	7685.0	7731.8	8803.8	8848.9	8544.9	7679.4	7894.7	9027.0	8938.9
57.5°	9717.6	9688.6	8209.0	8330.1	9466.9	9669.5	9390.3	8394.3	8598.6	9574.8	9353.7
60°	9897.7	10038.6	8766.8	8933.5	10080.5	10304.5	10059.9	9022.1	9222.7	9801.9	9325.4
62.5°	9800.6	10115.3	9361.0	9347.1	10217.3	10458.8	10286.7	9371.6	9685.4	9567.5	8853.6
65°	9351.2	9839.4	9705.8	9240.5	9748.8	9768.6	9712.9	9215.4	9794.6	8827.0	7941.5
67.5°	8372.2	9075.1	9251.7	8327.5	8484.8	8355.9	8262.4	8360.4	9225.3	7717.2	6674.3
70°	6819.3	7876.8	7961.3	6660.5	6589.0	6502.2	6316.4	6854.3	8102.4	6325.0	5296.0
72.5°	5014.1	6125.8	6385.8	4885.0	4554.2	4571.8	4425.1	5165.4	6587.7	4698.4	3954.0
75°	3430.5	4435.6	4996.3	3408.6	3011.8	3018.9	3000.2	3660.1	5247.0	3268.3	2958.7
77.5°	2506.1	3169.0	3768.2	2291.5	2224.7	2183.7	2173.8	2560.9	4022.7	2373.1	2297.5
80°	2010.9	2341.3	2531.0	1588.2	1707.8	1704.6	1649.6	1760.9	2627.0	1735.8	1718.4
82.5°	1395.0	1799.3	2050.7	1244.7	1152.7	1133.4	1146.9	1311.5	1856.9	1186.5	1128.2
85°	736.0	1195.0	2030.9	1103.1	684.2	545.9	679.0	1073.9	1608.8	628.8	550.4
87.5°	94.1	345.4	1344.6	440.2	270.0	145.4	322.4	604.7	1033.1	128.2	111.9
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2
2.5°	4412.6	4324.6	4209.4	4102.7	3992.2	3882.2	3738.7	3648.7	3586.7	3574.6	3548.4
5°	4305.4	4012.9	3791.8	3600.6	3427.3	3182.1	3046.6	2934.0	2873.9	2868.1	2853.5
7.5°	3810.9	3407.3	3108.9	2838.2	2592.7	2394.8	2176.4	2074.7	2032.9	2042.7	2052.6
10°	3296.6	2845.5	2502.7	2226.0	2009.7	1842.9	1667.7	1549.3	1467.0	1450.5	1447.2
12.5°	2920.9	2426.0	2093.2	1897.7	1730.6	1573.6	1387.7	1247.9	1141.6	1105.0	1080.8
15°	2762.0	2220.8	1872.2	1661.6	1476.9	1277.8	1105.0	958.7	861.0	829.2	811.4
17.5°	2795.9	2163.9	1719.9	1450.5	1214.4	1006.4	788.8	663.6	604.7	589.7	589.7
20°	2973.3	2153.4	1594.0	1256.1	961.3	720.5	542.0	470.5	451.3	449.4	454.6
22.5°	3222.1	2190.5	1500.3	1087.4	747.1	526.1	422.1	395.7	387.1	389.3	395.1
25°	3592.7	2315.6	1432.2	937.0	586.2	430.7	376.4	360.7	356.6	362.0	369.3
27.5°	4032.0	2440.6	1389.7	823.8	494.9	393.8	357.9	341.6	344.1	350.8	357.2
30°	4417.8	2543.3	1322.9	743.3	466.6	395.7	357.9	335.6	333.0	334.3	336.2
32.5°	4764.1	2612.7	1244.7	666.4	402.4	351.4	334.3	331.0	316.2	310.8	311.7
35°	5062.5	2612.7	1197.8	621.5	360.7	311.7	284.0	267.5	259.9	260.6	268.1
37.5°	5350.3	2560.2	1174.6	596.1	338.1	296.5	272.0	257.4	247.5	245.5	246.8
40°	5604.3	2484.2	1148.2	585.6	320.9	287.2	264.2	252.0	241.5	238.2	238.9
42.5°	5808.1	2422.5	1119.0	571.9	310.2	280.6	258.6	248.1	236.3	232.9	232.2
45°	6028.5	2402.1	1080.8	543.9	315.6	281.2	257.4	246.2	234.2	230.3	229.0
47.5°	6319.0	2466.4	1041.0	510.8	327.0	284.6	259.3	246.2	233.5	230.3	229.0
50°	6684.8	2617.2	990.5	462.5	315.6	293.9	258.6	244.0	233.5	230.3	227.7
52.5°	7154.8	2821.0	924.6	407.1	308.9	316.2	257.4	240.2	230.3	225.8	221.1
55°	7725.8	2987.7	845.5	361.3	293.9	310.2	255.4	235.7	225.1	218.5	214.4
57.5°	8144.1	3047.9	744.6	331.7	272.6	300.3	252.6	229.6	218.5	213.1	207.9
60°	8061.4	2931.4	659.1	313.0	259.9	271.3	250.7	224.3	212.5	208.6	203.7
62.5°	7399.1	2627.0	604.1	304.4	252.0	247.5	252.6	219.1	207.3	203.0	201.7
65°	6405.7	2177.6	582.4	302.5	245.5	233.5	235.0	213.1	201.1	197.9	196.6
67.5°	5284.0	1757.7	563.3	308.9	236.9	223.6	217.2	205.2	195.1	191.8	189.3
70°	4166.9	1461.9	554.5	305.0	226.4	213.7	206.7	196.6	188.0	184.5	182.6
72.5°	3355.5	1234.8	549.7	301.0	212.5	200.4	193.8	185.2	175.9	174.6	172.7
75°	2839.7	970.8	503.8	288.5	196.6	184.5	180.0	172.1	162.8	162.8	161.5
77.5°	2190.5	702.0	418.9	255.4	180.0	166.7	162.8	156.8	146.3	148.2	147.6
80°	1618.0	458.0	327.6	211.8	159.6	146.9	144.8	139.0	127.6	130.4	130.4
82.5°	1108.5	300.3	235.7	173.4	136.2	124.4	124.4	118.4	105.9	107.2	111.3
85°	556.6	206.7	175.9	134.3	105.9	99.9	99.9	95.4	82.7	83.4	88.7
87.5°	169.5	124.4	116.4	96.0	76.0	74.8	71.3	68.1	60.1	59.5	62.9
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2
2.5°	3507.8	3470.0	3424.7	3323.9	3290.2	3288.1	3318.8	3286.8	3347.8	3322.0	3350.3
5°	2828.8	2792.0	2740.9	2612.7	2534.5	2481.4	2456.5	2382.4	2435.9	2396.8	2429.4
7.5°	2080.5	2089.1	2055.4	1980.0	1809.9	1724.6	1674.3	1629.2	1668.3	1664.2	1726.5
10°	1462.5	1485.5	1461.9	1385.8	1247.9	1201.1	1210.3	1228.1	1279.3	1305.5	1401.5
12.5°	1052.8	1051.5	1036.3	968.2	877.5	882.7	920.5	951.4	998.5	1026.4	1124.2
15°	786.0	774.2	767.6	711.9	660.4	671.7	690.2	693.4	723.3	739.8	819.3
17.5°	594.2	600.2	607.3	567.8	528.7	521.4	507.0	488.9	497.7	501.0	540.5
20°	471.7	495.6	513.6	485.7	446.2	424.7	406.2	394.4	394.4	393.8	404.9
22.5°	412.2	429.4	448.8	429.4	393.8	375.1	364.6	355.3	354.0	354.0	364.6
25°	380.0	392.5	411.0	397.8	371.2	357.2	347.4	335.6	331.0	329.5	336.8
27.5°	363.9	369.3	378.5	366.5	344.1	337.5	334.9	324.4	318.1	314.9	322.4
30°	336.8	335.6	336.2	324.4	306.3	305.7	310.2	312.3	310.2	309.6	320.9
32.5°	311.7	308.9	308.3	297.7	281.2	277.3	281.2	285.3	289.8	296.5	309.6
35°	279.9	286.6	290.4	281.2	261.2	249.4	244.9	237.6	233.5	233.5	248.8
37.5°	254.8	270.0	276.0	267.5	245.5	229.0	221.1	219.8	220.4	223.0	237.6
40°	246.2	257.4	262.5	254.1	232.2	217.2	212.5	211.2	212.5	216.5	230.9
42.5°	240.8	248.8	248.1	237.6	219.8	209.2	206.7	205.2	206.7	210.5	226.4
45°	236.3	241.5	236.3	223.6	207.3	201.7	202.4	201.7	203.0	207.3	222.3
47.5°	232.2	234.2	227.7	215.0	197.9	196.6	199.1	201.1	202.4	206.0	221.7
50°	226.4	226.4	220.4	207.3	189.9	190.5	193.8	198.5	199.1	203.0	215.9
52.5°	219.1	218.5	214.4	201.7	183.2	185.2	185.2	190.5	191.8	196.6	209.9
55°	213.1	211.8	209.9	197.9	177.4	180.7	178.7	180.7	183.9	188.6	203.0
57.5°	207.9	205.2	205.2	194.4	172.7	174.0	169.5	172.1	175.9	180.0	195.1
60°	202.4	199.8	201.1	189.9	165.4	164.1	162.2	167.3	168.8	173.4	188.6
62.5°	196.6	194.4	195.1	184.5	160.3	156.8	156.8	161.5	162.2	168.8	183.2
65°	191.8	189.3	188.6	179.4	154.2	150.4	152.3	154.2	155.5	162.2	175.9
67.5°	187.3	182.0	182.0	174.6	147.6	143.5	147.6	146.9	149.1	154.9	166.1
70°	181.3	174.0	174.6	171.4	140.9	136.2	139.6	139.0	140.3	144.1	155.5
72.5°	172.1	166.1	167.3	166.1	134.3	127.6	128.9	128.9	128.9	132.3	144.1
75°	160.3	155.5	159.6	162.8	126.3	117.1	118.4	118.4	116.4	118.4	133.0
77.5°	145.4	142.9	156.2	151.7	117.1	105.9	105.9	104.6	100.8	103.3	119.0
80°	129.8	127.6	144.1	127.0	106.6	92.2	90.7	87.2	83.4	85.3	101.4
82.5°	113.2	111.3	121.2	97.3	92.2	76.0	72.8	66.8	62.9	64.9	79.3
85°	92.8	92.8	93.4	73.5	70.0	58.2	54.3	46.4	41.7	43.0	56.9
87.5°	66.2	68.1	62.9	50.3	41.7	32.4	29.9	25.1	21.1	24.5	29.9
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2	4067.2
2.5°	3496.0	3568.8	3651.5	3757.2	3848.1	3996.7	4139.8	4225.7
5°	2613.9	2735.1	2885.7	3079.9	3260.6	3531.7	3801.0	3973.8
7.5°	1870.7	2000.4	2163.2	2405.4	2661.0	3006.9	3363.0	3569.5
10°	1548.0	1681.0	1817.8	1981.3	2190.5	2566.9	2987.7	3220.6
12.5°	1280.5	1422.8	1570.3	1742.4	1936.2	2272.4	2757.4	3025.5
15°	980.0	1138.8	1312.8	1530.6	1773.3	2162.0	2700.5	2991.6
17.5°	671.7	849.2	1062.7	1331.5	1628.6	2126.1	2802.6	3138.1
20°	462.5	591.6	820.0	1134.9	1492.4	2121.6	2998.3	3418.7
22.5°	387.1	444.7	611.4	954.2	1389.7	2178.5	3302.2	3812.2
25°	357.9	392.5	488.3	797.4	1314.9	2309.5	3720.5	4321.8
27.5°	340.9	371.9	443.4	694.9	1256.1	2461.6	4127.4	4815.4
30°	347.4	379.2	430.7	642.5	1175.9	2588.6	4488.7	5200.6
32.5°	313.0	327.0	369.3	596.1	1118.4	2695.1	4804.9	5519.6
35°	266.8	291.1	329.5	574.4	1119.6	2766.7	5149.7	5927.1
37.5°	254.1	278.6	306.3	566.5	1134.9	2842.9	5545.4	6405.1
40°	246.2	268.7	292.6	562.0	1149.5	2912.3	5933.4	6877.5
42.5°	240.8	261.2	291.1	545.9	1156.8	2974.6	6252.2	7279.2
45°	240.2	261.2	296.5	530.0	1168.0	3041.4	6519.6	7576.3
47.5°	240.8	270.0	286.6	510.8	1168.0	3153.1	6833.2	7841.6
50°	238.2	284.6	276.0	483.8	1140.9	3365.0	7263.3	8196.9
52.5°	236.9	282.7	255.4	442.1	1093.9	3701.2	7814.5	8686.7
55°	233.5	272.6	240.8	380.0	1039.1	4067.9	8404.9	9265.9
57.5°	230.3	241.5	232.9	325.7	954.2	4325.9	8811.1	9717.6
60°	258.0	211.2	226.4	299.0	841.0	4396.5	8795.4	9897.7
62.5°	238.9	197.9	217.8	293.2	761.8	4198.0	8389.0	9800.6
65°	187.3	189.3	209.2	310.2	740.5	3672.2	7668.9	9351.2
67.5°	171.4	180.7	200.4	332.3	742.6	2940.0	6593.1	8372.2
70°	161.5	171.4	190.5	343.5	747.8	2191.8	5212.4	6819.3
72.5°	150.4	159.0	179.4	345.4	713.2	1592.0	4017.6	5014.1
75°	136.8	144.8	163.5	301.0	591.0	1104.4	3073.2	3430.5
77.5°	121.8	127.6	143.5	232.2	438.9	706.8	2306.7	2506.1
80°	104.0	107.2	120.5	170.1	300.3	442.1	1825.1	2010.9
82.5°	83.4	84.6	93.4	127.6	195.1	284.0	1222.3	1395.0
85°	58.9	58.9	64.2	92.8	133.0	180.0	663.6	736.0
87.5°	27.7	28.4	28.4	50.9	69.4	91.5	153.0	94.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)