

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: P298932

Luminaire Tested: **GLNA-AF-03-LED-E1-SLL-7060-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298932
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-03-LED-E1-SLL-7060-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 5700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12859.5 lumens
Efficiency: N/A
Efficacy: 103.7 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): 124
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

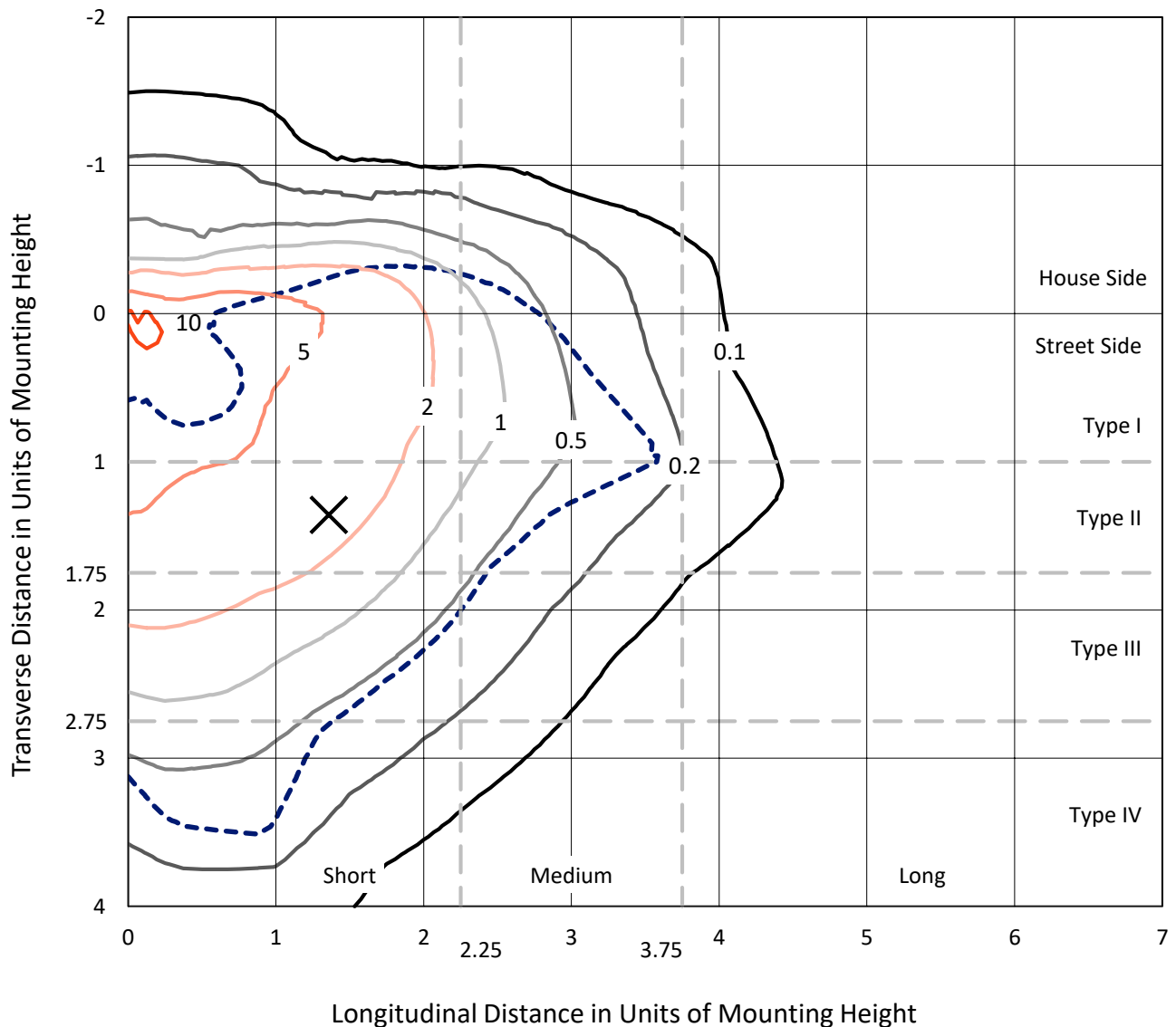


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

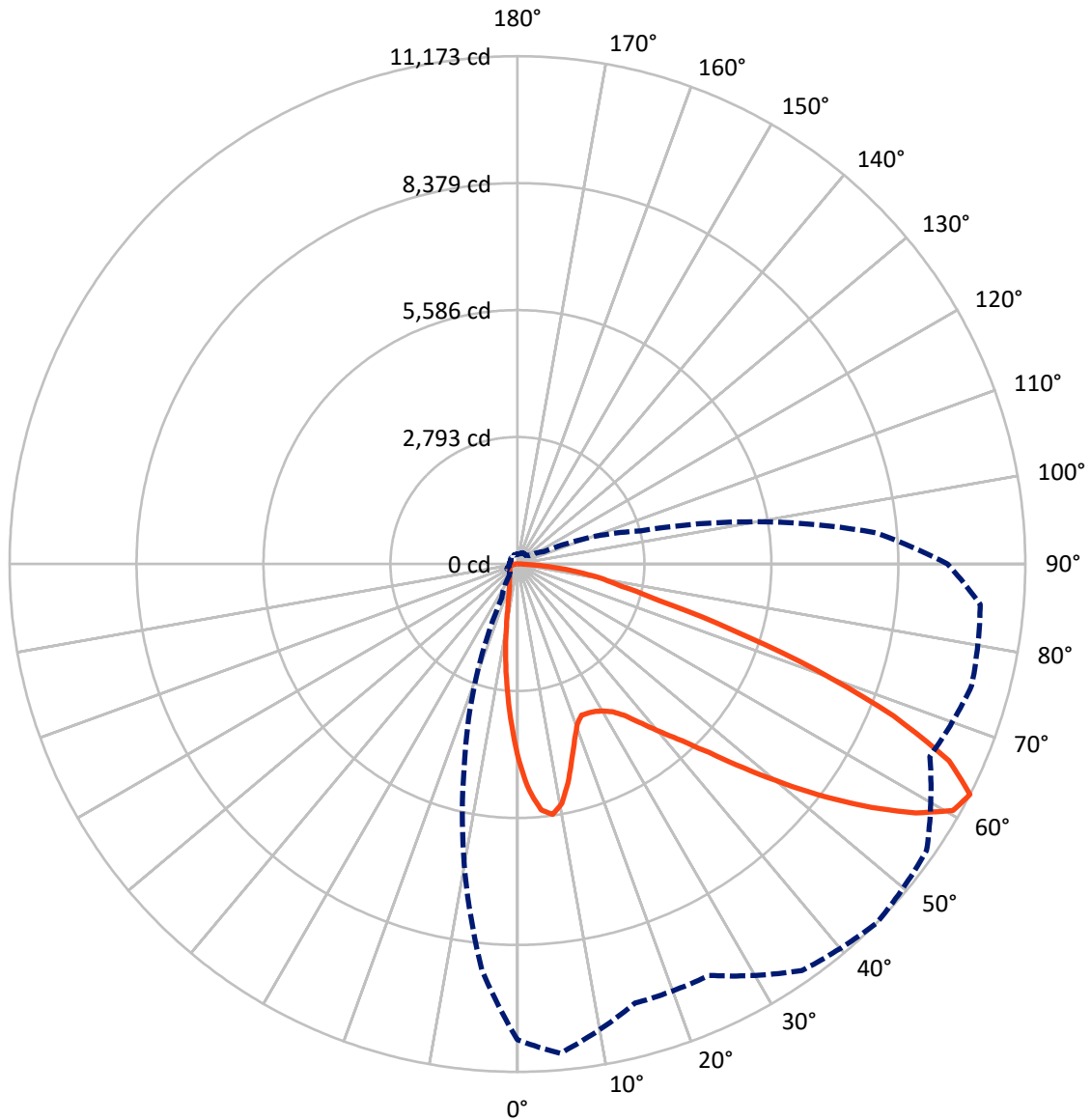


Based on 20 foot mounting height. Maximum calculated value = 12.8 fc
 Type IV - Short - Non-Cutoff

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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	2128.1	0.0	2128.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	10731.5	0.0	10731.5
	% Fixture	83.5	0.0	83.5
Total	Lumens	12859.5	0.0	12859.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	316.3	2.5
10°-20°	580.0	4.5
20°-30°	845.6	6.6
30°-40°	1302.3	10.1
40°-50°	1916.6	14.9
50°-60°	2811.3	21.9
60°-70°	3142.6	24.4
70°-80°	1538.6	12.0
80°-90°	406.2	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°	12859.5	100.0
0°-180°	12859.5	100.0

Coefficient of Utilization



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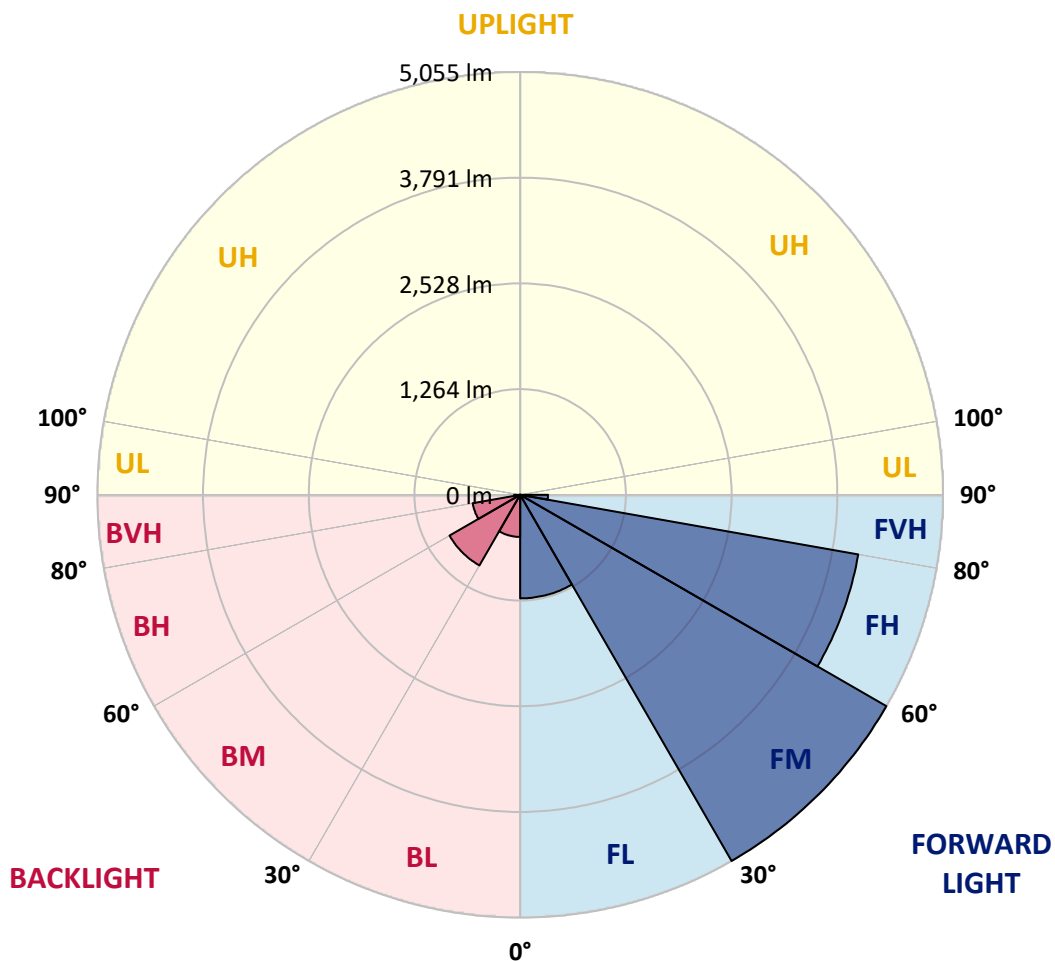
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1238.3	9.6			
FM	(30°-60°)	5055.2	39.3			
FH	(60°-80°)	4104.3	31.9			G2/5000
FVH	(80°-90°)	333.6	2.6			G3/500
BL	(0°-30°)	503.5	3.9	B2/1000		
BM	(30°-60°)	975.1	7.6	B1/1000		
BH	(60°-80°)	576.9	4.5	B2/1000		G2/1000
BVH	(80°-90°)	72.6	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°	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8
2.5°	4514.1	4586.4	4727.1	4832.2	4960.5	4990.1	5031.2	4990.8	4919.4	4824.6	4793.7
5°	4245.0	4399.2	4740.4	5041.0	5308.2	5432.5	5467.4	5364.6	5157.6	4885.4	4719.3
7.5°	3813.1	4032.2	4494.4	4937.1	5330.6	5563.3	5557.6	5319.4	4938.5	4495.1	4228.7
10°	3440.4	3690.8	4221.1	4715.9	5133.5	5359.1	5271.9	4967.6	4512.8	4002.4	3713.5
12.5°	3232.0	3477.3	4015.3	4512.1	4861.4	4939.1	4872.6	4574.3	4145.8	3629.9	3376.8
15°	3195.8	3465.4	3933.3	4337.7	4533.4	4465.7	4386.3	4252.8	3950.1	3509.7	3246.0
17.5°	3352.3	3649.0	4027.4	4216.0	4182.8	4064.6	4042.1	4057.0	3984.3	3643.3	3339.4
20°	3652.0	4008.1	4251.4	4158.9	3916.3	3753.6	3759.4	3986.3	4201.8	3982.0	3634.8
22.5°	4072.4	4479.0	4574.3	4189.2	3803.9	3610.9	3657.7	4025.3	4549.0	4477.0	4033.6
25°	4616.7	4987.3	4918.7	4299.3	3815.1	3628.6	3666.0	4159.6	4958.9	4971.7	4527.2
27.5°	5144.1	5487.8	5207.6	4445.8	3862.0	3670.3	3719.9	4370.7	5350.6	5509.0	5091.3
30°	5555.5	5794.7	5322.2	4579.3	3953.7	3751.6	3813.1	4571.5	5528.9	5871.5	5525.2
32.5°	5896.3	6068.0	5504.6	4744.8	4122.6	3879.4	3987.7	4815.5	5785.5	6216.7	5950.0
35°	6331.6	6380.5	5731.5	4929.3	4383.6	4102.2	4236.5	5054.3	6030.1	6565.0	6368.6
37.5°	6842.2	6779.4	5945.7	5181.7	4720.9	4450.6	4561.6	5316.6	6231.4	6960.2	6796.1
40°	7346.9	7195.4	6214.6	5573.2	5212.9	4861.4	4992.8	5596.6	6419.5	7356.1	7214.0
42.5°	7776.0	7551.8	6479.4	6003.7	5670.7	5314.6	5471.5	5878.6	6599.0	7693.9	7576.6
45°	8093.4	7814.8	6731.9	6417.2	6302.0	5916.7	5991.1	6201.5	6793.4	7976.1	7874.9
47.5°	8376.8	8079.2	7017.3	6834.4	6854.2	6700.0	6580.4	6577.6	7022.6	8206.5	8156.9
50°	8756.4	8446.1	7324.2	7264.0	7682.6	7580.0	7316.4	7016.6	7312.2	8468.1	8462.4
52.5°	9279.6	9027.4	7698.9	7727.1	8456.2	8523.2	8196.4	7544.2	7765.9	8948.0	8914.2
55°	9898.3	9750.9	8209.5	8259.5	9404.6	9452.8	9128.1	8203.5	8433.5	9643.1	9549.0
57.5°	10380.9	10349.9	8769.2	8898.6	10113.1	10329.5	10031.1	8967.2	9185.5	10228.3	9992.1
60°	10573.2	10723.7	9365.2	9543.2	10768.5	11007.8	10746.4	9637.8	9852.1	10470.8	9961.8
62.5°	10469.4	10805.6	9999.9	9985.0	10914.6	11172.6	10988.8	10011.2	10346.4	10220.4	9457.9
65°	9989.4	10511.0	10368.2	9871.2	10414.1	10435.2	10375.8	9844.3	10463.0	9429.4	8483.5
67.5°	8943.6	9694.5	9883.1	8895.9	9063.9	8926.2	8826.3	8931.0	9854.9	8243.9	7129.8
70°	7284.7	8414.4	8504.6	7115.1	7038.7	6946.0	6747.5	7322.1	8655.4	6756.6	5657.4
72.5°	5356.3	6543.9	6821.6	5218.4	4865.0	4883.8	4727.1	5517.9	7037.3	5019.0	4223.8
75°	3664.6	4738.3	5337.3	3641.2	3217.3	3224.9	3204.9	3909.9	5605.1	3491.3	3160.7
77.5°	2677.1	3385.3	4025.3	2447.9	2376.5	2332.7	2322.1	2735.7	4297.3	2535.1	2454.3
80°	2148.2	2501.1	2703.8	1696.6	1824.4	1820.9	1762.2	1881.1	2806.3	1854.2	1835.6
82.5°	1490.3	1922.1	2190.6	1329.6	1231.4	1210.7	1225.2	1401.0	1983.6	1267.4	1205.2
85°	786.2	1276.6	2169.5	1178.4	730.9	583.1	725.4	1147.2	1718.6	671.7	587.9
87.5°	100.5	369.0	1436.3	470.2	288.5	155.4	344.5	646.0	1103.6	137.0	119.6
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8
2.5°	4713.8	4619.7	4496.7	4382.7	4264.7	4147.2	3993.9	3897.8	3831.4	3818.6	3790.6
5°	4599.3	4286.7	4050.6	3846.4	3661.2	3399.3	3254.5	3134.3	3070.0	3063.8	3048.2
7.5°	4071.0	3639.8	3321.1	3031.9	2769.6	2558.3	2324.9	2216.3	2171.6	2182.1	2192.7
10°	3521.6	3039.7	2673.5	2377.9	2146.8	1968.7	1781.5	1655.0	1567.1	1549.5	1546.0
12.5°	3120.3	2591.5	2236.1	2027.2	1848.7	1681.0	1482.5	1333.1	1219.5	1180.5	1154.5
15°	2950.5	2372.4	1999.9	1775.0	1577.7	1365.0	1180.5	1024.2	919.8	885.8	866.8
17.5°	2986.7	2311.6	1837.2	1549.5	1297.3	1075.1	842.7	708.9	646.0	629.9	629.9
20°	3176.3	2300.3	1702.8	1341.8	1026.9	769.7	579.0	502.6	482.1	480.1	485.6
22.5°	3442.0	2340.0	1602.7	1161.6	798.1	562.0	450.9	422.7	413.5	415.8	422.0
25°	3837.9	2473.6	1530.0	1001.0	626.3	460.1	402.1	385.3	380.9	386.7	394.5
27.5°	4307.2	2607.1	1484.5	880.1	528.7	420.6	382.3	364.9	367.6	374.7	381.6
30°	4719.3	2716.8	1413.2	794.0	498.4	422.7	382.3	358.5	355.7	357.1	359.1
32.5°	5089.2	2791.0	1329.6	711.9	429.8	375.4	357.1	353.6	337.8	332.1	333.0
35°	5408.0	2791.0	1279.6	663.9	385.3	333.0	303.4	285.7	277.7	278.4	286.4
37.5°	5715.5	2735.0	1254.8	636.8	361.2	316.7	290.5	274.9	264.4	262.3	263.7
40°	5986.7	2653.7	1226.6	625.6	342.8	306.8	282.3	269.2	257.9	254.5	255.2
42.5°	6204.5	2587.9	1195.4	610.9	331.4	299.7	276.3	265.1	252.4	248.8	248.1
45°	6440.0	2566.1	1154.5	581.0	337.1	300.4	274.9	263.0	250.1	246.0	244.6
47.5°	6750.2	2634.7	1112.1	545.7	349.3	304.1	277.0	263.0	249.4	246.0	244.6
50°	7141.0	2795.8	1058.1	494.1	337.1	313.9	276.3	260.7	249.4	246.0	243.3
52.5°	7643.1	3013.6	987.7	434.9	330.0	337.8	274.9	256.6	246.0	241.2	236.1
55°	8253.1	3191.6	903.2	386.0	313.9	331.4	272.9	251.7	240.5	233.4	229.0
57.5°	8699.9	3255.9	795.4	354.3	291.2	320.8	269.9	245.3	233.4	227.6	222.1
60°	8611.5	3131.5	704.1	334.4	277.7	289.8	267.8	239.6	227.0	222.8	217.5
62.5°	7904.1	2806.3	645.3	325.2	269.2	264.4	269.9	234.1	221.5	216.9	215.5
65°	6842.9	2326.3	622.1	323.1	262.3	249.4	251.1	227.6	214.8	211.4	210.0
67.5°	5644.6	1877.6	601.7	330.0	253.1	238.9	232.0	219.2	208.4	204.9	202.2
70°	4451.3	1561.6	592.3	325.9	241.9	228.3	220.8	210.0	200.8	197.1	195.1
72.5°	3584.5	1319.1	587.2	321.5	227.0	214.1	207.0	197.8	187.9	186.6	184.5
75°	3033.5	1037.0	538.1	308.2	210.0	197.1	192.3	183.8	173.9	173.9	172.6
77.5°	2340.0	749.9	447.5	272.9	192.3	178.1	173.9	167.5	156.3	158.3	157.7
80°	1728.5	489.3	350.0	226.3	170.5	157.0	154.7	148.5	136.3	139.3	139.3
82.5°	1184.1	320.8	251.7	185.2	145.5	132.9	132.9	126.4	113.1	114.5	118.9
85°	594.6	220.8	187.9	143.4	113.1	106.7	106.7	101.9	88.4	89.0	94.8
87.5°	181.1	132.9	124.4	102.6	81.2	79.9	76.2	72.7	64.3	63.6	67.2
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8
2.5°	3747.2	3706.8	3658.4	3550.8	3514.7	3512.5	3545.3	3511.1	3576.3	3548.7	3579.0
5°	3021.8	2982.6	2928.0	2791.0	2707.4	2650.7	2624.1	2545.0	2602.1	2560.3	2595.2
7.5°	2222.5	2231.7	2195.7	2115.1	1933.4	1842.3	1788.6	1740.4	1782.2	1777.8	1844.3
10°	1562.3	1586.9	1561.6	1480.4	1333.1	1283.0	1292.9	1311.9	1366.6	1394.6	1497.1
12.5°	1124.7	1123.3	1107.0	1034.3	937.4	942.9	983.3	1016.4	1066.6	1096.5	1200.9
15°	839.7	827.1	819.9	760.5	705.4	717.6	737.3	740.8	772.7	790.3	875.2
17.5°	634.7	641.2	648.7	606.5	564.8	557.0	541.6	522.3	531.7	535.2	577.4
20°	503.9	529.4	548.7	518.9	476.6	453.7	434.0	421.3	421.3	420.6	432.6
22.5°	440.4	458.7	479.4	458.7	420.6	400.7	389.4	379.6	378.2	378.2	389.4
25°	406.0	419.3	439.0	425.0	396.5	381.6	371.1	358.5	353.6	352.0	359.8
27.5°	388.7	394.5	404.3	391.5	367.6	360.5	357.8	346.5	339.9	336.4	344.5
30°	359.8	358.5	359.1	346.5	327.2	326.6	331.4	333.7	331.4	330.7	342.8
32.5°	333.0	330.0	329.3	318.1	300.4	296.3	300.4	304.8	309.6	316.7	330.7
35°	299.0	306.1	310.3	300.4	279.1	266.4	261.6	253.8	249.4	249.4	265.7
37.5°	272.2	288.5	294.9	285.7	262.3	244.6	236.1	234.8	235.4	238.2	253.8
40°	263.0	274.9	280.4	271.5	248.1	232.0	227.0	225.6	227.0	231.3	246.7
42.5°	257.2	265.7	265.1	253.8	234.8	223.5	220.8	219.2	220.8	224.9	241.9
45°	252.4	257.9	252.4	238.9	221.5	215.5	216.2	215.5	216.9	221.5	237.5
47.5°	248.1	250.1	243.3	229.7	211.4	210.0	212.7	214.8	216.2	220.1	236.8
50°	241.9	241.9	235.4	221.5	202.9	203.6	207.0	212.0	212.7	216.9	230.6
52.5°	234.1	233.4	229.0	215.5	195.7	197.8	197.8	203.6	204.9	210.0	224.2
55°	227.6	226.3	224.2	211.4	189.6	193.0	190.9	193.0	196.4	201.5	216.9
57.5°	222.1	219.2	219.2	207.7	184.5	185.9	181.1	183.8	187.9	192.3	208.4
60°	216.2	213.4	214.8	202.9	176.7	175.3	173.3	178.8	180.4	185.2	201.5
62.5°	210.0	207.7	208.4	197.1	171.2	167.5	167.5	172.6	173.3	180.4	195.7
65°	204.9	202.2	201.5	191.6	164.8	160.6	162.7	164.8	166.1	173.3	187.9
67.5°	200.1	194.4	194.4	186.6	157.7	153.3	157.7	157.0	159.3	165.5	177.4
70°	193.7	185.9	186.6	183.1	150.5	145.5	149.2	148.5	149.9	154.0	166.1
72.5°	183.8	177.4	178.8	177.4	143.4	136.3	137.7	137.7	137.7	141.4	154.0
75°	171.2	166.1	170.5	173.9	134.9	125.1	126.4	126.4	124.4	126.4	142.0
77.5°	155.4	152.6	166.8	162.0	125.1	113.1	113.1	111.8	107.6	110.4	127.1
80°	138.6	136.3	154.0	135.6	113.8	98.4	96.8	93.2	89.0	91.1	108.3
82.5°	120.9	118.9	129.4	104.0	98.4	81.2	77.8	71.4	67.2	69.3	84.7
85°	99.1	99.1	99.8	78.5	74.8	62.2	58.1	49.6	44.5	45.9	60.8
87.5°	70.7	72.7	67.2	53.7	44.5	34.7	31.9	26.8	22.5	26.2	31.9
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°	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8	4344.8
2.5°	3734.6	3812.4	3900.7	4013.6	4110.7	4269.5	4422.4	4514.1
5°	2792.3	2921.8	3082.6	3290.1	3483.1	3772.7	4060.5	4245.0
7.5°	1998.3	2136.9	2310.9	2569.5	2842.6	3212.1	3592.5	3813.1
10°	1653.6	1795.7	1941.9	2116.5	2340.0	2742.1	3191.6	3440.4
12.5°	1367.9	1519.9	1677.5	1861.3	2068.3	2427.5	2945.6	3232.0
15°	1046.9	1216.5	1402.4	1635.1	1894.4	2309.5	2884.8	3195.8
17.5°	717.6	907.1	1135.2	1422.3	1739.7	2271.2	2993.8	3352.3
20°	494.1	632.0	875.9	1212.4	1594.2	2266.4	3202.9	3652.0
22.5°	413.5	475.0	653.1	1019.4	1484.5	2327.2	3527.6	4072.4
25°	382.3	419.3	521.6	851.8	1404.7	2467.2	3974.4	4616.7
27.5°	364.2	397.2	473.7	742.4	1341.8	2629.6	4409.0	5144.1
30°	371.1	405.0	460.1	686.4	1256.2	2765.3	4795.0	5555.5
32.5°	334.4	349.3	394.5	636.8	1194.7	2879.1	5132.8	5896.3
35°	285.0	310.9	352.0	613.6	1196.1	2955.5	5501.1	6331.6
37.5°	271.5	297.6	327.2	605.1	1212.4	3037.0	5923.9	6842.2
40°	263.0	287.1	312.6	600.3	1228.0	3111.1	6338.3	7346.9
42.5°	257.2	279.1	310.9	583.1	1235.8	3177.6	6678.9	7776.0
45°	256.6	279.1	316.7	566.1	1247.7	3249.0	6964.6	8093.4
47.5°	257.2	288.5	306.1	545.7	1247.7	3368.3	7299.6	8376.8
50°	254.5	304.1	294.9	516.8	1218.8	3594.6	7759.0	8756.4
52.5°	253.1	302.0	272.9	472.3	1168.5	3953.7	8347.9	9279.6
55°	249.4	291.2	257.2	406.0	1110.0	4345.5	8978.5	9898.3
57.5°	246.0	257.9	248.8	347.9	1019.4	4621.1	9412.4	10380.9
60°	275.6	225.6	241.9	319.4	898.4	4696.6	9395.7	10573.2
62.5°	255.2	211.4	232.7	313.2	813.7	4484.5	8961.5	10469.4
65°	200.1	202.2	223.5	331.4	791.0	3922.8	8192.3	9989.4
67.5°	183.1	193.0	214.1	355.0	793.3	3140.7	7043.0	8943.6
70°	172.6	183.1	203.6	366.9	798.8	2341.4	5568.2	7284.7
72.5°	160.6	169.8	191.6	369.0	761.9	1700.7	4291.8	5356.3
75°	146.2	154.7	174.6	321.5	631.3	1179.8	3283.0	3664.6
77.5°	130.1	136.3	153.3	248.1	468.8	755.0	2464.2	2677.1
80°	111.1	114.5	128.7	181.7	320.8	472.3	1949.7	2148.2
82.5°	89.0	90.4	99.8	136.3	208.4	303.4	1305.8	1490.3
85°	62.9	62.9	68.6	99.1	142.0	192.3	708.9	786.2
87.5°	29.6	30.3	30.3	54.4	74.1	97.8	163.4	100.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)