

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: P298867

Luminaire Tested: **GLNA-AF-03-LED-E1-SLL-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298867
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-7027
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 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: 13829.8 lumens
Efficiency: N/A
Efficacy: 83.3 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

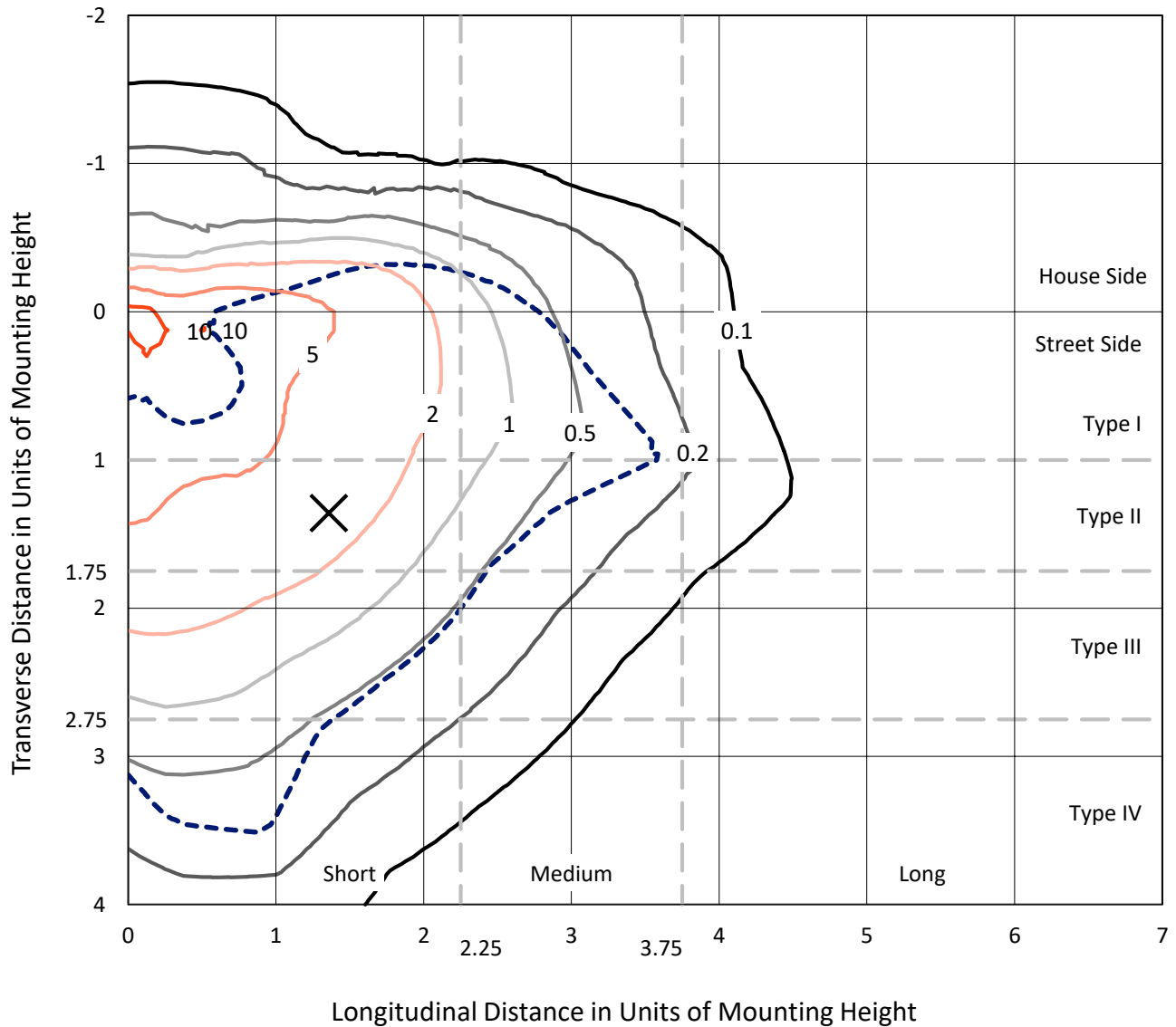
Input Watts (W): 166
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

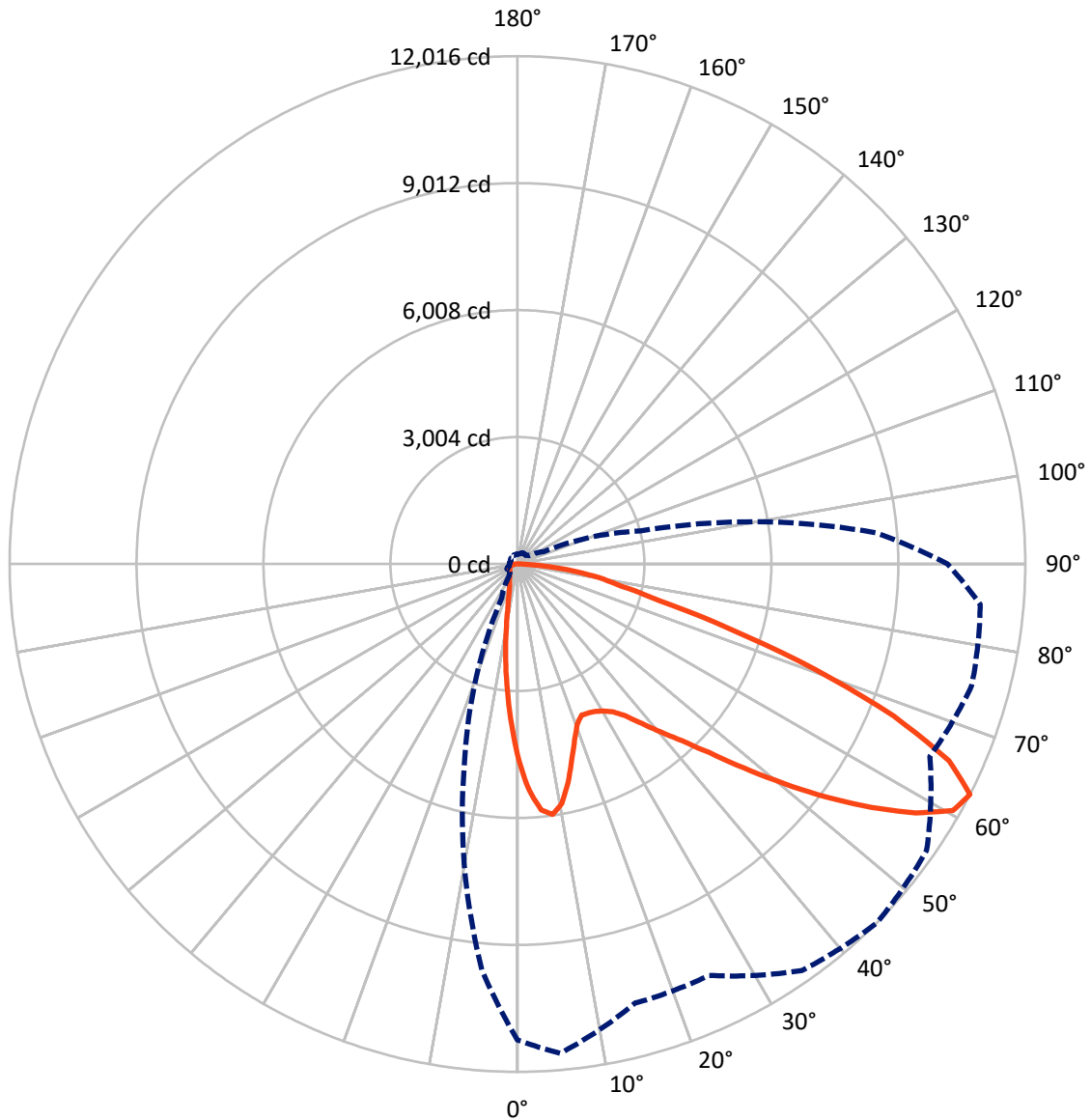
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 13.7 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	2288.6	0.0	2288.6
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	11541.2	0.0	11541.2
	% Fixture	83.5	0.0	83.5
Total	Lumens	13829.8	0.0	13829.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.1	2.5
10°-20°	623.7	4.5
20°-30°	909.4	6.6
30°-40°	1400.6	10.1
40°-50°	2061.3	14.9
50°-60°	3023.4	21.9
60°-70°	3379.8	24.4
70°-80°	1654.7	12.0
80°-90°	436.9	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°	13829.8	100.0
0°-180°	13829.8	100.0

Coefficient of Utilization



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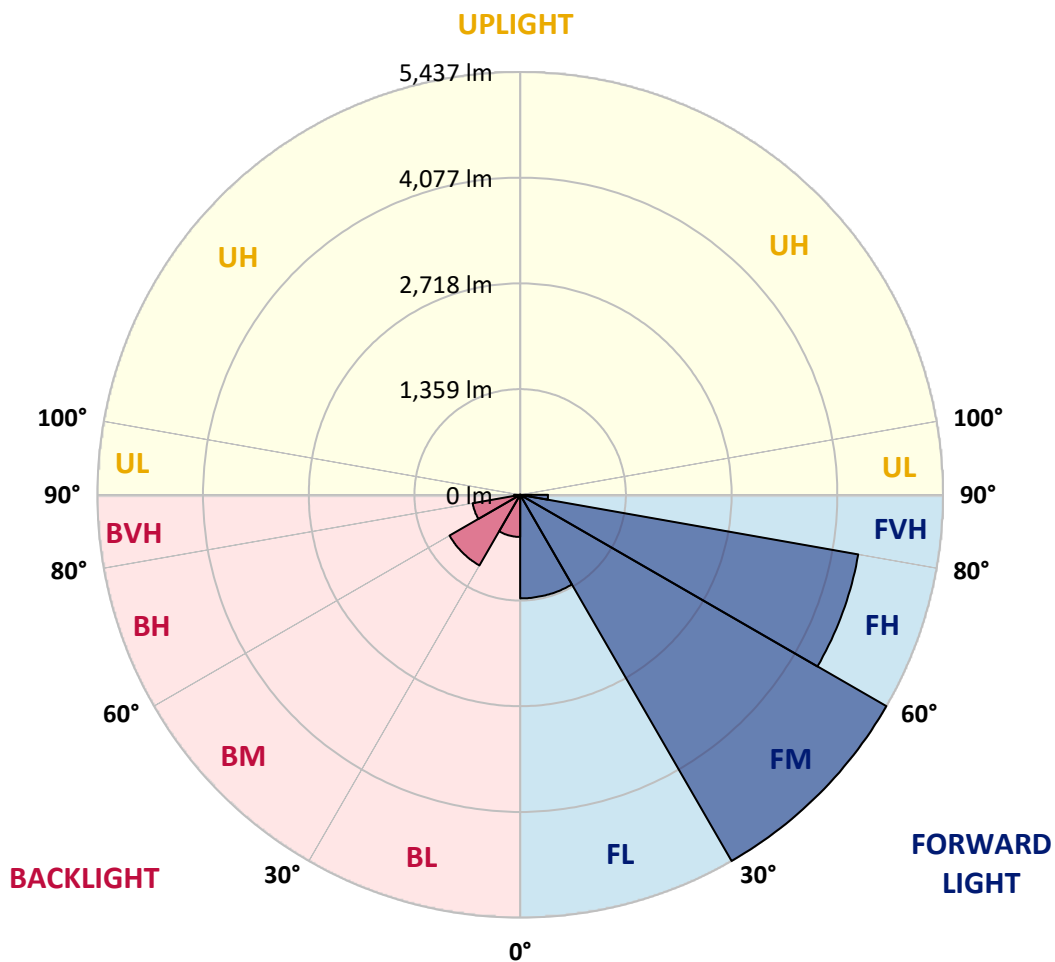
CATALOG NUMBER: GLNA-AF-03-LED-E1-SLL-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1331.8	9.6			
FM	(30°-60°)	5436.6	39.3			
FH	(60°-80°)	4414.0	31.9			G2/5000
FVH	(80°-90°)	358.8	2.6			G3/500
BL	(0°-30°)	541.5	3.9	B2/1000		
BM	(30°-60°)	1048.6	7.6	B2/2500		
BH	(60°-80°)	620.4	4.5	B2/1000		G2/1000
BVH	(80°-90°)	78.1	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°	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6
2.5°	4854.8	4932.5	5083.8	5196.8	5334.8	5366.6	5410.8	5367.4	5290.6	5188.7	5155.4
5°	4565.3	4731.1	5098.1	5421.4	5708.7	5842.4	5880.0	5769.4	5546.8	5254.1	5075.4
7.5°	4100.8	4336.5	4833.5	5309.6	5732.9	5983.1	5976.9	5720.8	5311.1	4834.3	4547.7
10°	3700.0	3969.2	4539.6	5071.7	5520.9	5763.5	5669.7	5342.4	4853.3	4304.4	3993.7
12.5°	3475.9	3739.7	4318.2	4852.5	5228.2	5311.8	5240.3	4919.4	4458.6	3903.8	3631.6
15°	3436.9	3726.9	4230.1	4665.0	4875.5	4802.7	4717.3	4573.7	4248.1	3774.5	3491.0
17.5°	3605.2	3924.3	4331.3	4534.2	4498.4	4371.3	4347.1	4363.1	4284.9	3918.2	3591.4
20°	3927.5	4310.6	4572.2	4472.7	4211.8	4036.9	4043.0	4287.1	4518.9	4282.4	3909.0
22.5°	4379.7	4817.0	4919.4	4505.3	4090.9	3883.4	3933.7	4329.1	4892.3	4814.8	4338.0
25°	4965.1	5363.7	5289.9	4623.8	4103.0	3902.4	3942.6	4473.5	5333.0	5346.9	4868.8
27.5°	5532.2	5901.9	5600.6	4781.2	4153.4	3947.3	4000.6	4700.5	5754.3	5924.6	5475.5
30°	5974.7	6231.9	5723.7	4924.8	4252.1	4034.6	4100.8	4916.5	5946.1	6314.6	5942.1
32.5°	6341.2	6525.8	5919.9	5102.8	4433.7	4172.1	4288.6	5178.8	6222.0	6685.7	6399.0
35°	6809.4	6862.0	6164.0	5301.2	4714.3	4411.8	4556.1	5435.7	6485.1	7060.4	6849.1
37.5°	7358.5	7290.9	6394.3	5572.7	5077.1	4786.4	4905.8	5717.8	6701.5	7485.4	7308.9
40°	7901.2	7738.3	6683.5	5993.7	5606.3	5228.2	5369.6	6018.9	6903.9	7911.1	7758.3
42.5°	8362.7	8121.6	6968.3	6456.7	6098.6	5715.6	5884.4	6322.2	7096.9	8274.4	8148.3
45°	8704.1	8404.4	7239.8	6901.4	6777.6	6363.2	6443.1	6669.5	7305.9	8577.9	8469.1
47.5°	9008.9	8688.8	7546.8	7350.1	7371.3	7205.5	7076.9	7074.0	7552.5	8825.7	8772.4
50°	9417.1	9083.4	7876.8	7812.1	8262.3	8152.0	7868.4	7546.1	7864.0	9107.1	9100.9
52.5°	9979.8	9708.5	8279.8	8310.2	9094.2	9166.3	8814.9	8113.5	8351.9	9623.1	9586.9
55°	10645.1	10486.7	8828.9	8882.7	10114.3	10166.1	9816.9	8822.5	9069.8	10370.7	10269.5
57.5°	11164.1	11130.8	9430.9	9570.1	10876.1	11108.9	10788.0	9643.9	9878.6	11000.0	10746.1
60°	11371.0	11532.8	10071.8	10263.3	11581.0	11838.4	11557.3	10365.0	10595.5	11260.9	10713.5
62.5°	11259.4	11621.0	10754.5	10738.4	11738.2	12015.6	11817.9	10766.5	11127.1	10991.6	10171.5
65°	10743.1	11304.1	11150.6	10616.0	11199.9	11222.6	11158.7	10587.1	11252.5	10140.9	9123.6
67.5°	9618.4	10426.0	10628.8	9567.1	9747.8	9599.7	9492.3	9604.9	10598.5	8866.0	7667.8
70°	7834.3	9049.3	9146.3	7652.0	7569.8	7470.1	7256.6	7874.6	9308.5	7266.5	6084.3
72.5°	5760.5	7037.7	7336.3	5612.2	5232.1	5252.3	5083.8	5934.2	7568.3	5397.7	4542.6
75°	3941.1	5095.9	5740.0	3915.9	3460.1	3468.2	3446.8	4204.9	6028.0	3754.8	3399.1
77.5°	2879.1	3640.8	4329.1	2632.6	2555.8	2508.7	2497.3	2942.1	4621.5	2726.4	2639.5
80°	2310.3	2689.8	2907.8	1824.6	1962.0	1958.3	1895.2	2023.0	3018.1	1994.1	1974.1
82.5°	1602.7	2067.2	2355.9	1429.9	1324.3	1302.1	1317.7	1506.7	2133.3	1363.1	1296.2
85°	845.5	1372.9	2333.2	1267.3	786.1	627.1	780.1	1233.7	1848.3	722.4	632.3
87.5°	108.1	396.9	1544.7	505.7	310.2	167.1	370.4	694.7	1186.8	147.3	128.6
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°	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6
2.5°	5069.5	4968.3	4836.0	4713.3	4586.5	4460.1	4295.3	4191.9	4120.5	4106.7	4076.6
5°	4946.3	4610.2	4356.2	4136.6	3937.4	3655.8	3500.1	3370.8	3301.7	3295.0	3278.2
7.5°	4378.2	3914.5	3571.7	3260.7	2978.6	2751.3	2500.3	2383.6	2335.4	2346.8	2358.2
10°	3787.4	3269.1	2875.2	2557.3	2308.8	2117.3	1915.9	1779.9	1685.4	1666.4	1662.7
12.5°	3355.7	2787.1	2404.8	2180.2	1988.2	1807.8	1594.3	1433.6	1311.5	1269.5	1241.6
15°	3173.1	2551.4	2150.8	1909.0	1696.7	1468.0	1269.5	1101.5	989.2	952.6	932.2
17.5°	3212.1	2486.0	1975.9	1666.4	1395.1	1156.2	906.2	762.4	694.7	677.5	677.5
20°	3415.9	2473.9	1831.2	1443.0	1104.4	827.8	622.7	540.5	518.5	516.3	522.2
22.5°	3701.7	2516.6	1723.6	1249.3	858.4	604.4	485.0	454.6	444.7	447.2	453.9
25°	4127.4	2660.2	1645.4	1076.5	673.5	494.8	432.4	414.4	409.7	415.9	424.2
27.5°	4632.1	2803.9	1596.5	946.5	568.6	452.4	411.2	392.4	395.4	403.0	410.4
30°	5075.4	2921.8	1519.8	853.9	536.0	454.6	411.2	385.5	382.5	384.0	386.2
32.5°	5473.2	3001.6	1429.9	765.6	462.3	403.8	384.0	380.3	363.3	357.1	358.1
35°	5816.0	3001.6	1376.1	714.0	414.4	358.1	326.3	307.3	298.6	299.4	308.0
37.5°	6146.7	2941.3	1349.5	684.9	388.5	340.6	312.4	295.7	284.3	282.1	283.6
40°	6438.5	2854.0	1319.1	672.8	368.7	330.0	303.6	289.5	277.4	273.7	274.4
42.5°	6672.7	2783.1	1285.6	657.0	356.4	322.3	297.1	285.1	271.5	267.5	266.8
45°	6925.9	2759.7	1241.6	624.9	362.5	323.1	295.7	282.8	269.0	264.6	263.1
47.5°	7259.6	2833.5	1196.0	586.9	375.6	327.0	297.9	282.8	268.3	264.6	263.1
50°	7679.8	3006.7	1138.0	531.4	362.5	337.6	297.1	280.4	268.3	264.6	261.6
52.5°	8219.8	3240.9	1062.2	467.7	354.9	363.3	295.7	275.9	264.6	259.4	254.0
55°	8875.8	3432.5	971.4	415.1	337.6	356.4	293.4	270.7	258.6	251.0	246.3
57.5°	9356.3	3501.6	855.4	381.1	313.2	345.0	290.2	263.8	251.0	244.8	238.9
60°	9261.3	3367.8	757.2	359.6	298.6	311.7	288.0	257.7	244.1	239.6	234.0
62.5°	8500.4	3018.1	694.0	349.7	289.5	284.3	290.2	251.7	238.2	233.2	231.7
65°	7359.3	2501.8	669.1	347.5	282.1	268.3	270.0	244.8	231.0	227.3	225.8
67.5°	6070.5	2019.3	647.1	354.9	272.2	256.9	249.5	235.7	224.1	220.4	217.4
70°	4787.1	1679.5	637.0	350.5	260.1	245.6	237.4	225.8	215.9	212.0	209.8
72.5°	3855.0	1418.6	631.6	345.8	244.1	230.3	222.6	212.7	202.1	200.6	198.4
75°	3262.4	1115.3	578.7	331.4	225.8	212.0	206.8	197.7	187.1	187.1	185.6
77.5°	2516.6	806.5	481.3	293.4	206.8	191.5	187.1	180.2	168.1	170.3	169.5
80°	1858.9	526.2	376.4	243.3	183.4	168.8	166.3	159.7	146.6	149.8	149.8
82.5°	1273.5	345.0	270.7	199.2	156.5	142.9	142.9	136.0	121.7	123.2	127.8
85°	639.5	237.4	202.1	154.2	121.7	114.8	114.8	109.6	95.0	95.8	101.9
87.5°	194.7	142.9	133.8	110.3	87.4	85.9	81.9	78.2	69.1	68.4	72.3
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°	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6
2.5°	4030.0	3986.5	3934.4	3818.7	3780.0	3777.5	3812.8	3776.0	3846.1	3816.5	3849.1
5°	3249.8	3207.6	3148.9	3001.6	2911.7	2850.8	2822.1	2737.0	2798.4	2753.5	2791.0
7.5°	2390.2	2400.1	2361.4	2274.7	2079.3	1981.3	1923.5	1871.7	1916.6	1911.9	1983.5
10°	1680.2	1706.6	1679.5	1592.1	1433.6	1379.8	1390.5	1410.9	1469.7	1499.8	1610.1
12.5°	1209.6	1208.1	1190.6	1112.3	1008.2	1014.1	1057.5	1093.1	1147.1	1179.2	1291.5
15°	903.0	889.5	881.8	817.9	758.7	771.7	793.0	796.7	831.0	850.0	941.3
17.5°	682.6	689.6	697.7	652.3	607.4	599.0	582.4	561.7	571.8	575.5	620.9
20°	542.0	569.4	590.1	558.0	512.6	487.9	466.7	453.1	453.1	452.4	465.2
22.5°	473.6	493.3	515.6	493.3	452.4	430.9	418.8	408.2	406.7	406.7	418.8
25°	436.6	450.9	472.1	457.1	426.5	410.4	399.1	385.5	380.3	378.6	387.0
27.5°	418.1	424.2	434.9	421.0	395.4	387.7	384.8	372.7	365.5	361.8	370.4
30°	387.0	385.5	386.2	372.7	351.9	351.2	356.4	358.8	356.4	355.6	368.7
32.5°	358.1	354.9	354.2	342.1	323.1	318.6	323.1	327.7	332.9	340.6	355.6
35°	321.6	329.2	333.7	323.1	300.1	286.5	281.3	273.0	268.3	268.3	285.8
37.5°	292.7	310.2	317.1	307.3	282.1	263.1	254.0	252.5	253.2	256.2	273.0
40°	282.8	295.7	301.6	292.0	266.8	249.5	244.1	242.6	244.1	248.8	265.3
42.5°	276.7	285.8	285.1	273.0	252.5	240.4	237.4	235.7	237.4	241.9	260.1
45°	271.5	277.4	271.5	256.9	238.2	231.7	232.5	231.7	233.2	238.2	255.4
47.5°	266.8	269.0	261.6	247.0	227.3	225.8	228.8	231.0	232.5	236.7	254.7
50°	260.1	260.1	253.2	238.2	218.2	218.9	222.6	228.0	228.8	233.2	248.0
52.5°	251.7	251.0	246.3	231.7	210.5	212.7	212.7	218.9	220.4	225.8	241.1
55°	244.8	243.3	241.1	227.3	203.9	207.6	205.3	207.6	211.3	216.7	233.2
57.5°	238.9	235.7	235.7	223.4	198.4	199.9	194.7	197.7	202.1	206.8	224.1
60°	232.5	229.5	231.0	218.2	190.0	188.6	186.3	192.3	194.0	199.2	216.7
62.5°	225.8	223.4	224.1	212.0	184.1	180.2	180.2	185.6	186.3	194.0	210.5
65°	220.4	217.4	216.7	206.1	177.2	172.8	175.0	177.2	178.7	186.3	202.1
67.5°	215.2	209.0	209.0	200.6	169.5	164.9	169.5	168.8	171.3	177.9	190.8
70°	208.3	199.9	200.6	196.9	161.9	156.5	160.4	159.7	161.2	165.6	178.7
72.5°	197.7	190.8	192.3	190.8	154.2	146.6	148.1	148.1	148.1	152.0	165.6
75°	184.1	178.7	183.4	187.1	145.1	134.5	136.0	136.0	133.8	136.0	152.8
77.5°	167.1	164.1	179.4	174.2	134.5	121.7	121.7	120.2	115.7	118.7	136.7
80°	149.1	146.6	165.6	145.9	122.4	105.9	104.1	100.2	95.8	98.0	116.5
82.5°	130.1	127.8	139.2	111.8	105.9	87.4	83.7	76.8	72.3	74.5	91.1
85°	106.6	106.6	107.4	84.4	80.5	66.9	62.4	53.3	47.9	49.4	65.4
87.5°	76.0	78.2	72.3	57.8	47.9	37.3	34.3	28.9	24.2	28.1	34.3
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°	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6	4672.6
2.5°	4016.4	4100.0	4195.1	4316.5	4420.9	4591.7	4756.0	4854.8
5°	3003.0	3142.2	3315.2	3538.3	3745.9	4057.4	4366.8	4565.3
7.5°	2149.1	2298.2	2485.3	2763.4	3057.1	3454.4	3863.6	4100.8
10°	1778.4	1931.2	2088.4	2276.2	2516.6	2949.0	3432.5	3700.0
12.5°	1471.2	1634.5	1804.1	2001.8	2224.4	2610.6	3167.9	3475.9
15°	1125.9	1308.3	1508.2	1758.4	2037.3	2483.8	3102.5	3436.9
17.5°	771.7	975.6	1220.9	1529.7	1871.0	2442.6	3219.7	3605.2
20°	531.4	679.7	942.0	1303.8	1714.5	2437.4	3444.6	3927.5
22.5°	444.7	510.9	702.4	1096.3	1596.5	2502.8	3793.8	4379.7
25°	411.2	450.9	561.0	916.1	1510.6	2653.3	4274.3	4965.1
27.5°	391.7	427.2	509.4	798.4	1443.0	2828.1	4741.7	5532.2
30°	399.1	435.6	494.8	738.2	1351.0	2973.9	5156.8	5974.7
32.5°	359.6	375.6	424.2	684.9	1284.8	3096.3	5520.1	6341.2
35°	306.5	334.4	378.6	659.9	1286.3	3178.5	5916.2	6809.4
37.5°	292.0	320.1	351.9	650.8	1303.8	3266.1	6370.8	7358.5
40°	282.8	308.7	336.1	645.6	1320.6	3345.8	6816.5	7901.2
42.5°	276.7	300.1	334.4	627.1	1329.0	3417.4	7182.8	8362.7
45°	275.9	300.1	340.6	608.8	1341.8	3494.2	7490.1	8704.1
47.5°	276.7	310.2	329.2	586.9	1341.8	3622.5	7850.4	9008.9
50°	273.7	327.0	317.1	555.8	1310.7	3865.8	8344.5	9417.1
52.5°	272.2	324.8	293.4	507.9	1256.7	4252.1	8977.8	9979.8
55°	268.3	313.2	276.7	436.6	1193.8	4673.4	9656.0	10645.1
57.5°	264.6	277.4	267.5	374.1	1096.3	4969.8	10122.6	11164.1
60°	296.4	242.6	260.1	343.5	966.2	5051.0	10104.6	11371.0
62.5°	274.4	227.3	250.3	336.9	875.1	4822.9	9637.7	11259.4
65°	215.2	217.4	240.4	356.4	850.7	4218.8	8810.4	10743.1
67.5°	196.9	207.6	230.3	381.8	853.2	3377.7	7574.5	9618.4
70°	185.6	196.9	218.9	394.6	859.1	2518.1	5988.3	7834.3
72.5°	172.8	182.6	206.1	396.9	819.4	1829.0	4615.6	5760.5
75°	157.2	166.3	187.8	345.8	678.9	1268.8	3530.7	3941.1
77.5°	139.9	146.6	164.9	266.8	504.2	812.0	2650.1	2879.1
80°	119.5	123.2	138.5	195.5	345.0	507.9	2096.8	2310.3
82.5°	95.8	97.2	107.4	146.6	224.1	326.3	1404.3	1602.7
85°	67.6	67.6	73.8	106.6	152.8	206.8	762.4	845.5
87.5°	31.8	32.6	32.6	58.5	79.7	105.1	175.7	108.1
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)