

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: P298927

Luminaire Tested: **GLNA-AF-03-LED-E1-SLL-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298927
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-7027-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K 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: 11172.9 lumens
Efficiency: N/A
Efficacy: 90.1 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

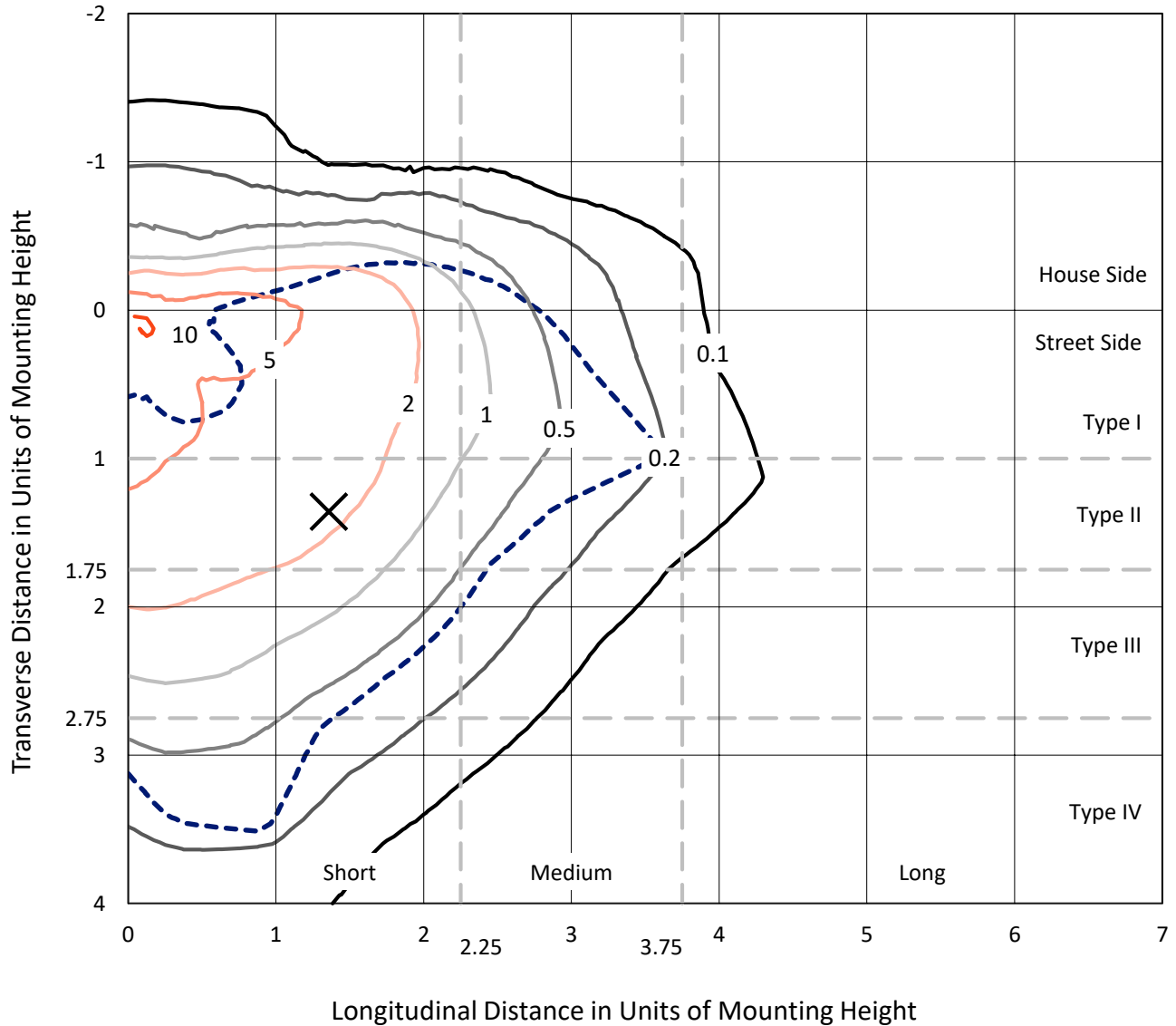


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Iso-Footcandle Lines of Horizontal Illumination

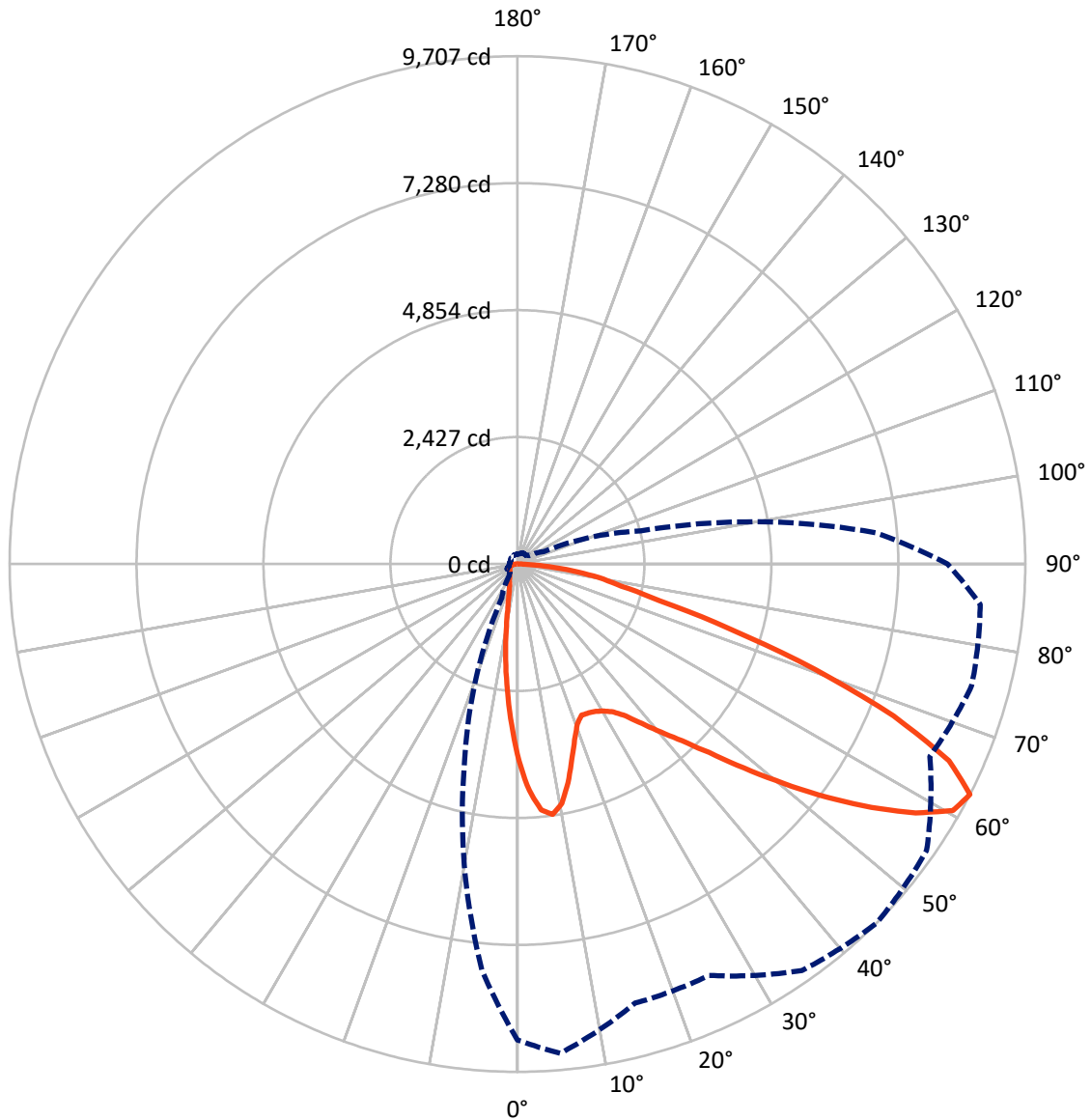
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 11.1 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	1848.9	0.0	1848.9
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	9323.9	0.0	9323.9
	% Fixture	83.5	0.0	83.5
Total	Lumens	11172.9	0.0	11172.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	274.8	2.5
10°-20°	503.9	4.5
20°-30°	734.7	6.6
30°-40°	1131.5	10.1
40°-50°	1665.3	14.9
50°-60°	2442.6	21.9
60°-70°	2730.5	24.4
70°-80°	1336.8	12.0
80°-90°	352.9	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°	11172.9	100.0
0°-180°	11172.9	100.0



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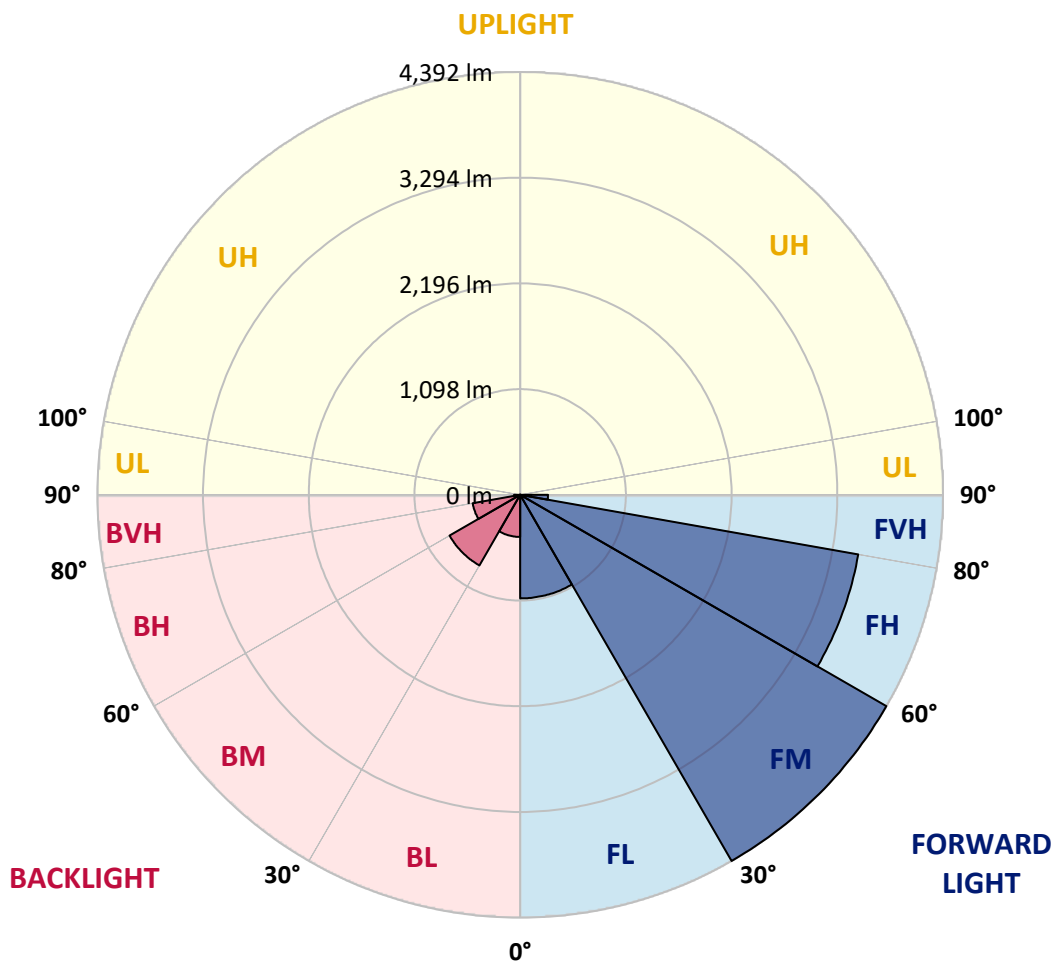
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1075.9	9.6			
FM (30°-60°)	4392.2	39.3			
FH (60°-80°)	3566.0	31.9			G2/5000
FVH (80°-90°)	289.8	2.6			G3/500
BL (0°-30°)	437.4	3.9	B1/500		
BM (30°-60°)	847.2	7.6	B1/1000		
BH (60°-80°)	501.2	4.5	B2/1000		G2/1000
BVH (80°-90°)	63.1	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°	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9
2.5°	3922.1	3984.9	4107.1	4198.4	4309.9	4335.6	4371.3	4336.2	4274.2	4191.8	4164.9
5°	3688.2	3822.2	4118.7	4379.8	4611.9	4720.0	4750.3	4661.0	4481.1	4244.7	4100.3
7.5°	3312.9	3503.4	3904.9	4289.5	4631.5	4833.6	4828.7	4621.7	4290.7	3905.5	3674.0
10°	2989.2	3206.7	3667.5	4097.3	4460.2	4656.2	4580.4	4316.0	3920.9	3477.4	3226.4
12.5°	2808.1	3021.3	3488.6	3920.3	4223.7	4291.3	4233.5	3974.3	3602.1	3153.8	2933.9
15°	2776.6	3010.9	3417.4	3768.7	3938.8	3880.0	3811.0	3695.0	3432.0	3049.4	2820.3
17.5°	2912.6	3170.4	3499.2	3663.1	3634.2	3531.5	3511.9	3524.9	3461.7	3165.4	2901.4
20°	3173.0	3482.4	3693.8	3613.4	3402.7	3261.3	3266.3	3463.5	3650.7	3459.7	3158.0
22.5°	3538.3	3891.6	3974.3	3639.7	3305.0	3137.3	3178.0	3497.4	3952.4	3889.8	3504.6
25°	4011.2	4333.2	4273.6	3735.4	3314.7	3152.6	3185.1	3614.0	4308.5	4319.6	3933.4
27.5°	4469.4	4768.0	4524.6	3862.6	3355.4	3188.9	3232.0	3797.4	4648.8	4786.4	4423.5
30°	4826.9	5034.6	4624.1	3978.7	3435.2	3259.5	3312.9	3971.9	4803.7	5101.4	4800.5
32.5°	5122.9	5272.1	4782.6	4122.4	3581.9	3370.6	3464.7	4183.9	5026.6	5401.3	5169.6
35°	5501.2	5543.6	4979.8	4282.7	3808.6	3564.2	3680.8	4391.4	5239.2	5704.0	5533.3
37.5°	5944.8	5890.2	5165.8	4502.1	4101.7	3866.8	3963.3	4619.3	5414.0	6047.3	5904.7
40°	6383.2	6251.7	5399.5	4842.2	4529.2	4223.7	4338.0	4862.6	5577.5	6391.2	6267.8
42.5°	6756.1	6561.3	5629.6	5216.3	4927.0	4617.5	4753.9	5107.6	5733.5	6684.7	6582.8
45°	7031.8	6789.8	5848.9	5575.5	5475.5	5140.7	5205.3	5388.1	5902.3	6930.0	6842.0
47.5°	7278.1	7019.5	6096.9	5938.0	5955.2	5821.2	5717.3	5714.9	6101.5	7130.1	7087.1
50°	7607.9	7338.3	6363.5	6311.3	6674.9	6585.8	6356.7	6096.3	6353.1	7357.4	7352.4
52.5°	8062.5	7843.3	6689.1	6713.6	7347.1	7405.3	7121.4	6554.7	6747.3	7774.3	7745.0
55°	8600.0	8472.0	7132.7	7176.2	8171.1	8213.0	7930.9	7127.5	7327.3	8378.3	8296.5
57.5°	9019.3	8992.4	7619.0	7731.5	8786.6	8974.6	8715.4	7791.1	7980.7	8886.7	8681.5
60°	9186.4	9317.2	8136.8	8291.5	9356.0	9564.0	9336.9	8373.7	8559.9	9097.4	8655.2
62.5°	9096.3	9388.3	8688.3	8675.4	9483.1	9707.2	9547.5	8698.1	8989.4	8879.9	8217.4
65°	8679.1	9132.3	9008.3	8576.5	9048.2	9066.5	9014.9	8553.1	9090.7	8192.6	7370.8
67.5°	7770.6	8422.9	8586.8	7729.1	7875.0	7755.4	7668.7	7759.6	8562.3	7162.6	6194.6
70°	6329.2	7310.8	7389.1	6181.9	6115.5	6034.9	5862.5	6361.7	7520.1	5870.4	4915.4
72.5°	4653.8	5685.6	5926.9	4534.0	4226.9	4243.3	4107.1	4794.2	6114.3	4360.7	3669.8
75°	3183.9	4116.9	4637.3	3163.6	2795.4	2801.9	2784.6	3397.1	4869.9	3033.4	2746.1
77.5°	2326.0	2941.3	3497.4	2126.8	2064.8	2026.7	2017.6	2376.8	3733.6	2202.6	2132.4
80°	1866.4	2173.1	2349.1	1474.0	1585.1	1582.1	1531.1	1634.3	2438.3	1611.0	1594.9
82.5°	1294.8	1670.0	1903.3	1155.2	1069.9	1051.9	1064.5	1217.2	1723.5	1101.2	1047.2
85°	683.1	1109.2	1885.0	1023.8	635.0	506.6	630.2	996.7	1493.2	583.6	510.8
87.5°	87.3	320.6	1247.9	408.5	250.6	135.0	299.3	561.3	958.8	119.0	103.9
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°	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9
2.5°	4095.5	4013.8	3906.9	3807.8	3705.3	3603.3	3470.1	3386.5	3328.9	3317.7	3293.4
5°	3996.0	3724.5	3519.3	3341.9	3181.0	2953.5	2827.7	2723.2	2667.3	2662.0	2648.4
7.5°	3537.1	3162.4	2885.5	2634.2	2406.4	2222.7	2019.9	1925.6	1886.8	1895.9	1905.1
10°	3059.7	2641.0	2322.8	2066.0	1865.2	1710.5	1547.8	1438.0	1361.6	1346.2	1343.2
12.5°	2711.0	2251.6	1942.8	1761.3	1606.2	1460.5	1288.0	1158.2	1059.5	1025.6	1003.1
15°	2563.5	2061.2	1737.6	1542.2	1370.8	1185.9	1025.6	889.8	799.1	769.6	753.1
17.5°	2595.0	2008.4	1596.3	1346.2	1127.1	934.1	732.1	615.9	561.3	547.3	547.3
20°	2759.7	1998.6	1479.4	1165.8	892.2	668.7	503.0	436.6	418.9	417.1	421.9
22.5°	2990.5	2033.1	1392.5	1009.3	693.5	488.3	391.8	367.3	359.3	361.3	366.7
25°	3334.5	2149.1	1329.3	869.7	544.1	399.8	349.3	334.8	331.0	336.0	342.7
27.5°	3742.2	2265.2	1289.8	764.6	459.4	365.5	332.2	317.0	319.4	325.6	331.6
30°	4100.3	2360.5	1227.8	689.9	433.1	367.3	332.2	311.4	309.0	310.2	312.0
32.5°	4421.7	2424.9	1155.2	618.5	373.4	326.2	310.2	307.2	293.5	288.5	289.3
35°	4698.7	2424.9	1111.8	576.8	334.8	289.3	263.6	248.2	241.3	241.9	248.8
37.5°	4965.8	2376.2	1090.2	553.3	313.8	275.1	252.4	238.9	229.7	227.9	229.1
40°	5201.5	2305.7	1065.7	543.5	297.9	266.6	245.2	233.9	224.1	221.1	221.7
42.5°	5390.7	2248.4	1038.6	530.8	287.9	260.4	240.1	230.3	219.3	216.1	215.5
45°	5595.3	2229.5	1003.1	504.8	292.9	261.0	238.9	228.5	217.3	213.7	212.5
47.5°	5864.9	2289.1	966.2	474.1	303.5	264.2	240.7	228.5	216.7	213.7	212.5
50°	6204.4	2429.1	919.4	429.3	292.9	272.8	240.1	226.5	216.7	213.7	211.3
52.5°	6640.7	2618.3	858.1	377.8	286.7	293.5	238.9	222.9	213.7	209.6	205.2
55°	7170.6	2773.0	784.8	335.4	272.8	287.9	237.1	218.7	209.0	202.8	199.0
57.5°	7558.8	2828.8	691.1	307.8	253.0	278.7	234.5	213.1	202.8	197.8	193.0
60°	7482.0	2720.8	611.7	290.5	241.3	251.8	232.7	208.2	197.2	193.6	189.0
62.5°	6867.4	2438.3	560.7	282.5	233.9	229.7	234.5	203.4	192.4	188.4	187.2
65°	5945.4	2021.1	540.5	280.7	227.9	216.7	218.1	197.8	186.6	183.6	182.4
67.5°	4904.2	1631.4	522.8	286.7	219.9	207.6	201.6	190.4	181.0	178.0	175.7
70°	3867.4	1356.8	514.6	283.1	210.1	198.4	191.8	182.4	174.5	171.3	169.5
72.5°	3114.4	1146.1	510.2	279.3	197.2	186.0	179.8	171.9	163.3	162.1	160.3
75°	2635.6	901.0	467.6	267.8	182.4	171.3	167.1	159.7	151.1	151.1	149.9
77.5°	2033.1	651.6	388.8	237.1	167.1	154.7	151.1	145.5	135.8	137.6	137.0
80°	1501.8	425.1	304.1	196.6	148.1	136.4	134.4	129.0	118.4	121.0	121.0
82.5°	1028.8	278.7	218.7	160.9	126.4	115.4	115.4	109.9	98.3	99.5	103.3
85°	516.6	191.8	163.3	124.6	98.3	92.7	92.7	88.5	76.8	77.4	82.3
87.5°	157.3	115.4	108.1	89.1	70.6	69.4	66.2	63.2	55.8	55.2	58.4
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°	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9
2.5°	3255.7	3220.6	3178.6	3085.1	3053.8	3051.8	3080.3	3050.6	3107.2	3083.3	3109.6
5°	2625.5	2591.4	2543.9	2424.9	2352.3	2303.1	2279.9	2211.2	2260.8	2224.5	2254.8
7.5°	1931.0	1939.0	1907.7	1837.7	1679.8	1600.6	1554.0	1512.1	1548.4	1544.6	1602.4
10°	1357.4	1378.7	1356.8	1286.2	1158.2	1114.8	1123.3	1139.9	1187.3	1211.7	1300.8
12.5°	977.2	976.0	961.8	898.6	814.5	819.3	854.4	883.1	926.7	952.7	1043.4
15°	729.5	718.6	712.4	660.8	612.9	623.5	640.6	643.6	671.3	686.7	760.4
17.5°	551.5	557.1	563.7	527.0	490.7	483.9	470.5	453.8	462.0	465.0	501.6
20°	437.8	460.0	476.7	450.8	414.1	394.2	377.0	366.1	366.1	365.5	375.8
22.5°	382.6	398.6	416.5	398.6	365.5	348.1	338.4	329.8	328.6	328.6	338.4
25°	352.7	364.3	381.4	369.3	344.5	331.6	322.4	311.4	307.2	305.9	312.6
27.5°	337.8	342.7	351.3	340.1	319.4	313.2	310.8	301.1	295.3	292.3	299.3
30°	312.6	311.4	312.0	301.1	284.3	283.7	287.9	289.9	287.9	287.3	297.9
32.5°	289.3	286.7	286.1	276.3	261.0	257.4	261.0	264.8	269.0	275.1	287.3
35°	259.8	266.0	269.6	261.0	242.4	231.5	227.3	220.5	216.7	216.7	230.9
37.5°	236.5	250.6	256.2	248.2	227.9	212.5	205.2	204.0	204.6	207.0	220.5
40°	228.5	238.9	243.6	235.9	215.5	201.6	197.2	196.0	197.2	201.0	214.3
42.5°	223.5	230.9	230.3	220.5	204.0	194.2	191.8	190.4	191.8	195.4	210.1
45°	219.3	224.1	219.3	207.6	192.4	187.2	187.8	187.2	188.4	192.4	206.4
47.5°	215.5	217.3	211.3	199.6	183.6	182.4	184.8	186.6	187.8	191.2	205.8
50°	210.1	210.1	204.6	192.4	176.3	176.9	179.8	184.2	184.8	188.4	200.4
52.5°	203.4	202.8	199.0	187.2	170.1	171.9	171.9	176.9	178.0	182.4	194.8
55°	197.8	196.6	194.8	183.6	164.7	167.7	165.9	167.7	170.7	175.1	188.4
57.5°	193.0	190.4	190.4	180.4	160.3	161.5	157.3	159.7	163.3	167.1	181.0
60°	187.8	185.4	186.6	176.3	153.5	152.3	150.5	155.3	156.7	160.9	175.1
62.5°	182.4	180.4	181.0	171.3	148.7	145.5	145.5	149.9	150.5	156.7	170.1
65°	178.0	175.7	175.1	166.5	143.2	139.6	141.4	143.2	144.4	150.5	163.3
67.5°	173.9	168.9	168.9	162.1	137.0	133.2	137.0	136.4	138.4	143.8	154.1
70°	168.3	161.5	162.1	159.1	130.8	126.4	129.6	129.0	130.2	133.8	144.4
72.5°	159.7	154.1	155.3	154.1	124.6	118.4	119.6	119.6	119.6	122.8	133.8
75°	148.7	144.4	148.1	151.1	117.2	108.7	109.9	109.9	108.1	109.9	123.4
77.5°	135.0	132.6	145.0	140.8	108.7	98.3	98.3	97.1	93.5	95.9	110.5
80°	120.4	118.4	133.8	117.8	98.9	85.5	84.1	80.9	77.4	79.2	94.1
82.5°	105.1	103.3	112.5	90.3	85.5	70.6	67.6	62.0	58.4	60.2	73.6
85°	86.1	86.1	86.7	68.2	65.0	54.0	50.4	43.1	38.7	39.9	52.8
87.5°	61.4	63.2	58.4	46.7	38.7	30.1	27.7	23.3	19.5	22.7	27.7
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°	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9	3774.9
2.5°	3244.8	3312.4	3389.1	3487.2	3571.5	3709.5	3842.3	3922.1
5°	2426.1	2538.5	2678.3	2858.6	3026.2	3277.9	3527.9	3688.2
7.5°	1736.2	1856.7	2007.8	2232.5	2469.8	2790.8	3121.3	3312.9
10°	1436.8	1560.2	1687.2	1838.9	2033.1	2382.4	2773.0	2989.2
12.5°	1188.5	1320.5	1457.5	1617.2	1797.0	2109.1	2559.3	2808.1
15°	909.6	1056.9	1218.4	1420.6	1645.9	2006.6	2506.4	2776.6
17.5°	623.5	788.2	986.3	1235.8	1511.5	1973.3	2601.2	2912.6
20°	429.3	549.1	761.0	1053.3	1385.1	1969.1	2782.8	3173.0
22.5°	359.3	412.7	567.4	885.7	1289.8	2021.9	3064.9	3538.3
25°	332.2	364.3	453.2	740.1	1220.4	2143.6	3453.1	4011.2
27.5°	316.4	345.1	411.5	645.0	1165.8	2284.7	3830.7	4469.4
30°	322.4	351.9	399.8	596.4	1091.4	2402.6	4166.1	4826.9
32.5°	290.5	303.5	342.7	553.3	1038.0	2501.5	4459.6	5122.9
35°	247.6	270.2	305.9	533.2	1039.2	2567.9	4779.6	5501.2
37.5°	235.9	258.6	284.3	525.8	1053.3	2638.6	5146.9	5944.8
40°	228.5	249.4	271.6	521.6	1066.9	2703.0	5507.0	6383.2
42.5°	223.5	242.4	270.2	506.6	1073.7	2760.9	5802.8	6756.1
45°	222.9	242.4	275.1	491.9	1084.0	2822.9	6051.1	7031.8
47.5°	223.5	250.6	266.0	474.1	1084.0	2926.5	6342.2	7278.1
50°	221.1	264.2	256.2	449.0	1058.9	3123.1	6741.3	7607.9
52.5°	219.9	262.4	237.1	410.3	1015.3	3435.2	7253.0	8062.5
55°	216.7	253.0	223.5	352.7	964.4	3775.5	7800.9	8600.0
57.5°	213.7	224.1	216.1	302.3	885.7	4015.0	8177.9	9019.3
60°	239.5	196.0	210.1	277.5	780.6	4080.6	8163.3	9186.4
62.5°	221.7	183.6	202.2	272.2	707.0	3896.3	7786.1	9096.3
65°	173.9	175.7	194.2	287.9	687.3	3408.3	7117.8	8679.1
67.5°	159.1	167.7	186.0	308.4	689.3	2728.8	6119.3	7770.6
70°	149.9	159.1	176.9	318.8	694.1	2034.3	4837.8	6329.2
72.5°	139.6	147.5	166.5	320.6	662.0	1477.6	3728.9	4653.8
75°	127.0	134.4	151.7	279.3	548.5	1025.0	2852.4	3183.9
77.5°	113.1	118.4	133.2	215.5	407.3	656.0	2141.0	2326.0
80°	96.5	99.5	111.9	157.9	278.7	410.3	1694.0	1866.4
82.5°	77.4	78.6	86.7	118.4	181.0	263.6	1134.5	1294.8
85°	54.6	54.6	59.6	86.1	123.4	167.1	615.9	683.1
87.5°	25.7	26.3	26.3	47.3	64.4	84.9	142.0	87.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)