

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: P301723

Luminaire Tested: **GLNA-AF-08-LED-E1-T2R-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301723
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194759)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-08-LED-E1-T2R-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31555.7 lumens
Efficiency: N/A
Efficacy: 122.8 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

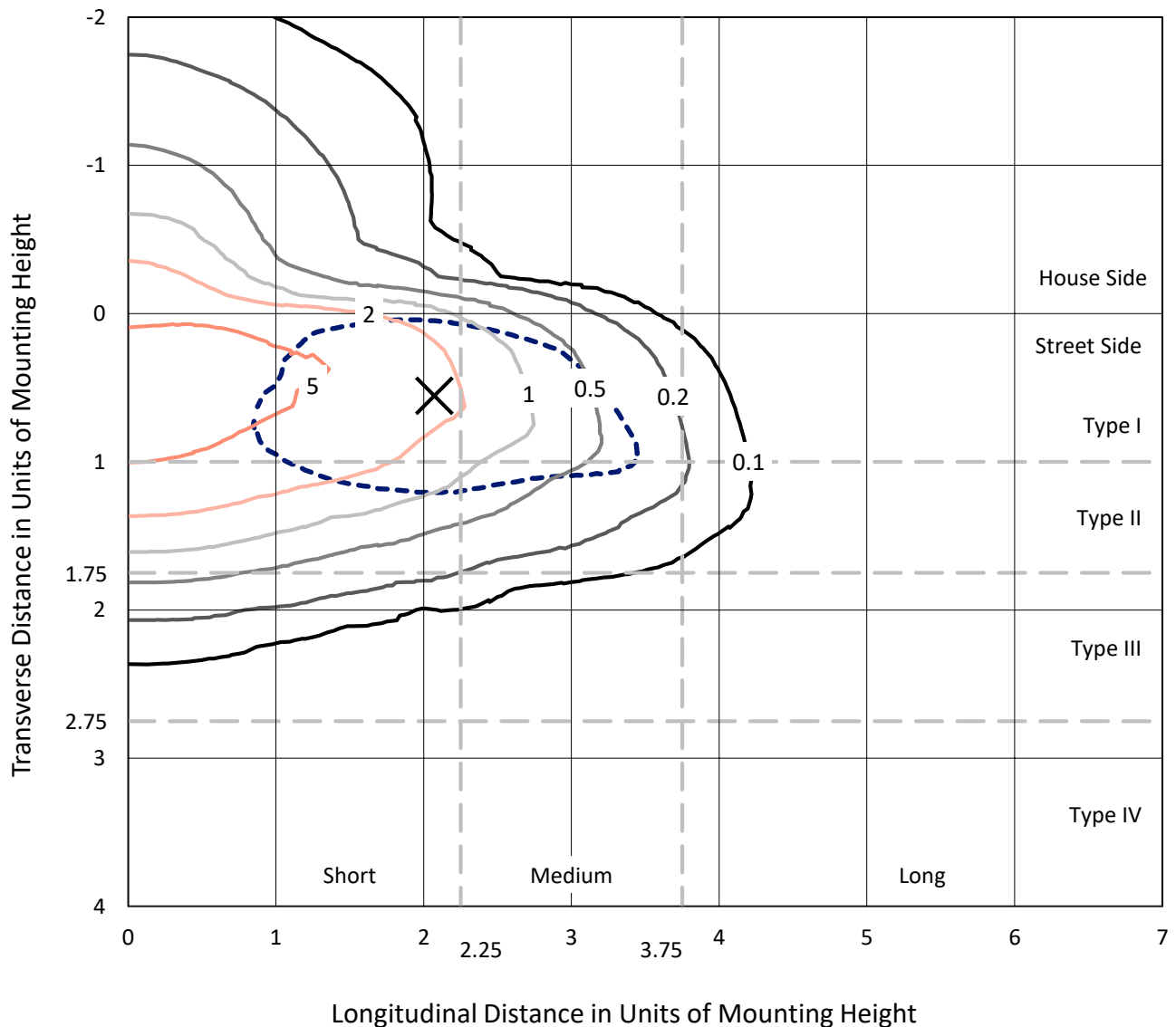
Input Watts (W): 257
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

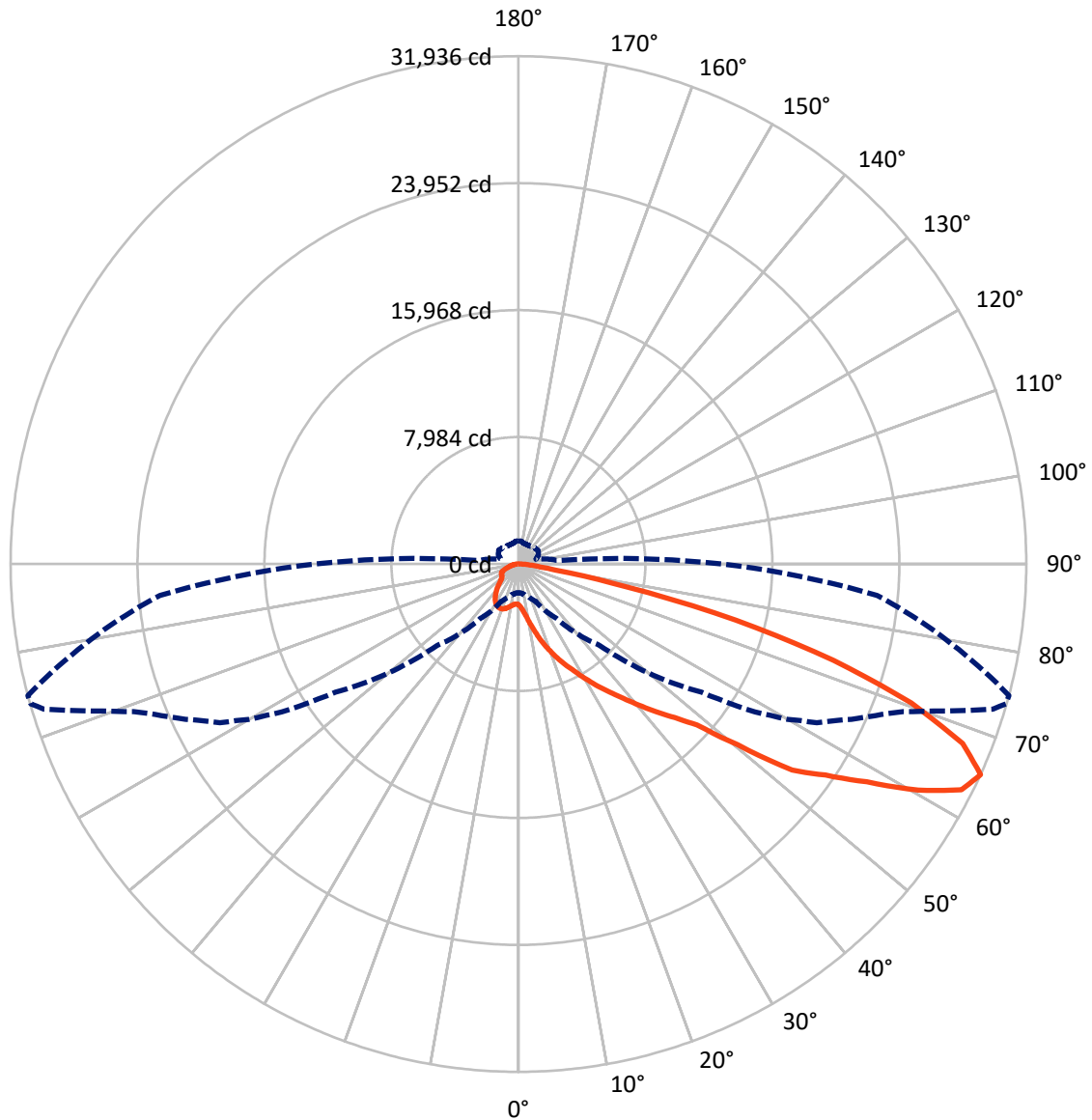
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 8.8 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	4865.1	0.0	4865.1
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	26690.5	0.0	26690.5
	% Fixture	84.6	0.0	84.6
Total	Lumens	31555.7	0.0	31555.7
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	317.0	1.0
10°-20°	1238.5	3.9
20°-30°	2541.0	8.1
30°-40°	4275.2	13.5
40°-50°	5907.1	18.7
50°-60°	7373.8	23.4
60°-70°	6635.6	21.0
70°-80°	2781.6	8.8
80°-90°	486.0	1.5
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°	31555.7	100.0
0°-180°	31555.7	100.0

Coefficient of Utilization



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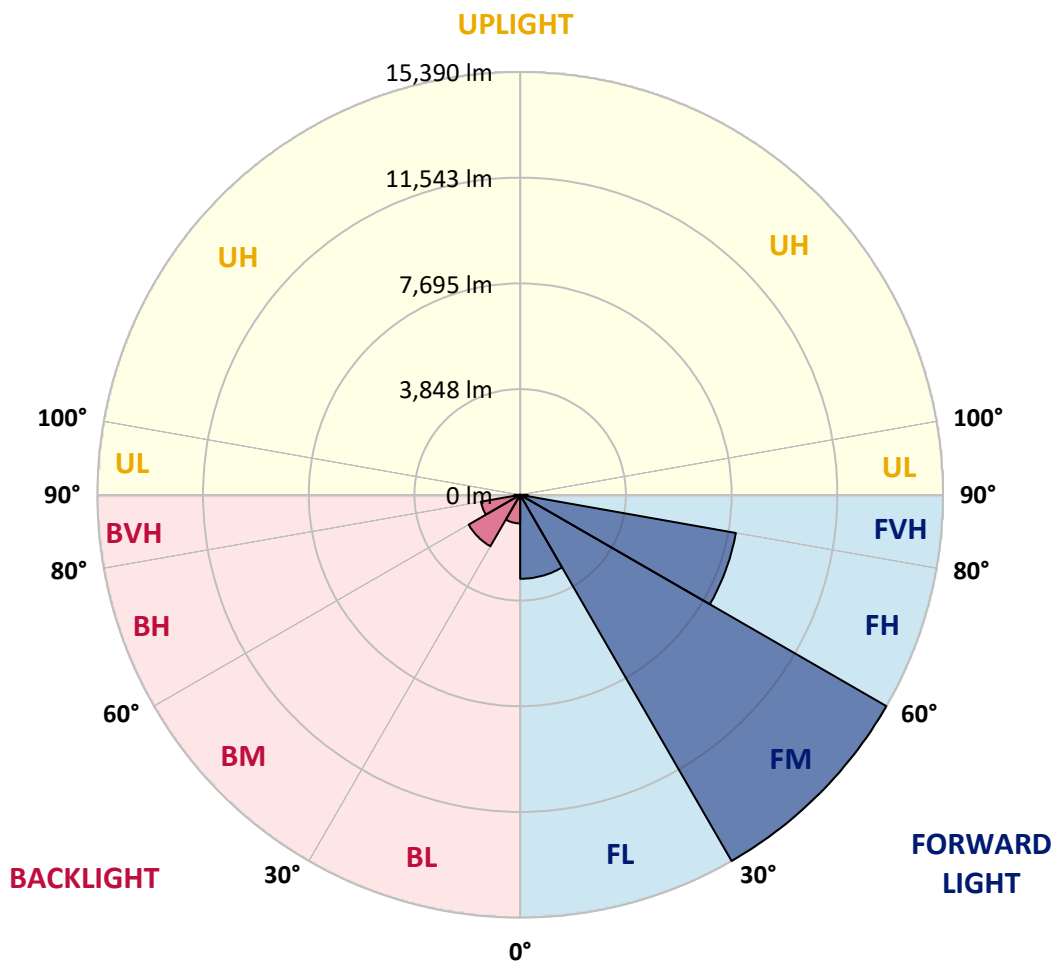
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3056.1	9.7			
FM	(30°-60°)	15390.4	48.8			
FH	(60°-80°)	7970.9	25.3			G4/12000
FVH	(80°-90°)	273.2	0.9			G3/500
BL	(0°-30°)	1040.5	3.3	B3/2500		
BM	(30°-60°)	2165.5	6.9	B2/2500		
BH	(60°-80°)	1446.4	4.6	B3/2500		G3/2500
BVH	(80°-90°)	212.8	0.7			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5
2.5°	3256.1	3220.3	3229.1	3169.3	3096.2	3000.5	2894.6	2893.3	2894.6	2884.0	2845.4
5°	4514.9	4471.9	4455.5	4320.8	4123.7	3843.2	3538.4	3505.6	3491.9	3457.7	3378.4
7.5°	5433.8	5409.9	5384.2	5282.8	5103.8	4790.1	4380.7	4310.7	4243.3	4226.9	4137.4
10°	6026.7	6020.5	5966.9	5939.8	5828.2	5556.1	5157.4	5090.0	5016.9	4991.7	4897.3
12.5°	6495.4	6494.1	6468.9	6476.4	6378.9	6182.2	5838.4	5777.2	5723.6	5645.6	5578.7
15°	6819.8	6821.1	6858.8	6900.4	6885.3	6752.4	6429.9	6402.8	6356.8	6303.2	6223.8
17.5°	7085.6	7093.2	7131.7	7207.9	7290.3	7279.7	7024.5	7001.9	6961.6	6888.5	6846.8
20°	7686.0	7714.3	7639.9	7639.9	7648.8	7689.1	7566.4	7548.6	7491.9	7452.9	7420.1
22.5°	8700.2	8733.0	8564.2	8392.7	8223.9	8101.1	7978.9	8001.0	7962.5	7935.4	7915.9
25°	10017.4	10043.1	9769.8	9480.0	9136.2	8688.2	8385.2	8371.4	8350.6	8334.2	8325.3
27.5°	11257.1	11267.8	11009.5	10585.0	10186.2	9542.5	8797.2	8780.8	8755.6	8724.1	8697.1
30°	12317.9	12314.8	12048.9	11644.0	11216.8	10504.4	9423.3	9372.3	9297.4	9212.4	9146.8
32.5°	13236.4	13231.9	12940.4	12520.8	12072.8	11457.4	10280.6	10176.1	10059.5	9893.4	9793.7
35°	13959.0	13956.3	13681.2	13243.9	12729.9	12355.1	11263.4	11134.9	10986.9	10764.5	10610.7
37.5°	14232.4	14232.4	14078.6	13780.0	13325.9	13068.9	12355.1	12199.6	12041.4	11788.8	11615.6
40°	14072.4	14075.5	14108.3	14053.4	13832.3	13635.1	13373.7	13281.1	13145.1	12918.2	12737.5
42.5°	13536.3	13552.7	13771.1	14038.3	14148.6	14117.6	14277.1	14235.5	14139.8	13965.2	13821.7
45°	12856.6	12907.6	13146.4	13651.5	14236.8	14534.1	15034.3	15038.8	15021.1	14927.1	14816.4
47.5°	11923.5	11994.9	12310.3	12992.7	14030.8	14939.1	15803.5	15843.8	15881.5	15820.4	15769.4
50°	10683.8	10768.9	11240.8	12146.0	13611.2	15358.7	17256.8	17439.3	17609.5	17588.7	17622.8
52.5°	9355.9	9456.1	10033.8	11042.3	12889.9	15455.7	18185.9	18483.2	18780.5	19023.8	19282.1
55°	8157.9	8104.2	8682.5	9744.1	11703.8	15017.9	19021.1	19379.6	19711.0	20009.6	20317.5
57.5°	6534.4	6622.6	7202.1	8252.2	10134.0	13782.7	19595.8	20120.4	20596.7	21091.1	21527.1
60°	4776.3	4864.5	5493.2	6559.7	8429.9	11909.8	19156.7	19951.6	20714.5	21471.7	22063.2
62.5°	2884.0	2950.0	3503.8	4519.8	6500.3	9689.1	17200.1	18242.6	19365.8	20271.0	21177.5
65°	1795.3	1832.5	2037.2	2596.0	4174.6	7233.6	14053.4	15189.9	16399.4	17548.3	18490.8
67.5°	1469.7	1483.0	1520.6	1639.8	2292.5	4717.0	10459.6	11466.3	12558.0	13669.2	14718.0
70°	1321.7	1312.8	1312.8	1320.4	1469.7	2536.1	6848.1	7503.9	8413.5	9379.8	10338.7
72.5°	1193.2	1184.3	1167.9	1145.8	1199.4	1547.2	3539.7	4034.2	4689.9	5548.6	6467.1
75°	1072.2	1060.3	1041.2	1012.9	1050.1	1167.9	1699.6	1907.4	2226.9	2684.1	3196.3
77.5°	946.8	931.8	914.1	893.2	941.1	908.3	996.0	1070.9	1193.2	1339.9	1532.6
80°	805.1	791.8	785.6	775.4	832.1	691.6	703.6	749.7	821.5	900.8	990.3
82.5°	630.5	630.5	654.0	658.8	721.3	497.6	525.9	566.2	603.5	645.1	687.2
85°	415.2	418.3	498.9	530.4	568.9	334.5	394.3	407.6	437.8	461.7	479.4
87.5°	129.8	140.5	304.8	337.6	327.0	189.6	241.9	248.1	268.9	285.3	300.4
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5
2.5°	2845.4	2827.2	2810.9	2809.5	2797.6	2781.2	2786.9	2761.7	2763.0	2749.7	2734.6
5°	3345.6	3333.7	3273.9	3257.5	3212.7	3184.4	3179.9	3120.1	3112.6	3078.5	3040.8
7.5°	4065.6	4026.6	3942.9	3902.6	3826.4	3769.7	3743.1	3663.8	3624.8	3535.3	3495.0
10°	4819.7	4770.6	4667.3	4610.6	4537.5	4446.2	4397.1	4282.3	4237.1	4155.1	4056.8
12.5°	5518.9	5469.7	5363.4	5320.0	5222.9	5125.9	5072.3	4942.5	4884.0	4752.4	4674.9
15°	6165.4	6116.2	6023.6	5978.8	5881.8	5802.5	5730.7	5602.7	5534.0	5411.2	5309.8
17.5°	6792.7	6740.5	6659.8	6619.5	6525.6	6444.9	6367.4	6246.0	6176.0	6053.7	5962.4
20°	7375.4	7336.4	7278.4	7224.3	7130.4	7057.3	6964.7	6860.1	6758.6	6668.7	6582.3
22.5°	7883.1	7868.1	7805.6	7781.7	7701.0	7638.1	7557.5	7454.7	7381.1	7267.7	7187.1
25°	8320.9	8316.5	8286.3	8278.8	8222.1	8162.3	8144.6	8059.5	7992.1	7892.0	7808.7
27.5°	8697.1	8701.5	8694.4	8715.2	8700.2	8673.1	8674.9	8646.6	8607.6	8523.8	8450.7
30°	9115.3	9091.4	9105.1	9134.8	9143.7	9146.8	9196.0	9212.4	9209.7	9154.3	9118.4
32.5°	9706.8	9650.1	9597.8	9593.4	9623.1	9635.1	9718.8	9762.2	9799.4	9812.7	9818.9
35°	10460.9	10347.5	10238.5	10180.5	10129.5	10142.8	10202.6	10273.1	10355.1	10411.8	10479.1
37.5°	11410.9	11272.2	11079.5	10942.1	10907.6	10833.1	10871.7	10927.1	11007.7	11095.9	11212.4
40°	12562.4	12352.0	12135.3	11953.2	11854.9	11717.1	11715.7	11705.1	11754.7	11836.7	12001.1
42.5°	13671.0	13484.0	13254.1	13063.1	12934.6	12750.7	12713.5	12616.5	12638.6	12710.4	12870.4
45°	14708.7	14554.9	14414.5	14193.8	14084.4	13885.9	13823.0	13708.2	13644.0	13676.8	13836.7
47.5°	15714.0	15615.7	15469.0	15325.9	15242.1	15064.5	14983.8	14901.4	14819.5	14816.4	14983.8
50°	17673.7	17621.4	17448.2	17298.9	17339.2	17121.2	17134.5	16913.4	17013.5	17025.5	17376.4
52.5°	19515.1	19697.7	19826.2	19982.6	20084.5	20104.0	20170.9	20271.0	20392.0	20630.8	20956.5
55°	20569.6	20798.3	20931.2	21050.8	21248.0	21289.6	21401.7	21534.7	21640.6	21909.5	22186.0
57.5°	21823.1	22247.1	22453.2	22642.8	22908.6	23010.1	23197.1	23342.0	23479.3	23797.4	24132.0
60°	22594.9	23112.0	23531.6	23831.6	24164.7	24404.0	24686.2	24913.1	25235.6	25616.7	26115.6
62.5°	21981.3	22739.8	23297.2	23812.5	24264.9	24722.1	25126.7	25551.1	26040.7	26617.1	27391.2
65°	19536.4	20308.2	21262.6	21797.4	22396.4	23101.4	23716.8	24404.0	25071.3	25910.9	27054.9
67.5°	15727.8	16625.0	17697.7	18236.9	18925.4	19712.3	20402.6	21241.8	22021.6	23038.5	24453.2
70°	11336.5	12496.9	13399.0	13962.1	14765.8	15576.7	16243.0	17219.6	17864.7	18907.2	20369.8
72.5°	7178.2	8093.6	9199.1	9908.4	10622.2	11444.1	12125.1	12967.4	13569.1	14519.0	15843.8
75°	3859.6	4534.4	5505.2	6179.1	6943.8	7645.7	8443.2	9007.7	9453.0	10204.4	11279.7
77.5°	1808.6	2219.4	2710.7	3229.1	3747.5	4288.1	4814.0	5270.8	5462.2	5892.4	6526.9
80°	1097.9	1230.9	1374.0	1533.9	1750.6	1925.2	2156.9	2323.9	2335.9	2471.9	2666.0
82.5°	733.3	782.5	825.9	866.2	921.6	965.0	1014.2	1072.2	1096.2	1127.6	1190.5
85°	500.2	524.2	533.0	558.7	552.5	567.6	587.1	606.6	616.8	615.4	643.8
87.5°	307.5	319.5	325.7	331.4	327.0	321.2	330.1	340.7	343.4	334.5	337.6
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5
2.5°	2737.7	2724.5	2710.7	2701.9	2698.8	2619.9	2585.3	2563.2	2515.3	2476.3	2444.9
5°	3020.0	2991.6	2969.5	2942.4	2927.4	2727.1	2654.0	2603.5	2519.8	2470.6	2425.4
7.5°	3474.1	3394.8	3348.7	3296.5	3251.7	2890.2	2769.2	2689.9	2573.4	2507.8	2456.8
10°	3989.4	3907.5	3833.9	3753.3	3683.3	3106.8	2930.5	2807.8	2654.0	2568.9	2501.6
12.5°	4564.5	4483.9	4391.3	4288.1	4198.6	3381.5	3136.5	2961.9	2751.0	2637.6	2543.7
15°	5244.2	5102.0	4989.9	4870.7	4766.1	3710.3	3377.1	3135.2	2854.3	2700.5	2575.1
17.5°	5875.6	5726.3	5574.3	5469.7	5348.8	4078.9	3619.0	3311.1	2939.3	2740.8	2580.9
20°	6492.8	6329.7	6198.6	6058.1	5931.0	4461.3	3877.3	3466.6	2994.7	2742.2	2543.7
22.5°	7036.4	6934.5	6788.3	6635.9	6507.4	4843.7	4119.2	3598.2	3015.6	2708.1	2477.7
25°	7654.5	7547.3	7367.9	7239.4	7096.3	5233.6	4356.7	3699.7	3003.6	2643.8	2376.2
27.5°	8314.7	8195.5	8011.6	7877.4	7704.1	5638.1	4574.7	3772.8	2958.8	2539.2	2240.2
30°	9003.2	8894.2	8713.5	8577.9	8402.9	6067.0	4818.4	3821.9	2869.3	2394.4	2082.0
32.5°	9742.7	9651.5	9472.5	9330.7	9143.7	6531.3	5045.3	3837.0	2733.3	2222.5	1915.0
35°	10444.6	10382.1	10231.0	10098.1	9904.0	6970.4	5285.9	3829.5	2572.0	2034.1	1762.5
37.5°	11235.0	11197.3	11122.9	10954.1	10716.6	7566.4	5574.3	3798.0	2374.9	1847.6	1646.0
40°	12077.3	12080.4	11999.7	11884.5	11663.4	8289.4	5917.7	3736.9	2159.5	1683.2	1539.7
42.5°	12968.7	13015.3	12976.3	12894.3	12682.1	9018.3	6328.4	3662.4	1950.8	1523.3	1435.6
45°	13990.5	14047.2	14107.0	13986.0	13780.0	9980.2	6869.0	3565.4	1724.9	1390.4	1363.8
47.5°	15169.0	15258.5	15312.1	15313.9	15107.9	11172.1	7747.1	3506.9	1525.1	1300.9	1329.2
50°	17655.6	17684.4	17811.1	18032.2	17874.0	13930.6	9281.0	3471.0	1389.0	1245.5	1304.0
52.5°	21238.7	21551.1	21770.8	21755.8	21540.4	15682.6	10126.4	3285.8	1308.4	1224.7	1292.0
55°	22698.2	23088.1	23494.4	23601.6	23434.6	17177.9	10925.7	3100.6	1269.4	1239.7	1296.4
57.5°	24642.8	25299.9	25857.3	26091.7	25849.7	19091.1	11977.1	3003.6	1257.4	1280.0	1324.8
60°	26914.5	27727.0	28459.0	28879.9	28879.9	21289.6	13067.5	2963.3	1241.0	1339.9	1372.6
62.5°	28373.9	29567.1	30672.6	31289.3	31271.2	22820.5	13551.4	2825.9	1203.8	1381.5	1438.2
65°	28379.7	29798.9	31206.9	31900.3	31935.8	22632.6	12752.5	2495.8	1135.2	1387.7	1504.2
67.5°	26014.1	27526.8	29168.4	29943.7	30122.7	20834.2	11039.2	2052.3	1023.1	1327.9	1528.2
70°	21970.6	23447.8	25123.6	25885.6	26203.8	17760.1	8891.1	1581.8	879.9	1196.3	1478.5
72.5°	17309.1	18757.9	19924.5	20481.5	20729.6	13575.3	6474.6	1195.0	721.3	1008.0	1345.6
75°	12254.9	13342.2	13962.1	14086.2	14124.7	8183.6	3934.0	888.8	594.6	784.2	1136.5
77.5°	6916.8	7382.9	7332.0	7387.4	6927.4	3159.1	1713.4	636.3	490.0	595.9	881.3
80°	2700.5	2784.3	2615.5	2563.2	2350.9	1175.5	755.9	443.5	391.2	451.0	616.8
82.5°	1190.5	1229.1	1193.2	1202.5	1150.2	606.6	452.4	321.2	298.6	330.1	409.4
85°	655.7	667.7	664.6	684.1	655.7	241.9	214.9	197.2	209.1	224.2	262.7
87.5°	319.5	322.6	312.4	328.8	318.1	122.3	105.9	112.1	122.3	125.4	125.4
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):

	135°	145°	155°	165°	175°	180°
0°	2564.5	2564.5	2564.5	2564.5	2564.5	2564.5
2.5°	2422.7	2410.8	2412.1	2409.0	2403.2	2403.2
5°	2401.9	2389.9	2389.9	2386.8	2379.3	2380.6
7.5°	2422.7	2403.2	2395.7	2385.1	2374.9	2374.9
10°	2446.6	2412.1	2391.3	2373.5	2359.8	2359.8
12.5°	2464.4	2410.8	2376.2	2352.3	2339.0	2339.0
15°	2470.6	2400.1	2352.3	2323.9	2312.0	2310.6
17.5°	2451.1	2359.8	2301.8	2269.0	2253.9	2249.5
20°	2391.3	2286.7	2216.7	2179.0	2158.2	2150.7
22.5°	2301.8	2182.1	2100.2	2061.2	2034.1	2029.7
25°	2176.4	2047.9	1967.2	1929.6	1915.0	1910.1
27.5°	2029.7	1910.1	1841.4	1817.5	1804.2	1802.9
30°	1891.0	1789.1	1738.6	1720.5	1704.1	1701.4
32.5°	1760.8	1696.5	1677.5	1651.8	1613.2	1608.8
35°	1668.2	1662.4	1649.1	1592.0	1544.6	1530.8
37.5°	1611.5	1666.8	1598.2	1486.1	1451.9	1448.8
40°	1578.7	1620.8	1502.5	1463.9	1466.6	1463.9
42.5°	1504.2	1547.2	1505.6	1487.8	1499.4	1502.5
45°	1429.4	1477.2	1528.2	1516.2	1544.6	1544.6
47.5°	1387.7	1459.0	1526.4	1526.4	1568.5	1583.1
50°	1339.9	1444.4	1502.5	1523.3	1556.5	1544.6
52.5°	1336.8	1418.7	1468.3	1505.6	1520.6	1506.9
55°	1341.2	1397.9	1433.8	1475.9	1493.6	1494.9
57.5°	1347.4	1385.9	1409.9	1429.4	1483.0	1483.0
60°	1362.0	1375.7	1389.0	1399.7	1469.7	1471.0
62.5°	1385.9	1365.1	1362.0	1372.6	1462.1	1456.4
65°	1423.6	1350.0	1327.9	1338.1	1454.6	1436.9
67.5°	1474.1	1327.9	1284.5	1292.0	1448.8	1409.9
70°	1520.6	1292.0	1230.9	1223.3	1392.1	1323.5
72.5°	1525.1	1250.4	1156.0	1133.8	1210.0	1144.0
75°	1450.2	1221.6	1074.0	1008.0	999.1	990.3
77.5°	1307.1	1205.2	978.3	875.1	857.3	863.1
80°	1093.5	1144.0	863.1	740.8	837.9	827.7
82.5°	817.0	1009.8	733.3	655.7	654.0	578.2
85°	454.1	787.3	597.3	491.4	342.1	331.4
87.5°	127.2	437.8	418.3	277.8	189.6	197.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)