

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: P301590

Luminaire Tested: **GLNA-AF-06-LED-E1-T2R-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301590
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-06-LED-E1-T2R-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 32110.3 lumens
Efficiency: N/A
Efficacy: 96.4 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 333
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

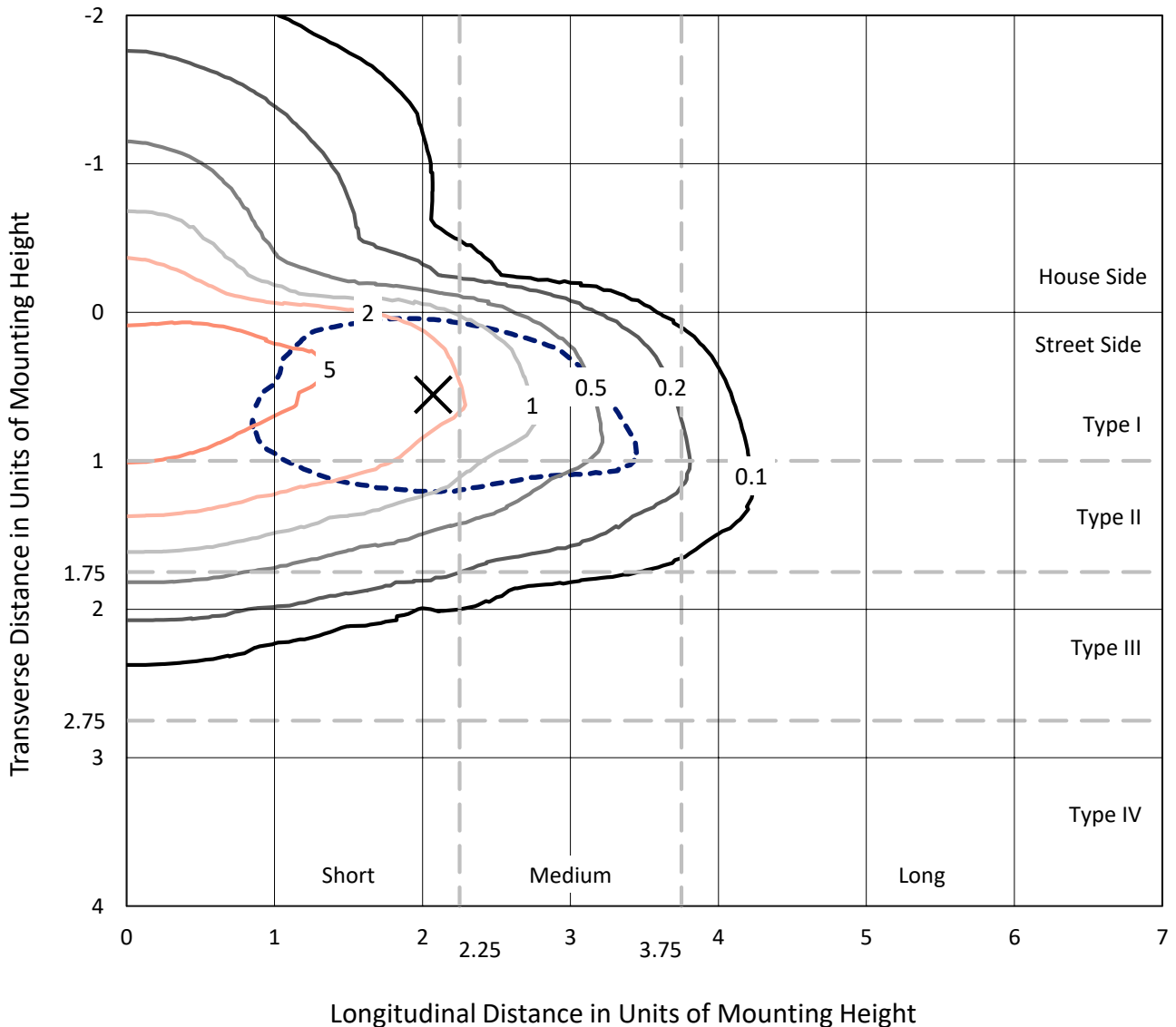


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Iso-Footcandle Lines of Horizontal Illumination

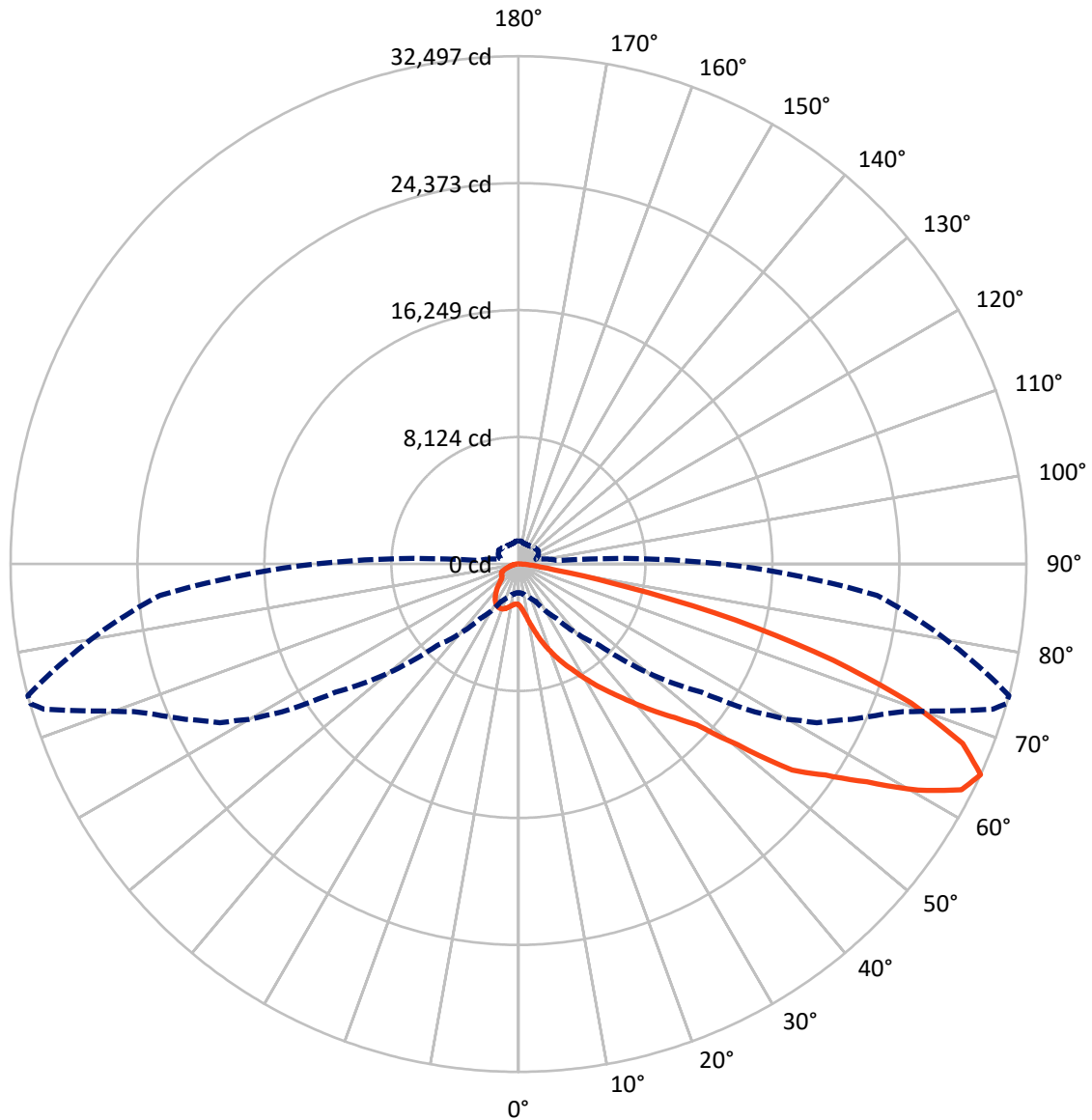
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9 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	4950.7	0.0	4950.7
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	27159.7	0.0	27159.7
	% Fixture	84.6	0.0	84.6
Total	Lumens	32110.3	0.0	32110.3
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	322.6	1.0
10°-20°	1260.3	3.9
20°-30°	2585.7	8.1
30°-40°	4350.3	13.5
40°-50°	6010.9	18.7
50°-60°	7503.4	23.4
60°-70°	6752.2	21.0
70°-80°	2830.5	8.8
80°-90°	494.5	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°	32110.3	100.0
0°-180°	32110.3	100.0



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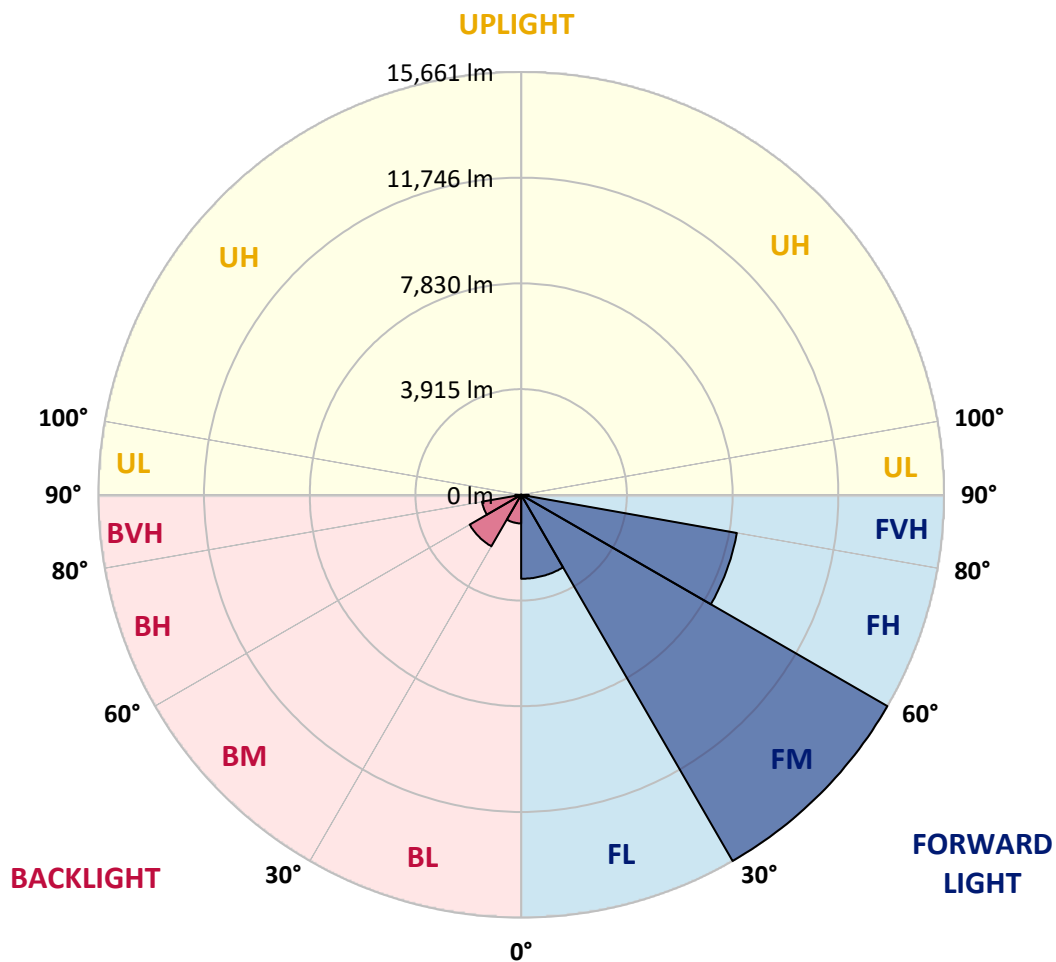
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3109.8	9.7			
FM (30°-60°)	15661.0	48.8			
FH (60°-80°)	8111.0	25.3			G4/12000
FVH (80°-90°)	278.0	0.9			G3/500
BL (0°-30°)	1058.7	3.3	B3/2500		
BM (30°-60°)	2203.6	6.9	B2/2500		
BH (60°-80°)	1471.8	4.6	B3/2500		G3/2500
BVH (80°-90°)	216.6	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°	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6
2.5°	3313.4	3276.9	3285.9	3225.0	3150.6	3053.2	2945.5	2944.1	2945.5	2934.7	2895.4
5°	4594.3	4550.5	4533.9	4396.8	4196.2	3910.8	3600.6	3567.2	3553.2	3518.5	3437.8
7.5°	5529.4	5505.0	5478.9	5375.6	5193.5	4874.3	4457.7	4386.4	4317.9	4301.2	4210.1
10°	6132.6	6126.3	6071.7	6044.2	5930.6	5653.8	5248.0	5179.5	5105.1	5079.4	4983.4
12.5°	6609.6	6608.3	6582.6	6590.2	6491.0	6290.9	5941.0	5878.8	5824.2	5744.9	5676.8
15°	6939.6	6941.0	6979.3	7021.7	7006.4	6871.1	6542.9	6515.4	6468.5	6413.9	6333.2
17.5°	7210.2	7217.8	7257.1	7334.6	7418.5	7407.6	7147.9	7125.0	7083.9	7009.5	6967.1
20°	7821.1	7849.9	7774.2	7774.2	7783.2	7824.2	7699.3	7681.3	7623.6	7583.9	7550.6
22.5°	8853.1	8886.5	8714.7	8540.2	8368.4	8243.5	8119.1	8141.6	8102.4	8074.9	8055.1
25°	10193.5	10219.7	9941.5	9646.6	9296.7	8840.9	8532.5	8518.6	8497.4	8480.7	8471.7
27.5°	11455.0	11465.8	11203.0	10771.1	10365.3	9710.2	8951.8	8935.2	8909.5	8877.4	8849.9
30°	12534.4	12531.2	12260.7	11848.6	11414.0	10689.0	9588.9	9537.1	9460.9	9374.3	9307.6
32.5°	13469.0	13464.5	13167.8	12740.9	12285.1	11658.8	10461.3	10354.9	10236.3	10067.3	9965.8
35°	14204.4	14201.7	13921.7	13476.7	12953.7	12572.2	11461.3	11330.6	11180.0	10953.7	10797.2
37.5°	14482.5	14482.5	14326.1	14022.2	13560.1	13298.6	12572.2	12414.0	12253.0	11996.0	11819.8
40°	14319.8	14322.9	14356.3	14300.4	14075.4	13874.8	13608.8	13514.5	13376.1	13145.3	12961.3
42.5°	13774.2	13790.9	14013.2	14285.1	14397.3	14365.8	14528.1	14485.7	14388.3	14210.7	14064.6
45°	13082.6	13134.5	13377.5	13891.5	14487.1	14789.6	15298.6	15303.1	15285.1	15189.5	15076.8
47.5°	12133.1	12205.7	12526.7	13221.0	14277.4	15201.7	16081.3	16122.3	16160.6	16098.4	16046.6
50°	10871.6	10958.2	11438.3	12359.4	13850.4	15628.6	17560.1	17745.9	17919.0	17897.8	17932.5
52.5°	9520.4	9622.3	10210.2	11236.3	13116.4	15727.4	18505.6	18808.1	19110.6	19358.2	19621.0
55°	8301.2	8246.7	8835.1	9915.3	11909.5	15281.9	19355.4	19720.2	20057.4	20361.3	20674.7
57.5°	6649.3	6739.0	7328.7	8397.3	10312.1	14024.9	19940.2	20474.0	20958.7	21461.9	21905.5
60°	4860.3	4950.0	5589.8	6675.0	8578.1	12119.1	19493.4	20302.3	21078.6	21849.2	22451.1
62.5°	2934.7	3001.8	3565.4	4599.2	6614.6	9859.4	17502.4	18563.3	19706.2	20627.3	21549.8
65°	1826.9	1864.8	2073.1	2641.6	4248.0	7360.8	14300.4	15456.9	16687.7	17856.8	18815.8
67.5°	1495.5	1509.0	1547.4	1668.6	2332.8	4799.9	10643.5	11667.8	12778.7	13909.5	14976.7
70°	1344.9	1335.9	1335.9	1343.6	1495.5	2580.7	6968.5	7635.8	8561.4	9544.7	10520.4
72.5°	1214.2	1205.2	1188.5	1165.9	1220.5	1574.4	3601.9	4105.1	4772.4	5646.1	6580.8
75°	1091.1	1078.9	1059.5	1030.7	1068.5	1188.5	1729.5	1941.0	2266.0	2731.3	3252.5
77.5°	963.5	948.2	930.1	908.9	957.6	924.3	1013.5	1089.7	1214.2	1363.4	1559.5
80°	819.2	805.7	799.4	789.0	846.7	703.8	716.0	762.9	835.9	916.6	1007.7
82.5°	641.6	641.6	665.5	670.4	734.0	506.3	535.2	576.2	614.1	656.5	699.3
85°	422.5	425.6	507.7	539.7	578.9	340.4	401.3	414.8	445.5	469.8	487.8
87.5°	132.1	142.9	310.2	343.6	332.7	193.0	246.2	252.5	273.7	290.4	305.7
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6
2.5°	2895.4	2876.9	2860.3	2858.9	2846.7	2830.1	2835.9	2810.2	2811.6	2798.0	2782.7
5°	3404.4	3392.3	3331.4	3314.7	3269.2	3240.3	3235.8	3175.0	3167.3	3132.6	3094.3
7.5°	4137.1	4097.4	4012.2	3971.2	3893.6	3835.9	3808.9	3728.2	3688.5	3597.4	3556.4
10°	4904.5	4854.4	4749.4	4691.7	4617.3	4524.4	4474.3	4357.6	4311.6	4228.2	4128.1
12.5°	5615.9	5565.9	5457.7	5413.5	5314.7	5216.0	5161.5	5029.4	4969.8	4835.9	4757.0
15°	6273.7	6223.7	6129.5	6083.9	5985.2	5904.5	5831.4	5701.1	5631.2	5506.4	5403.1
17.5°	6912.1	6858.9	6776.9	6735.9	6640.3	6558.2	6479.3	6355.8	6284.5	6160.1	6067.2
20°	7505.0	7465.4	7406.3	7351.3	7255.7	7181.3	7087.1	6980.7	6877.4	6785.9	6698.0
22.5°	8021.7	8006.4	7942.8	7918.5	7836.4	7772.4	7690.3	7585.7	7510.9	7395.5	7313.4
25°	8467.2	8462.7	8432.0	8424.3	8366.6	8305.8	8287.7	8201.2	8132.6	8030.7	7946.0
27.5°	8849.9	8854.5	8847.2	8868.4	8853.1	8825.6	8827.4	8798.5	8758.9	8673.7	8599.3
30°	9275.6	9251.2	9265.2	9295.4	9304.4	9307.6	9357.6	9374.3	9371.6	9315.2	9278.7
32.5°	9877.5	9819.7	9766.5	9762.0	9792.2	9804.4	9889.6	9933.8	9971.7	9985.2	9991.5
35°	10644.8	10529.4	10418.5	10359.4	10307.6	10321.1	10382.0	10453.7	10537.1	10594.8	10663.3
37.5°	11611.5	11470.3	11274.2	11134.5	11099.3	11023.5	11062.8	11119.1	11201.2	11290.9	11409.5
40°	12783.3	12569.1	12348.6	12163.3	12063.2	11923.0	11921.7	11910.8	11961.3	12044.7	12212.0
42.5°	13911.3	13721.0	13487.0	13292.7	13162.0	12974.9	12937.0	12838.3	12860.8	12933.8	13096.6
45°	14967.2	14810.8	14667.8	14443.3	14332.0	14130.0	14066.0	13949.2	13883.8	13917.2	14079.9
47.5°	15990.2	15890.1	15740.9	15595.3	15510.1	15329.3	15247.2	15163.3	15079.9	15076.8	15247.2
50°	17984.4	17931.2	17754.9	17603.0	17644.0	17422.2	17435.7	17210.7	17312.6	17324.8	17681.9
52.5°	19858.2	20043.9	20174.7	20333.8	20437.5	20457.4	20525.4	20627.3	20750.4	20993.4	21324.8
55°	20931.2	21163.8	21299.1	21420.8	21621.5	21663.9	21777.9	21913.2	22020.9	22294.6	22575.9
57.5°	22206.7	22638.2	22847.8	23040.8	23311.3	23414.5	23604.8	23752.2	23892.0	24215.7	24556.1
60°	22992.1	23518.2	23945.2	24250.4	24589.5	24833.0	25120.2	25351.0	25679.2	26067.0	26574.6
62.5°	22367.6	23139.5	23706.7	24231.1	24691.4	25156.7	25568.3	26000.2	26498.4	27085.0	27872.7
65°	19879.8	20665.2	21636.4	22180.5	22790.1	23507.4	24133.7	24833.0	25512.0	26366.3	27530.5
67.5°	16004.2	16917.2	18008.7	18557.4	19258.1	20058.8	20761.2	21615.2	22408.7	23443.4	24883.0
70°	11535.7	12716.5	13634.5	14207.5	15025.4	15850.5	16528.6	17522.2	18178.7	19239.6	20727.9
72.5°	7304.4	8235.9	9360.8	10082.6	10808.9	11645.3	12338.3	13195.3	13807.6	14774.3	16122.3
75°	3927.4	4614.1	5601.9	6287.7	7065.9	7780.1	8591.6	9166.0	9619.1	10383.8	11478.0
77.5°	1840.4	2258.4	2758.4	3285.9	3813.4	4363.4	4898.6	5363.4	5558.2	5996.0	6641.6
80°	1117.2	1252.5	1398.1	1560.9	1781.4	1959.0	2194.8	2364.8	2376.9	2515.4	2712.8
82.5°	746.2	796.2	840.4	881.4	937.8	982.0	1032.0	1091.1	1115.4	1147.4	1211.5
85°	509.0	533.4	542.4	568.5	562.2	577.6	597.4	617.2	627.6	626.2	655.1
87.5°	312.9	325.1	331.4	337.2	332.7	326.9	335.9	346.7	349.4	340.4	343.6
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°	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6
2.5°	2785.9	2772.3	2758.4	2749.3	2746.2	2665.9	2630.8	2608.2	2559.5	2519.9	2487.8
5°	3073.1	3044.2	3021.7	2994.2	2978.8	2775.0	2700.7	2649.3	2564.0	2514.0	2468.0
7.5°	3535.2	3454.5	3407.6	3354.4	3308.9	2941.0	2817.9	2737.2	2618.6	2551.9	2500.0
10°	4059.5	3976.1	3901.3	3819.2	3748.0	3161.4	2982.0	2857.1	2700.7	2614.1	2545.6
12.5°	4644.8	4562.7	4468.5	4363.4	4272.4	3441.0	3191.6	3014.0	2799.4	2684.0	2588.4
15°	5336.4	5191.7	5077.6	4956.3	4849.9	3775.5	3436.5	3190.3	2904.4	2748.0	2620.4
17.5°	5978.9	5826.9	5672.3	5565.9	5442.8	4150.6	3682.6	3369.3	2991.0	2789.0	2626.3
20°	6606.9	6441.0	6307.5	6164.6	6035.2	4539.7	3945.5	3527.5	3047.4	2790.4	2588.4
22.5°	7160.1	7056.4	6907.6	6752.5	6621.8	4928.8	4191.7	3661.4	3068.6	2755.7	2521.2
25°	7789.1	7680.0	7497.4	7366.6	7221.0	5325.6	4433.3	3764.7	3056.4	2690.3	2418.0
27.5°	8460.9	8339.6	8152.5	8015.9	7839.6	5737.2	4655.1	3839.1	3010.8	2583.9	2279.6
30°	9161.5	9050.6	8866.6	8728.7	8550.6	6173.6	4903.1	3889.1	2919.8	2436.5	2118.6
32.5°	9914.0	9821.1	9638.9	9494.7	9304.4	6646.1	5134.0	3904.5	2781.4	2261.5	1948.6
35°	10628.1	10564.6	10410.8	10275.6	10078.1	7092.9	5378.8	3896.8	2617.2	2069.9	1793.5
37.5°	11432.5	11394.2	11318.4	11146.6	10905.0	7699.3	5672.3	3864.8	2416.6	1880.1	1674.9
40°	12289.6	12292.7	12210.7	12093.4	11868.5	8435.2	6021.7	3802.6	2197.5	1712.8	1566.7
42.5°	13196.7	13244.0	13204.4	13120.9	12905.0	9176.8	6439.6	3726.8	1985.1	1550.1	1460.8
45°	14236.4	14294.1	14355.0	14231.9	14022.2	10155.6	6989.7	3628.1	1755.2	1414.8	1387.7
47.5°	15435.7	15526.7	15581.3	15583.1	15373.4	11368.5	7883.3	3568.6	1551.9	1323.7	1352.6
50°	17965.9	17995.2	18124.1	18349.1	18188.2	14175.5	9444.2	3532.0	1413.4	1267.4	1326.9
52.5°	21612.0	21929.9	22153.5	22138.2	21919.0	15958.2	10304.4	3343.6	1331.4	1246.2	1314.7
55°	23097.1	23493.9	23907.3	24016.4	23846.5	17479.9	11117.8	3155.1	1291.7	1261.5	1319.2
57.5°	25076.0	25744.6	26311.8	26550.3	26304.1	19426.7	12187.7	3056.4	1279.5	1302.5	1348.1
60°	27387.5	28214.4	28959.2	29387.5	29387.5	21663.9	13297.2	3015.4	1262.9	1363.4	1396.8
62.5°	28872.7	30086.8	31211.7	31839.3	31820.8	23221.6	13789.6	2875.6	1225.0	1405.8	1463.5
65°	28878.5	30322.6	31755.5	32461.1	32497.1	23030.4	12976.7	2539.7	1155.1	1412.1	1530.7
67.5°	26471.4	28010.6	29681.1	30470.1	30652.2	21200.4	11233.2	2088.4	1041.0	1351.2	1555.0
70°	22356.8	23860.0	25565.2	26340.6	26664.3	18072.3	9047.4	1609.6	895.4	1217.3	1504.5
72.5°	17613.3	19087.6	20274.8	20841.5	21094.0	13813.9	6588.4	1216.0	734.0	1025.7	1369.3
75°	12470.4	13576.8	14207.5	14333.8	14373.0	8327.4	4003.2	904.4	605.1	798.0	1156.5
77.5°	7038.4	7512.7	7460.8	7517.2	7049.2	3214.6	1743.5	647.4	498.7	606.4	896.8
80°	2748.0	2833.2	2661.4	2608.2	2392.3	1196.1	769.2	451.3	398.1	459.0	627.6
82.5°	1211.5	1250.7	1214.2	1223.6	1170.4	617.2	460.3	326.9	303.9	335.9	416.6
85°	667.3	679.4	676.3	696.1	667.3	246.2	218.7	200.6	212.8	228.1	267.4
87.5°	325.1	328.2	317.9	334.5	323.7	124.4	107.8	114.1	124.4	127.6	127.6
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):

	135°	145°	155°	165°	175°	180°
0°	2609.6	2609.6	2609.6	2609.6	2609.6	2609.6
2.5°	2465.3	2453.1	2454.5	2451.3	2445.5	2445.5
5°	2444.1	2431.9	2431.9	2428.8	2421.1	2422.5
7.5°	2465.3	2445.5	2437.8	2427.0	2416.6	2416.6
10°	2489.7	2454.5	2433.3	2415.3	2401.3	2401.3
12.5°	2507.7	2453.1	2418.0	2393.6	2380.1	2380.1
15°	2514.0	2442.3	2393.6	2364.8	2352.6	2351.2
17.5°	2494.2	2401.3	2342.2	2308.9	2293.5	2289.0
20°	2433.3	2326.9	2255.7	2217.3	2196.1	2188.5
22.5°	2342.2	2220.5	2137.1	2097.4	2069.9	2065.4
25°	2214.6	2083.9	2001.8	1963.5	1948.6	1943.7
27.5°	2065.4	1943.7	1873.8	1849.4	1835.9	1834.6
30°	1924.3	1820.6	1769.2	1750.7	1734.0	1731.3
32.5°	1791.7	1726.3	1707.0	1680.8	1641.6	1637.1
35°	1697.5	1691.6	1678.1	1619.9	1571.7	1557.7
37.5°	1639.8	1696.1	1626.3	1512.2	1477.5	1474.3
40°	1606.4	1649.2	1528.9	1489.6	1492.3	1489.6
42.5°	1530.7	1574.4	1532.0	1514.0	1525.7	1528.9
45°	1454.5	1503.2	1555.0	1542.8	1571.7	1571.7
47.5°	1412.1	1484.7	1553.2	1553.2	1596.0	1610.9
50°	1363.4	1469.8	1528.9	1550.1	1583.9	1571.7
52.5°	1360.2	1443.7	1494.2	1532.0	1547.4	1533.4
55°	1364.8	1422.5	1459.0	1501.8	1519.9	1521.2
57.5°	1371.1	1410.3	1434.6	1454.5	1509.0	1509.0
60°	1385.9	1399.9	1413.4	1424.3	1495.5	1496.9
62.5°	1410.3	1389.1	1385.9	1396.8	1487.8	1482.0
65°	1448.6	1373.8	1351.2	1361.6	1480.2	1462.1
67.5°	1500.0	1351.2	1307.0	1314.7	1474.3	1434.6
70°	1547.4	1314.7	1252.5	1244.8	1416.6	1346.7
72.5°	1551.9	1272.3	1176.3	1153.8	1231.3	1164.1
75°	1475.7	1243.0	1092.9	1025.7	1016.7	1007.7
77.5°	1330.0	1226.3	995.5	890.4	872.4	878.3
80°	1112.7	1164.1	878.3	753.8	852.6	842.2
82.5°	831.4	1027.5	746.2	667.3	665.5	588.4
85°	462.1	801.2	607.8	500.0	348.1	337.2
87.5°	129.4	445.5	425.6	282.7	193.0	200.6
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)