

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: P301662

Luminaire Tested: **GLNA-AF-08-LED-E1-T2R-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301662
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-7027-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 34760.2 lumens
Efficiency: N/A
Efficacy: 104.1 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): 334
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

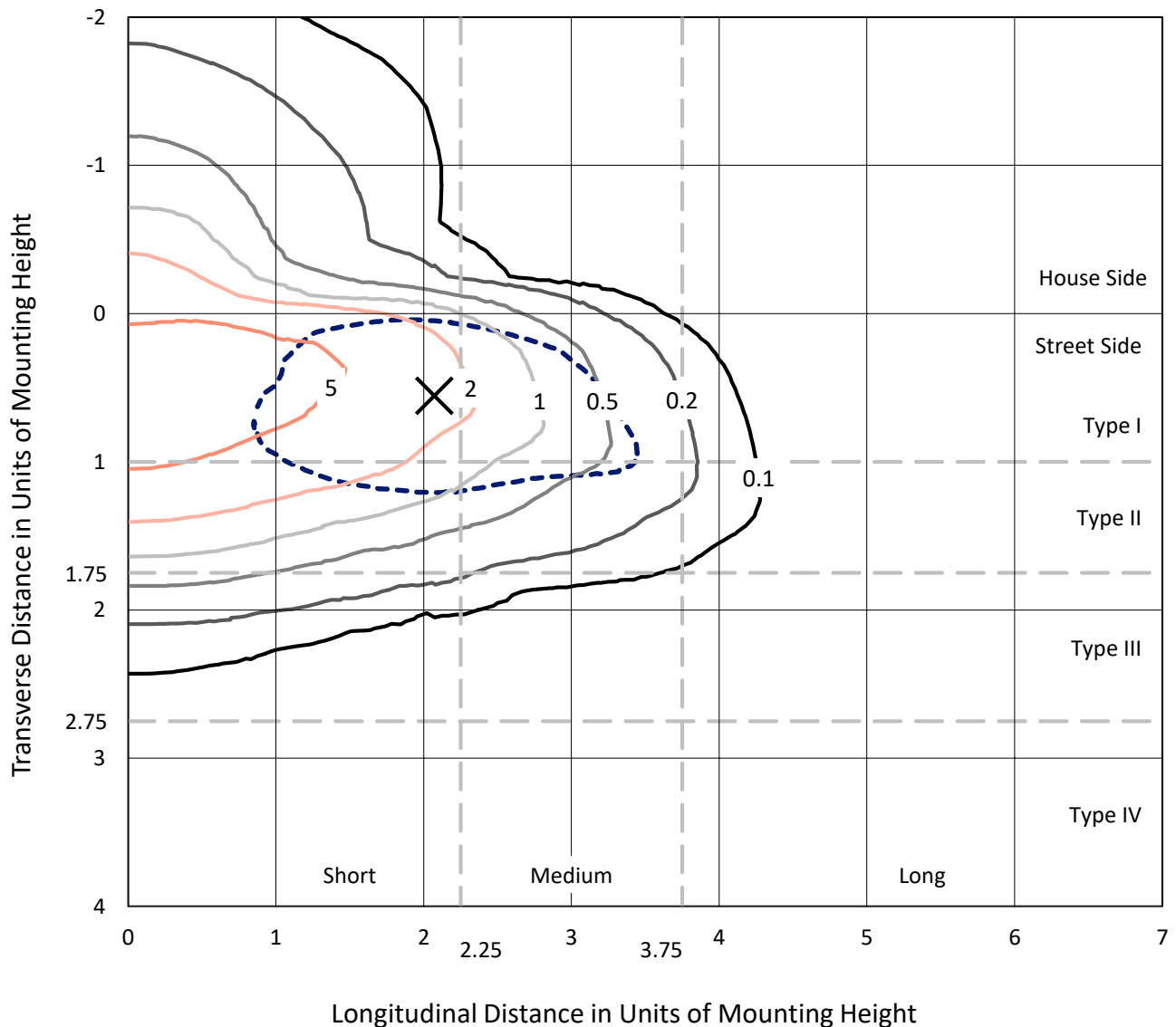


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Iso-Footcandle Lines of Horizontal Illumination

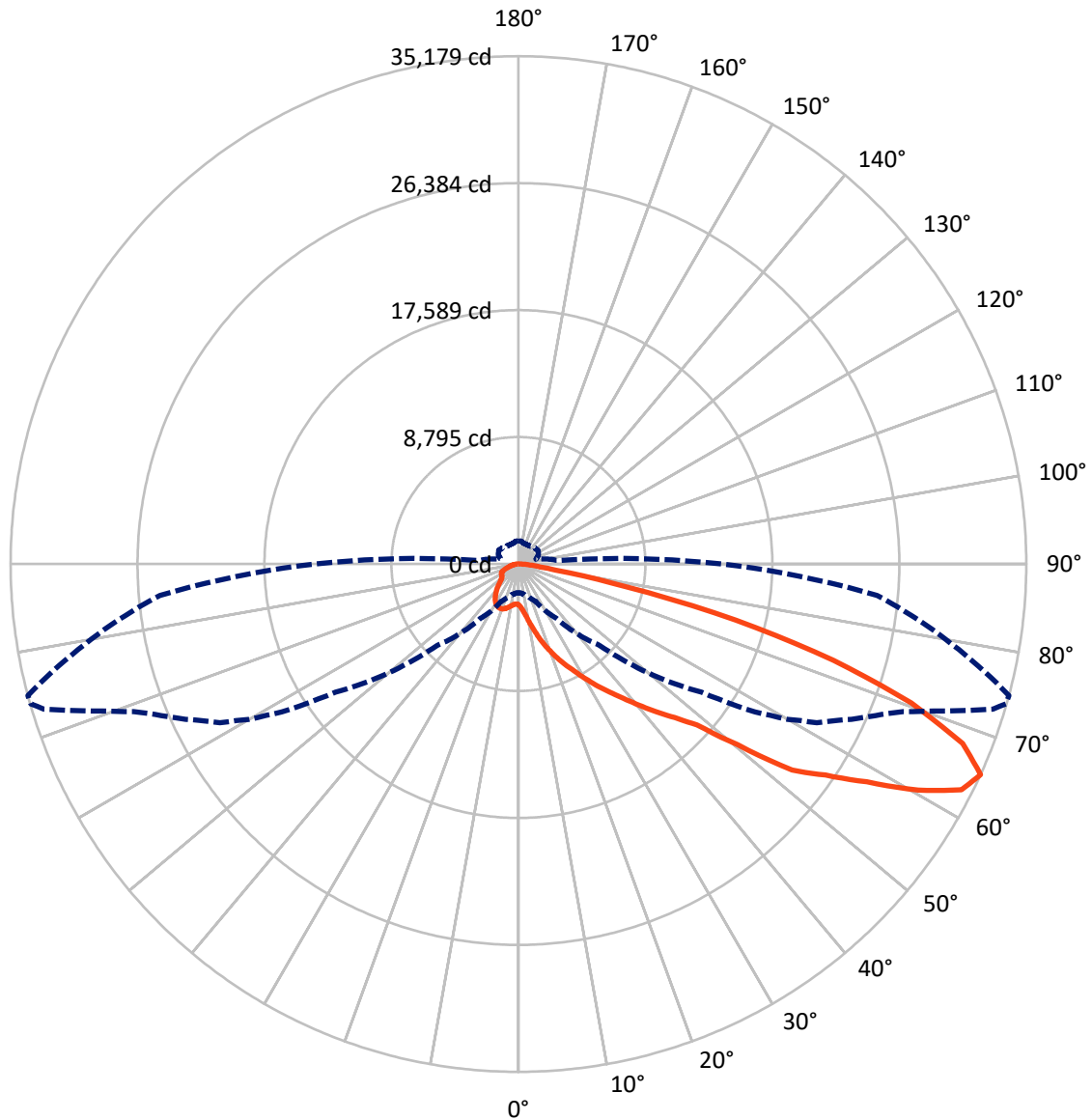
× Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 9.7 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	5359.2	0.0	5359.2
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	29401.0	0.0	29401.0
	% Fixture	84.6	0.0	84.6
Total	Lumens	34760.2	0.0	34760.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	349.2	1.0
10°-20°	1364.3	3.9
20°-30°	2799.1	8.1
30°-40°	4709.3	13.5
40°-50°	6506.9	18.7
50°-60°	8122.6	23.4
60°-70°	7309.5	21.0
70°-80°	3064.1	8.8
80°-90°	535.3	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°	34760.2	100.0
0°-180°	34760.2	100.0

Coefficient of Utilization



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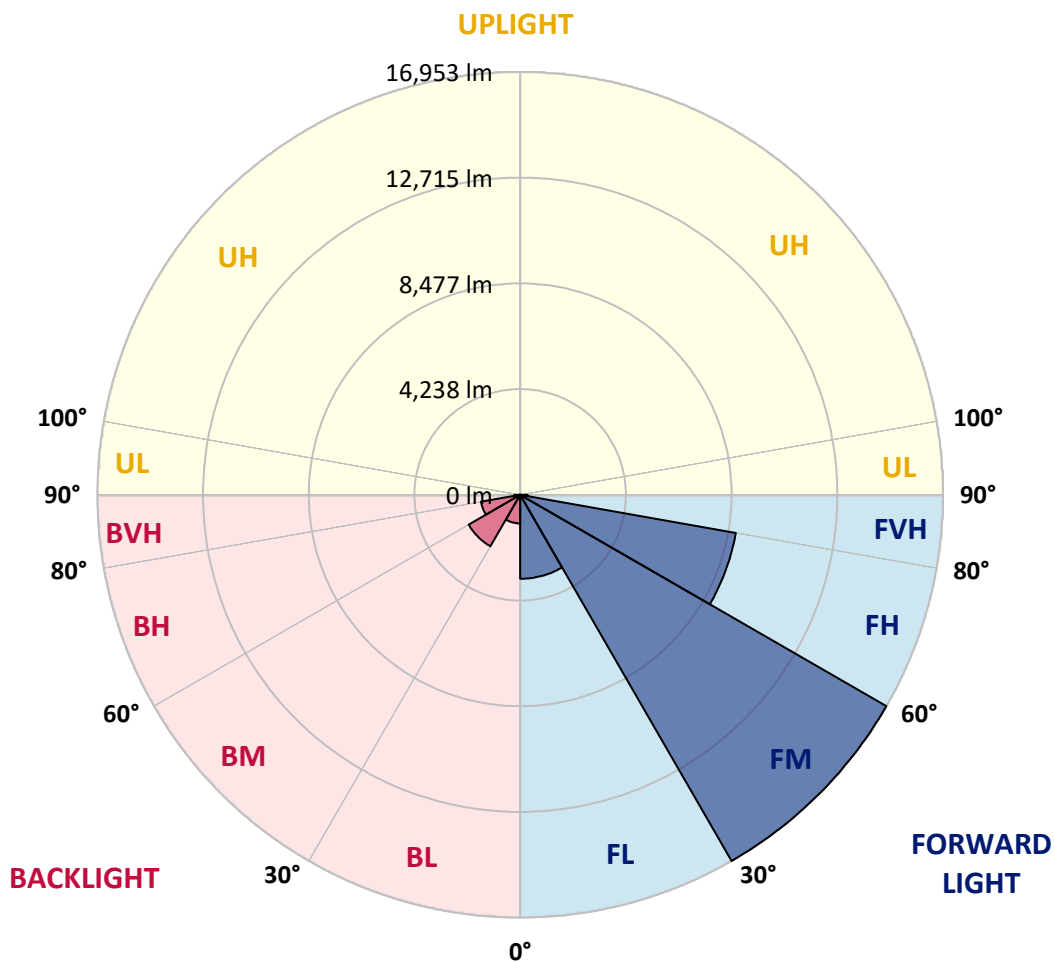
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3366.4	9.7			
FM (30°-60°)	16953.4	48.8			
FH (60°-80°)	8780.3	25.3			G4/12000
FVH (80°-90°)	300.9	0.9			G3/500
BL (0°-30°)	1146.1	3.3	B3/2500		
BM (30°-60°)	2385.4	6.9	B2/2500		
BH (60°-80°)	1593.2	4.6	B3/2500		G3/2500
BVH (80°-90°)	234.4	0.7			G3/500
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°	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9
2.5°	3586.8	3547.3	3557.0	3491.1	3410.6	3305.2	3188.5	3187.1	3188.5	3176.8	3134.4
5°	4973.4	4926.1	4908.0	4759.6	4542.4	4233.5	3897.7	3861.6	3846.5	3808.9	3721.5
7.5°	5985.7	5959.3	5931.0	5819.2	5622.0	5276.5	4825.5	4748.4	4674.2	4656.2	4557.6
10°	6638.7	6631.9	6572.8	6543.0	6420.0	6120.4	5681.1	5606.9	5526.4	5498.6	5394.6
12.5°	7155.1	7153.6	7125.8	7134.1	7026.7	6810.0	6431.3	6363.9	6304.9	6219.0	6145.3
15°	7512.3	7513.8	7555.3	7601.2	7584.6	7438.1	7082.8	7053.1	7002.3	6943.2	6855.9
17.5°	7805.2	7813.5	7855.9	7939.9	8030.7	8018.9	7737.8	7712.9	7668.5	7588.0	7542.1
20°	8466.5	8497.7	8415.7	8415.7	8425.5	8469.9	8334.7	8315.2	8252.7	8209.8	8173.7
22.5°	9583.7	9619.8	9433.9	9245.0	9059.0	8923.8	8789.1	8813.5	8771.1	8741.3	8719.8
25°	11034.7	11063.0	10761.9	10442.7	10064.0	9570.5	9236.7	9221.5	9198.6	9180.5	9170.8
27.5°	12400.3	12412.0	12127.5	11659.9	11220.7	10511.5	9690.6	9672.5	9644.7	9610.0	9580.3
30°	13568.8	13565.3	13272.5	12826.4	12355.9	11571.1	10380.2	10324.1	10241.6	10147.9	10075.7
32.5°	14580.5	14575.6	14254.5	13792.3	13298.9	12620.9	11324.6	11209.4	11081.1	10898.1	10788.2
35°	15376.6	15373.6	15070.5	14588.8	14022.7	13609.8	12407.2	12265.6	12102.6	11857.6	11688.2
37.5°	15677.7	15677.7	15508.3	15179.4	14679.1	14396.0	13609.8	13438.4	13264.2	12986.0	12795.2
40°	15501.5	15504.9	15541.0	15480.5	15237.0	15019.8	14731.8	14629.8	14480.0	14230.1	14031.0
42.5°	14910.9	14929.0	15169.6	15463.9	15585.5	15551.3	15727.0	15681.1	15575.7	15383.4	15225.3
45°	14162.3	14218.4	14481.4	15037.8	15682.6	16010.1	16561.1	16566.0	16546.5	16443.0	16321.0
47.5°	13134.4	13213.0	13560.5	14312.1	15455.6	16456.2	17408.4	17452.8	17494.3	17426.9	17370.8
50°	11768.8	11862.5	12382.3	13379.4	14993.4	16918.4	19009.3	19210.3	19397.8	19374.8	19412.4
52.5°	10306.0	10416.3	11052.8	12163.6	14198.9	17025.3	20032.7	20360.2	20687.7	20955.7	21240.2
55°	8986.3	8927.2	9564.2	10733.6	12892.3	16543.0	20952.7	21347.6	21712.7	22041.6	22380.8
57.5°	7198.0	7295.1	7933.5	9090.3	11163.1	15182.3	21585.8	22163.6	22688.3	23233.0	23713.2
60°	5261.4	5358.5	6051.1	7225.8	9286.0	13119.3	21102.1	21977.7	22818.1	23652.2	24303.8
62.5°	3176.8	3249.6	3859.6	4978.8	7160.4	10673.1	18946.8	20095.2	21332.5	22329.6	23328.2
65°	1977.6	2018.6	2244.1	2859.6	4598.6	7968.2	15480.5	16732.4	18064.8	19330.4	20368.5
67.5°	1618.9	1633.6	1675.0	1806.3	2525.3	5196.0	11521.8	12630.7	13833.3	15057.4	16212.6
70°	1455.9	1446.1	1446.1	1454.4	1618.9	2793.7	7543.6	8265.9	9267.9	10332.4	11388.6
72.5°	1314.4	1304.6	1286.5	1262.1	1321.2	1704.3	3899.2	4443.9	5166.2	6112.1	7123.8
75°	1181.1	1167.9	1147.0	1115.7	1156.7	1286.5	1872.2	2101.1	2453.0	2956.7	3520.9
77.5°	1043.0	1026.4	1006.9	983.9	1036.7	1000.5	1097.2	1179.7	1314.4	1475.9	1688.2
80°	886.8	872.2	865.3	854.1	916.6	761.9	775.1	825.8	904.9	992.2	1090.8
82.5°	694.5	694.5	720.4	725.8	794.6	548.1	579.3	623.8	664.7	710.6	757.0
85°	457.3	460.7	549.6	584.2	626.7	368.5	434.4	449.0	482.2	508.6	528.1
87.5°	143.0	154.7	335.8	371.9	360.2	208.9	266.5	273.3	296.3	314.3	330.9
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9
2.5°	3134.4	3114.4	3096.3	3094.8	3081.7	3063.6	3069.9	3042.1	3043.6	3028.9	3012.4
5°	3685.4	3672.2	3606.3	3588.3	3539.0	3507.7	3502.9	3437.0	3428.7	3391.1	3349.6
7.5°	4478.5	4435.6	4343.3	4298.9	4215.0	4152.5	4123.2	4035.8	3992.9	3894.3	3849.9
10°	5309.2	5255.0	5141.3	5078.8	4998.3	4897.8	4843.6	4717.2	4667.4	4577.1	4468.7
12.5°	6079.4	6025.2	5908.1	5860.2	5753.3	5646.5	5587.4	5444.4	5380.0	5235.0	5149.6
15°	6791.5	6737.3	6635.3	6586.0	6479.1	6391.7	6312.7	6171.6	6096.0	5960.8	5849.0
17.5°	7482.6	7425.0	7336.1	7291.7	7188.3	7099.4	7014.0	6880.3	6803.2	6668.5	6567.9
20°	8124.4	8081.4	8017.5	7957.9	7854.5	7773.9	7671.9	7556.7	7445.0	7345.9	7250.7
22.5°	8683.7	8667.1	8598.3	8571.9	8483.1	8413.8	8325.0	8211.7	8130.7	8005.8	7916.9
25°	9165.9	9161.0	9127.8	9119.5	9057.1	8991.2	8971.7	8877.9	8803.8	8693.5	8601.7
27.5°	9580.3	9585.2	9577.3	9600.3	9583.7	9553.9	9555.9	9524.6	9481.7	9389.4	9308.9
30°	10041.0	10014.7	10029.8	10062.5	10072.2	10075.7	10129.8	10147.9	10145.0	10084.0	10044.4
32.5°	10692.6	10630.1	10572.5	10567.6	10600.3	10613.5	10705.8	10753.6	10794.6	10809.2	10816.1
35°	11523.3	11398.3	11278.3	11214.3	11158.2	11172.8	11238.7	11316.3	11406.6	11469.1	11543.3
37.5°	12569.7	12416.9	12204.6	12053.3	12015.2	11933.2	11975.7	12036.7	12125.5	12222.7	12351.0
40°	13838.2	13606.3	13367.7	13167.1	13058.7	12906.9	12905.5	12893.8	12948.4	13038.7	13219.8
42.5°	15059.3	14853.4	14600.0	14389.7	14248.2	14045.6	14004.6	13897.7	13922.1	14001.2	14177.4
45°	16202.4	16033.0	15878.3	15635.2	15514.7	15296.0	15226.7	15100.3	15029.5	15065.7	15241.9
47.5°	17309.8	17201.4	17039.9	16882.3	16790.0	16594.3	16505.5	16414.7	16324.4	16321.0	16505.5
50°	19468.5	19410.9	19220.1	19055.6	19100.0	18859.9	18874.5	18631.0	18741.3	18754.5	19141.0
52.5°	21496.9	21698.0	21839.6	22011.8	22124.1	22145.6	22219.3	22329.6	22462.8	22725.9	23084.6
55°	22658.5	22910.4	23056.8	23188.6	23405.8	23451.6	23575.1	23721.5	23838.2	24134.4	24439.0
57.5°	24039.3	24506.4	24733.3	24942.2	25235.0	25346.8	25552.8	25712.4	25863.7	26214.1	26582.6
60°	24889.5	25459.1	25921.3	26251.7	26618.7	26882.3	27193.2	27443.1	27798.4	28218.1	28767.7
62.5°	24213.5	25049.1	25663.1	26230.7	26729.0	27232.7	27678.3	28145.9	28685.2	29320.2	30172.8
65°	21520.4	22370.6	23421.9	24011.0	24670.8	25447.3	26125.3	26882.3	27617.3	28542.2	29802.4
67.5°	17324.9	18313.3	19494.9	20088.9	20847.3	21714.1	22474.5	23398.9	24257.9	25378.0	26936.4
70°	12487.7	13765.9	14759.6	15380.0	16265.3	17158.5	17892.6	18968.3	19678.9	20827.3	22438.4
72.5°	7907.2	8915.5	10133.3	10914.7	11700.9	12606.3	13356.5	14284.3	14947.1	15993.5	17452.8
75°	4251.6	4994.9	6064.2	6806.6	7649.0	8422.1	9300.6	9922.4	10412.9	11240.7	12425.2
77.5°	1992.3	2444.7	2986.0	3557.0	4128.1	4723.5	5302.9	5806.1	6016.9	6490.8	7189.7
80°	1209.4	1355.9	1513.5	1689.7	1928.4	2120.7	2375.9	2559.9	2573.1	2722.9	2936.7
82.5°	807.8	861.9	909.8	954.2	1015.2	1063.0	1117.2	1181.1	1207.5	1242.1	1311.4
85°	551.0	577.4	587.1	615.5	608.6	625.2	646.7	668.2	679.4	677.9	709.2
87.5°	338.7	351.9	358.7	365.1	360.2	353.8	363.6	375.3	378.3	368.5	371.9
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9
2.5°	3015.8	3001.1	2986.0	2976.2	2972.8	2885.9	2847.9	2823.5	2770.8	2727.8	2693.2
5°	3326.7	3295.4	3271.0	3241.3	3224.7	3004.1	2923.5	2867.9	2775.6	2721.5	2671.7
7.5°	3826.9	3739.6	3688.8	3631.2	3581.9	3183.7	3050.4	2963.1	2834.7	2762.5	2706.3
10°	4394.6	4304.3	4223.2	4134.4	4057.3	3422.3	3228.1	3092.9	2923.5	2829.8	2755.6
12.5°	5028.1	4939.2	4837.2	4723.5	4624.9	3724.9	3455.0	3262.7	3030.4	2905.5	2802.0
15°	5776.8	5620.1	5496.6	5365.3	5250.1	4087.1	3720.1	3453.6	3144.1	2974.8	2836.6
17.5°	6472.3	6307.8	6140.4	6025.2	5892.0	4493.1	3986.5	3647.3	3237.8	3019.2	2843.0
20°	7152.1	6972.5	6828.1	6673.3	6533.3	4914.4	4271.1	3818.6	3298.8	3020.6	2802.0
22.5°	7751.0	7638.7	7477.7	7309.8	7168.2	5335.6	4537.6	3963.6	3321.8	2983.1	2729.3
25°	8431.9	8313.7	8116.1	7974.5	7816.9	5765.1	4799.2	4075.4	3308.6	2912.3	2617.5
27.5°	9159.1	9027.8	8825.2	8677.4	8486.5	6210.7	5039.3	4155.9	3259.3	2797.1	2467.7
30°	9917.5	9797.5	9598.3	9449.0	9256.2	6683.1	5307.7	4210.1	3160.7	2637.5	2293.4
32.5°	10732.1	10631.6	10434.4	10278.2	10072.2	7194.6	5557.6	4226.7	3010.9	2448.1	2109.4
35°	11505.2	11436.4	11270.0	11123.5	10909.8	7678.3	5822.6	4218.4	2833.2	2240.7	1941.5
37.5°	12375.9	12334.4	12252.4	12066.5	11804.9	8334.7	6140.4	4183.7	2616.0	2035.2	1813.2
40°	13303.7	13307.2	13218.3	13091.4	12847.9	9131.3	6518.6	4116.4	2378.8	1854.2	1696.0
42.5°	14285.7	14337.0	14294.0	14203.7	13970.0	9934.1	6971.1	4034.4	2149.0	1678.0	1581.3
45°	15411.2	15473.7	15539.6	15406.3	15179.4	10993.7	7566.5	3927.5	1900.0	1531.6	1502.3
47.5°	16709.5	16808.1	16867.1	16869.1	16642.1	12306.6	8533.9	3863.1	1679.9	1433.0	1464.2
50°	19448.5	19480.2	19619.8	19863.4	19689.1	15345.3	10223.5	3823.5	1530.1	1372.0	1436.4
52.5°	23395.5	23739.6	23981.7	23965.1	23727.9	17275.1	11154.8	3619.5	1441.3	1349.0	1423.2
55°	25003.2	25432.7	25880.3	25998.4	25814.4	18922.4	12035.3	3415.5	1398.3	1365.6	1428.1
57.5°	27145.3	27869.1	28483.1	28741.3	28474.8	21029.9	13193.4	3308.6	1385.1	1410.0	1459.3
60°	29647.7	30542.8	31349.1	31812.7	31812.7	23451.6	14394.6	3264.2	1367.1	1475.9	1512.0
62.5°	31255.4	32569.7	33787.4	34466.8	34446.8	25137.9	14927.5	3112.9	1326.1	1521.8	1584.3
65°	31261.7	32825.0	34376.1	35139.9	35178.9	24931.0	14047.6	2749.3	1250.4	1528.6	1657.0
67.5°	28655.9	30322.2	32130.5	32984.6	33181.8	22949.9	12160.2	2260.7	1126.9	1462.7	1683.3
70°	24201.8	25829.0	27674.9	28514.4	28864.8	19563.7	9794.0	1742.4	969.3	1317.8	1628.7
72.5°	19066.8	20662.8	21947.9	22561.4	22834.7	14953.9	7132.1	1316.3	794.6	1110.4	1482.3
75°	13499.5	14697.2	15380.0	15516.6	15559.1	9014.6	4333.6	979.1	655.0	863.9	1251.9
77.5°	7619.2	8132.7	8076.5	8137.5	7630.9	3479.9	1887.4	700.9	539.8	656.5	970.8
80°	2974.8	3067.0	2881.1	2823.5	2589.7	1294.8	832.6	488.6	431.0	496.9	679.4
82.5°	1311.4	1353.9	1314.4	1324.6	1267.0	668.2	498.3	353.8	329.0	363.6	451.0
85°	722.3	735.5	732.1	753.6	722.3	266.5	236.7	217.2	230.4	247.0	289.4
87.5°	351.9	355.3	344.1	362.1	350.4	134.7	116.6	123.5	134.7	138.1	138.1
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°	2824.9	2824.9	2824.9	2824.9	2824.9	2824.9
2.5°	2668.8	2655.6	2657.0	2653.6	2647.3	2647.3
5°	2645.8	2632.6	2632.6	2629.2	2620.9	2622.4
7.5°	2668.8	2647.3	2639.0	2627.3	2616.0	2616.0
10°	2695.1	2657.0	2634.1	2614.6	2599.4	2599.4
12.5°	2714.6	2655.6	2617.5	2591.2	2576.5	2576.5
15°	2721.5	2643.9	2591.2	2559.9	2546.7	2545.3
17.5°	2700.0	2599.4	2535.5	2499.4	2482.8	2477.9
20°	2634.1	2518.9	2441.8	2400.3	2377.4	2369.1
22.5°	2535.5	2403.7	2313.4	2270.5	2240.7	2235.8
25°	2397.4	2255.8	2167.0	2125.5	2109.4	2104.1
27.5°	2235.8	2104.1	2028.4	2002.1	1987.4	1985.9
30°	2083.1	1970.8	1915.2	1895.2	1877.1	1874.2
32.5°	1939.6	1868.8	1847.8	1819.5	1777.1	1772.2
35°	1837.6	1831.2	1816.6	1753.6	1701.4	1686.3
37.5°	1775.1	1836.1	1760.5	1637.0	1599.4	1596.0
40°	1739.0	1785.4	1655.0	1612.6	1615.5	1612.6
42.5°	1657.0	1704.3	1658.5	1638.9	1651.6	1655.0
45°	1574.5	1627.2	1683.3	1670.2	1701.4	1701.4
47.5°	1528.6	1607.2	1681.4	1681.4	1727.8	1743.9
50°	1475.9	1591.1	1655.0	1678.0	1714.6	1701.4
52.5°	1472.5	1562.8	1617.5	1658.5	1675.0	1659.9
55°	1477.4	1539.9	1579.4	1625.8	1645.3	1646.7
57.5°	1484.2	1526.7	1553.0	1574.5	1633.6	1633.6
60°	1500.3	1515.4	1530.1	1541.8	1618.9	1620.4
62.5°	1526.7	1503.7	1500.3	1512.0	1610.6	1604.3
65°	1568.2	1487.1	1462.7	1474.0	1602.3	1582.8
67.5°	1623.8	1462.7	1414.9	1423.2	1596.0	1553.0
70°	1675.0	1423.2	1355.9	1347.6	1533.5	1457.9
72.5°	1679.9	1377.3	1273.4	1249.0	1332.9	1260.2
75°	1597.4	1345.6	1183.1	1110.4	1100.6	1090.8
77.5°	1439.8	1327.5	1077.7	963.9	944.4	950.8
80°	1204.6	1260.2	950.8	816.0	922.9	911.7
82.5°	900.0	1112.3	807.8	722.3	720.4	636.9
85°	500.3	867.3	657.9	541.3	376.8	365.1
87.5°	140.1	482.2	460.7	306.0	208.9	217.2
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)