

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: P301651

Luminaire Tested: **GLNA-AF-06-LED-E1-T2R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301651
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-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(6) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 28880.5 lumens
Efficiency: N/A
Efficacy: 116.0 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 - G3

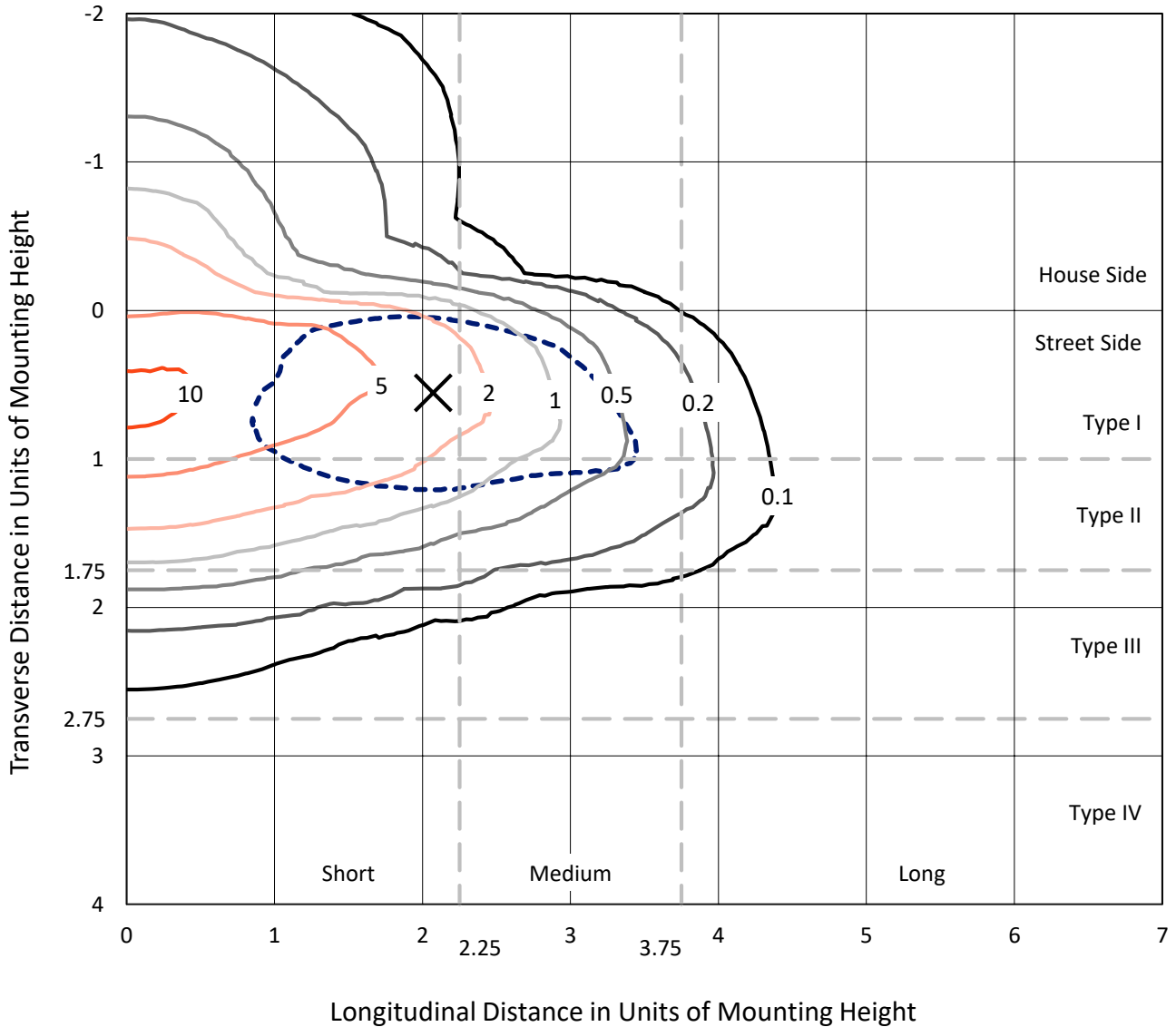
Input Watts (W): 249
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

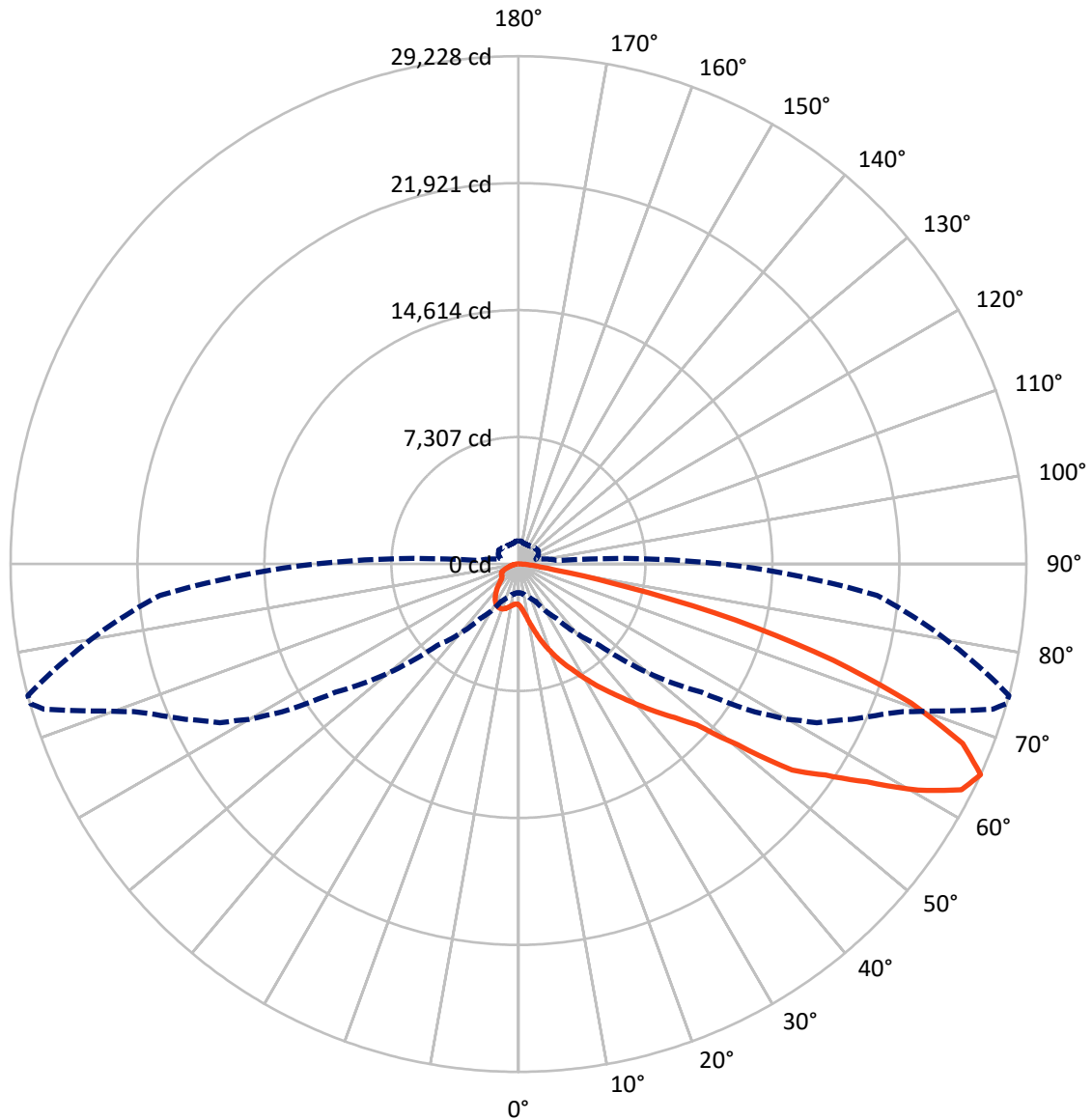
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.7 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	4452.7	0.0	4452.7
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	24427.8	0.0	24427.8
	% Fixture	84.6	0.0	84.6
Total	Lumens	28880.5	0.0	28880.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.1	1.0
10°-20°	1133.5	3.9
20°-30°	2325.6	8.1
30°-40°	3912.7	13.5
40°-50°	5406.3	18.7
50°-60°	6748.6	23.4
60°-70°	6073.1	21.0
70°-80°	2545.8	8.8
80°-90°	444.8	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°	28880.5	100.0
0°-180°	28880.5	100.0



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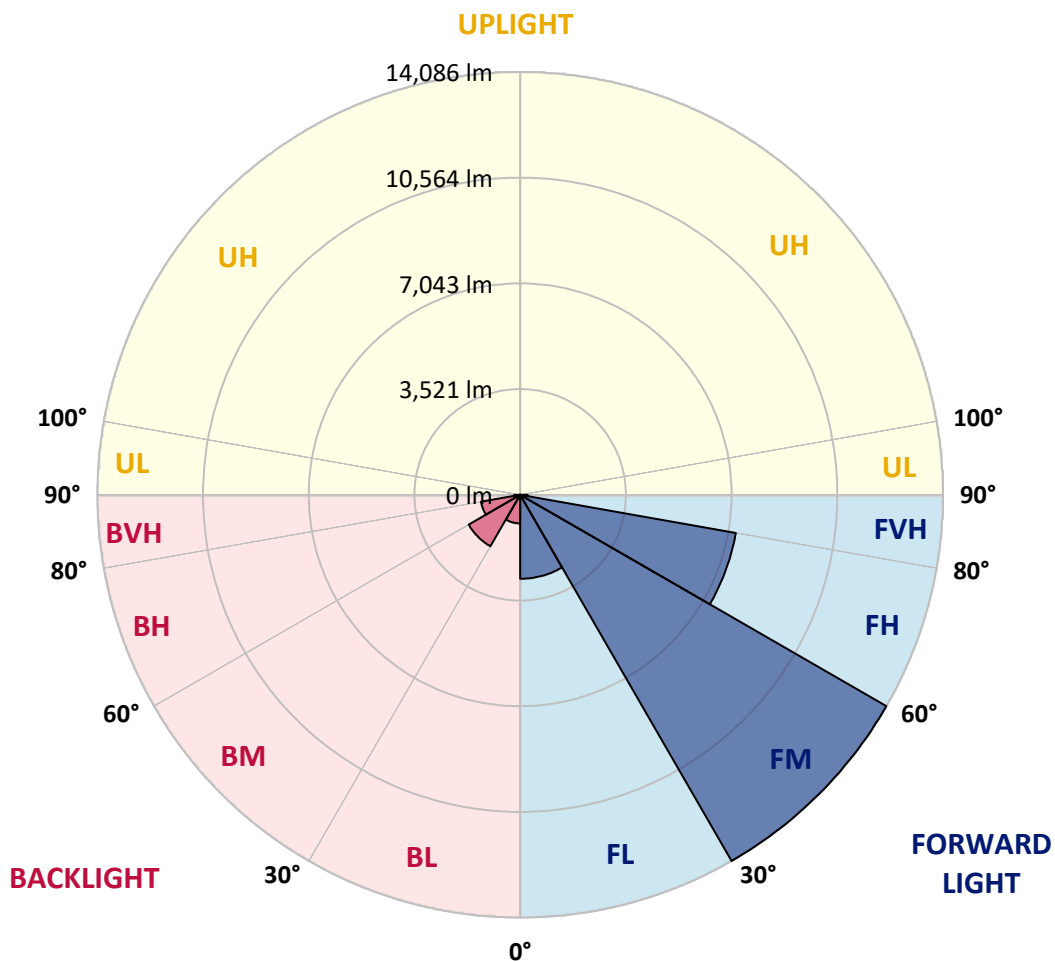
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2797.0	9.7			
FM (30°-60°)	14085.7	48.8			
FH (60°-80°)	7295.1	25.3			G3/7500
FVH (80°-90°)	250.0	0.9			G3/500
BL (0°-30°)	952.2	3.3	B2/1000		
BM (30°-60°)	1981.9	6.9	B2/2500		
BH (60°-80°)	1323.7	4.6	B3/2500		G3/2500
BVH (80°-90°)	194.8	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-G3

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1
2.5°	2980.1	2947.3	2955.4	2900.6	2833.7	2746.1	2649.2	2648.0	2649.2	2639.5	2604.2
5°	4132.2	4092.8	4077.8	3954.5	3774.1	3517.4	3238.4	3208.4	3195.8	3164.6	3092.0
7.5°	4973.2	4951.3	4927.8	4834.9	4671.1	4384.0	4009.3	3945.2	3883.6	3868.6	3786.7
10°	5515.8	5510.1	5461.0	5436.3	5334.1	5085.1	4720.1	4658.5	4591.6	4568.5	4482.1
12.5°	5944.8	5943.6	5920.5	5927.4	5838.1	5658.1	5343.4	5287.5	5238.4	5167.0	5105.8
15°	6241.6	6242.8	6277.3	6315.4	6301.6	6180.0	5884.8	5860.0	5817.9	5768.8	5696.2
17.5°	6484.9	6491.8	6527.1	6596.8	6672.3	6662.5	6429.0	6408.3	6371.4	6304.5	6266.4
20°	7034.4	7060.3	6992.2	6992.2	7000.3	7037.2	6924.9	6908.7	6856.8	6821.1	6791.1
22.5°	7962.6	7992.6	7838.1	7681.2	7526.7	7414.4	7302.4	7322.7	7287.4	7262.7	7244.9
25°	9168.2	9191.7	8941.5	8676.3	8361.6	7951.7	7674.3	7661.7	7642.7	7627.7	7619.5
27.5°	10302.8	10312.5	10076.1	9687.7	9322.7	8733.5	8051.4	8036.4	8013.3	7984.5	7959.8
30°	11273.6	11270.8	11027.5	10656.8	10265.9	9613.8	8624.4	8577.8	8509.2	8431.4	8371.4
32.5°	12114.2	12110.2	11843.3	11459.3	11049.4	10486.1	9409.1	9313.4	9206.7	9054.7	8963.4
35°	12775.6	12773.2	12521.4	12121.1	11650.7	11307.7	10308.5	10190.9	10055.5	9851.9	9711.2
37.5°	13025.8	13025.8	12885.1	12611.8	12196.1	11960.9	11307.7	11165.3	11020.6	10789.4	10630.9
40°	12879.4	12882.3	12912.3	12862.0	12659.6	12479.2	12239.9	12155.2	12030.7	11823.1	11657.6
42.5°	12388.8	12403.8	12603.7	12848.2	12949.2	12920.8	13066.8	13028.7	12941.1	12781.3	12649.9
45°	11766.7	11813.3	12031.9	12494.2	13029.9	13302.0	13759.8	13763.8	13747.6	13661.7	13560.3
47.5°	10912.7	10978.0	11266.7	11891.2	12841.3	13672.6	14463.8	14500.7	14535.1	14479.2	14432.5
50°	9778.1	9855.9	10287.8	11116.3	12457.3	14056.6	15793.8	15960.9	16116.6	16097.6	16128.8
52.5°	8562.8	8654.4	9183.2	10106.1	11797.1	14145.4	16644.2	16916.3	17188.4	17411.0	17647.4
55°	7466.3	7417.2	7946.4	8918.0	10711.6	13744.8	17408.6	17736.6	18040.0	18313.3	18595.1
57.5°	5980.5	6061.2	6591.6	7552.6	9274.8	12614.2	17934.5	18414.7	18850.6	19303.1	19702.1
60°	4371.4	4452.1	5027.5	6003.6	7715.2	10900.1	17532.7	18260.2	18958.4	19651.5	20192.8
62.5°	2639.5	2699.9	3206.8	4136.6	5949.2	8867.7	15741.9	16696.1	17724.1	18552.5	19382.2
65°	1643.1	1677.2	1864.5	2375.9	3820.7	6620.4	12862.0	13902.1	15009.2	16060.7	16923.2
67.5°	1345.1	1357.2	1391.7	1500.8	2098.1	4317.1	9572.9	10494.2	11493.4	12510.4	13470.3
70°	1209.6	1201.5	1201.5	1208.4	1345.1	2321.1	6267.6	6867.7	7700.2	8584.7	9462.2
72.5°	1092.0	1083.9	1068.9	1048.7	1097.7	1416.0	3239.6	3692.2	4292.3	5078.2	5918.8
75°	981.3	970.4	953.0	927.0	961.1	1068.9	1555.5	1745.7	2038.1	2456.6	2925.4
77.5°	866.6	852.8	836.6	817.5	861.3	831.3	911.6	980.1	1092.0	1226.3	1402.7
80°	736.8	724.6	719.0	709.6	761.5	633.0	644.0	686.1	751.8	824.4	906.3
82.5°	577.0	577.0	598.5	603.0	660.2	455.4	481.3	518.2	552.3	590.4	628.9
85°	380.0	382.8	456.6	485.4	520.7	306.2	360.9	373.1	400.6	422.5	438.8
87.5°	118.8	128.5	279.0	309.0	299.3	173.6	221.4	227.1	246.1	261.1	274.9
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°	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1
2.5°	2604.2	2587.6	2572.6	2571.3	2560.4	2545.4	2550.7	2527.5	2528.8	2516.6	2502.8
5°	3062.0	3051.1	2996.3	2981.3	2940.4	2914.4	2910.4	2855.6	2848.7	2817.5	2783.0
7.5°	3721.0	3685.3	3608.6	3571.7	3502.0	3450.1	3425.8	3353.2	3317.5	3235.6	3198.7
10°	4411.1	4366.1	4271.7	4219.7	4152.8	4069.3	4024.3	3919.3	3877.9	3802.9	3712.9
12.5°	5051.0	5006.0	4908.7	4869.0	4780.2	4691.4	4642.3	4523.5	4469.9	4349.5	4278.5
15°	5642.7	5597.7	5512.9	5472.0	5383.2	5310.6	5244.9	5127.7	5064.8	4952.5	4859.6
17.5°	6216.9	6169.0	6095.2	6058.3	5972.4	5898.6	5827.6	5716.5	5652.4	5540.5	5457.0
20°	6750.1	6714.4	6661.3	6611.9	6525.9	6459.0	6374.2	6278.5	6185.7	6103.3	6024.3
22.5°	7214.8	7201.1	7143.9	7122.0	7048.2	6990.6	6916.8	6822.7	6755.4	6651.6	6577.8
25°	7615.5	7611.4	7583.9	7577.0	7525.1	7470.3	7454.1	7376.2	7314.6	7223.0	7146.7
27.5°	7959.8	7963.8	7957.3	7976.4	7962.6	7937.9	7939.5	7913.5	7877.9	7801.2	7734.3
30°	8342.6	8320.7	8333.2	8360.4	8368.5	8371.4	8416.4	8431.4	8428.9	8378.3	8345.4
32.5°	8883.9	8832.0	8784.2	8780.1	8807.3	8818.2	8894.9	8934.6	8968.7	8980.8	8986.5
35°	9574.1	9470.3	9370.5	9317.4	9270.8	9283.0	9337.7	9402.2	9477.2	9529.1	9590.7
37.5°	10443.5	10316.6	10140.2	10014.5	9982.9	9914.7	9950.0	10000.7	10074.5	10155.2	10261.9
40°	11497.4	11304.8	11106.5	10939.9	10849.8	10723.7	10722.5	10712.8	10758.2	10833.2	10983.7
42.5°	12512.0	12340.9	12130.4	11955.7	11838.1	11669.8	11635.7	11546.9	11567.2	11632.9	11779.3
45°	13461.7	13321.0	13192.5	12990.5	12890.4	12708.7	12651.1	12546.1	12487.3	12517.3	12663.7
47.5°	14381.8	14291.8	14157.6	14026.6	13950.0	13787.4	13713.6	13638.1	13563.1	13560.3	13713.6
50°	16175.4	16127.6	15969.0	15832.4	15869.3	15669.7	15681.9	15479.6	15571.2	15582.2	15903.3
52.5°	17860.7	18027.8	18145.4	18288.5	18381.8	18399.6	18460.9	18552.5	18663.2	18881.8	19179.8
55°	18825.8	19035.1	19156.7	19266.2	19446.7	19484.8	19587.4	19709.0	19806.0	20052.1	20305.1
57.5°	19973.0	20361.1	20549.7	20723.2	20966.5	21059.4	21230.5	21363.1	21488.8	21780.0	22086.1
60°	20679.4	21152.7	21536.7	21811.2	22116.2	22335.1	22593.4	22801.1	23096.3	23445.0	23901.6
62.5°	20117.8	20812.0	21322.2	21793.8	22207.8	22626.3	22996.5	23385.0	23833.1	24360.7	25069.1
65°	17880.2	18586.6	19460.1	19949.5	20497.8	21142.9	21706.2	22335.1	22945.8	23714.3	24761.3
67.5°	14394.4	15215.6	16197.3	16690.8	17321.0	18041.2	18673.0	19441.0	20154.7	21085.3	22380.1
70°	10375.4	11437.4	12263.1	12778.5	13514.1	14256.1	14866.0	15759.8	16350.2	17304.4	18643.0
72.5°	6569.7	7407.5	8419.2	9068.4	9721.7	10473.9	11097.2	11868.1	12418.8	13288.2	14500.7
75°	3532.4	4150.0	5038.5	5655.3	6355.2	6997.5	7727.4	8244.0	8651.6	9339.3	10323.5
77.5°	1655.3	2031.2	2480.9	2955.4	3429.8	3924.5	4405.9	4824.0	4999.1	5392.9	5973.6
80°	1004.9	1126.5	1257.5	1403.9	1602.2	1761.9	1974.0	2126.9	2137.9	2262.3	2440.0
82.5°	671.1	716.1	755.9	792.8	843.5	883.2	928.2	981.3	1003.2	1032.0	1089.6
85°	457.8	479.7	487.8	511.3	505.7	519.5	537.3	555.1	564.5	563.3	589.2
87.5°	281.4	292.4	298.1	303.3	299.3	294.0	302.1	311.8	314.3	306.2	309.0
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°	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1
2.5°	2505.7	2493.5	2480.9	2472.8	2470.0	2397.8	2366.2	2345.9	2302.1	2266.4	2237.6
5°	2764.0	2738.0	2717.7	2693.0	2679.2	2495.9	2429.0	2382.8	2306.1	2261.1	2219.8
7.5°	3179.6	3107.0	3064.9	3017.0	2976.0	2645.1	2534.4	2461.9	2355.2	2295.2	2248.6
10°	3651.2	3576.2	3508.9	3435.1	3371.0	2843.4	2682.0	2569.7	2429.0	2351.2	2289.5
12.5°	4177.6	4103.8	4019.0	3924.5	3842.6	3094.9	2870.6	2710.8	2517.8	2414.0	2328.0
15°	4799.6	4669.5	4566.9	4457.8	4362.1	3395.7	3090.8	2869.4	2612.3	2471.6	2356.8
17.5°	5377.5	5240.8	5101.7	5006.0	4895.3	3733.1	3312.2	3030.4	2690.2	2508.5	2362.1
20°	5942.4	5793.1	5673.1	5544.5	5428.2	4083.1	3548.6	3172.7	2740.8	2509.7	2328.0
22.5°	6439.9	6346.6	6212.8	6073.3	5955.7	4433.0	3770.0	3293.2	2759.9	2478.5	2267.6
25°	7005.6	6907.5	6743.2	6625.6	6494.7	4789.9	3987.4	3386.0	2749.0	2419.7	2174.8
27.5°	7609.8	7500.7	7332.4	7209.6	7051.0	5160.1	4186.9	3452.9	2708.0	2324.0	2050.3
30°	8240.0	8140.2	7974.8	7850.7	7690.5	5552.7	4409.9	3497.9	2626.1	2191.4	1905.5
32.5°	8916.8	8833.2	8669.4	8539.7	8368.5	5977.6	4617.6	3511.7	2501.6	2034.0	1752.6
35°	9559.1	9501.9	9363.6	9242.0	9064.4	6379.5	4837.7	3504.8	2354.0	1861.7	1613.1
37.5°	10282.5	10248.1	10179.9	10025.4	9808.1	6924.9	5101.7	3476.0	2173.5	1691.0	1506.5
40°	11053.4	11056.3	10982.4	10877.0	10674.7	7586.7	5416.0	3420.1	1976.5	1540.5	1409.2
42.5°	11869.3	11911.9	11876.2	11801.2	11606.9	8253.8	5791.9	3352.0	1785.5	1394.1	1313.9
45°	12804.4	12856.3	12911.1	12800.4	12611.8	9134.1	6286.6	3263.1	1578.7	1272.5	1248.2
47.5°	13883.1	13965.0	14014.0	14015.7	13827.1	10225.0	7090.4	3209.6	1395.8	1190.6	1216.5
50°	16158.8	16185.2	16301.1	16503.5	16358.7	12749.7	8494.2	3176.8	1271.3	1139.9	1193.4
52.5°	19438.2	19724.0	19925.2	19911.4	19714.3	14353.1	9267.9	3007.3	1197.5	1120.8	1182.5
55°	20773.9	21130.8	21502.6	21600.7	21447.9	15721.7	9999.5	2837.8	1161.8	1134.6	1186.5
57.5°	22553.7	23155.1	23665.2	23879.7	23658.3	17472.6	10961.8	2749.0	1150.8	1171.5	1212.5
60°	24632.8	25376.5	26046.4	26431.6	26431.6	19484.8	11959.7	2712.1	1135.8	1226.3	1256.3
62.5°	25968.5	27060.5	28072.3	28636.8	28620.1	20885.8	12402.5	2586.3	1101.8	1264.4	1316.3
65°	25973.8	27272.6	28561.3	29196.0	29228.4	20713.9	11671.4	2284.2	1038.9	1270.1	1376.7
67.5°	23808.8	25193.2	26695.6	27405.2	27569.1	19067.9	10103.3	1878.3	936.3	1215.3	1398.6
70°	20108.1	21460.0	22993.7	23691.2	23982.3	16254.5	8137.4	1447.7	805.3	1094.9	1353.2
72.5°	15841.7	17167.7	18235.4	18745.1	18972.2	12424.4	5925.7	1093.7	660.2	922.5	1231.5
75°	11216.0	12211.1	12778.5	12892.0	12927.3	7489.8	3600.5	813.5	544.2	717.8	1040.1
77.5°	6330.4	6757.0	6710.4	6761.1	6340.2	2891.3	1568.1	582.3	448.5	545.4	806.6
80°	2471.6	2548.2	2393.7	2345.9	2151.6	1075.8	691.8	405.9	358.1	412.8	564.5
82.5°	1089.6	1124.9	1092.0	1100.6	1052.7	555.1	414.0	294.0	273.3	302.1	374.7
85°	600.2	611.1	608.3	626.1	600.2	221.4	196.7	180.5	191.4	205.2	240.5
87.5°	292.4	295.2	285.9	300.9	291.2	111.9	96.9	102.6	111.9	114.8	114.8
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°	2347.1	2347.1	2347.1	2347.1	2347.1	2347.1
2.5°	2217.3	2206.4	2207.6	2204.8	2199.5	2199.5
5°	2198.3	2187.3	2187.3	2184.5	2177.6	2178.8
7.5°	2217.3	2199.5	2192.6	2182.9	2173.5	2173.5
10°	2239.2	2207.6	2188.5	2172.3	2159.8	2159.8
12.5°	2255.5	2206.4	2174.8	2152.9	2140.7	2140.7
15°	2261.1	2196.7	2152.9	2126.9	2116.0	2114.7
17.5°	2243.3	2159.8	2106.6	2076.6	2062.8	2058.8
20°	2188.5	2092.8	2028.8	1994.3	1975.2	1968.3
22.5°	2106.6	1997.1	1922.1	1886.4	1861.7	1857.6
25°	1991.9	1874.3	1800.5	1766.0	1752.6	1748.2
27.5°	1857.6	1748.2	1685.3	1663.4	1651.2	1650.0
30°	1730.7	1637.5	1591.2	1574.6	1559.6	1557.2
32.5°	1611.5	1552.7	1535.3	1511.7	1476.5	1472.4
35°	1526.7	1521.5	1509.3	1457.0	1413.6	1401.0
37.5°	1474.8	1525.5	1462.7	1360.1	1328.9	1326.0
40°	1444.8	1483.4	1375.1	1339.8	1342.2	1339.8
42.5°	1376.7	1416.0	1377.9	1361.7	1372.2	1375.1
45°	1308.2	1352.0	1398.6	1387.7	1413.6	1413.6
47.5°	1270.1	1335.3	1397.0	1397.0	1435.5	1448.9
50°	1226.3	1322.0	1375.1	1394.1	1424.6	1413.6
52.5°	1223.4	1298.4	1343.9	1377.9	1391.7	1379.1
55°	1227.5	1279.4	1312.2	1350.8	1367.0	1368.2
57.5°	1233.2	1268.4	1290.3	1308.2	1357.2	1357.2
60°	1246.5	1259.1	1271.3	1281.0	1345.1	1346.3
62.5°	1268.4	1249.4	1246.5	1256.3	1338.2	1332.9
65°	1302.9	1235.6	1215.3	1224.6	1331.3	1315.1
67.5°	1349.1	1215.3	1175.6	1182.5	1326.0	1290.3
70°	1391.7	1182.5	1126.5	1119.6	1274.1	1211.3
72.5°	1395.8	1144.4	1058.0	1037.7	1107.4	1047.0
75°	1327.2	1118.0	983.0	922.5	914.4	906.3
77.5°	1196.3	1103.0	895.4	800.9	784.7	789.9
80°	1000.8	1047.0	789.9	678.0	766.8	757.5
82.5°	747.8	924.2	671.1	600.2	598.5	529.2
85°	415.6	720.6	546.6	449.7	313.1	303.3
87.5°	116.4	400.6	382.8	254.3	173.6	180.5
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)