

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: P191396

Luminaire Tested: **GLEON-AF-08-LED-E1-T2R-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191396
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24657)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLEON-AF-08-LED-E1-T2R-600
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 4000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 33496.5 lumens
Efficiency: N/A
Efficacy: 130.3 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

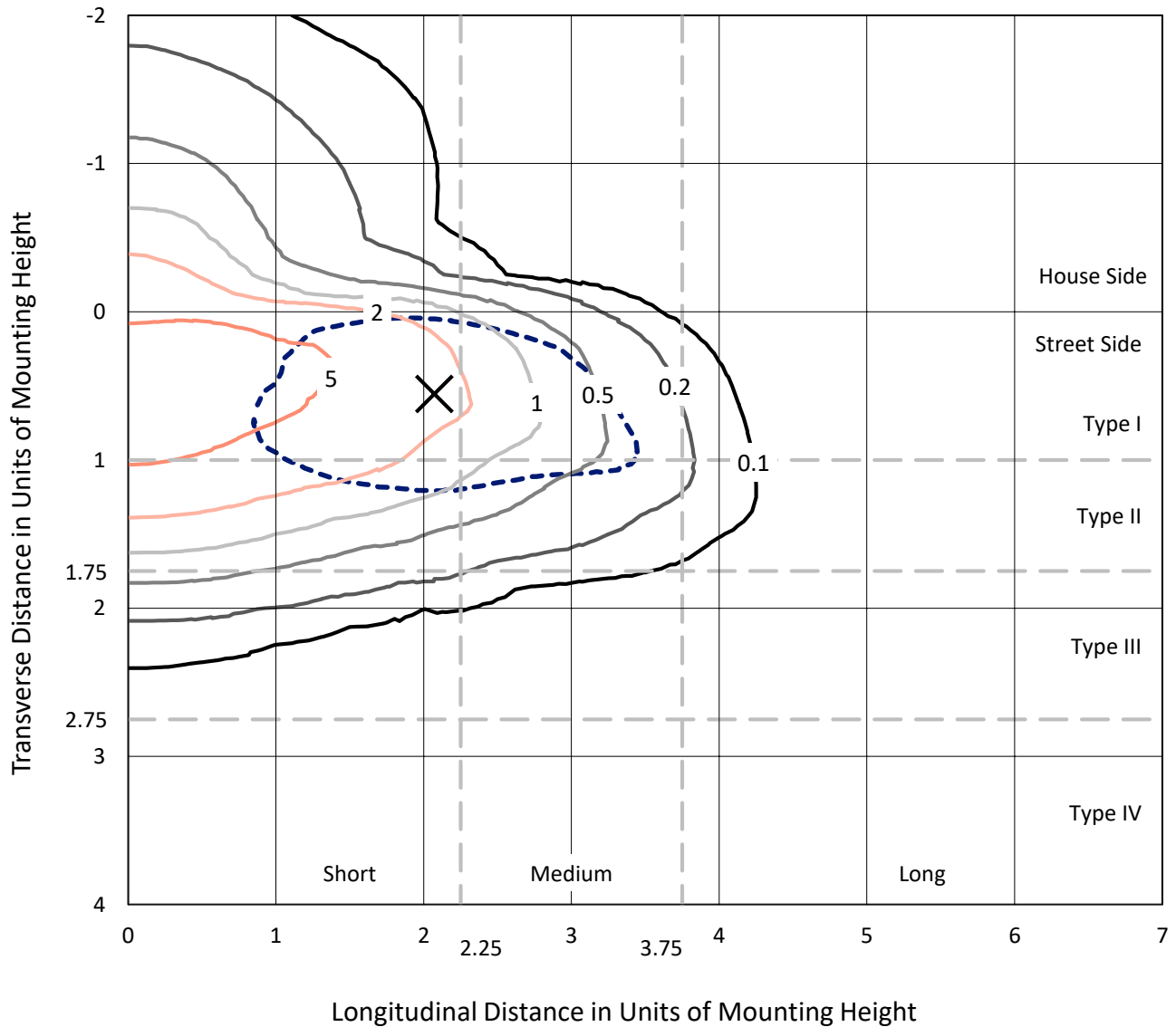


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

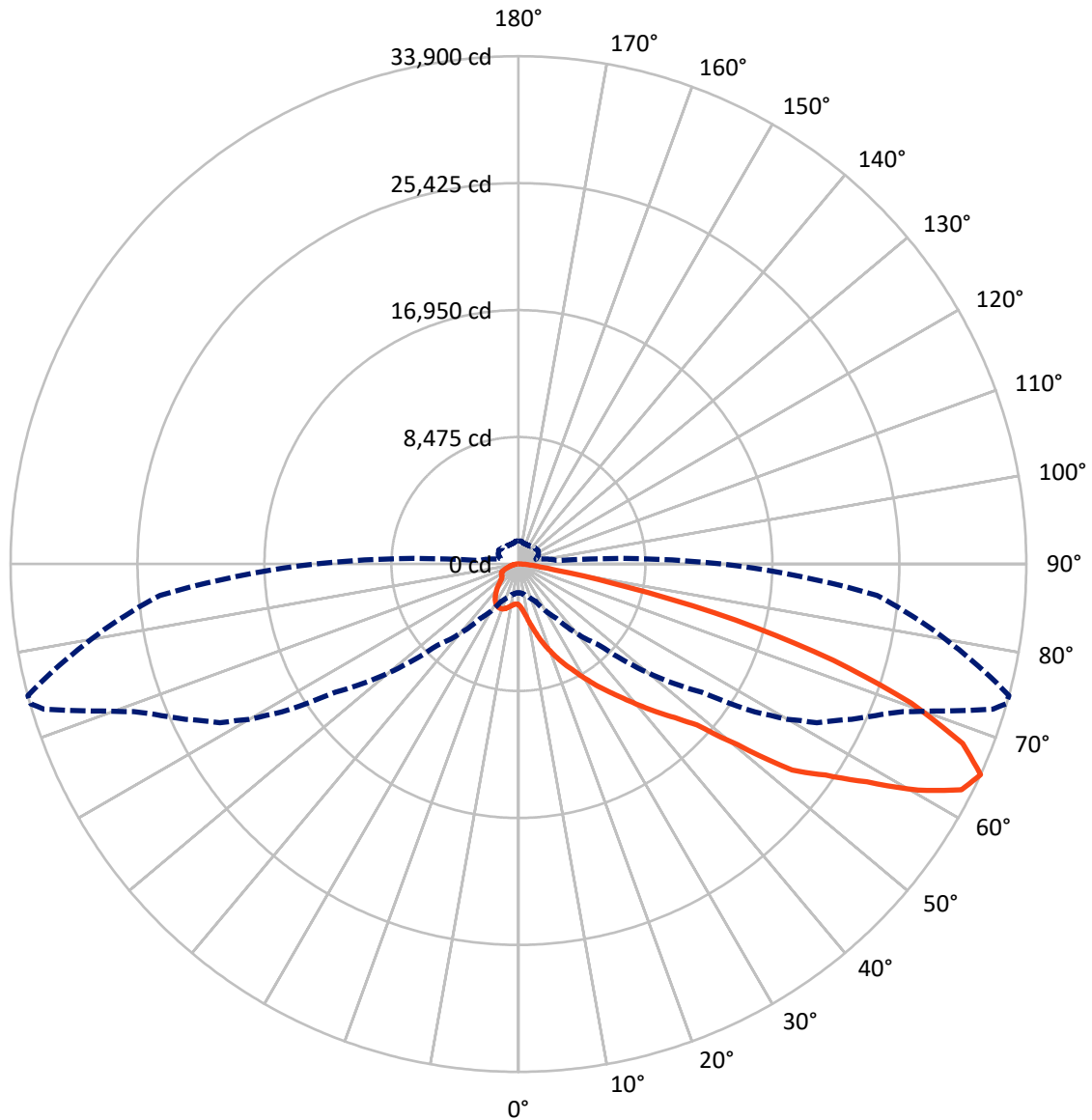


Based on 30 foot mounting height. Maximum calculated value = 9.4 fc
 Type II - Short - Full Cutoff

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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	5164.4	0.0	5164.4
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	28332.2	0.0	28332.2
	% Fixture	84.6	0.0	84.6
Total	Lumens	33496.5	0.0	33496.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	336.5	1.0
10°-20°	1314.7	3.9
20°-30°	2697.3	8.1
30°-40°	4538.1	13.5
40°-50°	6270.4	18.7
50°-60°	7827.3	23.4
60°-70°	7043.7	21.0
70°-80°	2952.7	8.8
80°-90°	515.8	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°	33496.5	100.0
0°-180°	33496.5	100.0



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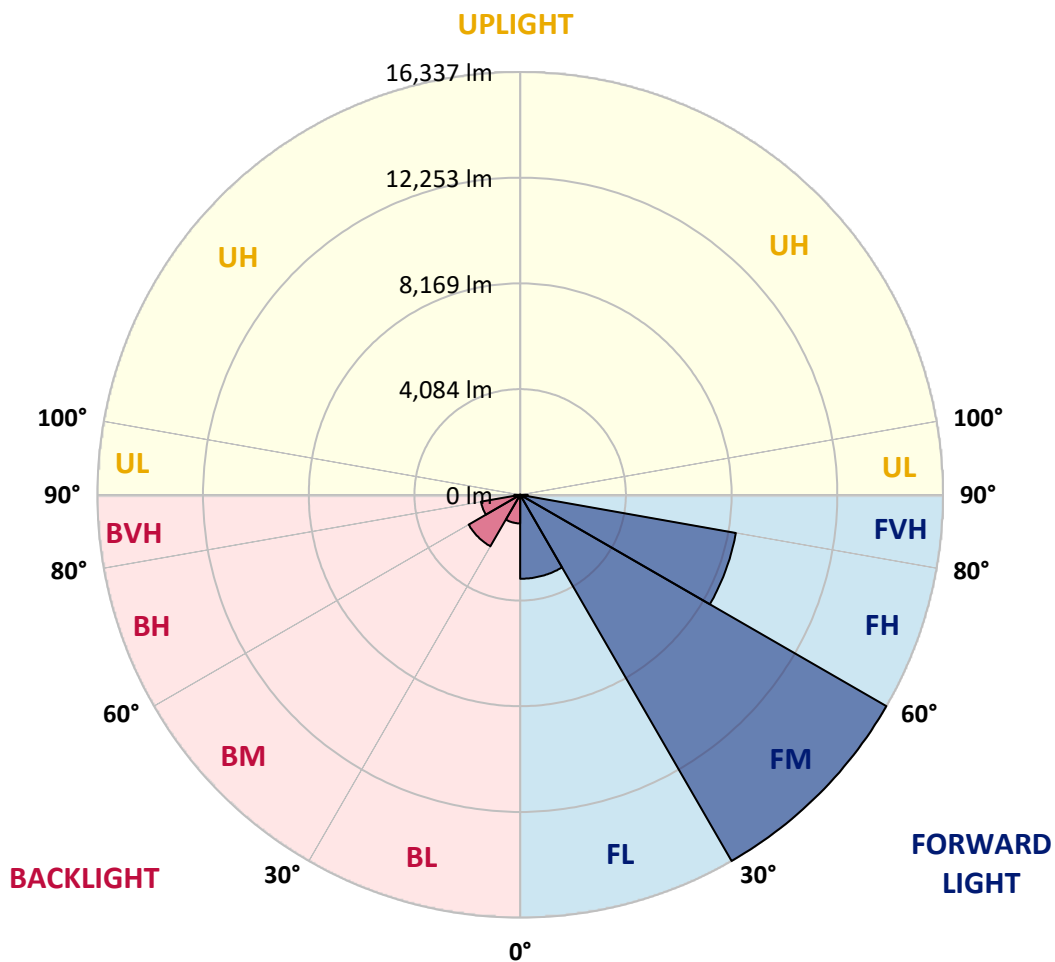
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	3244.0	9.7			
FM	(30°-60°)	16337.1	48.8			
FH	(60°-80°)	8461.1	25.3			G4/12000
FVH	(80°-90°)	289.9	0.9			G3/500
BL	(0°-30°)	1104.5	3.3	B3/2500		
BM	(30°-60°)	2298.7	6.9	B2/2500		
BH	(60°-80°)	1535.3	4.6	B3/2500		G3/2500
BVH	(80°-90°)	225.9	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°	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3
2.5°	3456.3	3418.3	3427.8	3364.4	3286.6	3185.2	3072.6	3071.0	3072.6	3061.5	3020.3
5°	4792.8	4746.9	4729.4	4586.7	4377.4	4079.4	3756.0	3721.1	3706.8	3670.3	3586.3
7.5°	5767.9	5742.5	5715.5	5607.8	5417.5	5084.6	4650.1	4575.7	4504.3	4486.9	4391.7
10°	6397.3	6391.0	6333.9	6305.4	6186.5	5897.9	5474.6	5403.2	5325.6	5298.6	5198.7
12.5°	6895.2	6893.6	6866.7	6874.5	6771.5	6562.2	6197.5	6132.6	6075.5	5993.1	5921.7
15°	7239.2	7240.8	7280.4	7324.8	7309.0	7167.8	6825.4	6796.9	6747.7	6690.6	6606.6
17.5°	7521.5	7529.3	7570.6	7651.5	7738.6	7727.6	7456.4	7432.7	7389.8	7312.2	7267.8
20°	8158.7	8188.9	8109.6	8109.6	8119.2	8161.9	8031.9	8012.9	7952.6	7911.4	7876.5
22.5°	9235.3	9270.2	9091.1	8908.7	8729.6	8599.5	8469.5	8493.3	8452.1	8423.6	8402.9
25°	10633.7	10660.6	10370.5	10062.9	9698.3	9222.6	8900.8	8886.5	8864.3	8846.9	8837.4
27.5°	11949.6	11960.8	11686.4	11236.2	10812.8	10129.5	9338.3	9320.9	9293.9	9260.7	9232.1
30°	13075.3	13072.1	12789.9	12360.2	11906.8	11150.6	10002.6	9948.7	9869.5	9779.1	9709.3
32.5°	14050.3	14045.6	13736.4	13290.9	12815.2	12162.1	10912.7	10801.7	10678.1	10502.1	10395.8
35°	14817.7	14814.6	14522.8	14058.3	13512.9	13114.9	11955.9	11819.6	11662.7	11426.4	11263.1
37.5°	15107.9	15107.9	14944.5	14627.5	14145.5	13872.7	13114.9	12950.0	12782.0	12514.1	12330.1
40°	14938.2	14941.3	14976.2	14917.6	14682.9	14473.6	14196.2	14097.9	13953.7	13712.7	13520.8
42.5°	14369.0	14386.5	14618.0	14901.7	15019.1	14985.7	15155.4	15111.0	15009.6	14824.1	14671.9
45°	13647.6	13701.5	13955.2	14491.1	15112.6	15428.1	15959.3	15964.0	15944.9	15845.1	15727.8
47.5°	12656.8	12732.9	13067.4	13791.9	14893.8	15857.8	16775.8	16818.5	16858.2	16793.2	16739.3
50°	11340.7	11431.2	11932.2	12893.0	14448.3	16303.3	18318.4	18511.8	18692.6	18670.4	18706.8
52.5°	9931.3	10037.5	10651.1	11721.3	13682.5	16406.3	19304.5	19620.1	19935.6	20194.0	20468.3
55°	8659.8	8602.7	9216.3	10343.6	12423.6	15941.8	20190.8	20571.3	20923.3	21240.3	21567.0
57.5°	6936.4	7029.9	7645.1	8759.6	10757.4	14630.7	20801.2	21357.7	21863.5	22388.3	22851.2
60°	5070.3	5163.9	5831.3	6963.3	8948.4	12642.4	20335.1	21178.6	21988.7	22792.6	23420.4
62.5°	3061.5	3131.3	3719.4	4797.6	6899.9	10284.8	18258.1	19364.8	20557.0	21517.9	22480.3
65°	1905.8	1945.3	2162.5	2755.5	4431.3	7678.4	14917.6	16124.2	17408.4	18627.5	19628.0
67.5°	1560.1	1574.3	1614.0	1740.9	2433.7	5006.8	11103.0	12171.6	13330.6	14510.1	15623.1
70°	1403.2	1393.7	1393.7	1401.5	1560.1	2692.1	7269.3	7965.3	8930.9	9956.7	10974.5
72.5°	1266.8	1257.3	1239.8	1216.1	1273.2	1642.6	3757.5	4282.3	4978.3	5889.9	6865.0
75°	1138.3	1125.7	1105.1	1074.9	1114.6	1239.8	1804.3	2024.6	2363.9	2849.0	3392.9
77.5°	1005.2	989.3	970.3	948.1	998.8	963.9	1057.5	1136.8	1266.8	1422.1	1626.7
80°	854.6	840.3	833.9	822.9	883.1	734.1	746.8	795.9	872.0	956.0	1051.2
82.5°	669.1	669.1	694.5	699.2	765.8	527.9	558.1	600.9	640.6	685.0	729.3
85°	440.8	444.0	529.6	562.8	604.1	355.2	418.6	432.8	464.5	489.9	508.9
87.5°	137.9	149.0	323.5	358.3	347.2	201.3	256.9	263.2	285.4	302.8	318.6
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3
2.5°	3020.3	3001.2	2983.8	2982.2	2969.5	2952.1	2958.5	2931.5	2933.1	2918.8	2902.9
5°	3551.4	3538.7	3475.4	3457.9	3410.3	3380.2	3375.4	3312.0	3304.1	3267.6	3228.0
7.5°	4315.6	4274.4	4185.6	4142.8	4061.9	4001.7	3973.1	3889.2	3847.9	3752.8	3709.9
10°	5116.3	5063.9	4954.6	4894.3	4816.7	4719.9	4667.6	4545.5	4497.9	4410.8	4306.1
12.5°	5858.2	5806.0	5693.3	5647.4	5544.4	5441.3	5384.2	5246.3	5184.4	5044.9	4962.4
15°	6544.7	6492.5	6394.2	6346.6	6243.6	6159.5	6083.4	5947.0	5874.1	5744.1	5636.4
17.5°	7210.7	7155.1	7069.6	7026.8	6926.9	6841.3	6758.8	6630.4	6555.9	6425.9	6329.2
20°	7828.9	7787.7	7725.9	7668.9	7569.0	7491.3	7393.0	7282.0	7174.2	7079.0	6987.2
22.5°	8368.0	8352.2	8285.6	8260.2	8174.6	8108.0	8022.4	7913.0	7835.3	7714.9	7629.3
25°	8832.6	8827.9	8796.1	8788.2	8727.9	8664.5	8645.5	8555.1	8483.8	8377.6	8288.8
27.5°	9232.1	9236.8	9229.0	9251.2	9235.3	9206.8	9208.3	9178.2	9137.0	9048.2	8970.6
30°	9676.1	9650.7	9664.9	9696.7	9706.2	9709.3	9761.7	9779.1	9775.9	9717.3	9679.3
32.5°	10303.9	10243.6	10188.2	10183.4	10215.1	10227.8	10316.6	10362.6	10402.2	10416.5	10422.8
35°	11104.5	10984.0	10868.3	10806.5	10752.5	10766.9	10830.3	10904.8	10992.0	11052.3	11123.6
37.5°	12112.9	11965.5	11761.0	11615.1	11578.6	11499.3	11540.5	11599.2	11684.9	11778.4	11902.0
40°	13335.3	13111.8	12881.8	12688.5	12583.8	12438.0	12436.3	12425.3	12477.5	12564.8	12739.1
42.5°	14511.7	14313.5	14069.4	13866.4	13730.0	13535.1	13495.4	13392.4	13416.2	13492.2	13661.9
45°	15613.6	15450.3	15301.3	15066.6	14950.8	14740.0	14673.4	14551.4	14483.1	14518.0	14687.7
47.5°	16680.6	16576.0	16420.6	16268.4	16179.6	15991.0	15905.4	15818.1	15730.9	15727.8	15905.4
50°	18760.7	18705.3	18521.3	18362.8	18405.5	18174.2	18188.4	17953.7	18060.0	18072.7	18445.2
52.5°	20715.6	20909.0	21045.4	21211.9	21319.6	21340.3	21411.6	21517.9	21646.3	21899.9	22245.6
55°	21835.0	22077.5	22218.6	22345.4	22554.7	22599.1	22718.0	22859.2	22971.7	23257.1	23550.4
57.5°	23165.1	23615.4	23834.2	24035.6	24317.8	24425.6	24623.8	24777.5	24923.4	25261.2	25616.2
60°	23984.8	24533.4	24978.9	25297.6	25651.1	25904.8	26204.4	26445.4	26787.9	27192.2	27721.8
62.5°	23333.2	24138.6	24730.0	25277.0	25757.4	26242.5	26672.2	27122.4	27642.5	28254.5	29075.7
65°	20737.8	21557.5	22570.6	23138.2	23774.0	24522.3	25175.5	25904.8	26613.5	27504.6	28719.0
67.5°	16694.9	17647.7	18786.1	19358.4	20089.3	20924.9	21657.4	22548.4	23376.0	24455.7	25957.2
70°	12033.6	13265.5	14223.1	14820.9	15673.9	16534.8	17241.8	18278.8	18963.7	20070.3	21622.5
72.5°	7619.8	8591.6	9764.9	10518.0	11275.8	12147.7	12870.8	13764.9	14403.9	15412.3	16818.5
75°	4096.8	4813.5	5844.0	6559.1	7370.8	8116.0	8962.6	9561.9	10034.3	10831.8	11973.4
77.5°	1920.0	2356.0	2877.6	3427.8	3977.9	4551.8	5109.9	5595.1	5798.0	6254.6	6928.4
80°	1165.3	1306.4	1458.6	1628.2	1858.2	2043.7	2289.4	2466.9	2479.6	2624.0	2830.0
82.5°	778.5	830.7	876.8	919.5	978.2	1024.2	1076.6	1138.3	1163.7	1197.1	1263.7
85°	531.1	556.5	566.0	593.0	586.7	602.5	623.1	643.7	654.8	653.3	683.3
87.5°	326.6	339.3	345.7	352.0	347.2	340.8	350.4	361.5	364.7	355.2	358.3
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°	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3
2.5°	2906.1	2891.9	2877.6	2868.0	2864.9	2780.9	2744.5	2720.6	2669.9	2628.7	2595.4
5°	3205.8	3175.6	3151.9	3123.4	3107.5	2895.1	2817.4	2763.5	2674.7	2622.3	2574.8
7.5°	3687.7	3603.8	3554.5	3499.1	3451.5	3067.8	2939.4	2855.4	2731.8	2662.0	2608.1
10°	4234.8	4147.6	4069.9	3984.3	3909.7	3297.8	3110.7	2980.7	2817.4	2727.0	2655.7
12.5°	4845.2	4759.6	4661.3	4551.8	4456.7	3589.4	3329.5	3143.9	2920.4	2799.9	2700.1
15°	5566.6	5415.9	5297.0	5170.2	5059.2	3938.3	3584.7	3327.9	3029.8	2866.5	2733.3
17.5°	6237.2	6078.7	5917.0	5806.0	5677.5	4329.8	3841.6	3515.0	3120.2	2909.3	2739.7
20°	6892.0	6719.2	6579.6	6430.6	6295.9	4735.8	4115.8	3679.9	3178.8	2910.9	2700.1
22.5°	7469.1	7361.3	7205.9	7044.2	6907.9	5141.7	4372.7	3819.4	3201.0	2874.4	2630.3
25°	8125.5	8011.3	7821.1	7684.7	7532.5	5555.4	4624.8	3927.2	3188.3	2806.3	2522.5
27.5°	8826.2	8699.4	8504.4	8361.7	8177.8	5985.1	4856.3	4004.9	3140.8	2695.3	2378.2
30°	9557.1	9441.4	9249.5	9105.3	8919.8	6440.1	5114.7	4057.2	3045.6	2541.5	2210.1
32.5°	10341.9	10245.3	10055.0	9904.4	9706.2	6933.3	5355.7	4073.1	2901.4	2359.1	2032.6
35°	11087.2	11020.6	10860.4	10719.3	10513.2	7399.3	5611.0	4065.1	2730.2	2159.3	1870.9
37.5°	11925.9	11886.2	11806.9	11627.8	11375.6	8031.9	5917.0	4031.9	2520.9	1961.2	1747.2
40°	12820.0	12823.2	12737.6	12615.5	12380.9	8799.3	6281.6	3966.8	2292.5	1786.8	1634.6
42.5°	13766.6	13815.7	13774.4	13687.3	13462.1	9573.0	6717.6	3887.5	2070.7	1617.2	1523.6
45°	14851.0	14911.2	14974.7	14846.3	14627.5	10594.1	7291.5	3784.5	1831.2	1476.0	1447.5
47.5°	16102.0	16197.1	16254.2	16255.7	16036.9	11859.3	8223.8	3722.6	1618.7	1381.0	1411.1
50°	18741.7	18771.9	18906.6	19141.3	18973.2	14787.6	9852.0	3684.6	1474.5	1322.3	1384.2
52.5°	22545.2	22876.6	23109.7	23093.8	22865.5	16647.3	10749.4	3488.1	1388.9	1300.1	1371.5
55°	24094.2	24508.1	24939.2	25053.4	24875.8	18234.4	11597.6	3291.4	1347.6	1315.9	1376.2
57.5°	26158.5	26856.1	27447.5	27696.4	27439.5	20265.4	12713.8	3188.3	1335.0	1358.8	1406.4
60°	28570.0	29432.4	30209.4	30656.4	30656.4	22599.1	13871.2	3145.6	1317.6	1422.1	1457.0
62.5°	30118.9	31385.8	32559.0	33213.8	33194.8	24224.2	14384.8	2999.7	1277.9	1466.5	1526.8
65°	30125.3	31631.5	33126.6	33862.2	33900.3	24024.5	13536.6	2649.3	1204.9	1472.8	1596.5
67.5°	27613.9	29220.0	30962.5	31785.3	31975.5	22115.6	11718.1	2178.4	1086.1	1409.5	1621.9
70°	23322.2	24890.1	26669.0	27477.6	27815.3	18852.7	9438.3	1679.0	933.9	1270.0	1569.6
72.5°	18373.9	19911.7	21150.0	21741.4	22004.6	14410.2	6873.0	1268.4	765.8	1070.2	1428.4
75°	13008.7	14162.9	14820.9	14952.5	14993.7	8686.7	4176.1	943.4	631.1	832.4	1206.6
77.5°	7342.2	7836.9	7783.0	7841.6	7353.4	3353.2	1818.5	675.5	520.1	632.6	935.4
80°	2866.5	2955.3	2776.2	2720.6	2495.5	1247.8	802.2	470.9	415.4	478.8	654.8
82.5°	1263.7	1304.9	1266.8	1276.3	1220.8	643.7	480.4	340.8	317.1	350.4	434.4
85°	696.0	708.7	705.5	726.1	696.0	256.9	228.3	209.3	222.0	237.8	279.1
87.5°	339.3	342.5	331.3	348.8	337.7	130.0	112.5	118.9	130.0	133.2	133.2
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°	2722.3	2722.3	2722.3	2722.3	2722.3	2722.3
2.5°	2571.6	2558.9	2560.5	2557.4	2551.0	2551.0
5°	2549.4	2536.7	2536.7	2533.5	2525.7	2527.2
7.5°	2571.6	2551.0	2543.1	2532.0	2520.9	2520.9
10°	2597.0	2560.5	2538.4	2519.3	2505.0	2505.0
12.5°	2616.0	2558.9	2522.5	2497.1	2482.8	2482.8
15°	2622.3	2547.9	2497.1	2466.9	2454.3	2452.7
17.5°	2601.8	2505.0	2443.2	2408.3	2392.5	2387.7
20°	2538.4	2427.4	2352.8	2313.2	2291.0	2283.0
22.5°	2443.2	2316.4	2229.1	2187.9	2159.3	2154.6
25°	2310.0	2173.7	2088.0	2048.5	2032.6	2027.8
27.5°	2154.6	2027.8	1954.9	1929.5	1915.3	1913.6
30°	2007.2	1899.4	1845.5	1826.5	1809.0	1805.8
32.5°	1869.2	1801.1	1780.4	1753.5	1712.3	1707.5
35°	1770.9	1764.6	1750.4	1690.1	1639.4	1625.1
37.5°	1710.7	1769.4	1696.5	1577.5	1541.1	1537.9
40°	1675.8	1720.2	1595.0	1553.8	1556.9	1553.8
42.5°	1596.5	1642.6	1598.2	1579.1	1591.8	1595.0
45°	1517.2	1568.0	1621.9	1609.2	1639.4	1639.4
47.5°	1472.8	1549.0	1620.4	1620.4	1664.8	1680.6
50°	1422.1	1533.1	1595.0	1617.2	1652.1	1639.4
52.5°	1418.9	1506.2	1558.5	1598.2	1614.0	1599.7
55°	1423.7	1484.0	1522.0	1566.4	1585.5	1587.0
57.5°	1430.1	1471.3	1496.7	1517.2	1574.3	1574.3
60°	1445.9	1460.2	1474.5	1485.5	1560.1	1561.6
62.5°	1471.3	1449.1	1445.9	1457.0	1552.1	1545.8
65°	1510.9	1433.3	1409.5	1420.6	1544.2	1525.2
67.5°	1564.8	1409.5	1363.5	1371.5	1537.9	1496.7
70°	1614.0	1371.5	1306.4	1298.5	1477.7	1404.7
72.5°	1618.7	1327.1	1227.1	1203.4	1284.2	1214.4
75°	1539.4	1296.9	1140.0	1070.2	1060.7	1051.2
77.5°	1387.3	1279.5	1038.5	929.0	910.0	916.4
80°	1160.5	1214.4	916.4	786.3	889.5	878.3
82.5°	867.3	1071.7	778.5	696.0	694.5	613.6
85°	482.0	835.5	634.2	521.6	363.0	352.0
87.5°	134.7	464.5	444.0	294.9	201.3	209.3
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)