

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: P191408

Luminaire Tested: **GLEON-AF-10-LED-E1-T2R-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P191408
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-10-LED-E1-T2R-800
Description: GALLEON AREA AND ROADWAY LUMINAIRE
(10) 70 CRI, 4000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 50730.2 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Luminous Opening: Rectangular (W 2.5' x L: 1' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G5

Input Watts (W): 419
Input Voltage (V): NR
Input Current (A_{in}): 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

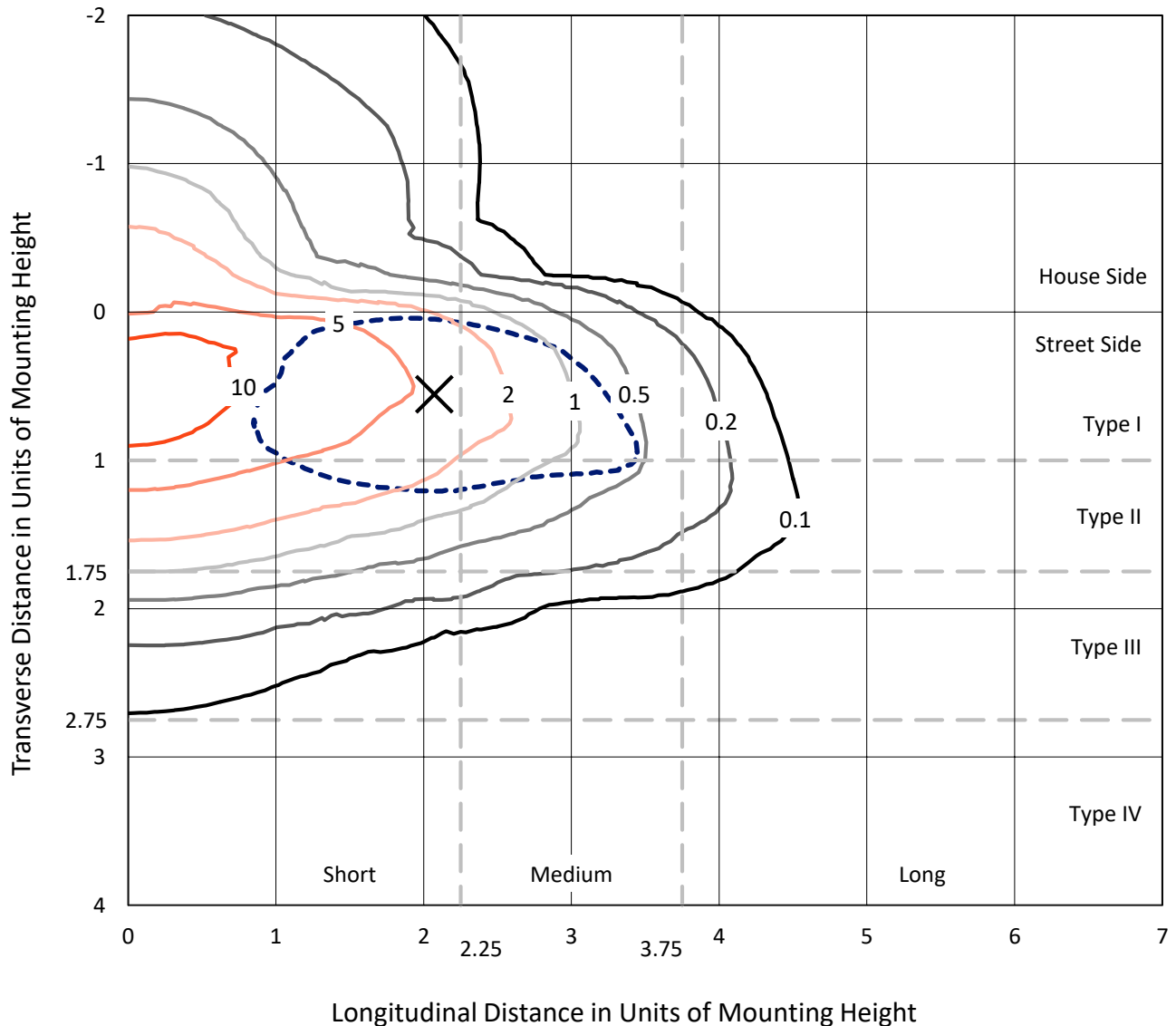


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Iso-Footcandle Lines of Horizontal Illumination

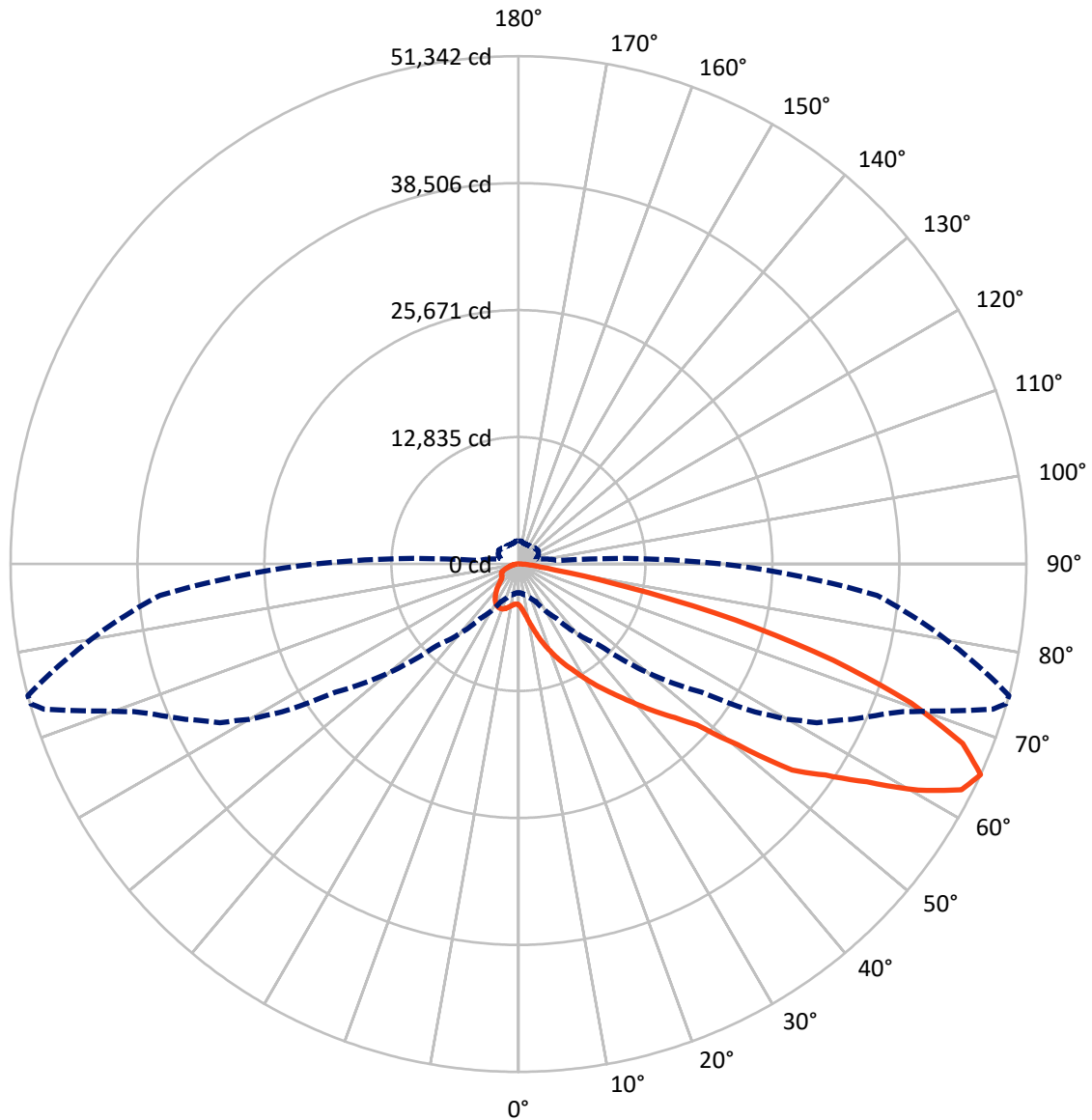
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 14.2 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	7821.4	0.0	7821.4
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	42908.8	0.0	42908.8
	% Fixture	84.6	0.0	84.6
Total	Lumens	50730.2	0.0	50730.2
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	509.6	1.0
10°-20°	1991.1	3.9
20°-30°	4085.1	8.1
30°-40°	6872.9	13.5
40°-50°	9496.4	18.7
50°-60°	11854.4	23.4
60°-70°	10667.7	21.0
70°-80°	4471.8	8.8
80°-90°	781.2	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°	50730.2	100.0
0°-180°	50730.2	100.0



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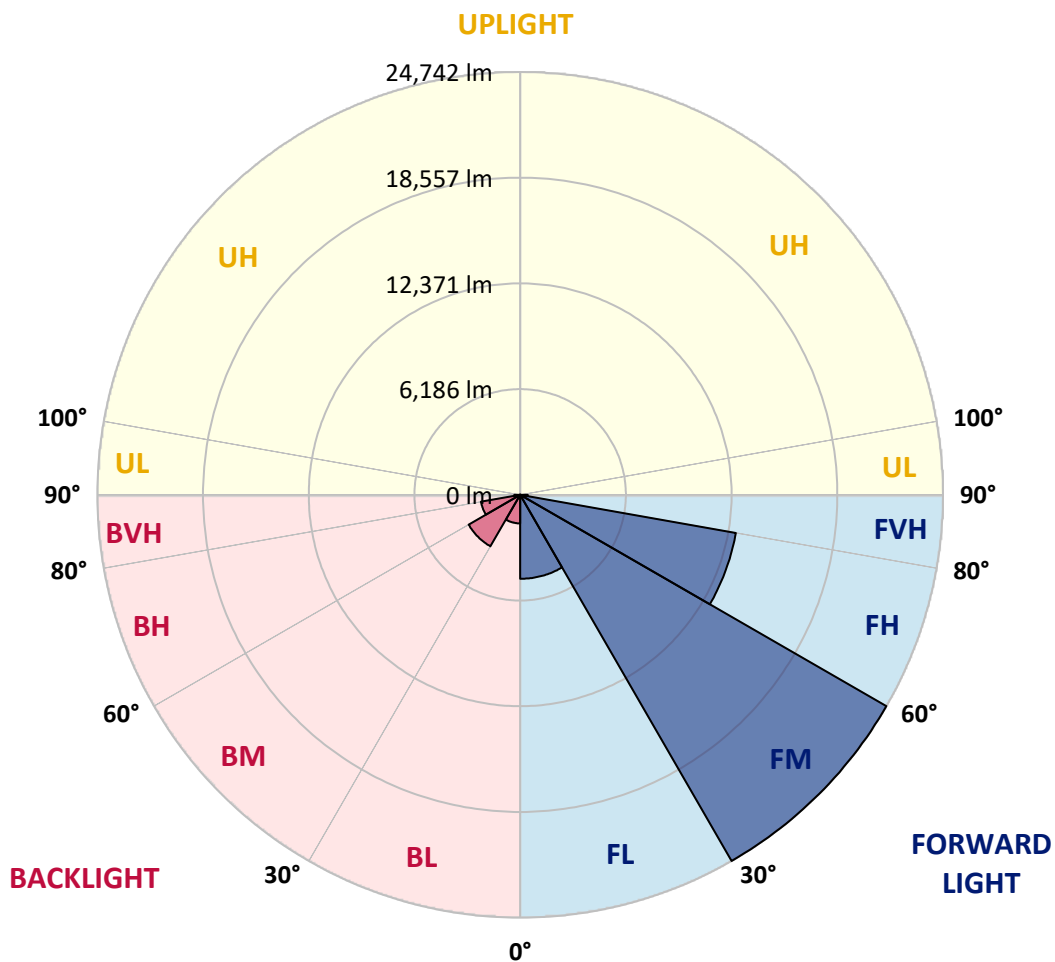
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4913.1	9.7			
FM (30°-60°)	24742.3	48.8			
FH (60°-80°)	12814.3	25.3			G5
FVH (80°-90°)	439.1	0.9			G3/500
BL (0°-30°)	1672.7	3.3	B3/2500		
BM (30°-60°)	3481.4	6.9	B3/5000		
BH (60°-80°)	2325.2	4.6	B3/2500		G3/2500
BVH (80°-90°)	342.1	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-G5

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8
2.5°	5234.5	5176.9	5191.3	5095.3	4977.6	4823.9	4653.4	4651.1	4653.4	4636.6	4574.2
5°	7258.8	7189.1	7162.7	6946.6	6629.6	6178.2	5688.3	5635.5	5614.0	5558.7	5431.5
7.5°	8735.4	8697.0	8656.2	8492.9	8204.8	7700.6	7042.6	6929.8	6821.8	6795.3	6651.2
10°	9688.7	9679.1	9592.6	9549.5	9369.3	8932.3	8291.2	8183.2	8065.6	8024.6	7873.4
12.5°	10442.7	10440.2	10399.4	10411.5	10255.4	9938.4	9386.2	9287.7	9201.2	9076.4	8968.3
15°	10963.7	10966.1	11026.2	11093.4	11069.4	10855.7	10337.0	10293.7	10219.4	10132.9	10005.7
17.5°	11391.1	11403.1	11465.5	11588.0	11720.0	11703.3	11292.7	11256.7	11191.8	11074.2	11007.0
20°	12356.4	12402.1	12282.0	12282.0	12296.4	12361.2	12164.3	12135.5	12044.2	11981.8	11928.9
22.5°	13986.8	14039.6	13768.3	13492.1	13220.8	13023.9	12827.0	12863.0	12800.6	12757.4	12726.1
25°	16104.6	16145.4	15706.0	15240.2	14687.9	13967.6	13480.1	13458.6	13424.9	13398.5	13384.1
27.5°	18097.5	18114.4	17699.0	17017.1	16375.9	15341.0	14142.8	14116.4	14075.6	14025.2	13982.0
30°	19802.4	19797.6	19370.2	18719.5	18032.8	16887.4	15149.0	15067.3	14947.3	14810.4	14704.7
32.5°	21279.1	21272.0	20803.6	20128.9	19408.7	18419.4	16527.2	16359.1	16171.8	15905.4	15744.4
35°	22441.3	22436.5	21994.7	21291.1	20465.2	19862.4	18107.2	17900.7	17663.0	17305.2	17057.9
37.5°	22880.6	22880.6	22633.4	22153.1	21423.1	21010.2	19862.4	19612.7	19358.2	18952.4	18673.9
40°	22623.8	22628.6	22681.4	22592.6	22237.2	21920.2	21500.0	21351.1	21132.6	20767.6	20477.1
42.5°	21761.7	21788.1	22138.7	22568.5	22746.2	22695.8	22952.8	22885.5	22731.8	22450.9	22220.3
45°	20669.2	20750.9	21135.1	21946.6	22887.9	23365.7	24170.1	24177.3	24148.5	23997.2	23819.5
47.5°	19168.5	19283.7	19790.4	20887.7	22556.6	24016.4	25406.7	25471.6	25531.5	25433.1	25351.5
50°	17175.5	17312.4	18071.1	19526.3	21881.8	24691.2	27743.0	28036.0	28309.8	28276.1	28331.3
52.5°	15040.9	15201.8	16131.0	17751.8	20722.0	24847.3	29236.5	29714.4	30192.2	30583.6	30999.0
55°	13115.2	13028.7	13958.0	15665.2	18815.5	24143.7	30578.9	31155.1	31688.2	32168.4	32663.0
57.5°	10505.1	10646.8	11578.4	13266.4	16291.9	22157.9	31503.3	32346.1	33112.0	33906.8	34608.0
60°	7678.9	7820.6	8831.4	10545.9	13552.2	19146.9	30797.4	32074.7	33301.8	34519.2	35470.0
62.5°	4636.6	4742.3	5633.1	7265.9	10449.9	15576.4	27651.8	29327.8	31133.5	32588.6	34046.1
65°	2886.2	2946.2	3275.2	4173.2	6711.3	11628.8	22592.6	24419.8	26364.8	28211.2	29726.4
67.5°	2362.7	2384.4	2444.3	2636.5	3685.8	7582.8	16815.4	18433.8	20189.0	21975.4	23661.1
70°	2125.1	2110.7	2110.7	2122.6	2362.7	4077.2	11009.3	12063.5	13525.8	15079.3	16620.8
72.5°	1918.5	1904.1	1877.7	1841.7	1928.2	2487.6	5690.8	6485.5	7539.7	8920.3	10397.1
75°	1724.1	1704.8	1673.6	1628.0	1688.0	1877.7	2732.5	3066.3	3580.1	4314.9	5138.5
77.5°	1522.4	1498.3	1469.5	1435.9	1512.7	1460.0	1601.5	1721.6	1918.5	2153.8	2463.6
80°	1294.2	1272.7	1263.0	1246.2	1337.4	1111.7	1131.0	1205.3	1320.6	1447.9	1592.0
82.5°	1013.3	1013.3	1051.7	1059.0	1159.7	799.5	845.2	910.0	970.1	1037.3	1104.6
85°	667.5	672.3	802.0	852.4	914.8	537.9	633.9	655.5	703.6	741.9	770.8
87.5°	208.9	225.7	489.8	542.7	525.9	304.9	389.0	398.6	432.2	458.6	482.6
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°	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8
2.5°	4574.2	4545.4	4519.0	4516.6	4497.4	4471.0	4480.5	4439.7	4442.2	4420.6	4396.5
5°	5378.6	5359.4	5263.4	5236.9	5164.9	5119.3	5112.1	5016.0	5004.1	4948.8	4888.8
7.5°	6535.9	6473.5	6339.0	6274.3	6151.8	6060.6	6017.3	5890.0	5827.6	5683.5	5618.8
10°	7748.5	7669.3	7503.7	7412.4	7294.8	7148.3	7069.0	6884.2	6812.1	6680.1	6521.5
12.5°	8872.3	8793.1	8622.6	8553.0	8396.9	8240.8	8154.4	7945.5	7851.8	7640.5	7515.6
15°	9912.0	9832.8	9683.9	9611.9	9455.7	9328.5	9213.3	9006.8	8896.3	8699.4	8536.1
17.5°	10920.5	10836.4	10706.8	10642.0	10490.7	10361.1	10236.2	10041.7	9928.8	9731.9	9585.5
20°	11856.9	11794.5	11700.8	11614.4	11463.2	11345.4	11196.6	11028.5	10865.3	10721.2	10581.9
22.5°	12673.3	12649.3	12548.4	12510.1	12380.4	12279.5	12149.9	11984.2	11866.5	11684.0	11554.4
25°	13376.9	13369.7	13321.7	13309.6	13218.4	13122.3	13093.6	12956.7	12848.7	12687.8	12553.2
27.5°	13982.0	13989.2	13977.2	14010.7	13986.8	13943.5	13946.0	13900.4	13837.9	13703.4	13585.8
30°	14654.3	14615.9	14637.5	14685.5	14699.9	14704.7	14784.0	14810.4	14805.6	14716.7	14659.1
32.5°	15605.1	15513.9	15429.9	15422.6	15470.7	15489.9	15624.3	15694.0	15754.1	15775.6	15785.3
35°	16817.7	16635.2	16460.0	16366.3	16284.7	16306.3	16402.3	16515.2	16647.3	16738.5	16846.6
37.5°	18344.9	18121.6	17811.8	17591.0	17535.7	17415.6	17478.0	17566.9	17696.5	17838.2	18025.5
40°	20196.2	19857.6	19509.4	19216.5	19058.0	18837.1	18834.8	18817.9	18897.2	19029.2	19293.4
42.5°	21977.9	21677.7	21308.0	21000.6	20794.0	20498.7	20438.7	20282.7	20318.7	20433.9	20690.8
45°	23646.6	23399.4	23173.6	22818.2	22643.0	22323.7	22222.8	22037.8	21934.6	21987.4	22244.4
47.5°	25262.6	25104.1	24868.9	24638.4	24503.9	24218.2	24088.4	23956.4	23824.3	23819.5	24088.4
50°	28413.0	28328.9	28050.4	27810.2	27875.1	27524.5	27546.1	27190.7	27351.7	27370.9	27935.2
52.5°	31373.6	31666.6	31873.0	32125.2	32288.4	32319.6	32427.7	32588.6	32783.1	33167.2	33690.7
55°	33068.8	33436.2	33649.9	33842.0	34159.0	34226.2	34406.2	34619.9	34790.5	35222.7	35666.9
57.5°	35083.4	35765.3	36096.7	36401.6	36829.0	36992.4	37292.5	37525.4	37746.3	38257.7	38795.6
60°	36324.8	37155.6	37830.4	38313.0	38848.4	39232.6	39686.4	40051.4	40570.0	41182.4	41984.4
62.5°	35337.9	36557.7	37453.3	38281.8	39009.3	39744.1	40394.8	41076.7	41864.3	42791.2	44035.0
65°	31407.2	32648.6	34182.9	35042.6	36005.4	37138.7	38128.0	39232.6	40305.9	41655.4	43494.6
67.5°	25284.3	26727.4	28451.4	29318.2	30425.1	31690.5	32799.9	34149.4	35402.8	37038.0	39311.8
70°	18224.8	20090.5	21540.8	22446.1	23737.9	25041.7	26112.7	27683.0	28720.3	30396.4	32747.1
72.5°	11540.0	13011.9	14788.8	15929.3	17077.0	18397.7	19492.6	20846.9	21814.5	23341.7	25471.6
75°	6204.6	7290.0	8850.7	9933.6	11163.1	12291.6	13573.7	14481.4	15197.0	16404.8	18133.5
77.5°	2907.8	3568.2	4358.1	5191.3	6024.6	6893.8	7738.9	8473.7	8781.0	9472.6	10493.1
80°	1764.9	1978.6	2209.1	2466.0	2814.1	3095.1	3467.3	3736.2	3755.5	3974.0	4286.1
82.5°	1179.0	1258.2	1327.9	1392.6	1481.5	1551.1	1630.4	1724.1	1762.4	1812.9	1913.7
85°	804.3	842.8	857.2	898.0	888.4	912.5	943.7	974.9	991.6	989.3	1034.9
87.5°	494.6	513.8	523.4	533.1	525.9	516.3	530.7	547.5	552.3	537.9	542.7
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8
2.5°	4401.3	4379.8	4358.1	4343.7	4338.9	4211.6	4156.5	4120.4	4043.5	3981.1	3930.7
5°	4855.1	4809.5	4773.5	4730.3	4706.3	4384.6	4266.8	4185.2	4050.8	3971.5	3899.5
7.5°	5585.1	5457.9	5383.4	5299.4	5227.4	4646.2	4451.8	4324.5	4137.2	4031.6	3949.9
10°	6413.5	6281.4	6163.8	6034.1	5921.2	4994.5	4711.1	4514.2	4266.8	4130.0	4021.9
12.5°	7337.9	7208.3	7059.4	6893.8	6749.6	5436.3	5042.4	4761.5	4422.9	4240.4	4089.1
15°	8430.4	8202.3	8022.3	7830.2	7662.1	5964.5	5429.0	5040.1	4588.7	4341.3	4139.6
17.5°	9446.1	9206.0	8961.2	8793.1	8598.5	6557.6	5818.0	5323.3	4725.5	4406.2	4149.2
20°	10437.9	10176.1	9964.9	9739.1	9535.0	7172.3	6233.5	5573.1	4814.3	4408.5	4089.1
22.5°	11311.9	11148.6	10913.2	10668.4	10461.8	7787.0	6622.4	5784.4	4848.0	4353.3	3983.6
25°	12306.0	12133.1	11845.0	11638.4	11407.9	8413.7	7004.1	5947.6	4828.7	4250.1	3820.2
27.5°	13367.3	13175.2	12879.9	12663.7	12385.2	9064.4	7354.8	6065.4	4756.7	4082.0	3601.7
30°	14474.2	14298.9	14008.4	13789.9	13509.0	9753.5	7746.2	6144.6	4612.6	3849.1	3347.2
32.5°	15662.8	15516.3	15228.2	15000.0	14699.9	10500.3	8111.1	6168.6	4394.1	3573.0	3078.3
35°	16791.3	16690.5	16447.9	16234.2	15922.1	11206.2	8497.8	6156.6	4134.8	3270.4	2833.4
37.5°	18061.5	18001.5	17881.5	17610.1	17228.3	12164.3	8961.2	6106.2	3817.9	2970.2	2646.1
40°	19415.8	19420.6	19290.9	19106.1	18750.7	13326.5	9513.4	6007.7	3472.1	2706.1	2475.6
42.5°	20849.3	20923.7	20861.3	20729.3	20388.2	14498.2	10173.8	5887.7	3136.0	2449.1	2307.5
45°	22491.7	22583.0	22679.0	22484.5	22153.1	16044.6	11043.0	5731.6	2773.3	2235.5	2192.3
47.5°	24386.2	24530.3	24616.7	24619.2	24287.7	17960.7	12454.8	5637.9	2451.6	2091.4	2137.0
50°	28384.1	28429.7	28633.8	28989.2	28734.7	22395.7	14920.9	5580.3	2233.1	2002.5	2096.2
52.5°	34144.6	34646.4	34999.3	34975.3	34629.5	25212.3	16279.9	5282.5	2103.4	1969.0	2077.0
55°	36490.5	37117.2	37770.3	37943.2	37674.3	27615.8	17564.5	4984.8	2041.0	1993.0	2084.2
57.5°	39616.8	40673.3	41568.9	41945.9	41557.0	30691.7	19254.9	4828.7	2021.8	2057.8	2129.8
60°	43269.0	44575.2	45751.8	46428.9	46428.9	34226.2	21007.7	4763.9	1995.4	2153.8	2206.7
62.5°	45614.9	47533.5	49310.3	50302.0	50273.1	36687.4	21785.8	4543.0	1935.3	2221.0	2312.3
65°	45624.5	47905.6	50169.9	51284.0	51341.7	36384.8	20501.2	4012.3	1824.8	2230.6	2417.9
67.5°	41821.1	44253.5	46892.3	48138.5	48426.7	33493.9	17747.0	3299.2	1644.8	2134.6	2456.4
70°	35321.2	37695.8	40390.0	41614.6	42126.0	28552.2	14294.1	2542.9	1414.3	1923.4	2377.1
72.5°	27827.1	30156.2	32031.6	32927.2	33325.8	21824.1	10409.0	1920.9	1159.7	1620.8	2163.4
75°	19701.5	21449.6	22446.1	22645.4	22707.8	13156.0	6324.7	1428.7	955.6	1260.6	1827.3
77.5°	11119.8	11869.0	11787.4	11876.2	11136.6	5078.4	2754.1	1022.8	787.6	958.1	1416.7
80°	4341.3	4475.8	4204.4	4120.4	3779.4	1889.7	1215.0	713.1	629.1	725.2	991.6
82.5°	1913.7	1976.1	1918.5	1933.0	1848.9	974.9	727.5	516.3	480.3	530.7	658.0
85°	1054.2	1073.3	1068.5	1099.8	1054.2	389.0	345.8	316.9	336.1	360.2	422.6
87.5°	513.8	518.6	501.9	528.3	511.5	196.9	170.5	180.0	196.9	201.7	201.7
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):

	135°	145°	155°	165°	175°	180°
0°	4122.8	4122.8	4122.8	4122.8	4122.8	4122.8
2.5°	3894.7	3875.4	3877.9	3873.1	3863.5	3863.5
5°	3861.0	3841.9	3841.9	3837.1	3825.0	3827.5
7.5°	3894.7	3863.5	3851.5	3834.6	3817.9	3817.9
10°	3933.1	3877.9	3844.2	3815.4	3793.8	3793.8
12.5°	3961.9	3875.4	3820.2	3781.8	3760.3	3760.3
15°	3971.5	3858.7	3781.8	3736.2	3717.0	3714.6
17.5°	3940.3	3793.8	3700.2	3647.3	3623.4	3616.1
20°	3844.2	3676.2	3563.3	3503.3	3469.6	3457.7
22.5°	3700.2	3508.1	3376.0	3313.6	3270.4	3263.2
25°	3498.5	3292.0	3162.4	3102.3	3078.3	3071.1
27.5°	3263.2	3071.1	2960.6	2922.3	2900.6	2898.2
30°	3039.9	2876.6	2794.9	2766.2	2739.8	2735.0
32.5°	2831.0	2727.7	2696.5	2655.7	2593.3	2586.0
35°	2682.1	2672.5	2650.9	2559.6	2482.8	2461.2
37.5°	2590.8	2679.7	2569.2	2389.2	2334.0	2329.2
40°	2538.0	2605.3	2415.6	2353.1	2357.9	2353.1
42.5°	2417.9	2487.6	2420.4	2391.6	2410.8	2415.6
45°	2298.0	2374.8	2456.4	2437.2	2482.8	2482.8
47.5°	2230.6	2345.9	2454.0	2454.0	2521.3	2545.2
50°	2153.8	2321.9	2415.6	2449.1	2502.0	2482.8
52.5°	2149.0	2281.1	2360.4	2420.4	2444.3	2422.8
55°	2156.3	2247.5	2305.1	2372.3	2401.2	2403.5
57.5°	2165.9	2228.3	2266.7	2298.0	2384.4	2384.4
60°	2189.8	2211.5	2233.1	2249.9	2362.7	2365.2
62.5°	2228.3	2194.6	2189.8	2206.7	2350.7	2341.1
65°	2288.3	2170.7	2134.6	2151.5	2338.8	2309.9
67.5°	2370.0	2134.6	2065.0	2077.0	2329.2	2266.7
70°	2444.3	2077.0	1978.6	1966.5	2237.9	2127.4
72.5°	2451.6	2009.8	1858.5	1822.5	1944.9	1839.3
75°	2331.5	1964.2	1726.4	1620.8	1606.3	1592.0
77.5°	2101.0	1937.8	1572.8	1407.1	1378.2	1387.8
80°	1757.6	1839.3	1387.8	1191.0	1347.0	1330.2
82.5°	1313.5	1623.2	1179.0	1054.2	1051.7	929.2
85°	730.0	1265.4	960.4	790.0	549.8	533.1
87.5°	204.1	703.6	672.3	446.6	304.9	316.9
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)