

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: P298934

Luminaire Tested: **GLNA-AF-04-LED-E1-SLL-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298934
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191289)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-04-LED-E1-SLL-7030-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 3000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16435.5 lumens
Efficiency: N/A
Efficacy: 96.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 171
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

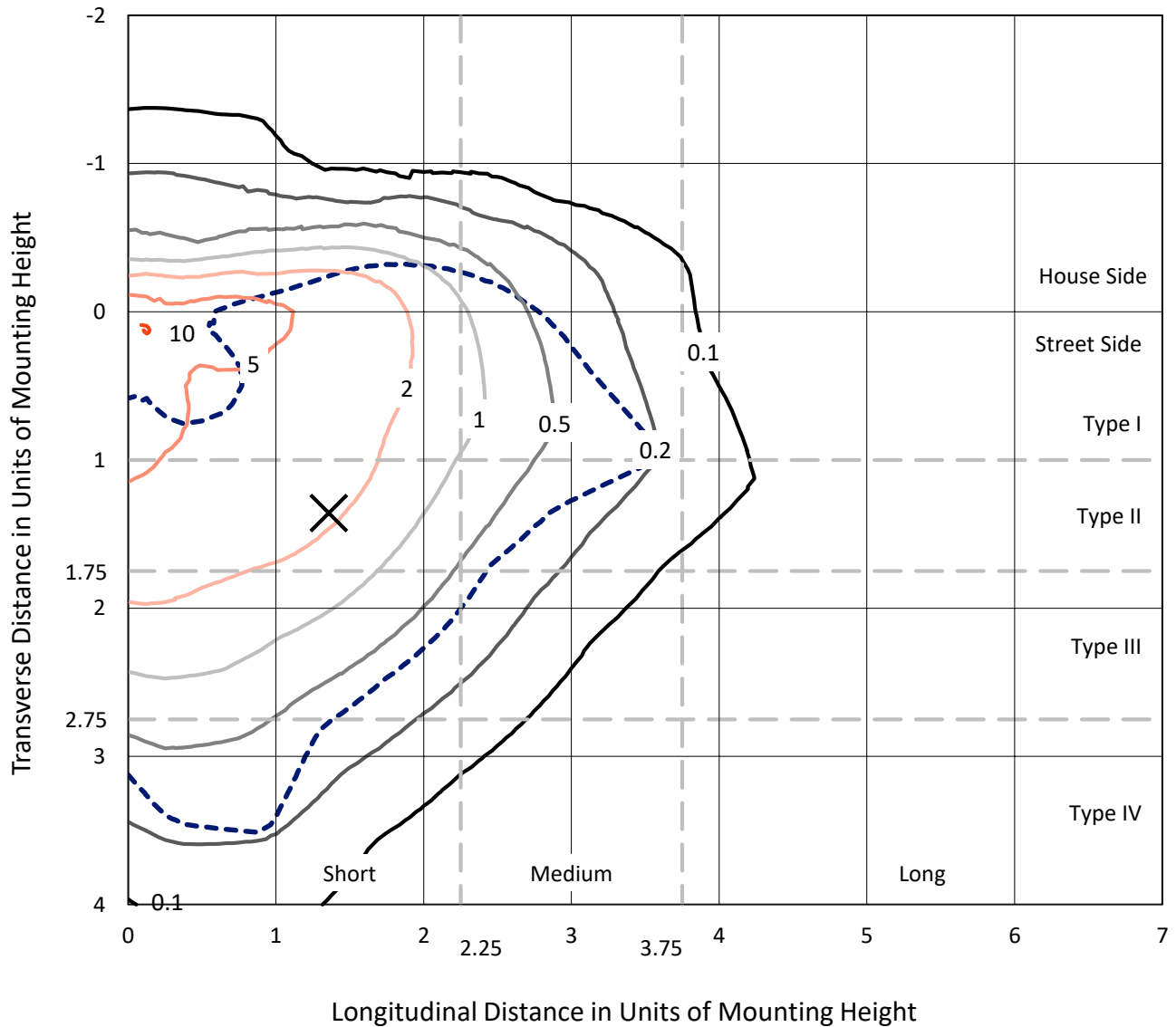


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

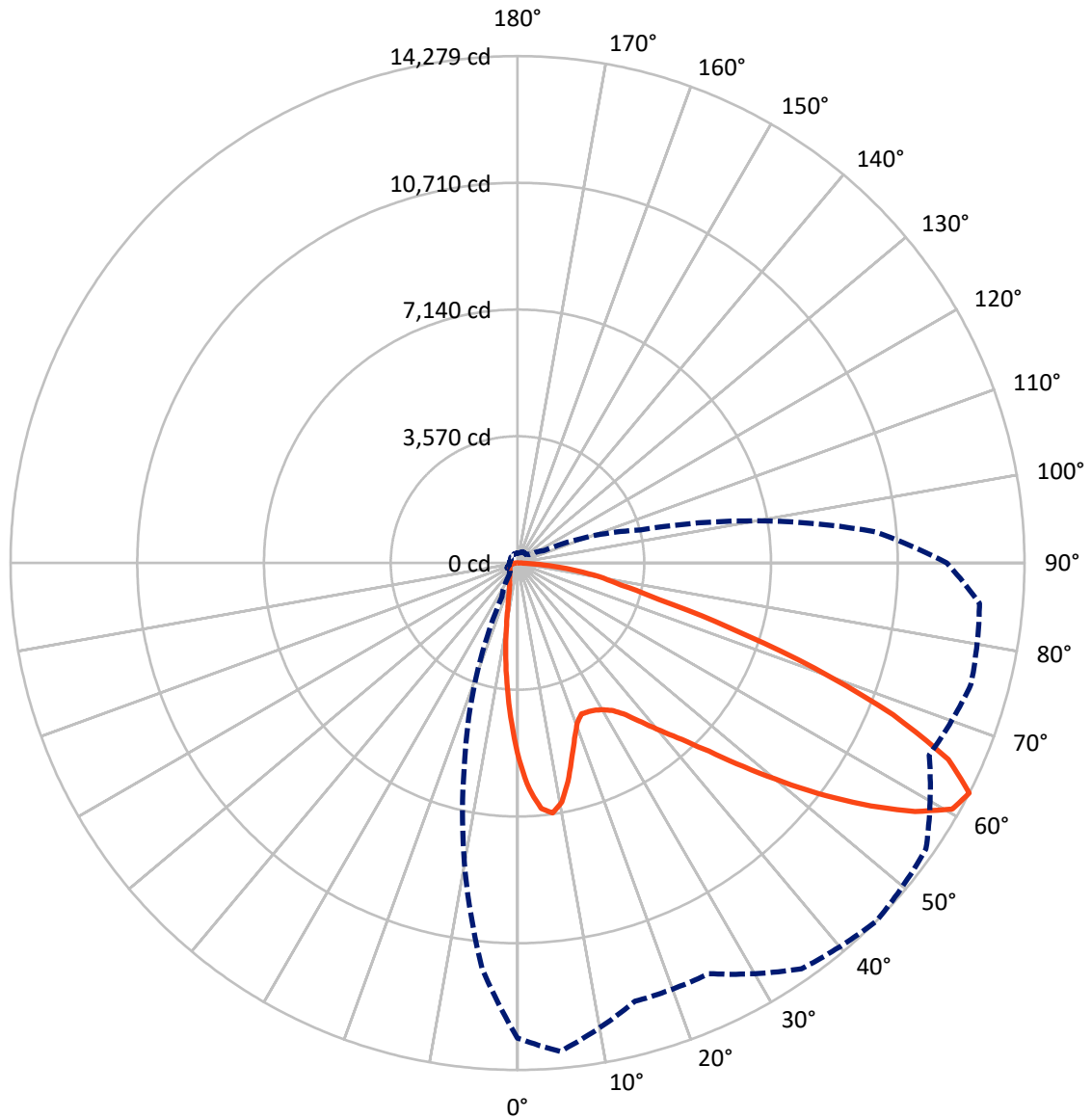


Based on 25 foot mounting height. Maximum calculated value = 10.5 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	2719.8	0.0	2719.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	13715.7	0.0	13715.7
	% Fixture	83.5	0.0	83.5
Total	Lumens	16435.5	0.0	16435.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	404.2	2.5
10°-20°	741.2	4.5
20°-30°	1080.7	6.6
30°-40°	1664.5	10.1
40°-50°	2449.6	14.9
50°-60°	3593.1	21.9
60°-70°	4016.5	24.4
70°-80°	1966.4	12.0
80°-90°	519.2	3.2
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°	16435.5	100.0
0°-180°	16435.5	100.0

Coefficient of Utilization



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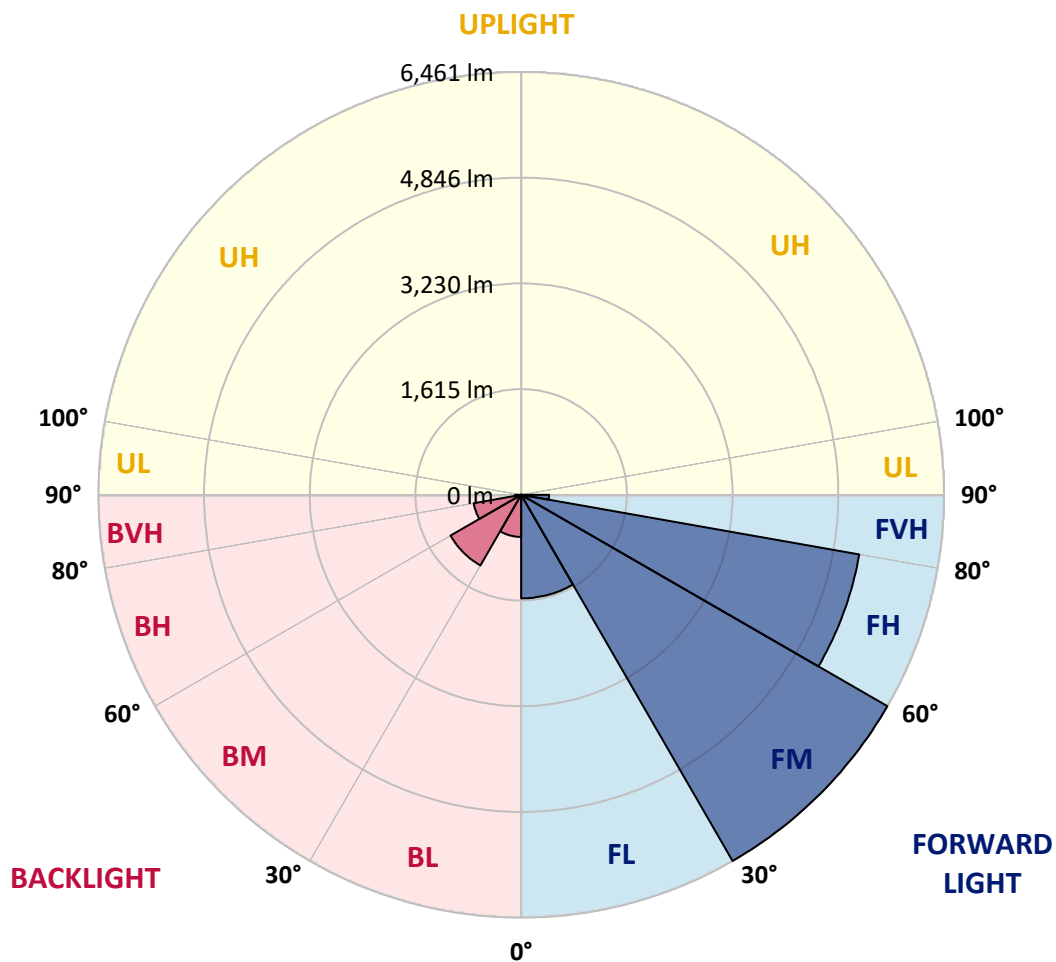
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1582.7	9.6			
FM (30°-60°)	6461.0	39.3			
FH (60°-80°)	5245.6	31.9			G3/7500
FVH (80°-90°)	426.4	2.6			G3/500
BL (0°-30°)	643.5	3.9	B2/1000		
BM (30°-60°)	1246.2	7.6	B2/2500		
BH (60°-80°)	737.3	4.5	B2/1000		G2/1000
BVH (80°-90°)	92.8	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0
2.5°	5769.4	5861.8	6041.6	6175.9	6339.9	6377.7	6430.2	6378.6	6287.4	6166.3	6126.7
5°	5425.4	5622.5	6058.6	6442.8	6784.2	6943.2	6987.8	6856.4	6591.8	6244.0	6031.6
7.5°	4873.4	5153.5	5744.2	6310.0	6813.0	7110.4	7103.1	6798.6	6311.7	5745.1	5404.6
10°	4397.1	4717.1	5394.9	6027.2	6561.0	6849.4	6737.9	6349.0	5767.7	5115.4	4746.1
12.5°	4130.8	4444.3	5131.8	5766.8	6213.2	6312.6	6227.6	5846.3	5298.7	4639.4	4315.9
15°	4084.4	4429.1	5027.1	5543.9	5794.1	5707.6	5606.1	5435.4	5048.5	4485.7	4148.7
17.5°	4284.5	4663.7	5147.4	5388.4	5345.9	5194.9	5166.1	5185.2	5092.2	4656.4	4268.1
20°	4667.5	5122.7	5433.6	5315.4	5005.4	4797.5	4804.8	5094.9	5370.3	5089.3	4645.5
22.5°	5204.8	5724.6	5846.3	5354.1	4861.7	4615.0	4674.9	5144.7	5814.0	5721.9	5155.3
25°	5900.5	6374.2	6286.5	5494.9	4876.1	4637.6	4685.4	5316.3	6337.8	6354.3	5786.2
27.5°	6574.5	7013.9	6655.8	5682.0	4935.9	4691.0	4754.3	5586.1	6838.5	7040.9	6507.1
30°	7100.4	7406.0	6802.1	5852.7	5053.2	4794.8	4873.4	5842.8	7066.4	7504.3	7061.7
32.5°	7536.0	7755.4	7035.3	6064.2	5269.1	4958.2	5096.6	6154.5	7394.3	7945.4	7604.6
35°	8092.3	8154.8	7325.4	6300.0	5602.6	5243.0	5414.5	6459.9	7707.0	8390.6	8139.6
37.5°	8744.9	8664.6	7599.0	6622.6	6033.7	5688.2	5830.2	6795.1	7964.2	8895.7	8686.0
40°	9389.9	9196.3	7942.8	7123.0	6662.5	6213.2	6381.3	7152.9	8204.7	9401.6	9220.1
42.5°	9938.4	9651.8	8281.2	7673.2	7247.7	6792.5	6993.1	7513.4	8434.0	9833.4	9683.5
45°	10344.0	9987.9	8603.9	8201.7	8054.5	7562.1	7657.1	7926.0	8682.5	10194.1	10064.8
47.5°	10706.2	10325.8	8968.7	8735.0	8760.2	8563.1	8410.3	8406.8	8975.5	10488.6	10425.2
50°	11191.3	10794.8	9360.9	9284.0	9819.0	9687.9	9350.9	8967.8	9345.6	10822.9	10815.6
52.5°	11860.0	11537.7	9839.8	9875.9	10807.7	10893.3	10475.7	9642.1	9925.5	11436.2	11393.1
55°	12650.8	12462.5	10492.4	10556.3	12019.9	12081.5	11666.5	10484.8	10778.7	12324.6	12204.4
57.5°	13267.6	13228.0	11207.7	11373.2	12925.3	13201.9	12820.6	11460.9	11739.8	13072.5	12770.7
60°	13513.4	13705.8	11969.4	12197.0	13762.9	14068.9	13734.8	12317.9	12591.8	13382.5	12732.0
62.5°	13380.8	13810.5	12780.7	12761.6	13949.8	14279.4	14044.5	12795.1	13223.6	13062.6	12087.9
65°	12767.2	13433.9	13251.4	12616.2	13310.1	13337.1	13261.1	12581.8	13372.6	12051.6	10842.6
67.5°	11430.7	12390.3	12631.4	11369.6	11584.3	11408.4	11280.8	11414.5	12595.3	10536.4	9112.4
70°	9310.4	10754.3	10869.6	9093.7	8996.0	8877.5	8623.8	9358.2	11062.3	8635.5	7230.6
72.5°	6845.8	8363.6	8718.5	6669.6	6217.9	6241.9	6041.6	7052.3	8994.2	6414.7	5398.4
75°	4683.7	6056.0	6821.5	4653.7	4112.0	4121.7	4096.2	4997.2	7163.8	4462.2	4039.6
77.5°	3421.6	4326.7	5144.7	3128.6	3037.4	2981.4	2967.9	3496.4	5492.3	3240.0	3136.8
80°	2745.5	3196.6	3455.6	2168.3	2331.7	2327.3	2252.2	2404.2	3586.7	2369.8	2346.1
82.5°	1904.7	2456.7	2799.8	1699.4	1573.8	1547.4	1565.9	1790.6	2535.3	1619.9	1540.4
85°	1004.8	1631.6	2772.8	1506.1	934.1	745.3	927.1	1466.2	2196.5	858.5	751.4
87.5°	128.5	471.6	1835.7	601.0	368.7	198.6	440.2	825.6	1410.5	175.1	152.8
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0
2.5°	6024.6	5904.4	5747.1	5601.4	5450.6	5300.5	5104.5	4981.6	4896.9	4880.5	4844.7
5°	5878.3	5478.8	5177.0	4915.9	4679.3	4344.6	4159.5	4005.8	3923.7	3915.8	3895.9
7.5°	5203.1	4652.0	4244.6	3875.0	3539.8	3269.7	2971.4	2832.7	2775.5	2789.0	2802.4
10°	4500.9	3885.0	3416.9	3039.1	2743.8	2516.2	2276.9	2115.3	2002.9	1980.3	1975.9
12.5°	3988.0	3312.2	2857.9	2591.0	2362.8	2148.4	1894.7	1703.8	1558.6	1508.7	1475.6
15°	3770.9	3032.1	2556.1	2268.6	2016.4	1744.5	1508.7	1309.0	1175.5	1132.1	1107.8
17.5°	3817.3	2954.4	2348.1	1980.3	1658.0	1374.1	1077.0	906.0	825.6	805.1	805.1
20°	4059.5	2940.0	2176.3	1714.9	1312.5	983.7	740.0	642.3	616.2	613.6	620.6
22.5°	4399.2	2990.7	2048.4	1484.7	1020.1	718.3	576.3	540.3	528.5	531.5	539.4
25°	4905.1	3161.4	1955.4	1279.4	800.4	588.1	513.9	492.4	486.9	494.2	504.2
27.5°	5504.9	3332.1	1897.3	1124.8	675.8	537.6	488.6	466.3	469.9	479.0	487.8
30°	6031.6	3472.3	1806.1	1014.8	637.0	540.3	488.6	458.1	454.6	456.4	459.0
32.5°	6504.4	3567.1	1699.4	909.8	549.3	479.8	456.4	452.0	431.7	424.4	425.6
35°	6911.8	3567.1	1635.4	848.5	492.4	425.6	387.7	365.2	354.9	355.8	366.0
37.5°	7304.8	3495.5	1603.7	813.9	461.6	404.7	371.3	351.4	337.9	335.2	337.0
40°	7651.5	3391.7	1567.7	799.5	438.2	392.1	360.8	344.0	329.7	325.3	326.1
42.5°	7929.9	3307.5	1527.8	780.8	423.5	383.0	353.1	338.8	322.6	317.9	317.1
45°	8230.8	3279.6	1475.6	742.6	430.9	383.9	351.4	336.1	319.7	314.4	312.7
47.5°	8627.3	3367.3	1421.3	697.5	446.4	388.6	354.0	336.1	318.8	314.4	312.7
50°	9126.8	3573.2	1352.4	631.5	430.9	401.2	353.1	333.2	318.8	314.4	310.9
52.5°	9768.5	3851.6	1262.3	555.8	421.8	431.7	351.4	327.9	314.4	308.3	301.8
55°	10548.1	4079.2	1154.4	493.3	401.2	423.5	348.7	321.7	307.4	298.3	292.7
57.5°	11119.2	4161.3	1016.6	452.9	372.2	410.0	344.9	313.5	298.3	291.0	283.9
60°	11006.3	4002.3	899.8	427.3	354.9	370.4	342.3	306.2	290.1	284.8	278.0
62.5°	10102.0	3586.7	824.8	415.6	344.0	337.9	344.9	299.2	283.0	277.2	275.4
65°	8745.8	2973.1	795.1	413.0	335.2	318.8	320.9	291.0	274.5	270.1	268.4
67.5°	7214.2	2399.8	769.0	421.8	323.5	305.3	296.5	280.1	266.3	261.9	258.4
70°	5689.1	1995.9	757.0	416.5	309.1	291.8	282.2	268.4	256.6	251.9	249.3
72.5°	4581.3	1685.9	750.5	410.9	290.1	273.6	264.6	252.8	240.2	238.5	235.8
75°	3877.1	1325.4	687.8	393.9	268.4	251.9	245.8	234.9	222.3	222.3	220.6
77.5°	2990.7	958.5	571.9	348.7	245.8	227.6	222.3	214.1	199.7	202.4	201.5
80°	2209.1	625.3	447.3	289.2	217.9	200.6	197.7	189.8	174.2	178.0	178.0
82.5°	1513.4	410.0	321.7	236.7	186.0	169.8	169.8	161.6	144.6	146.4	151.9
85°	759.9	282.2	240.2	183.3	144.6	136.4	136.4	130.2	112.9	113.8	121.1
87.5°	231.4	169.8	159.0	131.1	103.8	102.1	97.4	93.0	82.1	81.2	85.9
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0
2.5°	4789.2	4737.6	4675.7	4538.2	4492.1	4489.2	4531.1	4487.4	4570.7	4535.5	4574.3
5°	3862.1	3812.0	3742.2	3567.1	3460.3	3387.9	3353.8	3252.7	3325.7	3272.3	3316.9
7.5°	2840.6	2852.3	2806.3	2703.3	2471.0	2354.6	2286.0	2224.4	2277.7	2272.2	2357.2
10°	1996.8	2028.1	1995.9	1892.1	1703.8	1639.8	1652.4	1676.8	1746.6	1782.4	1913.5
12.5°	1437.4	1435.7	1414.9	1321.9	1198.1	1205.2	1256.8	1299.0	1363.2	1401.4	1534.8
15°	1073.2	1057.0	1047.9	972.0	901.6	917.1	942.4	946.8	987.5	1010.1	1118.6
17.5°	811.3	819.5	829.1	775.2	721.8	711.8	692.2	667.5	679.6	684.0	737.9
20°	644.1	676.6	701.3	663.1	609.2	579.8	554.6	538.5	538.5	537.6	552.9
22.5°	562.8	586.3	612.7	586.3	537.6	512.1	497.7	485.1	483.4	483.4	497.7
25°	518.8	535.9	561.1	543.2	506.8	487.8	474.3	458.1	452.0	449.9	459.9
27.5°	496.8	504.2	516.8	500.4	469.9	460.8	457.2	442.9	434.4	430.0	440.2
30°	459.9	458.1	459.0	442.9	418.2	417.4	423.5	426.5	423.5	422.6	438.2
32.5°	425.6	421.8	420.9	406.5	383.9	378.6	383.9	389.5	395.7	404.7	422.6
35°	382.2	391.3	396.5	383.9	356.6	340.5	334.4	324.4	318.8	318.8	339.6
37.5°	347.8	368.7	376.9	365.2	335.2	312.7	301.8	300.0	300.9	304.4	324.4
40°	336.1	351.4	358.4	347.0	317.1	296.5	290.1	288.3	290.1	295.6	315.3
42.5°	328.8	339.6	338.8	324.4	300.0	285.7	282.2	280.1	282.2	287.4	309.1
45°	322.6	329.7	322.6	305.3	283.0	275.4	276.3	275.4	277.2	283.0	303.6
47.5°	317.1	319.7	310.9	293.6	270.1	268.4	271.9	274.5	276.3	281.3	302.7
50°	309.1	309.1	300.9	283.0	259.3	260.2	264.6	271.0	271.9	277.2	294.8
52.5°	299.2	298.3	292.7	275.4	250.2	252.8	252.8	260.2	261.9	268.4	286.6
55°	291.0	289.2	286.6	270.1	242.3	246.7	244.0	246.7	251.1	257.5	277.2
57.5°	283.9	280.1	280.1	265.4	235.8	237.6	231.4	234.9	240.2	245.8	266.3
60°	276.3	272.8	274.5	259.3	225.8	224.1	221.4	228.5	230.5	236.7	257.5
62.5°	268.4	265.4	266.3	251.9	218.8	214.1	214.1	220.6	221.4	230.5	250.2
65°	261.9	258.4	257.5	244.9	210.6	205.3	207.9	210.6	212.3	221.4	240.2
67.5°	255.8	248.4	248.4	238.5	201.5	195.9	201.5	200.6	203.5	211.5	226.7
70°	247.5	237.6	238.5	234.1	192.4	186.0	190.6	189.8	191.5	196.8	212.3
72.5°	234.9	226.7	228.5	226.7	183.3	174.2	176.0	176.0	176.0	180.7	196.8
75°	218.8	212.3	217.9	222.3	172.5	159.8	161.6	161.6	159.0	161.6	181.6
77.5°	198.6	195.0	213.2	207.1	159.8	144.6	144.6	142.8	137.6	141.1	162.5
80°	177.2	174.2	196.8	173.3	145.5	125.8	123.8	119.1	113.8	116.4	138.4
82.5°	154.6	151.9	165.4	132.9	125.8	103.8	99.4	91.2	85.9	88.6	108.2
85°	126.7	126.7	127.6	100.3	95.6	79.5	74.2	63.4	56.9	58.7	77.7
87.5°	90.3	93.0	85.9	68.6	56.9	44.3	40.8	34.3	28.7	33.4	40.8
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0	5553.0
2.5°	4773.1	4872.5	4985.5	5129.8	5253.8	5456.8	5652.1	5769.4
5°	3568.8	3734.3	3939.9	4205.0	4451.7	4821.8	5189.6	5425.4
7.5°	2554.0	2731.2	2953.5	3284.0	3633.1	4105.3	4591.6	4873.4
10°	2113.5	2295.0	2481.9	2705.1	2990.7	3504.6	4079.2	4397.1
12.5°	1748.3	1942.5	2144.0	2378.9	2643.5	3102.5	3764.8	4130.8
15°	1338.0	1554.8	1792.3	2089.7	2421.2	2951.7	3687.0	4084.4
17.5°	917.1	1159.4	1450.9	1817.9	2223.5	2902.8	3826.3	4284.5
20°	631.5	807.7	1119.5	1549.5	2037.5	2896.6	4093.5	4667.5
22.5°	528.5	607.1	834.7	1302.8	1897.3	2974.3	4508.6	5204.8
25°	488.6	535.9	666.7	1088.7	1795.3	3153.2	5079.6	5900.5
27.5°	465.5	507.7	605.4	948.8	1714.9	3360.9	5635.1	6574.5
30°	474.3	517.7	588.1	877.3	1605.5	3534.2	6128.4	7100.4
32.5°	427.3	446.4	504.2	813.9	1526.9	3679.7	6560.2	7536.0
35°	364.3	397.4	449.9	784.3	1528.7	3777.4	7030.9	8092.3
37.5°	347.0	380.4	418.2	773.4	1549.5	3881.5	7571.2	8744.9
40°	336.1	366.9	399.5	767.3	1569.4	3976.2	8100.9	9389.9
42.5°	328.8	356.6	397.4	745.3	1579.4	4061.3	8536.1	9938.4
45°	327.9	356.6	404.7	723.6	1594.7	4152.5	8901.3	10344.0
47.5°	328.8	368.7	391.3	697.5	1594.7	4305.0	9329.5	10706.2
50°	325.3	388.6	376.9	660.5	1557.7	4594.2	9916.7	11191.3
52.5°	323.5	386.0	348.7	603.6	1493.5	5053.2	10669.3	11860.0
55°	318.8	372.2	328.8	518.8	1418.7	5553.9	11475.2	12650.8
57.5°	314.4	329.7	317.9	444.6	1302.8	5906.1	12029.9	13267.6
60°	352.2	288.3	309.1	408.3	1148.3	6002.6	12008.4	13513.4
62.5°	326.1	270.1	297.4	400.3	1040.0	5731.6	11453.5	13380.8
65°	255.8	258.4	285.7	423.5	1011.0	5013.6	10470.4	12767.2
67.5°	234.1	246.7	273.6	453.7	1013.9	4014.1	9001.6	11430.7
70°	220.6	234.1	260.2	469.0	1021.0	2992.5	7116.6	9310.4
72.5°	205.3	217.0	244.9	471.6	973.7	2173.6	5485.2	6845.8
75°	186.8	197.7	223.2	410.9	806.9	1507.8	4195.9	4683.7
77.5°	166.3	174.2	195.9	317.1	599.2	964.9	3149.4	3421.6
80°	142.0	146.4	164.5	232.3	410.0	603.6	2491.8	2745.5
82.5°	113.8	115.6	127.6	174.2	266.3	387.7	1668.9	1904.7
85°	80.4	80.4	87.7	126.7	181.6	245.8	906.0	1004.8
87.5°	37.8	38.7	38.7	69.5	94.7	124.9	208.8	128.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)