

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: P301669

Luminaire Tested: **GLNA-AF-09-LED-E1-T2R-7030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301669
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-09-LED-E1-T2R-7030-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(9) 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: 43168.2 lumens
Efficiency: N/A
Efficacy: 115.4 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 - G4

Input Watts (W): 374
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

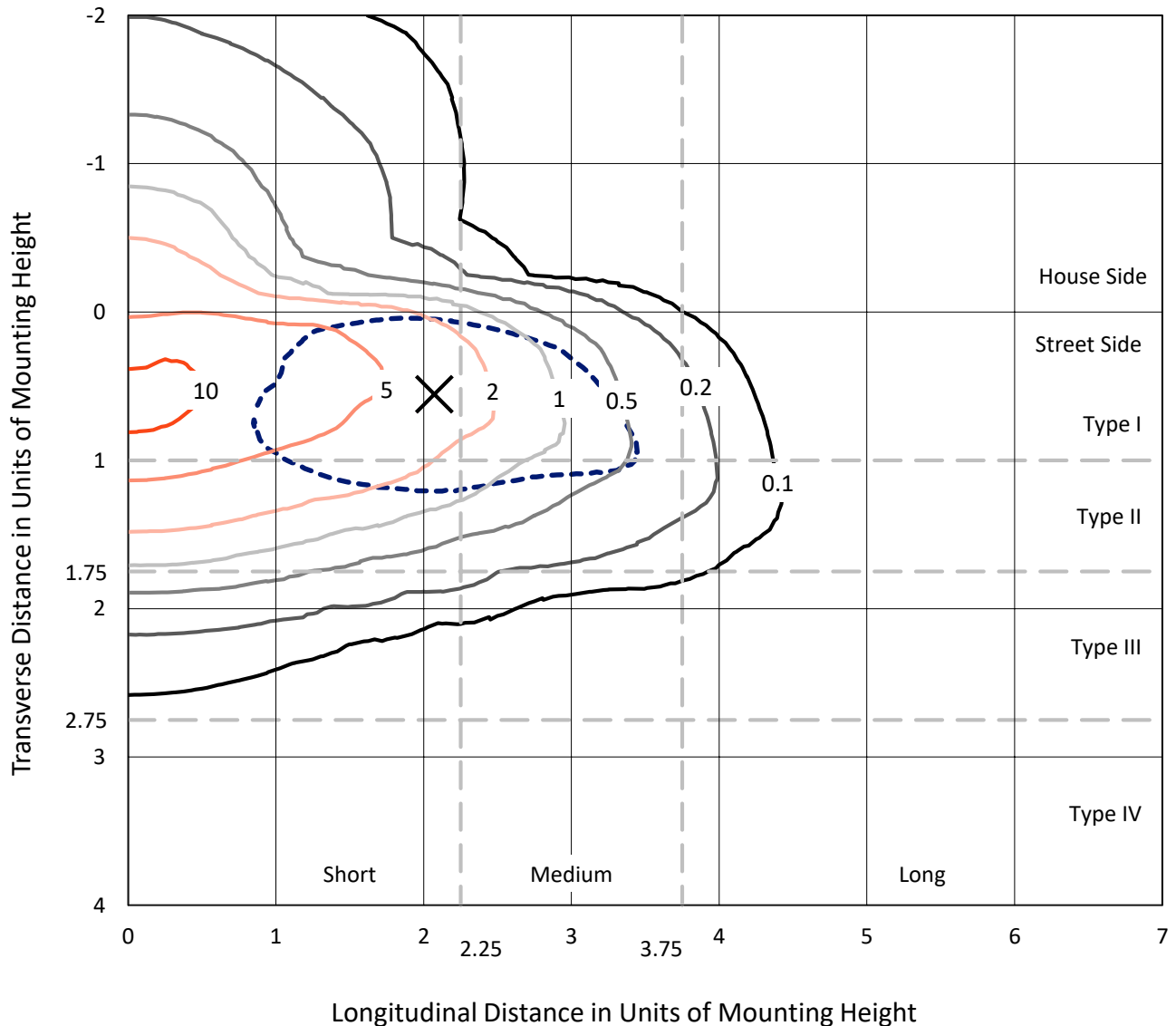


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Iso-Footcandle Lines of Horizontal Illumination

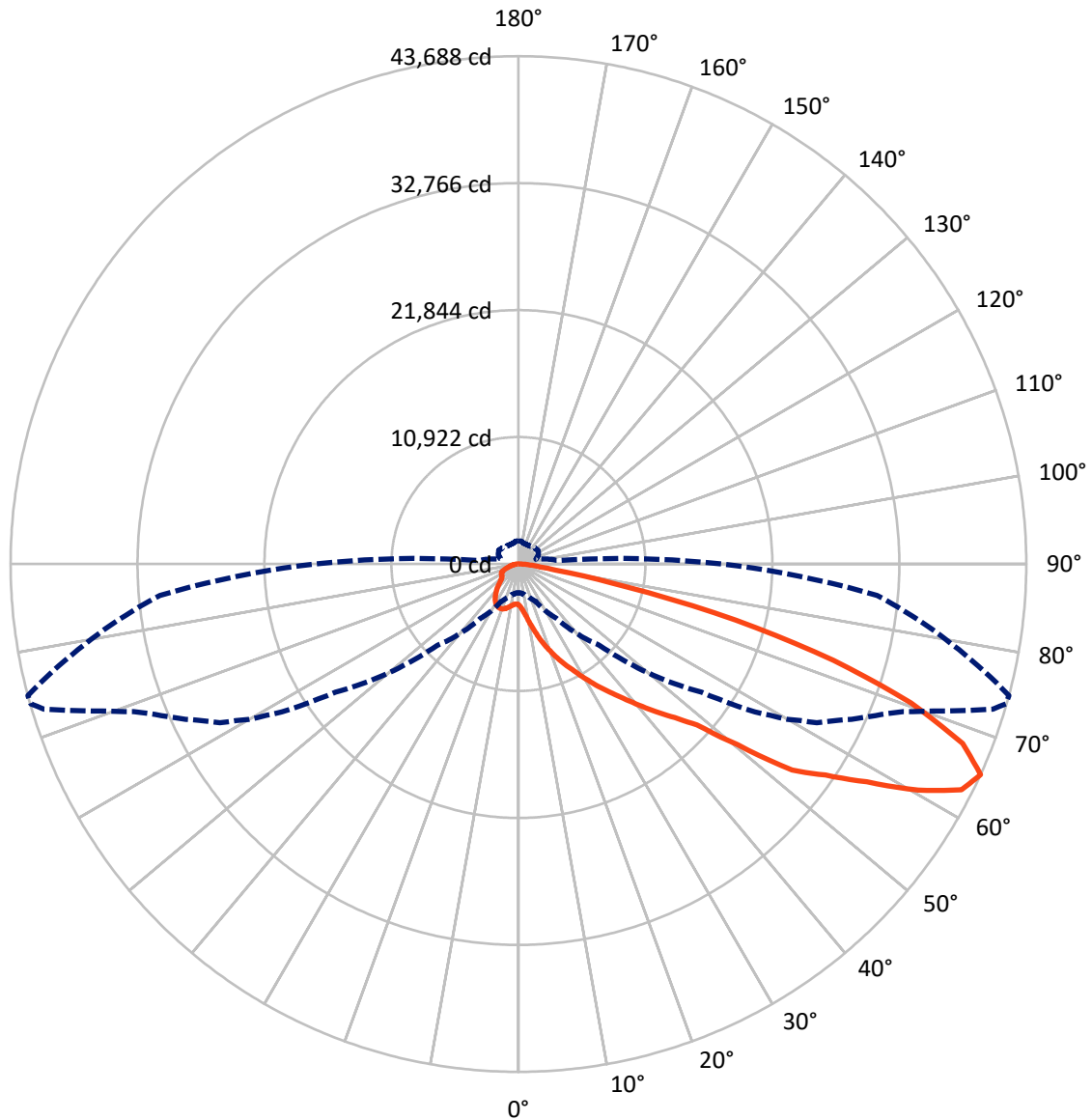
✕ Max cd
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 12.1 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	6655.5	0.0	6655.5
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	36512.7	0.0	36512.7
	% Fixture	84.6	0.0	84.6
Total	Lumens	43168.2	0.0	43168.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	433.6	1.0
10°-20°	1694.3	3.9
20°-30°	3476.1	8.1
30°-40°	5848.4	13.5
40°-50°	8080.9	18.7
50°-60°	10087.3	23.4
60°-70°	9077.5	21.0
70°-80°	3805.2	8.8
80°-90°	664.8	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°	43168.2	100.0
0°-180°	43168.2	100.0

Coefficient of Utilization



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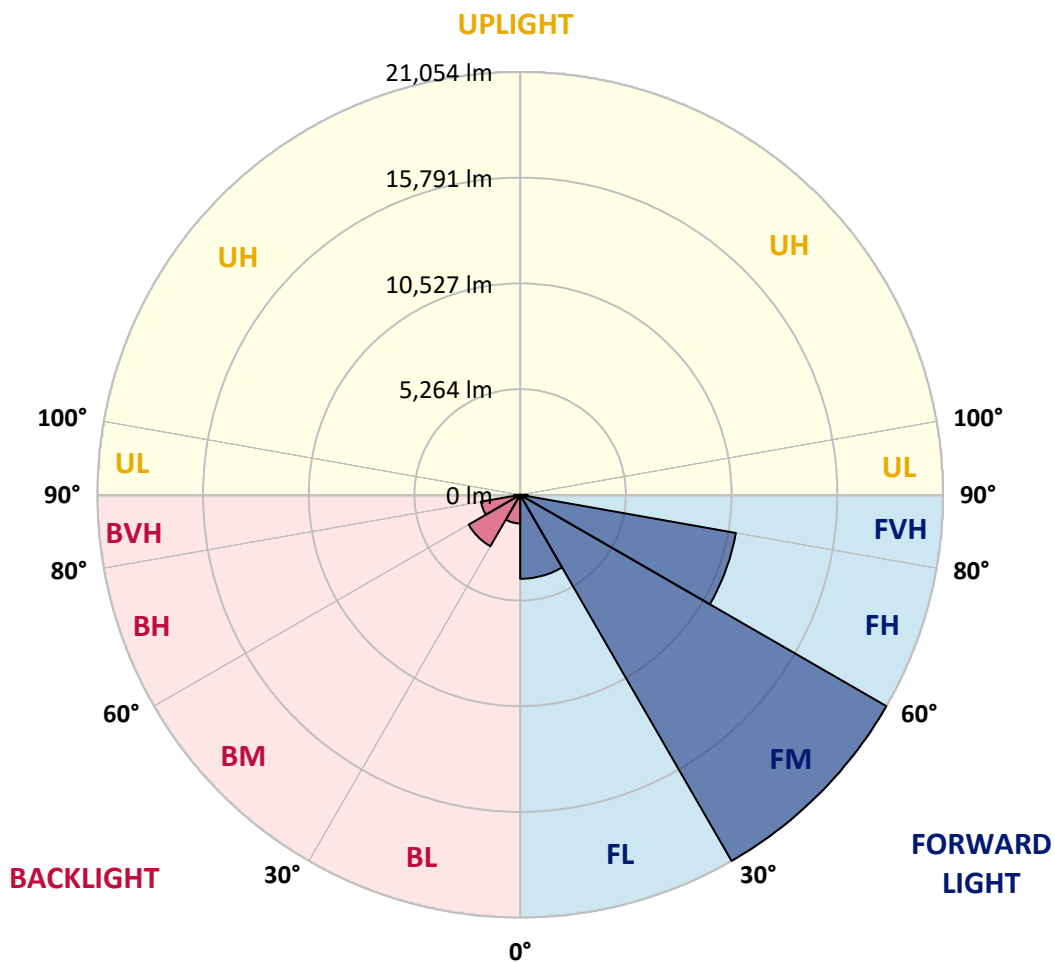
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	4180.7	9.7			
FM (30°-60°)	21054.2	48.8			
FH (60°-80°)	10904.1	25.3			G4/12000
FVH (80°-90°)	373.7	0.9			G3/500
BL (0°-30°)	1423.3	3.3	B3/2500		
BM (30°-60°)	2962.5	6.9	B3/5000		
BH (60°-80°)	1978.6	4.6	B3/2500		G3/2500
BVH (80°-90°)	291.1	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-G4

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2
2.5°	4454.4	4405.3	4417.4	4335.6	4235.6	4104.7	3959.8	3958.0	3959.8	3945.3	3892.5
5°	6176.4	6117.6	6095.2	5910.9	5641.2	5257.5	4840.5	4795.7	4776.9	4730.2	4621.7
7.5°	7433.5	7400.8	7365.6	7226.8	6982.0	6552.8	5992.8	5897.0	5804.9	5782.4	5660.0
10°	8244.5	8236.0	8162.7	8125.7	7973.0	7600.8	7055.3	6963.2	6863.2	6828.6	6699.5
12.5°	8885.8	8884.0	8849.4	8859.7	8726.4	8457.3	7986.9	7903.3	7829.9	7723.2	7631.7
15°	9329.5	9331.3	9382.8	9439.8	9419.2	9237.3	8796.1	8759.1	8696.1	8622.7	8514.2
17.5°	9693.1	9703.5	9756.2	9860.4	9973.2	9958.6	9609.5	9578.6	9523.4	9423.4	9366.4
20°	10514.4	10553.2	10451.4	10451.4	10463.5	10518.7	10350.8	10326.5	10249.0	10195.6	10150.8
22.5°	11901.9	11946.7	11715.8	11481.2	11250.3	11082.4	10915.1	10945.4	10892.7	10855.7	10829.0
25°	13703.9	13739.0	13365.1	12968.6	12498.3	11885.5	11470.9	11452.1	11423.6	11401.2	11389.1
27.5°	15399.8	15414.4	15061.0	14480.3	13934.8	13054.1	12034.6	12012.2	11977.6	11934.6	11897.6
30°	16850.9	16846.6	16483.0	15929.0	15344.7	14370.0	12891.1	12821.4	12718.9	12602.5	12512.8
32.5°	18107.4	18101.3	17702.5	17128.5	16515.7	15673.8	14063.9	13920.9	13761.5	13534.2	13397.8
35°	19096.0	19092.3	18715.9	18117.7	17414.6	16901.8	15408.3	15232.5	15030.1	14725.8	14515.5
37.5°	19469.9	19469.9	19259.6	18851.1	18229.8	17878.3	16901.8	16689.0	16472.7	16127.2	15890.2
40°	19251.1	19255.4	19300.2	19225.1	18922.6	18652.9	18295.3	18168.6	17982.5	17672.2	17424.9
42.5°	18517.7	18540.1	18839.0	19204.5	19355.4	19313.0	19531.2	19474.2	19343.3	19104.4	18908.1
45°	17587.9	17657.6	17984.3	18675.3	19476.0	19882.7	20567.0	20573.1	20548.8	20420.3	20268.8
47.5°	16311.4	16409.0	16840.6	17774.0	19194.2	20436.7	21619.3	21674.4	21725.9	21642.3	21572.6
50°	14615.5	14731.9	15377.4	16615.7	18620.2	21010.7	23607.3	23857.1	24089.8	24061.3	24108.0
52.5°	12798.9	12935.9	13726.3	15105.8	17633.4	21143.4	24878.4	25285.1	25691.8	26024.6	26377.9
55°	11160.0	11086.6	11877.6	13329.9	16010.8	20544.6	26020.9	26511.3	26964.7	27373.2	27794.5
57.5°	8939.1	9059.7	9852.6	11289.1	13863.3	18854.7	26807.1	27524.7	28176.3	28852.7	29449.2
60°	6534.0	6654.6	7514.7	8973.7	11532.1	16292.6	26206.4	27293.8	28337.5	29373.4	30182.6
62.5°	3945.3	4035.6	4793.2	6183.1	8892.5	13254.7	23529.8	24956.0	26492.5	27730.8	28970.9
65°	2456.0	2506.9	2787.0	3551.3	5710.9	9895.6	19225.1	20779.8	22434.5	24006.2	25295.4
67.5°	2010.5	2028.7	2080.2	2243.3	3136.1	6452.8	14308.8	15685.9	17179.4	18699.6	20134.3
70°	1808.1	1795.9	1795.9	1806.3	2010.5	3469.5	9368.3	10265.3	11509.7	12831.7	14143.3
72.5°	1632.3	1620.2	1597.7	1567.4	1640.8	2116.6	4842.3	5518.8	6415.8	7590.5	8847.0
75°	1466.8	1450.5	1424.4	1385.6	1436.5	1597.7	2325.1	2609.4	3046.4	3671.9	4372.6
77.5°	1295.3	1274.7	1250.4	1221.9	1287.4	1242.6	1362.6	1465.0	1632.3	1832.9	2096.6
80°	1101.3	1083.1	1074.7	1060.7	1138.3	946.2	962.5	1025.6	1123.8	1232.3	1354.7
82.5°	862.5	862.5	894.6	901.3	986.8	680.7	719.5	774.6	825.5	882.5	940.1
85°	567.9	572.2	682.5	725.5	778.3	457.6	539.5	557.6	598.9	631.6	655.8
87.5°	177.6	192.1	417.0	461.9	447.3	259.4	330.9	339.4	367.9	390.3	411.0
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2
2.5°	3892.5	3867.7	3845.3	3843.4	3827.1	3804.6	3812.5	3778.0	3779.8	3761.6	3741.0
5°	4576.8	4560.5	4478.7	4456.2	4395.0	4356.2	4350.2	4268.3	4258.0	4211.4	4159.8
7.5°	5561.8	5508.5	5393.9	5338.7	5234.5	5156.9	5120.5	5012.0	4958.7	4836.3	4781.1
10°	6593.4	6526.1	6384.9	6307.3	6207.3	6082.5	6015.2	5858.2	5796.4	5684.2	5549.7
12.5°	7549.9	7482.6	7337.1	7277.7	7145.0	7012.3	6938.9	6761.3	6681.3	6501.3	6395.2
15°	8434.2	8366.9	8240.3	8179.0	8046.3	7937.8	7839.6	7664.4	7570.5	7402.6	7263.8
17.5°	9292.5	9221.0	9110.7	9055.5	8927.0	8816.7	8710.6	8544.5	8448.8	8281.5	8156.6
20°	10089.6	10036.2	9956.8	9882.9	9754.4	9654.4	9527.7	9384.6	9245.8	9122.8	9004.6
22.5°	10784.2	10763.6	10678.1	10645.4	10535.1	10449.0	10338.7	10198.0	10097.4	9942.3	9831.9
25°	11383.0	11377.0	11335.7	11325.4	11247.9	11166.0	11141.8	11025.4	10933.3	10796.3	10682.3
27.5°	11897.6	11903.7	11894.0	11922.5	11901.9	11864.9	11867.3	11828.5	11775.2	11660.6	11560.6
30°	12469.8	12437.1	12455.9	12496.5	12508.6	12512.8	12580.1	12602.5	12598.9	12523.1	12474.0
32.5°	13279.0	13201.4	13129.9	13123.8	13164.4	13180.8	13295.3	13354.7	13405.7	13423.8	13432.3
35°	14310.6	14155.4	14006.3	13926.9	13857.2	13875.4	13957.2	14053.6	14165.7	14243.3	14335.5
37.5°	15610.1	15420.4	15156.8	14968.9	14921.6	14819.7	14872.5	14948.2	15058.6	15179.2	15338.6
40°	17185.5	16897.5	16601.1	16352.0	16217.5	16029.0	16027.1	16012.6	16080.5	16192.6	16417.5
42.5°	18702.0	18446.2	18131.6	17870.4	17694.6	17443.1	17392.1	17259.4	17289.7	17387.9	17606.7
45°	20121.5	19911.2	19719.1	19417.2	19267.5	18995.9	18909.9	18752.9	18665.0	18709.9	18928.7
47.5°	21496.8	21362.3	21161.6	20965.9	20851.3	20608.2	20497.9	20385.2	20273.1	20268.8	20497.9
50°	24177.7	24106.2	23869.2	23664.9	23720.1	23421.9	23440.1	23137.6	23274.6	23290.9	23771.0
52.5°	26696.8	26946.5	27122.3	27336.2	27475.6	27502.3	27593.8	27730.8	27896.3	28223.0	28668.5
55°	28139.3	28452.1	28633.9	28797.6	29067.3	29124.3	29277.6	29459.5	29604.3	29972.3	30350.5
57.5°	29854.1	30434.1	30716.0	30975.4	31339.1	31477.9	31733.7	31931.9	32119.8	32555.0	33012.6
60°	30909.9	31617.3	32191.3	32601.6	33057.4	33384.7	33770.8	34081.2	34522.4	35043.7	35726.2
62.5°	30070.5	31108.1	31870.6	32575.6	33194.4	33819.9	34373.3	34954.0	35623.8	36412.3	37471.2
65°	26725.9	27781.7	29087.3	29818.9	30638.4	31602.7	32444.6	33384.7	34297.6	35446.2	37011.2
67.5°	21515.6	22743.0	24210.4	24948.1	25890.0	26966.5	27910.8	29058.8	30125.6	31516.7	33452.0
70°	15508.3	17095.7	18329.8	19100.2	20199.7	21308.9	22220.5	23556.4	24438.9	25865.2	27866.0
72.5°	9819.8	11072.1	12584.4	13554.8	14531.2	15655.6	16587.2	17739.5	18562.6	19862.1	21674.4
75°	5280.0	6203.1	7531.1	8453.0	9499.2	10459.3	11550.3	12322.5	12931.7	13959.7	15430.7
77.5°	2474.2	3036.1	3708.3	4417.4	5126.6	5866.1	6585.5	7210.5	7472.3	8060.9	8928.8
80°	1502.0	1683.8	1879.6	2098.4	2394.8	2633.6	2950.6	3179.1	3195.5	3381.6	3647.1
82.5°	1003.1	1070.4	1129.8	1185.0	1260.7	1320.1	1387.4	1466.8	1499.6	1542.6	1628.7
85°	684.3	717.0	729.2	764.3	755.8	776.4	803.1	829.8	843.7	841.9	880.7
87.5°	420.7	437.0	445.5	453.4	447.3	439.4	451.6	466.1	469.7	457.6	461.9
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°	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2
2.5°	3745.2	3727.1	3708.3	3696.1	3691.9	3584.0	3536.7	3506.4	3441.0	3387.6	3344.6
5°	4131.3	4092.6	4062.2	4025.3	4004.7	3730.7	3630.7	3561.6	3447.0	3379.8	3317.9
7.5°	4752.6	4644.1	4581.1	4509.6	4448.3	3953.8	3788.3	3679.8	3520.4	3430.7	3361.0
10°	5457.5	5345.4	5244.8	5134.5	5038.7	4250.1	4008.9	3841.0	3630.7	3514.3	3422.2
12.5°	6244.3	6134.0	6007.3	5866.1	5743.6	4625.9	4290.8	4051.9	3763.4	3608.3	3479.8
15°	7174.1	6979.5	6826.2	6663.1	6520.1	5075.7	4619.9	4288.9	3904.7	3694.3	3522.8
17.5°	8037.8	7833.6	7625.7	7482.6	7317.1	5580.0	4950.8	4529.6	4021.0	3749.5	3530.7
20°	8882.2	8659.1	8479.7	8287.5	8113.6	6103.1	5304.2	4742.3	4096.8	3751.3	3479.8
22.5°	9625.9	9486.5	9286.4	9077.9	8902.2	6626.2	5635.1	4922.3	4125.3	3704.6	3389.4
25°	10471.4	10324.7	10079.2	9903.5	9707.7	7159.5	5960.0	5061.1	4108.9	3616.7	3250.6
27.5°	11374.5	11211.5	10959.9	10776.3	10539.3	7712.9	6258.2	5161.2	4047.7	3473.7	3064.6
30°	12316.5	12167.3	11920.0	11734.6	11495.2	8299.7	6591.6	5228.4	3925.3	3275.5	2848.2
32.5°	13328.1	13203.2	12958.3	12764.4	12508.6	8934.9	6901.9	5249.0	3739.2	3040.3	2619.7
35°	14288.2	14202.7	13996.0	13814.2	13548.7	9535.6	7231.1	5238.7	3518.6	2782.7	2411.2
37.5°	15369.5	15318.0	15216.2	14985.2	14660.3	10350.8	7625.7	5195.7	3248.8	2527.5	2251.8
40°	16521.7	16526.0	16415.7	16258.1	15955.6	11340.0	8095.4	5112.1	2954.3	2302.7	2106.3
42.5°	17741.3	17804.9	17751.6	17639.4	17349.1	12337.1	8657.3	5010.2	2668.8	2083.9	1963.8
45°	19139.0	19216.6	19298.4	19132.9	18851.1	13653.0	9396.8	4877.5	2359.6	1902.0	1865.7
47.5°	20751.3	20873.7	20947.1	20949.5	20667.6	15283.4	10598.1	4797.5	2086.3	1779.6	1818.4
50°	24152.9	24192.3	24365.6	24668.1	24451.7	19057.2	12696.5	4748.4	1900.2	1703.8	1783.8
52.5°	29054.6	29481.9	29782.5	29761.9	29467.4	21453.8	13853.0	4495.0	1789.9	1675.3	1767.5
55°	31051.2	31584.6	32140.4	32287.1	32058.5	23499.5	14946.4	4241.7	1736.5	1695.9	1773.5
57.5°	33711.4	34610.3	35372.8	35693.5	35362.5	26116.7	16384.8	4108.9	1720.2	1751.1	1812.3
60°	36819.0	37930.7	38932.0	39507.8	39507.8	29124.3	17876.4	4053.8	1697.8	1832.9	1877.8
62.5°	38815.6	40447.9	41960.2	42803.9	42779.1	31218.5	18538.3	3865.9	1646.8	1889.9	1967.5
65°	38823.5	40764.9	42691.2	43639.8	43688.3	30961.5	17445.5	3414.3	1552.9	1898.4	2057.8
67.5°	35587.4	37656.7	39902.4	40963.1	41208.0	28501.2	15101.6	2807.6	1399.5	1816.6	2090.5
70°	30055.9	32076.7	34369.1	35411.6	35846.8	24295.9	12163.1	2163.9	1203.8	1636.5	2022.6
72.5°	23678.9	25660.9	27256.8	28018.7	28358.2	18571.1	8857.3	1634.7	986.8	1378.9	1840.8
75°	16764.8	18252.2	19100.2	19269.9	19322.6	11195.1	5381.8	1215.9	813.4	1072.8	1554.7
77.5°	9462.2	10099.9	10030.2	10105.9	9476.8	4321.7	2343.9	870.4	670.4	815.2	1205.6
80°	3694.3	3808.9	3578.0	3506.4	3216.1	1608.0	1034.0	606.7	535.2	617.0	843.7
82.5°	1628.7	1681.4	1632.3	1645.0	1573.5	829.8	618.9	439.4	408.5	451.6	560.1
85°	897.1	913.4	909.2	935.9	897.1	330.9	294.0	269.7	286.1	306.7	359.4
87.5°	437.0	441.3	427.3	449.7	435.2	167.3	144.9	153.3	167.3	171.5	171.5
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°	3508.2	3508.2	3508.2	3508.2	3508.2	3508.2
2.5°	3314.3	3297.9	3299.7	3295.5	3287.6	3287.6
5°	3285.8	3269.4	3269.4	3265.2	3254.9	3256.7
7.5°	3314.3	3287.6	3277.3	3262.8	3248.8	3248.8
10°	3347.0	3299.7	3271.3	3247.0	3228.2	3228.2
12.5°	3371.3	3297.9	3250.6	3217.9	3199.7	3199.7
15°	3379.8	3283.4	3217.9	3179.1	3162.8	3160.9
17.5°	3353.1	3228.2	3148.8	3104.0	3083.4	3077.3
20°	3271.3	3128.2	3032.4	2980.9	2952.4	2942.1
22.5°	3148.8	2985.2	2873.0	2819.7	2782.7	2776.7
25°	2977.3	2801.5	2691.2	2639.7	2619.7	2613.0
27.5°	2776.7	2613.0	2519.1	2486.3	2468.1	2466.3
30°	2586.9	2447.5	2378.4	2353.6	2331.2	2327.5
32.5°	2408.7	2320.9	2294.8	2259.6	2206.9	2200.8
35°	2282.1	2274.2	2256.0	2177.8	2113.0	2094.2
37.5°	2204.5	2280.2	2186.3	2032.9	1986.3	1982.0
40°	2159.6	2217.2	2055.4	2002.6	2006.3	2002.6
42.5°	2057.8	2116.6	2059.6	2035.4	2051.1	2055.4
45°	1955.4	2020.8	2090.5	2074.2	2113.0	2113.0
47.5°	1898.4	1996.0	2088.1	2088.1	2145.7	2165.7
50°	1832.9	1976.0	2055.4	2083.9	2129.3	2113.0
52.5°	1828.7	1940.8	2008.7	2059.6	2080.2	2061.4
55°	1834.7	1912.3	1961.4	2019.0	2043.2	2045.1
57.5°	1843.2	1896.0	1928.7	1955.4	2028.7	2028.7
60°	1863.2	1882.0	1900.2	1914.7	2010.5	2012.3
62.5°	1896.0	1867.5	1863.2	1877.8	2000.2	1992.3
65°	1947.5	1846.9	1816.6	1830.5	1989.9	1965.7
67.5°	2016.6	1816.6	1757.2	1767.5	1982.0	1928.7
70°	2080.2	1767.5	1683.8	1673.5	1904.4	1810.5
72.5°	2086.3	1710.5	1581.4	1551.1	1655.3	1565.0
75°	1983.8	1671.1	1469.2	1378.9	1366.8	1354.7
77.5°	1788.1	1648.7	1338.3	1197.1	1172.9	1180.7
80°	1495.9	1565.0	1180.7	1013.4	1146.2	1132.2
82.5°	1117.7	1381.4	1003.1	897.1	894.6	791.0
85°	621.3	1077.1	817.1	672.2	467.9	453.4
87.5°	174.0	598.9	572.2	380.0	259.4	269.7
90°	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)