

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: P299423

Luminaire Tested: **GLNA-AF-05-LED-E1-SLR-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299423
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194679)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-SLR-7050-800
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21052.8 lumens
Efficiency: N/A
Efficacy: 100.3 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

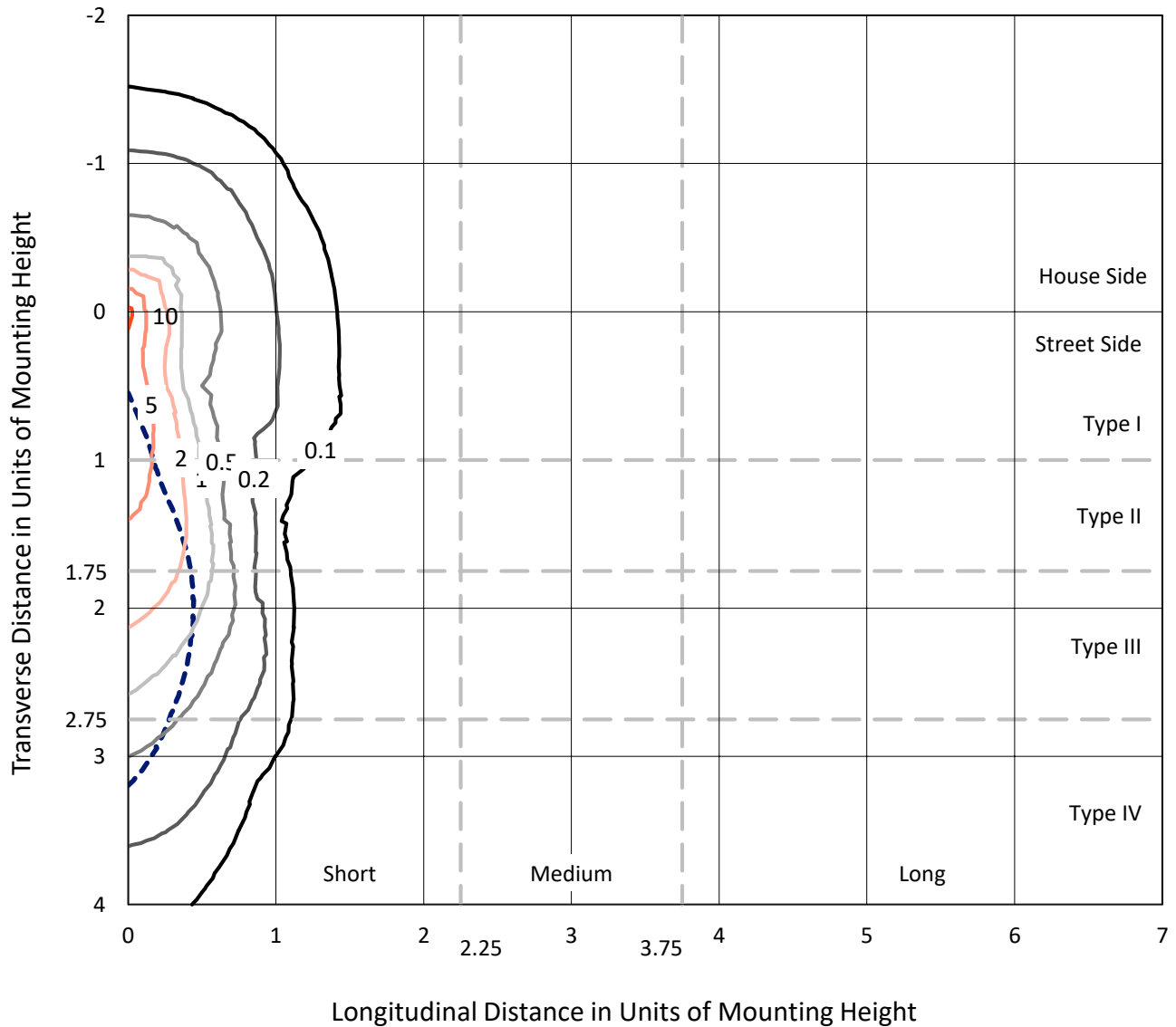
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

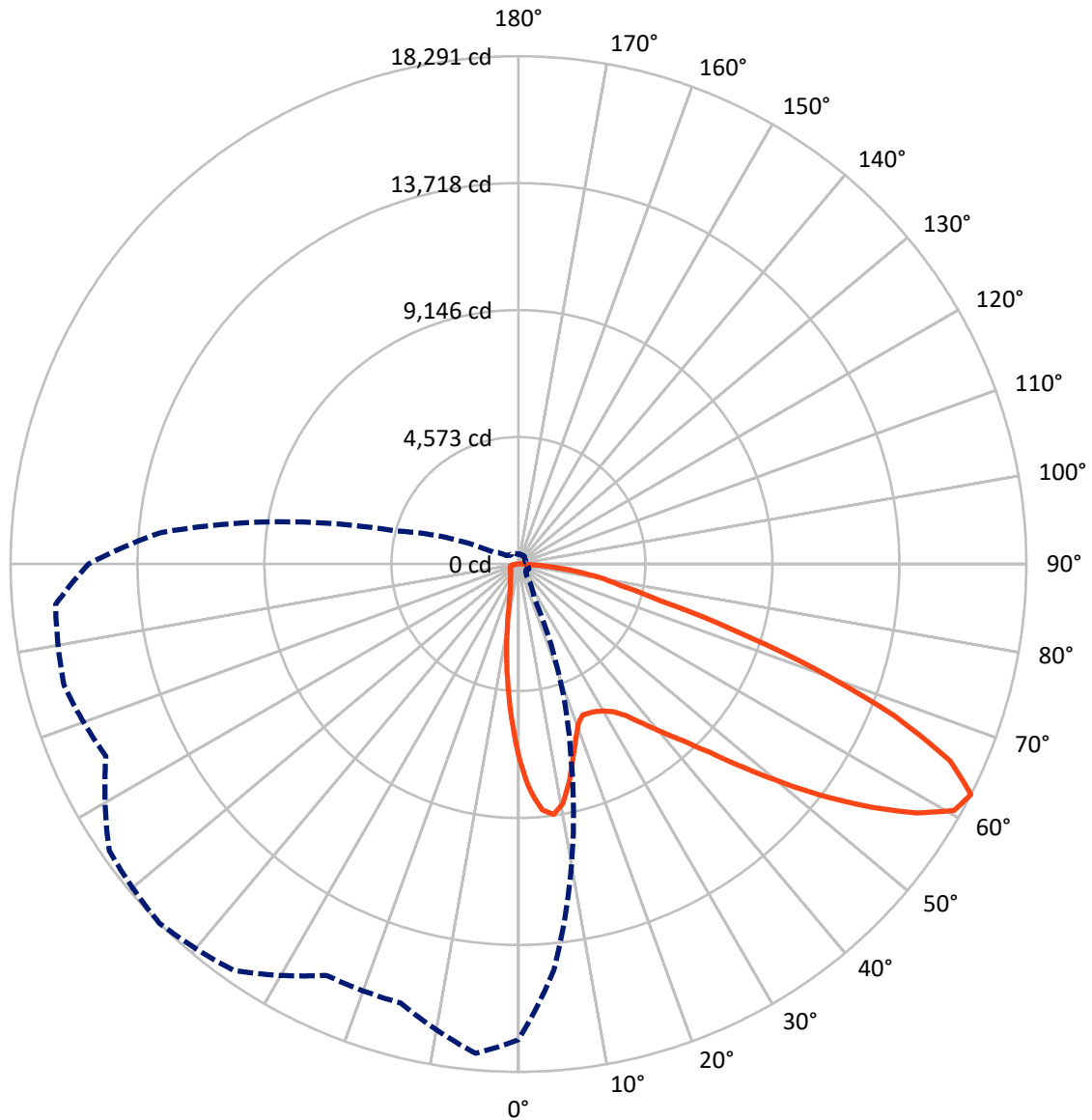
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 315-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3484.0	0.0	3484.0
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	17568.8	0.0	17568.8
	% Fixture	83.5	0.0	83.5
Total	Lumens	21052.8	0.0	21052.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	517.8	2.5
10°-20°	949.5	4.5
20°-30°	1384.3	6.6
30°-40°	2132.0	10.1
40°-50°	3137.8	14.9
50°-60°	4602.5	21.9
60°-70°	5144.9	24.4
70°-80°	2518.9	12.0
80°-90°	665.0	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°	21052.8	100.0
0°-180°	21052.8	100.0

Coefficient of Utilization



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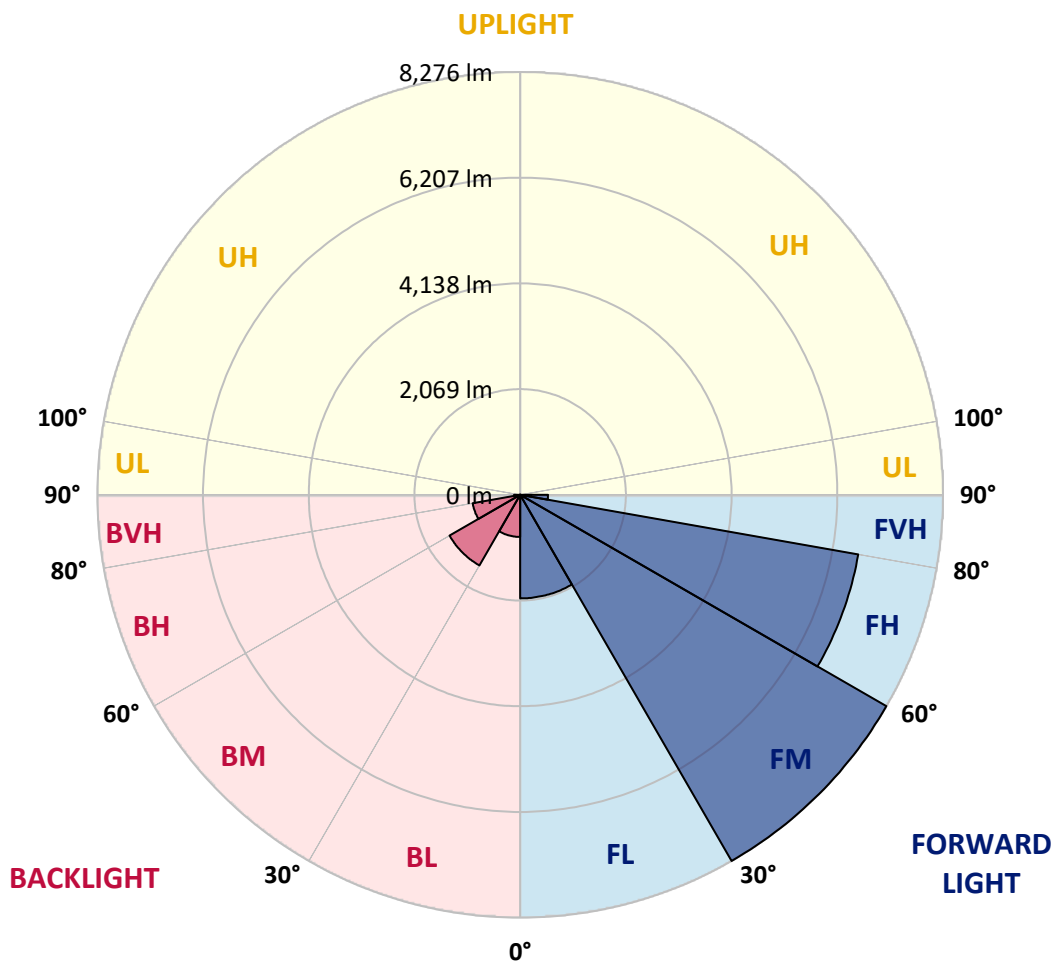
CATALOG NUMBER: GLNA-AF-05-LED-E1-SLR-7050-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2027.3	9.6			
FM	(30°-60°)	8276.0	39.3			
FH	(60°-80°)	6719.3	31.9			G3/7500
FVH	(80°-90°)	546.2	2.6			G4/750
BL	(0°-30°)	824.2	3.9	B2/1000		
BM	(30°-60°)	1596.3	7.6	B2/2500		
BH	(60°-80°)	944.5	4.5	B2/1000		G2/1000
BVH	(80°-90°)	118.9	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9
2.5°	7390.4	7240.1	6989.9	6729.6	6571.2	6385.9	6241.2	6114.0	5859.3	5809.6	5854.8
5°	6949.6	6647.6	6176.4	5702.0	5386.0	5046.8	4783.0	4571.4	4248.4	4191.6	4260.0
7.5°	6242.6	5881.4	5258.8	4653.4	4206.7	3783.1	3498.6	3271.6	3019.4	2910.7	2917.4
10°	5632.6	5225.2	4489.1	3830.8	3465.0	3179.1	2939.5	2706.8	2451.1	2283.3	2237.0
12.5°	5291.0	4822.6	3974.1	3386.2	3047.0	2746.4	2488.2	2239.5	1966.2	1794.9	1746.5
15°	5232.2	4722.8	3781.0	3101.7	2676.7	2296.2	1991.8	1713.9	1432.6	1293.9	1264.8
17.5°	5487.9	4901.1	3718.3	2848.0	2328.5	1858.6	1484.8	1174.7	945.6	876.2	870.3
20°	5978.4	5243.7	3710.2	2609.8	1984.8	1434.0	1034.6	809.0	708.4	688.4	689.8
22.5°	6667.2	5774.9	3809.7	2430.4	1668.7	1069.3	777.8	676.9	637.6	619.1	619.1
25°	7558.2	6506.4	4038.9	2299.7	1394.4	854.2	686.3	626.1	588.9	576.3	578.8
27.5°	8421.8	7218.0	4305.1	2196.7	1215.0	775.3	650.3	596.0	563.7	550.8	556.7
30°	9095.2	7850.0	4527.3	2056.6	1123.6	753.3	663.2	607.5	561.3	541.6	542.7
32.5°	9653.0	8403.2	4713.7	1955.7	1042.7	645.7	571.8	547.3	541.6	518.5	507.0
35°	10365.9	9006.2	4838.7	1958.1	1004.5	576.3	509.1	466.3	435.1	408.5	408.5
37.5°	11201.5	9698.1	4971.9	1984.8	990.8	535.7	487.3	444.2	415.5	389.9	385.4
40°	12027.7	10376.4	5093.4	2010.3	982.4	511.5	469.8	430.6	404.0	378.4	371.4
42.5°	12730.5	10934.2	5202.1	2022.9	954.7	509.1	457.2	421.1	395.9	367.9	361.2
45°	13250.0	11401.6	5319.1	2042.6	927.0	518.5	457.2	420.1	388.9	362.3	355.3
47.5°	13713.9	11950.2	5514.6	2042.6	893.4	501.0	472.3	421.1	387.8	359.8	354.2
50°	14335.4	12702.4	5884.9	1995.3	846.1	482.4	497.5	416.6	377.3	355.3	348.3
52.5°	15191.7	13666.6	6472.8	1912.9	773.2	446.7	494.0	414.5	366.8	343.7	335.6
55°	16204.6	14698.8	7113.9	1816.9	664.3	421.1	476.8	408.5	355.3	329.7	321.6
57.5°	16995.0	15409.3	7565.2	1668.7	569.3	407.5	422.5	402.9	341.2	314.6	308.0
60°	17309.6	15381.6	7689.2	1470.8	523.1	395.9	369.3	451.3	329.7	303.1	295.0
62.5°	17139.7	14671.1	7342.0	1332.0	512.6	380.8	346.1	417.6	320.6	295.0	283.4
65°	16353.8	13411.9	6422.0	1294.9	542.7	365.8	331.1	327.6	308.0	283.4	271.9
67.5°	14642.0	11530.1	5141.8	1298.4	580.9	350.7	316.0	299.9	290.4	270.8	260.3
70°	11926.0	9116.2	3832.9	1307.9	600.5	333.2	299.9	282.4	271.9	252.3	245.2
72.5°	8769.0	7026.0	2784.6	1247.6	604.0	313.6	277.8	262.8	252.3	231.6	225.6
75°	5999.5	5374.4	1931.5	1033.5	526.6	285.9	253.3	239.6	232.6	207.1	203.6
77.5°	4382.6	4034.3	1236.0	767.3	406.1	251.2	223.5	213.0	208.5	180.4	175.9
80°	3517.2	3191.7	773.2	525.5	297.5	210.6	187.4	181.8	176.9	149.3	145.7
82.5°	2439.5	2137.5	496.5	341.2	223.5	163.3	148.2	145.7	138.7	113.5	110.0
85°	1286.9	1160.7	314.6	232.6	161.9	112.1	103.0	103.0	99.5	75.3	72.9
87.5°	164.3	267.3	159.8	121.6	89.0	49.8	49.8	48.7	52.2	42.7	37.1
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°	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9
2.5°	5748.3	5804.0	5750.7	5754.2	5813.1	5989.0	6068.8	6134.7	6205.5	6251.7	6272.4
5°	4166.4	4296.0	4339.8	4432.3	4569.0	4793.5	4882.5	4947.3	4990.4	5015.7	5026.2
7.5°	2849.4	2927.9	3015.8	3165.1	3462.5	3594.6	3653.5	3638.4	3590.1	3572.6	3555.4
10°	2148.0	2116.8	2100.4	2182.7	2423.4	2556.5	2598.2	2557.6	2531.0	2536.9	2565.6
12.5°	1664.2	1609.9	1544.0	1534.6	1693.3	1812.4	1839.0	1841.1	1889.8	1932.6	1996.3
15°	1212.9	1207.0	1174.7	1155.1	1245.2	1342.6	1354.1	1374.8	1418.9	1450.1	1505.5
17.5°	855.2	886.4	912.0	924.6	992.9	1062.3	1049.7	1039.1	1031.1	1031.1	1057.7
20°	689.8	710.5	743.1	779.9	849.6	898.0	866.8	825.1	795.0	785.8	789.3
22.5°	621.5	637.6	656.2	688.4	751.2	784.8	751.2	721.0	690.9	680.4	676.9
25°	586.8	607.5	625.0	649.2	695.5	718.6	686.3	664.3	645.7	633.1	623.6
27.5°	567.2	585.4	590.3	601.9	641.1	661.8	645.7	636.6	625.0	613.5	601.9
30°	546.2	542.7	534.6	535.7	567.2	587.9	586.8	588.9	587.9	584.4	582.3
32.5°	498.9	491.9	484.9	491.9	520.6	539.2	540.6	545.2	545.2	544.1	553.2
35°	415.5	428.1	436.2	457.2	491.9	508.0	501.0	489.4	468.8	455.8	454.8
37.5°	384.3	386.4	400.5	429.2	467.7	482.4	472.3	445.7	431.6	429.2	432.7
40°	369.3	371.4	379.4	406.1	444.2	459.3	450.2	430.6	417.6	416.6	422.5
42.5°	358.8	361.2	365.8	384.3	415.5	434.1	435.1	421.1	406.1	407.5	413.1
45°	352.8	354.2	352.8	362.3	391.0	413.1	422.5	413.1	400.5	402.9	409.6
47.5°	351.8	348.3	343.7	346.1	376.3	398.0	409.6	406.1	400.5	402.9	408.5
50°	347.2	339.1	333.2	332.1	362.3	385.4	395.9	395.9	398.0	402.9	408.5
52.5°	333.2	324.1	324.1	320.6	352.8	374.9	381.9	382.9	386.4	394.5	402.9
55°	316.0	312.5	316.0	310.1	346.1	366.8	370.3	372.8	374.9	381.9	393.4
57.5°	301.0	296.4	304.5	302.0	340.2	358.8	358.8	363.3	363.3	372.8	381.9
60°	292.9	283.4	286.9	289.4	332.1	351.8	349.7	354.2	356.3	364.7	371.4
62.5°	282.4	274.3	274.3	279.9	323.0	341.2	340.2	343.7	352.8	355.3	362.3
65°	269.8	266.3	262.8	269.8	313.6	329.7	331.1	335.6	343.7	346.1	351.8
67.5°	256.8	258.2	251.2	258.2	305.5	318.1	318.1	327.6	331.1	335.6	341.2
70°	243.1	244.2	238.2	246.6	299.9	305.5	304.5	317.1	319.5	323.0	328.6
72.5°	225.6	225.6	223.5	235.1	290.4	292.9	290.4	301.0	302.0	305.5	308.0
75°	207.1	207.1	205.0	221.1	284.8	278.9	271.9	279.9	282.4	284.8	284.8
77.5°	182.9	185.3	185.3	205.0	264.9	273.3	249.8	254.7	258.2	259.3	255.8
80°	152.8	158.7	160.8	186.4	222.1	252.3	223.5	226.7	228.1	228.1	223.5
82.5°	117.0	127.2	133.1	160.8	170.3	211.6	194.4	197.9	194.4	187.4	185.3
85°	80.9	94.9	102.0	122.6	128.6	163.3	161.9	161.9	155.2	145.7	144.7
87.5°	44.1	52.2	56.8	72.9	87.9	110.0	119.1	115.6	110.0	104.1	105.5
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9
2.5°	6381.3	6538.7	6789.9	6981.9	7175.2	7361.6	7563.1	7716.9	7847.6	7898.7	8053.6
5°	5131.6	5328.2	5565.4	5993.5	6296.9	6631.1	7017.9	7529.5	7726.0	7998.2	8443.5
7.5°	3628.3	3806.2	4188.1	4534.3	4963.8	5437.1	5958.8	6664.8	6923.0	7359.2	8084.8
10°	2709.3	2916.3	3222.9	3514.8	3893.1	4377.0	4976.4	5765.8	6079.3	6552.7	7388.3
12.5°	2182.7	2426.9	2752.0	3026.4	3319.3	3660.5	4242.8	5108.2	5528.6	5942.7	6787.4
15°	1676.8	1932.6	2234.9	2583.2	2905.8	3274.1	3884.0	4830.7	5314.2	5746.2	6466.8
17.5°	1160.7	1379.3	1760.2	2123.5	2536.9	3007.8	3784.5	4889.5	5466.9	5964.8	6522.5
20°	823.0	947.7	1260.2	1681.7	2196.7	2787.8	3766.0	5199.6	5950.8	6519.0	6878.9
22.5°	691.9	738.2	920.0	1306.5	1901.4	2623.5	3830.8	5634.7	6603.5	7329.1	7447.1
25°	630.6	658.7	753.3	1025.5	1638.6	2504.3	4049.4	6282.9	7411.4	8139.4	8118.4
27.5°	597.0	626.1	688.4	865.7	1441.0	2430.4	4268.0	7051.6	8334.9	9018.8	8759.6
30°	586.8	626.1	691.9	816.0	1299.8	2313.4	4447.4	7726.0	9045.4	9612.7	9051.4
32.5°	578.8	584.4	614.5	703.5	1165.3	2176.7	4569.0	8331.4	9740.9	10177.4	9471.5
35°	467.7	496.5	545.2	630.6	1086.8	2094.8	4569.0	8853.4	10426.2	10747.8	9871.9
37.5°	450.2	475.8	518.5	591.4	1042.7	2054.1	4477.5	9356.9	11126.2	11394.9	10201.6
40°	441.1	461.8	502.4	561.3	1024.1	2007.9	4344.4	9801.2	11810.1	12042.7	10509.6
42.5°	434.1	452.7	490.8	542.7	999.9	1957.1	4236.8	10157.5	12403.9	12595.9	10803.5
45°	430.6	450.2	491.9	552.2	951.2	1889.8	4201.1	10542.9	12892.3	13057.7	11121.6
47.5°	430.6	453.7	497.5	571.8	893.4	1820.4	4313.2	11051.2	13354.1	13435.0	11496.5
50°	427.1	452.7	514.0	552.2	809.0	1732.5	4577.0	11691.0	13854.0	13863.2	11971.2
52.5°	420.1	450.2	553.2	540.6	711.6	1616.9	4933.7	12512.9	14593.6	14649.0	12714.0
55°	412.0	446.7	542.7	514.0	632.0	1479.2	5225.2	13511.4	15632.8	15786.6	13806.7
57.5°	401.5	442.1	525.5	476.8	579.8	1301.9	5330.6	14242.9	16358.4	16744.8	15037.9
60°	392.4	438.6	474.4	454.8	547.3	1152.7	5126.7	14098.2	16308.6	17141.8	16129.2
62.5°	382.9	442.1	432.7	441.1	532.2	1056.7	4594.5	12939.6	15483.5	16732.2	16938.2
65°	372.8	411.0	408.5	429.2	529.0	1018.5	3808.7	11202.6	13888.7	15437.3	17129.2
67.5°	358.8	379.4	391.0	414.5	540.6	984.8	3073.7	9240.9	11672.4	13496.3	16133.8
70°	343.7	361.2	373.8	395.9	533.6	969.8	2556.5	7287.4	9262.0	11061.4	14170.1
72.5°	324.1	339.1	350.7	371.4	526.6	961.7	2159.6	5868.8	6914.9	8216.9	11521.0
75°	301.0	314.6	323.0	343.7	504.5	880.8	1697.8	4965.9	5174.4	5716.0	9176.1
77.5°	274.3	284.8	291.5	314.6	446.7	732.6	1228.0	3830.8	4018.2	4149.9	7035.1
80°	243.1	253.3	256.8	278.9	370.3	572.8	800.9	2829.5	3005.3	3035.5	4594.5
82.5°	207.1	217.6	217.6	238.2	303.1	412.0	525.5	1938.5	1973.2	2075.1	3247.4
85°	166.8	174.8	174.8	185.3	235.1	308.0	361.2	973.3	962.8	1099.4	2813.3
87.5°	119.1	125.1	130.7	133.1	167.8	203.6	217.6	296.4	195.5	224.6	1806.4
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°	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9	7112.9
2.5°	8170.6	8236.5	8169.2	8120.9	7911.3	7739.0	7508.4	7390.4
5°	8782.7	8950.5	8893.7	8690.2	8252.6	7760.7	7201.9	6949.6
7.5°	8708.7	9098.7	9107.8	8727.3	8082.7	7358.1	6601.4	6242.6
10°	8132.4	8631.0	8773.6	8404.3	7720.4	6910.4	6042.2	5632.6
12.5°	7488.8	7977.2	8086.2	7958.6	7387.2	6573.3	5692.9	5291.0
15°	6962.2	7181.2	7310.5	7421.9	7101.3	6439.2	5672.9	5232.2
17.5°	6641.7	6617.5	6654.6	6847.7	6902.0	6593.0	5973.9	5487.9
20°	6526.0	6154.7	6145.2	6411.5	6808.4	6960.1	6561.8	5978.4
22.5°	6589.8	5987.9	5911.5	6227.5	6858.2	7488.8	7332.6	6667.2
25°	6809.5	6001.9	5940.3	6246.1	7038.6	8052.5	8164.6	7558.2
27.5°	7155.6	6089.9	6008.6	6322.5	7278.3	8525.9	8984.1	8421.8
30°	7484.3	6242.6	6141.7	6472.8	7496.9	8713.3	9486.5	9095.2
32.5°	7883.7	6528.5	6351.2	6749.2	7767.7	9011.8	9934.3	9653.0
35°	8274.7	6935.6	6715.9	7176.3	8069.7	9383.5	10445.8	10365.9
37.5°	8704.2	7468.1	7286.3	7728.5	8483.1	9733.9	11098.5	11201.5
40°	9162.5	8174.1	7958.6	8533.9	9124.3	10173.9	11780.3	12027.7
42.5°	9624.2	8957.5	8700.7	9283.7	9828.8	10607.7	12363.3	12730.5
45°	10152.9	9808.2	9686.6	10317.2	10506.1	11021.1	12793.9	13250.0
47.5°	10768.8	10773.4	10968.9	11221.1	11188.9	11488.5	13226.9	13713.9
50°	11487.4	11977.9	12409.9	12577.4	11892.4	11990.9	13827.4	14335.4
52.5°	12350.7	13418.9	13953.5	13843.5	12650.6	12604.0	14778.6	15191.7
55°	13430.5	14944.3	15475.5	15396.7	13521.9	13439.6	15963.9	16204.6
57.5°	14680.2	16422.1	16910.5	16556.3	14568.1	14356.5	16944.2	16995.0
60°	15778.5	17593.4	18021.5	17629.1	15623.7	15331.8	17556.2	17309.6
62.5°	16389.6	17990.3	18291.3	17868.8	16346.8	16371.0	17690.4	17139.7
65°	16116.6	16986.9	17084.0	17049.3	16160.4	16973.9	17208.0	16353.8
67.5°	14621.3	14450.0	14613.3	14838.9	14563.5	16180.0	15871.0	14642.0
70°	11987.4	11046.3	11371.8	11523.1	11648.2	13923.4	13775.2	11926.0
72.5°	9033.9	7739.0	7995.8	7964.6	8543.0	11167.9	10713.1	8769.0
75°	6401.0	5247.3	5279.5	5266.9	5961.3	8737.5	7757.5	5999.5
77.5°	4478.6	3801.7	3819.2	3890.7	4007.7	6589.8	5542.2	4382.6
80°	3079.6	2885.2	2981.2	2987.1	2777.6	4426.7	4094.6	3517.2
82.5°	2293.8	2005.4	1982.3	2015.9	2176.7	3586.6	3146.5	2439.5
85°	1878.2	1187.3	954.7	1196.8	1929.0	3551.9	2090.2	1286.9
87.5°	1057.7	563.7	254.7	472.3	769.7	2351.6	604.0	164.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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