

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: P299341

Luminaire Tested: **GLNA-AF-02-LED-E1-SLR-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299341
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-02-LED-E1-SLR-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(2) 70 CRI, 2700K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9268.2 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G3

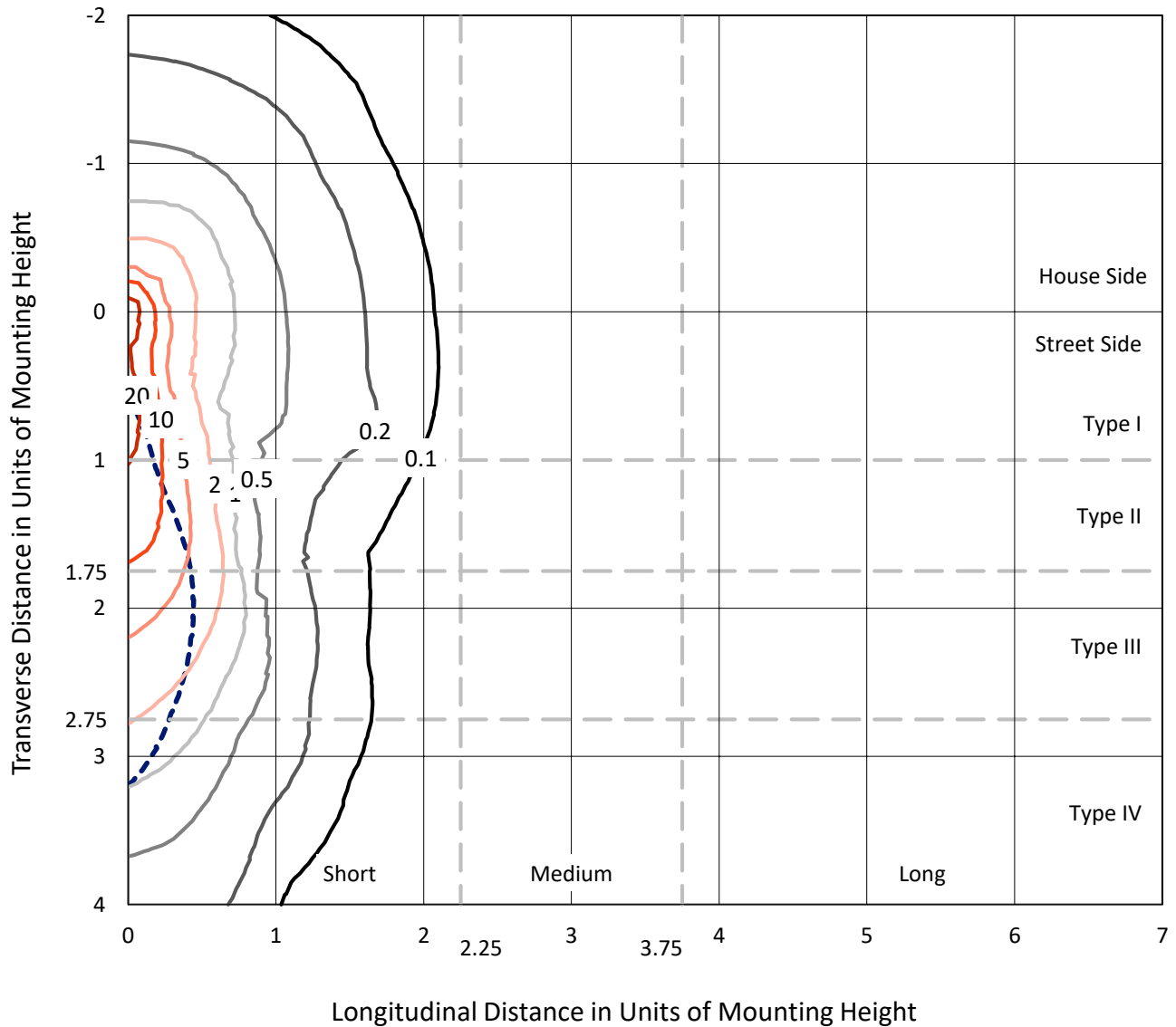
Input Watts (W): 113
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

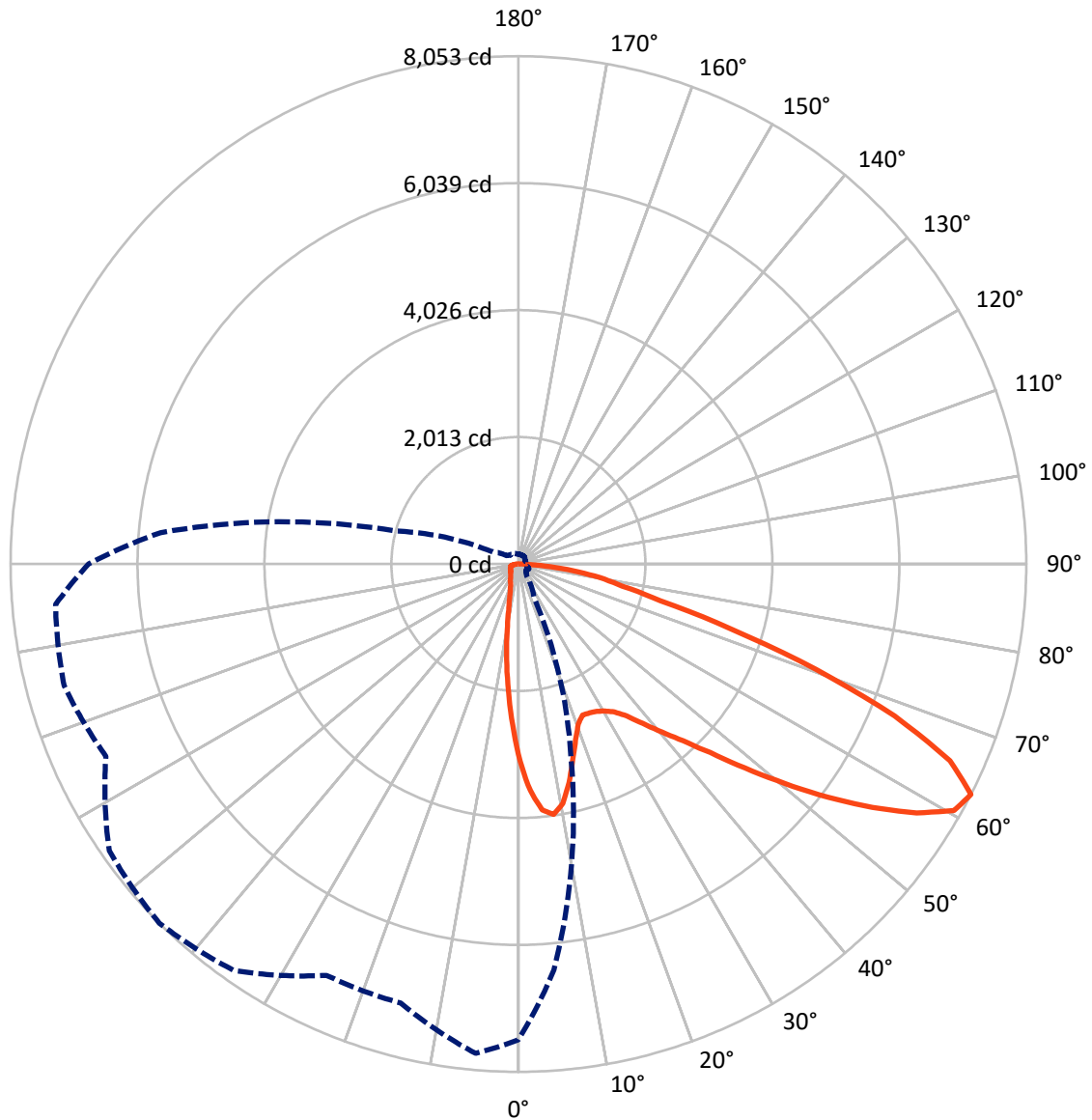
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 31.3 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	1533.8	0.0	1533.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	7734.5	0.0	7734.5
	% Fixture	83.5	0.0	83.5
Total	Lumens	9268.2	0.0	9268.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.9	2.5
10°-20°	418.0	4.5
20°-30°	609.4	6.6
30°-40°	938.6	10.1
40°-50°	1381.4	14.9
50°-60°	2026.2	21.9
60°-70°	2265.0	24.4
70°-80°	1108.9	12.0
80°-90°	292.8	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°	9268.2	100.0
0°-180°	9268.2	100.0

Coefficient of Utilization



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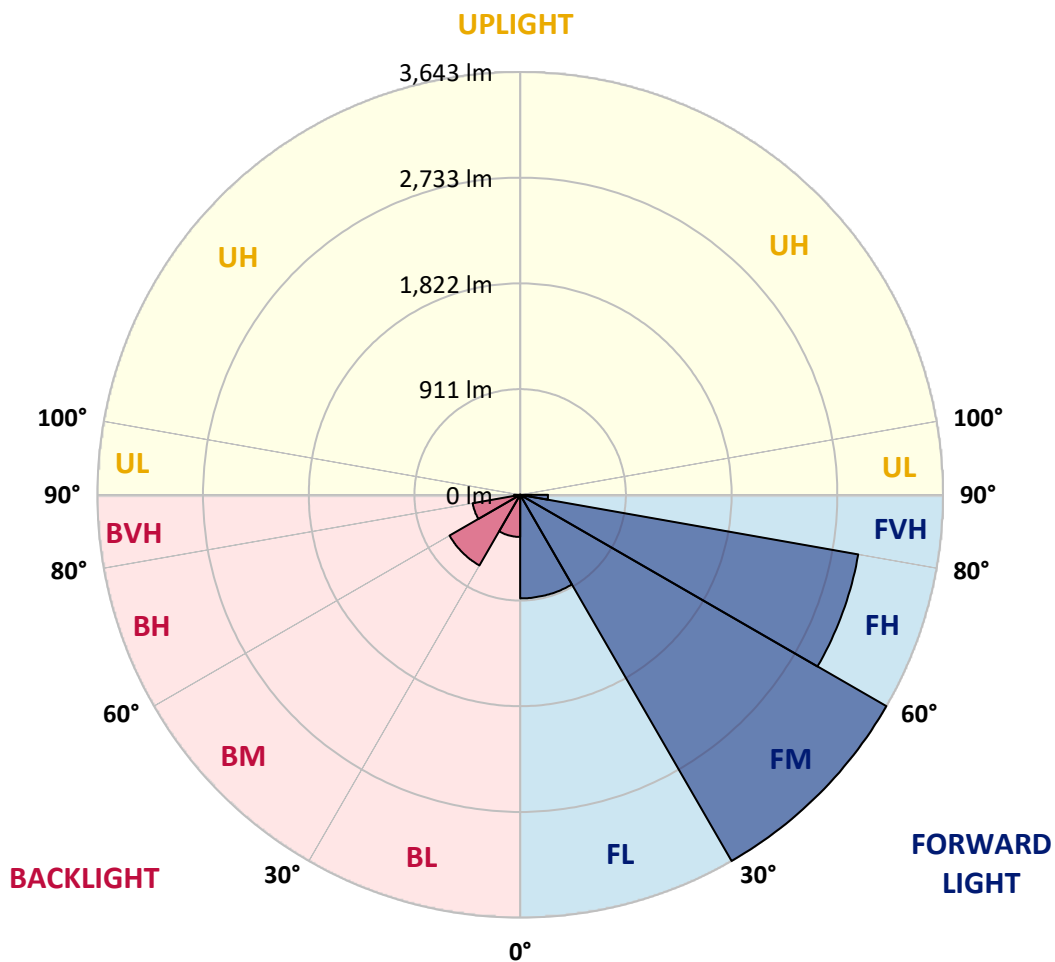
CATALOG NUMBER: GLNA-AF-02-LED-E1-SLR-7027

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	892.5	9.6			
FM	(30°-60°)	3643.4	39.3			
FH	(60°-80°)	2958.1	31.9			G2/5000
FVH	(80°-90°)	240.4	2.6			G3/500
BL	(0°-30°)	362.9	3.9	B1/500		
BM	(30°-60°)	702.8	7.6	B1/1000		
BH	(60°-80°)	415.8	4.5	B1/500		G1/500
BVH	(80°-90°)	52.3	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4
2.5°	3253.5	3187.4	3077.2	2962.6	2892.9	2811.3	2747.6	2691.6	2579.5	2557.6	2577.5
5°	3059.5	2926.5	2719.1	2510.2	2371.1	2221.8	2105.7	2012.5	1870.3	1845.3	1875.4
7.5°	2748.2	2589.2	2315.1	2048.6	1851.9	1665.5	1540.2	1440.3	1329.2	1281.4	1284.3
10°	2479.7	2300.3	1976.3	1686.5	1525.4	1399.6	1294.1	1191.7	1079.1	1005.2	984.8
12.5°	2329.3	2123.1	1749.5	1490.7	1341.4	1209.1	1095.4	985.9	865.6	790.2	768.9
15°	2303.4	2079.1	1664.5	1365.5	1178.4	1010.9	876.8	754.5	630.7	569.6	556.8
17.5°	2416.0	2157.7	1636.9	1253.8	1025.1	818.2	653.7	517.2	416.3	385.8	383.1
20°	2631.9	2308.5	1633.4	1148.9	873.8	631.3	455.5	356.1	311.9	303.1	303.7
22.5°	2935.2	2542.3	1677.2	1070.0	734.6	470.7	342.4	298.0	280.7	272.5	272.5
25°	3327.4	2864.4	1778.1	1012.4	613.9	376.0	302.2	275.6	259.3	253.7	254.8
27.5°	3707.6	3177.6	1895.3	967.1	534.9	341.3	286.3	262.4	248.2	242.5	245.1
30°	4004.0	3455.9	1993.1	905.4	494.6	331.6	292.0	267.5	247.1	238.5	238.9
32.5°	4249.6	3699.4	2075.1	861.0	459.0	284.3	251.7	240.9	238.5	228.3	223.2
35°	4563.5	3964.9	2130.2	862.0	442.2	253.7	224.1	205.3	191.6	179.8	179.8
37.5°	4931.3	4269.5	2188.8	873.8	436.2	235.8	214.5	195.6	182.9	171.7	169.7
40°	5295.0	4568.1	2242.3	885.0	432.5	225.2	206.8	189.6	177.8	166.6	163.5
42.5°	5604.4	4813.6	2290.1	890.6	420.3	224.1	201.3	185.4	174.3	162.0	159.0
45°	5833.2	5019.4	2341.7	899.2	408.1	228.3	201.3	184.9	171.2	159.5	156.4
47.5°	6037.4	5260.9	2427.7	899.2	393.3	220.6	207.9	185.4	170.7	158.4	155.9
50°	6311.0	5592.1	2590.8	878.4	372.5	212.4	219.0	183.4	166.1	156.4	153.3
52.5°	6688.0	6016.6	2849.6	842.1	340.4	196.7	217.5	182.5	161.5	151.3	147.8
55°	7133.9	6470.9	3131.8	799.9	292.4	185.4	209.9	179.8	156.4	145.1	141.6
57.5°	7481.8	6783.7	3330.5	734.6	250.6	179.4	186.0	177.4	150.2	138.5	135.6
60°	7620.3	6771.6	3385.1	647.5	230.3	174.3	162.6	198.7	145.1	133.4	129.9
62.5°	7545.5	6458.8	3232.2	586.4	225.7	167.7	152.4	183.9	141.1	129.9	124.8
65°	7199.6	5904.4	2827.2	570.1	238.9	161.0	145.8	144.2	135.6	124.8	119.7
67.5°	6446.0	5076.0	2263.6	571.6	255.7	154.4	139.1	132.0	127.9	119.2	114.6
70°	5250.3	4013.3	1687.4	575.8	264.4	146.7	132.0	124.3	119.7	111.1	108.0
72.5°	3860.5	3093.1	1225.9	549.2	265.9	138.0	122.3	115.7	111.1	102.0	99.3
75°	2641.2	2366.0	850.3	455.0	231.8	125.9	111.5	105.5	102.4	91.2	89.6
77.5°	1929.4	1776.1	544.2	337.8	178.8	110.6	98.4	93.8	91.8	79.4	77.4
80°	1548.4	1405.1	340.4	231.4	130.9	92.7	82.5	80.1	77.9	65.7	64.2
82.5°	1074.0	941.0	218.6	150.2	98.4	71.9	65.2	64.2	61.1	50.0	48.4
85°	566.5	511.0	138.5	102.4	71.3	49.4	45.3	45.3	43.8	33.2	32.1
87.5°	72.3	117.7	70.3	53.5	39.2	21.9	21.9	21.4	23.0	18.8	16.3
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4
2.5°	2530.6	2555.1	2531.7	2533.2	2559.1	2636.6	2671.7	2700.7	2731.9	2752.2	2761.3
5°	1834.2	1891.3	1910.6	1951.3	2011.4	2110.3	2149.5	2178.0	2197.0	2208.1	2212.7
7.5°	1254.4	1289.0	1327.7	1393.4	1524.3	1582.5	1608.4	1601.8	1580.5	1572.8	1565.2
10°	945.6	931.9	924.7	960.9	1066.9	1125.5	1143.8	1125.9	1114.2	1116.8	1129.5
12.5°	732.6	708.7	679.7	675.6	745.4	797.9	809.6	810.5	832.0	850.8	878.9
15°	534.0	531.4	517.2	508.5	548.2	591.0	596.1	605.2	624.7	638.4	662.8
17.5°	376.5	390.2	401.5	407.0	437.1	467.7	462.1	457.5	453.9	453.9	465.6
20°	303.7	312.8	327.1	343.3	374.0	395.3	381.6	363.2	350.0	346.0	347.5
22.5°	273.6	280.7	288.9	303.1	330.7	345.5	330.7	317.4	304.2	299.5	298.0
25°	258.4	267.5	275.2	285.8	306.2	316.3	302.2	292.4	284.3	278.7	274.5
27.5°	249.7	257.7	259.9	265.0	282.3	291.4	284.3	280.3	275.2	270.1	265.0
30°	240.5	238.9	235.4	235.8	249.7	258.8	258.4	259.3	258.8	257.3	256.3
32.5°	219.6	216.6	213.5	216.6	229.2	237.4	238.0	240.0	240.0	239.5	243.5
35°	182.9	188.5	192.0	201.3	216.6	223.6	220.6	215.5	206.4	200.7	200.2
37.5°	169.2	170.1	176.3	188.9	205.9	212.4	207.9	196.2	190.0	188.9	190.5
40°	162.6	163.5	167.0	178.8	195.6	202.2	198.2	189.6	183.9	183.4	186.0
42.5°	157.9	159.0	161.0	169.2	182.9	191.1	191.6	185.4	178.8	179.4	181.8
45°	155.3	155.9	155.3	159.5	172.1	181.8	186.0	181.8	176.3	177.4	180.3
47.5°	154.9	153.3	151.3	152.4	165.7	175.2	180.3	178.8	176.3	177.4	179.8
50°	152.9	149.3	146.7	146.2	159.5	169.7	174.3	174.3	175.2	177.4	179.8
52.5°	146.7	142.7	142.7	141.1	155.3	165.0	168.1	168.6	170.1	173.7	177.4
55°	139.1	137.6	139.1	136.5	152.4	161.5	163.0	164.1	165.0	168.1	173.2
57.5°	132.5	130.5	134.0	133.0	149.8	157.9	157.9	159.9	159.9	164.1	168.1
60°	128.9	124.8	126.3	127.4	146.2	154.9	153.9	155.9	156.9	160.6	163.5
62.5°	124.3	120.8	120.8	123.2	142.2	150.2	149.8	151.3	155.3	156.4	159.5
65°	118.8	117.2	115.7	118.8	138.0	145.1	145.8	147.8	151.3	152.4	154.9
67.5°	113.1	113.7	110.6	113.7	134.5	140.0	140.0	144.2	145.8	147.8	150.2
70°	107.0	107.5	104.9	108.6	132.0	134.5	134.0	139.6	140.7	142.2	144.7
72.5°	99.3	99.3	98.4	103.5	127.9	128.9	127.9	132.5	133.0	134.5	135.6
75°	91.2	91.2	90.2	97.3	125.4	122.8	119.7	123.2	124.3	125.4	125.4
77.5°	80.5	81.6	81.6	90.2	116.6	120.3	110.0	112.1	113.7	114.1	112.6
80°	67.2	69.9	70.8	82.1	97.8	111.1	98.4	99.8	100.4	100.4	98.4
82.5°	51.5	56.0	58.6	70.8	75.0	93.2	85.6	87.1	85.6	82.5	81.6
85°	35.6	41.8	44.9	54.0	56.6	71.9	71.3	71.3	68.3	64.2	63.7
87.5°	19.4	23.0	25.0	32.1	38.7	48.4	52.4	50.9	48.4	45.8	46.4
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4
2.5°	2809.3	2878.6	2989.2	3073.7	3158.8	3240.9	3329.6	3397.3	3454.8	3477.3	3545.5
5°	2259.1	2345.7	2450.1	2638.6	2772.1	2919.3	3089.6	3314.8	3401.3	3521.1	3717.2
7.5°	1597.3	1675.7	1843.8	1996.2	2185.3	2393.6	2623.3	2934.1	3047.8	3239.8	3559.2
10°	1192.7	1283.9	1418.8	1547.3	1713.9	1926.9	2190.8	2538.3	2676.4	2884.7	3252.6
12.5°	960.9	1068.4	1211.5	1332.3	1461.3	1611.5	1867.8	2248.8	2433.9	2616.2	2988.1
15°	738.2	850.8	983.9	1137.2	1279.3	1441.4	1709.9	2126.6	2339.5	2529.7	2846.9
17.5°	511.0	607.2	774.9	934.8	1116.8	1324.1	1666.1	2152.6	2406.7	2625.9	2871.5
20°	362.3	417.2	554.8	740.3	967.1	1227.3	1657.9	2289.1	2619.8	2869.9	3028.3
22.5°	304.6	325.0	405.0	575.2	837.1	1154.9	1686.5	2480.6	2907.1	3226.5	3278.5
25°	277.6	290.0	331.6	451.5	721.4	1102.5	1782.7	2766.0	3262.8	3583.3	3574.0
27.5°	262.8	275.6	303.1	381.1	634.4	1070.0	1878.9	3104.4	3669.3	3970.4	3856.3
30°	258.4	275.6	304.6	359.2	572.2	1018.4	1957.9	3401.3	3982.1	4231.9	3984.8
32.5°	254.8	257.3	270.5	309.7	513.0	958.3	2011.4	3667.8	4288.3	4480.5	4169.7
35°	205.9	218.6	240.0	277.6	478.4	922.2	2011.4	3897.6	4590.0	4731.6	4346.0
37.5°	198.2	209.5	228.3	260.4	459.0	904.3	1971.2	4119.3	4898.2	5016.5	4491.1
40°	194.2	203.3	221.2	247.1	450.8	883.9	1912.6	4314.8	5199.2	5301.7	4626.7
42.5°	191.1	199.3	216.1	238.9	440.2	861.6	1865.2	4471.7	5460.7	5545.2	4756.1
45°	189.6	198.2	216.6	243.1	418.8	832.0	1849.5	4641.4	5675.7	5748.5	4896.2
47.5°	189.6	199.7	219.0	251.7	393.3	801.4	1898.8	4865.2	5879.0	5914.6	5061.2
50°	188.0	199.3	226.3	243.1	356.1	762.7	2015.0	5146.8	6099.1	6103.1	5270.2
52.5°	184.9	198.2	243.5	238.0	313.3	711.8	2172.0	5508.7	6424.7	6449.0	5597.2
55°	181.4	196.7	238.9	226.3	278.2	651.2	2300.3	5948.2	6882.2	6949.9	6078.3
57.5°	176.8	194.6	231.4	209.9	255.3	573.2	2346.7	6270.3	7201.6	7371.7	6620.3
60°	172.7	193.1	208.8	200.2	240.9	507.4	2257.0	6206.6	7179.7	7546.5	7100.7
62.5°	168.6	194.6	190.5	194.2	234.3	465.2	2022.7	5696.5	6816.4	7366.2	7456.8
65°	164.1	180.9	179.8	188.9	232.9	448.4	1676.7	4931.8	6114.3	6796.1	7540.9
67.5°	157.9	167.0	172.1	182.5	238.0	433.6	1353.1	4068.2	5138.6	5941.6	7102.7
70°	151.3	159.0	164.6	174.3	234.9	426.9	1125.5	3208.2	4077.5	4869.6	6238.2
72.5°	142.7	149.3	154.4	163.5	231.8	423.4	950.7	2583.7	3044.2	3617.4	5072.0
75°	132.5	138.5	142.2	151.3	222.1	387.8	747.4	2186.2	2278.0	2516.4	4039.7
77.5°	120.8	125.4	128.3	138.5	196.7	322.5	540.6	1686.5	1769.0	1827.0	3097.1
80°	107.0	111.5	113.1	122.8	163.0	252.2	352.6	1245.6	1323.1	1336.3	2022.7
82.5°	91.2	95.8	95.8	104.9	133.4	181.4	231.4	853.4	868.7	913.6	1429.6
85°	73.4	77.0	77.0	81.6	103.5	135.6	159.0	428.5	423.8	484.0	1238.5
87.5°	52.4	55.1	57.5	58.6	73.9	89.6	95.8	130.5	86.1	98.9	795.3
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4	3131.4
2.5°	3597.0	3626.0	3596.4	3575.1	3482.9	3407.0	3305.5	3253.5
5°	3866.5	3940.3	3915.4	3825.7	3633.1	3416.6	3170.5	3059.5
7.5°	3833.9	4005.6	4009.6	3842.1	3558.3	3239.3	2906.2	2748.2
10°	3580.2	3799.7	3862.5	3699.9	3398.8	3042.2	2660.0	2479.7
12.5°	3296.9	3511.9	3559.8	3503.7	3252.1	2893.8	2506.2	2329.3
15°	3065.0	3161.4	3218.4	3267.4	3126.3	2834.8	2497.4	2303.4
17.5°	2923.9	2913.3	2929.6	3014.6	3038.5	2902.5	2629.9	2416.0
20°	2873.0	2709.5	2705.4	2822.6	2997.3	3064.1	2888.7	2631.9
22.5°	2901.1	2636.1	2602.5	2741.6	3019.2	3296.9	3228.1	2935.2
25°	2997.8	2642.3	2615.1	2749.8	3098.7	3545.0	3594.4	3327.4
27.5°	3150.2	2681.0	2645.2	2783.4	3204.2	3753.4	3955.2	3707.6
30°	3294.9	2748.2	2703.8	2849.6	3300.4	3835.9	4176.3	4004.0
32.5°	3470.7	2874.1	2796.0	2971.3	3419.6	3967.3	4373.5	4249.6
35°	3642.8	3053.3	2956.6	3159.3	3552.6	4131.0	4598.6	4563.5
37.5°	3831.9	3287.8	3207.7	3402.4	3734.6	4285.2	4886.0	4931.3
40°	4033.7	3598.6	3503.7	3757.0	4016.9	4479.0	5186.1	5295.0
42.5°	4236.9	3943.4	3830.4	4087.0	4327.0	4669.9	5442.8	5604.4
45°	4469.7	4317.9	4264.4	4542.0	4625.2	4851.9	5632.4	5833.2
47.5°	4740.8	4742.9	4828.9	4940.0	4925.8	5057.7	5823.0	6037.4
50°	5057.2	5273.1	5463.3	5537.0	5235.5	5278.8	6087.4	6311.0
52.5°	5437.2	5907.5	6142.9	6094.5	5569.3	5548.8	6506.1	6688.0
55°	5912.6	6579.1	6812.9	6778.2	5952.9	5916.6	7027.9	7133.9
57.5°	6462.8	7229.7	7444.7	7288.7	6413.4	6320.3	7459.5	7481.8
60°	6946.3	7745.3	7933.8	7761.0	6878.1	6749.7	7728.9	7620.3
62.5°	7215.3	7920.0	8052.5	7866.5	7196.5	7207.1	7788.0	7545.5
65°	7095.2	7478.3	7521.0	7505.7	7114.4	7472.6	7575.6	7199.6
67.5°	6436.9	6361.4	6433.3	6532.6	6411.4	7123.1	6987.0	6446.0
70°	5277.3	4863.0	5006.3	5072.9	5128.0	6129.6	6064.4	5250.3
72.5°	3977.1	3407.0	3520.0	3506.3	3761.0	4916.5	4716.3	3860.5
75°	2817.9	2310.0	2324.2	2318.7	2624.4	3846.6	3415.2	2641.2
77.5°	1971.6	1673.6	1681.4	1712.8	1764.3	2901.1	2439.9	1929.4
80°	1355.8	1270.2	1312.4	1315.0	1222.8	1948.8	1802.6	1548.4
82.5°	1009.8	882.9	872.7	887.5	958.3	1578.9	1385.2	1074.0
85°	826.9	522.7	420.3	526.9	849.2	1563.7	920.2	566.5
87.5°	465.6	248.2	112.1	207.9	338.9	1035.3	265.9	72.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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