

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: P299470

Luminaire Tested: **GLNA-AF-03-LED-E1-SLR-600**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299470  
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-03-LED-E1-SLR-600  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(3) 70 CRI, 4000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill  
Light Eliminator Right OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 10486 lumens  
Efficiency: N/A  
Efficacy: 109.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G3

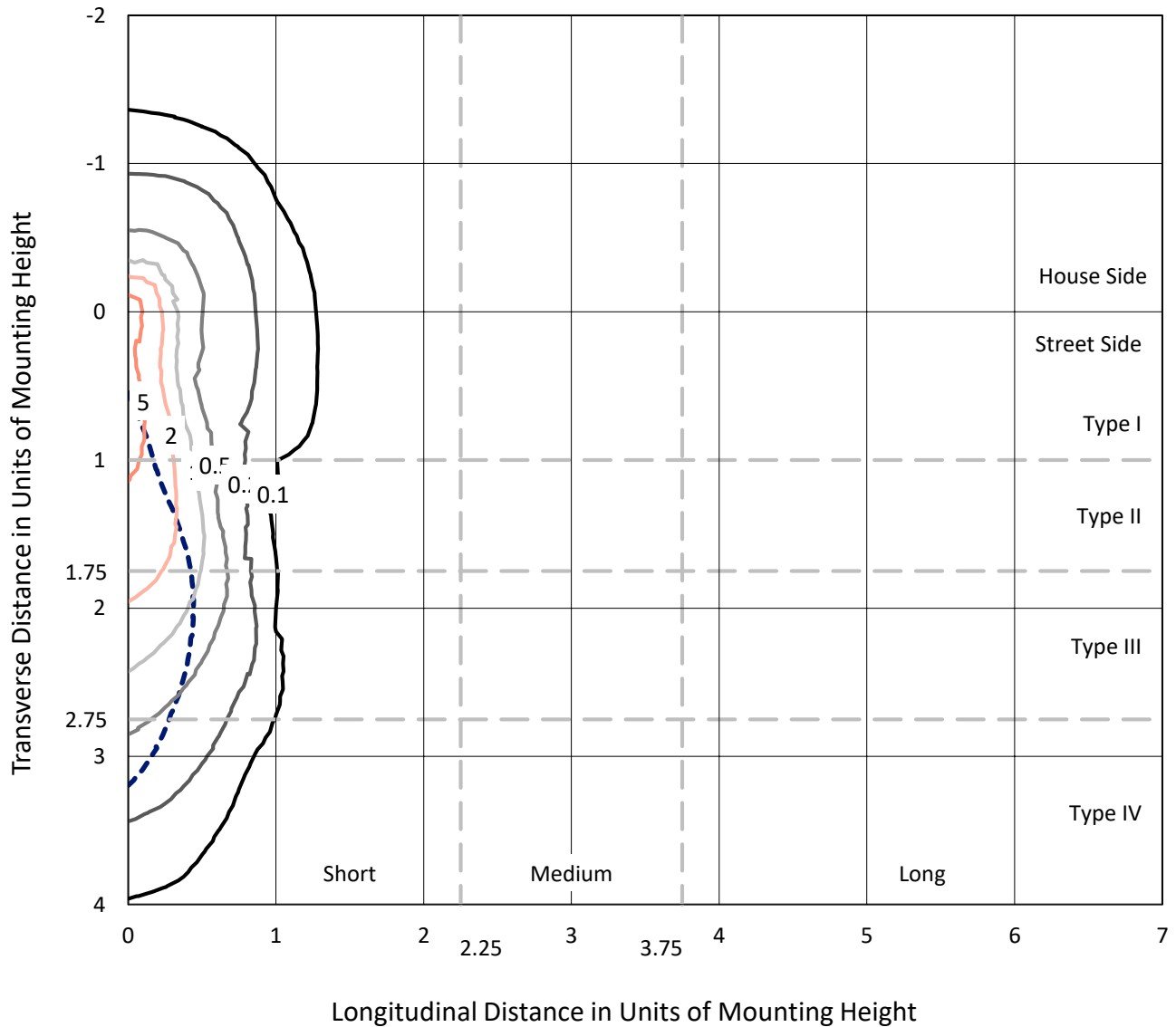
Input Watts (W): 96  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

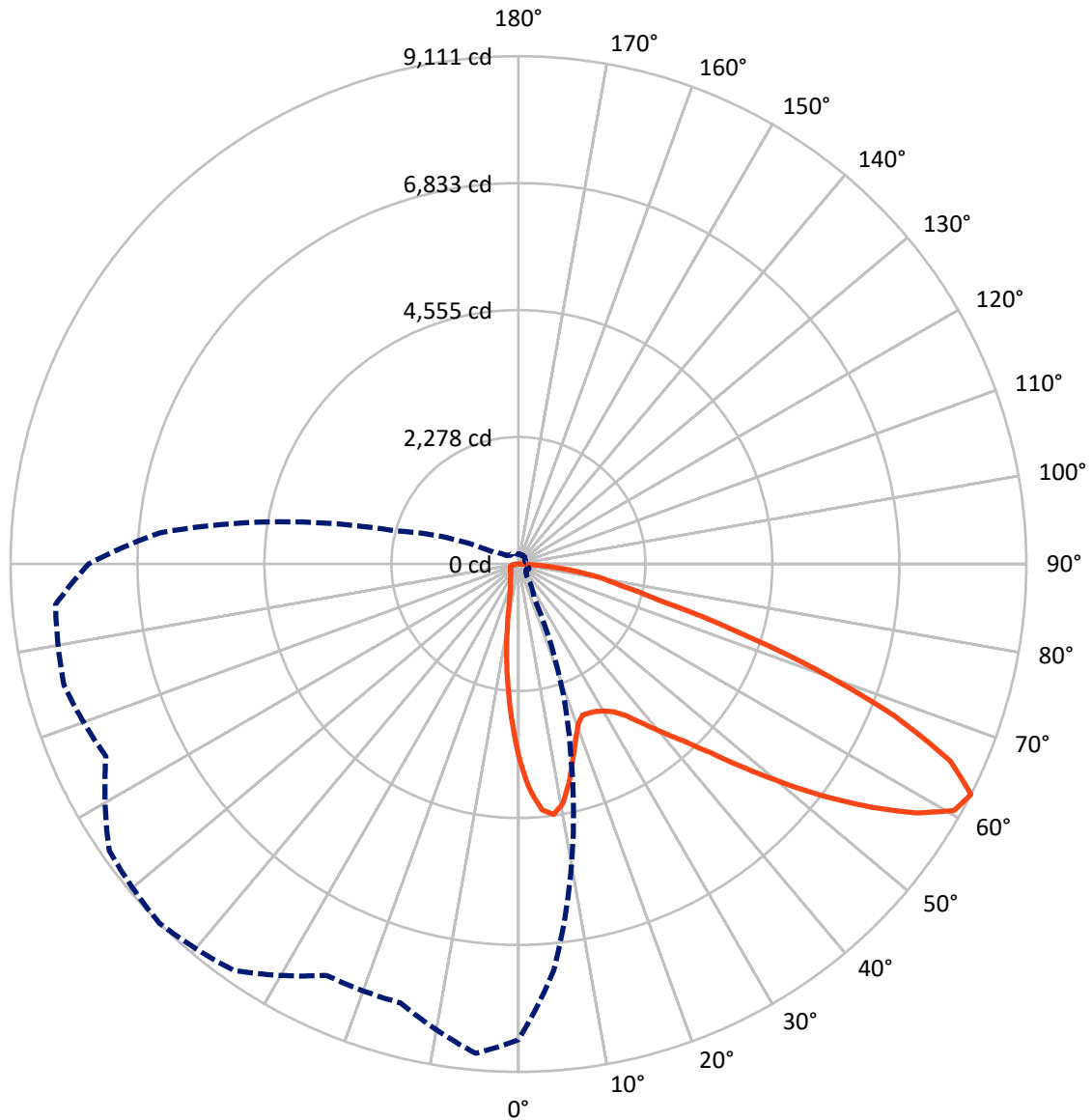
× Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 8.9 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
<b>House Side</b>	Lumens	1735.3	0.0	1735.3
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	8750.7	0.0	8750.7
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	10486.0	0.0	10486.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	257.9	2.5
10°-20°	472.9	4.5
20°-30°	689.5	6.6
30°-40°	1061.9	10.1
40°-50°	1562.9	14.9
50°-60°	2292.4	21.9
60°-70°	2562.6	24.4
70°-80°	1254.6	12.0
80°-90°	331.2	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°	10486.0	100.0
0°-180°	10486.0	100.0



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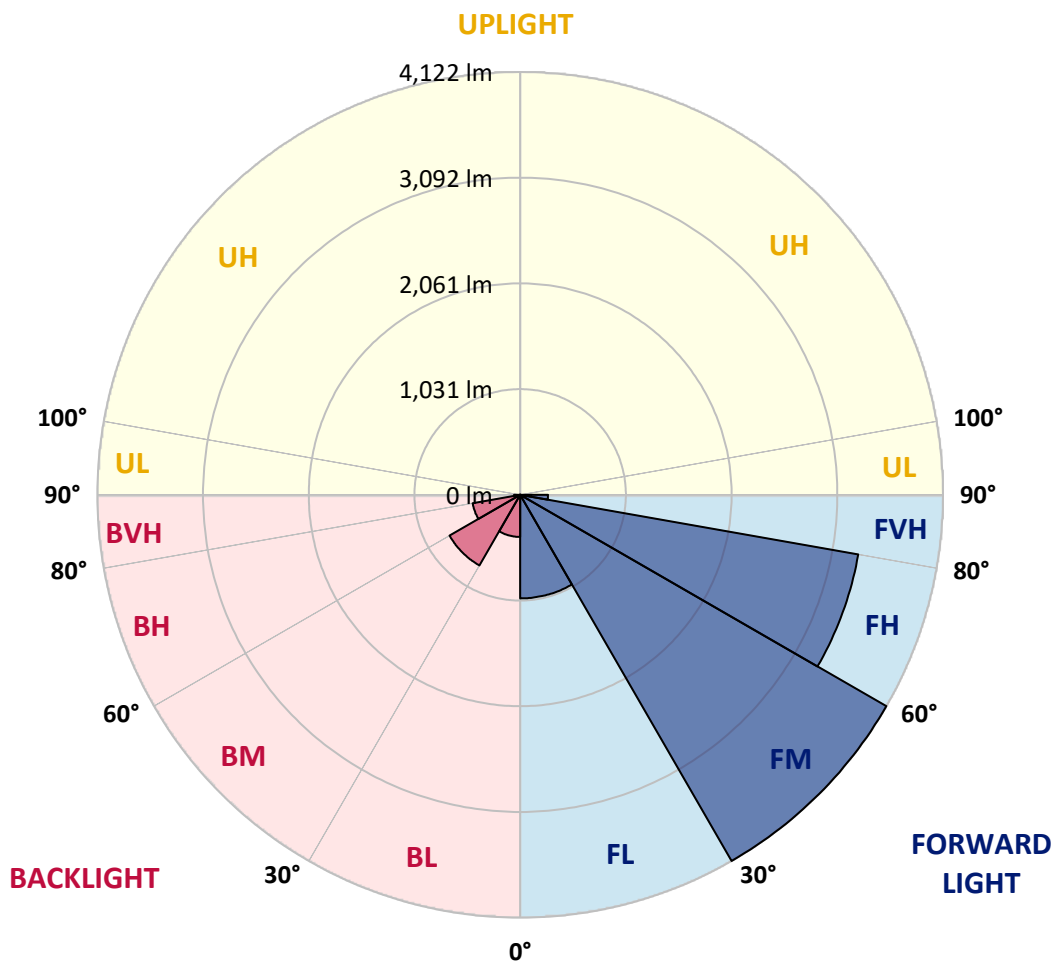
CATALOG NUMBER: GLNA-AF-03-LED-E1-SLR-600

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1009.8	9.6			
FM	(30°-60°)	4122.1	39.3			
FH	(60°-80°)	3346.8	31.9			G2/5000
FVH	(80°-90°)	272.0	2.6			G3/500
BL	(0°-30°)	410.5	3.9	B1/500		
BM	(30°-60°)	795.1	7.6	B1/1000		
BH	(60°-80°)	470.4	4.5	B1/500		G1/500
BVH	(80°-90°)	59.2	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°	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8
2.5°	3681.0	3606.1	3481.5	3351.9	3273.0	3180.7	3108.6	3045.3	2918.4	2893.6	2916.1
5°	3461.5	3311.0	3076.3	2840.1	2682.7	2513.7	2382.3	2276.9	2116.0	2087.8	2121.8
7.5°	3109.3	2929.4	2619.3	2317.8	2095.3	1884.3	1742.6	1629.5	1503.9	1449.8	1453.1
10°	2805.5	2602.6	2235.9	1908.0	1725.8	1583.4	1464.1	1348.2	1220.8	1137.2	1114.2
12.5°	2635.4	2402.0	1979.4	1686.6	1517.7	1367.9	1239.3	1115.4	979.3	894.0	869.9
15°	2606.0	2352.3	1883.2	1544.9	1333.2	1143.7	992.1	853.7	713.5	644.4	630.0
17.5°	2733.4	2441.1	1852.0	1418.5	1159.8	925.7	739.5	585.1	471.0	436.4	433.5
20°	2977.7	2611.8	1848.0	1299.9	988.6	714.2	515.3	402.9	352.8	342.9	343.6
22.5°	3320.8	2876.3	1897.6	1210.5	831.2	532.6	387.4	337.1	317.6	308.3	308.3
25°	3764.6	3240.7	2011.7	1145.4	694.5	425.4	341.9	311.8	293.3	287.1	288.3
27.5°	4194.7	3595.1	2144.3	1094.1	605.2	386.2	323.9	296.8	280.8	274.3	277.3
30°	4530.1	3909.9	2254.9	1024.3	559.6	375.2	330.3	302.6	279.6	269.8	270.3
32.5°	4807.9	4185.5	2347.8	974.1	519.3	321.6	284.8	272.6	269.8	258.3	252.5
35°	5163.0	4485.8	2410.1	975.3	500.3	287.1	253.6	232.3	216.7	203.5	203.5
37.5°	5579.2	4830.4	2476.4	988.6	493.5	266.8	242.7	221.3	207.0	194.2	192.0
40°	5990.7	5168.3	2536.9	1001.3	489.3	254.8	234.0	214.5	201.2	188.5	185.0
42.5°	6340.8	5446.1	2591.0	1007.6	475.5	253.6	227.7	209.8	197.2	183.2	179.9
45°	6599.6	5678.9	2649.3	1017.4	461.7	258.3	227.7	209.2	193.7	180.4	176.9
47.5°	6830.6	5952.2	2746.7	1017.4	445.0	249.5	235.2	209.8	193.2	179.2	176.4
50°	7140.2	6326.8	2931.1	993.8	421.4	240.3	247.8	207.5	187.9	176.9	173.5
52.5°	7566.7	6807.1	3224.0	952.8	385.1	222.5	246.1	206.4	182.7	171.2	167.2
55°	8071.2	7321.1	3543.3	905.0	330.9	209.8	237.5	203.5	176.9	164.2	160.2
57.5°	8464.8	7675.0	3768.1	831.2	283.6	202.9	210.5	200.7	170.0	156.7	153.4
60°	8621.5	7661.2	3829.8	732.6	260.5	197.2	183.9	224.8	164.2	150.9	146.9
62.5°	8536.9	7307.4	3656.9	663.5	255.3	189.7	172.4	208.0	159.7	146.9	141.2
65°	8145.5	6680.2	3198.7	645.0	270.3	182.2	164.9	163.2	153.4	141.2	135.4
67.5°	7292.9	5742.9	2561.0	646.7	289.3	174.7	157.4	149.4	144.7	134.9	129.7
70°	5940.1	4540.6	1909.1	651.4	299.1	166.0	149.4	140.7	135.4	125.6	122.2
72.5°	4367.7	3499.5	1387.0	621.4	300.8	156.2	138.4	130.9	125.6	115.3	112.4
75°	2988.2	2676.9	962.0	514.8	262.3	142.4	126.2	119.4	115.9	103.1	101.4
77.5°	2182.9	2009.4	615.7	382.2	202.3	125.1	111.3	106.1	103.8	89.9	87.6
80°	1751.8	1589.7	385.1	261.8	148.2	104.9	93.4	90.6	88.1	74.3	72.6
82.5°	1215.1	1064.6	247.3	170.0	111.3	81.3	73.8	72.6	69.1	56.5	54.8
85°	641.0	578.1	156.7	115.9	80.6	55.8	51.3	51.3	49.6	37.5	36.3
87.5°	81.8	133.1	79.6	60.6	44.3	24.8	24.8	24.3	26.0	21.3	18.5
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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8
2.5°	2863.1	2890.8	2864.3	2866.1	2895.4	2983.0	3022.8	3055.6	3090.8	3113.8	3124.1
5°	2075.2	2139.8	2161.6	2207.7	2275.7	2387.6	2431.9	2464.2	2485.6	2498.2	2503.4
7.5°	1419.2	1458.3	1502.1	1576.5	1724.6	1790.4	1819.7	1812.2	1788.1	1779.4	1770.9
10°	1069.9	1054.4	1046.2	1087.2	1207.0	1273.4	1294.1	1273.9	1260.6	1263.6	1277.9
12.5°	828.9	801.8	769.0	764.3	843.4	902.7	916.0	917.0	941.3	962.6	994.3
15°	604.1	601.2	585.1	575.3	620.2	668.7	674.5	684.8	706.7	722.3	749.8
17.5°	426.0	441.5	454.2	460.5	494.5	529.1	522.8	517.6	513.6	513.6	526.8
20°	343.6	353.9	370.1	388.4	423.2	447.3	431.7	411.0	395.9	391.4	393.2
22.5°	309.6	317.6	326.8	342.9	374.1	390.9	374.1	359.1	344.1	338.9	337.1
25°	292.3	302.6	311.3	323.4	346.4	357.9	341.9	330.9	321.6	315.3	310.6
27.5°	282.5	291.6	294.0	299.8	319.3	329.6	321.6	317.1	311.3	305.6	299.8
30°	272.1	270.3	266.3	266.8	282.5	292.8	292.3	293.3	292.8	291.1	290.0
32.5°	248.5	245.0	241.5	245.0	259.3	268.6	269.3	271.5	271.5	271.0	275.5
35°	207.0	213.2	217.3	227.7	245.0	253.0	249.5	243.8	233.5	227.0	226.5
37.5°	191.4	192.5	199.5	213.8	233.0	240.3	235.2	222.0	215.0	213.8	215.5
40°	183.9	185.0	189.0	202.3	221.3	228.8	224.2	214.5	208.0	207.5	210.5
42.5°	178.7	179.9	182.2	191.4	207.0	216.2	216.7	209.8	202.3	202.9	205.7
45°	175.7	176.4	175.7	180.4	194.7	205.7	210.5	205.7	199.5	200.7	204.0
47.5°	175.2	173.5	171.2	172.4	187.4	198.2	204.0	202.3	199.5	200.7	203.5
50°	172.9	168.9	166.0	165.4	180.4	192.0	197.2	197.2	198.2	200.7	203.5
52.5°	166.0	161.4	161.4	159.7	175.7	186.7	190.2	190.7	192.5	196.5	200.7
55°	157.4	155.7	157.4	154.4	172.4	182.7	184.5	185.7	186.7	190.2	196.0
57.5°	149.9	147.6	151.6	150.4	169.4	178.7	178.7	181.0	181.0	185.7	190.2
60°	145.9	141.2	142.9	144.1	165.4	175.2	174.2	176.4	177.5	181.7	185.0
62.5°	140.7	136.6	136.6	139.4	160.9	170.0	169.4	171.2	175.7	176.9	180.4
65°	134.4	132.6	130.9	134.4	156.2	164.2	164.9	167.2	171.2	172.4	175.2
67.5°	127.9	128.6	125.1	128.6	152.2	158.4	158.4	163.2	164.9	167.2	170.0
70°	121.1	121.6	118.7	122.9	149.4	152.2	151.6	157.9	159.1	160.9	163.7
72.5°	112.4	112.4	111.3	117.1	144.7	145.9	144.7	149.9	150.4	152.2	153.4
75°	103.1	103.1	102.1	110.1	141.9	138.9	135.4	139.4	140.7	141.9	141.9
77.5°	91.1	92.3	92.3	102.1	131.9	136.1	124.4	126.9	128.6	129.1	127.4
80°	76.1	79.1	80.1	92.8	110.6	125.6	111.3	112.9	113.6	113.6	111.3
82.5°	58.3	63.3	66.3	80.1	84.8	105.4	96.8	98.6	96.8	93.4	92.3
85°	40.3	47.3	50.8	61.1	64.0	81.3	80.6	80.6	77.3	72.6	72.1
87.5°	22.0	26.0	28.3	36.3	43.8	54.8	59.3	57.6	54.8	51.8	52.5
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°	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8
2.5°	3178.4	3256.8	3381.9	3477.5	3573.8	3666.7	3767.0	3843.6	3908.7	3934.2	4011.3
5°	2556.0	2653.9	2772.0	2985.2	3136.4	3302.8	3495.5	3750.3	3848.2	3983.8	4205.5
7.5°	1807.2	1895.8	2086.0	2258.4	2472.4	2708.1	2968.0	3319.6	3448.2	3665.5	4026.9
10°	1349.4	1452.6	1605.3	1750.6	1939.1	2180.1	2478.7	2871.8	3028.0	3263.7	3679.9
12.5°	1087.2	1208.8	1370.7	1507.4	1653.3	1823.2	2113.2	2544.3	2753.7	2959.9	3380.7
15°	835.2	962.6	1113.2	1286.6	1447.3	1630.7	1934.6	2406.1	2646.9	2862.0	3221.0
17.5°	578.1	687.0	876.7	1057.7	1263.6	1498.1	1885.0	2435.4	2723.0	2970.9	3248.7
20°	409.9	472.0	627.7	837.6	1094.1	1388.5	1875.7	2589.8	2964.0	3247.0	3426.2
22.5°	344.6	367.7	458.2	650.7	947.0	1306.7	1908.0	2806.5	3289.1	3650.4	3709.3
25°	314.1	328.1	375.2	510.8	816.2	1247.4	2016.9	3129.4	3691.5	4054.1	4043.6
27.5°	297.4	311.8	342.9	431.2	717.7	1210.5	2125.8	3512.2	4151.5	4492.1	4362.9
30°	292.3	311.8	344.6	406.4	647.4	1152.2	2215.2	3848.2	4505.3	4787.9	4508.3
32.5°	288.3	291.1	306.1	350.4	580.4	1084.2	2275.7	4149.7	4851.7	5069.2	4717.5
35°	233.0	247.3	271.5	314.1	541.3	1043.4	2275.7	4409.7	5193.1	5353.3	4917.0
37.5°	224.2	237.0	258.3	294.6	519.3	1023.1	2230.2	4660.5	5541.7	5675.6	5081.2
40°	219.7	230.0	250.2	279.6	510.1	1000.1	2163.8	4881.7	5882.4	5998.2	5234.6
42.5°	216.2	225.5	244.5	270.3	498.0	974.8	2110.3	5059.2	6178.1	6273.8	5381.0
45°	214.5	224.2	245.0	275.0	473.8	941.3	2092.5	5251.2	6421.4	6503.8	5539.5
47.5°	214.5	226.0	247.8	284.8	445.0	906.7	2148.3	5504.4	6651.4	6691.7	5726.2
50°	212.7	225.5	256.0	275.0	402.9	862.9	2279.7	5823.0	6900.4	6904.9	5962.6
52.5°	209.2	224.2	275.5	269.3	354.4	805.3	2457.4	6232.4	7268.8	7296.4	6332.6
55°	205.2	222.5	270.3	256.0	314.8	736.8	2602.6	6729.7	7786.4	7863.0	6876.9
57.5°	200.0	220.2	261.8	237.5	288.8	648.5	2655.1	7094.1	8147.8	8340.2	7490.1
60°	195.4	218.5	236.3	226.5	272.6	574.1	2553.5	7022.0	8123.0	8538.0	8033.6
62.5°	190.7	220.2	215.5	219.7	265.1	526.3	2288.4	6445.0	7712.0	8334.0	8436.6
65°	185.7	204.7	203.5	213.8	263.5	507.3	1897.0	5579.8	6917.7	7689.0	8531.7
67.5°	178.7	189.0	194.7	206.4	269.3	490.5	1530.9	4602.7	5813.8	6722.2	8035.9
70°	171.2	179.9	186.2	197.2	265.8	483.0	1273.4	3629.7	4613.2	5509.4	7057.8
72.5°	161.4	168.9	174.7	185.0	262.3	479.0	1075.6	2923.1	3444.2	4092.6	5738.4
75°	149.9	156.7	160.9	171.2	251.3	438.7	845.6	2473.4	2577.2	2847.0	4570.4
77.5°	136.6	141.9	145.2	156.7	222.5	364.9	611.6	1908.0	2001.4	2067.0	3504.0
80°	121.1	126.2	127.9	138.9	184.5	285.3	398.9	1409.3	1496.9	1511.9	2288.4
82.5°	103.1	108.4	108.4	118.7	150.9	205.2	261.8	965.5	982.8	1033.6	1617.5
85°	83.1	87.1	87.1	92.3	117.1	153.4	179.9	484.8	479.5	547.6	1401.3
87.5°	59.3	62.3	65.1	66.3	83.6	101.4	108.4	147.6	97.4	111.9	899.7
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):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8	3542.8
2.5°	4069.6	4102.4	4068.9	4044.8	3940.5	3854.6	3739.8	3681.0
5°	4374.5	4458.1	4429.8	4328.4	4110.4	3865.4	3587.1	3461.5
7.5°	4337.6	4531.9	4536.4	4346.9	4025.8	3664.9	3288.0	3109.3
10°	4050.6	4298.9	4369.9	4186.0	3845.4	3441.9	3009.5	2805.5
12.5°	3730.0	3973.3	4027.6	3964.0	3679.4	3274.0	2835.5	2635.4
15°	3467.7	3576.8	3641.2	3696.7	3537.0	3207.2	2825.6	2606.0
17.5°	3308.1	3296.0	3314.5	3410.7	3437.7	3283.8	2975.5	2733.4
20°	3250.5	3065.5	3060.8	3193.4	3391.1	3466.7	3268.3	2977.7
22.5°	3282.2	2982.4	2944.4	3101.8	3415.9	3730.0	3652.2	3320.8
25°	3391.7	2989.4	2958.7	3111.1	3505.8	4010.8	4066.6	3764.6
27.5°	3564.1	3033.2	2992.7	3149.1	3625.1	4246.6	4474.8	4194.7
30°	3727.8	3109.3	3059.1	3224.0	3734.0	4339.9	4725.0	4530.1
32.5°	3926.7	3251.7	3163.4	3361.6	3868.9	4488.6	4948.1	4807.9
35°	4121.4	3454.5	3345.1	3574.4	4019.4	4673.7	5202.8	5163.0
37.5°	4335.4	3719.7	3629.2	3849.4	4225.3	4848.2	5527.9	5579.2
40°	4563.6	4071.4	3964.0	4250.6	4544.6	5067.4	5867.5	5990.7
42.5°	4793.6	4461.5	4333.6	4624.0	4895.5	5283.5	6157.9	6340.8
45°	5057.0	4885.2	4824.7	5138.8	5232.9	5489.4	6372.4	6599.6
47.5°	5363.7	5366.0	5463.4	5589.0	5573.0	5722.2	6588.0	6830.6
50°	5721.6	5965.9	6181.1	6264.5	5923.4	5972.4	6887.1	7140.2
52.5°	6151.6	6683.7	6950.0	6895.2	6301.0	6277.8	7360.9	7566.7
55°	6689.4	7443.5	7708.0	7668.8	6735.0	6694.0	7951.3	8071.2
57.5°	7311.9	8179.5	8422.8	8246.4	7256.1	7150.7	8439.5	8464.8
60°	7859.0	8762.9	8976.1	8780.7	7781.8	7636.5	8744.4	8621.5
62.5°	8163.3	8960.6	9110.5	8900.1	8142.0	8154.0	8811.2	8536.9
65°	8027.4	8460.8	8509.2	8491.9	8049.2	8454.4	8570.9	8145.5
67.5°	7282.6	7197.2	7278.6	7390.9	7253.8	8058.9	7905.0	7292.9
70°	5970.7	5501.9	5664.1	5739.4	5801.7	6935.0	6861.1	5940.1
72.5°	4499.6	3854.6	3982.5	3967.0	4255.1	5562.5	5336.0	4367.7
75°	3188.2	2613.5	2629.6	2623.3	2969.2	4352.0	3863.9	2988.2
77.5°	2230.7	1893.5	1902.3	1937.9	1996.2	3282.2	2760.5	2182.9
80°	1533.9	1437.0	1484.9	1487.8	1383.5	2204.9	2039.4	1751.8
82.5°	1142.5	998.9	987.3	1004.1	1084.2	1786.4	1567.2	1215.1
85°	935.5	591.4	475.5	596.1	960.8	1769.1	1041.1	641.0
87.5°	526.8	280.8	126.9	235.2	383.4	1171.3	300.8	81.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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