

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: P299344

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

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299344  
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  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 4000K 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: 10667.4 lumens  
Efficiency: N/A  
Efficacy: 94.4 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

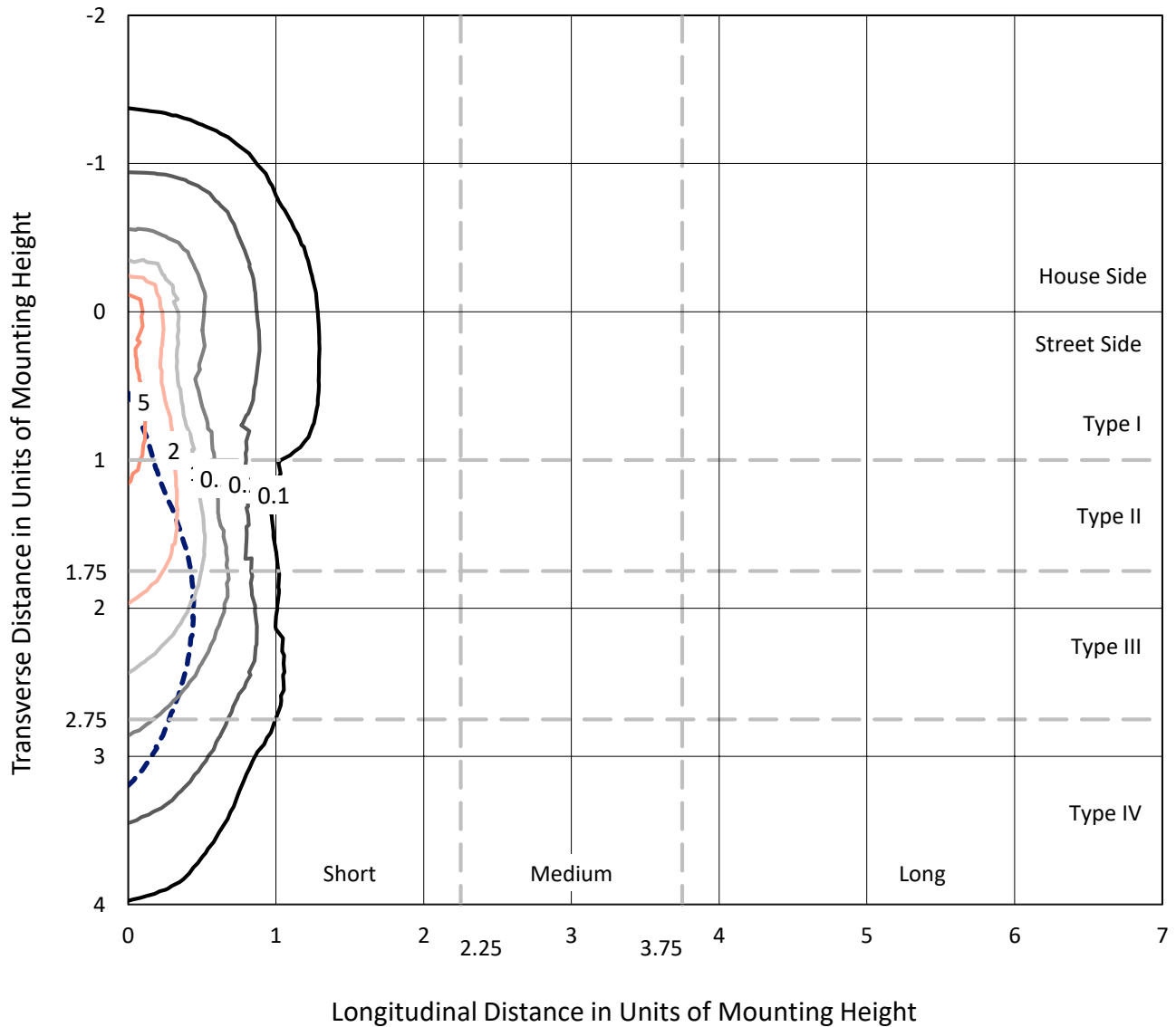


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### Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
 - - - 1/2 Max cd

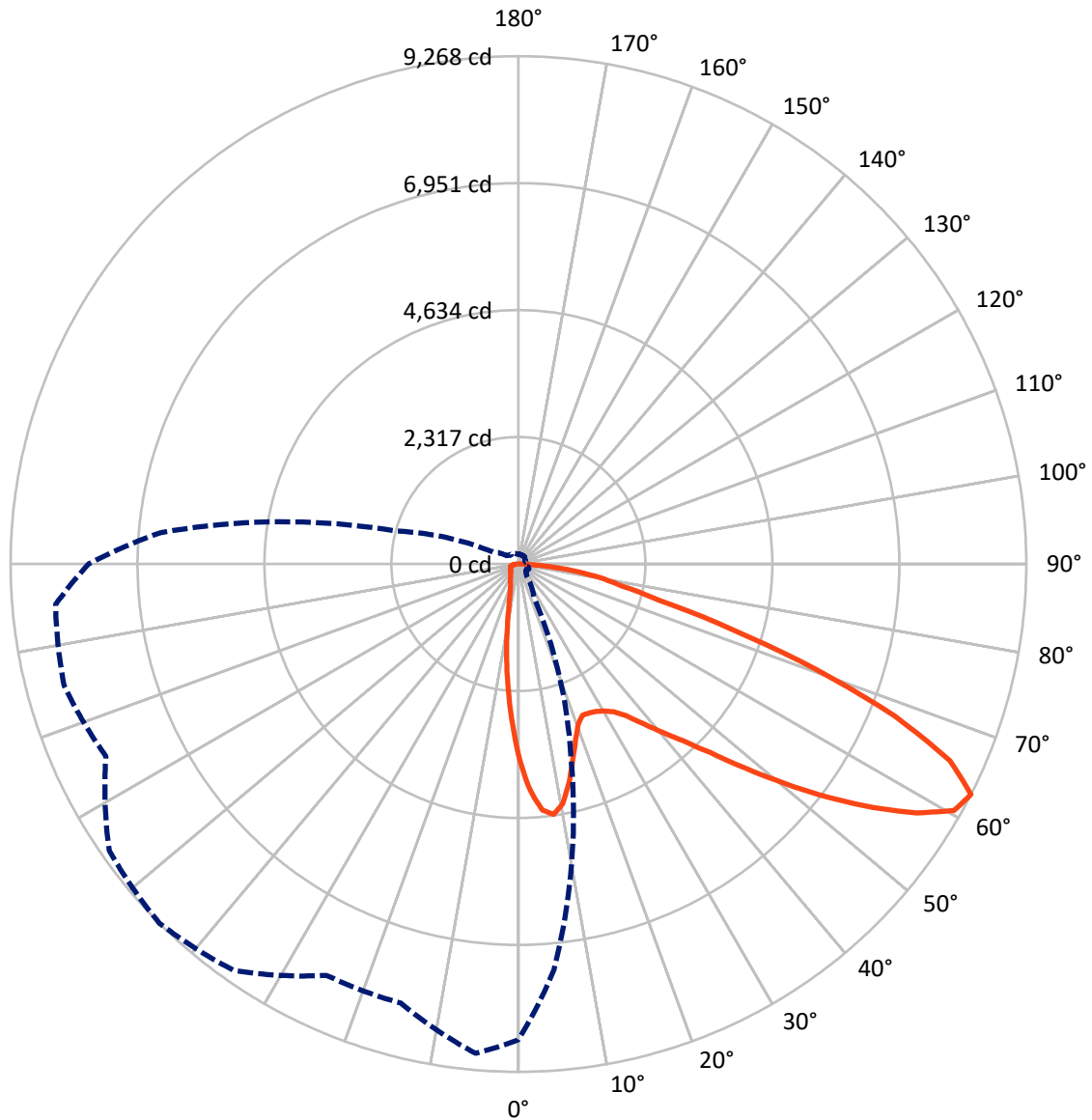


Based on 20 foot mounting height. Maximum calculated value = 9 fc  
 Type IV - Short - Non-Cutoff

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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	1765.3	0.0	1765.3
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	8902.1	0.0	8902.1
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	10667.4	0.0	10667.4
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	262.4	2.5
10°-20°	481.1	4.5
20°-30°	701.4	6.6
30°-40°	1080.3	10.1
40°-50°	1589.9	14.9
50°-60°	2332.1	21.9
60°-70°	2606.9	24.4
70°-80°	1276.3	12.0
80°-90°	337.0	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°	10667.4	100.0
0°-180°	10667.4	100.0



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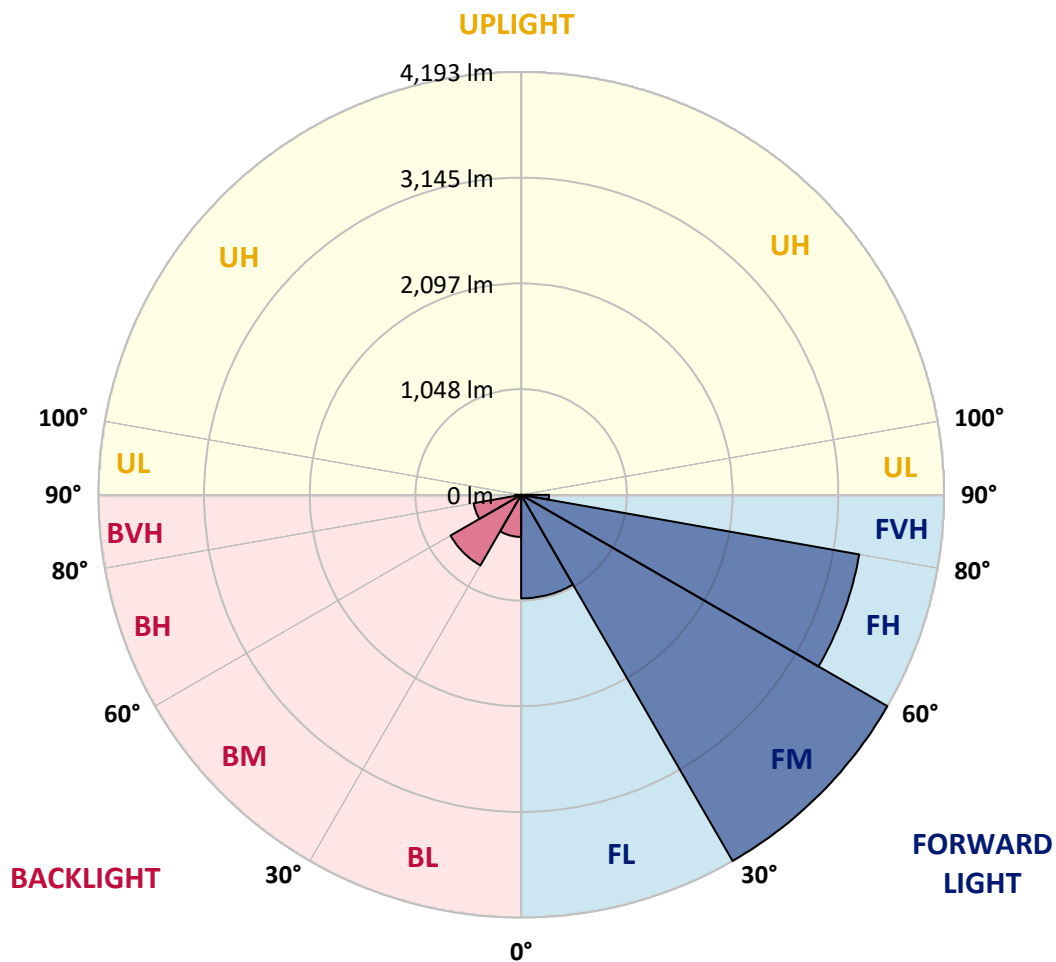
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1027.2	9.6			
FM (30°-60°)	4193.4	39.3			
FH (60°-80°)	3404.7	31.9			G2/5000
FVH (80°-90°)	276.7	2.6			G3/500
BL (0°-30°)	417.6	3.9	B1/500		
BM (30°-60°)	808.9	7.6	B1/1000		
BH (60°-80°)	478.6	4.5	B1/500		G1/500
BVH (80°-90°)	60.2	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°	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1
2.5°	3744.7	3668.5	3541.8	3409.9	3329.6	3235.7	3162.4	3098.0	2968.9	2943.7	2966.6
5°	3521.4	3368.3	3129.6	2889.2	2729.1	2557.2	2423.5	2316.3	2152.6	2123.9	2158.5
7.5°	3163.1	2980.1	2664.6	2357.9	2131.5	1916.9	1772.7	1657.7	1529.9	1474.9	1478.2
10°	2854.0	2647.6	2274.6	1941.0	1755.7	1610.8	1489.4	1371.5	1242.0	1156.9	1133.5
12.5°	2681.0	2443.6	2013.6	1715.8	1543.9	1391.6	1260.8	1134.7	996.3	909.5	885.0
15°	2651.1	2393.0	1915.8	1571.6	1356.3	1163.5	1009.2	868.4	725.9	655.6	640.9
17.5°	2780.7	2483.4	1884.1	1443.1	1179.8	941.8	752.3	595.2	479.1	444.0	441.0
20°	3029.3	2657.0	1880.0	1322.4	1005.7	726.6	524.2	409.9	359.0	348.8	349.5
22.5°	3378.3	2926.1	1930.4	1231.5	845.5	541.8	394.1	343.0	323.1	313.7	313.7
25°	3829.7	3296.8	2046.5	1165.3	706.5	432.8	347.8	317.2	298.4	292.0	293.3
27.5°	4267.3	3657.3	2181.4	1113.1	615.7	392.9	329.5	302.0	285.6	279.1	282.1
30°	4608.5	3977.6	2294.0	1042.1	569.3	381.7	336.1	307.8	284.4	274.5	275.0
32.5°	4891.1	4257.9	2388.4	990.9	528.3	327.2	289.7	277.3	274.5	262.7	256.9
35°	5252.4	4563.4	2451.8	992.2	509.0	292.0	257.9	236.3	220.5	207.0	207.0
37.5°	5675.8	4914.0	2519.2	1005.7	502.0	271.4	246.9	225.1	210.5	197.6	195.3
40°	6094.4	5257.7	2580.8	1018.6	497.8	259.2	238.1	218.2	204.7	191.7	188.2
42.5°	6450.5	5540.3	2635.9	1025.0	483.8	257.9	231.7	213.4	200.6	186.4	183.0
45°	6713.8	5777.1	2695.2	1035.0	469.7	262.7	231.7	212.9	197.1	183.6	180.0
47.5°	6948.8	6055.1	2794.2	1035.0	452.7	253.9	239.3	213.4	196.5	182.3	179.5
50°	7263.7	6436.3	2981.9	1011.0	428.7	244.4	252.1	211.1	191.2	180.0	176.5
52.5°	7697.6	6924.8	3279.7	969.3	391.8	226.3	250.3	210.0	185.9	174.2	170.1
55°	8210.8	7447.8	3604.6	920.6	336.6	213.4	241.6	207.0	180.0	167.0	163.0
57.5°	8611.3	7807.8	3833.3	845.5	288.5	206.5	214.1	204.2	172.9	159.4	156.0
60°	8770.7	7793.8	3896.1	745.2	265.0	200.6	187.1	228.7	167.0	153.6	149.5
62.5°	8684.6	7433.8	3720.2	674.9	259.7	193.0	175.4	211.6	162.4	149.5	143.6
65°	8286.4	6795.8	3254.0	656.1	275.0	185.3	167.8	166.0	156.0	143.6	137.8
67.5°	7419.1	5842.3	2605.3	657.9	294.3	177.7	160.1	152.0	147.2	137.2	131.9
70°	6042.9	4619.2	1942.1	662.7	304.3	168.8	152.0	143.1	137.8	127.8	124.3
72.5°	4443.2	3560.1	1411.0	632.2	306.1	158.9	140.8	133.1	127.8	117.3	114.3
75°	3039.9	2723.2	978.7	523.7	266.8	144.9	128.3	121.4	117.9	104.9	103.1
77.5°	2220.6	2044.2	626.3	388.8	205.7	127.3	113.3	107.9	105.6	91.4	89.1
80°	1782.2	1617.2	391.8	266.3	150.7	106.7	95.0	92.1	89.6	75.6	73.8
82.5°	1236.1	1083.1	251.6	172.9	113.3	82.7	75.1	73.8	70.3	57.5	55.7
85°	652.0	588.1	159.4	117.9	82.0	56.8	52.2	52.2	50.4	38.2	36.9
87.5°	83.3	135.5	81.0	61.6	45.1	25.2	25.2	24.7	26.5	21.7	18.8
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°	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1
2.5°	2912.6	2940.9	2913.9	2915.6	2945.5	3034.6	3075.1	3108.4	3144.3	3167.7	3178.2
5°	2111.1	2176.8	2199.0	2245.8	2315.1	2428.9	2474.0	2506.8	2528.6	2541.4	2546.7
7.5°	1443.8	1483.6	1528.1	1603.7	1754.5	1821.4	1851.2	1843.6	1819.1	1810.2	1801.5
10°	1088.4	1072.6	1064.3	1106.0	1227.9	1295.4	1316.5	1295.9	1282.4	1285.4	1300.0
12.5°	843.2	815.7	782.3	777.6	858.0	918.3	931.8	932.9	957.6	979.2	1011.5
15°	614.6	611.6	595.2	585.3	630.9	680.3	686.1	696.6	719.0	734.8	762.8
17.5°	433.3	449.1	462.1	468.5	503.1	538.3	531.9	526.5	522.5	522.5	535.9
20°	349.5	360.0	376.5	395.2	430.5	455.0	439.2	418.1	402.8	398.2	400.0
22.5°	314.9	323.1	332.5	348.8	380.6	397.7	380.6	365.3	350.1	344.8	343.0
25°	297.4	307.8	316.7	329.0	352.4	364.1	347.8	336.6	327.2	320.8	316.0
27.5°	287.4	296.6	299.1	305.0	324.9	335.3	327.2	322.6	316.7	310.8	305.0
30°	276.8	275.0	270.9	271.4	287.4	297.9	297.4	298.4	297.9	296.1	295.0
32.5°	252.8	249.2	245.7	249.2	263.8	273.2	273.9	276.2	276.2	275.7	280.3
35°	210.5	216.9	221.0	231.7	249.2	257.4	253.9	248.0	237.5	231.0	230.4
37.5°	194.7	195.8	202.9	217.5	237.0	244.4	239.3	225.8	218.7	217.5	219.2
40°	187.1	188.2	192.3	205.7	225.1	232.7	228.1	218.2	211.6	211.1	214.1
42.5°	181.8	183.0	185.3	194.7	210.5	220.0	220.5	213.4	205.7	206.5	209.3
45°	178.8	179.5	178.8	183.6	198.1	209.3	214.1	209.3	202.9	204.2	207.5
47.5°	178.2	176.5	174.2	175.4	190.7	201.7	207.5	205.7	202.9	204.2	207.0
50°	175.9	171.8	168.8	168.3	183.6	195.3	200.6	200.6	201.7	204.2	207.0
52.5°	168.8	164.2	164.2	162.4	178.8	189.9	193.5	194.0	195.8	199.9	204.2
55°	160.1	158.4	160.1	157.1	175.4	185.9	187.6	188.9	189.9	193.5	199.4
57.5°	152.5	150.2	154.3	153.0	172.4	181.8	181.8	184.1	184.1	188.9	193.5
60°	148.4	143.6	145.4	146.6	168.3	178.2	177.2	179.5	180.5	184.8	188.2
62.5°	143.1	139.0	139.0	141.8	163.7	172.9	172.4	174.2	178.8	180.0	183.6
65°	136.7	134.9	133.1	136.7	158.9	167.0	167.8	170.1	174.2	175.4	178.2
67.5°	130.1	130.8	127.3	130.8	154.8	161.2	161.2	166.0	167.8	170.1	172.9
70°	123.2	123.7	120.7	125.0	152.0	154.8	154.3	160.7	161.9	163.7	166.5
72.5°	114.3	114.3	113.3	119.1	147.2	148.4	147.2	152.5	153.0	154.8	156.0
75°	104.9	104.9	103.9	112.0	144.3	141.3	137.8	141.8	143.1	144.3	144.3
77.5°	92.7	93.9	93.9	103.9	134.2	138.5	126.6	129.1	130.8	131.4	129.6
80°	77.4	80.4	81.5	94.4	112.5	127.8	113.3	114.9	115.6	115.6	113.3
82.5°	59.3	64.4	67.5	81.5	86.3	107.2	98.5	100.3	98.5	95.0	93.9
85°	41.0	48.1	51.7	62.1	65.2	82.7	82.0	82.0	78.6	73.8	73.3
87.5°	22.4	26.5	28.8	36.9	44.6	55.7	60.4	58.6	55.7	52.7	53.4
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°	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1
2.5°	3233.4	3313.1	3440.4	3537.7	3635.7	3730.1	3832.2	3910.1	3976.3	4002.3	4080.7
5°	2600.2	2699.8	2820.0	3036.9	3190.6	3360.0	3556.0	3815.2	3914.7	4052.7	4278.3
7.5°	1838.4	1928.6	2122.1	2297.5	2515.2	2755.0	3019.3	3377.0	3507.9	3728.9	4096.5
10°	1372.8	1477.7	1633.0	1780.9	1972.6	2217.8	2521.5	2921.5	3080.4	3320.2	3743.6
12.5°	1106.0	1229.7	1394.4	1533.4	1681.9	1854.8	2149.8	2588.3	2801.3	3011.2	3439.2
15°	849.6	979.2	1132.4	1308.9	1472.4	1659.0	1968.0	2447.7	2692.7	2911.6	3276.7
17.5°	588.1	698.9	891.9	1076.0	1285.4	1524.0	1917.6	2477.5	2770.1	3022.3	3305.0
20°	417.0	480.2	638.6	852.1	1113.1	1412.6	1908.2	2634.6	3015.2	3303.2	3485.5
22.5°	350.6	374.0	466.2	662.0	963.4	1329.3	1941.0	2855.1	3346.0	3713.6	3773.4
25°	319.5	333.7	381.7	519.6	830.3	1268.9	2051.8	3183.5	3755.3	4124.2	4113.6
27.5°	302.5	317.2	348.8	438.7	730.2	1231.5	2162.6	3573.0	4223.3	4569.8	4438.4
30°	297.4	317.2	350.6	413.5	658.6	1172.2	2253.5	3914.7	4583.3	4870.7	4586.3
32.5°	293.3	296.1	311.4	356.5	590.4	1103.0	2315.1	4221.5	4935.7	5156.9	4799.2
35°	237.0	251.6	276.2	319.5	550.7	1061.4	2315.1	4486.0	5282.9	5445.9	5002.1
37.5°	228.1	241.1	262.7	299.7	528.3	1040.8	2268.7	4741.1	5637.6	5773.8	5169.1
40°	223.5	234.0	254.6	284.4	518.9	1017.4	2201.3	4966.2	5984.1	6102.0	5325.2
42.5°	220.0	229.4	248.7	275.0	506.7	991.6	2146.8	5146.8	6285.0	6382.3	5474.1
45°	218.2	228.1	249.2	279.8	482.0	957.6	2128.7	5342.0	6532.5	6616.3	5635.3
47.5°	218.2	229.9	252.1	289.7	452.7	922.4	2185.5	5599.6	6766.5	6807.5	5825.3
50°	216.4	229.4	260.4	279.8	409.9	877.9	2319.2	5923.8	7019.8	7024.4	6065.8
52.5°	212.9	228.1	280.3	273.9	360.5	819.3	2499.9	6340.2	7394.6	7422.6	6442.1
55°	208.8	226.3	275.0	260.4	320.3	749.5	2647.6	6846.2	7921.1	7999.0	6995.8
57.5°	203.4	224.0	266.3	241.6	293.8	659.7	2701.0	7216.9	8288.7	8484.6	7619.7
60°	198.8	222.3	240.4	230.4	277.3	584.1	2597.7	7143.5	8263.5	8685.7	8172.6
62.5°	194.0	224.0	219.2	223.5	269.7	535.4	2328.0	6556.5	7845.5	8478.2	8582.5
65°	188.9	208.2	207.0	217.5	268.1	516.1	1929.9	5676.3	7037.4	7822.0	8679.3
67.5°	181.8	192.3	198.1	210.0	273.9	499.0	1557.4	4682.4	5914.4	6838.6	8174.9
70°	174.2	183.0	189.4	200.6	270.4	491.4	1295.4	3692.5	4693.0	5604.8	7179.9
72.5°	164.2	171.8	177.7	188.2	266.8	487.3	1094.3	2973.7	3503.8	4163.5	5837.7
75°	152.5	159.4	163.7	174.2	255.6	446.3	860.3	2516.2	2621.8	2896.3	4649.5
77.5°	139.0	144.3	147.7	159.4	226.3	371.2	622.2	1941.0	2036.0	2102.8	3564.7
80°	123.2	128.3	130.1	141.3	187.6	290.3	405.8	1433.7	1522.8	1538.1	2328.0
82.5°	104.9	110.2	110.2	120.7	153.6	208.8	266.3	982.2	999.8	1051.5	1645.5
85°	84.5	88.6	88.6	93.9	119.1	156.0	183.0	493.2	487.8	557.1	1425.5
87.5°	60.4	63.4	66.2	67.5	85.0	103.1	110.2	150.2	99.1	113.8	915.3
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°	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1	3604.1
2.5°	4140.0	4173.4	4139.3	4114.8	4008.7	3921.3	3804.5	3744.7
5°	4450.2	4535.2	4506.4	4403.3	4181.6	3932.3	3649.2	3521.4
7.5°	4412.7	4610.3	4614.9	4422.1	4095.5	3728.3	3344.9	3163.1
10°	4120.7	4373.3	4445.5	4258.4	3911.9	3501.5	3061.6	2854.0
12.5°	3794.6	4042.0	4097.2	4032.6	3743.1	3330.7	2884.6	2681.0
15°	3527.7	3638.7	3704.2	3760.7	3598.2	3262.7	2874.5	2651.1
17.5°	3365.3	3353.1	3371.9	3469.7	3497.2	3340.6	3027.0	2780.7
20°	3306.7	3118.6	3113.8	3248.7	3449.8	3526.7	3324.8	3029.3
22.5°	3339.0	3034.1	2995.4	3155.5	3475.0	3794.6	3715.4	3378.3
25°	3450.3	3041.2	3009.9	3164.9	3566.4	4080.2	4137.0	3829.7
27.5°	3625.7	3085.7	3044.5	3203.6	3687.9	4320.0	4552.2	4267.3
30°	3792.3	3163.1	3112.0	3279.7	3798.6	4415.0	4806.8	4608.5
32.5°	3994.6	3308.0	3218.1	3419.8	3935.9	4566.3	5033.7	4891.1
35°	4192.7	3514.3	3402.9	3636.2	4088.9	4754.6	5292.9	5252.4
37.5°	4410.4	3784.1	3692.0	3916.0	4298.4	4932.1	5623.6	5675.8
40°	4642.6	4141.8	4032.6	4324.1	4623.2	5155.1	5969.0	6094.4
42.5°	4876.6	4538.7	4408.6	4704.0	4980.2	5374.9	6264.4	6450.5
45°	5144.4	4969.8	4908.2	5227.7	5323.4	5584.4	6482.6	6713.8
47.5°	5456.5	5458.8	5557.9	5685.7	5669.4	5821.2	6702.0	6948.8
50°	5820.6	6069.2	6288.1	6372.9	6025.9	6075.7	7006.3	7263.7
52.5°	6258.1	6799.3	7070.2	7014.5	6410.0	6386.4	7488.3	7697.6
55°	6805.2	7572.3	7841.4	7801.4	6851.5	6809.8	8088.9	8210.8
57.5°	7438.4	8321.1	8568.5	8389.0	7381.6	7274.4	8585.6	8611.3
60°	7994.9	8914.5	9131.4	8932.6	7916.5	7768.6	8895.7	8770.7
62.5°	8304.5	9115.6	9268.1	9054.0	8282.9	8295.1	8963.7	8684.6
65°	8166.3	8607.2	8656.4	8638.8	8188.4	8600.7	8719.2	8286.4
67.5°	7408.6	7321.8	7404.5	7518.8	7379.3	8198.4	8041.8	7419.1
70°	6074.0	5597.1	5762.1	5838.7	5902.1	7055.0	6979.9	6042.9
72.5°	4577.4	3921.3	4051.4	4035.6	4328.7	5658.7	5428.3	4443.2
75°	3243.4	2658.8	2675.1	2668.7	3020.6	4427.3	3930.7	3039.9
77.5°	2269.3	1926.3	1935.2	1971.4	2030.7	3339.0	2808.2	2220.6
80°	1560.4	1461.9	1510.5	1513.6	1407.4	2243.0	2074.7	1782.2
82.5°	1162.2	1016.1	1004.4	1021.5	1103.0	1817.3	1594.3	1236.1
85°	951.7	601.6	483.8	606.4	977.4	1799.7	1059.1	652.0
87.5°	535.9	285.6	129.1	239.3	390.0	1191.5	306.1	83.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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