

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: P299405

Luminaire Tested: **GLNA-AF-02-LED-E1-SLR-7050-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299405  
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-7050-800  
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE  
(2) 70 CRI, 5000K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill  
Light Eliminator Right OPTICS  
Light Source: -  
Ballast/Driver: -

**Summary**

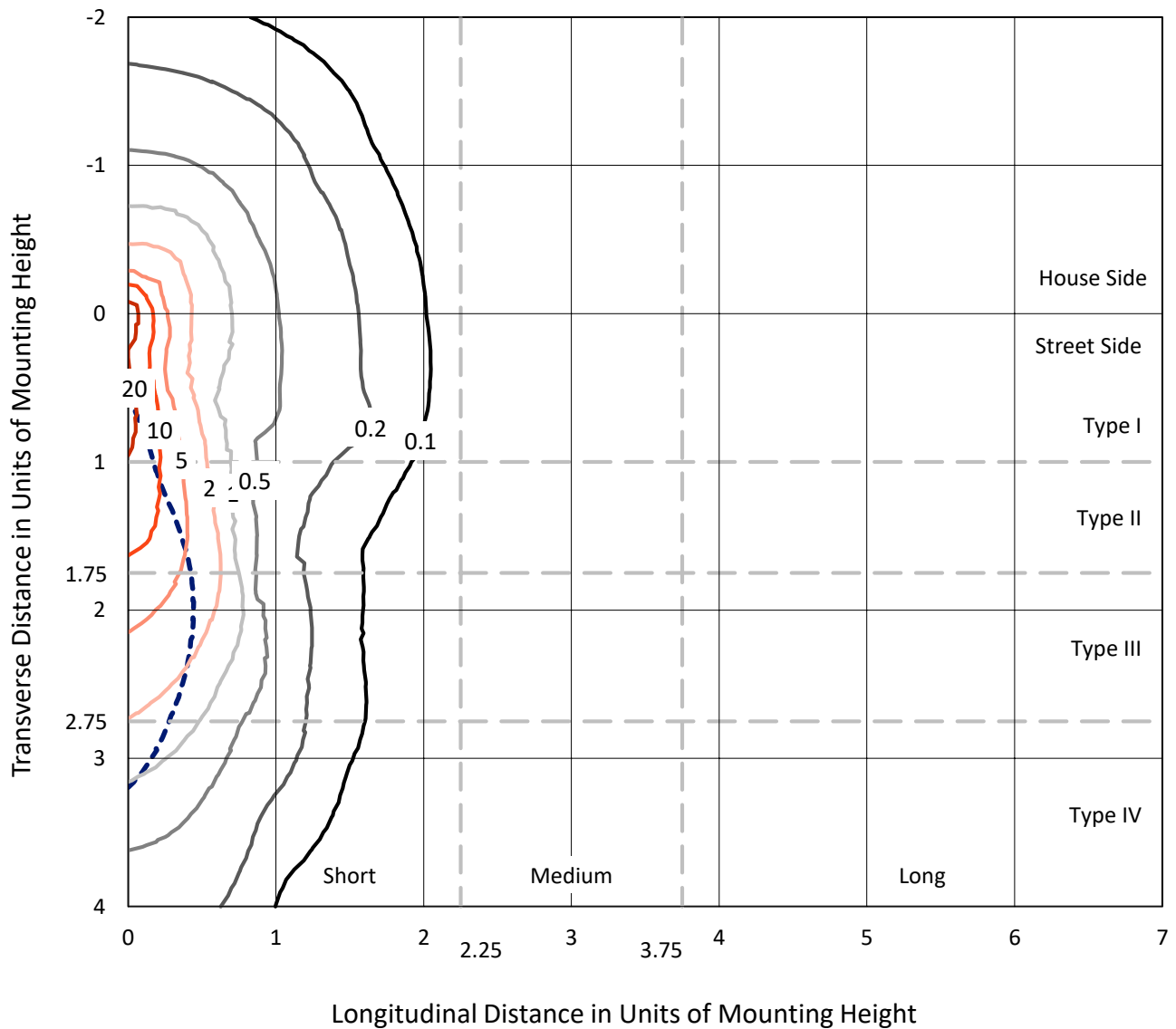
Lumens per Lamp: N/A  
Luminaire Lumens: 8618 lumens  
Efficiency: N/A  
Efficacy: 101.4 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 85  
Input Voltage (V): NR  
Input Current (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

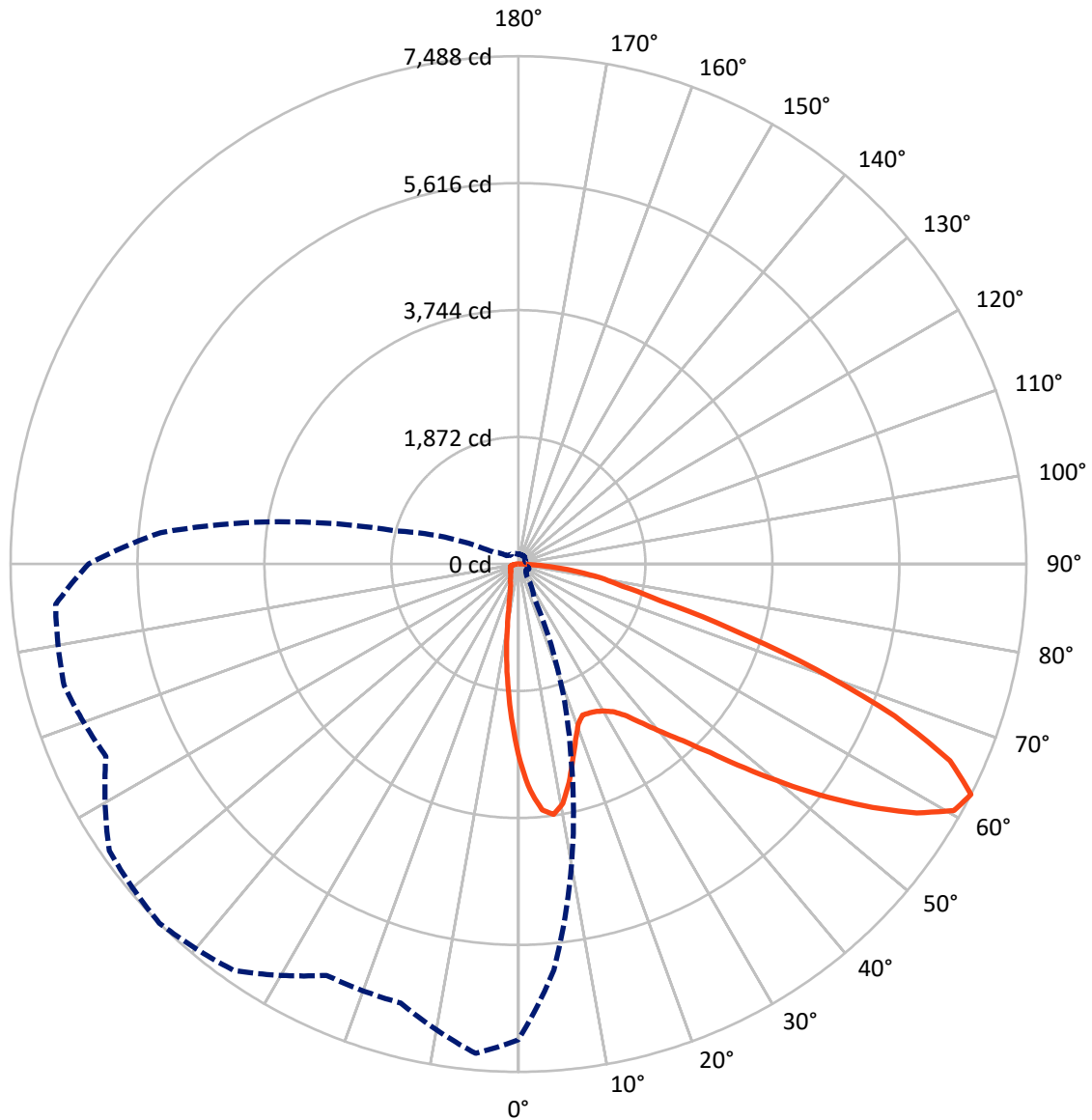
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 29.1 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	1426.2	0.0	1426.2
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	7191.8	0.0	7191.8
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	8618.0	0.0	8618.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	212.0	2.5
10°-20°	388.7	4.5
20°-30°	566.7	6.6
30°-40°	872.8	10.1
40°-50°	1284.5	14.9
50°-60°	1884.0	21.9
60°-70°	2106.1	24.4
70°-80°	1031.1	12.0
80°-90°	272.2	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°	8618.0	100.0
0°-180°	8618.0	100.0



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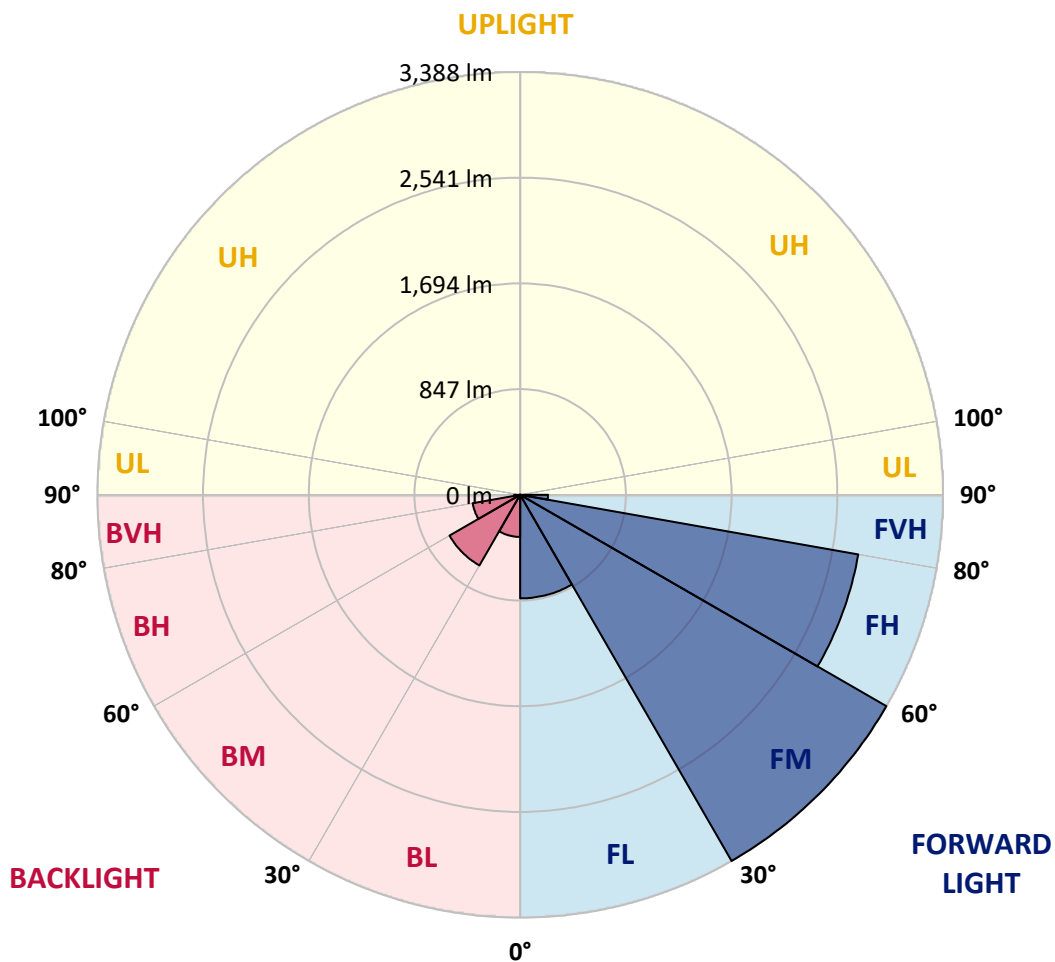
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	829.9	9.6			
FM	(30°-60°)	3387.8	39.3			
FH	(60°-80°)	2750.6	31.9			G2/5000
FVH	(80°-90°)	223.6	2.6			G2/225
BL	(0°-30°)	337.4	3.9	B1/500		
BM	(30°-60°)	653.5	7.6	B1/1000		
BH	(60°-80°)	386.6	4.5	B1/500		G1/500
BVH	(80°-90°)	48.7	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-G2**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7
2.5°	3025.3	2963.7	2861.3	2754.8	2689.9	2614.1	2554.8	2502.8	2398.5	2378.2	2396.7
5°	2844.8	2721.2	2528.3	2334.1	2204.8	2065.9	1957.9	1871.3	1739.1	1715.8	1743.8
7.5°	2555.4	2407.6	2152.7	1904.9	1722.0	1548.6	1432.2	1339.2	1236.0	1191.5	1194.2
10°	2305.7	2138.9	1837.6	1568.1	1418.4	1301.4	1203.3	1108.0	1003.4	934.7	915.7
12.5°	2165.9	1974.1	1626.8	1386.1	1247.3	1124.3	1018.6	916.7	804.9	734.7	714.9
15°	2141.8	1933.3	1547.8	1269.7	1095.7	940.0	815.3	701.6	586.4	529.6	517.7
17.5°	2246.5	2006.3	1522.1	1165.8	953.2	760.8	607.8	480.9	387.1	358.7	356.2
20°	2447.3	2146.5	1518.8	1068.3	812.5	587.0	423.5	331.2	290.0	281.8	282.4
22.5°	2729.2	2364.0	1559.5	994.9	683.1	437.7	318.4	277.1	261.0	253.4	253.4
25°	3094.0	2663.4	1653.3	941.4	570.8	349.7	281.0	256.3	241.1	235.9	236.9
27.5°	3447.5	2954.7	1762.3	899.2	497.4	317.4	266.2	244.0	230.8	225.5	227.9
30°	3723.1	3213.4	1853.2	841.9	459.9	308.3	271.5	248.7	229.8	221.7	222.2
32.5°	3951.4	3439.9	1929.5	800.6	426.8	264.3	234.1	224.0	221.7	212.3	207.5
35°	4243.3	3686.7	1980.7	801.6	411.2	235.9	208.4	190.9	178.1	167.2	167.2
37.5°	4585.4	3969.9	2035.2	812.5	405.6	219.3	199.5	181.9	170.1	159.6	157.8
40°	4923.5	4247.6	2085.0	822.9	402.1	209.4	192.3	176.3	165.4	154.9	152.0
42.5°	5211.2	4475.9	2129.5	828.1	390.8	208.4	187.2	172.4	162.1	150.6	147.9
45°	5423.9	4667.2	2177.4	836.1	379.5	212.3	187.2	172.0	159.2	148.3	145.4
47.5°	5613.8	4891.8	2257.4	836.1	365.7	205.1	193.3	172.4	158.8	147.3	145.0
50°	5868.2	5199.8	2409.0	816.8	346.4	197.5	203.7	170.5	154.5	145.4	142.6
52.5°	6218.7	5594.4	2649.6	783.1	316.5	182.9	202.2	169.7	150.2	140.7	137.4
55°	6633.4	6016.9	2912.1	743.8	271.9	172.4	195.2	167.2	145.4	135.0	131.7
57.5°	6956.9	6307.8	3096.8	683.1	233.1	166.8	173.0	164.9	139.7	128.8	126.1
60°	7085.7	6296.5	3147.6	602.1	214.1	162.1	151.2	184.7	135.0	124.1	120.8
62.5°	7016.1	6005.6	3005.5	545.3	209.8	155.9	141.7	171.0	131.2	120.8	116.0
65°	6694.5	5490.2	2628.8	530.1	222.2	149.7	135.5	134.1	126.1	116.0	111.3
67.5°	5993.7	4719.9	2104.8	531.5	237.8	143.6	129.4	122.8	118.9	110.9	106.6
70°	4881.9	3731.7	1569.0	535.4	245.8	136.4	122.8	115.6	111.3	103.3	100.4
72.5°	3589.6	2876.1	1139.9	510.7	247.3	128.4	113.7	107.6	103.3	94.8	92.4
75°	2455.9	2200.0	790.7	423.1	215.6	117.0	103.7	98.1	95.2	84.8	83.3
77.5°	1794.0	1651.5	506.0	314.1	166.2	102.8	91.5	87.2	85.3	73.9	72.0
80°	1439.8	1306.5	316.5	215.1	121.8	86.2	76.7	74.4	72.4	61.1	59.7
82.5°	998.6	875.0	203.2	139.7	91.5	66.8	60.7	59.7	56.8	46.5	45.0
85°	526.8	475.1	128.8	95.2	66.3	45.9	42.2	42.2	40.7	30.8	29.8
87.5°	67.3	109.4	65.4	49.8	36.4	20.4	20.4	19.9	21.4	17.5	15.2
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°	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7
2.5°	2353.1	2375.9	2354.1	2355.5	2379.6	2451.6	2484.3	2511.2	2540.2	2559.1	2567.6
5°	1705.5	1758.6	1776.5	1814.4	1870.3	1962.2	1998.7	2025.2	2042.8	2053.2	2057.5
7.5°	1166.4	1198.5	1234.5	1295.6	1417.4	1471.5	1495.6	1489.4	1469.6	1462.4	1455.4
10°	879.3	866.5	859.8	893.5	992.0	1046.5	1063.6	1046.9	1036.0	1038.5	1050.2
12.5°	681.2	659.0	632.0	628.2	693.1	741.9	752.8	753.7	773.6	791.1	817.2
15°	496.5	494.1	480.9	472.8	509.7	549.6	554.3	562.8	580.8	593.6	616.3
17.5°	350.1	362.8	373.3	378.5	406.4	434.8	429.7	425.4	422.1	422.1	433.0
20°	282.4	290.9	304.2	319.2	347.8	367.6	354.8	337.7	325.4	321.7	323.1
22.5°	254.4	261.0	268.6	281.8	307.5	321.3	307.5	295.2	282.8	278.5	277.1
25°	240.2	248.7	255.9	265.8	284.7	294.1	281.0	271.9	264.3	259.2	255.3
27.5°	232.2	239.7	241.7	246.4	262.5	270.9	264.3	260.6	255.9	251.1	246.4
30°	223.6	222.2	218.9	219.3	232.2	240.7	240.2	241.1	240.7	239.2	238.4
32.5°	204.2	201.4	198.5	201.4	213.1	220.7	221.3	223.2	223.2	222.7	226.5
35°	170.1	175.3	178.6	187.2	201.4	208.0	205.1	200.4	191.9	186.6	186.2
37.5°	157.3	158.2	163.9	175.7	191.5	197.5	193.3	182.4	176.7	175.7	177.1
40°	151.2	152.0	155.3	166.2	181.9	188.0	184.3	176.3	171.0	170.5	173.0
42.5°	146.9	147.9	149.7	157.3	170.1	177.7	178.1	172.4	166.2	166.8	169.1
45°	144.4	145.0	144.4	148.3	160.1	169.1	173.0	169.1	163.9	164.9	167.7
47.5°	144.0	142.6	140.7	141.7	154.0	162.9	167.7	166.2	163.9	164.9	167.2
50°	142.1	138.8	136.4	136.0	148.3	157.8	162.1	162.1	162.9	164.9	167.2
52.5°	136.4	132.7	132.7	131.2	144.4	153.5	156.3	156.8	158.2	161.5	164.9
55°	129.4	127.9	129.4	126.9	141.7	150.2	151.6	152.6	153.5	156.3	161.1
57.5°	123.2	121.3	124.6	123.6	139.3	146.9	146.9	148.7	148.7	152.6	156.3
60°	119.9	116.0	117.5	118.5	136.0	144.0	143.1	145.0	145.9	149.3	152.0
62.5°	115.6	112.3	112.3	114.6	132.2	139.7	139.3	140.7	144.4	145.4	148.3
65°	110.4	109.0	107.6	110.4	128.4	135.0	135.5	137.4	140.7	141.7	144.0
67.5°	105.1	105.7	102.8	105.7	125.1	130.2	130.2	134.1	135.5	137.4	139.7
70°	99.5	100.0	97.5	101.0	122.8	125.1	124.6	129.8	130.8	132.2	134.5
72.5°	92.4	92.4	91.5	96.2	118.9	119.9	118.9	123.2	123.6	125.1	126.1
75°	84.8	84.8	83.9	90.5	116.6	114.2	111.3	114.6	115.6	116.6	116.6
77.5°	74.9	75.9	75.9	83.9	108.4	111.9	102.3	104.3	105.7	106.1	104.7
80°	62.5	65.0	65.8	76.3	90.9	103.3	91.5	92.8	93.4	93.4	91.5
82.5°	47.9	52.1	54.5	65.8	69.7	86.6	79.6	81.0	79.6	76.7	75.9
85°	33.1	38.9	41.7	50.2	52.6	66.8	66.3	66.3	63.5	59.7	59.2
87.5°	18.1	21.4	23.2	29.8	36.0	45.0	48.8	47.3	45.0	42.6	43.2
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°	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7
2.5°	2612.2	2676.6	2779.4	2858.0	2937.2	3013.5	3096.0	3158.9	3212.4	3233.4	3296.7
5°	2100.6	2181.1	2278.2	2453.4	2577.6	2714.5	2872.8	3082.2	3162.6	3274.1	3456.4
7.5°	1485.2	1558.1	1714.4	1856.1	2031.9	2225.7	2439.2	2728.2	2833.9	3012.5	3309.5
10°	1109.0	1193.8	1319.3	1438.8	1593.7	1791.7	2037.1	2360.2	2488.6	2682.3	3024.4
12.5°	893.5	993.5	1126.5	1238.8	1358.7	1498.4	1736.8	2091.0	2263.1	2432.7	2778.4
15°	686.4	791.1	914.9	1057.4	1189.5	1340.2	1589.9	1977.4	2175.4	2352.2	2647.2
17.5°	475.1	564.6	720.5	869.3	1038.5	1231.2	1549.2	2001.5	2237.9	2441.7	2670.0
20°	336.9	387.9	515.9	688.4	899.2	1141.2	1541.6	2128.5	2436.0	2668.6	2815.9
22.5°	283.3	302.2	376.6	534.8	778.3	1073.9	1568.1	2306.6	2703.1	3000.2	3048.5
25°	258.2	269.6	308.3	419.8	670.8	1025.1	1657.6	2571.9	3033.9	3331.9	3323.3
27.5°	244.4	256.3	281.8	354.4	589.9	994.9	1747.1	2886.6	3411.9	3691.9	3585.7
30°	240.2	256.3	283.3	334.0	532.1	947.0	1820.5	3162.6	3702.8	3935.0	3705.2
32.5°	236.9	239.2	251.6	288.0	477.0	891.1	1870.3	3410.5	3987.4	4166.1	3877.2
35°	191.5	203.2	223.2	258.2	444.9	857.5	1870.3	3624.2	4268.0	4399.6	4041.1
37.5°	184.3	194.8	212.3	242.1	426.8	840.9	1832.9	3830.3	4554.5	4664.5	4176.0
40°	180.6	189.0	205.7	229.8	419.2	821.9	1778.4	4012.1	4834.5	4929.7	4302.1
42.5°	177.7	185.3	200.9	222.2	409.3	801.1	1734.4	4158.0	5077.6	5156.2	4422.4
45°	176.3	184.3	201.4	226.0	389.4	773.6	1719.7	4315.7	5277.5	5345.2	4552.7
47.5°	176.3	185.7	203.7	234.1	365.7	745.2	1765.6	4523.8	5466.5	5499.6	4706.1
50°	174.8	185.3	210.4	226.0	331.2	709.2	1873.6	4785.7	5671.2	5674.9	4900.4
52.5°	172.0	184.3	226.5	221.3	291.3	661.9	2019.6	5122.2	5973.9	5996.6	5204.5
55°	168.7	182.9	222.2	210.4	258.7	605.5	2138.9	5530.9	6399.3	6462.3	5651.8
57.5°	164.4	181.0	215.1	195.2	237.4	532.9	2182.1	5830.4	6696.3	6854.5	6155.8
60°	160.6	179.6	194.2	186.2	224.0	471.8	2098.6	5771.1	6676.0	7017.0	6602.5
62.5°	156.8	181.0	177.1	180.6	217.9	432.5	1880.8	5296.8	6338.2	6849.3	6933.7
65°	152.6	168.2	167.2	175.7	216.6	416.9	1559.1	4585.8	5685.4	6319.3	7011.8
67.5°	146.9	155.3	160.1	169.7	221.3	403.1	1258.2	3782.8	4778.1	5524.7	6604.4
70°	140.7	147.9	153.0	162.1	218.4	397.0	1046.5	2983.1	3791.4	4528.0	5800.5
72.5°	132.7	138.8	143.6	152.0	215.6	393.7	884.0	2402.4	2830.6	3363.6	4716.1
75°	123.2	128.8	132.2	140.7	206.5	360.6	695.0	2032.8	2118.1	2339.9	3756.3
77.5°	112.3	116.6	119.3	128.8	182.9	299.9	502.7	1568.1	1644.9	1698.8	2879.8
80°	99.5	103.7	105.1	114.2	151.6	234.5	327.9	1158.2	1230.2	1242.6	1880.8
82.5°	84.8	89.1	89.1	97.5	124.1	168.7	215.1	793.5	807.7	849.5	1329.3
85°	68.3	71.6	71.6	75.9	96.2	126.1	147.9	398.4	394.1	450.0	1151.6
87.5°	48.8	51.2	53.5	54.5	68.7	83.3	89.1	121.3	80.0	91.9	739.5
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):**

	295°	305°	315°	325°	335°	345°	355°	360°
0°	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7	2911.7
2.5°	3344.6	3371.6	3344.1	3324.3	3238.5	3168.0	3073.6	3025.3
5°	3595.2	3663.9	3640.7	3557.3	3378.2	3176.8	2948.1	2844.8
7.5°	3564.9	3724.6	3728.3	3572.5	3308.6	3012.1	2702.3	2555.4
10°	3329.0	3533.1	3591.5	3440.3	3160.4	2828.8	2473.4	2305.7
12.5°	3065.6	3265.5	3310.1	3257.9	3024.0	2690.8	2330.4	2165.9
15°	2850.0	2939.6	2992.6	3038.2	2906.9	2635.9	2322.2	2141.8
17.5°	2718.8	2708.9	2724.1	2803.1	2825.3	2698.8	2445.4	2246.5
20°	2671.4	2519.4	2515.5	2624.5	2787.0	2849.1	2686.1	2447.3
22.5°	2697.5	2451.2	2419.9	2549.3	2807.4	3065.6	3001.6	2729.2
25°	2787.5	2456.9	2431.6	2556.9	2881.3	3296.3	3342.2	3094.0
27.5°	2929.2	2492.9	2459.6	2588.1	2979.4	3490.1	3677.7	3447.5
30°	3063.7	2555.4	2514.1	2649.6	3068.9	3566.8	3883.3	3723.1
32.5°	3227.2	2672.4	2599.9	2762.8	3179.7	3689.0	4066.6	3951.4
35°	3387.2	2839.1	2749.2	2937.6	3303.3	3841.2	4276.0	4243.3
37.5°	3563.1	3057.1	2982.7	3163.7	3472.6	3984.6	4543.2	4585.4
40°	3750.7	3346.1	3257.9	3493.4	3735.0	4164.7	4822.3	4923.5
42.5°	3939.7	3666.8	3561.6	3800.3	4023.4	4342.3	5060.9	5211.2
45°	4156.1	4015.0	3965.2	4223.4	4300.7	4511.5	5237.2	5423.9
47.5°	4408.2	4410.1	4490.1	4593.4	4580.2	4702.8	5414.4	5613.8
50°	4702.4	4903.2	5080.0	5148.6	4868.2	4908.5	5660.3	5868.2
52.5°	5055.8	5493.0	5711.9	5666.9	5178.5	5159.5	6049.6	6218.7
55°	5497.8	6117.5	6334.9	6302.6	5535.2	5501.5	6534.8	6633.4
57.5°	6009.3	6722.4	6922.3	6777.3	5963.5	5876.8	6936.1	6956.9
60°	6459.0	7201.9	7377.1	7216.5	6395.6	6276.1	7186.7	7085.7
62.5°	6709.1	7364.4	7487.6	7314.6	6691.6	6701.5	7241.6	7016.1
65°	6597.4	6953.6	6993.3	6979.1	6615.3	6948.3	7044.1	6694.5
67.5°	5985.3	5915.1	5982.0	6074.3	5961.6	6623.3	6496.8	5993.7
70°	4907.0	4521.8	4655.1	4717.0	4768.2	5699.6	5638.9	4881.9
72.5°	3698.0	3168.0	3273.1	3260.3	3497.1	4571.6	4385.4	3589.6
75°	2620.2	2148.0	2161.2	2156.0	2440.3	3576.7	3175.6	2455.9
77.5°	1833.3	1556.2	1563.4	1592.7	1640.6	2697.5	2268.7	1794.0
80°	1260.6	1181.0	1220.3	1222.8	1137.0	1812.1	1676.1	1439.8
82.5°	939.0	820.9	811.5	825.2	891.1	1468.2	1288.0	998.6
85°	768.9	486.0	390.8	489.9	789.7	1454.0	855.6	526.8
87.5°	433.0	230.8	104.3	193.3	315.1	962.6	247.3	67.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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