

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: P299416

Luminaire Tested: **GLNA-AF-04-LED-E1-SLR-800**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P299416  
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-04-LED-E1-SLR-800  
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE  
(4) 70 CRI, 4000K 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: 16991.5 lumens  
Efficiency: N/A  
Efficacy: 99.4 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B2 - U0 - G3

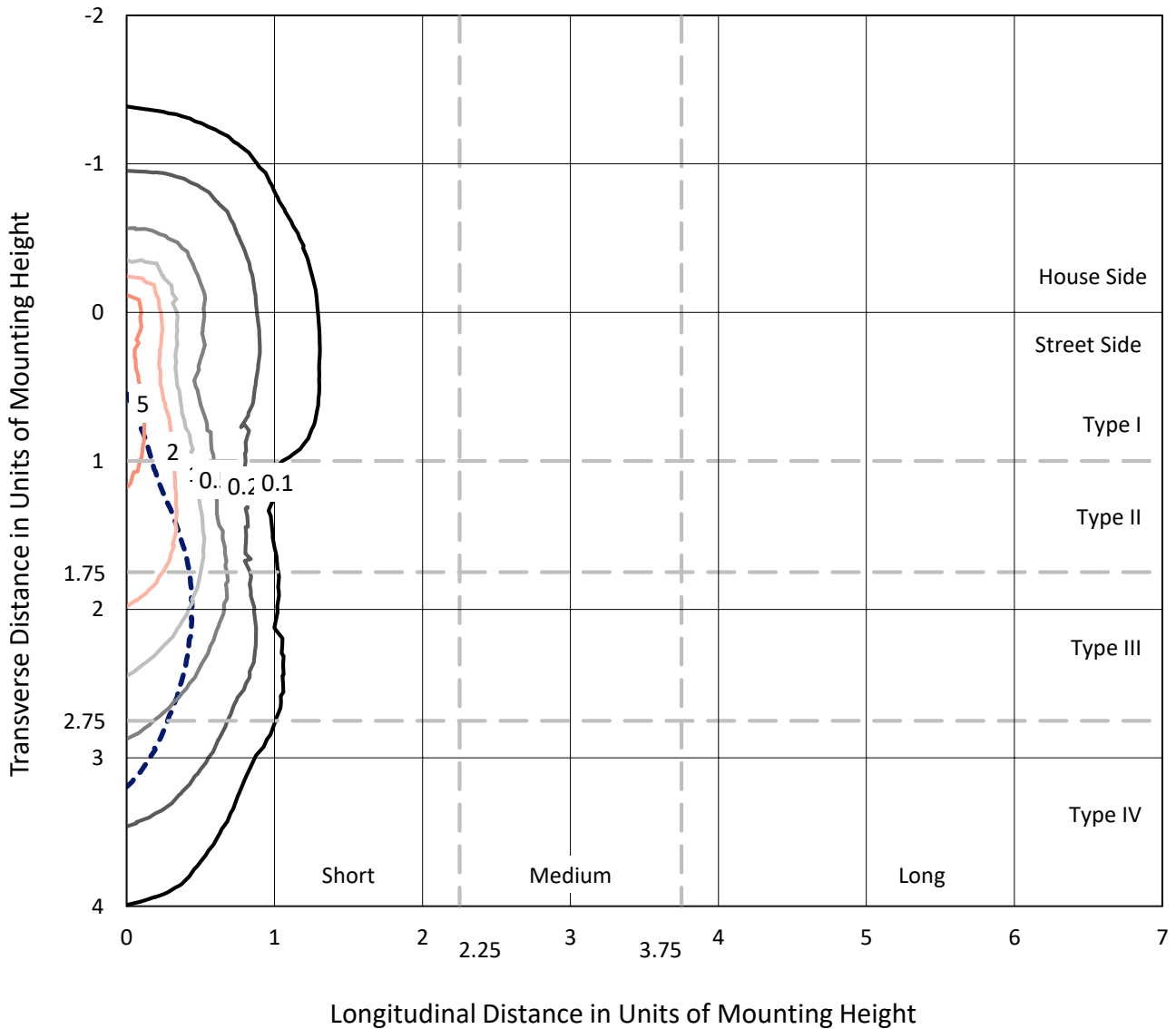
Input Watts (W): 171  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Iso-Footcandle Lines of Horizontal Illumination

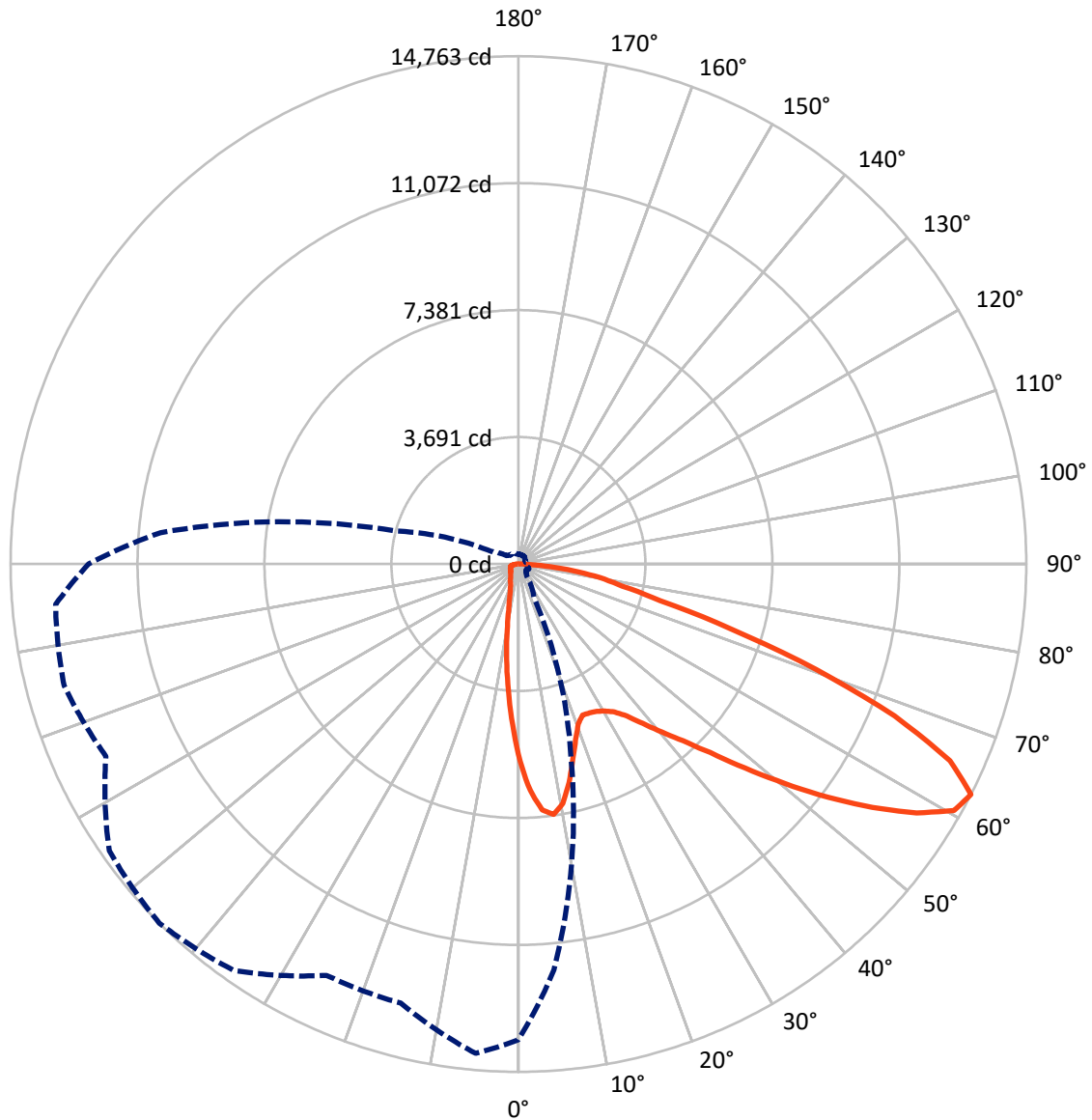
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 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	2811.9	0.0	2811.9
	% Fixture	16.5	0.0	16.5
<b>Street Side</b>	Lumens	14179.6	0.0	14179.6
	% Fixture	83.5	0.0	83.5
<b>Total</b>	Lumens	16991.5	0.0	16991.5
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	417.9	2.5
10°-20°	766.3	4.5
20°-30°	1117.3	6.6
30°-40°	1720.8	10.1
40°-50°	2532.5	14.9
50°-60°	3714.6	21.9
60°-70°	4152.4	24.4
70°-80°	2033.0	12.0
80°-90°	536.8	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°	16991.5	100.0
0°-180°	16991.5	100.0



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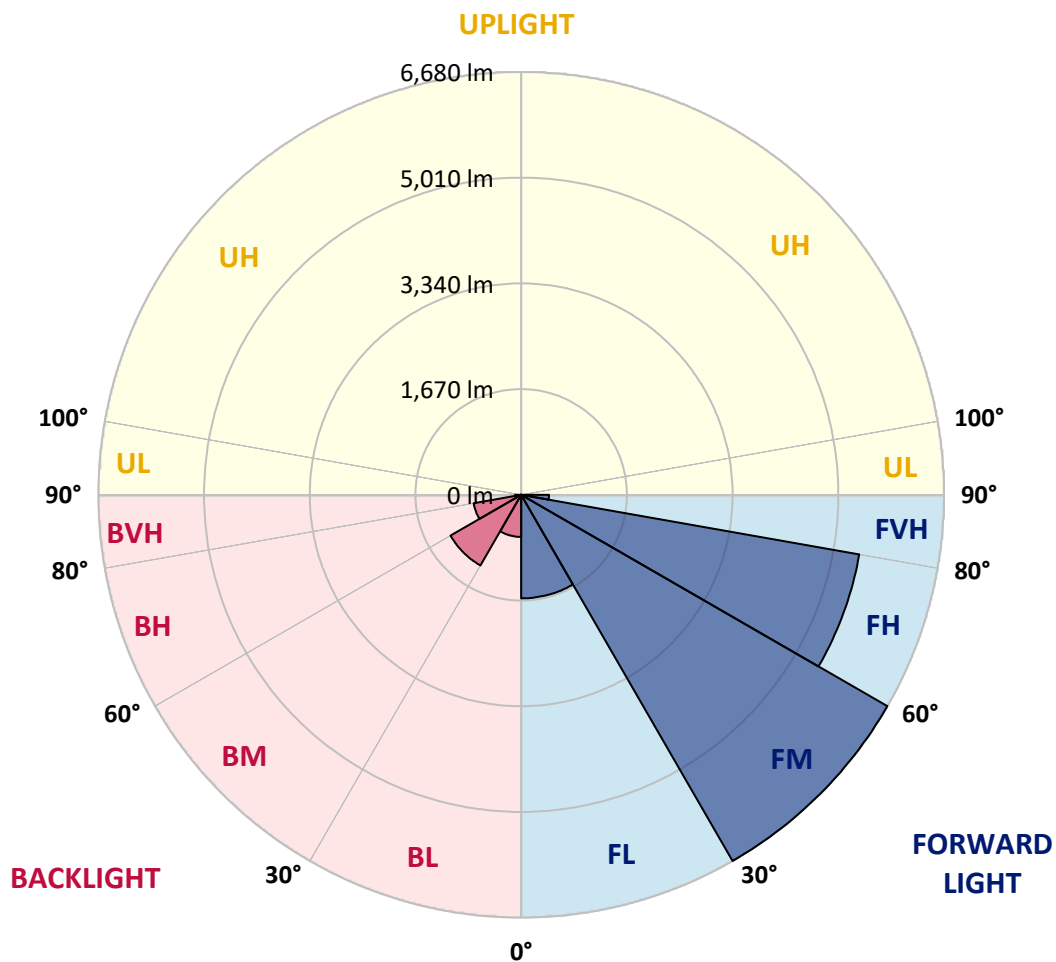
CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-800

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

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1636.2	9.6			
FM (30°-60°)	6679.5	39.3			
FH (60°-80°)	5423.1	31.9			G3/7500
FVH (80°-90°)	440.8	2.6			G3/500
BL (0°-30°)	665.2	3.9	B2/1000		
BM (30°-60°)	1288.4	7.6	B2/2500		
BH (60°-80°)	762.3	4.5	B2/1000		G2/1000
BVH (80°-90°)	96.0	0.6			G1/100
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B2-U0-G3**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7
2.5°	5964.7	5843.4	5641.5	5431.4	5303.6	5154.0	5037.2	4934.6	4729.0	4688.8	4725.3
5°	5609.0	5365.2	4984.9	4602.0	4347.0	4073.3	3860.3	3689.5	3428.8	3383.0	3438.2
7.5°	5038.3	4746.8	4244.3	3755.7	3395.2	3053.3	2823.7	2640.5	2436.9	2349.2	2354.6
10°	4546.0	4217.2	3623.1	3091.8	2796.6	2565.8	2372.4	2184.7	1978.2	1842.8	1805.5
12.5°	4270.4	3892.3	3207.4	2732.9	2459.2	2216.6	2008.2	1807.4	1586.9	1448.6	1409.6
15°	4222.8	3811.7	3051.6	2503.3	2160.3	1853.3	1607.5	1383.3	1156.2	1044.3	1020.8
17.5°	4429.3	3955.6	3001.0	2298.6	1879.3	1500.1	1198.4	948.1	763.2	707.2	702.4
20°	4825.1	4232.2	2994.5	2106.3	1601.9	1157.4	835.0	652.9	571.8	555.6	556.8
22.5°	5381.1	4660.9	3074.8	1961.6	1346.8	863.0	627.7	546.3	514.6	499.6	499.6
25°	6100.1	5251.3	3259.7	1856.1	1125.4	689.4	553.9	505.3	475.3	465.2	467.1
27.5°	6797.2	5825.6	3474.6	1773.0	980.6	625.8	524.8	481.0	455.0	444.5	449.3
30°	7340.6	6335.7	3653.9	1659.8	906.8	607.9	535.3	490.3	453.0	437.2	438.0
32.5°	7790.8	6782.2	3804.4	1578.4	841.5	521.1	461.5	441.7	437.2	418.5	409.2
35°	8366.2	7268.8	3905.3	1580.4	810.7	465.2	410.9	376.4	351.2	329.7	329.7
37.5°	9040.6	7827.3	4012.8	1601.9	799.7	432.4	393.3	358.5	335.4	314.7	311.0
40°	9707.4	8374.7	4110.9	1622.5	792.9	412.8	379.2	347.5	326.0	305.4	299.7
42.5°	10274.6	8824.9	4198.5	1632.7	770.5	410.9	369.0	339.9	319.5	296.9	291.5
45°	10694.0	9202.1	4293.0	1648.5	748.2	418.5	369.0	339.0	313.9	292.4	286.7
47.5°	11068.4	9644.9	4450.8	1648.5	721.1	404.4	381.2	339.9	313.0	290.4	285.9
50°	11570.0	10252.0	4749.6	1610.4	682.9	389.4	401.5	336.2	304.5	286.7	281.1
52.5°	12261.1	11030.2	5224.1	1543.9	624.1	360.5	398.7	334.5	296.1	277.4	270.9
55°	13078.6	11863.2	5741.6	1466.4	536.1	339.9	384.8	329.7	286.7	266.1	259.6
57.5°	13716.5	12436.7	6105.8	1346.8	459.5	328.9	341.0	325.2	275.4	253.9	248.6
60°	13970.4	12414.3	6205.9	1187.1	422.2	319.5	298.0	364.2	266.1	244.6	238.1
62.5°	13833.3	11840.9	5925.7	1075.1	413.7	307.4	279.4	337.1	258.7	238.1	228.8
65°	13199.0	10824.6	5183.1	1045.1	438.0	295.2	267.2	264.4	248.6	228.8	219.4
67.5°	11817.4	9305.9	4149.9	1047.9	468.8	283.1	255.1	242.0	234.4	218.6	210.1
70°	9625.4	7357.6	3093.5	1055.6	484.7	268.9	242.0	227.9	219.4	203.6	197.9
72.5°	7077.4	5670.6	2247.4	1006.9	487.5	253.1	224.2	212.1	203.6	186.9	182.1
75°	4842.1	4337.7	1558.9	834.2	425.0	230.7	204.4	193.4	187.8	167.1	164.3
77.5°	3537.1	3256.1	997.6	619.3	327.7	202.7	180.4	171.9	168.2	145.6	141.9
80°	2838.7	2576.0	624.1	424.2	240.1	169.9	151.3	146.8	142.8	120.5	117.6
82.5°	1968.9	1725.2	400.7	275.4	180.4	131.8	119.6	117.6	112.0	91.6	88.8
85°	1038.6	936.8	253.9	187.8	130.6	90.5	83.1	83.1	80.3	60.8	58.8
87.5°	132.6	215.8	128.9	98.1	71.8	40.2	40.2	39.3	42.1	34.5	30.0
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°	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7
2.5°	4639.4	4684.3	4641.3	4644.2	4691.7	4833.6	4898.1	4951.3	5008.4	5045.7	5062.4
5°	3362.7	3467.3	3502.6	3577.3	3687.6	3868.8	3940.6	3993.0	4027.7	4048.1	4056.6
7.5°	2299.7	2363.1	2434.1	2554.5	2794.6	2901.2	2948.7	2936.5	2897.5	2883.4	2869.5
10°	1733.6	1708.5	1695.2	1761.6	1955.9	2063.4	2097.0	2064.2	2042.7	2047.5	2070.7
12.5°	1343.1	1299.3	1246.2	1238.5	1366.6	1462.8	1484.2	1485.9	1525.2	1559.7	1611.2
15°	978.9	974.1	948.1	932.3	1005.0	1083.6	1092.9	1109.6	1145.2	1170.4	1215.1
17.5°	690.2	715.4	736.0	746.2	801.4	857.4	847.2	838.7	832.2	832.2	853.7
20°	556.8	573.5	599.7	629.4	685.7	724.7	699.6	665.9	641.6	634.2	637.1
22.5°	501.6	514.6	529.6	555.6	606.3	633.4	606.3	581.9	557.6	549.1	546.3
25°	473.6	490.3	504.5	524.0	561.3	580.0	553.9	536.1	521.1	511.0	503.3
27.5°	457.8	472.5	476.5	485.8	517.5	534.1	521.1	513.8	504.5	495.1	485.8
30°	440.8	438.0	431.5	432.4	457.8	474.5	473.6	475.3	474.5	471.7	470.0
32.5°	402.7	397.0	391.3	397.0	420.2	435.2	436.3	440.0	440.0	439.1	446.5
35°	335.4	345.5	352.0	369.0	397.0	410.0	404.4	395.0	378.3	367.9	367.0
37.5°	310.2	311.9	323.2	346.4	377.5	389.4	381.2	359.7	348.4	346.4	349.2
40°	298.0	299.7	306.2	327.7	358.5	370.7	363.4	347.5	337.1	336.2	341.0
42.5°	289.6	291.5	295.2	310.2	335.4	350.3	351.2	339.9	327.7	328.9	333.4
45°	284.7	285.9	284.7	292.4	315.6	333.4	341.0	333.4	323.2	325.2	330.6
47.5°	283.9	281.1	277.4	279.4	303.7	321.2	330.6	327.7	323.2	325.2	329.7
50°	280.2	273.7	268.9	268.1	292.4	311.0	319.5	319.5	321.2	325.2	329.7
52.5°	268.9	261.6	261.6	258.7	284.7	302.6	308.2	309.1	311.9	318.4	325.2
55°	255.1	252.2	255.1	250.2	279.4	296.1	298.9	300.9	302.6	308.2	317.5
57.5°	242.9	239.2	245.7	243.7	274.6	289.6	289.6	293.2	293.2	300.9	308.2
60°	236.4	228.8	231.6	233.6	268.1	283.9	282.2	285.9	287.6	294.4	299.7
62.5°	227.9	221.4	221.4	225.9	260.7	275.4	274.6	277.4	284.7	286.7	292.4
65°	217.7	214.9	212.1	217.7	253.1	266.1	267.2	270.9	277.4	279.4	283.9
67.5°	207.3	208.4	202.7	208.4	246.6	256.8	256.8	264.4	267.2	270.9	275.4
70°	196.2	197.1	192.3	199.1	242.0	246.6	245.7	255.9	257.9	260.7	265.2
72.5°	182.1	182.1	180.4	189.7	234.4	236.4	234.4	242.9	243.7	246.6	248.6
75°	167.1	167.1	165.4	178.4	229.9	225.1	219.4	225.9	227.9	229.9	229.9
77.5°	147.6	149.6	149.6	165.4	213.8	220.6	201.6	205.6	208.4	209.2	206.4
80°	123.3	128.1	129.8	150.4	179.3	203.6	180.4	183.0	184.1	184.1	180.4
82.5°	94.4	102.6	107.5	129.8	137.4	170.8	156.9	159.8	156.9	151.3	149.6
85°	65.3	76.6	82.3	99.0	103.8	131.8	130.6	130.6	125.3	117.6	116.8
87.5°	35.6	42.1	45.8	58.8	71.0	88.8	96.1	93.3	88.8	84.0	85.1
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):**

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7
2.5°	5150.3	5277.3	5480.0	5635.0	5791.1	5941.5	6104.1	6228.2	6333.7	6375.0	6500.0
5°	4141.7	4300.3	4491.8	4837.3	5082.2	5351.9	5664.1	6077.0	6235.6	6455.3	6814.7
7.5°	2928.3	3072.0	3380.2	3659.6	4006.2	4388.3	4809.3	5379.1	5587.5	5939.5	6525.1
10°	2186.6	2353.8	2601.2	2836.7	3142.1	3532.6	4016.4	4653.5	4906.6	5288.6	5963.0
12.5°	1761.6	1958.7	2221.1	2442.5	2678.9	2954.4	3424.3	4122.7	4462.1	4796.3	5478.1
15°	1353.3	1559.7	1803.8	2084.8	2345.3	2642.5	3134.8	3898.8	4289.0	4637.7	5219.3
17.5°	936.8	1113.3	1420.6	1713.9	2047.5	2427.6	3054.5	3946.3	4412.3	4814.1	5264.3
20°	664.2	764.9	1017.1	1357.3	1773.0	2250.0	3039.5	4196.5	4802.8	5261.5	5551.9
22.5°	558.5	595.8	742.5	1054.4	1534.6	2117.4	3091.8	4547.7	5329.6	5915.2	6010.5
25°	509.0	531.6	607.9	827.7	1322.5	2021.2	3268.2	5070.9	5981.7	6569.2	6552.3
27.5°	481.8	505.3	555.6	698.7	1163.0	1961.6	3444.7	5691.3	6727.0	7279.0	7069.7
30°	473.6	505.3	558.5	658.6	1049.1	1867.1	3589.4	6235.6	7300.5	7758.3	7305.3
32.5°	467.1	471.7	496.0	567.8	940.5	1756.8	3687.6	6724.2	7861.8	8214.1	7644.3
35°	377.5	400.7	440.0	509.0	877.1	1690.7	3687.6	7145.5	8414.9	8674.5	7967.5
37.5°	363.4	384.0	418.5	477.3	841.5	1657.9	3613.8	7551.9	8979.8	9196.7	8233.6
40°	356.0	372.7	405.5	453.0	826.5	1620.5	3506.3	7910.4	9531.8	9719.6	8482.2
42.5°	350.3	365.3	396.2	438.0	807.0	1579.5	3419.5	8198.0	10011.1	10166.0	8719.4
45°	347.5	363.4	397.0	445.6	767.7	1525.2	3390.7	8509.0	10405.3	10538.7	8976.2
47.5°	347.5	366.2	401.5	461.5	721.1	1469.3	3481.1	8919.3	10778.0	10843.3	9278.7
50°	344.7	365.3	414.8	445.6	652.9	1398.3	3694.1	9435.7	11181.5	11188.8	9661.9
52.5°	339.0	363.4	446.5	436.3	574.3	1305.0	3981.9	10099.0	11778.4	11823.1	10261.3
55°	332.5	360.5	438.0	414.8	510.1	1193.8	4217.2	10904.9	12617.1	12741.2	11143.3
57.5°	324.1	356.9	424.2	384.8	468.0	1050.8	4302.3	11495.3	13202.7	13514.6	12136.9
60°	316.7	354.0	382.9	367.0	441.7	930.3	4137.7	11378.6	13162.5	13835.0	13017.8
62.5°	309.1	356.9	349.2	356.0	429.5	852.8	3708.2	10443.4	12496.6	13504.4	13670.7
65°	300.9	331.7	329.7	346.4	427.0	822.0	3074.0	9041.5	11209.5	12459.3	13824.8
67.5°	289.6	306.2	315.6	334.5	436.3	794.9	2480.7	7458.3	9420.7	10892.8	13021.4
70°	277.4	291.5	301.7	319.5	430.7	782.7	2063.4	5881.6	7475.2	8927.5	11436.5
72.5°	261.6	273.7	283.1	299.7	425.0	776.2	1743.0	4736.6	5581.0	6631.7	9298.5
75°	242.9	253.9	260.7	277.4	407.2	710.9	1370.3	4007.9	4176.2	4613.3	7406.0
77.5°	221.4	229.9	235.3	253.9	360.5	591.3	991.1	3091.8	3243.1	3349.4	5678.0
80°	196.2	204.4	207.3	225.1	298.9	462.3	646.4	2283.6	2425.6	2449.9	3708.2
82.5°	167.1	175.6	175.6	192.3	244.6	332.5	424.2	1564.6	1592.5	1674.8	2621.0
85°	134.6	141.1	141.1	149.6	189.7	248.6	291.5	785.5	777.0	887.3	2270.6
87.5°	96.1	100.9	105.5	107.5	135.4	164.3	175.6	239.2	157.8	181.3	1457.9
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°	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7	5740.7
2.5°	6594.4	6647.6	6593.3	6554.3	6385.2	6246.0	6060.0	5964.7
5°	7088.4	7223.9	7178.0	7013.8	6660.6	6263.6	5812.6	5609.0
7.5°	7028.7	7343.5	7350.8	7043.7	6523.4	5938.7	5327.9	5038.3
10°	6563.6	6966.0	7081.1	6783.0	6231.1	5577.3	4876.6	4546.0
12.5°	6044.2	6438.3	6526.3	6423.3	5962.1	5305.3	4594.7	4270.4
15°	5619.2	5795.9	5900.2	5990.1	5731.4	5197.0	4578.6	4222.8
17.5°	5360.4	5340.9	5370.9	5526.7	5570.5	5321.1	4821.5	4429.3
20°	5267.1	4967.4	4959.7	5174.6	5495.0	5617.5	5295.9	4825.1
22.5°	5318.6	4832.8	4771.1	5026.2	5535.2	6044.2	5918.0	5381.1
25°	5495.9	4844.1	4794.3	5041.2	5680.8	6499.1	6589.6	6100.1
27.5°	5775.2	4915.1	4849.5	5102.8	5874.2	6881.1	7251.0	6797.2
30°	6040.5	5038.3	4956.9	5224.1	6050.7	7032.4	7656.5	7340.6
32.5°	6362.8	5269.1	5126.0	5447.2	6269.2	7273.3	8017.9	7790.8
35°	6678.4	5597.7	5420.4	5791.9	6513.0	7573.4	8430.7	8366.2
37.5°	7025.1	6027.5	5880.7	6237.6	6846.6	7856.1	8957.5	9040.6
40°	7394.9	6597.2	6423.3	6887.6	7364.1	8211.3	9507.8	9707.4
42.5°	7767.6	7229.5	7022.2	7492.8	7932.8	8561.3	9978.3	10274.6
45°	8194.3	7916.1	7817.9	8326.9	8479.3	8895.0	10325.8	10694.0
47.5°	8691.4	8695.1	8852.9	9056.5	9030.5	9272.2	10675.3	11068.4
50°	9271.4	9667.2	10015.9	10151.1	9598.3	9677.7	11160.0	11570.0
52.5°	9968.1	10830.3	11261.8	11173.0	10210.2	10172.6	11927.7	12261.1
55°	10839.6	12061.4	12490.1	12426.5	10913.4	10847.0	12884.3	13078.6
57.5°	11848.2	13254.2	13648.3	13362.5	11757.7	11587.0	13675.5	13716.5
60°	12734.7	14199.4	14545.0	14228.3	12609.7	12374.2	14169.5	13970.4
62.5°	13227.9	14519.8	14762.7	14421.7	13193.4	13212.9	14277.8	13833.3
65°	13007.6	13710.0	13788.3	13760.3	13042.9	13699.5	13888.4	13199.0
67.5°	11800.7	11662.5	11794.2	11976.3	11754.1	13058.8	12809.4	11817.4
70°	9674.9	8915.4	9178.1	9300.2	9401.2	11237.5	11117.8	9625.4
72.5°	7291.2	6246.0	6453.3	6428.1	6895.0	9013.5	8646.5	7077.4
75°	5166.2	4235.0	4261.0	4250.8	4811.3	7051.9	6261.0	4842.1
77.5°	3614.6	3068.3	3082.4	3140.1	3234.6	5318.6	4473.1	3537.1
80°	2485.5	2328.6	2406.1	2410.9	2241.8	3572.8	3304.7	2838.7
82.5°	1851.3	1618.6	1599.9	1627.0	1756.8	2894.7	2539.5	1968.9
85°	1515.9	958.3	770.5	965.9	1556.9	2866.7	1687.0	1038.6
87.5°	853.7	455.0	205.6	381.2	621.2	1897.9	487.5	132.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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