

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: P299413

Luminaire Tested: **GLNA-AF-04-LED-E1-SLR-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299413
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-7027-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 2700K 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: 14762.9 lumens
Efficiency: N/A
Efficacy: 86.3 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

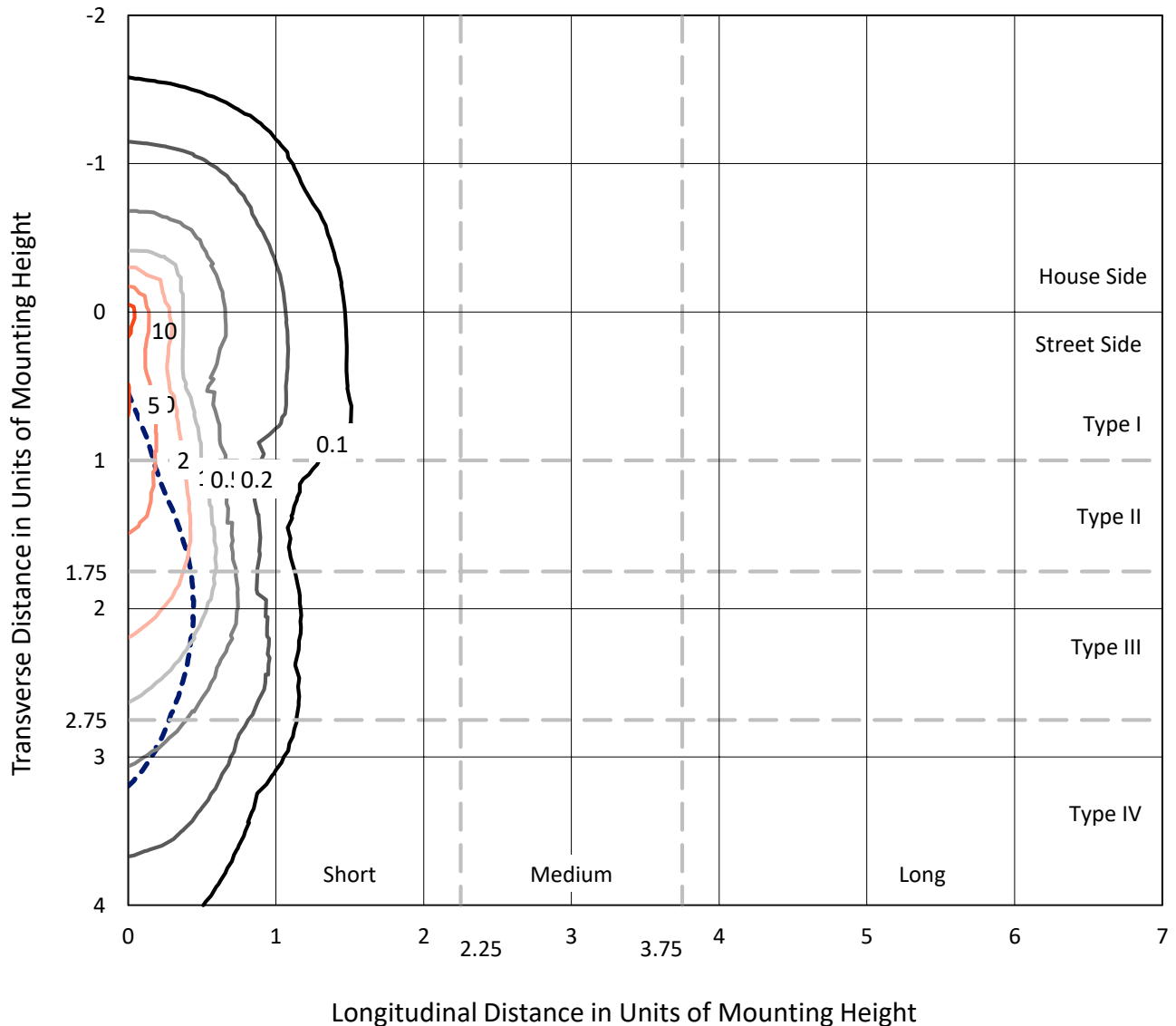


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Iso-Footcandle Lines of Horizontal Illumination

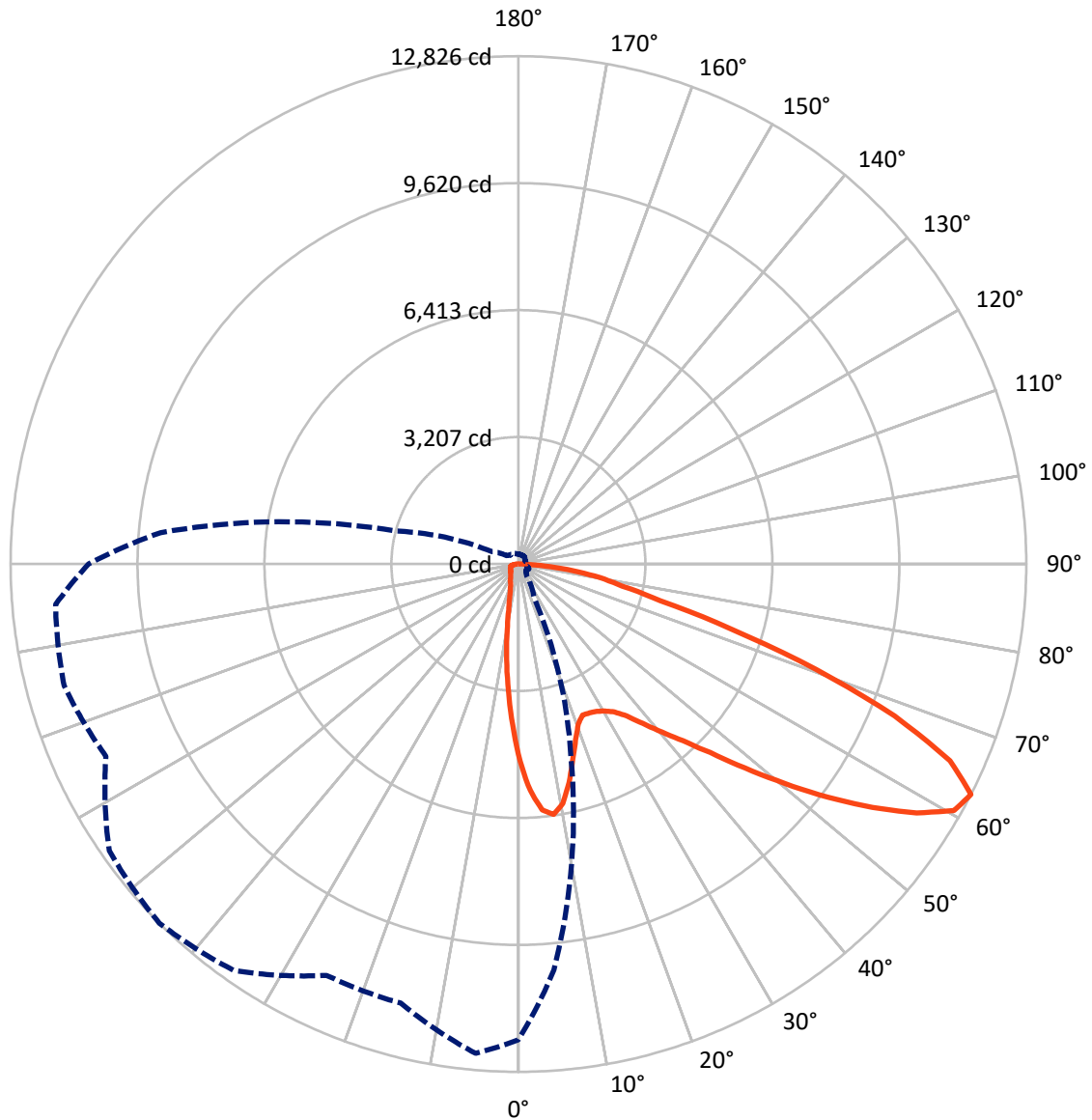
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 12.5 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	2443.1	0.0	2443.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	12319.8	0.0	12319.8
	% Fixture	83.5	0.0	83.5
Total	Lumens	14762.9	0.0	14762.9
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.1	2.5
10°-20°	665.8	4.5
20°-30°	970.7	6.6
30°-40°	1495.1	10.1
40°-50°	2200.3	14.9
50°-60°	3227.4	21.9
60°-70°	3607.8	24.4
70°-80°	1766.3	12.0
80°-90°	466.4	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°	14762.9	100.0
0°-180°	14762.9	100.0



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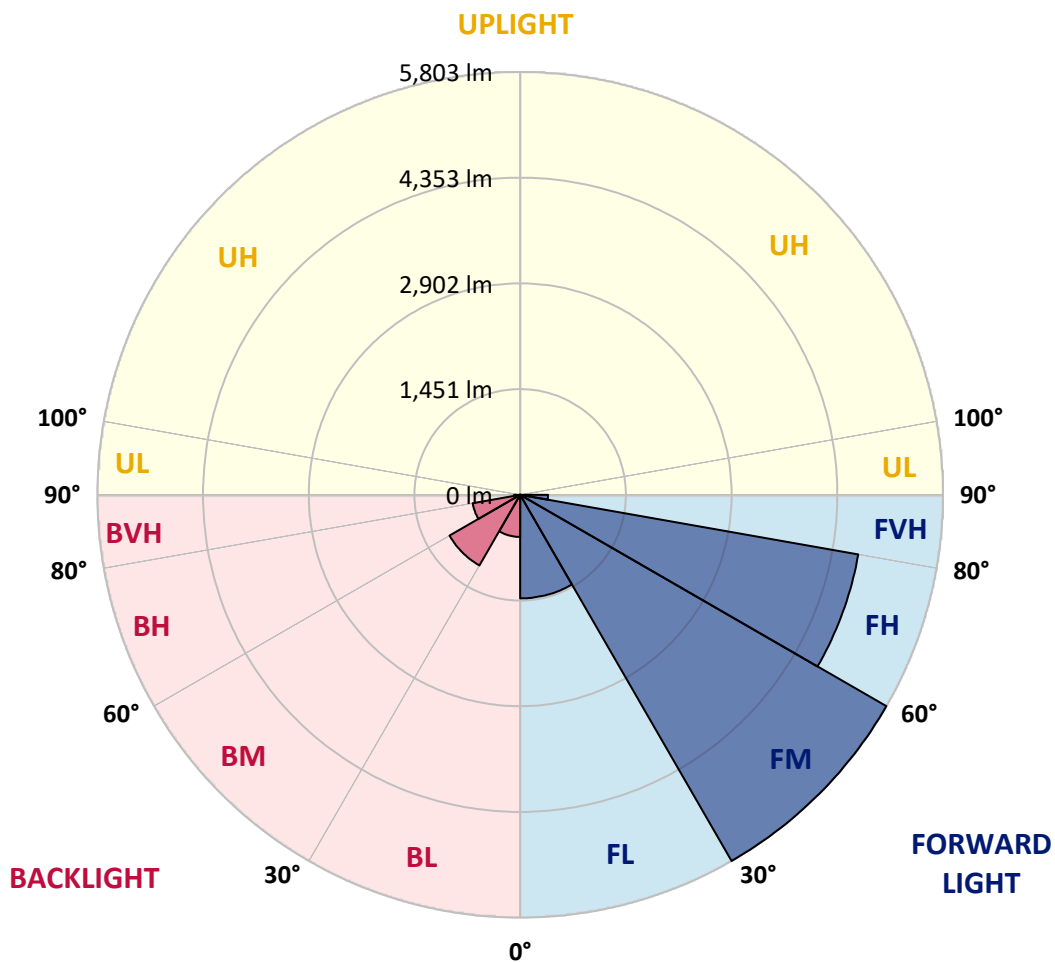
CATALOG NUMBER: GLNA-AF-04-LED-E1-SLR-7027-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1421.6	9.6			
FM	(30°-60°)	5803.4	39.3			
FH	(60°-80°)	4711.8	31.9			G2/5000
FVH	(80°-90°)	383.0	2.6			G3/500
BL	(0°-30°)	578.0	3.9	B2/1000		
BM	(30°-60°)	1119.4	7.6	B2/2500		
BH	(60°-80°)	662.3	4.5	B2/1000		G2/1000
BVH	(80°-90°)	83.4	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°	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8
2.5°	5182.4	5077.0	4901.5	4719.0	4608.0	4478.0	4376.5	4287.3	4108.7	4073.9	4105.5
5°	4873.3	4661.5	4331.1	3998.4	3776.8	3539.0	3354.0	3205.6	2979.1	2939.3	2987.2
7.5°	4377.5	4124.2	3687.6	3263.1	2949.9	2652.8	2453.4	2294.2	2117.3	2041.1	2045.8
10°	3949.8	3664.1	3147.9	2686.3	2429.8	2229.3	2061.2	1898.1	1718.8	1601.1	1568.7
12.5°	3710.2	3381.8	2786.7	2374.5	2136.7	1925.9	1744.8	1570.4	1378.8	1258.6	1224.7
15°	3669.0	3311.8	2651.4	2175.0	1877.0	1610.2	1396.7	1201.9	1004.6	907.3	886.9
17.5°	3848.3	3436.8	2607.4	1997.1	1632.8	1303.3	1041.2	823.8	663.1	614.4	610.3
20°	4192.3	3677.1	2601.7	1830.1	1391.8	1005.6	725.5	567.3	496.8	482.8	483.7
22.5°	4675.3	4049.5	2671.5	1704.3	1170.2	749.8	545.4	474.7	447.1	434.1	434.1
25°	5300.0	4562.5	2832.2	1612.6	977.8	599.0	481.3	439.0	413.0	404.1	405.9
27.5°	5905.6	5061.5	3018.9	1540.4	852.0	543.7	456.0	417.9	395.3	386.2	390.4
30°	6377.8	5504.7	3174.7	1442.1	787.9	528.2	465.1	426.0	393.6	379.8	380.6
32.5°	6769.0	5892.6	3305.4	1371.4	731.1	452.8	400.9	383.8	379.8	363.6	355.5
35°	7268.9	6315.4	3393.1	1373.1	704.4	404.1	357.0	327.0	305.1	286.5	286.5
37.5°	7854.9	6800.6	3486.4	1391.8	694.8	375.6	341.7	311.5	291.4	273.4	270.2
40°	8434.2	7276.3	3571.7	1409.7	688.9	358.7	329.5	301.9	283.3	265.3	260.4
42.5°	8927.0	7667.4	3647.8	1418.6	669.5	357.0	320.6	295.3	277.6	258.0	253.3
45°	9291.3	7995.1	3729.9	1432.3	650.1	363.6	320.6	294.6	272.7	254.0	249.1
47.5°	9616.6	8379.9	3867.0	1432.3	626.5	351.3	331.2	295.3	272.0	252.3	248.4
50°	10052.5	8907.3	4126.7	1399.1	593.3	338.3	348.9	292.1	264.6	249.1	244.2
52.5°	10652.9	9583.5	4538.9	1341.4	542.2	313.2	346.4	290.6	257.2	241.0	235.4
55°	11363.2	10307.2	4988.5	1274.1	465.8	295.3	334.4	286.5	249.1	231.2	225.5
57.5°	11917.4	10805.5	5305.0	1170.2	399.2	285.7	296.3	282.5	239.3	220.6	216.0
60°	12138.0	10786.1	5391.9	1031.4	366.8	277.6	258.9	316.4	231.2	212.5	206.9
62.5°	12018.9	10287.8	5148.5	934.1	359.4	267.1	242.7	292.8	224.8	206.9	198.8
65°	11467.8	9404.8	4503.3	908.0	380.6	256.5	232.2	229.7	216.0	198.8	190.6
67.5°	10267.4	8085.3	3605.6	910.5	407.3	245.9	221.6	210.3	203.7	189.9	182.5
70°	8362.9	6392.6	2687.7	917.1	421.1	233.6	210.3	198.0	190.6	176.9	172.0
72.5°	6149.1	4926.9	1952.7	874.9	423.6	219.9	194.8	184.3	176.9	162.4	158.2
75°	4207.0	3768.7	1354.4	724.8	369.3	200.5	177.6	168.0	163.1	145.2	142.7
77.5°	3073.2	2829.0	866.8	538.0	284.7	176.2	156.7	149.4	146.2	126.5	123.3
80°	2466.4	2238.1	542.2	368.5	208.6	147.7	131.4	127.5	124.1	104.7	102.2
82.5°	1710.7	1498.9	348.1	239.3	156.7	114.5	103.9	102.2	97.3	79.6	77.1
85°	902.4	813.9	220.6	163.1	113.5	78.6	72.2	72.2	69.8	52.8	51.1
87.5°	115.2	187.5	112.0	85.3	62.4	34.9	34.9	34.1	36.6	30.0	26.0
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°	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8
2.5°	4030.9	4069.9	4032.6	4035.0	4076.3	4199.6	4255.7	4301.8	4351.5	4383.9	4398.4
5°	2921.6	3012.5	3043.2	3108.1	3203.9	3361.4	3423.8	3469.2	3499.5	3517.1	3524.5
7.5°	1998.1	2053.1	2114.8	2219.5	2428.0	2520.7	2561.9	2551.4	2517.5	2505.2	2493.2
10°	1506.3	1484.4	1472.8	1530.6	1699.4	1792.7	1822.0	1793.5	1774.8	1779.0	1799.1
12.5°	1167.0	1128.9	1082.7	1076.1	1187.4	1270.9	1289.6	1291.0	1325.2	1355.2	1399.9
15°	850.5	846.4	823.8	810.0	873.1	941.4	949.6	964.0	995.0	1016.9	1055.7
17.5°	599.7	621.6	639.5	648.3	696.3	744.9	736.1	728.7	723.0	723.0	741.7
20°	483.7	498.2	521.1	546.9	595.8	629.7	607.8	578.6	557.4	551.1	553.5
22.5°	435.8	447.1	460.2	482.8	526.7	550.3	526.7	505.6	484.5	477.1	474.7
25°	411.5	426.0	438.3	455.2	487.7	503.9	481.3	465.8	452.8	443.9	437.3
27.5°	397.8	410.5	414.0	422.1	449.6	464.1	452.8	446.4	438.3	430.2	422.1
30°	383.0	380.6	374.9	375.6	397.8	412.2	411.5	413.0	412.2	409.8	408.3
32.5°	349.8	344.9	340.0	344.9	365.1	378.1	379.1	382.3	382.3	381.5	387.9
35°	291.4	300.2	305.9	320.6	344.9	356.2	351.3	343.2	328.7	319.6	318.9
37.5°	269.5	271.0	280.8	301.0	328.0	338.3	331.2	312.5	302.7	301.0	303.4
40°	258.9	260.4	266.1	284.7	311.5	322.1	315.7	301.9	292.8	292.1	296.3
42.5°	251.6	253.3	256.5	269.5	291.4	304.4	305.1	295.3	284.7	285.7	289.7
45°	247.4	248.4	247.4	254.0	274.2	289.7	296.3	289.7	280.8	282.5	287.2
47.5°	246.7	244.2	241.0	242.7	263.9	279.1	287.2	284.7	280.8	282.5	286.5
50°	243.5	237.8	233.6	232.9	254.0	270.2	277.6	277.6	279.1	282.5	286.5
52.5°	233.6	227.3	227.3	224.8	247.4	262.9	267.8	268.5	271.0	276.6	282.5
55°	221.6	219.1	221.6	217.4	242.7	257.2	259.7	261.4	262.9	267.8	275.9
57.5°	211.0	207.8	213.5	211.8	238.6	251.6	251.6	254.8	254.8	261.4	267.8
60°	205.4	198.8	201.2	202.9	232.9	246.7	245.2	248.4	249.9	255.8	260.4
62.5°	198.0	192.4	192.4	196.3	226.5	239.3	238.6	241.0	247.4	249.1	254.0
65°	189.2	186.7	184.3	189.2	219.9	231.2	232.2	235.4	241.0	242.7	246.7
67.5°	180.1	181.1	176.2	181.1	214.2	223.1	223.1	229.7	232.2	235.4	239.3
70°	170.5	171.2	167.1	173.0	210.3	214.2	213.5	222.3	224.1	226.5	230.4
72.5°	158.2	158.2	156.7	164.9	203.7	205.4	203.7	211.0	211.8	214.2	216.0
75°	145.2	145.2	143.7	155.0	199.7	195.6	190.6	196.3	198.0	199.7	199.7
77.5°	128.2	130.0	130.0	143.7	185.7	191.6	175.2	178.6	181.1	181.8	179.3
80°	107.1	111.3	112.8	130.7	155.8	176.9	156.7	159.0	159.9	159.9	156.7
82.5°	82.1	89.2	93.4	112.8	119.4	148.4	136.4	138.8	136.4	131.4	130.0
85°	56.8	66.6	71.5	86.0	90.2	114.5	113.5	113.5	108.8	102.2	101.5
87.5°	31.0	36.6	39.8	51.1	61.7	77.1	83.5	81.1	77.1	73.0	73.9
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8
2.5°	4474.8	4585.1	4761.3	4895.9	5031.5	5162.2	5303.5	5411.3	5503.0	5538.8	5647.4
5°	3598.5	3736.3	3902.6	4202.8	4415.6	4650.0	4921.2	5279.9	5417.7	5608.6	5920.9
7.5°	2544.3	2669.1	2936.8	3179.6	3480.8	3812.7	4178.5	4673.6	4854.6	5160.5	5669.3
10°	1899.8	2045.0	2260.0	2464.7	2730.0	3069.3	3489.6	4043.1	4263.0	4594.9	5180.9
12.5°	1530.6	1701.8	1929.8	2122.2	2327.6	2566.9	2975.2	3582.0	3876.8	4167.2	4759.5
15°	1175.8	1355.2	1567.2	1811.4	2037.7	2295.9	2723.6	3387.4	3726.5	4029.4	4534.7
17.5°	813.9	967.2	1234.3	1489.1	1779.0	2109.2	2653.8	3428.7	3833.6	4182.7	4573.8
20°	577.1	664.6	883.7	1179.3	1540.4	1954.9	2640.8	3646.1	4172.9	4571.4	4823.7
22.5°	485.2	517.6	645.2	916.1	1333.3	1839.6	2686.3	3951.3	4630.6	5139.4	5222.2
25°	442.2	461.9	528.2	719.1	1149.0	1756.1	2839.6	4405.8	5197.1	5707.6	5692.9
27.5°	418.6	439.0	482.8	607.1	1010.5	1704.3	2992.9	4944.8	5844.7	6324.3	6142.5
30°	411.5	439.0	485.2	572.2	911.5	1622.2	3118.7	5417.7	6342.9	6740.7	6347.1
32.5°	405.9	409.8	430.9	493.3	817.1	1526.4	3203.9	5842.3	6830.6	7136.7	6641.7
35°	328.0	348.1	382.3	442.2	762.1	1468.9	3203.9	6208.3	7311.2	7536.7	6922.5
37.5°	315.7	333.6	363.6	414.7	731.1	1440.4	3139.8	6561.4	7802.0	7990.5	7153.7
40°	309.3	323.8	352.3	393.6	718.1	1408.0	3046.4	6872.9	8281.6	8444.7	7369.6
42.5°	304.4	317.4	344.2	380.6	701.2	1372.4	2971.0	7122.7	8698.0	8832.7	7575.8
45°	301.9	315.7	344.9	387.2	667.0	1325.2	2945.9	7393.0	9040.5	9156.5	7798.8
47.5°	301.9	318.2	348.9	400.9	626.5	1276.5	3024.6	7749.5	9364.3	9421.1	8061.7
50°	299.5	317.4	360.4	387.2	567.3	1214.9	3209.6	8198.1	9714.9	9721.3	8394.6
52.5°	294.6	315.7	387.9	379.1	499.0	1133.8	3459.7	8774.4	10233.5	10272.3	8915.5
55°	288.9	313.2	380.6	360.4	443.2	1037.3	3664.1	9474.6	10962.2	11070.1	9681.7
57.5°	281.5	310.0	368.5	334.4	406.6	912.9	3738.0	9987.6	11471.0	11742.0	10545.0
60°	275.2	307.6	332.6	318.9	383.8	808.3	3595.0	9886.1	11436.1	12020.3	11310.3
62.5°	268.5	310.0	303.4	309.3	373.2	741.0	3221.8	9073.7	10857.5	11733.1	11877.6
65°	261.4	288.2	286.5	301.0	371.0	714.2	2670.8	7855.6	9739.2	10825.1	12011.5
67.5°	251.6	266.1	274.2	290.6	379.1	690.6	2155.3	6480.0	8185.0	9464.1	11313.5
70°	241.0	253.3	262.1	277.6	374.2	680.0	1792.7	5110.1	6494.8	7756.6	9936.5
72.5°	227.3	237.8	245.9	260.4	369.3	674.4	1514.4	4115.4	4849.0	5761.9	8078.9
75°	211.0	220.6	226.5	241.0	353.8	617.6	1190.6	3482.3	3628.4	4008.3	6434.6
77.5°	192.4	199.7	204.4	220.6	313.2	513.7	861.1	2686.3	2817.7	2910.1	4933.2
80°	170.5	177.6	180.1	195.6	259.7	401.7	561.6	1984.1	2107.4	2128.6	3221.8
82.5°	145.2	152.6	152.6	167.1	212.5	288.9	368.5	1359.3	1383.7	1455.2	2277.2
85°	116.9	122.6	122.6	130.0	164.9	216.0	253.3	682.5	675.1	770.9	1972.8
87.5°	83.5	87.7	91.6	93.4	117.7	142.7	152.6	207.8	137.1	157.5	1266.7
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°	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8	4987.8
2.5°	5729.5	5775.7	5728.5	5694.6	5547.7	5426.8	5265.2	5182.4
5°	6158.7	6276.4	6236.6	6093.8	5787.0	5442.0	5050.2	4873.3
7.5°	6106.8	6380.3	6386.7	6119.9	5667.8	5159.8	4629.1	4377.5
10°	5702.7	6052.3	6152.3	5893.4	5413.8	4845.8	4237.0	3949.8
12.5°	5251.4	5593.9	5670.3	5580.8	5180.1	4609.4	3992.0	3710.2
15°	4882.1	5035.7	5126.3	5204.5	4979.7	4515.3	3978.0	3669.0
17.5°	4657.3	4640.4	4666.4	4801.8	4839.9	4623.2	4189.1	3848.3
20°	4576.3	4315.8	4309.2	4495.9	4774.3	4880.7	4601.3	4192.3
22.5°	4621.0	4198.9	4145.3	4366.9	4809.2	5251.4	5141.8	4675.3
25°	4775.0	4208.7	4165.5	4380.0	4935.7	5646.7	5725.3	5300.0
27.5°	5017.8	4270.4	4213.4	4433.5	5103.7	5978.6	6300.0	5905.6
30°	5248.2	4377.5	4306.8	4538.9	5257.0	6110.0	6652.3	6377.8
32.5°	5528.3	4578.0	4453.7	4732.8	5447.0	6319.4	6966.2	6769.0
35°	5802.5	4863.5	4709.4	5032.2	5658.7	6580.0	7324.9	7268.9
37.5°	6103.7	5236.9	5109.4	5419.4	5948.6	6825.7	7782.6	7854.9
40°	6425.0	5731.9	5580.8	5984.3	6398.2	7134.3	8260.7	8434.2
42.5°	6748.8	6281.3	6101.2	6510.0	6892.3	7438.4	8669.5	8927.0
45°	7119.5	6877.8	6792.5	7234.8	7367.2	7728.3	8971.5	9291.3
47.5°	7551.4	7554.6	7691.7	7868.6	7846.0	8056.1	9275.1	9616.6
50°	8055.3	8399.3	8702.2	8819.6	8339.3	8408.4	9696.2	10052.5
52.5°	8660.7	9409.8	9784.7	9707.5	8871.0	8838.3	10363.2	10652.9
55°	9417.9	10479.4	10851.9	10796.6	9482.0	9424.3	11194.4	11363.2
57.5°	10294.2	11515.7	11858.2	11609.8	10215.6	10067.2	11881.8	11917.4
60°	11064.4	12337.0	12637.2	12362.1	10955.8	10751.2	12311.0	12138.0
62.5°	11492.9	12615.4	12826.4	12530.1	11462.9	11479.9	12405.1	12018.9
65°	11301.5	11911.8	11979.8	11955.5	11332.2	11902.7	12066.8	11467.8
67.5°	10252.9	10132.8	10247.3	10405.5	10212.4	11346.0	11129.3	10267.4
70°	8405.9	7746.0	7974.3	8080.4	8168.1	9763.5	9659.6	8362.9
72.5°	6334.8	5426.8	5606.9	5585.0	5990.6	7831.3	7512.4	6149.1
75°	4488.6	3679.5	3702.1	3693.3	4180.2	6127.0	5439.8	4207.0
77.5°	3140.5	2665.9	2678.1	2728.3	2810.3	4621.0	3886.4	3073.2
80°	2159.5	2023.2	2090.5	2094.7	1947.7	3104.2	2871.3	2466.4
82.5°	1608.5	1406.3	1390.1	1413.6	1526.4	2515.0	2206.4	1710.7
85°	1317.1	832.6	669.5	839.2	1352.7	2490.7	1465.7	902.4
87.5°	741.7	395.3	178.6	331.2	539.8	1649.0	423.6	115.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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