

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: P299347

Luminaire Tested: **GLNA-AF-03-LED-E1-SLR-7027**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299347
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-7027
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(3) 70 CRI, 2700K 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: 13829.8 lumens
Efficiency: N/A
Efficacy: 83.3 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): 166
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

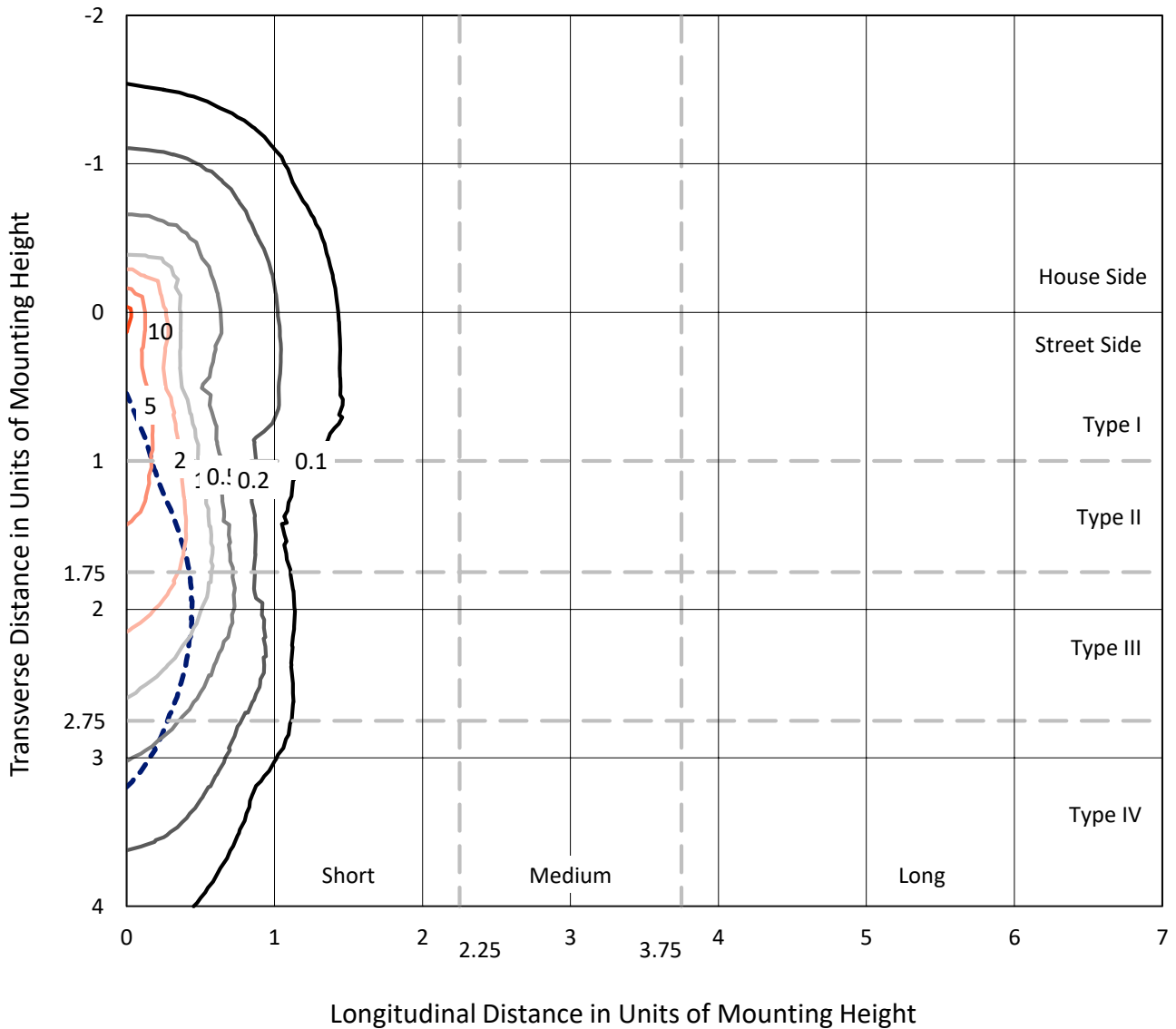


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Iso-Footcandle Lines of Horizontal Illumination

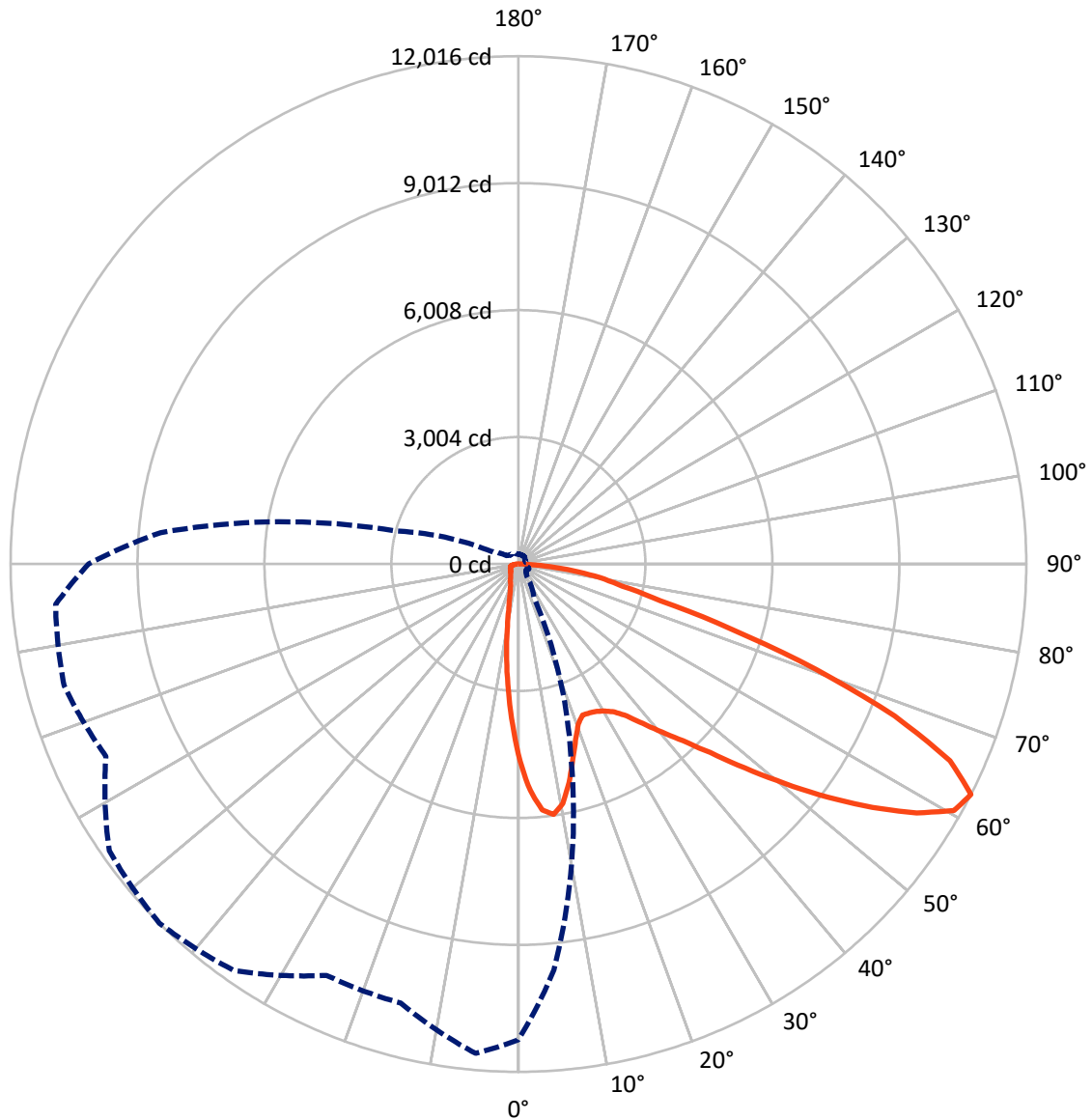
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 11.7 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	2288.7	0.0	2288.7
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	11541.2	0.0	11541.2
	% Fixture	83.5	0.0	83.5
Total	Lumens	13829.8	0.0	13829.8
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	340.1	2.5
10°-20°	623.7	4.5
20°-30°	909.4	6.6
30°-40°	1400.6	10.1
40°-50°	2061.3	14.9
50°-60°	3023.4	21.9
60°-70°	3379.8	24.4
70°-80°	1654.7	12.0
80°-90°	436.9	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°	13829.8	100.0
0°-180°	13829.8	100.0

Coefficient of Utilization



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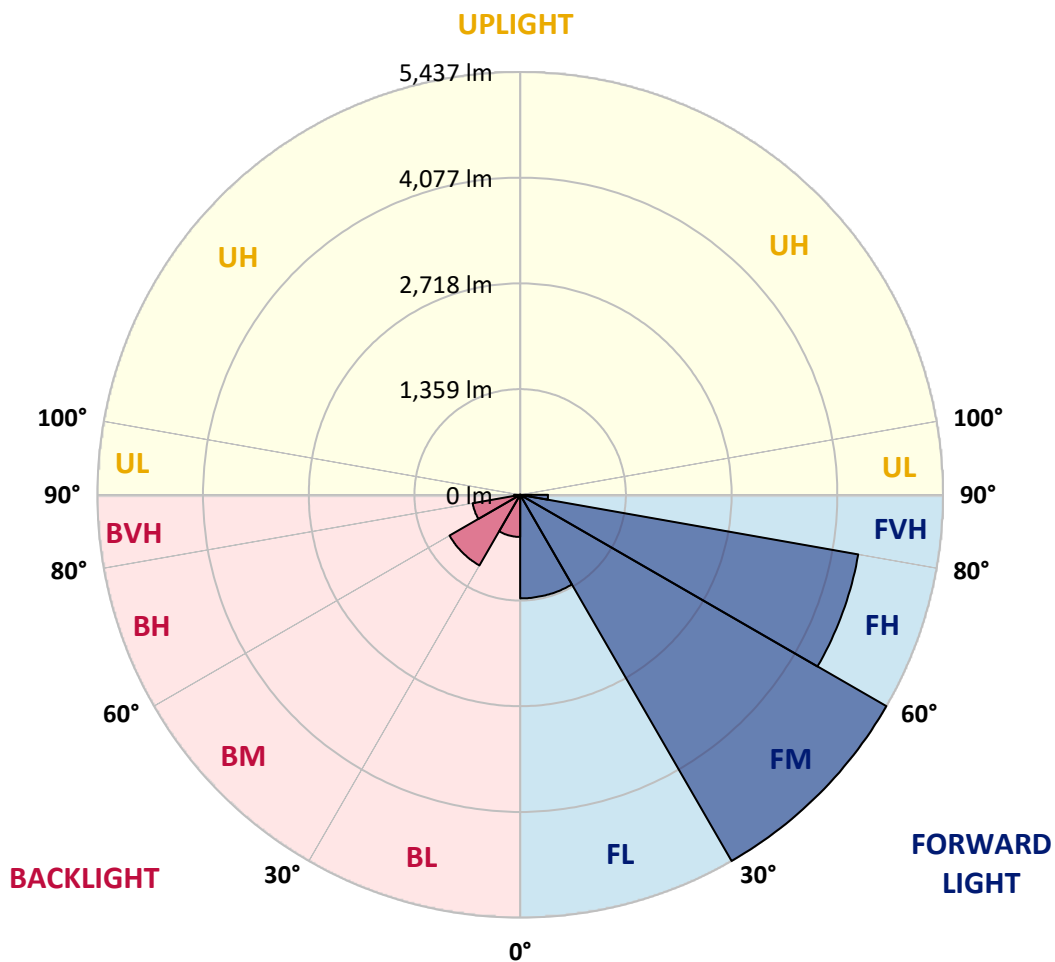
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1331.8	9.6			
FM	(30°-60°)	5436.6	39.3			
FH	(60°-80°)	4414.0	31.9			G2/5000
FVH	(80°-90°)	358.8	2.6			G3/500
BL	(0°-30°)	541.5	3.9	B2/1000		
BM	(30°-60°)	1048.6	7.6	B2/2500		
BH	(60°-80°)	620.5	4.5	B2/1000		G2/1000
BVH	(80°-90°)	78.1	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°	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5
2.5°	4854.8	4756.1	4591.8	4420.8	4316.7	4195.0	4099.9	4016.4	3849.1	3816.4	3846.1
5°	4565.3	4366.9	4057.4	3745.7	3538.1	3315.3	3142.0	3003.0	2790.8	2753.5	2798.4
7.5°	4100.8	3863.6	3454.6	3056.9	2763.4	2485.2	2298.3	2149.2	1983.5	1912.1	1916.5
10°	3700.2	3432.5	2948.9	2516.5	2276.2	2088.4	1931.0	1778.2	1610.1	1499.9	1469.5
12.5°	3475.8	3168.0	2610.6	2224.4	2001.6	1804.2	1634.5	1471.1	1291.6	1179.1	1147.3
15°	3437.1	3102.4	2483.8	2037.5	1758.4	1508.4	1308.4	1125.9	941.1	850.0	830.8
17.5°	3605.1	3219.6	2442.6	1870.9	1529.6	1221.0	975.4	771.7	621.2	575.6	571.7
20°	3927.3	3444.7	2437.3	1714.4	1303.8	942.0	679.6	531.4	465.4	452.2	453.2
22.5°	4379.8	3793.6	2502.7	1596.6	1096.2	702.4	510.9	444.7	418.9	406.7	406.7
25°	4965.1	4274.2	2653.2	1510.7	916.0	561.1	450.9	411.3	386.9	378.6	380.2
27.5°	5532.4	4741.6	2828.1	1443.1	798.2	509.3	427.2	391.5	370.3	361.8	365.7
30°	5974.7	5156.8	2974.0	1351.0	738.1	494.8	435.7	399.1	368.7	355.8	356.5
32.5°	6341.1	5520.2	3096.5	1284.7	684.9	424.2	375.6	359.5	355.8	340.6	333.0
35°	6809.5	5916.3	3178.6	1286.3	659.8	378.6	334.4	306.3	285.8	268.4	268.4
37.5°	7358.4	6370.8	3266.1	1303.8	650.9	351.9	320.1	291.8	273.0	256.2	253.2
40°	7901.1	6816.4	3346.0	1320.6	645.3	336.0	308.6	282.9	265.4	248.6	244.0
42.5°	8362.8	7182.8	3417.3	1328.9	627.2	334.4	300.3	276.6	260.1	241.7	237.3
45°	8704.1	7489.8	3494.2	1341.8	609.0	340.6	300.3	276.0	255.5	238.0	233.4
47.5°	9008.8	7850.3	3622.6	1341.8	586.9	329.1	310.2	276.6	254.8	236.4	232.7
50°	9417.1	8344.4	3865.9	1310.7	555.8	316.9	326.8	273.7	247.9	233.4	228.8
52.5°	9979.6	8977.8	4252.1	1256.6	507.9	293.4	324.5	272.3	241.0	225.8	220.5
55°	10645.0	9655.8	4673.2	1193.6	436.4	276.6	313.2	268.4	233.4	216.6	211.3
57.5°	11164.2	10122.5	4969.7	1096.2	374.0	267.7	277.6	264.7	224.2	206.7	202.3
60°	11370.9	10104.4	5051.1	966.2	343.6	260.1	242.6	296.4	216.6	199.1	193.8
62.5°	11259.3	9637.6	4823.1	875.0	336.7	250.2	227.4	274.3	210.6	193.8	186.2
65°	10743.0	8810.4	4218.7	850.6	356.5	240.3	217.5	215.2	202.3	186.2	178.6
67.5°	9618.5	7574.3	3377.7	852.9	381.6	230.4	207.6	197.0	190.8	177.9	171.0
70°	7834.4	5988.6	2517.9	859.2	394.5	218.9	197.0	185.5	178.6	165.7	161.1
72.5°	5760.5	4615.5	1829.2	819.6	396.8	206.0	182.5	172.6	165.7	152.1	148.2
75°	3941.1	3530.5	1268.8	678.9	345.9	187.8	166.4	157.4	152.8	136.0	133.7
77.5°	2879.0	2650.2	812.0	504.0	266.7	165.0	146.8	139.9	136.9	118.5	115.5
80°	2310.5	2096.7	507.9	345.2	195.4	138.3	123.1	119.4	116.2	98.0	95.7
82.5°	1602.5	1404.2	326.1	224.2	146.8	107.3	97.4	95.7	91.1	74.6	72.3
85°	845.3	762.5	206.7	152.8	106.3	73.6	67.7	67.7	65.4	49.5	47.9
87.5°	107.9	175.6	104.9	79.9	58.5	32.7	32.7	32.0	34.3	28.1	24.4
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5
2.5°	3776.1	3812.7	3777.7	3780.0	3818.7	3934.2	3986.7	4030.0	4076.5	4106.8	4120.4
5°	2737.0	2822.1	2850.9	2911.7	3001.4	3148.9	3207.4	3250.0	3278.3	3294.9	3301.8
7.5°	1871.8	1923.4	1981.1	2079.2	2274.6	2361.4	2400.0	2390.1	2358.4	2346.9	2335.6
10°	1411.1	1390.6	1379.8	1433.8	1592.0	1679.4	1706.8	1680.1	1662.6	1666.5	1685.4
12.5°	1093.2	1057.5	1014.3	1008.1	1112.3	1190.6	1208.1	1209.4	1241.4	1269.5	1311.4
15°	796.8	792.9	771.7	758.8	818.0	881.9	889.5	903.1	932.1	952.6	989.0
17.5°	561.8	582.3	599.1	607.4	652.3	697.8	689.5	682.6	677.3	677.3	694.8
20°	453.2	466.7	488.2	512.3	558.1	589.9	569.4	542.0	522.2	516.2	518.5
22.5°	408.3	418.9	431.1	452.2	493.4	515.5	493.4	473.7	453.9	447.0	444.7
25°	385.5	399.1	410.6	426.5	456.9	472.0	450.9	436.4	424.2	415.9	409.7
27.5°	372.6	384.6	387.8	395.4	421.2	434.8	424.2	418.2	410.6	403.0	395.4
30°	358.8	356.5	351.2	351.9	372.6	386.2	385.5	386.9	386.2	383.9	382.5
32.5°	327.7	323.1	318.5	323.1	342.0	354.2	355.1	358.1	358.1	357.4	363.4
35°	273.0	281.2	286.5	300.3	323.1	333.7	329.1	321.5	307.9	299.4	298.7
37.5°	252.5	253.9	263.1	281.9	307.3	316.9	310.2	292.8	283.5	281.9	284.2
40°	242.6	244.0	249.3	266.7	291.8	301.7	295.7	282.9	274.3	273.7	277.6
42.5°	235.7	237.3	240.3	252.5	273.0	285.2	285.8	276.6	266.7	267.7	271.3
45°	231.8	232.7	231.8	238.0	256.8	271.3	277.6	271.3	263.1	264.7	269.0
47.5°	231.1	228.8	225.8	227.4	247.2	261.5	269.0	266.7	263.1	264.7	268.4
50°	228.1	222.8	218.9	218.2	238.0	253.2	260.1	260.1	261.5	264.7	268.4
52.5°	218.9	212.9	212.9	210.6	231.8	246.3	250.9	251.6	253.9	259.2	264.7
55°	207.6	205.3	207.6	203.7	227.4	241.0	243.3	244.9	246.3	250.9	258.5
57.5°	197.7	194.7	200.0	198.4	223.5	235.7	235.7	238.7	238.7	244.9	250.9
60°	192.4	186.2	188.5	190.1	218.2	231.1	229.7	232.7	234.1	239.6	244.0
62.5°	185.5	180.2	180.2	183.9	212.2	224.2	223.5	225.8	231.8	233.4	238.0
65°	177.2	174.9	172.6	177.2	206.0	216.6	217.5	220.5	225.8	227.4	231.1
67.5°	168.7	169.6	165.0	169.6	200.7	209.0	209.0	215.2	217.5	220.5	224.2
70°	159.7	160.4	156.5	162.0	197.0	200.7	200.0	208.3	209.9	212.2	215.9
72.5°	148.2	148.2	146.8	154.4	190.8	192.4	190.8	197.7	198.4	200.7	202.3
75°	136.0	136.0	134.6	145.2	187.1	183.2	178.6	183.9	185.5	187.1	187.1
77.5°	120.1	121.8	121.8	134.6	174.0	179.5	164.1	167.3	169.6	170.3	168.0
80°	100.3	104.3	105.6	122.4	145.9	165.7	146.8	148.9	149.8	149.8	146.8
82.5°	76.9	83.5	87.5	105.6	111.9	139.0	127.7	130.0	127.7	123.1	121.8
85°	53.2	62.4	67.0	80.6	84.5	107.3	106.3	106.3	102.0	95.7	95.1
87.5°	29.0	34.3	37.3	47.9	57.8	72.3	78.3	76.0	72.3	68.4	69.3
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5
2.5°	4192.0	4295.3	4460.3	4586.5	4713.5	4836.0	4968.3	5069.3	5155.2	5188.8	5290.5
5°	3371.0	3500.2	3656.0	3937.2	4136.5	4356.1	4610.2	4946.2	5075.3	5254.1	5546.7
7.5°	2383.5	2500.4	2751.2	2978.6	3260.8	3571.7	3914.4	4378.2	4547.8	4834.3	5311.0
10°	1779.8	1915.8	2117.2	2308.9	2557.4	2875.3	3269.1	3787.6	3993.6	4304.5	4853.4
12.5°	1433.8	1594.3	1807.8	1988.1	2180.5	2404.6	2787.1	3355.6	3631.8	3903.8	4458.7
15°	1101.5	1269.5	1468.1	1696.9	1908.9	2150.8	2551.5	3173.3	3490.9	3774.7	4248.1
17.5°	762.5	906.1	1156.3	1395.0	1666.5	1975.9	2486.1	3212.0	3591.3	3918.3	4284.7
20°	540.6	622.6	827.9	1104.7	1443.1	1831.3	2473.9	3415.7	3909.1	4282.4	4518.8
22.5°	454.6	484.9	604.4	858.2	1249.0	1723.4	2516.5	3701.5	4337.9	4814.6	4892.1
25°	414.3	432.7	494.8	673.7	1076.4	1645.1	2660.1	4127.3	4868.6	5346.9	5333.1
27.5°	392.2	411.3	452.2	568.7	946.6	1596.6	2803.7	4632.3	5475.3	5924.6	5754.3
30°	385.5	411.3	454.6	536.0	853.9	1519.7	2921.5	5075.3	5942.1	6314.7	5946.0
32.5°	380.2	383.9	403.7	462.1	765.5	1429.9	3001.4	5473.0	6398.9	6685.7	6221.9
35°	307.3	326.1	358.1	414.3	713.9	1376.1	3001.4	5815.9	6849.1	7060.4	6485.0
37.5°	295.7	312.5	340.6	388.5	684.9	1349.4	2941.3	6146.7	7308.9	7485.5	6701.6
40°	289.8	303.3	330.0	368.7	672.7	1319.0	2853.9	6438.5	7758.2	7911.0	6903.9
42.5°	285.2	297.4	322.4	356.5	656.9	1285.6	2783.2	6672.6	8148.3	8274.4	7097.0
45°	282.9	295.7	323.1	362.7	624.9	1241.4	2759.8	6925.7	8469.1	8577.8	7305.9
47.5°	282.9	298.0	326.8	375.6	586.9	1195.9	2833.4	7259.7	8772.5	8825.6	7552.2
50°	280.6	297.4	337.6	362.7	531.4	1138.1	3006.7	7679.9	9100.9	9106.9	7864.1
52.5°	276.0	295.7	363.4	355.1	467.4	1062.2	3241.0	8219.9	9586.8	9623.1	8352.0
55°	270.7	293.4	356.5	337.6	415.2	971.7	3432.5	8875.8	10269.4	10370.4	9069.8
57.5°	263.8	290.5	345.2	313.2	380.9	855.2	3501.8	9356.4	10746.0	10999.9	9878.6
60°	257.8	288.2	311.6	298.7	359.5	757.2	3367.8	9261.3	10713.3	11260.6	10595.5
62.5°	251.6	290.5	284.2	289.8	349.6	694.1	3018.2	8500.2	10171.3	10991.6	11126.9
65°	244.9	270.0	268.4	281.9	347.5	669.1	2502.0	7359.1	9123.7	10141.0	11252.4
67.5°	235.7	249.3	256.8	272.3	355.1	647.0	2019.1	6070.5	7667.7	8865.9	10598.5
70°	225.8	237.3	245.6	260.1	350.5	637.1	1679.4	4787.2	6084.3	7266.4	9308.5
72.5°	212.9	222.8	230.4	244.0	345.9	631.8	1418.7	3855.3	4542.5	5397.8	7568.3
75°	197.7	206.7	212.2	225.8	331.4	578.6	1115.3	3262.2	3399.1	3754.9	6027.9
77.5°	180.2	187.1	191.5	206.7	293.4	481.2	806.7	2516.5	2639.6	2726.2	4621.5
80°	159.7	166.4	168.7	183.2	243.3	376.3	526.1	1858.7	1974.2	1994.0	3018.2
82.5°	136.0	142.9	142.9	156.5	199.1	270.7	345.2	1273.4	1296.2	1363.2	2133.3
85°	109.6	114.8	114.8	121.8	154.4	202.3	237.3	639.4	632.5	722.2	1848.1
87.5°	78.3	82.2	85.8	87.5	110.2	133.7	142.9	194.7	128.4	147.5	1186.7
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°	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5	4672.5
2.5°	5367.4	5410.6	5366.5	5334.7	5197.1	5083.8	4932.4	4854.8
5°	5769.5	5879.7	5842.4	5708.7	5421.2	5098.1	4731.0	4565.3
7.5°	5720.9	5977.0	5983.0	5733.1	5309.6	4833.7	4336.5	4100.8
10°	5342.3	5669.8	5763.5	5520.9	5071.6	4539.5	3969.2	3700.2
12.5°	4919.5	5240.3	5311.9	5228.1	4852.8	4318.1	3739.7	3475.8
15°	4573.6	4717.4	4802.4	4875.5	4665.0	4230.0	3726.6	3437.1
17.5°	4363.0	4347.1	4371.5	4498.3	4534.0	4331.0	3924.3	3605.1
20°	4287.0	4043.1	4036.9	4211.8	4472.5	4572.2	4310.5	3927.3
22.5°	4328.9	3933.5	3883.4	4091.0	4505.2	4919.5	4816.9	4379.8
25°	4473.2	3942.7	3902.2	4103.2	4623.8	5289.8	5363.5	4965.1
27.5°	4700.6	4000.5	3947.1	4153.3	4781.2	5600.7	5901.8	5532.4
30°	4916.5	4100.8	4034.6	4252.1	4924.8	5723.9	6231.8	5974.7
32.5°	5178.9	4288.7	4172.2	4433.6	5102.7	5920.0	6526.0	6341.1
35°	5435.7	4556.1	4411.8	4714.2	5301.1	6164.2	6862.0	6809.5
37.5°	5717.9	4905.9	4786.5	5076.9	5572.7	6394.3	7290.8	7358.4
40°	6018.9	5369.7	5228.1	5606.0	5993.8	6683.4	7738.6	7901.1
42.5°	6322.3	5884.3	5715.6	6098.6	6456.7	6968.3	8121.6	8362.8
45°	6669.6	6443.1	6363.2	6777.5	6901.6	7239.9	8404.5	8704.1
47.5°	7074.2	7077.2	7205.6	7371.3	7350.1	7546.9	8688.9	9008.8
50°	7546.2	7868.4	8152.2	8262.2	7812.3	7877.0	9083.4	9417.1
52.5°	8113.3	8815.1	9166.3	9094.0	8310.3	8279.7	9708.3	9979.6
55°	8822.6	9817.1	10166.0	10114.3	8882.7	8828.6	10486.9	10645.0
57.5°	9643.6	10787.9	11108.7	10876.1	9570.0	9430.9	11130.8	11164.2
60°	10365.1	11557.3	11838.6	11580.8	10263.4	10071.7	11532.9	11370.9
62.5°	10766.5	11818.1	12015.8	11738.2	10738.4	10754.3	11621.1	11259.3
65°	10587.2	11158.9	11222.7	11199.9	10616.0	11150.4	11304.1	10743.0
67.5°	9604.9	9492.4	9599.6	9747.9	9567.0	10628.9	10425.9	9618.5
70°	7874.7	7256.5	7470.3	7569.7	7651.9	9146.5	9049.1	7834.4
72.5°	5934.5	5083.8	5252.5	5232.0	5612.0	7336.3	7037.6	5760.5
75°	4204.9	3447.0	3468.2	3459.9	3916.0	5739.8	5096.0	3941.1
77.5°	2942.0	2497.4	2508.9	2555.8	2632.7	4328.9	3640.8	2879.0
80°	2023.0	1895.3	1958.4	1962.3	1824.6	2908.0	2689.8	2310.5
82.5°	1506.8	1317.4	1302.2	1324.3	1429.9	2356.1	2067.0	1602.5
85°	1233.8	780.0	627.2	786.2	1267.2	2333.3	1373.1	845.3
87.5°	694.8	370.3	167.3	310.2	505.6	1544.8	396.8	107.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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