

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: P299497

Luminaire Tested: **GLNA-AF-08-LED-E1-SLR-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299497
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-08-LED-E1-SLR-7027-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(8) 70 CRI, 2700K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Right OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 23916.5 lumens
Efficiency: N/A
Efficacy: 93.1 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B3 - U0 - G4

Input Watts (W): 257
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

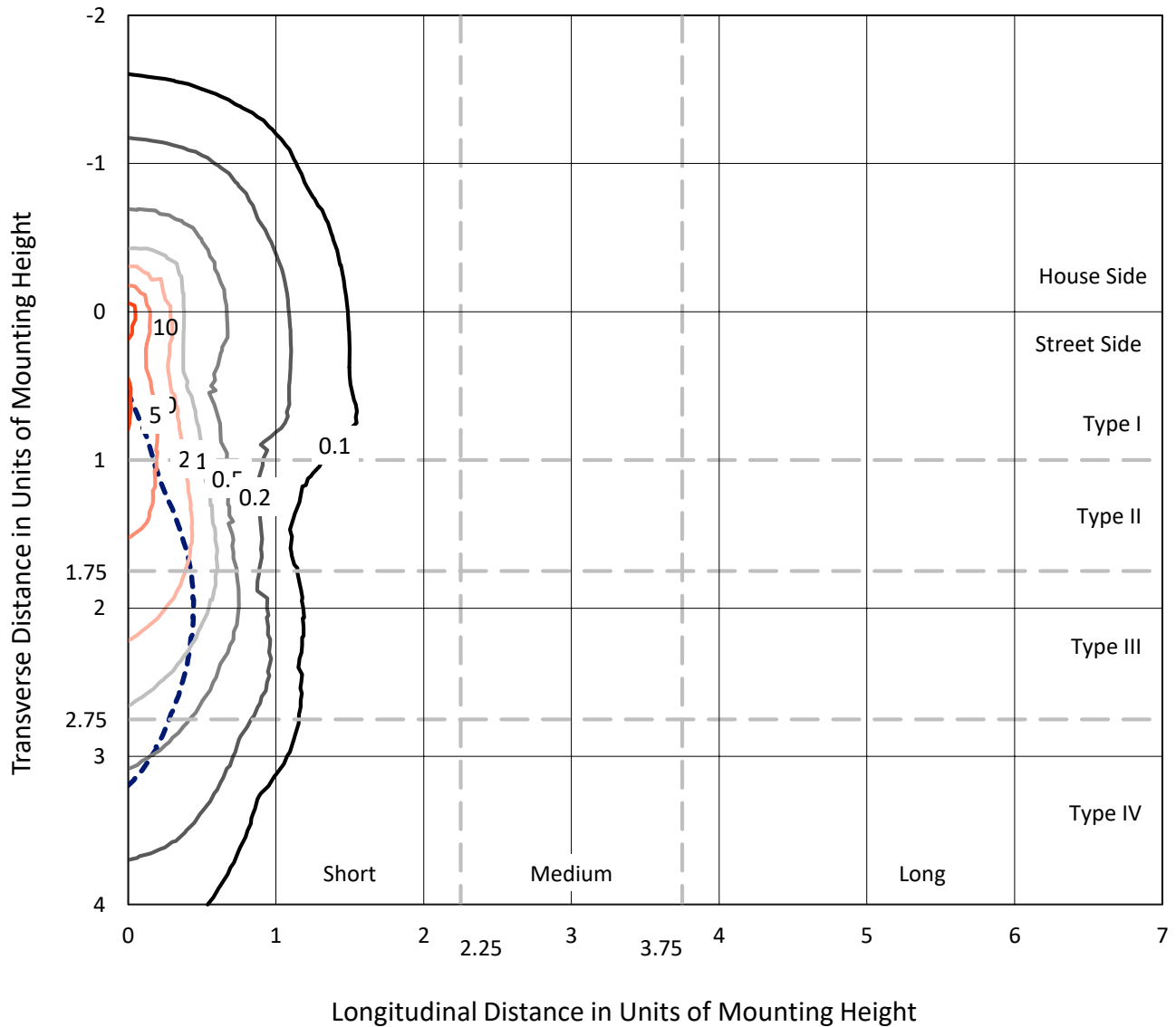


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Iso-Footcandle Lines of Horizontal Illumination

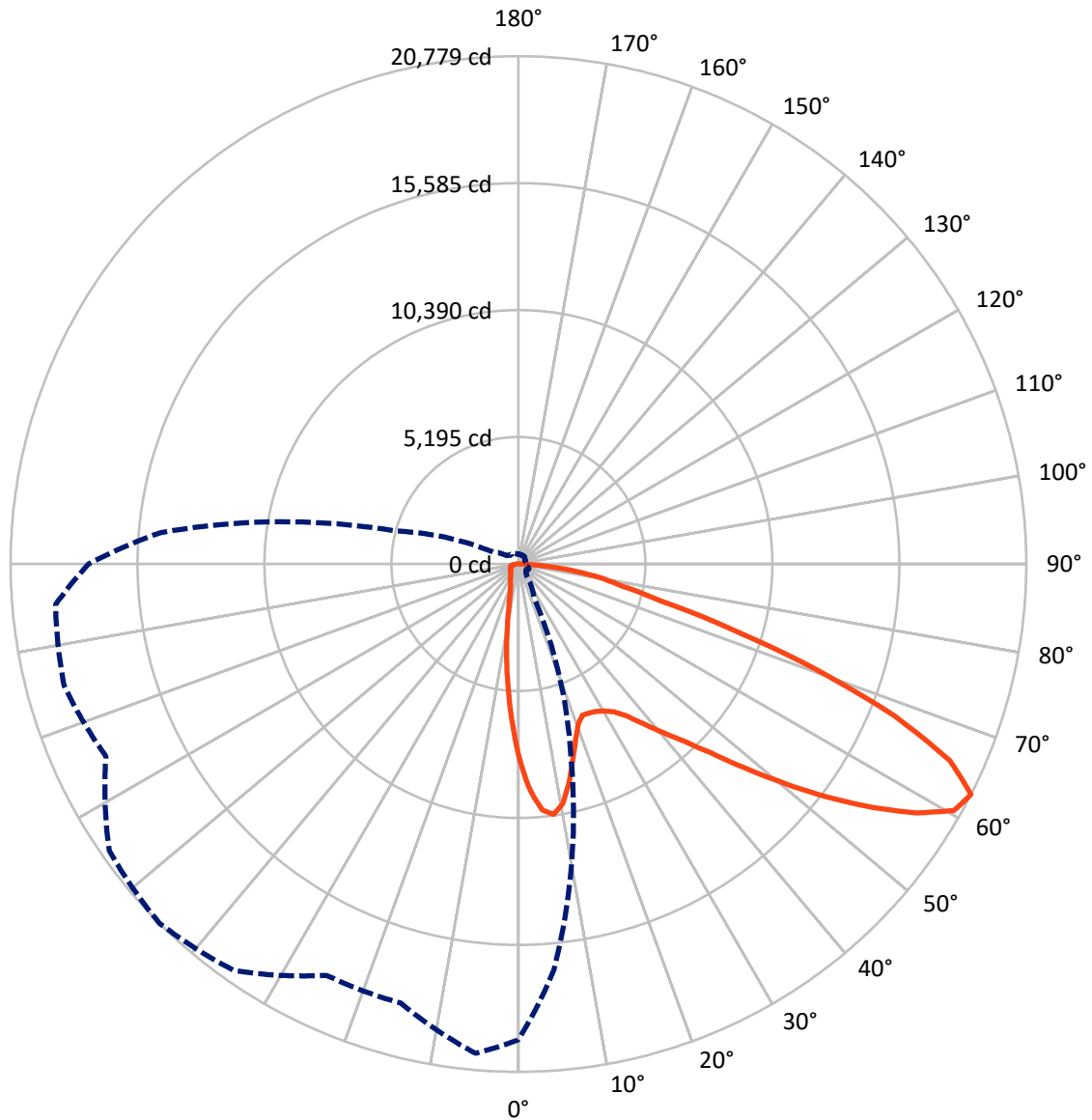
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.9 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
House Side	Lumens	3957.9	0.0	3957.9
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	19958.7	0.0	19958.7
	% Fixture	83.5	0.0	83.5
Total	Lumens	23916.5	0.0	23916.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	588.2	2.5
10°-20°	1078.6	4.5
20°-30°	1572.6	6.6
30°-40°	2422.1	10.1
40°-50°	3564.6	14.9
50°-60°	5228.6	21.9
60°-70°	5844.8	24.4
70°-80°	2861.5	12.0
80°-90°	755.5	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°	23916.5	100.0
0°-180°	23916.5	100.0

Coefficient of Utilization



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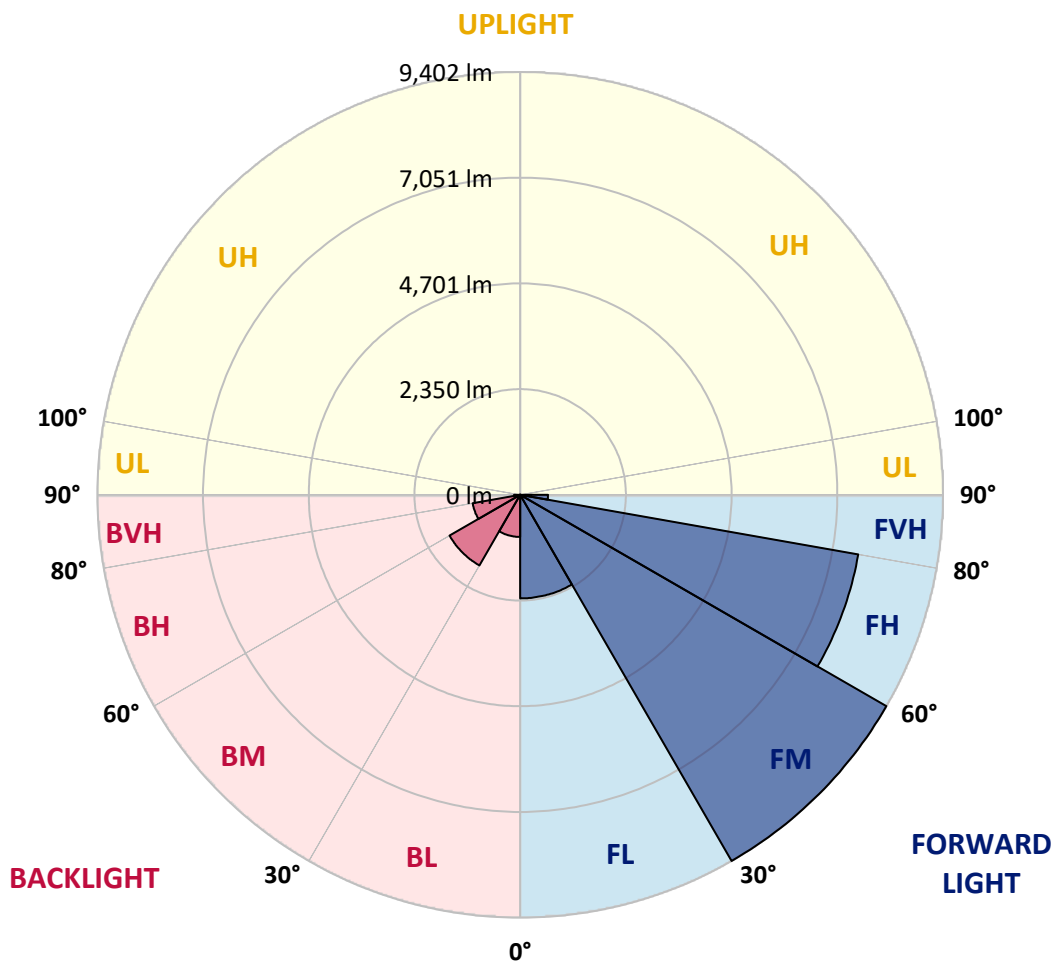
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	2303.1	9.6			
FM	(30°-60°)	9401.8	39.3			
FH	(60°-80°)	7633.3	31.9			G4/12000
FVH	(80°-90°)	620.5	2.6			G4/750
BL	(0°-30°)	936.4	3.9	B2/1000		
BM	(30°-60°)	1813.5	7.6	B2/2500		
BH	(60°-80°)	1073.0	4.5	B3/2500		G3/2500
BVH	(80°-90°)	135.1	0.6			G2/225
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B3-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4
2.5°	8395.7	8224.9	7940.7	7645.0	7465.1	7254.6	7090.2	6945.7	6656.3	6599.8	6651.2
5°	7895.0	7551.9	7016.5	6477.6	6118.6	5733.4	5433.7	5193.3	4826.3	4761.8	4839.4
7.5°	7091.8	6681.4	5974.2	5286.4	4778.9	4297.7	3974.5	3716.6	3430.1	3306.7	3314.2
10°	6398.8	5935.9	5099.7	4351.9	3936.3	3611.6	3339.3	3075.0	2784.5	2593.8	2541.3
12.5°	6010.8	5478.6	4514.6	3846.8	3461.5	3120.0	2826.7	2544.1	2233.6	2039.0	1984.1
15°	5943.9	5365.2	4295.3	3523.6	3040.8	2608.6	2262.7	1947.1	1627.5	1469.9	1436.8
17.5°	6234.5	5567.8	4224.1	3235.4	2645.2	2111.5	1686.8	1334.5	1074.2	995.4	988.7
20°	6791.7	5957.0	4214.9	2964.8	2254.7	1629.1	1175.3	919.0	804.8	782.1	783.7
22.5°	7574.2	6560.4	4328.0	2761.0	1895.7	1214.7	883.6	769.0	724.4	703.3	703.3
25°	8586.3	7391.5	4588.3	2612.5	1584.1	970.4	779.7	711.2	669.1	654.7	657.5
27.5°	9567.4	8199.8	4890.8	2495.5	1380.3	880.8	738.7	677.0	640.4	625.7	632.4
30°	10332.4	8917.9	5143.1	2336.3	1276.4	855.7	753.4	690.2	637.6	615.3	616.5
32.5°	10966.0	9546.3	5354.9	2221.7	1184.5	733.5	649.6	621.7	615.3	589.1	575.9
35°	11776.0	10231.3	5496.9	2224.5	1141.1	654.7	578.3	529.8	494.3	464.1	464.1
37.5°	12725.2	11017.4	5648.2	2254.7	1125.6	608.6	553.6	504.7	472.0	443.0	437.8
40°	13663.7	11787.9	5786.3	2283.8	1116.0	581.1	533.7	489.2	458.9	429.9	421.9
42.5°	14462.2	12421.5	5909.7	2298.1	1084.6	578.3	519.4	478.4	449.8	417.9	410.4
45°	15052.4	12952.5	6042.6	2320.4	1053.1	589.1	519.4	477.2	441.8	411.5	403.6
47.5°	15579.4	13575.8	6264.7	2320.4	1014.9	569.2	536.5	478.4	440.6	408.8	402.4
50°	16285.4	14430.3	6685.4	2266.7	961.2	548.1	565.2	473.2	428.7	403.6	395.6
52.5°	17258.2	15525.6	7353.3	2173.1	878.4	507.5	561.2	470.8	416.7	390.4	381.3
55°	18408.8	16698.2	8081.6	2064.1	754.6	478.4	541.7	464.1	403.6	374.5	365.4
57.5°	19306.8	17505.4	8594.3	1895.7	646.8	462.9	480.0	457.7	387.7	357.4	349.9
60°	19664.2	17473.9	8735.2	1670.9	594.2	449.8	419.5	512.6	374.5	344.3	335.1
62.5°	19471.1	16666.7	8340.7	1513.2	582.3	432.6	393.2	474.4	364.2	335.1	322.0
65°	18578.4	15236.3	7295.6	1471.1	616.5	415.5	376.1	372.1	349.9	322.0	308.9
67.5°	16633.7	13098.6	5841.2	1475.0	659.9	398.4	359.0	340.7	330.0	307.7	295.7
70°	13548.3	10356.3	4354.2	1485.8	682.2	378.5	340.7	320.8	308.9	286.6	278.6
72.5°	9961.8	7981.7	3163.4	1417.3	686.2	356.2	315.6	298.5	286.6	263.1	256.3
75°	6815.6	6105.5	2194.2	1174.1	598.2	324.8	287.8	272.2	264.3	235.2	231.2
77.5°	4978.7	4583.1	1404.2	871.6	461.3	285.4	253.9	242.0	236.8	205.0	199.8
80°	3995.6	3625.9	878.4	597.0	337.9	239.2	212.9	206.6	201.0	169.6	165.6
82.5°	2771.4	2428.3	564.0	387.7	253.9	185.5	168.4	165.6	157.6	129.0	125.0
85°	1461.9	1318.6	357.4	264.3	183.9	127.4	117.0	117.0	113.0	85.6	82.8
87.5°	186.7	303.7	181.5	138.1	101.1	56.5	56.5	55.3	59.3	48.6	42.2
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°	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4
2.5°	6530.2	6593.5	6533.0	6536.9	6603.8	6803.6	6894.4	6969.2	7049.6	7102.1	7125.6
5°	4733.2	4880.4	4930.2	5035.2	5190.5	5445.6	5546.7	5620.3	5669.3	5697.9	5709.9
7.5°	3237.0	3326.2	3426.1	3595.6	3933.6	4083.6	4150.5	4133.4	4078.4	4058.5	4039.0
10°	2440.2	2404.8	2386.1	2479.6	2753.0	2904.3	2951.7	2905.5	2875.2	2882.0	2914.6
12.5°	1890.6	1828.9	1754.0	1743.3	1923.6	2058.9	2089.2	2091.6	2146.9	2195.4	2267.9
15°	1377.9	1371.2	1334.5	1312.2	1414.5	1525.2	1538.3	1561.8	1611.9	1647.4	1710.3
17.5°	971.5	1007.0	1036.0	1050.4	1128.0	1206.8	1192.4	1180.5	1171.3	1171.3	1201.6
20°	783.7	807.2	844.2	886.0	965.2	1020.1	984.7	937.3	903.1	892.7	896.7
22.5°	706.1	724.4	745.5	782.1	853.3	891.5	853.3	819.1	784.9	772.9	769.0
25°	666.7	690.2	710.1	737.5	790.1	816.3	779.7	754.6	733.5	719.2	708.5
27.5°	644.4	665.1	670.6	683.8	728.4	751.8	733.5	723.2	710.1	696.9	683.8
30°	620.5	616.5	607.4	608.6	644.4	667.9	666.7	669.1	667.9	663.9	661.5
32.5°	566.8	558.8	550.8	558.8	591.4	612.5	614.1	619.3	619.3	618.1	628.5
35°	472.0	486.4	495.5	519.4	558.8	577.1	569.2	556.0	532.5	517.8	516.6
37.5°	436.6	439.0	454.9	487.6	531.3	548.1	536.5	506.3	490.4	487.6	491.5
40°	419.5	421.9	431.0	461.3	504.7	521.8	511.4	489.2	474.4	473.2	480.0
42.5°	407.6	410.4	415.5	436.6	472.0	493.1	494.3	478.4	461.3	462.9	469.3
45°	400.8	402.4	400.8	411.5	444.2	469.3	480.0	469.3	454.9	457.7	465.3
47.5°	399.6	395.6	390.4	393.2	427.5	452.1	465.3	461.3	454.9	457.7	464.1
50°	394.4	385.3	378.5	377.3	411.5	437.8	449.8	449.8	452.1	457.7	464.1
52.5°	378.5	368.2	368.2	364.2	400.8	425.9	433.8	435.0	439.0	448.2	457.7
55°	359.0	355.0	359.0	352.2	393.2	416.7	420.7	423.5	425.9	433.8	447.0
57.5°	341.9	336.7	345.9	343.1	386.5	407.6	407.6	412.7	412.7	423.5	433.8
60°	332.7	322.0	326.0	328.8	377.3	399.6	397.2	402.4	404.8	414.3	421.9
62.5°	320.8	311.6	311.6	318.0	367.0	387.7	386.5	390.4	400.8	403.6	411.5
65°	306.5	302.5	298.5	306.5	356.2	374.5	376.1	381.3	390.4	393.2	399.6
67.5°	291.7	293.3	285.4	293.3	347.1	361.4	361.4	372.1	376.1	381.3	387.7
70°	276.2	277.4	270.6	280.2	340.7	347.1	345.9	360.2	363.0	367.0	373.3
72.5°	256.3	256.3	253.9	267.1	330.0	332.7	330.0	341.9	343.1	347.1	349.9
75°	235.2	235.2	232.8	251.1	323.6	316.8	308.9	318.0	320.8	323.6	323.6
77.5°	207.8	210.5	210.5	232.8	300.9	310.4	283.8	289.4	293.3	294.5	290.5
80°	173.5	180.3	182.7	211.7	252.3	286.6	253.9	257.5	259.1	259.1	253.9
82.5°	132.9	144.5	151.2	182.7	193.4	240.4	220.9	224.9	220.9	212.9	210.5
85°	91.9	107.9	115.8	139.3	146.1	185.5	183.9	183.9	176.3	165.6	164.4
87.5°	50.1	59.3	64.5	82.8	99.9	125.0	135.3	131.3	125.0	118.2	119.8
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4
2.5°	7249.4	7428.1	7713.5	7931.6	8151.3	8363.0	8591.9	8766.6	8915.1	8973.2	9149.1
5°	5829.7	6053.0	6322.4	6808.8	7153.5	7533.2	7972.6	8553.7	8777.0	9086.2	9592.1
7.5°	4121.8	4324.0	4757.8	5151.1	5639.0	6176.7	6769.4	7571.4	7864.7	8360.2	9184.5
10°	3077.8	3313.1	3661.3	3992.9	4422.7	4972.4	5653.4	6550.1	6906.3	7444.0	8393.3
12.5°	2479.6	2757.0	3126.4	3438.0	3770.8	4158.4	4819.9	5803.0	6280.6	6751.1	7710.7
15°	1904.9	2195.4	2538.9	2934.5	3301.1	3719.4	4412.4	5487.8	6037.0	6527.8	7346.5
17.5°	1318.6	1567.0	1999.6	2412.3	2882.0	3416.9	4299.3	5554.7	6210.6	6776.2	7409.8
20°	934.9	1076.6	1431.6	1910.5	2495.5	3167.0	4278.2	5906.9	6760.2	7405.8	7814.6
22.5°	786.1	838.6	1045.2	1484.2	2160.0	2980.3	4351.9	6401.2	7501.7	8326.0	8460.1
25°	716.4	748.3	855.7	1165.0	1861.5	2845.0	4600.2	7137.5	8419.5	9246.6	9222.7
27.5°	678.2	711.2	782.1	983.5	1637.0	2761.0	4848.6	8010.8	9468.7	10245.6	9951.1
30°	666.7	711.2	786.1	927.0	1476.6	2628.1	5052.4	8777.0	10275.9	10920.2	10282.6
32.5°	657.5	663.9	698.1	799.2	1323.8	2472.8	5190.5	9464.7	11065.9	11561.8	10759.9
35°	531.3	564.0	619.3	716.4	1234.6	2379.7	5190.5	10057.8	11844.4	12209.8	11214.8
37.5°	511.4	540.5	589.1	671.8	1184.5	2333.5	5086.6	10629.7	12639.7	12944.9	11589.3
40°	501.1	524.6	570.7	637.6	1163.4	2281.0	4935.3	11134.4	13416.6	13680.9	11939.2
42.5°	493.1	514.2	557.6	616.5	1135.9	2223.3	4813.2	11539.2	14091.2	14309.3	12273.1
45°	489.2	511.4	558.8	627.3	1080.6	2146.9	4772.6	11977.0	14646.0	14833.9	12634.5
47.5°	489.2	515.4	565.2	649.6	1014.9	2068.1	4899.9	12554.5	15170.6	15262.6	13060.4
50°	485.2	514.2	583.9	627.3	919.0	1968.2	5199.6	13281.3	15738.6	15748.9	13599.7
52.5°	477.2	511.4	628.5	614.1	808.4	1836.8	5604.8	14215.0	16578.8	16641.7	14443.4
55°	468.1	507.5	616.5	583.9	718.0	1680.4	5935.9	15349.3	17759.3	17934.0	15684.8
57.5°	456.1	502.3	597.0	541.7	658.7	1479.0	6055.7	16180.4	18583.6	19022.6	17083.5
60°	445.8	498.3	538.9	516.6	621.7	1309.5	5824.1	16016.0	18527.1	19473.5	18323.3
62.5°	435.0	502.3	491.5	501.1	604.6	1200.4	5219.5	14699.8	17589.7	19008.2	19242.3
65°	423.5	466.9	464.1	487.6	601.0	1157.0	4326.8	12726.4	15778.0	17537.2	19459.2
67.5°	407.6	431.0	444.2	470.8	614.1	1118.8	3491.8	10498.0	13260.2	15332.2	18328.4
70°	390.4	410.4	424.7	449.8	606.2	1101.7	2904.3	8278.6	10521.8	12566.0	16097.6
72.5°	368.2	385.3	398.4	421.9	598.2	1092.5	2453.3	6667.1	7855.6	9334.6	13088.2
75°	341.9	357.4	367.0	390.4	573.1	1000.6	1928.8	5641.4	5878.2	6493.6	10424.3
77.5°	311.6	323.6	331.1	357.4	507.5	832.2	1395.0	4351.9	4564.8	4714.4	7992.1
80°	276.2	287.8	291.7	316.8	420.7	650.7	909.9	3214.3	3414.1	3448.4	5219.5
82.5°	235.2	247.2	247.2	270.6	344.3	468.1	597.0	2202.2	2241.6	2357.4	3689.2
85°	189.5	198.6	198.6	210.5	267.1	349.9	410.4	1105.7	1093.7	1249.0	3196.0
87.5°	135.3	142.1	148.5	151.2	190.6	231.2	247.2	336.7	222.1	255.1	2052.1
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4	8080.4
2.5°	9282.0	9356.9	9280.4	9225.5	8987.5	8791.7	8529.8	8395.7
5°	9977.4	10168.0	10103.5	9872.3	9375.2	8816.4	8181.5	7895.0
7.5°	9893.4	10336.4	10346.7	9914.5	9182.1	8359.0	7499.3	7091.8
10°	9238.6	9805.0	9967.0	9547.5	8770.6	7850.4	6864.1	6398.8
12.5°	8507.5	9062.3	9186.1	9041.2	8392.1	7467.5	6467.3	6010.8
15°	7909.3	8158.0	8304.9	8431.5	8067.3	7315.1	6444.6	5943.9
17.5°	7545.1	7517.6	7559.8	7779.1	7840.8	7489.8	6786.5	6234.5
20°	7413.8	6991.9	6981.1	7283.6	7734.6	7906.9	7454.4	6791.7
22.5°	7486.2	6802.4	6715.7	7074.7	7791.1	8507.5	8330.0	7574.2
25°	7735.8	6818.3	6748.3	7095.8	7996.1	9147.9	9275.3	8586.3
27.5°	8129.0	6918.2	6825.9	7182.5	8268.3	9685.6	10206.2	9567.4
30°	8502.3	7091.8	6977.1	7353.3	8516.7	9898.6	10777.0	10332.4
32.5°	8956.1	7416.6	7215.2	7667.3	8824.3	10237.7	11285.6	10966.0
35°	9400.2	7879.0	7629.5	8152.5	9167.4	10659.9	11866.7	11776.0
37.5°	9888.2	8484.0	8277.5	8779.7	9637.1	11058.0	12608.2	12725.2
40°	10408.8	9286.0	9041.2	9694.8	10365.4	11557.9	13382.7	13663.7
42.5°	10933.4	10176.0	9884.2	10546.5	11165.8	12050.6	14045.0	14462.2
45°	11534.0	11142.3	11004.2	11720.7	11935.2	12520.3	14534.2	15052.4
47.5°	12233.7	12238.9	12461.0	12747.5	12710.9	13051.2	15026.1	15579.4
50°	13050.0	13607.2	14098.0	14288.2	13510.1	13622.0	15708.3	16285.4
52.5°	14030.7	15244.2	15851.6	15726.6	14371.4	14318.5	16788.9	17258.2
55°	15257.4	16977.2	17580.6	17491.0	15361.3	15267.7	18135.4	18408.8
57.5°	16677.1	18656.0	19210.8	18808.4	16549.7	16309.3	19249.0	19306.8
60°	17924.9	19986.6	20472.9	20027.2	17748.9	17417.4	19944.4	19664.2
62.5°	18619.0	20437.5	20779.4	20299.4	18570.4	18597.9	20096.8	19471.1
65°	18308.9	19297.6	19407.9	19368.4	18358.7	19282.9	19548.7	18578.4
67.5°	16610.2	16415.6	16601.1	16857.4	16544.6	18381.0	18029.9	16633.7
70°	13618.0	12548.9	12918.7	13090.6	13232.7	15817.4	15649.0	13548.3
72.5°	10262.7	8791.7	9083.4	9048.0	9705.1	12687.0	12170.4	9961.8
75°	7271.7	5961.0	5997.6	5983.3	6772.2	9926.0	8812.8	6815.6
77.5°	5087.8	4318.8	4338.7	4419.9	4552.9	7486.2	6296.1	4978.7
80°	3498.5	3277.6	3386.7	3393.4	3155.4	5028.9	4651.6	3995.6
82.5°	2605.8	2278.2	2252.0	2290.2	2472.8	4074.4	3574.5	2771.4
85°	2133.7	1348.9	1084.6	1359.6	2191.5	4035.0	2374.5	1461.9
87.5°	1201.6	640.4	289.4	536.5	874.4	2671.5	686.2	186.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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