

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: P299491

Luminaire Tested: **GLNA-AF-07-LED-E1-SLR-7027-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299491
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-07-LED-E1-SLR-7027-600
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(7) 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: 21108.2 lumens
Efficiency: N/A
Efficacy: 93.4 lumens/watt
Luminous Opening: Rectangular (W 2' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G4

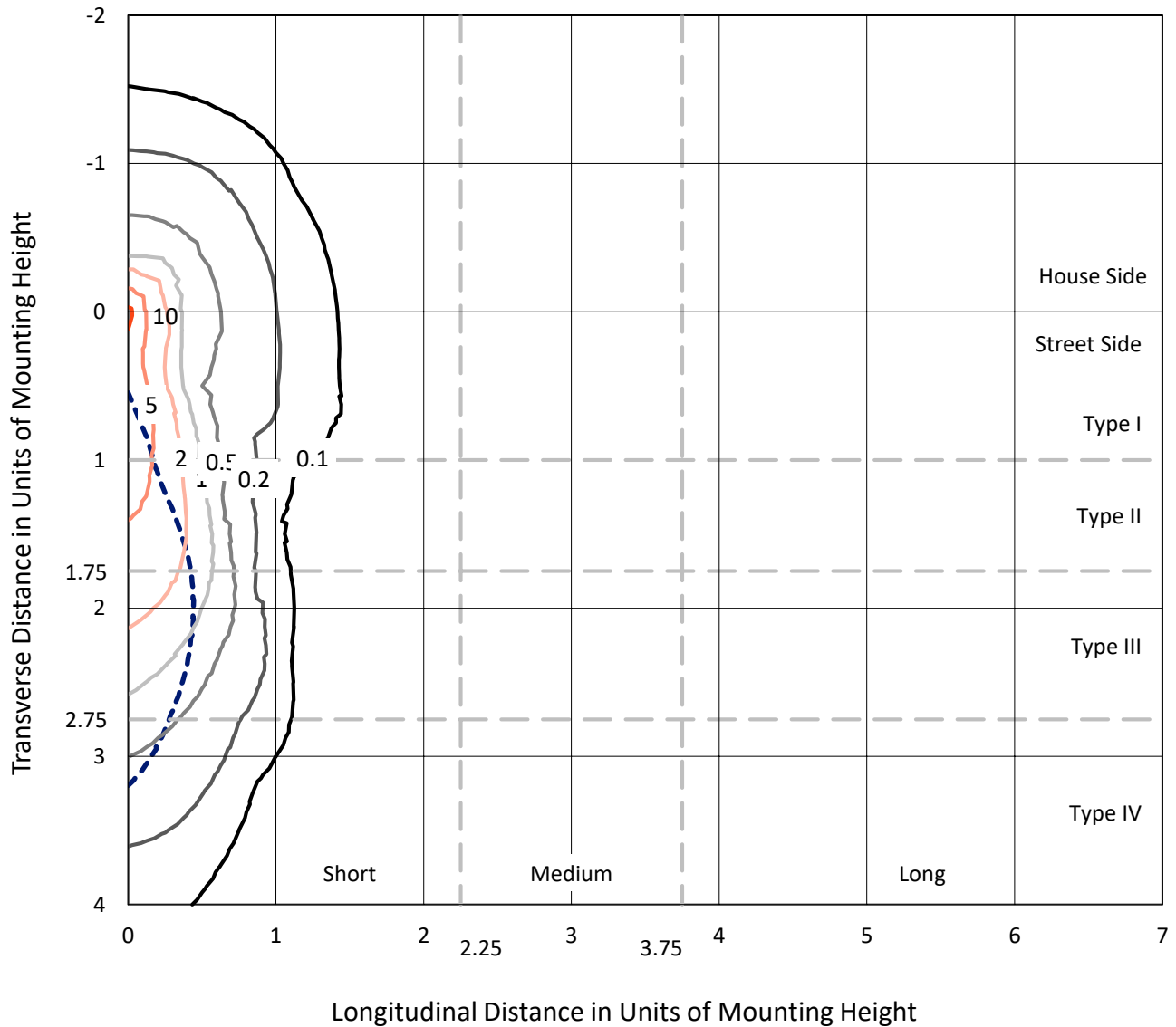
Input Watts (W): 226
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

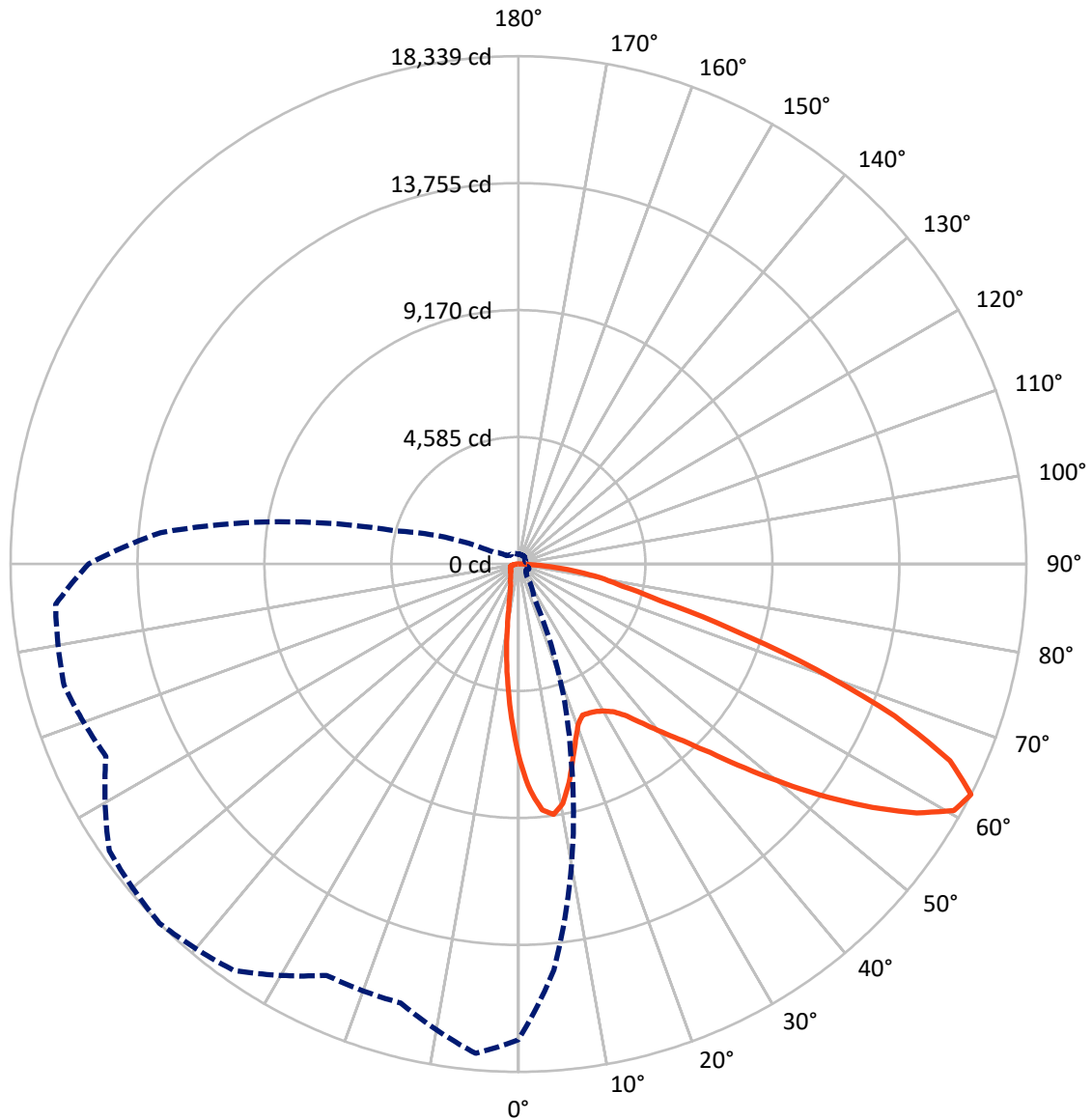
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.4 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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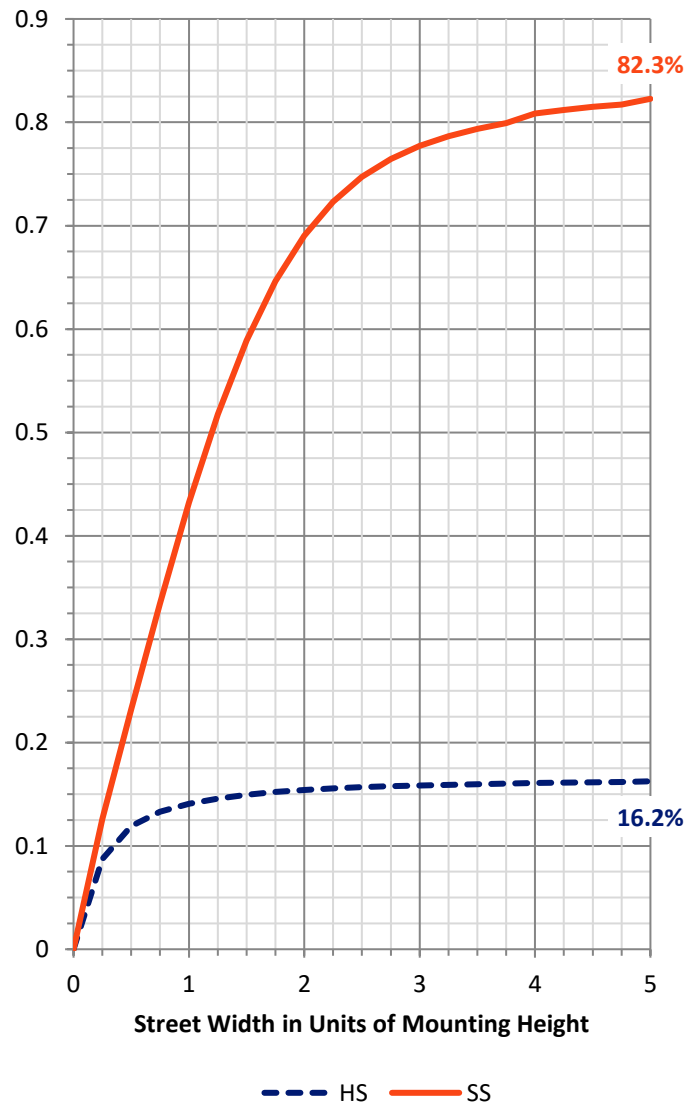
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3493.1	0.0	3493.1
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	17615.1	0.0	17615.1
	% Fixture	83.5	0.0	83.5
Total	Lumens	21108.2	0.0	21108.2
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	519.1	2.5
10°-20°	952.0	4.5
20°-30°	1388.0	6.6
30°-40°	2137.7	10.1
40°-50°	3146.1	14.9
50°-60°	4614.6	21.9
60°-70°	5158.5	24.4
70°-80°	2525.5	12.0
80°-90°	666.8	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°	21108.2	100.0
0°-180°	21108.2	100.0

Coefficient of Utilization



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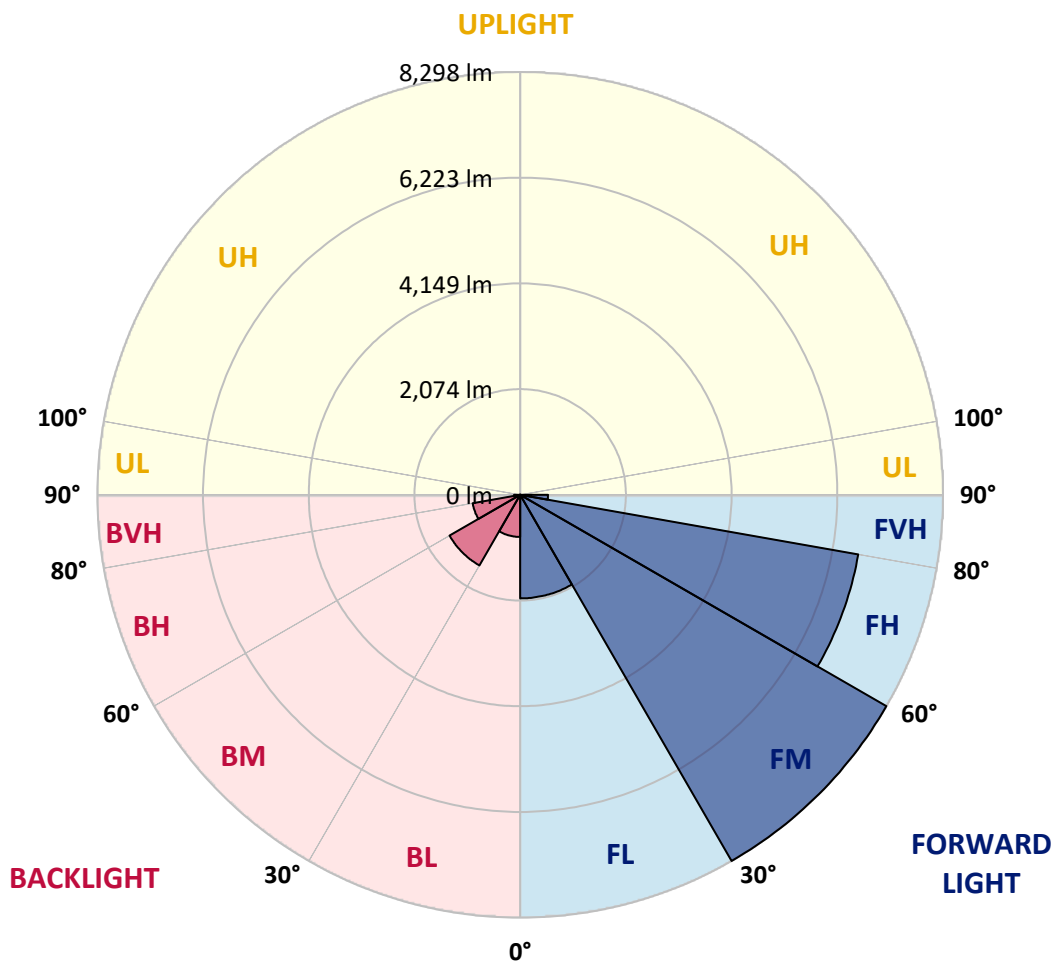
CATALOG NUMBER: GLNA-AF-07-LED-E1-SLR-7027-600

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2032.6	9.6			
FM (30°-60°)	8297.8	39.3			
FH (60°-80°)	6737.0	31.9			G3/7500
FVH (80°-90°)	547.6	2.6			G4/750
BL (0°-30°)	826.4	3.9	B2/1000		
BM (30°-60°)	1600.5	7.6	B2/2500		
BH (60°-80°)	947.0	4.5	B2/1000		G2/1000
BVH (80°-90°)	119.2	0.6			G2/225
UL (90°-100°)	0.0	0.0		U0/0	
UH (100°-180°)	0.0	0.0		U0/0	

BUG Rating: B2-U0-G4

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6
2.5°	7409.8	7259.1	7008.3	6747.3	6588.5	6402.7	6257.6	6130.1	5874.7	5824.9	5870.2
5°	6967.9	6665.1	6192.7	5717.0	5400.2	5060.1	4795.6	4583.5	4259.6	4202.7	4271.2
7.5°	6259.0	5896.9	5272.7	4665.7	4217.8	3793.1	3507.8	3280.2	3027.3	2918.4	2925.1
10°	5647.5	5238.9	4500.9	3840.9	3474.1	3187.5	2947.2	2714.0	2457.5	2289.3	2242.9
12.5°	5305.0	4835.3	3984.5	3395.1	3055.1	2753.7	2494.8	2245.4	1971.4	1799.6	1751.1
15°	5246.0	4735.2	3791.0	3109.8	2683.8	2302.3	1997.0	1718.4	1436.4	1297.3	1268.1
17.5°	5502.4	4914.0	3728.1	2855.5	2334.6	1863.5	1488.7	1177.8	948.1	878.5	872.6
20°	5994.2	5257.6	3720.0	2616.7	1990.0	1437.8	1037.3	811.1	710.3	690.3	691.7
22.5°	6684.8	5790.1	3819.8	2436.8	1673.1	1072.1	779.8	678.7	639.3	620.7	620.7
25°	7578.1	6523.6	4049.5	2305.8	1398.1	856.4	688.2	627.7	590.5	577.8	580.3
27.5°	8444.0	7237.0	4316.5	2202.5	1218.2	777.4	652.0	597.5	565.2	552.2	558.2
30°	9119.1	7870.7	4539.2	2062.0	1126.5	755.2	665.0	609.1	562.7	543.1	544.1
32.5°	9678.4	8425.4	4726.1	1960.8	1045.4	647.4	573.3	548.7	543.1	519.9	508.3
35°	10393.2	9029.9	4851.5	1963.3	1007.1	577.8	510.4	467.5	436.3	409.6	409.6
37.5°	11231.0	9723.7	4985.0	1990.0	993.4	537.1	488.6	445.4	416.6	391.0	386.4
40°	12059.3	10403.8	5106.9	2015.6	985.0	512.9	471.1	431.7	405.0	379.4	372.4
42.5°	12764.0	10963.0	5215.8	2028.3	957.2	510.4	458.4	422.2	396.9	368.8	362.2
45°	13284.9	11431.6	5333.1	2047.9	929.5	519.9	458.4	421.2	389.9	363.2	356.2
47.5°	13750.0	11981.7	5529.1	2047.9	895.8	502.3	473.5	422.2	388.9	360.8	355.1
50°	14373.2	12735.9	5900.4	2000.5	848.3	483.7	498.8	417.7	378.3	356.2	349.2
52.5°	15231.7	13702.6	6489.8	1918.0	775.3	447.9	495.3	415.6	367.8	344.6	336.5
55°	16247.2	14737.4	7132.7	1821.7	666.0	422.2	478.1	409.6	356.2	330.6	322.5
57.5°	17039.7	15449.8	7585.1	1673.1	570.8	408.5	423.6	404.0	342.1	315.4	308.8
60°	17355.2	15422.1	7709.5	1474.7	524.5	396.9	370.2	452.4	330.6	303.9	295.8
62.5°	17184.8	14709.7	7361.3	1335.6	513.9	381.8	347.1	418.7	321.4	295.8	284.2
65°	16396.9	13447.2	6438.9	1298.3	544.1	366.7	332.0	328.4	308.8	284.2	272.6
67.5°	14680.5	11560.5	5155.3	1301.8	582.4	351.6	316.9	300.7	291.2	271.5	261.0
70°	11957.4	9140.2	3843.0	1311.3	602.1	334.1	300.7	283.1	272.6	252.9	245.9
72.5°	8792.1	7044.5	2791.9	1250.9	605.6	314.4	278.6	263.5	252.9	232.2	226.2
75°	6015.3	5388.6	1936.6	1036.3	528.0	286.6	254.0	240.3	233.2	207.6	204.1
77.5°	4394.1	4044.9	1239.3	769.3	407.1	251.9	224.1	213.6	209.0	180.9	176.3
80°	3526.5	3200.1	775.3	526.9	298.2	211.1	187.9	182.3	177.4	149.6	146.1
82.5°	2445.9	2143.1	497.8	342.1	224.1	163.7	148.6	146.1	139.1	113.8	110.3
85°	1290.2	1163.8	315.4	233.2	162.3	112.4	103.3	103.3	99.8	75.5	73.1
87.5°	164.7	268.0	160.2	121.9	89.2	49.9	49.9	48.8	52.3	42.9	37.2
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°	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6
2.5°	5763.4	5819.2	5765.9	5769.4	5828.4	6004.7	6084.8	6150.8	6221.8	6268.2	6288.9
5°	4177.4	4307.4	4351.3	4444.0	4581.0	4806.2	4895.4	4960.4	5003.6	5028.9	5039.4
7.5°	2856.9	2935.6	3023.8	3173.4	3471.7	3604.1	3663.1	3648.0	3599.5	3582.0	3564.8
10°	2153.7	2122.4	2105.9	2188.5	2429.8	2563.3	2605.1	2564.3	2537.6	2543.6	2572.4
12.5°	1668.6	1614.1	1548.1	1538.6	1697.7	1817.2	1843.8	1846.0	1894.8	1937.6	2001.6
15°	1216.1	1210.1	1177.8	1158.2	1248.4	1346.1	1357.7	1378.4	1422.7	1453.9	1509.4
17.5°	857.5	888.7	914.4	927.0	995.5	1065.1	1052.4	1041.9	1033.8	1033.8	1060.5
20°	691.7	712.4	745.1	781.9	851.8	900.3	869.1	827.3	797.0	787.9	791.4
22.5°	623.2	639.3	657.9	690.3	753.1	786.9	753.1	722.9	692.7	682.2	678.7
25°	588.4	609.1	626.7	650.9	697.3	720.5	688.2	666.0	647.4	634.8	625.3
27.5°	568.7	587.0	591.9	603.5	642.8	663.6	647.4	638.3	626.7	615.1	603.5
30°	547.6	544.1	536.0	537.1	568.7	589.4	588.4	590.5	589.4	585.9	583.8
32.5°	500.2	493.2	486.2	493.2	522.0	540.6	542.0	546.6	546.6	545.5	554.7
35°	416.6	429.3	437.3	458.4	493.2	509.4	502.3	490.7	470.0	457.0	456.0
37.5°	385.4	387.5	401.5	430.3	469.0	483.7	473.5	446.8	432.8	430.3	433.8
40°	370.2	372.4	380.4	407.1	445.4	460.5	451.4	431.7	418.7	417.7	423.6
42.5°	359.7	362.2	366.7	385.4	416.6	435.2	436.3	422.2	407.1	408.5	414.2
45°	353.7	355.1	353.7	363.2	392.0	414.2	423.6	414.2	401.5	404.0	410.6
47.5°	352.7	349.2	344.6	347.1	377.3	399.0	410.6	407.1	401.5	404.0	409.6
50°	348.1	340.0	334.1	333.0	363.2	386.4	396.9	396.9	399.0	404.0	409.6
52.5°	334.1	324.9	324.9	321.4	353.7	375.9	382.9	383.9	387.5	395.5	404.0
55°	316.9	313.3	316.9	310.9	347.1	367.8	371.3	373.8	375.9	382.9	394.5
57.5°	301.7	297.2	305.3	302.8	341.1	359.7	359.7	364.3	364.3	373.8	382.9
60°	293.7	284.2	287.7	290.2	333.0	352.7	350.6	355.1	357.2	365.7	372.4
62.5°	283.1	275.0	275.0	280.7	323.9	342.1	341.1	344.6	353.7	356.2	363.2
65°	270.5	267.0	263.5	270.5	314.4	330.6	332.0	336.5	344.6	347.1	352.7
67.5°	257.5	258.9	251.9	258.9	306.3	319.0	319.0	328.4	332.0	336.5	342.1
70°	243.8	244.8	238.9	247.3	300.7	306.3	305.3	317.9	320.4	323.9	329.5
72.5°	226.2	226.2	224.1	235.7	291.2	293.7	291.2	301.7	302.8	306.3	308.8
75°	207.6	207.6	205.5	221.7	285.6	279.6	272.6	280.7	283.1	285.6	285.6
77.5°	183.4	185.8	185.8	205.5	265.6	274.0	250.5	255.4	258.9	259.9	256.4
80°	153.2	159.1	161.2	186.9	222.7	252.9	224.1	227.3	228.7	228.7	224.1
82.5°	117.3	127.5	133.5	161.2	170.7	212.2	195.0	198.5	195.0	187.9	185.8
85°	81.1	95.2	102.2	122.9	128.9	163.7	162.3	162.3	155.6	146.1	145.1
87.5°	44.3	52.3	56.9	73.1	88.2	110.3	119.4	115.9	110.3	104.3	105.7
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):

	195°	205°	215°	225°	235°	245°	255°	265°	270°	275°	285°
0°	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6
2.5°	6398.1	6555.9	6807.7	7000.2	7194.1	7381.0	7583.0	7737.2	7868.2	7919.5	8074.8
5°	5145.1	5342.2	5580.0	6009.3	6313.5	6648.6	7036.4	7549.3	7746.3	8019.3	8465.8
7.5°	3637.8	3816.3	4199.2	4546.2	4976.9	5451.5	5974.5	6682.3	6941.2	7378.6	8106.1
10°	2716.4	2924.0	3231.4	3524.0	3903.4	4388.5	4989.5	5781.0	6095.3	6569.9	7407.7
12.5°	2188.5	2433.3	2759.3	3034.3	3328.0	3670.1	4254.0	5121.6	5543.1	5958.4	6805.3
15°	1681.2	1937.6	2240.8	2590.0	2913.5	3282.7	3894.3	4843.4	5328.2	5761.3	6483.9
17.5°	1163.8	1383.0	1764.8	2129.1	2543.6	3015.7	3794.5	4902.4	5481.3	5980.5	6539.7
20°	825.1	950.2	1263.5	1686.1	2202.5	2795.1	3775.9	5213.3	5966.4	6536.2	6897.0
22.5°	693.8	740.1	922.5	1309.9	1906.4	2630.4	3840.9	5649.6	6620.9	7348.4	7466.7
25°	632.3	660.4	755.2	1028.2	1642.9	2510.9	4060.1	6299.4	7430.9	8160.9	8139.8
27.5°	598.6	627.7	690.3	868.0	1444.8	2436.8	4279.2	7070.1	8356.9	9042.6	8782.6
30°	588.4	627.7	693.8	818.1	1303.2	2319.5	4459.1	7746.3	9069.3	9638.0	9075.2
32.5°	580.3	585.9	616.1	705.4	1168.3	2182.5	4581.0	8353.4	9766.5	10204.2	9496.4
35°	469.0	497.8	546.6	632.3	1089.7	2100.3	4581.0	8876.8	10453.6	10776.1	9897.9
37.5°	451.4	477.0	519.9	593.0	1045.4	2059.5	4489.3	9381.5	11155.5	11424.9	10228.5
40°	442.3	463.0	503.7	562.7	1026.8	2013.2	4355.8	9827.0	11841.2	12074.4	10537.2
42.5°	435.2	453.8	492.1	544.1	1002.5	1962.2	4248.0	10184.2	12436.6	12629.1	10832.0
45°	431.7	451.4	493.2	553.6	953.7	1894.8	4212.2	10570.6	12926.3	13092.1	11150.9
47.5°	431.7	454.9	498.8	573.3	895.8	1825.2	4324.6	11080.3	13389.3	13470.4	11526.8
50°	428.2	453.8	515.3	553.6	811.1	1737.1	4589.1	11721.7	13890.5	13899.7	12002.8
52.5°	421.2	451.4	554.7	542.0	713.4	1621.1	4946.7	12545.8	14632.1	14687.6	12747.5
55°	413.1	447.9	544.1	515.3	633.7	1483.1	5238.9	13547.0	15674.0	15828.2	13843.1
57.5°	402.6	443.3	526.9	478.1	581.4	1305.3	5344.7	14280.4	16401.4	16788.9	15077.5
60°	393.4	439.8	475.6	456.0	548.7	1155.7	5140.2	14135.4	16351.6	17186.9	16171.7
62.5°	383.9	443.3	433.8	442.3	533.6	1059.4	4606.6	12973.7	15524.3	16776.3	16982.8
65°	373.8	412.0	409.6	430.3	530.4	1021.2	3818.7	11232.1	13925.3	15477.9	17174.3
67.5°	359.7	380.4	392.0	415.6	542.0	987.4	3081.7	9265.3	11703.1	13531.9	16176.3
70°	344.6	362.2	374.8	396.9	535.0	972.3	2563.3	7306.5	9286.3	11090.5	14207.4
72.5°	324.9	340.0	351.6	372.4	528.0	964.3	2165.3	5884.2	6933.1	8238.5	11551.4
75°	301.7	315.4	323.9	344.6	505.8	883.1	1702.3	4979.0	5188.0	5731.1	9200.3
77.5°	275.0	285.6	292.3	315.4	447.9	734.5	1231.2	3840.9	4028.8	4160.9	7053.6
80°	243.8	254.0	257.5	279.6	371.3	574.3	803.0	2836.9	3013.2	3043.5	4606.6
82.5°	207.6	218.1	218.1	238.9	303.9	413.1	526.9	1943.6	1978.4	2080.6	3256.0
85°	167.2	175.3	175.3	185.8	235.7	308.8	362.2	975.8	965.3	1102.3	2820.7
87.5°	119.4	125.4	131.0	133.5	168.3	204.1	218.1	297.2	196.0	225.2	1811.2
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6	7131.6
2.5°	8192.1	8258.2	8190.7	8142.2	7932.2	7759.3	7528.2	7409.8
5°	8805.8	8974.1	8917.2	8713.1	8274.3	7781.1	7220.8	6967.9
7.5°	8731.7	9122.6	9131.8	8750.3	8103.9	7377.5	6618.7	6259.0
10°	8153.8	8653.7	8796.7	8426.4	7740.7	6928.6	6058.1	5647.5
12.5°	7508.5	7998.2	8107.5	7979.6	7406.7	6590.6	5707.9	5305.0
15°	6980.6	7200.1	7329.7	7441.4	7120.0	6456.1	5687.9	5246.0
17.5°	6659.1	6634.9	6672.1	6865.7	6920.1	6610.3	5989.6	5502.4
20°	6543.2	6170.9	6161.4	6428.4	6826.4	6978.5	6579.1	5994.2
22.5°	6607.2	6003.7	5927.1	6243.9	6876.2	7508.5	7351.9	6684.8
25°	6827.4	6017.7	5955.9	6262.6	7057.1	8073.7	8186.1	7578.1
27.5°	7174.5	6105.9	6024.4	6339.1	7297.4	8548.3	9007.8	8444.0
30°	7504.0	6259.0	6157.9	6489.8	7516.6	8736.2	9511.5	9119.1
32.5°	7904.4	6545.7	6367.9	6767.0	7788.1	9035.5	9960.4	9678.4
35°	8296.4	6953.9	6733.6	7195.2	8090.9	9408.2	10473.3	10393.2
37.5°	8727.1	7487.8	7305.5	7748.8	8505.5	9759.5	11127.7	11231.0
40°	9186.6	8195.6	7979.6	8556.4	9148.3	10200.7	11811.3	12059.3
42.5°	9649.6	8981.1	8723.6	9308.1	9854.7	10635.6	12395.8	12764.0
45°	10179.6	9834.0	9712.1	10344.4	10533.7	11050.1	12827.6	13284.9
47.5°	10797.2	10801.7	10997.8	11250.7	11218.4	11518.7	13261.7	13750.0
50°	11517.7	12009.4	12442.6	12610.5	11923.7	12022.4	13863.8	14373.2
52.5°	12383.2	13454.2	13990.3	13880.0	12683.9	12637.2	14817.5	15231.7
55°	13465.8	14983.7	15516.2	15437.2	13557.5	13475.0	16005.9	16247.2
57.5°	14718.8	16465.4	16955.1	16599.9	14606.4	14394.3	16988.8	17039.7
60°	15820.1	17639.7	18069.0	17675.5	15664.8	15372.2	17602.5	17355.2
62.5°	16432.7	18037.7	18339.4	17915.8	16389.9	16414.1	17737.0	17184.8
65°	16159.1	17031.6	17128.9	17094.2	16203.0	17018.6	17253.3	16396.9
67.5°	14659.8	14488.0	14651.7	14878.0	14601.9	16222.6	15912.8	14680.5
70°	12018.9	11075.4	11401.7	11553.5	11678.9	13960.1	13811.5	11957.4
72.5°	9057.7	7759.3	8016.8	7985.6	8565.5	11197.3	10741.3	8792.1
75°	6417.8	5261.1	5293.4	5280.7	5977.0	8760.5	7778.0	6015.3
77.5°	4490.4	3811.7	3829.3	3900.9	4018.3	6607.2	5556.8	4394.1
80°	3087.7	2892.8	2989.0	2995.0	2784.9	4438.4	4105.4	3526.5
82.5°	2299.8	2010.7	1987.5	2021.2	2182.5	3596.0	3154.8	2445.9
85°	1883.2	1190.5	957.2	1200.0	1934.1	3561.2	2095.7	1290.2
87.5°	1060.5	565.2	255.4	473.5	771.8	2357.8	605.6	164.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)