

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: P298939

Luminaire Tested: **GLNA-AF-05-LED-E1-SLL-7027-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298939
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P191289)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: MCGRAW-EDISON
Catalog Number: GLNA-AF-05-LED-E1-SLL-7027-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(5) 70 CRI, 2700K CCT 800mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18291.5 lumens
Efficiency: N/A
Efficacy: 87.1 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B2 - U0 - G3

Input Watts (W): 210
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

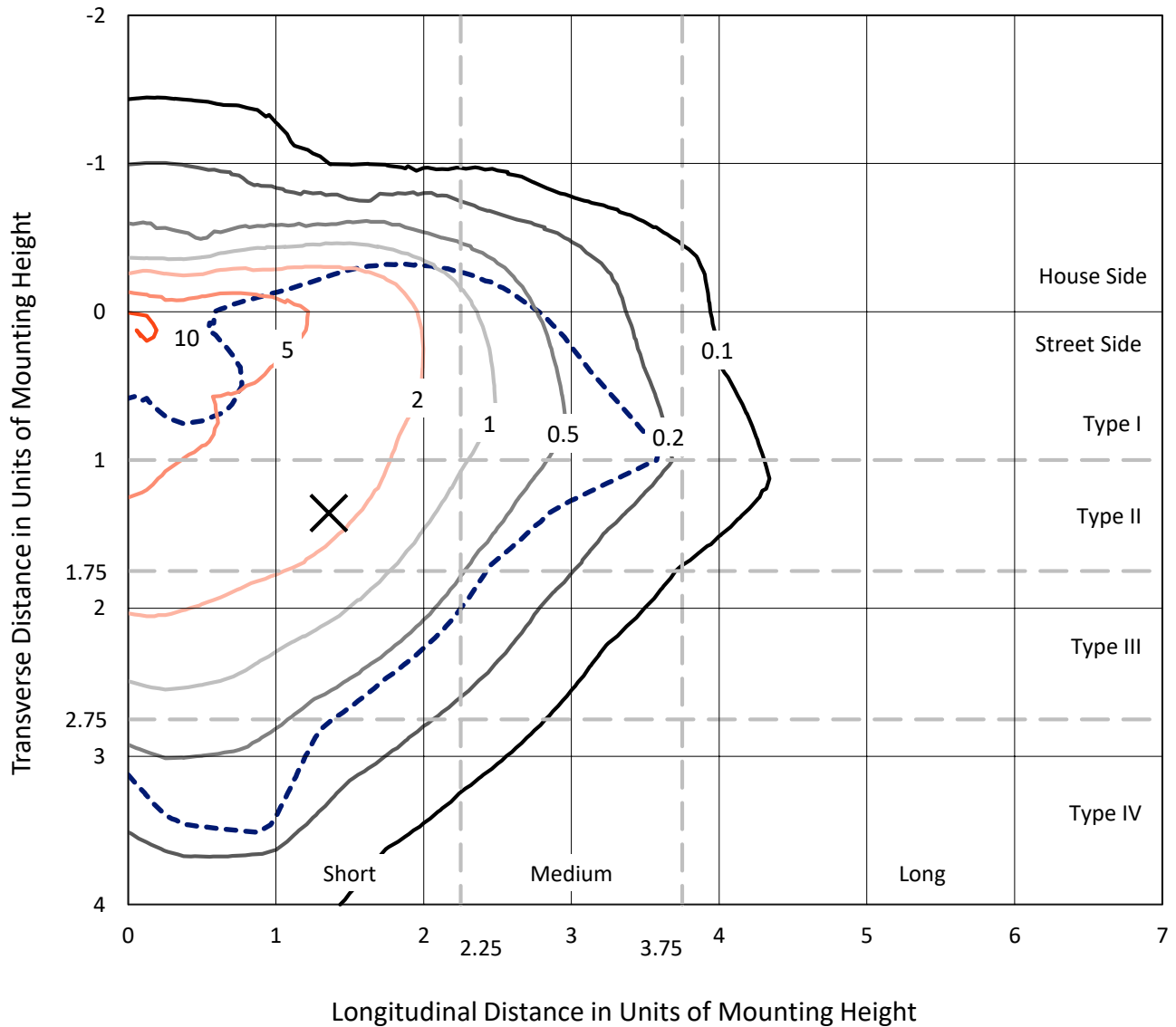


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Iso-Footcandle Lines of Horizontal Illumination

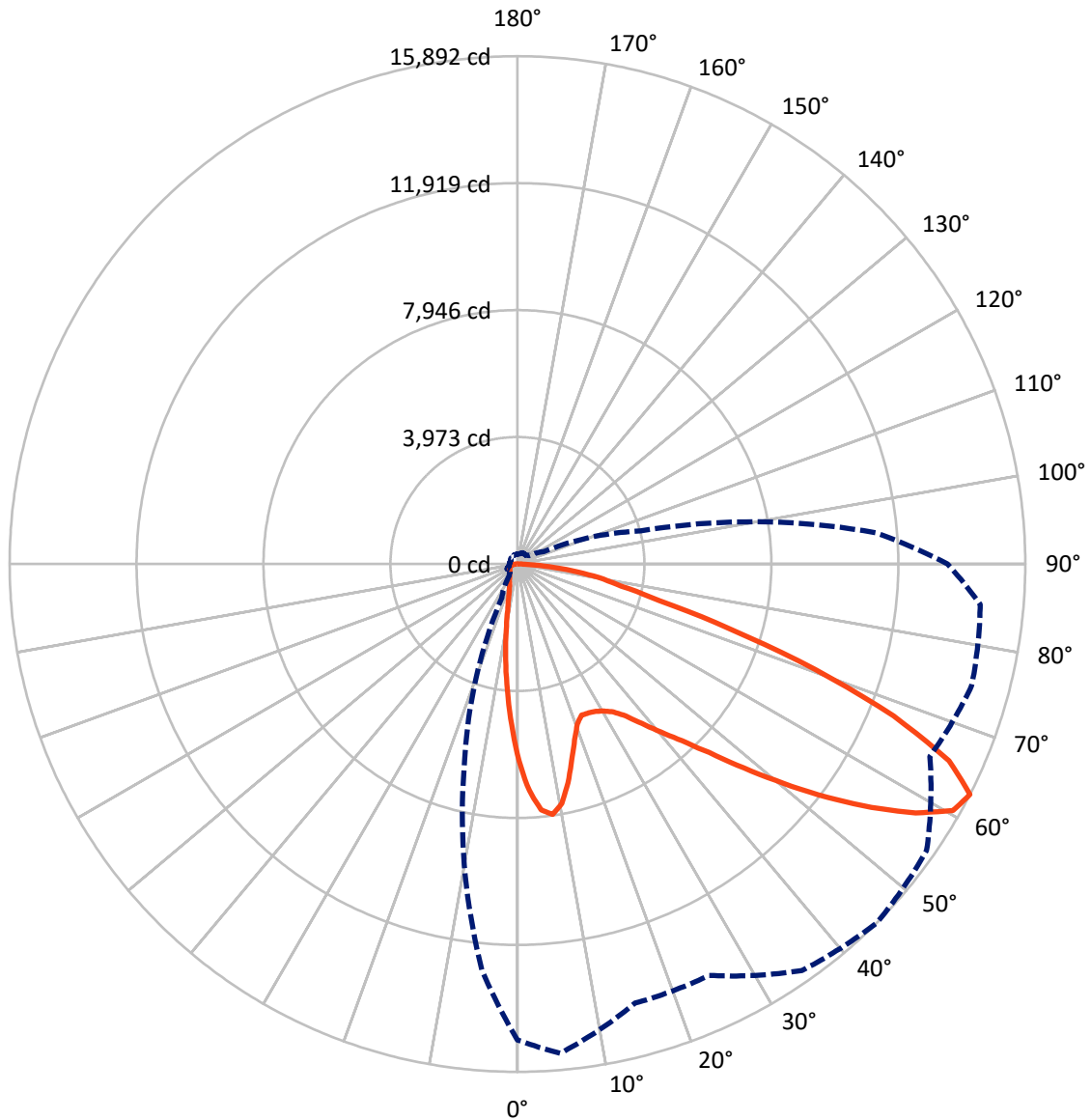
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 11.6 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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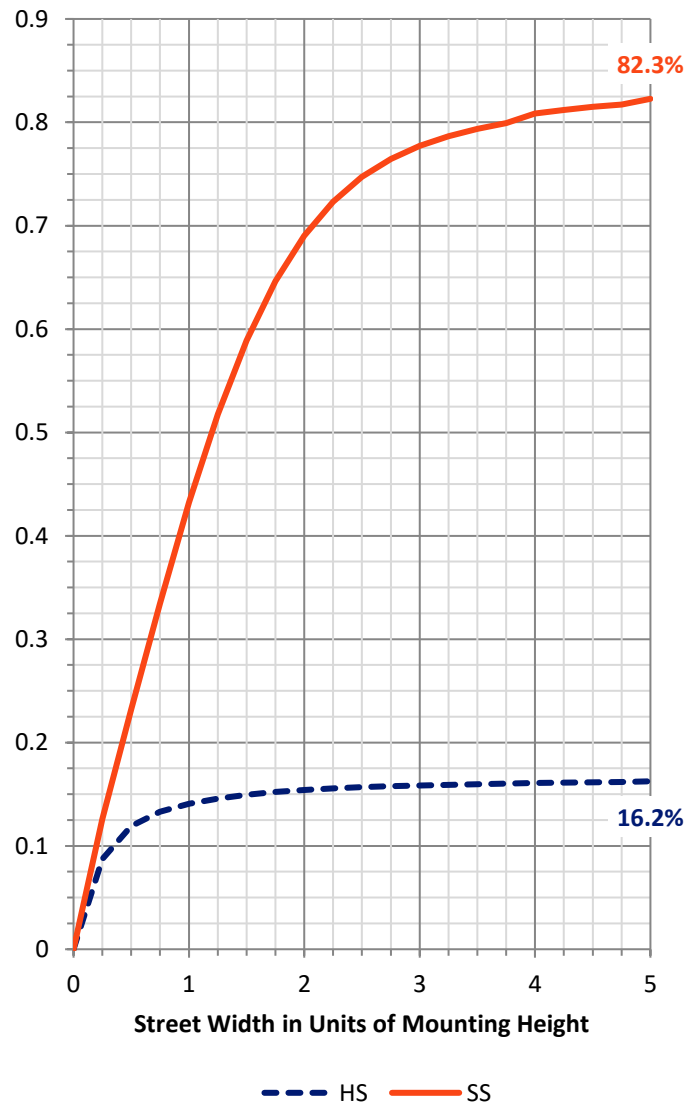
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	3027.0	0.0	3027.0
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	15264.5	0.0	15264.5
	% Fixture	83.5	0.0	83.5
Total	Lumens	18291.5	0.0	18291.5
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	449.9	2.5
10°-20°	824.9	4.5
20°-30°	1202.8	6.6
30°-40°	1852.4	10.1
40°-50°	2726.2	14.9
50°-60°	3998.8	21.9
60°-70°	4470.1	24.4
70°-80°	2188.5	12.0
80°-90°	577.8	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°	18291.5	100.0
0°-180°	18291.5	100.0



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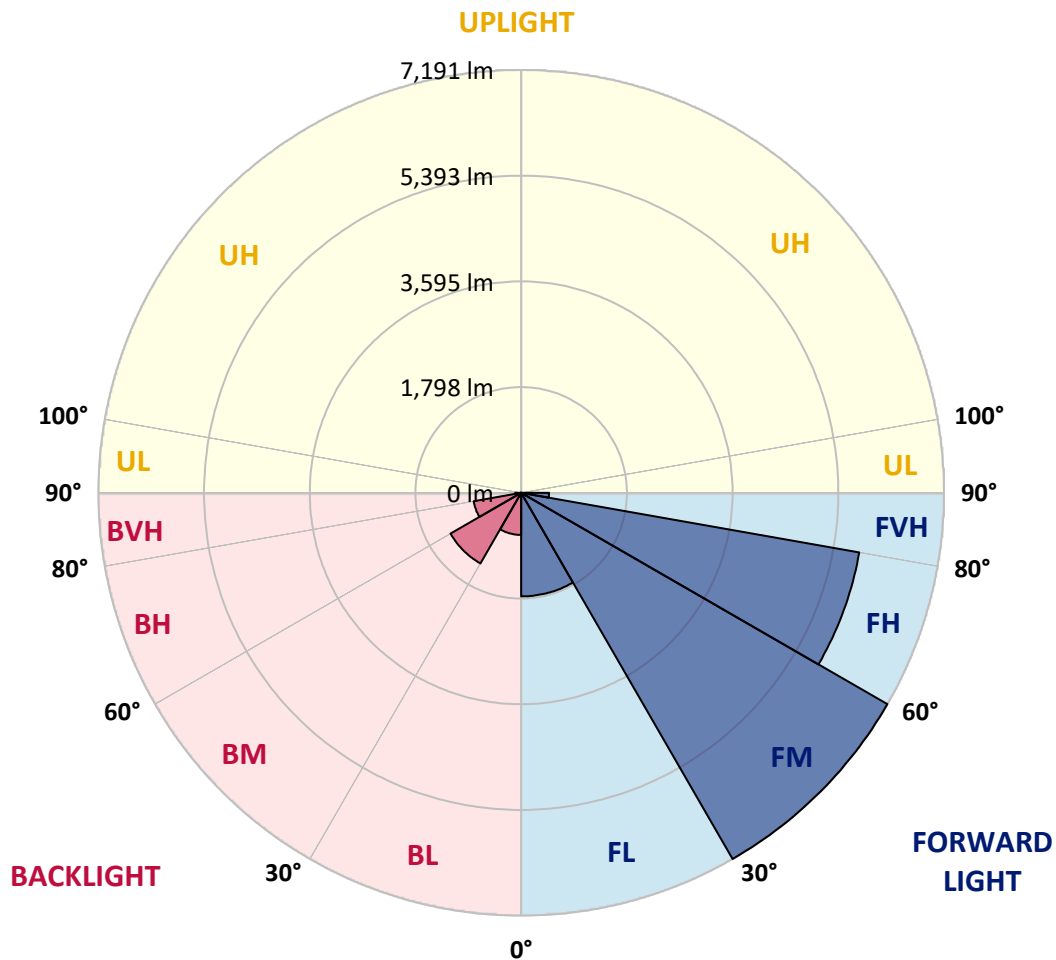
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1761.4	9.6			
FM	(30°-60°)	7190.6	39.3			
FH	(60°-80°)	5838.0	31.9			G3/7500
FVH	(80°-90°)	474.5	2.6			G3/500
BL	(0°-30°)	716.1	3.9	B2/1000		
BM	(30°-60°)	1386.9	7.6	B2/2500		
BH	(60°-80°)	820.6	4.5	B2/1000		G2/1000
BVH	(80°-90°)	103.3	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-G3

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0
2.5°	6420.9	6523.8	6723.9	6873.4	7055.8	7097.9	7156.4	7098.9	6997.4	6862.6	6818.5
5°	6038.1	6257.4	6742.8	7170.4	7550.3	7727.3	7776.9	7630.6	7336.2	6949.1	6712.8
7.5°	5423.7	5735.5	6392.9	7022.5	7582.3	7913.3	7905.2	7566.3	7024.5	6393.8	6014.9
10°	4893.6	5249.8	6004.1	6707.9	7301.9	7622.8	7498.8	7065.9	6419.0	5693.0	5282.1
12.5°	4597.3	4946.2	5711.3	6418.0	6914.8	7025.5	6930.8	6506.5	5897.0	5163.3	4803.2
15°	4545.7	4929.2	5594.8	6169.9	6448.4	6352.1	6239.1	6049.2	5618.6	4992.2	4617.2
17.5°	4768.3	5190.4	5728.6	5996.9	5949.6	5781.5	5749.5	5770.7	5667.2	5182.2	4750.0
20°	5194.6	5701.2	6047.2	5915.6	5570.6	5339.2	5347.4	5670.2	5976.7	5664.0	5170.1
22.5°	5792.6	6371.0	6506.5	5958.7	5410.7	5136.2	5202.8	5725.7	6470.6	6368.1	5737.4
25°	6566.9	7094.0	6996.4	6115.4	5426.7	5161.3	5214.5	5916.6	7053.5	7071.8	6439.5
27.5°	7317.0	7805.9	7407.4	6323.7	5493.3	5220.7	5291.2	6216.9	7610.7	7836.0	7241.9
30°	7902.2	8242.3	7570.3	6513.6	5623.8	5336.3	5423.7	6502.5	7864.4	8351.7	7859.1
32.5°	8386.9	8631.1	7829.8	6749.0	5864.1	5518.1	5672.1	6849.5	8229.3	8842.6	8463.3
35°	9006.2	9075.7	8152.6	7011.4	6235.2	5835.0	6026.0	7189.3	8577.3	9338.1	9058.7
37.5°	9732.4	9643.0	8457.1	7370.5	6715.0	6330.5	6488.5	7562.4	8863.5	9900.2	9666.8
40°	10450.2	10234.8	8839.7	7927.4	7414.9	6914.8	7101.8	7960.6	9131.2	10463.3	10261.2
42.5°	11060.6	10741.7	9216.4	8539.7	8066.1	7559.5	7782.8	8361.8	9386.4	10943.8	10777.0
45°	11512.1	11115.8	9575.4	9127.9	8964.1	8416.0	8521.8	8821.1	9662.9	11345.3	11201.3
47.5°	11915.2	11491.8	9981.5	9721.3	9749.4	9530.1	9360.0	9356.1	9989.0	11673.0	11602.5
50°	12455.1	12013.8	10417.9	10332.4	10927.8	10781.9	10406.8	9980.5	10400.9	12045.1	12036.9
52.5°	13199.3	12840.6	10951.0	10991.1	12028.1	12123.4	11658.6	10730.9	11046.3	12727.6	12679.7
55°	14079.3	13869.8	11677.2	11748.4	13377.2	13445.8	12983.9	11668.7	11995.8	13716.4	13582.5
57.5°	14765.8	14721.7	12473.4	12657.5	14384.9	14692.7	14268.3	12755.1	13065.5	14548.7	14212.8
60°	15039.3	15253.4	13321.1	13574.4	15317.1	15657.6	15285.8	13708.8	14013.7	14893.7	14169.7
62.5°	14891.8	15370.0	14223.9	14202.7	15525.0	15891.9	15630.5	14239.9	14716.8	14537.6	13452.9
65°	14208.9	14950.9	14747.8	14040.8	14813.1	14843.1	14758.6	14002.6	14882.6	13412.5	12067.0
67.5°	12721.4	13789.5	14057.8	12653.5	12892.5	12696.6	12554.6	12703.5	14017.6	11726.2	10141.4
70°	10361.8	11968.7	12097.0	10120.5	10011.9	9880.0	9597.6	10415.0	12311.5	9610.7	8047.1
72.5°	7618.9	9308.1	9703.1	7422.7	6920.0	6946.8	6723.9	7848.7	10009.9	7139.1	6008.0
75°	5212.5	6739.9	7591.8	5179.3	4576.4	4587.1	4558.7	5561.5	7972.7	4966.1	4495.7
77.5°	3808.0	4815.3	5725.7	3481.9	3380.4	3318.0	3303.0	3891.2	6112.5	3605.9	3491.0
80°	3055.6	3557.6	3845.8	2413.2	2595.0	2590.1	2506.6	2675.6	3991.7	2637.4	2611.0
82.5°	2119.7	2734.1	3116.0	1891.3	1751.6	1722.2	1742.7	1992.8	2821.5	1802.8	1714.3
85°	1118.3	1815.9	3085.9	1676.1	1039.6	829.4	1031.8	1631.8	2444.5	955.4	836.3
87.5°	143.0	524.9	2043.0	668.8	410.3	221.0	490.0	918.9	1569.7	194.9	170.1
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0
2.5°	6704.9	6571.1	6396.1	6233.9	6066.1	5899.0	5681.0	5544.2	5449.9	5431.6	5391.8
5°	6542.0	6097.5	5761.6	5471.1	5207.7	4835.2	4629.2	4458.2	4366.8	4358.0	4335.8
7.5°	5790.6	5177.3	4723.9	4312.6	3939.5	3638.9	3306.9	3152.5	3088.9	3103.9	3118.9
10°	5009.2	4323.7	3802.8	3382.3	3053.6	2800.3	2534.0	2354.1	2229.1	2204.0	2199.1
12.5°	4438.3	3686.2	3180.6	2883.6	2629.6	2391.0	2108.7	1896.2	1734.6	1679.1	1642.2
15°	4196.7	3374.5	2844.7	2524.8	2244.1	1941.5	1679.1	1456.8	1308.3	1260.0	1232.9
17.5°	4248.3	3288.0	2613.3	2204.0	1845.2	1529.3	1198.6	1008.3	918.9	896.0	896.0
20°	4517.9	3272.0	2422.0	1908.6	1460.7	1094.8	823.5	714.9	685.8	682.9	690.7
22.5°	4895.9	3328.5	2279.7	1652.3	1135.3	799.4	641.4	601.3	588.2	591.5	600.3
25°	5459.0	3518.4	2176.2	1423.8	890.8	654.5	571.9	548.1	541.9	550.0	561.1
27.5°	6126.5	3708.4	2111.6	1251.8	752.1	598.3	543.8	519.0	522.9	533.0	542.8
30°	6712.8	3864.4	2010.1	1129.4	709.0	601.3	543.8	509.9	505.9	507.9	510.8
32.5°	7238.9	3969.9	1891.3	1012.5	611.4	534.0	507.9	503.0	480.5	472.3	473.6
35°	7692.3	3969.9	1820.1	944.3	548.1	473.6	431.5	406.4	395.0	395.9	407.4
37.5°	8129.7	3890.2	1784.8	905.8	513.8	450.5	413.2	391.0	376.0	373.1	375.1
40°	8515.6	3774.7	1744.7	889.8	487.7	436.4	401.5	382.9	366.9	362.0	363.0
42.5°	8825.3	3681.0	1700.3	868.9	471.3	426.3	393.0	377.0	359.1	353.8	352.9
45°	9160.2	3650.0	1642.2	826.5	479.5	427.3	391.0	374.1	355.8	349.9	348.0
47.5°	9601.5	3747.6	1581.8	776.2	496.8	432.5	394.0	374.1	354.8	349.9	348.0
50°	10157.4	3976.7	1505.1	702.8	479.5	446.5	393.0	370.8	354.8	349.9	346.0
52.5°	10871.6	4286.5	1404.9	618.6	469.4	480.5	391.0	364.9	349.9	343.1	335.9
55°	11739.2	4539.8	1284.8	549.0	446.5	471.3	388.1	358.1	342.1	332.0	325.8
57.5°	12374.8	4631.2	1131.4	504.0	414.2	456.3	383.9	348.9	332.0	323.8	316.0
60°	12249.1	4454.3	1001.4	475.6	395.0	412.3	380.9	340.8	322.8	317.0	309.4
62.5°	11242.8	3991.7	917.9	462.5	382.9	376.0	383.9	332.9	315.0	308.5	306.5
65°	9733.4	3308.9	884.9	459.6	373.1	354.8	357.1	323.8	305.5	300.6	298.7
67.5°	8028.9	2670.7	855.9	469.4	360.0	339.8	330.0	311.7	296.4	291.5	287.6
70°	6331.5	2221.3	842.5	463.5	344.0	324.8	314.0	298.7	285.6	280.4	277.5
72.5°	5098.6	1876.2	835.3	457.3	322.8	304.5	294.4	281.4	267.3	265.4	262.4
75°	4314.9	1475.1	765.4	438.4	298.7	280.4	273.5	261.5	247.4	247.4	245.5
77.5°	3328.5	1066.7	636.5	388.1	273.5	253.3	247.4	238.3	222.3	225.2	224.2
80°	2458.6	695.9	497.8	321.8	242.5	223.3	220.0	211.2	193.9	198.1	198.1
82.5°	1684.3	456.3	358.1	263.4	206.9	189.0	189.0	179.9	160.9	162.9	169.1
85°	845.7	314.0	267.3	204.0	160.9	151.8	151.8	144.9	125.7	126.6	134.8
87.5°	257.5	189.0	176.9	145.9	115.6	113.6	108.4	103.5	91.4	90.4	95.6
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°	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0
2.5°	5330.1	5272.6	5203.7	5050.6	4999.4	4996.1	5042.8	4994.2	5086.9	5047.7	5090.8
5°	4298.3	4242.4	4164.7	3969.9	3851.1	3770.4	3732.6	3620.0	3701.2	3641.8	3691.4
7.5°	3161.3	3174.4	3123.2	3008.6	2750.1	2620.5	2544.1	2475.5	2535.0	2528.7	2623.4
10°	2222.2	2257.2	2221.3	2105.7	1896.2	1825.0	1839.0	1866.1	1943.8	1983.6	2129.5
12.5°	1599.8	1597.8	1574.6	1471.2	1333.4	1341.2	1398.7	1445.7	1517.2	1559.6	1708.1
15°	1194.4	1176.4	1166.3	1081.7	1003.4	1020.7	1048.8	1053.7	1099.0	1124.2	1245.0
17.5°	902.9	912.0	922.8	862.7	803.3	792.2	770.3	742.9	756.3	761.2	821.3
20°	716.8	753.0	780.5	738.0	678.0	645.3	617.3	599.3	599.3	598.3	615.3
22.5°	626.4	652.5	681.9	652.5	598.3	569.9	553.9	539.9	537.9	537.9	553.9
25°	577.4	596.4	624.4	604.5	564.0	542.8	527.8	509.9	503.0	500.7	511.8
27.5°	552.9	561.1	575.1	556.9	522.9	512.8	508.9	492.9	483.4	478.5	490.0
30°	511.8	509.9	510.8	492.9	465.5	464.5	471.3	474.6	471.3	470.4	487.7
32.5°	473.6	469.4	468.4	452.4	427.3	421.4	427.3	433.5	440.3	450.5	470.4
35°	425.3	435.4	441.3	427.3	396.9	379.0	372.1	361.0	354.8	354.8	378.0
37.5°	387.1	410.3	419.4	406.4	373.1	348.0	335.9	333.9	334.9	338.8	361.0
40°	374.1	391.0	398.9	386.2	352.9	330.0	322.8	320.9	322.8	329.0	350.9
42.5°	365.9	378.0	377.0	361.0	333.9	317.9	314.0	311.7	314.0	319.9	344.0
45°	359.1	366.9	359.1	339.8	315.0	306.5	307.5	306.5	308.5	315.0	337.8
47.5°	352.9	355.8	346.0	326.7	300.6	298.7	302.6	305.5	307.5	313.0	336.9
50°	344.0	344.0	334.9	315.0	288.6	289.5	294.4	301.6	302.6	308.5	328.0
52.5°	332.9	332.0	325.8	306.5	278.4	281.4	281.4	289.5	291.5	298.7	318.9
55°	323.8	321.8	318.9	300.6	269.6	274.5	271.6	274.5	279.4	286.6	308.5
57.5°	316.0	311.7	311.7	295.4	262.4	264.4	257.5	261.5	267.3	273.5	296.4
60°	307.5	303.6	305.5	288.6	251.3	249.4	246.4	254.3	256.6	263.4	286.6
62.5°	298.7	295.4	296.4	280.4	243.5	238.3	238.3	245.5	246.4	256.6	278.4
65°	291.5	287.6	286.6	272.6	234.4	228.5	231.4	234.4	236.3	246.4	267.3
67.5°	284.6	276.5	276.5	265.4	224.2	218.0	224.2	223.3	226.5	235.3	252.3
70°	275.5	264.4	265.4	260.5	214.1	206.9	212.2	211.2	213.2	219.0	236.3
72.5°	261.5	252.3	254.3	252.3	204.0	193.9	195.8	195.8	195.8	201.1	219.0
75°	243.5	236.3	242.5	247.4	191.9	177.9	179.9	179.9	176.9	179.9	202.1
77.5°	221.0	217.1	237.3	230.5	177.9	160.9	160.9	159.0	153.1	157.0	180.8
80°	197.2	193.9	219.0	192.9	161.9	140.0	137.7	132.5	126.6	129.6	154.1
82.5°	172.0	169.1	184.1	147.9	140.0	115.6	110.7	101.5	95.6	98.6	120.4
85°	141.0	141.0	142.0	111.6	106.4	88.5	82.6	70.5	63.3	65.3	86.5
87.5°	100.5	103.5	95.6	76.4	63.3	49.3	45.4	38.2	32.0	37.2	45.4
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):

	295°	305°	315°	325°	335°	345°	355°	360°
0°	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0	6180.0
2.5°	5312.1	5422.8	5548.4	5709.0	5847.1	6073.0	6290.4	6420.9
5°	3971.8	4155.9	4384.8	4679.8	4954.4	5366.3	5775.6	6038.1
7.5°	2842.4	3039.6	3287.0	3654.9	4043.3	4568.9	5110.1	5423.7
10°	2352.2	2554.2	2762.1	3010.5	3328.5	3900.4	4539.8	4893.6
12.5°	1945.8	2161.9	2386.1	2647.6	2942.0	3452.8	4189.9	4597.3
15°	1489.1	1730.3	1994.7	2325.7	2694.6	3285.1	4103.4	4545.7
17.5°	1020.7	1290.3	1614.8	2023.1	2474.6	3230.5	4258.4	4768.3
20°	702.8	899.0	1245.9	1724.5	2267.6	3223.7	4555.8	5194.6
22.5°	588.2	675.7	929.0	1449.9	2111.6	3310.2	5017.7	5792.6
25°	543.8	596.4	741.9	1211.7	1998.0	3509.3	5653.2	6566.9
27.5°	518.0	565.0	673.7	1056.0	1908.6	3740.4	6271.4	7317.0
30°	527.8	576.1	654.5	976.3	1786.8	3933.3	6820.5	7902.2
32.5°	475.6	496.8	561.1	905.8	1699.3	4095.2	7301.0	8386.9
35°	405.4	442.3	500.7	872.8	1701.3	4203.9	7824.9	9006.2
37.5°	386.2	423.4	465.5	860.8	1724.5	4319.8	8426.1	9732.4
40°	374.1	408.3	444.6	853.9	1746.7	4425.2	9015.6	10450.2
42.5°	365.9	396.9	442.3	829.4	1757.8	4519.9	9500.0	11060.6
45°	364.9	396.9	450.5	805.3	1774.7	4621.4	9906.4	11512.1
47.5°	365.9	410.3	435.4	776.2	1774.7	4791.1	10383.0	11915.2
50°	362.0	432.5	419.4	735.1	1733.6	5113.0	11036.5	12455.1
52.5°	360.0	429.6	388.1	671.8	1662.1	5623.8	11874.1	13199.3
55°	354.8	414.2	365.9	577.4	1578.9	6181.0	12771.1	14079.3
57.5°	349.9	366.9	353.8	494.8	1449.9	6573.1	13388.3	14765.8
60°	392.0	320.9	344.0	454.4	1277.9	6680.4	13364.5	15039.3
62.5°	363.0	300.6	331.0	445.6	1157.5	6378.8	12746.9	14891.8
65°	284.6	287.6	317.9	471.3	1125.2	5579.8	11652.7	14208.9
67.5°	260.5	274.5	304.5	505.0	1128.4	4467.3	10018.1	12721.4
70°	245.5	260.5	289.5	521.9	1136.3	3330.4	7920.2	10361.8
72.5°	228.5	241.5	272.6	524.9	1083.7	2419.1	6104.6	7618.9
75°	207.9	220.0	248.4	457.3	898.0	1678.1	4669.7	5212.5
77.5°	185.1	193.9	218.0	352.9	666.9	1073.9	3505.1	3808.0
80°	158.0	162.9	183.1	258.5	456.3	671.8	2773.2	3055.6
82.5°	126.6	128.6	142.0	193.9	296.4	431.5	1857.3	2119.7
85°	89.4	89.4	97.6	141.0	202.1	273.5	1008.3	1118.3
87.5°	42.1	43.1	43.1	77.4	105.4	139.1	232.4	143.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)