

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: P298936

Luminaire Tested: **GLNA-AF-04-LED-E1-SLL-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298936
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-04-LED-E1-SLL-800
Description: GALLEONAIRE AREA AND ROADWAY LUMINAIRE
(4) 70 CRI, 4000K 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: 16991.5 lumens
Efficiency: N/A
Efficacy: 99.4 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

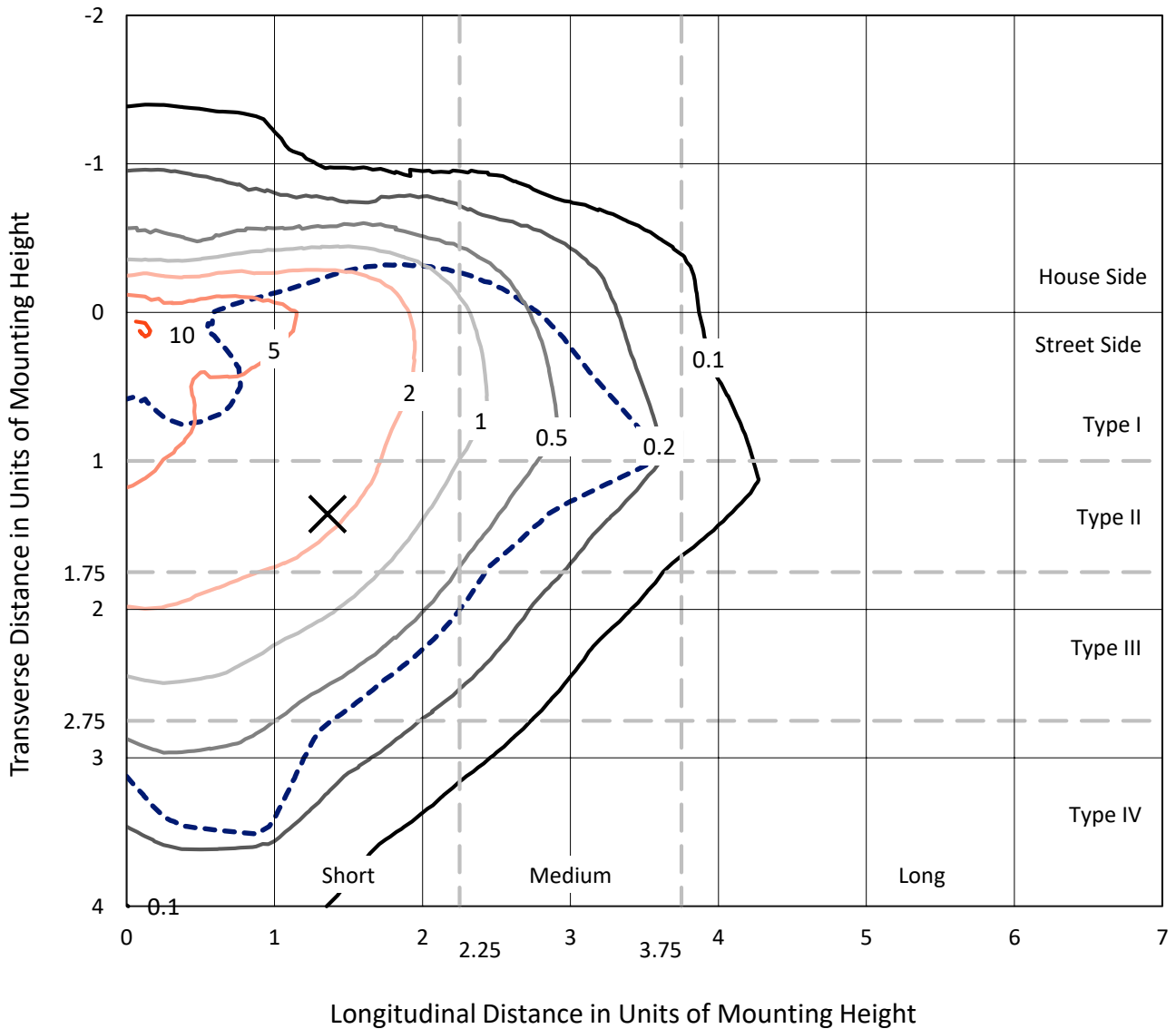
Input Watts (W): 171
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

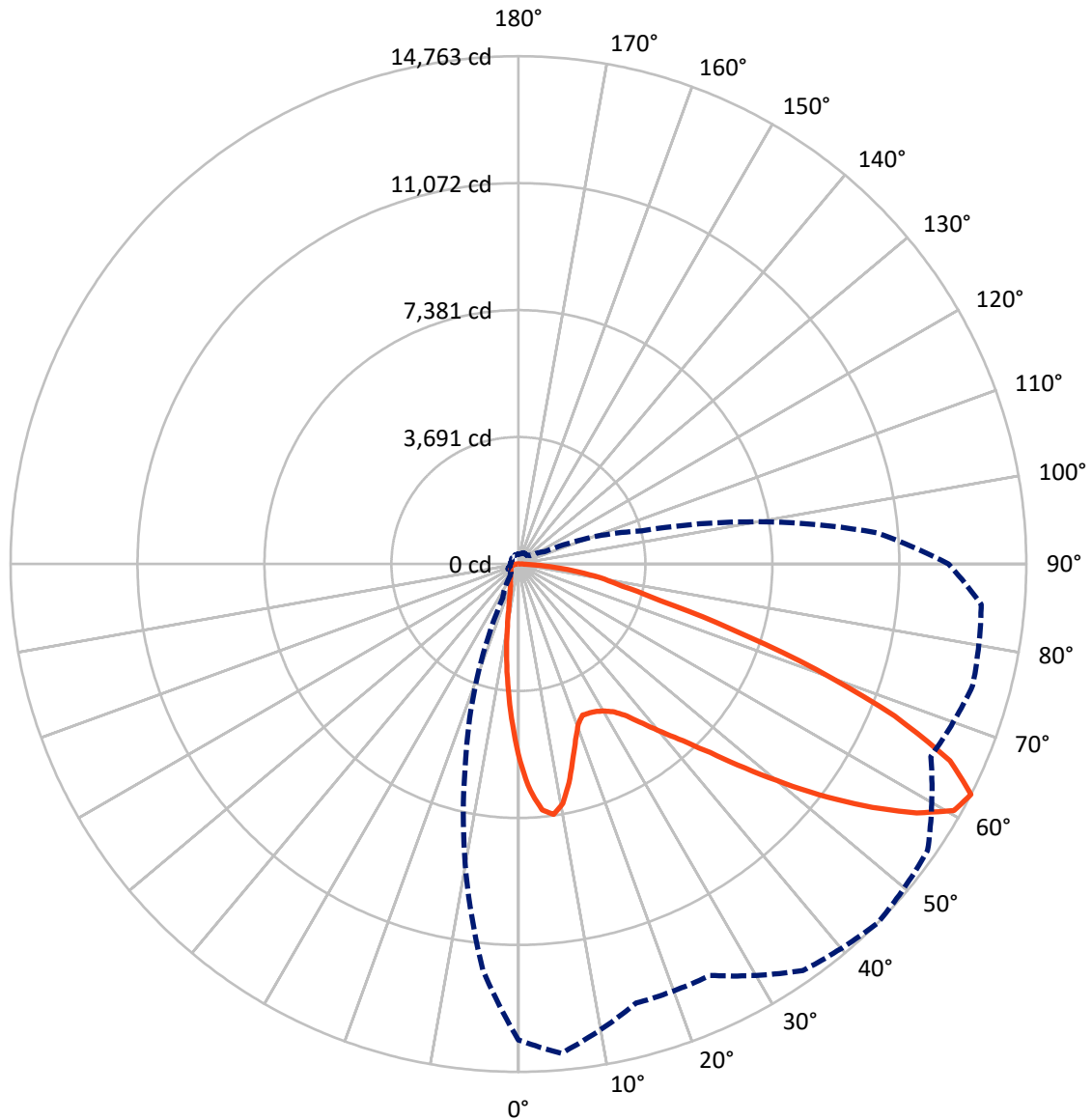
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 10.8 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	2811.8	0.0	2811.8
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	14179.6	0.0	14179.6
	% Fixture	83.5	0.0	83.5
Total	Lumens	16991.5	0.0	16991.5
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.9	2.5
10°-20°	766.3	4.5
20°-30°	1117.3	6.6
30°-40°	1720.8	10.1
40°-50°	2532.5	14.9
50°-60°	3714.6	21.9
60°-70°	4152.4	24.4
70°-80°	2033.0	12.0
80°-90°	536.8	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°	16991.5	100.0
0°-180°	16991.5	100.0

Coefficient of Utilization



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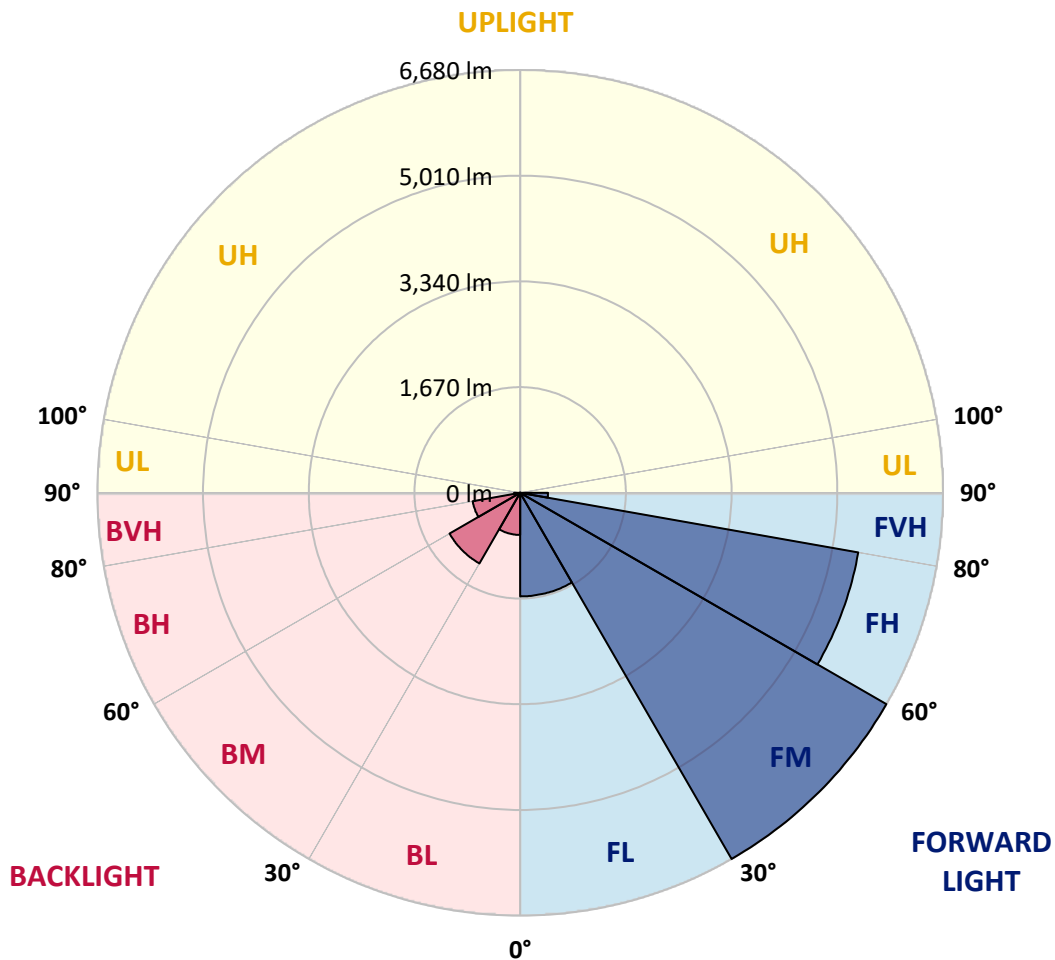
CATALOG NUMBER: GLNA-AF-04-LED-E1-SLL-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1636.2	9.6			
FM (30°-60°)	6679.5	39.3			
FH (60°-80°)	5423.1	31.9			G3/7500
FVH (80°-90°)	440.8	2.6			G3/500
BL (0°-30°)	665.2	3.9	B2/1000		
BM (30°-60°)	1288.4	7.6	B2/2500		
BH (60°-80°)	762.3	4.5	B2/1000		G2/1000
BVH (80°-90°)	96.0	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°	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8
2.5°	5964.6	6060.1	6246.0	6384.9	6554.4	6593.5	6647.8	6594.4	6500.1	6374.9	6333.9
5°	5608.9	5812.7	6263.6	6660.8	7013.7	7178.1	7224.2	7088.3	6814.8	6455.2	6235.7
7.5°	5038.3	5327.8	5938.5	6523.4	7043.5	7350.9	7343.3	7028.6	6525.3	5939.4	5587.4
10°	4545.8	4876.7	5577.4	6231.1	6783.0	7081.1	6965.8	6563.8	5962.8	5288.4	4906.7
12.5°	4270.5	4594.7	5305.4	5961.9	6423.4	6526.2	6438.2	6044.0	5477.9	4796.3	4461.9
15°	4222.6	4578.9	5197.2	5731.4	5990.1	5900.6	5795.7	5619.2	5219.3	4637.4	4289.0
17.5°	4429.4	4821.5	5321.5	5570.7	5526.8	5370.6	5340.9	5360.6	5264.5	4813.9	4412.4
20°	4825.4	5296.0	5617.4	5495.2	5174.7	4959.7	4967.3	5267.2	5551.9	5261.4	4802.7
22.5°	5380.9	5918.2	6044.0	5535.2	5026.1	4771.1	4833.0	5318.7	6010.7	5915.5	5329.7
25°	6100.1	6589.8	6499.2	5680.8	5041.0	4794.5	4843.9	5496.1	6552.2	6569.2	5981.9
27.5°	6796.9	7251.2	6880.9	5874.2	5102.9	4849.7	4915.2	5775.1	7069.8	7279.1	6727.2
30°	7340.6	7656.6	7032.2	6050.7	5224.1	4957.0	5038.3	6040.4	7305.4	7758.1	7300.6
32.5°	7790.9	8017.7	7273.3	6269.3	5447.3	5125.9	5269.0	6362.7	7644.4	8214.2	7861.8
35°	8366.1	8430.7	7573.2	6513.1	5792.1	5420.3	5597.7	6678.4	7967.7	8674.5	8414.9
37.5°	9040.8	8957.7	7856.1	6846.7	6237.8	5880.6	6027.4	7025.0	8233.6	9196.6	8979.8
40°	9707.5	9507.4	8211.5	7364.0	6887.9	6423.4	6597.1	7394.9	8482.2	9719.7	9532.0
42.5°	10274.5	9978.3	8561.4	7932.8	7492.8	7022.2	7229.6	7767.5	8719.3	10166.0	10011.1
45°	10693.9	10325.8	8894.9	8479.2	8327.0	7817.9	7916.1	8194.2	8976.2	10539.0	10405.2
47.5°	11068.4	10675.1	9272.1	9030.4	9056.5	8852.8	8694.8	8691.1	9279.1	10843.4	10777.9
50°	11569.9	11159.9	9677.5	9598.1	10151.1	10015.6	9667.2	9271.2	9661.7	11189.1	11181.5
52.5°	12261.2	11928.0	10172.7	10210.0	11173.3	11261.8	10830.0	9968.3	10261.2	11823.1	11778.5
55°	13078.7	12884.0	10847.3	10913.4	12426.5	12490.2	12061.1	10839.4	11143.3	12741.5	12617.2
57.5°	13716.4	13675.4	11586.9	11757.9	13362.5	13648.5	13254.3	11848.6	12136.9	13514.7	13202.7
60°	13970.5	14169.4	12374.3	12609.6	14228.5	14544.8	14199.4	12734.6	13017.8	13835.2	13162.7
62.5°	13833.4	14277.6	13213.0	13193.3	14421.7	14762.5	14519.6	13227.9	13670.9	13504.4	12496.8
65°	13199.1	13888.3	13699.7	13042.9	13760.3	13788.2	13709.7	13007.5	13824.9	12459.2	11209.4
67.5°	11817.3	12809.5	13058.7	11754.3	11976.2	11794.3	11662.4	11800.6	13021.4	10892.8	9420.7
70°	9625.4	11118.1	11237.3	9401.3	9300.3	9177.8	8915.5	9674.8	11436.5	8927.7	7475.2
72.5°	7077.4	8646.6	9013.5	6895.2	6428.2	6453.1	6246.0	7290.9	9298.5	6631.7	5581.0
75°	4842.1	6260.8	7052.2	4811.2	4251.1	4261.1	4234.7	5166.2	7406.1	4613.2	4176.2
77.5°	3537.3	4473.1	5318.7	3234.4	3140.1	3082.2	3068.3	3614.7	5678.1	3349.7	3242.9
80°	2838.4	3304.8	3572.5	2241.7	2410.6	2406.0	2328.4	2485.5	3708.1	2450.0	2425.4
82.5°	1969.1	2539.8	2894.5	1756.8	1627.1	1599.8	1618.9	1851.1	2621.0	1674.7	1592.5
85°	1038.8	1686.8	2866.6	1557.0	965.7	770.5	958.5	1515.8	2270.8	887.5	776.8
87.5°	132.8	487.6	1897.8	621.3	381.1	205.3	455.1	853.6	1458.2	181.0	158.0
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°	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8
2.5°	6228.4	6104.1	5941.6	5790.9	5635.0	5479.8	5277.2	5150.2	5062.5	5045.6	5008.6
5°	6077.1	5664.1	5352.1	5082.2	4837.5	4491.6	4300.2	4141.4	4056.5	4048.3	4027.6
7.5°	5379.1	4809.3	4388.2	4006.1	3659.5	3380.3	3071.9	2928.5	2869.4	2883.3	2897.2
10°	4653.2	4016.4	3532.5	3141.9	2836.6	2601.3	2353.9	2186.8	2070.7	2047.3	2042.8
12.5°	4122.9	3424.2	2954.6	2678.6	2442.7	2221.1	1958.8	1761.4	1611.3	1559.8	1525.5
15°	3898.5	3134.7	2642.5	2345.4	2084.6	1803.5	1559.8	1353.3	1215.3	1170.4	1145.3
17.5°	3946.4	3054.3	2427.6	2047.3	1714.1	1420.6	1113.4	936.6	853.6	832.3	832.3
20°	4196.8	3039.5	2249.9	1772.9	1356.9	1017.0	765.0	664.0	637.1	634.3	641.6
22.5°	4548.0	3091.9	2117.7	1534.9	1054.6	742.6	595.8	558.5	546.4	549.4	557.6
25°	5071.0	3268.4	2021.6	1322.6	827.5	608.0	531.2	509.1	503.3	510.9	521.2
27.5°	5691.1	3444.9	1961.5	1162.8	698.6	555.8	505.2	482.1	485.8	495.2	504.3
30°	6235.7	3589.8	1867.2	1049.1	658.6	558.5	505.2	473.6	470.0	471.8	474.5
32.5°	6724.5	3687.7	1756.8	940.6	567.9	496.1	471.8	467.3	446.3	438.8	440.0
35°	7145.6	3687.7	1690.7	877.2	509.1	440.0	400.9	377.5	366.9	367.8	378.4
37.5°	7552.0	3613.8	1658.0	841.4	477.3	418.4	383.9	363.3	349.3	346.6	348.4
40°	7910.4	3506.4	1620.7	826.6	453.0	405.4	373.0	355.7	340.8	336.3	337.2
42.5°	8198.1	3419.4	1579.5	807.2	437.8	396.0	365.1	350.2	333.5	328.7	327.8
45°	8509.2	3390.6	1525.5	767.7	445.4	396.9	363.3	347.5	330.5	325.0	323.2
47.5°	8919.2	3481.2	1469.4	721.1	461.5	401.8	366.0	347.5	329.6	325.0	323.2
50°	9435.5	3694.1	1398.1	652.8	445.4	414.8	365.1	344.5	329.6	325.0	321.4
52.5°	10099.0	3981.9	1305.1	574.6	436.0	446.3	363.3	339.0	325.0	318.7	312.0
55°	10904.9	4217.2	1193.5	510.0	414.8	437.8	360.5	332.6	317.8	308.4	302.6
57.5°	11495.3	4302.1	1051.0	468.2	384.8	423.9	356.6	324.1	308.4	300.8	293.5
60°	11378.6	4137.7	930.3	441.8	366.9	383.0	353.9	316.6	299.9	294.4	287.5
62.5°	10443.7	3708.1	852.6	429.7	355.7	349.3	356.6	309.3	292.6	286.5	284.7
65°	9041.7	3073.7	822.0	426.9	346.6	329.6	331.7	300.8	283.8	279.3	277.4
67.5°	7458.3	2480.9	795.0	436.0	334.4	315.7	306.6	289.6	275.3	270.8	267.1
70°	5881.5	2063.4	782.6	430.6	319.6	301.7	291.7	277.4	265.3	260.5	257.7
72.5°	4736.3	1742.9	775.9	424.8	299.9	282.9	273.5	261.4	248.3	246.5	243.8
75°	4008.2	1370.2	711.0	407.2	277.4	260.5	254.1	242.9	229.8	229.8	228.0
77.5°	3091.9	990.9	591.3	360.5	254.1	235.3	229.8	221.3	206.5	209.2	208.3
80°	2283.8	646.5	462.4	299.0	225.3	207.4	204.4	196.2	180.1	184.1	184.1
82.5°	1564.6	423.9	332.6	244.7	192.2	175.6	175.6	167.1	149.5	151.3	157.1
85°	785.6	291.7	248.3	189.5	149.5	141.0	141.0	134.6	116.7	117.6	125.2
87.5°	239.2	175.6	164.3	135.5	107.3	105.5	100.7	96.1	84.9	84.0	88.8
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°	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8
2.5°	4951.2	4897.9	4833.9	4691.7	4644.1	4641.1	4684.4	4639.2	4725.4	4689.0	4729.0
5°	3992.8	3940.9	3868.8	3687.7	3577.4	3502.5	3467.3	3362.7	3438.2	3383.0	3429.1
7.5°	2936.7	2948.8	2901.2	2794.8	2554.6	2434.2	2363.3	2299.6	2354.8	2349.0	2437.0
10°	2064.3	2096.8	2063.4	1956.1	1761.4	1695.3	1708.3	1733.5	1805.7	1842.7	1978.2
12.5°	1486.1	1484.3	1462.7	1366.6	1238.6	1245.9	1299.3	1343.0	1409.4	1448.8	1586.7
15°	1109.5	1092.8	1083.4	1004.9	932.1	948.2	974.2	978.8	1020.9	1044.3	1156.5
17.5°	838.7	847.2	857.2	801.4	746.2	735.9	715.6	690.1	702.6	707.1	762.9
20°	665.9	699.5	725.0	685.6	629.8	599.5	573.4	556.7	556.7	555.8	571.6
22.5°	581.9	606.1	633.4	606.1	555.8	529.4	514.6	501.5	499.7	499.7	514.6
25°	536.4	554.0	580.1	561.6	524.0	504.3	490.3	473.6	467.3	465.1	475.4
27.5°	513.7	521.2	534.3	517.3	485.8	476.4	472.7	457.9	449.1	444.5	455.1
30°	475.4	473.6	474.5	457.9	432.4	431.5	437.8	440.9	437.8	436.9	453.0
32.5°	440.0	436.0	435.1	420.3	396.9	391.5	396.9	402.7	409.0	418.4	436.9
35°	395.1	404.5	410.0	396.9	368.7	352.0	345.7	335.4	329.6	329.6	351.1
37.5°	359.6	381.1	389.6	377.5	346.6	323.2	312.0	310.2	311.1	314.7	335.4
40°	347.5	363.3	370.5	358.7	327.8	306.6	299.9	298.1	299.9	305.6	326.0
42.5°	339.9	351.1	350.2	335.4	310.2	295.3	291.7	289.6	291.7	297.2	319.6
45°	333.5	340.8	333.5	315.7	292.6	284.7	285.6	284.7	286.5	292.6	313.8
47.5°	327.8	330.5	321.4	303.5	279.3	277.4	281.1	283.8	285.6	290.8	312.9
50°	319.6	319.6	311.1	292.6	268.0	269.0	273.5	280.2	281.1	286.5	304.7
52.5°	309.3	308.4	302.6	284.7	258.6	261.4	261.4	269.0	270.8	277.4	296.2
55°	300.8	299.0	296.2	279.3	250.5	255.0	252.3	255.0	259.6	266.2	286.5
57.5°	293.5	289.6	289.6	274.4	243.8	245.6	239.2	242.9	248.3	254.1	275.3
60°	285.6	282.0	283.8	268.0	233.5	231.7	228.9	236.2	238.3	244.7	266.2
62.5°	277.4	274.4	275.3	260.5	226.2	221.3	221.3	228.0	228.9	238.3	258.6
65°	270.8	267.1	266.2	253.2	217.7	212.3	215.0	217.7	219.5	228.9	248.3
67.5°	264.4	256.8	256.8	246.5	208.3	202.5	208.3	207.4	210.4	218.6	234.4
70°	255.9	245.6	246.5	242.0	198.9	192.2	197.1	196.2	198.0	203.5	219.5
72.5°	242.9	234.4	236.2	234.4	189.5	180.1	181.9	181.9	181.9	186.8	203.5
75°	226.2	219.5	225.3	229.8	178.3	165.3	167.1	167.1	164.3	167.1	187.7
77.5°	205.3	201.6	220.4	214.1	165.3	149.5	149.5	147.7	142.2	145.8	168.0
80°	183.1	180.1	203.5	179.2	150.4	130.1	128.0	123.1	117.6	120.4	143.1
82.5°	159.8	157.1	171.0	137.4	130.1	107.3	102.8	94.3	88.8	91.6	111.9
85°	131.0	131.0	131.9	103.7	98.8	82.2	76.7	65.5	58.8	60.6	80.4
87.5°	93.4	96.1	88.8	71.0	58.8	45.8	42.1	35.5	29.7	34.6	42.1
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°	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8	5740.8
2.5°	4934.6	5037.4	5154.1	5303.3	5431.5	5641.4	5843.3	5964.6
5°	3689.6	3860.6	4073.1	4347.2	4602.2	4984.9	5365.1	5608.9
7.5°	2640.4	2823.6	3053.4	3395.1	3756.0	4244.1	4746.9	5038.3
10°	2185.0	2372.7	2565.8	2796.6	3091.9	3623.2	4217.2	4545.8
12.5°	1807.5	2008.2	2216.5	2459.4	2732.9	3207.4	3892.1	4270.5
15°	1383.3	1607.4	1853.0	2160.4	2503.1	3051.6	3811.8	4222.6
17.5°	948.2	1198.6	1500.0	1879.3	2298.7	3001.0	3955.8	4429.4
20°	652.8	835.1	1157.4	1601.9	2106.5	2994.6	4232.0	4825.4
22.5°	546.4	627.7	863.0	1346.9	1961.5	3074.9	4661.1	5380.9
25°	505.2	554.0	689.2	1125.5	1856.0	3259.9	5251.4	6100.1
27.5°	481.2	524.9	625.8	980.9	1772.9	3474.6	5825.7	6796.9
30°	490.3	535.2	608.0	906.9	1659.8	3653.8	6335.7	7340.6
32.5°	441.8	461.5	521.2	841.4	1578.6	3804.2	6782.1	7790.9
35°	376.6	410.9	465.1	810.8	1580.4	3905.1	7268.7	8366.1
37.5°	358.7	393.3	432.4	799.6	1601.9	4012.8	7827.3	9040.8
40°	347.5	379.3	413.0	793.2	1622.5	4110.7	8374.9	9707.5
42.5°	339.9	368.7	410.9	770.5	1632.8	4198.7	8824.9	10274.5
45°	339.0	368.7	418.4	748.0	1648.6	4293.0	9202.4	10693.9
47.5°	339.9	381.1	404.5	721.1	1648.6	4450.6	9645.1	11068.4
50°	336.3	401.8	389.6	682.8	1610.4	4749.6	10252.1	11569.9
52.5°	334.4	399.0	360.5	624.0	1544.0	5224.1	11030.2	12261.2
55°	329.6	384.8	339.9	536.4	1466.7	5741.7	11863.4	13078.7
57.5°	325.0	340.8	328.7	459.7	1346.9	6105.9	12436.8	13716.4
60°	364.2	298.1	319.6	422.1	1187.1	6205.7	12414.7	13970.5
62.5°	337.2	279.3	307.5	413.9	1075.2	5925.5	11841.0	13833.4
65°	264.4	267.1	295.3	437.8	1045.2	5183.2	10824.6	13199.1
67.5°	242.0	255.0	282.9	469.1	1048.2	4149.8	9306.1	11817.3
70°	228.0	242.0	269.0	484.8	1055.5	3093.7	7357.3	9625.4
72.5°	212.3	224.4	253.2	487.6	1006.7	2247.1	5670.8	7077.4
75°	193.1	204.4	230.7	424.8	834.2	1558.8	4337.8	4842.1
77.5°	171.9	180.1	202.5	327.8	619.5	997.6	3256.0	3537.3
80°	146.8	151.3	170.1	240.1	423.9	624.0	2576.1	2838.4
82.5°	117.6	119.5	131.9	180.1	275.3	400.9	1725.3	1969.1
85°	83.1	83.1	90.7	131.0	187.7	254.1	936.6	1038.8
87.5°	39.1	40.0	40.0	71.9	97.9	129.2	215.9	132.8
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)