

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: P298859

Luminaire Tested: **GLNA-AF-01-LED-E1-SLL-7050**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P298859
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-01-LED-E1-SLL-7050
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 5000K CCT 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND 90° Spill
Light Eliminator Left OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5459.1 lumens
Efficiency: N/A
Efficacy: 92.5 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

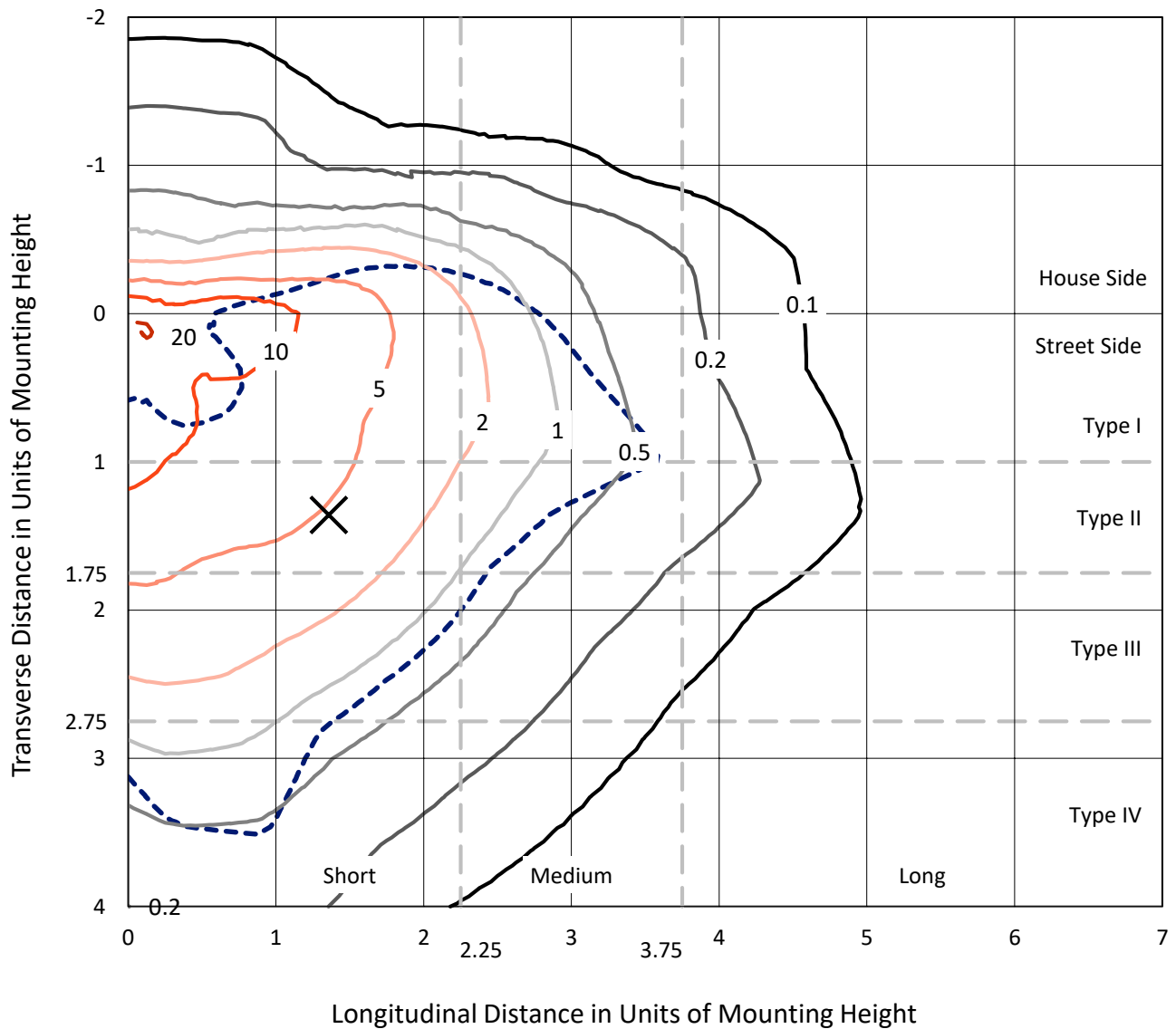
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

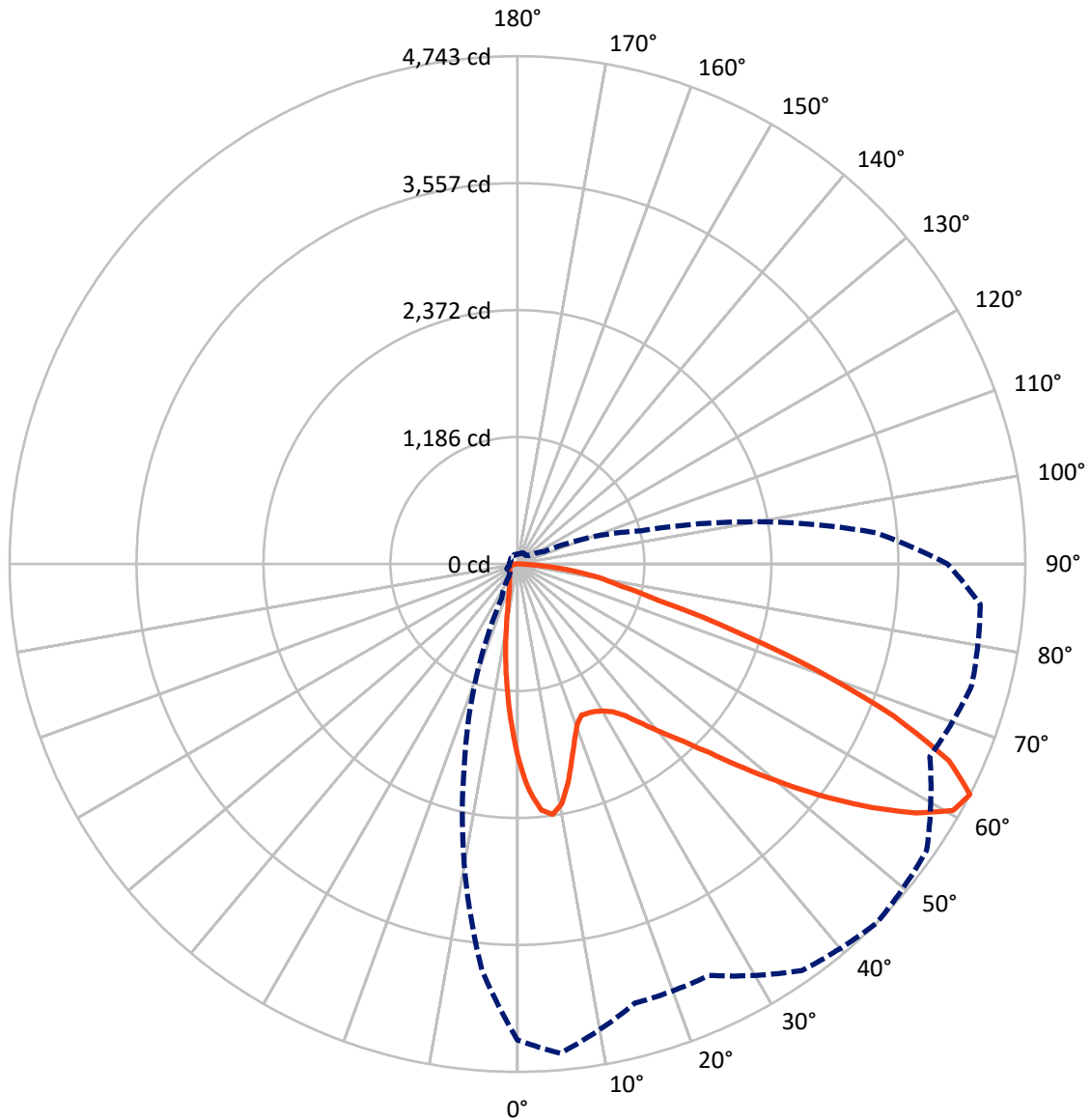
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.7 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	903.4	0.0	903.4
	% Fixture	16.5	0.0	16.5
Street Side	Lumens	4555.7	0.0	4555.7
	% Fixture	83.5	0.0	83.5
Total	Lumens	5459.1	0.0	5459.1
	% Fixture	100.0	0.0	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.3	2.5
10°-20°	246.2	4.5
20°-30°	359.0	6.6
30°-40°	552.9	10.1
40°-50°	813.7	14.9
50°-60°	1193.5	21.9
60°-70°	1334.1	24.4
70°-80°	653.2	12.0
80°-90°	172.5	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°	5459.1	100.0
0°-180°	5459.1	100.0



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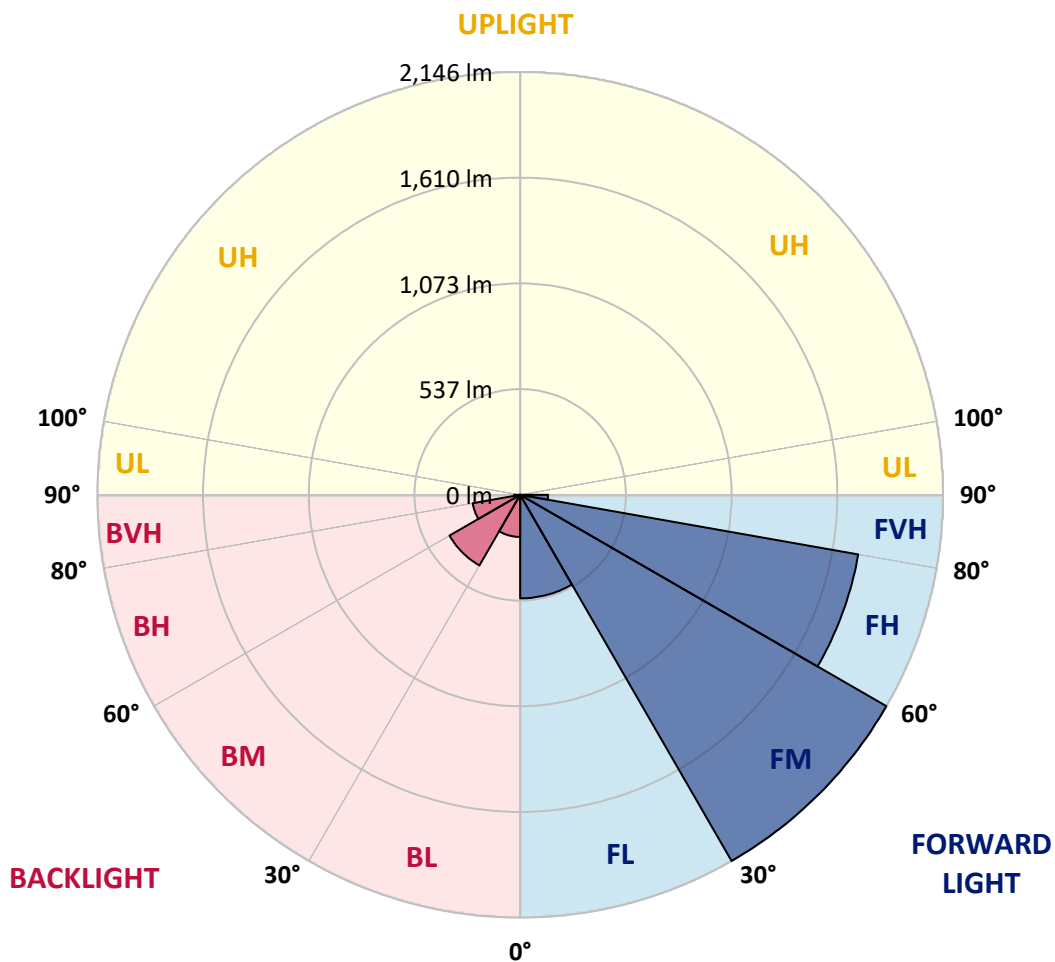
CATALOG NUMBER: GLNA-AF-01-LED-E1-SLL-7050

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	525.7	9.6			
FM	(30°-60°)	2146.0	39.3			
FH	(60°-80°)	1742.4	31.9			G1/1800
FVH	(80°-90°)	141.6	2.6			G2/225
BL	(0°-30°)	213.7	3.9	B1/500		
BM	(30°-60°)	413.9	7.6	B1/1000		
BH	(60°-80°)	244.9	4.5	B1/500		G1/500
BVH	(80°-90°)	30.8	0.6			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G2

Type IV Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4
2.5°	1916.3	1947.0	2006.7	2051.4	2105.8	2118.4	2135.8	2118.7	2088.4	2048.1	2035.0
5°	1802.1	1867.5	2012.4	2140.0	2253.4	2306.2	2321.0	2277.4	2189.5	2074.0	2003.4
7.5°	1618.7	1711.8	1908.0	2095.9	2263.0	2361.7	2359.3	2258.2	2096.5	1908.2	1795.1
10°	1460.5	1566.8	1791.9	2002.0	2179.3	2275.0	2238.0	2108.8	1915.7	1699.1	1576.4
12.5°	1372.1	1476.2	1704.5	1915.5	2063.7	2096.8	2068.5	1941.9	1760.0	1541.0	1433.5
15°	1356.7	1471.1	1669.8	1841.4	1924.5	1895.8	1862.1	1805.4	1676.9	1489.9	1378.0
17.5°	1423.1	1549.1	1709.7	1789.8	1775.7	1725.5	1715.9	1722.3	1691.4	1546.6	1417.6
20°	1550.3	1701.5	1804.8	1765.5	1662.6	1593.5	1595.9	1692.3	1783.7	1690.4	1543.0
22.5°	1728.8	1901.4	1941.9	1778.4	1614.8	1532.9	1552.8	1708.8	1931.1	1900.6	1712.3
25°	1959.9	2117.2	2088.1	1825.1	1619.6	1540.4	1556.3	1765.8	2105.1	2110.6	1921.9
27.5°	2183.7	2329.7	2210.7	1887.3	1639.5	1558.1	1579.2	1855.4	2271.4	2338.6	2161.3
30°	2358.4	2459.9	2259.3	1944.0	1678.4	1592.6	1618.7	1940.7	2347.1	2492.6	2345.6
32.5°	2503.1	2576.0	2336.8	2014.2	1750.1	1646.9	1692.9	2044.2	2456.0	2639.1	2525.9
35°	2687.9	2708.6	2433.1	2092.6	1860.9	1741.5	1798.5	2145.7	2559.9	2787.0	2703.6
37.5°	2904.7	2878.0	2524.0	2199.7	2004.1	1889.3	1936.5	2257.0	2645.3	2954.7	2885.1
40°	3118.9	3054.6	2638.2	2365.9	2213.0	2063.7	2119.6	2375.9	2725.2	3122.8	3062.5
42.5°	3301.1	3205.9	2750.6	2548.7	2407.3	2256.1	2322.8	2495.6	2801.4	3266.2	3216.4
45°	3435.8	3317.5	2857.8	2724.2	2675.3	2511.8	2543.3	2632.7	2883.9	3386.0	3343.0
47.5°	3556.1	3429.7	2979.0	2901.3	2909.7	2844.3	2793.5	2792.3	2981.2	3483.8	3462.8
50°	3717.2	3585.5	3109.2	3083.7	3261.4	3217.9	3105.9	2978.7	3104.2	3594.9	3592.4
52.5°	3939.3	3832.3	3268.3	3280.3	3589.8	3618.2	3479.5	3202.7	3296.8	3798.6	3784.3
55°	4202.0	4139.4	3485.1	3506.3	3992.4	4012.9	3875.0	3482.5	3580.2	4093.7	4053.7
57.5°	4406.9	4393.7	3722.7	3777.6	4293.2	4385.0	4258.4	3806.8	3899.4	4342.1	4241.8
60°	4488.5	4552.4	3975.7	4051.3	4571.4	4673.0	4562.0	4091.4	4182.4	4445.0	4229.0
62.5°	4444.5	4587.2	4245.1	4238.8	4633.5	4743.0	4664.9	4249.9	4392.2	4338.8	4015.0
65°	4240.7	4462.1	4401.5	4190.5	4421.0	4429.9	4404.7	4179.1	4441.7	4003.0	3601.4
67.5°	3796.7	4115.5	4195.6	3776.5	3847.8	3789.3	3746.9	3791.4	4183.6	3499.7	3026.7
70°	3092.5	3572.1	3610.4	3020.5	2988.0	2948.7	2864.4	3108.4	3674.4	2868.3	2401.7
72.5°	2273.9	2778.0	2895.9	2215.3	2065.3	2073.3	2006.7	2342.4	2987.5	2130.7	1793.1
75°	1555.7	2011.5	2265.8	1545.8	1365.8	1369.0	1360.6	1659.8	2379.5	1482.1	1341.8
77.5°	1136.5	1437.1	1708.8	1039.2	1008.9	990.3	985.8	1161.3	1824.3	1076.2	1041.9
80°	911.9	1061.8	1147.8	720.2	774.5	773.0	748.1	798.5	1191.3	787.1	779.3
82.5°	632.6	816.0	930.0	564.4	522.8	514.0	520.1	594.7	842.1	538.0	511.6
85°	333.8	541.9	921.0	500.2	310.3	247.5	307.9	487.0	729.6	285.1	249.6
87.5°	42.7	156.7	609.7	199.6	122.5	66.0	146.2	274.2	468.5	58.2	50.8
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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°	185°
0°	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4
2.5°	2001.1	1961.1	1908.9	1860.5	1810.4	1760.6	1695.5	1654.7	1626.5	1621.1	1609.2
5°	1952.5	1819.8	1719.5	1632.8	1554.2	1443.1	1381.6	1330.6	1303.3	1300.6	1294.0
7.5°	1728.2	1545.2	1409.9	1287.1	1175.8	1086.0	987.0	940.9	921.9	926.4	930.8
10°	1495.0	1290.4	1134.9	1009.5	911.4	835.8	756.3	702.6	665.3	657.8	656.3
12.5°	1324.6	1100.2	949.3	860.6	784.8	713.6	629.3	565.9	517.7	501.1	490.1
15°	1252.5	1007.1	849.0	753.5	669.8	579.4	501.1	434.8	390.5	376.0	368.0
17.5°	1267.9	981.3	779.9	657.8	550.7	456.4	357.7	300.9	274.2	267.4	267.4
20°	1348.4	976.5	722.9	569.6	436.0	326.7	245.8	213.3	204.7	203.8	206.1
22.5°	1461.2	993.4	680.4	493.1	338.8	238.6	191.4	179.4	175.5	176.5	179.2
25°	1629.2	1050.1	649.5	424.9	265.9	195.3	170.7	163.6	161.7	164.2	167.5
27.5°	1828.5	1106.8	630.2	373.6	224.5	178.6	162.3	154.9	156.1	159.1	162.0
30°	2003.4	1153.3	599.9	337.1	211.6	179.4	162.3	152.2	151.0	151.6	152.5
32.5°	2160.5	1184.8	564.4	302.2	182.5	159.4	151.6	150.1	143.4	141.0	141.4
35°	2295.8	1184.8	543.2	281.8	163.6	141.4	128.8	121.3	117.9	118.2	121.6
37.5°	2426.3	1161.0	532.7	270.3	153.3	134.4	123.3	116.7	112.2	111.4	111.9
40°	2541.5	1126.6	520.7	265.6	145.5	130.2	119.8	114.3	109.5	108.0	108.3
42.5°	2633.9	1098.6	507.5	259.3	140.7	127.2	117.3	112.5	107.2	105.6	105.3
45°	2733.9	1089.3	490.1	246.7	143.1	127.5	116.7	111.6	106.2	104.4	103.8
47.5°	2865.6	1118.5	472.1	231.7	148.3	129.1	117.6	111.6	105.9	104.4	103.8
50°	3031.5	1186.9	449.2	209.7	143.1	133.3	117.3	110.7	105.9	104.4	103.3
52.5°	3244.6	1279.3	419.3	184.6	140.1	143.4	116.7	108.9	104.4	102.4	100.2
55°	3503.6	1354.9	383.4	163.9	133.3	140.7	115.8	106.9	102.1	99.1	97.2
57.5°	3693.3	1382.2	337.7	150.4	123.6	136.2	114.6	104.1	99.1	96.6	94.3
60°	3655.8	1329.4	298.9	141.9	117.9	123.0	113.7	101.7	96.3	94.6	92.4
62.5°	3355.4	1191.3	273.9	138.0	114.3	112.2	114.6	99.4	94.0	92.1	91.5
65°	2904.9	987.5	264.1	137.2	111.4	105.9	106.6	96.6	91.2	89.7	89.1
67.5°	2396.2	797.1	255.4	140.1	107.5	101.4	98.5	93.0	88.5	87.0	85.8
70°	1889.6	662.9	251.4	138.3	102.7	96.9	93.7	89.1	85.2	83.7	82.8
72.5°	1521.7	560.0	249.3	136.5	96.3	90.9	87.9	84.0	79.8	79.2	78.3
75°	1287.8	440.2	228.4	130.8	89.1	83.7	81.6	78.0	73.8	73.8	73.3
77.5°	993.4	318.4	190.0	115.8	81.6	75.6	73.8	71.1	66.3	67.2	66.9
80°	733.8	207.7	148.6	96.1	72.4	66.6	65.7	63.0	57.9	59.1	59.1
82.5°	502.7	136.2	106.9	78.6	61.8	56.4	56.4	53.7	48.0	48.6	50.5
85°	252.4	93.7	79.8	60.9	48.0	45.3	45.3	43.3	37.5	37.8	40.2
87.5°	76.9	56.4	52.8	43.5	34.5	33.9	32.3	30.9	27.3	27.0	28.5
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°	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4
2.5°	1590.8	1573.6	1553.1	1507.4	1492.1	1491.1	1505.0	1490.5	1518.2	1506.5	1519.4
5°	1282.8	1266.2	1243.0	1184.8	1149.4	1125.3	1114.0	1080.4	1104.6	1086.9	1101.7
7.5°	943.5	947.4	932.1	897.9	820.8	782.1	759.3	738.8	756.6	754.7	783.0
10°	663.2	673.7	662.9	628.5	565.9	544.7	548.9	556.9	580.1	592.0	635.6
12.5°	477.5	476.9	470.0	439.1	398.0	400.3	417.4	431.5	452.8	465.5	509.8
15°	356.5	351.1	348.1	322.8	299.5	304.6	313.0	314.5	328.0	335.5	371.6
17.5°	269.5	272.2	275.4	257.5	239.7	236.4	229.9	221.7	225.7	227.2	245.1
20°	213.9	224.7	232.9	220.3	202.3	192.6	184.2	178.9	178.9	178.6	183.6
22.5°	186.9	194.7	203.5	194.7	178.6	170.1	165.3	161.1	160.5	160.5	165.3
25°	172.3	178.0	186.4	180.4	168.3	162.0	157.5	152.2	150.1	149.4	152.8
27.5°	165.0	167.5	171.7	166.2	156.1	153.0	151.9	147.1	144.3	142.8	146.2
30°	152.8	152.2	152.5	147.1	138.9	138.6	140.7	141.6	140.7	140.4	145.5
32.5°	141.4	140.1	139.8	135.0	127.5	125.8	127.5	129.4	131.4	134.4	140.4
35°	126.9	130.0	131.7	127.5	118.5	113.1	111.1	107.7	105.9	105.9	112.8
37.5°	115.5	122.5	125.2	121.3	111.4	103.8	100.2	99.7	100.0	101.1	107.7
40°	111.6	116.7	119.0	115.2	105.3	98.5	96.3	95.8	96.3	98.2	104.7
42.5°	109.2	112.8	112.5	107.7	99.7	94.9	93.7	93.0	93.7	95.5	102.7
45°	107.2	109.5	107.2	101.4	94.0	91.5	91.8	91.5	92.1	94.0	100.8
47.5°	105.3	106.2	103.3	97.5	89.7	89.1	90.3	91.2	91.8	93.4	100.5
50°	102.7	102.7	100.0	94.0	86.1	86.4	87.9	90.0	90.3	92.1	97.9
52.5°	99.4	99.1	97.2	91.5	83.1	84.0	84.0	86.4	87.0	89.1	95.2
55°	96.6	96.1	95.2	89.7	80.5	81.9	81.1	81.9	83.4	85.5	92.1
57.5°	94.3	93.0	93.0	88.2	78.3	78.9	76.9	78.0	79.8	81.6	88.5
60°	91.8	90.6	91.2	86.1	75.0	74.4	73.6	75.9	76.6	78.6	85.5
62.5°	89.1	88.2	88.5	83.7	72.7	71.1	71.1	73.3	73.6	76.6	83.1
65°	87.0	85.8	85.5	81.3	69.9	68.2	69.1	69.9	70.5	73.6	79.8
67.5°	84.9	82.5	82.5	79.2	66.9	65.1	66.9	66.6	67.6	70.2	75.3
70°	82.2	78.9	79.2	77.7	63.9	61.8	63.3	63.0	63.6	65.4	70.5
72.5°	78.0	75.3	75.9	75.3	60.9	57.9	58.5	58.5	58.5	60.0	65.4
75°	72.7	70.5	72.4	73.8	57.3	53.1	53.7	53.7	52.8	53.7	60.3
77.5°	66.0	64.8	70.8	68.8	53.1	48.0	48.0	47.4	45.7	46.9	54.0
80°	58.8	57.9	65.4	57.6	48.3	41.8	41.1	39.6	37.8	38.7	46.0
82.5°	51.3	50.5	54.9	44.1	41.8	34.5	33.0	30.3	28.5	29.4	35.9
85°	42.1	42.1	42.4	33.3	31.8	26.4	24.6	21.0	18.9	19.5	25.8
87.5°	30.0	30.9	28.5	22.8	18.9	14.7	13.5	11.4	9.5	11.1	13.5
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°	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4	1844.4
2.5°	1585.4	1618.4	1655.9	1703.9	1745.1	1812.5	1877.4	1916.3
5°	1185.4	1240.3	1308.6	1396.7	1478.6	1601.6	1723.7	1802.1
7.5°	848.3	907.2	981.0	1090.8	1206.7	1363.6	1525.1	1618.7
10°	702.0	762.3	824.4	898.5	993.4	1164.1	1354.9	1460.5
12.5°	580.7	645.2	712.1	790.2	878.0	1030.5	1250.5	1372.1
15°	444.4	516.4	595.3	694.1	804.2	980.4	1224.7	1356.7
17.5°	304.6	385.1	481.9	603.8	738.5	964.2	1270.9	1423.1
20°	209.7	268.3	371.8	514.7	676.8	962.1	1359.7	1550.3
22.5°	175.5	201.7	277.3	432.7	630.2	987.9	1497.5	1728.8
25°	162.3	178.0	221.4	361.6	596.3	1047.4	1687.2	1959.9
27.5°	154.6	168.6	201.1	315.2	569.6	1116.3	1871.7	2183.7
30°	157.5	171.9	195.3	291.4	533.3	1173.9	2035.6	2358.4
32.5°	141.9	148.3	167.5	270.3	507.2	1222.2	2179.0	2503.1
35°	121.0	132.0	149.4	260.5	507.7	1254.7	2335.3	2687.9
37.5°	115.2	126.4	138.9	256.9	514.7	1289.2	2514.8	2904.7
40°	111.6	121.9	132.7	254.8	521.3	1320.7	2690.7	3118.9
42.5°	109.2	118.5	132.0	247.5	524.6	1349.0	2835.3	3301.1
45°	108.9	118.5	134.4	240.3	529.7	1379.3	2956.6	3435.8
47.5°	109.2	122.5	130.0	231.7	529.7	1429.9	3098.8	3556.1
50°	108.0	129.1	125.2	219.4	517.4	1526.0	3293.8	3717.2
52.5°	107.5	128.2	115.8	200.5	496.1	1678.4	3543.8	3939.3
55°	105.9	123.6	109.2	172.3	471.2	1844.7	3811.5	4202.0
57.5°	104.4	109.5	105.6	147.7	432.7	1961.7	3995.7	4406.9
60°	117.0	95.8	102.7	135.6	381.4	1993.8	3988.6	4488.5
62.5°	108.3	89.7	98.8	133.0	345.4	1903.8	3804.3	4444.5
65°	84.9	85.8	94.9	140.7	335.8	1665.3	3477.8	4240.7
67.5°	77.7	81.9	90.9	150.7	336.8	1333.3	2989.9	3796.7
70°	73.3	77.7	86.4	155.8	339.1	994.0	2363.8	3092.5
72.5°	68.2	72.1	81.3	156.7	323.4	722.0	1821.9	2273.9
75°	62.1	65.7	74.1	136.5	268.0	500.8	1393.7	1555.7
77.5°	55.2	57.9	65.1	105.3	199.0	320.5	1046.1	1136.5
80°	47.2	48.6	54.7	77.2	136.2	200.5	827.7	911.9
82.5°	37.8	38.4	42.4	57.9	88.5	128.8	554.3	632.6
85°	26.7	26.7	29.1	42.1	60.3	81.6	300.9	333.8
87.5°	12.6	12.9	12.9	23.1	31.5	41.5	69.4	42.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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