

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: P301681

Luminaire Tested: **GLNA-AF-01-LED-E1-T2R-7030-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P301681
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P194759)
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-T2R-7030-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 3000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type II
Roadway OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4122.6 lumens
Efficiency: N/A
Efficacy: 121.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B1 - U0 - G1

Input Watts (W): 34
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

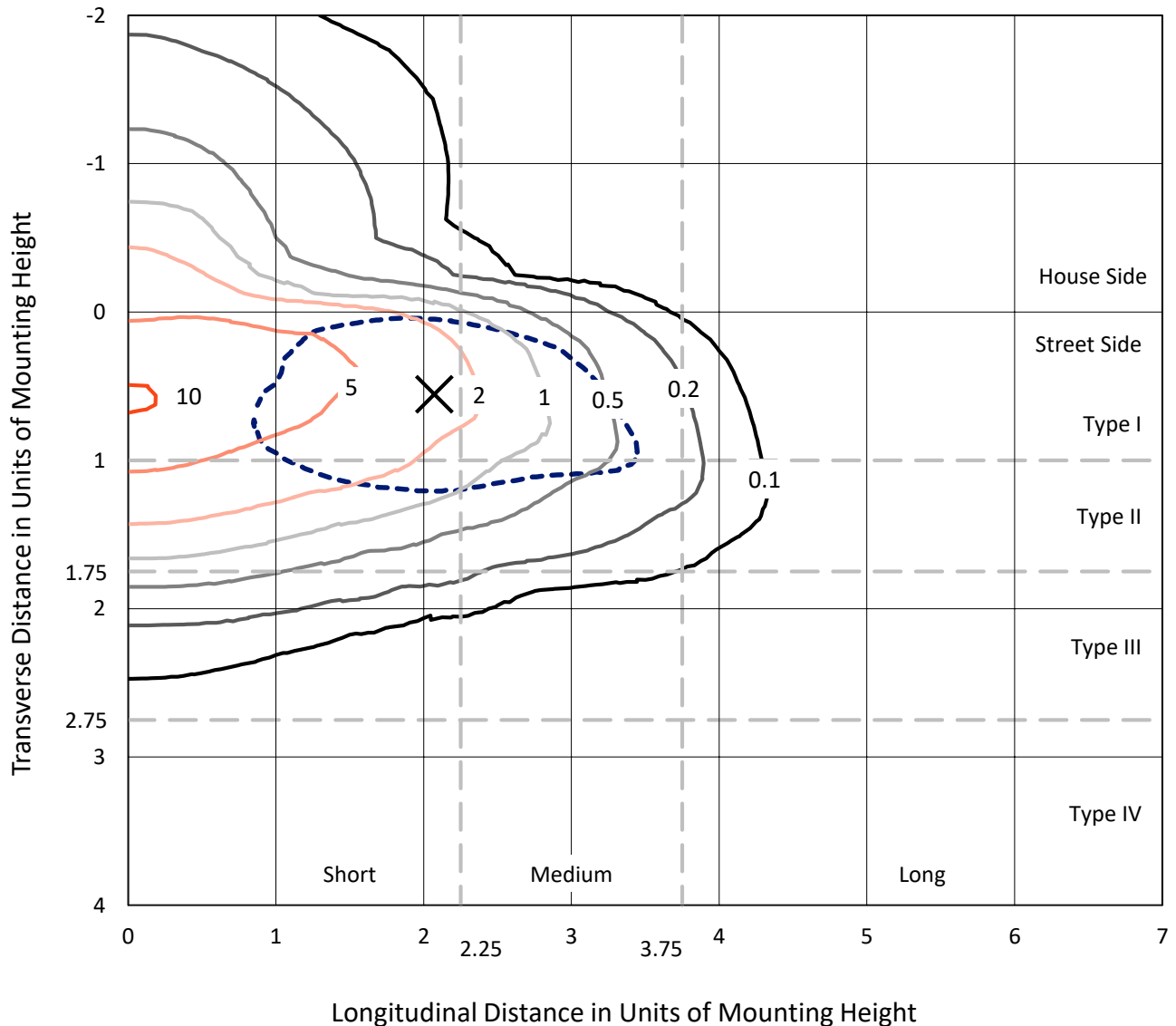


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Iso-Footcandle Lines of Horizontal Illumination

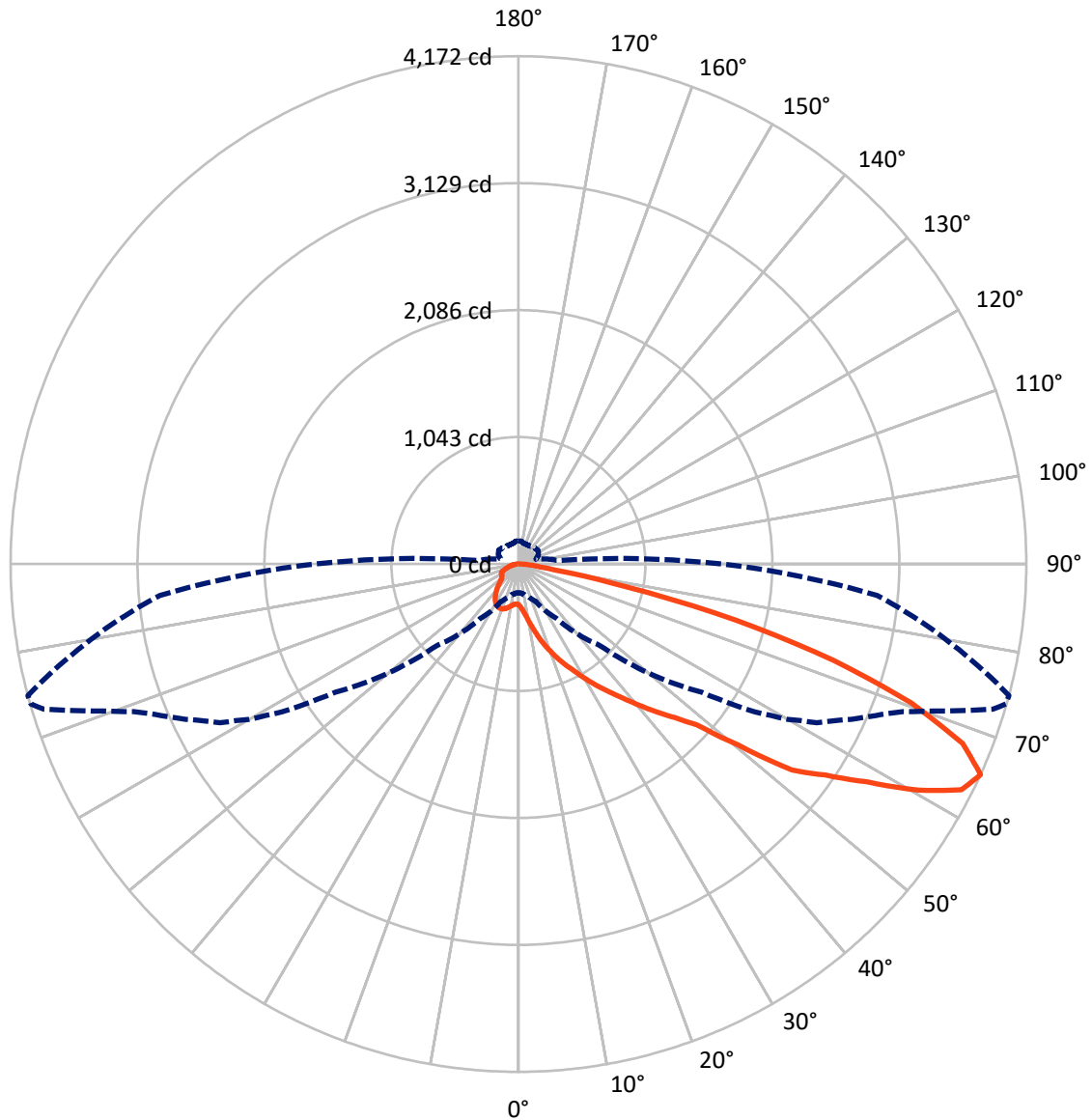
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 10.4 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	635.6	0.0	635.6
	% Fixture	15.4	0.0	15.4
Street Side	Lumens	3487.0	0.0	3487.0
	% Fixture	84.6	0.0	84.6
Total	Lumens	4122.6	0.0	4122.6
	% Fixture	100.0	0.0	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	41.4	1.0
10°-20°	161.8	3.9
20°-30°	332.0	8.1
30°-40°	558.5	13.5
40°-50°	771.7	18.7
50°-60°	963.3	23.4
60°-70°	866.9	21.0
70°-80°	363.4	8.8
80°-90°	63.5	1.5
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°	4122.6	100.0
0°-180°	4122.6	100.0

Coefficient of Utilization



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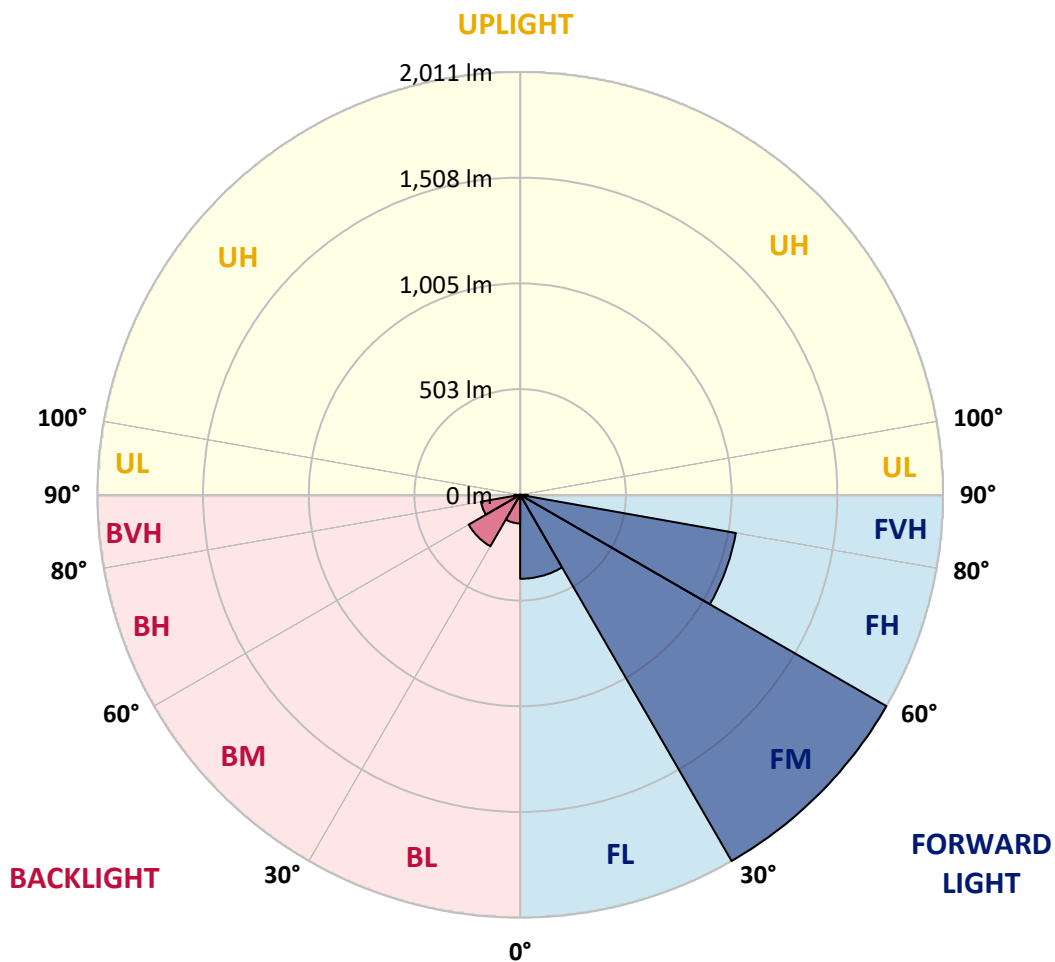
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	399.3	9.7			
FM	(30°-60°)	2010.7	48.8			
FH	(60°-80°)	1041.3	25.3			G1/1800
FVH	(80°-90°)	35.7	0.9			G1/100
BL	(0°-30°)	135.9	3.3	B1/500		
BM	(30°-60°)	282.9	6.9	B1/1000		
BH	(60°-80°)	189.0	4.6	B1/500		G1/500
BVH	(80°-90°)	27.8	0.7			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

BUG Rating: B1-U0-G1

Type II Short





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CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	56°	57°	58°	59°
0°	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0
2.5°	425.4	420.7	421.9	414.1	404.5	392.0	378.2	378.0	378.2	376.8	371.7
5°	589.8	584.2	582.1	564.5	538.7	502.1	462.3	458.0	456.2	451.7	441.4
7.5°	709.9	706.8	703.4	690.2	666.8	625.8	572.3	563.2	554.4	552.2	540.5
10°	787.4	786.5	779.5	776.0	761.4	725.9	673.8	665.0	655.4	652.1	639.8
12.5°	848.6	848.4	845.1	846.1	833.4	807.7	762.8	754.8	747.8	737.6	728.8
15°	891.0	891.1	896.1	901.5	899.5	882.2	840.0	836.5	830.5	823.5	813.1
17.5°	925.7	926.7	931.7	941.7	952.4	951.1	917.7	914.8	909.5	899.9	894.5
20°	1004.1	1007.8	998.1	998.1	999.3	1004.5	988.5	986.2	978.8	973.7	969.4
22.5°	1136.6	1140.9	1118.9	1096.5	1074.4	1058.4	1042.4	1045.3	1040.3	1036.7	1034.2
25°	1308.7	1312.1	1276.4	1238.5	1193.6	1135.1	1095.5	1093.7	1091.0	1088.8	1087.7
27.5°	1470.7	1472.1	1438.3	1382.9	1330.8	1246.7	1149.3	1147.2	1143.9	1139.8	1136.2
30°	1609.3	1608.9	1574.1	1521.2	1465.4	1372.3	1231.1	1224.4	1214.7	1203.5	1195.0
32.5°	1729.3	1728.7	1690.6	1635.8	1577.3	1496.9	1343.1	1329.4	1314.2	1292.5	1279.5
35°	1823.7	1823.3	1787.4	1730.2	1663.1	1614.1	1471.5	1454.7	1435.4	1406.3	1386.2
37.5°	1859.4	1859.4	1839.3	1800.3	1741.0	1707.4	1614.1	1593.8	1573.1	1540.1	1517.5
40°	1838.5	1838.9	1843.2	1836.0	1807.1	1781.4	1747.2	1735.1	1717.3	1687.7	1664.1
42.5°	1768.4	1770.6	1799.1	1834.0	1848.4	1844.4	1865.2	1859.8	1847.3	1824.5	1805.7
45°	1679.7	1686.3	1717.5	1783.5	1860.0	1898.8	1964.2	1964.7	1962.4	1950.1	1935.7
47.5°	1557.7	1567.1	1608.3	1697.4	1833.0	1951.7	2064.6	2069.9	2074.8	2066.8	2060.2
50°	1395.8	1406.9	1468.5	1586.8	1778.2	2006.5	2254.5	2278.4	2300.6	2297.9	2302.3
52.5°	1222.3	1235.4	1310.9	1442.6	1684.0	2019.2	2375.9	2414.7	2453.6	2485.4	2519.1
55°	1065.8	1058.8	1134.3	1273.0	1529.0	1962.0	2485.0	2531.8	2575.1	2614.1	2654.4
57.5°	853.7	865.2	940.9	1078.1	1323.9	1800.6	2560.1	2628.6	2690.8	2755.4	2812.4
60°	624.0	635.5	717.7	857.0	1101.3	1556.0	2502.7	2606.6	2706.2	2805.2	2882.4
62.5°	376.8	385.4	457.8	590.5	849.2	1265.8	2247.1	2383.3	2530.0	2648.3	2766.7
65°	234.6	239.4	266.2	339.1	545.4	945.0	1836.0	1984.5	2142.5	2292.6	2415.7
67.5°	192.0	193.7	198.7	214.2	299.5	616.2	1366.5	1498.0	1640.6	1785.8	1922.8
70°	172.7	171.5	171.5	172.5	192.0	331.3	894.7	980.3	1099.2	1225.4	1350.7
72.5°	155.9	154.7	152.6	149.7	156.7	202.1	462.4	527.0	612.7	724.9	844.9
75°	140.1	138.5	136.0	132.3	137.2	152.6	222.0	249.2	290.9	350.7	417.6
77.5°	123.7	121.7	119.4	116.7	122.9	118.7	130.1	139.9	155.9	175.0	200.2
80°	105.2	103.4	102.6	101.3	108.7	90.4	91.9	97.9	107.3	117.7	129.4
82.5°	82.4	82.4	85.4	86.1	94.2	65.0	68.7	74.0	78.8	84.3	89.8
85°	54.2	54.6	65.2	69.3	74.3	43.7	51.5	53.3	57.2	60.3	62.6
87.5°	17.0	18.3	39.8	44.1	42.7	24.8	31.6	32.4	35.1	37.3	39.2
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):

	60°	61°	62°	63°	64°	65°	66°	67°	68°	69°	70°
0°	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0
2.5°	371.7	369.4	367.2	367.0	365.5	363.3	364.1	360.8	361.0	359.2	357.3
5°	437.1	435.5	427.7	425.6	419.7	416.0	415.4	407.6	406.6	402.2	397.3
7.5°	531.2	526.1	515.1	509.9	499.9	492.5	489.0	478.7	473.6	461.9	456.6
10°	629.7	623.2	609.8	602.4	592.8	580.9	574.5	559.5	553.6	542.8	530.0
12.5°	721.0	714.6	700.7	695.0	682.3	669.7	662.7	645.7	638.1	620.9	610.7
15°	805.5	799.0	786.9	781.1	768.4	758.1	748.7	732.0	723.0	707.0	693.7
17.5°	887.4	880.6	870.1	864.8	852.5	842.0	831.9	816.0	806.9	790.9	779.0
20°	963.6	958.5	950.9	943.8	931.5	922.0	909.9	896.2	883.0	871.2	859.9
22.5°	1029.9	1027.9	1019.8	1016.6	1006.1	997.9	987.3	973.9	964.3	949.5	939.0
25°	1087.1	1086.5	1082.6	1081.6	1074.2	1066.4	1064.0	1052.9	1044.1	1031.0	1020.2
27.5°	1136.2	1136.8	1135.9	1138.6	1136.6	1133.1	1133.3	1129.6	1124.5	1113.6	1104.0
30°	1190.9	1187.7	1189.5	1193.4	1194.6	1195.0	1201.4	1203.5	1203.2	1196.0	1191.3
32.5°	1268.1	1260.7	1253.9	1253.3	1257.2	1258.8	1269.7	1275.4	1280.2	1282.0	1282.8
35°	1366.7	1351.8	1337.6	1330.0	1323.4	1325.1	1332.9	1342.1	1352.8	1360.2	1369.0
37.5°	1490.8	1472.7	1447.5	1429.5	1425.0	1415.3	1420.3	1427.6	1438.1	1449.6	1464.8
40°	1641.2	1613.7	1585.4	1561.6	1548.8	1530.8	1530.6	1529.2	1535.7	1546.4	1567.9
42.5°	1786.0	1761.6	1731.6	1706.6	1689.8	1665.8	1661.0	1648.3	1651.2	1660.5	1681.4
45°	1921.6	1901.5	1883.2	1854.3	1840.1	1814.1	1805.9	1790.9	1782.5	1786.8	1807.7
47.5°	2053.0	2040.1	2020.9	2002.2	1991.3	1968.1	1957.6	1946.8	1936.1	1935.7	1957.6
50°	2309.0	2302.1	2279.5	2260.0	2265.3	2236.8	2238.5	2209.6	2222.7	2224.3	2270.1
52.5°	2549.5	2573.4	2590.2	2610.6	2623.9	2626.5	2635.2	2648.3	2664.1	2695.3	2737.8
55°	2687.3	2717.2	2734.5	2750.2	2775.9	2781.4	2796.0	2813.4	2827.2	2862.4	2898.5
57.5°	2851.1	2906.5	2933.4	2958.2	2992.9	3006.1	3030.6	3049.5	3067.4	3109.0	3152.7
60°	2951.9	3019.5	3074.3	3113.5	3157.0	3188.3	3225.1	3254.8	3296.9	3346.7	3411.9
62.5°	2871.7	2970.8	3043.7	3111.0	3170.1	3229.8	3282.7	3338.1	3402.1	3477.4	3578.5
65°	2552.3	2653.2	2777.8	2847.7	2926.0	3018.1	3098.5	3188.3	3275.4	3385.1	3534.6
67.5°	2054.7	2172.0	2312.1	2382.6	2472.5	2575.3	2665.5	2775.1	2877.0	3009.9	3194.7
70°	1481.0	1632.6	1750.5	1824.1	1929.1	2035.0	2122.1	2249.6	2333.9	2470.1	2661.2
72.5°	937.8	1057.4	1201.8	1294.5	1387.7	1495.1	1584.1	1694.1	1772.7	1896.8	2069.9
75°	504.2	592.4	719.2	807.3	907.2	998.9	1103.1	1176.8	1235.0	1333.2	1473.6
77.5°	236.3	289.9	354.1	421.9	489.6	560.2	628.9	688.6	713.6	769.8	852.7
80°	143.4	160.8	179.5	200.4	228.7	251.5	281.8	303.6	305.2	322.9	348.3
82.5°	95.8	102.2	107.9	113.2	120.4	126.1	132.5	140.1	143.2	147.3	155.5
85°	65.4	68.5	69.6	73.0	72.2	74.2	76.7	79.2	80.6	80.4	84.1
87.5°	40.2	41.7	42.5	43.3	42.7	42.0	43.1	44.5	44.9	43.7	44.1
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):

	71°	72°	73°	74°	75°	85°	90°	95°	105°	115°	125°
0°	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0	335.0
2.5°	357.7	355.9	354.1	353.0	352.6	342.3	337.8	334.9	328.6	323.5	319.4
5°	394.5	390.8	387.9	384.4	382.4	356.3	346.7	340.1	329.2	322.8	316.9
7.5°	453.9	443.5	437.5	430.7	424.8	377.6	361.8	351.4	336.2	327.6	321.0
10°	521.2	510.5	500.9	490.3	481.2	405.9	382.9	366.8	346.7	335.6	326.8
12.5°	596.3	585.8	573.7	560.2	548.5	441.8	409.8	387.0	359.4	344.6	332.3
15°	685.1	666.5	651.9	636.3	622.7	484.7	441.2	409.6	372.9	352.8	336.4
17.5°	767.6	748.1	728.3	714.6	698.8	532.9	472.8	432.6	384.0	358.1	337.2
20°	848.2	826.9	809.8	791.5	774.8	582.8	506.6	452.9	391.2	358.3	332.3
22.5°	919.3	906.0	886.9	866.9	850.2	632.8	538.2	470.1	394.0	353.8	323.7
25°	1000.0	986.0	962.6	945.8	927.1	683.7	569.2	483.3	392.4	345.4	310.4
27.5°	1086.3	1070.7	1046.7	1029.1	1006.5	736.6	597.7	492.9	386.6	331.7	292.7
30°	1176.2	1162.0	1138.4	1120.7	1097.8	792.6	629.5	499.3	374.9	312.8	272.0
32.5°	1272.8	1260.9	1237.5	1219.0	1194.6	853.3	659.1	501.3	357.1	290.4	250.2
35°	1364.5	1356.4	1336.6	1319.3	1293.9	910.6	690.6	500.3	336.0	265.8	230.3
37.5°	1467.8	1462.9	1453.1	1431.1	1400.1	988.5	728.3	496.2	310.3	241.4	215.0
40°	1577.8	1578.2	1567.7	1552.7	1523.8	1083.0	773.1	488.2	282.1	219.9	201.2
42.5°	1694.3	1700.4	1695.3	1684.6	1656.8	1178.2	826.8	478.5	254.9	199.0	187.5
45°	1827.8	1835.2	1843.0	1827.2	1800.3	1303.9	897.4	465.8	225.3	181.6	178.2
47.5°	1981.8	1993.4	2000.5	2000.7	1973.8	1459.6	1012.1	458.2	199.2	170.0	173.7
50°	2306.6	2310.4	2326.9	2355.8	2335.1	1820.0	1212.5	453.5	181.5	162.7	170.4
52.5°	2774.7	2815.5	2844.2	2842.3	2814.1	2048.8	1323.0	429.3	170.9	160.0	168.8
55°	2965.4	3016.3	3069.4	3083.4	3061.6	2244.2	1427.4	405.1	165.8	162.0	169.4
57.5°	3219.5	3305.3	3378.1	3408.7	3377.1	2494.2	1564.7	392.4	164.3	167.2	173.1
60°	3516.2	3622.4	3718.0	3773.0	3773.0	2781.4	1707.2	387.1	162.1	175.0	179.3
62.5°	3706.9	3862.8	4007.2	4087.8	4085.4	2981.4	1770.4	369.2	157.3	180.5	187.9
65°	3707.7	3893.1	4077.0	4167.6	4172.2	2956.8	1666.0	326.1	148.3	181.3	196.5
67.5°	3398.6	3596.2	3810.7	3912.0	3935.4	2721.9	1442.2	268.1	133.7	173.5	199.6
70°	2870.3	3063.3	3282.3	3381.8	3423.4	2320.3	1161.6	206.6	115.0	156.3	193.2
72.5°	2261.3	2450.6	2603.0	2675.8	2708.2	1773.5	845.9	156.1	94.2	131.7	175.8
75°	1601.0	1743.1	1824.1	1840.3	1845.3	1069.1	514.0	116.1	77.7	102.5	148.5
77.5°	903.6	964.5	957.9	965.1	905.0	412.7	223.8	83.1	64.0	77.9	115.1
80°	352.8	363.7	341.7	334.9	307.1	153.6	98.8	57.9	51.1	58.9	80.6
82.5°	155.5	160.6	155.9	157.1	150.3	79.2	59.1	42.0	39.0	43.1	53.5
85°	85.7	87.2	86.8	89.4	85.7	31.6	28.1	25.8	27.3	29.3	34.3
87.5°	41.7	42.1	40.8	43.0	41.6	16.0	13.8	14.6	16.0	16.4	16.4
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):

	135°	145°	155°	165°	175°	180°
0°	335.0	335.0	335.0	335.0	335.0	335.0
2.5°	316.5	315.0	315.1	314.7	314.0	314.0
5°	313.8	312.2	312.2	311.8	310.8	311.0
7.5°	316.5	314.0	313.0	311.6	310.3	310.3
10°	319.6	315.1	312.4	310.1	308.3	308.3
12.5°	322.0	315.0	310.4	307.3	305.6	305.6
15°	322.8	313.6	307.3	303.6	302.0	301.9
17.5°	320.2	308.3	300.7	296.4	294.5	293.9
20°	312.4	298.7	289.6	284.7	282.0	281.0
22.5°	300.7	285.1	274.4	269.3	265.8	265.2
25°	284.3	267.5	257.0	252.1	250.2	249.5
27.5°	265.2	249.5	240.6	237.4	235.7	235.5
30°	247.1	233.7	227.1	224.8	222.6	222.3
32.5°	230.0	221.6	219.2	215.8	210.8	210.2
35°	217.9	217.2	215.4	208.0	201.8	200.0
37.5°	210.5	217.8	208.8	194.1	189.7	189.3
40°	206.2	211.7	196.3	191.3	191.6	191.3
42.5°	196.5	202.1	196.7	194.4	195.9	196.3
45°	186.7	193.0	199.6	198.1	201.8	201.8
47.5°	181.3	190.6	199.4	199.4	204.9	206.8
50°	175.0	188.7	196.3	199.0	203.4	201.8
52.5°	174.6	185.3	191.8	196.7	198.7	196.9
55°	175.2	182.6	187.3	192.8	195.1	195.3
57.5°	176.0	181.1	184.2	186.7	193.7	193.7
60°	177.9	179.7	181.5	182.9	192.0	192.2
62.5°	181.1	178.3	177.9	179.3	191.0	190.3
65°	186.0	176.4	173.5	174.8	190.0	187.7
67.5°	192.6	173.5	167.8	168.8	189.3	184.2
70°	198.7	168.8	160.8	159.8	181.9	172.9
72.5°	199.2	163.4	151.0	148.1	158.1	149.5
75°	189.5	159.6	140.3	131.7	130.5	129.4
77.5°	170.8	157.4	127.8	114.3	112.0	112.8
80°	142.9	149.5	112.8	96.8	109.5	108.1
82.5°	106.7	131.9	95.8	85.7	85.4	75.5
85°	59.3	102.9	78.0	64.2	44.7	43.3
87.5°	16.6	57.2	54.6	36.3	24.8	25.8
90°	0.0	0.0	0.0	0.0	0.0	0.0

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