

# Log normal Distribution

**ARL Table for scale parameter increase from the in-control value in LN(0, 1)**

shift	mean	$n = 5$				$n = 10$				$n = 20$			
		$\bar{X}$ chart		$\tilde{X}$ chart		$\bar{X}$ chart		$\tilde{X}$ chart		$\bar{X}$ chart		$\tilde{X}$ chart	
		ARL	SDRL	ARL	SDRL	ARL	SDRL	ARL	SDRL	ARL	SDRL	ARL	SDRL
<b>1.00</b>	<b>1.6</b>	10.82	11.28	7.77	8.29	2.73	3.19	2.24	2.67	100.04	101.36	97.88	98.67
<b>1.10</b>	<b>1.8</b>	5.43	5.87	4.14	4.59	2.03	2.49	1.55	1.97	40.06	40.61	42.91	43.00
<b>1.20</b>	<b>2.1</b>	2.04	2.45	1.43	1.86	0.68	1.07	0.44	0.80	16.15	16.75	19.98	20.45
<b>1.50</b>	<b>3.1</b>	0.94	1.35	0.61	0.99	0.22	0.52	0.12	0.36	2.54	3.01	3.89	4.38
<b>1.75</b>	<b>4.6</b>	0.42	0.77	0.25	0.56	0.05	0.24	0.02	0.16	0.94	1.35	1.59	2.05
<b>2.00</b>	<b>7.4</b>	0.06	0.26	0.03	0.17	0.00	0.03	0.00	0.02	0.44	0.79	0.79	1.18