

Case II: Weibull Distribution

ARL Table for shape parameter increase from the in-control state in Wei(0.8,1.0)

α	μ_X	$n = 5$				$n = 10$				$n = 20$			
		\bar{X} chart		\tilde{X} chart		\bar{X} chart		\tilde{X} chart		\bar{X} chart		\tilde{X} chart	
		ARL	ARL^+	ARL	ARL^+	ARL	ARL^+	ARL	ARL^+	ARL	ARL^+	ARL	ARL^+
0.80	1.13	96.21	194.18	98.73	200.05	98.30	198.72	99.58	205.17	97.90	196.02	98.82	199.47
0.85	1.09	117.52	259.59	116.04	206.42	118.32	277.09	114.34	196.00	117.08	295.73	104.66	170.30
0.90	1.05	140.70	345.23	131.59	209.88	140.79	393.50	125.15	185.48	138.00	456.97	105.44	142.26
0.95	1.02	226.29	904.43	187.17	236.68	213.99	1276.86	142.24	162.51	177.85	1936.36	82.88	88.63

ARL Table for scale parameter increase from the in-control state in Wei(0.8,1.0)

β	μ_X	$n = 5$				$n = 10$				$n = 20$			
		\bar{X} chart		\tilde{X} chart		\bar{X} chart		\tilde{X} chart		\bar{X} chart		\tilde{X} chart	
		ARL	ARL^+	ARL	ARL^+	ARL	ARL^+	ARL	ARL^+	ARL	ARL^+	ARL	ARL^+
1.00	1.13	96.21	194.18	98.73	200.05	98.30	198.72	99.58	205.17	97.47	195.52	99.00	201.79
1.25	1.42	66.54	84.33	70.44	98.98	59.74	69.11	64.21	88.47	19.18	19.62	24.43	25.17
1.50	1.70	41.06	44.73	49.44	59.25	31.24	32.67	40.73	47.45	4.85	4.84	6.48	6.59
1.75	1.98	26.40	28.16	35.46	39.47	17.86	18.40	27.37	29.58	1.85	1.87	2.49	2.47
2.00	2.27	18.64	19.10	26.68	28.68	11.35	11.59	18.93	20.44	0.87	0.85	1.16	1.15
2.50	2.83	10.48	10.72	16.71	17.37	5.84	5.76	11.20	11.43	0.25	0.25	0.33	0.33
3.00	3.40	6.88	7.00	11.80	12.08	3.44	3.49	7.28	7.44	0.08	0.08	0.10	0.10