

APPENDIX D
Design Tables

The following tables were generated using the computer program listed in Appendix C. Note that dT is the difference between ambient temperature and the detector's operating temperature.

In some cases, the tables list r/H values less than 0.37. Below $r/H = 0.37$, the equations given by Heskestad and Delichatsios may not be valid [20]. The entries are maintained only to show that detector response is probable. In these cases it is suggested that a more sensitive detector be tried.

In a similar fashion, table entries may indicate allowable spacings which result in r/H values greater than 8.0. In these cases spacings which give $r/H = 8.0$ should be used. While the equations may be valid for r/H ratios outside of this range, they have not been tested against such data.

TABLE 19

SUMMARY OF DESIGN TABLES

	THRESHOLD FIRE SIZE BTU/SEC.	FIRE GROWTH RATE SEC.	ALPHA BTU/SEC ³	PAGE
TABLE D1	250	50	0.400	182
TABLE D2	250	150	0.044	185
TABLE D3	250	300	0.011	188
TABLE D4	250	500	0.004	191
TABLE D5	250	600	0.003	194
TABLE D6	500	50	0.400	197
TABLE D7	500	150	0.044	200
TABLE D8	500	300	0.011	203
TABLE D9	500	500	0.004	206
TABLE D10	500	600	0.003	209
TABLE D11	750	50	0.400	212
TABLE D12	750	150	0.044	215
TABLE D13	750	300	0.011	218
TABLE D14	750	500	0.004	221
TABLE D15	750	600	0.003	224
TABLE D16	1000	50	0.400	227
TABLE D17	1000	150	0.044	230
TABLE D18	1000	300	0.011	233
TABLE D19	1000	500	0.004	236
TABLE D20	1000	600	0.003	239
TABLE D21	2000	50	0.400	242
TABLE D22	2000	150	0.044	245
TABLE D23	2000	300	0.011	248
TABLE D24	2000	500	0.004	251
TABLE D25	2000	600	0.003	254

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	7	5	2	0	0	0	0
25	56	60	6	3	1	0	0	0	0
25	56	80	5	2	0	0	0	0	0
25	56	100	4	2	0	0	0	0	0
25	56	120	4	1	0	0	0	0	0
25	56	140	3	1	0	0	0	0	0
50	112	40	5	3	1	0	0	0	0
50	112	60	4	2	0	0	0	0	0
50	112	80	3	1	0	0	0	0	0
50	112	100	3	0	0	0	0	0	0
50	112	120	2	0	0	0	0	0	0
50	112	140	2	0	0	0	0	0	0
75	168	40	4	2	0	0	0	0	0
75	168	60	3	1	0	0	0	0	0
75	168	80	2	0	0	0	0	0	0
75	168	100	2	0	0	0	0	0	0
75	168	120	2	0	0	0	0	0	0
75	168	140	1	0	0	0	0	0	0
100	224	40	3	1	0	0	0	0	0
100	224	60	2	0	0	0	0	0	0
100	224	80	2	0	0	0	0	0	0
100	224	100	1	0	0	0	0	0	0
100	224	120	1	0	0	0	0	0	0
100	224	140	1	0	0	0	0	0	0
125	280	40	3	0	0	0	0	0	0
125	280	60	2	0	0	0	0	0	0
125	280	80	1	0	0	0	0	0	0
125	280	100	1	0	0	0	0	0	0
125	280	120	0	0	0	0	0	0	0
125	280	140	0	0	0	0	0	0	0
150	335	40	2	0	0	0	0	0	0
150	335	60	2	0	0	0	0	0	0
150	335	80	1	0	0	0	0	0	0
150	335	100	0	0	0	0	0	0	0
150	335	120	0	0	0	0	0	0	0
150	335	140	0	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0
			INSTALLED	SPACING	OF	DETECTORS			
175	391	40	2	0	0	0	0	0	0
175	391	60	1	0	0	0	0	0	0
175	391	80	1	0	0	0	0	0	0
175	391	100	0	0	0	0	0	0	0
175	391	120	0	0	0	0	0	0	0
175	391	140	0	0	0	0	0	0	0
200	447	40	2	0	0	0	0	0	0
200	447	60	1	0	0	0	0	0	0
200	447	80	0	0	0	0	0	0	0
200	447	100	0	0	0	0	0	0	0
200	447	120	0	0	0	0	0	0	0
200	447	140	0	0	0	0	0	0	0
225	503	40	2	0	0	0	0	0	0
225	503	60	1	0	0	0	0	0	0
225	503	80	0	0	0	0	0	0	0
225	503	100	0	0	0	0	0	0	0
225	503	120	0	0	0	0	0	0	0
225	503	140	0	0	0	0	0	0	0
250	559	40	2	0	0	0	0	0	0
250	559	60	0	0	0	0	0	0	0
250	559	80	0	0	0	0	0	0	0
250	559	100	0	0	0	0	0	0	0
250	559	120	0	0	0	0	0	0	0
250	559	140	0	0	0	0	0	0	0
275	615	40	1	0	0	0	0	0	0
275	615	60	0	0	0	0	0	0	0
275	615	80	0	0	0	0	0	0	0
275	615	100	0	0	0	0	0	0	0
275	615	120	0	0	0	0	0	0	0
275	615	140	0	0	0	0	0	0	0
300	671	40	1	0	0	0	0	0	0
300	671	60	0	0	0	0	0	0	0
300	671	80	0	0	0	0	0	0	0
300	671	100	0	0	0	0	0	0	0
300	671	120	0	0	0	0	0	0	0
300	671	140	0	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED	SPACING	OF	DETECTORS			
325	727	40	1	0	0	0	0	0	0
325	727	60	0	0	0	0	0	0	0
325	727	80	0	0	0	0	0	0	0
325	727	100	0	0	0	0	0	0	0
325	727	120	0	0	0	0	0	0	0
325	727	140	0	0	0	0	0	0	0
350	783	40	1	0	0	0	0	0	0
350	783	60	0	0	0	0	0	0	0
350	783	80	0	0	0	0	0	0	0
350	783	100	0	0	0	0	0	0	0
350	783	120	0	0	0	0	0	0	0
350	783	140	0	0	0	0	0	0	0
375	839	40	0	0	0	0	0	0	0
375	839	60	0	0	0	0	0	0	0
375	839	80	0	0	0	0	0	0	0
375	839	100	0	0	0	0	0	0	0
375	839	120	0	0	0	0	0	0	0
375	839	140	0	0	0	0	0	0	0
400	894	40	0	0	0	0	0	0	0
400	894	60	0	0	0	0	0	0	0
400	894	80	0	0	0	0	0	0	0
400	894	100	0	0	0	0	0	0	0
400	894	120	0	0	0	0	0	0	0
400	894	140	0	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

CEILING HEIGHT IN FEET

TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	15	12	9	6	3	0	0
25	56	60	12	9	6	3	0	0	0
25	56	80	10	7	4	1	0	0	0
25	56	100	9	6	2	0	0	0	0
25	56	120	8	4	1	0	0	0	0
25	56	140	7	4	1	0	0	0	0
50	112	40	11	9	6	3	1	0	0
50	112	60	9	6	3	1	0	0	0
50	112	80	7	5	2	0	0	0	0
50	112	100	6	4	1	0	0	0	0
50	112	120	6	3	1	0	0	0	0
50	112	140	5	2	0	0	0	0	0
75	168	40	9	7	4	2	0	0	0
75	168	60	7	5	2	0	0	0	0
75	168	80	6	3	1	0	0	0	0
75	168	100	5	3	0	0	0	0	0
75	168	120	4	2	0	0	0	0	0
75	168	140	4	1	0	0	0	0	0
100	224	40	8	6	3	1	0	0	0
100	224	60	6	4	2	0	0	0	0
100	224	80	5	3	1	0	0	0	0
100	224	100	4	2	0	0	0	0	0
100	224	120	4	1	0	0	0	0	0
100	224	140	3	1	0	0	0	0	0
125	280	40	7	5	2	1	0	0	0
125	280	60	5	3	1	0	0	0	0
125	280	80	4	2	0	0	0	0	0
125	280	100	4	1	0	0	0	0	0
125	280	120	3	1	0	0	0	0	0
125	280	140	3	0	0	0	0	0	0
150	335	40	6	4	2	0	0	0	0
150	335	60	5	2	1	0	0	0	0
150	335	80	4	2	0	0	0	0	0
150	335	100	3	1	0	0	0	0	0
150	335	120	3	0	0	0	0	0	0
150	335	140	2	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	6	3	1	0	0	0	0
175	391	60	4	2	0	0	0	0	0
175	391	80	3	1	0	0	0	0	0
175	391	100	3	1	0	0	0	0	0
175	391	120	2	0	0	0	0	0	0
175	391	140	2	0	0	0	0	0	0
200	447	40	5	3	1	0	0	0	0
200	447	60	4	2	0	0	0	0	0
200	447	80	3	1	0	0	0	0	0
200	447	100	3	0	0	0	0	0	0
200	447	120	2	0	0	0	0	0	0
200	447	140	2	0	0	0	0	0	0
225	503	40	5	3	1	0	0	0	0
225	503	60	4	2	0	0	0	0	0
225	503	80	3	1	0	0	0	0	0
225	503	100	2	0	0	0	0	0	0
225	503	120	2	0	0	0	0	0	0
225	503	140	2	0	0	0	0	0	0
250	559	40	5	2	0	0	0	0	0
250	559	60	3	1	0	0	0	0	0
250	559	80	3	0	0	0	0	0	0
250	559	100	2	0	0	0	0	0	0
250	559	120	2	0	0	0	0	0	0
250	559	140	1	0	0	0	0	0	0
275	615	40	4	2	0	0	0	0	0
275	615	60	3	1	0	0	0	0	0
275	615	80	2	0	0	0	0	0	0
275	615	100	2	0	0	0	0	0	0
275	615	120	2	0	0	0	0	0	0
275	615	140	1	0	0	0	0	0	0
300	671	40	4	2	0	0	0	0	0
300	671	60	3	1	0	0	0	0	0
300	671	80	2	0	0	0	0	0	0
300	671	100	2	0	0	0	0	0	0
300	671	120	1	0	0	0	0	0	0
300	671	140	1	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	4	2	0	0	0	0	0
325	727	60	3	1	0	0	0	0	0
325	727	80	2	0	0	0	0	0	0
325	727	100	2	0	0	0	0	0	0
325	727	120	1	0	0	0	0	0	0
325	727	140	1	0	0	0	0	0	0
350	783	40	4	2	0	0	0	0	0
350	783	60	3	0	0	0	0	0	0
350	783	80	2	0	0	0	0	0	0
350	783	100	2	0	0	0	0	0	0
350	783	120	1	0	0	0	0	0	0
350	783	140	1	0	0	0	0	0	0
375	839	40	3	1	0	0	0	0	0
375	839	60	2	0	0	0	0	0	0
375	939	80	2	0	0	0	0	0	0
375	839	100	1	0	0	0	0	0	0
375	839	120	1	0	0	0	0	0	0
375	839	140	0	0	0	0	0	0	0
400	894	40	3	1	0	0	0	0	0
400	894	60	2	0	0	0	0	0	0
400	894	80	2	0	0	0	0	0	0
400	894	100	1	0	0	0	0	0	0
400	894	120	1	0	0	0	0	0	0
400	894	140	0	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	21	18	14	10	6	3	0
25	56	60	17	13	9	5	2	0	0
25	56	80	14	10	6	3	0	0	0
25	56	100	12	8	4	1	0	0	0
25	56	120	11	7	3	0	0	0	0
25	56	140	10	6	2	0	0	0	0
50	112	40	17	14	11	7	4	2	0
50	112	60	13	10	7	4	1	0	0
50	112	80	11	8	5	2	0	0	0
50	112	100	10	6	3	0	0	0	0
50	112	120	8	5	2	0	0	0	0
50	112	140	8	4	1	0	0	0	0
75	168	40	14	11	8	6	3	1	0
75	168	60	11	8	5	3	1	0	0
75	168	80	9	6	3	1	0	0	0
75	168	100	8	5	2	0	0	0	0
75	168	120	7	4	1	0	0	0	0
75	168	140	6	3	1	0	0	0	0
100	224	40	12	10	7	4	2	0	0
100	224	60	10	7	4	2	0	0	0
100	224	80	8	5	3	1	0	0	0
100	224	100	7	4	2	0	0	0	0
100	224	120	6	3	1	0	0	0	0
100	224	140	5	3	0	0	0	0	0
125	280	40	11	9	6	3	1	0	0
125	280	60	9	6	3	1	0	0	0
125	280	80	7	4	2	0	0	0	0
125	280	100	6	3	1	0	0	0	0
125	280	120	5	3	1	0	0	0	0
125	280	140	5	2	0	0	0	0	0
150	335	40	10	8	5	3	1	0	0
150	335	60	8	5	3	1	0	0	0
150	335	80	6	4	2	0	0	0	0
150	335	100	6	3	1	0	0	0	0
150	335	120	5	2	0	0	0	0	0
150	335	140	4	2	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	9	7	4	2	1	0	0
175	391	60	7	5	2	1	0	0	0
175	391	80	6	3	1	0	0	0	0
175	391	100	5	3	1	0	0	0	0
175	391	120	4	2	0	0	0	0	0
175	391	140	4	1	0	0	0	0	0
200	447	40	9	6	4	2	0	0	0
200	447	60	7	4	2	0	0	0	0
200	447	80	5	3	1	0	0	0	0
200	447	100	5	2	0	0	0	0	0
200	447	120	4	2	0	0	0	0	0
200	447	140	3	1	0	0	0	0	0
225	503	40	8	6	3	2	0	0	0
225	503	60	6	4	2	0	0	0	0
225	503	80	5	3	1	0	0	0	0
225	503	100	4	2	0	0	0	0	0
225	503	120	4	1	0	0	0	0	0
225	503	140	3	1	0	0	0	0	0
250	559	40	8	5	3	1	0	0	0
250	559	60	6	3	1	0	0	0	0
250	559	80	5	2	0	0	0	0	0
250	559	100	4	2	0	0	0	0	0
250	559	120	3	1	0	0	0	0	0
250	559	140	3	1	0	0	0	0	0
275	615	40	7	5	3	1	0	0	0
275	615	60	6	3	1	0	0	0	0
275	615	80	4	2	0	0	0	0	0
275	615	100	4	1	0	0	0	0	0
275	615	120	3	1	0	0	0	0	0
275	615	140	3	0	0	0	0	0	0
300	671	40	7	5	2	1	0	0	0
300	671	60	5	3	1	0	0	0	0
300	671	80	4	2	0	0	0	0	0
300	671	100	3	1	0	0	0	0	0
300	671	120	3	1	0	0	0	0	0
300	671	140	3	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	9.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	7	4	2	0	0	0	0
325	727	60	5	3	1	0	0	0	0
325	727	80	4	2	0	0	0	0	0
325	727	100	3	1	0	0	0	0	0
325	727	120	3	1	0	0	0	0	0
325	727	140	2	0	0	0	0	0	0
350	783	40	6	4	2	0	0	0	0
350	783	60	5	2	1	0	0	0	0
350	783	80	4	2	0	0	0	0	0
350	783	100	3	1	0	0	0	0	0
350	783	120	3	0	0	0	0	0	0
350	783	140	2	0	0	0	0	0	0
375	839	40	6	4	2	0	0	0	0
375	839	60	4	2	0	0	0	0	0
375	839	80	4	1	0	0	0	0	0
375	839	100	3	1	0	0	0	0	0
375	839	120	2	0	0	0	0	0	0
375	839	140	2	0	0	0	0	0	0
400	894	40	6	3	2	0	0	0	0
400	894	60	4	2	0	0	0	0	0
400	894	80	3	1	0	0	0	0	0
400	894	100	3	1	0	0	0	0	0
400	894	120	2	0	0	0	0	0	0
400	894	140	2	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	26	22	17	13	9	5	1
25	56	60	20	16	11	7	3	0	0
25	56	80	17	12	E1	4	0	0	0
25	56	100	15	10	5	1	0	0	0
25	56	120	13	8	4	0	0	0	0
25	56	140	11	7	2	0	0	0	0
50	112	40	21	18	14	11	7	4	1
50	112	60	17	13	9	6	2	0	0
50	112	80	14	10	6	3	0	0	0
50	112	100	12	8	4	1	0	0	0
50	112	120	11	7	3	0	0	0	0
50	112	140	9	6	2	0	0	0	0
75	168	40	18	15	12	9	6	3	0
75	168	60	14	11	8	5	2	0	0
75	168	80	12	9	5	2	0	0	0
75	168	100	10	7	4	1	0	0	0
75	168	120	9	6	2	0	0	0	0
75	168	140	8	5	1	0	0	0	0
100	224	40	16	14	10	7	4	2	0
100	224	60	13	10	7	4	1	0	0
100	224	80	11	8	4	2	0	0	0
100	224	100	9	6	3	0	0	0	0
100	224	120	8	5	2	0	0	0	0
100	224	140	7	4	1	0	0	0	0
125	280	40	15	12	9	6	4	1	0
125	280	60	12	9	6	3	1	0	0
125	280	80	10	7	4	1	0	0	0
125	280	100	8	5	2	0	0	0	0
125	280	120	7	4	1	0	0	0	0
125	280	140	6	3	1	0	0	0	0
150	335	40	14	11	8	5	3	1	0
150	335	60	11	8	5	3	1	0	0
150	335	80	9	6	3	1	0	0	0
150	335	100	8	5	2	0	0	0	0
150	335	120	7	4	1	0	0	0	0
150	335	140	6	3	1	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED	SPACING	OF	DETECTORS			
175	391	40	13	10	7	5	2	1	0
175	391	60	10	7	4	2	0	0	0
175	391	80	8	5	3	1	0	0	0
175	391	100	7	4	2	0	0	0	0
175	391	120	6	3	1	0	0	0	0
175	391	140	5	3	0	0	0	0	0
200	447	40	12	9	7	4	2	1	0
200	447	60	9	7	4	2	0	0	0
200	447	80	8	5	2	1	0	0	0
200	447	100	6	4	1	0	0	0	0
200	447	120	6	3	1	0	0	0	0
200	447	140	5	2	0	0	0	0	0
225	503	40	11	9	6	4	2	0	0
225	503	60	9	6	4	1	0	0	0
225	503	80	7	5	2	0	0	0	0
225	503	100	6	3	1	0	0	0	0
225	503	120	5	3	1	0	0	0	0
225	503	140	5	2	0	0	0	0	0
250	559	40	11	8	6	3	1	0	0
250	559	60	8	6	3	1	0	0	0
250	559	80	7	4	2	0	0	0	0
250	559	100	6	3	1	0	0	0	0
250	559	120	5	2	0	0	0	0	0
250	559	140	4	2	0	0	0	0	0
275	615	40	10	8	5	3	1	0	0
275	615	60	8	5	3	1	0	0	0
275	615	80	6	4	2	0	0	0	0
275	615	100	5	3	1	0	0	0	0
275	615	120	5	2	0	0	0	0	0
275	615	140	4	2	0	0	0	0	0
300	671	40	10	7	5	3	1	0	0
300	671	60	7	5	3	1	0	0	0
300	671	80	6	4	1	0	0	0	0
300	671	100	5	3	1	0	0	0	0
300	671	120	4	2	0	0	0	0	0
300	671	140	4	2	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED	SPACING	OF	DETECTORS			
325	727	40	9	7	4	2	1	0	0
325	727	60	7	5	2	1	0	0	0
325	727	80	6	3	1	0	0	0	0
325	727	100	5	2	0	0	0	0	0
325	727	120	4	2	0	0	0	0	0
325	727	140	4	1	0	0	0	0	0
350	783	40	9	6	4	2	1	0	0
350	783	60	7	4	2	0	0	0	0
350	783	80	6	3	1	0	0	0	0
350	783	100	5	2	0	0	0	0	0
350	783	120	4	2	0	0	0	0	0
350	783	140	3	1	0	0	0	0	0
375	839	40	9	6	4	2	0	0	0
375	839	60	6	4	2	0	0	0	0
375	839	80	5	3	1	0	0	0	0
375	839	100	4	2	0	0	0	0	0
375	839	120	4	2	0	0	0	0	0
375	839	140	3	1	0	0	0	0	0
400	894	40	8	6	4	2	0	0	0
400	894	60	6	4	2	0	0	0	0
400	894	80	5	3	1	0	0	0	0
400	894	100	4	2	0	0	0	0	0
400	894	120	4	1	0	0	0	0	0
400	894	140	3	1	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	28	23	18	14	9	5	2
25	56	60	22	17	12	13	4	0	0
25	56	80	18	13	8	4	0	0	0
25	56	100	15	10	6	2	0	0	0
25	56	120	13	8	4	0	0	0	0
25	56	140	12	7	3	0	0	0	0
50	112	40	23	19	15	12	8	4	1
50	112	60	18	14	10	6	3	0	0
50	112	80	15	11	7	3	0	0	0
50	112	100	13	9	5	1	0	0	0
50	112	120	11	7	3	0	0	0	0
50	112	140	10	6	2	0	0	0	0
75	168	40	20	17	13	10	7	3	1
75	168	60	16	12	9	5	2	0	0
75	168	80	13	10	6	3	0	0	0
75	168	100	11	8	4	1	0	0	0
75	168	120	10	6	3	0	0	0	0
75	168	140	9	5	2	0	0	0	0
100	224	40	18	15	12	9	5	3	0
100	224	60	14	11	8	4	2	0	0
100	224	80	12	8	5	2	0	0	0
100	224	100	10	7	4	1	0	0	0
100	224	120	9	5	2	0	0	0	0
100	224	140	8	5	1	0	0	0	0
125	280	40	16	14	10	7	5	2	0
125	280	60	13	10	7	4	1	0	0
125	280	80	11	8	4	2	0	0	0
125	280	100	9	6	3	0	0	0	0
125	280	120	8	5	2	0	0	0	0
125	280	140	7	4	1	0	0	0	0
150	335	40	15	12	9	7	4	2	0
150	335	60	12	9	6	3	1	0	0
150	335	80	10	7	4	1	0	0	0
150	335	100	8	5	3	0	0	0	0
150	335	120	7	4	2	0	0	0	0
150	335	140	7	4	1	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED	SPACING	OF	DETECTORS			
175	391	40	14	11	9	6	3	1	0
175	391	60	11	8	5	3	1	0	0
175	391	80	9	6	3	1	0	0	0
175	391	100	8	5	2	0	0	0	0
175	391	120	7	4	1	0	0	0	0
175	391	140	6	3	1	0	0	0	0
200	447	40	13	11	8	5	3	1	0
200	447	60	10	8	5	2	1	0	0
200	447	80	8	6	3	1	0	0	0
200	447	100	7	4	2	0	0	0	0
200	447	120	6	4	1	0	0	0	0
200	447	140	6	3	1	0	0	0	0
225	503	40	12	10	7	5	2	1	0
225	503	60	10	7	4	2	0	0	0
225	503	80	8	5	3	1	0	0	0
225	503	100	7	4	2	0	0	0	0
225	503	120	6	3	1	0	0	0	0
225	503	140	5	3	0	0	0	0	0
250	559	40	12	9	7	4	2	1	0
250	559	60	9	7	4	2	0	0	0
250	559	80	8	5	2	1	0	0	0
250	559	100	6	4	1	0	0	0	0
250	559	120	6	3	1	0	0	0	0
250	559	140	5	2	0	0	0	0	0
275	615	40	11	9	6	4	2	0	0
275	615	60	9	6	4	1	0	0	0
275	615	80	7	5	2	0	0	0	0
275	615	100	6	3	1	0	0	0	0
275	615	120	5	3	1	0	0	0	0
275	615	140	5	2	0	0	0	0	0
300	671	40	11	8	6	3	1	0	0
300	671	60	8	6	3	1	0	0	0
300	671	80	7	4	2	0	0	0	0
300	671	100	6	3	1	0	0	0	0
300	671	120	5	2	0	0	0	0	0
300	671	140	4	2	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 250 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	10	8	5	3	1	0	0
325	727	60	8	5	3	1	0	0	0
325	727	80	6	4	2	0	0	0	0
325	727	100	6	3	1	0	0	0	0
325	727	120	5	2	0	0	0	0	0
325	727	140	4	2	0	0	0	0	0
350	783	40	10	7	5	3	1	0	0
350	783	60	8	5	3	1	0	0	0
350	783	80	6	4	2	0	0	0	0
350	783	100	5	3	1	0	0	0	0
350	783	120	5	2	0	0	0	0	0
350	783	140	4	2	0	0	0	0	0
375	839	40	10	7	5	3	1	0	0
375	839	60	7	5	3	1	0	0	0
375	939	80	6	3	1	0	0	0	0
375	839	100	5	3	1	0	0	0	0
375	839	120	4	2	0	0	0	0	0
375	839	140	4	1	0	0	0	0	0
400	894	40	9	7	4	2	1	0	0
400	894	60	7	5	2	1	0	0	0
400	894	80	6	3	1	0	0	0	0
400	894	100	5	2	0	0	0	0	0
400	894	120	4	2	0	0	0	0	0
400	894	140	4	1	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	13	11	8	5	2	1	0
25	56	60	11	8	5	3	1	0	0
25	56	80	9	6	4	1	0	0	0
25	56	100	8	5	3	1	0	0	0
25	56	120	7	4	2	0	0	0	0
25	56	140	7	4	1	0	0	0	0
50	112	40	10	7	5	2	1	0	0
50	112	60	8	5	3	1	0	0	0
50	112	80	7	4	2	0	0	0	0
50	112	100	6	3	1	0	0	0	0
50	112	120	5	3	0	0	0	0	0
50	112	140	5	2	0	0	0	0	0
75	168	40	8	6	3	1	0	0	0
75	168	60	6	4	2	0	0	0	0
75	168	80	5	3	1	0	0	0	0
75	168	100	4	2	0	0	0	0	0
75	168	120	4	2	0	0	0	0	0
75	168	140	3	1	0	0	0	0	0
100	224	40	7	4	2	0	0	0	0
100	224	60	5	3	1	0	0	0	0
100	224	80	4	2	0	0	0	0	0
100	224	100	4	1	0	0	0	0	0
100	224	120	3	1	0	0	0	0	0
100	224	140	3	0	0	0	0	0	0
125	280	40	6	4	2	0	0	0	0
125	280	60	5	2	0	0	0	0	0
125	280	80	4	2	0	0	0	0	0
125	280	100	3	1	0	0	0	0	0
125	280	120	3	0	0	0	0	0	0
125	280	140	2	0	0	0	0	0	0
150	335	40	5	3	1	0	0	0	0
150	335	60	4	2	0	0	0	0	0
150	335	80	3	1	0	0	0	0	0
150	335	100	3	0	0	0	0	0	0
150	335	120	2	0	0	0	0	0	0
150	335	140	2	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0
			INSTALLED	SPACING	OF	DETECTORS			
175	391	40	5	3	1	0	0	0	0
175	391	60	4	2	0	0	0	0	0
175	391	80	3	1	0	0	0	0	0
175	391	100	2	0	0	0	0	0	0
175	391	120	2	0	0	0	0	0	0
175	391	140	2	0	0	0	0	0	0
200	447	40	5	2	0	0	0	0	0
200	447	60	3	1	0	0	0	0	0
200	447	80	3	0	0	0	0	0	0
200	447	100	2	0	0	0	0	0	0
200	447	120	2	0	0	0	0	0	0
200	447	140	1	0	0	0	0	0	0
225	503	40	4	2	0	0	0	0	0
225	503	60	3	1	0	0	0	0	0
225	503	80	2	0	0	0	0	0	0
225	503	100	2	0	0	0	0	0	0
225	503	120	2	0	0	0	0	0	0
225	503	140	1	0	0	0	0	0	0
250	559	40	4	2	0	0	0	0	0
250	559	60	3	1	0	0	0	0	0
250	559	80	2	0	0	0	0	0	0
250	559	100	2	0	0	0	0	0	0
250	559	120	1	0	0	0	0	0	0
250	559	140	1	0	0	0	0	0	0
275	615	40	4	2	0	0	0	0	0
275	615	60	3	0	0	0	0	0	0
275	615	80	2	0	0	0	0	0	0
275	615	100	2	0	0	0	0	0	0
275	615	120	1	0	0	0	0	0	0
275	615	140	1	0	0	0	0	0	0
300	671	40	3	1	0	0	0	0	0
300	671	60	2	0	0	0	0	0	0
300	671	80	2	0	0	0	0	0	0
300	671	100	1	0	0	0	0	0	0
300	671	120	1	0	0	0	0	0	0
300	671	140	0	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED	SPACING	OF	DETECTORS			
325	727	40	3	1	0	0	0	0	0
325	727	60	2	0	0	0	0	0	0
325	727	80	2	0	0	0	0	0	0
325	727	100	1	0	0	0	0	0	0
325	727	120	1	0	0	0	0	0	0
325	727	140	0	0	0	0	0	0	0
350	783	40	3	1	0	0	0	0	0
350	783	60	2	0	0	0	0	0	0
350	783	80	2	0	0	0	0	0	0
350	783	100	1	0	0	0	0	0	0
350	783	120	0	0	0	0	0	0	0
350	783	140	0	0	0	0	0	0	0
375	839	40	3	1	0	0	0	0	0
375	839	60	2	0	0	0	0	0	0
375	839	80	1	0	0	0	0	0	0
375	839	100	1	0	0	0	0	0	0
375	839	120	0	0	0	0	0	0	0
375	939	140	0	0	0	0	0	0	0
400	894	40	3	0	0	0	0	0	0
400	894	60	2	0	0	0	0	0	0
400	894	80	1	0	0	0	0	0	0
400	894	100	1	0	0	0	0	0	0
400	894	120	0	0	0	0	0	0	0
400	894	140	0	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	24	22	113	15	11	8	5
25	56	60	20	17	13	10	6	3	0
25	56	80	17	14	10	6	3	0	0
25	56	100	15	11	8	4	1	0	0
25	56	120	13	10	6	3	0	0	0
25	56	140	12	8	5	1	0	0	0
50	112	40	19	16	14	11	8	5	2
50	112	60	15	13	10	7	4	1	0
50	112	80	13	10	7	4	2	0	0
50	112	100	11	9	5	3	0	0	0
50	112	120	10	7	4	1	0	0	0
50	112	140	9	6	3	1	0	0	0
75	168	40	16	14	11	8	5	3	1
75	168	60	13	10	8	5	2	1	0
75	168	80	11	8	5	3	1	0	0
75	168	100	10	7	4	2	0	0	0
75	168	120	8	6	3	1	0	0	0
75	168	140	8	5	2	0	0	0	0
100	224	40	14	12	9	6	4	2	1
100	224	60	11	9	6	4	2	0	0
100	224	80	10	7	4	2	0	0	0
100	224	100	8	6	3	1	0	0	0
100	224	120	7	5	2	0	0	0	0
100	224	140	7	4	2	0	0	0	0
125	280	40	13	10	8	5	3	1	0
125	280	60	10	8	5	3	1	0	0
125	280	80	8	6	3	1	0	0	0
125	280	100	7	5	2	1	0	0	0
125	280	120	6	4	2	0	0	0	0
125	280	140	6	3	1	0	0	0	0
150	335	40	12	9	7	4	2	1	0
150	335	60	9	7	4	2	1	0	0
150	335	80	8	5	3	1	0	0	0
150	335	100	7	4	2	0	0	0	0
150	335	120	6	3	1	0	0	0	0
150	335	140	5	3	1	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0
			INSTALLED	SPACING	OF	DETECTORS			
175	391	40	11	8	6	4	2	0	0
175	391	60	8	6	4	2	0	0	0
175	391	80	7	5	2	1	0	0	0
175	391	100	6	4	2	0	0	0	0
175	391	120	5	3	1	0	0	0	0
175	391	140	5	2	0	0	0	0	0
200	447	40	10	8	5	3	1	0	0
200	447	60	8	5	3	1	0	0	0
200	447	80	7	4	2	0	0	0	0
200	447	100	6	3	1	0	0	0	0
200	447	120	5	2	1	0	0	0	0
200	447	140	4	2	0	0	0	0	0
225	503	40	9	7	5	3	1	0	0
225	503	60	7	5	3	1	0	0	0
225	503	80	6	4	2	0	0	0	0
225	503	100	5	3	1	0	0	0	0
225	503	120	5	2	0	0	0	0	0
225	503	140	4	2	0	0	0	0	0
250	559	40	9	7	4	2	1	0	0
250	559	60	7	5	2	1	0	0	0
250	559	80	6	3	1	0	0	0	0
250	559	100	5	3	1	0	0	0	0
250	559	120	4	2	0	0	0	0	0
250	559	140	4	2	0	0	0	0	0
275	615	40	8	6	4	2	0	0	0
275	615	60	7	4	2	0	0	0	0
275	615	80	5	3	1	0	0	0	0
275	615	100	5	2	0	0	0	0	0
275	615	120	4	2	0	0	0	0	0
275	615	140	3	1	0	0	0	0	0
300	671	40	8	6	3	2	0	0	0
300	671	60	6	4	2	0	0	0	0
300	671	80	5	3	1	0	0	0	0
300	671	100	4	2	0	0	0	0	0
300	671	120	4	2	0	0	0	0	0
300	671	140	3	1	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED	SPACING	OF	DETECTORS			
325	727	40	8	5	3	1	0	0	0
325	727	60	6	4	2	0	0	0	0
325	727	80	5	3	1	0	0	0	0
325	727	100	4	2	0	0	0	0	0
325	727	120	3	1	0	0	0	0	0
325	727	140	3	1	0	0	0	0	0
350	783	40	7	5	3	1	0	0	0
350	783	60	6	3	1	0	0	0	0
350	783	80	5	2	0	0	0	0	0
350	783	100	4	2	0	0	0	0	0
350	783	120	3	1	0	0	0	0	0
350	783	140	3	1	0	0	0	0	0
375	839	40	7	5	3	1	0	0	0
375	839	60	5	3	1	0	0	0	0
375	839	80	4	2	0	0	0	0	0
375	839	100	4	2	0	0	0	0	0
375	839	120	3	1	0	0	0	0	0
375	839	140	3	0	0	0	0	0	0
400	894	40	7	4	2	1	0	0	0
400	894	60	5	3	1	0	0	0	0
400	894	80	4	2	0	0	0	0	0
400	894	100	3	1	0	0	0	0	0
400	894	120	3	1	0	0	0	0	0
400	894	140	3	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	34	30	25	21	17	13	9
25	56	60	27	23	18	14	10	6	2
25	56	80	23	18	14	9	5	2	0
25	56	100	20	15	11	7	3	0	0
25	56	120	18	13	8	4	1	0	0
25	56	140	16	11	7	3	0	0	0
50	112	40	27	24	21	17	14	10	7
50	112	60	22	18	15	11	8	4	1
50	112	80	18	15	11	8	4	1	0
50	112	100	16	12	9	5	2	0	0
50	112	120	14	11	7	3	0	0	0
50	112	140	13	9	5	2	0	0	0
75	168	40	23	21	18	14	11	8	5
75	168	60	19	16	13	9	6	3	1
75	168	80	16	13	9	6	3	1	0
75	168	100	14	11	7	4	1	0	0
75	168	120	12	9	6	3	0	0	0
75	168	140	11	8	4	1	0	0	0
100	224	40	21	18	15	12	9	6	4
100	224	60	17	14	11	8	5	2	0
100	224	80	14	11	8	5	2	0	0
100	224	100	12	9	6	3	1	0	0
100	224	120	11	8	5	2	0	0	0
100	224	140	10	7	4	1	0	0	0
125	280	40	19	16	14	11	8	5	3
125	280	60	15	12	10	7	4	2	0
125	280	80	13	10	7	4	2	0	0
125	280	100	11	8	5	3	1	0	0
125	280	120	10	7	4	2	0	0	0
125	280	140	9	6	3	1	0	0	0
150	335	40	17	15	12	10	7	4	2
150	335	60	14	11	8	6	3	1	0
150	335	80	12	9	6	4	1	0	0
150	335	100	10	7	5	2	0	0	0
150	335	120	9	6	3	1	0	0	0
150	335	140	13	5	3	1	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	16	14	11	9	6	4	2
175	391	60	13	10	8	5	3	1	0
175	391	80	11	8	5	3	1	0	0
175	391	100	9	7	4	2	0	0	0
175	391	120	13	6	3	1	0	0	0
175	391	140	7	5	2	0	0	0	0
200	447	40	15	13	10	8	5	3	1
200	447	60	12	10	7	4	2	1	0
200	447	80	10	8	5	3	1	0	0
200	447	100	9	6	4	1	0	0	0
200	447	120	8	5	3	1	0	0	0
200	447	140	7	4	2	0	0	0	0
225	503	40	14	12	10	7	5	3	1
225	503	60	11	9	6	4	2	0	0
225	503	80	10	7	4	2	1	0	0
225	503	100	8	6	3	1	0	0	0
225	503	120	7	5	2	1	0	0	0
225	503	140	6	4	2	0	0	0	0
250	559	40	14	11	9	6	4	2	1
250	559	60	11	8	6	3	2	0	0
250	559	80	9	6	4	2	0	0	0
250	559	100	13	5	3	1	0	0	0
250	559	120	7	4	2	0	0	0	0
250	559	140	6	4	1	0	0	0	0
275	615	40	13	11	8	6	4	2	1
275	615	60	10	8	5	3	1	0	0
275	615	80	9	6	4	2	0	0	0
275	615	100	7	5	3	1	0	0	0
275	615	120	6	4	2	0	0	0	0
275	615	140	6	3	1	0	0	0	0
300	671	40	12	10	8	5	3	2	0
300	671	60	10	7	5	3	1	0	0
300	671	80	8	6	3	1	0	0	0
300	671	100	7	5	2	1	0	0	0
300	671	120	6	4	2	0	0	0	0
300	671	140	6	3	1	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED	SPACING	OF	DETECTORS			
325	727	40	12	10	7	5	3	1	0
325	727	60	9	7	5	2	1	0	0
325	727	80	8	5	3	1	0	0	0
325	727	100	7	4	2	0	0	0	0
325	727	120	6	3	1	0	0	0	0
325	727	140	5	3	1	0	0	0	0
350	783	40	12	9	7	4	3	1	0
350	783	60	9	7	4	2	1	0	0
350	783	80	7	5	3	1	0	0	0
350	783	100	6	4	2	0	0	0	0
350	783	120	6	3	1	0	0	0	0
350	783	140	5	3	1	0	0	0	0
375	839	40	11	9	6	4	2	1	0
375	839	60	9	6	4	2	0	0	0
375	839	80	7	5	3	1	0	0	0
375	839	100	6	4	2	0	0	0	0
375	839	120	5	3	1	0	0	0	0
375	839	140	5	2	0	0	0	0	0
400	894	40	11	8	6	4	2	1	0
400	894	60	8	6	4	2	0	0	0
400	894	80	7	4	2	1	0	0	0
400	894	100	6	3	1	0	0	0	0
400	894	120	5	3	1	0	0	0	0
400	894	140	5	2	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	41	35	30	25	20	16	11
25	56	60	32	26	21	16	12	7	3
25	56	80	27	21	16	11	7	3	0
25	56	100	23	17	12	8	4	0	0
25	56	120	20	15	10	5	1	0	0
25	56	140	18	13	8	3	0	0	0
50	112	40	34	30	26	22	18	14	10
50	112	60	27	23	18	14	10	6	3
50	112	80	23	18	14	10	6	2	0
50	112	100	20	15	11	7	3	0	0
50	112	120	17	13	9	5	1	0	0
50	112	140	16	11	7	3	0	0	0
75	168	40	30	26	23	19	15	12	13
75	168	60	24	20	16	13	9	5	2
75	168	80	20	16	12	9	5	2	0
75	168	100	17	14	10	6	2	0	0
75	168	120	15	11	8	4	1	0	0
75	168	140	14	10	6	2	0	0	0
100	224	40	27	24	20	17	14	10	7
100	224	60	21	18	15	11	13	4	2
100	224	80	18	15	11	8	4	1	0
100	224	100	16	12	9	5	2	0	0
100	224	120	14	10	7	3	0	0	0
100	224	140	13	9	5	2	0	0	0
125	280	40	25	22	19	15	12	9	6
125	280	60	20	17	13	10	7	4	1
125	280	80	16	13	10	7	4	1	0
125	280	100	14	11	8	5	2	0	0
125	280	120	13	9	6	3	0	0	0
125	280	140	11	8	5	2	0	0	0
150	335	40	23	20	17	14	11	8	5
150	335	60	18	15	12	9	6	3	1
150	335	80	15	12	9	6	3	1	0
150	335	100	13	10	7	4	1	0	0
150	335	120	12	9	5	3	0	0	0
150	335	140	11	7	4	1	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	21	19	16	13	10	7	4
175	391	60	17	14	11	8	5	3	1
175	391	80	14	11	8	5	3	1	0
175	391	100	12	9	6	3	1	0	0
175	391	120	11	8	5	2	0	0	0
175	391	140	10	7	4	1	0	0	0
200	447	40	20	18	15	12	9	6	4
200	447	60	16	13	10	7	5	2	1
200	447	80	13	11	8	5	2	0	0
200	447	100	12	9	6	3	1	0	0
200	447	120	10	7	4	2	0	0	0
200	447	140	9	6	3	1	0	0	0
225	503	40	19	17	14	11	8	6	3
225	503	60	15	13	10	7	4	2	0
225	503	80	13	10	7	4	2	0	0
225	503	100	11	8	5	3	1	0	0
225	503	120	10	7	4	2	0	0	0
225	503	140	9	6	3	1	0	0	0
250	559	40	18	16	13	10	8	5	3
250	559	60	14	12	9	6	4	2	0
250	559	80	12	9	7	4	2	0	0
250	559	100	10	13	5	2	1	0	0
250	559	120	9	6	4	1	0	0	0
250	559	140	8	6	3	1	0	0	0
275	615	40	17	15	12	10	7	5	2
275	615	60	14	11	8	6	3	1	0
275	615	80	12	9	6	4	1	0	0
275	615	100	10	7	5	2	0	0	0
275	615	120	9	6	3	1	0	0	0
275	615	140	8	5	3	1	0	0	0
300	671	40	17	14	12	9	6	4	2
300	671	60	13	11	8	5	3	1	0
300	671	80	11	8	6	3	1	0	0
300	671	100	10	7	4	2	0	0	0
300	671	120	8	6	3	1	0	0	0
300	671	140	8	5	2	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	16	14	11	9	6	4	2
325	727	60	13	10	8	5	3	1	0
325	727	80	11	8	5	3	1	0	0
325	727	100	9	7	4	2	0	0	0
325	727	120	8	5	3	1	0	0	0
325	727	140	7	5	2	0	0	0	0
350	783	40	16	13	11	8	6	3	2
350	783	60	12	10	7	5	2	1	0
350	783	80	10	8	5	3	1	0	0
350	783	100	9	6	4	2	0	0	0
350	783	120	8	5	3	1	0	0	0
350	783	140	7	4	2	0	0	0	0
375	839	40	15	13	10	8	5	3	1
375	839	60	12	9	7	4	2	1	0
375	839	80	10	7	5	2	1	0	0
375	839	100	8	6	3	1	0	0	0
375	839	120	7	5	2	1	0	0	0
375	839	140	7	4	2	0	0	0	0
400	894	40	14	12	10	7	5	3	1
400	894	60	11	9	6	4	2	1	0
400	894	80	9	7	4	2	1	0	0
400	894	100	8	6	3	1	0	0	0
400	894	120	7	5	2	1	0	0	0
400	894	140	6	4	2	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	43	37	31	26	21	17	12
25	56	60	34	27	22	17	12	8	4
25	56	80	28	22	16	12	7	3	0
25	56	100	24	18	13	8	4	0	0
25	56	120	21	15	10	6	1	0	0
25	56	140	19		8	4	0	0	0
50	112	40	36	32	27	23	19	15	11
50	112	60	29	24	20	15	11	7	3
50	112	80	24	19	15	10	6	2	0
50	112	100	21	16	11	7	3	0	0
50	112	120	18	14	9	5	1	0	0
50	112	140	17	12	7	3	0	0	0
75	168	40	32	29	25	21	17	13	9
75	168	60	26	22	18	14	10	6	3
75	168	80	21	17	13	9	6	2	0
75	168	100	19	14	10	6	3	0	0
75	168	120	17	12	13	4	1	0	0
75	168	140	15	11	7	3	0	0	0
100	224	40	29	26	22	19	15	12	8
100	224	60	23	20	16	12	9	5	2
100	224	80	19	16	12	8	5	2	0
100	224	100	17	13	9	6	2	0	0
100	224	120	15	11	7	4	1	0	0
100	224	140	14	10	6	2	0	0	0
125	280	40	27	24	20	17	14	10	7
125	280	60	21	18	15	11	8	5	2
125	280	80	18	15	11	8	4	1	0
125	280	100	16	12	9	5	2	0	0
125	280	120	14	10	7	3	1	0	0
125	280	140	12	9	5	2	0	0	0
150	335	40	25	22	19	16	13	9	6
150	335	60	20	17	14	10	7	4	1
150	335	80	17	14	10	7	4	1	0
150	335	100	15	11	8	5	2	0	0
150	335	120	13	10	6	3	0	0	0
150	335	140	12	8	5	2	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	23	21	18	15	12	8	6
175	391	60	19	16	13	9	6	3	1
175	391	80	16	13	9	6	3	1	0
175	391	100	14	10	7	4	1	0	0
175	391	120	12	9	6	3	0	0	0
175	391	140	11	8	4	2	0	0	0
200	447	40	22	19	17	14	11	8	5
200	447	60	18	15	12	9	6	3	1
200	447	80	15	12	9	6	3	1	0
200	447	100	13	10	7	4	1	0	0
200	447	120	11	8	5	2	0	0	0
200	447	140	10	7	4	1	0	0	0
225	503	40	21	18	16	13	10	7	4
225	503	60	17	14	11	8	5	3	1
225	503	80	14	11	8	5	3	1	0
225	503	100	12	9	6	3	1	0	0
225	503	120	11	8	5	2	0	0	0
225	503	140	10	7	4	1	0	0	0
250	559	40	20	18	15	12	9	6	4
250	559	60	16	13	10	7	5	2	1
250	559	80	13	11	8	5	2	0	0
250	559	100	12	9	6	3	1	0	0
250	559	120	10	7	4	2	0	0	0
250	559	140	9	6	3	1	0	0	0
275	615	40	19	17	14	11	8	6	3
275	615	60	15	13	10	7	4	2	0
275	615	80	13	10	7	4	2	0	0
275	615	100	11	8	5	3	1	0	0
275	615	120	10	7	4	2	0	0	0
275	615	140	9	6	3	1	0	0	0
300	671	40	18	16	13	11	8	5	3
300	671	60	15	12	9	6	4	2	0
300	671	80	12	10	7	4	2	0	0
300	671	100	11	8	5	2	1	0	0
300	671	120	9	7	4	1	0	0	0
300	671	140	8	6	3	1	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 500 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	18	15	13	10	7	5	3
325	727	60	14	11	9	6	4	2	0
325	727	80	12	9	6	4	2	0	0
325	727	100	10	7	5	2	1	0	0
325	727	120	9	6	4	1	0	0	0
325	727	140	8	5	3	1	0	0	0
350	783	40	17	15	12	9	7	4	2
350	783	60	13	11	8	6	3	1	0
350	783	80	11	9	6	3	1	0	0
350	783	100	10	7	4	2	0	0	0
350	783	120	9	6	3	1	0	0	0
350	783	140	8	5	2	1	0	0	0
375	839	40	17	14	12	9	6	4	2
375	839	60	13	11	8	5	3	1	0
375	839	80	11	8	6	3	1	0	0
375	839	100	9	7	4	2	0	0	0
375	839	120	8	6	3	1	0	0	0
375	839	140	7	5	2	0	0	0	0
400	894	40	16	14	11	9	6	4	2
400	894	60	13	10	7	5	3	1	0
400	894	80	11	8	5	3	1	0	0
400	894	100	9	6	4	2	0	0	0
400	894	120	8	5	3	1	0	0	0
400	894	140	7	5	2	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	18	15	13	10	7	4	2
25	56	60	15	12	9	6	4	1	0
25	56	80	13	10	7	4	2	0	0
25	56	100	11	9	6	3	1	0	0
25	56	120	10	7	4	2	0	0	0
25	56	140	9	6	4	1	0	0	0
50	112	40	14	11	9	6	3	2	0
50	112	60	11	9	6	3	1	0	0
50	112	80	9	7	4	2	0	0	0
50	112	100	8	6	3	1	0	0	0
50	112	120	7	5	2	0	0	0	0
50	112	140	7	4	2	0	0	0	0
75	168	40	11	9	6	4	2	0	0
75	168	60	9	7	4	2	0	0	0
75	168	80	8	5	3	1	0	0	0
75	168	100	7	4	2	0	0	0	0
75	168	120	6	3	1	0	0	0	0
75	168	140	5	3	1	0	0	0	0
100	224	40	10	7	5	3	1	0	0
100	224	60	8	5	3	1	0	0	0
100	224	80	7	4	2	0	0	0	0
100	224	100	6	3	1	0	0	0	0
100	224	120	5	3	1	0	0	0	0
100	224	140	4	2	0	0	0	0	0
125	280	40	9	6	4	2	0	0	0
125	280	60	7	5	2	1	0	0	0
125	280	80	6	3	1	0	0	0	0
125	280	100	5	3	1	0	0	0	0
125	280	120	4	2	0	0	0	0	0
125	280	140	4	2	0	0	0	0	0
150	335	40	8	6	3	1	0	0	0
150	335	60	6	4	2	0	0	0	0
150	335	80	5	3	1	0	0	0	0
150	335	100	4	2	0	0	0	0	0
150	335	120	4	2	0	0	0	0	0
150	335	140	3	1	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET							
			4.0	8.0	12.0	16.0	20.0	24.0	28.0	
			INSTALLED	SPACING	OF	DETECTORS				
175	391	40	7	5	3	1	0	0	0	0
175	391	60	6	3	1	0	0	0	0	0
175	391	80	5	2	0	0	0	0	0	0
175	391	100	4	2	0	0	0	0	0	0
175	391	120	3	1	0	0	0	0	0	0
175	391	140	3	1	0	0	0	0	0	0
200	447	40	7	4	2	1	0	0	0	0
200	447	60	5	3	1	0	0	0	0	0
200	447	80	4	2	0	0	0	0	0	0
200	447	100	4	1	0	0	0	0	0	0
200	447	120	3	1	0	0	0	0	0	0
200	447	140	3	0	0	0	0	0	0	0
225	503	40	6	4	2	0	0	0	0	0
225	503	60	5	3	1	0	0	0	0	0
225	503	80	4	2	0	0	0	0	0	0
225	503	100	3	1	0	0	0	0	0	0
225	503	120	3	1	0	0	0	0	0	0
225	503	140	2	0	0	0	0	0	0	0
250	559	40	6	4	2	0	0	0	0	0
250	559	60	4	2	0	0	0	0	0	0
250	559	80	4	2	0	0	0	0	0	0
250	559	100	3	1	0	0	0	0	0	0
250	559	120	3	0	0	0	0	0	0	0
250	559	140	2	0	0	0	0	0	0	0
275	615	40	6	3	1	0	0	0	0	0
275	615	60	4	2	0	0	0	0	0	0
275	615	80	3	1	0	0	0	0	0	0
275	615	100	3	1	0	0	0	0	0	0
275	615	120	2	0	0	0	0	0	0	0
275	615	140	2	0	0	0	0	0	0	0
300	671	40	5	3	1	0	0	0	0	0
300	671	60	4	2	0	0	0	0	0	0
300	671	80	3	1	0	0	0	0	0	0
300	671	100	3	0	0	0	0	0	0	0
300	671	120	2	0	0	0	0	0	0	0
300	671	140	2	0	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	9.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED	SPACING	OF	DETECTORS			
325	727	40	5	3	1	0	0	0	0
325	727	60	4	2	0	0	0	0	0
325	727	80	3	1	0	0	0	0	0
325	727	100	2	0	0	0	0	0	0
325	727	120	2	0	0	0	0	0	0
325	727	140	2	0	0	0	0	0	0
350	783	40	5	3	1	0	0	0	0
350	783	60	4	1	0	0	0	0	0
350	793	80	3	1	0	0	0	0	0
350	783	100	2	0	0	0	0	0	0
350	783	120	2	0	0	0	0	0	0
350	783	140	2	0	0	0	0	0	0
375	839	40	5	2	0	0	0	0	0
375	839	60	3	1	0	0	0	0	0
375	839	80	3	0	0	0	0	0	0
375	839	100	2	0	0	0	0	0	0
375	839	120	2	0	0	0	0	0	0
375	839	140	1	0	0	0	0	0	0
400	894	40	4	2	0	0	0	0	0
400	894	60	3	1	0	0	0	0	0
400	894	80	2	0	0	0	0	0	0
400	894	100	2	0	0	0	0	0	0
400	894	120	2	0	0	0	0	0	0
400	894	140	1	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	32	29	26	22	18	15	11
25	56	60	26	23	19	15	12	8	4
25	56	90	23	19	15	11	8	4	1
25	56	100	20	16	12	8	5	1	0
25	56	120	18	14	10	6	3	0	0
25	56	140	16	12	8	5	1	0	0
50	112	40	25	23	20	17	14	11	8
50	112	60	21	18	15	12	8	5	3
50	112	80	18	15	12	8	5	2	0
50	112	100	16	13	9	6	3	1	0
50	112	120	14	11	8	4	2	0	0
50	112	140	13	10	6	3	1	0	0
75	168	40	22	19	17	14	11	8	5
75	168	60	18	15	12	9	6	4	1
75	168	80	15	12	9	6	4	1	0
75	168	100	13	10	7	5	2	0	0
75	168	120	12	9	6	3	1	0	0
75	168	140	11	8	5	2	0	0	0
100	224	40	19	17	14	12	9	6	4
100	224	60	16	13	10	8	5	3	1
100	224	80	13	11	8	5	3	1	0
100	224	100	12	9	6	3	1	0	0
100	224	120	10	8	5	2	1	0	0
100	224	140	9	7	4	1	0	0	0
125	280	40	17	15	13	10	7	5	3
125	280	60	14	12	9	6	4	2	1
125	280	80	12	9	7	4	2	0	0
125	280	100	10	8	5	3	1	0	0
125	280	120	9	7	4	2	0	0	0
125	280	140	8	6	3	1	0	0	0
150	335	40	16	14	11	9	6	4	2
150	335	60	13	10	8	5	3	1	0
150	335	80	11	8	6	3	1	0	0
150	335	100	9	7	4	2	1	0	0
150	335	120	8	6	3	1	0	0	0
150	335	140	8	5	3	1	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	15	13	10	8	5	3	2
175	391	60	12	9	7	5	2	1	0
175	391	80	10	8	5	3	1	0	0
175	391	100	9	6	4	2	0	0	0
175	391	120	8	5	3	1	0	0	0
175	391	140	7	4	2	0	0	0	0
200	447	40	14	12	9	7	4	3	1
200	447	60	11	9	6	4	2	1	0
200	447	80	9	7	4	2	1	0	0
200	447	100	8	6	3	1	0	0	0
200	447	120	7	5	2	1	0	0	0
200	447	140	6	4	2	0	0	0	0
225	503	40	13	11	8	6	4	2	1
225	503	60	10	8	6	3	2	0	0
225	503	80	9	6	4	2	0	0	0
225	503	100	8	5	3	1	0	0	0
225	503	120	7	4	2	0	0	0	0
225	503	140	6	4	1	0	0	0	0
250	559	40	12	10	8	5	3	2	0
250	559	60	10	7	5	3	1	0	0
250	559	80	8	6	4	2	0	0	0
250	559	100	7	5	2	1	0	0	0
250	559	120	6	4	2	0	0	0	0
250	559	140	6	3	1	0	0	0	0
275	615	40	12	10	7	5	3	1	0
275	615	60	9	7	5	3	1	0	0
275	615	80	8	5	3	1	0	0	0
275	615	100	7	4	2	1	0	0	0
275	615	120	6	4	2	0	0	0	0
275	615	140	5	3	1	0	0	0	0
300	671	40	11	9	7	4	3	1	0
300	671	60	9	7	4	2	1	0	0
300	671	80	7	5	3	1	0	0	0
300	671	100	6	4	2	0	0	0	0
300	671	120	6	3	1	0	0	0	0
300	671	140	5	3	1	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	11	9	6	4	2	1	0
325	727	60	9	6	4	2	1	0	0
325	727	80	7	5	3	1	0	0	0
325	727	100	6	4	2	0	0	0	0
325	727	120	5	3	1	0	0	0	0
325	727	140	5	2	1	0	0	0	0
350	783	40	10	8	6	4	2	1	0
350	783	60	8	6	4	2	0	0	0
350	783	80	7	4	2	1	0	0	0
350	783	100	6	3	2	0	0	0	0
350	783	120	5	3	1	0	0	0	0
350	783	140	5	2	0	0	0	0	0
375	839	40	10	8	5	3	2	0	0
375	839	60	8	6	3	2	0	0	0
375	839	80	6	4	2	0	0	0	0
375	839	100	6	3	1	0	0	0	0
375	839	120	5	3	1	0	0	0	0
375	839	140	4	2	0	0	0	0	0
400	894	40	10	7	5	3	2	0	0
400	894	60	8	5	3	1	0	0	0
400	894	So	6	4	2	0	0	0	0
400	894	100	5	3	1	0	0	0	0
400	894	120	5	2	1	0	0	0	0
400	894	140	4	2	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	43	39	34	30	25	21	17
25	56	60	35	30	25	21	16	12	8
25	56	80	30	24	20	15	11	6	3
25	56	100	26	21	16	11	7	3	0
25	56	120	23	18	13	9	4	1	0
25	56	140	21	15	11	6	2	0	0
50	112	40	36	32	29	25	21	17	14
50	112	60	29	25	21	17	14	10	6
50	112	80	24	21	17	13	9	5	2
50	112	100	21	17	13	10	6	2	0
50	112	120	19	15	11	7	3	0	0
50	112	140	17	13	9	5	2	0	0
75	168	40	31	28	25	22	18	15	11
75	168	60	25	22	18	15	12	2	5
75	168	80	21	18	14	11	7	4	1
75	168	100	19	15	12	8	5	2	0
75	168	120	17	13	10	6	3	0	0
75	168	140	15	12	8	4	1	0	0
100	224	40	28	25	22	19	16	13	10
100	224	60	22	19	16	13	10	7	4
100	224	80	19	16	13	10	6	3	1
100	224	100	17	14	10	7	4	1	0
100	224	120	15	12	8	5	2	0	0
100	224	140	14	10	7	4	1	0	0
125	280	40	25	23	20	17	14	11	8
125	280	60	20	18	15	12	9	6	3
125	280	80	17	14	11	8	5	3	1
125	280	100	15	12	9	6	3	1	0
125	280	120	14	11	7	4	2	0	0
125	280	140	12	9	6	3	1	0	0
150	335	40	23	21	18	15	13	10	7
150	335	60	19	16	13	10	8	5	2
150	335	80	16	13	10	7	5	2	0
150	335	100	14	11	8	5	3	1	0
150	335	120	13	10	7	4	1	0	0
150	335	140	11	8	5	3	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	22	20	17	14	11	9	6
175	391	60	18	15	12	9	7	4	2
175	391	80	15	12	9	7	4	2	0
175	391	100	13	10	7	5	2	0	0
175	391	120	12	9	6	3	1	0	0
175	391	140	11	8	5	2	0	0	0
200	447	40	21	18	16	13	10	8	5
200	447	60	17	14	11	9	6	4	2
200	447	80	14	11	9	6	3	1	0
200	447	100	12	10	7	4	2	0	0
200	447	120	11	8	5	3	1	0	0
200	447	140	10	7	4	2	0	0	0
225	503	40	20	17	15	12	9	7	5
225	503	60	16	13	11	8	5	3	1
225	503	80	13	11	8	5	3	1	0
225	503	100	12	9	6	4	2	0	0
225	503	120	10	8	5	2	1	0	0
225	503	140	9	7	4	2	0	0	0
250	559	40	19	16	14	11	9	6	4
250	559	60	15	12	10	7	5	3	1
250	559	80	13	10	7	5	3	1	0
250	559	100	11	8	6	3	1	0	0
250	559	120	10	7	4	2	1	0	0
250	559	140	9	6	4	1	0	0	0
275	615	40	18	16	13	10	8	6	3
275	615	60	14	12	9	7	4	2	1
275	615	80	12	9	7	4	2	1	0
275	615	100	10	13	5	3	1	0	0
275	615	120	9	7	4	2	0	0	0
275	615	140	8	6	3	1	0	0	0
300	671	40	17	15	12	10	7	5	3
300	671	60	14	11	9	6	4	2	1
300	671	80	11	9	6	4	2	1	0
300	671	100	10	7	5	3	1	0	0
300	671	120	9	6	4	2	0	0	0
300	671	140	8	5	3	1	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	16	14	12	9	7	5	3
325	727	60	13	11	8	6	3	2	0
325	727	80	11	9	6	4	2	0	0
325	727	100	10	7	5	2	1	0	0
325	727	120	8	6	3	1	0	0	0
325	727	140	8	5	3	1	0	0	0
350	783	40	16	14	11	9	6	4	2
350	783	60	13	10	8	5	3	1	0
350	783	80	11	8	6	3	1	0	0
350	783	100	9	7	4	2	1	0	0
350	783	120	8	6	3	1	0	0	0
350	783	140	7	5	2	1	0	0	0
375	839	40	15	13	11	8	6	4	2
375	839	60	12	10	7	5	3	1	0
375	839	80	10	8	5	3	1	0	0
375	839	100	9	6	4	2	0	0	0
375	839	120	8	5	3	1	0	0	0
375	839	140	7	5	2	1	0	0	0
400	894	40	15	13	10	8	5	3	2
400	894	60	12	9	7	5	3	1	0
400	894	80	10	7	5	3	1	0	0
400	894	100	8	6	4	2	0	0	0
400	894	120	7	5	3	1	0	0	0
400	894	140	7	4	2	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	52	45	39	34	29	24	20
25	56	60	41	34	28	23	18	14	9
25	56	80	34	28	22	17	12	8	4
25	56	100	29	23	18	13	8	4	0
25	56	120	26	20	14	10	5	1	0
25	56	140	23	17	12	7	3	0	0
50	112	40	44	40	35	30	26	22	18
50	112	60	35	30	26	21	17	12	8
50	112	80	30	25	20	15	11	7	3
50	112	100	26	21	16	12	7	3	0
50	112	120	23	18	13	9	5	1	0
50	112	140	21	16	11	7	3	0	0
75	168	40	39	35	31	27	24	20	16
75	168	60	31	27	23	19	15	11	7
75	168	80	26	22	18	14	10	6	3
75	168	100	23	19	15	10	7	3	0
75	168	120	20	16	12	8	4	1	0
75	168	140	18	14	10	6	2	0	0
100	224	40	35	32	29	25	21	18	14
100	224	60	28	25	21	17	14	10	6
100	224	80	24	20	16	13	9	5	2
100	224	100	21	17	13	10	6	2	0
100	224	120	19	15	11	7	4	0	0
100	224	140	17	13	9	5	2	0	0
125	280	40	32	30	26	23	20	16	13
125	280	60	26	23	19	16	12	9	6
125	280	80	22	19	15	12	13	5	2
125	280	100	19	16	12	9	5	2	0
125	280	120	17	14	10	7	3	0	0
125	280	140	16	12	8	5	2	0	0
150	335	40	30	28	25	21	18	15	12
150	335	60	24	21	18	15	11	8	5
150	335	80	21	17	14	11	7	4	1
150	335	100	18	15	11	8	5	2	0
150	335	120	16	13	9	6	3	0	0
150	335	140	15	11	8	4	1	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	28	26	23	20	17	14	10
175	391	60	2	20	17	14	10	7	4
175	391	80	19	16	13	10	7	4	1
175	391	100	17	14	11	7	4	1	0
175	391	120	15	12	9	5	2	0	0
175	391	140	14	10	7	4	1	0	0
200	447	40	27	24	22	18	16	12	10
200	447	60	22	19	16	13	10	7	4
200	447	80	18	15	12	9	6	3	1
200	447	100	16	13	10	7	4	1	0
200	447	120	14	11	8	5	2	0	0
200	447	140	13	10	7	4	1	0	0
225	503	40	26	23	20	17	14	12	9
225	503	60	20	18	15	12	9	6	3
225	503	80	17	14	11	8	6	3	1
225	503	100	15	12	9	6	3	1	0
225	503	120	13	11	7	4	2	0	0
225	503	140	12	9	6	3	1	0	0
250	559	40	24	22	19	16	14	11	a
250	559	60	19	17	14	11	8	5	3
250	559	80	16	14	11	8	5	3	1
250	559	100	14	12	9	6	3	1	0
250	559	120	13	10	7	4	2	0	0
250	559	140	12	9	6	3	1	0	0
275	615	40	23	21	18	16	13	10	7
275	615	60	19	16	13	10	8	5	3
275	615	80	16	13	10	7	5	2	1
275	615	100	14	11	8	5	3	1	0
275	615	120	12	9	7	4	1	0	0
275	615	140	11	8	5	3	1	0	0
300	671	40	22	20	18	15	12	9	7
300	671	60	18	15	13	10	7	5	2
300	671	80	15	13	10	7	4	2	0
300	671	100	13	11	8	5	2	1	0
300	671	120	12	9	6	3	1	0	0
300	671	140	11	8	5	2	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	22	19	17	14	11	9	6
325	727	60	17	15	12	9	7	4	2
325	727	80	15	12	9	6	4	2	0
325	727	100	13	10	7	5	2	1	0
325	727	120	11	9	6	3	1	0	0
325	727	140	10	7	5	2	0	0	0
350	783	40	21	19	16	13	11	8	6
350	783	60	17	14	12	9	6	4	2
350	763	80	14	12	9	6	4	2	0
350	783	100	12	10	7	4	2	0	0
350	783	120	11	8	5	3	1	0	0
350	783	140	10	7	4	2	0	0	0
375	839	40	20	18	16	13	10	8	5
375	839	60	16	14	11	8	6	3	2
375	839	80	14	11	8	6	3	1	0
375	839	100	12	9	7	4	2	0	0
375	839	120	11	8	5	3	1	0	0
375	839	140	10	7	4	2	0	0	0
400	894	40	20	17	15	12	10	7	5
400	894	60	16	13	11	8	5	3	1
400	894	80	13	11	8	5	3	1	0
400	894	100	11	9	6	4	2	0	0
400	894	120	10	8	5	3	1	0	0
400	894	140	9	7	4	2	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	55	47	41	35	30	25	21
25	56	60	43	36	29	24	19	14	10
25	56	80	36	28	23	18	13	8	4
25	56	100	31	24	18	13	9	4	0
25	56	120	27	20	15	10	6	1	0
25	56	140	24	18	12	8	3	0	0
50	112	40	47	42	37	32	28	23	19
50	112	60	37	32	27	22	18	13	9
50	112	80	31	26	21	16	12	8	4
50	112	100	27	22	17	12	8	4	0
50	112	120	24	19	14	9	5	1	0
50	112	140	22	16	11	7	3	0	0
75	168	40	42	38	34	29	25	21	17
75	168	60	33	29	25	20	16	12	8
75	168	80	28	24	19	15	11	7	3
75	168	100	24	20	15	11	7	3	0
75	168	120	22	17	13	9	5	1	0
75	168	140	20	15	11	6	3	0	0
100	224	40	38	35	31	27	23	19	16
100	224	60	30	27	23	19	15	11	7
100	224	80	26	22	18	14	10	6	3
100	224	100	22	18	14	10	7	3	0
100	224	120	20	16	12	8	4	1	0
100	224	140	18	14	10	6	2	0	0
125	280	40	35	32	29	25	22	18	14
125	280	60	28	25	21	17	14	10	7
125	280	80	24	20	16	13	9	6	2
125	280	100	21	17	13	10	6	3	0
125	280	120	19	15	11	7	4	1	0
125	280	140	17	13	9	5	2	0	0
150	335	40	33	30	27	23	20	17	13
150	335	60	26	23	20	16	13	9	6
150	335	80	22	19	15	12	9	5	2
150	335	100	19	16	12	9	5	2	0
150	335	120	17	14	10	7	3	0	0
150	335	140	16	12	8	5	2	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	31	28	25	22	19	15	12
175	391	60	25	22	18	15	12	9	5
175	391	80	21	18	14	11	8	4	2
175	391	100	18	15	12	8	5	2	0
175	391	120	16	13	10	6	3	0	0
175	391	140	15	11	8	5	1	0	0
200	447	40	29	27	24	21	17	14	11
200	447	60	21	21	17	14	11	8	5
200	447	80	20	17	14	10	7	4	1
200	447	100	17	14	11	8	4	2	0
200	447	120	15	12	9	6	3	0	0
200	447	140	14	11	7	4	1	0	0
225	503	40	28	26	23	19	16	13	10
225	503	60	22	20	17	13	10	7	4
225	503	80	19	16	13	10	7	4	1
225	503	100	16	13	10	7	4	1	0
225	503	120	15	12	8	5	2	0	0
225	503	140	13	10	7	4	1	0	0
250	559	40	27	24	21	18	15	12	10
250	559	60	21	19	16	13	10	7	4
250	559	80	18	15	12	9	6	3	1
250	559	100	16	13	10	7	4	1	0
250	559	120	14	11	8	5	2	0	0
250	559	140	13	10	7	4	1	0	0
275	615	40	26	23	20	18	15	12	9
275	615	60	21	18	15	12	9	6	4
275	615	80	17	15	12	9	6	3	1
275	615	100	15	12	9	6	3	1	0
275	615	120	13	11	7	5	2	0	0
275	615	140	12	9	6	3	1	0	0
300	671	40	25	22	20	17	14	11	8
300	671	60	20	17	14	11	8	6	3
300	671	80	17	14	11	8	5	3	1
300	671	100	15	12	9	6	3	1	0
300	671	120	13	10	7	4	2	0	0
300	671	140	12	9	6	3	1	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 750 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	24	22	19	16	13	10	8
325	727	60	19	16	14	11	8	5	3
325	727	80	16	13	10	8	5	2	1
325	727	100	14	11	8	5	3	1	0
325	727	120	12	10	7	4	2	0	0
325	727	140	11	8	5	3	1	0	0
350	783	40	23	21	18	15	13	10	7
350	783	60	18	16	13	10	7	5	3
350	783	80	15	13	10	7	5	2	1
350	783	100	13	11	8	5	3	1	0
350	783	120	12	9	6	4	1	0	0
350	783	140	11	8	5	3	1	0	0
375	839	40	22	20	17	15	12	9	7
375	839	60	18	15	13	10	7	5	2
375	839	80	15	12	10	7	4	2	0
375	839	100	13	10	8	5	2	1	0
375	839	120	12	9	6	3	1	0	0
375	839	140	11	8	5	2	0	0	0
400	894	40	22	19	17	14	11	9	6
400	894	60	17	15	12	9	7	4	2
400	994	80	15	12	9	6	4	2	0
400	894	100	18	10	7	5	2	1	0
400	894	120	11	9	6	3	1	0	0
400	894	140	10	7	5	2	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	22	20	17	14	11	8	5
25	56	60	18	16	13	10	7	4	2
25	56	80	16	13	10	7	4	2	0
25	56	100	14	11	8	5	3	0	0
25	56	120	13	10	7	4	1	0	0
25	56	140	12	9	6	3	1	0	0
50	112	40	17	15	12	9	7	4	2
50	112	60	14	11	9	6	4	2	0
50	112	80	12	9	7	4	2	0	0
50	112	100	11	8	5	3	1	0	0
50	112	120	10	7	4	2	0	0	0
50	112	140	9	6	3	1	0	0	0
75	168	40	14	12	9	7	4	2	1
75	168	60	12	9	7	4	2	1	0
75	168	80	10	7	5	3	1	0	0
75	168	100	9	6	4	2	0	0	0
75	168	120	8	5	3	1	0	0	0
75	168	140	7	4	2	0	0	0	0
100	224	40	12	10	8	5	3	1	0
100	224	60	10	8	5	3	1	0	0
100	224	80	8	6	4	2	0	0	0
100	224	100	7	5	3	1	0	0	0
100	224	120	7	4	2	0	0	0	0
100	224	140	6	4	1	0	0	0	0
125	280	40	11	9	6	4	2	1	0
125	280	60	9	7	4	2	1	0	0
125	280	80	8	5	3	1	0	0	0
125	280	100	7	4	2	0	0	0	0
125	280	120	6	3	1	0	0	0	0
125	280	140	5	3	1	0	0	0	0
150	335	40	10	8	5	3	2	0	0
150	335	60	8	6	3	2	0	0	0
150	335	80	7	4	2	0	0	0	0
150	335	100	6	3	2	0	0	0	0
150	335	120	5	3	1	0	0	0	0
150	335	140	5	2	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	9	7	5	3	1	0	0
175	391	60	7	5	3	1	0	0	0
175	391	80	6	4	2	0	0	0	0
175	391	100	5	3	1	0	0	0	0
175	391	120	5	2	0	0	0	0	0
175	391	140	4	2	0	0	0	0	0
200	447	40	9	6	4	2	1	0	0
200	447	60	7	5	2	1	0	0	0
200	447	80	6	3	1	0	0	0	0
200	447	100	5	1	1	0	0	0	0
200	447	120	4	2	0	0	0	0	0
200	447	140	4	2	0	0	0	0	0
225	503	40	8	6	4	2	0	0	0
225	503	60	6	4	2	0	0	0	0
225	503	80	5	3	1	0	0	0	0
225	503	100	5	2	0	0	0	0	0
225	503	120	4	2	0	0	0	0	0
225	503	140	3	1	0	0	0	0	0
250	559	40	8	5	3	1	0	0	0
250	559	60	6	4	2	0	0	0	0
250	559	80	5	3	1	0	0	0	0
250	559	100	4	2	0	0	0	0	0
250	559	120	4	2	0	0	0	0	0
250	559	140	3	1	0	0	0	0	0
275	615	40	7	5	3	1	0	0	0
275	615	60	6	3	1	0	0	0	0
275	615	80	5	2	0	0	0	0	0
275	615	100	4	2	0	0	0	0	0
275	615	120	3	1	0	0	0	0	0
275	615	140	3	1	0	0	0	0	0
300	671	40	7	5	3	1	0	0	0
300	671	60	5	3	1	0	0	0	0
300	671	80	4	2	0	0	0	0	0
300	671	100	4	2	0	0	0	0	0
300	671	120	3	1	0	0	0	0	0
300	671	140	5	1	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED	SPACING	OF	DETECTORS			
325	727	40	7	4	2	1	0	0	0
325	727	60	5	3	1	0	0	0	0
325	727	80	4	2	0	0	0	0	0
325	727	100	3	1	0	0	0	0	0
325	727	120	3	1	0	0	0	0	0
325	727	140	3	0	0	0	0	0	0
350	783	40	6	4	2	0	0	0	0
350	793	60	5	3	1	0	0	0	0
350	783	80	4	2	0	0	0	0	0
350	783	100	3	1	0	0	0	0	0
350	783	120	3	1	0	0	0	0	0
350	783	140	2	0	0	0	0	0	0
375	839	40	6	4	2	0	0	0	0
375	839	60	5	2	0	0	0	0	0
375	839	80	4	2	0	0	0	0	0
375	839	100	3	1	0	0	0	0	0
375	839	120	3	0	0	0	0	0	0
375	839	140	2	0	0	0	0	0	0
400	894	40	6	4	2	0	0	0	0
400	894	60	4	2	0	0	0	0	0
400	894	80	3	1	0	0	0	0	0
400	894	100	3	1	0	0	0	0	0
400	894	120	2	0	0	0	0	0	0
400	894	140	2	0	0	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	39	36	32	28	25	21	17
25	56	60	32	28	24	21	17	13	9
25	56	80	27	24	20	16	12	8	4
25	56	100	24	20	16	12	8	4	1
25	56	120	22	18	14	10	6	2	0
25	56	140	20	16	12	8	4	0	0
50	112	40	31	29	26	22	19	16	13
50	112	60	25	23	19	16	13	5	6
50	112	80	22	19	15	12	9	6	3
50	112	100	19	16	13	9	6	3	0
50	112	120	17	14	11	7	4	1	0
50	112	140	16	13	9	6	2	0	0
75	168	40	27	24	22	19	16	13	10
75	168	60	22	19	16	13	10	7	4
75	168	80	19	16	13	10	7	4	2
75	168	100	16	14	11	7	4	2	0
75	168	120	15	12	9	6	3	1	0
75	168	140	13	10	7	4	2	0	0
100	224	40	24	22	19	16	13	10	a
100	224	60	19	17	14	11	8	6	3
100	224	80	16	14	11	8	5	3	1
100	224	100	14	12	9	6	3	1	0
100	224	120	13	10	7	5	2	0	0
100	224	140	12	9	6	3	1	0	0
125	280	40	21	19	17	14	11	9	6
125	280	60	17	15	12	10	7	4	2
125	280	80	15	12	10	7	4	2	1
125	280	100	13	10	8	5	3	1	0
125	280	120	12	9	6	4	1	0	0
125	280	140	11	8	5	3	1	0	0
150	335	40	20	18	15	13	10	7	5
150	335	60	16	14	11	8	6	4	2
150	335	80	14	11	9	6	3	2	0
150	335	100	12	9	7	4	2	1	0
150	335	120	11	8	5	3	1	0	0
150	335	140	10	7	4	2	1	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	18	16	14	11	9	6	4
175	391	60	15	13	10	7	5	3	1
175	391	80	13	10	8	5	3	1	0
175	391	100	11	9	6	4	2	0	0
175	391	120	10	7	5	2	1	0	0
175	391	140	9	6	4	2	0	0	0
200	447	40	17	15	13	10	8	5	3
200	447	60	14	12	9	7	4	2	1
200	447	80	12	9	7	4	2	1	0
200	447	100	10	8	5	3	1	0	0
200	447	120	9	7	4	2	1	0	0
200	447	140	8	6	3	1	0	0	0
225	503	40	16	14	12	9	7	5	3
225	503	60	13	11	8	6	4	2	1
225	503	80	11	9	6	4	2	1	0
225	503	100	10	7	5	3	1	0	0
225	503	120	9	6	4	2	0	0	0
225	503	140	8	5	3	1	0	0	0
250	559	40	16	13	11	9	6	4	2
250	559	60	12	10	8	5	3	2	0
250	559	80	11	8	6	3	2	0	0
250	559	100	9	7	4	2	1	0	0
250	559	120	8	6	3	1	0	0	0
250	559	140	7	5	3	1	0	0	0
275	615	40	15	13	10	8	6	4	2
275	615	60	12	10	7	5	3	1	0
275	615	80	10	8	5	3	1	0	0
275	615	100	9	6	4	2	0	0	0
275	615	120	8	5	3	1	0	0	0
275	615	140	7	5	2	1	0	0	0
300	671	40	14	12	10	7	5	3	2
300	671	60	11	9	7	4	2	1	0
300	671	80	10	7	5	3	1	0	0
300	671	100	8	6	4	2	0	0	0
300	671	120	7	5	3	1	0	0	0
300	671	140	7	4	2	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	14	12	9	7	5	3	1
325	727	60	11	9	6	4	2	1	0
325	727	80	9	7	4	2	1	0	0
325	727	100	8	6	3	1	0	0	0
325	727	120	7	5	2	1	0	0	0
325	727	140	6	4	2	0	0	0	0
350	783	40	13	11	9	6	4	2	1
350	781	60	10	8	6	4	2	1	0
350	783	90	9	6	4	2	1	0	0
350	783	100	8	5	3	1	0	0	0
350	783	120	7	4	2	1	0	0	0
350	783	140	6	4	2	0	0	0	0
375	839	40	13	11	8	6	4	2	1
375	839	60	10	8	5	3	2	0	0
375	839	80	8	6	4	2	0	0	0
375	839	100	7	5	3	1	0	0	0
375	839	120	6	4	2	0	0	0	0
375	839	140	6	3	1	0	0	0	0
400	894	40	12	10	8	5	3	2	1
400	894	60	10	7	5	3	1	0	0
400	894	80	8	6	4	2	0	0	0
400	894	100	7	5	3	1	0	0	0
400	894	120	6	4	2	0	0	0	0
400	894	140	6	3	1	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

CEILING HEIGHT IN FEET

TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	52	47	42	37	32	28	23
25	56	60	42	36	31	26	22	17	13
25	56	80	35	30	25	20	15	11	7
25	56	100	31	25	20	15	11	7	3
25	56	120	28	22	17	12	8	4	0
25	56	140	25	19	14	10	5	1	0
50	112	40	43	40	36	32	28	24	20
50	112	60	35	31	27	23	19	15	11
50	112	80	30	25	21	17	13	9	5
50	112	100	26	22	18	13	9	6	2
50	112	120	23	19	15	11	7	3	0
50	112	140	21	17	12	8	4	1	0
75	168	40	37	35	31	26	24	21	17
75	168	60	30	27	24	20	16	13	9
75	168	80	26	22	19	15	11	8	4
75	168	100	23	19	15	12	8	5	1
75	168	120	20	17	13	9	6	2	0
75	168	140	19	15	11	7	4	1	0
100	224	40	34	31	28	25	22	18	15
100	224	60	27	24	21	18	14	11	8
100	224	80	23	20	17	13	10	7	4
100	224	100	20	17	14	10	7	4	1
100	224	120	18	15	12	8	5	2	0
100	224	140	17	13	10	6	3	0	0
125	280	40	31	29	26	23	19	16	13
125	280	60	25	22	19	16	13	10	7
125	280	80	21	18	15	12	9	6	3
125	280	100	19	16	13	9	6	3	1
125	280	120	17	14	10	7	4	1	0
125	280	140	15	12	9	6	3	0	0
150	335	40	29	27	24	21	18	15	12
150	335	60	23	21	18	15	12	9	6
150	335	80	20	17	14	11	8	5	2
150	335	100	17	14	11	8	5	3	1
150	335	120	16	13	10	6	4	1	0
150	335	140	14	11	8	5	2	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	27	25	22	19	16	13	11
175	391	60	22	19	16	13	10	8	5
175	391	80	18	16	13	10	7	4	2
175	391	100	16	13	10	8	5	2	0
175	391	120	15	12	9	6	3	1	0
175	391	140	13	10	7	4	2	0	0
200	447	40	25	23	21	18	15	12	9
200	447	60	20	18	15	12	10	7	4
200	447	80	17	15	12	9	6	4	2
200	447	100	15	13	10	7	4	2	0
200	447	120	14	11	8	5	3	1	0
200	447	140	12	10	7	4	2	0	0
225	503	40	24	22	19	17	14	11	9
225	503	60	19	17	14	11	9	6	4
225	503	80	16	14	11	8	6	3	1
225	503	100	14	12	9	6	4	2	0
225	503	120	13	10	7	5	2	1	0
225	503	140	12	9	6	3	1	0	0
250	559	40	23	21	18	16	13	10	8
250	559	60	18	16	13	11	8	5	3
250	559	80	16	13	10	8	5	3	1
250	559	100	14	11	8	6	3	1	0
250	559	120	12	10	7	4	2	0	0
250	559	140	11	8	6	3	1	0	0
275	615	40	22	20	17	15	12	9	7
275	615	60	18	15	13	10	7	5	3
275	615	80	15	12	10	7	5	2	1
275	615	100	13	11	8	5	3	1	0
275	615	120	12	9	6	4	2	0	0
275	615	140	11	8	5	3	1	0	0
300	671	40	21	19	16	14	11	9	6
300	671	60	17	15	12	9	7	4	2
300	671	80	14	12	9	7	4	2	1
300	671	100	13	10	7	5	3	1	0
300	671	120	11	9	6	3	1	0	0
300	671	140	10	8	5	3	1	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	20	18	16	13	11	8	6
325	727	60	16	14	11	9	6	4	2
325	727	80	14	11	9	6	4	2	1
325	727	100	12	10	7	4	2	1	0
325	727	120	11	8	6	3	1	0	0
325	727	140	10	7	5	2	1	0	0
350	783	40	20	18	15	13	10	8	5
350	783	60	16	18	11	8	6	4	2
350	783	80	13	11	8	6	3	2	0
350	783	100	12	9	7	4	2	1	0
350	783	120	10	8	5	3	1	0	0
350	783	140	9	7	4	2	1	0	0
375	839	40	19	17	14	12	9	7	5
375	839	60	15	13	10	8	5	3	2
375	839	80	13	10	8	5	3	1	0
375	839	100	11	9	6	4	2	0	0
375	839	120	10	7	5	3	1	0	0
375	839	140	9	6	4	2	0	0	0
400	894	40	18	16	14	11	9	7	4
400	894	60	15	12	10	7	5	3	1
400	894	80	12	10	7	5	3	1	0
400	894	100	11	8	6	3	2	0	0
400	894	120	10	7	5	2	1	0	0
400	894	140	9	6	4	2	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	62	54	48	42	37	31	27
25	56	60	49	41	35	29	24	19	15
25	56	80	41	33	27	22	17	12	13
25	56	100	35	28	22	17	12	8	4
25	56	120	31	24	18	13	9	4	0
25	56	140	28	21	16	11	6	2	0
50	112	40	53	48	43	38	33	29	24
50	112	60	42	37	32	27	22	18	14
50	112	80	35	30	25	20	16	11	7
50	112	100	31	25	20	16	11	7	3
50	112	120	27	22	17	12	8	4	0
50	112	140	25	19	14	10	6	2	0
75	168	40	47	43	39	35	31	26	22
75	168	60	38	33	29	25	20	16	12
75	168	80	32	27	23	19	14	10	6
75	168	100	28	23	19	14	10	6	3
75	168	120	25	20	16	11	7	3	0
75	168	140	22	18	13	9	5	1	0
100	224	40	43	40	36	32	28	24	20
100	224	60	34	31	27	23	19	15	11
100	224	80	29	25	21	17	13	9	6
100	224	100	25	21	17	13	9	6	2
100	224	120	23	19	15	11	7	3	0
100	224	140	21	16	12	8	5	1	0
125	280	40	39	37	33	30	26	22	19
125	280	60	32	28	25	21	17	14	10
125	280	80	27	23	20	16	12	9	5
125	280	100	24	20	16	12	9	5	2
125	280	120	21	17	14	10	6	3	0
125	280	140	19	15	11	8	4	1	0
150	335	40	37	34	31	28	24	21	17
150	335	60	30	27	23	20	16	13	9
150	335	80	25	22	18	15	11	8	5
150	335	100	22	19	15	12	8	5	2
150	335	120	20	16	13	9	6	2	0
150	335	140	18	14	11	7	4	1	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	35	32	29	26	23	19	16
175	391	60	28	25	22	18	15	12	8
175	391	80	24	20	17	14	10	7	4
175	391	100	21	18	14	11	7	4	1
175	391	120	19	15	12	8	5	2	0
175	391	140	17	13	10	7	3	1	0
200	447	40	33	30	28	24	21	18	15
200	447	60	26	24	20	17	14	11	8
200	447	80	22	19	16	13	10	7	4
200	447	100	20	17	13	10	7	4	1
200	447	120	18	14	11	8	5	2	0
200	447	140	16	13	9	6	3	1	0
225	503	40	31	29	26	23	20	17	14
225	501	60	25	22	19	16	18	10	7
225	503	80	21	18	15	12	9	6	3
225	503	100	19	16	13	9	6	3	1
225	503	120	17	14	10	7	4	2	0
225	503	140	15	12	9	6	3	0	0
250	559	40	30	28	25	22	19	16	13
250	559	60	24	21	18	15	12	9	7
250	559	80	20	18	15	11	8	6	3
250	559	100	18	15	12	9	6	3	1
250	559	120	16	13	10	7	4	1	0
250	559	140	14	11	8	5	2	0	0
275	615	40	29	27	24	21	18	15	12
275	615	60	23	20	18	15	12	9	6
275	615	80	20	17	14	11	8	5	3
275	615	100	17	14	11	8	5	3	1
275	615	120	15	12	9	6	4	1	0
275	615	140	14	11	8	5	2	0	0
300	671	40	28	25	23	20	17	14	11
300	671	60	22	20	17	14	11	8	5
300	671	80	19	16	13	10	7	5	2
300	671	100	16	14	11	8	5	2	1
300	671	120	15	12	9	6	3	1	0
300	671	140	13	10	7	5	2	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	27	25	22	19	16	13	11
325	727	60	21	19	16	13	10	8	5
325	727	80	18	16	13	10	7	4	2
325	727	100	16	13	10	7	5	2	0
325	727	120	14	11	8	6	3	1	0
325	727	140	13	10	7	4	2	0	0
350	783	40	26	24	21	18	15	13	10
350	783	60	21	18	15	13	10	7	5
350	781	80	18	15	12	9	7	4	2
350	783	100	15	13	10	7	4	2	0
350	783	120	14	11	8	5	3	1	0
350	783	140	12	10	7	4	2	0	0
375	839	40	25	23	20	18	15	12	9
375	839	60	20	18	15	12	9	7	4
375	839	80	17	14	12	9	6	4	2
375	839	100	15	12	9	7	4	2	0
375	839	120	13	11	8	5	3	1	0
375	839	140	12	9	6	4	1	0	0
400	894	40	24	22	20	17	14	11	9
400	894	60	19	17	14	12	9	6	4
400	894	80	16	14	11	8	6	3	1
400	894	100	14	12	9	6	4	2	0
460	S94	120	13	10	7	5	2	1	0
400	894	140	12	9	6	4	1	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	65	56	50	43	38	33	28
25	56	60	51	43	36	30	25	20	15
25	56	80	42	34	28	23	18	13	8
25	56	100	36	29	23	17	13	8	4
25	56	120	32	25	19	14	9	5	1
25	56	140	29	21	16	11	6	2	0
50	112	40	56	51	45	40	35	30	26
50	112	60	45	39	33	28	23	19	14
50	112	80	37	31	26	21	16	12	8
50	112	100	33	26	21	16	12	7	3
50	112	120	29	23	18	13	6	4	0
50	112	140	26	20	15	10	6	2	0
75	168	40	50	46	42	37	32	28	24
75	168	60	40	35	31	26	22	17	13
75	168	80	34	29	24	20	15	11	7
75	168	100	30	25	20	15	11	7	3
75	168	120	26	21	17	12	8	4	0
75	168	140	24	19	14	10	5	2	0
100	224	40	46	43	38	34	30	26	22
100	224	60	37	33	28	24	20	16	12
100	224	80	31	27	23	18	14	10	6
100	224	100	27	23	18	14	10	6	3
100	224	120	24	20	15	11	7	3	0
100	224	140	22	17	13	9	5	1	0
125	280	40	43	40	36	32	28	24	21
125	280	60	34	31	27	23	19	15	11
125	280	80	29	25	21	17	13	10	6
125	280	100	25	21	17	13	10	6	2
125	280	120	23	19	15	11	7	3	0
125	280	140	21	16	12	8	5	1	0
150	335	40	40	37	34	30	26	23	19
150	335	60	32	29	25	21	18	14	11
150	335	80	27	24	20	16	12	9	5
150	335	100	24	20	16	13	9	5	2
150	335	120	21	17	14	10	6	3	0
150	335	140	19	15	12	8	4	1	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	38	35	32	28	25	21	18
175	391	60	30	27	24	20	17	13	10
175	391	80	26	22	19	15	12	8	5
175	391	100	22	19	15	12	8	5	2
175	391	120	20	17	13	9	6	3	0
175	391	140	18	15	11	7	4	1	0
200	447	40	36	33	30	27	24	20	17
200	447	60	29	26	22	19	16	12	9
200	447	80	24	21	18	14	11	8	4
200	447	100	21	18	15	11	8	4	2
200	447	120	19	16	12	9	5	2	0
200	447	140	17	14	10	7	4	1	0
225	503	40	34	32	29	26	22	19	16
225	503	60	27	25	21	18	15	12	a
225	503	80	23	20	17	14	10	7	4
225	503	100	20	17	14	11	7	4	1
225	503	120	18	15	12	8	5	2	0
225	503	140	17	13	10	6	3	1	0
250	559	40	33	30	27	24	21	18	15
250	559	60	26	23	20	17	14	11	8
250	559	80	22	19	16	13	10	7	4
250	559	100	19	16	13	10	7	4	1
250	559	120	17	14	11	8	5	2	0
250	559	140	16	13	9	6	3	1	0
275	615	40	31	29	26	23	20	17	14
275	615	60	25	23	19	16	13	10	7
275	615	80	21	18	15	12	9	6	3
275	615	100	19	16	13	9	6	3	1
275	615	120	17	14	11	7	4	2	0
275	615	140	15	12	9	6	3	0	0
300	671	40	30	28	25	22	19	16	13
300	671	60	24	22	19	16	13	10	7
300	671	80	21	18	15	12	9	6	3
300	671	100	18	15	12	9	6	3	1
300	671	120	16	13	10	7	4	1	0
300	671	140	15	12	8	5	3	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 1000 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	29	27	24	21	18	15	13
325	727	60	23	21	18	15	12	9	6
325	727	80	20	17	14	11	8	5	3
325	727	100	17	15	12	8	6	3	1
325	727	120	16	13	10	7	4	1	0
325	727	140	14	11	8	5	2	0	0
350	783	40	28	26	23	21	18	15	12
350	783	60	21	20	17	14	11	9	6
350	783	80	19	17	14	11	8	5	3
350	783	100	17	14	11	8	5	3	1
350	783	120	15	12	9	6	3	1	0
350	783	140	14	11	8	5	2	0	0
375	839	40	28	25	23	20	17	14	11
375	839	60	22	19	17	14	11	8	5
375	839	80	19	16	13	10	7	5	2
375	839	100	16	14	11	8	5	2	1
375	839	120	15	12	9	6	3	1	0
375	839	140	13	10	7	5	2	0	0
400	894	40	27	25	22	19	16	13	11
400	894	60	21	19	16	13	10	8	5
400	894	80	18	15	13	10	7	4	2
400	894	100	16	13	10	7	5	2	1
400	894	120	14	11	8	6	3	1	0
400	894	140	13	10	7	4	2	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	35	33	31	28	25	21	18
25	56	60	30	27	24	21	18	15	11
25	56	80	26	23	20	17	14	10	7
25	56	100	23	21	17	14	11	7	4
25	56	120	21	18	15	12	8	5	2
25	56	140	20	17	13	10	7	1	1
50	112	40	28	26	23	21	18	15	12
50	112	60	23	21	18	15	11	10	7
50	112	80	20	18	15	12	9	6	4
50	112	100	18	15	13	10	7	4	2
50	112	120	16	14	11	8	5	3	1
50	112	140	15	12	10	7	4	2	0
75	168	40	24	22	19	17	14	11	9
75	168	60	20	17	15	12	9	7	4
75	168	80	17	15	12	9	7	4	2
75	168	100	15	13	10	7	5	3	1
75	168	120	14	11	8	6	3	1	0
75	168	140	13	10	7	5	2	1	0
100	224	40	21	19	17	14	11	9	6
100	224	60	17	15	13	10	7	5	3
100	224	80	15	13	10	7	5	3	1
100	224	100	13	11	8	6	3	2	0
100	224	120	12	10	7	4	2	1	0
100	224	140	11	8	6	3	2	0	0
125	280	40	19	17	15	12	10	7	5
125	280	60	16	13	11	8	6	4	2
125	280	80	13	11	9	6	4	2	1
125	280	100	12	10	7	5	2	1	0
125	280	120	11	8	6	3	2	0	0
125	280	140	10	7	5	3	1	0	0
150	335	40	18	16	13	11	8	6	4
150	335	60	14	12	10	7	5	3	1
150	335	80	12	10	7	5	3	1	0
150	335	100	11	8	6	4	2	0	0
150	335	120	10	7	5	3	1	0	0
150	335	140	9	6	4	2	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	16	14	12	9	7	5	3
175	391	60	13	11	9	6	4	2	1
175	391	80	11	9	7	4	2	1	0
175	391	100	10	8	5	3	1	0	0
175	391	120	9	7	4	2	1	0	0
175	391	140	8	6	3	2	0	0	0
200	447	40	15	13	11	8	6	4	2
200	447	60	12	10	8	5	3	2	0
200	447	80	11	8	6	4	2	1	0
200	447	100	9	7	5	3	1	0	0
200	447	120	8	6	4	2	0	0	0
200	447	140	8	5	3	1	0	0	0
225	503	40	15	12	10	8	5	3	2
225	503	60	12	9	7	5	3	1	0
225	503	80	10	8	5	3	2	0	0
225	503	100	9	6	4	2	1	0	0
225	503	120	8	5	3	1	0	0	0
225	503	140	7	5	3	1	0	0	0
250	559	40	14	12	9	7	5	3	2
250	559	60	11	9	6	4	2	1	0
250	559	80	9	7	5	3	1	0	0
250	559	100	8	6	4	2	0	0	0
250	559	120	7	5	3	1	0	0	0
250	559	140	7	4	2	1	0	0	0
275	615	40	13	11	9	6	4	2	1
275	615	60	10	8	6	4	2	1	0
275	615	80	9	7	4	2	1	0	0
275	615	100	8	5	3	2	0	0	0
275	615	120	7	5	2	1	0	0	0
275	615	140	6	4	2	0	0	0	0
300	671	40	13	10	8	6	4	2	1
300	671	60	10	8	5	3	2	0	0
300	671	80	8	6	4	2	1	0	0
300	671	100	7	5	3	1	0	0	0
300	671	120	7	4	2	1	0	0	0
300	671	140	6	4	2	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 50 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.400 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED	SPACING	OF	DETECTORS			
325	727	40	12	10	8	5	3	2	1
325	727	60	10	7	5	3	1	0	0
325	727	80	8	6	4	2	0	0	0
325	727	100	7	5	3	1	0	0	0
325	727	120	6	4	2	0	0	0	0
325	727	140	6	3	1	0	0	0	0
350	783	40	12	9	7	5	3	2	0
350	783	60	9	7	5	3	1	0	0
350	783	80	8	5	3	2	0	0	0
350	783	100	7	4	2	1	0	0	0
350	783	120	6	4	2	0	0	0	0
350	781	140	5	3	1	0	0	0	0
375	839	40	11	9	7	4	3	1	0
375	839	60	9	7	4	2	1	0	0
375	839	80	7	5	3	1	0	0	0
375	839	100	6	4	2	0	0	0	0
375	839	120	6	3	2	0	0	0	0
375	839	140	5	3	1	0	0	0	0
400	894	40	11	9	6	4	2	1	0
400	894	60	9	6	4	2	1	0	0
400	894	80	7	5	3	1	0	0	0
400	894	100	6	4	2	0	0	0	0
400	894	120	5	3	1	0	0	0	0
400	894	140	5	3	1	0	0	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

CEILING HEIGHT IN FEET

TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	60	57	53	49	44	40	36
25	56	60	50	46	41	37	32	28	23
25	56	80	43	38	34	29	25	20	16
25	56	100	38	33	28	24	19	15	11
25	56	120	34	29	25	20	15	11	7
25	56	140	31	26	21	17	13	8	4
50	112	40	49	47	44	40	37	33	30
50	112	60	40	38	34	31	27	23	19
50	112	80	35	32	28	24	21	17	13
50	112	100	31	28	24	20	16	12	9
50	112	120	28	24	21	17	13	9	6
50	112	140	26	22	18	14	10	7	3
75	168	40	43	41	38	35	32	28	25
75	168	60	35	33	30	26	23	20	16
75	168	80	30	28	24	21	18	14	11
75	168	100	27	24	21	17	14	10	7
75	168	120	24	21	18	14	11	8	4
75	168	140	22	19	16	12	9	5	2
100	224	40	38	36	34	31	28	25	22
100	224	60	31	29	26	23	20	17	14
100	224	80	27	25	22	18	15	12	9
100	224	100	24	21	18	15	12	9	6
100	224	120	22	19	16	13	9	6	3
100	224	140	20	17	14	11	7	4	2
125	280	40	35	33	31	28	25	22	19
125	280	60	29	27	24	21	18	15	12
125	280	80	25	22	19	16	13	11	8
125	280	100	22	19	16	13	10	7	5
125	280	120	20	17	14	11	8	5	3
125	280	140	18	15	12	9	6	4	1
150	335	40	32	31	28	26	23	20	17
150	335	60	27	24	22	19	16	13	10
150	335	80	23	20	18	15	12	9	6
150	335	100	20	18	15	12	9	6	4
150	335	120	18	16	13	10	7	4	2
150	335	140	17	14	11	8	5	3	1

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

CEILING HEIGHT IN FEET

TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	30	29	26	24	21	18	15
175	391	60	25	23	20	17	15	12	9
175	391	80	21	19	16	14	11	8	6
175	391	100	19	16	14	11	8	6	3
175	391	120	17	15	12	9	6	4	2
175	391	140	16	13	10	7	5	2	1
200	447	40	29	27	25	22	19	17	14
200	447	60	23	21	19	16	13	11	8
200	447	80	20	18	15	12	10	7	5
200	447	100	18	15	13	10	7	5	3
200	447	120	16	14	11	8	5	3	1
200	447	140	15	12	9	7	4	2	1
225	503	40	27	26	23	21	18	15	13
225	503	60	22	20	18	15	12	10	7
225	503	80	19	17	14	11	9	6	4
225	503	100	17	14	12	9	7	4	2
225	503	120	15	13	10	7	5	3	1
225	503	140	14	11	9	6	4	2	0
250	559	40	26	24	22	19	17	14	12
250	559	60	21	19	16	14	11	9	6
250	559	80	18	16	13	11	8	6	4
250	559	100	16	14	11	8	6	4	2
250	559	120	14	12	9	7	4	2	1
250	559	140	13	11	8	5	3	1	0
275	615	40	25	23	21	18	16	13	11
275	615	60	20	18	16	13	11	8	6
275	615	90	17	15	13	10	7	5	3
275	615	100	15	13	10	8	5	3	2
275	615	120	14	11	9	6	4	2	1
275	615	140	12	10	7	5	3	1	0
300	671	40	24	22	20	17	15	12	10
300	671	60	19	17	15	12	10	7	5
300	671	80	17	14	12	9	7	5	3
300	671	100	15	12	10	7	5	3	1
300	671	120	13	11	8	6	3	2	0
300	671	140	12	10	7	5	2	1	0

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 150 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.044 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	23	21	19	16	14	11	9
325	727	60	19	17	14	12	9	7	5
325	727	80	16	14	11	9	6	4	2
325	727	100	14	12	9	7	4	2	1
325	727	120	13	10	8	5	3	1	0
325	727	140	11	9	7	4	2	1	0
350	783	40	22	20	18	16	13	11	8
350	783	60	18	16	13	11	9	6	4
350	783	80	15	13	11	8	6	4	2
350	783	100	15	11	9	6	4	2	1
350	783	120	12	10	7	5	3	1	0
350	783	140	11	9	6	4	2	1	0
375	839	40	22	20	17	15	12	10	8
375	839	60	17	15	13	10	8	6	4
375	839	80	15	13	10	8	5	3	2
375	839	100	13	11	8	6	4	2	1
375	839	120	12	9	7	5	3	1	0
375	839	140	11	8	6	3	2	0	0
400	894	40	21	19	17	14	12	9	7
400	S94	60	17	15	12	10	8	5	3
400	894	80	14	12	10	7	5	3	2
400	894	100	13	10	8	5	3	2	1
400	894	120	11	9	6	4	2	1	0
400	894	140	10	8	5	3	2	0	0

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	79	73	66	60	55	49	44
25	56	60	64	56	50	44	39	33	29
25	56	80	54	46	40	34	29	24	20
25	56	100	47	40	33	28	23	18	14
25	56	120	42	35	29	23	18	14	9
25	56	140	38	31	25	20	15	10	6
50	112	40	67	63	58	54	49	44	40
50	112	60	54	49	45	40	35	30	26
50	112	80	46	41	36	31	27	22	18
50	112	100	41	35	30	26	21	17	12
50	112	120	36	31	26	21	17	13	8
50	112	140	33	28	23	18	14	9	5
75	168	40	59	56	52	48	44	40	36
75	168	60	48	44	40	36	32	28	24
75	168	80	41	37	33	29	24	20	16
75	168	100	36	32	28	23	19	15	11
75	168	120	33	28	24	20	15	11	7
75	168	140	30	25	21	17	12	9	5
100	224	40	53	51	48	44	41	37	33
100	224	60	43	40	37	33	29	25	22
100	224	80	37	34	30	26	22	19	15
100	224	100	33	29	25	22	18	14	10
100	224	120	30	26	22	18	14	10	7
100	224	140	27	23	19	15	11	8	4
125	280	40	49	47	44	41	37	34	31
125	280	60	40	37	34	31	27	23	20
125	280	80	34	31	28	24	21	17	14
125	280	100	30	27	23	20	16	13	9
125	280	120	27	24	20	17	13	9	6
125	280	140	25	22	18	14	11	7	4
150	335	40	46	44	41	38	35	32	28
150	335	60	37	35	32	28	25	22	18
150	335	80	32	29	26	23	19	16	12
150	335	100	28	25	22	19	15	12	8
150	335	120	26	22	19	15	12	9	5
150	335	140	23	20	17	13	10	6	3

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	43	41	39	36	33	29	26
175	391	60	35	33	30	27	23	20	17
175	391	80	30	28	24	21	18	15	11
175	391	100	27	24	21	17	14	11	8
175	391	120	24	21	18	14	11	8	5
175	391	140	22	19	16	12	9	6	3
200	447	40	41	39	37	34	31	28	25
200	447	60	33	31	28	25	22	18	16
200	447	80	29	26	23	20	17	14	10
200	447	100	25	22	19	16	13	10	7
200	447	120	23	20	17	14	10	7	4
200	447	140	21	18	15	11	8	5	2
225	503	40	39	37	35	32	29	26	23
225	503	60	32	30	27	24	21	18	15
225	503	80	27	25	22	19	16	13	10
225	503	100	24	21	18	15	12	9	6
225	503	120	22	19	16	13	10	7	4
225	503	140	20	17	14	11	8	5	2
250	559	40	37	36	33	30	28	25	22
250	559	60	30	28	25	23	19	17	14
250	559	80	26	24	21	18	15	12	9
250	559	100	23	20	17	14	11	8	6
250	559	120	21	18	15	12	9	6	3
250	559	140	19	16	13	10	7	4	2
275	615	40	36	34	32	29	26	23	20
275	615	60	29	27	24	21	18	16	13
275	615	80	25	23	20	17	14	11	8
275	615	100	22	19	17	14	11	8	5
275	615	120	20	17	14	11	8	6	3
275	615	140	18	15	12	9	7	4	2
300	671	40	35	33	30	28	25	22	19
300	671	60	28	26	23	20	18	15	12
300	671	80	24	22	19	16	13	10	8
300	671	100	21	19	16	13	10	7	5
300	671	120	19	16	14	11	8	5	3
300	671	140	17	15	12	9	6	4	1

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 300 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.011 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	33	32	29	27	24	21	18
325	727	60	27	25	22	20	17	14	11
325	727	80	23	21	18	15	12	10	7
325	727	100	20	18	15	12	10	7	4
325	727	120	18	16	13	10	7	5	2
325	727	140	17	14	11	8	6	3	1
350	783	40	32	31	28	26	23	20	17
350	783	60	26	24	21	19	16	13	11
350	783	80	22	20	17	15	12	9	7
350	783	100	20	17	15	12	9	6	4
350	783	120	18	15	12	10	7	4	2
350	783	140	16	14	11	8	5	3	1
375	839	40	31	30	27	25	22	19	16
375	839	60	25	23	21	18	15	13	10
375	839	80	22	19	17	14	11	9	6
375	839	100	19	17	14	11	9	6	4
375	839	120	17	15	12	9	6	4	2
375	839	140	16	13	10	8	5	3	1
400	894	40	30	29	26	24	21	18	16
400	894	60	25	23	20	17	15	12	9
400	894	80	21	19	16	13	11	8	6
400	894	100	19	16	13	11	8	6	3
400	894	120	17	14	11	9	6	4	2
400	894	140	15	13	10	7	5	2	1

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	92	82	74	67	60	54	49
25	56	60	72	62	55	48	42	36	31
25	56	80	61	51	45	37	32	26	22
25	56	100	52	43	36	30	25	20	15
25	56	120	46	37	31	25	20	15	10
25	56	140	42	33	27	21	16	11	7
50	112	40	81	74	68	62	56	51	46
50	112	60	64	57	51	45	40	35	30
50	112	80	54	47	41	35	30	25	20
50	112	100	47	40	34	29	21	19	14
50	112	120	42	35	29	24	19	14	10
50	112	140	38	31	25	20	15	11	6
75	168	40	73	68	63	58	53	48	43
75	168	60	56	53	47	42	37	33	28
75	168	80	49	44	38	33	28	24	19
75	168	100	43	37	32	27	22	18	13
75	168	120	39	33	27	22	18	13	9
75	168	140	35	29	24	19	14	10	6
100	224	40	67	63	58	54	50	45	41
100	224	60	54	49	45	40	35	31	27
100	224	80	46	41	36	31	27	23	18
100	224	100	40	35	30	26	21	17	13
100	224	120	36	31	26	21	17	13	9
100	224	140	33	27	23	18	14	10	6
125	280	40	62	59	55	51	47	43	38
125	280	60	50	46	42	38	33	29	25
125	280	80	43	38	34	30	25	21	17
125	280	100	37	33	29	24	20	16	12
125	280	120	34	29	25	20	16	12	8
125	280	140	31	26	22	17	13	9	5
150	335	40	58	55	52	48	44	40	36
150	335	60	47	44	40	36	32	28	24
150	335	80	40	36	32	28	24	20	16
150	335	100	35	31	27	23	19	15	11
150	335	120	32	27	23	19	15	11	8
150	335	140	29	25	20	16	12	9	5

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	55	53	49	46	42	38	35
175	391	60	44	41	38	34	30	26	23
175	391	80	38	34	31	27	23	19	15
175	391	100	33	30	26	22	18	14	11
175	391	120	30	26	22	18	15	11	7
175	391	140	27	23	20	16	12	8	4
200	447	40	52	50	47	44	40	36	33
200	447	60	42	39	36	32	25	25	21
200	447	80	36	33	29	26	22	18	15
200	447	100	52	28	25	21	17	14	10
200	447	120	29	25	21	18	14	10	7
200	447	140	26	22	19	15	11	8	4
225	503	40	50	48	45	42	38	35	31
225	503	60	40	36	34	31	27	24	20
225	503	80	35	31	28	24	21	17	14
225	503	100	30	27	24	20	16	13	9
225	503	120	27	24	20	17	13	10	6
225	503	140	25	21	18	14	11	7	4
250	559	40	48	46	41	40	37	33	30
250	559	60	39	36	33	30	26	23	19
250	559	80	33	30	27	23	20	17	13
250	559	100	29	26	23	19	16	12	5
250	559	120	26	23	20	16	13	9	6
250	559	140	24	21	17	14	10	7	4
275	615	40	46	44	41	36	35	32	29
275	615	60	37	35	32	28	25	22	19
275	615	80	32	29	26	22	19	16	13
275	615	100	28	25	22	18	15	12	8
275	615	120	25	22	19	15	12	9	5
275	615	140	23	20	16	13	10	6	3
300	671	40	45	43	40	37	34	31	27
300	671	60	36	34	31	27	24	21	18
300	671	80	31	28	25	22	18	15	12
300	671	100	27	24	21	18	14	11	8
300	671	120	24	21	18	15	11	8	5
300	671	140	22	19	16	13	9	6	3

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 500 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.004 BTU/SEC^3

TAU	RTI	dT	CEILING HEIGHT IN FEET						
			4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	43	41	39	36	33	30	26
325	727	60	35	32	30	26	23	20	17
325	727	80	30	27	24	21	18	14	11
325	727	100	26	23	20	17	14	11	13
325	727	120	24	21	17	14	11	8	5
325	727	140	22	19	15	12	9	6	3
350	785	40	42	40	37	35	31	28	25
350	783	60	34	31	29	26	22	19	16
350	783	80	29	26	23	20	17	14	11
350	783	100	25	23	19	16	13	10	7
350	783	120	23	20	17	14	11	7	5
350	783	140	21	18	15	12	8	5	3
375	839	40	41	39	36	33	30	27	24
375	839	60	33	31	28	25	22	19	16
375	839	80	28	25	22	19	16	13	10
375	839	100	25	22	19	16	13	10	7
375	839	120	22	19	16	13	10	7	4
375	839	140	20	17	14	11	8	5	2
400	894	40	40	38	35	32	29	27	24
400	894	60	32	30	27	24	21	18	15
400	894	80	27	25	22	19	16	13	10
400	894	100	24	21	18	15	12	9	6
400	894	120	22	19	16	13	10	7	4
400	894	140	20	17	14	11	8	5	2

THRESHOLD FIRE SIZE AT RESPONSE: 2600 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
25	56	40	96	85	76	68	62	56	50
25	56	60	75	64	56	49	43	37	32
25	56	80	63	52	44	38	32	27	22
25	56	100	54	44	37	31	25	20	15
25	56	120	48	38	31	25	20	15	11
25	56	140	43	34	27	21	16	12	7
50	112	40	86	78	71	64	58	53	48
50	112	60	68	60	53	47	41	36	31
50	112	80	57	49	42	36	31	26	21
50	112	100	49	41	35	29	24	19	15
50	112	120	44	36	30	24	19	15	10
50	112	140	40	32	26	21	16	11	7
75	168	40	78	72	66	61	55	50	45
75	168	60	62	56	50	44	39	34	29
75	168	80	52	46	40	34	30	25	20
75	168	100	46	39	33	28	23	19	14
75	168	120	41	34	28	23	19	14	10
75	168	140	37	30	25	20	15	11	6
100	224	40	72	67	62	57	52	48	43
100	224	60	57	52	47	42	37	32	28
100	224	80	49	43	38	33	28	24	19
100	224	100	43	37	32	27	22	18	13
100	224	120	38	32	27	22	18	13	9
100	224	140	35	29	24	19	14	10	6
125	280	40	67	63	59	54	50	45	41
125	280	60	54	49	45	40	35	31	27
125	280	80	46	41	36	31	27	23	18
125	280	100	40	35	30	26	21	17	13
125	280	120	36	31	26	21	17	13	9
125	280	140	33	27	23	18	14	10	6
150	335	40	63	60	56	52	47	43	39
150	335	60	51	47	42	38	34	30	26
150	335	80	43	39	34	30	26	22	18
150	335	100	38	33	29	25	20	16	12
150	335	120	34	29	25	21	16	12	8
150	335	140	31	26	22	17	13	9	5

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

			CEILING HEIGHT IN FEET						
TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
175	391	40	60	57	53	49	45	41	37
175	391	60	48	44	41	36	32	28	24
175	391	80	41	37	33	29	25	21	17
175	391	100	36	32	28	24	19	15	12
175	391	120	32	28	24	20	16	12	8
175	391	140	29	25	21	17	13	9	5
200	447	40	57	54	51	47	43	40	36
200	447	60	46	43	39	35	31	27	23
200	447	80	39	35	32	28	24	20	16
200	447	100	34	30	26	23	19	15	11
200	447	120	31	27	23	19	15	11	7
200	447	140	28	24	20	16	12	8	5
225	503	40	54	52	49	45	42	38	34
225	503	60	44	41	37	34	30	26	22
225	503	80	37	34	30	26	23	19	15
225	503	100	33	29	25	22	18	14	11
225	503	120	30	26	22	18	14	11	7
225	503	140	27	23	19	15	12	8	4
250	559	40	52	50	47	43	40	36	33
250	559	60	42	39	36	32	29	25	21
250	559	80	36	33	29	25	22	18	15
250	559	100	32	28	24	21	17	14	10
250	559	120	28	25	21	17	14	10	7
250	559	140	26	22	19	15	11	8	4
275	615	40	50	48	45	42	39	35	32
275	615	60	41	38	35	31	28	24	21
275	615	80	35	32	28	25	21	18	14
275	615	100	30	27	24	20	17	13	10
275	615	120	27	24	20	17	13	10	6
275	615	140	25	22	18	14	11	7	4
300	671	40	49	47	44	40	37	34	30
300	671	60	39	37	33	30	27	23	20
300	671	80	33	31	27	24	20	17	13
300	671	100	29	26	23	19	16	12	9
300	671	120	26	23	20	16	13	9	6
300	671	140	24	21	17	14	10	7	4

THRESHOLD FIRE SIZE AT RESPONSE: 2000 BTU/SEC.

FIRE GROWTH RATE: 600 SECONDS TO 1000 BTU/SEC
 ALPHA: 0.003 BTU/SEC^3

CEILING HEIGHT IN FEET

TAU	RTI	dT	4.0	8.0	12.0	16.0	20.0	24.0	28.0

			INSTALLED SPACING OF DETECTORS						
325	727	40	47	45	42	39	36	33	29
325	727	60	38	35	32	29	26	22	19
325	727	80	32	30	26	23	20	16	13
325	727	100	29	25	22	19	15	12	9
325	727	120	26	22	19	16	12	9	6
325	727	140	23	20	17	13	10	7	3
350	783	40	46	44	41	38	35	32	28
350	783	60	37	34	31	28	25	22	18
350	783	80	31	29	25	22	19	16	12
350	763	100	28	25	21	18	15	12	8
350	783	120	25	22	18	15	12	9	5
350	783	140	23	20	16	13	9	6	3
375	839	40	44	42	40	37	34	31	27
375	839	60	36	33	30	27	24	21	18
375	839	80	31	28	25	21	18	15	12
375	839	100	27	24	21	18	14	11	8
375	839	120	24	21	18	15	11	8	5
375	839	140	22	19	16	12	9	6	3
400	894	40	43	41	39	36	33	30	26
400	894	60	35	32	30	26	23	20	17
400	894	80	30	27	24	21	18	14	11
400	894	100	26	23	20	17	14	11	8
400	894	120	23	21	17	14	11	8	5
400	894	140	21	18	15	12	9	6	3