Heath # 597-1442-01

TUBE DATA

FOR

HEATH

IT-17 IT-21 IT-3117 TUBE TESTERS

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IMPORTANT NOTES

* Special short test for tubes with internal connections. A good tube will not show short when the levers shown in parenthesis ( ) are moved simultaneously. If moved individually it will show short.

Be sure to set filament selector switch to .63 volts when checking for continuity or short tests.

Tubes followed by suffixes such as G, GT, Y, W, A, B, etc., in general can be tested by the same setup listed for the tubes without a suffix.

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
00A	2	5	30	BC	**D**
01A	2	5	45	BC	**D**
0A2	4	Off	40	**AE**	**BDG**
Good tube reads above 10.					
0A3	4	Off	30	E	**BCG**
Good tube reads above 10.					
0A4	4	Off	40	G	BE
	4	Off	44	E	BG
0B2	4	Off	95	**AE**	**BDG**
Good tube reads above 10.					
0B3	4	Off	30	E	**BCG**
Good tube reads above 10.					
0C2	4	Off	40	**AE**	**BDG**
Tube normally shows leakage.					
Good tube reads above 10.					
0C3	4	Off	30	E	**BCG**
Good tube reads above 10.					
0D3	4	Off	30	E	BCG
Good tube reads above 10.					
0G3	4	Off	32	**ACEF**	**BDG**
Good tube reads above 10.					
0Y4	4	Off	22	E	CGH
0Z4	4	Off	22	E	CH
	4	Off	22	C	EH
1A3	1	1.4	75	**BF**	**CG**
1A4	1	2	28	BCN	**D**
1A5	2	1.4	50	CDE	**G**
1A6	2	2	50	CD	**F**
	1	2	95	BEN	**F**
1A7	1	1.4	31	EF	**G**
	1	1.4	95	CDN	**G**
1AB4	1	1.4	23	BCF	**AE**
1AB5	1	1.4	25	BCF	**GH**
1AB6	1	1.4	25	BCDEF	**G**
No open element test on B, E & F.					
1AD2	4	1.4	60	N	HM
No short test. Good tube reads above 20					
Tube damaged if H or M is moved.					
1AE4	1	1.4	23	BCF	**AE**
1AF4	1	1.4	26	BCF	**AE**
1AF5	1	1.4	75	DEF	**A**
1AH5	1	1.4	32	DEF	**CG**
	1	1.4	53	C	**G**
1AJ4	1	1.4	24	BCF	**G**
No open element test on B.					
1AU2*	4	1.4	100	(AJ)	**E**
1AX2	4	1.4	95	N	**BEH**
Good tube reads above 25.					
1AY2	4	1.4	58	N	**G**
Insert into pins 2 & 7 of 9 pin min.					
1B3	1	1.4	98	N	**ACDEFGH**
Use G & N only for element test.					
Good tube reads above 26.					
1B4	1	2	27	BCN	**D**
1B4P	2	2	35	BCN	**D**
1B5(25S)	1	2	31	BE	**F**
	1	2	40	D	**F**
	1	2	40	C	**F**
1B7	1	1.4	26	EF	**G**
	1	1.4	95	CDN	**G**
1B8	2	1.4	32	CDE	**G**
	2	1.4	60	FN	**G**
	1	1.4	95	H	**G**
1BC2	4	1.4	70	N	BEH
Tube damaged if BE or H is moved.					
1BG2	1	1.4	32	N	**B**
Insert 2 base leads into pins 1 & 2 of 9 pin min. skt.					
Use plate cap on single lead.					
Good tube reads above 20.					
1BK2	4	1.4	52	N	BEH
No short test. Good tube reads above 30.					
1BQ2	4	1.4	86	N	BEH
Tube damaged if BE or H is moved.					
1BX2	4	1.4	67	N	ADFJ
No short test.					
1BY2	4	1.4	60	N	HM
No short test. Good tube reads above 20.					
Tube damaged if H or M is moved.					
1C3	1	1.4	25	BCDEF	**G**
No open element test on BE & F.					
1C5	2	1.4	37	CDE	**G**
1C6	2	2	42	CD	**F**
	1	2	68	BEN	**F**
1C7	2	2	41	EF	**G**
	1	2	56	CDN	**G**
1C21	4	Off	45	E	BG
1D5	2	2	39	CDN	**G**
1D5GP	2	2	33	CDN	**G**
1D7	1	2	31	EF	**G**
	1	2	95	CDN	**G**
1D8	2	1.4	48	FN	**G**
	2	1.4	37	CDE	**G**
	1	1.4	95	G	**H**
1D13*	1	1.4	75	(BF)	**CG**
1DG3	4	1.4	80	N	CE
Good tube reads above 30. No short test.					
1DK1	1	1.4	70	N	**B**
Insert 2 base leads into pins 1 & 2 of 9 pin min. skt.					
Use plate cap on single lead.					
Good tube reads above 20.					
1DK29	1	1.4	32	N	**B**
Insert 2 base leads into pins 1 & 2 of 9 pin min. skt.					
Use plate cap on single lead.					
Good tube reads above 20.					
1DN5	1	1.4	52	D	**G**
	1	1.4	27	BCF	**G**

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
1E3	3	1.4	30	AH	CE
1E4	2	1.4	45	CE	G
1E5	1	2	35	CDN	G
1E7	2	2	30	CDH	G
	2	2	30	EFH	G
1F1	1	1.4	24	BCF	G
No open element test on B.					
1F2	2	1.4	37	BCF	AE
1F3	2	1.4	35	BCF	G
1F4	3	2	47	BCD	E
1F5	2	2	36	CDE	G
1F6	1	2	37	BCN	F
	1	2	95	D	F
	1	2	95	E	F
1F7 (GV)	1	2	35	CFN	G
	1	2	95	E	G
	1	2	95	D	G
1FD1	1	1.4	32	DEF	CG
	1	1.4	53	C	G
1FD9	1	1.4	25	DEF	G
	1	1.4	55	C	G
1G3	1	1.4	100	N	ACDEFGH
Use G & N only for element test. Good tube reads above 10.					
1G4	1	1.4	30	CE	G
1G5	2	2	39	CDE	G
1G6	1	1.4	35	CD	G
	1	1.4	35	EF	G
1H2	4	1.4	84	N	ADFJ
1H4	2	2	41	CE	G
1H5	1	1.4	93	CN	G
	1	1.4	40	E	G
1H6	1	2	30	CF	G
	1	2	40	E	G
	1	2	40	D	G
1H35	1	1.4	25	BCDEF	G
No open element test on BE & F.					
1J3/1K3	1	1.4	100	N	ACDEFGH
Good tube reads above 10. Tube damaged if ACDEFGH is moved.					
1J5	2	2	38	CDE	G
1J6	2	2	39	CD	G
	2	2	39	EF	G
1L4	2	1.4	37	BCF	AE
1L6	1	1.4	34	CD	G
	1	1.4	37	BEF	G
Good tube reads above 40 on test 2.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
1LA4	2	1.4	40	BCF	H
1LA6	1	1.4	30	CD	H
	1	1.4	95	BEF	H
Good tube reads above 40 on test 2.					
1LB4	2	1.4	40	BCF	H
1LB6	1	1.4	32	BCDEFG	H
1LC5	1	1.4	32	BCDF	EH
1LC6	1	1.4	32	CD	H
	1	1.4	80	BEF	H
1LD5	1	1.4	32	BCF	H
	1	1.4	95	D	H
Good tube reads above 20 on test 2.					
1LE3	2	1.4	37	BF	H
1LG5	2	1.4	35	BCF	DEH
1LH4	1	1.4	26	BF	H
	1	1.4	44	D	H
1LN5	2	1.4	40	BCDF	EH
1N2	4	1.4	75	N	GH
1N5	1	1.4	27	CDN	G
1N6	2	1.4	38	CDE	G
	1	1.4	95	F	G
Good tube reads above 20 on test 2.					
1P1	1	1.4	23	BCF	E
1P5	1	1.4	31	CDN	G
1P10	2	1.4	35	BCDF	AG
1P11	1	1.4	23	BCF	E
1Q5	2	1.4	33	CDE	G
1R4	1	1.4	57	D	GH
Good tube reads above 10.					
1R5	1	1.4	21	D	AE
	1	1.4	95	BCF	AE
1RK23	1	1.4	90	N	ADFJ
Tube damaged if ADF or J is moved. Good tube reads above 35.					
1RK41	4	1.4	52	N	BEH
No short test. Good tube reads above 30.					
1S2A	1	1.4	90	N	ADFJ
Good tube reads above 35.					
1S4	2	1.4	30	BCDF	AE
1S5	1	1.4	25	DEF	G
	1	1.4	55	C	G
1SA6	2	1.4	30	CDFH	G
1SB6	1	1.4	36	CDH	G
	1	1.4	90	E	G
1T4	2	1.4	35	BCF	G

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
1T5	2	1.4	40	CDE	G
1U4	2	1.4	30	BCF	AE
1U5	2	1.4	40	BCF	A
	1	1.4	66	D	A
1U6	1	1.4	34	CD	BEFG
	1	1.4	40	BEF	CDG
Good tube reads above 30 on test 2..					
1V	3	6.3	24	B	CD
1V2*	1	.63	76	(AHJ)	E
Good tube reads above 20. H may not show short.					
1X2	4	1.4	67	N	ADFJ
	4	1.4	67	N	BEH
1Z2	4	1.4	85	N	BEG
2A3	3	2.5	28	BC	D
2A4	3	2.5	25	E	G
	3	2.5	25	C	EG
No short test.					
2A5	3	2.5	36	BCD	EF
2A6	3	2.5	26	BN	EF
	1	2.5	40	C	EF
	1	2.5	40	D	EF
2A7	2	2.5	32	E	FG
	2	2.5	64	BCDN	FG
2AF4*	2	2.35	21	(AG) (BF)	DE
2AH2	4	2.5	76	N	ABEFGHL
2AS2	Due to varying arrangements of internal connections, this tube cannot be tested.				
2AV2*	1	1.4	100	(AJ)	E
Good tube reads above 35.					
2AZ2	4	2	63	N	ADFJ
2B3	2	2	40	N	B
Good tube reads above 10.					
2B4	3	2.5	24	BC	DE
2B6	2	2.5	95	B	FG
	3	2.5	50	CD	EG
2B7	3	2.5	47	BCN	FG
	1	2.5	40	E	FG
	1	2.5	40	D	FG
2BA2*	4	2	53	(AJ)	E
2BJ2	4	2.35	65	N	ADFJ
Tube damaged if ADFJ or BEH is moved.					
2BN4*	1	2	19	(BG)E	(AF)D
2BU2	1	2.5	38	N	HM
Good tube reads above 10. Tube damaged if H or M is moved.					
2C21	2	6.3	29	CN	BG
	2	6.3	29	DE	FG

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
2C22	3	6.3	22	N	GH
Short top caps together.					
2C26	3	6.3	35	N	GH
2C51	2	6.3	23	CD	BFGHJ
	2	6.3	23	FG	BCDHJ
2C52	2	12.6	26	DE	FG
	2	12.6	26	AB	CG
2CN3	4	1.4	50	N	CEG
Tube damaged if CE or G is moved.					
2CW4	1	2	18	BD	HM
2CY5*	2	2	22	AEF	(BG)C
2D21	3	6.3	18	AEFG	BD
2DL4*	3	2.5	18	(ACFGJ)H	BE
2DS4	1	2	18	BD	HM
2DV4*	3	2	19	(AB) (DF)	GM
2DZ4*	3	2.35	21	(AG) (BF)	DE
2E5	2	2.5	44	BC	EF
Eye CL	4	2.5	0	BD	CEF
Eye OP	4	2.5	0	D	BCEF
2E22	3	6.3	25	BCDN	E
2E24	3	2.5	22	CEN	BG
	3	2.5	22	CEN	BG
A, D & F should show short when moved to top position.					
2E25	3	6.3	28	DEHN	B
2E26*	3	6.3	21	CEN	(ADF)B
2E30	3	2.5	26	ABEF	CD
2EA5*	2	2.35	22	AEF	(BG)C
2EG4	2	2.0	19	BD	HM
2ER5*	2	2	20	BEF	(AG)D
2EV5*	2	2.5	22	AEF	(BG)D
2FH5*	2	2.35	21	BE	(AG)D
2FQ5	3	2.5	20	BE	AGD
Tube damaged if A or G is moved.					
2FS5*	3	2.5	20	AF	(BG)DE
2FV6	2	2.5	20	AEF	DG
No open element test on E.					
2G5	2	2.5	44	BC	EF
Eye CL	4	2.5	0	BD	CEF
Eye OP	4	2.5	0	D	BCEF
2GK5	3	2.35	20	BE	ADG
Tube damaged if A or G is moved.					
2GU5*	1	2.5	19	A	(BG)D
	1	2.5	29	EF	(BG)D
2GW5*	2	2.5	20	A(BF)	DE
2HA5	3	2	18	AE	BDG
Tube damaged if B or G is moved.					
2HK5	3	2	18	AE	BDG
Tube damaged if B or G is moved.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
2HM5	3	2	18	AE	BDG
Tube damaged if B or G is moved.					
2HQ5	3	2	18	AE	BDG
Tube damaged if B or G is moved.					
2S/4S(G-2)					
	1	2.5	45	B	DE
2T4*	2	2.35	22	(AG) (BF)	DE
2V2	4	1.4	97	N	BDFGH
2V3	1	2.5	96	N	G
Good tube reads above 20.					
2W3	2	2.5	36	D	H
2X2 (879)	4	2.5	52	N	D
2X2A	4	2.5	44	N	D
Good tube reads above 40.					
2X3	3	2.5	43	D	H
2Y2	1	2.5	95	N	D
Good tube reads above 40.					
2Z2 (G84)	3	2.5	56	B	D
3A2	4	3.15	54	N	ADFJ
3A3	4	3.15	56	N	B
Good tube reads above 25.					
3A4	2	1.4	26	BCDF	AG
3A5	2	1.4	30	BC	D
	2	1.4	30	EF	D
3A8	1	1.4	36	CDN	BG
	1	1.4	36	EF	BG
	1	1.4	45	H	BG
3AF4*	2	3.15	21	(AG) (BF)	DE
3AL5	1	3.15	20	B	DE
	1	3.15	20	G	AD
3AT2	4	3.15	61	N	ABEFJ
3AU6	2	3.15	22	ABEF	DG
3AV6	1	3.15	21	AG	BD
	1	3.15	43	E	BD
	1	3.15	43	F	BD
3AW2	4	2.5	52	N	ABEFJ
Tube damaged if ABEF or J is moved.					
3AW3	2	3.15	68	N	CGH
Good tube reads above 10.					
3B2	1	3.15	50	N	ACDEG
Good tube reads above 10.					
3B4	3	1.4	47	ACG	E
3B5	2	1.4	35	CDE	BG
3B7	1	1.4	33	BC	AH
	1	1.4	33	FG	AH
3BA6	2	3.15	23	ABEF	DG
3BC5*	2	3.15	20	AEF	(BG)C
No open element test on E.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
3BE6	2	3.15	21	A	BD
	2	3.15	33	EFG	BD
3BH2	4	3.15	60	N	AEJ
Tube damaged if AE or J is moved.					
3BL2	1	3.15	38	N	HM
Good tube reads above 35. Tube damaged if H or M is moved.					
3BM2	4	3.15	40	N	HM
Tube damaged if H or M is moved.					
3BN2	4	3.15	100	N	ABEFJ
Tube damaged if ABEF or J is moved.					
3BN4*	1	3.15	19	(BG)E	(AF)D
3BN6	1	3.15	35	BEFG	AC
Good tube reads above 20.					
3BS2	1	3.15	40	N	HM
Tube damaged if H or M is moved. Good tube reads above 25.					
3BT2	1	3.15	38	N	HM
Tube damaged if H or M is moved. Good tube reads above 20.					
3BU8	1	3.15	22	BCFG	AE
	1	3.15	22	BGHJ	AE
3BW2	1	3.15	38	N	HM
Tube damaged if H or M is moved. Good tube reads above 20.					
3BY6	2	3.15	25	AF	BD
	1	3.15	30	EG	BD
3BZ6	2	3.15	20	AEFG	BC
No open element test of F & G.					
3C2	1	1.4	60	N	DEFGH
3C4	1	1.4	23	BCF	E
3C5	2	1.4	34	CDE	BG
3C6	2	1.4	40	CD	AH
	2	1.4	40	EF	AH
3CA3	4	3.15	75	N	G
3CB6	2	3.15	21	AEFG	BC
3CE5*	2	3.15	21	AEF	(BG)D
No open element test on E.					
3CF6	1	3.15	19	AEFG	BD
No open element test on E & G.					
3CN3	4	3.15	50	N	ACEG
Tube damaged if ACE or G is moved.					
3CS6	1	3.15	21	AF	BC
	1	3.15	40	EG	BC
3CU3	1	3.15	20	N	B
Good tube reads above 20.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
3CV3	4	3.15	56	N	B
Good tube reads above 30.					
3CX3	4	3.15	40	N	CE
Good tube reads above 35.					
Tube damaged if C or E is moved.					
3CY3	4	3.15	54	N	B
Good tube reads above 35.					
3CY5*	3	3.15	22	AEF	(BG)C
3CZ3	4	3.15	44	N	B
Good tube reads above 35.					
3D6	2	1.4	30	BCF	AH
3DA3	4	3.15	40	N	CE
Good tube reads above 35.					
Tube damaged if C or E is moved.					
3DB3	4	3.15	54	N	B
Good tube reads above 35.					
3DC3	1	3.15	44	N	B
Good tube reads above 25.					
3DF3	4	3.15	40	N	C
Good tube reads above 30. No short test.					
3DG4	4	3.15	18	E	C
	4	3.15	18	G	C
3DH3	4	3.15	40	N	CE
Good tube reads above 35.					
Tube damaged if C or E is moved.					
3DJ3	4	3.15	42	N	B
Good tube reads above 20.					
3DK6	3	3.15	22	AEF	BCG
3DR3	4	3.15	40	N	CE
Good tube reads above 35. No short test.					
3DS3	4	3.15	40	N	CE
Good tube reads above 35. No short test.					
3DT6	1	3.15	20	AEFG	BD
3DZ4*	3	3.15	21	(AG) (BF)	DE
3E5	2	1.4	31	BCF	AG
3E6	2	1.4	30	BCDF	AH
3EA5*	2	3.15	22	AEF	(BG)C
3EH7*	2	3.15	21	BGHJ	(AC)E
3EJ7*	2	3.15	21	BGHJ	(AC)E
3ER5*	2	2.5	20	BEF	(AG)D
3EV5*	2	2.5	23	AEF	(BG)D
3FH5	2	3.15	21	BE	ADG
Tube damaged if A or G is moved.					
3FQ5	3	3.15	20	BE	AGD
Tube damaged if A or G is moved.					
3FS5*	3	3.15	19	AF	(BG)DE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
3GK5	3	3.15	18	BE	ADG
Tube damaged if A or G is moved.					
3GS8	2	3.15	20	BCFG	AE
	2	3.15	20	BGHJ	AE
3GU5	1	3.15	19	A	BDG
	1	3.15	29	EF	BDG
Tube damaged if B or G is moved.					
3GW5*	2	3.15	20	A(BF)	DE
3HA5	3	2.5	18	AE	BDG
Tube damaged if B or G is moved.					
3HK5	3	3.15	18	AE	BDG
Tube damaged if B or G is moved.					
3HM5	3	3.15	18	AE	BDG
Tube damaged if B or G is moved.					
3HM6	1	3.15	34	GJ	ACE
	3	3.15	19	BH	ACE
Tube damaged if A or C is moved.					
3HQ5	3	2.5	18	AE	BDG
Tube damaged if B or G is moved.					
3HS8	2	3.15	24	BHJ	AE
	2	3.15	21	CFG	AE
3HT6	1	3.15	34	GJ	ACE
	3	3.15	19	BH	ACE
Tube damaged if A or C is moved.					
3JC6	2	3.15	19	BGHJ	ACE
Tube damaged if A or C is moved.					
3KF8	2	3.15	20	BGHJ	AE
	2	3.15	20	BCFG	AE
3KT6	3	3.15	19	BGHJ	ACE
Tube damaged if A or C is moved.					
3LE4	2	1.4	34	BCF	AH
3LF4	2	1.4	30	BCF	AH
3MP26	2	3.15	21	AEF	BC
3MR24	3	3.15	20	AEF	BD
3MV7	2	3.15	20	AEF	BD
3Q4	2	1.4	33	BCDF	AG
3Q5	3	1.4	35	CDE	BG
3S4	2	1.4	35	BCDF	AG
3V4	2	1.4	28	BCF	AG
4A6	2	2	35	CD	H
	3	2	46	EF	H
4AU6	2	4.2	22	ABEF	DG
4AV6	1	4.2	21	AG	BD
	1	4.2	43	E	BD
	1	4.2	43	F	BD
4BA6	2	4.2	23	ABEF	DG
4BC5*	1	4.2	18	AEF	(BG)C

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
4BC8	2	4.2	22	AB	CD
	2	4.2	22	FG	DH
4BE6	2	4.2	20	A	BD
	2	4.2	20	EFG	BD
4BF5*	3	4.2	18	(AG)EF	BC
4BL8	2	4.7	22	AJ	EH
	2	4.7	20	BC	EFG
4BN6	1	4.2	36	BEFG	AC
Good tube reads above 23.					
4BQ7	2	4.2	21	AB	CD
	2	4.2	21	FG	DH
4BS8	2	4.2	22	AB	CD
	2	4.2	22	FG	DH
4BU8	1	4.2	22	BCFG	AE
	1	4.2	22	BGHJ	AE
4BX8	1	5	19	AB	CE
	1	5	19	FG	EH
4BZ6	1	4.2	18	AEFG	BC
No open element test of E & G.					
4BZ7	2	4.2	21	FG	DH
	2	4.2	20	AB	CD
4BZ8	3	4.2	16	FG	EH
	3	4.2	16	AB	CE
4CB6	2	4.2	22	AEFG	BC
No open element test on E.					
4CE5*	2	4.2	20	AEF	(BG)D
No open element test on E.					
4CM4*	3	4.2	19	(AJ)(BFH)	CEG
Tube damaged if C or G is moved.					
4CS6	1	4.2	20	AF	BC
	1	4.2	28	EG	BC
4CY5*	3	4.2	24	AEF	(BG)C
4DE6	2	4.2	21	AEFG	BC
No open element test on E & G.					
4DK6	3	4.2	22	AEF	BCG
4DL4*	3	4.2	18	(ACFGJ)H	BE
4DT6	1	4.2	20	AEFG	BD
4EH7*	2	4.2	21	BGHJ	(AC)E
4EJ7*	2	4.2	21	BGHJ	(AC)E
4ES8	2	4.2	20	AB	CE
	2	4.2	20	FG	EH
4EW6	2	4.2	20	AEF	BCG
No open element test on E & G.					
4GJ7	2	4.2	19	HJ	ACE
	2	4.2	18	BFG	ACE
Tube damaged if A or C is moved.					
4GK5	3	4.2	19	BE	ADG
Tube damaged if A or G is moved.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
4GM6	2	4.2	20	AEF	BDG
4GS7	3	4.2	19	FGJ	CEH
	3	4.2	21	AB	CEH
Tube damaged if C or H is moved.					
4GS8	2	4.2	20	BCFG	AE
	2	4.2	20	BGHJ	AE
4GW5*	2	4.2	20	A(BF)	DE
4GX7	2	4.7	20	BFG	ACE
	3	4.7	21	HJ	ACE
Tube damaged if A or C is moved.					
4GZ5*	3	4.2	19	(BE)F	ADG
4HA5	3	4.2	18	AE	BDG
Tube damaged if B or G is moved.					
4HA7	1	4.2	20	BL	CM
	2	4.2	23	JK	DM
4HC7*	1	4.2	20	BL	CM
	2	4.2	23	(GK)J	DM
4HK5	3	4.2	18	AE	BDG
Tube damaged if B or G is moved.					
4HM5	3	4.2	18	AE	BDG
Tube damaged if B or G is moved.					
4HM6	3	4.2	18	BH	ACE
	1	4.2	32	GJ	ACE
Tube damaged if A or C is moved.					
4HR8*	2	4.2	21	A(BG)FHJ	CE
4HQ5	3	4.2	18	AE	BDG
Tube damaged if B or G is moved.					
4HS8	2	4.2	24	BHJ	AE
	2	4.2	21	CFG	AE
4HT6	3	4.2	19	BH	ACE
	1	4.2	34	GJ	ACE
Tube damaged if A or C is moved.					
4JC6	2	4.7	19	BGHJ	ACE
Tube damaged if A or C is moved.					
4JD6	3	4.7	19	BH	ACEG
Tube damaged if A or C is moved.					
4JH6	3	4.2	20	AFEG	BD
4JK6	3	4.7	18	AF	BD
	1	4.7	33	EG	BD
4JL6	3	4.7	18	AF	BD
	1	4.7	32	EG	BD
4JW8	2	4.7	20	BCF	EG
	2	4.7	21	AJ	EH
4KE8	2	4.2	18	BCF	EG
	2	4.2	18	AJ	EH
4KF8	2	4.2	20	BGHJ	AE
	2	4.2	20	BCFG	AE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
4KN8	3	4.7	19	AB	CE
	3	4.7	19	FG	HE
4KT6	3	4.7	19	BGHJ	ACE
Tube damaged if A or C is moved.					
4LJ8	2	5	18	FGJ	CEH
	2	5	18	AB	CEH
Tube damaged if C or H is moved.					
4LU6	3	4.2	20	AEFG	BD
4MK6	2	4.2	20	BCFG	AE
	2	4.2	20	BGHJ	AE
4MP12	3	4.7	22	AEF	BD
4MP26	2	4.2	21	AEF	BC
4RHH2	2	4.2	21	AB	CD
	2	4.2	21	FG	DH
4RHH8	3	4.7	19	AB	CE
	3	4.7	19	FG	EH
4RHH15	3	4.2	22	FG	EH
	3	4.2	22	AB	CE
5A6	3	2.5	24	ACFGH	J
5AM8	1	4.7	18	BCFJ	AD
No open element test on F & J.					
	1	4.7	18	H	DG
5AN8	2	4.7	22	FGH	EJ
No open element test on F.					
	2	4.7	23	AB	CE
5AQ4	3	5.0	25	F	H
	3	5.0	25	D	H
5AQ5*	3	4.7	27	(AG)EF	BD
5AR4	3	5	26	D	H
	3	5	26	F	H
5AS4	1	5	23	D	H
	1	5	23	F	H
5AS8	3	4.7	22	ABJ	CD
	2	4.7	24	F	DH
5AT8	2	4.7	21	AB	CE
	2	4.7	20	FGHJ	CE
No open element test on F & H.					
5AU4	3	5	30	F	H
	3	5	30	D	H
5AV8	2	4.7	22	FHJ	EG
No open element test on F.					
	2	4.7	23	BC	AE
5AW4	4	5	18	D	H
	4	5	19	F	H
5AX4	3	5	40	D	H
	3	5	40	F	H
5AZ4	3	5	43	F	H
	3	5	43	D	H

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
5B8	2	4.7	21	BC	AE
	2	4.7	21	FHJ	ABCEG
No open element test on J.					
5BC3*	3	5	26	(EF)	BC
	3	5	26	(HJ)	BC
Tube damaged if B or C is moved.					
5BE8	2	4.7	20	AB	CE
	2	4.7	20	FGJ	CEH
5BK7	2	4.7	21	FG	EH
	2	4.7	21	AB	CE
5BQ7	2	4.7	22	AB	CD
	2	4.7	22	FG	DH
5BR8	2	4.7	20	AB	CE
	2	4.7	20	FGJ	EH
No open element test on F.					
5BS8	2	4.7	22	AB	CD
	2	4.7	22	FG	DH
5BT8	3	4.7	22	FGH	DJ
	1	4.7	26	A	CD
	1	4.7	26	B	CD
5BW8	1	4.7	20	A	BE
	1	4.7	20	C	BE
	2	4.7	21	FHJ	EG
No open element test on J.					
5BZ7	2	4.7	20	AB	CD
	2	4.7	20	FG	DH
5CG8	1	4.7	20	AB	CEH
	1	4.7	19	FGJ	CEH
No element or short test on C & H.					
5CL8	2	4.7	22	AB	CD
	2	4.7	22	FGJ	DH
5CM6*	3	4.7	21	A(CF)J	DG
5CM8	2	4.7	24	AJ	DH
	3	4.7	22	BFG	CD
5CQ8	1	4.7	19	AJ	EH
	1	4.7	19	BCF	EG
5CR8	2	5	20	AJ	EH
	2	5	19	BFG	CE
5CZ5	1	4.7	21	ACFJ	EG
5DH8	1	5	19	AB	CD
	2	5	20	FGJ	DH
5DJ4*	3	5	30	(CD)	GH
	3	5	30	(EF)	AB
Tube damaged if GH or AB is moved.					
5EA8	2	4.7	21	AJ	EH
	2	4.7	21	BCF	EG
5EH8*	2	4.7	21	GHJ	(AF)E
	2	4.7	21	BC	(AF)E
5EU8	2	4.7	21	AGJ	EH
	2	4.7	21	BC	EF

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
5EW6	2	5	19	AF	BD
	1	5	41	EG	BD
5FG7*	2	4.7	19	AB	(CH)E
	3	4.7	19	GJ	(CH)EF
5FV8	2	4.7	21	FGJ	EH
	2	4.7	21	AB	CE
5GH8	2	4.7	17	BCF	EG
	2	4.7	17	AJ	EH
5FJ7	2	5	19	HJ	ACE
	2	5	18	BFG	ACE
Tube damaged if A or C is moved.					
5GM6	2	5	19	AF	BD
	1	5	37	EG	BD
5GS7	3	5	19	FGJ	CEH
	3	5	21	AB	CEH
Tube damaged if C or H is moved.					
5GX6	1	5	19	A	BD
	1	5	21	EFG	BD
5GX7*	2	5	20	BG	(AC)EF
	3	5	21	HJ	(AC)E
5HA7	1	5	20	BL	CM
	2	5	23	JK	DM
5HB7	2	5	20	HJ	ACE
	3	5	20	BFG	ACE
Tube damaged if A or C is moved.					
5HC7*	1	5	20	BL	CM
	2	5	23	(GK)J	DM
5HG8*	3	5	19	BJ	(AC)EH
	3	5	23	FG	(AC)E
5HZ6	2	5	20	AEFG	BD
5J6	1	4.7	20	AF	DG
	1	4.7	20	BE	DG
5JK6	3	5	18	AF	BD
	1	5	33	EG	BD
5JL6	3	5	18	AF	BD
	1	5	32	EG	BD
5JW8	2	5	20	BCF	EG
	2	5	21	AJ	EH
5KD8	2	5	20	AJ	EH
	2	5	20	BC	EFG
5KE8	2	5	18	BCF	EG
	2	5	18	AJ	EH
5KZ8	3	5	19	AJ	EH
	3	5	20	BG	CEF
5LJ8*	3	5	22	AB	(CH)E
	3	5	19	GJ	(CH)EF
5MB8	3	5	21	AB	CE
	3	5	19	GJ	EFH
5MF8*	3	5.0	19	D(FG)H	JM
	1	5.0	19	BK	LM

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
5MHH3	2	5	22	AF	CG
	2	5	22	BE	CG
5MK9	3	5	28	E	C
5MQ8	2	5	20	BCF	EG
	2	5	21	AJ	EG
5R4	3	5	46	D	H
	3	5	46	F	H
5R-DDH1	1	5	22	A	BE
	1	5	24	F	CE
	1	5	20	GH	EJ
5RHP1	2	4.7	22	AJ	EH
	2	4.7	20	BC	EFG
5RHR1	2	5	20	AJ	EH
	2	5	20	BCF	EG
No open element test on F.					
5RK16	3	5	24	A	D
	3	5	24	H	D
5T4	3	5	26	F	H
	3	5	26	D	H
5T8	1	4.7	20	A	CEG
	1	4.7	20	B	CEG
	1	4.7	20	F	CEG
	3	4.7	36	HJ	CEG
5U4	3	5	35	F	H
	3	5	35	D	H
5U8	2	4.7	22	AJ	EH
	2	4.7	22	BCF	EG
No open element test on F.					
5V3	3	5	30	D	B
	3	5	30	F	B
5V4	3	5	25	F	H
	3	5	25	D	H
5V6	3	4.7	29	CDE	AGH
5W4	3	5	48	F	H
	3	5	48	D	H
5X3	3	5	43	B	D
	3	5	43	C	D
5X4	3	5	33	E	H
	3	5	33	C	H
5X8	2	4.7	22	BC	EF
	2	4.7	21	GHJ	AEF
5Y3	3	5	50	D	H
	3	5	50	F	H
5Y4	3	5	57	E	G
	3	5	57	C	G
5Z3	3	5	35	C	D
	3	5	35	B	D
5Z4	3	5	27	F	B
	3	5	27	D	B
6A3	3	6.3	28	BC	D

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6A4/LA	3	6.3	36	BCD	E
6A5	2	2.5	28	CE	BG
6A6	3	6.3	36	BC	DG
	3	6.3	36	EF	DG
6A7	2	6.3	30	DE	FG
	2	6.3	38	BCN	FG
6A8	2	6.3	31	EF	GH
	2	6.3	40	CDN	GH
6AB4	2	6.3	22	AF	CG
6AB5	2	6.3	36	BC	EF
Eye CL	4	6.3	0	BD	CEF
Eye OP	4	6.3	0	D	BCEF
6AB6	3	6.3	62	DE	CGH
	3	6.3	44	CE	DGH
6AB7	3	6.3	23	DFH	CEG
6AB7	1	6.3	20	FGHJ	CE
No open element test on F & G.					
	1	6.3	23	AB	CE
6AC5	3	6.3	34	CE	GH
6AC6	2	6.3	26	CDE	GH
6AC7	3	6.3	21	DFH	CEG
No open element test on C & H.					
6AC9	1	6.3	19	B	CM
	1	6.3	19	BC	DM
	3	6.3	19	GJK	HLM
6AC10	3	6.3	20	JK	DM
	3	6.3	20	EG	FM
	3	6.3	20	BL	CM
6AD6	4	6.3	95	CDE	GH
Good tube reads above 26.					
Eye CL	4	6.3	0	CDE	GH
Eye OP	4	6.3	0	E	CDGH
6AD7	3	6.3	33	CDE	GH
	2	6.3	51	AF	GH
6AD10	3	6.3	22	HKL	JM
	2	6.3	18	CFG	BEM
6AE5	3	6.3	29	CE	GH
6AE6	2	6.3	33	CE	GH
	2	6.3	33	DE	GH
6AE7	2	6.3	26	CD	EG
	2	6.3	27	CF	GH
6AF3*	4	6.3	18	(BJ)	EN
6AF4*	2	6.3	21	(AG)(BF)	DE
6AF5	2	6.3	24	CE	GH
6AF6	4	6.3	95	CDE	GH
Good tube reads above 26.					
Eye CL	4	6.3	0	CDE	GH
Eye OP	4	6.3	0	E	CDGH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6AF11	2	6.3	21	CD	GM
	2	6.3	21	FH	EM
	3	6.3	20	KL	BJM
6AG5*	3	6.3	20	AEF	(BG)C
No open element test on E.					
6AG7	3	6.3	17	DFH	EG
6AG9	2	6.3	19	BDKL	JM
	2	6.3	20	EG	FM
6AG11	1	6.3	20	C	BM
	1	6.3	20	K	LM
	2	6.3	20	EF	DM
	2	6.3	20	GH	JM
6AH4	2	6.3	20	AE	GH
6AH6	2	6.3	22	AEF	BCG
6AH7	3	6.3	30	AC	BG
	3	6.3	30	EF	DG
6AH9*	3	6.3	19	(EF)HJL	GM
	3	6.3	28	BC	DM
6AJ4*	2	6.3	19	(ACDFJ)E	BH
6AJ5*	2	6.3	23	AEF	(BG)C
6AJ8	2	6.3	22	ABFG	CE
	2	6.3	23	HJ	CE
6AK5*	2	6.3	22	AEF	(BG)C
6AK6	3	6.3	30	ABEF	CG
6AK7	3	6.3	17	DFH	EG
6AK8	1	6.3	20	A	DG
	1	6.3	20	B	CD
	1	6.3	21	HJ	DG
	1	6.3	40	F	DG
6AK9	3	6.3	30	BC	GM
	3	6.3	22	KL	GM
	3	6.3	21	EHJ	GM
6AK10	3	6.3	20	JK	DM
	3	6.3	20	EG	FM
	3	6.3	20	BL	CM
6AL3	3	6.3	19	ABCFGHJ	EN
No element test on top levers.					
6AL5	1	6.3	22	B	DE
	1	6.3	22	G	AD
6AL6	3	6.3	24	DEN	GH
6AL7	1	6.3	40	ACDEF	BH
Eye OP	4	6.3	0	C	BDFH
Eye CL	4	6.3	0	C	BH
6AL9	2	6.3	20	BDKL	JM
	3	6.3	20	EG	FM
6AL11	1	6.3	21	CDFG	BM
	3	6.3	20	HKL	JM
6AM4*	1	6.3	18	(ACDFJ)E	BH
6AM5	1	6.3	22	AEG	BD

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6AM8	1	6.3	18	BCFJ	AD
No open element test on F & J.					
	1	6.3	18	H	DG
6AN4*	2	6.3	20	(AG)(BF)	CE
6AN5*	3	6.3	17	AEF	(BG)D
6AN6	1	6.3	23	B	FG
	1	6.3	23	C	FG
	1	6.3	23	D	FG
	1	6.3	23	E	FG
6AN8	2	6.3	22	FGH	EJ
No open element test on F.					
	2	6.3	23	AB	CE
6AQ5*	3	6.3	27	(AG) EF	BD
6AQ6	1	6.3	20	AG	BC
	1	6.3	40	E	BC
	1	6.3	40	F	BC
6AQ7	1	6.3	22	DE	FH
	1	6.3	34	C	BH
	1	6.3	34	A	BH
6AQ8	2	6.3	21	AB	CE
	2	6.3	21	FG	EH
6AR5	3	6.3	30	AEF	BD
6AR6	3	6.3	20	CEG	AH
6AR8	3	6.3	22	BCFJ	EG
No open element test on B, C & J.					
	3	6.3	22	ACFH	EG
No open element test on A, C & H.					
6AR11	3	6.3	18	CE	BDFM
	3	6.3	18	JK	GHLM
6AS5*	1	6.3	19	(BE) FG	AC
6AS6	2	6.3	25	AEFG	BC
6AS7	3	6.3	16	AB	CH
	3	6.3	16	DE	FH
6AS8	1	6.3	19	ABJ	CEG
	1	6.3	18	F	EH
6AS11	2	6.3	21	CD	GM
	2	6.3	21	FH	EM
	3	6.3	18	KL	BJM
6AT6	1	6.3	20	AG	BC
	1	6.3	35	E	BC
	1	6.3	35	F	BC
6AT7N	3	6.3	20	AB	CE
	3	6.3	20	FG	EH
6AT8	2	6.3	21	AB	CE
	2	6.3	20	FGHJ	CE
No open element test on F & H.					
6AU4	4	6.3	22	E	CH
6AU5	3	6.3	22	AEH	CG
6AU6	2	6.3	22	ABEF	DG

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6AU7	2	3.15	25	AB	CDE
	2	3.15	25	FG	DEH
6AU8	2	6.3	21	BC	AD
	2	6.3	21	GHJ	DF
No open element test on J.					
6AV5	2	6.3	25	AEH	BC
6AV6	1	6.3	21	AG	BD
	1	6.3	43	E	BD
	1	6.3	43	F	BD
6AV11	2	6.3	23	BL	CM
	2	6.3	23	EG	FM
	2	6.3	23	JK	DM
6AW8	3	6.3	20	GHJ	DF
	3	6.3	23	BC	AD
6AX3	3	6.3	23	DK	GM
6AX4	3	6.3	22	E	CH
6AX5	3	6.3	32	C	BH
	3	6.3	32	E	BH
6AX6G	1	6.3	19	E	GH
	1	6.3	19	C	DG
6AX7	1	3.15	20	AB	CDE
	1	3.15	20	FG	DEH
6AX8	2	6.3	20	AJ	EH
	2	6.3	20	BCF	EG
No open element test on F.					
6AY3	3	6.3	22	BG	EJ
J may show leakage.					
6AY11	1	6.3	19	GH	JM
	1	6.3	19	EF	DM
	1	6.3	19	K	LM
	1	6.3	19	C	BM
6AZ8	2	6.3	21	HJ	EG
	2	6.3	21	ABF	CE
6B4	3	6.3	28	CE	G
6B5	3	6.3	45	BD	CEF
	3	6.3	63	CD	BEF
6B6	3	6.3	32	CN	GH
	1	6.3	40	D	GH
	1	6.3	40	E	GH
6B7	3	6.3	50	BCN	FG
	1	6.3	40	D	FG
	1	6.3	40	E	FG
6B8	3	6.3	45	CFN	GH
	1	6.3	40	D	GH
	1	6.3	40	E	GH
6B10	1	6.3	20	H	JM
	1	6.3	20	K	JM
	2	6.3	21	CD	BM
	2	6.3	22	EF	GM

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6B32	1	6.3	22	B	DE
	1	6.3	22	G	AD
6BA3*	3	6.3	23	(BG)	EJ
6BA6	2	6.3	23	ABEF	DG
6BA7	3	6.3	18	AB	CEGJ
	1	6.3	36	AFGJ	BCE
6AB8	3	6.3	25	BC	AD
	3	6.3	22	GHJ	DF
6BA11	2	6.3	23	BCE	HM
	2	6.3	22	DFG	HM
	2	6.3	22	JL	KM
6BB14*	3	6.3	18	(AB)(FG)N	CEH
Tube damaged if C or H is moved.					
6BC4*	1	6.3	20	(AJ)BCGH	EF
6BC5*	2	6.3	22	AEF	(BG)C
6BC7	1	6.3	20	B	AD
	1	6.3	20	H	DJ
	1	6.3	21	F	DG
6BC8	1	6.3	19	FG	DH
	1	6.3	19	AB	CD
6BD4	1	6.3	29	EN	AG
6BD5	3	6.3	18	AEH	CG
6BD6	2	6.3	26	ABEF	DG
6BD7	1	6.3	21	AB	CE
	1	6.3	46	H	CE
	1	6.3	51	F	CE
6BD11	3	6.3	20	KL	BJM
	2	6.3	20	FH	EM
	2	6.3	21	CD	GM
6BE3	3	6.3	20	DK	GM
6BE6	2	6.3	22	A	BD
	2	6.3	26	EFG	BD
6BE7*	1	6.3	20	ABFGJ	(CH)E
No open element test on F.					
	1	6.3	30	FJ	(CH)E
6BE8	2	6.3	20	AB	CE
	2	6.3	20	FGJ	CEH
6BF5	3	6.3	18	AEFG	BC
6BF6	3	6.3	28	AG	BDEF
	1	6.3	38	E	ABDFG
	1	6.3	38	F	ABDEG
6BF8	1	6.3	19	A	EF
	1	6.3	19	B	EF
	1	6.3	19	C	EF
	1	6.3	19	G	EF
	1	6.3	19	H	EF
	1	6.3	19	J	EF
6BF11	1	6.3	20	CEFG	BM
	3	6.3	20	HKL	JM
6BG6	3	6.3	24	EHN	CG

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6BH3	3	6.3	22	BG	EJ
6BH6	2	6.3	22	AEFG	BC
6BH8	2	6.3	22	BC	AD
	2	6.3	21	GHJ	DF
No open element test on J.					
6BH11	3	6.3	18	HJK	LM
	3	6.3	18	FG	EM
	3	6.3	18	CD	BM
6BJ3	3	6.3	21	DK	GM
6BJ6	2	6.3	22	AEFG	BD
6BJ7	1	6.3	20	B	AE
	1	6.3	20	F	EG
	1	6.3	20	H	EJ
6BJ8	1	6.3	20	A	BE
	1	6.3	20	F	CE
	3	6.3	25	GH	EJ
6BK4	1	6.3	30	EN	ABCDFH
No open element test on N.					
6BK5	2	6.3	21	ACGH	DF
6BK6	1	6.3	24	AG	BC
	1	6.3	32	E	BC
	1	6.3	36	F	BC
6BK7	2	6.3	21	FG	EH
	2	6.3	21	AB	CE
6BK8	2	6.3	22	AHJ	CE
6BK11	1	6.3	20	BL	CM
	1	6.3	20	EG	FM
	1	6.3	20	JK	DM
6BL4	4	6.3	22	AE	CG
6BL7	3	6.3	22	AB	CG
	3	6.3	22	DE	FG
6BL8	2	6.3	22	AJ	EH
	2	6.3	20	BC	EFG
6BM8	1	6.3	20	AJ	EH
	1	6.3	20	CFG	BE
6BN4*	1	6.3	19	(BG)E	(AF)D
6BN6	1	6.3	36	BEFG	AC
Good tube reads above 23.					
6BN8	1	6.3	20	A	BE
	1	6.3	20	F	CE
	1	6.3	20	GH	EJ
6BN11	3	6.3	18	GJKL	HM
	3	6.3	18	CDEF	BM
6BQ5	3	6.3	22	ABGJ	CD
6BQ6	3	6.3	21	DEN	GH
6BQ7	2	6.3	22	AB	CD
	2	6.3	21	FG	DH
6BR3*	4	6.3	18	(BJ)	EN
6BR5					
Eye CL	4	6.3	0	ABG	D

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
Eye OP	4	6.3	0	AB	D
No open element test on A, B & G.					
6BR7	1	6.3	20	BGHJ	CE
6BR8	2	6.3	20	AB	CE
	2	6.3	20	FGJ	EH
No open element test on F.					
6BS3*	2	6.3	20	(BG)	EJ
6BS8	2	6.3	22	AB	CD
	2	6.3	22	FG	DH
6BT6	1	6.3	21	AG	BC
	1	6.3	30	E	BC
	1	6.3	30	F	BC
6BU8	1	6.3	22	BCFG	AE
	1	6.3	22	BGHJ	AE
6BV8	1	6.3	20	F	EH
	1	6.3	20	J	EG
	2	6.3	22	BC	AE
6BV11	2	6.3	20	GJKL	HM
	2	6.3	20	BCDF	EM
6BW3*	4	6.3	21	(DK)	GM
6BW4	4	6.3	20	G	EJ
	4	6.3	20	A	EJ
6BW6*	3	6.3	26	(AB)GHJ	CE
6BW8	1	6.3	20	A	BD
	1	6.3	20	C	BD
	3	6.3	22	FHJ	DG
6BW11	3	6.3	18	GHJL	KM
	3	6.3	17	CDEF	BM
6BX4	3	6.3	30	F	DG
	3	6.3	30	A	DG
6BX6*	2	6.3	22	BGHJ	(AC)E
6BX7	3	6.3	22	DE	FG
	3	6.3	22	AB	CG
6BY5	3	6.3	23	D	AG
	3	6.3	23	E	GH
6BY6	1	6.3	19	AF	BD
	1	6.3	25	EG	BD
6BY7	1	6.3	22	BGHJ	ACE
No element or short test on A & C.					
6BY8	2	6.3	26	ABGH	EJ
	2	6.3	22	F	CE
6BY11	1	6.3	19	CEFG	BM
	3	6.3	19	HKL	JM
6BZ3*	3	6.3	20	(DK)	GM
6BZ6	1	6.3	18	AEFG	BC
No open element test on E & G.					
6BZ7	2	6.3	21	FG	DH
	2	6.3	20	AB	CD

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6BZ8	3	6.3	16	FG	EH
	3	6.3	16	AB	CE
6C4	2	6.3	25	AEF	DG
6C5	2	6.3	30	CE	GH
6C6	1	6.3	21	BCN	DEF
6C7	1	6.3	21	B	FG
	1	6.3	40	D	FG
	1	6.3	40	E	FG
6C8	2	6.3	27	CN	DG
	2	6.3	27	EF	GH
6C9	2	6.3	20	ABC	EK
	2	6.3	20	GHJ	EF
6C10	1	6.3	20	BL	CM
	1	6.3	20	EG	FM
	1	6.3	20	JK	DM
6C16	2	6.3	22	AJ	EH
	2	6.3	20	BC	EFG
6C18	3	6.3	17	BCG	EFH
	3	6.3	22	J	EFH
Tube damaged if F or H is moved.					
6CA4	2	6.3	22	A	CD
	2	6.3	22	G	CD
6CA5	3	6.3	22	BEFG	AC
6CA7	3	6.3	22	ACDE	GH
6CA11	3	6.3	22	BC	AG
	3	6.3	20	DF	AE
	3	6.3	20	HKL	AJ
6CB5*	2	6.3	20	(AH)(DE)	B(CF)
6CB6	2	6.3	22	AEFG	BC
No open element test on E & G.					
6CC31	1	6.3	18	AF	DG
	1	6.3	18	BE	DG
6CC42	2	6.3	23	CD	BFGHJ
	2	6.3	23	FG	BCDHJ
6CC43	2	6.3	21	AB	CE
	2	6.3	21	FG	EH
6CD3*	3	6.3	18	(DK)	GM
6CD6	3	6.3	17	EHN	BC
6CE3*	1	6.3	18	(DK)	GM
6CE5*	2	6.3	20	AEF	(BG)D
No open element test on E.					
6CF6	2	6.3	22	AEFG	BC
No open element test on E & G.					
6CF8	1	6.3	20	AFHJ	CD
6CG3*	3	6.3	18	(DK)	GM
6CG7	2	6.3	23	AB	CD
	2	6.3	23	FG	DH
6CG8	1	6.3	20	AB	CEH
	1	6.3	19	FGJ	CEH
No element test or short test on C & H.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6CH3*	3	6.3	19	(BG)	EJ
6CH6	4	6.3	19	BGHJ	CE
6CH7*	1	6.3	19	AB	CE
	1	6.3	19	FG	E(HJ)
6CH8	2	6.3	22	HJ	AE
	2	6.3	21	BCG	EF
No open element test on B.					
6CH40	2	6.3	22	ABFG	CE
	2	6.3	23	HJ	CE
6CJ3*	3	6.3	20	(BG)	EJ
6CJ6	3	6.3	16	ABFGHJN	CE
6CK3*	3	6.3	18	(BG)	EJ
6CK4	1	6.3	21	ACE	GH
6CL3*	3	6.3	19	(BG)	EJ
6CL5*	3	6.3	20	(AH)(DE)N	B(CF)
6CL6*	3	6.3	22	(BJ)(CH)FG	AD
6CL8	2	6.3	22	AB	CD
	2	6.3	22	FGJ	DH
6CM3*	3	6.3	17	(BG)	EJ
6CM4*	3	6.3	19	(AJ)(BFH)	CEG
Tube damaged if C or G is moved.					
6CM5*	3	6.3	19	(AD)EN	CGH
Tube damaged if C or H is moved.					
6CM6*	3	6.3	28	A(CF)J	DG
6CM7	2	6.3	24	AH	EJ
	2	6.3	26	FG	CE
6CM8	2	6.3	24	AJ	DH
	2	6.3	22	BFG	CD
6CN7	1	3.15	21	GH	DEF
	3	3.15	20	A	CDE
	3	3.15	20	B	CDE
6CQ4	3	6.3	21	E	CH
6CQ8	1	6.3	19	AJ	EH
	1	6.3	19	BCF	EG
6CR6	2	6.3	23	EFG	AD
	1	6.3	36	B	AD
6CS6	1	6.3	20	AF	BC
	1	6.3	25	EG	BC
6CS7	3	6.3	24	AC	DJ
	2	6.3	28	FG	DH
6CT3*	3	6.3	18	(BF)	EJ
6CU5	3	6.3	18	BEFG	AD
6CU6	3	6.3	18	DEN	GH
6CU8	1	6.3	20	HJ	AE
	1	6.3	19	BCG	EF
6CW4	1	6.3	18	BD	HM
6CW5*	3	6.3	16	●	CE
				●(AB)(FJ)(GH)	
A, F or H is not used in some tubes.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6CX8	1	6.3	20	BC	AD
	2	6.3	23	GHJ	DF
6CY5*	3	6.3	22	AEF	(BG)C
6CY7	1	6.3	20	FG	DH
	3	6.3	20	ABC	DJ
6CZ5	1	6.3	20	ACFJ	EG
6D1*	1	6.3	20	(AE)F	DG
6D4	3	6.3	20	AG	DE
6D5	3	6.3	32	CE	GH
6D6	3	6.3	27	BCDN	EF
6D7	2	6.3	28	BCN	DFG
6D8	2	6.3	34	EF	GH
	2	6.3	42	CDN	GH
6D10	1	6.3	18	BL	CM
	1	6.3	18	EG	FM
	1	6.3	18	JK	DM
6DA4	3	6.3	21	E	CG
6DA5	1	6.3	22	AG	BE
Eye CL	4	6.3	0	CGHJ	ABE
Eye OP	4	6.3	0	CHJ	ABEG
6DA6	3	6.3	18	BGHJ	CE
6DB5*	3	6.3	20	A(CF)J	(BG)D
6DB6	1	6.3	18	AEFG	BD
6DC6	1	6.3	18	AEFG	BD
No open element test on E & G.					
6DC8	2	6.3	22	ABFJ	CE
	1	6.3	36	G	CE
	1	6.3	36	H	CE
6DE4	4	6.3	22	E	CH
6DE6	2	6.3	20	AEFG	BD
No open element test on E & G.					
6DE7	2	6.3	26	FG	DH
	3	6.3	22	ABC	DJ
6DG6	3	6.3	20	CDE	GH
6DJ8	2	6.3	21	FG	EH
	2	6.3	21	AB	CE
6DK3*	3	6.3	18	(BG)	DN
6DK6	3	6.3	22	AEF	BCG
6DL3*	3	6.3	18	(BG)	DN
6DL4*	3	6.3	18	(ACFGJ)H	BE
6DL5*	3	6.3	23	(AG)EF	BD
6DL7					
Eye OP	4	6.3	0	E	DGH
Eye CL	4	6.3	0	CEF	DGH
No open element test.					
6DL8	1	6.3	40	A	EH
	1	6.3	20	CFG	BE
	1	6.3	40	J	EH
6DM4	3	6.3	22	E	CH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6DN3*	3	6.3	18	(BG)	EJ
6DN6	3	6.3	17	EHN	CG
6DN7	3	6.3	24	AB	CG
	3	6.3	32	DE	FG
6DQ3	3	6.3	18	(DK)	GM
6DQ4	3	6.3	22	E	CH
6DQ5*	1	6.3	19	(AE)(DH)N	(CF)G
6DQ6	3	6.3	22	DEN	GH
6DR4*	1	6.3	20	(AE)F	DG
6DR7	1	6.3	19	FG	EH
	3	6.3	16	ABC	EJ
6DS4	1	6.3	18	BD	HM
6DS5	1	6.3	19	AEFG	BD
6DS8	3	6.3	22	ABFG	CD
	2	6.3	23	HJ	CD
6DT3*	3	6.3	20	(DK)	GM
6DT4*	3	6.3	24	(AE)	CH
6DT5	3	6.3	22	ACFJ	EG
6DT6	1	6.3	20	AEFG	BD
6DT8	3	6.3	20	AB	CE
	3	6.3	20	FG	EH
6DU3*	3	6.3	18	(DK)	GM
6DV4	2	6.3	19	ABDF	GM
6DW4	3	6.3	20	BG	EJ
6DW5	1	6.3	22	ACFJ	EG
6DX8	2	6.3	20	AB	CE
	3	6.3	20	HJ	EFG
6DY5	3	6.3	20	BGJ	CE
6DY7	3	6.3	22	ACD	GH
	3	6.3	22	DEF	GH
H normally shows leakage.					
6ZD4*	3	6.3	21	(AG)(BF)	DE
6DZ7	3	6.3	22	ACD	GH
	3	6.3	22	DEF	GH
No open element test on C & F.					
6DZ8	1	6.3	20	AJ	EH
	3	6.3	20	CFG	BE
6E5	2	6.3	36	BC	EF
Eye OP	4	6.3	0	D	BCEF
Eye CL	4	6.3	0	BD	CEF
6E6	3	6.3	31	BC	DG
	3	6.3	31	EF	DG
6E7	2	6.3	28	BCN	DFG
6E8	2	6.3	31	EF	GH
	2	6.3	40	CDN	GH
6EA4	1	6.3	28	FN	BEJLM
Tube damaged if BEJ or L is moved.					
6EA5*	2	6.3	22	AEF	(BG)C
6EA7	1	6.3	22	DE	FH
	3	6.3	20	AB	CH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6EA8	2	6.3	20	AJ	EH
	2	6.3	20	BCF	EG
6EB5	3	6.3	38	G	AD
	3	6.3	38	B	DE
6EB8	1	6.3	20	BC	AE
	2	6.3	22	GHJ	EF
6EC4*	3	6.3	19	(BGH)	EN
6ED4	1	6.3	26	HN	ABCEFGJ
Tube damaged if ABCEFG or J is moved.					
6EF6	4	6.3	18	CDE	GH
6EH4	1	6.3	28	FN	BEJLM
Tube damaged if BEJ or L is moved.					
6EH5	3	6.3	20	BEFG	AD
6EH7*	2	6.3	21	BGHJ	(AC)E
6EH8*	3	6.3	20	BC	(AF)E
	3	6.3	20	GHJ	(AF)E
No open element test on J.					
6EJ4	1	6.3	26	FN	EM
6EJ7*	3	6.3	18	BGHJ	(AC)E
6EL4	1	6.3	30	EN	ABCDFH
No element tests.					
6EM5	3	6.3	18	ACFJ	EG
6EM7	3	6.3	19	AB	CH
	1	6.3	20	DE	FH
6EN4*	1	6.3	27	(EF)N	ABCDH
No short test.					
6EQ7	1	6.3	34	H	CE
Good tube reads above 25.					
	2	6.3	22	ABFG	CE
6ER5*	2	6.3	20	BEF	(AG)D
6ES5*	3	6.3	21	BE	(AG)D
6ES6	3	6.3	21	AEF	BCG
6ES8	2	6.3	20	AB	CE
	2	6.3	20	FG	EH
6ET6	3	6.3	20	AEF	BCG
6ET7	3	6.3	20	GHJ	EF
No open element test on J.					
	1	6.3	56	B	AE
	1	6.3	56	C	AE
6EU7	2	6.3	24	EF	BD
	2	6.3	24	GH	BJ
6EU8	2	6.3	19	AGJ	EH
	2	6.3	19	BC	EF
6EV5	2	6.3	22	AEF	(BG)D
6EV7	2	6.3	23	AB	CE
	2	6.3	23	FG	EH
6EW6	2	6.3	20	AEFG	BD
6EW7	3	6.3	19	ABC	EJ
	3	6.3	30	FG	EH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6EX6	3	6.3	15	EHN	CG
6EY6	3	6.3	22	CDE	BH
6EZ5	3	6.3	21	CDE	GH
6EZ8	1	6.3	20	BC	AD
	1	6.3	20	FG	D
	1	6.3	20	HJ	D
6F5	1	6.3	20	DN	GH
6F6	3	6.3	32	CDE	GH
6F7	3	6.3	43	BCN	FG
	3	6.3	82	DE	FG
6F8	2	6.3	24	CN	DG
	2	6.3	24	EF	GH
6F10	3	6.3	21	DFH	CEG
No open element test on C & H.					
6F19	1	6.3	22	BGHJ	ACE
Tube damaged if A or C is moved.					
6F22	1	6.3	20	AFHJ	CE
6F26	1	6.3	22	BGHJ	ACE
Tube damaged if A or C is moved.					
6F29*	2	6.3	21	BGHJ	(AC)E
6F30	2	6.3	21	BGHJ	ACE
Tube damaged if A or C is moved.					
6F33	2	6.3	25	AEFG	BC
6F35	2	6.3	23	AEF	BGC
Tube damaged if B or G is moved.					
6FA7	2	6.3	24	AGH	DF
	2	6.3	24	GHJ	DF
	1	6.3	46	C	DF
6FD6	1	6.3	19	ABEF	DG
6FD7*	1	6.3	21	FG	EH
	3	6.3	18	A(BC)	EJ
6FE5	3	6.3	22	CDE	BH
6FG5*	3	6.3	20	AEF	(BG)C
No open element test on E.					
6FG6	1	6.3	28	AJ	CE
	4	6.3	100	BFGH	CE
Good tube reads above 8.					
6FG7*	2	6.3	19	AB	(CH)E
	3	6.3	19	GJ	(CH)EF
6FH5*	2	6.3	21	BE	(AG)D
6FH6	3	6.3	15	DEN	GH
6FH8	2	6.3	33	AGHJ	D
	2	6.3	20	BC	D
	1	6.3	18	F	D
6FJ7	2	6.3	25	KL	JM
	3	6.3	21	CE	GM
6FM7*	3	6.3	19	(CH)E	GM
	1	6.3	20	KL	JM

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6FM8	1	6.3	20	B	CE
	1	6.3	20	F	AE
	1	6.3	22	HJ	EG
6FQ5*	3	6.3	20	BE	(AG)D
6FQ7	2	6.3	23	AB	CE
	2	6.3	23	FG	EH
6FR7*	3	6.3	19	A(BC)	EJ
	3	6.3	30	FG	EH
6FS5*	2	6.3	20	AF	(BG)DE
6FV6	2	6.3	20	AEF	DG
No open element test on F.					
6FV8	2	6.3	21	FGJ	EH
	2	6.3	21	AB	CE
6FW5	3	6.3	20	AEH	CG
6FY5	2	6.3	20	BE	ADG
No element or short test on A & G.					
6FY7	3	6.3	19	CE	GM
	1	6.3	21	KL	JM
6G5	2	6.3	36	BC	EF
Eye CL	4	6.3	0	BD	CEF
Eye OP	4	6.3	0	D	BCEF
6G6	3	6.3	36	CDE	GH
6G6G	2	6.3	28	CDE	BH
6G7	3	6.3	36	BN	CEG
	1	6.3	24	D	CG
	1	6.3	24	F	CG
6G11	1	6.3	20	CDFG	BM
	3	6.3	20	HKL	JM
6GA7*	3	6.3	20	(BC)DG	EM
	3	6.3	24	L	HM
6GA8	2	6.3	22	FG	EH
	2	6.3	22	AB	CE
6GB3	3	6.3	19	DE	GH
6GB5*	3	6.3	19	(AB)(FG)N	CEH
Tube damaged if C or H is moved.					
6GB6	3	6.3	21	DEN	GH
6GB7	3	6.3	18	DEN	BH
6GB9	3	6.3	22	DEN	GH
6GC5*	3	6.3	21	(AH)(CF)J	EG
6GC6	2	6.3	21	DEHN	CG
6GD7*	3	6.3	19	AB	(CH)E
	3	6.3	19	GJ	(CH)EF
6GE5*	3	6.3	19	B(CL)G	(DK)M
6GF5*	3	6.3	19	B(CL)G	(DK)M
6GF7	3	6.3	18	BF	CE
	1	6.3	20	HJ	AE
6GH8	2	6.3	17	BCF	EG
	2	6.3	17	AJ	EH
6GJ5*	3	6.3	20	(AG)(BF)N	CE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6GJ7*	3	6.3	19	BG	(AC)EF
	3	6.3	20	HJ	(AC)E
6GK5	3	6.3	20	BE	ADG
Tube damaged if A or G is moved.					
6CK6*	2	6.3	20	BGH	A(CJ)E
6GK17	3	6.3	22	E	CG
6GL7	3	6.3	19	AB	CH
	1	6.3	20	DE	FH
6GM5	3	6.3	21	AFJ	EG
6GM6	2	6.3	20	AEF	BDG
6GM8	2	6.3	22	AB	CE
	2	6.3	22	FG	EH
6GN8	1	6.3	19	BC	AE
	3	6.3	19	GH	EFJ
6GQ7	1	6.3	20	F	EG
	1	6.3	20	H	EJ
	1	6.3	20	B	AE
6GS7	3	6.3	19	FGJ	CEH
	3	6.3	21	AB	CEH
Tube damaged if C or H is moved.					
6GS8	2	6.3	20	BCFG	AE
	2	6.3	20	BGHJ	AE
6GT5*	3	6.3	19	(AG)(BF)J	CE
6GU5*	1	6.3	19	A	(BG)D
	1	6.3	29	EF	(BG)D
6GU7	3	6.3	22	AB	CE
	3	6.3	22	FG	EH
6GV5*	3	6.3	19	CGL(EJ)N	(DK)M
6GV7	3	6.3	17	BCG	EFH
	3	6.3	22	AJ	EFH
Tube damaged if F or H is moved.					
6GV8	1	6.3	19	AB	CE
	3	6.3	20	FGJ	EH
6GW5*	2	6.3	20	A(BF)	DE
6GW6	3	6.3	20	DEN	GH
6GW8	1	6.3	20	AJ	BE
	3	6.3	20	CFH	EG
6GX6	1	6.3	19	A	BD
	1	6.3	21	EFG	BD
6GX7*	2	6.3	20	BG	(AC)EF
	3	6.3	21	HJ	(AC)E
6GY5*	3	6.3	18	(CGL)(EJ)N	(DK)M
6GY6	3	6.3	19	AEFG	BD
6GY8	1	6.3	26	AB	E
	1	6.3	19	CJ	EH
	1	6.3	22	F	EG
No open element test on B & C.					
6GZ5*	3	6.3	19	(BE)F	ADG
6H4	1	6.3	26	D	GH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6H5	2	6.3	36	BC	EF
Eye CL	4	6.3	0	BD	CEF
Eye OP	4	6.3	0	D	BCEF
6H6	1	6.3	25	C	DG
	1	6.3	25	E	GH
6H7S	3	6.3	33	BCD	FG
	2	6.3	52	EN	FG
6HA5	3	6.3	18	AE	BDG
Tube damaged if B or G is moved.					
6HA6*	3	6.3	19	BG(FH)	ACEJ
Tube damaged if C or J is moved.					
6HB5*	3	6.3	18	B(CL)G	(DK)M
6HB6*	3	6.3	18	B(FH)	AE
	1	6.3	24	(CJ)G	AE
6HB7	2	6.3	20	HJ	ACE
	3	6.3	20	BFG	ACE
Tube damaged if A or C is moved.					
6HC8	3	6.3	23	CFG	BE
	3	6.3	26	AJ	EH
6HD5*	3	6.3	19	(CL)(EJ)G	(DK)M
6HD7	3	6.3	20	BFG	ACE
	3	6.3	19	HJ	ACE
Tube damaged if A or C is moved.					
6HE5*	3	6.3	21	(BJ)(CK)F	(DL)M
6HE7	1	6.3	19	B	DM
	3	6.3	18	EJL	HM
6HF5*	3	6.3	19	C(EJ)FHLN	(DK)M
6HF8	1	6.3	19	BC	AE
	3	6.3	19	GH	EFJ
6HG5*	3	6.3	26	(AG)EF	BD
6HG8*	3	6.3	18	BJ	(AC)EH
	3	6.3	20	FG	(AC)E
6HJ5*	3	6.3	18	(CL)(EJ)G	BDKM
Tube damaged if D or K is moved.					
6HJ7	3	6.3	19	BFG	ACE
	3	6.3	18	HJ	ACE
Tube damaged if A or C is moved.					
6HJ8	1	6.3	19	H	EG
	3	6.3	19	BC	AE
	3	6.3	28	CFJ	AE
6HK5	3	6.3	18	AE	BDG
Tube damaged if B or G is moved.					
6HL5*	3	6.3	18	(AB)GJ	CE
6HL8	2	6.3	20	AJ	EH
	3	6.3	19	BC	EFG
6HM5	3	6.3	18	AE	BDG
Tube damaged if B or G is moved.					
6HM6	3	6.3	19	BH	ACE
	1	6.3	34	GJ	ACE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6HQ5	3	6.3	18	AE	BDG
Tube damaged if B or G is moved.					
6HR5*	3	6.3	26	(AG)EF	BD
6HR6	3	6.3	18	ABEF	DG
6HS5*	3	6.3	18	(BL)(CK)G	DM
6HS6	1	6.3	19	A	DG
	1	6.3	21	BEF	DG
6HS8	2	6.3	24	BHJ	AE
	2	6.3	21	CFG	AE
6HT5	1	6.3	40	FN	M
6HU5*	1	6.3	22	AJ	CE
	4	6.3	100	(BFH)G	CE
Good tube reads above 8.					
6HU8	3	6.3	21	ABC	EG
	3	6.3	21	FHJ	EG
6HV5*	3	6.3	20	(BL)(CK)G	DM
6HW8	3	6.3	22	CF	ABEGHJ
6HZ5*	3	6.3	18	(BL)(CK)G	DM
6HZ6	2	6.3	20	AEFG	BD
6HZ8	2	6.3	21	BC	AE
	3	6.3	19	GH	EFJ
6J4	2	6.3	20	AEFG	BD
6J5	2	6.3	24	CE	GH
6J6	1	6.3	18	AF	DG
	1	6.3	18	BE	DG
6J7	2	6.3	29	CDN	AEGH
6J8	2	6.3	25	CDN	GH
	2	6.3	25	EF	GH
6J9	2	6.3	20	AB	CE
	2	6.3	20	FJ	EK
	2	6.3	20	GH	EK
6J10	4	6.3	68	DEFG	HM
	3	6.3	20	BJL	CM
6J11	3	6.3	18	BE	CDFM
	3	6.3	18	GL	HJKM
6JA5*	3	6.3	21	(BJ)(CK)F	DLM
Tube damaged if D or L is moved.					
6JA8	2	6.3	20	BC	AE
	3	6.3	19	GH	EFJ
6JB5*	3	6.3	21	(BJ)(CK)F	DLM
Tube damaged if D or L is moved.					
6JB6*	3	6.3	19	●	CE
	●(AG)(BF)HN				
6JC5*	3	6.3	21	(BJ)(CK)F	DLM
Tube damaged if D or L is moved.					
6JC6	2	6.3	19	BGHJ	ACE
No element or short test on A & C.					
6JC8*	2	6.3	20	BCF	(AG)E
No open element test on F.					
	2	6.3	20	HJ	(AG)E
6JD5*	3	6.3	18	(BL)(CK)G	DM
6JD6	3	6.3	19	BH	ACEG
No element or short test on A & C.					
6JE6*	3	6.3	17	●	CE
	●(AG)(BF)HN				
6JE8	2	6.3	20	BC	AE
	3	6.3	19	GHJ	EF
6JF6*	3	6.3	18	●	CE
	●(AG)(BF)HN				
6JG5	3	6.3	19	GHJ	DF
6JG6*	3	6.3	18	(AG)BJ	ECF
6JH5*	3	6.3	20	●	DM
	●(BL)(CK)(GH)				
6JH6	3	6.3	18	AF	BD
	1	6.3	48	EG	BD
6JH8	2	6.3	35	ABCJ	DG
	3	6.3	23	CF	DG
6JK5*	3	6.3	20	●	DM
	●(BL)(CK)(GH)				
6JK6	3	6.3	18	AF	BD
	1	6.3	33	EG	BD
6JK8	2	6.3	19	AB	CE
	2	6.3	20	FG	EH
6JL6	3	6.3	18	AF	BD
	1	6.3	32	EG	BD
6JM6	3	6.3	20	CEN	BDKM
Tube damaged if D or K is moved.					
6JN6	3	6.3	20	CGL	BDKM
Tube damaged if D or K is moved.					
6JN8	3	6.3	19	AB	CE
	3	6.3	20	GJ	EFH
6JQ6*	3	6.3	20	A(BC)(GH)	DJ
	1	6.3	23	F	DJ
6JR6*	3	6.3	18	(AG)BJ	CEF
6JS6*	3	6.3	18	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
6JT6*	3	6.3	20	(AG)BFJ	CE
6JT8	3	6.3	18	GH	EFJ
	1	6.3	19	BC	AE
6JU6*	3	6.3	17	●	CE
	●(AG)(BF)HN				
6JU8	3	6.3	22	GH	EJ
	3	6.3	22	G	EH
	3	6.3	22	AB	CE
	3	6.3	22	A	BE
6JV8	3	6.3	18	GH	EFJ
	1	6.3	19	BC	AE
6JW8	2	6.3	21	AJ	EH
	2	6.3	20	BCF	EG
6JX8	2	6.3	20	HJ	CE
	2	6.3	20	ABFG	CE
6JY8	2	6.3	20	BC	AE
	2	6.3	20	GHJ	EF
6JZ6*	3	6.3	18	(DK)CEN	BM
6JZ8*	3	6.3	20	D(FG)H	JM
	1	6.3	21	BK	LM
6K5	1	6.3	20	CN	GH
6K6	3	6.3	34	CDE	GH
6K7	2	6.3	32	CDN	EGH
6K8	1	6.3	20	DE	GH
	1	6.3	20	EF	GH
	1	6.3	39	CN	GH
6K11	2	6.3	23	JK	DM
	1	6.3	20	BL	CM
	1	6.3	20	EG	FM
6KA8	3	6.3	19	FGHJ	CE
	2	6.3	21	AB	CE
6KD6*	2	6.3	17	●	BM
	●(CL)(DK)(EJ)N				
6KD8	2	6.3	20	BCF	EG
No open element test on F.					
	2	6.3	20	AJ	EH
6KE8	2	6.3	18	AJ	EH
	2	6.3	18	BCF	EG
6KF8	2	6.3	20	BGHJ	AE
	2	6.3	20	BCFG	AE
6KG6*	4	6.3	21	●	EJ
	●(AH)(BG)(CF)N				
6KH8	3	6.3	24	AB	DG
	3	6.3	20	BCJ	DG
	3	6.3	20	FHJ	DG
6KL8	1	6.3	48	H	CE
	2	6.3	20	ABFG	CE
6KM6*	3	6.3	18	●	CE
	●(AG)(BF)HN				
6KM8*	1	6.3	48	C	EF
	2	6.3	20	GH	EF
	1	6.3	30	ABJ	EF
6KN6*	3	6.3	17	●	BM
	●(CL)(DK)(EJ)N				
6KN8	3	6.3	19	AB	CE
	3	6.3	19	FG	EH
6KR8	3	6.3	20	BC	AE
	3	6.3	20	GHJ	EF
6KS8	1	6.3	20	BC	AE
	3	6.3	19	GH	EFJ
F may show leakage.					
6KT6	3	6.3	19	BFHJ	ACE
Tube damaged if A or C is moved.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6KT8	3	6.3	20	GH	EFJ
	1	6.3	19	BC	AE
6KU8	1	6.3	38	C	AE
	1	6.3	38	B	AE
	3	6.3	17	GHJ	EF
6KV6*	3	6.3	18	(AG)BFJ	CE
6KV8	3	6.3	18	GHJ	EF
	2	6.3	19	BC	EA
6KY6*	3	6.3	17	B(CJ)GH	AE
6KY8	1	6.3	19	HJ	AE
	3	6.3	20	BFG	CE
6KZ8	3	6.3	20	BG	CEF
	3	6.3	19	AJ	EH
6L5	2	6.3	26	CE	GH
6L6	3	6.3	27	CDE	GH
6L7	2	6.3	56	D	GH
	2	6.3	26	CEN	GH
6LB6*	3	6.3	18	●	BM
	●(CL)(DK)(EJ)				
6LB8	3	6.3	18	GH	EFJ
	2	6.3	25	BC	AE
6LC8	2	6.3	20	AB	CE
C should show short when tube is heated, Sec. 1.					
	2	6.3	20	FHJ	CEG
6LD6*	2	6.3	21	B(CJ)(FH)G	AD
6LE8	2	6.3	19	AHJ	BCE
	2	6.3	19	FHJ	CEG
6LF6*	3	6.3	18	●	BM
	●(CL)(DK)(EJ)N				
6LF8	1	6.3	20	BC	AE
	3	6.3	20	GHJ	EF
6LG6*	3	6.3	20	(CL)(EJ)N	DKM
Tube damaged if D or K is moved.					
6LH6	1	6.3	26	EN	FG
6LJ6	1	6.3	28	EN	FG
6LJ8*	3	6.3	19	GJ	(CH)EF
	3	6.3	21	AB	(CH)E
6LM8	3	6.3	18	BCF	EG
	3	6.3	18	AJ	EH
6LN8	3	6.3	21	AJ	EH
	3	6.3	20	BCF	EG
6LQ6*	3	6.3	17	●	CE
	●(AG)(BF)HN				
6LQ8	3	6.3	18	BC	AE
	3	6.3	18	GHJ	EF
6LR6*	3	6.3	17	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
6LR8	3	6.3	19	BFG	CE
	1	6.3	19	HJ	AE
6LT8	1	6.3	18	H	EG
	1	6.3	18	F	EG
	3	6.3	19	BCJ	AE
6LU6	3	6.3	20	AEFG	BD
6LU8*	3	6.3	18	D(FG)H	JM
	1	6.3	18	BK	LM
6LV6*	3	6.3	18	●	BM
	●(CL)(DK)(EJ)N				
6LW6*	3	6.3	17	(AE)CN	BFG
Tube damaged if B or F is moved.					
6LX6*	3	6.3	18	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
6LX8	2	6.3	21	AJ	EH
	2	6.3	20	BCF	EG
6LY8	1	6.3	18	BC	AE
	3	6.3	18	GHJ	EF
6LZ6*	3	6.3	19	(AG)(BF)N	CE
6M8	2	6.3	26	CDN	AG
	2	6.3	26	EF	AG
	1	6.3	34	H	AG
6M11	2	6.3	19	GH	JM
	2	6.3	19	EF	DM
	3	6.3	18	BC	KLM
6MA6	2	6.3	38	FN	GH
6MB6*	3	6.3	18	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
6MB8	3	6.3	19	GJ	EFH
	3	6.3	21	AB	CE
6MC6*	3	6.3	18	●	CD
	●(AG)(BF)HN				
6MD8	2	6.3	20	AJ	EG
	2	6.3	20	BH	EG
	2	6.3	20	CF	EG
6ME5	2	6.3	29	AB	DG
Eye CL	4	6.3	0	BE	ADG
Eye OP	4	6.3	0	E	ABDG
6ME6*	3	6.3	20	●	CE
	●(AG)(BF)HN				
6ME8	3	6.3	21	CFHJ	ABEG
6MF8*	3	6.3	19	D(FG)H	JM
	1	6.3	19	BK	LM
6MG8	3	6.3	20	BCF	EG
	3	6.3	20	AJ	EH
6MH1*	2	6.3	20	(AEF)G	BD
6HM6*	3	6.3	18	●	BM
	●(CL)(DK)(EJ)				
6MHH3	2	6.3	22	BE	CG
	2	6.3	22	AF	CG
6MJ6*	3	6.3	19	●	CE
	●(AG)(BF)HN				
6MJ8	3	6.3	22	BL	CM
	3	6.3	22	DK	CM
	3	6.3	22	FH	CM
6MK8	2	6.3	20	BGHJ	AE
	2	6.3	20	BCFG	AE
6ML4*	2	6.3	21	(AG)(BF)	DE
6ML8	2	6.3	20	CF	EG
	2	6.3	20	BH	EG
	2	6.3	20	AJ	EG
6MN8	3	6.3	22	BL	CM
	3	6.3	22	DK	CM
	3	6.3	22	FH	CM
6MP17	3	6.3	22	AEF	BD
6MP18*	3	6.3	20	(AG)EF	BC
6MP20	3	6.3	20	AEF	BD
6MQ8	2	6.3	21	AJ	EH
	2	6.3	20	BCF	EG
6MU8	2	6.3	22	AJ	EH
	2	6.3	21	BCF	EG
6MV8	3	6.3	19	GH	EFJ
	1	6.3	20	BC	AE
6MX8	3	6.3	20	BFG	CE
	1	6.3	28	HJ	AE
6MY8*	3	6.3	19	D(FG)H	JM
	1	6.3	19	BK	LM
6N3	3	6.3	21	J	CD
6N4*	2	6.3	24	(AG)E	(BF)D
6N5	1	6.3	37	BC	EF
Eye CL	4	6.3	0	BD	CEF
Eye OP	4	6.3	0	D	BCEF
6N6	3	6.3	61	DE	CGH
	3	6.3	41	CE	DGH
6N7	3	6.3	29	EF	GH
	3	6.3	29	CD	GH
6N8	1	6.3	22	ABF	CD
	1	6.3	45	G	CD
	1	6.3	45	H	CD
6P5	2	6.3	30	CE	GH
6P7	2	6.3	32	DEN	BH
	3	6.3	70	FG	BH
6PL12	1	6.3	20	AJ	EH
	1	6.3	20	CFG	BE
6Q4	2	6.3	21	ABGHJ	CD
6Q5	4	6.3	20	CE	GH
6Q6	1	6.3	20	CN	GH
	1	6.3	90	E	GH
6Q7	1	6.3	21	CN	GH
	1	6.3	47	D	GH
	1	6.3	47	E	GH
6Q8	2	6.3	31	EF	GH
	2	6.3	40	CDN	GH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6Q11	2	6.3	23	JK	DM
	1	6.3	20	EG	FM
	1	6.3	20	BL	CM
6R3	2	6.3	22	BJ	DN
6R6	3	6.3	41	CEN	GH
6R7	1	6.3	33	D	GH
	1	6.3	33	E	GH
	3	6.3	37	CN	GH
6R8	1	6.3	20	A	EG
	1	6.3	20	F	EG
	2	6.3	25	B	CE
	2	6.3	30	HJ	EG
6RA8*	3	6.3	22	(BG)J	AE
6RA9*	3	6.3	20	(BG)J	AD
6RB11*	3	6.3	21	A(CF)J	DH
6RHH2	2	6.3	21	FG	DH
	2	6.3	21	AB	CD
6RHH8	3	6.3	19	FG	EH
	3	6.3	19	AB	CE
6RK19*	3	6.3	20	(BJ)	EN
6RP15*	3	6.3	22	(AB)GJ	CD
6RP22*	2	6.3	20	(BJ)(CH)FG	AE
6S4	3	6.3	24	CFJ	BE
6S6	3	6.3	24	ADN	GH
6S7	2	6.3	28	CDN	EGH
6S8	1	6.3	28	FN	BG
	1	6.3	40	A	BG
	1	6.3	40	D	BG
	1	6.3	40	C	EG
6S78	2	6.3	21	AB	CG
	2	6.3	21	DE	FG
6SA7	2	6.3	28	CDH	AFG
	2	6.3	24	DE	FGH
6SB7Y	2	6.3	22	DE	AFG
	1	6.3	34	CDH	EFG
6SC7	3	6.3	33	BC	FG
	3	6.3	38	DE	FG
6SD7	3	6.3	23	DFH	CEG
6SE7	2	6.3	23	DFH	CEG
6SF5	1	6.3	20	CE	BG
6SF7	1	6.3	40	E	CG
	3	6.3	30	BDF	CG
6SG7*	3	6.3	19	DFH	(CE)G
6SH7*	2	6.3	20	DFH	(CE)G
6SJ7	2	6.3	27	DFH	CEG
6SK7	3	6.3	30	DFH	CEG
6SL7	3	6.3	28	DE	FG
	3	6.3	28	AB	CG
6SN7	2	6.3	26	DE	FG
	2	6.3	26	AB	CG

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6SQ7	1	6.3	40	E	CG
	1	6.3	40	D	CG
	1	6.3	20	BF	CG
6SR7	2	6.3	30	BF	CG
	1	6.3	50	D	CG
	1	6.3	50	E	CG
6SS7	3	6.3	30	DFH	CEG
6ST7	2	6.3	28	BF	CG
	1	6.3	95	D	CG
	1	6.3	95	E	CG
6SU7	2	6.3	25	AB	CDEFH
	2	6.3	25	DE	ABCFH
6SV7	2	6.3	23	BDF	CH
	2	6.3	28	E	CH
6SZ7	1	6.3	50	E	CH
	1	6.3	50	D	CH
	1	6.3	21	BF	CH
6T1	2	6.3	21	(AG)(BF)	DE
6T4*	2	6.3	20	(AG)(BF)	CE
6T5	1	6.3	24	BC	EF
Eye CL	4	6.3	0	BD	CEF
Eye OP	4	6.3	0	D	BCEF
6T6M	2	6.3	22	CDN	GH
6T7	1	6.3	20	CN	GH
	1	6.3	40	D	GH
	1	6.3	40	E	GH
6T8	3	6.3	32	HJ	CEG
	1	6.3	20	F	CEG
	1	6.3	20	B	CEG
	1	6.3	20	A	CEG
6T9	3	6.3	20	HKL	JM
	1	6.3	19	BD	EM
6T10	3	6.3	19	HK	JLM
	1	6.3	21	CEFG	BM
6U3	3	6.3	17	J	CD
6U4	3	6.3	18	E	CG
6U5	2	6.3	34	BC	EF
Eye CL	4	6.3	0	BD	CEF
Eye OP	4	6.3	0	D	BCEF
6U6	3	6.3	24	CDE	GH
6U7	2	6.3	30	CDN	EGH
6U8	2	6.3	22	BCF	EG
No open element test on F.					
	2	6.3	22	AJ	EH
6U10	1	6.3	20	EG	FM
	2	6.3	23	JK	DM
	2	6.3	23	BL	CM
6V3	3	6.3	16	BGJ	EN
6V4	3	6.3	26	A	CE
	3	6.3	26	G	CE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6V6	3	6.3	29	CDE	AGH
6V7	3	6.3	46	N	GH
	1	6.3	50	D	GH
	1	6.3	50	E	GH
6V8	1	6.3	20	G	EH
	1	6.3	21	AF	CE
	2	6.3	22	B	CE
	2	6.3	65	J	CE
6W4	3	6.3	18	E	CH
6W5	3	6.3	25	C	GH
	3	6.3	25	E	GH
6W6	3	6.3	21	CDE	GH
6W7	1	6.3	20	CDN	EGH
6X4	3	6.3	30	F	DG
	3	6.3	30	A	DG
6X5	3	6.3	32	E	GH
	3	6.3	32	C	GH
6X6	2	6.3	41	E	GH
Eye CL	4	6.3	0	CD	EGH
Eye OP	4	6.3	0	D	CEGH
6X8	2	6.3	21	BC	EF
No open element test on J.					
	2	6.3	20	GHJ	AEF
6Y3G	4	6.3	47	N	G
6Y5	3	6.3	28	C	DF
	3	6.3	28	E	DF
6Y6	3	6.3	19	CDE	GH
6Y7	3	6.3	33	CD	GH
	3	6.3	33	EF	GH
6Y10	3	6.3	20	HKL	JM
	2	6.3	20	CEFG	BM
6Z3	3	6.3	24	B	CD
6Z4	3	6.3	26	B	DE
	3	6.3	26	C	DE
6Z5	3	6.3	25	C	BDF
(12Z5)	3	6.3	25	E	BDF
6Z7	3	6.3	32	CD	GH
	3	6.3	32	EF	GH
6Z10	3	6.3	20	BJL	CM
	4	6.3	56	DEFG	HM
6ZY5	3	6.3	36	C	GH
	3	6.3	36	E	GH
7A4	2	6.3	24	BF	GH
7A5	3	6.3	23	BCF	GH
7A6	1	6.3	28	C	BH
	1	6.3	28	F	GH
7A7	3	6.3	28	BCF	DGH
7A8	2	6.3	35	CD	GH
	2	6.3	44	BEF	GH
7AB7*	3	6.3	26	ACE	(DFH)G

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
7AD7	3	6.3	17	BCDF	EGH
7AF7	2	6.3	25	CD	BGH
	2	6.3	25	EF	BGH
7AG7	2	6.3	22	BCF	DEGH
7AH7	2	6.3	21	BCDF	GH
7AJ7	2	6.3	23	BCF	DGH
7AK7	2	6.3	22	BCDF	GH
7AN7	3	7.5	21	FJ	DGH
	2	7.5	20	BC	AD
Tube damaged if G or H is moved.					
7AU7	2	3.15	25	FG	DEH
	2	3.15	25	AB	CDE
7B4	1	6.3	22	BF	GH
7B5	3	6.3	29	BCF	GH
7B6*	2	6.3	25	BC	(DG)H
	1	6.3	58	E	(DG)H
	1	6.3	58	F	(DG)H
7B7	2	6.3	28	BCF	DGH
7B8	2	6.3	28	CD	GH
	2	6.3	34	BEF	GH
7C4	2	6.3	33	D	GH
7C5	3	6.3	29	BCF	GH
7C6*	3	6.3	33	BC	(DG)H
	1	6.3	40	E	(DG)H
	1	6.3	40	F	(DG)H
7C7	1	6.3	22	BCF	DGH
7CL8	2	7.5	22	AB	CD
	2	7.5	22	FGJ	DH
7D10	4	6.3	19	BGHJ	CE
7D11	3	6.3	21	CDE	GH
7DJ8	2	7.5	21	AB	CE
	2	7.5	21	FG	EH
7DZ7	3	7.5	22	ACD	GH
	3	7.5	22	DEF	GH
No open element test on C & F.					
7E5*	2	6.3	34	(AE)(CG)	(DF)H
7E6*	2	6.3	27	BC	(DG)H
	1	6.3	45	E	(DG)H
	1	6.3	45	F	(DG)H
7E7	3	6.3	36	BEF	GH
	1	6.3	40	C	GH
	1	6.3	46	D	GH
7ED7	2	7.5	20	BGHJ	ACE
7ES8	2	7.5	20	AB	CD
	2	7.5	20	FG	DH
7EY6	3	7.5	25	CDE	BH
7F7	1	6.3	20	CD	BH
	1	6.3	20	EF	GH
7F8	2	6.3	22	AC	DG
	2	6.3	22	FH	EG

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
7G7	2	6.3	22	BCDF	GH
7G8	2	6.3	24	BCD	EFGH
	2	6.3	24	CEG	BDFH
7GS7	3	7.5	19	FGJ	CEH
	3	7.5	21	AB	CEH
Tube damaged if C or H is moved.					
7GV7	3	7.5	17	BCG	EFH
	3	7.5	22	AJ	EFH
Tube damaged if F or H is moved.					
7H7	2	6.3	24	BCF	DGH
7HG8*	3	7.5	18	BJ	(AC)EH
	3	7.5	20	FG	(AC)E
7J7	2	6.3	30	CDE	GH
	2	6.3	30	BEF	GH
7K7	1	6.3	20	CD	BH
	1	6.3	39	E	GH
	1	6.3	39	F	GH
7KY6*	3	7.5	17	B(CJ)GH	AE
7KZ6*	3	7.5	18	B(CJ)GH	AE
7L7	2	6.3	26	BCF	DGH
7MP18*	3	7.5	20	(AG)EF	BC
7N7	2	6.3	26	CD	BH
	2	6.3	26	EF	GH
7Q7	2	6.3	25	CD	GH
	2	6.3	41	BEF	GH
7R7	2	6.3	22	BEF	GH
	1	6.3	50	C	GH
	1	6.3	50	D	GH
7S7	2	6.3	33	CD	GH
	2	6.3	23	BEF	GH
7SC7	3	7.5	33	BC	FG
	3	7.5	38	DE	FG
7V7	3	6.3	18	BCF	DGH
7W7*	2	6.3	24	BCF	(DG)EH
7X6	3	6.3	20	C	BH
	3	6.3	20	F	GH
7X7	1	6.3	21	BC	DGH
	1	6.3	20	E	DGH
	1	6.3	21	F	DGH
7Y4	3	6.3	33	C	GH
	3	6.3	33	F	GH
7Z4	3	6.3	34	C	GH
	3	6.3	34	F	GH
8A8	3	7.5	22	AJ	EH
	3	7.5	20	BCF	EG
8AC9	3	9.45	19	GJK	HLM
	1	9.45	19	BC	DM
	1	9.45	19	B	CM
8AC10	3	7.5	20	BL	CM
	3	7.5	20	EG	FM
	3	7.5	20	JK	DM

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
8AL9	3	7.5	20	EG	FM
	2	7.5	20	BDKL	JM
8AR11	3	7.5	18	JK	GHLM
	3	7.5	18	CE	BDFM
8AU8	2	7.5	22	GHJ	DF
	2	7.5	22	BC	AD
8AV11	2	7.5	23	BL	CM
	2	7.5	23	EG	FM
	2	7.5	23	JK	DM
8AW8	3	7.5	22	GHJ	DF
	3	7.5	24	BC	AD
8B8	2	7.5	22	AJ	EH
	3	7.5	20	CFG	BE
8B10	2	9.45	21	EF	GM
	2	9.45	21	CD	BM
	1	9.45	20	K	JM
	1	9.45	20	H	JM
8BA8	2	7.5	20	GHJ	EF
	1	7.5	18	BC	AE
8BA11	2	7.5	22	JL	KM
	2	7.5	22	DFG	HM
	2	7.5	23	BCE	HM
8BH8	2	7.5	20	GHJ	EF
	1	7.5	20	BC	AE
8BM11	3	7.5	21	BCDF	EM
	3	7.5	22	GHJL	KM
8BN8	2	7.5	21	A	BD
	1	7.5	18	GH	DJ
8BN11	3	7.5	18	CDEF	BM
	3	7.5	18	GJKL	HM
8BQ5	3	7.5	20	ABGJ	CD
8BQ11	3	7.5	18	BCDE	FM
	3	7.5	19	GHJK	LM
8BU11	3	7.5	18	CD	BM
	3	7.5	18	FG	EM
	3	7.5	18	HJK	LM
8CB11	3	7.5	19	JK	GHLM
	3	7.5	19	CE	BDFM
8CG7	2	7.5	24	FG	DH
	2	7.5	24	AB	CD
8CM7	2	7.5	24	FG	CE
	2	7.5	22	AH	EJ
8CN7	3	7.5	20	B	CDE
	3	7.5	20	A	CDE
	1	7.5	20	GH	DEF
8CS7	3	7.5	24	AC	DJ
	2	7.5	26	FG	DH
8CW5*	3	7.5	20	(AB)(FGH)J	CE
A, F or H is not used in some tubes.					
8CX8	1	7.5	19	GHJ	DF
	1	7.5	19	BC	AD

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
8CY7	1	7.5	20	FG	DH
	3	7.5	20	ABC	DJ
8D8	1	6.3	21	AFHJ	CE
No open element test on F.					
8DX8	2	7.5	20	AB	CE
	3	7.5	20	HJ	EFG
8EB8	2	7.5	22	GHJ	EF
	1	7.5	20	BC	AE
8EM5	3	9.45	18	ACFG	EG
8ET7	1	7.5	56	C	AE
	1	7.5	56	B	AE
	3	7.5	20	GHJ	EF
No open element test on J.					
8FE5	3	7.5	22	CDE	BH
8FQ7	2	7.5	23	FG	EH
	2	7.5	23	AB	CE
8FY7	3	7.5	19	CE	GM
	1	7.5	21	KL	JM
8GJ7*	3	9.45	21	HJ	(AC)E
	3	9.45	19	BG	(AC)EF
8GN8	3	7.5	19	GH	EFJ
	1	7.5	19	BC	AE
8GU7	3	7.5	22	FG	EH
	3	7.5	22	AB	CE
8HA6*	3	7.5	19	BG(FH)	ACEJ
Tube damaged if C or J is moved.					
8JE8	2	7.5	20	BC	AE
	3	7.5	19	GHJ	EF
8JT8	3	7.5	18	GH	EFJ
	1	7.5	19	BC	AE
8JU8	3	7.5	22	GH	EJ
	3	7.5	22	G	EH
	3	7.5	22	AB	CE
	3	7.5	22	A	BE
8JV8	3	9.45	18	GH	EFJ
	1	9.45	19	BC	AE
8K11	2	7.5	23	JK	DM
	1	7.5	20	BL	CM
	1	7.5	20	EG	FM
8KA8	3	9.45	19	FGHJ	CE
	2	9.45	21	AB	CE
8KR8	3	7.5	18	GHJ	EF
	3	7.5	18	BC	AE
8KS8	3	7.5	19	GH	EFJ
	1	7.5	20	BC	AE
8LC8	2	7.5	20	AB	CE
	2	7.5	20	FHJ	CEG
	2	7.5	20	FHJ	CEG
C should show short when tube is heated, Sec. 2.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
8LE8	2	7.5	19	FHJ	CGE
	2	7.5	19	FHJ	BCE
8LS6*	3	7.5	19	B(CJ)GH	AE
8LT8	1	7.5	18	H	EG
	1	7.5	18	F	EG
	3	7.5	19	BCJ	AE
8MD8	2	7.5	20	AJ	EG
	2	7.5	20	BH	EG
	2	7.5	20	CF	EG
8MU8	2	7.5	22	AJ	EH
	2	7.5	21	BCF	EG
8MV8	3	7.5	19	GH	EFJ
	1	7.5	20	BC	AE
8RHP1	2	7.5	22	AJ	EH
	3	7.5	20	CFG	BE
8SN7	2	7.5	26	AB	CG
	2	7.5	26	DE	FG
9A8	3	9.45	18	AJ	EH
	2	9.45	20	BCF	EG
9AH9*	3	9.45	28	BC	DM
	3	9.45	19	(EF)HJL	GM
9AK10	3	9.45	20	BL	CM
	3	9.45	20	EG	FM
	3	9.45	20	JK	DM
9AM10	3	9.45	20	JK	DM
	3	9.45	20	EG	FM
	3	9.45	20	BL	CM
9AQ8	1	9.45	18	AB	CD
	1	9.45	18	FG	DH
9AU7	2	4.7	25	FG	DEH
	2	4.7	25	AB	CDE
9BJ11	3	9.45	18	BCDF	EM
	3	9.45	18	GHJL	KM
9BR7	2	5	21	G	DEH
	2	5	21	F	DEH
	2	5	18	AB	CDE
9CL8	2	9.45	22	AB	CD
	2	9.45	22	FGJ	DH
9DK3*	3	9.45	18	(BG)	DN
9DZ8	1	9.45	20	AJ	EH
	3	9.45	20	CFG	BE
9EA8	2	9.45	20	BCF	EG
	2	9.45	20	AJ	EH
9ED4	1	7.5	26	HN	ABCEFGJ
Tube damaged if ABCEFG or J is moved.					
9EF6	1	9.45	17	CDE	BH
9GB8	2	9.45	22	FGH	EJ
	2	9.45	23	AB	CE
9GH8	2	9.45	17	AJ	EH
	2	9.45	17	BCF	EG

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
9GV7	3	9.45	17	BCG	EFH
	3	9.45	22	AJ	EFH
9GV8	3	9.45	20	FGJ	EH
	2	9.45	21	AB	CE
9JW8	2	9.45	20	BCF	EG
	2	9.45	21	AJ	EH
9KC6	3	9.45	23	FGJ	AE
9KG6*	4	9.45	21	●	EJ
	●(AH)(BG)(CF)K				
9KX6*	3	9.45	18	B(CJ)GH	AE
9KZ8	3	9.45	20	BGF	CE
	3	9.45	19	AJ	EH
9LA6*	3	9.45	19	B(CJ)GH	AE
9MD8	2	9.45	20	AJ	EG
	2	9.45	20	BH	EG
	2	9.45	20	CF	EG
9MHH3	2	9.45	22	BE	CG
	2	9.45	22	AF	CG
9ML8	2	9.45	20	CF	EG
	2	9.45	20	BH	EG
	2	9.45	20	AJ	EG
9MN8	3	9.45	22	BL	CM
	3	9.45	22	DK	CM
	3	9.45	22	FH	CM
9MP12	3	9.45	22	AEF	BD
9RA6*	3	9.45	22	(BG)J	AE
9RAL1*	2	9.45	20	(BC)	EJ
	2	9.45	24	FG	EH
9U8	2	9.45	22	BCF	EG
	2	9.45	22	AJ	EH
9X8	2	9.45	20	GHJ	AEF
	2	9.45	21	BC	EF
No open element test on J.					
10	3	7.5	56	BC	D
10AF11	3	9.45	20	KL	BJM
	2	9.45	21	FH	EM
	2	9.45	21	CD	GM
10AL11	3	9.45	20	HKL	JM
	1	9.45	19	CDFG	BM
10BQ5	3	9.45	22	ABGJ	CD
10C8	2	9.45	24	FGH	EJ
	1	9.45	22	AB	CE
10CW5*	3	9.45	20	(AB)(FGH)J	CE
A, F or H is not used in some tubes.					
10DE7	3	9.45	22	ABC	DJ
	2	9.45	26	FG	DH
10DR7	3	9.45	16	ABC	EJ
	1	9.45	19	FG	EH
10DX8	3	9.45	20	HJ	EFG
	2	9.45	20	AB	CE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
10EB8	2	9.45	22	GHJ	EF
	1	9.45	20	BC	AE
10EG7	2	9.45	21	AB	CG
	1	9.45	21	DE	FG
10EM7	1	9.45	20	DE	FH
	3	9.45	19	AB	CH
10EW7	3	9.45	30	FG	EH
	3	9.45	19	ABC	EJ
10FD7*	1	9.45	21	FG	EH
	3	9.45	18	A(BC)	EJ
10FR7*	3	7.5	19	A(BC)	EJ
	3	7.5	30	FG	EH
10GF7	1	9.45	20	HJ	AE
	3	9.45	18	BF	CE
10GK6*	3	7.5	20	BGH	A(CJ)E
10GN8	3	9.45	19	GH	EFJ
	1	9.45	19	BC	AE
10GV8	2	9.45	21	AB	CE
	3	9.45	20	FGJ	EH
10HA6*	3	9.45	19	BG(FH)	ACEJ
Tube damaged if C or J is moved.					
10HF8	3	9.45	19	GH	EFJ
	1	9.45	19	BC	AE
10JA5*	3	9.45	21	(BJ)(CK)F	DLM
Tube damaged if D or L is moved.					
10JA8	3	9.45	19	GH	EFJ
	2	9.45	20	BC	AE
10JT8	3	9.45	18	GH	EFJ
	1	9.45	19	BC	AE
10JY8	3	12.6	18	GH	EFJ
	3	12.6	18	BC	AE
10KR8	3	9.45	20	BC	AE
	3	9.45	20	GHJ	EF
10KU8	1	7.5	38	C	AE
	1	7.5	38	B	AE
	3	7.5	17	GHJ	EF
10L14	2	25	21	FG	EH
	2	25	21	AB	CE
10LB8	3	9.45	18	GH	EFJ
	2	9.45	25	BC	AE
10LD6*	2	9.45	21	●	AD
	●B(CJ)(FH)G				
10LE8	2	7.5	19	AHJ	BCE
	2	7.5	19	FHJ	CEG
10LM8	3	9.45	20	BCF	EG
	3	9.45	21	AJ	EH
10LW8	1	9.45	19	BC	AE
	3	9.45	20	GHJ	EF
10LY8	3	9.45	18	GHJ	EF
	1	9.45	18	BC	AE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
10LZ8	3	9.45	19	GH	EFJ
	2	9.45	20	Bc	AE
10P18*	3	50	19	(AB)(GH)J	CE
10T10	3	9.45	19	HK	JLM
	1	9.45	21	CEFG	BM
10Y	3	7.5	42	BC	D
10Z10	3	9.45	20	BJL	CM
	4	9.45	56	DEFG	HM
11AR11	3	12.6	18	JK	GHLM
	3	12.6	18	CE	BDFM
11BM8	1	9.45	20	CFG	BE
	1	9.45	20	AJ	EH
11BN11	3	12.6	18	CDEF	BM
	3	12.6	18	GHKL	HM
11BQ11	3	12.6	18	BCDE	FM
	3	12.6	19	GHJK	LM
11BT11	2	12.6	20	CJ	DM
	2	12.6	20	EG	FM
	3	12.6	20	BKL	FHM
11CA11	3	12.6	20	HKL	AJ
	3	12.6	20	DF	AE
	3	12.6	22	BC	AG
11CF11	3	12.6	19	CDE	FM
	3	12.6	19	BL	GM
	3	12.6	23	JK	HM
11CH11	3	12.6	17	BKL	FHM
	2	12.6	20	EG	FM
	2	12.6	20	CJ	EM
11CY7	3	9.45	20	ABC	DJ
	1	9.45	21	FG	DH
11DS5*	1	12.6	19	(AG)EF	BD
11FY7	1	12.6	21	KL	JM
	3	12.6	19	CE	GM
11HM7*	3	5	17	B(CJ)GH	ADE
11JE8	3	12.6	19	GHJ	EF
	2	12.6	20	BC	AE
11KV8	3	12.6	18	GHJ	EF
	2	12.6	20	BC	AE
11LQ8	3	9.45	18	BC	AE
	3	9.45	18	GHJ	EF
11LT8	1	12.6	18	H	GE
	1	12.6	18	F	GE
	3	12.6	19	BCJ	AE
11LY6*	3	9.45	19	B(CJ)GH	AE
11MS8	3	9.45	20	FGJ	EH
	2	9.45	21	AB	CE
11R3*	2	9.45	22	(BJ)	DN
12A	2	5	26	BC	D
12A4	2	6.3	20	BGJ	ADE
12A5	3	6.3	32	BCD	EF
12A6	3	12.6	32	CDE	GH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
12A7	2	12.6	29	BCN	FG
	1	12.6	20	E	DG
12A8	2	12.6	28	CDN	GH
	2	12.6	36	EF	GH
12AB5*	3	12.6	30	(AH)(CF)J	EG
12AC6	1	12.6	21	ABEF	DG
12AC10	3	12.6	20	BL	CM
	3	12.6	20	EG	FM
	3	12.6	20	JK	DM
12AD6	1	12.6	20	AEFG	BC
12AD7	1	6.3	22	AB	CDE
	1	6.3	22	FG	DEH
12AE6	1	12.6	40	F	BC
	1	12.6	40	E	BC
	1	12.6	22	AG	BC
12AE7	1	6.3	19	AB	CDE
	1	6.3	19	FG	DEH
12AE10	1	12.6	20	HKL	JM
	3	12.6	21	CEFG	BM
12AF3	4	12.6	18	BJ	EN
12AF6	1	12.6	20	ABEF	DG
12AF11	3	12.6	20	KL	BJM
	2	12.6	21	FH	EM
	2	12.6	21	CD	GM
12AH7	3	12.6	30	AC	BG
	3	12.6	30	EF	DG
12AH8	2	6.3	20	ABFG	CDE
	2	6.3	23	GH	CDE
12AJ6	1	12.6	38	F	BC
	1	12.6	38	E	BC
	1	12.6	20	AG	BC
12AJ7	3	12.6	22	ABFG	CE
	2	12.6	24	HJ	CE
12AL5	1	12.6	22	G	AD
	1	12.6	22	B	DE
12AL8	1	12.6	38	BF	CEG
	1	12.6	22	A	EJ
12AL11	3	12.6	20	HKL	JM
	1	12.6	21	CDFG	BM
12AQ5*	3	12.6	32	(AG)EF	BD
12AS5	3	12.6	19	BEFG	AD
12AT6	3	12.6	26	AG	BC
	1	12.6	35	F	BC
	1	12.6	35	E	BC
12AT7	2	6.3	24	FG	HJ
	2	6.3	24	AB	CJ
12AU6	2	12.6	22	ABEF	DG
12AU7	2	6.3	25	FG	DEH
	2	6.3	25	AB	CDE
12AV5	3	12.6	18	AEH	BC

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
12AV6	1	12.6	43	F	BD
	1	12.6	43	E	BD
	1	12.6	21	AG	BD
12AV7	2	6.3	21	FG	DEH
	2	6.3	22	AB	CDE
12AW6	2	12.6	22	AEFG	BD
No open element test on E.					
12AX3	3	12.6	23	DK	GM
12AX4	3	12.6	22	E	CG
12AX7	1	6.3	20	FG	DEH
	1	6.3	20	AB	CDE
12AY3	3	12.6	22	BG	EJ
J may show leakage.					
12AY7	1	6.3	22	FG	DEH
	1	6.3	22	AB	CDE
12AZ7	1	6.3	20	FG	DEH
	1	6.3	20	AB	CDE
12B4	2	6.3	21	BGJ	ADE
12B6	3	12.6	31	CN	GH
	1	12.6	58	D	GH
	1	12.6	58	E	GH
12B7	2	12.6	30	BCF	AH
12B8	2	12.6	26	CDN	AG
	3	12.6	26	EH	FG
12BA6	2	12.6	22	ABEF	DG
12BA7	3	12.6	18	AB	CEFGJ
	1	12.6	36	AFGJ	BCE
12BB14*	3	12.6	18	(AB)(FG)N	CEH
Tube damaged if C or H is moved.					
12BD6	2	12.6	27	ABEF	DG
12BE3	3	12.6	20	DK	GM
12BE6	2	12.6	24	EFG	BD
	2	12.6	24	A	BD
12BF6	2	12.6	34	AG	BD
	1	12.6	38	F	BD
	1	12.6	38	E	BD
12BF11	3	12.6	20	HKL	JM
	1	12.6	20	CEFG	BM
12BH7	2	6.3	21	FG	DEH
	2	6.3	21	AB	CDE
12BK5	2	12.6	22	ACGH	DF
12BK6	1	12.6	24	AG	BC
	1	12.6	32	E	BC
	1	12.6	36	F	BC
12BL6	1	12.6	20	AEF	BDG
Good tube reads above 30.					
12BN6	1	12.6	36	BEFG	AC
Good tube reads above 30.					
12BQ6	3	12.6	22	DEN	GH
12BR3*	4	12.6	18	(BJ)	EN

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
12BR7	2	6.3	23	G	DEH
	2	6.3	23	F	DEH
	2	6.3	21	AB	CDE
12BS3*	2	12.6	20	(BG)	EJ
12BT3	3	12.6	21	DK	GM
12BT6	1	12.6	22	AG	BC
	1	12.6	29	E	BC
	1	12.6	29	F	BC
12BV7*	3	6.3	20	BGH	A(CJ)DE
12BV11	2	12.6	20	BCDF	EM
	2	12.6	20	GJKL	HM
12BW4	4	12.6	20	G	EJ
	4	12.6	20	A	EJ
12BY7*	3	6.3	22	BGH	A(CJ)DE
No open element test on G.					
12BZ6	1	12.6	18	AEFG	BC
No open element test on E & G.					
12BZ7	1	63	19	FG	DEH
	1	6.3	19	AB	CDE
12C5	3	12.6	17	BEFG	AC
12C8	1	12.6	38	D	GH
	1	12.6	38	E	GH
	3	12.6	41	CFN	GH
12CA4	2	12.6	22	A	CD
	2	12.6	22	G	CD
12CA5	3	12.6	22	BEFG	AC
12CK3*	3	12.6	18	(BG)	EJ
12CL3*	3	12.6	18	(BG)	EJ
12CM6*	3	12.6	26	A(CF)J	EG
12CN5*	2	12.6	42	FG	A(BE)C
12CR6	3	12.6	30	EFG	AC
	1	12.6	32	B	AC
12CS6	1	12.6	20	AF	BC
	1	12.6	25	EG	BC
12CT3*	3	12.6	18	(BF)	EJ
12CT8	2	12.6	22	AB	CD
	2	12.6	22	FGH	DJ
12CU5	3	12.6	18	BEFG	AD
12CU6	3	12.6	23	DEN	GH
12CX6	2	12.6	22	AE½BCG	
12CX8	1	12.6	23	BEF	ACG
12D4	3	12.6	21	E	CG
12DB5*	2	12.6	24	A(CF)J	(BG)D
12DF5	1	6.3	31	A	CJ
	1	6.3	31	F	HJ
12DJ8	2	12.6	20	AB	CE
	2	12.6	20	FG	EH
12DK6	3	12.6	22	AEF	BCG
12DK7	1	12.6	20	CG	BE
	1	12.6	30	F	BE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
	1	12.6	40	J	BE
12DL8	1	12.6	20	CFG	BE
	1	12.6	40	A	EH
	1	12.6	40	J	EH
12DM4	3	12.6	22	E	CH
12DQ6	3	12.6	23	DEN	GH
12DQ7	3	12.6	22	BCGHJ	AE
12DS7	1	12.6	40	J	EH
	1	12.6	40	A	EH
	1	12.6	20	CFG	EH
12DT5	3	12.6	24	ACFJ	EG
12DT6	1	12.6	20	AEFG	BD
12DT7	1	6.3	20	AB	CDE
	1	6.3	20	FG	DEH
12DT8	2	12.6	21	FG	EH
	2	12.6	21	AB	CE
12DV7	1	6.3	22	FG	DEH
	1	6.3	67	B	ADE
	1	6.3	67	C	ADE
12DV8	1	12.6	20	CFG	BE
	1	12.6	35	A	EH
	1	12.6	35	J	EH
12DW4*	3	12.6	20	(BG)	EJ
12DW5	1	12.6	21	ACFJ	EG
12DW7	1	6.3	20	FG	DEH
	2	6.3	24	AB	CDE
12DY8	2	12.6	21	HJ	EG
	2	12.6	20	ACF	BE
12DZ6	1	12.6	20	AF	BDG
12DZ7	3	12.6	22	ACD	GH
	3	12.6	22	DEF	GH
No open element test on C & F.					
12E5	3	12.6	30	CE	GH
12E13	3	6.3	21	CDE	GH
12EA6	1	12.6	20	AF	BDG
12EC8	1	12.6	40	B	ACE
	1	12.6	57	FG	EHJ
12ED5	3	12.6	20	BEFG	AD
12EF6	4	12.6	18	CDE	GH
12EG6	1	12.6	20	AEG	BD
	1	12.6	21	F	BD
12EH5	3	12.6	20	BEFG	AD
12EK6	1	12.6	21	EF	DG
	1	12.6	20	AB	DG
12EL6	1	12.6	20	AB	DG
	1	12.6	45	E	DG
	1	12.6	45	F	DG
12EM6	1	12.6	19	ACF	BE
	1	12.6	38	J	BE
12EN6	1	12.6	19	CDE	GH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
12EQ7	2	12.6	22	ABFG	CE
	1	12.6	34	H	CE
Good tube reads above 25.					
12EZ6	1	12.6	18	AF	BDEG
	1	12.6	24	BE	DG
12F5	1	12.6	22	DN	GH
12F8	1	12.6	37	F	DG
	1	12.6	37	A	DG
	1	12.6	21	BCH	DGJ
12FK6	1	12.6	40	F	BD
	1	12.6	40	E	BD
	1	12.6	20	AG	BD
12FM6	1	12.6	55	G	ABD
	1	12.6	38	F	BD
	1	12.6	38	E	BD
12FQ7	2	12.6	23	FG	EH
	2	12.6	23	AB	CE
12FQ8	1	12.6	20	BC	AEFGHJ
	1	12.6	20	AB	CEFGHJ
	1	12.6	20	FG	ABCEHJ
	1	12.6	20	GH	ABCEFJ
12FR8	1	12.6	18	CFG	E
	1	12.6	20	AJ	BE
	1	12.6	44	H	BE
12FV7	3	6.3	19	FG	HJ
	3	6.3	19	AB	CJ
12FX5*	2	12.6	20	(BE)FG	AD
12FX8	1	12.6	25	CJ	EG
	1	12.6	19	FH	E
	1	12.6	19	AB	EG
12G11	1	12.6	20	CDFG	BM
	3	12.6	20	HKL	JM
12GB3	3	12.6	19	DE	GH
12GB7	3	12.6	18	DEN	GH
12GC6	3	12.6	20	DEHN	CG
12GE5*	3	12.6	19	B(CL)G	(DK)M
12GJ5*	3	12.6	20	(AG)(BF)N	CE
12GK17	3	12.6	22	E	CG
12GN7*	3	6.3	17	BH(CJ)	ADEG
12GT5*	3	12.6	19	(AG)(BF)J	CE
12GV5*	3	12.6	19	(CLG)(EJ)N	DKM
Tube damaged if D or K is moved.					
12GW6	3	12.6	20	DEN	GH
12H6	1	12.6	25	C	DG
	1	12.6	25	E	GH
12HB25*	3	12.6	19	•	EJ
				•(AB)(CH)(FG)N	
12HE7	3	6.3	18	EJL	HK
	1	6.3	19	B	DK
12HG7*	3	6.3	18	B(CJ)GH	AE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
12HL5*	3	12.6	18	(AB)GJ	CE
12HL7*	3	6.3	18	BGH(CJ)	ADE
12HU8	3	12.6	21	FHJ	EG
	3	12.6	21	ABC	EG
12J5	2	12.6	24	CE	GH
12J7	1	12.6	20	CDN	EGH
12J8	1	12.6	20	J	DG
	1	12.6	20	H	DG
	1	12.6	20	ACF	BD
12JB6*	3	12.6	19	(AG)(BF)HNCE	
12JF5*	3	12.6	20	B(CL)N	DKM
Tube damaged if D or K is moved.					
12JM6	3	12.6	20	CGL	BDKM
Tube damaged if D or K is moved.					
12JN6	3	12.6	20	CGL	BDKM
Tube damaged if D or K is moved.					
12JN8	3	12.6	20	GJ	EFH
	3	12.6	19	AB	CE
12JQ6*	1	12.6	23	F	DJ
	3	12.6	20	A(BC)(GH)	DJ
12SJ6*	3	12.6	18	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
12JT6*	3	12.6	20	(AG)BFJ	CE
12K5	1	12.6	20	BEFG	AD
12K7	3	12.6	34	CDN	EGH
12K8	1	12.6	22	EF	GH
	3	12.6	52	CDN	GH
12KG6*	4	12.6	21	•	EJ
				•(AH)(BG)(CF)N	
12KL8	1	12.6	48	H	CE
	2	12.6	20	ABFG	CE
12L6	3	12.6	22	CDE	GH
12LQ6	3	12.6	20	CDE	BG
	3	12.6	22	AEH	BG
12MD8	2	12.6	20	AJ	EG
	2	12.6	20	BH	EG
	2	12.6	20	CF	EG
12ML8	2	12.6	20	CF	EG
	2	12.6	20	BH	EG
	2	12.6	20	AJ	EG
12MX8	3	12.6	20	BFG	CE
	1	12.6	28	HJ	AE
12Q7	1	12.6	20	CN	GH
	1	12.6	40	D	GH
	1	12.6	40	E	GH
12R5	3	12.6	28	BEFG	AC
12RK19*	3	12.6	20	(BJ)	EN
12RLL3	2	6.3	22	AB	CDE
	2	6.3	21	FG	DEH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
12RLL5	2	12.6	23	FG	EH
	2	12.6	23	AB	CE
12S8	1	12.6	27	FN	BH
	1	12.6	34	D	BH
	1	12.6	37	A	BH
	1	12.6	39	C	EH
12SA7	2	12.6	35	CH	FG
	2	12.6	25	DE	FG
12SC7	1	12.6	20	BC	FG
	1	12.6	20	DE	FG
12SF5	1	12.6	20	CE	BG
12SF7	1	12.6	40	E	CG
	3	12.6	30	BDF	CG
12SG7*	3	12.6	19	DFH	(CE)G
12SH7*	3	12.6	19	DFH	(CE)G
12SJ7	1	12.6	20	DFH	CEG
12SK7	3	12.6	28	CDFH	EG
12SL7	3	12.6	28	DE	FG
	3	12.6	28	AB	CG
12SN7	2	12.6	29	DE	FG
	2	12.6	29	AB	CG
12SQ7	1	12.6	50	E	CG
	1	12.6	50	D	CG
	1	12.6	22	BF	CG
12SR7	3	12.6	27	BF	CG
	1	12.6	36	E	CG
	1	12.6	48	D	CG
12SW7	2	12.6	26	BF	CG
	1	12.6	43	D	CG
	1	12.6	43	E	CG
12SX7	2	12.6	25	DE	FH
	2	12.6	25	AB	CH
12SY7	2	12.6	32	ACH	FG
	2	12.6	26	DE	FG
12T10	3	12.6	19	HK	JLM
	1	12.6	20	CEFG	BM
12U7	1	6.3	25	AB	CDE
	1	6.3	25	FG	DEH
12V6	3	12.6	27	CDE	GH
12W6	3	12.6	21	CDE	GH
12X4	1	12.6	21	F	DG
	1	12.6	21	A	DG
12Z3	3	12.6	25	B	CD
13CM5*	3	12.6	19	(AD)EN	CHG
Tube damaged if C or H is moved.					
13CW4	1	12.6	18	BD	HM
13DE7	1	12.6	20	FG	EH
	1	12.6	18	ABC	EJ
13DR7	3	12.6	16	ABC	EJ
	1	12.6	19	FG	EH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
13EM7	1	12.6	22	DE	FH
	3	12.6	19	AB	CH
13FD7*	3	12.6	18	A(BC)	EJ
	1	12.6	21	FG	EH
13FM7*	1	12.6	20	KL	JM
	3	12.6	19	(CH)E	GM
13FR7	3	12.6	19	ABC	EJ
	3	12.6	30	FG	EH
13GB5*	3	12.6	19	(AB)(FG)N	CEH
Tube damaged if C or H is moved.					
13GC8	2	12.6	21	AB	CE
	2	12.6	21	FHJ	EG
13GF7	3	12.6	18	BF	CE
	1	12.6	20	HJ	AE
13J10	3	12.6	20	BJL	CM
	4	12.6	68	DEFG	HM
13JZ8*	3	12.6	20	D(FG)H	JM
	1	12.6	21	BK	LM
13V10	2	12.6	24	CFG	BEM
	3	12.6	23	HKL	JM
13Z10	3	12.6	20	BJL	CM
	4	12.6	68	DEFG	HM
14	2	12.6	30	BCN	DE
14A4	2	12.6	26	BF	GH
14A5	3	12.6	33	BCF	GH
14A7	2	12.6	30	BCDF	GH
14AF7	3	12.6	25	EF	BCDGH
	3	12.6	25	CD	BEFGH
14B6*	1	12.6	20	BC	(DG)H
	1	12.6	40	E	(DG)H
	1	12.6	40	F	(DG)H
14B8	2	12.6	34	CD	GH
	2	12.6	30	BEF	GH
14BL11	2	12.6	20	CJ	DM
	2	12.6	20	EG	FM
	2	12.6	20	BKL	HM
14BR11	2	12.6	20	BCL	DM
	2	12.6	20	FH	EM
	2	12.6	20	JK	GM
14C5	3	12.6	25	BCF	GH
14C7	2	12.6	28	BCF	DGH
14E6*	3	12.6	31	BC	(DG)H
	1	12.6	65	E	(DG)H
	1	12.6	65	F	(DG)H
14E7	2	12.6	28	BEF	GH
	1	12.6	58	C	GH
	1	12.6	58	D	GH
14F7	1	12.6	20	CD	BH
	1	12.6	20	EF	GH
14F8	3	12.6	22	AC	DG
	3	12.6	22	FH	EG

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
14GT8	1	12.6	20	HJ	EG
	1	12.6	20	F	AE
	1	12.6	20	B	CE
14GW8	3	12.6	20	CFH	EG
	1	12.6	20	AJ	BE
14H7	2	12.6	22	BCF	DGH
14J7	2	12.6	32	CDE	FGH
	3	12.6	33	BEF	GH
14JG8	2	12.6	23	HJ	EG
	1	12.6	19	F	AE
	1	12.6	19	B	CE
14N7	2	12.6	26	CD	BH
	2	12.6	26	EF	GH
14Q7	2	12.6	25	CD	GH
	2	12.6	30	BEF	GH
14R7	1	12.6	18	BEF	GH
	1	12.6	50	C	GH
	1	12.6	50	D	GH
14S7	2	12.6	28	CD	GH
	2	12.6	24	BEF	GH
14V7	3	12.6	18	BCF	DGH
14W7*	2	12.6	22	BCF	(DG)EH
14X7	1	12.6	20	BC	DGH
	1	12.6	20	E	DGH
	2	12.6	24	F	DGH
Good tube reads above 30.					
14Y4	3	12.6	28	C	GH
	3	12.6	28	F	GH
14Z3	3	12.6	25	B	CD
15	2	2	36	BCN	DE
15A6	1	12.6	20	ABFG	CE
15A8	2	12.6	24	DEN	BF
	2	12.6	27	CH	AB
15AF11	3	12.6	20	KL	BJM
	2	12.6	21	FH	EM
	2	12.6	21	CD	GM
15BD11	3	12.6	20	KL	BJM
	2	12.6	20	FH	EM
	2	12.6	21	CD	GM
15CW5*	3	12.6	20	(AB)(FGH)J	CE
A, F or H is not used in some tubes.					
15DQ8	2	12.6	20	AB	CE
	3	12.6	20	FHJ	EG
15EA7	1	12.6	20	DE	FH
	3	12.6	19	AB	CH
15EW6	2	12.6	20	AEFG	BD
15EW7	3	12.6	19	A(BC)	EJ
	3	12.6	30	FG	EH
15FM7*	3	12.6	19	(CH)E	GM
	1	12.6	20	KL	JM
15FY7	1	12.6	21	KL	JM

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
	3	12.6	19	CE	GM
15HA6*	3	12.6	19	BG(FH)	ACEJ
Tube damaged if C or J is moved.					
15HB6*	3	12.6	18	B(FH)	AE
	1	12.6	24	(CJ)G	AE
15KY8	1	12.6	28	HJ	AE
	3	12.6	20	BFG	CE
15LE8	2	12.6	19	AHJ	BCE
	2	12.6	19	FHJ	CEG
15MF8*	3	12.6	19	D(FG)H	JM
	1	12.6	19	BK	LM
15MX8	1	12.6	28	HJ	AE
	3	12.6	20	BFG	CE
16A	1	6.3	22	AEG	BD
16A5	3	12.6	18	BGJ	CD
16A8	2	12.6	20	CFG	BE
	3	12.6	26	AJ	EH
16AK9	3	7.5	21	EHJ	FG
	3	7.5	22	KL	FG
	3	7.5	30	BC	FG
16AQ3	3	19.6	20	ABCFGHJ	EN
No element test on top levers.					
16BQ11	3	12.6	18	BCDE	FM
	3	12.6	19	GHJK	LM
16BX11	2	12.6	21	GH	JM
	2	12.6	20	EF	DM
	2	12.6	20	BC	KLM
16CB28*	3	12.6	18	•	AB
		•(CL)(DK)(EJ)N			
16GK6*	2	19.6	20	BGH	A(CJ)E
16GY5*	3	12.6	18	C(EJ)GLN	(DK)M
16HB5*	3	12.6	18	B(CL)G	DKM
Tube damaged if D or K is moved.					
16KA6*	3	12.6	19	C(DL)EN	KM
16KH6	3	12.6	24	AB	DG
	3	12.6	20	BCJ	DG
	3	12.6	20	FHJ	DG
16LD6*	2	12.6	21	B(CJ)(FH)G	AD
16LU8*	1	12.6	19	BK	LM
	3	12.6	19	D(FG)H	JM
16MY8*	3	12.6	19	D(FG)H	JM
	1	12.6	19	BK	LM
17	3	12.6	40	BC	DE
17A8	2	12.6	20	BCF	EG
	2	12.6	18	AJ	EH
17AB10	4	19.6	55	DEFG	HM
	3	19.6	19	BJL	CM
17AV5	3	12.6	24	AEH	BC
17AX3	3	19.6	23	DK	GM
17AX4	3	12.6	28	E	CH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
17AY3	3	19.6	21	BG	EJ
J may show leakage.					
17BB14*	3	12.6	18	(AB)(FG)N	CEH
Tube damaged if C or H is moved.					
17BE3	3	19.6	20	DK	GM
17BF11	3	19.6	20	HKL	JM
	1	19.6	20	CEFG	BM
17BH3*	3	12.6	22	(BG)	EJ
17BQ6	3	12.6	21	DEN	GH
17BR3*	4	19.6	18	(BJ)	EN
17BS3*	2	12.6	20	(BG)	EJ
17BW3*	4	12.6	21	(DK)	GM
17BZ3*	3	12.6	20	(DK)	GM
17C5*	3	12.6	24	(BE)FG	AC
17C9	2	19.6	20	GHJ	EF
	2	19.6	20	ABC	EK
17CA5	3	12.6	22	BEFG	AD
17CK3*	3	12.6	18	(BG)	EJ
17CL3*	3	12.6	18	(BG)	EJ
17CT3*	3	19.6	18	(BF)	EJ
17CU5	3	12.6	19	BEFG	AD
17D4	3	12.6	21	E	CG
17DE4	3	19.6	22	E	CH
17DM4	3	19.6	21	E	CH
17DQ6	3	12.6	24	DEN	GH
17DW4*	3	12.6	20	(BG)	EJ
17EW8	2	19.6	20	FG	DH
	2	19.6	20	AB	CD
17GE5*	3	19.6	19	B(CL)G	(DK)M
17GJ5*	3	19.6	20	(AG)(BF)N	CE
17GT5*	3	19.6	19	(AG)(BF)J	CE
17GV5*	3	19.6	19	CGL(EJ)N	(DK)M
17GW6	3	19.6	20	DEN	GH
17H3	3	12.6	28	CH	AE
17HB25*	3	19.6	19	•	EJ
		•(AB)(CH)(FG)N			
17HC8	3	19.6	23	CFG	BE
	3	19.6	26	AJ	EH
17JB6*	3	19.6	19	(AG)(BF)HNCE	
17JF6*	3	12.6	18	(AG)(BF)HNCE	
17JG6*	3	12.6	18	(AG)BJ	CEF
17JM6	3	12.6	20	CEN	BDKM
Tube damaged if D or K is moved.					
17JN6	3	12.6	20	CGL	BDKM
Tube damaged if D or K is moved.					
17JQ6*	1	12.6	23	F	DJ
	3	12.6	20	A(BC)(GH)	DJ
17JR6*	3	19.6	18	(AG)BJ	CEF
17JT6*	3	12.6	20	(AG)BFJ	CE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
17JZ8*	3	19.6	19	D(FG)H	JM
	1	19.6	20	BK	LM
17KV6*	3	12.6	18	(AG)BFJ	CE
17L6	3	12.6	24	CDE	GH
17LD8	1	12.6	28	HJ	AE
	3	12.6	20	BFG	CE
17R5	3	12.6	24	BEFG	AC
17RHH2	2	19.6	20	AB	CD
	2	19.6	20	FG	DH
17RK19*	4	19.6	18	(BJ)	EN
17X10	4	19.6	55	DEFG	HM
	3	19.6	19	BJL	CM
17Z3	4	12.6	18	BJ	DN
18	3	12.6	31	BCD	EF
18A5	2	12.6	24	AEH	CG
18AJ10	3	19.6	22	HKL	JM
	1	19.6	20	CEFG	BM
18DZ8	1	19.6	20	AJ	EH
	3	19.6	20	CFG	BE
18FW6	2	19.6	21	ABEF	DG
18FX6	2	19.6	25	EFG	BD
	2	19.6	22	AFG	BD
18FY6	1	19.6	50	F	BD
	1	19.6	50	E	BD
	1	19.6	20	AG	BD
18GB5*	3	19.6	19	(AB)(FG)N	CEH
Tube damaged if C or H is moved.					
18GD6	2	19.6	20	ABEF	DG
18GV5*	3	19.6	19	(CGL)(EJ)N	DKM
Tube damaged if D or K is moved.					
18GV8	3	19.6	20	FGJ	EH
	2	19.6	21	AB	CE
18HB8	1	19.6	20	AC	BE
	3	19.6	22	FGJ	EH
18J6	1	19.6	23	AF	BDEG
	1	19.6	23	BE	ADFG
18RAL1*	2	19.6	20	(BC)	EJ
	2	19.6	24	FG	EH
19	3	2	37	BC	F
	3	2	39	DE	F
19A3	3	7.5	21	E	FG
19AJ8	2	19.6	22	ABFG	CE
	2	19.6	23	HJ	CE
19AQ5*	3	19.6	27	(AG)EF	BD
19AU4	4	19.6	22	E	CH
19BG6	3	19.6	26	EHN	CG
19C8	1	19.6	19	A	EG
	1	19.6	19	F	EG
	1	19.6	20	HJ	EG
	1	19.6	20	B	CE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
19CG3*	3	19.6	18	(DK)	GM
19CL8	2	19.6	21	FGJ	DH
	2	19.6	21	AB	CD
19DC8	1	19.6	36	H	CE
	1	19.6	36	G	CE
	2	19.6	22	ABFJ	CE
19DE3*	3	19.6	18	(DK)	MN
19DE7	2	19.6	26	FG	DH
	3	19.6	22	A(BC)	DJ
19DK3*	3	19.6	18	(BG)	DN
19DQ3*	3	19.6	18	(DK)	GM
19EA8	2	19.6	20	BCF	EG
	2	19.6	20	AJ	EH
19EZ8	1	19.6	20	HJ	D
	1	19.6	20	FG	D
	1	19.6	20	BC	AD
19FL8	2	19.6	22	ABFJ	CE
	1	19.6	42	G	CE
	1	19.6	42	H	CE
19FX5*	2	19.6	20	(BE)FG	AD
19GQ7	1	19.6	20	B	AE
	1	19.6	20	H	EJ
	1	19.6	20	F	EG
19HR6	3	19.6	18	ABEF	DG
19HS6	1	19.6	21	BEF	DG
	1	19.6	19	A	DG
19HV8	2	19.6	21	GJ	EFH
	1	19.6	21	AB	CE
19J6	2	19.6	24	BE	CG
	2	19.6	24	AF	CG
19JC6	2	19.6	19	BGHJ	ACE
Tube damaged if A or C is moved.					
19JN8	3	19.6	19	FGJ	EH
No open element test on F.					
	2	19.6	20	AB	CE
19KF6*	3	19.6	19	(AG)BFJ	CE
19KG8	3	19.6	19	GJ	EFH
	3	19.6	19	BA	CE
19MR9	2	19.6	20	ABEF	DG
19Q9	3	19.6	19	AB	CEK
	3	19.6	19	HJ	EG
19T8	1	19.6	21	HJ	CEG
	1	19.6	20	F	CEG
	1	19.6	20	B	CEG
	1	19.6	20	A	CEG
19U3	3	19.6	21	J	CD
19V8	1	19.6	19	B	CE
	1	19.6	19	G	EH
	1	19.6	22	AF	CE
	1	19.6	36	J	CE

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
19W3	3	19.6	21	J	CD
19X3	3	19.6	18	J	CD
19X8	2	19.6	22	BC	DF
	2	19.6	21	AGHJ	DF
19Y3*	3	19.6	20	(AGJ)	CE
20	2	6.3	48	BC	D
20AQ3	3	19.6	20	ABCFGHJ	EN
No element test on top levers.					
20D4	2	6.3	22	ABFG	CE
	2	6.3	23	HJ	CE
20EQ7	1	19.6	34	H	CE
Good tube reads above 25.					
	2	19.6	22	ABFG	CE
20EW7*	3	19.6	30	FG	EH
	3	19.6	19	A(BC)	EJ
20EZ7	1	9.45	20	GH	CJ
	1	9.45	20	EF	CD
20J8	1	19.6	19	CDEN	GH
	1	19.6	20	EF	GH
20LF6*	3	19.6	18	•	BM
		•(CL)(DK)(EJ)N			
21A6	3	19.6	16	ABFGHJN	CE
No open element test on N.					
21EX6	3	19.6	16	EHN	CG
21GY5*	3	19.6	18	(CGL)(EJ)N	(DK)M
21HA6*	3	25	19	BG(FH)	ACEJ
Tube damaged if C or J is moved.					
21HB5*	3	19.6	18	B(CL)G	(DK)M
21HD5*	3	19.6	19	(CL)(EJ)G	DKM
Tube damaged if D or K is moved.					
21HJ5*	3	19.6	18	(CL)(EJ)G	BDKM
Tube damaged if D or K is moved.					
21JS6*	3	25	19	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
21JV6*	3	19.6	18	(DK)CGL	BM
21JZ6*	3	19.6	18	(DK)CEN	BM
21KA6*	3	19.6	19	C(DL)EN	KM
21KQ6*	3	19.6	19	•	EJ
		•(AH)(BG)(CF)N			
21LG6*	3	19.6	20	(CL)(EJ)N	DKM
Tube damaged if D or K is moved.					
21LR8	3	19.6	19	BFG	CE
	1	19.6	19	HJ	AE
21LU8*	3	19.6	19	D(FG)H	JM
	1	19.6	19	BK	LM
21MY8*	3	19.6	19	D(FG)H	JM
	1	19.6	19	BK	LM
22	1	2.5	56	BCN	D
22BH3	3	25	22	BG	EJ

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
22BW3*	4	19.6	21	(DK)	GM
22DE4	3	25	22	E	CH
22JF6*	3	19.6	18	(AG)(BF)HNCE	
22JG6*	3	25	18	(AG)BJ	CEF
22JR6*	3	25	18	(AG)BJ	CEF
22JU8*	3	19.6	17	(AG)(BF)HNCE	
22KM6*	3	25	18	(AG)(BF)HNCE	
22KV6*	3	19.6	18	(AG)BFJ	CE
22JS6*	3	25	18	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
23MB6	3	25	18	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
23Z9		**IMPORTANT** = Due to several different filament center tap arrangements, data for this tube has been discontinued. Attempts at testing may cause filament burnout on some tubes. Therefore, we recommend direct substitution as the only safe test.			
24A	2	2.5	32	BCN	DE
24AX4	3	25	20	E	CH
24BF11	3	25	20	HKL	JM
	1	25	20	CEFG	BM
24GA7*	3	25	20	(BC)DG	EM
	3	25	24	L	HM
24JE6*	3	25	19	(AG)(BF)HNCE	
24JZ6*	3	25	19	D(FG)H	JM
	1	25	20	BK	LM
24LQ6*	3	25	17	(AG)(BF)HNCE	
24LZ6*	3	25	19	(AG)(BF)N	CE
25A6	3	25	27	CDE	GH
25A7	3	25	27	CDE	GH
	3	25	23	F	AG
25AC5	3	25	31	CE	GH
25AV5	3	25	18	AEH	BC
25AX4	3	25	20	E	CH
25B5	3	25	37	BD	EF
	3	25	46	CD	BEF
25B6	3	25	23	CDE	GH
25B8	2	25	25	CDN	AG
	2	25	25	EH	FG
25BB14*	3	25	18	(AB)(FG)N	CEH
Tube damaged if C or H is moved.					
25BK5	2	25	21	ACGH	DF
25BQ6	2	25	21	DEN	GH
25C5	2	25	20	BEFG	AD
25C6	3	25	25	CDE	GH
25CA5	3	25	17	BEFG	AD
25CD6	3	25	20	EHN	BC
25CG3*	3	25	18	(DK)	GM
25CK3*	3	25	18	(BG)	EJ

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
25CM3*	3	25	17	(BG)	EJ
25CT3*	3	25	18	(VF)	EJ
25CU6	3	25	23	DEN	GH
25D8	2	25	26	EF	AG
	2	25	26	CDN	AG
	1	25	22	H	AG
25DK3*	3	25	18	(BG)	DN
25DK4	4	25	26	E	CG
25DL3*	3	25	18	(BG)	DN
25DN6	3	25	17	EHN	CG
25DQ6	3	25	24	DEN	GH
25DT5	3	25	22	ACFJ	EG
25E5*	3	25	18	(AD)EN	CGH
Tube damaged if C or H is moved.					
25EC6	3	25	20	EHN	BC
25EH5	3	25	20	BEFG	AD
25F5	2	25	22	BEFG	AD
25GB6	3	25	21	DEK	GH
25GF6	3	25	16	DEN	GH
25HX5*	3	25	18	(AG)FJ	BCE
Tube damaged if B or C is moved.					
25JQ6*	3	25	20	A(BC)(GH)	DJ
	1	25	23	F	DJ
25JZ8*	3	25	19	D(FG)H	JM
	1	25	20	BK	LM
25KA6*	3	25	19	C(DL)EN	KM
25L6	3	25	22	CDE	GH
25MP20	3	25	20	AEF	BD
25N6	2	25	30	CDE	GH
25RK19*	4	25	18	(BJ)	EN
25W4	3	25	18	E	CG
25W6	3	25	17	CDE	BH
25X6	3	25	27	C	DG
	3	25	27	E	GH
25Y4	3	25	25	E	GH
25Y5	3	25	30	B	CF
	3	25	30	E	DF
25Z5	3	25	25	B	CF
	3	25	25	E	DF
25Z6	3	25	24	C	DG
	2	25	24	E	GH
26	2	1.4	38	BC	D
26A6	2	2.5	22	ABEF	DG
26A7	2	25	20	CDE	BG
	2	25	20	AEH	BG
26AQ8	2	25	21	FG	EH
	2	25	21	AB	CE
26C6	3	25	30	AG	BDEF
	1	25	36	E	ABDFG
	1	25	36	F	ABDEG

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
26D6	2	25	22	AF	BCED
	1	25	40	EFG	ABC
26DQ6*	1	25	19	(AE)(DH)N	CFG
Tube damaged if C or F is moved.					
26DQ6	3	25	22	DEN	GH
26HU5*	3	25	19	(AE)CN	BFH
Tube damaged if B or F is moved.					
26LW6*	3	25	17	(AE)CN	BFG
Tube damaged if B or F is moved.					
26LX6*	3	25	18	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
26Z5	4	25	18	F	HJ
	4	25	18	A	CJ
27	2	2.5	32	BC	DE
27GB5*	3	25	19	(AB)(FG)N	CEH
Tube damged if C or H is moved.					
27KG6*	4	25	21	•	EJ
		•(AH)(BG)(CF)N			
27LF6*	3	25	18	•	BM
		•(CL)(DK)(EJ)N			
28D7	2	25	22	BCD	FH
	2	25	22	CEG	FH
28EC4*	3	25	19	(BGH)	EN
28GB5*	3	25	19	(AB)(FG)N	CEH
Tube damged if C or H is moved.					
28HA6*	3	25	19	BG(FH)	ACEJ
Tube damaged if C or J is moved.					
28HD5*	3	25	19	(CL)(EJ)G	DKM
Tube damaged if D or K is moved.					
28Z5	3	12.6	38	C	GH
	3	12.6	38	F	GH
29	2	2.5	36	BC	DEF
29GK6*	2	25	20	BGH	A(CJ)E
Tube damaged if C or J is moved.					
29KQ6*	3	30	19	•EJ	
		•(AH)(BG)(CF)N			
29LE6*	3	25	19	•	DJ
		•(AH)(BF)(CF)			
30	2	2	35	BC	D
30A5	3	32	16	BEFG	AC
30AE3	3	32	20	ABCFGHJ	EN
No element test on top levers.					
30AG11	1	25	20	C	BM
	1	25	20	K	LM
	2	25	20	EF	DM
	2	25	20	GH	JM
30C18	3	7.5	17	BCG	EFH
	3	7.5	22	AJ	EFH
Tube damaged if F or H is moved.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
30CW5*	3	32	20	•	CE
		•(AB)(FJ)(GH)			
A, F or H is not used in some tubes.					
30HD5*	3	25	19	(CL)(EJ)G	DKM
Tube damaged if D or K is moved.					
30HJ5*	3	32	18	(CL)(EJ)G	BDKM
Tube damaged if D or K is moved.					
30JZ6*	3	32	18	(DK)CEN	BM
30KD6*	3	25	17	•	BM
		•(CL)(DK)(EJ)N			
30KG6*	4	25	21	•	EJ
		•(AH)(BG)(CF)			
30LE6	3	32	17	(AE)CN	BFG
Tube damaged if B or F is moved.					
30MB6*	3	32	18	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
30MP23*	3	32	20	(BE)FG	AC
30MP27*	3	32	20	(BE)FG	AC
30PL12	3	12.6	26	AJ	EH
	2	12.6	20	CFG	BE
31	2	2	40	BC	D
31AL10	2	12.6	24	BC	FG
	2	12.6	21	DEH	FG
	3	12.6	23	JL	FK
31JS6*	3	32	18	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
31LQ6*	3	32	17	(AG)(BF)HNCE	
31LR8	3	32	19	BFG	CE
	1	32	19	HJ	AE
31LZ6*	3	32	19	(AG)(BF)N	CE
32	2	2	42	BCN	D
32A8	1	32	20	CFG	BE
	1	32	20	AJ	EH
32ET5*	3	32	25	(BE)FG	AD
32GA7*	3	32	20	(BC)DG	EM
	3	32	24	L	HM
32HQ7	3	19.6	20	EJL	AHM
	1	19.6	20	B	ADM
32L7	3	32	21	CDE	GH
	3	32	18	F	AG
33	3	2	39	BCD	E
33GT7*	3	12.6	20	E(JL)K	AHM
	3	12.6	21	B	ADM
33GY7*	3	12.6	19	E(JK)L	AHM
	3	12.6	21	B	ADM
33HE7	3	32	18	EJL	HM
	1	32	19	B	DM
33JR6*	3	32	18	(AG)BJ	CEF
33JV6*	3	32	18	(DK)CGL	BM

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
34	2	2	40	BCN	D
34CD3*	3	32	18	(DK)	GM
34CE3*	1	32	18	(DK)	GM
34CM3*	3	32	17	(BG)	EJ
34DK3*	3	32	18	(BG)	DN
34GD5	3	32	21	BEFG	AD
34R3*	3	32	20	(BJ)	DN
35(51)	2	2.5	30	BCN	DE
35A5	3	32	22	BCF	GH
35B5	3	32	23	AEFG	BD
35C5	3	32	24	BEFG	AC
35CD6	3	32	17	EHN	BC
35DZ8	3	32	20	CFG	BE
	1	32	20	AJ	EH
35EH5	3	32	20	BEFG	AD
35GL6	2	32	22	BEG	AD
A normally shows leakage.					
35HB8	1	32	20	AC	BE
	3	32	22	FGJ	EH
35L6	3	32	20	CDE	GH
35LR6*	3	32	17	(CL)(EJ)N	BDKM
Tube damaged if D or K is moved.					
35W4	3	32	20	E	DFG
35Y4	3	32	23	B	GH
35Z3	3	32	22	B	GH
35Z4	3	32	20	E	GH
35Z5	3	32	21	E	GH
35Z6	3	32	20	C	DG
	3	32	20	E	GH
36	2	6.3	32	BCN	DE
36AM3	4	32	22	E	CG
36KD6*	3	32	18	•	BM
		•(CL)(DK)(EJ)N			
36LW6*	3	32	17	(AE)CN	BFG
36MC6*	3	32	18	(AG)(BF)HNCD	
37	3	6.3	37	BC	DE
38	3	6.3	36	BCN	DE
38A3*	3	32	21	(AFJ)	CD
38HE7	3	19.6	18	EJL	HK
	1	19.6	19	B	DK
38HK7	3	19.6	18	EJL	HK
	1	19.6	18	B	DK
39(44)	2	6.3	30	BCN	DE
40	1	5	28	BC	D
40FR5	3	32	22	BEFG	AD
40KD6*	3	32	17	•	BM
		•(CL)(DK)(EJ)N			
40KG6*	4	32	21	•	EJ
		•(AH)(BG)(CF)N			
40SUA	2	2	39	CDN	G

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
40Z5	3	32	20	E	BCH
(45Z5)					
41	3	6.3	32	BCD	EF
42	3	6.3	29	BCD	EF
42EC4*	3	32	19	(BGH)	EN
42KN6*	3	19.6	17	•	BG
	•(CL)(DK)(EJ)N				
43	3	25	31	BCD	EF
45	3	2.5	32	BC	D
45B5*	3	50	19	(AB)(GH)J	CE
45Z3	3	50	24	BF	DG
46	3	2.5	35	BCD	E
47	3	2.5	41	BCD	E
48	3	32	25	BCD	EF
49	2	2	38	BCD	E
50	3	7.5	42	BC	D
50A5	3	50	20	BCF	GH
50B5	3	50	20	AEFG	BD
50BK5	2	50	21	ACGH	DF
50BM8	1	50	20	CFG	BE
	1	50	20	AJ	EH
50C5	3	50	22	BEFG	AC
50C6	3	50	22	CDE	GH
50CA5	3	50	22	BEFG	AC
50CD4	3	50	23	E	CG
50EH5	3	50	20	BEFG	AD
50FA5	3	50	22	BEFG	AD
A normally shows leakage.					
50FE5	3	50	22	CDE	BH
50FK5	3	50	24	BEG	AC
50GY7*	3	25	19	E(JK)L	AHM
	25	21	B	ADM	
50HC6	3	50	19	BEG	AC
50HK6	3	50	20	BEG	AC
50JY6*	3	50	19	(AD)CEN	GH
50L6	3	50	21	CDE	GH
50X6	3	50	19	C	BH
	3	50	19	F	GH
50Y6	3	50	23	C	DG
	3	50	23	E	GH
50Y7	3	50	20	C	BD
	3	50	20	E	BH
50Z6	3	50	21	C	DG
	3	50	21	E	GH
50Z7	3	50	25	C	DFG
	3	50	25	E	FGH
52	3	6.3	30	BCD	E
53	3	2.5	32	BC	DG
	3	2.5	32	EF	DG

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
53HK7	3	25	18	EJL	HK
	1	25	18	B	DK
55	2	2.5	32	BN	EF
	1	2.5	49	C	EF
	1	2.5	40	D	EF
56	2	2.5	30	BC	DE
57	2	2.5	30	BCN	DEF
57A(AS)	3	6.3	34	BCN	DEF
58	3	2.5	35	BCN	DEF
58AS	3	6.3	35	BCN	DEF
58HE7	1	50	19	B	DM
	3	50	18	EJL	HM
59	3	2.5	29	BCDE	FG
60FX5	2	50	22	BEFG	AD
64	1	6.3	22	BCN	DE
65	2	6.3	28	BCN	DE
67	3	6.3	37	BC	DE
68	3	6.3	37	BCN	DE
70A7	3	70	23	CDE	FGH
A shows short.					
	3	70	20		AFG
Allow tube to heat up. Move levers F & G to top position. Good tube will kick to 70.					
70L7	3	70	18	CDE	FG
	3	70	17	H	AG
71A	3	5	47	BC	D
72	4	2.5	35	N	D
75	1	6.3	20	BN	EF
	1	6.3	38	C	EF
	1	6.3	38	D	EF
76	2	6.3	33	BC	DE
77	3	6.3	30	BCN	DEF
78	3	6.3	31	BCN	DEF
79	3	6.3	30	BC	DF
	3	6.3	30	EN	DF
80	3	5	55	B	D
	3	5	55	C	D
81	3	7.5	75	B	D
82(82V)	3	2.5	24	B	D
	3	2.5	24	C	D
83(83V)	3	5	26	B	D
	3	5	26	C	D
84	3	6.3	26	B	DE
	3	6.3	26	C	DE
85	3	6.3	45	BN	EF
	1	6.3	47	C	EF
	1	6.3	47	D	EF
86M	3	6.3	37	CE	GH
87S	2	6.3	33	BCN	DEF
88	3	5	26	B	D
	3	5	26	C	D

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
88M	3	6.3	31	CDN	EGH
88S	3	6.3	32	BCN	DEF
89	3	6.3	32	BCN	EF
89RS	3	6.3	36	BN	CEG
	1	6.3	24	D	CG
	1	6.3	24	F	CG
95	3	2.5	36	BCD	EF
98	3	6.3	26	B	DE
	3	6.3	26	C	DE
99	2	2.5	65	BC	D
(99XX99)					
99V	2	2.5	65	AC	D
(V99)					
113HY	1	1.4	45	BC	E
(123HY)					
114HY	3	1.4	55	N	G
115HY	1	1.4	45	BCD	E
(145HY)					
117L7/	3	110	20	F	AG
M7	3	110	25	CDE	GH
117N7	3	110	20	CDE	FGH
	3	110	15		GH
Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.					
117P7	3	110	22	CDE	FGH
	3	110	15		GH
Allow tube to heat up. Move lever G to top position. Good tube will kick to 70.					
117Z3	3	110	24	AE	DF
117Z4	3	110	19	E	GH
117Z6	3	110	20	C	DG
	3	110	20	E	GH
128A/	4	2.5	20	BC	DE
2523N1					
163PEN	3	12.6	18	BGJ	CD
182B	3	5	37	BC	D
(482B)					
183	3	5	40	BC	D
(483)					
201B	2	5	45	BC	D
201C	2	5	45	BC	D
210T	3	7.5	56	BC	D
230S	2	2	35	BC	D
232	2	2	42	BCN	D
233S	3	2	39	BCD	E
234S	2	2	40	BCN	D
257A	2	2.5	41	BN	D
262B	3	7.5	42	BN	CD

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
274A	3	5	36	B	D
	3	5	36	C	D
300B	3	5	21	BC	D
310B	2	7.5	28	BCD	AE
313C	4	Off	45	B	A
313CB	4	Off	53	B	AD
313CD	4	Off	44	B	AD
348A	1	6.3	24	CDEN	BH
376B	4	Off	37	E	BG
393A	4	2.5	20	DN	AB
396A	2	6.3	23	CD	BFGHJ
	2	6.3	23	FG	BCDHJ
403B	2	6.3	22	AEF	BCG
Tube damaged if B or G is moved.					
407A	1	19.6	20	CD	ABJ
	1	19.6	20	FG	AHJ
408A*	1	19.6	20	AEF	(BG)D
417A	2	6.3	20	ADEGH	FJ
427	3	2.5	44	BC	DE
428A	3	5	47	BC	D
484(485)	3	2.5	32	BC	DE
486	2	2.5	48	BC	DE
502A	3	6.3	19	CEF	GH
(GL502A)					
567	3	5	24	D	H
	3	5	24	F	H
585	3	7.5	42	BC	D
586	3	7.5	42	BC	D
615HY	3	6.3	33	N	G
Short top caps together.					
713A	2	6.3	25	DFH	CEG
717A	1	6.3	23	DFH	CEG
Z729	1	6.3	20	AFHJ	BCEG
800	3	7.5	54	N	D
Short top caps together.					
801	3	7.5	42	BD	D
802	3	6.3	29	CDN	EFG
807	3	6.3	25	BCN	DE
809	3	6.3	27	CN	D
811A	3	6.3	34	CE	D
Requires jumper from plate cap to pin 5 of any other tube socket.					
812	3	6.3	29	CN	D
816	4	2.5	19	N	A
837	3	12.6	25	CDN	EFG
840	2	2	33	BCN	DE
841	3	7.5	45	BC	D
842	3	7.5	54	BC	D
864	1	1.4	55	BC	DE
865	3	7.5	80	BCN	D

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
866(A)	3	2.5	25	N	D
GL874	4	.63	30	C	ABD
Good tube reads above 10.					
TJ880*	2	6.3	21	B(CJ)GH	AE
884	4	6.3	20	CE	GH
885	4	2.5	20	BC	DE
950	3	2	46	BCD	E
951	2	2	35	BCN	D
966	3	5	26	B	D
	3	5	26	C	D
1003	4	Off	22	E	CH
	4	Off	32	C	EH
1005/	4	6.3	26	E	F
CK1005					
	4	6.3	26	C	F
1006/	4	1.4	22	C	A
CK1006					
	4	1.4	25	B	A
CK1007	4	.63	21	C	G
	4	.63	21	E	G
CK1027	4	Off	27	DN	ABFG
1201*	2	6.3	34	(AE)(CG)	(DF)H
1203	1	6.3	33	D	GH
1204	2	6.3	26	ACE	DFGH
1221	1	6.3	22	BCN	DEF
1222	3	6.3	20	BCD	FG
1223	1	6.3	22	CDN	EGH
1229	1	2	25	BCN	D
1231	2	6.3	23	BCF	DGH
1232	2	6.3	22	BCDF	GH
1237	2	2.5	26	C	G
	2	2.5	26	F	G
1266	4	Off	95	E	BCG
Good tube reads above 10. No open element test on levers C & G. Tube normally shows short in short position.					
1267	4	Off	31	E	BG
1273	3	6.3	26	BCF	DGH
1274	4	6.3	19	C	GH
	4	6.3	19	E	GH
1275	3	5	30	B	CD
	3	5	30	C	BD
1280	3	12.6	26	BCF	DGH
1284	3	12.6	25	BCF	DGH
1291	1	1.4	33	BC	AH
	1	1.4	33	FG	AH
1293	2	1.4	32	BF	H
1294	1	1.4	57	D	GH
Good tube reads above 10.					
1299	2	1.4	30	BCF	AH
1603	1	6.3	23	BCN	DEF

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
1608	3	2.5	24	BC	D
1609	2	1.4	32	BCD	E
1610	3	2.5	28	BCD	E
1612	3	6.3	25	DN	GH
1614	3	6.3	24	CDE	GH
1616	3	2.5	57	N	D
1619	3	2.5	29	CDE	GH
1620	1	6.3	22	CDN	GH
1621	3	6.3	40	CDE	GH
1622	3	6.3	27	CDE	GH
1624	3	2.5	26	BCN	E
1625	3	12.6	25	CDN	FG
1626	3	12.6	32	CE	GH
1629	2	12.6	36	CE	GH
Eye OP	4	12.6	0	D	CEGH
Eye CL	4	12.6	0	CD	EGH
1631	3	12.6	27	CDE	GH
1632	3	12.6	22	CDE	GH
1633	2	25	28	AB	CG
1634	1	12.6	20	BC	FG
1635	2	6.3	26	CD	EFGH
	2	6.3	26	EF	CDGH
1642	2	6.3	29	CN	BG
	2	6.3	29	DE	FG
1654	1	1.4	41	N	A
1680	1	6.3	24	AF	BDEG
	1	6.3	56	EFG	ABD
1851	3	6.3	20	CDN	EGH
1852	3	6.3	21	DFH	CEG
No open element test on C & H.					
1853	3	6.3	23	DFH	CEG
2050/	3	6.3	17	CEF	GH
2051					
5516	3	2.5	25	CEN	BG
5591	2	6.3	22	AEF	BCG
Tube damaged if B or G is moved.					
CK5608A	2	2.5	26	BC	DG
	2	2.5	26	EF	DG
GL5610	2	6.3	22	AEF	BD
5618	3	2.5	21	BCDF	AG
5642	1	1.4	100	N	E
Insert bottom leads into pins 4 & 5 respectively. Use plate cap top lead.					
5651	4	Off	95	AE	BDG
Good tube reads above 30.					
5654*	2	6.3	22	AEF	(BG)C
5659	3	12.6	32	CDE	GH
5660	3	12.6	41	CFN	GH
	1	12.6	38	D	GH
	1	12.6	38	E	GH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
5662	3	6.3	23	AG	BDE
Filament switch must be in .63 position for short check.					
GL5663	2	6.3	32	AEG	BC
GL5670	2	6.3	23	CD	BFGHJ
	2	6.3	23	FG	BCDHJ
5679	3	6.3	31	C	ABH
	3	6.3	31	F	AGH
5686*	3	6.3	30	B(FJ)G	(ACH)D
5687	2	6.3	24	AB	CDEF
	2	6.3	24	GJ	BDEF
5690	3	6.3	17	C	BD
	3	6.3	17	E	GH
5691	3	6.3	28	AB	CG
	3	6.3	28	DE	FG
5692	2	6.3	26	AB	CG
	2	6.3	26	DE	FG
5693	2	6.3	27	CDFH	EG
CK5694	1	6.3	20	CD	AG
	1	6.3	20	EF	GH
5696	2	6.3	31	AF	BDEG
5722	2	5	47	AF	CD
5725	3	6.3	20	AEFG	BD
5726	1	6.3	23	G	AD
	1	6.3	23	B	DE
GL5727	3	6.3	18	AEFG	BD
5731	2	6.3	27	D	GH
5749	2	6.3	23	ABEF	DG
GL5750	2	6.3	22	A	BD
	2	6.3	22	EFG	BD
5751	1	6.3	22	AB	CDE
	1	6.3	28	FG	DEH
CK5755	1	6.3	65	AC	BDE
	1	6.3	65	FH	DEG
5763	3	6.3	19	ACFHJ	EG
5814	2	6.3	24	AB	CDE
	2	6.3	24	FG	DEH
GL5814	2	6.3	25	AB	CDE
	2	6.3	25	FG	DEH
5823	4	Off	30	A	CG
5824	3	25	18	CDE	AGH
5842	2	6.3	20	ADEGH	FJ
GL5844	1	6.3	18	AF	DG
	1	6.3	18	BE	DG
5845	1	2.5	85	E	ACD
	1	2.5	85	A	CDE
5847	1	6.3	21	AFH	DJ
5852	4	6.3	19	C	GH
	4	6.3	19	E	GH
5879	1	6.3	26	AGHJ	CD
5881	3	6.3	20	CDE	BH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
5910	1	1.4	26	BCF	AE
5915	1	6.3	24	AF	BDEG
	1	6.3	56	EFG	ABD
5920	2	6.3	21	BE	DG
	2	6.3	21	AF	DG
5930	3	2.5	24	BC	A
5963	2	6.8	25	AB	CDE
	2	6.3	25	FG	DEH
5964	3	6.3	16	AF	CG
	3	6.3	18	BE	CG
5965	1	6.3	18	FG	HJ
	1	6.3	18	AB	CJ
GL6005	3	6.3	24	AEFG	BD
6012	4	6.3	18	CEH	AG
No open element test on C & E.					
6028*	2	19.6	22	AEF	(BG)D
6072	1	6.3	22	FG	CDEH
	1	6.3	22	AB	CDEH
6073	4	Off	40	AE	BDG
Good tube reads above 10.					
6074	4	Off	95	AE	BDG
Good tube reads above 10.					
6080	3	6.3	20	AB	CH
	3	6.3	20	DE	FH
6082	3	25	15	DE	ABCFH
	3	25	15	AB	CDEFH
6084	1	6.3	21	AFHJ	CE
6085	1	6.3	20	FG	DEH
	1	6.3	20	AB	CDE
6086	1	12.6	18	ABFJ	CE
(18042)					
No open element test on J.					
GL6087	3	5	39	F	H
	3	5	39	D	H
6095	3	6.3	22	AEFG	BD
6096	2	6.3	22	AEF	BCG
6097	1	6.3	23	G	AD
	1	6.3	23	B	DE
6098	3	6.3	20	CEG	AH
6099/CT	1	6.3	23	BE	DG
	1	6.3	23	AF	DG
6100	2	6.3	25	AEF	DG
6101	1	6.3	18	BE	DG
	1	6.3	18	AF	DG
GL6134	3	6.3	21	DFH	CEG
6135	2	6.3	25	AEF	DG
6136	2	6.3	22	ABEF	DG
GL6137	3	6.3	24	DFH	CEG
6145	3	6.3	16	BCDF	GH

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6146*	3	6.3	23	CEN	(ADF)G
R6158A	1	1.4	98	N	ACDEFGH
Good = 26. For element test use levers G & N only.					
6159*	3	6.3	23	CEN	(ADF)G
6197	2	6.3	20	(BJ)(CH)FG	AE
6201	2	6.3	24	FG	HJ
	2	6.3	24	AB	CJ
6202	3	6.3	25	F	DG
	3	6.3	25	A	DG
6203	1	6.3	21	A	EGJ
	1	6.3	21	J	AEG
6211	1	6.3	18	AB	CDE
	1	6.3	18	FG	DEH
6216*	3	6.3	19	(AF)BG	(CH)E
6227	3	6.3	18	BGHJ	CD
6265	2	6.3	22	AEFG	BC
No open element test on E & G.					
6267	1	6.3	20	AFHJ	CE
No open element test on F.					
6293*	3	6.3	18	CEN	(ADF)G
6350	1	6.3	22	FH	DEG
	1	6.3	22	AC	BDE
6360	3	6.3	22	AFG	BCDEH
	3	6.3	22	CGH	ABDEF
6386	2	6.3	26	CD	BJ
	2	6.3	26	FG	HJ
6417	3	12.6	22	ACFHJ	EG
6463	2	6.3	21	FH	DEG
	2	6.3	21	AC	BDE
6485	2	6.3	22	ABEF	DG
6516	1	6.3	19	AEG	BC
6520	3	6.3	16	AB	CH
	3	6.3	16	DE	FH
6525	3	6.3	19	AEFG	BC
6550	3	6.3	21	CDE	GH
6659	4	Off	38	A	E
6660	2	6.3	23	ABEF	DG
6661	2	6.3	22	AEFG	BC
6662	2	6.3	22	AEFG	BD
6663	1	6.3	23	G	AD
	1	6.3	23	B	DE
6669	3	6.3	32	AEFG	BD
6677*	3	6.3	22	(BJ)(CH)FG	AD
6678	2	6.3	22	BCF	EG
	2	6.3	22	AJ	EH
No open element test on F.					
6679	2	6.3	24	AB	CJ
	2	6.3	24	FG	HJ

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
6680	2	6.3	25	AB	CDE
	2	6.3	25	FG	DEH
6681	1	6.3	20	AB	CDE
	1	6.3	20	FG	DEH
6686	3	6.3	19	BGHJ	CE
6688*	2	6.3	21	BGHJ	(AC)E
6689	2	6.3	20	ABFJ	CE
6829	3	6.3	20	AB	CDE
	3	6.3	20	FG	DEH
6883*	3	12.6	19	CEN	(ADF)G
6887	1	6.3	20	B	DE
	1	6.3	21	G	AD
6888	1	6.3	20	CDFH	EG
6893*	3	12.6	21	CEN	(ADF)B
6919	1	6.3	23	B	DE
	1	6.3	23	G	AD
6922	3	6.3	20	AB	CEJ
	3	6.3	20	FG	EHJ
6939	3	6.3	22	AFG	BDE
	3	6.3	22	CGH	BDE
6954	1	6.3	20	AEFG	BD
6973*	4	6.3	19	(AH)(CF)J	EG
7000	2	6.3	29	CDN	AEGH
7025	1	6.3	20	AB	CDE
	1	6.3	20	FG	DEH
7027*	4	6.3	18	(AD)C(EF)	GH
7036	1	6.3	20	AF	BD
	1	6.3	28	EG	BD
7044	2	6.3	19	AB	CDE
	2	6.3	19	GJ	FDE
7054	2	12.6	21	BCGHJ	AE
7055	2	12.6	23	G	AD
	2	12.6	23	B	DE
7056	2	12.6	21	AEFG	BD
7057	2	12.6	22	FG	EH
	2	12.6	22	AB	CE
7059	2	12.6	23	BCF	EG
	2	12.6	21	AJ	EH
7060	2	12.6	28	FGH	EJ
	2	12.6	23	AB	CE
7061*	3	12.6	22	(AH)(CF)J	EG
7062	2	16.3	21	AB	CJ
	2	6.3	21	FG	HJ
7105	3	12.6	15	AB	CH
	3	12.6	15	DE	FH
7119	4	6.3	19	GJ	DEF
	4	6.3	19	AB	CDE
7137	2	6.3	22	AEFG	BD
7167*	3	12.6	22	AEF	(BG)C
7189*	4	6.3	17	(AB)(FJ)G	CE
7193	2	6.3	24	N	GH
Short top caps together.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
7199	1	6.3	19	BCG	EF
	2	6.3	21	AJ	EH
7233	3	6.3	19	(ACFJ)(BG)	DH
7247	1	6.3	22	FG	DEH
	2	6.3	24	AB	CDE
7258	2	12.6	22	AB	CE
	2	12.6	21	FGH	EJ
No open element test on F.					
7308	1	6.3	20	AB	CE
	1	6.3	20	FG	EH
7316	2	6.3	24	AB	CJ
	2	6.3	24	FG	HJ
7355	3	6.3	19	CFH	EG
7360	2	6.3	20	BCFG	AEHJ
7408	3	6.3	24	CDE	AGH
7543	1	6.3	20	ABEF	CG
7551*	3	12.6	19	B(CH)FG	(AJ)E
7558*	3	6.3	19	B(CH)FG	(AJ)E
7581	3	6.3	20	CDE	BH
7586	2	6.3	19	BD	HM
7587	2	6.3	19	BDN	HM
No open element test on N.					
7591	3	6.3	20	CDFH	EG
7643	2	6.3	21	AJ	EH
	2	6.3	20	BCF	EG
7687	1	6.3	19	BCF	EG
No open element test on F.					
	2	6.3	23	AJ	EH
7695	3	50	21	AFJ	EG
7700	1	6.3	20	BCN	DEF
7701*	3	12.6	30	BF(GJ)	(ACH)E
7716	1	12.6	19	BC	AE
	3	12.6	19	GHJ	EF
7719	1	6.3	21	(AF)(BG)	(CH)DE
7751*	3	6.3	20	(AD)CE	BH
7754	3	6.3	20	AFJ	EG
7788*	3	6.3	17	B(FJ)GH	ACE
Tube damaged if A or C is moved.					
7796	2	6.3	20	AB	CJ
	2	6.3	20	FG	HJ
7868*	3	6.3	20	(AG)(BF)J	CE
7895	2	6.3	19	BD	HM
7896	3	6.3	20	FG	HJ
	3	6.3	20	AB	CJ
7905*	2	3.15	24	B(CH)	AGJ
Tube damaged if A or J is moved.					
7984*	3	12.6	19	•	BFHJM
		•(CDE)(GL)K			
8016	1	1.4	98	N	ACDEFGH
Use G & N only for element test.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
Good tube reads above 26.					
8032	3	12.6	23	CEN	ADFG
Tube damaged if AD or F is moved.					
8068	3	6.3	22	EHN	CG
8077*	2	12.6	21	B(CJ)GH	AE
8102	3	12.6	19	FGJ	EH
	3	12.6	19	AC	BE
8106	3	12.6	19	A(CH)G	(BFJ)E
8113	3	6.3	20	AEF	BDG
Tube damaged if B or G is moved.					
8136	3	6.3	19	AEF	BCG
8156	3	12.6	22	•	BFHJM
		•(CDE)(GL)K			
Tube damaged if BFH or J is moved.					
8233*	3	6.3	19	A(BF)CH	DGJ
Tube damaged if G or J is moved.					
8278*	3	6.3	19	(AH)(CG)J	BEF
Tube damaged if B or F is moved.					
8417	3	6.3	19	CDE	GH
8425	2	6.3	22	ABEF	DG
8552	3	12.6	23	CEN	ADFG
Tube damaged if A, D or F is moved.					
8908*	3	6.3	18	(AE)(BF)C	DH
8950	3	12.6	18	•	BFM
		•(CL)(DK)(EJ)N			
Tube damaged if B or F is moved.					
9001*	1	6.3	20	AEF	(BG)D
9002*	2	6.3	27	(AE)F	(BG)D
9003*	2	6.3	27	AEF	(BG)D
9004	1	6.3	20	D	EG
9005	1	2.5	34	E	DGH
9006*	1	6.3	25	AE	(BG)D
FOREIGN					
A1834	3	6.3	16	AB	CH
	3	6.3	16	DE	FH
AA91E	1	6.3	22	B	DE
	1	6.3	22	G	AD
ABC91	3	12.6	32	CDE	GH
AF	3	2.5	24	B	D
	3	2.5	24	C	D
AG	3	5	26	B	D
	3	5	26	C	D
B36	2	12.6	29	AB	CG
	2	12.6	29	DE	FG
B309	2	6.3	24	AB	CJ
	2	6.3	24	FG	HJ
B339	1	6.3	20	AB	CDE
	1	6.3	20	FG	CDE
Tube damaged if D or E is moved.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
D2M9	1	6.3	22	B	DE
	1	6.3	22	G	AD
E82CC	2	6.3	25	FG	DEH
	2	6.3	25	AB	CDE
E83CC	1	6.3	20	FG	DEH
	1	6.3	20	AB	CDE
E-90Z	3	6.3	30	F	DG
	3	6.3	30	A	DG
E92CC	1	6.3	20	BE	ADFG
	1	6.3	20	AF	BDEG
E188CC	1	6.3	20	AB	CE
	1	6.3	20	FG	EH
E810F*	3	6.3	17	B(FJ)GH	ACE
Tube damaged if A or C is moved.					
E-902	3	6.3	30	F	DG
	3	6.3	30	A	DG
EAF801	3	6.3	23	ABF	CDJ
	1	6.3	34	H	CD
ECC808	2	6.3	23	AC	BD
	2	6.3	23	GJ	DH
ECLL800	3	6.3	24	AB	DG
	3	6.3	20	BCJ	DG
	3	6.3	20	FHJ	DG
ED500	1	6.3	26	HK	ABCEFGJ
Tube damaged if ABCFG or J is moved.					
EF37A	3	6.3	28	CDEN	GH
EF804S	3	6.3	25	AGHJ	CD
EL32	3	6.3	29	CDE	AGH
EL-504*	3	6.3	19	(AB)(FG)N	CEH
Tube damaged if C or H is moved.					
EL-505*	4	6.3	21	•	EJ
	•(AH)(BG)(CF)N				
EL-508	3	6.3	20	DEN	GH
FM1000	1	6.3	20	BE	ACG
	1	6.3	35	DF	ACG
G4	1	2.5	45	B	DE
	1	2.5	45	C	DE
GA	3	5	32	BCD	E
HY69	4	6.3	20	BCD	E
HY1269	4	6.3	19	BCN	AE
KR1	3	6.3	24	B	CD
KR5	3	6.3	36	BCD	E
KR25	3	2.5	36	BCD	EF
KR98	3	6.3	26	B	DE
	3	6.3	26	C	DE
PZ	3	2.5	41	BCD	E
PZH	3	2.5	36	BCD	EF
R30	2	2	35	BC	D
R100	3	7.5	43	N	D
Short top caps together.					

Tube	Type	Fil.	Plate	Top (T)	Bottom (B)
RK33	3	6.3	27	DE	FG
	3	6.3	27	CN	BG
RK34	3	6.3	27	EN	DG
Top cap lead on left top cap.					
	3	6.3	27	CN	DG
Top cap lead on right top cap.					
UF89	2	12.6	23	BGH	CEJ
VR75	4	Off	30	E	BCG
Good tube reads above 10.					
VR90	4	Off	30	E	BCG
Good tube reads above 10.					
VR105	4	Off	30	E	BCG
Good tube reads above 10.					
VR150	4	Off	30	E	BCG
Good tube reads above 10.					
WL481	4	2.5	59	N	D
WNDA	3	6.3	35	BC	DEF
WNDC	3	2.5	35	BC	DEF
WX12	1	1.4	55	BC	D
XXB	2	1.4	40	CD	AH
	2	1.4	40	EF	AH
XXD	3	12.6	25	EF	BCDGH
	3	12.6	25	CD	BEFGH
XXFM	1	6.3	27	BC	DGH
	1	6.3	27	E	DH
	1	6.3	27	F	GH
XXL	2	6.3	24	BF	GH
Z2000	1	6.3	22	BE	CG
	1	6.3	22	AF	CG