

Tube Test Data For

CONAR

Tube Tester

Models 221 - 223 - 224

COLETRONICS



SERVICE INC.

1744 ROCKAWAY AVE.



HEWLETT, L.I., N.Y. 11557

CONAR TUBE TESTER
CONDENSED OPERATING INSTRUCTIONS

1. Plug in the tester to a commercial 120 VAC line.
2. Locate the tube to be tested in the Tube Data Manual.
3. Set the A, B, and D controls as indicated.
4. Insert the tube into the proper socket.
5. Turn the Line Adjust control for a center-scale reading on the meter (Adjust Line).
6. Check filament (heater) continuity by moving the Lever switch listed under "C" in tube data to the TEST position. The lamp must light if the filament is good. If the lamp lights, place the Lever switch in the "C" (up) position and readjust the ADJUST LINE control.
7. Test for cathode shorts by placing the Lever switch(es) listed under CATH SHORTS to the TEST position. The lamp must NOT light. Return the switch(es) to the NORMAL position.
8. Test for element continuity by placing the Lever switches listed under CONT TEST (if any) one by one in the TEST position and then return the switches to the NORMAL position. The lamp should light for each switch designated.
9. Place each Lever switch indicated in the TEST column in the TEST position. The lamp must NOT light for any of these switches. Leave all switches in the TEST position.
10. If the tube passes all of the above tests, press the red pushbutton switch to read the relative condition of the tube on the meter.
11. Refer to the Operating Manual for more detailed instructions.

**KEY TO LETTER ABBREVIATIONS INDICATING
TUBE SECTION UNDER TEST**

a—Amp.	h—Heptode	o—Output	r—Rectifier
d—Diode	he—Hexode	p—Plate	s—Section
e—Eye	i—Input	pe—Pentode	te—Tetrode
			to—Total

TUBE	CATH				TEST	TEST	CATH				TEST			
	A	B	C	D			SHORTS	A	B	C		D	SHORTS	
OA4	4	18	-	14	2	5	1DG3	4	1	3-5	80	10		
OZ3	p	4	18	-	16	4	"	No short test					2	
"	p	4	18	-	16	4	"	Good tube reads above 20					3	
"	Cont test 1-8						1DK1	1	2	4	95	10		
OZ4	p	4	18	-	16	8	"	Insert bottom leads into pins					3	
"	p	4	18	-	16	5	"	4&5 of 9 pin socket.					5	
1	3	8	1	20	3	2	"	Cap goes to top lead.					2	
1AD2	4	2	*	90		10	1DK29	1	2	4	95	10		
"	*3-9-12						"	Insert bottom leads into pins						
"	Cont test 1-2-5-6-7-8-11						"	4&5 of 9 pin socket.						
1AH5	pe	2	2	7	36	4-5-6	"	Cap goes to top lead.						
"	d	1	2	7	20	3	1DN5	pe	2	2	1	26	2-3-6	
1AJ4	2	2	7	20		2-3-6	"	d	1	2	1	66	4	
"	Cont test 1-5						1E4	2	2	2	20		3-5	
1AN5	2	2	7	18		2-3-4-6	1G3	4	2	2	42		10	
"	Cont test 1-5						1H5	d	1	2	2	16		5
1AU2	r	4	2	4	60	1-9	"	p	1	2	2	10		3-10
"	Ignore glow on 9						1H35	2	2	7	20		*	
1AX2	4	2	*	42		10	"	*2-3-4-5-6						
"	*2-5-8						1J3	4	2	2	70		10	
"	Cont test 1-4-6-9						1K3	4	2	2	94		10	
1AY2	4	2	1	34		10	1N2	4	2	2	74		10	
"	Insert tube into pins 1&6 of						1R5	1	2	7	10		2-3-4-6	
"	9 pin socket						"	Cont test 1-5						
1B3	4	2	2	44		10	1RK23	4	2	*	34		10	
1B8	d	1	2	2	16	8	"	*2-5-8						
"	t	2	2	2	24	6-10	1RK41	4	2	2-5-8	40		10	
"	pe	2	2	2	20	3-4-5	"	Must show short on 3-7						
1BC2	4	2	5-8	34		10	"	Cont. test 1-4-6-9						
"	Cont test 1-4-6-9						1S2	4	2	*	34		10	
"	Good tube reads above 20						"	*2-5-8						
1BG2	1	2	4	95		10	"	Cont test 1-4-6-9						
"	Insert bottom leads into pins						1S4	2	2	7	28		2-3-4-6	
"	4&5 of 9 pin socket						"	Ignore glow on 2						
"	Cap goes to top lead						"	Cont test 1-2-5-6						
1BK2	4	2	2-5-8	40		10	1S5	pe	1	2	1	10		4-5-6
"	Must show short on 3-7						"	d	1	2	1	20		3
"	Cont. test 1-4-6-9						1T4	2	2	7	20		2-3-6	
1BQ2	4	2	*	44		10	"	Cont test 1-5						
"	*2-5-8						1U4	2	2	7	20		2-3-6	
"	Cont. test 1-4-6-9						"	Cont test 1-5						
1BX2	4	2	2-5-8	40		10	1U5	pe	2	2	1	22		2-3-6
"	Cont. test 1-2-4-5-6-8-9						"	d	1	2	1	20		4
1BY2	4	2	*	58		10	1V2	1	1	4	76		1-8-9	
"	*8-12 - No short test						"	Must show short on 1-9						
"	Good tube reads above 30						"	Ignore glow on 1-8						
1C2	2	2	7	16		*	"	Good tube reads above 20						
"	*2-3-4-5-6						1X2	4	2	*	40		10	
"	2	2	7	20		3-4-5	"	*2-5-8						
1C3	2	2	7	20		*	"	Cont test 1-2-4-5-6-8-9						
"	*2-3-4-5-6						2A3	3	4	1	20		2-3	
1C5	2	2	2	18		3-4-5	2AH2	4	4	*	50		10	
1D13	d	1	2	1	16	3	"	*3-9-12						
"	Must show short on 2						"	Cont test 1-2-5-6-7-8-11						

TUBE	A	B	C	D	CATH SHORTS	TEST	TEST	A	B	C	D	CATH SHORTS	TEST	
2AS2	4	4	*	30		10	2X3	3	4	2	30		4	
"	*3-8-12						2Y3	3	4	2	28		4	
"	No short test						2Z2	3	4	1	40		2	
2AV2	4	3	4	36		1-9	3A3	4	5	2	32		10	
"	Ignore glow on 1						"	Good tube reads above 20						
"	Cont test 1-9						3AL5	d	1	5	3	12	1	7
2AZ2	4	3	*	36		10	"	d	1	5	3	12	5	2
"	*2-5-8						3AT2	4	5	*	46		10	
"	Cont test 1-6-9						"	*8-12						
2BA2	4	3	4	28		1-9	"	Cont test 1-2-5-6-8-9-12						
"	Ignore glow on 1						3AU6	3	5	3	14	7		1-2-5-6
"	Cont test 1-9						3AV6	t	3	5	3	22	2	1-7
2BJ2	4	3	*	36		10	"	d	1	5	3	16		5
"	*2-5-8						"	d	1	5	3	16		6
"	Cont test 1-4-6-9						3AW2	4	5	*	26		10	
2BN4	2	3	3	14	1-6	2-5-7	"	*8-12 - Cont test 2-5-6-9						
"	Ignore glow on 2						3AW3	4	5	2	58			10
"	Cont test 1-2-6-7						3BC5	2	5	3	14	2-7		1-5-6
2BU2	4	3	*	30	**	10	"	Cont test 2-7						
"	*8-12						3BE6	to	2	5	3	16	2	1-5-6-7
"	*1-2-5-7-9						"	t	2	5	3	18		1-6
"	Cont test 1-2-5-7-8-9-12						3BH2▲	4	4	*	31			10
2CN3	4	2	2	30		10	"	*2-4-8						
"	Cont test 3-5						3BL2	4	5	*	50			10
2CW4	1	3	10	10	8	2-4	"	*8-12						
2CY5	2	4	3	14	2-7	1-5-6	"	Cont test 1-2-5-6-9						
2DL4	2	3	4	16	2	*	3BM2	4	5	*	22			10
"	*1-3-6-7-8-9						"	*8-12						
"	Ignore glow on 1-3-6-7-8						"	Cont test 2-5-6-8-9						
"	Cont test 1-3-6-7-9						3BN2	4	5	*	34			10
2DS4	1	3	10	8	8	2-4	"	*8-12						
2DV4	1	3	10	8	7	1-2-4-6	"	Cont test 2-5-6-9						
"	Ignore glow on 1-4						3BN4	2	4	3	14	1-6		2-5-7
2DZ4	3	4	4	16	5	1-2-6-7	"	Ignore glow on 2						
"	Cont test 1-7 & 2-6						"	Cont test 2-7						
2EG4	1	2	10	10	8	2-4	3BN6	4	5	3	38	1		2-5-6-7
2EV5	3	3	3	26	2-7	1-5-6	3BS2	4	5	*	28			10
"	Cont test 2-7						"	*8-12						
2FH5	2	4	3	14	1-7	2-5	"	Cont test 2-5-6-9						
"	Cont test 1-7						3BT2	4	4	*	37	**		10
2FQ5	2	4	3	12	1-7	2-5	"	*8-12						
"	Cont test 1-7						"	*1-2-5-6-9						
2FS5	2	4	3	14	2-7	1-5-6	"	Cont test 1-2-5-6-8-9-12						
"	Cont test 2-7						3BU8	2	5	4	14	1		2-7-8-9
2FV6	2	4	3	14	7	1-5-6	"	2	5	4	14			2-3-6-7
2FY5	2	4	3	14	1-7	2-5	3BW2	4	4	*	37	**		10
"	Cont test 1-7						"	*8-12						
2GK5	2	4	3	14	1-7	2-5	"	*1-2-5-6-9						
"	Cont test 1-7						"	Cont test 1-2-5-6-8-9-12						
2GU5	2	4	4	14	2-7	1-5-6	3BY6	3	5	3	16	2		1-6
"	Cont test 2-7						"	3	5	3	16			1-5-6-7
2GW5	t	2	4	3	16	5	1-2-6	3BY7	2	5	4	14	1-3	2-7-8
"	Ignore glow on 2						"	Cont test 1-3						
2HA5	3	4	4	14	2-7	1-5	3BZ6	2	5	3	14	2		1-5-6-7
"	Cont test 2-7						3CA3	d	4	5	2	45		
2HK5	2	4	4	14	2-7	1-5	3CB6	2	5	3	14	2		1-5-6-7
"	Cont test 2-7						3CE5	2	5	3	14	2-7		1-5-6
2HM5	3	4	4	14	2-7	1-5	"	Cont test 2-7						
"	Cont test 2-7						3CF6	2	5	3	14	2		1-5-6-7
2HQ5	t	2	4	3	14	2-7	1-5							
"	Ignore glow on 2-7													
2HR8	2	4	4	18	3	1-6-9								
"	Cont test 2-7													
2W3	2	4	2	20		4								

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST
3CN3	4	5	2	30		10	3GU5	2	5	4	14	2-7	1-5-6
"	Cont test 3-5						"	Cont test 2-7					
3CU3	4	5	2	28		10	3GW5	t 2	4	3	16	5	1-2-6
"	Cont test 8						"	Ignore glow on 2					
3CV3A	4	5	2	42		10	3HA5	3	5	4	14	2-7	1-5
3CX3	4	5	3-5	34	*	10	"	Cont test 2-7					
"	*3-4-5-6-8						3HK5	2	5	4	14	2-7	1-5
3CY3	4	5	2	36	*	10	"	Cont test 2-7					
"	*1-2-3-5-7						3HM5	3	5	4	14	2-7	1-5
"	Must show short on 1-2-3-5-7						"	Cont test 2-7					
3CY5	2	4	3	14	2-7	1-5-6	3HM6	pe 3	5	4	14	1-3	2-7-8-9
3CZ3	4	5	2	38	*	10	3HQ5	t 2	5	3	14	2-7	1-5
"	*2-7-8						"	Ignore glow on 2-7					
3D6	2	2	7	16		2-3-6	3HS8	pe 3	5	4	18	1	2-3-6-7
"	Cont test 1-8						"	pe 3	5	4	18	1	2-7-8-9
3DA3	4	5	3-5	30		10	3HT6	p 3	4	4	14	1-3	2-7-8-9
"	Cont test 3-4-5-6-8						"	Ignore glow on 1					
3DB3	4	5	2	52	*	10	3JC6	2	5	5	14	1-3	2-7-8
"	*1-2-3-5-7						"	Cont test 1-3					
3DC3	4	4	2	28		10	3JD6	3	5	5	14	1-3	2-7-8
"	Must show short on 1-2-3-5-7						"	Cont test 1-3					
3DF3	4	5	3-5	24		10	3KF8	pe 3	6	4	14	1	2-3-6-7
"	Good tube reads above 30						"	pe 3	6	4	14	1	2-7-8-9
"	No short test						3KT6	2	5	4	16	1-3	2-7-8
3DG4	p 2	5	1	14		7	3MP26	3	5	3	16	2	1-5-6
"	p 2	5	1	14		5	3MR24	2	5	3	18	2	1-5-6-7
3DH3	4	5	3-5	36		10	3MV7	2	5	3	18	2	1-5-6-7
"	Cont test 3-4-5-6-8						3Q4	2	2	5	18		2-3-4-6
"	No short test					5	"	Ignore glow on 2					
3DJ3	1	3	2	88		10	"	Cont test 1-2-6-7					
"	Good tube reads above 20						3Q5	3	2	8	26		3-4-5
"	No short test						"	Cont test 2-7					
3DK6	2	5	3	14	2	1-5-6-7	3S4	2	2	5	18		2-3-4-6
3DR3	4	5	3-5	38		10	"	Ignore glow on 2					
"	Cont test 2-3-5-6-8						"	Cont test 1-2-6-7					
3DS3	4	5	35	36		10	3V4	2	2	5	18		2-3-6
"	No short test						"	Cont test 1-7					
3DT6	2	5	3	16	2	1-5-6-7	4AB8	t 2	6	4	18	3	1-2
3DZ4	3	5	4	16	5	1-2-6-7	"	pe 2	6	4	16		6-8-9
"	Cont test 1-7 & 2-6						4AF4	2	6	3	14	5	1-2-6-7
3EH7	2	5	4	17	1-3	2-7-8-9	"	Ignore glow on 1-2					
"	Cont test 1-3						"	Cont test 1-2-6-7					
3EJ7	2	5	4	12	1-3	2-7-8-9	4AU6	3	6	3	14	7	1-2-5-6
"	Cont test 1-3						4AV6	t 2	6	3	16	2	1-7
3ER5	2	4	3	14	1-7	2-5-6	"	d 1	6	3	16		5
"	Cont test 1-7						"	d 1	6	3	16		6
3ES5	2	5	3	14	1-7	2-5-6	4BC5	2	6	3	14	2-7	1-5-6
"	Cont test 1-7						4BC8	t 2	6	4	14	8	6-7
3EV5	1	4	3	10	2-7	1-5-6	"	t 2	6	4	14	3	1-2
"	Cont test 2-7						4BE6	to 2	6	3	16	2	1-5-6-7
3FH5	2	5	3	14	1-7	2-5	"	t 2	6	3	20		1-6
"	Cont test 1-7						4BL8	t 2	7	4	14	8	1-9
3FQ5	2	4	3	14	1-7	2-5	"	p 2	7	4	14	7	2-3-6
"	Cont test 1-7						4BN4	2	6	3	14	1-6	2-5-7
3FS5	2	5	3	14	2-7	1-5-6	"	Cont test 1-2-6-7					
"	Cont test 2-7						"	Ignore glow on 2					
3FY5	2	5	3	14	1-7	2-5	4BN6	4	6	3	38	1	2-5-6-7
"	Cont test 1-7						4BQ7	t 2	6	4	14	8	6-7
3GK5	2	4	3	14	1-7	2-5	"	t 2	6	4	14	3	1-2
"	Cont test 1-7						4BS8	t 2	6	4	14	8	6-7
3GS8	pe 2	5	4	14	1	2-7-8-9	"	t 2	6	4	14	3	1-2
"	pe 2	5	4	14		2-3-6-7							

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST
4BU8	pe	2	6	4	14	1	2-7-8-9	4HT6	p	3	6	4	14	1-3	2-7-8-9
"	pe	2	6	4	14		2-3-6-7	"	Ignore glow on	1					
4BX8	t	2	6	4	14	8	6-7	4JC6	"	2	6	5	14	1-3	2-7-8-9
"	t	2	6	4	14	3	1-2	"	Cont test	1-3					
4BZ6	"	2	6	3	14	2	1-5-6-7	4JD6	"	3	6	5	14	1-3	2-7-8-9
4BZ7	t	2	6	4	14	8	6-7	"	Cont test	1-3					
"	t	2	6	4	14	3	1-2	4JH6	"	3	6	3	14	2	1-5-6
4BZ8	t	2	6	4	14	8	1-2	4JK6	"	2	6	4	14	2	1-5-6-7
"	t	2	6	4	14	3	6-7	4JK8	t	2	6	5	14	3	1-2
4CB6	"	2	6	3	14	2	1-5-6-7	"	t	1	6	5	8	8	6-7
4CE5	"	2	6	3	14	2-7	1-5-6	4JL6	"	3	6	4	14	2	1-5-6-7
4CY5	"	2	7	3	14	2-7	1-5-6	4JW8	t	2	6	4	18	8	1-9
"	Cont test	2-7						"	pe	2	6	4	16	7	2-3-6
4DE6	"	2	6	3	14	2	1-5-6	4KE8	pe	2	6	5	14	7	2-3-6
4DK6	"	2	6	3	14	2	1-5-6-7	"	t	2	6	5	16	8	1-9
4DT6	"	2	6	3	14	2	1-5-6-7	4KF8	pe	3	6	4	14	1	2-3-6-7
4EH7	"	2	6	4	17	1-3	2-7-8-9	"	pe	3	6	4	14	1	2-7-8-9
"	Cont test	1-3						4KN8	t	2	6	4	16	8	6-7
4EJ7	"	2	6	4	12	1-3	2-7-8-9	"	t	2	6	4	16	3	1-2
"	Cont test	1-3						4KT6	"	2	6	4	16	1-3	2-7-8
4ES8	t	2	6	4	12	8	6-7	4LJ8	t	2	6	4	14	3-8	1-2
"	t	2	6	4	12	3	1-2	"	pe	3	6	4	14		6-7-9
4EW6	"	2	6	3	12	2	1-5-6	"	Cont test	3-8					
4GJ7	t	2	6	4	14	1-3	8-9	4LU6	"	2	6	3	18	2	1-5-6-7
"	pe	3	6	4	14		2-6-7	4MK8	pe	2	6	4	16	1	2-7-8
"	Cont test	1-3						"	pe	2	6	4	16		2-3-7
4GK5	"	2	6	4	14	1-7	2-5	4MP12	"	2	6	3	18	2	1-5-6
"	Cont test	1-7						4MP26	"	3	6	3	16	2	1-5-6
4GM6	"	2	6	3	12	2	1-5-6-7	4RHH2	t	2	6	4	14	8	6-7
4GS7	t	2	6	4	18	3-8	1-2	"	t	2	6	4	14	3	1-2
"	pe	2	6	4	16		6-7-9	4RHH8	t	2	6	4	16	8	6-7
"	Cont test	3-8						"	t	2	6	4	16	3	1-2
4GS8	pe	2	6	4	14	1	2-7-8-9	4RHH15	t	2	6	4	20	3	1-2
"	pe	2	6	4	14		2-3-6-7	"	t	2	6	4	20	8	6-7
4GW5	t	2	6	3	16	5	1-2-6	5AF4	"	2	7	3	14	5	1-2-6-7
"	Ignore glow on	2						"	Ignore glow on	1-2					
4GX6	"	1	6	4	8	2	1-5-6-7	"	Cont test	1-2-6-7					
4GX7	t	2	6	4	16	1	8-9	5AM8	pe	2	7	4	14	1	2-3-6-9
"	pe	3	6	4	14	3	2-6-7	"	d	1	7	4	8	7	8
"	Ignore glow on	1-3						5AN8	t	2	7	4	16	3	1-2
4GZ5	"	3	6	4	14	1	2-5-6-7	"	pe	2	7	4	16	9	6-7-8
"	Cont test on	2-5						5AQ4	pe	4	7	2	12		4
4HA5	t	2	6	3	70	2-7	5-6	"	pe	4	7	2	12		6
"	Ignore glow on	7						5AQ5	"	3	7	3	20	2	1-5-6-7
4HA7	pe	2	6	12	18	3	2-11	"	Ignore glow on	1					
"	pe	2	6	12	18	4	9-10	"	Cont test	1-7					
4HC7	t	2	6	1	18	4	7-9-10	5AR4	p	4	7	2	12		4
"	t	2	6	1	18	3	2-11	"	p	4	7	2	12		6
"	Ignore glow on	7-10						5AS4	p	3	7	2	14		4
4HG8	t	2	6	4	14	1	6-7	"	p	3	7	2	8		6
"	pe	2	6	4	14	1	2-8-9	5AS8	pe	2	7	4	12	3	1-2-9
"	Ignore glow on	1						"	d	1	7	4	8	8	6
4HK5	"	2	6	4	14	2-7	1-5	5AT8	t	2	7	4	14	3	1-2
"	Cont test on	2-7						"	pe	2	7	4	14		6-7-8-9
4HM5	t	2	6	3	14	2-7	1-5	5AU4	p	4	7	2	14		4
"	Ignore glow on	2						"	p	4	7	2	14		6
4HM6	"	2	6	5	14	1-3	2-7-8-9	5AV8	t	2	7	4	14	1	2-3
"	Cont test	1-3						"	pe	2	7	4	14	7	6-8-9
4HQ5	t	2	6	3	14	2-7	1-5	5AW4	p	4	7	2	14		4
"	Ignore glow on	2-7						"	p	4	7	2	14		6
4HS8	pe	2	6	4	14	1	2-7-8-9	5AX4	p	3	7	2	32		4
"	pe	2	6	4	14		2-3-6-7	"	p	3	7	2	32		6

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST
5AZ4	p	3	7	2	34		4	5FG7	t	2	7	4	12	3-8	1-2
"	p	3	7	2	34		6	"	pe	2	7	4	12		6-7-9
5B8	t	2	7	4	14	1-7	2-3	5FV8	t	2	7	4	14	3	1-2
"	pe	2	7	4	14		6-8-9	"	pe	2	7	4	14	8	6-7-9
5BC3●		3	7	3	18		5-6-8-9	5GH8	t	2	6	4	12	8	1-9
"	Cont test	5-6 & 8-9						"	pe	2	6	4	12	7	2-3-6
5BC8	t	2	7	4	14	8	6-7	5GJ7	t	2	7	4	14	1-3	8-9
"	t	2	7	4	14	3	1-2	"	pe	3	7	4	14		2-6-7
5BE8	t	2	7	4	14	3	1-2	"	Cont test	1-3					
"	pe	2	7	4	14	8	6-7-9	5GM6	t	2	7	3	12	2	1-5-6-7
5BK7	t	2	7	4	14	8	6-7	5GS7	t	2	7	4	18	38	1-2
"	t	2	7	4	14	3	1-2	"	pe	2	7	4	16		6-7-9
5BQ7	t	2	8	4	14	8	6-7	"	Cont test	3-8					
"	t	2	8	4	14	3	1-2	5GX6	t	1	7	4	8	2	1-5-6-7
5BR8	t	2	7	4	14	3	1-2	5GX7	t	2	7	4	16	1	8-9
"	pe	2	7	4	14	8	6-7-9	"	pe	3	7	4	14	3	2-6-7
5BS8	t	2	7	4	14	8	6-7	"	Ignore glow on	1-3					
"	t	2	7	4	14	3	1-2	5HA7	t	2	7	12	18	4	9-10
5BT8	pe	2	7	4	14	9	6-7-8	"	t	2	7	12	18	3	2-11
"	d	1	7	4	10	3	2	5HB7	t	2	7	4	14	1-3	8-9
"	d	1	7	4	10	3	1	"	pe	2	7	4	14		2-6-7
5BW8	pe	2	7	4	14	7	6-8-9	"	Cont test	1-3					
"	d	1	7	4	8	2	3	5HC7	t	2	7	1	18	4	7-9-10
"	d	1	7	4	8		1	"	t	2	7	1	18	3	2-11
"	May show short	on 7						"	Ignore glow on	7-10					
5BZ7	t	2	8	4	14	8	6-7	5HG8	t	2	7	4	14	1-3	6-7
"	t	2	8	4	14	3	1-2	"	pe	2	7	4	12	1-3	2-8-9
5CG8	t	2	7	4	14	3-8	1-2	"	Cont test	1-3					
"	pe	2	7	4	14		6-7-9	5HZ6	t	1	7	4	8	2	1-5-6-7
"	Cont test	3-8						5J6	t	2	7	3	14	7	2-5
5CL8	t	2	7	4	14	3	1-2	"	t	2	7	3	14		1-6
"	te	2	7	4	14	8	6-7-9	5JK6	t	2	7	4	14	2	1-5-6-7
5CM6	t	2	7	4	16	7	1-3-6-9	5JK8	t	2	7	5	14	3	1-2
"	Ignore glow on	3						"	t	1	7	5	8	8	6-7
"	Cont test	3-6						5JL6	t	3	7	4	14	2	1-5-6-7
5CM8	t	2	7	4	16	8	1-9	5JW8	t	2	6	4	18	8	1-9
"	pe	2	7	4	14	3	2-6-7	"	pe	2	6	4	16	7	2-3-6
5CQ8	t	2	7	4	14	8	1-9	5KD8	pe	2	7	5	16	7	2-3-6
"	te	2	7	4	14	7	2-3-6	"	pe	2	7	5	16	8	1-9
5CR8	t	2	8	4	16	8	1-9	5KE8	pe	2	7	5	14	7	2-3-6
"	pe	2	8	4	14	3	2-6-7	"	t	2	7	5	16	8	1-9
5CX8	t	2	7	4	16	1	2-3	5KZ8	t	2	7	4	14	8	1-9
"	pe	2	7	4	14	6	7-8-9	"	pe	3	7	4	14	3	2-6-7
5CZ5		3	7	4	20	7	1-3-6-9	5LJ8	t	2	7	4	14	3-8	1-2
"	Ignore glow on	3						"	p	3	7	4	14	3-8	6-7-9
"	Cont test	3-6						"	Cont test	3-8					
5DH8	t	3	7	4	16	3	1-2	5MB8	t	2	7	4	16	3	1-2
"	pe	3	7	4	16	8	6-7-9	"	pe	2	7	4	16	8	6-7-9
5DJ4	p	4	7	7-8	14		3-4	5MF8	t	2	6	1	16	11	2-10
"	p	4	7	7-8	14		5-6	"	pe	2	6	1	16	9	4-6-7-8
"	Cont test	3-4 & 5-6						"	Ignore glow on	6					
5EA8	pe	2	7	4	14	7	2-3-6	"	Cont test	6-7					
"	t	2	7	4	14	8	1-9	5MHH3	t	2	7	3	14	7	2-5
5EH8	pe	3	7	4	14	1-6	7-8-9	"	t	2	7	3	14		1-6
"	t	3	7	4	14		2-3	5MK9	t	1	7	3	12		5
"	Cont test	1-6						5P29	t	3	7	2	14	8	4-5-10
5ES8	t	2	7	4	12	8	6-7	5MQ8	t	2	7	4	21	8	1-9
"	t	2	7	4	12	3	1-2	"	pe	2	7	4	23	7	2-3-6
5EU8	t	2	6	4	12	6	2-3	5R4	p	4	7	2	14		4
"	pe	2	6	4	12	8	1-7-9	"	p	4	7	2	14		6
5EW6		2	7	3	12	2	1-5-6								

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST
5RDDH1	d	2	6	4	20	2	1	6AD10	pe	2	8	12	16	2	3-6-7
"	d	2	6	4	18	3	6	"	pe	2	8	12	16	9	8-10-11
"	t	2	6	4	20	9	7-8	6AF3	"	3	8	4	26	10	2-9
5RHP1	t	2	7	4	14	8	1-9	"	Ignore glow on 2						
"	pe	2	7	4	14	7	2-3-6	"	Cont test 2-9						
5RHR1	t	2	7	4	18	8	1-9	6AF4	2	8	3	14	5	1-2-6-7	
"	pe	2	7	4	16		2-3-6	"	Ignore glow on 1-2						
5RK16	d	2	7	4	24		1	"	Cont test 1-2-6-7						
"	d	2	7	4	24		8	6AF5	2	8	2	16	8	3-5	
5T4	p	4	7	2	14		4	6AF6	e	4	8	2	0	8	3-4-5
"	p	4	7	2	14		6	"	See instructions for eye test						
5T8	t	3	7	4	28	7	8-9	6AF9	pe	2	8	5	16	7	8-9-10
"	d	1	7	4	8		6	"	pe	2	8	5	16	2-7	1-3-4
"	d	1	7	4	8	3	2	"	Cont test 2 when tube is heated						
5U4	p	4	7	2	14		4	6AF11	t	2	8	12	16	7	3-4
"	p	4	7	2	14		6	"	t	2	8	12	16	5	6-8
5U8	t	2	7	4	14	8	1-9	"	pe	2	8	12	14	9	2-10-11
"	pe	2	7	4	14		2-3-6	6AG5	3	8	3	18	2-7	1-5-6	
5U9	t	2	8	5	18	1	9-10	"	Cont test 2-7						
"	pe	2	8	5	16	2	3-7-8	6AG6	2	8	2	14	8	3-4-5	
5V3	p	4	7	2	14		4	6AG7	3	8	2	14	5	1-4-6-8	
"	p	4	7	2	14		6	6AG9	t	2	8	1	16	6	5-7
5V4	p	4	7	2	12		4	"	pe	2	8	1	16	9	2-10-11
"	p	4	7	2	12		6	6AG11	d	1	8	1	8	2	3
5V6	3	7	2	20	8		3-4-5	"	d	1	8	1	8	11	10
5V9	t	2	7	5	16	9	8-10	"	t	2	8	1	14	4	5-6
"	h	2	7	5	18	1	3-4-7	"	t	2	8	1	14	9	7-8
5W4	p	4	7	2	14		4	6AH4	3	8	2	16	8	1-5	
"	p	4	7	2	14		6	6AH5	3	8	2	18	8	1-4-6	
5X4	p	3	7	7	24		3	6AH6	3	8	3	14	7	1-2-5-6	
"	p	3	7	7	24		5	6AH9	t	2	8	1	18	4	2-3
5X8	t	2	7	4	14	6	2-3	"	pe	2	8	1	16	7	5-6-8-11
"	pe	2	7	4	14		1-7-8-9	"	Ignore glow on 5						
5X9	t	2	8	5	16	1	9-10	"	Cont test 5-6						
"	pe	2	8	5	16	2	3-7-8	6AJ4	2	8	7	14	2	*	
5Y3	p	4	7	2	14		4	"	*1-3-4-5-6-9						
"	p	4	7	2	14		6	"	Ignore glow on 1-3-4-6						
5Y4	p	4	7	7	14		3	"	Cont test 1-3-4-6-9						
"	p	4	7	7	14		5	6AJ5	2	8	3	14	2-7	1-5-6	
5Z3	p	4	7	1	12		2	"	Cont test 2-7						
"	p	4	7	1	12		3	6AJ7	3	8	2	14	5	3-4-6-8	
5Z4	p	4	7	2	14		4	6AJ8	he	2	8	5	14	3	1-2-6-7
6A7	to	2	8	1	16	6	*	"	t	2	8	5	16		8-9
"	t	2	8	1	16		4-5	6AJ9	t	2	8	5	18	1	9-10
6AB4	2	8	3	14	7		1-6	"	pe	2	8	5	18	2	3-7-8
6AC5	3	8	2	22	8		3-5	6AK5	2	8	3	16	2-7	1-5-6	
6AC7	3	8	2	14	5		3-4-6-8	"	Cont test 2-7						
6AC9	pe	2	8	12	16	8	9-10-11	6AK6	3	8	3	22	7	1-2-5-6	
"	d	1	8	12	10	4	2	6AK7	3	8	2	16	5	1-4-6-8	
"	Cont test 3							6AK8	t	3	8	4	20	7	8-9
6AC10	t	2	8	12	16	4	9-10	"	d	1	8	4	14		6
"	t	2	8	12	16	6	5-7	"	d	1	8	4	8	3	2
"	t	2	8	12	16	3	2-11	"	d	1	8	4	8		1
6AD5	3	8	2	20	8		3-5	6AK9	t	2	8	1	20	7	2-3
6AD6	e	4	8	2	0	8	3-4-5	"	pe	2	8	1	20	7	5-8-9
"	See instructions for eye test							6AK10	t	2	8	1	20	7	10-11
6AD7	t	2	8	2	30	8	1-6	"	t	2	8	1	20	4	9-10
"	pe	3	8	2	24		3-4-5	"	t	2	8	1	20	6	5-7
								6AL3	t	2	8	1	20	3	2-11
								"	2	8	4	12	10	3-8-9	
								"	Ignore glow on 3-8						
								"	Cont test 1-2-3-6-7-8-9						

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
6AL5	d	1	8	3	12	1	7	6AU8	t	2	8	4	14	1	2-3
"	d	1	8	3	12	5	2	"	pe	2	8	4	14	6	7-8-9
6AL6		3	8	2	20	8	4-5-10	6AV5		3	8	2	18	3	1-5-8
6AL7	e	1	8	*	0	8	**	6AV6	t	3	8	3	18	2	1-7
"		*2-4-5-6						"	d	1	8	3	16		5
"		**1-3-4-5-6						"	d	1	8	3	16		6
"		See instructions for eye test													
6AL9	t	2	8	1	20	6	5-7	6AV11	t	2	8	1	16	3	2-11
"	pe	2	8	1	20	9	2-4-10-11	"	t	2	8	1	16	6	5-7
6AL11	pe	3	8	12	14	9	8-10-11	"	t	2	8	1	16	4	9-10
"	pe	2	8	12	16	2	3-4-6-7	6AW6		2	8	3	14	2	1-5-6-7
6AM4		2	8	7	14	2	*	6AW8	t	2	8	4	14	1	2-3
"		*1-3-4-5-6-9						"	pe	2	8	4	14	6	7-8-9
"		Ignore glow on 1-3-4-6													
"		Cont test 1-3-4-6-9													
6AM6		2	8	3	14	2	1-5-6-7	6AX3		3	8	1	16	7	4-10
6AM8	pe	2	8	4	14	1	2-3-6-9	"		Ignore glow on 4					
"	d	1	8	4	8	7	8	6AX4		4	8	7	14	3	5
6AN8	t	2	8	4	16	3	1-2	6AX5	p	4	8	2	14	8	5
"	pe	2	8	4	16	9	6-7-8	"	p	4	8	2	14		3
6AQ4		2	8	3	16	25	1-6-7	6AX7	t	3	5	9	20	8	6-7
"		Ignore glow on 1													
"		Cont test 1-2-5-6													
6AQ5		3	8	3	20	2	1-5-6-7	"	t	3	5	9	20	3	1-2
"		Ignore glow on 1													
"		Cont test 1-7													
6AQ6	t	1	8	3	8	2	1-7	6AX8	t	2	8	4	14	8	1-9
"	d	1	8	3	18		5	"	pe	2	8	4	14	7	2-3-6
"	d	1	8	3	18		6	6AY3●		4	8	4	14	9	2-7
6AQ7	t	1	8	7	10	6	4-5	"		Ignore glow on 2-7					
"	d	1	8	7	12	2	3	6AY11	d	1	8	1	10	2	3
"	d	1	8	7	12		1	"	d	1	8	1	10	11	10
6AQ8	t	2	8	5	14	8	6-7	"	t	2	8	1	14	4	5-6
"	t	2	8	5	14	3	1-2	"	t	2	8	1	14	9	7-8
6AR5		3	8	3	22	2	1-5-6	6AZ8	t	2	8	4	14	7	8-9
6AR6		3	8	6	20	1	3-5-7	"	p	2	8	4	14	3	1-2-6
6AR8		2	8	4	14	7	3-6	6B10	t	2	8	12	16	2	3-4
6AR11	pe	2	8	12	14	6	2-3-4-5	"	t	2	8	12	16	7	5-6
"	pe	2	8	12	14	11	7-8-9-10	"	d	1	8	12	10	9	8
6AS5		1	8	3	8	1	2-5-6-7	"	d	1	8	12	10	9	10
"		Ignore glow on 2													
"		Cont test 2-5													
6AS6		3	8	3	16	2	1-5-6-7	6B32	d	1	8	3	8	1	7
6AS7	t	3	8	7	16	3	1-2	"	d	1	8	3	8	5	2
"	t	3	8	7	16	6	4-5	6BA3●		3	8	5	18	9	2-7
6AS8	pe	2	8	4	14	3	1-2-9	"		Cont test 2-7					
"	d	1	8	4	8	8	6	6BA8	t	3	8	4	16	1	2-3
6AS11	t	2	8	1	16	7	3-4	"	pe	2	8	4	14	6	7-8-9
"	t	2	8	1	14	5	6-8	6BA11	pe	2	8	12	16	8	2-3-4-5
"	pe	2	8	1	16	9	2-10-11	"	pe	2	8	12	16	8	3-4-6-7
6AT6	t	1	8	3	8	2	1-7	"	t	2	8	12	18	10	9-11
"	d	1	8	3	16		5	6BB14▲		2	8	4	14	38	*
"	d	1	8	3	16		6	"		*1-2-6-7-10					
6AT8	t	2	8	4	14	3	1-2	"		Ignore glow on 1-6					
"	pe	2	8	4	14		6-7-8-9	"		Cont test 1-2-3-6-7-8					
6AU4		2	8	7	14	3	5	6BC4		2	8	4	14	6	*
6AU5		3	8	2	18	3	1-5-8	"		*1-2-3-7-8-9					
6AU6		3	8	3	18	7	1-2-5-6	"		Ignore glow on 1-2-3-7					
6AU7	t	3	5	9	20	8	6-7	"		Cont test 1-2-3-7-8-9					
"	t	3	5	9	20	3	1-2	6BC5		2	8	3	14	2-7	1-5-6
"		Cont test 4-5													
								6BC7	d	1	8	4	8	9	8
								"	d	1	8	4	8	7	6
								"	d	1	8	4	8	1	2
								6BC8	t	2	8	4	14	8	6-7
								"	t	2	8	4	14	3	1-2
								6BD6		2	8	3	17	7	1-2-5-6

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
6BD11	t	3	8	1	18	7	3-4	6BL7	t	3	8	7	12	3	1-2
"	t	2	8	1	14	5	6-8	"	t	3	8	7	12	6	4-5
"	pe	2	8	1	14		2-10-11	6BL8	t	2	7	4	14	8	1-9
6BE3	1	8	1	8	7		4-10	"	p	2	7	4	14	7	2-3-6
"	Ignore glow on 4							6BM8	t	2	8	4	14	8	1-9
6BE6	to	2	8	3	14	2	1-5-6-7	"	pe	2	8	4	14	2	3-6-7
"	t	2	8	3	16		1-6	6BN4	2	8	3	14	1-6	2-5-7	
6BE7	2	8	4	16	38		1-6-7	"	Ignore glow on 2						
"	Cont test 3-8							"	Cont test 2-7						
6BE8	t	2	8	4	14	3	1-2	6BN5	3	8	4	18	3	*	
"	p	2	8	4	14	8	6-7-9	"	*1-2-6-7-8-9						
6BF5	3	8	3	16	2		1-5-6-7	"	Ignore glow on 1-6						
"	Ignore glow on 1							"	Cont test 1-2-6-8						
"	Cont test 1-7							6BN6	4	8	3	38	1	2-5-6-7	
6BF6	t	3	8	3	22	2	1-7	6BN7	t	3	8	4	16	6	7-9
"	d	1	8	3	18		5	"	t	2	8	4	18	3	1-2
"	d	1	8	3	18		6	6BN8	t	2	8	4	14	9	7-8
6BF8	d	2	8	5	16		1	"	d	1	8	4	8	3	6
"	d	2	8	5	16		2	"	d	1	8	4	8	2	1
"	d	2	8	5	16		3	6BN11	pe	2	8	12	16	8	7-9-11
"	d	2	8	5	16		7	"	pe	2	8	12	16	2	3-4-5
"	d	2	8	5	16		8	6BQ5	3	8	4	18	3	1-2-7-9	
"	d	2	8	5	16		9	"	Ignore glow on 1						
6BF11	pe	2	8	12	16	2	3-5-6-7	"	Cont test 1-2						
"	pe	3	8	12	14	9	8-10-11	6BQ6	3	8	2	18	8	4-5-10	
6BG6	3	8	2	18	3		5-8-10	6BQ7	t	2	8	4	14	8	6-7
6BH3●	4	8	5	14	9		2-7	"	t	2	8	4	14	3	1-2
"	Ignore glow on 2							6BR3	3	8	4	26	10	2-9	
6BH6	2	8	3	14	2		1-5-6	"	Ignore glow on 2						
6BH8	t	2	8	4	14	1	2-3	"	Cont test 2-9						
"	pe	2	8	4	14	6	7-8-9	6BR5	t	3	8	4	26	2	1-7
6BH11	t	2	8	1	14	2	3-4	"	e	4	8	4	0		
"	t	2	8	1	14	5	6-7	"	May show short on 3-6-9 - throw 7						
"	pe	2	8	1	14	11	8-9-10	"	to test, then 3-6-9 together						
6BJ3	1	8	1	8	7		4-10	"	See instructions for eye test						
"	Ignore glow on 4							6BR7	t	2	5	9	14	3	1-2
6BJ6	2	8	3	14	2		1-5-6-7	"	d	1	5	9	10		7
6BJ7	d	1	8	4	8	9	8	"	d	1	5	9	10		6
"	d	1	8	4	8	7	6	"	Cont test 4-5						
"	d	1	8	4	8	1	2	6BR8	t	2	8	4	14	3	1-2
6BJ8	t	2	8	4	14	9	7-8	"	pe	2	8	4	14	8	6-7-9
"	d	1	8	4	8	3	6	6BS3●	d	4	8	4	14	9	2-7
"	d	1	8	4	8	2	1	"	Ignore glow on 2						
6BK4	1	8	7	10	*		5-10	6BS8	t	2	8	4	14	8	6-7
"	*1-3-4-6-8							"	t	2	8	4	14	3	1-2
"	May show short on 1-3-4-6-8							6BT6	t	2	8	3	18	2	1-7
"	Must show short on 1-3-4							"	d	1	8	3	18		5
"	Good tube reads above 30							"	d	1	8	3	18		6
6BK5	2	8	4	14	6		1-3-7-8	6BT8	pe	2	8	4	14	9	6-7-8
"	Ignore glow on 3							"	d	1	8	4	10	3	2
"	Cont test 3-7							"	d	1	8	4	10		1
6BK6	t	3	8	3	16	2	1-7	6BU6	t	3	8	3	22	2	1-7
"	d	1	8	3	8		6	"	d	1	8	3	12		6
"	d	1	8	3	8		5	"	d	1	8	3	12		5
6BK7	t	2	8	4	14	8	6-7	6BU8	pe	2	8	4	14	1	2-7-8-9
"	t	2	8	4	14	3	1-2	"	pe	2	8	4	14		2-3-6-7
6BK8	2	8	4	18	3		1-6-9	6BV8	t	2	8	4	14	1	2-3
6BK11	t	2	8	12	20	4	9-10	"	d	1	8	4	8	7	9
"	t	2	8	12	20	6	5-7	"	d	1	8	4	8	8	6
"	t	2	8	12	20	3	2-11	6BV11	pe	2	8	1	16	8	7-9-10
								"	pe	2	8	1	16	5	3-4-6

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
6BW3	3	8	12	16	7	4-10	6CC31	t	1	8	3	8	7	2-5	
"	Ignore glow on 4						"	t	1	8	3	8		1-6	
6BW4	p	3	8	4	22	9	7	6CC42	t	2	8	1	16	8	6-7
"	p	3	8	4	22		1	"	t	2	8	1	16	2	3-4
6BW8	pe	2	8	4	14	7	6-8-9	6CC43	t	2	8	5	14	8	6-7
"	d	1	8	4	8	2	3	"	t	2	8	5	14	3	1-2
"	d	1	8	4	8		1	6CD3	4	8	12	14	7	4-10	
"	May show short on 7							"	Ignore glow on 4						
6BW11	pe	2	8	1	16	10	8-9-11	6CD6	3	8	2	16	3	5-8-10	
"	pe	2	8	1	16	2	3-4-5	6CE3	4	8	12	14	7	4-10	
6BX6	2	7	4	14	1-3	2-7-8	"	Ignore glow on 4							
"	Must show short on 1-3						6CE5	2	8	3	14	2-7		1-5-6	
"	Cathode short test - throw 1-3 together						"	Cont test 2-7							
6BX7	t	2	8	7	14	6	4-5	6CF6	2	8	3	14	2	1-5-6-7	
"	t	2	8	7	14	3	1-2	6CF8	2	8	4	16	3	1-6-9	
6BX8	t	2	8	4	14	8	6-7	"	Cont test 2-7						
"	t	2	8	4	14	3	1-2	6CG3	4	8	12	14	7	4-10	
6BY5	p	3	8	2	20	8	5	"	Ignore glow on 4						
"	p	3	8	2	20	1	4	6CG7	t	3	8	4	22	8	6-7
6BY6	3	8	3	16	2		1-6	"	t	3	8	4	22	3	1-2
"	3	8	3	16			1-5-6-7	6CG8	t	2	8	4	14	3-8	1-2
6BY7	2	8	4	14	1-3	2-7-8		"	pe	2	8	4	14		6-7-9
"	Must show short on 1-3 - Cathode short test - throw 1-3 together							"	Cont test 3-8						
6BY8	pe	3	8	4	16	9	1-2-7-8	6CH3●	3	8	4	14	9	2-7	
"	d	1	8	4	8	3	6	"	Ignore glow on 2 - Cont test 2-7						
6BY11	pe	2	8	1	16	2	3-5-6-7	6CH6	3	8	4	14	3	2-7-8	
"	pe	2	8	1	16	9	8-10-11	6CH7	t	2	8	4	14	8-9	6-7
6BZ3	4	8	1	12	7	4-10		"	t	2	8	4	3	1-2	
"	Ignore glow on 4							"	Cont test 8-9						
6BZ6	2	8	3	14	2	1-5-6-7	6CH8	t	2	8	4	16	1	8-9	
6BZ7	t	2	8	4	14	8	6-7	"	pe	2	8	4	14	6	2-3-7
"	t	2	8	4	14	3	1-2	6CJ3●	4	8	4	12	9	2-7	
6BZ8	t	2	8	4	14	3	1-2	"	Ignore glow on 2						
"	t	2	8	4	14	8	6-7	6CJ6	3	8	4	12	3	2-7-8-10	
6C4	2	8	3	16	7	1-5-6		"	Ignore glow on 7						
"	Ignore glow on 1							"	Cont test 1-6-7-8-9						
"	Cont test 1-5							6CK3●	4	8	4	14	9	2-7	
6C5	2	8	2	16	8	3-5		"	Ignore glow on 2						
6C9	te	3	8	5	14	10	1-2-3	"	Cont test 2-7						
"	te	3	8	5	14	6	7-8-9	6CK4	2	8	2	14	8	1-3-5	
6C10	t	2	8	12	16	3	2-11	"	Ignore glow on 1						
"	t	2	8	12	16	6	5-7	"	Cont test 1-3						
"	t	2	8	12	16	4	9-10	6CL3●	4	8	4	14	9	2-7	
6C16	t	2	7	4	14	8	1-9	"	Ignore glow on 2						
"	pe	2	7	4	14	7	2-3-6	"	Cont test 2-7						
6C18	t	2	8	4	16	6-8	1-9	6CL5	3	8	2	14	3-6	*	
"	pe	2	8	4	16		2-3-7	"	*1-4-5-8-10						
"	Cont test 6-8							"	Ignore glow on 1-4						
6CA4	p	3	8	4	18	3	1	"	Cont test 1-3-4-5-6-8						
"	p	3	8	4	18		7	6CL6	2	8	4	14	1	2-3-8-9	
6CA5	3	8	3	18	1	2-5-6-7		"	Ignore glow on 2						
"	Ignore glow on 2							"	Cont test 2-3-8-9						
"	Cont test 2-5							6CL8	t	2	8	4	14	3	1-2
6CA7	3	8	7	16	8	1-3-4-5		"	t	2	8	4	14	8	6-7-9
6CA11	t	1	8	1	10	7	2-3	6CM3●	4	8	4	14	9	2-7	
"	t	1	8	1	10	5	4-6	"	Ignore glow on 2						
"	pe	1	8	1	10	9	8-11	"	Cont test 2-7						
"	May show short on 7							6CM6	2	8	4	14	7	1-3-6-9	
6CB6	2	8	3	14	2	1-5-6-7		"	Ignore glow on 3						
								6CM7	t	2	8	4	16	3	6-7
								"	t	3	8	4	18	9	1-8

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
6CM8	t	2	8	4	16	8	6DE4		4	8	7	14	3	5	
"	pe	2	8	4	14	3	6DE6		2	8	3	14	2	1-5-6	
6CN6		3	7	2	14	8	6DE7	t	3	8	4	20	8	6-7	
6CN7	t	2	5	9	18	6	"	t	3	8	4	14	9	1-2-3	
"	d	1	5	9	8	3	"	Ignore glow on 2							
"	d	1	5	9	8		"	Cont test 2-3							
"	Cont test 4-5							6DG6		3	8	2	18	8	3-4-5
6CQ4		1	8	7	8	3	6DJ8	t	2	8	4	14	8	6-7	
6CQ6		3	8	3	18	2	"	t	2	8	4	14	3	1-2	
6CQ8	t	2	8	4	14	8	6DK3●		2	8	4	18	10	2-7	
"	pe	2	8	4	14	7	"	Ignore glow on 2 Cont test 2-7							
6CR6	d	1	8	3	16	1	6DK6		2	8	3	14	2	1-5-6-7	
"	pe	2	8	3	16		6DL3●		2	8	4	18	10	2-7	
6CR8	t	2	8	4	16	8	"	Must show short on 2-7							
"	pe	2	3	4	14	3	6DL5		2	7	3	14	2	1-5-6-7	
6CS6	to	2	8	3	14	2	"	Ignore glow on 1							
6CS7	t	3	8	4	18	9	6DM4		4	8	8	14	3	5	
"	t	3	8	4	22	8	6DN3●		2	8	5	16	9	2-7	
6CT3		4	8	4	14	9	"	Ignore glow on 2-7							
"	Cont test 2-6 Ignore glow on 2							6DN6		2	8	2	14	3	5-8-10
6CU5		3	8	3	16	1	6DN7	t	2	8	7	16	6	4-5	
"	Ignore glow on 2 Cont test 2-5							"	t	2	8	7	16	3	1-2
6CU6		3	8	2	16	8	6DQ3	d	4	8	1	14	7	4-10	
6CU8	pe	3	8	4	16	6	"	Ignore glow on 4							
"	t	2	8	4	14	1	6DQ4		4	8	8	14	3	5	
"	May show short on 1							6DQ5		3	8	2	14	3-6	*
6CV7	t	2	8	1	16	7	"	*1-4-5-8-10 - Ignore glow on 1-4							
"	d	1	8	1	12		"	Cont test 1-3-4-5-6-8							
"	d	1	8	1	12		6DQ6		3	8	2	16	8	4-5-10	
6CW4		1	8	10	10	8	6DR4		2	8	4	18	7	1-5-6	
6CW5		2	8	4	14	3	"	Ignore glow on 1							
"	*1-2-6-7-8-9							6DR7	t	2	8	4	18	8	6-7
"	May show short on 1-2-6-7-8-9							"	t	2	8	4	14	9	1-2-3
"	Ignore glow on 1-6-7							"	Ignore glow on 2 - Cont test 2-3						
6CW7	t	2	8	4	14	7-8	6DR8	pe	2	8	4	14	3	1-2-6	
"	t	2	8	4	14	1	"	d	1	8	4	12		8	
"	Cont test 7-8							6DS4		1	8	10	8	2-4	
6CX8	t	2	8	4	14	1	6DS5		2	8	3	16	2	1-5-6-7	
"	pe	2	8	4	14	6	"	Ignore glow on 1 - Cont test 1-7							
6CY5		2	8	3	14	2-7	6DS8	h	2	8	4	14	3	1-2-6-7	
"	Cont test 2-7							"	t	2	8	4	14		8-9
6CY7	t	2	8	4	18	8	6DT3		4	8	12	14	7	4-10	
"	t	2	8	4	14	9	"	Cont test 4-10							
"	Ignore glow on 2							6DT4	d	4	8	7	14	3	1-5
"	Cont test 2-3							"	Ignore glow on 1-5						
6CZ5		3	8	4	20	7	6DT5		2	8	4	16	7	1-3-6-9	
"	Ignore glow on 3							"	Ignore glow on 3 - Cont test 3-6						
"	Cont test 3-6							6DT6		2	8	3	14	2	1-5-6-7
6DI		2	8	4	18	7	6DT8	t	2	8	4	14	8	6-7	
"	Ignore glow on 1							"	t	2	8	4	14	3	1-2
6DI10	t	2	8	12	14	3	6DU3	d	4	8	1	14	7	4-10	
"	t	2	8	12	14	6	"	Ignore glow on 4							
"	t	2	8	12	14	4	6DV4		1	8	10	8	7	1-2-4-6	
6DA4		3	8	7	16	3	"	Ignore glow on 1-4							
6DB5		3	8	4	18	2-7	6DW4●	d	4	8	4	14	9	2-7	
"	Ignore glow on 3							"	Ignore glow on 2 - Cont test 2-7						
"	Cont test 2-3-6-7							6DW5		2	8	4	14	7	1-3-6-9
6DB6		2	8	3	14	2	"	Ignore glow on 3 - Cont test 3-6							
6DC6		2	8	3	14	2	6DX8	t	2	8	4	14	3	1-2	
6DC8	pe	2	8	4	14	3	"	pe	2	8	4	14	7	6-8-9	
"	d	1	8	4	12		6DY7	pe	2	8	2	16	8	5-6	
"	d	1	8	4	12		"	pe	2	8	1	16		1-3	

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
6DZ4	3	8	4	16	5	1-2-6-7	6ES6		2	8	3	14	2	1-5-6	
"	Cont test 1-7 & 2-6							6ES8	t	2	8	4	14	8	6-7
6DZ7	pe	3	8	2	16	8	4-5-6	"	t	2	8	4	14	3	1-2
"	pe	3	8	2	16		1-3-4	6ET6		2	7	3	14	2	1-5-6
6DZ8	t	2	8	4	22	8	1-9	6ET7	pe	2	8	4	14	6	7-8-9
"	pe	2	8	4	20	2	3-6-7	"	d	1	8	4	18	1	3
6E5	t	2	8	1	20	5	2-3	"	d	1	8	4	18		2
"	e	4	8	1	0		2-4	6EU7	t	2	8	2	18	4	5-6
"	See instructions for eye test							"	t	2	8	2	18	9	7-8
6E8	to	2	8	2	16	8	3-4-5-6-10	6EU8	pe	2	8	4	14	8	1-7-9
"	t	2	8	2	16		5-6	"	t	2	8	4	14	6	2-3
6EA4		2	8	12	34	*	6-10	6EV5		1	8	3	8	2-7	1-5-6
"	*2-5-9-11 - Cont test 2-5-9-11							"	Cont test 2-7						
6EA5		2	8	3	14	2-7	1-5-6	6EV7	t	2	8	4	14	8	6-7
"	Cont test 2-7							"	t	2	8	4	14	3	1-2
6EA7	t	3	8	7	14	6	4-5	6EW6		2	8	3	12	2	1-5-6
"	t	4	8	7	14	3	1-2	6EW7	t	2	8	5	14	9	1-2-3
6EA8	pe	2	8	4	14	7	2-3-6	"	t	1	8	5	8	8	6-7
"	t	2	8	4	14	8	1-9	"	Cont test 2-3						
6EB5	d	1	8	3	10	1	7	6EX6		4	8	7	14	3	5-8-10
"	d	1	8	3	10	5	2	6EY6		2	8	2	14	8	3-4-5
6EB8	t	2	8	4	14	1	2-3	6EZ5		3	8	2	14	8	3-4-5
"	p	2	8	4	14	6	7-8-9	6EZ8	t	2	8	4	18		8-9
6EC4▲		4	8	4	14	10	2-7-8	"	t	2	8	4	18		6-7
"	Ignore glow on 2-7							"	t	2	8	4	14	1	2-3
"	Cont test 2-7-8							6F6		3	8	2	24	8	3-4-5
6ED4▲		2	8	4	26	1	8-10	6F19		2	8	4	14	1-3	2-7-8
"	Cont test 1-2-3-6-7-9							"	Cathode short test-throw 1-3 together. Cont test 1-3						
6EH4		2	8	1	34	*	6-10	6F21		3	8	3	18	2	1-5-6-7
"	*2-5-9-11							6F22		2	8	4	16	3	1-6-9
"	Cont test 2-5-9-11							"	Cont test 2-7						
6EH5		2	8	3	14	1	2-5-6-7	6F26		2	8	4	14	1-3	2-7-8
"	Ignore glow on 2 - Cont test 2-5							"	Cathode short test-throw 1-3 together. Cont test 1-3						
6EH7		2	8	4	17	1-3	2-7-8-9	6F29		2	8	4	17	1-3	2-7-8-9
"	Must show short on 1-3							"	Must show short on 1-3						
6EH8	pe	3	8	4	14	1-6	7-8-9	6F30		2	8	5	14	1-3	2-7-8-9
"	t	3	8	4	14		2-3	"	Cont test 1-3						
"	Cont test 1-6							6F33		3	8	3	16	2	1-5-6-7
6EJ4		2	8	1	30	5	6-10	6F35		2	8	3	14	2-7	1-5-6
"	Cont test 2-9-11							"	Cont test 2-7						
6EJ7		2	8	5	14	1-3	2-7-8-9	6FD6	pe	3	8	3	16	7	1-2-5-6
"	Cont test 1-3							6FD7	t	3	8	4	20	8	6-7
6EL4		1	8	7	18	*	5-10	"	t	2	8	4	14	9	1-2-3
"	*1-3-4-6-8							"	Ignore glow on 2 - Cont test 2-3						
"	Must show short on 1-3-4							6FE5		2	8	2	12	8	3-4-5
"	May show short on 1-3-4-6-8							6FG7	t	2	8	4	14	3-8	1-2
6EM5		3	8	4	16	7	1-3-6-9	"	pe	3	8	4	14	3-8	6-7-9
"	Ignore glow on 3 - Cont test 3-6							"	Cont test 3-8						
6EM7	t	2	8	7	16	6	4-5	6FH5		2	8	3	14	1-7	2-5
"	t	2	8	7	14	3	1-2	"	Cont test 1-7						
6EN4		2	8	7	30	*	5-6-10	6FJ7	t	2	8	12	16	9	10-11
"	*Cathode short test - throw 1-3-4-8 together							"	t	2	8	12	14	7	3-5
"	Grid short test - throw 5-6 together							6FM7	t	3	8	12	14	7	3-5-8
6EQ7	d	1	8	4	20	3	8	"	t	2	8	12	18	9	10-11
"	pe	2	8	4	14		1-2-6-7	"	Cont test 3-8 - Ignore glow on 3						
6ER5		2	8	3	14	1-7	2-5-6	6FM8	t	3	8	4	20	7	8-9
"	Cont test 1-7							"	d	1	8	4	8	3	2
6ES5		2	8	3	14	1-7	2-5	"	d	1	8	4	8	1	6
"	Cont test 1-7							6FQ5		2	8	3	12	1-7	2-5
"								"	Cont test 1-7						

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST			
6FQ7	t	2	8	5	18	3	1-2	6GN8	t	2	8	4	14	1	2-3	
"	t	2	8	5	18	8	6-7	"	pe	2	8	4	12	6	7-8-9	
6FR7	t	2	8	4	12	8	6-7	6GQ7	d	2	8	4	14	1	2	
"	t	2	8	4	12	9	1-2-3	"	d	2	8	4	14	7	6	
"	Ignore glow on 2							"	d	2	8	4	14	9	8	
6FS5	2	8	3	14	2-7	1-5-6	6GS7	t	2	8	4	18	38	1-2		
"	Cont test 2-7						"	pe	2	8	4	16		6-7-9		
6FV6	2	8	3	14	7	1-5-6	"	Cont test 3-8								
6FV8	t	2	8	4	14	3	1-2	6GT5	4	8	5	14	3	*		
"	pe	2	8	4	14	8	6-7-9	"	*1-2-6-7-9 - Cont test 1-7 & 2-6							
6FW5	2	8	2	12	3	1-5-8	6GU5	2	8	4	14	2-7	1-5-6			
6FW8	t	2	8	4	14	8	6-7	"	Cont test 2-7							
"	t	2	8	4	14	3	1-2	6GU7	t	2	8	5	16	3	1-2	
6FY5	2	8	3	12	1-7	2-5	"	t	2	8	5	16	8	6-7		
"	Cont test 1-7						6GV5	2	8	12	14	4-10	*			
6FY7	t	3	8	12	14	7	3-5	"	*3-5-7-9-11							
"	t	2	8	12	18	9	10-11	"	Cont test 4-10 & 3-7-11 & 5-9							
6FY8	t	2	8	4	16	8	1-9	6GV8	t	2	8	4	14	3	1-9	
"	pe	2	8	4	14	2	3-6-7	"	pe	3	8	4	14	8	2-6-7	
6G5	t	2	8	1	20	5	2-3	6GW5	t	2	8	3	16	5	1-2-6	
"	e	4	8	1	0		2-4	"	Ignore glow on 2							
"	See instructions for eye test															
6G11	pe	2	8	1	14	2	3-4-6-7	6GW6	3	8	7	16	8	4-5-10		
"	pe	2	8	1	14	9	8-10-11	6GW8	t	2	8	4	18	2	1-9	
6GA7	d	4	8	12	14	8	11	6GX6	pe	2	8	4	18	7	3-6-8	
"	p	3	8	12	14	5	2-3-4-7	6GX7	1	8	4	8	2	1-5-6-7		
6GB3	3	8	7	16	8	4-5-10	"	t	2	8	4	16	1-3	8-9		
6GB5▲	3	8	5	14	3-8	*	"	pe	3	8	4	14		2-6-7		
"	*1-2-6-7-10 - Ignore glow on 1-6															
"	Cont test 3-8, 1-2 & 6-7															
6GB6	3	8	7	16	8	4-5-10	6GY5	2	8	12	14	4-10	*			
6GB7	3	8	2	16	8	4-5-10	"	*3-5-7-9-11								
6GB9	3	8	2	16	8	4-5-10	"	Cont test 3-7-11 & 5-9 & 4-10								
6GC5	3	8	5	16	7	*	6GY6	1	8	4	8	2	1-5-6-7			
"	*1-3-6-8-9															
"	Cont test 1-8 & 3-6															
6GC6	2	8	2	14	3	4-5-8-9	6GY8	t	1	8	5	8		1-2		
"	Ignore glow on 4 - Cont test 4-8															
6GE5	3	8	1	16	4-10	*	"	t	1	8	5	8	8	3-9		
"	*2-3-7-11 - Ignore glow on 3															
6GE8	t	2	8	4	10	2	3-6	"	t	4	8	5	48	7	6	
"	pe	2	8	4	12	7	1-8-9	6GZ5	pe	3	8	4	14	1	2-5-6-7	
6GF5	3	8	12	14	4-10	*	"	Ignore glow on 2								
"	*2-3-7-11 - Cont test 4-10 & 3-11															
6GF7●	t	1	8	5	8	1	8-9	6H6	d	1	8	2	10	8	3	
"	t	3	8	5	14	3	2-6	"	d	1	8	2	10	4	5	
6GH7	2	8	4	12	1-3	2-7-8-9	6HA5	3	8	4	14	2-7	1-5			
6GH8	t	3	8	4	14	8	1-9	"	Cont test 2-7							
"	pe	3	8	4	14	7	2-3-6	6HA6	pe	3	8	4	14	1	*	
6GJ5	3	8	5	16	3	*	"	*2-3-6-7-8-9 Cont test 6-8, 3-9								
"	*1-2-6-7-10 - Cont test 1-7 & 2-6															
6GJ7	t	2	8	4	14	1-3	8-9	6HB5	3	8	1	14	4-10	*		
"	p	3	8	4	14	1-3	2-6-7	"	*2-3-7-11 - Ignore glow on 3							
6GK5	2	8	3	14	1-7	2-5	"	Must show short on 4-10								
"	Cont test 1-7															
6GK6	2	8	4	12	1	2-3-7-9	6HB6	4	8	5	12	1	*			
"	Ignore glow on 3-9															
6GK17	2	8	7	14	3	5	"	*2-3-6-7-8-9								
6GL7	t	2	8	8	14	3	1-2	"	Cont test 3-9 & 6-8							
"	t	3	8	8	20	6	4-5	6HB7	t	2	8	4	14	1-3	8-9	
6GM6	2	8	3	12	2	1-5-6-7	"	pe	3	8	4	14	1-3	2-6-7		
"	Cont test 1-3															
6HE5	3	8	12	16	4-11	*	"	Ignore glow on 1								
"	*2-3-6-9-10															
"	Cont test 2-9 & 3-10 & 4-11															
6HE7	pe	3	5	10	14	8	5-9-11	6HD5	pe	3	8	1	14	4-10	*	
"	d	4	5	10	14	4	2	"	*3-5-7-9-11 - Ignore glow on 4-9-11							
"	Cont test 1-3															
6HE7	pe	3	5	10	14	8	5-9-11	6HD7	t	2	8	4	18	1-3	8-9	
"	d	4	5	10	14	4	2	"	pe	3	8	4	16		2-6-7	
"	Cont test 1-3															
6HE7	pe	3	5	10	14	8	5-9-11	"	Cont test 1-3							
"	d	4	5	10	14	4	2	"	*2-3-6-9-10							
"	Cont test 2-9 & 3-10 & 4-11															

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
6HF5	2	8	12	14	4-10	*	6J9	t	2	8	5	16	3	1-2	
"	*3-5-6-8-9-11							"	t	2	8	5	16	10	6-9
"	Cont test 4-10, 5-9 & 3-6-8-11							"	t	2	8	5	16	10	7-8
6HF8	t	2	8	5	16	1	6J10	pe	2	8	12	14	3	2-9-11	
"	pe	3	8	5	14	6	"	pe	4	8	12	40	8	4-5-6-7	
6HG5	pe	3	8	4	18	2	6J11	pe	2	8	1	12	6	2-3-4-5	
"	Ignore glow on 1-7							"	pe	2	8	1	12	8	7-9-10-11
6HG8	t	2	8	4	14	1-3	6JA5	2	8	1	18	4-11	2-3-6-9-10		
"	pe	2	8	4	12	1-3	"	Cont test 2-3-4-9-10-11							
"	Cont test 1-3							"	Cathode short test - throw						
6HJ5	pe	3	8	12	14	2	"	4-11 together. Grid short							
"	*3-4-5-7-9-10-11							"	test-throw 2-9 together						
"	Ignore glow on 3-4-5							"	Screen short test-throw						
6HJ7	t	2	8	4	16	1-3	"	3-10 together							
"	pe	2	8	4	16		6JA8	t	2	8	4	18	1	2-3	
"	Cont test 1-3							"	pe	2	8	4	18	6	7-8-9
6HJ8	d	1	8	4	8	7	6JB5	3	8	12	18	4-11	*		
"	pe	2	8	4	14	1	"	*2-3-6-9-10							
6HK5	2	8	4	14	2-7		"	Cont test 2-3-4-9-10-11							
"	Cont test 2-7							6JB6●	pe	3	8	4	14	3	*
6HL5	2	8	4	18	3	1-2-7-9	"	*1-2-6-7-8-10							
"	Ignore glow on 1 - Cont test 1-2							"	Ignore glow on 1-7 & 2-6						
6HL7	2	8	6	16	1	*	6JC5	2	8	12	18	4-11	*		
"	*2-3-7-8-9 - Ignore glow on 3							"	*2-3-6-9-10						
"	Cont test 3-4-5-9							"	Cont test 2-9, 3-10 & 4-11						
6HL8	t	3	8	5	16	8	6JC6	2	8	5	14	1-3	2-7-8-9		
"	pe	3	8	5	14	7	"	Cont test 1-3							
6HM5	3	8	4	14	2-7	1-5	6JC8	pe	2	8	5	16	1-7	2-3-6	
"	Cont test 2-7							"	t	2	8	5	16	8-9	
6HM6	pe	3	8	4	14	1-3	"	Cont test 1-7							
"	Ignore glow on 1							6JD5	2	8	1	18	4	*	
6HQ5	t	2	8	3	14	2-7	"	*2-3-7-10-11							
"	Ignore glow on 2-7							"	Must show short on 2-11 & 3-10						
6HR5	3	8	3	20	2	1-5-6-7	6JD6	3	8	5	14	1-3	2-7-8-9		
"	Ignore glow on 1 - Cont test 1-7							"	Cont test 1-3						
6HR6	2	8	4	14	7	1-2-5-6	6JE6●	3	8	5	14	3	*		
6HS5	2	8	1	16	4	2-7-11	"	*1-2-6-7-8-10							
"	Ignore glow on 2-7							"	Cont test 1-7 & 2-6						
"	Cont test 2-11 & 3-10							6JE8	t	2	8	4	14	1	2-3
6HS6	2	8	4	14	7	1-2-5-6	"	pe	2	8	4	12	6	7-8-9	
6HS8	pe	2	8	4	14	1	6JF6	2	8	4	18	3	*		
"	pe	2	8	4	14		"	*1-2-6-7-10 - Ignore glow on 1-2-6							
6HT5	2	8	1	24	5	6-10	"	Cont test 1-2-6-7							
"	Cont test 2-4-7-9-11							6JG5	2	8	4	18	6	7-8-9	
6HT6	pe	3	8	4	14	1-3	6JG6●	4	8	4	14	3	1-2-7-9		
"	Ignore glow on 1							"	Ignore glow on 1-2 - Cont test 1-7						
6HV5	2	8	1	20	4	*	6JH5	2	8	1	16	4	*		
"	*2-3-7-10-11							"	*2-3-7-8-10-11						
"	Must show short on 2-3-7-10-11							"	Cont test 2-11, 3-10 & 7-8						
6HW8	pe	2	8	4	18	7	"	Grid short test - throw 2-11							
"	pe	2	8	4	18		"	together							
6HZ5	2	8	1	18	4	*	"	Screen short test throw 3-10							
"	*2-3-7-10-11							"	together - Plate short test -						
"	Must show short on 2-11 & 3-10							"	throw 7-8 together						
6HZ6	1	8	4	8	2	1-5-6-7	6JH6	pe	3	8	3	14	2	1-5-6-7	
6HZ8	t	2	8	4	14	1	6JH8	3	8	5	16	7	*		
"	pe	2	8	4	12	6	"	*1-2-3-6-8-9							
6J5	2	8	2	20	8	3-5	6JK5	2	8	1	18	4	*		
6J6	t	1	8	3	8	7	"	*2-3-7-8-10-11							
"	t	1	8	3	8		"	Cont test 2-11, 3-10 & 7-8-Grid							
6J7	2	8	2	16	8	3-4-5-10	"	short test-throw 2-11 together							
							"	Screen short test-throw 3-10 together-Plate short test-throw 7-8							
							"	together							

TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
6JK6	2	8	4	14	2	1-5-6-7	6KH8	2	8	4	18	7	1-2		
6JK8	t	2	8	5	14	3	1-2	"	2	8	4	18	2-3-9		
"	t	1	8	5	8	8	6-7	"	2	8	4	18	6-8-9		
6JL6	3	8	4	14	2	1-5-6-7	6KL8	pe	2	8	5	16	3	2-6-7	
6JM6	pe	3	8	1	14	2	3-4-5-10	"	d	2	8	5	16	8	
"	Ignore glow	on	4					6KM6●	2	8	4	16	3	*	
6JN6	pe	3	8	1	14	2	*	"	*1-2-6-7-10						
"	*3-4-7-10-11							"	Ignore glow	on	1-2-6				
"	Ignore glow	on	4-10					"	Cont test	1-2-6-7					
6JN8	t	2	8	5	14	3	1-2	6KM8	te	2	8	5	16	6	1-7-8
"	pe	2	8	5	14	8	6-7-9	"	te	2	8	5	16	7-8-9	
6JQ6	pe	2	8	4	18	9	1-2-3-7-8	"	te	2	8	5	16	2-7-8	
"	d	2	8	4	26		6	"	d	1	8	5	18	3	
"	Ignore glow	on	7 - May	glow	on	2		6KN6	4	8	12	14	2	*	
"	Cont test	7-8						"	*3-4-5-9-10-11						
6JR6●	4	8	5	14	3	1-2-6-7-9		"	Ignore glow	on	3-4-5-9-10				
"	Cont test	1-7 - Ignore	glow	on	1			"	Cont test	3-4-5-9-10-11					
6JS6	pe	4	8	12	14	2	*	6KN8	t	2	8	4	16	8	6-7
"	*3-4-5-9-10-11							"	t	2	8	4	16	3	1-2
"	Cont test	3-11, 4-10 &	5-9					6KR8	t	2	8	4	14	1	2-3
"	Do not attach	grid lead	to top					"	pe	3	8	4	14	6	7-8-9
"	tube terminal							6KS6	4	8	3	38	1	2-5-6-7	
"	Ignore glow	on	3-4-5-9-10					6KS8	t	2	8	4	18	1	2-3
6JT6●	pe	3	8	4	16	3	*	"	pe	2	8	4	16	6	7-8-9
"	*1-2-6-7-9 - Ignore	glow	on	1-7				6KT6	2	8	4	16	1-3	2-7-8	
6JT8	t	2	8	5	16	1	2-3	6KT8	t	2	8	4	14	1	2-3
"	pe	3	8	5	14	6	7-8-9	"	pe	3	8	4	14	6	7-8-9
6JU6●	2	8	4	16	3		*	6KU8	d	1	8	4	12	1	3
"	*1-2-6-7-10							"	d	1	8	4	12	2	
"	Ignore glow	on	1-2-6					"	pe	2	8	4	16	6	7-8-9
"	Cont test	1-2-6-7						6KV6●	2	8	4	16	3	1-2-7-9	
6JU8	d	3	8	5	14		1-2-7-8	"	Ignore glow	on	1-2 - Cont	test	1-7		
"	d	3	8	5	14		1-7	6KV8	t	2	8	4	14	1	2-3
6JV8	t	2	8	5	16	1	2-3	6KY6	pe	2	8	4	16	1	2-7-8
"	pe	2	8	5	14	6	7-8-9	"	Cont test	3-9					
6JX8	t	2	8	4	18	3	8-9	6KY8●	t	2	8	4	18	1	8-9
"	h	2	8	4	18		2-6-7	"	pe	3	8	4	14	3	2-6-7
6JY8	t	2	8	4	19	1	2-3	6KZ8	pe	3	8	4	14	3	2-6-7
"	pe	2	8	4	19	6	7-8-9	t	2	8	4	14	8	1-9	
6JZ6	2	8	12	16	2	3-4-5-10		6L6	3	8	2	18	8	3-4-5	
"	Ignore glow	on	4-5	Cont	test	4-10		6LB6	3	8	1	12	2	3-5-9-11	
6JZ8	t	2	8	12	18	11	2-10	"	Ignore glow	on	3-5-9				
"	pe	3	8	12	14	9	4-6-7-8	"	Cont test	3-4-5-9-10-11					
"	Cont test	6-7						6LB8	t	2	8	4	20	1	2-3
6K6	3	8	2	20	8	3-4-5		"	pe	3	8	4	14	6	7-8-9
6K11	t	2	8	12	16	3	2-11	6LC6	2	8	7	28	6	5-10	
"	t	2	8	12	16	6	5-7	"	Cont test	1-3-4					
"	t	2	8	12	16	4	9-10	6LC8	t	2	8	4	16	3-7	1-2
6KA8	t	2	8	5	16	3	1-2	"	pe	3	8	4	14	3-7	6-8-9
"	pe	2	8	5	14		6-7-8-9	6LD6	3	8	4	14	1	2-6-7-8	
6KD6	3	8	1	12	2	3-5-9-11		"	Cont test	6-8 & 3-9					
"	Ignore glow	on	3-5-9					6LE8	pe	2	8	4	18	3	1-8-9
"	Cont test	3-4-5-9-10-11						"	pe	2	8	4	18	6-8-9	
6KD8	pe	2	8	5	16	7	2-3-6	6LF6	2	8	1	24	2	*	
"	t	2	8	5	16	8	1-9	"	*3-4-10-11						
6KE8	pe	2	8	5	14	7	2-3-6	"	Must show	short	on	3-4-10-11			
"	t	2	8	5	16	8	1-9	6LF8	t	2	8	4	16	1	2-3
6KF8	pe	3	8	4	14	1	2-3-6-7	"	pe	3	8	4	16	6	7-8-9
"	pe	3	8	4	14	1	2-7-8-9	6LG6	2	8	1	20	4-10	*	
6KG6▲	2	8	4	16	9		*	"	*3-5-9-11						
"	*1-3-6-8-10							"	Must show	short	on	3-4-5-9-10-11			
"	Ignore glow	on	1-3-6					6LH6	2	8	7	26	6	5-10	
"	Cont test	1-2-3-6-7-8						"	Cont test	1-3-4					

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST
6LJ6	3	8	2	50	6	5-10	6MC6●	2	9	4	18	3	*
"	Cont test 1-3-4						"	*1-2-6-7-10					
6LJ8	t 2	8	4	14	3-8	1-2	"	Cont test 1-2-6-7					
"	p 3	8	4	14	3-8	6-7-9	6MD8●	t 2	8	4	18	7	3-6
"	Cont test 3-8,						"	t 2	8	4	18		2-8
6LM8	t 2	8	4	14	8	1-9	"	t 2	8	4	18		1-9
"	pe 3	8	4	14	7	2-3-6	6ME6●	3	8	4	14	3	*
6LN8	t 2	8	4	16	8	1-9	"	*1-2-6-7-10					
"	pe 2	8	4	16	7	2-3-6	"	Cont test 1-2-6-7					
6LQ6●	3	8	5	14	3	*	6ME8	3	8	4	16	7	*
"	*1-2-6-7-8-10						"	*1-2-3-6-8-9					
"	Cont test 1-7 & 2-6						6MF8	t 2	8	1	16	11	2-10
6LQ8	t 2	8	4	14	1	2-3	"	pe 2	8	1	16	9	4-6-7-8
"	pe 3	8	4	14	6	7-8-9	"	Ignore glow on 6 - Cont test 6-7					
6LR6	4	8	12	14	2	*	6MG8	t 2	8	4	18	8	1-9
"	*3-4-5-9-10-11						"	pe 2	8	4	18	7	2-3-6
"	Cont test 3-11, 4-10 & 5-9						6MH1	2	8	3	14	2	1-5-6-7
6LRS●	t 2	8	4	16	1	8-9	"	Ignore glow on 1-5					
"	pe 2	8	4	16	3	2-6-7	6MH6	2	8	1	24	2	3-4-10-11
6LT8	d 1	8	4	10	7	8	"	Must show short on 3-4-10-11					
"	d 1	8	4	10		6	6MHH3	t 1	8	3	8	7	2-5
"	pe 2	8	4	16	1-7	2-3-9	"	t 1	8	3	8		1-6
6LU6	2	8	3	18	2	1-5-6-7	6MJ6●	3	8	5	14	3	*
6LU8	t 2	8	12	18	11	2-10	"	*1-2-6-7-8-10					
"	pe 4	8	12	14	9	4-6-7-8	"	Cont test 1-7 & 2-6					
"	Ignore glow on 6 - Cont test 6-7						6MJ8	t 2	8	1	18	3	6-8
6LV6	2	8	1	24	2	*	"	t 2	8	1	18		4-10
"	*3-4-10-11						"	t 2	8	1	18		2-11
"	Must show short on 3-4-10-11						6MK8	pe 2	8	4	16	1	2-7-8
6LW6	pe 3	8	7	14	2-6	1-3-5-10	"	pe 2	8	4	16		2-3-7
"	Cathode short test-throw 2-6						6ML4	2	8	3	14	5	1-2-6-7
"	together. Cont test 1-2-5-6						"	Ignore glow on 1-2					
"	Ignore glow on 1						"	Cont test 1-2-6-7					
6LX6	2	8	12	16	2	*	6ML8	t 2	8	4	18	7	3-6
"	*3-4-5-9-10-11						"	t 2	8	4	18		2-8
"	Do not attach grid lead to top						"	t 2	8	4	18		1-9
"	tube terminal						6MN8	t 2	8	1	18	3	2-11
"	Cont test 3-11, 4-10 & 5-9						"	t 2	8	1	18		4-10
"	Grid short test - throw 5-9						"	t 2	8	1	18		6-8
"	together - Screen short test -						6MP17	3	8	3	20	2	1-5-6-7
"	throw 3-11 together						6MP18	3	8	3	18	2	1-5-6-7
"	Beam plate short test - throw 4-10						"	Ignore glow on 1 - Cont test 1-7					
"	together						6MP20	2	8	3	18	2	1-5-6
6LX8	t 2	8	4	16	8	1-9	6MQ8	t 2	8	4	21	8	1-9
"	pe 2	8	4	16	7	2-3-6	"	pe 2	8	4	23	7	2-3-6
6LY8	t 2	8	4	18	1	2-3	6MU8	t 2	8	5	19	8	1-9
"	pe 2	8	4	16	6	7-8-9	"	p 2	8	5	19	7	2-3-6
6LZ6●	2	8	5	18	3	1-2-6-7-9	6MV8	t 2	8	4	18	1	2-3
"	Cont test 1-2-6-7						6MX8●	t 2	8	5	20	1	8-9
6M11	pe 1	8	12	8	10	2-3-11	"	pe 4	8	5	16	3	2-6-7
"	t 2	8	12	14	4	5-6	"	pe 2	8	4	18	6	7-8-9
"	t 2	8	12	14	9	7-8	6MY8	t 2	8	12	18	11	2-10
6MA6	3	8	3	46	7	6-10	"	pe 4	8	12	14	9	4-6-7-8
"	Cont test 2-4-5-8						"	Ignore glow on 6 - Cont test 6-7					
"	Good tube reads above 40						6N3	3	8	4	16	3	9
6MB6	2	8	1	18	2	*	6PL12	t 2	8	4	14	8	3-6-7
"	*3-4-5-9-10-11						"	pe 2	8	4	14	2	3-6-7
"	Cont test 3-4-5-9-10-11						6Q5	3	8	2	20	8	3-5
"	Do not attach grid lead to top						6Q8	to 2	8	2	16	8	*
"	tube terminal						"	*3-4-5-6-10					
6MB8	t 2	8	4	16	3	1-2	"	t 2	8	2	16		5-6
"	pe 2	8	4	16	8	6-7-9							

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
6Q11	t	2	8	1	16	3	2-11	6V9	t	2	8	5	16	9	8-10
"	t	2	8	1	16	6	5-7	"	h	2	8	5	18	1	3-4-7
"	t	2	8	1	16	4	9-10	6W4	"	4	7	7	14	3	5
6R3	d	4	8	4	14	10	2-9	"	Allow sufficient heater warm-up time						
"	Ignore glow on 2							"							
6R4		2	8	4	16	3	1-8	6W6		3	8	2	16	8	3-4-5
6R8	t	3	8	4	24	7	8-9	6X4	p	4	8	3	14	7	1
"	d	1	8	4	8	3	2	"	p	4	8	3	14		6
"	d	1	8	4	8		1	6X5	p	4	8	2	14	8	3
"	d	1	8	4	8		6	"	p	4	8	2	14		5
6RA6		3	8	2	16	8	4-5-10	6X8	t	2	8	4	14	6	2-3
6RA9		2	8	4	18	1	2-7-9	"	pe	2	8	4	14		1-7-8-9
"	Cont test 2-7							6X9	t	2	8	5	16	1	9-10
6RB11		2	8	4	18	7	1-3-6-9	"	pe	2	8	5	16	2	3-7-8
"	Cont test 3-6							6Y9	pe	2	8	5	16	7	8-9-10
6RHH2	t	2	8	4	14	8	6-7	"	pe	2	8	5	16	2	1-3-4
"	t	2	8	4	14	3	1-2	6Y10	pe	2	8	12	16	9	8-10-11
6RHH8	t	2	8	4	16	8	6-7	"	pe	2	8	12	16	2	3-6-7
"	t	2	8	4	16	3	1-2	6Z4	p	4	8	1	14	5	2
6RK19		1	8	4	10	10	2-9	"	p	4	8	1	14		3
"	Ignore glow on 2 - Cont test 2-9							6Z10	pe	2	8	12	14	3	2-9-11
6RP15		2	8	4	18	3	1-2-7-9	"	pe	4	8	12	40	8	4-5-6-7
"	Ignore glow on 1 - Cont test 1-2							7AU7	t	3	5	9	20	8	6-7
6RP22		2	8	4	16	1	*	"	t	3	5	9	20	3	1-2
"	*2-3-6-8-9							"	Cont test 4-5						
"	Ignore glow on 2-3-6-8							7D10		3	8	4	14	3	2-7-8
"	Cont test 2-3-8-9							7EY6		2	9	2	14	8	3-4-5
6S4		2	8	4	14	2	3-6-9	7GS7	t	2	9	4	18	38	1-2
"	Ignore glow on 3 - Cont test 3-6							"	pe	2	9	4	16		6-7-9
6SA7		2	8	2	14	6	3-4-5-8	"	Cont test 3-8						
6SB7		2	8	2	14	6	3-4-5-8	7HG8	t	2	9	4	14	1-3	6-7
6SL7	t	3	8	7	24	3	1-2	"	pe	2	9	4	12	1-3	2-8-9
"	t	3	8	7	24	6	4-5	"	Cont test 1-3						
6SN7	t	2	8	7	16	3	1-2	7KY6		2	9	4	16	1	2-7-8
"	t	2	8	7	16	6	4-5	"	Cont test 3-9						
6SQ7	t	1	8	7	8	3	2-6	7KZ6		2	9	4	16	1	2-7-8
"	d	1	8	7	18		5	"	Cont test 3-9						
"	d	1	8	7	18		4	7MP18		3	8	3	18	2	1-5-6-7
6T8	t	1	8	4	8	7	8-9	"	Ignore glow on 1 - Cont test 1-7						
"	d	1	8	4	8		6	8AC9	pe	2	9	12	16	8	9-10-11
"	d	1	8	4	8	3	2	"	d	1	9	12	10	4	2
"	d	1	8	4	8		1	"	Cont test 3						
6T9	t	2	8	12	16	5	2-4	8AC10	t	2	8	12	16	4	9-10
"	pe	3	8	12	14	9	8-10-11	"	t	2	8	12	16	6	5-7
6T10	pe	2	8	12	16	2	3-5-6-7	"	t	2	8	12	16	3	2-11
"	pe	3	8	12	14	9	8-10-11	8AL9	t	2	9	1	20	6	5-7
6U3		3	8	4	16	3	9	"	pe	2	9	1	20	9	2-10-11
6U5	t	2	8	1	22	5	2-3	8AR11	pe	2	9	12	14	6	2-3-4-5
"	e	4	8	1	0		2-4	"	pe	2	9	12	14	11	7-8-9-10
"	See instructions for eye test							8AU8	t	2	9	4	14	1	2-3
6U8	t	2	8	4	14	8	1-9	"	pe	2	9	4	14	6	7-8-9
"	pe	2	8	4	14	7	2-3-6	8AV11	t	2	9	1	16	3	2-11
6U9	t	2	8	5	18	1	9-10	"	t	2	9	1	16	6	5-7
"	pe	2	8	5	16	2	3-7-8	"	t	2	9	1	16	4	9-10
6U10	t	2	8	12	18	3	2-11	8AW8	t	2	9	4	16	1	2-3
"	t	2	8	12	18	4	9-10	"	pe	2	9	4	14	6	7-8-9
"	t	2	8	12	18	6	5-7	8B8	t	2	9	4	18	8	1-9
6V3		4	8	4	14	10	2-7-9	"	pe	2	9	4	16	2	3-6-7
"	Ignore glow on 2-7							8B10	t	2	9	12	16	2	3-4
"	Cont test 2-7-9							"	t	2	9	12	16	7	5-6
6V6		3	8	2	20	8	3-4-5	"	d	1	9	12	10	9	8
"								"	d	1	9	12	10	9	10

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST
8BA8	t	2	9	4	14	1	2-3	8GJ7	t	2	9	4	14	1-3	8-9
"	pe	2	9	4	14	6	7-8-9	"	pe	3	9	4	14		2-6-7
8BA11	pe	2	9	1	16	8	2-3-4-5	"	Cont test	1-3					
"	pe	2	9	1	16	8	3-4-6-7	8GK6	pe	2	9	4	12	1	2-3-7-9
"	t	2	9	1	18	10	9-11	"	Ignore glow on	3					
8BH8	t	2	9	4	14	1	2-3	8GM6	2	9	3	12	2		1-5-6
"	pe	2	9	4	14	6	7-8-9	8GN8	t	2	9	4	14	1	2-3
8BM11	pe	2	9	12	16	10	7-9-11	"	pe	2	9	4	12	6	7-8-9
"	pe	2	9	12	16	5	2-3-6	8GU7	t	2	9	5	16	3	1-2
8BN8	t	2	9	4	16	9	7-8	"	t	2	9	5	16	8	6-7
"	d	1	9	4	8	3	6	8GX7	t	2	9	4	16	1	8-9
"	d	1	9	4	8	2	1	"	pe	3	9	4	14	3	2-6-7
8BN11	pe	2	9	12	16	8	7-9-11	"	Ignore glow on	1-3					
"	pe	2	9	12	16	2	3-4-5	SHA6	3	9	4	14	1	*	
8BQ5	3	9	4	18	3		1-2-7-9	"	*2-3-6-7-8-9						
"	Ignore glow on	1	-	Cont test	1-2			"	Cont test	6-8 & 3-9					
8BQ7	t	2	9	4	14	8	6-7	8HG8	t	2	9	4	14	1	6-7
"	t	2	9	4	14	3	1-2	"	pe	2	9	4	12	1	2-8-9
8BQ11	pe	2	9	12	16	11	8-9-10	"	Ignore glow on	1					
"	pe	2	9	12	16	6	2-3-5	8JE8	t	2	9	4	14	1	2-3
8BU11	t	2	9	12	16	2	3-4	"	pe	2	9	4	12	6	7-8-9
"	t	2	9	12	16	5	6-7	8JK8	t	2	9	5	14	3	1-2
"	pe	2	9	12	16	11	8-9-10	"	t	1	9	5	8	8	6-7
8CB11	pe	2	9	12	14	6	2-3-4-5	8JT8	t	2	9	5	16	1	2-3
"	pe	2	9	12	14	11	7-8-9-10	"	pe	3	9	5	14	6	7-8-9
8CG7	t	3	9	4	24	8	6-7	8JU8	d	3	9	5	14		1-2-7-8
"	t	3	9	4	24	3	1-2	"	d	3	9	5	14		1-7
8CL8	t	2	9	4	14	3	1-2	8JV8	t	2	9	5	16	1	2-3
"	te	2	9	4	14	8	6-7-9	"	pe	2	9	5	14	6	7-8-9
8CM7	t	2	9	4	14	3	6-7	8K11	t	2	9	12	16	3	2-11
"	t	2	9	4	14	9	1-8	"	t	2	9	12	16	6	5-7
8CN7	t	2	6	9	18	6	7-8	"	t	2	9	12	16	4	9-10
"	d	1	6	9	8	3	2	8KA8	t	2	9	5	16	3	1-2
"	d	1	6	9	8		1	"	pe	2	9	5	14		6-7-8-9
"	Cont test	4-5						8KR8	t	2	9	4	14	1	2-3
8CS7	t	3	9	4	18	9	1-3	"	pe	3	9	4	14	6	7-8-9
"	t	3	9	4	22	8	6-7	8KS8	t	2	9	5	19	1	2-3
8CW5	2	9	4	12	3		*	"	pe	2	9	5	20	6	7-8-9
"	*1-2-6-7-8-9							8KT8	t	2	9	4	14	1	2-3
"	Ignore glow on	1-6						"	pe	2	9	4	14	6	7-8-9
"	May show short on	1-2-6-7-8-9						8LC8	t	2	9	4	16	3-7	1-2
8CX8	t	2	9	4	16	1	2-3	"	pe	3	9	4	14	3-7	6-8-9
"	pe	2	9	4	14	6	7-8-9	8LE8	pe	2	9	4	18	3	1-8-9
8CY5	2	9	3	14	2-7		1-5-6	"	pe	2	9	4	18		6-8-9
"	Cont test	2-7						8LS6	2	8	4	18	1	2-7-8	
8CY7	t	2	9	4	18	8	6-7	"	Cont test	3-9					
"	t	3	9	4	40	9	1-2-3	8LT8	d	1	9	4	10	7	8
"	Ignore glow on	2	-	Cont test	2-3			"	d	1	9	4	10		6
8D8	2	9	4	20	3		1-6-8-9	"	pe	2	9	4	16	1-7	2-3-9
"	Cont test	2-7						8LX8	t	2	9	4	16	8	1-9
8DX8	t	2	9	4	14	3	1-2	"	pe	2	9	4	16	7	2-3-6
"	pe	2	9	4	14	7	6-8-9	8MD8●	t	2	9	4	18	7	3-6
8EB8	t	2	9	4	14	1	2-3	"	t	2	9	4	18		2-8
"	pe	2	9	4	14	6	7-8-9	"	t	2	9	4	18		1-9
8EM5	3	9	4	16	7		1-3-6-9	8MU8	t	2	9	5	19	8	1-9
"	Ignore glow on	3	-	Cont test	3-6			"	pe	2	9	5	19	7	2-3-6
8ET7	p	2	9	4	14	6	7-8-9	8RHP1	t	2	9	4	18	8	1-9
"	d	1	9	4	18	1	3	"	pe	2	9	4	16	2	3-6-7
"	d	1	9	4	20		2	8U9	t	2	9	5	18	1	9-10
8FQ7	t	2	9	5	18	3	1-2	"	pe	2	9	5	16	2	3-7-8
"	t	2	9	5	18	8	6-7	8X9	t	2	9	5	16	1	9-10
"								"	pe	2	9	5	16	2	3-7-8

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST	
9A8	t	2	9	4	14	8	1-9	9A6		2	10	5	18	1	2-7-9	
"	pe	2	9	4	14	7	2-3-6	"	Must show short on 2-7							
9AH9	t	2	8	1	18	4	2-3	Grid	short test - Throw 2-7 together							
"	pe	2	8	1	16	7	5-6-8-11	"	together							
9AK10	t	2	9	1	20	4	9-10	9RAL1	t	3	10	4	20	8	6-7	
"	t	2	9	1	20	6	5-7	"	t	2	10	4	16	9	1-2-3	
"	t	2	9	1	20	3	2-11	"	Ignore glow on 2 - Cont test 2-3							
9AM10	t	2	10	1	18	4	9-10	9RHR2	t	3	10	4	14	8	1-9	
"	t	2	10	1	18		5-7	"	pe	3	10	4	14	7	2-3-6	
"	t	2	10	1	18		2-11	9U8	t	2	10	4	14	8	1-9	
9AQ8	t	2	9	4	14	8	6-7	"	pe	2	10	4	14		2-3-6	
"	t	2	9	4	14	3	1-2	9V9	t	2	10	5	16	9	8-10	
9AU7	t	3	7	9	20	3	1-2	"	h	2	10	5	18	1	3-4-7	
"	t	3	7	9	20	8	6-7	9X8	t	2	10	4	14	6	2-3	
9BJ11	pe	2	10	12	16	10	7-9-11	"	pe	2	10	4	14		1-7-8-9	
"	pe	2	10	12	16	5	2-3-6	10AF11	t	2	10	12	16	7	3-4	
9BR7	t	2	7	9	14	3	1-2	"	t	2	10	12	16	5	6-8	
"	d	1	7	9	8	8	7	"	pe	2	10	12	14	9	2-10-11	
"	d	1	7	9	8		6	10AL11	pe	3	10	12	14	9	8-10-11	
9CG8	t	2	10	4	14	3-8	1-2	"	pe	2	10	12	16	2	3-4-6-7	
"	pe	2	10	4	14		6-7-9	10BQ5		3	10	4	18	3	1-2-7-9	
"	pe	2	10	4	14		6-7-9	"	Ignore glow on 1 - Cont test 1-2							
9CL8	t	2	10	4	14	3	1-2	10CW5		2	10	4	12	3	*	
"	te	2	10	4	14	8	6-7-9	"	*1-2-6-7-8-9							
9DZ8	t	2	10	4	22	8	1-9	"	Ignore glow on 1-6-7							
"	pe	2	10	4	20	2	3-6-7	"	May show short on 1-2-6-7-8-9							
9EA8	pe	2	10	4	14	7	2-3-6	10DE7	t	3	10	4	22	8	6-7	
"	t	2	10	4	14	8	1-9	"	t	3	10	4	16	9	1-2-3	
9ED4▲	2	9	4	26	1		8-10	"	Ignore glow on 2 - Cont test 2-3							
9GH8	t	3	9	4	14	8	1-9	10DR7	t	2	10	4	18	8	3-6	
"	pe	3	9	4	14	7	2-3-6	"	t	2	10	4	14	9	1-2-3	
9GV8	t	2	10	4	14	3	1-2	"	Ignore glow on 2 - Cont test 2-3							
"	pe	3	10	4	14	8	6-7-9	10DX8	t	2	10	4	14	3	1-2	
9JC8	pe	2	10	5	16	1-7	2-3-6	"	pe	2	10	4	14	7	6-8-9	
"	t	2	10	5	16		8-9	10EB8	t	2	10	4	14	1	2-3	
9KC6	2	10	4	16	1		2-7-9	"	pe	2	10	4	14	6	7-8-9	
9KG6▲	2	10	4	16	9		*	10EG7	t	2	10	7	16	6	4-5	
"	*1-3-6-8-10							10EM7	t	2	10	7	12	3	1-2	
"	Ignore glow on 1-3-6							10EW7	t	2	10	7	16	6	4-5	
"	Cont test 1-2-3-6-7-8							"	t	2	10	7	14	3	1-2	
9KV8	t	2	10	4	14	1	2-3	10FD7	t	3	10	4	20	8	6-7	
"	pe	3	10	4	14	6	7-8-9	"	t	2	10	4	12	9	1-2-3	
9KX6	2	8	4	16	1		2-7-8	"	Ignore glow on 2 - Cont test 2-3							
9KZ8	t	2	10	5	14	8	1-9	10FR7	t	2	10	4	12	8	6-7	
"	pe	3	10	5	14	3	2-6-7	"	t	2	10	4	12	9	1-2-3	
9LA6	2	9	4	16	1		2-7-8	"	Ignore glow on 2							
9MHH3	t	2	9	3	14	7	2-5	10GF7●	t	1	10	5	8	1	8-9	
"	t	2	9	3	14		1-6	"	t	3	10	5	14	3	2-6	
9ML8	t	2	10	4	18	7	3-6	10GH8	t	3	10	4	14	8	1-9	
"	t	2	10	4	18		2-8	"	pe	3	10	4	14	7	2-3-6	
"	t	2	10	4	18		1-9	10GK6	pe	2	10	4	12	1	2-3-7-9	
9MN8	t	2	9	1	18	3	2-11	"	Ignore glow on 3							
"	t	2	9	1	18		4-10	10GN8	t	2	10	4	14	1	2-3	
"	t	2	9	1	18		6-8	"	pe	2	10	4	12	6	7-8-9	
9MP12	2	9	3	18	2		1-5-6	10GV8	t	2	10	4	14	3	1-2	
								"	pe	3	10	4	14	8	6-7-9	
								10HA6	pe	3	10	4	14	1	*	
								"	*2-3-6-7-8-9							
								"	Cont test 6-8,3-9							

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
10HF8	t	2	10	5	16	1	2-3	11CA11	t	1	10	1	10	7	2-3
"	pe	3	10	5	14	6	7-8-9	"	t	1	10	1	10	5	4-6
10JA5		2	10	1	18	4-11	*	"	pe	1	10	1	10	9	8-11
"	*2-3-6-9-10							"	May show short on 7						
"	Cont test 2-9 & 3-10 & 4-11							11CF11	d	2	10	1	18	7	2-11
"	Cathode short test - throw 4-11 together							"	d	2	10	1	20	8	9-10
"	Grid short test - throw 2-9 together							"	pe	2	10	1	18	6	3-4-5
"	Screen short test - throw 3-10 together							11CH11	t	2	10	1	18	6	2-3-5
10JA8	t	2	10	4	18	1	2-3	"	t	2	10	1	19	4	5-7
"	pe	2	10	4	18	6	7-8-9	"	p	2	10	1	17	8	2-10-11
10JT8	t	2	10	5	16	1	2-3	11CY7	t	2	11	4	18	8	6-7
"	pe	3	10	5	14	6	7-8-9	"	t	2	11	4	14	9	1-2-3
10JY8	t	3	10	5	14	1	2-3	"	Ignore glow on 2 - Cont test 2-3						
"	pe	3	10	5	14	6	7-8-9	11DS5		2	10	3	16	2	1-5-6-7
10KR8	t	2	10	4	14	1	2-3	"	Ignore glow on 1 - Cont test 1-7						
"	pe	3	10	4	14	6	7-8-9	11FY7	t	3	10	12	14	7	3-5
10KU8	d	1	10	4	12	1	3	"	t	2	10	12	18	9	10-11
"	d	1	10	4	12		2	11HM7		2	7	6	16	1	2-7-8
"	pe	2	10	4	16	6	7-8-9	"	Cont test 3-4-5-9						
10L14	t	2	13	5	14	8	6-7	11JE8	t	2	11	4	14	1	2-3
"	t	2	13	5	14	8	1-2	"	pe	2	11	4	12	6	7-8-9
10LB8	t	2	10	4	20	1	2-3	11KV8	t	2	11	4	14	1	2-3
"	pe	3	10	4	14	6	7-8-9	"	pe	3	11	4	14	6	7-8-9
10LD6		3	10	4	14	1	2-6-7-8	11LQ8	t	2	11	4	14	1	2-3
"	Cont test 6-8 & 3-9							"	pe	3	11	4	14	6	7-8-9
10LE8	pe	2	10	4	18	3	1-8-9	11LTS	d	1	10	4	10	7	8
"	pe	2	10	4	18		6-8-9	"	d	1	10	4	10		6
10LM8	t	2	10	4	14	8	1-9	"	pe	2	10	4	16	1-7	2-3-9
"	pe	3	10	4	14	7	2-3-6	11LY6		2	10	4	18	1	*
10LW8	t	2	10	4	16	1	2-3	"	*2-3-7-8-9						
"	pe	2	10	4	16	6	7-8-9	"	Cont test 3-9						
10LY8	t	2	10	4	18	1	2-3	11MS8	t	1	11	4	11	3	1-2
"	pe	2	10	4	16	6	7-8-9	"	pe	1	11	4	11	8	6-7-9
10LZ8	t	2	10	4	18	1	2-3	11R3		4	10	4	14	10	2-9
"	pe	2	10	4	18	6	7-8-9	"	Ignore glow on 2						
10P18		2	14	4	14	3	*	11Y9	pe	2	10	5	16	7	8-9-10
"	*1-2-6-7-8-9							"	pe	2	10	5	16	2	1-3-4
"	Ignore glow on 1-6							12AC10	t	2	11	12	16	4	9-10
"	Cont test 1-2-6-8-9							"	t	2	11	12	16	6	5-7
10T10	pe	2	10	12	16	2	3-5-6-7	"	t	2	11	12	16	3	2-11
"	pe	3	10	12	14	9	8-10-11	12AD6		3	11	3	20	2	1-5-6-7
10Z10	pe	2	10	12	14	3	2-9-11	12AE6	t	3	11	3	28	2	1-7
"	pe	4	10	12	40	8	4-5-6-7	"	d	1	11	3	18		6
11AF9	pe	2	10	5	16	7	8-9-10	"	d	1	11	3	18		5
"	pe	2	10	5	16	2	1-3-4	12AE7	t	2	8	9	14	8	6-7
"	May show short on 2							"	t	2	8	9	14	3	1-2
11AR11	pe	2	10	12	14	6	2-3-4-5	"	Cont test 4-5						
"	pe	2	10	12	14	11	7-8-9-10	12AE10	pe	2	11	12	18	2	3-6-7
11BMS	t	2	10	4	14	8	1-9	"	pe	3	11	12	18	9	8-10-11
"	pe	2	10	4	14	2	3-6-7	12AF4		2	11	3	14	5	1-2-6-7
11BN11	pe	2	10	12	16	8	7-9-11	"	Ignore glow on 1-2						
"	pe	2	10	12	16	2	3-4-5	"	Cont test 1-2-6-7						
11BQ11	pe	2	10	12	16	11	8-9-10	12AF6		2	11	4	14	7	1-2-5-6
"	pe	2	10	12	16	6	2-3-5	12AF11	t	2	11	12	16	7	3-4
11BT11	t	2	10	12	18	6	5-7	"	t	2	11	12	16	5	6-8
"	t	2	10	12	16	4	3-9	"	pe	2	11	12	14	9	2-10-11
"	pe	2	10	12	16	8	2-10-11	12AG6		2	11	4	14	2	1-5-6-7
								12AJ7	t	2	11	4	20	3	8-9
								"	h	2	11	4	18		1-2-6
								12AL8	t	3	11	4	30	9	1-8
								"	te	3	11	4	18	7	2-3-6

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
12AL11	pe	3	11	12	14	9	8-10-11	12BK6	t	3	11	3	18	2	1-7
"	pe	2	11	12	16	2	3-4-6-7	"	d	1	11	3	12		6
12AQ5		3	11	3	18	2	1-5-6-7	"	d	1	11	3	12		5
	Ignore glow on 1 -	Cont test					1-7	12BL6		2	11	3	14	7	1-2-5-6
12AQ6	t	1	11	3	8	2	1-7	12BN6		4	11	3	38	1	2-5-6-7
"	d	1	11	3	18		5	12BQ6		3	11	2	18	8	4-5-10
"	d	1	11	3	18		6	12BR3		3	11	4	26	10	2-9
12AS5	3	11	3	18	1		2-5-6-7	"	Ignore glow on 2 -	Cont test					2-9
	Ignore glow on 2 -	Cont test					2-5	12BR7	t	2	8	9	14	3	1-2
12AY6	t	3	11	3	20	2	1-7	"	d	1	8	9	10	8	7
"	d	1	11	3	16		5	"	d	1	8	9	10		6
"	d	1	11	3	16		6	"	Cont test	4-5					
12AT7	t	2	8	9	14	8	6-7	12BS3●	d	4	11	4	14	9	2-7
"	t	2	8	9	14	3	1-2	"	Ignore glow on 2						
	Cont test	4-5						12BT3		4	11	12	12		4-10
12AU6		3	11	3	16	7	1-2-5-6	"	Cont test	4-10					
12AU7	t	3	8	9	20	8	6-7	12BT6	t	2	11	3	18	2	1-7
"	t	3	8	9	20	3	1-2	"	d	1	11	3	18		5
"	Cont test	4-5						"	d	1	11	3	18		6
12AU8	t	2	11	4	14	1	2-3	12BU6	t	3	11	3	22	2	1-7
"	pe	2	11	4	14	6	7-8-9	"	d	1	11	3	12		6
12AV7	t	2	8	9	14	8	6-7	"	d	1	11	3	12		5
"	t	2	8	9	14	3	1-2	12BV7		2	8	6	14	1	*
	Cont test	4-5						"	*2-3-7-8-9 - Ignore glow on 3						
12AX3		3	11	1	16	7	4-10	"	Cont test	3-4-5-9					
"	Cont test	4-10						12BV11	pe	2	11	1	16	8	7-9-10
12AX4		4	11	7	14	3	5	"	pe	2	11	1	16	5	3-4-6
12AX7	t	1	8	9	10	8	6-7	12BY7		2	8	6	14	1	2-7-8
"	t	1	8	9	10	3	1-2	"	Cont test	3-4-5-9					
"	Cont test	4-5						12BZ6		2	11	3	14	2	1-5-6-7
12AY3●		4	11	4	14	9	2-7	12BZ7	t	2	8	9	14	8	6-7
"	Cont test	2-7						"	t	2	8	9	14	3	1-2
12AY7	t	1	8	9	10	8	6-7	"	Cont test	4-5					
"	t	1	8	9	10	3	1-2	12C5		2	11	3	14	1	2-5-6-7
"	Cont test	4-5						"	Ignore glow on 2 -	Cont test					2-5
12AZ7	t	3	8	9	16	8	6-7	12C8	pe	3	11	2	30	8	3-6-10
"	t	3	8	9	16	3	1-2	"	d	1	11	2	16		4
"	Cont test	4-5						"	d	1	11	2	16		5
12B4		2	8	3	14	1	2-7-9	12CA5		3	11	3	16	1	2-5-6-7
"	Ignore glow on 2							"	Ignore glow on 2 -	Cont test					2-5
"	Cont test	2-4-5-7						12CD6		3	11	2	16	3	4-8-10
12BA6		2	11	3	14	7	1-2-5-6	12CK3●		4	11	4	14	9	2-7
12BB14▲		3	11	4	16	3-8	*	"	Ignore glow on 2 -	Cont test					2-7
"	*1-2-6-7-10							12CL3●		4	11	4	14	9	2-7
"	Ignore glow on 1-6							"	Ignore glow on 2 -	Cont test					2-7
"	Cont test	1-2-3-6-7-8						12CM6		2	11	4	16	7	1-3-6-9
12BD6		2	11	3	17	7	1-2-5-6	"	Ignore glow on 3 -	Cont test					3-6
12BE3		1	8	1	8	7	4-10	12CN5		3	11	3	16	1	2-5-6-7
"	Ignore glow on 4							"	Ignore glow on 2 -	Cont test					2-5
12BE6		2	11	3	14	2	1-5-6-7	12CR6	d	1	11	3	16	1	2
12BF6	t	3	11	3	22	2	1-7	"	pe	2	11	3	16		5-6-7
"	d	1	11	3	18		6	12CS6		2	11	3	14	2	1-5-6-7
"	d	1	11	3	18		5	12CT3		4	11	4	14	9	2-6
12BF11	pe	2	11	12	16	2	3-6-7	"	Ignore glow on 2 -	Cont test					2-6
"	pe	2	11	12	14	9	8-10-11	12CT8	t	2	11	4	16	3	1-2
12BH7	t	3	8	9	16	8	6-7	"	pe	2	11	4	16	9	6-7-8
"	t	3	8	9	16	3	1-2	12CU5		3	11	3	16	1	2-5-6-7
"	Cont test	4-5						"	Ignore glow on 2 -	Cont test					2-5
12BK5		2	11	4	14	6	1-3-7-8	12CU6		3	11	2	16	8	4-5-10
"	Ignore glow on 3 -	Cont test					3-7	12CX6		2	11	3	14	7	1-2-5-6
								12D4		3	11	7	16	3	5

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST	
12DB5	3	11	4	18	2-7	1-3-6-9	12ED5	2	11	3	14	1	2-5-6-7	
"	Ignore glow on 3						"	Ignore glow on 2 - Cont test 2-5						
"	Cont test 2-3-6-7						12EG6	a	2	11	3	32	2	5-6-7
12DE8	pe	2	11	4	16	9	1-6-7-8	"	o	2	11	3	14	1-6
"	d	1	11	4	10	2	3	12EK6	2	11	3	14	7	1-5-6
12DF5	d	1	8	9	10	8	6	12EL6	d	1	11	3	18	7
"	d	1	8	9	10	3	1	"	d	1	11	3	18	6
"	Cont test 4-5						"	t	2	11	3	16	1-2	
12DF7	t	3	8	9	20	3	1-2	12EM6	t	2	11	4	14	2
"	t	3	8	9	20	8	6-7	"	d	1	11	4	12	9
"	Cont test 4-5						12EN6	2	11	7	14	8	3-4-5	
12DJ8	t	2	11	4	14	8	6-7	12EZ6	2	11	4	14	7	1-5-6
"	t	2	11	4	14	3	1-2	12F8	pe	3	11	4	20	7
12DK6	2	11	3	14	2	1-5-6-7	6	"	d	1	11	4	16	1
12DM4	d	4	11	8	12	3	5	"	d	1	11	4	16	1
12DM7	t	1	8	9	10	8	6-7	12FK6	t	2	11	3	16	2
"	t	1	8	9	10	3	1-2	"	d	1	11	3	8	6
12DN6	2	11	2	14	3	5-8-10	5	"	d	1	11	3	8	5
12DQ4	4	11	8	14	3	5	5	12FM9	t	1	11	3	16	2
12DQ5	3	11	2	14	3-6	*	*	"	d	1	11	3	16	6
"	*1-4-5-8-10 - Ignore glow on 1-4						"	d	1	11	3	16	5	
"	Cont test 1-3-4-5-6-8						12FQ7	t	2	11	5	18	3	1-2
12DQ6	3	11	2	16	8	4-5-10	4-5-10	"	t	2	11	5	18	8
12DQ7	2	8	6	14	1	2-7-8	2-7-8	12FR8	pe	2	11	4	14	5
"	Cont test 3-9						"	t	2	11	4	16	2	
12DS7	te	2	11	4	14	8	3-6-7	"	d	1	11	4	20	2
"	d	1	11	4	14		9	12FS5	2	11	3	14	2-7	
"	d	1	11	4	14		1	"	Cont test 2-7				1-5-6	
12DT5	2	11	4	18	7	1-3-6-9	1-3-6-9	12FV7	t	2	8	9	14	3
"	Ignore glow on 3 - Cont test 3-6						1-5-6-7	"	t	2	8	9	14	8
12DT6	2	11	3	14	2	1-5-6-7	1-5-6-7	12FX5	pe	3	11	3	14	1
12DT7	t	2	8	9	18	3	1-2	"	Ignore glow on 2-5					
"	t	2	8	9	18	8	6-7	12FX6	3	11	4	14	1	
12DU7	te	2	11	4	12	2	1-3-6	"	Cont test 2-5				2-5-6-7	
"	d	1	11	4	20		7	12FX8	t	2	11	4	16	7
"	d	1	11	4	20		9	"	h	2	11	4	14	7
12DV7	t	2	8	9	18	8	6-7	12FY8	t	2	11	4	16	8
"	d	1	8	9	26	1	2	"	p	2	11	4	14	2
"	d	1	8	9	26		3	12G11	pe	2	11	1	14	2
"	Cont test 4-5						"	pe	2	11	1	14	9	
12DV8	te	2	11	4	14	2	3-6-7	12GB3	3	11	7	16	8	
"	d	1	11	4	11	8	9	12GC5	3	11	5	16	7	
"	d	1	11	4	11		1	"	*1-3-6-8-9				*	
12DW4●	4	11	4	14	9	2-7	2-7	"	Cont test 1-8 & 3-6					
"	Cont test 2-7						12GE5	3	11	12	16	4-10	*	
12DW5	2	11	4	21	7	1-3-6-9	1-3-6-9	"	*2-3-7-11 - Ignore glow on 3					
"	Ignore glow on 3 - Cont test 3-6						12GJ5●	3	11	5	16	3	*	
12DW7	t	2	8	9	14	8	6-7	"	*1-2-6-7-10					
"	t	2	8	9	16	3	1-2	"	Cont test 1-7 & 2-6					
12DW8	t	2	11	4	14	8	6-7	12GK17	4	11	7	14	3	
"	t	2	11	4	14	3	1-2	12GN7	2	8	4-5	14	1	
"	d	1	11	4	10	8	9	"	*2-3-7-8-9					
12DY8	te	2	11	4	12	2	1-3-6	"	Ignore glow on 3 - Cont test 4-5					
"	t	2	11	4	14	7	8-9	12GT5●	4	11	5	14	3	
12DZ6	2	11	3	14	7	1-5-6	1-5-6	"	*1-2-6-7-9					
12DZ8	t	2	11	4	22	8	1-9	"	Cont test 1-7 & 2-6					
"	pe	2	11	4	20		3-6-7	12GV5	2	11	12	14	4-10	
12E5	3	11	2	26	8	3-5	3-5	"	*3-5-7-9-11				*	
12E13	2	8	2	16	8	3-4-5	3-4-5	"	Cont test 4-10 & 3-7-11 & 5-9					
12EA6	2	11	3	14	7	1-5-6	1-5-6	12GW6	3	11	7	16	8	
12EC8	pe	2	11	4	12	8	6-7-9	12HB25▲	3	11	4	16	9	
"	t	2	11	4	14	3	1-2	"	*1-2-6-7-10 - Ignore glow on 1-6				*	
								"	Cont test 1-2-3-6-7-8					

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TUBE	A	B	C	D	CATH SHORTS	TEST	TUBE	A	B	C	D	CATH SHORTS	TEST		
12HE7	d	4	8	10	14	4	2	12SN7	t	2	11	7	16	6	4-5
"	pe	3	8	10	14	8	5-9-11	"	t	2	11	7	16	3	1-2
12HG7	"	2	8	6	16	1	2-7-8	12SQ7	t	3	11	7	22	3	2-6
"	Cont test	3-9						"	d	1	11	7	16		4
12HL5	"	2	11	4	18	3	1-2-7-9	"	d	1	11	7	16		5
"	Ignore glow	on 1	-	Cont test	1-2			12SX7	t	3	11	7	20	3	1-2
12HL7	"	2	8	6	16	1	*	"	t	3	11	7	20	6	4-5
"	*2-3-7-8-9	-	Ignore glow	on 3				12SY7	"	3	11	2	18	6	3-4-5-8
"	Cont test	3-4-5-9						12T10	pe	2	11	12	16	2	3-5-6-7
12HU8	pe	2	11	4	18	7	1-2-3	"	pe	3	11	12	14	9	8-10-11
"	pe	2	11	4	18		6-8-9	12U7	t	3	8	9	20	8	6-7
12JB6●	"	4	11	5	14	3	*	"	t	3	8	9	20	3	1-2
"	*1-2-6-7-8-10							"	Cont test	4-5					
"	Cont test	1-7 & 2-6						12V6	"	3	11	2	20	8	3-4-5
12JF5	"	2	11	1	18	4-10	2-3-11	12W6	"	3	11	2	16	8	3-4-5
"	Do not attach	grid lead	to top					12X4	p	4	11	3	14	7	1
"	tube terminal							"	p	4	11	3	14		6
"	Cont test	3-11 & 4-10						13CW4	t	1	11	12	10	8	2-4
"	Cathode short	test - throw	4-10					13DE7	t	3	11	4	22	8	6-7
"	together							"	t	3	11	4	16	9	1-2-3
"	Grid short	test - throw	3-11					"	Ignore glow	on 2 -	Cont test	2-3			
"	together							13DR7	t	2	11	4	18	8	6-7
12JM6	"	3	11	1	14	2	3-4-5-10	"	t	2	11	4	14	9	1-2-3
"	Ignore glow	on 4						"	Ignore glow	on 2 -	Cont test	2-3			
12JN6	pe	3	11	1	14	2	*	13EM7	t	2	11	7	18	6	4-5
"	*3-4-7-10-11	-	Ignore glow	on 4				"	t	2	11	7	12	3	1-2
12JN8	t	2	11	5	14	3	1-2	13FD7	t	2	11	4	16	8	6-7
"	pe	2	11	5	14	8	6-7-9	"	t	2	11	4	12	9	1-2-3
12JQ6	pe	2	11	4	18	9	*	"	Ignore glow	on 2 -	Cont test	2-3			
"	d	2	11	4	26		6	13FM7	t	3	11	1	14	7	3-5-8
"	*1-2-3-7-8	-	Ignore glow	on 7				"	t	2	11	1	18	9	10-11
"	May glow	on 2 -	Cont test	7-8				"	Ignore glow	on 3 -	Cont test	3-8			
12JS6	"	4	11	12	14		*	13FR7	t	2	11	4	12	8	6-7
"	*3-4-5-9-10-11							"	t	2	11	4	12	9	1-2-3
"	Cont test	3-11, 4-10 & 5-9						"	Ignore glow	on 2					
"	Do not attach	grid lead	to top					13GB5▲	"	3	11	5	14	3-8	*
"	tube terminal							"	*1-2-6-7-10	-	Ignore glow	on 1-6			
12JT6●	pe	3	11	4	16	3	*	"	Cont test	3-8, 1-2 & 6-7					
"	*1-2-6-7-9	-	Ignore glow	on 1-7				13GF7●	t	1	11	5	8	1	8-9
12JZ8	t	2	11	12	18	11	2-10	"	t	3	11	5	14	3	2-6
"	pe	3	11	12	14	9	4-6-7-8	13J10	pe	2	11	12	14	3	2-9-11
12KA8	t	2	11	5	16	3	1-2	"	pe	4	11	12	40	8	4-5-6-7
"	pe	2	11	5	14		6-7-8-9	13JT8	t	2	11	5	16	1	2-3
12KL8	pe	2	11	5	16	3	2-6-7	"	pe	3	11	5	14	6	7-8-9
"	d	2	11	5	16		8	13JZ8	pe	2	11	1	20	9	4-6-7-8
12KY8	t	3	11	5	14	1	8-9	"	t	2	11	1	20	11	2-10
"	pe	4	11	5	16	3	2-6-7	"	Cont test	6-7					
12MD8●	t	2	11	4	18	7	3-6	13V10	pe	2	11	12	18	9	8-10-11
"	t	2	11	4	18		2-8	"	pe	2	11	12	18	2	3-6-7
"	t	2	11	4	18		1-9	13Z10	pe	2	11	12	14	3	2-9-11
12MX8●	t	2	11	5	20	1	8-9	"	pe	4	11	12	40	8	4-5-6-7
"	pe	4	11	5	16	3	2-6-7	14BF11	pe	2	11	12	16	2	3-5-6-7
12R5	"	3	11	3	16	1	2-5-6-7	"	pe	2	11	12	14	9	8-10-11
"	Ignore glow	on 2 -	Cont test	2-5				14BL11	t	2	11	12	18	6	5-7
12RK19	"	1	11	4	10	10	2-9	"	pe	2	11	12	16	4	3-9
"	Ignore glow	on 2 -	Cont test	2-9				"	pe	2	11	12	16	8	2-10-11
12RLL3●	t	2	8	9	14	8	6-7	14BR11	t	2	11	12	18	5	6-8
"	t	2	8	9	14	3	1-2	"	t	2	11	12	18	7	9-10
"	Cont test	4-5						"	pe	2	11	12	16	4	2-3-11
12RLL5	t	2	11	5	18	3	1-2	14GT8	d	2	11	5	16		2
"	t	2	11	5	18	8	6-7	"	d	2	11	5	16		6
"								"	t	2	11	5	18	7	8-9

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TUBE		A	B	C	D	CATH SHORTS	TEST	TUBE		A	B	C	D	CATH SHORTS	TEST	
14GW8	t	2	11	4	18	2	1-9	16HB5		3	11	1	14	4-10	*	
"	pe	2	11	4	18	7	3-6-8	"		*2-3-7-11 - Ignore glow on 3 Must show short on 4-10						
14JG8	d	2	11	5	16		2	16KA6		2	11	1	16	10	3-5	
"	d	2	11	5	16		6	"		Cont test 4-11						
"	t	2	11	5	20	7	8-9	16KH8		2	12	4	18	7	1-2	
15AF11	t	2	11	12	16	7	3-4	"		2	12	4	18		2-3-9	
"	t	2	11	12	16	5	6-8	"		2	12	4	18		6-8-9	
"	pe	2	11	12	14	9	2-10-11	16LD6		3	11	4	14	1	2-6-7-8	
15BD11	t	3	11	12	18	7	3-4	"		Cont test 4-10 & 3-7-11 & 5-9						
"	t	2	11	12	14	5	6-8	16LU8		t	2	11	12	18	11	2-10
"	pe	2	11	12	14		2-10-11	"		pe	4	11	12	14	9	4-6-7-8
15CW5	pe	3	11	4	14	3	*	"		Ignore glow on 6 - Cont test 6-7						
"		*1-2-6-7-8-9														
"		Ignore glow on 1-2-6-7-8-9														
15EA7	t	3	11	8	14	3	1-2	16MY8		t	2	11	12	18	11	2-10
"	t	4	11	8	14	6	4-5	"		pe	4	11	12	14	9	4-6-7-8
15EW6		2	11	3	12	2	1-5-6	"		Ignore glow on 6 - Cont test 6-7						
15EW7	t	2	11	4	16	8	6-7	16Y9		pe	2	11	5	16	7	8-9-10
"	t	2	11	4	14	9	1-2-3	"		pe	2	11	5	16	2	1-3-4
"		Ignore glow on 2 - Cont test 2-3														
15FM7	t	3	11	12	14	7	3-5-8	17AB10		pe	2	11	1	16	3	2-9-11
"	t	2	11	12	18	9	10-11	"		pe	4	11	1	40	8	4-5-6-7
"		Cont test 3-8 - Ignore glow on 3														
15FY7	t	3	11	12	14	7	3-5	17AV5		3	12	2	18	3	1-5-8	
"	t	2	11	12	18	9	10-11	17AX3		3	12	12	16	7	4-10	
15HA6	pe	3	11	4	14	1	*	"		Cont test 4-10						
"		*2-3-6-7-8-9														
"		Cont test 6-8 & 3-9														
15HB6		4	11	5	12	1	*	17AX4		3	12	7	20	3	5	
"		*2-3-6-7-8-9														
"		Cont test 3-9 & 6-8														
15KY8●	t	2	11	5	20	1	8-9	17AY3●		4	12	4	14	9	2-7	
"	pe	4	11	5	16	3	2-6-7	"		Ignore glow on 2						
15LE8	pe	2	11	4	18	3	1-8-9	17BB14▲		2	11	4	14	3-8	*	
"	pe	2	11	4	18		6-8-9	"		*1-2-6-7-10 - Ignore glow on 1-6 Cont test 1-2-3-6-7-8						
15MF8	t	2	11	1	16	11	2-10	17BD11		t	3	12	1	18	7	3-4
"	pe	2	11	1	16	9	4-6-7-8	"		t	2	12	1	14	5	6-8
"		Ignore glow on 6 - Cont test 6-7														
15MX8●	t	2	11	5	20	1	8-9	"		pe	2	12	1	14		2-10-11
"	pe	4	11	5	16	3	2-6-7	17BE3		1	12	1	8	7	4-10	
16A8	t	2	11	4	18	8	1-9	"		Ignore glow on 4						
"	pe	2	11	4	16	2	3-6-7	17BF11		pe	2	12	12	16	2	3-5-6-7
16AK9	t	2	8	6	20	7	2-3	"		pe	2	12	12	14	9	8-10-11
"	pe	2	8	6	20	7	5-8-9	17BH3●		4	12	5	14	9	2-7	
"	t	2	8	6	20	7	10-11	"		Ignore glow on 2						
"		Cont test 1-6-12														
16AQ3		2	11	4	12	10	3-8-9	17BJ6		2	12	3	14	2	1-5-6-7	
"		Ignore glow on 3-8														
"		Cont test 1-2-3-6-7-8-9														
16BQ11	pe	2	11	12	20	6	2-3-4-5	17BQ6		3	12	2	18	8	4-5-10	
"	pe	2	11	12	20	11	7-8-9-10	17BR3		2	11	4	12	10	2-9	
16BX11	t	2	12	1	20	4	5-6	"		Ignore glow on 2 - Cont test 2-9						
"	t	2	12	1	22	9	7-8	17BS3●		d	4	12	4	14	9	2-7
"	pe	2	12	1	20	10	2-3-11	"		Ignore glow on 2						
16CB28		2	12	12	14	4-10	*	17BW3		3	12	12	16	7	4-10	
"		*3-5-7-9-11														
"		Cont test 4-10, 3-7-11 & 5-9														
16GK6		2	12	4	12	1	2-3-7-9	17BZ3		4	12	12	12	7	4-10	
"		Ignore glow on 3														
16GY5		2	12	12	14	4-10	*	"		Ignore glow on 4						
"		*3-5-7-9-11														
"		Cont test 4-10, 3-7-11 & 5-9														

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