



EN60

STROBOSCOPIC LIGHT SOURCE

A gas filled cold cathode arc discharge lamp intended primarily for use as a stroboscopic light source for frequencies of up to 250 c/s. It emits a white light.

PHYSICAL DETAILS.

Base	...	Small Edison Screw Type.
Max. Overall Height	...	127 mm. (5 ins.).
Max. Diameter	...	29 mm. (1 1/8 ins.).
Mounting Position	...	Any.

RATINGS (Absolute).

Max. Anode Voltage	...	900 volts.
Min. Anode Voltage	...	650 volts.
*Max. Dissipation	...	25 watts.
Min. Charging Resistor	...	3 kΩ
Max. Discharge Capacitor	...	10 μF.
Max. Flashing Frequency	...	250 c/s.

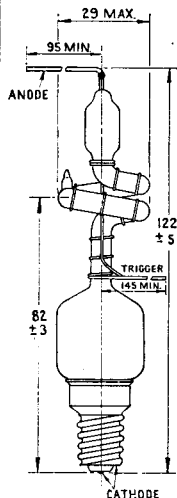
CHARACTERISTICS.

†Trigger Voltage	...	2 to 4 kV.
Peak Luminous Intensity	The discharge of a 10 μF. capacitor charged to 800 volts produces a flash with peak luminous flux of approx. 900,000 lumens.	

TYPICAL OPERATION.

D.C. Supply Voltage	...	750 volts.
Charging Resistor:—		
Up to 150 c/s.	...	3.3 kΩ
150 to 250 c/s.	...	5.0 kΩ
Discharge Capacitor:—		
0—25 c/s.	...	6.0 μF.
25—50 c/s.	...	3.0 μF.
50—150 c/s.	...	1.5 μF.
150—250 c/s.	...	0.5 μF.

A typical circuit of a Stroboscope for operation up to 250 c/s in four ranges is shown overleaf.



All dimensions shown are in Millimetres (max.).

*See Notes on Operation overleaf.

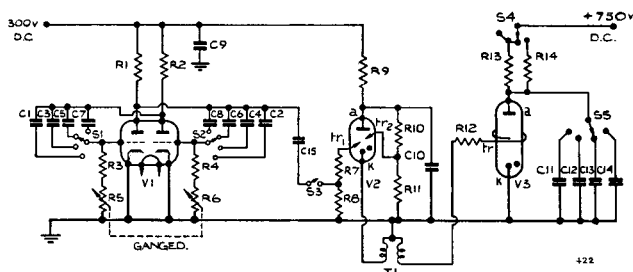
†The Peak Pulse Voltage. A suitable Pulse Transformer is Ferranti type PT56.



Typical Operation (Cont.)

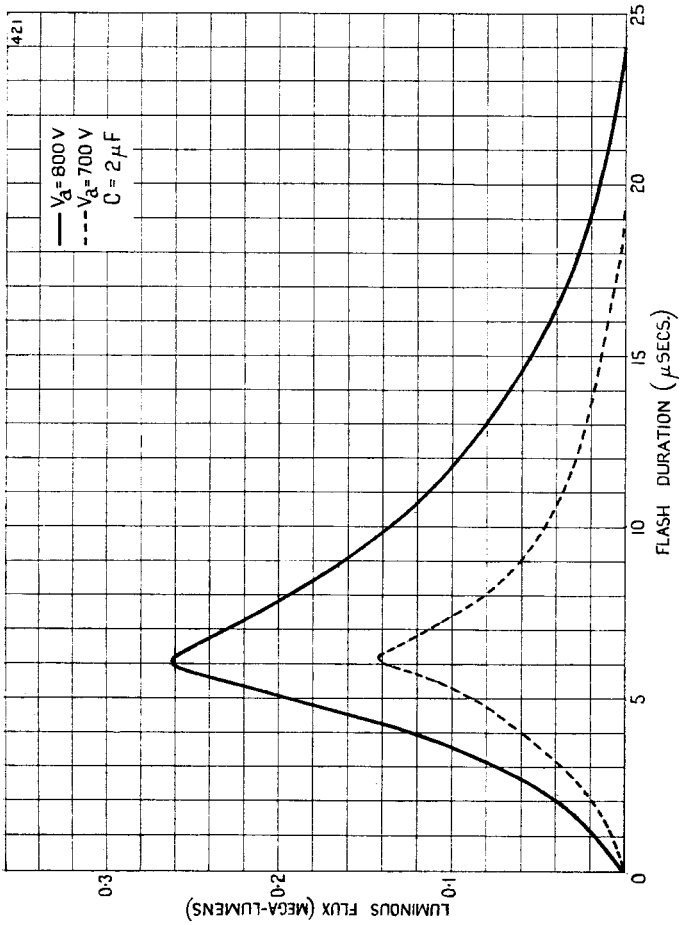
FOUR RANGE STROBOSCOPE.

The circuit below is for a Stroboscope covering frequencies from approx. 8 c/s. to 250 c/s in four ranges. Switches S1, S2, S4 and S5 are preferably ganged. Switch S3 is included to switch off the flash unit whilst keeping the multivibrator synchronising pulse generator running in order to avoid frequency drift during warming up periods.

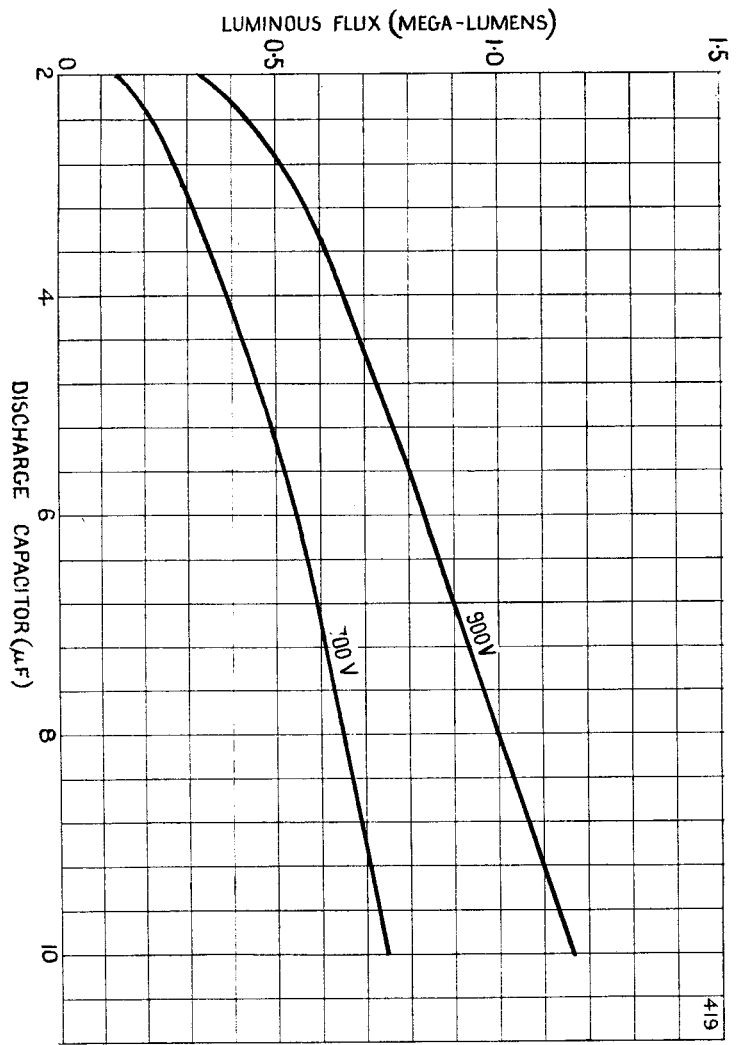


V1	Ferranti Valve Type ECC81.	C1	25 μ F.
V2	Ferranti Valve Type EN10.	C2	25 μ F.
V3	Ferranti Valve Type EN60.	C3	1 μ F.
T1	Ferranti Pulse Transformer Type PT56.	C4	1 μ F.
R1	47 k Ω	C5	0.3 μ F.
R2	47 k Ω	C6	0.3 μ F.
R3	50 k Ω	C7	0.1 μ F.
R4	50 k Ω	C8	0.1 μ F.
R5	} 2 \times 100 k Ω —Ganged	C9	8 μ F.
R6		C10	2 μ F.
R7	100 k Ω	C11	6 μ F.
R8	100 k Ω	C12	3 μ F.
R9	5 k Ω 8W.	C13	1.5 μ F.
R10	56 k Ω 5W.	C14	0.5 μ F.
R11	10 k Ω 5W.	C15	1000 pF.
R12	100 k Ω		
R13	3.3 k Ω 25W.		
R14	5.0 k Ω 25W.		

TYPICAL FLASH CHARACTERISTIC



TYPICAL PEAK LUMINOUS FLUX



4/19