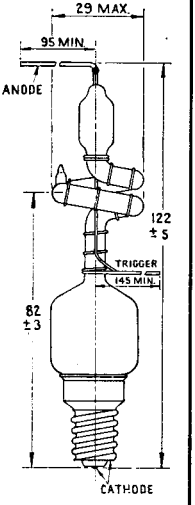
EN60

Ferranti

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.



All dimensions shown are in Millimetres (max.).

PHYSICAL DETAILS.

Base	Small Edison Screw Type.
Max. Overall Height ...	127 mm. (5 ins.).
Max. Diameter	29 mm. ($1\frac{1}{32}$ 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 10μF. 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 μ.F
25—50 c/s.	3·0 μ.F
50—150 c/s.	1·5 μ.F
150—250 c/s.	0·5 μ.F

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

*See Notes on Operation overleaf.

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

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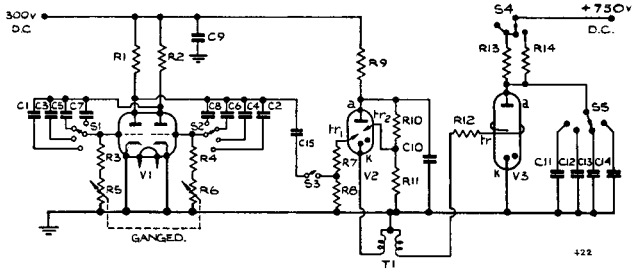
Typical Operation (Cont.)

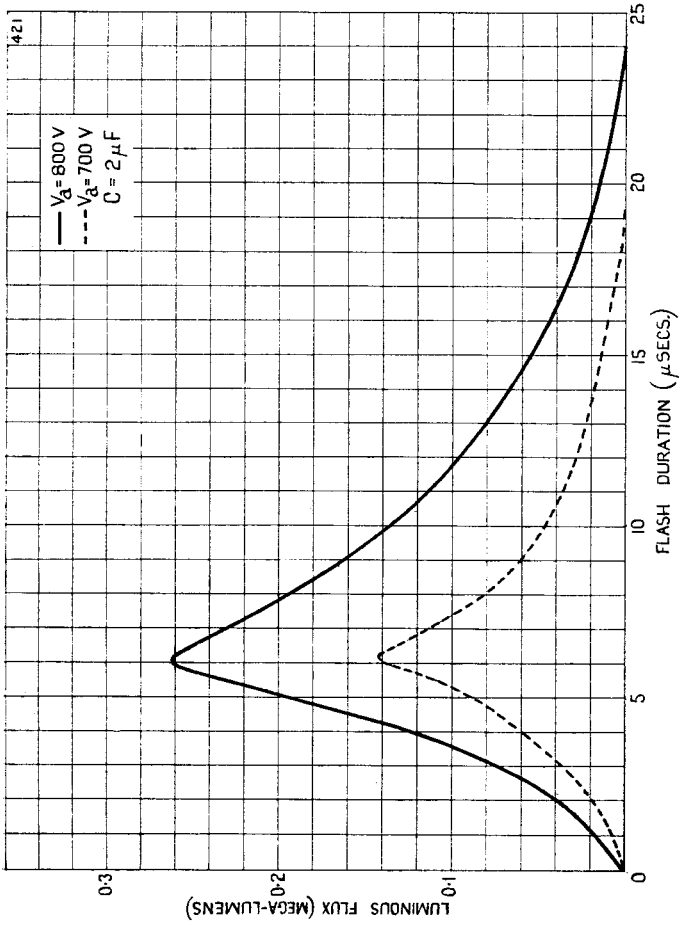
FOUR RANGE STROBOSCOPE.

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.		
V2	Ferranti Valve Type EN10.		
V3	Ferranti Valve Type EN60.		
T1	Ferranti Pulse Transformer Type PT56.		
R1	47 kΩ	C1	·25 μF.
R2	47 kΩ	C2	·25 μF.
R3	50 kΩ	C3	·1 μF.
R4	50 kΩ	C4	·1 μF.
R5, R6	2 × 100 kΩ—Ganged	C5	·03 μF.
		C6	·03 μF.
R7	100 kΩ	C7	·01 μF.
R8	100 kΩ	C8	·01 μF.
R9	5 kΩ 8W.	C9	8 μF.
R10	56 kΩ 5W.	C10	2 μF.
R11	10 kΩ 5W.	C11	6 μF.
R12	100 kΩ	C12	3 μF.
R13	3·3 kΩ 25W.	C13	1·5 μF.
R14	5·0 kΩ 25W.	C14	0·5 μF.
		C15	1000 pF.

TYPICAL FLASH CHARACTERISTIC



TYPICAL PEAK LUMINOUS FLUX