



MULTIPLIER PHOTOTUBE

TYPE 7065

The DuMont Type 7065 is a 1 1/2 inch diameter, 10 stage, flat end-window, multiplier phototube with an S-11 end-window type photocathode having an average luminous sensitivity of 60 microamperes per lumen. The DuMont 7065 is applicable in the fields of nuclear physics and industrial and scientific applications for the detection of very low light levels.

GENERAL CHARACTERISTICS

<u>Electrical Data</u>	<u>Min.</u>	<u>Avg.</u>	<u>Max.</u>	<u>Units</u>
Spectral response		S-11		
Cathode luminous sensitivity at 210 volts, 0 cycles between cathode and all other electrodes	40	60		$\mu\text{A}/\text{L}$
Anode luminous sensitivity 90 volts/stage, 0 cycles	10	45		A/L
Cathode sensitivity at maximum response at 210 volts between cathode and all other electrodes		.056		$\mu\text{A}/\mu\text{W}$
Anode dark current at 90 volts/stage (25°C)			.05	μA
Current amplification at 90 volts/stage		750,000		
Interelectrode capacitances				
anode to all other electrodes		3.3		μf
anode to last dynode		1.3		μf
Wavelength at maximum response		4400 \pm 500		Angstroms
Wavelength at 10% maximum response on long wavelength side		6125 \pm 275		Angstroms
Wavelength at 10% of maximum response on short wavelength side		3250 \pm 250		Angstroms

Mechanical Data

Window dimensions, minimum	1 1/4		In. Dia.
Seated height to center of window	4 1/4 \pm 1/4		In.
Tube Diameter	1 1/2 \pm 1/16		In.
Overall length	4 3/4 \pm 1/4		In.
Base-Small Shell Duodecal 12 Pin (B12-43)			
Mounting Position	any		
Window index of refraction	1.5		

from JETEC release #1990, Aug. 5, 1957

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MULTIPLIER PHOTOTUBETYPE 7065MAXIMUM RATINGS

	<u>Max.</u>	<u>Units</u>
Peak cathode current (Note 1)	20	μ A
Average anode current (Note 2)	.75	mA
Peak anode current	7.5	mA
Average anode dissipation (Note 2)	.075	W
Peak anode dissipation	1.125	W
Supply voltage between anode and cathode (DC or peak AC)	1300	Volts
Supply voltage between last dynode and anode (DC or peak AC)	150	Volts
Supply voltage between cathode and 1st dynode (DC or peak AC)	300	Volts
Ambient Temperature	75	$^{\circ}$ C

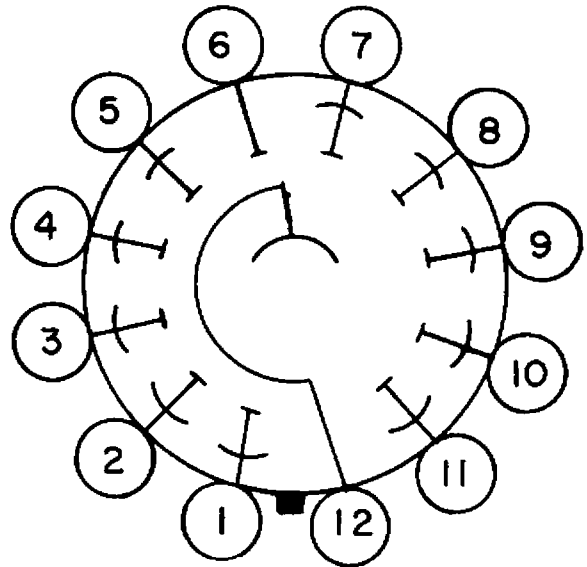
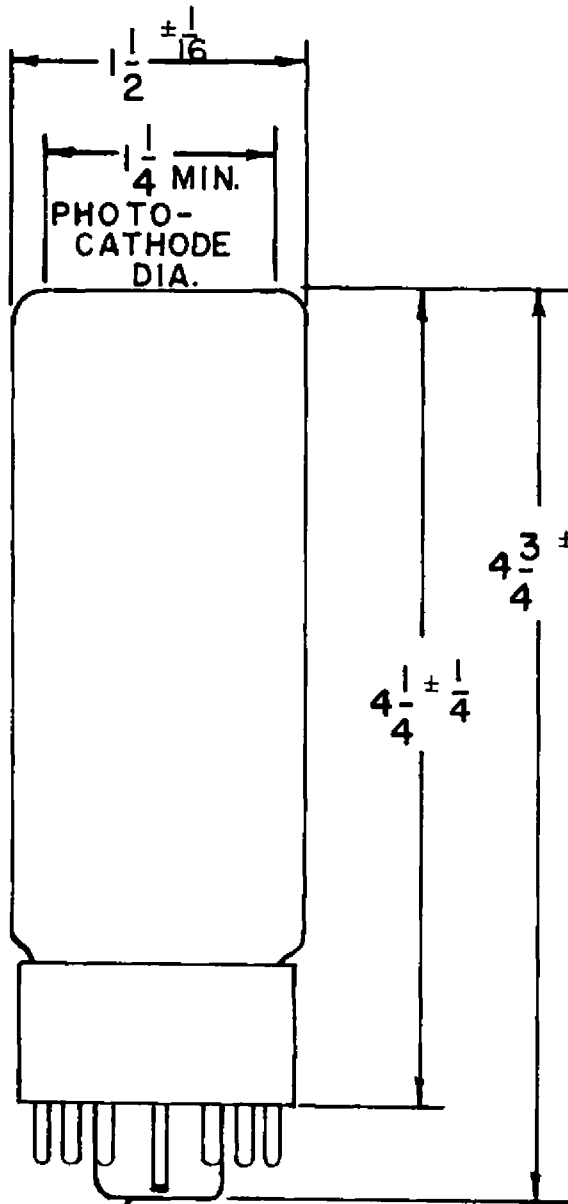
NOTES

1. The cathode current given here is that current at which the response of the cathode current ceases to be a linear function of the light intensity because of cathode resistance. In general the cathode current must be kept well below this value in order to satisfy the maximum ratings on the anode current.
2. Averaged over a 30 second interval maximum.
3. Supply voltage between cathode and 1st dynode should be two times the supply voltage between succeeding dynodes.

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DUMONT

MULTIPLIER PHOTOTUBE TYPE 7065



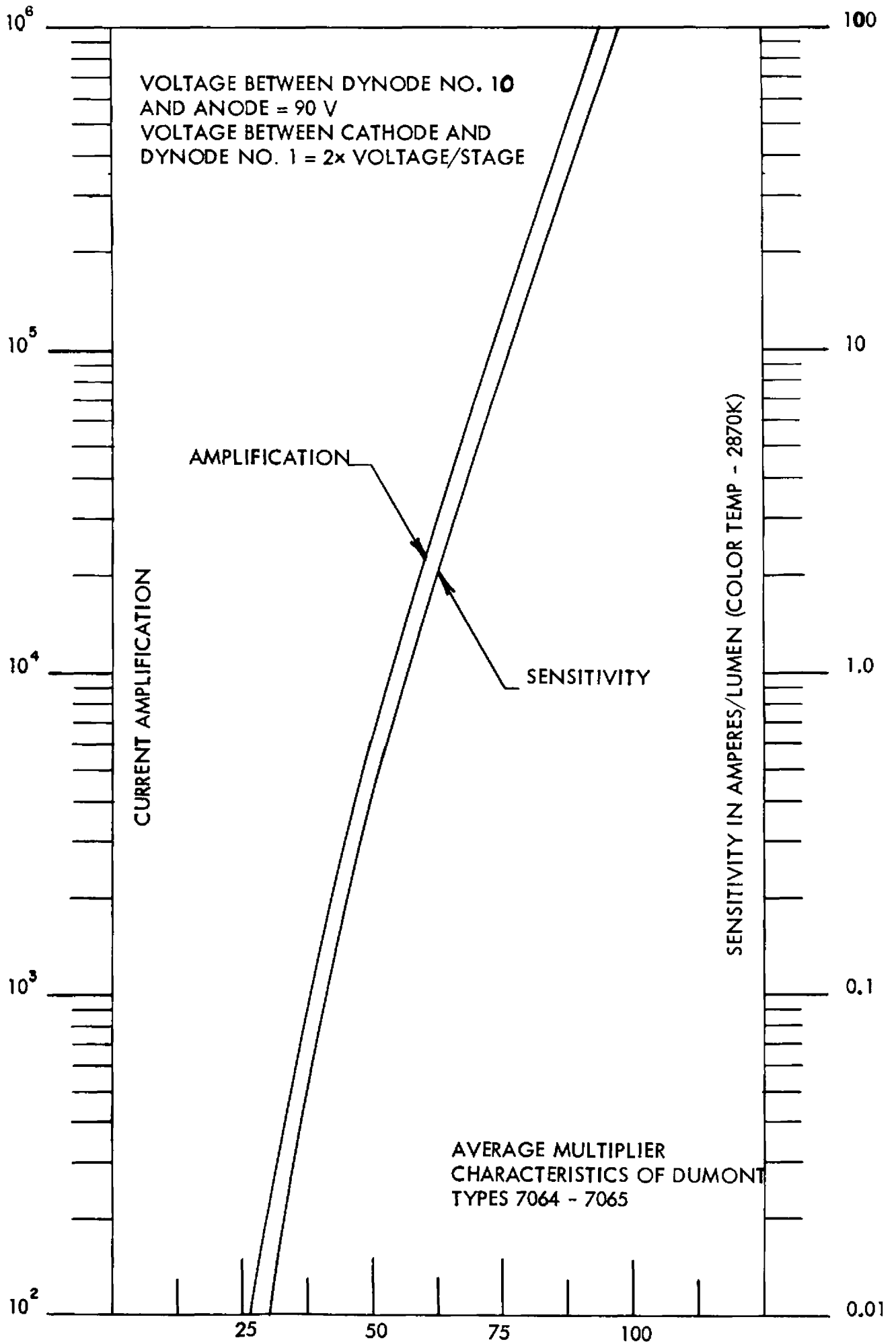
BOTTOM VIEW

PIN NO.	ELEMENT
1	DYNODE NO. 1
2	DYNODE NO. 3
3	DYNODE NO. 5
4	DYNODE NO. 7
5	DYNODE NO. 9
6	ANODE
7	DYNODE NO. 10
8	DYNODE NO. 8
9	DYNODE NO. 6
10	DYNODE NO. 4
11	DYNODE NO. 2
12	CATHODE

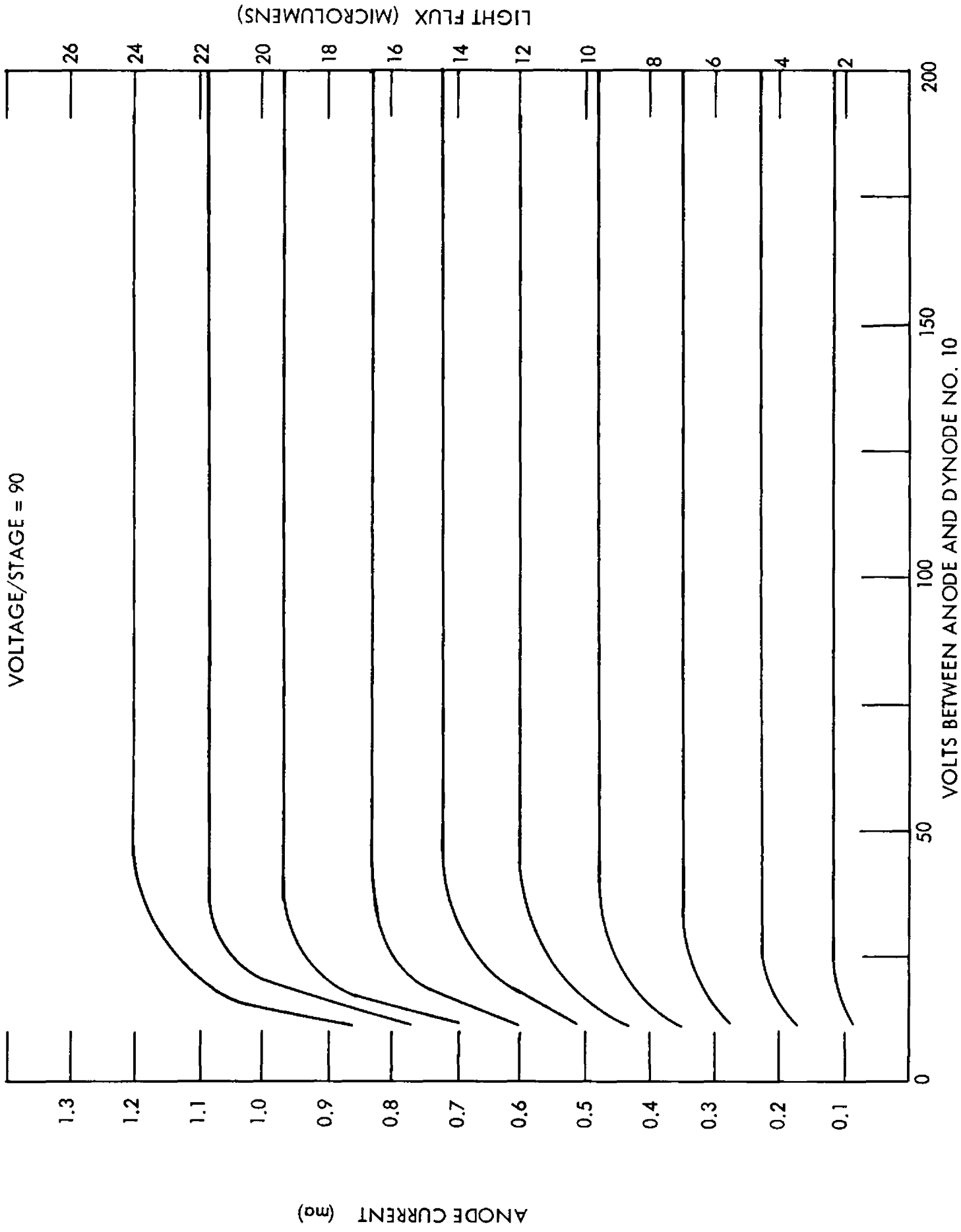
SMALL SHELL DUODECAL
12 PIN BASE (B12-43)

NOTE:

DIRECTION OF LIGHT INTO
 END OF BULB.



AVERAGE ANODE CHARACTERISTICS OF DUMONT MULTIPLIER PHOTOTUBE TYPES 7064 - 7065



SPECTRAL SENSITIVITY CHARACTERISTICS OF S-II RESPONSE

