

ELECTRON TUBE DIVISION
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F-4736

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The F-4736 is an electrostatically focused, high resolution, magnifying image intensifier. The flat, 25mm useful diameter fiberoptic input window is ideally suited for efficient coupling to other fiberoptic tubes or fiberoptic cables. The 125mm useful diameter, glass output window may be viewed directly or optically enlarged without the viewing restrictions of conventional optical magnifiers.

The cathode has an S-20 spectral response processed for high green gain to best match the output of other image intensifiers. The high resolution modified P-20 output screen has a spectral output closely matched to the human eye.

The F-4736 is a triode with a nominal focusing voltage of 2% of anode potential which is typically 20KV. The electron optics are such that, at optimum focus, a typical tube has a resolution on axis of 120 lp/mm. The resolution at the edge is over 100 lp/mm and with a minor focus shift, the resolution can be equalized to over 110 lp/mm across the full input field.

GENERAL INFORMATION

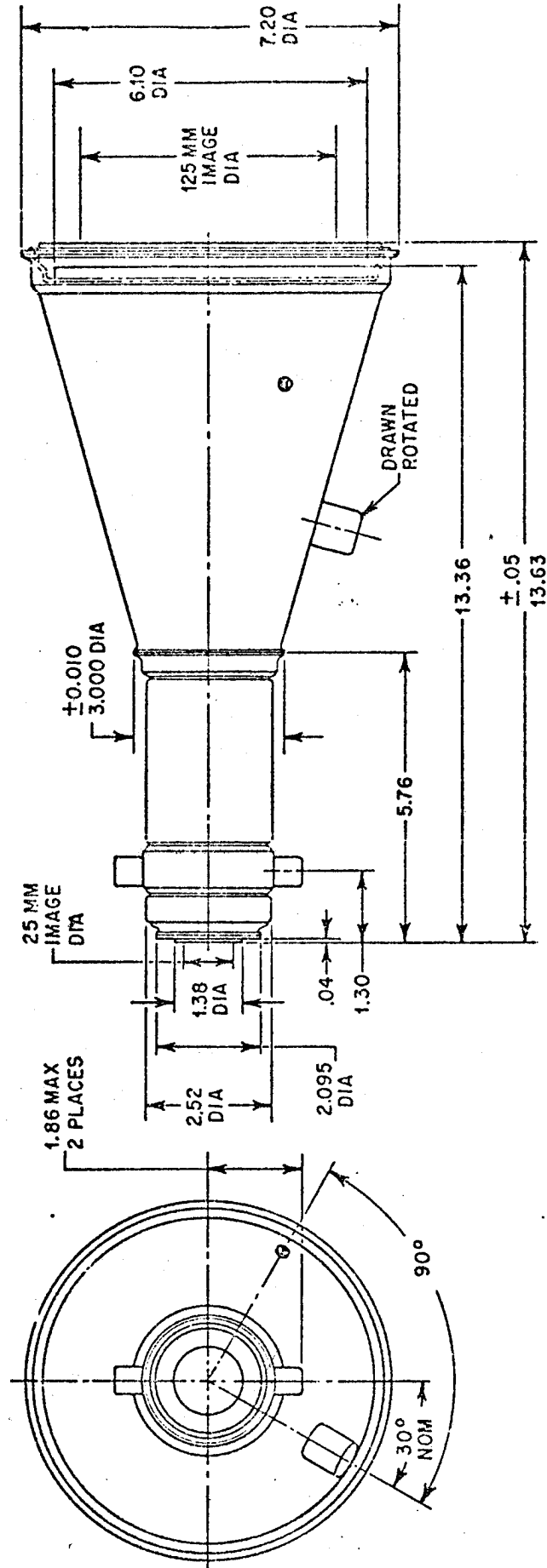
PERFORMANCE DATA

			<u>Typ.</u>	<u>Min.</u>	<u>Units</u>
Input fiber					
Useful diameter	25mm	Brightness Gain			
Flatness	0.5μ	2870 K light	6	4	fL/fc
Numerical Aperture (Nominal)	1.0	Green Filter			
Output window		(Corning 4-64)	3	2.5	fL/fc
Shape	flat	Limiting Resolution			
Useful diameter	125mm	at input			
Photocathode	S-20	Center	120	110	lp/mm
Image Section		12mm off axis	110	100	lp/mm
Configuration	Triode	Equivalent			
Focusing voltage, Nominal	+400 volts	Background input	1x10 ⁻¹⁰	1x10 ⁻⁹ max	lum/cm ²
Anode voltage (cathode ground)	+20 KV	Distortion			
Phosphor	Modified P-20	60% diameter	2	-	%
Overall length	13.63 in.	90% diameter	7	8max	%
Outside Diameter	7.20 in.	Contrast	88	85	%
Weight	3.2 lbs.	Brightness uniformity			
		(80% diameter)	+20	+30(max)	%

*All measurements made at 20KV operating voltage

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NOTES: Unless otherwise specified dimensions are in inches

Tolerances

Decimals .XX $\pm .02$

.XXX $\pm .005$

Angular $\pm 1^\circ$

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