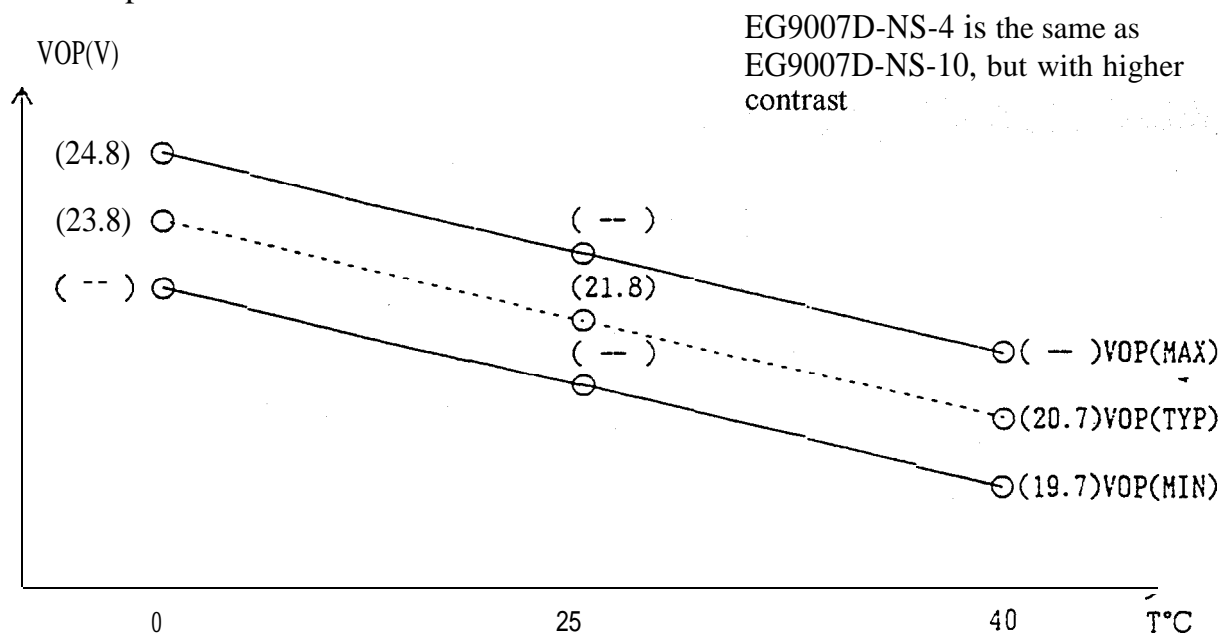


9. Optical Characteristics

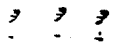
No.	Parameter	Symbol	Temperature (°C)	Standard			Unit
				Min	Typ	Max	
1	Driving voltage VDD-VLCD	Vop	0		23.8	24.8	V
			25		21.8		
			40	19.7	20.7		
2	Response time	Tr	0		300	550	ms
			25		160	350	
		Tf	0	I	900	1200	
			25		200	500	
5	Recommend-able Viewing angle	$\theta Y1$	25	20			Degree
		$\theta Y2$		30			
		$\theta X1$		25			
		$\theta X2$		25			
6	Contrast	K	25	--	9.0		

Note : The definitions of optical characteristics are specified in the common specification II.

** < Vop vs. Temperature Curves >



[Note 1] Optical equipment for **measurement**

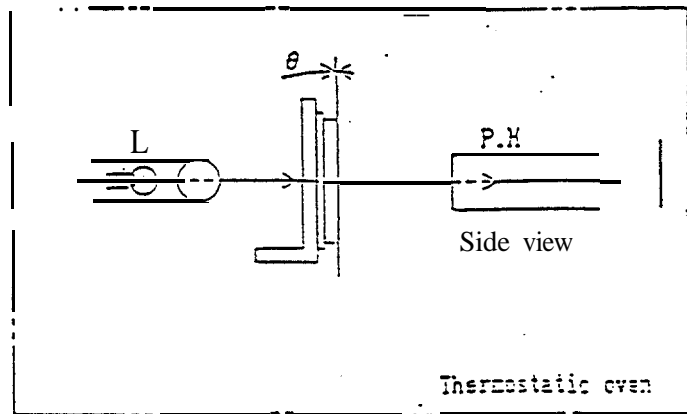


- Equipment : Canon LC-3SS brightness meter

Halogen lamp used for light source

- Conditions : Spot for brightness measurement - 0.3 mm

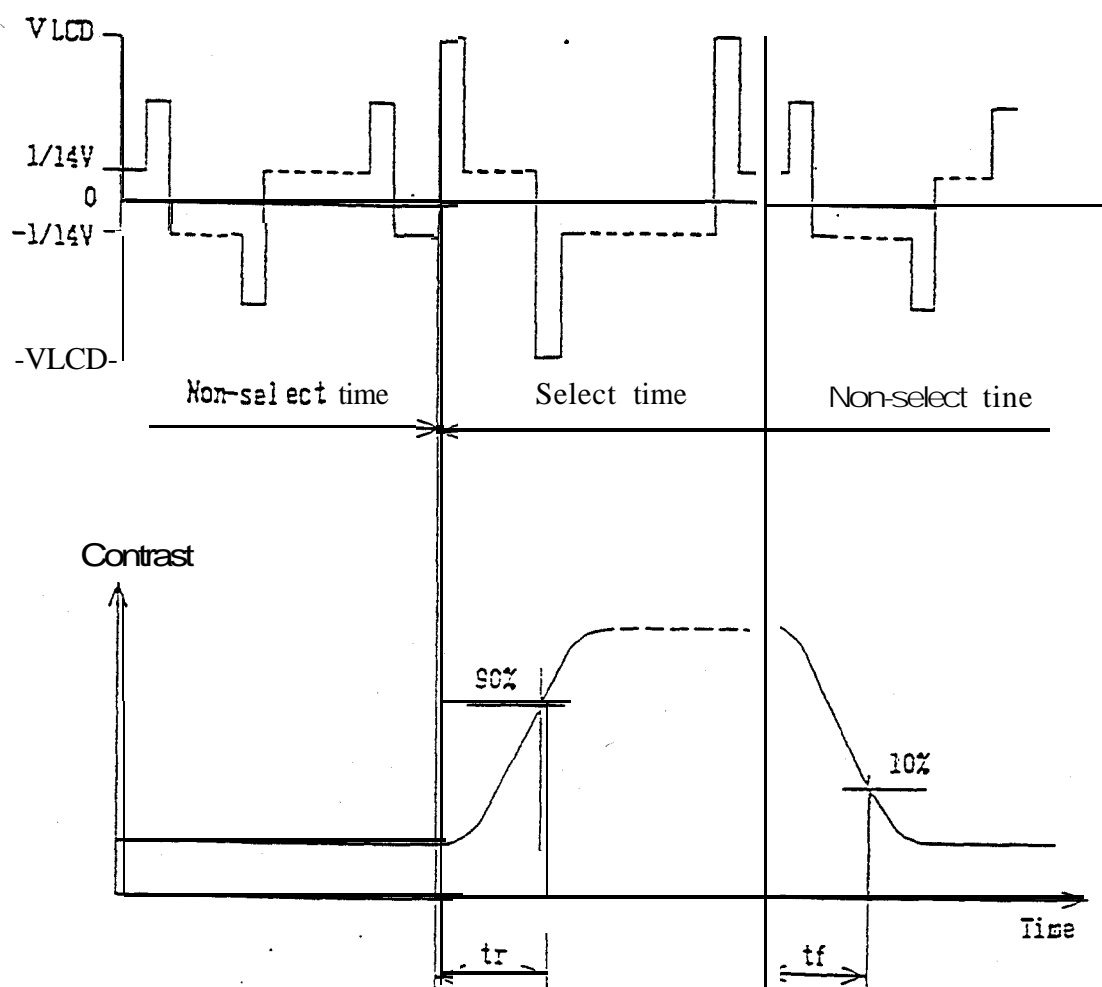
Spot from light source - 1.0 mm



L : Light source

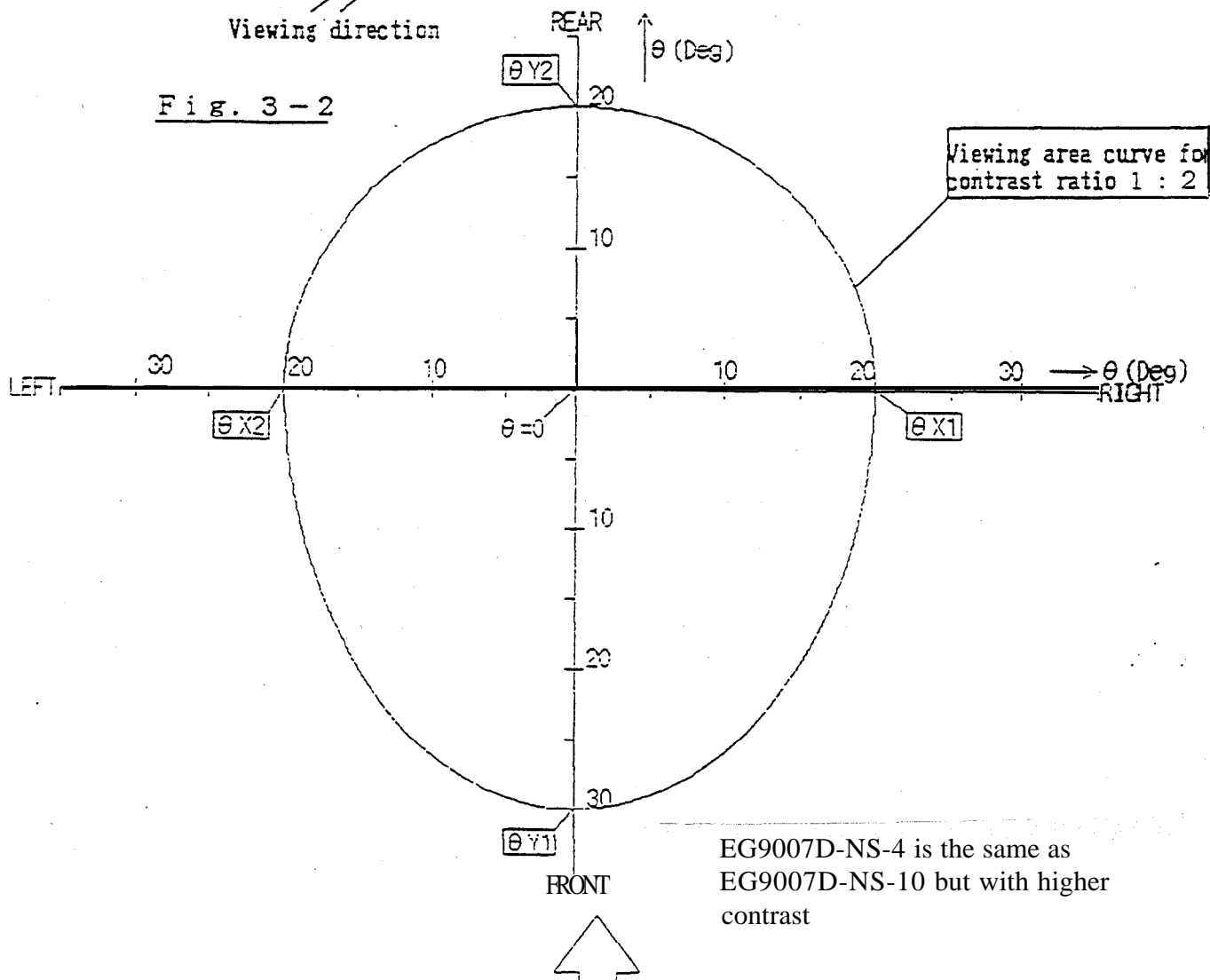
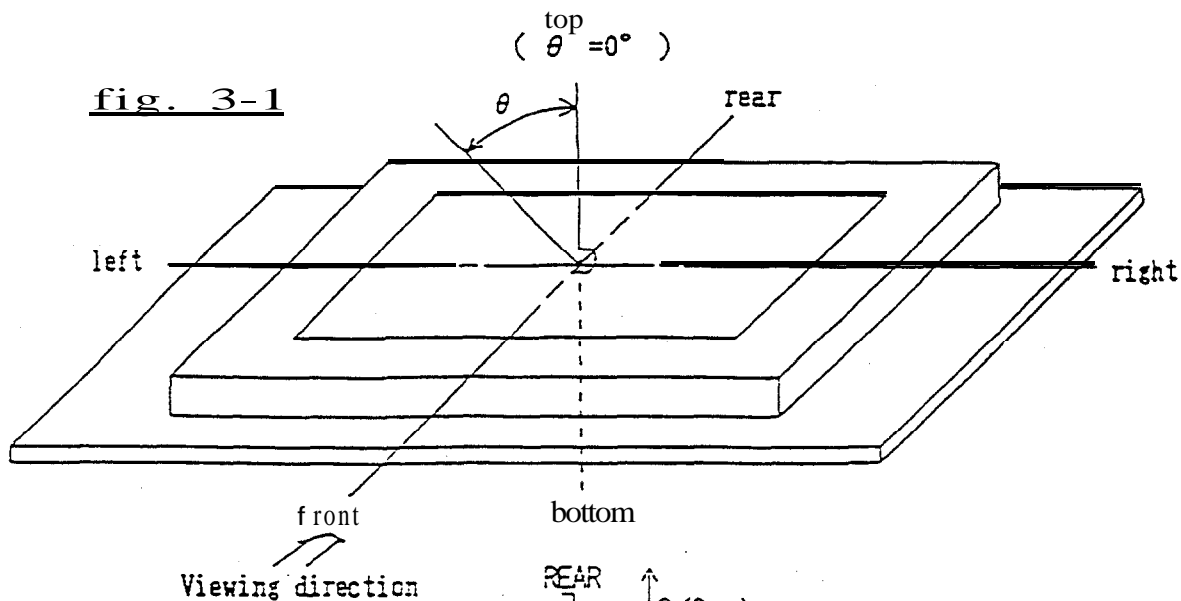
P.M. : Light receiver of brightness meter

Fig. 2



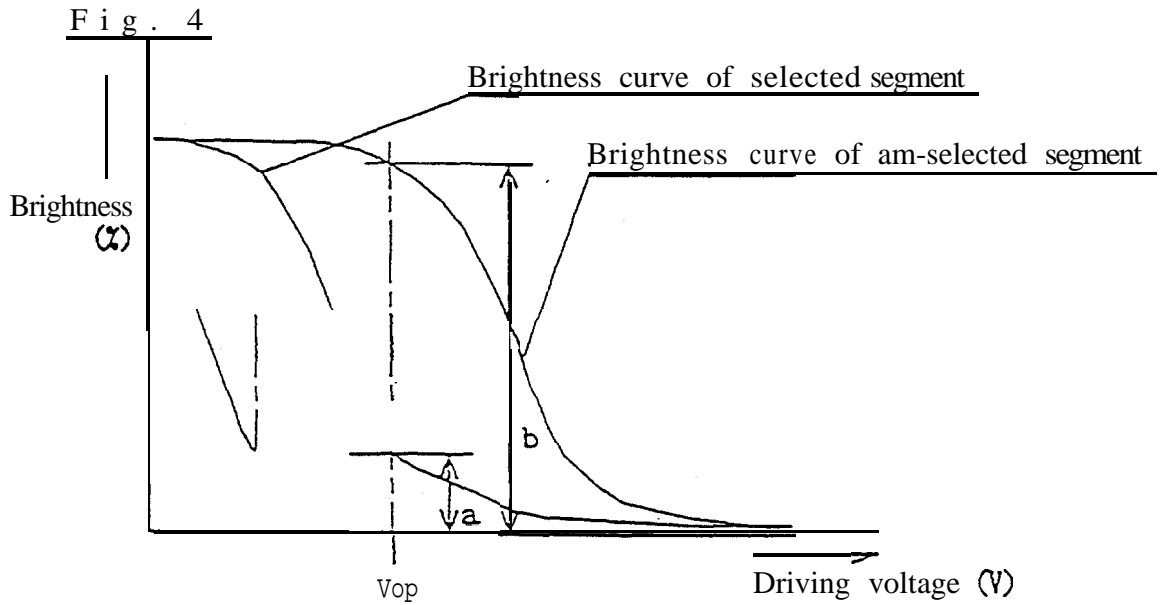
Parameter'	Conditions
a) kbient temperature	0 - c , 25°C
b) Driving voltage	24.5 V, 22.5V
c) Viewing angle	0 "
d) Frame frequency	70 Hz

[Note 3] Definition of viewing angle



Definition: Viewing area which gets contrast ratio 1:2, when operated by Vop (Typical) at 25°C.

[Note 4] Definition of contrast ratio



Definition :

$$\text{Contrast ratio} = \frac{(\text{brightness in OFT state})}{(\text{Brightness in Oh' state})} = b/a$$

Parameter	Conditions
a) Ambient temperature	25 °C
b) Driving voltage	22.5 V
c) Viewing angle	0°