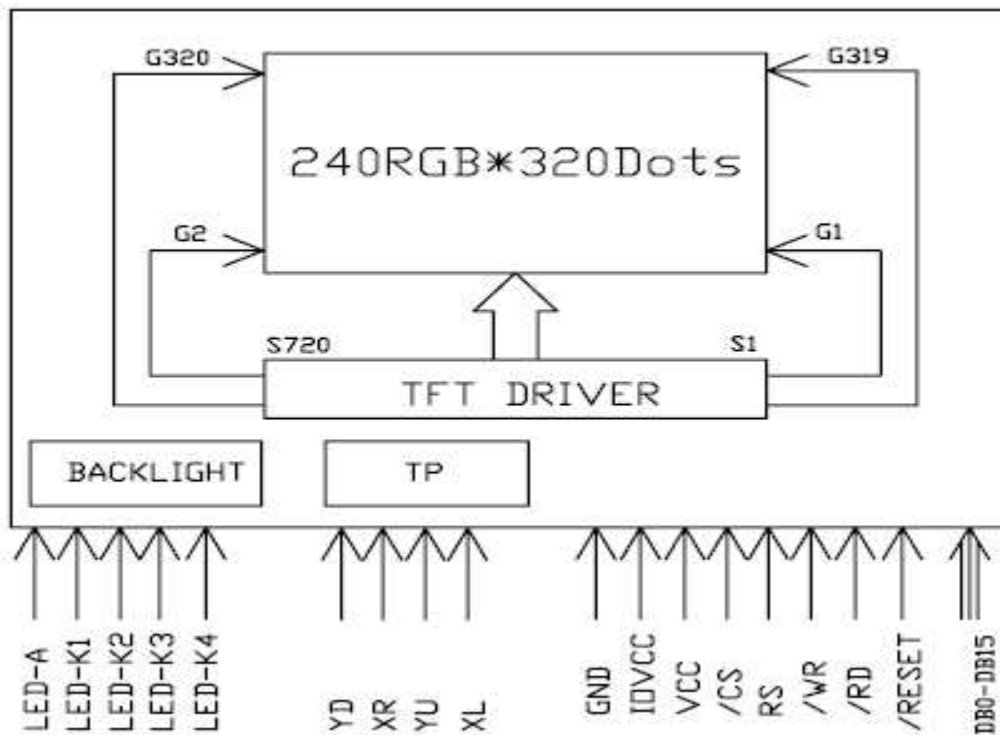
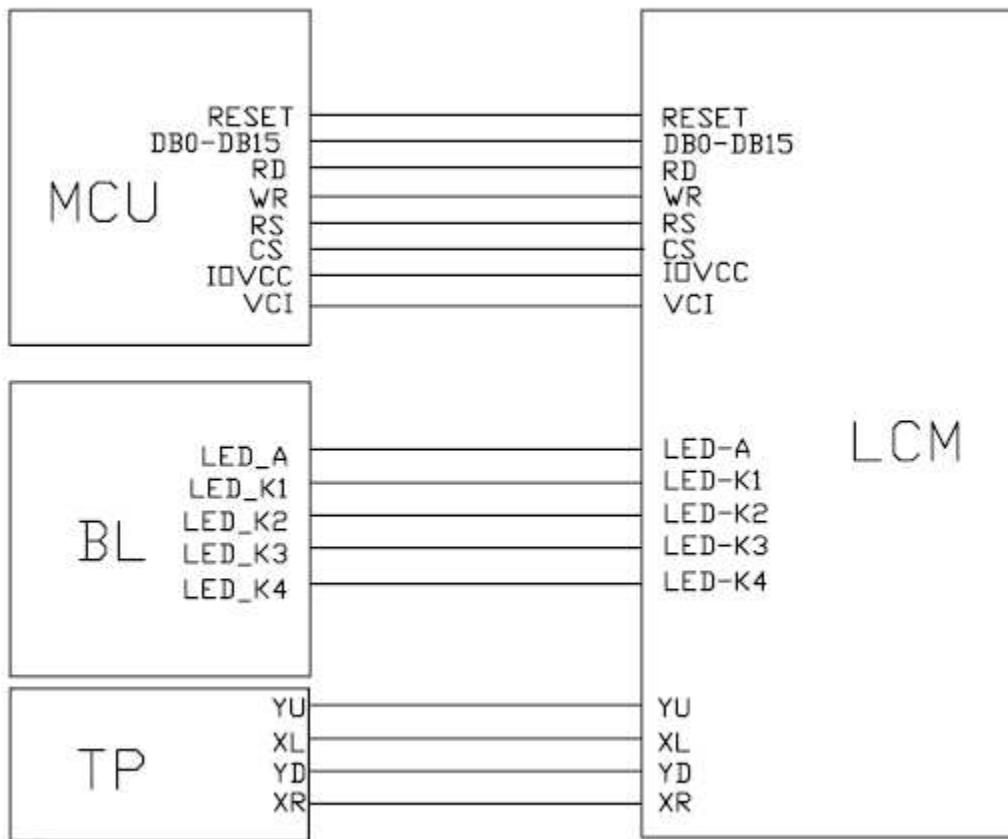


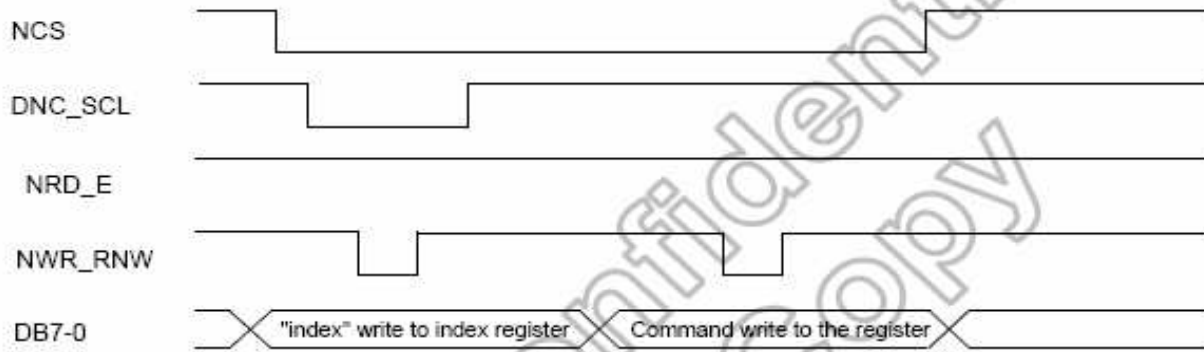
ITEM	SPECIFICATIONS
Part No.	S95591-AAA
SIZE	2.2" TFT
Display Type	262k TFT Transmissive
Viewing Direction	6 O'clock
Driving IC	S6D0129 (SAMSUNG)
Backlight	4-Chip WHITE LED
Operating Temperature	-20°C ~+70°C
Storage Temperature	-30°C ~+80°C

ITEM	SPECIFICATIONS	UNIT
OUTLINE DIMENSIONS	39.18(W) x 54.32 (H) x 2.80(T)	mm
ACTIVE AREA	33.48(W) x 44.64(H)	mm
NUMBER OF DOTS	240 RGB x 320 Dots	---
ASSY.TYPE	COG+FPC+BL+TP	---
WEIGHT	TBD	g

PIN	FUNCTION DESCRIPTIONS	SYMBOL
1	GROUND	GND
2	X+	X+
3	Y-	Y-
4	X-	X-
5	Y+	Y+
6	LED-	LED-
7	LED+	LED+
8	DATA BUS	DB7
9		DB6
10		DB5
11		DB4
12		DB3
13		DB2
14		DB1
15		DB0
16	Read/Write operation enable pin	RD
17	Write strobe signal	WR
18	Register select pin.	RS
19	Reset pin.	RESET
20	NC	NC
21	IC SELECT	CS
22	Power supply	VCC
23	Power supply	VCC
24	Power supply	VCC
25	GROUND	GND
26	GROUND	GND



Write to the register



Read the register

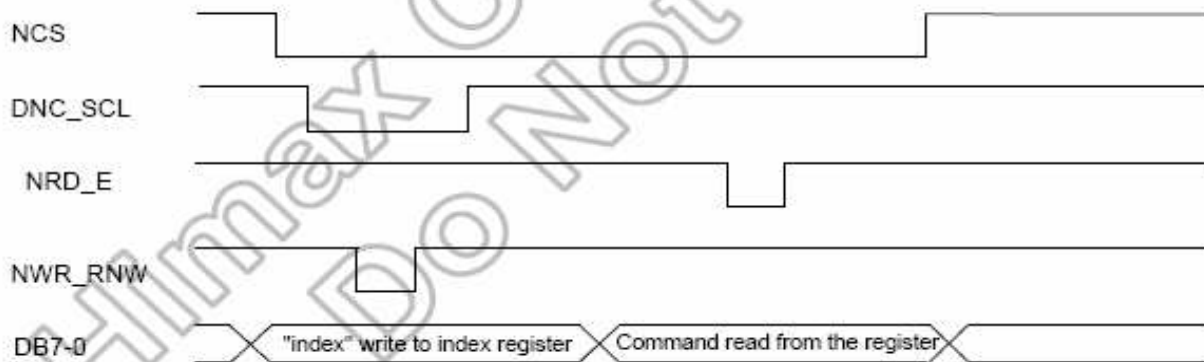


Figure 5.1 Register Read/Write Timing in Parallel Bus System Interface (for I80 Series MPU)

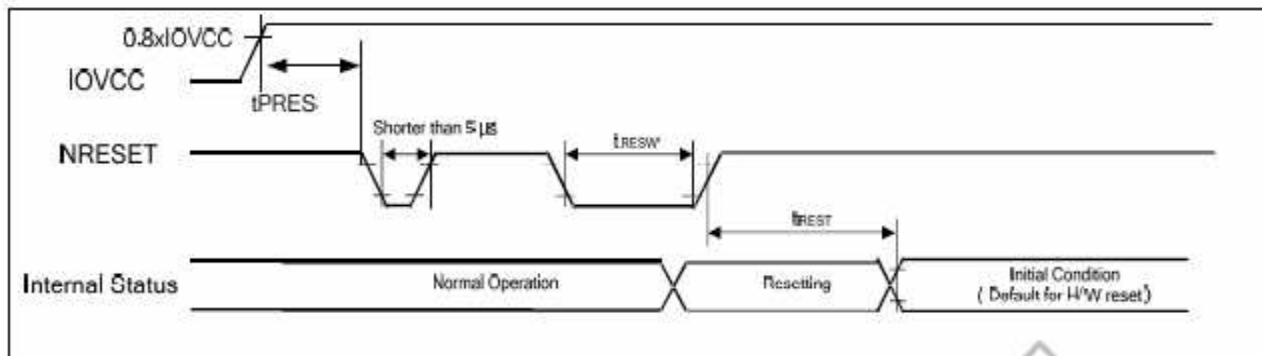


Figure 11.5 Reset Input Timing

Symbol	Parameter	Related Pins	Spec.			Note	Unit
			Min.	Typ.	Max.		
t_{RESW}	Reset low pulse width ⁽¹⁾	NRESET	10	-	-		μs
t_{REST}	Reset complete time ⁽²⁾	-	-	-	5	When reset applied during STB mode	ms
		-	-	-	120	When reset applied during STB mode	ms
t_{PRES}	Reset goes high level after Power on time	NRESET & IOVCC	1	-	-	Reset goes high level after Power on	ms

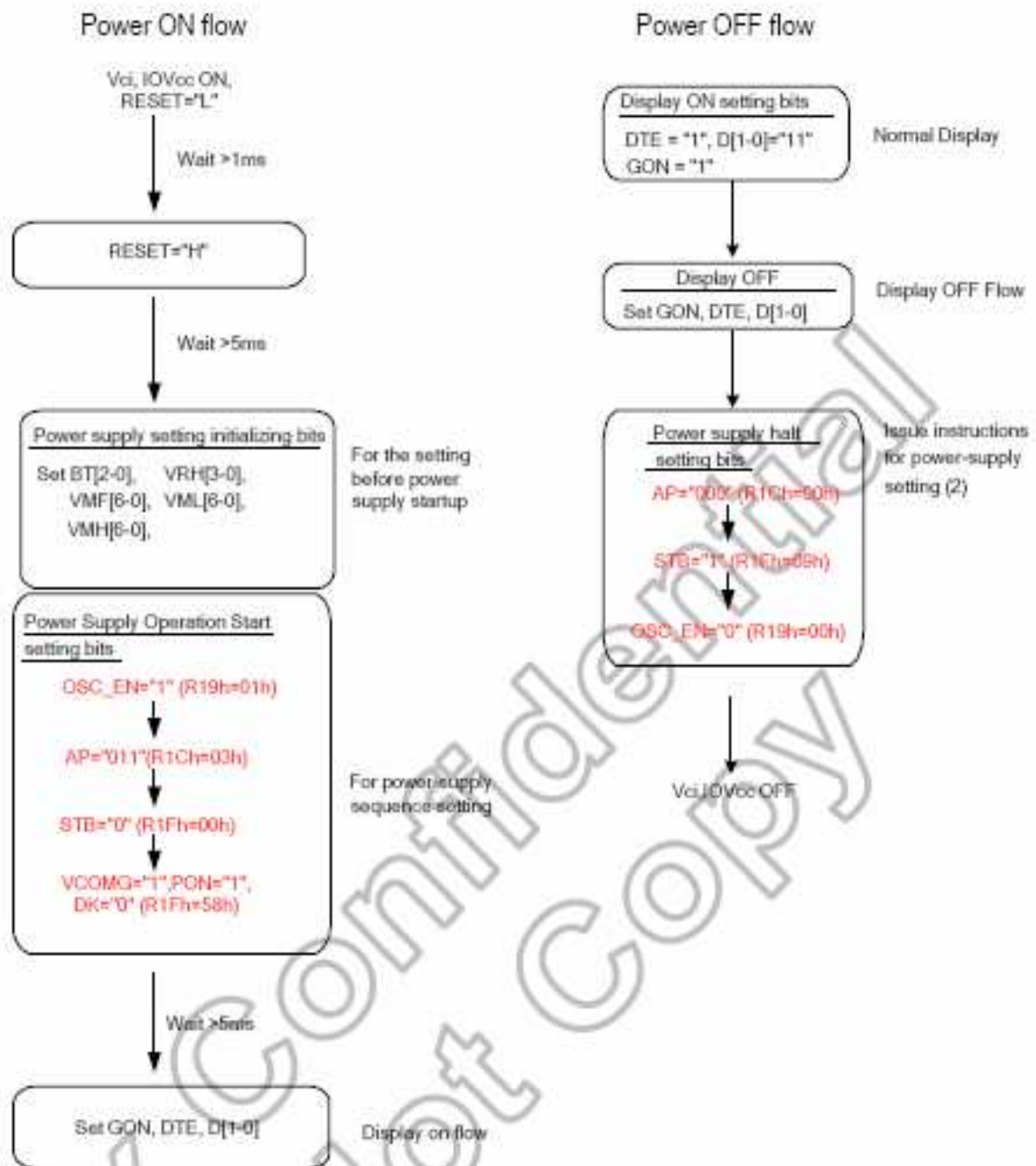


Figure 7. 24 Power Supply Setting Flow

			MIN	TYP	MAX	
	VDD	Ta= +25°C	2.6	2.8	3.4	V
	VIN	Ta=25°C	1.65	2.8	3.3	V
	AVDD	Ta= +25°C	2.3	2.8	3.3	V
	VIH	—	0.8VDD	—	VDD	V
	VIL	—	VSS	—	0.2VDD	V
	VOH	IOH=-100uA	0.9VDD	—	VDD	V
	VOL	IOH=100uA	VSS	—	0.1VDD	V

	PD	320	mW
	TOPR	-10°C ~+50°C	°C
	TSTG	-20°C ~+70°C	°C

				MIN	TYP	MAX
	Vf	WHITE	If = 20 MA	---	9	---
	Iv	WHITE		TBD	TBD	TBD
	Iv-m	WHITE	(min/max)/100	80	---	---

12. 光电参数

Item	Symbol	Conditions	Specifications			Unit	Note	
			Min.	Typ.	Max.			
Transmittance	T%	Viewing normal angle $\theta_x = \theta_y = 0^\circ$	-	(5.6)	-	%	All left side data are based on CMO's following condition -- 1.NTSC: 60% 2.LC :TN 3.Lightsource: CMO LCD MLU 4.Film:Nitto Linear Polarizer 5.Machine:DMS8 03	
Contrast Ratio	CR		-	(300)	-	-		
Response Time	T_R		-	(10)	-	ms		
	T_F		-	(20)	-	ms		
Chromaticity	Red		X_R	(0.616)	(0.646)	(0.676)		-
			Y_R	(0.291)	(0.321)	(0.351)		-
	Green		X_G	(0.268)	(0.298)	(0.328)		-
			Y_G	(0.543)	(0.573)	(0.603)		-
	Blue		X_B	(0.104)	(0.134)	(0.164)		-
			Y_B	(0.103)	(0.133)	(0.163)		-
White	X_W	(0.270)	(0.300)	(0.330)	-			
	Y_W	(0.304)	(0.334)	(0.364)	-			
Viewing Angle	Hor.	θ_{x+}	-	45	-	deg.		
		θ_{x-}	-	45	-			
	Ver.	θ_{y+}	-	35	-			
		θ_{y-}	-	15	-			

*Note (1) Definition of Contrast Ratio (CR):

The contrast ratio can be calculated by the following expression.

$$\text{Contrast Ratio (CR)} = L_{63} / L_0$$

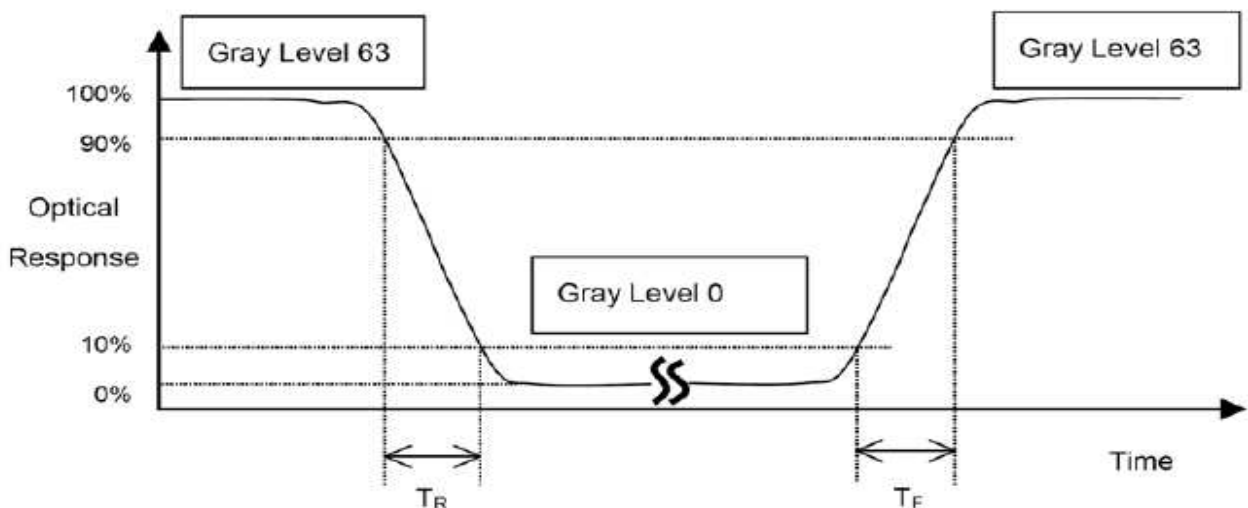
L63: Luminance of gray level 63

L0: Luminance of gray level 0

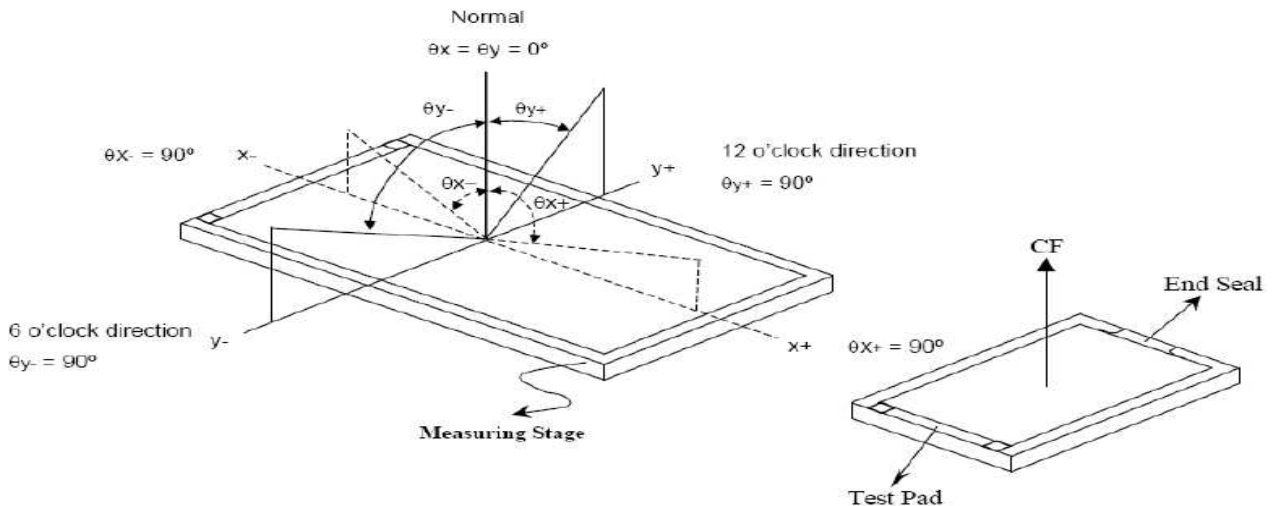
$$CR = CR(X)$$

CR (X) is corresponding to the Contrast Ratio of the point X at Figure in Note (5).

*Note (2) Definition of Response Time (T_R , T_F):



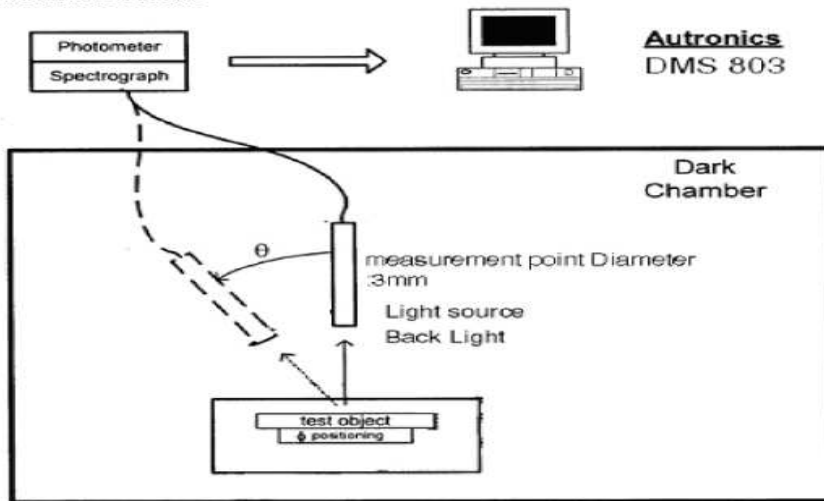
*Note(3) Definition of Viewing Angle



*** The above "Viewing Angle" is the measuring position with Largest Contrast Ratio; not for good image quality. View Direction for good image quality is 6 O'clock. Module maker can increase the "Viewing Angle" by applying Wide View Film.

*Note (4) Measurement Set-Up:

The LCD module should be stabilized at a given temperature for 20 minutes to avoid abrupt temperature change during measuring. In order to stabilize the luminance, the measurement should be executed after lighting Backlight for 20 minutes in a windless room.



*Note (5)

