



MASTER INSTRUMENT CORPORATION

MODEL NO. : ML5FW13H-CEF

PAGE: 1/3

■Features:

- HIGH LUMINOUS INTENSITY (WHITE EMISSION).
- HIGH EFFICIENCY 5.0LM/W
- TYPICAL EMISSION COLOR: X=0.29,Y=0.30
- GRENERAL COLOR RENDERING INDEX, Ra=85
- 20 DEGREE VIEW ANGLE

■Applications:

- DIRECT LIGHT ONLY

Dics Material	Light Color	Lens Color
InGaN	White	Water Clear

Absolute Ratings

(Ta=25°C)

Item	Symbol	Maximum	Unit
Power Dissipation	P <sub>D</sub>	110	mW
Continuous Forward Current	I <sub>F</sub>	25	mA
Peak Forward Current (1/10 Duty Cycle 0.1ms Pulse Width)	I <sub>FP</sub>	100	mA
Reverse Voltage	V <sub>R</sub>	5	V
Derating Linear Form 25°C		0.36	MA/°C
Operating temperature Range	Topr	-20 to +80	°C
Storage Temperature Range	Tstg	-30 to +85	°C
Electrostatic Discharge Threshold (HBM)	E <sub>ot</sub>	1000	V

\*\*Condition for IFP is pulse of 1/10 duty and 0.1 msec width.

\*\*Solder temperature 1.6mm from body for 5 seconds at 250°C ±5°C.

\*\*Caution in ESD: Static Electricity and surge damages the LED. It is recommend to use a wrist band or anti-electrostatic glove when handling the LED. All devices, Equipment and machinery must be properly grounded.

CHARACTERISITIC

(Ta=25°C)

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V <sub>F</sub>	IF=20mA		3.5	4.0	V
Reverse Current	I <sub>R</sub>	VR=5V			10	uA
Viewing Angle	2θ <sub>1/2</sub>	IF=20mA		20		Deg
Luminous Intensity	I <sub>V</sub>	IF=20mA	3000	5000		mcd





◆ Typical Optical-Electrical Characteristic Curves

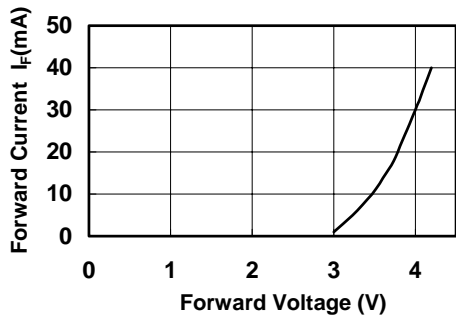


FIG1. FORWARD CURRENT VS. FORWARD VOLTAGE

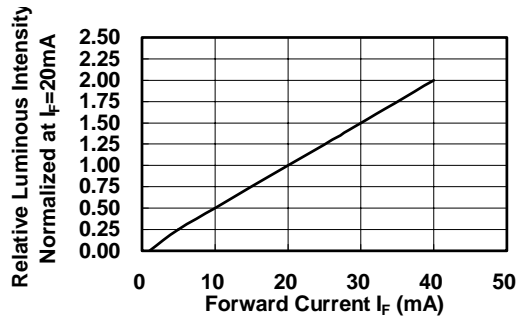


FIG2. RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

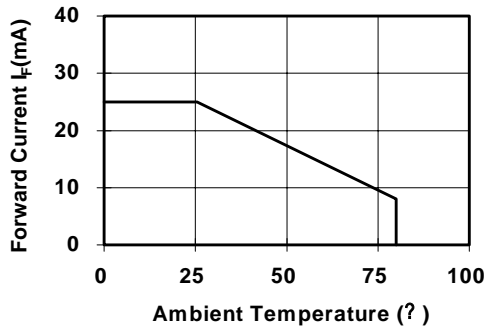


FIG3-27. FORWARD CURRENT VS. AMBIENT TEMPERATURE

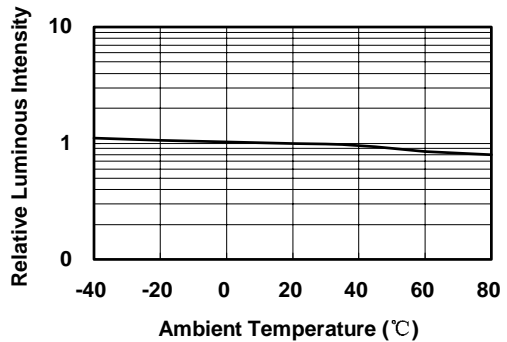
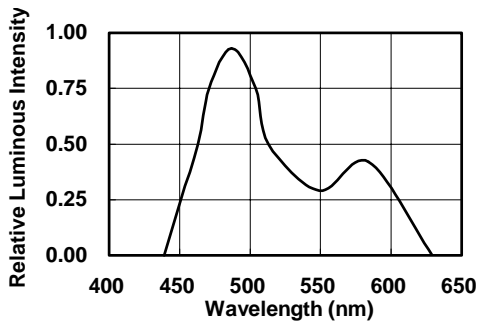


FIG4. LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE



RELATIVE INTENSITY LUMINOUS VS. WAVELENGTH