

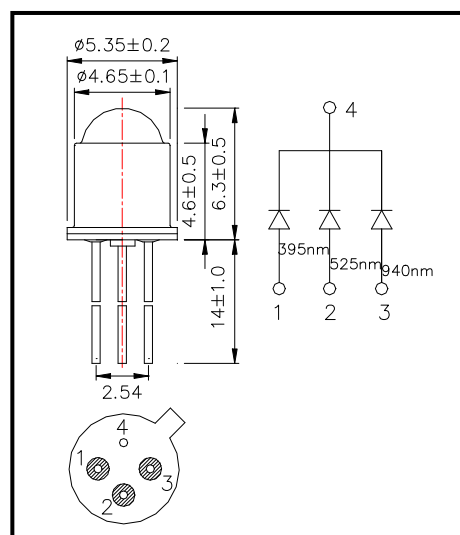
# L395/525/940-30C32 multi-wavelength LED

L395/525/940-30C32 consists of an InGaN(395,525nm) and AlGaAs(940nm) LED mounted on TO-46 stem with a spherical glass lens.

## ◆ Specifications

1) Product Name	Multi-wavelength LED Lamp
2) Type No.	L395/525/940-30C32
3) Chip	
(1) Chip Material	InGaN, AlGaAs
(2) Peak Wavelength	395nm, 525nm, 940nm
4) Package	
(1) Type	TO-46 4pin type stem
(2) Lens	Φ5mm spherical glass lens
(3) Cap	Gold plated

## ◆ Outer dimension (Unit: mm)



## ◆ Absolute Maximum Ratings [Ta=25°C]

Item	Symbol	Maximum Rated Value			Unit
		395	525	940	
Power Dissipation	P <sub>D</sub>	215	200	75	mW
Forward Current	I <sub>F</sub>	50	50	50	mA
Pulse Forward Current	I <sub>FP</sub>	100	100	100	mA
Reverse Voltage	V <sub>R</sub>	5			V
Thermal Resistance	R <sub>thja</sub>	330			K/W
Junction Temperature	T <sub>j</sub>	120			°C
Operating Temperature	T <sub>OPR</sub>	-40 ~ +100			°C
Storage Temperature	T <sub>STG</sub>	-40 ~ +100			°C
Soldering Temperature	T <sub>SOL</sub>	250			°C

‡Pulse Forward Current condition: Duty=1% and Pulse Width=10us

‡Soldering condition: Soldering condition must be completed within 5 seconds at 250°C

◆ Electro-Optical Characteristics [Ta=25°C typ.]

◆ 395nm

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA		3.5	4.3	V
Radiated Power	P <sub>O</sub>	I <sub>F</sub> =20mA		18		mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =20mA		23		mW/sr
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =20mA	385	395	405	nm
Half Width	Δλ	I <sub>F</sub> =20mA		12		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =20mA		±2		deg.
Rise Time	t <sub>r</sub>	I <sub>F</sub> =20mA		48		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> =20mA		48		ns

‡Radiated Power is measured by S3584-08

‡Radiant Intensity is measured by CIE127-2007 Condition B.

‡Viewing Half Angle doesn't express to be center emitted along axis because of multi-chip allocation.

◆ 525nm

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA		3.1	4.0	V
Radiated Power	P <sub>O</sub>	I <sub>F</sub> =20mA		10		mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =20mA		18		mW/sr
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =20mA	515	525	535	nm
Half Width	Δλ	I <sub>F</sub> =20mA		30		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =20mA		±4		deg.
Rise Time	t <sub>r</sub>	I <sub>F</sub> =20mA		35		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> =20mA		110		ns

‡Radiated Power is measured by S3584-08

‡Radiant Intensity is measured by CIE127-2007 Condition B.

‡Viewing Half Angle doesn't express to be center emitted along axis because of multi-chip allocation.

◆ 940nm

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA		1.3	1.5	V
Radiated Power	P <sub>O</sub>	I <sub>F</sub> =20mA		5		mW
Radiant Intensity	I <sub>E</sub>	I <sub>F</sub> =20mA		16		mW/sr
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =20mA	930	940	950	nm
Half Width	Δλ	I <sub>F</sub> =20mA		63		nm
Viewing Half Angle	θ <sub>1/2</sub>	I <sub>F</sub> =20mA		±4		deg.
Rise Time	t <sub>r</sub>	I <sub>F</sub> =20mA		1800		ns
Fall Time	t <sub>f</sub>	I <sub>F</sub> =20mA		1800		ns

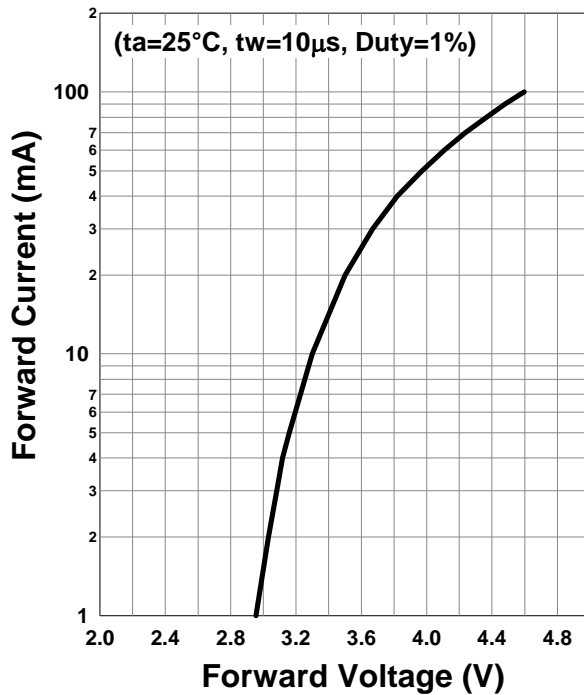
‡Radiated Power is measured by S3584-08

‡Radiant Intensity is measured by CIE127-2007 Condition B.

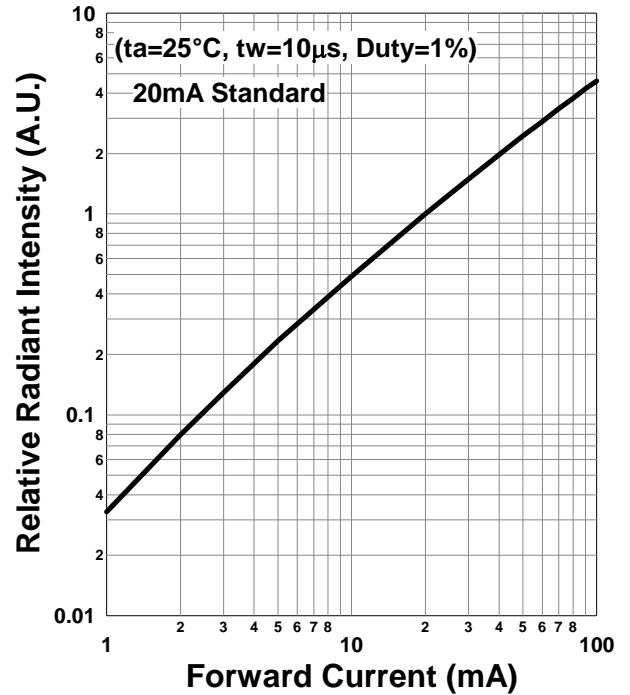
‡Viewing Half Angle doesn't express to be center emitted along axis because of multi-chip allocation.

◆ 395nm

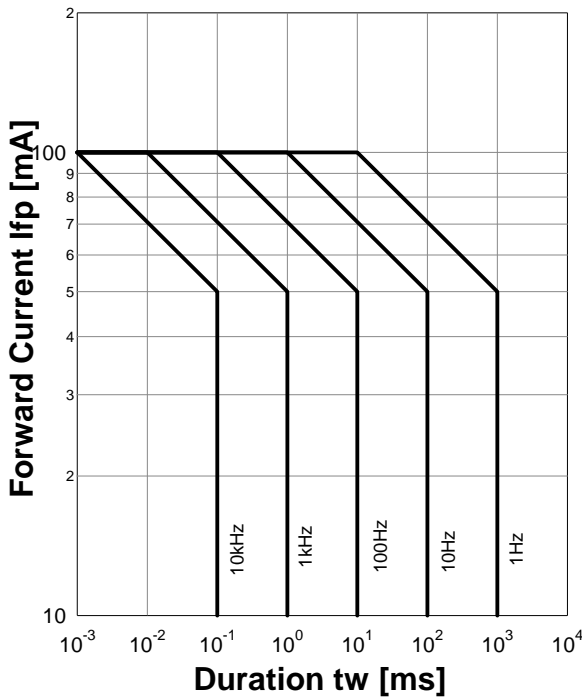
**Forward Current - Forward Voltage**



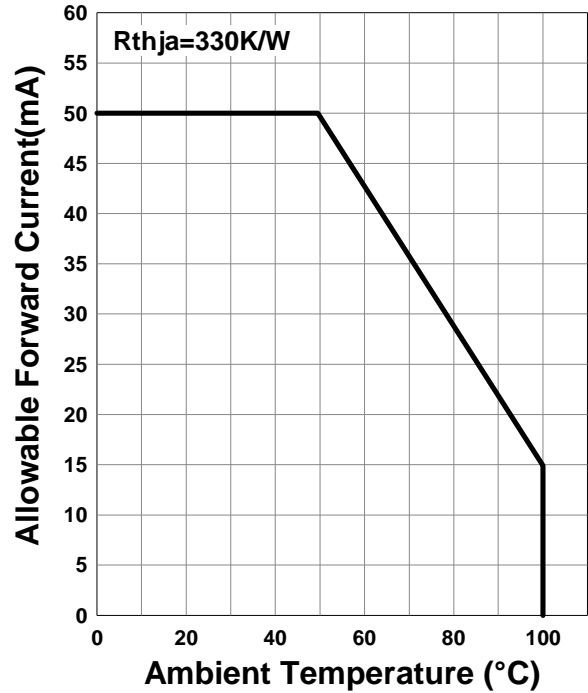
**Relative Radiant Intensity - Forward Current**



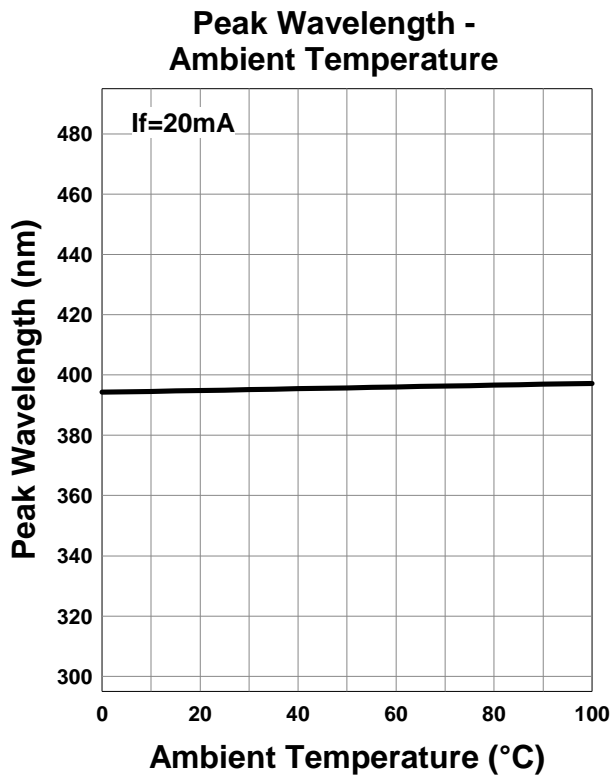
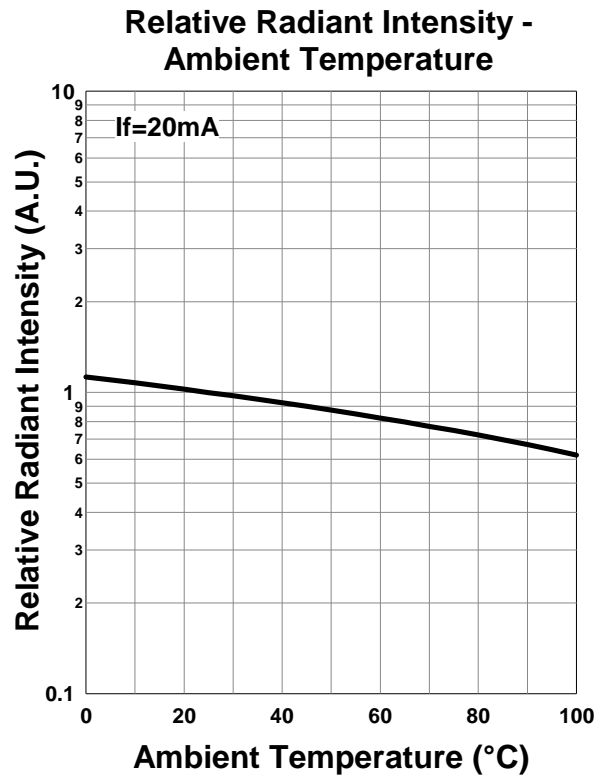
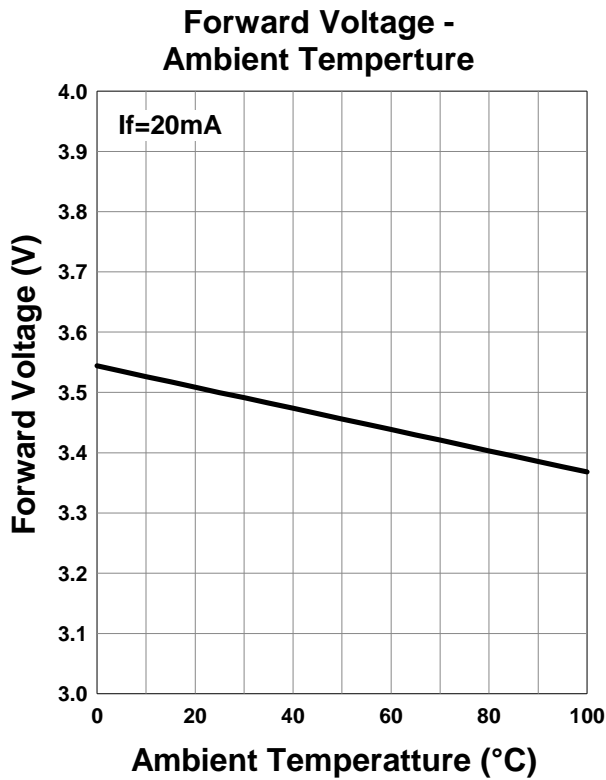
**Forward Current - Pulse Duration**



**Allowable Forward Current - Ambient Temperature**

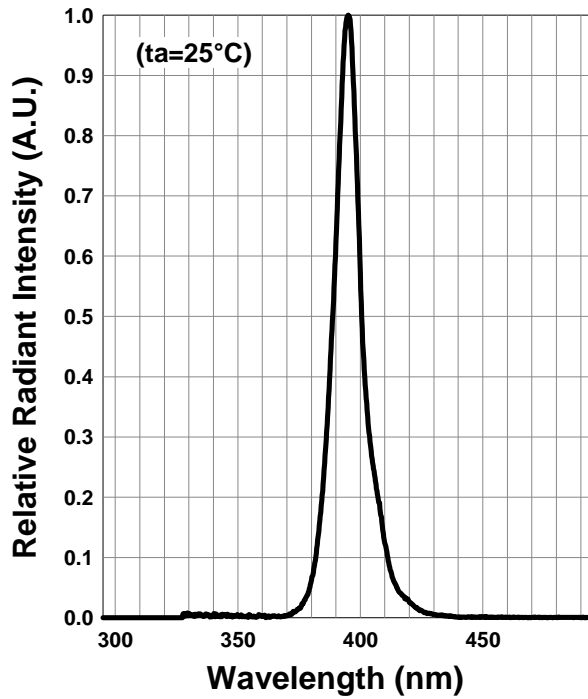


◆395nm

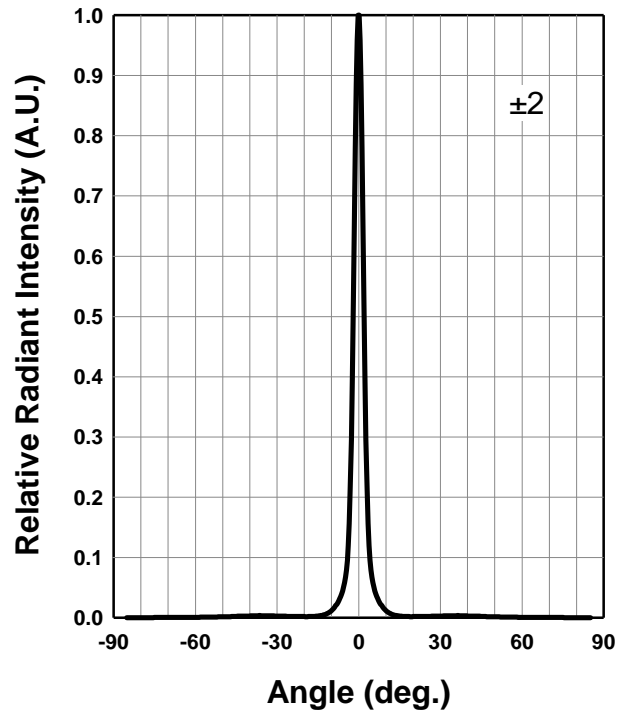


◆395nm

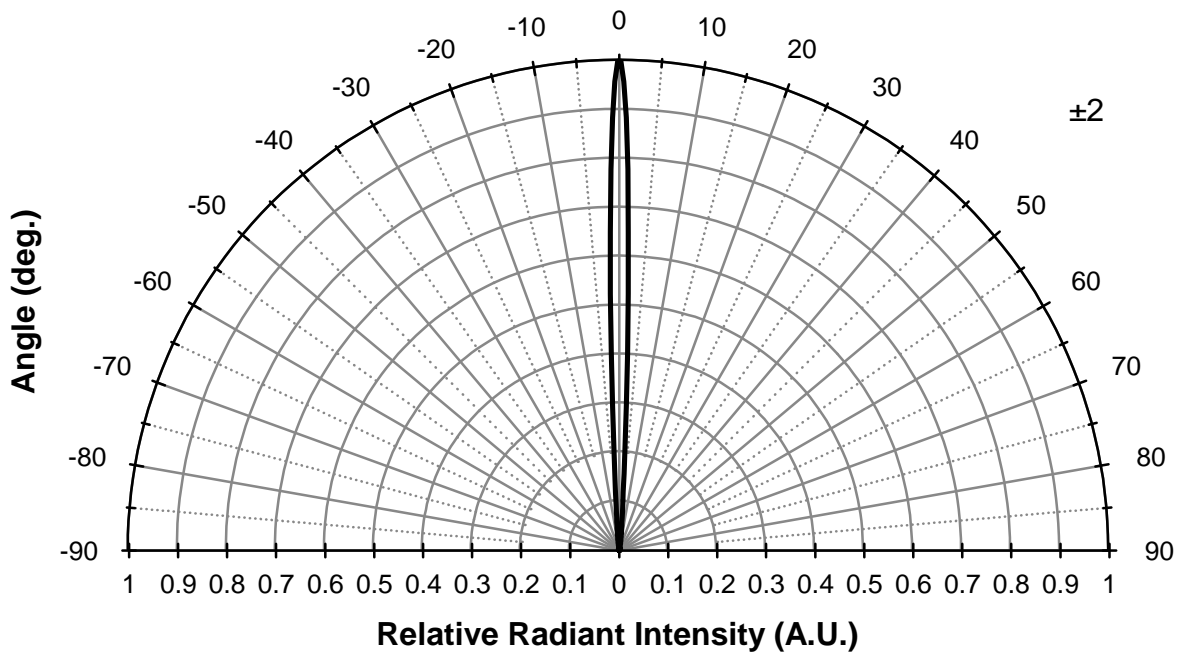
Relative Spectral Emission



Radiation Characteristics

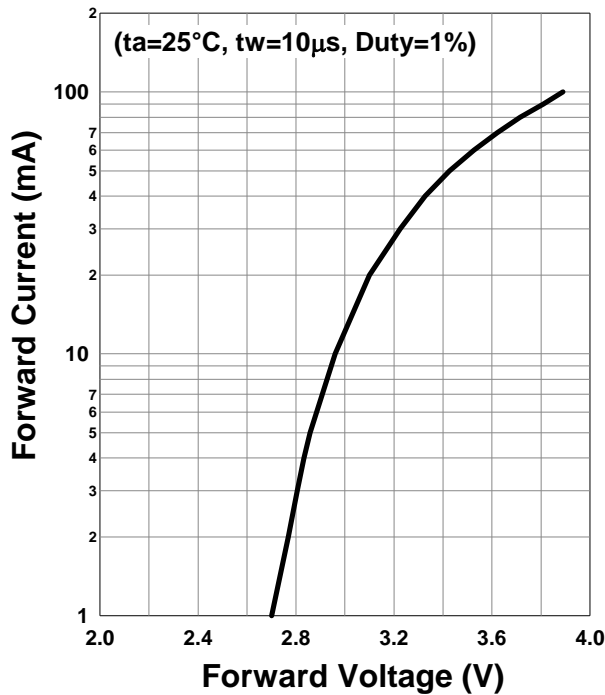


Radiation Characteristics

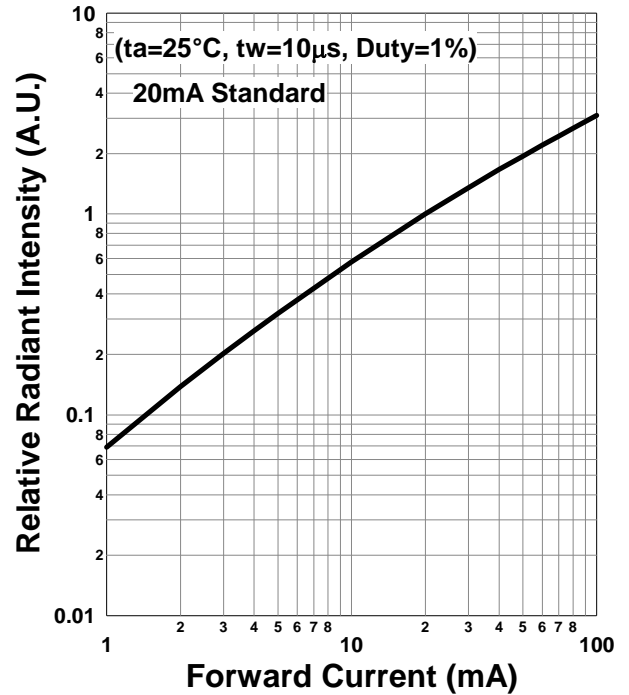


◆525nm

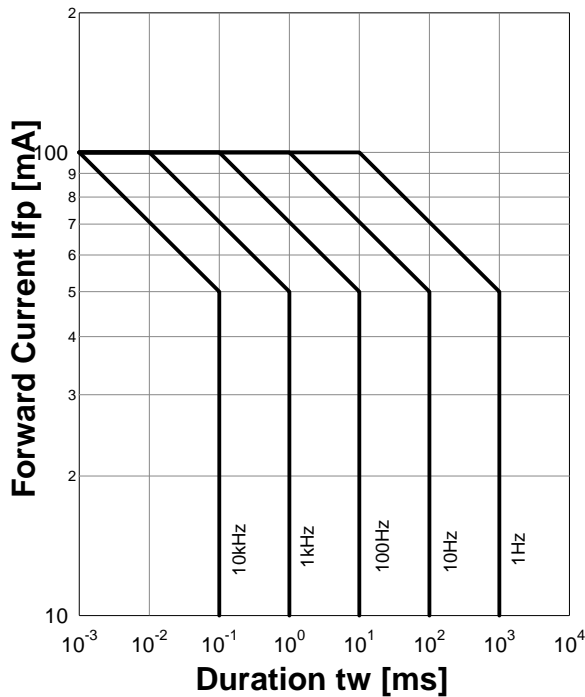
**Forward Current - Forward Voltage**



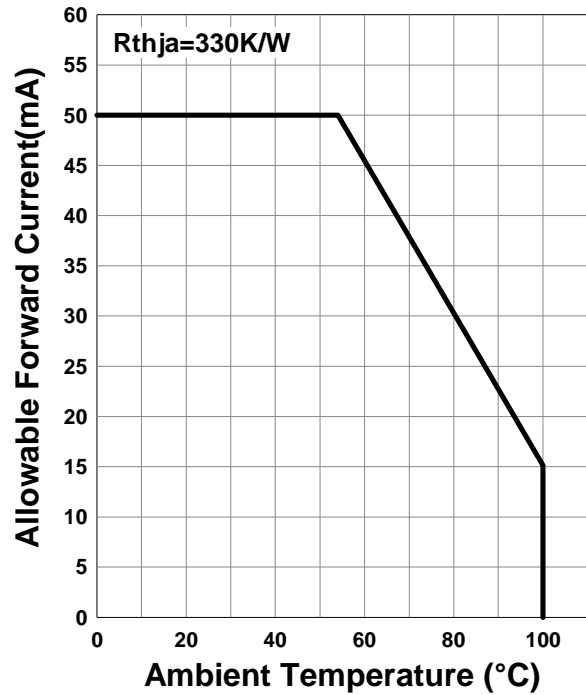
**Relative Radiant Intensity - Forward Current**



**Forward Current - Pulse Duration**

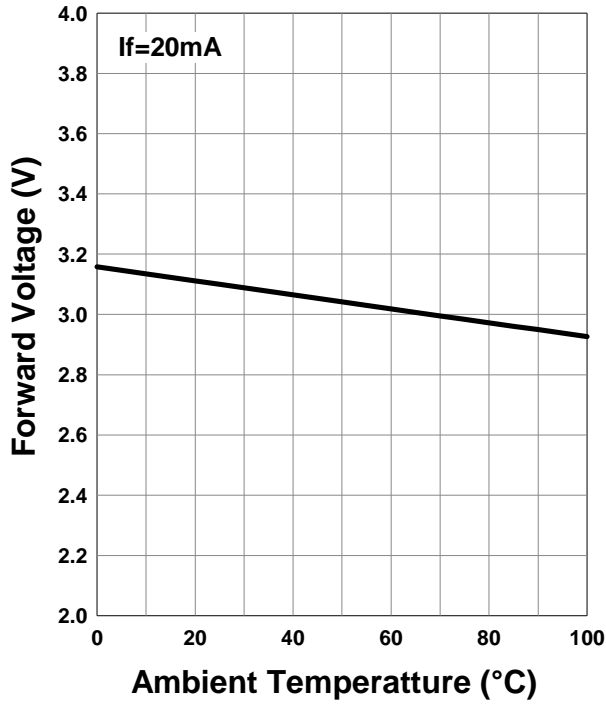


**Allowable Forward Current - Ambient Temperature**

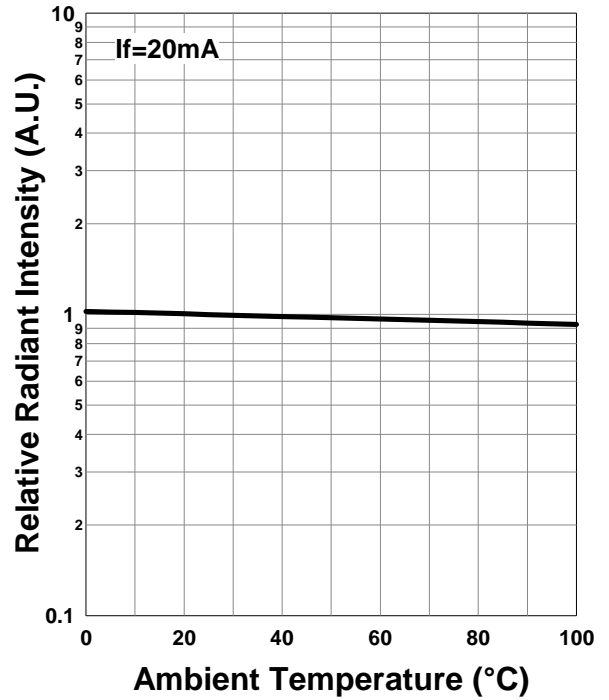


◆525nm

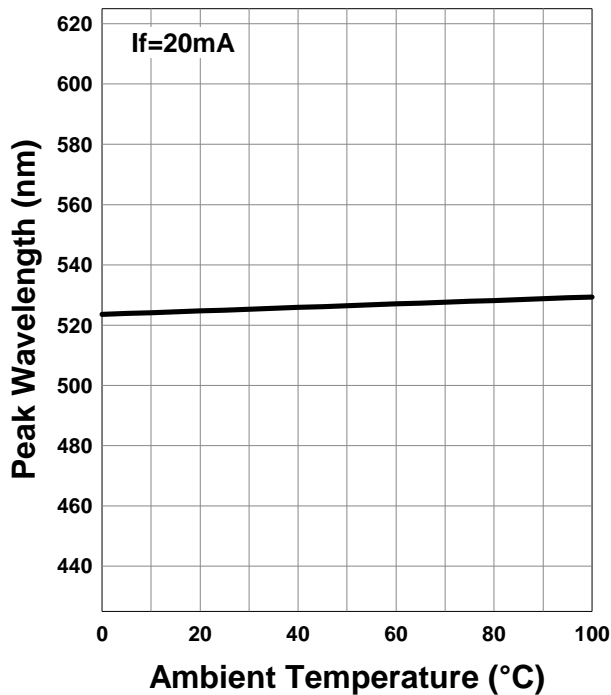
**Forward Voltage - Ambient Temperature**



**Relative Radiant Intensity - Ambient Temperature**

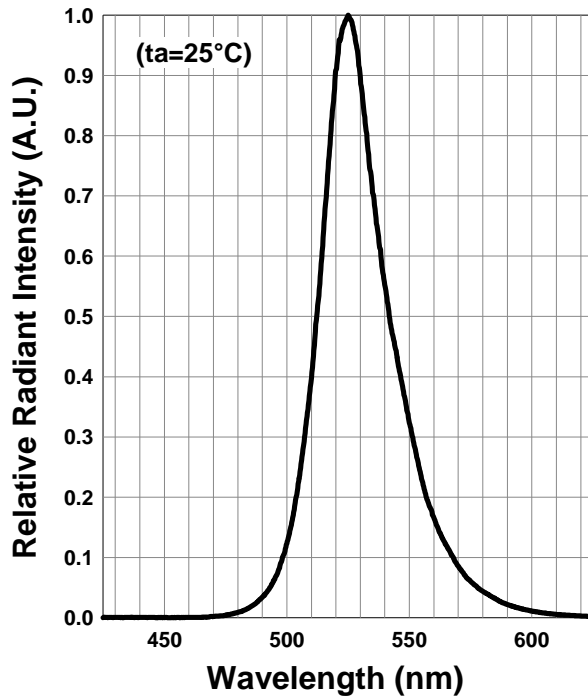


**Peak Wavelength - Ambient Temperature**

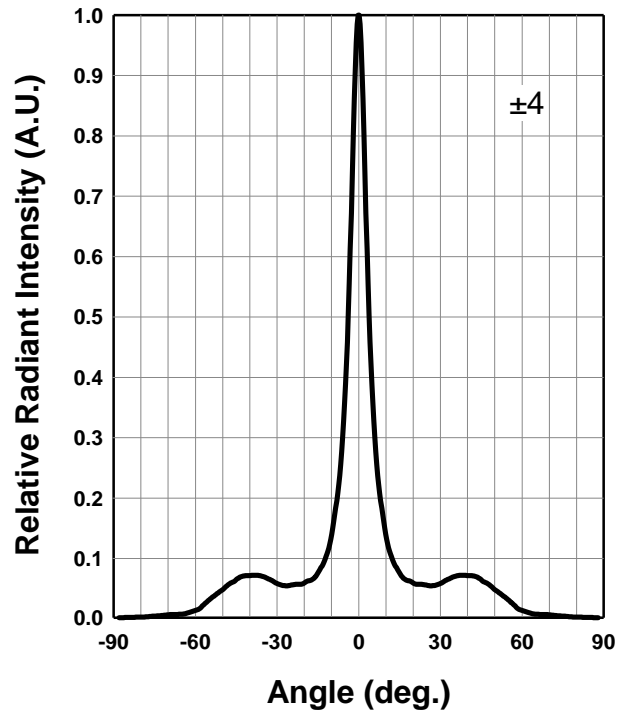


◆525nm

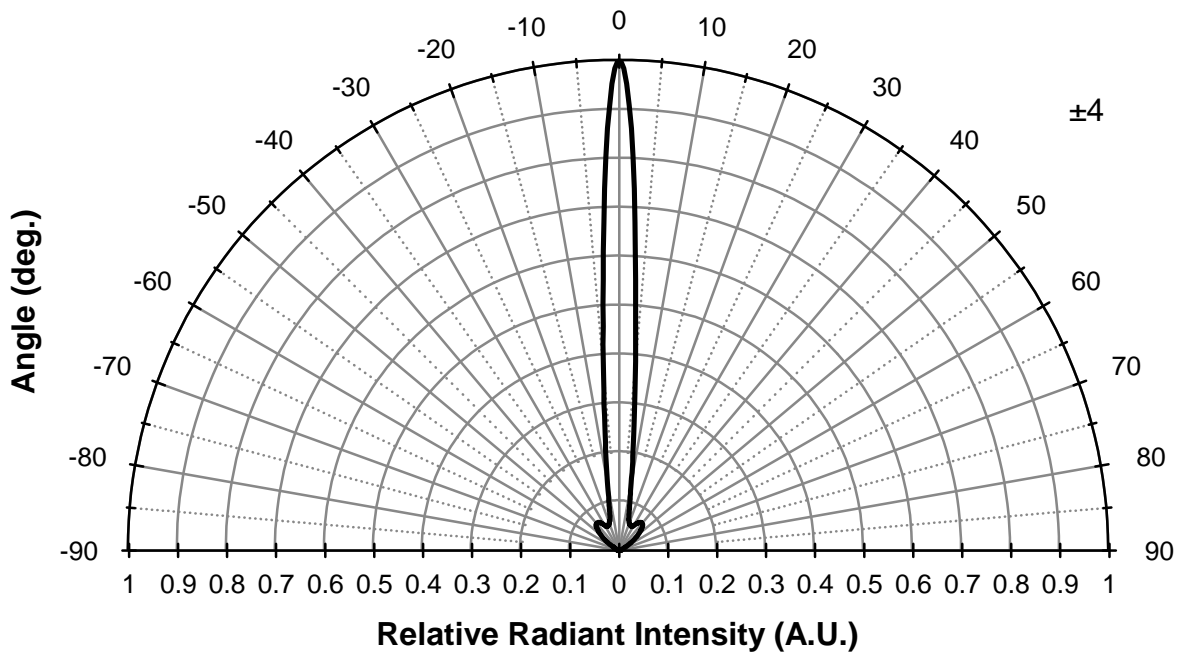
Relative Spectral Emission



Radiation Characteristics



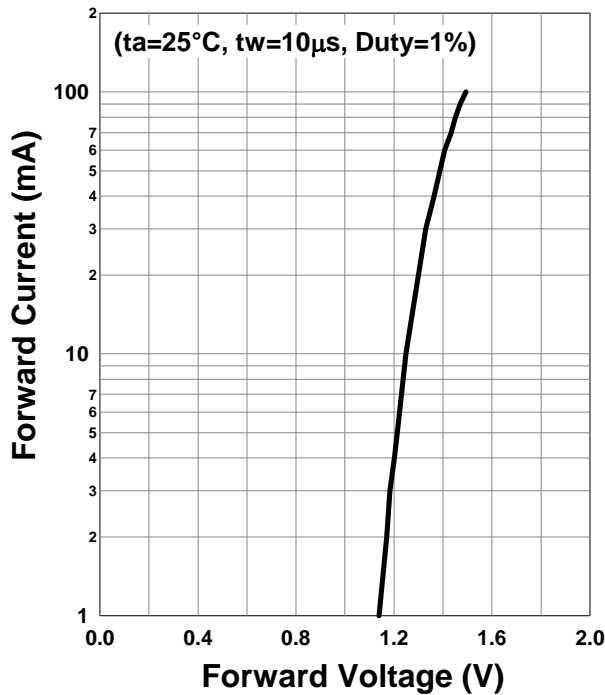
Radiation Characteristics



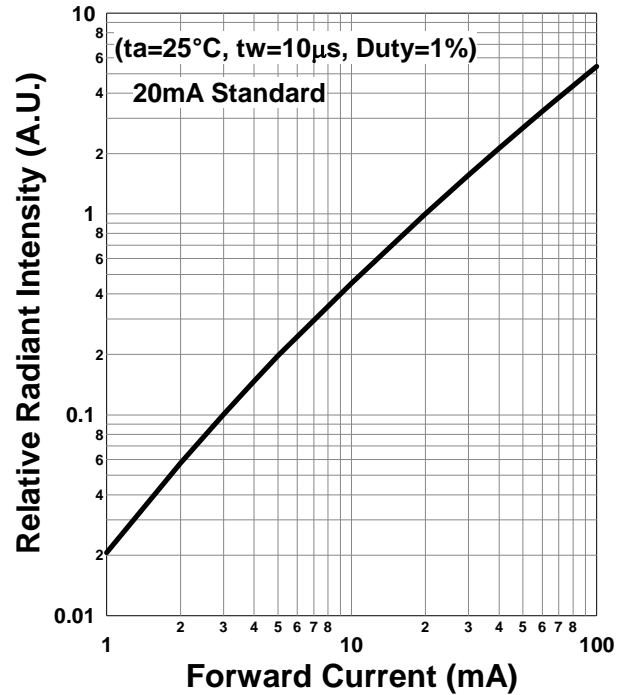


◆940nm

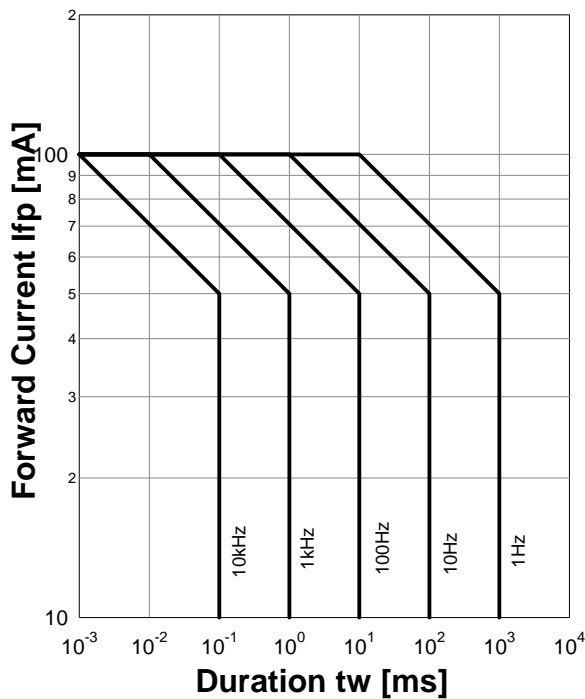
**Forward Current - Forward Voltage**



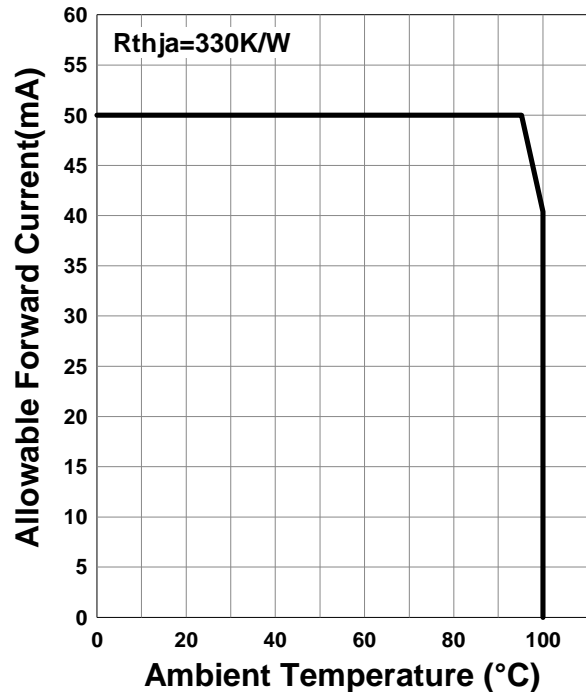
**Relative Radiant Intensity - Forward Current**



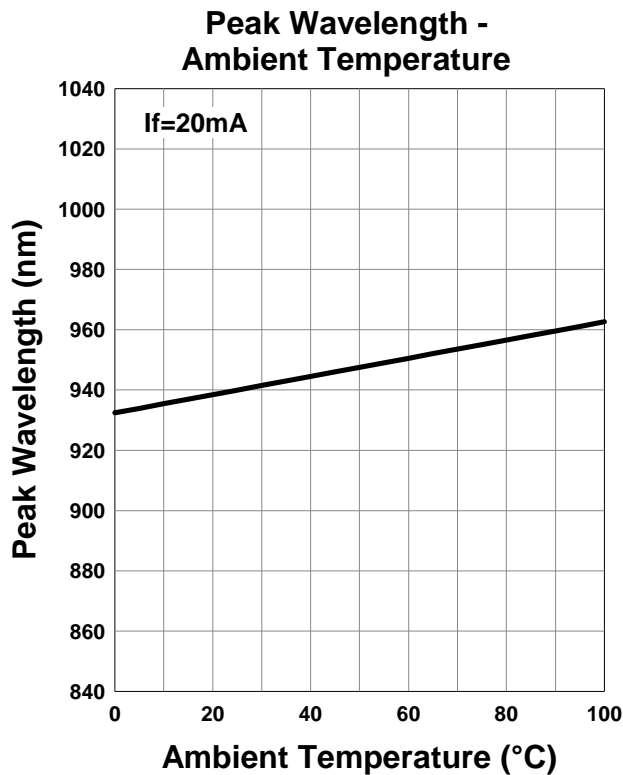
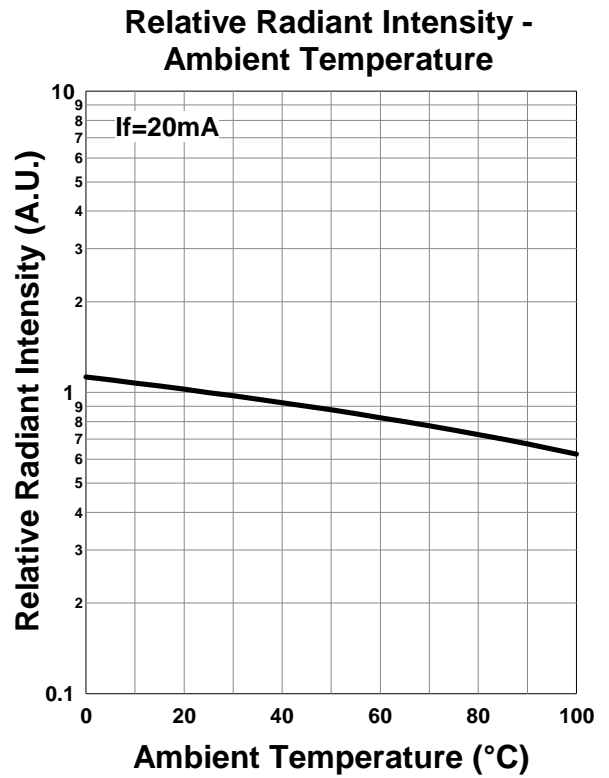
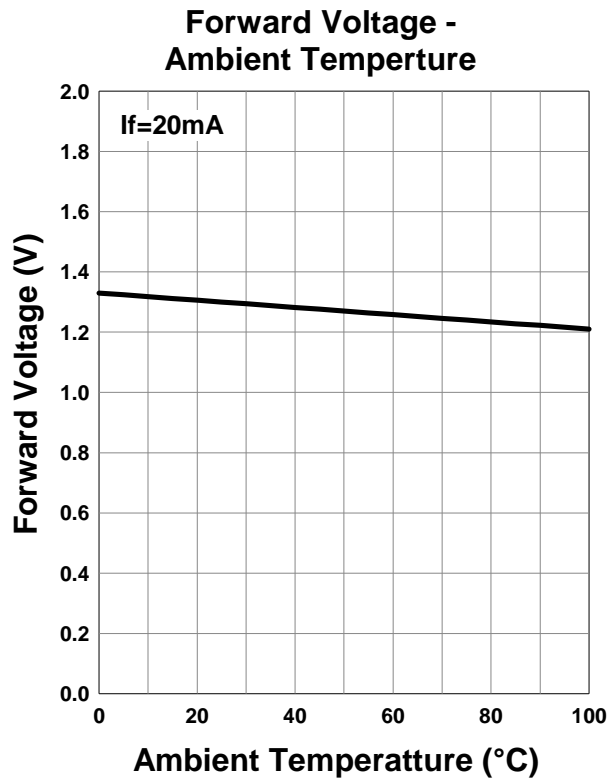
**Forward Current - Pulse Duration**



**Allowable Forward Current - Ambient Temperature**

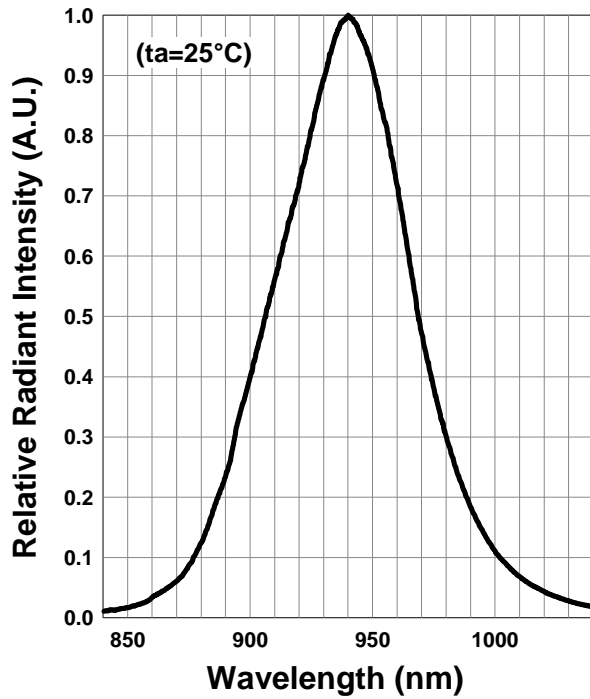


◆940nm

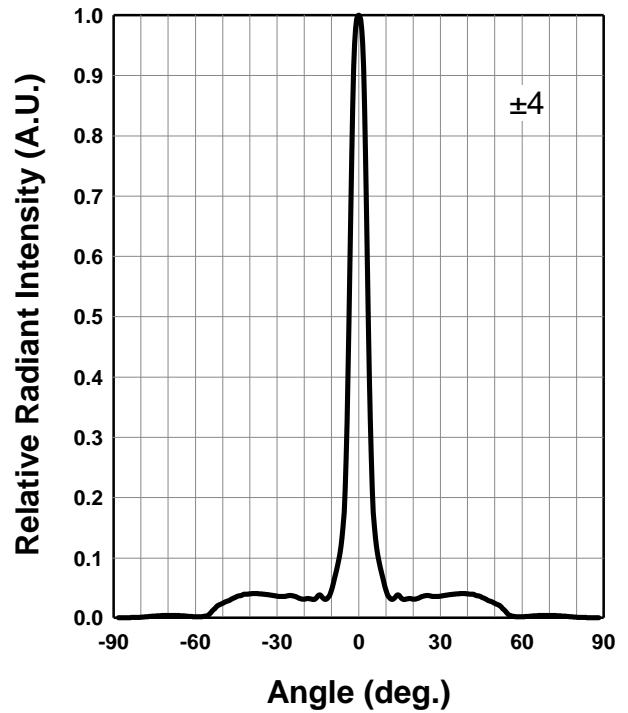


◆940nm

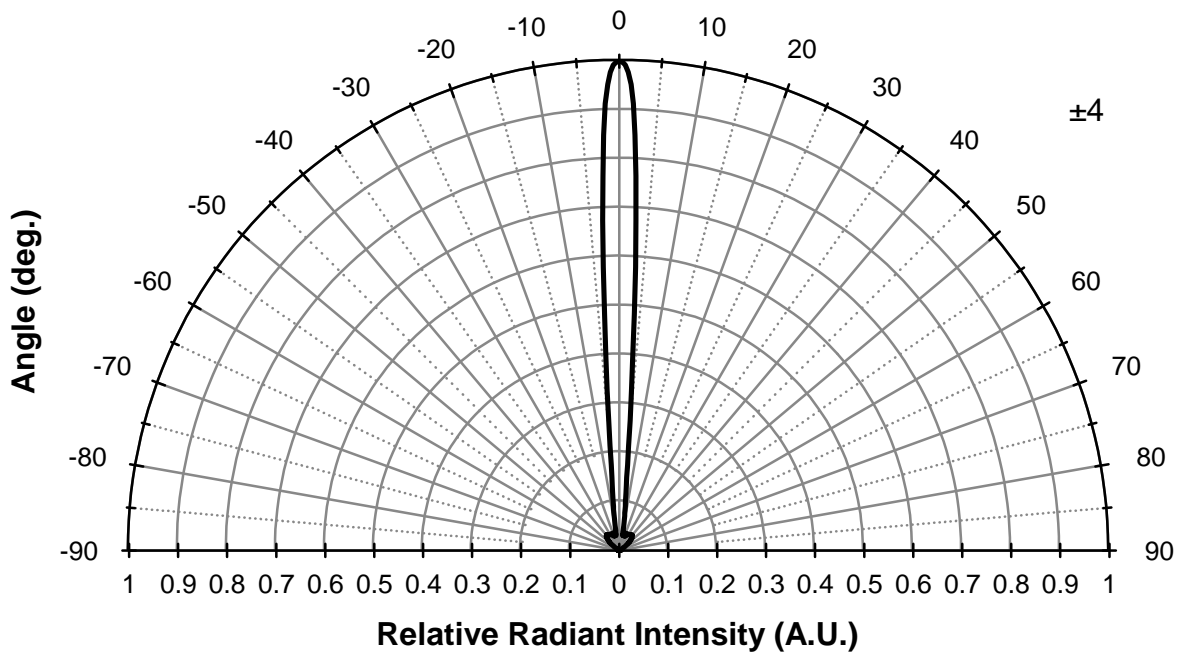
Relative Spectral Emission



Radiation Characteristics



Radiation Characteristics



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