



ATTENTION

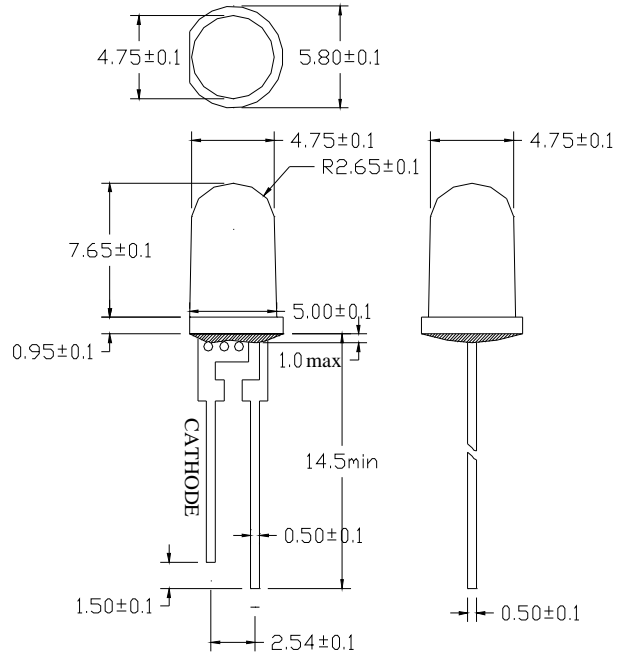
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Features

- Single color
- High bright output
- Low power consumption
- High reliability and long life

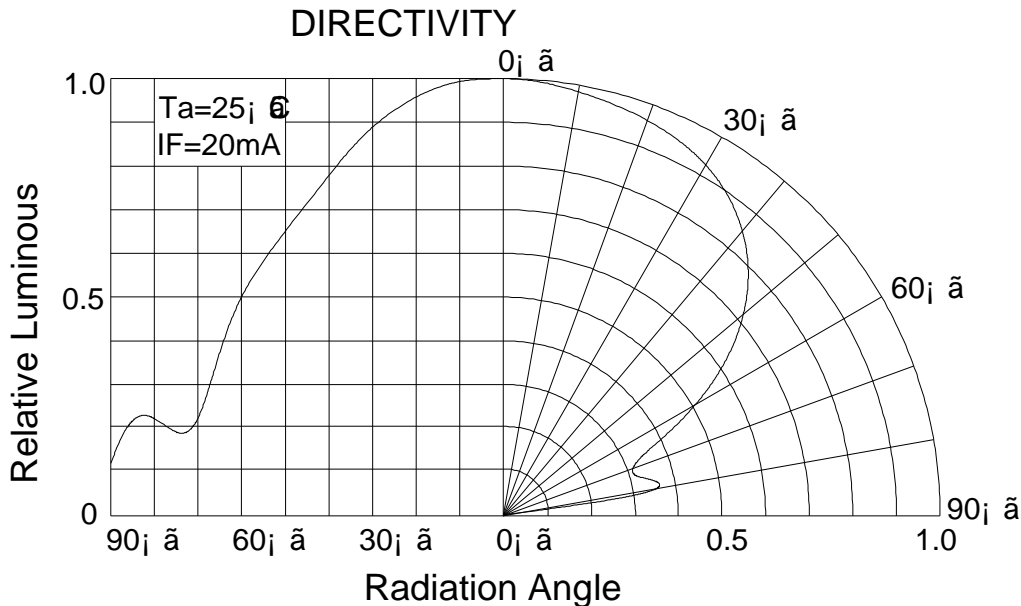
Descriptions

- Dice material: GaInN
- Emitting Color: Super Bright White
- Device Outline: ϕ 5mm Round Type
- Lens Type: Water Clear



NOTE:

- All dimensions are millimetres.
- Tolerance is ± 0.25 mm unless otherwise noted



Client Part No.: LED-5-14000W/75°

Absolute maximum ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Test Condition	Value		Unit
			Min.	Max.	
Reverse Voltage	V_R	$I_R = 30 \mu\text{A}$	5	--	V
Forward Current	I_F	----	----	120	mA
Power Dissipation	P_d	----	----	0.5	W
Pulse Current	I_{peak}	Duty=0.1mS, 1kHz	----	200	mA
Operating Temperature	T_{opr}	----	-20	+85	$^\circ\text{C}$
Storage Temperature	T_{str}	----	-25	+100	$^\circ\text{C}$

Electrical and optical characteristics ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Test Condition	Value			Unit
			Min.	Typ.	Max.	
Forward Voltage	V_F	$I_F = 100\text{mA}$	----	3.5	4.0	V
Reverse Current	I_R	$V_R = 5\text{V}$	----	----	30	μA
Luminous Intensity	I_V	$I_F = 100\text{mA}$	----	8000	----	Mcd
Viewing Angle	$2\theta_{1/2}$	$I_F = 100\text{mA}$	----	75	----	Deg.
Chromaticity Coordinates	X/Y	$I_F = 100\text{mA}$	----			-

Luminous Intensity Bins Chart ($T_a = 25^\circ\text{C}$)

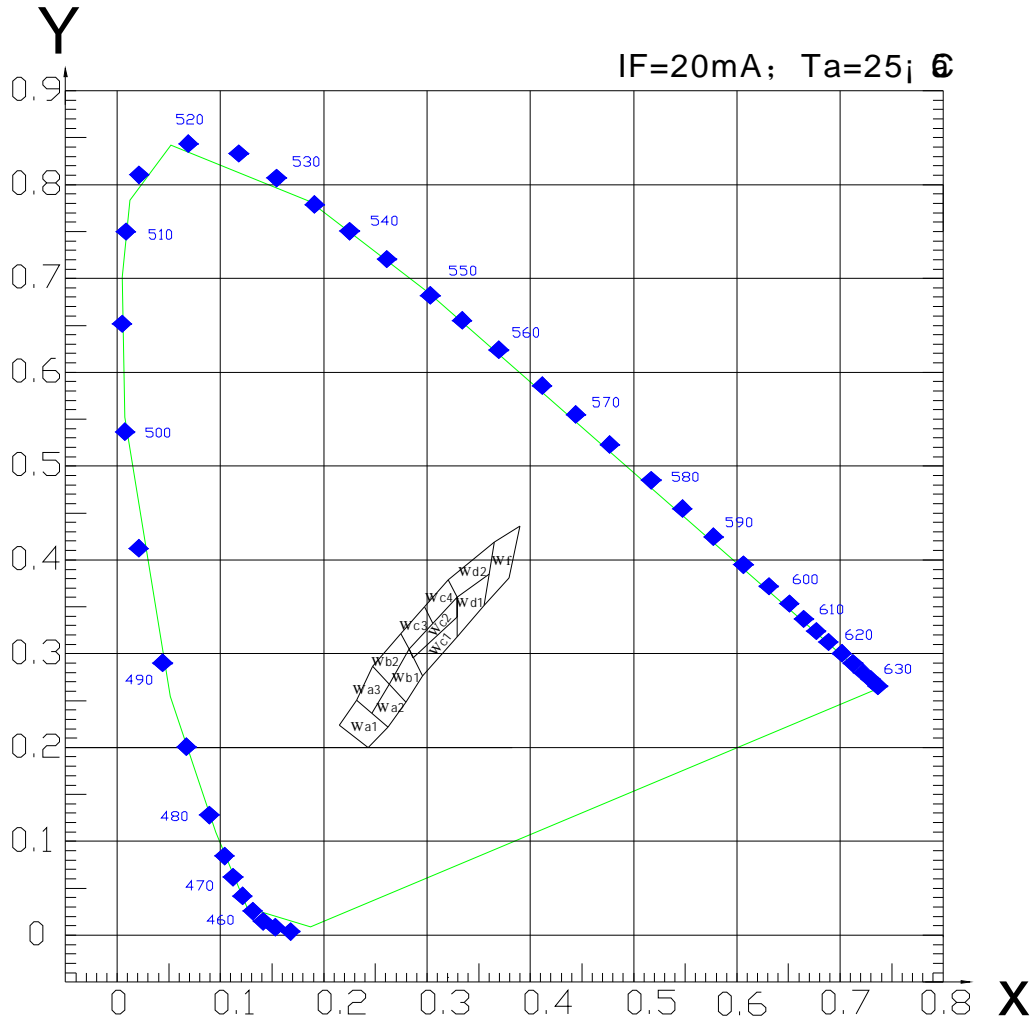
Bin	S	T	U	V	W	X
Min	1400	2000	3500	5500	7000	8000
Max	1600	2500	4000	7000	11000	14000

Client Part No.0 LED-5-14000W/75°

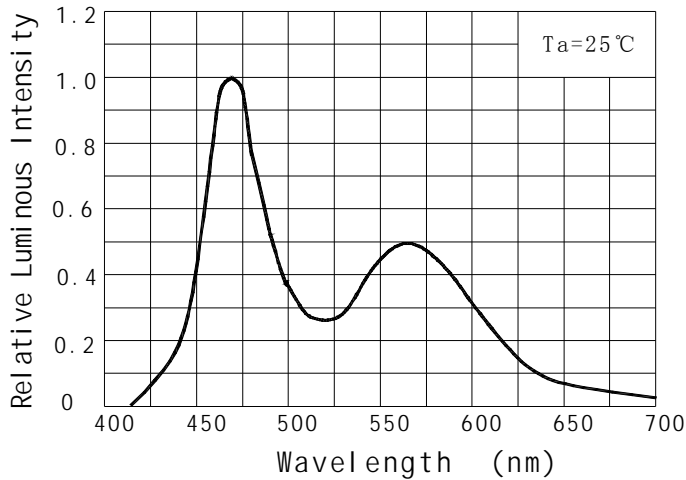
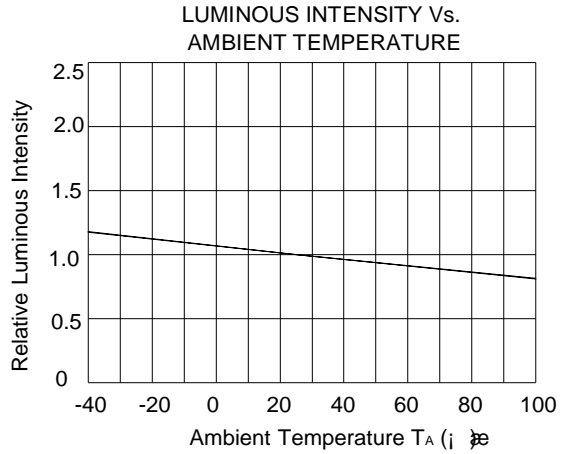
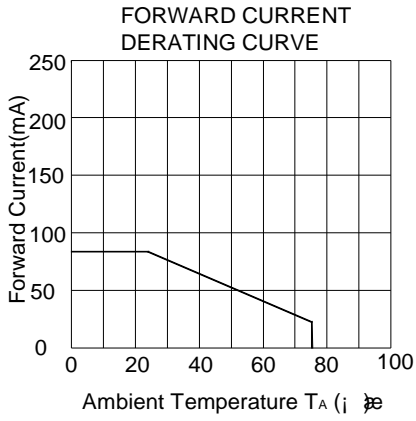
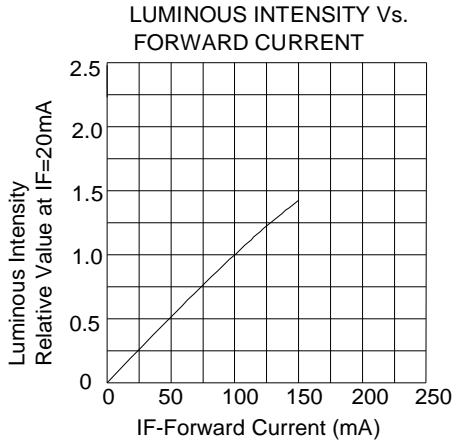
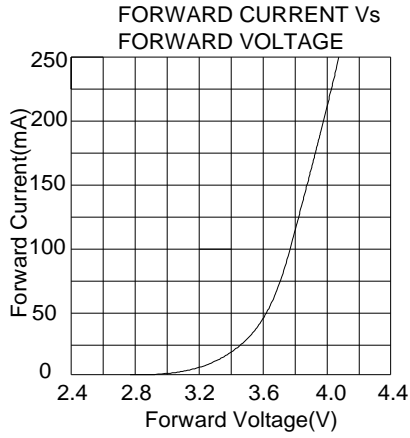
Chromaticity Coordinates Ranks (IF=20mA Ta=25)

Wa1	X	0.243	0.215	0.230	0.263	Wa2	X	0.263	0.246	0.264	0.280
	Y	0.200	0.230	0.250	0.220		Y	0.220	0.236	0.267	0.248
Wa3	X	0.246	0.230	0.248	0.264	Wb1	X	0.280	0.264	0.283	0.296
	Y	0.236	0.250	0.286	0.267		Y	0.248	0.267	0.305	0.276
Wb2	X	0.264	0.248	0.275	0.283	Wc1	X	0.296	0.287	0.330	0.330
	Y	0.267	0.286	0.321	0.305		Y	0.276	0.295	0.339	0.318
Wc2	X	0.287	0.283	0.330	0.330	Wc3	X	0.283	0.275	0.298	0.306
	Y	0.295	0.305	0.360	0.339		Y	0.305	0.321	0.350	0.332
Wc4	X	0.306	0.298	0.321	0.330	Wd1	X	0.330	0.330	0.361	0.356
	Y	0.332	0.350	0.379	0.360		Y	0.318	0.360	0.385	0.351
Wd2	X	0.330	0.321	0.366	0.361	Wf	X	0.356	0.366	0.391	0.380
	Y	0.360	0.379	0.419	0.385		Y	0.351	0.419	0.436	0.381

CIE 1931 Chromaticity diagram



Typical electrical/optical characteristic curves



LED-5-14000W/75°

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FARBE (EMITTING COLOR)	weiß
LICHTSTÄRKE (LUMINOUS INTENSITY)	14000mcd
LICHTSTROM (LUMINOUS INTENSITY)	18lm
ABSTRAHLWINKEL (VIEWING ANGLE)	75°
FARBTEMPERATUR (COLOR TEMP.)	9000-10000°K
FARBORT (CIE-TRIANGLE COORDINATES)	X:0.28-0.29 Y:0.27-0.28
GRÖßE / ABMESSUNG (SIZE)	5mm
SPANNUNG (FORWARD VOLTAGE)	typ. 3.5V (max. 4.0V)
STROM TYP. (REC. FORWARD CURRENT)	100mA
MATERIAL	InGaN / Sapphire
LEBENSDAUER (LIFETIME)	50.000
LINSTENTYP (LENSTYPE)	wasser-klar (water clear)
STROMVERBRAUCH (POWER DISSIPATION)	0.4375W
BETRIEBSTEMPERATUR (OPERATING TEMP.)	-25°C-85°C
LAGERTEMPERATUR (STORE TEMP.)	-25°C-100°C
LÖTEBEDINGUNGEN (LEADCONDITIONS)	max. 5 Sec. @ 260°C
PEAK FORWARD CURRENT (LENSTYPE)	200mA, 0.1ms, 1kHz
ELEK.ST. ENTLADUNG (ELECTROST. DISCHARGE)	2000V