

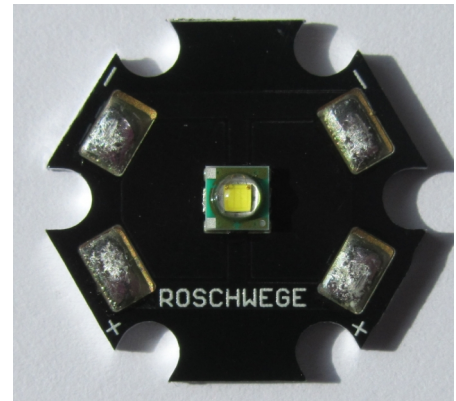
Datasheet

High Efficiency LED Emitter

RSW-Star-W5000-03-03-01.pdf

Key Features

- High Efficacy cold white, 5.000K LED emitter
- Ready for use on Star PCB
- Low Thermal Resistant Aluminium PCB
- Isolated thermal pad
- Lead (Pb) free and RoHS compliant



Typical Applications

- Plant light
- Aquarium light
- High efficient lighting applications
- Streetlight applications

Description

This Star is for simple use in standard high efficiency light Applications. The electrical isolated thermal path allows to use more stars on one heat sink without additional thermal isolation.

Absolute Maximum Ratings

Parameter	Symbol	Value	Unit
DC Forward Current	IF	1000	mA
Peak Pulsed Forward Current	IFP	1000	mA
Reverse Voltage *	VR	5	V
Storage Temperature	Tstg	-40 ~ +150	°C
Junction Temperature	TJ	150	°C
Soldering Temperature	Tsol	260	°C

LEDs are not designed to be reverse biased

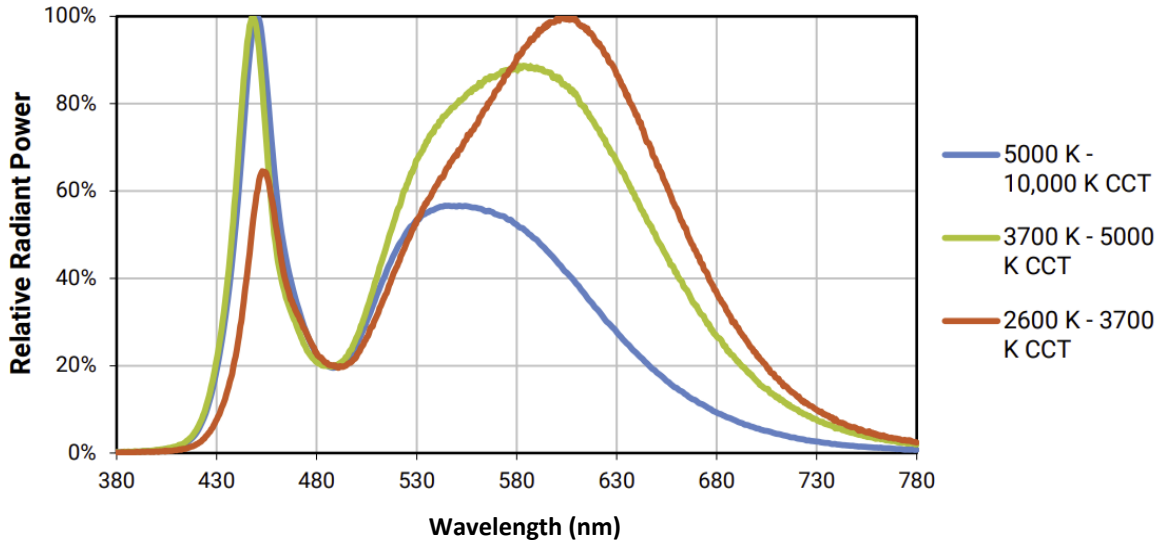
Optical Characteristics @ T_c = 25°C

Parameter	Minimum	Typical	Unit
Radiant Flux IF = 350mA) Φ	107		lm
Color temperature		5000	K
Viewing Angle		115	Degrees

Electrical Characteristics @ T_c = 25°C

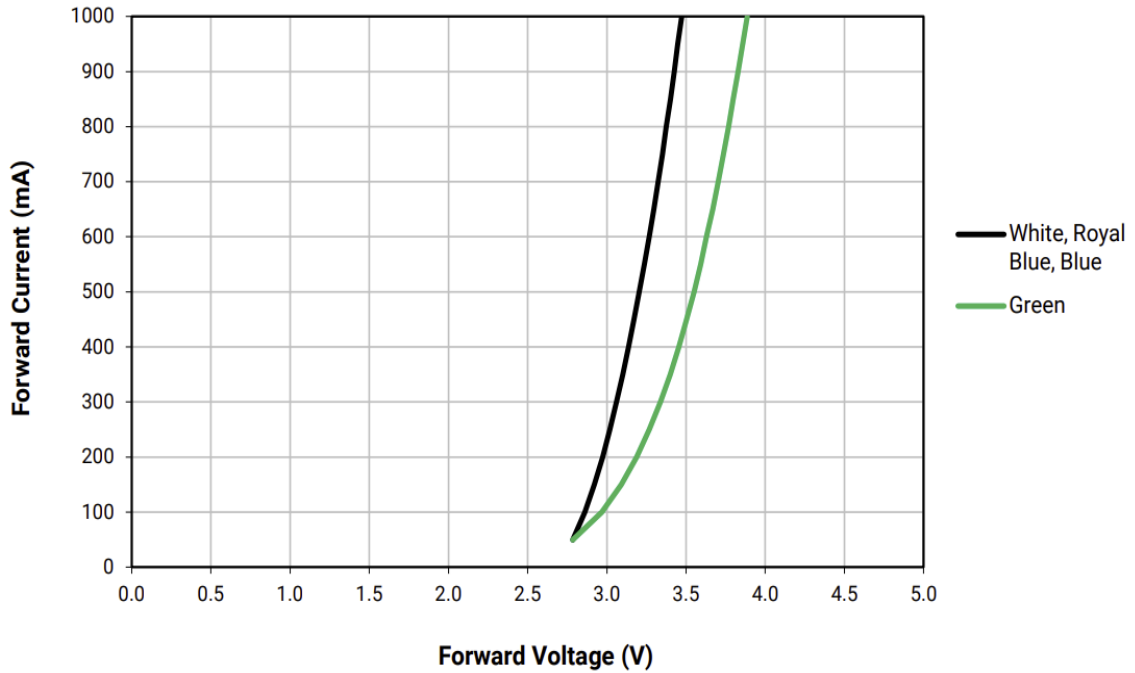
Parameter	Symbol	Typical	Unit
Forward Voltage (@ IF= 350mA)	VF-min.	3,05	V
Max. Forward Voltage (@ IF= 1000mA)	VF-max.	3,9	V
Temperature Coefficient of VF	ΔVF/ΔTJ	-3,0	mV/°C
Thermal Resistance (LED-Junction to Case)	RθJ-C	9	°C/W

Typical Relative Spectral Power Distribution



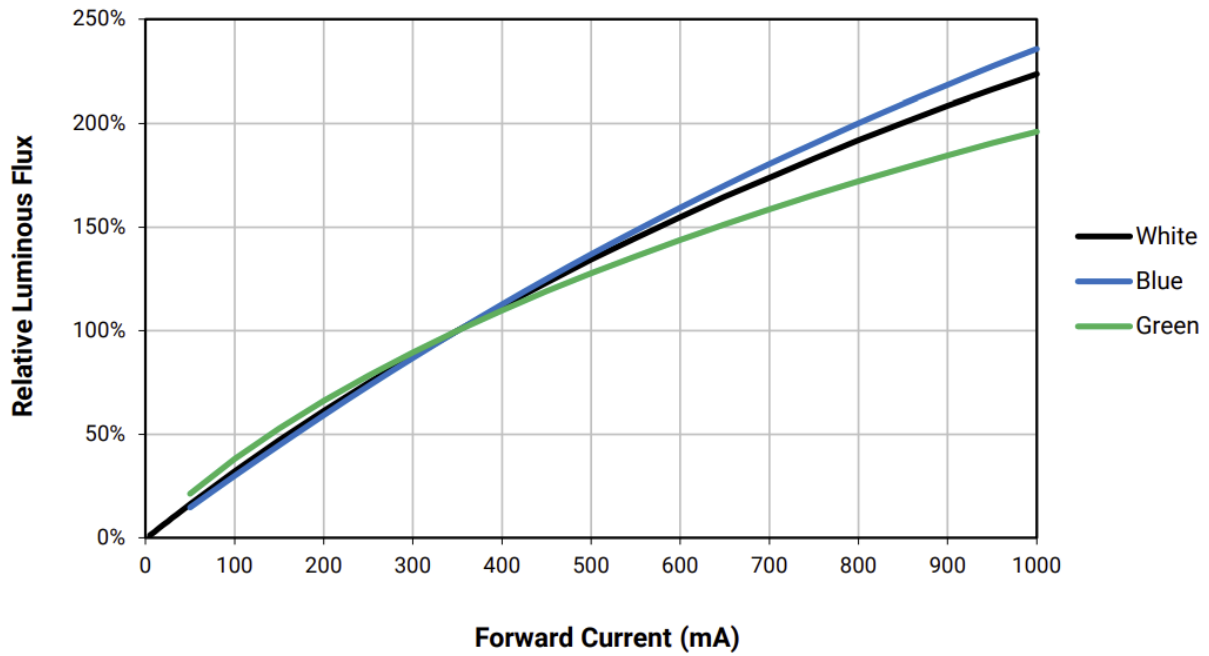
Relative spectral power vs. wavelength @ $I_f = 350\text{mA}$ and $T_c = 25^\circ\text{C}$.

Typical Forward Current Characteristics

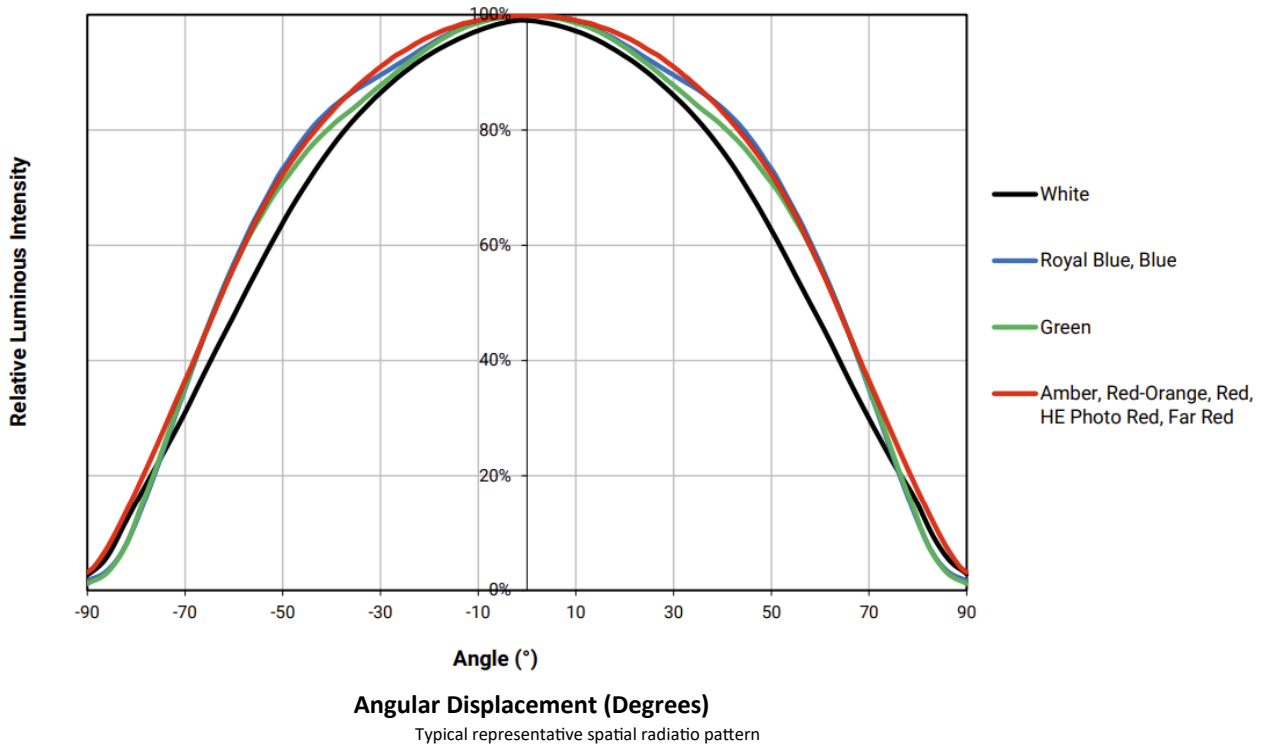


Typical forward current vs. forward voltage @ $T_c = 25^\circ\text{C}$

Typical Normalized Radiant Flux over Current



Typical Spatial Distribution



mechanical Dimensions

Star PCB Aluminium

thickness 1,5mm

$R=3,0$
 $\pm 0,1$

$R=19,5$
 $\pm 0,1$

$20,0 \pm 0,2$

$21,5 \pm 0,2$

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