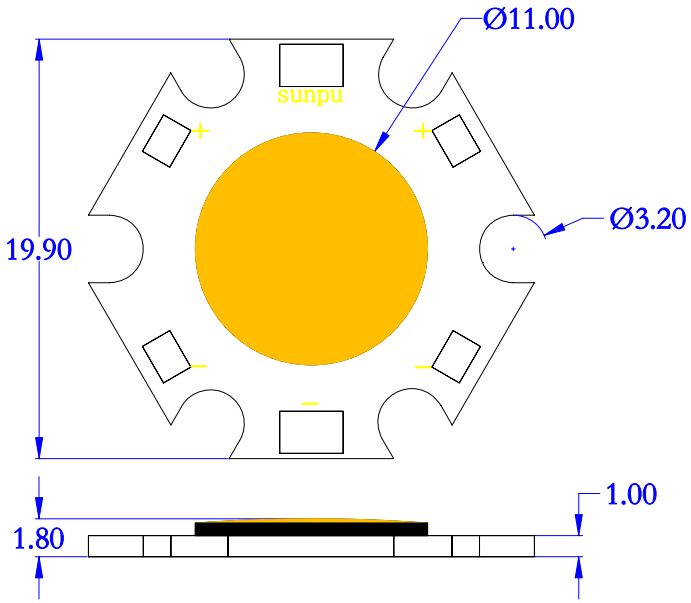
SPECIFICATION

Part No：SG15N7W3-50mA

Features：

- High radiometric power per LED
- Very long operating life (up to 100K hours)
- Low voltage DC operated
- More Energy Efficient than Incandescent and most Halogen lamps
- Good color uniformity
- NO UV
- Superior ESD protection
- Easy installation with Screws
- High Heat dissipstion Efficiency



Typical Applications：

- Reading lights(car,bus,aircraft)
- Portable(flashlight,bicycle)
- Automotive Exterior(Stop-Tail-Turn, CHMSL,Mirror Side Repeat)
- Decorative/Entertainment
- Dental curing lights
- Uplighters/Downlighters
- Bollards/Security/Garden
- Cove/Undershelf/Task
- Indoor/Outdoor Commercial and Residential Architectural
- Automotive Ext(stop-Tail-Turn)
- Street Lamp

NOTE:

- All dimensions are millimeter.
- Tolerance is ±0.1mm unless otherwise noted.
- It is strongly recommended that the temperature of lead be not higher than 70℃.
- The appearance and specifications of the product may be modified for improvement without notice.

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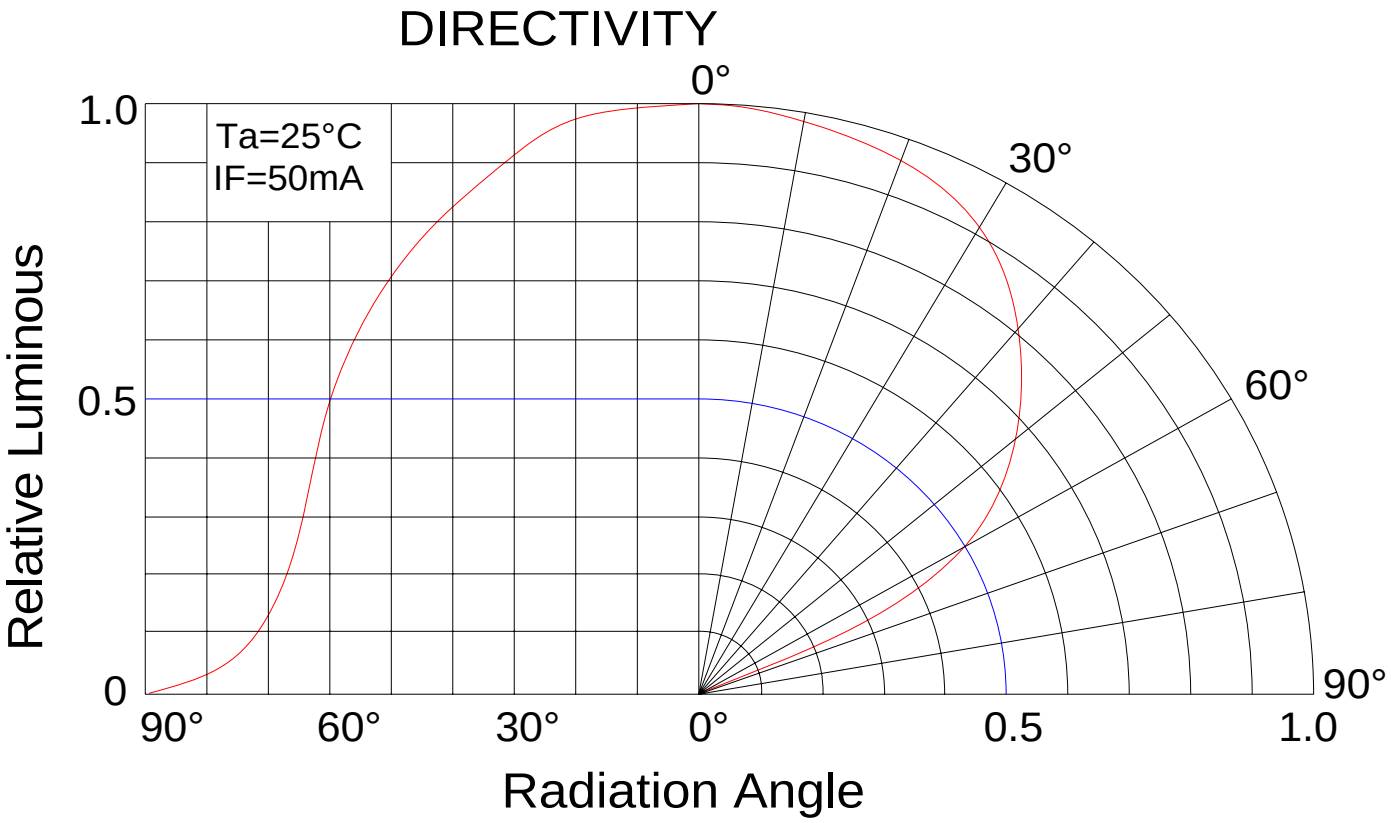
Typical Radiation Pattern



Absolute maximum ratings（Ta = 25℃）

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Parameter	Symbol	Test Condition	Value		Unit
			Min.	Max.	
DC Forward Current	IF	----	----	60	mA
Peak Pulse Current	Ipeak	Duty=1/10 1kHz	----	65	mA
Power Dissipation	Pd	----	----	9	W
LED Junction Temperature	Tj	----	----	105	℃
Operating Temperature	Topr	----	-25	+85	℃
Storage Temperature	Tstr	----	-40	+100	℃
ESD Sensitivity	----	HBM	8000	----	V
Soldering Temperature	----	----	220℃ for 5 Seconds max		

Electrical and optical characteristics （Ta = 25℃）

Parameter	Symbol	Test Condition	Value			Unit
			Min.	Typ.	Max.	
Forward Voltage	VF	IF = 50mA		150		V
Luminous Flux	Φv			670	----	lm
Viewing Angle	2θ1/2		----	120	----	Deg.
Color Temperature	CCT		2500	-----	3500	K
Thermal Resistance	Rj	-----		3		℃/W

Luminous Flux Bins（Ta = 25℃） Unit: lm

Bin	A2	B2	C2
Min	500	600	700
Max	600	700	800

Chromaticity Coordinates Ranks(IF=50mA Ta=25℃)

Bin	X1	Y1	X2	Y2	X3	Y3	X4	Y4
WE1	0.4805	0.4306	0.4751	0.4215	0.4835	0.4235	0.4892	0.4327
WE2	0.4751	0.4215	0.4696	0.4123	0.4777	0.4143	0.4835	0.4235

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WE3	0.4696	0.4123	0.4642	0.4032	0.4720	0.4051	0.4777	0.4143
WE4	0.4642	0.4032	0.4587	0.3940	0.4662	0.3959	0.4720	0.4051
WF1	0.4719	0.4286	0.4668	0.4195	0.4751	0.4215	0.4805	0.4306
WF2	0.4668	0.4195	0.4616	0.4103	0.4696	0.4123	0.4751	0.4215
WF3	0.4616	0.4103	0.4564	0.4012	0.4642	0.4032	0.4696	0.4123
WF4	0.4564	0.4012	0.4512	0.3921	0.4587	0.3940	0.4642	0.4032
WG1	0.4632	0.4264	0.4583	0.4174	0.4668	0.4195	0.4719	0.4286
WG2	0.4583	0.4174	0.4535	0.4083	0.4616	0.4103	0.4668	0.4195
WG3	0.4535	0.4083	0.4486	0.3993	0.4564	0.4012	0.4616	0.4103
WG4	0.4486	0.3993	0.4438	0.3903	0.4512	0.3921	0.4564	0.4012
WH1	0.4546	0.4244	0.4500	0.4154	0.4583	0.4174	0.4632	0.4264
WH2	0.4500	0.4154	0.4454	0.4064	0.4535	0.4083	0.4583	0.4174
WH3	0.4454	0.4064	0.4408	0.3973	0.4486	0.3993	0.4535	0.4083
WH4	0.4408	0.3973	0.4363	0.3884	0.4438	0.3903	0.4486	0.3993
WI1	0.4459	0.4223	0.4417	0.4134	0.4500	0.4154	0.4546	0.4244
WI2	0.4417	0.4134	0.4373	0.4044	0.4454	0.4064	0.4500	0.4154
WI3	0.4373	0.4044	0.4330	0.3954	0.4408	0.3973	0.4454	0.4064
WI4	0.4330	0.3954	0.4288	0.3865	0.4363	0.3884	0.4408	0.3973
WJ1	0.4387	0.4194	0.4347	0.4106	0.4417	0.4134	0.4459	0.4223
Bin	X1	Y1	X2	Y2	X3	Y3	X4	Y4
WJ2	0.4347	0.4106	0.4307	0.4017	0.4373	0.4044	0.4417	0.4134
WJ3	0.4307	0.4017	0.4267	0.3929	0.4330	0.3954	0.4373	0.4044
WJ4	0.4267	0.3929	0.4227	0.3841	0.4288	0.3865	0.4330	0.3954
WK1	0.4315	0.4165	0.4278	0.4078	0.4347	0.4106	0.4387	0.4194
WK2	0.4278	0.4078	0.4240	0.3990	0.4307	0.4017	0.4347	0.4106
WK3	0.4240	0.3990	0.4202	0.3903	0.4267	0.3929	0.4307	0.4017
WK4	0.4202	0.3903	0.4165	0.3816	0.4227	0.3841	0.4267	0.3929
WL1	0.4243	0.4136	0.4208	0.4050	0.4278	0.4078	0.4315	0.4165
WL2	0.4208	0.4050	0.4173	0.3964	0.4240	0.3990	0.4278	0.4078
WL3	0.4173	0.3964	0.4139	0.3878	0.4202	0.3903	0.4240	0.3990
WL4	0.4139	0.3878	0.4104	0.3792	0.4165	0.3816	0.4202	0.3903
WM1	0.4187	0.4108	0.4154	0.4023	0.4208	0.4050	0.4243	0.4136
WM2	0.4154	0.4023	0.4122	0.3938	0.4173	0.3964	0.4208	0.4050
WM3	0.4122	0.3938	0.4089	0.3854	0.4139	0.3878	0.4173	0.3964
WM4	0.4089	0.3854	0.4057	0.3770	0.4104	0.3792	0.4139	0.3878
WN1	0.4130	0.4079	0.4100	0.3996	0.4154	0.4023	0.4187	0.4108

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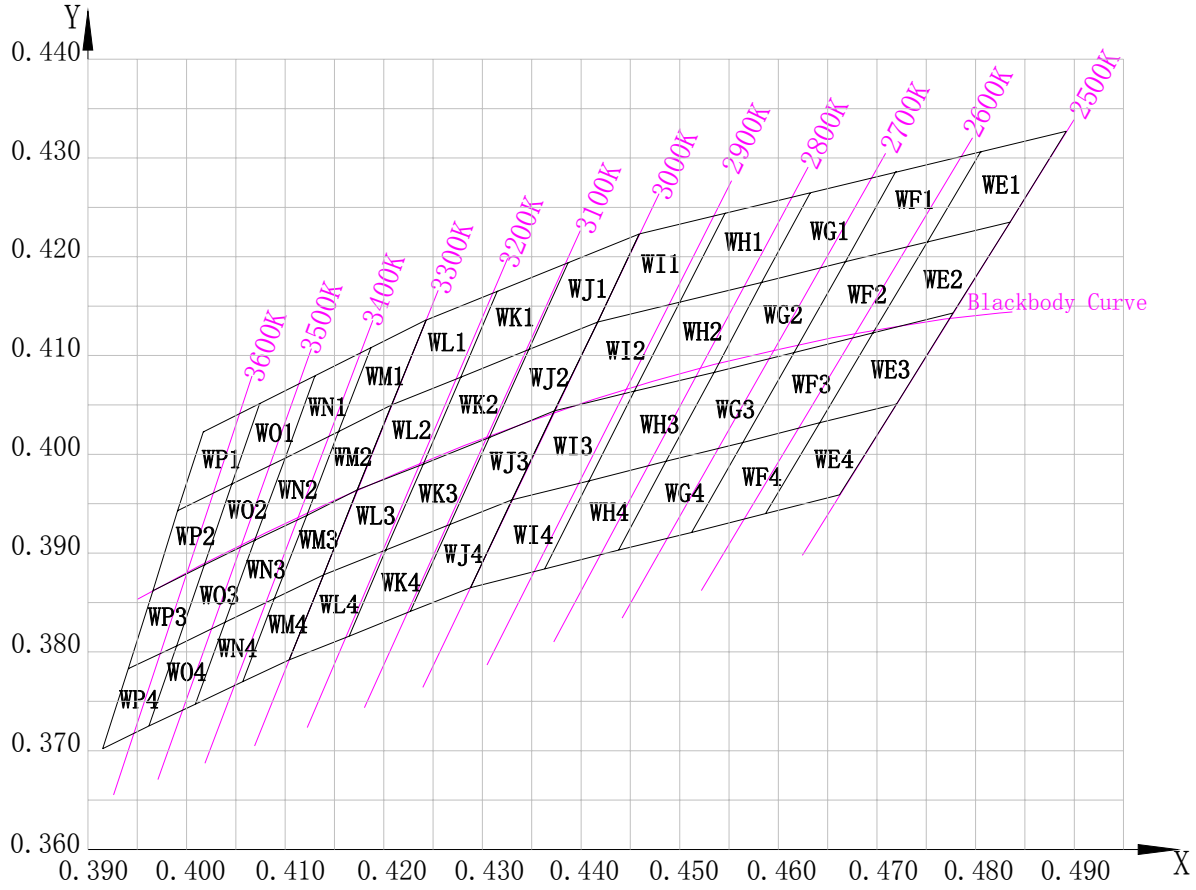
WN2	0.4100	0.3996	0.4069	0.3913	0.4122	0.3938	0.4154	0.4023
WN3	0.4069	0.3913	0.4039	0.3830	0.4089	0.3854	0.4122	0.3938
WN4	0.4039	0.3830	0.4009	0.3747	0.4057	0.3770	0.4089	0.3854
WO1	0.4074	0.4051	0.4046	0.3970	0.4100	0.3996	0.4130	0.4079
WO2	0.4046	0.3970	0.4018	0.3888	0.4069	0.3913	0.4100	0.3996
WO3	0.4018	0.3888	0.3990	0.3806	0.4039	0.3830	0.4069	0.3913
WO4	0.3990	0.3806	0.3962	0.3725	0.4009	0.3747	0.4039	0.3830
WP1	0.4017	0.4023	0.3991	0.3943	0.4046	0.3970	0.4074	0.4051
WP2	0.3991	0.3943	0.3966	0.3862	0.4018	0.3888	0.4046	0.3970
WP3	0.3966	0.3862	0.3941	0.3783	0.3990	0.3806	0.4018	0.3888
WP4	0.3941	0.3783	0.3915	0.3702	0.3962	0.3725	0.3990	0.3806



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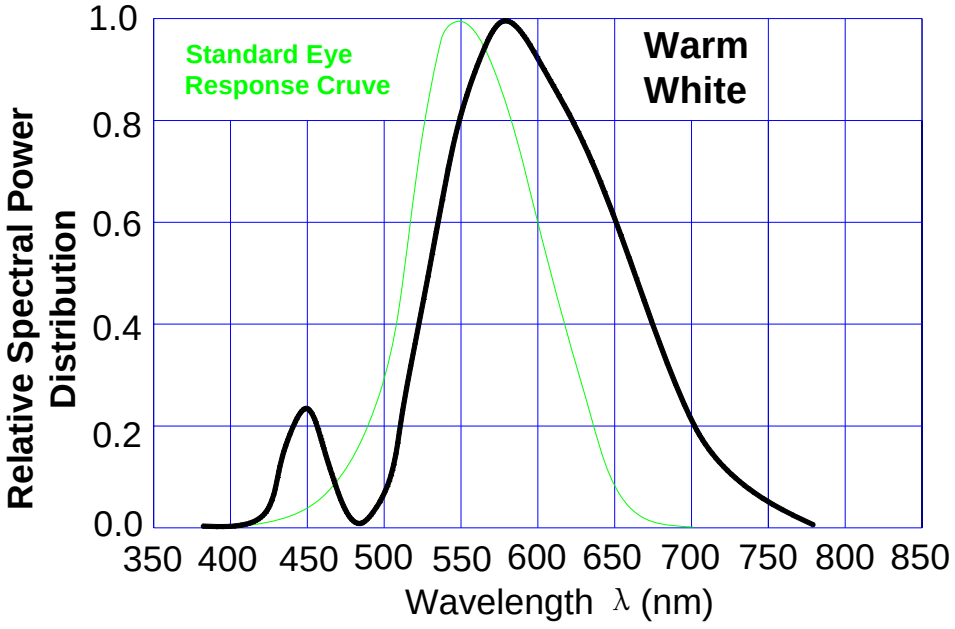
Note

1. Flux is measured with an accuracy of ±15%
2. Chromaticity Coordinates (x,y) is measured with an accuracy of ±0.01
3. Forward Voltage is measured with an accuracy of ± 2%
4. It is strongly recommended that the temperature of lead be not higher than 70^{o}C

Typical electrical/optical characteristic curves TJ=25^{O}C

Warm White



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Typical electrical/optical characteristic curves：

Fig.1 Forward Current(mA) Vs. Forward Voltage(V)

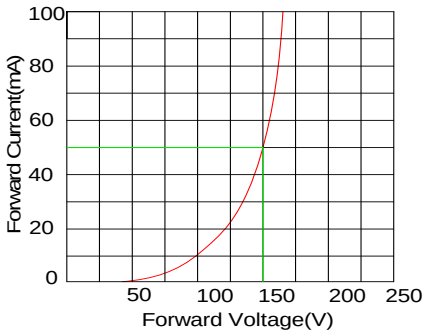


Fig.2 Relative Intensity Vs Forward Current (mA)

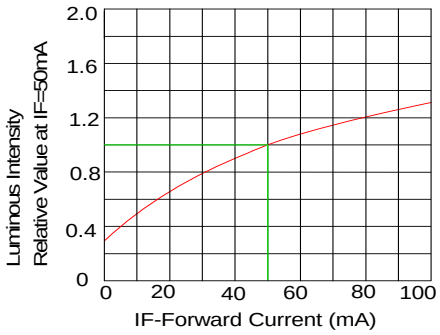


Fig.3 Forward Current Vs Ambient Temperature

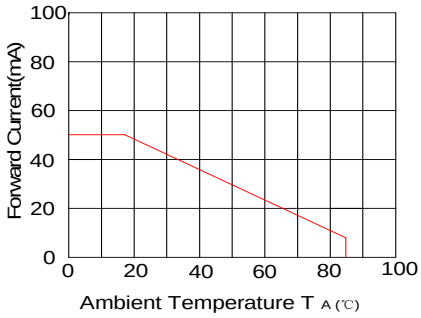
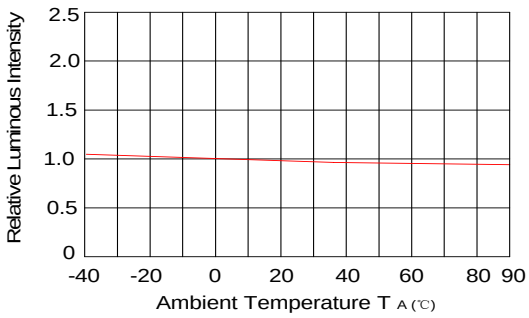


Fig.4 Relative Intensity Vs. Ambient Temperature



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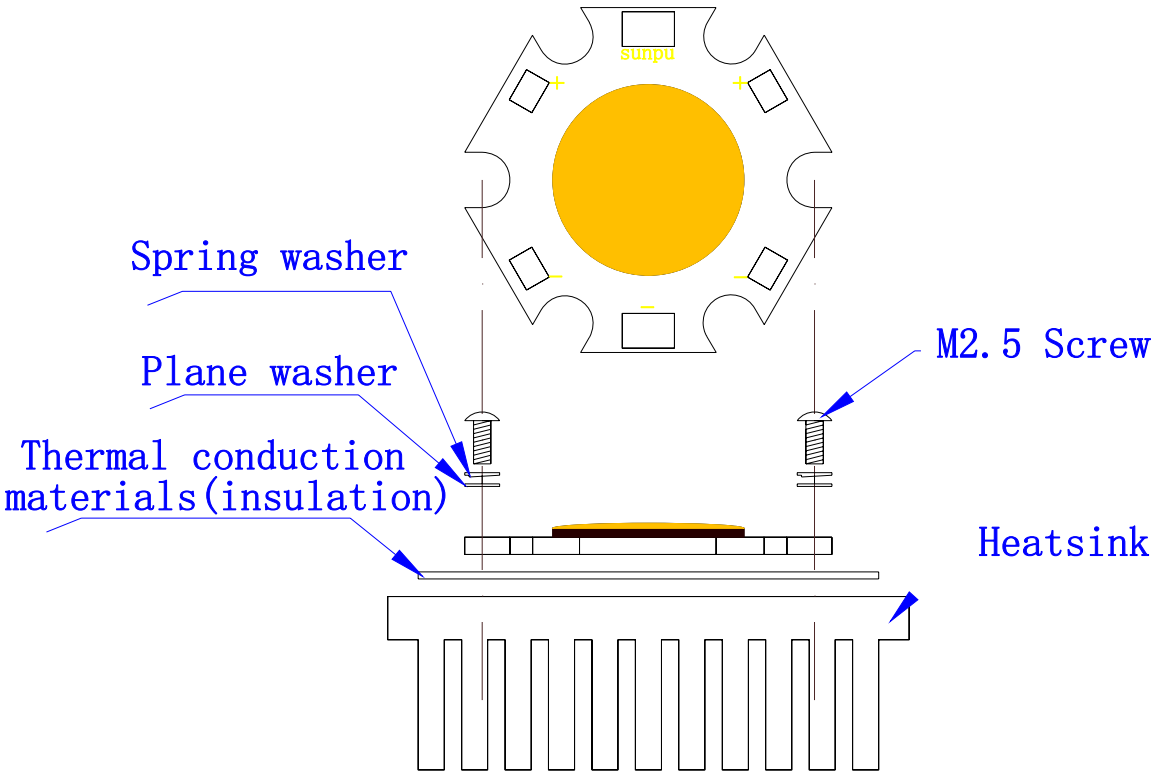
Recommended installation screw pitch



If you can not slove the heat problem,the product will distroy easily.Suggest that the surface of the heat sink is 35cm^2/W