



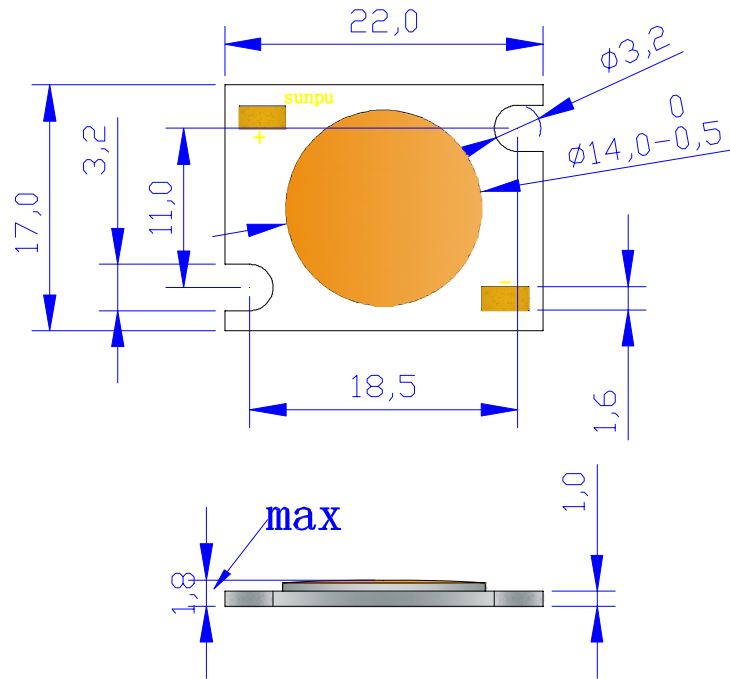
Part No.: SS12N7W3C

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 dissipation 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



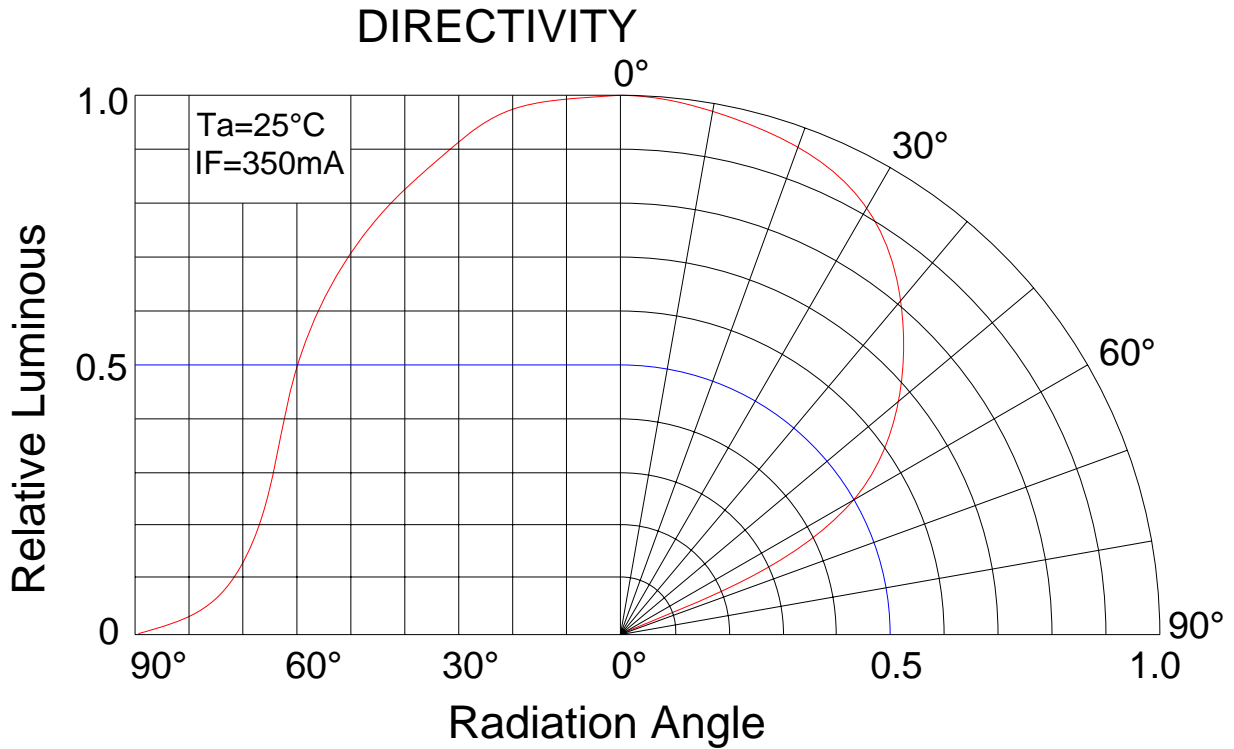
NOTE:

- All dimensions are millimeter.
- Tolerance is ± 0.1 mm unless otherwise noted.
- It is strongly recommended that the temperature of lead be not higher than 70°C.
- 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°C)

| Parameter | Symbol | Test Condition | Value | | Unit |
|--------------------------|--------|----------------|-------------------------|------|------|
| | | | Min. | Max. | |
| DC Forward Current | IF | ---- | ---- | 400 | mA |
| Peak Pulse Current | Ipeak | Duty=1/10 1kHz | ---- | 500 | mA |
| Power Dissipation | Pd | ---- | ---- | 7.92 | W |
| LED Junction Temperature | Tj | ---- | ---- | 105 | °C |
| Operating Temperature | Topr | ---- | -25 | +85 | °C |
| Storage Temperature | Tstr | ---- | -40 | +100 | °C |
| ESD Sensitivity | ---- | HBM | 8000 | ---- | V |
| Soldering Temperature | ---- | ---- | 220°C for 5 Seconds max | | |



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Electrical and optical characteristics (Ta = 25°C)

| Parameter | Symbol | Test Condition | Value | | | Unit |
|--------------------|--------|----------------|-------|-------|------|------|
| | | | Min. | Typ. | Max. | |
| Forward Voltage | VF | IF = 350mA | | 19.2 | | V |
| Luminous Flux | Φv | | | 570 | ---- | lm |
| Viewing Angle | 2θ 1/2 | | ---- | 120 | ---- | Deg. |
| Color Temperature | CCT | | 2500 | ----- | 3500 | K |
| Thermal Resistance | Rj | ----- | | 3 | | °C/W |

Luminous Flux Bins (Ta = 25°C)

Unit: lm

| Bin | Z | A2 | B2 |
|-----|-----|-----|-----|
| Min | 450 | 500 | 600 |
| Max | 500 | 600 | 700 |

Chromaticity Coordinates Ranks(IF=350mA Ta=25°C)

| 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 |
| 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 |

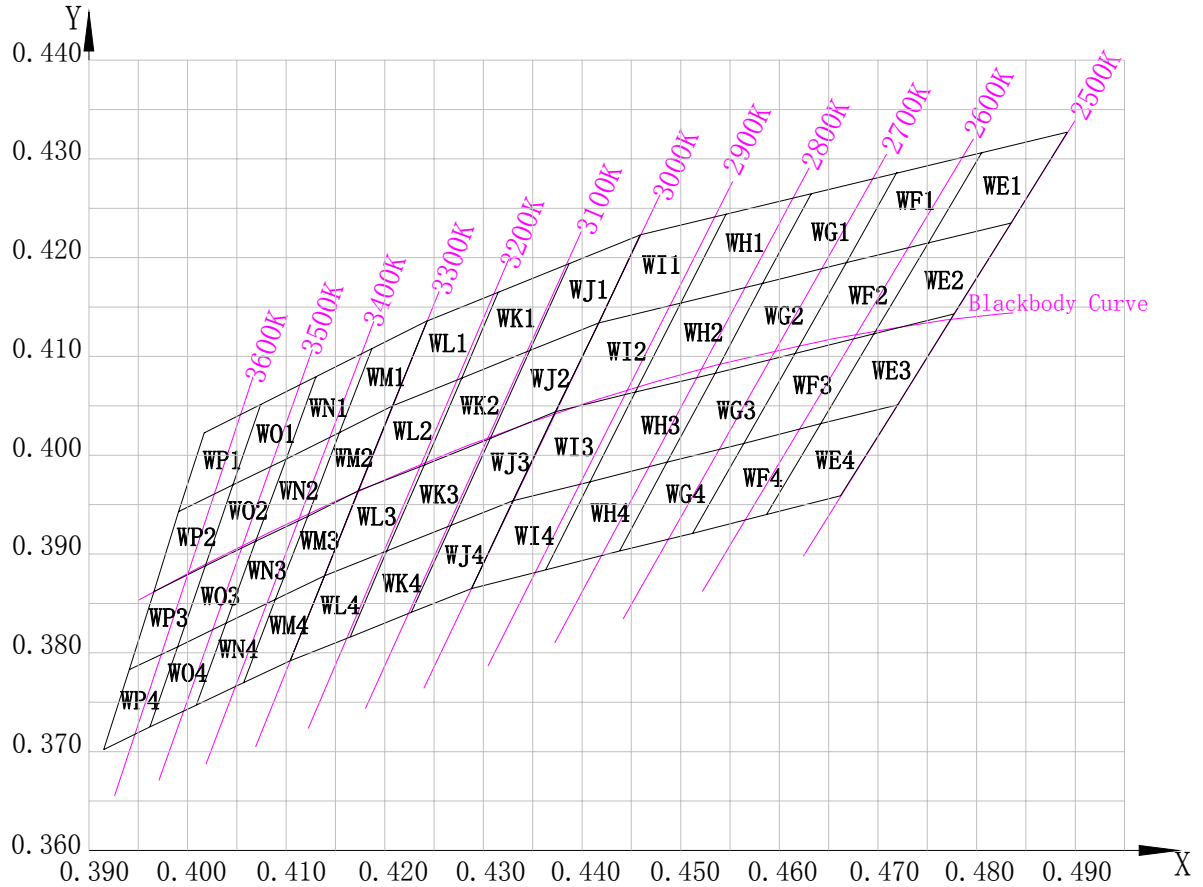


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| Bin | X1 | Y1 | X2 | Y2 | X3 | Y3 | X4 | Y4 |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|
| WJ2 | 0.4347 | 0.4106 | 0.4307 | 0.4017 | 0.4373 | 0.4044 | 0.4417 | 0.4134 |
| WJ3 | 0.4307 | 0.4017 | 0.4267 | 0.3929 | 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 |
| 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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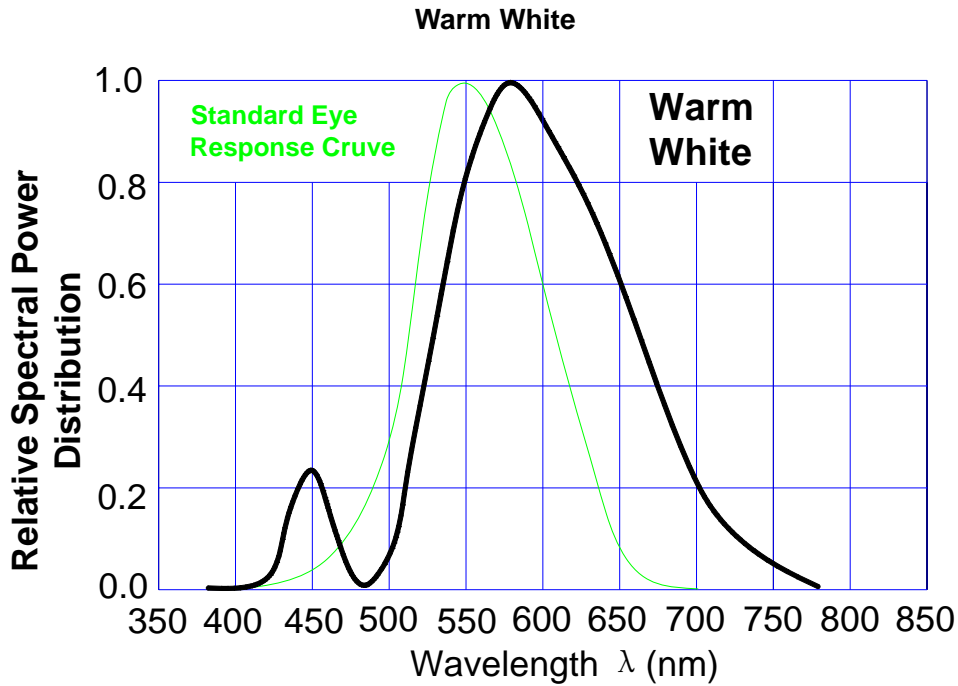
Note

1. Flux is measured with an accuracy of $\pm 15\%$
2. Chromaticity Coordinates (x,y) is measured with an accuracy of ± 0.01
3. Forward Voltage is measured with an accuracy of $\pm 0.2V$
4. It is strongly recommended that the temperature of lead be not higher than $70^{\circ}C$



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Typical electrical/optical characteristic curves $T_J=25^{\circ}C$



Typical electrical/optical characteristic curves:

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

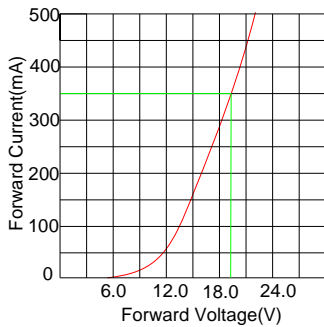


Fig.2 Relative Intensity Vs Forward Current (mA)

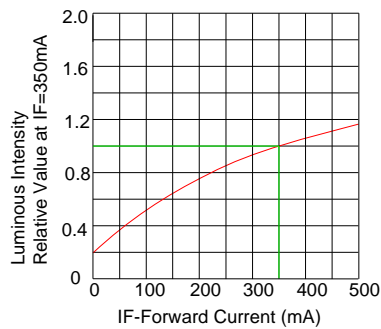


Fig.3 Forward Current Vs Ambient Temperature

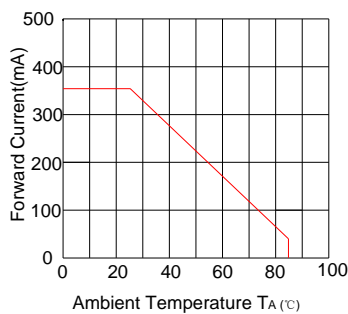
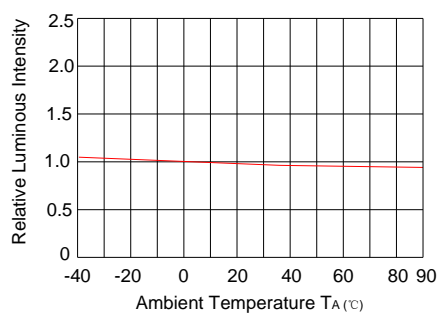


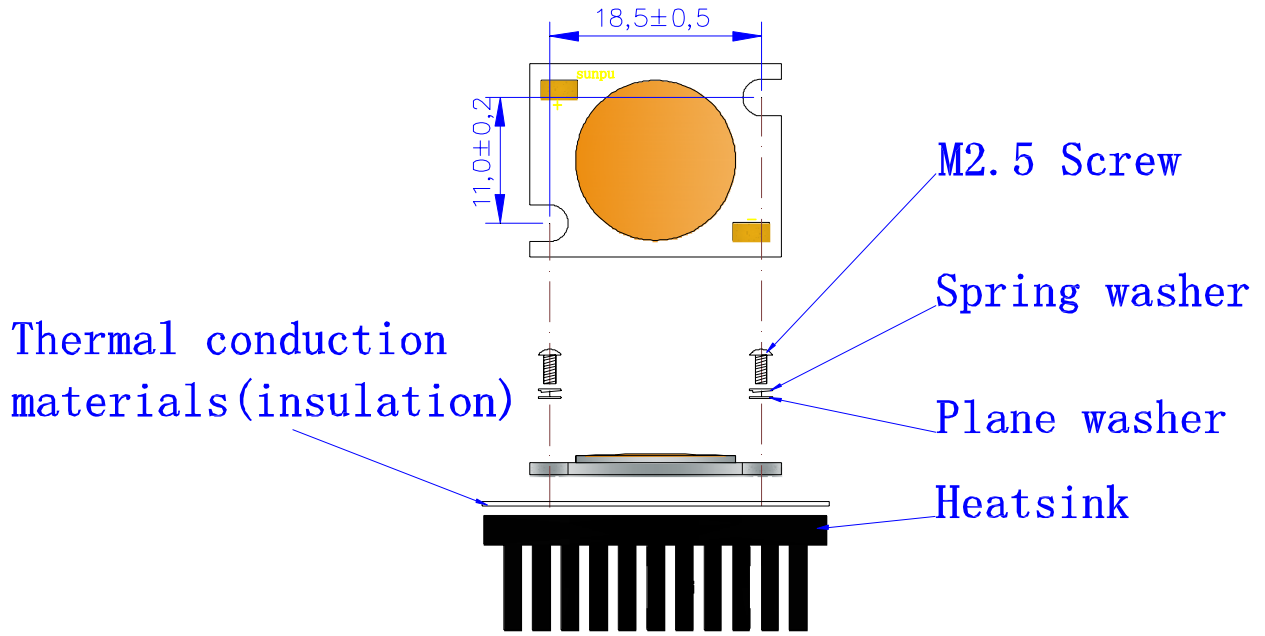
Fig.4 Relative Intensity Vs. Ambient Temperature





Part No.: SS12N7W3C

Recommended installation screw pitch



If you can not solve the heat problem, the product will destroy easily. Suggest that the surface of the heat sink is $35\text{cm}^2/1\text{W}$