

FEATURE:

1. EXTREMELY UNIFORM WHITE LED.
2. SUPER LUMINOSITY WHITE LED (GaN).
3. WIDE VIEWING ANGLE.
4. WATER CLEAR PACKAGE.
5. 5mm ALL RESIN MOLD.
6. CLASS I ESD RATING

APPLICATIONS:

1. Flash Lights.
2. Traffic signals.
3. Desk Lamps
4. Lanterns
5. Garden Lights
6. Backlighting
7. Solar Lighting

ABSOLUTE MAXIMUM RATING: $T_a=25^{\circ}\text{C}$

| | |
|-------------------------------|---------------|
| 1. POWER DISSIPATION. | 120 mW |
| 2. PEAK FORWARD CURRENT | 150 mA |
| 3. CONTINUOUS FORWARD CURRENT | 30 mA |
| 4. DERATING FACTOR | 0.40 mA/ C |
| 5. REVERSE VOLTAGE | 5 V |
| 6. OPERATING TEMPERATURE | -25 -- +85 C |
| 7. STORAGE TEMPERATURE | -35 -- +100 C |
| 8. SOLDERING TEMPERATURE | 260C / 5 Sec |
| 9. POWER VOLTAGE | 3.6 ± 0.4 V |

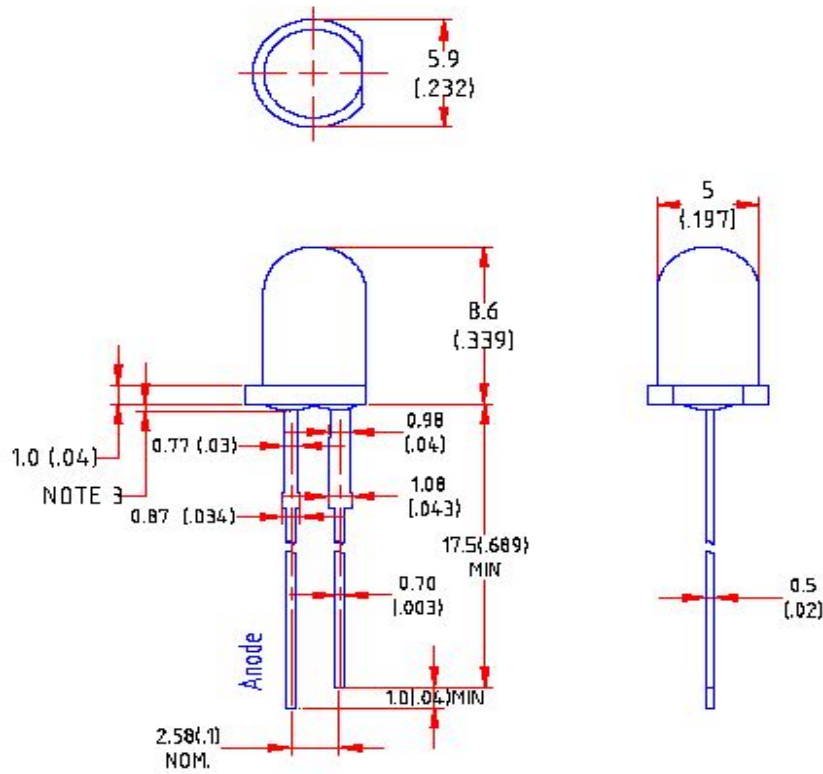
VIEWING ANGLE:

| Type | | ANGLE (Degree) |
|------|-------------|----------------|
| 5 | SG-UBUW5N20 | 18±3 |
| | SG-UBUW5N40 | 42±3 |

CAUTION IN ESD:

Static Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

OUTLINE DIMENSIONS:



NOTES:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 (0.01") mm unless otherwise noted.
3. Protruded resin under flange is 1.0mm (0.04") max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.

LUMINOUS INTENSITY: (at 20 mA)

| Type | | Luminous Intensity (mcd) | | | | |
|------|-------------|--------------------------|------|---------|--------|------|
| | | Rank R | | | Rank S | |
| | | Min | Typ. | Max/Min | Typ. | Max. |
| 5 | SG-UBUW5N20 | 4400 | 4800 | 5600 | 7200 | 9000 |
| | SG-UBUW5N40 | 1000 | 1200 | 1500 | 2800 | 3600 |

LUMINOUS FLUX: (at 20 mA)

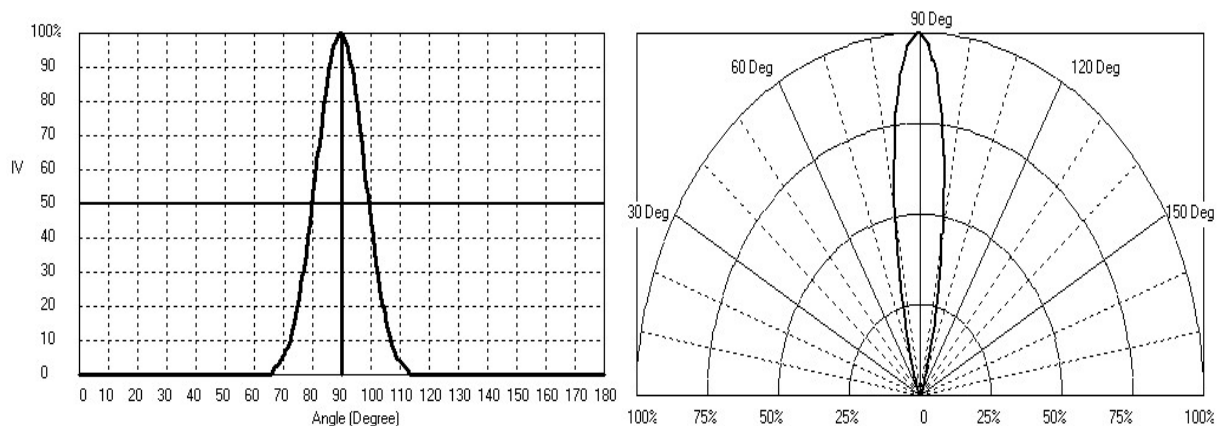
| Type | | Luminous Flux (lm) | | | | |
|------|-------------|--------------------|------|---------|--------|------|
| | | Rank R | | | Rank S | |
| | | Min | Typ. | Max/Min | Typ. | Max. |
| 5 | SG-UBUW5N20 | 1.4 | 1.6 | 1.8 | 2.0 | 2.2 |
| | SG-UBUW5N40 | 1.4 | 1.6 | 1.8 | 2.0 | 2.2 |

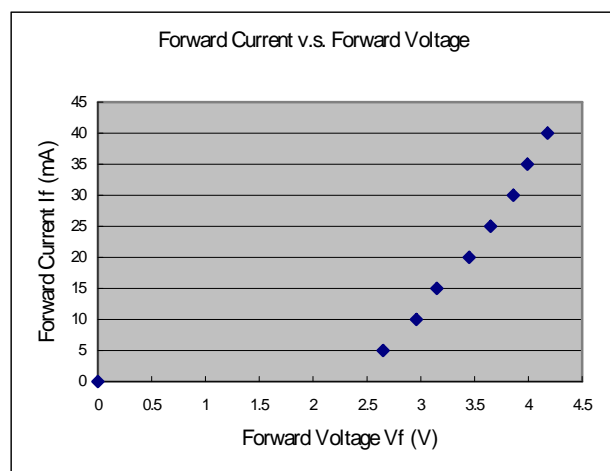
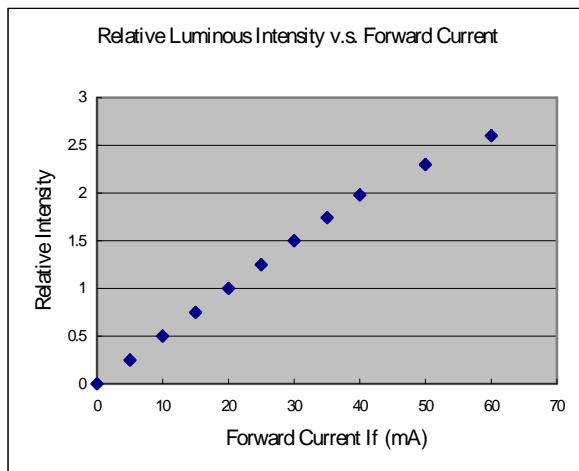
COLOR BIN LIMITS (at 20 mA) :

| BIN | Color Rendering Index | Approximate Color Temperature(K) |
|-----|-----------------------|----------------------------------|
| A | 50—65 | 6,500—10,000 |
| B | 70—95 | 5,500—6,500 |
| C | 85—100 | 4,500—5,500 |
| D | 70--85 | 3,500-4,500 |

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES

Beam Pattern





COLOR RANKS:

Conventional A-Rank (Approximate Color Temperature: 6,500-10,000K)

| | Rank A | | | |
|---|--------|-------|-------|-------|
| X | 0.280 | 0.264 | 0.283 | 0.296 |
| Y | 0.248 | 0.267 | 0.305 | 0.276 |

Conventional B-Rank (Approximate Color Temperature: 5,500-6,500K)

| | Rank B0 | | | |
|---|---------|-------|-------|-------|
| X | 0.287 | 0.283 | 0.330 | 0.330 |
| Y | 0.295 | 0.305 | 0.360 | 0.339 |

| | Rank B1 | | | |
|---|---------|-------|-------|-------|
| X | 0.296 | 0.287 | 0.330 | 0.330 |
| Y | 0.276 | 0.295 | 0.339 | 0.318 |

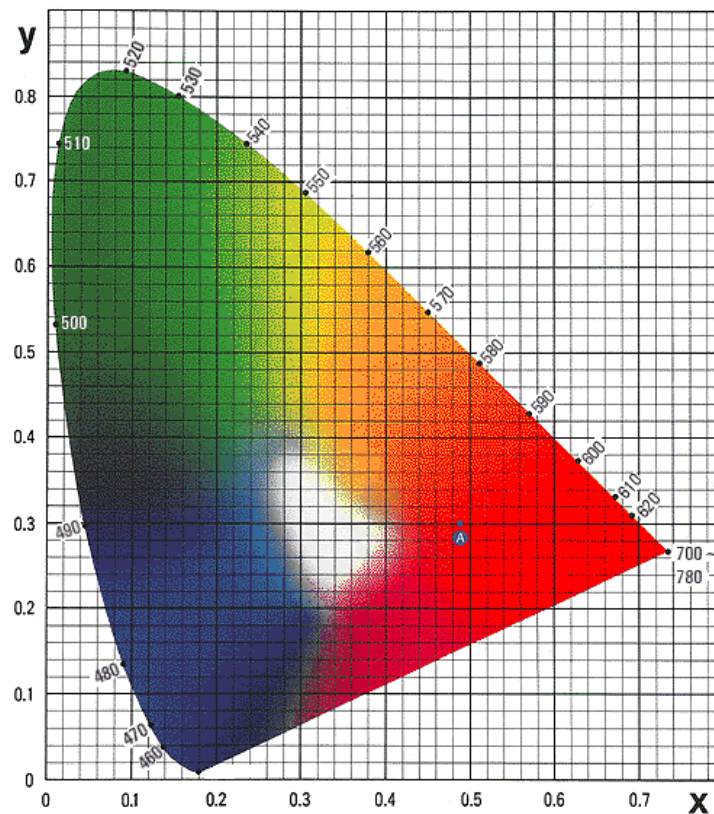
Conventional C-Rank (Approximate Color Temperature: 4,500-5,500K)

| | Rank C | | | |
|---|--------|-------|-------|-------|
| X | 0.330 | 0.330 | 0.361 | 0.356 |
| Y | 0.318 | 0.360 | 0.385 | 0.351 |

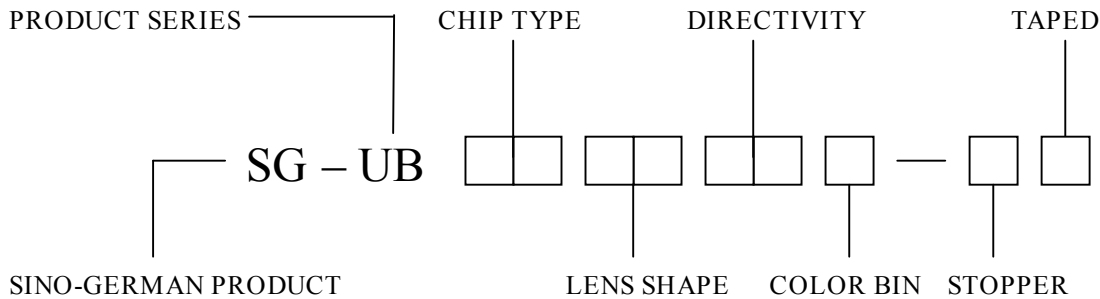
Conventional d-Rank (Approximate Color Temperature: 3,500-4,500K)

| | Rank D | | | |
|---|--------|-------|-------|-------|
| X | 0.350 | 0.382 | 0.443 | 0.393 |
| Y | 0.310 | 0.451 | 0.481 | 0.340 |

ICI CHROMATICITY DIAGRAM:



IDENTIFICATION for WHITE LED



SINO-GERMAN PRODUCT

LENS SHAPE

COLOR BIN

STOPPER

EXAMPLE : SG-UBUW5N20B-NB

PRODUCT SERIES

UB= ultra brightness(white)

CHIP TYPE

UW= UEC's blue chip

MB= Cree's MB series blue chip

XB= Cree's XB series blue chip

LENS SHAPE

3N = 3mm -normal lens

5N= 5mm -normal lens

5B= 5mm -bullet lens

DIRECTIVITY (2 1/2):

20 = $18^\circ \pm 3$

40 = $40^\circ \pm 3$

COLOR BIN

A = 6,500K~10,000K

B = 5,500K~6,500K

C = 4,500K~5,500K

D = 3,500K~4,500K

STOPPER

S = with stopper

N = without stopper

TAPED

B = bulk

A = ammo

R = reel