

### 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 II ESD RATING

### APPLICATIONS:

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

### ABSOLUTE MAXIMUN RATING: $T_a=25C$

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

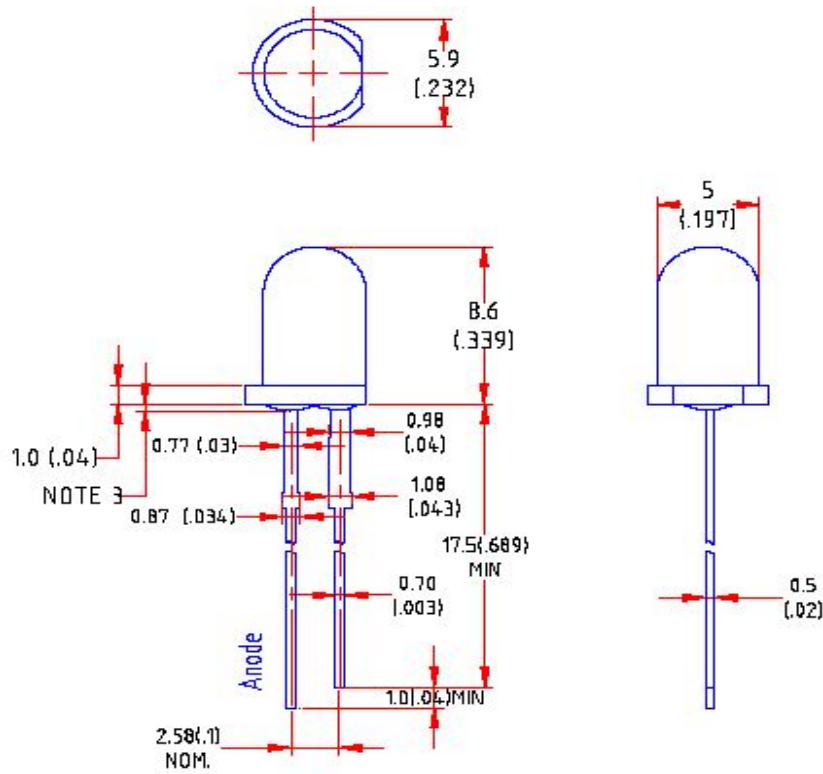
### VIEWING ANGLE:

Type		ANGLE (Degree)
5	SG-UBMB5N20	18±3
	SG-UBMB5N40	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  $\pm 0.25$  (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-UBMB5N20	4400	4800	5600	7200	9000
	SG-UBMB5N40	1650	1200	1500	2800	3600

### LUMINOUS FLUX: ( at 20 mA)

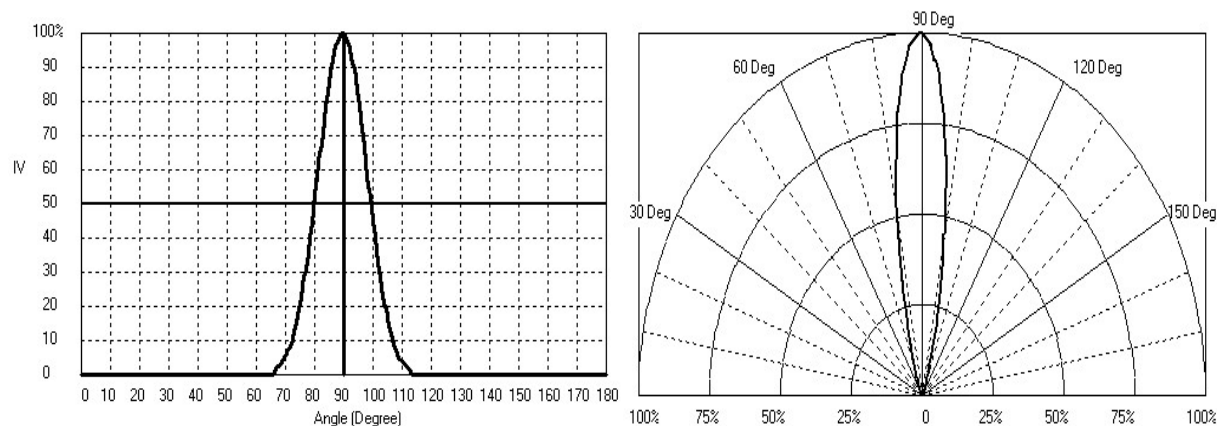
Type		Luminous Flux (lm)				
		Rank R			Rank S	
		Min	Typ.	Max/Min	Typ.	Max.
5	SG-UBMB5N20	1.4	1.6	1.8	2.0	2.2
	SG-UBMB5N40	1.4	1.6	1.8	2.0	2.2

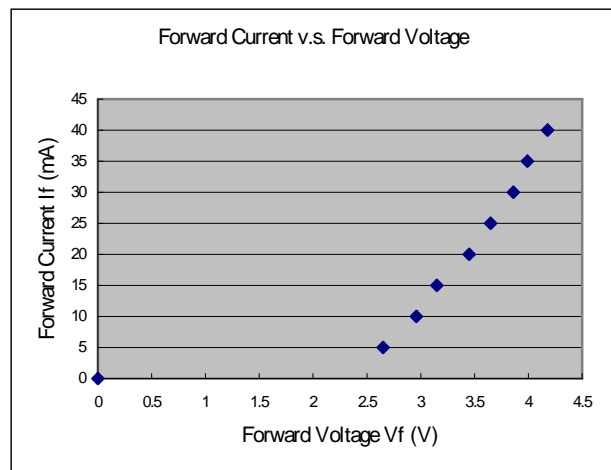
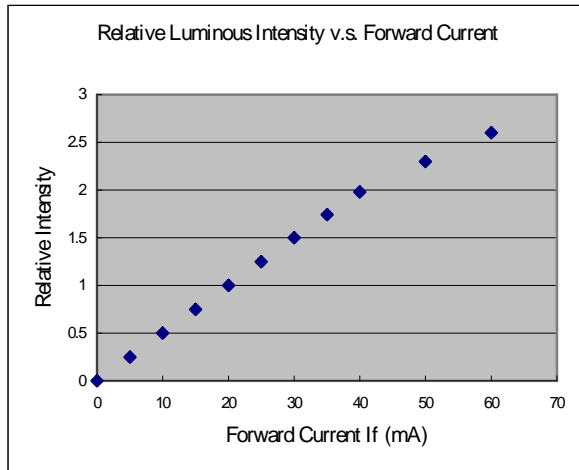
### COLOR BIN LIMITS (at 20 mA) :

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

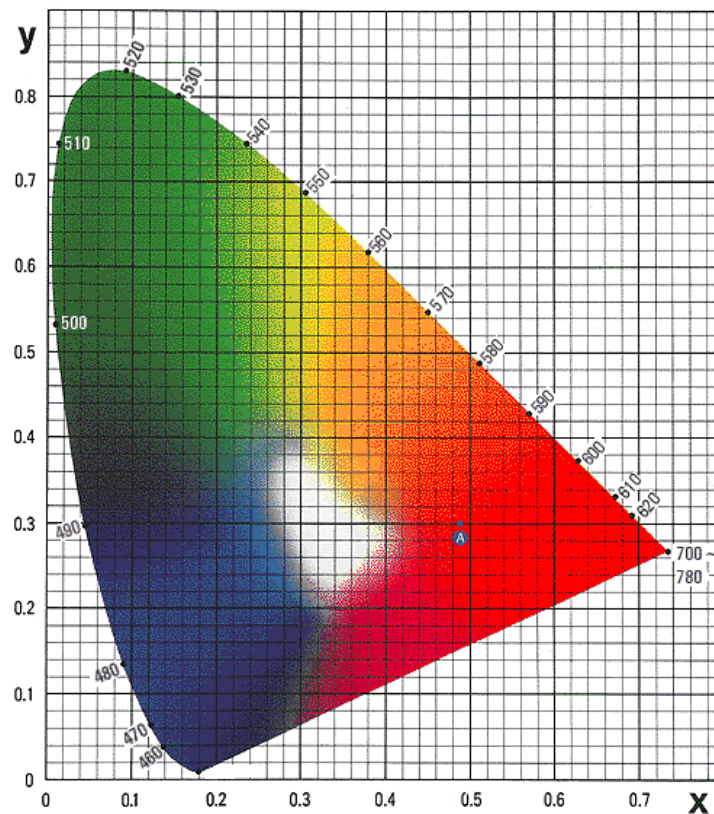
#### Conventional C-Rank (Approximate Color Temperature: 4,500-5,500K)

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

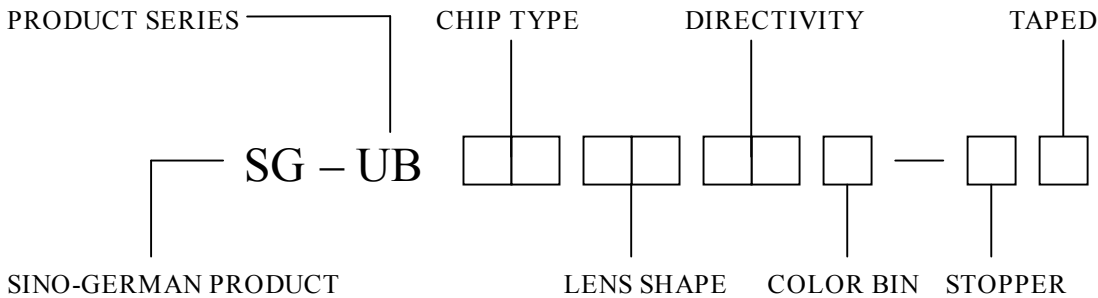
Conventional d-Rank (Approximate Color Temperature: 3,500-4,500K)

	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



EXAMPLE : SG-UBMB5N20B-NB

#### PRODUCT SERIES

UB= ultra brightness(white)

#### CHIP TYPE

UW= UEC's blue chip

MB= Cree's 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