

Product name Spark White LED

Product code CL-003-SW001

INTRODUCTION

The ShowLED Classic is a truly dynamic star backdrop.

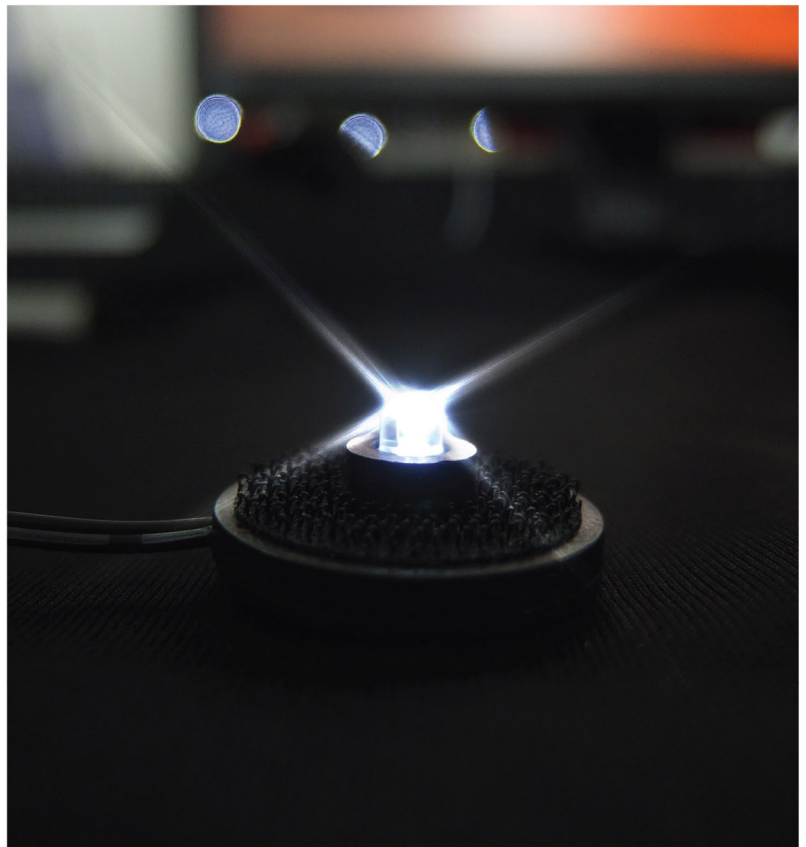
It will certainly surprise you and your audience because an artificial starry sky never looked so realistic before. The LEDs are randomly placed in a black Molton PES fabric forming constellations and the star fields.

Classic components can also be integrated into many other fabrics or surfaces. With 8 output channels, the dedicated controller is DMX compatible and offers two DMX modes; control of preset chases including minimum and maximum intensity, chase speed, and pattern behavior; or full dimmer control of each individual output channel.

ShowLED Classic has stand-alone features and is truly plug and play. The controller can be programmed manually with the option of saving the settings directly to the controller. When linked together several connected drapes can be controlled simultaneously and if required fully synchronised.



INDOOR IP40



PRODUCT SPECIFIC PROPERTIES

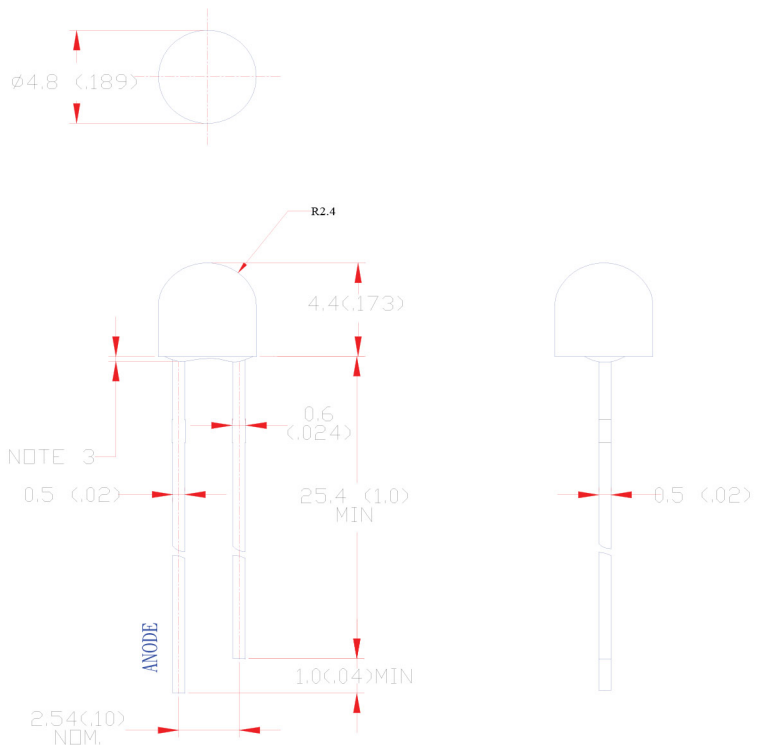
COLOR RANK	: 8600 K
LED	: STANDARD 4.8mm DIAMETER PACKAGE
RoHS COMPLIANT	
GENERAL PURPOSE LEADS	

ABSOLUTE MAXIMUM RATINGS AT Ta=25°C

PARAMETER	MAX.	UNIT
POWER DISSIPATION	80	mW
PEAK FORWARD CURRENT (1/10 DUTY CYCLE, 0.1MS PULSE WIDTH)	100	mA
CONTINUOUS FORWARD CURRENT	20	mA
DERATING LINEAR FROM 50°C	0.4	mA/°C
REVERSE VOLTAGE	5	V
ELECTROSTATIC DISCHARGE (ESD)	1000	V
OPERATING TEMPERATURE RANGE	-20°C TO +80°C	
STORAGE TEMPERATURE RANGE	-30°C TO +100°C	
LEAD SOLDERING TEMPERATURE (4MM(.157") FROM BODY)	260°C FOR 5 SECONDS	

ELECTRICAL OPTICAL CHARACTERISTICS AT Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I_v	1500	3300		mcd	$I_f=20\text{mA}$ (Note 1)
Viewing Angle	$2\theta_{1/2}$		90		Deg	(Note 2)
Forward Voltage	V_F	2.8	3.4	3.8	V	$I_f=20\text{mA}$
Reverse Current	I_R			50	μA	$V_R=5\text{V}$
Color Rank	x	y	x	y	x	y
BIN A	0.2020	0.1530	0.2206	0.1907	0.2542	0.1924
BIN B	0.2206	0.1907	0.2414	0.2307	0.2692	0.2176
BIN C	0.2414	0.2307	0.2616	0.2698	0.2843	0.2429
BIN D	0.2616	0.2698	0.2816	0.3083	0.2994	0.2684
BIN E	0.2816	0.3083	0.3032	0.3361	0.3131	0.2868
BIN F	0.3032	0.3361	0.3300	0.3705	0.3300	0.3094
BIN G	0.3300	0.3705	0.3622	0.3939	0.3548	0.3425

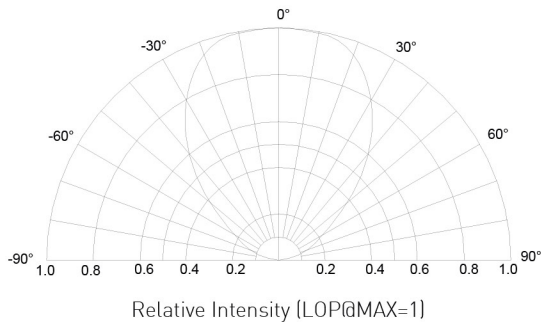


* PATENT PENDING

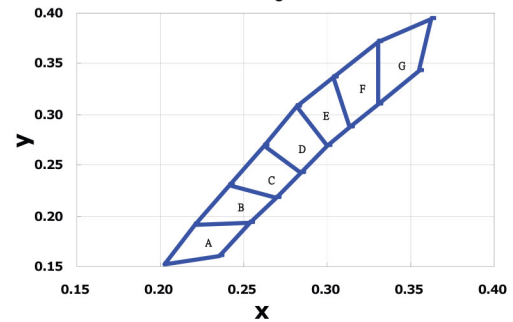
SHOWLED
CREATIVE LED SOLUTIONS

TYPICAL ELECTRICAL / OPTICAL CHARACTERISTICS CURVES (25°C AMBIENT TEMPERATURE UNLESS OTHERWISE NOTED)

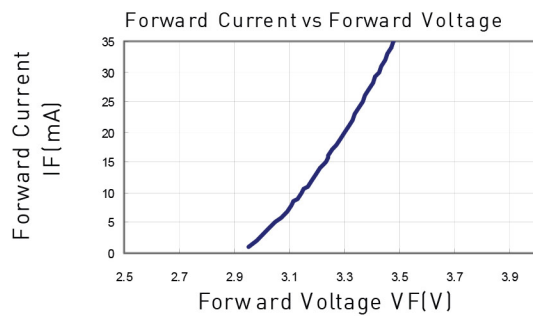
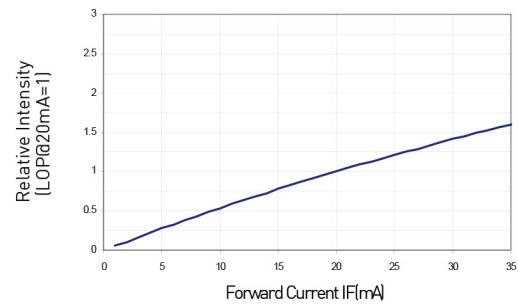
BEAM PATTERN



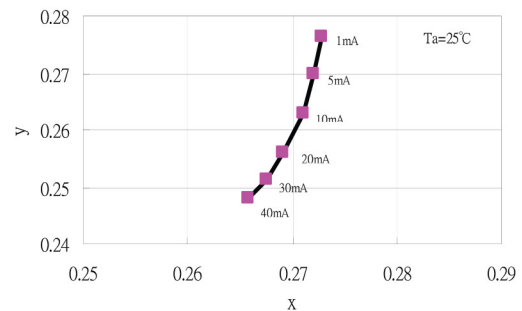
CIE 1931 Chromaticity Diagram



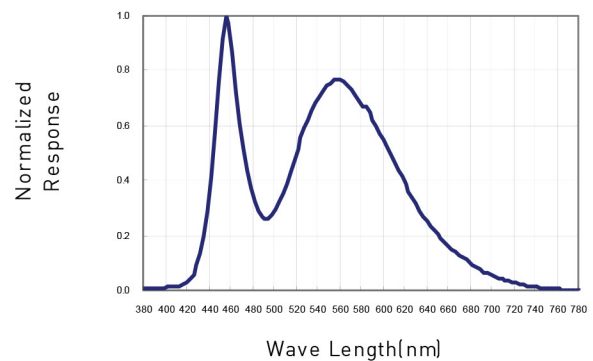
Relative Luminous Intensity vs Forward Current



Forward Current VS. Chromaticity coordinate



Spectral Radiance



LED CHARACTERISTICS: As LEDs are semiconductor devices, their performances are subject to inherent variability commonly found in semiconductor industry. To improve consistency in performance across the same product, LED manufacturers "sort" LEDs into bins according to different present parameters, such as forward driving voltage, illumination, etc. Whereas binning is a sorting function, it is not a correction process. Inherent variability in the manufacturing process results always in different binning distributions according to different production lots. ShowLED uses automatically binned LEDs on its products, thereby minimizing output variations within the model range.

As with all electronic devices, LED output degrades over time – a term called depreciation. This also explains why it is nearly impossible to expect photometric performances of two LED products with different service life spans to be the same. The rate of LED degrade is a complicate function of many factors such as operating efficiency, duration of continuous operation, and more significantly, environmental conditions (ambient temperature for example). If allowed working under optimal operating temperature range and with good ventilation, LED devices enjoy long service lives over conventional light sources. When using/installing LED devices, care should be taken to ensure that the devices will operate within the operating conditions specified in respective product literature.

