



OptiLED™

Shaping the Future of Light



Specifications for OptiLED CHIP Series Festival LED Festoon Lamps

ORDERING CODES FOR LED FESTOON LAMPS

- ❖ **C** denotes the LED color - Red (RD), Green (GN), Blue (BL), Amber (AM), Blue-Green (BG), Orange-Red (OR)
- ❖ **H** denotes the housing type - Festoon (FS)
- ❖ **I** denotes the interface type - Medium Base (E27), UK Standard (B22)
- ❖ **P** denotes the pattern type - 130

OptiLED Festoon Lamps produce a Lambertian distribution pattern and are intended as a point source to replace conventional painted incandescent lamps. These lamps come in six basic colors but are not available in white.

Please refer to the following example for reference:

C	H	I	P
RD	FS	E27	130
BL	FS	E27	130
GN	FS	B22	130

RD-FS-E27-130 = Festoon Red Medium Base 130 degree
 BL-FS-E27-130 = Festoon Blue Medium Base 130 degree
 GN-FS-B22-130 = Festoon Globe Green UK Base 130 degree

ELECTRICAL SPECIFICATIONS FOR LED FESTOON LAMPS

MAINS VOLTAGE	MAINS FREQUENCY	TOTAL INPUT POWER	STORAGE TEMP	OPERATION TEMP	LAMP LIFE
90 - 250 V	DC - 400 HZ	2.5 WATTS	-30 to 95 °C	-30 to 70 °C	100,000 HRS

Note: OptiLED LED festoon lamp products utilize switched mode power supply technology incorporating full wave rectification which imposes a balanced load to the mains. This is important in order to maintain a flux balance in transformer driven installations as some LED based products draw power in only one direction. These products have a power factor rating of approximately 0.75 which is factored into the total power requirement of 2.5W per bulb. It is interesting to note, that most LED based light bulbs on the market do not take power factor into account when stating the power requirements.

OptiLED LED festoon lamps contain sophisticated proprietary temperature and current control circuitry to ensure the Safe Operation Area (SOA) of the LED device is not exceeded, thereby ensuring the longest possible Mean Time Between Failures (MTBF).

PHOTOMETRIC SPECIFICATIONS FOR LED FESTOON LAMPS

LED Color	Blue	Blue-Green	Green	Amber	Red-Orange	Red
Dominant Wavelength λ_D	455nm	480nm	530nm	590nm	617nm	627nm
Spectral Half-width $\lambda_{1/2}$	20nm	25nm	35nm	14nm	20nm	20nm
Minimum Luminous Flux (lm)	4	5	25	36	55	45
Viewing Angle $2\theta_{1/2}$	130°	130°	130°	130°	130°	130°

Note: The dominant wavelength is the perceived color derived from the CIE1931 chromaticity chart.

OptiLED Festoon lights overcome the several problems associated with the use of painted incandescent bulbs besides the obvious service and replacement issues. First of all, being Lambertian in distribution, they do not pollute the office environment when attached outside of window glass on office buildings; further, these solid state bulbs are approximately 10-20 times more electrically efficient and produce a more pure color with very little heat; finally, as the lens material is made from fluorescent polycarbonate, they utilize the UV from the sun to produce a glow even when they are not powered up saving additional energy. A typical incandescent installation on a building may require 60kW/hrs to operate while a system installed with OptiLED festoon lamps would only require 2.5kW/hrs and for only half the time.

SAFETY SPECIFICATIONS FOR LED FESTOON LAMPS

OptiLED festoon lamps are listed with UL, number E236850.

OptiLED festoon lamps are manufactured to conform to the following safety criteria:

EMC: IEC-EN55015, EN61000, and EN61547 SAFETY: IEC-EN60061, EN60360, and EN60968.

As these products operate at substantially lower temperatures than conventional light sources, they are much safer to use around flammable materials. These products are also manufactured with additional features such as flame retardant polymers, inrush current moderation, temperature control, fuse adaptive links, and fully potted power supply circuitry as well as double insulation. All of these attributes are incorporated into this product as safety features and have been developed by our design and safety engineering teams using their expert knowledge of safety approvals and requirements.

Although OptiLED festoon lamps are suitable for both indoor and outdoor use, extreme care should be taken in wet conditions when working with mains powered devices. These products are not intended to be waterproof and cannot be used in submersed applications without the proper waterproof housings.

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