



## EXPLANATION ON LIFE TIME OF LED T8 and FTL

**Based on our experience & knowledge of lighting, we are giving below a general write up on comparison on lifetime of Fluorescent Lighting Vrs LED Lighting. This information briefly provided for reference only and may not be completely accurate as LED is new technology with new methods and standards are in formulation stage**

### Fluorescent Lamp Life Time Definition:

Average life is the number of hours at which half of a large sample of lamps has failed, which is the median life of the group. The standard operating cycle for this test is 3 hours on, 20 minutes off. The Illuminating Engineering Society of North America (IESNA) defines this procedure in IESNA Approved Method for Life Testing of Fluorescent Lamps (IESNA LM-40-01).

### LED Lamp Life Time:

The life span of 50,000 hours is determined using certified LM80 data of the LED and the TM-21 calculator. This calculator is based on the Illuminating Engineering Society's TM-21-11: Projecting Long Term Lumen Maintenance of LED Light Sources. It is the industry standard in determining life span of an LED lighting source. The procedure for determining the products L70, or when it reaches 70% of its light output, is to extrapolate the 6,000 hour data obtained in a certified LM80 and using the TM-21 calculator. The calculator uses complex algorithms to estimate the life span of the lighting source. At this time this is the only method available for determining the lifetime.

### LED Vrs Fluorescent Lamp Failure:

The %age of expected percentage of lamp failure over life time is estimated as below based on the experience of the factory:

Lamp Type	%age Lamp survival at rated life		
	10%	50%	100%
Flourscent Lamp	5% failure	35% failure	50% failure
LED Lamp	1% failure	5% failure	15% failure

(Above is only for reference only based on experience and information may be different for different type/make of lamps and ballast combinations)