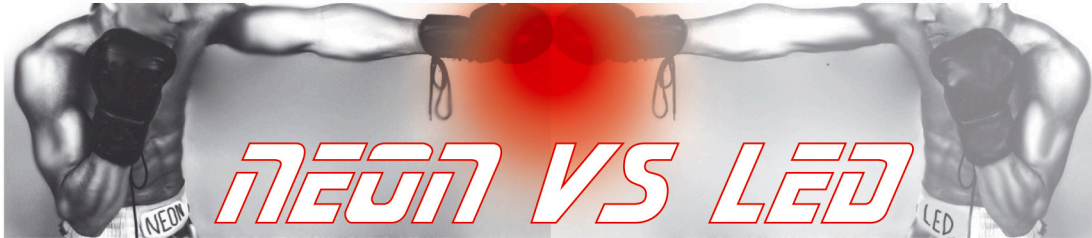


# Glostertube



## COLD CATHODE NEON LAMPS AND LED (LIGHT EMITTING DIODES) COMPARISON

AN ANALYSIS UPON SEVERAL LED TYPES SHOWS A SUSPECT OMISSION BY THE PRODUCERS TO STATE THE LUMINOUS INTENSITY EMITTED BY THE LED. THE COMPARISON BETWEEN LED AND COLD CATHODE NEON LAMPS SUPPLY DATA CONCERNING ELECTRICAL CONSUMPTION BUT WITHOUT SPECIFYING LUMINOUS EMISSION THAT IS EQUAL TO 1/3 OR 1/4 OF THAT EMITTED BY COLD CATHODE NEON LAMPS OF LATEST GENERATION. OF COURSE THAT MEANS THE ELECTRICAL CONSUMPTION AND THE COSTS OF LED MODULES TO OBTAIN THE SAME LUMINOSITY THAN COLD CATHODE NEON LAMPS SHOULD HAVE TO BE AT LEAST DOUBLED OR TRIPLED.

THE AVERAGE LIFE OF LED IS STATED BETWEEN 30.000-100.000 HOURS WITHOUT TAKING INTO CONSIDERATION THAT THEY ARE VERY SENSITIVE TO HIGH TEMPERATURES EASILY REACHED DURING SUMMER INSIDE SUN EXPOSED CHANNEL LETTERS OR PANEL BOXES AND BOTH LED AND THEIR POWER SUPPLIERS ARE SUBJECT TO HEAVY HEATING PROBLEMS WITH CONSEQUENCES AS BURNING OUT OR DIMMING OF LUMINOSITY UP TO 50%.

THE RANGE OF AVAILABLE COLOURS IS NOT COMPARABLE, BECAUSE AGAINST THE ABOUT 80 COLOURS AVAILABLE FOR COLD CATHODE LAMPS THERE ARE 10/15 COLOURS FOR LED. BEARING IN MIND TOO THAT THE COLOURS OF COLD CATHODE LAMPS ARE PERFECTLY REPRODUCIBLE ALSO AFTER MANY YEARS, WHILE IT'S VERY DIFFICULT FOR LED ALSO AFTER ONE OR TWO YEARS. LAST AND NOT THE LEAST IT SHOULD BE REMARKED THAT COLD CATHODE LAMPS GIVE OUT CONTINUOUS LIGHT AT 360° WITHOUT BAD APPEARANCE SPOTS.

### SOME COMPARISONS BETWEEN COLD CATHODE NEON LAMPS AND LED:

	COLD CATHODE NEON LAMP	LED
AVERAGE LIFE	80.000 hours	50.000 hours
AVERAGE ENERGY CONSUMPTION	15/20 W/m	10/15 W/m
AVERAGE LUMINOUS INTENSITY	900/1300 LUMEN/m	300/500 LUMEN/m
AVERAGE COST FOR A 10m LAMPS OR LEDS INCLUDING TRANSFORMER OR POWER SUPPLIER	150/200 EUR	300/350 EUR
COLOR RENDERING INDEX (CRI)	75/95	50/60

N.B. COLD CATHODE NEON LAMP DATA REFER TO GLOSTERTUBE BENDED TUBES Ø 15mm WHITE TRI-PHOSPHORS POWERED AT 50mA. FOR STRAIGHT LAMPS RELEVANT COSTS HAVE TO BE DECREASED OF ABOUT 20/30%.

AS FAR AS LED ARE CONCERNED DATA HAVE BEEN COLLECTED BY DIFFERENT LED PRODUCERS FOR A WHITE LIGHT.