



Load chart for cold cathode discharge lamps.

Voltage drop per meter.

	Voltage per metre					
	Tube diameter					
Gas Type	8	10	12	15	20	25
Neon	1364	1276	1188	926	754	656
75%Ne+25%Ar	821	773	725	513	414	342
50%Ne+50%Ar	791	745	699	496	396	330
25%Ne+75%Ar	761	717	673	479	378	319
Argon	738	694	650	461	338	308

Voltage drop per lamp due to each electrodes couple.

	Voltage drop due to electrodes					
Gas Type	8	10	12	15	20	25
Neon	280	270	260	300	280	280
Ne+Ar	342	333	324	360	342	378
Argon	378	367	356	396	369	396

Example:

4 lamps, 2.0 meters long, diameter 20 mm, filled with 50%Ne+50%Ar:

Lamps Voltage drop

4 x 2.0 = 8.0 meters

396 x 8.0 = 3168 volt

Electrodes drop:

4 x 342 = 1368 volt

Total voltage amount: 3168 + 1368 = 4536 volt

A 4.000 volt rated voltage transformer shall be chosen.

WARNING: the charts are just guidelines.

It is recommended that once the lamps have been completed, the final check shall be made using a milliamps-meter; at rated input voltage (i.e. 230 V) the output current shall be between the 80% and the 100 % of the rated current marked on the transformer.