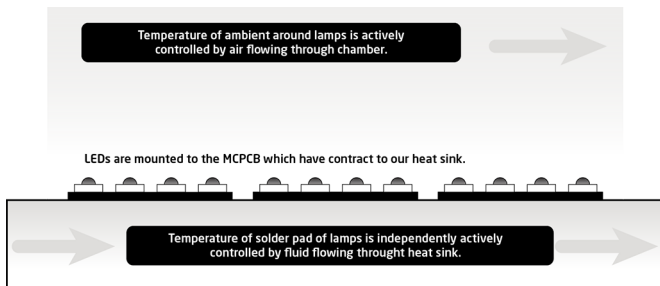


Lifetime documentation

On service life in general

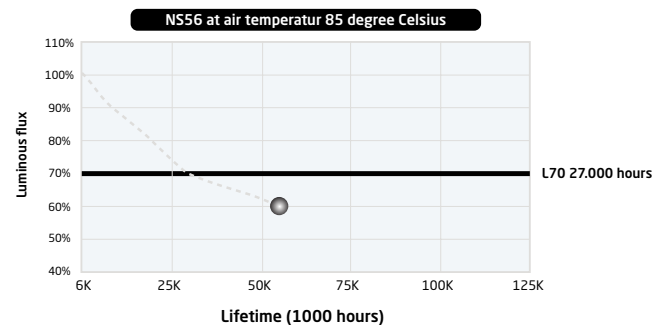
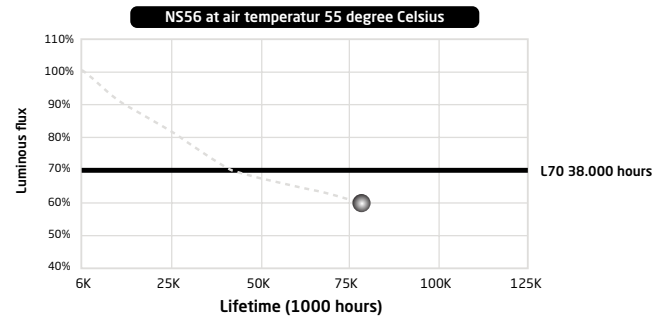
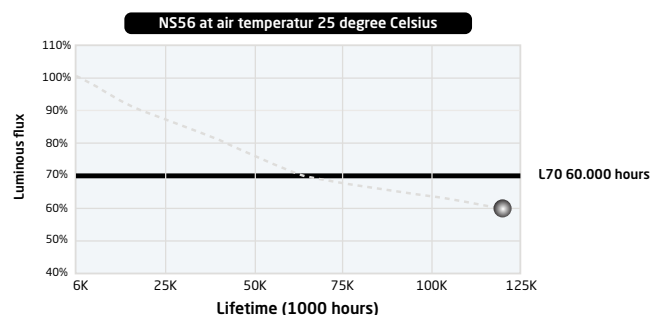
Light-emitting diodes rarely suddenly lose power - but they do gradually lose intensity with time. Light diodes therefore do not have a theoretical limit for when they burn out - however a long service life do depend on a low current and a low operating temperature. Normasym has developed a patented thermal system which keeps the temperature at a minimum. This means that the service life is longer while the energy efficiency stays exceptionally high.



The methods we use for testing service life are LM-80: The arrow on top - (Ta) illustrates that the air temperature has been controlled and the arrow below illustrates that the soldering is independently controlled with floating air through the heat sink.

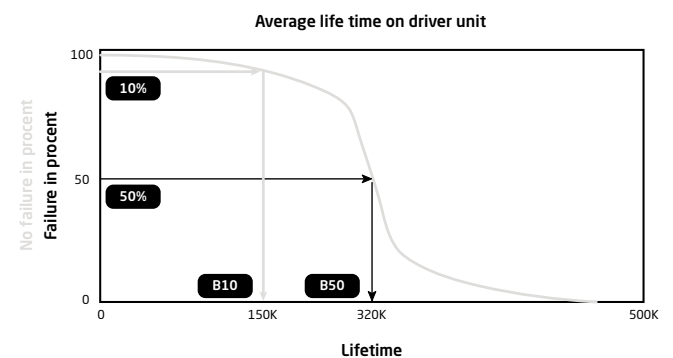
Service life of NS56

The economic service life indicates when the light has decreased with 30% and hence emits only 70%. The economic service life depends to a large extent of the quality of the light source, type as well as the immediate surroundings. The standard for the decrease in Lumen is called IESNA LM-80 and IES TM-21. The exact term for the life time is L70. Below are seen figures of the relevant life time for NS56 at different temperatures.



Service life of the driver

The average life time (MTBF) is the average life time of a driver before it burns out. The average life time is found when on average half of a large set of drivers burn out.



Actual lumen maintenance

The luminaires have completed 6.000hrs. No luminaires have failed during testing. The average lumen output of the luminaires is 99,7 % of the initial average luminous flux.

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