

Light Source Requirements

- In general for UN approved light sources
- OEM situation and AFTM situation

- Requirements clustered in
 - Safety
 - Performance
 - Consumer / Customer

CONSUMER / CUSTOMER REQUIREMENTS

- E.g. higher lifetime specifications
- E.g. heavy duty performance
- E.g. limited color coordinates

PERFORMANCE REQUIREMENTS and TEST METHODS (IEC 60810)

- Technical
 - Minimum lifetime
 - Minimum vibration resistance
- Information / Communication
 - Restricted white
 - ...

SAFETY REQUIREMENTS (UN ECE)

- Technical
 - Luminous flux incl. tolerances
 - Maximum power
 - "Geometry"
 - ...
- Information / Communication
 - Rated voltage (and wattage)
 - Category name

LED Replacement Light Source (LEDr) acc. to R37

- Photometric parameters
 - Same as for LED Substitutes
- Electrical parameters
 - Voltage range
 - FailureDetectionSystem-compatibility
 - PWM operation
 - EMC
- Mechanical parameters
 - Size
 - Mass
- Thermal parameters
 - Behavior under high ambient T.

Task for TFSR



CONSUMER / CUSTOMER REQUIREMENTS

- ...

PERFORMANCE REQUIREMENTS (IEC 60810)

- Technical
 - ...
 - ...
- Information / Communication
 - ...
 - ...

SAFETY REQUIREMENTS (UN ECE R37 / RE5)

- Technical
 - ...
 - ...
- Information / Communication
 - ...
 - ...

Electrical #1

- Voltage Range



Question:

Does the LEDr have the same voltage - flux behavior as the filament light source?

Answer:

The electronics of the LEDr is designed so that the voltage – flux behavior is equivalent, or more stable, than the filament light source

