Measuring systems based on the roundtrip time of emitted and reflected infrared laser beams can calculate the speed of vehicles precisely. Cameras take pictures of the vehicle and driver if they have committed a traffic offence.

**SPEED CAMERA COLUMN UNIT**

- camera unit
- laser measuring unit

**SPEED CAMERA COLUMN**

The speed camera column unit can simultaneously measure the speed of vehicles in several lanes. The maximum measuring distance is 75 m. The infrared laser light is emitted from the speed camera column unit and consists of over 100 laser beams, which are reflected by the passing car and received again by the device. The measuring area of the laser camera is divided into two sections: area camera 1 and area camera 2. The laser measuring unit is responsible for the simultaneous measuring of cars in several lanes.
Measuring systems based on the roundtrip time of emitted and reflected infrared laser beams can calculate the speed of vehicles precisely. Cameras take pictures of the vehicle and driver if they have committed a traffic offence.

Light impulses emitted from the speed camera column are reflected by the passing car and received again by the device.

infrared laser light:
over 100 laser beams
100 times per second

maximum measuring distance: 75 m
Intelligent LED lights, camera-based assistance systems, and information displays ensure a greater security in all driving situations.
Intelligent LED lights, camera-based assistance systems, and information displays ensure a greater security in all driving situations.

- LED interior lighting (color temperature and brightness can be chosen)
- Rear-view camera
- LED rear lights
- Dynamic LED indicator
- Rain sensor
- Exterior light sensor
- Front camera
- Adaptive LED headlights
- Head-up display
- Thermal imaging camera
- Camera for traffic sign recognition

**EXTERIOR**
- Infotainment display
- Driver information display

**INTERIOR**
- Front view

FRONT VIEW
Seeing further ahead: the combination of LED and laser light sources enables an optimum for roadway illumination in every traffic situation.

**LED headlights**
- Intelligent illumination to prevent glaring for oncoming traffic

**LED high beams**
- Large-scale illumination of the traffic situation

**Laser high beams**
- Wide illumination for an optimal vision

**LASER HIGH BEAMS**
- 3 blue laser diodes
- Beam combiner
- Deflection mirror
- Color converter
- Parabolic mirror
AIRPORT LIGHTING

Millions of new LED lamps lower the operation and maintenance costs of airports around the globe.

**LED vs Halogen**

- **hours shelf life**: 60,000 vs 2,500
- **typical connected load per lamp (W)**: 18 vs 65

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**PAPI**

(Precision Approach Path Indicator)

- too high (more than 3.5°)
- slightly too high (from 3.2°)
- correct approach angle (3°)
- slightly too low (from 2.8°)
- too low (more than 2.5°)

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The diagram illustrates the various lightings around the airport, including:

- Runway threshold lights
- Touch-down zone lights
- Taxiway edge lights
- Runway end lights
- Taxiway centerline lights
- Stop bar lights
- Runway guard lights
- Approach lights
- Touch-down zone lights
- Side row lights

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**TRAFFIC**