Technical datasheet

BCM — Moving-detector test bench for automotive headlamps

The BCM tests automotive headlamps only. Its photometric detector moves across defined points or areas.



Photometric tests for automotive headlamps

The BCM tests headlamps in production and R&D at a reduced distance using a projection lens. The lens reproduces the optical conditions of a measurement at 25 m within a compact test bench. A single photometric detector moves along two motorised axes. The bench comes with ALPES for test control and results analysis.

- Measurements under ECE, SAE and GB test protocols.
- ¼° measurements for SAE tests.
- ADB line measurements under ECE Regulation R123.
- Scan-based isocandela and isolux maps.
- Cut-off adjustment, positioning and sharpness measurement.
- Peak search and line and zone measurements for ECE tests.
- Luminous flux measurement.

BCM technical specifications

Measurement detector	1
Motorised axes	2
Illuminance range	0.01–450 lx
Acquisition frequency	50 kHz
Measurement modes	Continuous and PWM
Angular range	H ±30° · V ±20°
Angular repeatability	0.01°
Headlamp power supplies	2 × (18 V / 20 A)
Bench weight	250 kg
Bench dimensions (H × W × L)	1.90 × 2.00 × 3.00 m
Mains supply	230 V / 50 Hz