

Proposal for Supplement 7 to Regulation No. 48 (Installation of lighting and light-signalling devices) to introduce **manoeuvring lamps**

The text reproduced below was prepared by the experts from OICA in order to introduce criteria to approve manoeuvring lamps. The modifications to Regulation No 48 are shown in **bold** type.

A Proposal:

Insert a new paragraph 2.7.31., to read:

“2.7.31. “Manoeuvring lamp” means a lamp used to provide supplementary illumination to the side of the vehicle to assist during slow manoeuvres.”

Paragraph 2.11., amend to read:

“2.11 "Axis of reference" (or "reference axis") means the characteristic axis of the lamp determined by the manufacturer (of the lamp) for use as the direction of reference ($H = 0^\circ$, $V = 0^\circ$) for angles of field for photometric measurements and for installing the lamp on the vehicle.

In the case of a manoeuvring lamp "axis of reference" means the axis directed downward, parallel to the median longitudinal plane of the vehicle and perpendicular to the ground plane, for use as the direction of reference for installing the lamp on the vehicle;”

Paragraph 5.8., amend to read:

“5.8. The maximum height above the ground shall be measured from the highest point and the minimum height from the lowest point of the apparent surface in the direction of the reference axis.

In the case of dipped-beam headlamp, the minimum height in relation to the ground is measured from the lowest point of the effective outlet of the optical system (e. g. reflector, lens, projection lens) independent of its utilisation.

In the case of a manoeuvring lamp the height above the ground is measured from the lowest point of the effective outlet of the optical system in the direction of the reference axis.

Where the (maximum and minimum) height above the ground clearly meets the requirements of the Regulation, the exact edges of any surface need not be determined.

The position, as regards width, will be determined from that edge of the apparent surface in the direction of the reference axis which is the furthest from the median longitudinal plane of the vehicle when referred to the overall width, and from the inner edges of the apparent surface in the direction of the reference axis when referred to the distance between lamps.

Where the position, as regards width, clearly meets the requirements of the Regulation, the exact edges of any surface need not be determined.”

Insert new paragraphs 6.26. to 6.26.8., to read:

“6.26. Manoeuvring lamps (Regulation No. 23)

6.26.1. *Presence*

Optional on motor vehicles.

6.26.2. *Number*

No special requirement,

6.26.3. *Arrangement*

No special requirement.

6.26.4. *Position*

The mounting on the vehicle of the manoeuvring lamp(s) illustrated in the documentation of the approval according to the Regulation No. 23 shall be verified in relation to the ground, the vertical and the longitudinal axis of the vehicle.

6.26.5. *Geometric Visibility*

No special requirement.

6.26.6. *Orientation*

Downwards, towards the side of the vehicle.

6.26.7. *Electrical Connections*

Manoeuvring lamps shall be switched on only in conjunction with the lamps mentioned under paragraph 5.12..

The manoeuvring lamp(s) shall be activated automatically for slow maneuvers up to 10 km/h provided that one of the following conditions is fulfilled:

- (a) the engine is started manually, or**
- (b) reverse gear is engaged, or**
- (c) a system which assists parking manoeuvres is activated.**

The manoeuvring lamps shall switch off automatically when the vehicle is moving forward at a speed exceeding 10 km/h; in this case they shall remain switched off until the conditions above for activation are met again.

**6.26.8. *Tell-tale*
No special requirement.”**

B Justification:

At its 63rd session GRE suggested to organize a task force to define a solution for activation and regulation of courtesy lamps during slow manoeuvres.

The governmental representatives who joined this task force in Bonn required ECE approvals for lamps which are activated when the vehicle is moving. Since it was found not adequate to have photometric requirements within ECE-R 48 it was decided by the group to define and approve these lamps within ECE-R 23.

Many vehicle manufacturers already introduced (or will do in the near future) courtesy lamps on their vehicles. These lamps are activated when the vehicle is static and are not used when the vehicle is manoeuvring. Many of these courtesy lamps are not suitable to assist during slow manoeuvres (e.g. door handle illumination). Therefore OICA lighting experts decided that the best solution would be to introduce a new category of lamps in ECE-R 48 as paragraph 6.26: “Manoeuvring Lamps”.

The task force in Bonn came to the conclusion that the light distribution and the purpose of courtesy lamps and manoeuvring lamps may be essentially different. If used during vehicle movement these lamps should be regulated as a new part to amend ECE-R 23.

The activation and deactivation criteria of this proposal for manoeuvring lamps are in line with the provisions of ECE-R 46 for camera / monitor systems.

When fitted, manoeuvring lamps assist in illuminating the area surrounding the vehicle. This can assist the driver during slow manoeuvres during night time and areas of low ambient lighting e.g., in parking garages. These lamps assist personal safety and reduce the risk of damage to the vehicle by illuminating pedestrians and obstacles.

Current situation:

- (a) Dipped-beam headlamps illuminate the road surface 2.50 m ahead of the vehicle.
- (b) Reversing lamps illuminate the road surface to the rear of the vehicle.
- (c) No illumination at the side of the vehicle is allowed during manoeuvrings.
- (d) Courtesy lamps are not allowed to be activated when the engine is running.
- (e) Side marker lamps are not suitable to illuminate the side of the vehicle or the road surface.

- (f) During slow manoeuvres, the surrounding area of the vehicle is insufficiently illuminated to recognize objects such as pedestrians, ramps, road curbs etc., during nighttime and areas of low ambient lighting.
- (g) Many accidents occur during low speed manoeuvring and reversing situations, some resulting in dangerous injuries to pedestrians.

Aims of the proposal for installation of manoeuvring lamps are:

- (a) protect pedestrians walking by or standing
- (b) avoid damage to own vehicle
- (c) avoid damage to the property of other road users
- (d) enhance the driver's ability to recognize objects in the area surrounding the vehicle.
