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МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ

Cycles — Lighting and retro-reflective devices — Photometric and physical requirements —

Part 1 : Lighting equipment

*Cycles — Éclairage et dispositifs rétro réfléchissants — Exigences photométriques et
physiques —*

Partie 1: Dispositifs d'éclairage

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 6742-1 was prepared by Technical Committee ISO/TC 149, *Cycles*.

This second edition cancels and replaces the first edition (ISO 6742-1 : 1985), of which it constitutes a technical revision incorporating draft Amendment ISO 6742-1/DAM 1 : 1986 which, in addition to a revision of clauses 8.1.2 and 8.1.3, includes new definition 4.12 and new clauses 8.2.2, 8.2.3, 11.3 and 12.

Users should note that all International Standards undergo revision from time to time and that any reference made herein to any other International Standard implies its latest edition, unless otherwise stated.

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Cycles — Lighting and retro-reflective devices — Photometric and physical requirements —

Part 1 : Lighting equipment

0 Introduction

This part of ISO 6742 has been prepared in order to specify photometric and physical requirements for lighting and retro-reflective devices for cycles intended for use on public roads.

The provision of such equipment is intended to make other road users aware of the presence of cyclists, especially under conditions of poor visibility or at night. In addition, headlamps made in conformity with the requirements of this part of ISO 6742 will provide sufficient lighting to enable cyclists at night to detect road conditions immediately ahead and, if necessary, to take action to avoid potential hazards.

ISO 6742-2 gives requirements for retro-reflective devices.

Annex A is included to give characteristics of typical filament lamps that are suitable for headlamps and rear lamps (for production and test purposes). However, cycle filament lamps will form the subject of a future IEC Standard, on publication of which annex A will be withdrawn and reference made to that standard.

Annex B describes a suitable vibration test machine.

1 Scope

This part of ISO 6742 specifies photometric and physical requirements, test methods, and marking requirements for lighting equipment for cycles.

2 Field of application

This part of ISO 6742 applies to lighting equipment for use on cycles intended to be used on public roads and, in particular, for use on bicycles complying with ISO 4210.

3 References

ISO 3768, *Metallic coatings — Neutral salt spray test (NSS test)*.

ISO 4210, *Cycles — Safety requirements of bicycles*.

CIE Publication No. 15, *Colorimetry, Official CIE (International Commission on Illumination) recommendations*.

IEC Publication 61, *Lamp caps and holders together with gauges for the control of interchangeability and safety*.

IEC Publication 86, *Primary batteries*.

IEC Publication 285, *Sealed nickel-cadmium cylindrical rechargeable single cells*.

4 Definitions

For the purposes of this part of ISO 6742, the following definitions apply.

4.1 cycle: Any vehicle that has at least two wheels and is propelled solely by the muscular energy of the person on that vehicle, in particular by means of pedals.

4.2 bicycle: Two-wheeled cycle.

4.3 headlamp: Lamp that shows a white or selective yellow light to the front of the cycle to indicate its presence on the road and also to provide additional illumination of the road ahead.

4.4 rear lamp: Lamp that shows a red light to the rear of a cycle and serves to indicate its presence.

4.5 filament lamp: Lamp in which light is produced by means of an element heated to incandescence by the passage of an electric current.

4.6 axis of reference: Characteristic horizontal axis of the lamp, as determined by the manufacturer, to serve as a direction of reference during use in service and during test measurements. (See figure 1.)

4.7 centre of reference: Intersection of the axis of reference with the light output surface of the lamp. (See figure 1.)

4.8 beam centre: As viewed on the test screen, that area at the centre of the light pattern the intensity of which is not less than 80 % of the maximum intensity, $I_{\max}$, of the beam.

4.9 rated voltage: Voltage marked on the filament lamp.

4.10 unit for test: Complete unit, including the requisite electrical supply.