

AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM CONDITIONS OF APPROVAL AND RECIPROCAL RECOGNITION OF APPROVAL FOR MOTOR VEHICLE EQUIPMENT AND PARTS

done at Geneva on 20 March 1958

Addendum 55: Regulation No. 56

Date of entry into force as an annex to the Agreement
15 June 1983

Revision 1

Incorporating

Supplement 1 to this Regulation in its original form (not requiring changes to the approval number)

Date of entry into force: 4 October 1987;

Corrections referred to in the Depositary Notification
C.N.78.1989.TREATIES-16 dated 10 May 1989

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF HEADLAMPS
FOR MOPEDS AND VEHICLES TREATED AS SUCH



UNITED NATIONS

Regulation No. 56

**UNIFORM PROVISIONS CONCERNING THE APPROVAL OF HEADLAMPS
FOR MOPEDS AND VEHICLES TREATED AS SUCH**

CONTENTS

REGULATION	Page
1. Scope	1
2. Definition of "type"	1
3. Application for approval	1
4. Markings	1
5. Approval	2
6. General Specifications	2
7. Special Specifications	3
8. Provisions concerning coloured lenses and filters	3
9. Conformity of production	4
10. Penalties for non-conformity of production	5
11. Modification and extension of approval of a type of headlamp	6
12. Production definitely discontinued	6
13. Names and addresses of technical services responsible for conducting approval tests and of administrative departments	6
ANNEXES	
<u>Annex 1</u> - Communication concerning the approval or extension or refusal or withdrawal of approval or production definitely discontinued of a type of headlamp pursuant to Regulation No. 56	9
<u>Annex 2</u> - Arrangement of approval mark	11
<u>Annex 3</u> - Photometric measurements	13
<u>Annex 4</u> - Minimum requirements for quality control procedures ..	15
<u>Annex 5</u> - Minimum requirements for spot checks by administrative authority	19

Regulation No. 56

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF HEADLAMPS FOR MOPEDS AND VEHICLES TREATED AS SUCH

1. SCOPE

This Regulation applies to the approval of headlamps using filament lamps, producing one single passing beam, which are provided for the equipment of mopeds 1/ and vehicles treated as such.

2. DEFINITION OF "TYPE"

Headlamps of different "types" means headlamps which differ in such essential respects as:

- 2.1. the trade name or mark;
- 2.2. the characteristics of the optical system;
- 2.3. the inclusion or the suppression of components capable of altering the optical effects by reflexion, refraction or absorption. A change in the colour of the beams emitted by headlamps whose other characteristics are not changed does not constitute a change of headlamp type. The same approval number shall accordingly be assigned to such headlamps.

3. APPLICATION FOR APPROVAL

The application for approval shall be submitted by the holder of the trade name or mark or by his duly accredited representative. Any application shall be accompanied by:

- 3.1. Drawings in triplicate, sufficiently detailed to permit identification of the type. The drawings must show the provided position for the approval mark and indicate the headlamp in front and in cross lateral elevation, with schematic indication of the optical grooves and prisms of the lens;
- 3.2. A brief technical description stating, in particular, the class of the filament lamp provided;
- 3.3. Two devices with colourless lenses. 2/
- 3.4. The competent authority shall verify the existence of satisfactory arrangements for ensuring effective checks on conformity of production before type approval is granted.

4. MARKINGS

- 4.1. Headlamps submitted for approval shall clearly, legibly and indelibly bear the following inscriptions:

- 4.1.1. the trade name or mark of the applicant;
- 4.1.2. the identification of the category of the provided filament lamp;
- 4.2. Moreover, they shall include on the lens and on the main body (the reflector being considered as main body) 3/ a space of sufficient size to accommodate the approval marking; these spaces must be shown on the drawings referred to in paragraph 3.1. above.
5. APPROVAL
 - 5.1. If the devices submitted in accordance with paragraph 3. above meet the requirements of this Regulation, approval shall be granted.
 - 5.2. An approval number shall be assigned to each type approved. Its first two digits (at present 00 for the Regulation in its original form) shall indicate the series of amendments incorporating the most recent major technical amendment made to the Regulation at the time of issue of the approval. The same Contracting Party may not assign the same number to another type of headlamp.
 - 5.3. Notice of approval or of extension or refusal of approval of a type of headlamp pursuant to this Regulation shall be communicated to the Parties to the 1958 Agreement which apply this Regulation, by means of a form conforming to the model in annex 1 to this Regulation.
 - 5.4. Every headlamp conforming to a type approved under this Regulation shall bear in the spaces referred to in paragraph 4.2. above, in addition to the marking prescribed in paragraph 4.1.
 - 5.4.1. an international approval mark 4/ consisting of:
 - 5.4.1.1. a circle surrounding the letter "E" followed by the distinguishing number of the country which has granted approval; 5/
 - 5.4.1.2. an approval number.
 - 5.5. The markings according to paragraph 5.4. shall be clearly legible and indelible.
 - 5.6. Annex 2 to this Regulation gives an example of the arrangement of the approval mark.
6. GENERAL SPECIFICATIONS
 - 6.1. Each device shall conform to the specifications of paragraph 7. of this Regulation.
 - 6.2. Headlamps shall be so designed and constructed that, in normal use, despite the vibrations to which they may be subjected, their satisfactory operation continues to be ensured and they retain the characteristics prescribed by this Regulation.

- 6.3. The parts intended for holding the filament lamp in the reflector shall be so made that, even in darkness, the filament lamp can be mounted in no other position than the correct one.

7. SPECIAL SPECIFICATIONS

- 7.1. The correct position of the lens in relation to the optical system shall be unequivocally marked and be locked against rotation in service.

- 7.2. For the measurement of the illumination produced by the headlamp, a measuring screen as described in annex 3 of this Regulation and a standard filament lamp with a smooth and colourless bulb according to the S category of Regulation No. 37 shall be used.

The standard filament lamp shall be adjusted to the applicable reference luminous flux according to values prescribed for these lamps in Regulation No. 37.

- 7.3. The beam shall have a cut-off sufficiently sharp in order that satisfactory aiming can practically be achieved with its aid. The cut-off shall be substantially horizontal and as straight as possible over a horizontal length of at least ± 900 mm measured at a distance of 10 m.

When aimed according to annex 3, the headlamps shall meet the requirements specified in it.

- 7.4. The beam pattern shall not present any lateral variations detrimental to good visibility.

- 7.5. The illumination on the screen mentioned in paragraph 7.2. above shall be measured by means of a photo-receptor having a useful area comprised within a square of 65 mm side.

8. PROVISIONS CONCERNING COLOURED LENSES AND FILTERS

- 8.1. Approval may be obtained for headlamps emitting either colourless or selective-yellow lights with an uncoloured lamp. Expressed in CIE trichromatic co-ordinates, the corresponding colorimetric characteristics for yellow glasses or filters are as follows:

Selective-yellow filter (screen or lens)

Limit towards red $y \geq 0.138 + 0.58 x$

Limit towards green $y \leq 1.29 x - 0.1$

Limit towards white $y \leq -x + 0.966$

Limit towards spectral value $y \leq -x + 0.992$

which can also be expressed as follows:

dominant wave-length	575 - 585 n m
purity factor	0.90 - 0.98

The transmission factor must be ≥ 0.78

The transmission factor shall be determined by using a light source with a colour temperature of 2,854°K. (Corresponding to illuminant A of the International Commission on Illumination (CIE)).

- 8.2. The filter must be part of the headlamp, and must be attached to it in such a way that the user cannot remove it either inadvertently or intentionally, with ordinary tools.

8.3. Observation concerning colour

Since any approval under this Regulation is granted, pursuant to paragraph 8.1. above, for a type of headlamp emitting either colourless light or selective-yellow light; article 3 of the Agreement to which the Regulation is annexed shall not prevent the Contracting Parties from prohibiting headlamps emitting a beam of uncoloured or selective-yellow light on vehicles registered by them.

9. CONFORMITY OF PRODUCTION

- 9.1. Headlamps approved under this Regulation shall be so manufactured as to conform to the type approved by meeting the requirements set forth in paragraphs 7 and 8 above.

- 9.2. In order to verify that the requirements of paragraph 9.1 are met, appropriate checks on production shall be carried out.

- 9.3. The holder of the approval shall in particular:

- 9.3.1. Ensure that procedures exist for the effective quality control of products,
- 9.3.2. Have access to the control equipment necessary for checking the conformity to each approved type,
- 9.3.3. Record data of test results and annexed documents which shall remain available for a period to be determined in agreement with the administrative service,
- 9.3.4. Analyse the results of each type of test to verify and ensure consistency of the product characteristics, allowing for variations in industrial production,
- 9.3.5. Ensure that for each type of product at least the tests prescribed in annex 4 to this Regulation are carried out.

9.3.6. Ensure that when any samples show non-conformity with regard to the type of test concerned, further samples are taken and tested. All necessary steps shall be taken to re-establish conformity in the production concerned.

9.4. The competent authority which has granted type approval may at any time verify the methods for checking conformity applicable to each production unit.

9.4.1. At every inspection, the test data and production records shall be presented to the inspector.

9.4.2. The inspector may take samples at random to be tested in the manufacturer's laboratory. The minimum number of samples may be determined in the light of the results of the manufacturer's own checks. If the competent authority is not satisfied with the results of the inspection, it shall order the manufacturer to take the necessary corrective action, after which a new inspection by the competent authority shall be carried out within two months.

9.4.3. If the new inspection under paragraph 9.4.2. is unsatisfactory, the competent authority shall select two devices at random and send them to a laboratory approved for this Regulation.

If one of the devices selected does not meet the requirements of paragraph 1.2 of annex 4, paragraph 10 of this Regulation shall be applied.

9.4.4. The competent authority may carry out any test prescribed in this Regulation.

9.4.5. The normal frequency of inspections authorized by the competent authority shall be one per year. If negative results are recorded during one of these inspections, the competent authority shall ensure that all necessary steps are taken to re-establish conformity of production as rapidly as possible.

9.5. As an alternative to the procedure described in paragraphs 9.3 and 9.4, the competent authority may choose to carry out spot checks. In this case, the authority shall apply the procedure described in annex 5 to this Regulation.

10. PENALTIES FOR NON-CONFORMITY OF PRODUCTION

10.1. The approval granted in respect of a type of headlamp pursuant to this Regulation may be withdrawn if the requirements set forth above are not met or if a headlamp bearing the approval mark does not conform to the type approved.

10.2. If a Contracting Party to the 1958 Agreement applying this Regulation withdraws an approval it has previously granted, it shall forthwith so notify the other Contracting Parties applying this Regulation, by means of a communication form conforming to the model in annex 1 to this Regulation.

11. MODIFICATION AND EXTENSION OF APPROVAL OF A TYPE OF HEADLAMP

11.1. Every modification of the vehicle type shall be notified to the administrative department which approved the type of headlamp. The department may then either:

11.1.1. Consider that the modifications made are unlikely to have an appreciable adverse effect and that in any case the type of headlamp still complies with the requirements; or

11.1.2. Require a further test report from the technical service responsible for conducting the tests.

11.2. Confirmation or refusal of approval, specifying the alterations shall be communicated by the procedure specified in paragraph 5.3 above to the Parties to the Agreement applying this Regulation.

11.3. The competent authority issuing the extension of approval shall assign a series number for such an extension and inform thereof the other Parties to the 1958 Agreement applying this Regulation by means of a communication form conforming to the model in annex 1 to this Regulation.

12. PRODUCTION DEFINITELY DISCONTINUED

If the holder of an approval completely ceases to manufacture a headlamp approved in accordance with this Regulation, he shall so inform the authority which granted the approval. Upon receiving the relevant communication that authority shall inform thereof the other Parties to the 1958 Agreement applying this Regulation by means of a communication form conforming to the model in annex 1 to this Regulation.

13. NAMES AND ADDRESSES OF TECHNICAL SERVICES RESPONSIBLE FOR CONDUCTING APPROVAL TESTS, AND OF ADMINISTRATIVE DEPARTMENTS

The Parties to the 1958 Agreement which apply this Regulation shall communicate to the United Nations Secretariat the names and addresses of the technical services responsible for conducting approval tests and of the administrative departments which grant approval and to which forms certifying approval or extension or refusal or withdrawal of approval, issued in other countries, are to be sent.

Notes

1/ As defined in the 1968 Convention on Road Traffic, chapter I, article 1 (m) (E/CONF.56/16/Rev.1).

2/ If it is intended to manufacture the headlamp with coloured lenses, two samples of coloured lenses shall be submitted in addition for testing of the colour only.

3/ If the lens cannot be separated from the main body (the reflector being considered as main body), the provision of such a space on the lens will suffice.

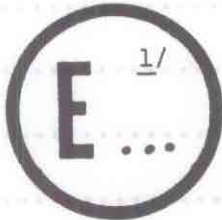
4/ If different types of headlamps have an identical lens or an identical reflector, the lens and the reflector may bear the various approval marks of these types of headlamps, on condition that the approval number granted for the specific type submitted can be identified without ambiguity.

5/ 1 for the Federal Republic of Germany, 2 for France, 3 for Italy, 4 for the Netherlands, 5 for Sweden, 6 for Belgium, 7 for Hungary, 8 for Czechoslovakia, 9 for Spain, 10 for Yugoslavia, 11 for the United Kingdom, 12 for Austria, 13 for Luxembourg, 14 for Switzerland, 15 for the German Democratic Republic, 16 for Norway, 17 for Finland, 18 for Denmark, 19 for Romania, 20 for Poland, 21 for Portugal and 22 for the Union of Soviet Socialist Republics. Subsequent numbers shall be assigned to other countries in the chronological order in which they ratify or accede to the Agreement concerning the Adoption of Uniform Conditions of Approval and Reciprocal Recognition of Approval for Motor Vehicle Equipment and Parts, and the numbers thus assigned shall be communicated by the Secretary-General of the United Nations to the Contracting Parties to the Agreement.

Annex 1

(maximum format: A4 (210 x 297mm))

COMMUNICATION



issued by:

Name of administration:

.....
.....
.....

concerning: 2/ APPROVAL GRANTED

APPROVAL EXTENDED

APPROVAL REFUSED

APPROVAL WITHDRAWN

PRODUCTION DEFINITELY DISCONTINUED

of a type of headlamp

pursuant to Regulation No. 56

Approval No. ...

Extension No. ...

1. Headlamp type
2. Headlamp emitting, with a colourless lamp, a colourless beam/a selective yellow beam 2/
3. Trade name or mark
4. Manufacturer's name and address
5. If applicable, name and address of manufacturer's representative
6. Submitted for approval on

1/ Distinguishing number of the country which has granted/extended/refused/withdrawn approval (see approval provisions in the Regulation).

2/ Strike out what does not apply.

7. Technical service responsible for conducting approval tests
8. Date of report issued by that service
9. Number of report issued by that service
10. Approval granted/extended/refused/withdrawn 2/
11. Place
12. Date
13. Signature
14. The attached drawing No. ... bearing the approval number shows the headlamp.

APPROVAL GRANTED
 APPROVAL EXTENDED
 APPROVAL REFUSED
 APPROVAL WITHDRAWN
 PRODUCTION DEFINITELY DISCONTINUED

of a type of headlamp
 pursuant to Regulation No. 56

Approval No. ...

Approval No. ...

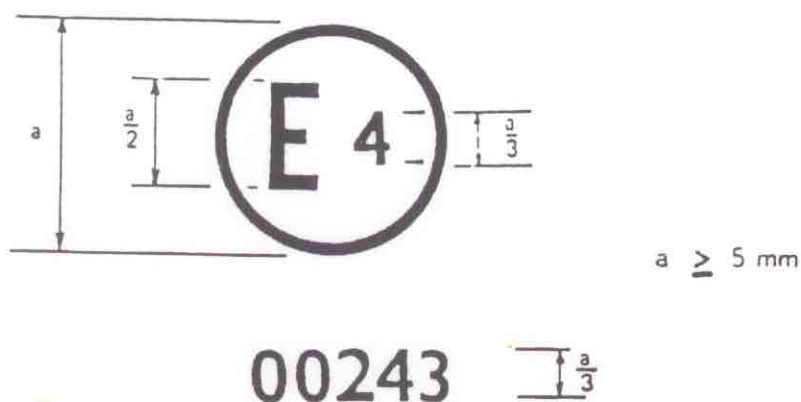
1. Headlamp type
2. Headlamp emitting, with a colourless beam, a selective yellow beam
3. Trade name or mark
4. Manufacturer's name and address
5. If applicable, name and address of manufacturer's representative
6. Submitted for approval on

1/ Identifying number of the country which has granted/extended/refused/withdrawn approval (see approval provisions in the Regulation).

2/ Strike out what does not apply.

Annex 2

ARRANGEMENT OF APPROVAL MARK



The headlamp bearing the above approval mark has been approved in the Netherlands (E 4) under approval number 00243. The first two digits of the approval number indicate that the approval was granted in accordance with the requirements of this Regulation in its original form.

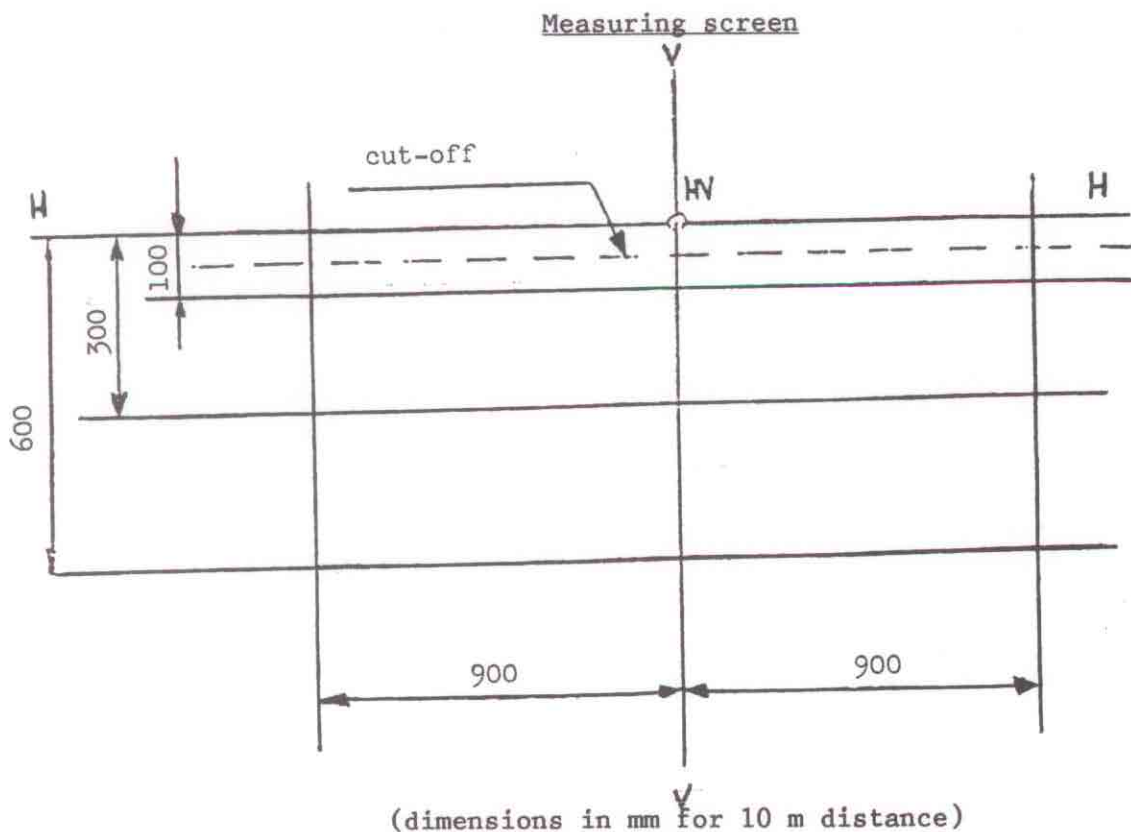
Note

The approval number must be placed close to the circle and either above or below the "E" or to the left or right of that letter. The digits of the approval number must be on the same side of the "E" and face in the same direction. The use of Roman numerals as approval numbers should be avoided so as to prevent any confusion with other symbols.

Annex 3

PHOTOMETRIC MEASUREMENTS

1. For measurements, the measuring screen shall be located at a distance of 10 m in front of the headlamp and perpendicular to a line joining the filament of the lamp and the point HV; the line H-H shall be horizontal. For lamps with transverse filament, the filament shall be as horizontal as possible during the measurements.
2. Laterally, the headlamps shall be so aimed that the beam is as symmetrical as possible with reference to the line V-V.
3. Vertically, the headlamp shall be so aimed that the illumination in point HV is 2 lx. Under those conditions, the cut-off shall be situated between the line H-H and the line H-100 mm.
4. When aimed according to paragraphs 2 and 3 above, the illumination shall meet the following values:
 - 4.1. on the line H-H and above: 2 lx max.;
 - 4.2. on a line situated 300 mm below H-H and over a width of 900 mm in both sides of the vertical line V-V: not less than 8 lx;
 - 4.3. on a line situated 600 mm below the line H-H and over a width of 900 mm on both sides of the vertical line V-V: not less than 4 lx.



Annex 4

MINIMUM REQUIREMENTS FOR QUALITY CONTROL PROCEDURES

1. GENERAL

1.1. The conformity requirements shall be considered satisfied from a mechanical and geometrical standpoint if the differences do not exceed inevitable manufacturing deviations.

1.2. With respect to photometric performances, the conformity of mass-produced headlamps shall not be contested if, when testing photometric performances of any headlamp chosen at random and equipped with a standard filament lamp, no measured value deviates unfavourably by more than 20% from the value prescribed in this Regulation.

If the results of the tests described above do not meet the requirements, tests on the headlamp shall be repeated using another standard filament lamp.

2. MINIMUM REQUIREMENTS FOR VERIFICATION OF CONFORMITY BY THE MANUFACTURER

For each type of headlamp the holder of the approval mark shall carry out at least the following tests, at appropriate intervals. The tests shall be carried out in accordance with the provisions of this Regulation.

If any sampling shows non-conformity with regard to the type of test concerned, further samples shall be taken and tested. The manufacturer shall take steps to ensure the conformity of the production concerned.

2.1. Nature of tests

Tests of conformity of these specifications shall cover their photometric characteristics.

2.2. Methods used in tests

2.2.1. Tests shall generally be carried out in accordance with the methods set out in this Regulation.

2.2.2. In some tests of conformity carried out by the manufacturer, however, equivalent methods may be used with the consent of the competent authority responsible for approval tests. The manufacturer is responsible for proving that the applied methods are equivalent to those laid down in this Regulation.

2.2.3. The application of paragraphs 2.2.1 and 2.2.2 above requires regular calibration of test apparatus and its correlation with measurements made by a competent authority.

2.2.4. In all cases, the reference methods shall be those of this Regulation, particularly for the purposes of administrative verification and sampling.

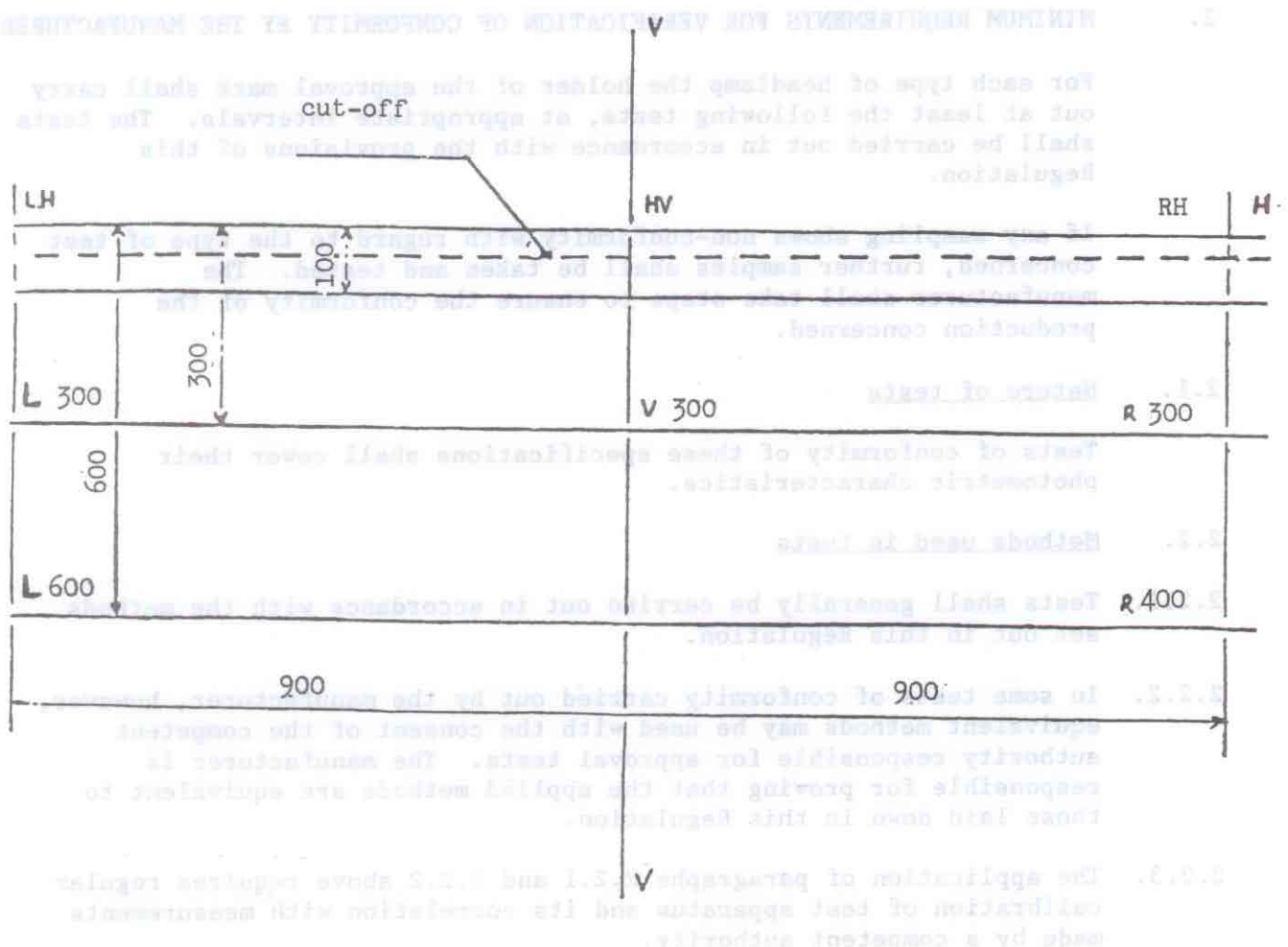
2.3. Nature of sampling

Samples of headlamps shall be selected at random from the production of a uniform batch. A uniform batch means a set of headlamps of the same type, defined according to the production methods of the manufacturer.

2.4. Measured and recorded photometric characteristics

The headlamps sampled shall be subjected to photometric measurements at the points provided for under the Regulation, the reading being limited to points LH - RH - L 300 - V 300 - R. 300 - R 600 - L 600 (see figure 1).

Figure 1



2.5. Criteria governing acceptability

The manufacturer is responsible for carrying out a statistical study of the test results and for defining, in agreement with the competent authority, criteria governing the acceptability of his products in order to meet the specifications laid down for verification of conformity of products in paragraph 9.1 of this Regulation. The criteria governing acceptability shall be such that, with a confidence level of 95%, the minimum probability of passing a spot check in accordance with annex 5 (first sampling) would be 0.95.

Annex 5

MINIMUM REQUIREMENTS FOR SPOT CHECKS BY ADMINISTRATIVE AUTHORITY

1. GENERAL

- 1.1. The conformity requirements shall be considered satisfied from a mechanical and a geometrical standpoint if the differences do not exceed inevitable manufacturing deviations.
- 1.2. With respect to photometric performances, the conformity of mass-produced headlamps shall not be contested if, when testing photometric performances of any headlamp chosen at random and equipped with a standard filament lamp, no measured value deviates unfavourably by more than 20% from the value prescribed in this Regulation.
2. The conformity of mass-produced headlamps shall not be contested if, following the sampling procedure shown in figure 1 of this annex, the measured values of one device of sample A of the first sampling of headlamps selected at random deviates unfavourably by more than 20% but not more than 30% from the values prescribed in this Regulation and the other device of sample A and all devices of sample B meet the requirements of paragraph 1.2. above.
3. Conformity shall be contested and the manufacturer requested to make the product meet the requirements if the tests referred to in paragraph 2 of this annex show unfavourable deviations,
 - 3.1. for more than one device of sample A and sample B,
 - 3.2. or for both the devices of sample A or sample B,
 - 3.3. or if the measured values of one or two devices of sample A or sample B deviate unfavourably by more than 30% but not more than 40% from the values prescribed in this Regulation,
 - 3.4. or if the measured values of one device of sample A or sample B deviate unfavourably by not more than 20% but those of the second device of the sample deviate unfavourably by more than 40% from the values prescribed in this Regulation.
4. If paragraph 3 of this annex is applied, a further sample of two devices, selected at random from a recent production run, shall be taken within two months. If the results of both devices do not meet the requirements of paragraph 1.2. of this annex, paragraph 10 of this Regulation shall then be applied.
5. Conformity shall be contested and article 10 applied if, following the sampling procedure shown in figure 1 of this annex, the results do not comply with the requirements of paragraphs 2 and 3 of this annex.
(Figure 1: See next page.)

Figure 1

