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COUNCIL DIRECTIVE

of 27 July 1976

on the approximation of the laws of the Member States relating to the end-outline marker lamps, front position (side) lamps, rear position (side) lamps and stop lamps for motor vehicles and their trailers

(76/758/EEC)

(OJ L 262, 27.9.1976, p. 54)

Amended by:

	Official Journal		
	No	page	date
► <u>M1</u> Council Directive 87/354/EEC of 25 June 1987	L 192	43	11.7.1987
► <u>M2</u> Commission Directive 89/516/EEC of 1 August 1989	L 265	1	12.9.1989

Amended by:

► <u>A1</u> Act of Accession of Greece	L 291	17	19.11.1979
► <u>A2</u> Act of Accession of Spain and Portugal	L 302	23	15.11.1985

▼B**COUNCIL DIRECTIVE****of 27 July 1976****on the approximation of the laws of the Member States relating to the end-outline marker lamps, front position (side) lamps, rear position (side) lamps and stop lamps for motor vehicles and their trailers**

(76/758/EEC)

THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community, and in particular Article 100 thereof,

Having regard to the proposal from the Commission,

Having regard to the opinion of the European Parliament⁽¹⁾,Having regard to the opinion of the Economic and Social Committee⁽²⁾,Whereas the technical requirements which motor vehicles must satisfy pursuant to national laws relate *inter alia* to their end-outline marker lamps, front position (side) lamps, rear position (side) lamps and stop lamps;Whereas those requirements differ from one Member State to another; whereas it is therefore necessary that all Member States adopt the same requirements either in addition to or in place of their existing rules, in order, in particular, to allow the EEC type-approval procedure which was the subject of Council Directive 70/156/EEC of 6 February 1970 on the approximation of the laws of the Member States relating to the type-approval of motor vehicles and their trailers⁽³⁾, to be introduced in respect of each type of vehicle;Whereas in Directive 76/756/EEC⁽⁴⁾, the Council laid down the common requirements for the installation of lighting and light-signalling devices on motor vehicles and their trailers;

Whereas a harmonized type-approval procedure for front position (side) lamps, rear position (side) lamps and stop lamps makes it possible for each Member State to check compliance with the common construction and testing requirements and to inform the other Member States of its findings by sending a copy of the component type-approval certificate completed for each type of front position (side) lamp, rear position (side) lamp and stop lamp; whereas the placing of an EEC component type-approval mark on all lamps manufactured in conformity with the approved type obviates any need for technical checks on these front position (side) lamps, rear position (side) lamps and stop lamps in the other Member States;

Whereas it is desirable to take into account the technical requirements adopted by the UN Economic Commission for Europe in its Regulation No 7 ('Uniform provisions for the approval of position (side) lights, red rear lights and stop lights for motor vehicles (except motor cycles) and their trailers')⁽⁵⁾, which is annexed to the Agreement of 20 March 1958 concerning the adoption of uniform conditions for approval and reciprocal recognition of approval for motor vehicle equipment and parts;

Whereas the approximation of national laws relating to motor vehicles entails reciprocal recognition by Member States of the checks carried out by each of them on the basis of the common requirements,

⁽¹⁾ OJ No C 76, 7. 4. 1975, p. 37.⁽²⁾ OJ No C 255, 7. 11. 1975, p. 3.⁽³⁾ OJ No L 42, 23. 2. 1970, p. 1.⁽⁴⁾ See page 1 of this Official Journal.⁽⁵⁾ Economic Commission for Europe, Document E/ECE/324, Addendum 6 of 22 May 1967 plus Correction 1 of 9 February 1971.

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HAS ADOPTED THIS DIRECTIVE:

Article 1

1. Member States shall grant EEC component type-approval in respect of any type of front position (side) lamp, rear position (side) lamp and stop lamp which satisfies the construction and testing requirements laid down in Annexes 0, I, III, IV and V.

2. The Member State which has granted EEC component type-approval shall take the measures required in order to verify that production models conform to the approved type, in so far as this is necessary and if need be in cooperation with the competent authorities in the other Member States. Such verification shall be limited to spot checks.

Article 2

Member States shall for each type of front position (side) lamp, rear position (side) lamp and stop lamp which they approve pursuant to Article 1, issue to the manufacturer, or to his authorized representative, an EEC component type-approval mark conforming to the models shown in Annex III.

Member States shall take all appropriate measures to prevent the use of marks liable to create confusion between front position (side) lamps, rear position (side) lamps and stop lamps which have been type-approved pursuant to Article 1, and other devices.

Article 3

1. No Member State may prohibit the placing on the market of front position (side) lamps, rear position (side) lamps and stop lamps on grounds relating to their construction or method of functioning if they bear the EEC component type-approval mark.

2. Nevertheless, a Member State may prohibit the placing on the market of front position (side) lamps, rear position (side) lamps and stop lamps bearing the EEC component type-approval mark which consistently fail to conform to the approved type.

That State shall forthwith inform the other Member States and the Commission of the measures taken, specifying the reasons for its decision.

Article 4

The competent authorities of each Member State shall within one month send to the competent authorities of the other Member States a copy of the component type-approval certificates, an example of which is given in Annex II, completed for each type of front position (side) lamp, rear position (side) lamp and stop lamp which they approve or refuse to approve.

Article 5

1. If the Member State which has granted EEC component type-approval finds that a number of front position (side) lamps, rear position (side) lamps and stop lamps bearing the same EEC component type-approval mark do not conform to the type which it has approved, it shall take the necessary measures to ensure that production models conform to the approved type. The competent authorities of that State shall advise those of the other Member States of the measures taken, which may, where there is consistent failure to conform, extend to withdrawal of EEC component type-approval. The said authorities shall take the same measures if they are informed by the competent authorities of another Member State of such failure to conform.

2. The competent authorities of Member States shall within one month inform each other of any withdrawal of EEC component type-approval, and of the reasons for such a measure.

▼B*Article 6*

Any decision taken pursuant to the provisions adopted in implementation of this Directive, to refuse or withdraw EEC component type-approval for front position (side) lamps, rear position (side) lamps and stop lamps or prohibit their placing on the market or use shall set out in detail the reasons on which it is based. Such decisions shall be notified to the party concerned, who shall at the same time be informed of the remedies available to him under the laws in force in the Member States and of the time limits allowed for the exercise of such remedies.

Article 7

No Member State may refuse to grant EEC type-approval or national type-approval of any vehicle on grounds relating to its end-outline marker lamps, front position (side) lamps, rear position (side) lamps and stop lamps if these bear the EEC component type-approval mark and are fitted in accordance with the requirements laid down in Directive 76/756/EEC.

Article 8

No Member State may refuse or prohibit the sale, registration, entry into service or use of any vehicle on grounds relating to its end-outline marker lamps, front position (side) lamps, rear position (side) lamps and stop lamps if these bear the EEC component type-approval mark and are fitted in accordance with the requirements laid down in Directive 76/756/EEC.

Article 9

For the purposes of this Directive, 'vehicle' means any motor vehicle intended for use on the road, with or without bodywork, having at least four wheels and a maximum design speed exceeding 25 km/h, and its trailers, with the exception of vehicles which run on rails, agricultural tractors and machinery and public works vehicles.

Article 10

Any amendments necessary to adjust the requirements of the Annexes to take account of technical progress shall be adopted in accordance with the procedure laid down in Article 13 of Directive 70/156/EEC.

Article 11

1. Member States shall adopt and publish the provisions necessary in order to comply with this Directive before 1 July 1977 and shall forthwith inform the Commission thereof. They shall apply these provisions with effect from 1 October 1977 at the latest.

2. Once this Directive has been notified, the Member States shall also ensure that the Commission is informed, in sufficient time for it to submit its comments, of any draft laws, regulations or administrative provisions which they propose to adopt in the field covered by this Directive.

Article 12

This Directive is addressed to the Member States.

▼B**List of Annexes**

Annex 0	—Definitions, general specifications, intensity of light emitted, test procedure, colour of light emitted, conformity of production (*), note concerning colour
Annex I	► M2 — Front position (side) lamps, rear position (side) lamps, stop lamps and end-outline marker lamps; minimum angles required for the light distribution in space ◀ (*)
Annex II	— Model EEC component type-approval certificate
Annex III	— EEC component type-approval and marking requirements — Appendix: Examples of EEC component type-approval marks
Annex IV	—Photometric measurements (*)
Annex V	— Colour of light emitted: trichromatic coordinates (*)

(*) The technical requirements of this Annex are similar to those of Regulation No 7 of the Economic Commission for Europe. In particular, the breakdown into sections is the same. For this reason, where a section of that Regulation has no counterpart in this Directive, its number is given in brackets for the record.

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ANNEX 0

DEFINITIONS, GENERAL SPECIFICATIONS, INTENSITY OF LIGHT EMITTED, TEST PROCEDURE, COLOUR OF LIGHT EMITTED, CONFORMITY OF PRODUCTION, NOTE CONCERNING COLOUR

1. DEFINITIONS

For the purposes of this Directive:

1.0. **End-outline marker lamp**

‘End-outline marker lamp’ means the lamps fitted to the extreme outer edge as close as possible to the top of the vehicle and intended clearly to indicate the vehicle's overall width. This signal is intended, for certain vehicles and trailers, to complement the vehicle's front and rear position (side) lamps by drawing particular attention to its bulk.

1.1. **Front position (side) lamp**

‘Front position (side) lamp’ means the lamp used to indicate the presence and the width of the vehicle when the latter is viewed from the front.

1.2. **Rear position (side) lamp**

‘Rear position (side) lamp’ means the lamp used to indicate the presence and the width of the vehicle when the latter is viewed from the rear.

1.3. **Stop lamp**

‘Stop lamp’ means the lamp used to indicate to other road users to the rear of the vehicle that the latter's driver is applying the service brake.

▼M21.4. **Definition of terms**

The definitions contained in Directive 76/756/EEC relating to:

- light source (for filament lamps),
- independent lamps,
- grouped lamps,
- combined lamps,
- reciprocally incorporated lamps,
- device,
- single-function lamps
- single lamps
- two lamps or an even number of lamps,
- light emitting surface,
- illuminating surface of a light-signalling device other than a reflex reflector,
- apparent surface,
- axis of reference,
- centre of reference,

apply to this Directive.

1.5. **Front and rear position (side) lamp, stop lamp and end-outline marker lamp of different types**

‘Front and rear position (side) lamp, stop lamp and end-outline marker lamp of different types’ means lamps which differ in each said category in such essential respects as:

- the trade name or mark,
- the characteristics of the optical system, (levels of intensity, light distribution angles, type of filament lamp, etc.),
- the system used to reduce illumination at night — in the case of stop lamps with two levels of intensity.

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5. GENERAL SPECIFICATIONS

5.1. Each sample shall conform to the specifications set forth in sections 6 and 8.

5.2. The devices shall be so designed and constructed that under normal conditions of use, notwithstanding any vibration to which they may be subjected during such use, their satisfactory operation remains assured and they retain the characteristics prescribed by this Directive.

5.3. Lamps approved as front position (side) lamps shall also be regarded as end-outline marker lamps.

5.4. Lamps approved as rear position (side) lamps shall also be regarded as end-outline marker lamps.

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5.5. Front and rear position (side) lamps which are grouped or combined or reciprocally incorporated may also be used as end-outline marker lamps.

6. INTENSITY OF LIGHT EMITTED

6.1. In the reference axis, the light emitted by each of the two devices supplied must be of not less than the minimum intensity and of not more than the maximum intensity specified below:

(1)	Maximum values in cd when used as	Minimum intensities cd		
		Single-function lamp	Single function lamp marked 'D' (Annex III item 4.3.6)	Total for the assembly of two lamps (Annex III item 4.3.6)
6.1.1. Front position (side) lamps, front end-outline marker lamp	4	60 (2)	42 (2)	84 (2)
6.1.2. Front position (side) lamps incorporated in headlamp	4	100 (2)	—	—
6.1.3. Rear position (side) lamps, rear end-outline marker lamp	4	12 (2)	8,5 (2)	17 (2)
6.1.4. Stop lamps				
6.1.4.1. with 1 level of intensity	40	100 (2)	70 (2)	140 (2)
6.1.4.2. with 2 levels of intensity				
6.1.4.2.1. by day	130	520 (2)	364 (2)	728 (2)
6.1.4.2.2. by night	30	80 (2)	56 (2)	112 (2)

(1) The installation of the devices referred to above in power-driven vehicles and their trailers is provided for in the Directive concerning the installation of lighting and light-signalling devices (Directive 76/756/EEC).

(2) The total value of maximum intensity for an assembly of two lamps is given by multiplying by 1.4 the value prescribed for a single-function lamp.

When two single-function lamps having the same function, whether identical or not, are grouped in one device such that the projections of the illuminating surfaces of those single-function lamps on a vertical plane perpendicular to the vehicle's median longitudinal plane occupy not less than 60 % of the smallest rectangle circumscribing the projections of the said illuminating surfaces, such an assembly shall be deemed to be a single lamp for the purpose of installation of a vehicle. In such a case, each single-function lamp shall comply with the minimum intensity required, the admissible maximum intensity shall not be exceeded by both lamps together (last column of the table).

In the case of a single-function lamp containing more than one light source:

The lamp shall comply with the minimum intensity required when any one light source has failed, and when all light sources are illuminated the maximum intensity specified for a single-function lamp may be exceeded, provided that the single-function lamp is not marked 'D' and the maximum intensity specified for an assembly of two lamps (last column of the table) is not exceeded.

6.2. Outside the reference axis and within the angular fields defined in the diagrams in Annex I the intensity of the light emitted by each of the two devices supplied must:

6.2.1. in each direction corresponding to the points in the light distribution table reproduced in Annex IV, be not less than the product of the

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minimum specified in paragraph 6.1 above by the percentage specified in the said table for the direction in question;

- 6.2.2. in no direction within the space from which the light-signalling device is visible, exceed the maximum specified in paragraph 6.1 above;
- 6.2.3. however, a luminous intensity of 60 cd shall be permitted for rear position (side) lamps reciprocally incorporated with stop lamps (see paragraph 6.1.3 above) below a plane forming an angle of 5° with and downward from the horizontal plane;
- 6.2.4. Moreover,
 - 6.2.4.1. throughout the fields defined in the diagrams in Annex I, the intensity of the light emitted must be not less than 0,05 cd for front and rear position (side) lamps and end-outline marker lamps, not less than 0,3 cd for stop lamps with one level of intensity, and for stop lamps with two levels of intensity 0,3 cd by day and 0,07 cd by night.
 - 6.2.4.2. if a rear position (side) lamp is reciprocally incorporated with a stop lamp, the ratio between the luminous intensities actually measured of the two lamps when turned on simultaneously and the intensity of the rear position (side) lamp when turned on alone should be at least 5:1 in the field delimited by the straight horizontal lines passing through $\pm 5^\circ V$ and the straight vertical lines passing through $\pm 10^\circ H$ of the light distribution table. Where a stop lamp has two levels of intensity this requirement must be met when the night-time use facility is actuated.
 - 6.2.4.3. the provisions of paragraph 2.2 of Annex IV on local variations of intensity must be observed.
- 6.3. the intensities shall be measured while the filament lamp(s) continuously alight. In the case of devices emitting selective-yellow or red light, they shall be measured in coloured light.
- 6.4. In the case of a stop lamp providing two levels of intensity the time that elapses between electrical supply being switched on and the light output measured on the reference axis to reach 90 % of the value measured in accordance with paragraph 6.3 above shall be measured for both the day and the night conditions of use. The time measured for the night conditions of use shall not exceed that measured for the day conditions of use.
- 6.5. Annex IV, to which reference is made in paragraph 6.2.1 above, gives particulars of the methods of measurement to be used.

7. TEST PROCEDURE

- 7.1. All measurements shall be made with a white standard filament lamp of the category prescribed for the device, the supply voltage being so regulated as to produce the nominal luminous flux prescribed for that category of lamp.
- 7.2. However, in the case of a stop lamp for which an additional system is used to obtain the night-time intensity, the voltage applied to the system for measuring the night-time intensity shall be that which was applied to the filament lamp for measuring the daytime intensity⁽¹⁾.
- 7.3. Where a rear position (side) lamp is reciprocally incorporated with a dual-intensity stop lamp and is designed to operate permanently with an additional system to regulate the intensity of the light emitted, measurement of the light emitted shall be performed with the same voltage applied to the system as would, if applied to the filament lamp, enable the lamp to produce the prescribed normal luminous flux.
- 7.4. The vertical and horizontal outlines of the illuminating surface of a light-signalling device other than a reflex reflector shall be determined and measured in relation to the centre of reference.

8. COLOUR OF LIGHT EMITTED

The colour of the light emitted shall be within the limits of the coordinates prescribed for the colour in question in Annex V to this Directive.

⁽¹⁾ The functioning and installation conditions of these additional systems will be defined by special provisions.

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9. CONFORMITY OF PRODUCTION

Every device bearing an EEC component type-approval mark must conform to the approved type and comply with the photometric conditions specified in sections 6 and 8. Nevertheless, in the case of a device picked at random from series production, the requirements as to minimum intensity of the light emitted (measured with a standard filament lamp as referred to in section 7) may be limited in each direction to 80 % of the minimum values specified in 6.1 and 6.2.

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11. NOTE CONCERNING COLOUR

EEC component type-approval shall be granted if the colour of the light emitted is that laid down in 3.13 of Annex I to Directive 76/756/EEC.

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ANNEX I

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FRONT POSITION (SIDE) LAMPS, REAR POSITION (SIDE) LAMPS, STOP LAMPS AND
END-OUTLINE MARKER LAMPS

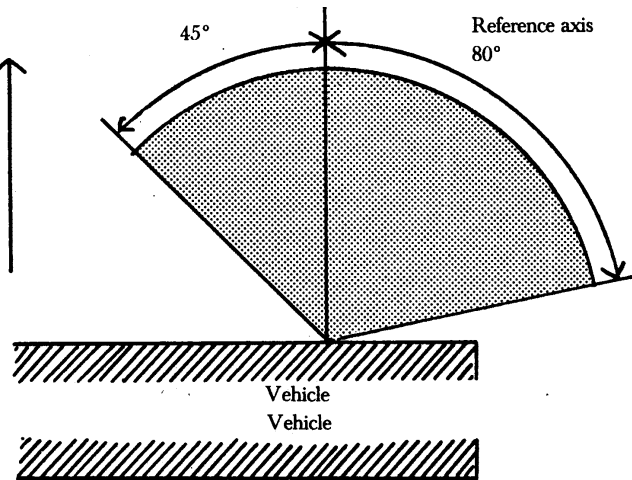
MINIMUM ANGLES REQUIRED FOR THE LIGHT DISTRIBUTION IN SPACE (*)

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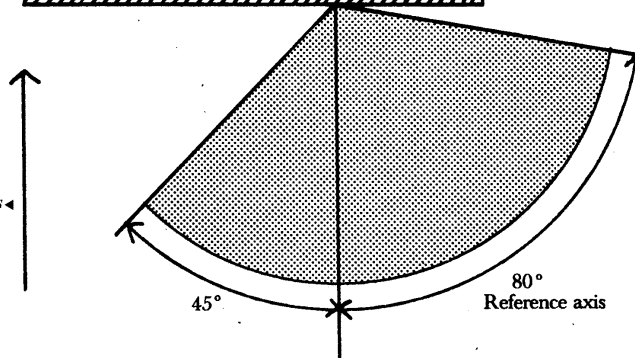
In all cases, the minimum vertical angles of light distribution in space are 15° above and 15° below the horizontal.

Minimum horizontal angles
of light distribution in space

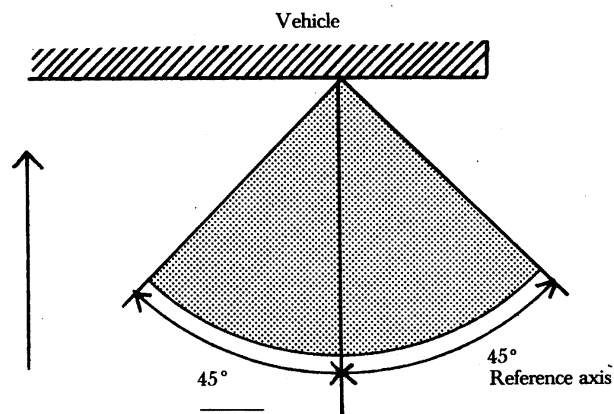
Front position (side) lamps
▶⁽¹⁾ End outline marker lamps ◀



Rear position (side) lamps
▶⁽¹⁾ End outline marker lamps ◀



Stop lamps



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(*) The angles shown in these diagrams are correct for devices to be mounted on the right side of the vehicle. The arrows point to the front of the vehicles.

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ANNEX II

MODEL EEC COMPONENT TYPE-APPROVAL CERTIFICATE

Name of administration

Notification concerning the granting, refusal or withdrawal of EEC component type-approval, or the granting, refusal or withdrawal of an extension of EEC component type-approval for a type of end-outline marker lamp, front position (side) lamp, rear position (side) lamp or stop lamp

Component type-approval No

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1. Type of lamp	Intended for use in a composition of two lamps
front position (side) lamp	yes/no (*)
rear position (side) lamp	yes/no (*)
stop lamp	yes/no, one/two (*) level(s) of intensity
end-outline marker lamp	yes/no (*)

2. Type and number of incandescent lamps

3. Colour of light emitted: red/selective yellow/white (*)

4. Trade name or mark

5. Name and address of manufacturer

6. If applicable, name and address of manufacturer's authorized representative

7. Submitted for EEC component type-approval tests on

8. Technical service conducting EEC component type-approval tests

9. Date of report issued by that service

10. Number of report issued by that service

11. Date of granting/refusal/withdrawal of EEC component type-approval (*)

12. Extension of EEC component type-approval to devices emitting a red/selective yellow/white light (*)

13. Date of granting/refusal/withdrawal of the extension of EEC component type-approval (*)

14. Single EEC component type-approval granted on the basis of paragraph 3.3 of Annex III for a lighting and light-signalling device comprising several lamps, and in particular

15. Where a rear position (side) lamp is reciprocally incorporated with a dual-intensity stop lamp, state whether a voltage-adapting system is provided, and if so what its characteristics are

16. Component type approval granted solely for use as a replacement part on vehicles already in service: yes/no (*)

17. For stop lamps with two levels of intensity, indicate the system used to obtain the night-time intensity (give the main characteristics)

18. Date of refusal/withdrawal of single EEC component type-approval

19. Place

20. Date

21. Signature

22. The attached drawing No shows the geometrical position in which the device is to be mounted on the vehicle and the axis of reference and centre of reference of the device.

23. Remarks

(*) Delete where inapplicable.

▼B*ANNEX III***EEC COMPONENT TYPE-APPROVAL AND MARKING REQUIREMENTS****1. APPLICATION FOR EEC COMPONENT TYPE-APPROVAL**

- 1.1. The application for EEC component type-approval shall be submitted by the holder of the trade name or mark by his authorized representative.

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- 1.2. The request for the EEC component type approval of a front position (side) lamp shall state whether that lamp is intended to emit white or selective yellow light, and in the case of an end-outline marker lamp, whether that lamp is intended to emit white or red light.
- 1.3. For each type of front position (side) lamp, rear position (side) lamp, stop lamp, and end-outline marker lamp the request shall be accompanied by:

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- 1.3.1. a brief technical specification stating, in particular, the type of filament lamp or lamps prescribed;

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- 1.3.2. drawings (three copies), in sufficient detail to permit identification of the type of device and showing geometrically the position in which the lamp is to be mounted on the vehicle, the axis of observation to be taken as the axis of reference in the tests (horizontal angle $H = 0^\circ$), the point to be taken as the centre of reference in the said tests, the vertical and horizontal tangents to the illuminating surface and their distances from the centre of reference of the lamp;
- 1.3.3. in the case of a dual-intensity stop lamp, a diagram and statement of the characteristics of the systems providing the two levels of intensity;

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- ▶M2 1.3.4. ◀ two samples; if the lamps are such that they can be mounted only on one side of the vehicle, the two samples submitted may be identical and be suitable for mounting only on the right or only on the left side of the vehicle. ▶M2 In the case of a dual-intensity stop lamp the request must, moreover, be accompanied by the samples of the components making up the system providing the two levels of intensity. ◀

2. MARKINGS

- 2.1. Devices submitted for EEC component type-approval must bear:
- 2.1.1. the trade name or mark of the applicant, which must be clearly legible and indelible;
- 2.1.2. a clearly legible and indelible marking indicating the type or types of filament lamp recommended;
- 2.1.3. and incorporate a space large enough to contain the EEC component type-approval mark and the additional symbols prescribed in 4.3; this space shall be shown in the drawings mentioned in 1.3.2.

3. EEC COMPONENT TYPE-APPROVAL

- 3.1. If all the samples submitted in accordance with section 1 meet the requirements of sections 5, 6, 7 and 8 of Annex 0, EEC component type-approval shall be granted and a type-approval number assigned.

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- 3.2. This number is no longer assigned to another type of front position (side) lamp, stop lamp or an end-outline marker lamp except where EEC component type-approval is extended to another type of device which only differs in respect of the colour of the light emitted.
- 3.3. Where EEC component type-approval is requested for a type of lighting and light-signalling device consisting of a front position (side) lamp, a rear position (side) lamp, a stop lamp or an end-outline marker lamp and other lamps, a single EEC component type-approval number may be granted, provided that the lamp fulfills the requirements of this Directive and that each of the other lamps forming part of the type of lighting and light-signalling device for which EEC component type approval has been requested complies with the separate directive applying thereto.

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4. MARKS

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- 4.1. All front position (side) lamps, rear position (side) lamps, stop lamps, or end-outline marker lamps conforming to a type that has been component type-approved pursuant to this Directive shall bear an EEC component type-approval mark.
- 4.2. This mark shall consist of a rectangle surrounding the lower case letter 'e' followed by the distinguishing letter(s) or number of the Member State which has granted the type-approval:
- 1 for Germany,
 - 2 for France,
 - 3 for Italy,
 - 4 for the Netherlands,
 - 6 for Belgium,
 - 9 for Spain,
 - 11 for the United Kingdom,
 - 13 for Luxembourg
 - 18 for Denmark,
 - 21 for Portugal,
 - EL for Greece,
 - IRL for Ireland.

It must also include the EEC component type-approval number which corresponds to the number of the EEC component type-approval certificate issued for the type of device in question (see Annex I), preceded by two figures indicating the sequence number assigned to the most recent major technical amendment to Council Directive 76/758/EEC on the date EEC component type-approval was granted. In this Directive the sequence number is 01.

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- 4.3. In the following cases the EEC component type-approval mark shall be supplemented by an additional symbol or symbols:
- 4.3.1. the letter 'A', on devices meeting the requirements relating to front position (side) lamps laid down by this Directive;
 - 4.3.2. the letter 'R', on devices meeting the requirements relating to rear position (side) lamps laid down by this Directive;

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- 4.3.3. the letter 'S' followed by the figure '1' where the device has one level of intensity, and by the figure '2' when it has two levels of intensity on devices fulfilling the requirements of this Directive in respect of stop lamps;
- 4.3.4. depending upon the case the letters 'R' and 'S 1' or 'S 2', separated by a horizontal dash, on devices consisting, at the same time, of a rear position (side) lamp and a stop lamp fulfilling the requirements of this Directive in respect of these lamps;

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- 4.3.5. an arrow pointing towards the side on which the photometric specifications are satisfied up to an angle of 80° H, on front position (side) lamps or rear position (side) lamps whose geometric angles of visibility are asymmetrical in relation to the reference axis in a horizontal direction;

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- 4.3.6. on lamps which may be used as single-function lamps as well as in an assembly of two lamps, the additional letter 'D' on the right side of the symbol mentioned in paragraphs 4.3.1 to 4.3.4.

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- 4.4. The EEC component type-approval number must be placed in any convenient position near to the rectangle surrounding the letter 'e'.
- 4.5. The EEC component type-approval mark and the additional symbols must be affixed on the lens of the lamp or one of the lenses in such a way as to be indelible and clearly legible even when the lamps are fitted on the vehicle.

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- 4.6. Examples of EEC component type-approval marks and additional symbols are shown in Appendix 1.

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- 4.7. Where a single EEC component type-approval number is issued, as under 3.3, for a type of lighting and light-signalling device comprising a front position (side) lamp, rear position (side) lamp or stop lamp and other lamps, a single EEC component type-approval mark may be affixed, consisting of:
- a rectangle surrounding the letter 'e' followed by the distinguishing letter(s) or number of the Member State which has granted the EEC component type-approval,
 - the EEC component type-approval number,
 - the additional symbols required by the various Directives under which EEC component type-approval was granted.

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- 4.7.1. This mark may be placed anywhere on lamps that are grouped, combined or reciprocally incorporated provided that:
- 4.7.1.1. it is visible when the lamps have been installed;
- 4.7.1.2. no light-transmitting component of the grouped, combined or reciprocally incorporated lamps may be removed without the component type-approval mark being removed at the same time.
- 4.7.2. The identification symbol for each lamp corresponding to each Directive pursuant to which component type-approval was granted, together with the two figures referred to in item 4.2, final indent, above and, where necessary, the additional letter 'D' shall be entered:
- 4.7.2.1. on the appropriate light-emitting surface; or
- 4.7.2.2. in a group, such a way that each of the grouped, combined or reciprocally incorporated lamps may be clearly identified.

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- 4.8. The dimensions of the various components of this mark must not be less than the largest of the minimum dimensions specified for individual markings by the various Directives under which the EEC component type-approval was granted.

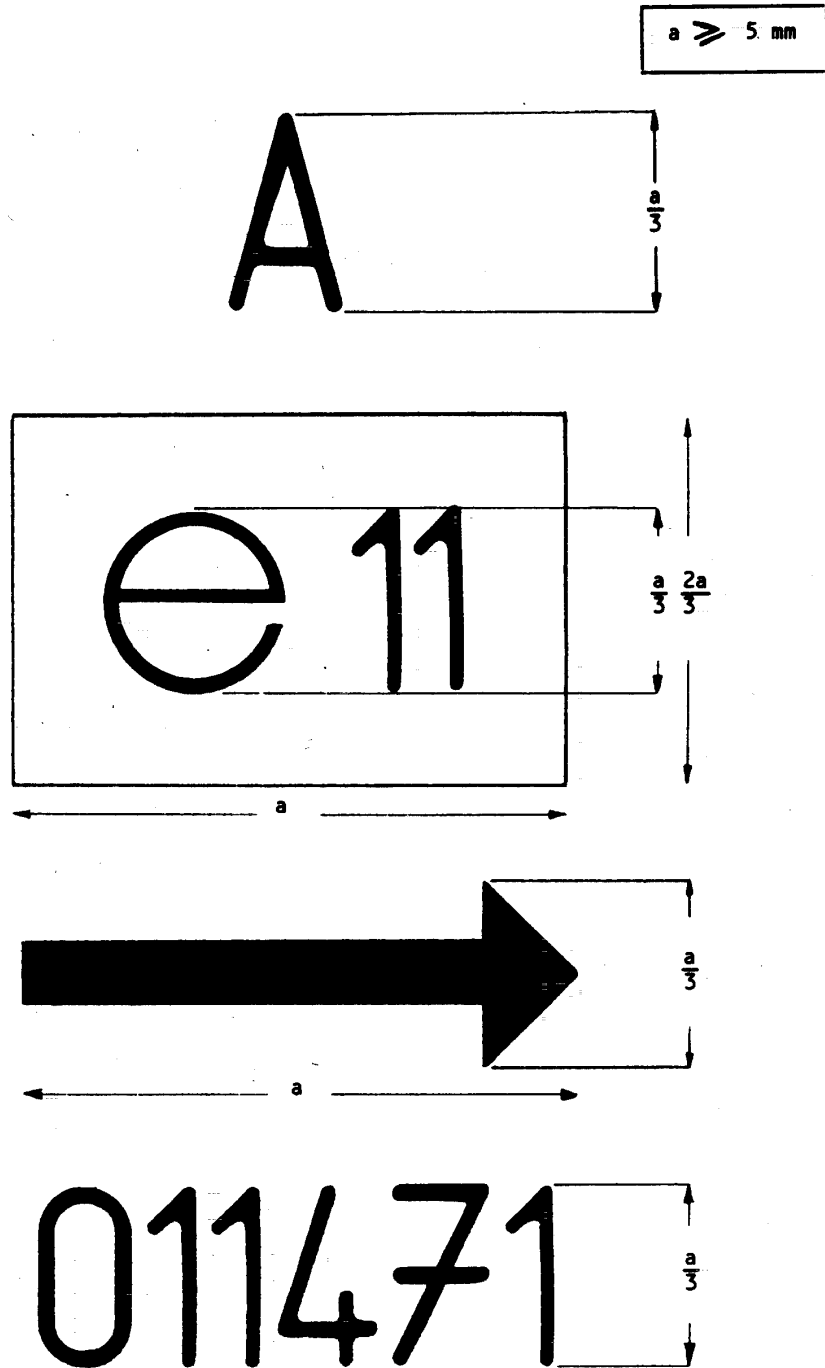
▼M2

- 4.9. Examples of an EEC component type-approval mark for a lamp that is grouped, combined or reciprocally incorporated with other lamps are shown in Annex II.

▼M2

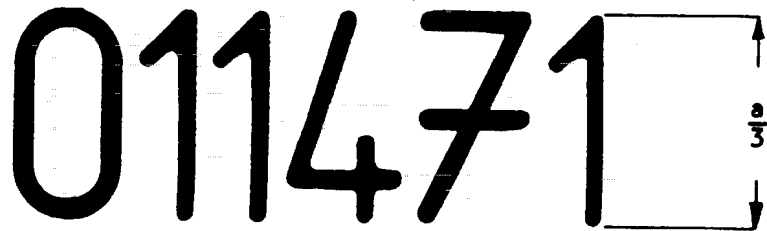
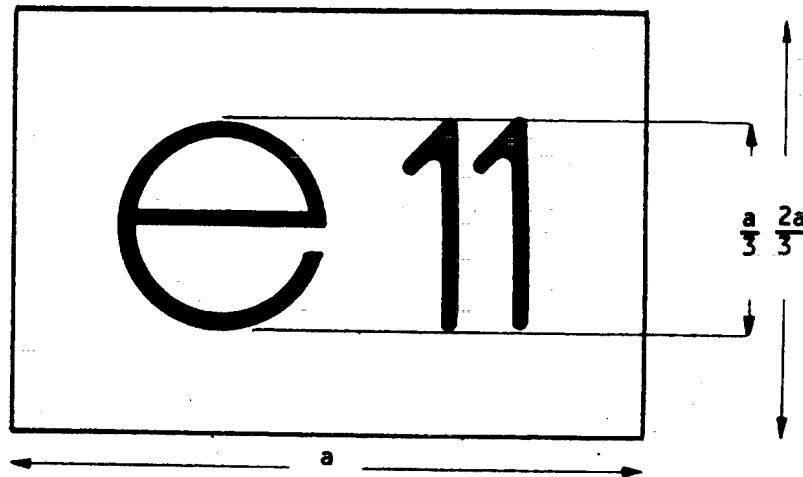
Appendix 1

EXAMPLES OF EEC COMPONENT TYPE-APPROVAL MARKS



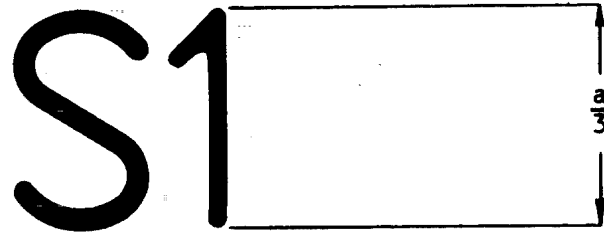
The device bearing the EEC component type-approval mark shown above is a front position (side) lamp, EEC type-approved in the United Kingdom (e 11) under the number 1471. The arrow indicates the side on which the photometric specifications are satisfied up to an angle of 80° H.

▼M2



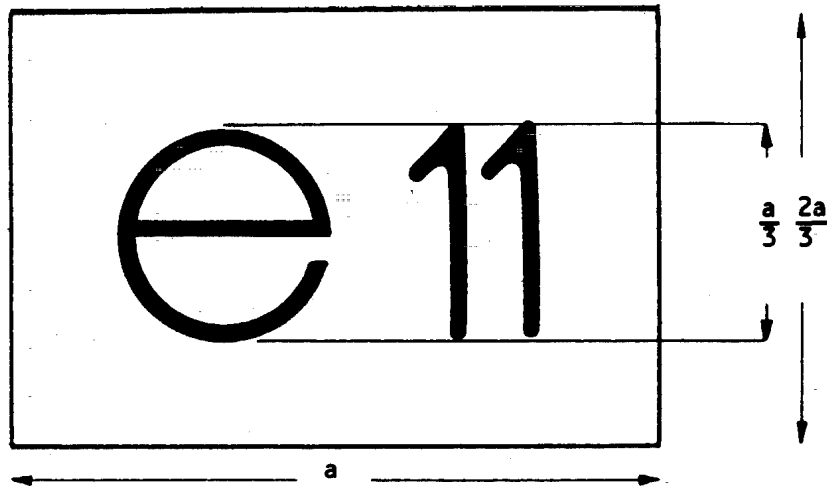
The device bearing the EEC type-approval mark shown above is a rear position (side) lamp, EEC type-approved in the United Kingdom (e 11) under the number 1471. The absence of an arrow means that, both right and left, the photometric specifications are satisfied up to an angle of 80° H.

▼M2



S1

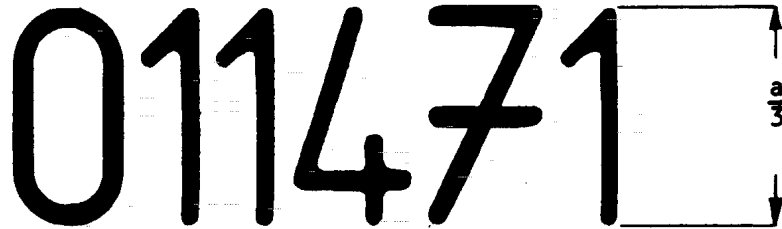
$\frac{a}{3}$



e 11

a

$\frac{a}{3}$ $\frac{2a}{3}$



011471

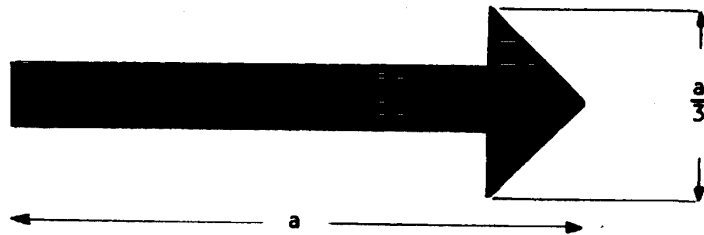
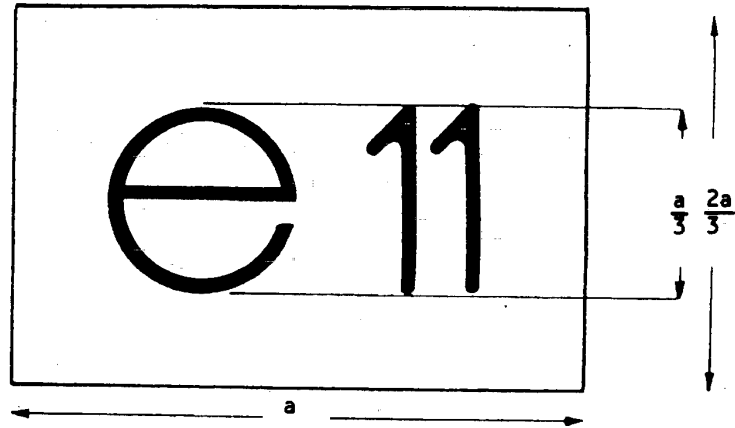
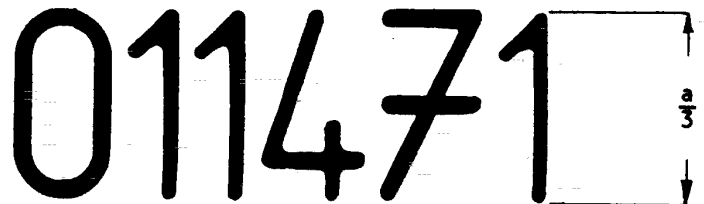
$\frac{a}{3}$

The device bearing the EEC type-approval mark shown above is a stop lamp, EEC type-approved in the United Kingdom (e 11) under the number 1471.

▼M2



R-S1

011471

The device bearing the EEC type-approval mark shown above is a device comprising both a rear position (side) lamp and a stop lamp, EEC type-approved in the United Kingdom (e 11) under the number 1471. The arrow means that, on the side to which it points, the photometric specifications are satisfied up to an angle of 80° H.

▼M2

Appendix 2

EXAMPLES OF SIMPLIFIED MARKING FOR GROUPED, COMBINED OR RECIPROCALLY INCORPORATED LAMPS

Model A

3333 e 4 →	IA 02	2a 01	R 01
	F 00	AR 00	S1 01

Model B

	IA 02	2a 01	R 01
	F 00	AR 00	S1 01
	3333 e 4 →		

Model C

IA 02	2a 01	R 01	
F 00	AR 00	S1 01	
3333 e 4 →			

Note: In the above examples the vertical and horizontal lines indicate the general shape of a lamp unit and do not form part of the component type-approval mark. The three examples of EEC component type-approval marks, models A, B and C represent three possible variants of the marking of a light signalling device when two or more lamps are part of the same device.

The EEC component type-approval mark shows that the device was EEC type-approved in the Netherlands (e 4) under the number 3333 and comprises:

a reflex-reflector of class 1A EEC component type-approved in conformity with Directive 76/757/EEC;
 a rear direction indicator lamp of category 2a EEC component type-approved in conformity with Directive 76/759/EEC;

a red rear position lamp (R) EEC component type-approved in conformity with the present Directive;

a rear fog lamp (F) EEC component type-approved in conformity with Directive 77/538/EEC;

a reversing lamp (AR) EEC component type-approved in conformity with Directive 77/539/EEC;

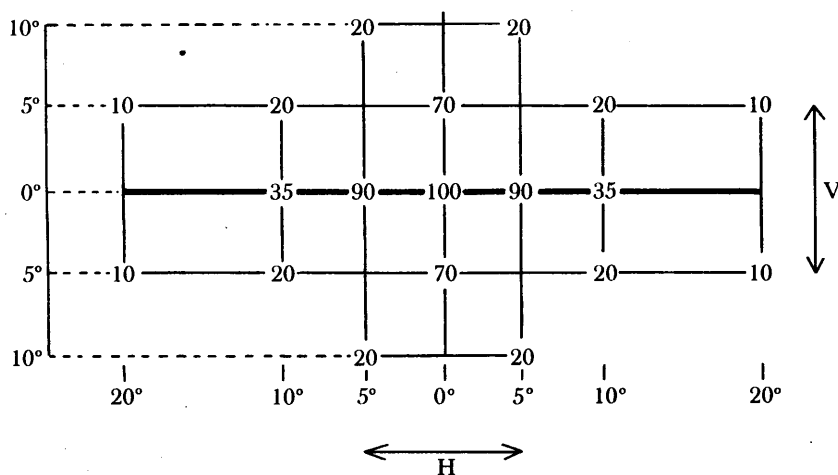
a stop lamp (S 1) having one level of intensity EEC component type-approved in conformity with the present Directive.

▼B

ANNEX IV

PHOTOMETRIC MEASUREMENTS

1. MEASUREMENT METHODS
 - 1.1. During photometric measurements, stray reflections shall be prevented by appropriate masking.
 - 1.2. Should the results of measurements be challenged, measurements shall be carried out in such a way as to meet the following requirements:
 - 1.2.1. the distance of measurement shall be such that the law of the inverse of the square of the distance is applicable;
 - 1.2.2. the measuring equipment shall be such that the angular aperture of the receiver viewed from the reference centre of the light is between 10' and one degree;
 - 1.2.3. the intensity requirement for a particular direction of observation shall be deemed to be satisfied if that requirement is met in a direction deviating by not more than 15' from the direction of observation.
2. STANDARD LUMINOUS INTENSITY DISTRIBUTION TABLE



- 2.1. The direction $H = 0^\circ$ and $V = 0^\circ$ corresponds to the reference axis. (On the vehicle it is horizontal, parallel to the median longitudinal plane of the vehicle and oriented in the required direction of visibility). It passes through the centre of reference. The values shown in the table give, for the various directions of measurement, the minimum intensities as a percentage of the minimum required in the axis for each lamp (in the direction $H = 0^\circ$ and $V = 0^\circ$).
- 2.2. If visual examination of a lamp appears to reveal substantial local variations of intensity, a check shall be made to ensure that no intensity measured between two of the directions of measurement referred to in 2.1 is:
 - 2.2.1. for a minimum specification, below 50 % of the lower of the two minimum intensities prescribed for these directions of measurements;
 - 2.2.2. for a maximum specification, above the lower of the two maximum intensities prescribed for these directions of measurement, increased by a fraction, expressed as a linear function, of the difference between the intensities prescribed for the said directions of measurement.

▼B

ANNEX V

COLOUR OF LIGHT EMITTED TRICHROMATIC COORDINATES

RED:	limit towards yellow:	$y \leq 0.335$
	limit towards purple:	$z \leq 0.008$
WHITE:	limit towards blue:	$x \geq 0.310$
	limit towards yellow:	$x \leq 0.500$
	limit towards green:	$y \leq 0.150 + 0.640x$
	limit towards green:	$y \leq 0.440$
	limit towards purple:	$y \geq 0.050 + 0.750x$
	limit towards red:	$y \geq 0.382$
SELECTIEV YELLOW:	limit towards red:	$y \geq 0.138 + 0.580x$
	limit towards green:	$y \leq 1.29x - 0.100$
	limit towards white:	$y \geq -x + 0.966$
	limit towards the spectral value:	$y \leq -x + 0.992$

For checking those colorimetric characteristics, a source of light at a colour temperature of 2854 K corresponding to illuminant A of the International Commission on Illumination (CIE) shall be used.