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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

Rev 10/02



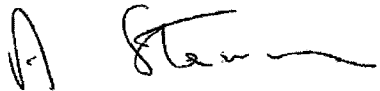
COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A TYPE
OF RETROFLECTING DEVICE PURSUANT TO REGULATION NO 3.02

Approval No: 025144



1. Trade name or mark of the device:
2. Manufacturer's name for the type of device: DF-TR006
3. Manufacturer's name and address:

Taizhou Dafa Mold Manufacturing Company Limited
No.292 Xinqiao Road
Xinqiao Town
Luqiao District
Taizhou City
Zhejiang
China
4. If applicable, name and address of the manufacturer's representative: Not applicable
5. Submitted for approval on: 16 October 2007
6. Technical service responsible for conducting the approval tests: Vehicle Certification Agency
7. Date of report issued by that service: 10 June 2008
8. Number of report issued by that service: EAJ191750

9. Concise description:
In isolation/part of an assembly of devices: IB
Colour of light emitted: Red
Geometric conditions of installation and relating variations, if any: Not applicable
10. Position of the approval mark: On the lens
11. Reason(s) for extension (if applicable): Not applicable
12. Approval: GRANTED
13. Place: BRISTOL
14. Date: 28 JULY 2008
15. Signature:  A.W. STENNING
Head of Technical and Quality Group
16. The following documents, bearing the approval number shown above, are available on request:



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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

Rev 1/03



COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A TYPE OF DEVICE FOR THE ILLUMINATION OF REAR REGISTRATION PLATES OF MOTOR VEHICLES (EXCEPT MOTOR CYCLES) AND THEIR TRAILERS PURSUANT TO REGULATION NO. 4.

Approval No: 005144



1. Trade name or mark of the device:
2. Manufacturer's name for the type of device: DF-TR006
3. Manufacturer's name and address:

Taizhou Dafa Mold Manufacturing Company Limited
NO.292 Xinqiao Road
Xinqiao Town
Luqiao District
Taizhou City
Zhejiang
China
4. If applicable, name and address of manufacturer's representative: Not applicable
5. Submitted for approval on: 16 October 2007
6. Technical service responsible for conducting approval tests: Vehicle Certification Agency
7. Date of report issued by that service: 10 June 2008
8. Number of report issued by that service: EAJ191750

EAJ191750

An executive agency of the Department for Transport

9. Concise description: ^{3/}

Device for illuminating:

A tall plate

A wide plate

A plate for agricultural or forestry tractor ^{2/}

Number and category of filament lamp(s): 1 × C5W, 12V, 5W

Geometrical conditions of installation (position(s) and inclination(s) of the device in relation to the space to be occupied by the registration plate and/or different inclinations of this space): please see test record

10. Position of the approval mark: On the lens

11. Reason(s) for extension (if applicable): Not applicable

12. Approval GRANTED

13. Place: BRISTOL

14. Date: 28 JULY 2008

15. Signature: 

A.W. STENNING
Head of Technical and Quality Group

16. The list of documents deposited with the Administrative Service which has granted approval is annexed to this communication and may be obtained on request.



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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY


Rev 1/03



COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A TYPE
OF DIRECTION INDICATOR PURSUANT TO REGULATION NO 6.01

Approval No: 015144



1. Trade name or mark of the device: 
2. Manufacturer's name for the type of device: DF-TR006
3. Manufacturer's name and address:
Taizhou Dafa Mold Manufacturing Company Limited
No.292 Xinqiao Road
Xinqiao Town
Luqiao District
Taizhou City
Zhejiang
China
4. If applicable, name and address of the manufacturer's representative: Not applicable
5. Submitted for approval on: 16 October 2007
6. Technical service responsible for conducting approval tests: Vehicle Certification Agency
7. Date of test report issued by that service: 10 June 2008
8. Number of test report issued by that service: EAJ191750

9. Concise description:

Category: 2a

Number and category of filament lamp(s): 1 × PY21W, 12V, 21W

Geometrical conditions of installation and relating variations, if any: Not applicable

Only for limited mounting height of equal to or less than 750 mm above the ground: No

10. Position of the approval mark: On the lens

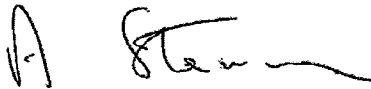
11. Reason(s) for extension (if applicable): Not applicable

12. Approval GRANTED

13. Place: BRISTOL

14. Date: 28 JULY 2008

15. Signature:



A. W. STENNING
Head of Technical and Quality Group

16. The list of documents deposited with the Administrative Service which has granted approval is annexed to this communication and may be obtained on request.

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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

Rev 1/03



COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A TYPE
OF DEVICE PURSUANT TO REGULATION NO: 7.02

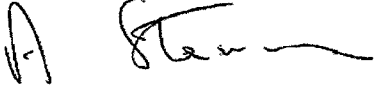
Approval No: 025144



1. Trade name or mark of the device:
2. Manufacturer's name for the type of device: DF-TR006
3. Manufacturer's name and address:
Taizhou Da'fa Mold Manufacturing Company Limited
No.292 Xinqiao Road
Xinqiao Town
Luqiao District,
Taizhou City
Zhejiang
China
4. If applicable, name and address of the manufacturer's representative: Not applicable
5. Submitted for approval on: 16 October 2007
6. Technical service responsible for conducting approval tests: Vehicle Certification Agency
7. Date of report issued by that service: 10 June 2008
8. Number of report issued by that service: EAJ191750

EAJ191750

An executive agency of the Department for Transport

9. Concise description:
By category of lamp: R1 - S1
For mounting either outside or inside or both: Outside
Colour of light emitted: Red
Number and category of filament lamp(s):
1 x P21/5W, 12V, 5W for rear position lamp
21W for stop lamp
Special supply voltage: 12 Volts
Application of additional supply system: No
Switched power supply: Not applicable
Geometrical conditions or installation and relating variations if any: Not applicable
Only for limited mounting height or equal to or less than 750mm above the ground: No
10. Position of the approval mark: On the lens
11. Reason(s) for extension (if applicable): Not applicable
12. Approval: GRANTED
13. Place: BRISTOL
14. Date: 28 JULY 2008
15. Signature:  A.W. STENNING
Head of Technical and Quality Group
16. The list of documents deposited with the Administrative Service which has granted approval is annexed to this communication and may be obtained on request.



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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

Rev 10/ 02



COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A
TYPE OF REVERSING LIGHT PURSUANT TO REGULATION NO 23.00

Approval No: 005144



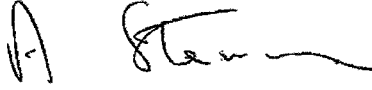
1. Trade name or mark of the device:
2. Manufacturer's name for the type of device: DF-TR006 (left side without reversing lamp)
3. Manufacturer's name and address:

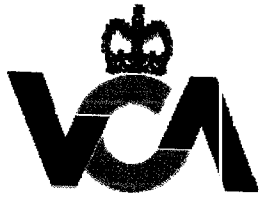
Taizhou Dafa Mold Manufacturing Company Limited
NO.292 Xinqiao Road
Xinqiao Town
Luqiao District
Taizhou City
Zhejiang
China
4. If applicable, name and address of the manufacturer's representative: Not applicable
5. Submitted for approval on: 16 October 2007
6. Technical service responsible for conducting the approval tests: Vehicle Certification Agency
7. Date of report issued by that service: 10 June 2008
8. Number of report issued by that service: EAJ191750

EAJ191750

An executive agency of the Department for Transport

9. Concise description:
Number and category of filament lamp(s): 1 × P21W, 12V, 21W

Geometrical conditions of installation and relating variations; if any: Not applicable
10. Position of the approval mark: On the lens
11. Comments:
This device shall be installed on a vehicle only as part of a pair of device: No
12. Reason(s) for extension (if applicable): Not applicable
13. Approval: GRANTED
14. Place: BRISTOL
15. Date: 28 JULY 2008
16. Signature:  A.W.STENNING
Head of Technical and Quality Group
17. The list of documents deposited with the Administrative Service which has granted approval is annexed to this communication and may be obtained on request.



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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

Rev 1/03



COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A TYPE
OF REAR FOG LIGHT PURSUANT TO REGULATION NO 38.00

Approval No: 005144

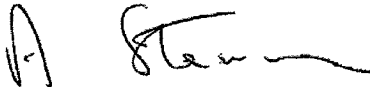


1. Trade name or mark of the device:
2. Manufacturer's name for the type of device: DF-TR006 (right side without rear fog lamp)
3. Manufacturer's name and address:
Taizhou Dafa Mold Manufacturing Company Limited
No.292 Xinqiao Road
Xinqiao Town
Luqiao District
Taizhou City
Zhejiang
China
4. If applicable, name and address of the manufacturer's representative: Not applicable
5. Submitted for approval on: 16 October 2007
6. Technical service responsible for conducting the approval tests: Vehicle Certification Agency
7. Date of report issued by that service: 10 June 2008
8. Number of report issued by that service: EAJ191750

EAJ191750

An executive agency of the Department for Transport

9. Concise description:
Number and category of filament lamp(s): 1 × P21W, 12V, 21W

(Geometrical conditions of installation and relating variations; if any: Not applicable)
10. Position of the approval mark: On the lens
11. Reason(s) for extension (if applicable): Not applicable
12. Approval GRANTED
13. Place: BRISTOL
14. Date: 28 JULY 2008
15. Signature:  A.W.STENNING
Head of Technical and Quality Group
16. The list of documents deposited with the Administrative Service which has granted approval is annexed to this communication and may be obtained on request.



Vehicle Certification Agency

Far East Office

英國車輛驗證局遠東辦事處 建維驗證



VCA REFERENCES

Test Report Number	EAJ191750
Number of Pages	9
Number of Annexes	3

TEST DETAILS

Subject	Tail Lamp, details listed as Category
Specific Requirements	ECE Reg. 3.02, 4.00, 6.01, 7.02, 23.00 and 38.00
Duration	2007/10/16~2008/4/17
Technical Service	Integrated Service of Quality Assessment for Vehicle Certification Agency
VCA Representative	ARTHUR C. H. CHANG
Manufacturer's Representative	Lin Qi
Reason for Test	Type of Approval

MANUFACTURER DETAILS

Manufacturer's Name	Taizhou Dafa Mold Manufacturing CO., LTD
Manufacturer's Address	NO.292 Xinqiao Road, Xinqiao Town, Luqiao District, Taizhou City, Zhejiang, China
Premise of Manufacturing	Same As Above
Model Type & description	DF-TR006
Category	IB for Retro-reflecting Device, L for Rear Registration Plate Lamp, 2a for Rear Direction Indicator, R1 for Rear Position Lamp S1 for Stop Lamp AR for Reversing Lamp and F1 for Rear Fog Lamp.

CONCLUSION

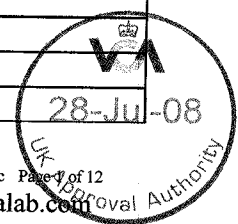
The submitted samples are tested in accordance with Specific Requirements and found in compliance with all aspects.

Signature:

Name: ARTHUR C H CHANG
 Position: COE of ISOQA
 Date: 10 June 2008

LIST OF ANNEXES

Annex	Total page	Subject	Reference
1	1	Information document	
2	3	Drawings	DF-TR006
		PHOTO	DF-TR006
3	15	Test Record	08-1003
4			





Vehicle Certification Agency

Far East Office

英國車輛驗證局遠東辦事處

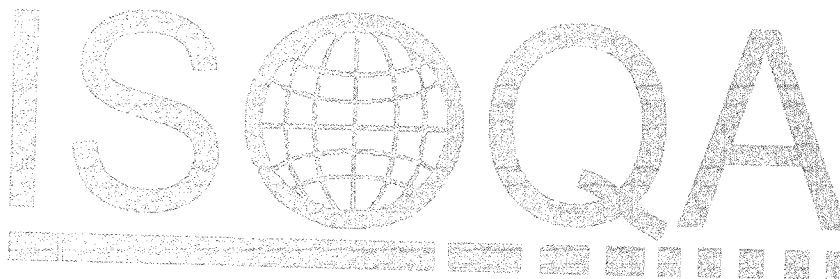


建維驗證

ECE REGULATION NO. 3

item	Parameter	RESULTS	YES/NO
6. GENERAL SPECIFICATIONS			
6.1.	Retroreflecting devices must be so constructed that they function satisfactorily and will continue to do so in normal use. In addition, they must not have any defect in design or manufacture that is detrimental to their efficient operation or to their maintenance in good condition.		YES
6.2.	The components of retroreflecting devices must not be capable of being easily dismantled.		YES
6.3.	Retroreflecting optical units may not be replaceable.		YES
6.4.	The outer surface of retroreflecting devices must be easy to clean. Hence it must not be a rough surface; any protuberances it may exhibit must not prevent easy cleaning.		YES
6.5.	For devices of Class IV A their means of fixation shall be such that they allow a stable and durable connection between the device and the vehicle.		N/A
6.6.	There shall be no access to the inner surface of the retro-reflectors when in normal use.		YES
7. SPECIAL SPECIFICATIONS (TESTS)			
7.1.	Retroreflecting devices must also satisfy the conditions as to dimensions and shape, and the colorimetric, photometric, physical and mechanical requirements set forth in annexes 5 to 11 and 13 to this Regulation.		N/A
	The test procedures are described in annex 4 (Class IA, IIIA)		N/A
	annex 14 (Class IV.A)		YES
	annex 16 (Class IB, IIIB).		YES
7.2.	Depending on the nature of the materials of which the retroreflecting devices and, in particular, their optical units, are made, the competent authorities may authorize laboratories to omit certain unnecessary tests, subject to the express reservation that such omission must be mentioned under "Remarks" on the form notifying approval.		N/A
			YES

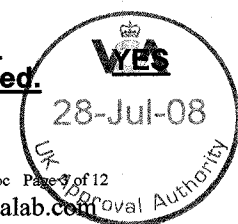
Please see Record No.08-1003 attached





ECE REGULATION NO. 4

item	Parameter	results	YES/NO
5.	GENERAL SPECIFICATIONS Each sample shall conform to the lighting specifications set forth in paragraph 9. <u>3/</u> <u>3/</u> These specifications are such as to ensure good visibility if the inclination of the registration plate does not exceed 30° on either side of the vertical.		<u>YES</u>
5.1.	The devices for the illumination of rear registration plates shall be so constructed that the whole surface of the plate will be visible within the angles given in annex 4.		
5.2.	All measurements shall be made with the standard filament lamp of the category prescribed by the manufacturer, the supply voltage being so regulated as to produce the reference luminous flux. All measurements on the devices with non-replaceable light sources shall be made at 6.75 V, 13.5 V or 28.0 V respectively.		<u>YES</u>
5.3.	In the case of light sources supplied by a special power supply, the above test voltages shall be applied to the input terminals of that power supply. The test laboratory may require from manufacturer the special power supply needed to supply the light sources.		<u>N/A</u>
5.4.	any rear registration plate illuminating device, except those equipped with filament lamp(s), the luminance values measured after one minute and after 30 minutes of operation shall comply with the minimum requirements. The luminance distribution after one minute of operation can be calculated by applying at each test point the ratio of luminance values measured in one point after one minute and after 30 minutes of operation.		<u>YES</u>
5.5.	Light source module		<u>N/A</u>
5.5.1.	The design of the light source module(s) shall be such that even in darkness the light source module(s) can be fitted in no other position, but the correct one.		<u>N/A</u>
5.5.2.	The light source module(s) shall be tamperproof		<u>N/A</u>
6.	COLOUR OF LIGHT The light of the lamp used in the illuminating device must be sufficiently colourless not to cause any appreciable change in the colour of the registration plate.	<u>C5W standard bulb and clear lens used</u>	<u>YES</u>
7.	INCIDENCE OF THE LIGHT The manufacturer of the illuminating device shall specify the position in which the device is to be fitted in relation to the space for the registration plate; the device must be so placed that the angle of incidence of the light on the surface of the plate does not exceed 82° at any point on the surface to be illuminated, this angle being measured from the extremity of the device's illuminating area which is furthest from the surface of the plate. If there is more than one illuminating device, the foregoing requirement shall apply only to that part of the plate intended to be illuminated by the device concerned. When the device has one outer edge of the illuminating surface that is parallel to the surface of the registration plate, the extremity of the illuminating surface of the device which is furthest from the surface of the plate is the middle point of the edge of the illuminating surface, which is parallel to the plate and is furthest from the surface of the plate The device must be so designed that no light is emitted directly towards the rear, with the exception of red light if the device is combined or grouped with a rear lamp.	<u>Please see Record No. 08-1003 attached.</u>	<u>YES</u>
8.	MEASURING PROCEDURE Luminance measurements shall be made on a diffuse colourless surface with known diffuse reflection factor. 4) The diffuse colourless surface shall have the dimensions of the registration plate or the dimension exceeding one measuring point. Its centre shall be placed in the centre of the positions of the measuring points. This diffuse colourless surface(s) shall be placed in the position normally occupied by the registration plate and 2 mm in front of its holder Luminance measurements shall be made perpendicularly to the surface of the diffuse colourless surface with the tolerance of 5° in each direction at the points shown in annex 3 to this Regulation, each point representing a circular area of 25 mm in diameter. The measured luminance shall be corrected for the diffuse reflection factor 1.0		<u>YES</u>
9.	PHOTOMETRIC CHARACTERISTICS At each of the points of measurement shown in annex 3, the luminance B shall be at least equal to 2.5 cd/m ² . The gradient of the luminance between the values B ₁ and B ₂ , measured at any two points 1 and 2 selected from among those mentioned above, shall not exceed 2 x B ₀ /cm, B ₀ being the minimum luminance measured at the various points, that is to say: $\frac{B_2 - B_1}{\text{distance 1-2 in cm}} \leq 2 \times B_0/\text{cm}$	<u>Please see Record No. 08-1003 attached.</u>	<u>YES</u>
		<u>Please see Record No. 08-1003 attached.</u>	





ECE REGULATION NO. 6

item	Parameter	RESULTS	YES/NO
5.	GENERAL SPECIFICATIONS		
5.1.	Each device supplied shall conform to the specifications set forth in paragraphs 6. and 8. below.		<u>YES</u>
5.2.	The devices must be so designed and constructed that under normal conditions of use and notwithstanding the vibrations to which they may be subjected in such use, their satisfactory operation remains assured and they retain the characteristics prescribed by this Regulation.		<u>YES</u>
5.3.	Light source module		
5.3.1.	The design of the light source module(s) shall be such that even in darkness the light source module(s) can be fitted in no position, but the correct one.		
5.3.2.	The light source module(s) shall be tamperproof		
5.4.	In case of failure of the variable intensity control of a direction indicator of category 2b emitting more than the maximum value of category 2a, requirements of steady luminous intensity of category 2a shall be fulfilled automatically		
6.	INTENSITY OF LIGHT EMITTED		
6.1.	The light emitted by each of the two devices supplied must be in the case of direction indicators of categories 1, 1a, 1b, 2a, 2b, 3 or 4 in the reference axes, in the case of direction indicators of categories 5 or 6 in direction A according to annex 1 of not less than the minimum intensity and of not more than the maximum intensity specified below	Please see Record No.08-1003 attached	<u>YES</u>

Direction indicator of category	Minimum intensity in cd	Maximum luminous intensity in cd when used as			S1	S2	
		Single lamp	Lamp (single) marked 'D' (see paragraph 4.2.2.3)	Total for the Assembly of two lamps (see paragraph 4.2.2.3)			
1	175	700	500	1000			N/A
1a	250	800	600	1200			N/A
1b	400	860	600	1200			N/A
2a(steady)	50	350	250	500	145.8	147.5	<u>YES</u>
2b (variable)	50	700	500	1000			N/A
3 To the front	175	700	500	1000			N/A
To the rear	50	200	140	280			N/A
4 To the front	175	700	500	1000			N/A
To the rear	0.6	200	140	280			N/A
5	0.6	200	140	280			N/A
6	50	200	140	280			N/A

The total value of maximum intensity for an assembly of two or more lamps is given by multiplying by 1.4 the value prescribed for a single lamp, except for category 2a. When an assembly of two or more lamps having the same function is deemed to be, for the purpose of installation on a vehicle, a "single lamp", this assembly shall comply with the minimum intensity required when one lamp has failed, and, all the lamps together shall not exceed the admissible maximum intensity (last column of the table).

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

(a) all light sources which are connected in series are considered to be one light source;

(b) the lamp shall comply with the minimum intensity required when any one light source has failed. However, for front or rear direction indicator lamps designed for only two light sources, 50 per cent of the minimum intensity in the axis of reference of the lamp shall be considered sufficient, provided that a note in the communication form states that the lamp is only for use on a vehicle fitted with an operating tell-tale which indicates when any one of these two light sources has failed.

(c) when all light sources are illuminated the maximum intensity specified for a single lamp may be exceeded provided that the single lamp is not marked "D" and the maximum intensity specified for an assembly of two or more lamps (last column of the table) is not exceeded.

6.2. Outside the reference axis, within the angular fields specified in the arrangement diagrams in annex 1 to this Regulation, the intensity of the light emitted by each of the two devices supplied must:

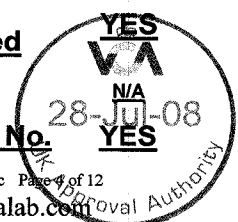
6.2.1. In each direction corresponding to the points in the relevant table of luminous-intensity distribution reproduced in annex 4 to this Regulation, be not less than the minimum specified in paragraph 6.1. above multiplied by the percentage specified in the said table for the direction in question;

6.2.1.1. In divergence from paragraphs 6.2. and 6.2.1., for categories 4 and 5 direction indicators, to the rear, a minimum value of 0.6 cd is required throughout the fields specified in annex 1;

6.2.2. In no direction within the area from which the indicator lamp is visible, exceed the maximum specified in paragraph 6.1. above;

Please see Record No.08-1003 attached

Please see Record No.





08-1003 attached

6.2.3. Moreover,

6.2.3.1. Throughout the fields defined in the diagrams in Annex 1, the intensity of the light emitted must be not less than 0.7 cd for devices of category 1b, not less than 0.3 cd for devices of categories 1, 1a, 2a, 2b, 3, 4 towards the front and for these of category 2b by day;

YES

N/A

Please see Record No.08-1003 attached

YES

it shall not be less than 0.07 cd for devices of category 2b by night; 6.2.3.2. For devices of categories 1 and 2b and, to the front, for devices of categories 3 and 4, the intensity of the light emitted outside the zone defined by the measuring points ±10° H and ±10° V (10°-field) must not exceed the following values:

N/A

Table with 4 columns: Direction indicator of category, Single lamp, Lamp (single) Marked 'D', Total for the assembly of two lamps. Row 1: 1,2b,3and 4, 400, 280, 560

N/A

N/A

Between the boundaries of the 10°-field (±10°H and ±10°V) and the 5°-field (±5°H and ±5°V), the maximum admissible values of the intensities are linearly increased up to the values as defined in paragraph 6.1

N/A

6.2.3.3. For devices of category 1a and 1b, the intensity of the light emitted outside the zone defined by the measuring points □ 15° H and □ 15° V (15°-field) shall not exceed the following values:

N/A

Table with 4 columns: Direction indicator of category, Single lamp, Lamp (single) Marked 'D', Total for the assembly of two lamps. Rows: 1a (250, 175, 350), 1b (400, 280, 560)

N/A

N/A

Between the boundaries of the 15°-field (±15° H and ±15° V) and 5°-field (±5°H and ±5°V), the maximum admissible values of the intensities are linearly increased up to the values as defined in paragraph 6.1.;

N/A

6.2.3.4. The provisions of paragraph 2.2. of annex 4 to this Regulation on local variations of intensity must be observed.

6.3. In general the intensities shall be measured with the light source(s) continuously aught.

YES

YES

However, depending on the construction of the device, for example, the use of light-emitting diodes (LED), or the need to take precautions to avoid overheating, it is allowed to measure the lamps in flashing mode.

N/A

This must be achieved by switching with a frequency of f=1.5±0.5Hz with the pulse width greater than 0.3s, measured at 95 per cent peak light intensity.

N/A

In the case of replaceable filament lamps, the filament lamps shall be operated at reference luminous flux during on time. In all other cases the voltage as required in paragraph 7.1.1. shall be switched with a rise time and fall time shorter than 0.01s; no overshoot is allowed

YES

In the case of measurements taken in flashing mode the reported luminous intensity shall be represented by the maximum intensity.

N/A

6.4. In the case of devices of category 2b the time that elapses between energising the light source(s) and the light output measured on the reference axis to reach 90 per cent of the value measured in accordance with paragraph 6.3. above shall be measured for the extreme levels of luminous intensity produced by the direction indicator. The time measured to obtain the lowest luminous intensity shall not exceed the time measured to obtain the highest luminous intensity

N/A

6.5. The variable intensity control shall not generate signals which cause luminous intensities

Please see Record No.08-1003 attached

YES

6.5.1 outside the range specified in paragraph 6.1. above and

6.5.2 exceeding the category 2a maximum specified in paragraph 6.1.: (a) for systems depending only on daytime and night time conditions: under night time conditions

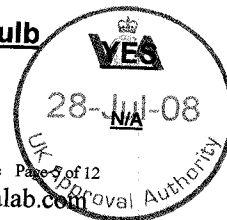
(b) for other systems: under reference conditions as demonstrated by the manufacturer Annex 4, referred to in paragraph 6.2.1. above, gives particulars of the measurement methods to be used

7. TEST PROCEDURE

7.1. All measurements, photometric and colorimetric, shall be made:

PY21W standard bulb used

7.1.1. In the case of a lamp with replaceable light source, if not supplied by an electronic light source control gear or a variable intensity control, with an uncoloured or coloured standard filament lamp of the category prescribed for the device, supplied with the voltage necessary





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to produce the reference luminous flux required for that category of filament lamp.

N/A

7.1.2 In the case of a lamp equipped with non-replaceable light sources (filament lamps and other), at 6.75 V, 13.5 V or 28.0 V respectively.

7.1.3 In the case of a system that uses an electronic light source control gear or a variable intensity control, being part of the lamp or applying at the input terminals of the lamp the voltage declared by the manufacturer or, if not indicated, 6.75 V, 13.5 V or 28.0 V respectively.

7.1.4 In the case of a system that uses an electronic light source control gear or a variable intensity control, not being part of the lamp with the voltage declared by the manufacturer applied to the input terminals of the lamp.

7.2. However in the case of a direction indicator of category 2b operated by a variable intensity control to obtain variable luminous intensity, photometric measurements shall be performed according to the applicant's description.

N/A

7.3. The test laboratory shall require from the manufacturer the light source control gear or a variable intensity control needed to supply the light source and the applicable functions.

YES

7.4. The voltage to be applied to the lamp shall be noted in the communication form in Annex 2 of this Regulation.

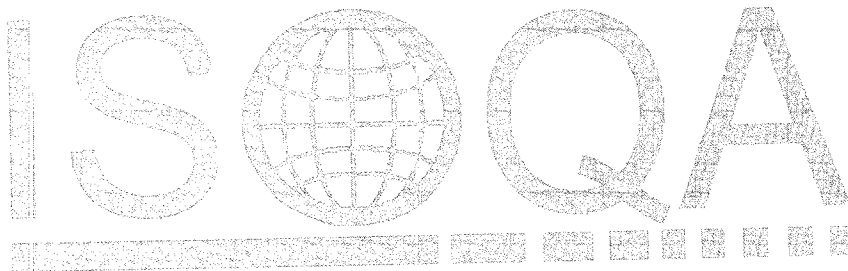
7.5. The limits of the apparent surface in the direction of the reference axis of a light-signalling device shall be determined.

8. COLOUR OF LIGHT EMITTED

The colour of the light emitted inside the field of the light distribution grid defined in paragraph 2 of annex 4 shall be within the limits of the coordinates prescribed in annex 5 to this Regulation. Outside this field, no sharp variation of colour shall be observed. These requirements shall also apply within the range of variable luminous intensity produced by direction indicators of category 2b.

Amber light emitted.
Please see Record
No.03-0199 attached

YES





ECE REGULATION NO.7

Item	Parameter	RESULTS	YES/NO
5.	GENERAL SPECIFICATIONS		
5.1	Each device supplied shall conform to the specification set forth in paragraphs 6 and 8 below.		YES
5.2	The devices must be so designed and constructed that in normal conditions of use, and notwithstanding the vibrations to which they may be subjected in such use, their satisfactory operation remains assured and they retain the characteristics prescribed by this Regulation.		YES
5.3	Lamp having been approved as front or rear position (side) lamps, are deemed being also approved end-outline marker lamps.		YES
5.4	Front and rear position (side) lamps which are grouped or combined or reciprocally incorporated may also be used as end-outline marker lamps.		YES
5.5	Position (side) lamps, which are reciprocally incorporated with another function, using a common light source, and designed to operate permanently with an additional system to regulated the intensity of the light emitted, are permitted.		N/A
5.5.1	However, in the case of rear (side) position lamp reciprocally incorporated with a stop lamp, the device shall either: (i) be a part of a multiple light source arrangement, or (ii) be intended for use in a vehicle equipped with a failure monitoring system for that function. In either case, a note shall be made within the communication document.		N/A
5.6	Light source module		N/A
5.6.1	The design of the light source module(s) shall be such that even in darkness the light source module(s) can be fitted in no other position, but the correct one.		N/A
5.6.2	The light source module(s) shall be tamperproof		N/A
5.7	In case of failure of the variable intensity control of: (a) a rear position lamp category R2 emitting more than the maximum value of category R1; (b) a stop lamp category S2 emitting more than the maximum value of category S1; (c) a stop lamp category S4 emitting more than the maximum value of category S3 requirements of steady luminous intensity of the respective category shall be fulfilled automatically		
5.7	If the front position lamp incorporates one or more infrared radiation generators, the photometric and colour requirements for this front position lamp shall be met with and without the operation of the infrared radiation generator(s).		
6.	INTENSITY OF LIGHT EMITTED		
6.1.	If 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:		

3/	Minimum Intensities Intensity in cd	Maximum luminous intensity in cd when used as			S1	S2	
		Single lamp	Lamp (single) marked "D" paragraph (4.2.2.6)	Total for the assembly of two or more lamps 4/			
6.1.1 Front position (side) lamps, Front end-outline marker lamp	4.	60 4/	42 4/	84 4/			N/A
6.1.2 Front position (side) lamps Incorporated in headlamp	4.	100 4/	-	-			N/A
6.1.3 Rear position lamps, Rear end-outline marker lamp							N/A
6.1.3.1 R1 (steady)	4	12	8.5	17	4.55	4.83	YES
6.1.3.2 R2 (variable)	4	30	21	42			
6.1.4 Stop-lamps							
6.1.4.1 S1 (steady)	60	185	130	260	87.1	97.4	YES
6.1.4.2 S2 (variable)	60	521	365	730			
6.1.4.3 S3 (steady)	25	80	55	110			
6.1.4.4 S4 (variable)	25	114	80	160			N/A

Note to table

3/ The installation of the devices referred to above in power-driven vehicles and their trailers is provided for in the Regulations concerning the installation of lighting and light-signalling devices (Regulations Nos. 48 and 53).

4/ The total value of maximum intensity for an assembly of two or more lamps is given by multiplying by 1.4 the value prescribed for a single lamp.

When an assembly of two or more lamps having the same function is deemed to be, for the purpose of installation on a vehicle, a "single lamp" (following the definition of Regulation No. 48 and its series of amendments in the force at the time of application for type approval), this assembly shall comply with the minimum intensity required when one lamp has failed, and all the lamps together shall not exceed the admissible maximum intensity (last column of the table)

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

YES

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

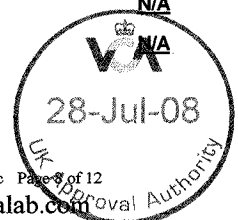
N/A

N/A





(i) all light sources which are connected in series are considered to be one light source;			N/A
(ii) the lamp shall comply with the minimum intensity required shown any one light source has failed. However, for lamps designed for only two light sources, 50 per cent of the minimum intensity in the axis of reference of the lamp shall be considered sufficient, provided that a note in the communication form states that the lamp is only for use on a vehicle fitted with an operating tell-tale which indicates when any one of these two light sources has failed.			N/A
(iii) when all light sources are illuminated the maximum intensity specified for a single lamp may be exceeded provided that the single lamp is not marked "D" and the maximum intensity specified for an assembly of two or more lamps (last column of the table) is not exceeded.			N/A
6.2. Outside the reference axis and within the angular fields defined in the diagrams in annex 1 to this Regulation, the intensity of the light emitted by each of the two devices supplied must:			YES
6.2.1. In each direction corresponding to the points in the light distribution table reproduced in annex 4 to this Regulation, be not less than the product of the minimum specified in paragraph 6.1. above by the percentage specified in the said table for the direction in question;		Please see Record No. 08-1003 attached.	YES
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;		Same as above.	YES
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;			N/A
6.2.4. Moreover,			
6.2.4.1. Throughout the fields defined in the diagrams in Annex 1, the luminous 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,	S1 6.08 5.0	S2 0.31 5.0	YES YES
not less than 0.3 cd for stop-lamps with one level of intensity, and			
6.2.4.2. If a rear position (side) lamp is reciprocally incorporated with a stop-lamp producing either steady or variable luminous intensity, the ratio between the luminous intensities actually measured of the two lamps when turned on simultaneously at 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 ± 5° V and the straight vertical lines passing through ± 10° H of the light distribution table.			N/A
If the rear position (side) lamp or the stop lamp or both contain more than one light source and are considered as a single lamp as defined in note 4/ of the table in paragraph 6.1. above, the values to be considered are those obtained with all sources in operation			N/A
6.2.4.3. The provisions of paragraph 2.2. of annex 4 to this Regulation on local variations of intensity must be observed.			YES
6.3. The intensities shall be measured with the filament lamp(s) continuously alight and, in the case of devices emitting selective yellow or red light, in coloured light.		Red light emitted.	YES
6.4. In the case of devices of categories R2, S2 and S4 the time that elapses between energising the light source(s) and the light output measured on the reference axis to reach 90 per cent of the value measured in accordance with paragraph 6.3. above shall be measured for the extreme levels of luminous intensity produced by the device. The time measured to obtain the lowest luminous intensity shall not exceed the time measured to obtain the highest luminous intensity.			N/A
6.5. The variable intensity control shall not generate signals which cause luminous intensities:			YES
6.5.1 outside the range specified in paragraph 6.1. above and			
6.5.2 exceeding the respective steady luminous intensity maximum specified in paragraph 6.1. for the specific device:			
(a) for systems depending only on daytime and night time conditions: under night time conditions			
(b) for other systems: under standard conditions			
6.6. Annex 4, 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, photometric and colorimetric, shall be made		P21/5W standard bulb used	YES
7.1.1. In case of a lamp with replaceable light source, if not supplied by an electronic light source control gear or a variable intensity control, with an uncolored or colored standard filament lamp of the category prescribed for the device, supplied with the voltage necessary to produce the reference luminous flux required for that category of filament lamp,			N/A
7.1.2. In the case of a lamp equipped with non-replaceable light sources (filament lamps and other), at 6.75 V, 13.5 V or 28.0 V respectively.			N/A
7.1.3. In the case of a system that uses an electronic light source control gear or a variable intensity control, being part of the lamp or applying at the input terminals of the lamp the voltage declared by the manufacturer or, if not indicated, 6.75 V, 13.5 V or 28.0 V respectively.			N/A
7.1.4. In the case of a system that uses an electronic light source control gear or a variable intensity control, not being part of the lamp the voltage declared by the manufacturer shall be applied to the input terminals of the lamp.			N/A





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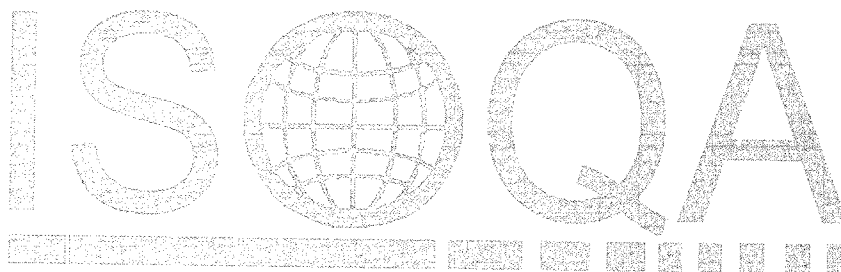
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- 7.2. However, in the case of light sources operated by a variable intensity control to obtain variable luminous intensity, photometric measurements shall be performed according to the applicant's description. N/A
- 7.3. The test laboratory shall require from the manufacturer the light source control gear or a variable intensity control needed to supply the light source and the applicable functions. N/A
- 7.4. The voltage to be applied to the lamp shall be noted in the communication form in Annex 2 of this Regulation. YES
- 7.5. The limits of the apparent surface in the direction of the reference axis of a light-signalling device shall be determined. YES
- 7.6. In the case of a category S3 or S4 stop lamp, which is intended to be mounted inside the vehicle a sample plate or sample plates (in case of different possibilities) as supplied (see paragraph 2.2.5.) shall be positioned in front of the lamp to be tested, in the geometrical position(s) as described in the application drawing(s) (see paragraph 2.2.1.). N/A
- 8. **COLOUR OF LIGHT EMITTED**
 The colour of light emitted inside the field of the light distribution grid defined in paragraph 2 of annex 4 shall be within the limits of the co-ordinates prescribed in annex 5 to this Regulation. Outside the field, no sharp variation of color shall be observed. YES
 These requirements shall also apply within the range of variable luminous intensity produced by:
 (a) rear position lamps of category R2;
 (b) stop lamps of categories S2 and S4
Please see Record No. 08-1003 attached.





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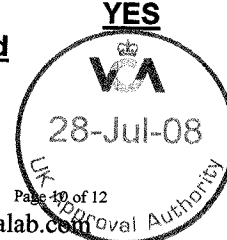
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ECE REGULATION NO. 23

item	Parameter	RESULTS	YES/NO
5.	GENERAL SPECIFICATIONS		
5.1.	Each sample shall conform to the specifications set forth in the paragraphs below.		YES
5.2.	Reversing lamps shall be so designed and constructed that in normal use, despite the vibration to which they may then be subjected, they continue to function satisfactorily and retain the characteristics prescribed by this Regulation.		YES
5.3.	Light source module		
5.3.1.	The design of the light source module(s) shall be such that even in darkness the light source module(s) can be fitted in no other position, but the correct one.		
5.3.2.	The light source module(s) shall be tamperproof		
6.	INTENSITY OF LIGHT EMITTED		
6.1.	The intensity of the light emitted by each of the two samples shall be not less than the minima and not greater than the maxima specified below and shall be measured in relation to the axis of reference in the directions shown below (expressed in degrees of angle with the axis of reference).	S.1 Please see Record No.08-1003 attached	S.2 YES
6.2.	The intensity along the axis of reference shall be not less than 80 candelas.	-	220.5 YES
6.3.	The intensity of the light emitted in all directions in which the light can be observed shall not exceed: 300 candelas in directions in or above the horizontal plane; and, in directions below the horizontal plane: 600 candelas between h-h and 5° D and 8,000 candelas below 5° D.	-	225.1 YES
6.4.	In every other direction of measurement shown in annex 3 to this Regulation, the luminous intensity shall be not less than the minima specified in that annex. However, in the case where the reversing lamp is intended to be installed on a vehicle exclusively in a pair of devices, the photometric intensity may be verified only up to an angle of 30° inwards where a photometric value of at least 25 cd shall be satisfied. This condition shall be clearly explained in the application for approval and relating documents (see paragraph 2. of this Regulation). Moreover, in the case where the type approval will be granted applying the condition above, a statement in paragraph 11. "Comments" of the communication form (see annex 1 to this Regulation), will inform that the device shall only be installed in a pair.	-	225.9 YES
6.5.	In the case of a single 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 intensities shall not be exceeded		YES
7.	TEST PROCEDURE		
7.1.	All measurements shall be carried out with uncoloured standard filament lamps of the types prescribed for the device, adjusted to produce the normal luminous flux prescribed for those types of filament lamps.	P21W standard bulb used	YES
7.1.1.	All measurements on lamps equipped with non-replaceable light sources (filament lamps and other) shall be made at 6.75 V, 13.5 V or 28.0 V respectively. In the case of light sources supplied by a special power supply, the above test voltages shall be applied to the input terminals of that power supply. The test laboratory may require from the manufacturer the special power supply needed to supply the light sources.		N/A
7.2.	The limits of the apparent surface in the direction of the reference axis of a light-signalling device shall be determined.		N/A
8.	COLOUR OF LIGHT EMITTED		
	The colour of the light emitted inside the field of the light distribution grid defined at paragraph 2 of annex 3 shall be white and, in case of doubt, may be checked on the basis of the definition of the colour of white light given in annex 4 to this Regulation. Outside this field no sharp variation of colour shall be observed.	White light emitted. Please see Record No.08-1003 attached	YES





ECE REGULATION NO. 38

item	Parameter	RESULTS	YES/NO
5.	GENERAL SPECIFICATIONS		
5.1	Each sample shall conform to the specifications set forth in the paragraphs below		<u>YES</u>
5.2	Rear fog lamps shall be so designed and constructed that in normal use, despite the vibration to which they may then be subjected, they continue to function satisfactorily and retain the characteristics prescribed by this Regulation.		<u>YES</u>
5.3	Light source module		
5.3.1	The design of the light source module(s) shall be such that even in darkness the light source module(s) can be fitted in no other position, but the correct one.		
5.3.2	The light source module(s) shall be tamperproof.		
5.4	In case of failure of the variable intensity control regulating the variable luminous intensity of a rear fog lamp of category F2 emitting more than the maximum value of category F1, requirements of steady luminous intensity of category F1 shall be fulfilled automatically		
6.	INTENSITY OF LIGHT EMITTED		
6.1	The intensity of the light emitted by each of the two samples shall be not less than the minima and not greater than the maxima specified below and shall be measured in relation to the axis of references in the directions shown below (expressed in degrees of angle with the axis of reference)	<u>Please see Record No.08-1003 attached</u>	<u>YES</u>
6.2	The intensity along the H and V axes, between 10° to the left and 10° to the right and between 5° up and 5° down, shall not be less than 150 cd.	<u>Same as above.</u>	<u>YES</u>
6.3	The intensity of the light emitted in all directions in which the light(s) can be observed shall not exceed 300 cd for a device with steady luminous intensity (F1) and 840 cd for a device with variable luminous intensity (F2)	<u>Same as above.</u>	<u>YES</u>
6.4	In the case of a single 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 intensities shall not be exceeded.		<u>N/A</u>
6.5	The variable intensity control shall not generate signals which cause luminous intensities:	28 cm ²	<u>YES</u>
6.5.1	outside the range specified in Paragraphs 6.2. and 6.3. above and		
6.5.2	exceeding the category F1 maximum specified in paragraph 6.3:		
	(a) for systems depending only on daytime and night time conditions: under night time conditions		
	(b) for other systems: under standard conditions		
6.6	The apparent surface in the direction of the reference axis shall not exceed 140 cm ² .		<u>YES</u>
6.7	Annex 3 gives particulars of the measurement method to be used in case of doubt		
7.	TEST PROCEDURE:	<u>P21W standard bulb used</u>	<u>YES</u>
7.1.	All measurements, photometric and colorimetric, shall be made:		<u>YES</u>
			<u>N/A</u>
7.1.1	In the case of a lamp with replaceable light source, if not supplied by an electronic light source control gear or a variable intensity control, with an uncolored or colored standard filament lamp of the category prescribed for the device, supplied with the voltage necessary to produce the reference luminous flux required for that category of filament lamp,		
7.1.2	In the case of a lamp equipped with non-replaceable light sources (filament lamps and other), at 6.75 V, 13.5 V or 28.0 V respectively.		
7.1.3	In the case of a system that uses an electronic light source control gear or a variable intensity control, being part of the lamp 4/ applying at the input terminals of the lamp the voltage declared by the manufacturer or, if not indicated, 6.75 V, 13.5 V or 28.0 V respectively.		
7.1.4	In the case of a system that uses an electronic light source control gear or a variable intensity control, not being part of the lamp the voltage declared by the manufacturer shall be applied to the input terminals of the lamp.		
7.2	The test laboratory shall require from the manufacturer the light source control gear or a variable intensity control needed to supply the light source and the applicable functions.		
7.3	However in the case of a rear fog lamp of category F2 operated by a variable intensity control to obtain variable luminous intensity, photometric measurements shall be performed according to the applicant's description.		
7.4	The voltage to be applied to the lamp shall be noted in the communication for in Annex 1 of this Regulation.		





7.5 For any lamp except those equipped with filament lamps, the luminous intensities, measured after one minute and after 30 minutes of operation, shall comply with the minimum and maximum requirements. The luminous intensity (distribution after one minute of operation can be calculated from the luminous intensity distribution after 30 minutes of operation by applying at each test point the ratio of luminous intensities measured at HV after one minute and after 30 minutes of operation.

7.6 The limits of the apparent surface in the direction of the reference axis of a light-signalling device shall be determined

8. HEAT RESISTANCE TEST

8.1. The lamp must be subjected to a one-hour test of continuous operation following a warm-up period of 20 minutes. The ambient temperature shall be 23°C ± 5°C. The lamp used shall be a lamp of the category prescribed for the lamp, and shall be supplied with a current at a voltage such that it gives the specified average power at the corresponding test voltage.

8.2. Where only the maximum power is specified, the test shall be carried out by regulating the voltage to obtain a power equal to 90 per cent of the specified power. The specified average or maximum power referred to above shall in all cases be chosen from the voltage range of 6, 12 or 24 V at which it reaches the highest value.

8.3. In the case of light sources operated by an electronic control gear to obtain variable luminous intensity, the test shall be carried out under the conditions given at minimum 90 per cent of the higher luminous intensity

8.4. After the lamp has been stabilized at the ambient temperature, no distortion, deformation, cracking or colour modification shall be perceptible.

9. COLOUR OF LIGHT EMITTED

The colour of the light emitted inside the field of the light distribution grid defined at paragraph 3. of Annex 3, which shall be measured under conditions described in paragraph 7. above, must lie within the limits of the following trichromatic coordinates:

limit towards yellow: y 0.335
limit towards purple: y 0.980 - x

Outside this field no sharp variation of colour shall be observed. These requirements shall also apply within the range of variable luminous intensity produced by rear fog lamps of category F2.

However, for lamps equipped with non-replaceable light sources (filament lamps and other), the colorimetric characteristics should be verified with the light sources present in the lamp, in accordance with relevant sub-paragraph of paragraph 7.1. of this Regulation

YES

YES

No distortion, deformation, cracking or colour modification is found.

YES

Red light emitted.

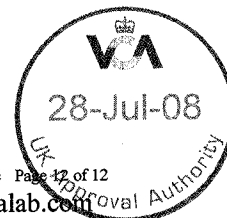
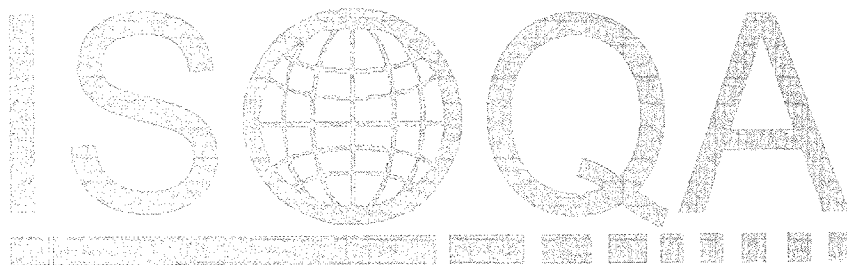
YES

Please see Record No.08-1003 attached

YES

No sharp variation of color is observed

YES



Taizhou Dafa Mold Manufacturing CO.,LTD

台州大發模具制造有限公司

Information Document

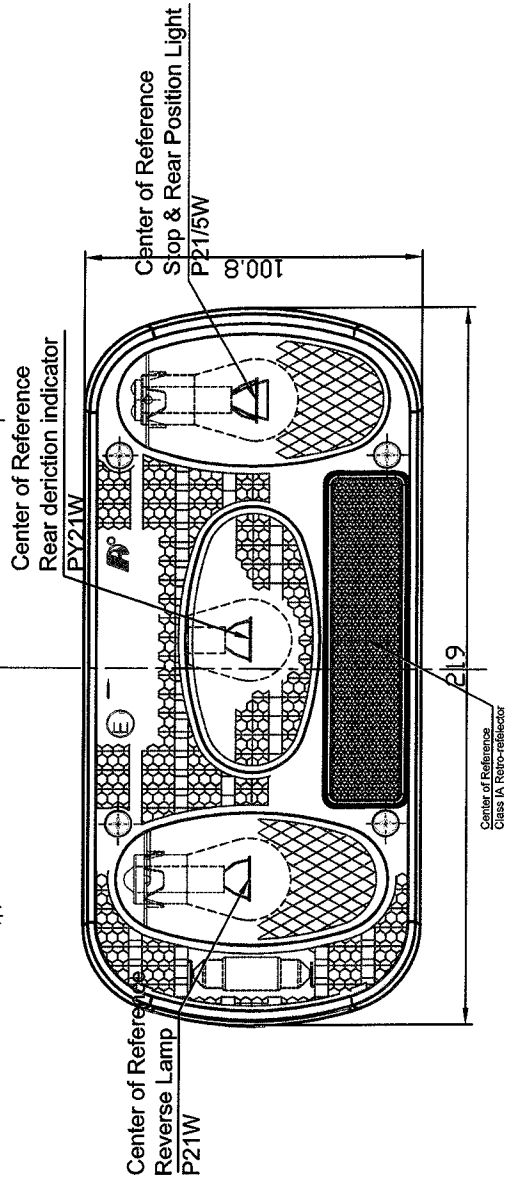
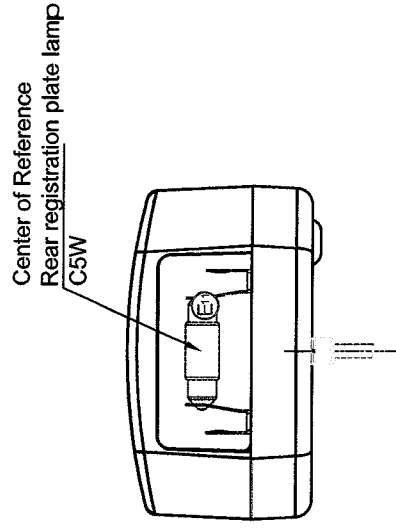
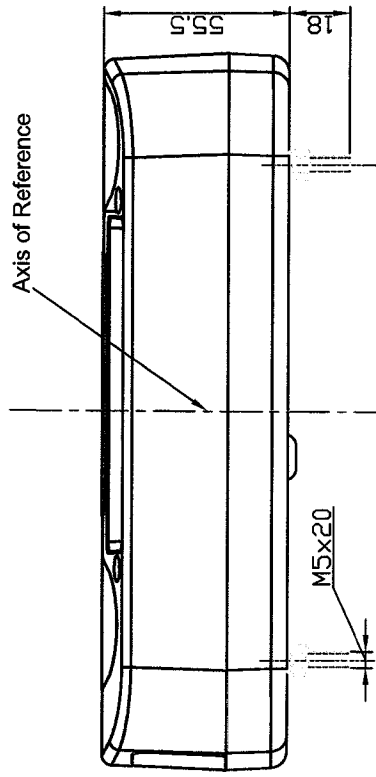
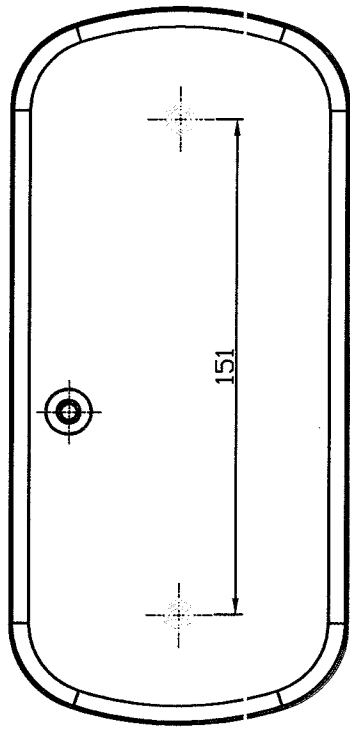
for Initial application to ECE Homologation
of Model Number DF-TR006

items	Details	Initial	Extension	00	Remark
1.	VCA				
1.1	Job Number	EAJ191750			
1.2	Approval Number	5144			
2.	Manufacturer				
2.1	Name	Taizhou Dafa Mold Manufacturing CO.,LTD			
2.2	Address	NO.292 Xinqiao Road, Xinqiao Town, Luqiao District, Taizhou City, Zhejiang, China			
2.3	Trade name or mark	DAFA			
3.	Product	Tail Lamp			
3.1	Model Number	DF-TR006			
3.2	Intended functions	Charteristic			
3.2.1	Retroreflecting device (Reg.3)	Category	IB		
		Bulb	Not Application		
		Color of light	Red		
		Color of lens	Red		
3.2.2	Rear Registration Plate Lamp (Reg.4)	Category	L		
		Bulb	C5W 12V 5W		
		Color of light	White		
		Color of lens	Clear		
	Incidence angle	tall plate 73° & Wide plate 73° & Agricultural or forestry tractors 73°			
3.2.3	Rear Direction Indicator (Reg. 6)	Category	2a		
		Bulb	PY21W 12V 21W		
		Color of light	Amber		
		Color of lens	Amber		
3.2.4	Rear Position Lamp (Reg. 7)	Category	R1		
		Bulb	P21/5W 12V 5W		
		Color of light	Red		
		Color of lens	Red		
3.2.5	Stop Lamp (Reg. 7)	Category	S1		
		Bulb	P21/5W 12V 21W		
		Color of light	Red		
		Color of lens	Red		
3.2.6	Reversing Lamp (Reg. 23)	Category	AR		
		Bulb	P21W 12V 21W		
		Color of light	White		
		Color of lens	Clear(filter and out lens)		
3.2.7	Rear Fog Lamp (Reg. 38)	Category	F		
		Bulb	P21W 12V 21W		
		Color of light	Red		
		Color of lens	Red		
4.	Drawings	DF-TR001			



技术要求

- 1. 产品表面干净, 无尘、无油污、无划伤;
- 2. 各部件安装到位, 装配后做点亮测试;

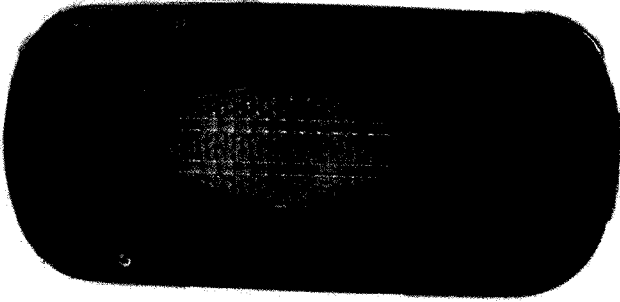


		ZDETRO08 右灯总成	
设计	审核	数量	1.1
制图	批准	日期	2008.10.16
区	标准	共 1 页	第 1 页
名称	日期		
材料			
工艺			

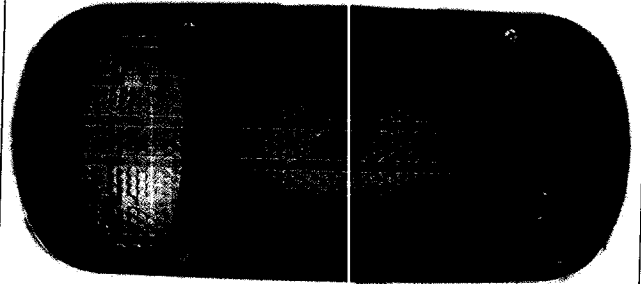
Taizhou Dafa Mold Manufacturing CO., LTD

台州大發模具制造有限公司

DF-TR006 LH Front View



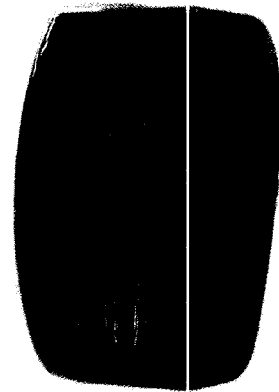
DF-TR006 RH Front View



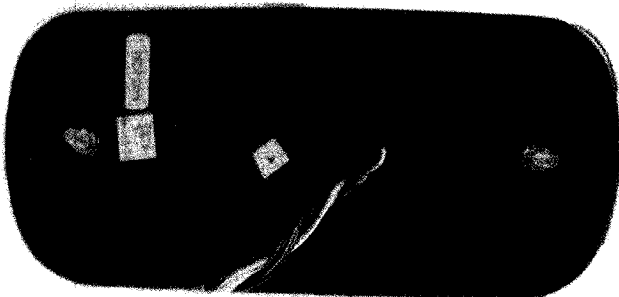
DF-TR006 LH Side View



DF-TR006 RH Side View



DF-TR006 LH Rear View



DF-TR006 RH Rear View



test procedure & record

Record No.	08-1003	Reference	EAJ191750	3/4/6/7/23/38	5144
Requirement	ECE R3 Clause 7.1 Annex 4	Function	Retroreflecting device (Reg.3)		
Subject	DF-TR006	Date	17 ~ 22/4/2008		

number of annex	number of para	TEST	samples										comments		
			a	b	c	d	e	f	g	h	i	j			
6		General specification: visual inspection	X	X	X	X	X	X	X	X	X	X	X	X	No defect found, may be operated in good condition
5		Shapes and dimension: visual inspection	X	X	X	X	X	X	X	X	X	X	X	X	OK
10		Heat 48 h at 65°C ± 2°C	X	X	X	X	X	X	X	X	X	X	X	X	completed
		visual inspection for distortion	X	X	X	X	X	X	X	X	X	X	X	X	No cracking or distortion found
6		Colorimetry: visual inspection	X	X	X	X	X	X	X	X	X	X	X	X	Red light emitted
7		Trichromatic coordinates in case of doubt													No doubt, N/A
7		Photometry: limited to 20° and V=H=0°	328	374	315	370	392	315	321	384	388	358			completed
7		Complete photometry													see test record R3-C7.1-A7
8	1.2.1.2.4	Moisture: 12 hr													
8	1.2.1.2.5	1 hr drain period													
4	3.1.	Colorimetry: visual inspection													No water presence of water observed.
4	3.1.	Trichromatic coordinates in case of doubt													Red light emitted
4	3.2.	Photometry: limited to 20° and V=H=0°													No doubt, N/A
8	1.2.2.2	Dust: 5hr													OK
8		blower at intervals of 15min. for a period of 2 to 5 s													
4	3.1	Colorimetry: visual inspection													Red light emitted
4	3.2	Photometry: limited to 20° and V=H=0°													No doubt, N/A
8	3	Motor fuels: 5 min.													OK
8	4	visual inspection													No any apparent surface change observed
8	4	Oil: 5 min.													change observed
8	4	visual inspection													No any apparent surface change observed
4	3.1.	Colorimetry: visual inspection													Red light emitted
4	3.2.	Trichromatic coordinates in case of doubt													No doubt, N/A
8	2	Corrosion: 24 hours													OK
		2 hours' interval	X	X	X	X	X	X	X	X	X	X	X	X	No signs of excessive corrosion liable to impair the efficiency of the device observed.
		24 hours	X	X	X	X	X	X	X	X	X	X	X	X	
		visual inspection	X	X	X	X	X	X	X	X	X	X	X	X	
8	5	Rear face: 1 min.													
4	3.1.	Colorimetry: visual inspection													Red light emitted
4	3.2.	Trichromatic coordinates in case of doubt													No doubt, N/A
4	3.2.	Photometry: limited to 20° and V=H=0°													No doubt, N/A

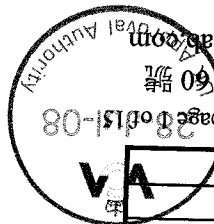
EAJ191750

5144_R3-4-6-7-23-38 DF-TR006_Test Record

R3-C7.1-A4 page 38 of 151-08

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Photometric test record for MAX and MIN samples			
Record No.	08-1003	Reference	EAI191750 3/4/6/7/23/38 5144
Requirement	ECE R3 Clause 7 Annex 4	Function	Retroreflecting device (Reg.3)
Subject	DF-TR006	Date	17 ~ 22/4/2008

Test point	requirement minimum	measurement(max)	sample min	Result
20' V/H	300	406.0	307.0	T T
20' 10U/V	200	327.0	235.0	T T
20' 10D/V	200	363.0	303.0	T T
20' 5U/20L	100	217.0	125.1	T T
20' 5U/20R	100	125.8	142.7	T T
20' 5D/20L	100	230.0	124.9	T T
20' 5D/20R	100	133.2	136.8	T T
1'30' V/H	5	18.7	28.2	T T
1'30' 10U/V	2.8	13.3	14.0	T T
1'30' 10D/V	2.8	16.5	40.8	T T
1'30' 5U/20L	2.5	7.9	7.0	T T
1'30' 5U/20R	2.5	5.7	8.6	T T
1'30' 5D/20L	2.5	8.7	8.0	T T
1'30' 5D/20R	2.5	6.0	9.7	T T

Tested by Arthur C. H. Chang Signature *Arthur C. H. Chang*

Approved by Arthur C. H. Chang Signature *Arthur C. H. Chang*

EAI191750

5144_R3-4-6-7-23-38 DF-TR006_Test Record R3-C7.1-A4-A7 page 3 of 13-08

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Photometric Characteristics (tall plate)

Record No.	08- 1003	Reference	EAJ191750	3/4/6/7/23/38	5144
Requirement	ECE R4 Clause7 Annex 6	Function	Rear Registration Plate Lamp (Reg.4)		
Subject	DF-TR006	Date	27/3/2008		

Tall Plate

reading of sample for 1 min			
1.19	1.40	1.24	1.26
2.76	2.72	2.59	2.41
1.82	1.55	1.40	1.54
luminance B in cd/m2			
<u>2.96</u>	<u>3.48</u>	<u>3.08</u>	<u>3.13</u>
<u>6.86</u>	<u>6.76</u>	<u>6.44</u>	<u>5.99</u>
<u>4.53</u>	<u>3.85</u>	<u>3.48</u>	<u>3.83</u>
$P4 = B_0 \cdot \frac{(B2-B1)}{\text{distance}1-2 \text{ in cm}} \leq 2 \times B_0/\text{cm} = 5.92$			

ALL POINTS SHALL $\geq 2.5 \text{ cd/m}^2$

Tested by David Lin

Signature

David Lin

Approved by Arthur C. H. Chang

Signature

Arthur Chang





Photometric Characteristics (forestry plate)			
Record No.	08- 1003	Reference	EAJ191750 3/4/6/7/23/38 5144
Requirement	ECE R4 Clause 7 Annex 6	Function	Rear Registration Plate Lamp (Reg.4)
Subject	DF-TR006	Date	27/3/2008

Forestry Plate

reading of sample for 1 min			
2.51	2.08	2.39	2.70
2.99	2.35	2.55	2.99
2.50	2.18	2.13	2.15
luminance B in cd/m2			
<u>6.24</u>	<u>5.17</u>	<u>5.94</u>	<u>6.71</u>
<u>7.44</u>	<u>5.84</u>	<u>6.34</u>	<u>7.44</u>
<u>6.22</u>	<u>5.42</u>	<u>5.30</u>	<u>5.35</u>
$P4 = B_0, \frac{(B2-B1)}{\text{distance}1-2 \text{ in cm}} \leq 2 \times B_0/\text{cm}=10.34$			

Tested by David Lin

Signature David Lin

Approved by Arthur C. H. Chang

Signature Arthur Chang





Photometric Characteristics (wide plate)					
Record No.	08- 1003	Reference	EAJ191750	3/4/6/7/23/38	5144
Method	ECE R4 Clause7 Annex 6	Function	Rear Registration Plate Lamp (Reg.4)		
Subject	DF-TR006	Date	27/3/2008		

Wide Plate

reading of sample for 1 min					
1.56	2.32	1.83	1.68	2.05	1.63
1.56	2.25	1.76	1.70	2.03	1.53
luminance B in cd/m ²					
<u>3.9</u>	<u>5.8</u>	<u>4.6</u>	<u>4.2</u>	<u>5.1</u>	<u>4.1</u>
<u>3.9</u>	<u>5.6</u>	<u>4.4</u>	<u>4.2</u>	<u>5.0</u>	<u>3.8</u>
P7 = Bo, $\frac{(B2-B1)}{\text{distance}1-2 \text{ in cm}} \leq 2 \times \text{Bo/cm}=7.6$					

ALL POINTS SHALL ≥ 2.5 cd/m²

Tested by David Lin

Signature

David Lin

Approved by Arthur C. H. Chang

Signature

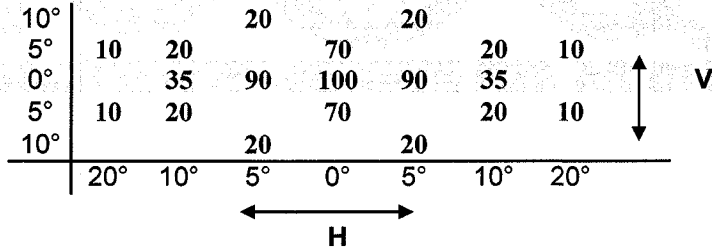
Arthur C. H. Chang





photometric measurements test record						
Record No.	08- 1003	Reference	EAJ191750	3/4/6/7/23/38	5144	
Requirement	ECE R6 Clause 6.1 Annex4	Function	Rear Direction Indicator (Reg. 6)			
Subject	DF-TR006	Date	16/10/2007			

Table of standard light distribution



DF-TR006

Test point	minimum	S. 1	S. 2	Result	maximum
10U 5L	10	137.6	141.1	T T	350
10U 5R	10	105.7	109.1	T T	350
5U 20L	5	68.5	72.1	T T	350
5U 10L	10	138.1	141.7	T T	350
5U V	35	155.9	158.8	T T	350
5U 10R	10	87.8	91.3	T T	350
5U 20R	5	38.5	41.3	T T	350
H 10L	18	133.2	136.1	T T	350
H 5L	45	149.5	151.5	T T	350
H V	50	145.8	147.5	T T	350
H 5R	45	116.3	118.9	T T	350
H 10R	18	79.6	82.9	T T	350
5D 20L	5	58.9	64.4	T T	350
5D 10L	10	108.3	112.1	T T	350
5D V	35	116.9	119.3	T T	350
5D 10R	10	65.8	71.2	T T	350
5D 20R	5	46.4	41.5	T T	350
10D 5L	10	97.5	102.8	T T	350
10D 5R	10	81.4	85.8	T T	350
minum	0.30	1.1	1.1	T T	350
Max		165.9	161.0	T T	350

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Approved by Arthur C. H. Chang Signature Arthur Chang





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colors of lights test record

Record No.	08- 1003	Reference	EAJ191750 3/4/6/7/23/38 5144
Requirement	ECE R6 Clause8 Annex 5	Function	Rear Direction Indicator (Reg. 6)
Subject	DF-TR006	Date	16/10/2007

Requirement	Measurement			Remark
	Test point	S1	S2	
Amber color of light emitted				
Trichromatic Co-ordinates	x=	0.6066	0.6069	
limit toward red $y \geq 0.39$	y=	0.3921	0.3918	
limit toward green $y \leq x-0.12$	=	T	T	
Limit towards white $y \geq 0.79-0.67x$	=	T	T	

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Approved by Arthur C. H. Chang Signature Arthur Chang





photometric measurements test record

Table with 4 columns: Record No., Requirement, Subject, Reference, Function, Date. Values include 08-1003, ECE R.7 Clause 6.1.1 Annex 4, DF-TR006, EAJ191750, Rear Position Lamp (Reg. 7), 17/10/2007.

Table of standard light distribution

Light distribution table with columns for angles (10°, 5°, 0°, 5°, 10°) and values (10, 20, 35, 90, 100, 90, 70, 20, 10). Includes H and V axis indicators.

DF-TR006

Main test results table with columns: Test point, minimum, S. 1, S. 2, Result, maximum. Lists various test points like 10U 5L, 5U 20L, etc., with corresponding values and results.

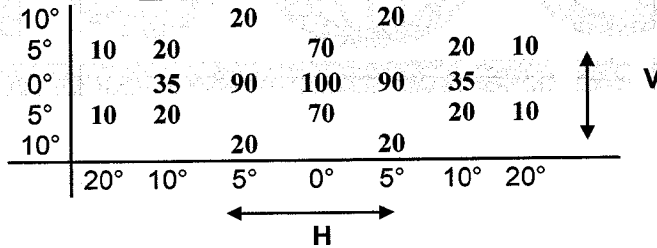
Tested by Arthur C. H. Chang Signature [Signature]
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photometric measurements test record					
Record No.	08- 1003	Reference	EAJ191750	3/4/6/7/23/38	5144
Requirement	ECE R.7 Clause 6.1.1 Annex 4	Function	Stop Lamp (Reg. 7)		
Subject	DF-TR006	Date	16 ~ 17/10/2007		

Table of standard light distribution



DF-TR006

Test point	minimum	S. 1	S. 2	Result	maximum
10U 5L	12	52.0	46.5	T T	185
10U 5R	12	61.0	51.7	T T	185
5U 20L	6	17.7	17.4	T T	185
5U 10L	12	44.4	47.3	T T	185
5U V	42	79.9	91.6	T T	185
5U 10R	12	56.4	61.1	T T	185
5U 20R	6	20.7	19.8	T T	185
H 10L	21	51.8	56.8	T T	185
H 5L	54	74.8	82.0	T T	185
H V	60	87.1	97.4	T T	185
H 5R	54	81.7	88.8	T T	185
H 10R	21	64.0	68.1	T T	185
5D 20L	6	23.8	22.8	T T	185
5D 10L	12	52.5	43.6	T T	185
5D V	42	80.2	67.3	T T	185
5D 10R	12	67.6	52.3	T T	185
5D 20R	6	32.3	29.6	T T	185
10D 5L	12	29.3	28.7	T T	185
10D 5R	12	30.5	30.1	T T	185
minmum	0.3	5.0	5.0	T T	185
Max		111.3	112.0	T T	185

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Signature Arthur Chang

Approved by Arthur C. H. Chang

Signature Arthur Chang

EAJ191750

5144_R3-4-6-7-23-38 DF-TR006_Test Record R7-C6.1.4-A4 page 10 of 15-08

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colors of lights test record			
Record No.	08- 1003	Reference	EAJ191750 3/4/6/7/23/38 5144
Requirement	ECE R7 Clause8 Annex 5	Function	Rear Position Lamp (Reg. 7)
Subject	DF-TR006	Date	16~17/10/2007

Requirement	Measurement			Remark
	Test point	S1	S2	
Red color of light emitted				
Trichromatic Co-ordinates	x=	0.6854	0.6870	
limit toward yellow $y \leq 0.335$	y=	0.3143	0.3127	
Limit towards purple $y \geq 0.980-x$	=	T	T	

Tested by Arthur C. H. Chang

Signature

Arthur Chang

Approved by Arthur C. H. Chang

Signature

Arthur Chang





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ECE R23 Annex 3(photometric measurements) test record					
Record No.	08- 1003	Reference	EAJ191750	3/4/6/7/23/38	5144
Requirement	ECE Reg. 23 Clause 6.1	Function	Reversing Lamp (Reg. 23)		
Subject	DF-TR006	Date	17/10/2007		

TOP										
V										
	10°		10	15	10		10°			
	5°	15	20	25	20	15	5°			
H	0°	15	25	50	80	50	25	15	0°	H
	5°	15	25	50	80	50	25	15	5°	
		45°	30°	10°	0°	10°	30°	45°		
V										

DF-TR006

Test point	Min	S.1	S.2	Result	Max
10U 10L	10	-	119.3	- T	300
10U V	15	-	142.9	- T	300
10U 10R	10	-	98.9	- T	300
5U 45L	15	-	26.5	- T	300
5U 10L	20	-	153.6	- T	300
5U V	25	-	194.1	- T	300
5U 10R	20	-	122.6	- T	300
5U 45R	15	-	21.9	- T	300
H 45L	15	-	25.0	- T	300
H 30L	25	-	42.8	- T	300
H 10L	50	-	176.8	- T	300
H V	80	-	220.5	- T	300
H 10R	50	-	141.3	- T	300
H 30R	25	-	36.0	- T	300
H 45R	15	-	22.0	- T	300
5D 45L	15	-	24.2	- T	600
5D 30L	25	-	42.0	- T	600
5D 10L	50	-	170.5	- T	600
5D V	80	-	213.2	- T	600
5D 10R	50	-	138.2	- T	600
5D 30R	25	-	35.4	- T	600
5D 45R	15	-	23.8	- T	600
MAX		-	225.1	- T	300
		-	225.9	- T	600

Tested by Arthur C. H. Chang Signature Arthur Chang

Approved by Arthur C. H. Chang Signature Arthur Chang

EAJ191750

5144_R3-4-6-7-23-38 DF-TR006_Test Record R23-C6.1-A3 page 28 of 151-08

60, Yong Long Road, Da-Li, Taichung, Taiwan, R.O.C. 台灣省台中縣大里市永隆路60號

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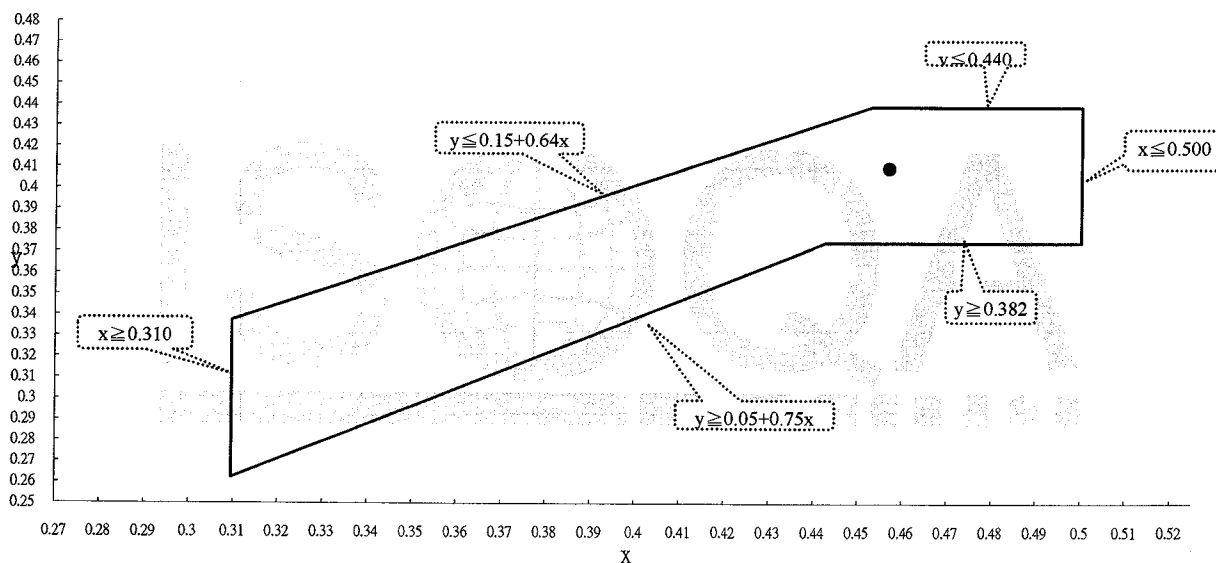




colors of lights test record			
Record No.	08- 1003	Reference	EAJ191750 3/4/6/7/23/38 5144
Requirement	ECE R23 Clause8 Annex 4	Function	Reversing Lamp (Reg. 23)
Subject	DF-TR006	Date	17/10/2007

Test point x y x y
 HV - - 0.4566 0.4102

- sample 1 ● sample 2
- sample 3 ● sample 4



- 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 : $y \geq 0.382$

White limit according to ECE Regulation

Tested by Arthur C. H. Chang

Signature Arthur Chang

Approved by Arthur C. H. Chang

Signature Arthur Chang

EAJ191750

5144_R3-4-6-7-23-38 DF-TR006_Test Record

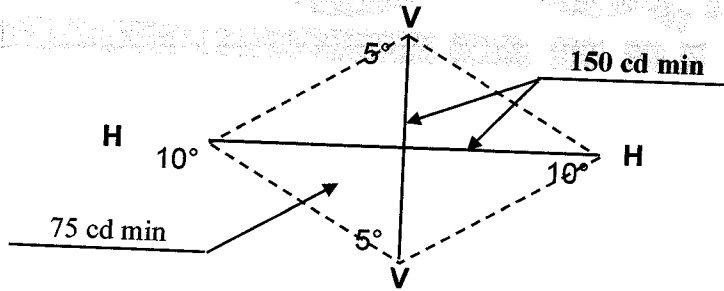
R23-C8-A4 page 23 of 15-08

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ECE R38 Annex 4(photometric measurements) test record					
Record No.	08- 1003	Reference	EAJ191750	3/4/6/7/23/38	5144
Requirement	ECE Reg. 38 Clause 6	Function	Rear Fog Lamp (Reg. 38)		
Subject	DF-TR006	Date	18/10/2007		



DF-TR006

Test point	minimum	S. 1		S. 2		Result	maximum
		min	max	min	max		
H axis	150	150.0	201.7	-	-	T -	300
V-axis	150	160.8	207.3	-	-	T -	300
Zone	75	150.5	213.6	-	-	T -	300

Tested by Arthur C. H. Chang Signature

Arthur Chang

Approved by Arthur C. H. Chang Signature

Arthur Chang

EAJ191750

5144_R3-4-6-7-23-38 DF-TR006_Test Record

R38-C6-A3 page 1 of 15-08

60, Yong Long Road, Da-Li, Taichung, Taiwan, R.O.C. 台灣省台中縣大里市永隆路60號

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colors of lights test record			
Record No.	08- 1003	Reference	EAJ191750 3/4/6/7/23/38 5144
Requirement	ECE R38 Clause 9	Function	Rear Fog Lamp (Reg. 38)
Subject	DF-TR006	Date	18/10/2007

Requirements		Measurement			Remark
Red Color of light	Test point	S.1	S.2	Remark	
Trichromatic Co-ordinates					
	x=	0.6847	-		
Limit towards yellow $y \leq 0.335$	y=	0.3149	-		
Limit towards purple $y \geq 0.98-x$	=	T	-		

Tested by Arthur C. H. Chan; Signature

Arthur Chang

Approved by Arthur C. H. Chang; Signature

Arthur Chang

