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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 TRILERS PURSUANT TO REGULATION NO . 4.

Approval No: 1060 Extension 1



1. Trade name or mark of the device:
2. Manufacturer's name for the type of device: DF-TR004 (Right side without registration plate lamp)
3. Manufacturer's name and address:
Taizhou Dafa Mold Manufacturing CO.,LTD.
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: AS before (9 December 2004) and 19 December 2005
6. Technical service responsible for conducting approval tests: Vehicle Certification Agency
7. Date of report issued by that service: AS before (6 January 2005) and 29 December 2005
8. Number of report issued by that service: As before (EAE062753) and EAF071695
9. Concise description:^{3/}
Device for illuminating:
A tall plate
A wide plate



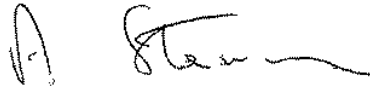
A plate for agricultural or forestry tractor ^{2/}

Number and category of filament lamp(s): 1 x P21/5W

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): Change materials
- 12. Approval GRANTED
- 13. Place: BRISTOL
- 14. Date: 16 JANUARY 2006

15. Signature:



A.W. STENNING
Head of Product Certification

- 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.

EAF071695





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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: 1060 Extension 1

1.

Trade name or mark of the device:



2. Manufacturer's name for the type of device: DF-TR004

3. Manufacturer's name and address:
Taizhou Dafa Mold Manufacturing CO.,LTD.
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: AS before (9 December 2004) and 19 December 2005

6. Technical service responsible for conducting approval tests: Vehicle Certification Agency

7. Date of report issued by that service: AS before (6 January 2005) and 29 December 2005

8. Number of report issued by that service: As before (EAE062753) and EAF071695



9. Concise description:
By category of lamp: R - 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 (for stop lamp p & rear position 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): Change materials

12. Approval: GRANTED

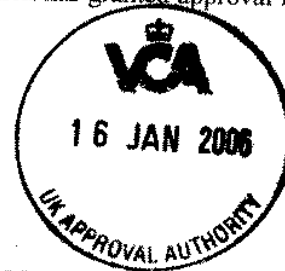
13. Place: BRISTOL

14. Date: 16 JANUARY 2006

15. Signature: 

A.W. STENNING
Head of Product Certification

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.



EA071695



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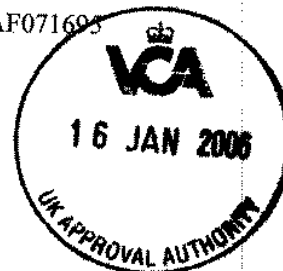


COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A TYPE
OF DIRECTION INDICATOR PURSUANT TO REGULATION NO 6.01

Approval No: 1060 Extension 1



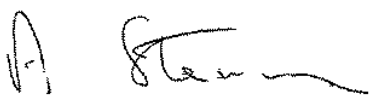
1. Trade name or mark of the device:
2. Manufacturer's name for the type of device: DF-TR004
3. Manufacturer's name and address:
Taizhou Dafa Mold Manufacturing CO.,LTD.
NO.292 Xinqiac Road, Xinqiao Town, Luqiao District,
Taizhou City, Zhejiang, China
4. If applicable, name and address of the manufacturer's representative: Not applicable
5. Submitted for approval on: AS before (9 December 2004) and 19 December 2005
6. Technical service responsible for conducting approval tests: Vehicle Certification Agency
7. Date of test report issued by that service: AS before (6 January 2005) and 29 December 2005
8. Number of test report issued by that service: As before (EAE062753) and EAF071693
9. Concise description:
Category: 2a



Number and category of filament lamp(s): 1 x P21W

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): Change materials
12. Approval GRANTED
13. Place: BRISTOL
14. Date: 16 JANUARY 2006
15. Signature:  A. W. STENNING
Head of Product Certification
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.

EAF071695





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Far East Office

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VCA REFERENCES

Test Report Number	EAE062753 and refer to EAF071695
Number of Pages	7
Number of Annexes	3

TEST DETAILS

Subject	Tail Lamp, details listed as Category
Specific Requirements	ECE Reg. 4.00, 6.01 & 7.02
Duration	2005/12/19~20
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-TR004
Category	L for Rear Registration Plate Lamp, 2a for Rear Direction Indicator, R for Rear Position Lamp and S1 for Stop Lamp.

CONCLUSION

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

Signature:

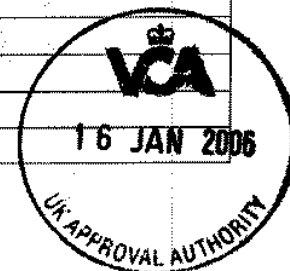
Name: ARTHUR C H CHANG

Position: COE of ISOQA

Date: 29 December 2005

LIST OF ANNEXES

Annex	Total page	Subject	Reference
1	1	Information document	
2	6	Drawings PHOTO	DF-TR004 DF-TR004
3	8	Test Record	05-0408
4			





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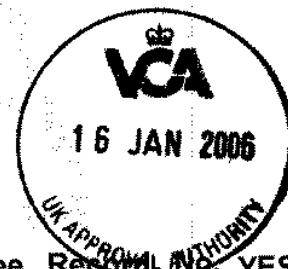
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ECE REGULATION NO. 4

item	Parameter	results	YES/NO
5.	GENERAL SPECIFICATIONS Each sample shall conform to the lighting specifications set forth in paragraph 9. 3/ 3/ 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.		YES
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.		YES
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.		N/A
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.		YES
5.5.	Light source module		N/A
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.		N/A
5.5.2.	The light source module(s) shall be tamperproof		N/A
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.	Colorless LED Light Source and clear lens used	YES
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 farthest 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.	Please see Record No. 05-0408 attached.	YES
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		YES
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: $\frac{B_2 - B_1}{\dots} \leq 2 \times B_0 / \text{cm}$	Please see Record No. 05-0408 attached.	YES
		Please see Record No. 05-0408 attached.	YES





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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.		YES
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.		YES
5.3.	Light source module		N/A
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 the correct position, but the correct one.		N/A
5.3.2.	The light source module(s) shall be tamperproof.		N/A
6.	INTENSITY OF LIGHT EMITTED		
6.1.	The light emitted by each of the two devices supplied must be in the case of the direction indicators of categories 1, 1a, 1b, 2a, 2b, 3 and 4 in the reference axis, in the case of direction indicators of categories 5 and 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. 05-0408 attached	YES

Direction indicator ² of category	Minimum intensities cd	Maximum values 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 ³	490 ³	980 ³			N/A
1a	250	300 ³	560 ³	1120 ³			N/A
1b	400	360 ³	600 ³	1200 ³			N/A
2a	50	350	350	350	186.60	173.82	YES
2b by day	175	700 ³	490 ³	980 ³			N/A
by night	40	120 ³	84 ³	168 ³			N/A
3 towards the front	175	700 ³	490 ³	980 ³			N/A
towards the rear	50	200	140	280			N/A
4 towards the front	175	700 ³	490 ³	980 ³			N/A
towards the rear	0.6	200	140	280			N/A
5	0.6	200	140	280			N/A
6	50	200	140	280			N/A

² The installation of front direction indicators of various categories 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).

YES

³ 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.

N/A

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 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).

N/A

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

(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 when any one light source has failed.

N/A

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, provide 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, within the regular field specified in the arrangement diagrams in annex 1 to this Regulation, the intensity of 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;

Please see Record No. 05-0408 attached

YES

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

N/A

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. 05-0408 attached

YES

6.2.3. Moreover,





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6.2.3.1. Throughout the fields defined in the diagrams in annex 1, the intensity of light emitted must be

not less than 0.7 cd for devices of category 1b,

not less than 0.3cd for device of categories 1, 1a, 2a, 3, 4 towards the front and for those of category 2b by day;

it shall not less than 0.07 cd for device of category 2b by night;
6.2.3.2. For devices for categories 1 and 2b by night 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 $\pm 10^\circ$ H and $\pm 10^\circ$ V (10° -field) must not exceed the following values:

Direction indicator of category	Maximum values in cd outside the 10° -field		
	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.)
2b by night	100	70	140
1, 3 and 4	400	280	560

Between the boundaries of the 10° -field ($\pm 10^\circ$ H and $\pm 10^\circ$ V) and 5° -field($\pm 5^\circ$ H and $\pm 5^\circ$ V), the maximum admissible values of the intensities are linearly increased up to the values as defined in paragraph 6.1.;

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 $\pm 15^\circ$ H and $\pm 15^\circ$ V (15° -field) shall not exceed the following values:

Direction indicator of category	Maximum values in cd outside the 15° -field		
	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.)
1a	250	175	350
1b	400	280	560

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

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 afloat.

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.

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

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.

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

6.4. In the case of devices of category 2b the time that elapses between electrical supply being switched on 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 both the day and the night conditions of use. The time measured for the night condition of use shall not exceed that measured for the day condition of use.

6.5. 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 shall be made with an uncoloured or amber-coloured standard filament lamp of the category prescribed for the device, the supply voltage being so regulated as to produce the reference luminous flux prescribed for that category lamp.

7.1.1. All measurements on lamps equipped with non-replaceable light sources (filament lamps and other) shall be made at 6.75V, 13.5V or 28.0V respectively.

In the case of light sources supplied by a special power supply, the above test voltage 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.

7.2. However, in the case of an indicator of category 2b for which an additional system⁴ 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 day-time intensity.

⁴ The functioning and installation conditions of the additional device will be defined by special provisions.

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

8. COLOUR OF LIGHT EMITTED

The colour of light emitted inside the field of the light distribution grid defined in paragraph

Please see Record No. 05-0408 attached

N/A

YES

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

N/A

YES

YES

N/A

N/A

YES

N/A

N/A

N/A

Please see Record No. 05-0408 attached

YES

P21W standard bulb used

YES

N/A

N/A

N/A

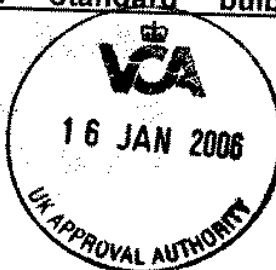
N/A

Please see drawing attached

YES

Amber light emitted.

YES





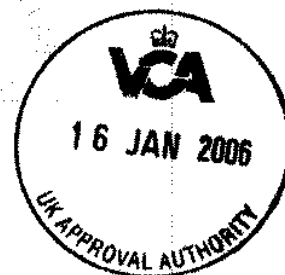
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2 of annex 4 shall be within the limits of the co-ordinates prescribed in annex 5 to this Regulation. Out side the field, no sharp variation of color shall be observed.

Please see Record No.
05-0408 attached





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.		
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.		<u>YES</u>
5.3	Lamp having been approved as front or rear position (side) lamps, are deemed being also approved end-outline marker lamps.		<u>YES</u>
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.		<u>YES</u>
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.		<u>YES</u>
5.5.1.	However, in the case of rear (side) position lamp reciprocally incorporated with a stop lamp, the device shall either:		<u>N/A</u>
	(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.		<u>N/A</u>
5.6.	In either case, a note shall be made within the communication document.		
5.6.1.	Light source module		<u>N/A</u>
5.6.2.	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>
6.	The light source module(s) shall be tamperproof		<u>N/A</u>
6.1.	INTENSITY OF LIGHT EMITTED		
	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:		<u>N/A</u>

1/	Minimum Intensities cd	Maximum values in cd when used as			S1	S2	
		Single lamp	Lamp (single) marked "D" (paragraph 4.2.6)	Total for the assembly of two or more lamps			
6.1.1 Front position (side) lamps, Front end-outline marker lamp	4.	60 2/	42 2/	42 2/			<u>N/A</u>
6.1.2 Front position (side) lamps Incorporated in headlamp	4.	100 2/	-	-			<u>N/A</u>
6.1.3 Rear position (side) lamps Rear end-outline marker lamp	4.	12 2/	8.5 2/	17 2/	<u>5.47</u>	<u>5.79</u>	<u>YES</u>
6.1.4 Stop-lamps							
6.1.4.1 with 1 level of intensity (category S1)	60	185 2/	130 2/	260 2/	<u>82.05</u>	<u>83.73</u>	<u>YES</u>
6.1.4.2 with 2 levels of intensity (category S2)							
6.1.4.2.1 by day	30.	520 2/	366 2/	728 2/			<u>N/A</u>
6.1.4.2.2. by night	30.	80 2/	56 2/	112 2/			<u>N/A</u>
6.1.4.3 Stop-lamps of category 3	25.	80	55	110			<u>N/A</u>

Note to table

1/ 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).

2/ 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:

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

(ii) the lamp shall comply with the minimum intensity required when 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.

(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.

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:

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. 05-0408 attached.

YES
N/A
N/A
N/A
N/A
N/A
N/A
YES
YES



Vehicle Certification Agency

Far East Office

英國車輛驗證局遠東辦事處



建維驗證

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;		
6.2.4.	Moreover,		N/A
6.2.4.1.	Throughout the fields defined in the diagrams in annex 1, 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,	S1 0.25	YES
	not less than 0.3 cd for stop-lamps with one level of intensity, and	S2 0.22	YES
	for stop-lamps with two levels of intensity	3.17	YES
	0.3 cd by day and		N/A
	0.07 cd by night;		N/A
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 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 $\pm 5^\circ$ V and the straight vertical lines passing through $\pm 10^\circ$ H of the light distribution table. If the stop-lamp has two levels of intensity, this requirement must be satisfied when the night condition is switched on;		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 2 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.		N/A
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 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 condition of use shall not exceed that measured for the day condition of use.		N/A
6.5.	Annex 4, to which reference is made in paragraph 6.2.1. above, gives particulars of the methods of measurement to be used.		YES
7.	TEST PROCEDURE		
7.1.	All measurements, photometric and colorimetric, shall be made with a colourless standard filament lamp of the category prescribed for the device, the supply voltage being so regulated as to produce the reference luminous flux required for that category of lamp.	P21/5W and standard bulb used	YES
7.1.1.	In the case of a system with more than one intensity, the reference luminous flux prescribed for the specific category of filament lamp shall be applied to the greatest intensity.		N/A
7.1.2.	All measurements, photometric and colorimetric, on lamps equipped with non-replaceable light sources (filament lamps and other) shall be at 6.75 V, 13.5 V or 28.0 V respectively.		N/A
7.1.3.	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 the manufacturer the special power supply needed to supply the light sources.		N/A
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 supplied to the system for measuring the night-time intensity shall be that which was supplied to the filament lamp for measuring the day-time intensity. 2/		N/A
2/	The functioning and installation conditions of these additional system shall be defined by special provisions.		
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 supplied to the system as would, if applied to the filament lamp, enable the lamp to produce the prescribed normal luminous flux.		N/A
7.3.1.	Where a position (side) lamp is reciprocally incorporated with another 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 at 6.75 V, 13.5 V or 28 V respectively, where the additional system is part of the device.		N/A
7.3.2.	Where the additional system is not part of the device, then the tests shall be performed at the rated secondary design voltage applied to the light source. The test laboratory may require from the manufacturer the additional system needed to regulate the light source.		N/A
7.4.	The vertical and horizontal outlines of the illuminating surface of a light-signaling device shall be determined and measured in relation to the centre of reference.		YES
7.6.	In the case of a category E3 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.	Please see Record No. 05-0408 attached.	YES



Taizhou Dafa Mold Manufacturing CO.,LTD

台州大發模具制造有限公司

Information Document

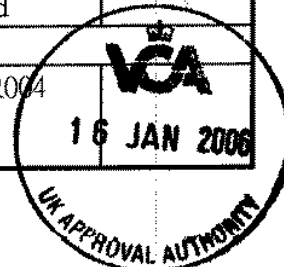
for Initial

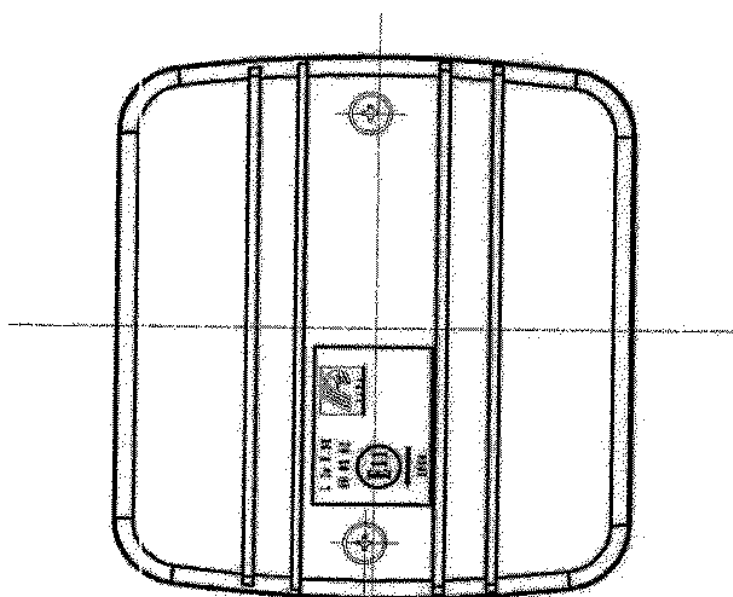
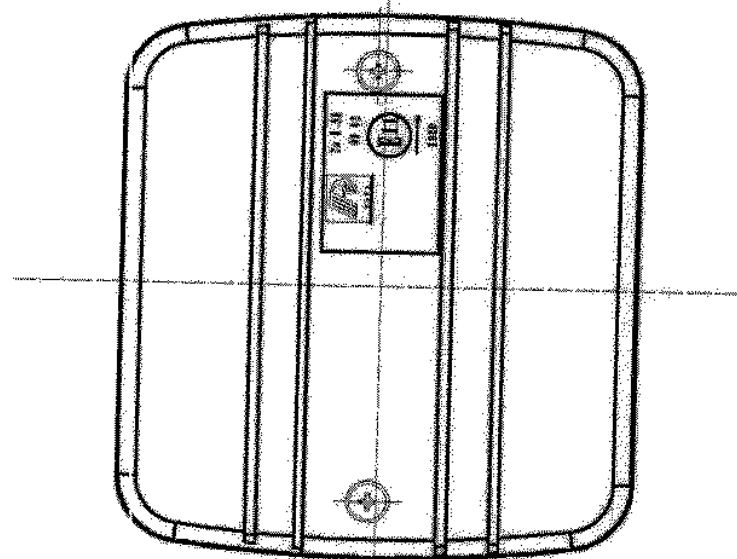
application to ECE Homologation

of Model Number

DF-TR004

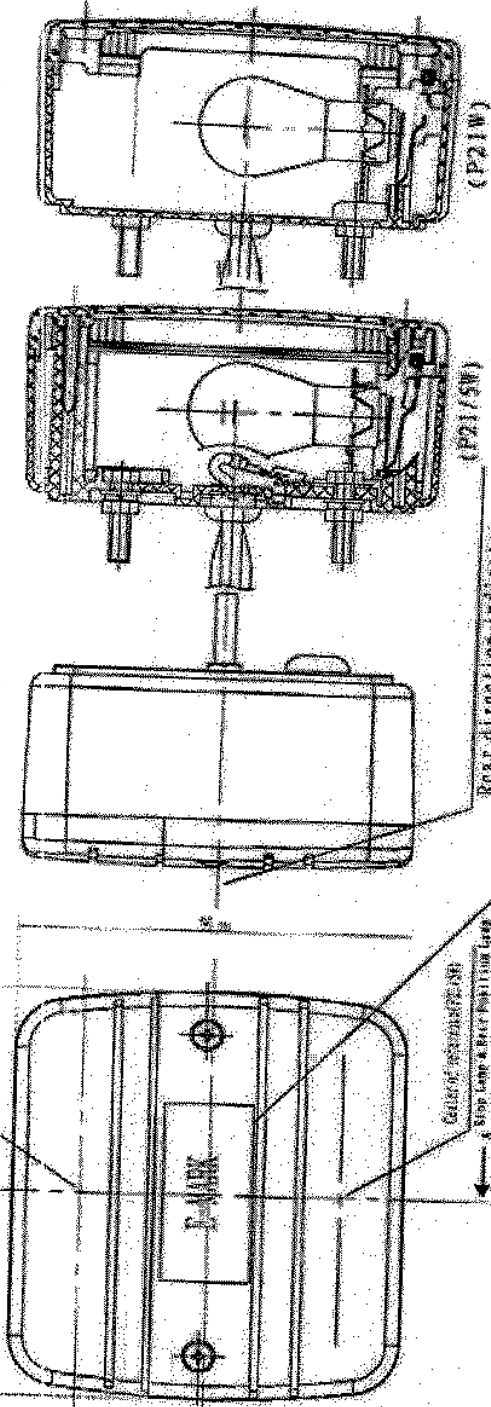
items	Details	Initial	Extension	01	Remark
1.	VCA				
1.1	Job Number	EAE062753	EAF071695		
1.2	Approval Number	1060	1060		
2.	Manufacturer				
2.1	Name	Taizhou Dafa Mold Manufacturing CO.,LTD			
2.2	Address	NO.292 Xinqiao Road, Xinqiao Town, Luqiao District, Taizhou City, Zhejiang, China			
2.3	Trade name or mark	DAFA	DAFA		
3.	Product	Tail Lamp			
3.1	Model Number	DF-TR004	DF-TR004		change materials
3.2	Intended functions	Charteristic			
3.2.1	Rear Registration Plate Lamp (Reg.4)	Category	L	L	(LH)
		Bulb	P21/5W 12V 5W	P21/5W 12V 5W	
		Color of light	White	White	
		Color of lens	Clear	Clear	
		Incidence angle	1.Wide plate 74°	1.Wide plate 66°	
			2.tall plate 74°	2.tall plate 66°	
			3.Agricultural or forestry tractors 74 °	3.Agricultural or forestry tractors 66 °	
3.2.2	Rear Direction Indicator (Reg. 6)	Category	2a	2a	
		Bulb	P21W 12V 21W	P21W 12V 21W	
		Color of light	Amber	Amber	
		Color of lens	Amber	Amber	
3.2.3	Rear Position Lamp (Reg. 7)	Category	R	R	
		Bulb	P21/5W 12V 5W	P21/5W 12V 5W	
		Color of light	Red	Red	
		Color of lens	Red	Red	
3.2.4	Stop Lamp (Reg. 7)	Category	S1	S1	
		Bulb	P21/5W 12V 21W	P21/5W 12V 21W	
		Color of light	Red	Red	
		Color of lens	Red	Red	
4.	Drawings	DF-TR004	DF-TR004		





NOTE: THIS DRAWING IS APPLICABLE
TO LEFT HAND SIDE ONLY.

SECTION A-A
Rear Direction Indicator
Center of reference (P21W)



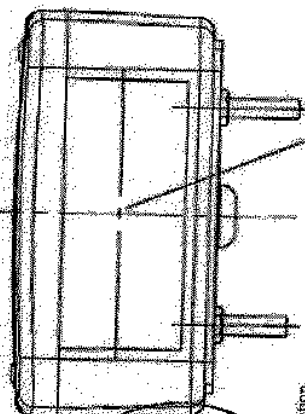
Rear direction indicator
Stop lamp & Rear position lamp
Rear registration plate lamp
Axis of Reference
Horizontal plane of vehicle



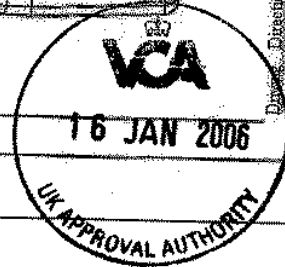
OF-TR004



TYPICAL		CHINA MARKET	
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100



Center of reference (P21/SW)
Rear registration plate lamp



Direction
Vehicle

Photometric Characteristics (tall plate)

Requirement	ECE R4	Clause7 Annex 6	Function	Rear Registration Plate Lamp (Reg.4)
Subject	DF-TR004		Date	20/12/2005
Lamp	5W of P21/5W		Voltage , Corrent	13.65V , 0.46A

minimum requirement = 2.5 cd/m²

95 mm	P1	value1	P2	P3	P4
95 mm	P5	value2	value3	value4	value5
95 mm	P9	P10	P11	P12	
	100 mm	90	100 mm		

Note:

Value 1 = (P1 - P2) / distance 1-2

Value 2 = (P1 - P5) / distance 1-5

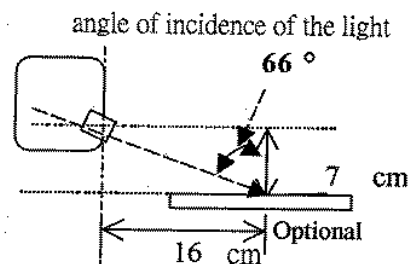
Value 3 = (P1 - P6) / distance 1-6

Value 4 = (P2 - P5) / distance 2-5

Value 5 = (P2 - P6) / distance 2-6 etc

distance 1-6 = $\sqrt{(9.5 \times 9.5 + 10 \times 10)}$

distance 2-7 = $\sqrt{(9.5 \times 9.5 + 9 \times 9)}$



Sample 1

S-05-3327

1-minute

<u>20.22</u>	0.42		<u>24.40</u>	0.15		<u>25.80</u>	0.14		<u>24.40</u>	P5 = Bo (B2-B1) distance 1-2 in cm ≤ 2 x Bo/cm= 12.54
1.47	0.86	1.31	1.69	0.18	0.19	1.91	1.31	1.21	1.76	
<u>6.27</u>	0.21		<u>8.37</u>	0.08		<u>7.67</u>	0.00		<u>7.67</u>	
1.32	0.71	0.76	0.81	0.08	0.09	0.81	1.01	0.56	1.47	
<u>18.82</u>	0.28		<u>16.04</u>	0.08		<u>15.34</u>	0.63		<u>21.61</u>	

Sample 2

S-05-3329

30-minutes

24.40	0.35		27.89	0.31		30.68	0.63		24.40	P5 = Bo
1.91	1.16	1.57	2.05	0.22	0.25	2.42	1.67	1.21	1.76	(B2-B1)
6.27	0.21		8.37	0.08		7.67	0.00		7.67	distance 1-2 in cm
0.95	0.86	0.51	1.03	0.11	0.12	1.10	0.81	0.76	1.17	$\leq 2 \times Bo/cm = 12.54$
15.34	0.28		18.13	0.00		18.13	0.07		18.82	

Tested by

Yuxiang Lin

Signature

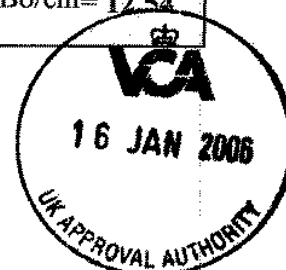
Yuxiang Lin

Approved by

Arthur C. H. Chang

Signature

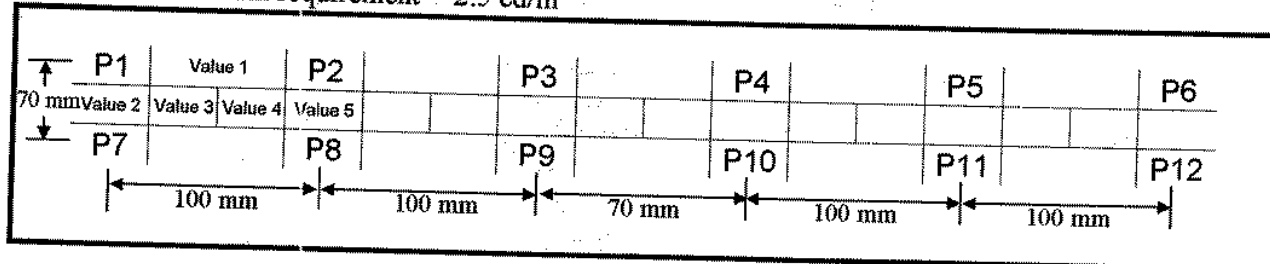
Arthur Chang



Photometric Characteristics (wide plate) Assessment

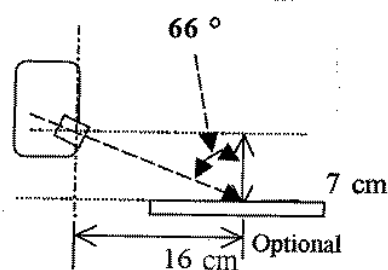
Requirement	Testing and Certification Body to Specific Product and System Standards		
Subject	DF-TR004	Date	20/12/2005
Lamp	5W of P21/SW	Voltage , Current	13.65V , 0.46A

minimum requirement = 2.5 cd/m²



Note: Value 1 = (P1-P2) / distance 1-2
 Value 2 = (P1-P7) / distance 1-7
 Value 3 = (P1-P8) / distance 1-8
 Value 4 = (P2-P7) / distance 2-7
 Value 5 = (P2-P8) / distance 2-8 etc.
 distance 1-8 = $\sqrt{7 \times 7 + 10 \times 10}$
 distance 3-10 = $\sqrt{7 \times 7 + 7 \times 7}$

angle of incidence of the



<u>7.67</u>	0.49		<u>12.55</u>	0.07		<u>11.85</u>	0.00		<u>11.85</u>	0.14		<u>13.25</u>	0.28		<u>10.46</u>
0.60	0.23	0.74	1.10	0.57	0.57	0.90	0.63	0.63	0.90	0.51	0.63	1.10	0.69	0.4	0.80
<u>3.49</u>	0.14		<u>4.88</u>	0.07		<u>5.58</u>	0.00		<u>5.58</u>	0.00		<u>5.58</u>	0.07		<u>4.88</u>
S-05-3327		1-minute													

9.06	0.42		13.25	0.07		13.94	0.00		13.94	0.00		13.94	0.35		10.46
0.80	0.34	0.80	1.20	0.63	0.74	1.20	0.92	0.85	1.29	0.69	0.74	1.20	0.8	0.4	0.90
3.49	0.14		4.88	0.07		5.58	0.10		4.88	0.07		5.58	0.14		4.18
S-05-3329		30-minutes													

P7 = Bo
(B2-B1)
distance 1-2 in cm
$\leq 2 \times Bo/cm = 6.98$
S-05-3327 1 minute

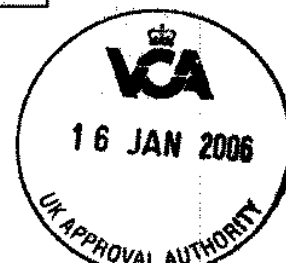
P7 = Bo
(B2-B1)
distance 1-2 in cm
$\leq 2 \times Bo/cm = 6.98$
S-05-3329 30 minutes

Tested by Yuxiang Lin

Signature Yuxiang Lin

Approved by Arthur C. H. Chang

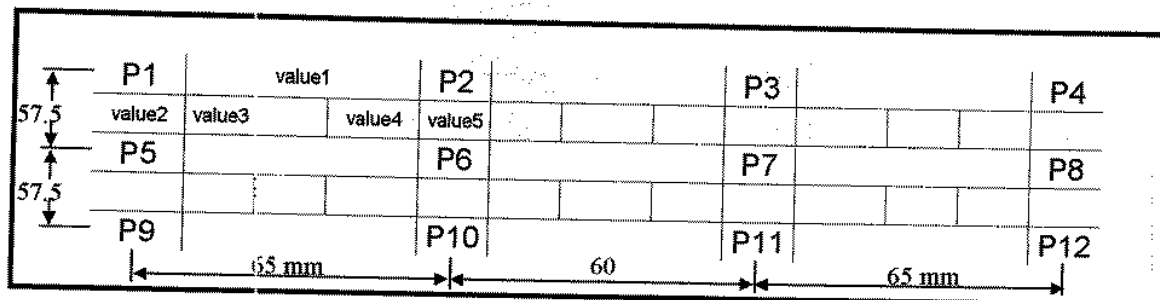
Signature Arthur Chang



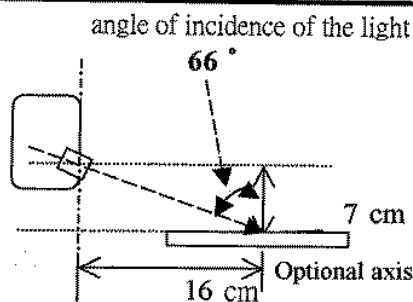
Photometric Characteristics (agricultural or forestry tractors)

Requirement	ECE R4	Clause7 Annex 6	Function	Rear Registration Plate Lamp (Reg. 4)
Subject	DF-TR004		Date	20/12/2005
Lamp	5W of P21/5W		Voltage, Corrent	13.65V, 0.46A

minirnum requirement = 2.5 cd/m²



Note : Value 1 = (P1 - P2) / distance 1-2
 Value 2 = (P1 - P5) / distance 1-5
 Value 3 = (P1 - P6) / distance 1-6
 Value 4 = (P2 - P5) / distance 2-5
 Value 5 = (P2 - P6) / distance 2-6 etc
 distance 1-6 = $\sqrt{(5.75 \times 5.75 + 6.5 \times 6.5)}$
 distance 2-7 = $\sqrt{(5.75 \times 5.75 + 6 \times 6)}$



S-05-3327	19.52	0.11		18.82	0.46		16.04	1.07		23.01	P7 = Bo
1 minute	1.58	1.21	0.96	1.70	1.26	0.84	1.33	0.56	1.69	2.06	(B2-B1)
	10.46	0.21		9.06	0.12		8.37	0.43		11.15	distance 1-2 in cm
	0.61	0.24	0.56	0.61	0.25	0.50	0.48	0.72	0	0.61	≤ 2 x Bo/cm= 16.74
	13.94	0.21		12.55	0.23		11.15	0.54		14.64	

S-05-3329	25.80	0.97			19.52	0.58			23.01	0.00			23.01	P7 = Bo
30-minutes	2.30	1.85	0.80	1.70	1.09	1.59	2.18	1.45	1.45	2.18	(B2-B1)			
	12.55	0.43			9.76	0.12			10.46	0.00			10.46	distance 1-2 in cm
	0.97	0.08	0.96	0.61	0.50	0.34	0.61	0.72	0.4	1.09	$\leq 2 \times Bo/cm = 19.52$			
	18.13	0.75			13.25	0.12			13.94	0.43			16.73	

Tested by Yuxiang Lin

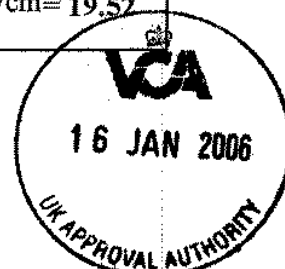
Signature

Yuxiang Lin

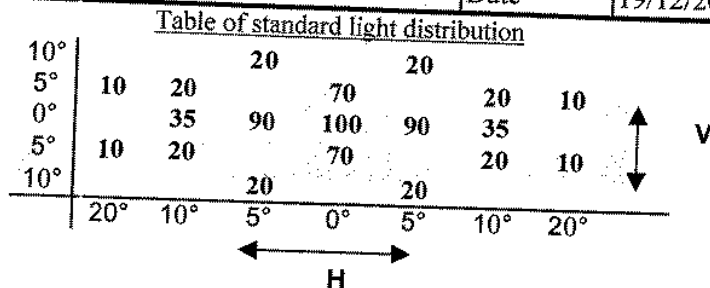
Approved by Arthur C. H. Chang

Signature

Arthur C. H. Chang



photometric measurements test record					
Record No.	05-	0408	Reference	EAF071695	4/6/7 1060
Requirement	ECE R6	Clause 6.1 Annex4	Function	Rear Direction Indicator	(Reg. 6)
Subject	DF-TR004		Date	19/12/2005	



Test point	minimum	S. 1	S. 2	Result	maximum
10U 5L	10	85.72	83.32	T	350
10U 5R	10	63.13	79.40	T	350
5U 20L	5	64.44	71.18	T	350
5U 10L	10	87.98	97.97	T	350
5U V	35	145.55	157.12	T	350
5U 10R	10	83.78	93.86	T	350
5U 20R	5	54.81	64.58	T	350
H 10L	17.5	92.83	99.46	T	350
H 5L	45	152.73	155.25	T	350
H V	50	186.80	173.82	T	350
H 5R	45	151.89	153.01	T	350
H 10R	18	97.50	97.78	T	350
5D 20L	5	43.83	48.96	T	350
5D 10L	10	54.15	59.07	T	350
5D V	35	79.59	72.96	T	350
5D 10R	10	56.54	59.28	T	350
5D 20R	5	41.32	45.68	T	350
10D 5L	10	39.11	40.09	T	350
10D 5R	10	37.11	38.60	T	350
minum	0.30	2.28	3.37	T	350
Max		191.01	184.42	T	350

Tested by Yuxiang Lin

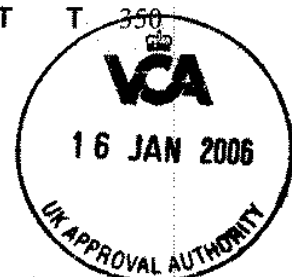
Signature

Yuxiang Lin

Approved by Arthur C. H. Chang

Signature

Arthur Chang



colors of lights test record					
Record No.	05-0408	Reference	EAF071695	4/6/7	1060
Requirement	ECE R6 Clause8 Annex 5	Function	Rear Direction Indicator (Reg. 6)		
Subject	DF-TR004	Date	19/12/2005		

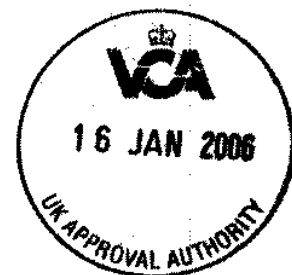
Requirement		Measurement		Remark
Amber color of light emitted		Test point	S1	
Trichromatic Co-ordinates			S2	
limit toward red	$y \geq 0.39$	x=	0.5778	0.5757
limit toward green	$y \leq x-0.12$	y=	0.4204	0.4223
Limit towards white	$y \geq 0.79-0.67x$	=	T	T
		=	T	T

Tested by Yuxiang Lin

Signature Yuxiang Lin

Approved by Arthur C. H. Chang

Signature Arthur Chang





建維品質驗證有限公司

Integrated Services of Quality Assessment
Testing and Certification Body to Specific Product and System Standards

photometric measurements test record					
Record No.	05- 0408	Reference	EAF071695	4/6/7	1060
Requirement	ECE R.7 Clause 6.1.1 Annex 4	Function	Rear Position Lamp (Reg. 7)		
Subject	DF-TR004	Date	19/12/2005		

Table of standard light distribution

10°		20		20			
5°	10	20		70		20	10
0°		35	90	100	90	35	
5°	10	20		70		20	10
10°			20		20		
		20°	10°	5°	0°	5°	10° 20°
				H		V	

Test point	minimum	S. 1	S. 2	Result	maximum
10U 5L	0.8	2.40	2.45	T T	17
10U 5R	0.8	3.03	3.50	T T	17
5U 20L	0.4	1.79	1.72	T T	17
5U 10L	0.8	2.53	2.50	T T	17
5U V	2.8	4.06	4.74	T T	17
5U 10R	0.8	3.86	4.31	T T	17
5U 20R	0.4	2.14	1.87	T T	17
H 10L	1.4	2.84	2.78	T T	17
H 5L	3.6	3.63	3.62	T T	17
H V	4	5.47	5.79	T T	17
H 5R	3.6	6.91	7.11	T T	17
H 10R	1.4	4.97	5.22	T T	17
5D 20L	0.4	2.10	1.99	T T	60
5D 10L	0.8	2.82	2.64	T T	60
5D V	2.8	4.75	4.75	T T	60
5D 10R	0.8	4.74	4.60	T T	60
5D 20R	0.4	2.66	2.22	T T	60
10D 5L	0.8	2.68	2.52	T T	60
10D 5R	0.8	3.48	3.12	T T	60
minmum	0.05	0.25	0.22	T T	17
Max		7.14	7.50	T T	60

Tested by Yuxiang Lin

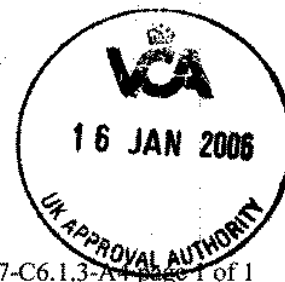
Signature

Yuxiang Lin

Approved by Arthur C. H. Chang

Signature

Arthur Chang



EAF071695

1060 R4-6-7 DF-TR004_ext1 Test Record

R7-C6.1.3-A7 page 1 of 1

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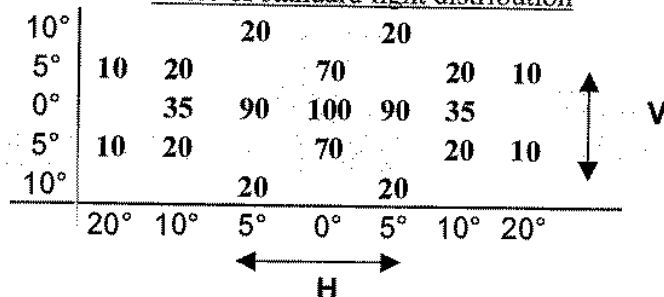


建維品質驗證有限公司

Integrated Services of Quality Assessment
Testing and Certification Body to Specific Product and System Standards

photometric measurements test record					
Record No.	05- 0408	Reference	EAF071695	4/6/7	1060
Requirement	ECE R.7 Clause 6.1.1 Annex 4	Function	Stop Lamp	(Reg. 7)	
Subject	DF-TR004	Date	19/12/2004		

Table of standard light distribution



DF-TR004

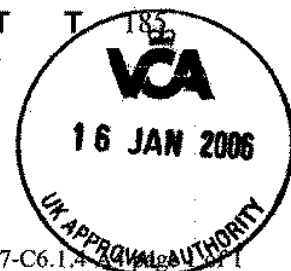
Test point	minimum	S. 1	S. 2	Result	maximum
10U 5L	12	29.35	34.06	T T	185
10U 5R	12	28.63	28.26	T T	185
5U 20L	6	21.05	21.20	T T	185
5U 10L	12	29.95	31.23	T T	185
5U V	42	49.84	57.91	T T	185
5U 10R	12	27.50	29.84	T T	185
5U 20R	6	18.25	17.65	T T	185
H 10L	21	36.30	37.19	T T	185
H 5L	54	64.33	69.78	T T	185
H V	60	82.05	83.73	T T	185
H 5R	54	58.25	54.58	T T	185
H 10R	21	31.79	37.10	T T	185
5D 20L	6	25.61	25.54	T T	185
5D 10L	12	34.51	32.85	T T	185
5D V	42	61.37	52.51	T T	185
5D 10R	12	34.07	35.03	T T	185
5D 20R	6	22.92	22.35	T T	185
10D 5L	12	30.56	28.47	T T	185
10D 5R	12	29.44	25.27	T T	185
minumum	0.3	3.17	2.87	T T	185
Max		80.27	85.70	T T	185

Tested by Yuxiang Lin

Signature

Approved by Arthur C. H. Chang

Signature



EAF071695

1060 R4-6-7 DF-TR004_ext1 Test Record

R7-C6.1.4

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colors of lights test record					
Record No.	05-0408	Reference	EAF071695	4/6/7	1060
Requirement	ECE R7 Clause8 Annex 5	Function	Stop Lamp	(Reg. 7)	
Subject	DF-TR004	Date	19/12/2005		

Requirement		Measurement			Remark
<u>Red</u> color of light emitted		Test point	S1	S2	
Trichromatic Co-ordinates					
		x=	0.6750	0.6761	
limit toward yellow	$y \leq 0.335$	y=	0.3247	0.3220	
Limit towards purple	$y \geq 0.980-x$	=	T	T	

Tested by Yuxiang Lin

Signature

Approved by Arthur C. H. Chang

Signature



EAF071695

1060 R4-6-7 DF-TR004_ext1 Test Record

R7-C8-AS

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