THE NETHERLANDS
(NEDERLAND)

E4

JE MAINTIENDRAI

COMMUNICATION

Concerning:

- approval granted
~~- approval extended~~
~~- approval refused~~
~~- approval withdrawn~~
~~- production definitely discontinued~~

of a type of reversing lamp pursuant to Regulation number 23.

Approval number: E4-23R-00 23283 **Extension number: 00**

1.	Trade name or mark of the device	:	DAFA
2.	Manufacturer's name for the type of device	:	DF-TRL010
3.	Manufacturer's name and address	:	Zhejiang Dahao Automotive Co., Ltd. Xiaotian,Duqiao,Linhai, Taizhou City Zhejiang, 317016, China
4.	If applicable, name and address of the manufacturer's representative	:	–
5.	Submitted for approval on	:	9 August 2012
6.	Technical service responsible for conducting approval tests	:	DEKRA Certification B.V.
7.	Date of report issued by that service	:	20 August 2012
8.	Number of report issued by that service	:	2155463-PHO 12-129-08
9.	Concise description:		
	Number, category and kind of light source(s)	:	19 x non-replaceable light sources (LEDs)

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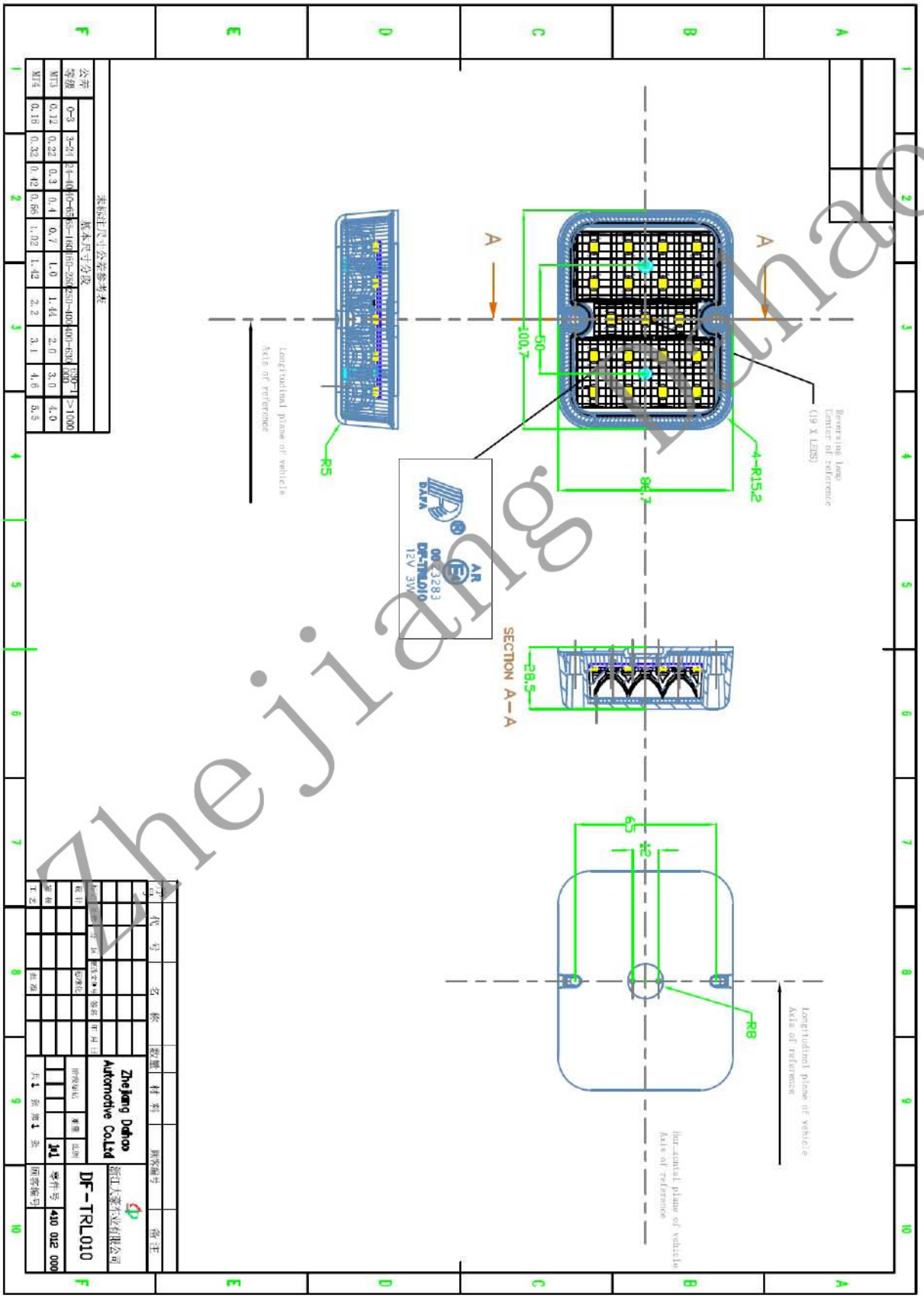
Vehicle Approval and Information

	Voltage and wattage	: 12V; 3W
	Application of an electronic light source control gear:	
	(a) Being part of the lamp	: ~~yes/no~~
	(b) Being not part of the lamp	: ~~yes/no~~
	Input voltage(s) supplied by an electronic light source control gear	: --
	Electronic light source control gear manufacturer and identification number (when the light source gear is part of the lamp but is not included into the lamp body)	: --
	Light source module	: ~~yes/no~~
	Light source module specific identification code	: --
	Geometrical conditions of installation and relating variations, if any	: --
10.	Position of the approval mark	: See annexed drawing
11.	Comments:	
	This device shall be installed on a vehicle only as part of a pair of devices	: yes/~~no~~
12.	Reason(s) for extension (if applicable)	: --
13.	Approval	: granted/~~extended/refused/withdrawn~~
14.	Place	: Zoetermeer
15.	Date	: 27-AUG-2012
16.	Signature	:

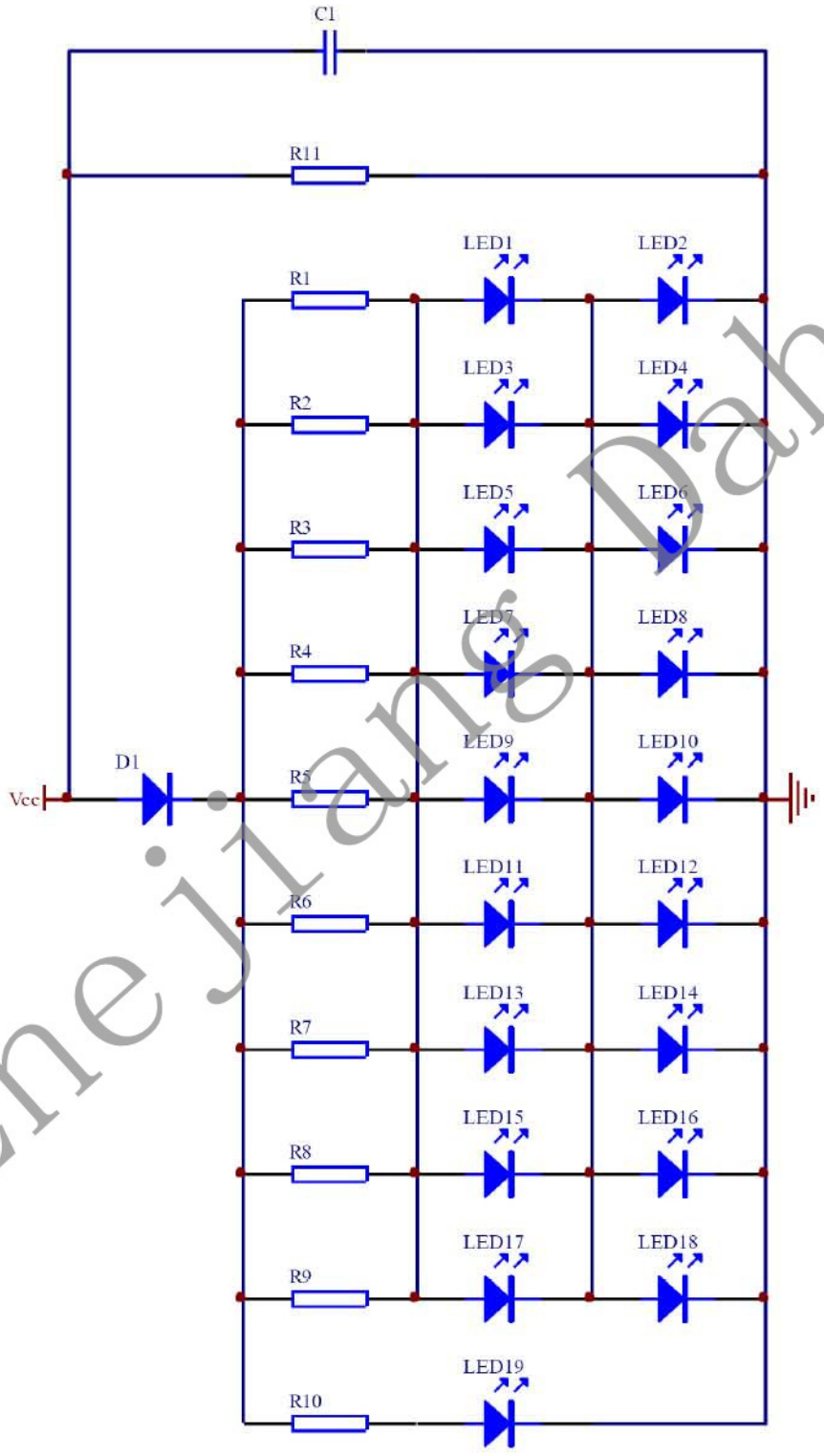
RDW

R.F.R. Clement

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.
    - 3 Drawings No. DF-TRL010, DF-TRL010 Circuit diagram and Determination of the apparent surface (annexed)
    - Test report as mentioned in item 8

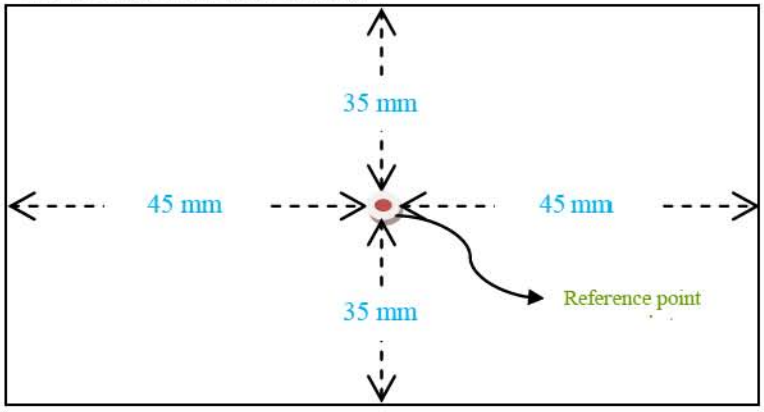


DRAWING NO. TRL010
CIRCUIT DIAGRAM



Determination of the apparent surface

DF-TRL010 : Reversing Lamp



ISOQA
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DEKRA

2155463-PHO 12-129-08

Approval testing of a reversing lamp trade mark

, type name DF-TRL010.

Arnhem, 20 August 2012
Author H.M. van der Kolk
DEKRA Certification B.V. - Photometry

By order of Zhejiang Dahao Automotive Co., Ltd., Zhejiang, P.R. China

author : H.M. van der Kolk 20-08-2012 reviewed : G.C Muda 20-08-2012
B 13pages 4 annexes GCM

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SUMMARY

The tested samples of a reversing lamp marked DAFA type DF-TRL010 were found to comply with the requirements of ECE Regulation No.23-00.

1 APPLICATION FOR APPROVAL TESTING

On 9 August 2012, Zhejiang Dahao Automotive Co., Ltd. in Zhejiang, P.R China submitted samples of a reversing lamp, trade name , type name DF-TRL010. All tests were performed in the laboratory of ISOQA in Taichung, Taiwan.

The reversing lamp is equipped with 19 LEDs emitting uncoloured light. According to the manufacturer's technical decription, light sources are connected in parallel; when one light source failed, at most this LED will fail. The compliance of the n-1 rule was check by calculation.

A brief technical description and a drawing which were sufficiently detailed to permit identification of the model can be found in Annex 1 and 2 respectively.

The applicant desired an examination to check whether the reversing lamp is in compliance with the requirements of the ECE Regulation No. 23-00.

2 EXAMINATION

The examination was carried out in accordance with the relevant clauses of the regulation concerned. The tests were performed taking into consideration the manufacturer's information concerning centre and axis of reference. For the photometric tests a test voltage of 13.5 V was applied. The distance of measurement was 3.2 m.

3 RESULTS OF EXAMINATION

The results of the tests are summarised in Annex 3. Detailed results of the tests of the lamps are presented in Annex 4, tables 1 up to 2.

4 SUPPLEMENTARY REMARKS

The approval number 23283 was assigned. The approval marking is shown in the drawing of Annex 2.

Information Document

of Model Number- DF-TRL010

Approval Number: 23283

Manufacturer's name and address		**Zhejiang Dahao Automotive Co., Ltd.** Xiaotian,Duqiao,Linhai, Taizhou City Zhejiang, 317016, China
Trade name or mark		
Model Number		DF-TRL010
Material of lens		PLASTIC
Reversing Lamp (Reg. 23)	Category	AR
	Light Source	19 x LEDs; 12V; 3W (if one LED fails, at most this LEDs fail)
	Color of light emit	White
	Color of lens	Clear

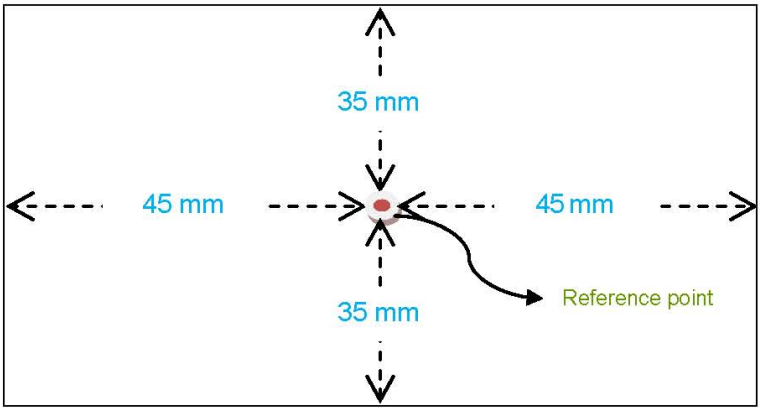
FRONT VIEW

SIDE VIEW

TOP VIEW

Determination of the apparent surface

DF-TRL010 : Reversing Lamp



Examination of reversing lamp DF-TRL010 carried out according to the relevant clauses of the regulations concerned.

Clause No.	Subject of the relevant clause	Judgement of the device	Remark
3	1 trade name or mark	complies	
	2 space reserved for the approval mark	complies	
5	General specifications:		
	a intensity and colour of the light emitted	complies	see below under 6 and 8
	b maintenance of satis factory operation and of photometric charac teristics	complies	by visual inspection only
	c field of visibility horizontal and vertical	complies	
6	intensity of the light emitted	complies	see Annex 4[1]
8	colour of the light emitted	complies	[2]

[1] All light sources were connected in parallel; when one light source failed, at most this LED will fail. The compliance of the n-1 rule was check by calculation.

[2] Reversing Lamp emitted white color light : S1: x=0.4389, y=0.4128 S2: x=0.4379 , y=0.4111

Reversing Lamp – sample 1 (S122437)

ISOQA

PHOTOMETRIC RESULTS

Program:	00 (2005.05.13)	ECE R 23 Reversing Lamp LED	
Intensity distribution for independent (two lamps)			
Name:	120680 DF-TRL010 S122437 ECE R23 AR Reversing Lamp		
Number:	L120862		
Test distance:	3.176 m	**Meas.-no.:**	
Lamp type:	LED		
Number:	LED		
Flux:	0.000 lm	**Operator:**	Arthur Chang
Voltage:	13.499 V	**Date:**	8/9/2012 8:53:16 AM
Current:	0.204 A	**Set value:**	Const. voltage
X-offset:	0.00°	**Y-offset:**	0.00°
Comment:			

ECE R 23 Reversing Lamp LED

Function	Min	Max	Value	H	V	Unit	N.O.K.
H - V(1min)	80	300	151.100	0.00°	0.00°	cd	
H - V(30min)	80	300	150.500	0.00°	0.00°	cd	
10U - 10L	10	300	63.270	-10.00°	10.00°	cd	
10U - V	15	300	60.340	0.00°	10.00°	cd	
10U - 10R	10	300	63.830	10.00°	10.00°	cd	
5U - 45R	15	300	28.970	45.00°	10.00°	cd	
5U - 10R	20	300	90.400	10.00°	5.00°	cd	
5U - V	25	300	85.800	0.00°	5.00°	cd	
5U - 10L	20	300	78.100	-10.00°	5.00°	cd	
5U - 45L	15	300	37.460	-45.00°	5.00°	cd	
H - 45L	15	300	42.350	-45.00°	0.00°	cd	
H - 30L	25	300	73.680	-30.00°	0.00°	cd	
H - 10L	50	300	134.400	-10.00°	0.00°	cd	
H - 10R	50	300	146.800	10.00°	0.00°	cd	
H - 30R	25	300	82.000	30.00°	0.00°	cd	
H - 45R	15	300	37.170	45.00°	0.00°	cd	
5D - 45R	15	600	33.090	45.00°	-5.00°	cd	
5D - 30R	25	600	78.960	30.00°	-5.00°	cd	
5D - 10R	50	600	98.000	10.00°	-5.00°	cd	
5D - V	80	600	99.900	0.00°	-5.00°	cd	
5D - 10L	50	600	93.200	-10.00°	-5.00°	cd	
5D - 30L	25	600	72.090	-30.00°	-5.00°	cd	
5D - 45L	15	600	39.150	-45.00°	-5.00°	cd	
Maximum above H-H plane	-	300	150.500	0.0	0.00°	cd	
Maximum between H-H and -5	-	600	149.622	-0.50°	0.00°	cd	
Maximum below -5 degree	0	8000	99.900	0.00°	-5.00°	cd	

Reversing Lamp – sample 2 (S122438)

ISOQA

PHOTOMETRIC RESULTS

Program:	00 (2005.05.13)	ECE R 23 Reversing Lamp LED	
Intensity distribution for independent (two lamps)			
Name:	120680 DF-TRL010 S122438 ECE R23_ AR Reversing Lamp		
Number:	L120862		
Test distance:	3.176 m	**Meas.-no.:**	
Lamp type:	LED		
Number:	LED		
Flux:	0.000 lm	**Operator:**	Arthur Chang
Voltage:	13.499 V	**Date:**	8/9/2012 10:09:27 AM
Current:	0.204 A	**Set value:**	Const. voltage
X-offset:	0.00°	**Y-offset:**	0.00°
Comment:			

ECE R 23 Reversing Lamp LED

Function	Min	Max	Value	H	V	Unit	N.O.K.
H - V(1min)	80	300	151.900	0.00°	0.00°	cd	
H - V(30min)	80	300	151.100	0.00°	0.00°	cd	
10U - 10L	10	300	63.470	-10.00°	10.00°	cd	
10U - V	15	300	59.800	0.00°	10.00°	cd	
10U - 10R	10	300	62.950	10.00°	10.00°	cd	
5U - 45R	15	300	31.300	45.00°	10.00°	cd	
5U - 10R	20	300	94.800	10.00°	5.00°	cd	
5U - V	25	300	99.200	0.00°	5.00°	cd	
5U - 10L	20	300	99.700	-10.00°	5.00°	cd	
5U - 45L	15	300	35.630	-45.00°	5.00°	cd	
H - 45L	15	300	40.050	-45.00°	0.00°	cd	
H - 30L	25	300	78.800	-30.00°	0.00°	cd	
H - 10L	50	300	138.700	-10.00°	0.00°	cd	
H - 10R	50	300	143.900	10.00°	0.00°	cd	
H - 30R	25	300	82.200	30.00°	0.00°	cd	
H - 45R	15	300	39.850	45.00°	0.00°	cd	
5D - 45R	15	600	38.950	45.00°	-5.00°	cd	
5D - 30R	25	600	82.000	30.00°	-5.00°	cd	
5D - 10R	50	600	90.100	10.00°	-5.00°	cd	
5D - V	80	600	95.500	0.00°	-5.00°	cd	
5D - 10L	50	600	81.900	-10.00°	-5.00°	cd	
5D - 30L	25	600	74.590	-30.00°	-5.00°	cd	
5D - 45L	15	600	35.850	-45.00°	-5.00°	cd	
Maximum above H-H plane	-	300	151.100	0.00°	0.00°	cd	
Maximum between H-H and -5	-	600	149.806	0.00°	0.00°	cd	
Maximum below -5 degree	0	8000	95.500	0.00°	-5.00°	cd	