



**NSAI**  
Certification

**ECE TYPE-APPROVAL CERTIFICATE**



Communication concerning:<sup>2</sup>

Approval granted  
~~Approval extended~~  
~~Approval refused~~  
~~Approval withdrawn~~  
~~Production definitely discontinued~~

of a type of reversing lamp/manoeuvring lamp pursuant to Regulation No. 23

Approval No: E24\* 23R00/21\*0054\*00

Reason(s) for extension:

*N/A*

1. Trade name or mark of the device:



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

Version(s):

*N/A*

3. Manufacturer's name and address:

4. If applicable, name and address of manufacturer's representative:

*N/A*

5. Submitted for approval on:

*12.02.2018*

6. Technical service responsible for conducting approval tests:

*TÜV SÜD Auto Service GmbH  
Westendstraße 199  
D-80686 München*

7. Date of test report issued by that service:

*06.02.2018*



# NSAI

## Certification

Approval No: E24\* 23R00/21\*0054\*00

8. Number of report issued by that service:
9. Concise description: **Reversing Lamp AR**
- Number, category and kind of light source(s): **25\*LEDs**
- Voltage and wattage: **12V/24V and 3.24W**
- Application of an electronic light source control gear:
- (a) being part of the lamp: ~~yes~~/<sup>2</sup>**Yes**
- (b) being not part of the lamp: ~~yes~~/<sup>2</sup>**No**
- Input voltage(s) supplied by an electronic light source control gear: **12V and 24V**
- Electronic light source control gear manufacturer and identification number (when the light source control gear is part of the lamp but is not included into the lamp body): **N/A**
- Light source module: ~~yes~~/<sup>2</sup>**No**
- Light source module specific identification code: **N/A**
- Geometrical conditions of installation and relating variations (if any): **See manufacturer's information document**
- For a type of manoeuvring lamp pursuant to Regulation No. 23 paragraph 6.2.2.  
Maximum mounting height: **N/A**
- The lamp is only for use on a vehicle fitted with a tell-tale indicating failure: ~~yes~~/<sup>2</sup>**No**

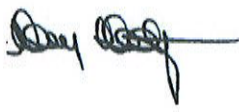
<sup>1</sup> Distinguishing number of the country which has granted/refused/withdrawn approval (see approval provisions in the Regulation).

<sup>2</sup> Strike out which does not apply.



**NSAI**  
Certification

Approval No: E24\* 23R00/21\*0054\*00

- |     |   |                                    |
|-----|---|------------------------------------|
| 10. | Position of the approval mark:  | <i>On the lens</i>                 |
| 11. | Comments:   |                                    |
|     | In the case of a reversing lamp, this device shall be installed on a vehicle only as part of a pair of devices: yes/no <sup>2</sup> | <i>No</i>                          |
| 12. | Reason(s) for extension (if applicable):  | <i>N/A</i>                         |
| 13. | Approval granted/extended/refused/withdrawn <sup>3</sup>  | <i>Granted</i>                     |
| 14. | Place:  | <i>Dublin</i>                      |
| 15. | Date:   | <i>6<sup>th</sup> March, 2018.</i> |
| 16. | Signature:   |                                    |



17. The list of documents deposited with the Administrative Service which has granted approval, is annexed and may be obtained on request.



### Index to the Information Package

Date of issue: *6<sup>th</sup> March, 2018.*

Date of latest amendment: *N/A*

Reason for extension/revision: *N/A*

1. Additional conditions, and advisory notes on legal alternatives.

2. Test report(s)

- numbers(s):

- date of issue: *06.02.2018*

- date of latest amendment: *N/A*

3. Information document

- number(s):

- date of issue: *25.12.2017*

- date of latest amendment: *N/A*

Documentation: *18 pages*



Approval No: E24\* 23R00/21\*0054\*00

**Appendix: Additional conditions, and advisory notes on legal alternatives**

**A: Additional conditions:**

1. The device, Type                      shall be marked as prescribed by the regulation.
2. Fitting instructions shall be supplied with each device, giving details of any limitations in the use of the device.
3. The device should be fitted in accordance with the fitting instructions.
4. The attached technical report, with any of its attachments, forms part of this Type Approval certificate.
5. Each individual product from series production shall be to the measurements specified in the attached drawings, and shall be manufactured only from the materials specified in the Approval documents.
6. Changes in the product are permitted only with the explicit permission of NSAI. Breaches of this requirement will lead to a withdrawal of the Type Approval, and in addition may be subject to criminal prosecution.
7. This Type Approval will expire when it is surrendered by the holder, or withdrawn by NSAI, or when the approved type of product no longer conforms to legal requirements. The recall of the Type Approval can be issued by NSAI when the conditions required for the issuing or continuation of the Type Approval are no longer current, or when the Approval holder is in breach of the duties attached to the Type Approval, or when it is established that the approved type no longer meets the requirements of traffic safety.
8. NSAI may at any time check the correct performance of the duties imposed by the grant of this Type Approval, and in order to do so, may make tests, or have tests made.
9. Changes in the company name, address or manufacturing site, as well as in any of the sales or other agents specified in the issuing of the approval must immediately be notified to the NSAI.
10. The duties imposed by the issuing of this certificate are not transferable. The legal protection of third parties is not affected by this certificate.
11. When the manufacture or sale of the vehicle, system, component or separate technical unit has not been started within one year of the date of issue of this certificate, then NSAI is to be informed. This requirement also applies when the manufacture or sale has been halted for more than one year, or when it ought to have been halted for more than one year. The initial commencement of manufacture or sale, or the resumption of manufacture or sale, shall then be notified to NSAI within one month of commencement or resumption.

**B : Legal Options**

Any objection to the requirements set out in this certificate shall be made within one month of the date of issue. The objection shall be made, in writing, to NSAI in Dublin.



Technical Report No.:  
Manufacturer:  
Type:

## TECHNICAL REPORT

No.:

Test according to ECE regulation relating to

Reversing lamp AR

**ECE Regulation No.: 23**


supplement 21 to the 00 series of amendments

Approvals granted up to now		
ECE	Number of approval	Date
	---	---

Technical Report No.:  
Manufacturer:  
Type:

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**I. Technical description**

- 0.1. Make (trade name of manufacturer) : 
- 0.2. Type :
- 0.2.1. Variants : N/A
- 0.3. Means of identification of type : By digits and letters
- 0.4. Concise description
- Category : Reversing lamp AR
- Number, category and kind of light source(s) : 25\*LEDs
- Voltage and wattage : 12V/24V and 3.24W
- Application of an electronic light source control gear/variable intensity control :
- Being part of the lamp : Yes
- Being not part of the lamp : No
- Input voltage(s) supplied by an electronic light source control gear : 12V and 24V
- 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) : N/A
- Light source module : No
- Light source module specific identification code : N/A
- Geometrical conditions of installation and relating variations, if any : See manufacturer's information document



Technical Report No.:

Manufacturer:

Type:

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For a type of manoeuvring lamp pursuant to Regulation number 23, paragraph 6.2.2. Maximum mounting height : N/A

In the case of a reversing lamp, this device shall be installed on a vehicle only as a part of a pair of devices : No

The lamp is only for use on a vehicle fitted with a tell-tale indicating failure : No

0.5. Name and address of manufacturer :

0.8. Address of assembly plant :

0.9. Location of the approval mark : On the lens

0.10. If applicable, name and address of the manufacturer's representative : N/A



Technical Report No.:  
Manufacturer:  
Type:

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## II. Test record

### 1. Test conditions

- 1.1. Technical data of the test samples : Two samples were tested.  
Marking:  
Sample No. 1 and Sample No. 2.  
For information about the form of the lamp, the position of the reference point and the reference axis, see information document.
- 1.2. Test procedures used : According to ECE Regulation No.: 23.00.
- 1.3. Measuring and test equipment : Full automatic photometric test system for automobile lamps  
EVERFINE PHOTO-E-INFO CO., LTD.  
Type GO-HD5

### 2. Test results

- 2.1. General Specifications  
Reversing lamps have been 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.  
No light source module or light generator is used.

Technical Report No.:

Manufacturer:

Type:

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## 2.2. Intensity of light emitted - Mounting position 1

### 2.2.1. Sample No. 1, Normal mode, 25 LEDs lit together, test voltage 11.999V.

No.	Point of the measurement	Limits [cd]		Measured values [cd]			Conclusion
		Min.	Max.	Photometric stability has occurred	10 minute.	1 minute.	
1	10U-10L	10.00	300.00	147.56	151.01	155.31	Complies
2	10U-V	15.00	300.00	135.92	139.10	143.05	Complies
3	10U-10R	10.00	300.00	150.72	154.25	158.63	Complies
4	5U-45R	15.00	300.00	59.61	61.00	62.74	Complies
5	5U-10R	20.00	300.00	155.43	159.07	163.59	Complies
6	5U-V	25.00	300.00	139.02	142.27	146.32	Complies
7	5U-10L	20.00	300.00	145.16	148.56	152.78	Complies
8	5U-45L	15.00	300.00	71.26	72.93	75.00	Complies
9	H-45L	20.00	300.00	71.49	73.16	75.24	Complies
10	H-30L	25.00	300.00	101.01	103.37	106.31	Complies
11	H-10L	50.00	300.00	138.87	142.12	146.16	Complies
12	H-V	80.00	300.00	144.02	147.39	151.58	Complies
13	H-10R	50.00	300.00	142.75	146.09	150.24	Complies
14	H-30R	25.00	300.00	102.21	104.60	107.58	Complies
15	H-45R	15.00	300.00	61.41	62.85	64.63	Complies
16	5D-45R	15.00	600.00	61.75	63.19	64.99	Complies
17	5D-30R	25.00	600.00	102.61	105.01	108.00	Complies
18	5D-10R	50.00	600.00	142.80	146.14	150.30	Complies
19	5D-V	80.00	600.00	144.08	147.45	151.64	Complies
20	5D-10L	50.00	600.00	140.99	144.29	148.39	Complies
21	5D-30L	25.00	600.00	101.86	104.24	107.21	Complies
22	5D-45L	15.00	600.00	72.37	74.06	76.17	Complies
23	Below 5D plane	---	8000.00	157.75	161.44	166.03	Complies
24	Above H-H plane	---	300.00	169.93	173.91	178.85	Complies
25	Between H-H plane and 5D plane	---	600.00	172.98	177.03	182.06	Complies

Technical Report No.:

Manufacturer:

Type:

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2.2.2. Sample No. 2, Normal mode, 25 LEDs lit together, test voltage 23.999V.

No.	Point of the measurement	Limits [cd]		Measured values [cd]			Conclusion
		Min.	Max.	Photometric stability has occurred	10 minute.	1 minute.	
1	10U-10L	10.00	300.00	166.79	169.82	173.89	Complies
2	10U-V	15.00	300.00	145.78	148.43	151.98	Complies
3	10U-10R	10.00	300.00	155.28	158.10	161.89	Complies
4	5U-45R	15.00	300.00	74.26	75.61	77.42	Complies
5	5U-10R	20.00	300.00	161.56	164.49	168.43	Complies
6	5U-V	25.00	300.00	147.73	150.41	154.02	Complies
7	5U-10L	20.00	300.00	165.97	168.98	173.03	Complies
8	5U-45L	15.00	300.00	89.32	90.94	93.12	Complies
9	H-45L	20.00	300.00	90.64	92.29	94.50	Complies
10	H-30L	25.00	300.00	122.28	124.50	127.48	Complies
11	H-10L	50.00	300.00	176.59	179.80	184.10	Complies
12	H-V	80.00	300.00	171.33	174.44	178.62	Complies
13	H-10R	50.00	300.00	174.66	177.83	182.09	Complies
14	H-30R	25.00	300.00	112.50	114.54	117.29	Complies
15	H-45R	15.00	300.00	75.15	76.51	78.35	Complies
16	5D-45R	15.00	600.00	74.79	76.15	77.97	Complies
17	5D-30R	25.00	600.00	114.73	116.81	119.61	Complies
18	5D-10R	50.00	600.00	166.04	169.05	173.10	Complies
19	5D-V	80.00	600.00	171.47	174.58	178.77	Complies
20	5D-10L	50.00	600.00	165.97	168.98	173.03	Complies
21	5D-30L	25.00	600.00	126.87	129.17	132.27	Complies
22	5D-45L	15.00	600.00	90.14	91.78	93.98	Complies
23	Below 5D plane	---	8000.00	170.90	174.00	178.17	Complies
24	Above H-H plane	---	300.00	180.32	183.59	187.99	Complies
25	Between H-H plane and 5D plane	---	600.00	183.79	187.13	191.61	Complies

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Manufacturer:  
Type:

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2.2.3. Sample No. 1, Failure mode, 23 LEDs lit together, test voltage 11.999V.

No.	Point of the measurement	Limits [cd]		Measured values [cd]			Conclusion
		Min.	Max.	Photometric stability has occurred	10 minute.	1 minute.	
1	10U-10L	10.00	300.00	122.55	125.71	127.50	Complies
2	10U-V	15.00	300.00	109.61	112.43	114.04	Complies
3	10U-10R	10.00	300.00	130.12	133.47	135.37	Complies
4	5U-45R	15.00	300.00	51.66	52.99	53.75	Complies
5	5U-10R	20.00	300.00	134.34	137.80	139.76	Complies
6	5U-V	25.00	300.00	113.38	116.30	117.96	Complies
7	5U-10L	20.00	300.00	120.13	123.23	124.98	Complies
8	5U-45L	15.00	300.00	56.78	58.24	59.07	Complies
9	H-45L	20.00	300.00	56.66	58.12	58.95	Complies
10	H-30L	25.00	300.00	86.56	88.79	90.06	Complies
11	H-10L	50.00	300.00	115.61	118.59	120.28	Complies
12	H-V	80.00	300.00	119.12	122.19	123.93	Complies
13	H-10R	50.00	300.00	120.71	123.82	125.58	Complies
14	H-30R	25.00	300.00	94.60	97.04	98.42	Complies
15	H-45R	15.00	300.00	52.60	53.96	54.72	Complies
16	5D-45R	15.00	600.00	52.88	54.24	55.02	Complies
17	5D-30R	25.00	600.00	94.48	96.91	98.30	Complies
18	5D-10R	50.00	600.00	118.91	121.97	123.71	Complies
19	5D-V	80.00	600.00	119.01	122.08	123.82	Complies
20	5D-10L	50.00	600.00	116.40	119.40	121.10	Complies
21	5D-30L	25.00	600.00	86.31	88.53	89.80	Complies
22	5D-45L	15.00	600.00	57.04	58.51	59.34	Complies
23	Below 5D plane	---	8000.00	132.11	135.51	137.44	Complies
24	Above H-H plane	---	300.00	145.96	149.72	151.85	Complies
25	Between H-H plane and 5D plane	---	600.00	153.80	157.76	160.01	Complies

Technical Report No.:  
 Manufacturer:  
 Type:

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2.2.4. Sample No. 2, Failure mode, 23 LEDs lit together, test voltage 23.999V.

No.	Point of the measurement	Limits [cd]		Measured values [cd]			Conclusion
		Min.	Max.	Photometric stability has occurred	10 minute.	1 minute.	
1	10U-10L	10.00	300.00	125.87	128.14	131.10	Complies
2	10U-V	15.00	300.00	118.70	120.84	123.64	Complies
3	10U-10R	10.00	300.00	112.69	114.72	117.38	Complies
4	5U-45R	15.00	300.00	59.22	60.29	61.68	Complies
5	5U-10R	20.00	300.00	133.06	135.46	138.59	Complies
6	5U-V	25.00	300.00	122.89	125.10	128.00	Complies
7	5U-10L	20.00	300.00	135.56	138.00	141.20	Complies
8	5U-45L	15.00	300.00	72.14	73.44	75.14	Complies
9	H-45L	20.00	300.00	72.77	74.08	75.80	Complies
10	H-30L	25.00	300.00	93.95	95.64	97.86	Complies
11	H-10L	50.00	300.00	140.35	142.88	146.19	Complies
12	H-V	80.00	300.00	133.71	136.12	139.27	Complies
13	H-10R	50.00	300.00	139.75	142.27	145.56	Complies
14	H-30R	25.00	300.00	101.44	103.27	105.66	Complies
15	H-45R	15.00	300.00	58.75	59.81	61.19	Complies
16	5D-45R	15.00	600.00	58.54	59.60	60.97	Complies
17	5D-30R	25.00	600.00	103.42	105.28	107.72	Complies
18	5D-10R	50.00	600.00	132.01	134.39	137.50	Complies
19	5D-V	80.00	600.00	133.31	135.71	138.85	Complies
20	5D-10L	50.00	600.00	130.40	132.75	135.82	Complies
21	5D-30L	25.00	600.00	96.22	97.95	100.22	Complies
22	5D-45L	15.00	600.00	70.76	72.04	73.70	Complies
23	Below 5D plane	---	8000.00	144.54	147.15	150.55	Complies
24	Above H-H plane	---	300.00	155.11	157.91	161.56	Complies
25	Between H-H plane and 5D plane	---	600.00	157.62	160.46	164.17	Complies

Technical Report No.:

Manufacturer:

Type:

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### 2.3. Intensity of light emitted - Mounting position 2

#### 2.3.1. Sample No. 1, Normal mode, 25 LEDs lit together, test voltage 11.999V.

No.	Point of the measurement	Limits [cd]		Measured values [cd]			Conclusion
		Min.	Max.	Photometric stability has occurred	10 minute.	1 minute.	
1	10U-10L	10.00	300.00	135.44	138.99	143.06	Complies
2	10U-V	15.00	300.00	131.27	134.71	138.66	Complies
3	10U-10R	10.00	300.00	141.57	145.28	149.54	Complies
4	5U-45R	15.00	300.00	62.91	64.56	66.45	Complies
5	5U-10R	20.00	300.00	158.96	163.13	167.90	Complies
6	5U-V	25.00	300.00	150.16	154.10	158.61	Complies
7	5U-10L	20.00	300.00	149.06	152.97	157.45	Complies
8	5U-45L	15.00	300.00	80.78	82.90	85.33	Complies
9	H-45L	20.00	300.00	77.95	80.00	82.34	Complies
10	H-30L	25.00	300.00	108.09	110.93	114.17	Complies
11	H-10L	50.00	300.00	144.69	148.49	152.83	Complies
12	H-V	80.00	300.00	139.86	143.53	147.73	Complies
13	H-10R	50.00	300.00	133.60	137.11	141.12	Complies
14	H-30R	25.00	300.00	96.50	99.03	101.93	Complies
15	H-45R	15.00	300.00	65.94	67.67	69.65	Complies
16	5D-45R	15.00	600.00	70.76	72.62	74.74	Complies
17	5D-30R	25.00	600.00	108.73	111.58	114.85	Complies
18	5D-10R	50.00	600.00	155.99	160.08	164.77	Complies
19	5D-V	80.00	600.00	152.52	156.52	161.10	Complies
20	5D-10L	50.00	600.00	148.16	152.05	156.50	Complies
21	5D-30L	25.00	600.00	98.78	101.37	104.34	Complies
22	5D-45L	15.00	600.00	76.34	78.34	80.64	Complies
23	Below 5D plane	---	8000.00	160.64	164.86	169.68	Complies
24	Above H-H plane	---	300.00	166.75	171.13	176.13	Complies
25	Between H-H plane and 5D plane	---	600.00	170.60	175.08	180.20	Complies

Technical Report No.:  
Manufacturer:  
Type:

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2.3.2. Sample No. 2, Normal mode, 25 LEDs lit together, test voltage 23.999V.

No.	Point of the measurement	Limits [cd]		Measured values [cd]			Conclusion
		Min.	Max.	Photometric stability has occurred	10 minute.	1 minute.	
1	10U-10L	10.00	300.00	162.96	166.35	170.05	Complies
2	10U-V	15.00	300.00	155.71	158.95	162.48	Complies
3	10U-10R	10.00	300.00	140.78	143.71	146.90	Complies
4	5U-45R	15.00	300.00	80.93	82.61	84.45	Complies
5	5U-10R	20.00	300.00	163.51	166.91	170.62	Complies
6	5U-V	25.00	300.00	152.51	155.68	159.14	Complies
7	5U-10L	20.00	300.00	147.04	150.10	153.43	Complies
8	5U-45L	15.00	300.00	83.36	85.09	86.99	Complies
9	H-45L	20.00	300.00	88.30	90.14	92.14	Complies
10	H-30L	25.00	300.00	136.26	139.09	142.19	Complies
11	H-10L	50.00	300.00	166.91	170.38	174.17	Complies
12	H-V	80.00	300.00	168.32	171.82	175.64	Complies
13	H-10R	50.00	300.00	160.35	163.68	167.32	Complies
14	H-30R	25.00	300.00	103.77	105.93	108.28	Complies
15	H-45R	15.00	300.00	81.41	83.10	84.95	Complies
16	5D-45R	15.00	600.00	83.96	85.71	87.61	Complies
17	5D-30R	25.00	600.00	128.37	131.04	133.95	Complies
18	5D-10R	50.00	600.00	157.39	160.66	164.23	Complies
19	5D-V	80.00	600.00	157.15	160.42	163.98	Complies
20	5D-10L	50.00	600.00	161.06	164.41	168.06	Complies
21	5D-30L	25.00	600.00	132.75	135.51	138.52	Complies
22	5D-45L	15.00	600.00	85.86	87.65	89.59	Complies
23	Below 5D plane	---	8000.00	165.48	168.92	172.68	Complies
24	Above H-H plane	---	300.00	173.29	176.89	180.83	Complies
25	Between H-H plane and 5D plane	---	600.00	175.62	179.27	183.26	Complies

Technical Report No.:

Manufacturer:

Type:

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2.3.3. Sample No. 1, Failure mode, 23 LEDs lit together, test voltage 11.999V.

No.	Point of the measurement	Limits [cd]		Measured values [cd]			Conclusion
		Min.	Max.	Photometric stability has occurred	10 minute.	1 minute.	
1	10U-10L	10.00	300.00	117.36	120.63	124.50	Complies
2	10U-V	15.00	300.00	111.67	114.78	118.46	Complies
3	10U-10R	10.00	300.00	123.44	126.88	130.95	Complies
4	5U-45R	15.00	300.00	54.34	55.85	57.64	Complies
5	5U-10R	20.00	300.00	136.32	140.12	144.61	Complies
6	5U-V	25.00	300.00	125.38	128.87	133.00	Complies
7	5U-10L	20.00	300.00	122.49	125.90	129.94	Complies
8	5U-45L	15.00	300.00	60.45	62.13	64.13	Complies
9	H-45L	20.00	300.00	58.66	60.29	62.23	Complies
10	H-30L	25.00	300.00	90.63	93.15	96.14	Complies
11	H-10L	50.00	300.00	120.18	123.53	127.49	Complies
12	H-V	80.00	300.00	115.27	118.48	122.28	Complies
13	H-10R	50.00	300.00	111.35	114.45	118.12	Complies
14	H-30R	25.00	300.00	84.39	86.74	89.52	Complies
15	H-45R	15.00	300.00	57.23	58.82	60.71	Complies
16	5D-45R	15.00	600.00	60.42	62.10	64.09	Complies
17	5D-30R	25.00	600.00	97.24	99.95	103.15	Complies
18	5D-10R	50.00	600.00	128.45	132.03	136.26	Complies
19	5D-V	80.00	600.00	125.62	129.12	133.26	Complies
20	5D-10L	50.00	600.00	120.63	123.99	127.97	Complies
21	5D-30L	25.00	600.00	87.59	90.03	92.92	Complies
22	5D-45L	15.00	600.00	68.72	70.63	72.90	Complies
23	Below 5D plane	---	8000.00	132.19	135.87	140.23	Complies
24	Above H-H plane	---	300.00	141.82	145.77	150.44	Complies
25	Between H-H plane and 5D plane	---	600.00	145.51	149.56	154.36	Complies

Technical Report No.:  
Manufacturer:  
Type:

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2.3.4. Sample No. 2, Failure mode, 23 LEDs lit together, test voltage 23.999V.

No.	Point of the measurement	Limits [cd]		Measured values [cd]			Conclusion
		Min.	Max.	Photometric stability has occurred	10 minute.	1 minute.	
1	10U-10L	10.00	300.00	130.86	133.40	136.54	Complies
2	10U-V	15.00	300.00	124.28	126.69	129.67	Complies
3	10U-10R	10.00	300.00	118.14	120.43	123.27	Complies
4	5U-45R	15.00	300.00	66.53	67.82	69.42	Complies
5	5U-10R	20.00	300.00	135.87	138.51	141.77	Complies
6	5U-V	25.00	300.00	130.24	132.77	135.89	Complies
7	5U-10L	20.00	300.00	124.47	126.89	129.87	Complies
8	5U-45L	15.00	300.00	70.49	71.86	73.55	Complies
9	H-45L	20.00	300.00	73.36	74.78	76.54	Complies
10	H-30L	25.00	300.00	108.35	110.45	113.05	Complies
11	H-10L	50.00	300.00	141.48	144.23	147.62	Complies
12	H-V	80.00	300.00	144.27	147.07	150.53	Complies
13	H-10R	50.00	300.00	133.79	136.39	139.60	Complies
14	H-30R	25.00	300.00	93.37	95.18	97.42	Complies
15	H-45R	15.00	300.00	66.17	67.45	69.04	Complies
16	5D-45R	15.00	600.00	68.63	69.96	71.61	Complies
17	5D-30R	25.00	600.00	104.82	106.85	109.37	Complies
18	5D-10R	50.00	600.00	128.44	130.93	134.01	Complies
19	5D-V	80.00	600.00	130.42	132.95	136.08	Complies
20	5D-10L	50.00	600.00	137.93	140.61	143.91	Complies
21	5D-30L	25.00	600.00	114.67	116.90	119.65	Complies
22	5D-45L	15.00	600.00	71.24	72.62	74.33	Complies
23	Below 5D plane	---	8000.00	140.49	143.22	146.59	Complies
24	Above H-H plane	---	300.00	149.67	152.57	156.16	Complies
25	Between H-H plane and 5D plane	---	600.00	152.39	155.35	159.00	Complies



Technical Report No.:  
 Manufacturer:  
 Type:

2.4. Colour - White

Sample	Measured values		Limits
	x	y	
			W12 green boundary: $y = 0.150 + 0.640 x$ W23 yellowish green boundary: $y = 0.440$ W34 yellow boundary: $x = 0.500$ W45 reddish purple boundary: $y = 0.382$ W56 purple boundary: $y = 0.050 + 0.750 x$ W61 blue boundary: $x = 0.310$
No. 1	0.3247	0.3328	Complies
No. 2	0.3252	0.3334	Complies

2.5. Apparent surface

Limit (I)	Limit (O)	Limit (U)	Limit (D)
35mm	35mm	35mm	35mm

3. Specimen submitted to test on : 2017-12-25 (YYYY-MM-DD)
4. Place of test : Jiangsu Huachen Vehicle Inspection Co., Ltd., Zhenjiang City, P.R. China
- Date of test : 2018-01-03 (YYYY-MM-DD)

III. Enclosures

- Manufacturer's information document No. :
- Dated on : 2017-12-25 (YYYY-MM-DD)

Technical Report No.:  
 Manufacturer:  
 Type:

**IV. Statement of conformity**

The information folder as mentioned under No. III and the type described therein are in compliance with the test specification mentioned above. The worst-case was selected in accordance with document "Preparation of Test Reports".

The test report may be reproduced and published in full and by the client only. It can be reproduced partially with the written permission of the test laboratory only.

München, 2018-02-06

(YYYY-MM-DD)



Joe Zhou


Test Laboratory / DIN EN ISO 17025

Genehmigungsbehörde/ Approval authority	Land/Country	Registriernummer/ Registration-number	Aktueller Benennungsumfang/ Actual scope list
Kraftfahrt-Bundesamt (KBA)	Deutschland/ Germany	KBA-P 00100-10	www.kba.de
Vehicle Certification Agency (VCA)	Vereintes Königreich/ United Kingdom	VCA-TS-006	http://ec.europa.eu/enterprise/sectors/automotive/approval-authorities-technical-services/technical-services/index_en.htm
Approval Authority of the Netherlands (RDW)	Niederlande/ The Netherlands	RDWT-082-XX	
National Standards Authority of Ireland (NSAI)	Irland/ Ireland	Technical Service Number: 49	
Vehicle Safety Certification Center (VSCC)	Taiwan/ Taiwan	DE04-06-2	<a href="http://www.vsc.org.tw/English/Default.aspx">http://www.vsc.org.tw/English/Default.aspx</a>

Information folder No. :

First application date : December 25, 2017

1. Specification data

Type		
Function		Reversing lamp
Color		White
Rated	Voltage	12V/24V*
	Wattage	3.24W
Application Regulation ECE		R23.00 AR
Location of marking	Number and category of light source	25*LED Non-replaceable light source Marked on LED PCB
	Trade mark	
	Approval mark	Marked on lens
Remark		*: Application of an electronic light source control gear: Being part of the lamp Input voltage: 12V/24V

2. Construction and material

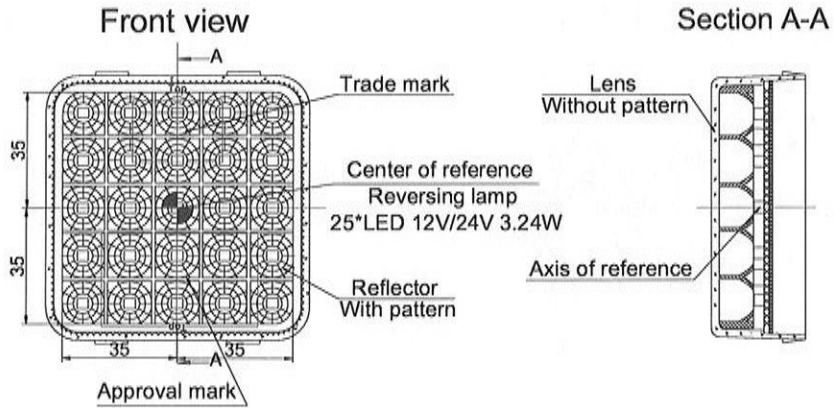
Construction	Material	Remarks
Lens	PMMA	Colour: Clear
Reflector	ABS	AL vacuum vapour coating Painting on the inside surface Colour: Metal silver
Housing	Epoxy resin	To ensure air-tightness of the lamp
Electrical Wiring	Copper covered with insulation	--

3. Name and address of manufacturer :

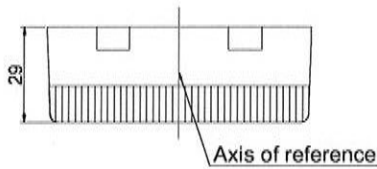
4. Name and address of the assembly plant :

5. Name and address of the manufacturer's representative : N/A

### Mounting Position 1



### Top view

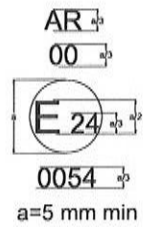
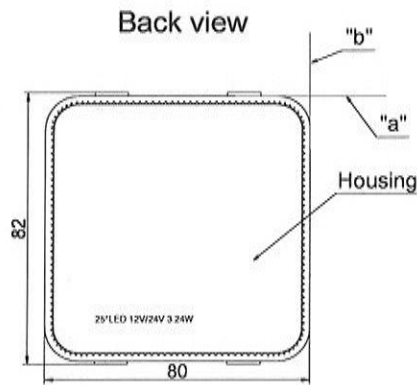


NOTE:  
 1. "a": Horizontal Plane of Vehicle  
 2. "b": Longitudinal Plane of Vehicle

Trade mark



Approval mark

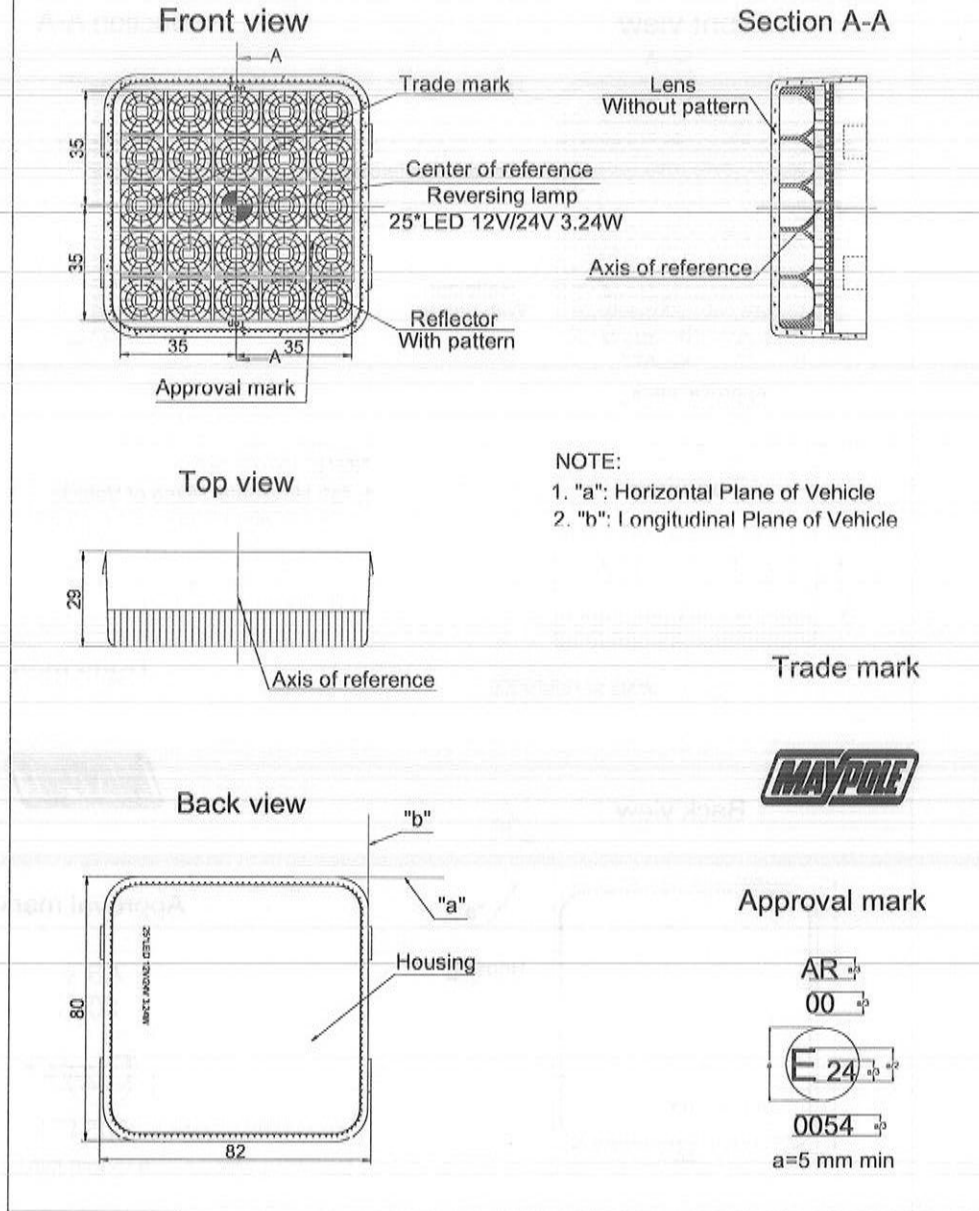


Product Type	
General assembly drawing	
Drawing No.	

Information folder No. :

First application date : December 25, 2017

## Mounting Position 2

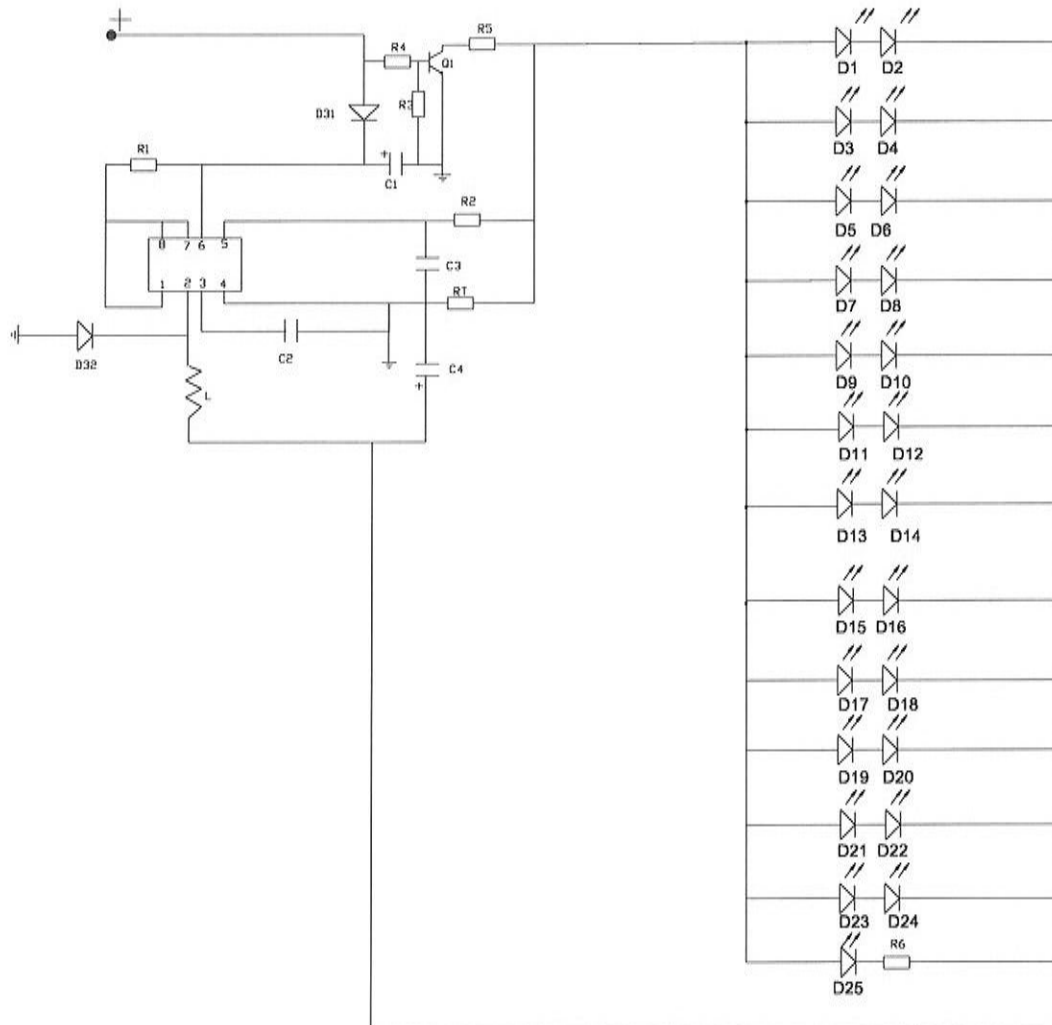


Product Type	
General assembly drawing	
Drawing No.	

Information folder No. :

First application date : December 25, 2017

Reversing lamp  
25\*LED 12V/24V 3.24W



Product Type	
LED circuit Diagram	
Drawing No.	

QUESTIONS

1. What is the main purpose of the study?

The study aims to investigate the impact of climate change on the agricultural sector, specifically focusing on the effects of rising temperatures and changing precipitation patterns on crop yields and farmer livelihoods.

The research is conducted in a semi-arid region where agriculture is the primary source of income for the population. The study area is characterized by low rainfall and high temperatures, which are expected to exacerbate the challenges faced by farmers.

The study uses a combination of field observations, interviews with farmers, and analysis of meteorological data to assess the current state of agriculture and the potential future impacts of climate change.

The findings of the study will provide valuable insights into the vulnerabilities of the agricultural sector and inform the development of adaptation strategies to mitigate the negative effects of climate change.

The study is organized into several sections, including an introduction, a literature review, a methodology section, a results and discussion section, and a conclusion.

The literature review highlights the growing concern over climate change and its potential impacts on agriculture, as well as the need for research to understand the specific challenges faced by farmers in different regions.

The methodology section describes the research design, data collection methods, and the analytical techniques used to process the data and draw conclusions.

The results and discussion section presents the findings of the study, including the observed trends in crop yields and farmer livelihoods, and discusses the implications of these findings for the agricultural sector.

The conclusion summarizes the key findings of the study and offers recommendations for future research and policy interventions to support the resilience of the agricultural sector in the face of climate change.

Year	Temperature (°C)	Precipitation (mm)	Crop Yield (kg/ha)
2010	25.5	450	3500
2011	26.0	420	3200
2012	26.5	380	2800
2013	27.0	350	2500
2014	27.5	320	2200
2015	28.0	280	1800
2016	28.5	250	1500
2017	29.0	220	1200
2018	29.5	180	900
2019	30.0	150	600

Figure 1: Trends in temperature, precipitation, and crop yield from 2010 to 2019. The graph shows a clear upward trend in temperature and a downward trend in precipitation, both of which are associated with a significant decline in crop yields over the period.

Table 1: Summary of key findings from the study. The table highlights the significant impact of climate change on the agricultural sector, particularly the decline in crop yields and the increasing vulnerability of farmers to climate-related risks.