



Repubblica di San Marino
Autorità per l'Omologazione
Republic of San Marino
Authority for Homologation

Via Consiglio dei Sessanta, 99
47891 Dogana - Repubblica di San Marino

Comunicazione
Communication

	Concernente ^{2/} Concerning ^{2/}	Il rilascio dell'omologazione <i>Approval granted</i> L'estensione dell'omologazione <i>Approval extended</i> Il rifiuto dell'omologazione <i>Approval refused</i> La revoca dell'omologazione <i>Approval withdrawn</i> La cessazione definitiva della produzione <i>Production definitively discontinued</i>
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of a type of lamp pursuant to Regulation No. 148

Lamp ² :	Rear-registration-plate-illuminating lamp Direction indicator lamp Stop lamp Position lamp End-outline marker lamp Reversing lamp Manoeuvring lamp Rear fog lamp Parking lamp Daytime running lamp Side marker lamp		
Category of the lamp:	AR	Change index:	0

Omologazione N. <i>Approval No.</i>	E57*148R00/04*0977	Estensione N. <i>Extension No.</i>	00
Marchio di omologazione <i>Approval mark</i>	See information document No.		
Identificatore Unico (IU) (se applicabile) <i>Unique Identifier (UI) (if applicable)</i>	N/A		

1. Trade name or mark of the lamp:



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

3. Manufacturer's name and address:

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

N/A

5. Submitted for approval on:

20/12/2023

6. Technical Service responsible for conducting approval tests:

AUTOMOTIVE TECHNICAL SERVICE S.r.l.
Via Consiglio del Sessanta, 99
47891 – DOGANA Repubblica di San Marino

7. Date of report issued by that Service:

11/01/2024

8. Number of report issued by that Service:

ATS-SM-IR-148-09409

9. Concise description:

9.1. In case of

9.1.1. A rear-registration plate illuminating lamp:

N/A

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):

N/A

9.1.2. A direction indicator:

N/A

Sequential activation of light sources:

yes/no²

9.1.3. A reversing lamp:

yes

The lamp shall be installed on a vehicle only as a part of a pair of lamps:

yes/no²

9.1.4. A manoeuvring lamp:

N/A

The maximum mounting height:

N/A

9.1.5. A daytime running lamp:

N/A


Maximum luminous intensity does not exceed 700 cd:

N/A

9.2. By light signalling function and category:	Reversing lamp AR
For mounting either outside or inside or both ²	Outside
Colour of light emitted:	White
Number, category and kind of light source(s):	12*LEDs Non-replaceable light source
Lamp approved for LED substitute light source(s):	yes/no ²
If yes, category of LED substitute light source(s):	N/A
Voltage and wattage:	12V/2.4W 24V/2.4W
Light source module:	yes/no ²
Light source module specific identification code:	N/A
Only for limited mounting height of equal to or less than 750 mm above the ground, if applicable:	yes/no ²
Geometrical conditions of installation and relating variations, if any:	See manufacturer's information document
Application of an electronic light source control gear/variable intensity control:	N/A
(a) Being part of the lamp:	yes/no ²
(b) Being not part of the lamp:	yes/no ²
Input voltage(s) supplied by an electronic light source control gear/variable intensity control:	N/A
Electronic light source control gear/variable intensity control 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
Variable luminous intensity, if applicable:	yes/no ²
Function(s) produced by an interdependent lamp forming part of an interdependent lamp system, if applicable:	N/A
9.3. The front position lamp ² , rear position lamp ² , stop lamp ² , end-outline marker lamp ² , daytime running lamp ² is only for use on a vehicle fitted with a tell-tale indicating failure:	yes/no ²

10. Position of the approval mark: On the lens
11. Reason(s) for extension (if applicable): N/A
12. Approval **GRANTED/EXTENDED/REFUSED/WITHDRAWN²**
13. Approval granted for devices to be used on vehicles already in use only: **yes/no²**
14. Place: DOGANA – Repubblica di San Marino
15. Date: 11/01/2024
16. Signature:

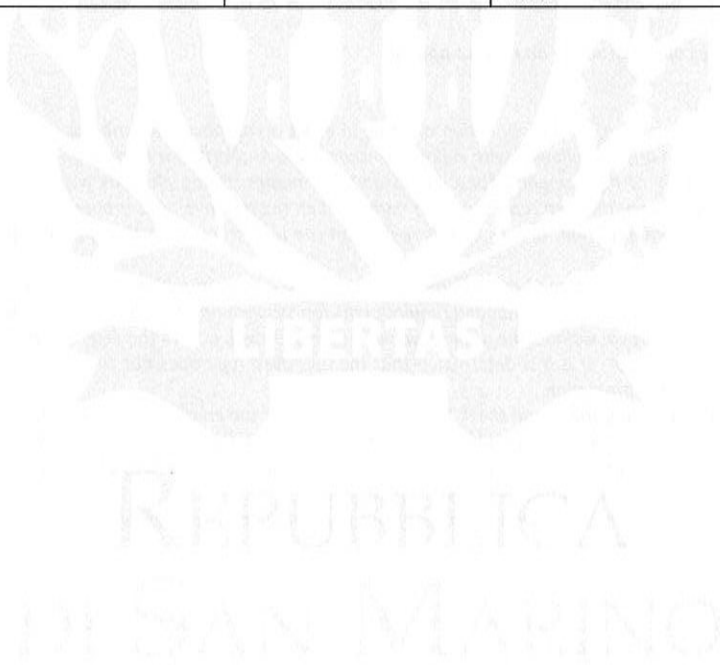



Ing. Marco CONTI
Direttore Generale
General Director

17. The list of documents deposited with the Type Approval Authority which has granted approval is annexed to this communication and may be obtained on request.

² Strike out what does not apply.

Allegato <i>Enclosure</i>			
Al certificato di omologazione ECE N. <i>To ECE approval certificate No.</i>		E57*148R00/04*0977*00	
Indice del fascicolo di omologazione <i>Index to the information package</i>			
Data <i>Date of issue</i>	11/01/2024	Data ultima modifica <i>Last amendment date</i>	--
1.	Clausole di garanzia e istruzioni sul diritto di presentare ricorso <i>Collateral clauses and instruction on right to appeal</i>		
2.	Rapporto(i) Finale di Ispezione N. <i>Test report(s) No.</i>	ATS-SM-IR-148-09409	Data <i>Date</i> 11/01/2024
3.	Scheda informativa N. <i>Information document No.</i>		Data <i>Date</i> 20/12/2023
			Data ultima modifica <i>Last amendment date</i>



Clausole di garanzia e istruzioni sul diritto di presentare ricorso

Clausole di garanzia

La produzione in serie deve essere esattamente conforme ai documenti di omologazione. Le variazioni di produzione in serie sono consentite solo con il consenso espresso del **Autorità per l'Omologazione**.

Le variazioni del nome della società, l'indirizzo e lo stabilimento di produzione, nonché una delle parti che hanno l'autorità alla consegna o eventuali rappresentanti nominati al momento del rilascio dell'omologazione, devono essere immediatamente comunicate al **Autorità per l'Omologazione**. La violazione di queste regole può portare al ritiro dell'omologazione ed inoltre può essere legalmente perseguita.

L'omologazione decade se viene restituita o ritirata o se il tipo omologato non è più conforme ai requisiti di legge. La revoca può essere fatta se non esistono più i requisiti richiesti per il rilascio e la continuazione dell'omologazione, se il titolare dell'omologazione viola gli obblighi dettati dall'omologazione, anche nel caso in cui gli obblighi derivino dalle condizioni assegnate all'interno dell'omologazione, o se è accertato che il tipo approvato non è conforme ai requisiti di sicurezza del traffico e di tutela dell'ambiente.

L'**Autorità per l'Omologazione** può verificare la corretta applicazione della delega conferita rilasciata nella presente omologazione, in qualsiasi momento. In particolare, questo include la verifica della produzione, che sia conforme, nonché le misure di controllo di conformità della produzione. Per questo, possono essere presi dei campioni dalla produzione. I dipendenti o rappresentanti dell'**Autorità per l'Omologazione** possono avere accesso senza ostacoli agli impianti di produzione e stoccaggio.

La delega conferita contenuta nella presente omologazione non è trasferibile. I diritti del marchio di terzi non sono interessati da questa omologazione.

Istruzione su diritto di ricorso

Questa omologazione è appellabile entro un mese dalla notifica. Il ricorso deve essere presentato per iscritto o come una domanda inviata all' **Autorità per l'Omologazione** - Via Consiglio dei Sessanta, 99 - 47891 Dogana - Repubblica di San Marino.

Collateral clauses and instruction on right to appeal

Collateral clauses

*The individual production of serial fabrication must be in exact accordance with the approval documents. Changes in the individual production are only allowed with express consent of the **Authority for Homologation**.*

*Changes in the name of the company, the address and the manufacturing plant as well as one of the parties given the authority to delivery or authorized representative named when the approval was granted is to be immediately disclosed to the **Authority for Homologation**. Breach of this regulation can lead to recall of the approval and moreover can be legally prosecuted.*

The approval expires if it is returned or withdrawn or if the type approved no longer complies with the legal requirements. The revocation can be made if the demanded requirements for issuance and the continuance of the approval no longer exist, if the holder of the approval violates the duties involved in the approval, also to the extent that they result from the assigned conditions to this approval, or if it is determined that the approved type does not comply with the requirements of traffic safety or environmental protection.

*The **Authority for Homologation** may check the proper exercise of the conferred authority taken from this approval at any time. In particular this means the compliant production as well as the measures for conformity of production. For this purpose samples can be taken or have taken. The employees or the representatives of the **Authority for Homologation** may get unhindered access to the production and storage facilities.*

The conferred authority contained with issuance of this approval is not transferable. Trade mark rights of third parties are not affected with this approval.

Instruction on right to appeal

*This approval can be appealed within one month after notification. The appeal is to be filed in writing or as a transcript at the **Authority for Homologation** - Via Consiglio dei Sessanta, 99 - 47891 Dogana - Repubblica di San Marino.*

Inspection Report No.: AT5-SM-IR-148-09409

Of: 11/01/2024



Type:

Manufacturer:

Inspection Report

No. AT5-SM-IR-148-09409

Inspection concerning vehicles-/ components with regard to:

Uniform provisions concerning the approval of light-signalling devices (lamps) for power-drive vehicles and their trailers:

- ~~Rear registration plate illuminating lamps~~
 - ~~Direction indicator lamps~~
 - ~~Position lamps~~
 - ~~Stop lamps~~
 - ~~End-outline marker lamps~~
 - ~~Reversing lamps~~
 - ~~Manoeuvring lamps~~
 - ~~Rear fog lamps~~
 - ~~Parking lamps~~
 - ~~Daytime running lamps~~
 - ~~Side marker lamps~~
- (strike out what does not apply)

performed according to

UN Regulation No. 148

as last amended by

**00 series of amendments
(supplement no. 04)**

of the Economic Commission for Europe

Approval status	
Number of approval	
ECE	E57*148R00/04*0977*00

Inspection Report No.: ATS-SM-IR-148-09409



Of: 11/01/2024

Type:

Manufacturer:

0. General information

0.1. Make (trade name of manufacturer):



0.2. Type:

0.2.1. Variant(s): N/A

0.3. Name and address of manufacturer:

0.3.1. Name and address of manufacturer's authorized representative: N/A

0.3.2. Production plant(s) address(es):

0.4. No. of the information document:

Date: 20/12/2023

0.5. Position of the approval mark: On the lens

0.6. Vehicle category(ies)
(or, if not applicable, vehicle categories which the component(s) is (are) suitable for): M, N, O, L

Type:

Manufacturer:

1 Concise description of the test object(s)

1.1 In case of a rear-registration plate illuminating lamp:

Applicable/ Not Applicable

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):

N/A

1.2 In case of a direction indicator:

Applicable/ Not Applicable

Sequential activation of light sources:

Yes/No

1.3 In case of a reversing lamp:

Applicable /Not Applicable

The lamp is installed on a vehicle only as part of a pair of lamps:

Yes/ No

1.4 In case of a manoeuvring lamp:

Applicable/ Not Applicable

The maximum mounting height:

N/A

1.5 A daytime running lamp:

Applicable/ Not Applicable

Maximum luminous intensity does not exceed 700 cd:

Yes/No

1.6 By light signalling function and category

Lamp (function)	Symbol	Color	Light source(s)	Voltage and wattage
Reversing lamp	AR	White	12*LEDs, Non-replaceable	12V/2.4W 24V/2.4W

1.6.1 For mounting

either outside or inside or both

1.6.2 Light source module:

Yes/ No

1.6.3 Light source module specific identification code:

N/A

Inspection Report No.: ATS-SM-IR-148-09409



Of: 11/01/2024

Type:

Manufacturer:

- 1.6.4 Only for limited mounting height of equal to or less than 750 mm above the ground, if applicable: Yes/ No
- 1.6.5 Geometrical conditions of installation and relating variations, if any: See Manufacturer's information document
- 1.6.6 Application of an electronic light source control gear/variable intensity control: N/A
- Being part of the lamp: Yes/ No
- Being not part of the lamp: Yes/ No
- Input voltage(s) supplied by an electronic light source control gear/variable intensity control: N/A
- Electronic light source control gear/variable intensity control 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
- Variable luminous intensity, if applicable: Yes/ No
- Function(s) produced by an interdependent lamp forming part of an interdependent lamp system, if applicable: N/A
- 1.6.7 The front position lamp/ rear position lamp/ stop lamp/ end-outline marker lamp/ daytime running lamp/ is only for use on a vehicle fitted with a tell-tale indicating failure: Yes/ No
- 1.6.8 Device(s) to be used on vehicles already in use only: Yes/ No
- 1.7 Reasons for extension (if applicable): N/A

3 General requirements and specifications

	Each lamp submitted for approval is conform to the requirements set forth in paragraph 4 of UN Regulation No. 148.	Conform / Not Conform
UN R148 4.1	The requirements contained in sections 5 "General specifications" and 6 "Individual specifications" (and in the Annexes referenced in the said sections) of UN Regulations Nos. 48, 53, 74 or 86, and their series of amendments in force at the time of application for the lamp type approval apply to this Regulation. The requirements pertinent to each lamp and to the category/ies of vehicle on which the lamp is intended to be installed shall be applied, where its verification at the moment of lamp type approval is feasible.	Conform / Not Conform Conform / Not Conform
UN R148 4.2	The lamps are 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 UN Regulation 148.	Conform / Not Conform
UN R148 4.3.1	In case of replaceable light source(s):	Applicable / Not Applicable
UN R148 4.3.1.1	The lamp is only equipped with light source(s) approved according to UN Regulation No. 37 and/or UN Regulation No. 128, provided that no restriction on the use is made in UN Regulation No. 37 and its series of amendments in force at the time of application for type approval or in UN Regulation No. 128 and its series of amendments in force at the time of application for type approval.	Applicable / Not Applicable
UN R148 4.3.1.2	In the case of a light source category or categories or type(s) is restricted for use in lamps on vehicles in use and originally equipped with such lamps, the applicant for type approval of the lamp shall declare that the lamp is only intended for installation on those vehicles; this is noted in the communication form, Annex 1.	Applicable / Not Applicable
UN R148 4.3.1.3	The design of the lamp is such that the light source(s) can be fixed in no other position but the correct one.	Applicable / Not Applicable

Type:

Manufacturer:

UN R148 The light source(s) holder shall conform to the characteristics **Applicable/ Not Applicable**
4.3.1.4 given in IEC Publication 60061. The holder data sheet relevant to the category of light source(s) used, applies.

Alternatively, where a category of LED substitute light source(s) is also prescribed, the holder data sheet relevant to the category of LED substitute light source(s) applies. **Applicable and conform/ Not Applicable**

UN R148 **In the case of light source modules** **Applicable / Not Applicable**
4.3.2

UN R148 The design of the light source module(s) is such as: **Conform / Not Conform**
4.3.2.1

- (a) That each light source module can only be fitted in no other position than the designated and correct one and can only be removed with the use of tool(s);
- (b) If there are more than one light source module used in the housing for a lamp, light source modules having different characteristics cannot be interchanged within the same lamp housing.

UN R148 The light source module(s) is tamperproof. **Conform / Not Conform**
4.3.2.2

UN R148 A light source module is so designed that regardless of the use of tool(s), it isn't mechanically interchangeable with any replaceable approved light source. **Conform / Not Conform**
4.3.2.3

UN R148 In the case of non-replaceable filament light source(s) or light source module(s) equipped with non-replaceable filament light source(s), the applicant shall annex to the type approval documentation a report, acceptable to the Authority responsible for type approval, that demonstrates compliance of these non-replaceable filament light source(s) with the requirements as specified in paragraph 4.11 of IEC 60809, Edition 3. **Conform / Not Conform**
4.3.2.4

4 Specific requirements and specifications according to UN Regulation No. 148

Specific requirements applicability

UN R148 Lamps and their categories	UN R148 paragraph No.	Inspection Report Paragraph No.	Applicable (Yes / No)
Reversing lamps (symbol AR)	Par. 5.8	4.1	Yes

4.1 Reversing lamps (symbol AR)

Applicable / Not Applicable

UN R148 5.8.1 The light emitted by each of the two lamps supplied meets the requirements in Table below.

Conform / ~~Not Conform~~

Requirements for luminous intensities				
Reversing lamps	Minimum luminous Intensity in H-V	Maximum luminous intensity in any direction in or above the h plane	Maximum luminous intensity in any direction below the h plane, down to 5°D	Maximum luminous intensity in any direction below 5°D
	(80)	(300)	(600)	(8000)

NOTES:
Intensity values in [cd].

Light distribution standards for reversing lamps is conform to specifications of UN R148 Annex 3.

Conform / ~~Not Conform~~

UN R148 5.8.2 In every other direction of measurement shown in paragraph 2.5. of Annex 3, the luminous intensity is not less than the minima specified in that annex.

Conform / ~~Not Conform~~

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 is satisfied.

~~Applicable and Conform-~~ / Not Applicable

Moreover, in the case where the type approval will be granted applying the condition above, a statement in paragraph 9.1.3. of the communication form (see Annex 1) will inform that the device is only installed in a pair.

~~Applicable and Conform-~~ / Not Applicable

Photometric test results for reversing lamp AR

Mounting position 1

Sample No. 1, normal mode, 12*LEDs lit together

Tested voltage: 13.5V

No.	Point of the measurement		Limits [cd]		Measured values [cd]			Conclusion
			Min.	Max.	After 1 min	After 10 min	After Stability	
1	10L	10U	10.00	300.00	57.28	55.88	51.23	Complies
2	V	10U	15.00	300.00	87.97	85.82	78.68	Complies
3	10R	10U	10.00	300.00	67.04	65.40	59.96	Complies
4	45R	5U	15.00	300.00	23.88	23.30	21.36	Complies
5	10R	5U	20.00	300.00	108.74	106.09	97.26	Complies
6	V	5U	25.00	300.00	125.02	121.97	111.82	Complies
7	10L	5U	20.00	300.00	95.63	93.29	85.53	Complies
8	45L	5U	15.00	300.00	33.68	32.85	30.12	Complies
9	45L	H	15.00	300.00	31.72	30.95	28.37	Complies
10	30L	H	25.00	300.00	147.99	144.39	132.37	Complies
11	10L	H	50.00	300.00	196.08	191.30	175.38	Complies
12	V	H	80.00	300.00	255.39	249.16	228.43	Complies
13	10R	H	50.00	300.00	202.40	197.46	181.03	Complies
14	30R	H	25.00	300.00	157.73	153.89	141.08	Complies
15	45R	H	15.00	300.00	29.05	28.34	25.98	Complies
16	45R	5D	15.00	600.00	41.55	40.53	37.16	Complies
17	30R	5D	25.00	600.00	128.99	125.84	115.37	Complies
18	10R	5D	50.00	600.00	182.45	178.00	163.19	Complies
19	V	5D	80.00	600.00	224.99	219.51	201.24	Complies
20	10L	5D	50.00	600.00	177.92	173.58	159.14	Complies
21	30L	5D	25.00	600.00	121.03	118.08	108.25	Complies
22	45L	5D	15.00	600.00	52.73	51.44	47.16	Complies
23	Below 5D		--	8000.00	229.50	223.90	205.27	Complies
24	Above HH line		--	300.00	255.39	249.16	228.43	Complies
25	Down H line Above 5D		--	600.00	241.23	235.34	215.76	Complies

Sample No. 2, normal mode, 12*LEDs lit together

Tested voltage: 28.0V

No.	Point of the measurement		Limits [cd]		Measured values [cd]			Conclusion
			Min.	Max.	After 1 min	After 10 min	After Stability	
1	10L	10U	10.00	300.00	57.79	55.14	51.57	Complies
2	V	10U	15.00	300.00	74.77	71.35	66.73	Complies
3	10R	10U	10.00	300.00	60.08	57.34	53.62	Complies
4	45R	5U	15.00	300.00	44.91	42.86	40.08	Complies
5	10R	5U	20.00	300.00	96.79	92.37	86.38	Complies
6	V	5U	25.00	300.00	120.42	114.92	107.47	Complies
7	10L	5U	20.00	300.00	101.11	96.48	90.23	Complies
8	45L	5U	15.00	300.00	42.91	40.94	38.29	Complies
9	45L	H	15.00	300.00	45.10	43.04	40.25	Complies
10	30L	H	25.00	300.00	189.90	181.21	169.47	Complies
11	10L	H	50.00	300.00	238.33	227.43	212.69	Complies
12	V	H	80.00	300.00	263.54	251.49	235.19	Complies
13	10R	H	50.00	300.00	247.02	235.73	220.45	Complies
14	30R	H	25.00	300.00	203.05	193.77	181.21	Complies
15	45R	H	15.00	300.00	42.23	40.30	37.69	Complies
16	45R	5D	15.00	600.00	50.22	47.93	44.82	Complies
17	30R	5D	25.00	600.00	85.09	81.20	75.94	Complies
18	10R	5D	50.00	600.00	167.39	159.73	149.38	Complies
19	V	5D	80.00	600.00	229.90	219.39	205.17	Complies
20	10L	5D	50.00	600.00	178.69	170.52	159.47	Complies
21	30L	5D	25.00	600.00	89.72	85.62	80.07	Complies
22	45L	5D	15.00	600.00	47.63	45.46	42.51	Complies
23	Below 5D		--	8000.00	258.97	247.13	231.11	Complies
24	Above HH line		--	300.00	265.64	253.49	237.06	Complies
25	Down H line Above 5D		--	600.00	236.47	225.65	211.03	Complies

Sample No. 1, failed mode, 8*LEDs lit together

Tested voltage: 13.5V

No.	Point of the measurement		Limits [cd]		Measured values [cd]			Conclusion
			Min.	Max.	After 1 min	After 10 min	After Stability	
1	10L	10U	10.00	300.00	51.56	47.65	45.29	Complies
2	V	10U	15.00	300.00	80.02	73.96	70.29	Complies
3	10R	10U	10.00	300.00	60.53	55.94	53.17	Complies
4	45R	5U	15.00	300.00	20.90	19.32	18.36	Complies
5	10R	5U	20.00	300.00	96.88	89.54	85.10	Complies
6	V	5U	25.00	300.00	118.11	109.16	103.75	Complies
7	10L	5U	20.00	300.00	87.98	81.31	77.28	Complies
8	45L	5U	15.00	300.00	27.47	25.39	24.13	Complies
9	45L	H	15.00	300.00	25.44	23.52	22.35	Complies
10	30L	H	25.00	300.00	145.02	134.03	127.39	Complies
11	10L	H	50.00	300.00	194.02	179.32	170.43	Complies
12	V	H	80.00	300.00	238.41	220.34	209.42	Complies
13	10R	H	50.00	300.00	197.28	182.33	173.29	Complies
14	30R	H	25.00	300.00	142.84	132.01	125.47	Complies
15	45R	H	15.00	300.00	25.20	23.29	22.14	Complies
16	45R	5D	15.00	600.00	38.64	35.71	33.94	Complies
17	30R	5D	25.00	600.00	113.15	104.57	99.39	Complies
18	10R	5D	50.00	600.00	177.91	164.43	156.28	Complies
19	V	5D	80.00	600.00	211.05	195.06	185.39	Complies
20	10L	5D	50.00	600.00	169.97	157.09	149.30	Complies
21	30L	5D	25.00	600.00	111.51	103.06	97.95	Complies
22	45L	5D	15.00	600.00	47.45	43.85	41.68	Complies
23	Below 5D		--	8000.00	213.28	197.12	187.35	Complies
24	Above HH line		--	300.00	243.60	225.14	213.98	Complies
25	Down H line Above 5D		--	600.00	233.81	216.09	205.38	Complies

Sample No. 2, failed mode, 8*LEDs lit together

Tested voltage: 28.0V

No.	Point of the measurement		Limits [cd]		Measured values [cd]			Conclusion
			Min.	Max.	After 1 min	After 10 min	After Stability	
1	10L	10U	10.00	300.00	50.91	48.98	46.27	Complies
2	V	10U	15.00	300.00	55.32	53.22	50.28	Complies
3	10R	10U	10.00	300.00	56.54	54.40	51.39	Complies
4	45R	5U	15.00	300.00	35.91	34.55	32.64	Complies
5	10R	5U	20.00	300.00	83.55	80.37	75.93	Complies
6	V	5U	25.00	300.00	109.22	105.07	99.26	Complies
7	10L	5U	20.00	300.00	92.37	88.86	83.95	Complies
8	45L	5U	15.00	300.00	36.50	35.11	33.17	Complies
9	45L	H	15.00	300.00	40.82	39.27	37.10	Complies
10	30L	H	25.00	300.00	176.12	169.42	160.06	Complies
11	10L	H	50.00	300.00	218.38	210.08	198.47	Complies
12	V	H	80.00	300.00	240.36	231.23	218.45	Complies
13	10R	H	50.00	300.00	225.24	216.69	204.71	Complies
14	30R	H	25.00	300.00	192.02	184.72	174.51	Complies
15	45R	H	15.00	300.00	36.54	35.15	33.21	Complies
16	45R	5D	15.00	600.00	42.99	41.36	39.07	Complies
17	30R	5D	25.00	600.00	77.27	74.34	70.23	Complies
18	10R	5D	50.00	600.00	159.80	153.73	145.23	Complies
19	V	5D	80.00	600.00	219.23	210.90	199.24	Complies
20	10L	5D	50.00	600.00	168.19	161.80	152.86	Complies
21	30L	5D	25.00	600.00	81.00	77.93	73.62	Complies
22	45L	5D	15.00	600.00	39.72	38.21	36.10	Complies
23	Below 5D		--	8000.00	242.13	232.93	220.06	Complies
24	Above HH line		--	300.00	244.79	235.48	222.47	Complies
25	Down H line Above 5D		--	600.00	220.93	212.54	200.79	Complies

Type:

Manufacturer:

Photometric test results for reversing lamp AR

Mounting position 2

Sample No. 1, normal mode, 12*LEDs lit together

Tested voltage: 13.5V

No.	Point of the measurement		Limits [cd]		Measured values [cd]			Conclusion
			Min.	Max.	After 1 min	After 10 min	After Stability	
1	10L	10U	10.00	300.00	78.32	73.90	68.22	Complies
2	V	10U	15.00	300.00	97.41	91.91	84.85	Complies
3	10R	10U	10.00	300.00	45.34	42.78	39.49	Complies
4	45R	5U	15.00	300.00	23.04	21.74	20.07	Complies
5	10R	5U	20.00	300.00	96.39	90.95	83.96	Complies
6	V	5U	25.00	300.00	114.22	107.77	99.49	Complies
7	10L	5U	20.00	300.00	103.65	97.79	90.28	Complies
8	45L	5U	15.00	300.00	30.27	28.56	26.37	Complies
9	45L	H	15.00	300.00	29.80	28.12	25.96	Complies
10	30L	H	25.00	300.00	135.92	128.24	118.39	Complies
11	10L	H	50.00	300.00	187.34	176.76	163.18	Complies
12	V	H	80.00	300.00	251.97	237.74	219.48	Complies
13	10R	H	50.00	300.00	203.47	191.98	177.23	Complies
14	30R	H	25.00	300.00	167.76	158.29	146.13	Complies
15	45R	H	15.00	300.00	25.69	24.24	22.38	Complies
16	45R	5D	15.00	600.00	40.78	38.48	35.52	Complies
17	30R	5D	25.00	600.00	141.65	133.65	123.38	Complies
18	10R	5D	50.00	600.00	193.21	182.29	168.29	Complies
19	V	5D	80.00	600.00	239.39	225.87	208.52	Complies
20	10L	5D	50.00	600.00	177.58	167.55	154.68	Complies
21	30L	5D	25.00	600.00	127.86	120.64	111.37	Complies
22	45L	5D	15.00	600.00	50.95	48.07	44.38	Complies
23	Below 5D		--	8000.00	242.62	228.91	211.33	Complies
24	Above HH line		--	300.00	252.50	238.24	219.94	Complies
25	Down H line Above 5D		--	600.00	250.65	236.50	218.33	Complies

Sample No. 2, normal mode, 12*LEDs lit together

Tested voltage: 28.0V

No.	Point of the measurement		Limits [cd]		Measured values [cd]			Conclusion
			Min.	Max.	After 1 min	After 10 min	After Stability	
1	10L	10U	10.00	300.00	62.10	59.21	55.13	Complies
2	V	10U	15.00	300.00	79.13	75.44	70.25	Complies
3	10R	10U	10.00	300.00	63.39	60.43	56.27	Complies
4	45R	5U	15.00	300.00	44.59	42.51	39.58	Complies
5	10R	5U	20.00	300.00	99.30	94.67	88.15	Complies
6	V	5U	25.00	300.00	112.94	107.67	100.26	Complies
7	10L	5U	20.00	300.00	106.26	101.30	94.33	Complies
8	45L	5U	15.00	300.00	39.74	37.89	35.28	Complies
9	45L	H	15.00	300.00	48.76	46.49	43.29	Complies
10	30L	H	25.00	300.00	185.63	176.97	164.79	Complies
11	10L	H	50.00	300.00	247.91	236.35	220.08	Complies
12	V	H	80.00	300.00	253.65	241.81	225.17	Complies
13	10R	H	50.00	300.00	239.25	228.09	212.39	Complies
14	30R	H	25.00	300.00	195.45	186.34	173.51	Complies
15	45R	H	15.00	300.00	38.62	36.81	34.28	Complies
16	45R	5D	15.00	600.00	45.50	43.38	40.39	Complies
17	30R	5D	25.00	600.00	85.89	81.89	76.25	Complies
18	10R	5D	50.00	600.00	167.31	159.51	148.53	Complies
19	V	5D	80.00	600.00	225.99	215.45	200.62	Complies
20	10L	5D	50.00	600.00	170.51	162.56	151.37	Complies
21	30L	5D	25.00	600.00	85.31	81.33	75.73	Complies
22	45L	5D	15.00	600.00	49.88	47.55	44.28	Complies
23	Below 5D		--	8000.00	256.25	244.30	227.48	Complies
24	Above HH line		--	300.00	256.36	244.40	227.58	Complies
25	Down H line Above 5D		--	600.00	240.62	229.40	213.61	Complies

Sample No. 1, failed mode, 8*LEDs lit together

Tested voltage: 13.5V

No.	Point of the measurement		Limits [cd]		Measured values [cd]			Conclusion
			Min.	Max.	After 1 min	After 10 min	After Stability	
1	10L	10U	10.00	300.00	56.86	54.79	51.34	Complies
2	V	10U	15.00	300.00	83.36	80.33	75.27	Complies
3	10R	10U	10.00	300.00	37.46	36.10	33.82	Complies
4	45R	5U	15.00	300.00	19.95	19.22	18.01	Complies
5	10R	5U	20.00	300.00	94.25	90.83	85.10	Complies
6	V	5U	25.00	300.00	103.31	99.56	93.28	Complies
7	10L	5U	20.00	300.00	92.44	89.09	83.47	Complies
8	45L	5U	15.00	300.00	24.55	23.66	22.17	Complies
9	45L	H	15.00	300.00	22.72	21.89	20.51	Complies
10	30L	H	25.00	300.00	118.96	114.64	107.41	Complies
11	10L	H	50.00	300.00	167.56	161.47	151.29	Complies
12	V	H	80.00	300.00	227.83	219.55	205.71	Complies
13	10R	H	50.00	300.00	188.43	181.59	170.14	Complies
14	30R	H	25.00	300.00	153.03	147.47	138.17	Complies
15	45R	H	15.00	300.00	21.63	20.84	19.53	Complies
16	45R	5D	15.00	600.00	35.37	34.09	31.94	Complies
17	30R	5D	25.00	600.00	120.86	116.47	109.13	Complies
18	10R	5D	50.00	600.00	176.50	170.09	159.37	Complies
19	V	5D	80.00	600.00	215.97	208.12	195.00	Complies
20	10L	5D	50.00	600.00	165.60	159.58	149.52	Complies
21	30L	5D	25.00	600.00	110.23	106.23	99.53	Complies
22	45L	5D	15.00	600.00	43.18	41.61	38.99	Complies
23	Below 5D		--	8000.00	225.65	217.45	203.74	Complies
24	Above HH line		--	300.00	233.65	225.17	210.97	Complies
25	Down H line Above 5D		--	600.00	230.50	222.12	208.12	Complies

Sample No. 2, failed mode, 8*LEDs lit together

Tested voltage: 28.0V

No.	Point of the measurement		Limits [cd]		Measured values [cd]			Conclusion
			Min.	Max.	After 1 min	After 10 min	After Stability	
1	10L	10U	10.00	300.00	55.54	53.56	50.46	Complies
2	V	10U	15.00	300.00	68.67	66.21	62.38	Complies
3	10R	10U	10.00	300.00	57.06	55.02	51.84	Complies
4	45R	5U	15.00	300.00	38.55	37.17	35.02	Complies
5	10R	5U	20.00	300.00	90.19	86.96	81.93	Complies
6	V	5U	25.00	300.00	103.77	100.06	94.27	Complies
7	10L	5U	20.00	300.00	95.23	91.82	86.51	Complies
8	45L	5U	15.00	300.00	33.89	32.68	30.79	Complies
9	45L	H	15.00	300.00	41.73	40.24	37.91	Complies
10	30L	H	25.00	300.00	174.33	168.09	158.37	Complies
11	10L	H	50.00	300.00	229.38	221.17	208.38	Complies
12	V	H	80.00	300.00	241.20	232.57	219.12	Complies
13	10R	H	50.00	300.00	226.09	218.00	205.39	Complies
14	30R	H	25.00	300.00	185.97	179.32	168.95	Complies
15	45R	H	15.00	300.00	33.60	32.39	30.52	Complies
16	45R	5D	15.00	600.00	39.15	37.75	35.57	Complies
17	30R	5D	25.00	600.00	77.44	74.67	70.35	Complies
18	10R	5D	50.00	600.00	156.73	151.12	142.38	Complies
19	V	5D	80.00	600.00	209.88	202.37	190.67	Complies
20	10L	5D	50.00	600.00	158.36	152.69	143.86	Complies
21	30L	5D	25.00	600.00	77.45	74.68	70.36	Complies
22	45L	5D	15.00	600.00	42.17	40.66	38.31	Complies
23	Below 5D		--	8000.00	220.77	212.87	200.56	Complies
24	Above HH line		--	300.00	242.53	233.85	220.33	Complies
25	Down H line Above 5D		--	600.00	220.54	212.65	200.35	Complies

Inspection Report No.: AT5-SM-IR-148-09409

Of: 11/01/2024



Type:

Manufacturer:

5. Other information

Place of inspection:

Date of inspection:

26/12/2023

Technical service representative(s):

Senior Inspector

**Junior Inspector
(if applicable)**

Mr. Yu Hongfeng

N/A

Manufacturer's representative:

N/A

Remarks:

N/A

5.1 Appendix

1. List of modifications

2. Test Photo (s)

3. List of main equipment

5.2 Enclosures

Information Folder

Inspection Report No.: ATS-SM-IR-148-09409

Of: 11/01/2024



Type:

Manufacturer:

6. Statement of conformity

The information document as given in paragraph 0.4 and the type described there are in compliance with the test specification mentioned above.


With regard to the required level of performance to be achieved, the tested items were representative for the type to be approved (see paragraph 1).

The tests were carried out in accordance with the relevant requirements of EN ISO/IEC 17025 and EN ISO/IEC 17020 / R148-00 ECE/UN.

The inspection Report comprises pages 1 to 21.

It shall not be reproduced except in full, without written approval of the laboratory.

Dogana, Repubblica di San Marino, 11/01/2024

Number of project and protocol	Originality Check (*)	Automotive Technical Service S.r.l. Inspector  (Mr. Yu Hongfeng)	
	 ATS-SM-PR-09409	Automotive Technical Service S.r.l. Deputy Technical Director  (Eng. Bogdan Domnescu)	

(*) To check the originality of documents, scan the QR Code or connect to the site <https://www.ats.sm/originality-control-atp-adr-tyapp/> and follow the instruction in it.

Inspection Report No.: ATS-SM-IR-148-09409

Of: 11/01/2024



Type:

Manufacturer:

Appendix 1

List of modifications

Applicable-/ Not Applicable

Appendix 1

More details for application of:

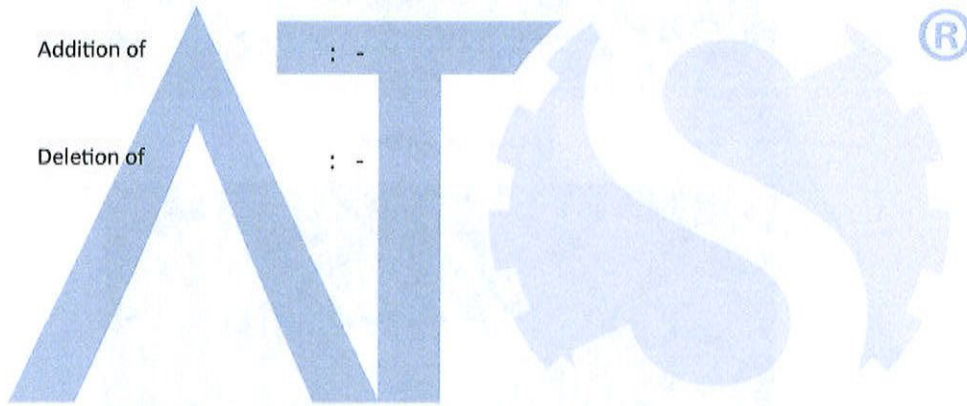
Date :

Correction of : -

Modification of : -

Addition of : -

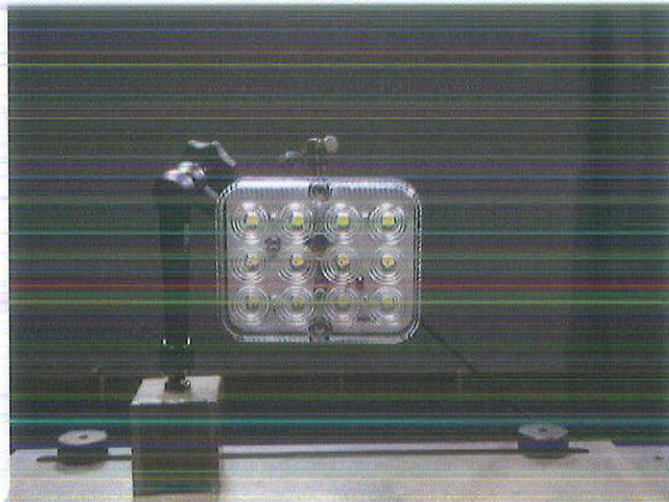
Deletion of : -



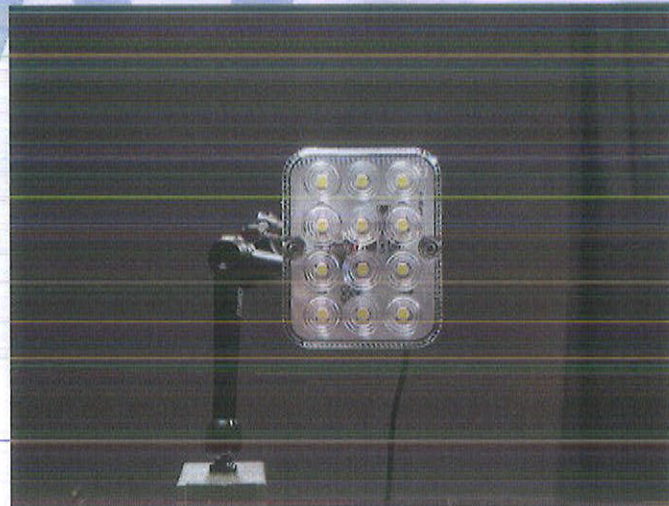
Appendix 2

Test Photo(s)

Appendix 2



Mounting position 1



Mounting position 2

Inspection Report No.: AT5-SM-IR-148-09409

Of: 11/01/2024



Type:

Manufacturer:

Appendix 3

List of main equipment

Appendix 3

No.	Name	Type	Serial no.	Calibration due
1	Goniophotometer for automotive and signal lights	GO-HD5		2024-10-11
2	High accuracy intelligent photometer head	ID-1000		2024-10-11
3	UV-VIS-near IR Spectrophoto colorimeter	PMS-2000		2024-10-11




December 20, 2023

Dear Sirs,

We would like to apply for the type approval according to ECE.

Function	ECE approval number
Reversing lamp	E57*148R00/04*XXXX*00

Trade name or mark	:	
Type	:	
Name and address of manufacturer	:	

We confirm that the application mentioned above has not been submitted to any other EC member state, nor has any other member state granted a corresponding approval.

Sincerely




E57*148R00/04*0977*00

Information document No.: JH628-00

First application date : December 20, 2023

1. Specification data

Type		
Function		Reversing lamp
Color		White
Rated	Voltage	12V/24V
	Wattage	2.4W
Application Regulation ECE		R148.00 AR
Category of light source		12*LEDs Non-replaceable light source
Location of marking	Voltage/Wattage	Marked on housing
	Trade mark	
	Approval mark	Marked on lens
For vehicle category		M, N, O, L

2. Construction and material

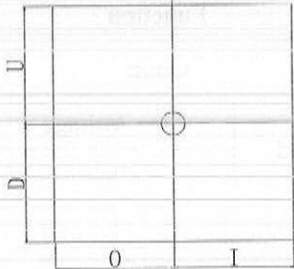
Construction	Material	Remarks
Lens	PMMA	Colour: Clear
Housing	ABS	Colour: Black
Electrical Wiring	Copper covered with insulation	--

3. Name and address of manufacturer :

4. Name and address of the assembly plant : See 3.

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

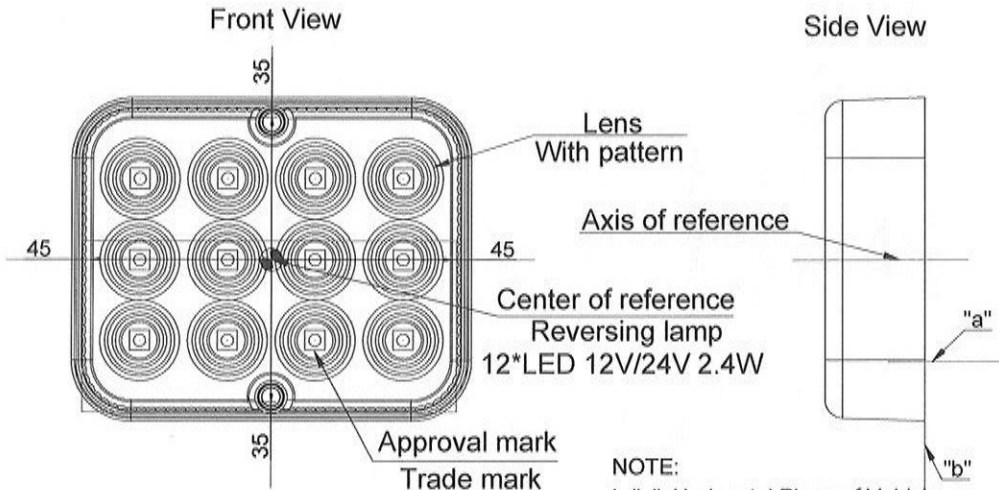
6: Apparent surface

<p>U= Upper limit D= Down limit I= Inside limit O= Outside limit</p>		<p>⊕ :Reference center</p> 			
		Unit: mm			
Function		Limit (O)	Limit (I)	Limit (U)	Limit (D)
Reversing lamp	Mounting Position 1	45	45	35	35
	Mounting Position 2	35	35	45	45
--		--	--	--	--

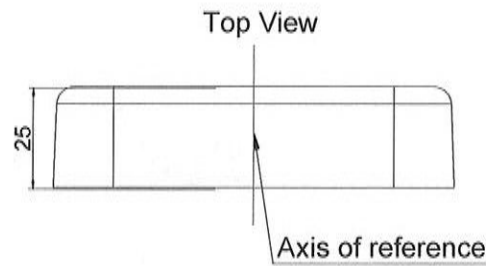
7: Remark

Application of an electronic light source control gear	No
Being part of the lamp	No
Being not part of the lamp	No
Input voltage	No
Manufacture and identification number	No

Mounting Position 1



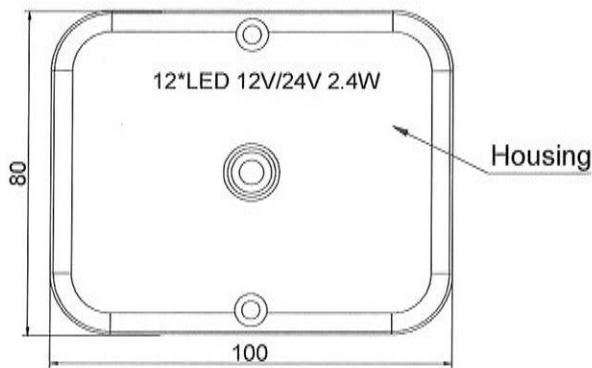
NOTE:
 1. "a": Horizontal Plane of Vehicle
 2. "b": Longitudinal Plane of Vehicle



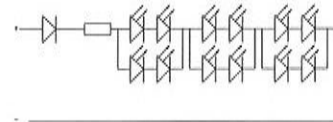
Approval mark



Back View



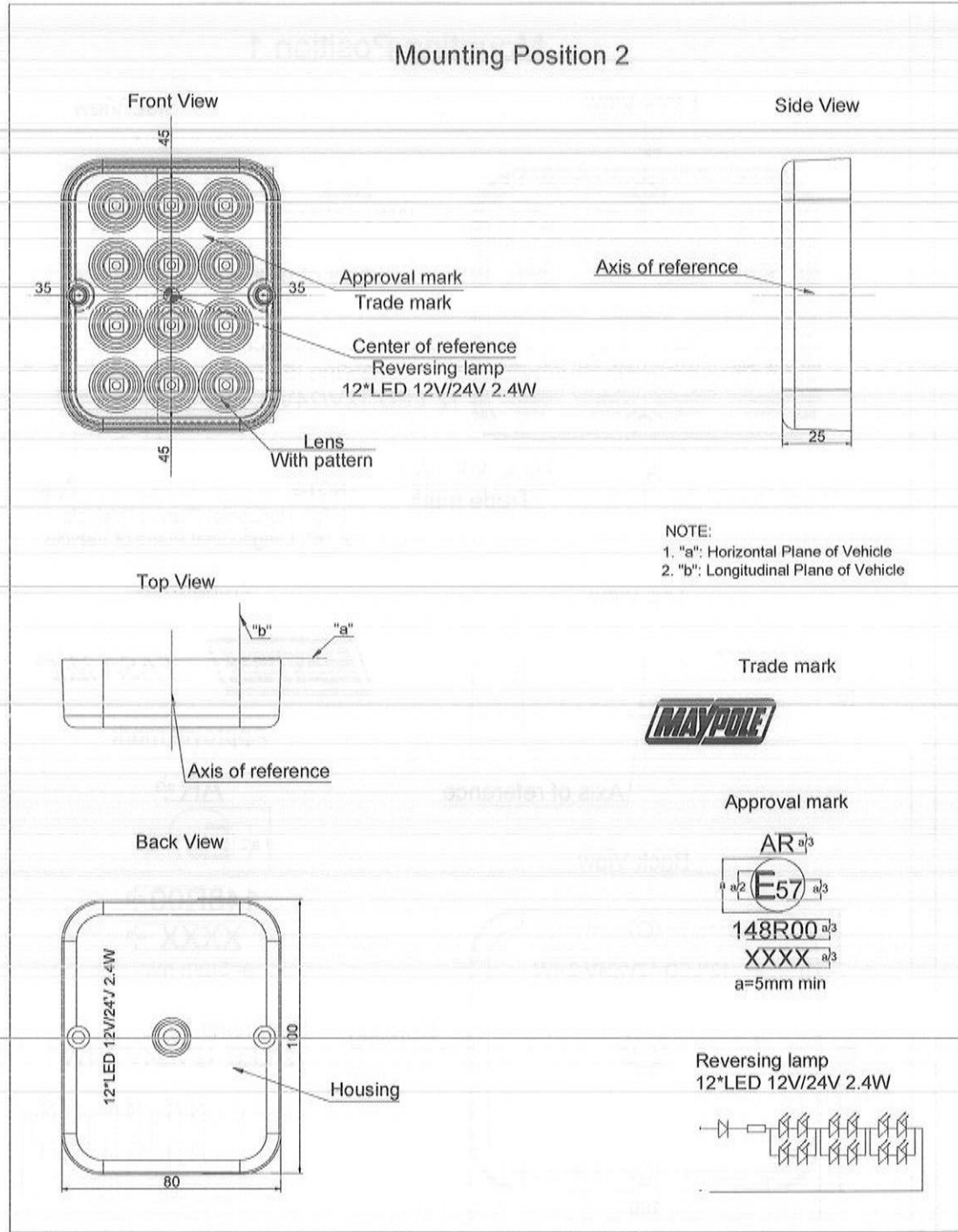
Reversing lamp
 12*LED 12V/24V 2.4W



XXXX means an approval number, please refer to the certificate.

General assembly drawing

Mounting Position 2



XXXX means an approval number, please refer to the certificate.

General assembly drawing