

ECE TYPE-APPROVAL CERTIFICATE



Communication concerning:²

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~~Approval withdrawn~~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

of a type of headlamp pursuant to Regulation No. 112

Approval No: **E24*112R01/07*0034*00**

Reason for extension:

N/A

1. Trade name or mark of the device: ***HIMA***
2. Manufacturer's name for the type of device: ***NTM04-10***
3. Manufacturer's name and address: ***HIMA Lighting Technical Co., Ltd.
8#East, Industrial Rd., Xiaolan Town,
Zhongshan City, Guangdong Province,
China***
4. If applicable, name and address of manufacturer's representative: ***N/A***
5. Submitted for approval on: ***26.01.2018***
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: ***15.01.2018***
8. Number of report issued by that service: ***17-01905-CX-SHA-00***

¹ Distinguishing number of the country which has granted/refused/withdrawn approval (see the provisions of the Regulation concerning approval).

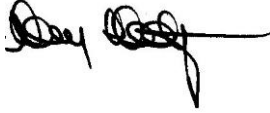
² Strike out which does not apply.

Approval No: **E24*112R01/07*0034*00**

9. Brief description

Category as described by the relevant marking ³ :	HR PL
Number and category(s) of filament lamp(s):	N/A
Reference luminous flux used for the principal passing beam (lm):	N/A
Principal passing beam operated at approximately (V):	N/A
Measures according to paragraph 5.8 of this Regulation:	N/A
Number and specific identification code(s) of LED module(s) and for each LED module a statement of whether it is replaceable or not: yes /no ²	7*LEDs for driving beam, (non-replaceable light source)
Number and specific identification code(s) of electronic light source control gear(s):	N/A
Total objective luminous flux as described in paragraph 5.9 exceeds 2000 lumens: yes/no /does not apply ²	N/A
The adjustment of the cut-off ³ has been determined at: 10 m/25 m /does not apply ²	N/A
The determination of the minimum sharpness of “cut-off” has been carried out at: 10 m/25 m /does not apply ²	N/A

Approval No: E24*112R01/07*0034*00

- | | | |
|-----|--|---------------------------------------|
| 10. | Approval mark position: | <i>On the lens</i> |
| 11. | Reason(s) for extension of approval: | <i>N/A</i> |
| 12. | Approval granted/ extended / refused / withdrawn ² | <i>Granted</i> |
| 13. | Place: | <i>Dublin</i> |
| 14. | Date: | <i>19th February, 2018</i> |
| 15. | Signature:  | |



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

³ Indicate the appropriate marking selected from the list below:

- | | | | | | | | | | | | | | |
|--------|--------|--------|---------|---------|---------|----------|----------|----------|---------|-------|-----|-----|-----|
| C, | C, | C, | R, | R PL, | CR, | CR, | CR, | C/R, | C/R, | C/R, | C/ | C/ | C/ |
| → | ↔ | ↔ | | | → | ↔ | ↔ | → | ↔ | ↔ | → | ↔ | ↔ |
| C, | PL, | C PL, | C PL, | CR PL, | CR PL, | CR PL, | C/R PL, | C/R PL, | C/R PL, | | | | |
| | → | ↔ | ↔ | | → | ↔ | → | ↔ | → | ↔ | | | |
| C/PL, | C/PL, | C/PL | | | | | | | | | | | |
| | → | ↔ | | | | | | | | | | | |
| HC, | HC, | HC, | HR, | HR PL, | HCR, | HCR, | HCR, | HC/R, | HC/R, | HC/R, | HC/ | HC/ | HC/ |
| → | ↔ | ↔ | | | → | ↔ | ↔ | → | ↔ | ↔ | → | ↔ | ↔ |
| HC PL, | HC PL, | HC PL, | HCR PL, | HCR PL, | HCR PL, | HC/R PL, | HC/R PL, | HC/R PL, | | | | | |
| | → | ↔ | | → | ↔ | → | ↔ | → | ↔ | | | | |
| HC/PL, | HC/PL, | HC/PL | | | | | | | | | | | |
| | → | ↔ | | | | | | | | | | | |

Index to the Information Package

Date of issue:	<i>19th February, 2018</i>
Date of latest amendment:	<i>N/A</i>
Reason for extension/revision:	<i>N/A</i>
1. Additional conditions, and advisory notes on legal alternatives.	
2. Test report(s)	
- numbers(s):	<i>17-01905-CX-SHA-00</i>
- date of issue:	<i>15.01.2018</i>
- date of latest amendment:	<i>N/A</i>
3. Information document	
- number(s):	<i>NTM04-10-00</i>
- date of issue:	<i>27.11.2017</i>
- date of latest amendment:	<i>N/A</i>
Documentation:	<i>10 pages</i>



Approval No: E24*112R01/07*0034*00

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

A: Additional conditions:

1. The device, Type *NTM04-10*, shall be marked as prescribed in the regulation.
2. The attached technical report, with any of its attachments, forms part of this Type Approval certificate.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. The duties imposed by the issuing of this certificate are not transferable. The legal protection of third parties is not affected by this certificate.
9. 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.: 17-01905-CX-SHA-00
Manufacturer: HIMA Lighting Technical Co., Ltd.
Type: NTM04-10

TECHNICAL REPORT

No.: 17-01905-CX-SHA-00

Test according to ECE regulation relating to

ECE Regulation No.: 112

Headlamps emitting an asymmetrical passing beam or a driving beam
(Equipped with LED Lamps)

including all amendments up to
supplement 07 to the 01 series of amendments

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

Technical Report No.: 17-01905-CX-SHA-00
Manufacturer: HIMA Lighting Technical Co., Ltd.
Type: NTM04-10

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I. Technical description

- 0.1. Make (trade name of manufacturer) : HIMA
- 0.2. Type : NTM04-10
- 0.2.1. Variants : N/A
- 0.3. Means of identification of type : By digits and letters
- 0.4. Concise description
- Category as described by the relevant marking : HR PL
- Number and category(ies) of filament lamp(s) : N/A
- Reference luminous flux used for the principal passing beam (lm) : N/A
- Principal passing beam operated at approximately (V) : N/A
- Measures according to paragraph 5.8 of this Regulation : N/A
- Number and specific identification code(s) of LED module(s) and for each LED module a statement whether it is replaceable or not : 7*LEDs for driving beam, non-replaceable light source
- Number and specific identification code(s) of electronic light source control gear(s) : N/A
- Total objective luminous flux as described in paragraph 5.9. exceeds 2,000 lumens : N/A
- The adjustment of the cut-off has been determined at : N/A

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Type: NTM04-10

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The determination of the minimum sharpness of the 'cut-off' has been carried out at : N/A

0.5. Name and address of manufacturer : HIMA Lighting Technical Co., Ltd.
8#East, Industrial Rd., Xiaolan Town,
Zhongshan City, Guangdong Province,
China

0.6. Address of assembly plant : ZHONGSHAN FEDO LIGHTING CO.,
LTD.
NO.8 EAST, INDUSTRIAL ROAD,
ZHONGSHAN CITY, P. R. CHINA ZIP:
528415

0.7. Location of the approval mark : On the lens

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

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. 112.01.

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

The headlamps have been made as to retain their prescribed photometric characteristics and to remain in good working order when in normal use, in spite of the vibrations to which they may be subjected.

Headlamps have been give adequate illumination without dazzle when emitting the passing-beam, and good illumination when emitting the driving-beam.

No light source module or light generator is used.

2.2. Test record of the photometric measurements of the driving beam

2.2.1. Sample No. 1, test voltage 13.199V.

No.	Point of the measurement	Limits [cd]		Measured values [cd]		Conclusion
		Minimum	Maximum	1 minute	After stability	
1	I _{max.}	40500.00	215000.00	93640.41	92167.93	Complies
2	HV	0.8I _{max.}		92287.50	90836.29	Complies
3	H-5L	5100.00	---	23858.51	23483.34	Complies
4	H-2.5L	20300.00	---	55091.13	54224.83	Complies
5	H-2.5R	20300.00	---	53625.20	52781.95	Complies
6	H-5R	5100.00	---	23226.81	22861.57	Complies

2.2.2. Sample No. 2, test voltage 13.199V.

No.	Point of the measurement	Limits [cd]		Measured values [cd]		Conclusion
		Minimum	Maximum	1 minute	After stability	
1	I _{max.}	40500.00	215000.00	96605.21	94150.93	Complies
2	HV	0.8I _{max.}		95383.63	92960.38	Complies
3	H-5L	5100.00	---	26017.63	25356.64	Complies
4	H-2.5L	20300.00	---	57341.60	55884.82	Complies
5	H-2.5R	20300.00	---	55314.01	53908.74	Complies
6	H-5R	5100.00	---	25525.38	24876.90	Complies

Reference Mark (I_{max} / 4300): 20 *Average of the value for Sample No. 1 and Sample No. 2.

2.3. Stability of photometric performance of headlamp in operation.

2.3.1. Clean headlamp – Sample No. 1.

No.	Point of the measurement	Measured values			Conclusion
		Value before operating (cd)	Value after operating (cd)	Discrepancy (≤ 10%)	
1	Driving beam: I _{max.}	92167.93	91438.24	0.79%	Complies

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2.3.2. Dirty headlamp – Sample No. 1.

No.	Point of the measurement	Measured values			
		Value before operating (cd)	Value after operating (cd)	Discrepancy ($\leq 10\%$)	Conclusion
1	Driving beam: I_{max} .	91438.24	90985.51	0.50%	Complies

2.4. Tests on plastic lens

2.4.1. Test report for plastic material of the lens attached to the manufacturer's information document.

2.4.2. Tests of the complete headlamp incorporating a lens of plastic material.

2.4.2.1. Test of adherence of coatings - Sample No. 1.
- No appreciable impairment of the gridded area – Complies.

2.4.2.2. Resistance to mechanical deterioration of the lens surface - Sample No. 2.

No.	Point of the measurement	Limits [cd]		Measured values [cd]	Conclusion
		Minimum	Maximum		
1	HV	---	$0.8 \cdot I_{max}$.	95137.18	Complies

* The result complies with the requirements prescribed in paragraph 2.6.1.2. of Annex 6 in this Regulation.

2.5. Test record of the colour

2.5.1. Driving beam - White

	Measured values		Limits
Sample	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	0.3152	0.3383	Complies (1 minute)
No. 1	0.3161	0.3390	Complies (after stability)
No. 2	0.3167	0.3378	Complies (1 minute)
No. 2	0.3170	0.3380	Complies (after stability)

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2.6. Test record of LED modules

2.6.1. Red Content

	Limit	Measured	Conclusion
Driving beam	$K_{red} \geq 0.05$	0.0828	Complies

2.6.2. UV-radiation

	Limit	Measured	Conclusion
Driving beam	$K_{UV} \leq 10^{-5} \text{ W/lm}$	4.36×10^{-6}	Complies

2.6.3. Temperature stability: ratio of (after 1 min. / after stabilized)

	After 1 min (cd)	After stabilized (cd)	Ratio ≤ 3	Conclusion
Driving beam (HV)	92287.50	90836.29	1.02	Complies

2.6.4. The luminous flux

	Limit (lm)	Measured values (lm)	Conclusion
Driving beam	N/A	2869.41	Complies

2.7. Apparent surface

2.7.1. Driving beam

Limit (I)	Limit (O)	Limit (U)	Limit (D)
124mm	124mm	12mm	12mm

3. Specimen submitted to test on : 2017-11-27 (YYYY-MM-DD)

4. Place of test : Jiangsu Huachen Vehicle Inspection Co., Ltd., Zhenjiang City, P.R. China

Date of test : 2017-12-04 (YYYY-MM-DD)

III. **Enclosures**

Manufacturer's information document No. : NTM04-10-00

Dated on : 2017-11-27 (YYYY-MM-DD)



Technical Report No.: 17-01905-CX-SHA-00
 Manufacturer: HIMA Lighting Technical Co., Ltd.
 Type: NTM04-10

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, 2018-01-15
 (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	http://www.vsc.org.tw/English/Default.aspx

Information folder No. : NTM04-10-00

First application date : November 27, 2017

1. Specification data

Type		NTM04-10
Function		Driving beam
Color		White
Rated	Voltage	12V*
	Wattage	30W
Application Regulation ECE		R112.01 Class B PL
Location of marking	Number and category of light source	7*LED Non-replaceable light source
		Marked on housing
	Trade mark	HIMA
		Marked on lens
Approval mark	Marked on lens	
Remark		*: Application of an electronic light source control gear: Being part of the lamp Input voltage: 12V

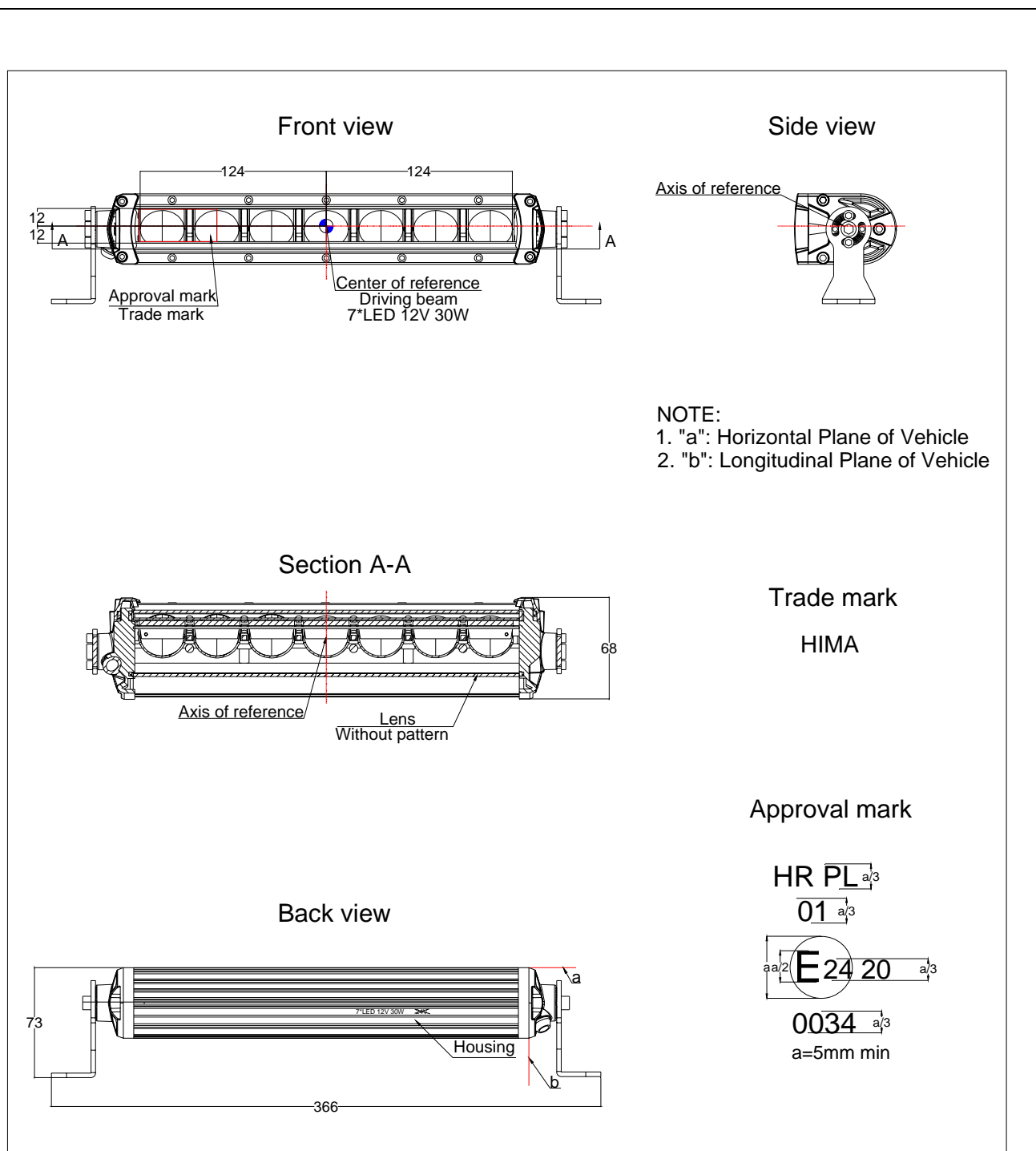
2. Construction and material

Construction	Material	Remarks
Lens	PC	Base material: Polycarbonate Make: GE Plastics, Japan Type: Lexan LS2 Coating and coating system: Make: Mitsubishi Rayon Co., Ltd. Type: Acryking K101
Housing	AL	Colour: Black
Reflector	PC	AL vacuum vapour coating Painting on the inside surface Colour: Metal silver
Electrical Wiring	Copper covered with insulation	--

3. Name and address of manufacturer : HIMA Lighting Technical Co., Ltd.
8#East, Industrial Rd., Xiaolan Town,
Zhongshan City, Guangdong Province, China

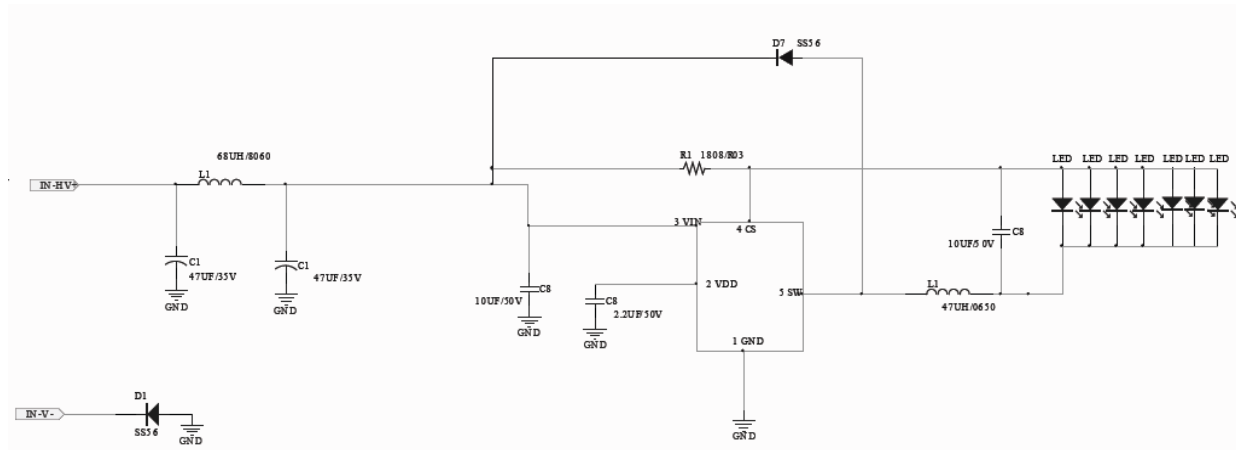
4. Name and address of the assembly plant : ZHONGSHAN FEDO LIGHTING CO.,LTD.
NO.8 EAST, INDUSTRIAL ROAD, ZHONGSHAN CITY,
P. R. CHINA ZIP: 528415

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



Product Type	NTM04-10
General assembly drawing	
Drawing No.	NTM04-10-01

Driving beam
7*LED 12V 30W



Product Type	NTM04-10
Led circuit diagram	
Drawing No.	NTM04-10-02