



Technical Report No.: 14-00850-CX-SHA-00
Manufacturer: Valeo Ichikoh (China) Auto Lighting Co., Ltd. Foshan Branch
Type: 90076193

TECHNICAL REPORT

No.: 14-00850-CX-SHA-00

Test according to ECE regulation relating to

ECE Regulation No.: 112

Headlamps emitting an asymmetrical passing beam or a driving beam

including all amendments up to

supplement 04 to the 01 series of amendments

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

Technical Report No.: 14-00850-CX-SHA-00
Manufacturer: Valeo Ichikoh (China) Auto Lighting Co., Ltd. Foshan Branch
Type: 90076193

Page 2 / 9

I. Technical description

- 0.1. Make (trade name of manufacturer) : PIAA or CIBIÉ or VALEO
- 0.2. Type : 90076193
- 0.2.1. Variants : Refer to manufacturer's information document 0.2.1.
- 0.3. Means of identification of type : By digits
- 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 : No, one LED module and no ID code
- Number and specific identification code(s) of electronic light source control gear(s) : One and N/A(integrated with LED module)
- 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 : 25m



Technical Report No.: 14-00850-CX-SHA-00
Manufacturer: Valeo Ichikoh (China) Auto Lighting Co., Ltd. Foshan Branch
Type: 90076193

- The determination of the minimum sharpness of the 'cut-off' has been carried out at : N/A
- 0.5. Name and address of manufacturer : Valeo Ichikoh (China) Auto Lighting Co., Ltd. Foshan Branch
No. 7 Huabaonan Road (D Area of Main Production Zone), Chancheng District, Foshan City, Guangdong Province 528000, P. R. China
- 0.6. Name and address of assembly plant : Valeo Ichikoh (China) Auto Lighting Co., Ltd. Foshan Branch
No. 7 Huabaonan Road (D Area of Main Production Zone), Chancheng District, Foshan City, Guangdong Province 528000, P. R. China
- Valeo Sistemas Eléctricos, S.A. de C.V.
Avenida de la Montaña No. 102
Parque Industrial Querétaro
Santa Rosa Jauregui, Querétaro
C.P. 76220 México
- Wuhu Valeo Automotive Lighting Systems Co., Ltd.
North Fengming Lake Road (South of Longshan Tunnel), Economic and Technological Development Zone, Wuhu City, Anhui Province, 241009, P.R. China
- Valeo Sistemas Eléctricos, S.A. de C.V.
Planta 2
Avenida Industria Minera No. 502
Manzana 5, Lotes 1,2 y 3
Parque Industrial Querétaro
Santa Rosa Jáuregui, Querétaro
C.P. 76220, México
- 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 : Four samples were tested.
Sample No. 1 and sample No. 2 used for photometric measurement.
Test voltage of sample No. 1 is 13.20V,
Test voltage of sample No. 2 is 28.00V.
Sample No. 3 and sample No. 4 used for tests of LED module.
Test voltage of sample No. 3 is 13.20V,
Test voltage of sample No. 4 is 28.00V.
The devices have two mounting positions, mounting position 1 and mounting position 2, detail refer to manufacturer's information document 1.6. and drawing No. 1.
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
LMT Lichtmesstechnik GmbH Berlin
Type GO – H1400
Multifunction meter of voltage and current –Keithley
Type 2000

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, and good illumination when emitting the driving-beam.

2.2. Test record of the photometric measurements of the driving beam, class B

2.2.1. Mounting position 1: Mounted from bottom

2.2.1.1. Sample No. 1, test voltage 13.20V, after 1 minute and after stabilized.

No.	Point of the measurement	Limits [cd]		Measured values [cd]		Conclusion
		Minimum	Maximum	After 1 minute	After stabilized	
1	HV	0.8I _{max.}	---	49574.130	46765.030	Complies
2	I _{max.}	40500.00	215000.00	49870.854	47044.940	Complies
3	H-5L	5100.00	---	8972.506	8464.082	Complies
4	H-2.5L	20300.00	---	23989.549	22630.190	Complies
5	H-2.5R	20300.00	---	22850.961	21556.120	Complies
6	H-5R	5100.00	---	9545.811	9004.901	Complies

2.2.1.2. Sample No. 2, test voltage 28.00V, after 1 minute and after stabilized.

No.	Point of the measurement	Limits [cd]		Measured values [cd]		Conclusion
		Minimum	Maximum	After 1 minute	After stabilized	
1	HV	0.8I _{max.}	---	53182.980	48534.460	Complies
2	I _{max.}	40500.00	215000.00	54333.185	49584.130	Complies
3	H-5L	5100.00	---	11227.503	10246.150	Complies
4	H-2.5L	20300.00	---	31878.135	29091.790	Complies
5	H-2.5R	20300.00	---	30155.540	27519.760	Complies
6	H-5R	5100.00	---	9868.131	9005.596	Complies

Reference Mark (I_{max} / 4300): 12.5

*Average of the value for Sample No. 1 and Sample No. 2.

2.2.2. Mounting position 2: Mounted from top

2.2.2.1. Sample No. 1, test voltage 13.20V, after 1 minute and after stabilized.

No.	Point of the measurement	Limits [cd]		Measured values [cd]		Conclusion
		Minimum	Maximum	After 1 minute	After stabilized	
1	HV	0.8I _{max.}	---	56431.940	51673.460	Complies
2	I _{max.}	40500.00	215000.00	60285.775	55202.330	Complies
3	H-5L	5100.00	---	7563.632	6925.848	Complies
4	H-2.5L	20300.00	---	25761.340	23589.080	Complies
5	H-2.5R	20300.00	---	24142.429	22106.680	Complies
6	H-5R	5100.00	---	8170.967	7481.971	Complies

2.2.2.2. Sample No. 2, test voltage 28.00V, after 1 minute and after stabilized.

No.	Point of the measurement	Limits [cd]		Measured values [cd]		Conclusion
		Minimum	Maximum	After 1 minute	After stabilized	
1	HV	0.8I _{max.}	---	55022.390	53652.830	Complies
2	I _{max.}	40500.00	215000.00	56078.344	54682.500	Complies
3	H-5L	5100.00	---	11923.405	11626.620	Complies
4	H-2.5L	20300.00	---	37324.041	36395.010	Complies
5	H-2.5R	20300.00	---	35844.658	34952.450	Complies
6	H-5R	5100.00	---	9264.168	9033.574	Complies

Reference Mark (I_{max} / 4300): 12.5

*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. Test record of photometric test – Sample No. 1.

No.	Point of the measurement		Measured values [cd]		
			Clean – prior to test	Clean – after 12 hours	Dirty – after 1 hour
1	Driving beam	I _{max.}	47044.940	48814.380	46865.000

* The result complies with the requirements prescribed in paragraph 1.1.2. of Annex 4 in this Regulation.

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. 2.
 - No appreciable impairment of the gridded area – Complies.

2.5. Test record of the colour

2.5.1. Mounting position 1, driving beam – White

Sample	Measured values		Limits
---	x	y	W ₁₂ green boundary: $y = 0.150 + 0.640 x$
			W ₂₃ yellowish green boundary: $y = 0.440$
			W ₃₄ yellow boundary: $x = 0.500$
			W ₄₅ reddish purple boundary: $y = 0.382$
			W ₅₆ purple boundary: $y = 0.050 + 0.750 x$
			W ₆₁ blue boundary: $x = 0.310$
Sample No. 1	0.3280	0.3292	Complies
Sample No. 2	0.3240	0.3249	Complies

2.5.2. Mounting position 2, driving beam – White

Sample	Measured values		Limits
---	x	y	W ₁₂ green boundary: $y = 0.150 + 0.640 x$
			W ₂₃ yellowish green boundary: $y = 0.440$
			W ₃₄ yellow boundary: $x = 0.500$
			W ₄₅ reddish purple boundary: $y = 0.382$
			W ₅₆ purple boundary: $y = 0.050 + 0.750 x$
			W ₆₁ blue boundary: $x = 0.310$
Sample No. 1	0.3136	0.3236	Complies
Sample No. 2	0.3150	0.3240	Complies

2.6. Test record of LED module

2.6.1. Sample No. 3, test voltage 13.20V

2.6.1.1. Colour rendering

	Limit	Measured value	Conclusion
Sample No. 3	$K_{red} \geq 0.05$	0.088	Complies

2.6.1.2. UV-radiation

	Limit	Measured value	Conclusion
Sample No. 3	$K_{UV} \leq 10^{-5} \text{ W/lm}$	6.21×10^{-9}	Complies

2.6.1.3. Temperature stability

Test Point	after 1 min [cd]	after stabilized [cd]	Ratio	Conclusion
Driving beam HV	49574.130	46765.030	1.06	Complies

2.6.2. Sample No. 4, test voltage 28.00V

2.6.2.1. Colour rendering

	Limit	Measured value	Conclusion
Sample No. 4	$K_{red} \geq 0.05$	0.090	Complies

2.6.2.2. UV-radiation

	Limit	Measured value	Conclusion
Sample No. 4	$K_{UV} \leq 10^{-5} \text{ W/lm}$	7.4×10^{-8}	Complies

2.6.2.3. Temperature stability

Test Point	after 1 min [cd]	after stabilized [cd]	Ratio	Conclusion
Driving beam HV	53182.980	48534.460	1.09	Complies

Technical Report No.: 14-00850-CX-SHA-00
 Manufacturer: Valeo Ichikoh (China) Auto Lighting Co., Ltd. Foshan Branch
 Type: 90076193 Page 9 / 9

3. Specimen submitted to test on : 16.11.2014 (DD.MM.YYYY)
4. Place of test : CVC, Guangzhou, P.R. China
- Date of test : 19.11.2014 to 12.12.2014
(DD.MM.YYYY)

III. Enclosures

Manufacturer's information document No. : 90076193-00
 Dated on : 16.11.2014 (DD.MM.YYYY)

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, 16.12.2014
(DD.MM.YYYY)



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/se ctors/automotive/approval- authorities-technical- services/technical- services/index_en.htm
Approval Authority of the Netherlands (RDW)	Niederlande/ The Netherlands	RDW-99050009 01	
National Standards Author- ity of Ireland (NSAI)	Irland/ Ireland	Technical Service Number: 49	
Vehicle Safety Certification Center (VSCC)	Taiwan/ Taiwan	DE04-06-1	http://www.vsc.org.tw/English/Default.aspx