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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

Rev 8/ 99



COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A TYPE
OF DIRECTION INDICATOR PURSUANT TO REGULATION NO 6.01

Approval No: 015148

1. Trade name or mark of the device: JUNYAN
2. Manufacturer's name for the type of device: HU210-02-1
3. Manufacturer's name and address:

JUN YAN INDUSTRIAL Company Limited
No.121, Wencheng Road
Tainan Hsien
Taiwan
Republic of China
4. If applicable, name and address of the manufacturer's representative: Not applicable
5. Submitted for approval on: 22 February 2008
6. Technical service responsible for conducting the approval tests: Vehicle Certification Agency
7. Date of report issued by that service: 20 May 2008
8. Number of report issued by that service: EAJ189925

EAJ189925

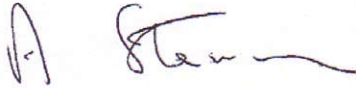
An executive agency of the Department for Transport



9. Concise description:
Category: 1

Number and category of filament lamp(s): 1 x PY21W, 12V, 21W

Geometrical conditions of installation and relating variations, if any: Not applicable

Only for limited mounting height of equal to or less than 750 mm above the ground: No
10. Position of the approval mark: On the lens
11. Reason(s) for extension (if applicable): Not applicable
12. Approval: GRANTED
13. Place: BRISTOL
14. Date: 28 MAY 2008
15. Signature:  A.W.STENNING
Head of Technical and Quality Group
16. The list of documents deposited with the Administrative Service which has granted approval is annexed to this communication and may be obtained on request.





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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

Rev 8/02



COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A TYPE
OF DEVICE PURSUANT TO REGULATION NO: 7.02

Approval No: 025148

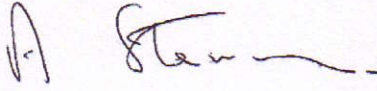
1. Trade name or mark of the device: JUNYAN
2. Manufacturer's name for the type of device: HU210-02-1
3. Manufacturer's name and address:

JUN YAN INDUSTRIAL Company Limited
No.121, Wencheng Road
Tainan Hsien
Taiwan
Republic of China
4. If applicable, name and address of the manufacturer's representative: Not applicable
5. Submitted for approval on: 22 February 2008
6. Technical service responsible for conducting the approval tests: Vehicle Certification Agency
7. Date of report issued by that service: 20 May 2008
8. Number of report issued by that service: EAJ189925

EAJ189925

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9. Concise description:
By category of lamp: A
For mounting either outside or inside or both: Outside
Colour of light emitted: White
Number and category of filament lamp(s): 3 x LED, 12V 0.5W
Special supply voltage: 12 Volts
Application of additional supply system: No
Switched power supply: Not applicable
Geometrical conditions or installation and relating variations if any: Not applicable
Only for limited mounting height or equal to or less than 750mm above the ground: No
10. Position of the approval mark: On the lens
11. Reason(s) for extension (if applicable): Not applicable
12. Approval: GRANTED
13. Place: BRISTOL
14. Date: 28 MAY 2008
15. Signature:  A.W. STENNING
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THE UNITED KINGDOM VEHICLE APPROVAL AUTHORITY

Rev 9/93



COMMUNICATION CONCERNING THE APPROVAL GRANTED OF A TYPE
OF HEADLAMP PURSUANT TO REGULATION NO 112.00

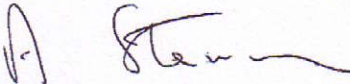
Approval No: 005148

1. Trade name or mark of the device: JUNYAN
2. Manufacturer's name for the type of device: HU210-02-1
3. Manufacturer's name and address:
JUN YAN INDUSTRIAL Company Limited
No.121, Wencheng Road
Tainan Hsien
Taiwan
Republic of China
4. If applicable, name and address of the manufacturer's representative: Not applicable
5. Submitted for approval on: 22 February 2008
6. Technical service responsible for conducting the approval tests: Vehicle Certification Agency
7. Date of report issued by that service: 20 May 2008
8. Number of report issued by that service: EAJ189925

EAJ189925

An executive agency of the Department for Transport



9. Concise description:
Category as described by the relevant marking: HC for passing beam
HR for driving beam
- Number and category(ies) of filament lamp(s):
2 x H1, 12V, 55W for passing beam and driving beam
10. Approval mark position: On the lens
11. Reason(s) for extension of approval: Not applicable
12. Approval: GRANTED
13. Place: BRISTOL
14. Date: 28 MAY 2008
15. Signature:  A.W. STENNING
Head of Technical and Quality Group
16. The list of documents deposited with the Administrative Service which has granted approval is annexed to this communication and may be obtained on request.





Vehicle Certification Agency

Far East Office

英國車輛驗證局遠東辦事處



建維驗證

VCA REFERENCES

Test Report Number	EAJ189925
Number of Pages	10
Number of Annexes	3

TEST DETAILS

Subject	Headlamp
Specific Requirements	ECE Reg. 6.01, 7.02 and 112.00.
Duration	2008/2/22 ~ 2008/4/23
Technical Service	Integrated Service of Quality Assessment for Vehicle Certification Agency
VCA Representative	ARTHUR C. H. CHANG
Manufacturer's Representative	Alan Tsai
Reason for Test	Type of Approval

MANUFACTURER DETAILS

Manufacturer's Name	JUN YAN INDUSTRIAL Company Limited.
Manufacturer's Address	No.121, Wencheng Road, Tainan Hsien, Taiwan, Republic of China
Premise of Manufacturing	Same As Above
Model Type & description	HU210-02-1
Category	1 for Front Direction Indicator, A for Front Position Lamp, HC for Passing beam and HR for Driving beam.

CONCLUSION

The submitted samples are tested in accordance with Specific Requirements and found in compliance with all aspects.

Signature:

Name: **ARTHUR C.H. CHANG**

Position: **COE of ISOQA**

Date: **20 May 2008**

LIST OF ANNEXES

Annex	Total page	Subject	Reference
1	1	Information document	
2	2	Drawings	HU210-02-1
		PHOTO	HU210-02-1
3	10	Test Record	07-0579





ECE REGULATION NO. 6

Item	Parameter	RESULTS	YES/NO
5.	GENERAL SPECIFICATIONS		
5.1.	Each device supplied shall conform to the specifications set forth in paragraphs 6. and 8. below.		YES
5.2.	The devices must be so designed and constructed that under 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 this Regulation.		YES
5.3.	Light source module		N/A
5.3.1.	The design of the light source module(s) shall be such that even in darkness the light source module(s) can be fitted in no position, but the correct one.		N/A
5.3.2.	The light source module(s) shall be tamperproof.		N/A
6.	INTENSITY OF LIGHT EMITTED		
6.1.	The light emitted by each of the two devices supplied must be in the case of the direction indicators of categories 1, 1a, 1b, 2a, 2b, 3 and 4 in the reference axis, in the case of direction indicators of categories 5 and 6 in direction A according to annex 1 of not less than the minimum intensity and of not more than the maximum intensity specified below:	Please see Record No.07-0579 attached	YES

Direction indicator ² of category	Minimum intensities cd	Maximum values in cd when used as			S1	S2	
		Single lamp	Lamp (single) marked "D" (see paragraph 4.2.2.3)	Total for the Assembly of two lamps (see paragraph 4.2.2.3)			
1	175	700³	490³	980³	274.3	273.1	YES
1a	250	800 ³	560 ³	1120 ³			N/A
1b	400	860 ³	600 ³	1200 ³			N/A
2a	50	350	350	350			N/A
2b by day	175	700 ³	490 ³	980 ³			N/A
by night	40	120 ³	84 ³	168 ³			N/A
3 towards the front	175	700 ³	490 ³	980 ³			N/A
towards the rear	50	200	140	280			N/A
4 towards the front	175	700 ³	490 ³	980 ³			N/A
towards the rear	0.6	200	140	280			N/A
5	0.6	200	140	280			N/A
6	50	200	140	280			N/A

² The installation of front direction indicators of various categories in power-driven vehicles and their trailers is provided for in the Regulations concerning the installation of lighting and light-signalling devices (Regulations Nos. 48 and 53).

³ The total value of maximum intensity for an assembly of two or more lamps is given by multiplying by 1.4 the value prescribed for a single lamp, except for category 2a.

When an assembly of two or more lamps having the same function is deemed to be, for the purpose of installation on a vehicle, a "single lamp" (following the definition of Regulation No. 48 and its series of amendments in force at the time of application for type approval), this assembly shall comply with the minimum intensity required when one lamp has failed, and, all the lamps together shall not exceed the admissible maximum intensity (last column of the table).

In the case of a single lamp containing more than one light source:

(i) all light sources which are connected in series are considered to be one light source;

(ii) the lamp shall comply with the minimum intensity required when any one light source has failed. However, for front or rear direction indicator lamps designed for only two light sources, 50 per cent of the minimum intensity in the axis of reference of the lamp shall be considered sufficient, provide that a note in the communication form states that the lamp is only for use on a vehicle fitted with an operating tell-tale which indicates when any one of these two light sources has failed.

(iii) when all light sources are illuminated the maximum intensity specified for a single lamp may be exceeded provided that the single lamp is not marked "D" and the maximum intensity specified for an assembly of two or more lamps (last column of the table) is not exceeded.

6.2. Outside the reference axis, within the regular field specified in the arrangement diagrams in annex 1 to this Regulation, the intensity of light emitted by each of the two devices supplied must:

6.2.1. In each direction corresponding to the points in the relevant table of luminous-intensity distribution reproduced in annex 4 to this Regulation, be not less than the minimum specified in paragraph 6.1. above multiplied by the percentage specified in the said table for the direction in question;

6.2.1.1. In divergence from paragraphs 6.2. and 6.2.1., for category 4 and 5 direction indicators, to the rear, a minimum value of 0.6 cd is required throughout the fields specified in annex 1;

6.2.2. In no direction within the area from which the indicator lamp is visible, exceed the maximum specified in paragraph 6.1. above;

6.2.3. Moreover,

6.2.3.1. Throughout the fields defined in the diagrams in annex 1, the intensity of light emitted must be

Please see Record No.07-0579 attached

YES

Please see Record No.07-0579 attached

N/A
YES

28-May-08





not less than 0.7 cd for devices of category 1b,
not less than 0.3cd for device of categories 1, 1a, 2a, 3, 4 towards the front and for those of category 2b by day;

N/A

**Please see Record
No.07-0579 attached**

YES

it shall not less than 0.07 cd for device of category 2b by night;
6.2.3.2. For devices for categories 1 and 2b by night and, to the front, for devices of categories 3 and 4, the intensity of the light emitted outside the zone defined by the measuring points $\pm 10^\circ$ H and $\pm 10^\circ$ V (10° -field) must not exceed the following values:

N/A

N/A

Direction indicator of category	Maximum values in cd outside the 10° -field		
	Single lamp	Lamp (single) Marked "D" (see paragraph 4.2.2.3.)	Total for the assembly of two lamps(see paragraph 4.2.2.3.)
2b by night	100	70	140
1, 3 and 4	400	280	560

N/A

N/A

Between the boundaries of the 10° -field ($\pm 10^\circ$ H and $\pm 10^\circ$ V) and 5° -field($\pm 5^\circ$ H and $\pm 5^\circ$ V), the maximum admissible values of the intensities are linearly increased up to the values as defined in paragraph 6.1.;

N/A

6.2.3.3. For devices of category 1a and 1b, the intensity of the light emitted outside the zone defined by the measuring points $\pm 15^\circ$ H and $\pm 15^\circ$ V (15° -field) shall not exceed the following values :

N/A

Direction indicator of category	Maximum values in cd outside the 15° -field		
	Single lamp	Lamp (single) Marked "D"(see paragraph 4.2.2.3.)	Total for the assembly of two lamps(see paragraph 4.2.2.3.)
1a	250	175	350
1b	400	280	560

N/A

N/A

Between the boundaries of the 15° -field ($\pm 15^\circ$ H and $\pm 15^\circ$ V) and 5° -field ($\pm 5^\circ$ H and $\pm 5^\circ$ V), the maximum admissible values of the intensities are linearly increased up to the values as defined in paragraph 6.1.;

N/A

6.2.3.4. The provisions of paragraph 2.2. of annex 4 to this Regulation on local variations of intensity must be observed.

YES

6.3. In general the intensities shall be measured with the light source(s) continuously alight.

YES

However, depending on the construction of the device, for example, the use of light-emitting diodes (LED), or the need to take precautions to avoid overheating, it is allowed to measure the lamps in flashing mode.

N/A

This must be achieved by switching with a frequency of $f=1.5\pm 0.5$ Hz with the pulse width greater than 0.3s, measured at 95 per cent peak light intensity.

N/A

In the case of replaceable filament lamps, the filament lamps shall be operated at reference luminous flux during on time.

YES

In all other cases the voltage as required in paragraph 7.1.1. shall be switched with a rise time and fall time shorter than 0.01s; no overshoot is allowed

N/A

In the case of measurements taken in flashing mode the reported luminous intensity shall be represented by the maximum intensity.

N/A

6.4. In the case of devices of category 2b the time that elapses between electrical supply being switched on and the light output measured on the reference axis to reach 90 per cent of the value measured in accordance with paragraph 6.3. above shall be measured for both the day and the night conditions of use. The time measured for the night condition of use shall not exceed that measured for the day condition of use.

N/A

6.5. Annex 4, referred to in paragraph 6.2.1. above, gives particulars of the measurement methods to be used.

**Please see Record
No.07-0579 attached**

YES

7. TEST PROCEDURE

7.1. All measurements shall be made with an uncoloured or amber-coloured standard filament lamp of the category prescribed for the device, the supply voltage being to so regulated as to produce the reference luminous flux prescribed for that category lamp.

PY21W standard bulb used

YES

7.1.1. All measurements on lamps equipped with non-replaceable light sources (filament lamps and other) shall be made at 6.75V, 13.5V or 28.0V respectively.

N/A

In the case of light sources supplied by a special power supply, the above test voltage shall be applied to the input terminals of that power supply. The test laboratory may require from the manufacturer the special power supply needed to supply the light sources.

N/A

7.2. However, in the case of an indicator of category 2b for which an additional system⁴ is used to obtain the night-time intensity, the voltage applied to the system for measuring the night-time intensity shall be that which was applied to the filament lamp for measuring the day-time intensity.

N/A

⁴ The functioning and installation conditions of the additional device will be defined by special provisions.

N/A

7.3. The limits of the apparent surface in direction of the reference axis of a light-signalling device shall be determined.

YES

8. COLOUR OF LIGHT EMITTED

The colour of light emitted inside the field of the light distribution grid defined in paragraph 2 of annex 4 shall be within the limits of the co-ordinates prescribed in annex 5 to this Regulation. Out side the field, no sharp variation of color shall be observed.





ECE REGULATION NO.7

Item	Parameter	RESULTS	YES/NO
5.	GENERAL SPECIFICATIONS		
5.1	Each device supplied shall conform to the specification set forth in paragraphs 6 and 8 below.		<u>YES</u>
5.2	The devices must be 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 this Regulation.		<u>YES</u>
5.3	Lamp having been approved as front or rear position (side) lamps, are deemed being also approved end-outline marker lamps.		<u>YES</u>
5.4	Front and rear position (side) lamps which are grouped or combined or reciprocally incorporated may also be used as end-outline marker lamps.		<u>YES</u>
5.5	Position (side) lamps, which are reciprocally incorporated with another function, using a common light source, and designed to operate permanently with an additional system to regulated the intensity of the light emitted, are permitted.		<u>N/A</u>
5.5.1	However, in the case of rear (side) position lamp reciprocally incorporated with a stop lamp, the device shall either:		
	(i) be a part of a multiple light source arrangement, or		<u>N/A</u>
	(ii) be intended for use in a vehicle equipped with a failure monitoring system for that function.		
	In either case, a note shall be made within the communication document.		
5.6.	Light source module		<u>N/A</u>
5.6.1.	The design of the light source module(s) shall be such that even in darkness the light source module(s) can be fitted in no other position, but the correct one.		<u>N/A</u>
5.6.2.	The light source module(s) shall be tamperproof		<u>N/A</u>
6.	INTENSITY OF LIGHT EMITTED		
6.1.	If the reference axis, the light emitted by each of the two devices supplied must be of not less than the minimum intensity and of not more than the maximum intensity specified below:		

1/	Minimum Intensities cd	Maximum values in cd when used as			S1	S2	
		Single lamp	Lamp (single) marked "D" (paragraph 4.2.2.6)	Total for the assembly of two or more lamps			
6.1.1 Front position (side) lamps, Front end-outline marker lamp	4.	60 2/	42 2/	42 2/			<u>N/A</u>
6.1.2 Front position (side) lamps Incorporated in headlamp	4.	100 2/	-	-	7.75	7.74	<u>YES</u>
6.1.3 Rear position (side) lamps Rear end-outline marker lamp	4.	12 2/	8.5 2/	17 2/			<u>N/A</u>
6.1.4 Stop-lamps							
6.1.4.1 with 1 level of intensity (category S1)	60	185 2/	130 2/	260 2/			<u>N/A</u>
6.1.4.2 with 2 levels of intensity (category S2)							<u>N/A</u>
6.1.4.2.1 by day	130.	520 2/	366 2/	728 2/			<u>N/A</u>
6.1.4.2.2. by night	30.	80 2/	56 2/	112 2/			<u>N/A</u>
6.1.4.3 Stop-lamps of category 3	25.	80	55	110			<u>N/A</u>

Note to table

1/ The installation of the devices referred to above in power-driven vehicles and their trailers is provided for in the Regulations concerning the installation of lighting and light-signalling devices (Regulations Nos. 48 and 53).

2/ The total value of maximum intensity for an assembly of two or more lamps is given by multiplying by 1.4 the value prescribed for a single lamp.

When an assembly of two or more lamps having the same function is deemed to be, for the purpose of installation on a vehicle, a "single lamp" (following the definition of Regulation No. 48 and its series of amendments in the force at the time of application for type approval), this assembly shall comply with the minimum intensity required when one lamp has failed, and all the lamps together shall not exceed the admissible maximum intensity (last column of the table)

In the case of a single lamp containing more than one light source:

- (i) all light sources which are connected in series are considered to be one light source;
- (ii) the lamp shall comply with the minimum intensity required when any one light source has failed. However, for lamps designed for only two light sources, 50 per cent of the minimum intensity in the axis of reference of the lamp shall be considered sufficient, provided that a note in the communication form states that the lamp is only for use on a vehicle fitted with an operating tell-tale which indicates when any one of these two light sources has failed.
- (iii) when all light sources are illuminated the maximum intensity specified for a single lamp may be exceeded provided that the single lamp is not marked "D" and the maximum intensity specified for an assembly of two or more lamps (last column of the table) is not exceeded.

YES

N/A

N/A

N/A

N/A





6.2.	Outside the reference axis and within the angular fields defined in the diagrams in annex 1 to this Regulation, the intensity of the light emitted by each of the two devices supplied must:		YES
6.2.1.	In each direction corresponding to the points in the light distribution table reproduced in annex 4 to this Regulation, be not less than the product of the minimum specified in paragraph 6.1. above by the percentage specified in the said table for the direction in question;	Please see Record No.07-0579 attached.	YES
6.2.2.	In no direction within the space from which the light-signalling device is visible, exceed the maximum specified in paragraph 6.1. above;	Same as above.	YES
6.2.3.	However, a luminous intensity of 60 cd shall be permitted for rear position (side) lamps reciprocally incorporated with stop-lamps (see paragraph 6.1.3. above) below a plane forming an angle of 5° with and downward from the horizontal plane;		N/A
6.2.4.	Moreover,.		
6.2.4.1.	Throughout the fields defined in the diagrams in annex 1, the intensity of the light emitted must be	S1	S2
	not less than 0.05 cd for front and rear position (side) lamps and end-outline marker lamps,	0.06	0.11
	not less than 0.3 cd for stop-lamps with one level of intensity, and		YES
	for stop-lamps with two levels of intensity		N/A
	0.3 cd by day and.		N/A
	0.07 cd by night;		N/A
6.2.4.2.	If a rear position (side) lamp is reciprocally incorporated with a stop-lamp, the ratio between the luminous intensities actually measured of the two lamps when turned on simultaneously at the intensity of the rear position (side) lamp when turned on alone should be at least 5 : 1 in the field delimited by the straight horizontal lines passing through ±5° V and the straight vertical lines passing through ±10° H of the light distribution table. If the stop-lamp has two levels of intensity, this requirement must be satisfied when the night condition is switched on;		N/A
	If the rear position (side) lamp or the stop lamp or both contain more than one light source and are considered as a single lamp as defined in note 2 of the table in paragraph 6.1 above, the values to be considered are those obtained with all sources in operation;		N/A
6.2.4.3.	The provisions of paragraph 2.2. of annex 4 to this Regulation on local variations of intensity must be observed.		YES
6.3.	The intensities shall be measured with the filament lamp(s) continuously alight and, in the case of devices emitting selective-yellow or red light, in coloured light.	White light emitted.	YES
6.4.	In the case of a stop-lamp providing two levels of intensity the time that elapses between electrical supply being switched on and the light output measured on the reference axis to reach 90% of the value measured in accordance with paragraph 6.3. above shall be measured for both the day and the night conditions of use. The time measured for the night condition of use shall not exceed that measured for the day condition of use.		N/A
6.5.	Annex 4, to which reference is made in paragraph 6.2.1. above, gives particulars of the methods of measurement to be used.		YES
7.	TEST PROCEDURE		
7.1.	All measurements, photometric and colorimetric, shall be made with a colourless standard filament lamp of the category prescribed for the device, the supply voltage being so regulated as to produce the reference luminous flux required for that category of lamp.		N/A
7.1.1.	In the case of a system with more than one intensity, the reference luminous flux prescribed for the specific category of filament lamp shall be applied to the greatest intensity.		N/A
7.1.2.	All measurements, photometric and colorimetric, on lamps equipped with non-replaceable light sources (filament lamps and other) shall be at 6.75 V, 13.5 V or 28.0 V respectively.	LED made at 13.5V	YES
7.1.3.	In the case of light sources supplied by a special power supply, the above test voltages shall be applied to the input terminals of that power supply. The test laboratory may require from the manufacturer the special power supply needed to supply the light sources.		N/A
7.2.	However, in the case of stop-lamp for which an additional system is used to obtain the night-time intensity, the voltage supplied to the system for measuring the night-time intensity shall be that which was supplied to the filament lamp for measuring the day-time intensity. 2/		N/A
2/	The functioning and installation conditions of these additional system shall be defined by special provisions.		
7.3.	Where a rear position (side) lamp is reciprocally incorporated with a dual-intensity stop-lamp and is designed to operate permanently with an additional system to regulate the intensity of the light emitted, measurement of the light emitted shall be performed with the same voltage supplied to the system as would, if applied to the filament lamp, enable the lamp to produce the prescribed normal luminous flux.		N/A
7.3.1.	Where a position (side) lamp is reciprocally incorporated with another lamp, and is designed to operate permanently with an additional system to regulate the intensity of the light emitted, measurement of the light emitted shall be performed at 6.75 V, 13.5 V or 28 V respectively, where the additional system is part of the device.		N/A
7.3.2.	Where the additional system is not part of the device, then the tests shall be performed at the rated secondary design voltage applied to the light source. The test laboratory may require from the manufacturer the additional system needed to regulate the light source.		
7.4.	The vertical and horizontal outlines of the illuminating surface of a light-signaling device shall be determined and measured in relation to the centre of reference.		





Vehicle Certification Agency

Far East Office

英國車輛驗證局遠東辦事處



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7.6. In the case of a category S3 stop lamp, which is intended to be mounted inside the vehicle, a sample plate or sample plates (in case of different possibilities) as supplied (see paragraph 2.2.5) shall be positioned in front of the lamp to be tested, in the geometrical position(s) as described in the application drawing(s) (see paragraph 2.2.1.).

N/A

8. **COLOUR OF LIGHT EMITTED**

The colour of light emitted inside the field of the light distribution grid defined in paragraph 2 of annex 4 shall be within the limits of the co-ordinates prescribed in annex 5 to this Regulation. Outside the field, no sharp variation of color shall be observed.

**Please see Record
No. 07-0579 attached.**

YES





ECE REGULATION NO. 112

Item	Parameter	Results	YES/NO
5.	GENERAL SPECIFICATIONS		
5.1.	Each sample shall conform to the specifications set forth in paragraphs 6. to 8. below.		YES
5.2.	Headlamp shall be so 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.		YES
5.2.1.	Headlamps shall be fitted with a device enabling them to be so adjusted on the vehicles as to comply with the rules applicable to them. Such a device need not be fitted on units in which the reflector and the diffusing lens cannot be separated, provided the use of such unites is confined to vehicles on which the headlamp setting can be adjusted by other means. Where a headlamp providing a passing beam and a headlamp providing a driving beam, each equipped with its own filament lamp, are assembled to form a composite unit the adjusting device shall enable each optical system individually to be duly adjusted.		YES
5.2.2.	However, these provisions shall not apply to headlamp assemblies whose reflectors are indivisible. For this type of assembly the requirements of paragraph 6.3. of this Regulation shall apply.		N/A
5.3.	The headlamp shall be equipped with filament lamp(s) approved according to Regulation No. 37 . Any Regulation No. 37 filament lamp may be used , provided that no restriction on the application is made in the table of contents of Regulation No.37. <u>6/</u>		YES
	<u>6/</u> HIR1 and/or H9 filament lamps shall only be permitted to produce passing beam in conjunction with the installation of headlamp cleaning device(s) conforming to Regulation No.45 In addition , with respect to vertical inclination , the provision of paragraph 6.2.6.2.2. of Regulation No.48 01 series of amendments, shall not be applied when these lamps are installed. This restriction shall apply as long as there is no general agreement on the use of levelling devices and headlamp cleaners with respect to the level of the performance of the headlamp.		N/A
5.4.	The components by which a filament lamp is fixed to the reflector shall be so made that, even in darkness, the filament lamp can be fixed in no position but the correct one. <u>7/</u>		YES
5.5.	The filament lamp holder shall conform to the characteristics given in IEC Publication 61-2, third edition, 1969. The holder data sheet relevant to the category of filament lamp used, applies.		YES
	<u>7/</u> A headlamp is regarded as satisfying the requirements of this paragraph if the filament lamp can be easily fitted into headlamp and the positioning lugs can be correctly fitted into their slots even in darkness.		YES
5.6.	Headlamps designed to satisfy the requirements both of right-hand and left-hand traffic may be adapted for traffic on a given side of the road either by an appropriate initial setting when fitted on the vehicle or by selective setting by the user. Such initial or selective setting may consist, for example, of fixing either the optical unit at a given angle on the vehicle or the filament lamp at a given angle in relation to the optical unit. In all cases, only two different and clearly distinct settings, one for right-hand and one for left-hand traffic, shall be possible, and the design shall preclude inadvertent shifting from one setting to the other or setting in an intermediate position. Where two different setting positions are provided for the filament lamp, the components for attaching the filament lamp to the reflector must be so designed and made that, in each of its two settings, the filament lamp will be held in position with the precision required for headlamps designed for traffic on only one side of the road. Conformity with the requirements this paragraph shall be verified by visual inspection and, where necessary, by a test fitting.	For one traffic system only	N/A
5.7.	Complementary tests shall be done according to the requirements of annex 4 to ensure that in use there is no excessive change in photometric performance.	Please see Record No.07-0579 attached	YES
5.8.	If the lens of the headlamp is of plastic material, test shall be done according to the requirements of annex 6.		YES
5.9.	On headlamps designed to provide alternately a driving beam and a passing beam, or a passing beam and/or a driving beam designed to become bend lighting, any mechanical, electromechanical or other device incorporated in the headlamp for these purposes shall be so constructed that:		N/A
5.9.1.	the device is strong enough to withstand 50,000 operations without suffering damage despite the vibrations to which it may be subjected in normal use;		N/A
5.9.2.	in the case of failure the illumination above the line H-H shall not exceed the values of a passing beam according to paragraph 6.2.5.; in addition, on headlamps designed to provide a passing and/or a driving beam to become a bend lighting, a minimum illumination of at least 5 lux shall be fulfilled in test point 25V (VV line, D75 cm).		N/A
5.9.3.	either the passing beam or the driving beam shall always be obtained without any possibility of the mechanism stopping in between two position;		N/A
5.9.4.	the user cannot, with ordinary tools , change the shape or position of the moving parts.		N/A
6.	ILLUMINATION		
6.1	<u>General provisions</u>		
6.1.1.	Headlamp shall be so made that they give adequate illumination without dazzle when emitting the passing beam, and good illumination when emitting the driving beam.		





- 6.1.2. The illumination produced by the headlamp shall be determined by mean of a vertical screen set up 25 m forwards of the headlamp and at right angles to its axes as shown in annex 3 to this Regulation. **YES**
- 6.1.3. The headlamps shall be checked by means of an uncolored standard (etalon) filament lamp designed for a rated voltage of 12V. During the checking of the headlamp, the voltage at the terminals of the filament lamp shall be regulated so as to obtain the reference luminous flux as indicated at the relevant data sheet of Regulation No. 37. **H1 Standard bulb used YES**
- 6.1.4. The headlamp shall be considered acceptable if it meets the requirements of this paragraph 6 with at least one standard (etalon) filament lamp, which may be submitted with the headlamp. **YES**
- 6.2. Provisions concerning passing beams**
- 6.2.1. The passing beam must produce a sufficiently sharp "cut-off" to permit a satisfactory adjustment with its aid. The "cut-off" must be a horizontal straight line on the side opposite to the direction of the traffic for which the headlamp is intended; on the other side, it must not extend beyond either the broken line HV, H₁, H₂ formed by a straight line HV, H₁ marking a 45° angle with the horizontal and the straight line H₁, H₂, 25 cm above the straight line hh. or the straight line HV, H₃, inclined at an angle of 15° above the horizontal (see annex 3). A "cut-off" extending beyond both line HV, H₄ and line H₂, H₄ and resulting from a combination of the two above possibilities shall in no circumstances be permitted. **YES**
- 6.2.2. The headlamp shall be so aimed that :
- 6.2.2.1. in the case of headlamps designed to meet the requirements of right-hand traffic, the "cut-off" on the left-hand of the screen **8/** is horizontal and, in the case of headlamps designed to meet the requirements of left-hand traffic, the "cut-off" on the right-hand of the screen is horizontal; **YES**
- 8/** The test screen must be sufficiently wide to allow examination of the "cut-off" over a range of at least 5° on either side of the line vv. **YES**
- 6.2.2.2. this horizontal part of the "cut-off" is situated on the screen 25 cm below the level hh (see annex 3); **YES**
- 6.2.2.3. the "elbow" of the "cut-off" is on line vv. **9/** **YES**
- 9/** If the beam does not have a cut-off with a clear "elbow", the lateral adjustment shall be effected in the manner which best satisfies the requirements for illumination at points 75R and 50R for right-hand traffic and for points 75L and 50L for left-hand traffic. **YES**
- 6.2.3. When so aimed, the headlamp need, if its approval is sought solely for provision of a passing beam, **10/** comply only with the requirements set out in paragraphs 6.2.5. to 6.2.7. and 6.2.9. below; **N/A**
- if it is intended to provide both a passing beam and a driving beam, it shall comply with the requirements set out in paragraphs 6.2.5. to 6.2.7. and 6.3. **YES**
- 10/** Such a special "passing beam" headlamp may incorporate a driving beam not subject to requirements. **N/A**
- 6.2.4. Where a headlamp so aimed does not meet the requirements set out in paragraphs 6.2.5. to 6.2.7. and 6.3., its alignment may be changed, provided that the axis of the beam is not displaced laterally by more than 1° (= 44 cm) to the right or left. **11/** To facilitate alignment by means of the "cut-off", the headlamp may be partially occulted in order to sharpen the "cut-off". **YES**
- 11/** The limit of realignment of 1° towards the right or left is not incompatible with upward or downward vertical realignment. The latter is limited only by the requirements of paragraph 6.3. However, the horizontal part of the "cut-off" should not extend beyond the line hh (the provisions of paragraph 6.3. are not applicable to headlamps intended to meet the requirements of this Regulation only for provision of a passing beam). **YES**
- 6.2.5. The illumination produced on the screen by the passing beam shall meet the following requirements: **YES**

Point on measuring screen		Required illumination in lux	
Headlamp for right hand traffic	Headlamp for left hand traffic	Class A headlamp	Class B headlamp
Point B 50 L	Point B 50 R	≤ 0.4	≤ 0.4
" 75 R	" 75 L	≥ 6	≥ 12
" 75 L	" 75 R	≤ 12	≤ 12
" 50 L	" 50 R	≤ 15	≤ 15
" 50 R	" 50 L	≥ 6	≥ 12
" 50 V	" 50 V	-	≥ 6
" 25 L	" 25 R	≥ 1.5	≥ 2
" 25 R	" 25 L	≥ 1.5	≥ 2
Any point in zone III		≤ 0.7	≤ 0.7
Any point in zone IV		≥ 2	≥ 3

Sample 1	Sample 2	
0.26	0.26	YES
17.42	12.80	YES
3.50	3.71	YES
5.49	4.43	YES
28.32	15.24	YES
12.01	7.84	YES
2.06	2.09	YES
3.92	3.01	YES
0.62	0.68	YES
4.71	3.61	YES





Any point in zone I	≤ 20	≤ 2E * ⁷
⁷ E is the actually measured value in points 50R respectively 50L.		

30.72 15.61 YES

6.2.6. There shall be no lateral variations detrimental to good visibility in any of the zones I, II, III and IV.

YES

6.2.7. The illumination values in zones "A" and "B" as shown in figure C in annex 3 shall be checked by the measurement of the photometric values of points 1 to 8 on this figure; these values shall lie within the following limits:

Please see Record No.07-0579 attached

YES

1 + 2 + 3 ≥ 0.3 lux, and
4 + 5 + 6 ≥ 0.6 lux, and

0.4 0.4 YES

0.7 lux ≥ 7 ≥ 0.1 lux and
0.7 lux ≥ 8 ≥ 0.2 lux

0.7 0.7 YES

0.3 0.3 YES

0.3 0.4 YES

12/ Illumination values in any point of zones A and B, which also lies within zone III, shall not exceed 0.7 lux.

YES

6.2.8. Headlamps designed to meet the requirements of both right-hand and left-hand traffic must, in each of the two setting positions of the optical unit or of the filament lamp, meet the requirements set forth above for the corresponding direction of traffic.

N/A

6.2.9. The requirements in paragraph 6.2.5. above shall also apply to headlamps designed to provide bend lighting and/or that include the additional light source referred to in paragraph 6.1.10.2.

N/A

6.2.9.1. If bend lighting is obtained by:

6.2.9.1.1. swiveling the passing beam or moving horizontally the kink of the elbow of the cut-off, the measurements shall be carried out after the complete headlamp assembly has been reaimed horizontally, e.g. by means of a goniometer;

N/A

6.2.9.1.2. moving one or more optical parts of the headlamp without moving horizontally the kink of the elbow of the cut-off, measurements shall be carried out with these parts being in their extreme operating position;

N/A

6.2.9.1.3. means of one additional light source without moving horizontally the kink of the elbow of the cut-off, measurements shall be carried out with this light source activated.

N/A

6.2.10. Only one principal light source is permitted for each passing beam headlamp. However, a maximum of two additional light sources are permitted as follows:

6.2.10.1. One additional light source inside the passing beam headlamp according to Regulation No.37 may be used to contribute to bend lighting.

6.2.10.2. One additional light source according to Regulation No.37, inside the passing beam headlamp, may be used for the purposes of generating infrared radiation. It shall only be activated at the same time as the principal light source. In the event that the principal light source fails, this additional light source shall be automatically switched off.

6.2.10.3. In the event of failure of an additional light source, the headlamp shall continue to fulfil the requirements of the passing beam.

6.3. Provisions concerning driving beams

6.3.1. In the case of a headlamp designed to provide a driving beam and a passing beam, measurements of the illumination produced on the screen by the driving beam shall be taken with the same headlamp alignment as for measurements under paragraphs 6.2.5. to 6.2.7. above; in the case of a headlamp providing a driving beam only, it shall be so adjusted that the area of maximum illumination is centred on the point of intersection of lines hh and vv; such a headlamp need meet only the requirements referred to in paragraph 6.3. where more than one light source is used to provide the driving beam, the combined functions shall be used to determine the maximum values of the illumination (E_M).

YES

6.3.2. The illumination produced on the screen by the driving beam shall meet the following requirements.

YES

6.3.2.1. The point of intersection (HV) of lines hh and vv shall be situated within the isolux 80% of maximum illumination.

YES

The maximum values (E_M) shall not be less than 48 lux. The maximum values shall in no circumstances exceed 240;

YES

in addition, in the case of a combined passing and driving headlamp, this maximum value shall not be more than 16 times the illumination measured for the passing beam at point 75R (or 75L).

N/A

6.3.2.1.1. The maximum intensity (I_M) of the driving beam expressed in thousands of candelas shall be calculated by the formula: I_M = 0.625 E_M

32.1 32.7 YES

6.3.2.1.2. The reference mark (I_M) of this maximum intensity, referred to in paragraph 4.2.2.7. above, shall be obtained by the ratio: I_M = I_M/3 = 0.208 E_M

10.7 10.9 YES

This value shall be rounded off to the value 7.5 - 10 - 12.5 - 17.5 - 20 - 25 - 27.5 - 30 - 37.5 - 40 - 45 - 50.

10

YES

6.3.2.2. Starting from point HV, horizontally to the right and left, the illumination shall be not less than 16 lux for Class A headlamp and 24 lux for Class B headlamp up to a distance of 1.125 m and not less than 6 lux up to a distance of 2.25 m.

Please see Record No.07-0579 attached

28-YES-08





6.4.	In the case of headlamp with an adjustable reflector the requirements of paragraphs 6.2. and 6.3 are applicable for each mounting position indicated according to paragraph 2.1.3. For verification the following procedure shall be used:	<u>N/A</u>
6.4.1.	Each applied position is realized on the test goniometer with respect to a line joining the centre of the light source and point HV on the aiming screen. The adjustable reflector is then moved into such a position that the light pattern on the screen corresponds to the aiming prescriptions of paragraphs 6.2.1. to 6.2.2.3. and/or 6.3.1.;	<u>N/A</u>
6.4.2.	With the reflector initially fixed according to paragraph 6.4.1., the headlamp must meet the relevant photometric requirements of paragraphs 6.2. and 6.3.;	<u>N/A</u>
6.4.3.	Additional tests are made after the reflector has been moved vertically $\pm 2^\circ$ or at least into the maximum position, if less than 2° , from its initial position by means of the headlamps adjusting device. Having re-aimed the headlamp as a whole (by means of the goniometer for example) In the corresponding opposite direction the light output in the following directions shall be controlled and lie within the require limits: passing beam : Points HV and 75R (75L respectively) ; driving beam : E_M and point HV (percentage of E_M). Driving beam: I_M and point HV (percentage of I_M).	<u>YES</u> <u>YES</u> <u>YES</u> <u>YES</u>
6.4.4.	If the applicant has indicated more than one mounting position, the procedure of paragraphs 6.4.1. to 6.4.3. shall be repeated for all the other positions;	<u>N/A</u>
6.4.5.	If the applicant has not asked for special mounting positions, the headlamp shall be aimed for measurements of paragraphs 6.2. and 6.3. with the headlamps adjusting device in its mean position. The additional tests of paragraph 6.4.3. shall be made with the reflector moved into its extreme positions (instead of $\pm 2^\circ$) by means of the headlamps adjusting device.	<u>YES</u>
6.5.	The screen illumination values mentioned in paragraph 6.2.5. to 6.2.7. and 6.3. above shall be measured by means of a photo-receptor, the effective area of which shall be contained within a square of 65 mm side.	<u>YES</u>
7.	COLOUR	
7.1.	The colour of the emitted shall be white . Expressed in CIE trichromatic coordinates , the light of the beams shall be in the following boundaries : Limit towards blue $x \geq 0.310$ Limit towards yellow $x \leq 0.500$ Limit towards green $y \leq 0.150 + 0.640 x$ Limit towards green $y \leq 0.440$ Limit towards purple $y \geq 0.050 + 0.750 x$ Limit towards red $y \geq 0.382$	<u>White light emitted from clear bulb and clear lens.</u> <u>YES</u>
8.	GAUGING OF DISCOMFORT The discomfort caused by the passing beam of headlamps shall be gauged. <u>13/</u>	<u>OK</u>
	<u>13/</u> This requirement will be the subject of a recommendation to administrations .	<u>OK</u>



JUN YAN INDUSTRIAL Co., Ltd.

甯陽實業股份有限公司

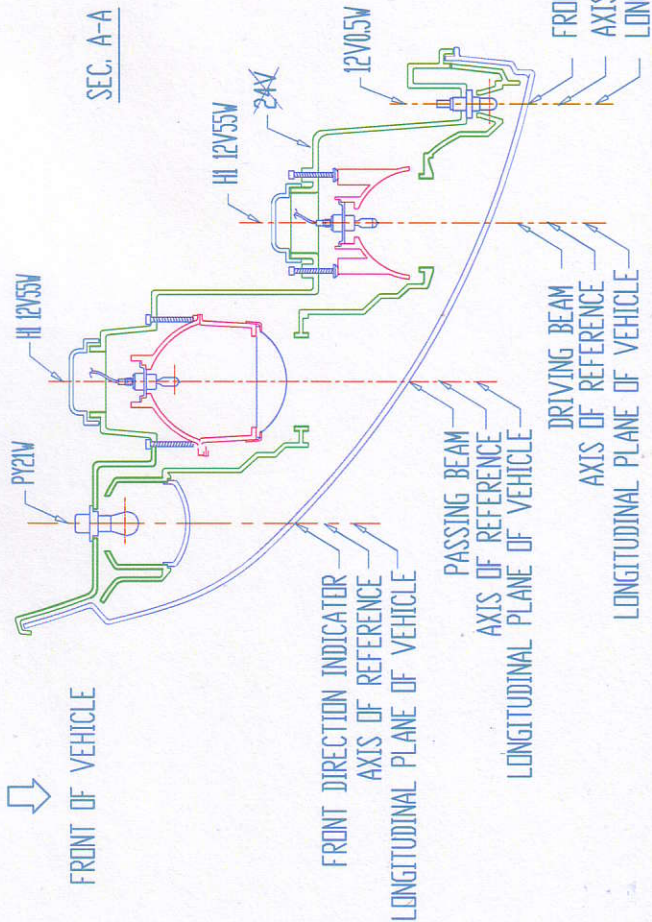
Information Document

for Initial application to ECE Homologation
of Model Number HU210-02-1

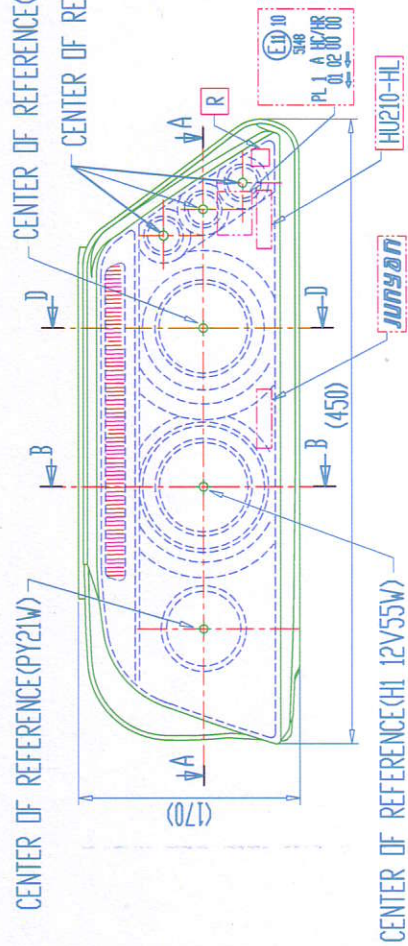
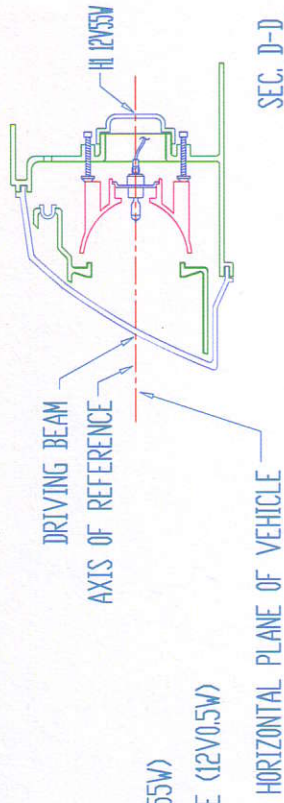
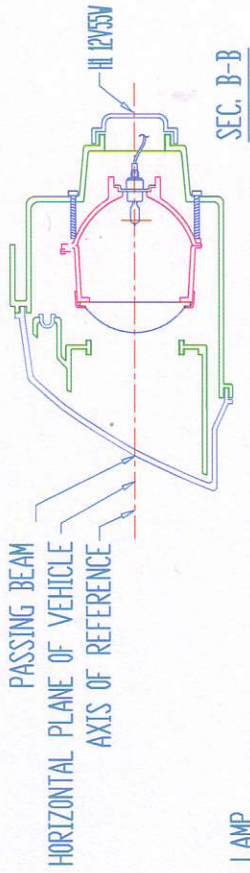
items	Details		Initial	Extension-	00	Remark
1.	VCA					
1.1	Job Number		EAJ189925			
1.2	Approval Number		5148			
2.	Manufacturer					
2.1	Name		JUN YAN INDUSTRIAL Co., Ltd.			
2.2	Address		No.121, Wencheng Road, Tainan Hsien, Taiwan, Republic of China			
2.3	Trade name or mark		JUNYAN			
3.	Product		Head lamp			
3.1	Model Number		HU210-02-1			
3.2	Intended functions	Charteristic				
3.2.1	Front Direction Indicator (Reg. 6)	Category	1			
		Bulb	PY21W 12V 21W			
		Color of light	Amber			
		Color of lens	Clear			
3.2.2	Front Position Lamp (Reg.7)	Category	A			
		Bulb	LED 12V 0.5W			
		Color of light	White			
		Color of lens	Clear			
3.2.3	Passing Beam (Reg.112)	Class	B			
		Category	HC			
		Bulb	H1 12V 55W			
		Color of light	White			
		Color of lens	Clear			
3.2.4	Driving Beam (Reg.112)	Class	B			
		Category	HR			
		Bulb	H1 12V 55W			
		Color of light	White			
		Color of lens	Clear			
4.	Drawings		HU210-02-1			



NO	SYM	DATE	REVISIONS	JUNYAN CHECK	APPR.



NOTE: THIS DRAWING SHALL BE APPLIED FOR RIGHT HAND ONLY, AND LEFT HAND SHALL BE SYMMETRIC. 2. LENS IS FIXED WITH HOUSING BY GLUE AND CLIPS.



NO	FIG	NL	CUSTOMER PART NO.	PART NO.	PART NAME	MATERIAL	QTY	REMARK

APPR.	DESIGN BY	CHECKED	DWG BY	DATE	UNIT	NO.
				2008.03.07	HU210	

3rd ANGLE PROJECTION	PART NAME	HEAD LAMP	DRAW NO.
			HU210-000

JUNYAN AUTO INDUSTRIAL CO.,LTD.

JUN YAN INDUSTRIAL Co. Ltd.

甯陽實業股份有限公司

HU210-02-1 LH Front View



HU210-02-1 RH Front View



HU210-02-1 LH Side View



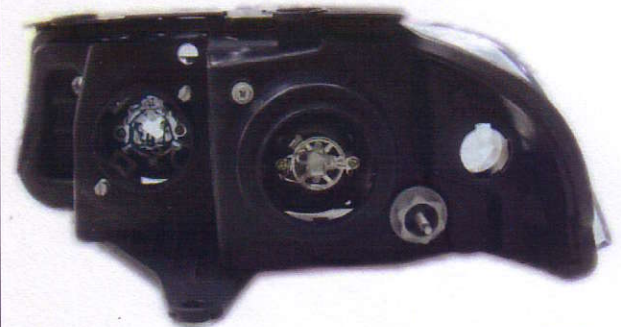
HU210-02-1 RH Side View



HU210-02-1 LH Rear View



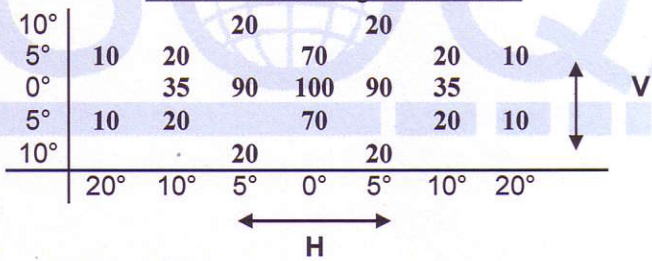
HU210-02-1 RH Rear View





photometric measurements test record					
Record No.	07- 0579	Reference	EAJ189925	6/7/112	5148
Requirement	ECE R6 Clause 6.1 Annex4	Function	Front Direction Indicator (Reg. 6)		
Subject	HU210-02-1	Date	22/2/2008		

Table of standard light distribution



HU210-02-1

Test point	minimum	S. 1	S. 2	Result	maximum
10U 5L	35	37.1	39.7	T T	700
10U 5R	35	66.7	52.4	T T	700
5U 20R	18	25.8	18.2	T T	400
5U 10R	35	37.5	138.8	T T	700
5U V	123	149.8	215.3	T T	700
5U 10L	35	83.0	44.1	T T	700
5U 20L	18	18.4	33.4	T T	400
H 10L	61	61.4	183.4	T T	700
H 5L	158	264.0	241.1	T T	700
H V	175	274.3	273.1	T T	700
H 5R	158	175.6	203.8	T T	700
H 10R	61	76.8	65.1	T T	700
5D 20R	18	20.7	19.0	T T	400
5D 10R	35	101.6	100.2	T T	700
5D V	123	204.9	177.0	T T	700
5D 10L	35	81.7	122.6	T T	700
5D 20L	18	18.8	34.2	T T	400
10D 5L	35	69.5	37.2	T T	700
10D 5R	35	70.7	42.2	T T	700
minmum	0.3	0.3	0.4	T T	700
Max		299.4	286.3	T T	700

Tested by Chen Signature Chen
 Approved by Arthur C. H. Chang Signature Arthur Chang





colors of lights test record

Record No.	07- 0579	Reference	EAJ189925 6/7/112 5148
Requirement	ECE R6 Clause8 Annex 5	Function	Front Direction Indicator (Reg. 6)
Subject	HU210-02-1	Date	22/2/2008

Requirement	Measurement				Remark
	Test point	HU210-02-1			
Trichromatic Co-ordinates		S1	S2		
<u>Amber</u> color of light emitted					
limit toward red $y \geq 0.39$	x=	0.5658	0.5569	←	
limit toward green $y \leq x-0.12$	y=	0.4250	0.4269		←
Limit towards white $y \geq 0.79-0.67$	=	T	T		

Tested by Chen

Signature

Chen

Approved by Arthur C. H. Chang

Signature

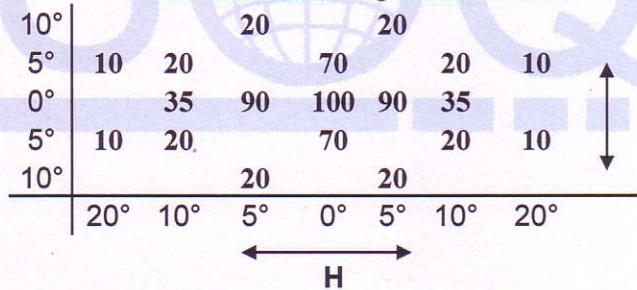
Arthur Chang





photometric measurements test record			
Record No.	07- 0579	Reference	EAJ189925 6/7/112 5148
Requirement	ECE R7 Clause6.1.1 Annex4	Function	Front Position Lamp (Reg.7)
Subject	HU210-02-1	Date	22/2/2008

Table of standard light distribution



HU210-02-1

Test point	minimum	S. 1	S. 2	Result	maximum
10U 5L	0.8	7.82	8.44	T T	100
10U 5R	0.8	7.72	8.46	T T	100
5U 20L	0.4	7.15	7.84	T T	100
5U 10L	0.8	8.89	8.58	T T	100
5U V	2.8	8.46	8.73	T T	100
5U 10R	0.8	8.92	8.15	T T	100
5U 20R	0.4	9.72	6.63	T T	100
H 10L	1.4	8.78	7.41	T T	100
H 5L	3.6	7.80	7.43	T T	100
H V	4	7.75	7.74	T T	100
H 5R	3.6	8.34	8.40	T T	100
H 10R	1.4	8.85	7.41	T T	100
5D 20L	0.4	7.81	7.85	T T	100
5D 10L	0.8	8.54	8.38	T T	100
5D V	2.8	8.51	8.62	T T	100
5D 10R	0.8	8.33	8.09	T T	100
5D 20R	0.4	7.05	6.40	T T	100
10D 5L	0.8	8.33	7.21	T T	100
10D 5R	0.8	8.29	7.25	T T	100
minum	0.05	0.06	0.11	T T	100
Max		12.18	8.74	T T	100

Tested by Chen

Signature Chen

Approved by Arthur C. H. Chang

Signature Arthur Chang

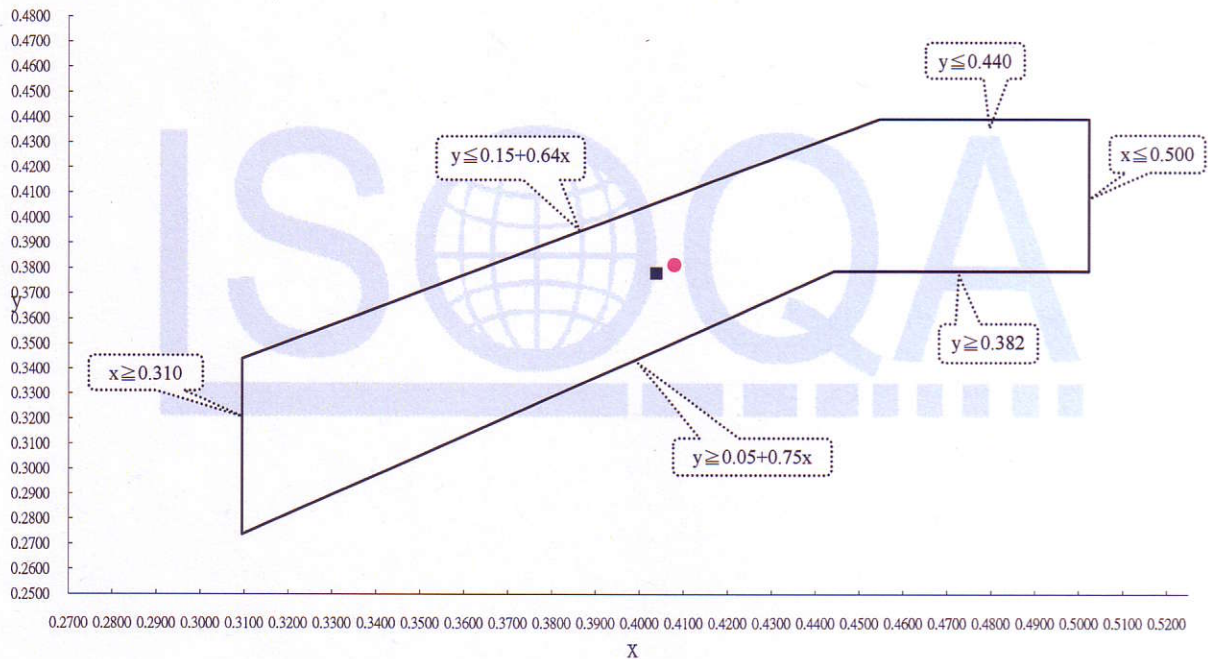




colors of lights test record					
Record No.	07- 0579	Reference	EAJ189925	6/7/112	5148
Requirement	ECE R7 Clause8 Annex 5	Function	Front Position Lamp (Reg.7)		
Subject	HU210-02-1	Date	22/2/2008		

	Sample 1		Sample 2	
Test point	x	y	x	y
HV	0.4038	0.3781	0.4077	0.3814

■ sample 1 ● sample 2



- Limit towards blue : $x \geq 0.310$
- Limit towards yellow : $x \leq 0.500$
- Limit towards green : $y \leq 0.150 + 0.640x$
- Limit towards green : $y \leq 0.440$
- Limit towards purple : $y \geq 0.050 + 0.750x$
- Limit towards red : $y \geq 0.382$

White limit according to ECE Regulation

Tested by Chen

Signature Chen

Approved by Arthur C. H. Chang

Signature Arthur Chang





photometric measurements test record				
Record No.	07- 0579	Reference	EAJ189925 6/7/112 5148	
Requirement	ECE R112 Clause 6 Annex 4	Function	Passing Beam (Reg.112) & Driving Beam (Reg.112)	
Subject	HU210-02-1	Date	22/2 ~ 16/4/2008	
Right Hand Traffic				
Clause 6.2.5				
	Test point	sample 1	sample 2	Required illumination in lux
	B 50 L	0.26	0.26	≤ 0.4
	75 R	17.42	12.80	≥ 12
	75 L	3.50	3.71	≥ 12
	50 L	5.49	4.43	≥ 15
	50 R	28.32	15.24	≥ 12
	50 V	12.01	7.84	≥ 6
	25 L	2.06	2.09	≥ 2
	25 R	3.92	3.01	≥ 2
	Zone III	0.62	0.68	≥ 0.7
	Zone IV	4.71	3.61	≥ 3
	Zone I	30.72	15.61	≥ 56.6
Clause 6.2.7				
	4U-8L	0.1	0.1	
	4U-V	0.2	0.2	
	4U-8R	0.1	0.1	
	2U-4L	0.2	0.1	
	2U-V	0.3	0.2	
	2U-4R	0.3	0.3	
0.1	≤	H-8L	0.3	0.3 ≤ 0.7
0.2	≤	H-4L	0.3	0.4 ≤ 0.7
0.3	≤	point 1+2+3=	0.4	0.4
0.6	≤	point 4+5+6=	0.7	0.7
Clause 6.3.2.1				
		Sample 1	Sample 2	Mir Max
Emax		51.3	52.3	48 240
HV		50.0	49.3	42
Imax		32.1	32.7	
I'm		10.7	10.9	
Clause 6.3.2.2				
		Sample 1	Sample 2	Mir Max
-2.25m ~ -1.125m		11.5	12.6	6
-1.125m ~ +1.125m		28.3	29.9	24
+1.125m ~ +2.25m		14.0	13.6	6

Tested by Chen

Signature Chen

Approved by Arthur C. H. Chang

Signature Arthur Chang

EAJ189925 5148_R6-7-112_HU210-02-1_Test Record.xls

R112-C6-A4 page 5 of 10-08

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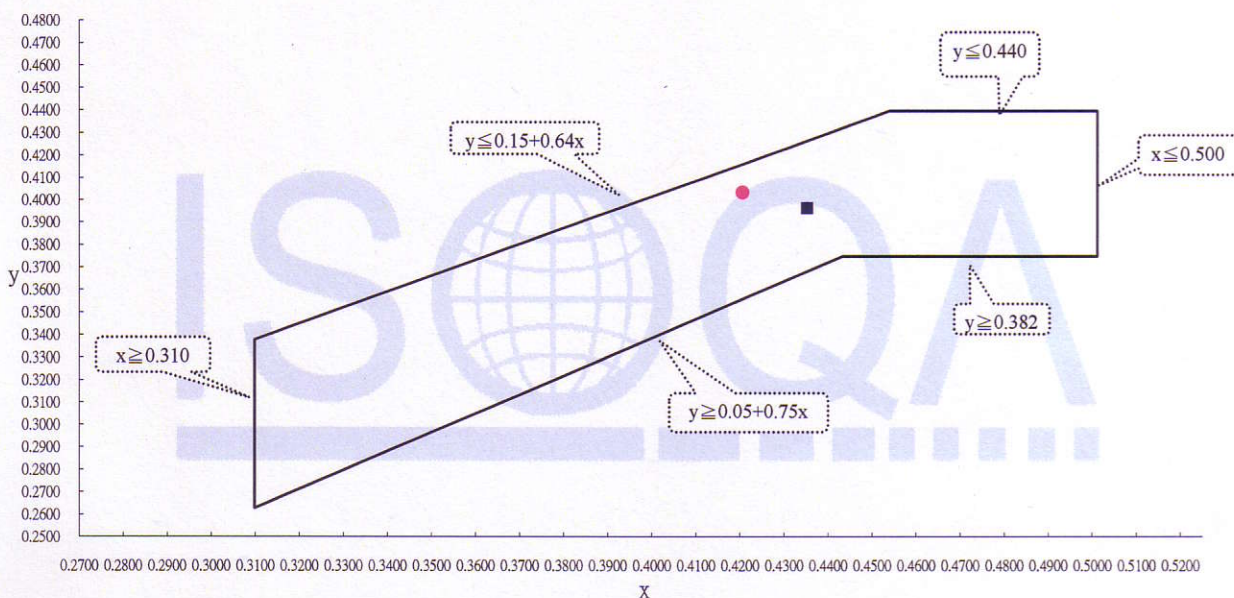




colors of lights test record					
Record No.	07- 0579	Reference	EAJ189925	6/7/112	5148
Requirement	ECE R112 Clause8 Annex 4	Function	Passing Beam (Reg.112)		
Subject	HU210-02-1	Date	22/2 ~ 16/4/2008		

Test point	x	y	x	y
HV	0.4352	0.3964	0.4204	0.4034

- sample 1 ● sample 2
- sample 3 ● sample 4



- Limit towards blue : $x \geq 0.310$
- Limit towards yellow : $x \leq 0.500$
- Limit towards green : $y \leq 0.150 + 0.640x$
- Limit towards green : $y \leq 0.440$
- Limit towards purple : $y \geq 0.050 + 0.750x$
- Limit towards red : $y \geq 0.382$

White limit according to ECE Regulation

Tested by Chen

Signature Chen

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EAJ189925 5148_R6-7-112_HU210-02-1_Test Record.xls R112-C8-A4(passing) page 6 of 10

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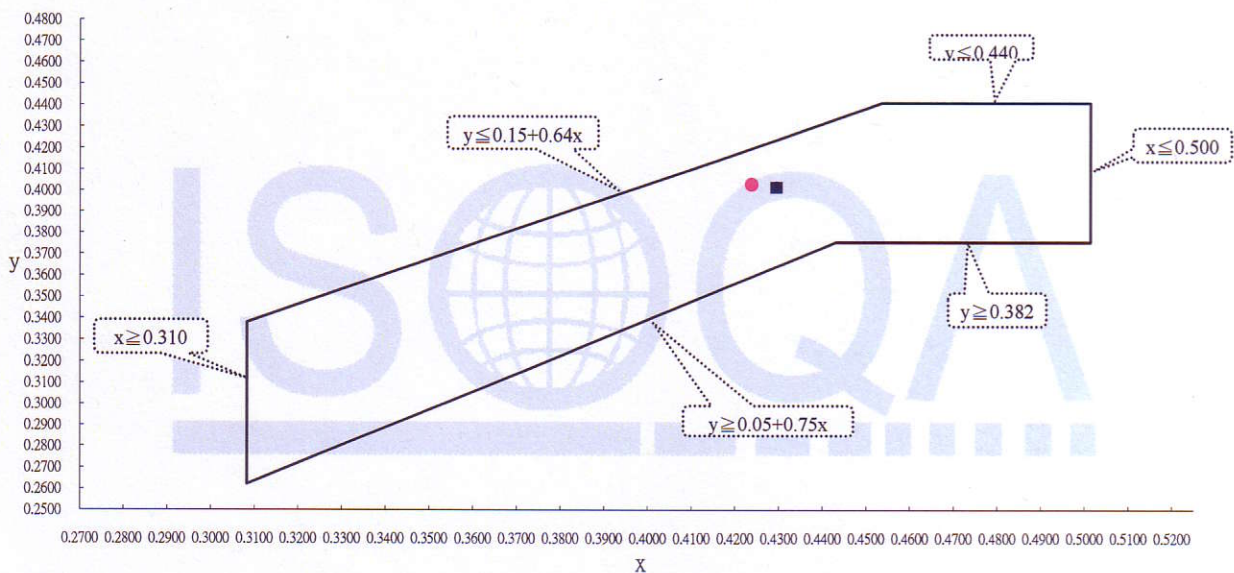




colors of lights test record					
Record No.	07- 0579	Reference	EAJ189925	6/7/112	5148
Requirement	ECE R112 Clause8 Annex 4	Function	Driving Beam (Reg.112)		
Subject	HU210-02-1	Date	22/2 ~ 16/4/2008		

Test point	x	y	x	y
HV	0.4294	0.4016	0.4235	0.4029

- sample 1 ● sample 2
- sample 3 ● sample 4



- Limit towards blue : $x \geq 0.310$
 - Limit towards yellow : $x \leq 0.500$
 - Limit towards green : $y \leq 0.150 + 0.640x$
 - Limit towards green : $y \leq 0.440$
 - Limit towards purple : $y \geq 0.050 + 0.750x$
 - Limit towards red : $y \geq 0.382$
- White limit according to ECE Regulation

Tested by Chen

Signature Chen

Approved by Arthur C. H. Chang

Signature Arthur Chang





Additional photometric measurements test record for adjustable reflector

Table with 4 columns: Record No., Requirement, Subject, Reference, Function, Date. Values include 07-0579, ECE R112 Clause 6.4.3, HU210-02-1, EAJ189925, Passing Beam (Reg.112) & Driving Beam (Reg.112), 22/2 ~ 16/4/2008.

Right Hand Traffic

Clause 6.4.3

Passing Beam

Table for Right Hand Traffic - Passing Beam. Columns: Test point, Vertically +2° (sample 1, sample 2), Vertically -2° (sample 1, sample 2), Required illumination in lux. Rows: HV, 75R.

Driving Beam

Table for Driving Beam. Columns: Test point, Vertically +2° (sample 1, sample 2), Vertically -2° (sample 1, sample 2), Required illumination in lux. Rows: Emax, HV.

Tested by

Chnen

Signature

Chen

Approved

Arthur C. H. Chang

Signature

Arthur Chang





Stability of Photometric Performance test record

Table with 4 columns: Record No., Requirement, Subject, Reference, Function, Date. Values include 07-0579, ECE R112 Clause 5.7 Annex 5, HU210-02-1, EAJ189925 6/7/112 5148, Passing Beam (Reg.112) & Driving Beam (Reg.112), 23/4/2008.

Clause 1 Stability Test for Right Hand Traffic

Test sample 2685

Table with 13 columns: Point, clean headlamp before burn in (1, 2), clean headlamp after burn in (1, 2), discrepancy (1, 2), dirty headlamp after burn in (1, 2), Discrepancy (1, 2), requirement. Rows include Emax, HV, 50 R, B 50 L.

Clause 2 Change in vertical position of the CUT-OFF line under the influence of heat

Table with 6 columns: Point, sample 1, requirement, sample 2, requirement, When. Rows include r3: after 180 second, r60: after 3600 second, and discrepancy formulas.

Tested by

Paul Chang

Signature

Paul Chang

Approved by

Arthur C. H. Chang

Signature

Arthur C. H. Chang





The complete headlamp incorporating a lens of plastic material test record

Table with 4 columns: Record No., Requirement, Subject, Reference, Function, Date. Contains test details like Record No. 07-0579, Requirement ECE R112 Clause 5.8 Annex 6, Subject HU210-02-1, Reference EAJ189925 6/7/112 5148, Function Passing Beam (Reg.112) & Driving Beam (Reg.112), Date 23/4/2008.

Table B. Tests on complete headlamps. Columns: Tests, Complete headlamp Sample No. (1, 2), comments. Rows include Deterioration (para. 2.6.1.1.), Photometry (para. 2.6.1.2.), and Adherence (para. 2.6.2.) with test results and comments.

Tested by

Paul Chang

Signature

Paul Chang (handwritten signature)

Approved by

Arthur C. H. Chang

Signature

Arthur C. H. Chang (handwritten signature)

