



THE NETHERLANDS
(N E D E R L A N D)



COMMUNICATION

Concerning:

- approval granted
- ~~approval extended~~
- ~~approval refused~~
- ~~approval withdrawn~~
- ~~production definitely discontinued~~

of a type of direction indicator pursuant to Regulation number 6.

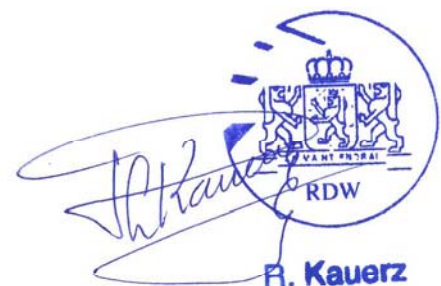
Approval number: E4-6R-01 61467

Extension number: 00

1. Trade name or mark of the device : OBO
 2. Manufacturer's name for the type of device : OBO-LDI15A-9500
 3. Manufacturer's name and address : Taizhou Obo Optoelectronic Co., Ltd
Xicheng Mold Center, Xicheng Street,
Huang Yan district, Taizhou City, Zhejiang
Province, P.R. China
 4. If applicable, name and address of the manufacturer's representative : --
 5. Submitted for approval on : 11 March 2011
 6. Technical service responsible for conducting approval tests : DEKRA Certification B.V.
 7. Date of test report issued by that service : 14 April 2011
 8. Number of test report issued by that service : 2141947-PHO 11-001-70
 9. Concise description :
- Category : ~~1/1a/1b/2a/2b/5/6~~



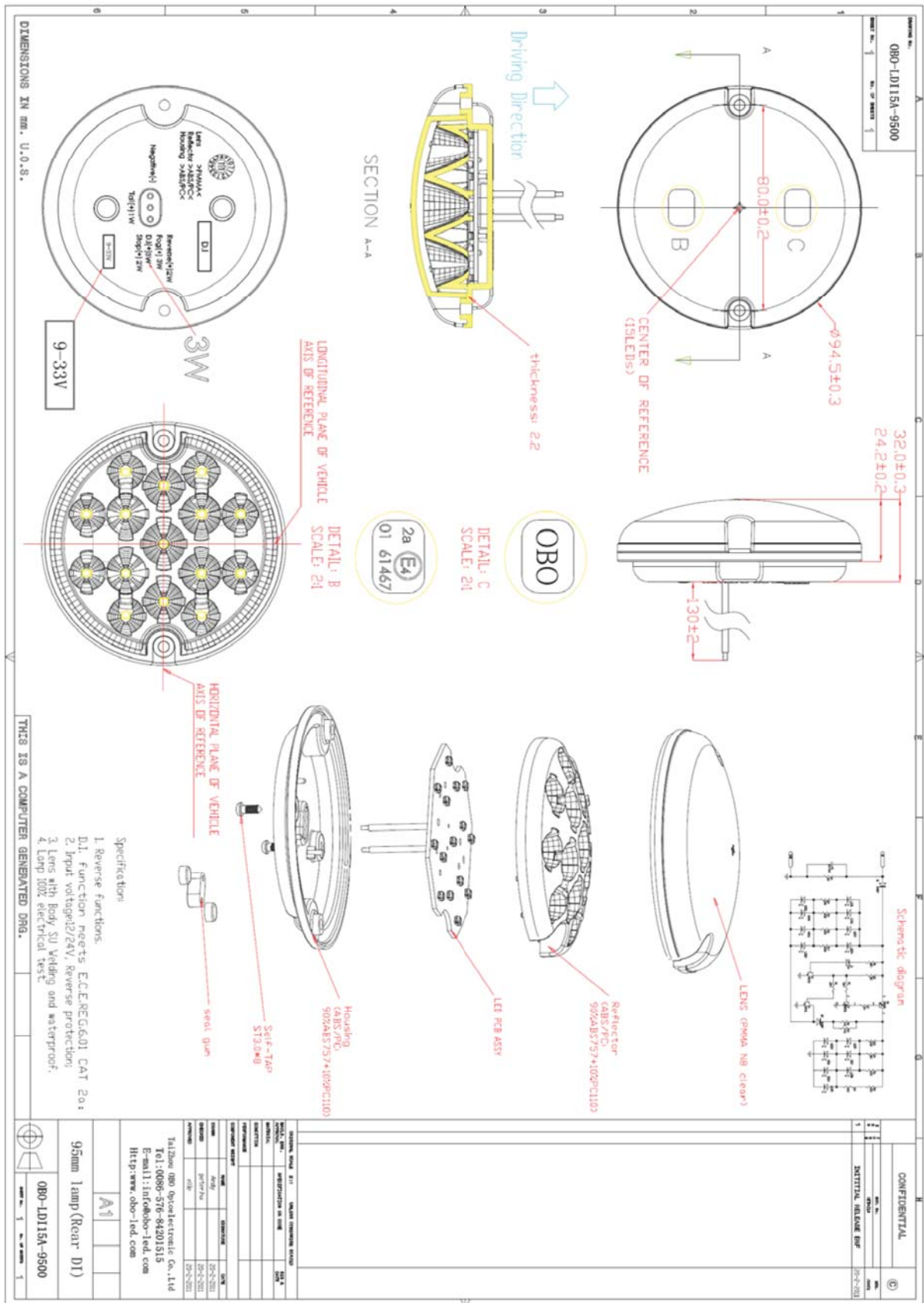
Number, category and kind of light source(s)	: 15 x non replaceable light source (LEDs)
Voltage and wattage	: 12/24 V; 3W
Light source module specific identification code	: --
Only for installation on M1 and/or N1 category vehicles	: yes /no
Only for limited mounting height of equal to or less than 750 mm above the ground	: yes /no
Geometrical conditions of installation and relating variations, if any	: --
Application of an electronic light source control gear/variable intensity control	: --
(a) being part of the lamp	: yes /no
(b) being not part of the lamp	: yes /no
Input voltage(s) supplied by an electronic light source control gear/variable intensity control	: --
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	: --
Variable luminous intensity	: yes /no
10. Position of the approval mark	: See annexed drawing
11. Reason(s) for extension (if applicable)	: --
12. Approval	: granted/ extended / refused / withdrawn
13. Place	: Zoetermeer
14. Date	: 26-APR-2011
15. Signature	:



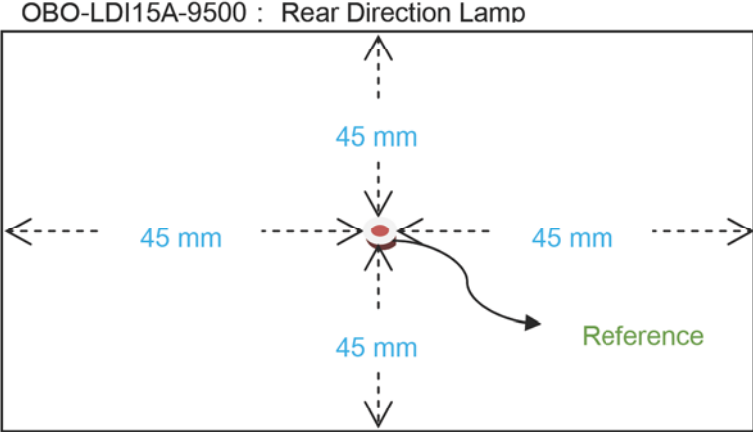
R. Kauerz

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.
- 2 drawings No. OBO-LDI15A-9500 and Determination of the apparent surface (annexed).
 - Test report as mentioned in item 8





Determination of the apparent surface





2141947-PHO 11-001-70

**Approval testing of a rear direction
indicator trade mark OBO, type name OBO-
LDI15A-9500**

Arnhem, 14 April 2011
Author H.M. van der Kolk

DEKRA Certification B.V. - Photometry

By order of Taizhou Obo Optoelectronic Co., Ltd, Taizhou City, Zhejiang Province, China

author : H.M. van der Kolk 14-04-2011 reviewed : G.C. Muda 14-04-2011
B 14 pages 4 annexes HVDK/RvdV

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SUMMARY

The tested samples of a rear direction indicator marked OBO type OBO-LDI15A-9500 were found to comply with the requirements of ECE Regulation No. 06-01.

1 APPLICATION FOR APPROVAL TESTING

On 11 March 2011, Taizhou Obo Optoelectronic Co., Ltd in Taizhou City, Zhejiang Province, China submitted samples of the rear direction indicator, trade name OBO, type name OBO-LDI15A-9500. All tests were performed in the laboratory of ISOQA in Taichung, Taiwan.

The rear direction indicator is equipped with 15 LEDs emitting amber light.

A brief technical description and a drawing which were sufficiently detailed to permit identification of the model can be found in Annex 1 and 2 respectively.

The applicant desired an examination to check whether the rear direction indicator is in compliance with the requirements of the ECE Regulation No. 06-01.

2 EXAMINATION

The examination was carried out in accordance with the relevant clauses of the regulation concerned. The tests were performed taking into consideration the manufacturer's information concerning centre and axis of reference. For the photometric tests a test voltage of 13.5 V and 28V was applied. The distance of measurement was 3.2m.

3 RESULTS OF EXAMINATION

The results of the tests are summarised in Annex 3. Detailed results of the tests of the lamps are presented in Annex 4, tables 1 up to 4.

4 SUPPLEMENTARY REMARKS

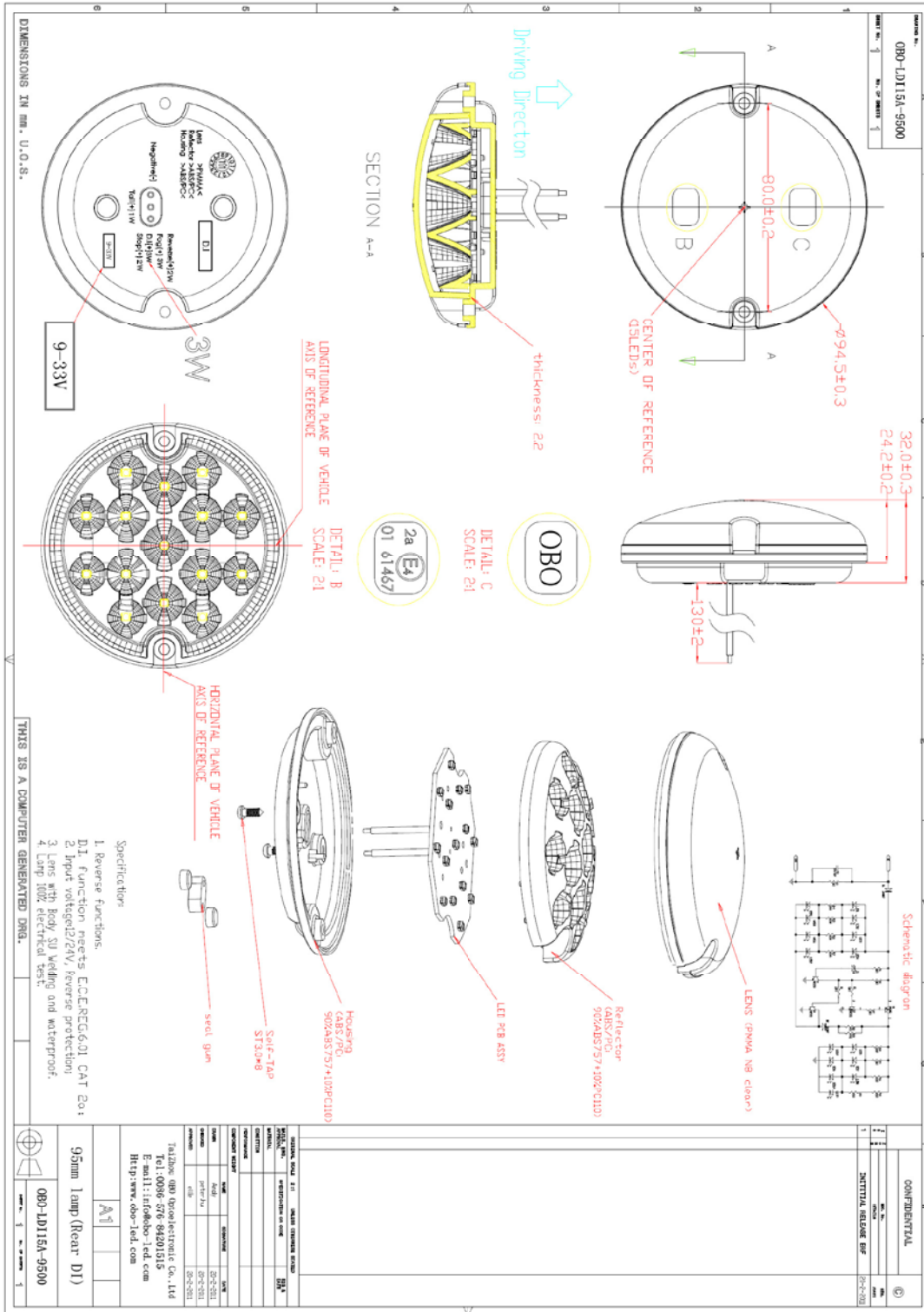
The approval number 61467 was assigned. The approval marking is shown in the drawing of Annex 2.

Information Document

of Model Number - OBO-LDI15A-9500

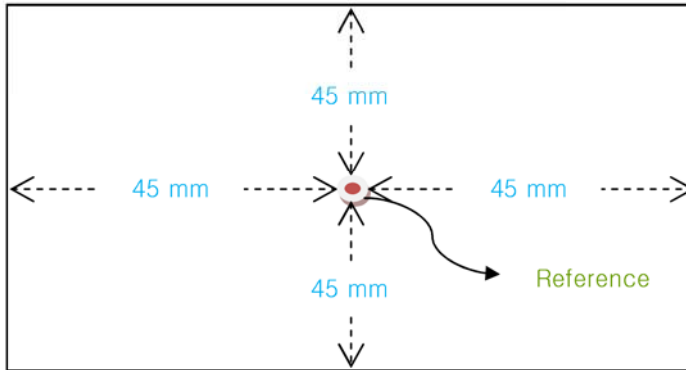
Approval Number: 61467

Manufacturer's Name and Address		Taizhou Obo Optoelectronic Co., Ltd Xicheng Mold Center, Xicheng Street, Huang Yan district, Taizhou City, Zhejiang Province, P.R. China
Trade name or mark		OBO
Model Number		OBO-LDI15A-9500
Material of lens		Plastic
Rear Direction Indicator (Reg. 6)	Category	2a
	Light Source	LED * 15, 12/24V, 3W (if anyone LED fails, at most one LED fails)
	Color of light emit	Amber
	Color of lens	Amber



Determination of the apparent surface

OBO-LDI15A-9500 : Rear Direction Indicator





Front View



Side View



Rear View

Examination of rear direction indicator OBO-LDI15A-9500 carried out according to the relevant clauses of the regulations concerned.

Clause No.	Subject of the relevant clause	Judgement of the device	Remark
3	1 trade name or mark	complies	
	2 space reserved for the approval mark	complies	
5	General specifications:		
	a intensity and colour of the light emitted	complies	see Annex 4
	b maintenance of satisfactory operation and of photometric characteristics	complies	by visual inspection only
	c field of visibility horizontal and vertical	complies	
6	intensity of the light emitted	complies	see Annex 4 ¹
7	colour of the light emitted	complies	²

¹ The rest results show that even if one light source is failing, the lamp continues to meet the requirements.

² Rear direction indicator emitted amber color (12V) S1: x=0.5849 y=0.4142 S2: x=0.5849 y=0.4142
Rear direction indicator emitted amber color (24V) S1: x=0.5841 y=0.4150 S2: x=0.5846 y=0.4145

Rear direction indicator –12V Sample 1 (S111071)

ISOQA

PHOTOMETRIC RESULTS

Program:	01 (2005.01.28)	ECE R 6_2a (2011)-LED
Category 2a Rear Direction Indicator Lamp (2011)-LED		
Name:	110241 OBO-LD115A-9500 S111071 ECE R6 Rear Direction Lamp-12V	
Number:	L110348	
Test distance:	3.16 m	Meas.-no.:
Lamp type:	LED 13.5V	
Number:	LED	
Flux:	0.000 lm	Operator: Arthur Chang
Voltage:	13.500 V	Date: 3/23/2011 2:09:03 PM
Current:	0.198 A	Set value: Const. voltage
X-offset:	0.00°	Y-offset: 0.00°
Comment:		

ECE R 6_2a (2011)-LED

Function	Min	Max	Value	H	V	N.O.K.
H - V (1min)	50	500	339.700	0.00°	0.00°	
H - V (30min)	50	500	328.200	0.00°	0.00°	
10U - 5L	10	500	110.100	-5.00°	10.00°	
10U - 5R	10	500	107.300	5.00°	10.00°	
5U - 20R	5	500	40.970	20.00°	5.00°	
5U - 10R	10	500	113.200	10.00°	5.00°	
5U - V	35	500	242.800	0.00°	5.00°	
5U - 10L	10	500	115.700	-10.00°	5.00°	
5U - 20L	5	500	45.080	-20.00°	5.00°	
H - 10L	17.5	500	151.100	-10.00°	0.00°	
H - 5L	45	500	237.900	-5.00°	0.00°	
H - 5R	45	500	245.000	5.00°	0.00°	
H - 10R	17.5	500	161.800	10.00°	0.00°	
5D - 20R	5	500	42.540	20.00°	-5.00°	
5D - 10R	10	500	113.900	10.00°	-5.00°	
5D - V	35	500	243.900	0.00°	-5.00°	
5D - 10L	10	500	113.500	-10.00°	-5.00°	
5D - 20L	5	500	47.820	-20.00°	-5.00°	
10D - 5L	10	500	101.100	-5.00°	-10.00°	
10D - 5R	10	500	100.500	5.00°	-10.00°	
Visibility	0.3	500	(0.350) 328.200	(-80.00°) 0.00°	(15.00°) 0.00°	

Rear direction indicator – 12V Sample 2 (S111072)

ISOQA

PHOTOMETRIC RESULTS

Program:	01 (2005.01.28)	ECE R 6_2a (2011)-LED
Category 2a Rear Direction Indicator Lamp (2011)-LED		
Name:	110241 OBO-LDI15A-9500 S111072 ECE R6 Rear Direction Lamp-12V	
Number:	L110348	
Test distance:	3.16 m	Meas.-no.:
Lamp type:	LED 13.5V	
Number:	LED	
Flux:	0.000 lm	Operator: Arthur Chang
Voltage:	13.500 V	Date: 3/23/2011 3:11:23 PM
Current:	0.203 A	Set value: Const. voltage
X-offset:	0.00°	Y-offset: 0.00°
Comment:		

ECE R 6_2a (2011)-LED

Function	Min	Max	Value	H	V	N.O.K.
H - V (1min)	50	500	352.100	0.00°	0.00°	
H - V (30min)	50	500	339.700	0.00°	0.00°	
10U - 5L	10	500	91.600	-5.00°	10.00°	
10U - 5R	10	500	95.300	5.00°	10.00°	
5U - 20R	5	500	38.880	20.00°	5.00°	
5U - 10R	10	500	116.600	10.00°	5.00°	
5U - V	35	500	240.500	0.00°	5.00°	
5U - 10L	10	500	107.500	-10.00°	5.00°	
5U - 20L	5	500	40.580	-20.00°	5.00°	
H - 10L	17.5	500	156.800	-10.00°	0.00°	
H - 5L	45	500	246.600	-5.00°	0.00°	
H - 5R	45	500	271.400	5.00°	0.00°	
H - 10R	17.5	500	163.900	10.00°	0.00°	
5D - 20R	5	500	37.830	20.00°	-5.00°	
5D - 10R	10	500	118.000	10.00°	-5.00°	
5D - V	35	500	263.400	0.00°	-5.00°	
5D - 10L	10	500	117.300	-10.00°	-5.00°	
5D - 20L	5	500	38.750	-20.00°	-5.00°	
10D - 5L	10	500	105.100	-5.00°	-10.00°	
10D - 5R	10	500	107.200	5.00°	-10.00°	
Visibility	0.3	500	(0.352) 339.700	(-79.50°) 0.00°	(15.00°) 0.00°	

Rear direction indicator –24V Sample 1 (S111071)

ISOQA

PHOTOMETRIC RESULTS

Program:	01 (2005.01.28)	ECE R 6_2a (2011)-LED	
Category 2a Rear Direction Indicator Lamp (2011)-LED			
Name:	110241 OBO-LD115A-9500 S111071 ECE R6 Rear Direction Lamp-24V		
Number:	L110348		
Test distance:	3.16 m	Meas.-no.:	
Lamp type:	LED 28V		
Number:	Light Source 1		
Flux:	0.000 lm	Operator:	Arthur Chang
Voltage:	28.005 V	Date:	3/23/2011 2:31:10 PM
Current:	0.115 A	Set value:	Const. voltage
X-offset:	0.00°	Y-offset:	0.00°
Comment:			

ECE R 6_2a (2011)-LED

Function	Min	Max	Value	H	V	N.O.K.
H - V (1min)	50	500	337.300	0.00°	0.00°	
H - V (30min)	50	500	323.600	0.00°	0.00°	
10U - 5L	10	500	108.200	-5.00°	10.00°	
10U - 5R	10	500	106.500	5.00°	10.00°	
5U - 20R	5	500	40.580	20.00°	5.00°	
5U - 10R	10	500	112.400	10.00°	5.00°	
5U - V	35	500	239.300	0.00°	5.00°	
5U - 10L	10	500	113.000	-10.00°	5.00°	
5U - 20L	5	500	44.310	-20.00°	5.00°	
H - 10L	17.5	500	147.900	-10.00°	0.00°	
H - 5L	45	500	232.200	-5.00°	0.00°	
H - 5R	45	500	243.500	5.00°	0.00°	
H - 10R	17.5	500	160.800	10.00°	0.00°	
5D - 20R	5	500	42.090	20.00°	-5.00°	
5D - 10R	10	500	112.900	10.00°	-5.00°	
5D - V	35	500	239.700	0.00°	-5.00°	
5D - 10L	10	500	110.900	-10.00°	-5.00°	
5D - 20L	5	500	46.910	-20.00°	-5.00°	
10D - 5L	10	500	99.000	-5.00°	-10.00°	
10D - 5R	10	500	99.400	5.00°	-10.00°	
Visibility	0.3	500	(0.350) 323.600	(-80.00°) 0.00°	(15.00°) 0.00°	

Rear direction indicator –24V Sample 2 (S111072)

ISOQA

PHOTOMETRIC RESULTS

Program:	01 (2005.01.28)	ECE R 6_2a (2011)-LED	
Category 2a Rear Direction Indicator Lamp (2011)-LED			
Name:	110241 OBO-LDI15A-9500 S111072 ECE R6 Rear Direction Lamp-24V		
Number:	L110348		
Test distance:	3.16 m	Meas.-no.:	
Lamp type:	LED 28V		
Number:	Light Source 1		
Flux:	0.000 lm	Operator:	Arthur Chang
Voltage:	28.005 V	Date:	3/23/2011 3:47:12 PM
Current:	0.115 A	Set value:	Const. voltage
X-offset:	0.00°	Y-offset:	0.00°
Comment:			

ECE R 6_2a (2011)-LED

Function	Min	Max	Value	H	V	N.O.K.
H - V (1min)	50	500	339.100	0.00°	0.00°	
H - V (30min)	50	500	326.800	0.00°	0.00°	
10U - 5L	10	500	88.400	-5.00°	10.00°	
10U - 5R	10	500	91.600	5.00°	10.00°	
5U - 20R	5	500	37.290	20.00°	5.00°	
5U - 10R	10	500	111.700	10.00°	5.00°	
5U - V	35	500	231.600	0.00°	5.00°	
5U - 10L	10	500	103.800	-10.00°	5.00°	
5U - 20L	5	500	39.100	-20.00°	5.00°	
H - 10L	17.5	500	151.000	-10.00°	0.00°	
H - 5L	45	500	238.100	-5.00°	0.00°	
H - 5R	45	500	260.300	5.00°	0.00°	
H - 10R	17.5	500	156.900	10.00°	0.00°	
5D - 20R	5	500	36.300	20.00°	-5.00°	
5D - 10R	10	500	113.000	10.00°	-5.00°	
5D - V	35	500	253.200	0.00°	-5.00°	
5D - 10L	10	500	113.100	-10.00°	-5.00°	
5D - 20L	5	500	37.380	-20.00°	-5.00°	
10D - 5L	10	500	101.100	-5.00°	-10.00°	
10D - 5R	10	500	102.800	5.00°	-10.00°	
Visibility	0.3	500	(0.348) 326.800	(-80.00°) 0.00°	(15.00°) 0.00°	