June 1, 2012

RDW rijksdenst voor het wegverkeer
Certification and Supervision
Europaweg 205
2700 AT Zoetermeer
The Netherlands

Subject for ECE-type approval

Dear Sir:
We hereby apply for type approval according to:

Function	ECE approval number	EEC approval number
Rear registration plate lamp	E4-4R-004383	---

Trade name or trade mark :

Manufacturer's name for type of device :

Name and address of manufacturer :

We herewith declare that we have not applied and will not apply for approval with another Contracting Party of the ECE for the same type of product. Nor has any other member state granted a corresponding approval.

Sincerely

Signature:

.....

Name:

RDW

RDW

Vehicle Technology Division

THE NETHERLANDS
(NEDERLAND)

E4

JE MAINTIENDRAI

COMMUNICATION

Concerning [1]:

- APPROVAL GRANTED
- ~~APPROVAL EXTENDED~~
- ~~APPROVAL REFUSED~~
- ~~APPROVAL WITHDRAWN~~
- ~~PRODUCTION DEFINITELY DISCONTINUED~~

of a type of device for the illumination of rear registration plates of motor vehicles (except motor cycles) and their trailers pursuant to Regulation number 4.

Approval number: E4-4R-004383 **Extension number: 00**

Approval mark:

L-00 E4 4383

1.	Trade name or mark of the device	:	
2.	Manufacturer's name for the type of device	:	
3.	Manufacturer's name and address	:	
4.	If applicable, name and address of the manufacturer's representative	:	---
5.	Submitted for approval on	:	June 6, 2012
6.	Technical service responsible for conducting approval tests	:	TÜV Rheinland Kraftfahrt GmbH Technologiezentrum Verkehrssicherheit Am Grauen Stein D-51105 Köln (Poll)
7.	Date of report issued by that service	:	June 7, 2012

JE MAINTIENDRAI
RDW

P.O. Box 777
2700 AT Zoetermeer
The Netherlands

Tel. + 31 (0)79 345 81 43
Fax + 31 (0)79 345 80 43
www.rdw.nl

Vehicle Approval and Information

8.	Number of report issued by that service	: 87-R4-462/12
9.	Concise description [2]	
	Device for illuminating	: a tall plate / a wide plate / ~~a plate for agricultural of forestry tractor~~
	Number and category of filament lamp(s)	: 6LEDs, non-replaceable light source 12V 0.8W / 24V 1.6W
	Light source module	: ~~yes /~~ no [1]
	Light source module specific identification code	: ---
	Geometrical conditions of installation (position(s) and inclination(s) of the device in relation to the space to be occupied by the registration plate and/or different inclinations of this space)	: refer to the drawings of information document
10.	Position of the approval mark	: on the lens
11.	Reason(s) for extension (if applicable)	: ---
12.	Approval	: granted ~~/ extended / refused / withdrawn~~ [1]
13.	Place	: Zoetermeer
14.	Date	: 19-JUN-2012
15.	Signature	:

RDW
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 upon request.

---

1) Strike out what does not apply.
2) For lamps with non-replaceable light sources indicate the number and the total wattage of the light sources.

Re Application date : June 1, 2012

1. Specification data

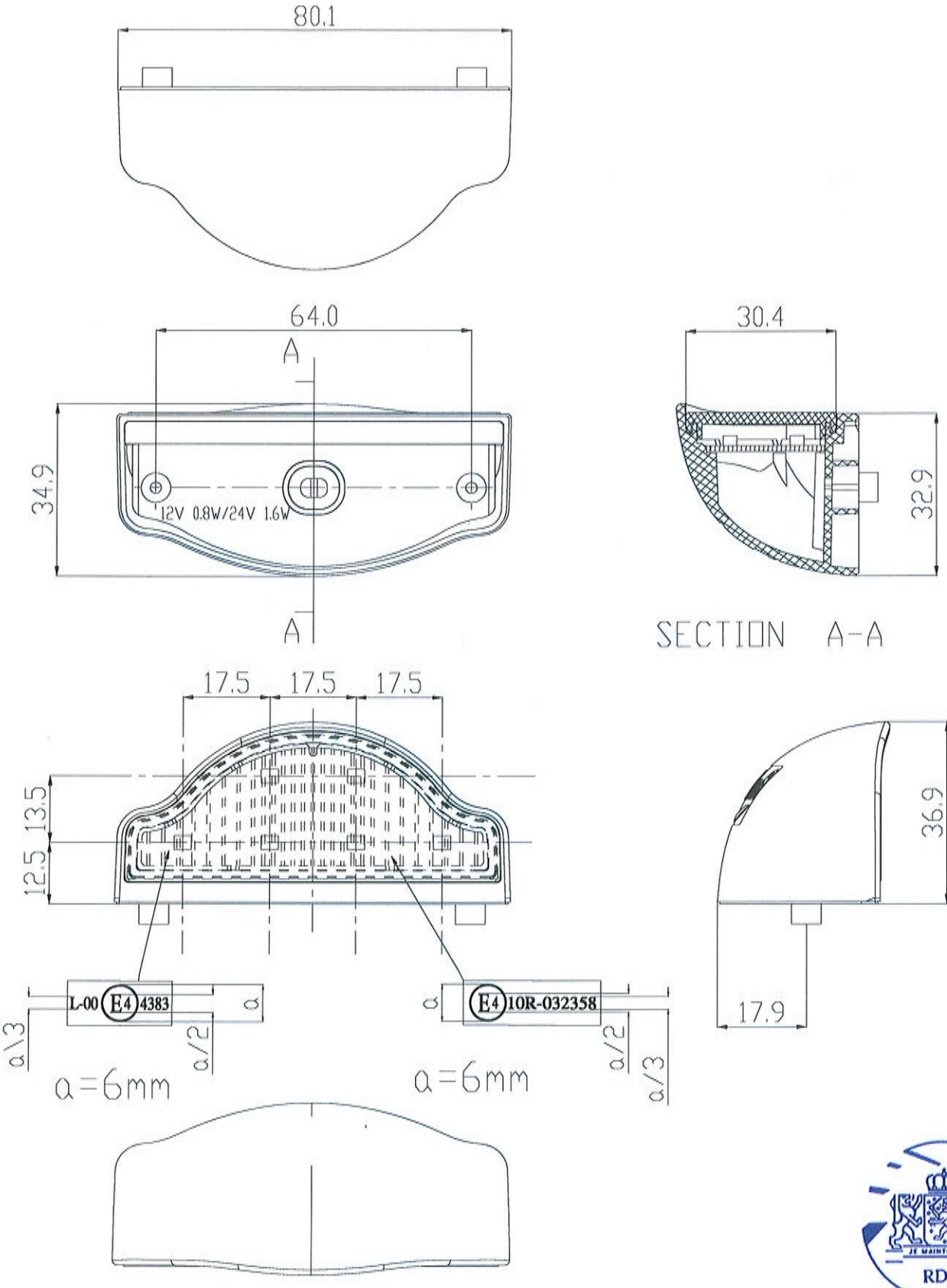
Type			
Function		Rear registration plate lamp	
Emitted color		White	
Rated	Voltage	12V/24V (Input range: 9V ~ 30V)	
	Wattage	0.8W/ 1.6W	
Applicable Regulation (ECE)		R4.00 Category L	
Number and category of filament lamp(light source)		6LEDs, Non-replaceable light source	
Location of marking	Rated Voltage and Wattage	Marked on Housing	
	Trade mark		Marked on Housing
	Approval mark	Marked on Lens	
Special supply voltage		Not applicable	
Application of additional supply system		~~Yes /~~ No	
Light source module		~~Yes /~~ No	

2. Construction and material

Construction	Material	Remarks
Outer lens	PC	Clear
Housing	ABS	-
Electrical wiring	Copper covered with insulation	-

3. Name and address of manufacturer :

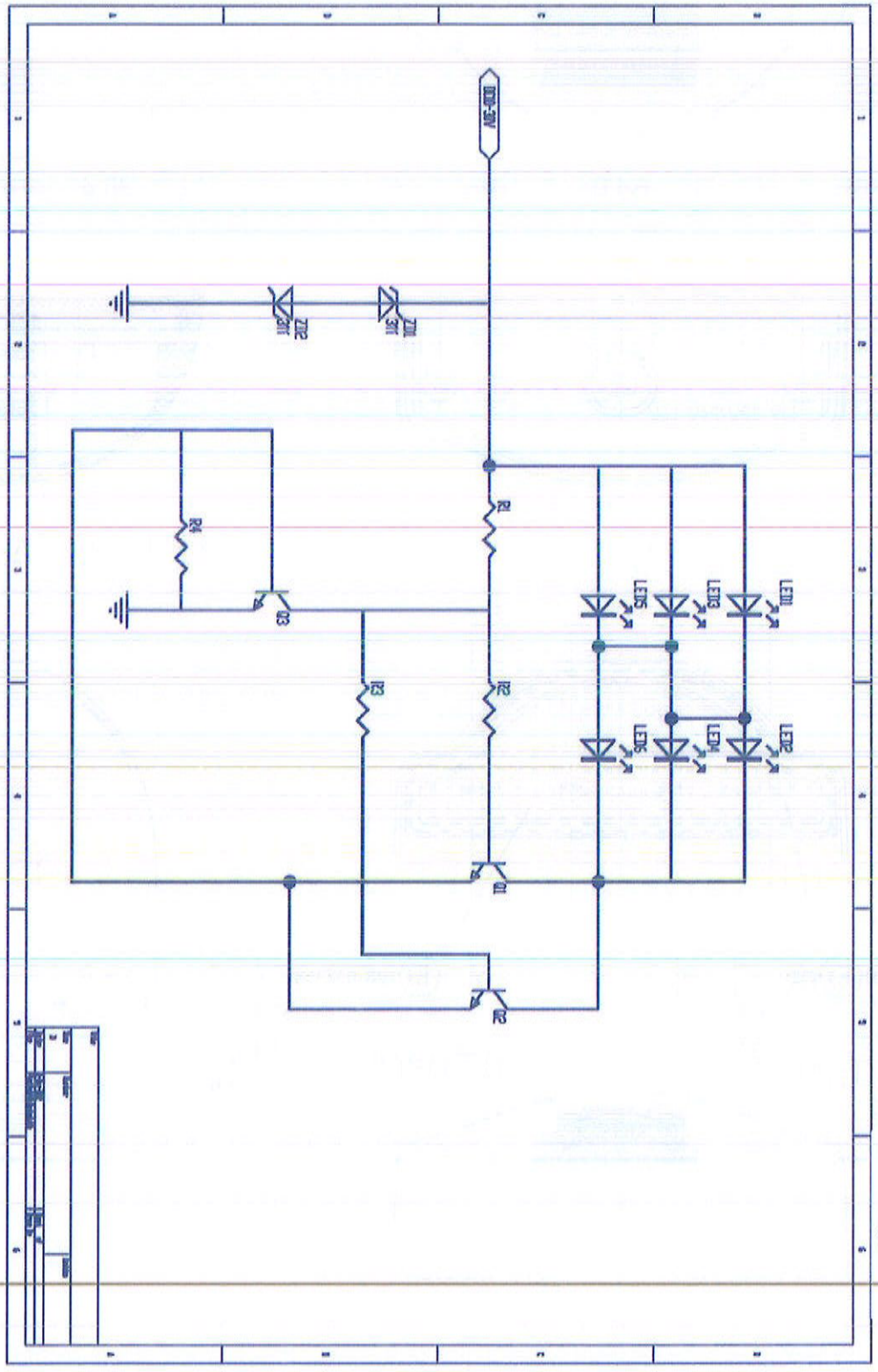
4. Name and address of representative of manufacturer : Not applicable


80.1
64.0
A
34.9
12V 0.8W/24V 1.6W
A
30.4
32.9
SECTION A-A
17.5
17.5
17.5
13.5
12.5
36.9
17.9
L-00 E4 4383
a
a/3
a/2
a=6mm
a
E4 10R-032358
a/2
a/3
a=6mm

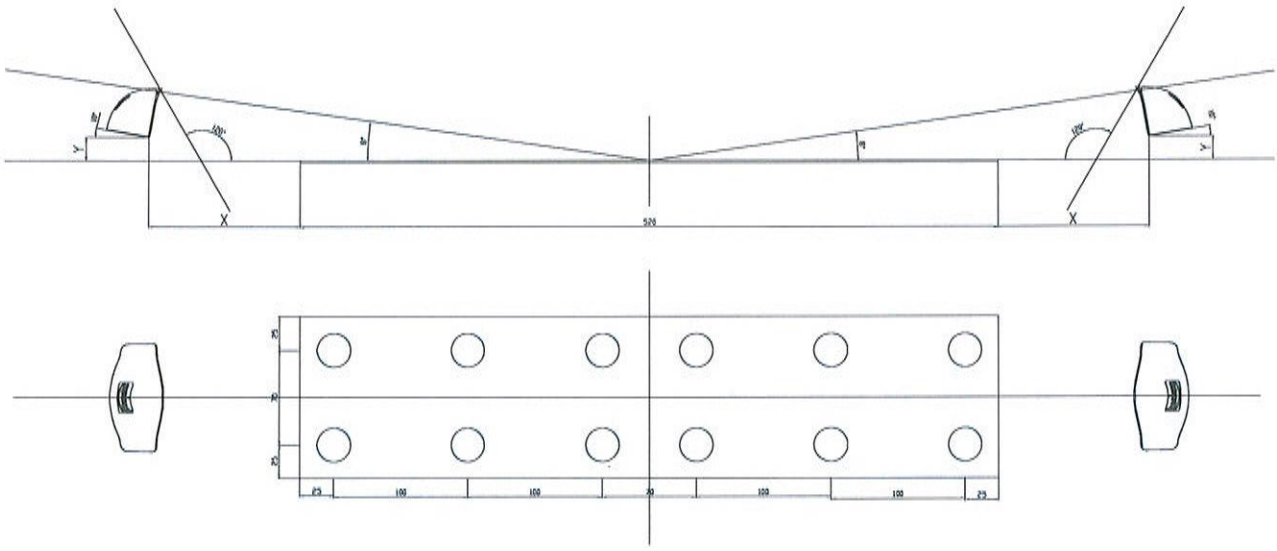
CIRCUIT DIAGRAM

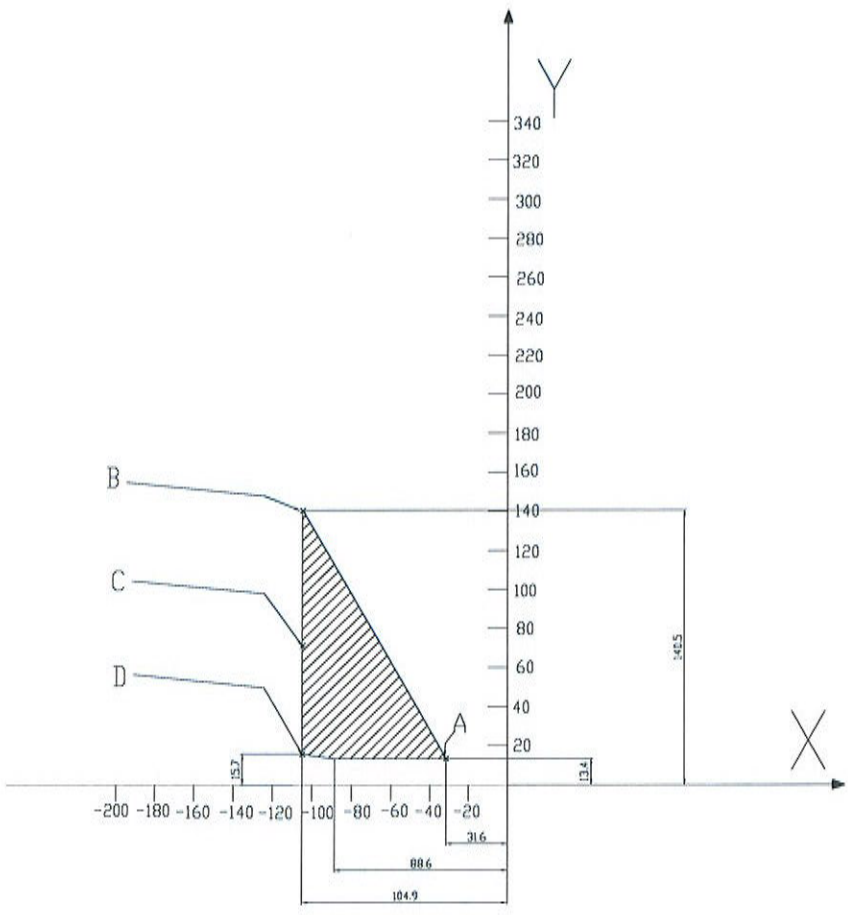
12V 0.8W, 24V 1.6W (Input range: 9V ~ 30V)

6LEDs, Non-replaceable light source

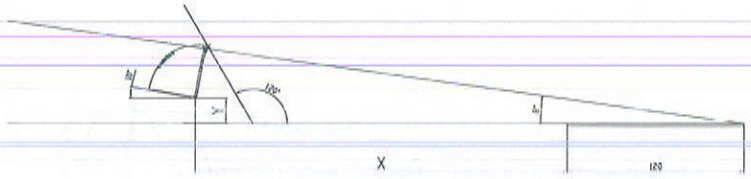


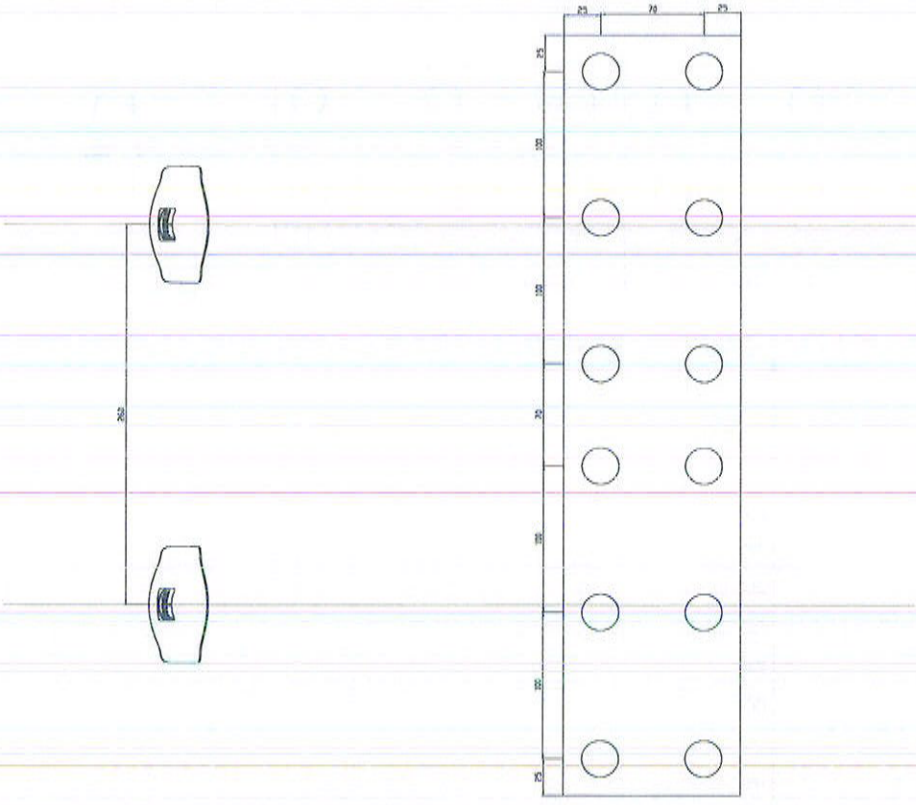
Installation condition 1: (Wide Plate 520 x 120)

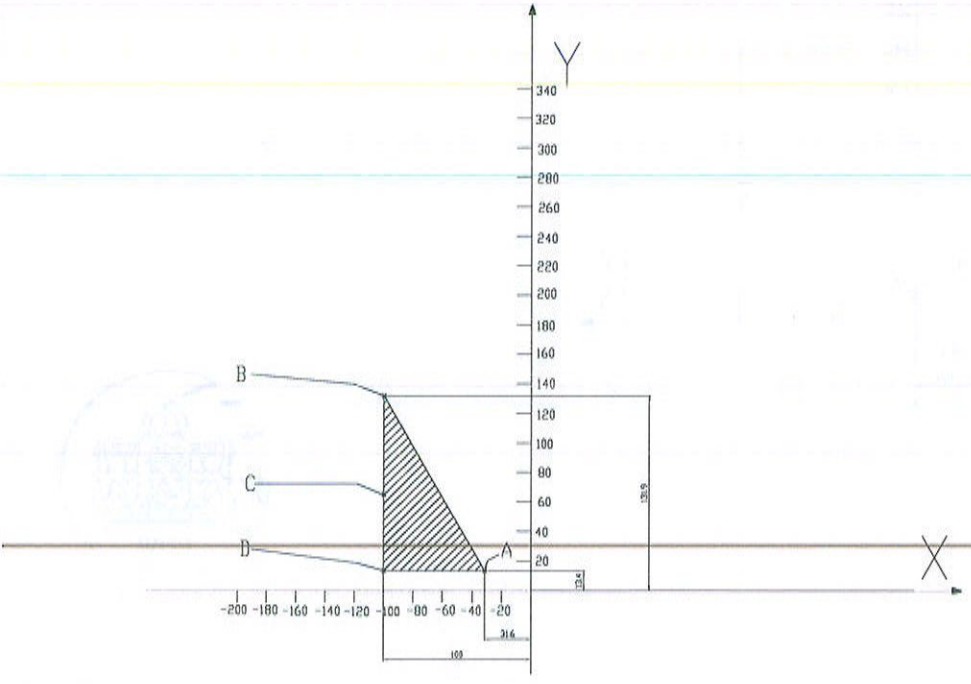




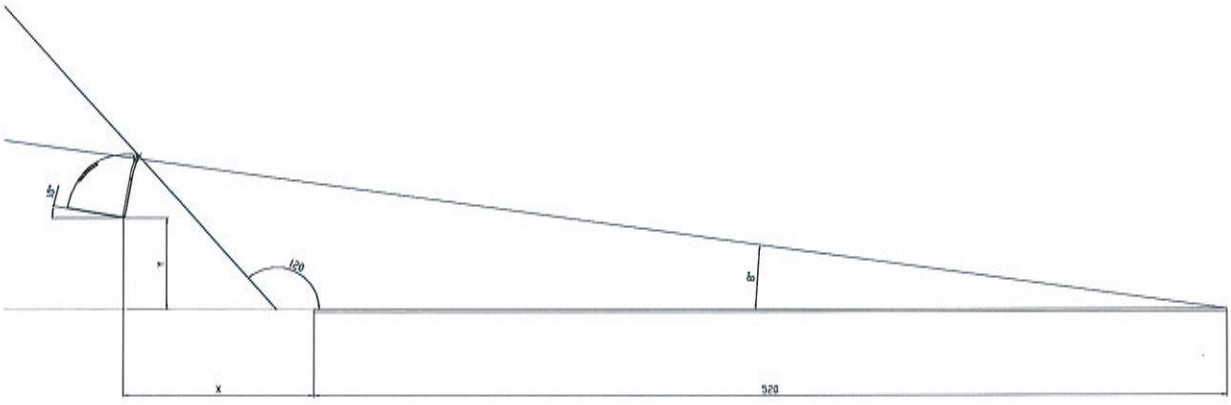
Installation condition 2: (Wide Plate 520 x 120)

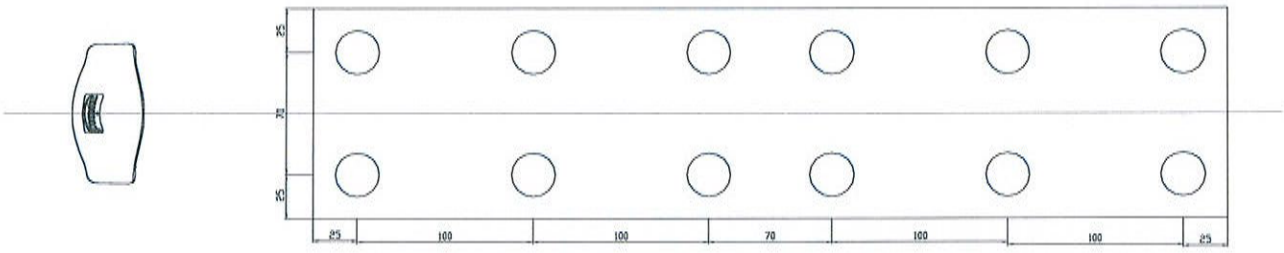


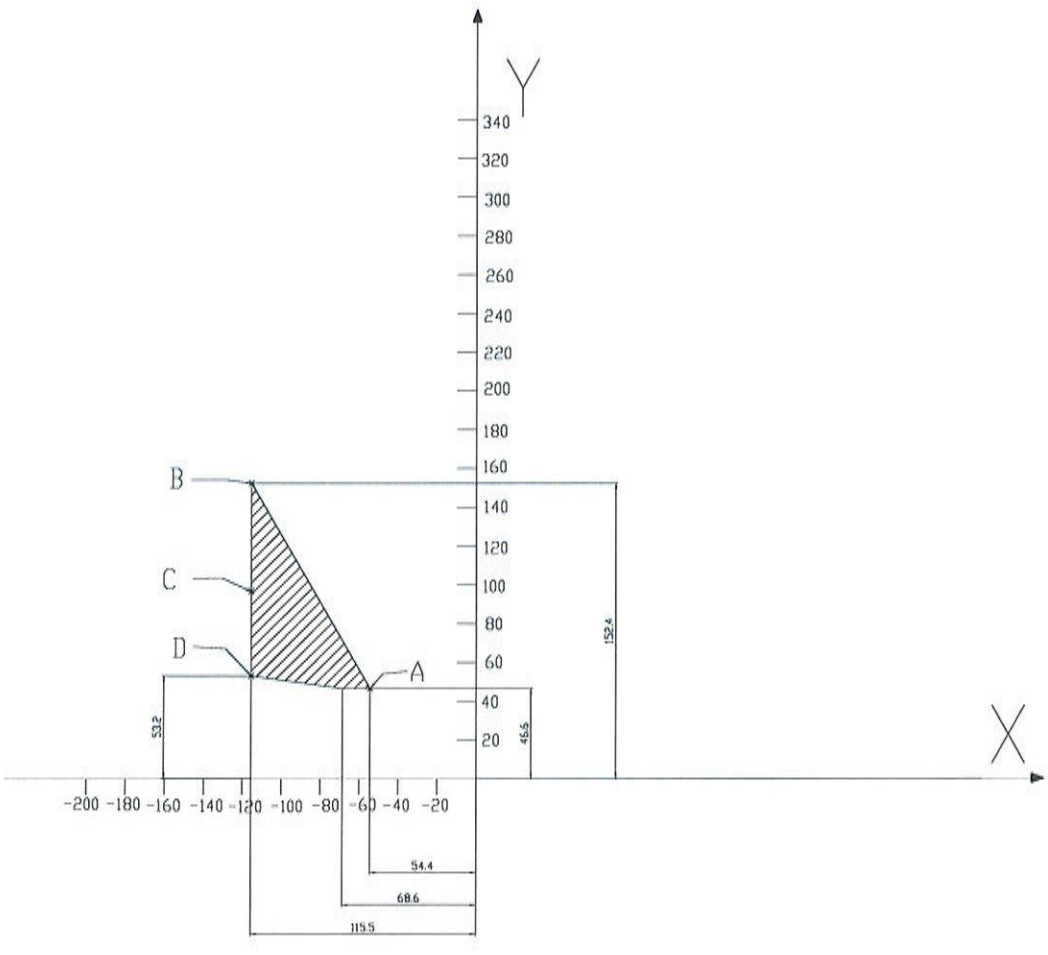




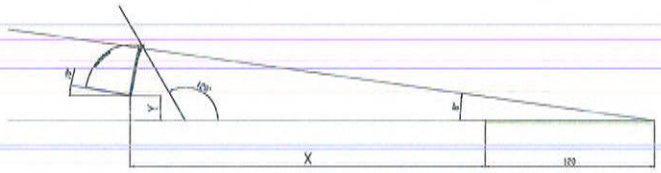
Installation condition 3: (Wide Plate 520 x 120)

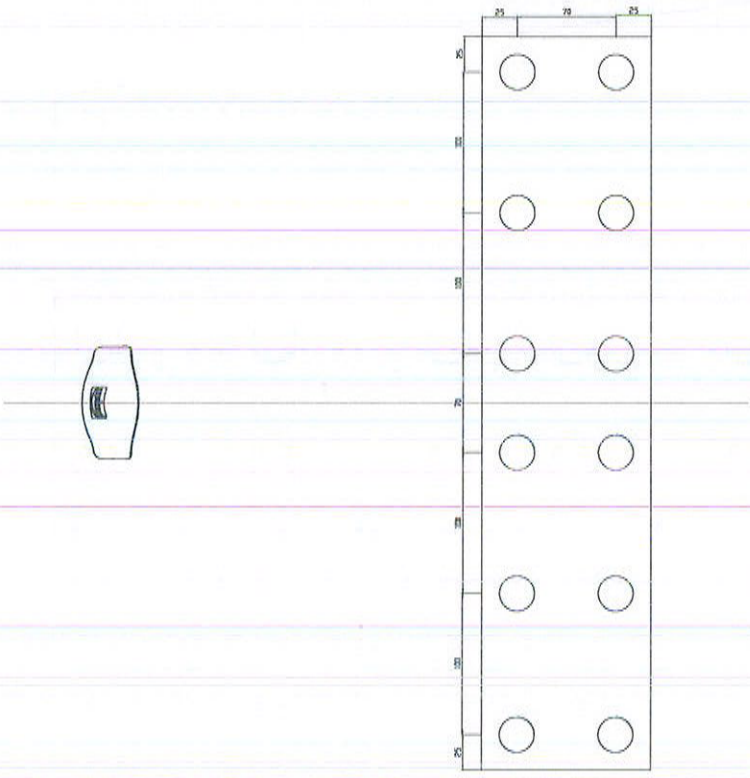


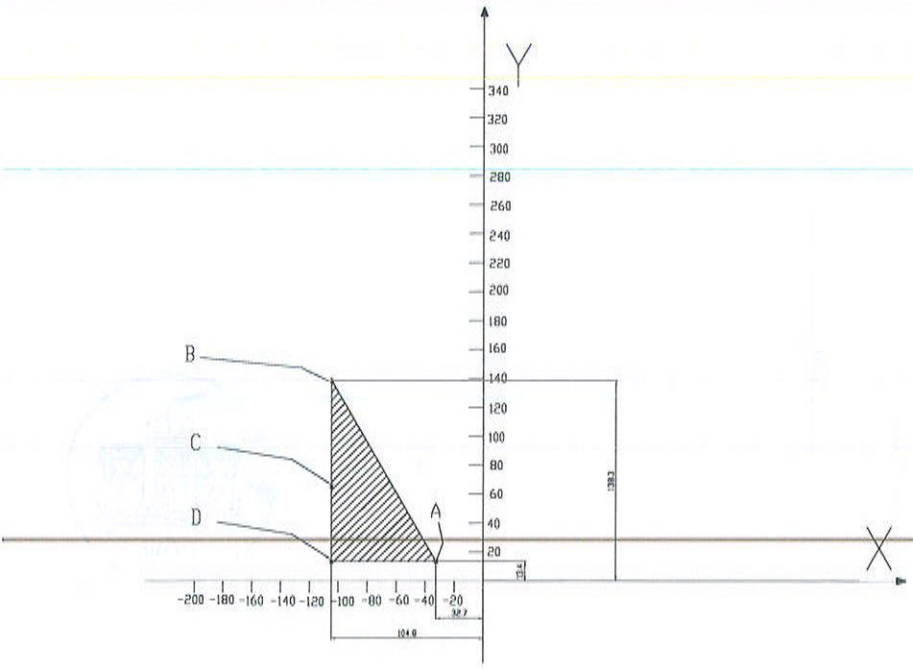




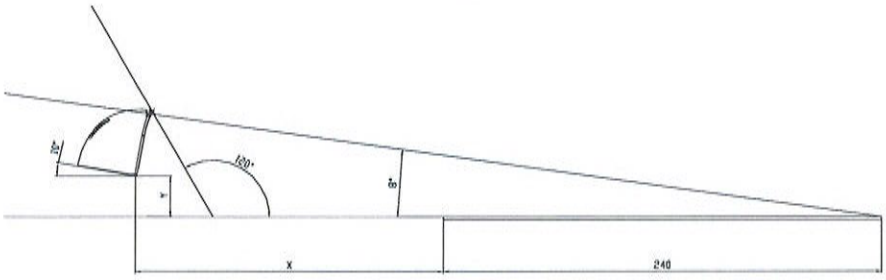
Installation condition 4: (Wide Plate 520 x 120)

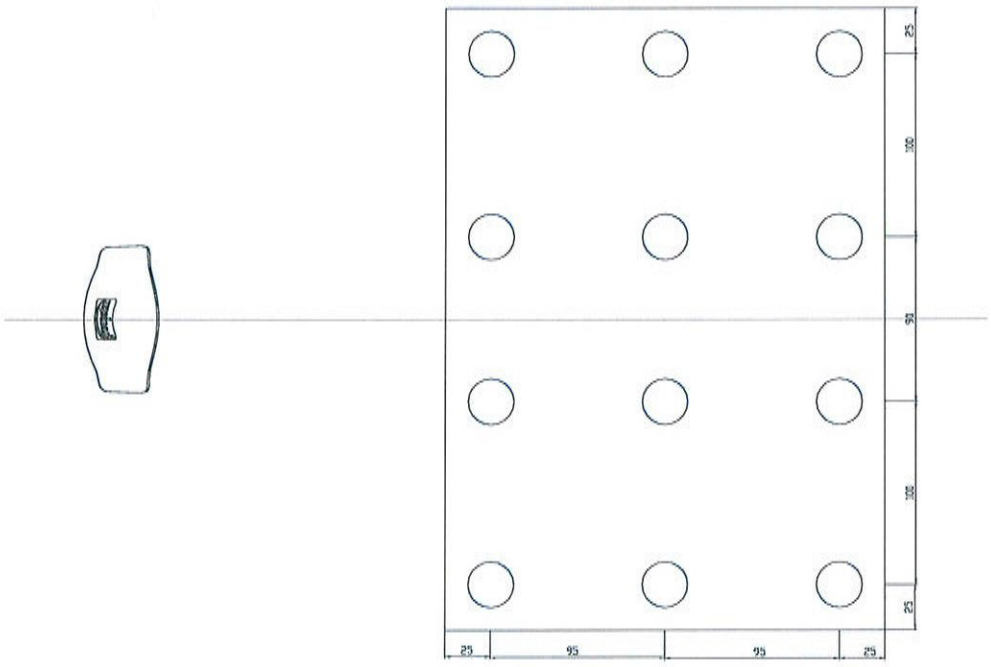


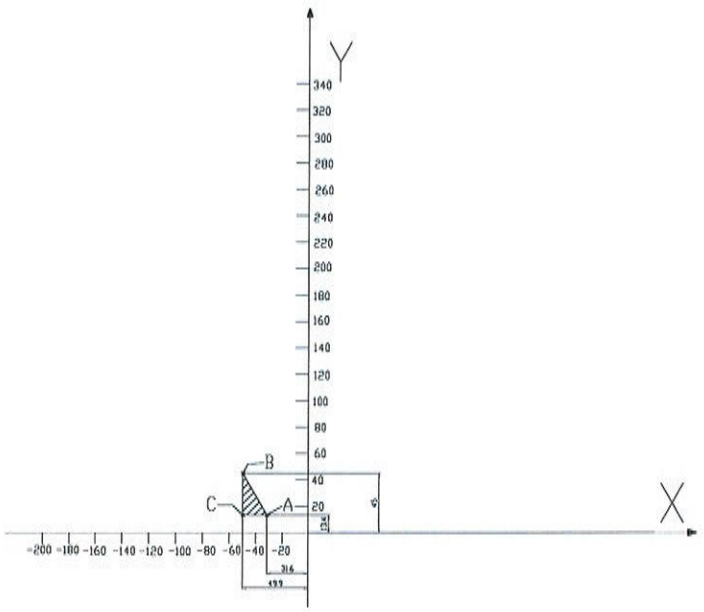




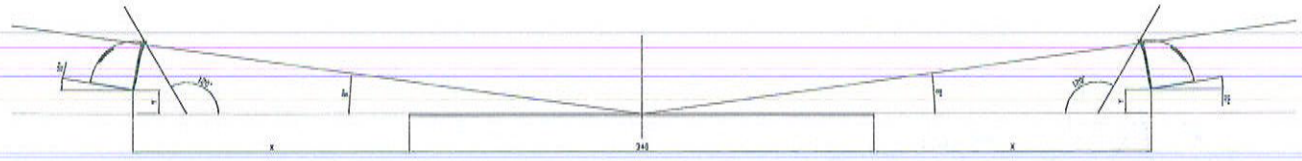
Installation condition 5: (Tall Plate 340 x 240)

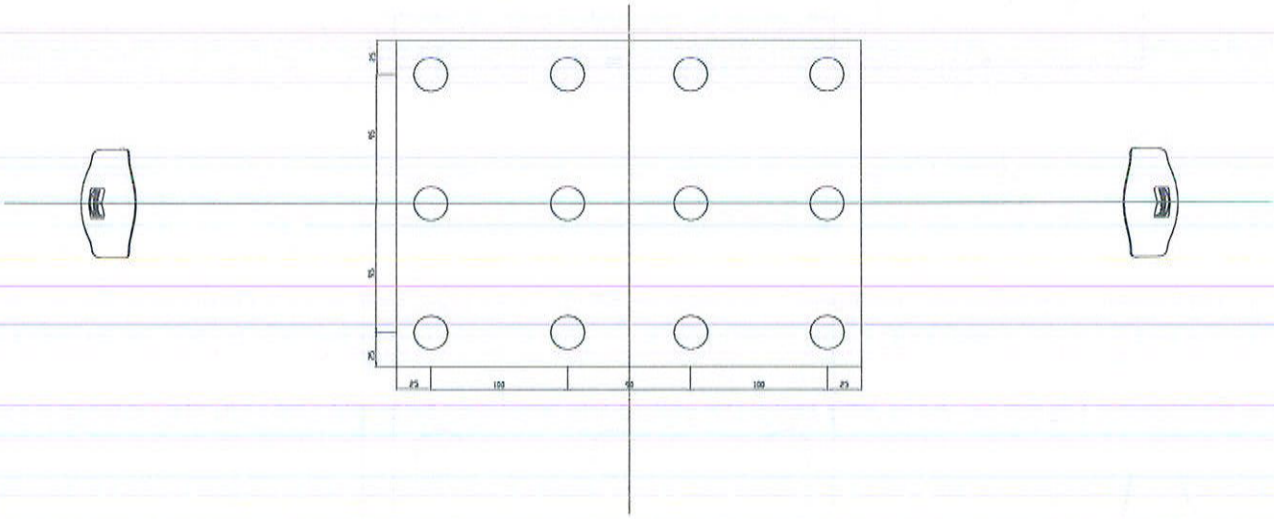


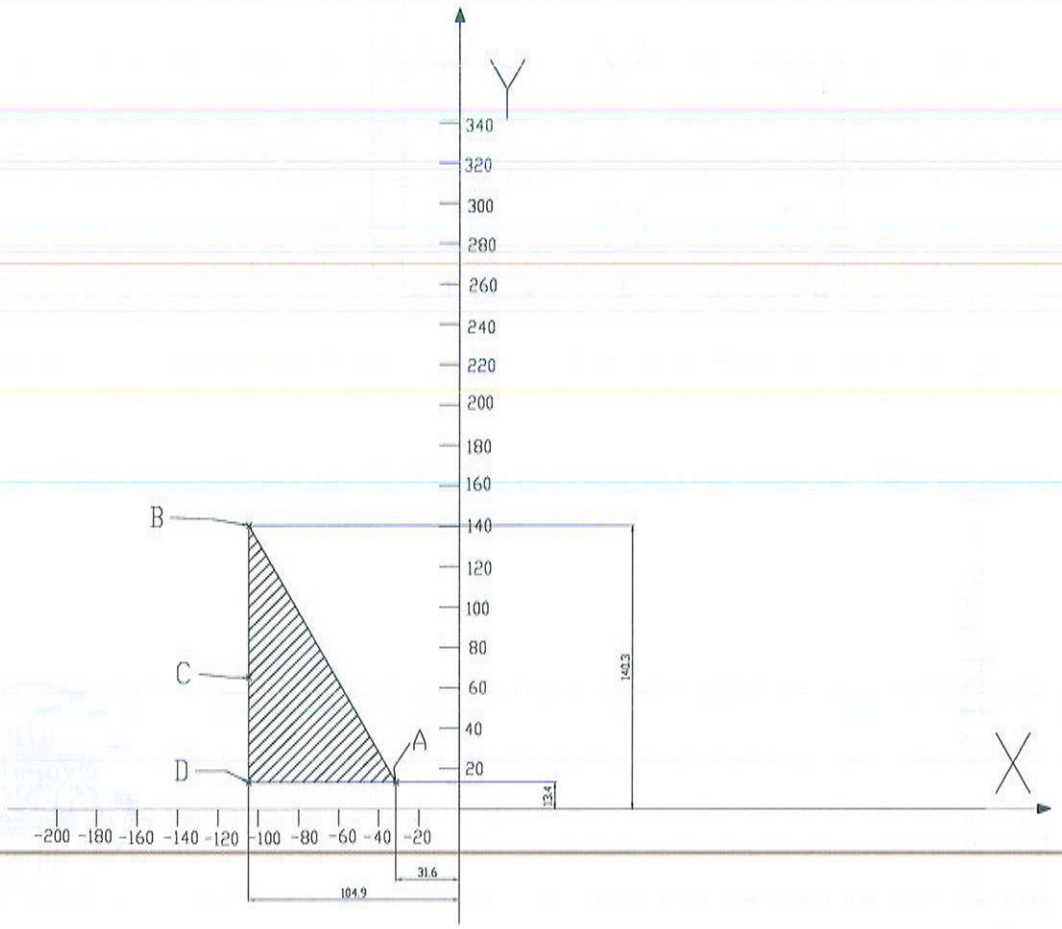




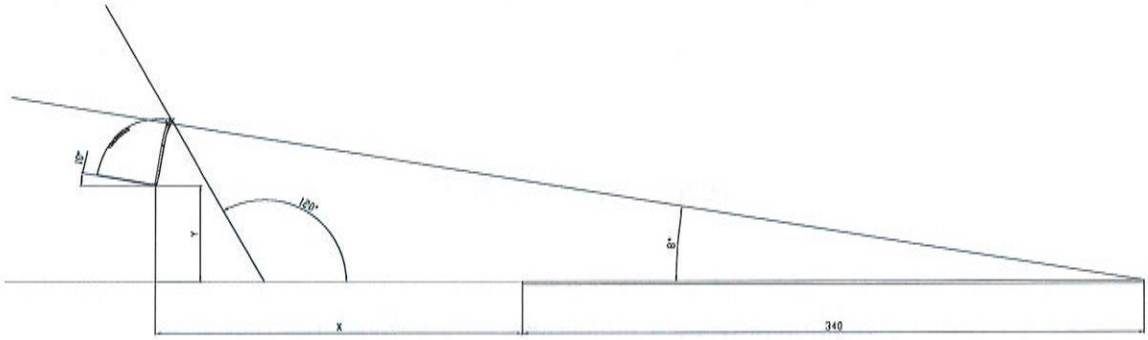
Installation condition 6: (Tall Plate 340 x 240)

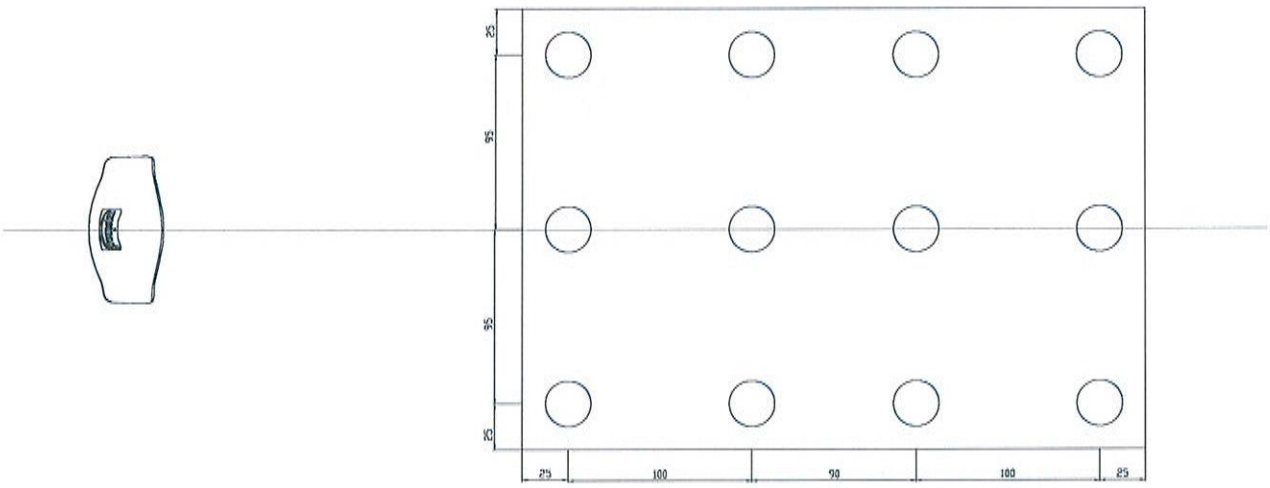


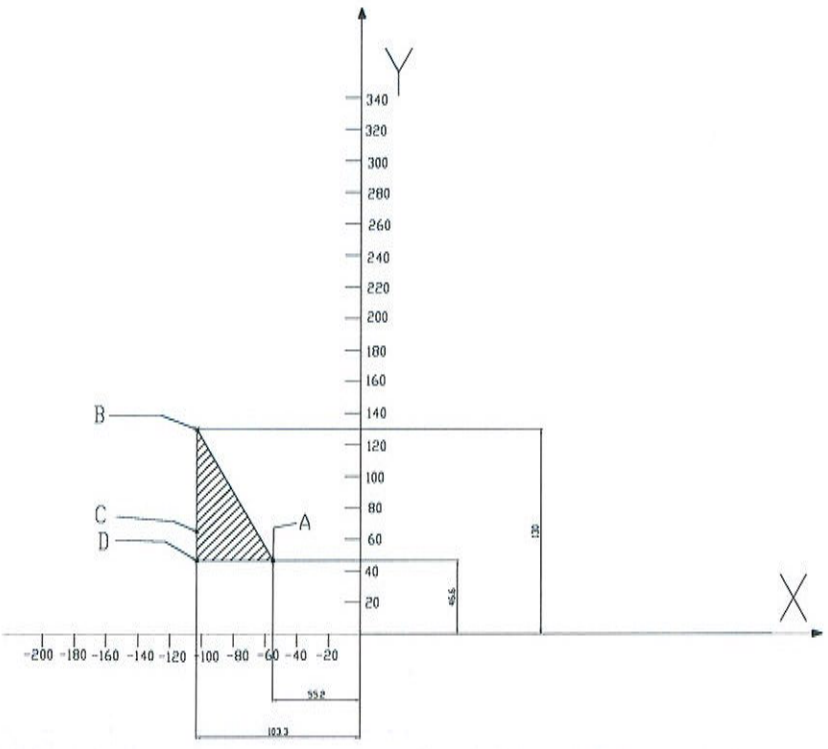




Installation condition 7: (Tall Plate 340 x 240)







Manufacturer : [illegible]

Type : [illegible]

TEST REPORT

according to ECE-Regulation

Uniform provisions concerning the approval of device for the illumination of rear registration plates of power-driven vehicles and their trailers

ECE-R4

including all amendments until

series of Amendments: 00
Supplement 15

Previously granted		
ECE - certificate	:	---

Structure of report:

0. General information
1. Test object(s) and general test information
2. Test minutes
3. Remarks concerning tested object(s)
4. Appendices
5. Statement of conformity

0. General information

0.1. Trademark or trade name of the lamp :

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

0.3. Name and address of the manufacturer :

0.4. Name and address of manufacturer's authorized representative : not applicable

0.5. No. of information folder :
date of issue : June 1, 2012
date of last amendment : ---

1. Test object(s) and general test information

1.1. Test object(s)

identification number : ---

version :

Remark : Rear registration plate illuminating device for a tall plate / a wide plate / ~~a plate for agricultural of forestry tractor~~

6LEDs, non-replaceable light source

1.2. General test information

1.2.1. Order issued by (if different from manufacturer) : ---

1.2.2. Test object / test vehicle received on : not applicable

1.2.3. Test date : June 6, 2012

1.2.4. Test site : Quality Inspection And Testing Centre For Vehicle Lamps And Lanterns Products
Jiangsu, China

1.2.5. Remark : The results of the test refer exclusively to the object(s) mentioned under point 1.1 of this report.

Manufacturer :

Type :

2. Test minutes

2.1.	Test facilities	:	The test facilities are in compliance with the requirements of the regulation.
2.2.	Test results	:	~~The type has been examined according to the amendments mentioned in appendix 0.~~ ~~An actual test of the type was not required. The results of the previous tests are still valid.~~
	Markings	:	The trade mark is marked clearly legible and indelible ~~on the lens and~~ on the housing of the lamp. The rated voltage and wattage is clearly legible and indelible marked ~~on the lens and~~ on the housing of the lamp. Space for the approval mark and for additional symbols is provided on the lens (the lens can not be separated from the housing).
2.3.	General specifications	:	The lamps are designed and made that under normal use their satisfactory operation is ensured and they retain the required characteristics. The light of the illuminating device is sufficiently COLOURLESS.
2.4.	Photometric tests	:	The light intensity was measured after 1 minute burning period and after 30 minutes burning in reference axis. The distribution of the light intensity after 1 minute burning period was calculated using the ratio of the two described measurements. The light intensity and its distribution are in compliance with the requirement after 1 minute burning period and after 30 minutes burning period.The light emitted was obtained by means of two lamps of the type stated in item 1.1, producing the required luminous flux. The angle of incidence of the light on the surface of the plate does not exceed 82° at any point on the surface to be illuminated. No light is emitted towards the rear of the vehicle. The luminance have been measured in accordance with Annex 3, based on the position in which the device is to be fitted in relation to the space to be occupied by the registration plate. The luminance measurements have been made on a piece of clean white blotting paper with diffuse reflection factor of more than 70%, of the same dimensions as the registration plate, placed in the position normally occupied by it and 2 mm in front of its holder, as checked in accordance with provision of Annex 5. The single lamp containing more than one light source complies with ~~the minimum intensity required when any one light source has failed.~~

Manufacturer :

Type :

Results of photometric tests of the **illumination of rear registration plate**

For a wide plate (520 X 120) for installation condition 1, (X: 31.6, Y: 13.4)

measured after 1 minute burning period when all light sources lit

	light intensity of the lamps in (X:25, Y:25) [cd]	allowable maximum	required minimum
sample no. 1	63.41	---	2.5
sample no. 2	61.35	---	2.5

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]								
X - axis [mm]		25	125	225	295	395	495	required value
Y - axis [mm]	25	60.66	25.12	9.820	11.11	31.06	52.26	≥2.5
sample no. 1	95	62.21	19.81	8.670	10.47	31.00	65.13	≥2.5
Y - axis [mm]	25	58.93	24.39	9.750	11.41	32.04	50.78	≥2.5
sample no. 2	95	60.49	19.03	8.460	10.44	31.38	61.92	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	8.670	8.460	---
maximum gradient	4.240	4.145	≤ 2 x Bo

For a wide plate (520 X 120) for installation condition 1, (X: 104.9, Y: 140.5)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]								
X - axis [mm]		25	125	225	295	395	495	required value
Y - axis [mm]	25	6.540	7.620	14.19	10.84	6.600	7.300	≥2.5
sample no. 1	95	6.900	6.950	13.65	9.630	5.900	6.550	≥2.5
Y - axis [mm]	25	6.400	7.860	14.60	10.39	6.590	7.070	≥2.5
sample no. 2	95	6.960	6.790	13.85	9.450	6.130	6.530	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	5.900	6.130	---
maximum gradient	0.670	0.707	≤ 2 x Bo

For a wide plate (520 X 120) for installation condition 2, (X: 31.6, Y: 13.4)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]								
X - axis [mm]		25	125	225	295	395	495	required value
Y - axis [mm]	25	7.880	66.93	22.39	36.03	72.10	6.370	≥2.5
sample no. 1	95	11.97	47.76	34.53	40.48	50.70	15.05	≥2.5
Y - axis [mm]	25	7.680	67.63	22.37	34.68	68.97	6.130	≥2.5
sample no. 2	95	12.34	48.94	36.07	39.28	53.24	14.41	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	6.370	6.130	---
maximum gradient	6.572	6.283	≤ 2 x Bo

For a wide plate (520 X 120) for installation condition 2, (X: 100.0, Y: 131.9)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]								
X - axis [mm]		25	125	225	295	395	495	required value
Y - axis [mm]	25	3.630	4.710	4.790	4.970	4.990	3.990	≥2.5
sample no. 1	95	3.450	3.630	4.060	4.080	3.940	3.460	≥2.5
Y - axis [mm]	25	3.470	4.640	4.710	5.010	4.970	4.100	≥2.5
sample no. 2	95	3.570	3.580	4.050	4.090	4.080	3.310	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	3.450	3.310	---
maximum gradient	0.151	0.151	≤ 2 x Bo

For a wide plate (520 X 120) for installation condition 3, (X: 54.4, Y: 46.6)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]								
X - axis [mm]		25	125	225	295	395	495	required value
Y - axis [mm]	25	20.73	34.84	12.47	7.520	5.260	3.820	≥2.5
sample no. 1	95	24.09	37.69	12.85	6.530	4.760	4.020	≥2.5
Y - axis [mm]	25	21.41	35.73	11.89	7.480	5.480	3.830	≥2.5
sample no. 2	95	23.82	35.97	12.37	6.390	4.980	4.090	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	3.820	3.830	---
maximum gradient	2.484	2.384	≤ 2 x Bo

For a wide plate (520 X 120) for installation condition 3, (X: 115.5, Y: 152.4)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]								
X - axis [mm]		25	125	225	295	395	495	required value
Y - axis [mm]	25	5.840	5.160	11.93	8.050	5.700	4.960	≥2.5
sample no. 1	95	5.940	6.540	12.87	9.380	5.980	4.860	≥2.5
Y - axis [mm]	25	5.740	5.330	11.46	8.130	5.680	4.980	≥2.5
sample no. 2	95	5.940	6.330	13.10	9.320	5.710	4.850	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	4.860	4.850	---
maximum gradient	0.677	0.677	≤ 2 x Bo

For a wide plate (520 X 120) for installation condition 4, (X: 32.7, Y: 13.4)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]								
X - axis [mm]		25	125	225	295	395	495	required value
Y - axis [mm]	25	3.550	6.070	71.61	73.07	8.080	4.210	≥2.5
sample no. 1	95	3.700	9.760	28.09	28.17	11.35	3.640	≥2.5
Y - axis [mm]	25	3.610	6.010	68.96	72.20	8.040	4.170	≥2.5
sample no. 2	95	3.700	9.900	27.69	27.17	11.81	3.480	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	3.550	3.480	---
maximum gradient	6.555	6.433	≤ 2 x Bo

For a wide plate (520 X 120) for installation condition 4, (X: 104.8, Y: 138.3)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]								
X - axis [mm]		25	125	225	295	395	495	required value
Y - axis [mm]	25	3.380	4.600	6.370	6.710	4.420	3.390	≥2.5
sample no. 1	95	3.350	4.640	6.180	6.140	4.860	3.220	≥2.5
Y - axis [mm]	25	3.260	4.730	6.280	6.590	4.520	3.460	≥2.5
sample no. 2	95	3.270	4.600	6.370	6.330	4.960	3.260	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	3.220	3.260	---
maximum gradient	0.229	0.207	≤ 2 x Bo

For a tall plate (340 X 240) for installation condition 5, (X: 31.6, Y: 13.4)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]						
X - axis [mm]		25	125	215	315	required value
Y - axis [mm]	25	3.370	36.15	48.38	6.350	≥2.5
sample no. 1	120	11.16	27.96	24.48	10.78	≥2.5
	215	4.740	7.650	7.720	4.620	≥2.5
Y - axis [mm]	25	3.250	36.67	49.96	6.450	≥2.5
sample no. 2	120	10.93	26.74	23.80	10.54	≥2.5
	215	4.710	7.980	7.770	4.750	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	3.370	3.250	---
maximum gradient	4.203	4.351	≤ 2 x Bo

For a tall plate (340 X 240) for installation condition 5, (X: 49.9, Y: 45.0)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]						
X - axis [mm]		25	125	215	315	required value
Y - axis [mm]	25	4.010	8.530	8.490	3.670	≥2.5
sample no. 1	120	3.620	4.990	5.560	3.290	≥2.5
	215	5.410	10.99	10.40	6.280	≥2.5
Y - axis [mm]	25	3.970	8.450	8.640	3.510	≥2.5
sample no. 2	120	3.770	5.230	5.300	3.370	≥2.5
	215	5.190	10.60	10.21	6.580	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	3.290	3.370	---
maximum gradient	0.632	0.566	≤ 2 x Bo

For a tall plate (340 X 240) for installation condition 6, (X: 31.6, Y: 13.4)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]						
X - axis [mm]		25	125	215	315	required value
Y - axis [mm]	25	14.11	25.68	26.08	14.14	≥2.5
sample no. 1	120	65.50	35.51	37.32	81.47	≥2.5
	215	10.76	20.56	24.62	14.39	≥2.5
Y - axis [mm]	25	14.01	24.97	26.20	13.61	≥2.5
sample no. 2	120	63.91	34.54	35.57	85.42	≥2.5
	215	11.10	20.26	25.78	14.51	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	10.76	11.10	---
maximum gradient	7.087	7.559	≤ 2 x Bo

For a tail plate (340 X 240) for installation condition 6, (X: 104.9, Y: 140.3)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]						
X - axis [mm]		25	125	215	315	required value
Y - axis [mm]	25	4.030	3.300	3.730	5.140	≥2.5
sample no. 1	120	6.350	4.060	5.100	8.140	≥2.5
	215	4.520	3.220	4.040	5.790	≥2.5
Y - axis [mm]	25	3.940	3.460	3.760	5.060	≥2.5
sample no. 2	120	6.180	4.060	4.930	8.100	≥2.5
	215	4.670	3.350	4.030	5.680	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	3.220	3.350	---
maximum gradient	0.320	0.317	≤ 2 x Bo

For a tall plate (340 X 240) for installation condition 7, (X: 55.2, Y: 46.6)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]						
X - axis [mm]		25	125	215	315	required value
Y - axis [mm]	25	29.27	21.18	8.670	4.430	≥2.5
sample no. 1	120	86.66	39.37	12.62	5.710	≥2.5
	215	27.43	19.66	7.710	3.290	≥2.5
Y - axis [mm]	25	29.63	20.97	8.590	4.230	≥2.5
sample no. 2	120	90.57	39.51	13.04	5.660	≥2.5
	215	27.78	18.81	7.640	3.380	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	3.290	3.380	---
maximum gradient	6.234	6.609	≤ 2 x Bo

For a tall plate (340 X 240) for installation condition 7, (X: 103.3, Y: 130.0)

measured after 30 minutes burning period when all light sources lit

luminance B of the measuring points of the plate [cd/m²]						
X - axis [mm]		25	125	215	315	required value
Y - axis [mm]	25	4.900	4.930	11.60	6.590	≥2.5
sample no. 1	120	8.040	8.120	15.36	8.520	≥2.5
	215	4.440	4.760	10.09	6.020	≥2.5
Y - axis [mm]	25	4.790	4.700	12.08	6.550	≥2.5
sample no. 2	120	7.790	8.330	15.16	8.270	≥2.5
	215	4.600	4.590	10.20	6.310	≥2.5

	sample no. 1	sample no. 2	required value
minimum luminance Bo	4.440	4.590	---
maximum gradient	0.810	0.820	≤ 2 x Bo

2.5. Explanatory note : not applicable

2.6. Variants and components : not applicable

3. Remark concerning tested object(s)

All versions of the lamps as stated in the information document are covered with the tested version(s) and test object(s) respectively.

4. Appendices

0 List of modifications

Information folder no. :

5. Statement of conformity

The information folder and the type described there comply with the requirements in the above mentioned regulation.

The test laboratory is accredited for the above mentioned tests by the RDW, Vehicle Technology and Information Centre, the Netherlands:

Accreditation Number: RDW-99050014-05.

The technical report comprises the pages 1 to 12 and shall not be reproduced except in full without the written approval of the test laboratory.

Cologne, June 7, 2012
ND/HH

B.S.M.E. N. Deng

Manufacturer :

Type :

List of modifications **Appendix 0**

Correction of : ---

Modification of : ---

Addition of : ---

Deletion of : ---