



MINISTERIO
DE INDUSTRIA, COMERCIO Y
TURISMO

DIRECCIÓN GENERAL DE INDUSTRIA Y
DE LA PEQUEÑA Y MEDIANA EMPRESA

SUBDIRECCIÓN GENERAL DE
CALIDAD Y SEGURIDAD INDUSTRIAL

E9*4R00/19*23172*00

Página / Page 1/2



COMUNICACIÓN / COMMUNICATION:

Concerniente a ⁽¹⁾: LA CONCESIÓN DE HOMOLOGACIÓN
LA EXTENSIÓN DE HOMOLOGACIÓN
LA DENEGACIÓN DE HOMOLOGACIÓN
LA RETIRADA DE HOMOLOGACIÓN
EL CESE DEFINITIVO DE PRODUCCIÓN

Concerning ⁽¹⁾: APPROVAL GRANTED
APPROVAL EXTENDED
APPROVAL REFUSED
APPROVAL WITHDRAWN
PRODUCTION DEFINITELY DISCONTINUED

de un tipo de dispositivo de alumbrado de placa de matrícula trasera de los vehículos a motor (excepto las motocicletas) y sus remolques en aplicación del Reglamento N° 4.
of a type of device for the illumination of rear registration plates of motor vehicles (except for motorcycles) and their trailers pursuant to Regulation No. 4.

N° de homologación / Approval No.: E9*4R00/19*23172*00

Extensión N° / Extension No.: ---

1. Marca de fábrica o comercial del dispositivo / Trade name or mark of the device: FRISTOM
2. Designación del tipo de dispositivo dado por el fabricante / Manufacturer's name for the type of device: FT-600 LED
3. Nombre y dirección del fabricante / Manufacturer's name and address:
FRISTOM SPÓLKA Z OGRANICZONA
ODPOWIEDZIALNOSCIA SPÓLKA
KOMANDYTOWA
UL. PRZEMYSŁOWA 5, 86-014
85416 SICIENKO
SICIENKO (POLONIA)

Nota / Note: Este dispositivo puede ser fabricado en cualquiera de las Plantas de Fabricación que consten declaradas en el Anexo I del Certificado Conformidad Producción en vigor emitido por la UCA. / This device may be manufactured in any of the Manufacturing Plants declared in Annex I of the Conformity Production Certificate in force issued by the UCA.

4. En su caso, nombre y dirección del representante del fabricante / If applicable, name and address of manufacturer's representative: ---
5. Dispositivo presentado a homologación el / Submitted for approval on: 13/03/2020
6. Servicio técnico encargado de los ensayos de homologación / Technical service responsible for conducting approval test: IDIADA
7. Fecha del informe emitido por dicho servicio / Date of report issued by that service: 27/03/2020

⁽¹⁾ Táchese lo que no proceda / Strike out what does not apply



E9*4R00/19*23172*00

Página / Page 2/2



8. Número del informe emitido por dicho servicio / *Number of report issued by that service*: PC19070363
9. Breve descripción / *Concise description*:
- Dispositivo destinado a la iluminación / *Device for illuminating*:
Categoría / *Category* ~~1a~~ / ~~1b~~ / ~~1c~~ / ~~2a~~ / ~~2b~~ ⁽¹⁾
~~de un emplazamiento alto / a tall plate~~ ⁽¹⁾
~~de un emplazamiento largo / a wide plate~~ ⁽¹⁾
~~de un emplazamiento para tractores agrícolas o forestales / a plate for agricultural or forestry tractors~~ ⁽¹⁾
 - Número y categoría(s) de la(s) fuente(s) luminosa(s) / *Number and category(ies) of light source(s)*:
6 x LED's
 - Módulo de fuente de luz / *Light source module*: ~~si~~ / yes - no / no ⁽¹⁾
 - Código de identificación específico del módulo de fuente de luz / *Light source module specific identification code*: ---
 - Condiciones geométricas de instalación (posiciones e inclinaciones del dispositivo en relación al espacio ocupado por la placa de matrícula y/o diferentes inclinaciones de este espacio) / *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)*: ---
10. Posición de la marca de homologación / *Position of the approval mark*: Ver documentación suministrada por el fabricante / *See documentation supplied by the manufacturer*.
11. Motivos de la extensión (en su caso) / *Reason(s) of extension (if applicable)*: ---
12. Se concede/~~deniega~~/~~extiende~~/~~retira~~ la homologación ⁽¹⁾ / *Approval granted/refused/extended/withdrawn* ⁽¹⁾
13. Lugar / *Place*: Madrid
14. Fecha / *Date*: Ver firma electrónica / *See electronic signature*
15. Firma / *Signature*:

EL SUBDIRECTOR GENERAL DE CALIDAD Y SEGURIDAD INDUSTRIAL
Resolución P.D. del DIRECTOR GENERAL DE INDUSTRIA Y DE LA PYME de 25-10-2012
16. Se adjunta la lista de apartados que constituyen el expediente de homologación depositado en el servicio administrativo que ha concedido la homologación y que pueden ser obtenidos a petición. / *The list of documents deposited with the Administrative Service which has granted approval is annexed to this communication and may be obtained on request*.
- Informe del ensayo / *Test report*
 - Documentación suministrada por el fabricante / *Documentation supplied by the manufacturer*

⁽¹⁾ Táchese lo que no proceda / *Strike out what does not apply*

Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.k.
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Drawn by: Michał Dybicz

Date: 18-03-2020

sheet Nr.

1/7

Type

FT- 600 LED - rear LED multifunction lamp

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
see table page 2

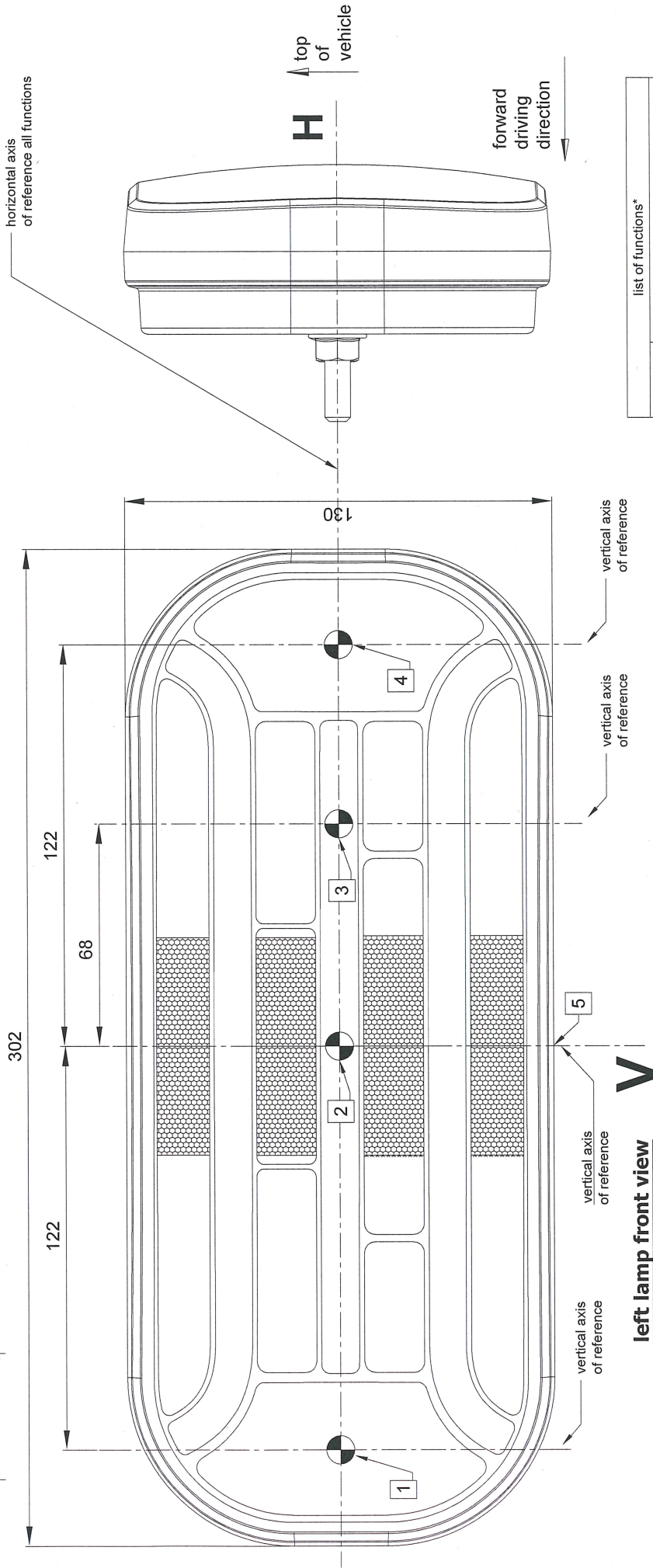
sheet description

general drawing / lamp functions / assembly on vehicle

This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PC transparent clear
- collimator / filter insert R1 PC red transparent
- collimator / filter insert S1 PC clear transparent
- collimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin



left lamp front view

point of reference	function	list of functions*
1	rear fog F1	rear fog F1
2	rear direction indicator 2a - sequential	rear direction indicator 2a - sequential
3	retro reflecting device cat IA	retro reflecting device cat IA
4	rear position light R1	rear position light R1
5	stop light S1 (full function)	stop light S1 (full function)
6	stop light S1 (reduced stop variant)	stop light S1 (reduced stop variant)
7	reversing AR	reversing AR
8	registration plate light	registration plate light

lamp includes REDUCED STOP variant !

FRISTOM

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IBIADA MICHAŁ DYBICZ
PC19070363

Manufacturer

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Drawn by: Michał Dybicz
Date: 18-03-2020
sheet Nr. 2/7

Type

FT- 600 LED - rear LED multifunction lamp

Material used in manufacturing :

- lampshade PC transparent clear
- collimator / filter insert R1 PC red transparent
- collimator / filter insert S1 PC clear transparent
- collimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin

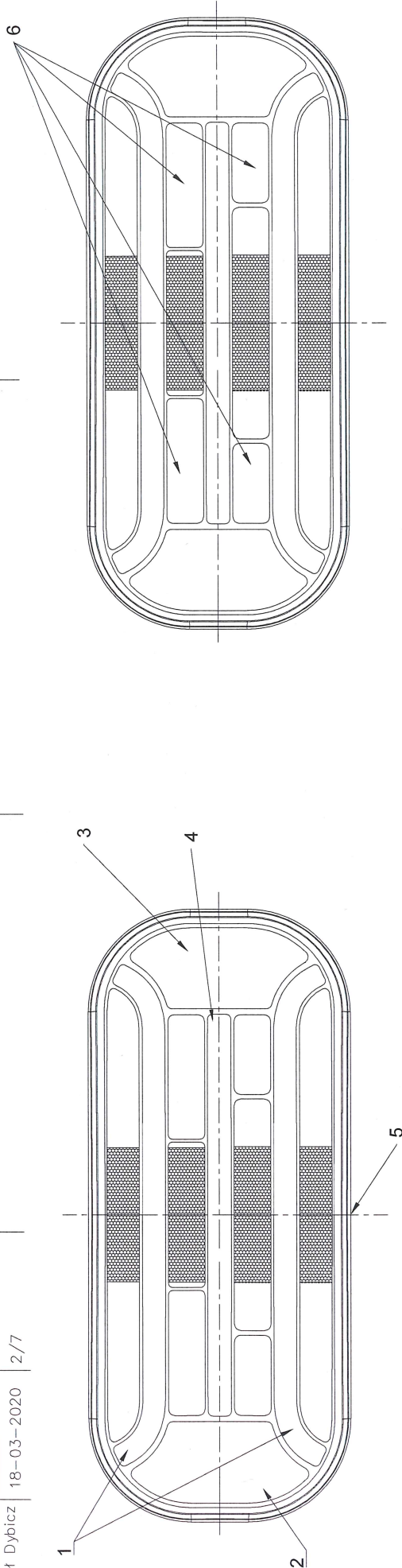
light source

LIGHT SOURCE : LED CHIP SMD chip mounted
see table page 2

sheet description

LED sources and connections

This drawing is a part of the application for approval



left lamp front view

functions and LED connections				
1	R1	12 / 24 V - 2 / 4 W	4 LED` s serial connected in 10 parallel sections	40 Led` s red light color
	R1+L	12 / 24 V - 2,5 / 5 W		
2	F1	12 / 24 V - 2 / 4 W	4 LED` s serial connected in 2 parallel sections	8 Led` s red light color
3	AR	12 / 24 V - 2,5 / 6 W	3 LED` s serial connected in 2 parallel sections + 2 LED` s serial connected in 1 section	8 LED` s white light color
4	2a	12 / 24 V - 10 / 20 W	3 LED` s serial connected in 6 parallel sections	18 LED` s amber light color
5	L	12 / 24 V - 0,5 / 1 W	3 LED` s serial connected in 2 parallel sections	6 LED` s white light color
6	S1	12 / 24 V - 4 / 8 W	4 LED` s serial connected in 4 parallel sections	16 Led` s red light color
7	S1 reduced	12 / 24 V - 2 / 4 W	4 LED` s serial connected in 2 parallel sections	8 Led` s red light color

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In case of failure of one light source of the rear direction indicator a signal of activation of the tail light is

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Drawn by: Michał Dybicz
Date: 18-03-2020
sheet Nr. 3/7

Type

FT- 600 LED - rear LED multifunction lamp

Material used in manufacturing :

- lampshade PC transparent clear
- colimator / filter insert R1 PC red transparent
- colimator / filter insert S1 PC clear transparent
- colimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin

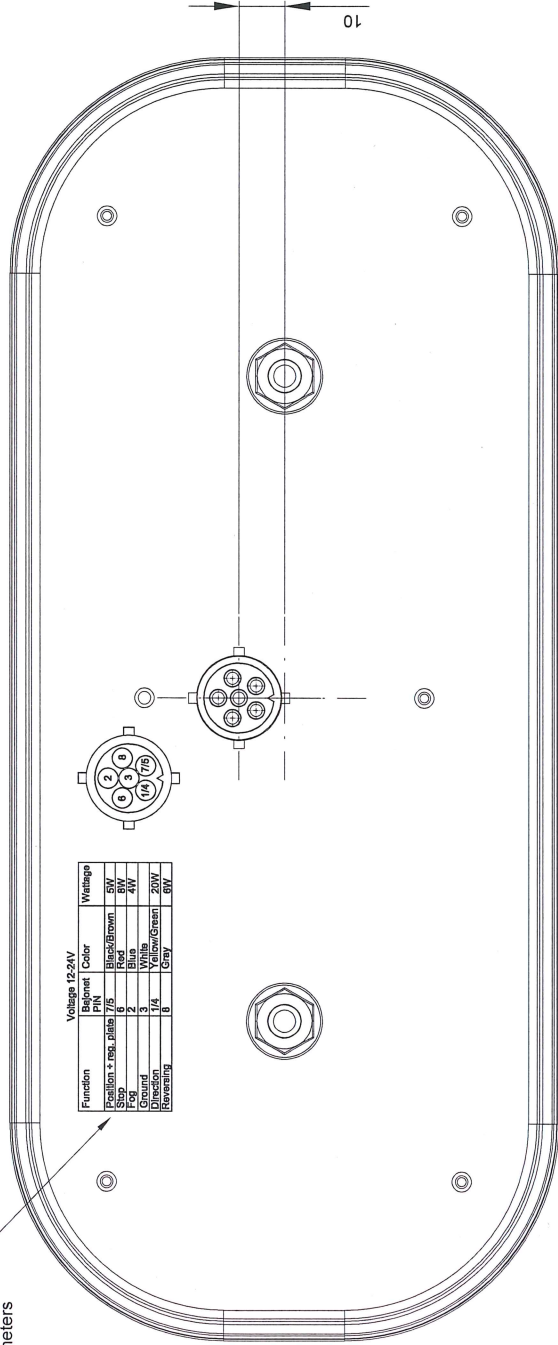
light source

LIGHT SOURCE : LED CHIP SMD chip mounted
see table page 2

sheet description

general drawing lamp bottom/rear view / electrical parameter engravings
This drawing is a part of the application for approval

marking of
electrical parameters



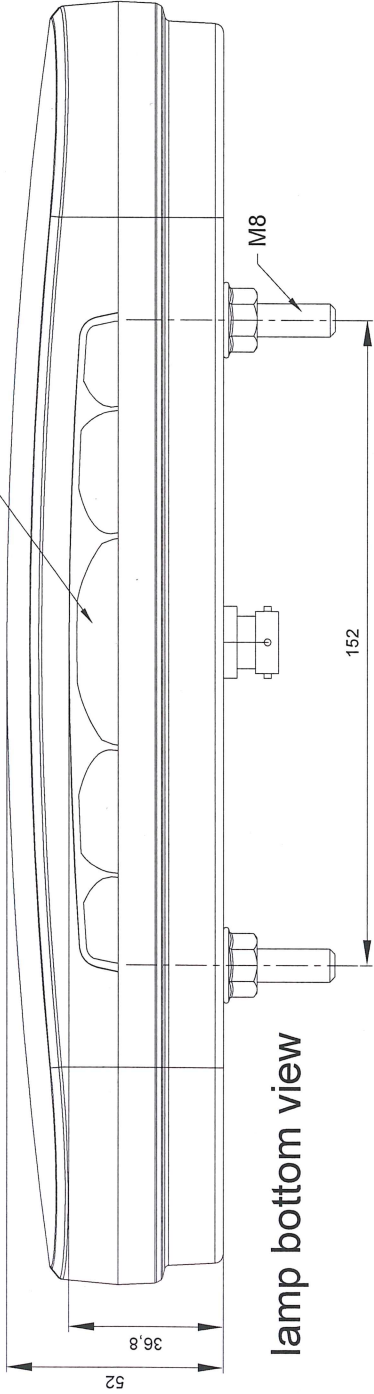
Voltage 12-24V			
Function	Bajonet PIN	Color	Wattage
Position + req. plate	7/5	Black/Brown	5W
Stop	6	Red	8W
Fog	2	Blue	4W
Ground	3	White	
Direction	1/4	Yellow/Green	20W
Reversing	8	Gray	6W

parameter table

Voltage 12-24V			
Function	Bajonet PIN	Color	Wattage
Position + req. plate	7/5	Black/Brown	5W
Stop	6	Red	8W
Fog	2	Blue	4W
Ground	3	White	
Direction	1/4	Yellow/Green	20W
Reversing	8	Gray	6W

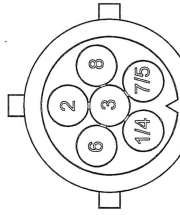
lamp rear view - bajonet version

Registration plate light L



lamp bottom view

pin settings



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IDIADA PC19070363

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Drawn by: Michał Dybicz

Date: 18-03-2020

sheet Nr. 4/7

Type

FT- 600 LED - rear LED multifunction lamp

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
see table page 2

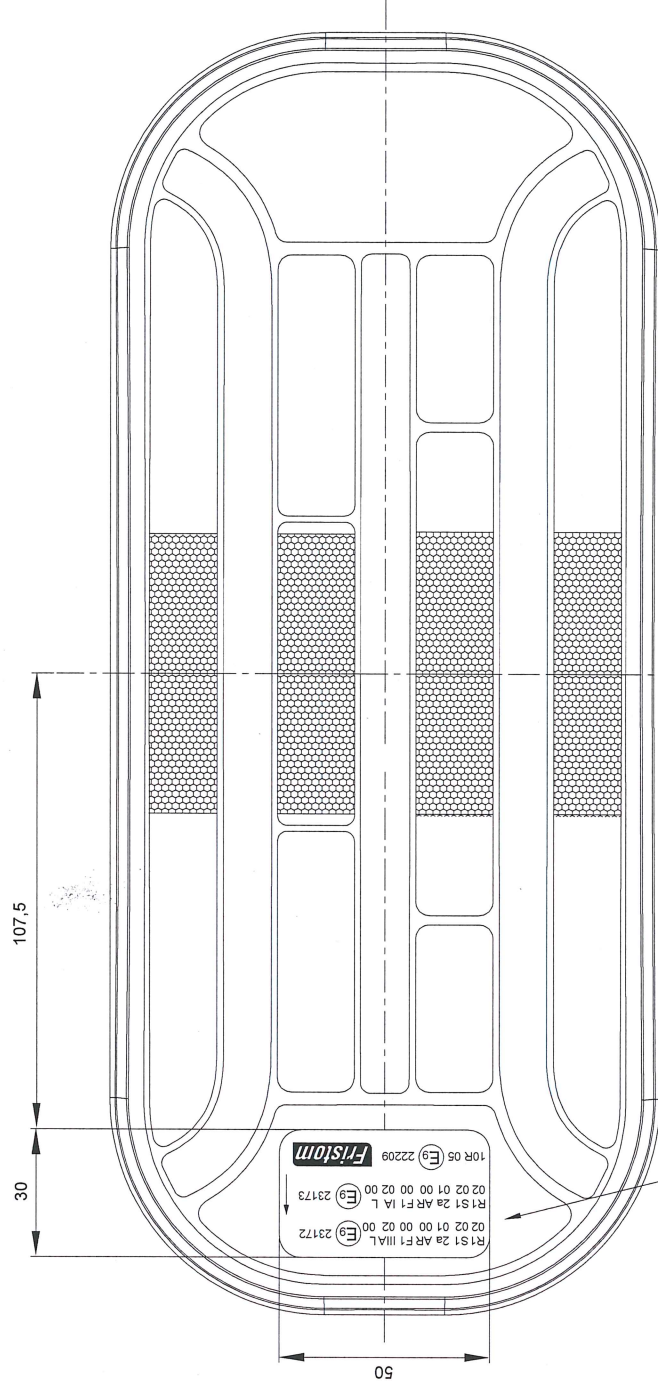
sheet description

general drawing / lamp functions / assembly on vehicle

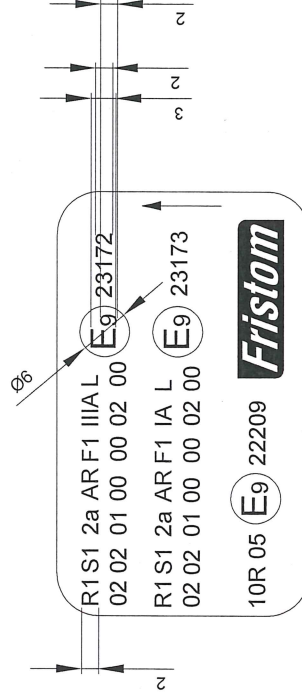
This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PC transparent clear
- colimator / filter insert R1 PC red transparent
- colimator / filter insert S1 PC clear transparent
- colimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin



approval markings and trademark on lampshade



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Drawn by:

Michał Dybicz

Date:

18-03-2020

sheet Nr.

5/7

Type

FT- 600 LED - rear LED multifunction lamp

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
see table page 2

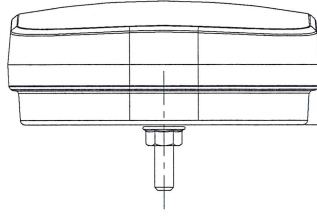
sheet description

registration plate light and positioning

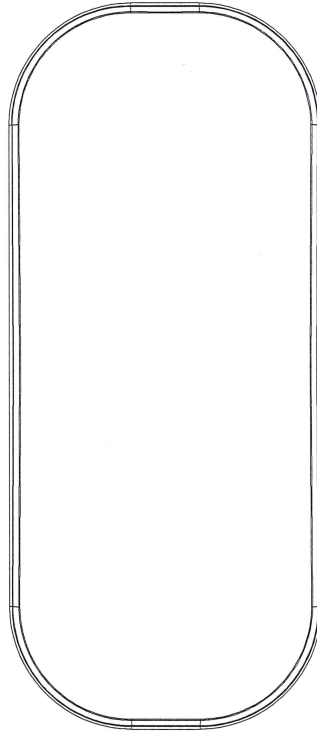
This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PC transparent clear
- collimator / filter insert R1 PC red transparent
- collimator / filter insert S1 PC clear transparent
- collimator / filter insert 2a PMMA transparent amber
- housing ABS black
- frame ABS black
- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin



10



registration plate 520x120

10

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Drawn by: Michał Dybicz

Date: 18-03-2020

sheet Nr. 6/7

Type

FT- 600 LED - rear LED multifunction lamp

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
see table page 2

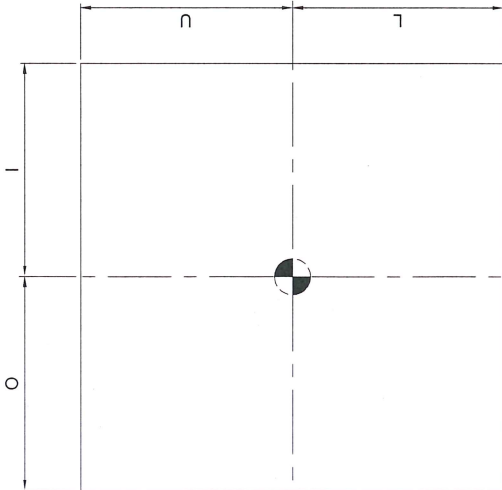
sheet description

lighting surface

This drawing is a part of the application for approval

Material used in manufacturing :

- lampshade PC transparent clear
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- PCB FR4
- potting compound epoxy resin

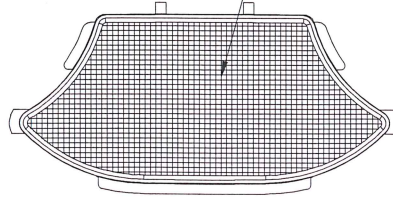


lighting surface				
function	U _{upper} (mm)	L _{lower} (mm)	O _{center} (mm)	I _{inner} (mm)
stop S1 Full	25	25	98	98
stop S1 reduced	25	25	31	31
direction indicator 2a	5	5	98	98
fog F1	42	42	18	18
reversing AR	42	42	18	18
position R1	52	52	124	124

Determining the lower , upper and lateral limits of the illumination surface of the lamp device.

According to European Directive 91/663/EEC , Annex I "Installation of lighting and light-signalling devices" clause 1.9.2.

According to ECE regulation 48/06 "Installation of light and light-signalling devices" clause 2.10.3.2.



lighting area of rear fog light function
~23 cm²

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Dybicz

MICHAŁ DYBICZ

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Drawn by:

Date:

Michał Dybicz

18-03-2020

sheet Nr.

7/7

Type

FT- 600 LED - rear LED multifunction lamp

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
see table page 2

sheet description

variant tradenames and descriptions

This drawing is a part of the application for approval

Material used in manufacturing :

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- registration plate reflector ABS white
- PCB FR4
- potting compound epoxy resin

FT-610 L LED AMP	FT-610-15 LED universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, left without registration plate light, with connector AMP 7PIN.
FT-610 LT LED AMP	FT-610-135 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, left with registration plate light, with connector AMP 7PIN.
FT-610 P LED AMP	FT-610-25 LED universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, right without registration plate light, with connector AMP 7PIN.
FT-610 PT LED AMP	FT-610-235 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, right with registration plate light, with connector AMP 7PIN.
FT-610 L LED BAJ 6PIN	FT-610-16 LED universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, left without registration plate light, with connectorBAJONET 6PIN.
FT-610 LT LED BAJ 6PIN	FT-610-136 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, left with registration plate light, with connectorBAJONET 6PIN.
FT-610 P LED BAJ 6PIN	FT-610-26 LED universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, right without registration plate light, with connectorBAJONET 6PIN.
FT-610 PT LED BAJ 6PIN	FT-610-236 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, right with registration plate light, with connectorBAJONET 6PIN.
FT-610 L LED	FT-610-14 LED universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, left without registration plate light, 2m cable
FT-610 LT LED	FT-610-134 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, left with registration plate light, 2m cable
FT-610 P LED	FT-610-24 universal LED lamp with triangular reflex reflector, 12-36V, 6-functions, right without registration plate light, 2m cable
FT-610 PT LED	FT-610-234 LED universal LED lamp with triangular reflex reflector, 12-36V, 7-functions, right with registration plate light, 2m cable

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MICHAŁ DYBICZ