



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*23098*00

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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~~APPROVAL WITHDRAWN~~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*23098*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-270 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)
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: 19/09/2019
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: 20/09/2019
8. Número del informe emitido por dicho servicio / Number of report issued by that service: PC19060177

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



E9*4R00/19*23098*00

Página / Page 2/2



9. Breve descripción / *Concise description:*

- Dispositivo destinado a la iluminación / *Device for illuminating:*
Categoría / *Category* ~~1a~~ / ~~1b~~ / ~~1e~~ / ~~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):*
3xLEDs
- 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.
86-014 Sicienko / Polska
ul. Przemysłowa 5
NIP: 5542926937, KRS: 0000529238
Tel.: +48 52 360 90 51, Fax: +48 52 327 75 41



Drawn by: Michał Dybicz

Date: 9-09-2019

sheet Nr. 1 / 6

Type

FT- 270 LED - rear multifunction lamp EXT1

Material used in manufacturing :

- lampshade PC transparent clear
- collimator AR PMMA transparent clear
- collimator FL PMMA transparent red
- housing ABS black
- frame ABS black
- lens 2a PMMA transparent amber
- IIIA reflector and R1 lens PMMA transparent red
- registration plate reflector ABS black vacuum metalized
- PCB FR4
- AR - 6 LED's - white light color
- FL - 8 LED's - red light color
- R1 - 8 LED's - red light color
- S1 - 8 LED's - red light color
- 2a - 6 LED's - amber light color
- L - 3 LED's - white light color
- potting compound epoxy resin

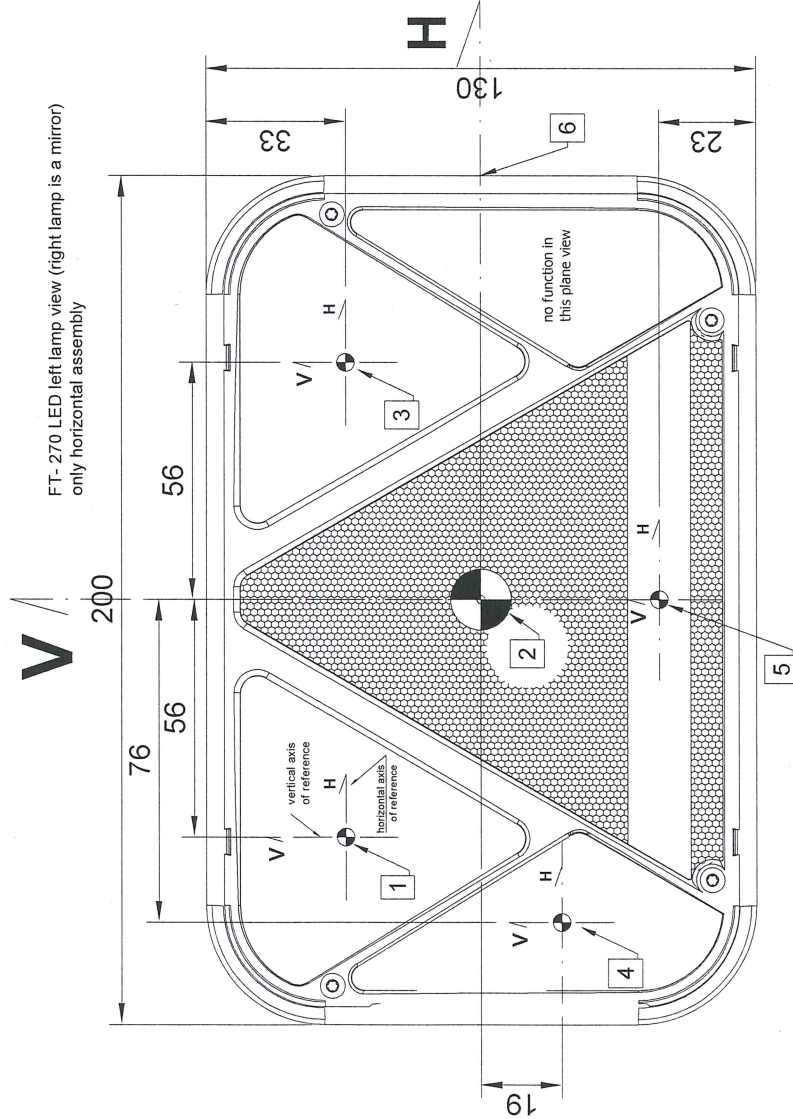
light source

LIGHT SOURCE : LED CHIP SMD chip mounted
AR - 6 LED's - white light color
FL - 8 LED's - red light color
R1 - 8 LED's - red light color
S1 - 8 LED's - red light color
2a - 6 LED's - amber light color
L - 3 LED's - white light color

sheet description

general drawing / lamp functions / assembly on vehicle

This drawing is a part of the application for approval



- 1 - center of reference direction indicator 2a
- 2 - center of reference reflex reflector cat IIIA
- 3 - center of reference rear fog or reversing light (F1 or AR)
- 4 - center of reference stop light cat S1
- 5 - center of reference rear position light cat R1
- 6 - registration plate light

FRISTOM

spółka z ograniczoną odpowiedzialnością Sp.k.
86-014 Sicienko, ul. Przemysłowa 5
NIP: 5542926937, REGON 341640907
reprezentowana przez FRISTOM sp. z o.o.

Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.
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Drawn by: Michał Dybicz
Date: 9-09-2019
sheet Nr.: 2/6

Type

FT- 270 LED - rear multifunction lamp EXT1

light source

LIGHT SOURCE : LED CHIP SMD chip mounted
AR - 6 LED's - white light color
R1 - 8 LED's - red light color
S1 - 8 LED's - red light color
S1 - 8 LED's - red light color
2a - 6 LED's - amber light color
L - 3 LED's - white light color

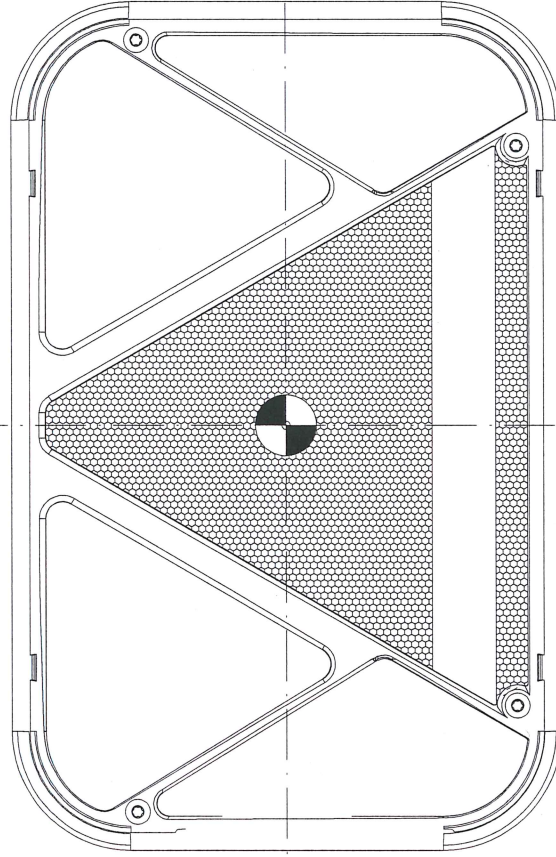
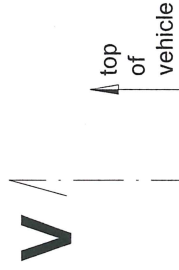
sheet description

assembly on vehicle and electrical circuits of functions
This drawing is a part of the application for approval

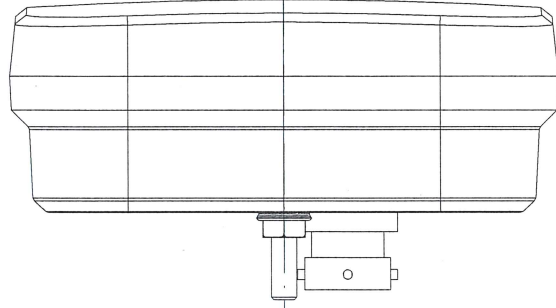
Material used in manufacturing :

- lampshade PC transparent clear
- collimator AR PMMA transparent clear
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- housing ABS black
- frame ABS black
- lens 2a PMMA transparent amber
- IIIA reflector and R1 lens PMMA transparent red
- registration plate reflector ABS black vacuum metallized
- PCB FR4
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- R1 - 8 LED's - red light color
- S1 - 8 LED's - red light color
- 2a - 6 LED's - amber light color
- L - 3 LED's - white light color
- potting compound epoxy resin

FT- 270 LED left lamp view (right lamp is a mirror)
only horizontal assembly



forward
driving
direction



H

connection of LED's in function circuits:

- R1 - 2 sections a 4 serial connected LED
- S1 - 2 sections a 4 serial connected LED
- 2a - 2 sections a 3 serial connected LED
- F1 - 2 sections a 4 serial connected LED
- AR - 2 sections a 3 serial connected LED
- L - 1 section a 3 serial connected LED

IDIADA PC19060177

FRISTOM
spółka z ograniczoną odpowiedzialnością Sp.k.
86-014 Sicienko, ul. Przemysłowa 5
NIP: 5542926937, REGON 341640907
reprezentowana przez FRISTOM sp. z o.o.

Manufacturer

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Tel.: +48 52 360 90 51, Fax: +48 52 327 75 41



Drawn by: **Date:** 9-09-2019 **sheet Nr.** 3/6

Michał Dybicz

Type

FT- 270 LED - rear multifunction lamp EXT1

light source

LIGHT SOURCE : LED CHIP SMD chip mounted

AR - 6 LED's - white light color
R1 - 8 LED's - red light color
S1 - 8 LED's - red light color
2a - 6 LED's - amber light color
L - 3 LED's - white light color

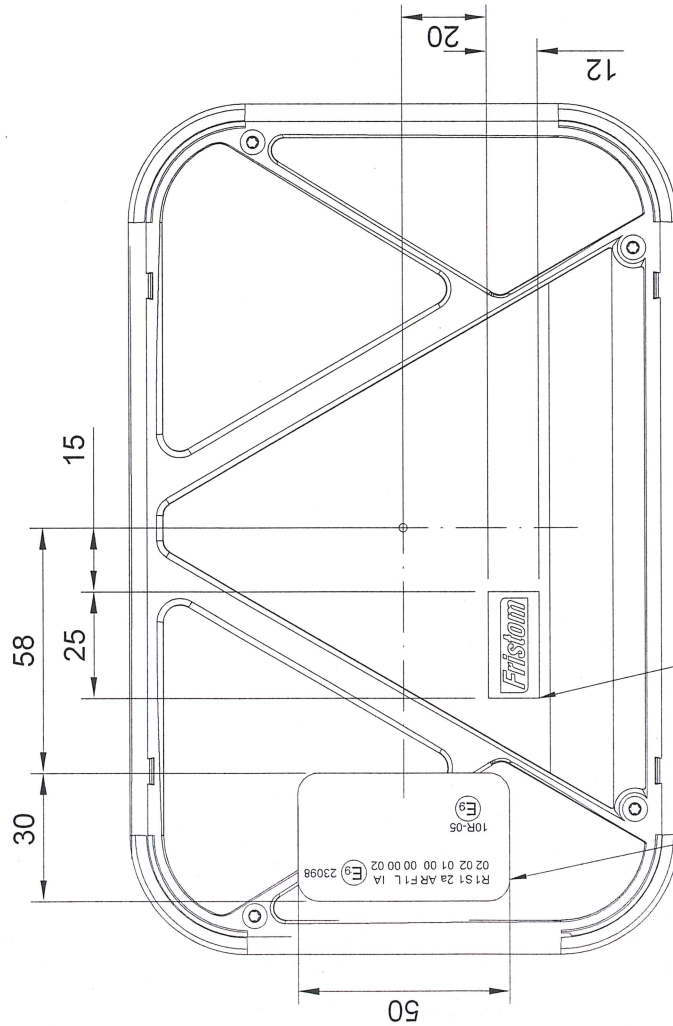
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- 2a - 6 LED's - amber light color
- L - 3 LED's - white light color
- potting compound epoxy resin

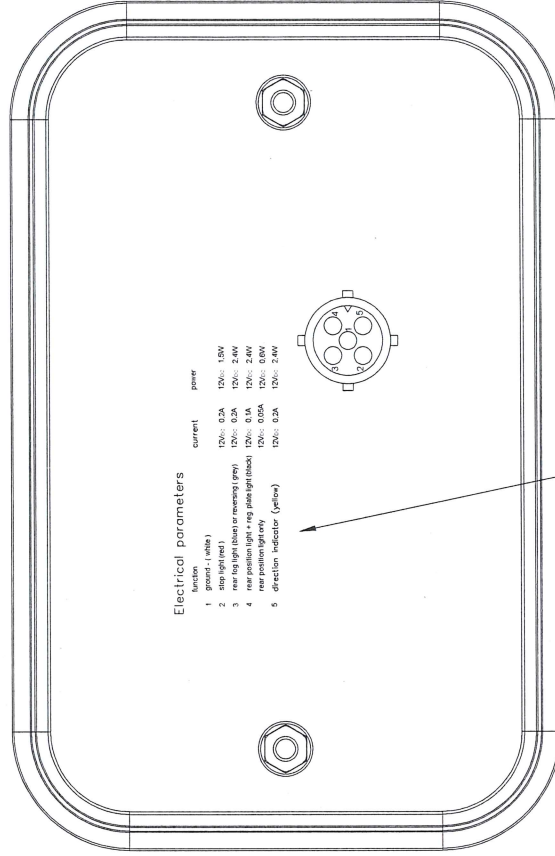
sheet description

marking of trademark , approvals and electrical parameters

This drawing is a part of the application for approval



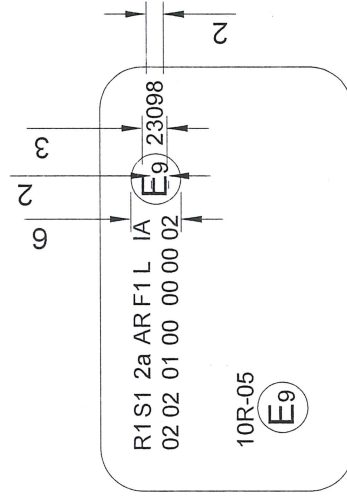
FT- 270 LED left lamp rear housing (right lamp is a mirror)
bajonet version



electrical parameters
on housing rear side

Electrical parameters

function	current	power
1 ground - (white)		
2 stop light (red)	12Vdc 0,2A	12Vdc 1,5W
3 rear fog light (blue) or reversing (grey)	12Vdc 0,2A	12Vdc 2,4W
4 rear position light + reg. plate light (black)	12Vdc 0,1A	12Vdc 2,4W
rear position light only	12Vdc 0,05A	12Vdc 0,6W
5 direction indicator (yellow)	12Vdc 0,2A	12Vdc 2,4W



approval marking dimensions:

FRISTOM

spółka z ograniczoną odpowiedzialnością Sp.k.

86-014 Ścienka, ul. Przemysłowa 5
NIP: 5542926937, KRS: 0000529238
PC19060177

reprezentowana przez FRISTOM sp. z o.o.

Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.
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Tel.: +48 52 360 90 51, Fax: +48 52 327 75 41



Drawn by: Michał Dybicz
Date: 9-09-2019
sheet Nr.: 4/6

Type

FT- 270 LED - rear multifunction lamp EXT1

Material used in manufacturing :

- lampshade PC transparent clear
- collimator AR PMMA transparent clear
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- 2a - 6 LED's - amber light color
- L - 3 LED's - white light color
- potting compound epoxy resin

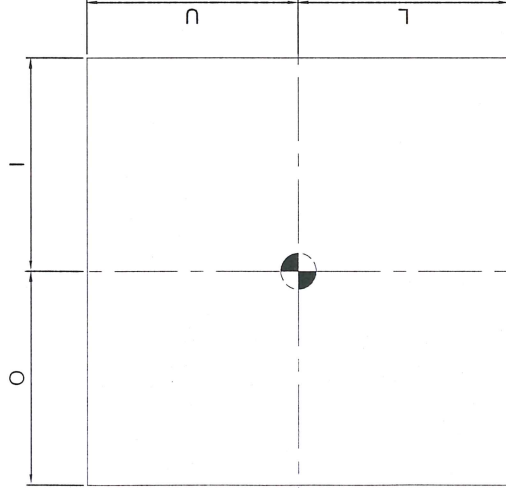
light source

LIGHT SOURCE : LED CHIP SMD chip mounted
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S1 - 8 LED's - red light color
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L - 3 LED's - white light color

sheet description

lighting surface

This drawing is a part of the application for approval



lighting surface

function	U _(upper limit) (mm)	L _(lower limit) (mm)	O _(outer limit) (mm)	I _(inner limit) (mm)
reversing AR	23	23	25	25
rear fog F1	23	23	25	25
rear position R1	7,5	7,5	66	66
stop S1	44	44	18,5	18,5
direction indicator 2a	33	33	36	36
reflex reflector IIIA	58	58	70	70

Determining the lower , upper and lateral limits of the ilumination 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 48/01 "Installation of light and light-signalling devices" clause 2.9.2.

FRISTOM

spółka z ograniczoną odpowiedzialnością Sp.k.
86-014 Ścieienko, ul. Przemysłowa 5
NIP: 5542926937, REGON 341640907
reprezentowana przez FRISTOM sp. z o.o.

Manufacturer
FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.k.
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Tel.: +48 52 360 90 51, Fax: +48 52 327 75 41



Drawn by: Michał Dybiec
Date: 9-09-2019
sheet Nr.: 5/6

Type

FT- 270 LED - rear multifunction lamp EXT1

light source

LIGHT SOURCE - LED CHIP SMD chip mounted
AR - 6 LED's - white light color
F1 - 8 LED's - red light color
R1 - 8 LED's - red light color
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sheet description

variant tradenames

This drawing is a part of the application for approval

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- potting compound epoxy resin

description
FT-270 LNT LED PM
FT-270 P NT LED COF
FT-270 LNT LED PM Mxx
FT-270 P NT LED COF Mxx
FT-270 LNT LED PM BAJONET 5 PIN
FT-270 P NT LED COF BAJONET 5 PIN
FT-270 L TB LED PM
FT-270 P TB LED COF
FT-270 L TB LED PM Mxx
FT-270 P TB LED COF Mxx
FT-270 L TB LED PM BAJONET 5 PIN
FT-270 P TB LED COF BAJONET 5 PIN
FT-270 L NT LED COF
FT-270 P NT LED PM
FT-270 LNT LED COF Mxx
FT-270 P NT LED PM Mxx
FT-270 LNT LED COF BAJONET 5 PIN
FT-270 P NT LED PM BAJONET 5 PIN
FT-270 L TB LED PM
FT-270 P TB LED COF Mxx
FT-270 L TB LED PM Mxx
FT-270 L TB LED COF BAJONET 5 PIN
FT-270 P TB LED COF BAJONET 5 PIN
FT-270 L TB LED COF
FT-270 P TB LED PM
FT-270 L TB LED COF Mxx
FT-270 P TB LED PM Mxx
FT-270 L TB LED COF BAJONET 5 PIN
FT-270 P TB LED COF BAJONET 5 PIN

where x is a digit between 0 and 9

FRISTOM

spółka z ograniczoną odpowiedzialnością Sp.k.
86-014 Sicienka, ul. Przemysłowa 5
NIP: 5542926937, REGON 341640907
reprezentowana przez FRISTOM sp. z o.o.

Manufacturer

FRISTOM Spółka z ograniczoną odpowiedzialnością Sp.K.
86-014 Sicienka / Polska
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NIP: 5542926937, KRS: 0000529238
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Drawn by: Michał Dybicz
Date: 9-09-2019
sheet Nr.: 6/6

Type

FT-270 LED - rear multifunction lamp EXT1

Material used in manufacturing :

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- potting compound epoxy resin

light source

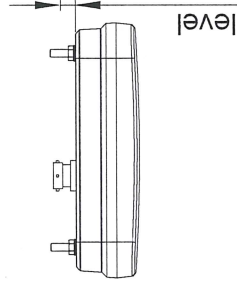
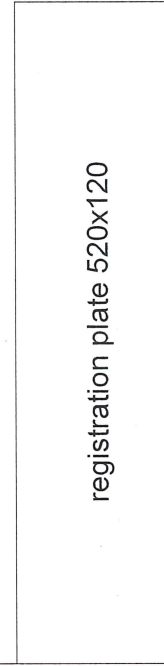
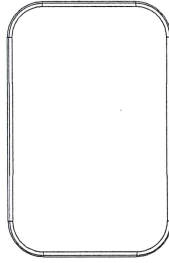
LIGHT SOURCE : LED CHIP SMD chip mounted
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sheet description

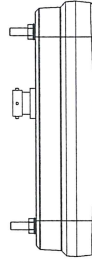
positioning of registration plate light

This drawing is a part of the application for approval

distance



level



lamp level [mm]	distance [mm]
4	26
8	50
14	100
28	200

FRISTOM
spółka z ograniczoną odpowiedzialnością Sp.k.
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