

CPC COOPERATIVE PATENT CLASSIFICATION

F MECHANICAL ENGINEERING; LIGHTING; HEATING; WEAPONS; BLASTING (NOTE omitted)

LIGHTING; HEATING

F21 LIGHTING (NOTE omitted)

F21S NON-PORTABLE LIGHTING DEVICES; SYSTEMS THEREOF; VEHICLE LIGHTING DEVICES SPECIALLY ADAPTED FOR VEHICLE EXTERIORS

NOTES

- This subclass covers:
 - devices or systems intended for fixed installation or for use at a permanent location, e.g. free-standing floor- or table-lamps.
 - aspects related to the optical, mechanical, thermal or electrical arrangement of elements in vehicle illuminating devices specially adapted for vehicle exterior, e.g. headlamps.
 - aspects related to the optical, mechanical, thermal or electrical arrangement of elements in vehicle light signalling devices specially adapted for vehicle exterior, e.g. brake lamps or direction indicator lights.
- This subclass does not cover:
 - devices or systems specially adapted for transportation, which are covered by subclass [F21L](#).
 - aspects related to the vehicles in which lighting devices are arranged, e.g. the arrangement or operation of lighting devices on vehicles, which are covered by [B60Q](#).
 - control of vehicle lighting devices in relation to the vehicle as a whole, e.g. for levelling, swivelling or aiming. Such arrangements are covered by group [B60Q 1/06](#), even if the movement of the lighting device occurs inside the lamp housing.
- Non-electric lighting devices or systems are classified in groups [F21S 11/00](#) - [F21S 15/00](#) only if a special adaptation related to the use of a non-electric light source is of interest.
- In this subclass, it is desirable to add the indexing codes of subclasses [F21W](#) and [F21Y](#).

WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

Electric lighting

- | | |
|---|---|
| <p>2/00 Systems of lighting devices, not provided for in main groups F21S 4/00 - F21S 10/00 or F21S 19/00, e.g. of modular construction</p> <p>2/005 . {of modular construction}</p> <p>4/00 Lighting devices or systems using a string or strip of light sources</p> <p>4/10 . with light sources attached to loose electric cables, e.g. Christmas tree lights</p> <p>4/15 . . the cables forming a grid, net or web structure</p> <p>4/20 . with light sources held by or within elongate supports</p> <p>4/22 . . flexible or deformable, e.g. into a curved shape</p> <p>4/24 . . . of ribbon or tape form, e.g. LED tapes</p> <p>4/26 . . . of rope form, e.g. LED lighting ropes, or of tubular form</p> <p>4/28 . . rigid, e.g. LED bars</p> <p>6/00 Lighting devices intended to be free-standing (F21S 9/00, F21S 10/00, {F21S 13/12} take precedence {lighting devices specially adapted to be transported from place to place, e.g. lighting devices carried on wheeled supports F21L; details of supports for lighting devices F21V 21/00})</p> | <p>6/001 . {being candle-shaped (with varying lighting effect of simulating flames F21S 10/04; string of light sources F21S 4/00)}</p> <p>6/002 . {Table lamps, e.g. for ambient lighting}</p> <p>6/003 . . {for task lighting, e.g. for reading or desk work, e.g. angle poise lamps}</p> <p>6/004 . {with a lamp housing in direct contact with the floor or ground}</p> <p>6/005 . {with a lamp housing maintained at a distance from the floor or ground via a support, e.g. standing lamp for ambient lighting}</p> <p>6/006 . . {for direct lighting only, e.g. task lighting}</p> <p>6/007 . . {for indirect lighting only, e.g. torchiere with reflector bowl directed towards ceiling}</p> <p>6/008 . . {with a combination of direct and indirect lighting}</p> <p>8/00 Lighting devices intended for fixed installation (F21S 9/00, F21S 10/00 take precedence; using a string or strip of light sources F21S 4/00)</p> <p>8/003 . {Searchlights, i.e. outdoor lighting device producing powerful beam of parallel rays, e.g. for military or attraction purposes (searchlights mounted on a vehicle B60Q 1/245)}</p> |
|---|---|

- 8/006 . {Solar simulators, e.g. for testing photovoltaic panels}
- 8/02 . of recess-mounted type, e.g. downlighters (specially adapted for vehicle exteriors [F21S 41/00-F21S 45/00](#))
- 8/022 . . {intended to be recessed in a floor or like ground surface, e.g. pavement or false floor}
- 8/024 . . {intended to be recessed in a wall or like vertical structure, e.g. building facade}
- 8/026 . . {intended to be recessed in a ceiling or like overhead structure, e.g. suspended ceiling}
- 8/028 . . {being retractable, i.e. having two fixed positions, one recessed, e.g. in a wall, floor or ceiling, and one extended when in use}
- 8/03 . {of surface-mounted type ([F21S 8/02](#), [F21S 8/04](#) take precedence; details of wall or floor bases [F21V 21/02](#))}
- 8/031 . . {the device consisting essentially only of a light source holder with an exposed light source, e.g. a fluorescent tube}
- 8/032 . . {the surface being a floor or like ground surface, e.g. pavement}
- 8/033 . . {the surface being a wall or like vertical structure, e.g. building facade}
- 8/035 . . . {by means of plugging into a wall outlet, e.g. night light}
- 8/036 . . . {by means of a rigid support, e.g. bracket or arm}
- 8/037 . . . {for mounting in a corner, i.e. between adjacent walls or wall and ceiling}
- 8/038 . . {intended to be mounted on a light track (suspended from a light track [F21S 8/066](#); details of supporting elements displaceable along a guiding element [F21V 21/34](#))}
- 8/04 . intended only for mounting on a ceiling or the like overhead structures ([F21S 8/02](#) takes precedence; {details of ceiling bases [F21V 21/03](#))}
- 8/043 . . {mounted by means of a rigid support, e.g. bracket or arm}
- 8/046 . . {having multiple lighting devices, e.g. connected to a common ceiling base}
- 8/06 . . by suspension
- 8/061 . . . {with a non-rigid pendant, i.e. a cable, wire or chain}
- 8/063 . . . {with a rigid pendant, i.e. a pipe or rod}
- 8/065 . . . {multi-branched, e.g. a chandelier}
- 8/066 . . . {from a light track (details of supporting elements displaceable along a guiding element [F21V 21/34](#))}
- 8/068 . . . {from a stretched wire}
- 8/08 . . with a standard {([F21S 6/00](#) takes precedence)}
- 8/081 . . {of low-built type, e.g. landscape light}
- 8/083 . . . {of bollard type, i.e. with lighting fixture integrated into the standard or mounted on top of it and having substantially the same diameter}
- 8/085 . . {of high-built type, e.g. street light}
- 8/086 . . . {with lighting device attached sideways of the standard, e.g. for roads and highways}
- 8/088 . . . {with lighting device mounted on top of the standard, e.g. for pedestrian zones}
- 9/00 **Lighting devices with a built-in power supply; Systems employing lighting devices with a built-in power supply**
- 9/02 . the power supply being a battery or accumulator
- 9/022 . . {Emergency lighting devices}
- 9/024 . . . {using a supplementary light source for emergency lighting}
- 9/026 . . {rechargeable by using wind power, e.g. using wind turbines}
- 9/028 . . {rechargeable by using hydropower, e.g. using water powered turbines}
- 9/03 . . rechargeable by exposure to light
- 9/032 . . . {the solar unit being separate from the lighting unit}
- 9/035 . . . {the solar unit being integrated within the support for the lighting unit, e.g. within or on a pole}
- 9/037 . . . {the solar unit and the lighting unit being located within or on the same housing}
- 9/04 . the power supply being a generator
- 9/043 . . {driven by wind power, e.g. by wind turbines}
- 9/046 . . {driven by hydropower, e.g. by water powered turbines}
- 10/00 Lighting devices or systems producing a varying lighting effect**
- 10/002 . {using liquids, e.g. water}
- 10/005 . {using light guides (light guides specially adapted for lighting devices [G02B 6/0001](#))}
- 10/007 . {using rotating transparent or colored disks, e.g. gobo wheels}
- 10/02 . changing colors {([F21S 10/002](#) - [F21S 10/007](#), [F21S 10/04](#) take precedence)}
- 10/023 . . {by selectively switching fixed light sources}
- 10/026 . . {by movement of parts, e.g. by movement of reflectors or light sources ([F21S 10/007](#) takes precedence)}
- 10/04 . simulating flames
- 10/043 . . {by selectively switching fixed light sources}
- 10/046 . . {by movement of parts, e.g. by movement of reflectors or light sources}
- 10/06 . flashing, e.g. with rotating reflector or light source {(signalling lighting devices mounted on vehicles [B60Q 1/26](#))}
- 10/063 . . {for providing a rotating light effect}
- 10/066 . . . {by selectively switching fixed light sources}
- Non-electric lighting**
- 11/00 Non-electric lighting devices or systems using daylight** {(hybrid lighting devices combining artificial and natural light [F21S 19/00](#); roofs with sky-light opening [E04D 13/03](#); sun blinds for windows with means for redirecting light onto ceiling of a room [E06B 9/00](#); solar heat collectors [F24S](#))}
- 11/002 . {characterised by the means for collecting or concentrating the sunlight, e.g. parabolic reflectors or Fresnel lenses}
- 11/005 . . {with tracking means for following the position of the sun}
- 11/007 . {characterised by the means for transmitting light into the interior of a building}
- 13/00 Non-electric lighting devices or systems employing a point-like light source; Non-electric lighting devices or systems employing a light source of unspecified shape**

<p>13/02 . Devices intended to be fixed, e.g. ceiling lamp, wall lamp</p> <p>13/04 . . with a pendant</p> <p>13/06 . . . multi-branched, e.g. chandelier</p> <p>13/08 . . with suspension from a stretched wire</p> <p>13/10 . . with a standard, e.g. street lamp</p> <p>13/12 . Devices intended to be free-standing, e.g. table lamp, floor lamp</p> <p>13/14 . Lighting systems</p> <p>15/00 Non-electric lighting devices or systems employing light sources not covered by main groups F21S 11/00, F21S 13/00 or F21S 19/00</p> <hr/> <p>2017/00 Details solely applicable to the devices covered by groups F21S 13/00 and F21S 15/00</p> <p>2017/02 . Fastening and lifting of the lamp-glass</p> <p>19/00 Lighting devices or systems employing combinations of electric and non-electric light sources; Replacing or exchanging electric light sources with non-electric light sources or vice versa</p> <p>19/005 . {Combining sunlight and electric light sources for indoor illumination}</p>	<p>41/176 . . . Light sources where the light is generated by photoluminescent material spaced from a primary light generating element</p> <p>41/18 . . . {Combination of light sources of different types or shapes}</p> <p>41/19 . . Attachment of light sources or lamp holders (achieving variable light distribution by movable light sources F21S 41/657)</p> <p>41/192 . . . {Details of lamp holders, terminals or connectors}</p> <p>41/194 . . . {Bayonet attachments}</p> <p>41/196 . . . {Wire spring attachments}</p> <p>41/198 . . . {Snap-fit attachments}</p> <p>41/20 . characterised by refractors, transparent cover plates, light guides or filters</p> <p>41/24 . . Light guides</p> <p>41/25 . . Projection lenses</p> <p>41/255 . . . Lenses with a front view of circular or truncated circular outline</p> <p>41/26 . . . Elongated lenses</p> <p>41/265 . . . Composite lenses; Lenses with a patch-like shape</p> <p>41/27 . . . Thick lenses</p> <p>41/275 . . . Lens surfaces, e.g. coatings or surface structures</p> <p>41/28 . . {Cover glass}</p> <p>(Frozen)</p>	<p><u>WARNING</u></p> <p>Group F21S 41/28 is no longer used for the classification of documents as of May 1, 2024. The content of this group is being reclassified into groups F21S 41/2805 and F21S 43/2651.</p> <p>All groups listed in this Warning should be considered in order to perform a complete search.</p> <p>41/2805 . . {Cover glass}</p> <p><u>WARNING</u></p> <p>Group F21S 41/2805 is incomplete pending reclassification of documents from group F21S 41/28.</p> <p>All groups listed in this Warning should be considered in order to perform a complete search.</p> <p>41/285 . . {Refractors, transparent cover plates, light guides or filters not provided in groups F21S 41/24 - F21S 41/2805}</p> <p>41/29 . . Attachment thereof (for achieving variable light distribution F21S 41/63)</p> <p>41/295 . . . {specially adapted to projection lenses}</p> <p>41/30 . characterised by reflectors</p> <p>41/32 . . Optical layout thereof</p> <p>41/321 . . . {the reflector being a surface of revolution or a planar surface, e.g. truncated}</p> <p>41/322 . . . {the reflector using total internal reflection}</p> <p>41/323 . . . {the reflector having two perpendicular cross sections having regular geometrical curves of a distinct nature}</p> <p>41/33 . . . Multi-surface reflectors, e.g. reflectors with facets or reflectors with portions of different curvature</p> <p>41/331 {the reflector consisting of complete annular areas}</p>
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- 41/332 {with continuity at the junction between adjacent areas}
- 41/333 {with discontinuity at the junction between adjacent areas}
- 41/334 {the reflector consisting of patch like sectors}
- 41/335 {with continuity at the junction between adjacent areas}
- 41/336 {with discontinuity at the junction between adjacent areas}
- 41/337 {the reflector having a structured surface, e.g. with facets or corrugations}
- 41/338 {the reflector having surface portions added to its general concavity}
- 41/36 . . . Combinations of two or more separate reflectors
- 41/365 successively reflecting the light
- 41/37 . . characterised by their material, surface treatment or coatings
- 41/39 . . Attachment thereof (achieving variable light distribution by movable reflectors [F21S 41/675](#))
- 41/395 . . . {specially adapted to extension reflectors}
- 41/40 . . characterised by screens, non-reflecting members, light-shielding members or fixed shades
- 41/43 . . characterised by the shape thereof
- 41/435 . . . {Hoods or cap-shaped}
- 41/47 . . Attachment thereof (achieving variable light distribution by movable screens [F21S 41/683](#))
- 41/50 . . characterised by aesthetic components not otherwise provided for, e.g. decorative trim, partition walls or covers
- 41/55 . . Attachment thereof
- 41/60 . . characterised by a variable light distribution
- 41/62 . . for adaptation between right-hand and left-hand traffic
- 41/63 . . by acting on refractors, filters or transparent cover plates
- 41/635 . . . {by moving refractors, filters or transparent cover plates}
- 41/64 . . . by changing their light transmissivity, e.g. by liquid crystal or electrochromic devices
- 41/645 {by electro-optic means, e.g. liquid crystal or electrochromic devices}
- 41/65 . . by acting on light sources
- 41/657 . . . by moving light sources
- 41/663 . . . by switching light sources (by switching incandescent light sources [F21S 41/162](#))
- 41/67 . . by acting on reflectors
- 41/675 . . . by moving reflectors
- 41/68 . . by acting on screens
- 41/683 . . . by moving screens
- 41/686 Blades, i.e. screens moving in a vertical plane
- 41/689 Flaps, i.e. screens pivoting around one of their edges
- 41/692 Shields, i.e. screens not creating an image meant to be projected
- 41/695 Screens rotating around a vertical axis (rotating flaps [F21S 41/689](#))
- 41/698 Shaft-shaped screens rotating along its longitudinal axis

43/00 Signalling devices specially adapted for vehicle exteriors, e.g. brake lamps, direction indicator lights or reversing lights

WARNING

Group [F21S 43/00](#) is impacted by reclassification into group [F21S 43/601](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/10 . . characterised by the light source
- 43/13 . . characterised by the type of light source
- 43/14 . . . Light emitting diodes [LED]
- 43/145 Surface emitters, e.g. organic light emitting diodes [OLED]
- 43/15 . . . Strips of light sources
- 43/16 . . . Light sources where the light is generated by photoluminescent material spaced from a primary light generating element
- 43/19 . . Attachment of light sources or lamp holders

WARNING

Group [F21S 43/19](#) is impacted by reclassification into group [F21S 43/601](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/195 . . . {Details of lamp holders, terminals or connectors}

WARNING

Group [F21S 43/195](#) is impacted by reclassification into group [F21S 43/601](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/20 . . characterised by refractors, transparent cover plates, light guides or filters

WARNING

Group [F21S 43/20](#) is impacted by reclassification into groups [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#), [F21S 43/2817](#) and [F21S 43/601](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/235 . . Light guides

WARNING

Group [F21S 43/235](#) is impacted by reclassification into groups [F21S 43/246](#), [F21S 43/2492](#), [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/236 . . . characterised by the shape of the light guide

WARNING

Group [F21S 43/236](#) is impacted by reclassification into groups [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/237 rod-shaped

WARNING

Group [F21S 43/237](#) is impacted by reclassification into groups [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/239 plate-shaped

WARNING

Group [F21S 43/239](#) is impacted by reclassification into groups [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/241 of complex shape

WARNING

Group [F21S 43/241](#) is impacted by reclassification into groups [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/242 . . . characterised by the emission area

WARNING

Group [F21S 43/242](#) is impacted by reclassification into groups [F21S 43/246](#), [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/243 emitting light from one or more of its extremities

WARNING

Group [F21S 43/243](#) is impacted by reclassification into groups [F21S 43/246](#), [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/245 emitting light from one or more of its major surfaces

WARNING

Group [F21S 43/245](#) is impacted by reclassification into groups [F21S 43/246](#), [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/246 {having two or more output branches}

WARNING

Group [F21S 43/246](#) is incomplete pending reclassification of documents from groups [F21S 43/235](#), [F21S 43/242](#), [F21S 43/243](#) and [F21S 43/245](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/247 . . . with a single light source being coupled into the light guide

WARNING

Group [F21S 43/247](#) is impacted by reclassification into groups [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/249 . . . with two or more light sources being coupled into the light guide

WARNING

Group [F21S 43/249](#) is impacted by reclassification into groups [F21S 43/2492](#), [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/2492 {having two or more input branches}

WARNING

Group [F21S 43/2492](#) is incomplete pending reclassification of documents from groups [F21S 43/235](#) and [F21S 43/249](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/251 the light guides being used to transmit light from remote light sources

WARNING

Group [F21S 43/251](#) is impacted by reclassification into groups [F21S 43/252](#), [F21S 43/253](#), [F21S 43/281](#), [F21S 43/2811](#), [F21S 43/28131](#), [F21S 43/28133](#), [F21S 43/28135](#), [F21S 43/2815](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/252 {Two or more successive light guides}

WARNING

Group [F21S 43/252](#) is incomplete pending reclassification of documents from groups [F21S 43/235](#), [F21S 43/236](#), [F21S 43/237](#), [F21S 43/239](#), [F21S 43/241](#), [F21S 43/242](#), [F21S 43/243](#), [F21S 43/245](#), [F21S 43/247](#), [F21S 43/249](#) and [F21S 43/251](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/253 {Two or more juxtaposed light guides}

WARNING

Group [F21S 43/253](#) is incomplete pending reclassification of documents from groups [F21S 43/235](#), [F21S 43/236](#), [F21S 43/237](#), [F21S 43/239](#), [F21S 43/241](#), [F21S 43/242](#), [F21S 43/243](#), [F21S 43/245](#), [F21S 43/247](#), [F21S 43/249](#) and [F21S 43/251](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/255 . . {Filters}

WARNING

Group [F21S 43/255](#) is impacted by reclassification into groups [F21S 43/601](#), [F21S 43/281](#), [F21S 43/28133](#), [F21S 43/28111](#), [F21S 43/28135](#), [F21S 43/2815](#), [F21S 43/28131](#) and [F21S 43/2817](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/26 . . {Refractors, transparent cover plates, light guides or filters not provided in groups [F21S 43/235](#) - [F21S 43/255](#)}

WARNING

Group [F21S 43/26](#) is no longer used for the classification of documents as of May 1, 2024. The content of this group is being reclassified into groups [F21S 43/26221](#), [F21S 43/2605](#), [F21S 43/28133](#), [F21S 43/26211](#), [F21S 43/26261](#), [F21S 43/2641](#), [F21S 43/2651](#), [F21S 43/281](#), [F21S 43/26231](#), [F21S 43/2643](#), [F21S 43/601](#), [F21S 43/26411](#), [F21S 43/2815](#), [F21S 43/2621](#), [F21S 43/26241](#), [F21S 43/265](#), [F21S 43/26251](#), [F21S 43/26271](#), [F21S 43/28135](#), [F21S 43/2817](#), [F21S 43/2811](#), [F21S 43/26421](#) and [F21S 43/28131](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/2605 . . {Refractors}

WARNING

Group [F21S 43/2605](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/2621 {characterised by the properties of the light beam shaping surface}

WARNING

Group [F21S 43/2621](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/26211 {redirecting, i.e. substantially only changing light propagation direction}

WARNING

Group [F21S 43/26211](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/26221 {dividing, unifying or reunifying}

WARNING

Group [F21S 43/26221](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/26231 {collimating, focusing, condensing or projecting beams, e.g. projection lenses or Fresnel lenses}

WARNING

Group [F21S 43/26231](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/26241 {diffusing, scattering or spreading}

WARNING

Group [F21S 43/26241](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/26251 {Holograms}

WARNING

Group [F21S 43/26251](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/26261 {Single refractor combining two or more properties of the groups [F21S 43/26211](#) - [F21S 43/26251](#) on opposite sides}

WARNING

Group [F21S 43/26261](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/26271 {using micro-optics, e.g. micro-lenses or micro-structures}

WARNING

Group [F21S 43/26271](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/2641 {Refractors or refracting portions characterised by their relative arrangement, e.g. parallel refractors}

WARNING

Group [F21S 43/2641](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/26411 {Two or more successive refractors}

WARNING

Group [F21S 43/26411](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/26421 {Refractors comprising a plurality of non-successive refracting portions}

WARNING

Group [F21S 43/26421](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/2643 {with several light entry surfaces for two or more light sources having distinct functions, at least one of them being signalling}

WARNING

Group [F21S 43/2643](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/265 . . . {Transparent cover plates, e.g. for protecting the interior of the signalling devices against environmental influences}

WARNING

Group [F21S 43/265](#) is incomplete pending reclassification of documents from group [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/2651 . . . {with several light entry surfaces for two or more light sources having distinct functions, at least one of them being signalling}

WARNING

Group [F21S 43/2651](#) is incomplete pending reclassification of documents from groups [F21S 41/28](#) and [F21S 43/26](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/27 . . Attachment thereof

WARNING

Group [F21S 43/27](#) is impacted by reclassification into groups [F21S 43/2815](#), [F21S 43/28131](#), [F21S 43/2811](#), [F21S 43/601](#), [F21S 43/2817](#), [F21S 43/281](#), [F21S 43/28133](#) and [F21S 43/28135](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/281 . . {Materials thereof; Structures thereof; Properties thereof; Coatings thereof}

WARNING

Group [F21S 43/281](#) is incomplete pending reclassification of documents from groups [F21S 43/20](#), [F21S 43/235](#), [F21S 43/236](#), [F21S 43/237](#), [F21S 43/239](#), [F21S 43/241](#), [F21S 43/242](#), [F21S 43/243](#), [F21S 43/245](#), [F21S 43/247](#), [F21S 43/249](#), [F21S 43/251](#), [F21S 43/255](#), [F21S 43/26](#) and [F21S 43/27](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/2811 . . . {Heterogeneous materials}

WARNING

Group [F21S 43/2811](#) is incomplete pending reclassification of documents from groups [F21S 43/20](#), [F21S 43/235](#), [F21S 43/236](#), [F21S 43/237](#), [F21S 43/239](#), [F21S 43/241](#), [F21S 43/242](#), [F21S 43/243](#), [F21S 43/245](#), [F21S 43/247](#), [F21S 43/249](#), [F21S 43/251](#), [F21S 43/255](#), [F21S 43/26](#) and [F21S 43/27](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/28131 . . . {Structures comprising multiple layers}

WARNING

Group [F21S 43/28131](#) is incomplete pending reclassification of documents from groups [F21S 43/20](#), [F21S 43/235](#), [F21S 43/236](#), [F21S 43/237](#), [F21S 43/239](#), [F21S 43/241](#), [F21S 43/242](#), [F21S 43/243](#), [F21S 43/245](#), [F21S 43/247](#), [F21S 43/249](#), [F21S 43/251](#), [F21S 43/255](#), [F21S 43/26](#) and [F21S 43/27](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/28133 . . . {Structures comprising gas or liquid media}

WARNING

Group [F21S 43/28133](#) is incomplete pending reclassification of documents from groups [F21S 43/20](#), [F21S 43/235](#), [F21S 43/236](#), [F21S 43/237](#), [F21S 43/239](#), [F21S 43/241](#), [F21S 43/242](#), [F21S 43/243](#), [F21S 43/245](#), [F21S 43/247](#), [F21S 43/249](#), [F21S 43/251](#), [F21S 43/255](#), [F21S 43/26](#) and [F21S 43/27](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/28135 . . . {Structures encapsulating the light source}

WARNING

Group [F21S 43/28135](#) is incomplete pending reclassification of documents from groups [F21S 43/20](#), [F21S 43/235](#), [F21S 43/236](#), [F21S 43/237](#), [F21S 43/239](#), [F21S 43/241](#), [F21S 43/242](#), [F21S 43/243](#), [F21S 43/245](#), [F21S 43/247](#), [F21S 43/249](#), [F21S 43/251](#), [F21S 43/255](#), [F21S 43/26](#) and [F21S 43/27](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/2815 . . . {Mechanical properties, e.g. flexibility}

WARNING

Group [F21S 43/2815](#) is incomplete pending reclassification of documents from groups [F21S 43/20](#), [F21S 43/235](#), [F21S 43/236](#), [F21S 43/237](#), [F21S 43/239](#), [F21S 43/241](#), [F21S 43/242](#), [F21S 43/243](#), [F21S 43/245](#), [F21S 43/247](#), [F21S 43/249](#), [F21S 43/251](#), [F21S 43/255](#), [F21S 43/26](#) and [F21S 43/27](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/2817 . . . {Coatings, e.g. anti-reflection coatings}

WARNING

Group [F21S 43/2817](#) is incomplete pending reclassification of documents from groups [F21S 43/20](#), [F21S 43/235](#), [F21S 43/236](#), [F21S 43/237](#), [F21S 43/239](#), [F21S 43/241](#), [F21S 43/242](#), [F21S 43/243](#), [F21S 43/245](#), [F21S 43/247](#), [F21S 43/249](#), [F21S 43/251](#), [F21S 43/255](#), [F21S 43/26](#) and [F21S 43/27](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/30 . characterised by reflectors

WARNING

Group [F21S 43/30](#) is impacted by reclassification into group [F21S 43/601](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/31 . . Optical layout thereof

WARNING

Group [F21S 43/31](#) is impacted by reclassification into groups [F21S 43/331](#), [F21S 43/601](#) and [F21S 43/332](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/315 . . . {using total internal reflection}

WARNING

Group [F21S 43/315](#) is impacted by reclassification into group [F21S 43/402](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/33 . . characterised by their material, surface treatment or coatings

WARNING

Group [F21S 43/33](#) is impacted by reclassification into groups [F21S 43/332](#) and [F21S 43/331](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/331 . . . {Semi-transparent reflectors}

WARNING

Group [F21S 43/331](#) is incomplete pending reclassification of documents from groups [F21S 43/31](#) and [F21S 43/33](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/332 . . . {Diffusing reflectors}

WARNING

Group [F21S 43/332](#) is incomplete pending reclassification of documents from groups [F21S 43/31](#) and [F21S 43/33](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/37 . . Attachment thereof

WARNING

Group [F21S 43/37](#) is impacted by reclassification into group [F21S 43/601](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/40 . characterised by the combination of reflectors and refractors

WARNING

Group [F21S 43/40](#) is impacted by reclassification into groups [F21S 43/402](#) and [F21S 43/401](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/401 . . {the refractors and the reflectors being distinct parts}

WARNING

Group [F21S 43/401](#) is incomplete pending reclassification of documents from group [F21S 43/40](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/402 . . {Total internal reflection [TIR] collimators}

WARNING

Group [F21S 43/402](#) is incomplete pending reclassification of documents from groups [F21S 43/315](#) and [F21S 43/40](#).

All groups listed in this Warning should be considered in order to perform a complete search.

43/50 . characterised by aesthetic components not otherwise provided for, e.g. decorative trim, partition walls or covers

43/51 . . {Attachment thereof}

WARNING

Group [F21S 43/51](#) is impacted by reclassification into group [F21S 43/601](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- 43/601 . {characterised by variable optical properties, e.g. involving the use of LCD or movable parts}

WARNING

Group [F21S 43/601](#) is incomplete pending reclassification of documents from groups [F21S 43/00](#), [F21S 43/19](#), [F21S 43/195](#), [F21S 43/20](#), [F21S 43/255](#), [F21S 43/26](#), [F21S 43/27](#), [F21S 43/30](#), [F21S 43/31](#), [F21S 43/37](#) and [F21S 43/51](#).

All groups listed in this Warning should be considered in order to perform a complete search.

45/00 Arrangements within vehicle lighting devices specially adapted for vehicle exteriors, for purposes other than emission or distribution of light

- 45/10 . Protection of lighting devices (cooling of lighting devices [F21S 45/40](#); waterproofing of lighting devices [F21S 45/50](#))
- 45/20 . Promoting gas flow in lighting devices, e.g. directing flow toward the cover glass for demisting (ventilation [F21S 45/30](#); forced cooling [F21S 45/42](#))
- 45/30 . Ventilation or drainage of lighting devices
- 45/33 . . specially adapted for headlamps
- 45/37 . . specially adapted for signal lamps
- 45/40 . Cooling of lighting devices
- 45/42 . . Forced cooling
- 45/43 . . . using gas
- 45/435 circulating the gas within a closed system
- 45/46 . . . using liquid
- 45/465 from other vehicle cooling systems, e.g. from air-conditioning or engine cooling systems
- 45/47 . . Passive cooling, e.g. using fins, thermal conductive elements or openings
- 45/48 . . . with means for conducting heat from the inside to the outside of the lighting devices, e.g. with fins on the outer surface of the lighting device
- 45/49 . . Attachment of the cooling means
- 45/50 . Waterproofing
- 45/60 . Heating of lighting devices, e.g. for demisting
- 45/70 . Prevention of harmful light leakage

Indexing code associated with [F21S 43/00](#) relating to manufacturing details of signalling devices specially adapted for vehicle exteriors

2243/00 Manufacturing details of signalling devices specially adapted for vehicle exteriors