

# 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

1. 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.
2. 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.
3. 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.
4. 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

2/00	<b>Systems of lighting devices, not provided for in main groups <a href="#">F21S 4/00</a> - <a href="#">F21S 10/00</a> or <a href="#">F21S 19/00</a>, e.g. of modular construction</b>	6/001	. {candle-shaped}
2/005	. {of modular construction}	6/002	. {Table lamps, e.g. for ambient lighting}
4/00	<b>Lighting devices or systems using a string or strip of light sources</b>	6/003	. . {for task lighting, e.g. for reading or desk work, e.g. angle poise lamps}
4/10	. with light sources attached to loose electric cables, e.g. Christmas tree lights	6/004	. {with a lamp housing in direct contact with the floor or ground}
4/15	. . the cables forming a grid, net or web structure	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}
4/20	. with light sources held by or within elongate supports	6/006	. . {for direct lighting only, e.g. task lighting}
4/22	. . flexible or deformable, e.g. into a curved shape	6/007	. . {for indirect lighting only, e.g. torchiere with reflector bowl directed towards ceiling}
4/24	. . . of ribbon or tape form, e.g. LED tapes	6/008	. . {with a combination of direct and indirect lighting}
4/26	. . . of rope form, e.g. LED lighting ropes, or of tubular form	8/00	<b>Lighting devices intended for fixed installation</b> ( <a href="#">F21S 9/00</a> , <a href="#">F21S 10/00</a> take precedence; using a string or strip of light sources <a href="#">F21S 4/00</a> )
4/28	. . rigid, e.g. LED bars	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 <a href="#">B60Q 1/245</a> )}
6/00	<b>Lighting devices intended to be free-standing</b> ( <a href="#">F21S 9/00</a> , <a href="#">F21S 10/00</a> , { <a href="#">F21S 13/12</a> } take precedence {lighting devices specially adapted to be transported from place to place, e.g. lighting devices carried on wheeled supports <a href="#">F21L</a> ; details of supports for lighting devices <a href="#">F21V 21/00</a> })	8/006	. {Solar simulators, e.g. for testing photovoltaic panels}

8/02	<ul style="list-style-type: none"> <li>of recess-mounted type, e.g. downlighters (specially adapted for vehicle exteriors <a href="#">F21S 41/00-F21S 45/00</a>)</li> </ul>	9/024	<ul style="list-style-type: none"> <li>. . . {using a supplementary light source for emergency lighting}</li> </ul>
8/022	<ul style="list-style-type: none"> <li>. . {intended to be recessed in a floor or like ground surface, e.g. pavement or false floor}</li> </ul>	9/026	<ul style="list-style-type: none"> <li>. . {rechargeable by using wind power, e.g. using wind turbines}</li> </ul>
8/024	<ul style="list-style-type: none"> <li>. . {intended to be recessed in a wall or like vertical structure, e.g. building facade}</li> </ul>	9/028	<ul style="list-style-type: none"> <li>. . {rechargeable by using hydropower, e.g. using water powered turbines}</li> </ul>
8/026	<ul style="list-style-type: none"> <li>. . {intended to be recessed in a ceiling or like overhead structure, e.g. suspended ceiling}</li> </ul>	9/03	<ul style="list-style-type: none"> <li>. . rechargeable by exposure to light</li> </ul>
8/028	<ul style="list-style-type: none"> <li>. . {being retractable, i.e. having two fixed positions, one recessed, e.g. in a wall, floor or ceiling, and one extended when in use}</li> </ul>	9/032	<ul style="list-style-type: none"> <li>. . . {the solar unit being separate from the lighting unit}</li> </ul>
8/03	<ul style="list-style-type: none"> <li>{of surface-mounted type (<a href="#">F21S 8/02</a>, <a href="#">F21S 8/04</a> take precedence; details of wall or floor bases <a href="#">F21V 21/02</a>)}</li> </ul>	9/035	<ul style="list-style-type: none"> <li>. . . {the solar unit being integrated within the support for the lighting unit, e.g. within or on a pole}</li> </ul>
8/031	<ul style="list-style-type: none"> <li>. . {the device consisting essentially only of a light source holder with an exposed light source, e.g. a fluorescent tube}</li> </ul>	9/037	<ul style="list-style-type: none"> <li>. . . {the solar unit and the lighting unit being located within or on the same housing}</li> </ul>
8/032	<ul style="list-style-type: none"> <li>. . {the surface being a floor or like ground surface, e.g. pavement}</li> </ul>	9/04	<ul style="list-style-type: none"> <li>. the power supply being a generator</li> </ul>
8/033	<ul style="list-style-type: none"> <li>. . {the surface being a wall or like vertical structure, e.g. building facade}</li> </ul>	9/043	<ul style="list-style-type: none"> <li>. . {driven by wind power, e.g. by wind turbines}</li> </ul>
8/035	<ul style="list-style-type: none"> <li>. . . {by means of plugging into a wall outlet, e.g. night light}</li> </ul>	9/046	<ul style="list-style-type: none"> <li>. . {driven by hydropower, e.g. by water powered turbines}</li> </ul>
8/036	<ul style="list-style-type: none"> <li>. . . {by means of a rigid support, e.g. bracket or arm}</li> </ul>	<b>10/00</b>	<b>Lighting devices or systems producing a varying lighting effect</b>
8/037	<ul style="list-style-type: none"> <li>. . . {for mounting in a corner, i.e. between adjacent walls or wall and ceiling}</li> </ul>	10/002	<ul style="list-style-type: none"> <li>. {using liquids, e.g. water}</li> </ul>
8/038	<ul style="list-style-type: none"> <li>. . {intended to be mounted on a light track (suspended from a light track <a href="#">F21S 8/066</a>; details of supporting elements displaceable along a guiding element <a href="#">F21V 21/34</a>)}</li> </ul>	10/005	<ul style="list-style-type: none"> <li>. {using light guides (light guides specially adapted for lighting devices <a href="#">G02B 6/0001</a>)}</li> </ul>
8/04	<ul style="list-style-type: none"> <li>. intended only for mounting on a ceiling or the like overhead structures (<a href="#">F21S 8/02</a> takes precedence; {details of ceiling bases <a href="#">F21V 21/03</a>})</li> </ul>	10/007	<ul style="list-style-type: none"> <li>. {using rotating transparent or colored disks, e.g. gobo wheels}</li> </ul>
8/043	<ul style="list-style-type: none"> <li>. . {mounted by means of a rigid support, e.g. bracket or arm}</li> </ul>	10/02	<ul style="list-style-type: none"> <li>. changing colors (<a href="#">F21S 10/002</a> - <a href="#">F21S 10/007</a>, <a href="#">F21S 10/04</a> take precedence)}</li> </ul>
8/046	<ul style="list-style-type: none"> <li>. . {having multiple lighting devices, e.g. connected to a common ceiling base}</li> </ul>	10/023	<ul style="list-style-type: none"> <li>. . {by selectively switching fixed light sources}</li> </ul>
8/06	<ul style="list-style-type: none"> <li>. . by suspension</li> </ul>	10/026	<ul style="list-style-type: none"> <li>. . {by movement of parts, e.g. by movement of reflectors or light sources (<a href="#">F21S 10/007</a> takes precedence)}</li> </ul>
8/061	<ul style="list-style-type: none"> <li>. . . {with a non-rigid pendant, i.e. a cable, wire or chain}</li> </ul>	10/04	<ul style="list-style-type: none"> <li>. simulating flames</li> </ul>
8/063	<ul style="list-style-type: none"> <li>. . . {with a rigid pendant, i.e. a pipe or rod}</li> </ul>	10/043	<ul style="list-style-type: none"> <li>. . {by selectively switching fixed light sources}</li> </ul>
8/065	<ul style="list-style-type: none"> <li>. . . {multi-branched, e.g. a chandelier}</li> </ul>	10/046	<ul style="list-style-type: none"> <li>. . {by movement of parts, e.g. by movement of reflectors or light sources}</li> </ul>
8/066	<ul style="list-style-type: none"> <li>. . . {from a light track (details of supporting elements displaceable along a guiding element <a href="#">F21V 21/34</a>)}</li> </ul>	10/06	<ul style="list-style-type: none"> <li>. flashing, e.g. with rotating reflector or light source ({signalling lighting devices mounted on vehicles <a href="#">B60Q 1/26</a>)}</li> </ul>
8/068	<ul style="list-style-type: none"> <li>. . . {from a stretched wire}</li> </ul>	10/063	<ul style="list-style-type: none"> <li>. . {for providing a rotating light effect}</li> </ul>
8/08	<ul style="list-style-type: none"> <li>. with a standard (<a href="#">F21S 6/00</a> takes precedence)}</li> </ul>	10/066	<ul style="list-style-type: none"> <li>. . . {by selectively switching fixed light sources}</li> </ul>
8/081	<ul style="list-style-type: none"> <li>. . {of low-built type, e.g. landscape light}</li> </ul>	<b>Non-electric lighting</b>	
8/083	<ul style="list-style-type: none"> <li>. . . {of bollard type, i.e. with lighting fixture integrated into the standard or mounted on top of it and having substantially the same diameter}</li> </ul>	<b>11/00</b>	<b>Non-electric lighting devices or systems using daylight</b> {(hybrid lighting devices combining artificial and natural light <a href="#">F21S 19/00</a> ; roofs with sky-light opening <a href="#">E04D 13/03</a> ; sun blinds for windows with means for redirecting light onto ceiling of a room <a href="#">E06B 9/00</a> ; solar heat collectors <a href="#">F24S</a> )}
8/085	<ul style="list-style-type: none"> <li>. . {of high-built type, e.g. street light}</li> </ul>	11/002	<ul style="list-style-type: none"> <li>. {characterised by the means for collecting or concentrating the sunlight, e.g. parabolic reflectors or Fresnel lenses}</li> </ul>
8/086	<ul style="list-style-type: none"> <li>. . . {with lighting device attached sideways of the standard, e.g. for roads and highways}</li> </ul>	11/005	<ul style="list-style-type: none"> <li>. . {with tracking means for following the position of the sun}</li> </ul>
8/088	<ul style="list-style-type: none"> <li>. . . {with lighting device mounted on top of the standard, e.g. for pedestrian zones}</li> </ul>	11/007	<ul style="list-style-type: none"> <li>. {characterised by the means for transmitting light into the interior of a building}</li> </ul>
<b>9/00</b>	<b>Lighting devices with a built-in power supply; Systems employing lighting devices with a built-in power supply</b>	<b>13/00</b>	<b>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</b>
9/02	<ul style="list-style-type: none"> <li>. the power supply being a battery or accumulator</li> </ul>	13/02	<ul style="list-style-type: none"> <li>. Devices intended to be fixed, e.g. ceiling lamp, wall lamp</li> </ul>
9/022	<ul style="list-style-type: none"> <li>. . {Emergency lighting devices}</li> </ul>	13/04	<ul style="list-style-type: none"> <li>. . with a pendant</li> </ul>

13/06	. . . multi-branched, e.g. chandelier
13/08	. . with suspension from a stretched wire
13/10	. . with a standard, e.g. street lamp
13/12	. Devices intended to be free-standing, e.g. table lamp, floor lamp
13/14	. Lighting systems
<b>15/00</b>	<b>Non-electric lighting devices or systems employing light sources not covered by main groups <a href="#">F21S 11/00</a>, <a href="#">F21S 13/00</a> or <a href="#">F21S 19/00</a></b>

<b>19/00</b>	<b>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</b>
19/005	. {Combining sunlight and electric light sources for indoor illumination}

#### **Vehicle lighting devices specially adapted for vehicle exteriors**

<b>41/00</b>	<b>Illuminating devices specially adapted for vehicle exteriors, e.g. headlamps (<a href="#">reversing lights</a> <a href="#">F21S 43/00</a>)</b>
41/10	. characterised by the light source
41/12	. . characterised by the type of emitted light
41/125	. . . Coloured light
41/13	. . . Ultraviolet light; Infrared light
41/135	. . . Polarised
41/14	. . characterised by the type of light source
41/141	. . . Light emitting diodes [LED]
41/143	. . . . the main emission direction of the LED being parallel to the optical axis of the illuminating device
41/145	. . . . . the main emission direction of the LED being opposite to the main emission direction of the illuminating device
41/147	. . . . the main emission direction of the LED being angled to the optical axis of the illuminating device
41/148	. . . . . the main emission direction of the LED being perpendicular to the optical axis
41/151	. . . . arranged in one or more lines
41/153	. . . . . arranged in a matrix
41/155	. . . . Surface emitters, e.g. organic light emitting diodes [OLED]
41/16	. . . Laser light sources
41/162	. . . Incandescent light sources, e.g. filament or halogen lamps
41/164	. . . . having two or more filaments
41/166	. . . . characterised by the shape of the filament
41/168	. . . . having a filament arranged transversally to the optical axis of the illuminating device
41/17	. . . Discharge light sources
41/172	. . . . High-intensity discharge light sources
41/173	. . . . Fluorescent light sources
41/176	. . . Light sources where the light is generated by photoluminescent material spaced from a primary light generating element
41/18	. . . {Combination of light sources of different types or shapes}

41/19	. . Attachment of light sources or lamp holders ( <a href="#">achieving variable light distribution by movable light sources</a> <a href="#">F21S 41/657</a> )
41/192	. . . {Details of lamp holders, terminals or connectors}
41/194	. . . {Bayonet attachments}
41/196	. . . {Wire spring attachments}
41/198	. . . {Snap-fit attachments}
41/20	. characterised by refractors, transparent cover plates, light guides or filters
41/24	. . Light guides
41/25	. . Projection lenses
41/255	. . . Lenses with a front view of circular or truncated circular outline
41/26	. . . Elongated lenses
41/265	. . . Composite lenses; Lenses with a patch-like shape
41/27	. . . Thick lenses
41/275	. . . Lens surfaces, e.g. coatings or surface structures
41/28	. . {Cover glass}
(Frozen)	<b>WARNING</b>

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

41/2805	. . {Cover glass}
	<b>WARNING</b>
	Group <a href="#">F21S 41/2805</a> is incomplete pending reclassification of documents from group <a href="#">F21S 41/28</a> . All groups listed in this Warning should be considered in order to perform a complete search.
41/285	. . {Refractors, transparent cover plates, light guides or filters not provided in groups <a href="#">F21S 41/24</a> - <a href="#">F21S 41/2805</a> }
41/29	. . Attachment thereof ( <a href="#">for achieving variable light distribution</a> <a href="#">F21S 41/63</a> )
41/295	. . . {specially adapted to projection lenses}
41/30	. characterised by reflectors
41/32	. . Optical layout thereof
41/321	. . . {the reflector being a surface of revolution or a planar surface, e.g. truncated}
41/322	. . . {the reflector using total internal reflection}
41/323	. . . {the reflector having two perpendicular cross sections having regular geometrical curves of a distinct nature}
41/33	. . . Multi-surface reflectors, e.g. reflectors with facets or reflectors with portions of different curvature
41/331	. . . . {the reflector consisting of complete annular areas}
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](#))
- 41/40 . 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 43/2811](#), [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 codes associated with groups [F21S 13/00](#) or [F21S 15/00](#) relating to details**

**2217/00****Details**

2217/02

- . Fastening or lifting of lamp glass

**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**