

CPC COOPERATIVE PATENT CLASSIFICATION

F21S NON-PORTABLE LIGHTING DEVICES; SYSTEMS THEREOF

NOTES

1. This subclass covers devices or systems intended for fixed installation, e.g. vehicle lighting, or for use at a permanent location, e.g. free-standing floor- or table-lamps.
2. This subclass does not cover devices or systems specially adapted for transportation, which are covered by subclass [F21L](#).
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.

Electric lighting

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

WARNING

Group [F21S 2/00](#) is impacted by reclassification into groups [F21K 9/00](#), [F21K 9/20](#), [F21K 9/23](#), [F21K 9/232](#), [F21K 9/233](#), [F21K 9/235](#), [F21K 9/237](#), [F21K 9/238](#), [F21K 9/27](#), [F21K 9/272](#), [F21K 9/275](#), [F21K 9/278](#), [F21K 9/60](#), [F21K 9/61](#), [F21K 9/62](#), [F21K 9/64](#), [F21K 9/65](#), [F21K 9/66](#), [F21K 9/68](#), [F21K 9/69](#) and [F21K 9/90](#).

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

2/005 . {of modular construction}

4/00 Lighting devices or systems using a string or strip of light sources

4/10 . with light sources attached to loose electric cables, e.g. Christmas tree lights

4/15 . . the cables forming a grid, net or web structure

4/20 . with light sources held by or within elongate supports

4/22 . . flexible or deformable, e.g. into a curved shape

4/24 . . . of ribbon or tape form, e.g. LED tapes

4/26 . . . of rope form, e.g. LED lighting ropes, or of tubular form

4/28 . . rigid, e.g. LED bars

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](#)}

6/001 . {being candle-shaped (with varying lighting effect of simulating flames [F21S 10/04](#); string of light sources [F21S 4/00](#))}

6/002 . {Table lamps, e.g. for ambient lighting}

6/003 . . {for task lighting, e.g. for reading or desk work, e.g. angle poise lamps}

6/004 . {with a lamp housing in direct contact with the floor or ground}

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}

6/006 . . {for direct lighting only, e.g. task lighting}

6/007 . . {for indirect lighting only, e.g. torchiere with reflector bowl directed towards ceiling}

6/008 . . {with a combination of direct and indirect lighting}

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](#))

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 1/24](#))}

8/006 . {Solar simulators, e.g. for testing photovoltaic panels}

8/02 . of recess-mounted type, e.g. downlighters ([F21S 8/10](#) takes precedence; {details of recessed bases [F21V 21/04](#)})

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}
- 8/10 . . . specially adapted for vehicles

WARNING

This group is no longer used for the classification of new documents as from January 1st, 2012. The backlog of this group is being continuously reclassified to [F21S 48/00](#) and subgroups

- 8/12 . . . providing single shaped beams or asymmetric beams, e.g. for penetrating fog or for preventing glare

WARNING

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- 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 ([F21W 2121/02](#) takes precedence)}

- 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** {(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](#); hybrid lighting devices combining artificial and natural light [F21S 19/00](#); solar heat collectors [F24J 2/00](#); solar cells or solar cell modules [H01L 31/00](#))}
- 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**
 - 13/02 . . . Devices intended to be fixed, e.g. ceiling lamp, wall lamp
 - 13/04 . . . with a pendant
 - 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
- 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](#)

2017/00 Details solely applicable to the devices covered by groups [F21S 13/00](#) and [F21S 15/00](#)

2017/02 . . . Fastening and lifting of the lamp-glass

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**

19/005	. {Combining sunlight and electric light sources for indoor illumination}	48/1291	. . . . . {Thick lenses for providing the final automotive light distribution}
48/00	{Lighting devices or systems specially adapted for vehicles (arrangements or adaptations for ships or waterborne vessels B63B 45/00)}	48/13	. . {characterised by reflectors}
48/10	. {Headlamps}	48/1305	. . . {Attachment of reflectors (F21S 48/1757 takes precedence)}
48/11	. . {characterised by the light source}	48/1311	. . . . {specially adapted to extension reflectors}
48/1104	. . . {Attachment of light sources; Lamp holders; Terminals or connectors therefor (F21S 48/1742 takes precedence)}	48/1317	. . . {Optical design}
48/1109	. . . . {Details of lamp holders, terminals or connectors (mounting of a ballast for a high intensity discharge lamp on the housing wall of a headlamp B60Q)}	48/1323	. . . . {the reflector being a surface of revolution or a planar surface, e.g. truncated}
48/1113	. . . . {Bayonet attachments}	48/1329	. . . . {the reflector using total internal reflection}
48/1118	. . . . {Wire spring attachments}	48/1335	. . . . {the reflector having two perpendicular cross sections having regular geometrical curves of a distinct nature}
48/1122	. . . . {Snap-fit attachments}	48/1341	. . . . {the reflector consisting of complete annular areas}
48/1127	. . . {Type of emitted light}	48/1347	. . . . . {with continuity at the junction between adjacent areas}
48/1131	. . . . {Colored light}	48/1352	. . . . . {with discontinuity at the junction between adjacent areas}
48/1136	. . . . {Ultraviolet [UV] or infrared [IR] light}	48/1358	. . . . {the reflector consisting of patch like sectors}
48/114	. . . . {Polarized light}	48/1364	. . . . . {with continuity at the junction between adjacent areas}
48/1145	. . . {Type of light source}	48/137	. . . . . {with discontinuity at the junction between adjacent areas}
48/115	. . . . {Light emitting diodes (LEDs)}	48/1376	. . . . {the reflector having a structured surface, e.g. with facets or corrugations}
48/1154	. . . . . {the main emission direction of the LED being parallel to the optical axis of the headlamp}	48/1382	. . . . {the reflector having surface portions added to its general concavity}
48/1159	. . . . . {the main emission direction of the LED being angled to the optical axis of the headlamp}	48/1388	. . . . {Combination of two or more reflectors}
48/1163	. . . . . {Surface emitters, e.g. OLEDs}	48/1394	. . . {Material, surface treatment or coating of the reflector}
48/1168	. . . . {Incandescent light sources, e.g. filament or halogen lamps}	48/14	. . {characterised by screens, non-reflecting members, light-shielding members or fixed shades}
48/1172	. . . . . {having two or more filaments}	48/142	. . . {Attachment thereof (F21S 48/1768 takes precedence)}
48/1177	. . . . . {characterised by the shape of the filament}	48/145	. . . {Details of the shape of screens, non-reflecting members, light-shielding members or fixed shades}
48/1181	. . . . . {having a filament being arranged transversally to the optical axis of the headlamp}	48/147	. . . . {Hoods or cap-shaped}
48/1186	. . . . {High intensity discharge [HID] light source}	48/15	. . {characterised by aesthetical components or components other than light sources, reflectors, refractors or screens, e.g. partition walls, covers, decorative trims}
48/119	. . . . {Fluorescent, elongated light source}	48/155	. . . {Attachment thereof}
48/1195	. . . . {Combination of light sources of different types or shapes}	48/17	. . {characterised by a variable light distribution}
48/12	. . {characterised by refractors, transparent cover plates or filters}	48/1705	. . . {Light distributions being switched}
48/1208	. . . {Attachment of refractors, transparent cover plates or filters (F21S 48/1721 takes precedence)}	48/171	. . . . {between right and left traffic side}
48/1216	. . . . {specially adapted to projection lenses}	48/1715	. . . {by acting on refractors, filters or transparent cover plates}
48/1225	. . . {Type of refractor, transparent cover plates or filters}	48/1721	. . . . {by moving refractors, filters or transparent cover plates}
48/1233	. . . . {Cover glass}	48/1726	. . . . {by changing the light transmissivity of the refractors, filters or transparent cover plates}
48/1241	. . . . {Light guides (light guides per se G02B 6/0001)}	48/1731	. . . . . {by electro-optic means, e.g. liquid crystal or electrochromic devices}
48/125	. . . . {Projection lenses}	48/1736	. . . {by acting on light sources}
48/1258	. . . . . {Lenses with a circular or truncated circular outline, when seen from the front}	48/1742	. . . . {by moving light sources}
48/1266	. . . . . {Elongated lenses}	48/1747	. . . . {by switching light sources (F21S 48/1168 takes precedence)}
48/1275	. . . . . {Composite lenses; Lenses with a patch like shape}	48/1752	. . . {by acting on reflectors}
48/1283	. . . . . {Lens surfaces, e.g. coatings, surface structures}	48/1757	. . . . {by moving reflectors}
		48/1763	. . . {by acting on screens}

48/1768	. . . . {by moving screens}	48/25	. . {characterised by aesthetical components or components other than light sources, reflectors, refractors, e.g. partition walls, covers or decorative trims}
48/1773	. . . . {Blades, i.e. screens moving in a vertical plane}	48/255	. . . {Attachment thereof}
48/1778	. . . . {Flaps, i.e. screens pivoting around one of its edges}	48/30	. {Arrangements dedicated to purposes other than light emission or distribution}
48/1784	. . . . {Shields, i.e. screens not creating an image meant to be projected, e.g. shielding a part of the light source or a part of an additional optical element}	48/31	. . {Protection of the lighting devices}
48/1789	. . . . {Rotating screens, i.e. screens rotating around a vertical axis}	48/32	. . {Cooling of the lighting devices}
48/1794	. . . . {Shafts, i.e. screens being a rotating shaft}	48/321	. . . {Attachment of the means for cooling; Cooling arrangements}
48/20	. {Signal lamps, e.g. brake lamps or turn signal lamps}	48/323	. . . {Forced cooling}
48/21	. . {characterised by the light source}	48/325	. . . . {using air or other gas}
48/211	. . . {Attachment of light sources; Lamp holders, terminals or connectors therefor}	48/326	. . . . {using liquid}
48/212	. . . . {Details of lamp holders, terminals or connectors}	48/328	. . . {Passive cooling}
48/214	. . . {Type of the light source}	48/33	. . {Waterproofing}
48/215	. . . . {Light emitting diodes (LEDs)}	48/332	. . . {Provisions for ventilation or drainage}
48/217	. . . . {Surface emitters, e.g. OLEDs}	48/335	. . . . {specifically adapted for headlamps}
48/218	. . . . {Strips of light sources}	48/337	. . . . {specifically adapted for signal lamps}
48/22	. . {characterised by refractors, filters or transparent cover plates}	48/34	. . {Heating of the lighting devices, e.g. for de-fogging}
48/2206	. . . {Attachment thereof}		
48/2212	. . . {Type of refractors, filters or transparent cover plates}		
48/2218	. . . . {Filters}		
48/2225	. . . . {Light guides (light guides per se G02B 6/0001)}		
48/2231	. . . . . {characterised by the shape of the light guide}		
48/2237	. . . . . {Bar or rod-like light guides}		
48/2243	. . . . . {Plate-like light guides}		
48/225	. . . . . {Light guides of complex shape or comprising a portion having a complex shape}		
NOTE			
additional classification should be given in the groups characterising the shape of the light guides			
48/2256	. . . . . {characterised by the emission area}		
48/2262	. . . . . {the light guide emitting on its extremity}		
48/2268	. . . . . {the light guide emitting on its surface}		
48/2275	. . . . . {characterised by the number of light sources coupled into the light guide}		
48/2281	. . . . . {Multiple light sources}		
48/2287	. . . . . {Single light source}		
48/2293	. . . . . {the light guide being used to transport light from a remote light source, e.g. from light generators}		
48/23	. . {characterised by reflectors}		
48/232	. . . {Attachment thereof}		
48/234	. . . {Optical design thereof}		
48/236	. . . . {using total internal reflection}		
48/238	. . . {Materials thereof, e.g. coatings}		
48/24	. . {characterised by the combination of reflectors and refractors}		