

CPC COOPERATIVE PATENT CLASSIFICATION

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

LIGHTING; HEATING

F21 LIGHTING (electric aspects or elements, [see](#) section [H](#), e.g. electric light sources [H01J](#), [H01K](#), [H05B](#)) (NOTE omitted)

F21K LIGHT SOURCES NOT OTHERWISE PROVIDED FOR NOTE

In this subclass, it is desirable to add the indexing codes of subclasses [F21W](#) and [F21Y](#).

WARNING

The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:

F21K 5/04	covered by	G03B 15/0457 ;
F21K 5/06	covered by	G03B 15/0442 ;
F21K 5/08	covered by	F21K 5/02 , G03B 15/0442 ;
F21K 5/10	covered by	G03B 15/0442 ;
F21K 5/12	covered by	F21K 5/023 ;
F21K 5/14	covered by	F21K 5/026 , G03B 15/0489 ;
F21K 5/16	covered by	G03B 15/0452 ;
F21K 5/18	covered by	G03B 15/0452 ;
F21K 5/20	covered by	G03B 15/0447 ;
F21K 5/22	covered by	G03B 15/0442 .

- 2/00** **Light sources using luminescence** (light sources using a charge of combustible material [F21K 5/00](#))
- 2/005 . {excited by infra-red radiation using up-conversion}
- 2/04 . using triboluminescence; using thermoluminescence
- 2/06 . using chemiluminescence
- 2/08 . . activated by an electric field, i.e. electrochemiluminescence
- 5/00** **Light sources using a charge of combustible material, e.g. illuminating flash devices**
- 5/02 . {ignited in a non-disrupting container, e.g. photo-flash bulb}
- 5/023 . . {Ignition devices in photo flash bulbs}
- 5/026 . . . {using mechanical firing, e.g. percussion of a fulminating charge}
- 9/00** **Light sources using semiconductor devices as light-generating elements, e.g. using light-emitting diodes [LED] or lasers**

NOTES

- In this group, the following expressions are used with the meaning indicated:
 - "light source" means a light-generating component intended for installation in a fitting or holder incorporated in a lighting device;
 - "retrofit light source" means a light source comprising substantially the same attachment means as those of incandescent lamps or fluorescent lamps. "Retrofit light sources" are specially adapted for replacing or substituting such lamps.

- Semiconductor devices [per se](#), or assemblies thereof, specially adapted for light emission, e.g. for use in light sources (in the sense of Note (1)) are covered by subclass [H01L](#), e.g. [H01L 33/00](#) or [H01L 51/50](#), or by subclass [H01S](#).
- Lighting devices or systems in which light sources are used are covered by subclasses [F21L](#) or [F21S](#).
- When classifying in this group, classification is also made in subclass [F21V](#) if detail aspects covered by that subclass are of interest.

WARNINGS

- Group [F21K 9/00](#) is incomplete pending reclassification of documents from groups [F21K 99/00](#), [F21V 19/042](#), [F21V 19/045](#), [F21S 2/00](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- Group [F21K 9/00](#) is impacted by reclassification into groups [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](#), [F21K 9/90](#) and [F21K 99/00](#).
All groups listed in this Warning should be considered in order to perform a complete search.

- 9/20 . Light sources comprising attachment means
- WARNINGS**
1. Group [F21K 9/20](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).
All groups listed in this Warning should be considered in order to perform a complete search.
 2. Group [F21K 9/20](#) is impacted by reclassification into groups [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](#) and [F21K 9/278](#).
All groups listed in this Warning should be considered in order to perform a complete search..
- 9/23 . . Retrofit light sources for lighting devices with a single fitting for each light source, e.g. for substitution of incandescent lamps with bayonet or threaded fittings
- WARNINGS**
1. Group [F21K 9/23](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/20](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).
All groups listed in this Warning should be considered in order to perform a complete search..
 2. Group [F21K 9/23](#) is impacted by reclassification into [F21K 9/235](#), [F21K 9/237](#) and [F21K 9/238](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- 9/232 . . . specially adapted for generating an essentially omnidirectional light distribution, e.g. with a glass bulb
- WARNING**
- Group [F21K 9/232](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/20](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- 9/233 . . . specially adapted for generating a spot light distribution, e.g. for substitution of reflector lamps
- WARNING**
- Group [F21K 9/233](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/20](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- 9/235 . . . Details of bases or caps, i.e. the parts that connect the light source to a fitting; Arrangement of components within bases or caps ([F21K 9/238](#) takes precedence)
- WARNING**
- Group [F21K 9/235](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/20](#), [F21K 9/23](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- 9/237 . . . Details of housings or cases, i.e. the parts between the light-generating element and the bases; Arrangement of components within housings or cases ([F21K 9/238](#) takes precedence)
- WARNING**
- Group [F21K 9/237](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/20](#), [F21K 9/23](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- 9/238 . . . Arrangement or mounting of circuit elements integrated in the light source
- WARNING**
- Group [F21K 9/238](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/20](#), [F21K 9/23](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#), [F21V 19/045](#), [F21V 23/003](#), [F21V 23/004](#), [F21V 23/005](#) and [F21V 23/006](#).
All groups listed in this Warning should be considered in order to perform a complete search.
- 9/27 . . Retrofit light sources for lighting devices with two fittings for each light source, e.g. for substitution of fluorescent tubes
- WARNINGS**
1. Group [F21K 9/27](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/20](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#), [F21V 19/045](#).
All groups listed in this Warning should be considered in order to perform a complete search.
 2. Group [F21K 9/27](#) is impacted by reclassification into groups [F21K 9/272](#), [F21K 9/275](#) and [F21K 9/278](#).
All groups listed in this Warning should be considered in order to perform a complete search.

- 9/272 . . . Details of end parts, i.e. the parts that connect the light source to a fitting; Arrangement of components within end parts ([F21K 9/278](#) takes precedence)

WARNING

Group [F21K 9/272](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/20](#), [F21K 9/27](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).

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

- 9/275 . . . Details of bases or housings, i.e. the parts between the light-generating element and the end caps; Arrangement of components within bases or housings ([F21K 9/278](#) takes precedence)

WARNING

Group [F21K 9/275](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/20](#), [F21K 9/27](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).

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

- 9/278 . . . Arrangement or mounting of circuit elements integrated in the light source

WARNING

Group [F21K 9/278](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/20](#), [F21K 9/27](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#), [F21V 19/045](#), [F21V 23/003](#), [F21V 23/004](#), [F21V 23/005](#) and [F21V 23/006](#).

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

- 9/60 . . . Optical arrangements integrated in the light source, e.g. for improving the colour rendering index or the light extraction

WARNINGS

1. Group [F21K 9/60](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).
All groups listed in this Warning should be considered in order to perform a complete search.
2. Group [F21K 9/60](#) is impacted by reclassification into groups [F21K 9/66](#), [F21K 9/68](#) and [F21K 9/69](#).

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

- 9/61 . . . using light guides

WARNING

Group [F21K 9/61](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).

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

- 9/62 . . . using mixing chambers, e.g. housings with reflective walls

WARNING

Group [F21K 9/62](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).

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

- 9/64 . . . using wavelength conversion means distinct or spaced from the light-generating element, e.g. a remote phosphor layer

WARNING

Group [F21K 9/64](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).

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

- 9/65 . . . specially adapted for changing the characteristics or the distribution of the light, e.g. by adjustment of parts

WARNING

Group [F21K 9/65](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).

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

- 9/66 . . . Details of globes or covers forming part of the light source

WARNING

Group [F21K 9/66](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/60](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).

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

- 9/68 . . Details of reflectors forming part of the light source

WARNING

Group [F21K 9/68](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/60](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).

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

- 9/69 . . Details of refractors forming part of the light source

WARNING

Group [F21K 9/69](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 9/60](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).

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

- 9/90 . Methods of manufacture

WARNING

Group [F21K 9/90](#) is incomplete pending reclassification of documents from groups [F21K 9/00](#), [F21K 99/00](#), [F21S 2/00](#), [F21V 19/042](#) and [F21V 19/045](#).

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

- 99/00 Subject matter not provided for in other groups of this subclass**

WARNINGS

1. Group [F21K 99/00](#) is incomplete pending reclassification of documents from groups [F21V 19/042](#) and [F21V 19/045](#).
All groups listed in this Warning should be considered in order to perform a complete search.
2. Group [F21K 99/00](#) 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.

- 2099/005 . {Other light sources comprising light emitting diodes associated with conversion means}