

CASESTUDY

BY MINILAMPE

**CUSTOM-MADE
LIGHTING
SOLUTIONS
PLUG & PLAY
SOLUTIONS**

RAILWAYS

**GBF LED LAMP
SNCF - DEUTSCHE BAHN**

**TRAIN INTERIOR
OUTFITTING**



**UPGRADING
RENOVATION
SOLUTION
TO OBSOLESCENCE**



THE REQUIREMENT

Make the trains more pleasant and improve the passengers' comfort are today Railway operators' aims. Technological transition to LED in train interior outfitting is one of the considered solutions in innovation and reliability of equipment in order to improve passenger ambience and meet the requirement in energy consumption reduction for the environment.

For this, SNCF and DEUTSCHE BAHN Engineers, among others, intended to replace the existing lighting in cars by LED technology. Priority was the replacement of the GBF halogen lamps ALUine PRO type 6435 12V 20W 32° further to the discontinued production by PHILIPS.

ISSUE.

■ To support SNCF and DEUTSCHE BAHN technical teams in this technological transition project by offering a plug & play custom-made lighting solution.

THE SOLUTION

With its Research & Development Department, its production unit and its laboratory located in France, MINILAMPE is an historical manufacturer of the Railways sector. MINILAMPE is recognized for its capability to provide custom-made solutions in technological evolutions of the new lighting systems for train interior outfitting.

MINILAMPE offers you 3 certified Railway solutions. The first one has been chosen by SNCF and DEUTSCHE BAHN.

1. MINILAMPE has designed the EN50155 certified Railway LED lamp to replace the GBF halogen lamp according to the customers' specifications (Plug & Play).
2. MINILAMPE can manufacture and re-industrialize the original halogen lamp from PHILIPS.
3. MINILAMPE can design a complete LED lighting system that will fit within the existing space of the halogen lamp.

THE RESULT

- **Solution to obsolescence.** Replacement of the obsolete lighting (GBF halogen lamp PHILIPS type 6435) without any modification of the existing installation and equipment.
- **Reduction of maintenance costs.** Life is 30 000 hrs for the LED lamp compared to 2000 hrs for the halogen lamp.

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