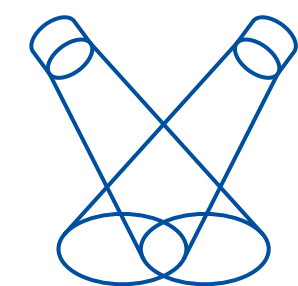




# LES DIVISION





**01. GROUP PROFILE**

**02. LES DIVISION**

**03. DIMMING SYSTEMS**

**04. DRIVERS AND  
POWER SUPPLY UNITS**

**05. LIGHTING SYSTEMS**

**06. LOCAL ENTERTAINMENT  
SYSTEMS**

**07. ALT**

**08. RELAMPING PROJECTS**

**09. REFERENCE LISTS**

An exceptional capacity to diversify the products, adapting them promptly to the ever-changing demands of the market, has made Navim Group a unique company, leader in the design and production of sophisticated and cutting-edge equipment, consistently present in all the segments of the naval sectors.

With **250 employees, 3 production units, 9 world branch offices, more than 160 engineers** and highly qualified technicians of all disciplines, Navim Group is one of the major engineering forces dedicated to the design of naval systems.



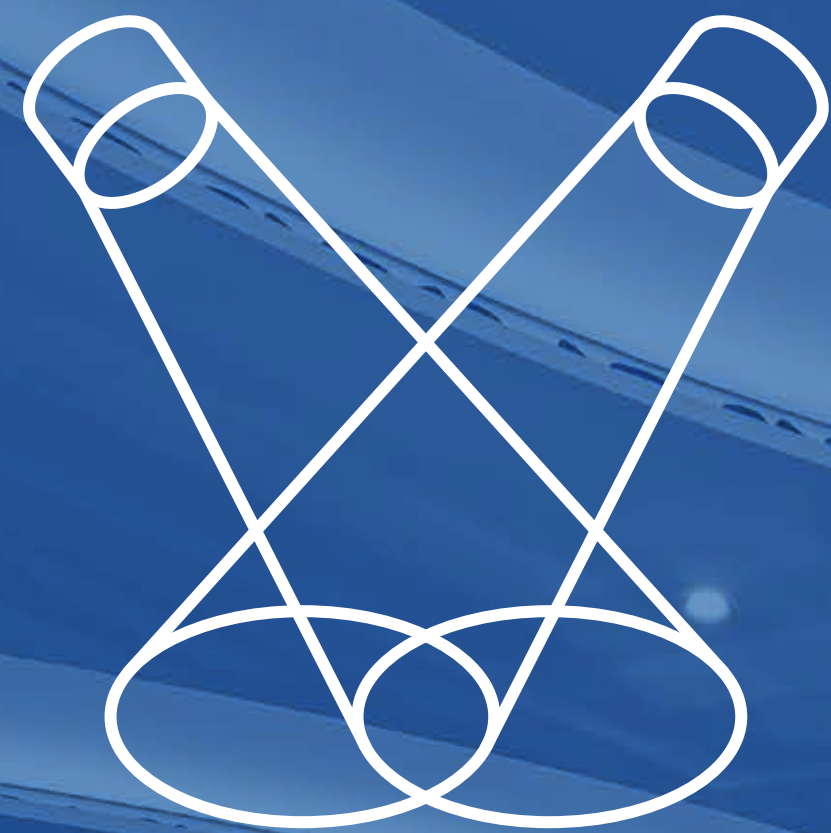




Our design centers, supported by 60 3D/Autocad workstations with the most sophisticated software packages, allow the **full control of any project**, from the system design to the commissioning, and provide advanced solutions for any projects.







# **Light & Sound**

by Navim Group



In 2007 Navim Group expanded its traditional business incorporating the Italian company Light & Sound SpA, at that time one of the major European companies in the field of lighting and light control systems on board cruise ships.

The specialized **LES Division is able to offer a full range of products**, ranging from dimming up to any kind of lighting and entertainment systems.



LES Division provides "turn key" contracts or simpler projects, designs and materials as well as specialized technicians for supervising and commissioning activities.





The dimming system allows to control the light level of several different types of light sources, in order to achieve a number of specific lighting scenes, suited to the need of hotel managers and lighting designers.

Navalimpianti, being a Helvar certified partner, is able to offer a **full range of solutions for any application**, from simple cabins system with local control up to a massive centralized system with up to 1024 channels and more than 1000 different scenes.



Our dimming systems can be designed to fulfill any requirements, allowing the ship's staff to operate the whole system from a centralized master station, to control each single room from local control panels or any other combination of both solutions.





Integrating our lighting control system, we propose a very comprehensive range of drivers and power supply units fully compatible with our dimmers and easily integrated to any lighting fixtures, providing very stable, flicker-free performances even at very low dimming level.

Our range of production includes drivers suitable for any light sources and are always accompanied by compatibility certificates stating the performance of the dimmer/driver/light source combination.







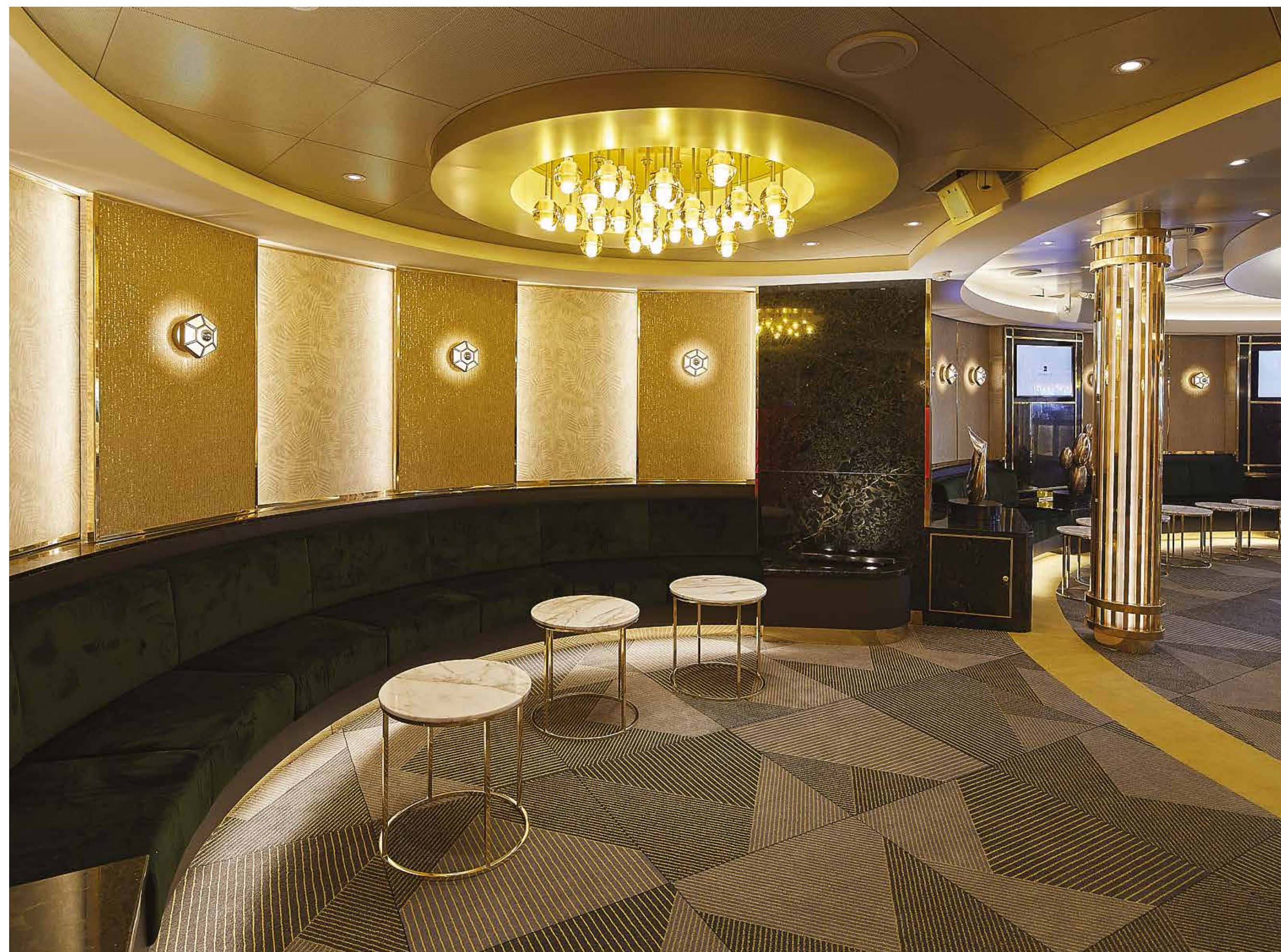


Lighting Systems on board modern cruise Vessels assume a key role in providing guests and passengers with comfort, amusement and now, much more than in the past, entertainment.

For this reason, to achieve the required scenic effects, it is very often necessary to integrate in the same package **many different technologies, including sophisticated, computer controlled, RGB-RGBW led systems.**



With its long experience in the field, Navim LES Division is able to provide the perfect platform to integrate huge numbers of lights into a full integrated lighting control system and interfaced with the ship entertainment equipment. **Imagination is the only limit**







Navim LES division is proficient into the design, supply and installation of Local Entertainment Systems of any size and complexity.



The latest video, sound and communication technologies are mastered by our technical team providing the most advanced infotainment solutions in order to enhance the passengers experience on board.





Thanks to the use of the most modern video-on-demand systems, LED video walls, 3D video projections, laser lighting effects and full video and sound signals management, Navim LES Division has the right solution for any need.

Since it is our policy to design fully upgradable systems, our engineers are able, even many years after delivery from the first installation, to update old systems implementing the latest available hardware and technologies without major modifications to the existing infrastructures.





Advanced Lighting Technologies  
by Navim Group



Navim Group has been a forerunner in the introduction of LED technology on board cruise ships, designing and manufacturing the first fully dimmable LED light fixtures back in 2007.

**ALT is our new brand of LED fixtures specifically designed for marine application.**



Our family of LED fixtures and downlights has been designed to be fully interchangeable with standard halogen lights. Our standard Helvar dimming racks are fully compatible with ALT products portfolio.







Together with a **wide range of spotlights and ceiling lights** both for public areas and passenger cabins installation, in the past months we had the opportunity to develop, in cooperation with an Italian specialist of UV-C technology, also a range of light-fittings for the sanitizing on board cruise ships, using both LED and low pressure tubes technology.



The very long experience in the new-building field has been recently transferred to the refitting and upgrading of ships in operation. A specific know-how is especially important, nowadays, for the correct integration of all the components of any relighting projects that foresees the transition from traditional light sources to the LED technology.





For a successful relighting it is fundamental to perform an accurate survey on board in order to gather all the information needed for a correct installation because no LED relighting can be considered a true “plug&play”.

Critical points of any project are:

- Assessment of dimmers and control systems installed on board
- Assessment of transformers and / or drivers and, eventually, selection of suitable replacement
- Selection of appropriate LED lamps







### Helvar Dimming System – Light & Sound Company

- Carnival Destiny \*
- Dawn Princess
- Rotterdam \*
- Grand Princess \*
- Sea Princess
- Carnival Triumph
- Volendam
- Golden Princess
- Star Princess
- Carnival Conquest
- Carnival Glory
- Caribbean Princess
- Zuiderdam
- Westerdam
- Noordam
- Carnival Valor

*\* In co-operation with AEG*



### Helvar Dimming System - Navim Group

- Queen Victoria
- Ventura
- Carnival Splendor
- Finlady
- Costa Concordia
- Costa Serena
- Nord Link
- Ventura
- Eurodam
- Costa Classica
- Costa Pacifica
- Ruby Princess
- Carnival Victory
- Carnival Dream
- Azura
- Carnival Magic
- Costa Luminosa
- Costa Deliziosa
- Seabourn Odyssey
- Beatrix
- Nieuw Amsterdam
- Oceania Marina
- Queen Elizabeth
- Costa Favolosa
- Costa Fascinosa
- Le Boreal
- L'Austral
- Seabourn Sojourn
- Seabourn Quest
- Carnival Breeze
- Oceania Riviera
- Sun Princess
- Royal Princess
- Regal Princess
- Le Soleal
- Britannia
- Costa Diadema
- Koningsdam
- Carnival Vista
- Seven Seas Explorer
- Silver Muse
- Majestic Princess
- Carnival Horizon
- Nieuw Stantendam
- Seabourne Encore
- MSC Seaside
- MSC Seaview
- Seabourn Ovation
- Sky Princess
- Costa Venezia
- Carnival Panorama
- Costa Firenze
- Enchanted Princess
- Scenic Eclipse
- Silver Moon
- Seven Seas Splendor
- MSC Seashore
- FC 6280
- FC 6290
- FC 6307



### Relamping projects

- Emerald Princess
- Ruby Princess
- Pacific Princess
- Zuiderdam
- Oosterdam
- Noordam
- Eurodam
- Ryndam
- Zaandam
- Volendam
- Amsterdam
- Carnival Sensation
- Carnival Fascination
- Carnival Paradise
- Carnival Miracle
- Carnival Victory
- Carnival Spirit
- Carnival Inspiration
- Carnival Fantasy
- Carnival Magic
- Carnival Splendor
- Carnival Triumph
- Carnival Valor
- Carnival Sunshine
- Carnival Liberty
- Carnival Imagination
- Carnival Elation
- Queen Victoria
- Azura
- Virgo Star
- Star Breeze
- Star Legend







**[www.navim.com](http://www.navim.com)**