



Enhancing guest safety and confidence with **UV-C disinfection**

Solutions for Cruise Ships & Luxury Hospitality Experiences

Guests and crew deserve the best possible protection against COVID-19, Norovirus, and other easily transmitted viruses.

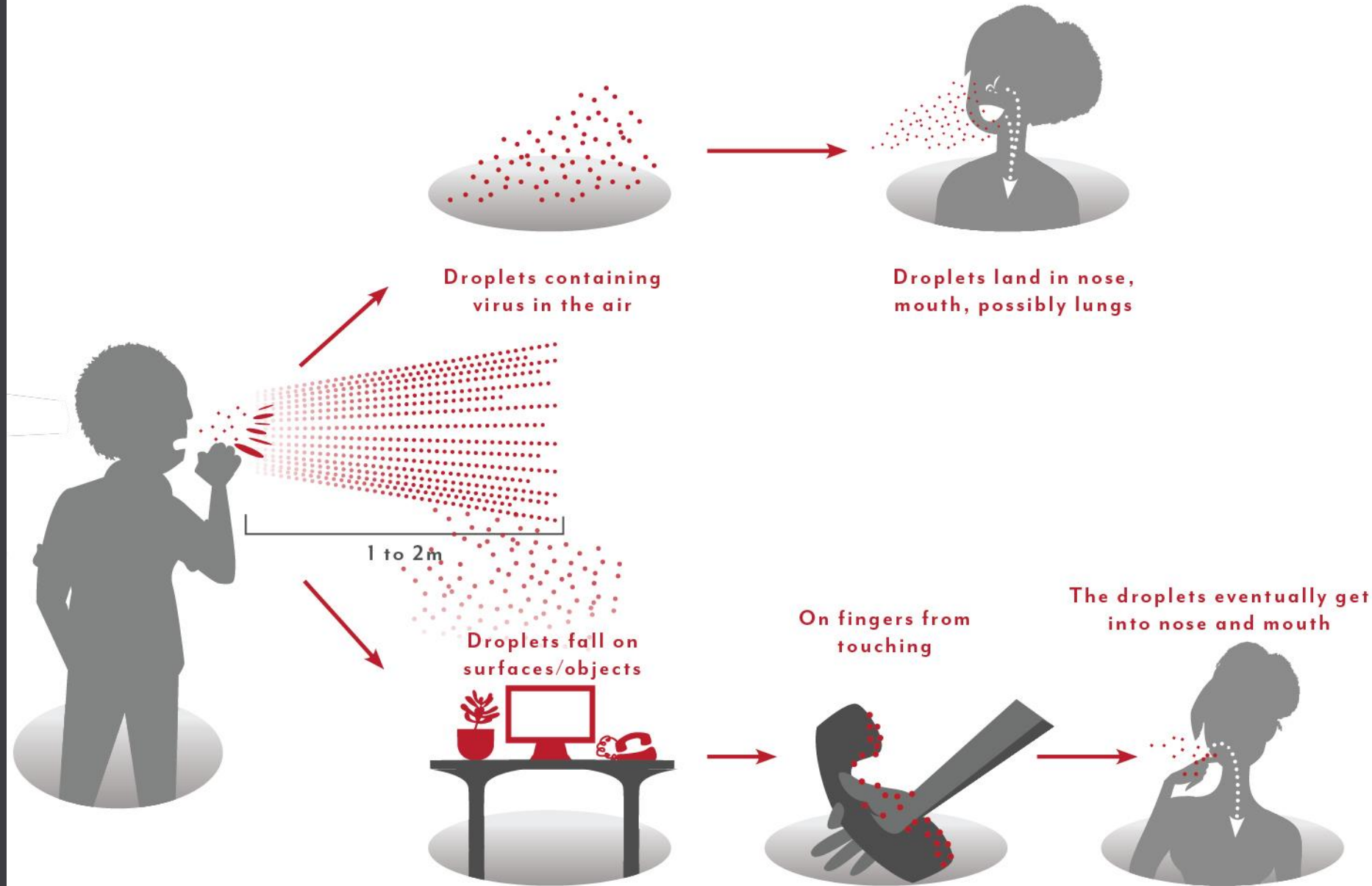
Ensuring a safe trip is crucial to the reputation of your business and vital for the health and well-being of everyone on board.



Century Ship Service Crew

Virus transmission occurs through:

1. Direct air-borne transmission between people
2. Indirect air-borne transmission through air flows
3. Indirect surface-borne transmission via contaminated surfaces





Signify and Boston university
have validated the effectiveness
of our light sources on inactivating
the virus that caused COVID-19.

In laboratory testing, our UV-C
light sources inactivated 99% of
SARS-CoV-2 virus on a surface with
an exposure time of 6 seconds.¹

1. Data made available to us by the National Emerging Infectious Diseases Laboratories (NEIDL) at Boston University (to be the subject of a forthcoming scientific publication) shows that Signify's UV-C light sources irradiating the surface of a material inoculated with SARS-CoV-2 (the virus that causes the COVID-19 disease) resulted in a 99% reduction of the SARS-CoV-2 virus at a UV-C dose of 5mJ/cm² (exposure time 6 seconds). Research variables are available upon request.



With an average age of
cruise ship guests of 48,
and on longer trips above
55, precautions are
warranted



In January 2022, all 92
cruise ships in US waters
have reported coronavirus
and are under CDC
investigation

Almost all cruise liners
have implemented
additional health and
safety protocols to deal
with the pandemic

Signify and Century Ship
Service are partnering to
design, engineer, supply,
install and commission
UV-C for you

Solutions for your Cruise Ships

Restaurants
& Bars

Comedy &
Theatre

Lobbies &
Common
Areas







Leisure &
Facilities

Cabins &
Suites

Crew
operations



Cruise Ship Application Areas

						
	Accommodation	Connecting areas	Public spaces	Supplies and loading	Pre-boarding and security	Embarkation
Surface disinfection solutions	✓	✓	✓	✓		✓
Air disinfection solutions	✓	✓	✓			✓
Object disinfection solutions		✓		✓	✓	



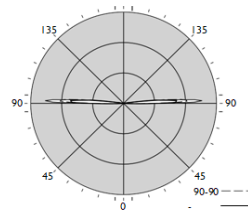
UV-C Solutions for Upper Air Disinfection



Air disinfection

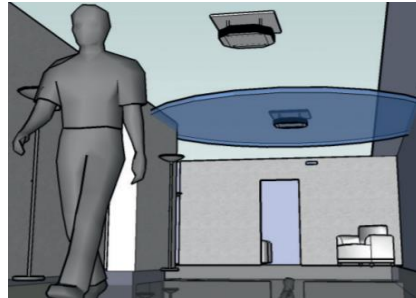
UV-C Low Grid Ceiling Solution

- Using Philips UV-C (253.7nm) lamps
- Mounts into 2x2 grid ceiling for Upper-air disinfection
- 4 lamp 9W PL-S Philips TUV
- White or Black external housing options



Application

- Typical application include small rooms / zones with ceiling heights of 9ft & above and mostly in combination with the other products to provide an effective and efficient solution based on the disinfection requirements



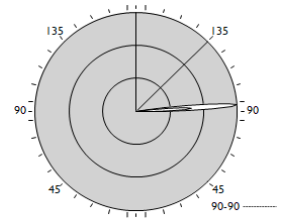
Safety

- ✓ Positioned at a height, out of the reach of guests to help disinfect the air at this level as it circulates.
- ✓ Can be integrated with Interact solutions for scheduled operation, remote control and monitoring.



UV-C Low Wall Mount Solution

- Effectively inactivates airborne viruses and bacteria with UV-C (253.7nm) light sources.
- White polyester powder coated housing (black optional)
- Single lamp 20 W T5 Philips TUV lamp)



Application

- Typically suited for applications areas with the mounting height 10ft and above To ensure adequate coverage, design team needs to create a layout with placements for your space.



Safety

- ✓ Positioned at height, out of the reach of guests to help disinfect the air at this level as it circulates.
- ✓ Can be integrated with Interact solutions for scheduled operation, remote control and monitoring.





Surface disinfection Applications

When someone coughs or exhales, they can release droplets of fluid. Most of these droplets fall on nearby surfaces and objects – such as desks, tables or telephones.

If the person is carrying a virus, other people could become infected by touching contaminated surfaces or objects, then touching their eyes, nose or mouth.



Circulation areas

Circulation loading docks, corridors and staircases carry a high volume of guests and crew, increasing the risk of a carrier passing through. UV-C can be used for surface disinfection outside of opening hours, such as overnight, or behind protective screens.

Throughout working hours, you can also disinfect the upper air to prevent recirculation of viruses and bacteria.



Furniture, Luggage, and Devices

Guest's luggage, chairs, and other devices can be effectively disinfected with UV-C light while on the ship.

We recommend placement of UV-C chambers where devices used by multiple persons need to be cleaned efficiently.



Working areas

Adding UV-C as a disinfection method can be suitable in case room surfaces cannot be cleaned with chemicals to ensure disinfection or as part of a multi-barrier protection strategy, raising the levels of confidence in room disinfection.



Bars & Restaurants

Theatres, bars, restaurants, and casinos are high contact areas and due to interacting activity have higher levels of surface contamination.

UV-C can be applied to conduct a full disinfection to supplement existing cleaning processes. In addition, upper air disinfection in high ceiling as well as low ceiling environments can be applied while people are present.





Object disinfection Applications

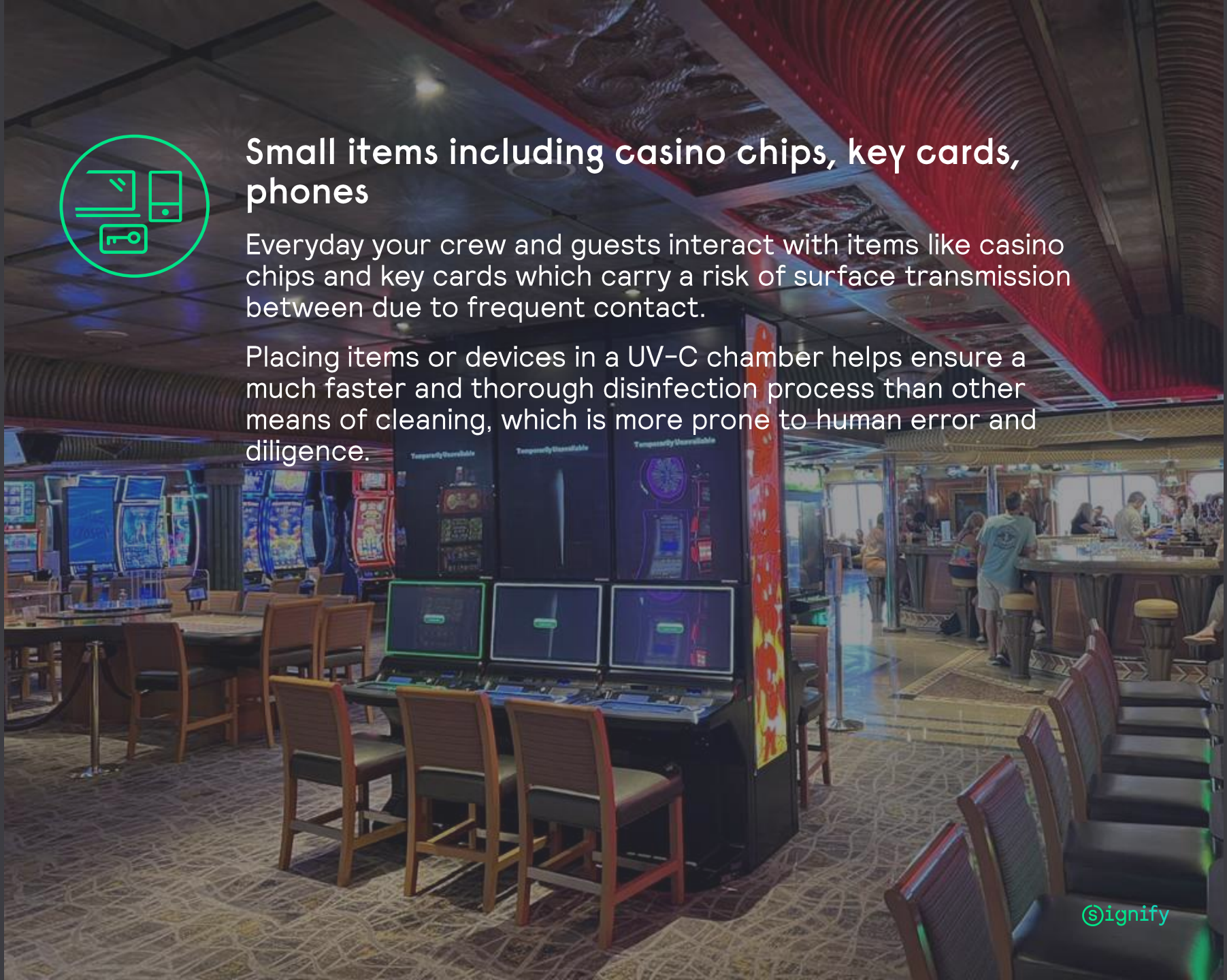
Introducing a disinfection process to your daily cycle of item reuse and recharging helps ensure that viruses and bacteria are inactivated!



Small items including casino chips, key cards, phones

Everyday your crew and guests interact with items like casino chips and key cards which carry a risk of surface transmission between due to frequent contact.

Placing items or devices in a UV-C chamber helps ensure a much faster and thorough disinfection process than other means of cleaning, which is more prone to human error and diligence.



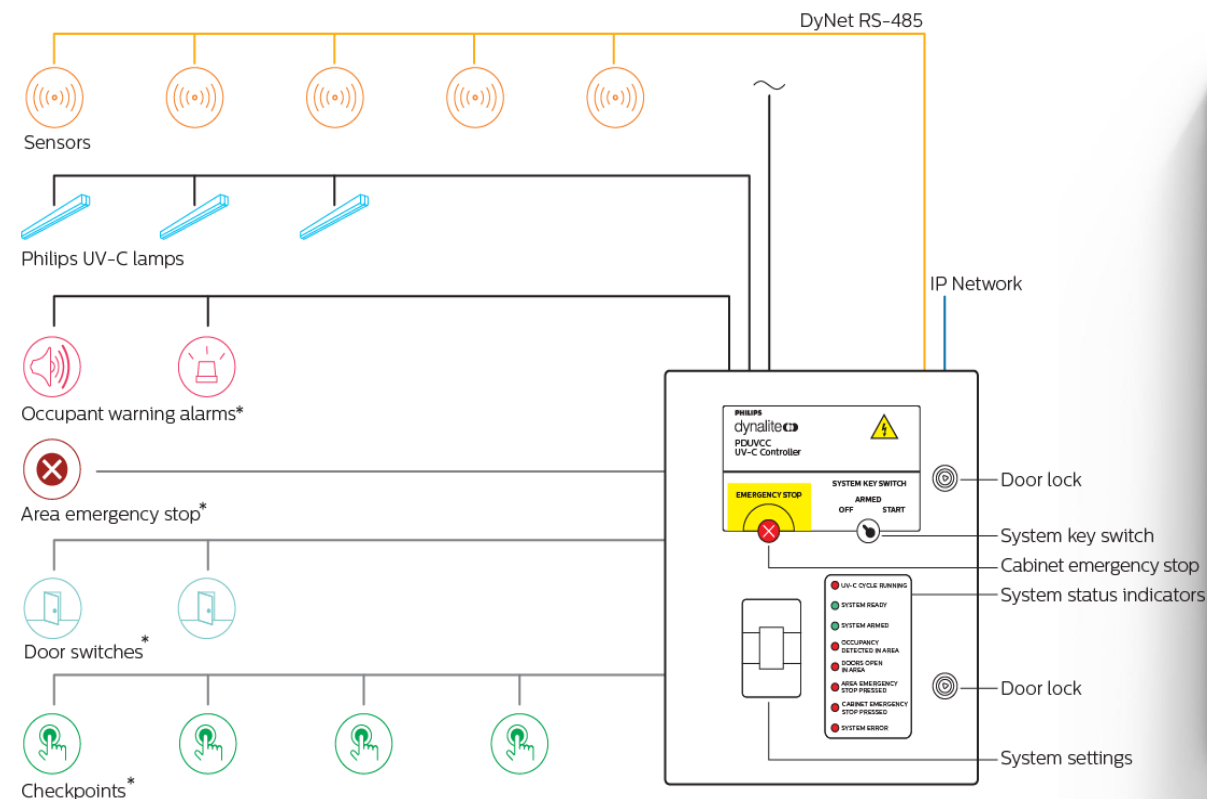


Control Solutions

Philips Dynalite UVC Controls

- Built in Safety & Redundancy protection
- Easy of Use / No commissioning
- Monitor & Manage
- Standalone and scalable
- Correct Usage

- ✓ The UV-C lamps must run for a pre-described time to ensure that full disinfection of an area has taken place
- ✓ An automated system can ensure this and report back if there has been any issues in performing the full duty cycle



Defining the number of network sensors connected to the system



Set the UV-C dosage time.
30, 60, 90, 120, 150 min



Display time remaining While UV-C cycle is running



If system successfully ran to the end of cycle then show complete.



Reach out to learn how UV-C
lighting can disinfect your
cruise ships today!

[Alkco | Signify Company Website](#)

Signify