



CASE STUDY

Reducing Patient Risk in Vulnerable Populations at Lighthouse Complex Care

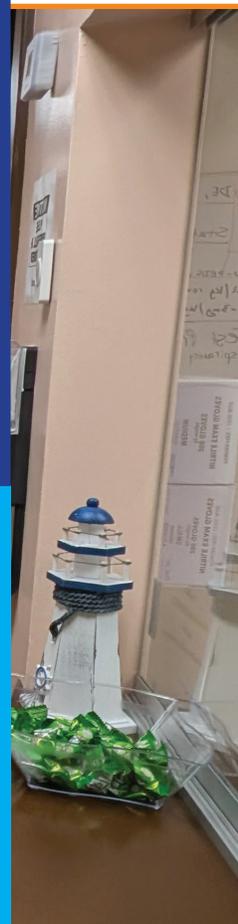
Implementing Visium Far-UVC reduces microbial load on surfaces in a healthcare clinic



OVERVIEW

Lighthouse Complex Care of Delaware serves adult and pediatric patients with complex, chronic conditions such as autism spectrum disorder, autoimmune and infectiousy triggered encephalopathies, dysautonomia, mast cell disorders, Ehlers-Danlos Syndrome, and long COVID.

Because these patients are highly vulnerable, Lighthouse sought a solution to further reduce the risk of airborne microbes and pathogens on high-touch surfaces that can spread infection. The Delaware clinic includes two waiting rooms, four exam rooms, two shared bathrooms, and additional workspaces.





THE CHALLENGE

Lighthouse already takes enhanced precautions with masking, rapid PCR testing, and high air change rates. Even so, gaps remain between cleaning cycles, particularly in shared spaces that are in constant use. The clinic wanted a way to continuously reduce airborne and surface microbes to provide an added layer of protection for patients and staff.

OUR SOLUTION

Visium Far-UVC Fixtures

Lighthouse installed four recessed Visium fixtures with diffused optics across select areas of the clinic. Fixtures were placed in one waiting room, a patient bathroom, and an actively used exam room, while similar spaces without Visium served as controls for comparison.

Each fixture continuously inactivates airborne and surface microbes within its coverage area, delivering real-time sanitization across a combined 255 sq. ft. The recessed design allowed the devices to integrate seamlessly into the ceiling without disrupting the look, sound, or daily function of the clinic.



KEY FEATURES



Continuous air and surface sanitization in occupied spaces



Passive, silent and highly effective with zero disruption to the workplace



IoT-enabled for remote controls and monitoring via an online dashboard



Comparable in size to a standard light fixture, Visium provides non-stop air and surface sanitization silently and invisibly.

Third-Party Test Results

To evaluate Visium’s impact, high-touch surfaces in the exam room and waiting room were swabbed and sent to the Louis Stokes VA Medical Center in Cleveland, OH for independent analysis. Samples were collected from twelve locations on the same day while patients and staff actively used the rooms.

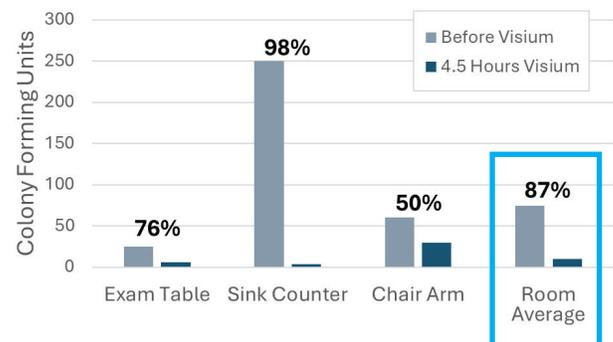


For comparison, baseline samples were taken after the fixtures had been off for several hours. Follow-up samples were then collected 4.5 hours after the fixtures were turned back on.

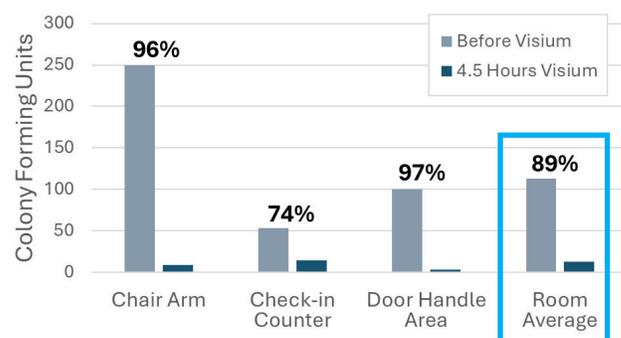
The results were clear: Visium reduced bacterial abundance on high-touch surfaces by up to 98 percent. **On average, the exam room had 87 percent less bioburden and the waiting room had 89 percent less.** The most significant reductions were found on the waiting room door handle and the exam room counter around the sink, two of the most frequently touched surfaces in the clinic.

Change in Surface Bacteria Counts With Visium Use

Exam Room



Waiting Room



Outcome

Visium Far-UVC integrated seamlessly into Lighthouse’s existing hygiene practices, providing continuous sanitization verified by independent testing.

- ✓ Up to 98% reduction in colony forming units (CFUs)
- ✓ 87–89% average reduction in active-use rooms
- ✓ Effective even in shared spaces during daily operations
- ✓ Added as a passive, sustainable safeguard for patients, staff, and visitors

“For many of our patients, masking simply isn’t possible due to sensory sensitivities, developmental delays, breathing issues, or other health concerns. Yet these same patients are often the most vulnerable to infection. Far-UVC gives us a way to protect them without asking them to do something they physically can’t. For us, Visium is about accessibility and fairness, because everyone deserves a safe environment and it helps us deliver that for the patients and families we serve.”

Kara Darling
Clinical Administrator
Lighthouse Complex Care Clinics



Visium fixtures are inconspicuous. In fact, the above image features two Visium devices which blend perfectly into the ceiling, providing a stealthy and healthy way to sanitize surfaces round-the-clock.

Conclusion

Lighthouse Complex Care of Delaware is committed to going beyond standard precautions to protect their patients. With Visium, the clinic improved air and surface sanitation without disrupting care, and did so energy-efficiently and sustainably, reducing microbial load in active, occupied spaces.

For Lighthouse, Visium represents more than just added hygiene. It is a way to make healthcare spaces more accessible and fair for patients and families facing complex health challenges.

Contact & Next Steps

Ready to learn how Visium can transform your spaces?
Find information about Visium and its applications at [Visium.one](https://visium.one).