

## Frequently Asked Questions

To assist you in finding your answer quickly, we have broken our Frequently Asked Questions (FAQ) down into 4 topics:

- **Product Performance**
- **Operations**
- **Safety**
- **General**

*Please contact your Indigo-Clean representative if you have additional questions.*

## Product Performance

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1. How many Indigo-Clean light fixtures are needed in a room?

Multiple light fixtures are typically needed in a room based on the need for visual acuity and usage patterns. As a simple guideline, each 2'x4' and 2'x2' fixture can be replaced with its Indigo-Clean counterpart based on ambient white light levels. All lighting layouts are to be reviewed/approved by Kenall to ensure proper dosage.

2. How long do I have to wait before I see a difference?

The light begins to disinfect as soon as its turned on. After 24 hours, you will see a 70%+ reduction in bacteria if the product is operated in White Disinfection mode for 6+ hours and Indigo Disinfection mode for 12+ hours per day.

3. How long do the lights need to be on each day?

The lights need to be operated in White Disinfection mode for 6 hours and Indigo-Disinfection mode for 12 hours in order to achieve a 70%+ disinfection.

4. How much disinfection do I get?

When used as recommended, you should see a 70%+ reduction in bacteria as compared to that with the lights off.

## 5. What type of organisms is Indigo-Clean effective against?

Indigo-Clean has shown laboratory susceptibility to a wide range of organisms. As with most disinfectants, it has a reduced level of performance against endospores and viruses. At this time, for clinical purposes, we recommend using Indigo-Clean in those applications where endospores and/or viruses are NOT the primary concern.

## 6. Do you have any data demonstrating your product's performance?

Indigo-Clean has been the subject of numerous, 3rd party referred publications. This is available on our website ([www.indigo-clean.com](http://www.indigo-clean.com)). In addition, both the Medical College of Wisconsin and United Hospital Kenosha Medical Center Campus have validated the use of the technology in both a waiting area and a patient room. Their results are currently in press, but they have issued public statements in the meantime.

## Operations

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## 7. Are there any special installation instructions or costs associated with this product?

Indigo-Clean is installed as the overhead light fixtures currently used in an Operating Room. The wattage requirements are similar to those of a 6-lamp T8 fixture. There are no additional lifecycle costs associated with this product as it uses LED technology which has Kenall's standard 5-year warranty against defects or failures.

## 8. Are the lights wired to the same circuits as our existing lighting or would a dedicated switch be required?

In order to achieve the proper dosage and create a uniform look across the ceiling, it is recommended that all existing fixtures in the room be replaced with Indigo-Clean. If for some reason this is not possible, then the Indigo-Clean fixtures would need their own circuit.

In addition, the Indigo-Clean fixtures will need two additional controls (in addition to line power on/off): 1) a Single Pole Throw Switch to change from White Disinfection to Ambient Disinfection Mode, and 2) a 0-100% dimmer to adjust the intensity of the light while it is in White Disinfection Mode (for staff and patient comfort).

## 9. Provide complete energy consumption data.

This information can be found in the product specification sheets and brochure. This is based on the size of the fixture and the mode in which it is operated:

- White Disinfection Mode: Power consumption = 2'x4': 171-199W, 2'x'2 or 1'x4': 86-100W.
- Indigo Disinfection Mode: Power consumption = 2'x4': 165W, 2'x'2 or 1'x4': 83W

Note that the fixture can only be operated in one of two modes at a time. Normal usage is 6 hours of White Disinfection Mode and 12 hours of Indigo Disinfection Mode

## 10. Provide complete maintenance instructions and information on the warranty.

Indigo-Clean uses LED technology so there are no bulbs to replace or maintain. The LED lamps and internal power components are warrantied against defects in materials and workmanship.

## 11. Are there any specialty products required for maintenance, cleaning, and operation?

Indigo-Clean is a sealed enclosure rated to IP65 standards. As such, it is not necessary to open the fixture and clean it. The exterior face of the fixture can be wiped down with chemicals including bleach based upon your institution's own policies.

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## 12. What is the life cycle and/or cost of the bulb?

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## Safety

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13. Does UV light strain worker's eyes? Is it safe to be in the room with it on?

Indigo-Clean is NOT UV. It is visible light. When mixed with complimentary colors, it provides a white light that is the same as normal, overhead lighting and so it creates no additional strain for the eye.

In Indigo-only mode, it is still producing safe, visible light, but without the complimentary colors. Some individuals have found the Indigo-only light to be uncomfortable or disorienting when viewed for extended periods of time. This effect disappears within moments of the light being turned off.

14. Has this product been certified as "safe" by any third parties?

Yes, there are multiple international standards which assess the safety of light sources against the skin and eyes. Indigo-Clean has been tested and evaluated against all of these standards and found to be safe. No special considerations or markings are required. This is true for both the White Disinfection and Indigo Disinfection mode. Please contact your Indigo-Clean representative for additional information.

## General

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15. How does Indigo-Clean compare to UV light?

Indigo-Clean uses safe, visible light to continuously disinfect the environment. As such, it can be used while people are in the room. Its effectiveness is also measured differently. It provides a continuous reduction in bacterial count (measured over 24 hours) as compared to episodic technologies whose effectiveness is measured in log10 kill (over the instant it's applied).

16. Do I still have to clean the room when using Indigo-Clean?

Yes, Indigo-Clean is intended to bolster your current cleaning efforts and further reduce harmful bacteria in the environment.

17. Is Indigo-Clean currently being used by any institutions?

Yes, Indigo-Clean is currently being used by the Froedtert and the Medical College of Wisconsin Froedtert Hospital and United Hospital Kenosha Medical Center Campus. Universal Health Services, Inc. has announced that it will install Indigo-Clean in multiple Operating Rooms and locations throughout their new facility, Henderson Hospital in Las Vegas, NV. Additionally, there are multiple institutions which have committed to installations and which are currently under construction. Those institutions will be announced in the near future.

18. What kind of ROI or Payback do I get with Indigo-Clean?

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The goal is to reduce the cost of HAI sufficient to achieve a payback in 18-36 months. Some hospital studies have shown HAIs cost an additional \$27,000 (average) per infection. Clinical testing has shown Indigo-Clean™'s continuous environmental disinfection technology can achieve a continuous 70+ percent reduction in harmful bacteria, however, no outcome data related to its specific use is available at this time.

At the same time, there are multiple, recently-published studies which show that a reduction in environmental bioburden corresponds to a reduction in infections. Indigo-Clean is simply another way to reduced environmental bioburden and therefore, we would expect its outcome data to be consistent with these studies.