## The Intersection of Healthy Living and a Clean Environment

# SpectraClean™ Featured at Our Yoga Place

It started with a simple mission when the husband and wife team of Tom Palmer and Nancy Gerald set out to build their first yoga studio – to stand out from all the other studios by being the cleanest, healthiest yoga studio in the market, if not the country.

Recreational spaces and fitness centers of all shapes and sizes are challenged with creating and maintaining a clean and healthy environment. That's certainly the case with hot yoga studios, where high heat temperatures, humidity and sweat exacerbate bacteria and mold production. This leads to a reliance on industrial cleaning strategies that conceal, rather than alleviate the key issues.

When they mapped out the vision for Our Yoga Place (OYP), Tom and Nancy set out to build a state-of-the-art facility with cleanliness and purification top of mind. Based in Estero, Florida, the 4300 square foot studio offers a multitude of amenities including a series of yoga practices, hot yoga, Thai massage therapy, health coaching and retail. Students practice ancient yoga techniques that care for their bodies, emotional wellbeing and mental health. The breathing techniques practiced improve respiratory, cardiovascular, and immune systems.

The facility features two yoga studios, his and her locker rooms, massage room, office space and a retail/welcome lobby. Through copious research, Tom and Nancy identified innovative technology that when incorporated into the infrastructure of the facility would eliminate the common pathogens associated with wellness facilities that lead to an unpleasant environment. Odors, air quality, germs, bacteria and mold were the primary targets of the flooring, air filtration and lighting technologies and the sum of these parts would allow OYP to establish a new benchmark for cleanliness.

The outcome? A studio where students can break from the outside world and be 100 percent committed to a yoga session free of distractions.

#### The Lighting Design

Palmer began his research by looking at Ultra Violet (UV) disinfection lighting, which utilizes 250-265 nm wavelengths. While certainly effective, this technology is unfortunately harmful to humans and many inorganic materials. Exposure to these wavelengths can cause severe damage, limiting its use in applications where the area is occupied by humans or sensitive materials. Palmer's research journey brought him to <a href="SpectraClean\*">SpectraClean\*</a>, a new solution from Hubbell Lighting that features the <a href="University of Strathclyde's High Intensity Narrow Spectrum">University of Strathclyde's High Intensity Narrow Spectrum</a> ("HINS") lighting technology. Through SpectraClean the disciplines of lighting science and

microbiology converge to create a new technology that combines white and narrowband 405 nanometer ("nm") visible light to meet ambient and task lighting requirements while providing a continuous, unobtrusive disinfection option for forward-thinking facility owners and operators.

SpectraClean features the industry's only line of commercial luminaires available with HINS technology and integrated wireless control support for four modes of operation and multiple standard lumen packages. Palmer and his lighting design team elected to use SpectraClean Contemporary Architectural Troffer ("SCCT") luminaires with the "Blended Plus" functionality in each of the yoga studios and locker rooms.

What intrigued Palmer was how SpectraClean is being utilized in the <u>food processing and</u> <u>preparation industries</u>, as well "clean" room laboratories. OYP is the first yoga facility to utilize this technology. Antimicrobial disinfection through illumination is proven effective on pathogens suspended in air or attached to a variety of surfaces. MRSA, Staph, E-coli are among the long list of pathogens that are disinfected by SpectraClean technology.

Blended Plus offers two modes of operation in one fixture by combining the SpectraClean blended mode of enhanced white light for periods of occupation with a powerful HINS cycle of 405 nm light during unoccupied periods for accelerated disinfection.

OYP deployed a disinfection lighting solution that combines SpectraClean SCCTs and Columbia Lighting LCATs in the same spaces to ensure seamless aesthetics and a uniform white light performance

#### Controlling the Lights

The co-owners and the lighting designer found that it was simple to automate the SpectraClean system. LED technology presents exciting opportunities because an LED fixture is akin to an iPhone in the ceiling and customers can relay on/off, occupancy, color and dimming commands to these fixtures in an automated or manual manner.

Additionally, the wall switch provides simple override capabilities so that the lighting can be controlled manually if needed. The lighting can be dimmed to one percent when classes dictate a sense of calm and peace.

The luminaires can operate in three modes — white light, white/disinfection blend or all disinfection. OYP automated their lighting devices to utilize the disinfection lighting while people are not in the studio, optimizing their ability to purify the air and surfaces of the studio without disrupting classes. Often, Gerald and Palmer can use the blend option of the SpectraClean luminaires during the breaks between yoga classes to effectively disinfect the studio and offer enough lighting for students to safely move around the room.

### Proving It Works & The Benefits of SpectraClean

The SpectraClean fixtures, combined with state-of-the-art BPE Energy Recovery Ventilators and PEM Surface flooring, reinforce the brand promise OYP has made to its students - a clean and safe environment to practice yoga. **Haglid Engineering & Associates, Inc.**® has certified the indoor air quality at OYP exceeds that of 90 percent of typical buildings in the United States thanks to BPE HVAC technology that exchanges indoor stale air with fresh outdoor air.

When students enter the studio, they are met with the smell of nothing – which is unique in a hot yoga facility. SpectraClean plays a key role in this. The germicidal effects of narrowband visible light work to suppress a wide range of bacteria, molds, fungi and yeast. This antimicrobial light induces the production of damaging reactive oxygen species in harmful microorganisms to accelerate cell inactivation. Antimicrobial disinfection through illumination is proven effective with proper dosage levels on pathogens suspended in air or attached to a variety of surfaces, materials and objects.

While they do practice common sanitary practices consistent with other fitness centers and studios, OYP doesn't have to rely on "masking agents" to cover up foul odors. In less than 10 minutes after a full session the yoga studios can be "cleared" and are ready for the next session. When the facility is empty at night the full spectrum blend SpectraClean is utilized to prepare the studios for the following day.

Most importantly OYP students can relax when they are in the studio, which is critical to the yoga experience. The act of breathing figures prominently into the exercise. Clients love the practice because of the strength of the instructors, as well as the beauty and cleanliness of the facility.

SpectraClean has captured the attention of the industry and received numerous <u>awards</u> for its effective elimination of harmful bacteria, fungi, and yeast in the environment they occupy. OYP features the fixtures prominently on its website and in its marketing materials.

While the fixture has a premium associated with it, OYP's co-owners recognized that the investment in health and safety was paramount to the business. They stand firm that their investment has played a role in achieving their vision of a clean practice environment. Gerald stated in an interview that when new clients see the fixtures, their jaws drop open in surprise that their studio owners put their health and wellness first. Gerald believes students genuinely see a difference in their practice, as they can fully enjoy their practice without smelling or breathing in any harsh odors or bacteria.

While OYP's students might not know the SpectraClean technologies by name, Gerald and Palmer believe they know the difference it provides with the cleanliness of their yoga studio, including the air that they breathe.

"When Nancy and I decided to make Estero FL our home and make an investment in our community, we committed ourselves to creating a world class facility. Our priority was building a place that was clean and safe." – Tom

"When a student enters a yoga or fitness facility and they smell body odor it means bacteria and pathogens exist. When a facility smells that bad, you know it's not a healthy or clean environment." - Nancy

Margo Hill – get her approval on the quote <a href="mailto:thinblu@comcast.net">thinblu@comcast.net</a>

"Our Yoga Place is my home studio because I'm confident it's clean, which is one of my priority requirements. When I feel like the environment is clean I can relax, which is critical to my yoga experience. I've practiced hot yoga in many studios and all of them tend to get quite steamy, making me feel like they aren't as clean as I'd like them to be. Problem is these other studios try and mask the stench with cleaning products. But here you can't smell anything — so subconsciously I feel like the room is cleaner because it just smells like fresh air. I'm practicing yoga to strengthen my immune system, not compromise it. Cleanliness and healthiness, those two go together."

Shirley Allen – get her approval on the quote georgeart@comcast.net

"She noted she's been to numerous studios but nothing compares to this one. She used the boat analogy."