

# UVC SURFACE DISINFECTION SMART LIGHTING SOLUTION



## INTRODUCTION

Lux Rack developed the UVC Smart Lighting solution that specialized for surface disinfection. The solution ensures completing floor to ceiling disinfection. The solution delivers a smart, fast, simple operation, multiple safety layers and effective germicidal dose of continuous wave UVC energy (parts of UV spectrum) killing germs and viruses.

## UVC SURFACE DISINFECTION SMART LIGHTING SOLUTION

Lux Rack's Smart Lighting solution can be adapted to different market sectors, such as Healthcare, Hospitality, Sport Center, School, Data Center, Real Estate, etc.

The solution is developed with a sequential and multiple safety features that aid the rooms/places being cleaned on a daily basis, while reducing human errors that would be exposed under the UVC.

Unlike the portable UVC disinfection lighting stands, our fixed UVC lighting fixture will be mounted on the designated locations to maximize disinfection area. The solution is designed to sterilize from a single room to hundreds of rooms simultaneously in a short period of time. UVC lighting can be scheduled to turn on or off by web portal in a few steps that according to users' operation requirement.

The germicidal lightings efficiently emit a large amount of ultraviolet rays 253.7nm (UVC) which have excellent germicidal effect. These lightings have structures and electrical characteristics similar to those of general fluorescent lamps used for illumination but use ultraviolet ray glass which efficiently transmits ultraviolet rays at 253.7nm.

The UVC are primarily useful for sterilization of germs and viruses in air, the surfaces of various materials and water or liquid.

Signify

Philips UV-C

INTEREL

## FEATURES

- Smart UVC lighting solution
- Complete floor to ceiling disinfection
- Disinfection a single room to hundreds of rooms simultaneously
- No chemicals need
- No ecological damage
- High reliability with minimal operating costs
- Low annual maintenance cost
- Sequential multiple hardware and software safety features
- Capability for expansion and integration with other IT, AV, E&M facilities systems
- IP20 rated for lighting fixture (optional)



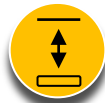
Fast Disinfection



Timer



Multiple Safety



Floor to Ceiling Disinfection



Multiple Rooms Disinfection



Auto Power Off Sensors



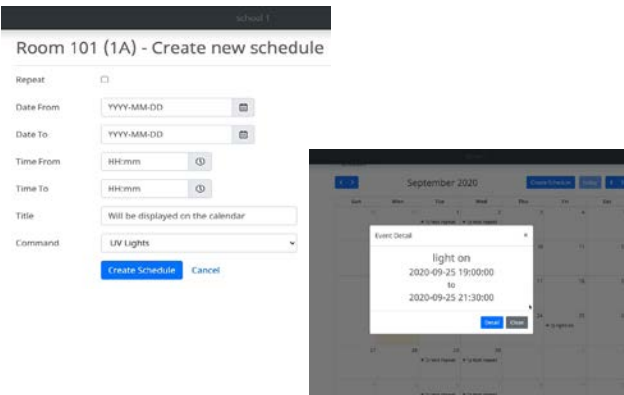
Minimal Operation Cost



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## WHY SMART LIGHTING SOLUTION FOR UVC SURFACE DISINFECTION?

- ✓ Minimal operation cost and manpower – only single initial scheduling setup is required, then let the smart system do the disinfection for you.
- ✓ Only one annual maintenance visit – checking the UVC light tube.
- ✓ Disinfection a single room to hundreds of rooms simultaneously.
- ✓ Sequential multiple hardware and software safety features to minimize human errors that would be exposed under the UVC light.
- ✓ Capability of integration with other IT, AV, E&M facilities systems.
- ✓ Third party lab testing result.



## RECOMMENDATION FOR DISINFECTION INDICES



## CASE STUDY – 99.99% Killing Rate

Height (m)	Floor Area(m.sq.)	No. of UVC Lamps	Treatment Time (min) log 4 (99.99%)	Dose (J/m2) for log 4
2.5	50 ~ 100	4	29.18	220.00
2.5	101~150	6	29.18	220.00
2.5	151~200	8	29.18	220.00

UVC Lamps – TUV 36W SLV/6

## UVC Disinfection Components



Disinfection Batten



Disinfection Trolley



Disinfection Upper Air



Disinfection Chamber

Lux Rack is the Certified Installer for supply and installation of UV-C components from Signify HK Ltd

Lux Rack is the Certified Installer for supply and installation of smart solutions from INTEREL

