



## Direct Irradiation UV-DIRECT-H-NX (Ceiling/Wall Mounted) UV DIRECT – K (Ceiling Recessed)

UV-DIRECT by Light Progress is a high output ceiling or wall mounted Ultraviolet Germicidal light fitting that provides deep air and surface disinfection in almost any type of environment.

The UV-DIRECT works by treating the air and surface with a constant high dosage of UVC light of 253.7 nanometres wavelength. This is done in the absence of occupants in the room.

### Validation

Germicidal Ultraviolet irradiation has a proven, strong germicidal effect against micro-organisms (moulds, bacteria and viruses).

In controlled testing environments, UVC usage has shown reductions of over 99.9% on live bacteria strains such as Bacillus, Coli, Clostridium, Legionella, Vibrio, Salmonella, Pseudomonas, Staphylococcus etc. Both airborne contamination in circulation and surface contamination are dealt with simultaneously. A higher level of disinfection can be achieved depending on surfaces and extended cycle times selected by the operator.

The concept and the effectiveness of it has been well documented by ASHRAE and others.

### Traditional cleaning/filtration methods

Traditional cleaning methods and facility air filtration alone are often not sufficient to ensure high levels of hygiene. Independent test results have shown that surface cleaning may still be susceptible to re-contamination. UVC technology is a simple and cost-effective solution that can enhance facility hygiene, comfort, and workplace sanitation regimes. The best part is there are no chemicals involved, providing a healthier environment for all.

### Operation of UV-DIRECT

UV-DIRECT, direct irradiation device should be mounted in an optimal location in the room either on the ceiling or wall. Multiple units may be required depending on the room size. To achieve uniform coverage, care is needed to avoid shadows, such as corners and therefore allowing maximum surface and room zone air to be treated.

UV-DIRECT shall be installed by a qualified electrical contractor. Electrical installation can be tied into existing facility lighting and alarm control systems in which to operate effective cycle times, out of ours or in between occupancy states, in a safe manner. Personnel must not be present during operation.

LAF tech can also provide a cost-effective master control system for enabled safe effective operational cycles of multiple UV-C light fittings. Features and options include:

- Timers to manage a start delay and treatment duration.
- Entry door switch disable function.
- Tie into PIR Motion sensors for automatic deactivation in the event of unsafe entry by personnel.
- Fault feedback status on UVC lamps.

### No Ozone

The use of UVC light in the 253.7 nanometres wavelength means there is no ozone produced. This is particularly important as ozone is hazardous to humans.

### Applications

UV-DIRECT is a versatile direct irradiation device that is cost effective, simple to install and operate within just about any indoor environment. It can be used in the commercial, industrial or healthcare sectors. Main use will be in the reduction of microbial loads in the air or high touch surfaces. It is suitable for use to disinfect controlled environments where people are not present such as:

- Clean rooms
- Laboratories, sterility & aseptic areas
- Isolation rooms, CSSD, operating theatres
- Corridors, locker rooms
- Pharmaceutical facilities
- Abattoirs, food processing centres

# WHAT ARE UV-C RAYS?

Ultra-violet rays (invisible) can be classified in:

- UV A (with tanning properties)
- UV B (with therapeutic properties)
- UV C (with germicidal properties)

UV-C technology is a physical disinfection method with an optimal cost/benefit ratio, it's ecological and unlike chemicals it works against every micro organism without creating any resistance. No nasty chemicals.



## FEATURES

UV-DIRECT series features:

- Ceiling / Wall mounted H version or Ceiling recessed K version.
- UV-C lamps, high output, with emission peak at 253.7 nanometres.
- No Ozone produced
- Effective against fungi, bacteria, and viruses.
- Stainless steel housing.
- Polished aluminium screen to reflect the UVC Ray to increase dispersion in the direction of room zone target surfaces.
- Ingress protection level IP55.
- The UV-C lamp can also be protected by a grid of stainless steel AISI 304 (standard option).

## DEEP AND CONTINUOUS DISINFECTION

- Used without people-individuals being present.
- Typically operated after hours or between shifts.
- Disinfection of air, equipment, furniture, and fittings contained inside the activated room.
- Proven reduction of microbial load.

## PHYSICAL ACTION AND ENVIRONMENTAL PROTECTION

- Treatment by UV-C rays is purely physical.
- No toxic or flammable chemicals used.
- Microbial organism does not develop resistance to UVC unlike chemicals.

## PRACTICALITY AND ECONOMY

- Treatment is immediate and always ready to utilise.
- Minimal maintenance and low power consumption.

## IMMEDIATE EFFECT

- Effective treatment (99.9% bacteria reduction).

## NO CHEMICAL/PHYSICAL CHANGES

- Treatment is cold and dry.
- UVC does not cause organoleptic or qualitative changes to the end product.

## NO DANGER OF GLASS DISPERSION

- With special UVLON® protection and Stainless-steel protective grills, there is no danger of glass fragments dispersion resulting from any breakage of UV-C lamps.

UV-DIRECT-H	E40H-H-NX	E75H-H-NX
LAMP LIFETIME (hour)*	≤ 18,000	≤ 18,000
POWER (W)	40	75
EXTERNAL DIMENSIONS LxSxH (mm)	530 x 88 x 109	986 x 88 x 109
WATERPROOF AND DUST-PROOF	IP 55	IP 55
WEIGHT (Kg)	2	4
TREATED VOLUME (m³)	from 20 to 40	from 40 to 65
TREATED SURFACE (m²)	from 7 to 13	from 14 to 25
PROTECTION RATING	IP 55	IP 55
REPLACEMENT LAMP	n°1 CHS-40WH	n°1 CHS-90WH

UV-DIRECT-K	E40H-K-NX	E75H-K-NX
LAMP LIFETIME (hour)*	≤ 18,000	≤ 18,000
POWER (W)	40	75
EXTERNAL DIMENSIONS LxSxH (mm)	598 x 103 x 156	1055 x 103 x 156
WEIGHT (Kg)	2	3.5
TREATED VOLUME (m³)	from 20 to 40	from 40 to 65
TREATED SURFACE (m²)	from 7 to 13	from 14 to 25
PROTECTION RATING	IP 55	IP 55
REPLACEMENT LAMP	n°1 CHS-40WH	n°1 CHS-90WH

\* Continuous operation



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