

# HIT Industrial Troffer

## Frequently Asked Questions



### What is the Cleanroom Certification for the HIT Industrial Recessed Luminaire?

The HIT Industrial Recessed Luminaire is certified to be ISO 3 (Class 1) which means it is suitable for ISO 3 – ISO 9 environments.

### If needed, how is the HIT accessed and serviced?

The HIT is accessed and serviced from below the fixture. If needed, loosen the HIT door fasteners to service any internal components or wiring. The doorframe is tethered to the frame and will securely hang from the fixture with retaining wires while servicing. Additionally, the HIT features a Top Access option which allows serviceability above the plenum.

### Will the HIT Industrial luminaire work in an application with a walk-on ceiling?

The HIT swing arms are designed to handle ceiling and grid thicknesses for 1" to 2". Many walk-on ceilings are 4" thick or more but some applications incorporate a supported cat-walk in the plenum which does not use a thicker ceiling. Please confirm the ceiling thickness for proper application and installation of the HIT. The HIT fixture can support a 350# static load.

### Does the HIT Industrial luminaire still meet ISO 3 requirements even with an integrated occupancy sensor?

Yes, the HIT Industrial luminaire has been independently tested to be ISO 3 certified even with its optional occupancy sensor installed.

### What fixture sizes are available?

The HIT Industrial luminaire is available in three different sizes to meet most cleanroom, clean space and demanding applications: 1'x4', 2'x2' and 2'x4'. Refer to the spec sheet for rough-in cutout dimensions if needed.

### What paint or other finishes are available?

The standard aluminum doorframe is available in antimicrobial white and super-durable white paint finishes. A brushed stainless steel doorframe is also available.

### What are biosafety levels?

Biosafety levels 1 through 4 are determined by the Centers for Disease Control and Prevention (CDC) as a way of exhibiting specific controls for the containment of microbes and biological agents. Biosafety level 1 (BSL1) applies to laboratory settings involving low-risk microbes that pose little to no threat of infection in healthy adults. Biosafety level 2 (BSL2) covers laboratories that work with agents associated with human disease that pose a moderate health hazard such as streptococcus pyogenes or staphylococcus aureus (staph infections). Biosafety level 3 (BSL3) covers laboratories that typically conduct research into or work on microbes that

are either indigenous or exotic and can cause serious or potentially lethal disease through inhalation. Biosafety level 4 (BSL4) laboratories are rare, however, they work with highly dangerous and exotic microbes, such as the Ebola and Marburg viruses. The HIT Industrial luminaire is well-suited for use BSL1, BSL2, BSL3, and BSL4 environments.

### What is ISO 3?

The International Standards Organization (ISO) 14644-1 and Federal Standard 209E are two sets of standards that are commonly used to classify cleanrooms. ISO cleanroom classifications are rated ISO 1 through ISO 9 according to how much particulate of specific sizes exist in a cubic meter. The lower the ISO rating, the cleaner the cleanroom. Similarly, Federal Standard 209E rates cleanrooms from Class 1 to Class 100,000. The lower the Class rating, the cleaner the cleanroom. For reference, the HIT Industrial luminaire is classified as ISO 3 which is also equivalent to Class 1. See chart on the next page for cleanroom classifications:

### What is USP 797 & 800?

United States Pharmacopeia 797 & 800 certification means HIT is ready for spaces where pharmaceutical compounding is done and people administering medicine are at risk of being affected by that medicine. USP 797 covers all facets of sterile compounding and is aimed at protecting the patient. USP 800 is aimed at protecting healthcare workers who come into contact with hazardous drugs.

### What is United States Military Standard MIL-STD-461 G?

MIL-STD-461 G is the Department of Defense interface standard for the control of electromagnetic interference characteristics of subsystems and equipment. EMI can affect the performance of nearby electronics.

### The HIT Industrial luminaire is "robotically seam welded." What does that mean?

An automated seam welder, also called a continuous welder, is capable of producing clean, smooth welds with no gaps or spaces for constructing a hole-free, cleanroom luminaire housing. Being robotically controlled insures consistent, high quality seams and construction.

### Does the HIT Industrial LED luminaire have an NSF rating?

Yes, the HIT luminaire is NSF rated for non-food, splash zone 2. It is also rated for NSF-P442. NSF-P442 requires IP65, NSF2 and a very strict pressure test. It is intended to protect the controlled environment from the common causes of particulate contamination related to or resulting from the use of lighting fixtures.

### Does the HIT Industrial LED luminaire have Ingress Protection (IP) Ratings?

Yes, the HIT luminaire is rated for both IP65 and IP66 above and below the plenum. It also maintains these ratings with the surface mount kit.

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## What is the ambient temperature range for the HIT Industrial LED luminaire?

-4°F (-20°C) to 104°F (40°C) for most base configurations. The addition of some available options may impact the operating temperature range. Refer to the spec sheet for full details.

## What material is the HIT Industrial Luminaire doorframe, diffuser and housing made from?

The doorframe is made from 0.06" aircraft quality aluminum and the lens of the HIT Industrial luminaire is made from both high-impact, UV-stabilized acrylic and polycarbonate. The main housing is made of powder coated 20-gauge cold rolled steel with robotically seam-welded seams for a highly reliable durable construction.

## What components are field replaceable?

Door assembly, light engine, drivers and surge components can be easily field replaced from below the fixture and above, when ordering the Top Access (TA) option.

## What ways can this fixture be mounted?

The HIT Industrial Luminaire can be in-ceiling or lay-in grid mounted as well as surface mounted.

## Is the HIT Industrial Luminaire IC-rated?

In general, recessed luminaires are rated as either IC or Non-IC. If the luminaire is IC, which means "Insulation Contact", the luminaire is suitable for recessed installation where insulation material may come in physical contact with the housing. Non-IC luminaires MUST have at least a 3" air gap between the housing and the insulation. Insulation in contact with a Non-IC rated luminaire is a fire hazard. A thermal protector is standard in each unit and will cycle the fixture off if it overheats due to insulation. Refer to the spec sheet for guidance on which configurations are IC or Non-IC rated.

## Cleanroom Classification Chart

Class	FED STD 209E Equivalent	Maximum concentration limits (particles/m <sup>3</sup> of air) for particles equal to and larger than the sizes listed below					
		0.1 micron	0.2 micron	0.3 micron	0.5 micron	1 micron	5 micron
ISO 1		10	2				
ISO 2		100	24	10	4		
ISO 3	1	1,000	237	102	35	8	
ISO 4	10	10,000	2,370	1,020	352	83	
ISO 5	100	100,000	23,700	10,200	3,520	832	29
ISO 6	1,000	1,000,000	237,000	102,000	35,200	8,320	293
ISO 7	10,000				352,000	83,200	2,930
ISO 8	100,000				3,520,000	832,000	29,300
ISO 9					35,200,000	8,320,000	293,000