



# Holophane Industrial Troffer: HIT

Cleanrooms & Beyond

## Typical Applications

Cleanroom  
Clean Manufacturing  
Pharmaceutical  
Healthcare  
Micro Processing  
Electric Automotive  
General Purpose Spaces  
Demanding Environment



## Quick Facts



- + 3 sizes (1x4, 2x2, 2x4)
- + Lumen packages from 3,000 to 30,000 lumens
- + Amber & Red LED options
- + Programmable with nLight® AIR
- + Top access option
- + Top tier ratings
- + Emergency battery pack option
- + Grid, flange, surface-mount trim options

The HIT Troffer combines visually comfortable performance with an assortment of top-of-the-line ratings and listings. HIT provides general illumination of clean spaces while protecting people, products, processes, and production from contamination from the luminaire. This recessed luminaire is designed for application in clean manufacturing, pharmaceutical, healthcare, and other controlled environments

HIT leverages vertical integration with nLight controls to provide industry-leading performance. The HIT provides a robust offering of lumen packages and color temperatures, including Red and Amber LED options. The fixture complements Holophane's expansive product portfolio for demanding environments.

## Three Sizes

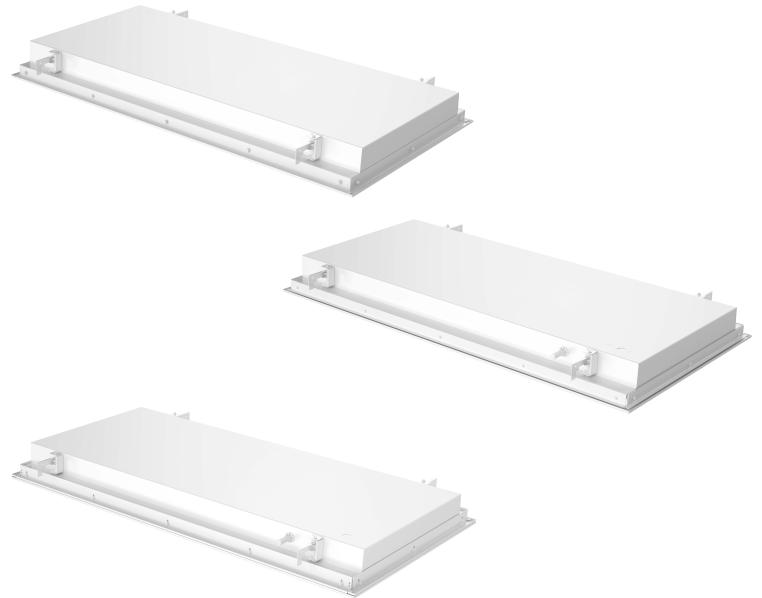


# HIT Troffer

## Top Access Option (TPA)

HIT offers a Top Access Option (TPA) which provides access to LEDs and drivers in the 2X2 and 2X4 sizes, & access to the driver only in 1X4.

HIT has a 350 lb static load rating.



## Options for Every Application

HIT has you covered with a wide selection of CCT options for general illumination needs, from 3000 to 5000K.

HIT includes Amber (570nm) and Red (631nm) spectrum lighting choices to meet the requirements for spaces such as semiconductor manufacturing, pharmaceutical manufacturing & compounding, and animal research labs.



### Amber LEDs

Required to protect photosensitive lithography processes in semiconductor manufacturing, light-sensitive products and organisms found in pharmaceutical compounding & manufacturing, and biotech applications. Amber light wavelength at ~570nm cuts out damaging UV and blue light found in standard white LED color temperatures.

### Red LEDs

Used in animal research laboratories helping with sleep cycles for nocturnal animals used in research facilities. Red light has a longer wavelength and lower energy than other colors of light and therefore is less likely to affect an animal's behavior and activity. Many animals cannot see red light, so this helps to minimize any stress that may be caused by experiments.

# Ratings & Listings



USP 797 & USP 800 certification means HIT can be used in pharmaceutical compounding spaces where sterile protection is needed and people administering medicine are at risk of being affected.



Biosafety Levels 1, 2, 3, & 4 make HIT the right solution for labs containing infectious agents and toxins in the space where contamination control is critical.



Built with the highest level of quality to stand up to the most challenging environments... ISO 3-9 cleanroom certified, IP65, IP66, NEMA 4X, NSF P442, NSF splash zone 2, MIL-STD-461G.

## NSF 2 (Splash Zone)

NSF certification is used to indicate an industrial light fixture meets guidelines for industrial applications including food processing facilities. Various industrial applications present many harsh conditions for light fixtures such as exposure to cold & high temperatures, and washdown with pressured water or chemicals. NSF 2 documents the minimum food protection and sanitation requirements for equipment in food spaces, which includes lighting. Lighting is classified into three zones – Non-Food Zone which includes kitchens, storage areas, dry process areas and damp process areas; Splash Zone which includes damp or wet process areas where high pressure cleaning and decontamination is done, and spaces using washdown hoses; Food Zone – areas where direct contact is made with food products and full sanitation is needed.

## NSF P442 Pressurized Leakage

NSF certification specifies that light fixtures are built for use in demanding and controlled environments to protect from contamination due to the use of the lighting. This certification requires multiple tests including specifically developed pressure testing to prove there is no leakage. Other tests are for compliance with NSF 2 for food equipment and confirming the fixture has necessary high levels of ingress protection (IP65 & IP66) against dust and water.

## NEMA 4X

This rating, established by the National Electrical Manufacturers Association, is a rating for an outdoor electrical enclosure that includes a gasketed design to protect against liquid and solid ingress, is suitable for indoor or outdoor use, and is resistant to corrosion.

## BioSafety Levels 1, 2, 3, & 4

Fixture is suitable for the highest levels of biosafety precaution (level 4) where a dangerous agent could easily be transmitted in the air within the laboratory. Such agents could cause severe to fatal disease in humans for which there are no vaccines or treatments. Applications may include, but not limited to, labs used within the CDC, Biodefense and Biocontainment facilities, and other Biomedical research applications.

## USP 797 & USP 800 Certified

U.S. Pharmacopeia Convention's general chapter 797 and 800 provide guidelines and standards to reduce the health hazards that could be caused by exposure to dangerous drugs within a compounding pharmacy or medical facilities where specific treatment with these drugs are administered.

# ISO 3-9 Cleanroom Certified

## (Fed Std 209E Class 1 – 100,000)

ISO 14644-1:2015 is the international standard that addresses the classification of air cleanliness by particle concentration in cleanrooms and clean zones. ISO 14644-1 replaced Fed Std 209E in 2001 as the international standard for cleanrooms to be designed to. The classes, from 1 to 9, are classified in order according to the number and size of particles permitted per volume of air (measured in cubic meters). The cleanroom classifications also provide how often air should change (using fan filter systems) per hour.

ISO 14644-1 Cleanroom Standards							
Classification	Maximum Particles/m³						FED STD 209E Equivalent
	Particle Size						
	≥0.1µm	≥0.2µm	≥0.3µm	≥0.4µm	≥1µm	≥5µm	
ISO 1	10	2.37	1.02	0.35	0.083	0.0029	
ISO 2	100	23.7	10.2	3.5	0.83	0.029	
ISO 3	1,000	237	102	35	8.3	0.029	Class 1
ISO 4	10,000	2,370	1,020	352	83	2.9	Class 10
ISO 5	100,000	23,700	10,200	3,520	832	29	Class 100
ISO 6	1.0 x 10 <sup>6</sup>	237,000	102,000	35,200	8,320	293	Class 1,000
ISO 7	1.0 x 10 <sup>7</sup>	2.37 x 10 <sup>6</sup>	1,020,000	352,000	83,200	2,930	Class 10,000
ISO 8	1.0 x 10 <sup>8</sup>	2.37 x 10 <sup>7</sup>	1.02 x 10 <sup>7</sup>	3,520,000	832,000	29,300	Class 100,000
ISO 9	1.0 x 10 <sup>9</sup>	2.37 x 10 <sup>8</sup>	1.02 x 10 <sup>8</sup>	35,200,000	8,320,000	293,000	Room Air

Cleanroom Classification	Recommended air changes per hour
ISO Class 1	The “cleanest” cleanroom is ISO 1, used in industries such as life sciences and electronics that require nanotechnology or ultra-fine particulate processing. The recommended air changes per hour for an ISO class 1 clean room is 500-750, and the ceiling coverage should be 80–100%.
ISO Class 2	500-750 air changes per hour, with a ceiling coverage of 80-100%
ISO Class 3	500-750 air changes per hour, with a ceiling coverage of 60-100%
ISO Class 4	400-750 air changes per hour, with a ceiling coverage of 50-90%
ISO Class 5	240-600 air changes per hour, with a ceiling coverage of 35-70%
ISO Class 6	150-240 air changes per hour, with a ceiling coverage of 25-40%
ISO Class 7	60-150 air changes per hour, with a ceiling coverage of 15-25%
ISO Class 8	5-60 air changes per hour, with a ceiling coverage of 5-15%





## Controls Compatibility

The SBG Series outdoor rated sensor provides 360° passive infrared motion detection. The unit's optional integrated photocell enables additional energy savings during daytime periods when there is sufficient daylight.

- + 100% Digital PIR Detection
- + IP66 rated – wet location
- + Photocell and 0-10VDC dimming options.
- + 360° coverage
- + On/Off dim
- + Silicone free
- + Bluetooth sensor option (BTP)



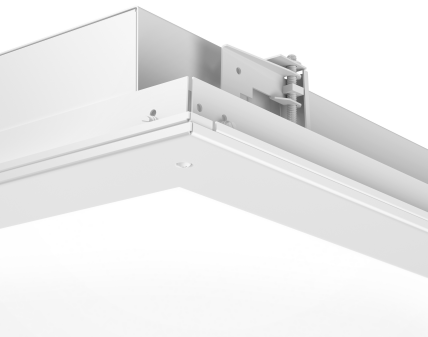
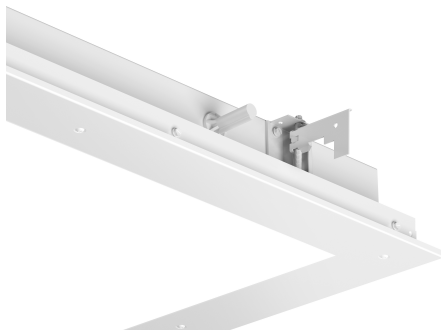
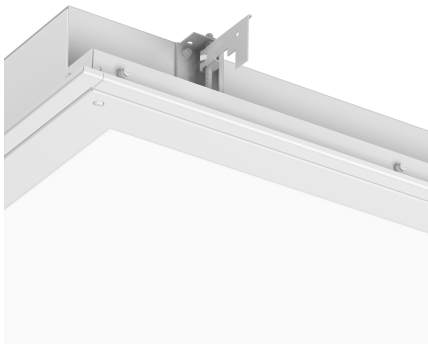
## nLight® Air Compatibility

HIT Troffers are also available with nLight® wireless controls. nLight is a cost-effective and convenient networked lighting controls platform with wired or wireless options including the nLight AIR wireless product line. nLight AIR enables energy efficient wireless control for cleanroom lighting and a variety of other applications.



# Holophane Industrial Troffer (HIT)

## Mounting Details



Grid & flange mounting options  
available for all sizes.



### Acuity Brands Lighting, Inc.

Holophane Headquarters,  
One Lithonia Way, Conyers GA 30012

**Contact your local Holophane factory sales representative** for application assistance, and computer-aided design and cost studies.

**Warranty** Five-year limited warranty. Full warranty terms located at [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

**Visit our web site at [www.holophane.com](http://www.holophane.com)**

*Product specifications may change without notice. Please contact your local Holophane factory sales representative for the latest product information.*