

CANLYTE

CFI FLUORESCENT

Smart TriLyte



CFI Fluorescent



Philips Lighting



LampMaximizer™



Philips Advance

ONE FIXTURE. ONE SOLUTION. ONE WARRANTY.

CFI Fluorescent is a Philips group brand

PHILIPS



Smart lighting

Saving Energy Using Today's Fluorescent Technology

Current statistics reveal 65% of the energy is being consumed by the commercial and industrial markets and 22% of this energy is being utilized for lighting alone. Smart business managers have discovered the incredible energy savings of up to 50% by replacing traditional HID high bay fixtures with efficient linear fluorescent T5HO and T8 luminaires. These are the ideal green solution and have the added benefits of high CRI, illumination uniformity and instant-on starting.

By including occupancy sensor controls, the energy reduction is even greater, especially in areas of a facility that have limited traffic. Unlike HID lamping, adding occupancy sensors to T5HO and T8 systems is relatively easy and inexpensive.

There is a right way and a wrong way of adding controls to linear fluorescent systems and the majority of installations are not done correctly sacrificing efficiency and lamp life.



CFI Fluorescent... Reliable Fluorescent Solutions

Dependability is our promise. Specifiers tell us we deliver on it with every order. How? Our well-designed luminaires are built with the most modern technology, practically applied, so you don't have to worry. Our proven quality comes from a manufacturing and testing facility second to none, recently expanded and the only one in Canada dedicated to fluorescent lighting. We make sure our luminaires provide the latest in energy efficiency, visual comfort, controlled light distribution and all the features you need to meet your most challenging specifications. We are committed to producing the best fluorescent lighting luminaires you can find. *Reliable Fluorescent Solutions* from CFI Fluorescent. It's in our name. You can depend on it.

Cause and effect

Frequent Lamp Cycling Greatly Reduces Lamp Life

The effect of frequent starting on lamp life is the main concern when using occupancy sensors. The life of fluorescent lamps is proportional to the lamp emitter loss rate, which occurs naturally during each start cycle and during steady state operation.

Because of the design of the lamps and the characteristics of the lamp electrode system, fluorescent lamps perform best when switching is kept to a minimum. The longer the lamps are allowed to operate, the longer the expected life.

Lamps are rated to be started once every three hours during their lifetime. Depending on the frequency of starts, lamp life can be reduced from a rated life of 24,000 hours to as few as 1,000 hours when the cycled time is less than 1 minute.

Most fluorescent lamp manufacturers will not ever offer a standard warranty on their lamps when used with sensors due to the rapid cycling.

The Anatomy of Fluorescent Lamps

The filament/cathode of fluorescent lamps contains an emission coating that is necessary to enable electrons to pass into the gas. This coating, or emitter, is gradually sputtered off by electrons and mercury ions during normal operation with a larger amount sputtered off each time the tube is started with cold cathodes.

Let's take a typical T8 rated at 24,000 hours with 3 hour on-cycles. Lamps operated for less than 3 hours each on-cycle will normally run out of the emission coating before other parts of the lamp fail. At that time, the cathode cannot pass sufficient electrons into the gas fill to maintain the discharge at the designed tube operating voltage.

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In the balance



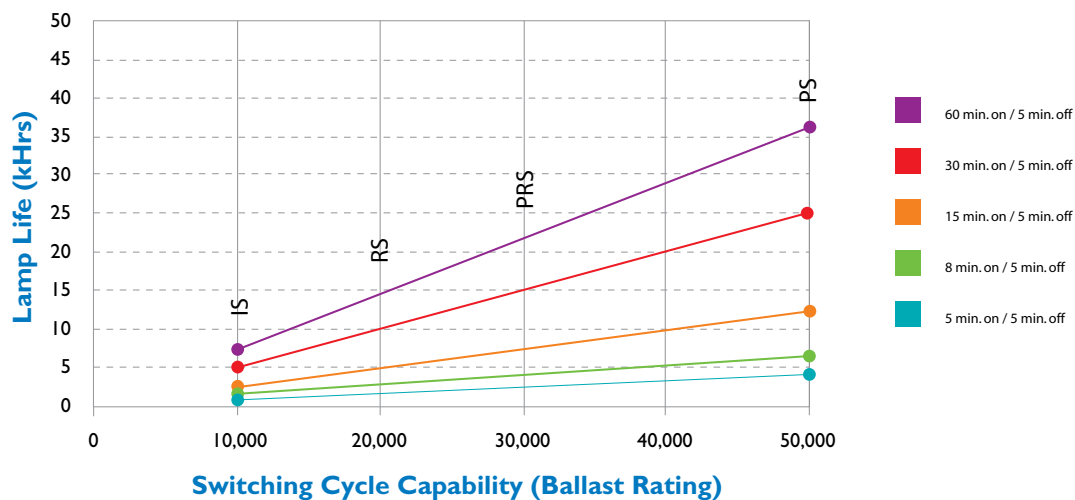
Balancing Energy Efficiency and Longer Lamp Life

Most standard occupancy sensors have a 30 second to 20 minute delay timer that engages when occupancy is no longer detected.

Faster shutdown means greater energy savings but also increases fixture cycling, which ultimately shortens lamp life and increases maintenance costs.

The lamp/maintenance cost for T5HO lamps is even greater, and that does not take into account other inconveniences such as lost production, diminished working conditions and maintenance scheduling. Clearly there must be a better solution.

Impact on Lamp Life vs. Switching Cycles - Operating on Various Ballasts



A Cost Reduction Case

Considering a space with 100 fluorescent high bay fixtures using six-32 watt T8 lamps and a five-minute cycle time, lamp life would be reduced from 24,000 hours to approximately 8,000 hours. That translates into three lamp replacements over the rated lamp life or \$9,750* in additional lamp/maintenance costs.

*Based on average maintenance cost of \$2.50 per lamp.

The perfect solution

Smart TriLyte: The First Intelligently Designed High Bay Fixture in Canada

CFI Fluorescent, in collaboration with **Philips Lighting**, **Philips Advance** and the **LampMaximizer™** manufacturer, introduces the latest version of its popular **TriLyte**.

The **Smart TriLyte** uses the optimum **Philips Advance** programmed start ballast and **Philips Lighting** low-mercury Alto II™ T8 lamps or Alto® T5HO lamps within a **CFI Fluorescent** high-performance TriLyte. TriLyte is already a powerful brand name model in the fluorescent high bay market thanks to the high efficiency, reliability and strength of this full body fluorescent high bay.

The operation is controlled through the specially designed **LampMaximizer™** occupancy sensor technology that assures lamp cycling does not exceed the lamp manufacturer's recommendations.

CFI Fluorescent's Smart TriLyte



LampMaximizer™



Philips Lighting



Philips Advance

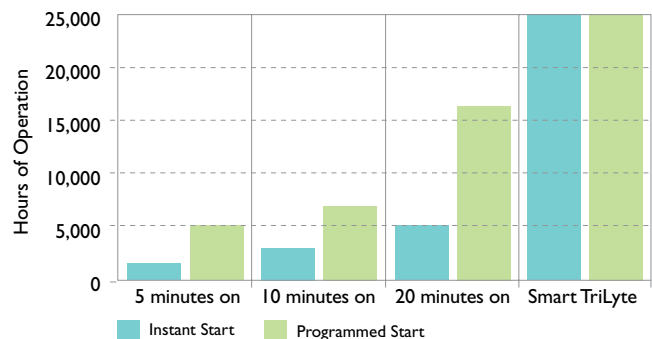


One Source, One Solution, One Warranty

The Smart TriLyte is the first and only packaged fluorescent high bay luminaire engineered specifically to correctly address sensor applications lamp cycling in Canada.

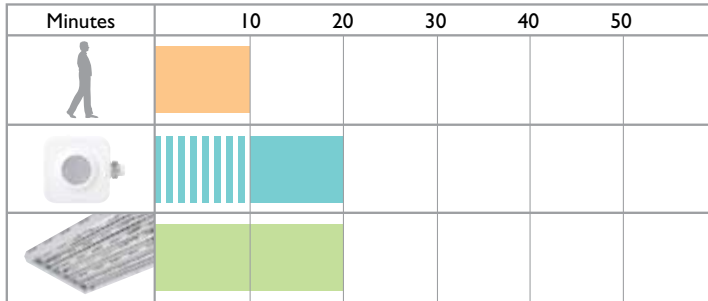
The Smart TriLyte delivers guaranteed performance and is the only occupancy-sensored linear fluorescent high bay that carries a complete single source system warranty on all components including lamps, ballast, sensor and luminaire for 36 months.

Impact on Lamp Life from Switching



Sensible technology

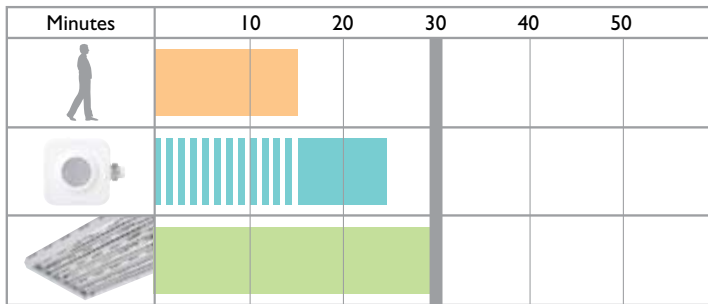
Traditional Sensor: No Minimum On Requirement



Occupancy Sensor Time Delay Lights On

Sensor set for 10 minute time delay. Occupancy detected for 10 minutes. Lights turn off after 20 minutes. Minimum recommended ON time to maximize lamp life not met.

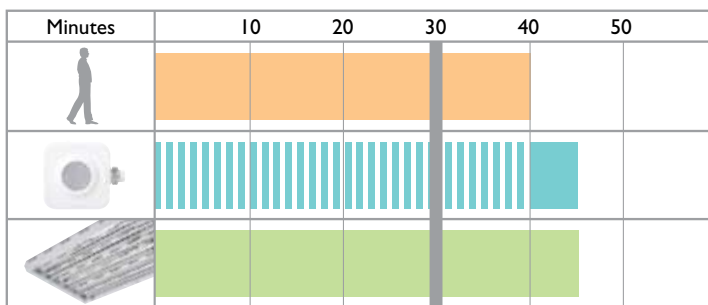
LampMaximizer™ Sensor: Minimum On Requirement Met Due to LampMaximizer™



Occupancy Sensor Time Delay Lights On Minimum On Time

Sensor set for 10 minutes. Occupancy detected for 15 minutes. Lights turn off after 30 minutes. Minimum recommended ON time to maximize lamp life is met due to LampMaximizer™ technology.

LampMaximizer™ Sensor: Minimum On Requirement Met Due to Occupancy



Occupancy Sensor Time Delay Lights On Minimum On Time

Sensor set for 10 minute time delay. Occupancy detected for 40 minutes. Lights turn off after 45 minutes due to LampMaximizer™. Minimum recommended ON time is met due to occupancy and LampMaximizer™ technology.

Ensuring Lamp Life with LampMaximizer™ Sensors

Conventional fluorescent high bay luminaires with sensor units only control the time the fixture remains on after occupancy was last detected, potentially resulting in excessive cycling.

The Smart TriLyte uses patent pending LampMaximizer™ sensors allowing users to aggressively target energy savings while still protecting lamp life.

A sensor with LampMaximizer™ technology utilizes two timers. The first ensures that the recommended minimum on time is observed for a particular lamp/ballast combination. It begins counting down when lights first turn on.

The second sensor timer determines how long after occupancy is last detected that the lights will turn off. This delay is different than traditional sensor time delays in that it is comprised of a continuously calculated LampMaximizer™ value that dynamically adjusts up or down relative to the observed usage of the space in which it is installed.

This allows maximum energy savings to be earned without decreasing lamp life. In practice, the lights will only turn off if both the minimum on and occupancy sensor time delays have been met.

The LampMaximizer™ works equally well in high-activity areas as well as those of limited use. Additional information stored in the sensor and available to a user is the number of switches, total lamp time on, and the percent life remaining for a lamp.

Complete Industrial Surface/Pendant Luminaire Including Lamps & Sensor
Smart TriLyte
 Narrow-Body 4-Lamp Low Bay Series and Wide-Body 6-Lamp High Bay Series



Features

- Complete system integrating motion sensor and Philips lamps, ballast, and lighting fixture
- **Lamps** Low Mercury Philips Alto II™ T8 lamps (Philips F32T8/TL841/ALTO II, 4100K, 2850 initial lumens) or Alto® T5HO lamps (Philips F54T5/841/HO/ALTO, 4100K, 5000 initial lumens) showing 95% lumen maintenance and reduced lamp-end blackening. For other lamp colour temperatures, consult your sales representative.
- 4-lamp models (Narrow-body) – Available in 4' and 8' lengths
- 6-lamp models (Wide-body) – Available in 4' length only
- **Sensor** LampMaximizer™ optimizes lamp life and energy costs while reducing maintenance costs. Circular detection with passive infrared for 30-40 ft diameter coverage. Green LED on the sensor will blink constantly for 31 days once 70% of the projected lamp life has been reached.
- **Ballast** Philips Advance programmed start electronic ballast. Total Harmonic Distorsion of <10%.
- Rated for ballast case temperature up to 90°C. Tested to operate at ambient temperatures of 55°C (6-lamp version without lens). For lens applications, consult your Canlyte representative.
- **Guarantee** 3-year guarantee on all components including lamps, ballasts, sensor and any other component installed on the product by the factory. Properly installed product that Canlyte determines to be defective will be repaired or replaced at Canlyte's discretion. (The warranty covers the repair or replacement of the product and does not extend to transportation, installation or replacement charges. No other warranty, either expressed or implied, beyond this statement is included. Consult your Canlyte representative for further information.)
- **Body** One-piece post-painted housing providing clean, smooth, installation-friendly corners.
- **Reflector** Contoured Miro IV reflector offers optimum performance and 95% reflectivity.
- **Mounting** Choice of stem, surface or chain mounting. 12' to 45' mounting height with suitable lamp-reflector-lens mix.
- **Bulk Pack** Sold in bulk pack only.

Options & Accessories

Wireguard/Lens See besides.

Internal Fusing Suffix F.

Emergency Battery Pack Suffix O (T8), E (T5HO).

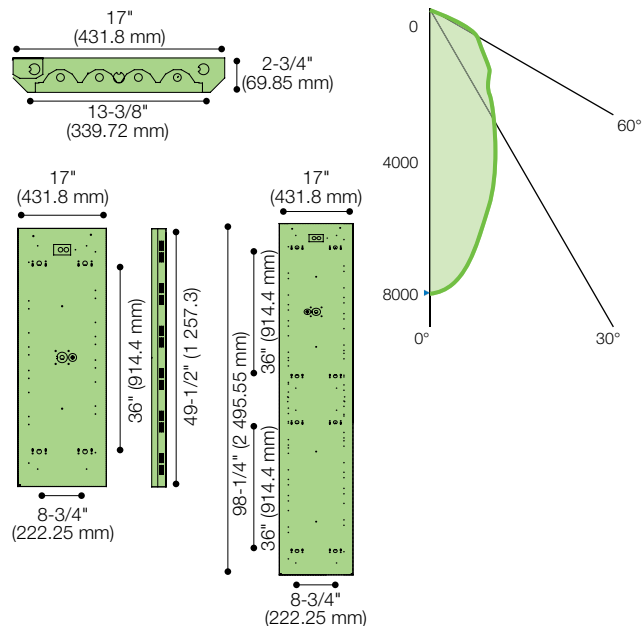
Electrical/Wiring Options Consult your Canlyte representative.

Stem and Canopy Sets 4 stems per luminaire.

Order cat. number **STKF12** (12"), **STKF18** (18"), **STKF24** (24"), **STKF36** (36"), **STKF48** (48").

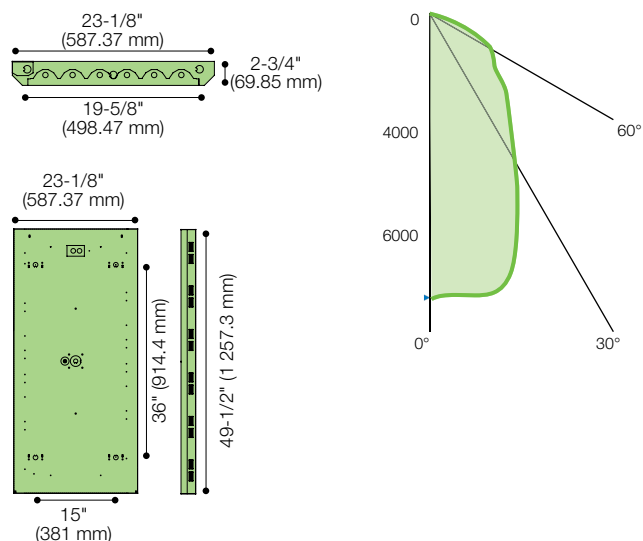
Chain Hanger Kit 2 kits per luminaire. Order cat. number **EE9HC**.

FH4C4DXX4541SML (Data – Narrow Body)



ROR	CU
1	96
2	88
3	82
4	76
5	70
6	66
7	60
8	56
9	52
10	48

FH4C5DXX654USML (Data – Wide Body)



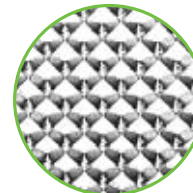
ROR	CU
1	100
2	92
3	85
4	79
5	72
6	67
7	62
8	58
9	53
10	49



White hinged 9-gauge wireguard adding rigidity to luminaire available as an accessory. (FH4WG4 for narrow luminaire and FH4WG5 for wide luminaire. Add -VA or -VB for a wire guard with lens.)



XX: Version without lens shielding.



VA: Pattern 12 prismatic lens made of virgin acrylic (.095" nominal). Complete with hinged white wireguard.
VB: Pattern 12 prismatic lens made of virgin acrylic (.125" nominal). Complete with hinged white wireguard.

Complete Industrial Surface/Pendant Luminaire Including Lamps & Sensor
Smart TriLyte
Narrow-Body 4-Lamp LowBay Series and Wide-Body 6-Lamp High Bay Series

Reference Data (4-lamp)

Efficiency	86.2%
Spacing Ratio	1.2

Electronic Ballast

Input Watts (120V)	234W
Ballast Factor	1.00

Application Data*

Luminaire Spacing	FC**	W/Sq Ft
100' x 12' x 28' Space 20' on centre	17/10	0.98
100' x 12' x 28' Space 15' on centre	23/14	1.37

Ordering Guide - T8

Type No shielding (accessories ordered separately)

Lamps qty/type	Lamp/Luminaire nominal length	Luminaire width	Catalogue number
4-T8	48"	17"	FH4C4DXX432USML
6-T8	48"	23"	FH4C5DXX632USML

Reference Data (6-lamp)

Efficiency	90.0%
Spacing Ratio	1.2

Electronic Ballast

Input Watts (120V)	358W
Ballast Factor	1.00

Application Data*

Luminaire Spacing	FC**	W/Sq Ft
100' x 12' x 28' Space 20' on centre	24/16	1.49
100' x 12' x 28' Space 15' on centre	32/22	2.09

Ordering Guide - T5HO

Type No shielding (accessories ordered separately)

Lamps qty/type	Lamp/Luminaire nominal length	Luminaire width	Catalogue number
4-T5HO	48"	17"	FH4C4DXX454USML
6-T5HO	48"	23"	FH4C5DXX654USML

Ordering Logic

FH	4	C	4	D	XX	4	32	I	SML	E
Series	Fixture Length	Reflector Type	Width	Type	Shielding/Cord	Lamp quantity in a luminaire cross-section	Lamp/Type	Voltage	Ballast	
FH TriLyte Series	4 4' (4- and 6-lamp) 8 8' (4-lamp only)	C Countoured Miro IV reflector	4 17" (4-lamp only) 5 23" (6-lamp only ; 4' unit only)	D Downlight	XX No shielding X3 3' cord and 15 amp twist lock plug X6 6' cord and 15 amp twist lock plug C6 6' cord only	4 4-lamp 6 6-lamp	32 32 WT8 54 54 WT5HO	1 120V 2 277V 3 347V U 120/277V	SML Smart Lighting (Philips Alto® or Alto II™ 841 lamps, Philips Advance elect. P.S. ballast and LampMaximizer™ sensor.) Bulk Pack.	

Options

- E 1-lamp emergency pack for T5HO (Bodine LP600)
- O 1-lamp emergency pack for T8 (Bodine B100-CAN)

Green Lighting Solutions



Delivering Better Lighting Solutions While Preserving the Future

CFI Fluorescent, a Philips group brand, and **Philips Lighting, Philips Advance** and the **LampMaximizer™** manufacturer are committed to providing lighting solutions that improve people's lives and are environmentally sound.

The SmartTriLyte is the first of many innovative lighting solutions that will result from lighting industry leaders working together as one. We are committed to developing Green Lighting Technology that will improve our lives today as well as generations to come.

With sustainability as our guide, our goal is to develop the next generation of lighting products that will achieve the best output while using the fewest resources.

CFI Fluorescent... Reliable Fluorescent Solutions

CFI Fluorescent is a dependable lighting partner serving the commercial, industrial and institutional markets with a complete line of innovative and energy-efficient fluorescent luminaires engineered and manufactured in North America.

CFI Fluorescent solutions are backed by a nationwide sales force of trained Canlyte representatives offering a wide range of support services. These include computer-assisted Genesys III lighting design workstations, which simulate the lighting options and calculations for a given space, and the Lighting Concept Centre, a 7,500 square foot demonstration facility giving lighting professionals the opportunity to see lighting solutions in action.

For more information, contact:

CFI Fluorescent

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We reserve the right to change details of design, materials and finish that will not alter installed appearance or reduce function and performance.



Some luminaires use fluorescent or high intensity discharge (HID) lamps that contain small amounts of mercury. Such lamps are labeled "Contains Mercury" and/or with the symbol "Hg." Lamps that contain mercury must be disposed of in accordance with local requirements. Information regarding lamp recycling and disposal can be found at www.lamprecycle.org.