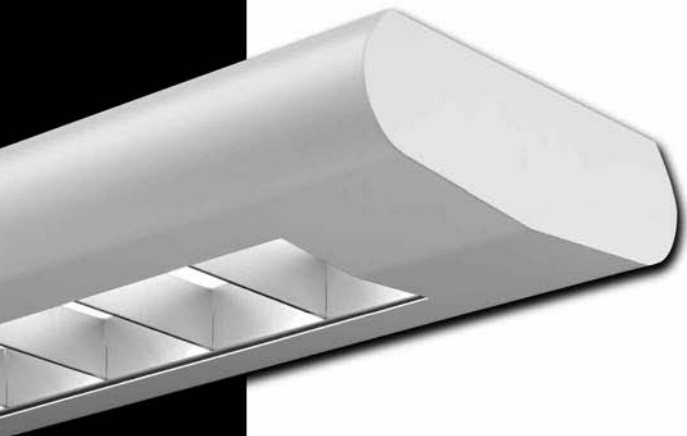


FINELITE

**KCLS**  
Integrated  
Classroom  
Lighting System



*Use & Care*  
MANUAL



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# INTEGRATED CLASSROOM LIGHTING SYSTEM

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## **Online Information**

More product information, including technical information and installation instructions can be located at [www.finelite.com](http://www.finelite.com).



## **Your School Selected ICLS Because:**

- ICLS gives the teacher another tool to ***improve the learning environment.***
- ICLS is ***affordable*** to install and maintain.
- ICLS ***reduces energy costs*** and money saved on energy can be put back into the school.
- ICLS uses ***recommended lighting*** and lighting control practices.



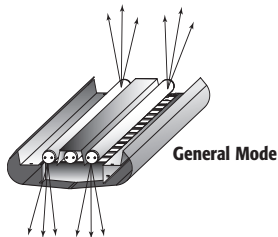
*Read this Use & Care manual to familiarize yourself with the ICLS system and to maximize the benefit to yourself, your students, and the environment.*

## The ICLS System Explained

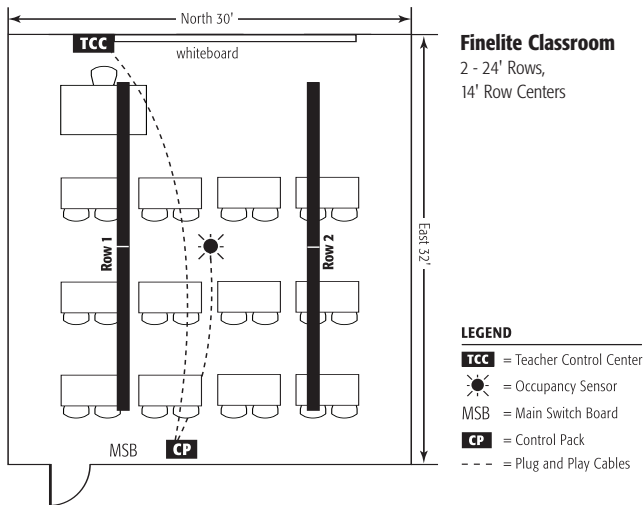
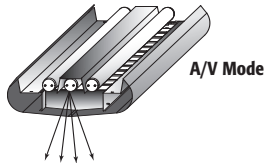
**The Lights** – The ICLS system uses high performance indirect/direct lighting designed to illuminate the ceiling and walls to reduce glare which causes distraction and eye fatigue. This type of lighting is endorsed by ANSI (American National Standards Institute), and CHPS (Collaborative for High Performance Schools).

The ICLS system is designed to provide two distinct modes: **General and A/V**.

**General** – The General mode directs the light of the two outside lamps up to light the ceiling and walls. This mode is used to meet your general classroom needs.



**A/V** – The A/V mode is for use during *audiovisual presentations*. This mode directs light from the center lamp downward, improving screen contrast while providing ample light for note taking.



# The ICLS System Explained



**Teacher Control Center** – The Teacher Control Center (TCC) places the necessary controls near the front of the classroom. From this location you can do the following:

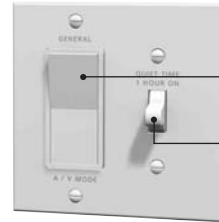
Change Lighting Modes – Change from General to A/V mode.

Quiet Time Switch – The Quiet Time Switch is designed to bypass the occupancy sensor for **1 hour**. Use this switch when movement in the classroom is limited. For example, flip the switch during written tests, or when you are alone in the room grading papers and this will prevent the occupancy sensor from turning the lights off.

**Note – The Quiet Time Switch resets itself.**

Dim the A/V Mode (Optional) – The optional dimming switch allows you to dim the center lamp when you have it switched to the A/V mode.

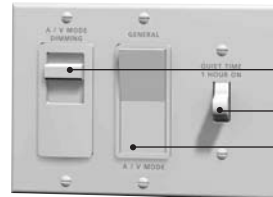
**Row Switching** – The row switches are located at the main entrance of the classroom. Each row is individually controlled.



**TCC – Option 1**

Change Lighting Mode (General to A/V)

Quiet Time Switch



**TCC – Option 2**

Dimming

Quiet Time Switch

Change Lighting Mode (General to A/V)



**Row Switching**

Row 1 & 2 On

## The ICLS System Explained

Occupancy  
Sensor

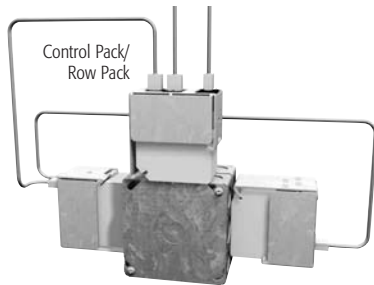


**Occupancy Sensor** – The Occupancy Sensor detects movement by using two technologies (**infrared and ultrasonic**) in order to increase sensitivity and reliability. The unit is factory set to require both technologies to turn the lights on and either to keep them on. When no occupancy is detected for **10 minutes** (factory setting) the lights will turn off.

Daylight  
Sensor



**Daylight Sensor** – The *optional* Daylight Sensor mounts on the ceiling and seamlessly adjusts the electric lighting to achieve the desired light level. A remote is included with the system to make adjustments.



Control Pack/  
Row Pack

**Control Pack / Row Pack** – This unit communicates with and delivers power to the Teacher Control Center and Occupancy Sensor. The unit is generally mounted above the ceiling near the row switches.

## Using ICLS to be Energy Efficient

*Energy  
Savings*

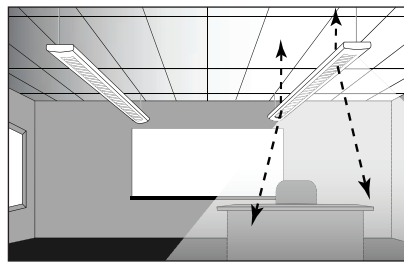
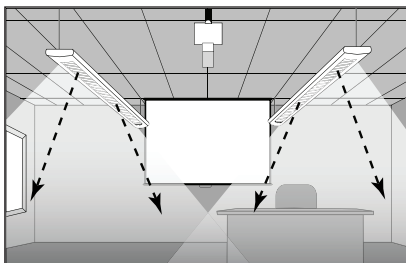
Utilities generally make up one of the largest components of a school district's monthly operating budget and lighting generally accounts for most of the electricity consumed in the school. ICLS is designed to reduce the amount of energy required to light the classroom. **You can help save even more energy by doing the following:**

**Use the A/V Mode** – In addition to providing improved lighting quality for audiovisual presentations, the A/V mode cuts the energy used in half. Learn how to incorporate the A/V mode into your teaching methods and **SAVE ENERGY**.

**Be Daylight Smart** – Monitor the amount of sunlight in your classroom. You may find you can switch off one or more rows of lights during certain periods of the day.

**Monitor your Lighting Needs** – You may find when you are alone in the classroom that you can work with just one row of lights turned on.

A/V Mode  
(downlight  
only)

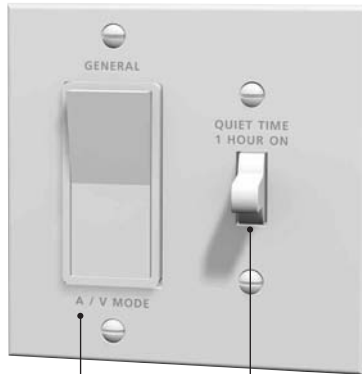


Daylight  
Smart  
(one row  
switched off)

## Improving the Learning Environment

Finelite tested ICLS in 30 real world classrooms for an entire teaching cycle. Input from teachers just like you helped develop the system and identified methods for using the system to improve the learning environment. Their input included:

Teacher Control Center  
with Quiet Time Switch



Switch to A/V mode

Use Quiet Time Switch  
to bypass occupancy  
sensor for 1 hour

- Use A/V mode when using TV's, overhead projectors, or movies on projection screens. In addition to improving screen contrast, the change in lighting focuses student attention.
- Use A/V mode to encourage quiet reading time.
- Use A/V mode to calm an excited class.
- Use the Quiet Time switch during tests, and after hours when grading papers to prevent the occupancy sensor from turning the lights off.

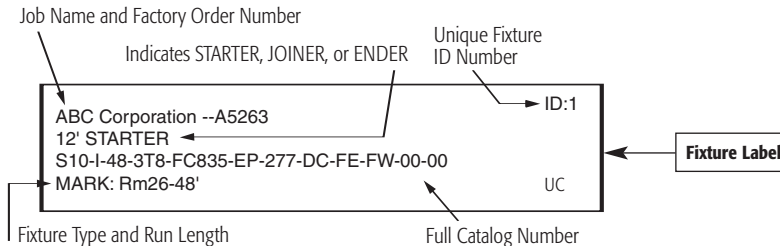
## Warranty and Contact Information

Finelite Inc., warrants all electronic components, including ballast, occupancy sensor, optional daylight sensors, switches, and plug and play wiring to be free from defects in materials and workmanship for a period of **five years**. Lamps shall be warranted for a period of **two years**.

### **Contact Information:**

Finelite, Inc.  
30300 Whipple Road  
Union City, CA 94587-1525  
Phone: (510) 441-1100  
Fax: (510) 441-1510

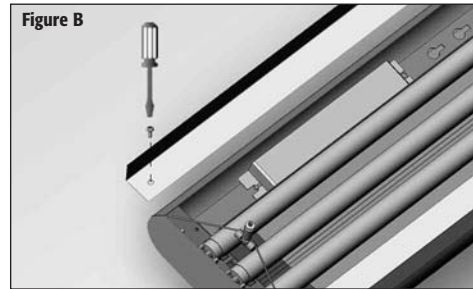
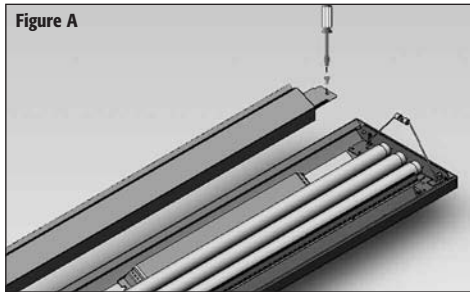
**Reference Information** – Inside each fixture is a product label. Please have the information listed on this label available when you call. This information will enable us to identify the exact parts configurations and manufacturers used on your fixtures.



## Maintenance / Troubleshooting

### ***How do I replace the ballast?***

SAFETY FIRST – Ballasts should only be replaced by a qualified electrician. Expose ballast channel by removing reflectors as shown in **Figure A & B**. With the electricity safely shut off, clip the wires and remove the ballast. Remove the old ballast and secure the new ballast in place. (*Note: check the parts list located in this manual to locate the correct ballast for this fixture*). Strip the wires to expose 1/2" of the wire, match up the same color wires and wire nut them together.



# Maintenance / Troubleshooting

## **How do I clean the fixtures?**

Exterior – The exterior finish is powder coat paint making it extremely durable. Use a soft cloth and non-abrasive cleaning products like 409, Windex, or Simple Green to clean the exterior of the product. We suggest you spray the cleaning product on the cloth and then rub the surface to avoid spraying onto electrical components.

Interior – Wiping the interior with a soft cloth will remove most dirt that may have accumulated on the reflectors. If necessary, spray a mild glass cleaner on a soft cloth. Be careful not to spray directly onto electrical components.

Downlight Shield – The center downlight optical component should be cleaned with a soft cloth and a mild glass cleaner. Spray the cleaner on the soft cloth and then gently rub on metal.

## **How do I change the settings on the Occupancy Sensor?**

Changing occupancy settings is explained in the installation instructions for the sensor (DT-305), which is included with this manual. Online instruction sheets for the Occupancy Sensor (DT-305) can be located at [www.finelite.com](http://www.finelite.com).

## **How do I change the settings on the Daylight Sensor?**

Changing the settings is explained in the installation instructions for the sensor (LS-301), which is included with this manual. Online instruction sheets for the Daylight Sensor (LS-301) can be located at [www.finelite.com](http://www.finelite.com).

## Services



Detailed Occupancy Sensor Guide (DT-305)



Detailed Daylight Sensor Guide (LS-301)

## Maintenance / Troubleshooting

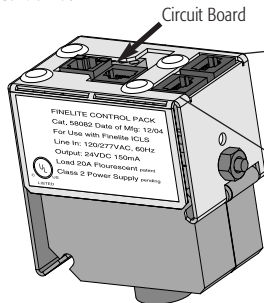
### How do I troubleshoot the Occupancy Sensor?

Refer to specific occupancy sensor guide (DT-305) included for more extensive troubleshooting information.

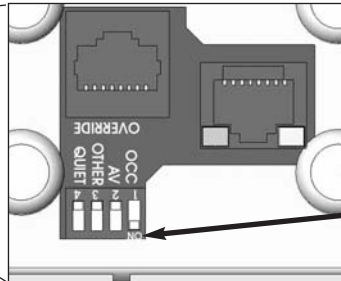
Use the following instructions if the troubleshooting guide for the DT-305 does not solve your issue or if it appears the occupancy sensor may be broken.

We have included a bypass into the system to keep the lights on in the event that the occupancy sensor fails. There is a circuit board located in the Control Pack (**Figure C**). The Control Pack should be located above ceiling near the row switches at the main entrance of the room. [Instructions are located on a label on this junction box.] Flip the dip switch as indicated in (**Figure D**). Return power to the room and turn the lights on. As soon as possible, replace the Occupancy Sensor and return dip switches to their original position.

**Figure C**  
Control Pack



**Figure D**  
Circuit Board  
Detail



To override the occupancy sensor flip the “OCC” dip switch to the **ON** position as indicated.

## Maintenance / Troubleshooting

### **One or some (not all) of the lamps are flickering or are off.**

- Exchange flickering lamp with one that isn't flickering. If this corrects the problem, replace affected lamps. Consider group relamping.
- If the problem isn't corrected, consult a qualified electrician to inspect and possibly replace the ballast in the affected section.

### **All lamps flicker in an unpredictable fashion.**

- With power turned off, check cable connections between Control Pack and Occupancy Sensor and Teacher Control Center. Replace cable if necessary.
- Check all wire connections at the Control Pack.

### **Lights do not turn on with occupancy.**

- See Occupancy Sensor Installation Instructions included with this Use and Care Manual. This guide is also available at [www.finelite.com](http://www.finelite.com).
- If the problem persists do the following:

Override Occupancy Sensor by positioning dip switches in Control Pack as shown in **Figure D**.

## Maintenance / Troubleshooting

- If the problem is corrected, replace occupancy sensor and return dip switches to original position.
- If problem persists, replace cable between Control Pack and Occupancy Sensor.

### **Lights do not turn off automatically.**

- See occupancy sensor troubleshooting guide included with this Use and Care Manual. This guide is also available at [www.finelite.com](http://www.finelite.com).

### **How do I troubleshoot the Daylight Sensor?**

- Refer to the specific Daylight Sensor (LS-301) guide included for more extensive troubleshooting information. Online instruction sheets for the Daylight Sensor (LS-301) can be located at [www.finelite.com](http://www.finelite.com).

# Replacement Parts

Contact Finelite for price and availability of the parts below. **Note: Parts listed are standard parts. Customer specified parts might be different than listed here.**

Description	Manufacturer	Manufacturer Part #	Finelite Part #	Location of Part
Lamps - 32w T8 XPS	Osram Sylvania	FO32835/XPS ECO	93390	Inside Light Fixture
Ballast (non-dimming)	Osram Sylvania	QT2x32120ISSC 10/CS*	93054	Inside Light Fixture
Ballast (non-dimming)	Osram Sylvania	QT432120ISSC 10/CS*	93113	Inside Light Fixture
Dimming Ballast (optional)	Osram Sylvania	QTP3x32T8/120Dim5QNL	93183	Inside Light Fixture
Occupancy Sensor	Finelite/Wattstopper	DTF-305-O	58055	Ceiling Mounted
Occupancy Sensor RJ45 Interface (Plugs into sensor)	Finelite	58161	58161	Attached to Occupancy Sensor
Daylight Dimming Sensor (optional)	Finelite	LS-301 with RJ45 plug	58183	Ceiling Mounted
Daylight Dim. Sensor Setup Remote (optional)	The Watt Stopper	LSR-301-S	58036	Hand Held Remote
Daylight Dim. Sensor Occupant Remote (optional)	The Watt Stopper	LSR-301-P	58035	Hand Held Remote
Control Pack	Finelite	58082	58082	Above Ceiling
Row Pack 120V	Finelite	58083	58083	Above Ceiling
Row Pack 277V	Finelite	58087	58087	Above Ceiling
Expansion Pack	Finelite	58088	58088	Above Ceiling
Whiteboard Pack (optional)	Finelite	58089	58089	Above Ceiling
TCC Assembly - A/V, Quiet Time	Finelite	58065	58065	Teacher Control Center
TCC Assembly - A/V, Quiet Time, Dim. (optional)	Finelite	58066	58066	Teacher Control Center
TCC Assembly - A/V, QT, Whiteboard (optional)	Finelite	58031	58031	Teacher Control Center
TCC Faceplate - A/V, Quiet Time	Finelite	58069	58069	Teacher Control Center
TCC Faceplate - A/V, QT, Dim. (optional)	Finelite	58070	58070	Teacher Control Center
TCC Faceplate - A/V, QT, Whiteboard (optional)	Finelite	58024	58024	Teacher Control Center

\* Replace with identical ballast.

# FINELITE

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*Better Lighting For A Better Workplace*

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Union City, CA 94587-1525  
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