## Fluorescent Dimming Ballast Selection Guide

### Where to go next:
Fluorescent Lighting Controls Selection Guide, pg.196

<table>
<thead>
<tr>
<th>Lamp Type</th>
<th>Lamp Watts/Length</th>
<th>Lamps per Ballast</th>
<th>Hi-lume® Model #</th>
<th>Tu-Wire® Model #</th>
<th>Eco-10™ Model #</th>
<th>Ballast Current</th>
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<tr>
<td><strong>T8 Linear and U-Tube</strong></td>
<td>17W/24&quot;</td>
<td>1</td>
<td>FDB-2427-120-1</td>
<td>—</td>
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<td>25W/48&quot;</td>
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<td>FDB-3627-120-2</td>
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<td>ECO-T825-120-2</td>
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<td>FDB-3627-120-3</td>
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<td>.62</td>
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<tr>
<td></td>
<td>32W/48&quot;</td>
<td>1</td>
<td>FDB-4827-120-1</td>
<td>2W-T832-120-1</td>
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<td>40W/60&quot;</td>
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<td>FDB-6027-120-2</td>
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<td><strong>T12 Linear and U-Tube</strong></td>
<td>30W/36&quot;</td>
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<td>FDB-3643-120-2</td>
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<td>40W/48&quot;</td>
<td>1</td>
<td>FDB-4843-120-1</td>
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<td>FDB-4843-120-2</td>
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<tr>
<td><strong>T4 4-Pin Quad Tube</strong></td>
<td>18W</td>
<td>1</td>
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<td>—</td>
<td>—</td>
<td>.20</td>
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<td>2</td>
<td>FDB-CF18-120-2-3</td>
<td>2W-T418-120-2</td>
<td>—</td>
<td>.34(.417)</td>
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<tr>
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<td>26W</td>
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<td>2W-T426-120-1</td>
<td>—</td>
<td>.23(.27)</td>
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<td>2</td>
<td>FDB-CF26-120-2-3</td>
<td>2W-T426-120-2</td>
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<td>.44(.53)</td>
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<tr>
<td><strong>T4 4-Pin Triple Tube</strong></td>
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<td>2W-T432-120-1</td>
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<td>FDB-CT32-120-2-3</td>
<td>2W-T432-120-2</td>
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<td></td>
<td>42W</td>
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<td>.39</td>
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<tr>
<td><strong>T5 Twin Tube</strong></td>
<td>39W/16&quot;</td>
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<td>FDB-1643-120-1</td>
<td>—</td>
<td>ECO-T539-120-1</td>
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<td>FDB-1643-120-2</td>
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<td>FDB-1643-120-3</td>
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<td>ECO-T539-120-3</td>
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<td>40W/22&quot;</td>
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<td>ECO-T540-120-2</td>
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<td></td>
<td>50W/22&quot;</td>
<td>1</td>
<td>FDB-2243-120-1</td>
<td>—</td>
<td>ECO-T550-120-1</td>
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<td></td>
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<td>2</td>
<td>FDB-2243-120-2</td>
<td>—</td>
<td>ECO-T550-120-2</td>
<td>.69</td>
</tr>
</tbody>
</table>

1. Ballasts for 3', 4', 6', 7' and 8' T12 HO 120V lamps available, consult factory.
2. Consult factory for compatibility.
3. Add suffix -E or -B to denote wires exit END or BASE of ballast. Models with -B suffix include mounting studs.
4. Add suffix -S if mounting studs desired.
5. Dims both quad and triple tube 4-pin lamps.
6. Eco-10 ballast current.
7. Tu-Wire ballast current.
Where to go next:
Fluorescent Ballast Selection Guide, pg.194;
Fluorescent Lighting Controls Selection Guide, pg.196

One Source for Fluorescent Lighting Controls And Dimming Ballasts

Lutron makes it simple to dim fluorescent lighting in any room
- Lutron brings the experience of smooth, continuous, full-range dimming to fluorescent lighting
- The secret to making fluorescent lighting simple is lighting controls and dimming ballasts that have been specially engineered to work together
- Lutron offers ballasts that dim all popular fluorescent lamp types and manual, remote controlled and multi-scene preset lighting controls in a wide range of styles and colors, see pgs.194-197

1%, 5%, and 10% Fluorescent Dimming Options

Lutron dimming ballasts—superior performance, legendary reliability, and available for all popular lamp types
- For architectural dimming (100%–1%): use the premier Hi-lume® electronic fluorescent dimming ballast to experience continuous full-range dimming
- For high-performance dimming (100%–5%): to dim popular, energy efficient compact lamps and linear lamps, use Hi-lume Compact™ and Tu-Wire® electronic fluorescent dimming ballasts
- For lighting management (100%–10%): use Eco-10™ electronic fluorescent dimming ballasts for commercial and institutional applications

Commercial Dimming Solutions

Lutron has the fluorescent solution for any room or building
- In the workplace Lutron offers fluorescent solutions for any room including conference rooms, private offices, training areas and open office areas
- For colleges and universities, Lutron offers fluorescent solutions for classrooms, lecture halls, auditoriums and other areas

NEW

RadioTouch™
Wireless Multi-Zone Control for Lights, Shades, and Audiovisual Equipment
Contact Customer Service for more information
How to Order Fluorescent Dimming Ballasts

1. Decide what type of lamp to dim
   Select the lamp type at right, then find it in the chart on the next page

<table>
<thead>
<tr>
<th>Lamp Type</th>
<th>Diameter</th>
</tr>
</thead>
<tbody>
<tr>
<td>T8 Linear and U-Tube</td>
<td>1&quot; Dia</td>
</tr>
<tr>
<td>T12 Linear and U-Tube</td>
<td>1 1/2&quot; Dia</td>
</tr>
<tr>
<td>T4 4-Pin Quad Tube</td>
<td>1/2&quot; Dia</td>
</tr>
<tr>
<td>T4 4-Pin Triple Tube</td>
<td>1/2&quot; Dia</td>
</tr>
<tr>
<td>T5 Twin Tube</td>
<td>5/8&quot; Dia</td>
</tr>
</tbody>
</table>

   For ballast options to dim T5HO lamps, contact Lutron Customer Service

2. Find the lamp watts/lamp length required and # of lamps per ballast
   Consult fixture manufacturer or check fluorescent fixture and lamps for this information

   Example: One ballast controlling two lamps in a fixture
   Example Shown:
   - T8 Linear lamps
   - 32W/48"

3. Select dimming ballast based on whether you want 1%, 5%, or 10% maximum dimming
   Use 1% or 5% dimming for residential applications

   1% dimming: architectural
   5% dimming: high performance
   10% dimming: energy management

4. Choose the fluorescent lighting control that's right for your dimming ballast
   See Fluorescent Lighting Controls Selection Guide, pg.196

   Application Notes
   - New fluorescent lamps must be operated ("seasoned") for 100 hours at full output to achieve proper dimming performance and average rated lamp life.
   - Use only rapid-start type sockets with quality knife-edge contacts for linear lamps. Compact fluorescent lamps must use 4-pin type sockets.
   - Lead length from ballast to socket must not exceed 7' (2.12m) for T5HO, T8 and T12 lamps, and 3' (0.9m) for T5 twin tube and T4 compact lamps.

   Ballast Specifications
   - Power Factor: >.95
   - Ballast Factor: >.85
   - Total Harmonic Distortion: <10% (Hi-lume, Eco-10, Hi-lume Compact) <20% (Tu-Wire)
   - Sound Rating: Inaudible in 27dB ambient
   - Lamp Flicker: None visible
   - Frequency of Operation: >25 kHz (Hi-lume, Eco-10) >42 kHz (Tu-Wire)
   - In-Rush Current: 10X operating current
   - Fusing: Internal
   - Min. Starting Temp: 10°C
   - Max. Case Temp: 75°C

For Complete Specifications: www.lutron.com/bpspecs
**Application Notes—Packaging and Global Ordering**

### Clamshell and Boxed Packaging
- Many Lutron products are available in both boxes and clamshell packages. Consult the Lutron Lighting Controls Price List or Lutron Customer Service for the complete listing of packages available for each product.

### Bi-Lingual Packaging
- Most Lutron products shown in the Dimmers and Fan-Speed section of this catalog are available in bi-lingual English/Spanish and English/French clamshell packaging suitable for retail display, with bi-lingual instructions included. For a complete list of foreign language packaging, please call your Lutron sales representative, or Lutron Customer Service at 1-610-282-3800.

### Global Product Approvals
- All products in this catalog are UL listed; most are CSA approved; many are NOM approved. To check on these or other global product listing/approvals, contact Customer Service.

### Lutron Product Availability By Voltage

<table>
<thead>
<tr>
<th>Product</th>
<th>277V</th>
<th>220/240V</th>
<th>230V</th>
<th>100/200V</th>
</tr>
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<tbody>
<tr>
<td>Attache®, pg.96</td>
<td></td>
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<tr>
<td>Claro® Wallplates &amp; Access., pg.70</td>
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<td>Credenza®, pg.96</td>
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<tr>
<td>Diva®, pg.50</td>
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<tr>
<td>Eco-10® (Eco-Series) Ballasts, pg.194</td>
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<tr>
<td>GRAFIK Eye®, pg.104</td>
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<td>Hi-lume® Ballasts, pg.194</td>
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<tr>
<td>Hi-Power®, pg.200</td>
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<tr>
<td>Homeworks®, Interactive®, pg.183</td>
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<td>Maestro®, pg.56</td>
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<td>NovaT®®, pg.36</td>
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<td>Skylark®, pg.64</td>
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<tr>
<td>Spacer® System®, pg.136</td>
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</table>

Unless noted, all products shown in this catalog are 120V, 60Hz.

The chart at right lists the product families that contain controls available in global voltages.

Contact Lutron for a complete list of products and models available by voltage.

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**World Headquarters**
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Wapping, London E1W3JF
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Fax: +44-(0)207-480-6899

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@OM - Lutron Product Availability By Voltage

To Order/Customer Service • 8am–8pm ET (US/CAN) • 1-888-LUTRON1
Hi-lume FDB Ballast: For Architectural Dimming

Hi-lume Compact Ballast: For Use with Compact Fluorescent Lamps

Eco-10 Phase Control Ballast: For Workplace Dimming

Eco-10 10 Volt Option Ballast: For 0-10VDC Signal Applications

**FLUORESCENT DIMMING FOR PERSONNA, microWATT, GRAFIK EYE & COMPATIBLE LUTRON WALLBOX CONTROLS**

**Hi-lume FDB (100%-1% dimming)**
(Architectural Fluorescent Dimming Ballast; see data sheet P/N 360-343)
- Silent, flicker-free dimming from full to 1% of full light (see "Perceived Light" graph below)
- Meets virtually any application (lamp sizes, types and lengths)
- Models for 1, 2 or 3 lamps per ballast (120V and 277V) available from stock
- Global voltages available (220V–240V–50Hz or 60Hz)*

**Hi-lume Compact (100%-5% dimming)**
(Dimming Ballast for Compact Fluorescents; see data sheet P/N 360-318 and P/N 360-402)
- Dims new energy-saving compact fluorescent lamps
- Available for control of 120V and 277V, 32W, 26W and 18W, 4-pin compact fluorescent lamps
- Specify Hi-lume Compact dimming ballasts on all new fixtures. Call the Lutron HOTLINE for a list of fixture manufacturers

**Eco-10 Phase Control (100%-10% dimming)**
(Workplace Fluorescent Dimming Ballast; see data sheet P/N 360-379)
- Smooth, flicker-free fluorescent dimming down to 10% of full light output
- Meets virtually any application (lamp sizes, types and lengths)
- Models for 1, 2 or 3 lamps per ballast (120V and 277V) available from stock

**Eco-10 10-Volt Option (100%-10% dimming)**
(Dimming Ballast for 0-10VDC Low-Voltage Signal Applications; see data sheet P/N 360-489)
- For direct connection to building management systems or daylight sensors, new and retrofit applications
- Use where lighting zones must be separated from electrical circuits

**A 20 YEAR HISTORY—WORLD CLASS QUALITY**
Lutron ballasts meet and exceed the world's highest quality standards. Just what you would expect from the company that introduced the electronic dimming ballast twenty years ago. Couple that with our track record for reliability and trouble-free performance and you have a ballast you can count on for years to come.
### Ballast Selection Guide

#### For Hi-lume

<table>
<thead>
<tr>
<th>YOUR LAMP TYPE/LENGTH/WATTS</th>
<th>YOUR SUPPLY VOLTAGE</th>
<th>HI-LUME MODEL</th>
<th>ADD NO. LAMPS/BALLAST</th>
<th>ADD NO. LAMPS/BALLAST</th>
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<tbody>
<tr>
<td>T5</td>
<td>16&quot;L / 39W</td>
<td>120 VOLT</td>
<td>277 VOLT</td>
<td>FDB-1643-120-2</td>
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<td>22&quot;L / 40W</td>
<td>120 VOLT</td>
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<td>FDB-2227-120-2</td>
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<tr>
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<td>22&quot;L / 50W</td>
<td>120 VOLT</td>
<td>277 VOLT</td>
<td>FDB-2243-120-2</td>
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#### For Eco-10

<table>
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<th>YOUR LAMP TYPE/LENGTH/WATTS</th>
<th>YOUR SUPPLY VOLTAGE</th>
<th>ECO-10 MODEL</th>
<th>ADD NO. LAMPS/BALLAST</th>
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<td>277 VOLT</td>
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<td>277 VOLT</td>
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<td>120 VOLT</td>
<td>277 VOLT</td>
<td>ECO-T550-120-2</td>
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</tbody>
</table>

**EXAMPLE:** Your fixture has (2) T8, 32W lamps supplied by 120 Volts. Complete Hi-lume ballast model is FDB-4827-120-2.

**EXAMPLE:** Your fixture has (3) T8, 32W lamps supplied by 277 Volts. Complete Eco-10 ballast model is ECO-T832-277-3.

### Hi-lume and Eco-10 Dimming Ballast and Control Application/Installation Notes
- All lamps must be "rapid-start" fluorescent. Do not use T-12 "energy-saving" lamps.
- Each dimming ballast must be mounted in the fixture with the lamp(s) it is controlling. Keep the lead length between the ballast and the lamps under 7 feet (3 feet for ballasts that control T-5 lamps).
- New lamps must be burned in at full intensity for 100 hours before dimming.
- Do not mix Hi-lume OSPCU dimming ballasts (no longer in production) with Hi-lume FDB or Eco-10 on the same control. Do not mix magnetic dimming ballasts with Hi-lume FDB or Eco-10 on the same control.
- Lutron does not recommend combining Eco-10 and Hi-lume ballasts. When placed on the same circuit with a shared control, fixtures controlled by Eco-10 and Hi-lume ballasts will produce different light intensities.
- For capacities in multigang installations see ganging and derating information, pages 56-57.

- Phase Control ballasts require three line-voltage wires: hot, dimmed hot and neutral.
- Eco-10 10-Volt Option ballasts require two line-voltage wires: hot and neutral, and two low-voltage 0-10VDC Class 2 wires.
- For wiring information, see page 59.

**For More Information**

Contact the Lutron Hotline at 1-800-523-9466 to request the following data sheets:
- Hi-lume FDB-series data sheet (P/N 360-343)
- Hi-lume Compact data sheets:
  - P/N 360-318 for 26W and 18W Quad-tube
  - P/N 360-402 for 32W Triple-tube
- Eco-10 Phase Control data sheet (P/N 360-379)
- Eco-10 10-Volt Option data sheet (P/N 360-489)

Specify Lutron's exclusive 3-lamp dimming ballast.