ICETRON® ECOLOGIC®
Inductively Coupled Fluorescent System

ICETRON ECOLOGIC lamp and QUICKTRONIC® ballast system offers a high quality white light lamp with color consistency throughout the unparalleled long life. With a lamp life of 100,000 hours, which is equal to 10 years of continuous life, you will reduce maintenance cost without giving up light or color. This is five to ten times the typical service life of conventional fluorescent and metal halide lamps. ICETRON lamps are available in 3500K, 4100K and 5000K color temperatures with a premium phosphor blend that assures color consistency throughout the life of the lamp. 2200K in 150W available made to order.

The inductively coupled electrodeless lamp uses magnetic-induction technology instead of an electrode at each end of the fluorescent tube to generate light. The absence of electrodes allows much longer lamp life. ICETRON lamps pass the Federal TCLP test, classifying them as non-hazardous waste in most states.

**Key Features & Benefits**
- Unparalleled lamp life – 100,000 hour life
- 10 years of continuous operation
- White light – 3500K, 4100K, 5000K
- Consistent color over long lamp life
- Instant on/restrike
- Low temperature starting:
  - -25°C with ICE40 and ICE70
  - -40°C with ICE100, ICE150 and ICE200
- Broad operating temperature range
- Simple connector assembly
- Small profile 2-prong connector with 18 to 24” leads
- Fits through 1/2 inch conduit
- Ballast remote mounting possible up to 66 feet
- Universal voltage ballast (120-277V)

**Product Offering**

<table>
<thead>
<tr>
<th>Lamp</th>
<th>Watts</th>
<th>CCT</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICETRON 40/2P/ECO</td>
<td>40</td>
<td>3500K, 4100K, 5000K</td>
</tr>
<tr>
<td>ICETRON 70/2P/ECO</td>
<td>70</td>
<td>3500K, 4100K, 5000K</td>
</tr>
<tr>
<td>ICETRON 100/2P/ECO</td>
<td>100</td>
<td>3500K, 4100K, 5000K</td>
</tr>
<tr>
<td>ICETRON 150/2P/ECO</td>
<td>150</td>
<td>2200K, 3500K, 4100K, 5000K</td>
</tr>
<tr>
<td>ICETRON 200/2P/ECO</td>
<td>200</td>
<td>3500K, 4100K, 5000K</td>
</tr>
</tbody>
</table>

**Application Information**

**Applications**
- Bridge/tunnel
- Escalators
- Freezers/cold storage
- High/low bay
- Indirect
- Indoor & outdoor
- Signage
- Street and area lighting

**Application Notes**
1. Universal operating position – For non-horizontal lamp operation, the amalgam tip should be pointed down.
2. Universal input voltage: 120-277 volts, 50/60 Hz.

**Thermal Characteristics**
1. Fixture must act as heat sink for lamp induction cores and ballast – good thermal coupling required.
2. Maximum bulb wall temperature of 302°F (150°C).
3. Maximum magnetic ferrite core temperature is 302°F (150°C).
4. Amalgam tip temperature for 90% light output for 70W, 150W, 200W types is 130-260°F (55-125°C), 104-199°F (40-93°C) for the 40W types and 122-260°F (50-125°C) for the 100W types.
5. Tc Max (maximum allowable ballast case temp.) is: 149°F (65°C) for QT1x40 UNV-T & QT1x100 UNV-T, 158°F (70°C) for QT1x150 UNV-T, 167°F (75°C) for QT1x200 UNV-T, 160°F (71°C) for QT1x100 UNW-W & QT1x150 UNW-W.
6. Ballast may be mounted up to 66 feet from lamp. Please request remote mounting instructions.
7. For cold temperature application, use suitably enclosed fixture to maximize lumen output.
8. Amalgam tip covers (NAED 22093 or 22354 - Bulk Pack) available for faster warm-up under very cold operating conditions.
9. ICETRON TYPE-1 outdoor ballast must be within overall electrical enclosure and fully protected from any exposure to moisture.
10. 24” wiring extension/harness available (NAED 49755).

1. TCLP test results are based on NEMA LL Series standards and are available on request.
2. Lamp disposal regulations may vary; check your local & state regulations.

**SYLVANIA ICETRON ECOLOGIC fluorescent lamps pass the Federal Toxicity Characteristic Leaching Procedure (TCLP) criteria for classification as non-hazardous waste in most states.**
<table>
<thead>
<tr>
<th>SYSTEMS Lamp Description</th>
<th>Ballast Description</th>
<th>Lamp Wattage</th>
<th>System Wattage 120/277V</th>
<th>Ballast Factor</th>
<th>System Lumens¹</th>
<th>Mean Lumens¹²</th>
<th>Rated Life</th>
<th>Initial LPW 120/277V</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICE40/RCT/2P/ECO</td>
<td>QT 1X40ICE/UNV-T</td>
<td>40</td>
<td>48/47</td>
<td>1.00</td>
<td>3000</td>
<td>1970</td>
<td>100,000</td>
<td>63/64</td>
</tr>
<tr>
<td>ICE40/CIR/2P/ECO</td>
<td>QT 1X40ICE/UNV-T</td>
<td>40</td>
<td>48/47</td>
<td>1.00</td>
<td>3000</td>
<td>1970</td>
<td>100,000</td>
<td>63/64</td>
</tr>
<tr>
<td>ICE70/2P/ECO</td>
<td>QT 1X100ICE/UNV-T</td>
<td>70</td>
<td>79/77</td>
<td>1.05</td>
<td>6815</td>
<td>5645</td>
<td>100,000</td>
<td>86/89</td>
</tr>
<tr>
<td>ICE100/2P/ECO</td>
<td>QT 1X100ICE/UNV-T</td>
<td>100</td>
<td>106/103</td>
<td>1.00</td>
<td>8600</td>
<td>7125</td>
<td>100,000</td>
<td>81/84</td>
</tr>
<tr>
<td>ICE100/2P/ECO</td>
<td>QT 1X150ICE/UNV-T</td>
<td>100</td>
<td>154/149</td>
<td>1.38</td>
<td>11,900</td>
<td>9860</td>
<td>100,000</td>
<td>77/80</td>
</tr>
<tr>
<td>ICE150/2P/ECO</td>
<td>QT 1X150ICE/UNV-T</td>
<td>150</td>
<td>161/156</td>
<td>1.00</td>
<td>13,000</td>
<td>10,775</td>
<td>100,000</td>
<td>81/83</td>
</tr>
<tr>
<td>ICE200/RCT/2P/ECO</td>
<td>QT 1X200ICE/UNV-T</td>
<td>200</td>
<td>220/214</td>
<td>1.00</td>
<td>16,400</td>
<td>11,465</td>
<td>100,000</td>
<td>75/77</td>
</tr>
<tr>
<td>ICE200/CIR/2P/ECO</td>
<td>QT 1X200ICE/UNV-T</td>
<td>200</td>
<td>220/214</td>
<td>1.00</td>
<td>16,400</td>
<td>11,465</td>
<td>100,000</td>
<td>75/77</td>
</tr>
</tbody>
</table>

1. Lumen data for 3500K and 4100K; lumens for 5000K will be slightly lower.
2. Mean Lumens at 40,000 hours.
3. Lumens, wattage, color and CRI measured @ an amalgam tip temperature of 149°F (65°C) for ICETRON® 100, 158°F (70°C) amalgam tip temperature for ICETRON 70, ICETRON 150 & ICETRON 200 and 138°F (59°C) for ICETRON 40.
4. Made to order only. Contact your SYLVANIA representative for quantities and lead times.

<table>
<thead>
<tr>
<th>BALLASTS Item Number</th>
<th>Ordering Description</th>
<th>Voltage Range</th>
<th>Compatible Lamps</th>
</tr>
</thead>
<tbody>
<tr>
<td>49758</td>
<td>QT1X40ICE/UNV-T</td>
<td>120-277</td>
<td>ICE40/RCT/2P, ICE40/CIR/2P</td>
</tr>
<tr>
<td>49753</td>
<td>QT1X100ICE/UNV-T</td>
<td>120-277</td>
<td>ICE70/2P, ICE100/2P</td>
</tr>
<tr>
<td>49772</td>
<td>QT1X150ICE/UNV-T</td>
<td>120-277</td>
<td>ICE100/2P, ICE150/2P</td>
</tr>
<tr>
<td>49756</td>
<td>QT1X150ICE/UNV-W</td>
<td>120-277</td>
<td>ICE70/2P, ICE100/2P</td>
</tr>
<tr>
<td>49759</td>
<td>QT1X100ICE/UNV/DIM</td>
<td>120-277</td>
<td>ICE100/2P</td>
</tr>
<tr>
<td>49773</td>
<td>QT1X150ICE/UNW</td>
<td>120-277</td>
<td>ICE100/2P, ICE150/2P</td>
</tr>
<tr>
<td>49789</td>
<td>QT1X200ICE/UNV-T</td>
<td>120-277</td>
<td>ICE200/RCT/2P, ICE200/CIR/2P</td>
</tr>
</tbody>
</table>

Note: Models rated UL Type 1 ("T" suffix) are designed for general lighting applications. Models rated UL Type 2 ("W" suffix) provide protection from water intrusion and are suitable for damp or wet locations.
### Ordering Guide

**ICE100/835/2P/ECO**

<table>
<thead>
<tr>
<th>ICE</th>
<th>100</th>
<th>/</th>
<th>8</th>
<th>35</th>
<th>/</th>
<th>RCT</th>
<th>/</th>
<th>2P</th>
<th>/</th>
<th>ECO</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICETRON® Inductively Coupled Electrodeless</td>
<td>Lamp Wattage</td>
<td>8 = 80 CRI</td>
<td>22 = CCT 2200K</td>
<td>35 = CCT 3500K</td>
<td>41 = CCT 4100K</td>
<td>50 = CCT 5000K</td>
<td>Bulb Type</td>
<td>RCT = Rectangular</td>
<td>CIR = Circular</td>
<td>2 Prong</td>
</tr>
<tr>
<td></td>
<td>40W, 70W, 100W, 150W, 200W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**QT1X100ICE/UNV-T**

<table>
<thead>
<tr>
<th>QT</th>
<th>1X</th>
<th>100</th>
<th>ICE</th>
<th>/</th>
<th>UNV</th>
<th>-T</th>
</tr>
</thead>
<tbody>
<tr>
<td>QUICKTRONIC®</td>
<td># Lamps</td>
<td>Primary Lamp Wattage</td>
<td>ICETRON Inductively Coupled Electrodeless</td>
<td>Line Voltage</td>
<td>120 to 277V</td>
<td>Top Mount</td>
</tr>
</tbody>
</table>

### Technical Information

#### Dimensions

<table>
<thead>
<tr>
<th>Dims.</th>
<th>ICE40/CIR</th>
<th>ICE40/RCT</th>
<th>ICE70</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height of glass</td>
<td>H1: 1.65 ± 0.04 in. (42 ± 1 mm)</td>
<td>H1: 1.65 ± 0.04 in. (42 ± 1 mm)</td>
<td>H1: 2.13 ± 0.04 in. (54 ± 1 mm)</td>
</tr>
<tr>
<td>Overall height</td>
<td>H2: 2.44 ± 0.078 in. (62 ± 2 mm)</td>
<td>H2: 2.44 ± 0.078 in. (62 ± 2 mm)</td>
<td>H2: 2.87 ± 0.08 in. (73 ± 2 mm)</td>
</tr>
<tr>
<td>Tube to mount height</td>
<td>H3: 0.314 min in. (8 min)</td>
<td>H3: 0.314 min in. (8 min)</td>
<td>H3: 0.39 min in. (10 min)</td>
</tr>
<tr>
<td>Length of main body</td>
<td>L1: 5.45 ± 0.047 in. (138.5 ± 1.2 mm)</td>
<td>L1: 5.45 ± 0.047 in. (138.5 ± 1.2 mm)</td>
<td>L1: 9.84 ± 0.05 in. (250 ± 1.2 mm)</td>
</tr>
<tr>
<td>Overall Length</td>
<td>L2: 6.96 max in. (177 max)</td>
<td>L2: 7.54 ± 0.08 in. (191.5 ± 0.08)</td>
<td>L2: 12.4 max in. (315 max)</td>
</tr>
<tr>
<td>Mount hole spacing (between cores)</td>
<td>L3: 2.58 ± 0.08 in. (65.5 ± 2)</td>
<td>L3: 3.31 ± 0.08 in. (84 ± 2)</td>
<td>L3: 5.10 ± 0.15 in. (129.5 ± 3.7)</td>
</tr>
<tr>
<td>Mount hole spacing (each core)</td>
<td>L4: 1.57 ± 0.04 in. (40 ± 1)</td>
<td>L4: 1.57 ± 0.04 in. (40 ± 1)</td>
<td>L4: 3.23 ± 0.11 in. (82.0 ± 2.7)</td>
</tr>
<tr>
<td>Bracket spacing</td>
<td>L5: 1.02 max in. (26 max)</td>
<td>L5: 1.69 max in. (43 max)</td>
<td>L5: 4.13 min in. (105 min)</td>
</tr>
<tr>
<td>Amalgam tip length</td>
<td>L6: 0.59 max in. (15 max)</td>
<td>L6: 0.59 max in. (15 max)</td>
<td>L6: 0.59 max in. (15 max)</td>
</tr>
<tr>
<td>Lead wire length</td>
<td>L7: 18.11 min in. (460 min)</td>
<td>L7: 18.11 min in. (460 min)</td>
<td>L7: 24.00 min in. (609.6 min)</td>
</tr>
<tr>
<td>Slot width</td>
<td>S: blank in. (blank)</td>
<td>S: blank in. (blank)</td>
<td>S: 0.20 ± 0.01 in. (5.1 ± 0.2)</td>
</tr>
<tr>
<td>Tip to centerline</td>
<td>T: blank in. (blank)</td>
<td>T: blank in. (blank)</td>
<td>T: 0.98 ± 0.08 in. (25 ± 2)</td>
</tr>
<tr>
<td>Width</td>
<td>W: 5.83 ± 0.12 in. (148 ± 3)</td>
<td>W: 4.33 ± 0.12 in. (110 ± 3)</td>
<td>W: 5.41 ± 0.06 in. (137.5 ± 1.5)</td>
</tr>
<tr>
<td>Lamp weight – lb (kg)</td>
<td>1.04 lb (0.47 kg)</td>
<td>1.05 lb (0.475 kg)</td>
<td>1.8 lbs (0.84 kg)</td>
</tr>
<tr>
<td>Mounting Screw (Included)</td>
<td>M4*0.7</td>
<td>M4*0.7</td>
<td></td>
</tr>
</tbody>
</table>
ICE100 | ICE150, ICE200/RCT | ICE200/CIR
--- | --- | ---
Height of glass | H1 | H1 | H1
Overall height | H2 | H2 | H2
Tube to mount height | H3 | H3 | H3
Length of main body | L1 | L1 | L1
Overall Length | L2 | L2 | L2
Mount hole spacing (between cores) | L3 | L3 | L3
Mount hole spacing (each core) | L4 | L4 | L4
Bracket spacing | L5 | L5 | L5
Amalgam tip length | L6 | L6 | L6
Lead wire length | L7 | L7 | L7
Slot width | S | S | S
Tip to centerline | T | T | T
Width | W | W | W
Lamp weight – lb (kg) | | | 

**Type 1 Ballast Dimensions**
- Overall: 7.15" L x 3.96" W x 1.70" H
- Mounting: 6.70" L x 1.90" W
- Packaging – Quantity: 5
- Weight: 1.9 lbs ea. (approx.)

**ICE70, 100, 150, 200/RCT**

**Type 2 Ballast Dimensions**
- Overall: 7.10" L x 4.30" W x 1.70" H
- Mounting: 6.70" L x 1.90" W
- Packaging – Quantity: 5
- Weight: 2.5 lbs ea. (approx.)

**ICE40/RCT**

**ICE40 CIR**

**ICE200/CIR**
System shall be (40W, 70W, 100W, 150W or 200W) ICETRON® ECO® inductively coupled electrodeless lamp and ballast system having (3000, 6815, 8600, 11,900, 13,000 or 16,400) system lumens. System shall have an average rated life of 100,000 hours.

**Sample Specification**

QUICK 60+ OSRAM SYLVANIA lamp and ballast combination - Limited 5 year lamp and ballast warranty is possible if both lamps and ballasts are provided by OSRAM SYLVANIA. See the QUICK 60+ warranty for details and restrictions.

**Warranty**

QUICK 60+® OSRAM SYLVANIA lamp and ballast combination - Limited 5 year lamp and ballast warranty is possible if both lamps and ballasts are provided by OSRAM SYLVANIA. See the QUICK 60+ warranty for details and restrictions.

**United States**
OSRAM SYLVANIA
100 Endicott Street
Danvers, MA 01923
1-800-LIGHTBULB

- **Trade**
  - Phone: 800-255-5042
  - Fax: 800-255-5043
- **National Accounts**
  - Phone: 800-562-4671
  - Fax: 800-562-4674
- **OEM/Special Markets**
  - Phone: 800-762-7191
  - Fax: 800-762-7192
- **Retail**
  - Phone: 800-842-7010
  - Fax: 800-842-7011

**SYLVANIA Lighting Services**
Phone: 800-323-0572
Fax: 800-537-0784

**Canada**
OSRAM SYLVANIA LTD.
2001 Drew Road
Mississauga, ON L5S 1S4
1-800-LIGHTBULB

- **Trade**
  - Phone: 800-263-2852
  - Fax: 800-667-6772
- **OEM/Special Markets**
  - Phone: 800-265-2852
  - Fax: 800-667-6772
- **Retail**
  - Phone: 800-720-2852
  - Fax: 800-667-6772

**SYLVANIA Lighting Services**
Phone: 800-663-4268
Fax: 866-239-1278

**Mexico**
OSRAM MEXICO
Tultitlan/Edo de Mexico
Phone: 011-52-55-58-99-18-50

**ENCELIUM® Products**
United States
Phone: 201-508-1570
Fax: 201-508-1589

Canada
Phone: 905-731-7678
Fax: 905-731-1401

www.sylvania.com

**Technical Information**

**Lumen Maintenance for 70, 100 and 150W ICETRON®**

- **% Rated Lumens**
- **Burning Hours**
  - 0
  - 20,000
  - 40,000
  - 60,000
  - 80,000
  - 100,000

*Contact OSRAM SYLVANIA for 40 & 200W Lumen Maintenance Data*

**Luminous Intensity Distribution**

- **0 Degrees**
- **45 Degrees**
- **90 Degrees**

If the lamp is operated in the vertical or an angled position, the lamp should be mounted with the amalgam tip in the downward position.

**Related Literature**

- **QUICKTRONIC ICE ballast** (Literature Code: ECS451)
- **QUICKTRONIC ICE DIM ballast** (Literature Code: ECS454)
- **QUICK 60+® System Warranty** (Literature Code: ECS140)