

# 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)

SYLVANIA ICETRON ECOLOGIC fluorescent lamps pass the Federal Toxicity Characteristic Leaching Procedure (TCLP)<sup>1</sup> criteria for classification as non-hazardous waste in most states.<sup>2</sup>



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.

## Product Offering

Lamp	Watts	CCT
ICETRON 40/2P/ECO	40	3500K, 4100K, 5000K
ICETRON 70/2P/ECO	70	3500K, 4100K, 5000K
ICETRON 100/2P/ECO	100	3500K, 4100K, 5000K
ICETRON 150/2P/ECO	150	2200K, 3500K, 4100K, 5000K
ICETRON 200/2P/ECO	200	3500K, 4100K, 5000K



## 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.
3. Low EMI – complies with FCC Part 18 Non-Consumer limits.

### 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 UNV-W & QT1x150 UNV-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).
  - Can only use one per lamp.
  - Do not daisy chain.

Fixture Description:	Type
Project/Job:	
SYLVANIA lamp:	
SYLVANIA ballast:	
Notes:	

Ordering Information

SYSTEMS Lamp Description	Ballast Description	Lamp Wattage	System Wattage 120/277V	Ballast Factor	System Lumens <sup>1</sup>	Mean Lumens <sup>1,2</sup>	Rated Life	Initial LPW 120/277V
ICE40/RCT/2P/ECO	QT 1X40ICE/UNV-T	40	48/47	1.00	3000	1970	100,000	63/64
ICE40/CIR/2P/ECO	QT 1X40ICE/UNV-T	40	48/47	1.00	3000	1970	100,000	63/64
ICE70/2P/ECO	QT 1X100ICE/UNV-T	70	79/77	1.05	6815	5645	100,000	86/89
ICE100/2P/ECO	QT 1X100ICE/UNV-T	100	106/103	1.00	8600	7125	100,000	81/84
ICE100/2P/ECO	QT 1X150ICE/UNV-T	100	154/149	1.38	11,900	9860	100,000	77/80
ICE150/2P/ECO	QT 1X150ICE/UNV-T	150	161/156	1.00	13,000	10,775	100,000	81/83
ICE200/RCT/2P/ECO	QT 1X200ICE/UNV-T	200	220/214	1.00	16,400	11,485	100,000	75/77
ICE200/CIR/2P/ECO	QT 1X200ICE/UNV-T	200	220/214	1.00	16,400	11,485	100,000	75/77

LAMPS Item Number	Ordering Description	Initial Lamp Lumens	Mean Lamp Lumens <sup>2</sup>	Color Temp <sup>3</sup>	CRI <sup>3</sup>
26310	ICE40/835/RCT/2P/ECO	3000	1970	3500K	80
26312	ICE40/841/RCT/2P/ECO	3000	1970	4100K	80
26314	ICE40/850/RCT/2P/ECO	2925	1925	5000K	80
26311	ICE40/835/CIR/2P/ECO	3000	1970	3500K	80
26313	ICE40/841/CIR/2P/ECO	3000	1970	4100K	80
26315	ICE40/850/CIR/2P/ECO	2925	1925	5000K	80
26087	ICE70/835/2P/ECO	6815	5645	3500K	80
26088	ICE70/841/2P/ECO	6815	5645	4100K	80
26089 <sup>1</sup>	ICE70/850/2P/ECO	6655	5515	5000K	80
26102	ICE100/835/2P/ECO	8600	7125	3500K	80
26103	ICE100/841/2P/ECO	8600	7125	4100K	80
26105 <sup>1</sup>	ICE100/850/2P/ECO	8300	6880	5000K	80
26152	ICE150/835/2P/ECO	13,000	10,775	3500K	80
26153	ICE150/841/2P/ECO	13,000	10,775	4100K	80
26155 <sup>1</sup>	ICE150/850/2P/ECO	12,700	10,525	5000K	80
26892 <sup>4</sup>	ICE150/822/2P/ECO	12,100	10,030	2200K	80
26893	ICE200/835/RCT/2P/ECO	16,400	12,190	3500K	80
26895	ICE200/841/RCT/2P/ECO	16,400	12,190	4100K	80
26897	ICE200/850/RCT/2P/ECO	15,800	11,740	5000K	80
26894	ICE200/835/CIR/2P/ECO	16,400	12,190	3500K	80
26896	ICE200/841/CIR/2P/ECO	16,400	12,190	4100K	80
26898	ICE200/850/CIR/2P/ECO	15,800	11,740	5000K	80

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.

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

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

ICE	100	/	8	/	35	/	RCT	/	2P	/	ECO
ICETRON® Inductively Coupled Electrodeless	Lamp Wattage 40W, 70W, 100W, 150W, 200W		8 = 80 CRI		22 = CCT 2200K 35 = CCT 3500K 41 = CCT 4100K 50 = CCT 5000K		Bulb Type RCT=Rectangular CIR=Circular		2 Prong Connector		ECOLOGIC® TCLP Compliant

### QT1X100ICE/UNV-T

QT	1X	100	ICE	/	UNV	-T
QUICKTRONIC®	# Lamps	Primary Lamp Wattage	ICETRON Inductively Coupled Electrodeless		Line Voltage 120 to 277V	Top Mount

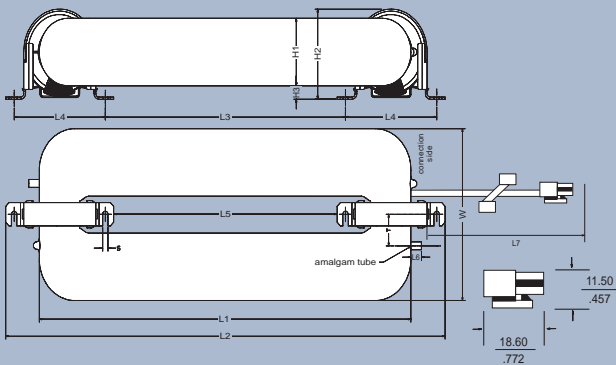
## Technical Information

### Dimensions

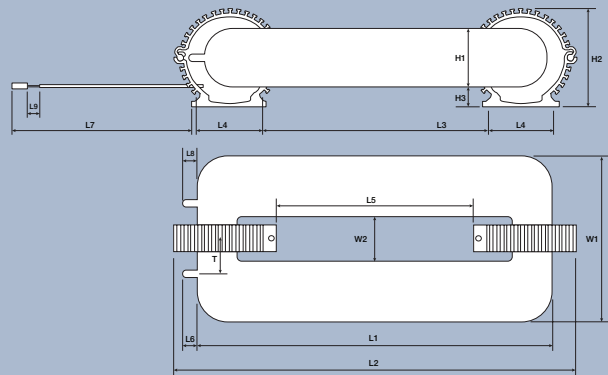
Dims.	ICE40/CIR		ICE40/RCT		ICE70		
	in.	mm	in.	mm	in.	mm	
Height of glass	H1	1.65 ± 0.04	42 ± 1	1.65 ± 0.04	42 ± 1	2.13 ± 0.04	54 ± 1
Overall height	H2	2.44 ± 0.078	62 ± 2	2.44 ± 0.078	62 ± 2	2.87 ± 0.08	73 ± 2
Tube to mount height	H3	0.314 min	8 min	0.314 min	8 min	0.39 min	10 min
Length of main body	L1	5.45 ± 0.047	138.5 ± 1.2	5.89 ± 0.047	149.5 ± 1.2	9.84 ± 0.05	250 ± 1.2
Overall Length	L2	6.96 max	177 max	7.54 ± 0.08	191.5 ± 0.08	12.4 max	315 max
Mount hole spacing (between cores)	L3	2.58 ± 0.08	65.5 ± 2	3.31 ± 0.08	84 ± 2	5.10 ± 0.15	129.5 ± 3.7
Mount hole spacing (each core)	L4	1.57 ± 0.04	40 ± 1	1.57 ± 0.04	40 ± 1	3.23 ± 0.11	82.0 ± 2.7
Bracket spacing	L5	1.02 max	26 max	1.69 max	43 max	4.13 min	105 min
Amalgam tip length	L6	0.59 max	15 max	0.59 max	15 max	0.59 max	15 max
Lead wire length	L7	18.11 min	460 min	18.11 min	460 min	24.00 min	609.6 min
Slot width	S	—	—	—	—	0.20 ± 0.01	5.1 ± 0.2
Tip to centerline	T	—	—	—	—	0.98 ± 0.08	25 ± 2
Width	W	5.83 ± 0.12	148 ± 3	4.33 ± 0.12	110 ± 3	5.41 ± 0.06	137.5 ± 1.5
Lamp weight – lb (kg)		1.04 lb	0.47 kg	1.05 lb	0.475 kg	1.8 lbs	0.84 kg
Mounting Screw (Included)			M4*0.7		M4*0.7		

# Technical Information

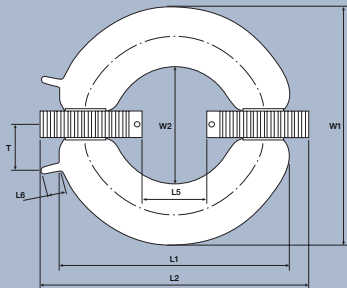
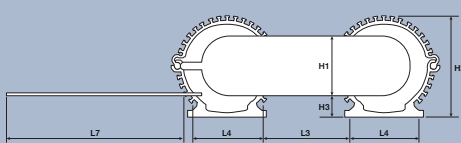
	Dims.	ICE100		ICE150, ICE200/RCT		ICE200/CIR	
		in.	mm	in.	mm	in.	mm
Height of glass	H1	2.13 ± 0.04	54 ± 1	2.13 ± 0.04	54 ± 1	2.28 ± 0.04	58 ± 1
Overall height	H2	2.87 ± 0.08	73 ± 2	2.87 ± 0.08	73 ± 2	2.83 ± 0.08	72 ± 2
Tube to mount height	H3	0.39 min	10 min	0.39 min	10 min	0.31 min	8 min
Length of main body	L1	9.84 ± 0.05	250 ± 1.2	13.78 ± 0.05	350 ± 1.2	11.93 ± 0.08	303 ± 2
Overall Length	L2	12.4 max	315 max	16.34 max	415 max	14.17 max	360 max
Mount hole spacing (between cores)	L3	5.10 ± 0.15	129.5 ± 3.7	9.04 ± 0.15	229.5 ± 3.7	6.46 ± 0.16	164 ± 4
Mount hole spacing (each core)	L4	3.23 ± 0.11	82.0 ± 2.7	3.23 ± 0.11	82.0 ± 2.7	3.27 ± 0.12	83.0 ± 3
Bracket spacing	L5	4.13 min	105 min	8.07 min	205 min	5.79 min	147 min
Amalgam tip length	L6	0.59 max	15 max	0.59 max	15 max	0.59 max	15 max
Lead wire length	L7	24.00 min	609.6 min	24.00 min	609.6 min	24.00 min	610 min
Slot width	S	0.20 ± 0.01	5.1 ± 0.2	0.20 ± 0.01	5.1 ± 0.2	0.20 ± 0.01	5.1 ± 0.2
Tip to centerline	T	0.98 ± 0.08	25 ± 2	0.98 ± 0.08	25 ± 2	1.38	35
Width	W	5.41 ± 0.06	137.5 ± 1.5	5.41 ± 0.06	137.5 ± 1.5	12.20 ± 0.28	310 ± 7
Lamp weight – lb (kg)		1.8 lbs	0.84 kg	2.1 lbs	0.96 kg	1.9 lbs	0.87 kg



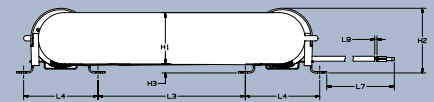
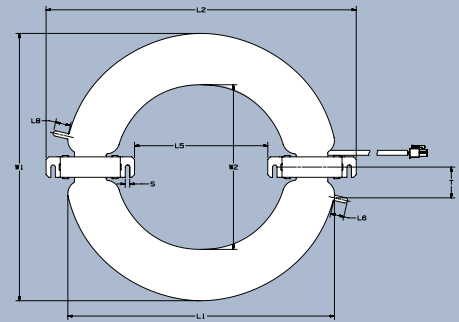
**ICE70, 100, 150, 200/RCT**



**ICE40/RCT**



**ICE40 CIR**



**ICE200/CIR**

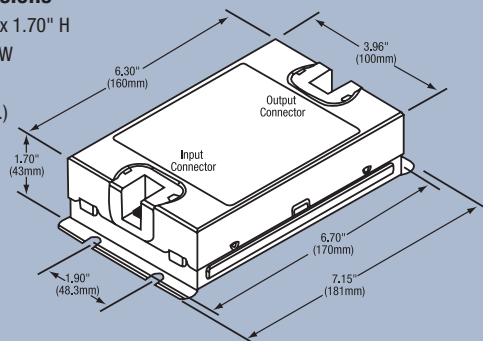
## Type 1 Ballast Dimensions

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.)



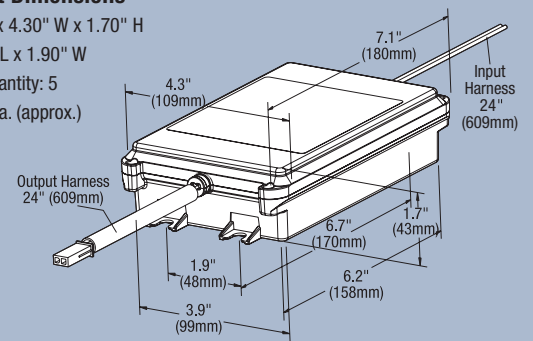
## Type 2 Ballast Dimensions

Overall: 7.10" L x 4.30" W x 1.70" H

Mounting: 6.70" L x 1.90" W

Packaging – Quantity: 5

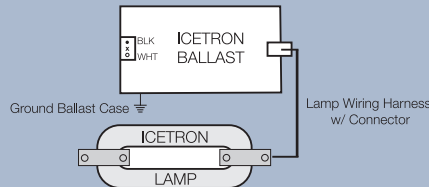
Weight: 2.5 lbs ea. (approx.)



## Ballast Specification

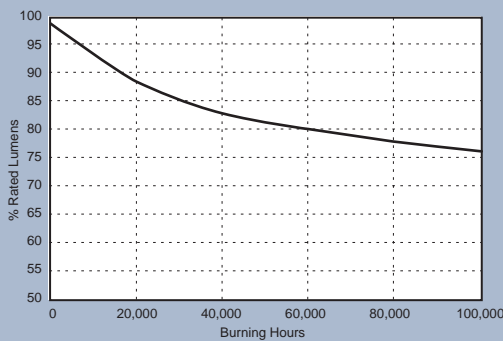
Lamp Frequency: 190-300 KHz  
 Input Frequency: 50/60Hz  
 Voltage Range: 120 to 277 ± 10%  
 UL Listed Class P, Type 1 & 2 Outdoor CSA Certification  
 Lamp CCF: Less than 1.7  
 Low THD: Less than 15%  
 158°F (70C) Maximum Temperature for QT1X150ICE/UNV-T at test point Tc on ballast label  
 167F (75C) Maximum Temperature for QT1X200ICE/UNV-T at test point Tc on ballast label  
 149°F (65°C) Maximum Temperature for QT1X40ICE/UNV-T or QT1X100ICE/UNV-T at test point Tc on ballast label  
 159.8°F (71°C) Maximum Temperature for QT1X150ICE/UNV-W or QT1X100ICE/UNV-W

at test point Tc on ballast label  
 Class A Sound Rating  
 Minimum Starting Temperature -40°F (-40°C) for ICE100, ICE150, and ICE200 systems.  
 Minimum Starting Temperature -13°F (-25°C) for ICE40 and ICE70 lamps on QT1X40ICE/UNV-T or QT1X100 ICE/UNV-T  
 Power Factor: Greater than 95%  
 FCC 47CFR Part 18 Non-Consumer  
 ANSI 62.41 Cat. A Transient Protection



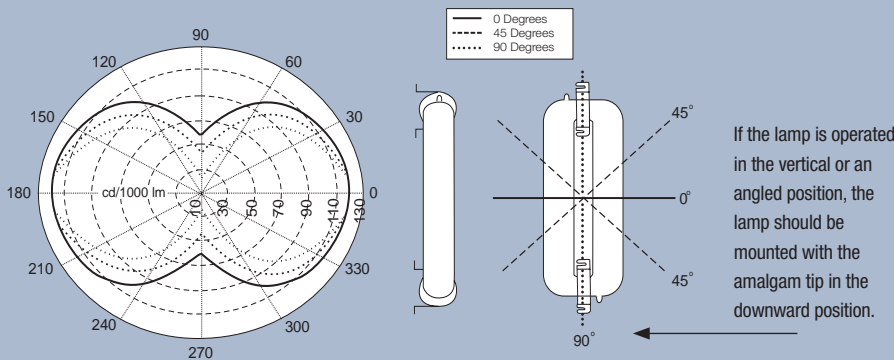
## Technical Information

Lumen Maintenance for 70, 100 and 150W ICETRON®



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

Luminous Intensity Distribution



## Related Literature

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

SYLVANIA is a registered trademark of OSRAM SYLVANIA Inc.  
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 QUICKTRONIC is a registered trademark of OSRAM GmbH.  
 Specifications subject to change without notice.



## Sample Specification

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.

## 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.

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 Danvers, MA 01923  
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 Fax: 800-562-4674

**OEM/Special Markets**  
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 Fax: 800-762-7192

**Retail**  
 Phone: 800-842-7010  
 Fax: 800-842-7011

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

**Display/Optic**  
 Phone: 888-677-2627  
 Fax: 855-543-1043

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