

ICETRON® 2P/ECOLOGIC®

Inductively Coupled Electrodeless Systems



- 2-Prong connector system with 24 inch lamp lead for system assembly
- Connector assembly fits through 1/2" diameter conduit
- Long 100,000 hour life
- White Light – 3500K, 4100K and 5000K
- Consistent color – 80CRI
- Instant on – instant restrike
- High output electronic system
- Universal voltage ballast
- Starting temperatures as low as –40°F
- Amalgam technology for wide operating temperature range
- Ballast remote mounting possible

SYLVANIA ICETRON ECOLOGIC fluorescent lamps are designed to pass the Federal Toxicity Characteristic Leaching Procedure (TCLP)¹ criteria for classification as non-hazardous waste in most states².



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® lamp and QUICKTRONIC® ballast system reduces maintenance cost due to the long 100,000 hour average rated life. This is five to ten times the typical service life of conventional fluorescent and metal halide lamps.

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. These lamps pass the Federal TCLP test, classifying them as non-hazardous waste in most states.

Product Availability

Lamp	Ballast	Life (hrs)	System Wattage 120/277V	Initial System Lumens ¹
ICETRON 70/2P/ECO	QT 1x100ICE/UNV-T	100,000	79/77	6500
ICETRON 100/2P/ECO	QT 1x100ICE/UNV-T	100,000	106/103	8000
ICETRON 100/2P/ECO	QT 1x150ICE/UNV-T	100,000	154/149	11,000
ICETRON 150/2P/ECO	QT 1x150ICE/UNV-T	100,000	161/156	12,000

1. Lumen data for 3500K and 4100K; lumens for 5000K will be slightly lower.

Lamp Comparison

	System Watts	Initial System Lumens ¹	System LPW	System Lumens @10,000 hours	Life (hrs) 10 hrs/start	CRI
ICETRON 70	79	6500	82	5545	100,000	80
70W Metal Halide	90	5200	58	3400	15,000	75
2 FBO31/800XP	57	5160	91	4850	26,000	85
ICETRON 100	106	8000	75	6825	100,000	80
100W Metal Halide	129	8500	66	5500	15,000	75
3 FBO31/800XP	84	7740	92	7275	26,000	85
ICETRON 150	161	12,000	75	10,235	100,000	80
150W Metal Halide	185	12,900	70	8400	15,000	75

1. Lumen data for 3500K and 4100K; lumens for 5000K will be slightly lower.

Application Information

Applications

Indoor & outdoor
Decorative street lighting
Tunnel
Bridge
Internally lighted signs
Escalators
Low bay
Indirect
Freezers/cold storage

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 Non-Consumer limits.

Thermal Characteristics

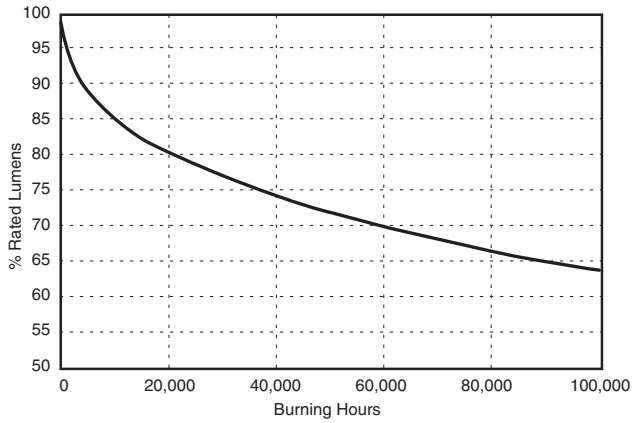
1. Fixture must act as heat sink for lamp induction cores and ballast – good thermal coupling required.
2. Maximum bulb wall temperature of 302°F (150°C).
3. Maximum fixture temperature at lamp base mounting of 212°F (100°C).
4. Amalgam tip temperature for 90% light output 130-260°F (55-125°C).

5. Max 158°F (70°C) ballast temperature at test point Tc on ballast label for QT1X150 UNV-T, 149°F (65°C) for QT1X100 UNV-T.
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) 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).

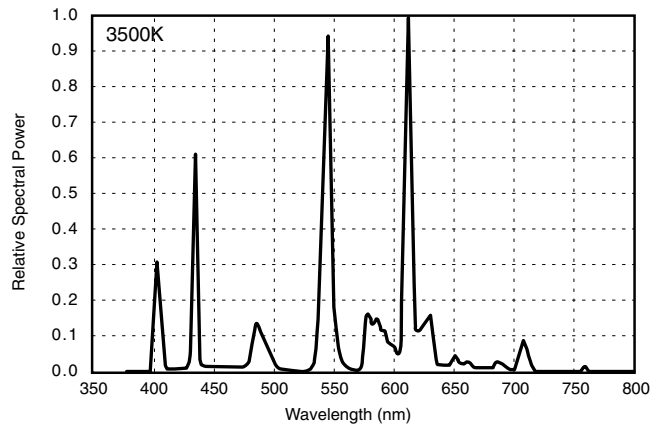


Technical Information

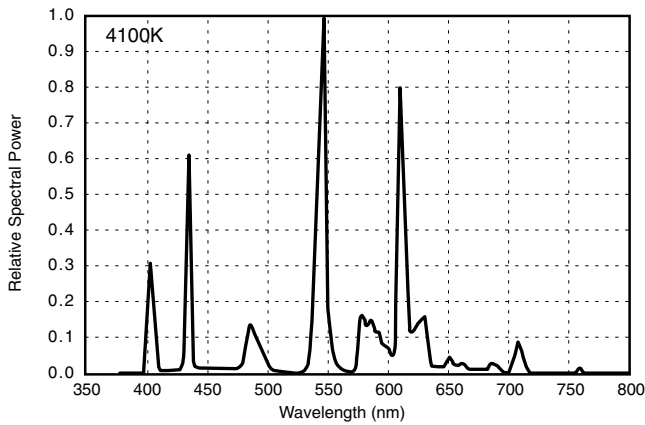
Lumen Maintenance



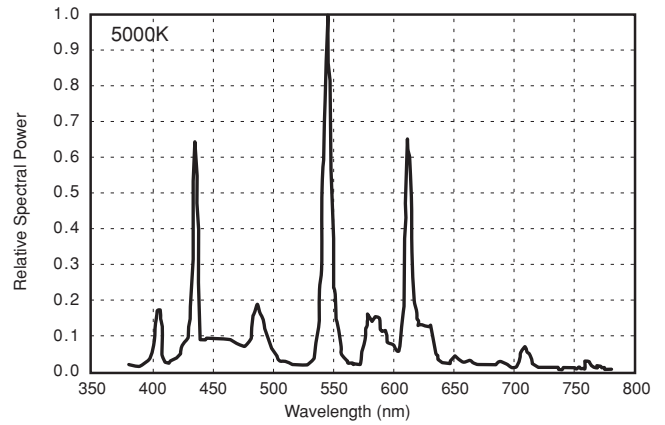
Spectral Power Distribution – 3500K



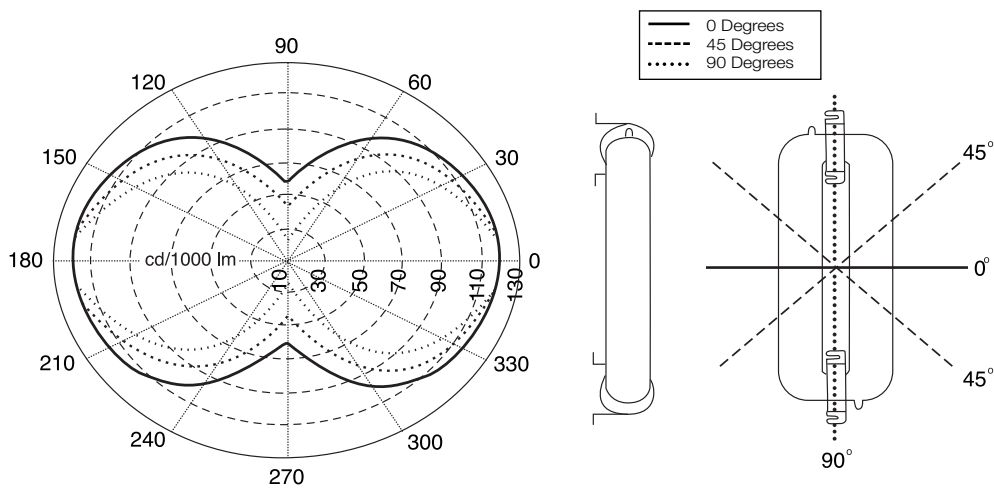
Spectral Power Distribution – 4100K



Spectral Power Distribution – 5000K



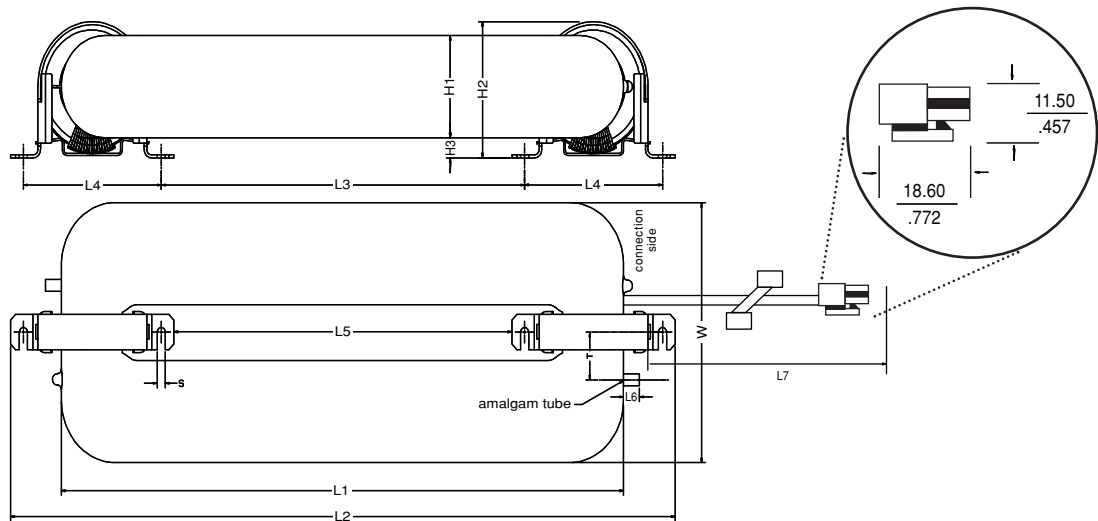
Luminous Intensity Distribution



Lamp Dimensions

Dim.*	ICETRON 70		ICETRON 100		ICETRON 150		
	in.	(mm)	In.	(mm)	In.	(mm)	
Height of glass	H1	2.13 ± 0.04	54 ± 1	2.13 ± 0.04	54 ± 1	2.13 ± 0.04	54 ± 1
Overall height	H2	2.87 ± 0.08	73 ± 2	2.87 ± 0.08	73 ± 2	2.87 ± 0.08	73 ± 2
Tube to mount height	H3	.039 (Min)	10 (Min)	.039 (Min)	10 (Min)	.039 (Min)	10 (Min)
Length of main body	L1	9.84 ± 0.05	250 ± 1.2	9.84 ± 0.05	250 ± 1.2	13.78 ± 0.05	350 ± 1.2
Overall Length	L2	12.4 (Max)	315 (Max)	12.4 (Max)	315 (Max)	16.34 (Max)	415 (Max)
Mount hole spacing (between cores)	L3	5.10 ± 0.15	129.5 ± 3.7	5.10 ± 0.15	129.5 ± 3.7	9.04 ± 0.15	229.5 ± 3.7
Mount hole spacing (each core)	L4	3.23 ± 0.11	82.0 ± 2.7	3.23 ± 0.11	82.0 ± 2.7	3.23 ± 0.11	82.0 ± 2.7
Bracket spacing	L5	4.13 (Min)	105 (Min)	4.13 (Min)	105 (Min)	8.07 (Min)	205 (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)	609.6 (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	0.98 ± 0.08	25 ± 2
Width	W	5.41 ± 0.06	137.5 ± 1.5	5.41 ± 0.06	137.5 ± 1.5	5.41 ± 0.06	137.5 ± 1.5
Lamp weight – lb (kg)		2.1 lbs	0.95 kg	2.1 lbs	0.95 kg	2.5lbs	1.14 kg

* Dimensions subject to change



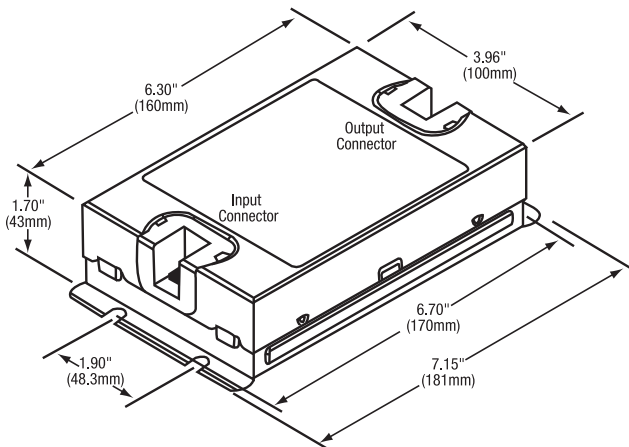
Ballast Dimensions

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.)



Sample Specification

System shall be (70W, 100W, or 150W) ICETRON® ECO® inductively coupled electrodeless lamp and ballast system having (6500, 8000, 11,000 or 12,000) system lumens. System shall have an average rated life of 100,000 hours. Lamp(s) shall be designed to pass the Federal TCLP test.

Warranty Information

Shall be covered for up to 60 months with a comprehensive system warranty. Refer to QUICK 60+® system warranty bulletin for additional details.

Ordering and Specification Information

SYSTEMS

Lamp Description	Ballast Description	Lamp Wattage	System Wattage 120/277V	BF	System ¹ Lumens	Mean ^{1,2} Lumens	Rated Life	Initial LPW 120/277V
ICE70/2P/ECO	QT 1x100ICE/UNV-T	70	79/77	1.05	6500	4830	100,000	82/84
ICE100/2P/ECO	QT 1x100ICE/UNV-T	100	106/103	1.00	8000	5945	100,000	75/77
ICE100/2P/ECO	QT 1x150ICE/UNV-T	100	154/149	1.375	11,000	8175	100,000	71/73
ICE150/2P/ECO	QT 1x150ICE/UNV-T	150	161/156	1.00	12,000	8915	100,000	74/76

LAMPS

Item Number	Ordering Description	Initial Lamp Lumens	Mean Lamp Lumens ²	Color Temp K ³	CRI ³
26087	ICE70/835/2P/ECO	6200	4605	3500	80
26088	ICE70/841/2P/ECO	6200	4605	4100	80
26089 ¹	ICE70/850/2P/ECO	5950	4420	5000	80
26102	ICE100/835/2P/ECO	8000	5945	3500	80
26103	ICE100/841/2P/ECO	8000	5945	4100	80
26105 ¹	ICE100/850/2P/ECO	7600	5645	5000	80
26152	ICE150/835/2P/ECO	12,000	8915	3500	80
26153	ICE150/841/2P/ECO	12,000	8915	4100	80
26155 ¹	ICE150/850/2P/ECO	11,650	8655	5000	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 and @ 158°F (70°C) amalgam tip temperature for ICETRON 70 & ICETRON 150.

BALLASTS

Item Number	Ordering Description	Voltage Range	Compatible Lamps
49753	QT1X100 ICE/UNV-T	120-277	ICE70/2P, ICE100/2P
49772	QT1X150 ICE/UNV-T	120-277	ICE100/2P, ICE150/2P

Ballast Specification

Lamp Frequency: 200-300 KHz

Input Frequency: 50/60Hz

Voltage Range: 120 to 277 ± 10%

UL Listed Class P, Type1 Outdoor CSA Certification

Lamp CCF: Less than 1.7

Low THD: Less than 15%

158°F (70°C) Maximum Temperature for QT1X150ICE/UNV-T at test point Tc on ballast label

149°F (65°C) Maximum Temperature for QT1X100ICE/UNV-T at test point Tc on ballast label

Class A Sound Rating

Minimum Starting Temperature -40°F (-40°C) for ICE100 and ICE150 systems

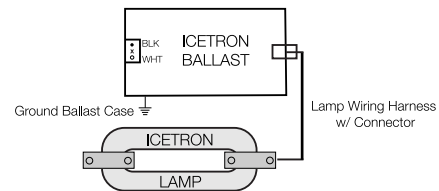
Minimum Starting Temperature -13°F (-25°C) for ICE70 lamps on QT1X100 ICE/UNV-T

Power Factor: Greater than 95%

FCC 47CFR Part 18 Non-Consumer

ANSI 62.41 Cat. A Transient Protection

Ballast Dimension: 7.15" L x 3.96" W x 1.70" overall



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Ordering Guide

ICE100/835/2P/ECO								
ICE	100	/	8	35	/	2P	/	ECO
Inductively Coupled Electrodeless	Lamp Wattage 70W, 100W, 150W		8 = 80 CR	35 = 3500K 41 = 4100K 50 = 5000K		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