

ICETRON®

Inductively Coupled Electrodeless Systems



SYLVANIA ICETRON® lamp and ballast system reduces maintenance cost due to the long 100,000 hour average rated life. This is five to eight 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.

- Long 100,000 hour life
- Instant on/instant restrike
- Universal voltage ballast
- Consistent color — 80 CRI
- High output electronic system
- Low temperature starting as low as -40°F
- Amalgam technology for wide operating temperature range
- 3500K & 4100K color temperatures (white light)
- Ballast remote mounting possible

Product Availability

SYSTEMS:

System	Life (hrs.)	System Wattage	Initial System Lumens
ICETRON 70/QT100	100,000	82	6500
ICETRON 100/QT100	100,000	107	8000
ICETRON 100/QT150	100,000	157	11,000
ICETRON 150/QT150	100,000	157	12,000

System Comparison

	System Watts	System Lumens	System LPW	System @ 10,000 hours	Life (hrs) 10 hrs/start	CRI
ICETRON 70	82	6500	79	5525	100,000	80
70W Metal Halide	90	5200	58	3400	15,000	75
2 – 1-5/8" Curvalume	57	4905	86	4400	24,000	82
ICETRON 100	107	8000	75	6800	100,000	80
100W Metal Halide	129	8500	66	5500	15,000	75
3 – 1-5/8" Curvalume	84	7360	88	6600	24,000	82
ICETRON 150	157	12,000	76	10,230	100,000	80
150W Metal Halide	185	12,900	70	8400	15,000	75

Application Information

Applications

Decorative street lighting
Tunnel
Bridge
Internally lighted signs
Low bay
Indirect
Indoor
Escalators

Application Notes

1. Universal operating position – For vertical lamp operation the amalgam tip should be positioned down.
2. Plug-in connector between lamp and ballast.
3. Universal input voltage: 120/277 volts, 50/60 Hz.
4. Low EMI – complies with FCC nonconsumer limits.

Thermal Characteristics

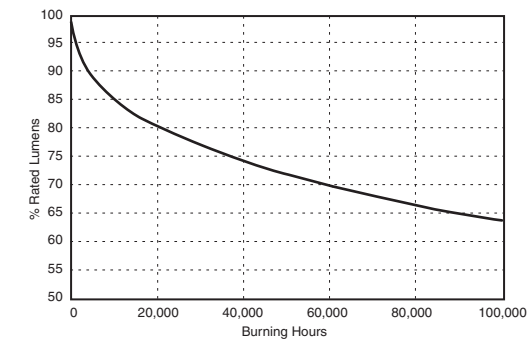
1. Fixture must act as heat sink for lamp induction cores and ballast – good thermal coupling required.
2. Maximum bulb wall temperature of 302°F (150°C).

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 case temperature.
6. Ballast may be mounted up to 66 feet from lamp. See remote mounting instructions.
7. For cold temperature applications use suitably enclosed fixture to maximize lumen output.
8. Amalgam tip covers (NAED 22093) available for faster warmup under very cold operating conditions.

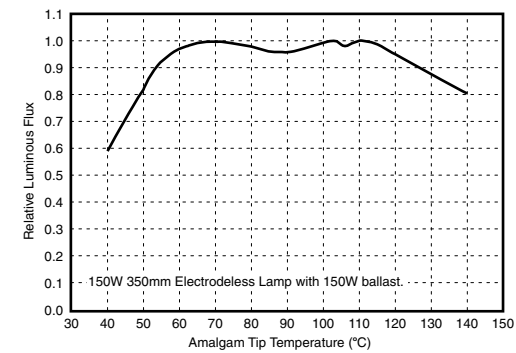


Technical Information

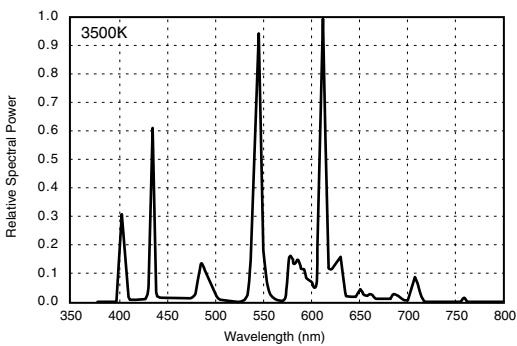
Lumen Maintenance



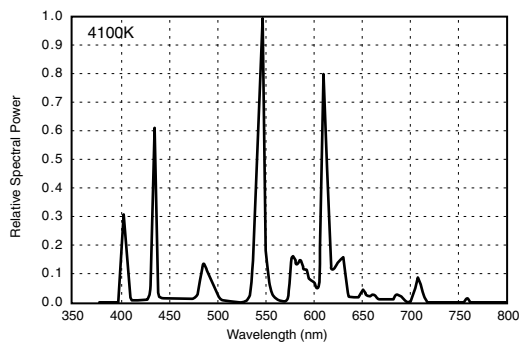
Temperature Profile



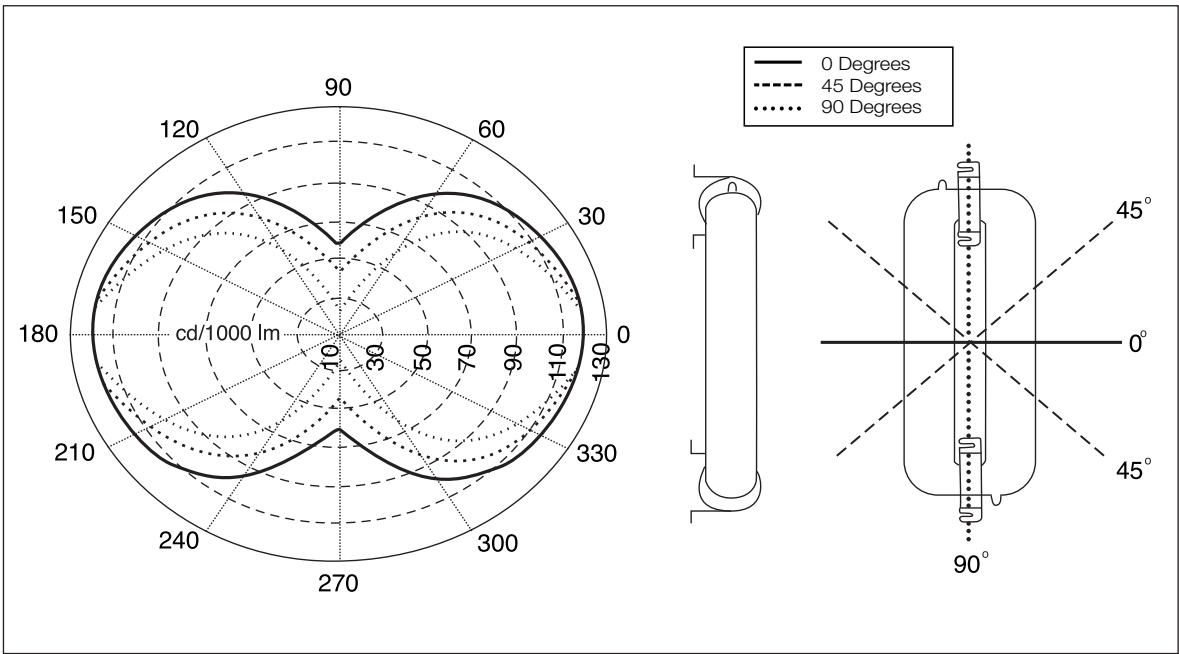
Spectral Power Distribution — 3500K



Spectral Power Distribution — 4100K



Luminous Intensity Distribution

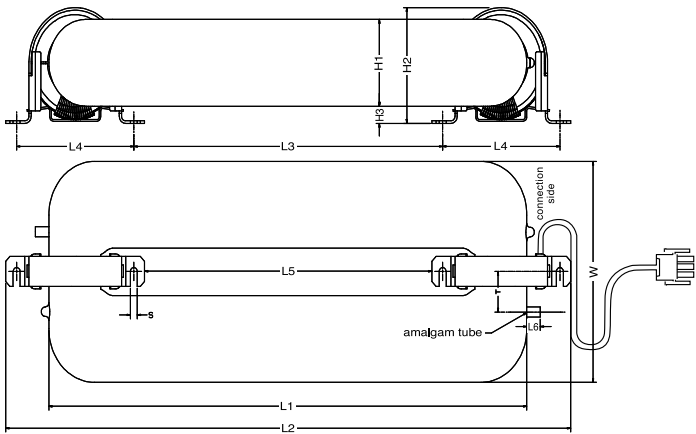


Technical Information

Lamp Dimensions*

	Dim.	ICETRON70 & ICETRON100		ICETRON150	
		in.	(mm)	in.	(mm)
Height of glass	H1	2.13	(54)	2.13	(54)
Overall height	H2	2.83	(72)	2.83	(72)
Tube to mount height	H3	0.43	(11)	0.43	(11)
Length of main body	L1	9.84	(250)	13.78	(350)
Overall length	L2	12.32	(313)	16.28	(414)
Mount hole spacing (between cores)	L3	4.98	(127)	8.90	(226)
Mount hole spacing (each core)	L4	3.36	(86)	3.36	(86)
Bracket spacing	L5	4.36	(111)	8.29	(211)
Amalgam tip length	L6	0.39	(10)	0.39	(10)
Lead wire length	L7	12	(305)	12	(305)
Slot width	S	0.20	(5)	0.20	(5)
Tip to centerline	T	0.98	(25)	0.98	(25)
Width	W	5.45	(139)	5.45	(139)
Lamp Weight (lb (kg))		2.1	(0.95)	2.3	(1.1)

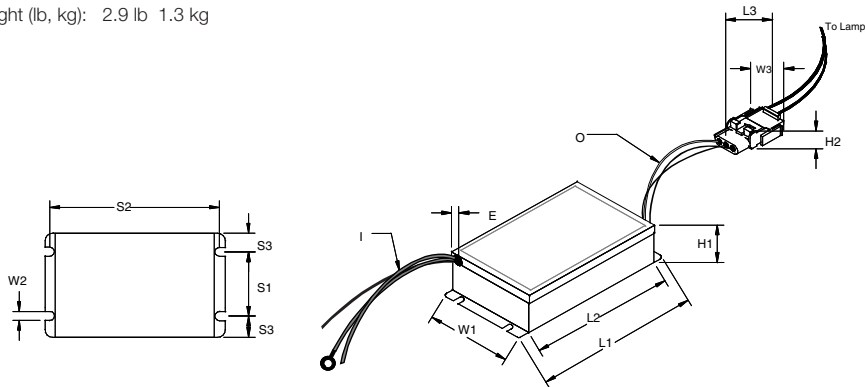
* Dimensions subject to change.



Ballast Dimensions

	Dim.	in.	(mm)
Lead wire exit – center to edge	E	.5	13
Case height	H1	1.70	43
Connector Height – max.	H2	.68	17.3
Input lead wires	I	18	457
Overall length	L1	7.15	182
Case length	L2	6.31	160
Connector length – max.	L3	1.73	44
Output lead wires – case to connector	O	12	304
Mount slot – center to center	S1	1.9	48
Mount slot – center to center	S2	6.7	170
Mount slot – center to edge	S3	.97	25
Case width	W1	3.96	101
Slot width	W2	.31	8
Connector width – max.	W3	1.18	30

Ballast weight (lb, kg): 2.9 lb 1.3 kg



Sample Specification

System shall be (70W, 100W or 150W) ICETRON 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.

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

System Description	Lamp Wattage	System Watts	System Lumens	Mean ¹ Lumens	Av. System Life (hrs.)	Initial LPW	Burning Position
ICETRON 70/QT100	70	82	6500	4830	100,000	79	Universal
ICETRON 100/QT100	100	107	8000	5945	100,000	75	Universal
ICETRON 100/QT150	150	157	11,000	8175	100,000	70	Universal
ICETRON 150/QT150	150	157	12,000	8915	100,000	76	Universal

LAMPS

Item Number	Ordering Abbreviation	Initial Lamp Lumens	Color Temp K ²	CRI ²
26081	ICE70/835	6200	3500	80
26082	ICE70/841	6200	4100	80
26100	ICE100/835	8000	3500	80
26101	ICE100/841	8000	4100	80
26150	ICE150/835	12,000	3500	80
26151	ICE150/841	12,000	4100	80

BALLASTS

Item Number	Ordering Abbreviation	Voltage Range	Compatible Lamps
49751	QT1X100 ICE/UNV	120-277	ICE 70 & ICE100
49771	QT1X150 ICE/UNV	120-277	ICE 100 & ICE150

1. Mean lumens at 40,000 hours
2. Color and CRI @ amalgam tip temperature of 149°F (65°C) for ICETRON 70 and ICETRON 100 and @158°F (70°C) amalgam tip temperature for ICETRON 150.

Ballast Specification

Lamp Frequency: 200-300 kHz

Input Frequency: 50/60 Hz

Voltage Range: 120 to 277 +/- 10% VAC or 120 to 277 +/- 10% VAC

UL Listed Class P, Type 1 Outdoor CSA Certification

Lamp CCF: Less than 1.7

Low THD: Less than 20%

158°F (70°C) Maximum Case Temp.

Class A Sound Rating

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

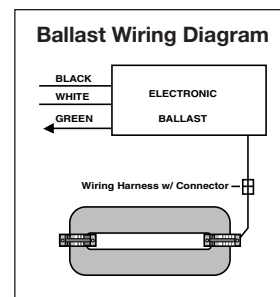
Minimum Starting Temperature -13°F (-25°C) for ICE70 lamps on QT1X100 ICE/UNV-T

Power Factor: Greater than 95%

FCC 47CFR Part 18 Non-consumer

ANSI 62.41 Cat. A Transient Protection

Ballast Dimensions: 7.15 x 3.96 x 1.70 inches (overall) Weight: 2.9 lb



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Ordering Guide

ICE100/835					
ICE	100	/	8	35	
Inductively Coupled Electrodeless	Lamp Wattage 100W, 150W		8 = 80 CRI	35 = 3500K 41 = 4100K	
QT1X100 ICE/UNV					
QT	1X	100	-ICE	/	UNV
QUICKTRONIC	No. Lamps (1)	Lamp Wattage	Inductively Coupled Electrodeless		120 – 277 Input