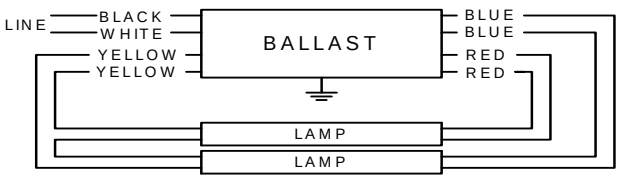
ADVANCE TRANSFORMER CO.

Electrical Specifications

IOP2S2895SC@120	
Brand Name	**OPTANIUM T5**
Ballast Type	**Electronic**
Starting Method	**Programmed Start**
Lamp Connection	**Series**
Input Voltage	**120-277**
Input Frequency	**50/60 HZ**
Status	**Active**

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F14T5	2	14	0/-18	0.25	30	0.95	15	0.98	1.7	3.17
F21T5	1	21	0/-18	0.19	23	0.95	15	0.98	1.7	4.13
F21T5	2	21	0/-18	0.37	44	0.95	10	0.98	1.7	2.16
F28T5	1	28	0/-18	0.25	30	0.95	10	0.98	1.7	3.17
* F28T5	2	28	0/-18	0.50	59	0.95	10	0.98	1.7	1.61
F28T5/ES (25W)	1	25	0/-18	0.22	27	0.95	10	0.98	1.7	3.52
F28T5/ES (25W)	2	25	0/-18	0.45	54	0.95	10	0.98	1.7	1.76
F35T5	1	35	0/-18	0.31	37	0.95	10	0.98	1.7	2.57

Wiring Diagram



Diag. 74

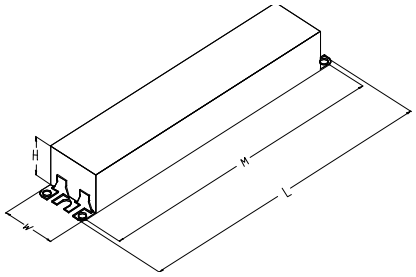
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	22	55.9
White	22	55.9
Blue	26	66
Red	26	66
Yellow	36	91.4
Gray		0
Violet		0

	in.	cm.
Yellow/Blue		0
Blue/White		0
Brown		0
Orange		0
Orange/Black		0
Black/White		0
Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 01/12/12

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Corporate Offices: Phone: 800-322-2086

IOP2S2895SC@120	
Brand Name	**OPTANIUM T5**
Ballast Type	**Electronic**
Starting Method	**Programmed Start**
Lamp Connection	**Series**
Input Voltage	**120-277**
Input Frequency	**50/60 HZ**
Status	**Active**

Electrical Specifications

Notes:

Section I - Physical Characteristics

1.1 Ballast shall be physically interchangeable with standard electromagnetic or standard electronic ballasts, where applicable.

1.2 Ballast shall be provided with integral leads color-coded per ANSI C82.11.

Section II - Performance

2.1 Ballast shall be Programmed Start.

2.2 Ballast shall provide Independent Lamp Operation (ILO) for Programmed Start Parallel ballasts allowing remaining lamp(s) to maintain full light output when one or more lamps fail.

2.3 Ballast shall contain auto restart circuitry in order to restart lamps without resetting power.

2.4 Ballast shall operate from 50/60 Hz input source of _____ (120V through 277V or 347V through 480V) with sustained variations of +/- 10% (voltage and frequency).

2.5 Ballast shall be high frequency electronic type and operate lamps at a frequency between 42 kHz and 52 KHz to avoid interference with infrared devices, eliminate visible flicker and avoid Article Surveillance Systems, such as anti-theft devices.

2.6 Ballast shall have a Power Factor greater than 0.98 for primary lamp.

2.7 Ballast shall have a ballast factor of 1.0 for primary T5HO lamps or a ballast factor of 0.95 or 1.15 for primary T5HE lamps at full light output.

2.8 Ballast shall provide for a Lamp Current Crest Factor of 1.7 or less.

2.9 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when operated at nominal line with primary lamp.

2.10 Ballast shall have a Class A sound rating.

2.11 Ballast shall have a minimum starting temperature of _____ {-18C (0F) or -29C (-20F) or 0C (32F)} for primary lamp. Consult lamp manufacturer for temperature versus light output characteristics.

2.12 Ballast shall tolerate sustained open circuit and short circuit output conditions.

2.13 Ballast shall provide Lamp EOL Protection Circuit.

2.14 Ballast for step-dim applications shall have a 50% control step where the input power is <=50% of the full light input power for the primary lamp.

Section III - Regulatory

3.1 Ballast shall not contain any Polychlorinated Biphenyl (PCB).

3.2 Ballast shall be Underwriters Laboratories (UL) listed, Class P and Type 1 Outdoor; and Canadian Standards Association (CSA) certified where applicable.

3.3 Ballast shall comply with ANSI C62.41 Category A for Transient protection.

3.4 Ballast shall comply with ANSI C82.11 where applicable.

3.5 Ballast shall comply with applicable requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.

3.6 Ballast shall comply with UL Type CC rating.

3.7 Ballast shall comply with NEMA 410 for in-rush current limits.

Section IV - Other

4.1 Ballast shall be manufactured in a factory certified to ISO 9001 Quality System Standards.

4.2 Ballast shall carry a five-year warranty from date of manufacture against defects in material or workmanship, including replacement, for operation at a maximum case temperature of 70C.

4.3 Ballast designated 90C shall carry a three-year warranty from date of manufacture against defects in material or workmanship, including replacement, for operation at a maximum case temperature of 90C.

4.4 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market

Revised 01/12/12

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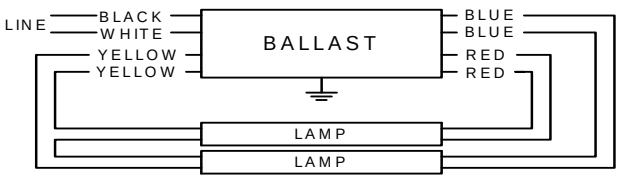
ADVANCE TRANSFORMER CO.

Electrical Specifications

IOP2S2895SC@277	
Brand Name	**OPTANIUM T5**
Ballast Type	**Electronic**
Starting Method	**Programmed Start**
Lamp Connection	**Series**
Input Voltage	**120-277**
Input Frequency	**50/60 HZ**
Status	**Active**

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F14T5	2	14	0/-18	0.11	30	0.95	15	0.95	1.7	3.17
F21T5	1	21	0/-18	0.08	23	0.95	15	0.98	1.7	4.13
F21T5	2	21	0/-18	0.16	44	0.95	10	0.98	1.7	2.16
F28T5	1	28	0/-18	0.11	30	0.95	10	0.98	1.7	3.17
* F28T5	2	28	0/-18	0.22	58	0.95	10	0.98	1.7	1.64
F28T5/ES (25W)	1	25	0/-18	0.10	27	0.95	10	0.98	1.7	3.52
F28T5/ES (25W)	2	25	0/-18	0.20	54	0.95	10	0.98	1.7	1.76
F35T5	1	35	0/-18	0.14	37	0.95	10	0.98	1.7	2.57

Wiring Diagram



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	in.	cm.
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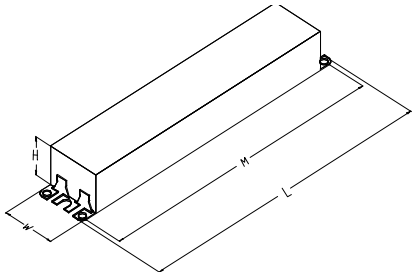
Blue/White		0
Brown		0
Orange		0
Orange/Black		0
Black/White		0
Red/White		0

Enclosure



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IOP2S2895SC@277	
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Ballast Type	**Electronic**
Starting Method	**Programmed Start**
Lamp Connection	**Series**
Input Voltage	**120-277**
Input Frequency	**50/60 HZ**
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3.3 Ballast shall comply with ANSI C62.41 Category A for Transient protection.

3.4 Ballast shall comply with ANSI C82.11 where applicable.

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