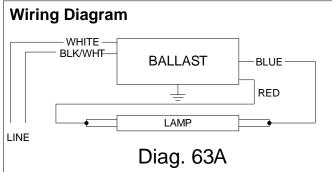


# **Electrical Specifications**

IOPA1P32N@120V				
Brand Name	OPTANIUM			
Ballast Type	Electronic			
Starting Method	Instant Start			
Lamp Connection	Parallel			
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
F17T8	1	17	-20/-29	0.14	16	0.90	10	0.99	1.6	5.63
F25T8	1	25	-20/-29	0.20	23	0.88	10	0.99	1.6	3.83
* F32T8	1	32	-20/-29	0.25	28	0.91	10	0.99	1.6	3.25
F32T8/ES (25W)	1	25	60/16	0.20	23	0.87	10	0.99	1.6	3.78
F32T8/ES (28W)	1	28	60/16	0.22	25	0.87	10	0.99	1.6	3.48
F32T8/ES (30W)	1	30	60/16	0.23	27	0.87	10	0.99	1.6	3.22



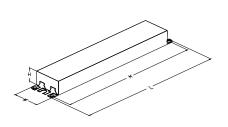
The wiring diagram that appears above is for the lamp type denoted by the asterisk (\*)

Standard Lead Length (inches)

	in.	cm.
Black		0
White	25	63.5
Blue	31	78.7
Red	46	116.8
Yellow		0
Gray		0
Violet		0

11	ches) — —		
1	J.100,	in.	cm.
ļ	Yellow/Blue		0
	Blue/White		0
	Brown		0
	Orange		0
	Orange/Black		0
l	Black/White	25	63.5
	Red/White		0

## Enclosure



## **Enclosure Dimensions**

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.5 "	1.3 "	1.0 "	8.9 "
9 1/2	1 3/10	1	8 9/10
24.1 cm	3.3 cm	2.5 cm	22.6 cm

## Revised 05/19/2010





Data is based upon tests performed by Philips Lighting Electronics N.A. in a controlled environment and is representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.



## **Electrical Specifications**

IOPA1P32N@120V				
Brand Name	OPTANIUM			
Ballast Type	Electronic			
Starting Method	Instant Start			
Lamp Connection	Parallel			
Input Voltage	120-277			
Input Frequency	50/60 HZ			
Status	Active			

#### 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 Requirements

- 2.1 Ballast shall be \_\_\_\_\_ (Instant or Programmed) Start.
- 2.2 Ballast shall provide Independent Lamp Operation (ILO) for Instant Start or 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 with sustained variations of +/- 10% (voltage and frequency). GOPA ballasts shall operate from an input source of 347V.
- 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 System, 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 minimum ballast factor for primary lamp application as follows: 0.77 for Low Watt, 0.87 for Normal Light Output, and
- 1.18 for High Light for Instant Start ballasts or 0.71 for Low Watt and 0.88 for Normal Light Output for Programmed Start ballasts.
- 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 voltage with primary lamp.
- 2.10 Ballast shall have a Class A sound rating for all 4-foot lamps and smaller.
- 2.11 Ballast shall have a minimum starting temperature of -29C (-20F) on Instant Start ballasts or -18C (0F) on Programmed Start ballasts for standard T8 lamps and 16C (60F) for energy-saving T8 lamps. 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 have lamp striation-reduction circuitry.
- 2.14 Programmed Start ballast shall provide lamp EOL protection circuitry.
- 2.15 Maximum remote distance for Energy Saving Lamps in Remote/Tandem applications is 6 feet for ICN, IOP, and IOPA Instant Start and Programmed Start models.

## Section III - Regulatory Requirements

- 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 the requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, Non-Consumer (Class A) for EMI/RFI (conducted and radiated).
- 3.6 Ballast shall meet NEMA/CEE High Performance T8 Lighting System Specifications.
- 3.7 IOP ballasts shall comply with UL Type CC rating.
- 3.8 Ballast shall comply with NEMA 410 for in-rush current limits.

## Section IV - Other

- 4.1 Ballast shall be manufactured in an ISO 9001 Qualified factory.
- 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. Ballasts with a "90C" designation in their catalog number shall also carry a three-year warranty at maximum case temperature of 90C.
- 4.3 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market.

Notes:			
1. Energy-saving T8 lamps (25W,	28W or 30W) may experience lar	mp striations if operated on ballas	sts not rated for their use.
Revised 05/19/2010	(SP)		
Data is based upon tests performed by Ph	nilips Lighting Electronics N.A. in a controll conditions. Specifications are subject to ch	led environment and is representative of	relative performance. Actual performance can vary
depending on operating t	portuniona. Opeonicationa are subject to cr	iange without notice. All specifications at	o nominai unicos otnerwise noteu.