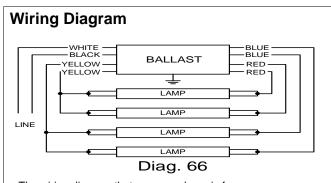
PHILIPS ADVANCE

Electrical Specifications

GOPA-4P32-LW-SC				
Brand Name	OPTANIUM			
Ballast Type	Electronic			
Starting Method	Instant Start			
Lamp Connection	Parallel			
Input Voltage	347			
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	3	17	0/-18	0.13	45	0.82	15	0.98	1.6	1.82
F17T8	4	17	0/-18	0.16	53	0.79	15	0.98	1.6	1.49
F25T8	3	25	0/-18	0.18	62	0.81	10	0.98	1.6	1.31
F25T8	4	25	0/-18	0.22	74	0.79	10	0.98	1.6	1.07
F32T8	3	32	0/-18	0.23	77	0.81	10	0.98	1.6	1.05
* F32T8	4	32	0/-18	0.27	92	0.78	10	0.98	1.6	0.85
F32T8/ES (25W)	3	25	60/16	0.19	65	0.81	10	0.98	1.6	1.25
F32T8/ES (25W)	4	25	60/16	0.22	78	0.78	10	0.98	1.6	1.00
F32T8/ES (28W)	3	28	60/16	0.20	70	0.81	10	0.98	1.6	1.16
F32T8/ES (28W)	4	28	60/16	0.24	84	0.78	10	0.98	1.6	0.93
F32T8/ES (30W)	3	30	60/16	0.22	74	0.81	10	0.98	1.6	1.09
F32T8/ES (30W)	4	30	60/16	0.26	89	0.78	10	0.98	1.6	0.88
F40T8	3	40	32/00	0.28	97	0.84	10	0.98	1.6	0.87



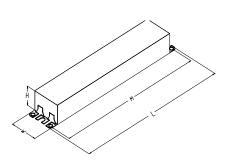
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25	63.5
White	25	63.5
Blue	31	78.7
Red	31	78.7
Yellow	39	99.1
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 03/25/09

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Electrical Specifications

Brand Name OPTANIUM Ballast Type Electronic Starting Method Instant Start Lamp Connection Parallel Input Voltage 347 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

- 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 or 347V) 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 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 distance for Energy Saving Lamps in Remote/Tandem wiring applications shall be 6 feet for Instant Start and Programmed Start models.

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 meet NEMA Premium/CEE High Performance T8 Lighting System Specifications.
- 3.7 IOP or GOP ballast shall comply with UL Type CC rating.
- 3.8 Ballast shall comply with NEMA 410 for in-rush current limits.
- 3.9 Ballast shall meet RoHS Compliance Standards

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.
- 4.4 Energy-saving T8 lamps (25W, 28W or 30W) may experience lamp striations if operated on ballasts not rated for their use.



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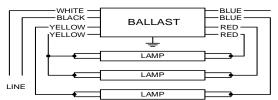
PHILIPS ADVANCE

Electrical Specifications

GOPA-4P32-LW-SC				
Brand Name OPTANIUM				
Ballast Type	Electronic			
Starting Method	Instant Start			
Lamp Connection	Parallel			
Input Voltage	347			
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.
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F25T8	3	25	0/-18	0.18	62	0.81	10	0.98	1.6	1.31
F25T8	4	25	0/-18	0.22	74	0.79	10	0.98	1.6	1.07
* F32T8	3	32	0/-18	0.23	77	0.81	10	0.98	1.6	1.05
F32T8	4	32	0/-18	0.27	92	0.78	10	0.98	1.6	0.85
F32T8/ES (25W)	3	25	60/16	0.19	65	0.81	10	0.98	1.6	1.25
F32T8/ES (25W)	4	25	60/16	0.22	78	0.78	10	0.98	1.6	1.00
F32T8/ES (28W)	3	28	60/16	0.20	70	0.81	10	0.98	1.6	1.16
F32T8/ES (28W)	4	28	60/16	0.24	84	0.78	10	0.98	1.6	0.93
F32T8/ES (30W)	3	30	60/16	0.22	74	0.81	10	0.98	1.6	1.09
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F40T8	3	40	32/00	0.28	97	0.84	10	0.98	1.6	0.87

Wiring Diagram



Diag. 71

Insulate unused blue lead for 1000V

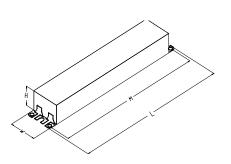
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

		_
	in.	cm.
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White	25	63.5
Blue	31	78.7
Red	31	78.7
Yellow	39	99.1
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



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Electrical Specifications

Brand Name OPTANIUM Ballast Type Electronic Starting Method Instant Start Lamp Connection Parallel Input Voltage 347 Input Frequency 50/60 HZ Status Active

Notes:

Section I - Physical Characteristics

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Section II - Performance

- 2.1 Ballast shall be _____ (Instant or Programmed) Start.
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- 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 meet NEMA Premium/CEE High Performance T8 Lighting System Specifications.
- 3.7 IOP or GOP ballast shall comply with UL Type CC rating.
- 3.8 Ballast shall comply with NEMA 410 for in-rush current limits.
- 3.9 Ballast shall meet RoHS Compliance Standards

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- 4.3 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market.
- 4.4 Energy-saving T8 lamps (25W, 28W or 30W) may experience lamp striations if operated on ballasts not rated for their use.



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