

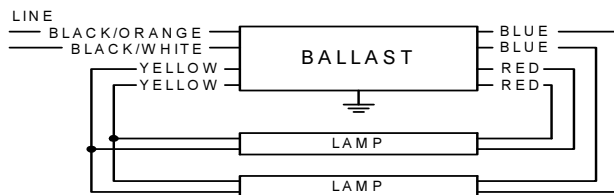
# PHILIPS ADVANCE

## Electrical Specifications

<b>HOP2PSP49HLL@347V</b>	
Brand Name	<b>OPTANIUM T5</b>
Ballast Type	<b>Electronic</b>
Starting Method	<b>Programmed Start</b>
Lamp Connection	<b>Parallel</b>
Input Voltage	<b>347-480</b>
Input Frequency	<b>50/60 HZ</b>
Status	<b>Preliminary</b>

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.
F54T5/HO/ES (44W)	1	44	5/-15	0.17	59	1.17	10	0.98	1.7	1.98
F54T5/HO/ES (44W)	2	44	5/-15	0.33	116	1.17	10	0.98	1.7	1.01
F54T5/HO/ES (49W)	1	49	-20/-29	0.19	64	1.17	10	0.98	1.7	1.83
* F54T5/HO/ES (49W)	2	49	-20/-29	0.37	127	1.17	10	0.98	1.7	0.92

### Wiring Diagram



Diag. 78A

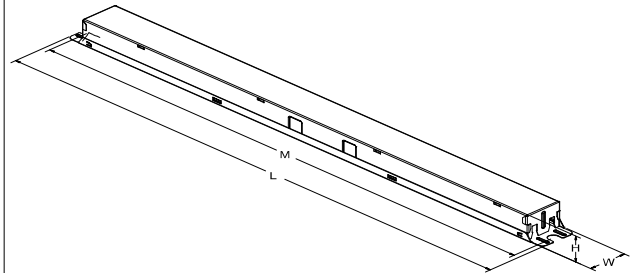
The wiring diagram that appears above is for the lamp type denoted by the asterisk (\*)

### Standard Lead Length (inches)

	in.	cm.
Black		0
White		0
Blue	28	71.1
Red	28	71.1
Yellow	46	116.8
Gray		0
Violet		0

	in.	cm.
Yellow/Blue		0
Blue/White		0
Brown		0
Orange		0
Orange/Black	31	78.7
Black/White	31	78.7
Red/White		0

### Enclosure



### Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
16.70 "	1.18 "	1.00 "	16.34 "
16 7/10	1 9/50	1	16 17/50
42.4 cm	3 cm	2.5 cm	41.5 cm



Revised 08/18/14

Data is based upon tests performed by Philips Lighting N.A in a controlled environment and 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.

## Philips Lighting Electronic N.A

10275 West Higgins Road Rosemont, IL 60018 Tel.: 800-322-2086 Fax: 888-432-1882  
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## 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



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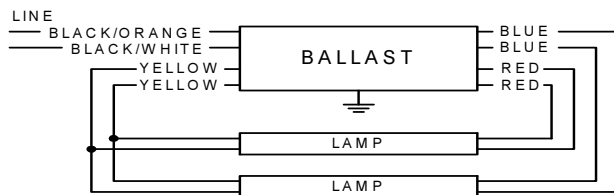
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F54T5/HO/ES (44W)	2	44	5/-15	0.24	115	1.17	10	0.98	1.7	1.02
F54T5/HO/ES (49W)	1	49	-20/-29	0.14	64	1.17	10	0.98	1.7	1.83
* F54T5/HO/ES (49W)	2	49	-20/-29	0.27	126	1.17	10	0.98	1.7	0.93

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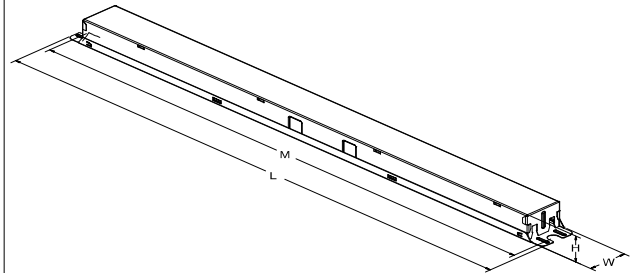
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