



Reduce your energy and maintenance costs, not your light output

Philips T8 VHO Extreme Temperature System





With the **Philips T8 VHO Extreme Temperature System**, you can use T8 lamps in high-bay applications without sacrificing light output due to hot or cold temperatures.

Provides high light output even in spaces without climate control

- Lumen output is >90% from 50°F to 160°F (10°C to 70°C)
- More light over the life of the lamp than a standard 400W HID system¹

Operates on existing electrical system

- 277V–480V input voltage range eliminates the need for rewiring your electrical system

Reduce total cost of ownership (TCOO) when compared to a standard HID 400W system

- 40% more system lumens per watt than a standard HID 400W system²
- Reduced energy costs—save up to 86 system watts³
- Dimmable down to 20% for additional energy savings
- Reduced maintenance costs—up to 25% longer lamp life⁴ which extends the relamping cycle

1) 95% lumen maintenance at 10,000 hours for the T8 VHO lamp compared to 65% lumen maintenance at 8000 hours for the MH400/U lamp.

2) Equal to $(73.55 \text{ system mean LPW T8 VHO} - 52.40 \text{ system mean LPW MH400/U}) / 52.40 \text{ system mean LPW MH400/U}$. T8VHO system mean LPW equal to 27360 system mean lumens (6840 mean lumens x 1.0 ballast factor x 4 lamps) divided by 372 system watts. MH400/U system mean LPW equal to 24000 system mean lumens (24000 mean lumens x 1.0 ballast factor x 1 lamp) divided by 458 system watts.

3) 458 system watts (MH400/U) - 372 system watts (T8VHO) = 86 system watts.

4) 25,000 rated average life (T8VHO at 12 hours per start) compared to 20,000 rated average life (MH400/U at 13 hours per start).



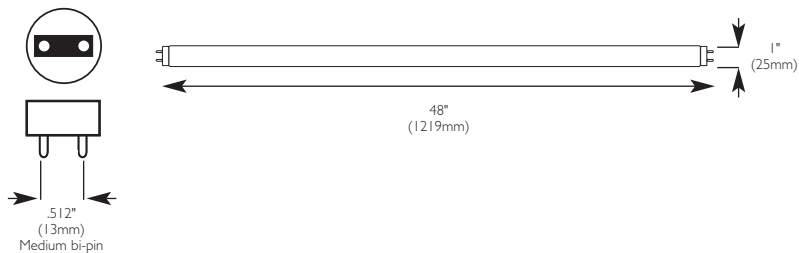
Philips T8 VHO Extreme Temperature Lamps

Featuring ALTO® Lamp Technology†



† This lamp is better for the environment because of its reduced mercury content. All Philips ALTO® lamps give you end-of-life options which can simplify and reduce your lamp disposal costs depending on your state and local regulations.

Lamp Dimensions





Lamp Specifications

Watts	84
Package Quantity	25
Color Temp. (K)	3500, 4100, 5000
Nominal Length (In.)	48
Rated Average Life (Hrs.) ¹	25,000
Approximate Initial Lumens ²	7200 (3500K and 4100K) and 6900 (5000K)
Design Lumens ³	6840 (3500K and 4100K) and 6550 (5000K)
CRI	85 (3500K and 4100K) and 82 (5000K)
Lumen Maintenance	95%

1) Average life under engineering data with lamps turned off and restarted once every 12 operating hours on a Programmed Start ballast. Note: Rated 20,000 hours rated average life at 3 hours per start on a Programmed Start ballast.

2) Approximate initial lumens. The lamp lumen output is based upon lamp performance after 100 hours of operating life, when the output is measured during operation on a reference ballast under standard laboratory conditions. For expected lamp lumen output, commercial ballast manufacturers can advise the appropriate ballast factor for each of their ballasts when they are informed of the designated lamp. The ballast factor is a multiplier applied to the designated lamp lumen output.

3) Design lumens are the approximate lamp lumen output at 40% of the lamp's rated average life. This output is based upon measurements obtained during lamp operation on a reference ballast under standard laboratory conditions.

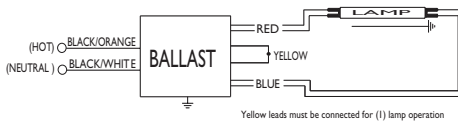
Above specifications subject to change without notice

Advance Optanium® JOP-2S84-G Ballast

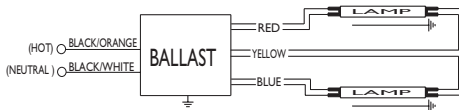
Programmed Start electronic ballast



Wiring Diagram—Lamp Operation

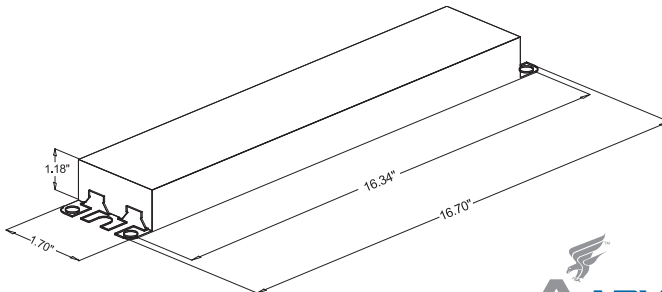


One Lamp: 94W (277V & 347V); 97W (480V)



Two Lamps: 185W (277V & 347V); 186W (480V)

Enclosure Dimensions





Ballast Specifications

No. of Lamps	1, 2
Input Volts	277V, 347V, 480V (50/60Hz)
Lamp Starting Method	Programmed Start
Catalog Number	JOP-2S84-G
Max. Input Power ANSI (Watts)	One Lamp: 94W (277V & 347V); 97W (480V) Two Lamps: 185W (277V & 347V); 186W (480V)
Ballast Factor	1.0
Line Current	0.67 Amps (277V); 0.53 Amps (347V); 0.38 Amps (480V)
Minimum Starting Temp	-20°F/-29°C
Maximum Case Temp	194°F/90°C
Total Harmonic Distortion (THD)	<10%

Above specifications subject to change without notice



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