



Hubbell Power Systems - Aiken, SC
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VERSABAY®

FLUORESCENT HIGH BAY

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VersaBay® high bays are protected by ATM—Advanced Thermal Management—and employs a systems approach to resolving the high-temperature issues in high-bay ballast systems.

AMBIENT ISSUES

The increased use of fluorescent high bays in what was traditionally HID spaces has provided an excellent means to improve lighting in the space while providing significant energy savings. The use of fluorescent lighting with electronic ballasts in unconditioned spaces has created issues regarding the reliability of the electronic components.

In unconditioned or partially conditioned spaces, the temperature at the ceiling level can reach over 130°F, thus placing the reliability of the electronic components at risk. Heat contributors such as ambient heat, ballast heat, and lamp heat can all combine to elevate the ballast above the manufacturers’ maximum ballast can temperature of 90°C. This increase in ballast operating temperature will shorten ballast life and increase maintenance.

THE SOLUTION

Columbia Lighting’s VersaBay® high bay was developed to address the issues of elevated temperature by creating a systems approach to properly dissipate and control the heat-producing elements; thus providing a system of long maintenance-free operation. The VersaBay® high bay, protected by ATM—Advanced Thermal Management—employs a systems approach to resolving this potential issue.

FEATURES

ELECTRICAL COMPONENT PLACEMENT

The ballast is placed on the same plane as other heat-producing elements, allowing lamp heat to radiate out above the ballast into free air and preventing it from elevating the ballast can temperature.

CUSTOM BALLAST

Aluminum construction quickly dissipates heat out of the back of the channel, reducing the temperature in and around the ballast can. Cooler operation is maintained through the use of thermal management. Optimal spacing of heat-generating components and heat-dissipating structural elements transfer heat out of the ballast.

Up to 15°C improvement of internal ballast component temperatures is possible through the use of specially designed, higher temperature-rated discrete parts. These improvements, coupled with Advanced Thermal Management, result in lower internal operating temperatures.

HEAT DISSIPATION SLOTS

Vertical heat-radiating slots provide an avenue for airflow and promote dissipation of heat that otherwise would have been trapped in the electrical chamber. As a result, these slots provide longer ballast life and decrease the need for maintenance.

OPEN BACK DESIGN

The VersaBay® fixture’s open-back design allows a free airflow path for lamp and ballast heat into the space above and away from the ballast.

SECURE BALLAST MOUNTING

The ballast is securely mounted to the ballast chamber to provide maximum metal-to-metal contact and improved heat-sink design.

REFLECTOR SYSTEM

A high-reflectance optical system efficiently distributes heat away from the fixture.

VersaBay® high bays provide unparalleled reliability and are backed by an unsurpassed warranty with:

T5HO 5-year warranty at 65°C backed by Universal Lighting Technologies

T8 5-year warranty at 55°C backed by GE

PAYBACK IN LESS THAN A YEAR

VersaBay® high bays can provide an energy savings of over 50%, cutting your cost and improving your bottom line—while enhancing the quality of lighting in the space.

The VersaBay® fixture makes retrofitting an easy decision. Replacing 400W metal halide systems, the VersaBay® high bay can yield payback in one year while improving illumination and reducing maintenance. Your bottom line benefits from the use of fluorescent high bays through energy savings, tax deductions and rebates.

EPACT

The Energy Policy Act of 2005 (EPAct) provides tax incentives for lighting system improvements. The deduction for warehousing, manufacturing or other high bay applications is \$0.60 per square foot when exceeding the ASHRAE/IESNA Standard 90.1-2001 and meeting lighting requirements. For additional information regarding tax deductions for EPAct, visit our website at <http://www.hubbellighting.com/epact>.

REBATES

Some local utilities and states offer significant rebates for the use of energy-efficient lighting in upgrades or new construction. Fluorescent high bays are often included in rebates for base fixtures. In many cases, additional rebates are offered for control systems such as daylight harvesting or occupancy sensors.

IMPROVED QUALITY OF LIGHT

From aisle applications to open spaces, the VersaBay® high bay, with its multiple optical and lamp options, provides:

- Enhanced color with higher CRI lamps
- Maintained illumination of 90% over the life of the system
- Improved vertical illumination
- Reduced shadows and improved uniformity



VERSABAY® HIGH BAY FEATURES

1 SERVICEABILITY

The VersaBay® fixture's unique bottom-accessed ballast features tool-less access to the electrical chamber via one user-friendly access cover. In the unlikely event that electrical service is required, no lamps, screws or reflectors must be removed to gain access.

2 VERY LOW PROFILE

Small in stature, big on performance—the diminutive 2" overall height design allows VersaBay® high bays to be installed in tight or crowded spaces.

3 EXTENDED HEIGHT END CAPS

Extended height end caps provide protection of the sockets and reflectors during shipment, handling, and installation.

4 TOP PERFORMANCE REFLECTORS

To pump up the performance, VersaBay® fixtures include your choice of 95% reflective specular aluminum or 90% white reflectors.

5 HEMMED EDGES

Hemmed edges provide ease in handling during installation or service.

6 ROTARY SOCKETS

Top quality rotary sockets conceal contacts and provide reliable lamp retention.

7 QUICK-CLIP MOUNTING

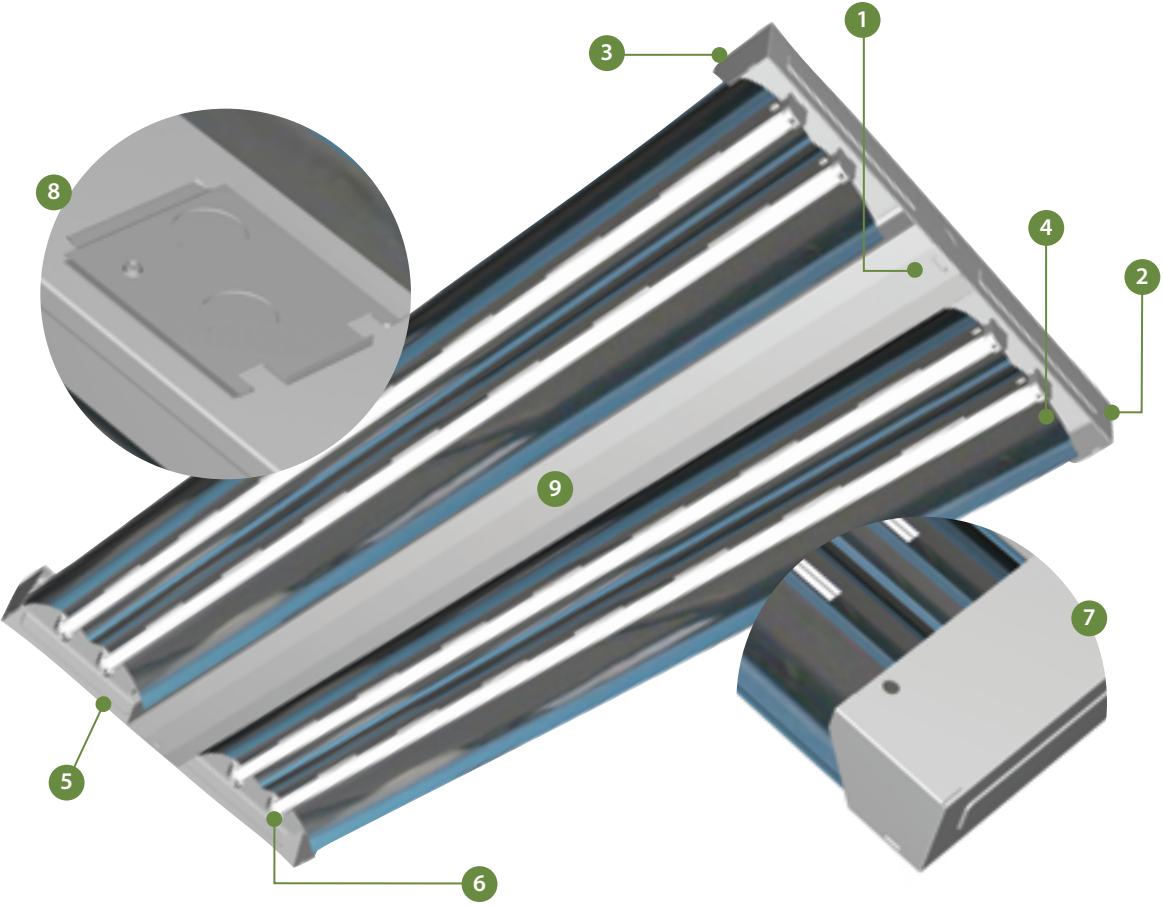
Quick and easy aircraft cable requires only one person to mount the fixture. Other mounting styles include chain, tong hanging, and single point.

8 ACCESS PLATE

For quick and labor-saving wiring, a full-size access plate is located on the back of the channel.

9 THIRD-PARTY CERTIFICATION

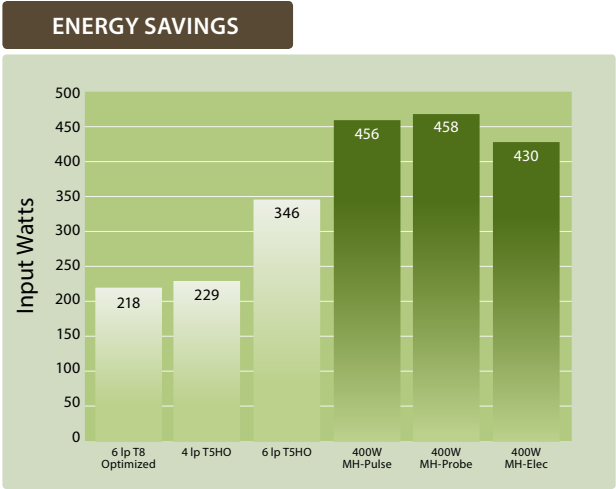
VersaBay® high bays are UL Listed for ambient operation up to 65°C for T5HO and 55°C for T8.



FLUORESCENT HIGH BAY ADVANTAGES

SAVES 50% ENERGY COMPARED TO TRADITIONAL HID LUMINAIRES

Energy costs are growing by 6% annually according to 2005 data from the Department of Energy. And sustainable lighting is rapidly becoming a key focus for professionals who design and maintain buildings. Since lighting makes up a large portion of your electric bill, there's a growing demand for lighting fixtures that use less energy while retaining the quality of light.

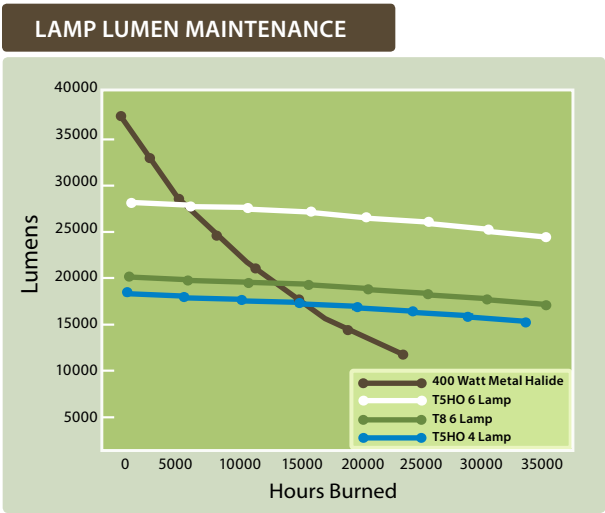


LUMEN MAINTENANCE

Fluorescent systems retain 90% of their initial light levels over the rated life of the lamp. Common HID light levels depreciate over 50% of their rated life.

MORE FIXTURES PER CIRCUIT

Fluorescent systems draw half of the amperage as HID. Thus, for new applications, it allows up to twice as many fixtures on a circuit, reducing wiring and labor costs.



INSTANT RESTRIKE

Fluorescent systems provide immediate illumination after power dip or failure and eliminate downtime associated with fixture warm-up.

CONTROLLABLE SYSTEM

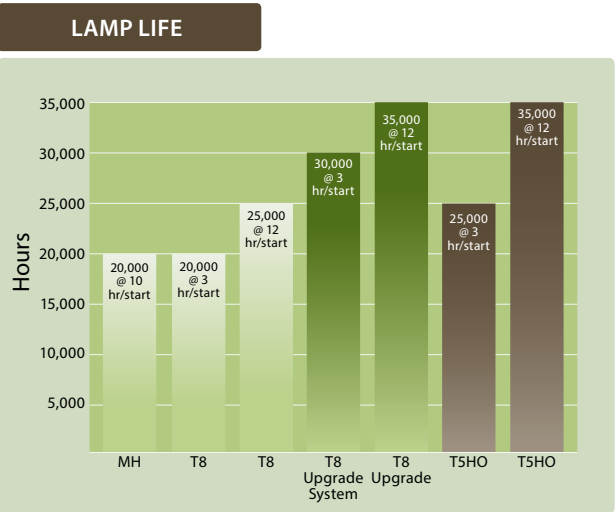
Fluorescent is ideal for operation with occupancy sensors or daylight harvesting, thus reducing energy consumption and improving energy savings.

LOW PROFILE

At only 2" overall height, the VersaBay® high bay installs in tight spaces with concerns of obstructions. When compared to common 30" metal halide, the VersaBay® high bay is less likely to be damaged by forklifts.

IMPROVED LAMP LIFE

Fluorescent systems provide almost twice the rated lamp life of metal halide—reducing lamp replacement cost, labor, and downtime.



MULTIPLE LAMPS

Even if one fluorescent lamp fails, illumination levels remain basically unchanged. When a single point source HID fails, service is required. This is also beneficial for applications where switching can be employed.

IMPROVED COLOR

High CRI improves appearance of the space and perceived light levels.

SOUND

Fluorescent systems produce virtually no sound compared to HID systems that operate at higher decibels.

VERSABAY® SHIELDING FEATURES

- 1 SIDE PANELS**

Side panels attach to standard end caps and provide structural rigidity as well as side support for lens and wire guard.
- 2 END JAW**

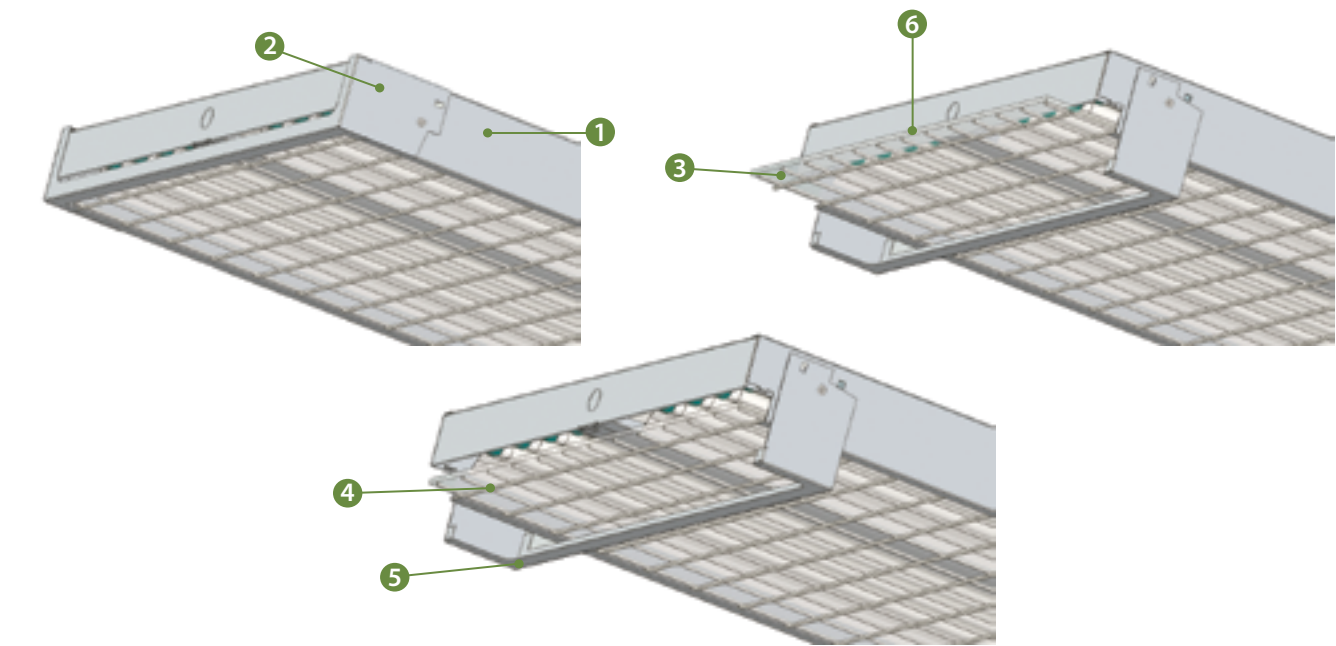
The end jaw securely attaches to the end cap and side panels. Each end jaw rotates for easy access to the lens and wire guard but locks in place when returned to its closed position.
- 3 LENS CLEAR**

An optional lens is available in either acrylic or polycarbonate.
- 4 FLAT WIRE GUARD**

The flat wire guard is retained by the side panels and jaws.
- 5 PIVOTING END JAW**

The end jaw rotates down without the use of any tools.
- 6 SLIDE OUT SHIELDING**

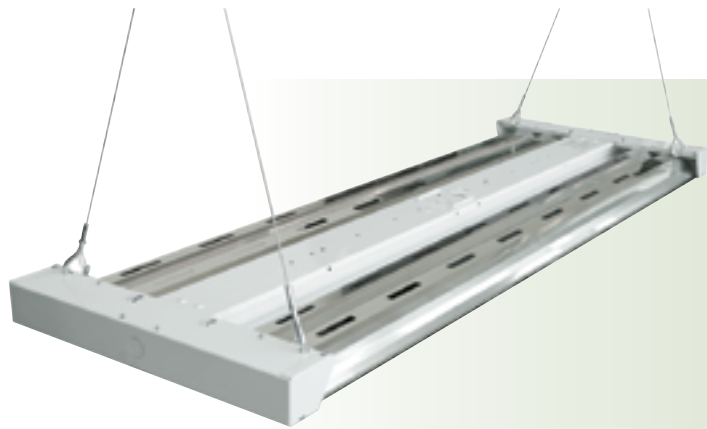
The lens or wire guard simply slides out once jaw is rotated.



HIGH AMBIENT BALLAST WARRANTY CHART

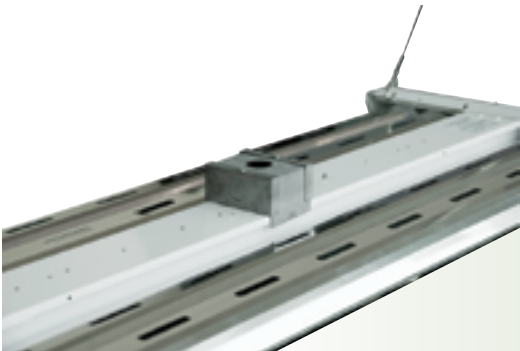
BALLAST WARRANTED FOR AMBIENT TEMPERATURE LISTED		Ballast	120-277V	347V	480V	Frame with Lens
T8	LHV4-432 (1) 4-Lamp, T8 Instant Start, High Light Output Ballast	4EHL	55°C	55°C	55°C	40°C
	LHV4-632 (2) 3-Lamp T8 Instant Start, High Light Output Ballasts	3EHL	55°C	55°C	55°C	40°C
	LHV4-832 (2) 4-Lamp T8 Instant Start, High Light Output Ballasts	4EPHL	45°C	40°C	40°C	40°C
	LHV4-432 (2) 2-Lamp T8 Programmed Start, High Light Output Ballast	4EHL	50°C	50°C	50°C	40°C
	LHV4-632 (2) 3-Lamp T8 Programmed Start, High Light Output Ballasts	3EPHL	55°C	55°C	55°C	40°C
	LHV4-832 (2) 3-Lamp & (1) 2-Lamp T8 Programmed Start, High Light Output Ballasts	4EPHL	45°C	40°C	40°C	40°C
T5HO	LHV4-454 (1) 4-Lamp, T5HO Programmed Start Switchable Ballast	4EP	65°C	55°C	55°C	55°C
	LHV4-654 (1) 2-Lamp & (1) 4-Lamp T5HO Programmed Start Ballasts	24EP	65°C	55°C	55°C	55°C
	LHV4-854 (2) 4-Lamp T5HO Programmed Start Ballasts	4EP	55°C	55°C	55°C	55°C

VERSABAY® MOUNTING OPTIONS



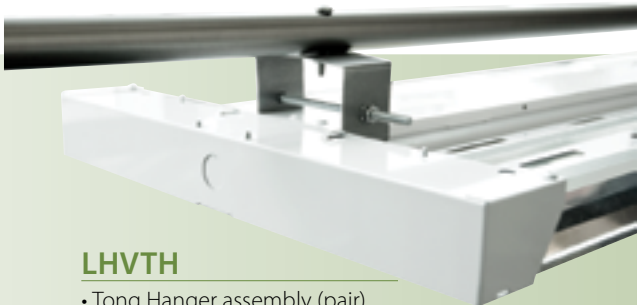
LHVQM5, LHVQM10

- Support cable assembly (pair)
- Available in 5 ft. and 10 ft. lengths
- Detachable to allow for lighting maintenance
- Height is adjustable with each kit



LHVSPM5

- Single point mounting assembly
- Includes pair of 5 ft. support cables
- Mounting bracket attaches to ballast channel over electrical access plate
- Feed location sized for 3/4" conduit



LHVTH

- Tong Hanger assembly (pair)
- Attaches to ballast channel
- Position can be adjusted along entire length of fixture

“PLUG & PLAY” ACCESSORIES



OCCUPANCY AND DAYLIGHT HARVESTING SENSOR KITS

- Hubbell Building Automation WASP Sensor assembly
- Mounts directly to endcap
- Easily snaps over knockout access point
- Rated up to 65°C ambient conditions
- 120/277/347VAC, 480V, 60HZ
- Used in mounting heights up to 40 ft.
- Wiring made simple to “plug and play” on standard VersaBay® fixtures
- Factory installed sensor options also available

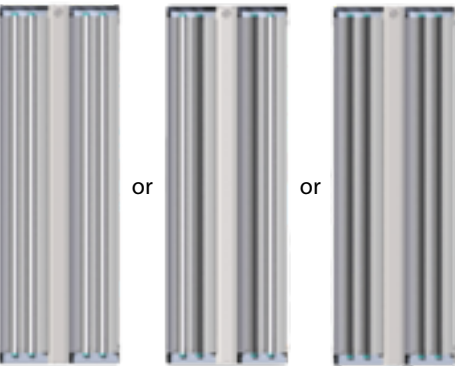


CORD AND PLUG KITS

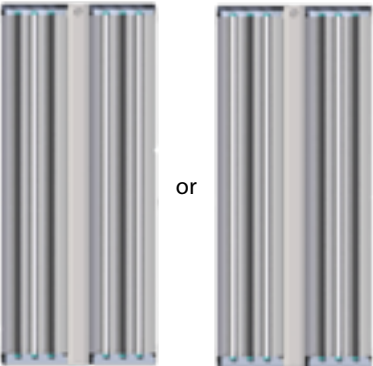
- Three different assemblies in stock (see order guide for details)
 - C6TL15-120
 - C6TL15-277
 - C6P15-120
- UL listed and approved as a fitting accessory
- Wiring and assembly made simple to “plug and play” on standard VersaBay® fixtures

LAMP SWITCHING DIAGRAMS

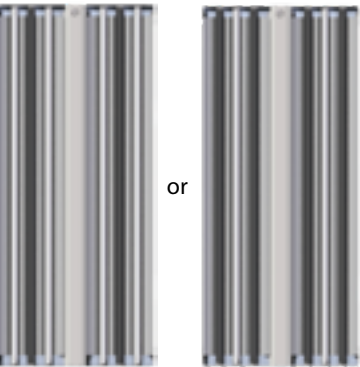
4-lamp T8 or T5HO using (1) 4-lamp Ballast



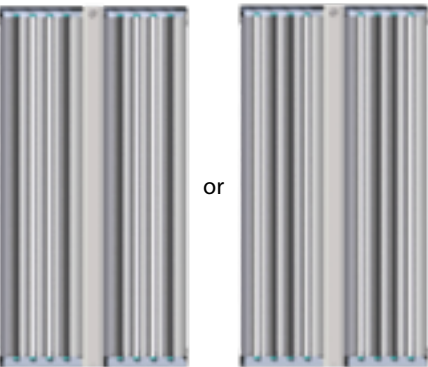
6-lamp T5HO using (2) 3-lamp Ballasts



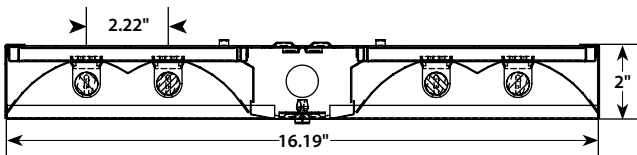
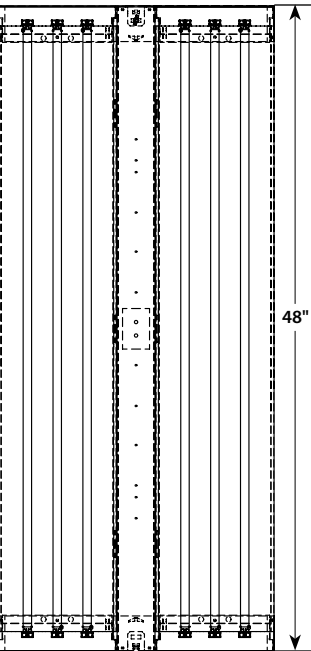
6-lamp T8 using (1) 2-lamp and (1) 4-lamp Ballast



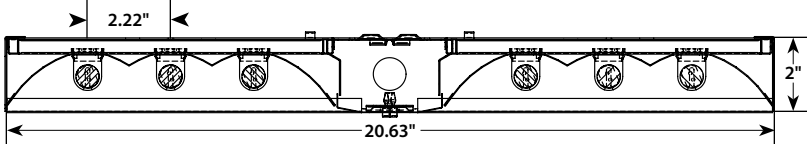
8-lamp T8 or T5HO using (2) 4-lamp Ballasts



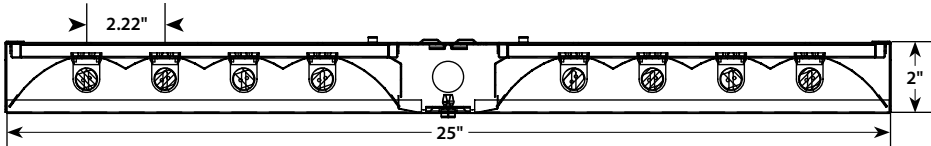
CROSS SECTIONS & DIMENSIONS



LHV4-4



LHV4-6



LHV4-8

LHV4-6 Bottom View

*Depth without side panels, use of side panels increases depth to 2.832"

VERSABAY® PERFORMANCE



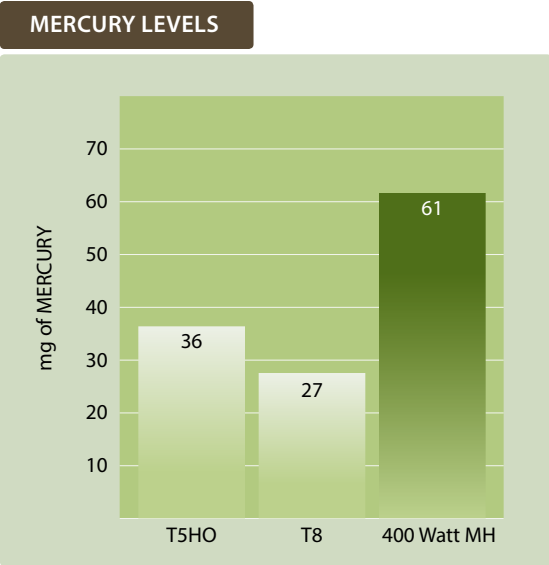
TYPICAL FOOTCANDLE LEVELS							
SYSTEM		HOURS OPERATED					
		Initial	4000	8000	12000	16000	20000
400 Watt MH	Horizontal	32.8	26.6	20.4	18.0	15.6	13.1
	Vertical	29.3	23.7	18.2	16.0	13.9	11.7
6 Lamp T5HO	Horizontal	39.1	37.2	35.2	34.2	33.1	32.1
	Vertical	23.8	22.6	21.4	20.8	20.2	19.5
4 Lamp T5HO	Horizontal	26.6	24.1	24.0	23.3	22.5	21.8
	Vertical	15.5	14.7	13.9	13.5	13.1	12.7
6 Lamp T8	Horizontal	25.6	24.3	23.0	22.2	21.5	20.7
	Vertical	16.9	16.1	15.2	14.7	14.2	13.7

Based on 27' mounting height, 30' ceiling, fixture spacing 20', 50/30/20 reflectance values.

SUSTAINABLE SOLUTIONS

SUSTAINABILITY

- 50% less energy than comparable metal halide system
- Low profile—only 2" deep construction allows more fixtures per shipment and less energy to transport
- Sensors, switching, and daylight harvesting further reduces energy consumption
- Reduces steel in fixture construction and saves natural resources
- Fluorescent systems are good for the environment. All fluorescent lamps used in the VersaBay® high bays are compliant, thus reducing the emissions of mercury into the environment. Typical fluorescent high bays contain less than half the mercury of comparable metal halide systems
- Packing requires little corrugated, thus saving natural resources



ORDERING GUIDE

EXAMPLE LHV4-454-M4RU-4EPU

LHV		4	-		-		-		-		-		-	
MODEL				LAMP TYPE		UPLIGHT		VOLTAGE		LAMPS INSTALLED		OPTIONS		
LHV	VersaBay® High Bay			32 4', T8: 32, 30, 28 or 25 Watt		ST Solid Top		U 120V-277V		T8		C6TL15_ 6' Cord and Twist-Lock Plug 15A (Add Voltage: 1=120, 2=277)		
				54 4', T5HO: 54, 51, or 49 Watt		U Uplight		347 347V		F830 78+ CRI, 3000K		C6TL20_ 6' Cord and Twist-Lock Plug 20A (Add Voltage: 1=120, 2=277)		
								480 480V		F835 78+ CRI, 3500K		C6P151 6' Cord and Straight Blade Plug 15A, 120V		
										F841 78+ CRI, 4100K				
										F850 78+ CRI, 5000K				
SIZE		NO. OF LAMPS IN CROSS SECTION		REFLECTOR		BALLAST								
4 4'		4 Four		M4R Aluminum, 95% Reflective, Specular Silver (Narrow Beam)		LHV4-454		T5HO		F5830 85 CRI, 3000K		CA Clear Acrylic Lens¹		
		6 Six				4EP (1) 4-Lamp Electronic T5HO, Programmed Start		F5835 85 CRI, 3500K		F5841 85 CRI, 4100K		CP Clear Polycarbonate Lens¹		
		8 Eight		GW Gloss White (Wide Beam)		LHV4-654		F5850 85 CRI, 5000K		F5865 85 CRI, 6500K		CAWG Clear Acrylic Lens and Flat Wire Guard¹		
						24EP (1) 2-Lamp & (1) 4-Lamp Electronic T5HO, Programmed Start		F51830 85 CRI, 3000K, 51W		F51835 85 CRI, 3500K, 51W		CPWG Clear Polycarbonate Lens and Flat Wire Guard¹		
						3EP (2) 3-Lamp and Electronic T5HO, Programmed Start		F51841 85 CRI, 4100K, 51W		F51850 85 CRI, 5000K, 51W		EL141 1400 Lumens, Emergency Battery Pack T8 1-Lamp		
						LHV4-854		F51865 85 CRI, 6500K, 51W		F49830 85 CRI, 3000K, 49W		EL5H 1250 Lumens, Emergency Battery Pack T5HO 1-Lamp		
						4EP (2) 4-Lamp Electronic T5HO, Programmed Start		F49835 85 CRI, 3500K, 49W		F49841 85 CRI, 4100K, 49W		F3CS 3-Conductor Cord		
						LHV4-432		F49850 85 CRI, 5000K, 49W		F49865 85 CRI, 6500K, 49W		F4CS 4-Conductor Cord		
						4EHL (1) 4-Lamp Electronic T8 High Light Output, Instant Start		F49830 85 CRI, 3000K, 49W		F49835 85 CRI, 3500K, 49W		GLR Fast Blow Fuse		
						EPHL (2) 2-Lamp Electronic T8, High Light Output, Programmed Start		F49841 85 CRI, 4100K, 49W		F49850 85 CRI, 5000K, 49W		OS1360 Occupancy/Daylight Sensor Kit, 120/277/347V, One Relay, 360 Lens²		
						4EPHL (1) 4-Lamp Electronic T8 High Light Output, Programmed Start		F49865 85 CRI, 6500K, 49W				OS2360 Occupancy/Daylight Sensor Kit, 120/277/347V, Two Relay, 360 Lens²		
						LHV4-632						OS480360 Occupancy/Daylight Sensor Kit, 480V, One Relay, 360 Lens²		
						3EHL (2) 3-Lamp Electronic T8 High Light Output, Instant Start						OS1A Factory Installed Occupancy/Daylight Sensor, with Aisle lens, 120/277/347V²		
						24EHL (1) 2-Lamp and (1) 4-Lamp Electronic T8, High Light Output						OS2A Factory Installed Occupancy/Daylight Sensor, with Aisle lens, 120/277/347V²		
						3EPHL (2) 3-Lamp Electronic T8 High Light Output, Programmed Start						OS480360 Factory Installed Occupancy/Daylight Sensor, with 360° lens, 120/277/347V²		
						LHV4-832						OS480A Factory Installed Occupancy/Daylight Sensor, with Aisle lens, 120/277/347V²		
						4EHL (2) 4-Lamp Electronic T8 High Light Output, Instant Start						SP Side Panels Installed¹		
						4EPHL (2) 4-Lamp Electronic T8 High Light Output, Programmed Start						WG Flat Wire Guard¹		

¹ Side panels or shielding options increase height to 27 1/8"

² Use programmed start ballast. Not recommended for use with instant start. For more occupancy/daylight harvesting sensor accessories contact your Columbia Lighting representative.

³ Not available with EL141 or EL5H.

¹ Side panels or shielding options increase height to 27'6"
² Use programmed start ballast. Not recommended for use with instant start. For more occupancy/daylight harvesting sensor accessories contact your Columbia Lighting representative.
³ Not available with EL141 or EL5H.

PRODUCT AVAILABILITY AND CROSS SECTIONS							
Model	Source	No. of Lamps	Uplight Options	Lamp Type	Width	Length	Height*
LHV4	T5HO, T8	4	U, ST	32, 54	16¾"	48"	2"
	T5HO, T8	6	U, ST	32, 54	20¾"	48"	2"
	T5HO, T8	8	U, ST	32, 54	25"	48"	2"

SHIELDING KIT ORDERING GUIDE²

LHV		S		-		-	
MODEL		SHIELDING		NO. OF LAMPS IN CROSS SECTION		SHIELDING	
LHV VersaBay® High Bay		S Shielding					
				4 Four		WG Flat Wire Guard	
				6 Six		CA Clear Acrylic Lens	
				8 Eight		CP Clear Polycarbonate Lens	
						CAWG Clear Acrylic Lens and Flat Wire Guard	
						CPWG Clear Polycarbonate Lens and Flat Wire Guard	

EXAMPLE LHVS4-CAWG

LHV SHIELDING KIT CONTENTS²	
KIT CONTAINS TWO OR MORE OF THESE COMPONENTS*:	
LHV*SPJ Side Panels and End Jaw (pair) for 4, 6, or 8 Lamp	
LHV*FWG Flat Wire Guard for 4, 6, or 8 Lamp	
LHV*CA Clear Acrylic Lens for 4, 6, or 8 Lamp	
LHV*CP Clear Polycarbonate Lens for 4, 6, or 8 Lamp	
* Replace with 4, 6, or 8. For example: LHV6CA	

² Shielding kit options are packaged separately.



ALERA LIGHTING
ARCHITECTURAL AREA LIGHTING
BEACON PRODUCTS
COLUMBIA LIGHTING
COMPASS
DUAL-LITE
HUBBELL CONTROL SOLUTIONS
HUBBELL INDUSTRIAL LIGHTING
HUBBELL OUTDOOR LIGHTING
KIM LIGHTING
KURT VERSEN
LITECONTROL
PRESCOLITE
WHITEWAY

Columbia
LIGHTING create**change**

701 Millennium Blvd. Greenville, SC 29607
Tel 864.678.1000
www.columbialighting.com

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