



Hubbell Power Systems - Aiken, SC
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VERSABAY®

FLUORESCENT HIGH BAY

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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.



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.

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

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.

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.hubbelling.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

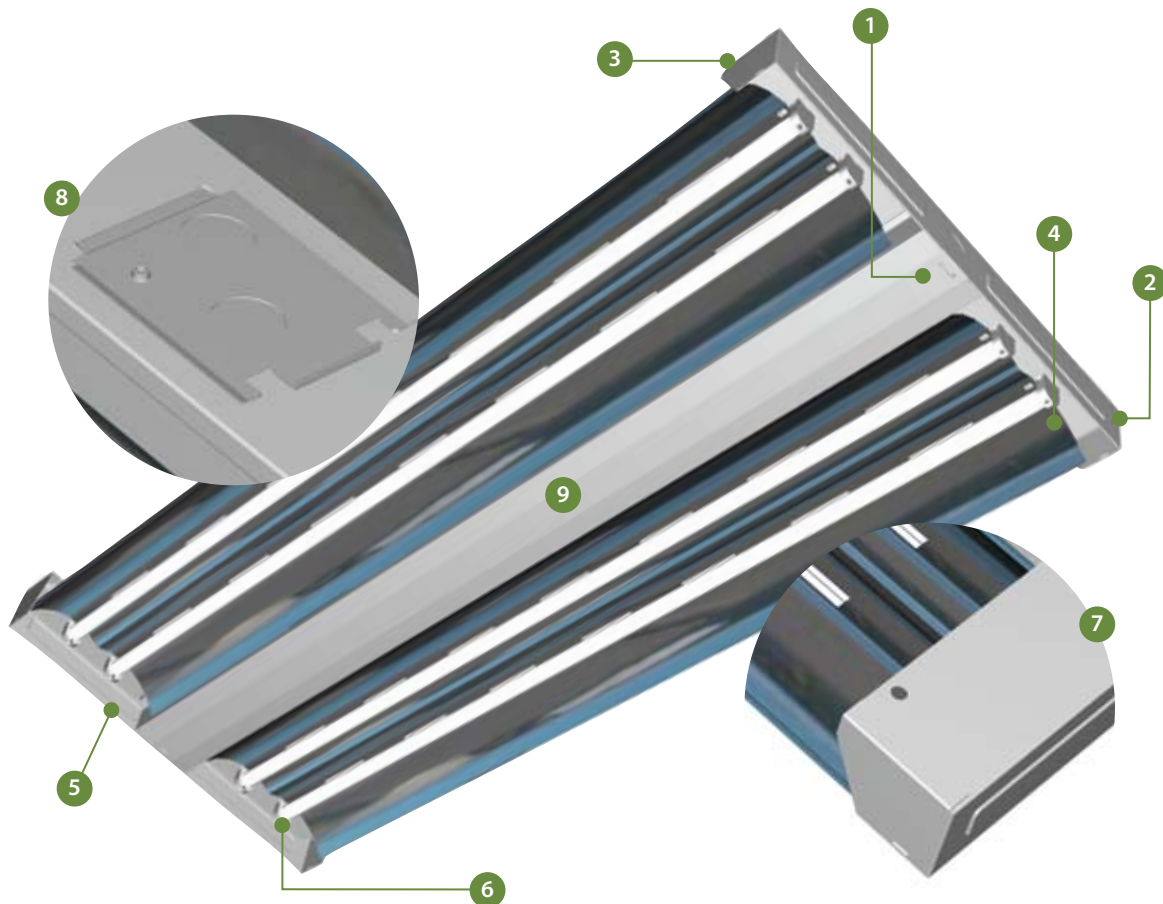
Quick and easy aircraft cable requires only one person to mount the fixture. Other mounting styles include chain, tong hanging, and single point.

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.

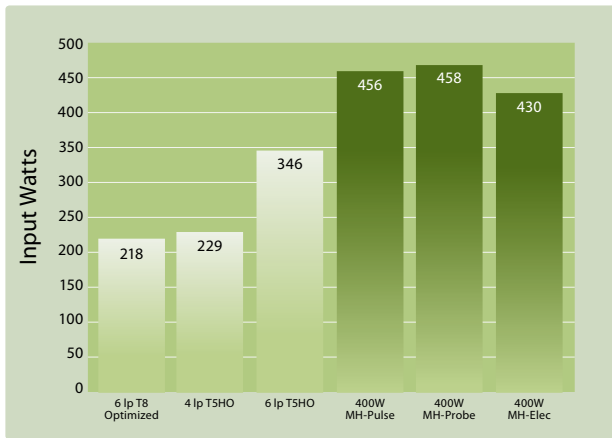


FLUORESCENT HIGH BAY ADVANTAGES

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.

ENERGY SAVINGS



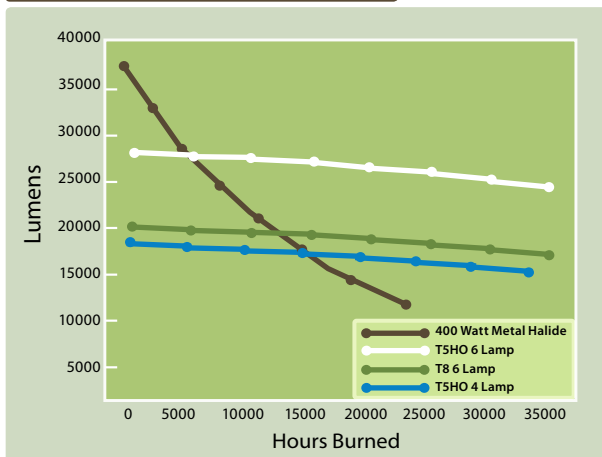
LUMEN MAINTENANCE

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.

LAMP LUMEN MAINTENANCE



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.

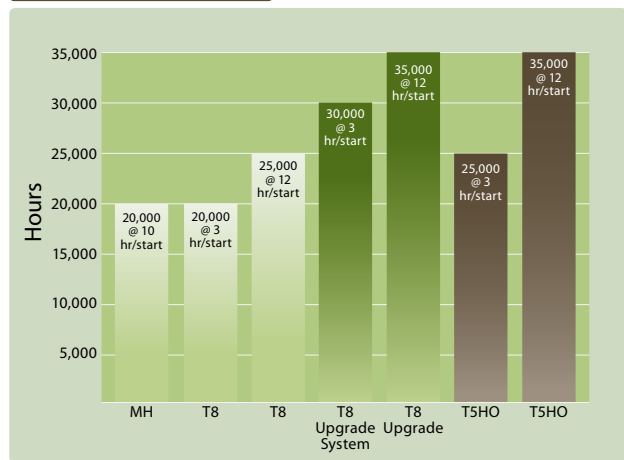
LOW PROFILE

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.

LAMP LIFE



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

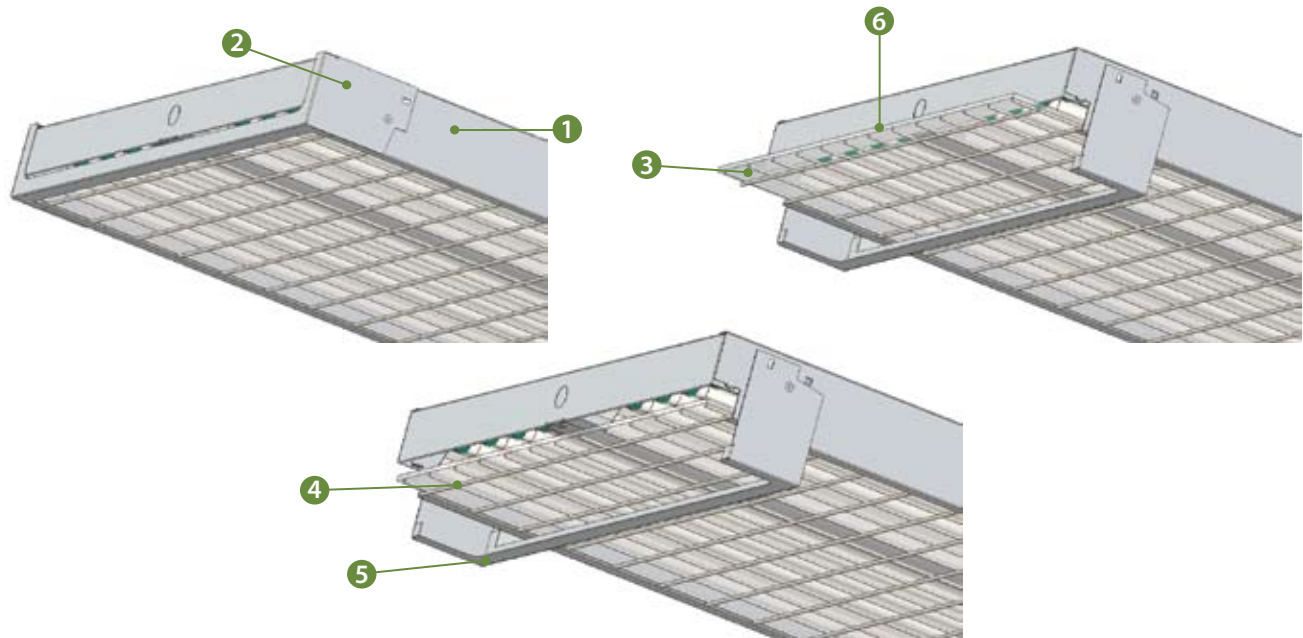
The flat wire guard is retained by the side panels and jaws.

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

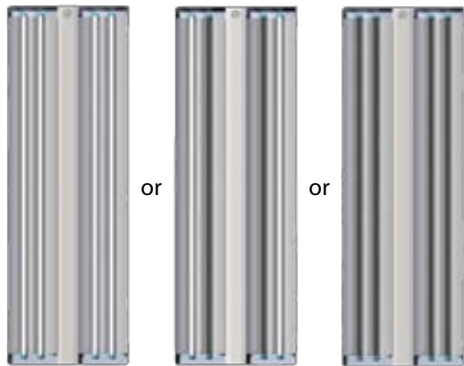


CORD AND PLUG KITS

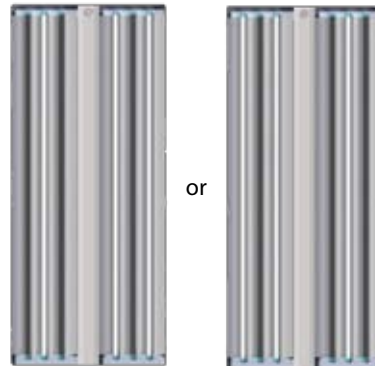
- Three different assemblies in stock (see order guide for details)
 - C6TL15-120
 - C6TL15-277
 - C6P15-120
- UL listed and approved as a fitting accessory
- Wiring and assembly made simple to "plug and play" on standard VersaBay® fixtures

LAMP SWITCHING DIAGRAMS

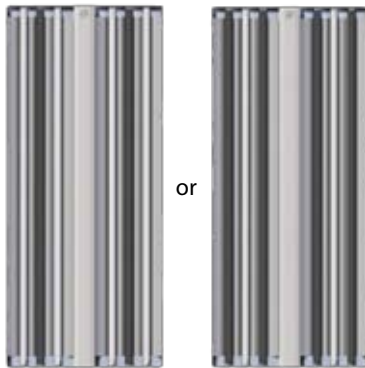
4-lamp T8 or T5HO using (1) 4-lamp Ballast



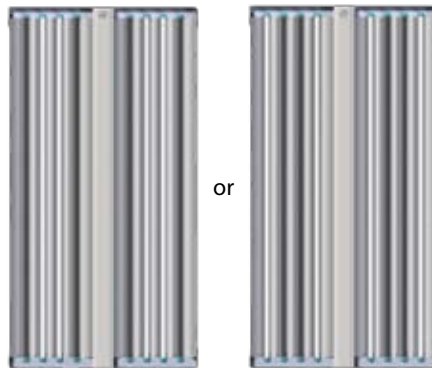
6-lamp T5HO using (2) 3-lamp Ballasts



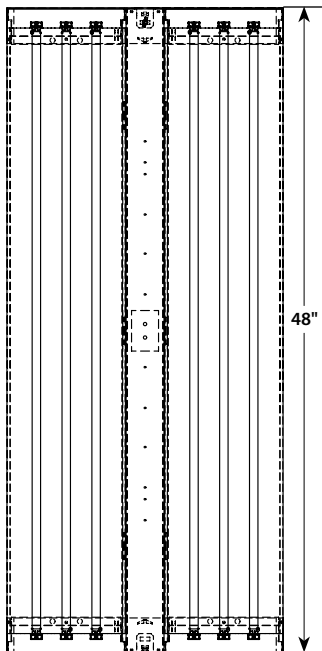
6-lamp T8 using (1) 2-lamp and (1) 4-lamp Ballast



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

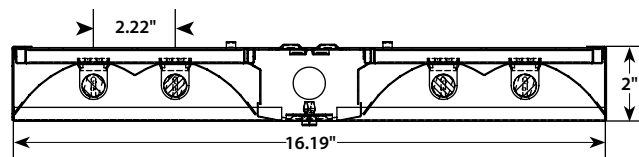


CROSS SECTIONS & DIMENSIONS

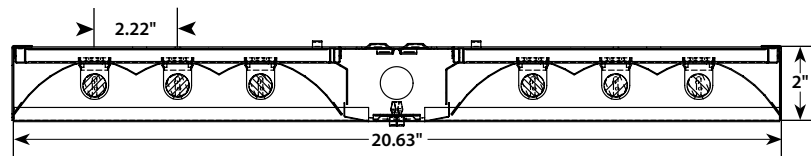


LHV4-6 Bottom View

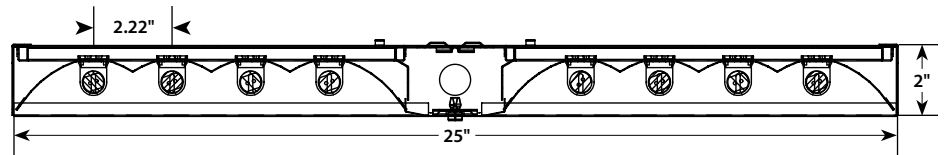
*Depth without side panels, use of side panels increases depth to 2.832"



LHV4-4



LHV4-6



LHV4-8

VERSABAY® PERFORMANCE



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SYSTEM		TYPICAL FOOTCANDLE LEVELS					
		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

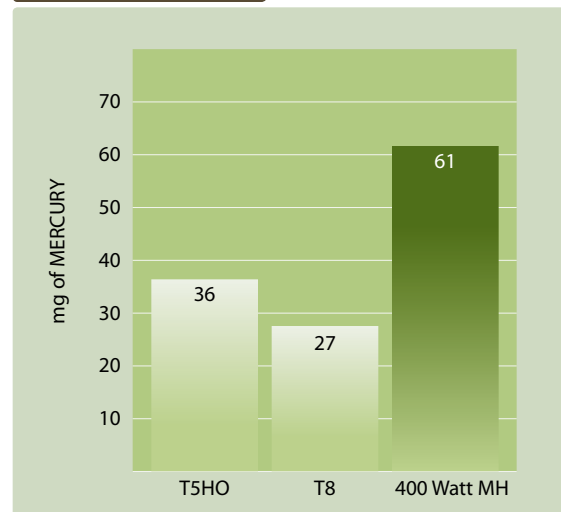
Based on 27' mounting height, 30' ceiling, fixture spacing 20', 50/30/20 reflectance values.

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

MERCURY LEVELS



ORDERING GUIDE

EXAMPLE LHV4-454-M4RU-4EPU

LHV		4									
MODEL	LAMP TYPE	UPLIGHT	VOLTAGE	LAMPS INSTALLED	OPTIONS	SIZE	NO. OF LAMPS IN CROSS SECTION	REFLECTOR	BALLAST	TSHO	
LHV VersaBay® High Bay	32 4', T8: 32, 30, 28 or 25 Watt 54 4', T5HO: 54 or 51 Watt	ST Solid Top U Uplight	U 120V-277V 347 347V 480 480V	T8 F0730 75 CRI, 3000K F0735 75 CRI, 3500K F0741 75 CRI, 4100K F0750 75 CRI, 5000K	C6TL15_ 6' Cord and Twist-Lock Plug 15A (Add Voltage: 1=120, 2=277) C6TL20_ 6' Cord and Twist-Lock Plug 20A (Add Voltage: 1=120, 2=277) C6P151 6' Cord and Straight Blade Plug 15A, 120V CA Clear Acrylic Lens* CP Clear Polycarbonate Lens* CAWG Clear Acrylic Lens and Flat Wire Guard* CPWG Clear Polycarbonate Lens and Flat Wire Guard* EL141 1100-1400 Lumens, T8 1-Lamp EL5H 725-1250 Lumens, T5HO 1-Lamp F3C5 3-Conductor Cord F4C5 4-Conductor Cord GLR Fast Blow Fuse OS1 Factory Installed Occupancy Sensor, 120-347V, One Relay, All Lamps On/Off ¹ OS2 Factory Installed Occupancy Sensor, 120-347V, Two Relay, Two Ballasts Controlled Separately ¹ OS480 Factory Installed Occupancy Sensor, 480V, One Relay, All Lamps On/Off ODS1 Factory Installed Occupancy Sensor with Daylight Harvesting Photosensor, 120V-347V, One Relay, All Lamps On/Off ¹ ODS2 Factory Installed Occupancy Sensor with Daylight Harvesting Photosensor, 120V-347V, Two Relay, Two Ballasts Controlled Separately ¹ ODS480 Factory Installed Occupancy Sensor with Daylight Harvesting Photosensor, 480V, One Relay, All Lamps On/Off SP Side Panels Installed* WG Flat Wire Guard* NYC NYC Compliant NYCU NYC Compliant, Union Labeled	4 4'	4 Four 6 Six 8 Eight	M4R Aluminum, 95% Reflective, Specular Silver (Narrow Beam) GW Gloss White (Wide Beam)	LHV4-454 4EP (1) 4-Lamp Electronic T5HO, Programmed Start LHV4-654 24EP (1) 2-Lamp & (1) 4-Lamp Electronic T5HO, Programmed Start LHV4-854 4EP (2) 4-Lamp Electronic T5HO, Programmed Start LHV4-432 4EHL (1) 4-Lamp Electronic T8 High Light Output, Instant Start EPHL (2) 2-Lamp Electronic T8, High Light Output, Programmed Start 4EPHL (1) 4-Lamp Electronic T8 High Light Output, Programmed Start LHV4-632 3EHL (2) 3-Lamp Electronic T8 High Light Output, Instant Start 24EHL (1) 2-Lamp and (1) 4-Lamp Electronic T8, High Light Output 3EPHL (2) 3-Lamp Electronic T8 High Light Output, Programmed Start LHV4-832 4EHL (2) 4-Lamp Electronic T8 High Light Output, Instant Start 4EPHL (2) 4-Lamp Electronic T8 High Light Output, Programmed Start	F5830 85 CRI, 3000K F5835 85 CRI, 3500K F5841 85 CRI, 4100K F5850 85 CRI, 5000K F5865 85 CRI, 6500K F51830 85 CRI, 3000K, 51W F51835 85 CRI, 3500K, 51W F51841 85 CRI, 4100K, 51W F51850 85 CRI, 5000K, 51W F51865 85 CRI, 6500K, 51W F49830 85 CRI, 3000K, 49W F49835 85 CRI, 3500K, 49W F49841 85 CRI, 4100K, 49W F49850 85 CRI, 5000K, 49W F49865 85 CRI, 6500K, 49W	
ACCESSORIES											
LHVTH Tong Hanger (pair)	LHVWG4 Wireguard, White, 4-Lamp Fixture	LHVWG6 Wireguard, White, 6-Lamp Fixture	LHVWG8 Wireguard, White, 6-Lamp Fixture	LHVQM5 Aircraft Cable, 5' (pair)	LHVQM10 Aircraft Cable, 10' (pair)	LHVSPM5 Single Point Mounting, Includes Pair of 5' Aircraft Cables	LHVSP Side Panels (pair)*	LHVOS480 480V Occupancy Sensor, Aisle and 360° Lens ¹	LHVOS1 Occupancy Sensor, 120-347V, One Relay ¹	LHVOS2 Occupancy Sensor, 120-347V, Two Relays ¹	C6TL15-120 Cord and Plug Kit (white), 6 ft, Twist Lock NEMA L5-15P, 15 amp, 120V
C6TL15-277 Cord and Plug Kit (white), 6 ft, Twist Lock NEMA L7-15P, 15 amp, 277V	C6P15-120 Cord and Plug Kit (white), 6 ft, Straight Blade NEMA 5-15P, 15 amp, 120V										

* Side panels or shielding options increase height to 27 7/8"
¹ Use programmed start ballast. Not recommended for use with instant start.

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	16 3/16"	48"	2"
	T5HO, T8	6	U, ST	32, 54	20 5/8"	48"	2"
	T5HO, T8	8	U, ST	32, 54	25"	48"	2"

SHIELDING KIT ORDERING GUIDE²

EXAMPLE LHVS4-CAWG

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

LHV SHIELDING KIT CONTENTS ²	
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.

- BIL** **Bi-Level Luminaire**
3-lamp fixture designed to maximize energy savings in low occupancy areas such as stairwells and storerooms.
- EMI** **EnergyMax® Intersect™ Full Distribution Luminaire**
2-lamp, energy efficient, louvered luminaire designed to provide full distribution and tremendous energy savings.
- EMS** **EnergyMax® Stratus Energy Saving Architectural Recessed Indirect Luminaire**
2-lamp, energy efficient, recessed indirect luminaire tuned to meet strict Lighting Power Density requirements.
- EMX** **EnergyMax® Parabolic Energy Saving Parabolic**
A system of tuned components designed to provide the perfect balance between light output and energy conservation.
- EPC** **e-poc® Full Distribution Luminaire**
2-lamp, energy efficient, lensed luminaire with contemporary styling, full distribution, and huge energy savings.
- LHV** **VersaBay® Fluorescent High Bay**
The new industry standard for fluorescent high bay lighting with Advanced Thermal Management.
- MB/MC** **Morph™ Fluorescent Exterior Area Lights**
T5HO luminaires with unprecedented energy savings and light control.
- RKT/
RKS/
RKSR** **RKT/RKS/RKSR Troffer and Industrial Striplight Retrofit Kits**
Retrofit kits to update existing lighting to meet today's lighting needs and lower energy costs.
- XFSW** **XFSW Severe Fiberglass Low/High Bay**
A 4- or 6-lamp IP67 Rated, NSF Rated, and 5VA fire rated low/high bay ideal for cold temperatures.
- XTS** **XTS Enclosed and Gasketed Acrylic Tube, Severe Environment**
2-lamp, energy-efficient, enclosed and gasketed lighting suitable for wet locations.
- ZPT** **Zero Plenum® Troffer High Efficiency Architectural Luminaire**
High performance, ultra-low profile luminaire that significantly reduces energy costs.

Columbia LIGHTING

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