

FEATURES

- Optical design to provide one-for-one replacement for 400 Watt metal halide high bays
- Advanced Thermal Management (ATM) provides optimized electrical component heat dissipation system for cool running ballast operation in unconditioned ambient spaces, your choice of T8 or T5HO—suspension mounting only
- LHV includes industry leading 5-year warranty at 65°C ambient operation for T5HO and 5-year warranty for T8 at 55°C for 277V and 50°C for 120V.
- Easy center-ballast cover allows tool-less access to electrical components without the removal of lamps, reflectors or hardware.
- Extremely low profile—only 2" overall height allows fixture to be installed without concern about obstructions
- Reflector options include uplight (recommended) or solid top with either narrow or wide distribution
- Product design accommodates quick and simple hanging systems including chain, tong, pipe hanger, or aircraft mounting
- Rotary locking lampholders secure lamp in position and conceal contacts
- Access cover in channel for easy wiring access
- UL listed, suitable for damp locations
- NEC/CEC-compliant ballast disconnect standard (not available with EL option)

PROJECT INFORMATION

Project Name _____

Type _____

Catalog No. _____

Date _____

HEAT DISSIPATION SYSTEM (ATM)

The installation of fluorescent fixtures with temperature sensitive electronic ballasts in unconditioned spaces creates the risk of premature ballast failures unless the fixture is equipped with a heat dissipation system to quickly remove heat that is harmful to ballasts. ATM (Advanced Thermal Management) was exclusively developed for VersaBay to provide the ultimate solution to ballast overheating and thermal issues.

CONSTRUCTION

Code gauge steel construction for a durable construction to withstand shipping and job site handling. End caps include hemmed edges for ease of handling. Fixture includes easy access to electrical components via removal channel cover. Tool-less access with one quarter-turn fastener. Oversized access plate conveniently mounted on back of channel for easy access to wiring compartment.

REFLECTOR

Your choice of multi-faceted specular aluminum which provides precise control for aisle lighting, high mounting heights, white aluminum for general area, or lower mounting heights. Includes a 25-year reflector warranty. Reflectors are available in solid top or with uplight component. Reflectors are securely mounted to fixture housing with screws. Reflector removal is not required to gain access to electrical components.

PERFORMANCE

With an optical system custom designed for maximum performance when using either T5HO or T8 lamps, VersaBay provides excellent distribution with fixture

efficiencies in excess of 99% for T5HO systems and 94% with T8 systems. The spacing criteria for the VersaBay is 0.9 for narrow distribution and 1.3 for wide distribution.

BALLASTS

Energy efficient, thermally protected, automatic resetting, Class P, high power factor, sound rated A, magnetic or electronic ballasts. CEE NEMA Premium compliant.

ELECTRICAL

Standard class "P", thermally protected, autoresetting HPF ballast, sound rated A. CEE NEMA Premium compliant. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

FINISH

Steel surfaces are painted with high-gloss baked white enamel, applied over iron phosphate pre-treatment for maximum adhesion and rust resistance.

MOUNTING

Fixture to be suspended a minimum of 6" from solid surface. Mounting options include aircraft cable, tong hanger, pipe hanger, or chain.

CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Emergency-equipped fixtures labeled UL 924. Fixtures bear UL damp location listing up to 65°C for T5HO lamps and up to 55°C for T8 lamps.

ORDERING INFORMATION

EXAMPLE LHV4-454-M4RU-4EPU

LHV		4		-		-		-	
MODEL	NO. OF LAMPS IN CROSS SECTION	REFLECTOR	BALLAST	LAMPS INSTALLED	OPTIONS				
LHV VersaBay® Fluorescent High Bay	4 Four	M4R Aluminum, 95% Reflective, Specular Silver (Narrow Beam) GW Gloss White (Wide Beam)	4EHL (1) 4-Lamp Electronic T8 High Light Output, Instant Start 4EPHL (1) 4-Lamp Electronic T8 High Light Output, Programmed Start 4EP (1) 4-Lamp Electronic T5HO, Programmed Start	T8 F830 78+ CRI, 3000K F835 78+ CRI, 3500K F841 78+ CRI, 4100K F850 78+ CRI, 5000K F0835 82 CRI, 3500K F0841 82 CRI, 4100K F0850 82 CRI, 5000K T5HO F5830 85 CRI, 3000K F5835 85 CRI, 3500K F5841 85 CRI, 4100K F5850 85 CRI, 5000K F51830 3000K 85CRI 51W F51835 3500K 85CRI 51W F51841 4100K 85CRI 51W F51850 5000K 85CRI 51W F51865 6500K 85CRI 51W F49830 3000K 85CRI 49W F49835 3500K 85CRI 49W F49841 4100K 85CRI 49W F49850 5000K 85CRI 49W F49865 6500K 85CRI 49W	GLR Fast Blow Fuse F3C5 3-Conductor Cord F4C5 4-Conductor Cord C6TL15_ 6' Cord and Twist-Lock™ Plug 15A (Add Voltage: 1=120, 2=277) C6TL20_ 6' Cord and Twist-Lock™ Plug 20A (Specify Voltage 1=120, 2=277) C6P151 6' Cord and Straight Blade Plug 15A, 120V SP Side Panels Installed² EL141 1100-1400 Lumens, T8 1-Lamp EL5H 725-1250 Lumens, T5HO 1-Lamp WG Flat Wire Guard² CA Clear Acrylic Lens² CP Clear Polycarbonate Lens² CAWG Clear Acrylic Lens and Flat Wire Guard² CPWG Clear Polycarbonate Lens and Flat Wire Guard² OS1360 Factory Installed Occupancy/Daylight Sensor, with 360° lens, 120/277/347V, 1 Relay OS2360 Factory Installed Occupancy/Daylight Sensor, with 360° lens, 120/277/347V, 2 Relay OS1A Factory Installed Occupancy/Daylight Sensor, with Aisle lens, 120/277/347V, 1 Relay OS2A Factory Installed Occupancy/Daylight Sensor, with Aisle lens, 120/277/347V, 2 Relay OS480360 Factory Installed Occupancy/Daylight Sensor, with 360° lens, 480V, 1 Relay OS480A Factory Installed Occupancy/Daylight Sensor, with Aisle lens, 480V, 2 Relay				
SIZE	LAMP TYPE	UPLIGHT	VOLTAGE						
4 4'	32 4', T8: 32, 30, 28 or 25 Watt 54 4', T5HO: 54, 51, or 49 Watt	ST Solid Top U Uplight	U 120V-277V 347 347V 480 480V						
ACCESSORIES (ORDER SEPARATELY)									
LHVTH Tong Hanger (Pair)	LHVWG4-4 Wire Guard Cage, 4-Lamp, White	LHVQMS Aircraft Cable, 5' (Pair)	LHVQM10 Aircraft Cable, 10' (Pair)	LHVSPMS Single Point Mounting, includes pair of 5' aircraft cables	LHVSP Side Panels (Pair)²				
LHVOS1360 Occupancy/Daylight Sensor, with a 360° lens, 120/277/347V	LHVOS2360 Occupancy/Daylight Sensor, with a 360° lens, 120/277/347V	LHVOS480360 Occupancy/Daylight Sensor, with a 360° lens, 480V	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				

¹ Use programmed start ballast. Not recommended for use with instant start. For more occupancy/daylight harvesting sensor accessories contact your Columbia Lighting representative.

² Side panels or shielding options increase height to 27/8".

PHOTOMETRIC DATA

Test 14621 Test Date 5/10/07

LUMINAIRE DATA

Luminaire	LHV4-432-M4RST VersaBay Industrial 16" x 48" 4-Lamp 32T8 with MIRO®-4 Reflectors and Solid Top
Ballast	GE432MAX-H/ULTRA
Ballast Factor	1.15
Lamp	F32T8
Lumens per Lamp	2900
Watts	152
Mounting	Pendant
Shielding Angle	0° = 0 90° = 0
Spacing Criterion	0° = 1.24 90° = 0.88
Luminous Opening in Feet	Length: 4.00 Width: 1.33 Height: 0.00

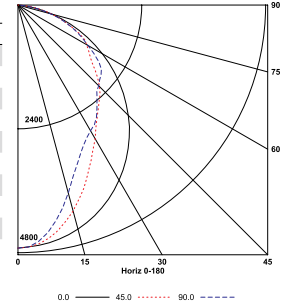
AVG. LUMINANCE (Candela/Sq. M.)

	0.0	22.5	45.0	67.5	90.0
0	9526	9526	9526	9526	9526
30	9154	8252	6990	6591	6572
40	8853	7284	6460	6434	6291
45	8647	6801	6395	6241	6326
50	8392	6384	6129	6434	6613
55	8057	6043	5990	6713	6745
60	7644	5900	6212	6466	6333
65	7110	5654	6310	6114	6142
70	6395	5200	5792	5809	5797
75	5386	5425	5410	5277	5160
80	3903	4602	4579	4160	3985
85	2043	3343	2554	1602	1161

COEFFICIENTS OF UTILIZATION (%)

RCR	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	100	96	92	88	97	94	90	87	90	87	84	77	
2	91	84	78	72	89	82	76	72	79	74	70	65	
3	83	74	66	60	81	72	65	60	69	64	59	55	
4	76	65	58	52	74	64	57	51	62	56	50	47	
5	70	59	51	45	68	58	50	44	56	49	44	41	
6	65	53	45	39	63	52	45	39	51	44	39	36	
7	60	48	40	35	59	48	40	35	46	39	34	32	
8	56	44	36	31	55	44	36	31	42	36	31	29	
9	53	41	33	28	51	40	33	28	39	33	28	26	
10	50	38	30	26	48	37	30	26	36	30	26	24	

INDOOR CANDELA PLOT



ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	3197	27.6	30.1
0-40	5020	43.3	47.3
0-60	8494	73.2	80.0
0-90	10621	91.6	100.0
0-180	10621	91.6	100.0

RCR = Room Cavity Ratio

RC = Effective Ceiling Cavity Reflectance RW = Wall Reflectance

ENERGY DATA

Total Luminaire Efficiency	91.6%
Luminaire Efficacy Rating (LER)	80
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.00 based on 3000 hrs. and \$0.08 per KWH

LUMINAIRE DATA

Luminaire	LHV4-454-M4RU VersaBay Industrial 16" x 48" 4-Lamp with MIRO®-4 Reflectors and Uplight
Ballast	B454PUNVHT-E
Ballast Factor	1.00
Lamp	F54T5HO
Lumens per Lamp	4450
Watts	226
Mounting	Pendant
Shielding Angle	0° = 0 90° = 0
Spacing Criterion	0° = 1.23 90° = 0.89
Luminous Opening in Feet	Length: 4.00 Width: 1.33 Height: 0.00

AVG. LUMINANCE (Candela/Sq. M.)

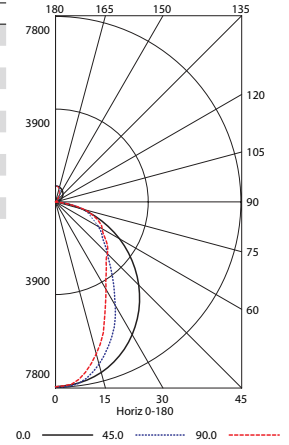
	0.0	22.5	45.0	67.5	90.0
0	15735	15735	15735	15735	15735
30	15064	13990	11731	10326	9927
40	14516	12504	9530	8904	8750
45	14158	11474	8844	8624	8824
50	13730	10233	8401	8851	8980
55	13218	9161	8403	8794	8829
60	12577	8089	8470	8793	9174
65	11706	7445	8326	9513	9791
70	10554	7235	8903	9844	10015
75	9068	7028	9217	9936	10030
80	6886	7329	8902	7422	6688
85	3691	6431	2461	673	325

COEFFICIENTS OF UTILIZATION (%)

RCR	80				70				50				0
	RW	70	50	30	10	70	50	30	10	50	30	10	0
1	108	103	99	95	104	100	96	93	95	92	89	79	
2	98	90	84	78	95	88	82	77	83	78	74	67	
3	90	80	72	66	87	78	71	65	74	68	63	57	
4	83	71	63	56	80	69	62	56	66	59	54	49	
5	76	64	55	49	74	62	54	48	60	53	47	43	
6	71	58	49	43	68	57	49	43	54	47	42	38	
7	66	53	44	38	64	52	44	38	50	43	37	34	
8	61	48	40	35	59	47	40	34	46	39	34	31	
9	57	45	37	31	56	44	36	31	42	35	31	28	
10	54	41	34	29	52	41	33	28	39	33	28	26	

Test 14633 Test Date 5/21/07

INDOOR CANDELA PLOT



ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	5417	30.4	30.5
0-40	8288	46.6	46.7
0-60	13398	75.3	75.5
0-90	16675	93.7	93.9
0-180	17753	99.7	100.0

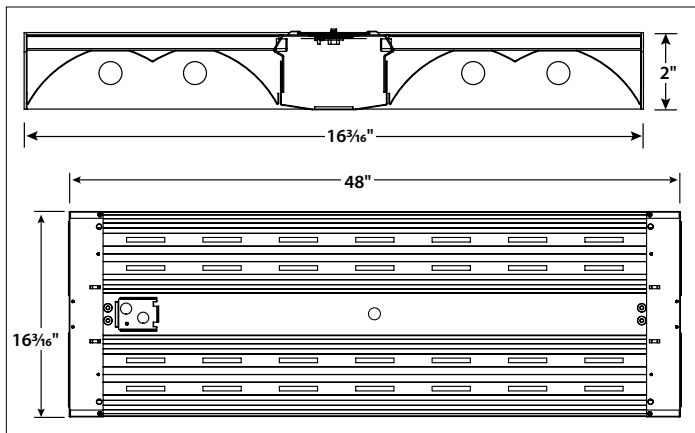
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ENERGY DATA

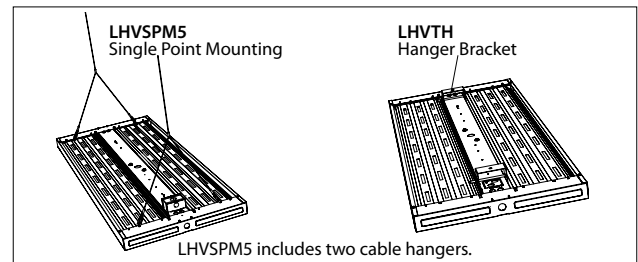
Total Luminaire Efficiency	99.7%
Luminaire Efficacy Rating (LER)	79
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.04 based on 3000 hrs. and \$0.08 per KWH

DIMENSIONAL DATA



NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

OPTIONAL HANGER BRACKETS



LHV AIRCRAFT CABLE

