

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

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 NEC/CEC-compliant ballast disconnect standard (not available with FL ontion)

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 TSHO lamps, VersaBay provides excellent distribution with fixture efficiencies in excess of 99% and spacing criteria of 0.8 for narrow distribution, and 1.3 for wide distribution.

ELECTRICAL

Standard class "P", thermally protected, auto-resetting HPF ballast, sound rated A. 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 for 65°C

ORDERING INFORMATION

EXAMPLE LHV4-654-M4RU-24EPU

LHV	4 - 6 5	4 -						
MODEL	NO.OFLAMPSIN	REFLECTOR		BALLAST	LAMP	S INSTALLED		OPTIONS
LHV VersaBay® Fluorescent	CROSS SECTION	M4R Aluminum, 95% Reflective,	24EP	(1) 2-Lamp & (1) 4-Lamp Electronic T5HO,		78+ CRI, 3500K		Fast Blow Fuse 3-Conductor Cord
High Bay	6 Six	Specular Silver		Programmed Start		78+ CRI, 4100K 78+ CRI, 5000K		4-Conductor Cord
		(Narrow Beam) GW Gloss White	3EP	(2) 3-Lamp Electronic T5HO, Programmed Start		82 CRI, 3500K	C6TL15_	6' Cord and Twist-Lock™ Plug 15A (Add Voltage: 1=120, 2=277)
		(Wide Beam)		13110, Flogrammed Start		82 CRI, 4100K	C6TL20_	6' Cord and Twist-Lock™ Plug 20A
	SIZE LAMP	TYPF IIPI	IGHT		F0850	82 CRI, 5000K	C6D1E1	(Specify Voltage 1=120, 2=277) 6' Cord and Straight Blade Plug 15A, 120V
	4' 54 4', T5HO: 54					85 CRI, 3000K		Side Panels Installed ¹
		U Upli	ght .			85 CRI, 3500K 85 CRI, 4100K		725-1250 Lumens, T5HO 1-Lamp
	ACCESSORIES (ORDER	SEPARATELY)				85 CRI, 4100K 85 CRI, 5000K		Flat Wire Guard ¹ Clear Acrylic Lens ¹
LHVTH	Tong Hanger (Pair)			VOLTAGE		85 CRI, 6500K	CP	Clear Polycarbonate Lens ¹
	Wire Guard, 6-Lamp, White			U 120V-277V 347 347V	F51830	3000K 85CRI 51W		Clear Acrylic Lens and Flat Wire Guard ¹ Clear Polycarbonate Lens and Flat Wire Guard ¹
•	Aircraft Cable, 5' (Pair) Aircraft Cable, 10' (Pair)			480 480V		3500K 85CRI 51W		Factory Installed Occupancy/Daylight Sensor,
-	Single Point Mounting, includes	nair of 5' aircraft cables				4100K 85CRI 51W	052360	with 360° lens, 120/277/347V, 1 Relay Factory Installed Occupancy/Daylight Sensor,
	Side Panels (Pair) ¹	pair or 5 arrefaire cables				5000K 85CRI 51W 6500K 85CRI 51W		with 360° lens, 120/277/347V, 2 Relay
LHV0S1360	Occupancy/Daylight Sensor, with	h a 360° lens, 120/277/347V				3000K 85CRI 49W	OS1A	Factory Installed Occupancy/Daylight Sensor, with Aisle lens, 120/277/347V, 1 Relay
	Occupancy/Daylight Sensor, with				F49835	3500K 85CRI 49W	OS2A	Factory Installed Occupancy/Daylight Sensor,
	Occupancy/Daylight Sensor, with		. 1201/		F49841		OS480360	with Aisle lens, 120/277/347V, 2 Relay Factory Installed Occupancy/Daylight Sensor,
	Cord and Plug Kit (white), 6 ft., T Cord and Plug Kit (white), 6 ft., T				F49850			with 360° lens, 480V, 1 Relay
	Cord and Plug Kit (white), 6 ft., 5			1	F49803	6500K 85CRI 49W	US480A	Factory Installed Occupancy/Daylight Sensor, with a Aisle lens, 480V, 2 Relay

¹ Side panels or shielding options increase height to 2%".

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INDUSTRIALS / LHV4-654



 $^{^{2}\,}$ For more occupancy/daylight harvesting sensor accessories contact your Columbia Lighting representative.



PHOTOMETRIC DATA

LUMINAIRE DATA

Luminaire	LHV4-654-M4RU VersaBay Industrial 21" × 48" 6-Lamp T5HO with MIRO®-4 Reflector and Uplight
Ballast	B254PUNVHT-D & B454PUNVHT-E
Ballast Factor	1.00
Lamp	F54T5HO
Lumens per Lamp	4450
Watts	343
Mounting	Pendant
Shielding Angle	0° = 0 90° = 0
Spacing Criterion	0° = 1.23 90° = 0.85
Luminous Opening in Feet	Length: 4.00 Width: 1.79 Height: 0.00

COEFFICIENTS OF UTILIZATION (%)

	RC	80			70			50			0		
	RW	70	50	30	10	70	50	30	10	50	30	10	0
	1	107	103	98	95	104	100	96	93	94	91	88	78
	2	98	90	83	78	95	87	81	76	83	78	73	66
	3	89	79	71	65	86	77	70	64	73	67	62	56
	4	82	71	62	56	79	69	61	55	65	59	53	48
RCR	5	76	63	55	48	73	62	54	48	59	52	47	42
≈	6	70	57	49	42	68	56	48	42	54	46	41	37
	7	65	52	44	38	63	51	43	37	49	42	37	33
	8	61	48	40	34	59	47	39	34	45	38	33	30
	9	57	44	36	31	55	43	36	31	42	35	30	27
	10	54	41	33	28	52	40	33	28	39	32	28	25

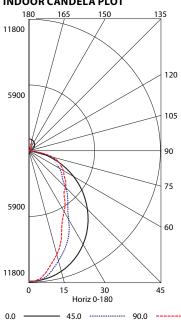
RCR = Room Cavity Ratio

 $\mathbf{RC} = \text{Effective Ceiling Cavity Reflectance } \mathbf{RW} = \text{Wall Reflectance}$

ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	7913	29.6	29.7
0-40	12123	45.4	45.5
0-60	19702	73.8	73.9
0-90	24931	93.4	93.5
0-180	26662	99.9	100.0

INDOOR CANDELA PLOT



Test 14541 Test Date 3/2/07

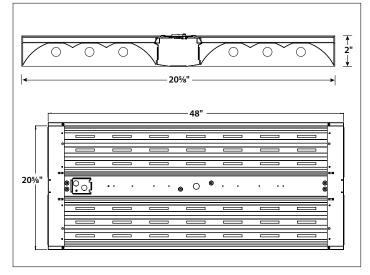
ENERGY DATA

Total Luminaire Efficiency	99.9%
Luminaire Efficacy Rating (LER)	78
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$3.08 based on 3000 hrs. and \$0.08 per KWH

AVG. LUMINANCE (Candela/Sq. M.)

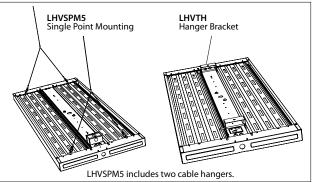
		0.0	22.5	45.0	67.5	90.0
	0	17615	17615	17615	17615	17615
<u>e</u>	30	16852	14946	12372	11146	10945
Ĕ,	40	16194	13309	10568	9681	9604
ē	45	15769	12021	9965	9633	9886
Ĕ	50	15263	10625	9180	9858	10104
Luminance Angle	55	14670	9805	9433	9824	10052
독	60	13906	9083	9567	10301	10704
	65	12920	8050	9633	10832	11223
Average	70	11631	8057	10255	11815	12220
ē	75	9898	7905	11327	12686	13058
¥	80	7402	8519	12112	10813	10536
	85	3691	8573	5917	2570	2191

DIMENSIONAL DATA

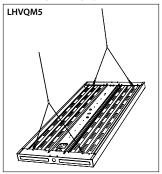


NOTE: All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.

OPTIONAL HANGER BRACKETS



LHV AIRCRAFT CABLE



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