



createchange

**FEATURES**

- Optical design provides one-for-one replacement of metal halide and fluorescent high bays with substantial energy savings
- Three LED color choices and 84 CRI
- High efficacy LEDs provide up to 138 Lumens Per Watt
- Available in narrow or wide distribution
- Long-Life LED's 60,000 hours at L80 with projected life over 100,000 hours for reduced life cycle maintenance costs
- Easy center driver cover allows tool-less access to electrical components for modular replaceability
- Extremely low profile—only 2" overall height
- Quick and simple hanging systems include chain, tong or aircraft cable mounting
- Access cover in channel for easy wiring access
- "Plug and play" occupancy sensor, daylight sensor, cord and plug
- Wire guard and/or lens option
- ControlScope® compatible
- DesignLights Consortium® (DLC) qualified
- CSA listed and suitable for damp locations
- Up to 55°C ambient operation; see table provided for details
- 5 Year Warranty

**PROJECT INFORMATION**

Project Name \_\_\_\_\_

Type \_\_\_\_\_

Catalog No. \_\_\_\_\_

Date \_\_\_\_\_

**CONSTRUCTION**

Code gauge steel construction for durability to withstand shipping and job site handling. End caps include hemmed edges for ease of handling. Fixture provides easy access to electrical components via removal of 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**

Narrow version features multi-faceted specular aluminum reflector for aisle lighting and areas where tighter lighting beam spread is desired. Wide distribution model provides maximum light distribution for open areas. Reflector removal is not required to gain access to electrical components.

**PERFORMANCE**

VersaBay® LED provides high efficacy, reduced input wattage compared to HID or fluorescent, and the excellent lighting quality needed for task visibility, material characteristic and color differentiation.

**FINISH**

All metal parts processed with a phosphate bonding treatment. Pre-painted with high gloss baked white enamel, 86% reflective. Polyester powder coat paint after fabrication (PAF) option available for product housing and ends, reflectance 90%.

**SHIELDING**

Optional lens shielding is virgin acrylic or polycarbonate.

**MOUNTING**

Fixture to be suspended a minimum of 28" from solid surface. Mounting options include aircraft cable, tong hanger, pipe hanger, or chain.

**CERTIFICATION**

All luminaires are built to UL1598 and 2108 standard, and bear appropriate CSA labels. Damp location labeling is standard. Emergency equipped fixtures built to UL942. Adheres to LM79, LM80 and TM21 industry standards. . DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org.

**WARRANTY**

5 Year Warranty (Terms and Conditions apply).

**ORDERING INFORMATION**

**EXAMPLE LLHV4-50H-WST-EU**

LLHV 4 - - ST - -

MODEL	COLOR TEMP	REFLECTOR	DRIVER	OPTIONS
LLHV VersaBay® LED High Bay	35 3500 40 4000 50 5000	N Narrow Distribution W Wide Distribution	E Fixed Output ED 0-10V Dimming	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
SIZE	LUMEN OUTPUT	UPLIGHT	VOLTAGE	CA Clear Acrylic Lens <sup>1,2</sup> CP Clear Polycarbonate Lens <sup>1,2</sup> SFA Smooth Frosted Acrylic Lens <sup>1,2</sup> CAWG Clear Acrylic Lens and Flat Wire Guard <sup>1,2</sup> CPWG Clear Polycarbonate Lens and Flat Wire Guard <sup>1,2</sup> SP Side Panels Installed <sup>1,3</sup> WG Flat Wire Guard <sup>1</sup> ELL14 Emergency Battery Pack, 1400 Lumens <sup>4</sup> F4C5 4-Conductor Cord GLR Fast Blow Fuse
4 4'	L Low Watt M Medium Lumen H High Lumen V Very High Lumen X Extra High Lumen U Ultra High Lumen Lumen output varies fixture width, see cross section drawings	ST Solid Top (no uplight)	U 120V-277V 347 347V 480 480V <sup>5</sup>	OS1360 Factory Installed Occupancy/Daylight, Sensor, 1-relay, 360° lens 120/277 OS2360 Factory Installed Occupancy/Daylight, Sensor, 2-relay, 360° lens 120/277 OS1A Factory Installed Occupancy/Daylight Sensor, 1-relay, Aisle lens, 120/277 OS2A Factory Installed Occupancy/Daylight Sensor, 2-relay, Aisle lens, 120/277 ODS1360 Factory Installed Dimming Occupancy/Daylight Sensor, 1-relay, 360° lens 120/277 ODS1A Factory Installed Dimming Occupancy/Daylight Sensor, 1-relay, Aisle lens 120/277

**ACCESSORIES (ORDER SEPARATELY)**

- LHVTH Tong Hanger (Pair) for L, M, and H lumen outputs
- LHVWTH Wide Tong Hanger (pair) for V, X, and U lumen outputs
- LHVWG4-4 Wireguard, White for L, M, and H lumen outputs
- LHVWG4-6 Wireguard, White for V, X, and U lumen outputs
- LHVQMS Aircraft Cable, 5' (Pair)
- LHVQM10 Aircraft Cable, 10' (Pair)
- LHVSPMS Single Point Mounting, Includes Pair of 5' Aircraft Cables<sup>6</sup>
- LHVSP Side Panels (Pair)
- LHVOS1360 Occupancy/Daylight Sensor, with a 360° lens, 120/277/347V
- LHVOS2360 Occupancy/Daylight Sensor, with a 360° lens, 120/277/347V

<sup>1</sup> Side panels increase height to 27".  
<sup>2</sup> Lens reduces max ambient operating temperature (see table).  
<sup>3</sup> Side panels only; does not include lens or wire guard options.  
<sup>4</sup> ELL14 reduces max ambient temperature (see table).  
<sup>5</sup> Uses step down transformer (L, M, H).  
<sup>6</sup> For use only with L, M, H Lumen packages  
<sup>7</sup> Registered trademark of Daintree Networks, used by permission

## PHOTOMETRIC DATA

### LUMINAIRE DATA

Luminaire	LLHV4-50M-WST-EDU LLHV VersaBay Led High Bay, Industrial 16" x 48" led with gloss white reflector
Ballast Driver	(2) D23CC90UNVT-F
Driver Factor	1.00
Source	LED
Fixture Lumens	16,835
Watts	144.20
Mounting	Pendant
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.29 90° = 1.29
Luminous Opening in Feet	Length: 4.00 Width: 1.33 Height: 0.00

### ENERGY DATA

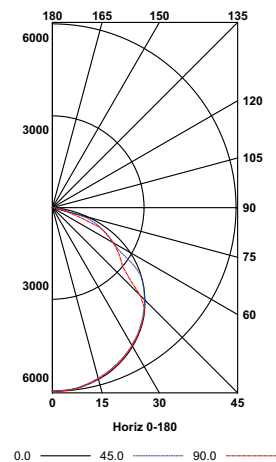
Total Luminaire Efficiency	100.0%
Total Lumens per Watt	117
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.05 based on 3000 hrs. and \$0.08 per KWH

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	4704	28.0	28.0
0-40	7798	46.3	46.3
0-60	13736	81.6	81.6
0-90	16834	100.0	100.0
0-180	16835	100.0	100.0

Test ITL86201 Test Date 12/9/15

### INDOOR CANDELA PLOT



### LUMINAIRE DATA

Luminaire	LLHV4-50H-NST-EDU LLHV VersaBay LED High Bay, Industrial 16" x 48" LED with specular reflector
Ballast Driver	(3) D23CC90UNVT-F
Driver Factor	1.00
Source	LED
Fixture Lumens	25,230
Watts	216.80
Mounting	Pendant
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.27 90° = 1.00
Luminous Opening in Feet	Length: 4.00 Width: 1.33 Height: 0.00

### ENERGY DATA

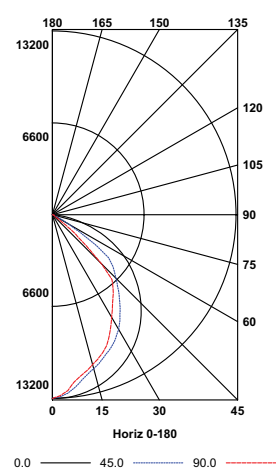
Total Luminaire Efficiency	100.0%
Total Lumens per Watt	116
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.07 based on 3000 hrs. and \$0.08 per KWH

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	9294	36.8	36.8
0-40	14731	58.4	58.4
0-60	23039	91.3	91.3
0-90	25228	100.0	100.0
0-180	25230	100.0	100.0

Test ITL86127 Test Date 12/03/15

### INDOOR CANDELA PLOT



### LUMINAIRE DATA

Luminaire	LLHV4-50H-WST-EDU LLHV VersaBay LED High Bay, Industrial 16" x 48" LED with gloss white reflector
Ballast Driver	(3) D23CC90UNVT-F
Driver Factor	1.00
Source	LED
Fixture Lumens	24,889
Watts	217.00
Mounting	Pendant
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.29 90° = 1.30
Luminous Opening in Feet	Length: 4.00 Width: 1.33 Height: 0.00

### ENERGY DATA

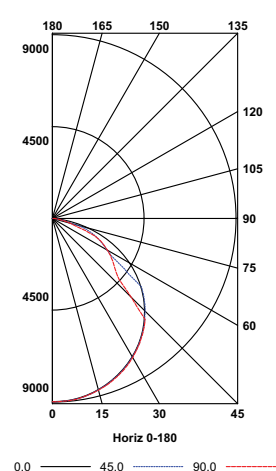
Total Luminaire Efficiency	100.0%
Total Lumens per Watt	115
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$2.09 based on 3000 hrs. and \$0.08 per KWH

### ZONAL LUMEN SUMMARY

Zone	Lumens	% Lamp	% Fixt.
0-30	7088	28.5	28.5
0-40	11735	47.1	47.1
0-60	20399	82.0	82.0
0-90	24888	100.0	100.0
0-180	24889	100.0	100.0

Test ITL86200 Test Date 12/08/15

### INDOOR CANDELA PLOT



**PHOTOMETRIC DATA**

**LUMINAIRE DATA**

Luminaire	LLHV4-50V-WST-EDU LLHV VersaBay Led High Bay, Industrial 21" x 48" led with white painted steel housing
Ballast Driver	(2) PISE-Z202B
Driver Factor	1.00
Source	LED
Fixture Lumens	36,382
Watts	282.30
Mounting	Pendant
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.30 90° = 1.32
Luminous Opening in Feet	Length: 4.02 Width: 1.50 Height: 0.00

**ENERGY DATA**

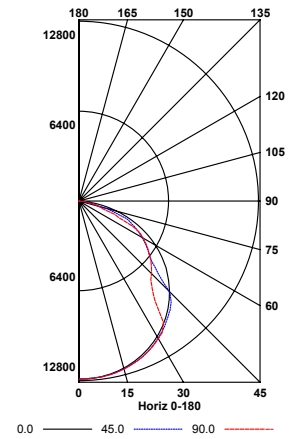
Total Luminaire Efficiency	100.0%
Total Lumens per Watt	129
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$1.86 based on 3000 hrs. and \$0.08 per KWH

**ZONAL LUMEN SUMMARY**

Zone	Lumens	% Lamp	% Fixt.
0-30	10120	27.8	27.8
0-40	16729	46.0	46.0
0-60	29094	80.0	80.0
0-90	36299	99.8	99.8
0-180	36382	100.0	100.0

Test #15470 Test Date 05/05/15

**INDOOR CANDELA PLOT**



**LUMINAIRE DATA**

Luminaire	LLHV4-50U-WST-EDU LLHV VersaBay Led High Bay, Industrial 21" x 48" led with white painted reflector
Ballast Driver	(3) PISE-Z202B
Driver Factor	1.00
Source	LED
Fixture Lumens	54,329
Watts	422.50
Mounting	Pendant
Shielding Angle	0° = 90 90° = 90
Spacing Criterion	0° = 1.30 90° = 1.31
Luminous Opening in Feet	Length: 4.00 Width: 1.50 Height: 0.00

**ENERGY DATA**

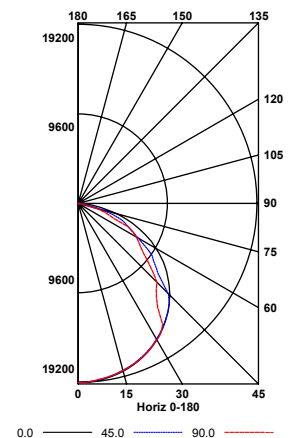
Total Luminaire Efficiency	100.0%
Total Lumens per Watt	129
ANSI/IESNA RP-1-2004 Compliance	Noncompliant
Comparative Yearly Lighting Energy Cost per 1000 Lumens	\$1.86 based on 3000 hrs. and \$0.08 per KWH

**ZONAL LUMEN SUMMARY**

Zone	Lumens	% Lamp	% Fixt.
0-30	15184	27.9	27.9
0-40	25120	46.2	46.2
0-60	43886	80.8	80.8
0-90	54154	99.7	99.7
0-180	54329	100.0	100.0

Test #15477 Test Date 04/27/15

**INDOOR CANDELA PLOT**



PRODUCT	DIST.	LUMENS	WATTS	LPW	TYPICALLY REPLACES
LLHV4-50L-NST-EDU	Narrow	12,560	98	129	150W - 250W Metal Halide, 2T5 HO, 4T8
LLHV4-40L-NST-EDU	Narrow	12,170	98	125	
LLHV4-35L-NST-EDU	Narrow	11,781	98	121	
LLHV4-50L-WST-EDU	Wide	12,410	98	128	
LLHV4-40L-WST-EDU	Wide	12,025	98	124	
LLHV4-35L-WST-EDU	Wide	11,641	98	120	250W - 400W Metal Halide, 4T5 HO, 6T8
LLHV4-50M-NST-EDU	Narrow	16,965	144	118	
LLHV4-40M-NST-EDU	Narrow	16,439	144	114	
LLHV4-35M-NST-EDU	Narrow	15,913	144	110	
LLHV4-50M-WST-EDU	Wide	16,835	144	117	
LLHV4-40M-WST-EDU	Wide	16,313	144	113	400W Metal Halide, 6T5 HO, 8T8
LLHV4-35M-WST-EDU	Wide	15,791	144	110	
LLHV4-50H-NST-EDU	Narrow	25,230	217	116	
LLHV4-40H-NST-EDU	Narrow	24,448	217	113	
LLHV4-35H-NST-EDU	Narrow	23,665	217	109	
LLHV4-50H-WST-EDU	Wide	24,889	217	115	1,000W Metal Halide
LLHV4-40H-WST-EDU	Wide	24,117	217	111	
LLHV4-35H-WST-EDU	Wide	23,346	217	108	

PRODUCT	DIST.	LUMENS	WATTS	LPW	TYPICALLY REPLACES
LLHV4-50V-NST-EDU	Narrow	35,228	282	125	400W - 750W Metal Halide
LLHV4-40V-NST-EDU	Narrow	32,438	282	115	
LLHV4-35V-NST-EDU	Narrow	31,790	282	113	
LLHV4-50V-WST-EDU	Wide	36,383	282	129	
LLHV4-40V-WST-EDU	Wide	33,482	282	119	
LLHV4-35V-WST-EDU	Wide	32,831	282	116	750W - 1,000W Metal Halide
LLHV4-50X-NST-EDU	Narrow	38,684	286	135	
LLHV4-40X-NST-EDU	Narrow	35,594	286	124	
LLHV4-35X-NST-EDU	Narrow	34,909	286	122	
LLHV4-50X-WST-EDU	Wide	39,770	288	138	
LLHV4-40X-WST-EDU	Wide	36,599	288	127	1,000W Metal Halide
LLHV4-35X-WST-EDU	Wide	35,888	288	125	
LLHV4-50U-NST-EDU	Narrow	52,362	418	125	
LLHV4-40U-NST-EDU	Narrow	48,180	421	114	
LLHV4-35U-NST-EDU	Narrow	47,251	421	112	
LLHV4-50U-WST-EDU	Wide	54,329	423	129	1,000W Metal Halide
LLHV4-40U-WST-EDU	Wide	49,998	423	118	
LLHV4-35U-WST-EDU	Wide	49,026	423	116	

Replacement information provided for general purposes only. Each application should be evaluated with lighting calculation software to confirm light levels. LLHV photometry is available at [www.columbialighting.com](http://www.columbialighting.com)

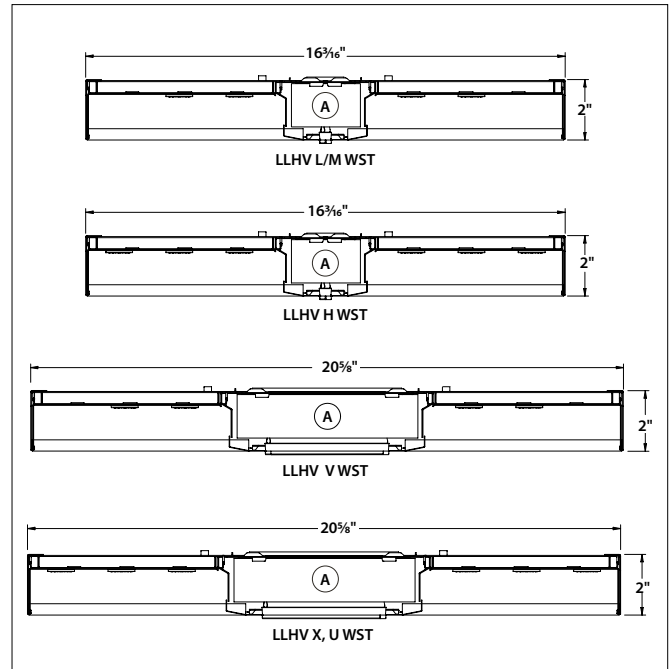
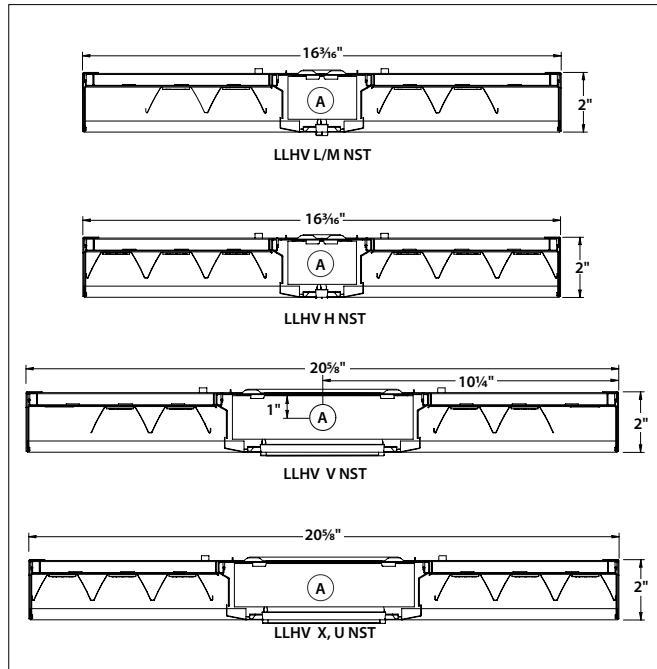
NOMINAL LUMEN OUTPUT		
Ambient C	Ambient F	Lumen Multiplier
25	77	.00 (1.00)
30	86	0.99
35	95	0.985
40	104	0.98
45	113	0.975
50	122	0.97
55	131	0.965

MAX. AMBIENT OPERATING TEMP.				
LUMEN PACKAGE	NO LENS		LENS	
	No ELL14	ELL14	No ELL14	ELL14
M, L, H	-40 to 55C	0 to 45C	-40 to 50C	0 to 40C
V, X, U	-30 to 55C	0 to 40C	-30 to 45C	0 to 40C

ELL14: Factory installed emergency battery pack, 1400 lumens

CALCULATED HOURS	LLHV PREDICTED LIFE			LUMEN MAINTENANCE	
	LUMEN PACKAGE	NOMINAL LUMENS	AMBIENT OPERATING TEMPERATURE	L80	L70
	L	12,000	25°C	94,000	153,000
55°C			81,000	132,000	
M	18,000	25°C	60,000	97,000	
		55°C	56,000	90,000	
H	24,000	25°C	60,000	97,000	
		55°C	56,000	90,000	
V	30,000	25°C	167,000	271,000	
		55°C	89,000	149,000	
X	36,000	25°C	167,000	271,000	
		55°C	89,000	149,000	
U	48,000	25°C	167,000	271,000	
		55°C	89,000	149,000	

**DIMENSIONAL DATA**



**A:** 7/8" Knock-out. Typically used for optional sensor feed and placement.