

CATALOG #: \_\_\_\_\_

TYPE: \_\_\_\_\_

PROJECT: \_\_\_\_\_

## FEATURES

- Ideal for potentially rough environments such as recreational facilities, schools, supervised behavioral centers, or other vandal prone areas
- Impact-resistant prismatic lens with polycarbonate overlay provides added security
- Fully gasketed door option allows for use in light moisture vandal environments such as locker rooms
- Tamper-resistant screws secure door frame
- T-slot steel hinge ensures positive retention when door is opened
- Back reinforcement ribs and rolled-edge channel provide added strength
- Integral T-bar clips quickly secure fixture to structure. (2x2 and 2x4 only)
- Maximize energy savings with efficacies as high as to 124 lm/W
- Rated for direct contact with insulation
- Available with Avi-on wireless fixture controls
- Made Right Here® in the USA

## SPECIFICATIONS

- HOUSING – 22-gauge die-formed C.R.S.
- DOOR FRAME – .050" flat extruded aluminum, with mitered corners. T-slot steel hinge allows reversible hinging and latching. Fully enclosed spring-loaded cam latches secured with six tamper-resistant, tri-groove screws.
- SHIELDING – Frosted acrylic, pattern #12, .157" thick chemically welded to clear polycarbonate, .177" thick.
- FINISH – 92% minimum average reflective white polyester powder coat bonded to phosphate-free, multi-stage pretreated metal. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- ELECTRICAL – High-quality mid-power LED board. L70 at 50,000 hours. 25°C maximum ambient operating temperature.
- MOUNTING – Designed for NEMA Type "G" 1" grid ceiling standard. For NEMA Type "NFG" and "SG" 9/16" grid installations, specify EQCLIPS option. NEMA Type "F" available.
- LISTINGS –
  - cCSAus certified as luminaire suitable for dry or damp locations.
  - IC-rated for direct contact with insulation
  - City of Chicago Environmental Air approved when specified with CP option.
- WARRANTY – 5-year limited warranty, see [hew.com/warranty](http://hew.com/warranty).

ORDERING EXAMPLE: V50 G - S 2 4 - L130/835 - F - VLF - OPTIONS - CONTROL/DIM - UNV

## ORDERING INFO

SERIES	CEILING TYPE	FIXTURE STYLE	WIDTH	LENGTH	LUMENS <sup>[1]</sup>
V50	G NEMA Type "G"	S Full door frame—no reveal	1 1' <sup>[3]</sup>	2 2' <sup>[4]</sup>	1x4
			2 2'	4 4'	2x4
	F NEMA Type "F" <sup>[2]</sup>	L23	2,300lm	L31	3,100lm
		L39	3,900lm	L56	5,600lm
		L58	5,800lm	L81	8,100lm
		L23	2,300lm	L117	11,700lm

CRI	CCT	DOOR FRAME	SHIELDING
8	80	F White flat aluminum	VLF Frosted, pattern #12, .187" thick acrylic chemically welded to clear .177" thick polycarbonate
9	90 <sup>[5]</sup>	FB Black flat aluminum	VL Acrylic, pattern #12, .187" thick acrylic chemically welded to clear .177" thick polycarbonate <sup>[6]</sup>
			PC12187 Polycarbonate, pattern #12, .187" thick <sup>[7]</sup>

OPTIONS <sup>[8]</sup>	CONTROL <sup>[9]</sup>
EM/10W 10-watt emergency battery	– None
DG Double gasket <sup>[10]</sup>	AVI-LVFA Avi-on wireless fixture control <sup>[15]</sup>
TG Triple gasket <sup>[11]</sup>	AVI-LVFA-CS2-PIR Avi-on wireless fixture control with PIR motion and daylight sensor <sup>[16]</sup>
EQCLIPS Earthquake clips <sup>[12]</sup>	
(L___) Additional lower lumen packages available. <sup>[13]</sup> Example: 9,500 nominal lumens = V50G-S24-L117/835-(L95).	
WET Wet location under covered ceiling <sup>[14]</sup>	
CP Chicago Plenum (CCEA)	

DRIVER <sup>[17]</sup>	VOLTAGE
DIM Driver with external dimming wires	120 120V
DRV Driver without external dimming wires	277 277V
DA Driver with 12V auxiliary power, without external dimming wires <sup>[18]</sup>	UNV 120-277V
	347 347V <sup>[19]</sup>

## ACCESSORIES

TPTG TOOL Tamper-resistant tool for tri-groove screws. <sup>[20]</sup>

## NOTES

- Lumen output based on 3500 CCT, 80 CRI. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA. Additional lumen package available, see options.
- See page 3 for NEMA TYPE "F" INSTALLATION.
- 4' length only.
- 2' width only.
- Extended lead times may apply. Consult factory for availability.
- LED pixelation will be visible.
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- See page 3 for FLEXIBLE WHIP OPTIONS.
- See page 4 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS. See page 3 for SENSOR PLACEMENT DETAILS.
- See page 3 for GASKETING DETAILS.
- Field installed. See page 3 for GASKETING DETAILS.
- 4 per fixture. Optional for 1" grid installations. Required for 9/16" grid mounting. Not available with F Ceiling Type.
- Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
- TG option included.
- DA Driver only.
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- See page 5 for ADDITIONAL DRIVER OPTIONS.
- Avi-on Controls only.
- Not available with EM batteries or Avi-on Controls.
- Tamper-resistant tool must be ordered separately. Please specify quantity required per project.



# V50 LED Vandal-Resistant Static Troffer

## FIXTURE PERFORMANCE DATA

	LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
1x4	L23	2359	20.1	117.4
	L39	3856	33.7	114.4
	L58	5871	55.7	105.4
2x2	L23	2353	21.3	110.5
	L39	3903	33.7	115.8
	L58	5827	54.4	107.1
2x4	L31	3103	24.9	124.6
	L56	5574	48	116.1
	L81	8146	67.1	121.4
	L117	11733	101.2	115.9

## MULTIPLIER TABLES

COLOR TEMPERATURE	
CCT	CONVERSION FACTOR
2700K	0.97
3000K	0.99
3500K	1.00
4000K	1.03
5000K	1.06

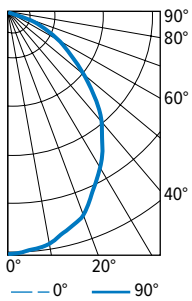
COLOR TEMPERATURE	
CCT	CONVERSION FACTOR
2700K	0.80
3000K	0.82
3500K	0.83
4000K	0.86
5000K	0.89

SHIELDING	
CATALOG NUMBER	CONVERSION FACTOR
VLF	1.00
VL	0.97
PC12187	0.83

- Photometrics tested in accordance with IESNA LM-79. Results shown are based on 25°C ambient temperature.
- Wattage shown is average for 120V through 277V input.
- Results based on 3500K, 80 CRI, actual lumens may vary +/-5%
- To calculate lumen output in emergency mode, multiply the battery wattage by the efficacy.
- Use multiplier tables to calculate additional options.

## PHOTOMETRY

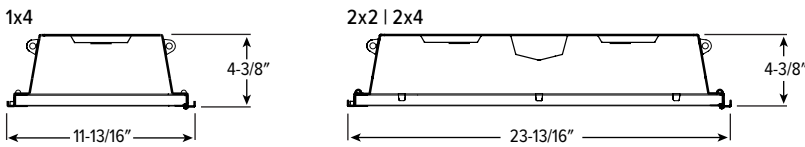
V50G-S24-L117/835-FVLF-DIM-UNV Total Luminaire Output: 11733 lumens; 101.2 Watts | Efficacy: 115.9 lm/W | 82 CRI;3500K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	5497	5497	5497	
5	5510	5459	5444	519
15	5284	5243	5224	1479
25	4825	4780	4759	2198
35	4071	3967	3946	2479
45	2954	2750	2705	2158
55	1776	1632	1578	1504
65	958	866	871	904
75	413	377	375	416
85	63	49	36	76
90	0	0	0	

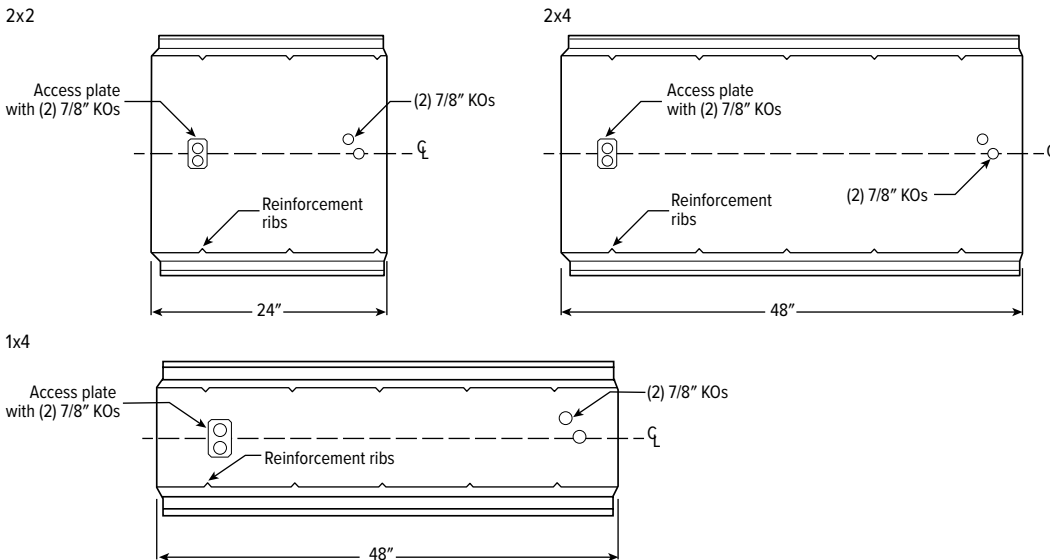
LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	4196	36
	0 - 40	6675	57
	0 - 60	10337	88
	0 - 90	11733	100
	0 - 180	11733	100

## CROSS SECTIONS



## FIXTURE DETAILS

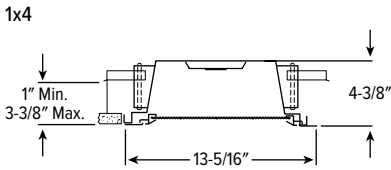
### BACKVIEW



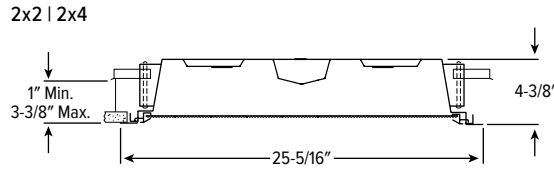
# V50 LED

## Vandal-Resistant Static Troffer

### NEMA TYPE "F" INSTALLATION



Note: Maximum recommended ceiling opening is 12-3/8" x 48-3/8". For continuous row mounting, add 49-5/16" for each additional fixture to obtain ceiling opening. 1-5/16" between end plates.



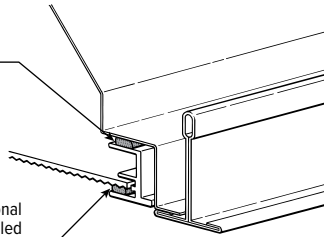
Note: Maximum recommended ceiling opening is 24-3/8" x 24-3/8" for 2'x2' and 24-3/8" x 48-3/8" for 2'x4'. For continuous row mounting, add 49-5/16" for each additional fixture to obtain ceiling opening. 1-5/16" between end plates.

### GASKETING DETAILS

#### DOUBLE GASKETING (DG)

Standard gasketing factory-installed continuously between door frame and luminaire housing prevents light leak and reduces dust ingress.

DG option provides additional gasketing factory-installed continuously between door frame and lens to reduce dust and bug contaminants.

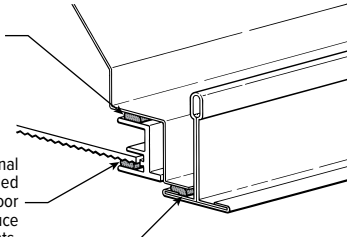


#### TRIPLE GASKETING (TG)

Standard gasketing factory-installed continuously between door frame and luminaire housing prevents light leak and reduces dust ingress.

TG option provides additional gasketing factory-installed continuously between door frame and lens to reduce dust and bug contaminants.

TG option provides additional gasketing (field installed) between bottom perimeter of fixture and T-bar or hardpan ceiling to seal plenum dust from the room.



### FLEXIBLE WHIP OPTIONS

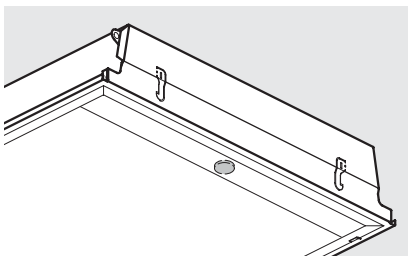
All Williams recessed troffers are available with a flexible metallic wiring harness, factory-attached and hard-wired to the luminaire. See ordering information table.

Straight connectors are a snap-in type. Consult factory for wiring harness utilizing connectors secured by lock nuts, optional flex size, lengths, and other wire sizes or circuitry. Three-wire flex utilizes black, white, and green wire. Four-wire flex utilizes black, white, red, and green wire. Adding an emergency option requires an additional wire.

Williams fixtures are UL listed to provide factory-installation of several manufacturers' modular wiring devices. Consult factory for availability and ordering information.

DESIGNATION	DESCRIPTION	DRIVER
F338	6' of 3/8" flex, (3) No. 18 AWG wires with (2) straight connectors	DRV, LTE LINE
F348	6' of 3/8" flex, (4) No. 18 AWG wires with (2) straight connectors	SD40
F334	6' of 3/8" flex, (3) No. 14 AWG wires with (2) straight connectors	DRV, LTE LINE
F344	6' of 3/8" flex, (4) No. 14 AWG wires with (2) straight connectors	SD40
F358	6' of 3/8" flex, (5) #18 AWG wires with (2) straight connectors	DIM, DALI

### SENSOR PLACEMENT DETAILS



SEE NEXT PAGE FOR CONTROL DETAILS.

# V50 LED LED Vandal-Resistant Static Troffer

## AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS

### AVI-ON NETWORK FEATURES

#### Simple

- Gateway-free distributed control
- Factory pre-commissioning
- Contractor friendly installation
- Occupancy/vacancy/daylight sensing

#### Scalable

- Virtually unlimited network size
- Spans small areas to large warehouses
- Flexible control strategies

#### Secure

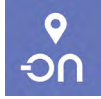
- Optional cloud connectivity
- UL IoT platinum security rating
- DLC 5.0 compliant

### DIGITAL INSTALLATION TOOLS

Avi-On mobile apps provide intuitive, quick installation and commissioning. Pro tools are available to qualified installers.



Commissioning Mobile App



Zone Scanner Web App



Commissioning Pro App

### SYSTEM COMPONENTS



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### ACCESSORIES

WALL STATIONS	
AVI-2401AC	Scene controller - numbered 1-4, 120-277VAC
AVI-2402BAT	Scene controller - numbered 1-4, battery powered
AVI-2401AC-2	Dimmer with presets - percentages, 120-277VAC
AVI-2402BAT-2	Dimmer with presets - percentages, battery powered
AVI-2401AC-3	On/off/dimming, 120-277VAC
AVI-2402BAT-3	On/off/dimming, battery powered
CONNECTIVITY	
AVI-2001RAB-01-P	Remote access bridge for projects 100 or greater
AVI-2001RAB-01-C	Remote access bridge for projects less than 100
AVI-KIT-NTM	Network time manager with Battery Backup
CEILING MOUNT SENSORS	
AVI-KIT-SEN-DUCM	PIR motion and ultrasonic sensor kit
AVI-KIT-SEN-ICM	PIR motion and photocell sensor kit

For load controllers and additional accessory info, see [hew.com/avi-on](http://hew.com/avi-on)

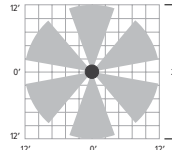
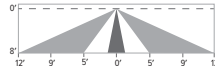
### AVI-LVFA-CS2-PIR Avi-on wireless fixture control with PIR motion and daylight sensor. DA Driver only.

SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' - 10'
DETECTION ANGLE	360°
TEMPERATURE RANGE	-30° to 50°C
RELATIVE HUMIDITY	10 to 80% non-condensing
IP RATING	IP20
MANUFACTURER	Avi-On
 Bluetooth® Lighting Controls	

### SENSOR COVERAGE PATTERNS

#### Side View

8' height: Ø24' coverage



### SENSOR DETAIL



## ADDITIONAL DRIVER OPTIONS

Note: Lumen restrictions apply, consult product builder at [hew.com/product-builder](http://hew.com/product-builder).

CATALOG NUMBER	DESCRIPTION
DRV	Driver prewired for non-dimming applications
DIM	Dimming driver prewired for 0-10V low voltage applications
DIM1	1% dimming driver prewired for 0-10V low voltage applications
DIM LINE	Line voltage dimming driver (TRIAC and ELV compatible, 120V only)
DIM TRC	Line voltage dimming driver (TRIAC compatible, 120V only)
DA	Dimming driver with 12V auxiliary
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver

