

CATALOG #: _____

TYPE: _____

PROJECT: _____

FEATURES

- Upgrade existing fixtures to energy-efficient LED source
- Installs in less than 3 minutes without disrupting the ceiling plenum
- Uniform ambient illumination
- Designed to fit into most 1x4, 2x2, and 2x4 fixture housings with a minimum fixture depth of 3-3/8"
- Maximize energy savings with efficacies up to 134 lm/W
- Reduces energy consumption up to 40%
- Available with Avi-on wireless fixture controls
- Available with BIOS® SkyBlue® technology to support proper daytime circadian stimulus
- Made Right Here® in the USA

SPECIFICATIONS

- HOUSING** – Provided by others, must fit within approved minimum dimensions.
- REFLECTOR/WIREWAY COVER** – 25-gauge C.R.S.
- SHIELDING** – Diffuse ribbed acrylic.
- FINISH** – 92% minimum average reflective white powder coat. All parts painted after fabrication to facilitate installation, increase efficiency, and inhibit corrosion.
- ELECTRICAL** – High quality mid-power LED boards. L70 >50,000 hours.
- MOUNTING** – Designed to retrofit existing troffers and parabolics in 1" nominal grid ceiling applications.
- LISTINGS** –
 - cCSAus certified as luminaire suitable for dry or damp locations.
- WARRANTY** – 5-year limited warranty, see hew.com/warranty.

ORDERING EXAMPLE: PTR - 2 4 - L90/835 - RA - OPTIONS - CONTROL/DIM - UNV

ORDERING INFO

SERIES	WIDTH	LENGTH	LUMENS ^[1]	CRI	CCT	SHIELDING
PTR	1 1' ^[2]	2 2' ^[3]	1x4	8 80	27 2700K	RA Diffuse ribbed acrylic, round
		4 4'	L27 2,700lm	9 90 ^[4]	30 3000K	SA Diffuse ribbed acrylic, square ^[5]
	2 2'	4 4'	L45 4,500lm		35 3500K	
			2x2		40 4000K	
			L26 2,600lm		50 5000K	
			L38 3,800lm			
			L47 4,700lm			
			2x4			
			L38 3,800lm			
			L49 4,900lm			
		L61 6,100lm				
		L90 9,000lm				

OPTIONS ^[6]	CONTROL ^[7]
EM/7W 7-watt emergency LED battery	– None
EM/10W 10-watt emergency battery	AVI-LVFA Avi-on wireless fixture control ^[9]
EM/12W (L__) 12-watt emergency battery	AVI-LVFA-CS2-PIR Avi-on wireless fixture control with PIR motion and daylight sensor ^[10]
Additional lower lumen packages available. Example: 8,000 lumens = PTR-24-L90/835-(L80) ^[8]	VDO Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC) ^[11]
	VRF Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) ^[12]

DRIVER ^[13]	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 ^[14]	UNV 120-277V
DSR Sensor-ready driver without external dimming wires ^[15]	347 347V ^[16]



Note: H.E. Williams, Inc. recommends installing a trial fixture prior to ordering full project quantities.

NOTES

- Lumen output based on 3500 CCT. Actual lumens may vary +/-5%, see page 2 for FIXTURE PERFORMANCE DATA.
- 4' length only.
- 2' width only.
- Extended lead times may apply. Consult factory for availability.
- Increases lumen output by 3%.
- See [Technical Info](#) for Drywall Kit details.
- See page 4 for AVI-ON BLUETOOTH WIRELESS CONTROL DETAILS. See page 3 for SENSOR PLACEMENT DETAILS. See page 5 for ADDITIONAL CONTROL OPTIONS.
- Specify in increments of 100 nominal lumens. Option must be specified with next higher lumen package.
- DA Driver only.
- DA Driver only.
- DSR or LDE Drivers only. LDE drivers require driver interface.
- DSR or LDE Drivers only. LDE drivers require driver interface.
- See page 5 for ADDITIONAL DRIVER OPTIONS.
- Avi-on Controls only.
- VDO and VRF Controls only.
- Not available with EM batteries or Avi-on Controls.

FIXTURE PERFORMANCE DATA

	LED PACKAGE	DELIVERED LUMENS	WATTAGE	EFFICACY (lm/W)
1x4	L27	2723	21.4	127.4
	L45	4526	33.7	134.3
2x2	L26	2633	21.3	123.6
	L38	3804	32.6	116.7
	L47	4708	38.1	123.4
2x4	L38	3763	31.4	119.7
	L49	4928	37.2	132.6
	L61	6059	48.5	124.9
	L90	9018	71.4	126.4

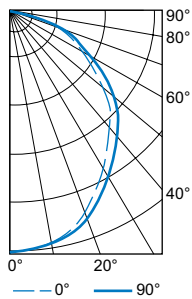
MULTIPLIER TABLE

		COLOR TEMPERATURE	
		CCT	CONVERSION FACTOR
80 CRI	2700K		0.97
	3000K		0.99
	3500K		1.00
	4000K		1.03
	5000K		1.06
90 CRI	2700K		0.82
	3000K		0.83
	3500K		0.84
	4000K		0.86
	5000K		0.90

- 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%
- Use multiplier table to calculate additional options.

PHOTOMETRY

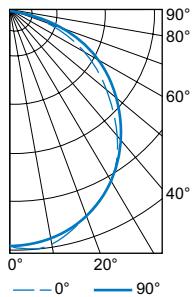
PTR-24-L90/835-RA-DIM-UNV Total Luminaire Output: 9018 lumens; 71.4 Watts | Efficacy: 126 lm/W | 82.7 CRI; 3494K CCT



VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	3405	3405	3405	
5	3388	3388	3390	322
15	3167	3181	3201	907
25	2803	2850	2891	1324
35	2356	2444	2527	1529
45	1917	2069	2190	1572
55	1349	1525	1673	1362
65	875	1081	1246	1054
75	406	645	817	681
85	81	290	340	267
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	2553	28
	0 - 40	4082	45
	0 - 60	7016	78
	0 - 90	9018	100
	0 - 180	9018	100

PT-14-L45/835-RA-DIM-UNV Total Luminaire Output: 4526 lumens; 33.7 Watts | Efficacy: 134 lm/W | 84.9 CRI; 3544K CCT



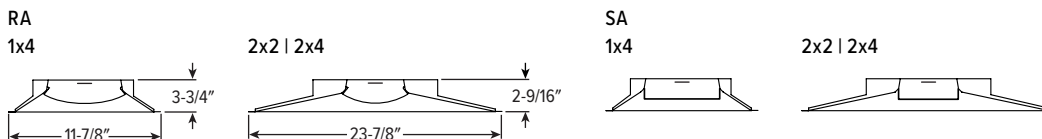
VERTICAL ANGLE	HORIZONTAL ANGLE			ZONAL LUMENS
	0°	45°	90°	
0	1649	1649	1649	
5	1687	1668	1643	158
15	1612	1608	1588	451
25	1475	1482	1464	678
35	1283	1300	1301	806
45	1023	1069	1084	815
55	733	805	839	715
65	470	557	571	532
75	209	293	305	297
85	32	53	62	73
90	0	0	0	

LUMEN SUMMARY	ZONE	LUMENS	% FIXTURE
	0 - 30	1287	28
	0 - 40	2093	46
	0 - 60	3623	80
	0 - 90	4526	100
	0 - 180	4526	100

RETROFIT GUIDE

FLUORESCENT	WATTAGE	LED	WATTAGE	SAVINGS
1 - 32W T8	31	PTR-14-L27/	21	32%
2 - 32W T8	58	PTR-14-L45/	34	41%
3 - 17W T8	48	PTR-22-L47/	38	20%
2 - 32W T8	58	PTR-24-L49/	37	36%
3 - 32W T8	88	PTR-24-L61/	49	45%
4 - 32W T8	112	PTR-24-L90/	71	37%

CROSS SECTIONS

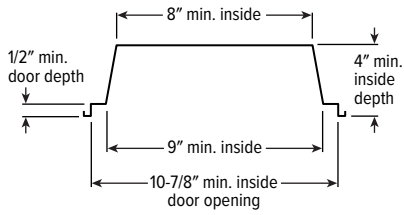


FIXTURE DETAILS

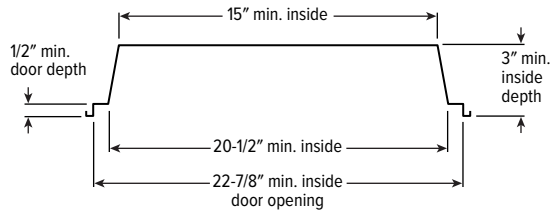
The PTR retrofit kit is designed to fit the following fixture housing dimensions. H.E. Williams, Inc. recommends a trial installation prior to purchasing full quantities.

WIDTH

1x4

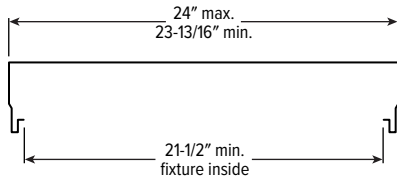


2x2 | 2x4

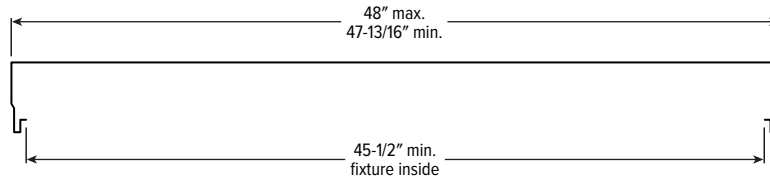


LENGTH

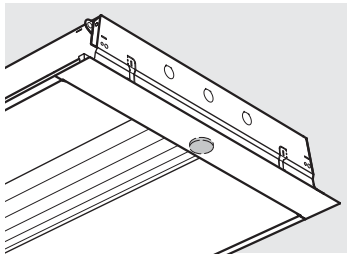
2x2



1x4 | 2x4



SENSOR PLACEMENT DETAILS



SEE NEXT PAGE FOR CONTROL DETAILS.



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

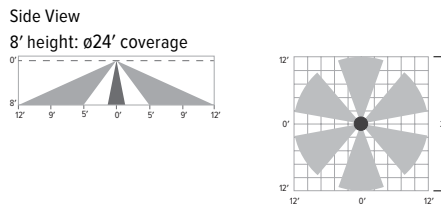
For load controllers and additional accessory info, see hew.com/avi-on

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



SENSOR DETAIL



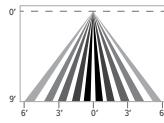
ADDITIONAL CONTROL OPTIONS

VDO Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC). DSR or LDE Drivers only. LDE drivers require driver interface

SPECIFICATIONS	
TYPE	PIR Motion + Daylight
MOUNTING HEIGHT	8' – 12'
DETECTION ANGLE	360°
TEMPERATURE RANGE	0° to 55°C
RELATIVE HUMIDITY	0 to 90%, non-condensing
COMMISSIONING	App (iOS or Android)
MANUFACTURER	Lutron

SENSOR COVERAGE PATTERNS

9' height: ø12' coverage



MOTION SENSOR COVERAGE

CEILING HEIGHT	COVERAGE AREA (SQ FT)
8'	114
9'	144
10'	178
12'	256

SENSOR DETAIL



VIVE CONTROL OPTIONS

CATALOG NUMBER	DESCRIPTION
VDO	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC), for use with sensor-ready driver
VRF	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF), for use with sensor-ready driver
VDO/DBI	Lutron Vive integral fixture control, RF with daylight and occupancy sensor (DFCSJ-OEM-OCC) and digital link interface, for use with Lutron Hi-lume 1% EcoSystem dimming LED driver
VRF/DBI	Lutron Vive integral fixture control, RF only (DFCSJ-OEM-RF) and digital link interface, for use with Lutron Hi-lume 1% EcoSystem dimming LED driver

ADDITIONAL DRIVER OPTIONS

Note: Lumen restrictions apply, consult product builder at 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
DSR	Sensor-ready driver
SD40	40% step-dimming driver
SD50	50% step-dimming driver
DALI	DALI dimming driver
LDE1	Lutron Hi-lume 1% EcoSystem dimming LED driver