

Project	
Notes	
Type	Date
Cat. No.	

### LTR™ UX ECO Series

### LED Troffer Retrofit Kit - Field Adjustable

#### DESCRIPTION

The Aleo LTR™ UX ECO Series Troffer Retrofit Kit delivers industry-leading Versatility with deep energy savings and continuous dimming. Easy and quick installation reduces labor cost and optimizes ROI. The retrofit kit eliminates the need to replace existing luminaire housing, which reduces install time and disposal/removal costs. The precision-formed diffuser produces comfortable and pleasant illumination, enhancing productive spaces in various applications.



#### APPLICATIONS

Provides architectural aesthetics for retail, schools, offices, healthcare, and other various commercial applications.

#### Specification Features



#### LTR Series

2x4 25W / 30W / 34W

2x2 20W / 25W / 30W

#### Construction

Simple construction with minimal parts allows for easy handling and installation. Luminaire features matte white durable finish.

#### Optical System

Reflector systems features highly reflective coating and delivers balanced, comfortable luminance for productive spaces. Diffuser lens reduces glare and improves occupant comfort while maintaining high efficiency emission.

#### Certification

UL Classified. All components have UL certification. UL Class 2. Driver: SCP, OTP, OVP protection, FCC Part 15 Class B, UL8750 Class 2. DLC Premium

#### Warranty

7-year Limited Warranty. See warranty documentation for more information.

#### Electrical

Luminaire utilizes high-efficacy LED packages maintained at cool temperatures for long life, high efficacy. Reliable driver features continuous dimming. Universal voltage (120-277V) for convenient installation. Comes equipped with luminaire quick-disconnect.

#### Field-Adjustable CCT

Increased versatility and reduced inventory burden. Color Temp. can be adjusted in the field by selecting (3) different CCTs via switch on driver box

#### Installation / Mounting

Installs in most troffer luminaires. Retrofit kit fits within troffer and ceiling T-bar grid, eliminating need to remove existing fixture housing.

#### Controls / Dimming

Continuous dimming (0-10V) comes standard. Suitable for use with dimmers, sensors, daylight harvesting and other control strategies to achieve deeper energy-savings and code compliance.

**Rated Life** 75,000 hours  
**Limited Warranty** 7-years  
**Efficacy** Up to 130 LPW  
**Continuous Dimming**



#### Ordering Information

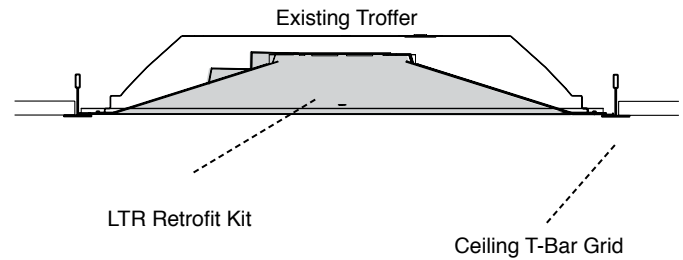
LTR-24-UXL/8CT G4 ECO-HD (XX)

LTR	24	UXL	8	CT	(XX)	[Blank]	[Blank]
<b>Series</b> LTR LED Troffer Retrofit Kit	<b>Form Factor</b> 24 2'x4' 22 2'x2'	<b>Lumen Package</b> UXL Factory Set	<b>CRI</b> 8 83+	<b>Color Temp</b> CT Field Adjust. 3500K 4000K 5000K * Utilize 3-way switch to select	<b>Nominal Wattage</b> 2'x4' 25W / 30W / 34W  2'x2' 20W / 25W / 30W * Wattage Factory Set	<b>Design</b> HD Hinged Door Design	<b>Input Voltage</b> Blank 120V-277V
[Blank]		Options					
<b>Dimming</b> Blank 0-10V Continuous Dimming		<b>Controls</b> OSDL/BT AleoBlue Wireless Bluetooth Occupancy Sensor OSDL/BTEZ-B SimpliBlue Occupancy Sensor				<b>Emergency Backup</b> EM700 700lm EM1400 1400lm	

## Performance Summary

Input Voltage	120V-277V
Input Frequency	50/60 Hz
Rated Wattage	See Performance Table
Delivered Lumens	See Performance Table
Efficacy	> 130 LPW (typ.)
CRI	83+, R9 > 0
Available CCT <sup>1</sup>	3500K / 4000K / 5000K
Color Consistency <sup>2</sup>	5-step MacAdam Ellipse
Rated Life	75,000 hours
L70 <sup>3</sup>	> 54,000 hours
Power Factor	> 0.9
THD	< 20%
Dimming	0-10V Continuous (10-100%)
Operating Temp	-20°C to 50°C

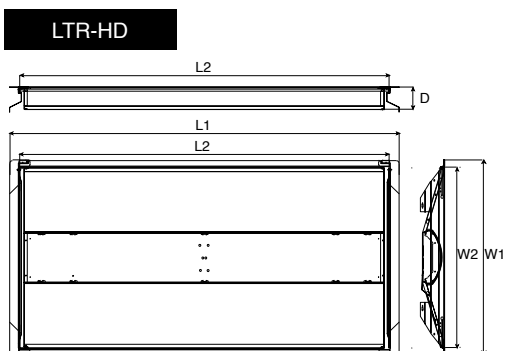
## Mounting Information



## Performance Data

Form Factor	Catalog No.	Rated Wattage (W)	3500K		4000K		5000K	
			Delivered Lumens (lm)	Efficacy (lm/W)	Delivered Lumens (lm)	Efficacy (lm/W)	Delivered Lumens (lm)	Efficacy (lm/W)
2' x 4'	LTR-24-UXL/8CT G4-HD ECO (XX)	25	3475	139	3775	151	3525	141
		30	4080	136	4440	148	4140	138
		34	4556	134	4964	146	4624	136
2' x 2'	LTR-22-UXL/8CT G4-HD ECO (XX)	20	2800	140	3020	151	2880	144
		25	3400	136	3675	147	3500	140
		30	3930	131	4260	142	4050	135

## Product Dimensions



Catalog No.	L1	L2	W1	W2	D
LTR-24 XE G4-HD ECO	47.8" (1215mm)	45.4" (1153mm)	23.9" (606mm)	22.1" (562mm)	2.4" (78.4mm)
LTR-22 XE G4-HD ECO	23.9" (606mm)	22.1" (562mm)	23.9" (606mm)	22.1" (562mm)	2.4" (78.4mm)

## NOTES:

<sup>1</sup> Quick ship: 4000K. Other CCTs may require a lead time or be special order

<sup>2</sup> Typical color consistency. May vary or be changed.

<sup>3</sup> L70 hours calculated based on LED package manufacturer LM80 report and ISTMT report of LED in luminaire. Stated values are for select catalog numbers.

Specifications and Dimensions subject to change without notice.

## DLC QPL Data



DLC QPL Model No.	Product ID.	Technical Req.	Classification	Primary Use
LTR-22-UXL/8CT G4 ECO-HD (20)	PI6RROFT	5.1	Standard	Integrated Retrofit Kits for 2x2 Luminaires
LTR-22-UXL/8CT G4 ECO-HD (25)	PTYNY9CP	5.1	Standard	Integrated Retrofit Kits for 2x2 Luminaires
LTR-22-UXL/8CT G4 ECO-HD (30)	P1JIEE92	5.1	Standard	Integrated Retrofit Kits for 2x2 Luminaires
LTR-24-UXL/8CT G4 ECO-HD (25)	PQOGP14O	5.1	Standard	Integrated Retrofit Kits for 2x4 Luminaires
LTR-24-UXL/8CT G4 ECO-HD (30)	PNPRQ59C	5.1	Standard	Integrated Retrofit Kits for 2x4 Luminaires
LTR-24-UXL/8CT G4 ECO-HD (34)	P9H5VNTZ	5.1	Standard	Integrated Retrofit Kits for 2x4 Luminaires



## AleoBlue Wireless Bluetooth Controls



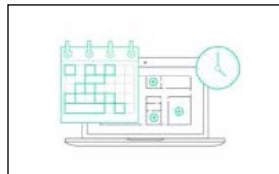
The AleoBlue is a complete solution for managing connected lighting systems using a Bluetooth Mesh lighting network. This enables seamless implementation of simple to complex lighting control scenarios without specialized training or lighting control engineering expertise.

DLC NLC Qualified.

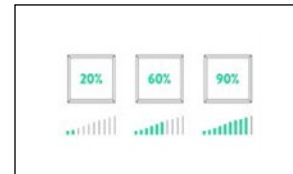
## Features and Benefits

- Lighting Zones / Grouping
- Manual control of individual lights
- On Power up Behavior
- Zone Linking
- Vacancy Sensing
- Per fixture Daylight Control
- Per zone Daylight Control

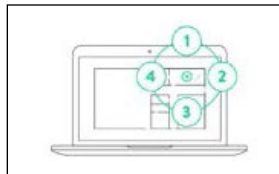
### Scheduling



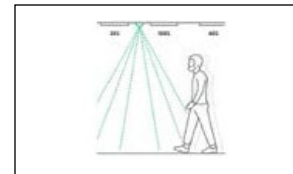
### High and Low End Trim



### Scenes



### Occupancy Sensing



- Optimized Energy Consumption
- Less Hassle with On-Site Adjustments
- More Savings
- Increased Safety
- More Flexibility

- Intuitive and user-friendly web and iOS apps
- No specialized training or lighting control expertise required
- Optimized for commercial spaces of any size
- No additional wiring or central control box
- Customizable lighting control parameters
- Future proof with Software Updates
- Multiple Zone Configurable
- Built-In Scenarios + Customization

## Bluetooth Mesh Technology Advantages



The fastest low-power communication



Scalability to thousands of devices



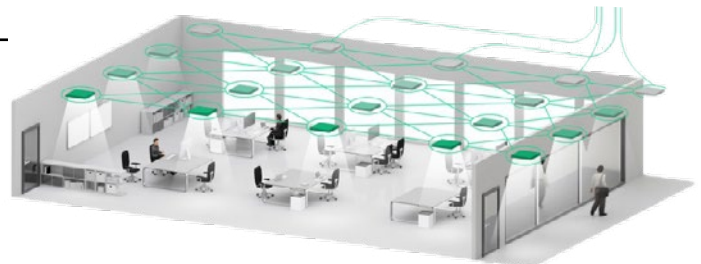
The most advanced encryption standards as well as the cutting-edge device authentication

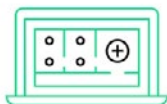


No single point of failure (no central device)



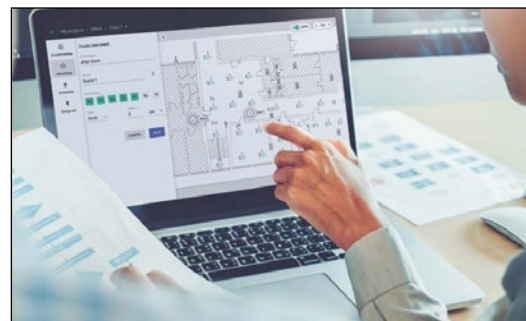
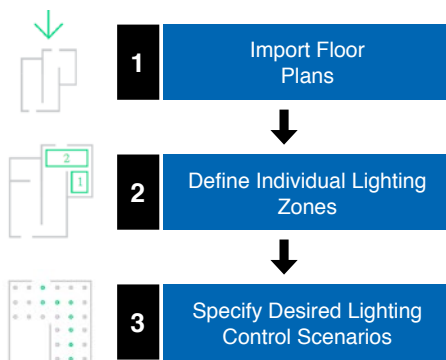
Compatibility with a widely available devices (smart phones & tablets – both with Bluetooth 4.0 and Bluetooth 5)





## Planning

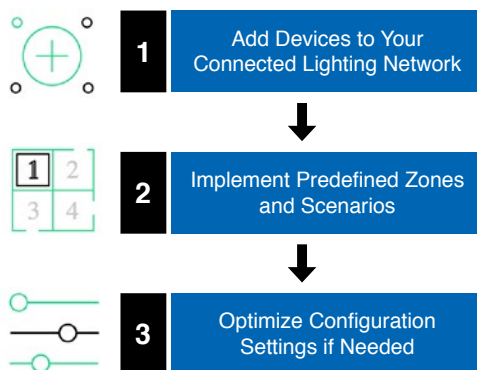
Remote preparation of a retrofit project with the use of our web app. Uploading floor plans, defining individual lighting zones and choosing lighting control scenarios.



## Implementation

Adding lighting devices to the Bluetooth mesh network on-site with the use of an iOS app.

Customization and calibration of lighting control parameters during and after the commissioning process. Defining scenes for specific working activities.



## Provisioning / Configurations

The Bluetooth mesh Node is in the Unprovisioned Mode until it is provisioned by a "Provisioner", which typically is a smart phone with a Bluetooth mesh compatible app.

## Ordering Information



**Wireless Bluetooth Occupancy Sensor**  
Model: -OSDL/BT



**Wireless Bluetooth Lighting Control Node**  
Model: -WLC/BT



**EnOcean BLE Single-Rocker Switch**  
Model: ESRPB



**EnOcean BLE Double-Rocker Switch**  
Model: EDRPB

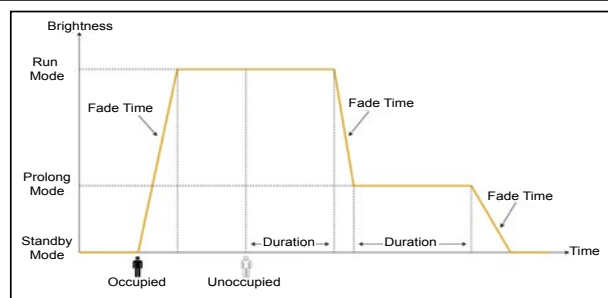
## Lighting Control Scenarios

Multiple lighting control scenarios are available once the Bluetooth mesh Node is provisioned. At each scenario, duration, fade time and target brightness can be configured at any time with the iOS app.

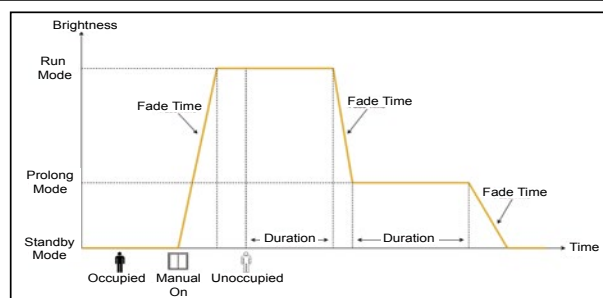


Mode / Scenario	Wireless Switch	Occupancy Sensor	Ambient Light Sensor
Unprovisioned Mode	-	-	-
Switch	On / Off / Scenes	-	-
Occupancy	On / Off / Scenes	Auto On / Off	-
Vacancy	On / Off / Scenes	Auto Off	-
Occupancy with Daylight Harvesting	On / Off / Scenes	Auto On / Off	Enabled
Vacancy with Daylight Harvesting	On / Off / Scenes	Auto Off	Enabled

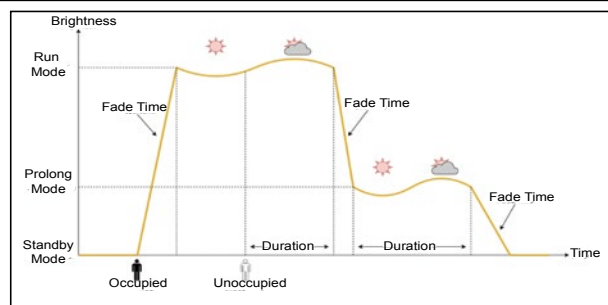
### Occupancy Scenario



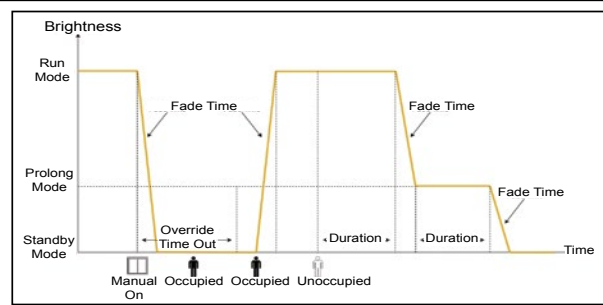
### Vacancy Scenario



### Occupancy Scenario - with Daylight Harvesting



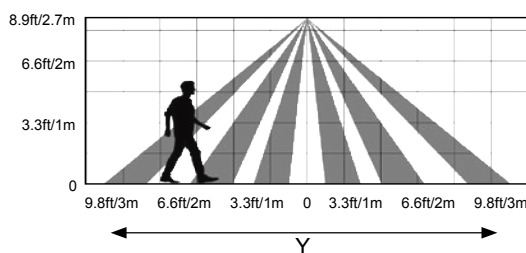
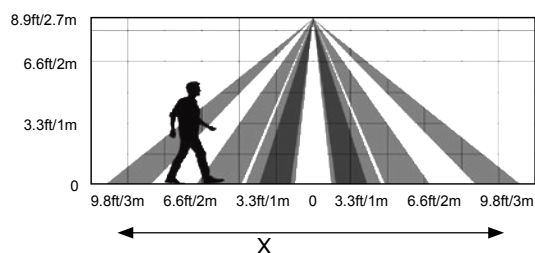
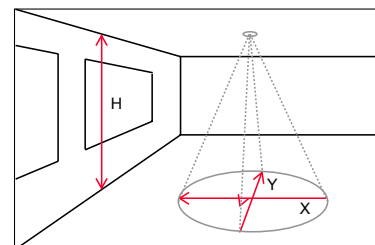
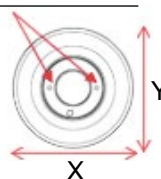
### Occupancy Scenario with Manual Override



## Occupancy Detection Pattern

H	X	Y
7.9' (2.4m)	16.4' (5.0m)	16.4' (5.0m)
8.9' (2.7m)	18.4' (5.6m)	18.4' (5.6m)
9.8' (3.0m)	20.3' (6.2m)	20.3' (6.2m)

### Orientation Indicators



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LED LIGHTING