aleo™
LED LIGHTING

LTR ECO™ Series — LED Troffer Retrofit Kit

DESCRIPTION
The Aleo LTR ECO™ Series Troffer Retrofit Kit delivers industry-leading performance 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.

DLC LISTED PREMIUM · 7-year LIMITED WARRANTY · UL CLASSIFIED · aleoblue™

LTR Series
2x4 36W
2x2 26W

Rated Life 75,000 hours
Limited Warranty 7-years
Efficacy Up to 131 LPW
Continuous Dimming

CONTINUOUS DIMMING
0-10V Continuous

Quick Ship
LTR-24LE-36/840 G4 ECO-HD
LTR-22HE-26/840 G4 ECO-HD

Specification Features

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.

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.

Ordering Information

Example: LTR-24LE-36/840 G4 ECO-HD

LTR	24	LE	36	8	40	ECO	HD	[Blank]
Series	**Form Factor**	**Lumen Package**	**Nominal Wattage**	**CRI**	**Color Temp**	**Designation**	**Design**	**Input Voltage**
LTR LED Troffer Retrofit Kit	**24** 2'x4' **22** 2'x2'	**LE** Low Wattage **HE** High Lumen	**2'x4'** **36** 36W **2'x2'** **26** 26W	**8** 83+	**40** 4000K	**ECO**	**HD** Hinged Door Design	**Blank** 120V-277V

	[Blank]	Options	
	Dimming	**Emergency Backup**	**Controls**
	Blank 0-10V Continuous Dimming	**EM700** 700lm **EM1400** 1400lm	**OSDL/BT** AleoBlue Wireless Bluetooth Occupancy Sensor **WLC/BT** AleoBlue Wireless Bluetooth Lighting Control Node **OSDL/BTEZ-B** SimplBlue Occupancy Sensor

Performance Summary

Input Voltage	120V-277V
Input Frequency	50/60 Hz
Rated Wattage	See Performance Table
Delivered Lumens	See Performance Table
Efficacy	> 131 LPW (typ.)
CRI	83+, R9 > 0
Available CCT[1]	4000K
Color Consistency[2]	5-step MacAdam Ellipse
Rated Life	75,000 hours
L70[3]	> 72,000 hours
Power Factor	> 0.9
THD	< 20%
Dimming	0-10V Continuous (10-100%)
Operating Temp	-20ºC to 50ºC

Mounting Information

Existing Troffer

LTR Retrofit Kit   Ceiling T-Bar Grid
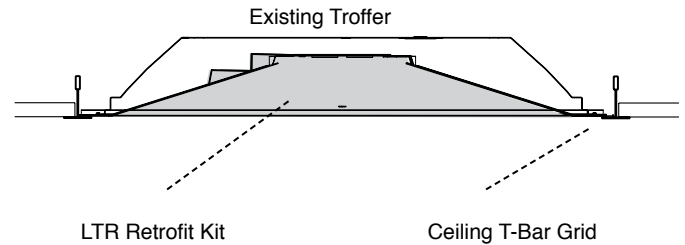
Performance Data

| Form Factor	Catalog No.	Rated Wattage (W)	Tested Wattage (W)	3500K[1]		4000K		5000K[1]	
				Delivered Lumens (lm)	Efficacy (lm/W)	Delivered Lumens (lm)	Efficacy (lm/W)	Delivered Lumens (lm)	Efficacy (lm/W)
2' x 4'	**LTR-24LE-36/8xx G4 ECO-HD**	34	32.7	4276	129	4420	130	4454	131
2' x 2'	**LTR-22HE-26/8xx G4 ECO-HD**	25	24.7	3225	129	3250	130	3275	131

NOTES:

[1]   Quick ship: 4000K. Other CCTs may require a lead time or be special order

[2]   Typical color consistency. May vary or be changed.

[3]   L70 hours calculated based on LED package manufacturer LM80 report and ISTMT report of LED in luminaire. Stated values are for select catalog numbers.
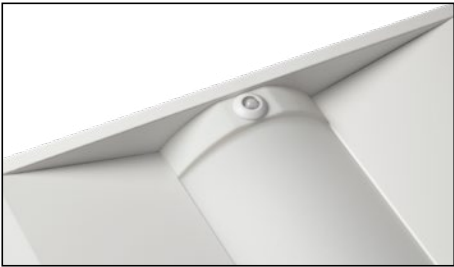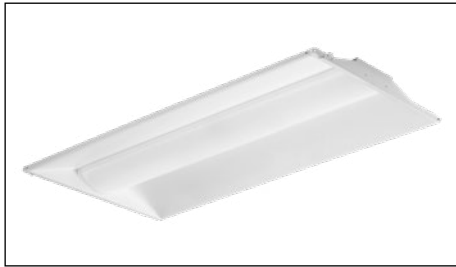
Specifications and Dimensions subject to change without notice.

Product **Dimensions**

LTR-HD
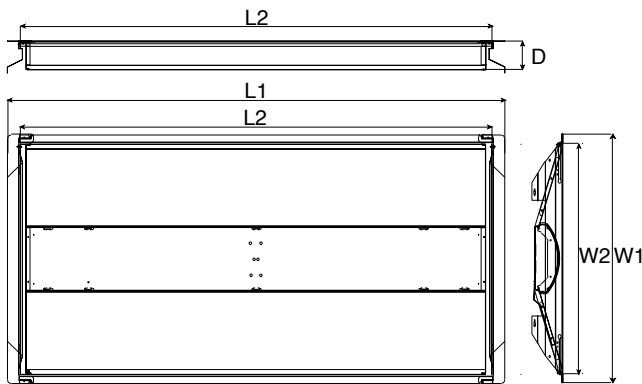
Catalog No.	L1	L2	W1	W2	D
LTR-22HE G4 ECO-HD	24"	22.1"	23.9"	22.1"	3.1"
LTR-24LE G4 ECO-HD	48"	45.4"	23.9"	22.1"	3.1"

DLC QPL Data

QPL Model No.	Product ID	Technical Req.	Classification	Primary Use
LTR-22HE-26/835 G4 ECO-HD	PLJJIV0LI16X	5.0	Premium	Integrated Retrofit Kits for 2x2 Luminaires
LTR-22HE-26/840 G4 ECO-HD	PLFOQVKV5QQW	5.0	Premium	Integrated Retrofit Kits for 2x2 Luminaires
LTR-22HE-26/850 G4 ECO-HD	PL742RN7GXOU	5.0	Premium	Integrated Retrofit Kits for 2x2 Luminaires
LTR-24LE-36/835 G4 ECO-HD	PLQWUQ7U9TFS	5.0	Premium	Integrated Retrofit Kits for 2x4 Luminaires
LTR-24LE-36/840 G4 ECO-HD	PLNXSE8AZU9O	5.0	Premium	Integrated Retrofit Kits for 2x4 Luminaires
LTR-24LE-36/850 G4 ECO-HD	PLN10GNICZK9	5.0	Premium	Integrated Retrofit Kits for 2x4 Luminaires

Specifications and Dimensions subject to change without notice.

Form LTR_ECO-SS XE G4 / Rev. 05   **Aleo Lighting, Inc.** I www.aleolighting.com I Ph: 877-358-8825

aleoblue™

## AleoBlue Wireless Bluetooth Controls

DLC LISTED

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.
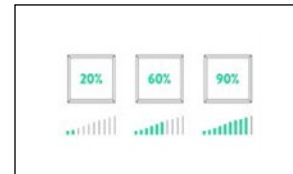
DLC NLC Qualified.

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
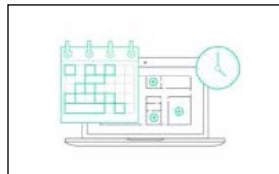
High and Low End Trim

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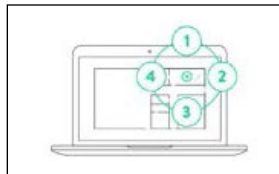
Occupancy Sensing
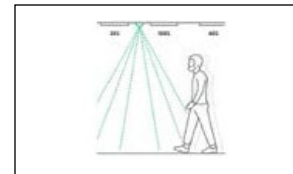
- Optimized Energy Consumption
- Less Hassle with On-Site Adjustments
- More Savings
- Increased Safety
- More Flexibility

- Intuitive and user-friendly web and iOS apps
- No specialized training or lighting control expertize 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

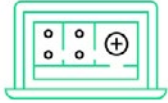The most advanced encryption standards as well as the cutting-edge device authentication

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)

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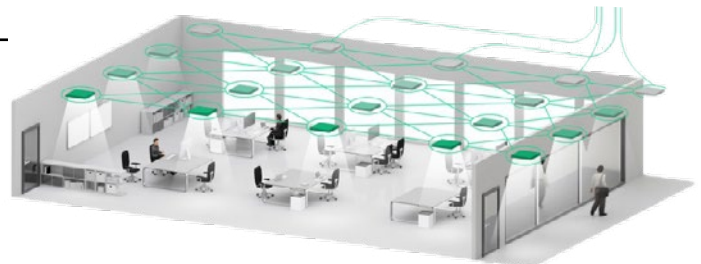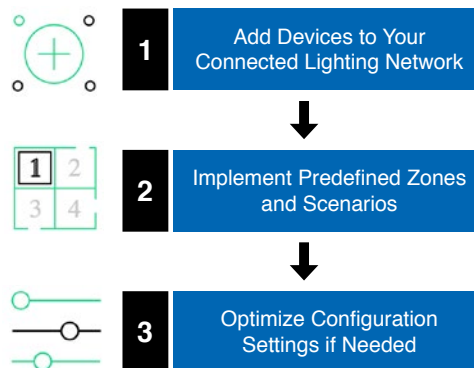
Planning

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.

1 Import Floor Plans

2 Define Individual Lighting Zones

3 Specify Desired Lighting Control Scenarios
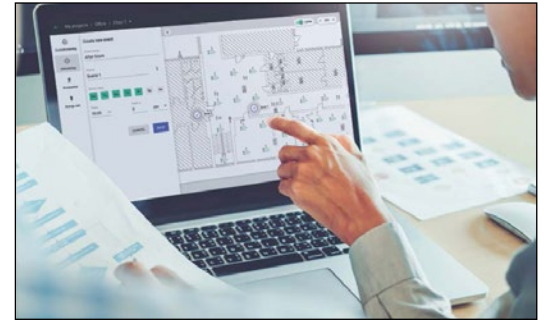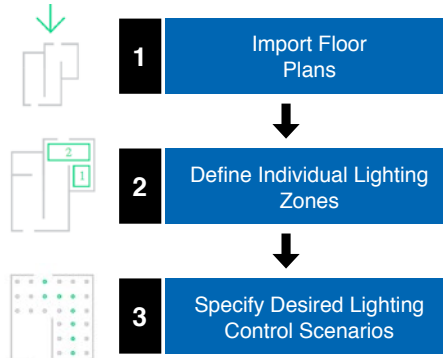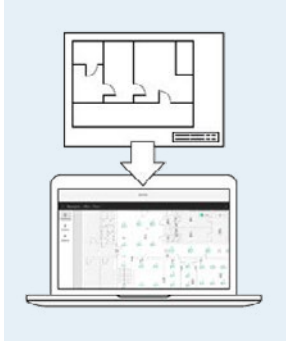
Implementation

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.

1 Add Devices to Your Connected Lighting Network

2 Implement Predefined Zones and Scenarios

3 Optimize Configuration Settings if Needed

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

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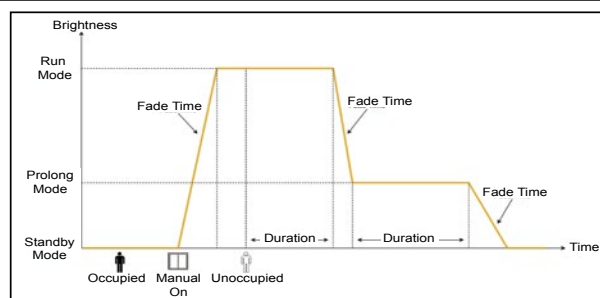
| Mode / Scenario	Wireless Switch	Occupancy Sensor	Ambient Light Sensor
Unprovisioned Mode	-	-	-
Switch	On / Off / Scenes	-	-
Occupancy	On / Off / Scenes	Auto On / Off	-
Vacancy	On / Off / Scenes	Auto Off	-
Occupancy with Daylight Harvesting	On / Off / Scenes	Auto On / Off	Enabled
Vacancy with Daylight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

Occupancy Scenario
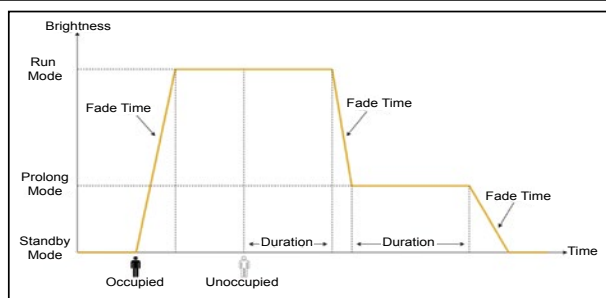
Vacancy Scenario

Occupancy Scenario - with Daylight Harvesting
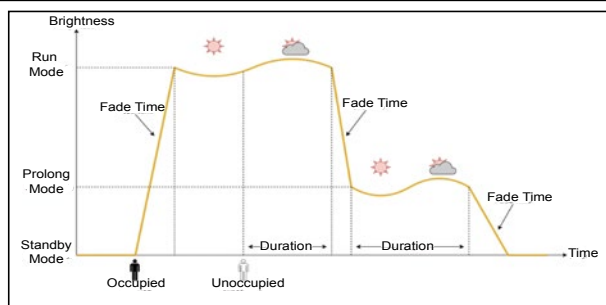
Occupancy Scenario with Manual Override
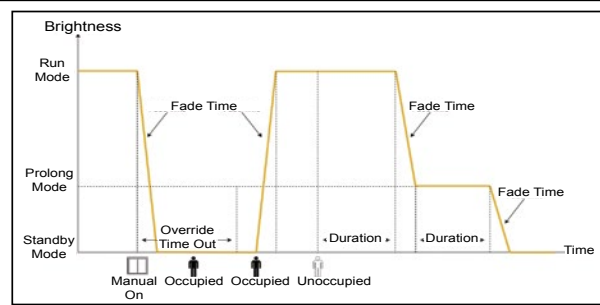
Occupancy Detection Pattern

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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