

PROJECT NAME		DATE	
CAT. NUMBER			
NOTES			

SPEC SHEET

# Linear 3.0 (LR3)

## LED LINEAR FIXTURES AND RETROFIT KITS



Linmore LED  
**ULTRALINK**  
WIRELESS CONTROLS SIMPLIFIED



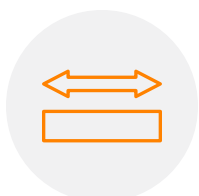
### KEY FEATURES

- 3,000 to 14,000 lumens
- Up to 176 LPW
- Continuous row
- Available as stand-alone fixture or retrofit kit
- Guaranteed light levels for 5 years
- Dimmable 0-10V (standard)
- 2kV surge protection (up to 10kV optional)



### Guaranteed Performance

Performance of the light fixture is guaranteed for 5 years, including lumen output (L70), color temperature, and LED driver.



### Universal Retrofit Kit

Options include a standalone fixture, a retrofit kit for standard linear back boxes and a Retro Multi Width Kit designed for multiple widths.



### Continuous Row

Easily create an uninterrupted line of light by connecting multiple LR3 fixtures using included joiner pieces.

# FEATURES & SPECIFICATIONS

## CONSTRUCTION

- **Steel housing.**
- **Length:** Fixtures are all 4' sections. Available for order in 4', 8' and 12' lengths. 8' and 12' versions are attached with included joiner bracket(s). Each fixture has one driver to maximize efficiency and value.

## ELECTRICAL

- **Power Input:** 120-277V (50/60Hz).
- **Power Factor:** >0.9 (0.96–0.99 typical).
- **Total Harmonic Distortion:** <20%, 10% typical.
- **Surge Protection:** Minimum 2kV (standard). Additional surge protection up to 10kV is available.
- **Emergency Battery Backup (EMB):** EMB produces ~2000 lumens for a minimum of 90 minutes. EMB has 16 watts output. EMB fixtures 0°C to 45°C (32°F to 122°F). Not to exceed ambient of fixture. Available on stand-alone fixture (FXT) only.<sup>9</sup>

## OPERATION

- **Environment:** Dry/Damp, for interior applications.
- **Ambient Range Operation:** -25°C up to 45°C (-13°F up to 113°F).

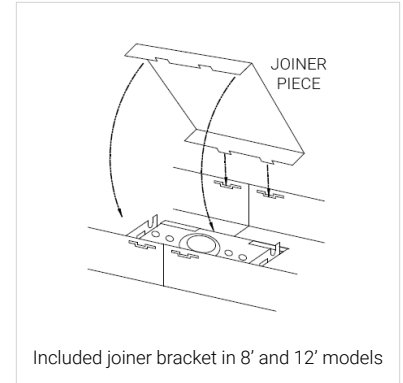
## OPTICS

- **CCT:** 3500K, 4000K and 5000K standard, other CCT available (extended lead time).
- **CRI:** 80 standard, other CRI available (extended lead time).
- **Lenses:** Frosted acrylic (standard). No Lens option available (recommended for indirect lighting only).

## MOUNTING

All suitable for continuous row.

- **Stand-Alone Fixture (FXT):** Cable Mount or Surface Mount (standard).
- **Retrofit Kit (RTR):** For standard back boxes. 4 3/8" wide. Utilizes existing housing, (no mounting kits available).
- **Retro Multi Width Kit (RMW):** For any back box from 3.25" to 5.25" in width. Utilizes existing housing.



## CONTROLS

- **Dimming:** 0-10V standard. Dimming range 100% to 10%.
- **UltraLink Bluetooth® Controls:** Advanced wireless controls available. Requires commissioning in the field, contact factory.
- **Occupancy and Dimming Occupancy Sensors:** Optional - factory installed photocell sensors. IR-TEC and Wattstopper standard, other options available upon request.

## WARRANTY

- **5 Year Performance Warranty:** Performance of the light fixture is guaranteed for 5 years, including lumen maintenance (L70), color temperature, and LED driver. "Defective" is considered if ten percent (10%) or more of the LEDs, per product, are non-operating LEDs, total lumen depreciation exceeds 30% (L70), or color temperature has shifted more than 500° Kelvin within the warranty period. See terms and conditions at <https://linmoreled.com/warranty>

## LISTINGS & CERTIFICATIONS

- ETL listed (UL 1598).
- RoHS compliant.
- CAN/CSA C22.2 No. 250.13.
- DLC listed.



# TECHNICAL SPECS

NOMINAL LUMENS	LENGTH	LUMEN OUTPUT <sup>1</sup>	EFFICACY	WATTS	PART NUMBER
3K	4'	3,351	161	21	LR30S-A1-03K-04-50-80-FR-LV-FXT-10V
4K	4'	4,750	160	30	LR30S-A1-04K-04-50-80-FR-LV-FXT-10V
6K	8'	6,703	168	40	LR30S-A1-06K-08-50-80-FR-LV-FXT-10V
9K	8'	9,499	169	56	LR30S-A1-09K-08-50-80-FR-LV-FXT-10V
10K	12'	10,054	175	58	LR30S-A1-10K-12-50-80-FR-LV-FXT-10V
14K	12'	14,249	176	81	LR30S-A1-14K-12-50-80-FR-LV-FXT-10V

Typical lumen output (±10%) at 120V (LV) under 25°C ambient temperature.

## Lumen Multipliers

Allows to calculate the actual lumen output for your application. Apply each multiplier to the lumens of the shaded table.

LUMENS VS AMBIENT TEMP			COLOR TEMP <sup>1</sup>		COLOR RENDERING		LIGHT DISTRIBUTION	
C°	F°	Multiplier	CCT	Multiplier	CRI	Multiplier	Lens	Multiplier
35	95	0.99	5000	1.000	80	1.00	FR	1.00
40	104	0.98	4000	0.998			NL	1.07
45	113	0.98	3500	0.976				

**Example:** How to calculate the actual lumen output of the model 9K at these conditions: 45°C ambient temp, 4000K, CRI80, Frosted Lens.

$$\begin{array}{ccccccccccc}
 9,499 & \times & 0.98 & \times & 0.998 & \times & 1.000 & \times & 1.00 & = & 9,290 \\
 \text{Lumens} & & \text{Temp.} & & \text{CCT} & & \text{CRI} & & \text{Lens} & & \text{Actual lumens}
 \end{array}$$



## LUMEN MAINTENANCE

All fixtures come with our Standard Warranty, covering **L70 light levels for 5 years**. That's 43,800 hours of guaranteed life based on a 24/7 operation.

Ambient Temp.		Lumen Maintenance in Khrs			Lumen Maintenance Factor			Reported Life (6X)	
C°	F°	L90	L80	L70	50Khrs	75Khrs	100Khrs	Tested Time	Extrapolated
25	77	58	120	190	91	87	83	9,000 hrs	> 54,000 hrs
30	86	58	120	190	91	87	83		
35	95	58	120	190	91	87	83		
40	104	58	120	190	91	87	83		
45	113	56	115	183	91	86	82		

LEDs tested for 9,000 hrs based on LM-80.  
Extrapolating as per TM-21:  
9,000 hrs x 6 = 54,000 hrs of reported life.

All values calculated in accordance to IESNA standards, per TM-21.LM-79, LM 80 tests and reports are performed in accordance to IESNA standards, per TM-21. Lumen maintenance in hours (L70 via TM-21) based on 24/7 operation.

# ORDERING

SERIES MODEL - COMPLIANCE - LUMENS - SIZE	COLOR TEMP <sup>4</sup>	CRI	LENS	VOLTAGE	MOUNTING
LR30S-A1-03K-04	<b>50</b> 5000K	<b>80</b> (Standard)	<b>FR</b> Frosted lens	<b>LV</b> 120-277V	<b>FXT<sup>4,7</sup></b> Stand-Alone Fixture
LR30S-A1-04K-04	<b>40</b> 4000K	Other CRI available upon request	<b>NL</b> No lens		<b>RTR</b> 4 3/8" Retrofit Kit, utilizes existing housing and wiring
LR30S-A1-06K-08	<b>35<sup>6</sup></b> 3500K				<b>RMW</b> Retro Multi Width Kit (3.25" to 5.25"), utilizes existing housing and wiring
LR30S-A1-09K-08					
LR30S-A1-10K-12	Other CCT available upon request				
LR30S-A1-14K-12					

CONTROLS	CORDS & PLUGS		OPTIONS <sup>4</sup>	DIMMING
<b>OCCDIM8<sup>3,5,10</sup></b> Programmable Wattstopper OCC sensor, dimmable, w/photocell, 8' mounting height	<b>6' 18AWG cord with the following</b>	<b>15' 18AWG cord with the following</b>	<b>EMB<sup>3,8,9</sup></b> Emergency battery back-up. Adds 1.25" to fixture height	<b>10V</b> 0-10V
<b>OCCDIM30<sup>3,5,10</sup></b> Wattstopper OCC sensor, dimmable, w/photocell, up to 30' mounting height	<b>CW<sup>3</sup></b> Cord, 15A, 3-wire, no plug	<b>15CW<sup>3</sup></b> Cord, 15A, no plug	<b>SRG<sup>3</sup></b> Fixture installed surge protector fails to ON	
<b>TOCCWD<sup>3,10</sup></b> OCC sensor, w/photocell, wide distribution, up to 27' mounting height	<b>DW<sup>3</sup></b> Dimming cord, 15A, 5-wire, no plug	<b>15DW<sup>3</sup></b> Dimming cord, 15A, 5-wire, no plug	<b>QDC<sup>3</sup></b> Driver Quick Disconnect	
<b>DOCC<sup>3,10,11</sup></b> High frequency doppler OCC sensor, w/ ambient light sensor, 10-20' mounting height	<b>C515<sup>3</sup></b> Cord, 15A, straight plug 120V (5-15P)	<b>15C515<sup>3</sup></b> Cord, 15A, straight plug 120V (5-15P)  Other cord options available, contact factory	<b>BOX<sup>3</sup></b> Individual box packaging available	
<b>ULTRA<sup>3,12,13</sup></b> UltraLink Bluetooth wireless receiver / controller				
<b>ULTRAPIR20<sup>3,12</sup></b> UltraLink Bluetooth wireless fixture controller w/ PIR sensor, 8' to 20' mounting height				

# ORDERING EXAMPLES

**Standard:** LR30S-A1-04K-04-40-80-FR-LV-FXT-10V

**With Options:** LR30S-A1-04K-04-40-80-FR-LV-FXT-**ULTRA-SRG-QDC**-10V

**DLC:** LR30S-A1-04K-04-40-80-FR-LV-[ALL MOUNTING OPTIONS]-[ALL CONTROLS]-[ALL CORDS & PLUGS]-[ALL OPTIONS]-10V

# ACCESSORIES

Must be ordered separately. Packaged separately.

FIXTURE ACCESSORIES		
Part Number	Type	Description
<b>SAFETYCABLE</b>	Safety Kit	Kit includes (1) 5 ft. aircraft cable with single snap hook, L-bracket, screw and nut. For use with all mounting options.
<b>HANGERKIT</b>	Hanger	Kit includes 2 cable and toggle hangers. Order fixture with FXT mounting option. <sup>7</sup>
<b>VHANGERKIT</b>	V-Hanger	Kit includes 2 wire V-hangers, enough to hang one 4' fixture. Order fixture with FXT mounting option.
<b>OCCDIMPROG</b>	Wireless Programmer for Occupancy Sensors	Hand-held wireless programmer for setup OCCDIMXX dimmable occupancy sensors. Required with OCCDIM8 selection.
<b>SPLINT</b>	Splint	13.5" Brace, used to firm up the joint between two, 4' sections. Extended lead time.
Power Supply Replacement		Power supply replacement available upon request. Contact factory for details.

# ULTRALINK BLUETOOTH CONTROLS














Linmore LED's UltraLink, powered by Silvair, is an intelligent lighting control system that uses Bluetooth Low Energy (BLE) communications at 2.4 GHz. The complete mesh network system is comprised of wireless fixture receivers / controllers, sensors, wireless switches, and other accessories.

To have UltraLink installed in the fixture from the factory, add the desired UltraLink control option to the ordering number<sup>13</sup>.

For example: **LR30S-A1-04K-04-40-80-FR-LV-FXT-ULTRAPIR20-10V**. Accessories must be ordered separately. They ship in a separate box.

## ULTRALINK ACCESSORIES

	Part Number	Description
	<b>ULTRAPIR12-CM</b>	UltraLink Bluetooth Wireless Ceiling Mount Controller with PIR Sensor, 8' to 12' Mounting Height, Field installed, includes Power Supply. Additional electrical materials may be required for installation.
	<b>ULTRASW</b>	UltraLink Bluetooth Wireless Wall Switch, Self-Powered, Single Rocker, On/Off/Dim.
	<b>ULTRASW-DR</b>	UltraLink Bluetooth Wireless Wall Switch, Self-Powered, Double Rocker, On/Off/Dim/Scenes.
	<b>ULTRASW-AC</b>	UltraLink Bluetooth Wireless Wall Switch, AC-Powered 120-277V, Single Rocker, On/Off/Dim.
	<b>ULTRASW-PIR-AC</b>	UltraLink Bluetooth Wireless Wall Switch with PIR Sensor, AC-Powered 120-277V, Single Rocker, On/Off/Dim.
	<b>ULTRASW-4B-AC</b>	UltraLink Bluetooth Wireless Wall Switch with 4 Buttons, AC-Powered 120-277V, Single Gang, On/Off/Dim/Scenes.
	<b>ULTRARELAY-5A<sup>13</sup></b>	UltraLink Bluetooth Wireless Receiver / Controller, Bluetooth to 0-10V Converter with 5 Amp Relay, Field Installed, 120-277Vac Input, Silvair Firmware.
	<b>ULTRARELAY-20A<sup>13</sup></b>	UltraLink Bluetooth Wireless Receiver / Controller, Bluetooth to 0-10V Converter with 20 Amp Relay, Field Installed, 120-277Vac Input, Silvair Firmware.
	<b>ULTRAGATEWAY</b>	UltraLink Bluetooth Wireless Gateway, required for Advanced Features and Time-Based Events. One gateway can control up to 200 fixtures, allowing for energy monitoring, people tracking, and scheduling. Interior installation only.
	<b>ULTRATIME-BAT</b>	UltraLink Bluetooth Time-Keeping Battery Backup includes an Outdoor Rated Enclosure, a High-Gain Antenna and a Backup Battery. For use to keep time during a power outage and for in-node scheduling.
	<b>ULTRADASH</b>	UltraLink Dashboards for Energy, Occupancy Heat Mapping, and Energy Heat Mapping. Gateway (ULTRAGATEWAY) required, sold separately.

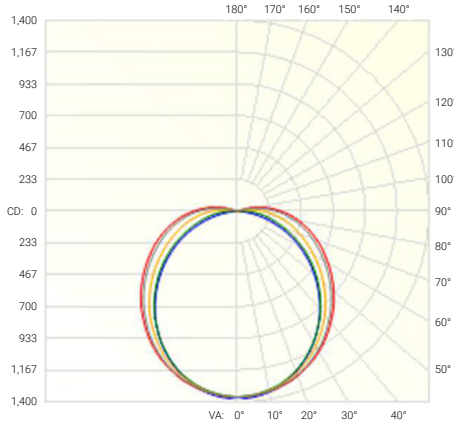
Technology Partner **SILVAIR**

# LIGHT DISTRIBUTION

## FROSTED

### Polar Graph

LR30S-A1-04K-04-40-80-FR-LV



### Zonal Lumen Summary

Zone	Lumens	% Lamp	% Fixt.
0-30	1055.4	23.4	23.4
0-40	1727.0	38.3	38.3
0-60	3090.0	68.6	68.6
60-90	1246.9	27.7	27.7
0-90	4337.0	96.2	96.2
90-180	170.6	3.8	3.8
0-180	4507.6	100.0	100.0

Total luminaire efficiency = 100.00%

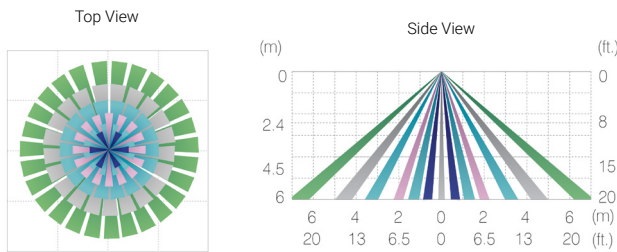
■ -0° H	■ -22.5° H
■ -90° H	■ -45° H
■ -67.5° H	

[Download IES Files](#)

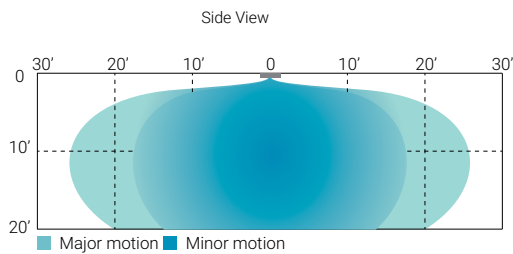
# OCCUPANCY SENSORS

## IR-TEC

### TOCC20



### DOCC

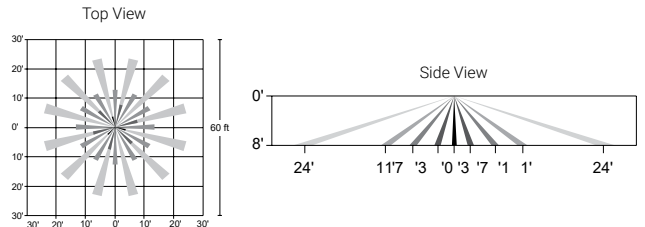


Mounting Height	10'	20'
Coverage (sq. ft.)*	2,000	1,200

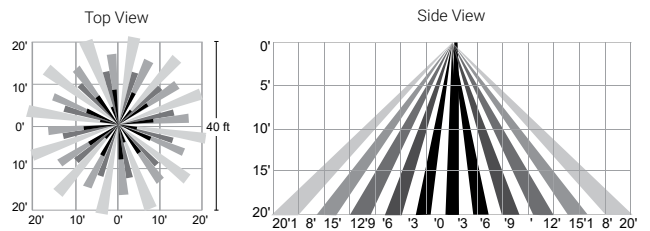
\*Sensitivity 100%

## WATTSTOPPER

### OCC8 / OCCDIM8

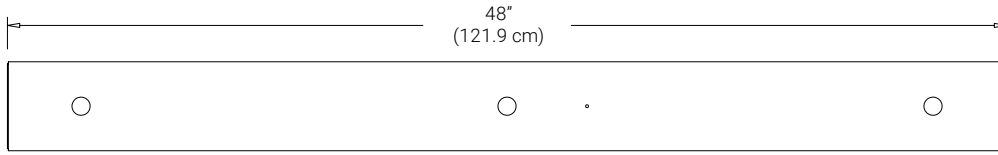


### OCC20 / OCCDIM20

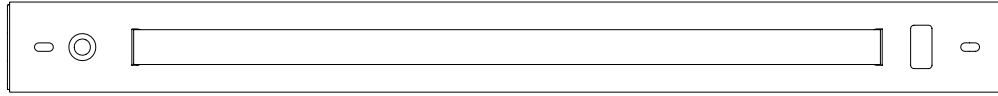


# DIMENSIONS & DRAWINGS

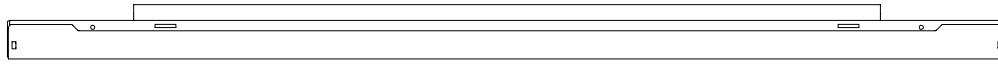
## 4' Stand-alone Fixture (FXT)



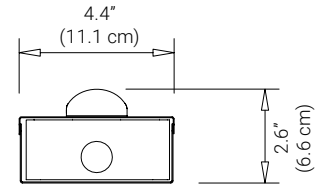
BOTTOM VIEW



TOP VIEW

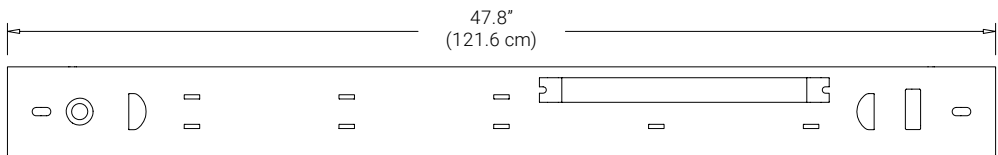


SIDE VIEW

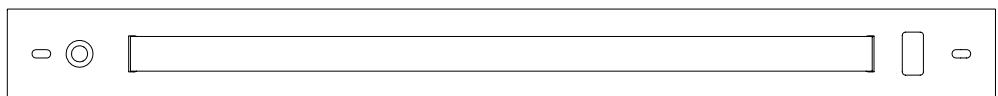


END VIEW

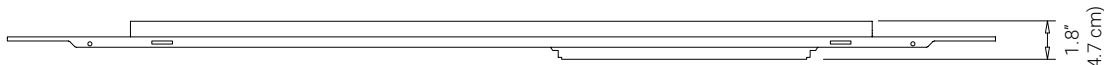
## 4' Retrofit Kit (RTR)



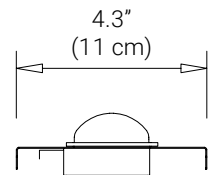
BOTTOM VIEW



TOP VIEW

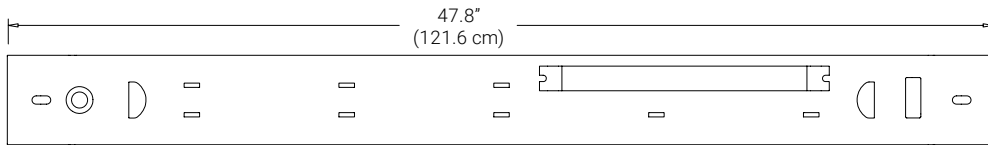


SIDE VIEW

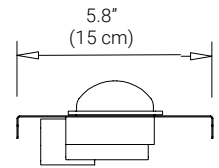


END VIEW

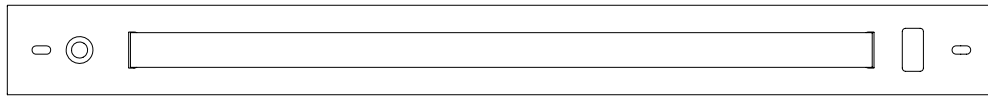
## 4' Retro Multi Width Kit (RMW)



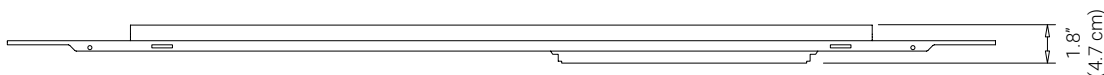
BOTTOM VIEW



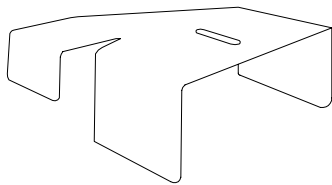
END VIEW



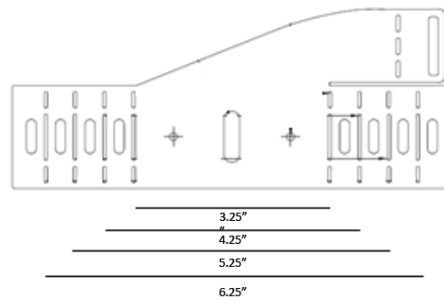
TOP VIEW



SIDE VIEW



BRACKET ISO VIEW



### DIMENSIONS<sup>2</sup>

Length	Type	Length (in)	Width (in)	Height (in)	Weight (lb)
4'	FXT	48.0	4.4	2.6	4.9
	RTR	47.8	4.3	1.8	2.3
	RMW	47.8	5.8	1.8	2.4
8'	FXT	96.0	4.4	2.6	8.8
	RTR	95.6	4.3	1.8	3.6
	RMW	95.6	5.8	1.8	3.7
12'	FXT	144.0	4.4	2.6	13.7
	RTR	143.4	4.3	1.8	6.9
	RMW	143.4	5.8	1.8	7.2



# FOOTNOTES

---

1. Typical ( $\pm 10\%$ ) at 120V (LV), 25°C, 5000K, Frosted Lens, CRI 80+. Lumen Multipliers: No Lens = 1.07 ; 4000K = 0.998 ; 3500K = 0.976.
2. Dimensions listed are for the fixture only. See dimensional drawings for measurements with mounting hardware. Weights are approximate and vary by model, if weight is a concern, please contact factory. Weight changes when battery backup is added.
3. Optional add-on. See price list for pricing.
4. Optional CABLEKIT ordered separately. See ACCESSORIES.
5. Wireless programmer required for final field setup. See ACCESSORIES.
6. 3500K not DLC listed.
7. Cable mounting full fixtures requires the additional support for 8' and 12' lengths. 4' requires 1 HANGERKIT (2-y cables), 8' and 12' require 2 each HANGERKIT (4-y cables, total).
8. Available on stand-alone (FXT) only.
9. If AC input wiring passes through fixture housings in continuous run installations, max ambient on all fixtures containing a factory installed battery backup system is 40°C
10. Settings for Sensors from Factory:  
TOCCWD - If no movement for 10 mins, OFF  
OCCDIM - If no movement for 5 mins, dim to 10%, if no movement for 60 mins, OFF  
DOCC - The sensor will be set from the factory at 75% sensitivity and a 10-minute delay.
11. Extended lead time.
12. UltraLink controls require commissioning in the field via iOS app. Contact factory.
13. ULTRA option not needed in fixture ordering number for enabling UltraLink when wiring fixtures in series with ULTRARELAY-5A or ULTRARELAY-20A. Do not exceed the rated amperage of the relay. To enable dimming, two additional wire conductors are needed for the 0-10V signal connected to the driver dim leads.

## Linmore LED Labs, Inc.

2360 S Orange Ave, Fresno, CA 93725

559 485 6010 | [info@linmoreled.com](mailto:info@linmoreled.com) | [linmoreled.com](http://linmoreled.com)



All specifications are subject to change without notice. Please visit [linmoreled.com](http://linmoreled.com) for latest information. All values are typical or design values and series averages. Actual performance may differ as a result of end-user environments and applications. Consult Linmore LED with specific inquiries. Copyright © 2023, Linmore LED Labs, Inc. All rights reserved. No part of this document may be reproduced in any form without the prior written permission of Linmore LED.

Updated: 2023.09.18