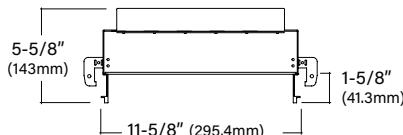




## LiFT LF12

### 1x2 Direct Recessed Architectural Square



#### Key Features

- Formed 20 gauge cold rolled steel housing
- Highly reflective die-formed white painted reflector
- Fabricated, captive lens with 3 lens positions
- LiFT offered with a 5-year limited warranty. Covers LED, driver and fixture
- ETL Listed conforming to UL1598 in US and CSA 250 in Canada
- Room-Side Maintenance for LED system



Example Part #: LF12-AR-930HO-G-U-FSD-1-0-W

LF12	- AR	SHIELDING	CRI, CCT & OUTPUT	MOUNTING	VOLTAGE	DRIVER	CIRCUITING	BATTERY & EMERGENCY	FINISH	Fixture Options	CONTROLS
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AR	SOURCE <sup>1,2</sup>	MOUNTING	VOLTAGE <sup>3</sup>
<b>AR</b> - Regress Satine Lens	<b>927</b> - 90CRI, 2700K <b>930</b> - 90CRI, 3000K <b>935</b> - 90CRI, 3500K <b>940</b> - 90CRI, 4000K <b>TW</b> - 2CH Tunable White (2700-6500K, 90CRI) <b>CL</b> - Custom Lumens <b>CW</b> - Custom Watts <i>Source pg. 2</i>	<b>G</b> - Grid Ceiling <i>(Fixture does not fit in standard grid spacing)</i> <b>FL</b> - Flanged <b>SF</b> - Spackle Flange <i>Mounting pg. 2</i>	<b>U</b> - Universal (120 thru 277V) <b>1</b> - 120V <b>2</b> - 277V <b>3</b> - 347V <i>Voltage pg. 3</i>

DRIVER	CIRCUITING <sup>4</sup>	BATTERY & EMERGENCY	FINISH
<b>FSD</b> - Factory Select Driver (1%, 0-10v) <b>PL2</b> - Advance Xitanium (1%, 0-10v) <b>OL2</b> - eldoLED Optotronic (1%, 0-10v) <b>OL4</b> - eldoLED Optotronic 347v (1%, 0-10v) <b>EE1</b> - eldoLED ECODrive (1%, 0-10v) <b>ES1</b> - eldoLED SOLOdrive (0.1%, 0-10v) <b>LH1</b> - Lutron Hi-lume (1%, EcoSystem) <b>PS1</b> - Advance Xitanium (50%/100%) <i>Driver pg. 3</i>	<b>1</b> - Single Circuit <b>E</b> - Emergency (entire fixture) <i>Circuiting pg. 3</i>	<b>0</b> - None <b>FSG</b> - Factory Select ALCR <b>GI</b> - Iota ETS DR <b>GB</b> - Bodine GTD <b>1ICL</b> - Iota 7w <b>1PB</b> - Bodine 10w <b>1PCL</b> - Bodine 6w <i>Battery and Emergency pg. 4</i>	<b>W</b> - White <i>Finish pg. 4</i>

Fixture Options <sup>5</sup>	CONTROLS
<b>CP</b> - Chicago Plenum <b>AM</b> - Antimicrobial Paint <b>FW6</b> - 6' Flex Whip <b>DSP</b> - Customer Supplied Battery/Driver/ Sensor <b>GMF</b> - Slow Blow Fusing <b>BA</b> - Buy America(n) Act and/or Build <i>America Buy America Compliant</i> <i>Fixture Options pg. 4</i>	<b>MOD</b> - Mod options available <i>Controls pg. 4</i>

<sup>1</sup>When specifying SOURCE the ending    are for specifying output, example **HO** - High Output. See output charts for more information. <sup>2</sup>When specifying Tunable White, use **TW** and then specify output, example **TWHO** - Tunable White 90CRI, High Output 2700-6500K. See output charts for more information. Tunable White option requires driver option **FSD** which provides separate 0-10v control leads for Intensity and CCT. <sup>3</sup>Tunable White (TW) option only available with Universal (U), 120V (1) or 277V (2) options. <sup>4</sup>Consult factory for Emergency (E) options with Tunable White (TW) option. <sup>5</sup>Compliance is configuration dependent; consult factory for confirmation.

Specifications and dimensions subject to change without notice. Specification sheets that appear on [pinnacle-ltg.com](http://pinnacle-ltg.com) are the most recent version and supersede all other previously printed or electronic versions.



## Source

- 90 CRI = R9≥50
- Longer lead-time may apply for Tunable White option. Consult factory
- Tunable White option requires driver option FSD which provides separate 0-10V

- control leads for Intensity and CCT.
- Tunable White lumen packages shown at 4000K CCT setpoint

## Custom Output- Lumens OR Wattage

CL_____	Specify CRI, CCT and desired lumens (i.e. CL9352000)	Specify lumens between standard offering listed below. Lumens are specified per color temp
CW_____	Specify CRI, CCT and desired wattage (i.e. CW94020)	Specify watts between standard offering listed below
CLTW_____	Specify desired lumens for Tunable White (i.e. CLTW3200)	Specify lumens between Tunable White offering listed below. Lumens are specified at 4000K CCT setpoint.

## 90 CRI

Model	Color	Lumens	Shielding	
			A	LPW
927LO	2700K	1168	10.1	116
		1898	16.8	113
		2597	24.4	106
930LO	3000K	1221	10.1	121
930MO		1983	16.8	118
930HO		2715	24.4	111
935LO	3500K	1197	10.1	118
935MO		1941	16.7	116
935HO		2673	24.5	109
940LO	4000K	1236	10.1	122
940MO		2005	16.7	120
940HO		2765	24.4	113

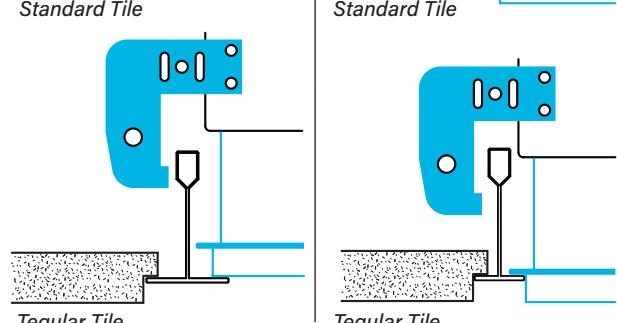
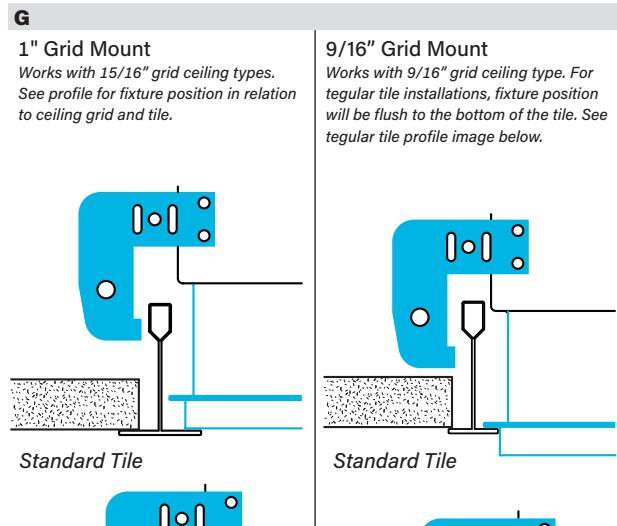
## 2 CH Tunable White (2700-6500K, 90CRI)

TWLO	2700 -	1200	11.4	106
TWMO	6500K	2000	18.7	107
TWHO		2600	25.0	104

## Mounting

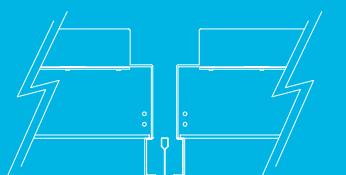
- Designed to install into acoustical grid and inaccessible ceilings
- Grid retention clips integral to housing and require mechanical attachment
- Tie off fixture to structure with retention wires

- Maximum fixture weight is 16 lbs
- Refer to installation instructions during installation at the job site
- Approved for dry/damp location unless otherwise noted



## Side-by-Side Installation

LiFT has the ability to have 2 fixtures mounted side by side using the same grid. This detail allows LiFT to be installed in a pattern with only the space of the T-bar between the fixtures.





## Voltage

- Some LiFT configurations will not accommodate all voltage options; consult with factory
- 347 volt not available with Tunable White (TW) option

<b>U</b>	Universal
<b>1</b>	120 volt
<b>2</b>	277 volt
<b>3</b>	347 volt

## Driver

- Standard Driver Option = FSD
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more Driver options, see Pinnacle Resource Guide on download pages at [pinnacle-ltg.com](http://pinnacle-ltg.com)
- Some LiFT configurations will not accommodate all driver options; consult with factory

### 0-10V Drivers

<b>FSD</b>	Factory Select Driver 1%, 0-10v
<b>PL2</b>	Advance Xitanium 1%, 0-10v
<b>PL4</b>	Advance Xitanium 347v 1%, 0-10v, requires 347v
<b>OL2</b>	eldoLED Optotronic, 1%, 0-10v
<b>OL4</b>	eldoLED Optotronic 347v, 1% 0-10v, requires 347v option
<b>EE1</b>	eldoLED ECODrive 1%, 0-10v Logarithmic
<b>EE2</b>	eldoLED ECODrive 1%, 0-10v Linear
<b>ES1</b>	eldoLED SOLOdrive 0-10v, 0.1% Logarithmic
<b>ES2</b>	eldoLED SOLOdrive 0-10v, 0% Linear

### DALI Drivers

<b>EE3</b>	eldoLED ECODrive 1%, DALI 2, Logarithmic, DT6
<b>ES3</b>	eldoLED SOLOdrive 0.1%, DALI 2, Logarithmic, DT6
<b>OD1</b>	eldoLED Optotronic 1%, DEXAL

### Lutron Drivers

<b>LH1</b>	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
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### Alternate Drivers

<b>PS1</b>	Signify Advance Xitanium Step Dimming 50%/100%
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## Circuiting

- Select fixture circuiting from options below
- Some LiFT configurations will not accommodate all circuiting options; consult with factory

<b>1</b>	Single Circuit
<b>E</b>	Emergency Circuit only



## Battery & Emergency

- Select battery or emergency options if required
- Battery duration is 90 minutes
- Test button is integral to fixture
- For more Battery options, see Pinnacle Resource Guide on download pages at [pinnacle-ltg.com](http://pinnacle-ltg.com)

<b>0</b>	No Battery
<b>FSG</b>	Factory Select ALCR Emergency Control Device, UNV
<b>GI</b>	Iota ETS-DR, Emergency Control Device, UNV
<b>GB</b>	Bodine GTD, Emergency Control Device, 120v or 277v
<b>1ICL</b>	Iota 7w Integral Lithium, Self Testing
<b>1PB</b>	Bodine 10w Integral
<b>1PCL</b>	Bodine 6w Integral Lithium, Self Testing

### For Approximate Battery Lumen Output

- Multiply battery wattage X fixture LPW shown on Lumen Table
- 10 (watts) x 116 (LPW) = 1,160 battery lumen output

### Battery & Emergency Ordering Examples

▪ Single circuit, 10w integral battery	Ordering Code: 1-1PB
▪ Emergency circuit only, 10w integral battery	Ordering Code: E-1PB

## Finish

- Powder-coat white painted finish on exposed trim
- Selecting a fixture finish other than white may impact lumen output; consult factory for more information

<b>W</b>	White
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## Fixture Options

- Additional options to enhance the fixture and finish of the product

<b>CP</b>	Chicago Plenum
<b>AM</b>	Antimicrobial Paint
<b>FW6</b>	Flex Whip 6'
<b>DSP</b>	Customer Supplied Battery/Driver/Sensor
<b>GMF</b>	Internal Slow Blow Fuse

- Domestic content option - compliance is configuration dependent; consult factory for conformation

<b>BA</b>	Buy America(n) Act and/or Build America Buy America Compliant
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## Controls

- Pinnacle is able to accommodate different control solutions from different manufacturers. Consult Factory for more information.

## Controls: MOD Options

- Specify **MOD** in the part number for any of the below options
- **Control** Options may require specific driver. Refer to the chart below
- Consult factory for **MOD** specification details, pricing, and lead-time information

<b>MOD</b>	Lutron Athena Connected
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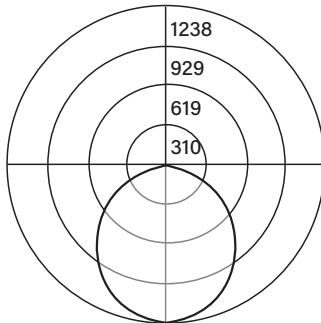
Ordering Code	Required Driver
AWNR	OD1, PR1, OL5, PL5



## Photometrics

### Satine Lens

Test #	KPL2015-107
Catalog #	LF12-AR-940HO
Lumens	3293 lm
Watts	29.7 watts
Efficacy	111 LPW



### Candela Distribution

Vert Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	1238	1238	1238	1238	1238
5	1232	1231	1227	1223	1220
10	1212	1207	1200	1196	1195
15	1181	1172	1164	1159	1158
20	1140	1128	1118	1112	1112
25	1089	1075	1062	1056	1057
30	1029	1013	998	991	993
35	961	943	927	919	922
40	886	865	848	840	843
45	803	782	763	755	759
50	714	692	673	666	669
55	619	597	578	571	573
60	521	500	481	474	476
65	419	400	383	376	379
70	318	300	285	280	281
75	218	204	192	187	188
80	128	118	108	100	99
85	50	45	39	37	37
90	2	2	2	1	1

### Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6967	6620	6582
55	6619	6183	6130
65	6084	5553	5498
75	5164	4562	4445
85	3534	2723	2624

For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com). Photometry testing in accordance to IESNA-LM-79-08 at an NVLAP or IAS accredited testing laboratory. Testing conducted at 25°C ambient conditions

## Approvals & Certifications

**Construction:** Formed 20 gauge cold rolled steel housing. Highly reflective die-formed white painted reflector. Wiring access available on top of housing. Lens is removable for room-side maintenance of lens, driver and LED boards.

**Shielding:** Single piece extruded diffuse acrylic lens creating a fully luminous fixture.

**Mounting:** LiFT 1x2 Recessed does not fit into standard 1' grid spacing, see installs for grid mounting details. Designed to install into acoustical grid and inaccessible ceilings. Specify G for acoustical grid ceiling. Specify FL or SF for inaccessible ceilings. Grid retention clips integral to housing and require mechanical attachment. Tie off fixture to structure with retention wires.

**White LED:** 25°C test environment. Lumen output/wattage has a margin of +/- 5%. Lumen packages tested in accordance with IES LM-79. Diodes tested in accordance with IES LM-80. Lifetime calculated using IES TM-21. Minimum lifetime greater than 60,000 hours. TM-21-21 Lifetime Rating L70 = >60,000 hours, L90 = 53,200 hours. Mac-Adam 3-Step Ellipses. For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com).

**Tunable White LED:** 2 channel solution with 2700K and 6500K LED, 90CRI only, R9 >50. Lumen packages available shown at 4000K CCT setpoint, lumen output varies based on CCT. Use multipliers for other CCT; 2700K = .91 3000K = .93 3500K = .97 4000K = 1.0 5000K = 1.044 6500K = 1.078.

**Color & Lumen Output:** Not all lumen packages available. Three lumen packages available. Low (LO), Medium (MO) and High (HO). Custom outputs are available. Specify custom lumens or watts between standard offering listed on CRI, CCT & Output page. 90 CRI is available for 2700K, 3000K, 3500K and 4000K. 90 CRI = R9 ≥ 50.

**Voltage:** Universal (U), 120 volt (1), 277 volt (2) and 347 volt (3) options available. Must specify PL4 or OL4 in Driver section when 347 volt (3) is selected. Some configurations will not accommodate all voltage options; consult with factory.

**Driver:** Standard Driver Option is Factory Select Driver 0-10V, 1% = FSD. Electronic driver, Power factor is >0.9 with a THD <20%. Driver Lifetime: 50,000 hours at 25°C ambient operating conditions. Ambient operating range: -20°F/-30°C to 101°F/38C. For more driver options, see Pinnacle Resource Guide. Some configurations will not accommodate all driver options.

**Circuiting:** Select from single circuit (1) or Emergency circuit (E). Some LiFT configurations will not accommodate all circuiting options; consult with factory.

**Battery & Emergency:** Select battery or emergency options if required. If battery or emergency option is not required, enter 0. Battery duration is 90 minutes as standard. Test button is integral to fixture. For more Battery options, see Pinnacle Resource Guide on download pages at [pinnacle-ltg.com](http://pinnacle-ltg.com).

**Finish:** Powder-coat white painted finish on exposed trim.

**Controls:** Mod options available, consult with factory.

**Buy America Act (BAA) and Build America, Buy America Act (BABA) Compliance:** BAA and/or BABA compliance options are available to support federally funded projects requiring domestic content. Availability depends on configuration; Compliance is configuration-dependent; consult factory for confirmation.

**Labels:** UL and cUL 1598 listed. LO, MO, and HO lumen packages are IC Rated, approved for dry/damp location unless otherwise noted.

**Fixture Weight:** 16 lbs maximum.

**Warranty:** LiFT LED offered with a 5-year limited warranty. Covers LED, driver and fixture.