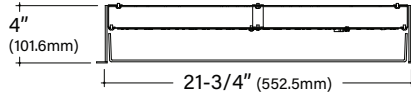


# FINA F24D

## 24" Direct Recessed Architectural Round



### Key Features

- Extruded aluminum housing is rolled and welded for seamless finish with 3/4" trim
- Aluminum top cover conceals all electrical components. Highly reflective die-formed white painted steel reflector
- FINA offered with a 5-year limited warranty. Covers LED, driver and fixture
- ETL Listed conforming to UL1598 in US and CSA 250 in Canada
- Maximum fixture weight is 25 lbs
- Room-side maintenance for LED system
- Buy American Act compliant



Example Part #: F24D-A-830HO-G-U-PL2-1-0-W



SHIELDING	SOURCE <sup>1</sup>	MOUNTING	VOLTAGE
<b>A</b> - Flush Satine Lens <b>AL</b> - Drop Satine Lens <b>AR</b> - Regress Satine Lens <i>Shielding pg. 2</i>	<b>27</b> - 2700K <b>30</b> - 3000K <b>35</b> - 3500K <b>40</b> - 4000K <b>CL</b> - Custom Lumens <b>CW</b> - Custom Watts <i>Source pg. 2</i>	<b>G</b> - Grid Ceiling <b>FL</b> - Flanged <b>NF</b> - Non-Flanged <b>SF</b> - Spackle Flange <i>Mounting pg. 3</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	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) <i>Driver pg. 3</i>	<b>1</b> - Single Circuit <b>E</b> - Emergency ( <i>entire fixture</i> ) <b>N</b> - Night Light ( <i>entire fixture</i> ) <i>Circuiting pg. 4</i>	<b>0</b> - None <b>FSG</b> - Factory Select ALCR <b>GI</b> - Iota ETS DR <b>GB</b> - Bodine GTD <b>1PB</b> - Bodine 10W <i>Battery and Emergency pg. 4</i>	<b>W</b> - White <i>Finish pg. 4</i>
FIXTURE OPTIONS	CONTROLS <sup>2</sup>		
<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 <i>Fixture Options pg. 4</i>	<b>DLMFC</b> - Wattstopper DLM ( <i>wired</i> ) <b>ENLI</b> - Enlighted IOT ( <i>remote</i> ) <b>ENLC</b> - Enlighted Connected Lighting ( <i>remote</i> ) <i>Controls pg. 4</i>		

<sup>1</sup>When specifying SOURCE the first \_ is for specifying either 8 - 80CRI, 9 - 90CRI. The ending \_\_ are for specifying output, example HO - High Output. See output charts for more information. <sup>2</sup>Controls can only be used with Single Circuit (1) or Emergency Circuit (E), cannot be used with any battery options. See Controls chart on page 4 for driver options and more information.


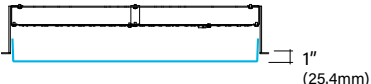

Specifications and dimensions subject to change without notice. Specification sheets that appear on pinnacle-ltg.com are the most recent version and supersede all other previously printed or electronic versions.



## Shielding

- White virgin acrylic lens with matte finish, removable for LED access
- Lens available in 3 positions

### Ordering Code

<b>A</b>	<b>AL</b>	<b>AR</b>
Flush Satine Lens	Drop Satine Lens	Regress Satine Lens
		

## Source: White LED

- Specify either 80 or 90 CRI
- Longer lead-time may apply for 90 CRI. Consult factory
- 90 CRI = R9≥50

## Custom Output- Lumens OR Wattage

<b>CL</b> _____	Specify CRI, CCT and desired lumens (i.e. CL8352000)	Specify lumens between standard offering listed below. Lumens are specified per color temp
<b>CW</b> _____	Specify CRI, CCT and desired wattage (i.e. CW94020)	Specify watts between standard offering listed below

### 80 CRI

	Color	Shielding		
		<b>A, AL, AR</b> Satine Lens		
		Lumens	Watts	LPW
<b>830LO</b>	3000K	1738	16.5	105
<b>830MO</b>	3000K	2984	27.7	108
<b>830HO</b>	3000K	4174	38.9	107
<b>835LO</b>	3500K	1849	16.7	111
<b>835MO</b>	3500K	3178	28.0	114
<b>835HO</b>	3500K	4448	39.2	114
<b>840LO</b>	4000K	1866	16.7	112
<b>840MO</b>	4000K	3201	27.9	115
<b>840HO</b>	4000K	4476	39.1	114

### 90 CRI

<b>927LO</b>	2700K	1497	17.2	87
<b>927MO</b>	2700K	2526	29.2	86
<b>927HO</b>	2700K	3472	41.5	84
<b>930LO</b>	3000K	1508	17.1	88
<b>930MO</b>	3000K	2548	28.9	88
<b>930HO</b>	3000K	3504	41.0	86
<b>935LO</b>	3500K	1508	17.1	88
<b>935MO</b>	3500K	2548	28.9	88
<b>935HO</b>	3500K	3504	41.0	86
<b>940LO</b>	4000K	1551	17.2	90
<b>940MO</b>	4000K	2622	29.1	90
<b>940HO</b>	4000K	3605	41.3	87

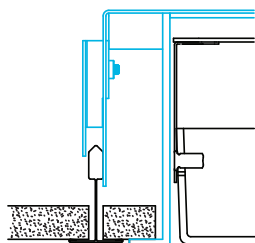


## Mounting

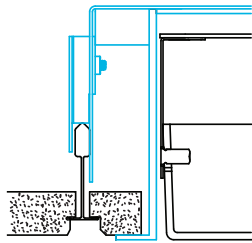
- Designed to install into acoustical grid and inaccessible ceilings
- Tie off fixture to structure with retention wires
- Maximum fixture weight is 25 lbs

### G

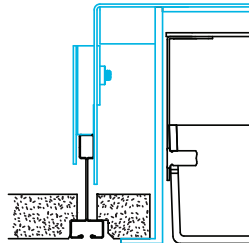
Grid Ceiling with 3/4" (19.1mm) Trim  
15/16" T-Bar



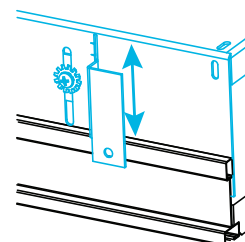
9/16" T-Bar



Screw Slot T-Bar

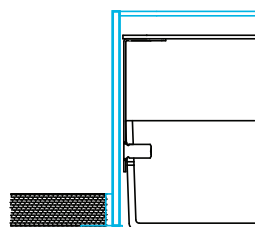


Recessed box allows for 1/2" of adjust-ability to accommodate a variety of grid ceilings



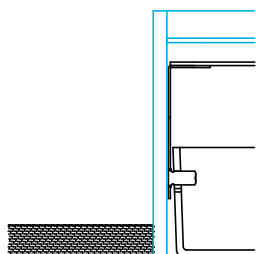
### FL

Standard 3/4" (19.1mm) Flange  
Exposed Flange



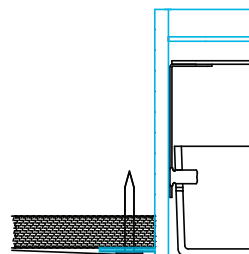
### NF

Non-Flange with 1/4" (6.4mm) Trim  
Metal Pan or Millwork



### SF

Spackle Flange  
Drywall, Flangeless



## Voltage

- Some FINA configurations will not accommodate all voltage options; consult with factory

<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 FINA 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>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 (logarithmic)
<b>ES3</b>	eldoLED SOLOdrive .1%, DALI (logarithmic)

### Lutron Drivers

<b>LH1</b>	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
<b>LH4</b>	Lutron Hi-Lume 1%, 2-wire, Lutron-LTEA2W, 120v only

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.

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## Circuiting

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

<b>1</b>	Single Circuit
<b>E</b>	Emergency Circuit only
<b>N</b>	Night Light Circuit only

## Battery & Emergency

- Select battery or emergency options if required
- Battery duration is 90 minutes
- Test button is remote 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 Automatic Load Control Relay (ALCR), UNV
<b>GI</b>	Emergency Transfer Switch (ETS) DR Emergency Control Device, UNV
<b>GB</b>	Bodine GTD, Generator Transfer Device, 120v or 277v
<b>1IRC</b>	Iota 10w Remote
<b>1PRS</b>	Bodine 7w Remote, Self Testing
<b>1PB</b>	Bodine 10w Integral
<b>1PRD</b>	Bodine 10w Remote, Dual Flex

**For Approximate Battery Lumen Output**

- Multiply battery wattage X fixture LPW shown on Lumen Table
- 10 (watts) x 92.3 (LPW) = 923 battery lumen output

**Battery & Emergency Ordering Examples**

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

## Finish

- Powder-coat white painted finish on exposed trim

<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

## Controls

- Pinnacle Lighting offers easy to specify network control solutions that connect to an intelligent centralized system to maximize lighting energy efficiencies or integral sensors for individual fixture control
- Pinnacle Lighting fixtures ship technology ready; comissioning by others
- Controls can only be used with Single Circuit (1) or Emergency Circuit (E)
- Contact factory for any non-standard configurations for layout, placement, or EM options
- One drop/sensor per run typical, contact factory for more information

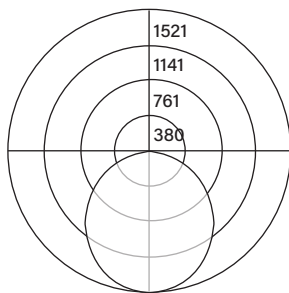
	Solution	Components	Network/Sensor	Connection	RQD Drivers	Limitation
<b>DLMFC</b>	Legrand Wattstopper DLM	LMFC-011	Digital Lighting Management (DLM)	Wired, two RJ45 ports	OL2, OL4	None
<b>ENLI</b>	Enlighted IOT	CU-4E	Enlighted, Remote	Enlighted Cable	Any 0-10v	Not available with 347 volt
<b>ENLC</b>	Enlighted Connected Lighting	CU-4E	Enlighted, Remote	Enlighted Cable	Any 0-10v	Not available with 347 volt



## Photometrics

### Satine Lens

Test # ITL92433  
Catalog # F24D-AL-840HO  
Lumens 4623 lm  
Watts 39.1 W  
Efficacy 118 LPW



### Candela Distribution

Vert Angle	Horizontal Angle
0	1520
5	1521
10	1505
15	1472
20	1426
25	1367
30	1298
35	1219
40	1131
45	1035
50	931
55	819
60	701
65	579
70	453
75	328
80	211
85	115
90	45
95	38
100	31
105	25
110	20
115	15
120	10
125	7
130	3
135	1

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

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	6260	6260	6260
55	5995	5995	5995
65	5581	5581	5581
75	4844	4844	4844
85	3882	3882	3882

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 accredited testing laboratory. Testing conducted at 25°C ambient conditions

## Approvals & Certifications

**Construction:** Extruded aluminum housing is rolled and welded for seamless finish with minimal trim detail. Aluminum top cover conceals all electrical components. Highly reflective die-formed white painted steel reflector. Wiring access on both sides and top of housing.

**Shielding:** Single piece diffuse lens creating a fully luminous housing. Available with standard satine lens.

**Sound Absorption:** Sound Absorption panels may be specified in place of lit fixture components to aid in Acoustic Control within a space. Sound Absorption material is a 9mm PET Polyester Fiber acoustic panel, containing up to 90% post-consumer content, made by others. Acoustic testing was completed by Riverbank Acoustic. For specific reports, contact Pinnacle directly.

**Mounting:** Designed to install into acoustical grid and inaccessible ceilings. Recessed, aircraft cable, pendant and surface mount available. For recessed, specify G for acoustical grid ceiling. Specify FL, NF, or SF for inaccessible ceilings. Tie off fixture to structure with retention wires. Maximum fixture weight is 25 lbs.

**LED:** 25°C test environment. Lumen output/wattage has a margin of +/- 5%. Luminaire configurations 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. L70 = 146,500 hours and L90 = 45,000 hours MacAdam 3-Step Ellipses. Not all products are Lighting Facts listed. For all available IES files, please visit our website at [pinnacle-ltg.com](http://pinnacle-ltg.com).

**CRI, CCT & Output:** Three lumen packages available. Low (LO), Mid (MO) and High (HO). Custom outputs are available. Specify custom lumens or watts between standard offering listed on CRI, CCT & Output page. 80 CRI is available for 3000K, 3500K, and 4000K. 90 CRI is available for 2700K, 3000K, 3500K, and 4000K. 90 CRI = R9≥50.

**Voltage:** Universal (U), 120 volt (1), 277 volt (2), 347 volt (3) options available. Some FINA configurations will not accommodate all voltage options; consult with factory.

**Driver:** Standard Driver Option is Advance 0-10V, 1% = PL2. Electronic driver, Power factor is >0.9 with a THD <20%. Driver Lifetime: 50,000 hours at 25°C ambient operating conditions. For more driver options, see Pinnacle Resource Guide on downloads pages at [pinnacle-ltg.com](http://pinnacle-ltg.com). Some FINA configurations will not accommodate all driver options.

**Circuiting:** Select from Single circuit (1), Emergency circuit (E) or Night Light circuit (N). Some FINA 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 remote to fixture. For more Battery options, see Pinnacle Resource Guide on download pages at [pinnacle-ltg.com](http://pinnacle-ltg.com).

**Finish:** Standard powder-coat textured white consult factory for chip of standard paint finishes. Contact factory for additional custom color and finish options.

**Controls:** DLM utilizes wired network connections for digital control through switching and dimming with 0-10v LED drivers. Enlighted Smart Sensor provides multi-functionality including daylight harvesting and PIR occupancy; for IOT platform using 0-10v LED drivers. Enlighted Smart Sensor provides multi-functionality including daylight harvesting and PIR occupancy; for Connected platform using 0-10v LED drivers.

**Labels:** UL and cUL 1598 listed. Standard and High output lumen packages are IC Rated for recessed fixtures and are approved for dry/damp location unless otherwise noted.

**Fixture Weight:** 25 lbs maximum

**Buy American Act compliant**

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