Project Name		

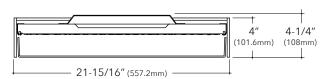
Oate \_\_\_\_\_ Type \_\_\_\_





## FINA F24D

# 24" Direct Suspended Architectual Round with Acoustic Solutions



#### **Key Features**

- Aluminum housing is rolled and welded for seamless finish with 1/4" trim
- Aluminum top cover conceals all electrical components. Highly reflective die-formed white painted steel reflector
- Sound Absorption available in specific configurations
- 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
- Apparent Noise Reduction Coefficient (NRC) is up to 1.9













Example Part #: F24D-A-830HO-AC348JB-U-PL2-1-0-W

24D	-	-	-	-	-	-	_	-	-	-
	SHIELDING	SOURCE	MOUNTING	VOLTAGE	DRIVER	CIRCUITING	BATTERY & EMERGENCY	FINISH	FIXTURE OPTIONS	CONTROLS

			-
SHIELDING <sup>1</sup>	SOURCE <sup>2</sup>	MOUNTING <sup>3</sup>	VOLTAGE
A - Flush Satine Lens AL - Drop Satine Lens AR - Regress Satine Lens ASF Acoustic Solution Flush (use P to specify color) ASR Acoustic Solution Regress (use P to specify color) Shielding pg. 2	27 2700K _30 3000K _35 3500K _40 4000K CL Custom Lumens CW Custom Watts NA - Not Applicable (for specifying SA fixtures) Source pg. 3	AC33 AC to JB or ST AH44 AC w/hub to JB or ST PPPendant Pipe to JB or ST PSPendant Swivel to JB or ST S - Surface Mount WA - Wall Mount Mounting pg. 3	U - Universal (120 thru 277V) 1 - 120V 2 - 277V 3 - 347V NA - Not Applicable (for specifying SA fixtures) Voltage pg. 4

	_		
DRIVER	CIRCUITING	BATTERY & EMERGENCY	FINISH
FSD - Factory Select Driver (1%, 0-10v) PL2 - Advance Xitanium (1%, 0-10v) EE1 - eldoLED ECOdrive (1%, 0-10v) ES1 - eldoLED SOLOdrive (0%, 0-10v) LH1 - Lutron Hi-lume (1%, EcoSystem) OL2 - Osram (1%, 0-10v) OL4 - Osram 347v (1%, 0-10v) NA - Not Applicable (for specifying SA fixtures) Driver pg. 4	1 - Single Circuit E - Emergency (entire fixture) N - Night Light (entire fixture) NA - Not Applicable (for specifying SA fixtures) Circuiting pg. 4	O - None  1PB - Bodine 10W  FSG - Factory Select ALCR  GI - Iota ETS DR  GB - Bodine GTD  NA - Not Applicable (for specifying SA fixtures)  Battery and Emergency pg. 4	W - White S - Metallic Silver BL - Textured Black BR - Bronze GR - Graphite CC - Custom Color Finish pg. 4

FIXTURE OPTIONS	CONTROLS <sup>4</sup>
AM - Antimicrobial Paint GMF - Slow Blow Fusing NA - Not Applicable (for specifying SA fixtures) Fixture Options pg. 4	DLMFC - Wattstopper DLM (wired) ENLI - Enlighted IOT (remote) ENLC - Enlighted Connected Lighting (remote) NA - Not Applicable (for specifying SA fixtures) Controls pg. 5

When specifying Sound Absorption (no lit components), use NA for the following sections of the part number: SOURCE, VOLTAGE, DRIVER, CIRCUITING, BATTERY & EMERGENCY, or CONTROLS. <sup>2</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>3</sup>Example: AC348JB. AC3 = 3 Aircraft Cables, 48 = 48" long cables, JB = connects to junction box. Standard AC cable lengths are 48" and 120", field adjustable. Standard pendant lengths are 12", 18", or 24". <sup>4</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 5 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.

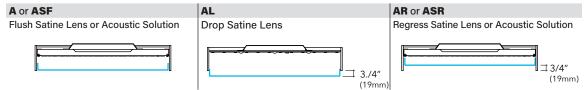




#### **Shielding**

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

#### Ordering Code



#### **Acoustic Solutions**

- 9mm PET Polyester Fiber acoustic panel
- Recyclable and contains up-to 90% post-consumer content
- Use SAFP \_\_ or SARP \_\_ for direct panels
- Colors below are for representation purposes, color may vary from photograph, contact factory for sample
- Specify the color of the Sound Absorption with the numeric code below in the Shielding portion of the part number. For example, SAFP04 for Direct Sound Absorption, Flush Mounting, White 04
- If Acoustic Solutions are specified for the direct portion of the fixture and the indirect portion is non-illuminated, acoustic material will be applied to the indirect side of the fixture.

#### Standard Colors



Secondary Colors - May increase lead-time for order. Consult Factory.



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#### Source: White LED

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

80 CRI = R9≥19 and 90 CRI = R9≥61

#### **Sound Absorption**

NA Not applicable (for Sound Absorption fixtures)

#### **Custom Output- Lumens OR Wattage**

CL	Specify CRI, CCT and desired lumens (i.e. CL8352000)
CW	Specify CRI, CCT and desired wattage (i.e. CW94020)

Specify lumens between standard offering listed below. Lumens are specified per color temp

Specify watts between standard offering listed below

#### **80 CRI**

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

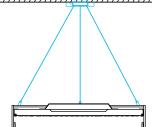
## 90 CRI

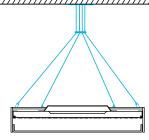
		I.	I.	I.
927LO	2700K	1497	17.2	87
927MO	2700K	2526	29.2	86
927HO	2700K	3472	41.5	84
930LO	3000K	1508	17.1	88
930MO	3000K	2548	28.9	88
930HO	3000K	3504	41.0	86
935LO	3500K	1508	17.1	88
935MO	3500K	2548	28.9	88
935HO	3500K	3504	41.0	86
940LO	4000K	1551	17.2	90
940MO	4000K	2622	29.1	90
940HO	4000K	3605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

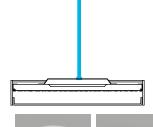
#### Mounting

- Aircraft cables and pendants mount directly to a standard junction box or structure
- Canopies and pendants match fixture finish, power cords are white, grey, or black depending on fixture finish. See Finish section for additional details.
- Must specify overall pendant length of 12", 18" or 24"
- Must specify cable length, either 48" or 120" standard, field adjustable
- Maximum fixture weight is 25 lbs

AC3JB	AH4JB	PP_JB	s
3 AC cables to fixture to J-Box	4 AC cables with hub to fixture to J-Box	Pendant Pipe to J-Box	Surface Mount Ceiling
		PSJB	
		Pendant Swivel to J-Box	
AC3ST	AH4ST	PP_ST	WA
3 AC cables to fixture to Structure		Pendant Pipe to Structure	Surface Mount Wall
	Structure	PS_ST	
		Pendant Swivel to Structure	
	<u> </u>		











- The canopy can be installed either below the ceiling plane or semi-recessed into the ceiling for a flush mount installation
- Standard kit can be installed either way
- Flush canopy installation is not available for fixtures installed below a grid rail

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#### Voltage

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

U	Universal
1	120 volt
2	277 volt
3	347 volt
NA	Not Applicable (for Sound Absorption)

#### Driver

- Standard Driver Option = PL2
- 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

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

0-10V Drivers	
FSD	Factory Select Driver 1%, 0-10v
OL2	Osram Optotronic, 1%, 0-10v
OL4	Osram Optotronic 347v, 1% 0-10v, requires 347v option
EE1	eldoLED ECOdrive 1%, 0-10v Logarithmic
EE2	eldoLED ECOdrive 1%, 0-10v Linear
ES1	eldoLED SOLOdrive 0-10v, 0% Logarithmic
ES2	eldoLED SOLOdrive 0-10v, 0% Linear
<b>DALI Drivers</b>	
EE3	eldoLED SOLOdrive .1%, DALI (logarithmic)
EE4	eldoLED SOLOdrive .1%, DALI (linear)
<b>Lutron Drivers</b>	S
LH1	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
LH4	Lutron Hi-Lume 1%, 2-wire, Lutron-LTEA2W, 120v only

#### Circuiting

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

1	Single Circuit
E	Emergency Circuit only
N	Night Light Circuit only
NA	Not Applicable (for Sound Absorption)

## **Battery & Emergency**

- Select battery or emergency options if required
- Battery duration is 90 minutes
- Test button is remote to fixture

0	No Battery	
1PB	Bodine 10w	
FSG	Factory Select ALCR, Automatic Load Control Relay	
GI	Iota ETS DR, Emergency Lighting Control Device	
GB	Bodine GTD, Emergency Lighting Control Device	
NA	Not Applicable (for Sound Absorption)	

For more Battery options, see Pinnacle Resource Guide on download pages at pinnacle-ltg.com

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

#### **Finish**

Powder-coat white painted finish on exposed trim

W	White (white cord/white canopy)
S	Metalic Silver (grey cord/silver canopy)
BL	Textured Black (black cord/black canopy)
BR	Bronze (white cord/bronze canopy)
GR	Graphite (white cord/graphite canopy)
CC	Custom Color (white cord/color match canopy)

#### **Fixture Options**

Additional options to enhance the fixture and finish of the product

AM	Antimicrobial Paint
GMF	Internal Slow Blow Fuse
NA	Not Applicable (for Sound Absorption)

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#### **Controls**

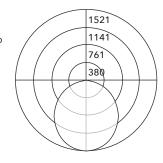
- Pinnacle Lighting offers easy to specify network control solutions that connect to an intelligent centralized system to maximize lighting energy efficiencies or integral sensors for individual fixture control
- Pinnacle Lighting fixtures ship technology ready; comissioning by others
- Controls can 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 sensor per housing typical, contact factory for more information

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

#### **Photometrics**

#### Satine Lens

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



#### Candela Distribution

Candela Distribu			
Vert Angle	Horizontal Angle		
	0		
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		
140	0		

#### 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. 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 top of housing.

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

**Acoustic Solutions:** Acoustic Solutions panels may be specified in place of lit fixture components to aid in Acoustic Control within a space. Acoustic Solutions 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:** Aircraft cable, Pendant, Surface and Wall mount available. Aircraft Cable and pendant supplied with 5" (127mm) canopies. Refer to installation instructions for appropriate ceiling detail. Maximum fixture weight is 25 lbs.

**LED:** 25°C test environment. Lumen output/wattage has a margin of +/- 5%. All 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.

**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. 80 CRI = R9≥19 and 90 CRI = R9≥61.

**Voltage:** Universal (U), 120 volt (1), 277 volt (2), 347 volt (3) options available. Must specify OL4 in Driver section when 347 volt (3) is selected. 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 download pages at 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.

**Finish:** Standard powder-coat textured white, metallic silver, textured black, graphite, or bronze painted finish, consult factory for chip of standard paint finishes. Contact factory for additional custom color and finish options.

**Controls:** DLM utlizes 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:** ETL Listed conforming to UL1598 in US and CSA 250 in Canada. LO, MO, and HO lumen packages are IC Rated, 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.

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