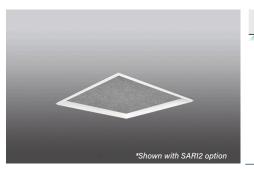
Project Name

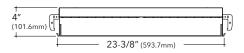
\_ Type \_







# 2x2 Direct Recessed Architectural Square with Sound Absorption



RATTERY &

EMERGENCY

FINISH

#### **Key Features**

- Formed 20 gauge cold rolled steel housing
- Highly reflective die-formed white painted reflector
- Fabricated, captive lens with 3 lens positions
- Sound Absorption available in specific configurations
- LiFT offered with a 5-year limited warranty. Covers LED, driver and fixture

MOUNTING

VOLTAGE

- 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**

SHIELDING

Apparent Noise Reduction Coefficient (NRC) is up to 1.7

CRI, CCT &

OUTPUT



FIXTURE

OPTIONS









CONTROLS





# LF22D

CIRCUITING

DRIVER

SHIELDING <sup>1</sup> SOURCE <sup>2</sup>		MOUNTING	VOLTAGE	
A - Satine Lens AR - Regress Satine Lens AL - Drop Satine Lens ASF Acoustic Solution Flush (use A_ 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	<b>G -</b> Grid Ceiling <b>FL -</b> Flanged <b>SF -</b> Spackle Flange <i>Mounting pg. 4</i>	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) PS1 - Advance Xitanium (50%/100%) EE1 - eldoLED ECOdrive (1%, 0-10v) ES1 - eldoLED SOLOdrive (0%, 0-10v) LH1 - Lutron Hi-lume (1%, EcoSystem) OL2 - Osram Optotronic (1%, 0-10v) OL4 - Osram Optotronic 347v (1%, 0-10v) NA - Not Applicable (for specifying SA fixtures) Driver pg. 5	1 - Single Circuit     E - Emergency (entire fixture)     N - Night Light (entire fixture)     NA - Not Applicable (for specifying SA fixtures)     Circuiting pg. 5	0 - None 1P - Bodine 10W Integral 1I - Iota 10W 1IC - Iota 10W, Integral (CEC Listed) 1G - Bodine GTD FSG - Factory Select ALCR GI - Iota ETS DR GB - Bodine GTD NA - Not Applicable (for specifying SA fixtures) Battery and Emergency pg. 5	W - White S - Metallic Silver BL - Textured Black BR - Bronze GR - Graphite CC - Custom Color Finish pg. 6	

Battery and Emergency pg. 5

FIXTURE OPTIONS	CONTROLS <sup>3</sup>
CP - Chicago Plenum AM - Antimicrobial Paint FW6 - 6' Flex Whip GMF - Slow Blow Fusing DSP - Customer Supplied Battery/Driver/ Sensor NA - Not Applicable (for specifying SA fixtures) Fixture Options pg. 6	DLMFC - Wattstopper DLM (wired) ENLI - Enlighted IOT (remote) ENLC - Enlighted Connected Lighting (remote) NA - Not Applicable (for specifying SA fixtures) Controls pg. 6

When specifying a fixture with only Sound Absorption (no lit components), use NA for the following sections of the part number: SOURCE, VOLTAGE, DRIVER, CIRCUITING, BATTERY & EMERGENCY, or CONTROLS. When specifying SOURCE the first \_ is for specifying either 8 - 80CRI, The ending \_ are for specifying output, example HO - High Output. See output charts for more information. <sup>3</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.







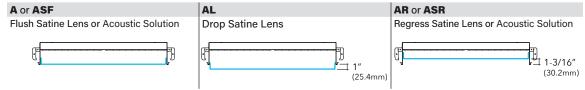
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# **Shielding**

Fabricated, captive lens with 3 lens positions

· Highly reflective white reflectors maintain uniform lens brightness

#### Ordering Code



#### **Acoustic Solutions**

- 12mm PET Polyester Fiber acoustic panel
- Recyclable and contains up-to 90% post-consumer content
- Colors below are for representation purposes, color may vary from photograph, contact factory for sample
- Specify the color of the Acoustic panel with the numeric code below in the Acoustic Finish portion of the part number. For example, specify A08 for Nickel



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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)	Specify lumens between standard offering listed below. Lumens are specified per color temp
CW	Specify CRL CCT and desired wattage (i.e. CW94020)	Specify watts between standard offering listed below

### 80 CRI

	Color	Lumens	Shielding	
			A, AL, AR	
			Satine Lens	
			Watts	LPW
830LO	3000K	2414	20.0	121
830MO	3000K	3886	31.9	122
830HO	3000K	5317	45.3	117
835LO	3500K	2500	20.0	125
835MO	3500K	4074	31.9	128
835HO	3500K	5648	45.3	125
840LO	4000K	2619	20.1	130
840MO	4000K	4224	32.1	132
840HO	4000K	5816	45.7	127

### 90 CRI

927LO	2700K	1960	20.1	98
927MO	2700K	3160	32.0	99
927HO	2700K	4338	45.5	95
930LO	3000K	2090	20.1	104
930MO	3000K	3374	32.0	105
930HO	3000K	4640	45.5	102
935LO	3500K	2090	20.1	104
935MO	3500K	3374	32.0	105
935HO	3500K	4640	45.5	102
940LO	4000K	2201	20.0	110
940MO	4000K	3544	32.0	111
940HO	4000K	4860	45.6	107

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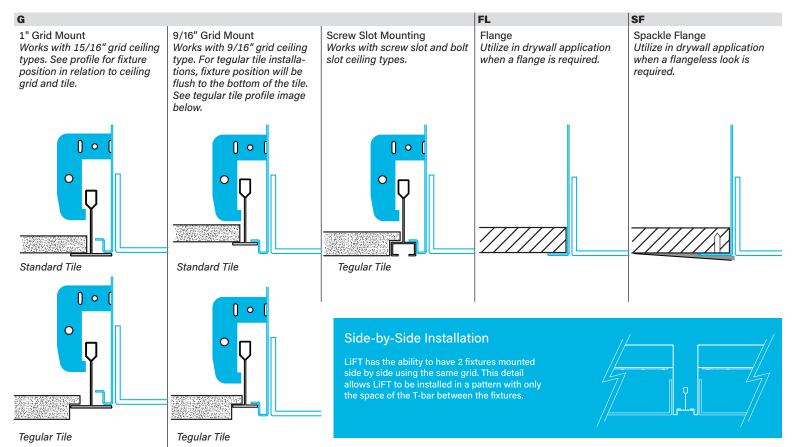


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### Mounting

- 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 25 lbs
- Refer to installation instructions during installation at the job site
- Approved for dry/damp location unless otherwise noted



#### Voltage

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

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

LF22D\_RECESSED\_SPEC\_JUNE2022 pg. 4





#### 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

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

0-10V Drivers			
FSD	Factory Select Driver 1%, 0-10v		
PL2	Advance Xitanium 1%, 0-10v		
PL4	Advance Xitanium 347v 1%, 0-10v, requires 347v		
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)		
OD1	Osram Optotronic 1%, DEXAL		
OD2	Osram Optotronic 1%, DALI 2 Channel		
<b>Lutron Driver</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		
Alternate Drivers			
PS1	Signify Advance Xitanium Step Dimming 50%/100%		
OD1	Osram Optotronic 1%, DEXAL		

### Circuiting

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

1	Single Circuit
E	Emergency Circuit only (uses nIO EZ PH ER with NLIGHT)
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 integral to fixture

0	No Battery
1IC	lota 10w Integral
1ILL	lota 10w Integral Lithium, Self Testing
1IRH	lota 20w Remote
1P	Bodine 10w Integral
1PLL	Bodine 10w Integral Lithium, Self Testing
1PRH	Bodine 20w Remote
FSG	Factory Select Automatic Load Control Relay (ALCR)
GI	Emergency Transfer Switch (ETS) DR Emergency Control Device
GB	Bodine GTD, Generator Transfer Device

 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: 1-1P

pg. 5

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

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pg. 6

#### **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

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

## **Fixture Options**

Additional options to enhance the fixture and finish of the product

CP	Chicago Plenum
AM	Antimicrobial Paint
FW6	Flex Whip 6'
GMF	Internal Slow Blow Fuse
DSP	Customer Supplied Battery/Driver/Sensor
NA	Not Applicable (for Sound Absorption)

#### **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	ng)		*	•	

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# $\frac{1}{4}$

#### **Photometrics**

#### Satine Lens

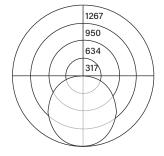
 Test #:
 ITL92358

 Part #:
 LF22D-A-840-W

 Total Lumens:
 3652 Lumens

 Total Watts:
 27.6 watts

 Efficacy:
 132 LPW



#### Candela Distribution

Vert Angle	Horizontal Angle					
	0	22.5	45	67.5	90	
0	1265	1265	1265	1265	1265	
5	1262	1264	1265	1263	1263	
10	1242	1246	1249	1250	1247	
15	1213	1217	1219	1218	1215	
20	1172	1177	1177	1177	1175	
25	1122	1126	1127	1126	1125	
30	1063	1066	1066	1067	1067	
35	995	997	997	997	998	
40	919	920	921	922	924	
45	836	836	838	838	839	
50	747	749	748	750	751	
55	656	655	654	656	656	
60	557	556	558	559	560	
65	457	458	458	459	459	
70	358	357	357	359	360	
75	259	260	260	260	261	
80	165	166	166	167	166	
85	78	78	76	76	76	
90	0	0	0	0	0	

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

Angle In	Average	Average	Average
Degrees	0-Deg	45-Deg	90-Deg
45	3499	3507	3511
55	3385	3374	3385
65	3200	3207	3214
75	2961	2973	2984
85	2649	2581	2581

For all available IFS files, please visit our website at pinnacle-Ita.com. Photometry testing in accordance to IESNA-I M-79-08 at an NVI AP 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 fabricated diffuse acrylic lens creating a fully luminous fixture.

**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 Acoustical Labritories. For specific reports, contact Pinnacle directly.

**Mounting:** 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. 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 = 145,500 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

Color & Lumen Output: Three lumen packages available. Low (LO), Middle (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) and 347 volt (3) options available. Must specify OL4 in Driver section when 347 volt (3) is selected. Some LiFT configurations will not accommodate all voltage options; consult with factory.

**Driver:** Standard Driver Option is Adcance 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 LiFT configurations will not accommodate all driver options.

**Circuiting:** Select from single circuit (1), Emergency circuit (E) or Night Light circuit (N). 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.

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

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

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