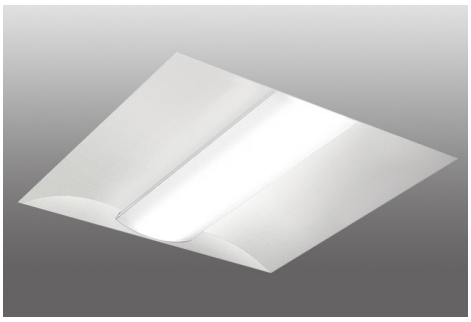
PINNACLE ARCHITECTURAL LIGHTING®

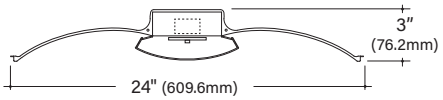
Project Name _____

Date _____ Type _____



ADEO AD22

2x2 Architectural Recessed



Key Features

- Formed 22 gauge cold rolled steel housing, 20 gauge available upon request
- Highly reflective die-formed white painted reflector
- Wiring access available on top of housing
- LED offered with a 5-year limited warranty. Covers LED, driver and fixture
- UL and cUL Listed, LO, MO, and HO lumen packages are IC Rated
- Approved for dry/damp location unless otherwise noted
- Maximum fixture weight is 15 lbs - Surface Mount Box adds 10 lbs
- Room-Side Maintenance for LED system
- Buy American Act compliant
- Indigo-Clean available, see Indigo-Clean specification sheets for details

Example Part #: AD22-A-830HO-G1-U-OL2-1-0-W

AD22 - [SHIELDING] - [CRI, CCT & OUTPUT] - [MOUNTING] - [VOLTAGE] - [DRIVER] - [CIRCUITING] - [BATTERY & EMERGENCY] - [FINISH] - [FIXTURE OPTIONS] - [CONTROLS]

__	______	______	_
SHIELDING	**SOURCE** QS[1]	**MOUNTING**	**VOLTAGE**
A - Satine Lens QS **R** - Round Perf **L** - Linear Perf *Shielding pg. 2*	**_27__** - 2700K **_30__** - 3000K **_35__** - 3500K **_40__** - 4000K **CL_____** - Custom Lumens **CW_____** - Custom Watts **MOD** - Mod options available *Lumen Output pg. 2*	**G1 -** 15/16" Grid QS **G9 -** 9/16" Grid QS **GS -** Screw Slot Grid QS **FL -** Flanged **S -** Surface Mount *Mounting pg. 3*	**U -** Universal *(120 thru 277V)* QS **1 -** 120V QS **2 -** 277V QS **3 -** 347V *Voltage pg. 3*

___	_	___	__
DRIVER	**CIRCUITING**	**BATTERY & EMERGENCY**	**FINISH**
PL2 - Advance Xitanium *(1%, 0-10v)* QS **OL4 -** Osram 347v *(1%, 0-10v)* **EE1 -** eldoLED ECOdrive *(1%, 0-10v)* **ES1 -** eldoLED SOLOdrive *(0%, 0-10v)* **LH1 -** Lutron Hi-lume *(1%, EcoSystem)* **PS1 -** Advance Xitanium *(50%/100%)* **OL2 -** Osram *(1%, 0-10v)* QS **FSD -** Factory Select Driver *(1%, 0-10v)* QS **MOD** - Mod options available *Driver pg. 4*	**1 -** Single Circuit QS **E -** Emergency *(entire fixture)* QS **N -** Night Light *(entire fixture)* QS *Circuiting pg. 4*	**0 -** None QS **1P -** Bodine 10W QS **1IC -** Iota 10W, CEC Listed QS **FSG** - Factory Select ALCR **GI -** Iota ETS DR **GB -** Bodine GTD *Battery and Emergency pg. 4*	**W -** White QS **MOD** - Mod options available *Finish pg. 5*

____	___
FIXTURE OPTIONS[2]	**CONTROLS**
QS - QuickShip QS **TW -** Through-wiring **CP -** Chicago Plenum QS **AM -** Antimicrobial Paint **AR -** Air Return **FW6 -** 6' Flex Whip QS **GLR -** Fast Blow Fusing QS **DSP -** Customer Supplied Battery/Driver/ Sensor **GMF -** Slow Blow Fusing **MOD** - Mod options available *Fixture Options pg. 5*	**MOD** - Mod options available *Controls pg. 6*

When specifying SOURCE the first _ is for specifying either 8 - 80CRI, 9 - 90CRI or B - BIOS. The ending __ are for specifying output, example HO - High Output. When specifying BIOS use B and then specify color temperature, either 3500K or 4000K, and output, example B35HO - BIOS 3500K High Output. If specifying QS output is 80 CRI, all color temperatures, all lumen packages. Does not include BIOS or Tunable White. See output charts for more information. BIOS dynamic available, please contact factory for 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

- Captive and hinged center lens
- Co-extruded acrylic lens with ribbed side channels evenly illuminates the side reflector giving the appearance of a fully lensed luminaire
- Highly reflective die-formed white painted reflector
- Wiring access available on top of housing

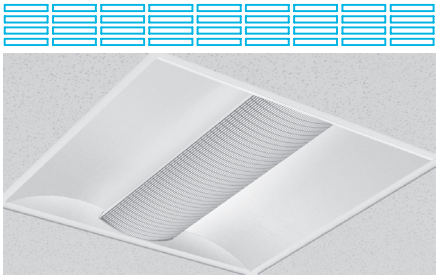
Ordering Code

A

Satine Lens

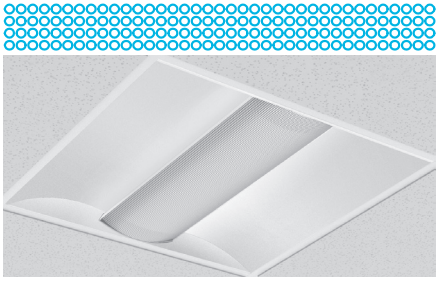
L

Linear Slot



R

Round Perf



Output

- 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
- Not all products qualify for DLC listing. For a complete listing of the ADEO products that qualify for DLC, please go to the DLC website.

Custom Output- Lumens OR Wattage

CL_ _ _ _ _	Specify CRI, CCT and desired lumens (i.e. CL8351200)	*Specify lumens between standard offering listed below. Lumens are specified per color temp*
CW_ _ _ _ _	Specify CRI, CCT and desired wattage (i.e. CW94015)	*Specify watts between standard offering listed below*

80 CRI

	Color	Output	Watts	Shielding					
				A Satine Lens		**L** Linear Slot		**R** Round Perf	
				Lumens	*LPW*	*Lumens*	*LPW*	*Lumens*	*LPW*
830LO	3000K	Low	19.6	2131	108.7	1266	64.6	1082	55.2
830MO	3000K	Middle	30.9	3332	107.8	1979	64.0	1692	54.8
830HO	3000K	High	41.7	4311	103.4	2561	61.4	2190	52.5
835LO	3500K	Low	19.6	2190	111.7	1301	66.4	1113	56.8
835MO	3500K	Middle	30.9	3424	110.8	2034	65.8	1739	56.3
835HO	3500K	High	41.7	4431	106.3	2632	63.1	2251	54.0
840LO	4000K	Low	19.6	2328	118.8	1383	70.6	1183	60.3
840MO	4000K	Middle	30.9	3635	117.6	2160	69.9	1845	59.7
840HO	4000K	High	41.7	4713	113.0	2800	67.1	2394	57.4

90 CRI

927LO	2700K	Low	19.6	1867	95.3	1109	56.6	948	48.4
927MO	2700K	Middle	30.9	2915	94.3	1732	56.0	1481	47.9
927HO	2700K	High	41.7	3780	90.6	2245	53.8	1920	46.0
930LO	3000K	Low	19.6	1963	100.2	1166	59.5	997	50.9
930MO	3000K	Middle	30.9	3069	99.3	1823	59.0	1559	50.5
930HO	3000K	High	41.7	3971	95.2	2359	56.6	2017	48.4
935LO	3500K	Low	19.6	1969	100.5	1170	59.7	1000	51.0
935MO	3500K	Middle	30.9	3079	99.6	1829	59.2	1564	50.6
935HO	3500K	High	41.7	3984	95.5	2366	56.8	2024	48.5
940LO	4000K	Low	19.6	2077	106.0	1234	62.9	1055	53.8
940MO	4000K	Middle	30.9	3243	105.0	1926	62.3	1647	53.3
940HO	4000K	High	41.7	4204	100.8	2497	59.9	2136	51.2

Direct Source: MOD Options

- Specify **MOD** in the part number for any of the below options
- All RGB_ Source Options will require specific driver and control
- Consult factory for **MOD** specification details, pricing, and lead-time information

		Required Driver	Required Control
MOD	Color Changing RGB LED	EC1/EC4	DMX
	Color Changing RGB-W LED	EC1/EC4	DMX
	2 Channel Tunable White		
	Dynamic BIOS		

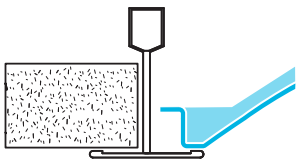
Mounting

- 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 15 lbs - Surface Mount Box adds 10 lbs
- Refer to installation instructions during installation at the job site
- Approved for dry/damp location unless otherwise noted

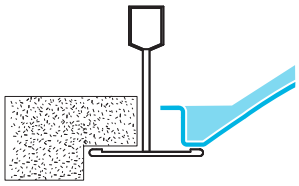
G1

1" Grid Mount

Works with 15/16" grid ceiling types. See profile for fixture position in relation to ceiling grid and tile.



Standard Tile

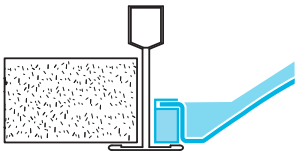


Tegular Tile

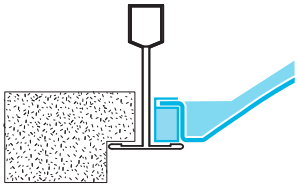
G9

9/16" Grid Mount

Works with 9/16" grid ceiling type. For tegular tile installations, fixture position will not be flush to the bottom of the tile. See tegular tile profile image below.



Standard Tile

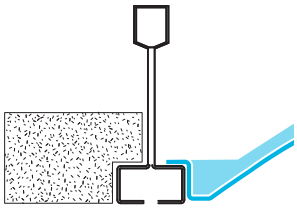


Tegular Tile

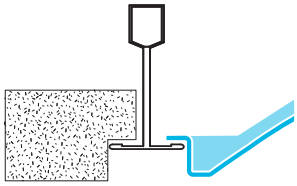
GS

Screw Slot Mounting

Works with screw slot, bolt slot and 9/16" grid ceiling types. For 9/16" installations with tegular tile, fixture position will be flush to the bottom of the tile. See bottom profile image of 9/16" with tegular tile. Consult factory for detailed installation instructions.



Tegular Tile

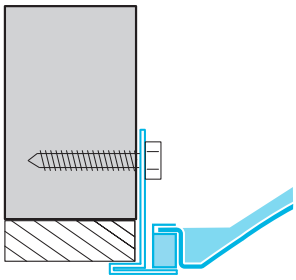


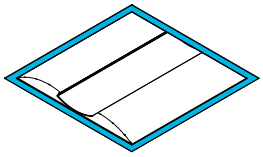
Tegular Tile

FL

Flange Kit

A separate flange kit is supplied for installations into inaccessible or drywall applications. Flange kit ships from factory uninstalled separately from fixture. Consult factory for detailed installation instructions.

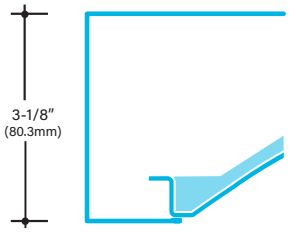


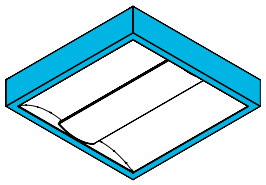


S

Surface Mount

Utilize for hard lid ceiling applications. The 20 gauge steel frame easily secures to ceiling.





Voltage

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

U	Universal
1	120 volt
2	277 volt
3	347 volt

Driver

- Standard Driver Option = PL2
- Driver Lifetime: 50,000 hours at 25°C ambient operating conditions
- For more Driver options, see Pinnacle Resource Guide
- Some ADEO 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)
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
OL5	Osram Optotronic 1%, 0-10v, AUX
DALI Drivers	
OD1	Osram Optotronic 1%, DEXAL
EE3	eldoLED SOLOdrive .1%, DALI (logarithmic)
EE4	eldoLED SOLOdrive .1%, DALI (linear)
OD2	Osram Optotronic 1%, DALI 2 Channel
Lutron Drivers	
LH1	Lutron Hi-lume Soft-on, Fade-to-black 1%, EcoSystem, LDE1
Alternate Drivers	
PS1	Signify Advance Xitanium Step Dimming 50%/100%
PR1	Philips Advance Xitanium SR, requires EASYS, VDO or VRF
EH1	ELV 120v only, 0-10v universal
OD1	Osram Optotronic 1%, DEXAL

Drivers: MOD Options

- Specify **MOD** in the part number for any of the below options
- Consult factory for **MOD** specification details, pricing, and lead-time information

MOD	Power Over Ethernet

Circuiting

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

1	Single Circuit
E	Emergency Circuit only
N	Night Light 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

0	No Battery
1IC	Iota 10w Integral
1ILL	Iota 10w Integral Lithium, Self Testing
1IRH	Iota 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 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

W	White

Finish: MOD Options

- Specify **MOD** in the part number for any of the below options
- Consult factory for **MOD** specification details, pricing, and lead-time information

MOD	Wood Grain
	Metallic Silver
	Textured Black
	Bronze
	Graphite
	Custom Color
	Natural

Fixture Options

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

QS	Quick Ship
TW	Through-Wiring
CP	Chicago Plenum
AM	Antimicrobial Paint
AR	Air Return
FW6	Flex Whip 6'
GLR	Internal Fast Blow Fuse
DSP	Customer Supplied Battery/Driver/Sensor
GMF	Internal Slow Blow Fuse

Fixture Options: MOD Options

- Specify **MOD** in the part number for any of the below options
- Consult factory for **MOD** specification details, pricing, and lead-time information

MOD	Remote Driver
	End Power Feed

Quick Ship

CRI, CCT & Output	Mounting	Voltage	Driver	Circuiting	Battery	Finish	Options
10-Day							
A 80 CRI, All color temperatures, all lumen packages *See pg 4&5*	**G1** 1" Grid **G9** 9/16" Grid **GS** Screw Slot	**U** Universal **1** 120V **2** 277V	**PL2** Advance Xitanium 0-10v, 1% **OL2** Osram 0-10v, 1% **FSD** Factory Select Driver *(1%, 0-10v)*	**1** Single **E** Emergency **N** Night Light	**1P** Bodine 10w Integral **1IC** Iota 10w Integral	**W** White	**CP** Chicago Plenum **FW6** Flex Whip 6' 18-gauge **GLR** Internal Fast-Blow Fuse

Consult Factory for projects that are larger than 200 units.

Controls

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

Controls: MOD Options

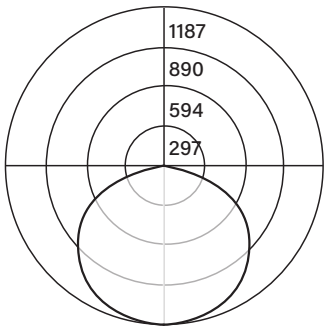
- Specify **MOD** in the part number for any of the below options
- **Control** Options may require specific driver. Refer to the chart below
- Consult factory for **MOD** specification details, pricing, and lead-time information

		Rwquired Driver
MOD	Enlighted (Wireless) - ENLI	Any 0-10v
	Enlighted (Wireless) - ENLC	Any 0-10v
	Encelium Sensilum	OD1, OL5

Photometrics

Satine Lens

Test #	ITL88941
Catalog #	AD22A-840MO
Lumens	3635 lm
Watts	30.9 W
Efficacy	118 LPW



Candela Distribution

Vert Angle	Horizontal Angle				
	0	22.5	45	67.5	90
0	1187	1187	1187	1187	1187
5	1183	1184	1184	1184	1185
10	1170	1170	1169	1170	1171
15	1146	1144	1145	1149	1150
20	1109	1108	1111	1117	1118
25	1061	1062	1068	1076	1079
30	1006	1007	1016	1027	1031
35	941	945	956	971	975
40	868	874	890	908	914
45	791	798	817	837	844
50	706	716	740	762	770
55	618	630	656	681	689
60	525	540	567	597	606
65	429	447	479	509	522
70	332	351	385	422	434
75	234	257	296	334	351
80	144	165	206	237	245
85	65	80	101	118	125
90	0	0	0	0	0

Luminance Data (cd/sq.m)

Angle In Degrees	Average 0-Deg	Average 45-Deg	Average 90-Deg
45	3266	3373	3485
55	3146	3339	3507
65	2964	3309	3606
75	2639	3339	3959
85	2177	3383	4187

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

Applications & Certificates

Construction: Formed 22 gauge cold rolled steel housing. Highly reflective die-formed white painted reflector. Wiring access available on top of housing. Captive and hinged center lens swings open for room-side maintenance of lens, driver and LED boards.

Shielding: Co-extruded acrylic lens with ribbed side channels evenly illuminates the side reflector giving the appearance of a fully luminous aperture. Available with standard satine lens or optional clear lens with linear slot or round perf insert.

Mounting: Designed to install into acoustical grid and inaccessible ceilings. Specify G1, G9 or GS for acoustical grid ceiling. Specify FL 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 15 lbs - Surface Mount box adds 10 lbs

LED: 25ºC 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 = 107,300 hours and L90 = 32,000 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.

CRI, CCT & Output: 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 Color Temperature & 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 OL3 in Driver section when 347 volt (3) is selected. Some ADEO configurations will not accommodate all voltage options; consult with factory.

Driver: Standard Driver Option is Advance Xitanium 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. Ambient operating range: -20°F/-30°C to 91°F/33°C. For more driver options, see Pinnacle Resource Guide. Some ADEO configurations will not accommodate all driver options.

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

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

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

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

Fixture Weight: 15 lbs maximum - Surface Mount box adds 10 lbs

Buy American Act Compliant

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