# EchoCore

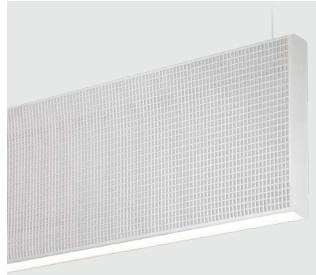
Precision acoustic technology

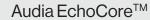


# Meet EchoCore™

Lumenwerx EchoCore<sup>TM</sup> technology empowers luminaires to absorb significantly more sound than traditional felt-fitted acoustic fixtures are capable of absorbing.

Acoustic fixtures equipped with EchoCore<sup>™</sup> (Audia, Pop, and Aera) deliver exceptional illumination with a variety of circadian, tunable white, and RGB+W solutions, and help to define spaces with a choice of standard, premium, and custom options, as well as with a selection of patterns, shapes, and mounting possibilities.







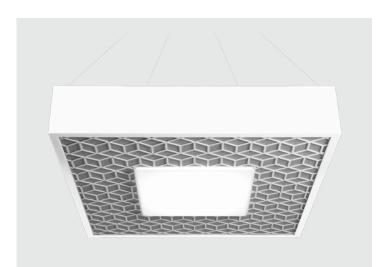
#### Pop Round EchoCore™

- Available in Audia, Pop, and Aera
- Pendant, Surface, and Recessed
- Linear, Round, and Square
- 5 patterns + custom
- Up to 4 ft in diameter and 12 ft in length

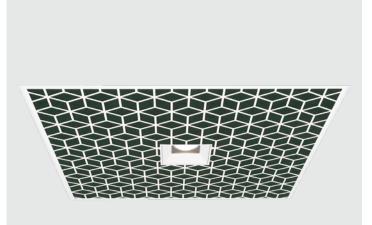
Aera Round EchoCore™



#### Audia Half Tone EchoCore™



#### Pop Square EchoCore™



#### Aera Square EchoCore™



Featured **Pop EchoCore™** in 48 inch with lit and unlit luminaires in round pattern.



# EchoCore<sup>™</sup> Technology

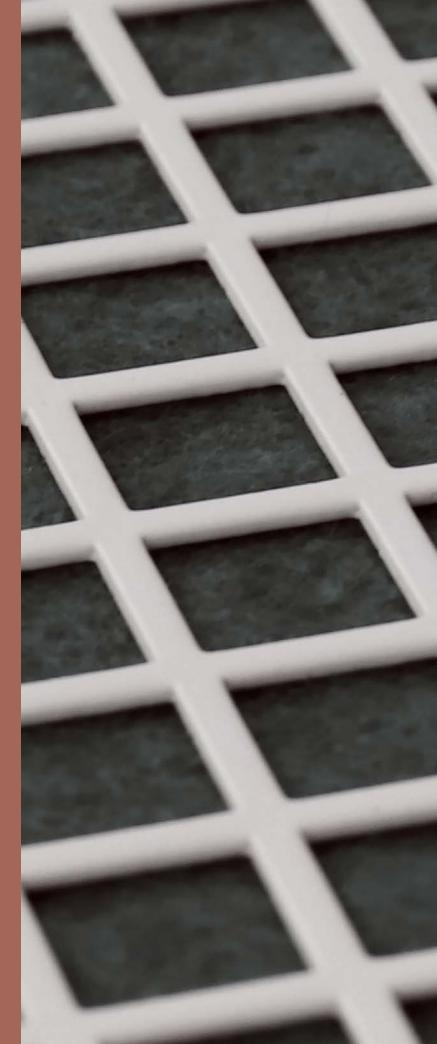
EchoCore<sup>™</sup>-enabled luminaires are 30% more effective than traditional felt-fitted acoustic fixtures are at reducing sound. To determine how much acoustic improvement a room might require, consult our easy-to-use Acoustic Calculator tool on our website at lumenwerx.com. Our patent-pending EchoCore<sup>™</sup> technology applies the science of Helmholtz resonance principles to the practice of acoustic lighting, taking the form of a die-cut aluminum lattice and multiple layers of a fibrous, soundabsorbing core material. When sound waves meet lighting fixtures equipped with the technology, they pass through its aluminum lattice and then are trapped by its core of layered sound-absorbing material, resulting in the reduction of echo and reverberation in the luminaire's immediate environment.



Sound Absorption Results – Lumenwerx Audia rows of 7 units spaced 28" o.c, bottom edge of unit 39.125" from the floor.

As demonstrated by the graph above Audia performs well at many frequencies. On average it out performs traditional acoustic felt luminaires by thirty percent.

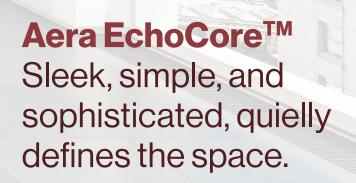
Human hearing frequencies range: 20Hz-2000Hz



30% improvement in sound reduction over traditional acoustic luminaires

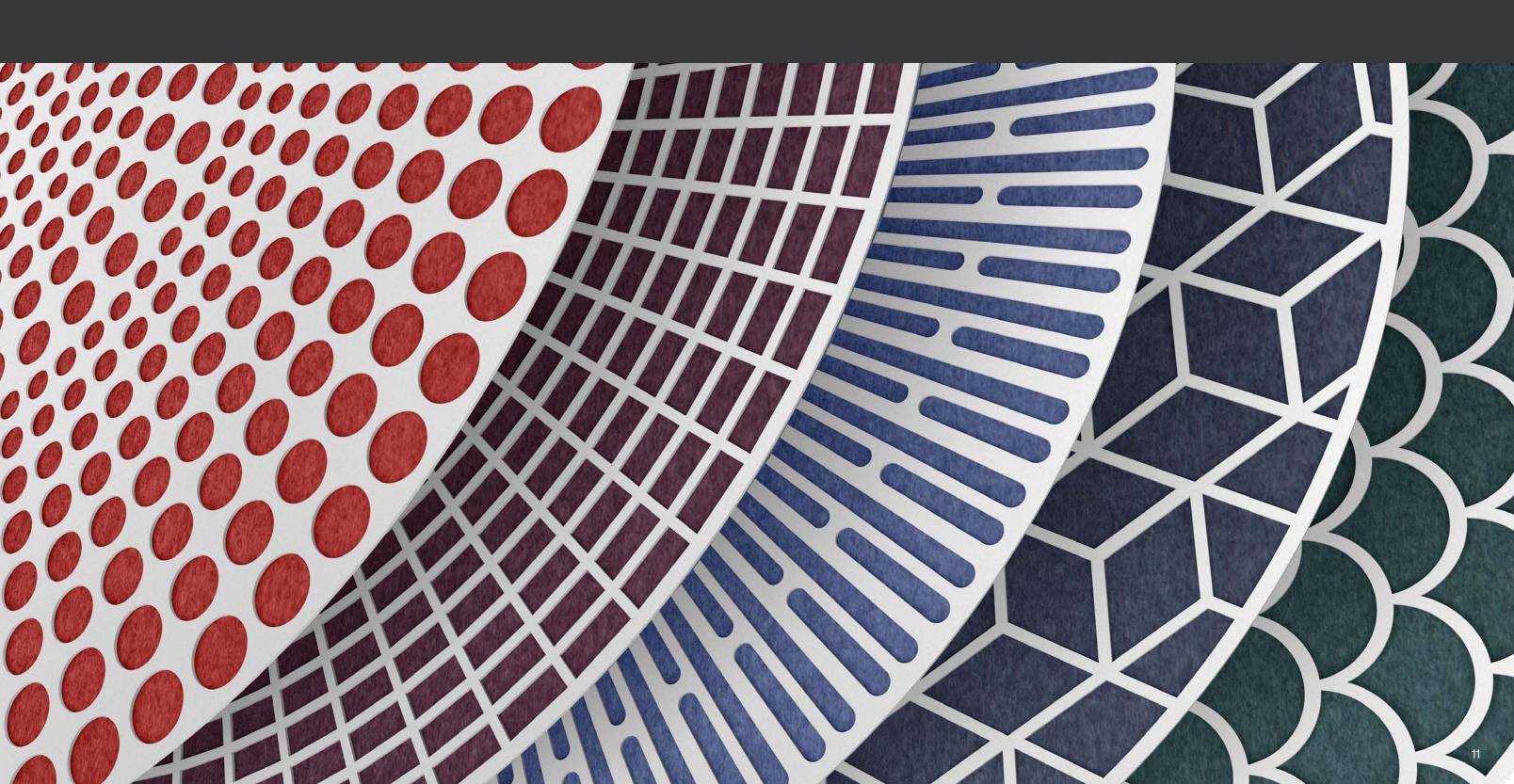


Aera Square EchoCore<sup>™</sup> recessed with Square pattern.



# Pattern Your Design

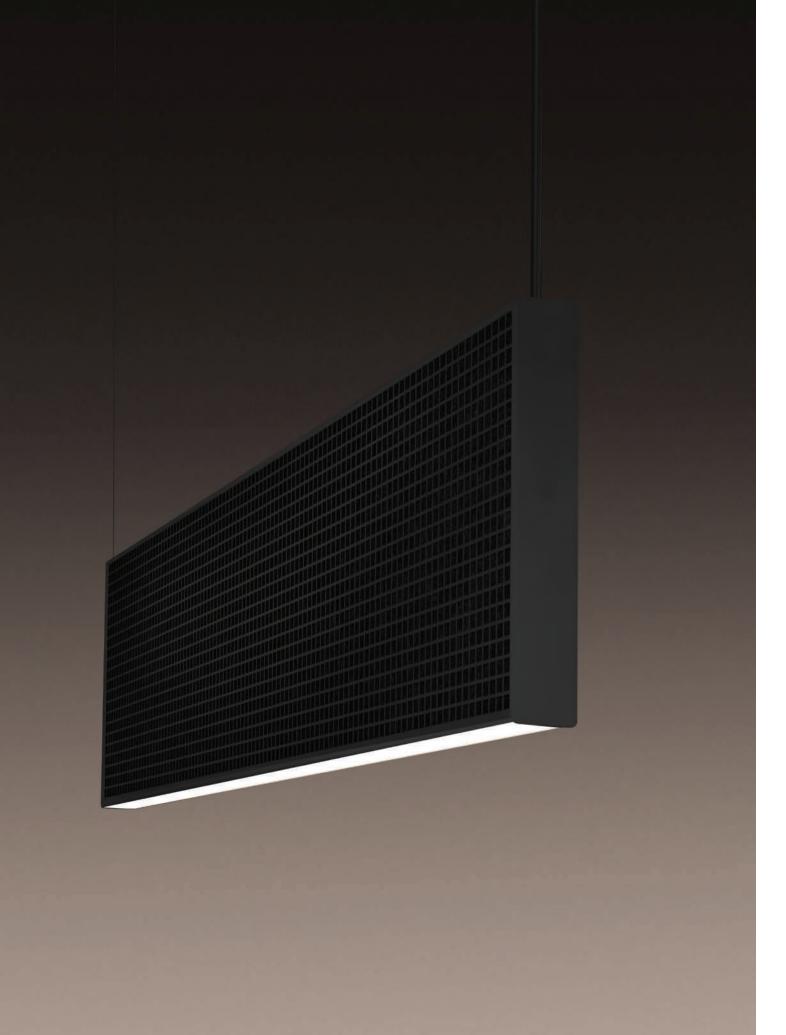
Enhance a theme, add dimension, create a focal point, or make the lighting fixture the focal point. With five patterns (round, square, linear, cubic, and scallop) and the option to customize, there are plenty of possibilities to provide the best acoustic lighting solutions for your interior spaces.





Featured **Pop EchoCore**<sup>™</sup> recessed round with 1 inch drop lens.

### Pop EchoCore<sup>™</sup> The lattice pattern of the luminaire inspires the interior design.



# Audia EchoCore™



reddot winner 2020

#### **Breaking sound**

Audia, our award-winning flagship acoustic lighting offering, is the first of our luminaire families to adopt EchoCore<sup>™</sup> technology. The linear pendant fixture is available in individual sections of 4', 8', and 12' lengths, and can be mounted in continuous runs for lengths over 12'.

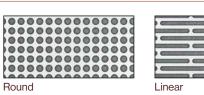
- One of the slimmest acoustic lighting profiles on the market (1.77 in)
- Stylish, easy-to-clean die-cut aluminum
- No compromise on illumination and performance

## Audia EchoCore<sup>™</sup> Versatility

Fixture pattern \_

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Cau	~ ~ ~				 	
Squ	are					

Round



#### Interior colors





#### Sizes (heights)

12 in 16 in \*Available in lit and unlit

#### Distribution

Direct/Indirect Direct Indirect

#### Color temperature



#### Color rendering option

80+ 90+ (R9>50) 95 CRI

#### Direct optic

HLO - High-Efficiency Lambertian Optic

#### Indirect optics

WIO2 - Widespread Indirect Optic



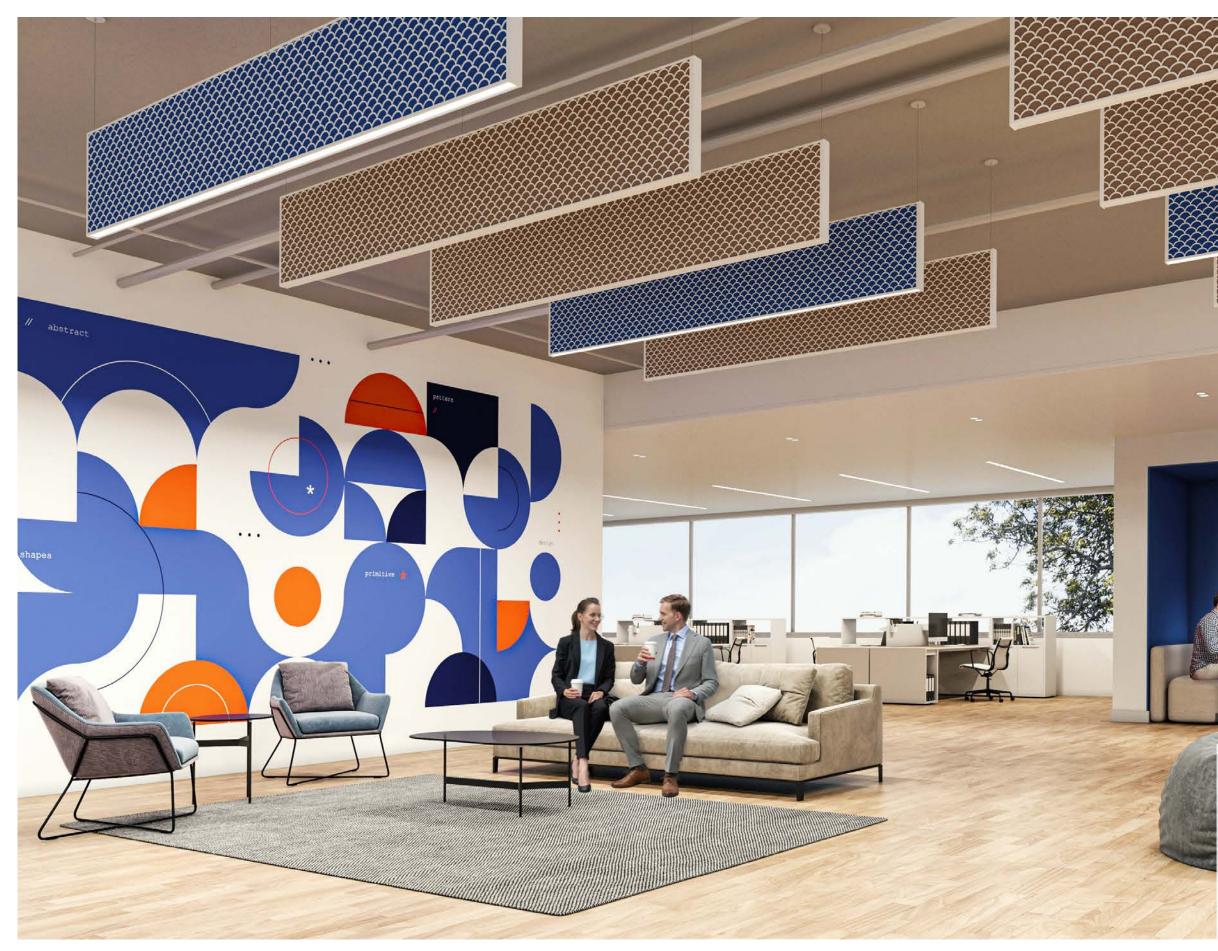






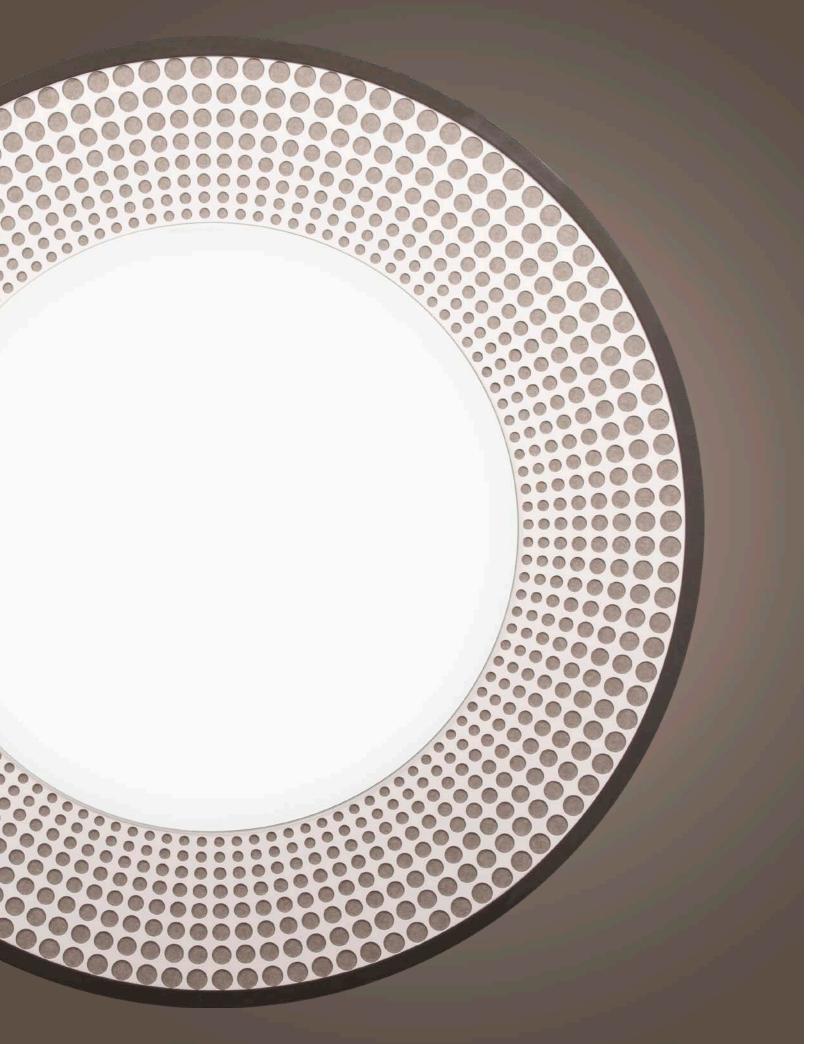
Scallop

17



Featuring a combination of **Audia EchoCore™** lit and unlit luminaires with scallop pattern Audia EchoCore™ Rhythm and repetition add a quiet balance

to the space.



# Pop EchoCore™

#### Pop goes the echo

As if our Pop luminaires were not fun enough, those equipped with EchoCore<sup>™</sup> technology not only offer lens brightness uniformity enabled by our Unity Pointed (UP) technology, but they also reduce echo and reverberation in their immediate environment.

- Round and Square
- Pendant, Surface, and Recessed
- Unity Pointed (UP) technology ensures uniform lens brightness
- Static White, Bios LED,
  Full Spectrum LED and
  Chromawerx (SOLA,
  DUO, and QUADRO)

# Pop EchoCore<sup>™</sup> Versatility



#### Shapes



Round Square

#### Sizes

Round:	Square:
24", 36" and 48"	2x2" and 3x3"
*Available in lit and unlit	

#### Distribution

Direct/Indirect Direct

#### **Color temperature**



#### **Color rendering option**

80+ 90+ (R9>50) 95 CRI

#### Mounting

Pendant Recessed Surface

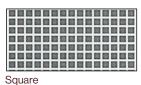
#### Lens position

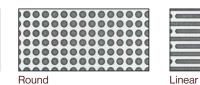
Flush 1/2" drop 1" drop

#### **Optic direct**

ULO - Uniform Lambertian Optic

#### Fixture pattern \_





#### **Standard Felt Color Options**



#### **Premium Felt Color Options**

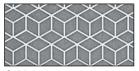


#### **EchoCore Color Options**





-





Cubic

Scallop





Lavender





Carbon



Evergreen



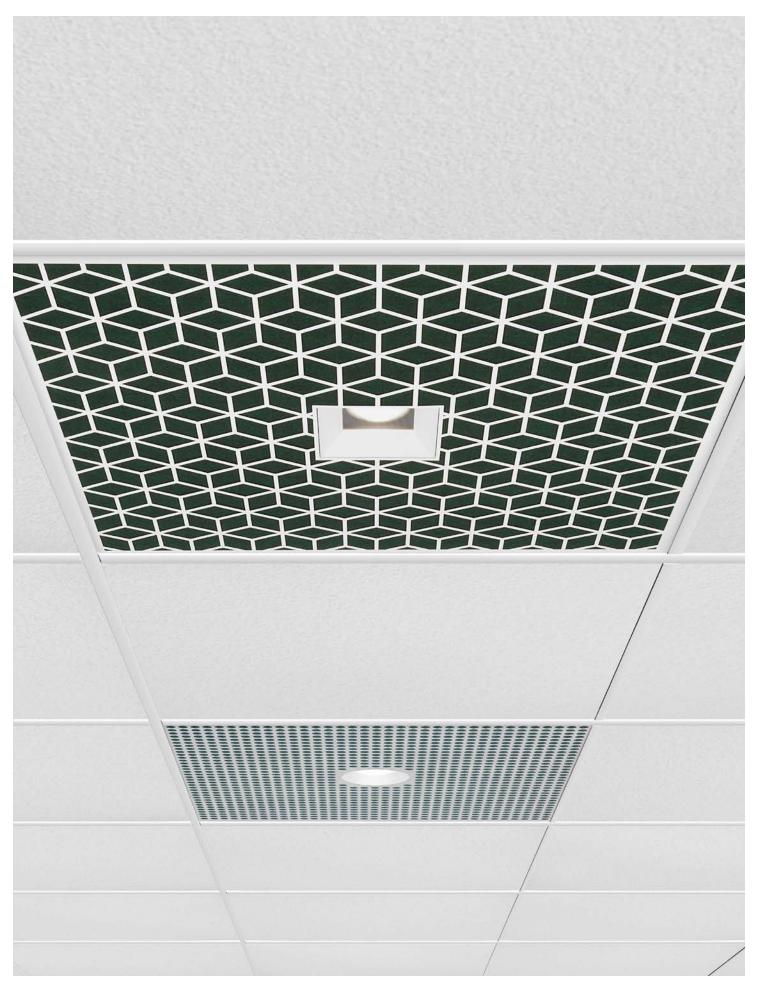


Café





Shown in the foreground is **Pop EchoCore™** pendant square with 1 inch drop square lens and **Audia EchoCore™** in the background both with cubic pattern.



# Aera 4" EchoCore™

#### A new era in sound dampening

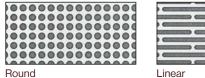
In addition to offering the same outstanding optical performance and maximal eye comfort provided by their non-acoustic Aera counterparts, Aera EchoCore<sup>TM</sup> fixtures reduce echo and reverberation in their immediate environment.

- 4" Round and Square aperture
- Recessed
- No spill light on bevel
- Industry-leading UGR
- 4 beam angles
- XPoint<sup>™</sup> Refraction Technology for precise beam angles
- SOLA, DUO, Full Spectrum LED

# Aera EchoCore<sup>™</sup> Versatility

#### **Fixture pattern**

Square



#### **Standard Felt Color Options**



#### **Premium Felt Color Options**



#### **EchoCore Color Options**

	ior optionio			
Standard			Neutral	
Matte White	Matte Black	Aluminum	Cream	Gray
Designer				
Almond	Quartzite Texture	Rust Fine Texture	Green Beige	Yellow
Pastel Violet	Red	Purple Red	Storm Blue	Deep Blu
Blue Green	Green Smoke	Mint Green	Lime Green	

### Shapes Round Square

#### **Aperture sizes**

Round: Square: 2 x 2 body available in lit and unlit

#### Color temperatures



#### **Bevel finishes**



Textured Matte Black Matte White



Custom RAL

#### Bevel



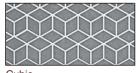
#### **Color rendering options**

80+90+95+

#### Beam angles









Cubic





Lavender



Carbon



Evergreen





Café

Ocean Blue



Sandalwood



Featuring **Aera 4**" round recessed **EchoCore™** and **Aera 4**" downlights and multi-aperture.

# EchoCore

Precision acoustic technology



lumenwerx.com