Acoustic Box Overview

Specifications

LIGHTING
Integrated LED light source offering high lumen output and efficacy. Color consistency of 3 SDCM. See additional information summarizing lumen distribution, wattage, and efficacy on following pages. Tunable white and RGB options available.

LUMEN MAINTENANCE
Reported TM-21 Lifetimes
L90(17k) = 52,600 hours
L80(17k) > 102,000 hours
L70(17k) > 102,000 hours

CONSTRUCTION
1/16" 3form Varia. White Opal top and bottom diffuser. Contact your local sales rep for material samples.

ELECTRICAL
Emergency battery output: 6 watts for 90 minutes. Maximum Mounting height: 10.5ft. Compatible with Signify Bodine sinusoidal output emergency lighting inverters. Signify Bodine inverters allow designated lighting fixtures to serve as code compliant emergency lighting sources during failure of normal AC power.
For additional information see link:
http://www.bodine.com/products/inverter.html

MOUNTING
Adjustable stainless steel aircraft cable, contact studio for lengths over 20'

DRIVERS
120–277V constant current, dimming driver standard. Can be wired dimming or non-dimming. 0–10v dimming input with a range of 1%–100%. Dim-to-Off standard. Driver can be accessed from the fixture. Power factor of > .95. Total Harmonic Distortion (THD) of < 20%.

CERTIFICATION
Luminaire is CSA listed conforming to UL Standard 1598 in the U.S. and CAN/CSA C22.2 No. 250.0 in Canada. In accordance with NEC Code 410.73 (G), this luminaire contains an internal driver disconnect. Damp Location Rated. All electronic components are RoHS compliant, and the mechanical components of the luminaire have been verified to meet RoHS Directive 2002/95/EC.

SHADES
4.5mm thick Sola Felt, a PET material manufactured with 50% post-consumer recycled content. Sola Felt is a LBC Red List Free labeled product, eligible for LEED, Living Building Challenge, and other green building certification credits.

CLEANING & CARE
The best way to remove airborne debris and dust from shades is to periodically vacuum. A Swiffer sheet or feathered duster can also be used for light dusting. To treat liquid stains, remove spills immediately with a clean damp cotton cloth or with detergent soap and warm water. Carpet and fabric cleaners can usually be used. Always test an inconspicuous area before applying cleaners to the actual stain

WARRANTY
5 year warranty on all standard components.

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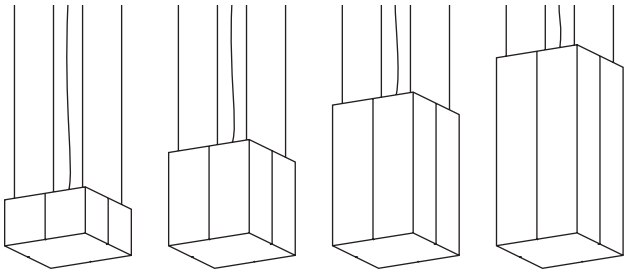
Acoustic Box Fixture Options

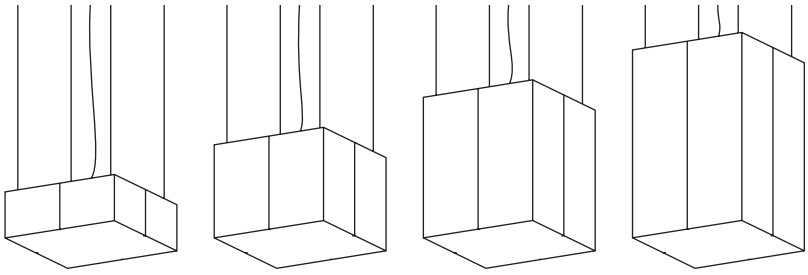
DIMENSIONS

24"SQUARE



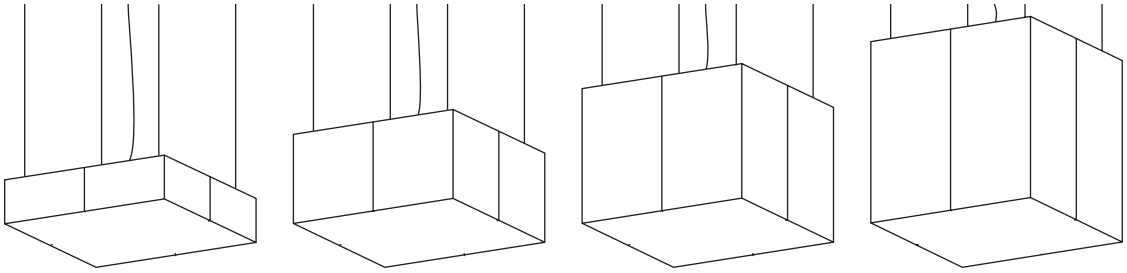
12"H × 24"SQ | 24"H × 24"SQ | 36"H × 24"SQ | 48"H × 24"SQ

32"SQUARE



12"H × 32"SQ | 24"H × 32"SQ | 36"H × 32"SQ | 48"H × 32"SQ

48"SQUARE

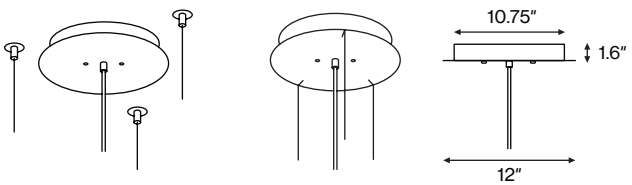


12"H × 48"SQ | 24"H × 48"SQ | 36"H × 48"SQ | 48"H × 48"SQ

CEILING CONNECTIONS

24"SQUARE | 32"SQUARE

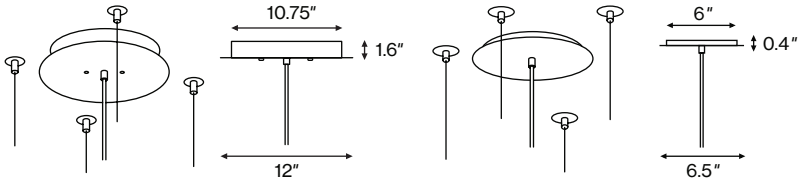
12" canopy standard for 24"Square and 32"Square



CABLES TO CEILING | CABLES TO CANOPY

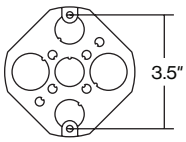
48"SQUARE

The 12" canopy is provided for configurations using standard LEDs from 1000-12000 lumens without an EM Battery, and for fixtures using Tunable White LEDs with a lumen range of 1-6000 lumens. All other configurations will use a driver box on board the fixture with a 6" Ultra Shallow Canopy.



CABLES TO CEILING | ULTRA SHALLOW CANOPY

4" OCTAGONAL JUNCTION BOX (BY OTHERS)



Required for powered units; optional for unlit units

CANOPY/DRESS PLATE FINISH OPTIONS

BLACK | WHITE

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Acoustic Box Fixture Options

FELT COLOR & PATTERN OPTIONS

COLOR OPTIONS

EBONY
CAST
MINERAL
STEEL
ARMOR
NICKEL
ZINC
NIGHTFALL
ADMIRAL
DUSK
STEELBLUE
PLATINUM
OCHRE
MUSTARD
LILAC
BURGUNDY
CINNAMON
SAFFRON
JASPER
ARIES
CITRINE
EMERALD
SILT
DRIFTWOOD
DUNE
VANILLA

PATTERN OPTIONS

WALNUT
IRON OAK
CARMEL OAK
RICH BAMBOO

Declare.

Sola Felt, Clario, Hush Clad, and Tetria Acoustic Solutions
3form

Final Assembly: Salt Lake City, Utah, USA
Life Expectancy: 20 Year(s)
End of Life Options: Salvageable/Reusable in its Entirety, Take Back Program (ReStarn, Salt Lake City, Utah)
EU CoC Screened: Does Not Contain

Ingredients:

poly(ethylene terephthalate); 3-(hydroxyphenylphosphinyl)propanoic acid; Titanium dioxide; Carbon black; Spinning finish

Living Building Challenge Criteria: Compliant

I-13 Red List:
■ LBC Red List Free — % Disclosed: 100% at 100ppm
□ LBC Red List Approved — VOC Content: Not Applicable
□ Declared

I-10 Interior Performance: CDPH Standard Method v1.1-2010
I-14 Responsible Sourcing: Not Applicable

TFH-0001
EXP: 01 OCT 2022
SCREENED: 21 SEP 2021
Original Issue Date: 2018

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Acoustic Box Lighting Details

PERFORMANCE – ACOUSTIC BOX 24"
Based on 3500K / 90CRI / Standard Distribution

NOMINAL LUMEN OUTPUT (LM)	INPUT POWER (W)	EFFICACY (LM/W)
1018	11.79	86.30
2016	24.11	83.60
2995	36.96	81.00
3979	50.38	79.00
4973	64.58	77.00
5971	79.45	75.20
6970	95.12	73.30
7958	111.77	71.20
8972	129.20	69.40

PERFORMANCE – ACOUSTIC BOX 32"
Based on 3500K / 90CRI / Standard Distribution

NOMINAL LUMEN OUTPUT (LM)	INPUT POWER (W)	EFFICACY (LM/W)
1038	11.88	87.40
2001	24	83.40
3021	36.43	82.90
4031	49.09	82.10
5022	62.03	81.00
6013	75.31	79.80
6986	88.88	78.60
8006	102.70	78.00
8958	116.91	76.60
9960	131.56	75.70
10940	146.54	74.70
11970	161.99	73.90

PERFORMANCE – ACOUSTIC BOX 48"
Based on 3500K / 90CRI / Standard Distribution

NOMINAL LUMEN OUTPUT (LM)	INPUT POWER (W)	EFFICACY (LM/W)
968	12.75	75.90
2060	25.56	80.60
3010	38.35	78.50
4084	51.52	79.30
5034	64.81	77.70
6108	78.30	78.00
7040	91.87	76.60
8096	105.69	76.60
9012	119.36	75.50
10050	133.48	75.30
10982	147.84	74.30
12004	162.32	74.00
13024	177.05	73.60
14028	191.64	73.20
14924	206.67	72.20
15928	221.88	71.80
16932	237.42	71.30
17916	253.13	70.80
18884	268.96	70.20
19976	284.90	70.10

LIGHT DISTRIBUTION
Based on measurement data

COLOR TEMPERATURE/CRI	MULTIPLIER
2700K / 80 2700K / 90	0.98 0.93
3000K / 80 3000K / 90	1.02 097
3500K / 80 3500K / 90	1.00 1.00
4000K / 80 4000K / 90	1.08 1.03

OUTPUT MULTIPLIERS INSTRUCTIONS

Adjusted Value = $L_1 \times C_m$ where:

L_1 = (Lumen output at 3500K / 90 CRI) ×
C_m = (Color Temp. / CRI Multiplier) ×

Example:
850LM / 3000K / 80CRI
(850) × (1.02)= 789LM

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Acoustic Box Acoustic Details

SABINS PER FIXTURE *Equivalent square feet of perfect absorption*

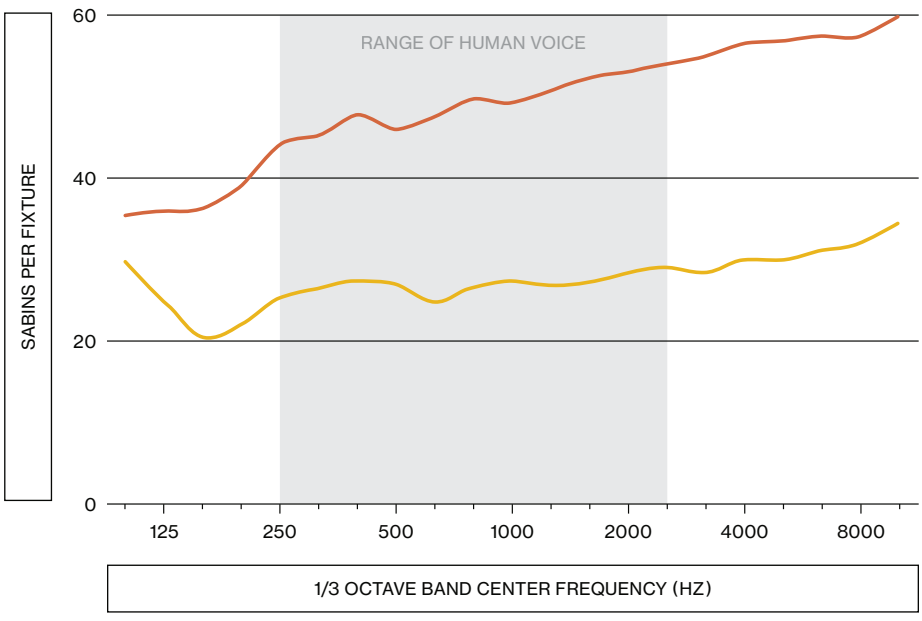
CENTER FREQUENCY (HZ)	48SQ 24H BOX	44SQ 48H BOX
100	29.47	35.38
125	24.69	35.78
160	20.34	36.15
200	22.00	38.94
250	25.15	43.99
315	26.36	45.07
400	27.24	47.58
500	26.77	45.83
630	24.72	47.38
800	26.47	49.52
1000	27.24	49.08
1250	26.73	50.62
1600	27.08	52.15
2000	28.17	52.88
2500	28.93	53.83
3150	28.31	54.76
4000	29.82	56.29
5000	29.71	56.69
AVERAGE OF 250, 500, 1000, 2000	26.41	48.07
EQUIVALENT SQ FT OF ACT (NRC 0.90)	29.30	53.40
EQUIVALENT SQ FT OF ACT (NRC 0.70)	37.70	68.70

Absorption

NRC per Fixture: 0.85–1.00
Average of values taken at 250, 500, 1000, and 2000 Hz

The NRC of felt depends on its configuration. LightArt fixtures utilize deep airspaces and multiple layers to keep NRC ratings high for all exposed felt surfaces.

The acoustic testing of Acoustic Box was conducted at NVLAP accredited laboratories and meets ISO 354 and ASTM C423. Formal test reports are available upon request.



48SQ 48H BOX

48SQ 24H BOX

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Acoustic Box Part Number Specification

SPECIFICATION CODE *Example: 2 QTY ACC-BOX-32SQ-24H-SLT-STD-927CK-6000LM-P01-RWPC-WH-CCN*

QTY. ACC-SHPE-BOX- [1] - [2] - [3] - [4] - [5] - [6] - [7] - [8] - [9] - [10]

Complete form to order Acoustic Drum fixture(s). For each number, make one selection and enter in the corresponding box above.
**Indicates modified choices; additional lead times, cost, and limited lumen outputs may apply.*

1 SIZE *Nominal*

☐ 24SQ	24" SQUARE
☐ 32SQ	32" SQUARE
☐ 48SQ	48" SQUARE

2 HEIGHT *Nominal*

☐ 12H	12" HEIGHT
☐ 24H	24" HEIGHT
☐ 36H	36" HEIGHT
☐ 48H	48" HEIGHT

3 FELT COLOR

COLOR OPTIONS

☐ EB	EBONY
☐ NF	NIGHTFALL
☐ CA	CAST
☐ SLT	SILT
☐ ML	MINERAL
☐ STL	STEEL
☐ AR	ARMOR
☐ NI	NICKEL
☐ ZN	ZINC

☐ EM	EMERALD
☐ BU	BURGUNDY
☐ CI	CINNAMON
☐ JP	JASPER
☐ SF	SAFFRON
☐ OCH	OCHRE
☐ MU	MUSTARD
☐ AS	ARIES
☐ CT	CITRINE

☐ LC	LILAC
☐ AD	ADMIRAL
☐ DK	DUSK
☐ STB	STEELBLUE
☐ PT	PLATINUM
☐ DW	DRIFTWOOD
☐ DN	DUNE
☐ VL	VANILLA

PATTERN OPTIONS

☐ DWA	WALNUT
☐ IOK	IRON OAK
☐ WA	CARMEL OAK
☐ BA	RICH BAMBOO

4 SUSPENSION

☐ STD	12" – 96"
☐ EXT*	24" – 240"

5 LED CRI/CCT

☐ 827CK	80 CRI / 2700K
☐ 830CK	80 CRI / 3000K
☐ 835CK	80 CRI / 3500K
☐ 840CK	80 CRI / 4000K
☐ 927CK	90 CRI / 2700K

☐ 930CK	90 CRI / 3000K
☐ 935CK	90 CRI / 3500K
☐ 940CK	90 CRI / 4000K
☐ TW	TUNABLE WHITE *Driver selection limited to P01 and DALI*

CONTINUE TO NEXT PAGE TO COMPLETE SPECIFICATION

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Acoustic Box Part Number Specification

CONTINUE SPECIFICATION

6 OUTPUT

☐ 1000LM	1000 LM
☐ 2000LM	2000 LM
☐ 3000LM	3000 LM
☐ 4000LM	4000 LM
☐ 5000LM	5000 LM
☐ 6000LM	6000 LM *24"-32" SQ Max Tunable White and EM Battery Option*
☐ 7000LM	7000 LM
☐ 8000LM	8000 LM
☐ 9000LM	9000 LM *24"SQ Max Standard Output*
☐ 10000LM	10000 LM
☐ 11000LM	11000 LM
☐ 12000LM	12000 LM *32"SQ Max SO | 48"SQ Max TW and EM Batt*
☐ 13000LM	13000 LM
☐ 14000LM	14000 LM
☐ 15000LM	15000 LM
☐ 16000LM	16000 LM
☐ 17000LM	17000 LM
☐ 18000LM	18000 LM
☐ 1900LM	19000 LM
☐ 20000LM	20000 LM *48"SQ Max Standard Output*
☐ CU*	CUSTOM OUTPUT

_____ lm

7 DIMMING AND CONTROLS

☐ P01	0–10V 1% DIMMING
☐ LEC*	HI-LUME 1% ECOSYSTEM LED DRIVER SOFT ON, FADE TO BLACK (LDE1 SERIES)
☐ EBM	0-10V 1% DIMMING INTEGRATED EM BATTERY OPTION *Max Lumen ouput limited—consult LightArt.* *Not available with Tunable White.*
☐ DALI	DALI CONTROL

8 CANOPY OPTIONS

☐ WPC	WHITE
☐ BPC	BLACK
☐ RWPC	RECESSED WHITE
☐ RBPC	RECESSED BLACK

9 POWER CORD

☐ WH	WHITE
☐ BK	BLACK

10 CABLE CONNECTION

☐ CCL	CABLES TO CEILING
☐ CCN	CABLES TO CANOPY

Only Available on 24"Square—consult LightArt for larger sizes.

**Indicates modified choices; additional lead times, cost, and limited lumen outputs may apply.*

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