



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 option available.	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.
LUMEN MAINTENANCE	Reported TM-21 Lifetimes L90(17k) = 52,600 hours L80(17k) > 102,000 hours L90(17k) > 102,000 hours	SHADES	9mm thick Sola Felt is 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. Frosted acrylic diffuser tube with removable acrylic bottom diffuser at bottom (for changing optic kits or relamping E26 version). Contact your local sales rep for material samples.
CONSTRUCTION	1/16" 3form Varia. White Opal top and bottom diffuser. Contact your local sales rep for material samples.	CLEANING & CARE	Designed to withstand the demands of rigorous cleaning requirements. Effective cleaning and disinfection of environmental surfaces reduces microbe transmission. Superior chemical resistance and durability promotes safety in any design application. Use common disinfectants and cleaners to reduce microbe transmission.
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	WARRANTY	5 year warranty on all standard components.
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%.		



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Echo One

Lighting Details

ACOUSTIC COLLECTION

PERFORMANCE – ECHO ONE

Based on 3500K / 90CRI / Standard Distribution

NOMINAL LUMEN OUTPUT (LM)	INPUT POWER (W)	EFFICACY (LM/W)
999	11.52	86.70
2002	23.76	84.30
3001	36.81	81.50
4000	50.78	78.80
4999	65.83	75.90
6002	82.11	73.10

LIGHT DISTRIBUTION

Based on measurement data

COLOR TEMPERATURE/CRI	MULTIPLIER
2700K / 80	0.98
2700K / 90	0.93
3000K / 80	1.02
3000K / 90	0.97
3500K / 80	1.00
3500K / 90	1.00
4000K / 80	1.08
4000K / 90	1.03

OUTPUT MULTIPLIERS INSTRUCTIONS

Adjusted Value = $L_1 \times C_m$ where:

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

Example:

850LM / 3000K / 80CRI
(850) \times (1.02) = 879LM

SABINS PER FIXTURE *Equivalent square feet of perfect absorption*

CENTER FREQUENCY (HZ)	ECHO ONE-51-FIN STYLE B	ECHO ONE-63-FIN STYLE A
100	5.73	13.83
125	4.73	6.25
160	4.66	6.67
200	7.02	11.55
250	9.29	15.90
315	14.28	22.34
400	14.25	22.61
500	15.38	24.04
630	16.15	25.47
800	18.71	30.14
1000	19.72	30.75
1250	20.66	33.36
1600	21.18	34.49
2000	23.92	37.92
2500	25.48	41.23
3150	27.47	43.80
4000	28.73	45.05
5000	28.25	43.66
AVERAGE OF 250, 500, 1000, 2000 HZ	17.17	27.48
NRC PER FIXTURE (CIRCULAR FOOTPRINT)	1.20	1.25
EQUIVALENT SQ FT OF ACT (NRC 0.90)	19.01	30.50
EQUIVALENT SQ FT OF ACT (NRC 0.70)	24.50	39.30

Absorption

NRC per Fixture: 1.20
 Absorption per Fixture: 7.59–15.50 Sabins

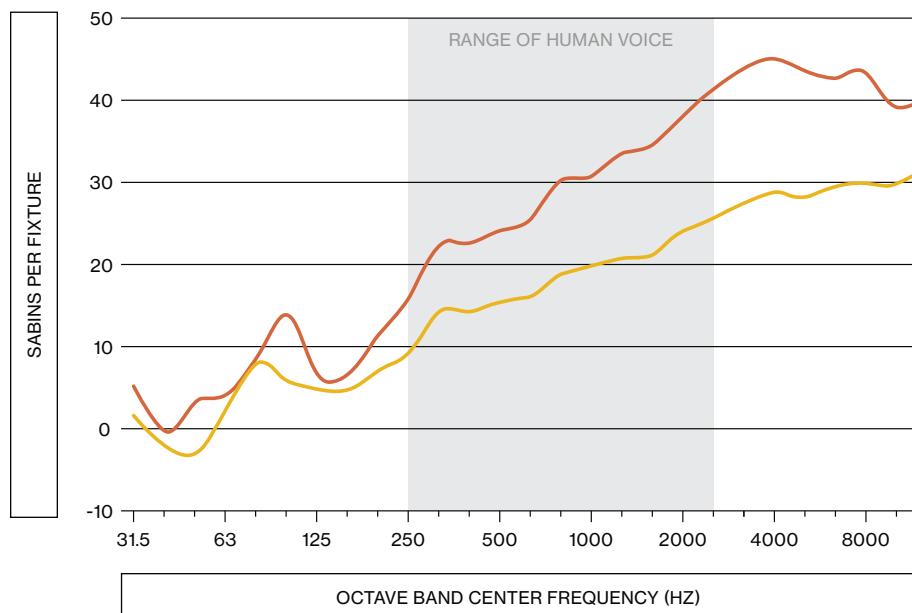
Average of values taken at
 250, 500, 1000, and 2000 Hz

NRC for Echo system, with spanners,
 over entire installation footprint:
 0.80 - 1.00

The C-style fixtures have not been laboratory tested.
 The surface area of the C-style fins and spanners meet
 or slightly exceed the B-style fixtures, we expect similar
 acoustical performance.

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

— 63DIA FIN STYLE A
 — 51DIA FIN STYLE B



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SPECIFICATION CODE

Example: 2 QTY ACC-SHPE-ECON-51D-B-CT-STD-835CK-2000LM-P01-BPC-WH-CCL-EOP

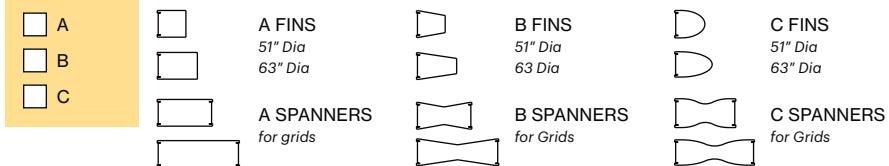
QTY. **ACC-SHPE-ECON-** **1** **2** **3** **4** **5** **6** **7** **8** **9** **10** **11**

Complete form to order Echo One fixture(s). For each number, make one selection and enter in the corresponding box above.

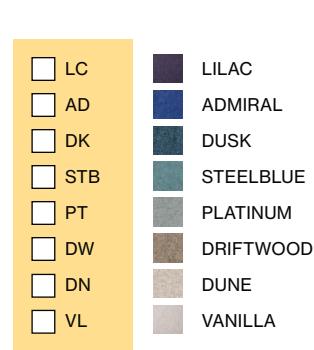
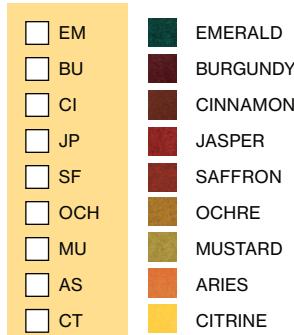
*Indicates modified choices; additional lead times, cost, and limited lumen outputs may apply.

1 DIAMETER / FIN CONFIGURATION

- 51D 51" DIAMETER
- 63D 63" DIAMETER
- EALT ALTERNATING FINS

2 FIN STYLE All fins 14" in height

3 FELT COLOR

COLOR OPTIONS


4 SUSPENSION

- STD 12"-96"
- EXT* 12"-240"

5 LED CRI/CCT

<input type="checkbox"/> 827CK	80 CRI / 2700K	<input type="checkbox"/> 930CK	90 CRI / 3000K
<input type="checkbox"/> 830CK	80 CRI / 3000K	<input type="checkbox"/> 935CK	90 CRI / 3500K
<input type="checkbox"/> 835CK	80 CRI / 3500K	<input type="checkbox"/> 940CK	90 CRI / 4000K
<input type="checkbox"/> 840CK	80 CRI / 4000K	<input type="checkbox"/> TW	TUNABLE WHITE
<input type="checkbox"/> 927CK	90 CRI / 2700K		

6 OUTPUT

<input type="checkbox"/> 1000LM	1000 LM	<input type="checkbox"/> 5000LM	5000 LM
<input type="checkbox"/> 2000LM	2000 LM	<input type="checkbox"/> 6000LM	6000 LM
<input type="checkbox"/> 3000LM	3000 LM	<input type="checkbox"/> CU*	CUSTOM OUTPUT
<input type="checkbox"/> 4000LM	4000 LM		

lm

CONTINUE TO NEXT PAGE TO COMPLETE SPECIFICATION

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CONTINUE SPECIFICATION

7 DIMMING AND CONTROLS

<input type="checkbox"/> P01	0-10V 1% DIMMING
<input type="checkbox"/> LEC*	HI-LUME 1% ECOSYSTEM LED DRIVER SOFT ON, FADE TO BLACK (LDE1 SERIES)
<input type="checkbox"/> EBM	0-10V 1% DIMMING INTEGRATED EM BATTERY OPTION <i>Max Lumen output limited—consult LightArt.</i> <i>Not available with Tunable White.</i>
<input type="checkbox"/> DALI	DALI CONTROL

8 CANOPY OPTIONS

<input type="checkbox"/> WPC	WHITE
<input type="checkbox"/> BPC	BLACK
<input type="checkbox"/> RWPC	RECESSED WHITE
<input type="checkbox"/> RBPC	RECESSED BLACK

9 POWER CORD *Cord color dictates visible metal color*

<input type="checkbox"/> WH	WHITE
<input type="checkbox"/> BK	BLACK

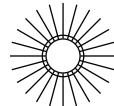
10 CABLE CONNECTION

<input type="checkbox"/> CCL	CABLES TO CEILING
<input type="checkbox"/> CCN	CABLES TO CANOPY

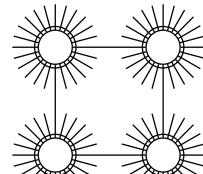
11 ARRANGEMENT *Grids feature pendants 48" on center*

<input type="checkbox"/> EOP	ECHO PENDANT
<input type="checkbox"/> CG*	CUSTOM GRID

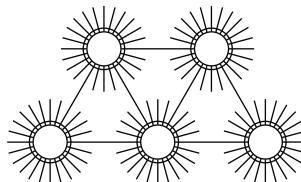
ECHO PENDANT



CUSTOM GRID EXAMPLES*



SQUARE GRID



TRIANGLE GRID

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

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