








Specifications

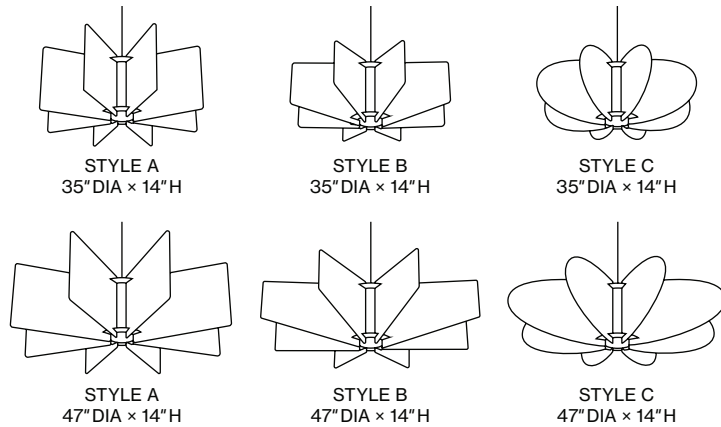
SHADES	9mm thick Sola Felt is a PET material, manufactured with 50% post-consumer recycled content. Sola Felt is a LBC Red List Free labeled product, eligible for LEED, Living Building Challenge, and other green building certification credits. Frosted acrylic diffuser tube with removable acrylic bottom diffuser at bottom (for changing optic kits or relamping E26 version). Contact your local sales rep for material samples.		HARDWARE	TGIC-free powder coat. Stainless steel cables with nickel-plated cable gripper allows for adjustable hanging height. Made with RoHS compliant parts.
LIGHTING	LED module with single light emitting source, thermally managed to provide optimal performance. Specifiable in 2700K–4000K in CRI >80 or CRI >90, color accuracy within 3 SDCM. Also available in dim-to-warm.		MOUNTING	Adjustable stainless steel aircraft cable, contact studio for lengths over 20'
	PoE or PoE+ compatible (depending on required output): Integrates with Power over Ethernet lighting systems through standard, low voltage wires. See wattage table on page 4 for PoE or PoE+ compatibility.		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
LUMEN MAINTENANCE	Beam spreads from 28 degree narrow flood to 44 degree wide flood available, achieved with optics that are easily changed in the field. E26 lamp model also available. Source lumens 800, delivered lumens approx 619, 90 CRI, nominal lifetime 15,000 hours.		CERTIFICATION	CSA certified to CSA C22.2 No. 250.0, and conforms to UL standard 1598. PoE Compatible fixtures meet UL 2108.
	Reported: L90: >55,000 hours	Calculated: L70: >180,000 hours L80: >120,000 hours <i>EPA TM21 calculator derived</i>	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.
PHOTOMETRICS	Consult factory or website for IES files, tested in accordance with IESNA LM79.			



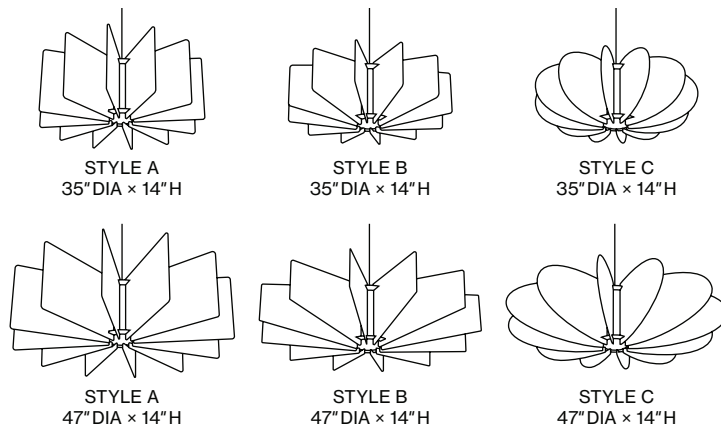


DIMENSIONS *Optional spanners between adjacent pendants to create grids*

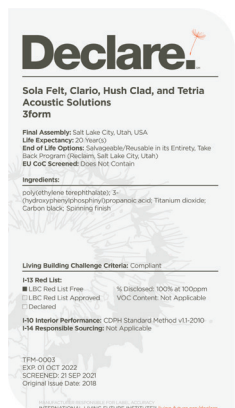
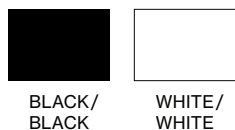
8 FIN CONFIGURATION



12 FIN CONFIGURATION

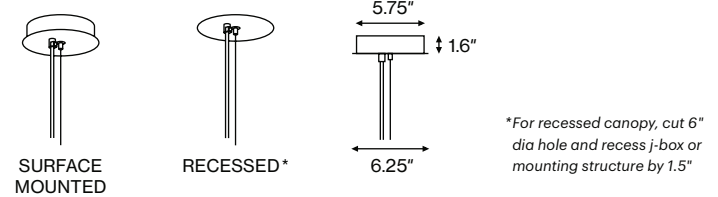


CANOPY / DRESS PLATE FINISH OPTIONS

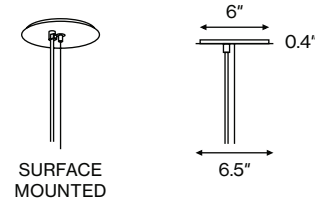


CEILING CONNECTION

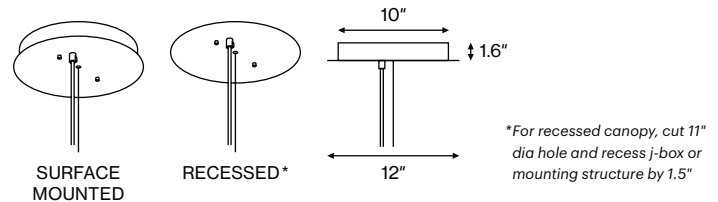
STANDARD CANOPY



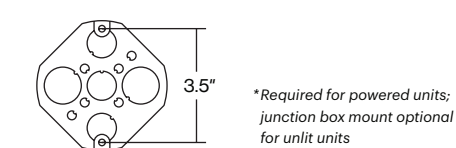
ULTRA SHALLOW CANOPY (E26 ONLY)



EM BATTERY OPTION ONLY



4" OCTAGONAL JUNCTION BOX* (BY OTHERS)

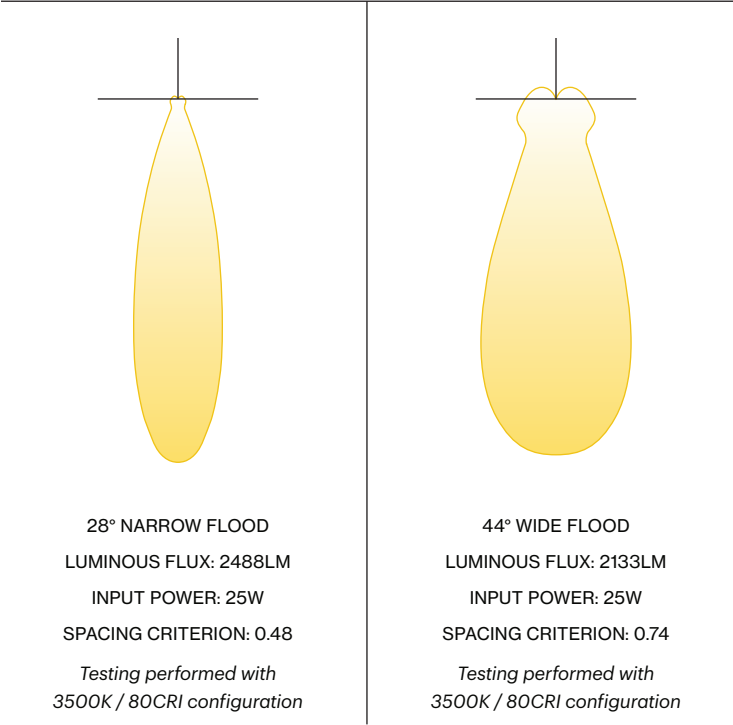


FELT COLOR OPTIONS



LIGHT DISTRIBUTION

Consult factory or lightart.com for IES files, tested in accordance with IESNA LM79



PERFORMANCE

Based on 3500K / 80CRI / NFL configuration (HP light core) and 3500K / 80CRI for E26 lamp

NOMINAL LUMEN OUTPUT	DELIVERED LUMENS	INPUT POWER (W)	EFFICACY (LM/W)	POE COMPATIBILITY	OUTPUT / LED DRAW WATTAGE (for use w/ POE)
600 (E26 A-LAMP)	619	8.8	72	N/A	N/A
900	893	8.0	111	POE & POE+	6.8
1000	1050	9.5	110	POE & POE+	8.1
1500	1533	14.6	105	POE & POE+	12.4
2000	2005	19.6	102	POE+ ONLY	16.7
2500	2488	25.0	100	POE+ ONLY	21.4

OPTICAL CHARACTERISTICS

Based on measurement data

	BEAM ANGLE	SPACING CRITERION
NARROW FLOOD	28°	0.48
FLOOD	36°	0.61
WIDE FLOOD	44°	0.74

OUTPUT MULTIPLIERS

Based on measurement data

COLOR TEMPERATURE / CRI	MULTIPLIER
2700K / 80	0.94
2700K / 90	0.77
3000K / 80	0.98
3000K / 90	0.82
3500K / 80	1.00
3500K / 90	0.84
4000K / 80	1.02
4000K / 90	0.87
WARM DIM 1830 / 90	0.72

OPTIC	MULTIPLIER
30°	1.00
54°	0.93
78°	0.86

OUTPUT MULTIPLIERS INSTRUCTIONS

Adjusted Value = $L_1 \times C_m \times O_m$ where:

L_1 = (Lumen output at 3500K / 80 CRI) ×

C_m = (Color Temp. / CRI Multiplier) ×

O_m = (Optic Multiplier)

Example:

900LM / 3000K / 80CRI / FL Configuration

$(900) \times (0.98) \times (0.86) = 759LM$

SABINS PER FIXTURE Equivalent square feet of perfect absorption

CENTER FREQUENCY (HZ)	ECHO 35-12	ECHO 47-12
100	1.05	1.90
125	0.80	4.09
160	1.99	3.80
200	3.24	7.38
250	5.58	9.25
315	5.57	12.19
400	6.57	13.66
500	6.96	14.31
630	7.35	15.15
800	7.53	15.81
1000	7.96	16.96
1250	8.23	18.03
1600	8.98	19.27
2000	9.85	21.49
2500	10.40	22.25
3150	10.87	23.53
4000	11.16	24.02
5000	11.00	22.97
AVERAGE OF 250, 500, 1000, 2000 HZ	7.59	15.50
NRC PER FIXTURE (CIRCULAR FOOTPRINT)	1.15	1.30

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

Absorption

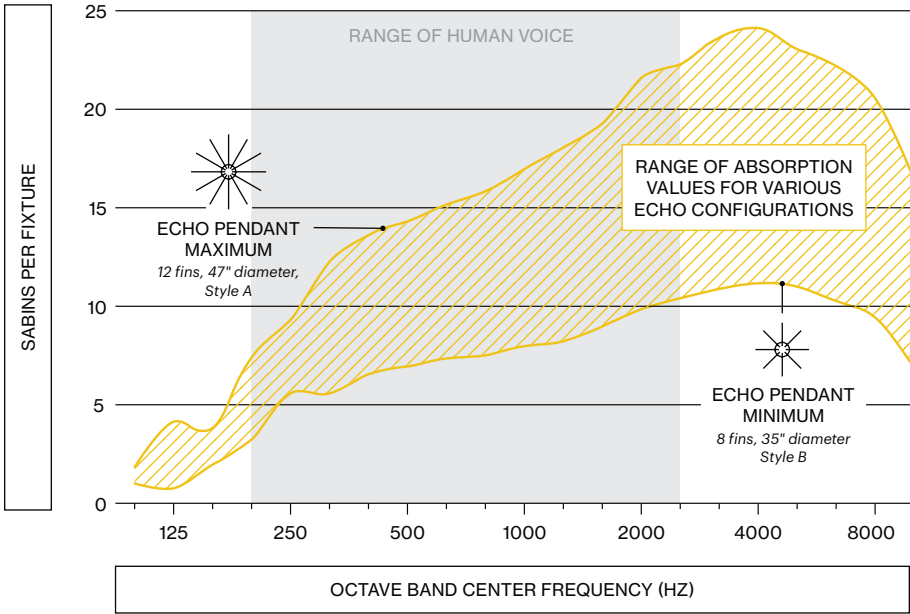
NRC per Fixture: 1.15-1.30
Absorption per Fixture: 7.59-15.50 Sabins

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 was conducted
at NVLAP accredited laboratories and
meets ISO 354 and ASTM C423. Formal
test reports are available upon request.



SPECIFICATION CODE

Example: 2 QTY ACC-SHPE-ECHO- - - - - - - - - - - - - - - - - -

QTY.

ACC-SHPE-ECHO-

1

2

3

4

5

6

7

8

9

10

11

Complete form to order Echo fixture(s). For each number, make one selection and enter in the corresponding box above.
*Indicates modified choices; additional lead times and/or costs may apply.

1 DIAMETER – FIN #

☐ E358


☐ E478


☐ EALT8


☐ E3512


☐ E41712


☐ EALT12


 E358
35" Dia
8 Fins

 E478
47" Dia
8 Fins

 EALT8
Alternating 47" & 35" Dia
8 Fins

 E3512
35" Dia
12 Fins

 E4712
47" Dia
12 Fins


 EALT12
Alternating 47" & 35" Dia
12 Fins


2 FIN STYLE All fins 14" in height


☐ A


☐ B


☐ C


 A FINS
35" Dia
47" Dia

 B FINS
35" Dia
47" Dia

 C FINS
35" Dia
47" Dia

 A SPANNERS
for grids

 B SPANNERS
for Grids

 C SPANNERS
for Grids

3 FIN COLOR

☐ EB

☐ NF

☐ CA


☐ ML


☐ STL


☐ AR


☐ NI


☐ ZN


 EBONY


 NIGHTFALL


 CAST

 MINERAL

 STEEL

 ARMOR

 NICKEL

 ZINC

☐ EM

☐ AD

☐ DK


☐ STB


☐ PT


☐ SLT


☐ DW


☐ DN


 EMERALD


 ADMIRAL


 DUSK

 STEELBLUE

 PLATINUM

 SILT

 DRIFTWOOD

 DUNE

☐ SF

☐ JP

☐ AS

☐ OCH

☐ MU

☐ CT

 SAFFRON

 JASPER

 ARIES

 OCHRE

 MUSTARD

 CITRINE

4 ARRANGEMENT Grids feature pendants 48" on center

☐ EP


☐ CG*

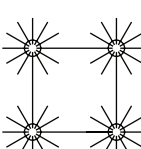
ECHO PENDANT

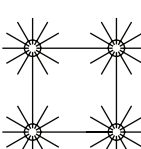
ECHO PENDANT

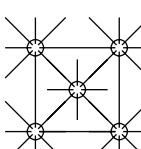
CUSTOM GRID

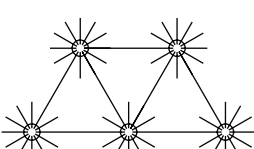
CUSTOM GRID

 ECHO PENDANT

 CUSTOM GRID

 SQUARE GRID

 RUNNING BOND

 TRIANGLE GIRD

CONTINUE TO NEXT PAGE TO COMPLETE SPECIFICATION

*Indicates modified choices; additional lead times and/or costs may apply.

CONTINUE SPECIFICATION

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"/> 1830W	WARM DIMMING 90 CRI 3000K to 1800K Dimming Range
<input type="checkbox"/> 840CK	80 CRI / 4000K		
<input type="checkbox"/> 927CK	90 CRI / 2700K	<input type="checkbox"/> E26AL	E26 BASE A LAMP 120V only Source Lumens 800lm, 619lm delivered 3000K > 90 CRI, Not available in PoE.

6 NOMINAL DELIVERED LUMENS *Warm dim only available in 1500LM*

<input type="checkbox"/> 900LM	900 LUMEN
<input type="checkbox"/> 1000LM	1000 LUMEN
<input type="checkbox"/> 1500LM	1500 LUMEN
<input type="checkbox"/> 2000LM	2000 LUMEN
<input type="checkbox"/> 2500LM	2500 LUMEN
<input type="checkbox"/> 600LM	E26 BASE A LAMP 600 delivered lumens only

7 BEAM SPREAD *Beam spread kits available—contact LightArt for more information*

<input type="checkbox"/> NFL	NARROW FLOOD OPTION (28°)
<input type="checkbox"/> FL	FLOOD OPTION (36°)
<input type="checkbox"/> WFL	WIDE FLOOD OPTION (44°)
<input type="checkbox"/> E26S	E26 BASE A LAMP

8 DIMMING AND CONTROLS

<input type="checkbox"/> LV01	0-10V – 1% DIMMING 120 & 277V
<input type="checkbox"/> LT02	LEADING/TRAILING/TRIAC – 5% DIMMING 120v only
<input type="checkbox"/> LP01	ELV FORWARD/REVERSE PHASE – 1% DIMMING 120v only
<input type="checkbox"/> LVP	LOW VOLTAGE POE <i>No driver provided for POE. Power supply by others. Not available with E26 Base A lamp.</i>
<input type="checkbox"/> EBM	0-10V 1% DIMMING INTEGRATED EM BATTERY OPTION <i>Max Lumen output limited—consult LightArt. Not available for E26.</i>
<input type="checkbox"/> E26	Universal Input (Dim on 120V for TRIAC/ELV & 120/277V for 0–10V) E26 BASE A LAMP <i>Only compatible with 120V ELV Dimming</i>

9 SUSPENSION

<input type="checkbox"/> STD	12" – 96"
<input type="checkbox"/> EXT*	12" – 240"

10 CANOPY OPTIONS

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

11 POWER CORD *Cord color dictates visible metal color*

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