RISBY170 - 170 Asche

RISBY175 - 175 Graphit

RISBY150 - 150 Weiss

Shaper

Shaper Sense™ Drum - Ribsy

Acoustic Lighting
Pendant Luminaire
Suspended Direct/Indirect

Typical Applications
• Office • Education • Healthcare • Hospitality • Retail
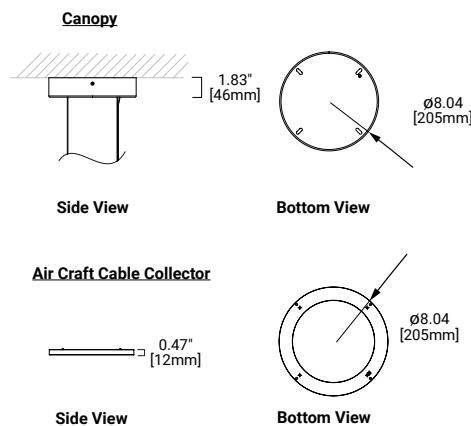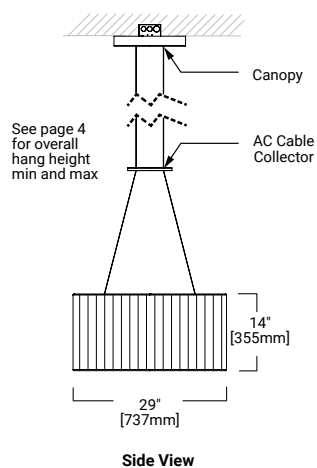• Code-Compliance Areas • Co-working

Interactive Menu

- Order Information page 2-3
- Felt Color Selections page 3
- Mounting Recommendations page 4
- IES Photometry & UGR Data page 5
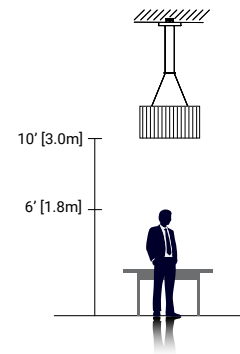- Acoustic Data, cleaning & maintenance page 6
- Product Warranty

Compliance and Award Winning Family

Systems | Certification | Partnerships | Awards

Connected Systems

Light ARchitect™

UL CERTIFIED SAFETY

RoHS COMPLIANT

FC

BAA BUY AMERICAN ACT AVAILABLE

filzfelt

PIA'20 Architectural Products Magazine's product innovation awards

GOOD DESIGN 2020

Top Product Features

- Shaper Sense is an award winning and patented acoustic lighting product series that merges the concepts of light and sound absorption. Shaper Sense Drum - Ribsy acoustic panels are hand crafted by artisans in the U.S.
- Light is created by an edge-lit LED circular panel with an array of patterns that produce uniform visual distribution.
- Sound absorbing acoustic panels are designed with industry leading FilzFelt™ acoustic materials.
- Select from 3 neutral Ribsy felt colors and 96 border edge band, felt colors, 100% Wool Design Felt,100% recyclable
- Noise Reduction Coefficient (NRC) = 1.1, Sound Absorption Average (SAA) = 1.3.
- FilzFelt felt is steam cleanable to 200ºF / 93.3ºC and acoustic sound absorbing substrate materials can be cleaned with bleach and disinfectants
- Options to meet Buy American Act requirements

Dimensions

Canopy

AC Cable Collector

See page 4 for overall hang height min and max

14" [355mm]

29" [737mm]

Side View

Canopy

1.83" [46mm]

Side View

ø8.04 [205mm]

Bottom View

Air Craft Cable Collector

0.47" [12mm]

Side View

ø8.04 [205mm]

Bottom View

Scale

10' [3.0m]

6' [1.8m]

additional product diagrams

COOPER
Lighting Solutions

Order Information

FIXTURE NUMBER SAMPLE: **ShSe-DRUM-RIBSY-1-L40-80-UNV-CS-STD-RIB170-BEB274**

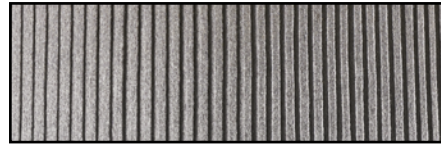| Domestic Preferences	Series	Shape / Family	Type	Light Level (Lumens /Wattage)	Color Temp (CCT)	CRI	Voltage	Mounting
Domestic Preferences	**Series**	**Shape / Family**	**Type**	**Light Level (@80 CRI, 4000K)**	**Color Temp (CCT)**	**CRI**	**Voltage**	**Mounting**
Blank]=Standard **BAA**=Buy American Act	**ShSe** = Shaper Sense	**DRUM** = Drum	**RIBSY** = Vertical Textured Panel	**1** = 4176 lms/ 29W/ 148 LPW **2** = 6262 lms/ 46W/ 138 LPW **3** = 8228 lms/ 61W/ 136 LPW	**L30** = 3000K **L35** = 3500K **L40** = 4000K	**80** = 80 CRI **90** = 90 CRI	**UNV**= Universal Voltage (120-277V)	**CW** = Canopy mount - **White** **CB** = Canopy mount - **Black** **CS** = Canopy mount - **Silver** (works for surface, open structure, and gypsum ceilings)
Notes Only product configurations with this designated prefix are built to be compliant with the Buy American Act of 1933 (BAA). Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.	Notes	Notes	Notes	Notes See page 4 for all lumen, power, and efficacy values	Notes	Notes 80 CRI longer lead times. Consult factory.	Notes	Notes Air craft cable Collector is same color as canopy mount

Driver / Dimming	Ribsy Color (RIBXXX)	Border Edge Band (BEB)	Accessories (Optional)

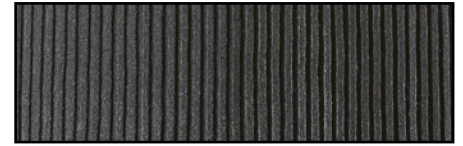| Driver / Dimming	Finish		Accessories (Optional)
Driver / Dimming	**Ribsy Color (RIBXXX)**	**Border Edge Band (BEBXXX)**	**Accessories (Optional)**
STD = 0-10V (1%) Dimming **DCD** = 0-10V (0.1%) Dimming **LH¹** = Lutron Hi-Lume 1% Eco System Dimming*	**RIB150**=Ribsy in 150 Weiss (see color chart) **RIB170**=Ribsy in 170 Asche (see color chart) **RIB175**=Ribsy in 175 Graphit (see color chart) **RIBCC**=Ribsy in Custom Color ([see FilzFelt website])	**BEB487**=Pfirsich / **BEB533**=Indigo **BEB023**=Koralle / **BEB282**=D'Blau **BEB945**=Drachenfrucht / **BEB111**=Traube **BEB221**=Himbeere / **BEB626**=Azur **BEB136**=Weinrot / **BEB647**=Kobalt **BEB209**=Bordeaux / **BEB686**=Enzian **BEB102**=Kirsche / **BEB272**=Royal **BEB201**=Rot / **BEB286**=H'Blau **BEB125**=Tomate / **BEB995**=Wasser **BEB179**=Hellrot / **BEB458**=Bekwölkt **BEB180**=Terracotta / **BEB284**=Himmel **BEB173**=Mango / **BEB613**=Gletscher **BEB105**=Rost / **BEB551**=Eis **BEB573**=Kupfer / **BEB113**=Immergrün **BEB116**=Orange / **BEB099**=Lila **BEB495**=Abricot / **BEB667**=Amethyst **BEB124**=Gelb / **BEB242**=Pink **BEB131**=Honig / **BEB640**=Granat **BEB509**=Kamel / **BEB634**=Erröten **BEB550**=Ocker / **BEB671**=Pfingstrose **BEB274**=Senf / **BEB255**=Flieder **BEB108**=Zitrone / **BEB269**=Violett **BEB403**=Mais / **BEB437**=Aubergine **BEB535**=Sesam / **BEB250**=Trüffelbraun **BEB203**=Vanille / **BEB220**=Rehbraun **BEB027**=Kartause / **BEB411**=Alpaka **BEB384**=Lind / **BEB190**=Natur-meliert **BEB713**=Kiwi / **BEB200**=Natur **BEB377**=Maigrün / **BEB331**=Sahara **BEB732**=Farn / **BEB311**=Mandel **BEB378**=Oliv / **BEB467**=Sand **BEB260**=Sprießen / **BEB481**=Sandstein **BEB156**=Loden / **BEB100**=Wollweiss **BEB343**=D'Grün / **BEB110**=Rohweiss **BEB435**=Smaragd / **BEB160**=Beige **BEB625**=Pinie / **BEB529**=Champagner **BEB248**=Jade / **BEB150**=Weiss **BEB472**=Minze / **BEB428**=Silber **BEB575**=Salbei / **BEB427**=Stein **BEB483**=Adria / **BEB021**=Beton **BEB548**=Türkis / **BEB170**=Asche **BEB312**=Lagune / **BEB423**=Hellgrau **BEB345**=Pazifik / **BEB408**=Taupe **BEB308**=Petrol / **BEB175**=Graphit **BEB698**=Dunst / **BEB425**=Taubengrau **BEB405**=Stahl / **BEB446**=Kohle **BEB215**=Meer / **BEB300**=Anthrazit **BEB540**=Ozean / **BEB426**=Schwarz	**WTA**=Wavelinx Tile Sensor, tile mount
Notes 1.Not available for light level 3	Notes	Notes	Notes Order separately. Consult factory for more information.

Ordering Information and Risby Color options

**RISBY150** - 150 Weiss   **RISBY170** - 170 Asche   **RISBY175** - 175 Graphit

Ordering Information - Felt Color Chart for Border Edge Band Only

Select **BEBXXX** for Border Edge Band Color Selection from chart. XXX = number of color. Ex. BEB136 is Weinrot.

487 Pfirsich	023 Koralle	945 Drachenfrucht	221 Himbeere	136 Weinrot	209 Bordeaux	102 Kirsche	201 Rot	125 Tomate	179 Hellrot	180 Terracotta	173 Mango
105 Rost	573 Kupfer	116 Orange	495 Abricot	124 Gelb	131 Honig	509 Kamel	550 Ocker	274 Senf	108 Zitrone	403 Mais	535 Sesam
203 Vanille	027 Kartause	384 Lind	713 Kiwi	377 Maigrün	732 Farn	378 Oliv	260 Sprießen	156 Loden	343 D'Grün	435 Smaragd	625 Pinie
248 Jade	472 Minze	575 Salbei	483 Adria	548 Türkis	312 Lagune	345 Pazifik	308 Petrol	698 Dunst	405 Stahl	215 Meer	540 Ozean
533 Indigo	282 D'Blau	111 Traube	626 Azur	647 Kobalt	686 Enzian	272 Royal	286 H'Blau	995 Wasser	458 Bekwölkt	284 Himmel	613 Gletscher
551 Eis	113 Immergrün	099 Lila	667 Amethyst	242 Pink	640 Granat	634 Erröten	671 Pfingstrose	255 Flieder	269 Violett	437 Aubergine	250 Trüffelbraun
220 Rehbraun	411 Alpaka	190 Natur-meliert	200 Natur	331 Sahara	311 Mandel	467 Sand	481 Sandstein	100 Wollweiss	110 Rohweiss	160 Beige	529 Champagner
150 Weiss	428 Silber	427 Stein	021 Beton	170 Asche	423 Hellgrau						
408 Taupe	175 Graphit	425 Taubengrau	446 Kohle	300 Anthrazit	426 Schwarz						

Ordering Example

RIB170-BEB274

3 Ribsy color options -
RIBXXX

96 Border Edge Band options -
BEBXXX
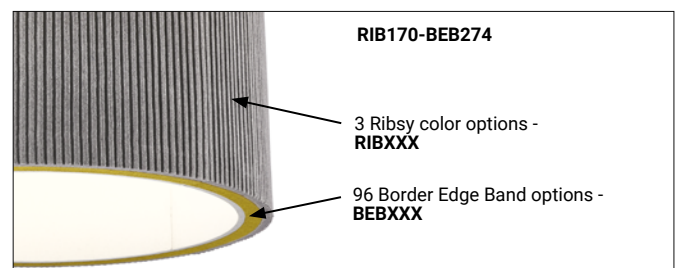
Product Specifications

Construction
- Light Engine is 6063-T5 extruded aluminum and 20 gauge cold rolled steel frame
- Acoustic Light Fixture is supported with max load 132lb cable
- Weight: 34 lbs fully assembled

Electrical
- Standard driver features electronic universal voltage (120-277V/ 50-60 Hz), greater than 0.9 power factor
- Less than 20% harmonic distortion, and ambient temperature of 25˚C (77˚F). 0-10V dimming standard

LED Optics
- Light Engine is 89.74% transparent
- Up to 162 LPW in some 4000K configurations
- Light Engine offered in 80 and 90 CRI for 3000K, 3500K, and 4000K CCTs.
- UGR data available for Drum products. See page 4 for details.

Mounting
- Acoustic Light Fixture supported by aircraft cable. 12ft adjustable AC cable supplied
- Recommended minimum height of 10" from AC cable collector to Light Engine

- Driver box assembly can mount to any ceiling type: open structure, gyp., or acoustic tile
- Acoustic Light fixture can be supported by junction box supporting 50lb load
- Low voltage cable connects to remote driver box assembly
- AC Cable Collector recommended but not required
- Canopy and collector color can be white, silver or black

Finish
- Light Engine - Housing is white powder coat paint for superior protection against fade and wear
- Acoustic Panels - 3 standard colors are offered for Ribsy with 96 color choices for the border edge band.
- Sound absorbing substrate is made of a minimum 60%+ recycled content and is 100% recyclable

Compliance
- Light Engine components are UL recognized and are cULus listed for 25˚C ambient environments, dry listed
- Acoustic Light Fixture tested per IESNA LM-79
- LM-80 data supplied by LED manufacturer and utilized in TM-21 lumen maintenance projections
- Acoustic Light Fixture tested to ASTM 423C-17 standards and FCC compliant
  - Noise Reduction Coefficient - NRC = 1.1
  - Sound Absorption Average - SAA = 1.13

- (Apparent NRC and SAA values calculated from using total test area occupied by light fixtures)
- 3mm thick 100% wool felt + the acoustic substrates incorporated in the fixtures all have a Class A fire rating. See FilzFelt website for listings.

Environment
- Indoor only, dry listing
- 25˚C ambient temperature

Control
- 0-10V dimming standard
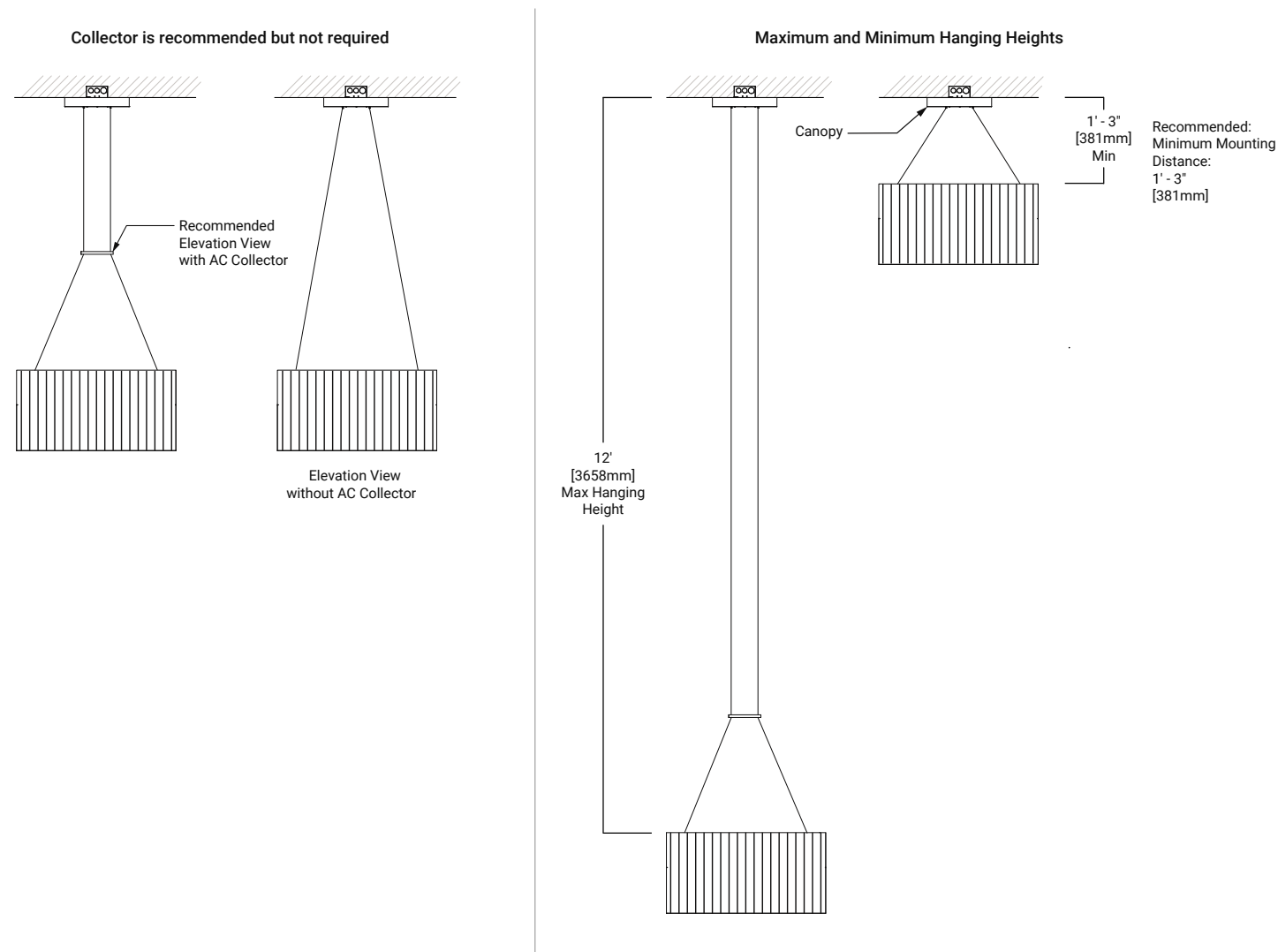- Optional - WaveLinx wireless control systems

Maintenance
- FilzFelt felt can be cleaned with steam cleaner up to 200F/93.3C. Acoustic substrate can be cleaned with bleach and disinfectants
- Maintenance and cleaning instructions found here
- See page 5 for more details on cleaning.

Warranty
- Five year warranty standard

"Note: "Acoustic Light Fixture" refers to Light Engine plus acoustic panels. "Light Engine" refers to characteristics of the edge-lit acrylic light assembly unit. "
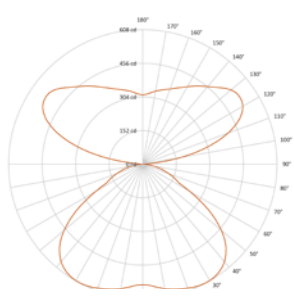
Mounting Information and Recommendations

Collector is recommended but not required

Recommended Elevation View with AC Collector

Elevation View without AC Collector

Maximum and Minimum Hanging Heights

Canopy

1' - 3" [381mm] Min

Recommended: Minimum Mounting Distance: 1' - 3" [381mm]

12' [3658mm] Max Hanging Height

Lumen Maintenance

Ambient Temperature
25°C
Lumen Maintenance: TM-21 (60,000 Hours)
> 80%
Theoretical L70 (Hrs)
> 54,000

SHAPER SENSE - DRUM RIBSY - @ 3500K / 90 CRI

	Light Level 1	Light Level 2	Light Level 3
Filename	ShSe-DRUM-1-L35-90-UNV-STD.ies	ShSe-DRUM-2-L35-90-UNV-STD.ies	ShSe-DRUM-3-L35-90-UNV-STD.ies
Test No.	P402552	P402559	G3-2004-737-4
Lumcat	ShSe-DRUM-1-L35-90-UNV-STD	ShSe-DRUM-2-L35-90-UNV-STD	ShSe-DRUM-3-L35-90-UNV-STD
Lumens	4000.3 Lm	4989.9 Lm	6557.4 Lm
Input Watts	28.2 W	45.3 W	60.4 W
Efficacy	141.9 Lm/W	110.2 Lm/W	108.6 Lm/W
CCT	3500K	3500K	3500K
SC (0/90/45)	1.62 / 1.62 / 1.62	1.62 / 1.62 / 1.62	1.62 / 1.62 / 1.62

55% up 45% down

Color Vector Graphic TM-30-15

R_f	91
R_g	98
R9	67

DRUM

Light Level-CCT-CRI	Delivered LUMENS	Power WATTS	Efficacy LPW
1-L30-80	3960	29	138
1-L35-80	4000	29	142
1-L40-80	4176	29	148
1-L30-90	3014	29	109
1-L35-90	3328	29	121
1-L40-90	3347	29	122
2-L30-80	5938	46	131
2-L35-80	5998	46	132
2-L40-80	6262	46	138
2-L30-90	4519	46	100
2-L35-90	4990	46	110
2-L40-90	5018	46	110
3-L30-80	7803	61	129
3-L35-80	7882	61	130
3-L40-80	8228	61	136
3-L30-90	5939	61	98
3-L35-90	6557	61	108
3-L40-90	6595	61	109

Color block denotes highest and lowest lumen levels

Color block denotes highest and lowest LPW levels

Cleaning recommendations and Guidelines for Light Engine

Removing Dust from Optical Panels:
Use the following recommendations:

BEST: Using aerosol dusting spray, gently blow dust from top of optical panels.
GOOD: Using CLEAN Swiffer, VERY gently brush dust from top of optical panels.
NO: DO NOT rub dust from top of fixture with cleaning cloth or dirty duster.

Cleaning Optical Panels:
Use the following recommendations:

A: Blend 4 parts warm water and 1 part DAWN dish soap.
B: Dampen CLEAN micro fiber cloth (or equivalent) with cleaning solution and gently wipe optical panel in single direction.
C: Gently dry optical panels with micro-fiber cloth (or equivalent).

Light Level	CCT	UGR [CIE 190:2010] [1] (4H, 8H; Reflectance: 70% Ceiling, 50% Wall, 20% Ref. Plane)		MAX INTENSITY [45-90 DEG FROM NADIR] (2) (Candela CD)		MAX LUMINANCE [45-90 DEG FROM NADIR] (2) (CD/M^2)	
		80CRI	90CRI	80CRI	90CRI	80CRI	90CRI
1	3500K	12.2	11.6	511	425	2271	1889
2	3500K	13.6	13	766	637	3405	2833
3	3500K	14.5	13.9	1006	837	4475	3723

Notes: (1) For other UGR data for room or reflective ceiling plans please see technical data on website. (2) For other CCT please see technical data on website.

Acoustic Analysis Reverberation Decrease

Reverberation Time example. Acoustic test reports available by request.

RT60 : Light Fixtures without sound absorption

Frequency (Hz)						Avg
125	250	500	1000	2000	4000	250-2k
0.76	0.97	1.15	1.11	0.91	0.85	1.04

RT60 : Light Fixtures with sound absorption

Frequency (Hz)						Avg
125	250	500	1000	2000	4000	250-2k
0.72	0.87	0.97	0.85	0.67	0.63	0.84

% Improvement in Reverberation (RT60)

Frequency (Hz)						Avg
125	250	500	1000	2000	4000	250-2k
5%	10%	16%	24%	27%	25%	19%

Ex. 19% Reverberation decrease (RT60) using 6 Shaper Sense Box fixtures.

19% Reverberation Reduction

6 fixture comparison
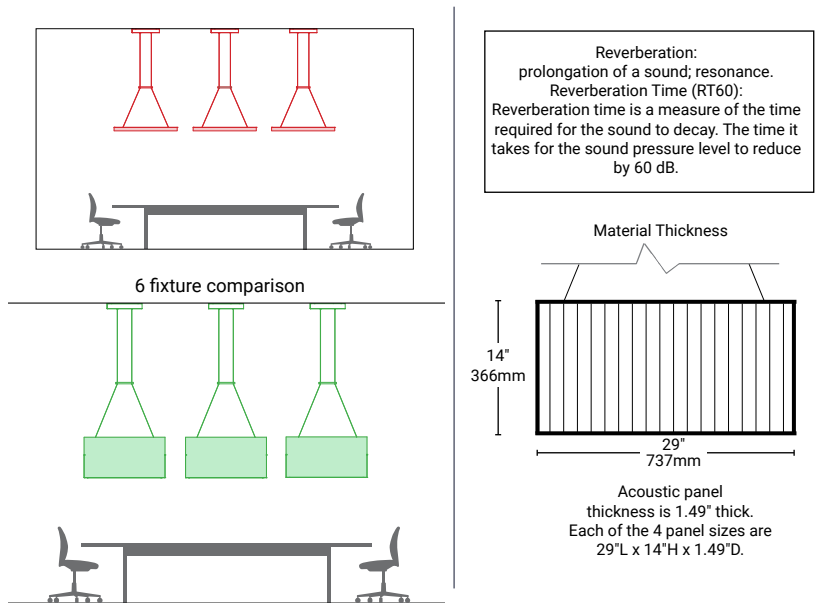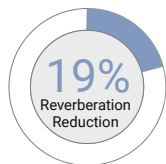
Reverberation:
prolongation of a sound; resonance.
Reverberation Time (RT60):
Reverberation time is a measure of the time required for the sound to decay. The time it takes for the sound pressure level to reduce by 60 dB.

Material Thickness

14"
366mm

29"
737mm

Acoustic panel thickness is 1.49" thick.
Each of the 4 panel sizes are 29"L x 14"H x 1.49"D.

Reverberation Time
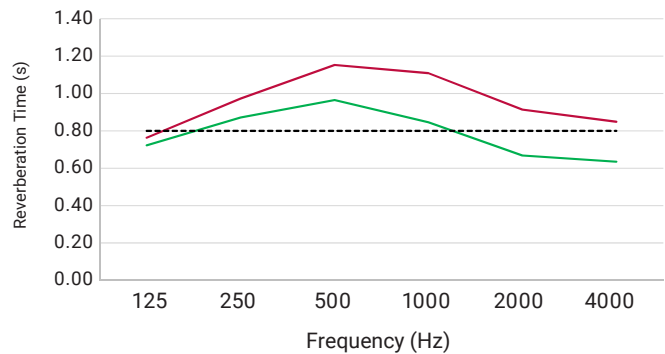
— RT60 (without acoustic treatment)

— RT60 (with acoustic treatment)

----- GOAL

RT60 GOAL (typical. office) — 0.8

Acoustic Material Maintenance: Cleaning and Health Features

- A health benefit to using FilzFelt materials, is the ability for the material to be steam cleaned up to 200 deg F (93.3 deg C). This protects the space by ensuring that bacteria and viruses don't live on these surfaces, but allows the material to meet the needs of spaces today.

- The acoustic sound absorption substrate material used in Shaper Sense products are cleanable by bleach and other disinfectants. This makes the materials suitable for clean environments.

	Felt	Acoustic Substrate
General Cleaning	Vacuum occasionally to remove general air- borne debris. Spot clean with a mild enzyme- based detergent (such as Tide Free) and water solution. Avoid aggressive rubbing as this can continue the felting process and change the surface appearance of the felt.	Vacuum occasionally to remove general air- borne debris. Spot clean with a mild soap (such as Dawn) and water solution.
Deep Cleaning	Professionally steam clean	Wipe with 10:1 water- to-household bleach solution*.

Connected Control (Optional)

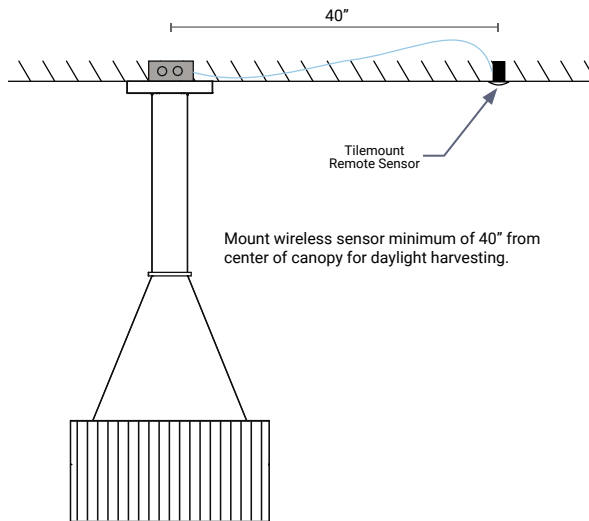WaveLinx (SWPD1) Wireless Sensor and LumaWatt Pro (LWIPD1) Ordering Information.

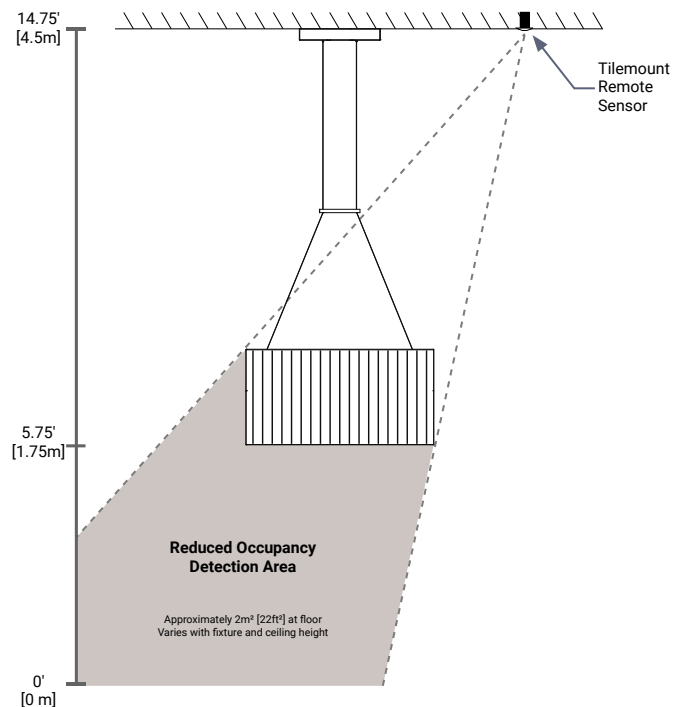| Product Family	Description
WTA = WaveLinx Wireless Sensor	**WTA =** • WaveLinx wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V driver • (Refer to WaveLinx system specifications and guides for details). • Field installed accessory WaveLinx Sensor Kit. Passive Infrared, Dimming Daylight Harvesting (Closed Loop), and for 144 sq ft coverage. • The WTA WaveLinx kit includes control module that mounts on the luminaire electrical junction box via 1/2" knock-out, and tilemount sensor with direct-mount spring clips or for octagon ceiling box with included mounting bracket. (Field mount kit ordered and installed separately)

WaveLinx

The WaveLinx Tilemount sensor option is an integral part of the WaveLinx Wireless Connected Lighting System. It offers 3 amp relay control and continuous 0-10V dimming of Shaper Sense luminaires. The tilemount sensor provides daylight dimming and control for a single luminaire or can be daisy chained for group luminaire control. The sensor's control module allows simple electrical junction box mounting via a ½" knockout or direct connection to the junction box attached to the Shaper luminaire. The WaveLinx Tilemount sensor operates on a wireless mesh network based on IEEE 802.15.4 standards and is controlled by a WaveLinx Wireless Area Controller.

Sensor Mounting and Coverage

Daylight Harvesting - Recommended mounting

40"

Tilemount Remote Sensor

Mount wireless sensor minimum of 40" from center of canopy for daylight harvesting.

Occupancy Detection - Coverage

14.75' [4.5m]

Tilemount Remote Sensor

5.75' [1.75m]

Reduced Occupancy Detection Area

Approximately 2m² [22ft²] at floor
Varies with fixture and ceiling height

0' [0 m]

Wireless Sensor Example Layout

Daisy-chain switching control and 0-10V dimming up to 360W of luminaires per sensor

WaveLinx Tilemount Daylight Sensor Accessory (SWTPD1)
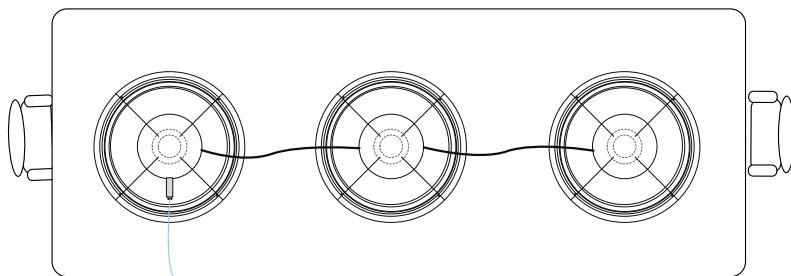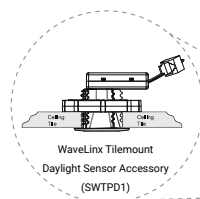
54" [1372 mm} plenum rated sensor cable

COOPER
Lighting Solutions