

Project		Catalog #		Type	
Prepared by		Notes		Date	



Shaper

Shaper Sense™ Drum - Ribsy

Acoustic Lighting
Pendant Luminaire Suspended Direct/Indirect

Typical Applications

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

Compliance and Award Winning Family

Systems | Certification | Partnerships



filzfelt



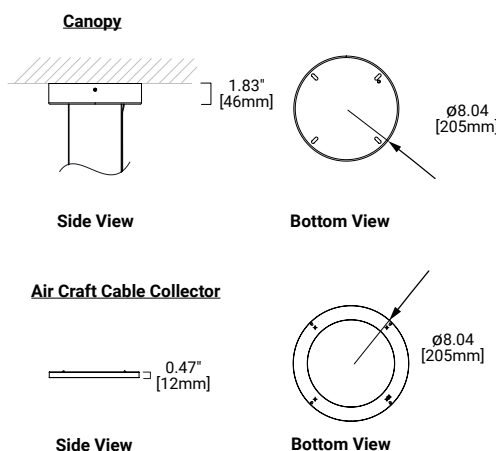
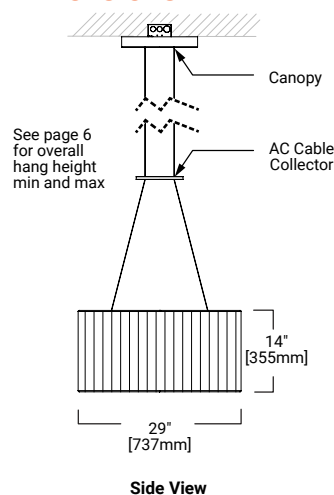
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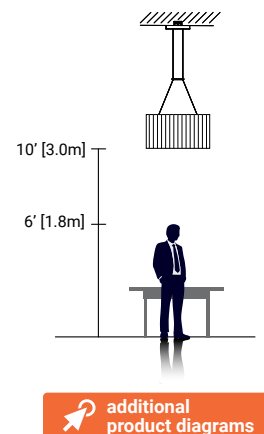
Top Product Features

- 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.
- Lighting 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 60+ border edge border, 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 200°F / 93.3°C and acoustic sound absorbing substrate materials can be cleaned with bleach and disinfectants

Dimensions



Scale



Order Information

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

Series	Shape / Family	Type	Light Level (Lumens /Wattage)	Color Temp (CCT)	CRI	Voltage	Mounting	Driver / Dimming
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)	STD = 0-10V (1%) Dimming DCD = 0-10V (0.1%) Dimming LH ¹ = Lutron Hi-Lume 1% Eco System Dimming*
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	Notes 1. Not available for light level 3

Ribsy Color (RIBXXX)		Border Edge Border (BEB)		Accessories (Optional)
Finish				Accessories (Optional)
Ribsy Color (RIBXXX)	Border Edge Border (BEBXXX)			
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)	BEB100 =Wollweiss BEB110 =Rohweiss BEB150 =Weiss BEB160 =Beige BEB170 =Asche BEB175 =Graphit BEB190 =Natur-meliert BEB200 =Natur BEB220 =Rehbraun BEB250 =Truffelbraun BEB300 =Anthrazit BEB102 =Kirsche BEB105 =Rost BEB116 =Orange BEB125 =Tomate BEB136 =Weinrot BEB156 =Loden BEB203 =Vanille BEB274 =Senf BEB312 =Lagune BEB331 =Sahara BEB385 =Schlamm	BEB408 =Taupe BEB415 =Schlif BEB437 =Aubergine BEB448 =Moos BEB503 =Magnolie BEB534 =Rose BEB540 =Ozean BEB613 =Gletscher BEB626 =Azur BEB686 =Enzian BEB713 =Kiwi BEB732 =Farn BEB124 =Gelb BEB131 =Honig BEB151 =Hellorange BEB173 =Mango BEB179 =Hellrot BEB180 =Terracotta BEB201 =Rot BEB209 =Bordeaux BEB231 =Rosa BEB242 =Pink	BEB255 =Flieder BEB265 =Lavendel BEB269 =Violett BEB272 =Royal BEB282 =D'Blau BEB284 =Himmel BEB286 =H'Blau BEB308 =Petro BEB343 =D'Grun BEB345 =Pazifik BEB377 =Maigrun BEB378 =Oliv BEB384 =Lind BEB411 =Alpaka BEB423 =Hellgrau BEB425 =Taubengrau BEB426 =Schwarz BEB467 =Sand BEB476 =Schoko BEB497 =D'Braun BEB533 =Indigo BEB548 =Turkis	WTA =Wavelinx Tile Sensor, tile mount
Notes	Notes			Notes Order separately. Consult factory for more information.

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
- 160+ 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 over 60+ color choices for the bottom 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

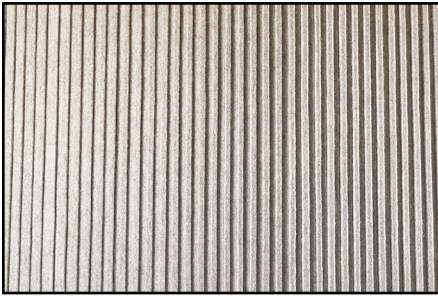
- FilzFelt felt can be cleaned with steam cleaner up to 200°F/93.3°C. Acoustic substrate can be cleaned with bleach and disinfectants
- Maintenance and cleaning instructions found [here](#)
- See page 5 for more details on cleaning.

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.

Ordering Information and Risby Color options



RISBY150 - 150 Weiss



RISBY170 - 170 Asche



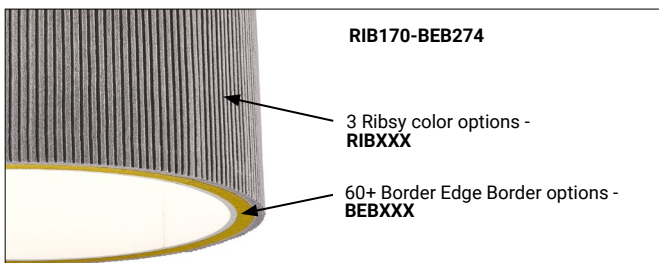
RISBY175 - 175 Graphit

Ordering Information - Felt Color Chart for Border Edge Border Only

Select **BEBXXX** for Base Layer Color Selection from chart. XXX = number of color. Ex. BEB136 is Weinrot.



Ordering Example



RIB175-BEB175

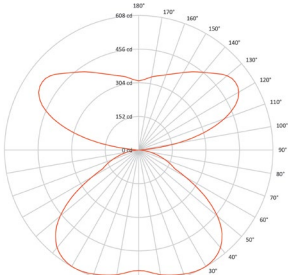


RIB150-BEB150



Lumen Maintenance

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

SHAPER SENSE - DRUM DUO - @ 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	 <div><p>Color Vector Graphic TM-30-15</p><table><tr><td>R_f</td><td>91</td></tr><tr><td>R_g</td><td>98</td></tr><tr><td>R9</td><td>67</td></tr></table></div>	R _f	91	R _g	98	R9	67
R _f	91									
R _g	98									
R9	67									
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						

DRUM			
Light Level-CCT-CRI	Delivered	Power	Efficacy
	LUMENS	WATTS	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

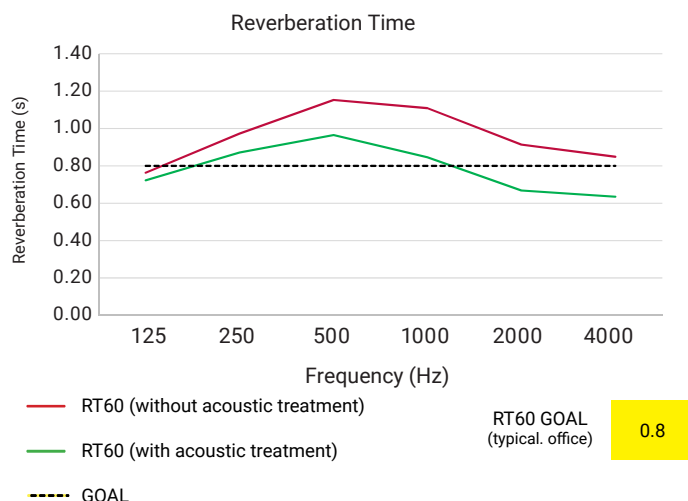
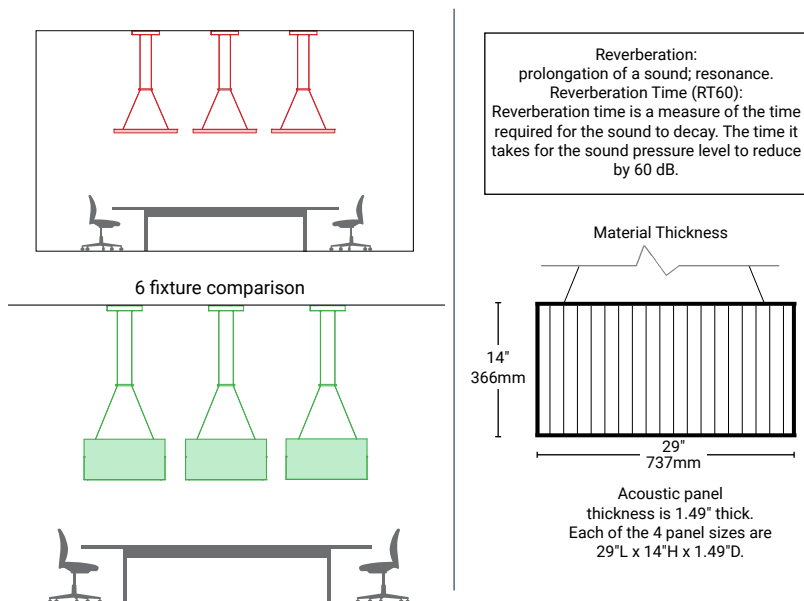
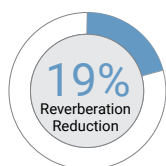
RT60 : Light Fixtures with sound absorption

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.



Acoustic Material Maintenance: Cleaning and Health Features

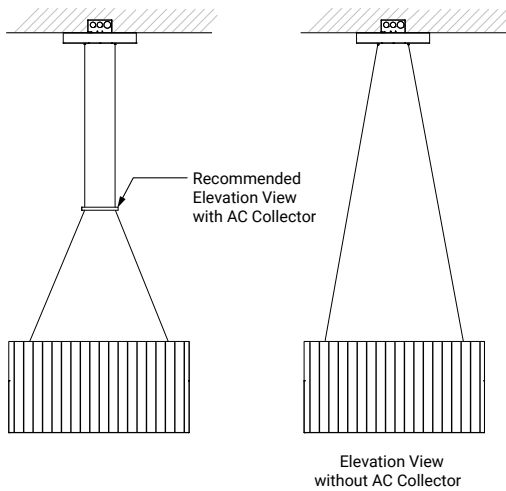


- A health benefit to using FilzFelt materials, is the ability for the material to be steam cleaned up to 200 deg F (93.3 deg C). This protects the space by ensuring that bacteria and viruses don't live on these surfaces, but allows the material to meet the needs of spaces today.
- The acoustic sound absorption substrate material used in Shaper Sense products are cleanable by bleach and other disinfectants. This makes the materials suitable for clean environments.

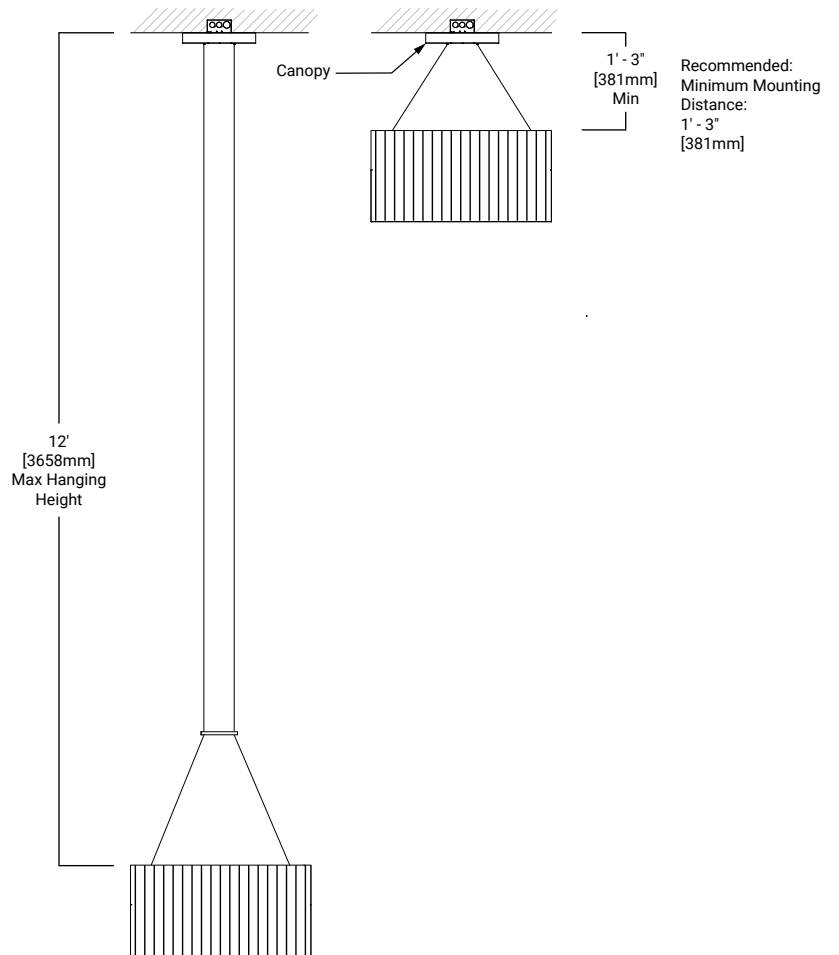
	Felt	Acoustic Substrate
General Cleaning	Vacuum occasionally to remove general air-borne debris. Spot clean with a mild enzyme-based detergent (such as Tide Free) and water solution. Avoid aggressive rubbing as this can continue the felting process and change the surface appearance of the felt.	Vacuum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

Mounting Information and Recommendations

Collector is recommended but not required



Maximum and Minimum Hanging Heights



Connected Control (Optional)

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

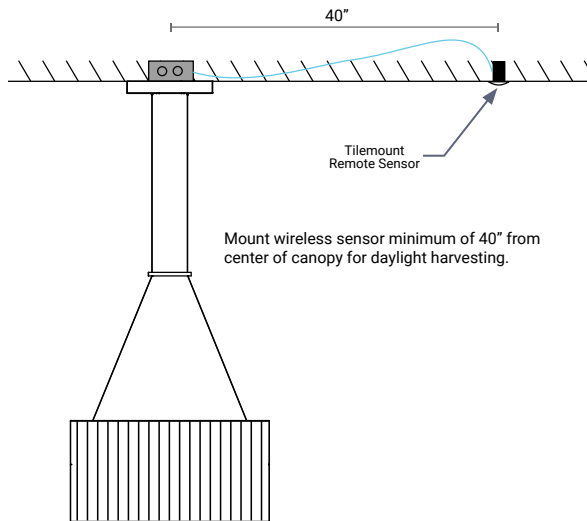
Product Family	Description
WTA = WaveLinx Wireless Sensor	<p>WTA =</p> <ul style="list-style-type: none"> WaveLinx wireless sensor kit for daylight dimming, PIR motion sensing, and optional RLTS - Real Time Location Services, use with 0-10V driver (Refer to WaveLinx system specifications and guides for 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

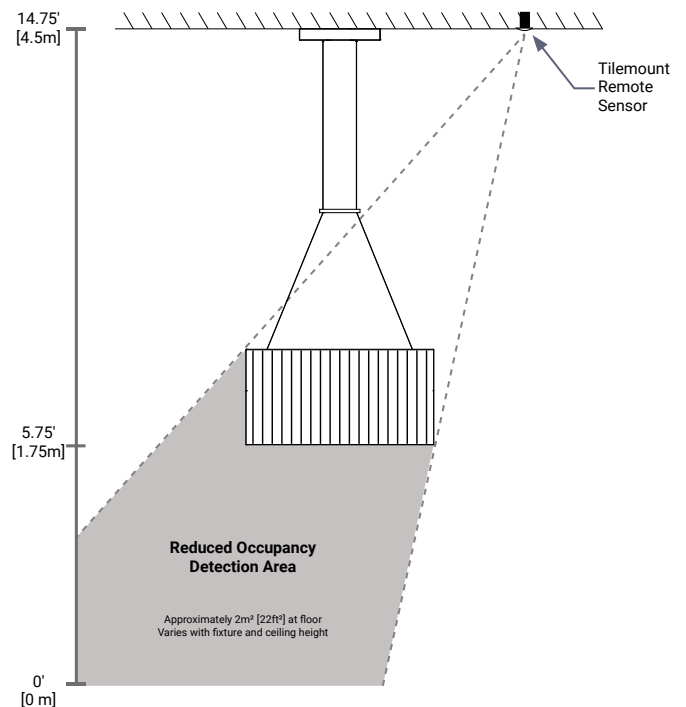
The WaveLinx Tilemount sensor option is an integral part of the WaveLinx Wireless Connected Lighting System. It offers 3 amp relay control and continuous 0-10V dimming of Shaper Sense luminaires. The tilemount sensor provides daylight dimming and control for a single luminaire or can be daisy chained for group luminaire control. The sensor's control module allows simple electrical junction box mounting via a 1/2" 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



Occupancy Detection - Coverage



Wireless Sensor Example Layout

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

