



SUPERPLANE 2.5

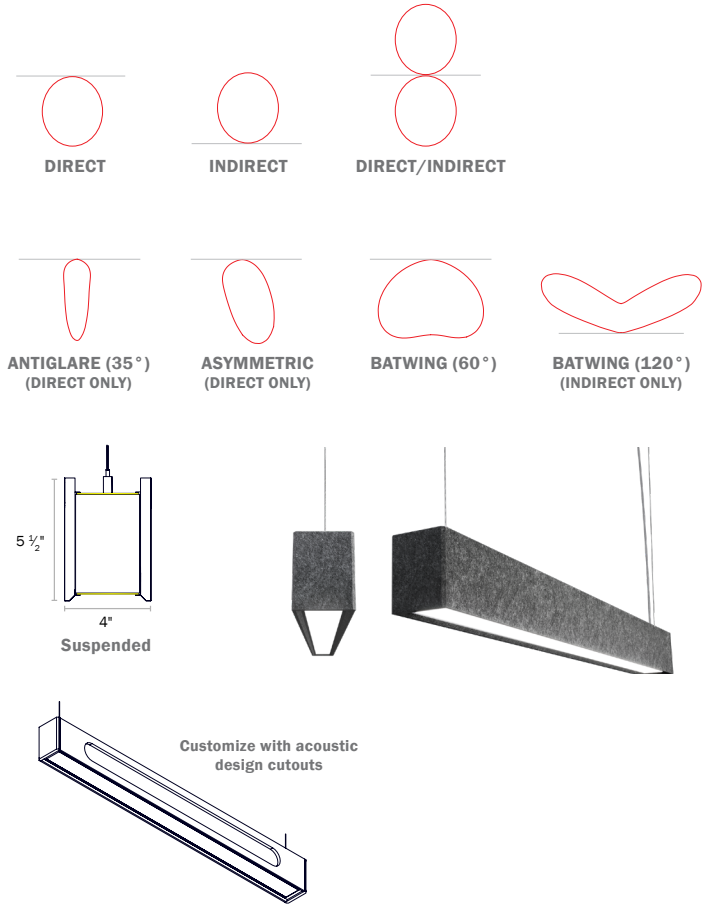
THE HARMONIC COLLECTION | ACOUSTICS
SP2.5SA | CONTROLROLL OPTICS | SUSPENDED



SPECIFICATIONS

PROFILE	2.5" Aperture, 3.93" total width
SIZES	2ft - 8ft sections
LED OUTPUT	350lm/ft - 1,525lm/ft
CCT/CRI	2700K/3000K/3500K/4000K • 80 or 90+ CRI Tunable White (2700K - 6500K) • RGB and RGB+W
DIMMING/ DRIVER	Integral and Remote Driver: 0-10V, DALI, DMX, eldoLED, Lutron®, PoE (Molex, Igor, NuLEDs). Dimming to 0% for select models.
POWER	3.1W - 10.7W per ft
INPUT	120VAC, 277VAC, or 347VAC
OPTICS	ControlRoll Optics - Continuous lens up to 250ft. Direct/indirect. Lambertian, Asymmetric, Batwing and Antiglare/Grazer optics available.
FINISHES	10 standard acoustic colors 17 powder coat finishes Custom finishes also available
MATERIAL	6063-T6 Extruded Aluminum. 0.5" PET polyester felt.
ENVIRONMENT	Dry or damp locations

DISTRIBUTIONS & PROFILES



Not to scale. Dimensions are nominal. Consult factory for CAD drawing



WELL/UGR See ALW **WELL** and **BIOS** pages for recommended options that contribute to meeting the WELL Building Standard™.

*Safety and Performance information available on last two pages. Output and other specifications available on page 8.

Rev 012225



PRODUCT SPECIFICATION SHEET



1	2	4a	4b	4c	5	6	7a	7b	7c	8	9	10	11	12	13	14
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15a	15b	15c
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EXAMPLE: SP2.5SA – CAP/M – S5 – MED/90/3500 – V00 – CR/S – LOW/90/3500 – V00 – CR/S – ACW – DCSTM

SW – SW – UNV – EMB/1 – AY/xx – SB

1. BASE MODEL	2. END CAP* (CHOOSE 1)	3. NOMINAL LENGTH* (ENTER LENGTH IN FEET)	4. LED LAMPING - DIRECT* (CHOOSE 1 FOR EACH)
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<p>SP2.5SA 2.5" aperture, 3.93" total width Suspended Acoustic</p>	<p>CAP/M² Metal End Cap CAP/A Acoustic End Cap</p> <p>²Add an aesthetic touch with a brushed or powder coated end cap. ³Metal end caps are not available for indirect only lamping option.</p> <div style="display: flex; justify-content: space-around;">   </div> <p>Metal End cap Acoustic End cap</p>	<p>S__ Individual/Straight Run Section from 2-8ft (enter length in product code above, ex. S5)</p> <p>⁴Lengths are nominal. To ensure lengths match the exact lengths of other fixtures and/or sound baffles on the project it's recommended to include all products on a single purchase order, provide a RCP (Reflective Ceiling Plan), and any additional details for ALW to review.</p>	<p>N None. Lenses will be substituted with acoustic lid.</p> <table border="1"> <thead> <tr> <th>A. OUTPUT⁵</th> <th>B. CRI²</th> <th>C. CCT²</th> </tr> </thead> <tbody> <tr> <td>MIN (350 lm/ft)</td> <td>NO CRI/CCT²</td> <td></td> </tr> <tr> <td>LOW (475 lm/ft)</td> <td>80</td> <td>2700K⁶</td> </tr> <tr> <td>MED (750 lm/ft)</td> <td>90</td> <td>3000K</td> </tr> <tr> <td>HI (1030 lm/ft)</td> <td>BIOS⁴</td> <td>3500K</td> </tr> <tr> <td>MAX (1250 lm/ft)</td> <td>BIOS⁴ (STATIC BIOS)</td> <td>4000K</td> </tr> <tr> <td>RGB (140 lm/ft)</td> <td>BIOSD⁴ (DYNAMIC BIOS)</td> <td></td> </tr> <tr> <td colspan="3">TUNE (2700K-6500K, 90 CRI, 475/515 lm/ft)</td> </tr> <tr> <td colspan="3">RGBW (3500K, White, 80 CRI, 140/220 lm/ft)</td> </tr> <tr> <td colspan="3">CSTM _____⁶ (Enter lumens in product code above. Ex. 0100=100lm/ft)</td> </tr> </tbody> </table> <p>⁷For delivered lumens and watts, see 'Performance Details' ²CRI/CCT options not applicable for TUNE, RGB, or RGBW lamping ³Choose when TUNE, RGB, or RGBW is desired output ⁴Static BIOS SkyBlue® 490nm LED is always on. Dynamic BIOS SkyBlue® 490nm LED can be tuned out with most LED driver and dimmer combinations. See pages 10-11 for details. ⁶90 CRI only, 2700K is not available in BIOS options ⁷Consult ALW for custom lumen packages.</p>	A. OUTPUT ⁵	B. CRI ²	C. CCT ²	MIN (350 lm/ft)	NO CRI/CCT²		LOW (475 lm/ft)	80	2700K⁶	MED (750 lm/ft)	90	3000K	HI (1030 lm/ft)	BIOS⁴	3500K	MAX (1250 lm/ft)	BIOS⁴ (STATIC BIOS)	4000K	RGB (140 lm/ft)	BIOSD⁴ (DYNAMIC BIOS)		TUNE (2700K-6500K, 90 CRI, 475/515 lm/ft)			RGBW (3500K, White, 80 CRI, 140/220 lm/ft)			CSTM _____ ⁶ (Enter lumens in product code above. Ex. 0100=100lm/ft)		
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5. DRIVER - DIRECT* (CHOOSE 1)	6. LENS - DIRECT	7. LED LAMPING - INDIRECT* (CHOOSE 1 FOR EA.)	8. DRIVER - INDIRECT* (CHOOSE 1)
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<p>QS N (None) QS V00 (dim to off) QS V01 (0-10V, dim to 1%) QS V05 (0-10V, dim to 5%) LDE1 (Lutron ECOSYS1, 0-10V, dim to 1%) P01 (ELV/TRIAC phase dim to 1%) TSERIES (Lutron tuneable white) ELDVO (eldoLED 0-10V dim to 0%) ELDDW (eldoLED dim to warm) DALI (DALI, dim to 0%) DMX (DMX, dim to 0%) POEM (POE Molex) POEI (POE IGOR) POEN (POE Nuleds) POE⁷ (POE Ready)</p>	<p>N⁸ None. CR/S ControlRoll lens with diffused, lambertian distribution CR/ASY ControlRoll lens with asymmetric/wall wash distribution (peak intensity 25°) CR/BAT⁹ ControlRoll lens with batwing/flood distribution (peak intensity 60°) CR/AG ControlRoll lens with antiglare/grazer optics (35° distribution)</p> <p>⁸Select when direct lamping is not desired. The lens will be substituted with an aluminum lid with same finish as fixture. ⁹Not available for TUNE, RGB, RGBW, BIOS, or BIOSD lamping.</p> <div style="display: flex; justify-content: space-around;">     </div> <p>CR/S CR/ASY CR/BAT CR/AG</p>	<p>N None. Select when indirect lamping is not desired. Lens substituted with aluminum lid. Must select direct lamping.</p> <table border="1"> <thead> <tr> <th>A. OUTPUT⁵</th> <th>B. CRI²</th> <th>C. CCT²</th> </tr> </thead> <tbody> <tr> <td>MIN (370 lm/ft)</td> <td>NO CRI/CCT²</td> <td></td> </tr> <tr> <td>LOW (500 lm/ft)</td> <td>80</td> <td>2700K⁶</td> </tr> <tr> <td>MED (775 lm/ft)</td> <td>90</td> <td>3000K</td> </tr> <tr> <td>HI (1050 lm/ft)</td> <td>BIOS⁴</td> <td>3500K</td> </tr> <tr> <td>MAX (1300 lm/ft)</td> <td>BIOS⁴ (STATIC BIOS)</td> <td>4000K</td> </tr> <tr> <td>RGB (150 lm/ft)</td> <td>BIOSD⁴ (DYNAMIC BIOS)</td> <td></td> </tr> <tr> <td colspan="3">TUNE (2700K-6500K, 90 CRI, 490/530 lm/ft)</td> </tr> <tr> <td colspan="3">RGBW (3500K, White, 80 CRI, 150/325 lm/ft)</td> </tr> <tr> <td colspan="3">CSTM _____⁶ (Enter lumens in product code above. Ex. 0100=100lm/ft)</td> </tr> </tbody> </table> <p>⁷For delivered lumens and watts, see 'Performance Details' ²CRI/CCT options not applicable for TUNE, RGB, or RGBW lamping ³Choose when TUNE, RGB, or RGBW is desired output ⁴Static BIOS SkyBlue® 490nm LED is always on. Dynamic BIOS SkyBlue® 490nm LED can be tuned out with most LED driver and dimmer combinations. See pages 10-11 for details. ⁶90 CRI only, 2700K is not available in BIOS options ⁷Consult ALW for custom lumen packages.</p>	A. OUTPUT ⁵	B. CRI ²	C. CCT ²	MIN (370 lm/ft)	NO CRI/CCT²		LOW (500 lm/ft)	80	2700K⁶	MED (775 lm/ft)	90	3000K	HI (1050 lm/ft)	BIOS⁴	3500K	MAX (1300 lm/ft)	BIOS⁴ (STATIC BIOS)	4000K	RGB (150 lm/ft)	BIOSD⁴ (DYNAMIC BIOS)		TUNE (2700K-6500K, 90 CRI, 490/530 lm/ft)			RGBW (3500K, White, 80 CRI, 150/325 lm/ft)			CSTM _____ ⁶ (Enter lumens in product code above. Ex. 0100=100lm/ft)			<p>QS N (None) QS V00 (dim to off) QS V01 (0-10V, dim to 1%) QS V05 (0-10V, dim to 5%) LDE1 (Lutron ECOSYS1, 0-10V, dim to 1%) P01 (ELV/TRIAC phase dim to 1%) TSERIES (Lutron tuneable white) ELDVO (eldoLED 0-10V dim to 0%) ELDDW (eldoLED dim to warm) DALI (DALI, dim to 0%) DMX (DMX, dim to 0%) POEM (POE Molex) POEI (POE IGOR) POEN (POE Nuleds) POE⁷ (POE Ready)</p>
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⁵See 'Driver' and lamping charts for driver details and compatibility.
⁶Choose desired PoE solution not listed. Contact customer service to review and confirm the PoE system of your choice.

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9. LENS - INDIRECT (CHOOSE 1)	10. ACOUSTIC FINISH* (CHOOSE 1)	11. ACOUSTIC DESIGN (CHOOSE 1)	12. FIXTURE FINISH* (CHOOSE 1)
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<p>N¹⁰ None. CR/S ControlRoll lens with diffused, lambertian distribution CR/BAT ControlRoll lens with batwing/flood distribution (peak intensity 60°) BAT¹¹ Rigid batwing optic (peak intensity 120°)</p> <p>¹⁰Lens will be substituted with an aluminum lid with same finish as fixture. ¹¹Not available for TUNE, RGB, RGBW, BIOS, or BIOSD</p> <div style="display: flex; justify-content: space-around;">    </div> <p>CR/S CR/BAT BATWING (120°)</p>	<table border="1"> <tr> <td>ACW</td> <td>Crystal White</td> </tr> <tr> <td>AMW</td> <td>Marble White</td> </tr> <tr> <td>AHG</td> <td>Heather Gray</td> </tr> <tr> <td>ACG</td> <td>Charcoal Gray</td> </tr> <tr> <td>AJB</td> <td>Jet Black</td> </tr> <tr> <td>AIW</td> <td>Ivory White</td> </tr> <tr> <td>AAG</td> <td>Aloe Green</td> </tr> <tr> <td>ATO</td> <td>Titan Orange</td> </tr> <tr> <td>ASR</td> <td>Scarlet Red</td> </tr> <tr> <td>AMB</td> <td>Midnight Blue</td> </tr> </table> <p>¹²See page 7 for larger swatches and additional information</p>	ACW	Crystal White	AMW	Marble White	AHG	Heather Gray	ACG	Charcoal Gray	AJB	Jet Black	AIW	Ivory White	AAG	Aloe Green	ATO	Titan Orange	ASR	Scarlet Red	AMB	Midnight Blue	<p>N None. Choose for a solid acoustic insert. DCSTM Custom Design (See template on page 5)</p> <div style="display: flex; justify-content: space-around;">   </div> <p>N= Solid Acoustic DCSTM= Custom Design Cutout</p>	<p>STANDARD FINISHES SW <input type="checkbox"/> Satin White SB <input checked="" type="checkbox"/> Satin Black AS <input type="checkbox"/> Aluminum Silver Anodized Effect TB <input checked="" type="checkbox"/> Textured Black</p> <p>PREMIUM FINISHES -- See chart on page 6 for more standard finishes. Manually type in the finish code (Ex: OB = Oil-Rubbed Bronze)</p> <p>SPECIAL ORDER FINISHES¹³ RAL _____ Specify RAL Classic Color (Ex: RAL 3003) CCM _____ Specify Catalog Colors Custom Color Match</p> <p>¹³Manually type in the finish code for special order finishes types</p>
ACW	Crystal White																						
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PRODUCT SPECIFICATION SHEET CONT'D

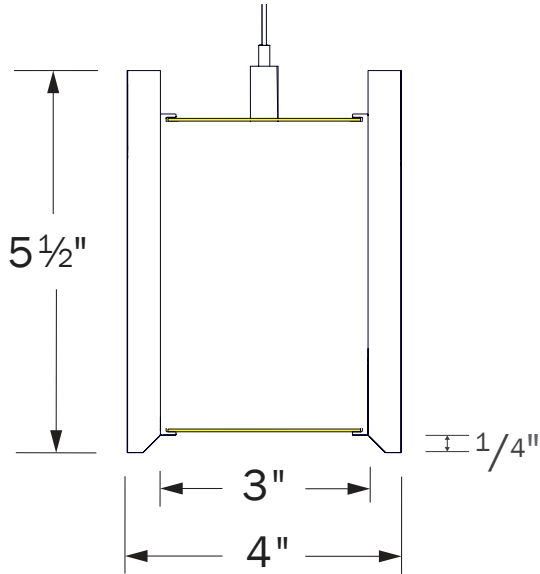
13. FINISH - END CAP (CHOOSE 1)	14. VOLTAGE (CHOOSE 1)	15a. EMERGENCY OPTIONS (OPTIONAL, CHOOSE 1)
<p>N¹² None.</p> <p>STANDARD FINISHES</p> <p>LB <input type="checkbox"/> Light Brushed Aluminum</p> <p>SW <input type="checkbox"/> Satin White</p> <p>SB <input type="checkbox"/> Satin Black</p> <p>AS <input type="checkbox"/> Aluminum Silver Anodized Effect</p> <p>TB <input type="checkbox"/> Textured Black</p> <p>PREMIUM FINISHES</p> <p>___ See chart on page 6 for more standard finishes. Manually type in the finish code (Ex: OB = Oil-Rubbed Bronze)</p> <p>SPECIAL ORDER FINISHES*</p> <p>RAL____ Specify RAL Classic Color (Ex: RAL 3003)</p> <p>CCM____ Specify Catalog Colors Custom Color Match</p> <p><small>*Manually type in the finish code for special order finishes types</small></p> <p><small>¹²Select when specifying acoustic end cap.</small></p>	<p>UNV Universal Voltage (120VAC-277VAC)</p> <p>347 347 Volt (Driver options may be limited. Not available with EMB)</p>	<p>EMB/___¹³ Emergency Battery (indicate QTY – each battery powers 4ft. section @ 1492lm. Not available in 347 V)</p> <p>EMC/___¹³ Emergency Circuit (indicate QTY of 4ft sections to be illuminated by emergency circuit)</p> <p><small>¹³For fixtures under 4ft in length, entire fixture will be illuminated with a proportional lumen output. Consult ALW for more details.</small></p>

15b. CONTROL OPTIONS* (OPTIONAL)	15c. ADDITIONAL OPTIONS (OPTIONAL)
<p>N None</p> <p>FACTORY CONTROLS</p> <p>OS/PH/INT/___ Integral Occupancy/Daylight sensor</p> <p>OS/PH/HV/___ Remote Occupancy/Daylight sensor</p> <p>NETWORK CONTROLS</p> <p><small>Embedded controls below are placeholder specs. See the ALW Controls Guide to finalize your final control spec.</small></p> <p>AY/xx Acuity</p> <p>AN/xx Avi-on</p> <p>CA/xx Casambi</p> <p>CW/xx/___ Cooper Wavelinx</p> <p>EC/xx/___ Encelium</p> <p>EN/xx/___ Enlighted</p> <p>LU/xx/___ Lutron</p> <p>NX/xx/___ NX Controls</p> <p>WA/xx/___ Wattstopper</p> <p><small>*Quickship availability on occupancy and photocell daylight sensors may vary. Contact ALW for more information.</small></p> <p><small>*Contact ALW for Additional Zone specifications</small></p>	<p>SB Seismic Bracing</p>

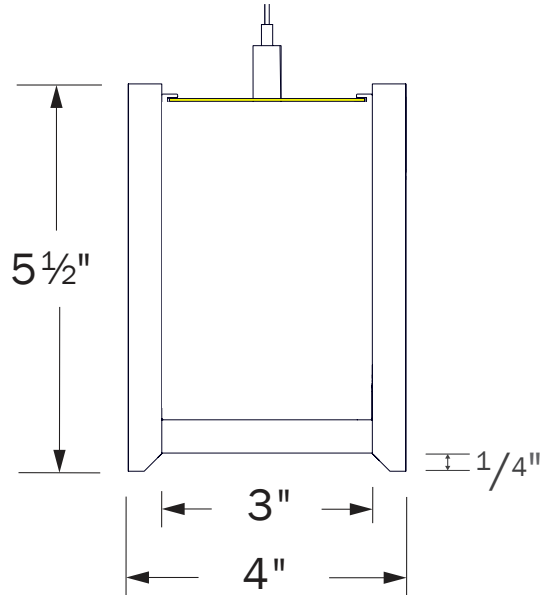


MECHANICAL DIAGRAMS

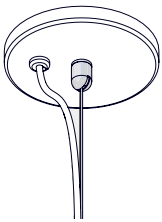
DIRECT OR DIRECT/INDIRECT



INDIRECT ONLY

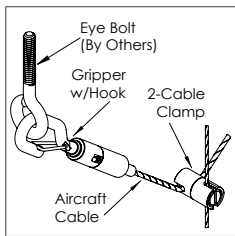


SUSPENSION MOUNTING OPTIONS



CEILING HARDWARE

- 4.5" canopy per power feed location. Canopy finish is always white. Contact ALW for alternate colors.
- Bullet mount,
- 8' aircraft cable
- 2" canopy (for use with T-bar mounting) per suspension point



SEISMIC BRACING (SB)

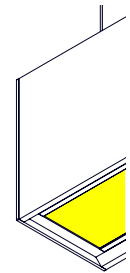
Add-on hardware includes cable gripper with hook, 2-cable clamp and specified length of aircraft cable per suspension point.

ACOUSTIC END CAP



Available with Direct, Indirect, or Direct/Indirect Lamping. When Indirect Only is specified an acoustic lid will be installed on the direct lamping side.

METAL END CAP

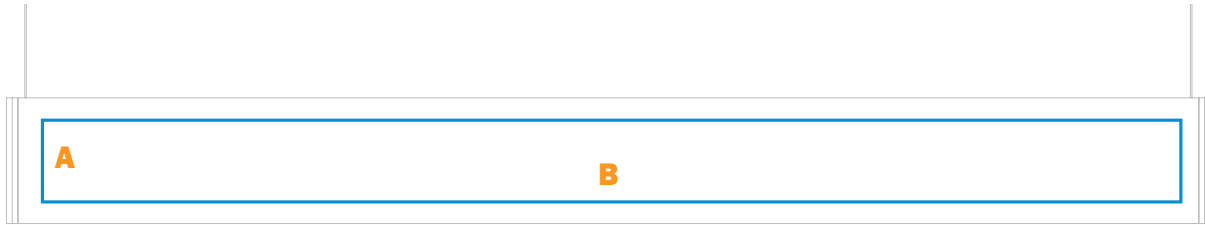


Available with Direct or Direct/Indirect Lamping. Metal end caps are not available for Indirect Only Lamping.

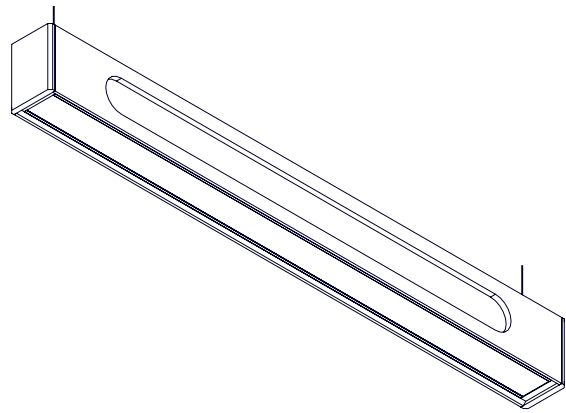


CUSTOM ACOUSTIC PATTERNS

Choose from a solid sound absorbing baffle or create your own custom designs by following the instructions and template guidelines below. Gray areas indicate templates for acoustic pattern cutouts.



DIMENSION	BASE MODEL	CUT OUT AREA
A	SP2.5SA - 5.5" height	3.5"
B	S2 - 2' (24") length	22"
	S3 - 3' (36") length	34"
	S4 - 4' (48") length	46"
	S5 - 5' (60") length	58"
	S6 - 6' (72") length	70"
	S7 - 7' (84") length	82"
	S8 - 8' (96") length	94"



HOW TO SUBMIT YOUR CUSTOM ACOUSTIC PATTERN?

1. DOWNLOAD THE ACOUSTIC CUSTOM PATTERN .ZIP FILE ON THE PRODUCT PAGE

Open the appropriate .ai (Adobe Illustrator) or CAD .dxf file.

2. INPUT YOUR DESIGN WITHIN THE TEMPLATE AREA.

Template area will be marked with a dashed perimeter.

3. SAVE YOUR FILE. INCLUDE THE PROJECT NAME AND OTHER SUPPORTING INFO AT THE END OF THE FILE NAME.

For example, "SP2.5SA Custom Acoustic Design Template - Project ALW".

4. SUBMIT FORMS BELOW TO ALW FOR REVIEW.

1. Acoustic Design Template File
2. Product Code and Quantities



FINISHES

Standard finishes are available at no additional charge.

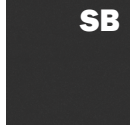
STANDARD FINISHES



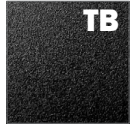
Satin White



Aluminum Silver Anodized Effect



Satin Black



Textured Black



Light Brushed Aluminum

* Only for End Cap finish

PREMIUM FINISHES

BASIC POWDER COAT



Gloss White



Antimicrobial Gloss White



Textured Matte White

METALLIC POWDER COAT



Charcoal Gray



Copper



Brass

SATIN ANODIZED EFFECT POWDER COAT



Oil-Rubbed Bronze



Dark Bronze

GLOSS POWDER COAT (80-95% GLOSS)



Orange
RAL 2003



Red
RAL 3020



Magenta
RAL 4010



Blue
RAL 5015

Contact ALW Quotes for sample paint finish swatches.

SPECIAL ORDER FINISHES*



RAL CLASSIC COLORS (80-95% GLOSS): RAL_ _ _ _

Most RAL Classic Colors are available for a minimum setup fee. On your specification submittal choose your RAL color by entering the 4-digit RAL code (Ex: RAL 3003). See www.alw-inc.com/resources/finishes



CUSTOM COLOR MATCH: CCM_ _ _ _

Custom powder coat color matching is available for a premium setup fee. Consult ALW for additional information.

*An individual setup fee will apply to each unique Special Order Finish per purchase order.
(ex: RAL 5023 and RAL 2008 are specified for multiple line items on a purchase order. 2x setup fees will apply)

*Printed or on-screen colors are only approximations - consult actual Color Chip Set before specifying



ACOUSTIC FINISHES

ACOUSTIC COLORS & INFORMATION

The Harmonic Collection features 10 acoustic material colors comprised of ~0.5" (12mm) PET polyester fibers, specially designed for premium sound absorption. ALW's PET acoustics as a 2D absorber have a NRC (Noise Reduction Coefficient) of 85%. Each panel is precision-cut to size using our CNC-cutting process, enabling a wealth of design options from beveled edges to custom cutouts. All panels conform to ASTM E84 Class A and EN13501-1 Class B fire ratings.



COMPANION ACOUSTIC COLORS & RAL FINISHES

The chart below outlines suggested RAL finishes to complement the acoustic colors above. With exception to ALW Satin Black and Satin White these RAL suggestions are not standard paint finish offerings. See next page for ALW's full paint finish catalog.

ACOUSTIC COLOR	COMPANION RAL FINISHES	ACOUSTIC COLOR	COMPANION RAL FINISHES
Crystal White	ALW Satin Black (SB) ALW Satin White (SW)	Ivory White	ALW Satin Black (SB) ALW Satin White (SW)
Marble White	RAL 7024 - Graphite Grey RAL 7046 - Telegrey 2 ALW Satin Black (SB) ALW Satin White (SW)	Aloe Green	RAL 6025 - Fern Green (slightly darker shade than acoustic) RAL 7013 - Brown Grey ALW Satin Black (SB) ALW Satin White (SW)
Heather Gray	RAL 7024 - Graphite Grey RAL 7046 - Telegrey 2 ALW Satin Black (SB) ALW Satin White (SW)	Titan Orange	RAL 2011 - Deep Orange RAL 5003 - Sapphire Blue RAL 5008 - Grey Blue RAL 8011 - Nut Brow RAL 9001 - Cream ALW Satin Black (SB) ALW Satin White (SW)
Charcoal Gray	RAL 7021 - Black Grey RAL 7024 - Graphite Grey ALW Satin Black (SB) ALW Satin White (SW)	Scarlet Red	RAL 3031 - Orient Red RAL 7047 - Telegrey 4 RAL 9001 - Cream ALW Satin Black (SB) ALW Satin White (SW)
Jet Black	ALW Satin Black (SB) ALW Satin White (SW)	Midnight Blue	RAL 5002 - Ultramarine Blue RAL 2011 - Deep Orange RAL 4010 - Magenta RAL 7047 - Telegrey 4 RAL 9001 - Cream ALW Satin Black (SB) ALW Satin White (SW)



PERFORMANCE DETAILS

OUTPUT	OPTIC TYPE	DELIVERED LUMENS/FT	DELIVERED LUMENS/FT	EFFICACY (LM/W)	EFFICACY (LM/W)	WATTS/FT ¹⁴	CRI OPTIONS	CCT OPTIONS
		DIRECT	INDIRECT	DIRECT	INDIRECT			
MIN ¹⁵	CR/S	350	370	113	119	3.1		
	CR/ASY	370	N/A	119	N/A			
	CR/BAT	350	350	113	113			
	CR/AG	370	N/A	119	N/A			
	BAT	N/A	440	N/A	142			
LOW ¹⁵	CR/S	475	500	113	119	4.2		
	CR/ASY	500	N/A	119	N/A			
	CR/BAT	470	490	112	117			
	CR/AG	500	N/A	119	N/A			
	BAT	N/A	580	N/A	138			
MED ¹⁵	CR/S	750	775	115	119	6.5	80+ 90+	2700K (90CRI Only) 3000K 3500K 4000K 5000K
	CR/ASY	775	N/A	119	N/A			
	CR/BAT	735	750	113	115			
	CR/AG	775	N/A	119	N/A			
	BAT	N/A	920	N/A	142			
HI ¹⁵	CR/S	1030	1050	117	119	8.8		
	CR/ASY	1050	N/A	119	N/A			
	CR/BAT	1000	1030	114	117			
	CR/AG	1050	N/A	119	N/A			
	BAT	N/A	1250	N/A	142			
MAX ¹⁵	CR/S	1250	1300	117	121	10.7		
	CR/ASY	1300	N/A	121	N/A			
	CR/BAT	1200	1250	112	117			
	CR/AG	1300	N/A	121	N/A			
	BAT	N/A	1525	N/A	143			
TUNE	CR/S	WW: 475, CW: 515	WW: 490, CW: 530	WW: 113, CW: 123	WW: 117, CW: 126	4.2/channel	90+	2700K - 6500K
	CR/ASY	WW: 490, CW: 530	N/A	WW: 117, CW: 126	N/A			
	CR/BAT	WW: 460, CW: 500	WW: 480, CW: 520	WW: 110, CW: 119	WW: 114, CW: 124			
	CR/AG	WW: 490, CW: 550	N/A	WW: 117, CW: 131	N/A			
	BAT	N/A	N/A	N/A	N/A			
RGB ¹⁶	CR/S	140	150	28	30	5	N/A	N/A
	CR/ASY	140	N/A	28	N/A			
	CR/BAT	140	150	28	34			
	CR/AG	140	N/A	28	N/A			
	BAT	N/A	N/A	N/A	N/A			
RGBW ¹⁷	CR/S	RGB: 140, W: 220	RGB: 150, W: 325	RGB: 28, W: 44	RGB: 30, W: 65	5	80+ (White Chip)	3500K (White Chip)
	CR/ASY	RGB: 140, W: 220	N/A	RGB: 28, W: 44	N/A			
	CR/BAT	RGB: 140, W: 220	RGB: 150, W: 230	RGB: 28, W: 44	RGB: 30, W: 46			
	CR/AG	RGB: 140, W: 220	N/A	RGB: 28, W: 44	N/A			
	BAT	N/A	N/A	N/A	N/A			

¹⁴Lumens/Watt and Watts/ft have been calculated assuming a driver efficiency of 85%. Depending on field conditions, actual measured values may fluctuate by 5-8%.

¹⁵Performance calculations are based on LM-79 test of MAX output at 80 CRI and 4000K. MIN, LOW, MED and HIGH calculations are extrapolated values.

¹⁶Performance calculations are derived from LM-79 test with all RGB LEDs illuminated (Red, Green, Blue).

¹⁷Performance calculations are derived from the following LM-79 tests: 1) RGB LEDs illuminated, 2) RGB+W LEDs illuminated, 3) White LED only illuminated.



TM-30-18 DETAILS (90 CRI LAMPING)

CCT	CRI (Ra)	CRI (R9)	TM-30 Rf	TM-30 Rg	Duv
2700K	94	57	92	100	-0.0012
3000K	93	55	91	100	-0.0012
3500K	93	55	90	98	-0.0002
4000K	92	58	89	97	-0.0003

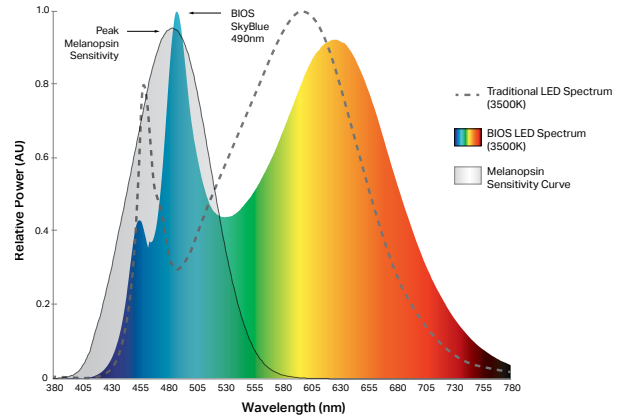


BIOS OVERVIEW



BIOS SkyBlue® technology is designed to provide the specific circadian stimulus required to improve overall sleep by **featuring a distinct peak in the 'skyblue' spectral power at 490nm**. Unlike traditional white LEDs, BIOS SkyBlue® makes it possible to achieve **high EML (Equivalent Melanopic Lux) and Melanopic/Photopic ratios** without harsh CCTs or high, glare-inducing light levels.

BIOS light engines are available in **Static** or **Dynamic** options for use with a variety of applications. In Static light engines, the SkyBlue 490nm signal always remains on while the fixture is powered. Dynamic options include a dynamic board and Bio-Dimmer module to allow the user to dim-out the SkyBlue 490nm signal during night time hours.



	BIOS STATIC (BIOS)	BIOS DYNAMIC + BIO-DIMMING™ (BIOSD)
DESCRIPTION	490nm SkyBlue light signal always remains on while the fixture is powered.	Dynamic light engine with Bio-Dimming add the ability to fine-tune and dim-out the 490nm SkyBlue signal during night time hours or as desired.
TYPICAL APPLICATIONS	Environments typically occupied only during daylight hours (6am - 8pm) such as offices and schools.	Environments occupied for a 24-hour period such as hospitals, security facilities, behavioral health facilities, factories, etc.
CONTROLS & DIMMING*	Works with any standard dimming controls (0-10V, Dali, EcoSystem, ELV, Triac, DMX, Wireless, etc.). BIOS melanopic ratio remains constant as you dim down the light intensity.	Works with any standard dimming controls (0-10V, Dali, EcoSystem, ELV, Triac, DMX, Wireless, etc.). BIOS SkyBlue® LED can be dimmed-out using a standard control/dimmer.

*No unique wiring instructions required. However, Dynamic + Bio-Dimming™ option must be set up properly during initial startup to the desired light level setpoint. See installation guide for details.

BIOS LED LAMPING DETAILS (STATIC OR DYNAMIC)

OUTPUT	DELIVERED LUMENS (LM/FT) DIRECT	DELIVERED LUMENS (LM/FT) INDIRECT	EFFICACY (LM/W) DIRECT	EFFICACY (LM/W) INDIRECT	WATTS (W/FT)	CRI
	CR/S CR/ASY CR/BAT CR/AG	CR/S CR/BAT BAT	CR/S CR/ASY CR/BAT CR/AG	CR/S CR/BAT BAT		
MIN¹⁸	350	370	113	119	3.1	82+
	370	350	119	113		
	350	440	113	142		
	370	-	119	-		
LOW¹⁸	475	500	113	119	4.2	
	500	490	119	117		
	470	580	112	138		
	500	-	119	-		
MED¹⁸	750	775	115	119	6.5	
	775	750	119	115		
	735	920	113	142		
	775	-	119	-		
HI¹⁸	1030	1050	117	119	8.8	
	1050	1030	119	117		
	1000	1250	114	142		
	1050	-	119	-		
MAX¹⁸	1250	1300	117	121	10.7	
	1300	1250	121	117		
	1200	1525	112	143		
	1300	-	121	-		

BIOS LED PERFORMANCE DETAILS

CCT	CRI (Ra) <i>Static BIOS Dynamic BIOS</i>	CRI (R9) <i>Static BIOS Dynamic BIOS</i>	DAYTIME M/P RATIO ¹⁹ <i>Static BIOS Dynamic BIOS</i>	NIGHTTIME M/P RATIO ²⁰ <i>Static BIOS Dynamic BIOS</i>	COI ²¹ <i>Static BIOS Dynamic BIOS</i>
3000K	82	94	0.70	0.70	3.0
	83	90	0.73	0.45	3.3
3500K	83	91	0.80	0.80	3.1
	83	90	0.84	0.50	3.1
4000K	83	91	0.90	0.90	3.1
	83	90	0.95	0.55	3.1

¹⁸Performance calculations are based on LM-79 test of BIOS 4000K, MAX output. MIN, LOW, MED and HIGH calculations are extrapolated values.

¹⁹Melanopic to photopic (M/P) ratios are used to help calculate equivalent melanopic lux (EML) values which is the metric used for circadian lighting in the WELL™ Building Standard.

²⁰Static LED nighttime M/P ratios remain the same as daytime M/P ratios as BIOS SkyBlue® always remains at full output.

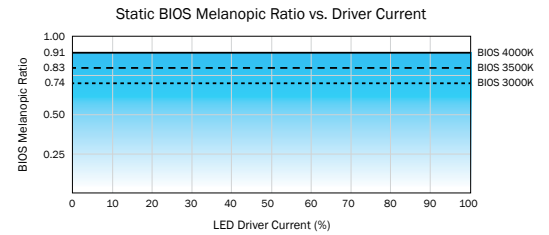
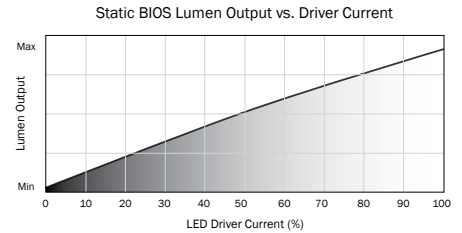
²¹BIOS SkyBlue® meets the Cyanosis Observation Index (COI) requirements for visual assessment of cyanosis, providing a COI up to 3.3.



BIOS STATIC DIMMING CONTROL CHARACTERISTICS

DIMMER SETTING	LIGHT OUTPUT* (BIOS SKYBLUE® + WHITE LED)		BIOS + White LED Intensity Dimming
100%* (Full On)	100%		
99% - 51%	Linear Dimming 99% - 51%		
50%	Linear Dimming 50%		
49% - 0%	Linear Dimming 49% - 0%		

BIOS SkyBlue® LED and White LED dim with a 1-to-1 ratio.



*While melanopic ratio remains constant, dimming/reducing light output will have an overall impact on Equivalent Melanopic Lux (EML). That is because $EML = \text{Vertical Lux} * \text{melanopic ratio}$. Therefore, if you reduce light levels by dimming the LEDs, you will reduce your effective EML, even when the melanopic ratio stays constant.

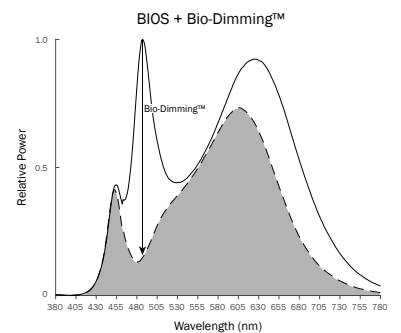
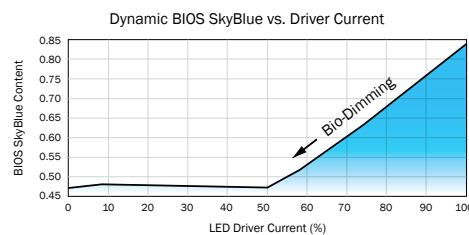
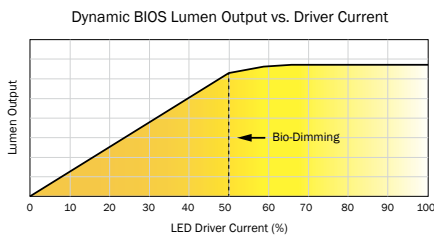
BIOS DYNAMIC + BIO-DIMMING™ DIMMING CONTROL CHARACTERISTICS

DIMMER SETTING	BIOS SKYBLUE® LED	WHITE LED	LIGHT OUTPUT	
100%* (Full On)	100%	100%	100%	Bio-Dimming
99% - 51%	100% - 0%	100%	100% - 90%	
50%	NO BIOS	100%	~90%	White LED Intensity Dimming
49% - 0%	NO BIOS	100% - 0%	Linear Dimming 90% - 0%	

BIOS SkyBlue® maintained for maximum circadian impact.
Light output remains relatively constant.

BIOS SkyBlue® removed to provide minimal circadian impact.
White LED output dims linearly.

*No unique wiring instructions required. However, Dynamic + Bio-Dimming™ option must be set up properly during initial startup to the desired light level setpoint. See installation guide for details.





DRIVERS

PRODUCT CODE	DESCRIPTION
N	None. Choose when indirect lighting is not desired.
V00	0-10V dimming down to 0% (dim to off).
V01	0-10V dimming down to 1%.
V05	0-10V dimming down to 5% (Down to 10% for TUNE lamping).
P01	Driver supports both TRIAC Forward Phase 2-Wire and ELV Reverse Phase 3-Wire dimming controls.
LDE1	(LDE1) Lutron Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology.
ELDV0	eldoLED 0/10V dimming down to 0% (when choosing nLight Air integral sensors a compatible eldoLED LEDcode version will be specified)
TSERIES	Lutron T-Series Tunable White Class 2 LED Driver (For use with Lutron Quantum Control Systems)
ELDDW	eldoLED 0/10V dim-to-warm dimming down to 0% (specify with TUNE LED lamping. Driver will be programmed with LightShape dim-to-warm setting)
DALI	DALI flicker-free dimming down to 0%.
DMX	DMX flicker-free dimming down to 0%.
POEM	Molex CoreSync PoE LED Driver. Contact ALW to assist with your project.
POEI	IGOR PoE LED Driver. Contact ALW to assist with your project.
POEN	NuLEDS PoE LED Driver. Contact ALW to assist with your project.
POE	Specify a PoE driver of your choice. Fixture comes with low voltage leads and no LED driver. Contact ALW to assist with your project

*Most drivers can be programmed to specific dimming levels if desired. Contact ALW for specific dimming level requests.
 ALW lighting fixtures are intended for use with a wide range of sensors, lighting controls, LED drivers, and building management systems. If there are specific components required for your application that aren't listed on this spec sheet, please contact ALW customer support today to specify a compatible solution of your choice.

DRIVER/LED LAMPING COMPATIBILITY							
	STD	STD/BIOS	TUNE	RGB	RGB(W)	CA TITLE 24 JA8/JA10 ²²	IEEE P1789 & HD TV STUDIO ²³
V00	●	●	●			●	
V01	●	●	●			●	
V05	●	●	●			●	
P01	●	●				●	
LDE1	●	●				●	●
ELDV0	●	●	PER REQUEST			●	●
TSERIES			●			●	●
ELDDW	●		●			●	●
DALI	●	●	●			●	
DMX	●		●		●	PER REQUEST	PER REQUEST
POEM			PER REQUEST			●	●
POEI			PER REQUEST			●	●
POEN			PER REQUEST			●	●

● - Indicates compatibility
 *Standard lamping (STD) - MIN/LOW/MED/HI
²²Fixtures specified with 90CRI 2700K, 3000K, 3500K, and 4000K lamping with applicable LED drivers have the ability to conform to California Title 24 JA8 and JA10 Appendices
²³The following drivers conform to IEEE P1789 Flicker Standard: 'IEEE Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers'. These drivers may also be installed in HD TV Studio applications utilizing high frequency camera equipment.



PHOTOMETRICS

OPTIC	POLAR PLOT (CD)	MTG HEIGHT	LIGHT LEVEL (FC)	SPACING CRITERION (SC) ²⁴ (0° - 180°) (90° - 270°)	MAX INTENSITY (CD)	OUTPUT (LM/FT)
CR/ASY²⁵		2 - 2.5 ft RECOMMENDED DISTANCE FROM WALL		1.14 1.30	1328	1300
CR/BAT		6 ft	18.6	1.22 1.7	801	1200
		8 ft	10.4			
		10 ft	6.7			
		12 ft	4.6			
		14 ft	3.4			
		16 ft	2.6			
CR/AG		6 ft	39.6	.8 1.12	1424.7	1300
		8 ft	22.3			
		10 ft	14.2			
		12 ft	9.9			
		14 ft	7.3			
		16 ft	5.6			
CR/S		6 ft	25.8	1.16 1.2	927	1250
		8 ft	14.5			
		10 ft	9.3			
		12 ft	6.4			
		14 ft	4.7			
		16 ft	3.6			
BAT²⁶		0.5 ft	38	1.28 3.14	1235	1525
		1 ft	34.5			
		2 ft	27.8			
		3 ft	22.2			
		4 ft	17.6			
		5 ft	13.5			

*Photometric calculations based on MAX 4000K 80 CRI fixture combination. Actual results may vary in the field.

For footcandle and output multipliers refer to the [ALW IES File Multipliers Chart](#)

²⁴Spacing criterion refers to maximum distance luminaires can be spaced to provide uniform illumination on the working plane or surface.

Luminaire spacing = Spacing Criterion (SC) x Mounting Height (MH) (ex. 1.14 (SC) x 10' (MH) = 11.4' Luminaire Spacing).

²⁵Recommended distance from wall calculated at 10ft mounting height

²⁶BAT mounting height for BAT refers to distance from ceiling since BAT optic is only offered in indirect output.



ADDITIONAL OPTIONS & SPECIFICATIONS

LED PERFORMANCE

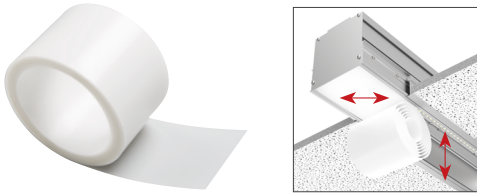
> 54,000 hours at 70% lumen maintenance, LM80 / TM-21

HOUSING

100% recyclable, extruded architectural grade 6063 aluminum with a 0.09" minimum wall thickness.

CONTROLROLL LENS OPTICS

The optically engineered ControlRoll lens provides smooth, uniform, and seamless illumination for linear lengths of 250' while dynamically controlling output and reducing glare. The ControlRoll lens rolls out and snaps into the housing channel for easy installation.



INDIRECT BATWING OPTIC

A 120° rigid batwing optic can be specified for indirect lambing to achieve wide distributions of light across ceilings and to eliminate hotspots.

SAFETY & REGULATORY

Fixtures specified with 90CRI, 2700K, 3000K, 3500K, and 4000K lambing with applicable LED drivers have the ability to conform to **California Title 24 JA8 and JA10** Appendices. EldoLED drivers can conform to IEEE P1789 Flicker Standard: 'IEEE Recommended Practices for Modulating Current in High-Brightness LEDs for Mitigating Health Risks to Viewers .

Contact [ALW customer support](#) today and we can help you with your project requirements.

ETL Listed (U.S. & Canada). Suitable for dry or damp locations.
For integral driver, Conforms to UL std. 1598 luminaires,
For remote driver, Conforms to UL std. 2018 luminaires.
Certified to CSA std. C22.2#250.0:2008 Ed. 3+G1;G2

WARRANTY

Limited 5-year warranty. Details: alw-inc.com/warranty

OPERATING TEMPERATURE

Luminaire should be installed and operated **ONLY** in dry environments where the ambient temperature ranges from -4 °F to 122 °F (-20 °C to 50 °C). Luminaire operation in environments outside the listed temperature range voids the warranty AND may damage the product or adversely impact lamp life, lumen output and color consistency.

POWER CABLES

Power cables come standard in a transparent sheathing to match steel aircraft suspension cables. Please contact customer support if custom cables are required for your application. Power cables cannot be swapped in the field as it will void the ETL Safety Listing and Product Warranty.



WEIGHT

Approximately 3.9lbs. per linear foot. Weight may vary depending on additional options selected.

CONTROLS, SENSORS, & LED DRIVER

ALW lighting fixtures are intended for use with a wide range of sensors, lighting controls, LED drivers, and building management systems. Our component portfolio is continually expanding to adopt to the latest technologies and specification needs. We currently support integration with Lutron, Enlighted, nLight, Cooper Wavelinx, eldoLED, Molex PoE, NuLEDS PoE, Igor PoE, Osram, Philips, and more. If there's a component or system needed that you don't see on the spec sheet please contact [ALW customer support](#) today so we can review your requirements.





ADDITIONAL OPTIONS & SPECIFICATIONS CONT'D

ACOUSTICS

Material: 0.5" (12mm) PET polyester fibers. Acoustic sound absorbers are 100% recyclable at end of life use.

NRC Rating: Our acoustics as a 2D absorber have a Noise Reduction Coefficient of 85%. Full test reports of common layouts for 3D absorbers including NRC and Sabin values will be available shortly.

Fire Rating: Conforms to ASTM E84 Class A. Also conforms to EN13501-1 Class B.

CARE

PET acoustics: Remove dust with compressed air, a vacuum or lint roller.

Aluminum & polymer components: Remove dust and debris with a clean, dry or damp lint-free cloth.