Linear Arrays

SkyBlue™ LED Circadian Solutions

Circadian Lighting Without Compromise

BIOS SkyBlue™ Circadian LED solutions include a blue peak at 490nm, giving you the health and wellness benefits of a "blue sky", supporting healthy circadian rhythms and improved daytime alertness. BIOS Linear Arrays have standardized features that make it easy to design and control troffers, linear pendants, and cove-mounted fixtures, etc. for circadian lighting - without compromising color temperature or requiring additional illumination.

Daytime + Evening Solutions

BIOS Linear Arrays are available for Day-to-Evening applications: Biological Dynamic and Biological Tunable.

BIOS Day-to-Evening Solutions			
Tunable		Dynamic	
Daytime Spectrum	Evening Spectrum	Daytime Spectrum	Evening Spectrum
3000K	2700K	3000K	2700K
3500K	2700K	3500K	3000K
4000K	2700K	4000K	3500K

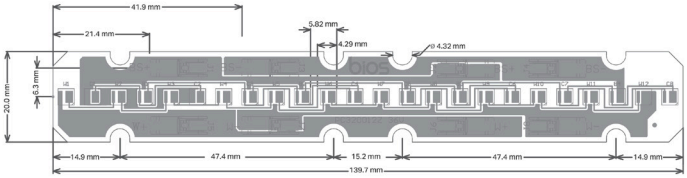
Daytime Only Solutions

BIOS Linear Arrays are also available in Biological Static SkyBlue™ spectrum for maximum daytime wellness. BIOS Static SkyBlue™ Solutions are ideal for day-only applications (such as offices, schools, outpatient clinics, etc.).

Linear Array Features + Applications

Linear Arrays Features

- Standard Zhaga formats
- Environmentally friendly: RoHS and REACH compliant
- 'UL Recognized' component
- L_{70} > 120,000 hours
- 20,000 hour LM-80 tested
- 36VDC Constant Current



Luminaire Profiles

- Troffers
- Linear Fixtures
- Cove Uplight
- Specialty
- Decorative
- Pendants
- Retrofit

Applications

- Healthcare Facilities
- Schools
- Senior Living
- NICU
- Factories
- Offices
- Outpatient
- Clinics
- WELL Buildings
- Sport Facilities
- Hospitality
- Retail
- Residential

[1] The melanopic rations (m/p) provided have been calculated using the WELL v2 methodology. Corresponding CIE melanopic Daylight Equivalent Ratios (m-DER) can be extrapolated by applying a 10% reduction to the m/p ratios as shown.

Pursuant to the terms and conditions set forth in our Limited Warranty. Biological Innovation and Optimization Systems. LLC ("BIOS") warrants its BIOS SkyBlue™ COB. Linear and Tape LED components (collectively known as the "Product") against defects in materials or workmanship for a period of five (5) years from the original date of purchase.

Linear Arrays

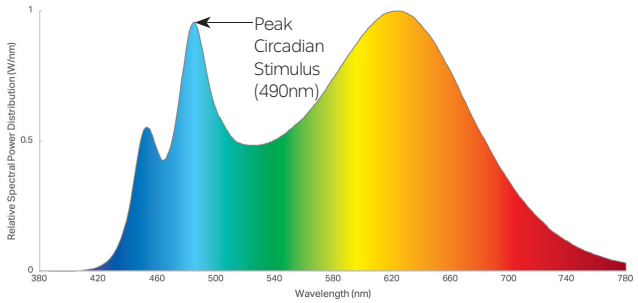
SkyBlue™ LED Circadian Solutions

Linear Array Spectral Power Distribution

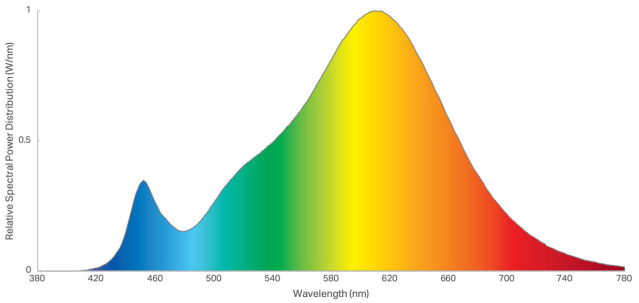
BIOLOGICAL TUNABLE WHITE SPECTRUM

Daytime ⟶ Evening

BIOS SkyBlue™ 3500K
High Melanopic Ratio (M/P)
M/P = 0.83



BIOS 2700K (SkyBlue™ removed)
Low Melanopic Ratio (M/P)
M/P = 0.47

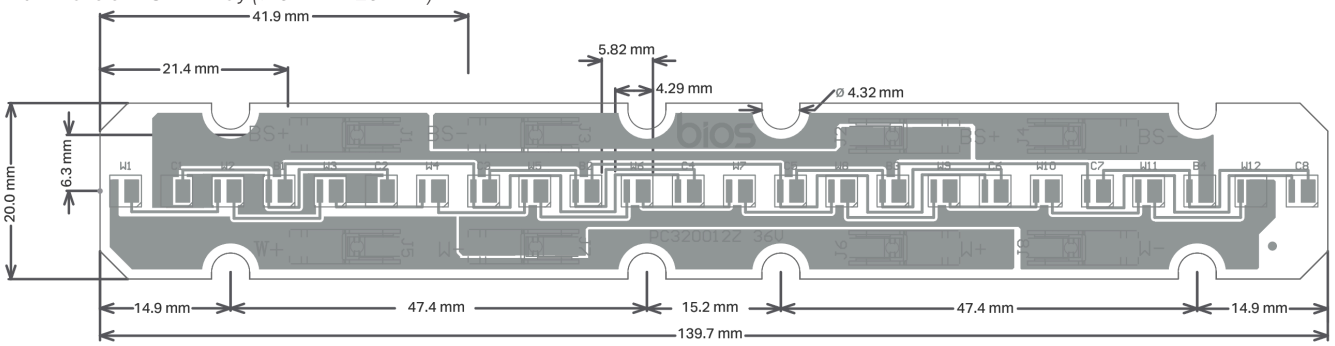


Note: BIOS Biological Static Solutions includes BIOS SkyBlue™ Daytime Spectra only. BIOS Biological Dynamic and Biological Tunable Solutions include both SkyBlue™ Daytime and BIOS Evening Spectra.

Linear Array Profiles

140 x 20 (BH-0XSM-8XX-014020-1

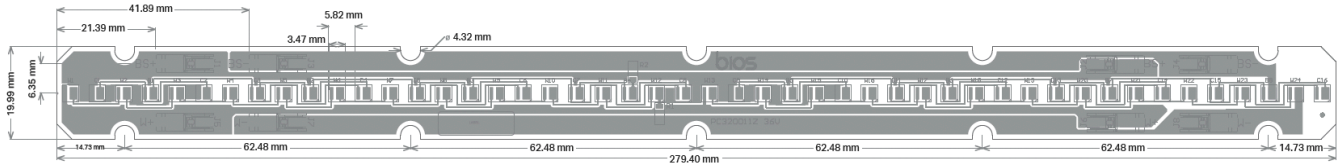
Nominal 5.5 in. Slim Array (140 mm x 20 mm)



IMPORTANT If using metallic mounting screws, include a nylon washer between the screw and PCB to prevent damage to copper traces.

279 x 20 (BH-0XSM-8XX-027920-1

Nominal 11 in. Slim Array (279 mm x 20 mm)



IMPORTANT If using metallic mounting screws, include a nylon washer between the screw and PCB to prevent damage to copper traces.

Note: Dimensions are in millimeters.
All linear arrays use poke-in connectors 18-24 AWG.

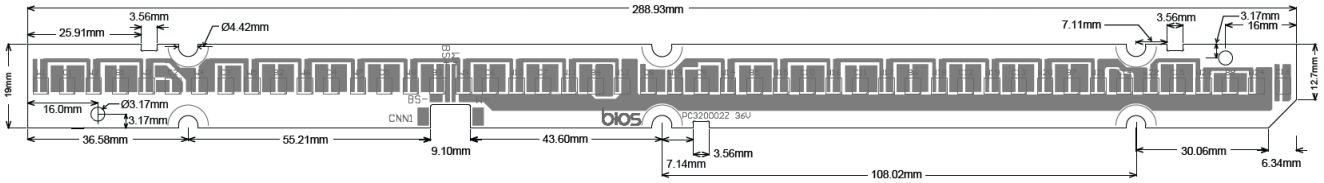
Linear Arrays

SkyBlue™ LED Circadian Solutions

Linear Array Dimensions and Details

289 x 19 (BH-0XSM-8XX-028919-1)

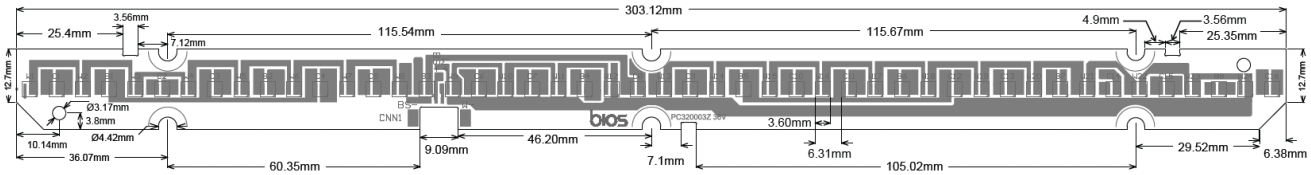
Nominal 1 ft. Slim Array (289 mm x 19 mm)



IMPORTANT If using metallic mounting screws, include a nylon washer between the screw and PCB to prevent damage to copper traces.

303 x 19 (BH-0XSM-8XX-030319-1)

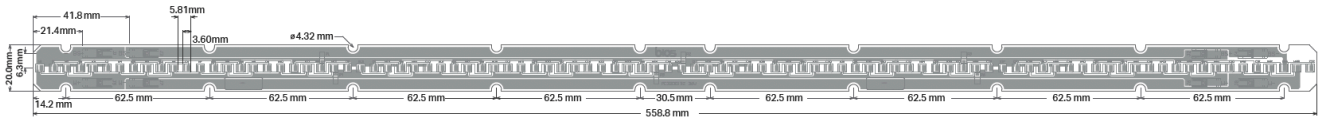
Nominal 1 ft. Slim Array (303 mm x 19 mm)



IMPORTANT If using metallic mounting screws, include a nylon washer between the screw and PCB to prevent damage to copper traces.

560 x 20 (BH-0XSM-8XX-056020-1)

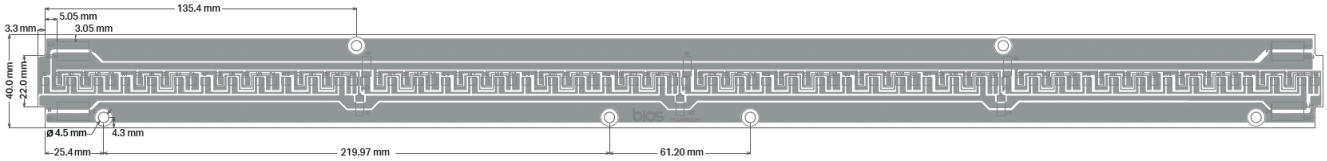
Nominal 2 ft. Slim Array (560 mm x 20 mm)



IMPORTANT If using metallic mounting screws, include a nylon washer between the screw and PCB to prevent damage to copper traces.

560 x 40 (BH-0XSM-8XX-056040-1)

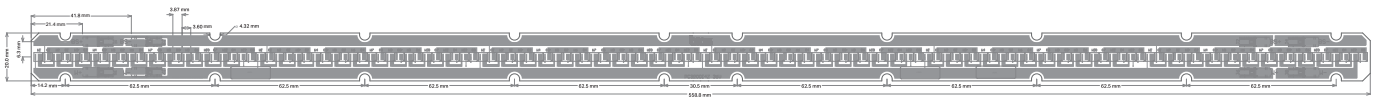
Nominal 2 ft. Slim Array (560 mm x 40 mm)



IMPORTANT If using metallic mounting screws, include a nylon washer between the screw and PCB to prevent damage to copper traces.

560 x 20 HO (BH-0XDM-8XX-056020-1)

*Nominal 2 ft. **High Output** Slim Array (560 mm x 20 mm)*



IMPORTANT If using metallic mounting screws, include a nylon washer between the screw and PCB to prevent damage to copper traces.

Note: Dimensions are in millimeters.
All linear arrays use poke-in connectors 18-24 AWG.

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Linear Arrays

SkyBlue™ LED Circadian Solutions

Linear Array Part Number Details

BH — 0___ ___M — 8 _____ — 0_____ — 1

BIOS Engine	Light Output	Daytime CCT	Board Size (LxW)
0 - Biological Static or Biological Tunable **5** - Biological Dynamic	**S** - Standard Output **D** - High Output* *Only 560x20 available in High Output	**30** - 3000K **35** - 3500K **40** - 4000K	**14020** - 140x20 **28919** - 289x19 **30319** - 303x19 **56020*** - 560x20 **56040** - 560x40

NOTE: BIOS Biological Dynamic and Biological Tunable must be specified with the corresponding BIOS Bio-Dimming™ Module.

See Page 11 for Bio-Dimming™ Part Numbers and Page 15 for steps on How to Build Your Ordering Code.

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Linear Arrays

SkyBlue™ LED Circadian Solutions

bios

Linear Array - Full Part Numbers

BIOLOGICAL STATIC / BIOLOGICAL TUNABLE

BIOS SkyBlue™ Performance Characteristics

Data Shown for Ambient Temperature (T_a) = 25°C

BIOS Part Number	Linear Array Size (mm)	Daytime		Evening		Current		Lumens		Efficacy	CRI	R9	COI	COI_{10}[1]
		CCT	M/P[2]	CCT	M/P[2]	Nominal	Max.	Nominal	Max.	Typ. lm/W				
BH-00SM-830-014020-1	*140 x 20*	3000K	0.74	2700K	0.47	100	200	475	900	144	81	90	6	5.4
BH-00SM-835-014020-1	*140 x 20*	3500K	0.83	2700K	0.47	100	200	500	950	152	84	96	4	3.3
BH-00SM-840-014020-1	*140 x 20*	4000K	0.92	2700K	0.47	100	200	525	1000	160	84	95	2.6	1.5
BH-00SM-830-027920-1	*279 x 20*	3000K	0.74	2700K	0.47	200	400	950	1750	144	81	90	6	5.4
BH-00SM-835-027920-1	*279 x 20*	3500K	0.83	2700K	0.47	200	400	1000	1840	152	84	96	4	3.3
BH-00SM-840-027920-1	*279 x 20*	4000K	0.92	2700K	0.47	200	400	1050	1930	160	84	96	2.6	1.5
BH-00SM-830-028919-1	*289 x 19*	3000K	0.74	2700K	0.47	200	400	950	1750	144	81	90	6	5.4
BH-00SM-835-028919-1	*289 x 19*	3500K	0.83	2700K	0.47	200	400	1000	1840	152	84	96	4	3.3
BH-00SM-840-028919-1	*289 x 19*	4000K	0.92	2700K	0.47	200	400	1050	1930	160	84	95	2.6	1.5
BH-00SM-830-030319-1	*303 x 19*	3000K	0.74	2700K	0.47	200	400	950	1750	144	81	90	6	5.4
BH-00SM-835-030319-1	*303 x 19*	3500K	0.83	2700K	0.47	200	400	1000	1840	152	84	96	4	3.3
BH-00SM-840-030319-1	*303 x 19*	4000K	0.92	2700K	0.47	200	400	1050	1930	160	84	95	2.6	1.5
BH-00SM-830-056020-1	*560 x 20*	3000K	0.74	2700K	0.47	400	800	1900	3450	144	81	90	6	5.4
BH-00SM-835-056020-1	*560 x 20*	3500K	0.83	2700K	0.47	400	800	2000	3650	152	84	96	4	3.3
BH-00SM-840-056020-1	*560 x 20*	4000K	0.92	2700K	0.47	400	800	2100	3850	160	84	95	2.6	1.5
BH-00DM-830-056020-1	*560 x 20 HO*	3000K	0.74	2700K	0.47	600	1200	2775	4670	140	81	90	6	5.4
BH-00DM-835-056020-1	*560 x 20 HO*	3500K	0.83	2700K	0.47	600	1200	2910	4920	147	84	96	4	3.3
BH-00DM-840-056020-1	*560 x 20 HO*	4000K	0.92	2700K	0.47	600	1200	3050	5160	155	84	95	2.6	1.5
BH-00SM-830-056040-1	*560 x 40*	3000K	0.74	2700K	0.47	400	800	1900	3450	144	81	90	6	5.4
BH-00SM-835-056040-1	*560 x 40*	3500K	0.83	2700K	0.47	400	800	2000	3650	152	84	96	4	3.3
BH-00SM-840-056040-1	*560 x 40*	4000K	0.92	2700K	0.47	400	800	2100	3850	160	84	95	2.6	1.5

[1] **COI_{10}**: Cyanosis Observation Index using the CIE 2006 Color Matching Functions. COI is color fidelity of oxygenated blood and cyanosed blood relative to a 4000K reference.

[2] M/P - The melanopic ratios (m/p) provided are m-EER values from the Lucas, et al. model. Corresponding CIE melanopic Daylight Equivalent Ratios (m-DER) can be extrapolated by applying a 10% reduction to the m/p ratios as shown.

Note: All performance characteristics provided in this document are taken on bare LED boards and do not account for changes which may occur once the module is installed within a luminaire.

Linear Arrays

SkyBlue™ LED Circadian Solutions

bios

COB - Full Part Numbers

BIOLOGICAL DYNAMIC

BIOS SkyBlue™ Performance Characteristics

Data Shown for Ambient Temperature (T_a) = 25°C

BIOS Part Number	Linear Array Size (mm)	Daytime		Evening		Current		Lumens		Efficacy	CRI	R9	COI	COI_{10}[1]
		CCT	M/P[2]	CCT	M/P[2]	Nominal	Max.	Nominal	Max.	Typ. lm/W				
BH-00SM-830-014020-1	*140 x 20*	3000K	0.74	2700K	0.47	100	200	475	900	144	81	90	6	5.4
BH-00SM-835-014020-1	*140 x 20*	3500K	0.83	3000K	0.49	100	200	500	950	152	84	96	4	3.3
BH-00SM-840-014020-1	*140 x 20*	4000K	0.92	3500K	0.57	100	200	525	1000	160	84	95	2.6	1.5
BH-00SM-830-027920-1	*279 x 20*	3000K	0.74	2700K	0.47	200	400	950	1750	144	81	90	6	5.4
BH-00SM-835-027920-1	*279 x 20*	3500K	0.83	3000K	0.49	200	400	1000	1840	152	84	96	4	3.3
BH-00SM-840-027920-1	*279 x 20*	4000K	0.92	3500K	0.57	200	400	1050	1930	160	84	96	2.6	1.5
BH-00SM-830-028919-1	*289 x 19*	3000K	0.74	2700K	0.47	200	400	950	1750	144	81	90	6	5.4
BH-00SM-835-028919-1	*289 x 19*	3500K	0.83	3000K	0.49	200	400	1000	1840	152	84	96	4	3.3
BH-00SM-840-028919-1	*289 x 19*	4000K	0.92	3500K	0.57	200	400	1050	1930	160	84	95	2.6	1.5
BH-00SM-830-030319-1	*303 x 19*	3000K	0.74	2700K	0.47	200	400	950	1750	144	81	90	6	5.4
BH-00SM-835-030319-1	*303 x 19*	3500K	0.83	3000K	0.49	200	400	1000	1840	152	84	96	4	3.3
BH-00SM-840-030319-1	*303 x 19*	4000K	0.92	3500K	0.57	200	400	1050	1930	160	84	95	2.6	1.5
BH-00SM-830-056020-1	*560 x 20*	3000K	0.74	2700K	0.47	400	800	1900	3450	144	81	90	6	5.4
BH-00SM-835-056020-1	*560 x 20*	3500K	0.83	3000K	0.49	400	800	2000	3650	152	84	96	4	3.3
BH-00SM-840-056020-1	*560 x 20*	4000K	0.92	3500K	0.57	400	800	2100	3850	160	84	95	2.6	1.5
BH-00DM-830-056020-1	*560 x 20 HO*	3000K	0.74	2700K	0.47	600	1200	2775	4670	140	81	90	6	5.4
BH-00DM-835-056020-1	*560 x 20 HO*	3500K	0.83	3000K	0.49	600	1200	2910	4920	147	84	96	4	3.3
BH-00DM-840-056020-1	*560 x 20 HO*	4000K	0.92	3500K	0.57	600	1200	3050	5160	155	84	95	2.6	1.5
BH-00SM-830-056040-1	*560 x 40*	3000K	0.74	2700K	0.47	400	800	1900	3450	144	81	90	6	5.4
BH-00SM-835-056040-1	*560 x 40*	3500K	0.83	3000K	0.49	400	800	2000	3650	152	84	96	4	3.3
BH-00SM-840-056040-1	*560 x 40*	4000K	0.92	3500K	0.57	400	800	2100	3850	160	84	95	2.6	1.5

NOTE: BIOS Biological Dynamic Engines must be paired with the corresponding BIOS Bio-Dimming™ Module.
See page 11 for Bio-Dimming™ Part Numbers and Page 14 for steps on How to Build Your Ordering Code.

[1] **COI_{10}**: Cyanosis Observation Index using the CIE 2006 Color Matching Functions. COI is color fidelity of oxygenated blood and cyanosed blood relative to a 4000K reference.

[2] M/P - The melanopic ratios (m/p) provided are m-EER values from the Lucas, et al. model. Corresponding CIE melanopic Daylight Equivalent Ratios (m-DER) can be extrapolated by applying a 10% reduction to the m/p ratios as shown.

Note: All performance characteristics provided in this document are taken on bare LED boards and do not account for changes which may occur once the module is installed within a luminaire.

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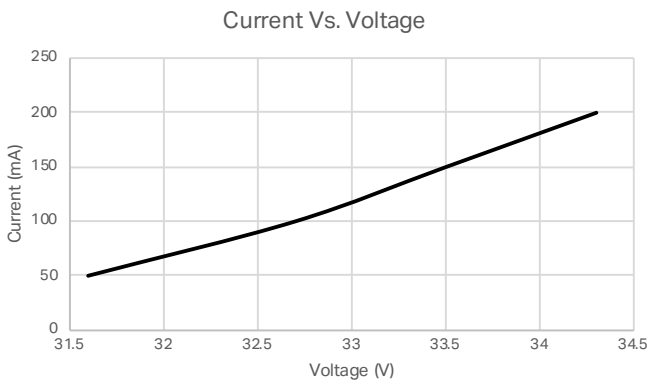
Linear Arrays

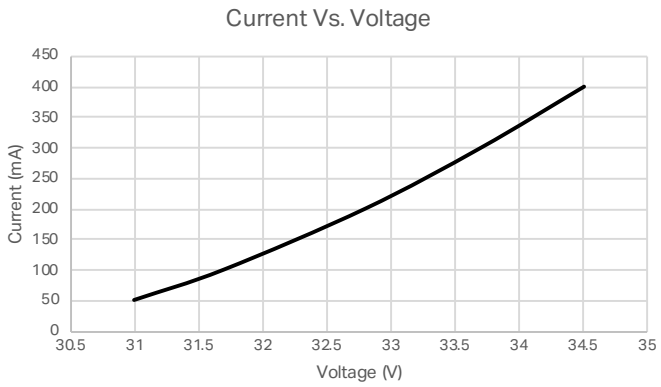
SkyBlue™ LED Circadian Solutions

Linear Array - Current vs Voltage

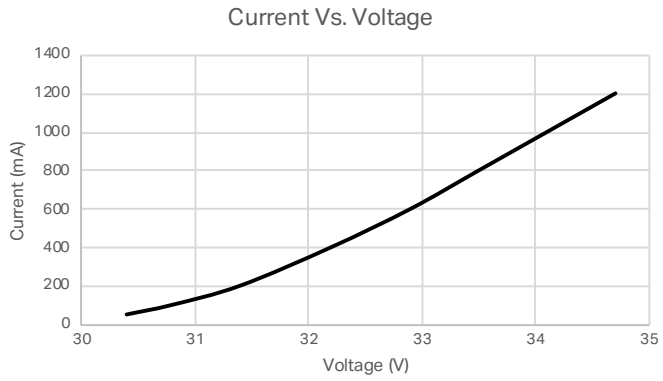
140 x 20 (BH-0XSM-8XX-014020-1)



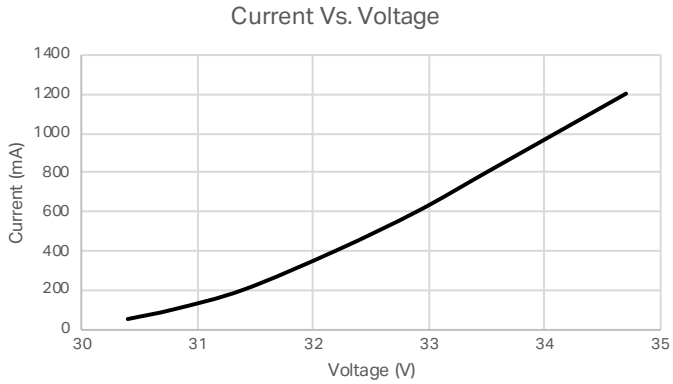
279 x 20 (BH-0XSM-8XX-027920-1)
289 x 19 (BH-0XSM-8XX-028919-1)
303 x 19 (BH-0XSM-8XX-030319-1)



560 x 20 (BH-0XSM-8XX-056020-1)
560 x 40 (BH-0XSM-8XX-056040-1)



560 x 20 HO (BH-0XDM-8XX-056020-1)



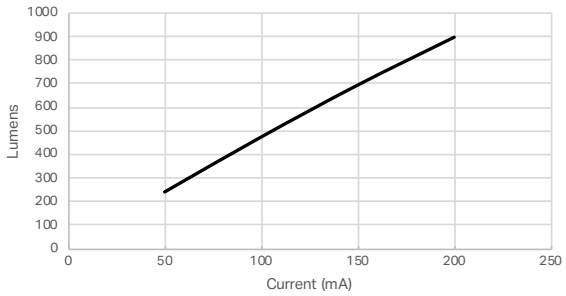
Linear Arrays

SkyBlue™ LED Circadian Solutions

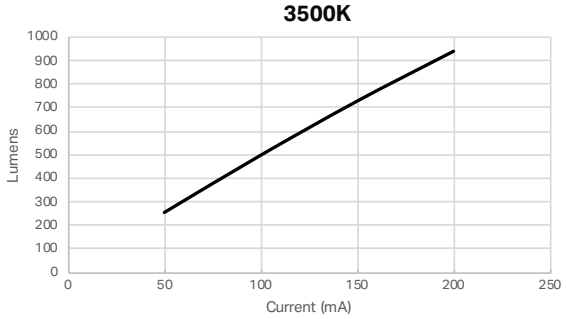
Linear Array - Lumen vs Current

140 x 20 (BH-0XSM-8XX-014020-1)

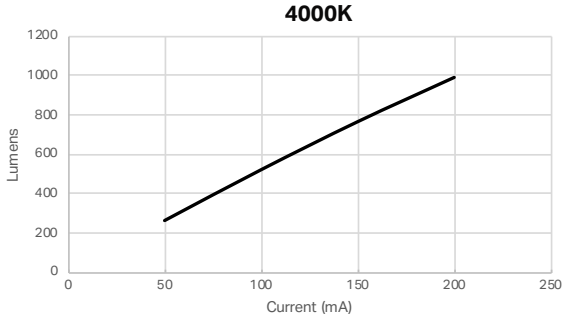
3000K



3500K

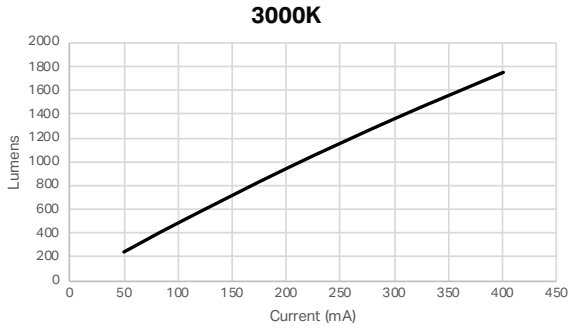


4000K

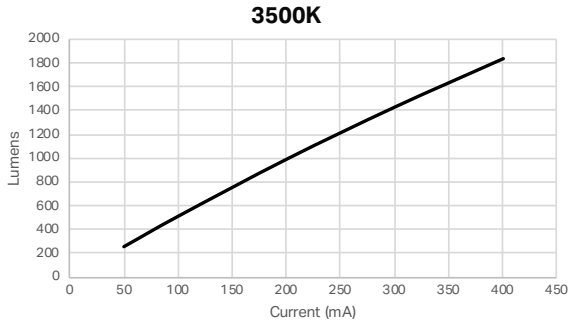


279 x 20 (BH-0XSM-8XX-027920-1)
289 x 19 (BH-0XSM-8XX-028919-1)
303 x 19 (BH-0XSM-8XX-030319-1)

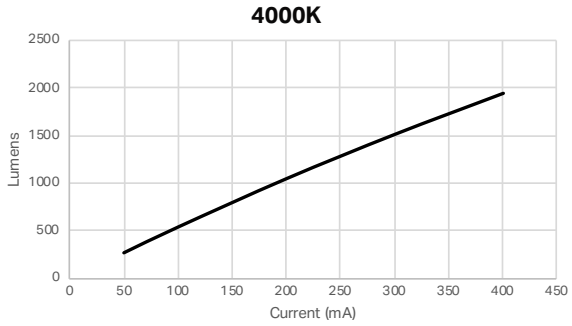
3000K



3500K



4000K



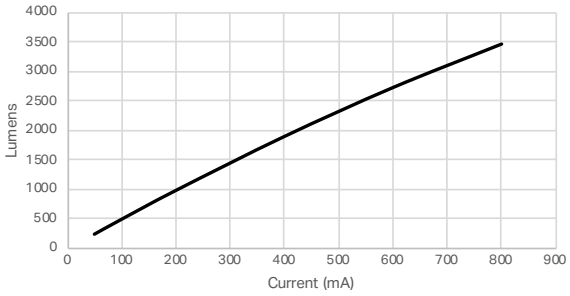
Linear Arrays

SkyBlue™ LED Circadian Solutions

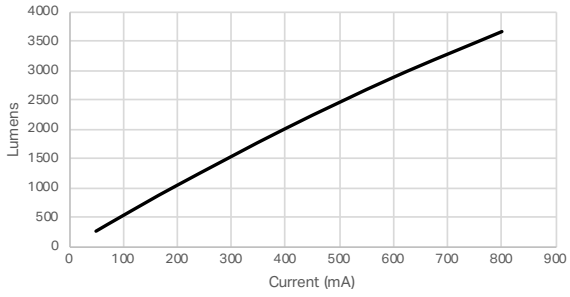
Linear Array - Lumen vs Current

560 x 20 (BH-0XSM-8XX-056020-1)
560 x 40 (BH-0XSM-8XX-056040-1)

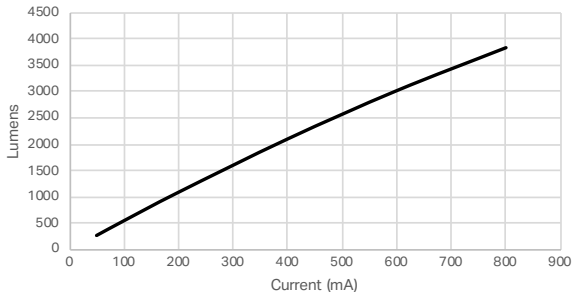
3000K



3500K

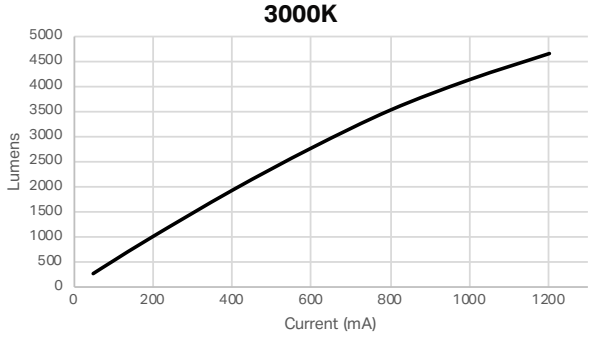


4000K

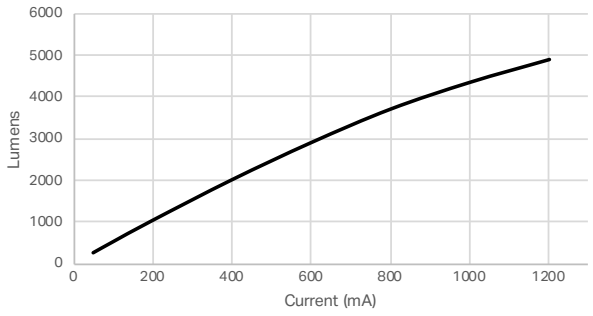


560 x 20 HO (BH-0XDM-8XX-056020-1)

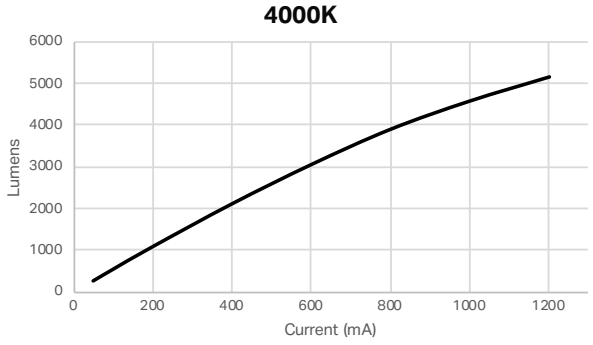
3000K



3500K



4000K



Linear Arrays

SkyBlue™ LED Circadian Solutions

Bio-Dimming™ Module Details

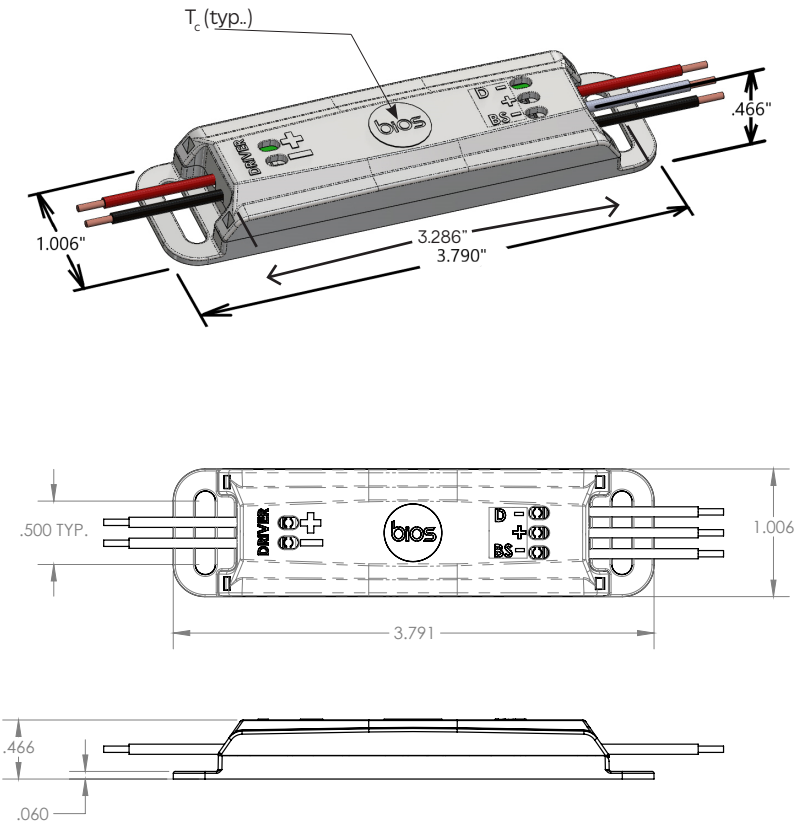
Overview

To achieve effective circadian lighting, it is important to create biologically brighter days and darker nights. The BIOS Bio-Dimming™ Module is designed to integrate that concept into a single dimming interface. The Bio-Dimming™ Module senses current from the single channel LED driver and steers that current to daytime and evening LED strings accordingly.

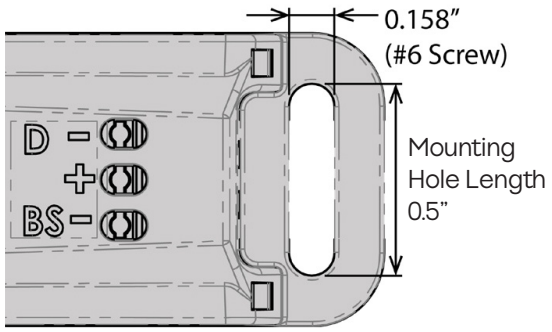
The BIOS Bio-Dimming™ Module responds to the driver output current, not the control interface that adjusts it, therefore it is compatible with all standard control protocols (DALI, 0-10V, etc.). For additional information, please visit www.bioslighting.com

For Biological Dynamic or Biological Tunable, BIOS SkyBlue™ is removed when transitioning from daytime to evening. Between 100-75% intensity will be relatively constant, but the spectrum will shift to the evening spectrum linearly. Dimming beyond 75% will reduce intensity using this evening light spectrum.

Bio-Dimming™ Module Dimensions



Bio-Dimming™ Module Mounting Hole Detail



- Works with most single channel constant current drivers
- Works with any dimming protocol (0-10 V, DMX, ELV, DALI, etc.)
- **Case Temperature (T_c) - 70° max.**

Notes:

- T_c point to be measured on the top of Bio-Dimmer™ housing at the BIOS logo.
- All dimensions shown are in inches.

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Linear Arrays

SkyBlue™ LED Circadian Solutions

bios

Bio-Dimming™ Module Part Numbers

BIOS Part Number	Compatible BIOS Light Engine	Compatible BIOS Profile	CCT	Voltage (V)		Current (A)		Operational Temp (°C)
				Min.	Max.	Min.	Max.	Max.
BH-0DIM-000-LINARH-1	Biological Tunable	Linear Array	All	22	60	0.2	3	70
BH-5DIM-000-LINARH-1	Biological Dynamic							

Bio-Dimming™ Module Technology Guide

BIOS LED Solution	Required Bio-Dimming™ Module?	CCT Note	Lighting Controls Note	BIOS SkyBlue™ (490nm)
	Linear Array			
Biological Static	No	No CCT Change	Intensity Dimming Control Only	Daytime SkyBlue™ Spectrum Always Present
Biological Dynamic	Yes	**"500K Shift"** 4000K dims to 3500K 3500K dims to 3000K 3000K dims to 2700K	Intensity Dimming + Spectrum Change Controlled **Together**	Daytime SkyBlue™ Spectrum removed with Bio-Dimming™
Biological Dynamic (Two-Channel)	No	**"500K Shift"** 4000K dims to 3500K 3500K dims to 3000K 3000K dims to 2700K	Intensity Dimming + Spectrum Change Controlled Separately	Daytime SkyBlue™ Spectrum removed by adjusting "Spectrum Channel"
Biological Tunable (Single-Channel)	Yes	**"Dims to 2700K"** 4000K dims to 2700K 3500K dims to 2700K 3000K dims to 2700K	Intensity Dimming + Spectrum Change Controlled **Together**	Daytime SkyBlue™ Spectrum removed with Bio-Dimming™
Biological Tunable (Two-Channel)	No	**"Dims to 2700K"** 4000K dims to 2700K 3500K dims to 2700K 3000K dims to 2700K	Intensity Dimming + Spectrum Change Controlled Separately	Daytime SkyBlue™ Spectrum removed by adjusting "Spectrum Channel"

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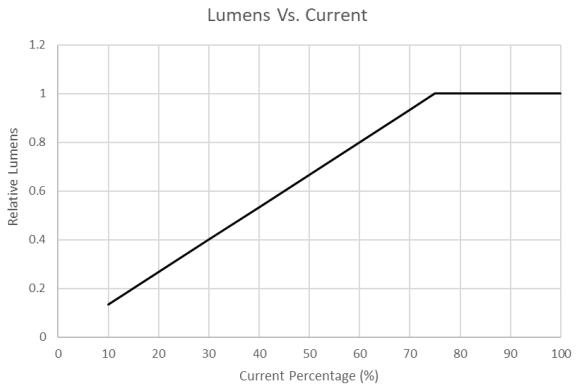
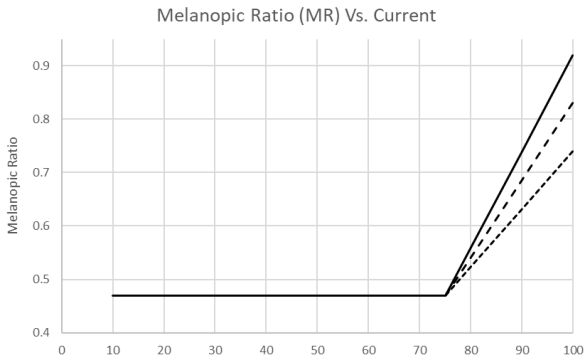
Linear Arrays

SkyBlue™ LED Circadian Solutions

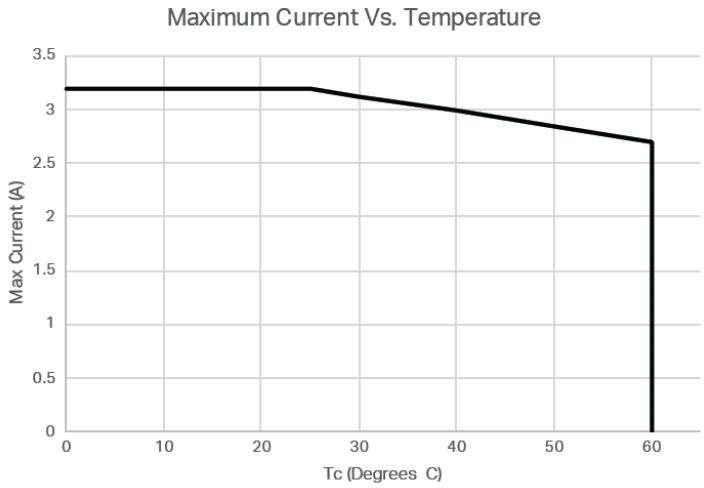
Bio-Dimming™ Performance Characteristics

SkyBlue™ Linear Array / Tape Light + Dynamic Bio-Dimming™ Module*
**Measurements taken at the LED Board*





SkyBlue™ Linear Array / Tape Light + Dynamic Bio-Dimming™ Module*
**Measurements taken at the LED Board*



Linear Arrays

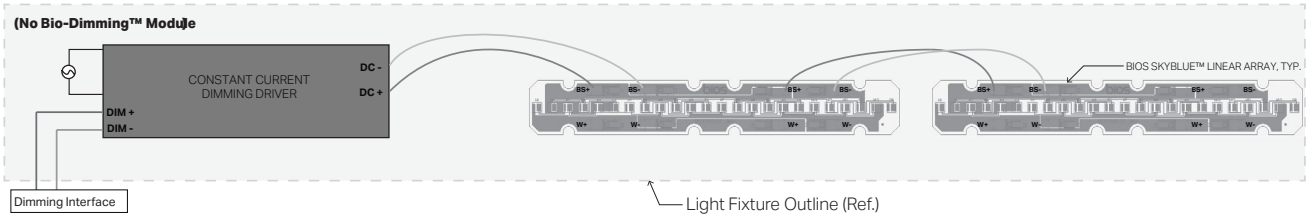
SkyBlue™ LED Circadian Solutions

Linear Array Single-Channel Driver Wiring Diagram

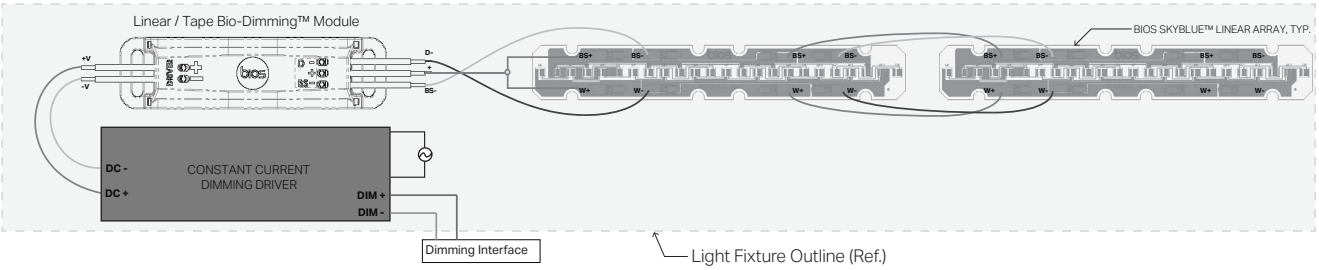
Overview

BIOS SkyBlue™ Linear Arrays can be wired in series or series-parallel. BIOS Biological Dynamic and Biological Tunable Engines for Single-Channel Driver applications require the use of a compatible Bio-Dimming™ Module (see wiring diagrams below). BIOS Biological Static Engines do not require the use of the Bio-Dimming™ Module for Linear Arrays (see Static Solution wiring diagram below).

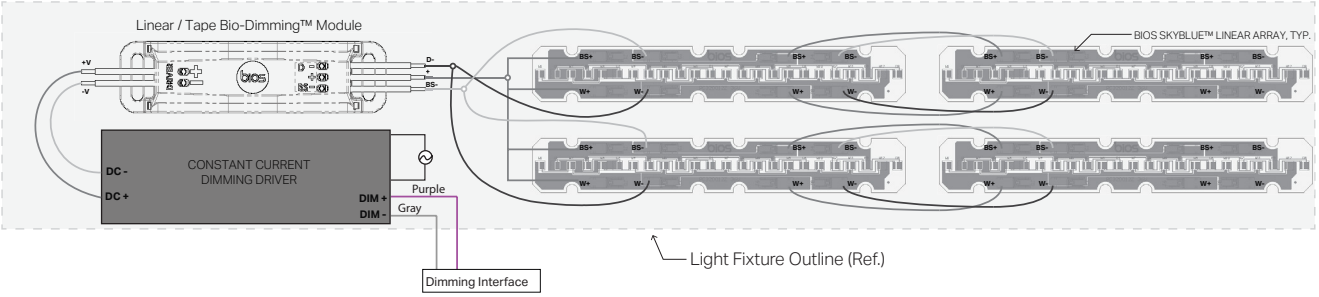
Biological Static
Linear Array (Series)



Biological Tunable | Biological Dynamic
Linear Array (Series)



Biological Tunable | Biological Dynamic
Linear Array (Series)



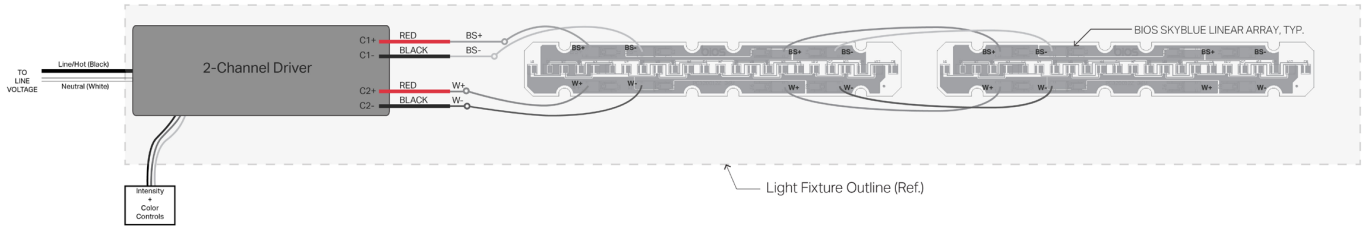
Linear Arrays

SkyBlue™ LED Circadian Solutions

Linear Array Two-Channel Driver Wiring Diagram

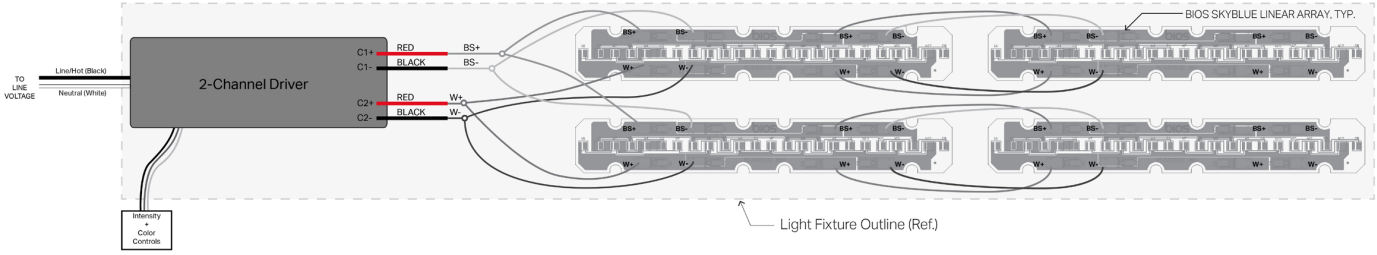
Biological Tunable | Biological Dynamic

Linear Arrays / Tape Light (Series)



Biological Tunable | Biological Dynamic

Linear Arrays / Tape Light (Series)



For additional information about BIOS Solutions and 2-Channel Drivers, please refer to "BIOS_Linear_Tape_2-Channel App_Note.pdf" at www.bioslighting.com

Linear Arrays

SkyBlue™ LED Circadian Solutions

How to Create a BIOS Ordering Code

Step 1 - Select linear board profile size
Step 2 - Select your daytime CCT
Step 3 - Select the BIOS Light Engine
(Biological Static, Biological Dinamic, Biological Tunable (single or two-channel)
Step 4a - Build the Linear Array Light Engline Part Number (Refer to pages 5-6)
Step 4b - Add the corresponding Bio-Dimming™ Module Part Number (Refer to page 11)
Step 5 - Build your complete BIOS Solution Ordering Code (see example below)

Building A Complete BIOS Ordering Code

Use the ordering code information in the table below to build your BIOS order.
You must provide BOTH a **BIOS Linear Array Profile Part Number** and **Bio-Dimming™ Module Part Number** to complete your ordering code.

Complete Ordering Code Example for *BIOS 3500K 560x40 Dynamic Linear Array*

BIOS Linear Array Profile		Bio-Dimming™ Module
BH - 05SM - 835 - 056040 - 1	+	BH - 5DIM - 000 - LINARH - 1

BIOS SkyBlue™ Linear Array Circadian Solution	BIOS Light Engine Part Number		Bio-Dimming™ Module Part Number
Biological Static	Refer to pages 5-6 for part numbers		N/A
Biological Dynamic Bio-Dimming™ (Single Channel Control)	Refer to pages 5-6 for part numbers	+	Refer to page 11 for corresponding Bio-Dimming™ Module part number
Biological Dynamic (Two-Channel Control)	Refer to pages 5-6 for part numbers		N/A
Biological Tunable Bio-Dimming™ (Single Channel Control)	Refer to pages 5-6 for part numbers	+	Refer to page 11 for corresponding Bio-Dimming™ Module part number
Biological Tunable (Two-Channel Control)	Refer to pages 5-6 for part numbers		N/A

Linear Arrays

SkyBlue™ LED Circadian Solutions

BIOS Safety + Handling Notes

BIOS products are designed for robust performance in general lighting applications; however, care must be taken when handling and assembling the LEDs within their luminaires. To avoid damage, please refer to the following application notes and guidelines, which outline recommended care and handling practices when working with these devices. For more detailed information, please visit the BIOS website at www.bioslighting.com.

Safety

Only qualified personnel should perform the installation. Ensure the power is disconnected to avoid electrical shock and/or component damage.

Static Electricity

LEDs are electronic devices that can be damaged by electrostatic discharge (ESD). Please take appropriate measures to ensure the devices do not experience ESD during handling and/or storage. ESD protection guidelines should always be used when working with LEDs.

Storage

BIOS products are delivered in ESD-shielded bags and should be stored in these bags until used.

Assembly

Individuals handling LEDs during assembly should be trained in ESD protection practices. Assemblers should maintain constant conductive contact with a path to ground using a wrist strap, mat, or other ESD protection system.

Transporting

When transporting the devices from one assembly area to another, ESD-shielded carts and carriers should be used.

Thermal Interface Material (TIM)

Proper thermal management is critical for the successful operation of any LED system. Excess operating temperature can reduce the device's light output, and excessive heating can cause permanent damage. Proper TIM is a crucial component for effective heat transfer away from the LED during normal operation. Please refer to the BIOS website for specific recommendations for TIM solutions.

Human Eye Safety

Caution must be taken not to stare at the light emitted from BIOS LEDs, as severe eye damage may occur.