# Quad Series | QDL-24-DI Acoustic

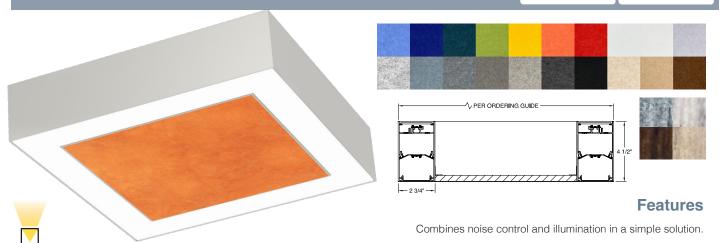
Acoustic Options

and details page 4.

Date Notes

Project

Type Qty



Direct Indirect Promotes an inviting space for personal wellbeing, focus and concentration.

Boosts human performance by reducing distracting noise levels and reverberations.

Improves privacy when speaking by reducing echoes and reflected sound.

A **Declare** Red List Approved Product.

# **Ordering Guide**

MODEL	OPTICS	CCT <sup>1</sup>	LUMENS	SIZE <sup>4</sup>	MOUNTING <sup>5</sup>	FINISH	OPTIONS
QDL-24-DI							
QDL-24-DI Direct Indirect Acoustic	STANDARD FL/CA = Flush Opal Acrylic, (snap-in) Direct, Clear Acrylic (lay-in) dust covers Indirect  OPTIONAL FL/SI = Flush Opal Acrylic (snap-in) Direct, Satin Ice Acrylic (lay-in) Indirect	STATIC WHITE¹ 27 = 2700K 30 = 3000K 35 = 3500K 40 = 4000K 50 = 5000K  BIOS SkyBlue² Spectrally optimized circadian solutions.  TUNABLE WHITE³ (2700K-6500K) 2DIM10 = for 0-10V 2DMX = for DMX 2PSQ = for Lutron 2ESN = for Philips 2CAS = for Casambi  RGB + WHITE³ RGB = RGB RGBW = RGBW  ADVANCED COLOR³ 125mm incremental pixel color control for chases and animated effects.	LO = Low Output SO = Stanard Output HO = High Output See page 6 for Lumens, Watts & LPW for all sizes.	14 = 14* 20 = 20* 25 = 25* 31 = 31* 36 = 36* 42 = 42* 47 = 47*	AC = Aircraft Cable PD = Pendant Stem	W = White CC = Custom Color AMW = Anti-Microbial White	ACOUSTIC SOLUTIONS See page 4 for all options  DIMMING DRIVERS DIM10 = 0-10V (1%) - Standard DIMSR = 0-10V (5.0%) Sensor Ready DIMST = Step Dimming (40%/100%) DALI = DALI (5.0%) DMX = DMX  LUTRON™ DRIVERS & SENSORS LDE1 = Hi-Lume™ 1% EcoSystem™ L3DA3W = Hi-Lume™ 1% 3-Wire VDO = Vive Sensor by Lutron AWNR = Athena NF/Node AWNS = Athena Wireless Sensor  SENSORS & CONTROLS ESN = PhilipsTM EasySense DAY = Daylight Harvesting OCC = Occupancy Sensor CAS = Casambi Bluetooth  EMERGENCY EMC = Emergency Circuit GTD = Generator Transfer Device EPC4 = 4W Emergency Battery Pack EPC7 = 74 Emergency Battery Pack EPC10 = 10W Emergency Battery Pack EPC12 = 10W Emergency Battery Pack

<sup>&</sup>lt;sup>1</sup>CCT @ 80+CRI, 3SDCM. For 90CRI add prefix "9"; ex: 935 = 3500K, 90CRI.











<sup>&</sup>lt;sup>2</sup>BIOS SkyBlue Biological Static & Dynamic page 3.

<sup>&</sup>lt;sup>3</sup>Tunable White, RGB +White and Advanced Color ordering codes page 2.

<sup>&</sup>lt;sup>4</sup>See page 5 for actual sizes.

<sup>&</sup>lt;sup>5</sup>See page 6 for photometrics and mounting details.



### **TUNABLE WHITE** - Fixture Level Control





Day-O-Lite offers Tunable White in a range from 2700K-6500K CCT @ 80+CRI and 3SDCM color accuracy for a range of two-channel control options. Consult factory for 90CRI, electrical specifications and other details for each option below.

**2ESN** Option combines tunable white light with a fixture integrated occupancy and daylight harvesting sensor. CCT and intensity is controlled wirelessly with kinetic switches (by Illumra and others). Occupancy and daylight harvesting controlled automatically with parameters configurable with the Philips MasterConnect app available for Android and iPhone smart phones.

### Applications:

- Spaces occupied overnight (~ 7pm to 7am)
- 24-hour spaces
- Shiftwork & Hospitals
- Senior Living, Alzheimer's Dementia & Assisted Living
- · Higher Education, including student and staff
- Workplace, including areas occupied after 7pm

#### Ordering Codes:

**2DIM10** = 0-10V

2DMX = DMX

**2PSQ** = Lutron Quantum

2CAS = Casambi Wireless

**2ESN** = Philips EasySense Sensor

**2AWNR** = Lutron Athena RF only

2AWNS = Lutron Athena RF/Sensor

## **RGB + WHITE** - Fixture Level Control









Combine RGB for color effects with LO/SO/HO white CCT's for **general illumination** in a host of applications. All options require DMX control (by others). 80CRI w/3SDCM color accuracy is standard. Consult factory for 90CRI, electrical specifications and other details for each option below. May not be compatible with all fixture variations - consult factory for details when ordering.

### Applications:

- Entertainment Spaces
- Hospitality & Banquet
- Theatre & Stage
- Seasonal Applications
- Branding
- Wayfinding

#### Ordering Codes:

**RGB** = RGB only

**RGB27** = RGB w/2700K

**RGB30** = RGB w/3000K **RGB35** = RGB W/3500K

**RGB40** = RGB w/4000K

**RGB50** = RGB w/5000K

### **ADVANCED COLOR** - 125mm Pixel Level Control











Day-O-Lite's Advanced Color options combine RGB or RGBW with multi-pixel control for advanced **chases**, animated **visual effects** and other programmable scenes with **125 mm pixel** granularity. Choose from a vibrant color palette with RGB or RGBW LEDs for seamless color mixing and dimming - the perfect replacement for glass neon with improved reliability and durability.

Requires configuration with a remote proprietary digital drive power supply. Auto-addressing makes setup and commissioning quick and easy. DMX (by others) required for control. May not be compatible with all fixture variations - consult factory for details when ordering.

### Applications:

- Architectural Installations
- Digital Signage
- Arcades, Clubs
- Theatre & Stage
- Film & TV sets
- Indoor/Outdoor (IP66)

### Ordering Codes:

ACRGB = RGB only

AC27 = RGB w/2700K

**AC30** = RGB w/3000K

**AC40** = RGB w/4000K



# **BIOS SkyBlue**

BIOS SkyBlue biological technology brings the benefits of blue skies inside. BIOS SkyBlue is the only spectrally optimized circadian solution to pinpoint the region that drives wellness benefits including: increased alertness, enhanced productivity, better mood, and better sleep. More information may be found at www.bioslighting.com or by contacting Day-O-Lite directly.

# **BIOS Biological Static** - Daytime Solution

BIOS Biological Static solutions are designed for daytime applications. BIOS Static Biological LED features key BIOS SkyBlue™ (490nm) for maximum daytime circadian impact. BIOS Static Biological LED Light Engines are available in 3000K, 3500K, and 4000K. Lighting controls are easy; simply switch the lights on/off or the lights can be dimmed using a single-channel constant current (CC) LED driver with any standard dimming interface.

### Applications:

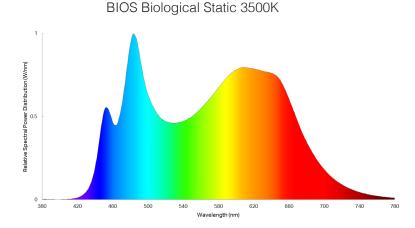
- Spaces occupied during the daytime ~7am 7pm
- K-12 Schools / Higher Education
- Offices
- Daytime Adult Care Facilities
- Medical Offices

BIOS Biological Static Ordering Codes:

**B30** = 3000K

**B35** = 3500K

**B40** = 4000K



# BIOS Biological Dynamic - Day & Night Solution A

BIOS Biological Dynamic solutions are designed to transition from daytime to evening in a dim-to-warm protocol. The daytime CCT includes full BIOS SkyBlue™ (490nm) for maximum daytime circadian impact, while the evening spectrum removes BIOS SkyBlue™ altogether, providing a minimal circadian stimulus after hours. Available in 3000K-2700K, 3500K-3000K and 4000K-3500K. Simply dim the lights in the evening to remove the daytime SkyBlue wavelengths (490nm) and convert your lights from day mode to night mode via a single controller (0-10V, ELV, DMX, Wireless).

### BIOS Biological Tunable White - Day & Night Solution B

BIOS Biological Tunable solutions are designed to transition from daytime to evening in a dim-to-warm protocol. The daytime CCT includes full BIOS SkyBlueTM (490nm) for maximum daytime circadian impact, while the evening spectrum removes BIOS SkyBlueTM altogether, providing a minimal circadian stimulus after hours. Available in 3000K-2700K, 3500K-3000K and 4000K-3500K. Simply dim the lights in the evening to remove the daytime SkyBlue wavelengths (490nm) and convert your lights from day mode to night mode via a single controller (0-10V, ELV, DMX, Wireless).

BIOS Biological Tunable is also compatible with two-channel color tuning systems. Simply dim the lights in the evening to convert your lights from day mode to night mode via a multi-channel controller (0-10V, ELV, DMX, Wireless). 3000K, 3500K and 4000K CCTs all dim to 2700K.

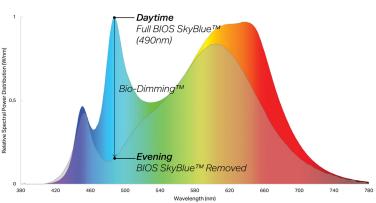
### Applications:

- Spaces occupied overnight (~ 7pm to 7am)
- 24-hour spaces
- Shiftwork & Hospitals
- Senior Living, Alzheimer's Dementia & Assisted Living
- Higher Education, including student and staff
- Workplace, including areas occupied after 7pm

BIOS Biological
Dynamic White
Ordering Codes:

BIOS Biological
Tunable White
Ordering Codes:

# BIOS Biological Dynamic 3500K







### **HOW TO SPECIFY**

- 1) Select color code from color swatches.
- 2) Select height of acoustic panel 8", 12" or 16".
- 3) Combine color and height to make complete code. Example: SK12 = Sky, 12" high, FO8 = Fossil, 8" high.
- 4) Enter completed code in Options section of Ordering Guide on page 1.

### **SPECIFICATIONS**

Class A Fire Rating

1.6 Noise Reduction Coefficient (NRC)

Moisture and Mold Resistant

UV Fade Resistant



100% Recyclable



### **NON-ILLUMINATED BAFFLES**

Non-Illuminated baffles matching the color and size of specified fixtures may also be ordered. These may be used as "fillers" between fixtures for added sound suppression, or alone as decorative elements. Specify as follows: PRFL-24-NIB (non-illuminated baffle)-XX (color)-YY (panel height). Example: PRFL-24-NIB-SL-16 = Profile 24 size, non-illuminated baffle, Slate color, 16" high panel. Day-O-Lite non-illuminated baffles are supplied with the same aircraft cable suspension as our acoustic luminaires and feature a closed bottom with a bevel detail to match fixtures.

### **ADDITIONAL INFORMATION**

Smoke, Pewter and Slate are standard colors; consult factory for lead-times on other colors including wood grains. Acoustic panels ship affixed to luminaires and are held in place by stop-blocks and double-sided tape to prevent bowing. Onsite removal may result in damage and void warranty. Fixtures must be stored and installed in an interior dry location at a minumum of 52F.

### A NOTE ON SOUND ABSORPTION

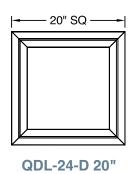
Per ASTM C423 there is no standard way to calculate sound absorption coefficients of non-standard shapes, sizes or spacing of material. Day-O-Lite's acoustic fixtures are tested using ASTM E795-16 Standard "Practices for Mounting Test Specimens During Sound Absorption Test", resulting in a noise reduction coefficient (NRC) unique to the test setup. When comparing sound suppressing materials those with a higher NRC will absorb more sound than those with a lower NRC, assuming the same test method is employed.

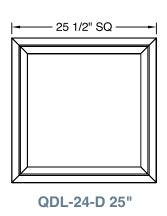


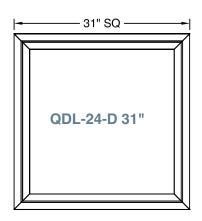


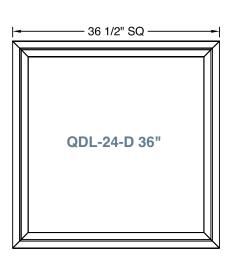
## **Dimensions**

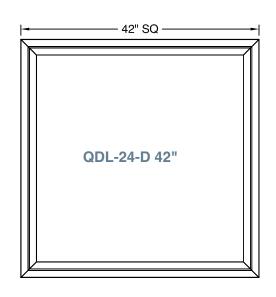


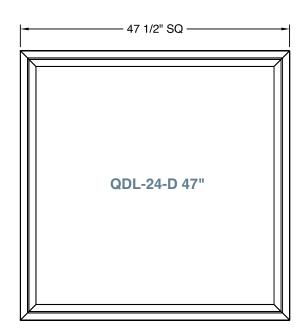






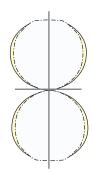








### **Photometry**



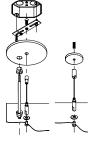
SIZE	LO LUMENS	LO WATTS	LO LPW	SO LUMENS	SO WATTS	SO LPW	HO LUMENS	HO WATTS	HO LPW
14"	3533	30	118	4706	39	121	5883	48	123
20"	6049	50	121	8063	65	124	10,086	79	128
25"	8622	70	123	11,496	91	126	14,365	111	129
31"	11,149	90	124	14,870	116	128	18,607	143	130
36"	13,693	110	124	18,249	142	129	22,813	174	131
42"	16,198	130	125	21,608	168	129	27,027	206	131
47"	18,773	150	125	25,033	194	129	31,290	238	131

3500K @ 80CRI, 43% Direct, 57% Indirect Distribution, FL/CA lens.

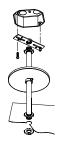
### **Standard Suspensions**

Standard suspension options include adjustable self-locking aircraft cables (AC) and rigid pendant stems (PD). AC assembly is 48" x 1/16" with a 5" feed canopy and 2" suspension canopies. 60" 18 gauge power and 22 gauge dimming control SJT power feed.

PD assemblies are 5/8" dia. (or 3/8" IP) hollow stem for power feed by others, 24" is standard. Consult factory for longer suspension lengths and other mounting options.







PD = Pendant Stem

### **Specifications**

ACOUSTIC PANELS 1/2" thick, 100% recyclable polyester material, Class A fire rating, moisture, mold and UV fade resistant.

**CONSTRUCTION** Extruded aluminum housing. 20 gauge cold rolled steel components.

REFLECTOR Die-formed steel finished in highly reflective baked white enamel with pre-finished reflective LED tray.

**OPTICS** LED optimized Flush Opal Acrylic (snap-in) Direct, Clear Acrylic (lay-in) dust covers Indirect standard. Flush Opal Acrylic (snap-in) Direct, Satin Ice Acrylic (lay-in) Indirect optional.

**LED** Static white LED modules in 30/35/40 & 50K CCT, 80/90CRI. Lumen maintenance minimum  $L_{70}$ = 50,000 hours. 3 SDCM color consistency. BIOS SkyBlue, RGB, RGBW and Tunable White options available. Field replaceable.

**DRIVER** Standard driver is Class 2 AOC 0-10V to 1%, 120/277V input, PF > 90%, THD < 20 @ 120V. Additional dimming protocols available. Drivers prewired from factory for connection to control system (by others); field replaceable.

**MOUNTING** Standard options include adjustable self-locking aircraft cables (AC), and rigid pendant stems (PD). AC assembly is 48" x 1/16" with a 5" feed canopy and 2" suspension canopies. 18 gauge power and 22 gauge dimming control SJT feed. PD assemblies are 5/8" dia. (or 3/8" IP) hollow stem for power feed by others, 24" is standard.

FINISH Housing and components finished in baked white enamel. Canopies and pendant stems are white enamel unless otherwise specified.

**CERTIFICATION** Luminaires are cETLus listed conforming to UL STD. 1598 and certified to CSA STD C22.2 NO. 250.0. Suitable for dry & damp locations. Union Made in the United States of America. I.B.E.W. RoHS compliant. DLC V5.1 listed. Declare Red List Approved.

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