LED - Architectural Recessed Troffer with BIOS Technology



Project:	Catalogue #:	Туре:
Notes:		

#### **Product Description**

The Bevel is a BIOS-enabled premium-grade, recessed, lay-in T-Bar troffer featuring two angled lenses with a flat center rail. Its modern styling provides depth and high visual comfort with increased glare control. For use with indoor applications where high-efficiency, high performance and ease of installation are required.

This fixture is equipped with BIOS SkyBlue® circadian LED technology, specifically for increased melanopic lux and circadian stimulus for daytime applications. This luminaire can be configured with either BIOS Static for applications where a constant level SkyBlue® content is desired, or BIOS Dynamic for applications requiring variable SkyBlue® content based on time of day. Provides minimum melanopic (M/P) ratio of >0.7 at 3000K, CRI 80+, R9>90; and cyanosis observation index (COI) less than or equal to 5.4.

# **Applications**

Office Areas, Retail Stores, Classrooms, Hospitals, Nursing Homes, Hospitality

#### **Features**

- 1x4, 2x2, 2x4 and 20x60 configurations
- Standard low voltage 1% dimming (0-10V)
- For use in insulated ceilings

### **Featured Options**

- Intellect occupancy/daylight sensor
- Tunable white
- Circadian lighting
- Emergency lighting battery pack

# **Optical System**

Two angled frosted diffusers.

## Mounting

This luminaire has been specifically designed for T-Bar applications. Integral earthquake clips.

#### Construction

Die-formed, cold rolled heavy-gauge steel housing assembly. Wiring access plates and knockouts are provided on back of housing.

#### Finish

White, polyester powder painted housing.

#### **Electrical**

Long life LEDs coupled with high efficiency drivers provide quality illumination. Rated to deliver L80 performance > 50,000 hours. Standard low voltage dimming (0-10v) driver.

5 year limited warranty. For complete warranty, click here:





#### **Approvals**

• ETL listed. Suitable for damp locations

All configurations may not be DLC qualified. Check www.designlights.org/QPL for qualified configurations.



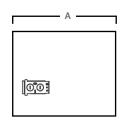






#### **Dimensions**

Top View



End View

Size	Α	В	С
1x4	47.75"	11.75"	4"
2x2	23.75"	23.75"	4"
2x4	47.75	23.75	4"
20x60	59.75"	19.75"	4"

Consult installation guide for exact dimensions.

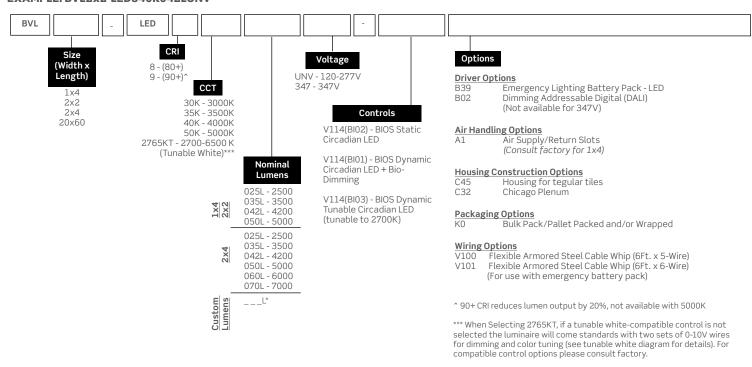
LED - Architectural Recessed Troffer with BIOS Technology



Project:	Catalogue #:	Туре:
Notes:		

#### **Order Key**

#### **EXAMPLE: BVL2x2-LED840K042LUNV**



# **Performance Data**

LED Performance Data					
Size	Nominal Lumens	Delivered Lumens	Watts	Lumens Per Watt	
	2500	2533	19.3	131.4	
1x4	3500	3533	27.3	129.3	
1X4	4200	4269	33.5	127.6	
	5000	4995	39.7	125.8	
	2500	2523	18.8	134.2	
2x2	3500	3526	27.3	129.4	
	4200	4251	33.7	126	
	5000	5040	39	118	
	2500	2518	17.3	145.6	
	3500	3524	24.5	143.6	
2x4	4200	4242	29.9	142	
ΔX <del>4</del>	5000	5050	36.1	140.1	
	6000	6043	43.9	137.7	
	7000	7049	52.1	135.3	

*0	Custom Lumens	
Size	Nominal Lumens Range	Watts
1x4	2500 - 5000	20 - 41
2x2	2500 - 5000	21 - 43
2x4 / 20x60	2500 - 7000	20 - 60

subject to change without notice.

Flange Kits (Ordered Se	eparately)
Size (Width x Length)	Item No.
1x4	KIT00136
2x2	KIT00137
2x4	KIT00138

Other options may be available, consult factory. Specifications and data

# **Ordering Key Example**

BVL2x2-LED840K035LUNV- V114(Bl02)	• Static CCT (4000K) fixture, output dimmable to 1% • SkyBlue™ is always present
BVL2x2-LED840K035LUNV- V114(BI03)	2-Channel Tunable (4000K - 2700K) fixture dimmable to 1%     SkyBlue™ is always present from 4000k-3000k
BVL2x2-LED840K035LUNV- V114(BI01)	Single-Channel Bio-Dimming from 4000K with SkyBlue™ to >2700K At 2700K, dim total output to 1% At 2700K, SkyBlue™ no longer present

<sup>\*3000</sup>Lm Example: BVL2x2-LED840K0**30LC**UNV

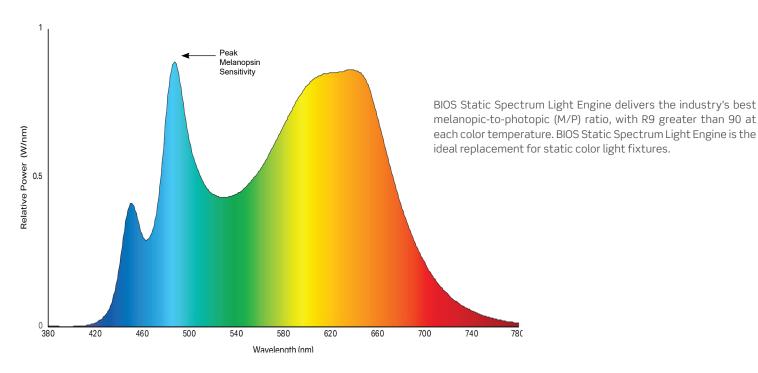
LED - Architectural Recessed Troffer with BIOS Technology



Project:	Catalogue #:	Туре:
Notes:		

# BIOS Static Circadian LED Solution - V114 (BI02)

BIOS SkyBlue® Spectrum lighting solutions support proper daytime circadian stimulus, communicating directly with human circadian biology through a non-visual photo receptor in the eye.



Static Engine Spectral Power Distribution (3500K)

#### **Nominal Performance**

сст	Melanopic Ratio (M/P)¹	CRI	R9	COI <sup>2</sup>
3000K	0.74	81	90	5.4
3500K	0.83	84	96	3.3
4000K	0.92	84	95	1.5

 $<sup>^1\,\</sup>text{M/P}$  is a ratio that describes the relative melanopic lux (M) versus the photopic lux (P)  $^2\,\text{COI}$  - Cyanosis Observation Index

LED - Architectural Recessed Troffer with BIOS Technology



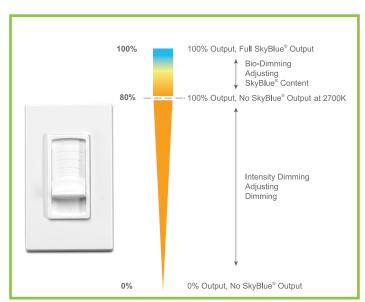
Project:	Catalogue #:	Туре:
Notes:		]

# BIOS Dynamic Circadian LED Solution - V114 (BI01)

BIOS SkyBlue® Dynamic Light Engine provides full daytime circadian stimulus and can be dynamically adjusted via the Bio-Dimming™ module. Using a standard single channel 0-10V dimmer reducing melanopic lux while keeping light and CCT constant3. When the SkyBlue® content has been removed (at 2700K), the light level can be adjusted. The Bio-Dimming™ module also detects the preferred light levels over time and will adjust the high end trim of the system to those preferences.

# Nighttime SPD Peak Melanopsin Sensitivity Daytime SPD O 5 0 50 540 580 620 660 700 740 780 Wavelength (nm)

# BIOS Dynamic Circadian LED + Bio-Dimming™



Dynamic Engine Spectral Power Distribution (3500K)

# **Nominal Performance**

С	СТ	Melanopic Ratio (M/P) <sup>1</sup>		CRI	DO	COI <sup>2</sup>
Daytime	Night-time	Daytime	Nitght-time	CKI	R9	COI
3000K	2700K	0.74	0.47	81	90	5.4
3500K	2700K	0.83	0.47	84	96	3.3
4000K	2700K	0.92	0.47	84	95	1.5

<sup>&</sup>lt;sup>3</sup>CCT may vary by up to 500K

<sup>&</sup>lt;sup>4</sup>Value as shown represents COI provided by daytime LED Spectrum.

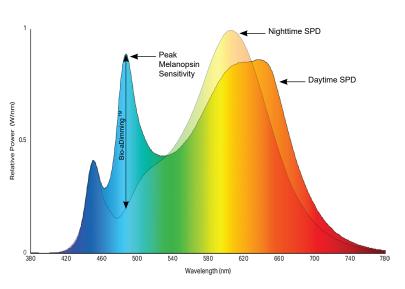
LED - Architectural Recessed Troffer with BIOS Technology



Project:	Catalogue #:	Туре:
Notes:		

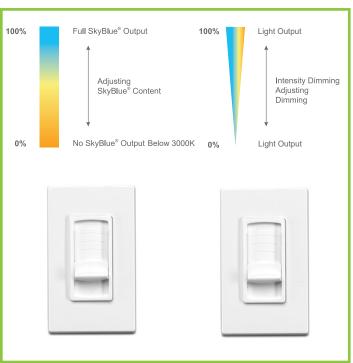
# BIOS Dynamic Circadian LED Solution - V114 (BI03)

BIOS SkyBlue® Dynamic Light Engine provides full daytime circadian stimulus and can be dynamically adjusted via tunable circadian LED module. Using a standard two channel 0-10V dimmer reducing melanopic lux and adjusting the output light level while keep CCT constant3. The SkyBlue® below 3000K no longer present. The tunable module also detects the preferred light levels over time and will adjust the high end trim of the system to those preferences.



Dynamic Engine Spectral Power Distribution (3500K)

# BIOS Dynamic Tunable Circadian LED (tunable to 2700K)



# **Nominal Performance**

ССТ		Melanopic Ratio (M/P) <sup>1</sup>		CRI	R9	COI <sup>2</sup>
Daytime	Night-time	Daytime	Nitght-time	CRI	R9	CUI
3000K	2700K	0.74	0.47	81	90	5.4
3500K	2700K	0.83	0.47	84	96	3.3
4000K	2700K	0.92	0.47	84	95	1.5

 $<sup>^{\</sup>scriptscriptstyle 3}$  CCT may vary by up to 500K

<sup>&</sup>lt;sup>4</sup>Value as shown represents COI provided by daytime LED Spectrum.