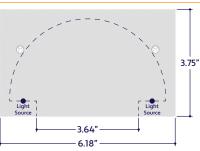


# END VIEWS / DIMENSIONS



**Note:** End view dimensions do not include ceiling trims or mounting options. Refer to trim-specific installation instructions for additional details.

# **A2 Series** | Recessed **ZELO** Duet BIOS Illuminated

(A2-ZELO-DUT-BIOS)









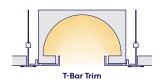
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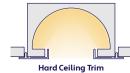


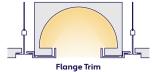
#### **GENERAL FEATURES**

Applications	Indirect Lighting
Lens	Clear
Length	Built to Order (+/- 0.25" Tolerance) See <b>Length Restrictions</b> Table for details
Construction	Aluminum Extrusion
Finish	White
Weight	4.80 lbs per foot
Mounting	Aircraft Cable
Listing	Dry or Damp Location UL1598, CSA C22.2#250.0 UL8750, CSA250 UL2108, 67.1.9, 60.4, CSA C22.2 #9
Driver	Driver on Board or Remote Driver
Temperature Ratings	Operating / Startup: -20° to 48°C (-4° to 120°F) Storage: -40° to 76°C (-40° to 170°F)
FG Installation	
TB Installation	
TBR Installation	
HC Installation	
MI Installation	

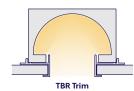
#### **MOUNTING OPTIONS**











### SPECIFY PRODUCT CODE | CHOOSE FROM DROP DOWNS

Series / Ceiling Trim	BIOS LED	Watts per Foot	Dimming	Listing	Luminaire Voltage* <sup>5</sup>	Luminaire Length
Flange Ceiling Trim	BIOS Biological Static: 3500K Daytime* <sup>1</sup>	3 Watts <b>(3W)</b> 468 Lumens / ft* <sup>4</sup>	0-10V	Indoor	120 - 277 Volts	Specify Length
(A2-ZELO-DUT-BIOS-FG)	(BS-35K)	4 Watts <b>(4W)</b> 624 Lumens / ft* <sup>4</sup>	(10V)	(DRY)	Line Voltage	in Feet & Inches
T-Bar Ceiling Trim (A2-ZELO-DUT-BIOS-TB)	BIOS Biological Dynamic: 3500K Daytime - 3000K Evening*2	6 Watts <b>(6W)</b> 936 Lumens / ft* <sup>4</sup>	DALI	Outdoor	(UNV)	Example: 7'8"
	(BD-35K-30K)	8 Watts (8W) 1248 Lumens / ft* <sup>4</sup>	(DALI)	(DAMP)	120 Volts	
T-Bar Return Ceiling Trim	BIOS Biological Tunable: 3500K Daytime - 2700K Evening*3	10 Watts <b>(10W)</b> 1560 Lumens / ft* <sup>4</sup>	DMX-512		Line Voltage	
(A2-ZELO-DUT-BIOS-TBR)	(BT-35K-27K)	12 Watts <b>(12W)</b> 1872 Lumens / ft*	(DMX)		(120V)	
Hard Ceiling Trim		16 Watts <b>(16W)</b> 2496 Lumens / ft* <sup>4</sup>				
(A2-ZELO-DUT-BIOS-HC)		20 Watts <b>(20W)</b> 3120 Lumens / ft* <sup>4</sup>				
Mud-In Ceiling Trim		24 Watts (24W) 3744 Lumens / ft*4				
(A2-ZELO-DUT-BIOS-MI)						

- \*<sup>1</sup> BIOS Biological Static available in standard 3500K Daytime CCT. Consult factory for other color temperature options.
- \* BIOS Biological Dynamic available in standard 3500K Daytime 3000K Evening CCT gamut. Consult factory for other color temperature options.
- BIOS Biological Tunable available in standard 3500K Daytime 2700K Evening CCT gamut. Consult factory for other color temperature options.
- $\star^4$  Lumens per Foot based on 35K CCT LED. **Example:** 156 Lumens x 4 Watts = 624 Initial Lumens per Foot.
- 🗚 Remote drivers wattage sized based on length of run. Example: 6' run x 10 watts per foot = 60 watts. Driver will be sized to 60 watts maximum.

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#### **LAMP FEATURES**

Lamp Type	BIOS SkyBlue™ LEDs
CRI	> 80
Efficacy*	156 Lumens per Watt

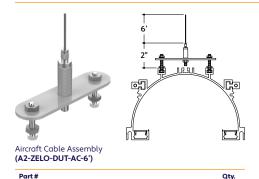
Note: Efficacy is based on Biological Static (BIOS-BS-35K) with Clear Lens (CL).

#### **LAMP SPECIFICATIONS**

Lamp Description		Efficacy (Lumens per Watt)	L70 LED Life
BIOS-BS-35K	Biological Static: 3500K Daytime	156	
BIOS-BD-35K-30K	Biological Dynamic: 3500K Daytime - 3000K Evening	156	60,000 hrs.
BIOS-BT-35K-27K	Biological Tunable: 3500K Daytime - 2700K Evening	156	_

Note: Efficacy is based on 35K CCT LED with Clear Lens (CL).
Note: To calculate Lumens per Foot, multiply Efficacy by Watts per Foot.
Example: 156 Lumens per Watt x 4 Watts per Foot = 624 Lumens per Foot.

### **MOUNTING ACCESSORIES (Sold Separately)**



Note: Use 3 Aircraft Cable Assemblies per 8', rounded up.

Consult factory for custom cable lengths.

# **A2 Series** | Recessed **ZELO** Duet BIOS Illuminated

(A2-ZELO-DUT-BIOS)



#### **ELECTRICAL**

Dimming	0-10V, DMX, DALI
Luminaire Voltage	120V - 277V <b>(UNV)</b>

#### **MINIMUM & MAXIMUM RUNS**

3W	4W	6W	8W	10W	12W	16W	20W	24W
4'	3'	2'	2'	2'	1'	1'	1'	1'
39'	27'	19'	14'	11'	9'	7'	6'	5'
4'	3'	2'	2'	2'	1'	1'	ľ	1'
26'	18'	13'	9'	8'	6'	4'	4'	3'
	4' 39' 4'	4' 3' 39' 27' 4' 3'	4' 3' 2' 39' 27' 19' 4' 3' 2'	4' 3' 2' 2' 39' 27' 19' 14' 4' 3' 2' 2'	4'     3'     2'     2'     2'       39'     27'     19'     14'     11'       4'     3'     2'     2'     2'	4'     3'     2'     2'     2'     1'       39'     27'     19'     14'     11'     9'       4'     3'     2'     2'     2'     1'	4'     3'     2'     2'     2'     1'     1'       39'     27'     19'     14'     11'     9'     7'       4'     3'     2'     2'     2'     1'     1'	4'     3'     2'     2'     2'     1'     1'     1'       39'     27'     19'     14'     11'     9'     7'     6'       4'     3'     2'     2'     2'     1'     1'     1'

### **END CAPS & REFLECTIVE FILM (Sold Separately)**



Standard End Cap
(A2-ZELO-DUT-EC)

A2-ZELO-DUT-AC-6'

Part#	Qty.
A2-7ELO-DUT-EC	

**Note:** Use 1 Standard End Cap when the run terminates at a flat wall.



(A2-ZELO-DUT-EC-RD)

Part#	Qty.
A2-ZELO-DUT-EC-RD	

**Note:** Use 1 Mud-In End Cap when the run will terminate with an opening.



Mud-In End Cap with Square Opening (A2-ZELO-DUT-EC-SQ)

Part#	Qty.
A2-ZELO-DUT-EC-SQ	

**Note:** Use 1 Mud-In End Cap when the run will terminate with an opening.



Additional Reflective Film (A2-ZELO-DUT-RF-X) X = Specify Length Below

Part#	Qty.
A2-ZELO-DUT-RF-25'	
A2-ZELO-DUT-RF-50'	
A2-ZELO-DUT-RF-75'	
A2-ZELO-DUT-RF-100'	
A2-ZELO-DUT-RF-150'	
A2-ZELO-DUT-RF-200'	
A2-ZELO-DUT-RF-250'	

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**Specification Submittal** 

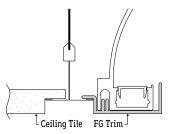


## A2 Series | Recessed **ZELO** Duet BIOS Illuminated

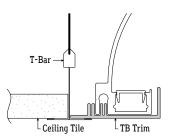
(A2-ZELO-DUT-BIOS)

# **TYPE**

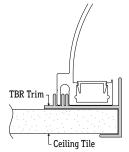
#### **TRIM STYLE**



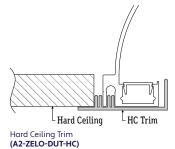
Flange Ceiling Trim (A2-ZELO-DUT-FG)



T-Bar Ceiling Trim (A2-ZELO-DUT-TB)



T-Bar Return Ceiling Trim (A2-ZELO-DUT-TBR)



Hard Ceiling

Mud J Mud-In Ceiling Trim (A2-ZELO-DUT-MI)

#### **DESCRIPTION**

- Compatible with T-Bar ceiling grid systems
- Best used with tegular-edged tiles
- Trim rests on T-Bar grid



**FINISHED APPEARANCE** 

- Compatible with T-Bar ceiling grid systems
- Best used with square-edged tiles
- Trim rests on T-Bar grid



- Compatible with T-Bar ceiling grid systems
- Luminaire sits centered within the tile and spans a length shorter than the length of the tile.



- Compatible suspended hard ceiling systems
- Best used with drywall ceiling
- Trim is flush with ceiling surface



- Compatible suspended hard ceiling systems
- · Best used with drywall ceiling
- Trim uses mud-in finish for seamless appearance



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L MI Trim

% 866.ALUZ.LTG | 714.535.7900

**Specification Submittal** 



# **A2 Series** | Recessed **ZELO** Duet BIOS Illuminated

(A2-ZELO-DUT-BIOS)

TYPE	

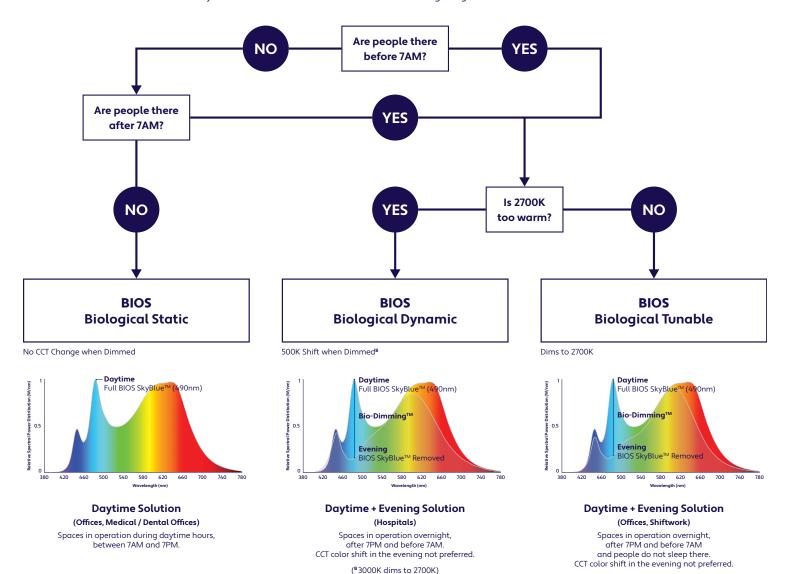
#### **DELIVERED MELANOPIC RATIOS**

BIOS Solution / Nominal CCT / Product Code	Spectral Mode	CRI	R9	Daytime Spectrum Melanopic Ratio* (M/P)		
BIOS Solution / Normingt CCT / Product Code		CKI	кэ	m-EER	m-DER	
BIOS Biological Static: 3500K Daytime (BIOS-BS-35K)	Daytime Solution	80+	> 90	≥ 0.80	≥ 0.72	
BIOS Biological Dynamic: 3500K Daytime - 3000K Evening (BIOS-BD-35K-30K)	Daytime + Evening Solution	80+	> 90	≥ 0.70	≥ 0.63	
BIOS Biological Tunable: 3500K Daytime - 2700K Evening (BIOS-BT-35K-27K)	Daytime + Evening Solution	80+	> 90	≥ 0.80	≥ 0.72	

<sup>\*</sup>Melanopic ratios are provided in two forms: (m-EER) which is calculated using the WELL v2 methodology and the corresponding CIE melanopic Daylight Equivalent Ratio, (m-DER).

#### **CHOOSING YOUR BIOS SOLUTION**

**ALUZ** offers four different BIOS Circadian LED Solutions – Biological Static, Biological Dynamic, and Biological Tunable White. Use the decision tree below to identify when and where to use BIOS Wellness LED Lighting Solutions.



#### 1170 N Red Gum St, Anaheim, CA 92806

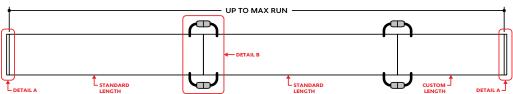


# **A2 Series** | Recessed **ZELO** Duet BIOS Illuminated (A2-ZELO-DUT-BIOS)

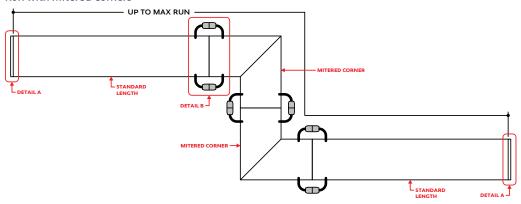
TYPE	

#### **DESIGN GUIDELINES**

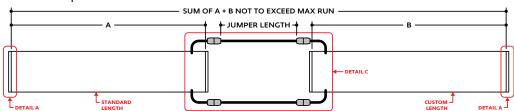
#### Individual Run



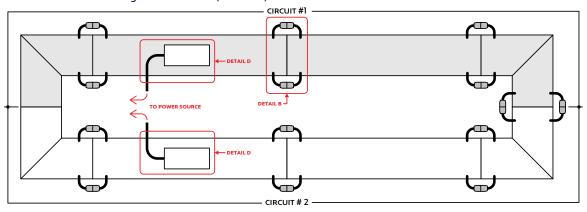
#### **Run with Mitered Corners**



#### **Run with Jumper Cables**



#### Continuous Run Exceeding Maximum Run (2 Circuits)



#### **KEY**

**Detail A** End Cap: An end cap is used to terminate each run at either end.

**Detail B** Continuous Connection: Luminaire segments are connected using an included continuous connector. See installation instructions for details.

Detail C Continuous Connector (Jumper): Used to span a corner or traverse a gap, corner, or obstacle in the installation area.

**Detail D** Remote **Driver**: For T-Bar ceiling grid applications, the driver may be mounted on top of the luminaire. See installation instructions for details.

**Note:** Drawings not to scale. Product may differ from examples shown.

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