

# **COOLEDGE LUMINOUS CEILINGS** FABRICATED LUMINAIRES - GRID (T-BAR): SPECIFICATIONS

PROJECT	REFERENCE TYPE	
SPECIFIED BY	QUANTITY	
DATE	NOTE	Luminous Ceilings

#### **DESCRIPTION**

Cooledge FABRICated Luminaires are a simple, outof-the-box way to incorporate the unique look and feel of a stretch fabric ceiling into your space. Create a canopy of light in T-bar grid ceilings by adding skylights to provide immersive illumination that delivers the visual, biological, and emotional benefits of large luminous surfaces.

Grid (T-Bar) luminaires deliver immersive illumination for:

- Offices
- Healthcare facilities
- Meeting rooms
- Educational buildings



Features Cooledge's unique "Infinity Edge" design for uniform illumination from edge to edge.

# **SIZES**

# **Nominal Size** (Imperial - ft) 4 x 6 4 x 8

Fits Grid (T-bar) ceilings with 2' o.c. spacing

#### **GENERAL**

Location	Indoor, dry location only
Operating Temperature	0 – 40°C (32 – 104°F)
Storage Temperature	-40 - +85°C (-40 - +185°F)
Relative Humidity	90% max (non-condensing)
Operating Voltage	58 VDC
Diffuser Material	Woven Fabric (coated)
Frame Material	Aluminum
Fire Rating	ASTM E 84 Class A /EN:3501-1 Class B
Noise Reduction Coefficient (NRC)	Standard: 0.2 (ISO Class E)









Cooledge Lighting Inc. 110-13551 Commerce Parkway Richmond, BC V6V 2L1 Canada O +16042732665

F +1604 273 2660 T +1 844 455 4448

W cooledgelighting.com

Cooledge Lighting reserves the right to change materials or modify the design of its product without notification as part of the company's continuing product improvement program.

# **PHOTOMETRICS**

Nominal Size (Imperial - ft)	Flux (lm)			
For Imperial Ceilings with 2' On-Center Spacing	Extra High Flux (XHF)	High Flux (HF)	Medium Flux (MF)	
4 x 6	13550	9040	4520	
4 x 8	18540	12360	6180	

CRI (Ra)	>90
Color Uniformity (Typical)	2 SDCM
Lumen Maintenance (L80)	75,000 hr

#### TM-30-15 DATA

ССТ	TNW*	3000	3500	4000
Rf	90	89	88	85
Rg	99	97	97	95

For more details about **FABRICated Luminaires** color rendering properties, please see "Light Quality Metrics" at www.cooledgelighting.com \*TNW = Tunable White

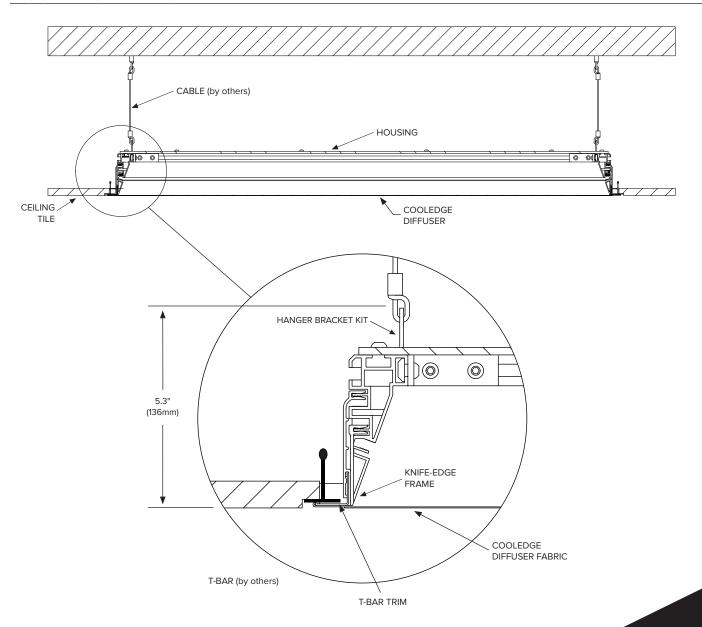
# **POWER**

Nominal Size (Imperial - ft)	сст	CCT Extra High Flux (XHF)		Medium Flux (MF)
		Power (W)	Power (W)	Power (W)
	TNW	228.3	152.2	73.5
46	3000K	219.1	146.9	70.8
4 x 6	3500K	215.2	143.0	69.5
	4000K	211.2	139.1	68.2
	TNW	305.6	203.7	98.3
4 × 8	3000K	293.3	196.7	94.8
	3500K	288.0	191.4	93.1
	4000K	282.7	186.2	91.3

# **DIMENSIONS**

Nominal Size (Imperial - ft)	Order Code	External Dimensions (in)		Weight (lb)	# Mounting Points
		W	L		
4 × 6	46	46.9	70.9	52	6
4 x 8	48	46.9	94.9	57	6

# **MOUNTING DETAILS**



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#### POWER AND CONTROL MOUNTING

Power Supply with Cooledge Control Module

Actual power & control configuration is determined by the luminaire model.

Power & Control Mounting Plate (shipped in a separate package)

Mounting Plate Dimensions:  $16.5" \times 9.4"$ 

FABRICated Luminaires offer two choices for locating the power and control components:

- Integrated: the mounting plate containing the power supply and control module may be secured to the top of the luminaire. AC electrical connections are made directly to the power supplies at the luminaire
- Remote Mounted: the mounting plate can be located remotely in a location that may be more suitable for AC electrical connection or for maintenance access (see www.cooledgelighting.com or contact Cooledge for remote distance wiring requirements)

#### **HOW TO ORDER**

Static CCT						
1 PRODUCT	2 NOM. SIZE	3 FLUX	4 <u>CCT</u>	5 DIMMING	6 NRC	7 CERTIFICATION*
FLG =	46 = 4x6	<b>HF</b> = <b>H</b> igh <b>F</b> lux	<b>30</b> = <b>30</b> 00K	010 = 0-10V (1%)	E = 0.2	U = CUL
<b>F</b> ABRICated	48 = 4x8	MF = Med Flux	<b>35</b> = <b>35</b> 00K	<b>DAL</b> = <b>DAL</b> I/0-10V (0.05%)		C = CE
<b>L</b> uminaire		XHF = Extra	<b>40</b> = <b>40</b> 00K	DMX = DMX (0.05%)		

CAS = Casambi

(Wireless - 0.05%)

#### **Tunable White**

- Grid (T-Bar)

1 PRODUCT FLG =	2 <u>NOM. SIZE</u> 46 = 4x6	3 FLUX HF = High Flux	4 <u>CCT</u> TNW =	5 <u>CONTROL</u> DAL = DALI/0-10V (0.05%)	6 NRC E = 0.2	7 CERTIFICATION* U = cUL
<b>F</b> ABRICated	48 = 4x8	MF = Med Flux	Tunable White	DMX = DMX (0.05%)		C = CE
Luminaire		XHF = Extra	(2700K -5700K)	CAS = Casambi		
- <b>G</b> rid (T-Bar)		High Flux		(Wireless)		

- \*Certification is also used to indicate choice metric vs imperial ceiling grid dimensions
- cUL = Imperial grid spacing based on 2' on-center spacing
- CE = Metric grid spacing based on 600mm on-center spacing

High Flux

# WELL STANDARD (V2)

Cooledge FABRICated Luminaires enhance the user experience of spaces by delivering immersive illumination that impacts not only the visual, but also the emotional and physiological, response of people. New standards that define requirements for promoting design that enhances well-being are emerging. One of those standards, WELL v2, includes 8 "features" for lighting design that define requirements for the guality and composition.

The following data is provided to assist designers in determining compliance with the WELL v2 standard when incorporating Cooledge FABRICated Luminaires in their design.

#### Feature L03: Circadian Lighting Design

This feature requires a calculation of Equivalent Melanopic Lux (EML):

EML = Photopic Lux x Melanopic Ratio

#### Melanopic Ratio for FABRICated Luminaires

	TNW*	3000K	3500K	4000K
Melanopic Ratio**	0.704	0.517	0.620	0.779

<sup>\*</sup>Tunable White: 2700K @ 50% + 5700K @ 50%

#### Feature L04: Glare Control

This feature requires maximum values for different types of glare measurements. Compliance requirement (d): Luminance < 10,000 cd/m2 between 45°-90° from nadir

#### Maximum Luminance for FABRICated Luminaires

	High Flux (HF)	Extra High Flux (XHF)
Maximum Luminance* (cd/m2)	1465	2200

<sup>\*</sup>Maximum occurs at 45°

# Feature L07: Electric Light Quality – Part 1 Ensure Color Rendering Quality

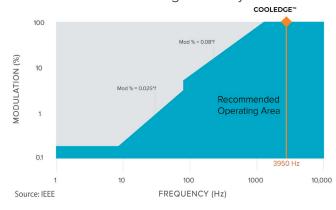
This feature requires minimum values for color rendering.

Compliance requirement (a): CRI > 90

#### CRI (Ra) for FABRICated Luminaires

	TNW*	3000K	3500K	4000K
CRI (Ra)	96	93	93	93

# Feature L07: Electric Light Quality – Part 2 Manage Flicker



For LED-based luminaires, this feature requires specific values for the combination of frequency and modulation.

Compliance requirement: Meet IEEE 1789-2015 Standard Practice Recommendation

<sup>\*\*</sup>Calculated using the IWBI Melanopic Ratio calculator