



## COOLEGE LUMINOUS CEILINGS FABRICATED LUMINAIRES - SUSPENDED CIRCLES: SPECIFICATIONS

PROJECT		REFERENCE TYPE	
SPECIFIED BY		QUANTITY	
DATE		NOTE	Luminous Ceilings

### DESCRIPTION

Cooledge FABRICated Luminaires are a simple, out-of-the-box way to incorporate the unique look and feel of a stretch fabric ceiling into your space.

**Circular FABRICated Luminaires** combine all of the elements of architectural form with acoustic performance on a scale that delivers immersive illumination for:

- Lobbies, atriums, and indoor plazas
- Open plan offices and co-working spaces
- Shop-in-shop retail
- Showrooms



### SIZES

Nominal Size (Diameter)
Small = 4'/1200mm
Medium = 5'/1500mm
Large = 6'/1800mm
Extra Large = 7'/2100mm

### 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)
Input Voltage	120-277 VAC
Diffuser Material	Woven Polyester Fabric (coated)
Frame Material	Aluminum
Fire Rating	ASTM E84 Class A/EN:3501-1 Class B
Noise Reduction Coefficient (NRC)	Standard: 0.75 (ISO Class C)



**RoHS**



Contact Cooledge for ordering information for JA8 compliant models.

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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.

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## PHOTOMETRICS

Size	Flux (lm)	
	Extra High (XHF)	High (HF)
Small	5750	3830
Medium	9590	6390
Large	16630	11090
Extra Large	20810	13870

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

### TM-30-15 DATA

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

\*TNW = Tunable White 2700K-5700K (both channels @50%)

For more details about **FABRICated Luminaires** color rendering properties, please see "Light Quality Metrics" at [www.cooledgelighting.com](http://www.cooledgelighting.com)

## POWER

Nominal Size	CCT	Extra High Flux (XHF)	High Flux (HF)
		Power (W)	Power (W)
<b>Small</b> (nom. 4'/1200mm dia.)	TNW	109.7	76.0
	3000K	108.2	73.7
	3500K	106.8	72.3
	4000K	101.8	70.2
<b>Medium</b> (nom. 5'/1500mm dia.)	TNW	172.3	117.6
	3000K	168.1	113.8
	3500K	165.6	111.3
	4000K	159.7	108.2
<b>Large</b> (nom. 6'/1800mm dia.)	TNW	295.9	202.8
	3000K	289.5	196.4
	3500K	285.4	192.3
	4000K	274.3	186.8
<b>Extra Large</b> (nom. 7'/2100mm dia.)	TNW	356.9	242.0
	3000K	346.6	234.1
	3500K	341.2	228.6
	4000K	330.7	222.2

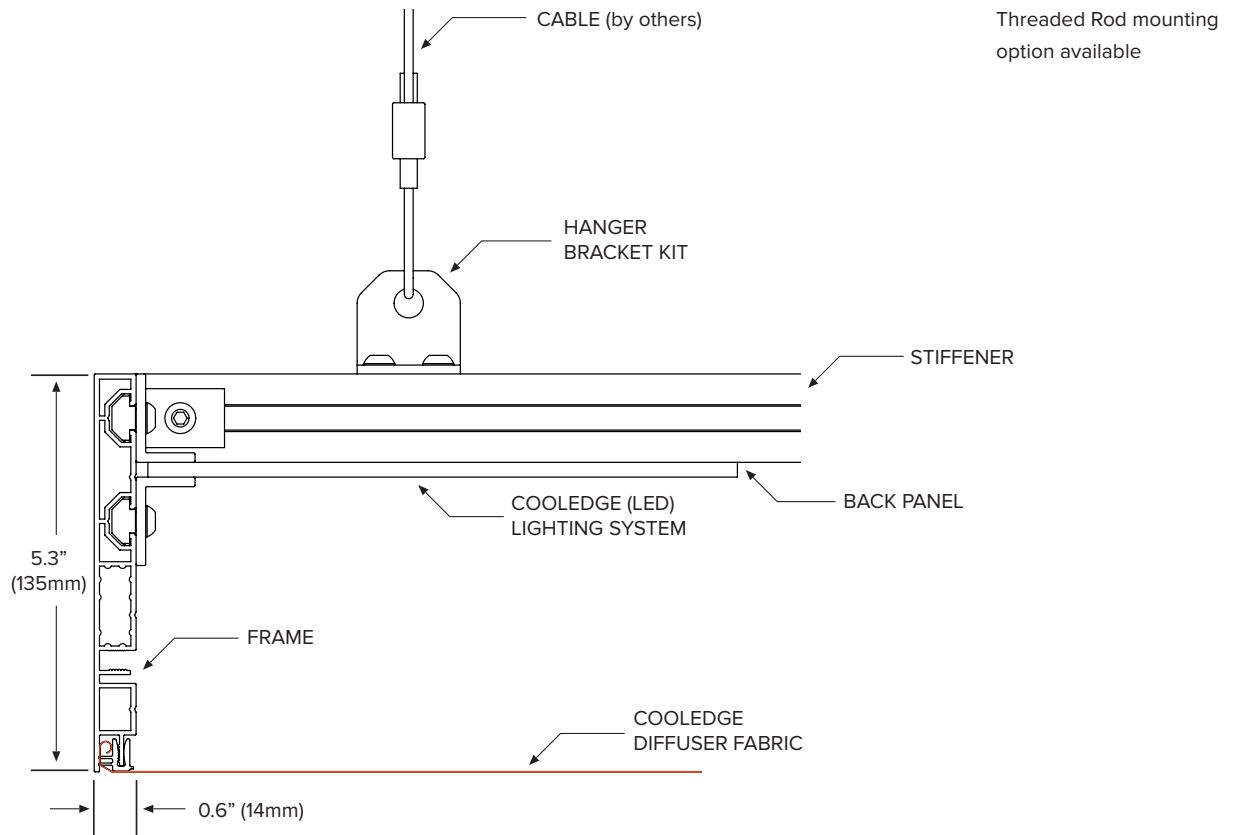
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## DIMENSIONS

Size	Order Code	External Dimensions – diameter (in/mm)	Weight (lb/kg)	# Mounting Points
Small	FLS-CS	46.3 / 1176	40.1 / 18.2	4
Medium	FLS-CM	58.1 / 1476	54.9 / 24.9	4
Large	FLS-CL	74.6 / 1896	71.0 / 32.2	4 (Threaded Rod = 6)
Extra Large	FLS-CXL	82.7 / 2100	88.0 / 39.9	4 (Threaded Rod = 6)

Height = 5.3"/135mm

## MOUNTING DETAILS



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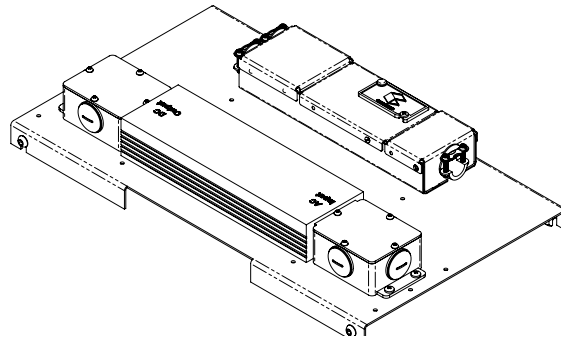
## NOISE REDUCTION

Cooledge Circular FABRICated Luminaires are unique in combining high quality, immersive illumination with sound absorption characteristics. In open concept areas FABRICated Luminaires can reduce or eliminate the need for additional sound absorbing materials such as baffles or clouds – especially useful where stone or tile floors are used.

NRC Value	Sound Absorption Class	Order Code Reference
0.75	Class C	"C"

NOTE: Contact Cooledge for NRC = 1.0 (class A) options

## POWER AND CONTROL MOUNTING



Power Supply with Cooledge Control Module

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

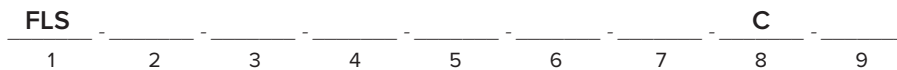
Power & Control Mounting Plate (shipped in a separate package)

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](http://www.cooledgelighting.com) or contact Cooledge for remote distance wiring requirements)

Mounting Plate Dimensions: 16.5" x 9.4" / 420mm x 239mm

## HOW TO ORDER



### Static CCT

1 PRODUCT	2 NOM. SIZE	3 FLUX	4 CCT	5 MOUNTING	6 DIMMING	7 FINISH	8 NRC	9 CERTIFICATION
FLS = FABRICated Luminaire -Suspended	CS = Circle Small CM = Circle Medium CL = Circle Large CXL = Circle Extra Large	HF = High Flux XHF = Extra High Flux	30 = 3000K 35 = 3500K 40 = 4000K	AC = Aircraft Cable TR = Threaded Rod	010 = 0-10V (1%) DAL = DALI/0-10V (0.05%) DMX = DMX (0.05%) CAS = Casambi (Wireless – 0.05%)	B = Black W = White	C = 0.75	U = cUL C = CE

### Tunable White

1 PRODUCT	2 NOM. SIZE	3 FLUX	4 CCT	5 MOUNTING	6 DIMMING	7 FINISH	8 NRC	9 CERTIFICATION
FLS = FABRICated Luminaire -Suspended	CS = Circle Small CM = Circle Medium CL = Circle Large CXL = Circle Extra Large	HF = High Flux XHF = Extra High Flux	TNW = Tunable White (2700K-5700K)	AC = Aircraft Cable TR = Threaded Rod	DAL = DALI/0-10V (0.05%) DMX = DMX (0.05%) CAS = Casambi (Wireless – 0.05%)	B = Black W = White	C = 0.75	U = cUL C = CE

## 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 quality 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):

$$EML = \text{Photopic Lux} \times \text{Melanopic Ratio}$$

### Melanopic Ratio for FABRICated Luminaires

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

\*Tunable White: 2700K @ 50% + 5700K @ 50%

\*\*Calculated using the IWBI Melanopic Ratio calculator

### Feature L04: Glare Control

This feature requires maximum values for different types of glare measurements.

Compliance requirement (d): Luminance < 10,000 cd/m<sup>2</sup> between 45°-90° from nadir

### Maximum Luminance for FABRICated Luminaires

	High Flux (HF)	Extra High Flux (XHF)
Maximum Luminance* (cd/m <sup>2</sup> )	1465	2200

\*Maximum occurs at 45°

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

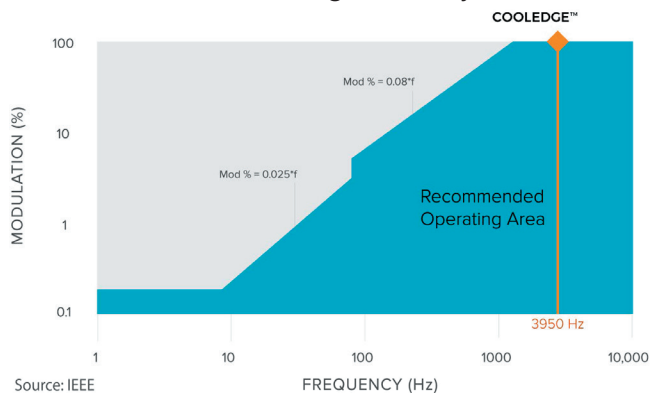
This feature requires minimum values for color rendering.

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

Source: IEEE