



## COOLEDGE LUMINOUS CEILINGS FABRICATED LUMINAIRES - RECESSED: 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. Use recessed luminaires to create open spaces that deliver the visual, biological, and emotional benefits of large luminous surfaces, for example in plaster or drywall ceilings.

Recessed luminaires deliver immersive illumination for:

- Elevator lobbies
- Showrooms
- Shops
- Healthcare facilities



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

### SIZES

Nominal Size (Metric - mm)
1200 x 1200
1200 x 1800
1200 x 2400
1200 x 3000
1500 x 1500
1800 x 1800
1800 x 2400
1800 x 2700

### GENERAL

Location	Indoor, (IP20)
Operating Temperature	0-40°C (32-104°F)
Storage Temperature	-40-+85°C (32-104°F)
Relative Humidity	90% max (non-condensing)
Operating Voltage	58 VDC
Diffuser Material	Knitted Polyester 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)



**RoHS**

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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

Nominal Size (Metric - mm)	Flux (lm)	
	High (HF)	Medium (MF)
1200 x 1200	5530	2760
1200 x 1800	8740	4370
1200 x 2400	11830	5910
1200 x 3000	16660	8330
1500 x 1500	9280	4640
1800 x 1800	15700	7850
1800 x 2400	20910	10450
1800 x 2700	23670	11830

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

### TM-30-15 DATA

CCT	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](http://www.cooledgelighting.com)

\*TNW = Tunable White

## POWER

Nominal Size (mm)	CCT	High Flux (HF)	Medium Flux (MF)
		Power (W)	Power (W)
1200 x 1200	TNW	87	44
	3000K	81	40
	3500K	79	40
	4000K	77	37
1200 x 1800	TNW	135	68
	3000K	126	61
	3500K	122	61
	4000K	119	58
1200 x 2400	TNW	183	92
	3000K	170	83
	3500K	165	83
	4000K	161	78
1200 x 3000	TNW	321	111
	3000K	225	109
	3500K	218	106
	4000K	212	103

Nominal Size (mm)	CCT	High Flux (HF)	Medium Flux (MF)
		Power (W)	Power (W)
1500 x 1500	TNW	139	67
	3000K	136	66
	3500K	132	64
	4000K	128	63
1800 x 1800	TNW	241	121
	3000K	223	109
	3500K	216	109
	4000K	211	102
1800 x 2400	TNW	321	161
	3000K	297	145
	3500K	288	145
	4000K	281	136
1800 x 2700	TNW	361	181
	3000K	334	163
	3500K	324	163
	4000K	317	153

# COOLEGE LUMINOUS CEILINGS FABRICATED LUMINAIRES - RECESSED: SPECIFICATIONS

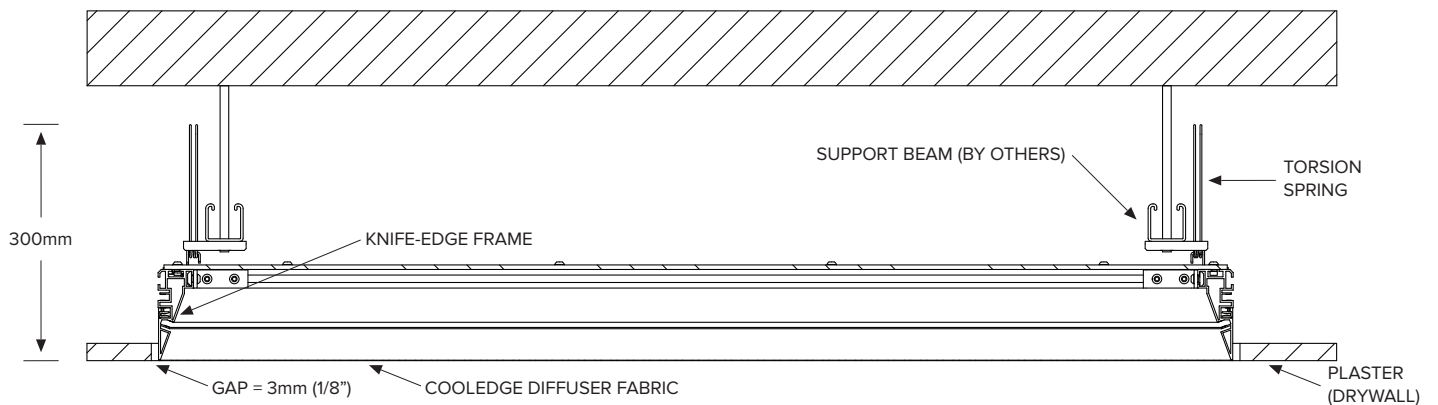
## DIMENSIONS

Nominal Size (Metric - mm)	Order Code	External Dimensions (mm)		Weight (kg)	# Mounting Points
		W	L		
1200 x 1200	44	1180	1180	19.5	4
1200 x 1800	46	1180	1780	23.6	6
1200 x 2400	48	1180	2380	25.9	6
1200 x 3000	410	1180	2980	34.5	8
1500 x 1500	55	1480	1480	18.0	6
1800 x 1800	66	1900	1900	30.9	6
1800 x 2400	68	1900	2500	36.8	8
1800 x 2700	69	1900	2800	40.0	8

Height = 300mm

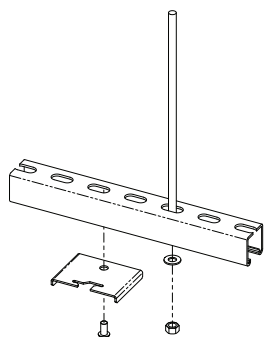
\*Recessed opening to be a minimum 3mm longer than External Dimensions

## MOUNTING DETAILS

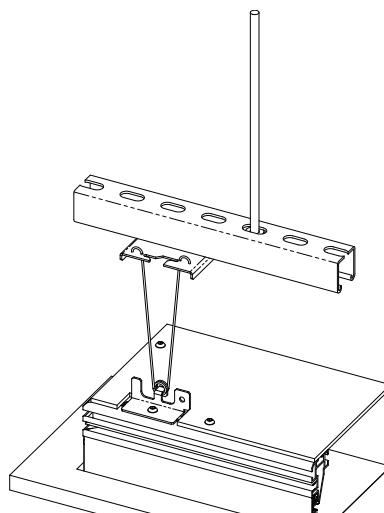


X-section showing Recessed

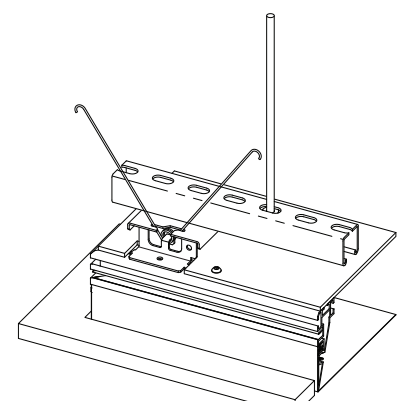
## BRACKET DETAILS



1. ATTACH BRACKET TO  
SUPPORT BEAM



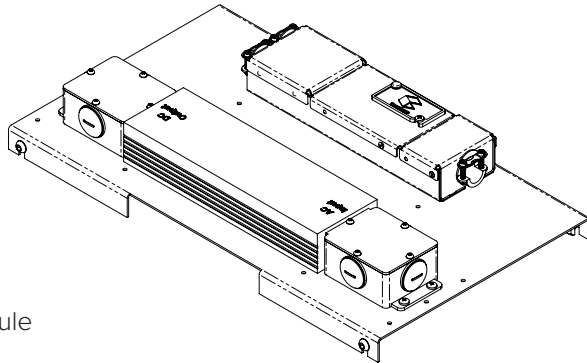
2. HANG LUMINAIRE BY  
TORSION SPRING



3. LIFT LUMINAIRE UNTIL  
SPRING LOCKS IN PLACE

# COOLEDGE LUMINOUS CEILINGS FABRICATED LUMINAIRES - RECESSED: SPECIFICATIONS

## 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:** 420mm x 239mm

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)

## HOW TO ORDER

FLR	SC	E
1	5	7
2	6	8
3		
4		

### Static CCT

1 PRODUCT	2 NOM. SIZE	3 FLUX	4 CCT	5 MOUNTING	6 DIMMING	7 NRC	8 CERTIFICATION
FLR =	44 = 4x4 (1200x1200)	HF = High Flux	30 = 3000K	SC = Spring Clips	010 = 0-10V (1%)	E = 0.2	U = cUL
FABRICated	46 = 4x6 (1200x1800)	MF = Med Flux	35 = 3500K		DAL = DALI/0-10V (0.05%)		C = CE
Luminaire	48 = 4x8 (1200x2400)		40 = 4000K		DMX = DMX (0.05%)		
- Recessed	410 = 4x10 (1200x3000)				CAS = Casambi		
(Plaster/Drywall)	55 = 5x5 (1500x1500)				(Wireless – 0.05%)		
	66 = 6x6 (1800x1800)						
	68 = 6x8 (1800x2400)						
	69 = 6x9 (1800x2700)						

### Tunable White

1 PRODUCT	2 NOM. SIZE	3 FLUX	4 CCT	5 MOUNTING	6 DIMMING	7 NRC	8 CERTIFICATION
FLR =	44 = 4x4 (1200x1200)	HF = High Flux	TNW =	SC = Spring Clips	DAL = DALI/0-10V (0.05%)	E = 0.2	U = cUL
FABRICated	46 = 4x6 (1200x1800)	MF = Med Flux	Tunable		DMX = DMX (0.05%)		C = CE
Luminaire	48 = 4x8 (1200x2400)		White		CAS = Casambi		
- Recessed	410 = 4x10 (1200x3000)		(2700K		(Wireless – 0.05%)		
(Plaster/Drywall)	55 = 5x5 (1500x1500)		-5700K)				
	66 = 6x6 (1800x1800)						
	68 = 6x8 (1800x2400)						
	69 = 6x9 (1800x2700)						

## 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)	3000K
Maximum Luminance* (cd/m <sup>2</sup> )	1465	740

\*Maximum occurs at 45°

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

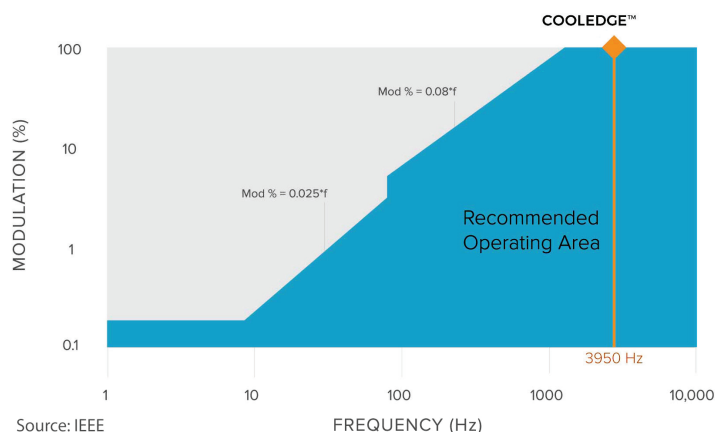
This feature requires minimum values for color rendering.

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