

COOLEGE™

# COOLEGE LUMINOUS CEILING FABRILUM RECTANGLES - CE COMPLIANT (EMEA): SPECIFICATIONS

PROJECT		REFERENCE TYPE	
SPECIFIED BY		QUANTITY	
DATE		NOTE	Luminous Ceilings

## DESCRIPTION

**FABRILum** luminaires deliver best-in-class immersive illumination at a scale that brings the feeling of the outdoors to interior spaces. More than that, FABRILum goes **beyond lighting** to deliver so much more; unparalleled acoustic performance and new architectural forms.

Perfect for almost any design including:

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



## SIZES

Nominal Size (W x L)	Suspended	Surface Mount	Recessed	Grid (T-Bar)
<b>RSB*</b> (4' x 4' / 1200mm x 1200mm)	✓	✓	✓	✓
<b>RS</b> (4' x 4' / 1200mm x 1200mm)	✓	✓	✓	✓
<b>RM</b> (4' x 6' / 1200mm x 1800mm)	✓	✓	✓	
<b>RL</b> (4' x 8' / 1200mm x 2400mm)	✓	✓		
<b>RXL</b> (6' x 6' / 1800mm x 1800mm)	✓	✓		
<b>RXXL</b> (6' x 8' / 1800 x 2400mm)	✓	✓		

\*RSB offers a reduced feature set at lower prices for simple applications

## 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	Translucent Polyvinyl Chloride*
Frame Material	Aluminum
Fire Rating	EN:3501-1 Class B

\*RSB model is woven polyester fabric (coated)



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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	CCT	Flux (lm)	
		High (HF)	Standard (SF)
RSB	3000K	9,700	N/A
	3500K	10,000	
	4000K	10,300	
RS	3000K	9,700	5000
	3500K	10,000	5000
	4000K	10,300	5000
	TNW	8,950	5000
RM	3000K	14,600	7500
	3500K	15,050	7500
	4000K	15,500	7500
	TNW	13,450	7500
RL	3000K	19,400	10000
	3500K	20,000	10000
	4000K	20,600	10000
	TNW	17,900	10000
RXL	3000K	21,850	11000
	3500K	22,500	11000
	4000K	23,200	11000
	TNW	20,150	11000
RXXL	3000K	28,700	14500
	3500K	29,600	14500
	4000K	30,500	14500
	TNW	26,500	14500

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

TM-30-15 DATA

Index	TNW*	3000K	3500K	4000K
Rf	90	90	89	90
Rg	102	98	99	100

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

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

ACOUSTIC PERFORMANCE

Mounting Type	Noise Reduction Coefficient	Sound Absorption Average	Weighted Sound Absorption Coefficient (ISO EN11654)
	<b>NRC</b>	<b>SAA</b>	<b><math>\alpha_w</math></b>
Suspended	0.90	0.91	0.90
Surface Mount	0.60	0.62	0.45 (M)
Recessed (Grid)	0.65	0.66	0.40 (LM)

A full acoustic report is available at <https://www.cooledgelighting.com/acoustic-lighting#testreports>

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INPUT POWER

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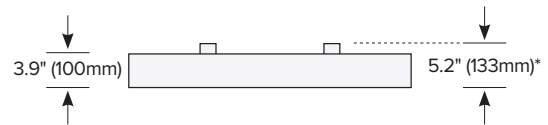
Nominal Size	CCT	High Flux (HF)	Standard Flux (SF)
		Power (W)	Power (W)
<b>RSB</b> 4' x 4' 1200mm x 1200mm	3000K	131	N/A
	3500K	131	
	4000K	131	
<b>RS</b> 4' x 4' 1200mm x 1200mm	3000K	131	69
	3500K	131	68
	4000K	131	66
	TNW	131	72
<b>RM</b> 4' x 6' 1200mm x 1800mm	3000K	196	103
	3500K	196	101
	4000K	196	99
	TNW	197	108
<b>RL</b> 4' x 8' 1200mm x 2400mm	3000K	261	137
	3500K	261	135
	4000K	261	132
	TNW	262	143
<b>RXL</b> 6' x 6' 1800mm x 1800mm	3000K	294	154
	3500K	294	151
	4000K	294	148
	TNW	295	161
<b>RXXL</b> 6' x 8' 1800mm x 2400mm	3000K	392	205
	3500K	392	201
	4000K	392	197
	TNW	392	216

# COOLEdge LUMINOUS CEILING FABRILUM RECTANGLES - CE COMPLIANT (EMEA): SPECIFICATIONS

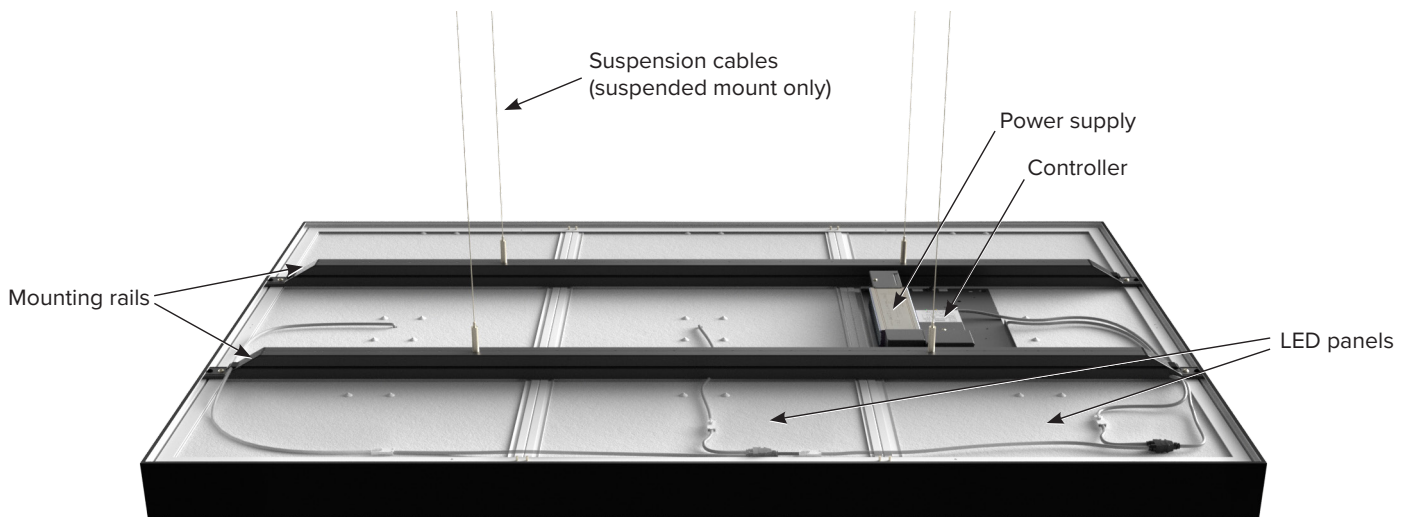
## DIMENSIONS

Size	External Dimensions mm (in)		Weight kg (lbs)	# Mounting Points
	W	L		
RSB	1193 (47.0)	1193 (47.0)	14 (31)	4
RS	1193 (47.0)	1193 (47.0)	14 (31)	4
RM	1193 (47.0)	1768 (69.6)	25.8 (57)	4
RL	1193 (47.0)	2343 (92.2)	32.0 (71)	4
RXL	1768 (69.6)	1768 (69.6)	32.0 (71)	4
RXXL	1768 (69.6)	2343 (92.2)	41 (90)	4

- Profile Height = 100mm (3.9")
- Overall Height (including Mounting Rails) = 133mm (5.2")
- Surface Mount will have an opening of 33mm (1.3") between the frame and the ceiling



## MOUNTING DETAILS

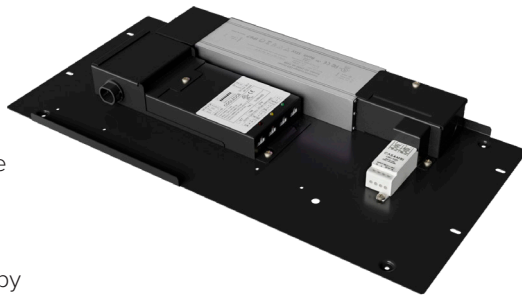


Mounting Type	Mounting Kit Required	Notes
Surface Mount	No mounting kit necessary	Mounts directly to the ceiling material through the mounting rails
Suspended	Mounting Kit included	Hardware for cable attachment to luminaire
Recessed	Mounting Kit included	Provides a trim for mounting within drywall or plaster ceiling (RS, RSB, RM sizes only)
Grid (T-Bar) - Metric	No mounting kit necessary	Lay-in for use with 24mm T-Bar (RS, RSB size only) Specify Surface Mount luminaire

**Note:** Due to minor differences in aesthetic appearance, CooleEdge recommends that "RSB" not be mounted in the same location as other FABRILum models.

# COOLEDGE LUMINOUS CEILING FABRILUM RECTANGLES - CE COMPLIANT (EMEA): SPECIFICATIONS

## POWER AND CONTROL



Power Supply with Cooledge Control Module

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

Power & Control Mounting Plate

### Mounting Plate Dimensions:

RSB = 480mm x 214mm (18.9" x 8.4")

RS, RM, RL, RXL, RXXL = 400mm x 190mm (15.75" x 7.5")

FABRILum offers two choices for locating the power and control components:

- **Integrated (Suspended & Recessed):** 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 (All):** 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)

### Power Supply Performance

Input Voltage	120-277 VAC
Input Frequency	Nom. 50-60 Hz
Start-up Time	1.5 sec
Max. Inrush Current	60 A
Rated Lifetime	200,000 hr

### Control Module Performance

Minimum Dim Level	0.1% (Deep Dimming) RSB = 5%*
Operating Frequency	3000Hz (compliant with IEEE 1789-2015 for flicker free)
Control Protocols	Wireless (Casambi), DALI RSB = 0/1-10V (DALI via converter)

\*RSB should not be used in the same location with other FABRILum models as dimming behavior may result in non-uniform illumination

## HOW TO ORDER

	FBx	Rx					CE
	1	2	3	4	5	6	7
<b>RS/RM/RL/RXL/RXXL</b>							
<b>1 PRODUCT</b>	<b>2 NOM. SIZE</b>	<b>3 FLUX</b>	<b>4 CCT</b>	<b>5 FINISH</b>	<b>6 DIMMING</b>	<b>7 CERTIFICATION</b>	
FBS = FABRILum – Suspended FBM = FABRILum – Surface Mount FBR = FABRILum – Recessed <sup>1</sup>	RS RM RL RXL RXXL	HF = High Flux SF = Std Flux	30 = 3000K 35 = 3500K 40 = 4000K TNW = Tunable White	WH = White BL = Black	DAL = DALI <sup>2</sup> CAS = Casambi	CE = CE Compliant	
1: White finish only, RM, RS, sizes only 2: DAL only in CE certification							

	FBx	RSB			010	CE	
	1	2	3	4	5	6	7
<b>RSB</b>							
<b>1 PRODUCT</b>	<b>2 NOM. SIZE</b>	<b>3 CCT</b>	<b>4 FINISH</b>	<b>5 DIMMING</b>	<b>6 CERTIFICATION</b>		
FBS = FABRILum – Suspended FBM = FABRILum – Surface Mount FBR = FABRILum – Recessed	RSB	30 = 3000K 35 = 3500K 40 = 4000K	WH = White BL = Black	010 = 0-10V	CE = CE Compliant UL = cUL		

## WELL STANDARD (V2)

Cooledge FABRILum 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 9 “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 FABRILum 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 FABRILum

	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 FABRILum

	Standard Flux (SF)	High Flux (HF)
Maximum Luminance* (cd/m <sup>2</sup> )	1580	2375

\*Maximum occurs at 45°

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

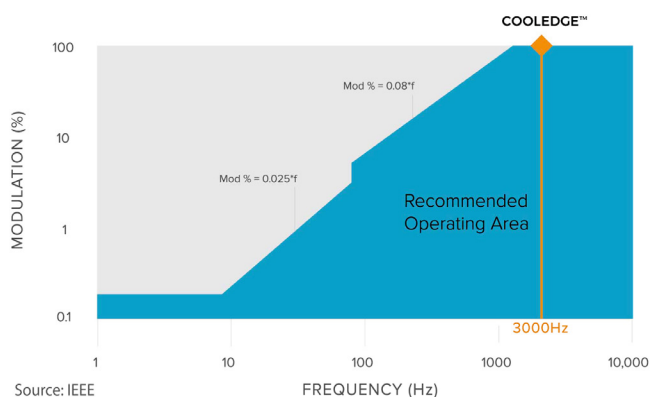
This feature requires minimum values for color rendering.

Compliance requirement (a): CRI > 90

#### CRI (Ra) for FABRILum

	TNW*	3000K	3500K	4000K
CRI (Ra)	96	94	94	94

### 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