



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, out-of-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 (Metric - mm) |
|-------------------------------|
| 1200 x 1200 |
| 1200 x 1800 |
| 1200 x 2400 |

Fits Grid (T-bar) ceilings
with 600mm spacing

GENERAL

| | |
|-----------------------------------|--------------------------------------|
| Location | Indoor, (IP20) |
| Operating Temperature | 0 – 40°C |
| Storage Temperature | -40 – +85°C |
| 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) | | |
|--|--------------------------|-------------------|---------------------|
| For Metric Ceilings with 600mm Spacing | Extra High Flux (XHF) | High Flux (HF) | Medium Flux (MF) |
| 1200 x 1200 | 8570 | 5710 | 2860 |
| 1200 x 1800 | 13550 | 9040 | 4520 |
| 1200 x 2400 | 18540 | 12360 | 6180 |

| | |
|----------------------------|-----------|
| 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

*TNW = Tunable White

POWER

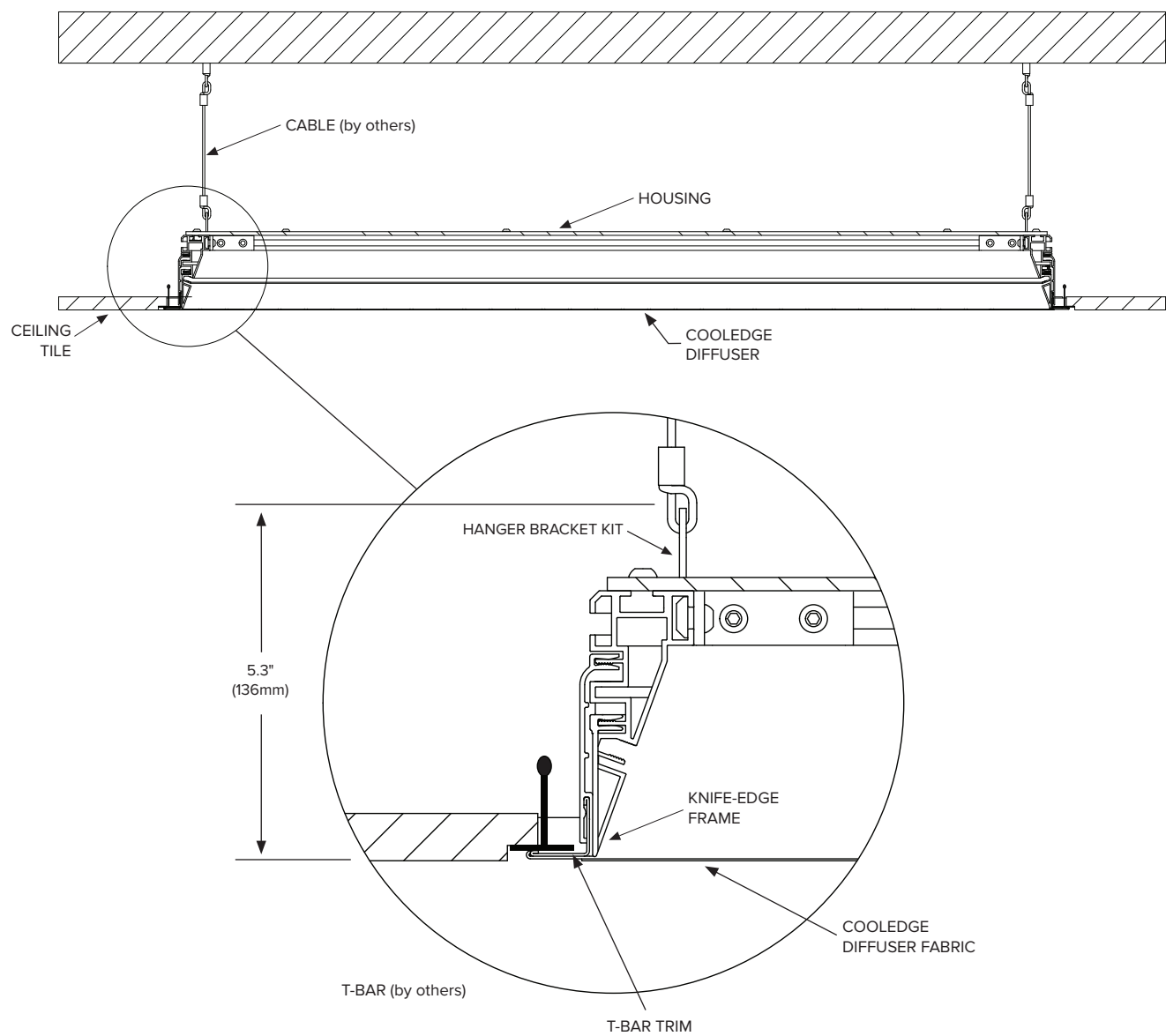
| Nominal Size (mm) | CCT | Extra High Flux (XHF) | High Flux (HF) | Medium Flux (MF) |
|-------------------|-------|-----------------------|----------------|------------------|
| | | Power (W) | Power (W) | Power (W) |
| 1200 x 1200 | TNW | 151.0 | 100.7 | 48.6 |
| | 3000K | 144.9 | 97.2 | 46.9 |
| | 3500K | 142.3 | 94.6 | 46.0 |
| | 4000K | 139.7 | 92.0 | 45.1 |
| 1200 x 1800 | TNW | 228.3 | 152.2 | 73.5 |
| | 3000K | 219.1 | 146.9 | 70.8 |
| | 3500K | 215.2 | 143.0 | 69.5 |
| | 4000K | 211.2 | 139.1 | 68.2 |
| 1200 x 2400 | TNW | 305.6 | 203.7 | 98.3 |
| | 3000K | 293.3 | 196.7 | 94.8 |
| | 3500K | 288.0 | 191.4 | 93.1 |
| | 4000K | 282.7 | 186.2 | 91.3 |

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DIMENSIONS

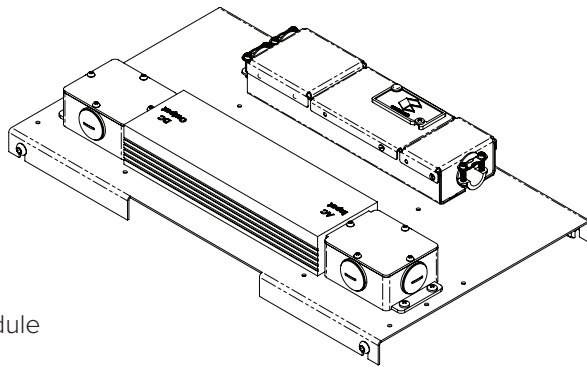
| Nominal Size (Metric - mm) | Order Code | External Dimensions (mm) | | Weight (kg) | # Mounting Points |
|-------------------------------|------------|--------------------------|------|-------------|-------------------|
| | | W | L | | |
| 1200 x 1200 | 44 | 1168 | 1168 | 19.5 | 4 |
| 1200 x 1800 | 46 | 1168 | 1768 | 23.6 | 6 |
| 1200 x 2400 | 48 | 1168 | 2368 | 25.9 | 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: 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 or contact Cooledge for remote distance wiring requirements)

HOW TO ORDER

| FLG | 1 | 2 | 3 | 4 | 5 | 6 | 7 | E |
|-----|---|---|---|---|---|---|---|---|
|-----|---|---|---|---|---|---|---|---|

Static CCT

| 1 PRODUCT | 2 NOM. SIZE | 3 FLUX | 4 CCT | 5 DIMMING | 6 NRC | 7 CERTIFICATION* |
|----------------|----------------------|-----------------------|------------|----------------------------------|---------|------------------|
| FLG = | 44 = 4x4 (1200x1200) | HF = High Flux | 30 = 3000K | 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) | XHF = Extra High Flux | 40 = 4000K | DMX = DMX (0.05%) | | |
| - Grid (T-Bar) | | | | CAS = Casambi (Wireless - 0.05%) | | |

Tunable White

| 1 PRODUCT | 2 NOM. SIZE | 3 FLUX | 4 CCT | 5 CONTROL | 6 NRC |
|----------------|----------------------|-----------------------|----------------|--------------------------|---------|
| FLG = | 44 = 4x4 (1200x1200) | HF = High Flux | TNW = | DAL = DALI/0-10V (0.05%) | E = 0.2 |
| FABRICated | 46 = 4x6 (1200x1800) | MF = Med Flux | Tunable White | DMX = DMX (0.05%) | |
| Luminaire | 48 = 4x8 (1200x2400) | XHF = Extra High Flux | (2700K -5700K) | CAS = Casambi (Wireless) | |
| - Grid (T-Bar) | | | | | |

*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

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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/m² between 45°-90° from nadir

Maximum Luminance for FABRICated Luminaires

| | High Flux (HF) | Extra High Flux (XHF) |
|---|----------------|-----------------------|
| Maximum Luminance* (cd/m ²) | 1465 | 2200 |

*Maximum occurs at 45°

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

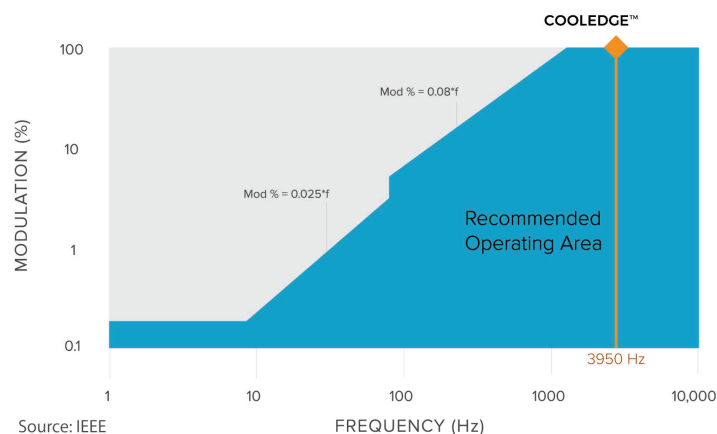
This feature requires minimum values for color rendering.

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