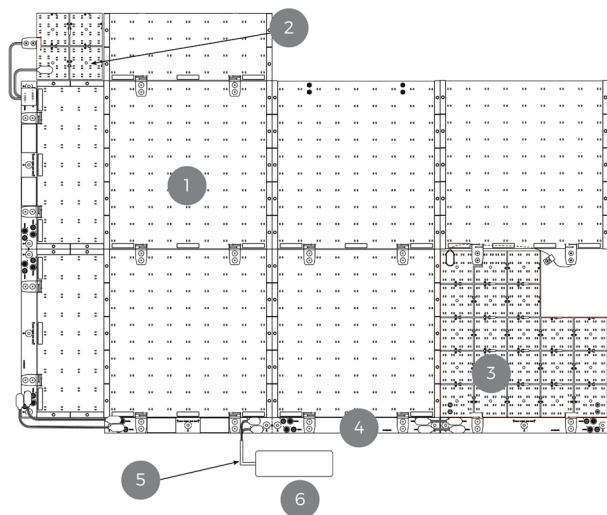


COOLEDGE TILE TUNABLE WHITE - SPECIFICATIONS

PROJECT		REFERENCE TYPE	
SPECIFIED BY		QUANTITY	
DATE		NOTE	For Luminous Surfaces

SYSTEM OVERVIEW



Replicate natural light both in scale and through dynamic changes in color temperature

1	TILE Tunable White
2	TILE Tunable White Corner Kit <i>(optional)</i>
3	TILE Tunable White Cut-out Kit <i>(optional)</i>
4	TILE Tunable White Connector Kit
5	TILE Tunable White Starter Cable
6	2-Channel LED Driver

Also available: Extension Cables (TCBL-TUN-LNG-10/20)

GENERAL

Location	Indoor, dry location only
Operating Temp.	0-40°C
Storage Temp.	-40-85°C
Relative Humidity	90% max (non-condensing)
Operating Voltage	58 VDC
Electrical Connections	Tool-less snap connectors
Base Material	Flexible Polyimide

SPECIFICATION

CE compliant lighting system inclusive of flexible light emitting sheets, connectors, low voltage cables, and LED drivers. Light output from the system must be +/- 10% of 6450/3225/1600 lumens/sqm across the total illuminated area post-installation. The lighting system must have a Color Rendering index (CRI) >90 and provide constant lumen output for all CCTs between 2700K-5700K and for all dimming levels. Dimming range must be between 0.05%-100%. Electrical connections between light emitting sheets and between cables and light emitting sheets must be tool-less and allow more than one connect/disconnect iteration. System must be configurable on-site and include the capability to accommodate obstacles, angles, and curves. System warranty must be a minimum of 5 years.

FEATURES

- Unique system design provides constant lumen output at all CCTs in the range 2700K-5700K and at all dimming levels
- Two control channels allow dimming and CCT tuning on simple control interfaces or as input from building controls systems
- Uniquely suited for installations requiring high CRI such as retail and hospitality
- Cut-to-fit means systems are adaptable to any size installation and can accommodate obstacles and shapes
- Deep dimming capability down to 0.05% light output

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.

COOLEDGE TILE TUNABLE WHITE - SPECIFICATIONS

PHOTOMETRICS¹

Light Output (lm) - per TILE	600, 300, 150
Light Output (lm/sqm)	6450, 3225, 1600
Correlated Color Temperature (CCT)	2700K-5700K Continuous
Color Rendering Index (CRI)	≥ 90
Color Uniformity	2 SDCM (typical)
Lumen Maintenance ²	L80 = 75,000hr

¹ Photometric files available from cooledgelighting.com

² Based on LM80 data & TM-21 calculations

Each Cooledge TILE Tunable White light emitting sheet is scanned using a proprietary process that measures the flux, color uniformity, and Color Rendering index (CRI) to ensure that it meets stringent specifications for optical performance.

IESNA TM-30-15 DATA

CCT	Rf	Rg
2700K	88	97
5700K	90	100

POWER

Light Output (lm)	CCT	Power (W)	Power (W/sqm)
600	2700K	5.4	58
	5700K	5.0	54
300	2700K	2.8	29
	5700K	2.4	26
150	2700K	1.4	15
	5700K	1.2	13

CERTIFICATIONS



EN 60598 Compliant (as a system)

RoHS

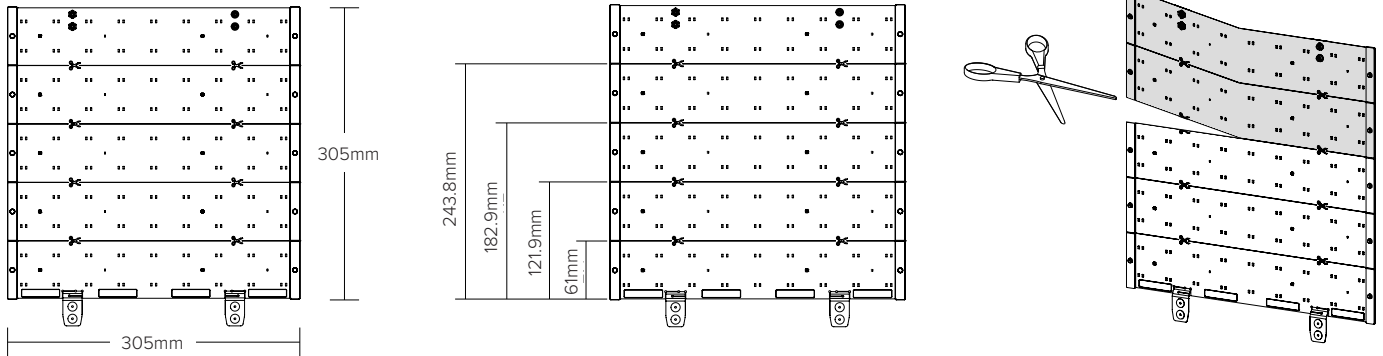


WARRANTY



5 Year Limited Warranty:
Parts and workmanship when
used with a Cooledge approved
power supply.

1 TILE TUNABLE WHITE



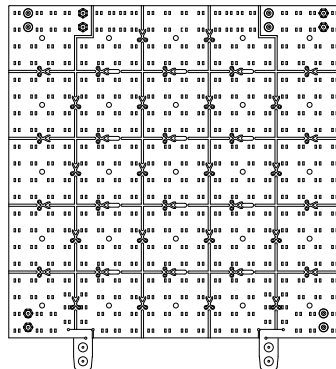
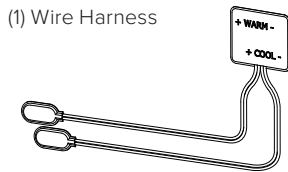
HOW TO ORDER

TILE	-	TUN	-	TNW
PRODUCT TILE		TYPE TUN = Tunable White		FLUX 600 = 600lm 300 = 300lm 150 = 150lm
				CCT TNW = Tunable White CCT range (2700K-5700K)

Example: TILE-TUN-600-TNW

2 TILE TUNABLE WHITE CORNER KIT

(1) TILE Tunable White Corner



Purpose: Cut-to-fit in corners where a full TILE does not fit in the space; or, to step cut along angles and curves at the edge of a luminous surface (optional depending upon layout).

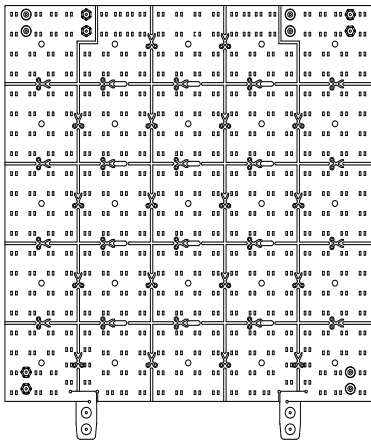
HOW TO ORDER

TACC	-	TUN	-	COR	-	TNW
PRODUCT TACC = TILE Accessory		TYPE TUN = Tunable White		KIT COR = Corner Kit		FLUX 600 = 600lm 300 = 300lm 150 = 150lm
						CCT TNW = Tunable White CCT range (2700K-5700K)

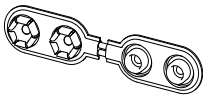
Example: TACC-TUN-COR-300-TNW

3 TILE TUNABLE WHITE CUT-OUT KIT

Purpose: Cut-to-fit around obstacles located in the middle of a luminous surface such as standoffs, support cables/rods, beams, pipes, etc. (optional depending on layout).



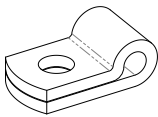
(1) TILE Tunable White Cut-out



(1) Double Jumper Wire (short)



(2) Double Jumper Wire (Long)



(2) Wire Clamp

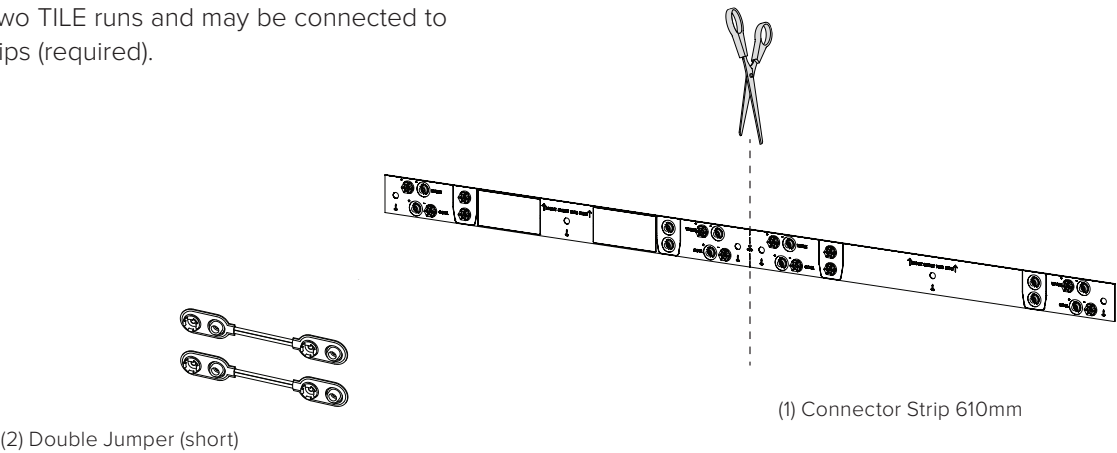
HOW TO ORDER

TACC	-	TUN	-	CUT	-		-	TNW
PRODUCT TACC = TILE Accessory		TYPE TUN = Tunable White		KIT CUT = Cut-out Kit		FLUX 600 = 600lm 300 = 300lm 150 = 150lm		CCT TNW = Tunable White CCT range (2700K-5700K)

Example: TACC-TUN-CUT-300-TNW

4 TILE TUNABLE WHITE CONNECTOR KIT

Purpose: Makes the electrical connection to the first TILE in each run. Connects to two TILE runs and may be connected to additional connector strips (required).



HOW TO ORDER

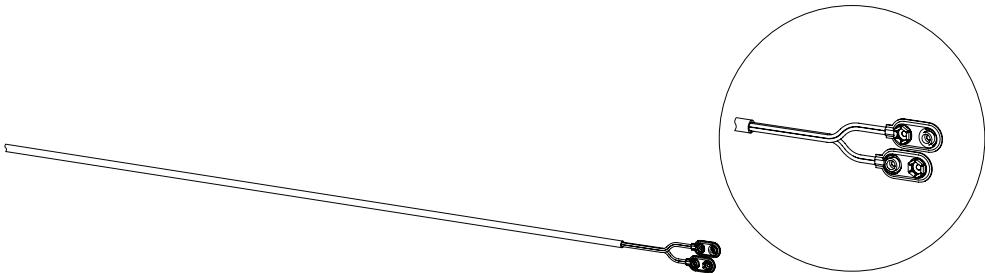
TACC	-	TUN	-	CON
PRODUCT TACC = TILE Accessory		TYPE TUN = Tunable White		KIT CON = Connector Kit

Example: TACC-TUN-CON

5 TILE TUNABLE WHITE STARTER CABLE

Purpose: 4-conductor cable that makes the electrical connection between the LED driver and the connector strips that deliver power to the TILEs (required).

(1) 1.3mm² Shielded Cable 3m



HOW TO ORDER

TCBL	-	INT	-	STR
PRODUCT TCBL = TILE Cable		TYPE TUN = Tunable White		KIT STR = Starter Cable

Example: TCBL-TUN-STR

6 2-CHANNEL LED DRIVERS

Purpose: Convert AC mains (line) power to safe, low voltage DC power. Cooledge LED drivers are offered with a range of dimming options (required).

CE COMPLIANT DRIVERS - INTERIOR

MODEL	TYPE	OUTPUT POWER (W)	INPUT VOLTAGE (VAC)	OUTPUT VOLTAGE (VDC)	CONTROL
PSD	Constant Voltage	90	NOM. 120-277	58	1-10V (2-Channel)

Detailed specifications for Cooledge LED drivers with ordering codes and dimming options are available in the following documents:

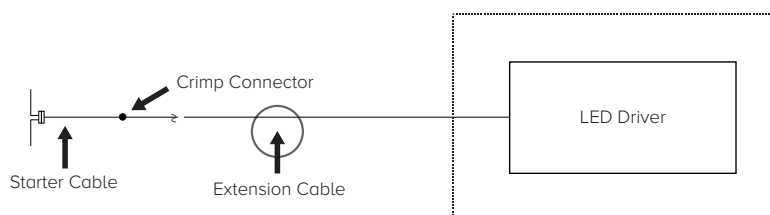
- Cooledge CE Compliant LED Drivers - Specifications

ADDITIONAL ACCESSORIES

EXTENSION CABLES

- 1.3mm² AWG 4-conductor cable
- Available in 3m (LNG-10) and 6m (LNG-20 lengths)

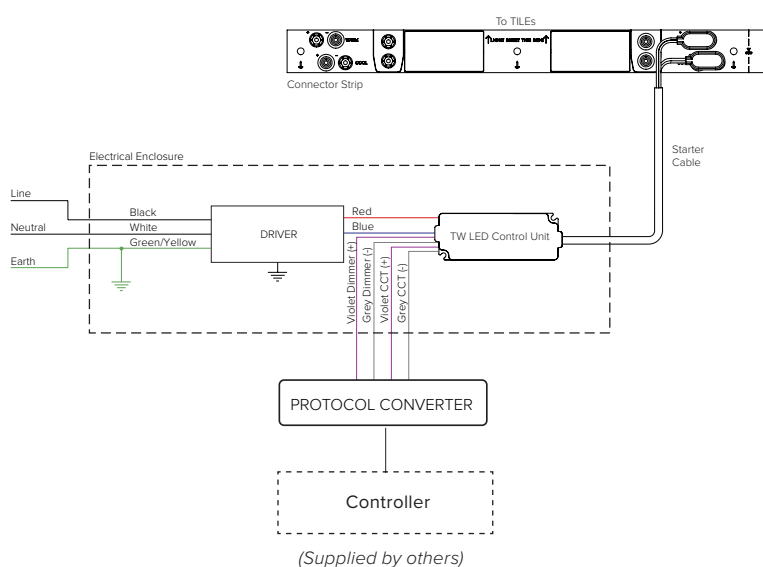
Purpose: Cable between TILE Starter Cable and LED Driver that extends the distance of the driver may be remotely located away from the TILES. *Please consult Cooledge for additional information including requirements for plenum rated cables.*



PROTOCOL CONVERTERS

- DALI — 0/1-10V
- DMX— 0/1-10V

Purpose: A device that converts control signals from a DALI or DMX controller to 0/1-10V signals to operate Cooledge LED drivers. One converter may be used to control many LED drivers. *Please consult Cooledge for the best option for your project.*



Example only: wiring details may vary by region