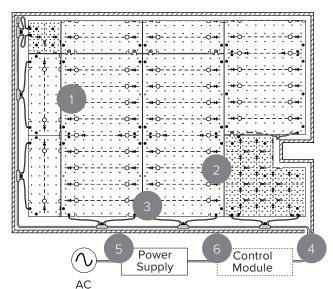


# COOLEDGE TILE TUNABLE WHITE - SPECIFICATIONS

PROJECT	REFERENCE TYPE	
SPECIFIED BY	QUANTITY	
DATE	NOTE	For Luminous Surfaces

## SYSTEM OVERVIEW



# GENERAL

Location	Indoor, dry location only
Operating Temp.	0-40°C (32-104°F)
Storage Temp.	-40-85°C (-40-185°F)
Relative Humidity	90% max (non-condensing)
Input Voltage (to power supply)	120-277 VAC
Electrical Connections	Tool-less snap connectors
Mounting Surface	Non-conductive* (drywall, plywood, etc)

\*Mounting to a conductive surface may void warranty. Please contact Cooledge if this is required

## FEATURES

- Unique tunable white system design provides constant lumen output at all CCTs in the range 2700K-5700K and at all dimming levels
- Dim-to-warm option provides smooth dimming along the CCT curve to 0.10% from 3500K to 2200K
- Cooledge Control Modules are available with inputs for 0-10V, DALI, DMX, and wireless (Casambi) protocols
- 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

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W cooledgelighting.com

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.

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

1	TILE Tunable White				
2	TILE Tunable White Cut-out Kit (optional)				
3	TILE Tunable White T-Cable				
4	TILE Tunable White Starter Cable*				
5	Power Supply				
6	Control Module				

\*Included in TILE Tunable White Starter Kit

## SPECIFICATION

UL Listed lighting system inclusive of flexible light emitting sheets, connectors, low voltage cables, and power & controls. Light output from the system must be +/-10% of 900/600/300/150 lumens/sq ft 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. Electrical connections 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 is a minimum of 5 years.

# PHOTOMETRICS<sup>1</sup>

Light Output (Im/sqft)	900 <sup>3</sup> , 600, 300, 150
Correlated Color Temperature (CCT)	Tunable White = 2700K-5700K Dim-to-Warm = 3500K-2200K
Color Rendering Index (CRI)	≥ 90 (except 2200K, CRI88)
Color Uniformity	2 SDCM (typical)
Lumen Maintenance <sup>2</sup>	L80 = 75,000hr

1 Photometric files available from cooledgelighting.com

2 Based on LM80 data & TM-21 calculations

3 Not available in Dim-to-Warm

# POWER

Light Output (Im/sqft)	ССТ	Power (W/sqft)	EcoDesign Class
	2700K	6.9	
900	3500K	N/A	E
	5700K	6.2	
	2700K	4.6	
600	3500K	4.1	E
	5700K	4.2	
	2700K	2.3	
300	3500K	2.0	E
	5700K	2.0	
	2700K	1.1	
150	3500K	1.0	E
	5700K	1.0	

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#### IESNA TM-30-18 DATA

ССТ	Rf	Rg
2200K	91	99
2700K	91	100
3500K	88	97
5700K	87	97
DTW*	90	100
TNW*	89	100

\* Denotes both channels @50%

# CERTIFICATIONS



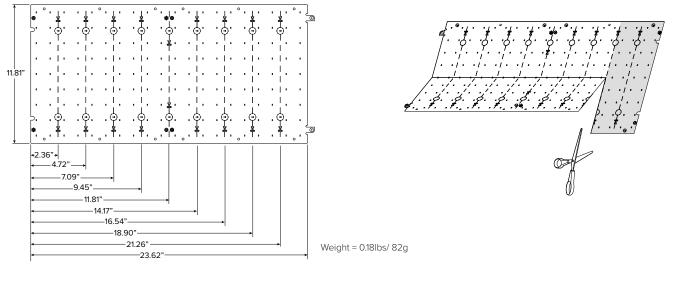
## WARRANTY



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



#### TILE TUNABLE WHITE 1



# **HOW TO ORDER**

Example:	TILE-TUN-6	500-TNW-R3

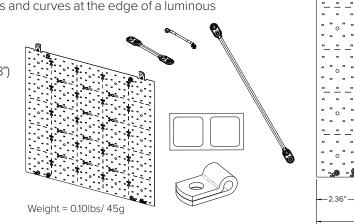
PRODUCT TILETYPE TUN = Tunable WhiteFLUX 900* = 900lm/sqft 600 = 600lm/sqft 300 = 300lm/sqft 150 = 150lm/sqftCCT TNW = 2700K-5700K DTW = 3500K-2200KVersion R3 = Revision 3	TILE	-	TUN	-		-		-	R3
					900* = 900lm/sqft 600 = 600lm/sqft 300 = 300lm/sqft		TNW = 2700K-5700K		

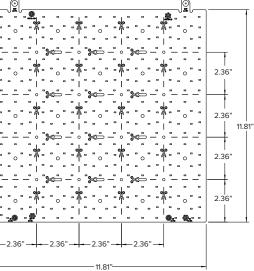
# 2 TILE TUNABLE WHITE CUT-OUT KIT

Purpose: Cut-to-fit around obstacles located in a luminous surface such as standoffs, support cables/rods, beams, pipes, etc.; used 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)

#### INCLUDED

- (1) Cut-out TILE (11.8"× 11.8")
- (2) Insulating Patches
- (1) Cable Clamp
- (1) Single-connector Jumper Cable
- (1) Double-connector
- Jumper Cable





# HOW TO ORDER



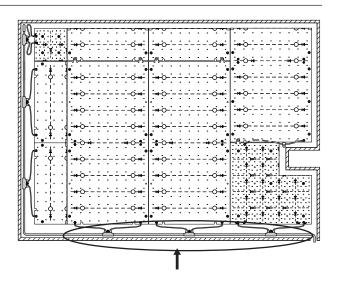
\*Not available in DTW

#### **COOLEDGE**<sup>™</sup> Light as a building material

#### 3 TILE TUNABLE WHITE T-CABLE

Purpose: Makes the electrical connection to the first TILE in each run from the Starter Cable that supplies power from the power/control components. Each "T" connects to a TILE via snap connectors. (Required)

HOWTOOR	DI	ER	Example: TCBL - TUN-T10	
TCBL	-	TUN	-	
PRODUCT TCBL = TILE Cable				<u>TYPE</u> T4 = 4 T-Connectors (weight = .13lb) T10 = 10 T-Connectors (weight = .66lb)



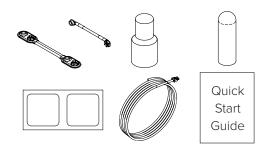


# TILE TUNABLE WHITE STARTER KIT

Purpose: Includes the Starter Cable that makes the connection from the Control Module to the T-Cable and other accessories required for wire termination and connections. Insulation patches are required to cover areas of TILEs where cuts have been made. (Required)

#### INCLUDED

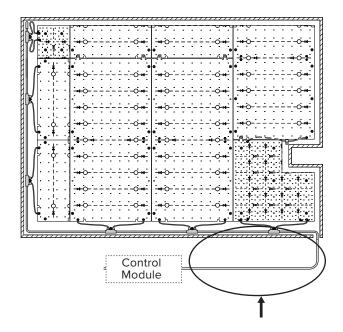
- (2) Single-connector Cut TILE Reuse Jumper Cables
- (2) Double-connector Cut TILE Reuse Jumper Cables
- (2) Splice Connectors
- (4) End Caps
- (10) Insulating Patches
- (1) 10ft (3m) Starter Cable with Connector
- (1) Quick Strart Guide



### HOW TO ORDER

Example:	TACC-TUN-STR-K

TACC	-	TUN	-	STR	-	К
PRODUCT TACC = TILE Accessory		<u>TYPE</u> TUN = Tunable White		<u>TYPE</u> STR = Starter		$\frac{\text{KIT}}{\text{K} = \text{Kit}}$



#### **COOLEDGE**<sup>™</sup> Light as a building material

# 5 POWER AND CONTROL

Specifications for the power supplies and Cooledge Control Modules shown below are available in: - Power and Control Specifications (UL Listed)

The models shown below are those that are compatible with TILE Tunable White Systems for regions where cUL Listed products are required.

#### POWER SUPPLIES (54V)

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

Order Code	Description	# Controller Channels*	Integrated Wiring Enclosure
EPSS-400-54V-UL	400W Power Supply, 54V (UL Listed) with integrated junction box	2 + 2**	Yes
EPSS-200-54V-UL	200W Power Supply, 54V (UL Listed) with integrated junction box	2	Yes
EPSS-092-54V-UL	92W Power Supply, 54V, (UL LIsted) with integrated junction box	1	Yes

\*Class 2 (max. 90W) output 3-wire connection to TILES

\*\*Requires 2 Control Modules

#### **COOLEDGE CONTROL MODULES (54V)**

**Purpose:** Receives 54VDC power from the power supply and converts it to max. 90W per channel of controlled output to drive TILE Interior sheets. Also receives input control signal to control dimming levels.

Order Code	Function	Protocols			
CTR-TNW-DAL/010-48/58V	Tunable White	0-10V, DALI			
CTR-TNW-DMX-48/58V	Tunable White	DMX			
CTR-TNW-CAS-48/58V	Tunable White	Casambi (Wireless)			
CTR-DTW-DAL/010-48/58V	Dim-to-Warm	0-10V, DALI			
CTR-DTW-DMX-48/58V	Dim-to-Warm	DMX			
CTR-DTW-CAS-48/58V	Dim-to-Warm	Casambi (Wireless)			

# ADDITIONAL ACCESSORIES

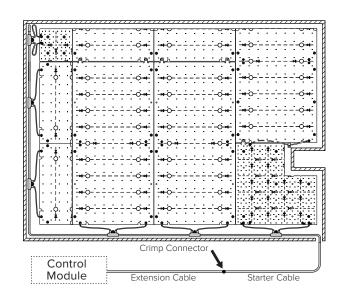
#### **EXTENSION CABLES**

- 16 AWG cable (non-plenum rated)
- Available in 10' & 20' lengths

**Purpose:** Cable between TILE Starter Cable and Control Module that extends the distance the Control Module and power supply may be remotely located away from the TILEs. Please consult Cooledge for additional information including requirements for plenum rated cables.

#### **HOW TO ORDER**

TCBL	-	TUN	-	LNG	-	
PRODUCT TCBL = Extention Cable		<u>TYPE</u> TUN = Tunable White				<u>LENGTH</u> 10 = 10ft (3m) 20 = 20ft (6m)



**COOLEDGE**<sup>™</sup>

Light as a building material

#### JUMPER CABLES

- 5 sets of double and single-connector jumper cables

**Purpose:** Allows a TILE to be cut in half and both portions connected in separate runs. Kit sufficient for 5 cut TILEs.

### HOW TO ORDER

Example:	TACC -	TUN -	JMP - 5
Example.	17 10 0	1014	51111 0

Example: TCBL - TUN - LNG - 10

TACC	-	TUN	-	JMP	-	5
<u>PRODUCT</u> TACC = Jumper Cables		<u>TYPE</u> TUN = Tunable White				

