COOLEDGE TILE TUNABLE WHITE - SPECIFICATIONS

COOLEDGE™

PROJECT		REFERENCE TYPE	
SPECIFIED BY		QUANTITY	
DATE		NOTE	For Luminous Surfaces

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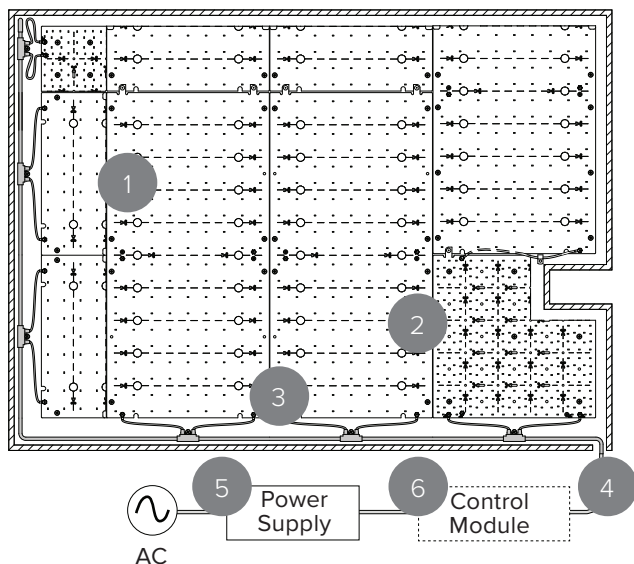
Replicate natural light both in scale and through dynamic changes in color temperature

1	TILE Tunable White
2	TILE Tunable White 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

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)
Operating Voltage	58 VDC
Electrical Connections	Tool-less snap connectors

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.

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 0.05% from 3500K to 2200K

– Incorporates Cooledge's proprietary "C-Tune" technology that simplifies wiring and significantly increases the affordability of tunable white lighting in comparison with static color temperature options

– Cooledge Control Modules available for 0-10V, DMX, DALI, or wireless (Casambi) control inputs

– 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

PHOTOMETRICS[1]

Light Output (lm/sqft)	900[3], 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[2]	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

IESNA TM-30-15 DATA

CCT	Rf	Rg
2200K	87	99
2700K	88	97
3500K	87	96
5700K	90	100

POWER

Light Output (lm/sqft)	CCT	Power (W/sqft)
900	2200K	N/A
	2700K	8.7
	3500K	N/A
	5700K	7.4
600	2200K	6.7
	2700K	5.8
	3500K	5.5
	5700K	5.1
300	2200K	3.2
	2700K	2.7
	3500K	2.7
	5700K	2.5
150	2200K	1.6
	2700K	1.4
	3500K	1.3
	5700K	1.3

CERTIFICATIONS

c UL US
LISTED

CE

In Canada, TILE Interior must be installed within an enclosure.

RoHS

JA8 TITLE 24
CALIFORNIA COMPLIANT

Contact Cooledge for ordering information for JA8 compliant models.

WARRANTY

5 YEAR SYSTEM WARRANTY
5

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

COOLEDGE™
Light as a building material

1 TILE TUNABLE WHITE

Weight = 0.19bs/ 86g

HOW TO ORDER

Example: TILE-TUN-600-TNW-R2
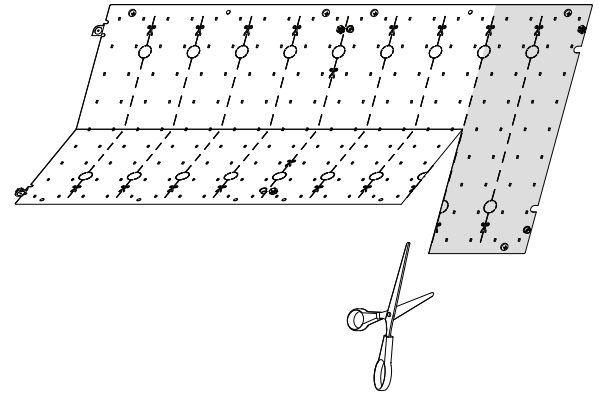
TILE	-	TUN	-		-		-	R2
PRODUCT TILE		TYPE TUN = Tunable White		FLUX 900 = 900lm/sqft 600 = 600lm/sqft 300 = 300lm/sqft 150 = 150lm/sqft		CCT TNW = 2700K-5700K DTW = 3500K-2200K		Version R2 = Revision 2

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"x 11.8")

– (2) Insulating Patches

– (1) Cable Clamp

– (1) Jumper Cable

Weight = 0.11lbs/ 50g

HOW TO ORDER

Example: TACC-TUN-CUT-600-TNW-K

| TACC	-	TUN	-	CUT	-		-		-	K
PRODUCT TACC = TILE Accessory		TYPE TUN = Tunable White		COMPONENT CUT = Cut-out Kit		FLUX 900 = 900lm/sqft 600 = 600lm/sqft 300 = 300lm/sqft 150 = 150lm/sqft		CCT TNW = 2700K-5700K DTW = 3500K-2200K		KIT K = Kit

COOLEDGE™
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)

HOW TO ORDER

Example: TCBL-T10

| TCBL	-	
PRODUCT TCBL = TILE Cable	TYPE T4 = 4 T-Connectors (weight = .13lb) T10 = 10 T-Connectors (weight = .66lb)	
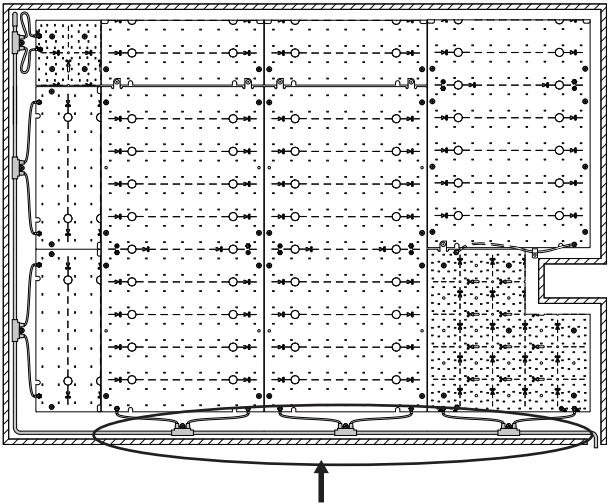
4 TILE TUNABLE WHITE STARTER KIT

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

– (4) Cut TILE Reuse Jumper Cable
– (2) Splice Connectors
– (4) End Caps
– (10) Insulating Patches
– (1) 16 AWG (1.3mm^2) Cable, 10ft (3m) Length
– (1) Quick Strart Guide
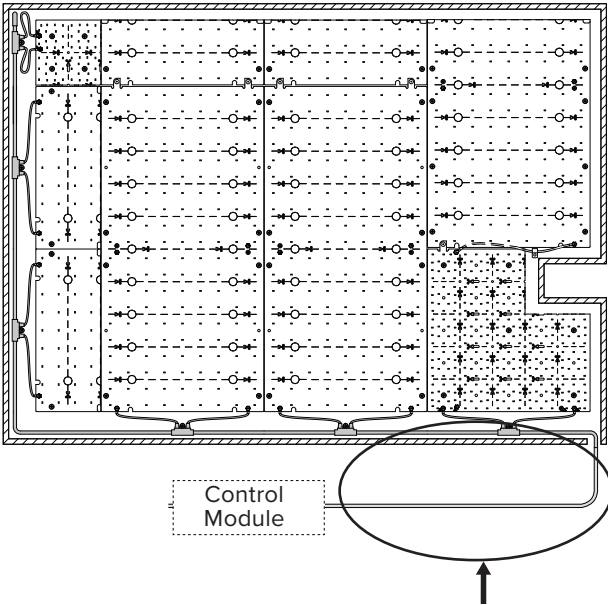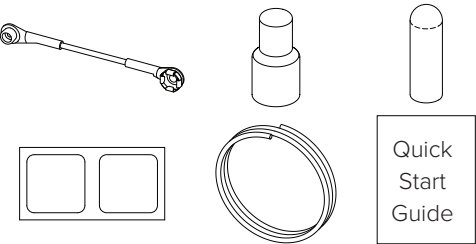
Control Module

HOW TO ORDER

Example: TACC-STR-K

TACC	-	STR	-	K
PRODUCT TACC = TILE Accessory		TYPE STR = Starter		KIT K = Kit

COOLEDGE™
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 (58V)

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	# Controller Channels *	Enclosure
EPSS-200-58V	2	Yes

Class 2 (max 90W) output

COOLEDGE CONTROL MODULES (58V)

Purpose: Receives 58VDC 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 from one of 4 protocol options to control dimming levels.

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

Crimp Connector

Control Module

Extension Cable

Starter C...

COOLEDGE™
Light as a building material