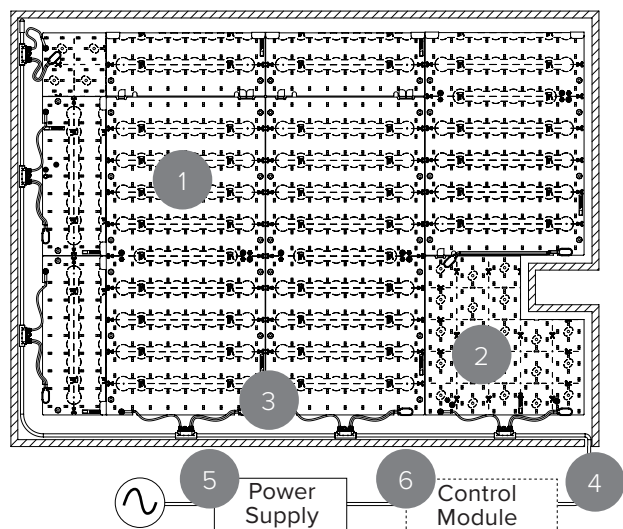




COOLEDGE TILE EXTERIOR TUNABLE WHITE - SPECIFICATIONS

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 Exterior Tunable White
2	TILE Exterior Tunable White Cut-out Kit <i>(optional)</i>
3	TILE Tunable White T-Cable
4	TILE Tunable White Starter Cable*
5	Power Supply
6	Control Module

*Included in TILE Exterior Tunable White Starter Kit

GENERAL

Location	Damp location
Ingress Protection	IP65
Operating Temp.	-4 to 131°F
Storage Temp.	-40 to 158°F
Relative Humidity	90% max (non-condensing)
Operating Voltage	58 VDC
Electrical Connections	Tool-less snap connectors
Exposure	Not to be exposed to direct sunlight, rain or snow. Intended for installation behind diffuser materials.

SPECIFICATION

cUL Listed Damp Location lighting system inclusive of flexible light emitting sheets, connectors, low voltage cables, and LED drivers. Light output from the system must be $\pm 10\%$ of 900/600/300 lumens/sqft across the total illuminated area post-installation. Color Rendering Index (CRI) must be >90 and color consistency between light sheets must be typical 3 SDCM. 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 include the capability to accommodate obstacles, angles, and curves. System warranty is 5 years.

FEATURES

- Three choices of constant lumen output ensure consistent highly calibrated illumination
- Color consistency of typically 3 SDCM between TILES meets stringent requirements for large area installations
- Factory cutting and sealing means systems are adaptable to any size installation and can accommodate obstacles and shapes while reducing installation time and potential errors
- Constant voltage electrical architecture is fully scalable without loss of performance or need to reconfigure drivers
- Low setback distances, flexibility, and no requirement for a heat sink enable optimal integration with luminous surfaces
- Multiple options for dimming, lumen level, and CCT offer the most adaptable illumination for large surface areas available today
- Mounts directly to non-conductive construction materials (eg. drywall, plywood)

Cooledge Lighting Inc.
110-13551 Commerce Parkway
Richmond, BC V6V 2L1 Canada

O +1 604 273 2665
F +1 604 273 2660
T +1 844 455 4448
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.

COOLEDGE TILE EXTERIOR TUNABLE WHITE - SPECIFICATIONS

PHOTOMETRICS¹

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	3 SDCM (typical)
Lumen Maintenance ²	L80 = 50,000hr

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	92	99
2700K	91	97
3500K	88	97
5700K	87	97
DTW*	91	100
TNW*	89	100

* Denotes both channels @50%

POWER

Light Output (lm/sqft)	CCT	Power (W/sqft)	EcoDesign Class
900	2700K	7.69	F
	3500K	N/A	
	5700K	6.82	
600	2700K	5.10	F
	3500K	4.61	
	5700K	4.50	
300	2700K	2.49	F
	3500K	2.29	
	5700K	2.26	
150	2700K	1.28	F
	3500K	1.19	
	5700K	1.19	

CERTIFICATIONS



RoHS



Contact Cooledge for ordering information for JA8 compliant models.



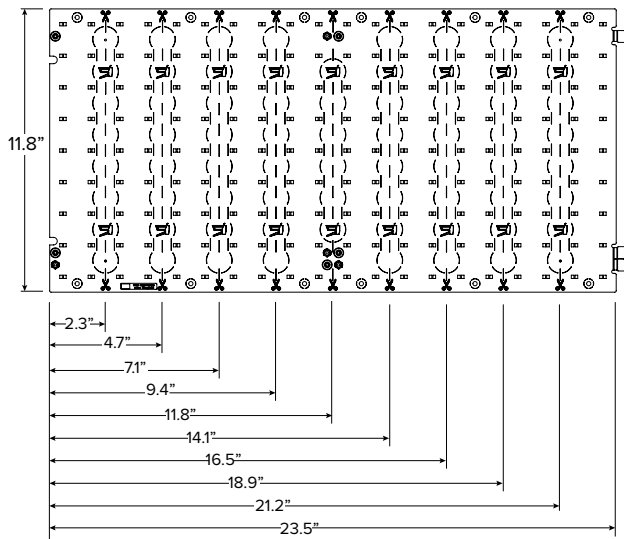
WARRANTY



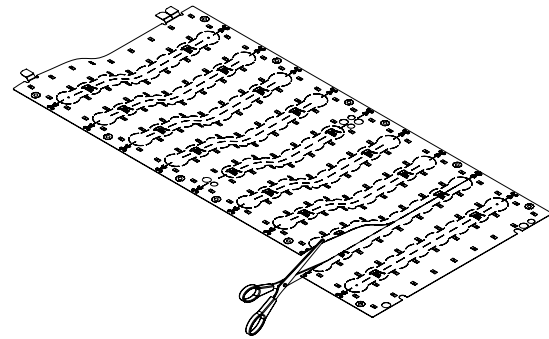
5 Year Limited Warranty:
Parts and workmanship when
used with a Cooledge approved
power supply.



1 TILE EXTERIOR TUNABLE WHITE



Weight = 0.19lbs/ 86g



HOW TO ORDER

Example: TILE-EXT-600-TNW-R3

TILE	-	EXT	-		-	R3*
<u>PRODUCT</u> TILE		<u>TYPE</u> EXT = Exterior		<u>FLUX</u> 900** = 900lm/sqft 600 = 600lm/sqft 300 = 300lm/sqft 150 = 150lm/sqft	<u>CCT</u> TNW = 2700K-5700K	<u>Version</u> R3 = Revision 3

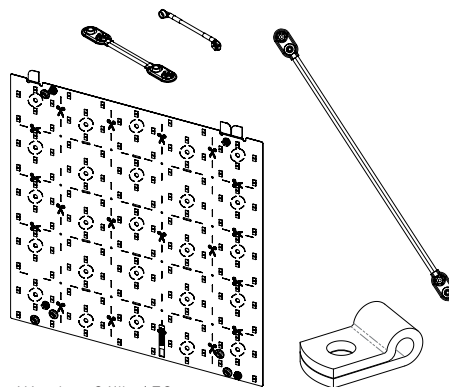
*May be identified as "C3" in some regions

2 TILE TUNABLE WHITE CUT-OUT KIT

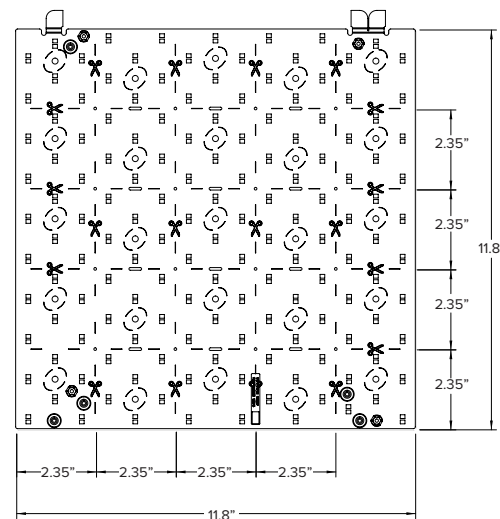
Purpose: Cut-to-fit around obstacles located in a luminous surface such as standoffs, support cables/rods, beams, pipes, etc.; used in corners where a full TILE does not fit in the space; or to step cut along angles and curves at the edge of a luminous surface. (Optional)

INCLUDED

- (1) Cut-out TILE (11.8"x 11.8")
- (1) Cable Clamp
- (1) Single-connector Jumper Cable
- (1) Double-connector Jumper Cable



Weight = 0.11lbs/ 50g



TILEs will be cut and sealed in the factory prior to shipment.

HOW TO ORDER

Example: TACC-EXXT-CUT-600-TNW-K-R3

TACC	-	EXT	-	CUT	-		-	K-R3*
<u>PRODUCT</u> TACC = TILE Accessory		<u>TYPE</u> EXT = Exterior		<u>COMPONENT</u> CUT = Cut-out Kit		<u>FLUX</u> 900** = 900lm/sqft 600 = 600lm/sqft 300 = 300lm/sqft 150 = 150lm/sqft	<u>CCT</u> TNW = 2700K-5700K	<u>KIT</u> K = Kit Revision 3

*May be identified as "K-C3" in some regions

**Not available in DTW

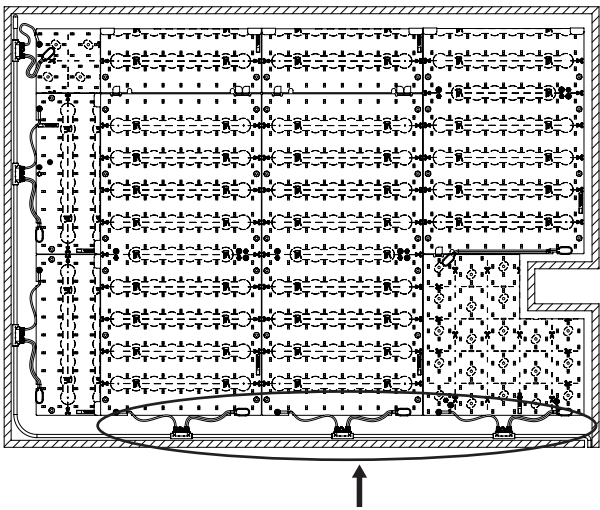
3 TILE TUNABLE WHITE T-CABLE

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 - TUN-T10

TCBL	-	TUN	-	
PRODUCT				TYPE
TCBL = TILE Cable				T4 = 4 T-Connectors (weight = .13lb)
				T10 = 10 T-Connectors (weight = .66lb)

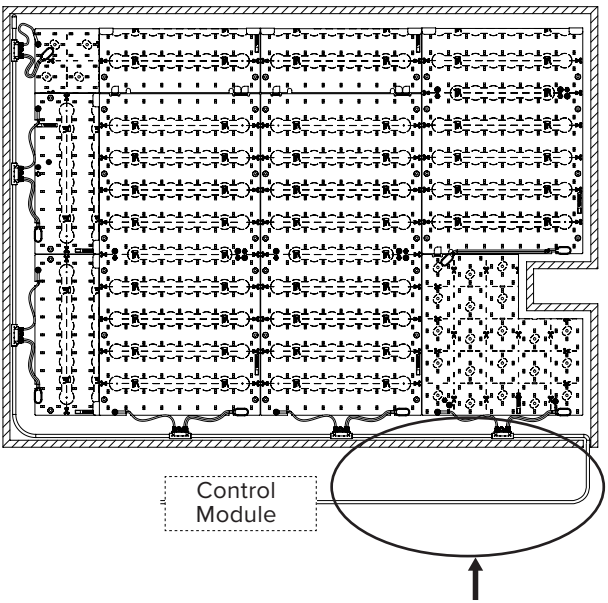
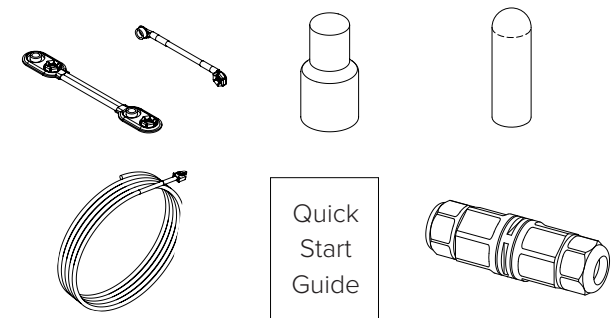


4 TILE EXTERIOR TUNABLE WHITE STARTER KIT

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.

INCLUDED

- (2) Single-connector Cut TILE Reuse Jumper Cables
- (2) Double-connector Cut TILE Reuse Jumper Cables
- (2) Splice Connectors
- (4) End Caps
- (1) 10ft (3m) Starter Cable with Connector
- (1) Quick Start Guide
- (2) IP65 Splice Connectors



HOW TO ORDER

Example: TACC-EXT-TUN-STR

TACC	-	TUN	-	TUN	-	STR
PRODUCT		TYPE		TYPE		TYPE
TACC = TILE Accessory		EXT = Exterior		TUN = Tunable White		STR = Starter

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	IP Rating	# Controller Channels ³
EPSS-200-58V-EXT ¹	IP66 ²	2
EPSS-400-58V-EXT ¹	IP66 ²	4

¹Includes two conduit adapters suitable for ½" cable glands.

²Includes integrated input and output junction boxes

³Class 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 Exterior TNW sheets. Also receives input 0-10V to control dimming levels. Included converters translate dimming inputs to 1-10V.

Order Code	Function	Protocols
CTR-TUN-010-58V-CE	Tunable White	0-10V
CTR-TNW-010-58V-UL	Tunable White	0-10V
CTR-TNW-DMX-58V-UL	Tunable White	DMX

For exterior applications, Cooledge Control Modules must be mounted within an appropriate IP65 or higher UL listed enclosure. The minimum recommended size for the enclosure is 14.2" L x 6.3" W x 3.6" H. Please contact Cooledge Lighting for recommendations.

ADDITIONAL ACCESSORIES

EXTENSION CABLES

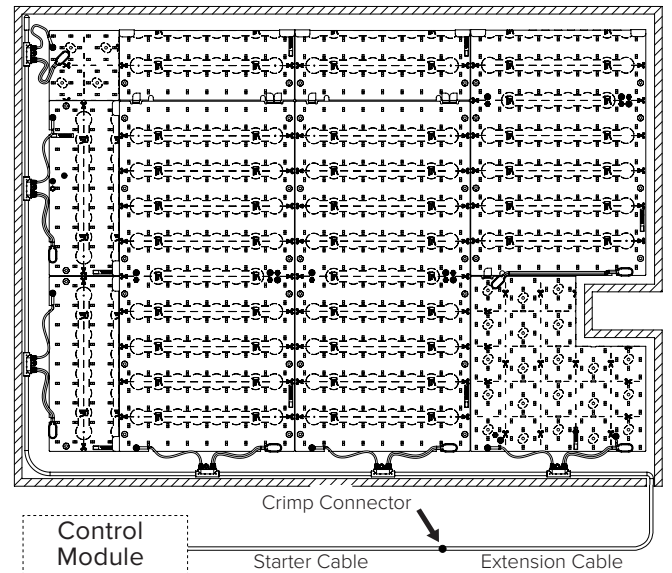
- 16 AWG cable (non-plenum rated)
- Available in 10' & 20' lengths

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

Example: TCBL - TUN - LNG - 10

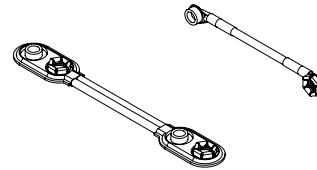
TCBL	-	TUN	-	LNG	-	
PRODUCT		TYPE				LENGTH
TCBL = Extension Cable		TUN = Tunable White				10 = 10ft (3m) 20 = 20ft (6m)



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

TACC	-	TUN	-	JMP	-	5
PRODUCT		TYPE				
TACC = Jumper Cables		TUN = Tunable White				