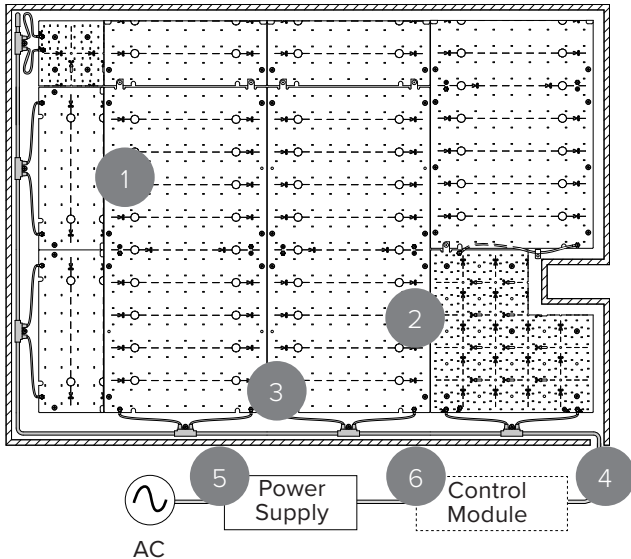


COOLEEDGE™

COOLEEDGE TILE EXTERIOR TUNABLE WHITE R3 - 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 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	Protected Location only
Ingress Protection	IP65
Operating Temp.	-20 to 55°C
Storage Temp.	-40 to 85°C
Relative Humidity	90% max (non-condensing)
Operating Voltage	54 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

CE Compliant IP65 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 9680/6460/3230 lm/m² 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)

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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.

COOLEGE TILE EXTERIOR TUNABLE WHITE R3 - SPECIFICATIONS

PHOTOMETRICS¹

Light Output (lm/m ²)	9680, 6460, 3230, 1610
Correlated Color Temperature (CCT)	Tunable White = 2700K-5700K
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

IESNA TM-30-18 DATA

CCT	Rf	Rg
2700K	91	100
5700K	87	97
TNW*	89	100

* Denotes both channels @50%

POWER

Light Output (lm/m ²)	CCT	Power (W/m ²)	EcoDesign Class
9680	2700K	74.4	E
	3500K	N/A	
	5700K	66.7	
6460	2700K	50.0	E
	3500K	43.9	
	5700K	45.6	
3230	2700K	24.4	E
	3500K	21.7	
	5700K	21.7	
1610	2700K	12.2	E
	3500K	11.1	
	5700K	11.1	



CERTIFICATIONS



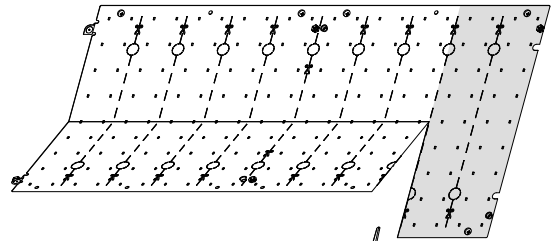
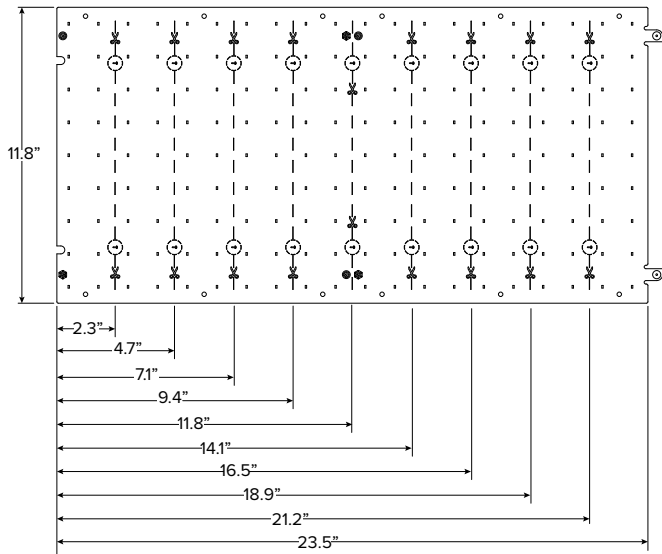
WARRANTY



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

COOLEGE TILE EXTERIOR TUNABLE WHITE R3 - SPECIFICATIONS

1 TILE EXTERIOR TUNABLE WHITE



TILES will be cut and sealed in the factory prior to shipment



Weight = 0.18lbs/ 82g

HOW TO ORDER

Example: TILE-EXT-600-TNW-R3

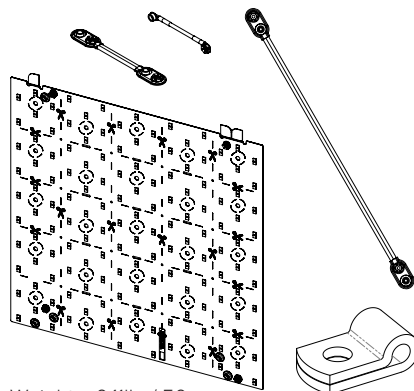
TILE	- EXT	-	-	-	- R3
<u>PRODUCT</u> TILE	<u>TYPE</u> EXT = Exterior		<u>FLUX</u> 900 = 9680lm/m ² (900lm per 300x300mm) 600 = 6460lm/m ² (600lm per 300x300mm) 300 = 3230lm/m ² (300lm per 300x300mm)	<u>CCT</u> TNW = 2700K-5700K	<u>Version</u> R3 = Revision 3

2 TILE TUNABLE WHITE CUT-OUT KIT

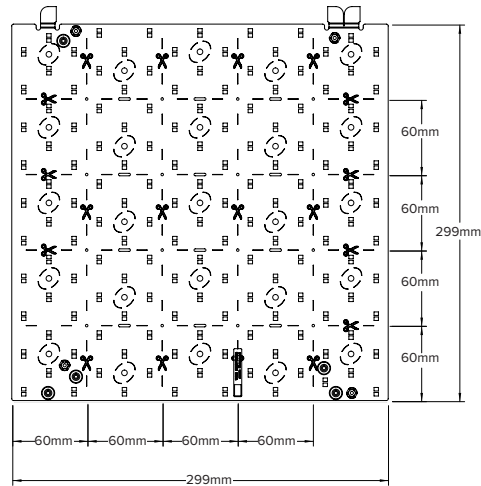
Purpose: Cut-to-fit around obstacles located in a luminous surface such as standoffs, support cables/rods, beams, pipes, etc.; used in corners where a full TILE does not fit in the space; or to step cut along angles and curves at the edge of a luminous surface. (Optional)

INCLUDED

- (1) Cut-out TILE (300mm x 300mm)
- (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-EXT-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* = 9680lm/m ² (900lm per 300x300mm) 600 = 6460lm/m ² (600lm per 300x300mm) 300 = 3230lm/m ² (300lm per 300x300mm)	<u>CCT</u> TNW = 2700K-5700K	<u>KIT</u> K = Kit Revision 3

*Not available in DTW

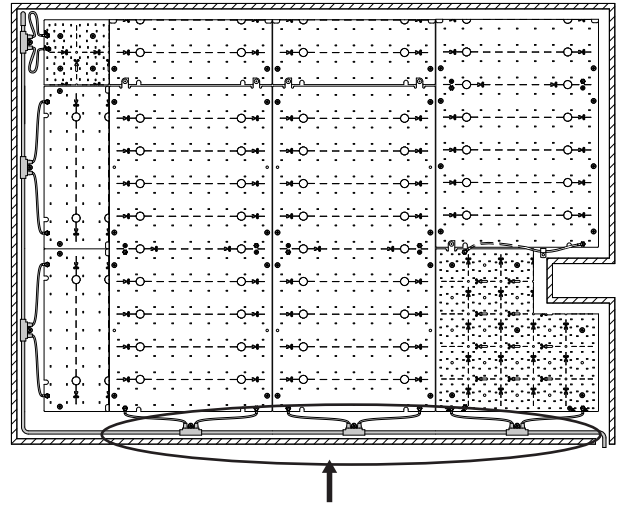
3 TILE TUNABLE WHITE T-CABLE

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 = 60g) T10 = 10 T-Connectors (weight = 300g)		

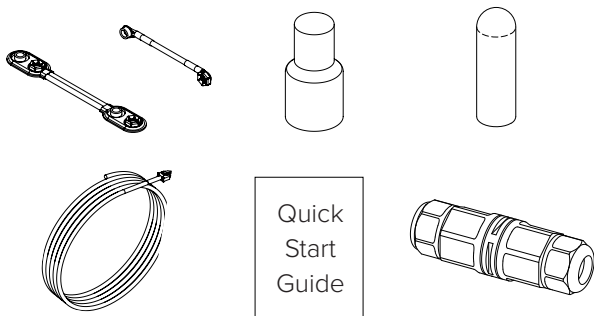
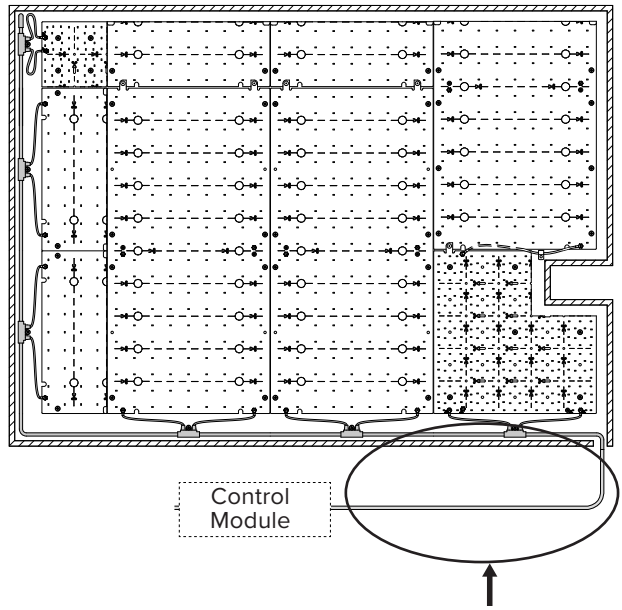


4 TILE EXTERIOR TUNABLE WHITE STARTER KIT

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
- (10) Insulating Patches
- (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 (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-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

COOLEGE 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)

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 395mm L x 165mm W x 91mm H. Please contact Cooledge Lighting for recommendations.

ADDITIONAL ACCESSORIES

EXTENSION CABLES

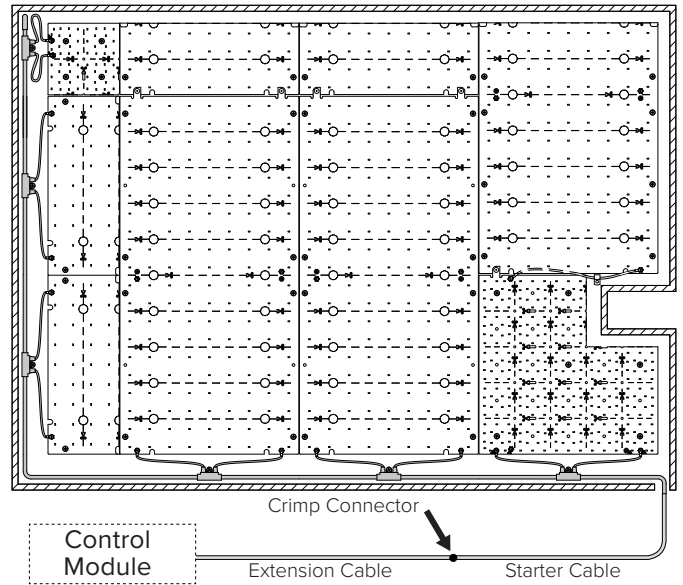
- 1.3mm² AWG cable (non-plenum rated)
- Available in 3m & 6m lengths

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 Coolege for additional information including requirements for plenum rated cables.

HOW TO ORDER

Example: TCBL - TUN - LNG - 10

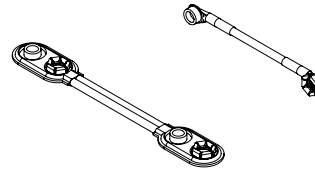
TCBL	-	TUN	-	LNG	-	
<u>PRODUCT</u> TCBL = Extension Cable		<u>TYPE</u> TUN = Tunable White				<u>LENGTH</u> 10 = 10ft (3m) 20 = 20ft (6m)



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