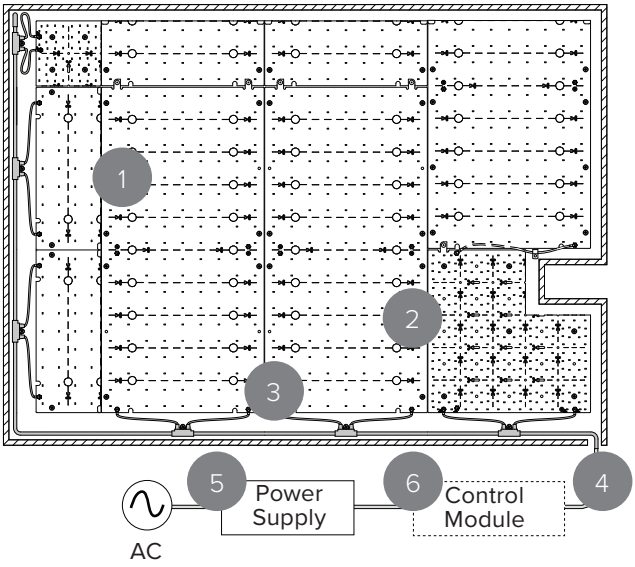
COOLEDGE™

COOLEDGE TILE INTERIOR - SPECIFICATIONS

PROJECT		REFERENCE TYPE	
SPECIFIED BY		QUANTITY	
DATE		NOTE	For Luminous Surfaces

SYSTEM OVERVIEW



Create luminous ceilings, feature walls, and large graphics displays with Cooledge TILE Interior products

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

**Included in TILE Interior Starter Kit*

GENERAL

Location	Indoor, dry location only
Operating Temp.	0-40°C
Storage Temp.	-40-85°C
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*

SPECIFICATION

CE Compliant lighting system inclusive of flexible light emitting sheets, connectors, low voltage cables, control modules, and low voltage power supplies. Light output from the system must be +/- 10% of the specified luminous flux value across the total illuminated area post-installation. Color Rendering Index (CRI) must be >90 and color consistency between light sheets must be typical 2 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 be configurable on-site and include the capability to accommodate obstacles, angles, and curves. System warranty is a minimum of 5 years.

FEATURES

– Seven standard choices of constant lumen output ensure consistent highly calibrated illumination and precise power density control
– Color consistency of typically 2 SDCM between TILEs meets stringent requirements for large area installations
– Cut-to-fit means systems are adaptable to any size installation and can accommodate obstacles and shapes
– 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
– Mounts directly to most common 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

PHOTOMETRICS[1]

Light Output (lm/m²)	9680, 6460, 3230, 1610 , 5000[3], 2420[3], 1080[3]
Correlated Color Temperature (CCT)	2200K, 2700K, 3000K, 3500K, 4000K, 5700K
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
3 Available for 3000K, 3500K, & 4000K

IESNA TM-30-18 DATA

CCT	Rf	Rg
2200K	91	99
2700K	91	100
3000K	87	97
3500K	88	97
4000K	90	100
5700K	87	97

POWER

Light Output (lm/m²)	CCT	Power (W/m²)	EcoDesign Class
9680	2200K	79.9	E
	2700K	74.4	E
	3000K	68.3	D
	3500K	66.7	D
	4000K	66.7	D
	5700K	66.7	D
6460	2200K	53.3	E
	2700K	50.0	E
	3000K	46.7	E
	3500K	43.9	D
	4000K	44.4	D
	5700K	45.6	D
3230	2200K	26.7	E
	2700K	24.4	E
	3000K	23.3	E
	3500K	21.7	D
	4000K	22.2	D
	5700K	21.7	D
1610	2200K	13.3	E
	2700K	12.2	E
	3000K	11.7	E
	3500K	11.1	D
	4000K	11.1	D
	5700K	11.1	D

Light Output (lm/m²)	CCT	Power (W/sqft)
5000	3000K	35.9
	3500K	34.2
	4000K	34.2
2420	3000K	17.4
	3500K	16.5
	4000K	16.5
1080	3000K	7.7
	3500K	7.4
	4000K	7.4

BUILD-TO-ORDER FLUX VS POWER

For applications that require a more precise selection of flux/power combinations than is offered by standard TILE Interior, Cooledge offers a “Build-To-Order” (BTO) program that allows you to choose a non-standard flux/power combination to optimize for power density while still meeting the required illumination levels for your design.

Refer to the table below and select either a desired power level with corresponding light output level, or conversely, choose the minimum flux level that delivers the required illumination to determine the power level.

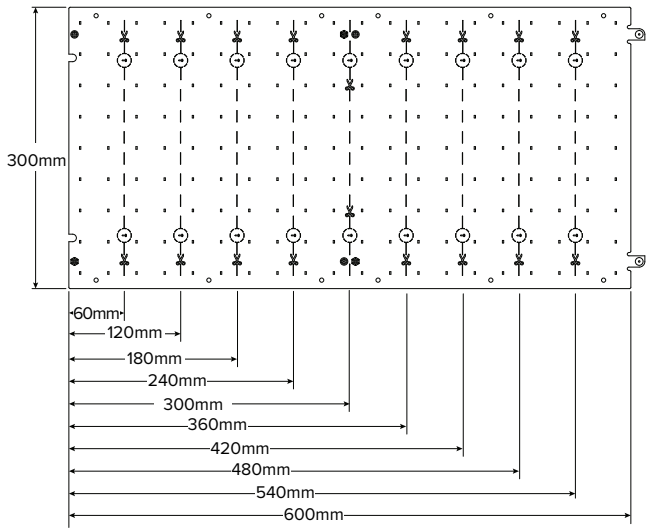
Flux (lm/m²)	2200K	2700K	3000K	3500K	4000K	5700K
1080	8.3	7.9	Standard			7.3
1350	10.6	10.0	9.9	9.1	9.4	9.2
1610	Standard					
1880	15.3	14.2	13.7	12.8	13.1	13.0
2150	17.6	16.3	15.6	14.6	15.0	14.9
2420	19.9	18.4	Standard			16.7
2690	22.2	20.4	19.4	18.3	18.7	18.6
2960	24.6	22.5	21.4	20.2	20.5	20.5
3230	Standard					
3500	29.2	26.7	25.2	23.9	24.2	24.2
3770	31.5	28.8	27.1	25.8	26.1	26.1
4040	33.8	30.9	29.0	27.6	27.9	28.0
4300	36.2	33.0	30.9	29.5	29.8	29.9
4570	38.5	35.1	32.8	31.3	31.6	31.7
4840	40.8	37.1	34.7	33.2	33.5	33.6
5000	42.2	38.4	Standard			34.7
5380	45.4	41.3	38.5	36.9	37.2	37.4
5650	47.8	43.4	40.4	38.7	39.1	39.2
5920	50.1	45.5	42.3	40.6	40.9	41.1
6190	52.4	47.6	44.2	42.4	42.8	43.0
6460	Standard					
6730	57.0	51.7	48.0	46.1	46.5	46.8

Flux (lm/m²)	2200K	2700K	3000K	3500K	4000K	5700K
6990	59.4	53.8	50.0	48.0	48.3	48.6
7260	61.7	55.9	51.9	49.9	50.2	50.5
7530	64.0	58.0	53.8	51.7	52.0	52.4
7800	66.3	60.1	55.7	53.6	53.9	54.3
8070	68.6	62.2	57.6	55.4	55.7	56.1
8340	71.0	64.3	59.5	57.3	57.6	58.0
8610	73.3	66.4	61.4	59.1	59.5	59.9
8880	75.6	68.4	63.3	61.0	61.3	61.8
9150	77.9	70.5	65.2	62.8	63.2	63.6
9420	80.2	72.6	67.1	64.7	65.0	65.5
9680	Standard					
9950	84.9	76.8	70.9	68.4	68.7	69.3
10220	87.2	78.9	72.8	70.3	70.6	71.2
10490	89.5	81.0	74.7	72.1	72.4	73.0
10760	91.8	83.1	76.6	74.0	74.3	74.9
11030	94.2	85.1	78.6	75.8	76.1	76.8
11300	96.5	87.2	80.5	77.7	78.0	78.7
11570	98.8	89.3	82.4	79.5	79.9	80.5
11840	101.1	91.4	84.3	81.4	81.7	82.4
12110	103.4	93.5	86.2	83.2	83.6	84.3
12370	105.7	95.6	88.1	85.1	85.4	86.2
12640	108.1	97.7	90.0	86.9	87.3	88.0

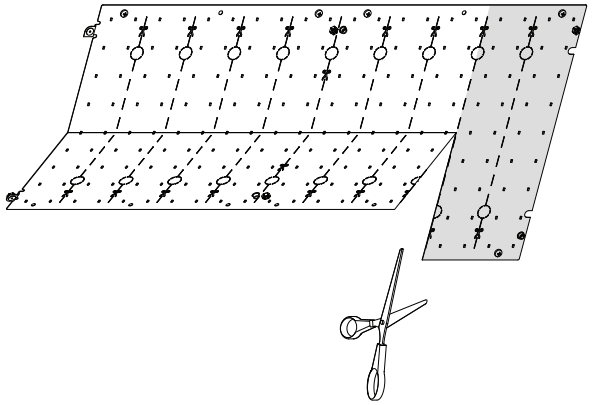
Notes:

1 Power levels shown are for TILEs only. Power consumption calculatlons should include consideration of power supply efficiency and any electrical losses associated with a specific circuit design.
2. Luminous flux values are based on calculations with a tolerance of ±5% of the value shown.
3. BTO products are subject to longer lead times and increased prices compared to standard TILE Interior light output options.

1 TILE INTERIOR



Weight = 0.18lbs / 82g



HOW TO ORDER

Example: TILE-INT-600-40-R3**

TILE	-	INT	-		-		-	R3
PRODUCT TILE		TYPE INT = Interior		FLUX (per 300x300mm) 900 = 9680lm/m² 600 = 6460lm/m² 300 = 3230lm/m² 150 = 1610lm/m² 465* = 5000lm/m² 225* = 2420 lm/m² 100* = 1080 lm/m² BTO = Build To Order		CCT 22 = 2200K 27 = 2700K 30 = 3000K 35 = 3500K 40 = 4000K 57 = 5700K		Version R3 = Revision 3

*Available for 3000K, 3500K, & 4000K

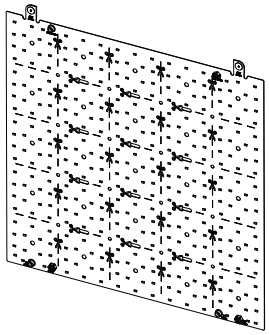
**May be identified as “C3” in some regions

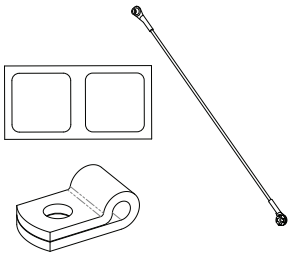
2 TILE INTERIOR CUT-OUT KIT

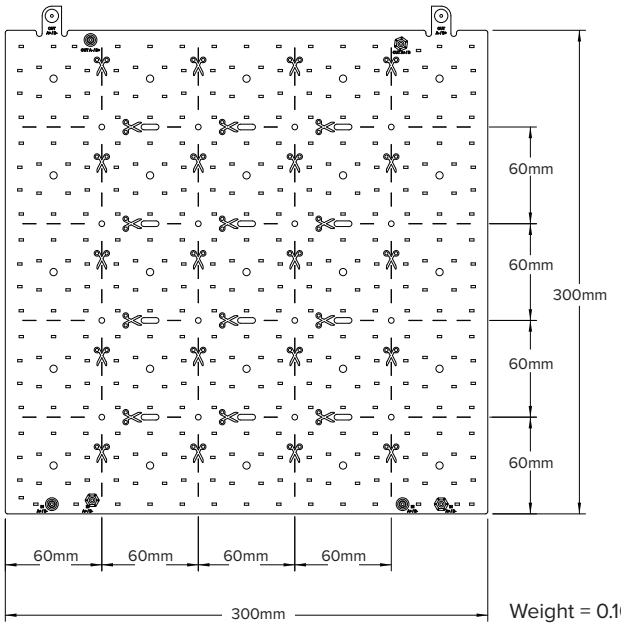
Purpose: Cut-to-fit around obstacles located in the middle of a luminous surface such as standoffs, support cables/rods, beams, pipes, etc.; used in corners where a full TILE does not fit in the space; or to step cut along angles and curves in a luminous surface. (Optional)

INCLUDED

- (1) Cut-out TILE (300mm x 300mm)
- (2) Insulating Patches
- (1) Cable Clamp
- (1) Jumper Cable







Weight = 0.10lbs / 45g

HOW TO ORDER

Example: TACC-INT-CUT-600-35-K**-R3

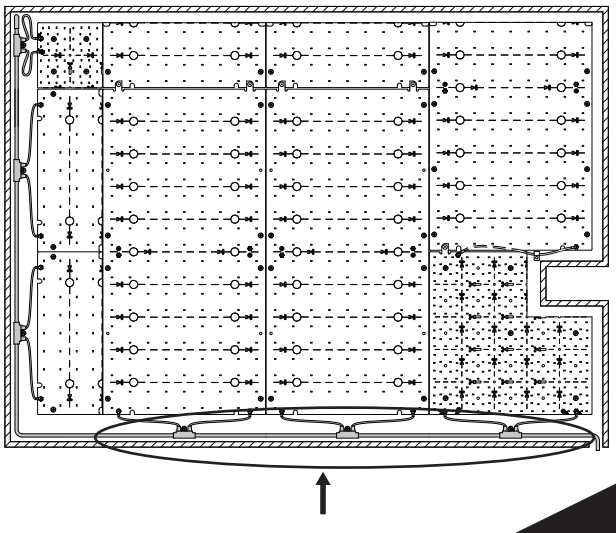
TACC	-	INT	-	CUT	-		-		-	K	-	R3
PRODUCT TACC = TILE Accessory		TYPE INT = Interior		COMPONENT CUT = Cut-out Kit		FLUX (per 300x300mm) 900 = 9680lm/m² 600 = 6460lm/m² 300 = 3230lm/m² 150 = 1610lm/m² 465* = 5000lm/m² 225* = 2420lm/m² 100* = 1080lm/m² BTO = Build To Order		CCT 22 = 2200K 27 = 2700K 30 = 3000K 35 = 3500K 40 = 4000K 57 = 5700K		KIT K = Kit		VERSION R3 = Revision 3

*Available for 3000K, 3500K, & 4000K

**May be identified as “K-C3” in some regions

3 TILE INTERIOR 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)



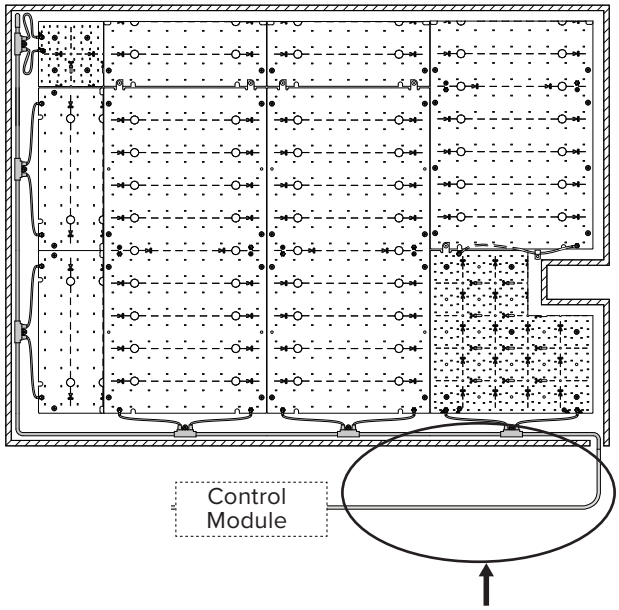
HOW TO ORDER

Example: TCBL-SCT-T4

TCBL	-	
PRODUCT TCBL = TILE Cable		TYPE SCT-T4 = Static CCT, T-Connectors (weight = 0.13lb/59g) SCT-T10 = Static CCT, T-Connectors (weight = 0.66lb/300g)

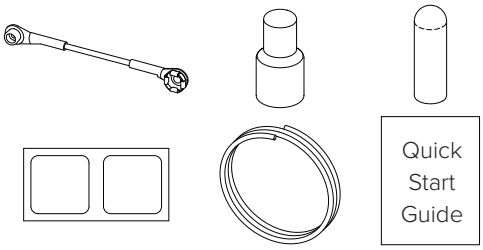
4 TILE INTERIOR STARTER KIT

Purpose: Includes the Starter Cable that makes the connection from the Power/Control components 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, 10 ft (3m) Length
- (1) Quick Strart Guide



HOW TO ORDER

Example: TACC-SCT-STR-K

TACC	-	SCT	-	STR	-	K
PRODUCT TACC = TILE Accessory		CCT SCT = Static Color Temp.		TYPE STR = Starter		KIT K = Kit

5 POWER AND CONTROL

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

The models shown below are those that are compatible with TILE Interior Systems for regions where CE Compliant products are required.

POWER SUPPLIES (54V)
Purpose: Convert AC main (line) power to safe, low voltage DC power. (Required)

Order Code	Description	# Controller Channels*	Integrated Wiring Enclosure
EPSS-092-54V-CE	92W Power Supply, 54V (CE Compliant) with integrated junction box	1	Yes
EPSS-200-54V-CE	200W Power Supply, 54V (CE Compliant) with integrated junction box	2	Yes
EPSS-400-54V-CE	400W Power Supply, 54V (CE Compliant) with integrated junction box	4	Yes

**Class 2 (max 90W) output*

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 from one of 4 protocol options to control dimming levels. (Optional)

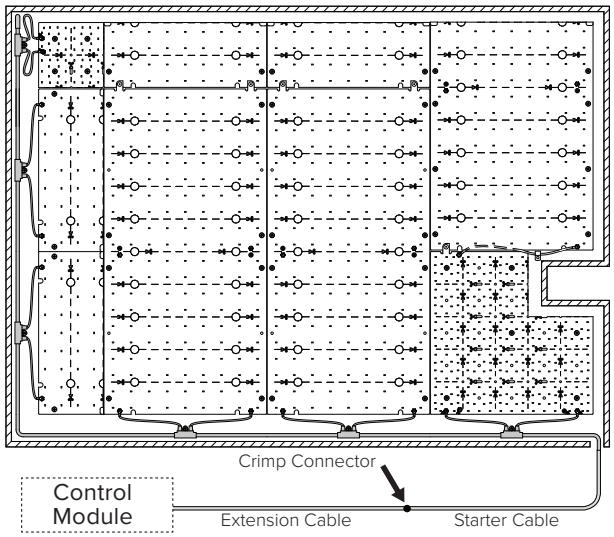
Order Code	Protocols
CTR-SCT-DAL/010-48/58V	0-10V, DALI
CTR-SCT-DMX-48/58V	DMX
CTR-SCT-CAS-48/58V	Casambi (wireless)
CTR-SCT-ATH-48/58V	Athena (wireless)

ADDITIONAL ACCESSORIES

EXTENSION CABLES

- 1.3mm² cable (non-plenum rated)
- Available in 3m and 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 Cooledge for additional information including requirements for plenum rated cables.



HOW TO ORDER

TCBL	-	
PRODUCT TCBL = TILE Cable		TYPE SCT-LNG-10 = Static CCT, Length = 3m (10ft) SCT-LNG-20 = Static CCT, Length = 6m (20ft)

CERTIFICATIONS

c UL us LISTED

CE

Ecodesign Compliant

RoHS

UK CA

WARRANTY

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

COOLEDGE™
Light as a building material