

Item	Number	Compatible Part No's
LIGHTSHEET; RGBW; 24V; 12"X24"; 3500K; 90°-ROTATED LEDs	51-2561	TILE-WRGB-35-R1
LIGHTSHEET; RGBW; 24V; 12"X24"; 6500K; 90°-ROTATED LEDs	97-0323	TILE-WRGB-65-R1
JUMPER CABLE; RGBW; FEMALE-FEMALE; 65mm	69-0239	TCBL-WRGB-JMP
JUMPER CABLE; RGBW; FEMALE-FEMALE; 198mm	69-0240	
STARTER CABLE; RGBW	69-0241	TACC-WRGB-STR-K
Controller; DMX; 24VDC; RGBW; 4 Output; Dimming	69-0238	CTR-WRGB-DMX-24V
Controller; Casambi.DMX; 24VDC; RGBW; 4 Output; Dimming	69-0262	CTR-WRGB-CAS-24V
Driver; 400W; 24VDC; 90-305VAC; Non-dimming; Integral JB	69-0197	EPSS-400W-24V

- ⚠ Control Module is suitable for use in dry locations only (IP20).
- ⚠ CONTROL MODULE must be installed by a qualified electrician.
- ⚡ All devices should always be disconnected from mains power supply and verify its absence prior to installation/maintenance.
- ⚠ Damage to CONTROL MODULE and/or light sheets may occur if wired incorrectly.

FCC STATEMENT:

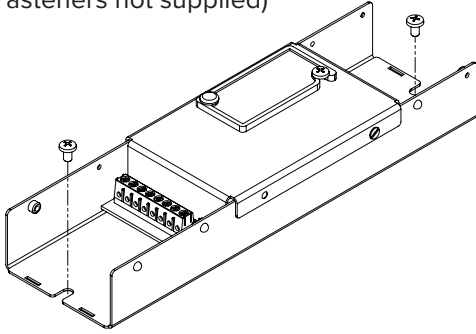
This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:
 (1) This device may not cause harmful interference.
 (2) This device must accept any interference received, including interference that may cause undesired operation.



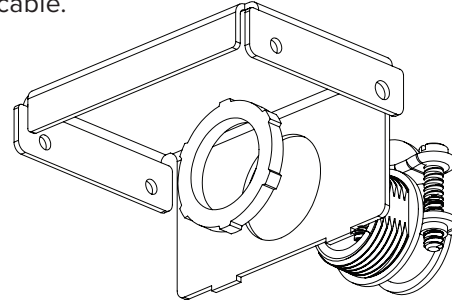
5 Year Limited Warranty:
Parts and workmanship

MOUNTING COOLEdge CONTROL MODULE

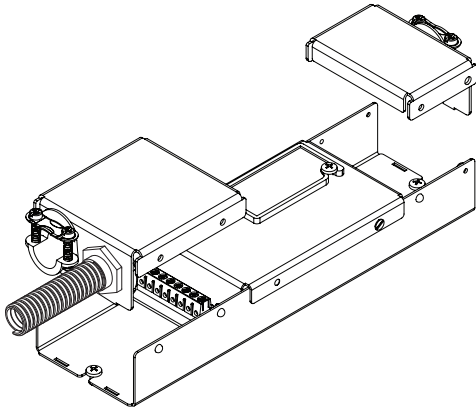
1) Fasten module in position by using the two mounting slots. (Fasteners not supplied)



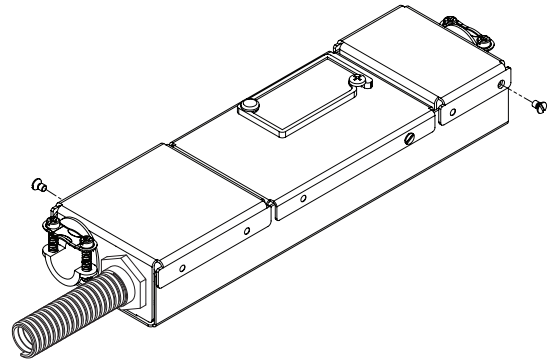
2) Terminal covers support 1/2" strain relief of conduit. Conduit or armored cable must be used on power input cable.



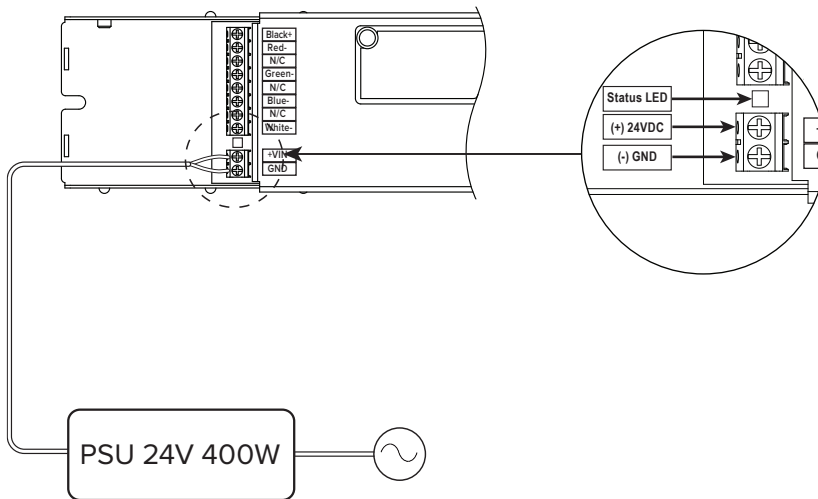
3) Thread cables through conduit/strain reliefs and covers; then make connections as required.



4) Snap covers in position and secure with provided fasteners.



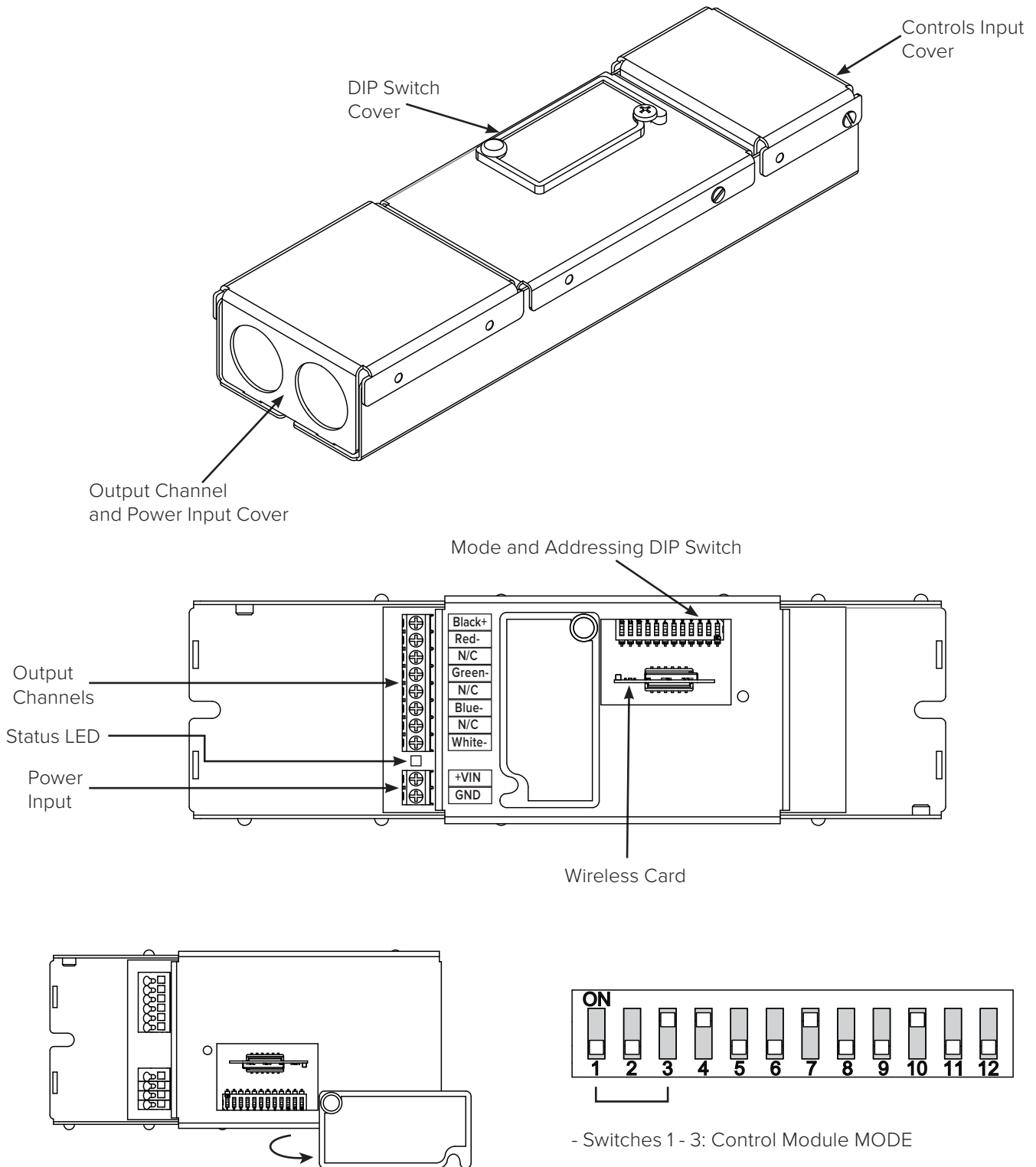
INPUT POWER - 24VDC: 400W - SELV



cUL Listed 24V	Control Module	400W PSU
Dimensions (in)	8.7 x 2.6 x 1.4	16.0 x 4.9 x 1.7
CE Compliant 24V	Control Module	400W PSU
Dimensions (mm)	220 x 66 x 36	407 x 124 x 43

INTRODUCTION TO COOLEGE CONTROL MODULE

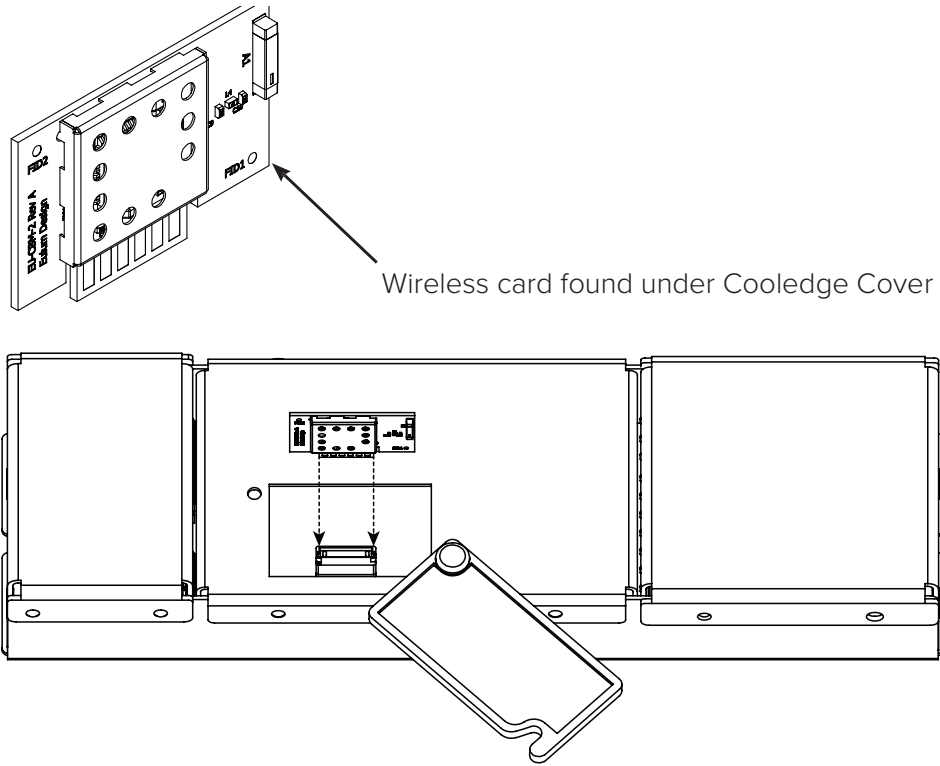
The Cooledge Control Module receives a single 24V DC power input from a constant voltage power supply and converts it into up to 4 controlled output channels of max. 90W each. Input signals from 3rd party controllers are used to control dimming and color tuning (if applicable). Each channel drives a separate color: white, red, green or blue.



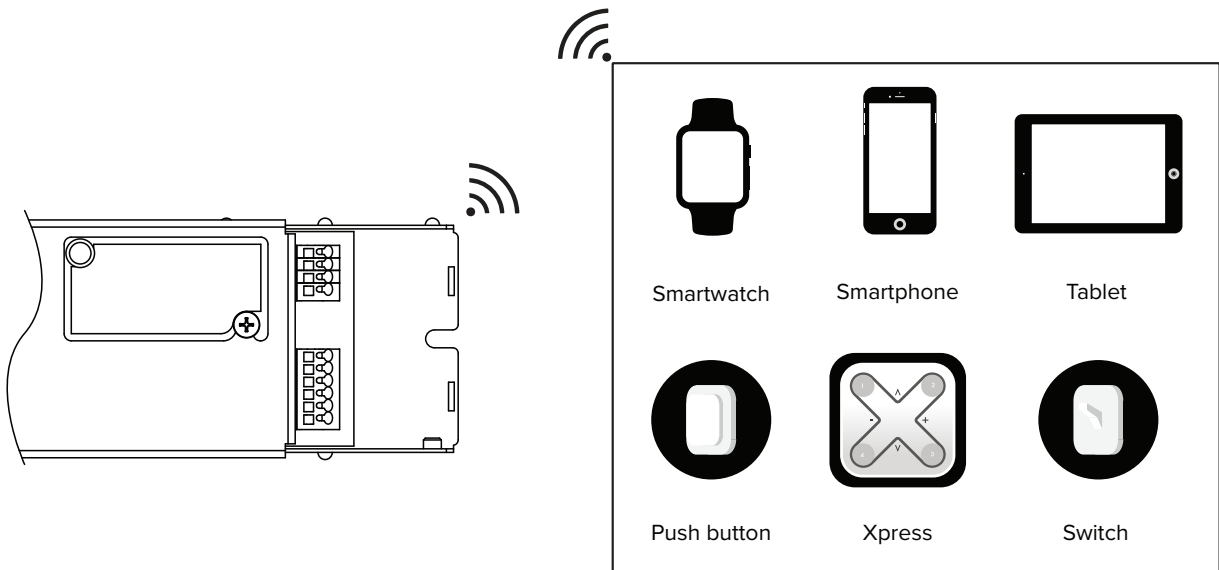
To access the DIP switches for selecting the operational mode, unfasten the cover screw and rotate cover out of the way. Positions 1-3 are used to identify the controller mode. Settings for each mode are explained in each section.

Wireless models of Cooledge Control Module are shipped with a factory-installed card that enables the Casambi functionality.

Warning: When inserting/removing the wireless card do so with the component side towards the DIP switch and only after Control Module was powered off.



The Cooledge Control Module is capable of wireless control through the Casambi app (free on IOS and Android Devices). To download the Casambi App and access other relevant documentation please visit www.casambi.com/downloads.html.



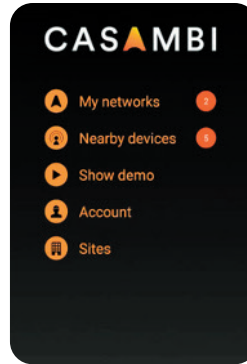
Consult the “Short User Guide to the Casambi App” at:

<https://casambi.com/static/datasheets/short-user-guide.pdf> for additional information related to setting up and using Casambi

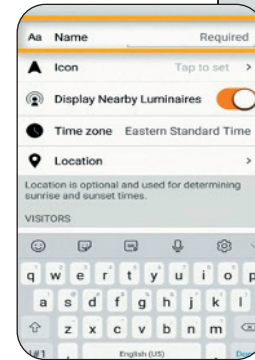
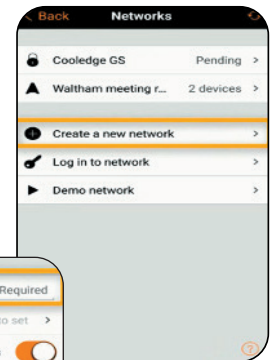
Download the CASAMBI APP



1. Create a New Network

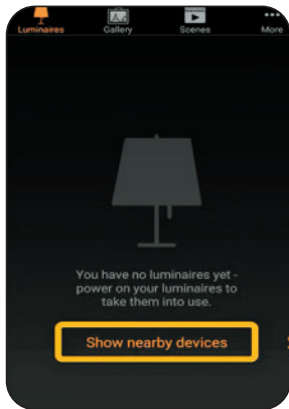


Select: "Create a new network"



Assign a name to the new network

2. Include new devices to the network:

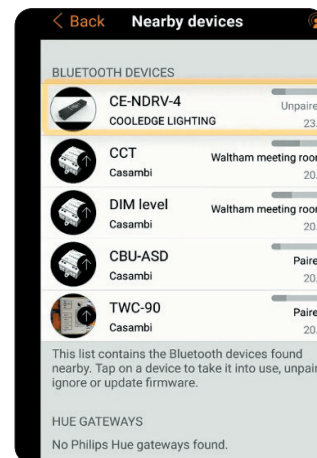


Search for nearby devices

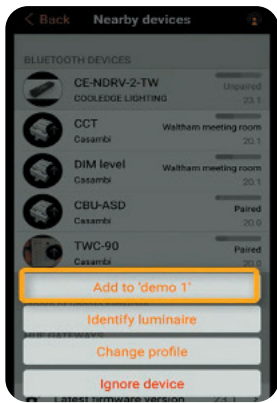
3. Select a Profile

The Cooledge W+RGB control module has 4 standard profiles:
CE-NDRV-4
CE-NDRV-RGBW - IS
CE-NDRV-RGB/W
CE-NDRV-RGBW

When accessing the controller shipped with one of the profiles listed above, the Casambi App will list your device as unpaired under "Nearby Devices". For example, if device is shipped with CE-NDRV-4, it will be listed as in the picture below:



4. Add device to the network:



Select: "Add to..." to pair the device to the wireless network

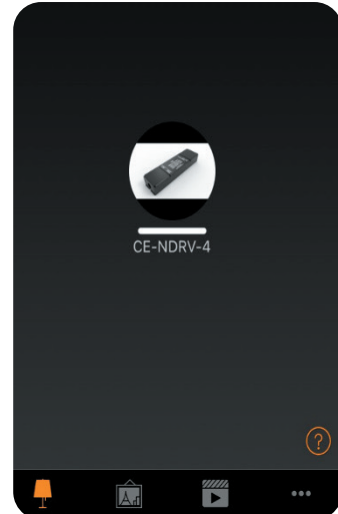


The device is now paired to the network

5. Control the paired unit

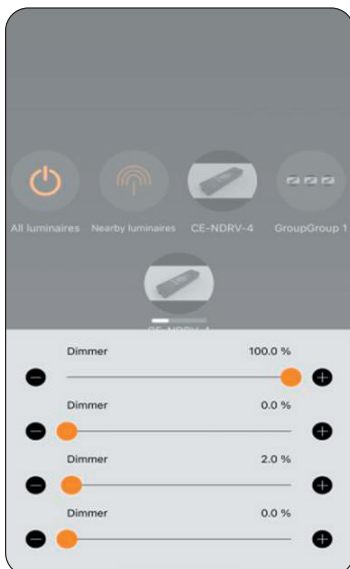
Once paired device to the network, it can be controlled as follows:

If CE-NDRV-4 has been added to the network, the APP will show as below:

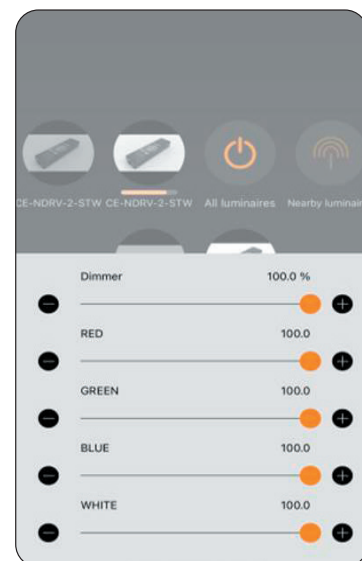


For this profile there are 4 available sliders to control the luminaires:

They are assigned as follows:
 SLIDER 1 – RED Control
 SLIDER 2 – GREEN Control
 SLIDER 3 – BLUE Control
 SLIDER 4 – WHITE Control



If CE-NDRV-RGBW-IS has been added to the network, the APP will show as below:

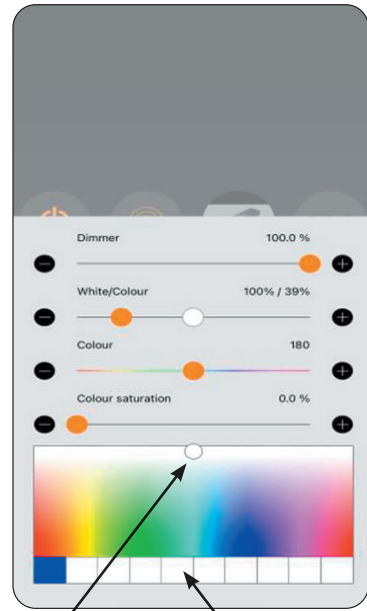


For this profile there are 5 available sliders to control the luminaires:

They are assigned as follows:

- SLIDER 1 – Dimmer (controls intensity)
- SLIDER 2 – RED (controls RED channel)
- SLIDER 3 – GREEN (controls GREEN channel)
- SLIDER 4 – BLUE (controls BLUE channel)
- SLIDER 5 – WHITE (controls WHITE channel)

If CE-NDRV-RGB/W has been added to the network, the APP will show as below:



Color picker

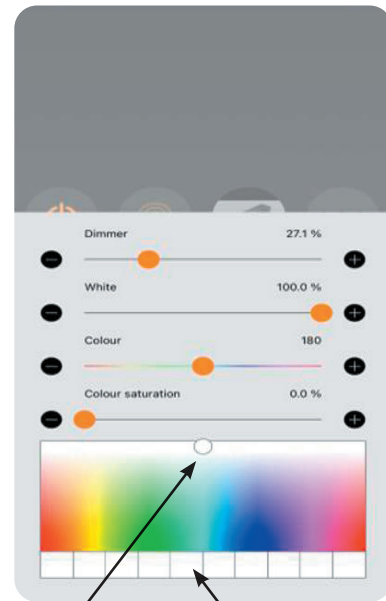
Color preset boxes

For this profile there are 4 available sliders to control the luminaires:

They are assigned as follows:

- SLIDER "Dimmer" - global intensity control
- SLIDER "Color" - color selection
- SLIDER "White/Color" - controls the mixture between White channel and any color
- SLIDER "Color Saturation" - controls the saturation for each selected color
- Color picker is used for color selection
- 10 Small boxes at the bottom are also scene selectors; select a color that you like and then press and hold on a button; the color is stored and appears in the box

If CE-NDRV-RGBW has been added to the network, the APP will show as below:



Color picker

Color preset boxes

For this profile there are 4 available sliders.

They are assigned as follows:

SLIDER “Dimmer” - controls global intensity

SLIDER “Color” - selection of color

SLIDER “White” - controls intensity of White channel, and it can be used in combination with any color

SLIDER “Colour Saturation” - controls the saturation for each selected color

- Color picker is used for color selection

- 10 Small boxes at the bottom are also scene selectors; select a color that you like and then press and hold on a button; the color is stored and appears in the box

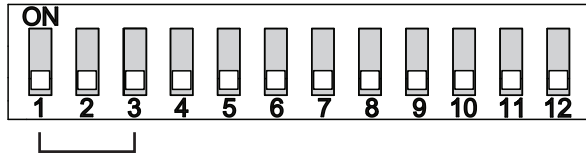
For additional information related to setting up and using Casambi for more features: groups, scenes, animations, timers, circadian profiles, sensors, switches, consult the “**Short User Guide to the Casambi App**” at: <https://casambi.com/static/datasheets/short-user-guide.pdf>

STANDARD MODE

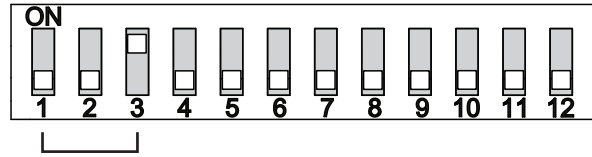
Standard Mode is a mode in the control module where colour and dimming are controlled wirelessly via Casambi. There are 4 output channels: RED, GREEN, BLUE, WHITE, each channel can handle up to a 90W load.

Choose the DIP Switch settings from the tables below to achieve the desired dimming level.

LOG MODE



LIN MODE



- Switches 1 - 3: Control Module MODE

Dimming Protocol	Mode Switches 1-3 (Log)*	Mode Switches 1-3 (Linear)
Wireless SCT	0-0-0	0-0-1

*Standard.

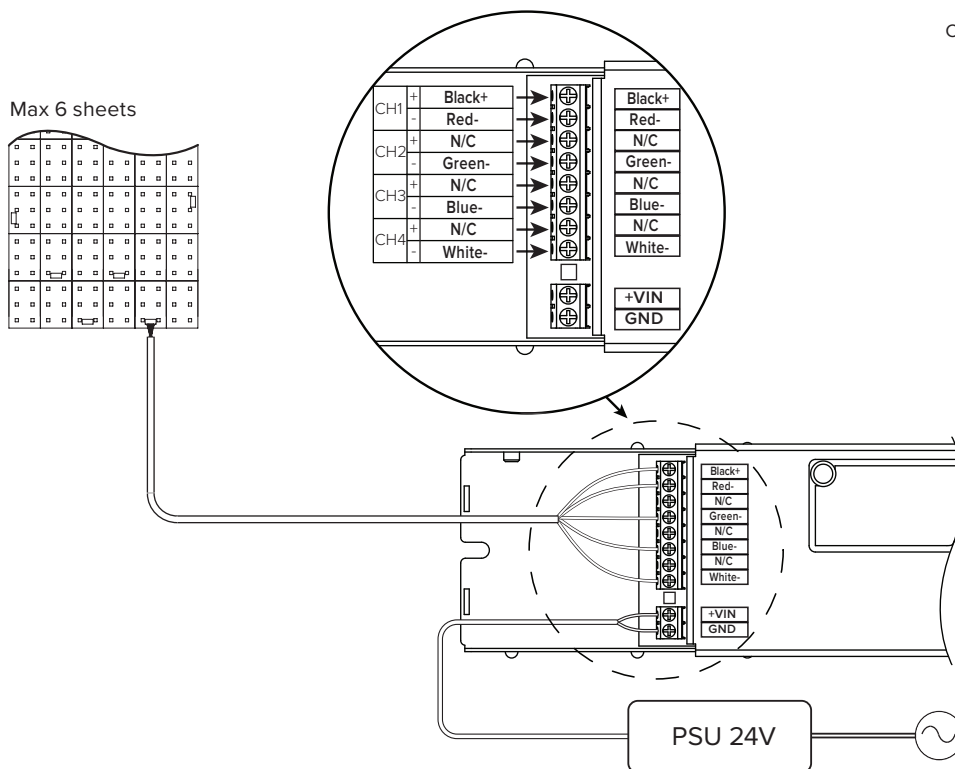
DIP switch setting can be adjusted if another dimming curve is required. See APPENDIX A.

Warning! Changing DIP Switch Setting must be performed only after unit is powered down

OUTPUT CONNECTIONS: STANDARD MODE

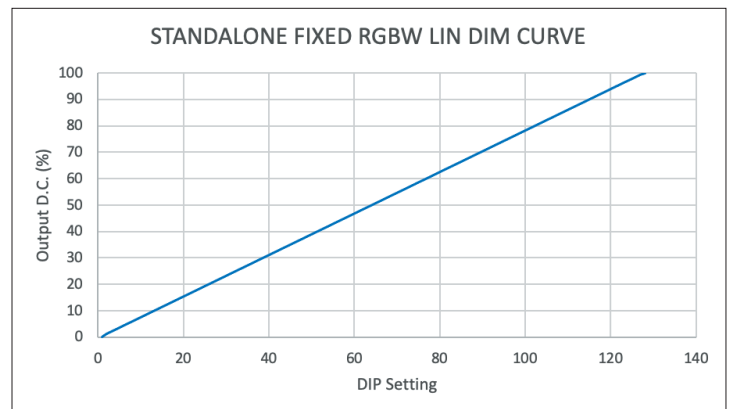
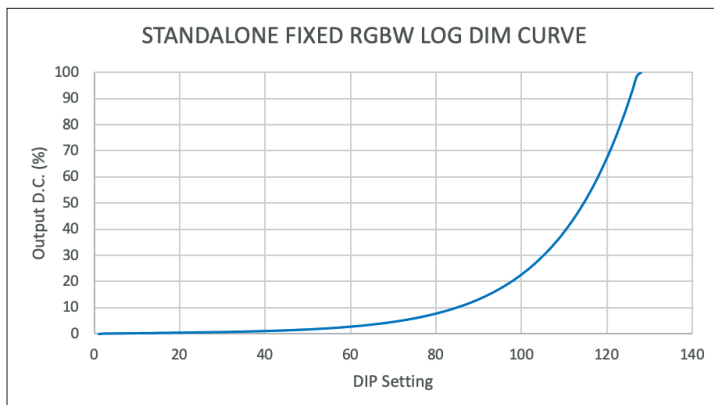
Relevant Part No's:

CTR-SCT-CAS-58V



STANDALONE MODES

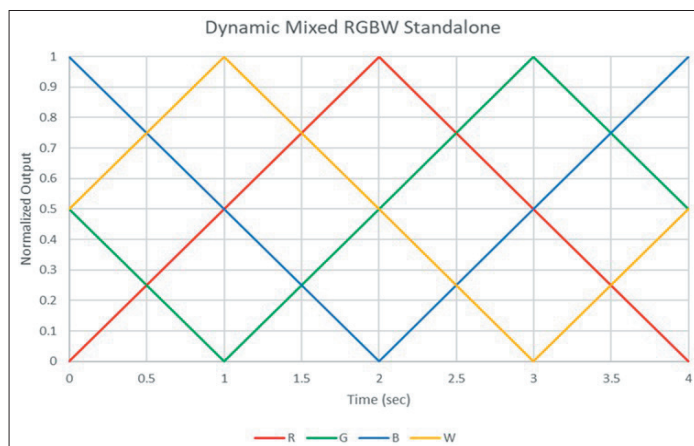
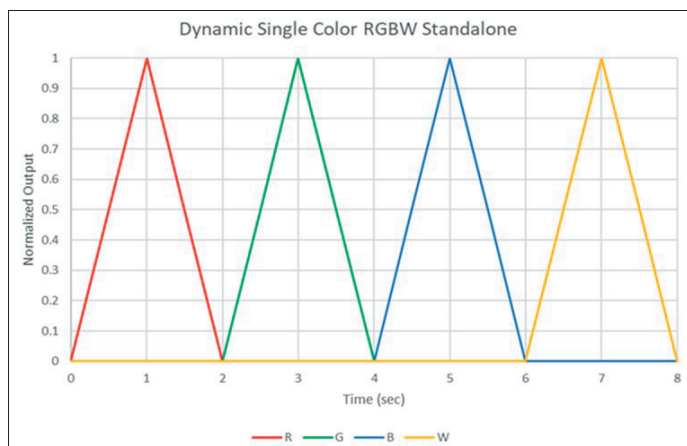
STANDALONE FIXED RGBW	MODE(Pos 1-3)	Switches 4-12	
FIXED RED LOG	1-0-0	X-X-X-X-X-X-0-0	DMX RED channel fixed LOG
FIXED RED LIN	1-0-0	X-X-X-X-X-X-0-1	DMX RED channel fixed LIN
FIXED GREEN LOG	1-0-0	X-X-X-X-X-X-1-0	DMX GREEN channel fixed LOG
FIXED GREEN LIN	1-0-0	X-X-X-X-X-X-1-1	DMX GREEN channel fixed LIN
FIXED BLUE LOG	1-0-1	X-X-X-X-X-X-0-0	DMX BLUE channel fixed LOG
FIXED BLUE LIN	1-0-1	X-X-X-X-X-X-0-1	DMX BLUE channel fixed LIN
FIXED WHITE LOG	1-0-1	X-X-X-X-X-X-1-0	DMX WHITE channel fixed LOG
FIXED WHITE LIN	1-0-1	X-X-X-X-X-X-1-1	DMX WHITE channel fixed LIN
FIXED 32 Colors with 16 intensities	1-1-0	X-X-X-X-X-X-X-X	32 Colors = X-X-X-X-X and 16 intensities = X-X-X-X; See charts for intensities and for colors (see page 12)



STANDALONE FIXED RGBW SETTINGS

LEVEL	DIP SETTING POS 4-10	LOG CURVE (%)	LIN CURVE(%)	LEVEL	DIP SETTING POS 4-10	LOG CURVE (%)	LIN CURVE(%)	LEVEL	DIP SETTING POS 4-10	LOG CURVE (%)	LIN CURVE(%)
1	0000000	0.05	0.05	44	0101011	1.4	34.22	87	1010110	11.36	68.08
2	0000001	0.21	1.15	45	0101100	1.45	35.01	88	1010111	12	68.88
3	0000010	0.24	1.95	46	0101101	1.51	35.81	89	1011000	12.65	69.67
4	0000011	0.24	2.73	47	0101110	1.59	36.6	90	1011001	13.35	70.45
5	0000100	0.27	3.51	48	0101111	1.66	37.37	91	1011010	14.07	71.24
6	0000101	0.27	4.31	49	0110000	1.74	38.17	92	1011011	14.85	72.02
7	0000110	0.29	5.1	50	0110001	1.8	38.95	93	1011100	15.65	72.82
8	0000111	0.32	5.87	51	0110010	1.89	39.75	94	1011101	16.52	73.6
9	0001000	0.32	6.67	52	0110011	1.98	40.53	95	1011110	17.43	74.4
10	0001001	0.35	7.46	53	0110100	2.07	41.32	96	1011111	18.4	75.18
11	0001010	0.37	8.24	54	0110101	2.17	42.1	97	1100000	19.4	75.98
12	0001011	0.4	9.03	55	0110110	2.25	42.9	98	1100001	20.46	76.75
13	0001100	0.4	9.82	56	0110111	2.37	43.68	99	1100010	21.6	77.54
14	0001101	0.43	10.6	57	0111000	2.47	44.47	100	1100011	22.8	78.33
15	0001110	0.46	11.4	58	0111001	2.61	45.25	101	1100100	24.06	79.12
16	0001111	0.49	12.18	59	0111010	2.73	46.05	102	1100101	25.38	79.9
17	0010000	0.51	12.98	60	0111011	2.87	46.83	103	1100110	26.8	80.7
18	0010001	0.54	13.75	61	0111100	3.01	47.63	104	1100111	28.3	81.48
19	0010010	0.57	14.55	62	0111101	3.16	48.4	105	1101000	29.85	82.28
20	0010011	0.58	15.33	63	0111110	3.32	49.19	106	1101001	31.51	83.04
21	0010100	0.59	16.12	64	0111111	3.48	49.97	107	1101010	33.25	83.84
22	0010101	0.62	16.91	65	1000000	3.67	50.77	108	1101011	35.11	84.64
23	0010110	0.64	17.7	66	1000001	3.85	51.55	109	1101100	37	85.42
24	0010111	0.67	18.48	67	1000010	4.04	52.34	110	1101101	39.13	86.21
25	0011000	0.69	19.28	68	1000011	4.24	53.12	111	1101110	41.3	86.98
26	0011001	0.72	20.05	69	1000100	4.47	53.92	112	1101111	43.6	87.77
27	0011010	0.73	20.85	70	1000101	4.71	54.7	113	1110000	46	88.56
28	0011011	0.76	21.64	71	1000110	4.95	55.49	114	1110001	48.6	89.34
29	0011100	0.78	22.42	72	1000111	5.2	56.27	115	1110010	51.3	90.14
30	0011101	0.81	23.2	73	1001000	5.47	57.07	116	1110011	54.18	90.92
31	0011110	0.84	24	74	1001001	5.76	57.85	117	1110100	57.2	91.71
32	0011111	0.87	24.78	75	1001010	6.07	58.65	118	1110101	60.4	92.49
33	0100000	0.92	25.58	76	1001011	6.39	59.42	119	1110110	63.8	93.28
34	0100001	0.94	26.35	77	1001100	6.73	60.21	120	1110111	67.35	94.08
35	0100010	0.98	27.15	78	1001101	7.1	61	121	1111000	71.1	94.88
36	0100011	1.02	27.92	79	1001110	7.47	61.8	122	1111001	75.1	95.64
37	0100100	1.06	28.72	80	1001111	7.87	62.58	123	1111010	79.28	96.44
38	0100101	1.1	29.51	81	1010000	8.3	63.38	124	1111011	83.71	97.2
39	0100110	1.15	30.3	82	1010001	8.75	64.15	125	1111100	88.4	97.97
40	0100111	1.2	31.08	83	1010010	9.21	64.95	126	1111101	93.35	98.76
41	0101000	1.23	31.88	84	1010011	9.71	65.73	127	1111110	98.58	99.53
42	0101001	1.3	32.65	85	1010100	10.24	66.51	128	1111111	100.0	100.0
43	0101010	1.34	33.45	86	1010101	10.8	67.3				

STANDALONE DYNAMIC RGBW	MODE(Pos 1-3)	Switches 4-12	
DYNAMIC Single color RGBW	1-1-1	X-X-X-X-X-X-X-0	Single color ramp; see graph below
DYNAMIC Single color RGBW	1-1-1	X-X-X-X-X-X-X-1	Mixed color ramp; see graph below



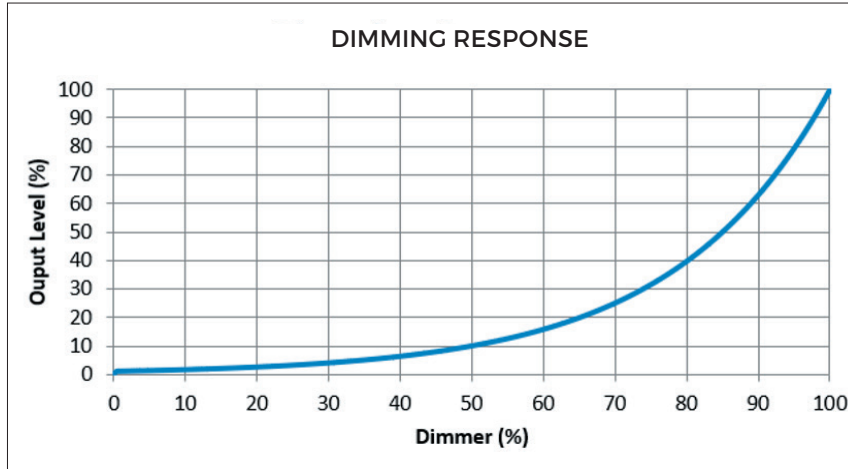
FIXED 32 COLORS AND INTENSITY SETTINGS

INTENSITY LEVEL	DIP SETTING POS 4-7	OUTPUT %
1	0-0-0-0	1
2	0-0-0-1	5
3	0-0-1-0	10
4	0-0-1-1	15
5	0-1-0-0	20
6	0-1-0-1	25
7	0-1-1-0	30
8	0-1-1-1	35
9	1-0-0-0	40
10	1-0-0-1	45
11	1-0-1-0	50
12	1-0-1-1	60
13	1-1-0-0	70
14	1-1-0-1	80
15	1-1-1-0	90
16	1-1-1-1	100

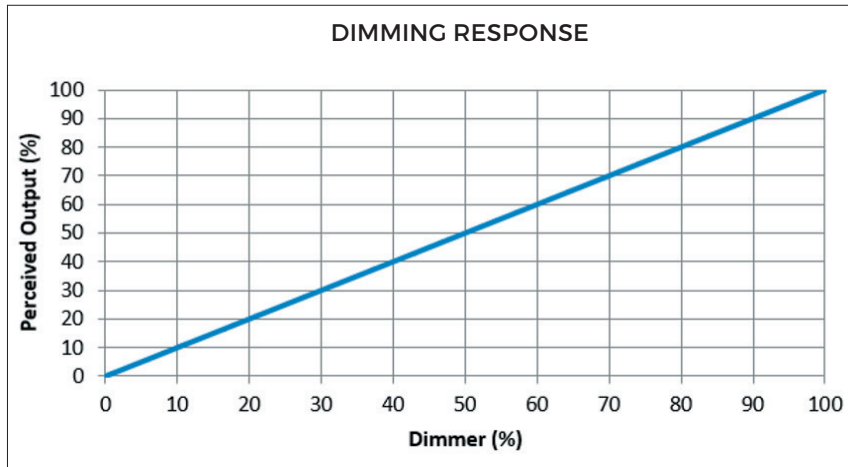
COLOR NUMBER	COLOR	DIP SETTING POS 8-12	RED DMX VALUE	GREEN DMX VALUE	BLUE DMX VALUE	WHITE DMX VALUE
1	PINK	0-0-0-0-0	255	5	24	0
2	LIGHT PINK	0-0-0-0-1	255	22	30	0
3	VIOLET	0-0-0-1-0	129	0	104	0
4	FUCSHIA (MAGENTA)	0-0-0-1-1	162	0	41	0
5	PLUM	0-0-1-0-0	39	0	92	0
6	ORCHID	0-0-1-0-1	179	0	98	0
7	ORANGE	0-0-1-1-0	255	15	0	0
8	SALMON	0-0-1-1-1	255	19	6	0
9	CORAL	0-1-0-0-0	255	9	6	0
10	LIGHT CORAL	0-1-0-0-1	255	9	6	25
11	YELLOW	0-1-0-1-0	255	63	0	0
12	LIGHT VIOLET	0-1-0-1-1	199	0	199	79
13	OLIVE	0-1-1-0-0	0	45	8	94
14	AQUAMARINE	0-1-1-0-1	0	255	157	0
15	SPRING GREEN	0-1-1-1-0	0	245	6	24
16	LIGHT SEA GREEN	0-1-1-1-1	0	255	64	0
17	LIME GREEN	1-0-0-0-0	30	200	0	0
18	PALE GREEN	1-0-0-0-1	45	255	6	18
19	TURQUOISE	1-0-0-1-0	0	146	58	0
20	ROYAL BLUE	1-0-0-1-1	24	5	176	0
21	SKY BLUE	1-0-1-0-0	0	93	255	0
22	CYAN	1-0-1-0-1	0	255	255	0
23	POWDER BLUE	1-0-1-1-0	75	224	230	0
24	SLATE BLUE	1-0-1-1-1	106	90	205	0
25	LAVENDER	1-1-0-0-0	221	13	228	0
26	AZURE	1-1-0-0-1	0	128	255	0
27	2700K	1-1-0-1-0	161	38	0	255
28	3000K	1-1-0-1-1	79	22	0	255
29	3500K	1-1-1-0-0	39	21	4	255
30	4000K	1-1-1-0-1	16	25	16	255
31	5000K	1-1-1-1-0	0	38	42	255
32	5700K	1-1-1-1-1	0	49	58	255

APPENDIX A: DIMMING VERSUS OUTPUT DUTY CYCLE FOR LOGARITHMIC AND LINEAR CURVE

DIMMING CURVE FOR LOG MODE



DIMMING CURVE FOR LIN MODE



TROUBLESHOOTING

CONTROLLER STATUS	MODE	LED STATUS	LOAD BEHAVIOR
OFF(No input power)	All	OFF	OFF
DMX Control Input Recognized	Standard	Green ON Steady	Responsive to DMX Commands
Standalone Recognized	Standalone	Alternate Amber/Green Slow(1 Hz)	Responsive only to DIP Switch Settings
DMX Control Input missing	All	Amber On Steady State	ALL colors at full ON, white color
DMX Shorted	Standard	Amber On Steady State	ALL colors at full ON, white color
Input Over Voltage	All	Amber Flashing Slow (1Hz)	OFF
Input Under Voltage	All	Amber Flashing Fast (8 Hz)	OFF
Output Short Circuit Common + to any R,G,B,W color	All	RED LED flashes at 1s rate	Load is OFF on shorted Channel All loads of the unit, except the shorted one, are flashing The rest of units in the installation remain responsive to DMX commands
Output short circuit between any two R,G,B,W	All	RED LED flashes at 1s rate	Color shorted is brighter, still DMX control
Output Overload		RED LED flashes at 1s rate	Loads Flash at 1s rate
DMX Disconnected during normal operation (D- or D+) from unit "n"	Standard	Amber LED on units with addresses > "n"	Units with addresses <n have loads flickering and units with addresses >n are at full ON and display amber LE

WARNING:

Each module treats the input controls available with the following priority:

1. Standalone (Fixed or Dynamic): If DIP Switch setting for one of these modes is selected, the module will ignore any other control input (Casambi, DMX) and operate according to the settings of the operational mode selected
2. Wireless (Casambi): When the wireless chip is installed in the Control Module all other inputs (DMX) are ignored even they are wired

PRODUCT SUPPORT

Contact Cooledge Technical Support at:

E apps.engineering@cooledgelighting.com

O +1.781.899.0317

T +1.844.455.4448 (toll free - North America)