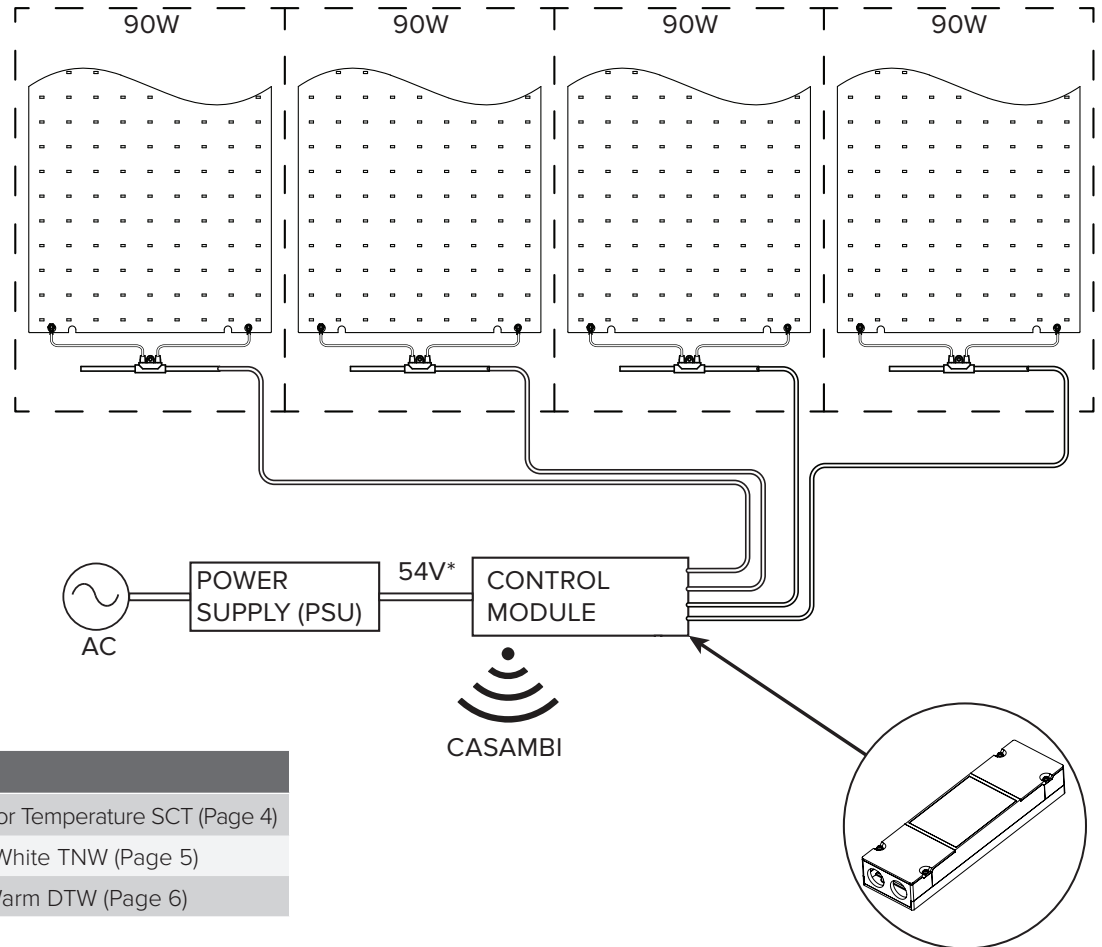


NOTE: This illustration shows a Static Color Temperature system. A Tunable White or Dim to Warm Lighting Control Module will be limited to a maximum of 2 channels of 90W each.



* For use with 54VDC power supplies ONLY.

Compatible Part No's	Mode
CTR-SCT-CAS-48/58V	Static Color Temperature SCT (Page 4)
CTR-TNW-CAS-48/58V	Tunable White TNW (Page 5)
CTR-DTW-CAS-48/58V	Dim-To-Warm DTW (Page 6)

 Control Module is suitable for use in dry locations only (IP20).

 Control Module and Power Supply 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:

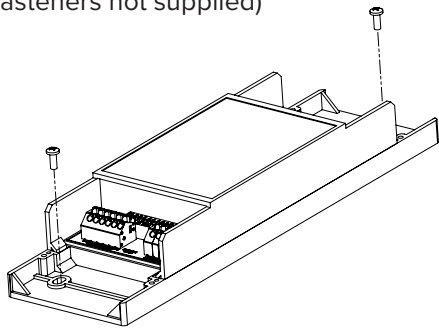
- (1) This device may not cause harmful interference.
- (2) This device must accept any interference received, including interference that may cause undesired operation.



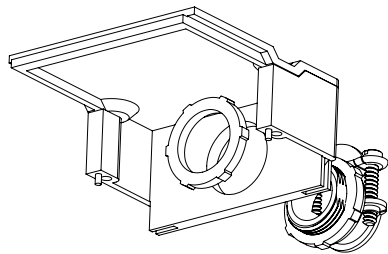
5 Year Limited Warranty:
Parts and workmanship

MOUNTING COOLEDGE CONTROL MODULE

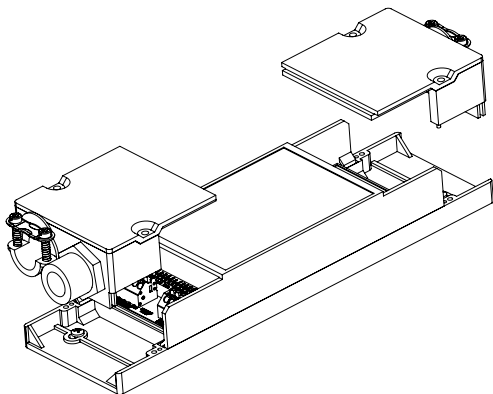
1) Fasten module in position by using the two mounting slots. (Fasteners not supplied)



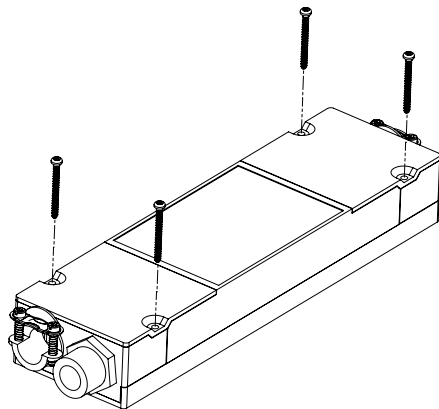
2) Terminal covers support 1/2” strain relief of conduit. Conduit or armoured cable must be used on power input cable.



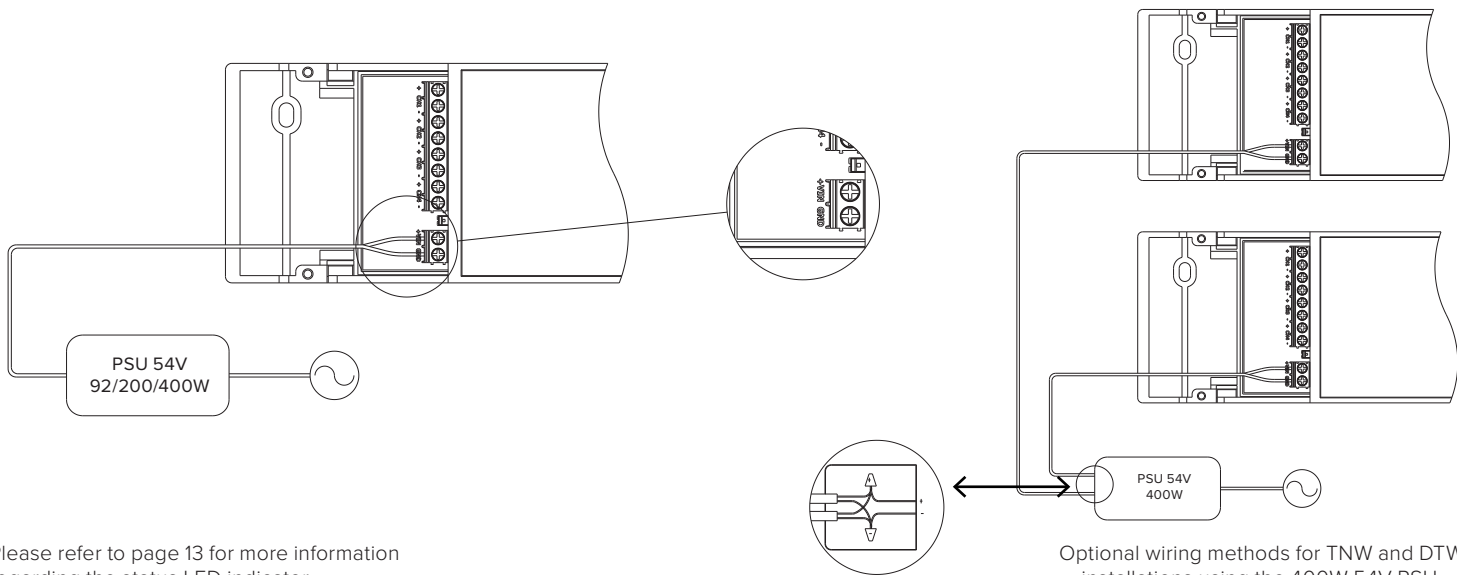
3) Thread cables through conduit/strain reliefs and covers; then make connections as required.



4) Snap covers in position and secure with provided fasteners. Tighten screws for strain reliefs.



INPUT POWER

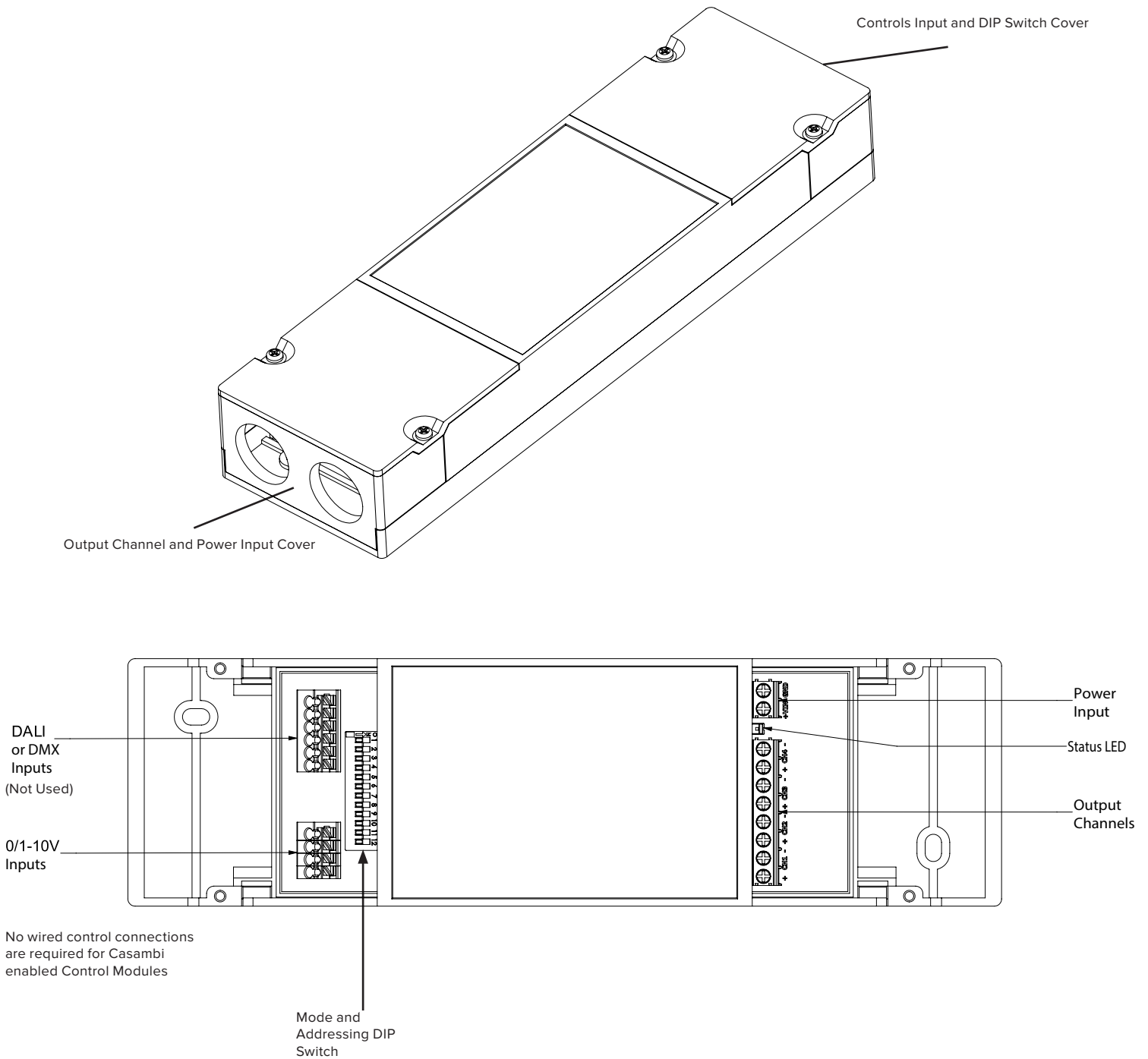


Please refer to page 13 for more information regarding the status LED indicator.

cUL Listed 54V	Control Module	92W PSU	200W PSU	400W PSU
Dimensions (in)	9.4 x 2.7 x 1.4	15.9 x 3.0 x 1.5	15.9 x 3.0 x 1.5	15.9 x 3.0 x 1.5
CE Compliant 54V	Control Module	92W PSU	200W PSU	400W PSU
Dimensions (mm)	240 x 68 x 36	404 x 77 x 39	404 x 77 x 39	404 x 77 x 39

INTRODUCTION TO COOLEDGE CONTROL MODULE

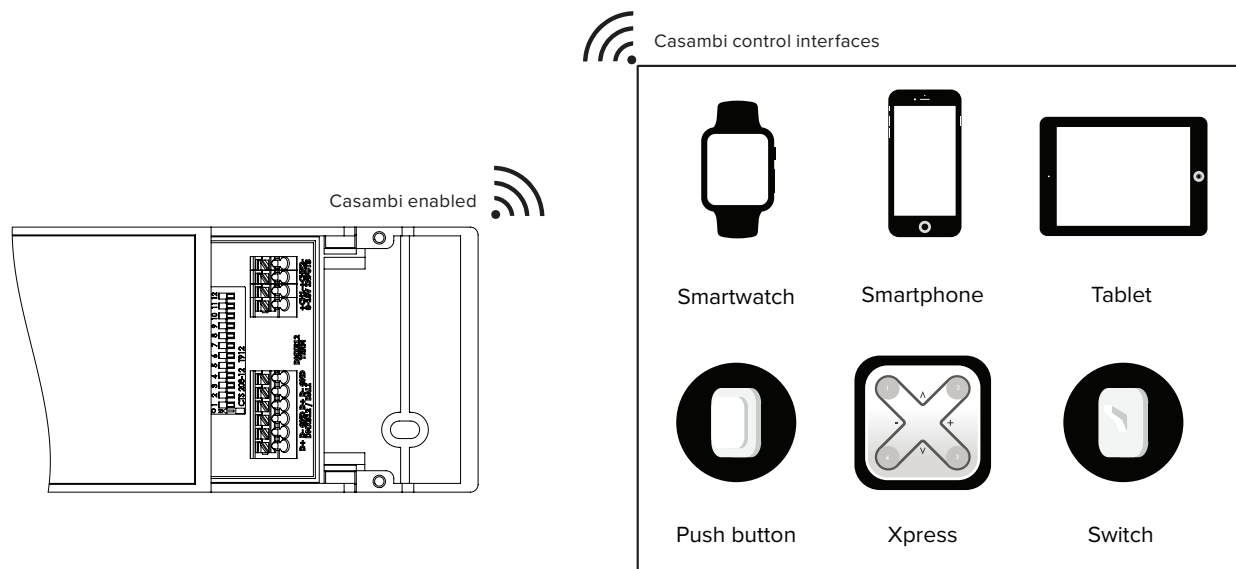
The Cooledge Control Module receives a single DC power input from a constant voltage 54V power supply and supplies it to up to 4 controlled output channels of max. 90W each. Input signals from 3rd party control interfaces are used to control dimming. The control protocol required to interface with the controller determines which Control Module product model is required: DALI (0/1-10V), DMX, or Wireless (Casambi). This guide will reference the Casambi model only.



To access the DIP switches for selecting the operational mode, remove controls input cover. 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.

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:

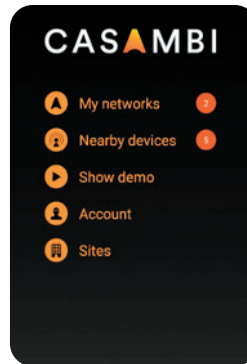


<https://support.casambi.com/support/solutions/articles/12000021612-first-time-casambi-app-use>
for additional information related to setting up and using Casambi

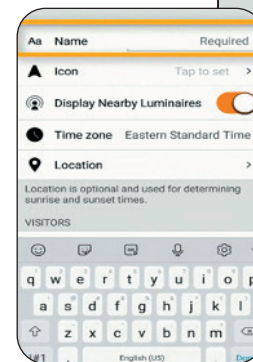
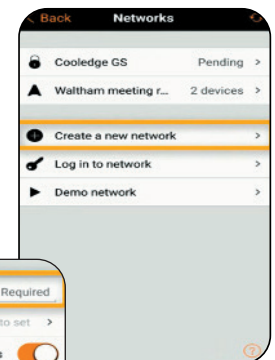
Download the CASAMBI APP



1. Create a New Network

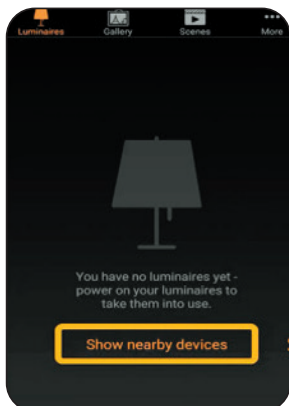


Select: "Create a new network"



Assign a name to the new network

2. Include new devices to the network:



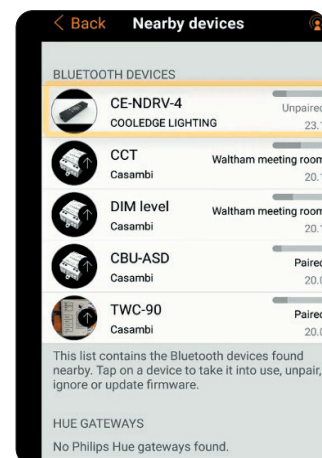
Search for nearby devices

3. Select a Profile

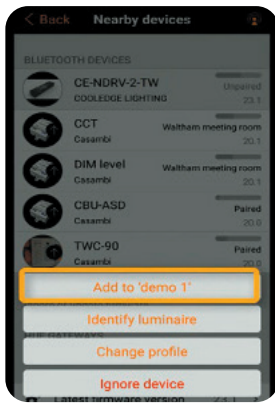
The Cooledge control module has 3 standard profiles and 1 custom profile:

- CE-NDRV-4 for Single Color Mode (SCT)
- CE-NDRV-2-TW for Tunable White Mode (TNW)
- CE-NDRV-2-DTW for Dim-to-Warm Mode (DTW)
- CE-NDRV-2-STW for Synchronized TNW (STW) - CUSTOM PROFILE

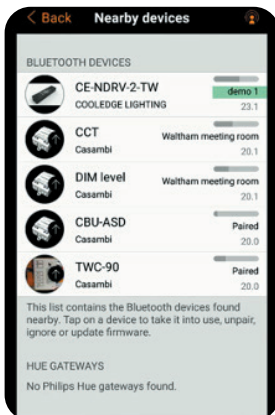
When accessing the controller shipped with one of the profiles listed above, the Casambi App will list your device as unpaired under "Nearby Devices". For example If your controller is a SCT Mode device, the list will show a CE-NDRV-4 profile as in the picture below:



4. Add device to the network:



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

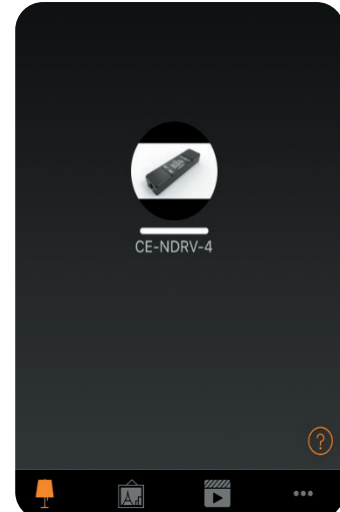


The device is now paired to the network

5. Control the paired unit

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

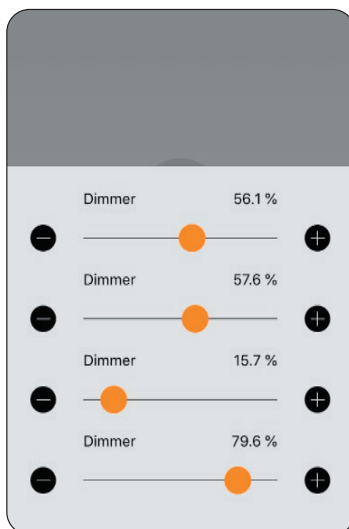
If CE-NDRV-4 has been added to the network, the APP will show as below:



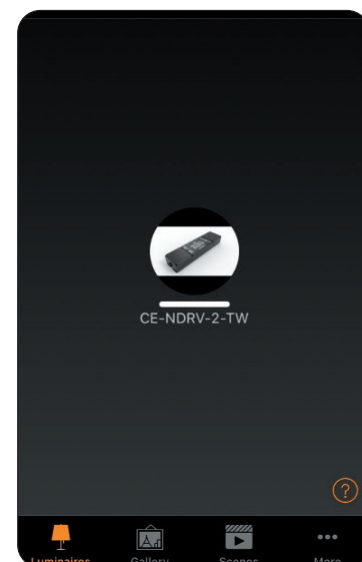
For this profile there are 4 available sliders to control the luminaires:

They are assigned as follows:

- For SCT CH1: Slider 1 "DIMMER"
- For SCT CH2: Slider 2 "DIMMER"
- For SCT CH3: Slider 3 "DIMMER"
- For SCT CH4: Slider 4 "DIMMER"



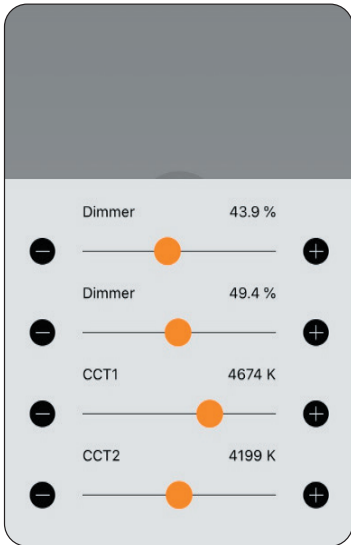
If CE-NDRV-2-TW has been added to the network, the APP will show as below:



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

They are assigned as follows:

- For TNW CH1:
Slider 1 “DIMMER” + Slider 3 “CCT1”
- For TNW CH2:
Slider 2 “DIMMER” + Slider 4 “CCT1”



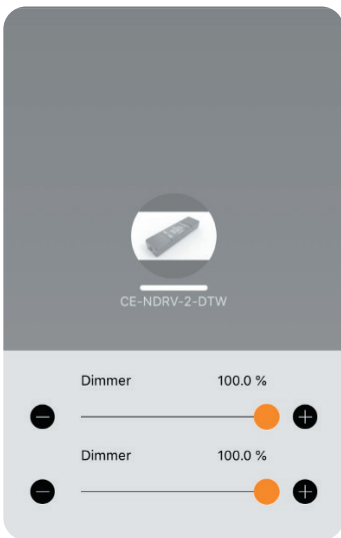
If CE-NDRV-2-DTW has been added to the network, the APP will show as below:



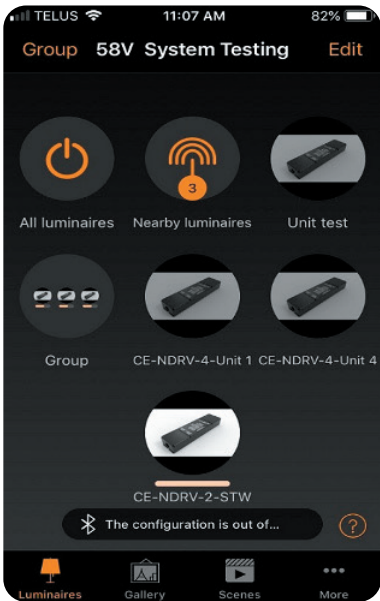
For this profile there are 2 available sliders to control the luminaires:

They are assigned as follows:

- For DTW CH1:
Slider 1 “DIMMER”
- For DTW CH2:
Slider 2 “DIMMER”



If CE-NDRV-2-STW has been added to the network, the APP will show as below:



For this profile there are 2 available sliders to enable the two TNW channels to work synchronized::

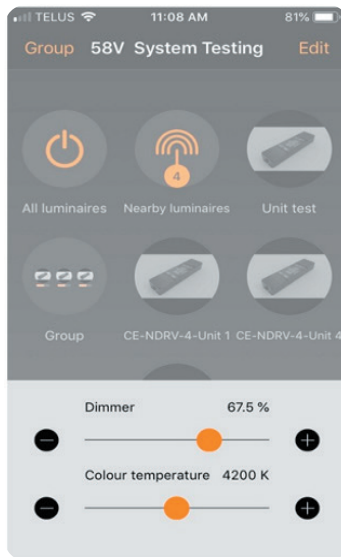
They are assigned as follows:

For both TNW CH1 and TNW CH2:

Slider 1 “DIMMER” controls the brightness synchronized for both TNW channels

For both TNW CH1 and TNW CH2:

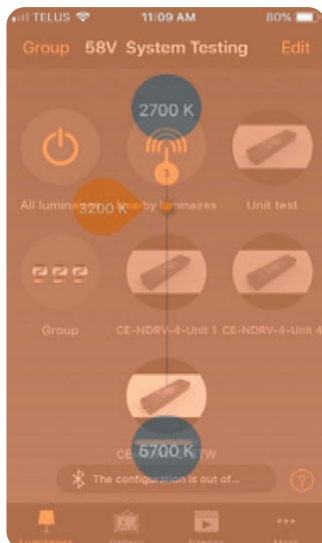
Slider 2 “CCT” controls the color synchronized for both TNW channels



Swiping horizontally on the device icon, a single Dim adjustable slider appears as shown below to allow synchronized control of the Dim level for both TNW channels of the unit:



Swiping vertically the device icon, a single CCT adjustable slider appears as shown below to allow synchronized control of the CCT value for both TNW channels of the unit:

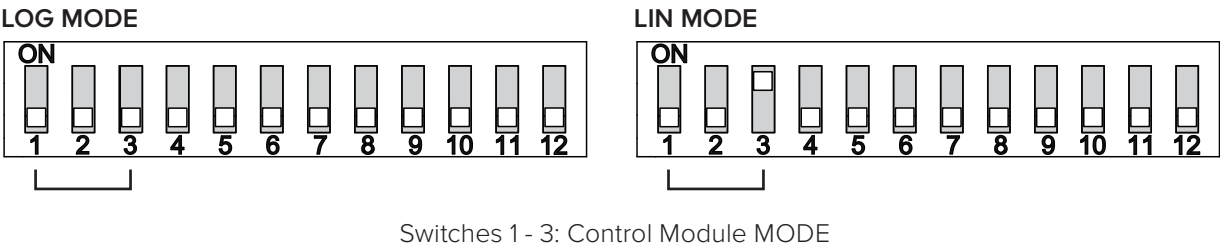


For additional information related to setting up and using Casambi for more features: groups, scenes, animations, timers, circadian profiles, sensors, switches, consult the “**Short User Guide to the Casambi App**” at: <https://casambi.com/static/datasheets/short-user-guide.pdf>

STATIC COLOR TEMPERATURE (SCT)

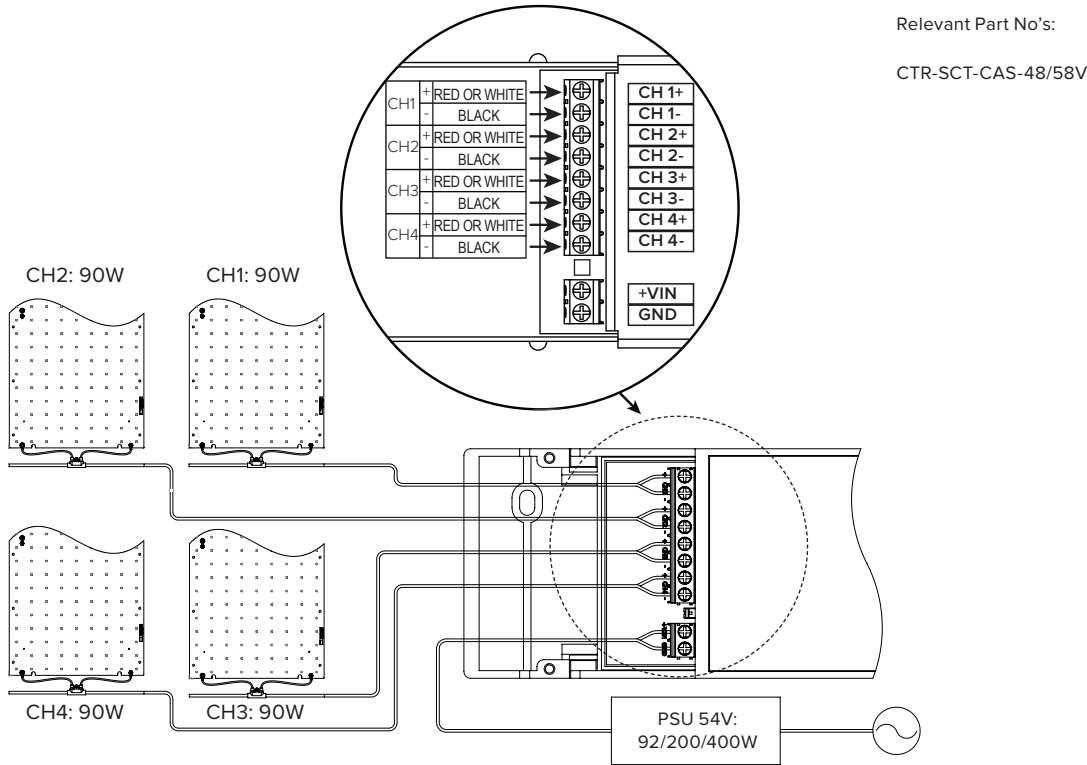
Static color temperature mode allows the control and dimming of 4 output channels, each up to 90W using the following Cooledge products: TILE interior and TILE Exterior. Two dimming curves are available and can be selected using DIP Switches.

CONTROL INPUTS



See APPENDIX A for available dimming curves.
Warning! Changing DIP Switch Setting must be performed only after unit is powered down.

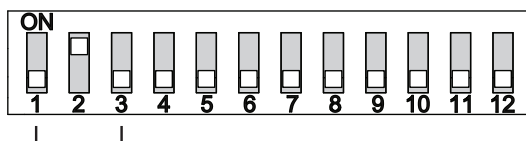
OUTPUT CONNECTIONS: STATIC COLOR TEMPERATURE (SCT)



TUNABLE WHITE (TNW)

Tunable White is a mode in the Control Module to be used in conjunction with TILE Tunable White. Powering a single Control Module in this mode can be done with 54V 92W/200W power supplies. A 400W power supply can be used, but must be connected to 2 Control Modules to avoid violating the 90W Class 2 power rating. Refer to the diagram on the bottom of page 2.

CONTROL INPUTS

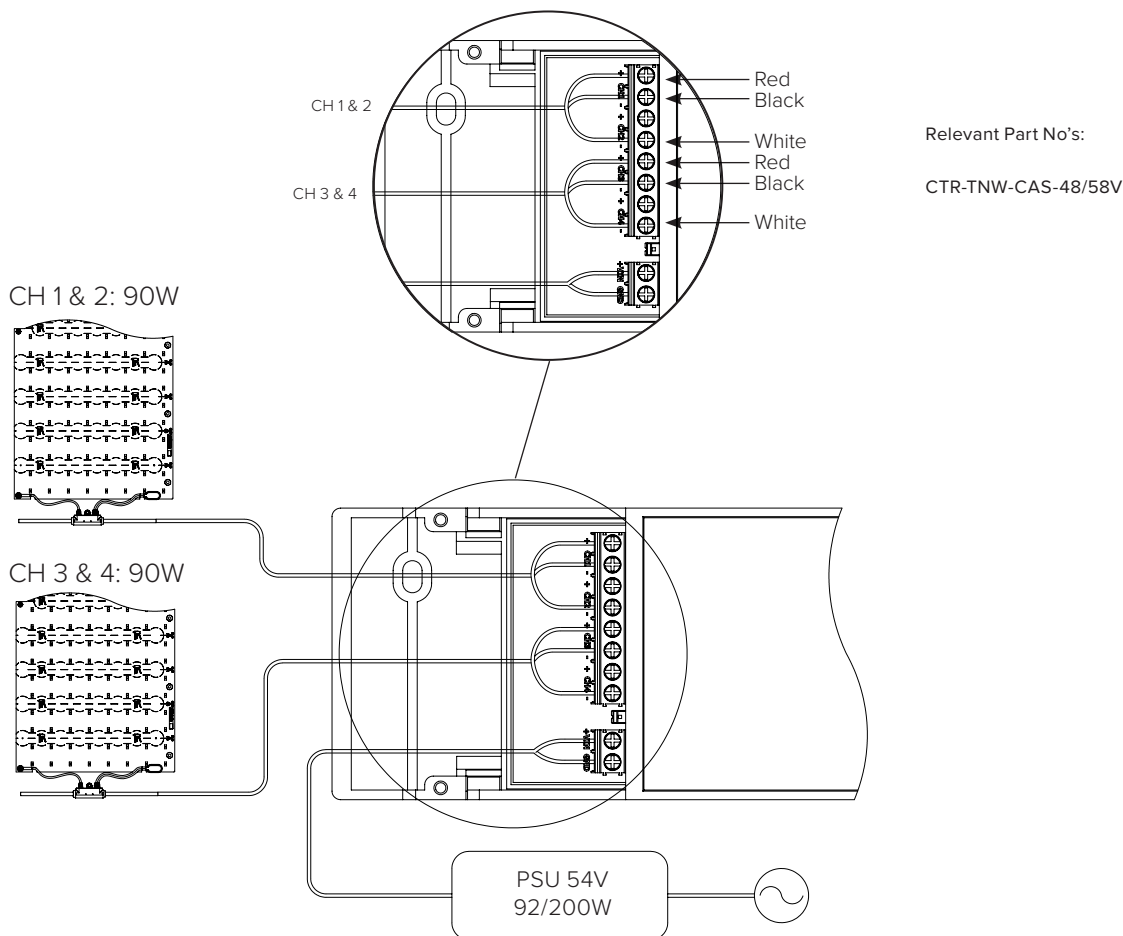


Switches 1 - 3: Control Module MODE

See dimming curve for Tunable White Mode in APPENDIX C.

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

OUTPUT CONNECTIONS: TUNABLE WHITE (TNW)

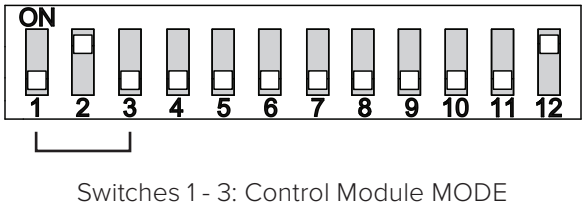


TNW SYNCHRONIZED OUTPUTS MODE

If this custom Casambi profile is activated the two TNW channels of a Smart Controller will be synchronized. This custom profile has only one Dimmer and one CCT slider and adjusting either one of these sliders will cause the corresponding change in Dim Level or CCT to both TNW outputs of the Smart Controller.

Furthermore, when more than one Smart Controller is grouped within the Casambi App and a user performs a press and hold of the group icon in the App, only one Dimmer and one CCT slider will appear, allowing all channels of all grouped Smart Controllers to be adjusted in a synchronized fashion. Additionally, when a user touches the Group icon and swipes horizontally a single horizontal Dim adjustment slider shall appear to allow synchronized control of the Dim level of all units in the Group. When swiping vertically over the Group icon a single CCT slider shall appear to allow synchronized control of the CCT of all units in the Group.

DIP SWITCH SETTING FOR TNW SYNCHRONIZED MODE

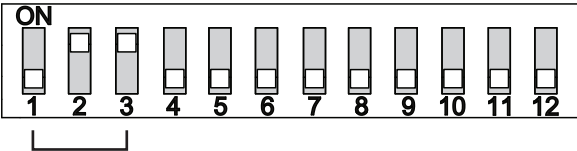


Dimming curves for STW MODE are in APPENDIX C.

DIM-TO-WARM (DTW)

Dim-to-Warm is a mode in the Control Module to be used in conjunction with the Dim-to-Warm option of TILE Tunable White. In this mode the CCT will adjust from 2200K at lowest dim setting to 3500K at the highest dim setting. Powering a single Control Module in this mode can done with 54V 92W/200W power supplies. A 400W power supply can be used, but must be connected to 2 Control Modules to avoid violating the 90W Class 2 power rating. Refer to the diagram on the bottom of page 2.

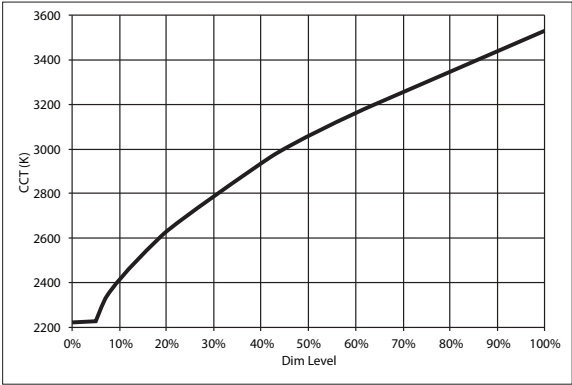
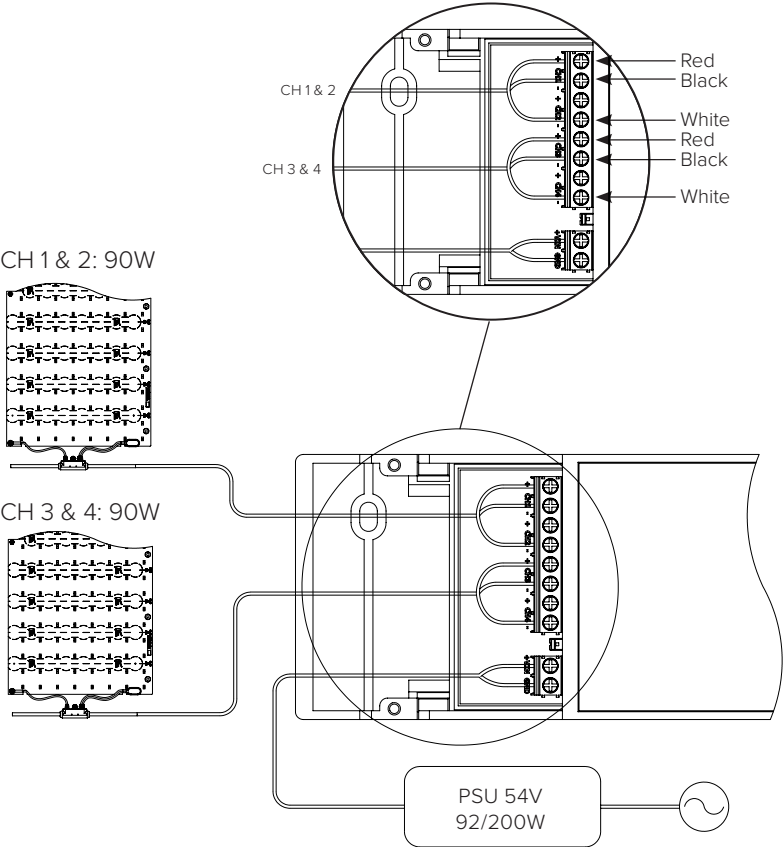
CONTROL INPUTS



Switches 1 - 3: Control Module MODE

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

OUTPUT CONNECTIONS: DIM-TO-WARM (DTW)



Dim Inputs vs CCT Output

Relevant Part No's:

CTR-DTW-CAS-48/58V

STANDALONE MODE

Standalone mode gives a pre-defined user -selectable fixed dimming. No external control input is required.

When one of the operational modes (Standalone or Dynamic Test) is selected through the DIP Switch setting, the module will ignore Casambi commands and operate according to the settings, in either LOG or LINEAR MODE.

STANDALONE SCT MODE

There are two modes that follow the dimming curves presented in Appendix B.

Standalone SCT	Mode Switches 1-3	Switches 4-12 (Intensity)
Fixed Dimming Level - LOG	1-0-0	X-X-X-X-X-X-X-0
Fixed Dimming Level - LINEAR	1-0-0	X-X-X-X-X-X-X-1

X = IGNORED

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

LOGARITMIC DIP SETTINGS/DIMMING LEVELS FOR STANDALONE SCT

Level	DIP SETTING	Output(%)	Level	DIP SETTING	Output(%)	Level	DIP SETTING	Output(%)	Level	DIP SETTING	Output(%)	Level	DIP SETTING	Output(%)
0	00000000	0	51	00110011	0.392	102	01100110	1.576	153	10011001	6.344	204	11001100	25.534
1	00000001	0.100	52	00110100	0.402	103	01100111	1.620	154	10011010	6.520	205	11001101	26.241
2	00000010	0.103	53	00110101	0.414	104	01101000	1.665	155	10011011	6.700	206	11001110	26.967
3	00000011	0.106	54	00110110	0.425	105	01101001	1.711	156	10011100	6.886	207	11001111	27.713
4	00000100	0.109	55	00110111	0.437	106	01101010	1.758	157	10011101	7.076	208	11010000	28.480
5	00000101	0.112	56	00111000	0.449	107	01101011	1.807	158	10011110	7.272	209	11010001	29.269
6	00000110	0.115	57	00111001	0.461	108	01101100	1.857	159	10011111	7.473	210	11010010	30.079
7	00000111	0.118	58	00111010	0.474	109	01101101	1.908	160	10100000	7.680	211	11010011	30.911
8	00001000	0.121	59	00111011	0.487	110	01101110	1.961	161	10100001	7.893	212	11010100	31.767
9	00001001	0.124	60	00111100	0.501	111	01101111	2.015	162	10100010	8.111	213	11010101	32.646
10	00001010	0.128	61	00111101	0.515	112	01110000	2.071	163	10100011	8.336	214	11010110	33.550
11	00001011	0.131	62	00111110	0.529	113	01110001	2.128	164	10100100	8.567	215	11010111	34.479
12	00001100	0.135	63	00111111	0.543	114	01110010	2.187	165	10100101	8.804	216	11011000	35.433
13	00001101	0.139	64	01000000	0.559	115	01110011	2.248	166	10100110	9.047	217	11011001	36.414
14	00001110	0.143	65	01000001	0.574	116	01110100	2.310	167	10100111	9.298	218	11011010	37.422
15	00001111	0.147	66	01000010	0.590	117	01110101	2.374	168	10101000	9.555	219	11011011	38.457
16	00010000	0.151	67	01000011	0.606	118	01110110	2.440	169	10101001	9.820	220	11011100	39.522
17	00010001	0.155	68	01000100	0.623	119	01110111	2.507	170	10101010	10.091	221	11011101	40.616
18	00010010	0.159	69	01000101	0.640	120	01111000	2.577	171	10101011	10.371	222	11011110	41.740
19	00010011	0.163	70	01000110	0.658	121	01111001	2.648	172	10101100	10.658	223	11011111	42.895
20	00010100	0.168	71	01000111	0.676	122	01111010	2.721	173	10101101	10.953	224	11100000	44.083
21	00010101	0.173	72	01001000	0.695	123	01111011	2.797	174	10101110	11.256	225	11100001	45.303
22	00010110	0.177	73	01001001	0.714	124	01111100	2.874	175	10101111	11.568	226	11100010	46.557
23	00010111	0.182	74	01001010	0.734	125	01111101	2.954	176	10110000	11.888	227	11100011	47.846
24	00011000	0.187	75	01001011	0.754	126	01111110	3.035	177	10110001	12.217	228	11100100	49.170
25	00011001	0.193	76	01001100	0.775	127	01111111	3.119	178	10110010	12.555	229	11100101	50.531
26	00011010	0.198	77	01001101	0.796	128	10000000	3.206	179	10110011	12.902	230	11100110	51.930
27	00011011	0.203	78	01001110	0.819	129	10000001	3.294	180	10110100	13.260	231	11100111	53.367
28	00011100	0.209	79	01001111	0.841	130	10000010	3.386	181	10110101	13.627	232	11101000	54.844
29	00011101	0.215	80	01010000	0.864	131	10000011	3.479	182	10110110	14.004	233	11101001	56.362
30	00011110	0.221	81	01010001	0.888	132	10000100	3.576	183	10110111	14.391	234	11101010	57.922
31	00011111	0.227	82	01010010	0.913	133	10000101	3.675	184	10111000	14.790	235	11101011	59.526
32	00100000	0.233	83	01010011	0.938	134	10000110	3.776	185	10111001	15.199	236	11101100	61.173
33	00100001	0.240	84	01010100	0.964	135	10000111	3.881	186	10111010	15.620	237	11101101	62.866
34	00100010	0.246	85	01010101	0.991	136	10001000	3.988	187	10111011	16.052	238	11101110	64.607
35	00100011	0.253	86	01010110	1.018	137	10001001	4.099	188	10111100	16.496	239	11101111	66.395
36	00100100	0.260	87	01010111	1.047	138	10001010	4.212	189	10111101	16.953	240	11110000	68.233
37	00100101	0.267	88	01011000	1.076	139	10001011	4.329	190	10111110	17.422	241	11110001	70.121
38	00100110	0.275	89	01011001	1.105	140	10001100	4.449	191	10111111	17.905	242	11110010	72.062
39	00100111	0.282	90	01011010	1.136	141	10001101	4.572	192	11000000	18.400	243	11110011	74.057
40	00101000	0.290	91	01011011	1.167	142	10001110	4.698	193	11000001	18.909	244	11110100	76.107
41	00101001	0.298	92	01011100	1.200	143	10001111	4.828	194	11000010	19.433	245	11110101	78.213
42	00101010	0.306	93	01011101	1.233	144	10010000	4.962	195	11000011	19.971	246	11110110	80.378
43	00101011	0.315	94	01011110	1.267	145	10010001	5.099	196	11000100	20.524	247	11110111	82.603
44	00101100	0.324	95	01011111	1.302	146	10010010	5.240	197	11000101	21.092	248	11111000	84.889
45	00101101	0.332	96	01100000	1.338	147	10010011	5.385	198	11000110	21.675	249	11111001	87.239
46	00101110	0.342	97	01100001	1.375	148	10010100	5.535	199	11000111	22.275	250	11111010	89.654
47	00101111	0.351	98	01100010	1.413	149	10010101	5.688	200	11001000	22.892	251	11111011	92.135
48	00110000	0.361	99	01100011	1.452	150	10010110	5.845	201	11001001	23.526	252	11111100	94.686
49	00110001	0.371	100	01100100	1.492	151	10010111	6.007	202	11001010	24.177	253	11111101	97.307
50	00110010	0.381	101	01100101	1.534	152	10011000	6.173	203	11001011	24.846	254	11111110	100.000

LINEAR DIP SETTINGS/DIMMING LEVELS FOR STANDALONE SCT

Level	DIP	SETTING	Output (%)	Level	DIP	SETTING	Output (%)	Level	DIP	SETTING	Output (%)	Level	DIP	SETTING	Output (%)	Level	DIP	SETTING	Output (%)
0	00000000		0	51	00110011		20.1	102	01100110		40.2	153	10011001		60.2	204	11001100		80.3
1	00000001		0.4	52	00110100		20.5	103	01100111		40.6	154	10011010		60.6	205	11001101		80.7
2	00000010		0.8	53	00110101		20.9	104	01101000		40.9	155	10011011		61.0	206	11001110		81.1
3	00000011		1.2	54	00110110		21.3	105	01101001		41.3	156	10011100		61.4	207	11001111		81.5
4	00000100		1.6	55	00110111		21.7	106	01101010		41.7	157	10011101		61.8	208	11010000		81.9
5	00000101		2.0	56	00111000		22.0	107	01101011		42.1	158	10011110		62.2	209	11010001		82.3
6	00000110		2.4	57	00111001		22.4	108	01101100		42.5	159	10011111		62.6	210	11010010		82.7
7	00000111		2.8	58	00111010		22.8	109	01101101		42.9	160	10100000		63.0	211	11010011		83.1
8	00001000		3.1	59	00111011		23.2	110	01101110		43.3	161	10100001		63.4	212	11010100		83.5
9	00001001		3.5	60	00111100		23.6	111	01101111		43.7	162	10100010		63.8	213	11010101		83.9
10	00001010		3.9	61	00111101		24.0	112	01110000		44.1	163	10100011		64.2	214	11010110		84.3
11	00001011		4.3	62	00111110		24.4	113	01110001		44.5	164	10100100		64.6	215	11010111		84.6
12	00001100		4.7	63	00111111		24.8	114	01110010		44.9	165	10100101		65.0	216	11011000		85.0
13	00001101		5.1	64	01000000		25.2	115	01110011		45.3	166	10100110		65.4	217	11011001		85.4
14	00001110		5.5	65	01000001		25.6	116	01110100		45.7	167	10100111		65.7	218	11011010		85.8
15	00001111		5.9	66	01000010		26.0	117	01110101		46.1	168	10101000		66.1	219	11011011		86.2
16	00010000		6.3	67	01000011		26.4	118	01110110		46.5	169	10101001		66.5	220	11011100		86.6
17	00010001		6.7	68	01000100		26.8	119	01110111		46.9	170	10101010		66.9	221	11011101		87.0
18	00010010		7.1	69	01000101		27.2	120	01111000		47.2	171	10101011		67.3	222	11011110		87.4
19	00010011		7.5	70	01000110		27.6	121	01111001		47.6	172	10101100		67.7	223	11011111		87.8
20	00010100		7.9	71	01000111		28.0	122	01111010		48.0	173	10101101		68.1	224	11100000		88.2
21	00010101		8.3	72	01000100		28.3	123	01111011		48.4	174	10101110		68.5	225	11100001		88.6
22	00010110		8.7	73	01000101		28.7	124	01111100		48.8	175	10101111		68.9	226	11100010		89.0
23	00010111		9.1	74	010001010		29.1	125	01111101		49.2	176	10110000		69.3	227	11100011		89.4
24	00011000		9.4	75	010001011		29.5	126	01111110		49.6	177	10110001		69.7	228	11100100		89.8
25	00011001		9.8	76	010001100		29.9	127	01111111		50.0	178	10110010		70.1	229	11100101		90.2
26	00011010		10.2	77	010001101		30.3	128	10000000		50.4	179	10110011		70.5	230	11100110		90.6
27	00011011		10.6	78	010001110		30.7	129	10000001		50.8	180	10110100		70.9	231	11100111		90.9
28	00011100		11.0	79	010001111		31.1	130	100000010		51.2	181	10110101		71.3	232	11101000		91.3
29	00011101		11.4	80	010100000		31.5	131	100000011		51.6	182	10110110		71.7	233	11101001		91.7
30	00011110		11.8	81	010100001		31.9	132	100000100		52.0	183	10110111		72.0	234	11101010		92.1
31	00011111		12.2	82	010100010		32.3	133	100000101		52.4	184	10111000		72.4	235	11101011		92.5
32	00100000		12.6	83	010100011		32.7	134	100000110		52.8	185	10111001		72.8	236	11101100		92.9
33	00100001		13.0	84	010101000		33.1	135	100000111		53.1	186	10111010		73.2	237	11101101		93.3
34	00100010		13.4	85	010101001		33.5	136	100001000		53.5	187	10111011		73.6	238	11101110		93.7
35	00100011		13.8	86	010101100		33.9	137	100001001		53.9	188	10111100		74.0	239	11101111		94.1
36	00100100		14.2	87	010101101		34.3	138	100001010		54.3	189	10111101		74.4	240	11110000		94.5
37	00100101		14.6	88	010110000		34.6	139	100001011		54.7	190	10111110		74.8	241	11110001		94.9
38	00100110		15.0	89	010110001		35.0	140	100001100		55.1	191	10111111		75.2	242	11110010		95.3
39	00100111		15.4	90	010110100		35.4	141	100001101		55.5	192	11000000		75.6	243	11110011		95.7
40	00101000		15.7	91	010110101		35.8	142	100001110		55.9	193	110000001		76.0	244	11110100		96.1
41	00101001		16.1	92	010111000		36.2	143	100001111		56.3	194	110000010		76.4	245	11110101		96.5
42	00101010		16.5	93	010111001		36.6	144	100100000		56.7	195	110000011		76.8	246	11110110		96.9
43	00101011		16.9	94	010111100		37.0	145	100100001		57.1	196	110000100		77.2	247	11110111		97.2
44	00101100		17.3	95	010111101		37.4	146	100100010		57.5	197	110000101		77.6	248	11111000		97.6
45	00101101		17.7	96	011000000		37.8	147	100100011		57.9	198	110000110		78.0	249	11111001		98.0
46	00101110		18.1	97	011000001		38.2	148	100101000		58.3	199	110000111		78.3	250	11111010		98.4
47	00101111		18.5	98	011000010		38.6	149	100101001		58.7	200	110001000		78.7	251	11111011		98.8
48	00110000		18.9	99	011000011		39.0	150	100101010		59.1	201	110001001		79.1	252	11111100		99.2
49	001100001		19.3	100	011000100		39.4	151	100101011		59.4	202	110001010		79.5	253	11111101		99.6
50	001100010		19.7	101	011000101		39.8	152	100110000		59.8	203	110001011		79.9	254	11111110		100.0

Standalone TNW/DTW Chart	Mode Switch 1-3	Switches 4-7 (Intensity)	Switches 8-12 (CCT)
Fixed Output - TNW	1-1-0	X-X-X-X	X-X-X-X-0
Fixed Output - DTW	1-1-0	X-X-X-X	X-X-X-X-1

X = IGNORED

Use the following charts for selecting the fixed output levels for TNW and DTW. Minimum dimming level for TNW is 1%, levels 0-5* will result in 1% intensity for TNW. When using DTW in Standalone mode switches 8-11 are ignored as CCT is not independently adjustable in DTW, the selected intensity will determine the CCT according to Figure 7.

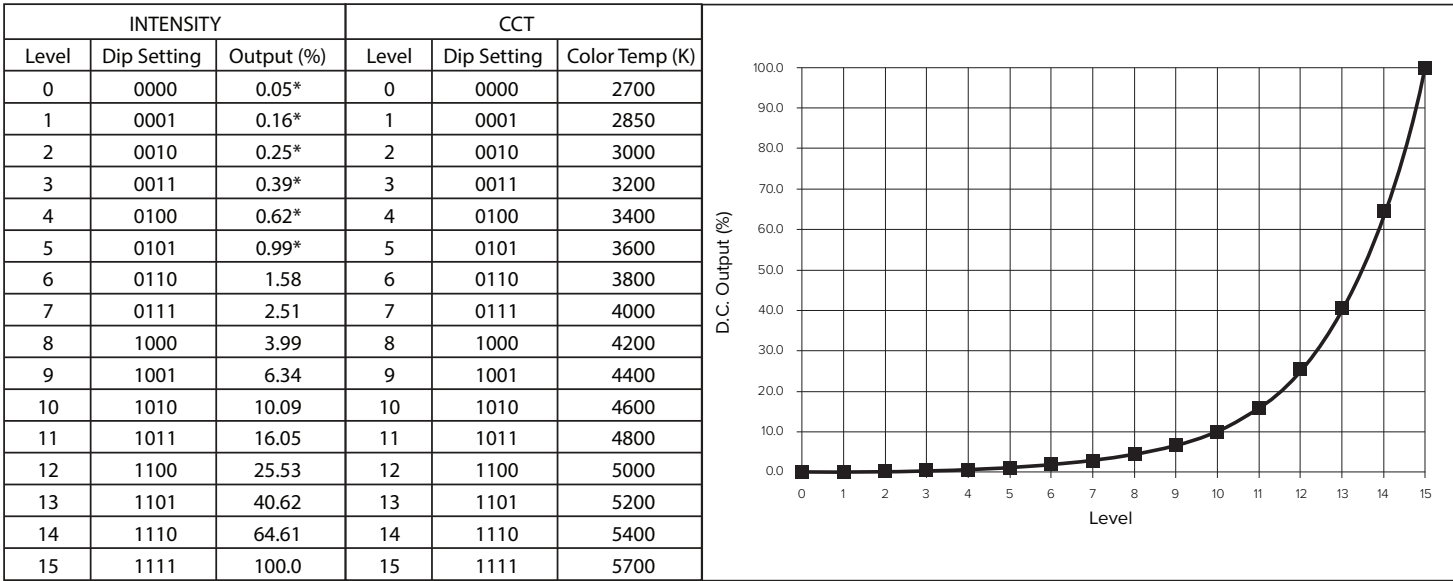


Figure 7: Intensity and CCT selection chart (LEFT), level and output chart (RIGHT)

DYNAMIC TEST MODE

Dynamic test mode is used to check the system functionality. This mode will ignore control inputs and cycle through the output range.

Standalone SCT	Mode Switches 1-3	Switches 4-12
Dynamic Dimming Level Test (SCT)	1-0-1	IGNORED
Dynamic Color Tune Test (TNW)	1-1-1	IGNORED
Dynamic Dim-to-Warm Test (DTW)	1-1-1	IGNORED

Dynamic test SCT mode:
Outputs operate in standard configuration with the output duty cycle of all 4 channels matching. Output duty cycle starts from 0% and ramps linearly up to 100% output, then ramps back down to 0% and repeats indefinitely with a period of 5 seconds.

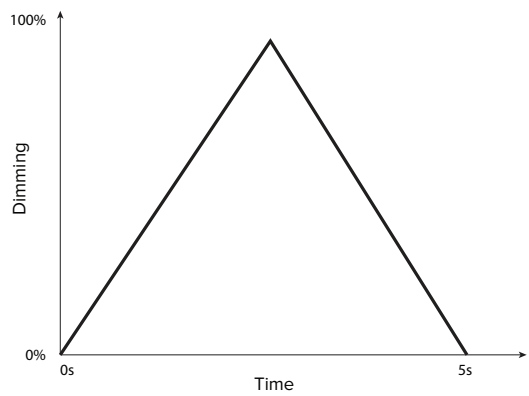


Figure 2: SCT Dynamic test mode output range

Dynamic test TNW/DTW mode:
This test mode is only applicable for TNW and DTW TILES. Output duty cycle starts with the COOL LEDs (TNW=5700K, DTW=3500K) raising their intensity from 0% to 100% then decreasing to 0%. Next the WARM LEDs (TNW=2700K, DTW=2200K) raise intensity from 0% to 100% then decrease to 0%. This cycle repeats indefinitely with a period of 10 seconds.

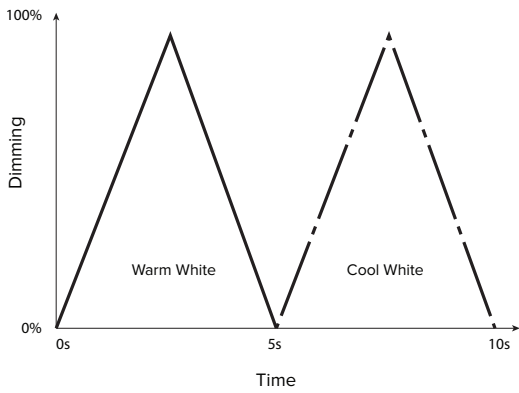
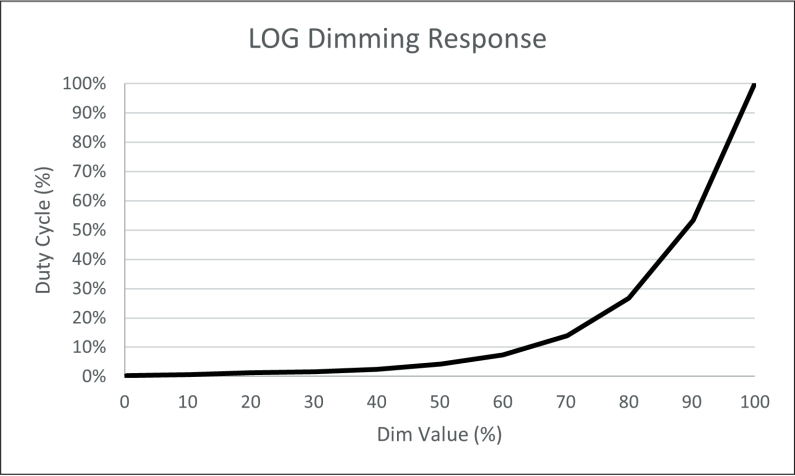
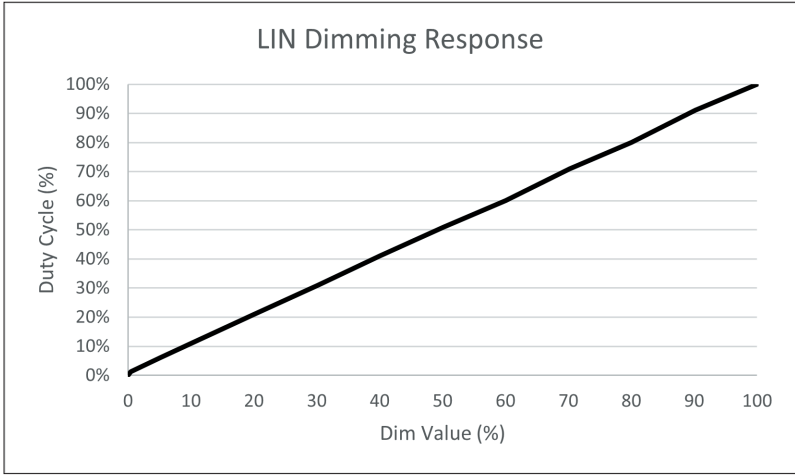


Figure 3: TNW/DTW Dynamic test mode output graph

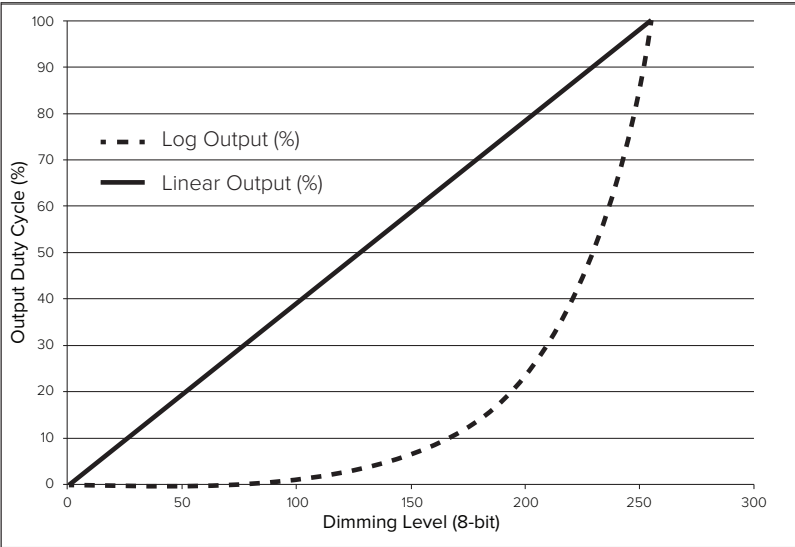
APPENDIX A: DIMMING CURVES
LOGARITHMIC DIMMING



LINEAR DIMMING



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



TROUBLESHOOTING

CONTROLLER STATUS	MODE	LED STATUS	LOAD BEHAVIOR
OFF (No Input Power)	All	OFF	OFF
CASAMBI Control Input Recognized	All except Standalone	Green Flashing Fast (8 Hz)	Responsive to CASAMBI commands
Standalone Recognized	Standalone	Alternate Amber/Green Slow (1 Hz)	Responsive only to DIP switch setting
No Control Input (wireless card missing)	All	Amber On Steady State	Full ON
Input Over Voltage	All	Amber Flashing Slow (1Hz)	OFF
Input Under Voltage	All	Amber Flashing Fast (8 Hz)	OFF
Output Short Circuit V+ to V-	All, and DIM voltage V<9.5V	Red Flashing with Intermittent Green	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 CASAMBI commands
Output Short Circuit V+ to V-	All, and DIM voltage V>9.5V	Red Flashing with Intermittent Amber	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 CASAMBI commands
Output Short Circuit to V+	TNW/DTW Dim Input Control set to V<9.5V	Red Flashing with Intermittent Green	Load is OFF on shorted Side of TNW Channel All other loads of the unit, except the shorted one, are flashing The rest of units in the installation remain responsive to CASAMBI commands
Output Short Circuit to V+	TNW/DTW Dim Input Control set to V>9.5V	Red Flashing with Intermittent Amber	Load is OFF on shorted Side of TNW Channel All other loads of the unit, except the shorted one, are flashing The rest of units in the installation remain responsive to CASAMBI commands
Output Overload	All	Red Flashing	Overloaded channel dimmed and flashing at 1s constant rate All other loads of the unit remain responsive to CASAMBI commands

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, 0-10V, DALI) 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 (0-10V and DALI) are ignored even they are wired
3. DALI: If the control module receives a DALI input, it will operate according to the DALI commands it receives, and 0-10V input will be ignored even it is wired
4. 0-10V: If the module has not installed Casambi card and no DALI control wired

PRODUCT SUPPORT

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