Dimming Controls and Fixture Loads

This paper details the driving characteristics of the available MedLux® color and dimming controls. Also detailed is the number of fixtures that can be run by a single controller. All outputs are specialized pulse width modulated (PWM) DC levels. Except for the ECL-49-KIT, which is a signal level BCD code. The ECL-49-KIT must operate in conjunction with an ECL-42-02 Driver Module.

Dim/Color Control Model	Everbrite Part Number	Input Voltage	Output Voltage	Output Current
Monochrome Dimmer	ECL-53-CR	16VAC or 12-24VDC	12DC	100mA
Monochrome Booster	ECL-54-BOOST	15VDC	12DC	250mA
XLIM 0-10V Interface	XLIM-16-00	16VAC or 12-24VDC	12VDC	100mA
RGB Keypad (old)	ECL-47-KIT	16VAC or 15-24VDC	12VDC	100mA
RGB Keypad (new-BCD)	ECL-49-KIT	N/A	N/A	N/A
Driver Module (RGB)	ECL-42-01/-02	120VAC	20VDC	250mA

Note: RGB controls have three output channels at the declared 250mA specification. If you add an ECL-54-BOOST to a monochrome installation, you will have a 250mA drive as well. The ECL-54-BOOST can be added to a ECL-53-CR or a XLIM-16-00 if needed.

Various fixture types present different loading on the dim/color control line(s). So, the number of fixture types that can be driven by a single control also varies. We use 80% loading for calculating our recommended number of fixtures on a control.

Fixture Type	Everbrite Part Number	Load per Fixture	Maximum # Fixtures	Comments
XLS Downlight	XLS-x.x	4mA	20	Mono Dimmer or XLIM
Ceiling GPI 2x2	GC4S(F)(N)2201	1mA	80	Mono Dimmer or XLIM
Ceiling GPI 2x4	GC4S(F)(N)2401	2mA	40	Mono Dimmer or XLIM
Ceiling GPI 4x4	GC4S(F)(N)4401	4mA	20	Mono Dimmer or XLIM
Wall GPI 2x2	GW4SF0202	5.4mA	15	Mono Dimmer or XLIM
Wall GPI 2x4	GW4SF0204	10.8mA	8	Mono Dimmer or XLIM
Wall GPI 4x4	GW4SF0404	21.6mA	4	Mono Dimmer or XLIM
CC Troffer 2x2	CCT22	6mA	33	With an ECL-42-xx Driver
CC Troffer 2x4	CCT24	12mA	15	With an ECL-42-xx Driver
CC Troffer 4x4	CCT44	24mA	8	With an ECL-42-xx Driver
Cove 6,12,18"	MCL-xxx-06 -12-18	1mA	80/200	Mono/RGB
Cove 36"	MCL-xxx-36	2mA	40/100	Mono/RGB
Cove 48"	MCL-xxx-48	3mA	20/50	Mono/RGB
Cove 72"	MCL-xxx-72	4mA	10/25	Mono/RGB

Note: When Cove sizes are mixed, add up the loads per fixture and divide that into 80mA for monochrome or 200mA for RGB, in order to figure out the maximum number of fixtures.