



CROMOLUX™

Dynamic Lighting Gateway

Control low voltage Lucetta CI fixtures and seamlessly integrate with the most popular control systems. The gateway contains an on-board library of calibrated profiles that take full advantage of Lucetta CI dynamic linear solutions, streamlining setup and maximizing color rendering and mixing.

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System Notes

- Each Lutron system can support up to 254 **CROMOLUX Dynamic Lighting Gateways**, each with its own IP address.
- Make sure the NOTIFY feature of the CROMOLUX gateway is set to AUTO.
- Compatible Lutron systems included in this guide are **HomeWorks QSX**, **RadioRA3**, and **Athena** using Lutron Designer software.
- Important! Read before proceeding:**
 - Ensure that all dynamic load zones have been configured in the CROMOLUX gateway. See the **CROMOLUX Setup Guide** for instructions. It is recommended to have a list of dynamic zones and their ### ID before setting up the Lutron LEAP Integration Table.
 - To control CROMOLUX dynamic lighting loads, the project must include either (a) activated Ketra (full-color tunable) or Lumaris (tunable white) loads, or (b) phantom dimmer loads used to map control of the Intensity, CCT, Hue, and Saturation parameters via LEAP. See **SECTION 2** for details on this requirement.

SECTION 1 – Setup Gateway & Controller Comm.

Note that one Gateway Driver is needed for each physical **CROMOLUX Dynamic Lighting Gateway** in the system, and one Load Driver is needed for each dynamic lighting zone (Tunable White or RGBW+) in the project. If there are multiple CROMOLUX gateways in the system, it is advised to complete the following steps for one gateway then repeat the steps for each additional gateway. Determine the IP address of the **CROMOLUX Dynamic Lighting Gateway**.

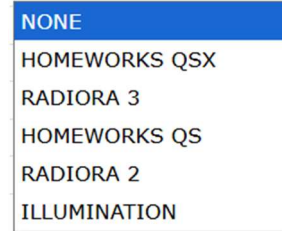
- Each CROMOLUX gateway must be set up with a Static IP address before proceeding with the integration steps. Remember to click the **Restart** button in the CROMOLUX configuration page after designating an IP change from DHCP to Static. See the CROMOLUX Setup Guide for more information.
- From within the CROMOLUX browser Settings page, select the Lutron page tab.



- In the Settings tab of the Lutron page, define the properties to match the system being used.

Settings	
Properties	Disconnected
SYSTEM	NONE
ADAPTOR_IP	255.255.255.255
CONNECTION	DISABLE
LOGIN	
PASSWORD	
QSX SYNC	ENABLE

- SYSTEM** – Select the appropriate control system.

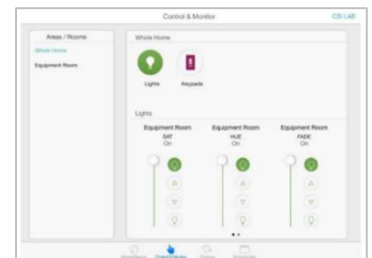


- ADAPTER_IP** – Enter the address of the Lutron processor.
 - CONNECTION** – Only set this to ENABLE after all other fields have been populated.
 - LOGIN** – As created within the Lutron setup software.
 - PASSWORD** – As created within the Lutron setup software.
 - QSX SYNC** – This should be set to ENABLE.
- After setting CONNECTION to ENABLE, the Disconnected status will change to Connected and then you may proceed to the next step.

SECTION 2 – Using Lutron Phantom Devices

Any Lutron device that will need to be "listened to" to control any activity within the CROMOLUX environment will need to be populated within the CROMOLUX/Lutron/Devices tab.

- For HomeWorks QSX and RA3 systems, there are two options for controlling CROMOLUX dynamic lighting zones:
 - Mirroring Ketra and Lumaris tunable white loads (this method preserves full app control).
 - Using phantom dimmers to control luminaire attributes (this method limits app control to using sliders only).
- When setting up Ketra or Lumaris tunable white loads to control CROMOLUX dynamic lighting zones, the load in the Lutron system must be activated with a real fixture to establish a valid ID. Once activated, the physical load can be removed from the system and used to populate trackable loads on other Lutron systems.
- When using phantom loads, dimmers must be added for each CROMOLUX dynamic lighting zone. Any RGBW or RGBTW zone shall use four (4) phantom dimmers to control Intensity, CCT, Hue, and Saturation. Any Tunable White zones shall use two (2) phantom dimmers to control Intensity and CCT.
- When adding phantom dimmers to a room, it is recommended to add the zone dimmers to the same gang and label each dimmer as [Room Name + Zone Name + Control Parameter]. *Example: Kitchen Cove Intensity, Kitchen Cove CCT, Kitchen Cove Hue, Kitchen Cove Saturation.*





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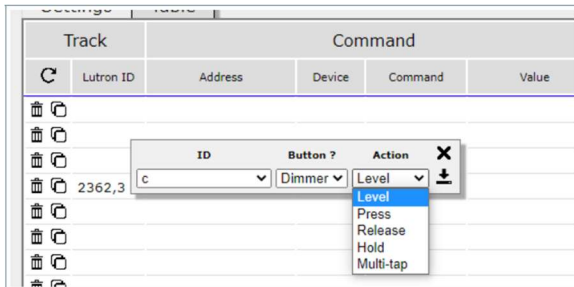
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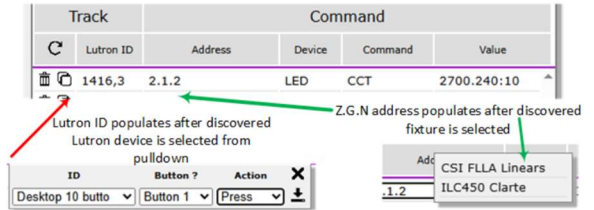
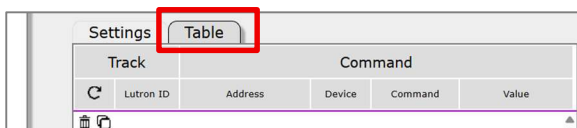
- All Lutron loads are automatically loaded during the CROMOLUX gateway bootup. The discovery window will show ID and Device Names. Greyed names are inactive.



- Load Level Tracking** – After a list of devices has been populated, it is possible to assign Load Level Tracking to CROMOLUX dynamic lighting loads within the Lutron window **Table** page. Each phantom dimmer shall be linked to its corresponding CROMOLUX dynamic lighting zone by assigning tracking info in the table. This method provides immediate response to slider positions in the user interface.



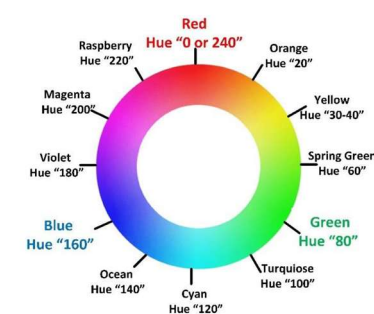
- Lutron ID** – Select from the list of discovered devices.
 - Button ?** – Select "Dimmer".
 - Action** – Select "Level".
 - Address** – Enter the **Z.G.N** address of the desired CROMOLUX dynamic lighting load. It is also possible to use a **Node** value of 0 to control an entire room (Group). *Example: 1.3.2 for a single load, or 1.3.0 for all loads in Floor 1 / Room 3.*
 - Device** – Enter device type "LED".
 - Command** – Enter the target command based on the corresponding control parameter
 - Intensity = "SET" (*this is the only command required for Ketra/Lumaris load mirroring; the following commands are required when using dimmers*)
 - CCT = "CCT"
 - Hue = "HUE"
 - Saturation = "SAT"
 - Value** – Leave this field blank.
- Button Scenes** can be programmed two ways – using fixed values assigned within the CROMOLUX gateway Lutron table (Button Press Action), or Load Level Tracking of respective levels assigned within the Lutron Designer programming for the given scene loads (this method uses correlated values for CCT, Hue, and Saturation as shown in point 7 of this section).
 - Button Press Action** – After a list of devices has been populated, it is possible to assign Button Actions to CROMOLUX dynamic lighting loads. Within the CROMOLUX Lutron window, select the **Table** page.



- Lutron ID** – Select from the list of discovered devices.
- Button ?** – Select the applicable button (use "?" to identify Lutron button numbers).
- Action** – Select one of four possible button actions (not Level). Only an action programmed in Lutron software can be monitored.
- Address** – Enter the Z.G.N address of the desired CROMOLUX dynamic lighting load. It is also possible to use a **Node** value of 0 to control an entire room (Group). *Example: 1.3.2 for a single load, or 1.3.0 for all loads in Floor 1 / Room 3.*
- Device** – Enter device type "LED".
- Command** – Select the target command from the list (see below for command and value explanation).
- Value** – Enter the desired value per the reference table below.

Command	Value Entry	Values	Example
SET *	L	Level (0-240)	161 (~67% Level)
CCT *	K.L	Kelvin (1700 to 7700) Level (0-240)	2700.240 (2700K at 100%)
HSV *	H.S.L	Hue (Red=0, Yellow=40, Green=80, Cyan=120, Blue=160, Magenta=200, Red=240) see image below Saturation (0-240) Level (0-240)	135.120.240 (Pastel blue color)
OFF *		*see "add rate" below	Value set to 0
ON *		*see "add rate" below	Set to last known value
TOGGLE *		*see "add rate" below	Toggle between 0 and last known value.
SOLAR	L	Level (0-240)	180 (75% Level)
*Add fade rate to any command	V:S	[Values]:Seconds (0-240)	2700.240:10 (2700K at 100% in 10 seconds)

HUE Selection Diagram (on a 0 to 240 unit scale)





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7. Load Level Tracking of Button Scenes – Programming of Lutron button scenes can also translate into dynamic load output based on the levels of the respective phantom loads.

- Intensity** – This uses a one-for-one translation where the Level of the phantom load equals the Level of the CROMOLUX dynamic lighting zone.
- CCT** – The programmed level of this phantom load translates into a respective CCT output of the dynamic lighting zone. Common reference level values are shown in the following table.
 - For any RGBW or RGBTW type zones, **0% = 1700K** and **100% = 7700K**.
 - For Tunable White zones, approximate values are given (refer to the CROMOLUX Setup Guide for individual min/max CCT values).

Type	2000	2400	2700	3000	3500	4000	5000	6000
Any RGBW+	5%	12%	17%	22%	30%	38%	55%	72%
ArgentoCOB TW BL	NA	NA	8%	16%	30%	44%	72%	100%
ArgentoCOB TW AC	NA	NA	1%	9%	23%	36%	63%	90%
ArgentoCOB TW AF	NA	NA	3%	12%	26%	41%	70%	100%
ArgentoCOB TW FR	NA	NA	2%	11%	25%	39%	68%	96%
ArgentoCOB TW PD	NA	NA	2%	10%	25%	38%	67%	95%
Argento TW BL	16%	35%	50%	65%	89%	NA	NA	NA
Argento TW AC	9%	27%	41%	54%	77%	100%	NA	NA
Argento TW AF	10%	29%	43%	58%	81%	NA	NA	NA
Argento TW FR	10%	29%	43%	57%	80%	NA	NA	NA
Argento TW PD	10%	29%	43%	56%	80%	NA	NA	NA
Curva3D TW	9%	27%	40%	54%	76%	98%	NA	NA
CurvaSide TW	11%	30%	45%	59%	83%	NA	NA	NA
Curva3D TW	12%	32%	47%	62%	87%	NA	NA	NA
LtGuidePanel TW	NA	NA	NA	7%	19%	31%	56%	81%
Oro TW BL	8%	17%	24%	31%	43%	55%	78%	NA
Oro TW AC	4%	13%	20%	26%	37%	48%	70%	91%
Oro TW AF	5%	15%	22%	29%	40%	53%	76%	100%
Oro TW FR	5%	14%	21%	28%	40%	51%	74%	98%
Oro TW PD	5%	14%	20%	28%	39%	50%	73%	95%
TrueFocus OroTW 10	2%	8%	13%	18%	26%	35%	51%	68%
TrueFocus OroTW 30	5%	14%	21%	28%	40%	51%	75%	98%
TrueFocus OroTW 60	5%	14%	20%	28%	39%	50%	73%	95%
TrueFocus TW 10	9%	27%	41%	55%	78%	100%	NA	NA
TrueFocus TW 30	11%	30%	44%	59%	83%	NA	NA	NA
TrueFocus TW 60	10%	30%	44%	58%	82%	NA	NA	NA

- Hue** – The programmed level of this phantom load translates into a respective RGB gamut color based on the color wheel shown in point 6 above. Quick reference colors are as noted in the following table.

Gateway Hue Value	Color	Program Level
0	Red	0%
20	Orange	8%
40	Yellow	17%
60	Spring Green	25%
80	Green	33%
100	Turquoise	42%
120	Cyan	50%
140	Ocean	58%
160	Blue	67%
180	Violet	75%
200	Magenta	83%
220	Raspberry	92%
240	Red	100%

- Saturation** – The programmed level of this phantom load translates into a value based on values **0% = no color** saturation to **100% = full color** saturation.