

## GUV Lighting Controls Best Practice Design Guide

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<b>COMPONENTS</b>	
<b>CATALOG</b>	<b>DESCRIPTION</b>
GUV-16-120-277	GUV control panel with 16 inputs
GUV-24-120-277	GUV control panel with 24 inputs
GUV-USER-1	GUV user safety station
GUV-PB-1	GUV LED clearance push button
GUV-MAG-SENSOR-1	GUV magnetic sensor

**\*\*Only push buttons will be counted as an input on the system\*\***

### **Agent Request Form:**

<https://www.cognitofrms.com/CooperLightingSolutions/guvapplicationsrequest>

### **System Summary:**

- We can only design a GUV lighting controls solution for a fully contained space. The purpose is to create a containment area. Rooms must properly be viewed for clearance of occupants.
- GUV fixtures can be used with standard windows with a thickness of 3 millimeters or greater. If the windows or glass walls are less than 3mm, special design considerations may be needed.
- When designing think about how a certified user would walk the space to clear all containment areas before activating the system.

### **Control Panels:**

- The control panels have a 3-pole contactor with all poles switching simultaneously. Each pole is rated at 20A / 600VAC maximum. Per code, permanently connected loads are limited to 80% (16A) of a circuit.
  - 120V circuits can run 1,920 watts of luminaires per pole for a **maximum of 5,760 watts** per panel.
  - 277V circuits can run 4,432 watts of luminaires per pole for a **maximum of 13,296 watts** per panel.
- GUV-16-120-277
  - Contains 16 inputs
- GUV-24-120-277
  - Contains 24 inputs
- SCCR rating of 25K
- Minimum of one control panel required per floor
- They are not zone-based panels with the ability to clean multiple areas at different times. Any areas wired to this panel will be energized when the system is activated.
- Panels are not able to be scheduled for time control cleaning. The panel must be manually activated.

### **User Safety Station (GUV-USER-1):**

- One required for every control panel
  - Only one can be used per control panel.
- Used to activate the system
  - Start: Panel is active, and areas are ready to be cleared
  - Ready: All areas have been cleared and safeguards have been met.
  - Go: System is activated, and GUV lights are energized.
- Internal timer starts when 'Start' process is initiated. GUV fixtures will be de-energized when timer is exhausted.
  - Extra time will need to be added to account for time to clear the space(s).
    - Dosing time = 30 minutes
    - Clearance time = 15 minutes
    - Timer should be set for at least 45 min

### **Clearance Push Button (GUV-PB-1):**

- Only push buttons will be counted as an input on the system.
- A minimum of one push button is required in any room containing GUV fixtures.

- o Place on opposite wall from the entry/exit door of the room containing GUV fixtures
  - o Closets only need one if GUV fixtures are placed in the closet
  - o Rooms with partitions only need one if all partitions are fully open prior to activating the controls system.
- A push button is required outside of every entry/exit door in areas containing GUV fixtures. However, if the push button is in direct line of site to other entry/exit doors or windows, one push button can be wired to multiple magnetic sensors.

**Magnetic Sensor (GUV-MAG-SENSOR-1):**

- One magnetic sensor is required for:
  - o Every entry/exit door into a contained area
  - o One for each side of a double door
  - o Every window that opens greater than 10 inches and can be used for a person to reasonably enter the contained space.
- Access points that do not need magnetic sensors:
  - o Small closets that cannot be occupied with the door closed.
  - o Windows that do not open more than 10-inches.
  - o Windows which have bars or other barriers to prevent entry into the space.
  - o Windows where the lowest point of the window is located 10-feet or higher above finished grade.

**GUV Enclosures:**

- For wet locations (i.e. showers, outdoors) you will need to use a UL 50 and 508A and NEMA Type 4 enclosure. If devices are mounted outside, it is recommended the enclosure is mounted in an inconspicuous place such as a back-door entrance and have a lock on it to prevent vandalism. These enclosures are **NOT** provided by Cooper Lighting Solutions.
  - o Please note the operating temperatures on the specification sheets to confirm if outdoor use is possible in your region.
- Minimum Enclosure Sizes:
  - o Single enclosure for User Station 6" W x 6" H x 6" D
  - o Single enclosure for Pushbutton 6" W x 6" H x 6" D
  - o Both in single enclosure 8" W x 6" H x 6" D

**Services:**

- CC-DWGSERVICES (Cooper drawing service fees vary depending on project size)
- FACTORY STARTUP-GG (use Control Spec for pricing)

**Assumptions/Exceptions:****Project Specific Notes:**

- Design based off drawing **XX** dated **XX**.
- Only the rooms highlighted are in scope to have GUV fixtures placed.
- It is assumed that the bathroom stalls do not go from floor to ceiling. If so, more devices will be needed.

**General Notes:**

- The control panels have a 3-pole contactor with all poles switching simultaneously. Each pole is rated at 20A / 600VAC maximum. Per code, permanently connected loads are limited to 80% (16A) of a circuit. If total fixture wattage exceeds the maximum wattage each panel can control, a revised quote will be needed to add additional panels and control stations.
  - o 120V circuits can run 1,920 watts of luminaires per pole for a maximum of 5,760 watts per panel.
  - o 277V circuits can run 4,432 watts of luminaires per pole for a maximum of 13,296 watts per panel.
- GUV Lighting Controls system are only recommended for fully contained areas. Please review our design plan for accuracy. Our recommended layout has been provided per the information we were given. The architect/engineer should thoroughly review the GUV Lighting Controls plan to confirm we have accounted for sensors for all window bases less than 10' AFG that open and for all entry/exit doors within the contained areas. We accept no liability for any deviations from our design.
- GUV fixtures can be used with standard windows with a thickness of 3 millimeters or greater. We have assumed all areas in this design to have windows/glass meeting this standard. If the windows/glass are less than 3mm, special design considerations may be needed.
- Partitions must be fully opened in all contained areas before the system is activated.

- The person activating the GUV Lighting Controls system must be certified by Cooper Lighting Solutions. We accept no liability for negligence in operating the system. Rooms must properly be viewed for clearance of occupants.
- For wet locations (i.e. showers, outdoors) you will need to use a UL 50 and 508A and NEMA Type 4 enclosure. If devices are mounted outside, it is recommended the enclosure is mounted in an inconspicuous place such as a back-door entrance and have a lock on it to prevent vandalism. These enclosures are not provided by Cooper Lighting Solutions.
- Provided "clearance path" is only a recommendation. User is responsible for ensuring all areas are clear before energizing the GUV system.