



# APPLICATION FOR PREAPPROVAL SPECIAL SEISMIC CERTIFICATION OF EQUIPMENT AND COMPONENTS

For Office Use Only

**APPLICATION NO.**

**OSP -0215-10**

Check whether application is: NEW  RENEWAL

1.0 **Lutron Electronics, Inc.** **Dan Schlegel**  
*Manufacturer* *Manufacturer's Technical Representative*

7200 Suter Rd, Coopersburg, PA 18036-1249  
*Mailing Address*

610.282.6551 [dschlegel@lutron.com](mailto:dschlegel@lutron.com)  
*Telephone* *E-mail Address*

2.0 **Lighting Control Panels** **Lighting Controller**  
*Product Name* *Product Type*

Various (See Attachment)  
*Product model No (List all unique product identification numbers and/or serial numbers)*

*General Description:* Light gauge sheet metal enclosures with internal components as outlined in the attachment.

3.0 **Tobolski Watkins Engineering, Inc.** **Matthew Tobolski, Ph.D., P.E.**  
*Applicant Company Name* *Contact Person*

3710 Ruffin Road, San Diego, CA 92123  
*Mailing Address*

858-381-5843 [mtobolski@tobolskiwatkins.com](mailto:mtobolski@tobolskiwatkins.com)  
*Telephone* *E-mail Address*

I hereby agree to reimburse the Office of Statewide Health Planning and Development for the actual costs incurred by the department for review.

  
*Signature of Applicant*  
**President and CEO**  
*Title*

09/30/11  
*Date*  
**Tobolski Watkins Engineering, Inc.**  
*Company Name*



**4.0 Registered Design Professional Preparing the Report**

**Tobolski Watkins Engineering Inc.**

*Company Name*

Matthew J. Tobolski, Ph.D, P.E.

*Contact Name*

C 72806

*California License Number*

3710 Ruffin Road, San Diego, CA 92123

*Mailing Address*

858-381-5843

*Telephone*

[mtobolski@tobolskiwatkins.com](mailto:mtobolski@tobolskiwatkins.com)

*E-mail Address*

**5.0 California Licensed Structural Engineer Review and Acceptance of the Report**

**Tobolski Watkins Engineering Inc.**

*Company Name*

Derrick A. Watkins, S.E.

*Contact Name*

S 5257

*California License Number*

3710 Ruffin Road, San Diego, CA 92123

*Mailing Address*

858-381-5843

*Telephone*

[dwatkins@tobolskiwatkins.com](mailto:dwatkins@tobolskiwatkins.com)

*E-mail Address*

**6.0 Anchorage Pre-Approval**

- Anchorage is pre-approved under OPA-  
(Separate application for anchorage pre-approval is required)
- Anchorage is not Pre-approved

**7.0 Certification Method**

- Testing in accordance with:
  - ICC-ES AC-156
  - Other (Please Specify):

- Analysis
- Experience data
- Combination of Testing, Analysis, and/or Experience Data (Please Specify):

**8.0 Testing Laboratory (if applicable)**

Clark Testing

*Company Name*

Frank Medeiros

*Contact Name*

1801 Rout 51, Jefferson Hills, PA 15025

*Mailing Address*

412.387.1003

*Telephone*

[fmediros@clarktesting.com](mailto:fmediros@clarktesting.com)

*E-mail:*



**9.0 Approval Parameters**

Design in accordance with ASCE 7-05 Chapter 13:  Yes  No

- Design Basis of Equipment or Components ( $F_p/W_p$ ) = **Various (See Attachment)**
- $S_{DS}$  (Spectral response acceleration at short period) = **Various (See Attachment)**
- $a_p$  (In-structure equipment or component amplification factor) = **2.5**
- $R_p$  (Equipment or component response modification factor) = **6.0**
- $I_p$  (Importance factor) = **1.5**
- $z/h$  (Height factor ratio) = **1.0**
- Equipment or Component fundamental period(s) = **(See Attachment)**
- Building period limits (if any) = **None**
- Overall dimensions and weight (or range thereof) = **(See Attachment)**

Equipment or Components @ grade designed in accordance with ASCE 7-05 Chapter 15:  Yes  No

Design Basis of Equipment or Components ( $V/W$ ) =

- $S_{DS}$  (Spectral response acceleration at short period) =
- $S_1$  (Spectral response acceleration at 1 second period) =
- $R$  (Response modification coefficient) = **1.0**
- $\Omega_0$  (System overstrength factor) = **1.0**
- $C_d$  (Deflection amplification factor) = **1.0**
- $I_p$  (Importance factor) = **1.5**
- Height to Center of Gravity above base =
- Equipment or Component fundamental period(s) =       Sec
- Overall dimensions and weight (or range thereof) =

Tank(s) designed in accordance with ASME BPVC, 2007:  Yes  No

**10.0 List of attachments supporting the special seismic certification of equipment or components:**

- Test Report  Drawings  Manufacturer's Catalog
- Calculations  Others (Please Specify): Attachment A

**11.0 OSHPD Approval (For Office Use Only)**

 _____ Signature & Date <b>M. R. Karim, SHFR</b> _____ Name & Title	10/25/2011	December 31, 2016 Approval Expiration Date $S_{DS}$ (g) = <b>See Section 9.0</b> $z/h = 1.0$ Special Seismic Certification Valid Up to
Condition of Approval (if any):		



**UUT - 1**

**UNIT UNDER TEST (UUT)  
Summary Sheet**

TWEI Project No.: 2011-0138-CO-002

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** GP Series Panel

**Model Number:** GP4-120FTML-20

**Product Construction Summary:**

Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**

120V Circuit Breaker, GP Choke, Circuit Selector/HS Controller, 0-10V module (TVM), 120VAC-277VAC, Feed type (2 pole, 3 pole, 4 pole, feed through).

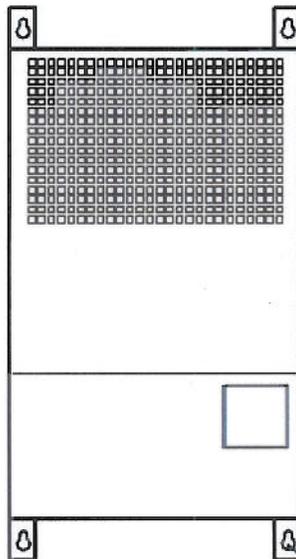
**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
22	6.3	11.0	21.1	N/A	N/A	N/A

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5g	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



UUT mounted to test fixture using four (4) 5/16-18 hex head thru bolts.

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**UUT - 2**

**UNIT UNDER TEST (UUT)  
Summary Sheet**

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** GP Series Panel

**Model Number:** CGP24-2774T24-ML-20-CGP2429

**Product Construction Summary:**

Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**

120V Circuit Breaker, 277v circuit breaker, GP Choke, GP dimming card, Circuit selector/HS controller, TVM modules for 0-10V dimming, 120VAC-277VAC, Feed type (2 pole, 3 pole, 4 pole, feed through), Fuse blocks, Class 2 Transformer.

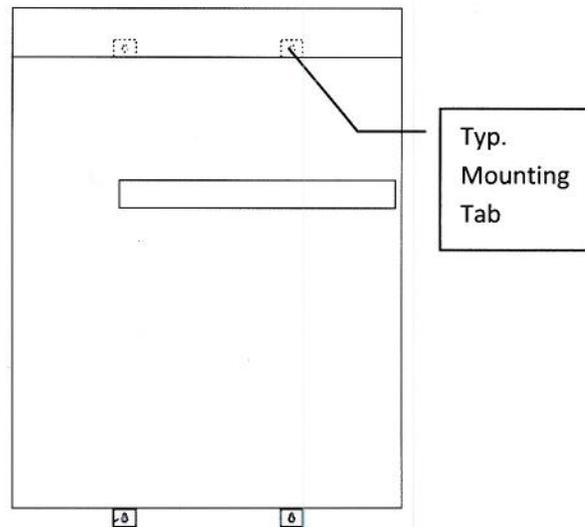
**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
155	6.3	11.0	21.1	N/A	N/A	N/A

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5g	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



UUT mounted to test fixture using four (4) 5/16-18 hex head thru bolts.

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**UUT - 3**

**UNIT UNDER TEST (UUT)  
Summary Sheet**

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** GP Series Panel

**Model Number:** DCI3-1202M-20

**Product Construction Summary:**

Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**

120V Circuit Breaker, DCI Module, Circuit selector/HS controller, 120VAC-277VAC, Feed type (2 pole, 3 pole, 4 pole, feed through), Fuse blocks, Class 2 Transformer.

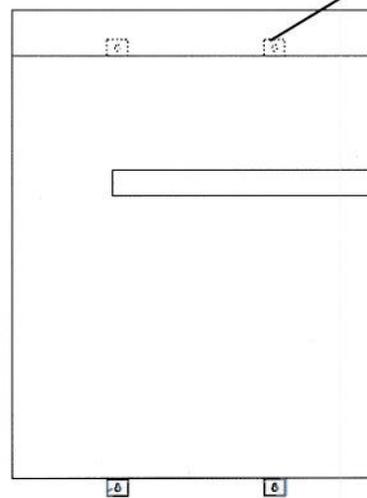
**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
175	12.0	28.0	35.0	N/A	N/A	N/A

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5g	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



a.  
ounting  
b

UUT mounted to test fixture using four (4) 5/16-18 hex head thru bolts.

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**UUT - 4**

## UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** GP Series Panel

**Model Number:** GP36-1204ML-20

**Product Construction Summary:**

Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**

120V Circuit Breaker, GP Choke, GP Dimming Module, Circuit selector/HS controller, Class 2 Transformer. Up to 36 circuits, 120VAC-277VAC, Feed type (2 pole, 3 pole, 4 pole, feed through).

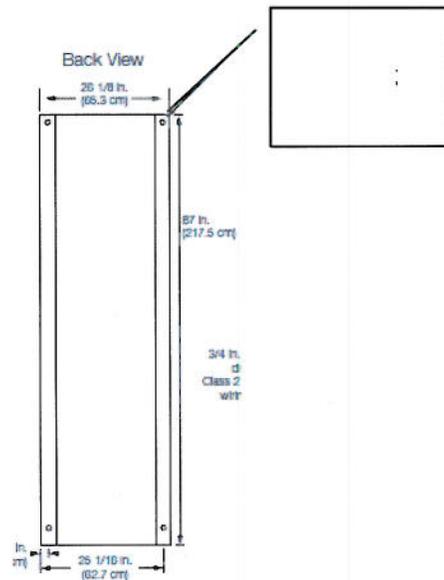
### UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
305	14.1	25.1	80.0	N/A	N/A	N/A

### UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5g	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



Unit mounted using six (6) 12"-13 hexhead bolts: four (4) to wall fixture and two (2) into the shake table platen along the front of the unit.



**UUT - 5**

**UNIT UNDER TEST (UUT)  
Summary Sheet**

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** GP Series Panel

**Model Number:** GP72-1204ML-20

**Product Construction Summary:**

Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**

120v circuit breaker, 72 clip on style breakers, GP Choke, GP Dimming Card, Circuit Selector/HS Controller, Class 2 Transformer, 120VAC-277VAC, Feed type (2 pole, 3 pole, 4 pole, feed through).

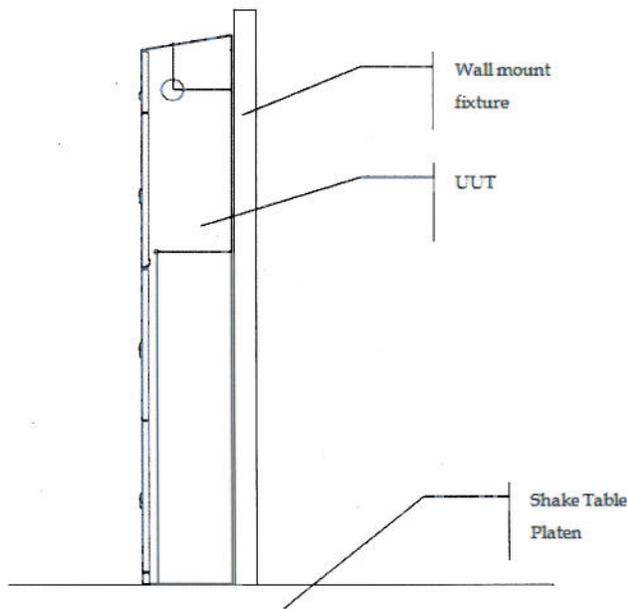
**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
635	14.1	51.1	80.0	N/A	N/A	N/A

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5g	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



Unit was mounted to the shake table using eight (8) ½"-13 bolts: Four (4) to the shake table platen and four (4) to the test fixture.



**UUT - 6**

**UNIT UNDER TEST (UUT)  
Summary Sheet**

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** GP Series Panel

**Model Number:** CGP144-1204ML-20-CGP1112

**Product Construction Summary:**  
Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**  
120v circuit breaker, GP Choke, GP Dimming Panel, Circuit Selector/HS Controller, 0-10v module, Fuse Blocks, Class 2 Transformer, 144 clip-on style breakers, 120VAC-277VAC, Feed type (2 pole, 3 pole, 4 pole, feed through).

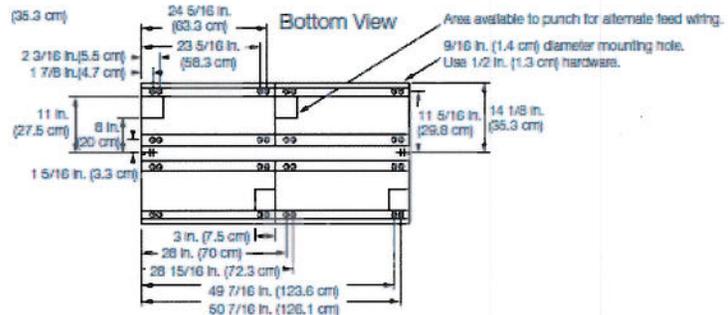
**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
1295	28.3	51.1	80.0	8.9	7.7	> 33

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	1.5	1.0	1.5	2.40g	1.80g	1.00g	0.40g

**Test Mounting Details:**



Unit mounted to the shake table platen using eight (8) ½"-13 bolts: four (4) along the front and four (4) along the back side of the unit.



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## UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** XP Series Panel

**Model Number:** XP16-FT

**Product Construction Summary:**

Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**

120VAC-277VAC, Circuit Selector/HS Controller, XP Switching Module, Class 2 Transformer, 16 circuits, Feed type (2 pole, 3 pole, 4 pole, feed through).

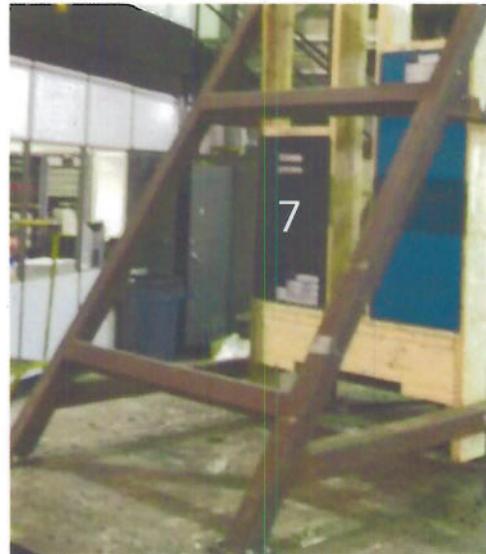
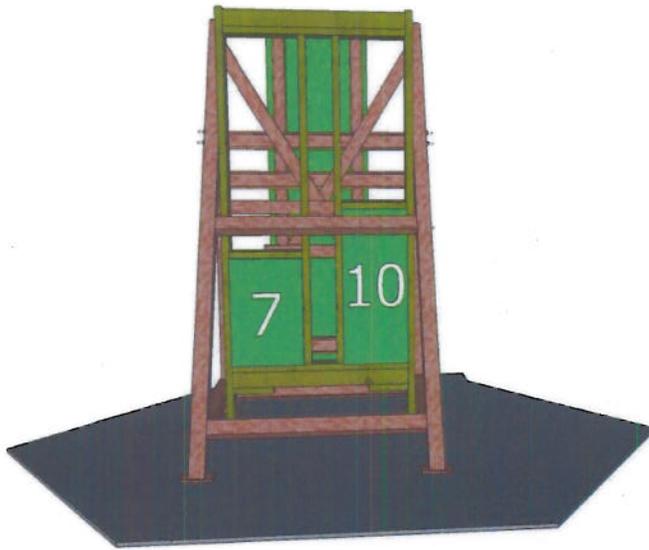
*UUT Properties*

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
32	28.3	51.1	80.0	N/A	N/A	N/A

*UUT Highest Passed Seismic Run Information*

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



Unit mounted to wood framing using four (4) 1-1/4" long deck screws: one each corner

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**UUT - 8**

**UNIT UNDER TEST (UUT)  
Summary Sheet**

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** LP Series Panel

**Model Number:** LCP-2Q1A1M1F4T-1204/ML-20

**Product Construction Summary:**  
Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**  
120v Circuit Breaker, LCP/XPS Controller, RPM Control Modulæ, XP Switching Module, Fan Speed Module, Motor Control Module, 0-10v module (TVM), Class 2 Transformer, incandescent dimming module, Adaptive dimming module.

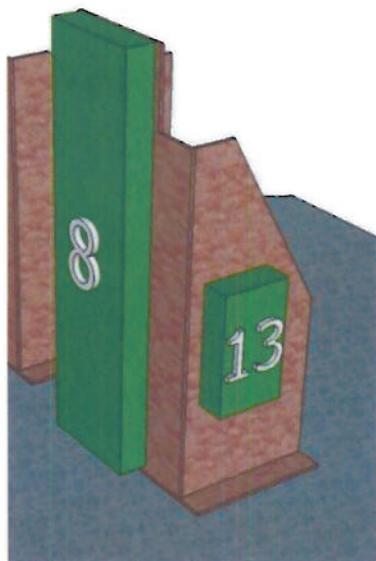
**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
60	4.2	15.9	59.5	N/A	N/A	N/A

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



Unit mounted to test fixture using four (4) 5/16"-13 bolts: One (1) at each corner.

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**UUT - 9**

**UNIT UNDER TEST (UUT)  
Summary Sheet**

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** XP Series Panel

**Model Number:** XPS32/2-1B-2774ML-CGP1468

**Product Construction Summary:**  
Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**  
120VAC-277VAC, LCP/XPS Controller, XP Switching Module, Relay Contractor (4 pole), 32 Circuits, Feed type (2 pole, 3 pole, 4 pole, feed through).

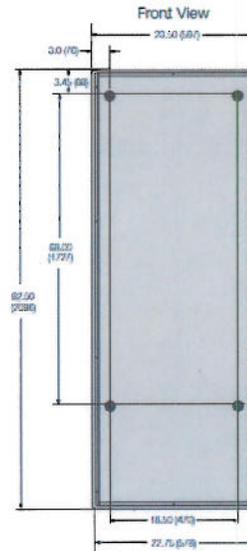
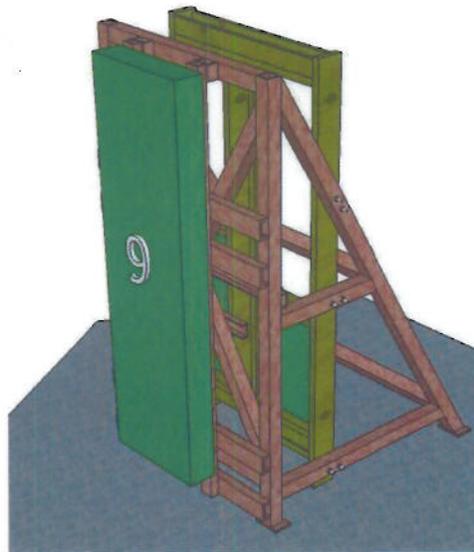
**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
180	6.1	23.5	82.5	N/A	N/A	N/A

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



Unit mounted to test fixture using four (4) 5/16"-13 bolts using above shown anchor layout.

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**UUT - 10**

**UNIT UNDER TEST (UUT)  
Summary Sheet**

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** GRAFIK panel processor

**Model Number:** G7-AR-WW00-0-120

**Product Construction Summary:**

Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**

Class 2 Transformer, GRAFIK 7000 processor 120v.

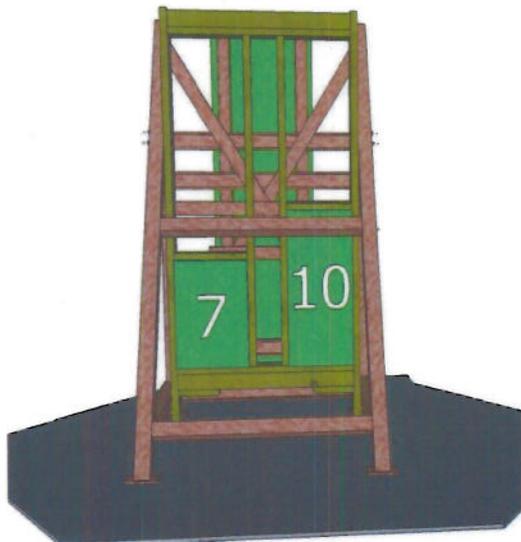
**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
45	3.5	14.4	34.8	N/A	N/A	N/A

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



Unit mounted to wood test fixture using four (4) 1-1/4" deck screws: One at each corner.



**UUT - 11**

**UNIT UNDER TEST (UUT)  
Summary Sheet**

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** Quantum

**Model Number:** QP2-2P8CSE-120

**Product Construction Summary:**

Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**

Class 2 Transformer, Quantum processor panel, 120v, full functionality, 120VAC-277VAC, Feed type (2 pole, 3 pole, 4 pole, feed through).

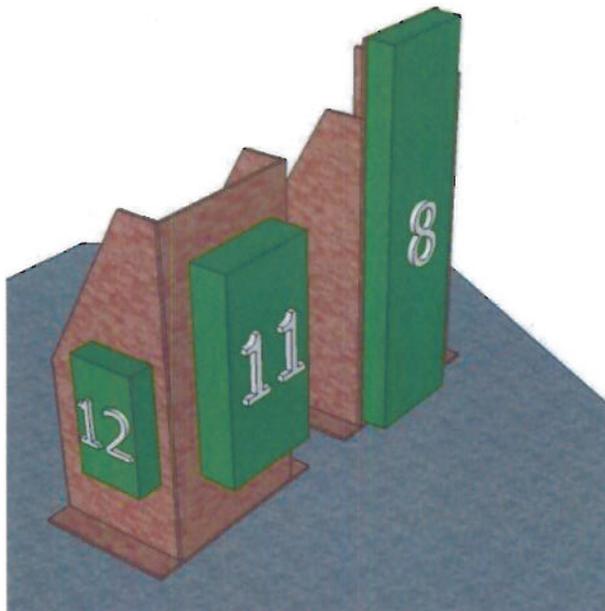
**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
40	5.8	15.8	31.5	N/A	N/A	N/A

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



Unit mounted to test fixture using four (4) 5/16"-13 bolts: One at each corner.

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## UNIT UNDER TEST (UUT) Summary Sheet

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** Sivoia QS

**Model Number:** QSPS-P1-10-60

**Product Construction Summary:**

Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**

120v 10 output power supply, 120VAC-277VAC, Feed type (2 pole, 3 pole, 4 pole, feed through).

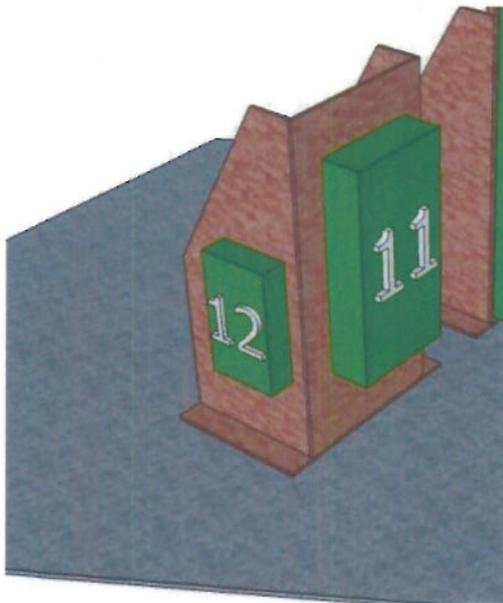
### UUT Properties

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
24	3.9	10.3	18.3	N/A	N/A	N/A

### UUT Highest Passed Seismic Run Information

Building Code	Test Criteria	$S_{DS}$	$z/h$	$I_p$	$A_{FLX-H}$	$A_{RIG-H}$	$A_{FLX-V}$	$A_{RIG-V}$
CBC 2010	ICC-ES AC 156	2.5	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



Unit mounted to test fixture using four (4) 5/16"-13 bolts: One at each corner.

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**UUT - 13**

**UNIT UNDER TEST (UUT)  
Summary Sheet**

TWEI Project No.: 2011-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** Softswitch 128

**Model Number:** XPS-E-120/277-FT

**Product Construction Summary:**

Enclosure constructed of light gauge painted carbon steel, NEMA 1 rated.

**Options/Subcomponent Summary:**

120VAC-277VAC, LCP/XPS Controller, XP Switching Module, Relay Contactor (4-pole), class 2 transformer, Feed type (2 pole, 3 pole, 4 pole, feed through).

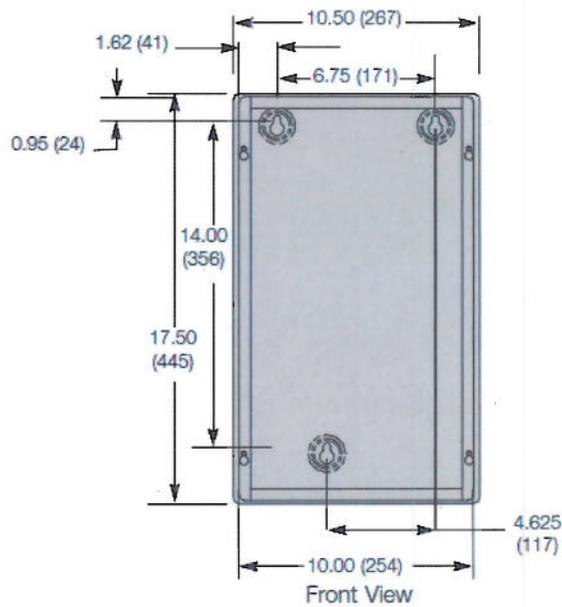
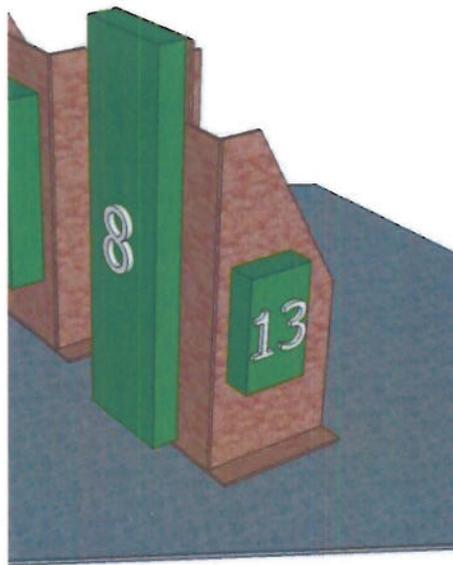
**UUT Properties**

Weight (lb)	Dimensions (in)			Lowest Natural Frequency (Hz)		
	Depth	Width	Height	Front-Back	Side-Side	Vertical
15	4.2	10.0	17.5	N/A	N/A	N/A

**UUT Highest Passed Seismic Run Information**

Building Code	Test Criteria	S <sub>DS</sub>	z/h	I <sub>p</sub>	A <sub>FLX-H</sub>	A <sub>RIG-H</sub>	A <sub>FLX-V</sub>	A <sub>RIG-V</sub>
CBC 2010	ICC-ES AC 156	2.5	1.0	1.5	4.0g	3.0g	1.67g	0.67g

**Test Mounting Details:**



Unit mounted to test fixture using three (3) 5/16"-13 bolts per above bolt layout.

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**Table 1**

**Special Seismic Certification  
Certified Product Matrix**

TWEI Project No.: 2010-0167-CO-001

**Manufacturer:** Lutron Electronics, Inc.

**Model Line:** Lighting Control Panels

**Certified Product Construction Summary:**  
Enclosures are constructed of light gauge painted carbon steel, NEMA 1 rated.  
All components are manufactured by Lutron Electronics, with the exception of those noted otherwise below.

**Certified Options Summary:**  
120V and 277V circuit breakers (Square-D bolt-on style & Eaton/Cutler Hammer din-rail style); Phoenix fuse blocks; Tyco Electronics/Hartland Controls class 2 transformer w/ copper windings, open wound; Square-D 4-pole contactor relay.  
120VAC-480VAC, Feed type (2 pole, 3 pole, 4 pole, feed through), Adaptive dimming module, Incandescent dimming module GP Choke, GP Dimming Card, DCI Module, Circuit Selector/HS Controller, LCP/XPS Controller, RPM Control Modules, XP Switching Module, 0-10 volt Module (TVM).

**\*NOTE: Fan Speed and Motor Control Module are restricted to  $S_{DS} = 1.5g$ ,  $z/h=1.0$ .**

**Certified Mounting Summary:**  
(1) Wall mounted – surface, (2) Wall mounted – recess, (3) Floor/wall mounted – surface, (4) Floor mounted. SEOR to design unit anchorage. **\*NOTE: Floor only mounted units (4) are restricted to  $S_{DS} = 1.5g$ ,  $z/h=1.0$ .**

**Building Code:** CBC 2010      **Seismic Certification Limits:**  $S_{DS} = 2.50g^*$        $z/h = 1.0$        $I_p = 1.5$

Model Line	Model	Dimension (in)			Weight (lb)	Notes	UUT
		Depth	Width	Height			
GP Series Panels (GP, CGP, LCP, CLCP, LDC, GPD, HS, DCI)	3-4 Circuits	6.3	11.0	21.1	30	Mounting: (1)	1
	8-24 Circuits	12.0	28.0	35.0	175	Mounting: (1)	2,3
	36 Circuits	14.1	25.1	80.0	325	Mounting: (3)	4
	48-72 Circuits	14.1	51.1	80.0	650	Mounting: (3)	5
	96-144 Circuits	28.3	51.1	80.0	1,300	Mounting: (4)*	6
XP/LP Series Panels (XP, XPS, CXP, CXPS, LP, CLP, RP, RPT, CRP, CRPT, RPL, LCP, CLCP, HWBP, HWAP, CCP)	1-16 Circuits	4.1	15.9	24.0	32	Mounting: (1) or (2)	7
	4-48 Circuits	4.2	15.9	59.5	60	Mounting: (1) or (2)	8
	8-40 Circuits	6.1	23.5	63.5	165	Mounting: (1) or (2)	
	32-42 Circuits	6.1	23.5	82.5	180	Mounting: (1) or (2)	9
GRAFIK Panel	G5, G6, G7	3.5	14.4	34.8	50	Mounting: (1) or (2)	10
Quantum	Light Management	5.8	15.8	31.5	40	Mounting: (1)	11
Sivoia QS	Smart Power Supply	3.9	10.3	18.3	25	Mounting: (1)	12
Softswitch128	Expansion Module	4.2	10.0	17.5	15	Mounting: (1) or (2)	13
	Mini Panel	4.1	15.9	24.0	32	Mounting: (1) or (2)	
	Standard Panel	4.2	15.9	59.5	60	Mounting: (1) or (2)	
	Large Panel	6.1	23.5	63.5	165	Mounting: (1) or (2)	
	Extra Large Panel	6.1	23.5	82.5	180	Mounting: (1) or (2)	

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