

# Royal Botanical Gardens Hall Interior Renos 680 Plains Road W, Burlington, Ontario ADDENDUM NO. 4 2025.03.21

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The following additional instructions shall apply to and govern the tender documents.

# **QUESTIONS & ANSWERS**

- Q1 In regard to the Itemized Pricing, does Itemized pricing 1, 2, 5 need to include the lighting in those areas. Lighting suppliers may not be able to break this all out in such a short period of time.
- A1 No, itemized pricings 1& 2 are just for drywall & 5 is for millwork.

# ANSWERS TO ELECTRICAL RFI AS ATTACHED IN ELECTRICAL ADDENDUM EA-1

# End of Addendum #4

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## ELECTRICAL ADDENDUM EA-1 RBG banquet Hall INTERIOR RENOVATION PROJECT NO. 24-250 Mar 20 2025

The following document is hereby made a part of the Contract Documents.

The following revisions and/or additions shall be made to Drawings and/or specifications and the cost shall be included in Tender Price.

## **REVISIONS TO DRAWINGS – (None REISSUED)**

# 1. Responses to RFI queries

1. Drawing E2.01 note 11 refers to "New lighting control stations for banquet hall lighting, refer to details." Is it possible for the engineer to provide more information such as wiring diagrams, details and specs.

#### Response;

Provide alighting control system as follows,

LEVITON Dimension D4106 series 6 zone controller., one controller per space, located in respective closet on ground floor level.

Provide Scene on/off Entrance Station controller at each entry door into each room space. Locate on wall , exact location to be coordinated on site with owner.

- (6) Zones/Channels of Control
- (6) Internal Network Dimmers (16 + 2) Scene Memory
- Fade Times for each scene
- Room Partition Control
- Remote Dimmer Configuration
- Lockout 
   Sequencer

Systems to be networked together c/w a central room combiner control station, on wall between rooms, exact location to be coordinated on site with owner.

Suggested zones as follows

Typical for each room/hall space

Z1-All 'LL1' in wall controlled together

Z2-All 'LL1' in ceiling cove controlled together

Z3-all horizontal 'TR1' controlled together

Z4-all vertical 'TR1' controlled together

Z5-all 'RM1' controlled together

Z6-all relocated decorative lights (note 10) controlled together

All other lights to be controlled with manual dimmers in the ground floor closet. ('WW1' and 'RM1' misc fixtures.)

2. On the Electrical document we see there is a wall audio connection port for microphones and some "AV" outlet connection points but it doesn't explain what type of AV Connections. – E3.00 on the Electrical document. I'm assuming all the wiring for these rough-ins will run to the AV/ELECTRICAL CLOSET behind the wall where the rough-ins are located. I don't see any mention of mounting fixed projectors to use with the screens. Do we know if they plan on bringing out a projector from storage every time they need to use one?

## Response;

The AV is strictly conduit and box rough only, these all terminate above the AV room, coordinate routing on site. Any details for projectors etc are by owners forces. Any reference is for locating power and boxes. All termination, jacks, outlets and cabling is by owners forces.

3. Our lighting suppliers are requesting more information in regards to lighting types RM1, RM2 and TH1, they need to know the lumens, wattage and beam spread for each type in order to provide pricing.

Response;

Clarification,

RM1 1500 lumens, . all 0-10V dimming

RM2 2500 lumens, . all 0-10V dimming

TH1 all 2500 lumens, provide half of fixtures with 12-degree spot and half with 18 degree spot beam angle. all 0-10V dimming

Add, type RM3, shown at high level, "LUCA" trucolor, RGB series,#L27L-19W-NF-WZ-TC-R-D-W-W, 3500K, 980 lumens, PureSmart control, locate in each lower level control room. Provide remote power supply and all controllers as required by manufacturer.

4. Drawing E001 general note 12 mentions LMRC series room controllers, drawings E2.01 and E2.02 note 1 and 11 refers to "New DML lighting control stations for banquet hall lighting, refer to details." Note 3 mentions to set occupancy sensors in optimal locations, there are no occupancy sensors shown in the drawings. Is it possible for the engineer to provide more information such as wiring diagrams, details and specs.

# Response;

Refer to item 1 above.

# 2. Drawing E2.01

- a. Clarification, wall feature LED control shall be from closet on ground floor, provide dimmer control manual in room.
- b. Clarification, Provide local dimmer control switch in each of the ground floor closets for control of 'RM1' and 'RM2' (below mezzanine) fixtures.

END

# Installation Instructions Dimensions 4000 series architectural controller

Applies to models: D4104, D4106, D4200, D4206, & D4006



# Items required for installation

- Suitable Backbox
   Preferred 4 gang 'Gang Box', Raco #943
  - Leviton P/N BBG04-000
  - 5 gang device backbox
- 2. Appropriate backbox device plateRaised cover for 4 gang gang box
  - Raised cover for 4 gang g Leviton P/N WPG04-00R

3

4 gang reducer "mud ring" for 5 gang device backbox

D4006, D4104, D4106, D4206	D4200
<ul> <li>Input power (see specs)</li> <li>Output to loads</li> <li>Optional Luma-Net network connection</li> </ul>	Luma-Net network connec- tion

# **General Installation Steps**

1. Read all installation instructions and plan entire system

2. Determine location for device and install the appropriate back		
D4006, D4104, D4106, D4206	D4200	
<ol> <li>Connect input power.</li> <li>Connect power to loads.</li> <li>Make connections to network (if applicable.)</li> <li>Inspect wiring.</li> <li>Install device in wall.</li> <li>Power up and test system.</li> <li>Configure.</li> </ol>	<ol> <li>Make network connections.</li> <li>Inspect wiring.</li> <li>Install device in wall.</li> <li>Power up &amp; test system.</li> <li>Configure.</li> </ol>	





n/a D4200





5

APPLIES TO:

N/A D4006

MD4104

**V**D4106

**V** D4206

**V** D4200



# Background:

Some models allow an external input which can trigger scene and/or device lockout. This can be used when it is desired to lockout a device by keyswitch, preventing access from the front panel, or when an Occupancy Sensor is used to turn on the lights.

# Installation Steps:

Connect +V/COM terminals to the power input of the signal device.
 Output from the signalling device shall be connected to the OCC terminal.

# Notes:

 When using low voltage wire with a rating of less than 600V, insulate with the included shrink tube sleeve.
 Occ terminal requires +V to signal lock/occ

- mode.
- 3. Available power for all peripherals can not exceed 300mh.
- 2. Use Copper Wire only
- Terminals accept #30-12AWG
   Tighten terminals to 7in-lbs torque
- 5. 75° min insulation temperature rating
- 5. Remove 3/8" insulation from each conductor.



Leviton Manufacturing, Inc. Lighting Managment Systems Division 20497 SW Teton, Tualatin, Oregon, 97062 800.736.6682 - Customer Service 800.959.6004 - Technical Support

# WARNINGS

- To be installed only by a qualified Electrician
- Rated for indoor use only
   Ta ha installed and (an used in account)
- To be installed and/or used in accorance with appropriate electrical codes and regulations.
- If you are not sure about any part of these instructions, consult a qualified electrician and Leviton Tech Support at (800)959-6004.
  DO NOT connect line voltage wires to low voltage terminals. Product destruction in this manner
- voids the warranty.
  To reduce the risk of over-heating and possible damage to this device and other connected equipment, do not allow the connection of any portable device or for connections to a wall recep-
- tacle.
- Do not connect to any unsupported load type (see device specifications).
  ALWAYS disconnect power when servicing this or any electrical device.
  - CAUTIONS
- All magnetic low voltage transformers should incoprorate a thermal cut-out or fuse on the pri-
- mary windings in case of over-heating or failure.
- All fluorescent lighting fixtures must be grounded
- For use with copper wire only
   DO NOT mix load types on a single zo
- DO NOT mix load types on a single zone (ie: Tungsten, Fluorescent, Magnetic low voltage, etc.)
  Observe all lamp and fixture manufacturer recommendations, warnings, and instructions.

# Line Voltage Load Termination

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# APPLIES TO: D4006 D4104 D4106 D4206 N/A D4200

APPLIES TO:

**V**D4006

**V**D4104

**V**D4106

**V** D4206

M D4200

LOAD 2

LOAD 4

LOAD 6

Luma-Net Network



NOTE:

shrink tube sleeve.

- Max (2) #12AWG per terminal.
   Torque terminals to 9in-lbs.
- 4. 75° min insulation temperature rating.
- 5. Remove 3/8" insulation from each circuit
- conductor.

When using low voltage wire with a rating

of less than 600V, insulate with the included

6. The number of outputs on a specific model may differ from that shown.

# Install Steps:

 Confirm that the load (watts) is within the specifications for your model as shown in the specification chart.
 Confirm that the load type is supported. Load types can be found in the

To load

for Zone 2

specification chart.

3. Identify the terminal to which you need to connect the load, strip the wire as appropriate, and install to the appropriate load terminal.

# SPECIFICATIONS

Power Input (D4200 N/A)	120VAC 60hz, 10% tolerance	230VAC 50/60hz, 10% tolerance	
Power Output (D4200 N/A)	<ul> <li>1000 Watts max per zone, minimum load 15W per zone</li> <li>1200 Watts max per side</li> <li>1920 Watts max per device</li> </ul>	<ul> <li>800 Watts max per zone, minimum load 15W per zone</li> <li>1200 Watts max per side</li> <li>2400 Watts max per device</li> </ul>	
Supported load Types (D4200 N/A)	<ul> <li>Incandescent</li> <li>Tungsten</li> <li>Magnetic Low Voltage</li> <li>2-Wire Fluorescent (Advance Mark 10, Lutron Tu-Wire)</li> <li>Electronic Low Voltage when rated for use with forward phase dimmers</li> <li>Neon / Cold Cathode</li> <li>Non-dim loads</li> </ul>		
Listings & Certifications	UL/cUL Not for use in North America     California Title 24     FCC Part 15, Class A		
Environmental	0°-40°C <= 90% non-condensing humidity		
Clock	Accuracy to +/- 15 seconds per week Astro Clock accurate to with 15 minutes		
Memory	Lifetime memory of configuration and recorded memories. Clock maintained for up to 10 days in the event of power failures		

#### Daisy Chain Toplogy:

Daisy-chain topology is required for each Luma-Net segment. Star or other similar topologies are not allowed. If multiple home-runs are required, this topology can be supported when a Luma-Net Hub, P/N LHUB8-000, is used.:





GOOD TOPOLOGY (HOME-RUN w/LUMA-NET HUB)



Rem + = Blue/White

Rem - = White/Blue Rem - = Black

# Digital network termination:

The Luma-Net network requires that both ends of the network be terminated:



To terminate any D4200 device, install a short piece of wire, aka 'termination jumper' between the terminals labeled TERM & REM-



Background:

Rem + = Blue

Rem - = White

The Luma-Net network is used for entry stations, partition control/room combine stations, dimmer cabinets, relay cabinets, and other devices which may be required.

Rem + = Red

#### Installation Steps:

Connect all wires as shown. Observe all notes, instructions, and low voltage digital network data cable installation best practices.
 If necessary, install termination jumper. Termination is required only at both ends of the run. DO NOT terminate mid-point devices.

#### Notes:

- 1. Luma-Net networks require a daisy chain topology
- 2. Use Belden #1502R or #1502P for inter-connection of devices. Belden #9829, #9729, & #88102 are also supported wire types, however, an addition pair of (2) #18AWG wires is required.
- 3. A maximum run length of 2000 feet is supported on the data pair.

Relden 0820

- 4. Torque terminals to 7in-lbs.
- 5. 75° min insulation temperature rating.
- 6. Remove 3/8" insulation from each circuit conductor.

7. Only <u>1</u> power supply is allowed on any network segment. If other power supplies are already supplying power to the network segment, do not connect +V between sources. Consult factory if unsure as to the proper power routing or connections for the

network. 8. Terminals support 30-12AWG stranded wire.

#### **Power Calculation:** When using the D4006, D4104, D4206, or D4206 as a supply to the Luma-Net network, ensure that there is enough supply current.

AVAILABLE SUPPLY CURRENT: +24Vdc, 300ma (12 Unit loads)

D4200 single gange devices each require 1 Unit Load D4200 LCD stations each require 2 Unit Loads Luma-Net hubs require 3 Unit Loads

# When using **Belden 1502R (or 1502P**,) the following maximum run lengths apply:

Unit Loads	Max run length (ft)	For applications which do not fit these condi-
10	3,528	tions please contact the
20	1,764	factory for assistance.
30	1,176	
40	882	

EB VERSION

See load types on other side)

(1) 120v, 20A Input Circuit -

Basic Stand Alone System This system represents the starting point for a system with broad application for small restaurants, conference rooms, or offices. Incorporated is a master station running up to (6) small loads and two entrance stations for convenient scene recall.



D4106 Controller Scene 1-8/Max/Off Network Address #1 • (6) local dimmers

Luma-Net protocol requires a •1 Unit Load Low Voltage wire run. Leviton recommends the use of Belden #1502R with a maximum run length as indicated on the other side.

each end --

TRUTH.

**Entrance Station** 

Network Address #2

at Address #1

Slave to Master Station

Scene 1/Off **Entrance Station**  Network Address #3 Slave to Master Station at Address #1 • 1 Unit Load







than 12 dimmers, you may have to patch multiple dimmers and/or relays to each Luma-Net address since the controller can only control up to 32 network address.

See datasheet

2.....

A2000 Dimmer Cabinet

Network Address #2

Network Channel 7-18

as indicated on the other side.

Z-Max 8 Relay Panel Network Address #4

Network Channels 25-32



**Entrance Station**  Network Address #5 Slave to Master Station at Network Address #1 • 1 Unit Load

# Typical System with D4206 Controller

6) 120V Ouput Circuits to lighting loads

1000W maximum per circuit

(See load types on other side)

(1) 120v, 20A Input Circuit —

Starting with the system above, this system replaces the D4200 controller with the D4206 controller adding an additional (6) local dimmers at the master station. Other than a slightly different allocation of dimmers, systems are simlar. Note that if your relay cabinet is larger than 8 relays, or your dimmer cabinet is larger than 12 dimmers, you may have to patch multiple dimmers and/or relays to each Luma-Net address since the controller can only control up to 32 network addresses.

**D4206** Controller

Network Address #1

• (6) local dimmers

Luma-Net protocol requires a Low Voltage wire run. Leviton recommends the use of Belden #1502R with a maximum run length as indicated on the other side.

inon

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D4006 Remote Dimmer

Network Address #3

Network Channels 19-24

# **Typical Systems**

These diagrams represent typical systems which are included as reference designs. Systems may deviate from what is shown herein, however, the principals remain sound. Select a system which closely represents system to be installed, then extend it as necessary. For questions or specific application help, please contact a Leviton sales representative or Leviton Technical Support directly at (800) 959-6004. When inquiring about a specific system it is helpful to have the Leviton bill of materials or equipment list for your particular project.





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--Scene 1/Off **Entrance Station**  Network Address #6 Slave to Master Station at Network Address #1 1 Unit Load



 Network Address #6 Slave to Master Station at Network Address #1 • 1 Unit Load

# **PRODUCT DATA**



# Stand-Alone System Multi-zone Lighting Control & Dimmers

Sophistication Made Simple





Front View with Cover Closed

The Dimensions® D4104 and D4106 stand-alone system combines ease of operation with a wide range of entry stations and accessories to provide a powerful and flexible lighting control solution. The bright LCD readout displays functions and scene information in plain English, making it easy to configure and operate. Eight one-touch scene recall buttons further serve to simplify lighting control. The D4104 and D4106 are sophistication made simple, enabling the optimal mix of lighting to be selected to evoke the right mood without the guesswork.

# FEATURES

- (4) or (6) Zones/Channels of Control
- (4) or (6) Internal Network Dimmers
- (16 + 2) Scene Memory
- Fade Times for each scene
- Room Partition Control
- Remote Dimmer Configuration
- Lockout
- Sequencer

# **APPLICATIONS**

- Commercial
- Conference Room
- Restaurant
- Office
- School
- Landscape
- Scheduling

D4104/D4106

# Leviton Mfg. Co., Inc. Lighting & Energy Solutions

# **PRODUCT DATA**

# INPUT

- 120V Models 120V +/- 10%, 50 or 60Hz, 1,920W Max
- 230V Models 120V +/- 10%, 50 or 60Hz, 2,400W Max

# **DIMMERS/OUTPUT**

- Supported Load Types
- LED SS7 Compliant
- Incandescent
- Magnetic Low Voltage
- Forward Phase Compatible Electronic Low Voltage
- Two-Wire Fluorescent (Advance Mark 10<sup>®</sup>, Lutron Tu-Wire<sup>®</sup>)\*
- Leviton Power Extenders
- 120V Models
- (4) or (6) 1000W/VA Dimmers
- Max 1,200W per side
- Max 1,920W per unit (continuous)
- 230V Models
  - (4) or (6) 800W/VA Dimmers
- Max 1,200W per side
- Max 2,400W per unit (continuous)
- All Models
  - +24Vdc, 150mA for peripheral Luma-Net™ power, (12) unit loads
- Minimum 15W on any dimmer for
- flicker-free operation

# NETWORK

- Network required for use of entrance and partition control stations
- No communication with other devices (see product Compatibility Chart)
- Luma-Net Network
- Up to 127 Luma-Net Devices per network
- 2000' max run length
- Daisy chain wiring (use Hub for Star networks)
- Belden #1502R recommended

# **EXTERNAL TRIGGER**

• Auxiliary input provided to trigger any scene and optionally lock Master station

# **USER INTERFACE**

- (4) or (6) Zones
- Raise/Lower for each Zone
- Level indicator for each Zone
- Master Raise/Lower
- (8) Scene select buttons, Max, & Off at Master station
- LCD display exact zone level, Zone name, and other information
- Time
- Scene Labels ("Breakfast", "Lunch", "Happy Hour", etc.)
- Setup Screens
- Zone Information

- 0-100%, exact intensity setting
- Restore Setting- upon restoration of power after a power failure, the levels of the dimmers will restore to the level they were at prior to the power failure
- Complete front-panel programming
- Scene Information button
- I/R Receiver to be used with Leviton remote control to control Raise, Lower, Max, Off, and any scene
- Alphanumeric Zone & Scene Labels
- Control & Configuration level menus
- Snap on faceplate
- Locks: Record, Scene Change, and Station
- Door with LCD status window and standard door without window included with each device.

# SCENES

- Scenes 1-8 from Master station
- Scenes 9-16 from entry station
- Max & Off are recordable
- Individual fade time for each Zone, o-59 seconds, 1-99 minutes
- Any Zone can be excluded from a scene

# SCHEDULER

- Weekly scheduler
- Pre-defined holidays & holiday scheduler
- Astronomical time clock
- Scheduler can recall scenes or start/stop sequencer
- Up to (64) scheduled events

# SEQUENCER

- Built in (64) step sequencer
- Fade time for each step
- Program to run once or continuously in a loop
- Sequencer to start from scene button, scheduler, or remote stations

# **DAYLIGHT HARVESTING**

- Daylight harvesting control when used with NPC or a-2000
- Support for Closed-Loop systems

# ENVIRONMENT

- Operating Temperature: 32°-104°F (0-40°C)
- Less than 90% non-condensing humidity
- Will withstand static discharge without damage or memory loss

# **LISTINGS & CERTIFICATIONS**

- UL, cUL File #E123072
- ASHRAE 90.1 and CA Title 24 Compliant
- Withstands voltage surge of up to 6000V and 3000V as described in ANSI/IEEE C63.41-1980



# **INSTALLATION & DIMENSIONS**



**FRONT VIEW** 



**REAR VIEW** 

# PRODUCT COMPATIBILITY CHART

	D4200 Entry Stations	D4200 Parition Stations	iSeries e a-2000 MDS	NPC	D4104/ D4106	D4200	D4206	D4000	Closure I/O
D4104/ D4106	Yes	Yes	No	Yes	No	No	No	No	Yes
D4200	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
D4206	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
D4006	No	No	No	Yes	No	Yes	Yes	No	No
D8000	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes

#### Leviton Mfg. Co., Inc. Lighting & Energy Solutions

20497 SW Teton Avenue, Tualatin, OR 97062 1-800-736-6682 Tech Line: 1-800-959-6004 Fax: 503-404-5594 www.leviton.com/les © 2014 Leviton Manufacturing Co., Inc. All rights reserved. Subject to change without notice.

# PART NUMBER KEY



# ACCESSORIES, DOORS, AND COLOR CHANGE KITS

**CHANNELS, 6 DIMMERS** 

## **STANDARD DOORS\***

6

PART NO.	DESCRIPTION
D32CK-oWW	Cover: White Door & White Frame
D32CK-oll	Cover: Ivory Door & Ivory Frame
D32CK-oAA	Cover: Almond Door & Almond Frame
D32CK-oGG	Cover: Grey Door & Grey Frame
D32CK-oEE	Cover: Black Door & Black Frame
D32CK-oSW	Cover: Smoke Door & White Frame
D32CK-oAT	Cover: Light Almond Door & Light Almond Frame
D32CK-oSE	Cover: Smoke Door & Black Frame

2

230V

# **DOORS WITH LCD STATUS WINDOW\***

PART NO.	DESCRIPTION
D32CK-HWW	Cover: White Door & White Frame
D32CK-HII	Cover: Ivory Door & Ivory Frame
D32CK-HAA	Cover: Almond Door & Almond Frame
D32CK-HGG	Cover: Grey Door & Grey Frame
D32CK-HEE	Cover: Black Door & Black Frame
D32CK-HSW	Cover: Smoke Door & White Frame
D32CK-HAT	Cover: Light Almond Door & Light Almond Frame
D32CK-HSE	Cover: Smoke Door & Black Frame

# ACCESSORIES

PART NO.	DESCRIPTION
D42IR-04L	Infrared Remote Control, Scenes 1-4, Raise, Lower, Max, & Off
D42IR-08L	Infrared Remote Control, Scenes 1-8, Raise, Lower, Max, & Off
D421R-16L	Infrared Remote Control, Scenes 1-16, Raise, Lower, Max, & Off

\* Product supplied standard with: (1) white door/white frame

(1) white door/white frame with LCD Status Window

LEVITON SPECIFICATION SUBMITTAL				
JOB NAME:	CATALOG NUMBERS:			
JOB NUMBER:				

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