

16510

TRANSMITTAL LETTER

Horton,
Harley &
Carter, Inc.

Architecture • Planning • Interiors

PROJECT: ROOMS TO GO DISTRIBUTION CENTER & RETAIL SHELL
901 ROOMS TO GO WAY
DUNN, NORTH CAROLINA 28334

**ARCHITECT'S
PROJECT NO:** 13034

TO: VANNOY CONSTRUCTION
631 MCGEE ROAD
ANDERSON, SC 29625 864-261-8458

DATE: 11/25/2014

ATTN: BRANDON GLENN

WE TRANSMIT: ☐ Via pick-up ☐ Via overnight delivery ☐ Via local courier ☒ Via EMAIL

FOR YOUR: ☐ Approval ☐ Information ☐ Record ☐
☐ Distribution ☐ Review & Comment ☒ Use

THE FOLLOWING:

☐ Drawings	☐ Samples	☐ Shop Drawing	☐ Pay Appl. / Change Order
☐ Specifications	☐ Shop Drawing Prints	Reproducibles	☐
		☒ Product Literature	

[illegible]

If enclosures are not as noted, please inform us immediately. If checked, please: ☐ Acknowledge receipt of enclosures. ☐ Return enclosures to us.

REMARKS:

By: BILL SHULMAN

CC: HARMON JONES, BRUCE WALLICK, PATRICIA PARKS, BRITTANY SMYTH, GEORGE CARTER, DAVID WILDEBOER

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Submittal Review

Reviewed By: AJMc/DWR

[illegible]



SPEC. SECTION

16510 Lighting Control System Relay Panels

**SUBMITTALS
11/10/14**

ROOMS TO GO WAREHOUSE

 VANNOY CONSTRUCTION	☒ Reviewed ☐ Furnish As Noted ☐ Revise & Resubmit
Review is to verify general conformance with the plans and specifications and does not release the supplier or subcontractor from responsibility of quantities, dimensions, adequate service, or any other requirements of the contract documents.	
Date: _____	By: <u>Brandon Glenn</u> Project Manager



**4208 Six Forks Road Suite 1000
Raleigh, North Carolina 27609
919.875.8698 Fax: 919.875.8699**



Product Submittal

(141049) Rooms To Go - Dunn, NC

Dunn, NC

10/27/2014

WattStopper
National Technical Support
(800) 879-8585
<http://www.wattstopper.com>

WattStopper
Project Services
Phone (205) 271-3400
Fax (205) 271-3450

WattStopper Service Group

For questions concerning:

- Scheduling Start-up and Training (if applicable)
- Troubleshooting
- Defective Components (Warranty and Non-Warranty)

Contact the Service Administrator: **888-852-2778**

WattStopper Project Management Group

For other questions including:

- Submittal / Control Drawings / Panel Schedules and Programming
- Installation
- Applications and Integration

Contact the Application Engineer:

Reggie Carr, Application Engineer
reginald.carr@wattstopper.com
205-271-3411

For all other questions call the Project Manager:

Eric McKendall, Project Manager
eric.mckendall@wattstopper.com
205-271-3471

- I. Project Overview
- II. Startup Information
- III. Bill of Material
- IV. Drawings
- V. Project Documentation
- VI. Cut Sheets
- VII. Technical Bulletins
- VIII. Warranty Information

I. Project Overview

Rooms To Go Furniture Warehouse DIRECT

The following are the factory drawings on the WattStopper DLM Lighting Control System for the Rooms To Go Furniture Warehouse DIRECT in Dunn, North Carolina.

Digital Lighting Management (DLM) components operate on a free topology WattStopper local bus. The DLM is an intelligent, distributed control system that automatically maximizes lighting energy efficiency. "Plug n Go" establishes default functionality based on the installed components. "Push n Learn" mode allows loads to be reassigned, parameters to be modified and daylighting set points to be changed.

The LMCP series panel provides simple network-capable lighting control enabling the automation of lighting functions throughout an entire facility. The HDR relays in the panel can respond directly to inputs from Digital Lighting Management (DLM) switches, occupancy sensors, daylight sensors, and input modules. Multiple panels may be networked together for global control operation with or without the use of a Segment Manager or BAS.

The DLM control drawings consist of the following:

"WS" series: System Layout -- show the location of all lighting system hardware.

"TW" series: Typical Wiring Details -- shows standard switch wiring details and other wiring scenarios typically used.

The project has five (5) lighting control panels. Each panel consists of a Tub, Power Supply, Interior with 30 amp relays, Cover, Relay Driver Modules and a LMPI card.

The project also has three (3) LENC24S LI Enclosure for 24 size Interior Surface and (1) LENC48S Enclosure for 24 size Interior Surface relay panel enclosures. These enclosures will be used to house the external contactors necessary for this project.

The LMSM-3E Digital Lighting Management Network Segment Manager supports 3 segments for up to 40 bridges or 300 room devices per segment with MS/TP connectivity. This Segment Manager communicates with the DLM components over a twisted pair BACnet- compatible digital segment network. This Segment Manager is for 120 rooms or less in a system. The LMCP24 relay panel is considered as 5 bridges or 30 devices when added to the LMSM-3E Segment Manager. The LMCP48 relay panel is considered as 7 bridges or 40 devices when added to the LMSM-3E Segment Manager. See control drawings SL-1/TW-1 and TW-1.1 for typical wiring details.

The LMRJ-xx patch cable is a Cat 5e cable with RJ45 connectors on each end. The Digital Lighting Management components plug together in any configuration with these cables.

The LM-MSTP 3-conductor DLM segment network cable is a shielded single twisted pair with a ground wire. It connects the DLM Segment Manager to the LMCP panels in order to create a single network with MS/TP connectivity. The LM-MSTP network cable must be run in a linear fashion free from multiple connections at a single point creating a star configuration. Star configuration wiring is not acceptable.

The LMCT-100 Wireless Digital Configuration Tool is a handheld tool for advanced remote configuration of any WattStopper Digital Lighting Management (DLM) system. The tool enables system and device modifications via pushbutton, without ladders or tools, as well as easily duplicating settings between DLM local networks.

Project Overview

The Normally Open Contactors (C277NO) has four poles that expand the ability to switch more loads at the same time. The contactor coil will be controlled by a relay in the lighting panel. See control drawing TW-1.2 for typical wiring details.

The three (3) LENC24S LI Enclosure for 24 size Interior Surface will be used to house the external contactors for panels LC-HC2, LC-HA2, and LC-HB2.

The one (1) LENC48S Enclosure for 48 size Interior Surface will be used to house the external contactors for panel LC-HB2.

The LMLS-600 is a dual loop photosensor that automatically switches or dims one zone of lighting based on ambient light and daylight levels. It has two silicon photodiodes with an extended range of 1-10,000 foot-candles (fc) and features photopic correction to mimic the human eye's perception of daylight. The LMLS-600 is part of a Digital Lighting Management (DLM) system and sends light level signals to control loads connected to DLM on/off or dimming room controllers. See control drawing TW-1.3.

LMSW-100 Series Switches operate on Class 2 power supplied by the LMPI card located inside the LMCP panel. The switches send a digital signal for on or off whenever a pushbutton is pressed by a user. See control drawings TW-1.4 for typical wiring details.

Rooms To Go Warehouse DIRECT

Please be advised of the following issues and circumstances pertaining to this project:

1. Please verify the quantities of all devices prior to releasing the material. Devices missed on the Layout drawings will be added by request if WattStopper is provided the marked up drawings. It is assumed that the quantities released are the correct quantities for the project and not dependant on our Layout drawing only. The Contractor is responsible for the quantities, colors and configurations of devices at the time of release.
2. Digital Lighting Management, DLM, device parameters are included in this Submittal. Analog device parameters can be found on the cut-sheets.
3. There are no LMRJ-xx cables in the Bill of Material with RJ45 connectors on each end. The Digital Lighting Management components plug together in any configuration with these cables. LMRJ-xx cables will need to be purchased on a separate PO or supplied by others.
4. There is no LM-MSTP 3-conductor DLM segment network cable with a shielded single twisted pair with a ground wire. It connects the LMCP Panels and the LSM-3E Segment Manager together to create a single network with MS/TP connectivity. LM-MSTP cable will need to be added to the Bill of material or purchased on a separate PO.
5. The external contactors on this project will be located in enclosures external from the panel. The contactors will be wired to their respective panels. Please see the typical drawings on SL-1/TW-1 and TW-1.2 for both a single line diagram and typical wiring for the panels.
6. Please check the cut sheets for warranty of devices on this project. Most if not all have a minimum of 5 year warranty on parts. Warranty is for replacement of materials only and not the cost of labor to install them.

II. Startup Information

Request for Information

PROJECT NAME:

PROJECT #:

**RE: I/P Connectivity for Lighting Control front end System Devices.
(WL-Base, LSM-3E, LSM-6E)**

The following information is required prior to scheduling start-up:

Required information to set up any Lighting Control front end System Device:

1. IP address _____
2. Subnet Mask _____
3. Gateway _____
4. DNS Server _____

Request for Remote Access *(Optional but Recommended)*

Providing secure remote access to the Lighting Control front end equipment is strongly recommended. The ability for WattStopper to have remote access to the lighting system will enable WattStopper to provide full support during startup and the ability for real-time support during post-startup troubleshooting or reprogramming ensuring faster response times and superior ownership experience.

WattStopper understands IT security concerns and, for convenience, can provide the range of IP addresses that originate WattStopper IP traffic to ensure that only trusted communications are allowed to connect to the controls network.

Because WattStopper is a Legrand company, all traffic will originate from West Hartford, Connecticut and from only the following range of addresses regardless of whether the technician or engineer is at any of our five national office locations. Those IP addresses are **205.142.164.0/22** which can also be written as: **205.142.164.0**, Subnet mask **255.255.252.0**. This indicates a range of possible addresses starting at 205.142.164.0 up to 205.142.167.255, but *typically*, traffic originates from either **205.142.164.225** or **205.142.167.225**

The following TCP ports support SSL encrypted traffic for WattStopper service tools. WattStopper web-enabled control systems utilize the following TCP ports for maintenance: **443, 4911, 3001, 5011**. Please contact your project's Application Engineer to determine which ports are used by your equipment since not all of the above are required to be enabled for a given system.

After the IT department has configured this access, please provide the external static IP address assigned to the WattStopper front end system.

Service IP address _____

This Completed document shall be sent to one of the following:

Fax: 315 634-2702

Email to: field.service@wattstopper.com

Preparation

Notice

The Digital Lighting Management (DLM) system for this project may include a factory field startup visit. Following these instructions is very important. Failure to follow these instructions can cost you time and money.

**RECEIPT OF THE STARTUP REQUEST FORM IS REQUIRED TO SCHEDULE A STARTUP VISIT.
A MINIMUM OF THREE WEEKS NOTICE IS NECESSARY FOR A STARTUP DATE**

Purpose of Startup Visit

1. To verify proper installation of the Watt Stopper DLM System.
2. To verify proper operation of the system.
3. To program initial configuration settings.
4. To provide orientation and training for the end user.

Required Preparations for Startup Visit

General

1. All Digital Lighting Management equipment shown on the Bill of Materials in your submittal has been received and installed.
2. All panels, room controllers, switches, occupancy sensors are wired and powered.
3. **ALL** RJ-45 cables not supplied by WattStopper have been properly tested.
4. Exterior photocell(s) installed (if applicable)
5. **All as-built documentation is complete, accurate, and submitted one week prior to the startup date. FAILURE TO PROVIDE THIS INFORMATION MAY RESULT IN FORFEITURE OF YOUR SCHEDULED DATE. The as-built documentation must include:**
 - Relay Panel and Room Load schedules
 - Switch schedules
 - System time schedules and special functions (if available).
 - Other programming information that may be required for a fully functioning system.
6. An electrician familiar with the installation will be available with ladders/lifting equipment (if required).
7. Arrangements must be made for representatives of the end user to be on site for orientation and training of the system (if required).
There are no allowances made for return training visits, unless specified in the Bill of Materials.
8. Please note any special security measures (surrender of IDs, security clearances, escorts, training classes, etc.) required to access the site and/or DLM equipment.

Daylighting Systems (if not using WattStopper DLM Daylighting Products skip this section.)

9. All daylighting sensors have been wired and are powered.
10. The Daylighting controlled areas are completed and ready for occupancy. This includes the following.
 - The flooring (carpets, finished floors, etc) has been installed.
 - The wall treatments (paint, wall coverings, etc) are complete.
 - All furniture (desks, chairs, tables, cabinets, etc) have been unpacked, cleaned, and installed.
 - Any window blinds or shades have been installed and are fully operable.
 - Any skylight diffusers or louvers have been installed and are fully operable.
 - All lighting fixtures have lamps installed, have been tested, and are operating correctly

Dimming Systems (if not using WattStopper DLM Dimming Products skip this section.)

11. All Dimming Room Controllers have been wired and are powered
12. Lamps have been burned in per the lamp manufacturers recommendations (100 hour burn-in at 100% output is typical)

Networked Systems (if not using WattStopper DLM Networked Products skip this section.)

13. All network devices/panels have been wired and are powered.
14. The MS/TP network has been run and conforms to standards detailed in WattStopper Technical Bulletin #TB179.1. Use WattStopper #LM-MSTP wire. **(FAILURE TO USE SPECIFIED WIRE MAY JEOPARDIZE COMPLETION OF STARTUP)**

Additional Charges

IF EXTRA TRIPS OR EXTRA TIME IS REQUIRED TO COMPLETE THE SYSTEM STARTUP DUE TO LACK OF PREPARATION OR INSTALLATION PROBLEMS, ADDITIONAL CHARGES TO THE CONTRACTOR WILL RESULT. THIS EXTRA WORK WILL REQUIRE A PURCHASE ORDER.

Scheduling the Startup Visit

1. Make sure all preparations listed above have been or will be completed by the date of the startup visit.
2. Determine the preferred date for the startup visit. (Please note required lead time)
3. Complete the "Digital Lighting Management Startup Visit Request" form and fax it to WattStopper Field Technical Services at 315.634.2702 or email it to field.service@wattstopper.com

Cancellation

In the event you cancel your confirmed date without reasonable notice, you may be charged to reschedule.

- Less than 3 business days - \$500.00
- 4-7 business days - \$250.00

Startup Request Form

Instructions

To request a Startup visit of the WattStopper Digital Lighting Management equipment:

1. Read the "Digital Lighting Management Startup Visit Request" preparation page.
2. Complete this form including initialing the items under required preparations below.
3. Fax the completed form to Watt Stopper at 315.634.2702 or email to field.service@wattstopper.com
4. Contact Watt Stopper Field Technical Services at 888.852.2778 to schedule the startup visit.

Project Information

Project/Site Name: _____ Contact Name: _____
 Address/Location: _____ Contact Phone: _____
 City: _____ State: _____ Zip: _____ Site Contact: _____
 Cross Street: _____ Site Phone: _____
 Preferred Startup Date: _____ Job Quote or P.O.#: _____

**RECEIPT OF THE STARTUP REQUEST FORM IS REQUIRED TO SCHEDULE A STARTUP VISIT.
 A MINIMUM OF THREE WEEKS NOTICE IS NECESSARY FOR A STARTUP DATE**

Required Preparations (If items on this list do not pertain to your site enter N/A not applicable)

Initials

General

1. All DLM equipment has been received and installed. _____
2. All panels, room controllers, switches, occupancy sensors are wired and powered. _____
3. **ALL** RJ-45 cables not supplied by WattStopper are properly tested. _____
4. Exterior photocell(s) installed (if applicable) _____
5. **All as-built documentation is complete, accurate, and submitted one week prior to the startup date.**
(FAILURE TO PROVIDE THIS INFORMATION MAY RESULT IN FORFEITURE OF YOUR SCHEDULED DATE) _____
6. An electrician familiar with the installation will be available. _____
7. Arrangements are being made for representatives of the end user to be on site for orientation and training. _____
8. Any special security measures required accessing the site and/or DLM equipment? (if yes, describe below under Important Notes) _____
9. Any **special training/safety classes** required to access site or WattStopper equipment? (if yes, describe below under Important Notes) _____
10. I have read the cancellation section on the "Digital Lighting Management Startup Request" preparation page. _____

Daylighting Systems (Initial at right if project is using WattStopper DLM Daylighting products.) _____

11. All daylighting sensors are wired and powered. _____
12. Daylighting controlled areas are completed and ready for occupancy. _____

Dimming Systems (Initial at right if project is using WattStopper DLM Dimming products.) _____

13. All Dimming Room Controllers are wired and powered. _____
14. Lamps have been burned in per the lamp manufacturers recommendations. _____

Networked Systems (Initial at right if project is using WattStopper DLM Networked products.) _____

15. All network devices/panels are wired and powered. _____
16. The MS/TP network (LM-MSTP) has been run and terminated between all devices/panels. (see drawings for details) _____
17. **The MS/TP network has been installed and conforms to standards detailed in WattStopper Technical Bulletin #TB179.1**
(FAILURE TO USE SPECIFIED WIRE MAY JEOPARDIZE COMPLETION OF STARTUP) _____

Important Notes: _____

Request

The startup visit for the above-named project is hereby requested. The preparations listed above are, or will be, completed prior to the date of the startup visit. **It is understood that additional trips or excess time required to complete the startup visit due to lack of preparation on the part of the installer may result in additional charges to the installer.**

Signature _____

Name (print legibly) _____

Company _____

Date _____

Fax this page to 315.634.2702 or email to field.service@wattstopper.com

Startup services (SCOM) provides for a field inspection in order to evaluate the proper installation of our products in accordance with our own guidelines, and the design of the system. Confirmation that it is installed in accordance with product documentation; test and verify that the system operates as intended; input data into programmable system to reflect the owners' intended sequence of operation; and provide training and review of all system hardware, software, and adjustments.

For projects designed by WattStopper, close coordination with the Project Manager is maintained so as to verify and test the Sequence of Operation. Systems designed by a third party may require that the technician accommodate the design as closely as practical, within the capabilities and installation of the equipment as installed. Requests for field engineering, design, and custom control scenarios are at the discretion of the field technician and the Project Manager. The technician is not required or expected to provide additional services, equipment, or expertise to accommodate a design not reviewed or accepted by the Project Manager.

A Factory Startup includes the following:

- Inspection
- Documentation
- Initial Programming
- Verification
- Owner Training

A Factory Startup does not include the following:

- Any additional tests and/or documentation that may be required by a 3rd party "Commissioning Agent"
- Installation of any equipment
- Wiring or termination of any equipment, beyond reasonable Class II connections of dataline wiring, etc
- Networking configurations of owners IT infrastructure
- Configuration/ troubleshooting of equipment NOT provided by WattStopper

A successful startup requires that the equipment be fully installed and ready to be brought into service. Startup Request Checklists are to be used to document the readiness of the system, and are required when requesting a Factory Startup.

It is important that the proper checklist be used, and filled out accurately. Any questions should be directed to your Project Manager.

Physical Inspection

Confirm minimum acceptance for performance following manufacturer's recommendations.

Inspect mounting methods, wiring, terminations, connections, cleanliness, and other installation methods as required.

Confirm installation meets design criteria as directed by Project Manager, using drawings, submittals and other documentation.

System Checkout

Use appropriate WattStopper checklists for testing, inspection, and initial programming procedures as required. Test results to become a part of the Startup Document Closeout package, to be maintained by the Project Manager upon completion of Startup. Use, and attach as supporting documentation, all tests performed using software tools designed for this purpose. Save and maintain electronic testing data in its native form, or convert to commonly used electronic file formats if practical.

Lighting Control Panels

Inspect, test, and document all panels, relays, switches, and other equipment that interacts with the panel system. Compare and resolve all submitted documentation to site conditions. Consult with Project Manager prior to implementing any system design changes or programming that may deviate from that submitted to technician.

Occupancy Sensors

Inspect, sample test, and document installation. Note all issues of misplacement, misapplication, and other specific conditions that may affect product performance. Perform a full functional test on a representative sampling of sensors of not less than 10% of installed quantity. An appropriate mix of technologies, mounting types, and location should be used for this sample.

Configuration

Compile or modify programming configurations as required to meet intended control scenarios and functionality. Assist in the actual field wiring of the controls only as is practical. Sequence of Operation provided at the time of startup shall be accommodated only to the extent that is practical. In the absence of a WattStopper design, actual system function becomes the responsibility of the installing contractor.

Modifications

Modifications to the system as designed should be undertaken with extreme care, and under close supervision of the Project Manager. This will help ensure the control logic and Sequence of Operation, as well as prevent unnecessary modifications that can result from a lack of additional information.

Program

System to be left in a programmed state, unless directed otherwise. Programming decisions that have not been agreed upon in advance, documented, and provided to the technician, become the responsibility of the owner. Using commonly accepted practices, accounting for equipment capabilities, technician expertise, and owner requests, control strategies can be agreed upon with responsible parties on site and implemented by the technician. In the absence of such information, the technician shall program the system with a basic level of control, however all devices must operate regardless of any scheduling or automatic functions that may be loaded into the system.

For those systems that require access to system programming only with the use of a PC, a reasonable attempt must be made to provide the end-user/ contractor future access into the system in order to make changes. This includes, but is not limited to; Loading software on the Contractors PC. Provide all software as necessary in addition to specific training to allow user to setup a PC at a later date. The WattStopper will not be responsible for making future changes to programming, unless internet access has been provided to the WattStopper.

Documentation

Compile, maintain, and provide all necessary documentation for the end-user. FTS maintains the document chain until such time as it is complete, and transferred to Project Management. In all cases, the original drawings and site file information are to be used to properly document existing site conditions. Red line drawings or other appropriate electronic means should be used for this purpose. All site documentation and descriptions shall be made in the Win Control or LMCS site file in the case of DLM, when appropriate, or other such electronic media, whenever practical. DLM systems do not normally require the use of LMCS software, and will be used at the discretion of the Project Manager, and or Technician. All site documentation to be submitted to the Project Manager for use in compiling O&M's

Single Line Drawings

Are modified or created to note equipment relationships, addressing schema, as well as routing of dataline. Other equipment notations not otherwise accounted for in other documentation.

Panel Schedules

The site will be documented as complete as possible. Pre startup documentation provided to technician will be updated and modified with changes on-site. Panel schedules to be printed out and installed in its respective equipment.

Programming Documentation

The site will be programmed for the purposes of system operation, or as required, or for purpose of documentation. Any pre-programming provided to technician will be updated and modified by the technician with changes on-site. Relevant documentation to be printed and stored with the appropriate equipment.

Service Report

The report that details site information, contacts, and site conditions provides for a signature of acknowledgement. The technician should obtain a signature; however, this is not a requirement of having completed startup. The technician has the responsibility to acknowledge the site visit and work performed.

Other Documentation

Win Control/ LMCS site files, spreadsheets, test report pdf's, and other documentation as required.

Training

Startup technician to provide owner training at time of startup. Training schedule to be arranged through WattStopper Dispatch at the time the startup is scheduled. Separate training visits may be required, and will be billable if not provided for in the original WattStopper Bill of Materials. WattStopper does not provide videotaping equipment or personnel, and is not required to provide separate training for this purpose.

Replacements

Technicians normally carry a limited stock of replacement material, and should be provided to the installing contractor in the event of failure. The technician is not required to provide any additional material that is not specifically used as a defective replacement. Product failures that cannot be resolved on-site at the time of startup, shall be referred to the Project Manager and WattStopper Dispatch for resolution. It is the installing contractor's responsibility to replace defective products.

Computers

The technician is responsible for initial setup of computers provided by WattStopper. This includes installing and licensing any software that is required for the lighting control system. This does not include network configurations, security, anti-virus, or other IT configurations that may be required by the owner. The technician is not responsible for owner or contractor provided computers, beyond installing any software that may be required for the lighting control system, and is not obligated to troubleshoot/ repair a non- WattStopper computer.

III. Bill of Material

Bill of Materials

Project Name: Rooms To Go Furniture Warehouse
 Project Location: Dunn,NC
 Distributor PO:
 Quote#: 139622

Catalog Number	Qty	UOM	Description
LMCP24 115/277-17HD	EA	1	LMCP panel with 24-relay maxcapacity - LC-HA2
LENC24S	EA	1	LI Enclosure for 24 size Interior Surface
C277NO	EA	6	4 pole normally open contactor277V coil
DMP	EA	1	DIN Rail Mounting Plate
LMCP48 115/277-28HD	EA	1	LMCP panel with 48-relay maxcapacity - LC-HB2
LENC48S	EA	1	LI Enclosure for 48 size Interior Surface.
C277NO	EA	6	4 pole normally open contactor277V coil
DMP	EA	1	DIN Rail Mounting Plate
LMCP24 115/277-16HD	EA	1	LMCP panel with 24-relay maxcapacity - LC-HB4
LENC24S	EA	1	LI Enclosure for 24 size Interior Surface
C277NO	EA	6	4 pole normally open contactor277V coil
DMP	EA	1	DIN Rail Mounting Plate
LMCP48 115/277-22HD	EA	1	LMCP panel with 48-relay maxcapacity - LC-HC2
LENC48S	EA	1	LI Enclosure for 48 size Interior Surface.
C277NO	EA	6	4 pole normally open contactor277V coil
DMP	EA	1	DIN Rail Mounting Plate
LMCP24 115/277-10HD	EA	1	LMCP panel with 24-relay maxcapacity - LC-HB6
LENC24S	EA	1	LI Enclosure for 24 size Interior Surface
C277NO	EA	2	4 pole normally open contactor277V coil
DMP	EA	1	DIN Rail Mounting Plate
LM-ENGRAVING	EA	1	DLM-Engraving for Color Kits
LMSW-KIT-101-W	EA	25	DLM 1 Button Switch Color Kit,White
LMLS-600	EA	47	LM Dual Loop Daylighting SensoON/OFF/Dimming, 1 Channel
LMSM-ENC1	EA	1	NEMA1 enclosure for DLMsegment manager
LMSM-3E	EA	1	Segment manager, support for 3MS/TP networks
PW-100-W	EA	52	PIR Wall Switch Occupancy Sensor, 120/277V, White
UT-355-2	EA	31	Ultrasonic Ceiling Occupancy Sensor100-347 VAC, 1000 sq ft
UT-355-3	EA	19	Ultrasonic Ceiling Occupancy Sensor100-347 VAC, 2000 sq ft
LMSW-101-W	EA	25	Digital Switch, 1-buttonw/ infrared, white
LMCT-100	EA	2	Digital Wireless ConfigurationTool
C277NO	EA	53	4 pole normally open contactor277V coil
LENC48S	EA	1	LI Enclosure for 48 size Interior Surface.

Catalog Number	Qty	UOM	Description
LENC24S	EA	3	LI Enclosure for 24 size Interior Surface
HMFG-L	EA	2	30FT DIN-3R IN LENC24S AND LENC48S
SCOM	EA	1	On Site Commissioning of Control System
SDRAWSYS	EA	1	Documentation Package of Control System

Optional items not included in the bill of materials

Catalog Number	Qty	UOM	Description
LMRJ-P100	EA	0	RJ45 Cables, 100 feet, plenumrated
LM-MSTP	FT	0	DLM segment network wireMPL-9008-17-WS

IV. Drawings

KEYED NOTES:

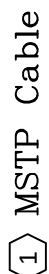
- 1 WattStopper recommends mounting LMSC-300's in corridors & hallways. MSTP must be run in linear fashion.
- 2 The 120Ω resistor (included) is required for end of line termination.

GENERAL NOTES

- Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required, and setting of sensitivity time adjustments are the responsibility of the installing contractor and the commissioning agent. Manufacturer's installation instructions should be adhered to.
1. Plug n' Go (PiG): Default Operation.
Upon initial power up, the DLM system automatically identifies the devices on the Local Network then enters the WattStopper patented Plug n' Go (PiG) mode. This mode allows the DLM devices to learn the relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. PiG automatically maximizes lighting energy efficiency.
 2. Push n' Learn (PiL): Custom Operation
A technician using the WattStopper DLM devices allows easy access to the WattStopper patented PiL technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicators. In addition, the Configuration Tool provides remote infrared access to PiL and sensor adjustment parameters.
 3. All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
 4. Ceiling mounted sensors require they be located no closer than 6' from air supply/return registers.
 5. Contractor is responsible for field verification of required number devices.
 6. For pre-terminated wire and accessories, please refer to www.wattstopper.com/DLM.

LEGEND

10 LMSC-600



MSTP Cable

WattStopper

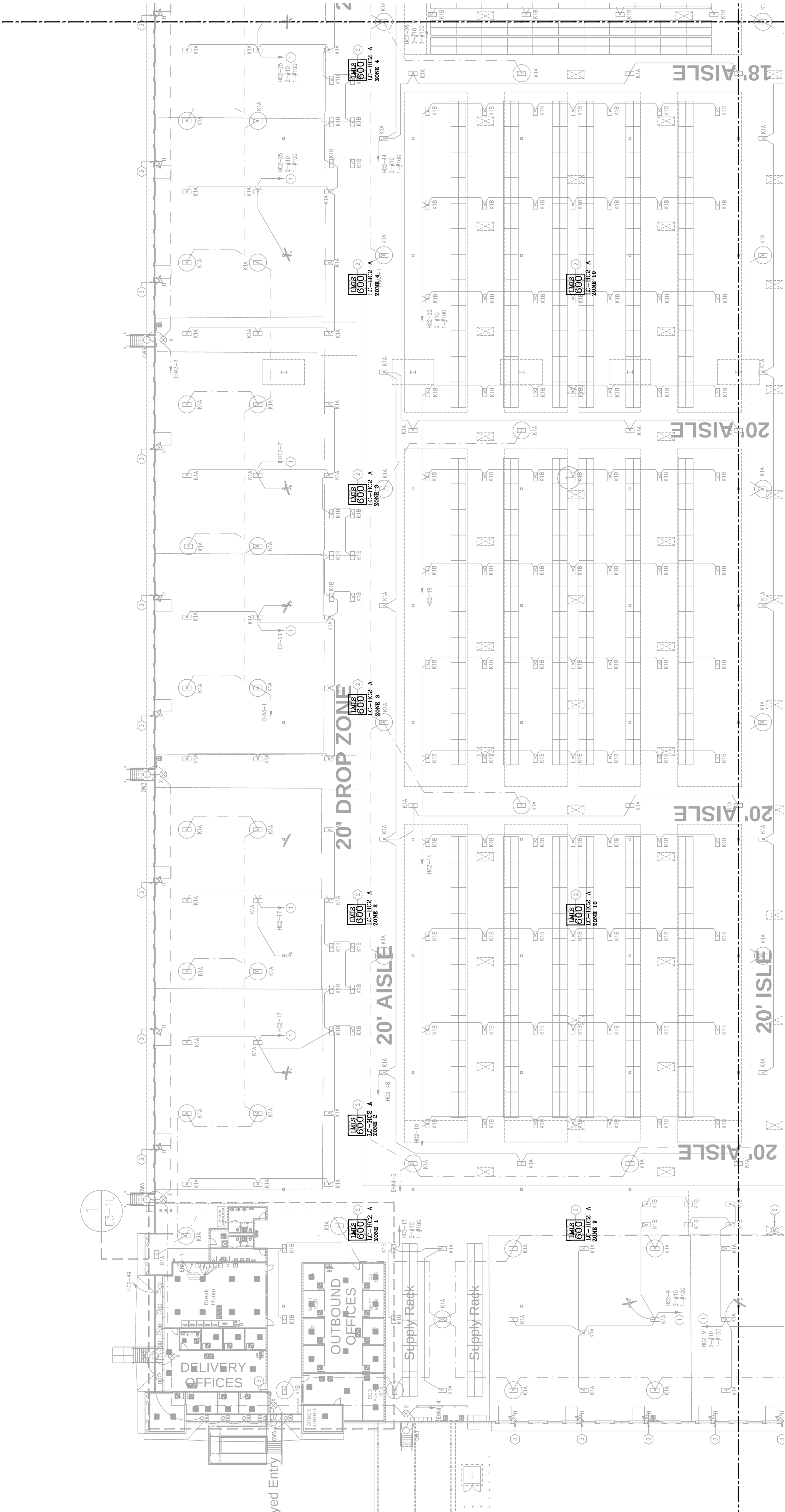
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PROJECT

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SCALE	NONE	DRAWN BY	KWH

PARTIAL FLOOR PLAN "A" - LIGHTING



KEYED NOTES:

- 1 WattStopper recommends mounting LMC-300's in corridors & hallways. MSTP must be run in linear fashion.
- 2 The 120Ω resistor (included) is required for end of line termination.

GENERAL NOTES

Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required, and setting of sensitivity time adjustments are the responsibility of the installing contractor and/or commissioning agent. Manufacturer's installation instructions should be adhered to.

1. Plug n' Go (PiG): Default Operation.
Upon initial power up, the DLM system automatically identifies the devices on the Local Network then enters the WattStopper patented Plug n' Go mode. In this mode, the DLM system establishes a relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. PiG automatically maximizes lighting energy efficiency.
2. Push n' Learn (PiL): Custom Operation
A Custom Operation (PiL) mode allows the DLM devices allows easy access to the WattStopper patented PiL technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicators. In addition, the Configuration Tool provides remote infrared access to PiL and sensor adjustment parameters.
3. All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
4. Ceiling mounted sensors require they be located no closer than 6' from air supply/ return registers.
5. Contractor is responsible for field verification of required number devices.
6. For pre-terminated wire and accessories, please refer to www.wattstopper.com/DLM.

LEGEND

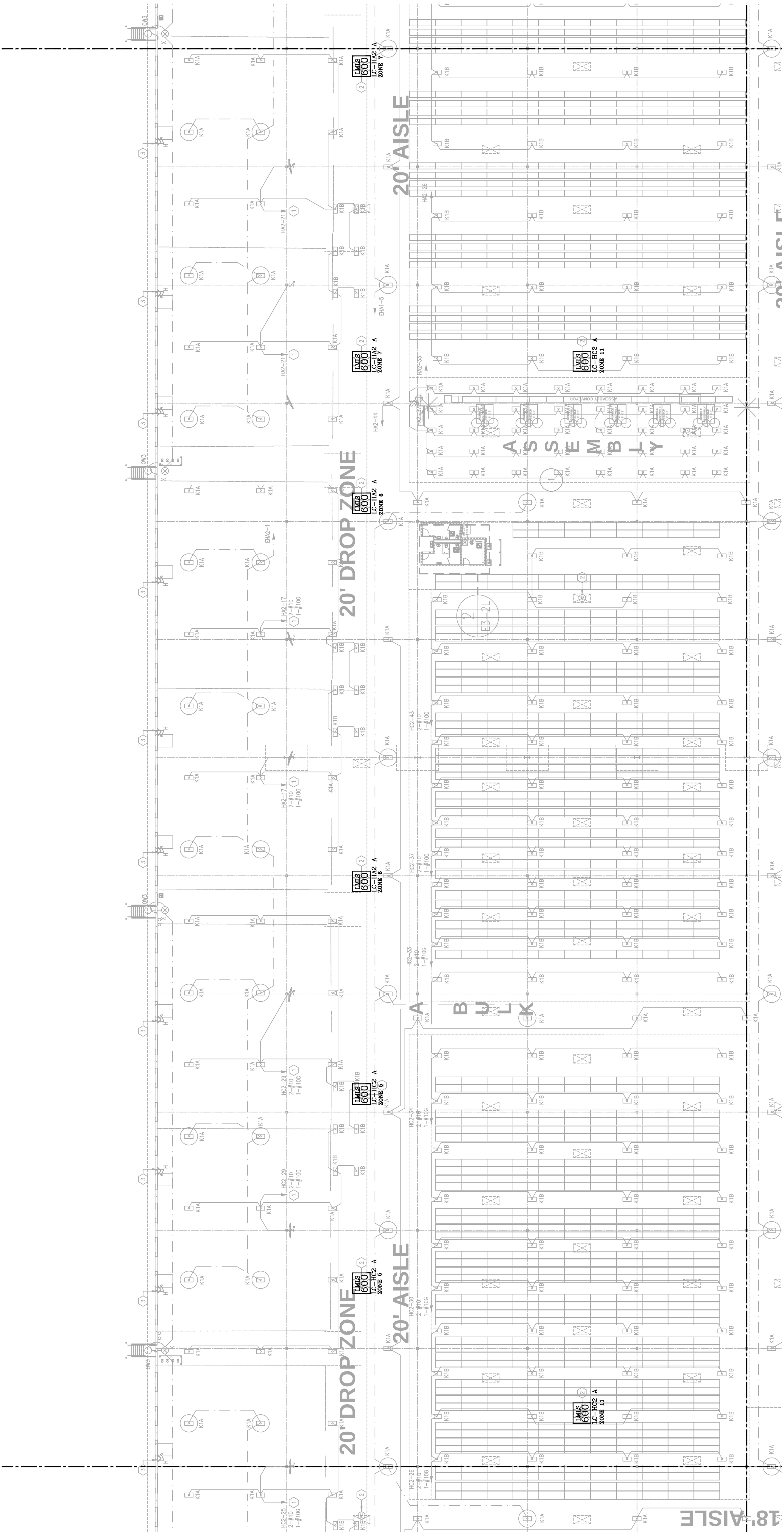
8  LMLS-600

 MSTP Cable

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PARTIAL FLOOR PLAN "B" - LIGHTING

KEYED NOTES:

- 1 WattStopper recommends mounting LMC-300's in corridors & hallways. MSTP must be run in linear fashion.
- 2 The 120Ω resistor (included) is required for end of line termination.

GENERAL NOTES

Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required, and setting of sensitivity time adjustments are the responsibility of the installing contractor and/or consulting engineer. Manufacturer's installation instructions should be adhered to.

- Plug n' Go (PiGo): Default Operation.
Upon initial power up, the DLM system automatically identifies the devices on the Local Network then enters the WattStopper patented Plug n' Go (PiGo) mode. This mode allows the DLM devices. In most applications the relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. PiGo automatically maximizes lighting energy efficiency.
- Push n' Learn (PiL): Custom Operation
A Custom Operation (PiL) mode allows the DLM devices allows easy access to the WattStopper patented PiL technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicators. In addition, the Configuration Tool provides remote infrared access to PiL and sensor adjustment parameters.
- All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
- Ceiling mounted sensors require they be located no closer than 6' from air supply/ return registers.
- Contractor is responsible for field verification of required number devices.
- For pre-terminated wire and accessories, please refer to www.wattstopper.com/DLM.

LEGEND

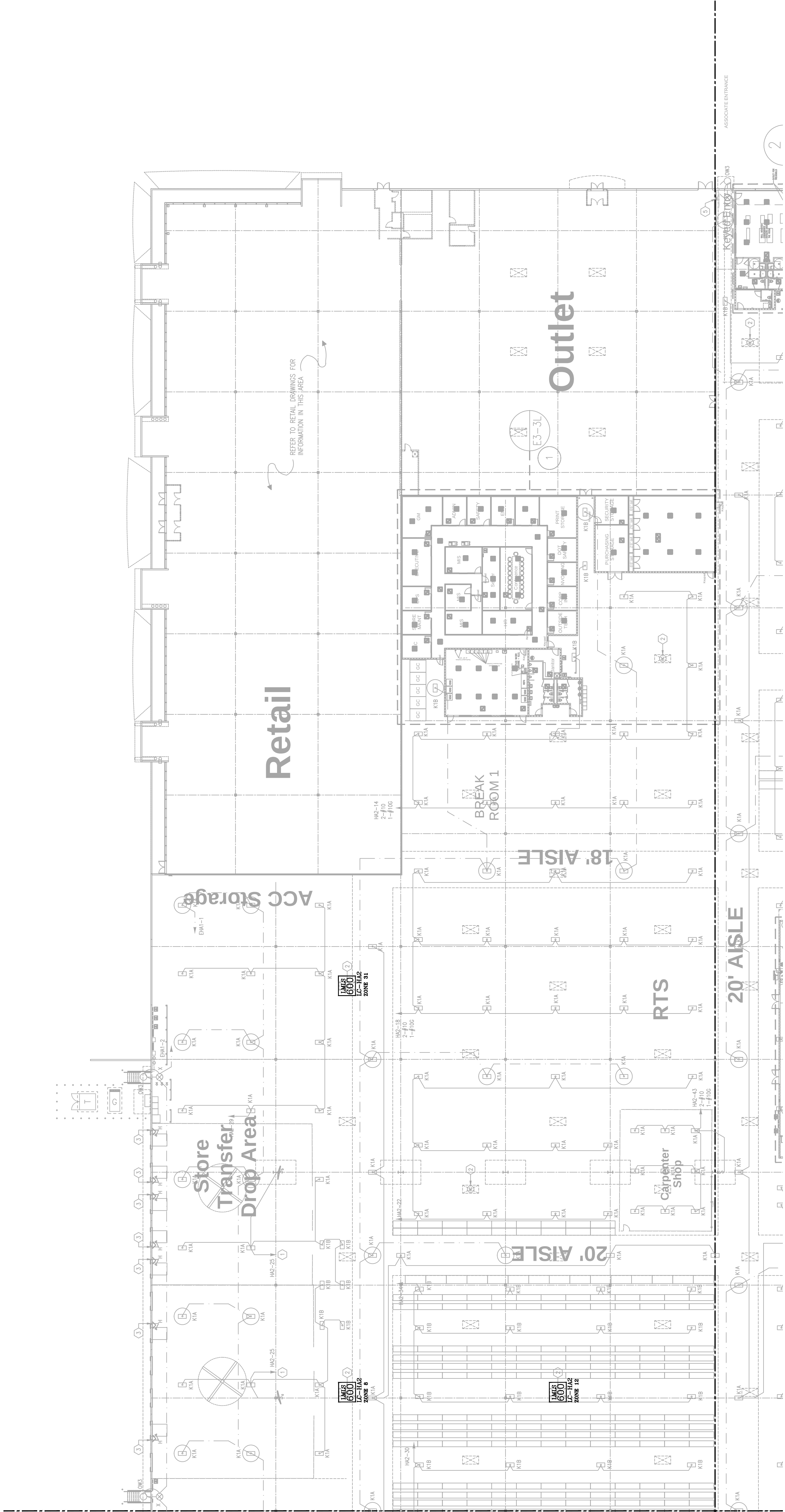
3 1/2" LMLS-600

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SCALE	NONE	DRAWN BY KWH



PARTIAL FLOOR PLAN "C" - LIGHTING

KEYED NOTES:

- ① WattStopper recommends mounting LMBC-300's in corridors & hallways. MSTP must be run in linear fashion.
- ② The 120Ω resistor (included) is required for end of line termination.

GENERAL NOTES

- Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required, and setting of sensitivity time adjustments are the responsibility of the installing contractor and/or commissioning agent. Manufacturer's installation instructions should be adhered to.
- Plug n' Go (PiG): Default Operation.
Upon initial power up, the DLM system automatically identifies the devices on the Local Network then enters the WattStopper patented Plug n' Go mode. In this mode, the DLM system establishes a relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. PiG automatically maximizes lighting energy efficiency.
 - Push n' Learn (PiL): Custom Operation
A Custom Operation (PiL) mode allows the DLM devices allows easy access to the WattStopper patented PiL technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicators. In addition, the Configuration Tool provides remote infrared access to PiL and sensor adjustment parameters.
 - All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
 - Ceiling mounted sensors require they be located no closer than 6' from air supply/ return registers.
 - Contractor is responsible for field verification of required number devices.
 - For pre-terminated wire and accessories, please refer to www.wattstopper.com/DLM.

LEGEND

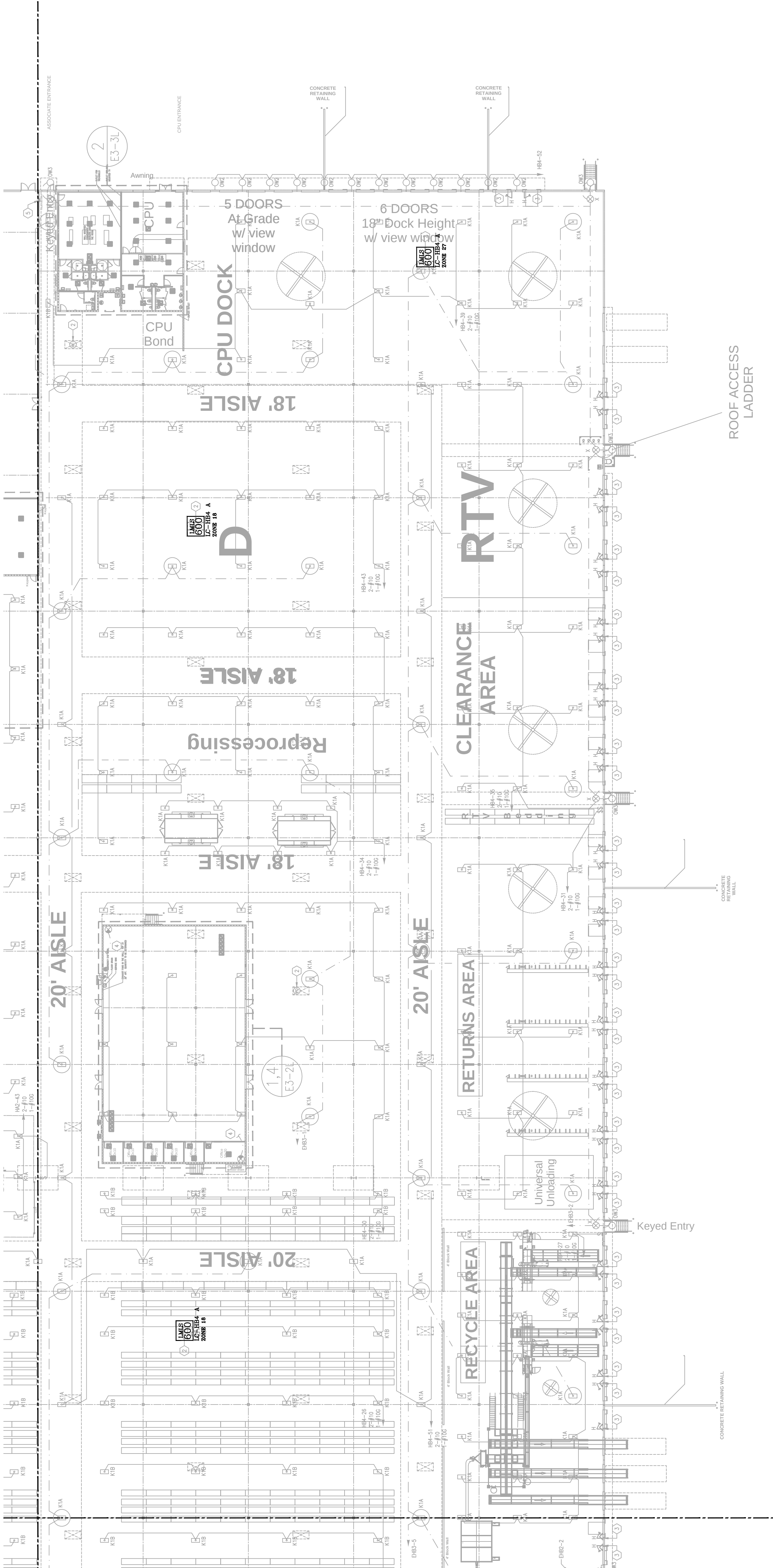
3  LMLS-600

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PARTIAL FLOOR PLAN "D" - LIGHTING

KEYED NOTES:

- ① WattStopper recommends mounting LMBC-300's in corridors & hallways. MSTP must be run in linear fashion.
- ② The 120Ω resistor (included) is required for end of line termination.

GENERAL NOTES

Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required, and setting of sensitivity time adjustments are the responsibility of the installing contractor and are not to be construed as a recommendation. Manufacturer's installation instructions should be adhered to.

- Plug n' Go (PiGo): Default Operation.
Upon initial power up, the DLM system automatically identifies the devices on the Local Network and enters the WattStopper patented Plug n' Go (PiGo) mode. In this mode, the DLM devices, in most applications the relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. PiGo automatically maximizes lighting energy efficiency.
- Push n' Learn (PiL): Custom Operation.
Access to the WattStopper Custom Operation (PiL) mode allows easy access to the WattStopper patented PiL technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicators. In addition, the Configuration Tool provides remote infrared access to PiL and sensor adjustment parameters.
- All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
- Ceiling mounted sensors require they be located no closer than 6' from air supply/ return registers.
- Contractor is responsible for field verification of required number devices.
- For pre-terminated wire and accessories, please refer to www.wattstopper.com/DLM.

LEGEND

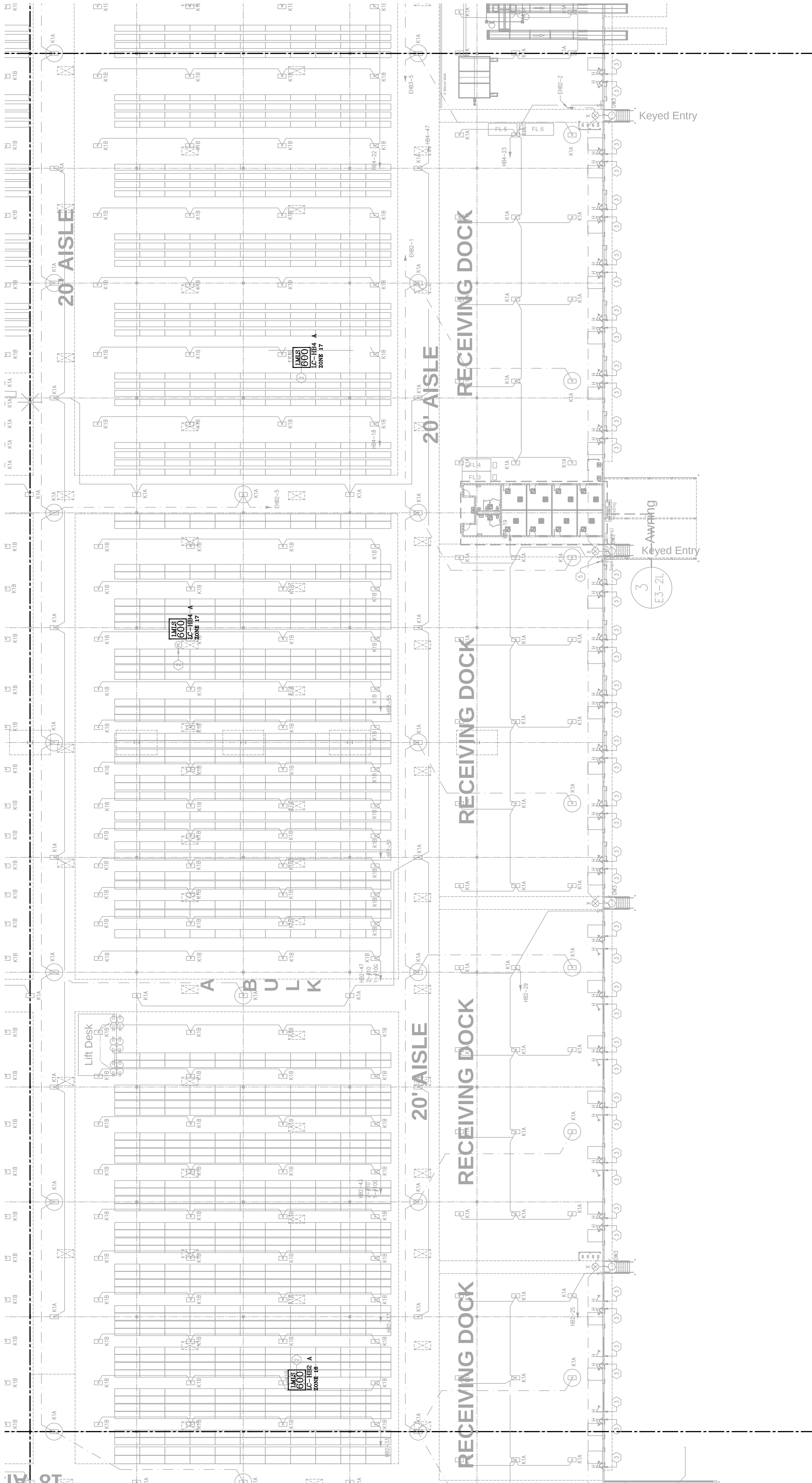
3  LMBS - 600

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PARTIAL FLOOR PLAN "E" - LIGHTING

KEYED NOTES:

- 1 WattStopper recommends mounting LMBC-300's in corridors & hallways. MSTP must be run in linear fashion.
- 2 The 120Ω resistor (included) is required for end of line termination.

GENERAL NOTES

Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required, and setting of sensitivity time adjustments are the responsibility of the installing contractor and are not considered a part of the manufacturer's installation instructions should be adhered to.

1. Plug n' Go (PiGo): Default Operation. Upon initial power up, the DLM system automatically identifies the devices on the Local network then enters the WattStopper patented n' Go (PiGo) mode. This mode allows the DLM devices. In most applications the relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. PiGo automatically maximizes lighting energy efficiency.
2. Push n' Learn (PiL): Custom Operation. A Custom Operation (PiL) mode allows DLM devices allows easy access to the WattStopper patented PiL technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicators. In addition, the Configuration Tool provides remote infrared access to PiL and sensor adjustment parameters.
3. All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
4. Ceiling mounted sensors require they be located no closer than 6' from air supply/ return registers.
5. Contractor is responsible for field verification of required number devices.
6. For pre-terminated wire and accessories, please refer to www.wattstopper.com/DLM.

LEGEND

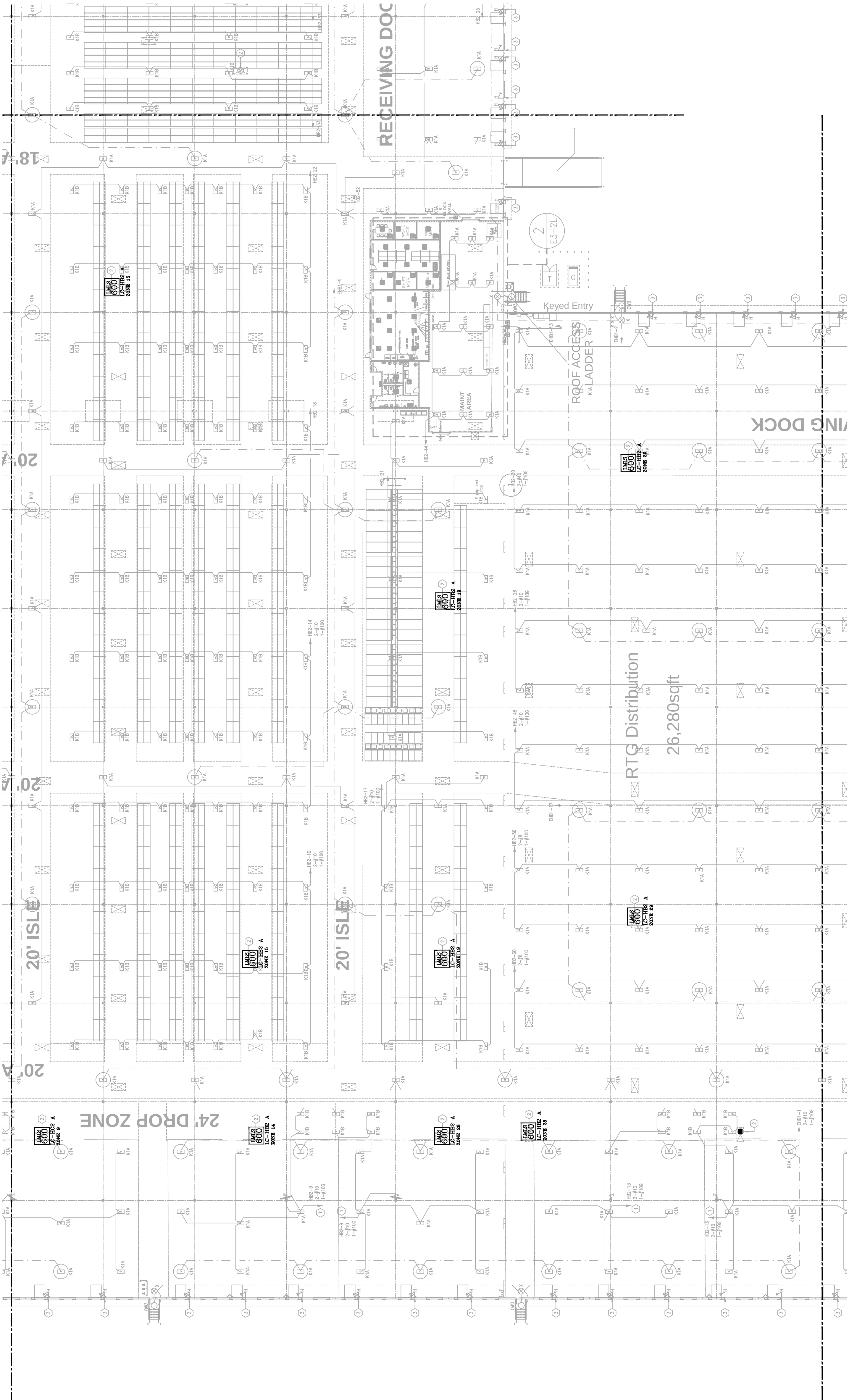
11 600 LMIS-600

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PARTIAL FLOOR PLAN "F" - LIGHTING

KEYED NOTES:

- ① WattStopper recommends mounting LMBC-300's in corridors & hallways. MSTP must be run in linear fashion.
- ② The 120Ω resistor (included) is required for end of line termination.

GENERAL NOTES

Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required, and setting of sensitivity time adjustments are the responsibility of the installing contractor and are not considered a part of the manufacturer's installation instructions should be adhered to.

- Plug n' Go (PiGo): Default Operation.
Upon initial power up, the DLM system automatically identifies the devices on the Local Network then enters the WattStopper patented n'Go DLM mode. In this mode, the WattStopper DLM devices, in most applications the relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. PiGo automatically maximizes lighting energy efficiency.
- Push n' Learn (PiL): Custom Operation
When a user pushes the button on the DLM devices allows easy access to the WattStopper patented PiL technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicators. In addition, the Configuration Tool provides remote infrared access to PiL and sensor adjustment parameters.
- All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
- Ceiling mounted sensors require they be located no closer than 6' from air supply/ return registers.
- Contractor is responsible for field verification of required number devices.
- For pre-terminated wire and accessories, please refer to www.wattstopper.com/DLM.

LEGEND

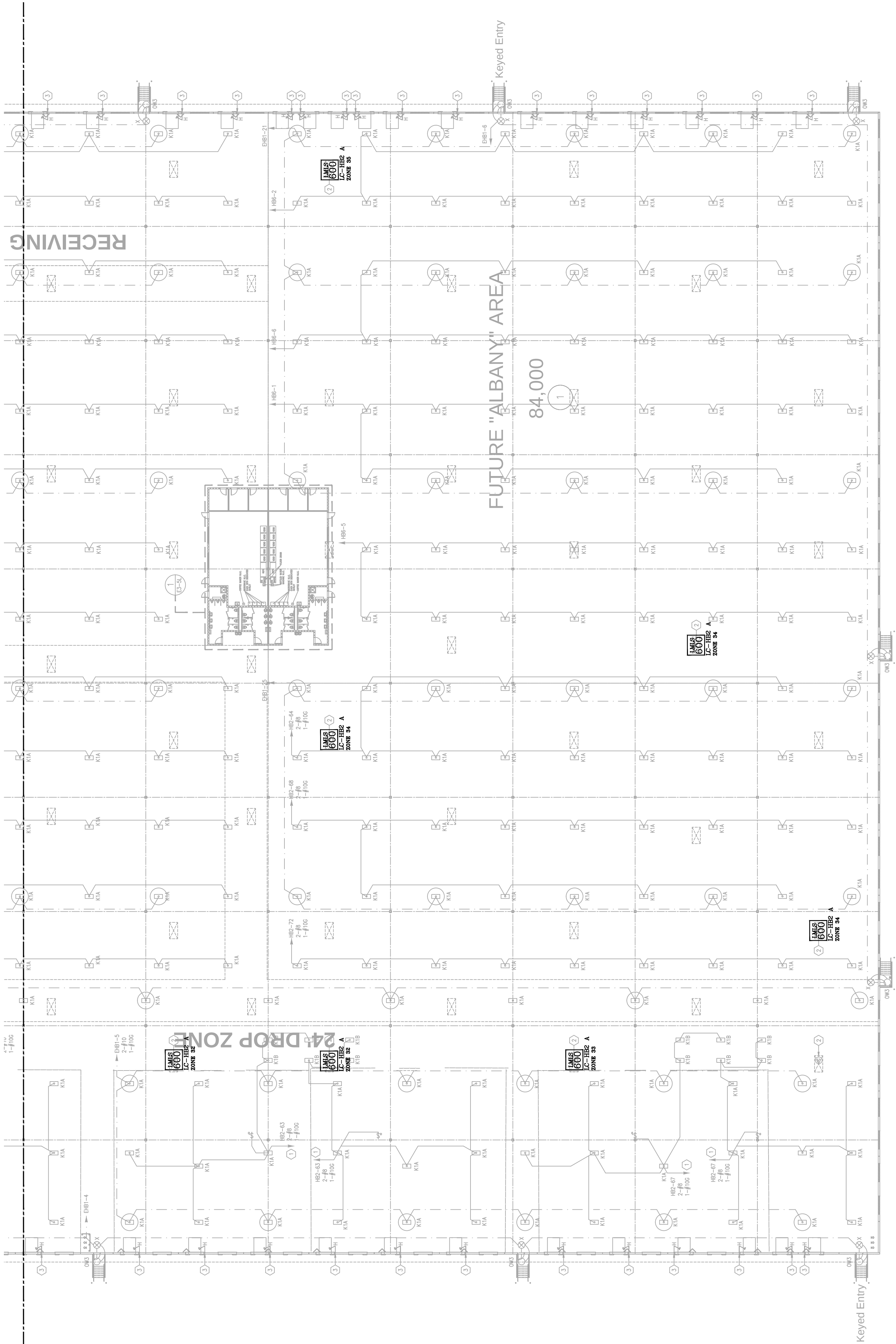
7  LMBC-300

 MSTP Cable

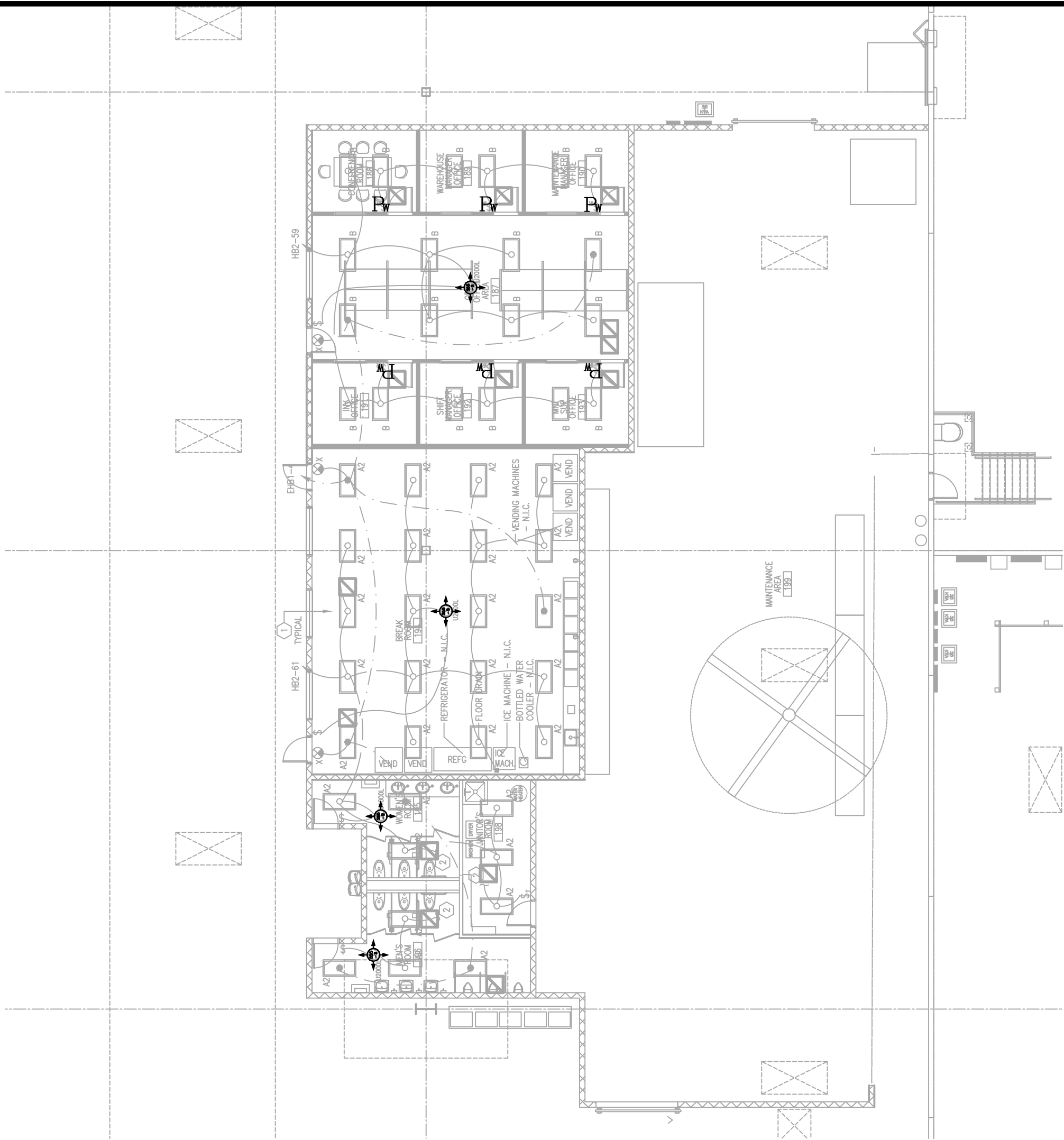
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PARTIAL FLOOR PLAN "G" - LIGHTING



MAINTENANCE & OFFICE ENLARGED PLAN - LIGHTING

DELIVERY AND OUTBOUND OFFICE ENLARGED PLAN - LIGHTING

KEYED NOTES:

- ① WattStopper recommends mounting LMBC-300's in corridors & hallways. MSTP must be run in linear fashion.
- ② The 1200 resistor (included) is required for end of line termination.

GENERAL NOTES

Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required, and setting of sensitivity/time adjustments are the responsibility of the installing contractor and/or commissioning agent. Manufacturer's installation instructions should be adhered to.

1. Plug in Go (Pac); Default Operation.
2. Upon initial power up, the DLM system automatically identifies the devices on the Local Network, then enters the WatStopper patented Plug in Go configuration to allow basic operation of all DLM devices. In most applications the relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. Plug in Go automatically maximizes lighting energy efficiency.
3. Push in Learn (Pul); Custom Operation
 "A" configuration (Config) button on most DLM devices allows easy access to the WatStopper patented Plug technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicators. In addition, the Configuration Tool provides remote infrared access to Plug and sensor adjustment parameters.
4. All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
5. Ceiling mounted sensors require they be located no closer than 6" from air supply/ return registers.
6. Contractor is responsible for field verification of required number devices.
7. For pre-terminated wire and accessories, please refer to www.watstopper.com/DLM.

LEGEND

- 21 Pw PW-100
5 UT-355-2
10 UT-355-3

1 MSTP Cable

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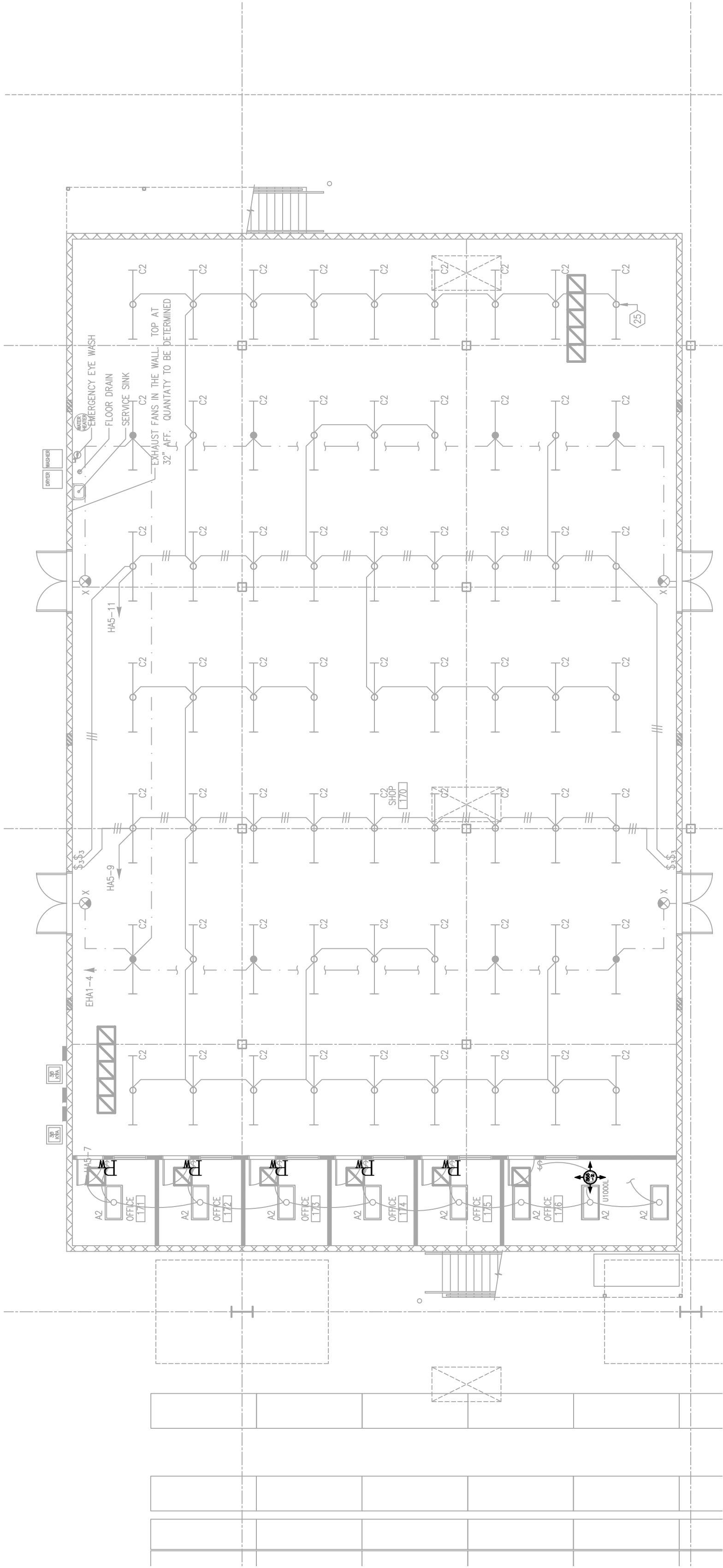
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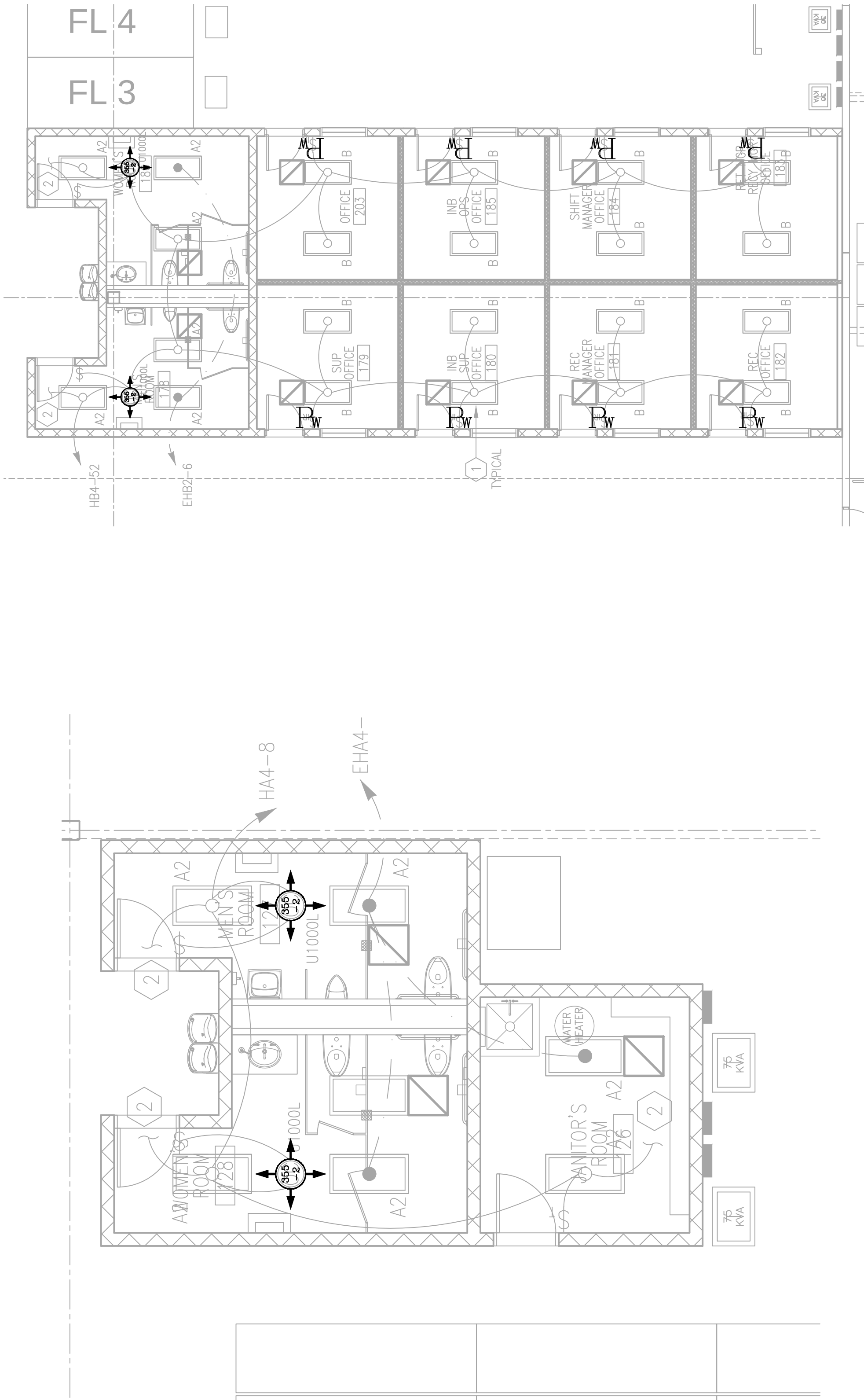
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NONE	KWH

KEYED NOTES:

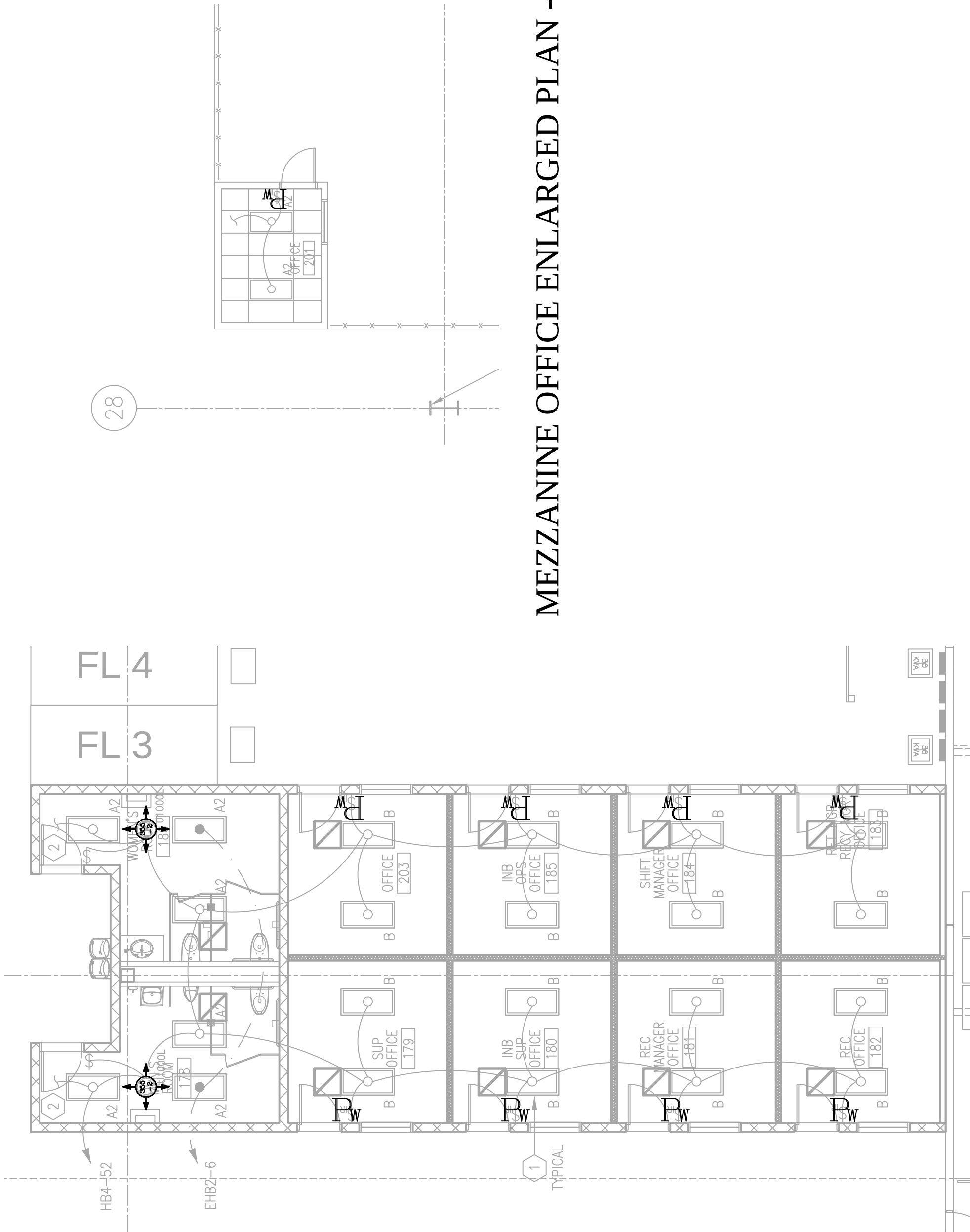
- ① WattStopper recommends mounting LMBG-300's in corridors & hallways. MSTP must be run in linear fashion.
- ② The 120Ω resistor (included) is required for end of line termination.



OFFICE AND WORKROOM ENLARGED PLAN - LIGHTING



RESTROOM ENLARGED PLAN - LIGHTING



MEZZANINE OFFICE ENLARGED PLAN - LIGHTING

GENERAL NOTES

Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required, and setting of sensitivity/time adjustments are the responsibility of the installing contractor and/or commissioning agent. Manufacturer's installation instructions should be adhered to.

- Plug n' Go (PiG):** Default Operation.
Upon initial power up, the DLM system automatically identifies the devices on the Local Network then enters the WattStopper patented Plug n' Go configuration to allow basic operation of all DLM devices. In most applications the relationship between the plug n' go devices and the energy sensors will not require any adjustments. PiG automatically maximizes lighting energy efficiency.
- Push n' Learn (PiL):** Custom Operation
"A" configuration (Config) button on most DLM devices allows easy access to the WattStopper patented PiL technology to modify system operation. PiL technology allows the user to be customized throughout the DLM select line, as is the operation of the Config LED indicators. In addition, the Configuration Tool provides remote infrared access to PiL and sensor adjustment parameters.
- All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If standard mounting locations are present, location and coverage of sensors should be reviewed.
- Ceiling mounted sensors require they be located no closer than 6' from air supply/ return registers.
- Contractor is responsible for field verification of required number devices.
- For pre-terminated wire and accessories, please refer to www.wattstopper.com/DLM.

LEGEND

- 14 P_W PW-100
- 5 ① UT-355-2

① MSTP Cable

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- ① WattStopper recommends mounting LMBC-300's in corridors & hallways. MSTP must be run in linear fashion.
- ② The 1200 resistor (included) is required for end of line termination.

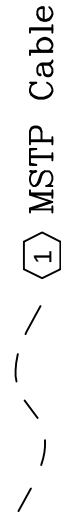


OFFICE ENLARGED PLAN - LIGHTING

Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required and setting of sensitivity/time adjustments are the responsibility of the installing contractor and/or commissioning agent. Manufacturer's installation instructions should be adhered to.

1. Plug n° 0 (PoG): Default operation.
Upon initial power up, the DLM system automatically identifies the devices on the Local Network, then enters the Watstopper patented Plug n° 0 configuration to allow basic operation of all DLM devices. In most applications the relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. PoG automatically maximizes lighting energy efficiency.
2. Push n° Learn (PL): Custom Operation
"A" configuration (Config) button on most DLM devices allows easy access to the Watstopper patented PL technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicator. In addition, the Configuration Tool provides remote infrared access to PL and sensor adjustment parameters.
3. All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
4. Ceiling mounted sensors require they be located no closer than 6' from air supply/return registers.
5. Contractor is responsible for field verification of required number devices.
6. For pre-terminated wire and accessories, please refer to www.watstopper.com/DLM.

11 P_w PW-100
17 UT-355-2
7 UT-355-3



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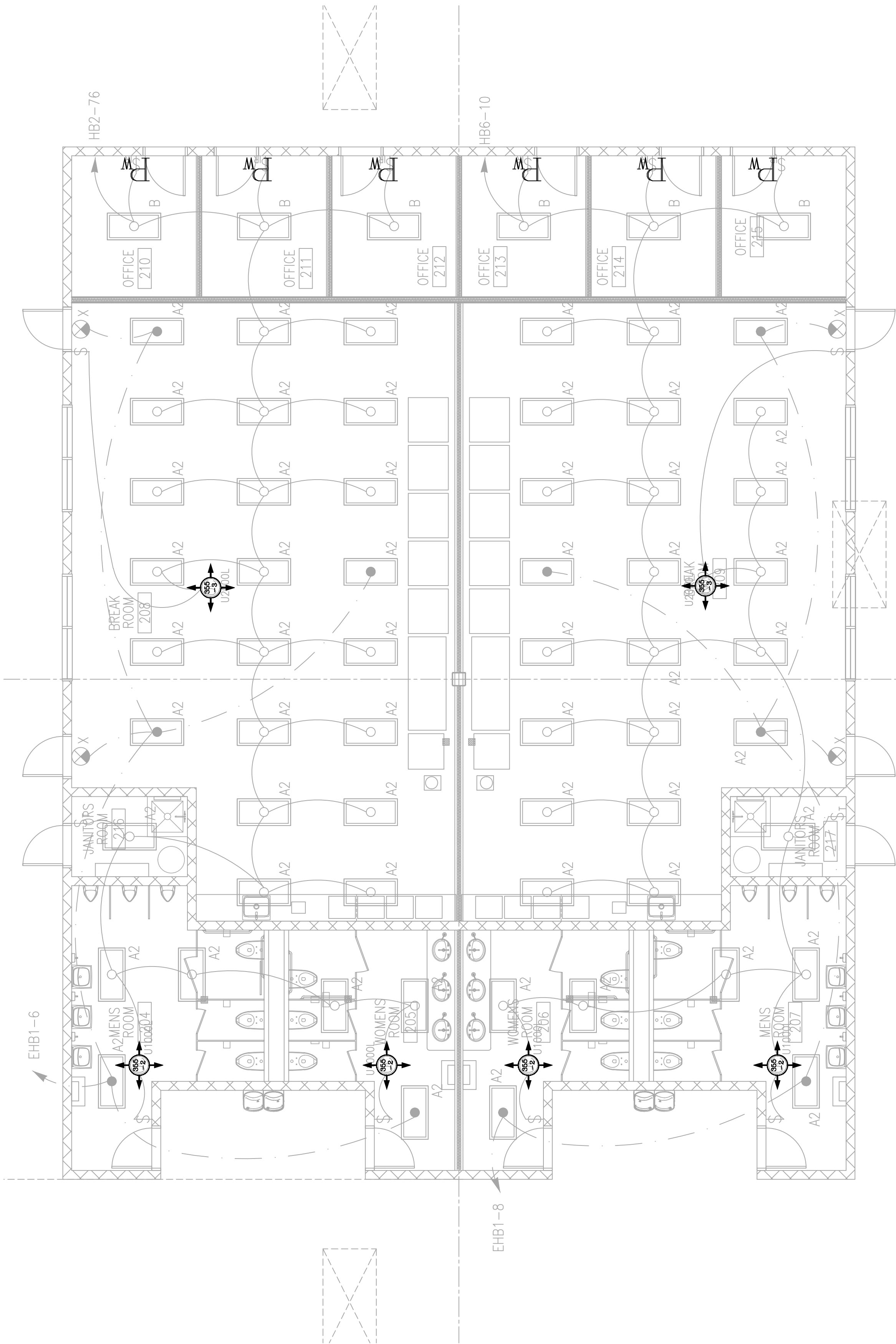
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DATE	10-14-2014	REVISION	
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KEYED NOTES:

- 1 WattStopper recommends mounting LMBC-300's in corridors & hallways. MSTP must be run in linear fashion.
- 2 The 1200 resistor (included) is required for end of line termination.

- ① WattStopper recommends mounting LMBC-300's in corridors & hallways. MSTP must be run in linear fashion.
- ② The 120 Ω resistor (included) is required for end of line termination.



GENERAL NOTES

Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of mounting locations (quantity of devices required, mounting height, etc.) is the responsibility of the installer. The responsibility of the installing contractor and/or commissioning agent. Manufacturer's installation instructions should be adhered to.

1. Plug n' Go (PiG): Default Operation.
Upon initial power up, the DLM system automatically configures the Local Network then enters the Wattstopper patented Plug n' Go configuration to allow basic operation of all DLM devices. In most applications the relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. PiG automatically maximizes lighting energy efficiency.
2. Push n' Learn (PnL): Custom Operation
"A" configuration (Config) button on most DLM devices allows easy access to the Wattstopper patented PnL technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicators. In "A" configuration, the Config button transmits an infrared access to PnL and sensor adjustment parameters.
3. All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are used, the location and coverage of sensors should be reviewed.
4. Ceiling mounted sensors require they be located no closer than 6' from air supply/ return registers.
5. Contractor is responsible for field verification of required number devices.
6. For pre-terminated wire and accessories, please refer to www.wattstopper.com/DLM.

Every effort has been made on the part of the manufacturer to indicate the proper selection of the product and mounting locations. Final determination of circuiting, voltage and quantity of devices required, and setting of sensitivity/time adjustments are the responsibility of the installing contractor and/or commissioning agent. Manufacturer's installation instructions should be adhered to.

1. Push initial 'go (PnG)' Default Operation.
Upon initial power up, the DLM system automatically identifies the devices on the Local Network then enters the Wattstopper patented PnG 'go' configuration to allow basic operation of all DLM devices. In most applications the relationship between quantity of loads, switches and occupancy sensors will not require any adjustments. PnG automatically maximizes lighting energy efficiency.
2. Push 'n' Learn (PnL): Custom Operation
"A" configuration (Config) button on most DLM devices allows easy access to the Wattstopper patented PnL technology to modify system operation. Functionality of the Config button is standardized throughout the DLM product line, as is the operation of the Config LED indicators. In addition, the Configuration Tool provides remote infrared access to PnL and sensor adjustment parameters.
3. All sensor locations are approximate. Refer to manufacturer's installation instructions prior to installation. If pendant mounted fixtures are present, location and coverage of sensors should be reviewed.
4. Ceiling mounted sensors require they be located no closer than 6' from air supply return registers.
5. Contractor is responsible for field verification of required number devices.
6. For pre-terminated wire and accessories, please refer to www.wattstopper.com/DLM.

LEGEND

- 6 P_w PW-100
4  UT-355-2
2  UT-355-3

1 MSTP Cable

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NONE	KWH

ENLARGED TOILET AND BREAKROOM PLAN - POWER

V. Project Documentation

Rooms to Go Warehouse DIRECT

Panel Schedule: LC-HA2

Description				Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HA2					LMCP	24/24 Surface	115/277	

Rly	Circuit	Description	LV Switch	Rly	Circuit	Description	LV Switch
1		CONTACTOR 1		13		EXT. CONTACTOR 7	
2		CONTACTOR 2		14		EXT. CONTACTOR 8	
3		CONTACTOR 3		15		EXT. CONTACTOR 9	
4		CONTACTOR 4		16		EXT. CONTACTOR 10	
5		CONTACTOR 5		17	**Space**		
6		CONTACTOR 6		18	**Space**		
7		EXT. CONTACTOR 1		19	**Space**		
8		EXT. CONTACTOR 2		20	**Space**		
9		EXT. CONTACTOR 3		21	HA2-52	SITE	
10		EXT. CONTACTOR 4		22	**Space**		
11		EXT. CONTACTOR 5		23	**Space**		
12		EXT. CONTACTOR 6		24	**Space**		

Rooms to Go Warehouse DIRECT

Panel Schedule: LC-HC2

Description				Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HC2					LMCP	48/48 Surface	115/277	

Rly	Circuit	Description	LV Switch	Rly	Circuit	Description	LV Switch
1		CONTACTOR 1		13		EXT. CONTACTOR 7	
2		CONTACTOR 2		14		EXT. CONTACTOR 8	
3		CONTACTOR 3		15		EXT. CONTACTOR 9	
4		CONTACTOR 4		16		EXT. CONTACTOR 10	
5		CONTACTOR 5		17		EXT. CONTACTOR 11	
6		CONTACTOR 6		18		EXT. CONTACTOR 12	
7		EXT. CONTACTOR 1		19		EXT. CONTACTOR 13	
8		EXT. CONTACTOR 2		20		EXT. CONTACTOR 14	
9		EXT. CONTACTOR 3		21	**Space**		
10		EXT. CONTACTOR 4		22	**Space**		
11		EXT. CONTACTOR 5		23	**Space**		
12		EXT. CONTACTOR 6		24	**Space**		

Rly	Circuit	Description	LV Switch	Rly	Circuit	Description	LV Switch
25	**Space**			37	**Space**		
26	**Space**			38	**Space**		
27	HC2-47	SIGN		39	**Space**		
28	HC2-49	SOFFITT		40	**Space**		
29	**Space**			41	**Space**		
30	**Space**			42	**Space**		
31	**Space**			43	**Space**		
32	**Space**			44	**Space**		
33	**Space**			45	**Space**		
34	**Space**			46	**Space**		
35	**Space**			47	**Space**		
36	**Space**			48	**Space**		

Rooms to Go Warehouse DIRECT

Panel Schedule: LC-HB2

Description				Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HB2					LMCP	48/48 Surface	115/277	

Rly	Circuit	Description	LV Switch	Rly	Circuit	Description	LV Switch
1		CONTACTOR 1		13		EXT. CONTACTOR 7	
2		CONTACTOR 2		14		EXT. CONTACTOR 8	
3		CONTACTOR 3		15		EXT. CONTACTOR 9	
4		CONTACTOR 4		16		EXT. CONTACTOR 10	
5		CONTACTOR 5		17	HB2-59	SITE	
6		CONTACTOR 6		18	HB2-61	SITE	
7		EXT. CONTACTOR 1		19		EXT. CONTACTOR 11	

Description				Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HB2					LMCP	48/48 Surface	115/277	
8		EXT. CONTACTOR 2		20		EXT. CONTACTOR 12		
9		EXT. CONTACTOR 3		21		EXT. CONTACTOR 13		
10		EXT. CONTACTOR 4		22		EXT. CONTACTOR 14		
11		EXT. CONTACTOR 5		23		EXT. CONTACTOR 15		
12		EXT. CONTACTOR 6		24		EXT. CONTACTOR 16		
Rly	Circuit	Description	LV Switch	Rly	Circuit	Description	LV Switch	
25		EXT. CONTACTOR 17		37	**Space**			
26		EXT. CONTACTOR 18		38	**Space**			
27		EXT. CONTACTOR 19		39	**Space**			
28		EXT. CONTACTOR 20		40	**Space**			
29	**Space**			41	**Space**			
30	**Space**			42	**Space**			
31	**Space**			43	**Space**			
32	**Space**			44	**Space**			
33	**Space**			45	**Space**			
34	**Space**			46	**Space**			
35	**Space**			47	**Space**			
36	**Space**			48	**Space**			

Rooms to Go Warehouse DIRECT

Panel Schedule: LC-HB4

Description				Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HB4					LMCP	24/24 Surface	115/277	
Rly	Circuit	Description	LV Switch	Rly	Circuit	Description	LV Switch	
1		CONTACTOR 1		13		EXT. CONTACTOR 27		
2		CONTACTOR 2		14		EXT. CONTACTOR 28		
3		CONTACTOR 3		15		EXT. CONTACTOR 29		
4		CONTACTOR 4		16	**Space**			
5		CONTACTOR 5		17	**Space**			
6		CONTACTOR 6		18	**Space**			
7		EXT. CONTACTOR 21		19	**Space**			
8		EXT. CONTACTOR 22		20	**Space**			
9		EXT. CONTACTOR 23		21	**Space**			
10		EXT. CONTACTOR 24		22	**Space**			
11		EXT. CONTACTOR 25		23	HB4-52	DOCK LIGHTS		
12		EXT. CONTACTOR 26		24	**Space**			

Rooms to Go Warehouse DIRECT

Panel Schedule: LC-HB6

Description				Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HB6					LMCP	24/24 Surface	115/277	
Rly	Circuit	Description	LV Switch	Rly	Circuit	Description	LV Switch	
1		CONTACTOR 1		13	**Space**			
2		CONTACTOR 2		14	**Space**			
3		SPARE		15	**Space**			
4		SPARE		16	**Space**			
5		SPARE		17	**Space**			
6		SPARE		18	**Space**			
7		SPARE		19	**Space**			
8		SPARE		20	**Space**			
9		SPARE		21	**Space**			
10		SPARE		22	**Space**			
11	**Space**			23	**Space**			
12	**Space**			24	**Space**			

Contactors **Rooms to Go Warehouse DIRECT**

Description	Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HA2		LMCP	24/24 Surface	115/277	

Coil Voltage: 115

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
1	N/O	Internal	Relay 1-1: CONTACTOR 1	1	HA2-1	SITE
				2	HA2-3	SITE
				3	HA2-13	SITE
				4	HA2-15	SITE
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
2	N/O	Internal	Relay 1-2: CONTACTOR 2	1	HA2-17	ZONE 6 (Sa)
				2	HA2-19	ZONE 6 (Sa)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
3	N/O	Internal	Relay 1-3: CONTACTOR 3	1	HA2-17	ZONE 6 (Sb)
				2	HA2-19	ZONE 6 (Sb)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
4	N/O	Internal	Relay 1-4: CONTACTOR 4	1	HA2-21	ZONE 7 (Sa)
				2	HA2-23	ZONE 7 (Sa)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
5	N/O	Internal	Relay 1-5: CONTACTOR 5	1	HA2-21	ZONE 7 (Sb)
				2	HA2-23	ZONE 7 (Sb)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
6	N/O	Internal	Relay 1-6: CONTACTOR 6	1	HA2-25	ZONE 8 (Sa)
				2	HA2-27	ZONE 8 (Sa)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
7	N/O	External	Relay 1-7: EXT. CONTACTOR 1	1	HA2-25	ZONE 8 (Sb)
				2	HA2-27	ZONE 8 (Sb)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
8	N/O	External	Relay 1-8: EXT. CONTACTOR 2	1	HA2-29	ZONE 31
				2	HA2-31	ZONE 31
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
9	N/O	External	Relay 1-9: EXT. CONTACTOR 3	1	HA2-33	ZONE 12
				2	HA2-35	ZONE 12
				3	HA2-37	ZONE 12
				4	HA2-39	ZONE 12
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
10	N/O	External	Relay 1-10: EXT. CONTACTOR 4	1	HA2-43	ZONE 12
				2	HA2-45	ZONE 12
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
11	N/O	External	Relay 1-11: EXT. CONTACTOR 5	1	HA2-10	SITE
				2	HA2-12	SITE
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
12	N/O	External	Relay 1-12: EXT. CONTACTOR 6	1	HA2-14	ZONE 13

Contactors

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				2	HA2-16	ZONE 13
				3	HA2-18	ZONE 13
				4	HA2-20	ZONE 13
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
13	N/O	External	Relay 1-13: EXT. CONTACTOR 7	1	HA2-22	ZONE 13
				2	HA2-24	ZONE 13
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
14	N/O	External	Relay 1-14: EXT. CONTACTOR 8	1	HA2-26	ZONE 12
				2	HA2-28	ZONE 12
				3	HA2-30	ZONE 12
				4	HA2-32	ZONE 12
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
15	N/O	External	Relay 1-15: EXT. CONTACTOR 9	1	HA2-34	ZONE 12
				2	HA2-36	ZONE 12
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
16	N/O	External	Relay 1-16: EXT. CONTACTOR 10	1	HA2-44	ZONE 30
				2	HA2-46	ZONE 30
				3		
				4		

Description	Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HC2		LMCP	48/48 Surface	115/277	

Coil Voltage: 115

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
1	N/O	Internal	Relay 2-1: CONTACTOR 1	1	HC2-1	SITE
				2	HC2-3	SITE
				3	HC2-5	SITE
				4	HC2-7	SITE
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
2	N/O	Internal	Relay 2-2: CONTACTOR 2	1	HC2-9	ZONE 9 (Sa)
				2	HC2-11	ZONE 9 (Sa)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
3	N/O	Internal	Relay 2-3: CONTACTOR 3	1	HC2-9	ZONE 9 (Sb)
				2	HC2-11	ZONE 9 (Sb)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
4	N/O	Internal	Relay 2-4: CONTACTOR 4	1	HC2-13	ZONE 1
				2	HC2-15	ZONE 1
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
5	N/O	Internal	Relay 2-5: CONTACTOR 5	1	HC2-17	ZONE 2 (Sa)
				2	HC2-19	ZONE 2 (Sa)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
6	N/O	Internal	Relay 2-6: CONTACTOR 6	1	HC2-17	ZONE 2 (Sb)
				2	HC2-19	ZONE 2 (Sb)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
7	N/O	External	Relay 2-7: EXT. CONTACTOR 1	1	HC2-21	ZONE 3 (Sa)
				2	HC2-23	ZONE 3 (Sa)

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				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
8	N/O	External	Relay 2-8: EXT. CONTACTOR 2	1	HC2-21	ZONE 3 (Sb)
				2	HC2-23	ZONE 3 (Sb)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
9	N/O	External	Relay 2-9: EXT. CONTACTOR 3	1	HC2-25	ZONE 4 (Sa)
				2	HC2-27	ZONE 4 (Sa)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
10	N/O	External	Relay 2-10: EXT. CONTACTOR 4	1	HC2-25	ZONE 4 (Sb)
				2	HC2-27	ZONE 4 (Sb)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
11	N/O	External	Relay 2-11: EXT. CONTACTOR 5	1	HC2-29	ZONE 5 (Sa)
				2	HC2-31	ZONE 5 (Sa)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
12	N/O	External	Relay 2-12: EXT. CONTACTOR 6	1	HC2-29	ZONE 5 (Sb)
				2	HC2-31	ZONE 5 (Sb)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
13	N/O	External	Relay 2-13: EXT. CONTACTOR 7	1	HC2-33	ZONE 11
				2	HC2-35	ZONE 11
				3	HC2-37	ZONE 11
				4	HC2-39	ZONE 11
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
14	N/O	External	Relay 2-14: EXT. CONTACTOR 8	1	HC2-43	ZONE 11
				2	HC2-45	ZONE 11
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
15	N/O	External	Relay 2-15: EXT. CONTACTOR 9	1	HC2-2	SITE
				2	HC2-4	SITE
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
16	N/O	External	Relay 2-16: EXT. CONTACTOR 10	1	HC2-10	ZONE 10
				2	HC2-12	ZONE 10
				3	HC2-14	ZONE 10
				4	HC2-16	ZONE 10
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
17	N/O	External	Relay 2-17: EXT. CONTACTOR 11	1	HC2-18	ZONE 10
				2	HC2-20	ZONE 10
				3	HC2-22	ZONE 10
				4	HC2-24	ZONE 10
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
18	N/O	External	Relay 2-18: EXT. CONTACTOR 12	1	HC2-26	ZONE 11
				2	HC2-28	ZONE 11
				3	HC2-30	ZONE 11
				4	HC2-32	ZONE 11
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
19	N/O	External	Relay 2-19: EXT. CONTACTOR 13	1	HC2-34	ZONE 11
				2	HC2-36	ZONE 11

Contactors **Rooms to Go Warehouse DIRECT**

				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
20	N/O	External	Relay 2-20: EXT. CONTACTOR 14	1	HC2-44	ZONE 30
				2	HC2-46	ZONE 30
				3	HC2-48	ZONE 30
				4	HC2-50	ZONE 30

Description	Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HB2		LMCP	48/48 Surface	115/277	

Coil Voltage: 115

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
1	N/O	Internal	Relay 3-1: CONTACTOR 1	1	HB2-1	SITE
				2	HB2-3	SITE
				3	HB2-5	SITE
				4	HB2-7	SITE

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
2	N/O	Internal	Relay 3-2: CONTACTOR 2	1	HB2-9	ZONE 14 (Sa)
				2	HB2-11	ZONE 14 (Sa)
				3		
				4		

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
3	N/O	Internal	Relay 3-3: CONTACTOR 3	1	HB2-9	ZONE 14 (Sb)
				2	HB2-11	ZONE 14 (Sb)
				3		
				4		

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
4	N/O	Internal	Relay 3-4: CONTACTOR 4	1	HB2-13	ZONE 28 (Sa)
				2	HB2-15	ZONE 28 (Sa)
				3		
				4		

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
5	N/O	Internal	Relay 3-5: CONTACTOR 5	1	HB2-13	ZONE 28 (Sb)
				2	HB2-15	ZONE 28 (Sb)
				3		
				4		

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
6	N/O	Internal	Relay 3-6: CONTACTOR 6	1	HB2-17	ZONE 19
				2	HB2-19	ZONE 19
				3	HB2-21	ZONE 19
				4	HB2-23	ZONE 19

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
7	N/O	External	Relay 3-7: EXT. CONTACTOR 1	1	HB2-25	ZONE 20
				2	HB2-27	ZONE 20
				3		
				4		

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
8	N/O	External	Relay 3-8: EXT. CONTACTOR 2	1	HB2-29	ZONE 21
				2	HB2-31	ZONE 21
				3		
				4		

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
9	N/O	External	Relay 3-9: EXT. CONTACTOR 3	1	HB2-33	ZONE 16
				2	HB2-35	ZONE 16
				3	HB2-37	ZONE 16
				4	HB2-39	ZONE 16

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
10	N/O	External	Relay 3-10: EXT. CONTACTOR 4	1	HB2-43	ZONE 16
				2	HB2-45	ZONE 16
				3	HB2-47	ZONE 16

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				4	HB2-49	ZONE 16
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
11	N/O	External	Relay 3-11: EXT. CONTACTOR 5	1	HB2-51	ZONE 16
				2	HB2-53	ZONE 16
				3	HB2-55	ZONE 16
				4	HB2-57	ZONE 16
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
12	N/O	External	Relay 3-12: EXT. CONTACTOR 6	1	HB2-63	ZONE 32 (Sa)
				2	HB2-65	ZONE 32 (Sa)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
13	N/O	External	Relay 3-13: EXT. CONTACTOR 7	1	HB2-63	ZONE 32 (Sb)
				2	HB2-65	ZONE 32 (Sb)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
14	N/O	External	Relay 3-14: EXT. CONTACTOR 8	1	HB2-67	ZONE 33 (Sa)
				2	HB2-69	ZONE 33 (Sa)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
15	N/O	External	Relay 3-15: EXT. CONTACTOR 9	1	HB2-67	ZONE 33 (Sb)
				2	HB2-69	ZONE 33 (Sb)
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
16	N/O	External	Relay 3-16: EXT. CONTACTOR 10	1	HB2-2	SITE
				2	HB2-4	SITE
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
17	N/O	External	Relay 3-19: EXT. CONTACTOR 11	1	HB2-10	ZONE 15
				2	HB2-12	ZONE 15
				3	HB2-14	ZONE 15
				4	HB2-16	ZONE 15
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
18	N/O	External	Relay 3-20: EXT. CONTACTOR 12	1	HB2-18	ZONE 15
				2	HB2-20	ZONE 15
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
19	N/O	External	Relay 3-21: EXT. CONTACTOR 13	1	HB2-22	ZONE 29
				2	HB2-24	ZONE 29
				3	HB2-26	ZONE 29
				4	HB2-28	ZONE 29
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
20	N/O	External	Relay 3-22: EXT. CONTACTOR 14	1	HB2-30	ZONE 29
				2	HB2-32	ZONE 29
				3	HB2-34	ZONE 29
				4	HB2-36	ZONE 29
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
21	N/O	External	Relay 3-23: EXT. CONTACTOR 15	1	HB2-44	ZONE 19
				2	HB2-46	ZONE 19
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
22	N/O	External	Relay 3-24: EXT. CONTACTOR 16	1	HB2-48	ZONE 29
				2	HB2-50	ZONE 29
				3		

Contactors **Rooms to Go Warehouse DIRECT**

				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
23	N/O	External	Relay 3-25: EXT. CONTACTOR 17	1	HB2-52	ZONE 30
				2	HB2-54	ZONE 30
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
24	N/O	External	Relay 3-26: EXT. CONTACTOR 18	1	HB2-56	ZONE 29
				2	HB2-58	ZONE 29
				3	HB2-60	ZONE 29
				4	HB2-62	ZONE 29
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
25	N/O	External	Relay 3-27: EXT. CONTACTOR 19	1	HB2-64	ZONE 34
				2	HB2-66	ZONE 34
				3	HB2-68	ZONE 34
				4	HB2-70	ZONE 34
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
26	N/O	External	Relay 3-28: EXT. CONTACTOR 20	1	HB2-72	ZONE 34
				2	HB2-74	ZONE 34
				3		
				4		

Description	Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HB4		LMCP	24/24 Surface	115/277	

Coil Voltage: 115

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
1	N/O	Internal	Relay 4-1: CONTACTOR 1	1	HB4-1	SITE
				2	HB4-3	SITE
				3	HB4-5	SITE
				4	HB4-7	SITE
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
2	N/O	Internal	Relay 4-2: CONTACTOR 2	1	HB4-9	SITE
				2	HB4-11	SITE
				3	HBR-13	SITE
				4	HBR-15	SITE
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
3	N/O	Internal	Relay 4-3: CONTACTOR 3	1	HB4-19	ZONE 22
				2	HB4-21	ZONE 22
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
4	N/O	Internal	Relay 4-4: CONTACTOR 4	1	HB4-23	ZONE 23
				2	HB4-25	ZONE 23
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
5	N/O	Internal	Relay 4-5: CONTACTOR 5	1	HB4-27	ZONE 24
				2	HB4-29	ZONE 24
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
6	N/O	Internal	Relay 4-6: CONTACTOR 6	1	HB4-31	ZONE 25
				2	HB4-33	ZONE 25
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
7	N/O	External	Relay 4-7: EXT. CONTACTOR 1	1	HB4-35	ZONE 26
				2	HBR-37	ZONE 26
				3		
				4		

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Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
8	N/O	External	Relay 4-8: EXT. CONTACTOR 2	1	HB4-39	ZONE 27
				2	HB4-41	ZONE 27
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
9	N/O	External	Relay 4-9: EXT. CONTACTOR 3	1	HB4-43	ZONE 18
				2	HBR-45	ZONE 18
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
10	N/O	External	Relay 4-10: EXT. CONTACTOR 4	1	HB4-47	ZONE 30
				2	HB4-49	ZONE 30
				3	HB4-51	ZONE 30
				4	HB4-53	ZONE 30
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
11	N/O	External	Relay 4-11: EXT. CONTACTOR 5	1	HB4-2	SITE
				2	HB4-4	SITE
				3	HB4-6	SITE
				4	HB4-8	SITE
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
12	N/O	External	Relay 4-12: EXT. CONTACTOR 6	1	HB4-10	SITE
				2	HB4-12	SITE
				3	HB4-14	SITE
				4	HB4-16	SITE
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
13	N/O	External	Relay 4-13: EXT. CONTACTOR 7	1	HB4-18	ZONE 17
				2	HB4-20	ZONE 17
				3	HB4-22	ZONE 17
				4	HB4-24	ZONE 17
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
14	N/O	External	Relay 4-14: EXT. CONTACTOR 8	1	HB4-26	ZONE 17
				2	HB4-28	ZONE 17
				3		
				4		
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
15	N/O	External	Relay 4-15: EXT. CONTACTOR 9	1	HB4-30	ZONE 18
				2	HB4-32	ZONE 18
				3	HB4-34	ZONE 18
				4	HB4-36	ZONE 18

Description	Location	Type	Interior/Enclosure	Power Supply	Circuit
LC-HB6		LMCP	24/24 Surface	115/277	

Coil Voltage: 115

Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
1	N/O	Internal	Relay 5-1: CONTACTOR 1	1	HB6-1	ZONE 35
				2	HB6-3	ZONE 35
				3	HB6-5	ZONE 35
				4	HB6-7	ZONE 35
Contactor	Type	Location	Controlling Relay	Pole	Circuit	Description
2	N/O	Internal	Relay 5-2: CONTACTOR 2	1	HB6-2	ZONE 35
				2	HB6-4	ZONE 35
				3	HB6-6	ZONE 35
				4	HB6-8	ZONE 35

Room Summary for Rooms to Go Warehouse DIRECT - LC-HA2 in ROOMS TO GO WAREHOUSE DIRECT

Room
ROOMS TO GO WAREHOUSE DIRECT: LC-HA2
Network Bridge Present

Schedule and Control			
Device	TW Sheet	TW Detail	Control Sequence
LMCP24 [LC-HA2]	SL-1	SL-1,TW-1	
01[R01]: CONTACTOR 1			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
02[R02]: CONTACTOR 2			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
03[R03]: CONTACTOR 3			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
04[R04]: CONTACTOR 4			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
05[R05]: CONTACTOR 5			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
06[R06]: CONTACTOR 6			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
07[R07]: EXT. CONTACTOR 1			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
08[R08]: EXT. CONTACTOR 2			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
09[R09]: EXT. CONTACTOR 3			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
10[R10]: EXT. CONTACTOR 4			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
11[R11]: EXT. CONTACTOR 5			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
12[R12]: EXT. CONTACTOR 6			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
13[R13]: EXT. CONTACTOR 7			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
14[R14]: EXT. CONTACTOR 8			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
15[R15]: EXT. CONTACTOR 9			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
16[R16]: EXT. CONTACTOR 10			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
17[R17]: SPACE			
18[R18]: SPACE			
19[R19]: SPACE			
20[R20]: SPACE			
21[R21]: {HA2-52} SITE			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
22[R22]: SPACE			
23[R23]: SPACE			
24[R24]: SPACE			
LMLS-600	TW-1	TW-1.1.1.3	Zone 1:: Load 02[R02]: CONTACTOR 2;
LMLS-600	TW-1	TW-1.1.1.3	Zone 1:: Load 03[R03]: CONTACTOR 3;
LMLS-600	TW-1	TW-1.1.1.3	Zone 1:: Load 04[R04]: CONTACTOR 4;
LMLS-600	TW-1	TW-1.1.1.3	Zone 1:: Load 05[R05]: CONTACTOR 5;
LMLS-600	TW-1	TW-1.1.1.3	Zone 1:: Load 06[R06]: CONTACTOR 6;
LMLS-600	TW-1	TW-1.1.1.3	Zone 1:: Load 09[R09]: EXT. CONTACTOR 3, Load 10[R10]: EXT. CONTACTOR 4;

[illegible]

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP24		01[R01]: CONTACT OR 1	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		02[R02]: CONTACT OR 2	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		03[R03]: CONTACT OR 3	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP24		04[R04]: CONTACT OR 4	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		05[R05]: CONTACT OR 5	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		06[R06]: CONTACT OR 6	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		07[R07]: EXT. CONTACT OR 1	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		08[R08]: EXT. CONTACT OR 2	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		09[R09]: EXT. CONTACT OR 3	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		10[R10]: EXT. CONTACT OR 4	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		11[R11]: EXT. CONTACT OR 5	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		12[R12]: EXT. CONTACT OR 6	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		13[R13]: EXT. CONTACT OR 7	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		14[R14]: EXT. CONTACT OR 8	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		15[R15]: EXT. CONTACT OR 9	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		16[R16]: EXT. CONTACT OR 10	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		17[R17]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP24		18[R18]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		19[R19]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		20[R20]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		21[R21]: SITE	Switched	HA2-52	Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		22[R22]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		23[R23]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		24[R24]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
			Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

Switch														
Switch	Button	Button Type	Fade Rate	Fade Time On	Fade Time Off	Ramp Rate (%/Sec) (Rocker Only)	Preset Value On	Preset Value Off	Override Time Till Off	Momentary Mode	Scene Number	Scene Mode	Scene Locked	Network Group Id
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A

Daylighting: LMLS-600																									
Control Mode	Override Timeout (Hrs)	Minimum Time to Update (Sec)	Minimum COV to Update (fc)	Hold Off	Override Allowed	Scenes Disable Daylighting	Follows After Hours	Lighting Zone	Operation Mode	On Setpoint (fc)	Off Setpoint (fc)	On Time Delay (Sec)	Off Time Delay (Min)	Ramp Up Rate (% / Sec)	Ramp Down Rate (% / Sec)	Cut Off Delay (Min)	Dimming Setpoint (fc)	2nd Sensor Min Time to Update (Sec)	2nd Sensor Min COV to Update (fc)	Dimming Setpoint EL Percent Address	On Setpoint Electric Light Percent Address	Recommissio n Threshold (fc)	Recommissio n Time Delay (Min)	Diagnostic Error Flags	Force Open Loop Control
Normal	0	30	0.1	False	False	False	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False
Normal	0	30	0.1	False	False	False	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False
Normal	0	30	0.1	False	False	False	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False

Daylighting: LMLS-600																											
Control Mode	Override Timeout (Hrs)	Minimum Time to Update (Sec)	Minimum COV to Update (fc)	Hold Off	Override Allowed	Scenes Disable	Daylighting	Follows After Hours	Lighting Zone	Operation Mode	On Setpoint (fc)	Off Setpoint (fc)	On Time Delay (Sec)	Off Time Delay (Min)	Ramp Up Rate (% / Sec)	Ramp Down Rate (% / Sec)	Cut Off Delay (Min)	Dimming Setpoint (fc)	2nd Sensor Min Time to Update (Sec)	2nd Sensor Min COV to Update (fc)	Dimming Setpoint EL	Percent Adder	On Setpoint Electric Light Percent Adder	Recommisssion Threshold (fc)	Recommisssion n Time Delay (Min)	Diagnostic Error Flags	Force Open Loop Control
Normal	0	30	0.1	False	False	False	N/A	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False	
Normal	0	30	0.1	False	False	False	N/A	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False	
Normal	0	30	0.1	False	False	False	N/A	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False	
Normal	0	30	0.1	False	False	False	N/A	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False	
Normal	0	30	0.1	False	False	False	N/A	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False	
Normal	0	30	0.1	False	False	False	N/A	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False	

Room Summary for Rooms to Go Warehouse DIRECT - LC-HB2 in ROOMS TO GO WAREHOUSE DIRECT

Room
ROOMS TO GO WAREHOUSE DIRECT: LC-HB2
Network Bridge Present

Schedule and Control			
Device	TW Sheet	TW Detail	Control Sequence
LMCP48 [LC-HB2]	SL-1	SL-1,TW-1	
01[R01]: CONTACTOR 1			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; Button 1;
02[R02]: CONTACTOR 2			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
03[R03]: CONTACTOR 3			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
04[R04]: CONTACTOR 4			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
05[R05]: CONTACTOR 5			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
06[R06]: CONTACTOR 6			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
07[R07]: EXT. CONTACTOR 1			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
08[R08]: EXT. CONTACTOR 2			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
09[R09]: EXT. CONTACTOR 3			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
10[R10]: EXT. CONTACTOR 4			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
11[R11]: EXT. CONTACTOR 5			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
12[R12]: EXT. CONTACTOR 6			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
13[R13]: EXT. CONTACTOR 7			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
14[R14]: EXT. CONTACTOR 8			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
15[R15]: EXT. CONTACTOR 9			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
16[R16]: EXT. CONTACTOR 10			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
17[R17]: {HB2-59} SITE			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
18[R18]: {HB2-61} SITE			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
19[R19]: EXT. CONTACTOR 11			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
20[R20]: EXT. CONTACTOR 12			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
21[R21]: EXT. CONTACTOR 13			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
22[R22]: EXT. CONTACTOR 14			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
23[R23]: EXT. CONTACTOR 15			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;

Schedule and Control			
Device	TW Sheet	TW Detail	Control Sequence
24[R24]: EXT. CONTACTOR 16			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101
25[R25]: EXT. CONTACTOR 17			Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
26[R26]: EXT. CONTACTOR 18			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
27[R27]: EXT. CONTACTOR 19			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101
28[R28]: EXT. CONTACTOR 20			Btn 1: Button 1; LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101
29[R29]: SPACE			Btn 1: Button 1;
30[R30]: SPACE			
31[R31]: SPACE			
32[R32]: SPACE			
33[R33]: SPACE			
34[R34]: SPACE			
35[R35]: SPACE			
36[R36]: SPACE			
37[R37]: SPACE			
38[R38]: SPACE			
39[R39]: SPACE			
40[R40]: SPACE			
41[R41]: SPACE			
42[R42]: SPACE			
43[R43]: SPACE			
44[R44]: SPACE			
45[R45]: SPACE			
46[R46]: SPACE			
47[R47]: SPACE			
48[R48]: SPACE			
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 02[R02]: CONTACTOR 2, Load 03[R03]: CONTACTOR 3;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 09[R09]: EXT. CONTACTOR 3;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 10[R10]: EXT. CONTACTOR 4;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 04[R04]: CONTACTOR 4;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 05[R05]: CONTACTOR 5;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 06[R06]: CONTACTOR 6;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 23[R23]: EXT. CONTACTOR 15;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 21[R21]: EXT. CONTACTOR 13;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 22[R22]: EXT. CONTACTOR 14, Load 24[R24]: EXT. CONTACTOR 16;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 11[R11]: EXT. CONTACTOR 5;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 12[R12]: EXT. CONTACTOR 6;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 13[R13]: EXT. CONTACTOR 7;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 14[R14]: EXT. CONTACTOR 8;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 15[R15]: EXT. CONTACTOR 9;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 27[R27]: EXT. CONTACTOR 19;

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP48		01[R01]: CONTACT OR 1	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		02[R02]: CONTACT OR 2	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		03[R03]: CONTACT OR 3	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		04[R04]: CONTACT OR 4	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		05[R05]: CONTACT OR 5	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		06[R06]: CONTACT OR 6	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		07[R07]: EXT. CONTACT OR 1	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		08[R08]: EXT. CONTACT OR 2	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		09[R09]: EXT. CONTACT OR 3	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		10[R10]: EXT. CONTACT OR 4	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		11[R11]: EXT. CONTACT OR 5	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		12[R12]: EXT. CONTACT OR 6	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		13[R13]: EXT. CONTACT OR 7	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		14[R14]: EXT. CONTACT OR 8	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP48		15[R15]: EXT. CONTACT OR 9	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		16[R16]: EXT. CONTACT OR 10	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		17[R17]: SITE	Switched	HB2-59	Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		18[R18]: SITE	Switched	HB2-61	Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		19[R19]: EXT. CONTACT OR 11	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		20[R20]: EXT. CONTACT OR 12	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		21[R21]: EXT. CONTACT OR 13	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		22[R22]: EXT. CONTACT OR 14	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		23[R23]: EXT. CONTACT OR 15	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		24[R24]: EXT. CONTACT OR 16	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		25[R25]: EXT. CONTACT OR 17	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		26[R26]: EXT. CONTACT OR 18	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		27[R27]: EXT. CONTACT OR 19	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		28[R28]: EXT. CONTACT OR 20	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP48		29[R29]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		30[R30]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		31[R31]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		32[R32]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		33[R33]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		34[R34]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		35[R35]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		36[R36]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		37[R37]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		38[R38]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		39[R39]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		40[R40]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		41[R41]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		42[R42]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		43[R43]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		44[R44]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		45[R45]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		46[R46]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

Room Summary for Rooms to Go Warehouse DIRECT - LC-HB4 in ROOMS TO GO WAREHOUSE DIRECT

Room
ROOMS TO GO WAREHOUSE DIRECT: LC-HB4
Network Bridge Present

Schedule and Control			
Device	TW Sheet	TW Detail	Control Sequence
LMCP24 [LC-HB4]	SL-1	SL-1,TW-1	
01[R01]: CONTACTOR 1			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
02[R02]: CONTACTOR 2			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
03[R03]: CONTACTOR 3			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
04[R04]: CONTACTOR 4			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
05[R05]: CONTACTOR 5			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
06[R06]: CONTACTOR 6			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
07[R07]: EXT. CONTACTOR 1			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
08[R08]: EXT. CONTACTOR 2			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
09[R09]: EXT. CONTACTOR 3			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
10[R10]: EXT. CONTACTOR 4			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
11[R11]: EXT. CONTACTOR 5			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
12[R12]: EXT. CONTACTOR 6			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
13[R13]: EXT. CONTACTOR 7			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
14[R14]: EXT. CONTACTOR 8			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
15[R15]: EXT. CONTACTOR 9			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
16[R16]: SPARE			
17[R17]: SPARE			
18[R18]: SPARE			
19[R19]: SPARE			
20[R20]: SPARE			
21[R21]: SPARE			
22[R22]: SPARE			
23[R23]: {HB4-S2} DOCK LIGHTS			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
24[R24]: SPARE			
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 09[R09]: EXT. CONTACTOR 3;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 15[R15]: EXT. CONTACTOR 9;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 08[R08]: EXT. CONTACTOR 2;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 13[R13]: EXT. CONTACTOR 7;
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 14[R14]: EXT. CONTACTOR 8;

[illegible]

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP24		01[R01]: CONTACT OR 1	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		02[R02]: CONTACT OR 2	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		03[R03]: CONTACT OR 3	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		04[R04]: CONTACT OR 4	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		05[R05]: CONTACT OR 5	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		06[R06]: CONTACT OR 6	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

Controller																					
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level	
LMCP24		07[R07]: EXT. CONTACT OR 1	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25	
		08[R08]: EXT. CONTACT OR 2	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25	
		09[R09]: EXT. CONTACT OR 3	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		10[R10]: EXT. CONTACT OR 4	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		11[R11]: EXT. CONTACT OR 5	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		12[R12]: EXT. CONTACT OR 6	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		13[R13]: EXT. CONTACT OR 7	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		14[R14]: EXT. CONTACT OR 8	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		15[R15]: EXT. CONTACT OR 9	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		16[R16]: SPARE	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		17[R17]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		18[R18]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		19[R19]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		20[R20]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		21[R21]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP24		22[R22]: SPACE	Switched	HB4-52	Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		23[R23]: DOCK LIGHTS	Normal Hours		00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25	
		24[R24]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

Switch														
Switch	Button	Button Type	Fade Rate	Fade Time On	Fade Time Off	Ramp Rate (%/Sec) (Rocker Only)	Preset Value On	Preset Value Off	Override Time Till Off	Momentary Mode	Scene Number	Scene Mode	Scene Locked	Network Group Id
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A

Daylighting: LMLS-600

Control Mode	Override Timeout (Hrs)	Minimum Time to Update (Sec)	Minimum COV to Update (fc)	Hold Off	Override Allowed	Scenes Disable	Daylighting	Follows After Hours	Lighting Zone	Operation Mode	On Setpoint (fc)	Off Setpoint (fc)	On Time Delay (Sec)	Off Time Delay (Min)	Ramp Up Rate (% / Sec)	Ramp Down Rate (% / Sec)	Cut Off Delay (Min)	Dimming Setpoint (fc)	2nd Sensor Min Time to Update (Sec)	2nd Sensor Min COV to Update (fc)	Dimming Setpoint EL Percent Adder	On Setpoint Electric Light Percent Adder	Recommisio n Threshold (fc)	Recommisio n Time Delay (Min)	Diagnostic Error Flags	Force Open Loop Control
Normal	0	30	0.1	False	False	False	False	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False
Normal	0	30	0.1	False	False	False	False	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False
Normal	0	30	0.1	False	False	False	False	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False
Normal	0	30	0.1	False	False	False	False	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False
Normal	0	30	0.1	False	False	False	False	N/A	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False

Room Summary for Rooms to Go Warehouse DIRECT - LC-HB6 in ROOMS TO GO WAREHOUSE DIRECT

Room	
ROOMS TO GO WAREHOUSE DIRECT: LC-HB6	
After Hours Enabled	Network Bridge Present

Schedule and Control			
Device	TW Sheet	TW Detail	Control Sequence
LMCP24 [LC-HB6]	SL-1	SL-1.TW-1	
01[R01]: CONTACTOR 1			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
02[R02]: CONTACTOR 2			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
03[R03]: SPARE			
04[R04]: SPARE			
05[R05]: SPARE			
06[R06]: SPARE			
07[R07]: SPARE			
08[R08]: SPARE			
09[R09]: SPARE			
10[R10]: SPARE			
11[R11]: SPACE			
12[R12]: SPACE			
13[R13]: SPACE			
14[R14]: SPACE			
15[R15]: SPACE			
16[R16]: SPACE			
17[R17]: SPACE			
18[R18]: SPACE			
19[R19]: SPACE			
20[R20]: SPACE			
21[R21]: SPACE			
22[R22]: SPACE			
23[R23]: SPACE			
24[R24]: SPACE			
LMLS-600	TW-1	TW-1.1.1.3	Zone 1:: Load 01[R01]: CONTACTOR 1, Load 02[R02]: CONTACTOR 2;
LMSW-101	TW-1	TW-1.1.4	
1: Button 1			Load 01[R01]: CONTACTOR 1; Load 02[R02]: CONTACTOR 2;
LMSW-101	TW-1	TW-1.1.4	
1: Button 1			Load 01[R01]: CONTACTOR 1; Load 02[R02]: CONTACTOR 2;
LMSW-101	TW-1	TW-1.1.4	
1: Button 1			Load 01[R01]: CONTACTOR 1; Load 02[R02]: CONTACTOR 2;
LMSW-101	TW-1	TW-1.1.4	
1: Button 1			Load 01[R01]: CONTACTOR 1; Load 02[R02]: CONTACTOR 2;

Schedule and Control				
Device		TW Sheet	TW Detail	Control Sequence
LMSW-101		TW-1	TW-1.1.4	
1: Button 1				Load 01[R01]: CONTACTOR 1; Load 02[R02]: CONTACTOR 2;

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP24		01[R01]: CONTACTOR OR 1	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25
02[R02]: CONTACTOR OR 2		Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25	
				After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25	
03[R03]: SPARE		Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25	
				After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25	
04[R04]: SPARE		Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25	
				After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25	
05[R05]: SPARE		Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25	
				After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25	
06[R06]: SPARE		Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25	
				After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25	
07[R07]: SPARE		Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25	
				After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25	
08[R08]: SPARE		Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25	
				After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25	

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP24		09[R09]: SPARE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25
		10[R10]: SPARE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25
		11[R11]: SPARE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25
		12[R12]: SPARE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25
		13[R13]: SPARE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25
		14[R14]: SPARE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25
		15[R15]: SPARE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25
		16[R16]: SPARE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25
		17[R17]: SPARE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	10	Last State	Turn Off	25

Controller																						
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level		
LMCP24		18[R18]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25		
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	Last State	Turn Off	25			
		19[R19]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25		
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	Last State	Turn Off	25			
		20[R20]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25		
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	Last State	Turn Off	25			
		21[R21]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25		
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	Last State	Turn Off	25			
		22[R22]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25		
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	Last State	Turn Off	25			
		23[R23]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25		
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	Last State	Turn Off	25			
		24[R24]: SPACE	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25		
					After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	Last State	Turn Off	25			
							Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
							After Hours	00:02	50	1	0	100	0	N/A	On and Off	False	5	120	Last State	Turn Off	25	

Switch														
Switch	Button	Button Type	Fade Rate	Fade Time On	Fade Time Off	Ramp Rate (%/Sec) (Rocker Only)	Preset Value On	Preset Value Off	Override Time Till Off	Momentary Mode	Scene Number	Scene Mode	Scene Locked	Network Id
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A

Switch														
Switch	Button	Button Type	Fade Rate	Fade Time On	Fade Time Off	Ramp Rate (%/Sec) (Rocker Only)	Preset Value On	Preset Value Off	Override Time Till Off	Momentary Mode	Scene Number	Scene Mode	Scene Locked	Network Id
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A
LMSW-101	1 : Button 1	Load	Use Fade Time	Use Load Fade Time	Use Load Fade Time	N/A	Use Last Level	Relinquish	Use Load Override Time	Toggle	N/A	N/A	N/A	N/A

Daylighting: LMLS-600

Control Mode	Override Timeout (Hrs)	Minimum Time to Update (Sec)	Minimum COV to Update (fc)	Hold Off	Override Allowed	Scenes Disable Daylighting	Follows After Hours	Lighting Zone	Operation Mode	On Setpoint (fc)	Off Setpoint (fc)	On Time Delay (Sec)	Off Time Delay (Min)	Ramp Up Rate (% / Sec)	Ramp Down Rate (% / Sec)	Cut Off Delay (Min)	Dimming Setpoint (fc)	2nd Sensor Min Time to Update (Sec)	2nd Sensor Min COV to Update (fc)	Dimming Setpoint EL Percent Adder	On Setpoint Electric Light Percent Adder	Recommisio n Threshold (fc)	Recommisio n Time Delay (Min)	Diagnostic Error Flags	Force Open Loop Control
Normal	0	30	0.1	False	False	False	True	1	Dimming	N/A	N/A	N/A	N/A	20	2	0	0.05	30	0.1	7	25	2	0	0	False

Room Summary for Rooms to Go Warehouse DIRECT - LC-HC2 in ROOMS TO GO WAREHOUSE DIRECT

Room
ROOMS TO GO WAREHOUSE DIRECT: LC-HC2
Network Bridge Present

Schedule and Control			
Device	TW Sheet	TW Detail	Control Sequence
LMCP48 [LC-HC2]	SL-1	SL-1,TW-1	
01[R01]: CONTACTOR 1			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
02[R02]: CONTACTOR 2			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
03[R03]: CONTACTOR 3			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
04[R04]: CONTACTOR 4			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
05[R05]: CONTACTOR 5			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
06[R06]: CONTACTOR 6			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
07[R07]: EXT. CONTACTOR 1			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
08[R08]: EXT. CONTACTOR 2			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
09[R09]: EXT. CONTACTOR 3			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
10[R10]: EXT. CONTACTOR 4			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
11[R11]: EXT. CONTACTOR 5			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
12[R12]: EXT. CONTACTOR 6			LMLS-600 Zone 1; LMSW-101 Btn 1: Burton 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
13[R13]: EXT. CONTACTOR 7			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
14[R14]: EXT. CONTACTOR 8			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
15[R15]: EXT. CONTACTOR 9			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
16[R16]: EXT. CONTACTOR 10			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
17[R17]: EXT. CONTACTOR 11			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
18[R18]: EXT. CONTACTOR 12			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
19[R19]: EXT. CONTACTOR 13			LMLS-600 Zone 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
20[R20]: EXT. CONTACTOR 14			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;
21[R21]: SPACE			
22[R22]: SPACE			
23[R23]: SPACE			
24[R24]: SPACE			

Schedule and Control				
Device	TW Sheet	TW Detail	Control Sequence	
25[R25]: SPACE				
26[R26]: SPACE				
27[R27]: SPACE				
28[R28]: SPACE				
29[R29]: {HC2-47} SIGN			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;	
30[R30]: {HC2-49} SOFFITT			LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1; LMSW-101 Btn 1: Button 1;	
31[R31]: SPACE				
32[R32]: SPACE				
33[R33]: SPACE				
34[R34]: SPACE				
35[R35]: SPACE				
36[R36]: SPACE				
37[R37]: SPACE				
38[R38]: SPACE				
39[R39]: SPACE				
40[R40]: SPACE				
41[R41]: SPACE				
42[R42]: SPACE				
43[R43]: SPACE				
44[R44]: SPACE				
45[R45]: SPACE				
46[R46]: SPACE				
47[R47]: SPACE				
48[R48]: SPACE				
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 04[R04]: CONTACTOR 4;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 05[R05]: CONTACTOR 5;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 06[R06]: CONTACTOR 6;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 07[R07]: EXT. CONTACTOR 1;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 08[R08]: EXT. CONTACTOR 2;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 09[R09]: EXT. CONTACTOR 3;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 10[R10]: EXT. CONTACTOR 4;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 02[R02]: CONTACTOR 2;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 16[R16]: EXT. CONTACTOR 10;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 17[R17]: EXT. CONTACTOR 11;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 18[R18]: EXT. CONTACTOR 12;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 19[R19]: EXT. CONTACTOR 13;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 03[R03]: CONTACTOR 3;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 11[R11]: EXT. CONTACTOR 5;	
LMLS-600	TW-1	TW-1.1.3	Zone 1:: Load 12[R12]: EXT. CONTACTOR 6;	
LMLS-600	TW-1	TW-1.1.3		

[illegible]

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP48		01[R01]: CONTACT OR 1	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		02[R02]: CONTACT OR 2	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

Controller																				
Controller	Line Voltage (Volts)	Load	Load Type	Circuit	Operating Mode	Fade Time	Fade Rate %	Fade Trip Point Up (%)	Fade Trip Point Down (%)	High Trim Level (%)	Low Trim Level (%)	Sensor Mode	Button Mode	Blink Warn	Grace Period (Min)	Override Time Delay (Min)	Temporary Auto-On (Sec)	Power Up Mode	Transition State	Transition Level
LMCP48		03[R03]: CONTACT OR 3	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		04[R04]: CONTACT OR 4	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		05[R05]: CONTACT OR 5	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		06[R06]: CONTACT OR 6	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		07[R07]: EXT. CONTACT OR 1	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		08[R08]: EXT. CONTACT OR 2	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		09[R09]: EXT. CONTACT OR 3	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		10[R10]: EXT. CONTACT OR 4	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		11[R11]: EXT. CONTACT OR 5	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		12[R12]: EXT. CONTACT OR 6	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		13[R13]: EXT. CONTACT OR 7	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		14[R14]: EXT. CONTACT OR 8	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		15[R15]: EXT. CONTACT OR 9	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25
		16[R16]: EXT. CONTACT OR 10	Switched		Normal Hours	00:00	50	1	0	100	0	N/A	On and Off	False	5	0	10	Last State	Nothing	25

VI. Cut Sheets

Lighting Integrator Panel Enclosures

16-gauge all steel tubs with galvaneal finish

Screw on, powder coated cover permits temporary hanging via key hole screw slots

Surface or flush mounting with back mounting holes, screw cover

Lockable door access to Class 2 panel section, meets NFPA 70

Studs provided for quick installation of panel interior section

UL and CUL listed; one year warranty



PROJECT	Rooms To Go Furniture Warehouse
LOCATION/TYPE	

Product Overview

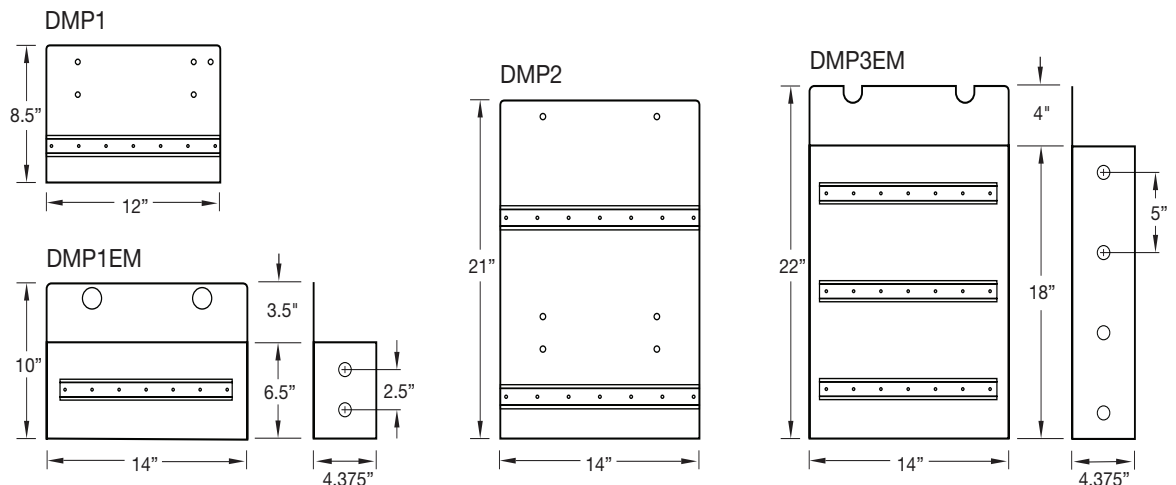
Description

Lighting Integrator panel enclosures are designed specifically to work with all configurations of LI panel interiors containing 8 to 48 relays. The enclosures are provided with integral mounting studs that are configured to accept the panel interior making the installation quick and easy. Covers are secured to the tubs with screws and have keyhole style mounting. This allows the cover to be temporarily hung on the tub during the construction phase of the project. All covers have hinged doors that expose only the low voltage (Class 2) section of the panel and are equipped with key locks and two keys each. All Lighting Integrator enclosures are NEMA 1 rated. Consult factory for other NEMA rated applications.

Configurations

Enclosures rated for 24 or 48 relay capacity have space provided at the bottom for optional mounting plates (DMP) to accept DIN rail mounted accessories such as multi-pole contactors and ELCU-100 Emergency Lighting Control Units. Standard LENC24 and LENC48 enclosures will accommodate up to six four pole contactors (requires DMP mounting plate) or four ELCU-100 units (requires DMP-1EM mounting plate). LENC8-24 and LENC24-48 enclosures have additional space provided and will accommodate up to twelve four pole contactors (requires DMP-2 mounting plate) or 12 ELCU-100 units (requires DMP-3EM mounting plate).

DIN Rail Mounting Options



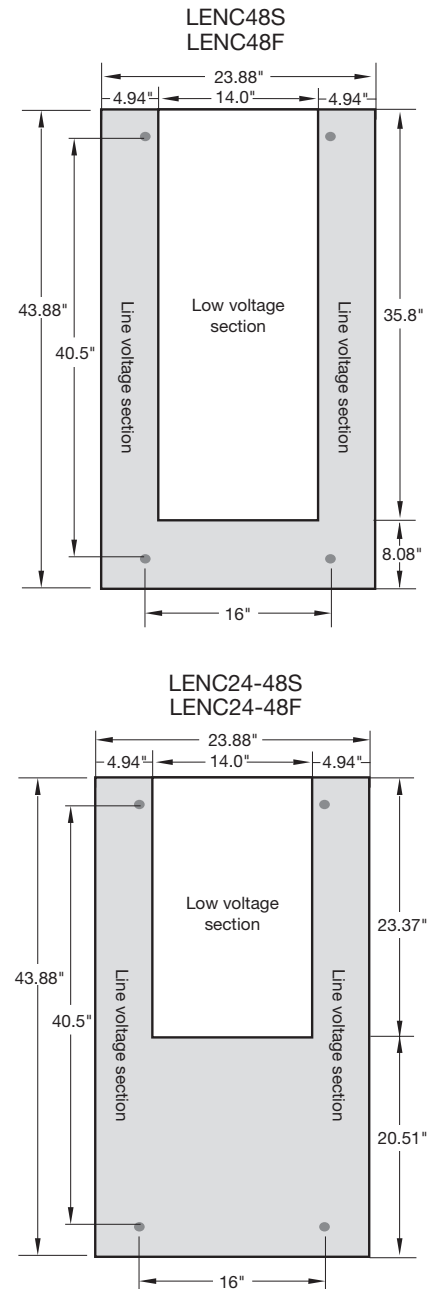
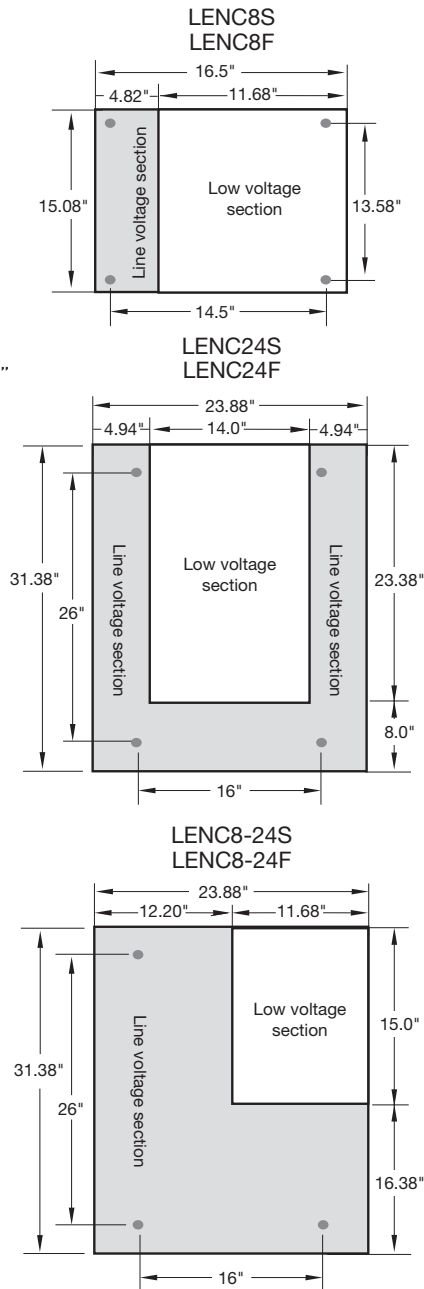


Tub Dimensions

Note:

Tub depth 4.50"

Cover thickness .075"



Ordering Information

Catalog No.	Description	Overall Dimensions Including Cover (HxWxD)	Overall Weight
☐ LENC8S	8 relay capacity, surface mount	15.75" x 16.62" x 4.575"	18 lbs
☐ LENC8F	8 relay capacity, flush mount	17.10" x 18.48" x 4.575"	20 lbs
☐ LENC8-24S	8 relay capacity with 24 size tub, surface mount	32.00" x 24.00" x 4.575"	45 lbs
☐ LENC8-24F	8 relay capacity with 24 size tub, flush mount	33.35" x 25.85" x 4.575"	50 lbs
☒ LENC24S	24 relay capacity, surface mount	32.00" x 24.00" x 4.575"	45 lbs
☐ LENC24F	24 relay capacity, flush mount	33.35" x 25.85" x 4.575"	50 lbs
☐ LENC24-48S	24 relay capacity with 48 size tub, surface mount	44.50" x 24.00" x 4.575"	62 lbs
☐ LENC24-48F	24 relay capacity with 48 size tub, flush mount	45.85" x 25.85" x 4.575"	66 lbs
☒ LENC48S	48 relay capacity, surface mount	44.50" x 24.00" x 4.575"	62 lbs
☐ LENC48F	48 relay capacity, flush mount	45.85" x 25.85" x 4.575"	66 lbs
☒ DMP	mounting plate, one DIN rail for up to 6 contactors	8" x 12" x 4.625"	1.86 lbs
☐ DMP-2	mounting plate, two DIN rail for up to 12 contactors	21" x 14" x 4.625"	5.30 lbs.
☐ DMP-1EM	mounting plate, one DIN rail with barrier for up to 4 ELCU-100s	10" x 14" x 4.37"	3.64 lbs.
☐ DMP-3EM	mounting plate, three DIN rail with barrier for up to 12 ELCU-100s	22" x 14" x 4.37"	7.60 lbs.

Qualifies for use in ARRA-funded projects.

A Group brand Legrand

LMCP Series Relay Panel Interiors (LMCP8, LMCP24, LMCP48)

Runs scheduled and photocell events autonomously

Easy setup via LMCT-100 handheld configuration tool

HDR relays include switch for manual override even when panel is powered off



Native BACnet communications for network control solutions

Compatible with Digital Lighting Management switches, sensors and input devices

99 control groups accessible via handheld configuration tool

Product Overview

Description

The LMCP series panel provides simple network-capable lighting control enabling the automation of lighting functions throughout an entire facility. The HDR relays in the panel can respond directly to inputs from Digital Lighting Management (DLM) switches, occupancy sensors, daylight sensors, and input modules.

Operation

Relays in each LMCP panel can be assigned to up to 99 automation groups in any combination. Each group can respond to unique scheduled events and light/dark photocell operations set up via an LMCT-100 handheld configuration tool. A group can also respond to schedules sent from a Segment Manager or a BACnet-enabled building automation system (BAS). Individual relays, or groups of relays, can also be controlled by DLM digital switches, occupancy sensors, LMLS series daylight sensors, and LMIO series input modules. Controls are assigned to relays using Push n' Learn directly from the user input device, or via an LMCT-100.

PROJECT	Rooms To Go Furniture Warehouse
LOCATION/TYPE	

Networking

Multiple panels may be networked together for global control operation without the use of a Segment Manager or BAS. The LMCP panel also provides a native-BACnet integration solution via BACnet MS/TP. Relay, group, and control device status, including occupancy sensor status, are available as BACnet objects. When a WattStopper Segment Manager is used, it will automatically recognize LMCP panels and map them to the browser-based user interface so that they can be configured with minimal additional setup.

Applications

LMCP panels provide effective, code-compliant control of building exterior lighting as well as larger interior areas that are not suited for DLM distributed controls. Recommended applications include office building lobbies, corridors, loading docks, etc., as well as school gymnasiums, commons areas and hallways. LMCP panels are also ideal for retrofit scenarios where mounting control equipment near existing branch circuit breakers is beneficial and digital switch and sensor devices and load parameter configurability are required to meet complex operational sequences.

Features

- Standard single pole heavy duty relays UL and cUL listed for both lighting and plug loads
- Available in interiors sized for 8, 24, or 48 relays maximum
- LMCT-100 handheld configuration tool recommended for setup
- Runs event-based schedule routines independently (does not require BAS or Segment Manager)
- Supports astronomical, time-based, and photocell-based event types
- Two free-topology DLM Category 5e local networks for DLM sensors, switches, and LMIO series input modules
- Additional power available for low voltage switches or accessories
- Qualifies for use in ARRA-funded projects

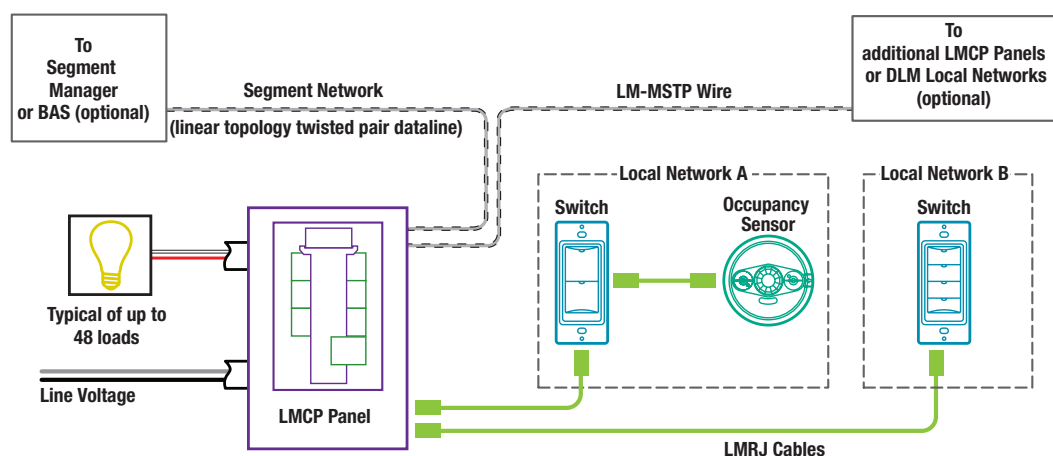


Specifications

- Input voltage options, 120/277V 60 Hz, 120/347V, 60 Hz, 240V 50 Hz
- Class 2 connection to two independent DLM local networks:
 - 24VDC output, up to 250mA across 2 RJ45 ports per local network
- Free-topology DLM local network segments may include digital switches and sensors; Category 5e cable, up to 1,000 ft. total per local network
- Terminals for connection to DLM segment network (BACnet MS/TP)
- Segment network parameters:
 - WattStopper LM-MSTP wire
 - Linear topology; 4000 ft. maximum per segment
- Accessory power available:
 - LMCP8, 800 mA @ 24VDC
 - LMCP24, 1000 mA @ 24VDC
 - LMCP48, 1000 mA @ 24VDC
- HDR relays:
 - Coil voltage, 24 VDC, pulse ON and pulse OFF
 - Mechanically latched contacts
 - ½" K.O. mounting, LV plug-connection, individually replaceable
 - Contact ratings:
 - 30 amps ballast @ 277V
 - 20 amps ballast @ 347V
 - 20 amps tungsten @ 120V
 - 30 amps resistive @ 347V
 - 1.5 HP @ 120V
- SCCR (short circuit current rating) 14,000 amps with HDR Heavy Duty Relay
- Operating conditions: for indoor use only; 32-131 OF (0 – 55 OC); 5-95% RH, non-condensing
- UL and cUL listed
- Five year warranty

Connecting

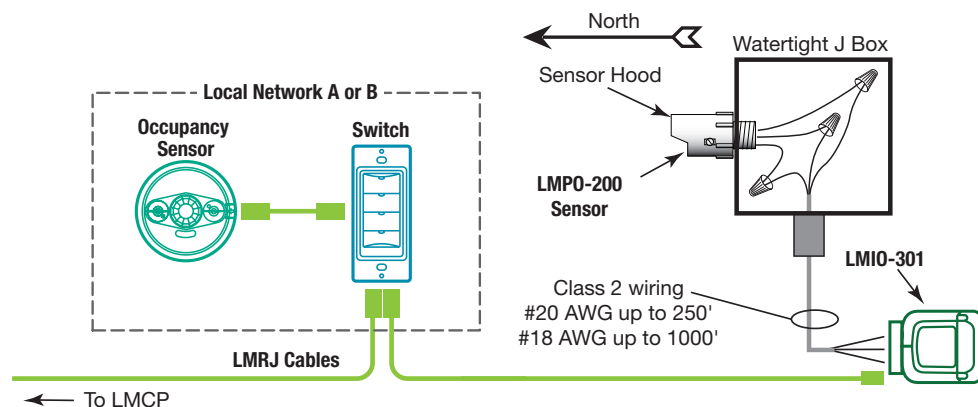
Sample DLM Panel Connection Diagram





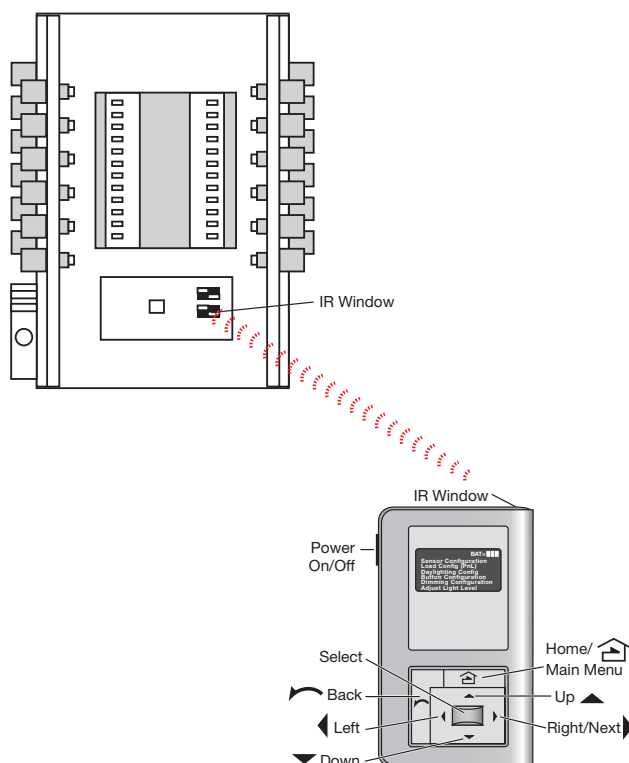
Connecting

LMIO-301 Connection and Wiring Diagram



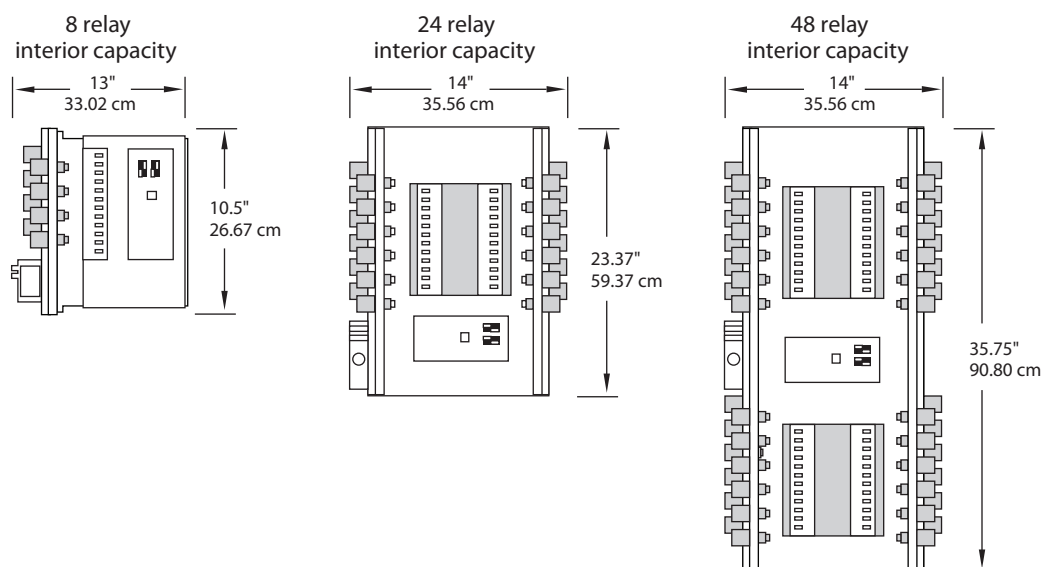
Set Up and Diagnostics

LMCP Set Up using LMCT-100 Handheld Configuration Tool





Panel Interior Dimensions



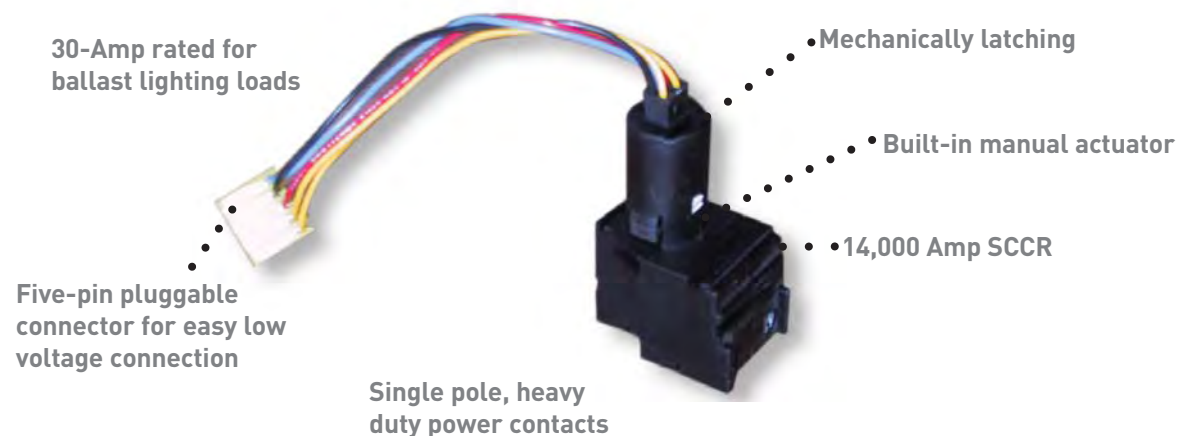
Ordering Information

Interior Capacity	Installed Options			
	Voltage Options	Relay Count	Emergency Relays	Coil Voltage
☐ LMCP8	☐ 115/277	___ HDR relays	___ EM relay count	☐ 115
☒ LMCP24	☐ 115/347	installed (max	(Not available in 8-relay size	☐ 240
☒ LMCP48	☐ 240	of interior	panels; max. of 24 in 24-relay	☒ 277
		capacity)	or 48-relay size interior)	☐ 347
☒ LMCT-100	Digital Wireless Configuration Tool			

Order enclosures for LMCP panel interiors separately.



HDR Low Voltage Relay



PROJECT	Rooms To Go Furniture Warehouse
LOCATION/TYPE	

Product Overview

Description

This low voltage relay is used for control of lighting circuits and other electrical loads in WattStopper's Lighting Integrator control panels. Momentary, low voltage pulses from the panel's control system switch the relays on or off. Mechanical latching operation results in lower power consumption. The relay will remain in the last switched state in the event of a power loss. A built-in manual actuator allows lights to be turned on in the event of a panel or relay failure. The relay mounts into a standard knockout and comes with a plug-in cable for easy panel connection. Typically, users specify the number of relays and the panel is assembled and shipped with this quantity.

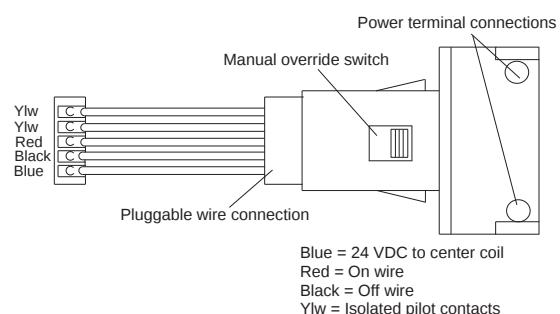
Specifications

- 1/2" knockout mounting
- Accepts wire gauge #10 - #14 AWG, copper wire, solid or stranded
- Operating voltage 24 VDC
- Isolated pilot relay contacts, .5 Amp @ 30 VAC/DC for status feedback
- Integral manual override
- Rated 14,000 amps Short Circuit Current Rating (SCCR)
- Suitable for use with all HID ballasted loads
- Expected service life is over 25 years at nominal load and cycle rate
- Dimensions: 3.2"x 1.3"x .85" (81.3 mm x 33.0 mm x 21.6 mm)
- UL listed, CSA certified; five year warranty

Ratings

- | | |
|--------------------------------|--------------------------------------|
| • Ballast load (including HID) | 30 Amp @ 277 VAC
20 Amp @ 347 VAC |
| • Tungsten load | 20 Amp @ 120 VAC |
| • Resistive load | 30 Amp @ 347 VAC |
| • Motor load | 1½ HP @ 120 VAC |

HDR Wiring



Ordering Information

Catalog No.	Description
☒ HDR5P	Mechanically Latching Relay (low voltage) with five-pin plug-in connector, pilot contacts, override switch

Qualifies for use in ARRA-funded projects.

Multi-pole Contactor

Multi-pole design enables control of multiple single-phase or multi-phase loads

Compatible with all HID and electronic ballast loads

Four pole, SPST power contacts

Normally closed or normally open contacts

Silver cadmium oxide contacts for long life

Accepts wire gauge #10 - #14 AWG



PROJECT	Rooms To Go Furniture Warehouse
LOCATION/TYPE	

Product Overview

Description

The Multi-pole Contactor is a compact, electrically held lighting contactor used for controlling lighting and other electrical loads in Watt Stopper Lighting Integrator (LI) lighting control panels.

Operation & Features

The contactor is compatible with all HID and electronic ballast loads. All line and load wiring is feed-through style, and screw terminals accept both standard blade and phillips head screw drivers. Contactors may be added to any 24- or 48-relay size Lighting Integrator panel. Contactors may be ordered with LI panels (by specifying them in the LI panel catalog number) or they may be ordered separately. They may also be easily added to existing lighting control panels with DIN rail mounting capability, providing a simple way to expand the number of circuits controlled.

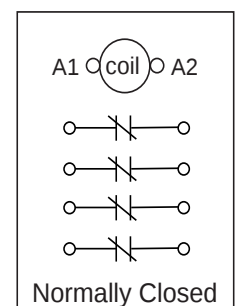
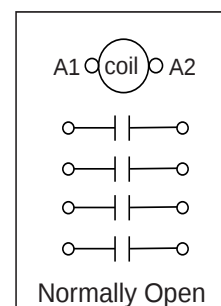
Specifications

- Electrically held
- Screw compression terminals
- Coil holding power consumption 10VA
- Compact DIN rail mounting
- Dimensions: 2.9" x 1.75" x 2.95" (73.7mm x 44.5mm x 74.9mm); weight 11.3 oz.
- UL 508 listed, CSA certified; one year warranty

Ratings

- Ballast load 30 Amp @ 600 V (magnetic, electronic, HID ballasts)
- Tungsten load 20 Amp @ 277 V
- Resistive load 30 Amp @ 480 V
- Motor load 5 HP @ 460 V, 3 phase

Contactor Diagram



Ordering Information

Catalog No.	Description	Voltage
☐ C115NC	4-pole normally closed	115V coil
☐ C277NC	4-pole normally closed	277V coil
☐ C115NO	4-pole normally open	115V coil
☒ C277NO	4-pole normally open	277V coil
☐ C347NC	4-pole normally closed	347V coil
☐ C347NO	4-pole normally open	347V coil

LMSM Series Digital Network Segment Manager

Provides global control of DLM segment networks and access to advanced features

Allows scheduling, power monitoring and remote adjustment of devices on DLM local networks

Friendly browser-based user interface

Supports third party integration with BAS through BACnet IP

Connects to DLM segment network and PC, LAN or Internet via Ethernet



Product Overview

Description

The Digital Lighting Management (DLM) Network Segment Manager is a network controller designed for use with DLM local networks and/or LILM lighting control panels. The Segment Manager provides global control, monitoring, adjustment, and scheduling functionality for networked DLM systems across multiple rooms and buildings.

Operation

The Segment Manager communicates with the DLM local networks and panels over a BACnet-compatible digital segment network. The LMSM-3E supports three direct-connected MS/TP segment networks for up to 120 DLM rooms, while the LMSM-6E utilizes NB-ROUTERS for segment network connections for up to 300 DLM rooms. The user interface is hosted by the Segment Manager and is served up over a TCP/IP connection. The interface is available on any PC using a compatible web browser. A BACnet BAS may be connected to the LMSM via Ethernet for connection to the BACnet Export Table that exposes a selection of application-specific BACnet objects to the BAS.

Scheduling, Monitoring and Adjustment

Users can easily monitor and adjust DLM device parameters from the convenience of a PC connected to a Segment Manager. This includes occupancy and daylighting sensor settings, load parameters, digital switch button configuration and dimming parameters. Normal and after hours parameters can be set or adjusted and users can create seven-day-repeating or calendar-event-based schedules. Additionally, power consumption may be monitored in real time for areas equipped with LMRC-2xx and/or LMPL-201 Plug Load Room Controllers. The Segment Manager can also be used to create reports for maintenance and building administration.

Applications

The Segment Manager is an ideal solution when remote access to DLM local networks is desired. It is suitable for schools, office buildings, or other applications that will benefit from the ability to adjust settings and calibrations without the need to physically visit each room. It is also recommended for projects that require automatic reconfiguration of device settings based on a schedule.

Features

- Communicates all DLM local network data and device settings via the segment network dataline
- Web browser user interface can be accessed via direct TCP/IP connection, local LAN or via the Internet
- Allows remote changes to occupancy sensor and daylighting sensor settings in real time
- Allows current monitoring of LMRC-2xx Room Controllers and LMPL-201 Plug Load Room Controllers in real time
- Adjusts parameters for normal and after hours based on the schedule
- Secure web interface utilizing encrypted SSL communications
- Schedules may be repeating seven day, calendar event based or astronomic control
- Easy integration with BAS through use of standard BACnet objects to represent DLM local network device settings and states

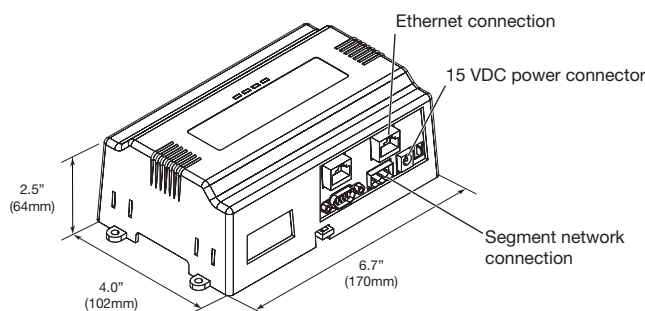


Specifications

- Operating voltage: 15VDC from 120VAC plug-in power supply (included) or auxiliary enclosure
- Plastic housing, mounting via integral DIN rail slot or screw down tabs on housing
- RJ45 Ethernet port for TCP/IP (LAN) connection, green link status LED
- Embedded Power PC platform @ 524Mhz
- QNX real time operating system
- RS485 network, BACnet MS/TP twisted pair, baud rate 9600, 19200, 38400 or 76800 selectable
 - LMSM-3E: three segment networks
 - LMSM-6E: add NB-ROUTERS as needed for up to 300 rooms
- Segment network parameters:
 - WattStopper LM-MSTP wire rated for BACnet MS/TP (RS485)
 - Linear topology; 4000' maximum per segment
 - Up to 40 local networks or panels per segment
- Status LEDs for power and normal operation
- Operating conditions: for indoor use only; 32-122°F (0-50°C); 5-90% RH, non-condensing
- UL and cUL listed (E207782)
- BTL listed
- FCC part 15 compliant
- One year warranty

Dimensions & Controls

Product Dimensions

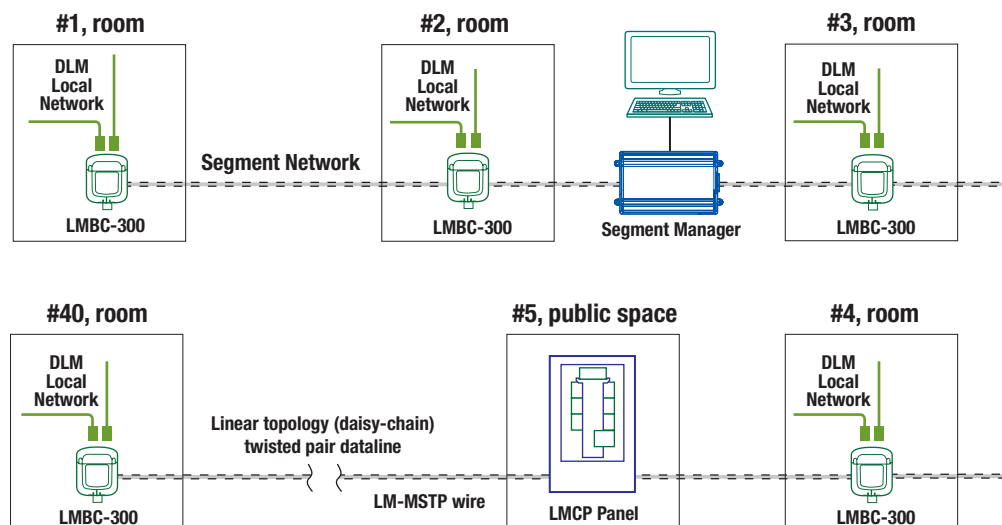


User Interface



Connecting

Sample Connection Diagram



The segment manager may be located at any point along the segment network so long as the linear topology (daisy chain wiring) is maintained. Best practice is to connect in the middle of the network segment with an equal number of local networks on either side.

Ordering Information

Catalog. No.	Description
☒ LMSM-3E	Segment Manager, three MS/TP segment network
☐ LMSM-6E	Segment Manager, use NB-ROUTERS for up to 300 rooms
☒ LMSM-ENC1	Enclosure for Segment Manager, 14"L x 8.5"W x 5"D, includes 120VAC duplex outlet

LMSM-ENC1 Enclosure for LMSM Segment Manager

NEMA1-rated enclosure

Compatible with LMSM-3E or LMSM-6E

Shown with Segment Manager installed



Isolated Class 1 and Class 2 wiring

DIN rail mounting for easy installation or removal of Segment Manager

PROJECT	Rooms To Go Furniture Warehouse
LOCATION/TYPE	

Product Overview

Description

The LMSM-ENC1 is a surface-mount NEMA1-rated enclosure with a DIN rail for mounting one LMSM Segment Manager, conduit knockouts for line and low voltage connections and a removable cover. The conduit entrances and enclosure sections for high voltage (Class 1) and low voltage (Class 2) wiring are completely separated.

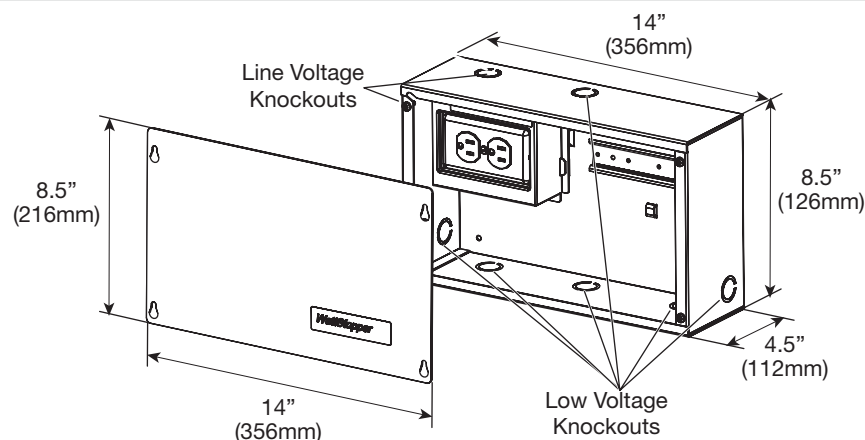
Applications

The LMSM-ENC1 allows a Segment Manager to be installed in an electrical room or other location with similar requirements. The enclosure accommodates one LMSM-3E or LMSM-6E Segment Manager.

Specifications

- Input voltage: 120VAC, 50/60Hz
- Duplex receptacle for connection of LMSM plug-in power supply
- Barrier between high and low voltage
- DIN rail for mounting LMSM, includes locking tab
- Housing: NEMA1 surface-mount enclosure with screw-on cover, suitable for damp locations
- UL and cUL listed
- Five year warranty

Dimensions and Mounting



Ordering Information

Catalog No.	Description
☒ LMSM-ENC1	NEMA1 surface mount enclosure for Segment Manager (order Segment Manager separately)

LMLS-600 Dual Loop Switching and Dimming Photosensor

Single zone photosensor for toplit switching and dimming applications

Combines strengths of open loop and closed loop daylighting control in one product

Selectable 30° or 70° closed loop spatial response, 60° open loop spatial response for optimal detection of light levels



Automatic calibration and configuration

Shown to save 52% more energy than open loop daylighting control system

Photodiodes corrected to match the photopic response of the human eye

PROJECT	Rooms To Go Furniture Warehouse
LOCATION/TYPE	

Product Overview

Description

The LMLS-600 is a dual loop photosensor that automatically switches or dims one zone of lighting based on ambient light and daylight levels. It has two silicon photodiodes with an extended range of 1-10,000 footcandles (fc) and features photopic correction to mimic the human eye's perception of daylight. The LMLS-600 is part of a Digital Lighting Management (DLM) system and sends light level signals to control loads connected to DLM on/off or dimming room controllers.

Operation

The LMLS-600 operates on Class 2 power supplied to a DLM local network by one or more DLM room controllers. Following an automatic setup process it works with the room controller(s) to maintain the designed lighting level regardless of changes in the daylight contribution. WattStopper's exclusive control algorithm uses both open and closed loop technologies. During normal operation, the closed loop photosensor provides control based on the ambient light level. However, if the LMLS-600 detects occupant interference the open loop sensor takes control for the remainder of the day. Following automatic overnight recalibration, the closed loop sensor resumes control.

Automatic Setup

After installation, the LMLS-600 measures the daylight and electric light levels in order to automatically calibrate itself and establish setpoints. Setup may be initiated from the photosensor or a handheld LMCT-100 wireless configuration tool. The LMLS-600 recalibrates every night to account for reflectance changes (furniture layout, retail display, interior colors, etc.) or lamp lumen depreciation. The LMCT-100 is also used to adjust setpoints and other parameters, if desired. Adjustable switching parameters include on and off setpoints and time delays. The off setpoint can be adjusted to a value of 25, 50 (default), 75, or 100 percent above the on setpoint. Adjustable dimming parameters include day and night setpoints, ramp up and down rates, and a cut-off time delay. Electric lights can be turned off (default) or dimmed to minimum level when daylight contribution is abundant.

Applications

The LMLS-600 Photosensor is recommended for spaces with skylights, including warehouses and big box retail stores. It is designed to sense both daylight and electric light, and is typically mounted under a skylight. The LMLS-600 can be used for on/off switching, bi-level or tri-level switching (step dimming) or continuous dimming.

Features

- Can be calibrated in any daylight condition
- Test Mode override of programmed time delay allows easy verification of selected settings
- Infrared (IR) transceiver for wireless configuration and control
- Recalibrates every night to account for reflectance changes within the space
- Compatible with DLM wall switches for manual override, if desired
- LED status indicators
- RJ45 jack for connection to free-topology Cat 5e DLM local network
- Complies with California Title 24, Section 119 requirements
- RoHS compliant

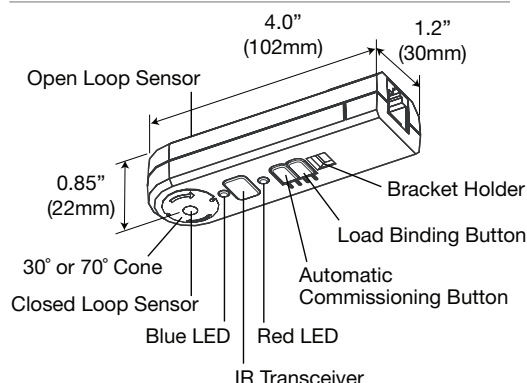


Specifications

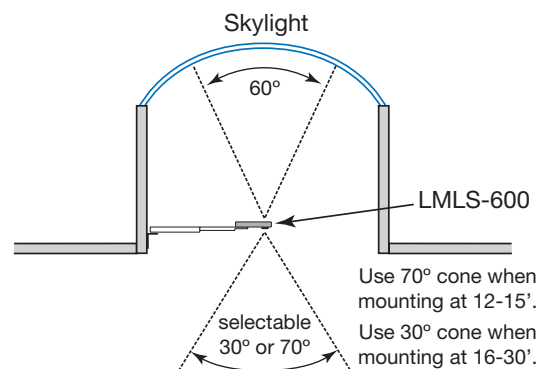
- Input voltage: 24 VDC from DLM local network
- Current consumption: 7 mA
- DLM local network connection: 1 RJ45 port
- Digital multi-band photosensor range: 1-10,000 fc (10-107,000 lux)
- Spatial response:
 - Closed loop, selectable 70° or 30°
 - Open loop, 60°
- LED status and configuration indicators
- Infrared (IR) transceiver
- Weight: 1.1 oz (31 g)
- Operating conditions: for indoor use only; 32-131°F (0-55°C); less than 90% RH, non-condensing
- UL and cUL listed
- FCC part 15 compliant
- Five year warranty

Dimensions & Mounting

Product Dimensions

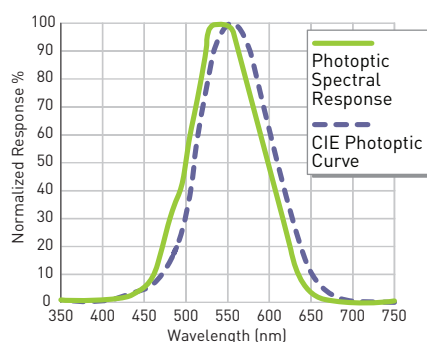


Placement for Skylight Application



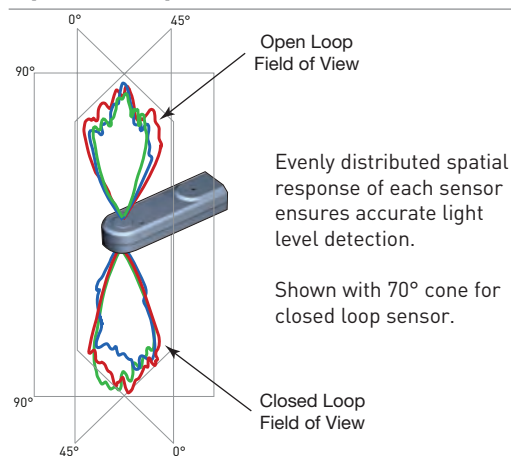
Photodiode Response

Spectral Response



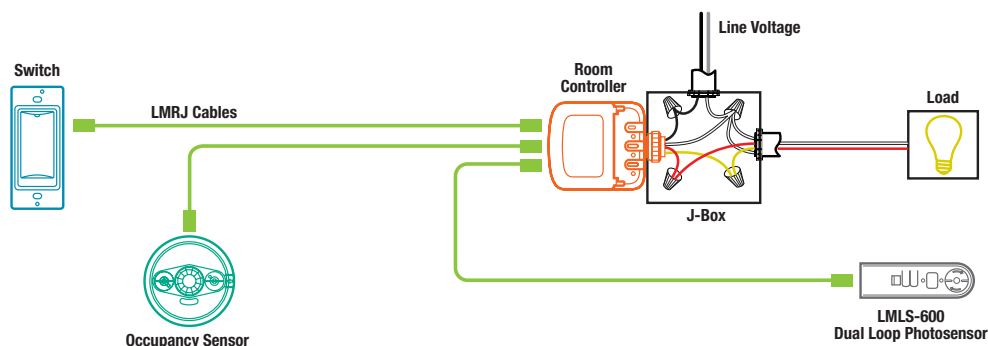
The photodiodes detect just visible light, which ensures accurate lighting control.

Spatial Response



Connecting

Sample Connection Diagram for On/Off Switching Application



Ordering Information

Catalog No.	Description
☒ LMLS-600	Dual Loop Switching and Dimming Photosensor
☐ LMCT-100	Digital Wireless Configuration Tool

LMSW-100 Series Digital Wall Switches

Low voltage pushbutton switches for control of multiple loads

Components of Digital Lighting Management integrated control system

Plug to other components using Cat 5e cables with RJ45 connectors eliminating wiring errors



Customizable buttons with LED status indicators

IR transceiver for wireless configuration and remote control

Plug n' Go automatic configuration and Push n' Learn for personalization

Product Overview

Description

LMSW-100 Series Digital Wall Switches are low voltage devices for energy-saving manual on/off control of one or more loads from one or more locations. They are part of a Digital Lighting Management (DLM) system and can control any load(s) connected to DLM room controllers.

Operation

LMSW-100 Series Switches operate on Class 2 power supplied to a DLM local network by one or more room controllers. The switches send a digital signal for on or off whenever a pushbutton is pressed by a user. Plug n' Go automatic configuration assigns each load to a switch button upon system startup. If the number of buttons equals the number of loads, each button operates one load. If there are more loads than buttons, the last button controls multiple loads. Any extra buttons are unassigned. When multiple switches are installed, default operation is for multi-way control; each switch controls all of the loads on the system. Button assignments may be quickly reconfigured using Push n' Learn. Button configuration may be changed from load control to scene control using DLM configuration tools.

Features

- Hidden configuration button for easy access to Push n' Learn
- Digital Lighting Management components plug together on a free-topology Category 5e DLM local network
- Infrared (IR) transceiver for wireless configuration and control
- Sleek single gang devices fit decorator wall plates; 1-, 2-, 3-, 4-, and 8-button models
- Each button can control individual or multiple loads, or one scene; LED indicates status
- Each switch button can be used to dim the load
- Switches may be used for multi-way control
- Six color options and custom engraving options; standard buttons may be replaced in the field
- RoHS compliant
- Qualifies for ARRA-funded public works projects

PROJECT

Rooms To Go Furniture Warehouse

LOCATION/TYPE

Button Features and IR Communications

An LED shows the status of the load(s) or scene assigned to each button on a switch. Switches are available with one, two, three, four or eight buttons. When an unassigned button is pressed, the LED will blink. Each button can dim the load up and down. Each switch may be personalized in the field with custom-engraved buttons. The IR transceiver in each LMSW-100 Series Digital Wall Switch allows two-way communication for both wireless system configuration and operation.

Applications

LMSW-100 Series Digital Wall Switches are recommended for virtually all applications, including offices, conference rooms and classrooms. They are ideal for any area where manual on/off control is desired. They are also perfect for applications requiring multi-way control. LMSW-100 Series Switches increase energy savings and improve the return on investment of any Digital Lighting Management system.

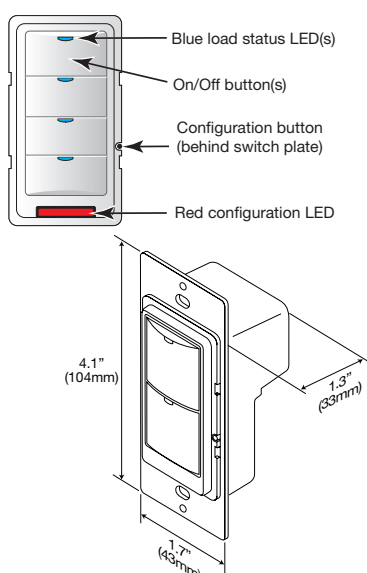


Specifications

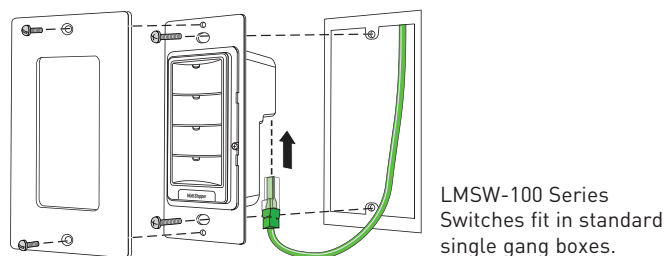
- Input voltage: 24VDC from DLM local network
- Current consumption: 5mA
- DLM local network connection: 2 RJ45 ports
- 1, 2, 3, 4 or 8 control buttons, each with LED status indicator
- Hidden configuration button to access Push n' Learn
- Infrared (IR) transceiver
- Operating conditions: for indoor use only; 32-131°F (0-55°C); 5-95% RH, non-condensing
- UL and cUL listed
- FCC part 15 compliant
- Five year warranty

Controls & Mounting

Product Controls, Dimensions and Models



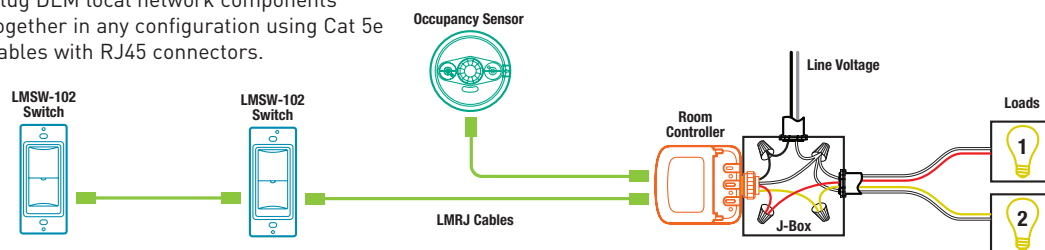
Mounting



Connecting

Sample Connection Diagram with Multi-way Bi-level Control

Plug DLM local network components together in any configuration using Cat 5e cables with RJ45 connectors.



Ordering Information

Catalog No.	Color	Product Description
☒ LMSW-101-W	White	1-Button Digital Wall Switch
☐ LMSW-101-LA	Light Almond	
☐ LMSW-101-I	Ivory	
☐ LMSW-101-G	Grey	
☐ LMSW-101-B	Black	
☐ LMSW-101-R	Red	
☐ LMSW-101-W-U	White	1-Button Digital Wall Switch, ARRA-compliant*
☐ LMSW-101-I-U	Ivory	
☐ LMSW-102-W	White	2-Button Digital Wall Switch
☐ LMSW-102-LA	Light Almond	
☐ LMSW-102-I	Ivory	
☐ LMSW-102-G	Grey	
☐ LMSW-102-B	Black	
☐ LMSW-102-R	Red	
☐ LMSW-102-W-U	White	2-Button Digital Wall Switch, ARRA compliant*
☐ LMSW-102-I-U	Ivory	
☐ LMSW-103-W	White	3-Button Digital Wall Switch
☐ LMSW-103-LA	Light Almond	
☐ LMSW-103-I	Ivory	
☐ LMSW-103-G	Grey	
☐ LMSW-103-B	Black	
☐ LMSW-103-R	Red	

Catalog No.	Color	Product Description
☐ LMSW-103-W-U	White	3-Button Digital Wall Switch, ARRA-compliant*
☐ LMSW-103-I-U	Ivory	
☐ LMSW-104-W	White	4-Button Digital Wall Switch
☐ LMSW-104-LA	Light Almond	
☐ LMSW-104-I	Ivory	
☐ LMSW-104-G	Grey	
☐ LMSW-104-B	Black	
☐ LMSW-104-R	Red	
☐ LMSW-104-W-U	White	4-Button Digital Wall Switch, ARRA-compliant*
☐ LMSW-104-I-U	Ivory	
☐ LMSW-108-W	White	8-Button Digital Wall Switch
☐ LMSW-108-LA	Light Almond	
☐ LMSW-108-I	Ivory	
☐ LMSW-108-G	Grey	
☐ LMSW-108-B	Black	
☐ LMSW-108-R	Red	
☐ LMSW-108-W-U	White	8-Button Digital Wall Switch, ARRA-compliant*
☐ LMSW-108-I-U	Ivory	

Note: Switches do not include face plates.
Order decorator style plate separately.

*Product produced in the U.S.

LMCT-100 Digital Wireless Configuration Tool

Wireless advanced configuration capabilities for Digital Lighting Management systems

2-way IR communication for data upload, download, confirmation and storage

Component of Digital Lighting Management integrated control systems

Easy-to-use navigation pad

Easy-to-read OLED screen

Configures occupancy sensors, switches, room controllers, photo-sensors and DLM relay panels



Product Overview

Description

The LMCT-100 Wireless Digital Configuration Tool is a handheld tool for advanced remote configuration of any WattStopper Digital Lighting Management (DLM) system. The tool enables system and device modifications via pushbutton, without ladders or tools, as well as easy duplication of settings between DLM local networks.

Operation

Powered by three AAA batteries, the LMCT-100 features an easy-to-read organic LED (OLED) screen and bi-directional communication with IR-enabled DLM devices. Its intuitive navigation pad provides a familiar interface for users who can see the current system parameters of a DLM local network and make changes by navigating through simple menus. Adjustable occupancy sensor parameters include sensitivity, time delay and trigger modes. Load parameter settings (also referred to as Push n' Learn) include blink warning, Auto- or Manual-on mode, and re-assigning specific loads to different sensors. Button configuration options include type (load or scene), mode, fade times and scene lock. Dimming parameters include low/high trim, preset level and lamp burn in time. Daylighting adjustments include operating mode, setpoints, fade times and time delays. The LMCT is also used to adjust the light level of dimmed loads.

Features

- Remotely reconfigures and reports DLM occupancy sensor parameters: PIR and ultrasonic sensitivity; time delay; walk through mode; trigger mode (for dual technology sensors)
- Remotely reconfigures and reports DLM dimming parameters: load type (dim/switch); low/high trim; preset on level; lamp burn-in
- Manually adjusts light level of dimmed loads to facilitate scene setting
- Remotely configures, reconfigures and reports DLM photosensor settings: light levels; operating mode (on/off, bi-level, tri-level, dimming); setpoints; time delays; fade times; test mode
- RoHS compliant

PROJECT

Rooms To Go Furniture Warehouse

LOCATION/TYPE

Configuration and Personalization

The LMCT-100 simplifies the replication of occupancy sensor settings from one DLM local network to another and facilitates scene setting. It can store up to nine sensor profiles and assign them to sensors in any DLM local network. For projects where identical settings may be desired across a large number of spaces, this capability provides a streamlined method of configuration. Settings can be copied throughout a building or in different buildings. The LMCT also allows manual adjustment of individual load levels. This powerful feature allows different lighting scenes to be set and stored without the need for dimming switches in each space. Scenes can be recalled by scene switches or multi-button switches configured for scene control.

Applications

Designers and installers can use the LMCT-100 to ensure conformity with design intent. It simplifies changes to occupancy sensor settings, load configurations and dimming parameters by making the adjustment process ladder-free. An LMCT-100 is required for calibrating the LMLS-500 photosensor. The self-calibrating LMLS-400 does not require the use of an LMCT-100 unless operating parameters need to be adjusted. The LMCT-100 is also required for configuration and maintenance of LMCP series relay control panels.

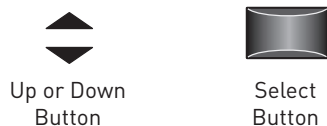
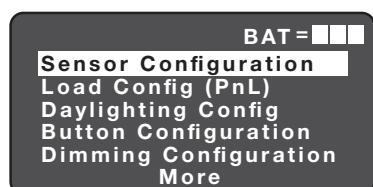
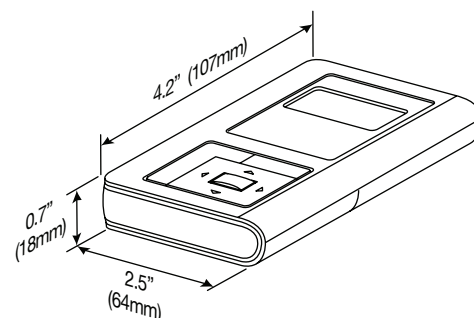
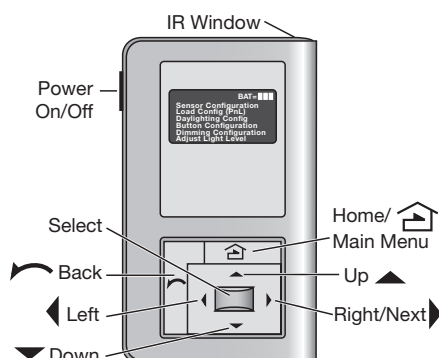


Specifications

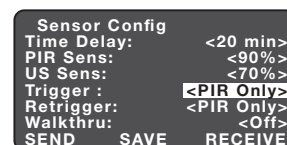
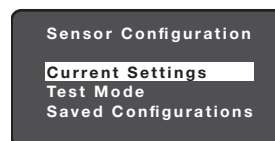
- Three AAA 1.5 volt batteries (included)
- OLED display 1.4"W x .75"H (36mm x 19mm)
- Infrared (IR) transceiver (36kHz frequency)
- IR range: up to 32' (10m)
- Includes carrying case with belt clip
- Operating temperature: 32-104°F (0-40°C)
- FCC part 15 compliant
- Five year warranty

Configuration Menus

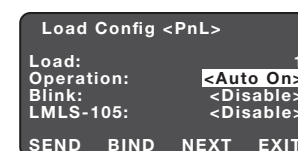
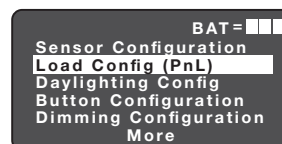
LMCT-100 Handheld Remote with Menu Screens



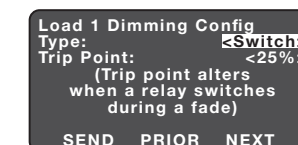
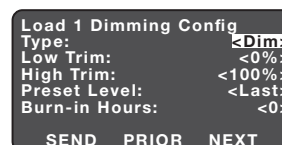
The Home (or Main) menu displays after the power-up process completes. It contains information on the battery status and six menu choices.



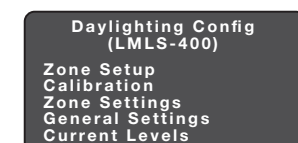
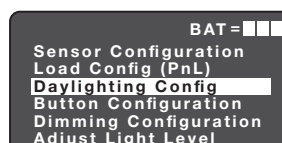
The Sensor Configuration function enables users to change sensor parameters, including time delay and sensitivity, save configurations, enter test mode and apply saved configurations.



The Load Configuration function (also referred to as Push 'n' Learn) enables users to identify load numbers, view and change load parameters and load bindings to sensors.



The Dimming Configuration function enables users to customize parameters for performance and savings. Setting a high level trim below 100% saves energy and increases lamp life.



The Daylighting Configuration function enables users to initiate automatic calibration of the LMLS-400, calibrate the LMLS-500, and adjust setpoints and other parameters for both photosensors and enter test mode.

Ordering Information

Catalog No.	Description
☒ LMCT-100	Digital Wireless Configuration Tool
☐ LMCT-100-U	Digital Wireless Configuration Tool, ARRA compliant*

*Product produced in the U.S.

UT-355 Ultrasonic Line Voltage Ceiling Sensor

Architecturally appealing
low-profile appearance

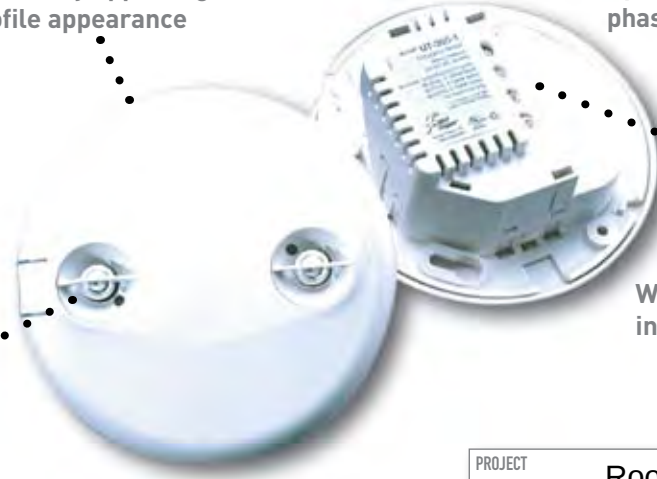
Operates at 120, 230 (single
phase), 277 or 347 VAC, 50/60 Hz

Utilizes advanced,
omni-directional,
ultrasonic technology

Terminal wiring for quick
and easy installation

Ultrasonic diffusers
provide more
comprehensive coverage

Walk-through mode
increases savings potential



PROJECT

Rooms To Go Furniture Warehouse

LOCATION/TYPE

Product Overview

Description

WattStopper's low-profile UT-355 Ultrasonic Line Voltage Ceiling Sensor automatically turns lighting on and off based on occupancy. The sensor mounts on the ceiling with a flat, unobtrusive appearance and provides 360° coverage.

Operation

The UT-355 is line voltage and operates on a single phase at 120, 230, 277, or 347 VAC. It uses high frequency (40 KHz) ultrasound to sense occupancy and automatically turn lighting on. When no occupancy is detected for the length of the time delay, lighting automatically turns off.

Time Delay Options

The UT-355 is factory set for a 20 minute time delay, ideal for both energy savings and user satisfaction in most applications. Installers can quickly select other fixed time delays (5, 10, 15 or 30 minutes) via DIP switches. Fixed time delays eliminate the occupant dissatisfaction associated with an automatically adjusted time delay option, and reduce callbacks. Walk-through mode may be enabled for added energy savings in spaces with frequent transient traffic.

Application

UT sensors offer excellent control of lighting for many spaces, including restrooms and large offices. The UT sensors' performance and ease of installation will provide fast paybacks and many years of energy savings.

Features

- Advanced control logic based on RISC microcontroller provides:
 - Advanced Signal Processing to eliminate false triggers and provide immunity to RFI and EMI
 - Walk-through Mode to turn lights off three minutes after the area is initially occupied, ideal for brief visits such as mail delivery
- Zero-crossing for long relay life
- LED indicates occupancy detection
- Coverage 500-2,000 square feet
- DIP switch simplifies sensor adjustments
- Patented ultrasonic diffusion technology spreads coverage to a wider area
- Clip mounting system makes ceiling tile installation simple
- Terminal wiring system provides quick and easy installation
- Sensor coverage tested to NEMA Guide Publication WD 7-2000
- Qualifies for ARRA-funded public works projects

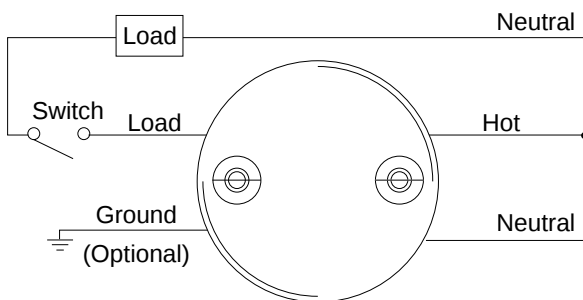


Specifications

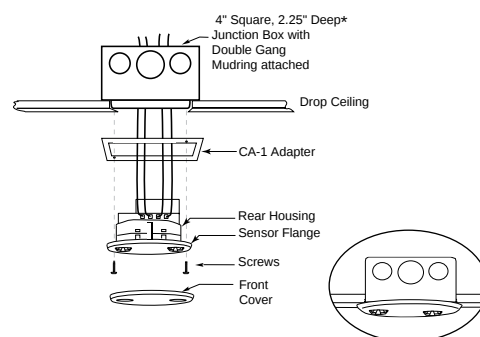
- 120/230 (single phase)/277/347 VAC, 50/60 Hz
- Time delays: 5, 10, 15, 20, or 30 minutes, Walk-through & Test modes
- Sensitivity adjustment: variable with trimpot
- Ultrasonic frequency of 40 kHz
- Mounting options: 4" square junction box with double-gang mud ring; 4" octagonal junction box
- Dimensions: 4.5" x 1.45" (114.3mm x 25.9mm) diameter x depth
- UL and cUL listed
- Five year warranty

Wiring & Mounting

Wiring Diagram

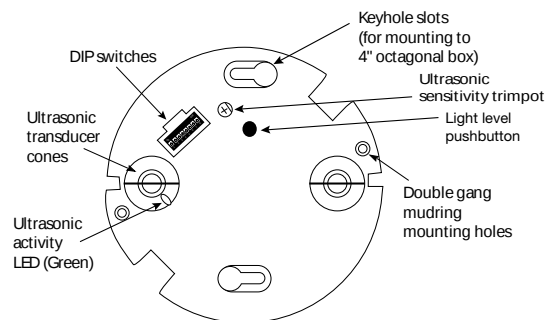


Ceiling Mounting



Controls & Settings

Product Controls



DIP Switch Settings

Feature	Switch#	
Time Delay	1 2 3	
Test Mode/20 min	↓ ↓ ↓	
30 seconds	↓ ↓ ↑	
5 minutes	↓ ↑ ↓	
10 minutes	↓ ↑ ↑	
15 minutes	↑ ↓ ↓	
20 minutes	↑ ↓ ↑	
25 minutes	↑ ↑ ↓	
30 minutes	↑ ↑ ↑	

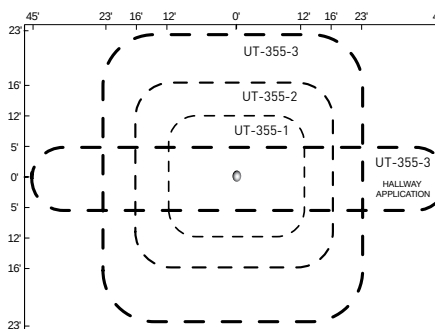
Walk-Through	4
Enabled	↑
Disabled	↓

Service	5
Service	↑
Normal	↓

◀ = Factory Setting
 ↑ = ON
 ↓ = OFF

Coverage & Placement

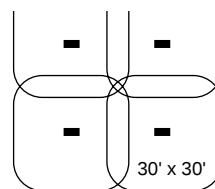
Coverage Patterns



10' Maximum Mounting Height

Coverages shown represent half-step walking motion when sensor is mounted 8'-10' high. Actual coverage can vary for each application depending on the shape and use of space and the obstacles present.

Placement



Typical layout for open office space would be to place UT-355-3 sensors so they control zones that overlap. For partitioned spaces, a typical zone is about 25' x 25' with an overlap on the coverage up to 30' x 30'.

Ordering Information

Catalog No.	Voltage/Description	Load Rating	Coverage
☐ UT-355-1	120 VAC, 50/60 Hz;	0-800 W Ballast/Tungsten/	500 ft ² (45.5 m ²)
☐ UT-355-1-U	230 VAC (single phase) 50/60 Hz;	LED	
☒ UT-355-2	277 VAC, 50/60 Hz; or	0-1200 W Ballast/LED, or	1000 ft ² (92.9 m ²)
☐ UT-355-2-U	347 VAC, 50/60 Hz	0-1500 W Ballast/LED	
☒ UT-355-3			2000 ft ² (185.8 m ²)
☐ UT-355-3-U			
☐ CA-1	Cosmetic adapter for ceiling installations with 4" square j-box or Wiremold #V5752 box		

Sensors are white.
 -U = ARRA compliant. Product produced in the U.S.



PW-100 Passive Infrared Wall Switch Occupancy Sensor

High sensitivity and dense coverage for exceptional performance

No neutral wire required

Color-matched lens and low profile for appealing design



Selectable operation, walk-through, test and presentation modes for increased energy savings and convenience

Defaults to Manual-ON operation for maximum energy savings

PROJECT

Rooms To Go Furniture Warehouse

LOCATION/TYPE

Product Overview

Description

The PW-100 passive infrared (PIR) wall switch sensor can turn lights OFF and ON based on occupancy. It is characterized by high sensitivity to small and large movements, appealing aesthetics, and a variety of features.

Operation

The PW-100 replaces existing wall switches and fits in a single gang junction box. It uses advanced PIR technology to detect occupancy and keep lighting ON when it is needed. Once the space is vacated and the time delay elapses, lights automatically turn OFF. DIP switch settings allow for a variety of control options such as Auto-ON operation, walk-through and test modes.

Manual-on Control

Factory default operation is for Manual-ON, so that users turn lights on only when needed. This control strategy is proven to save more energy than Auto-ON, and is in ASHRAE 90.1-2010. If desired, the PW-100 may be reconfigured to turn lights on automatically.

Applications

The PW-100 sensor is well suited for small, enclosed spaces with clear line of sight of the occupant. Common applications include small office, small conference room and lunch/break rooms.

Features

- Detection Signature Processing eliminates false triggers and provides immunity to RFI and EMI
- Zero-crossing for long relay life
- Vandal resistant lens combines precise coverage with durability
- Choice of Manual-ON or Auto-ON operation
- Selectable walk-through mode turns lights off three minutes after the room is initially occupied if no motion is detected after the first 30 seconds
- Test mode allows quick and easy adjustments
- Selectable audible and/or visual alerts for impending shutoff
- In automatic mode, sensor returns automatically to Auto-ON after lights are turned off manually; ideal for presentations
- LED indicates occupancy detection
- Optional light level sensing with simple setup
- Service mode allows sensor to operate as a service switch in the unlikely event of a failure
- Sensor coverage tested to NEMA Guide Publication WD 7-2000
- Compatible with decorator wall plates
- Qualifies for ARRA-funded public works projects

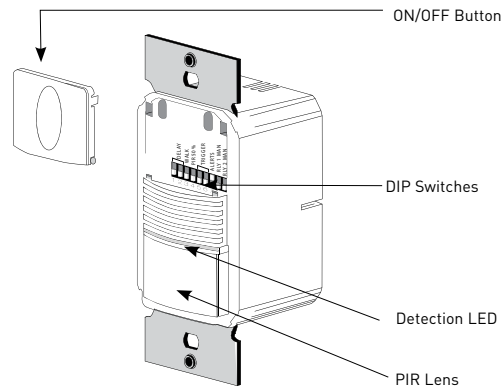


Specifications

- PW-100: 120/277 VAC; 50/60 Hz
@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp
@ 277 VAC, 0-1200 W ballast
- PW-100-347: 347 VAC; 50/60Hz; 0-1500 W ballast
- Time delays: 5, 10, 15, 20, 25 or 30 minutes, walk-through, test-mode
- Coverage: Major motion 35' x 30'
Minor motion 20' x 15'
- Sensitivity adjustment: PIR (high/low)
- Dimensions: 2.73" x 1.76" x 1.83"
(69.3mm x 44.7mm x 46.5mm) L x W x D
- UL and cUL listed
- Five year warranty

Controls & Settings

Product Controls



DIP Switch Settings

Time Delay	1	2	3
Test	↓	↓	↓
5 minutes	↓	↓	↓
10 minutes	↓	↓	↓
15 minutes	↓	↓	↓
20 minutes	↓	↓	↓
25 minutes	↓	↓	↓
30 minutes	↓	↓	↓
Service	↓	↓	↓
Walk-Through	4		
Disabled	↓		
Enabled	↑		
Time Delay	1	2	3
Visible Alerts	5	6	7
Not Used	8	9	
Walk-Through	4		
Audible Alerts	5	6	7
PIR Sensitivity	5		
High	↓		
Low, 50%	↑		
ON Mode	8		
Auto On	↓		
Manual On	↑		

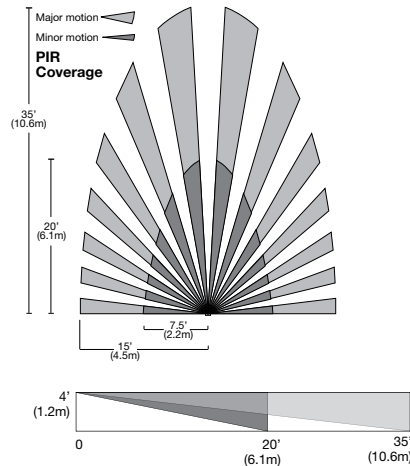
Switch 9 is not used

↑=ON ↓=OFF
◀=Factory Setting

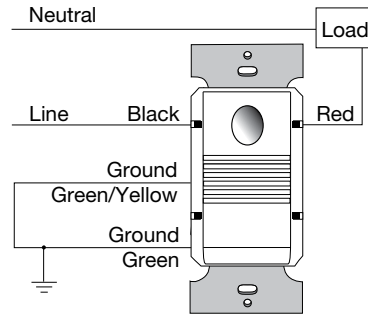
Service bypasses occupancy & light level functions. Control the load manually using ON/OFF button.

Coverage & Wiring

Coverage Pattern



Wiring Diagrams



For best performance, WattStopper recommends using this sensor in spaces no larger than 15' x 12'.

Ordering Information

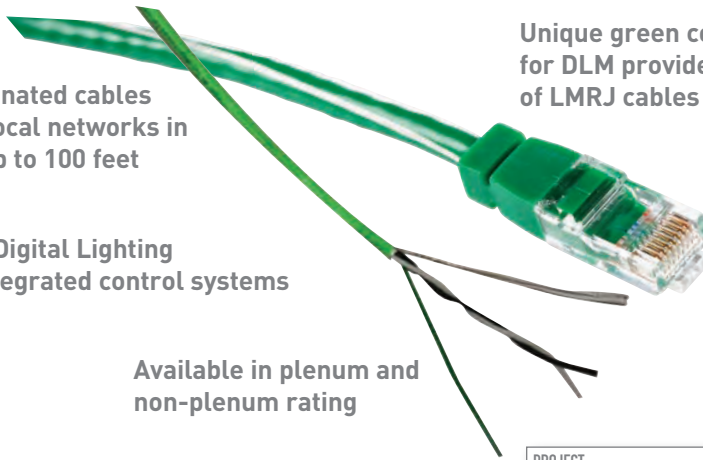
Catalog No.	Color	Voltage	Load Rating
☒ PW-100-W ☐ PW-100-W-U	White	120/277 VAC; 50/60 Hz 2-wire sensor; no neutral connection	@ 120 VAC, 0-800 W ballast or tungsten, 1/6 hp @ 277 VAC, 0-1200 W ballast
☐ PW-100-LA ☐ PW-100-I ☐ PW-100-I-U	Lt. Almond Ivory		
☐ PW-100-G ☐ PW-100-B	Grey Black		
☐ PW-100-347-W ☐ PW-100-347-LA ☐ PW-100-347-I ☐ PW-100-347-G ☐ PW-100-347-B	White Lt. Almond Ivory Grey Black	347 VAC; 50/60 Hz 2-wire sensor; no neutral connection	0-1500 W ballast

Order wall plate separately.

-U = ARRA compliant. Product produced in the U.S.



LMRJ Series Pre-Terminated Cables and Segment Network Wire



Pre-terminated cables for DLM local networks in lengths up to 100 feet

Unique green color and markings for DLM provide easy identification of LMRJ cables in plenum

UL and cUL listed and labeled

Components of Digital Lighting Management integrated control systems

Available in plenum and non-plenum rating

Support Plug n' Go and Push n' Learn functionality

PROJECT	Rooms To Go Furniture Warehouse
LOCATION/TYPE	

Product Overview

Description

LMRJ Series cables, couplers and splitters connect Digital Lighting Management (DLM) components without the need for tools or point-to-point discrete wiring. Cables are pre-terminated with industry standard RJ45 connectors compatible with any RJ45 port on DLM components. LMRJ cables utilize B to B wiring. A to A cables may be used instead, but all cabling on a project must be the same type for successful operation.

LM-MSTP Segment Network wire is MS/TP (RS485) and plenum rated and is available by the foot.

Operation and Applications

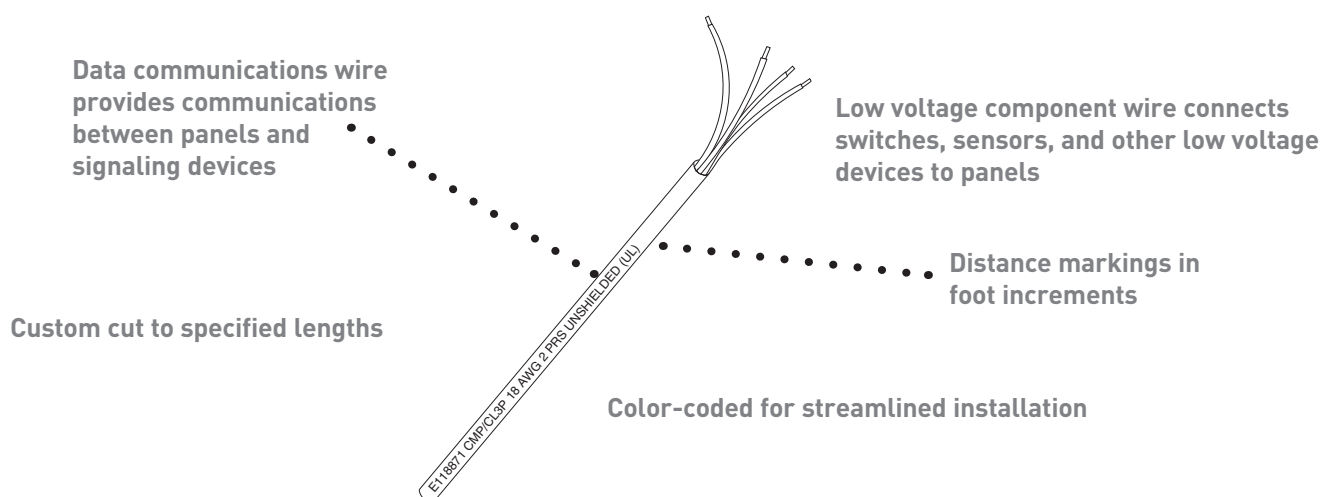
LMRJ cables can be plugged into any available RJ45 port on a DLM device and connected to any other DLM device. These cables facilitate the creation of a local network of DLM components that automatically configure and function together. While LMRJ series cables are rated Cat 5e, they are not recommended for general data use in other than DLM network applications.

LM-MSTP wire is used to create a linear topology (daisy-chain) segment network for control by a segment manager or building automation system.

Ordering Information

Catalog No.	Description	Catalog No.	Description
Non-Plenum Rated Local Network Cables		Plenum Rated Local Network Cables	
☐ LMRJ-01	Six-inch Jumper, green with white stripe		
☐ LMRJ-03	3' Cable, green with white stripe	☐ LMRJ-P03	3' Cable, green with black stripe
☐ LMRJ-10	10' Cable, green with white stripe	☐ LMRJ-P10	10' Cable, green with black stripe
☐ LMRJ-15	15' Cable, green with white stripe	☐ LMRJ-P15	15' Cable, green with black stripe
☐ LMRJ-25	25' Cable, green with white stripe	☐ LMRJ-P25	25' Cable, green with black stripe
☐ LMRJ-50	50' Cable, green with white stripe	☐ LMRJ-P50	50' Cable, green with black stripe
☐ LMRJ-100	100' Cable, green with white stripe	☐ LMRJ-P100	100' Cable, green with black stripe
Local Network Cable Accessories			
☐ LMRJ-C8	Coupler (two ports to connect two cables end to end). Non-plenum rated.		
☐ LMRJ-S8	Splitter (three ports for one input and two output connections). Non-plenum rated.		
☐ LMRJ-CS8	Coupler/splitter (three ports for one input and two output connections). Plenum rated.		
☐ LMRJ-TK	Cable Test Kit		
Unterminated Plenum Rated Segment Network Wire			
☐ LM-MSTP	Segment network wire, 1.5 pair (twisted pair + 1 conductor) + shield, white/black/green, max diameter 0.185", available by the foot		
☐ LM-MSTP-DB	Segment network wire, 1.5 pair (twisted pair + 1 conductor) + shield, white/black/green, max diameter 0.185", available by the foot. Rated for direct burial.		

Lighting Integrator Wire



PROJECT	Rooms To Go Furniture Warehouse
LOCATION/TYPE	

Product Overview

Description

The proper wire must be installed for connecting devices to Lighting Integrator (LI) panels, and for networking panels. Types include low voltage component wire, and data communications wire.

Low Voltage Wire

This type of wire connects low voltage devices (i.e., switches, occupancy sensors, photocells) to panels. It is #20 AWG wire that meets UL and NEC standards for Class 2 applications. Plenum rated wire meets plenum and riser requirements. Several types of multi-conductor low voltage wires are available for standard, pilot, locator, and multilevel switching or for connecting photocells to the LI control panels. This wire can also be used to wire relays remotely.

Data Communications Wire

Data communications wire (also referred to as dataline wire) is used between LI panels and digital devices. To ensure error-free communications in networked LI panel systems, users **must use** the right communications wire. Communications quality is critical for reliable operation of a lighting control system. Using the proper wire and following recommended installation practices ensures trouble-free start-up and operation of an LI system.

4-Conductor Data Communications Wire

HDLW4 4-conductor data communications wire is unshielded dual twisted pair wire. This wire is used for LICA and LIDA systems. It provides the local dataline for connecting panels to dataline switches. This panel-to-device connection (i.e., "local" dataline) requires the use of both twisted pairs, one pair for supplying power to the Dataline Switches, and the other pair for data communications.

2-Conductor Data Communications Wire

HDLW2 2-conductor data communications wire is shielded single twisted pair wire. It connects LIC panels. This panel-to-panel connection (i.e., "global" dataline) supports up to 500 panels in a single network whose maximum length does not exceed 4000 feet. If longer distances are needed or more devices are required, users can add dataline repeaters.

Specifications

Low Voltage Component Wire

- Color-coded wires to match relay and switch terminations
- Component wire includes switch wire (for standard, pilot, locator, or multi-button switches), sensor wire, and remote relay wire
- Conductors are #20 AWG, stranded and jacketed
- Operating temperature range: -4 - 302°F (-20°- 150°C)
- UL and CUL listed

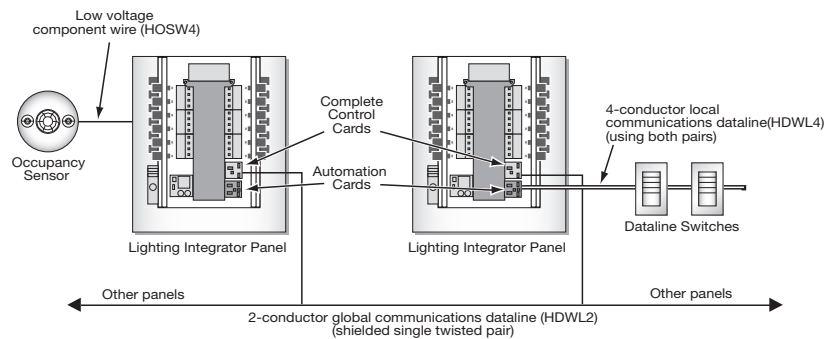
Data Communications Wire

- HDLW4 is 18 AWG (7 strands x 26 AWG), 2 independent twisted pairs, unshielded copper conductors. Capacitance is 30 pF/foot max.
- HDLW4 supports up to 12 panels and 1500 feet per network without repeater
- HDLW2 is 18/2 AWG twisted pair with shield
- HDLW2 supports up to 500 panels and 4000 feet per network without repeater
- Color-coded wires to match power and data terminations
- Operating temperature range: -4 - 302°F (-20°- 150°C)
- UL and CUL listed



Application Examples

Wiring Requirements for Networks of LIC Panels with optional automation cards



Ordering Information

Catalog No.	Description	Conductors	Color Code	Diameter
☐ HSSW3	Standard switch wire	3	Red/Black/White	0.210"
☐ HSSW3P	Standard switch plenum rated wire	3	Red/Black/White	0.150"
☐ HPSW4	Pilot switch wire	4	Red/Black/White/Yellow	0.230"
☐ HPSW4P	Pilot switch plenum rated wire	4	Red/Black/White/Yellow	0.275"
☐ HDLW2	Global Complete Control Dataline. Shielded single twisted pair data communications wire	2 + shield	Red/Black/Shield	0.185"
☐ HDLW2P	Global Complete Control Dataline. Shielded single twisted pair data communications plenum rated wire.	2 + shield	Red/Black/Shield	0.185"
☐ HDLW4	Local Dataline Switch Dataline. Unshielded dual twisted pair data communications wire.	4	Black/Red [data] Blue/White [power]	0.230"
☐ HDLW4P	Local Dataline Switch Dataline. Unshielded dual twisted pair data communications plenum rated wire.	4	Black/Red [data] Blue/White [power]	0.230"
☐ LM-MSTP	Digital Lighting Management segment network plenum rated wire	3 + shield	white/black/green	0.185"



LMSW and LMDM Button Kit Engraving Form

Project Information

PROJECT NAME
WATTSTOPPER QUOTE ID
DISTRIBUTOR P.O.#

Provide complete information for button engraving by **ELECTRONIC SUBMISSION ONLY**. No hand written submissions please. Buttons will be engraved exactly as specified on this form.

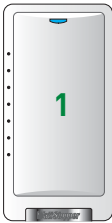
Shipping Information

NAME		
COMPANY		
ADDRESS		
CITY	STATE	ZIP
PHONE	FAX	

1. Select Product Choose 1 of the following options

15 Characters max including spaces

- ☐ LMSW-KIT-101
 ☐ LMDM-KIT-101
 ☐ LMSW-KIT-102
 ☐ LMSW-KIT-103
 ☐ LMSW-KIT-104



Button #1

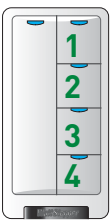
Button #2

Button #3

Button #4

7 Characters max including spaces

- ☐ LMSW-KIT-105
 ☐ LMSW-KIT-108



Button #1
 Button #5

Button #2
 Button #6

Button #3
 Button #7

Button #4
 Button #8

2. Specify Color options (choose only 1)

- ☐ White
 ☐ Ivory
 ☐ Black
- ☐ Light Almond
 ☐ Grey

Enter quantity

Quantity (REPLICA ENGRAVING)

3. Send Order By Fax

Project Engineering, WattStopper, at 315.634.2646

By Email

engraving@wattstopper.com

Note: for special orders including multiple button colors for one switch, contact Project Engineering.

Lighting Control System Services

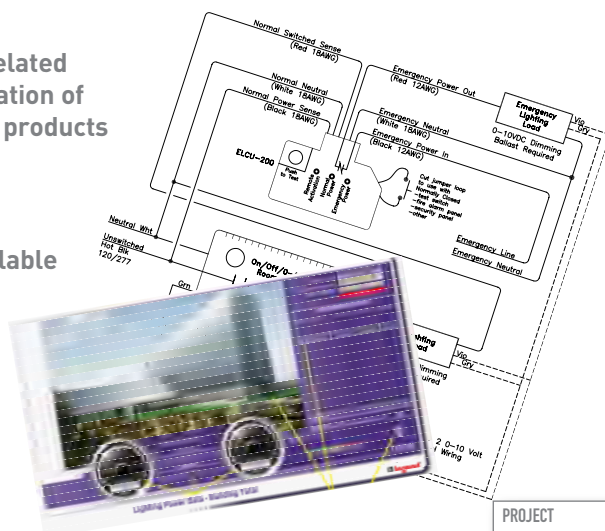
Technical services related to design and installation of WattStopper control products

Extended warranties available

**Free telephone technical support
for purchased product(s)**

Complete project assistance

Startup and training services



PROJECT	Rooms To Go Furniture Warehouse
LOCATION/TYPE	

Product Overview

Description

Comprehensive services include design, startup, onsite training and troubleshooting as necessary.

Project Engineering

Engineering services provide complete design and implementation using WattStopper products. The (SDRAWSYS) services include submittal packages with system one-line diagram (or reflected ceiling plan when applicable) showing system components and quantities for all products. Drawings can include system riser diagrams, individual panel and room controls to show hardware configuration, panel numbering and wiring schedules showing circuit/relay/load relationships as well as occupant overrides, sensors, wiring diagrams for each component, installation instructions and testing procedures for each component. SDRAWSYS provides ongoing Project Management support throughout the installation phase, through to the final startup and project acceptance.

Programming

Programming Services (SPROGSYS) provide custom programming for special applications requiring advanced logic and customized control solutions including BACnet integration.

Graphical interface screens are customizable to enhance efficiency and provide user friendly control of the system (WCGRSCRN).

Startup

Highly qualified technicians are available for onsite services and maintenance assistance. Comprehensive startup service (SCOM) includes a WattStopper factory-trained technician to verify that all WattStopper system hardware on the bill of material (including standalone occupancy sensors) is installed and configured in accordance with product documentation and project requirements. The service tests and verifies systems are operating as intended, implements sequences of operation (S00) as directed, or provides a basic starting program configuration. SCOM also includes owner training to review programming, operation and maintenance.

Alternate startup service (SCOMEXSEN) provides a WattStopper factory-trained technician to verify all WattStopper system hardware **except** standalone occupancy sensors as described above.

Other services are available to assist commissioning agents with testing, provide system troubleshooting and repair, implement system upgrades or energy optimization, and perform auditing.

Training

Additional training services (STRAIN) include a WattStopper factory-trained technician to provide additional and separate site visits to conduct system training to review all system hardware, software, and adjustments.



Ordering Information

Pub. No. 13806 rev 9/2013

VII. Technical Bulletins

The Digital Lighting Management Export Table: Integrating DLM with a building automation system via BACnet IP

Topic: DLM Export Table and BACnet IP

Issue: # TB188

Date: June 25, 2013

WattStopper Digital Lighting Management (DLM) distributed controls are designed to operate as stand alone lighting control systems out of the box, but they are also capable of integration with other building control systems. Adding an LMBC-300 Network Bridge module to a DLM local network provides BACnet MS/TP connectivity and access to a wide range of integration points for control and monitoring.

The DLM systems can then be integrated via BACnet IP using a WattStopper Segment Manager to provide a single point of connection between the lighting control local networks and the building automation system (BAS), and a process that exposes only selected points for integration. This technique defines a clear separation between the scope of the lighting control system and the BAS.

Alternately, the individual DLM local networks may be treated as BACnet Application Specific Controllers for native integration as described in TB175.

Segment Manager functionality

An LSM-3E or LSM-6E Segment Manager is the key component in this simple third party integration using BACnet IP. The Segment Manager is configured as a front end controller complete with a web browser-based graphical user interface (GUI). It manages all the local networks and is capable of providing user access to numerous device settings, status, and configuration parameters as well as settings for each room as a whole.

The Segment Manager GUI includes an Export Table feature that allows selection of available points, outlined in the chart below, for exposure to the BAS, and creates an alias of the selected native BACnet object instances. Once the table has been created, the object list resides within a single BACnet device instance (the Segment Manager). The object list documentation can then be exported as a file in a choice of formats shared with the BAS programmer. This process simplifies integration by exposing only objects that are relevant to the application.

Export Table Objects (Segment Manager GUI v1.2.4 or higher)

Available Object	Object Range	Object Values	Number of Objects
Room Occupancy State	BV1001-2000	Occupied or Unoccupied (read only)	One per DLM local network
Room Schedule Mode	BV1-1000	Normal Hours or After Hours	One per DLM local network
Room Switch Lock State	BV2001-3000	Locked or Not Locked	One per DLM local network
Room Lighting Power (available with LMRC-200 Series room controllers)	AV4001-5000	Total Watts (read only)	One per DLM local network
Room Plug Load Power (available with LMPL-200 Series plug load controllers)	AV5001-6000	Total Watts (read only)	One per DLM local network
Relay State	B01-1000	On or Off	One per relay
Light Level	A01-1000	Percent from 0-100	One per dimmed load
Occupancy Sensor Detection State	BI1-1000	On or Off (read only)	One per occupancy sensor
Group State	BV3001-4000	On or Off	One per group
Channel Schedule Mode (available with LILM and LMCP panels)	BV4001-5000	Normal Hours or After Hours	One per channel
LILM Panel Relay State	BV5001-6000	On or Off	One per relay

The Digital Lighting Management Export Table: Integrating DLM with a building automation system via BACnet IP

Topic: DLM Export Table and BACnet IP

Issue: # TB188

Date: June 25, 2013

The following guidelines are intended to insure a successful integration between a WattStopper DLM lighting control system and a third party BAS using a BACnet IP connection.

Document operating requirements

The intended result of the integration must be clearly defined and documented. Documentation should include the desired sequences of operation, noting all lighting control points that are to be monitored (read only) by the BAS and those that are to be writable. This information must be available to WattStopper prior to final configuration of the lighting control system.

Document addressing requirements

Network configuration requirements including static IP address, gateway, DNS server, etc. for the Segment Manager must be documented and made available to WattStopper prior to final configuration of the lighting control system.

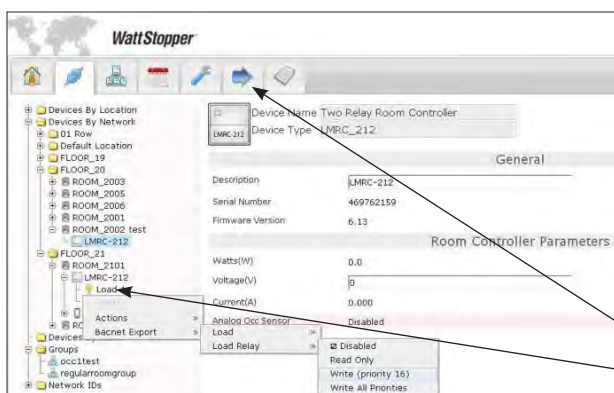
Note that the Segment Manager provides two independent network interface (NIC) connections. Only the primary port, #1, can be used for a BACnet IP connection to the BAS. If the WattStopper GUI is to be accessed from outside the BAS network, port #2 must be configured and used for the alternate network connection.

Confirm operation and create Export Table

Before any integration can occur, the DLM lighting control system must be completely configured, verified, and fully functional. This includes the creation of the Export Table to match the documented operating requirements.

Follow lighting control best practices

We strongly discourage direct third party control of load relays and dimmers in rooms equipped with occupancy sensors since the practice can create problematic control sequences for users in the space. If the sequence of operation must include BAS control of load relays or dimmers be sure to give careful consideration to proper use of the BO and AO priority arrays. Loads controlled by DLM occupancy sensors and wall switches operate within the room using priority level 8. DLM daylighting loads operate at priority level 7. Note: the intention to control loads at other than priority level 8 must be established prior to creation of the Export Table.



1. Click the tab with the blue arrow and toggle Export Table Configuration on.
2. Right click on products you wish to export in the device tree.

Report					
Show 10 entries		Search:			
		Copy CSV Excel PDF Print			
BACnet Object	Control	Name	Status	Value	Ord
binaryOutput:5002	Writable	Panel_86294.Relay.1	(ok)	Off (ok) 0 def	station:jh:1bf77
binaryOutput:5003	Writable	Panel_86294.Relay.2	(ok)	Off (ok) 0 def	station:jh:1f161
binaryOutput:5004	Writable	Panel_86294.Relay.4	(ok)	Off (ok) 0 def	station:jh:1f166
binaryOutput:5005	Writable	Panel_86294.Relay.5	(ok)	Off (ok) 0 def	station:jh:1f16b

VIII. Warranty Information

WattStopper's standard warranty is in effect for a period of one (1), three (3), or five (5) years, depending on product type, from the date of shipment. (See individual product cut sheet for length of warranty.) WattStopper warrants its products to be free of defects in materials and workmanship for the warranty period. There are no obligations or liabilities on the part of WattStopper for consequential damages arising out of or in connection with the use or performance of this product or other indirect damages with respect to loss of property, revenue, or profit, or cost of removal, installation or reinstallation.

In the event of freight damage, replacement materials must be ordered and paid for and a claim filed by the consignee or the carrier for the amount of the replacement materials. Should defects occur after installation, and within the warranty period, they should be specifically described to a WattStopper representative. WattStopper will furnish materials to repair or replace products that may prove defective in its workmanship and materials within the warranty period. This does not apply to: (1) damage caused by accident, abuse, mishandling, or dropping; (2) materials which have been subject to unauthorized repair; (3) materials not used in accordance with instructions; (4) ordinary wear and tear. WattStopper will be limited to the furnishing of new parts, free of charge, in exchange for parts proven to be defective and does not include any other costs of removal or installation.

The giving of or failure to give any advice or recommendations by WattStopper shall not constitute any warranty by or impose any liability of The WattStopper. This warranty constitutes the sole and exclusive remedy of the purchase and the exclusive liability of WattStopper, and is in lieu of any and all other warranties, expressed, implied, or statutory as to merchantability, fitness for purpose sold, description, quality productiveness, or any other matter.

For questions or additional information call WattStopper (888) 879-8585.