It's not just smarter. It's easier.

Acuity Controls is advanced lighting controls technology, service and support from a single expert source. We offer one of the industry’s most extensive product portfolios for indoor and outdoor applications; single rooms to campuses to municipalities. Our product solutions include occupancy and photosensors, centralized and distributed systems, panels, fixture-integrated, wired and wireless controls that simply work.
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About ASHRAE 90.1
ASHRAE 90.1 is an energy code designed to reduce energy consumption. The ASHRAE 90.1 2010 energy code has specific requirements for lighting controls. The use of advanced lighting controls to synchronize light levels with daylight, occupancy, and multi-level control capability are required in order to be compliant.

About this Guide
Acuity Controls offers the nLight® Applications Guide to facilitate quicker and easier lighting controls solutions to aid in complying with the requirements of ASHRAE 90.1. Use this guide as a quick reference of typical nLight layouts that can help get your project on the path towards compliance. The Acuity Controls Design Services Team is also available to support engineers and contractors with detailed design, submittal, and installation. For additional information, please contact your Acuity Brands® Sales Representative.

About nLight
The nLight networked digital lighting control system is easy-to-use, easy-to-install and saves energy. Using only standard CAT5e cable, nLight networks together occupancy sensors, wall stations, and digital LED luminaires to create a digital lighting system with unmatched flexibility! nLight easily scales from one room to an entire campus. Create a lighting control solution that’s perfect for your space and need.
The chart below is an overview of the Code Requirements for Common Building Spaces. Please use this information as a guide. For specific ASHRAE code requirements please refer to the ASHRAE 90.1–2010 code.

<table>
<thead>
<tr>
<th>Control Requirement*</th>
<th>Code Provision</th>
<th>Code Summary*</th>
<th>Space Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Private Office</td>
</tr>
<tr>
<td><strong>Manual-On or Partial-On</strong></td>
<td>9.4.1</td>
<td>Automatically controlled spaces must be either manual-on by a local switch or auto-on to not more than 50%.</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Full Automatic-On</strong></td>
<td>9.4.1</td>
<td>Automatically controlled spaces are allowed to turn on to full.</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Programmable Timed Clock</strong></td>
<td>9.4.1.1a</td>
<td>Interior lighting shall be controlled with a time-of-day schedule control that turns lighting off at specific programmed times. Note: Occupancy sensors or another building control/alarms system that indicate vacancy also comply.</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Automatic Full-Off via Occupancy Sensor</strong></td>
<td>9.4.1.2b</td>
<td>Lights must be turned off within 30 minutes of vacancy by use of an occupancy sensor or timer switch.</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Automatic Partial-Off via Occupancy Sensor</strong></td>
<td>9.4.1.6g</td>
<td>Lighting should automatically reduce power by at least 50% within 30 minutes of vacancy.</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Space (i.e. Local Switch) Control</strong></td>
<td>9.4.1.2</td>
<td>Each space enclosed by ceiling height partitions shall have at least one readily accessible control device to independently control the general lighting within the space.</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Multi-Level / Dimming Control</strong></td>
<td>9.4.1.2a</td>
<td>Controlled lighting shall have at least one control step between 30% and 70%, in addition to full on and full off.</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Light Level Control</strong></td>
<td>9.4.1.4, 9.4.1.5</td>
<td>The general lighting in primary sidelit areas (250ft² or larger) or daylight areas under skylights (900ft² or larger) shall be separately controlled by at least one multi-level photocontrol, which can be continuous dimming.</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Additional Controls</strong></td>
<td>8.4.2</td>
<td>50% of all receptacles, including those installed in modular partitions, shall be automatically turned off by a control device.</td>
<td>✓</td>
</tr>
</tbody>
</table>

*Note: This summary is for general information purposes only and is provided without any warranty as to accuracy, completeness, or otherwise. The user should read the applicable code sections for more complete and detailed descriptions of code requirements and exceptions and should consult with a professional engineering or other competent advisor before making any decision or taking any action based on this summary.

**Requirement is for computer classrooms only.
PRIVATE OFFICE: Windows, nLight Enabled Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level / Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)
- Plug-Load Control (Section 8.4.2)

Bill of Materials

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Qty</th>
<th>Product #</th>
<th>Description</th>
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<tbody>
<tr>
<td></td>
<td>4</td>
<td>nLight Enabled Fixture</td>
<td>See Appendix A</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>nPP20 PL</td>
<td>Plug Load Relay Pack</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>nCM PDT 9 (RJB)</td>
<td>Dual Technology Occupancy Sensor</td>
</tr>
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Options

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<th>Product #</th>
<th>Description</th>
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<tr>
<td></td>
<td>1</td>
<td>nCM ADCX (RJB)</td>
<td>Automatic Dimming Photocell — If area from sidelighting is &gt;250 ft²</td>
</tr>
</tbody>
</table>

OPERATION DETAILS:

- Lights:
  - All lights are dimmable
  - All fixtures controlled together or independently
  - Minimum level can be limited to 10%
  - Optional automatic lumen compensation

- Occupancy Control:
  - Lights must be turned on or off in response to the presence or absence of a person
  - Lights can be configured to turn on automatically

- Daylight Control:
  - Smooth continuous dimming
  - Custom grouping of fixtures into separate daylight zones (max. 4 zones)
  - Not required in spaces without side light > 250 ft²

- Manual Control:
  - On/Off & control of lights

ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Room can be connected to a daylight feedback control system
- For emergency lighting control, order fixtures with -n80EMG or -n100EMG option

Quick summary of applicable code sections
Room description
Room layout with devices & locations
Room layout diagram with control, fixture, and wiring type detail
Required list of devices in order to implement room layout design above
Operational details describe the functionality provided by the equipment specified in the solution
Additional options that add control capacity beyond code requirements
PRIVATE OFFICE: No Windows, nLight Enabled Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level/Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Plug-Load Control (Section 8.4.2)

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<td>See Appendix A</td>
<td>nLight Enabled Fixture</td>
</tr>
<tr>
<td><img src="image2" alt="symbol" /></td>
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<td>nPP20 PL</td>
<td>Plug Load Relay Pack</td>
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<tr>
<td><img src="image3" alt="symbol" /></td>
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<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
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<tr>
<td><img src="image4" alt="symbol" /></td>
<td>1</td>
<td>nCM PDT 9 (RJB)</td>
<td>Dual Technology Occupancy Sensor (Small Motion)</td>
</tr>
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</table>

OPERATION DETAILS:

**Lights:**
- All lights are dimmable
- All fixtures controlled together or independently
- Maximum level can be limited to 80%
- Optional automatic lumen compensation

**Occupancy Control:**
- Lights must be turned on manually (or optionally can be configured to come on automatically to 50%)
- Plug-load turns on automatically
- Lights and plug-load turn off when room becomes vacant

**Manual Control:**
- On/off & raise/lower control of lights

ADDITIONAL OPTIONS:
- Recessed mount sensors also available
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control, order fixtures with -n80EMG or -n100EMG option

Note: For a wall mount switch and occupancy sensor, substitute the nPODM DX with a nWSX PDT LV DX and remove the nCM PDT 9 (RJB)

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PRIVATE OFFICE: No Windows, 0-10V Dimming Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level / Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Plug-Load Control (Section 8.4.2)

Bill of Materials

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<td>nPP16 D</td>
<td>Relay Pack with 0-10V Dimming Output</td>
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<tr>
<td><img src="Image" alt="Symbol" /></td>
<td>1</td>
<td>nPP20 PL</td>
<td>Plug Load Relay Pack</td>
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<td>1</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
<tr>
<td><img src="Image" alt="Symbol" /></td>
<td>1</td>
<td>nCM PDT 9 (RJB)</td>
<td>Dual Technology Occupancy Sensor (Small Motion)</td>
</tr>
</tbody>
</table>

OPERATION DETAILS:

- **Lights:**
  - All lights are dimmable
  - All fixtures controlled together
  - Maximum level can be limited to 80%

- **Occupancy Control:**
  - Lights must be turned on manually (or optionally can be configured to come on automatically to 50%)
  - Plug-load turns on automatically
  - Lights and plug-load turn off when room becomes vacant

- **Manual Control:**
  - On/off & raise/lower control of lights

ADDITIONAL OPTIONS:

- Recessed mount sensors also available
- Substitute relay pack model nPP16 D SA for default manual-on configuration or nPP16 D PA for default auto-on to 50% configuration
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control add model nPP16 D ER

Note: For a wall mount switch and occupancy sensor, substitute the nPODM DX with a nWSX PDT LV DX and remove the nCM PDT 9 (RJB)
PRIVATE OFFICE: Windows, nLight Enabled Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level / Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)
- Plug-Load Control (Section 8.4.2)

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<td>See Appendix A</td>
<td>nLight Enabled Fixture</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>nPP20 PL</td>
<td>Plug Load Relay Pack</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
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<tr>
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<td>nCM PDT 9 (RJB)</td>
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<tr>
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<td>1</td>
<td>nCM ADCX (RJB)</td>
<td>Automatic Dimming Photocell — If area from sidelighting is &gt;250 ft.$^2$</td>
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Options

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<th>Product #</th>
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<td>1</td>
<td>nCM ADCX (RJB)</td>
<td>Automatic Dimming Photocell — If area from sidelighting is &gt;250 ft.$^2$</td>
</tr>
</tbody>
</table>

// OPERATION DETAILS:

**Lights:**
- All lights are dimmable
- All fixtures controlled together or independently
- Maximum level can be limited to 80%
- Optional automatic lumen compensation

**Occupancy Control:**
- Lights must be turned on manually (or optionally can be configured to come on automatically to 50%)
- Plug load turns on automatically
- Lights & plug load turn off when room becomes vacant

**Daylight Control:**
- Smooth continuous dimming
- Custom grouping of fixtures into separate daylight zones (max. number zones = number of fixtures)
- Not required in spaces without side lit areas > 250 ft.$^2$

**Manual Control:**
- On/off & raise/lower control of lights

// ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control, order fixtures with -n80EMG or -n100EMG option

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PRIVATE OFFICE: Windows, 0-10V Dimming Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level / Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)
- Plug-Load Control (Section 8.4.2)

Bill of Materials

<table>
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<th>Symbol</th>
<th>Qty</th>
<th>Product #</th>
<th>Description</th>
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<tr>
<td>![ Relay Module ]</td>
<td>1</td>
<td>nPP16 D</td>
<td>Relay Module with 0-10V Dimming Output</td>
</tr>
<tr>
<td>![ Plug Load Relay Pack ]</td>
<td>1</td>
<td>nPP20 PL</td>
<td>Plug Load Relay Pack</td>
</tr>
<tr>
<td>![ On/Off &amp; Raise/Lower WallPod ]</td>
<td>1</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
<tr>
<td>![ Dual Technology Occupancy Sensor ]</td>
<td>1</td>
<td>nCM PDT 9 (RJB)</td>
<td>Dual Technology Occupancy Sensor</td>
</tr>
</tbody>
</table>

Options

| ![ Automatic Dimming Photocell ] | 1   | nCM ADCX (RJB) | Automatic Dimming Photocell — If area from sidelighting is >250 ft.² |

*If daylighting is required, additional relay pack(s) may also be required.

**OPERATION DETAILS:**

- **Lights:**
  - All lights are dimmable
  - All fixtures are controlled together
  - Maximum level can be limited to 80%

- **Occupancy Control:**
  - Lights must be turned on manually (or optionally can be configured to come on automatically to 50%)
  - Plug load turns on automatically
  - Lights & plug load turn off when room becomes vacant

- **Daylight Control:**
  - Smooth continuous dimming
  - Not required in spaces without side lit areas > 250 ft.²

- **Manual Control:**
  - On/off & raise/lower control of lights

**ADDITIONAL OPTIONS:**

- Surface or recessed mount sensors also available
- Substitute model nPP16 D SA for default manual on functionality or nPP16 D PA for default auto-on to 50% functionality
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control add model nPP16 D ER

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ASHRAE 90.1–2010: nLight Applications Guide
OPEN OFFICE with nLight Enabled Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level/Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)
- Plug-Load Control (Section 8.4.2)

Bill of Materials

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<th>Symbol</th>
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<th>Product #</th>
<th>Description</th>
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<td>nLight Enabled Fixture</td>
</tr>
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<td>nLight Enabled Fixture with the EMG Option</td>
</tr>
<tr>
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<td></td>
<td>2</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>nCM PDT 9 (RJB)</td>
<td>Dual Technology Occupancy Sensor</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>nCM ADCX (RJB)</td>
<td>Automatic Dimming Control Photocell</td>
</tr>
</tbody>
</table>

// OPERATION DETAILS:

**Lights:**
- All lights are dimmable
- All fixtures controlled together or independently
- Maximum level can be limited to 80%
- Optional automatic lumen compensation

**Occupancy Control:**
- Lights must be turned on manually (or optionally can be configured to come on automatically to 50%)
- Plug load turns on automatically
- Lights & plug load turn off when room becomes vacant

**Daylight Control:**
- Smooth continuous dimming
- Not required in spaces without side lit areas > 250 ft.

**Manual Control:**
- On/off & raise/lower control of lights
- Optional individual row control (add nPODM 4P DX)

// ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Add model nPODM 4S DX for four scene with manual dimming control
- Add Graphic WallPod (model nPOD GFX) for individual row and up to 16 scene control
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)

Note: Not all emergency nLight enabled fixtures require a normal monitoring feed. Refer to data sheet for additional information.
OPEN OFFICE with 0-10V Dimming Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level / Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)
- Plug-Load Control (Section 8.4.2)

Bill of Materials

<table>
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<th>Description</th>
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<tbody>
<tr>
<td></td>
<td>4</td>
<td>nPP16 D</td>
<td>Relay Module with 0-10V Dimming Output</td>
</tr>
<tr>
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<td>nPP16 D ER</td>
<td>Emergency Relay Module with 0-10V Dimming Output</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>nPP20 PL</td>
<td>Plug Load Relay Pack</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>nCM PDT 9 (RJB)</td>
<td>Dual Technology Occupancy Sensor</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>nCM ADCX (RJB)</td>
<td>Automatic Dimming Control Photocell</td>
</tr>
</tbody>
</table>

// OPERATION DETAILS:

**Lights:**
- All lights are dimmable
- Each row controlled independently
- Maximum level can be limited to 80%

**Occupy Control:**
- Lights must be turned on manually (or optionally can be configured to come on automatically to 50%)
- Plug load turns on automatically
- Lights & plug load turn off when room becomes vacant

**Daylight Control:**
- Smooth continuous dimming
- Daylight zones defined by rows
- Not required in spaces without side lit areas > 250 ft.²

**Manual Control:**
- On/off & raise/lower control of lights
- Optional individual row control (add nPODM 4P DX)

// ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Add additional relay pack (model nPP16 D) if a white board lighting zone also required
- Add Graphic WallPod (model nPOD GFX) for individual row and up to 16 scene control
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
CONFERENCE ROOM with nLight Enabled Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level / Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)

Bill of Materials

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<td>nLight Enabled Fixture</td>
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<td><img src="wallpod_icon.png" alt="WallPod Icon" /></td>
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<td>nPODM DX</td>
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</table>

Options

| ![Sensor Icon](sensor_icon.png) | 1   | nCM ADCX (RJB) | Automatic Dimming Control Photocell |

// OPERATION DETAILS:

**Lights:**
- All lights are dimmable
- All fixtures controlled together or independently
- Maximum level can be limited to 80%
- Optional automatic lumen compensation

**Occupancy Control:**
- Lights must be turned on manually (or optionally can be configured to come on automatically to 50%)
- Lights automatically turn off when room becomes vacant

**Daylight Control:**
- Smooth continuous dimming
- Custom grouping of fixtures into separate daylight zones (max. number of zones = number of fixtures)
- Not required in spaces without side lit areas > 250 ft²

**Manual Control:**
- On/off & raise/lower control of lights

// ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Add nPODM 4S for four scene or nPOD GFX for touch screen control
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control, order fixtures with -n80EMG or -n100EMG option

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CONFERECE ROOM with 0-10V Dimming Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level / Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)

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<th>Qty</th>
<th>Product #</th>
<th>Description</th>
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<tbody>
<tr>
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<td>nPP16 D</td>
<td>Relay Module with 0-10V Dimming Output</td>
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<tr>
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<td>1</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
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<tr>
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</tr>
</tbody>
</table>

Options

| ![Automatic Dimming Control Photocell](image4.png) | 1 | nCM ADCX (RJB) | Automatic Dimming Control Photocell |

/ OPERATION DETAILS:

- **Lights:**
  - All lights are dimmable
  - All fixtures controlled together
  - Maximum level can be limited to 80%
- **Occupancy Control:**
  - Lights must be turned on manually (or optionally can be configured to come on automatically to 50%)
  - Lights automatically turn off when room becomes vacant
- **Daylight Control:**
  - Smooth continuous dimming
  - Daylight zones defined by rows
  - Not required in spaces without side lit areas > 250 ft.²
- **Manual Control:**
  - On/off & raise/lower control of lights

/ ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Model nPP16 DA for default auto-on to 50%
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control add model nPP16 D ER
CLASSROOM* with nLight Enabled Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level/Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)

Bill of Materials

<table>
<thead>
<tr>
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<td>nPODM DX</td>
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<tr>
<td>![Symbol](Dual Technology Wide View Occupancy Sensor)</td>
<td>1</td>
<td>nWV PDT 16</td>
<td>Dual Technology Wide View Occupancy Sensor</td>
</tr>
</tbody>
</table>

Options

| ![Symbol](Teacher Station – 4 Scene Control) | 1 | nPODM 4S DX | Teacher Station — 4 Scene Control Master On/Off & Raise/Lower |
| ![Symbol](Automatic Dimming Control Photocell) | 1 | nCM ADCX (RJB) | Automatic Dimming Control Photocell |

OPERATION DETAILS:

- **Lights:**
  - All lights are dimmable
  - Each row/fixture controlled independently
  - Maximum level can be limited to 80%
  - Optional automatic lumen compensation

- **Occupancy Control:**
  - Lights must be turned on manually (or optionally can be configured to come on automatically to 50%)
  - Lights automatically turn off when room becomes vacant

- **Daylight Control:**
  - Smooth continuous dimming
  - Custom grouping of fixtures into separate daylight zones (max. number zones = number of fixtures)
  - Not required in spaces without side lit areas > 250 ft.²

- **Manual Control:**
  - On/off & raise/lower control of lights
  - Optional 4 scene control

ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Add Graphic WallPod (model nPOD GFX) for individual row and up to 16 scene control
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- Add plug load control for computer classrooms as required per code provision 8.4.2

*Apply this design to classrooms, lecture halls or training rooms.

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CLASSROOM* with 0-10V Dimming Fixtures (Distributed Relays)

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level / Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)

Bill of Materials

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<tr>
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<td>nPP16 D ER</td>
<td>Emergency Relay Module with 0-10V Dimming Output</td>
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Options

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<td>Teacher Station — 4 Scene Control Master On/Off &amp; Raise/Lower</td>
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<tr>
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<td>nCM ADCX (RJB)</td>
<td>Automatic Dimming Control Photocell</td>
</tr>
</tbody>
</table>

OPERATION DETAILS:

**Lights:**
- All lights are dimmable
- Each row controlled independently
- Maximum level can be limited to 80%

**Occupancy Control:**
- Lights must be turned on manually (or optionally can be configured to come on automatically at 50%)
- Lights automatically turn off when room becomes vacant

**Daylight Control:**
- Smooth continuous dimming
- Provides up to three daylight zones, each controlled independently
- Not required in spaces without side lit areas > 250 ft.²

**Manual Control:**
- On/off & raise/lower control of lights
- Optional 4 scene control

ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Add additional relay pack (model nPP16 D) if a white board lighting zone also required
- Add Graphic WallPod (model nPOD GFX) for individual row and up to 16 scene control
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- Add plug load control for computer classrooms as required per code provision 8.4.2

*Apply this design to classrooms, lecture halls or training rooms.
CLAS 维 Room* with 0-10V Dimming Fixtures (Panel Alternative)

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level/Dimming Control (Section 9.4.1.2a)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)

Bill of Materials

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<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
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<tr>
<td><img src="nCM.png" alt="Symbol" /></td>
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<td>nCM ADCX (RJB)</td>
<td>Automatic Dimming Control Photocell</td>
</tr>
<tr>
<td><img src="nWV.png" alt="Symbol" /></td>
<td>1</td>
<td>nWV PDT 16</td>
<td>Dual Technology Wide View Occupancy Sensor</td>
</tr>
</tbody>
</table>

Options

| ![Symbol](nPOD.png) | 1 | nPOD 4S DX | Teacher Station — 4 Scene Control Master On/Off & Raise/Lower |

OPERATION DETAILS:

- **Lights**: All lights are dimmable
- **Occupancy Control**: Lights must be turned on manually (or optionally can be configured to come on automatically to 50%) Maximum level can be limited to 80%
- **Daylight Control**: Smooth continuous dimming Provides up to three daylight zones, each controlled independently Not required in spaces without side lit areas > 250 ft.
- **Manual Control**: On/off & raise/lower control of lights Optional 4 scene control

ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- 4th relay available in panel for connection to additional lighting zone (e.g., white board)
- Add Graphic WallPod (model nPOD GFX) for individual row and up to 16 scene control
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control add barrier to nPANEL
- Add plug load control for computer classrooms, as required per code provision 8.4.2

*Apply this design to classrooms, lecture halls or training rooms.*

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Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Multi-Level/Dimming Control (Section 9.4.1.2a)
- Automatic Partial or Full-Off via Occupancy Sensor (Section 9.4.1.6g/2b)
- Automatic Off via Programmable Timeclock (see pg. 26) (Section 9.4.1.1a)

Bill of Materials

<table>
<thead>
<tr>
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<tr>
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<td>1</td>
<td>nPP16 D</td>
<td>Relay Module with 0-10V Dimming Output</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>nCM 10 (RJB)</td>
<td>PIR Extended Range Occupancy Sensor</td>
</tr>
</tbody>
</table>

// OPERATION DETAILS:

Lights:
- All lights are dimmable
- Maximum level can be limited to 80%

Occupancy Control:
- Lights automatically drop to 50% (or lower) when space becomes vacant

Auto-Off Control:
- Lights automatically turn off when the space becomes vacant or can be shut-off via timeclock (see pg. 26 for programmable timeclock)

Manual Control:
- On/off & raise/lower control of lights

// ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Room can be connected to nLight backbone to enable network control including time-based controls and integration with building management systems (see pg. 26)
- For emergency lighting control add model nPP16 D ER
- For sidelit areas >250ft² or skylit areas >900ft², add nCM ADCX (RJB) for daylight control
**LOBBY with nLight Enabled Fixtures**

**Supports the Following Requirements:**

- Local Switch  
  (Section 9.4.1.2)

- Automatic Full-Off via Occupancy Sensor  
  (Section 9.4.1.2b)

- Multi-Level Daylight Control  
  (Section 9.4.1.4/5)

---

**Bill of Materials**

<table>
<thead>
<tr>
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<td>nLight Enabled Fixture</td>
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<tr>
<td><img src="image2" alt="Symbol" /></td>
<td>1</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
<tr>
<td><img src="image3" alt="Symbol" /></td>
<td>1</td>
<td>nCM PDT 10 ADCX</td>
<td>Dual Technology Extended Range Occupancy Sensor With Automatic Dimming Photocell</td>
</tr>
</tbody>
</table>

**OPERATION DETAILS:**

- **Lights:**
  - All lights are dimmable
  - All fixtures controlled together or independently
  - Maximum level can be limited to 80%
  - Optional automatic lumen compensation

- **Occupancy Control:**
  - Lights automatically go to full bright when occupied
  - Lights automatically turn off when space becomes vacant

- **Daylight Control:**
  - Smooth continuous dimming
  - Custom grouping of fixtures into separate daylight zones (max. number of zones = number of fixtures)
  - Not required for spaces without side lit areas > 250 ft²

- **Manual Control:**
  - On/off & raise/lower control of lights

**ADDITIONAL OPTIONS:**

- Surface or recessed mount sensors also available
- Space/zone can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control, order fixture with -n80EMG or -n100EMG option

---
Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)
- Multi-Level Daylight Control (Section 9.4.1.4/5)

Bill of Materials

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Qty</th>
<th>Product #</th>
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<tbody>
<tr>
<td>![Symbol]</td>
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<td>nPP16 D</td>
<td>Relay Module with 0-10V Dimming Output</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>1</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
<tr>
<td>![Symbol]</td>
<td>1</td>
<td>nCM PDT 10 ADCX (RJB)</td>
<td>Dual Technology Extended Range Occupancy Sensor With Automatic Dimming Photocell</td>
</tr>
</tbody>
</table>

**OPERATION DETAILS:**

- **Lights:**
  - All lights are dimmable
  - All fixtures controlled together
  - Maximum level can be limited to 80%

- **Occupancy Control:**
  - Lights automatically go to full bright when occupied
  - Lights automatically turn off when space becomes vacant

- **Daylight Control:**
  - Smooth continuous dimming
  - Not required for spaces without side lit areas > 250 ft.²

- **Manual Control:**
  - On/off & raise/lower control of lights

**ADDITIONAL OPTIONS:**

- Surface or recessed mount sensors also available
- Model nPP16 D PA for default auto-on to 50%
- Space/zone can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control add model nPP16 D ER
PRIVATE / SINGLE RESTROOM with nLight Enabled Fixture

**Supports the Following Requirements:**

- Local Switch (Section 9.4.1.2)

- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)

**Bill of Materials**

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<td>nLight Enabled Fixture</td>
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<tr>
<td><img src="image2.png" alt="Symbol" /></td>
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<td>nWSX PDT LV DX</td>
<td>On/Off &amp; Raise/Lower Dual Tech Occupancy Switch</td>
</tr>
</tbody>
</table>

**OPERATION DETAILS:**

- Lights:
  - All lights are dimmable
  - Maximum level can be limited to 80%
  - Optional automatic lumen compensation

- Occupancy Control:
  - Lights automatically go to full bright when occupied
  - Lights automatically turn off when space becomes vacant

- Manual Control:
  - On/off & raise/lower control of light

**ADDITIONAL OPTIONS:**

- Surface or recessed mount sensors also available
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control add -n80EMG or -n100EMG to fixture option

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PRIVATE / SINGLE RESTROOM with 0-10V Dimming Fixtures

Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)

Bill of Materials

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<thead>
<tr>
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<td>nWSX PDT LV DX</td>
<td>On/Off &amp; Raise/Lower Dual Tech Occupancy Switch</td>
</tr>
</tbody>
</table>

/ OPERATION DETAILS:

- Lights:
  - All lights are dimmable
  - Maximum level can be limited to 80%
- Occupancy Control:
  - Lights automatically go to full bright when occupied
  - Lights automatically turn off when space becomes vacant
- Manual Control:
  - On/off & raise/lower control of light

/ ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control add model nPP16 D ER
Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)

Bill of Materials (Each Restroom)

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<tbody>
<tr>
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<tr>
<td>![Symbol](nPODM DX)</td>
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<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
<tr>
<td>![Symbol](nCM PDT 9 (RJB))</td>
<td>2</td>
<td>nCM PDT 9 (RJB)</td>
<td>Dual Technology Occupancy Sensor</td>
</tr>
</tbody>
</table>

OPERATION DETAILS:

- **Lights:**
  - All lights are dimmable
  - All fixtures are controlled together or independently
  - Maximum level can be limited to 80%
  - Optional automatic lumen compensation

- **Occupancy Control:**
  - Lights automatically go to full bright when occupied
  - Lights automatically turn off when room becomes vacant

- **Manual Control:**
  - On/off & raise/lower control of lights

ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control add -n80EMG or -n100EMG to fixture option
Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)

Bill of Materials (Each Restroom)

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<tr>
<td><img src="image1" alt="Symbol" /></td>
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<td>nPP16 D</td>
<td>Relay Module with 0-10V Dimming Output</td>
</tr>
<tr>
<td><img src="image2" alt="Symbol" /></td>
<td>1</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
<tr>
<td><img src="image3" alt="Symbol" /></td>
<td>2</td>
<td>nCM PDT 9 (RJB)</td>
<td>Dual Technology Occupancy Sensor</td>
</tr>
</tbody>
</table>

**OPERATION DETAILS:**

- **Lights:**  
  - All lights are dimmable  
  - All fixtures are controlled together (per room)  
  - Maximum level can be limited to 80%

- **Occupancy Control:**  
  - Lights automatically go to full bright when occupied  
  - Lights automatically turn off when room becomes vacant

- **Manual Control:**  
  - On/off & raise/lower control of lights

**ADDITIONAL OPTIONS:**

- Surface or recessed mount sensors also available
- Substitute model nPP16 D PA for default auto-on to 50% functionality
- Room can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control add model nPP16 D ER
Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)

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Bill of Materials

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<td>9</td>
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<td>nLight Enabled Fixture</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>nCM 10 (RJB)</td>
<td>PIR Extended Range Occupancy Sensor</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
</tbody>
</table>

---

/ OPERATION DETAILS:

Lights:
- All lights are dimmable
- All fixtures controlled together or independently
- Maximum level can be limited to 80%
- Optional automatic lumen compensation

Occupancy Control:
- Lights automatically go to full bright when occupied
- Lights automatically turn off when space becomes vacant

Manual Control:
- On/off & raise/lower control of lights

---

/ ADDITIONAL OPTIONS:

- Surface or recessed mount sensors also available
- Space/zone can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg. 26)
- For emergency lighting control use -n80EMG or -n100EMG to fixture option
- For sidelit areas >250ft² or skylit areas >900ft², add nCM ADCX (RJB) for daylight control
Supports the Following Requirements:

- Local Switch (Section 9.4.1.2)
- Automatic Full-Off via Occupancy Sensor (Section 9.4.1.2b)

Bill of Materials

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<tr>
<th>Symbol</th>
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<td>1</td>
<td>nPP16 D</td>
<td>Relay Module with 0-10V Dimming Output</td>
</tr>
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<td>PIR Extended Range Occupancy Sensor</td>
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<tr>
<td>![ WallPod](nPODM DX)</td>
<td>2</td>
<td>nPODM DX</td>
<td>On/Off &amp; Raise/Lower WallPod</td>
</tr>
</tbody>
</table>

OPERATION DETAILS:
- Lights: All lights are dimmable. All fixtures controlled together. Maximum level can be limited to 80%.
- Occupancy Control: Lights automatically go to full bright when occupied. Lights automatically turn off when space becomes vacant.

ADDITIONAL OPTIONS:
- Surface or recessed mount sensors also available.
- Space/zone can be connected to nLight backbone to enable network control including time based controls and integration with building management systems (see pg.26).
- For emergency lighting control add model nPP16 D ER.
- For sidelit areas >250ft² or skylit areas >900ft², add nCM ADCX (RJB) for daylight control.
**Programmable Timeclock Control:**

Although not pictured within each of the individual room design guides, each nLight Control Zone can be connected via an nLight backbone to create a networked nLight lighting control system capable of meeting the requirements of the ASHRAE 90.1 programmable timeclock provision (Section 9.4.1.1a). A networked system also enables astronomical time clock control.

For additional information regarding building management integration or demand response features, please contact your Acuity Brands Sales Representative.

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**nLight BLE Radio Module**

The nLight® nIO BT Bluetooth Low Energy (BLE) module from Acuity Controls enables wireless communication to an nLight zone of devices from a smartphone. The nLight smartphone app, nConfig, easily modifies the settings and operation of the devices in an nLight zone aiding in meeting energy code requirements.

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**Bill of Materials**

<table>
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<td>Network Gateway Controller</td>
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</table>

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The nLight BLE Module connects to an nLight zone of devices using CAT-5e cables and is powered directly off of the CAT-5e cables. Upon powering up the nIO BT communicates with the Acuity Controls smartphone app via Bluetooth Low Energy. The on-board blue LED indicates paired state, and pin code recognition ensures system security.
### APPENDIX A: nLight Enabled Fixtures

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<th>Product Family</th>
<th>Fixture Series</th>
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<td>Lithonia Lighting</td>
<td>AC Series</td>
<td>LED Recessed</td>
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<tr>
<td>Lithonia Lighting</td>
<td>AL Series</td>
<td>LED High Performance Architectural Recessed</td>
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<tr>
<td>Lithonia Lighting</td>
<td>ALLS</td>
<td>LED Surface Mount</td>
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<tr>
<td>Lithonia Lighting</td>
<td>AVLED</td>
<td>Avante® LED Recessed - Direct/Indirect</td>
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<td>BZL Series</td>
<td>LED Recessed Indirect</td>
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<tr>
<td>Lithonia Lighting</td>
<td>FSL Series</td>
<td>LED Recessed</td>
</tr>
<tr>
<td>Lithonia Lighting</td>
<td>RT Series</td>
<td>LED Recessed Volumetric</td>
</tr>
<tr>
<td>Lithonia Lighting</td>
<td>T Series</td>
<td>LED Recessed Troffer</td>
</tr>
<tr>
<td>Lithonia Lighting</td>
<td>VT Series</td>
<td>LED Recessed Volumetric</td>
</tr>
<tr>
<td>Lithonia Lighting</td>
<td>GT Series</td>
<td>General Recessed Troffer</td>
</tr>
<tr>
<td>Lithonia Lighting</td>
<td>SBS Series</td>
<td>LED Shadow Box Square</td>
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<tr>
<td>Lithonia Lighting</td>
<td>WL Series</td>
<td>LED Wall Bracket Surface Mount</td>
</tr>
<tr>
<td>Lithonia Lighting</td>
<td>RTLX</td>
<td>LED Surface Volumetric</td>
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<tr>
<td>Lithonia Lighting</td>
<td>ST LED</td>
<td>LED Surface Volumetric</td>
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<tr>
<td>Lithonia Lighting</td>
<td>IBL / IBH</td>
<td>LED Highbay</td>
</tr>
<tr>
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<td>PTN</td>
<td>LED Highbay - Proteon</td>
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<tr>
<td>Lithonia Lighting</td>
<td>LDN</td>
<td>Downlight</td>
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<tr>
<td>Lithonia Lighting</td>
<td>ACLX</td>
<td>AC Series Surface Mount</td>
</tr>
<tr>
<td>Lithonia Lighting</td>
<td>RTLR</td>
<td>LED Relight Volumetric Recessed Mount</td>
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<tr>
<td>Lithonia Lighting</td>
<td>RTLEDRT</td>
<td>Relight Volumetric for Lensed Troffers</td>
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<tr>
<td>Lithonia Lighting</td>
<td>SBS LX</td>
<td>LED Relight Shadow Box Square</td>
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<tr>
<td>Lithonia Lighting</td>
<td>TLX</td>
<td>LED Relight Surface Mount</td>
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<td>Lithonia Lighting</td>
<td>VTL RT LED</td>
<td>LED Relight Lensed Troffers</td>
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<td>VTLR LED</td>
<td>LED Relight Parabolic Lensed</td>
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<td>Lithonia Lighting</td>
<td>VTLX</td>
<td>LED Relight Volumetric Surface Mount</td>
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<tr>
<td>Gotham</td>
<td>EVO</td>
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<tr>
<td>Gotham</td>
<td>Incito</td>
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<tr>
<td>Mark Architectural Lighting</td>
<td>Slot 4 LED</td>
<td>Pendant, Wall, Surface, Recessed</td>
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<tr>
<td>Mark Architectural Lighting</td>
<td>Slot 6 LED</td>
<td>Recessed</td>
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<td>Mark Architectural Lighting</td>
<td>Fin LED</td>
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<td>Mark Architectural Lighting</td>
<td>Whisper LED</td>
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<tr>
<td>Mark Architectural Lighting</td>
<td>NoLED</td>
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<tr>
<td>Mark Architectural Lighting</td>
<td>SPR LED</td>
<td>Perimeter</td>
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<tr>
<td>Peerless</td>
<td>Vellum LED</td>
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<tr>
<td>Peerless</td>
<td>Mino LED</td>
<td>Recessed</td>
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<tr>
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<td>Round 2/4 LED</td>
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<td>Peerless</td>
<td>Square LED</td>
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<td>Peerless</td>
<td>Origami LED</td>
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<td>Peerless</td>
<td>Bruno LED</td>
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<td>Peerless</td>
<td>Staple</td>
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<td>Peerless</td>
<td>Lightline, Indirect</td>
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<tr>
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<td>Lightedge</td>
<td>Suspended</td>
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<tr>
<td>Peerless</td>
<td>Icetray</td>
<td>Suspended</td>
</tr>
<tr>
<td>Peerless</td>
<td>Cerra</td>
<td>Suspended</td>
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<tr>
<td>Peerless</td>
<td>Prima</td>
<td>Suspended</td>
</tr>
<tr>
<td>Peerless</td>
<td>Naro</td>
<td>Suspended</td>
</tr>
<tr>
<td>Peerless</td>
<td>Tulip</td>
<td>Suspended</td>
</tr>
<tr>
<td>Peerless</td>
<td>Envision</td>
<td>Suspended</td>
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<tr>
<td>Peerless</td>
<td>Aero</td>
<td>Suspended</td>
</tr>
<tr>
<td>Peerless</td>
<td>Enzo</td>
<td>Suspended</td>
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</table>

Note: New nLight enabled fixtures added regularly. Please reference fixture spec sheets for nLight enabled options.
## APPENDIX B: Requirements Overview

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<th>Code Summary*</th>
<th>Recommendations for Compliance</th>
<th>nLight Solution Details</th>
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<tbody>
<tr>
<td>Space (i.e. Local Switch) Control</td>
<td>9.4.1.2</td>
<td>Each space enclosed by ceiling-height partitions shall have at least one readily accessible control device to independently control the general lighting within the space.</td>
<td>Include manual control device(s) in all room control system designs.</td>
<td>nLight WallPod devices provide a user with local control of lighting within an nLight controlled space (i.e. nLight zone). WallPods are available in multiple styles – each with varying features and user experience.</td>
</tr>
<tr>
<td>Programmable Timelock</td>
<td>9.4.1.1a</td>
<td>Interior lighting shall be controlled with a time-of-day schedule control that turns lighting off at specific programmed times. Note: Occupancy sensors or another building control/alar system that indicate vacancy also comply.</td>
<td>Utilizing controls capable of being networked across an entire building enables simple compliance via a single central programmable time clock.</td>
<td>Individual nLight Control Zones (ie rooms) can be easily networked together across an entire building simply by connecting them into a &quot;backbone&quot; made up of one or more nLight Bridge devices and an nLight Gateway. The Gateway provides programmable time clock functionality for an nLight network as well as interfaces to the SensorView Suite of web-based software applications (via an Ethernet LAN / WAN connection).</td>
</tr>
<tr>
<td>Automatic Full-Off via Occupancy Sensor</td>
<td>9.4.1.2b</td>
<td>Lights must be turned off within 30 minutes of vacancy by use of an occupancy sensor or timer switch.</td>
<td>Always include occupancy sensors in all control system designs regardless of lighting type.</td>
<td>nLight occupancy sensors utilize 100% digital passive infrared (PIR) detection, come in several mounting styles, and offer multiple coverage pattern options. Additionally, nLight sensors are available with patented Microphonics™ dual technology detection for rooms with obstructions. Configuring for full off vs partial off control is done with system programming.</td>
</tr>
<tr>
<td>Automatic Partial-Off via Occupancy Sensor</td>
<td>9.4.1.6g</td>
<td>Lighting should automatically reduce power by at least 50% within 30 minutes of vacancy.</td>
<td>Always include occupancy sensors in all control system designs. Reducing the level of dimmable fixtures to 50% is easiest method of compliance, however turning off 50% of lighting via circuit switching is also an option.</td>
<td>360° Occupancy Sensor Surface or recessed mounts to ceiling tiles or sheetrock/plaster. 120° WideView Corner Sensor Directly mounts in corner or to ceiling via repositionable ceiling bracket.</td>
</tr>
</tbody>
</table>

*Note: This summary is for general information purposes only and is provided without any warranty as to accuracy, completeness, or otherwise. The user should read the applicable code sections for more complete and detailed descriptions of code requirements and exceptions and should consult with a professional engineering or other competent advisor before making any decision or taking any action based on this summary.
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<tr>
<td><strong>Light Level Control</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Multi-Level / Dimming Controls</td>
<td>9.4.1.2a</td>
<td>Controlled lighting shall have at least one control step between 30% and 70%, in additional to full on and full off. Not required for spaces with one luminaire rated &lt;100 W or for spaces with lighting power allowance of &lt;0.6 W/ft².</td>
<td>Continuously dimmable LED (or fluorescent) fixtures and manual dimming controls are the easiest method of compliance.</td>
<td>nLight provides multiple options for controlling continuous dimming luminaires. This allows spaces with several lighting types and technologies to be controlled together and with a common user experience.</td>
</tr>
<tr>
<td>Multi-Level Daylight Controls</td>
<td>9.4.1.4, 9.4.1.5</td>
<td>The general lighting in primary sidelit areas (250ft² or larger) or daylight areas under skylights (900ft² or larger) shall be separately controlled by at least one multilevel photocell, which can be continuous dimming.</td>
<td>Automatic daylight harvesting photocells that continuously adjust the level of dimming fixtures according to daylight levels provide the most effective and least distracting control.</td>
<td>Acuity offers a wide variety of LED fixtures with factory installed integrated nLight controls that provide smooth continuous dimming, and optional automatic lumen maintenance or manual task tuning. nLight dimming relay packs / panels enable control of any 0–10VDC dimmable LED (or fluorescent) luminaire. Manual task tuning control can also be used.</td>
</tr>
<tr>
<td>Additional Controls</td>
<td>8.4.2</td>
<td>50% of all receptacles, including those installed in modular partitions, shall be automatically turned off by a control device.</td>
<td>Since the same automatic shut-off requirements apply to receptacles and lighting, utilizing the same occupancy sensors for both is the simplest method of compliance.</td>
<td>The nLight Plug-Load relay pack is capable of switching an entire 20A receptacle load. Simply add into an nLight Control Zone (room) with an occupancy sensor and the unit will automatically switch off when the room is vacant. Local manual switch control of receptacles is not required and therefore is disabled by default.</td>
</tr>
</tbody>
</table>

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Additional Resources:

Acuity Controls Typical Layout Drawings
http://www.acuitybrands.com/typicals

ASHRAE
https://www.ashrae.org/

Use the Following Sections of the ASHRAE 90.1 2010 Code as Reference:
Section 8.4.2 – Automatic Receptacle Control
Section 9.4.1 – Lighting Control
Section 9.4.1.1 – Automatic Lighting Shutoff
Section 9.4.1.2 – Space Control
Section 9.4.1.3 – Parking Garage Lighting Control
Sections 9.4.1.4/5 – Automatic Daylighting Controls
Section 9.4.1.6 – Additional Control
Section 9.4.1.7 – Exterior Lighting Control
Section 9.4.4 – Functional Testing

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