Is it always possible to **address the exact requirements of LLLC?** What about downlights?

Luminaire Level Lighting Controls have gained in adoption with findings suggesting "that more granular control (LLLC) may lead to higher savings"[1]

Luminaire Level Lighting Controls, essentially identifies three requirements:

- Must be networked lighting controls
- Leveraging occupancy and ambient light sensors
- Embedded into the luminaire's form factor during manufacturing process

What About Downlights?

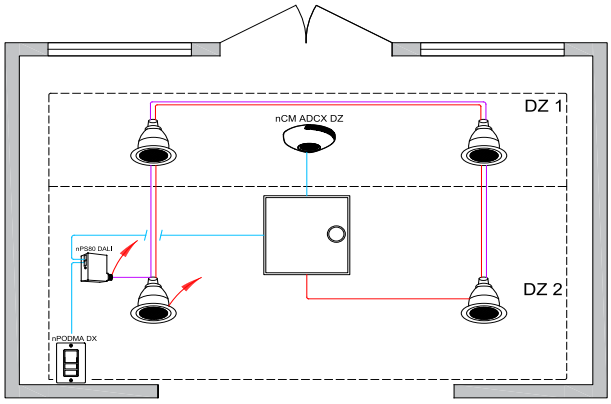
Due to its form factor, occupancy and ambient light sensors cannot be embedded within downlights, at least not without impacting its design, installation, and aesthetics.

Solution

Provide for more granular control of downlights, by leveraging available embedded technology and your nLight® networked lighting controls platform.

Option 1: Leverage the Embedded DALI® Driver

Specify DALI drivers in the luminaire and pair them with the DALI-2™ certified nPS 80 DALI controller by nLight, to independently control luminaires with DALI drivers, while making it part of one same system, the nLight network. This allows you to meet the intent of LLLC by leveraging ceiling mount sensors or sensors embedded within other luminaires in space.



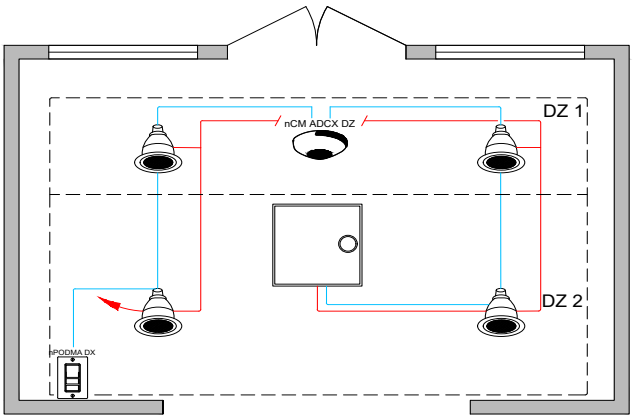
Bill of Materials

- 4 Downlights with wired networked embedded controls (control device) by nLight, interfacing with DALI
- 1 Troffer with wired networked embedded controls (sensor) by nLight
- 1 nPODMA DX On/Off, Raise/Lower wall switch
- 1 nCM ADCX DZ RJB Dual Zone Daylight Sensor
- 1 nPS 80 DALI power pack controller
- Configure 2 daylight zones

Option 2: Leverage Embedded Controls

Specify downlights available with wired or wireless networked embedded controls devices, such as the nIO or rIO by nLight; providing individual luminaire control and digital dimming capabilities, and making it part of one same system, the nLight network. Leverage ceiling mount sensors or sensors embedded within other luminaires in the space, and configure zones to achieve granular, luminaire level lighting control.

With either option, the downlights become individually addressable and part of the nLight networked lighting controls platform. This simplifies the software-based configuration of lighting controls strategies – addressing daylight harvesting, task tuning and occupancy sensing– while enabling further applications such as tunable white.



Bill of Materials

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> *Application needs can be met in a variety of ways, but those ways should be practical for the customer! The nLight networked lighting controls system uses both embedded technology and advanced protocols like DALI to meet the intent of LLLC, delivering optimized energy efficiency and personal control in a space, while simplifying installation and operation with one system.*
>
> – **MARK LANE**, SR. DIRECTOR OF PRODUCT MANAGEMENT, *ACUITY BRANDS LIGHTING*

1 Energy Savings from Networked Lighting Control (NLC) Systems with and without LLLC – September 24, 2020 - https://designlights.org/resources/reports/report-energy-savings-from-networked-lighting-control-nlc-systems-with-and-without-lllc/

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