

FEATURES & SPECIFICATIONS

INTENDED USE — The VT Series Volumetric LED Troffer (VTL) combines the aesthetics and high performance with intelligent LED engines for applications such as offices, schools, retail locations and hospitals. High-efficacy light engines deliver long life and excellent color, ensuring a superior quality lighting installation that is highly efficient and sustainable. Multiple lumen packages and driver options provide solutions for all your lighting applications. Featured nLight control system provides design flexibility and ease of installation and optimum energy savings.

CONSTRUCTION — Rugged, one-piece cold-rolled steel coated polyester, painted after fabrication with embossed facets. Impact-modified, single clear acrylic diffuser provides excellent shielding and wide distribution. End plates include integral T-bar clips. Fixture may be mounted and wired in continuous rows. Total fixture height is only 4-3/8".

OPTICS — Volumetric illumination is achieved by creating an optimal mix of light to walls, partitions, vertical and horizontal work surfaces — rendering the interior space, objects and occupants in a more balanced, complementary luminous environment. Linear faceted reflector cavity softens and distributes light into the space while minimizing luminous contrast between the fixture and ceiling. Sloped end plates provide a smooth, luminous transition between fixture and ceiling while enhancing the perception of fixture depth. High-performance diffuser provides LED concealment, even illumination across the diffuser and improved lumen-per-watt performance.

Now available with two different aesthetics including the standard Acrylic Linear Prismatic Diffuser (ADP) and the Acrylic Linear Prismatic Diffuser with Diffuser Trim Rings (ADPT).

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 90% LED lumen maintenance at 60,000 hours (L90/60,000).

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional integrated nLight® controls make each luminaire addressable - allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Simply connect all the nLight enabled control devices and the VTL luminaires using standard Cat-5 cabling. Unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission.

Lumen Management: Unique lumen management system (option N80) provides onboard intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Driver disconnect provided where required to comply with US and Canadian codes.

SENSOR — **Integrated sensor (individual control):** Sensor Switch MSD7ADCX ((Passive infrared (PIR)) or MSDPDT7ADCX ((PIR/Microphonics Dual Tech (PDT)) integrated occupancy sensor/automatic dimming photocell allows the luminaire to power off when the space is unoccupied or enough ambient light is entering the space. See page 2 for more details on the integrated sensor.

Integrated Sensor (nLight Wired Networking): This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled

VT Series Volumetric LED Troffer



2VTL

2' x 4'
LED

eldoLED

sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software. See page 2 for the nLight sensor options.

INSTALLATION — Unique grid interfacing arrangement provides mounting into standard 1" and 9/16" tee bar or screw slot grids. 9/16" allows fixture trim to hang level with architectural ceiling tiles. Drywall ceiling adaptors available. Suitable for damp location.

LISTINGS — CSA Certified to meet U.S. and Canadian standards. IC rated. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List to confirm which versions are qualified.

WARRANTY — 5-year limited warranty.

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25°C.

Specifications subject to change without notice.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: 2VTL4 40L ADPT EZ1 LP840 N100 NES7

| 2VTL4 | | | | | | | | | |
|---|---|--------------------------------|---|----------------------|---|--|--|--|--|
| Series | Air function | Lumens | Diffuser | Voltage | Driver | Color temperature | | | |
| 2VTL4 2X4 VTL | (blank) Static | 30L 3000 ¹ | ADP Acrylic linear prismatic | (blank) MVOLT | EZ1 eldoLED dims to 1% (0-10 volt dimming) | LP830 82CRI, 3000 K | | | |
| | H Heat removal | 40L 4000 ¹ | ADPT Acrylic linear prismatic with diffuser trim rings | 347 347 ² | EZB eldoLED dims to dark (0-10 volt dimming) | LP835 82CRI, 3500 K | | | |
| | | 48L 4800 ¹ | | | EDB eldoLED DALI ³ | LP840 82CRI, 4000 K | | | |
| | | 60L 6000 ¹ | | | EXB eldoLED DMX/RDM ³ | LP850 82CRI, 5000 K | | | |
| | | 72L 7200 ¹ | | | SLD Step-level dimming ³ | | | | |
| | | | | | EXA1 Dims to 1%, XPoint wireless enabled ⁴ | | | | |
| | | | | | EXAB Dims to dark, XPoint wireless enabled ⁴ | | | | |
| Controls | | Occupancy Control ⁶ | | | | Options | | | |
| (blank) | No nLight® | (blank) | No sensor control | | | Xpoint Wireless Networking | | | |
| N80 | nLight® with 80% lumen management | NES7 | nLight Wired Networking | | XADS7 | Xpoint™ micro 360° PIR occupancy sensor and automatic dimming photocell ^{4,8,9} | | | |
| N80EMG | nLight™ with 80% lumen management For use with generator supply EM power ⁵ | NESPDT7 | nLight™ nES PDT 7 dual technology integral occupancy control ⁷ | | | Individual Control | | | |
| N100 | nLight™ without lumen management | NES7ADCX | nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ⁷ | | MSD7ADCX | PIR integral occupancy sensor with automatic dimming control photocell ^{8,10} | | | |
| N100EMG | nLight® without lumen management For use with generator supply EM power ⁵ | NESPDT7ADCX | nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ⁷ | | MSDPDT7ADCX | PDT integral occupancy sensor with automatic dimming control photocell ^{8,10} | | | |
| Accessories: Order as separate catalog number. | | | | | | | | | |
| 2VT4 F916 | Trim to adjust fixture mounting flush with 9/16" T-bar; for 2x4 fixture | | | | | | | | |
| DGA24 FS/VT | Drywall ceiling adapter with trim kit | | | | | | | | |

Notes

- 1 Approximate lumen output.
- 2 Consult factory for availability. Not available with SLD, EL7L or EL14 battery packs.
- 3 Not available with N80, N80EMG, N100 or N100EMG.
- 4 Gateway not included. Requires on-site commissioning.
- 5 nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
- 6 Must specify ADPT diffuser. See sensor section on page 2.
- 7 Requires N80, N80EMG, N100, or N100EMG.
- 8 Not available with N80, N80EMG, N100, or N100EMG.
- 9 Only available with EXA1 or EXAB driver options.
- 10 Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.

2VTL Volumetric Recessed Lighting 2'x4'

| Performance Data | | | |
|------------------|--------|--------------------------|-------|
| Lumen Package | Lumens | Input Watts ³ | LPW |
| 30L LP830 | 3168.4 | 30.76 | 103.0 |
| 30L LP835 | 3326.1 | 30.76 | 108.1 |
| 30L LP840 | 3677.2 | 30.76 | 119.5 |
| 30L LP850 | 3665.8 | 30.76 | 119.2 |
| 40L LP830 | 3992.1 | 38.98 | 102.4 |
| 40L LP835 | 4210.7 | 38.98 | 108.0 |
| 40L LP840 | 4315.3 | 38.98 | 110.7 |
| 40L LP850 | 4622.6 | 38.98 | 118.6 |
| 48L LP830 | 4619.5 | 46.43 | 99.5 |
| 48L LP835 | 4879.3 | 46.43 | 105.1 |
| 48L LP840 | 4993.3 | 46.43 | 107.5 |
| 48L LP850 | 5354.5 | 46.43 | 115.3 |
| 60L LP830 | 5069.4 | 52.15 | 97.2 |
| 60L LP835 | 5351.3 | 52.15 | 102.6 |
| 60L LP840 | 5500.3 | 52.15 | 105.5 |
| 60L LP850 | 5867.8 | 52.15 | 112.5 |
| 72L LP830 | 6751.8 | 69.25 | 97.5 |
| 72L LP835 | 6884.8 | 69.25 | 99.4 |
| 72L LP840 | 7394.9 | 69.25 | 106.8 |
| 72L LP850 | 7803.7 | 69.25 | 112.7 |

Note: Based on ADP diffuser

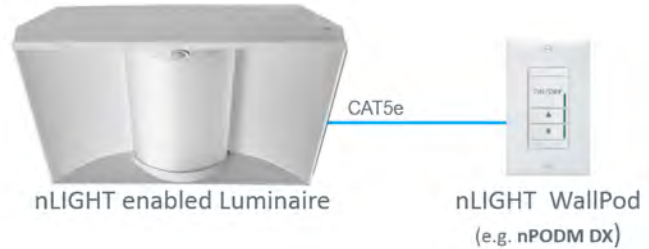
Integrated Sensor with Individual Control

The MSD7ADCX PIR occupancy sensor/automatic dimming photocell is ideal for areas without obstructions and where daylight harvesting may be desired. Suggested applications include, but not limited to, hallways, corridors, storage rooms, and breakrooms or other areas where people are typically moving.

The MSDPDT7ADCX PIR/Microphonics Dual Tech occupancy sensor/automatic dimming photocell is ideal for areas with obstructions and where daylight harvesting is desired. Suggested applications include, but not limited to, open offices, private offices, classrooms, public restrooms, and conference rooms.

| Sensor Options | | | | | |
|----------------|-----------------------------|-------------------|-----|-------------------------|----------------------------|
| Option | Automatic Dimming Photocell | Occupancy Sensing | | nLight Wired Networking | Xpoint Wireless Networking |
| | | PIR | PDT | | |
| MSD7ADCX | X | X | | | |
| MSDPDT7ADCX | X | | X | | |
| NES7 | | X | | X | |
| NES7ADCX | X | X | | X | |
| NESPDT7 | | | X | X | |
| NESPDT7ADCX | X | | X | X | |
| XADS7 | X | X | | | X |

Basic nLight Zone

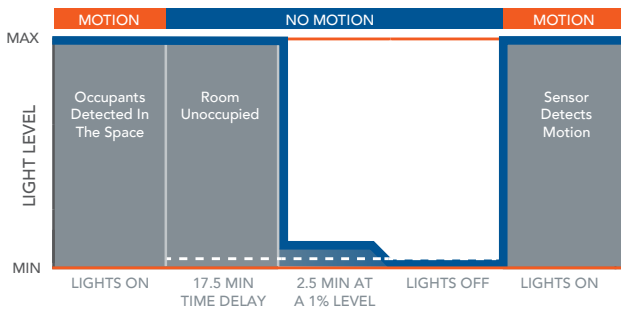


nLight Wired Networking

The nES 7 is ideal for small rooms without obstructions or areas with primarily walking motion. Ideal areas include hallways, corridors, storage rooms, and breakrooms. Additionally, the NES7ADCX includes an integrated photocell, which enables daylight harvesting controls.

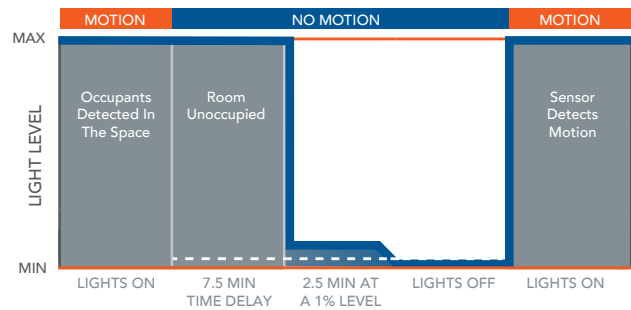
For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the NESPDT7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.

Sequence of Operation



*The presetting on the automatic dimming photocell is 5fc.

Sequence of Operation

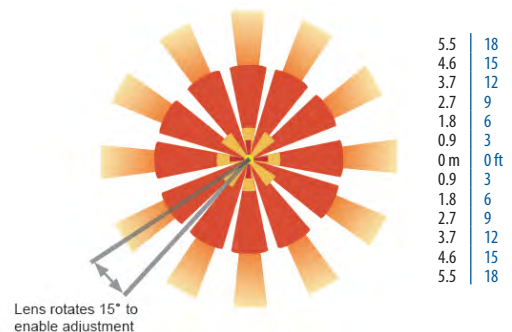


*The presetting on the automatic dimming photocell is 5fc.

Sensor Coverage Pattern Mini 360° Lens

- Recommended for walking motion detection from mounting heights between 8 ft (2.44 m) and 20 ft (6.10 m)
- Initial detection of walking motion along sensor axes at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m).
- Provides 12 ft (3.66 m) radial detection of small motion when mounted at 9 ft (2.74 m)
- Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor

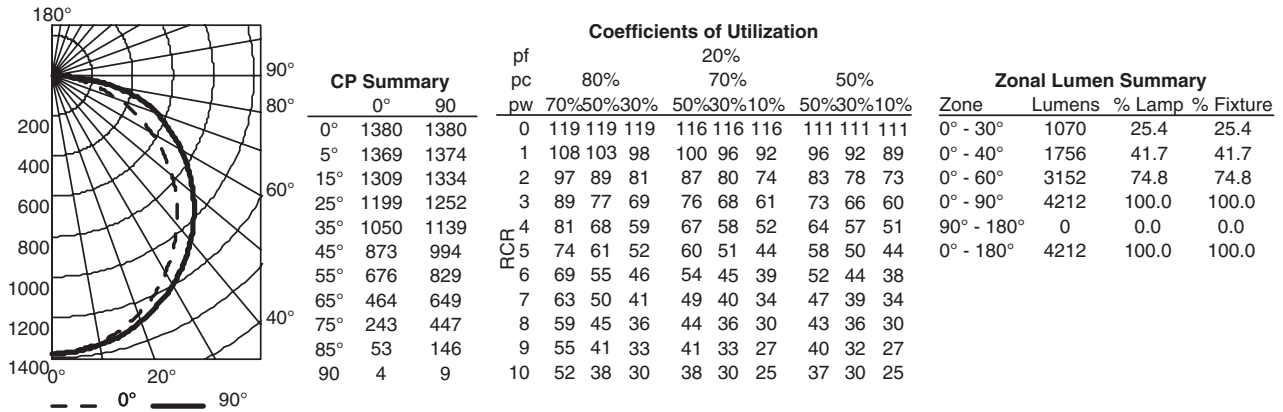
9 FT Mounting



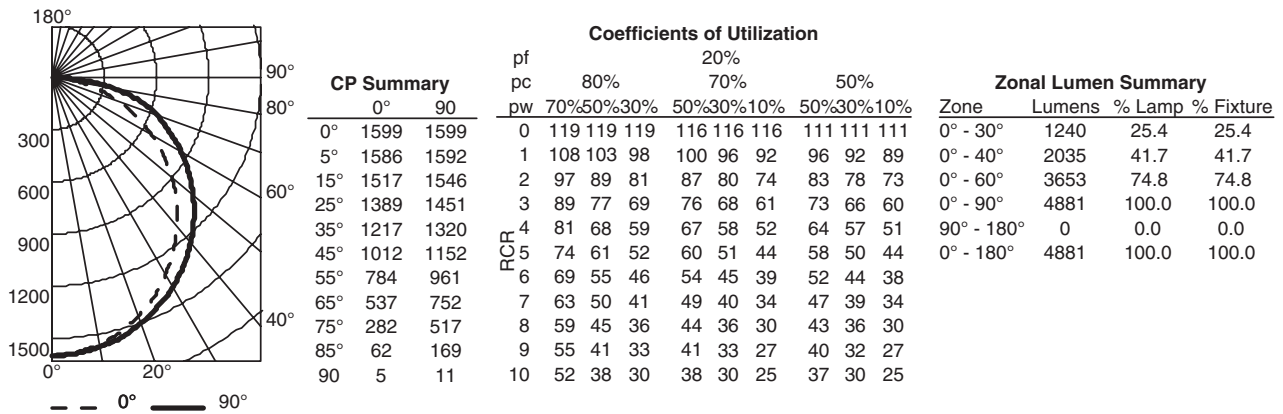
2VTL Volumetric Recessed Lighting 2'x4'

PHOTOMETRICS

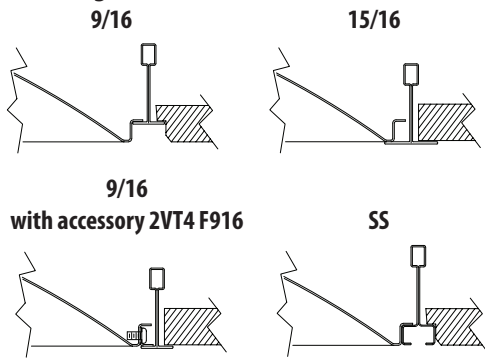
2VTL4 40L ADP LP835, 4211 delivered lumens, test no. LTL24782P4, tested in accordance to IESNA LM-79



2VTL4 48L ADP LP835, 4879 delivered lumens, test no. LTL24782P8, tested in accordance to IESNA LM-79



Mounting data

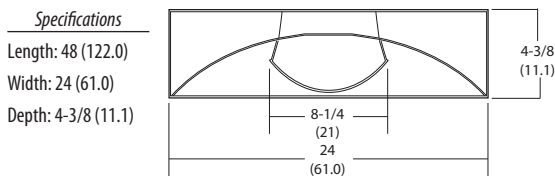


nLight® Control Accessories:
Order as separate catalog number. Visit www.sensorswitch.com/nLight for complete listing of nLight controls.

| WallPod stations | Model number | Occupancy sensors | Model number |
|----------------------|------------------|--|---------------------|
| On/Off | nPODM [color] | Small motion 360°, ceiling (PIR / dual tech) | nCM 9 / nCM PDT 9 |
| On/Off & Raise/Lower | nPODM DX [color] | Large motion 360°, ceiling (PIR / dual tech) | nCM 10 / nCM PDT 10 |
| Graphic Touchscreen | nPOD GFX | Wall switch with raise/lower | nWSXPDTLVDX |
| Photocell controls | Model number | Cat-5 cable bundles (plenum rated) | Model number |
| On/Off & Dimming | nCM ADXC | 10', 15 pieces per bundle | CAT5 10FT |
| | | 30', 15 pieces per bundle | CAT5 30FT |

Dimensions

All dimensions are inches (centimeters) unless otherwise specified.



Constant Lumen Management

Enabled by the embedded nLight control, the VTL actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.

