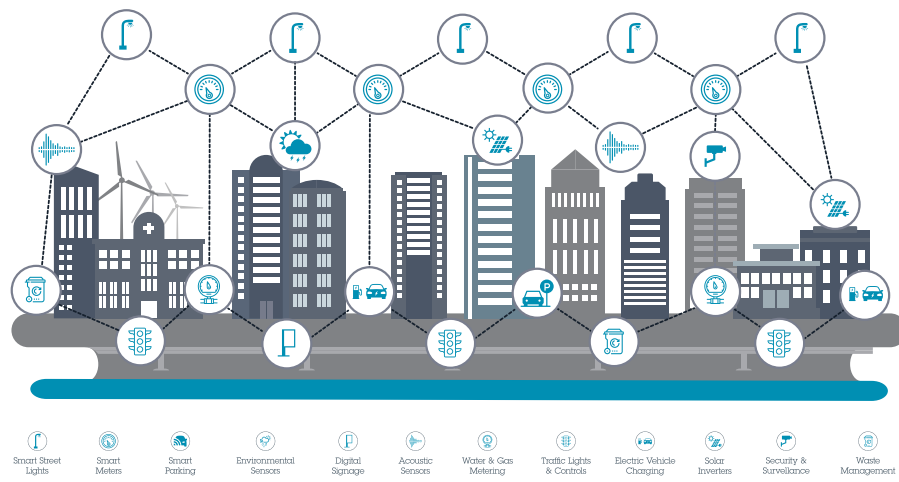# DTL®
DARK TO LIGHT

DTL® DSN
Networked Photocontrols

Reliably and Securely
Connecting Critical Infrastructure

Itron
ready

Create the Perfect Network Canopy Application for a Robust and Secure Smart City

The **DTL DSN** solution combines the reliability of the DLL Elite photocontrol, designed for 20-year operating life, with the performance of the Itron network platform for unparalleled functionality and adaptive control of street lighting systems.

With the DSN solution, you now have access to a multi-application platform, providing one network for critical infrastructure solutions like smart lighting, smart metering and other outdoor IoT technologies.

| Smart Street Lights | Smart Meters | Smart Parking | Environmental Sensors | Digital Signage | Acoustic Sensors | Water & Gas Metering | Traffic Lights & Controls | Electric Vehicle Charging | Solar Inverters | Security & Surveillance | Waste Management |

Key features of the DTL DSN networked photocontrol

TRIAC assisted relay for long-life LED applications

LED drivers are reactive loads that can cause high current across the control's relay switch during turn on and inductive arcing during turn off. This can significantly reduce the life of the relay, possibly leading to premature failure causing fixture day burning. The DTL DSN has an advanced TRIAC assisted relay circuit, which protects the relay by offering superior inrush protection, i.e., low inrush current with low-voltage switch on and no inductive arcing with low-current switch off.

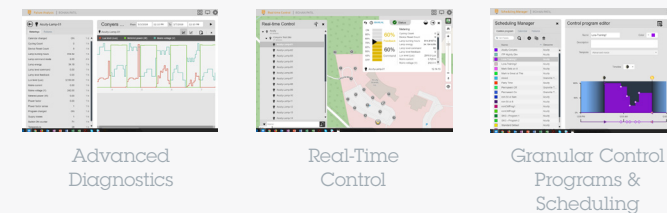### Peace of mind with superior surge protection

The DTL DSN is equipped with a surge protection circuit rated in excess of ANSI C136.10 to 20kV/10kA with two MOVs capable of absorbing 1080 joules and 36,000 amperes of energy during an unforeseen surge event.

Revenue-grade energy measurement with IR pulse interface to verify meter calibration

Featuring a dedicated energy computation processor with non-volatile memory, the DTL DSN is capable of revenue-grade 0.5% accuracy class energy measurement per ANSI C12.20. The DSN can measure energy consumption of the load and its own power consumption. For energy meter audit purposes, it also features an onboard IR pulse interface that allows its meter accuracy to be verified against a known source by using an external measurement and verification device.

Intuitive Dashboard

Advanced Diagnostics

Real-Time Control

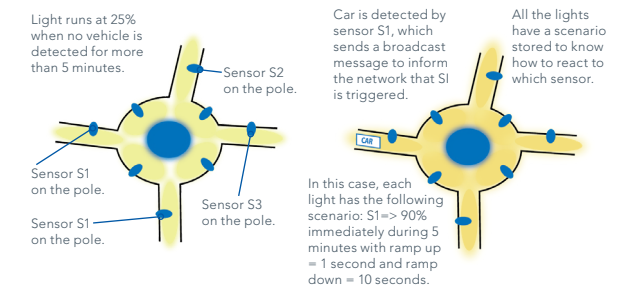

Granular Control Programs & Scheduling

Streetlight Vision – The most ubiquitous outdoor lighting management software in the world

The DTL DSN utilizes Streetlight Vision, an innovative central management software (CMS) from Itron Networked Solutions that enables cities, utilities and authorities to benefit from smart street light and smart city applications. Thanks to functionality available in Streetlight Vision, cities, utilities and authorities can take actions to save energy, help increase safety in the street, reduce maintenance costs on their street lights and transform their street light network into a smart city communication and control backbone.
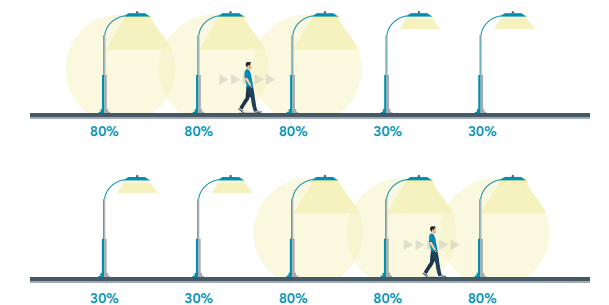
Multi-system, multi-application: The Streetlight Vision CMS supports both wireless and power line control systems and outdoor lighting networks (OLNs) from 40 manufacturers. Beyond smart street lights, the Streetlight Vision CMS also controls and monitors sensors, electrical vehicle charging stations, energy meters, waste containers, pollution sensors, weather stations and any other smart city devices.

Streetlight Vision is known as a highly innovative CMS with an open smart street light and smart street software framework. Streetlight Vision is the choice for many of the largest projects in the world which includes over 500 cities in more than 15 countries.

Light runs at 25% when no vehicle is detected for more than 5 minutes.

Sensor S2 on the pole.

Sensor S1 on the pole.

Sensor S3 on the pole.

Sensor S1 on the pole.

Car is detected by sensor S1, which sends a broadcast message to inform the network that S1 is triggered.

All the lights have a scenario stored to know how to react to which sensor.

In this case, each light has the following scenario: S1=> 90% immediately during 5 minutes with ramp up = 1 second and ramp down = 10 seconds.

Dynamic Lighting Control

The DTL DSN is a 7-pin NEMA node with pins 6 and 7 designed to receive motion sensor input. It also features a class-leading power supply, which supplies 24V DC power via pins 6 and 7 to power sensor devices. Motion input can be received via passive infrared (PIR) sensors for pedestrian tracking or radar sensors for vehicular traffic. A master node with motion sensor input can send instantaneous signals to a predefined group of neighbors, as defined in Streetlight Vision CMS, to switch to configured light levels. The signal is sent directly to the neighboring nodes without needing to route via the cloud for real-time grouped response to motion.

| 80% | 80% | 80% | 30% | 30% |
| 30% | 30% | 80% | 80% | 80% |

Follow-Me Lighting

Another unique application of dynamic grouped response to motion sensor input is follow-me lighting. In this case a group of lights along a path can be brightened for pedestrian or bike traffic to follow the person as they move along the path.

Why chose the DTL DSN solution powered by the Itron® network platform?

- **PROVEN:** Access a robust network supporting over 27 million devices combined with world-class LED photocontrol technology.
- **SECURE:** Protect your most sensitive data with secure AES 256-bit encryption and multi-layer protection with continuous security monitoring.

- **FAST:** Deliver real-time, actionable data for business-critical needs.
- **FLEXIBLE:** Leverage one system capable of connecting multiple smart city devices and applications.
- **FUTURE ORIENTED:** Obtain data through open APIs to enable future application development.

One Network

Together, Acuity Brands and Itron Networked Solutions connect critical infrastructure with proven and reliable technology. Street lighting infrastructure serves as the ideal platform for harnessing the power of a multi-application, standards-based IPv6, outdoor mesh network. With the deployment of one network, you ensure a stable platform for your most vital services.

Maintained

Through a managed service solution, the network is backed by service level agreements, 24x7 monitoring, and continuous access to firmware updates from Itron's Network Operations Centers. This eliminates the need to worry about designing, building or maintaining a network, allowing lighting system operators to focus on monitoring and maintaining their lighting infrastructure.

And Delivered

Leverage your lighting infrastructure to deliver a network capable of connecting smart lighting, smart grid and future smart city applications. A cloud-hosted management platform centralizes monitoring and control of your lighting system and provides access to data through open APIs, allowing developers to create new value for you and your customers.

Ready to build a smart network?

Acuity Brands is a certified Itron partner and can provide the complete solution.

Already have the Itron network (formerly Silver Spring Networks)?

We are a certified partner with equipment to integrate with existing networks.