IDOO.RAY
POWER OVER ETHERNET (PoE)
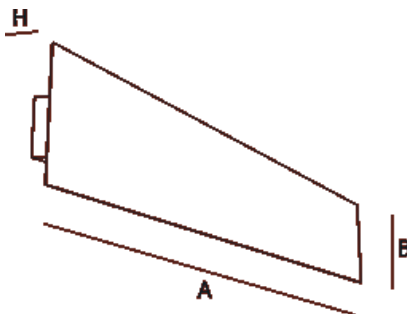# DIRECT/INDIRECT WALL LUMINAIRE

The IDOO.ray contemporary architectural wall fixture is ideal for stairways and hallways, low-lit spaces, with soft, uniform light. Its sleek, narrow silhouette complies with ADA guidelines while the brushed, stainless steel front panel and simple installation allows it to be effortlessly incorporated into any room, office, healthcare facility, etc. with style and harmony. IDOO.ray meets UGR<19 glare control standards and is available in 3500 K and 4000 K temperature and color tuning options.

All models are 1-10V dimmable and ETL/cETL approved. Powered over Ethernet, the IDOO.ray's data is accessed via software and the light's dimming, timing, sensors, light color, and daylight harvesting can all be easily controlled. The Waldmann LUM CONNECT VTL, a biodynamic light system that mimics the changes in sunlight that occur with the course of the day, can also be implemented with this fixture.
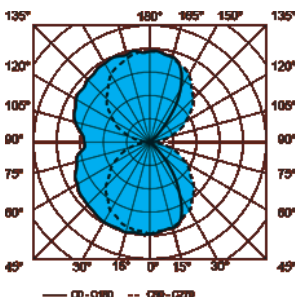
wall luminaire IDOO.ray

fitted with	LED
work equipment	Molex
connected load	PoE
power consumption	approx. 25-50 W
luminous flux	approx. 4000 - 8000 lm
luminous efficacy	approx. 161 lm/W
ight distribution	direct/indirect, single circuit
direct ratio	approx. 50 %
light color	3000K, 3500K, 4000K, VTL (2700-5700K)
color rendering index (CRI)	> 80
usage	Molex PoE ready
length	nominal 2ft, 3ft, 4ft
luminaire body	stainless steel, white, black, gray
weight (net)	approx. 3.0 kg (6.6 lbs)
mains lead	hard wired
fastening	wall bracket
special features	Up/Down Light, PoE, single circuit, ETL/cETL approved

Dimensions

A/B/H (mm)	A/B/H (in)
1250/120/48	49.2/4.7/1.9

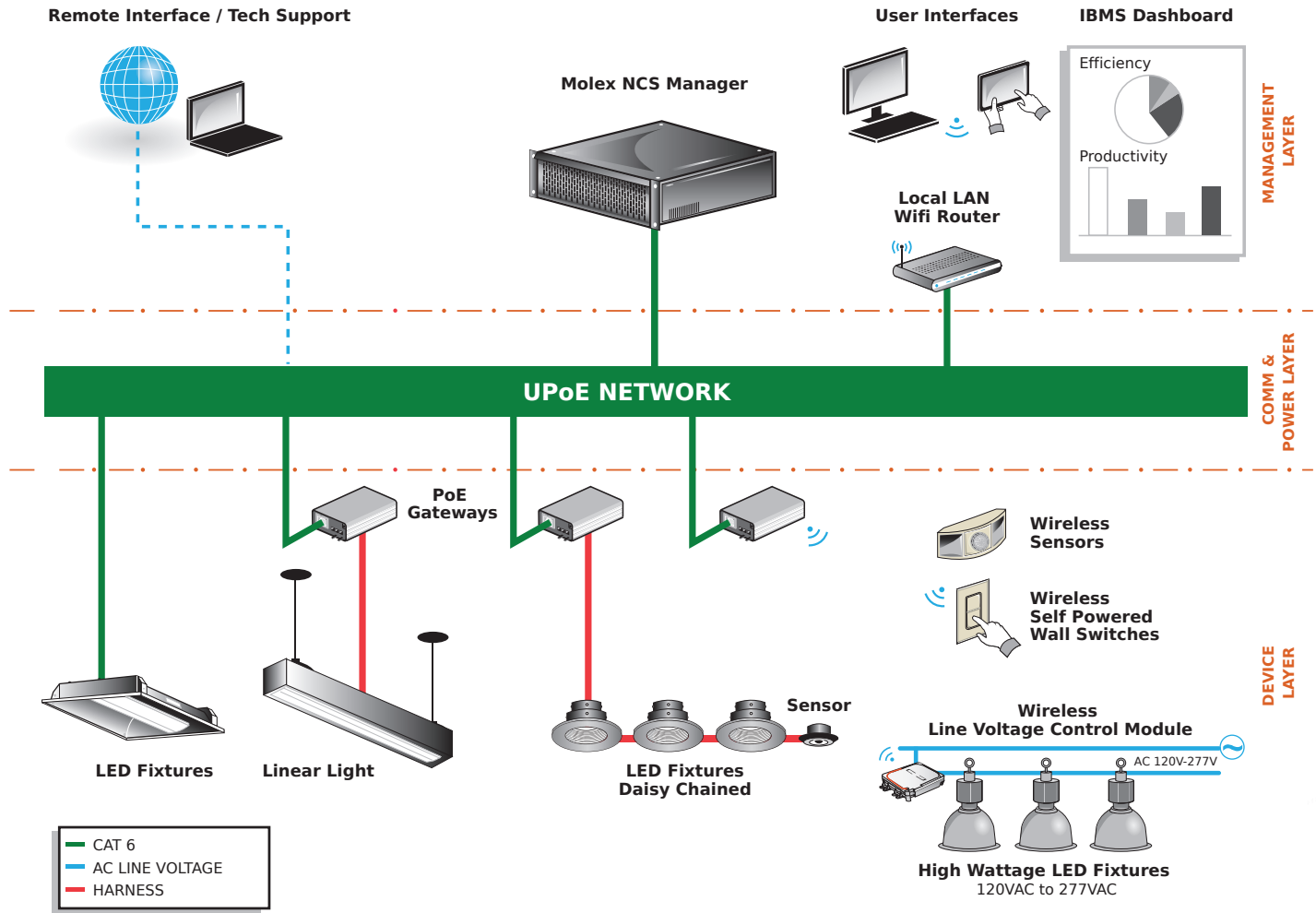| RAY	-	W	-	ID	-	-	-	POE	-	
Type		**Mounting**		**Distribution**		**Length**	**CCT**		**Voltage**	**Color**
Luminous Intensity				Indirect/Direct - ID		(Nominal) -	3000K - 35			Stainless Steel - SS
						2 foot - 2	3500K - 35			White - W
						3 foot - 3	4000K - 40			Black - B
						4 foot - 4	2700 - 6500K - VTL *			Gray - G
							*(Only available in 4ft)			

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Waldmann W

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SYSTEM ARCHITECTURE ❯

Remote Interface / Tech Support

User Interfaces **IBMS Dashboard**

Molex NCS Manager

Efficiency

Productivity

MANAGEMENT LAYER

Local LAN Wifi Router

UPoE NETWORK

COMM & POWER LAYER

PoE Gateways

Wireless Sensors

Wireless Self Powered Wall Switches

DEVICE LAYER

Sensor

Wireless Line Voltage Control Module

AC 120V-277V

LED Fixtures   **Linear Light**

LED Fixtures Daisy Chained

High Wattage LED Fixtures
120VAC to 277VAC

| — CAT 6 |
| — AC LINE VOLTAGE |
| — HARNESS |

WHY PoE LIGHTING?

- Power and data over single-layer infrastructure
- Safe and cost effective to install
- Based on Ethernet standard
- Future proof and upgradable
- Human centric control with tunable luminaires
- Lights can be used to communicate information to users
- Can be integrated with other systems
- Highly secure
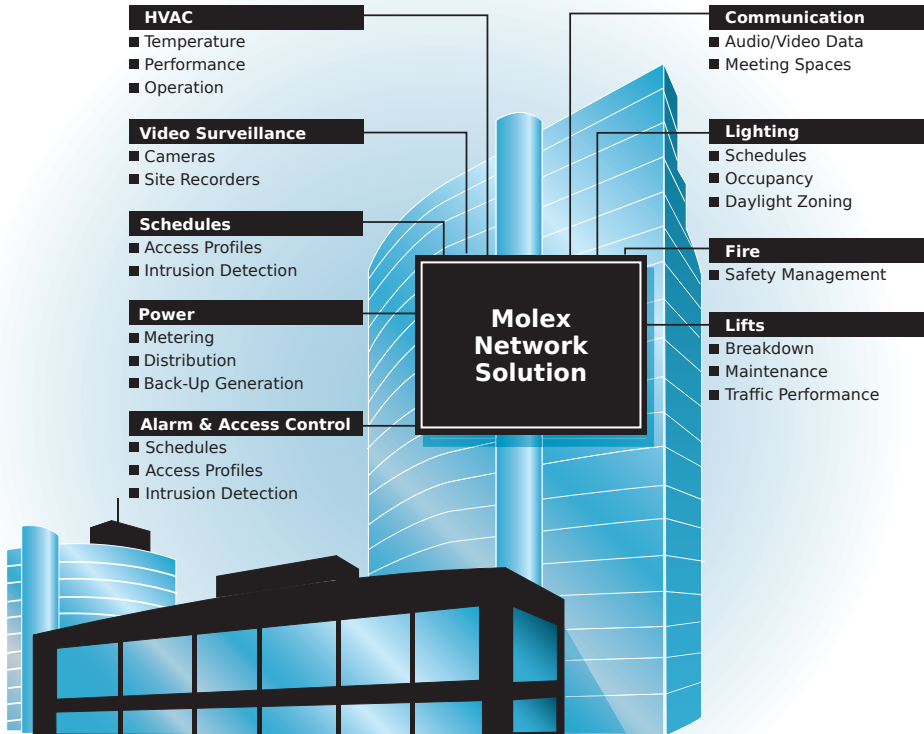- Creates the possibility for new data analytic schemes

Waldmann W

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A NEW LIGHTING PARADIGM ❯

Lighting as a Service for Integrated Smart Buildings

The ability to migrate lighting controls to IP-based infrastructure makes lighting a service and an IoT building asset that can be controlled synergistically along with other building functions.

More integration means not only better control, but also more data and information being collected by a distributed sensor system as part of the lighting network.
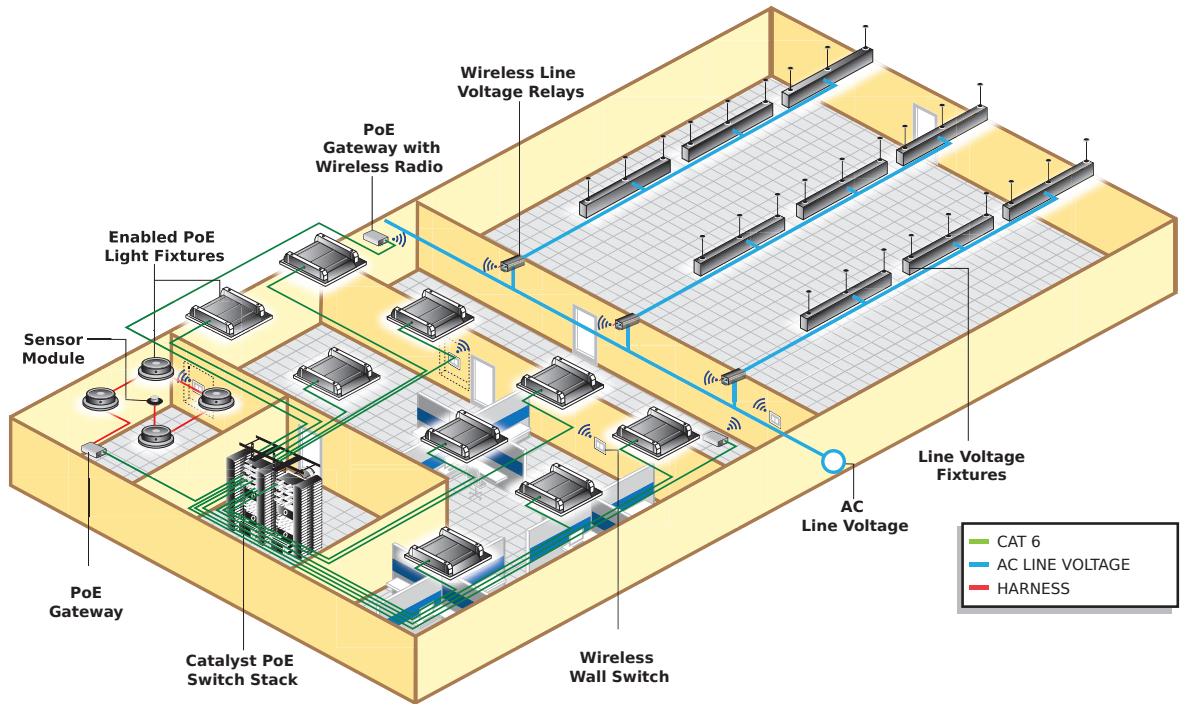
Molex Network Connected Lighting will dramatically accelerate the integration of the IoT into commercial buildings.

HVAC
- Temperature
- Performance
- Operation

Video Surveillance
- Cameras
- Site Recorders

Schedules
- Access Profiles
- Intrusion Detection

Power
- Metering
- Distribution
- Back-Up Generation

Alarm & Access Control
- Schedules
- Access Profiles
- Intrusion Detection

Communication
- Audio/Video Data
- Meeting Spaces

Lighting
- Schedules
- Occupancy
- Daylight Zoning

Fire
- Safety Management

Lifts
- Breakdown
- Maintenance
- Traffic Performance

Molex Network Solution

Efficiency

Occupant Satisfaction

Productivity

Analytics

Space Optimization

WHY MOLEX: *Together with leading construction engineering firms, Molex designs and optimizes solutions to improve operational efficiency and performance and to enhance occupant experience and productivity in offices, learning or healthcare facilities, hospitality, retail settings, industrial buildings, and others.*
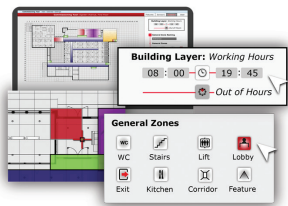
In the important area of LED lighting, we have worked with lighting fixture innovators and leaders, lighting designers and architects to develop connected solutions that define a new level in sustainability, ROI, property value and brand recognition.
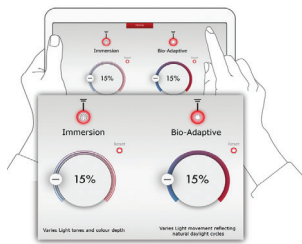
![Waldmann W — ENGINEER OF LIGHT.]

SYSTEM ARCHITECTURE ❯

System architecture diagram labels:

- Wireless Line Voltage Relays
- PoE Gateway with Wireless Radio
- Enabled PoE Light Fixtures
- Sensor Module
- PoE Gateway
- Catalyst PoE Switch Stack
- Wireless Wall Switch
- AC Line Voltage
- Line Voltage Fixtures

Legend:
- CAT 6
- AC LINE VOLTAGE
- HARNESS

Smart Building Manager

DESIGN	CONTROL	MANAGE	REPORT
Define spaces	*Responsive control*	*Live data feedback*	*Energy savings*
Fixtures	*Dynamic scenes*	*Light status*	*Occupancy status*
Sensors	*Intuitive user interfaces*	*Building overview*	*Building analytics*
Create zones		*User zones*	
Schedules			
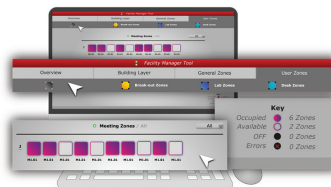
A FULL SYSTEM SOLUTION
WITH THE NCS ALLIANCE ❯

LIGHTS

The freedom to choose from a large variety of Waldmann NCS-ready lighting fixtures through our Alliance Partnership with the Molex Network Connected Solutions PoE system offers unique flexibility to meet lighting requirements without compromising aesthetics.

GATEWAYS

At the heart of the Molex Network Connected System, the PoE Gateway distributes power and connects luminaires, sensors and other devices to the NCS Manager. Each Gateway is connected to a Cisco® switch port with a Category cable, capable of receiving 60 watts using four pairs.

NETWORK EQUIPMENT

As a Cisco® Solution Technology Integrator, Molex integrates Cisco switches into the system.

NCS MANAGER

The Lighting Software Tool-set, leveraging amBX Smart Core technology, provides support during the complete lifecycle of a smart lighting control system, from design and installation to live operation and building maintenance. When compared to traditional methods, the Light Tool-set provides effective lighting in a fraction of the time.
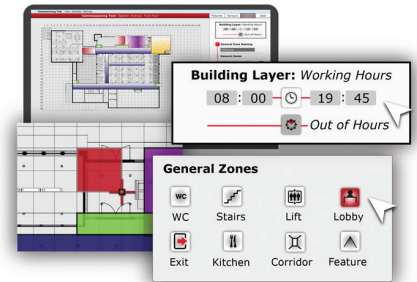
SENSORS

Molex's Lighting Control provides an array of applications that enable the digital building. These applications feed multi-sensor information and data to a central host providing building analytics and applications: real time energy consumption, light status, temperature and humidity, occupancy, air quality, plus many more use cases.

LUX LEVEL **PRESENCE** **AIR QUALITY** **POWER** **COLOR TEMP** **ON/OFF** **TEMPERATURE & HUMIDITY**

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Waldmann [W]

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