



Sensor not activated

# Bi-Level Luminaire

Maximize Energy Savings with Controlled Light Levels

Columbia's **Bi-Level Luminaire** is the perfect solution for stairwells, as well as other low-occupancy areas such as storerooms, restrooms, and parking structures. Part of Columbia's createchange® family, it maximizes energy savings by intelligently managing illumination levels to avoid wasted watts.

Today's stairwell lighting requirements call for increased light levels during occupied times while maintaining minimum level standards while unoccupied. Since most stairwells are required to be lit 24 hours a day and 7 days per week, they never before represented a significant energy saving opportunity. Case studies have shown that stairwell areas in such buildings as hotels, hospitals and offices have occupancy rates on average of 1-7%.

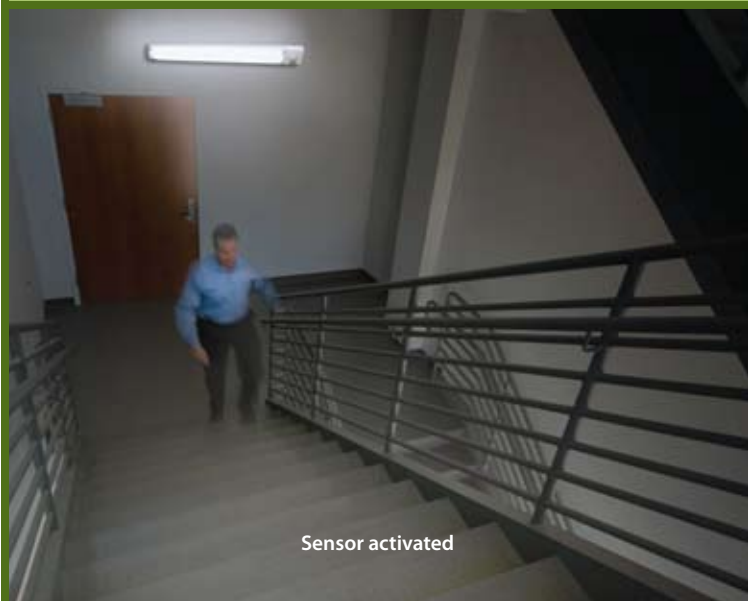
Columbia's **Bi-Level Luminaire** has been designed with the latest lighting technology to meet all the demanding stairwell lighting requirements. The system maximizes energy savings by offering bi-level lighting, which maintains minimum illumination levels when the stairwells are empty.

The **Bi-Level Luminaire** utilizes two 4' T8 lamps controlled by a passive infrared sensor to provide safe and dependable light levels during occupied times while adjusting levels down to acceptable minimum levels during unoccupied times.



## FEATURES

- Energy saving luminaire with integrated occupancy controls
- Bi-level light control offers safety and security
- Ideal for stairwells, parking structures, restrooms and areas where maximum light levels are not needed when area is unoccupied
- Contains a single low wattage 2' T8 lamp for constant light output while the 4' T8 lamps are controlled by an integral occupancy/daylight harvesting sensor
- White aluminum body allows for greater heat dissipation
- Tool-less access to ballast for ease of maintenance
- Can be surface mounted or suspended
- Multiple ballast options available for needed energy savings and light output
- Fail-safe operation switches light level to 100% if sensor is damaged



Sensor activated

## ORDERING INFORMATION

<b>BIL</b>	<b>4</b>	<b>-</b>	<b>2</b>	<b>32</b>	<b>-</b>	<b>U</b>	<b>-</b>
MODEL	SIZE	LAMPS IN CROSS SECTION		LAMP TYPE	PRIMARY BALLAST	VOLTAGE	OPTIONS
BIL Bi-Level Luminaire	4 4'	2 Two		32 4', T8: 32, 30, 28, or 25 Watt and 2', T8: 17 Watt	<b>EP</b> Electronic T8, Programmed Start, 0.88 BF <b>EPLW</b> Electronic T8, Programmed Start, 0.77 BF <b>EPHL</b> Electronic T8, Programmed Start, 1.18 BF	U 120V-277V	<b>EL</b> Emergency Battery Pack, 2' lamp 500 lumens <b>F0730</b> T8 Lamps Installed, 75 CRI, 3000K <b>F0735</b> T8 Lamps Installed, 75 CRI, 3500K <b>F0830</b> T8 Lamps Installed, 82 CRI, 3000K <b>F0835</b> T8 Lamps Installed, 82 CRI, 3500K <b>NYC</b> NYC Compliant <b>NYCU</b> NYC Compliant, Union Label

### ENERGY CHART

Ballast Type	UNOCCUPIED (1) 17 WATT T8 LAMP		OCCUPIED (1) 17 WATT T8 LAMP & (2) 32 WATT T8 LAMPS	
	Watts	Lumens	Watts	Lumens
EP (0.88 BF)	15	989	74	4669
EPLW (0.77 BF)	15	989	62	4208
EPHL (1.18 BF)	15	989	90	5170

### HOUSING

White Aluminum 0.032" thick fixture body

### ELECTRICAL

Standard class "P," thermally protected, auto-resetting HPF ballast, sound rated A. All ballast leads extend a minimum of 6" through access location. NEC/CEC-compliant ballast disconnect is standard.

### LENS

Highly efficient acrylic lens with a linear refractive pattern for even illumination and excellent lamp obscuration.

### OCCUPANCY SENSOR

Hubbell Building Automation Internally mounted Passive Infrared Occupancy/Daylight Harvesting sensor. Fail-safe feature will switch light level to 100% if the sensor is damaged. LED indicator for easy verification of coverage. Lens has a 1500 square-foot, 360° coverage area at a mounting height of 10 ft and a 2:1 radius to height ratio coverage pattern. Sensor includes an adjustable time delay and motion/photocell sensitivity.

### CERTIFICATION

All luminaires are built to UL 1598 standards and bear appropriate UL and cUL or CSA labels. Damp location labeling is standard. Units are UL 924 listed when equipped with optional battery back-up and meet requirements of the life safety code /NFPA101.

### CODE COMPLIANCE

To meet Life Safety Code © NFPA 101, the following conditions must be met:

Excerpted from NFPA 101 Life Safety Code 2009 addition:

**Life Safety Code © NFPA 101 Section 7.8.1.2.2.** Automatic, motion sensor-type lighting switches shall be permitted within the means of egress, provided that the switch controllers are equipped for fail-safe operation, the illumination timers are set for a minimum of 15 minute duration, and the motion sensor is activated by any occupant movement in the area served by the lighting units.

**Life Safety Code © NFPA 101 Section 7.8.1.3.** The floors and other walking surfaces within an exit and within the portions of the exit access and exit discharge shall be illuminated as follows:

- 1) During conditions of stair use, the minimum illumination for new stairs shall be at least 10 ft-candles (108 lux), measured at the walking surfaces.
- 2) The minimum illumination for floors and walking surfaces, other than new stairs during conditions of stair use, shall be to values of at least 1 ft-candle (10.8 lux), measured at the floor.

(Applies to new stairs-either in new construction or in renovation)

### RETRO-FIT CASE STUDY

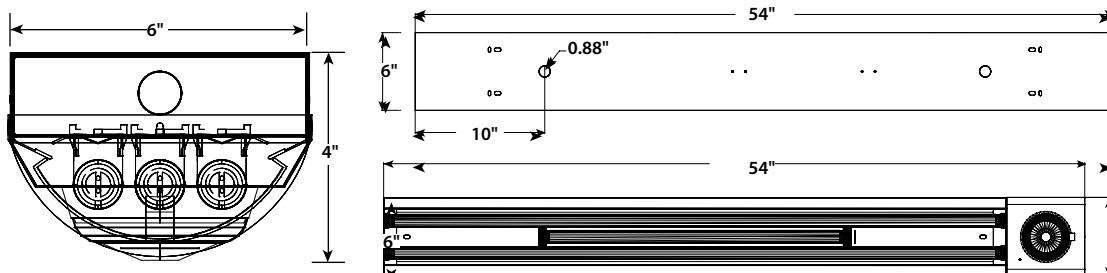
Existing Fixture	2-Lamp 40WT12
Standard Retrofit	2-Lamp 32WT8
Bi-Level Retrofit	BIL4-232-EPLWU

#### ASSUMPTIONS

Operating Hours/Year	8,760
Energy Rate \$/kWh	\$0.10
Number of Fixtures	20

	% Full Output	% Standby Mode	Full Watts/Fixture	Standby Watts/Fixture	Energy Use (kWh/yr)	Energy Savings (kWh/yr)	Energy Savings (%)	Annual cost	Annual savings
No Retrofit	100%	0%	82	n/a	14,366	-	0%	\$1,436.64	\$ -
Standard Retrofit	100%	0%	58	n/a	10,162	4,205	29%	\$1,016.16	\$420.48
BIL Retrofit	20%	80%	62	15	4,275	10,092	70%	\$427.49	\$1,009.15

### DIMENSIONAL DATA



**NOTE:** All dimensions are in inches; dimensions and specifications are subject to change without notice. Please consult factory or check sample for verification.