

S20LV

TRI-LEVEL MOTION SENSOR LED STRIP

OPTIONAL EMERGENCY REMOTE



The S20LV series LED strip lights feature an integrated tri-level microwave motion sensor that regulates light levels according to the occupancy of a space. These luminaires have been specially designed to prevent energy loss and to increase energy savings, by allowing the end-user to sensibly manage the degree of luminosity in applications or spaces that require continuous lighting, such hallways and common areas.

FEATURES & SPECIFICATIONS

CONSTRUCTION

Physical Characteristics

- Sleek and compact design ideal for installation in tight spaces
- 24 gauge white powder painted steel
- Frosted PMMA lens

Mounting

- Surface, suspended or row mounted (see accessories)
- V-Hooks, canopy plate for octagonal junction box and mounting brackets are included

PERFORMANCE DATA

- Integrated tri-level microwave (high frequency) motion sensor
- Optional remote control for quick sensor programming and installation, including making future adjustments as required
- Available in both 4 000 K single color temperature 80+ CRI
- Electrical ratings: 120 - 347 V
- Estimated life of over 155 000 hours to L70
- 2.5 kV surge protection
- Operating temperature: -20 °C to 50 °C (-4 °F to 122 °F)
- Operating temperature with BRIDGE: -20 °C to 25 °C (-4 °F to 77 °F)

OPTIONAL EMERGENCY LIGHTING

BRIDGE Normally ON Emergency Remote Tri-Level Motion Sensor LED Strip

- Consuming 11 W, 12 - 24 V DC
- 200 mA constant current
- Delivers 1 204 lumens in emergency mode
- Ease of maintenance when used with AimLite emergency lighting battery units complete with auto test function
- Complements AimLite's normally ON tri-level motion sensor LED strip family
- Patent pending

Please view the BRIDGE specification section for more details on this technology

EMERGENCY LIGHTING COMPLIANCES

- CSA certified as a C22.2 C141-15 emergency lighting luminaire
- Meets ICES-005 requirements

COMPLIANCES

- cULus listed for damp locations
- DLC Premium and Standard
- Meets requirements of ICES-005 issue 5 class A for use in commercial applications

OVERVIEW			
LIGHT SOURCE	LED	COLOR TEMPERATURE (K)	4 000
WATTS (W)	65	CRI	80+
LUMEN OUTPUT (LM)	8 645	WEIGHT (LBS)	96": 9.04
EFFICACY (LM/W)	133		

Not all products are qualified on the DLC QPL. To view our DLC qualified products, please consult the DLC Qualified Products List at www.designlights.org/search.

¹5 year warranty for the BRIDGE module.

QUICK SHIP AND TECHNICAL SPECIFICATION TABLE



PART NUMBER	WATTS [W]	VOLTS [V AC]	COLOR TEMP. [K] ¹	LUMEN OUTPUT [LM] ²	EFFICACY [LM/W]	CRI	LIFE L70 [HRS] ³	TESTED HOURS LM-80 [HRS] ³	POWER FACTOR	THD [%]	CASE QTY [MASTER]
96"											
S20LV-96LA1-32/40K	65	120-347	4 000	8 645	133	80+	190 000	9 000	0.90	10	1

¹ Typical color temperature range: +/- 5 %.

² Lumen values are derived from photometric testing. Initial lumens range: +/- 10 %.

³ Life hours are derived from IESNA LM-80-08 testing report and projected per IESNA TM-21-11 extrapolations.

DLC UNIQUE ID TABLE

PART NUMBER	DLC PREMIUM UNIQUE ID ¹	DLC STANDARD UNIQUE ID ²
S20LV-96LA1-32/40K	S-J31BQ7	PLD71V3CX8ZE

¹ Primary Use Designation: Stairwell And Passageway Luminaires

² Primary Use Designation: Direct Linear Ambient Luminaires

ORDERING GUIDE

S20LV	—	L	—	/	/	
SERIES	SIZE	LAMP TYPE	LUMEN PACKAGE [W] ¹	VOLTS [V]	COLOR TEMP. [K]	OPTIONS
S20LV	96 - 96"	L - LED	A1 - 65	32- 120-347	40K - 4 000	EL- BRIDGE NORMALLY ON EMERGENCY REMOTE ^{2,3}

¹ See IES files or Lumen Specification Table for details.

² In Emergency Mode, half of the 96" luminaire will remain illuminated.

³ When in emergency mode, luminaire only consumes 11 W.

For emergency lighting spacing, please see page 5.

BRIDGE TECHNICAL SPECIFICATION TABLE

SIZE	LUMEN PACKAGE	WATTS [W]	BRIDGE WATTS [W]	BRIDGE LUMEN OUTPUT [LM]
96"	LA1	65	11	1 204

ACCESSORIES [ORDER SEPARATELY]

PART NUMBER	TYPE
BKT347-A	SUSPENSION KIT - 2 CHAINS (1 METRE)
BKT813-A	CONTINUOUS ROW MOUNTING CONNECTOR
LEN376-8-A	REPLACEMENT LENS 96"
WGD076-8-H-A	WIREGUARD KIT 96"
OSI-RC-MH02	REMOTE CONTROL FOR MOTION SENSOR

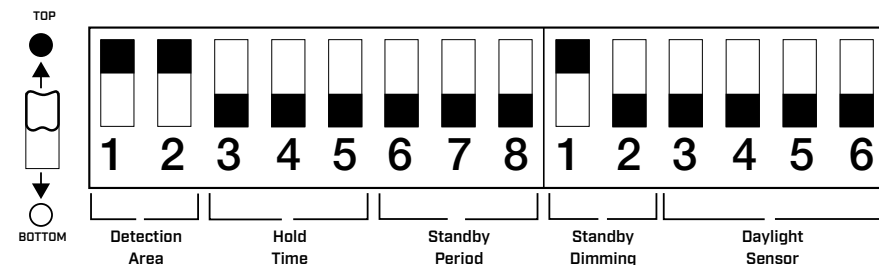
CONTINUOUS ROW MOUNTING FEATURE

The S20LV series luminaires can be continuously row mounted [daisy-chained] together with S20NS series luminaires. The integrated microwave motion sensor in the S20LV luminaires will also control the S20NS luminaires. Refer to the installation guide for proper wiring instructions.

Recommended luminaire pairings:

S20LV SERIES PART NUMBER	S20NS SERIES PART NUMBER	WATTS [W]	CONTINUOUS ROW MOUNTING MAXIMUM	
			120 V	347 V
S20LV-96LA1-32/40K	S20NS-96LA1-32/40K	65	6 LUMINAIRES (1 S20LV + 5 S20NS)	17 LUMINAIRES (1 S20LV + 16 S20NS)

PROGRAMMING SETTINGS



DEFAULT PROGRAMMING

Detection Area: 100%
Hold Time: 30 min
Standby Period: +∞
Standby Dimming: 20%
Daylight Sensor: Disable

DETECTION PATTERN

Detection Distance	12m x 8m [Max.]
Detection Angle - Wall Mounting	150°
Detection Angle - Ceiling Mounting	360°

SENSOR ON-OFF DIMMING SETTING OPTIONS

DETECTION AREA

The detection area can be reduced by selecting the combination on the DIP switches to fit precisely each application.

DIP Switch Options: 100% - 75% - 50% - 25%

Remote Control Options: 100% - 75% - 50% - 25%

	1	2
100%	●	●
75%	●	○
50%	○	●
25%	○	○

HOLD TIME

The time period the luminaire remains at 100% illumination after no motion is detected.

DIP Switch Options: 8s - 30s - 1 min - 5 min - 10 min - 15 min - 30 min

Remote Control Options: 8s - 1 min - 5 min - 15 min - 30 min

	3	4	5
8 s	●	●	●
30 s	●	○	●
1 min	○	●	●
5 min	●	○	○
10 min	○	●	○
15 min	○	○	●
30 min	○	○	○

STANDBY PERIOD

The time period the luminaire remains at a low light output level before it completely switches off in the long absence of motion. When set to Disable mode, the low light is maintained until motion is detected (Bi-Level).

DIP Switch Options: 0s - 1 min - 3 min - 5 min - 10 min - 30 min - +∞ [DISABLE]

Remote Control Options: 0s - 1 min - 5 min - 30 min - +∞ [DISABLE]

Note: "0s" means on/off control;

"+∞" means bi-level dimming control, luminaire never switches off when daylight sensor is disabled.

	6	7	8
0 s	●	●	●
1 min	●	○	●
3 min	○	●	●
5 min	●	○	○
10 min	○	●	○
30 min	○	○	●
+ ∞	○	○	○

STANDBY DIMMING LEVEL

The level of dimmed low light output after the hold time in the long absence of motion.

DIP Switch Options: 10% - 20% - 30% - 40%

Remote Control Options: 10% - 20% - 30% - 40% - 50%

	1	2
10%	●	●
20%	●	○
30%	○	●
40%	○	○

DAYLIGHT SENSOR

The daylight threshold can be captured and configured on the DIP switches to fit a particular application.

DIP Switch Options: 5 lux - 15 lux - 30 lux - 50 lux - 100 lux - 150 lux - +∞ [DISABLE]

Remote Control Options: 5 lux - 15 lux - 50 lux - 150 lux - +∞ [DISABLE]

	3	4	5	6
5 lux	●	●	●	●
15 lux	○	●	●	●
30 lux	●	○	●	●
50 lux	○	○	●	●
100 lux	●	●	○	●
150 lux	●	●	●	○
+ ∞	○	○	○	○

BRIDGE

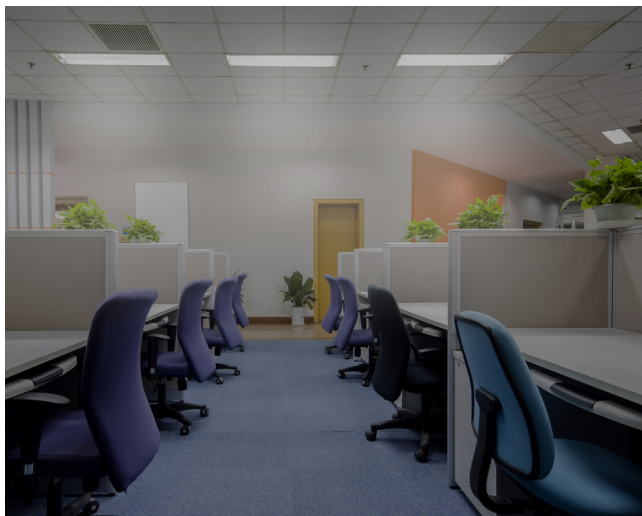
NORMALLY ON EMERGENCY REMOTE LUMINAIRE

This luminaire can be used with an emergency backup powered by either a 12 V or 24 V DC AimLite battery unit, complete with or without auto test.

NORMAL MODE



EMERGENCY MODE



TYPICAL SPECIFICATION

Supply and install AimLite BRIDGE ____ft, tri-level motion sensor LED strip, Model number: _____ remote normally ON emergency luminaire, CSA C22.2 141-15 certified and meet the requirements prescribed by ICES-005. Normally ON when AC is present and when connected to an AimLite battery unit complete with or without auto test, the luminaire shall act as an emergency lighting remote and consume 11 W of DC power in ____ V producing 1 204 - 1 300 lumens in emergency mode.

The remote normally ON emergency luminaire shall be powered by an AimLite emergency lighting battery unit as described herein and shown on the drawings. The AimLite auto diagnostic micro-controller board shall supply the rated load for a minimum of a 1/2 hour to 87.5% of the rated battery voltage. The unit shall be rated 120 V, 277 V or 347 V, 60 Hz and be CSA listed. The unit shall have an output of: ____V and ____W.

The charge voltage factory set to $\pm 1\%$ tolerance. High efficiency, rapid recovery, precision control charging system shall be employed to promote long battery life and reduce the potential for grid corrosion. The charger shall provide a continuous high charge to recharge the battery, when the battery is at full capacity, the charger will shut-off. Periodically the charger shall provide a pulse of energy to keep the battery topped off. The pulse charger shall be precisely regulated and shall charge the battery in relation to its temperature, state of charge and input voltage fluctuations. The charger shall be current limited, temperature compensated, short-circuit proof and reverse polarity protected. The unit shall be furnished with an electronic lockout circuit, which will connect the battery when the AC circuit is activated, and an electronic brownout circuit, which will activate the emergency lights when utility power dips below 75% of nominal voltage. A low voltage battery protection circuit shall be provided and will disconnect the load when the battery reaches the end of discharge.

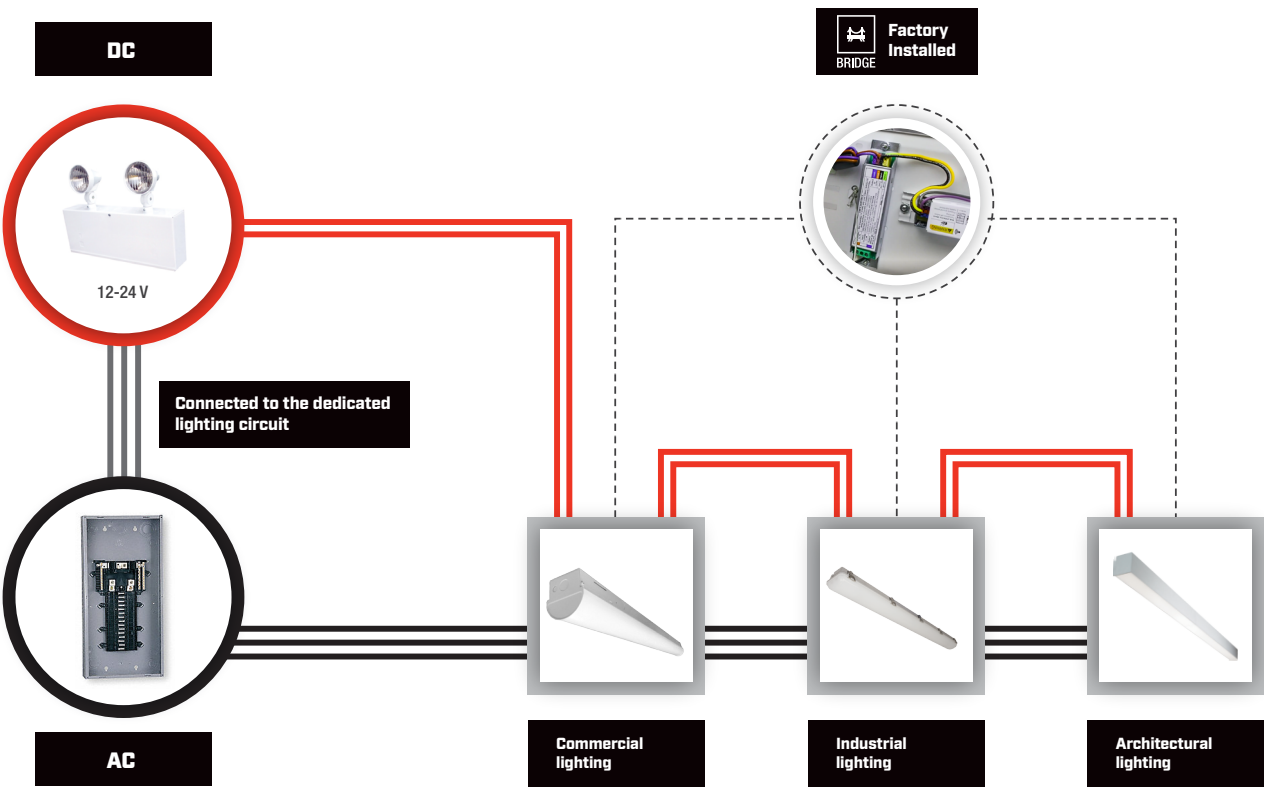
The automated testing performed by the AimLite auto test system has been designed to comply with all of the requirements of the National Fire Code. Every month, a 5 minute discharge and diagnostic test checks the operational status of the unit. Every 12 months, this test is extended to the full 30 minute, code required duration. This ensures that the battery charger is recharging the battery in accordance with code requirements.

The unit shall be AimLite model: EBST _____

Data is based upon tests performed in a controlled environment. Actual performance can vary depending on operating conditions. All products are subject to change or may be discontinued any time without notice.

BRIDGE
NORMALLY ON EMERGENCY REMOTE LUMINAIRE

BRIDGE WIRING DIAGRAM



LEGEND

AC wires	Connected to the dedicated lighting circuit	DC wires	BRIDGE Factory Installed
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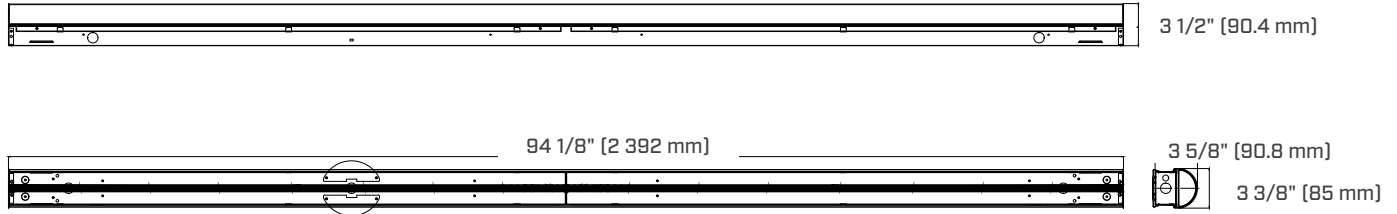
Emergency mode	Spacing
S20LV	Average spacing for 1 out of every 4 luminaires, normally ON in the path of egress, when at 8, 10, or 12 foot mounting heights.

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S20LV

DIMENSIONS

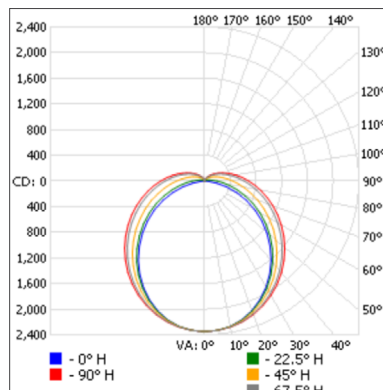
96"



GENERAL LIGHTING PHOTOMETRIC DATA¹

S20LV-96LA1-32/40K • 8 638.7 LM

POLAR CANDELA DISTRIBUTION



ZONAL LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0-30	1 819.8	20.1%
0-40	2 984.9	34.6%
0-60	5 377.5	62.2%
60-90	2 301.2	26.6%
70-100	1 669.0	19.3%
90-120	755.0	8.7%
0-90	7 678.8	88.9%
90-180	959.9	11.1%
0-180	8 638.7	100%

ILLUMINANCE AT A DISTANCE

CENTER BEAM FC		BEAM WIDTH	
1.7'	812	4.4'	8.5'
3.3'	216	8.6'	16.5'
5.0'	93.9	13.1'	25.0'
6.7'	52.3	17.5'	33.5'
8.3'	34.1	21.7'	41.5'
10.0'	23.5	26.1'	50.0'

■ Vert. Spread: 105.2° ■ Hor. Spread: 136.4°

¹Complete IES files available on our website

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