

S20TR

TRI-LEVEL MOTION SENSOR LED STRIP

3 CCT AND 3 POWER SELECTABLE OPTIONAL EMERGENCY REMOTE

The S20TR series of LED strips feature an integrated tri-level microwave motion sensor, preventing energy loss and increasing energy savings. These luminaires feature a rounded lens that evenly diffuses the light and an innovative housing designed for quick and easy installation. The S20TR series is the perfect choice for applications requiring continuous lighting, such hallways, common areas, parkades and stairwells.



FEATURES & SPECIFICATIONS

CONSTRUCTION

Physical Characteristics

- Sleek two-part housing design with tool-less entry
- Safety cables placed between lens compartment and housing for easy installation and maintenance
- CCT and Power Selectable switches are placed discretely inside the housing
- 24 gauge white powder painted steel
- Frosted PMMA lens

Mounting

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

- Integrated tri-level microwave (high frequency) motion sensor
- Available in 3 500/4 000/5 000 K selectable color temperature
- 80+ CRI
- Electrical ratings: 120-347 V
- Estimated life of over 156 000 hours to L70
- 2.5 kV surge protection
- Operating temperature: -20 °C to 50 °C (-4 °F to 122 °F)
- Operating temperature with BRIDGE or Emergency battery backup: -20 °C to 25 °C (-4 °F to 77 °F)

OPTIONAL EMERGENCY LIGHTING

BRIDGE Normally ON Emergency Remote LED Strip

- Consuming 11 W, 12 - 24 VDC
- 200 mA constant current
- Delivers 1 222 - 1 344 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 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

COMPLIANCE

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

PERFORMANCE DATA

OVERVIEW			
LIGHT SOURCE	LED	EFFICIENCY (LM/W)	131 - 155
WATTS (W)	20, 56	COLOR TEMPERATURE (K)	3 500/4 000/5 000
	18/25/30		
	25/30/40		
	34/38/45		
LUMEN OUTPUT (LM)	2 520 - 12 780	CRI	80+
<div>        </div> <div>       </div>			

¹ 5 year warranty for the BRIDGE module.

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.

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.

QUICK SHIP ORDERING GUIDE



PART NUMBER	WATTS [W]	VOLTS [V AC]	COLOR TEMP. [K] ¹	LUMEN OUTPUT [LM]	EFFICACY [LM/W]	CRI	LIFE L70 [HRS] ⁴	TESTED HOURS LM-80 [HRS] ⁴	PF	THD [%]	MASTER CASE QTY
24" CCT SELECTABLE											
S20TR-24LA1-32/3C	20	120-347	3 500/4 000/5 000	2 640 ²	132	80+	156 000	10 000	0.90	10	6
36" CCT AND POWER SELECTABLE											
S20TR-36LP30-32/3C	18/25/30	120-347	3 500/4 000/5 000	2 700/3 650/4 260 ³	132	80+	156 000	10 000	0.90	10	6
48" CCT AND POWER SELECTABLE											
S20TR-48LP40-32/3C	25/30/40	120-347	3 500/4 000/5 000	3 875/4 500/5 680 ³	132	80+	156 000	10 000	0.90	10	6
S20TR-48LP45-32/3C	34/38/45	120-347	3 500/4 000/5 000	5 270/5 776/6 660 ³	138	80+	156 000	10 000	0.90	10	6
48" CCT SELECTABLE											
S20TR-48LA2-32/3C	56	120-347	3 500/4 000/5 000	7 392 ²	132	80+	156 000	10 000	0.90	10	6
96" CCT AND POWER SELECTABLE											
S20TR-96LP90-32/3C	65/75/90	120-347	3 500/4 000/5 000	9 750/11 100/12 780 ³	135	80+	156 000	10 000	0.90	10	1

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

² Lumen values are derived from DLC reported data at 3 500 K. Please refer to the LUMEN SPECIFICATION TABLE for more details on other color temperatures.

³ Lumen values are based on 4 000 K default programming. Please refer to the LUMEN SPECIFICATION TABLE for more details on other color temperatures.

⁴ 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
S20TR-24LA1-32/3C	S-40P59R	S-32BE0S
S20TR-36LP30-32/3C	S-YAN8V6	S-NEZY87
S20TR-48LP40-32/3C	S-HPOBJY	S-JNU5X6
S20TR-48LP45-32/3C	S-3BOGER	S-K1G28F
S20TR-48LA2-32/3C	S-81HSD6	S-ZNVW1K
S20TR-96LP90-32/3C	S-PVJXWQ	S-RPUIYD

¹ Primary Use Designation: Stairwell And Passageway Luminaires

² Primary Use Designation: Direct Linear Ambient Luminaires

LUMEN SPECIFICATION TABLE

PART NUMBER	WATTS [W]	3 500 K		4 000 K		5 000 K	
		LUMEN OUTPUT [LM]	EFFICACY [LM/W]	LUMEN OUTPUT [LM]	EFFICACY [LM/W]	LUMEN OUTPUT [LM]	EFFICACY [LM/W]
S20TR-24LA1-32/3C	20	2 640	132	2 800	140	2 640	132
	18	2 520	140	2 700	150	2 556	142
S20TR-36LP30-32/3C	25	3 400	136	3 650	146	3 450	138
	30	3 960	132	4 260	142	4 020	134
S20TR-48LP40-32/3C	25	3 625	151	3 875	155	3 675	147
	30	4 200	140	4 500	150	4 260	142
	40	5 280	132	5 680	142	5 360	134
S20TR-48LP45-32/3C	34	4 930	145	5 270	155	4 998	147
	38	5 396	142	5 776	152	5 472	144
	45	6 210	138	6 660	148	6 300	140
S20TR-48LA2-32/3C	56	7 392	132	7 784	139	7 336	131
S20TR-96LP90-32/3C	65	9 100	140	9 750	150	9 230	142
	75	10 350	138	11 100	148	10 500	140
	90	12 150	135	12 780	142	12 060	134

DEFAULT PROGRAMMING

S20TR-24LA1-32/3C: 4 000 K

S20TR-36LP30-32/3C: 30 W / 4 000 K

S20TR-48LP40-32/3C: 40 W / 4 000 K

S20TR-48LP45-32/3C: 45 W / 4 000 K

S20TR-48LA2-32/3C: 4 000 K

S20TR-96LP90-32/3C: 75 W / 4 000 K

ORDERING GUIDE

S20TR		L				
SERIES	SIZE	LAMP TYPE	LUMEN PACKAGE [W] ¹	VOLTS [V]	COLOR TEMP. [K]	OPTIONS
S20TR	24 - 24"	L - LED	A1 - 20	32 - 120 - 347 2 - 120 - 277 ²	3C - 3 500/4 000/5 000	EL - BRIDGE NORMALLY ON EMERGENCY REMOTE ^{3,4} DL - 8 W EMERGENCY BATTERY BACKUP (120-277 V ONLY) ⁵
	48 - 48"		P40 - 25/30/40 P45 - 34/38/45			
	96 - 96"		A2 - 56 P90 - 65/75/90			

¹See IES files or LUMEN SPECIFICATION TABLE for details.

²Only available for 48" and 96" luminaires when used with DL option.

³When in Emergency Model with EL option, half of the 96" luminaire will remain illuminated.

⁴When in Emergency Mode with EL option, luminaire only consumes 11 W.

For emergency lighting spacing with EL option, please see page 8.

⁵Only available for 48" and 96" luminaires in 120-277 V.

BRIDGE TECHNICAL SPECIFICATION TABLE

SIZE	LUMEN PACKAGE	WATTS [W]	BRIDGE WATTS [W]	BRIDGE LUMEN OUTPUT [LM]
24"	LA1	20	11	1 257
48"	LP40	25		1 294
		30		1 291
		40		1 222
		34		1 344
	LP45	38		1 322
		45		1 268
		56		1 223
	LA2	65		1 295
96"	LP90	75		1 241
		90		1 242

EMERGENCY BATTERY BACKUP SPECIFICATION TABLE

SIZE	LUMEN PACKAGE	WATTS [W]	EMERGENCY BATTERY BACKUP WATTS [W]	EMERGENCY BATTERY BACKUP LUMEN OUTPUT [LM]
48"	LP40	25	8	1 035
		30		1 033
		40		978
	LP45	34		1 075
		38		1 057
		45		1 014
	LS2	56		965
		65		1 036
96"	LP90	75		993
		90		994

DISCHARGE TIME [MIN.]	≥ 90
RECHARGE TIME [HRS]	≥ 24



Standard placement of the test switch and indicator light is on the end cap of the luminaire. For alternative placement, please contact your AimLite customer service representative.

ACCESSORIES (ORDER SEPARATELY)

PART NUMBER	TYPE
BKT347-A	SUSPENSION KIT - 2 CHAINS (1 M)
KIT-STRIPS-AC10	10' AVIATION CABLE KIT WITH CANOPY, POWER CORD & DIMMING WIRES
BKT918	CONTINUOUS ROW MOUNTING CONNECTOR
BKT912	TRANSPARENT END CAPS (SET OF 2)
OSI-RC-H003R	REMOTE CONTROL FOR MOTION SENSOR
WGD912-2FT	WIRE GUARD KIT 24"
WGD912-4FT	WIRE GUARD KIT 48" ¹
LEN403-2	REPLACEMENT LENS 24"
LEN403-3	REPLACEMENT LENS 36"
LEN403-4	REPLACEMENT LENS 48"
LEN403-8	REPLACEMENT LENS 96"

¹ For 96" luminaires, order 2 units.

INCLUDED IN THE BOX



V-HOOKS



CANOPY PLATE FOR
OCTAGONAL
JUNCTION BOX

TRANSPARENT END CAPS

Our transparent end caps accessory is the perfect option for creating a seamless and consistent run of light when the S20TR LED strips are mounted in a continuous row. This accessory can also be used for regular installations (non-row mounted) to create a unique and pleasant 360° illumination!



TRANSPARENT
END CAPS

STANDARD
END CAPS



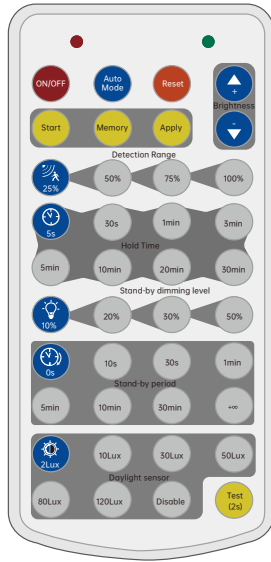
SENSOR DAISY CHAIN FUNCTION

The S20TR series can be daisy chained together with S20RS series luminaires. The integrated microwave motion sensor in the S20TR will also control the S20RS luminaires. They can either be installed in a continuous row or can be placed up to 2 m apart from one another. Refer to the installation guide for proper wiring instructions.

Recommended luminaire pairings:

S20TR SERIES	S20RS SERIES	DAISY CHAIN MAXIMUM
PART NUMBER	PART NUMBER	
S20TR-24LA1-32/3C	S20RS-24LA1-32/3C	10 LUMINAIRES (1 S20TR + 9 S20RS)
S20TR-36LP30-32/3C	S20RS-36LP30-32/3C	10 LUMINAIRES (1 S20TR + 9 S20RS)
S20TR-48LP40-32/3C	S20RS-48LP40-32/3C	10 LUMINAIRES (1 S20TR + 9 S20RS)
S20TR-48LP45-32/3C	S20RS-48LP45-32/3C	10 LUMINAIRES (1 S20TR + 9 S20RS)
S20TR-48LA2-32/3C	S20RS-48LA2-32/3C	10 LUMINAIRES (1 S20TR + 9 S20RS)
S20TR-96LP90-32/3C	S20RS-96LP90-32/3C	5 LUMINAIRES (1 S20TR + 4 S20RS)

SENSOR PROGRAMMING AND SETTINGS OPTIONS



BUTTON	FUNCTION	DETAILS
	ON/OFF	1. The "ON/OFF" button functions only to turn the luminaire ON or OFF. 2. If this button is pressed to turn off the luminaire before a short-circuit, the luminaire will remain turned off once the power is restored.
	Auto Mode	When the "Auto Mode" button is pressed, the sensor starts to work and all sensor settings will remain the same as before the luminaire was turned ON/OFF.
	Reset	When the "Reset" button is pressed, the sensor settings will return to the factory default settings: Brightness: 100% / Detection Area: 100% / Hold Time: 5 sec. / Standby Period: Disable / Daylight Threshold: Disable
	Detection Area	The defined area in which movement will trigger the motion sensor. Options: 25% / 50% / 75% / 100%
	Hold Time	The time period the luminaire remains at 100% illumination after no motion is detected. Options: 5 sec. / 30 sec. / 1 min. / 3 min. / 5 min. / 10 min. / 20 min. / 30 min.
	Standby Dimming Level	The level of dimmed low light output after the Hold Time in the long absence of motion. Options: 10% / 20% / 30% / 50%
	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). Note: "0 sec." means ON/OFF control. "+∞" means Bi-Level dimming control; the luminaire never turns off. Options: 0 sec. / 10 sec. / 30 sec. / 1 min. / 5 min. / 10 min. / 30 min. / +∞ [Disable]
	Daylight Threshold	The sensor will function whenever the ambient lux level is lower than the selected lux value. When set to "Disable" mode, the sensor will continuously function regardless of the ambient lux level. Options: 2 lux / 10 lux / 30 lux / 50 lux / 80 lux / 120 lux / Disable
	Test Mode	The button "Test (2s)" is used for testing purposes after sensor programming. When the button is pressed, the sensor enters into "Test Mode" and the luminaire will remain ON for 2 seconds.

NOTE:

- A remote control (sold separately - part number: OSI-RC-HD03R) is required to modify sensor programming.
- A single remote control can be used to program multiple sensors.
- Depending on the application, the Detection Area setting of the sensor may need to be reduced for proper detection.
- For optimal performance, the luminaire must be installed on a solid surface or structure, free from shaking and vibrations.
- To prevent sensor malfunction and false triggering, avoid installing the luminaire near areas of high vibration, such as large machinery, fans, HVAC systems and motors, as well as large metal objects and surfaces.

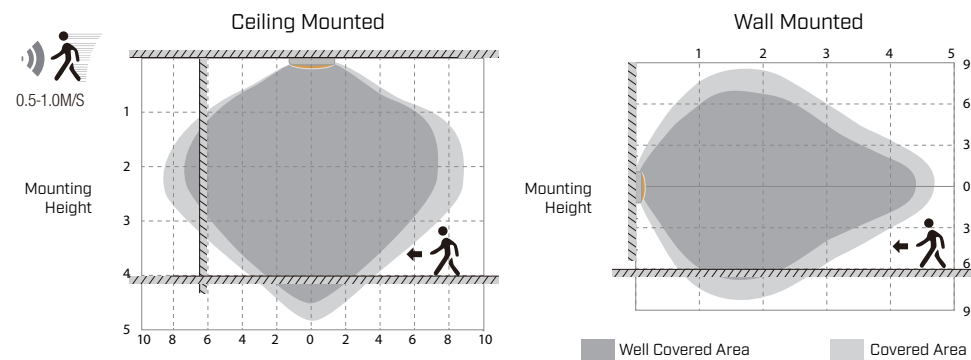
SENSOR DEFAULT PROGRAMMING

Detection Area	100%
Hold Time	10 min.
Standby Dimming Level	50%
Standby Period	10 min.
Daylight Threshold	Disable

SENSOR MOUNTING AND DETECTION PATTERN

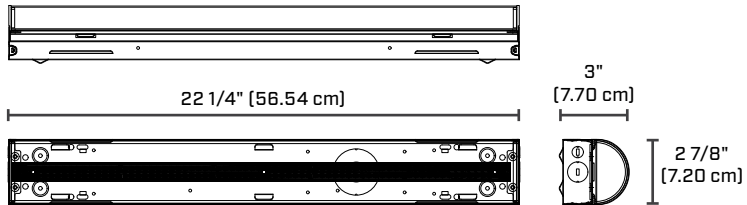
Mounting Height	14.76 ft (4.5 m) max.
Detection Range	9.84 - 22.96 ft (3 - 7 m)
Detection Angle - Ceiling Mounted	360 °
Detection Angle - Wall Mounted	150 °

SENSOR DETECTION COVERAGE

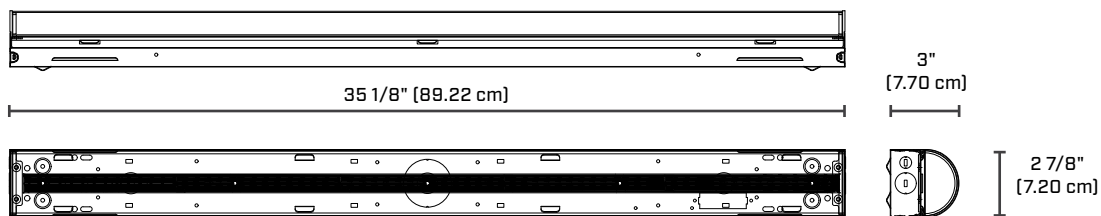


DIMENSIONS AND WEIGHT

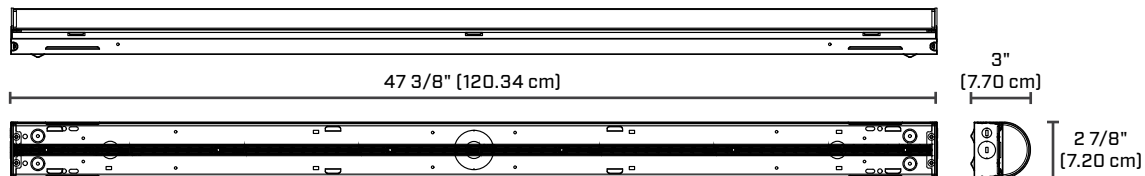
24"



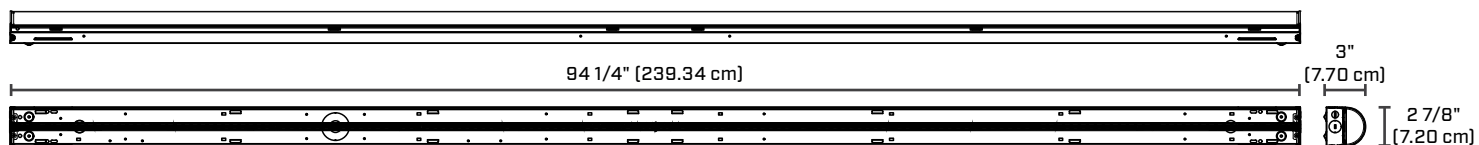
36"



48"



96"



	24"	36"	48"	96"
NET WEIGHT [LBS]	2.6	3.5	4.4	8.5

BRIDGE

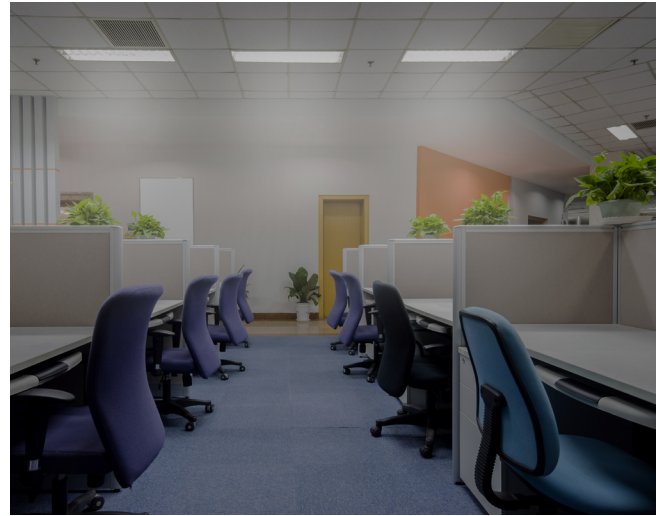
NORMALLY ON EMERGENCY REMOTE LUMINAIRE

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, 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 a 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 1 222 - 1 344 lumens in emergency mode.

The remote normally ON emergency luminaire shall be powered by a 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.

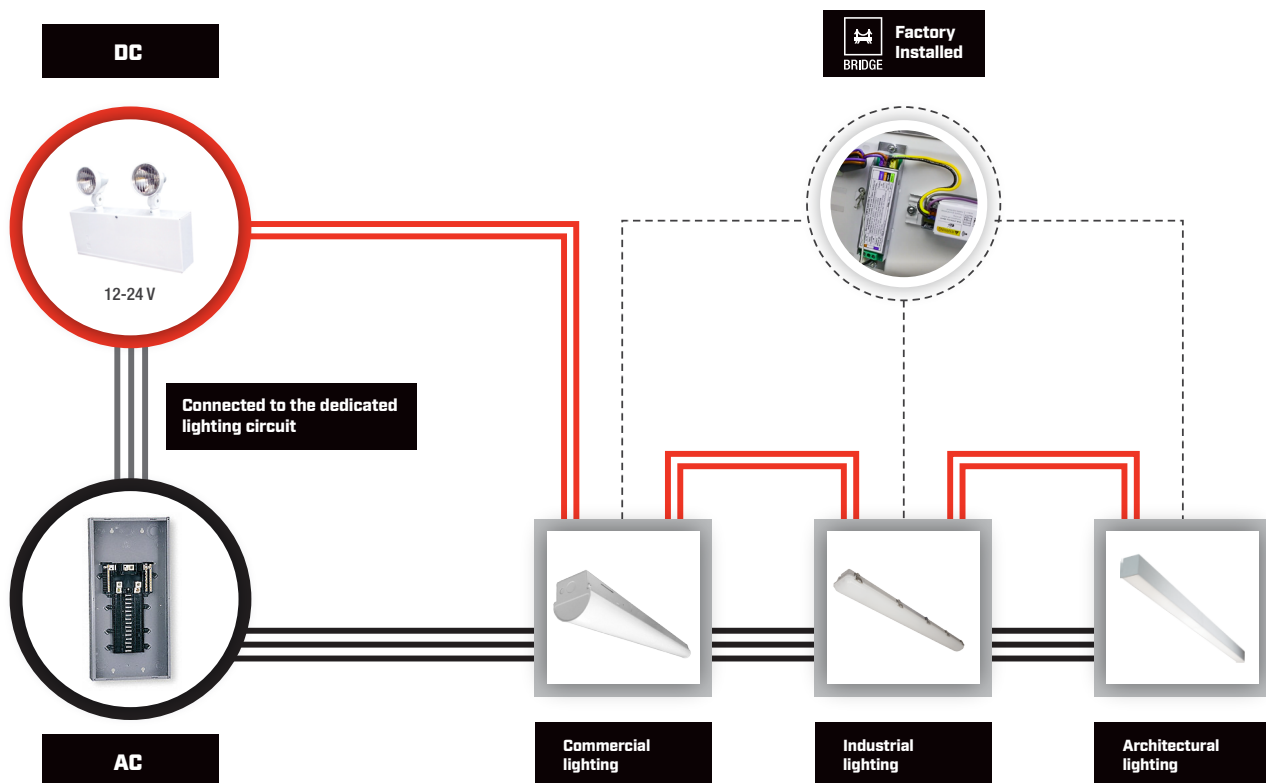
The charge voltage factory set to $\pm 1\%$ tolerance. High efficiency, rapid recovery, precision control charging system shall be employed to promote long battery life and reduce the potential for grid corrosion. The charger shall provide a continuous high charge to recharge the battery, when the battery 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 _____

BRIDGE NORMALLY ON EMERGENCY REMOTE LUMINAIRE

BRIDGE WIRING DIAGRAM



LEGEND

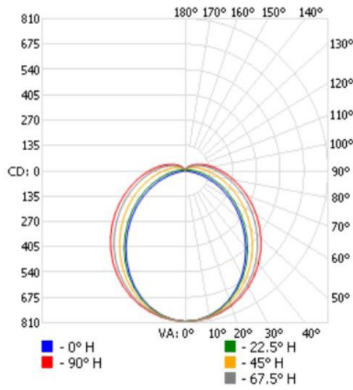
	AC wires		Connected to the dedicated lighting circuit		DC wires		BRIDGE Factory Installed
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Emergency mode	Spacing
S20TR	Average spacing for 1 out of every 4 luminaires, normally ON in the path of egress, when at 8, 10, or 12 foot mounting heights.

PHOTOMETRIC DATA¹

S20TR-24LA1-32/3C • 4 000 K • 2 798.0 LM


POLAR CANDELA DISTRIBUTION



ZONAL LUMEN SUMMARY

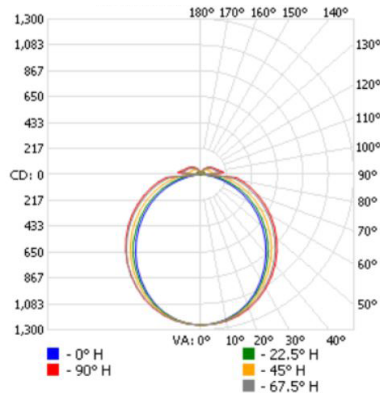
ZONE	LUMENS	% FIXTURE
0-30	619.8	22.1%
0-40	1 014.3	36.3%
0-60	1 810.2	64.7%
60-90	721.4	25.8%
70-100	506.4	18.1%
90-120	215.5	7.7%
0-90	2 531.6	90.5%
90-180	266.4	9.5%
0-180	2 798.0	100%

ILLUMINANCE AT A DISTANCE

CENTER BEAM FC			BEAM WIDTH	
1.7'	277		4.1'	7.8'
3.3'	73.6		8.0'	15.1'
5.0'	32.1		12.2'	22.9'
6.7'	17.9		16.3'	30.7'
8.3'	11.6		20.2'	38.1'
10.0'	8.02		24.3'	45.9'
<div><div></div> Vert. Spread: 101.2°<div></div> Hor. Spread: 132.9°</div>				

S20TR-36LP30-32/3C • 30 W • 4 000K • 4 256.2 LM


POLAR CANDELA DISTRIBUTION



ZONAL LUMEN SUMMARY

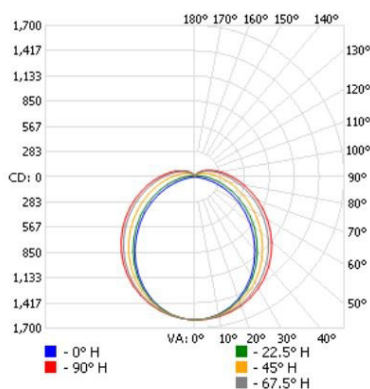
ZONE	LUMENS	% FIXTURE
0-30	976.0	22.9%
0-40	1 598.3	37.6%
0-60	2 859.3	67.2%
60-90	1 018.8	23.9%
70-100	604.9	14.2%
90-120	245.2	5.8%
0-90	3 878.2	91.1%
90-180	378.0	8.9%
0-180	4 256.2	100%

ILLUMINANCE AT A DISTANCE

CENTER BEAM FC			BEAM WIDTH	
1.7'	436		4.5'	6.7'
3.3'	116		8.7'	12.9'
5.0'	50.4		13.2'	19.6'
6.7'	28.1		17.7'	26.3'
8.3'	18.3		22.0'	32.6'
10.0'	12.6		26.5'	39.2'
<div>■ Vert. Spread: 105.8° ■ Hor. Spread: 126.0°</div>				

S20TR-48LP40-32/3C • 40 W • 4 000 K • 5 675.6 LM

POLAR CANDELA DISTRIBUTION



ZONAL LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0-30	1 243.7	21.9%
0-40	2 036.9	35.9%
0-60	3 642.1	64.2%
60-90	1 469.0	25.9%
70-100	1 036.0	18.3%
90-120	448.9	7.9%
0-90	5 111.1	90.1%
90-180	564.5	9.9%
0-180	5 675.6	100%

ILLUMINANCE AT A DISTANCE

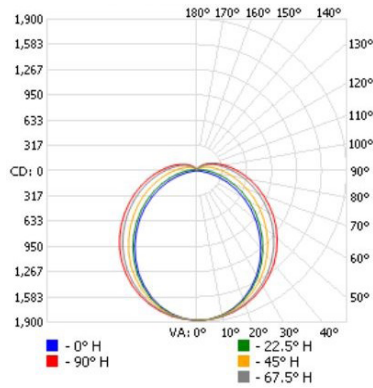
CENTER BEAM FC			BEAM WIDTH	
1.7'	556		4.2'	7.9'
3.3'	148		8.1'	15.3'
5.0'	64.3		12.3'	23.3'
6.7'	35.8		16.4'	31.2'
8.3'	23.3		20.3'	38.6'
10.0'	16.1		24.5'	46.5'
<div>■ Vert. Spread: 101.5° ■ Hor. Spread: 133.5°</div>				

¹ Complete IES files available on our website.

PHOTOMETRIC DATA¹

S20TR-48LP45-32/3C • 45 W • 4 000 K • 6 655.0 LM

POLAR CANDELA DISTRIBUTION



ZONAL LUMEN SUMMARY

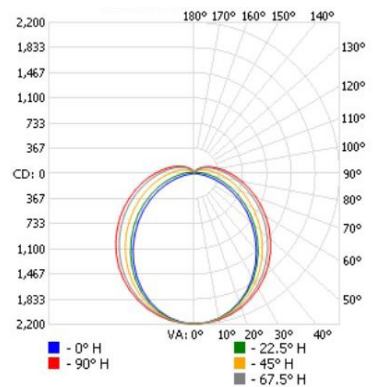
ZONE	LUMENS	% FIXTURE
0-30	1 452.3	21.8%
0-40	2 378.0	35.7%
0-60	4 253.5	63.9%
60-90	1 725.2	25.9%
70-100	1 221.8	18.4%
90-120	536.0	8.1%
0-90	5 978.7	89.8%
90-180	676.3	10.2%
0-180	6 655.0	100%

ILLUMINANCE AT A DISTANCE

CENTER BEAM FC			BEAM WIDTH	
1.7'	649		4.2'	7.9'
3.3'	172		8.1'	15.4'
5.0'	75.1		12.3'	23.3'
6.7'	41.8		16.5'	31.2'
8.3'	27.2		20.5'	38.6'
10.0'	18.8		24.7'	46.6'
<div>■ Vert. Spread: 101.9° ■ Hor. Spread: 133.5°</div>				

S20TR-48LA2-32/3C • 4 000 K • 7 778.3 LM

POLAR CANDELA DISTRIBUTION



ZONAL LUMEN SUMMARY

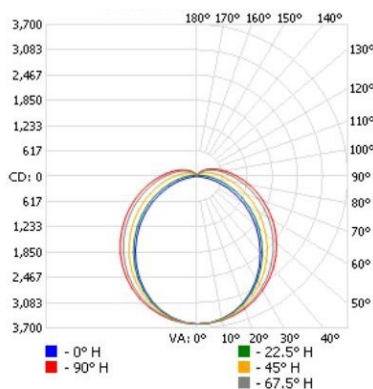
ZONE	LUMENS	% FIXTURE
0-30	1 697.9	21.8%
0-40	2 781.2	35.8%
0-60	4 976.0	64%
60-90	2 015.4	25.9%
70-100	1 425.7	18.3%
90-120	623.6	8%
0-90	6 991.3	89.9%
90-180	786.9	10.1%
0-180	7 778.3	100%

ILLUMINANCE AT A DISTANCE

CENTER BEAM FC			BEAM WIDTH	
1.7'	759		4.2'	8.0'
3.3'	201		8.1'	15.5'
5.0'	87.7		12.3'	23.5'
6.7'	48.8		16.4'	31.5'
8.3'	31.8		20.4'	39.0'
10.0'	21.9		24.5'	47.0'
■ Vert. Spread: 101.7° ■ Hor. Spread: 133.9°				

S20TR-96LP90-32/3C • 90 W • 4 000 K • 12 770.5 LM


POLAR CANDELA DISTRIBUTION



ZONAL LUMEN SUMMARY

ZONE	LUMENS	% FIXTURE
0-30	2 786.8	21.8%
0-40	4 563.1	35.7%
0-60	8 162.1	63.9%
60-90	3 310.5	25.9%
70-100	2 344.6	18.4%
90-120	1 028.6	8.1%
0-90	11 472.6	89.8%
90-180	1 297.9	10.2%
0-180	12 770.5	100%

ILLUMINANCE AT A DISTANCE

CENTER BEAM FC			BEAM WIDTH	
1.7'	1 246		4.2'	7.9'
3.3'	331		8.1'	15.4'
5.0'	144		12.3'	23.3'
6.7'	80.2		16.5'	31.2'
8.3'	52.3		20.5'	38.6'
10.0'	36.0		24.7'	46.6'
<div><div></div> Vert. Spread: 101.9°<div></div> Hor. Spread: 133.5°</div>				

¹ Complete IES files available on our website.