



# LED TROFFER LUMINAIRE

Project:	
Type:	
Note:	

## DESCRIPTION

Typically used to replace 2'x2' and 2'x4' fluorescent fixtures, the LED troffer is designed to lay in drop ceilings in offices, schools, and healthcare applications. The LED troffer are fully dimmable, and are compatible with building controls, motion sensors, timers, and daylight harvesting systems.

The design of the LED troffer produces an even, consistent shadow-less light. The LEDs enable long life, high lumen maintenance, and are low maintenance and constructed without hazardous materials

## SPECIFICATION FEATURES

### Construction & Materials

- Luminaire housing are die formed of 22 code gauge prime cold rolled steel
- Extruded acrylic lens features linear prisms
- Extruded aluminum heatsink maximizes LED lifetime and optimal performance
- Light weight design allows for a less obtrusive installation

### Electrical System

- High efficiency driver
- Input Voltage: 120-277V, 347V/480V optional, 50/60Hz
- Operating Temperature: -20°C (-4°F) to 50°C (122°F)
- 0-10V Continuous dimming
- Power Factor: >0.90
- Total Harmonic Distortion: <15%
- Wireless Driver Standby (Off State) Power: >1W

### Optical System

- High impact acrylic optics provides even distribution
- Frosted lens provides maximum glare reduction

### LED

- CRI: 80+, 90+
- Color Selectable 3000K/3500K/4000K/5000K
- Color Tunable Range: 3000K to 5000K
- Reported L<sub>30</sub> Lifetime: 101,000 hours @25°C
- Reported L<sub>70</sub> Lifetime: 349,000 hours @25°C

### Warranty

- 10 Years

### Control & Networking

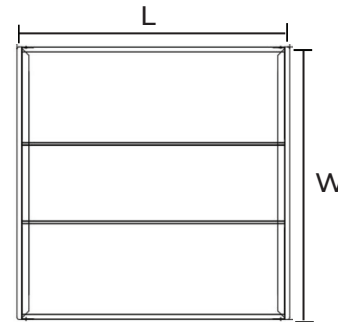
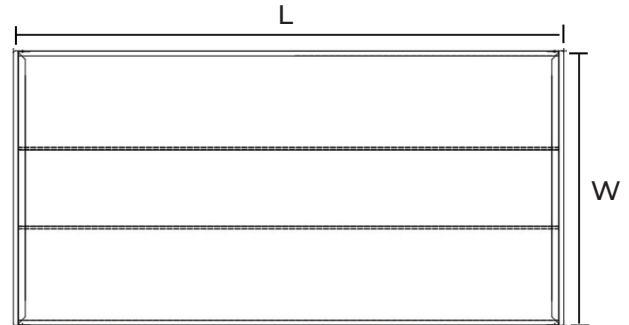
- Integrated sensor
- Integrated Wireless BLE Sensor
- Integrated Wireless BLE Driver
- Internet/Cloud base remote programming control

### Certification

- UL & cUL;
- DLC Premium;



## DIMENSION



Unit:mm

Model	L	W	H	Weight
1x4	47-3/4" 1213mm	11-3/4" 298mm	2-1/2" 63.5mm	9.8lbs
2x2	23-3/4" 603mm	23-3/4" 603mm	2-1/2" 63.5mm	10.0lbs
2x4	47-3/4" 1213mm	23-3/4" 603mm	2-1/2" 63.5mm	16.5lbs

Example: SLLT-24-30-35-90-SD-SE

SLLT	Size	Wattage	CCT	CRI	Driver	Efficacy
SLLT=LED Troffer	14=1x4 22=2x2 24=2x4	15=15W 20=20W 25=25W 30=30W 35=35W  40=40W 45=45W 50=50W 55=55W	CS=CCT Selectable 3000K/3500K/ 4000K/5000K  DR=Dynamic Color Tunable Range 3000K - 5000K	80=80CRI  90=90CRI	SD=Standard Driver CCT Selectable, 0-10V Dim  TD= Wireless BLE Tunable Driver	SE=Standard Efficacy 130 LPW  HE=High Efficacy 150 LPW

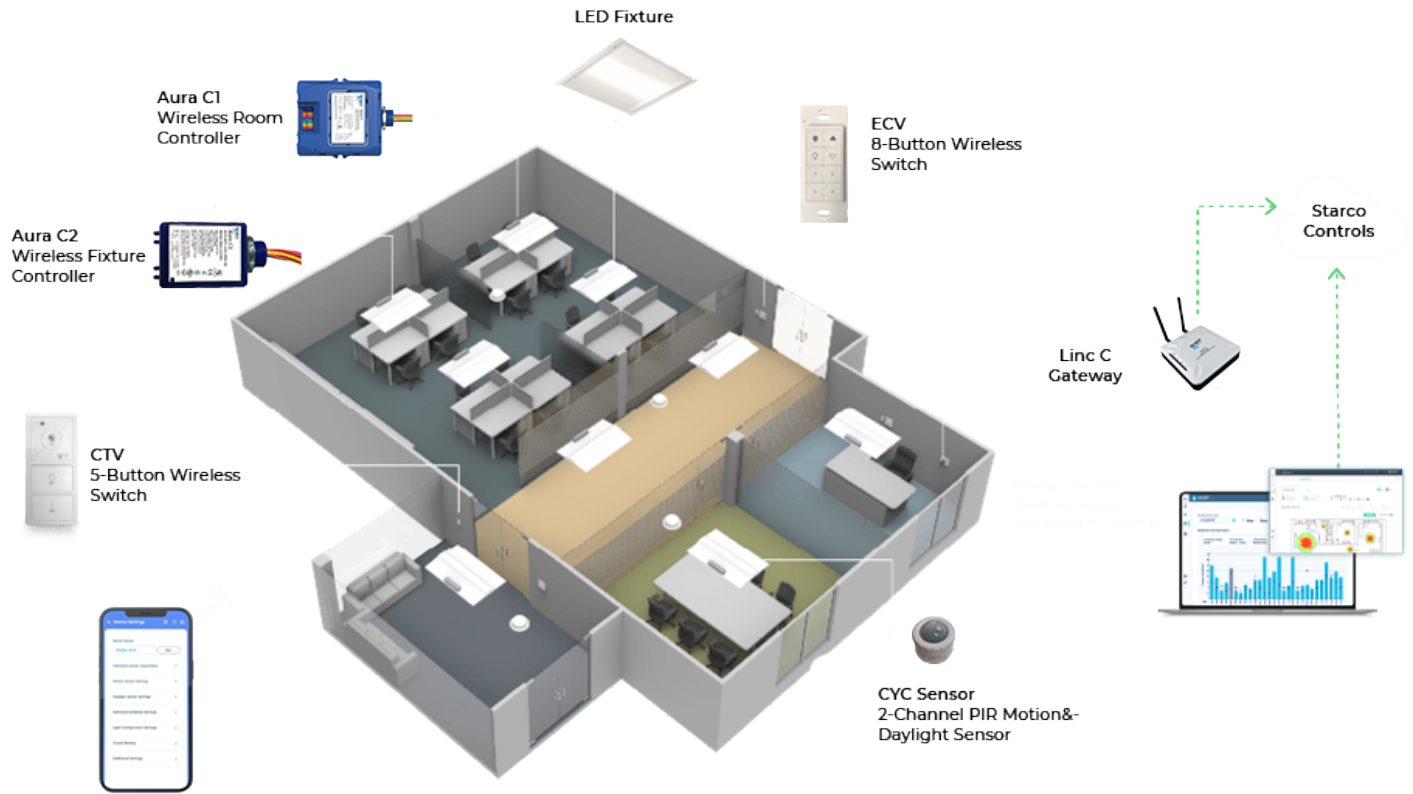
Accessories	
<p><b>Wireless Accessories</b></p> <p><b>Sensors</b>                      CAP=AC powered wireless PIR motion &amp; light sensor                      CAM=AC powered wireless microwave motion &amp; light sensor                      CYC=DC powered dual channel PIR motion &amp; light sensor</p> <p><b>Switches</b>                      CIV=Wireless 4 button switch                      CTV=Wireless 5 button switch                      ECV=Wireless 8 button switch                      MOV=Wireless 1 button switch with motion sensor                      OSC=Wireless 1 button switch</p> <p><b>Gateway &amp; Extenders</b>                      ECHOC=Beacon &amp; range extender                      LINCC=Gateway with ethernet &amp; RTC</p> <p><b>Emergency Inverters</b>                      EMDW-10=10W Emergency Inverter Wireless Pack                      EMDW-20=20W Emergency Inverter Wireless Pack</p>	<p><b>Standard Accessories</b></p> <p><b>Emergency Inverters</b>                      EMD-10=10W Emergency Inverter Pack                      EMD-20=20W Emergency Inverter Pack</p> <p><b>Dimmers</b>                      LVDC-A019=Rotary 0-10V Dimmer</p> <p><b>WMS=</b>Wired 0-10V switch with motion sensor  <b>WOS=</b>Wired 0-10V switch</p> <p><b>Mounts</b>                      SMK=Surface Mounting Kit                      DMK=Drywall Mounting Kit</p>

Emergency Battery Pack Options - Field Installable

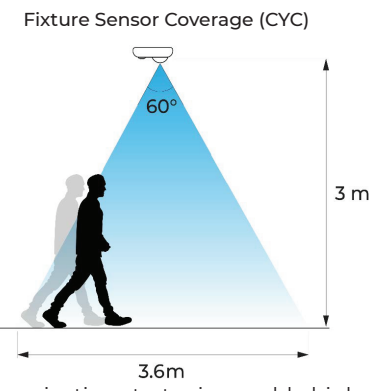
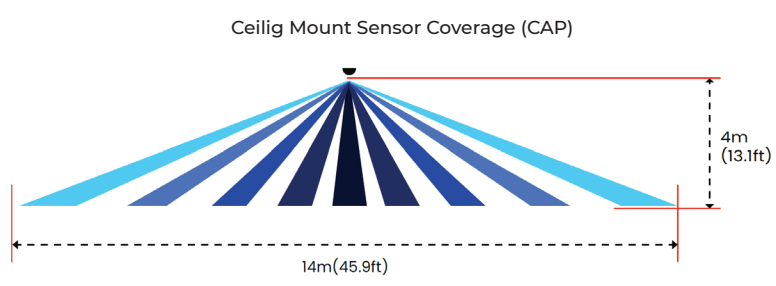
Battery Model Number	Wattage	Runtime(minutes)	Lumen Output	Other
EMD(W)-10	10W	90	1300-1500	Self Diagnostic
EMD(W)-20	20W	90	2600-3000	Self Diagnostic

How does the control platform works?

1. Install the SLLT troffers with integrated smart sensor or wireless driver
2. Install the wireless self-powered wall switches
3. With Starco app, pair the troffers with the wall switches and any additional stand-alone sensors
4. Customize the sensor settings and fixture schedules as needed



Sensor Coverage

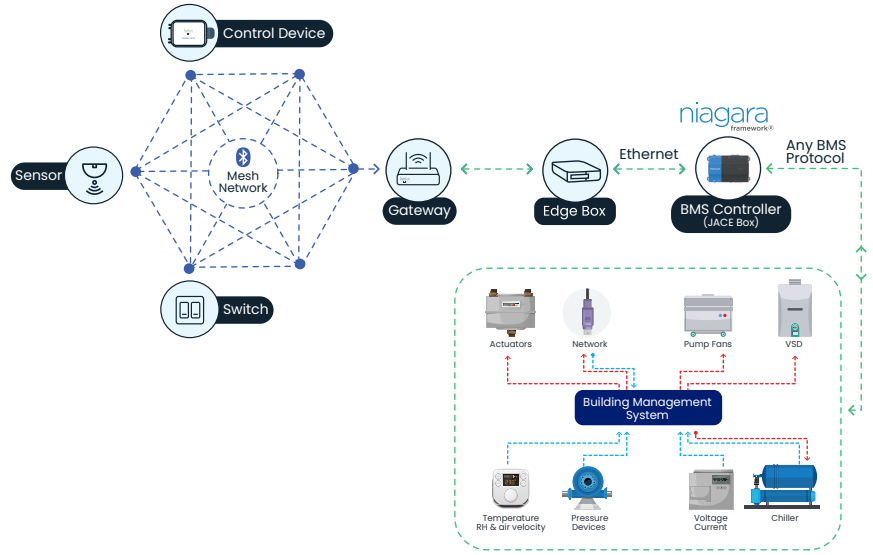


Bluetooth Mesh Features

- **Communication Performance** - Flood management protocols along with optimized communication strategies enable high reliability and performance within the mesh network and to edge interface devices like mobile and web UI.
- **Update Performance** - Unique advertisement based update mechanisms capable of securely updating thousands of devices simultaneously in a couple hours while maintain reliable functionality and performance of the mesh network.
- **Security** - Multi-level security achieved using different keys for device commissioning, communicating within mesh and cloud communication.
- **Time synchronization** - Cloud or real time clock centralized devices provide most cost-effective and reliable time clock management to maintain proper schedules.

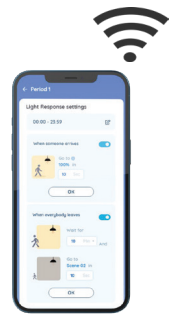
BMS Intergration

- Starco Control ecosystem leverages the Niagara framework to intergrate with any of the 120+ BMS protocols.
- Very simple to connect as plugging the two systems into a common Ethernet network.
- All data can be shared and BMS can monitor and control the lighting system.
- Adding OpendADR gateway, the customer can take advantage of any current or future utility demand response programs including peak pricing, capacity bidding and direct laod control



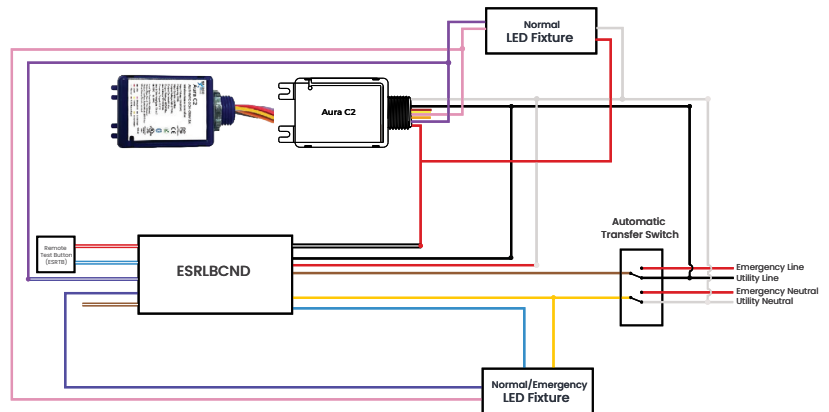
Mobile App

- For commission, configuration and controlling lighting networks including device replacement feature that makes commission easier.
- Setting up schedules, scenes and animations for individual devices or groups or zones
- Always get the latest features and improvements using OTA updates for devices
- Safe and reliable communication with AES 128-bit encryption and ensure safety using 4-digit code



Emergency Lighting Control

- UL924 Listed Aura C1/C2 provides transfer operation during a power outage.
- When there is power outage, the controller will receive power from the emergency source via the ATS. The AC/DC power supply will turn OFF due to power outage and the 0-10V input channel of the controller will not sense any voltage. When the controller detects this, it switches over to Emergency Mode where the fixtures will be lit at 100% intensity for 90 mins.
- The BLE wireless Emergency Inverter interfaces with a battery and LED driver to provide much more than just self-test functionality. It can provide emergency testing reports through the mobile app and also provide fault notifications as soon as one is detect



Radiar AF10 - Wire description

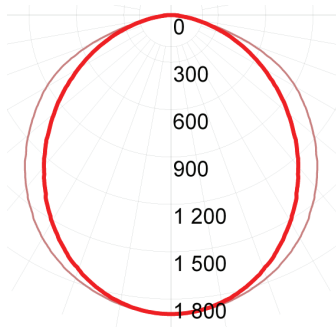
Line (Black)	12VDC (Yellow)	0-10V DIM1+ (Purple)
Neutral (White)	DIM- (Pink)	0-3V Sensor Input (Brown)
Load (Red)	0-10V DIM2+ (Orange)	

ESRLBCND - Wire description

Feedback/Dimmer Contacts	Remote Test Input	
NO (White/Violet)	White/Red	Normal Hot (Black)
C (Violet)	White/Blue	Normal Switched Hot (White/Black)
N/C (White/Brown)		Normal Neutral (Red)
		Emergency Neutral (Yellow)
		Emergency Hot (Brown)
		Emergency Hot to Load (Blue)



SLLT-24-40-35-80-SD-SE 4940 delivered lumens, tested in accordance to IESNA LM-79



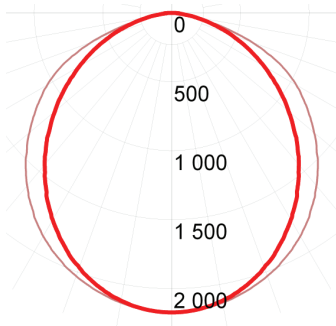
Candela Table

	0°	90°
0°	1895	1895
5°	1883	1886
15°	1792	1822
25°	1619	1707
35°	1383	1532
45°	1117	1310
55°	824	1047
65°	534	750
75°	263	320
85°	50	18
90°	13	1

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	178.9	3.4%	90-100	0.4	0%
10-20	509.6	9.7%	100-110	0.000	0%
20-30	766.1	14.6%	110-120	0.000	0%
30-40	915.6	17.5%	120-130	0.000	0%
40-50	941.8	18.0%	130-140	0.000	0%
50-60	850.8	16.2%	140-150	0.000	0%
60-70	657.7	12.5%	150-160	0.000	0%
70-80	354.2	6.8%	160-170	0.000	0%
80-90	68.2	1.3%	170-180	0.000	0%

SLLT-24-40-35-80-SD-HE 5700 delivered lumens, tested in accordance to IESNA LM-79



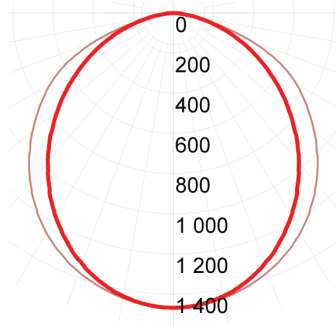
Candela Table

	0°	90°
0°	2172	2172
5°	2158	2161
15°	2054	2089
25°	1856	1957
35°	1585	1757
45°	1280	1502
55°	945	1201
65°	612	859
75°	301	366
85°	57	21
90°	15	1

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	205.1	3.4%	90-100	0.5	0%
10-20	584.1	9.7%	100-110	0.000	0%
20-30	878.2	14.6%	110-120	0.000	0%
30-40	1,049.5	17.5%	120-130	0.000	0%
40-50	1,079.5	18.0%	130-140	0.000	0%
50-60	975.2	16.2%	140-150	0.000	0%
60-70	753.9	12.5%	150-160	0.000	0%
70-80	406.0	6.8%	160-170	0.000	0%
80-90	78.2	1.3%	170-180	0.000	0%

SLLT-24-30-35-80-SD-SE 3705 delivered lumens, tested in accordance to IESNA LM-79



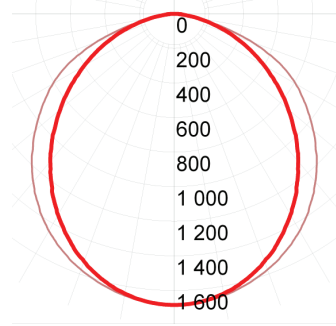
Candela Table

	0°	90°
0°	1468	1468
5°	1459	1461
15°	1389	1412
25°	1255	1323
35°	1072	1188
45°	865	1016
55°	639	812
65°	414	581
75°	203	248
85°	38	14
90°	10	1

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	138.7	3.4%	90-100	0.3	0%
10-20	394.9	9.7%	100-110	0.000	0%
20-30	593.7	14.6%	110-120	0.000	0%
30-40	709.6	17.5%	120-130	0.000	0%
40-50	729.8	18.0%	130-140	0.000	0%
50-60	659.4	16.2%	140-150	0.000	0%
60-70	509.7	12.5%	150-160	0.000	0%
70-80	274.5	6.8%	160-170	0.000	0%
80-90	52.9	1.3%	170-180	0.000	0%

SLLT-24-30-35-80-SD-HE 4275 delivered lumens, tested in accordance to IESNA LM-79



Candela Table

	0°	90°
0°	1683	1683
5°	1672	1675
15°	1592	1619
25°	1438	1516
35°	1228	1361
45°	992	1164
55°	732	930
65°	474	666
75°	233	284
85°	44	16
90°	11	1

Lumens Per Zone

Zone	Lumens	% Total	Zone	Lumens	% Total
0-10	158.9	3.4%	90-100	0.4	0%
10-20	452.6	9.7%	100-110	0.000	0%
20-30	680.5	14.6%	110-120	0.000	0%
30-40	813.3	17.5%	120-130	0.000	0%
40-50	836.5	18.0%	130-140	0.000	0%
50-60	755.7	16.2%	140-150	0.000	0%
60-70	584.2	12.5%	150-160	0.000	0%
70-80	314.6	6.8%	160-170	0.000	0%
80-90	60.6	1.3%	170-180	0.000	0%

Standard Efficacy

Model	Wattage	CCT	Size	Lumen Output
SLLT-14-20-30-80-SD-SE	20	3000K	1x4	2470
SLLT-14-20-40-80-SD-SE	20	4000K	1x4	2600
SLLT-14-20-50-80-SD-SE	20	5000K	1x4	2600
SLLT-14-25-30-80-SD-SE	25	3000K	1x4	3087
SLLT-14-25-40-80-SD-SE	25	4000K	1x4	3250
SLLT-14-25-50-80-SD-SE	25	5000K	1x4	3250
SLLT-14-30-30-80-SD-SE	30	3000K	1x4	3420
SLLT-14-30-40-80-SD-SE	30	4000K	1x4	3600
SLLT-14-30-50-80-SD-SE	30	5000K	1x4	3600
SLLT-14-35-30-80-SD-SE	35	3000K	1x4	4322
SLLT-14-35-40-80-SD-SE	35	4000K	1x4	4550
SLLT-14-35-50-80-SD-SE	35	5000K	1x4	4550
SLLT-22-20-30-80-SD-SE	20	3000K	2x2	2470
SLLT-22-20-40-80-SD-SE	20	4000K	2x2	2600
SLLT-22-20-50-80-SD-SE	20	5000K	2x2	2600
SLLT-22-25-30-80-SD-SE	25	3000K	2x2	3087
SLLT-22-25-40-80-SD-SE	25	4000K	2x2	3250
SLLT-22-25-50-80-SD-SE	25	5000K	2x2	3250
SLLT-22-30-30-80-SD-SE	30	3000K	2x2	3420
SLLT-22-30-40-80-SD-SE	30	4000K	2x2	3600
SLLT-22-30-50-80-SD-SE	30	5000K	2x2	3600
SLLT-22-35-30-80-SD-SE	35	3000K	2x2	4322
SLLT-22-35-40-80-SD-SE	35	4000K	2x2	4550
SLLT-22-35-50-80-SD-SE	35	5000K	2x2	4550
SLLT-24-40-30-80-SD-SE	40	3000K	2x4	4940
SLLT-24-40-40-80-SD-SE	40	4000K	2x4	5200
SLLT-24-40-50-80-SD-SE	40	5000K	2x4	5200
SLLT-24-45-30-80-SD-SE	45	3000K	2x4	5557
SLLT-24-45-40-80-SD-SE	45	4000K	2x4	5850
SLLT-24-45-50-80-SD-SE	45	5000K	2x4	5850
SLLT-24-50-30-80-SD-SE	50	3000K	2x4	6175
SLLT-24-50-40-80-SD-SE	50	4000K	2x4	6500
SLLT-24-50-50-80-SD-SE	50	5000K	2x4	6500
SLLT-24-55-30-80-SD-SE	55	3000K	2x4	6792
SLLT-24-55-40-80-SD-SE	55	4000K	2x4	7150
SLLT-24-55-50-80-SD-SE	55	5000K	2x4	7150

High Efficacy

Model	Wattage	CCT	Size	Lumen Output
SLLT-14-20-30-80-SD-HE	20	3000K	1x4	2850
SLLT-14-20-40-80-SD-HE	20	4000K	1x4	3000
SLLT-14-20-50-80-SD-HE	20	5000K	1x4	3000
SLLT-14-25-30-80-SD-HE	25	3000K	1x4	3562
SLLT-14-25-40-80-SD-HE	25	4000K	1x4	3750
SLLT-14-25-50-80-SD-HE	25	5000K	1x4	3750
SLLT-14-30-30-80-SD-HE	30	3000K	1x4	4275
SLLT-14-30-40-80-SD-HE	30	4000K	1x4	4500
SLLT-14-30-50-80-SD-HE	30	5000K	1x4	4500
SLLT-14-35-30-80-SD-HE	35	3000K	1x4	4987
SLLT-14-35-40-80-SD-HE	35	4000K	1x4	5250
SLLT-14-35-50-80-SD-HE	35	5000K	1x4	5250
SLLT-22-20-30-80-SD-HE	20	3000K	2x2	2850
SLLT-22-20-40-80-SD-HE	20	4000K	2x2	3000
SLLT-22-20-50-80-SD-HE	20	5000K	2x2	3000
SLLT-22-25-30-80-SD-HE	25	3000K	2x2	3562
SLLT-22-25-40-80-SD-HE	25	4000K	2x2	3750
SLLT-22-25-50-80-SD-HE	25	5000K	2x2	3750
SLLT-22-30-30-80-SD-HE	30	3000K	2x2	4275
SLLT-22-30-40-80-SD-HE	30	4000K	2x2	4500
SLLT-22-30-50-80-SD-HE	30	5000K	2x2	4500
SLLT-22-35-30-80-SD-HE	35	3000K	2x2	4987
SLLT-22-35-40-80-SD-HE	35	4000K	2x2	5250
SLLT-22-35-50-80-SD-HE	35	5000K	2x2	5250
SLLT-24-40-30-80-SD-HE	40	3000K	2x4	5700
SLLT-24-40-40-80-SD-HE	40	4000K	2x4	6000
SLLT-24-40-50-80-SD-HE	40	5000K	2x4	6000
SLLT-24-45-30-80-SD-HE	45	3000K	2x4	6412
SLLT-24-45-40-80-SD-HE	45	4000K	2x4	6750
SLLT-24-45-50-80-SD-HE	45	5000K	2x4	6750
SLLT-24-50-30-80-SD-HE	50	3000K	2x4	7125
SLLT-24-50-40-80-SD-HE	50	4000K	2x4	7500
SLLT-24-50-50-80-SD-HE	50	5000K	2x4	7500
SLLT-24-55-30-80-SD-HE	55	3000K	2x4	7837
SLLT-24-55-40-80-SD-HE	55	4000K	2x4	8250
SLLT-24-55-50-80-SD-HE	55	5000K	2x4	8250