

FEATURES & SPECIFICATIONS

INTENDED USE — The BLTX surface mount LED luminaire features a popular center basket design that offers a clean, versatile style and volumetric distribution. High efficacy LED light engines deliver energy savings and low maintenance compared to traditional sources. An extensive selection of configurations and options make the BLTX the perfect choice for many lighting applications including schools, offices and other commercial spaces, retail, hospitals and healthcare facilities.

CONSTRUCTION — BLTX enclosure components are die-formed for dimensional consistency and painted after fabrication with a polyester powder paint for improved performance and protection.

The reflector is finished with a high reflective matte white powder paint for improved aesthetics and increased light diffusion.

Diffusers are extruded from impact modified acrylic for increased durability.

LED boards and driver are accessible from below.

OPTICS — Volumetric illumination is achieved by creating an optimal mix of light to walls, partitions and vertical and horizontal work surfaces — rendering the interior space, objects and occupants in a more balanced, complimentary luminous environment. High performance extruded acrylic diffusers conceal LEDs and efficiently deliver light in a volumetric distribution. Four diffuser choices available - curved and square designs with linear prisms or a smooth frosted finish.

ELECTRICAL — Long-life LEDs, coupled with high-efficiency drivers, provide superior quantity and quality of illumination for extended service life. 70% LED lumen maintenance at 60,000 hours (L70/60,000).

Configurable BLTX: Available in High Efficiency (HE) versions for applications where a lower wattage (over the standard product) is required. The High Efficiency versions deliver >130 LPW and can be specified via the Lumen Package designations in the Ordering Information on page 2.

eldoLED driver options deliver choice of dimming range, and choices for control, while assuring flicker-free, low-current inrush, 89% efficiency and low EMI.

Optional integrated nLight® controls make each luminaire addressable - allowing it to digitally communicate with other nLight enabled controls such as dimmers, switches, occupancy sensors and photocontrols. Connection to nLight is simple. It can be accomplished with integrated nLight AIR wireless or through standard Cat-5 cabling. nLight offers unique plug-and-play convenience as devices and luminaires automatically discover each other and self-commission, while nLight AIR is commissioned easily through an intuitive model app.

Lumen Management: Unique lumen management system (option N80) provides on board intelligence that actively manages the LED light source so that constant lumen output is maintained over the system life, preventing the energy waste created by the traditional practice of over-lighting.

Step-level dimming option allows system to be switched to 50% power for compliance with common energy codes while maintaining fixture appearance.

Driver disconnect provided where required to comply with US and Canadian codes.

SENSOR — **Integrated sensor (individual control):** Sensor Switch MSD7ADCX (Passive infrared (PIR)) or MSDPDT7ADCX (PIR/Microphonics Dual Tech (PDT)) integrated occupancy sensor/automatic dimming photocell allows the luminaire to power off when the space is unoccupied or enough ambient light is entering the space. See page 4 for more details on the integrated sensor.

Integrated Sensor (nLight Wired Networking): This sensor is nLight-enabled, meaning it has the ability to communicate over an nLight network. When wired, using CAT-5 cabling, with other nLight-enabled sensors, power packs, or WallPods, an nLight control zone is created. Once linked to a Gateway, directly or via a Bridge, the zone becomes capable of remote status monitoring and control via SensorView software. See page 4 for the nLight sensor options.

Integrated Smart Sensor (nLight AIR Wireless Platform): The rES7 sensor is nLight AIR enabled, meaning it has the ability to communicate over the wireless nLight control platform. It is available with an automatic dimming photocell, and either a digital PIR or a microphonics (PDT) dual technology occupancy sensor. It pairs to other luminaires and wall switches through our mobile app, CLAIRITY, which allows for simple sensor adjustment. See page 4 for more details on the Integrated Smart Sensor.

INSTALLATION — The BLTX is designed to be surface mounted on a level ceiling. The BLTX can be aircraft cable suspended. See Mounting Data section on page 6.

Suitable for damp location.

LISTINGS — UL Listed to meet U.S. and Canadian standards.

WARRANTY — 5-year limited warranty. Complete warranty terms located at www.acuitybrands.com/CustomResources/Terms_and_conditions.aspx

NOTE: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C.

Specifications subject to change without notice.

Catalog Number
Notes
Type

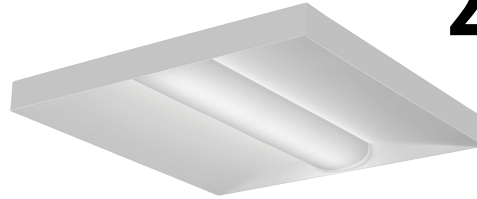
BLT Series LED

2BLTX2

Surface Mount

2' x 2'

LED



eldoLED

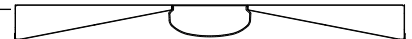


Specifications

Length: 24 3/4 (62.9)

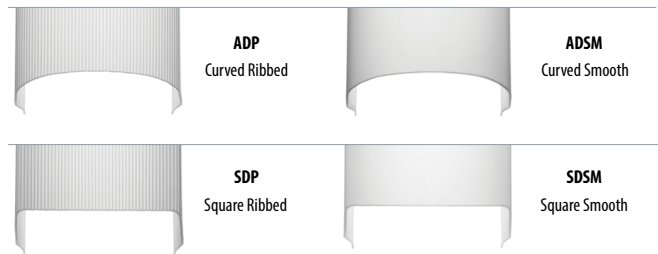
Width: 24 3/4 (62.9)

Depth: 3 1/2 (8.9)



All dimensions are inches (centimeters) unless otherwise specified.

Multiple Diffuser Options



Capable Luminaire

This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning.

- All configurations of this luminaire meet the Acuity Brands' specification for chromatic consistency
- This luminaire is part of an A+ Certified solution for nLight® control networks when ordered with drivers marked by a shaded background*
- This luminaire is part of an A+ Certified solution for nLight control networks, providing advanced control functionality at the luminaire level, when selection includes driver and control options marked by a shaded background*

To learn more about A+, visit www.acuitybrands.com/aplus.

*See ordering tree for details

2BLTX2 Volumetric Surface Mount Lighting 2'x2'



A+ Capable options indicated by this color background.

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: 2BLTX2 33L ADP EZ1 LP835

2BLTX2		Lumens ¹		Diffuser	Voltage	Driver	Color temperature
2BLTX2	2x2 BLTX Surface Mount	Standard efficiency (>100 LPW)	High efficiency^{2,3} (>130 LPW)	ADP Curved, linear prisms ADSM Curved, smooth SDP Square, linear prisms SDSM Square, smooth Diffusers w/ trim rings ADPT Curved, linear prisms ADSMT Curved, smooth SDPT Square, linear prisms SDSMT Square, smooth	(blank) MVOLT 120 120V 277 277V 347 347V ⁴	EZ1 eldoLED dims to 1% (0-10 volt dimming) GZ1 Dims to 1% (0-10V dimming) ⁵ GZ10 Dims to 10% (0-10V dimming) ⁵ SLD Step-level dimming ⁶	LP830 82CRI, 3000 K LP835 82CRI, 3500 K LP840 82CRI, 4000 K LP850 82CRI, 5000 K LP930 90CRI, 3000K LP935 90CRI, 3500K LP940 90CRI, 4000K LP950 90CRI, 5000K

nLight Interface	Control ¹⁰	Options
nLight Wired (blank) no nLight® interface N80 nLight with 80% lumen management N80EMG nLight with 80% lumen management For use with generator supply EM power ⁸ N100 nLight without lumen management N100EMG nLight without lumen management For use with generator supply EM power ⁸ nLight Wireless (blank) no nLight® interface NLTAIR2 nLight AIR Generation 2 enabled ⁹	nLight Wired (blank) no nLight® control NES7 nLight™ nES 7 PIR integral occupancy sensor ¹¹ NESPDT7 nLight™ nES PDT 7 dual technology integral occupancy control ¹¹ NES7ADCX nLight™ nES 7 ADCX PIR integral occupancy sensor with automatic dimming photocell ¹¹ NESPDT7ADCX nLight™ nES PDT 7 dual technology integral occupancy sensor with automatic dimming photocell ¹¹ nLight Wireless (blank) No nLight® control RES7 nLight AIR PIR integral occupancy sensor with automatic dimming photocell for Networking Capabilities Individual Control RES7PDT nLight AIR microphonics (PDT) occupancy sensor with automatic dimming photocell for Zone Control RIO nLight AIR radio module without sensor	Individual Control MSD7ADCX PIR integral occupancy sensor with automatic dimming control photocell ^{6,12} MSDPDT7ADCX PDT integral occupancy sensor with automatic dimming control photocell ^{6,12} EL7L 700 lumen battery pack ¹³ EL14L 1400 lumen battery pack ¹³ E10WLCP EM Self-Diagnostic battery pack, 10W Constant Power, Certified in CA Title 20 MAEDBS ^{13,14} BGD Bodine Generator Transfer Device ¹⁴ GLR Fast-blowing fuse ¹⁵ GMF Slow-blowing fuse ¹⁵ DWAM Anti-microbial paint USPOM US point of manufacture

Accessories next page

Notes

- 1 Approximate lumen output.
- 2 All versions may not achieve 130+ LPW. Refer to photometry on www.acuitybrands.com.
- 3 90 CRI and versions with integral sensor trim rings may not achieve 130 LPW.
- 4 Not available with SLD driver, EL7L or EL14L battery packs.
- 5 GZ1 and GZ10 not available any Control or Sensor options.
- 6 Not available with N80, N80EMG, N100, N100EMG, NLTAIR2, or occupancy control.
- 7 nLight EMG option requires a connection to existing nLight network. Power is provided from a separate N80 or N100 enabled fixture.
- 8 Must order with RES7, RESPDT7, or RIO sensor. Only available with EZ1 driver.
- 9 Must specify diffuser with trims rings. See sensor options on page 4.
- 10 Requires N80, N80EMG, N100, or N100EMG.
- 11 Only available with EZ1 driver option. 0-10v dimming wires not accessible via access plate.
- 12 When using pre-wire option, use PWS1846 or PWS1846 PWSLV.
- 13 Requires BSE labeling, voltage specific. Consult factory for options.
- 14 Must specify voltage, 120 or 277 with GLR & GMF fusing and BGD.

2BLTX2 Volumetric Surface Mount Lighting 2'x2'

nLight® Wired Control Accessories: <i>Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight.</i>			
WallPod stations	Model number	Occupancy sensors	Model number
On/Off	nPODM [color]	Small motion 360°, ceiling (PIR / dual tech)	nCM 9 RJB / nCM PDT 9 RJB
On/Off & raise/lower	nPODM DX [color]	Large motion 360°, ceiling (PIR / dual tech)	nCM10 RJB / nCM PDT 10 RJB
Graphic touchscreen	nPOD GFX [color]	Wall switch with raise/lower	nWSX PDT LV DX [color]
Photocontrol controls	Model number	Cat-5 cable (plenum rated)	Model number
Full range dimming	nCM ADCX RJB	10' cable	CAT5 10FT J1
		30' cable	CAT5 30FT J1

nLight® AIR Control Accessories: <i>Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair.</i>	
Wall switches	Model number
On/Off single pole	rPODB [color] G2
On/Off two pole	rPODB 2P [color] G2
On/Off & raise/lower single pole	rPODB DX [color] G2
On/Off & raise/lower two pole	rPODB 2P DX [color] G2
On/Off & raise/lower single pole	rPODBZ DX WH G2

rCMS ¹		Example: RCMS PDT 10 AR G2					
Series / Detection	Power Supply ¹	Occupancy Detection	Lens (Required)	Operating Mode	Generation		
RCMS nLight AIR occupancy and daylight sensor	[blank] Power Supply ordered separately PS 150 Standard 150 mA Power Supply	[blank] PIR Detection PDT Dual Tech PIR/Microphonics	10 Large Motion/ Extended Range 360° 9 Small Motion/ Extended Range 360° 6 High Bay 360° Lens	[BLANK] None AR Auxiliary Relay	G2	Generation 2 compatibility	

Notes

- 1 RCMS requires low voltage power from either RPP20 DS 24V G2 or PS150.

Replacement Parts: <i>Order as separate catalog number.</i>	
2DBLTX24 ADP LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 SDP LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 ADSM LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 SDSM LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 ADPT LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 SDPT LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 ADSMT LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 SDSMT LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 ADPT SENSOR LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 SDPT SENSOR LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 ADSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens with trim rings
2DBLTX24 SDSMT SENSOR LENS ASSEMBLY	2 ft. replacement lens with trim rings



2BLTX2 Volumetric Surface Mount Lighting 2'x2'

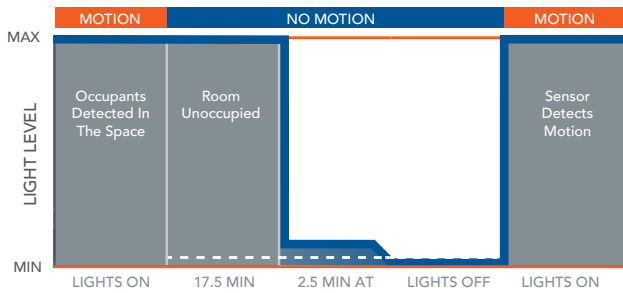
Sensor Options					
Option	Automatic Dimming Photocell	Occupancy Sensing		nLight Wired Networking	nLight AIR Networking
		PIR	PDT		
MSD7ADCX	X	X			
MSDPDT7ADCX	X		X		
NES7		X		X	
NES7ADCX	X	X		X	
NESPDT7			X	X	
NESPDT7ADCX	X		X	X	
RES7	X	X			X
RES7PDT	X	X	X		X

Integrated Sensor with Individual Control

The MSD7ADCX PIR occupancy sensor/automatic dimming photocell is ideal for areas without obstructions and where daylight harvesting may be desired. Suggested applications include, but not limited to, hallways, corridors, storage rooms, and breakrooms or other areas where people are typically moving.

The MSDPDT7ADCX PIR/Microphonics Dual Tech occupancy sensor/automatic dimming photocell is ideal for areas with obstructions and where daylight harvesting is desired. Suggested applications include, but not limited to, open offices, private offices, classrooms, public restrooms, and conference rooms.

Sequence of Operation

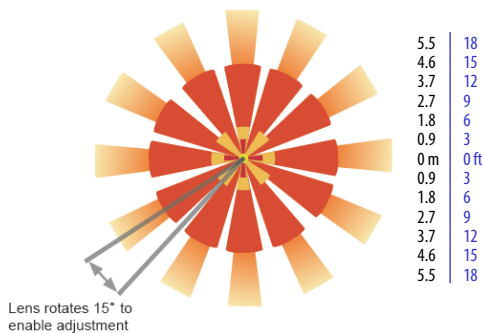


*The presetting on the automatic dimming photocell is 5fc.

Sensor Coverage Pattern Mini 360° Lens

- Recommended for walking motion detection from mounting heights between 8 ft (2.44 m) and 20 ft (6.10 m)
- Initial detection of walking motion along sensor axes at distances of 2x the mounting height up to 15 ft (4.57 m) and 1.75x up to 20 ft (6.10 m).
- Provides 12 ft (3.66 m) radial detection of small motion when mounted at 9 ft (2.74 m)
- Initial detection will occur earlier when walking across sensor's field of view than when walking directly at sensor

9 FT Mounting



Basic nLight Zone

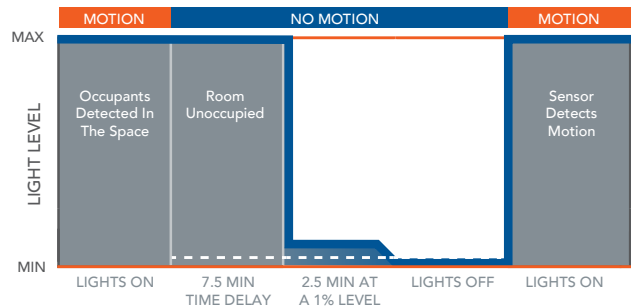


nLight Wired Networking

The nES 7 is ideal for small rooms without obstructions or areas with primarily walking motion. Ideal areas include hallways, corridors, storage rooms, and breakrooms. Additionally, the NES7ADCX includes an integrated photocell, which enables daylight harvesting controls.

For areas like restrooms, private offices, open offices, conference rooms or any space with obstructions, the nES PDT 7 dual technology sensor is recommended. The nES PDT 7 utilizes both PIR (passive infrared) and Microphonics technologies to detect occupancy. Additionally, the NESPDT7ADCX includes an integrated photocell, which enables daylight harvesting controls which is ideal for areas where windows are present.

Sequence of Operation



*The presetting on the automatic dimming photocell is 5fc.

nLight AIR Wireless

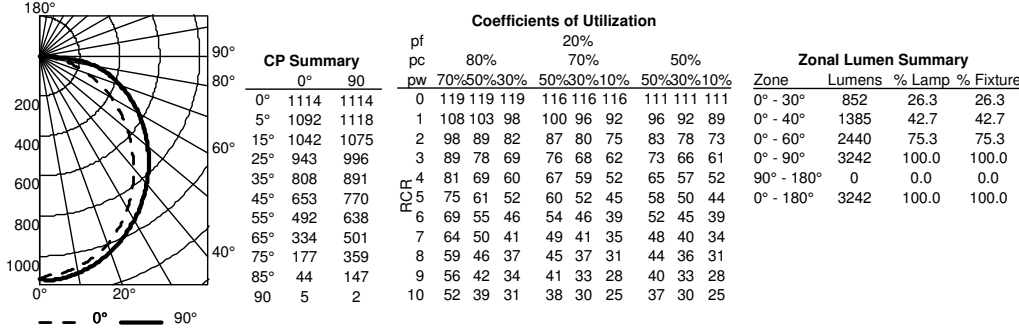
nLight AIR is the ideal solution for retrofit or new construction spaces where adding additional wiring can be labor intensive and nLight AIR is available with or without an integral sensor. The integrated RES7 or RES7PDT smart sensors are part of each luminaire in the nLight AIR network, which can be grouped to control multiple luminaires. The granularity of control with the digital PIR occupancy detection and daylight sensing makes a great solution for any application.



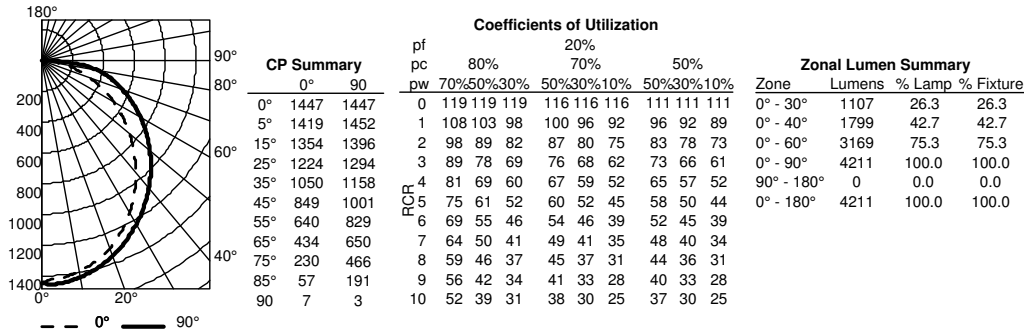
2BLTX2 Volumetric Surface Mount Lighting 2'x2'

PHOTOMETRICS

2BLTX2 33L ADP LP835, 3241 delivered lumens, test no. LTL28918P704, tested in accordance to IESNA LM-79

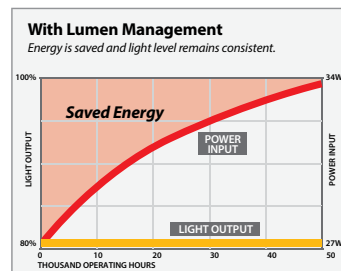
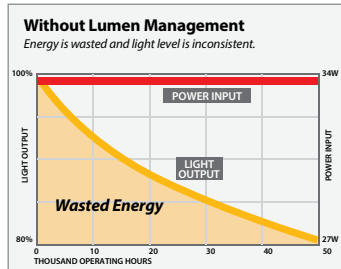


2BLTX2 40L ADP LP835, 4210 delivered lumens, test no. LTL28918P705, tested in accordance to IESNA LM-79



Constant Lumen Management

Enabled by the embedded nLight control, the BLTX fixture actively tracks its run-time and manages its light source such that constant lumen output is maintained over the system life. Referred to as lumen management, this feature eliminates the energy waste created by the traditional practice of over-lighting.



How to Estimate Delivered Lumens in Emergency Mode

Use the formula below to estimate the delivered lumens in emergency mode

$$\text{Delivered Lumens} = 1.25 \times P \times \text{LPW}$$

P = Output power of emergency driver. P = 10W for E10WLCPOption.

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet. LPW = Lumen per watt rating of the luminaire. LPW information available in Performance Data section.

HE Performance Data			
Lumen Package	Lumens	Input Watts	LPW
33LHE ADP LP830	3537	28	126
33LHE ADP LP835	3628	28	130
33LHE ADP LP840	3708	28	132
33LHE ADP LP840	3708	28	139
40LHE ADP LP830	4118	32	127
40LHE ADP LP835	4224	32	131
40LHE ADP LP840	4317	32	134
40LHE ADP LP850	4530	32	140
48LHE ADP LP830	4699	37	128
48LHE ADP LP835	4820	37	131
48LHE ADP LP840	4927	37	134
48LHE ADP LP850	5169	37	140

Performance Data			
Lumen Package	Lumens	Input Watts	LPW
20L ADP LP830	2157	20	110
20L ADP LP835	2213	20	113
20L ADP LP840	2261	20	116
20L ADP LP850	2373	20	121
33L ADP LP830	3160	30	106
33L ADP LP835	3241	30	108
33L ADP LP840	3313	30	111
33L ADP LP850	3476	30	116
40L ADP LP830	4103	39	106
40L ADP LP835	4209	39	108
40L ADP LP840	4302	39	111
40L ADP LP850	4514	39	116

2BLTX2 Volumetric Surface Mount Lighting 2'x2'

MOUNTING DATA

For unit installation. Surface mount only. BLTX is to be installed on even surfaces only.

For aircraft cable mount:

one STACG_, STACGF_, or STACGE_ required for each 1/4" suspension point. Suspension Kit Ceiling Types:

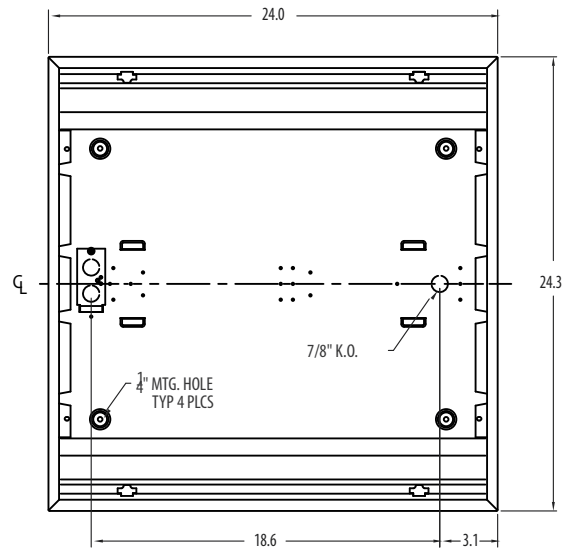
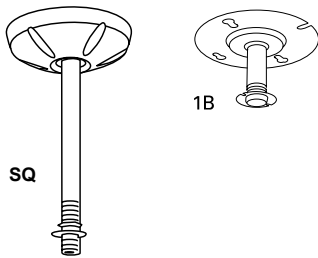
F1 for use with most T-bar and screw slot grid ceiling applications.

Designed for on-grid and off-grid installations.

F2 for use with recessed or surface-mount horizontal J-box applications.

Stem-mount: Four stems are recommended per fixture, 1/4" holes require enlarging to 7/8" Diameter. SQ or 1B stem.

See Accessories below:



1/4" HOLES REQUIRE ENLARGING TO
IN ORDER TO MOUNT FIXTURE USING STEMS.
NO EXTERNAL nLIGHT CATS CONNECTION PROVIDED.
CATS TO BE ROUTED INTO LUMINAIRE FOR nLIGHT.