Signtex Inc LIGHTING
INTELLIGENT EMERGENCY LIGHTING SYSTEMS

PROJECT:	
TYPE:	
CATALOG #:	

Center Basket
Lumen & Kelvin Selectable

emLITE Series CTB

REV #: CTB.07.26.03

User's Manual

FEATURES

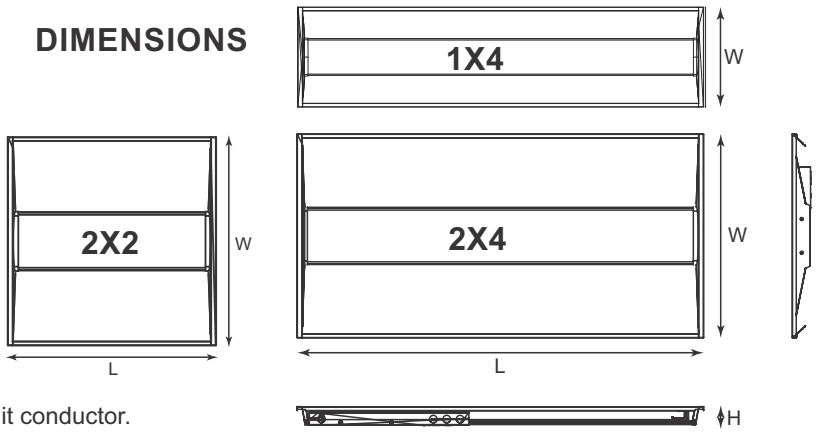
- **Emergency lighting with adjustable Emergency Lighting Control (ELC), powered from a Signtex low-voltage central battery system.**
- Available with factory-installed UL Listed Emergency Lighting Control (ELC), for connection to a Signtex central battery, DC emergency power system.
- Field selectable 3500k (warm/neutral white), 4000k (neutral white), and 5000k (cool white) color temperatures.*
- Long-life LEDs provide 180,000 hours of operation with at least 70% of initial lumen output (L70), and 54,000 hours with at least 90% of initial lumen output (L90).**
- LED color maintenance < 0.0007 chromaticity shift (Δu'v') over the initial 6,000 hours of operation.
- **CTB14-4L** provides a range of 3,309 to 4,345 nominal lumens*
  CTB22-4L provides a range of 3,600 to 4,700 nominal lumens*
  CTB24-6L provides a range of 4,700 to 6,000 nominal lumens*
- Color rendering index > 80.
- PMMA (polymethyl methacrylate) frosted lens.
- Premium powder-coat,steel, white housing.
- Optional emergency drivers and occupancy sensors are available.



ELECTRICAL

- Operating temperature (ambient): -25°C to 50°C (-13°F to 122°F).
- Universal 120-277V AC (50-60Hz) is standard.
- 0-10VDC dimming drivers are standard.
- Input transient surge protection = 2.5kV.
- Power factor > 0.90.
- Total Harmonic distortion < 20%

DIMENSIONS



CODES COMPLIANCE

- cULus listed for Damp locations.
- UL listed for maximum of 4. 12AWG through branch circuit conductor.
- DLC standard listed.
- Complies with FCC part 15, class A.

WARRANTY

- 5 year total customer satisfaction warranty. For details see Signtex product catalog technical data section.

** Default kelvin temperature 4000k and highest lumen output.*
***L70 & L90 hours are IES TM-21-11 calculated hours.*

Model #	L (in)	W (in)	H (in)	Weight (lbs)
CTB14-4L	47.76	11.73	2.12	4.49
CTB22-4L	23.74	23.74	2.13	7.25
CTB24-6L	47.76	23.74	2.13	12.04

STANDARD | ***OPTIONS***

cULus CERTIFIED · DLC LISTED · FCC · DAMP · 2.5kV Surge Protection · ELC EMERGENCY LIGHTING CONTROL

FIXTURE ORDERING INFORMATION EXAMPLE: CTB22-4LSK-ELC10P2

CTB 22 4L SK - ELC10P2

SERIES	SIZE	SELECTABLE [1] NOMINAL LUMENS	SELECTABLE [1] COLOR TEMP	OCCUPANCY SENSOR	OPTIONS
CTB	**14** 1'X4'	**4L** 5,000/ 4,000/ 3,000	**SK** 3500K/ 4000K/ 5000K	**Blank** No Sensor **ODS** Microwave Sensor	**ELCXX** [2] Emergency Lighting Control *"XX"= Varies with fixture size and power. See Options table for complete part number **EM5** 5W Emergency driver **EM10** 10W Emergency driver **EM13** 13W Emergency driver
	22 2'X2'	**4L** 4,700/ 4,200/ 3,600			
	24 2'X4'	**6L** 6,000/ 5,200/ 4,700			

[1] Nominal values, See Electrical data for specific values.
[2] See ELC Power details table, Page2,

EMERGENCY LIGHTING CONTROLS (ELC)

For use with Signtex Lighting DC Central Battery System

MODEL	ELC10P2		ELC20P3V1	
	EPR [1] WATTS (MIN.)	EM LUMENS [2]	EPR WATTS (MAX.) [3]	EM LUMENS
CTB14	10	1300	20	2,600
CTB22	10	1300	20	2,600
CTB24	10	1300	20	2,600

NOTE:
Emergency lumens are calculated based on efficacy in the MID-LUMEN range (4000K) from the Electrical Data Table. The value is adjustable through the EPR range shown above. For maximum efficiency, EPR should be set at the minimum level for compliance with NFPA Life Safety Code, based on photometric data for the fixture when installed.

To calculate lumen output within the EPR range given:

Lumens = EPR (watts) x Luminaire Efficacy (Lm/watt)

[1] Emergency power rating (Factory Adjustable).
[2] Nominal output at 4000K and Efficacy in Mid-Lumen Range.
[3] Maximum Emergency Power Rating (EPR).

ACCESSORIES (ORDER SEPARATELY)

Mounting Option:

SMKT-14	=	Compatible Surface Mount Kit for CTB14-4L.
SMKT-22	=	Compatible Surface Mount Kit for CTB22-4L.
SMKT-24	=	Compatible Surface Mount Kit for CTB24-6L.
FLANGEKIT14-ET	=	Compatible Recessed Flange Mount Kit for CTB14-4L.
FLANGEKIT22-ET	=	Compatible Recessed Flange Mount Kit for CTB22-4L.
FLANGEKIT24-ET	=	Compatible Recessed Flange Mount Kit for CTB24-6L.
PNL-CM	=	Set Of (4) 1 Meter Cables.

Remote Mount EM Drivers:

BLEM-CP-5C	=	5W Emergency Driver W/Conduit and Test Button
BLEM-CP-10C	=	10W Emergency Driver W/Conduit and Test Button
BLEM-CP-13C	=	13W Emergency Driver W/Conduit and Test Button

Remote Mount Sensors:

YM2301	=	Ceiling Mount 360° PIR Sensor
YM2108T	=	Wall Switch With PIR OCC/VAC Sensor
HD05R	=	Remote control required for programming factory installed sensor(sold separately)

Default sensor settings: detection area =100%, hold time = 5 sec, daylight threshold = disabled, stand-by period = 0 sec, stand-by dimming level = 10%

Dimmer:

DWS-010-T	=	0-10V Dimmer, Toggle Switch
DWS-010-D	=	0-10V Dimmer, Decora Switch
IP710-DLZ	=	0-10V Dimmer, Button Switch

COMPATIBLE EMERGENCY DRIVERS-INSTALLED

Emergency Driver Part Number	EM5		EM10		EM13	
Model	Watts	EM Lumens	Watts	EM Lumens	Watts	EM Lumens
CTB22-4L / CTB24-6L	5	650	10	1300	1	1690

LUMEN TABLES

Series	Measurements	High			Mid			Low		
		3500K	4000K	5000K	3500K	4000K	5000K	3500K	4000K	5000K
CTB14-4L	Lumens	4,239	4,345	4,257	3,930	4,105	4,028	3,309	3,444	3,396
	Watt	33	32	33	30.15	28.92	30	24.76	23.9	24.68
	Efficacy	127	137	128	130.35	141.94	134.27	133.64	144.10	137.60
CTB22-4L	Lumens	3,447	3,608	3,591	3,953	4,174	4,136	4,500	4,769	4,716
	Watt	25.58	24.54	25.34	29.68	28.75	29.83	34.61	33.39	34.78
	Efficacy	134.75	147.03	141.71	133.19	145.18	138.65	130.02	142.83	135.60
CTB24-6L	Lumens	4,530	4,670	4,573	4,997	5,174	5,055	5,752	5,974	5,792
	Watt	33.11	32.15	33.3	37.12	35.96	37.36	43.91	42.37	44.18
	Efficacy	136.81	145.26	137.33	134.62	143.88	135.31	131.00	141.00	131.10

ELECTRICAL DATA

Series	CCT	Input Amps (A)								
		High			Mid			Low		
		120V	240V	277V	120V	240V	277V	120V	240V	277V
CTB14-4L	3500K	0.28	0.14	0.12	0.25	0.13	0.11	0.21	0.10	0.09
	4000K	0.26	0.13	0.11	0.24	0.12	0.10	0.20	0.10	0.09
	5000K	0.28	0.14	0.12	0.25	0.13	0.11	0.21	0.10	0.09
CTB22-4L	3500K	0.21	0.11	0.09	0.25	0.12	0.11	0.29	0.14	0.12
	4000K	0.20	0.10	0.09	0.24	0.12	0.10	0.28	0.14	0.12
	5000K	0.21	0.11	0.09	0.25	0.12	0.11	0.29	0.14	0.13
CTB24-6L	3500K	0.28	0.14	0.12	0.31	0.15	0.13	0.37	0.18	0.16
	4000K	0.27	0.13	0.12	0.30	0.15	0.13	0.35	0.18	0.15
	5000K	0.28	0.14	0.12	0.31	0.16	0.13	0.37	0.18	0.16

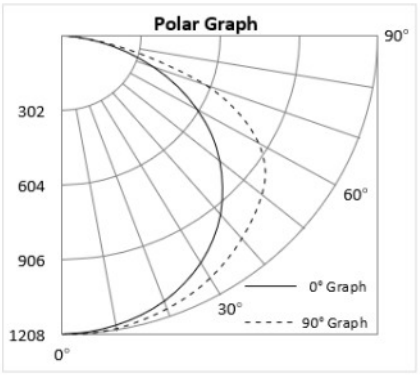
PHOTOMETRICS

CTB14-4L

Luminaire Data	
Description	1X4 Center Basket Lumen and Kelvin Select
Total Lumens	4,225
Input Wattage	33
Efficacy (lm/W)	126
Spacing Criterion (0-180°)	1.32
Spacing Criterion (90-270°)	1.42

Photometrics based on 35K CCT and set to highest lumen output.

Zonal Lumen Summary		
Zone	Lumens	%Fixt
0-20°	449	10.6%
0-30°	973	23.0%
0-40°	1,637	38.7%
20-50°	1,926	45.6%
40-70°	2,114	50.0%
0-60°	3,116	73.7%
0-80°	4,133	97.8%
0-90°	4,213	99.7%
90-180°	12	0.3%
0-180°	4,225	100.0%

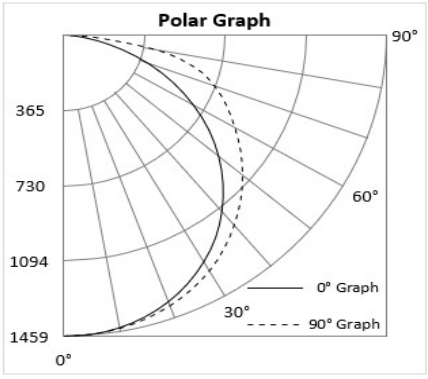


CTB22-4L

Luminaire Data	
Description	2X2 Center Basket Lumen and Kelvin Select
Total Lumens	4,205
Input Wattage	33
Efficacy (lm/W)	126
Spacing Criterion (0-180°)	1.3
Spacing Criterion (90-270°)	1.36

**Represents performance when set to 4000k and highest lumen output.*

Zonal Lumen Summary		
Zone	Lumens	%Fixt
0-20°	475	11.3%
0-30°	1,020	24.3%
0-40°	1,694	40.3%
20-50°	1,943	46.2%
40-70°	1,995	47.4%
0-60°	3,108	73.9%
0-80°	4,092	97.3%
0-90°	4,205	100.0%
90-180°	0	0.0%
0-180°	4,205	100.0%

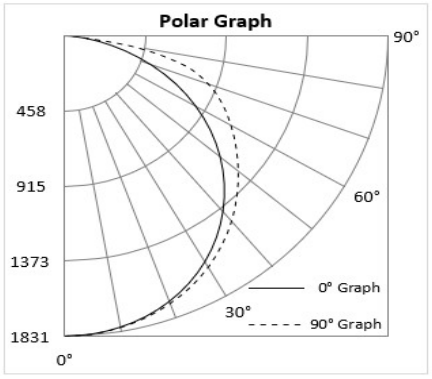


CTB24-6L

Luminaire Data	
Description	2X4 Center Basket Lumen and Kelvin Select
Total Lumens	5,675
Input Wattage	42
Efficacy (lm/W)	134
Spacing Criterion (0-180°)	1.3
Spacing Criterion (90-270°)	1.34

**Represents performance when set to 4000k and highest lumen output.*

Zonal Lumen Summary		
Zone	Lumens	%Fixt
0-20°	641	11.3%
0-30°	1,374	24.2%
0-40°	2,279	40.2%
20-50°	2,609	46.0%
40-70°	2,680	47.2%
0-60°	4,175	73.6%
0-80°	5,512	97.1%
0-90°	5,675	100.0%
90-180°	0	0.0%
0-180°	5,675	100.0%



PLUGS AND CORDS

When ordering a plug, use the following suffix choices.

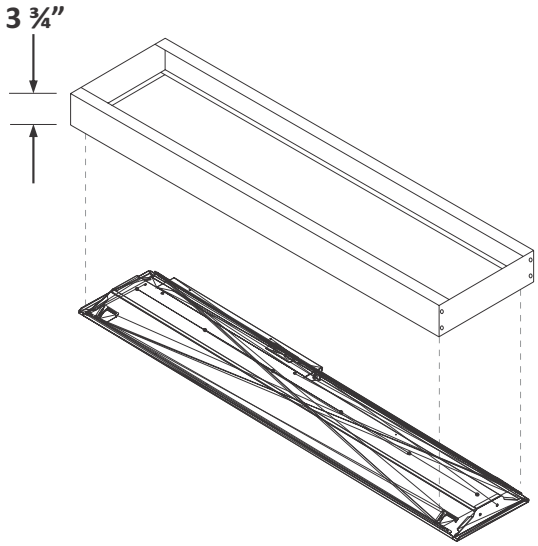
Example: CTB22-4L-6W3

Note: Cords & plugs do not affect the ability to install sensors.

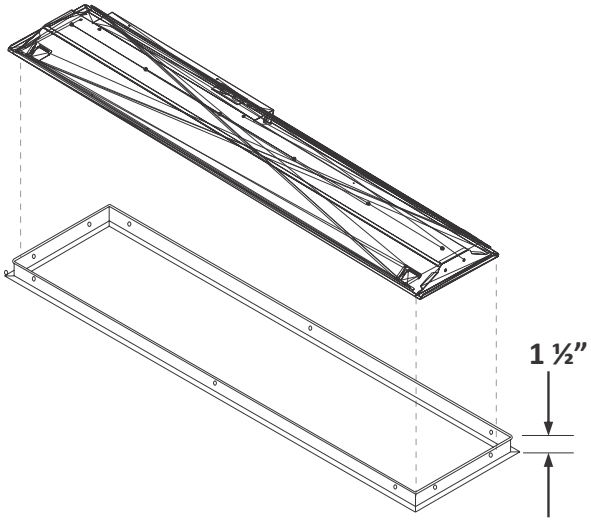
Part number suffix	Description	For use with
6W3	6' whip - 3 conductor (black/white/green)	Standard & UNC
6W4	6' whip - 4 conductor (black/white/green/red)	EM driver
6W5	6' whip - 5 conductor (black/white/green/purple/pink)	Dimming (standard & UNC)
6W6	6' whip - 6 conductor (black/white/green/red/purple/pink)	Dimming & EM driver

- Optional Surface Mounting Kits mounts below the ceilings.
- Optional flange mounting kits provide for recessed installation on plaster or other hard ceilings. Attached Flange Mount Kit to ceiling joists or other stationary structures, and the panel is mounted flush to the ceiling.

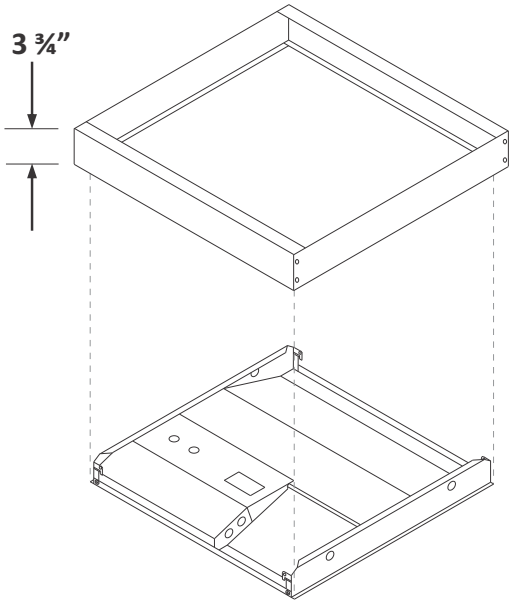
Surface Mounting Kit SMKT-14



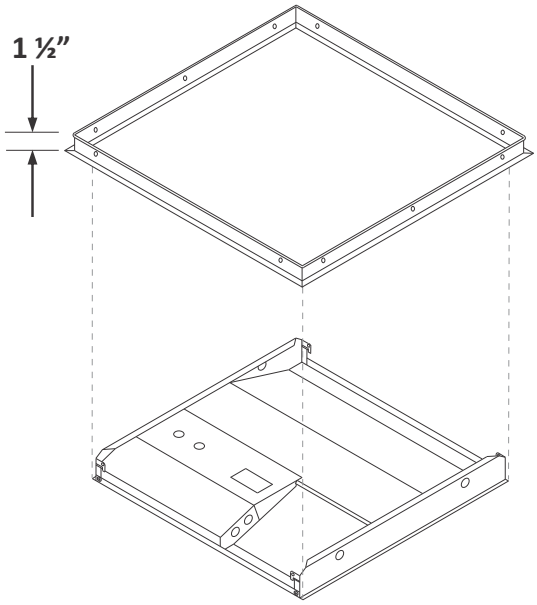
Flange Mount Kit FLANGEKIT14-ET



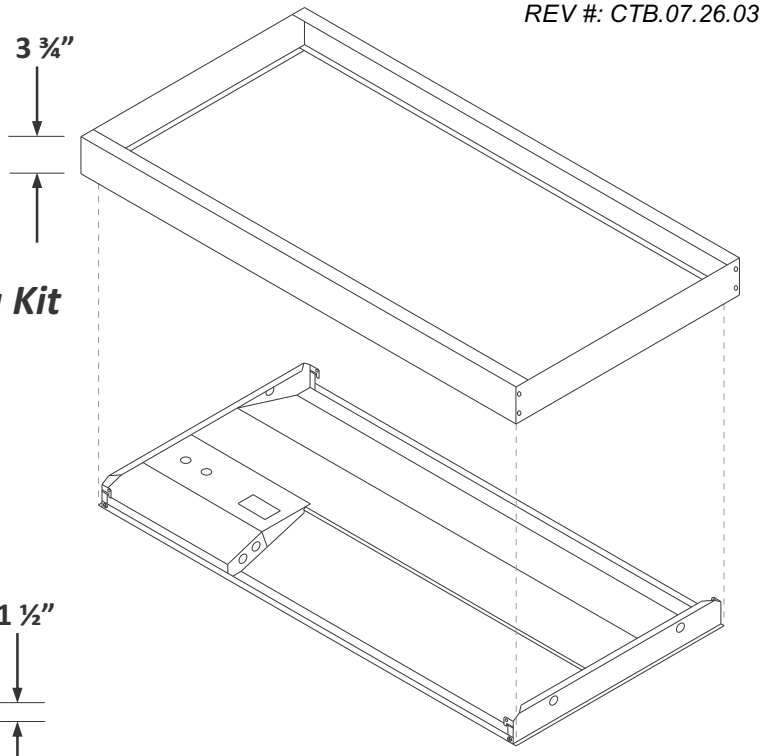
Surface Mounting Kit SMKT-22



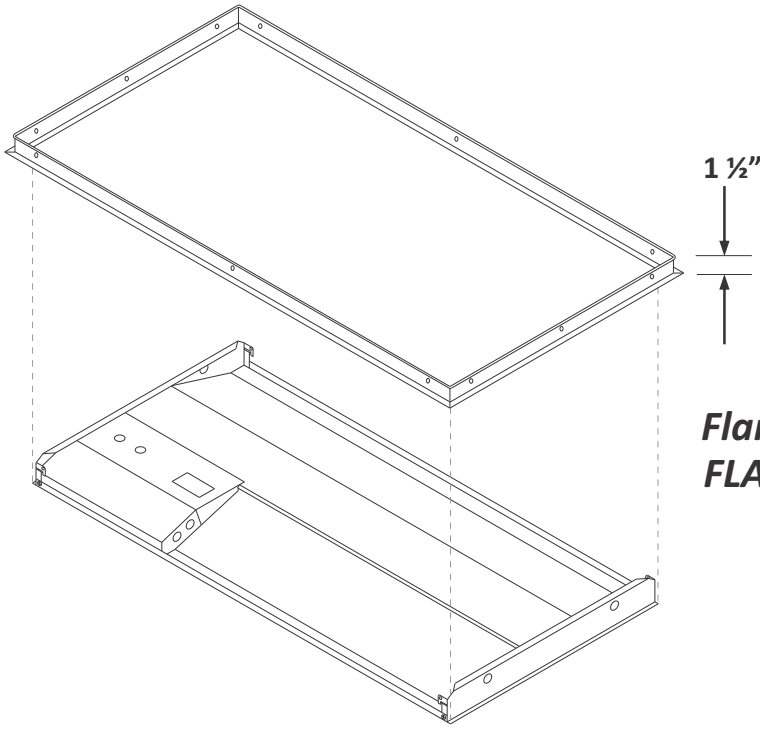
Flange Mount Kit FLANGEKIT22-ET



- Optional Surface Mounting Kits mounts below the ceilings.
- Optional flange mounting kits provide for recessed installation on plaster or other hard ceilings. Attached Flange Mount Kit to ceiling joists or other stationary structures, and the panel is mounted flush to the ceiling.



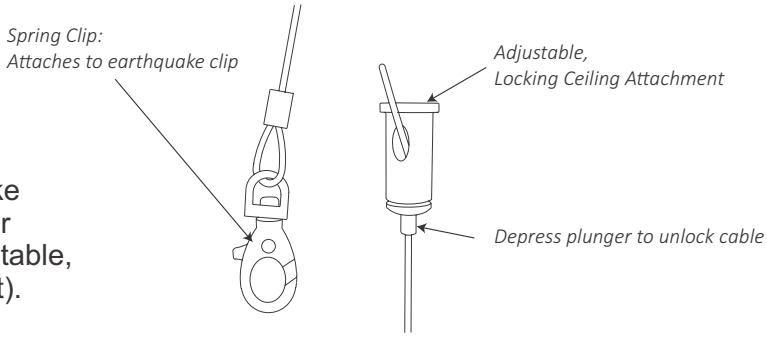
Surface Mounting Kit
SMKT-24



Flange Mount Kit
FLANGEKIT24-ET

Cable Mount Kit
(PNL-CM)

- Optional cable mounting kits provide additional security, as well as sus-pended mounting. Attach one end of the Cable Mount Kit (PNL-CM) to luminaire earthquake clips using spring clips, and attach the other end to stationary structures using the adjustable, locking ceiling attachment (see picture right).



DISTRIBUTOR

Contact Signtex for layout assistance.
Code compliant emergency lighting layouts provided!
Specifications and dimensions subject to change without notice.