Signtex Inc LIGHTING
INTELLIGENT EMERGENCY LIGHTING SYSTEMS

PROJECT:	
TYPE:	
CATALOG #:	

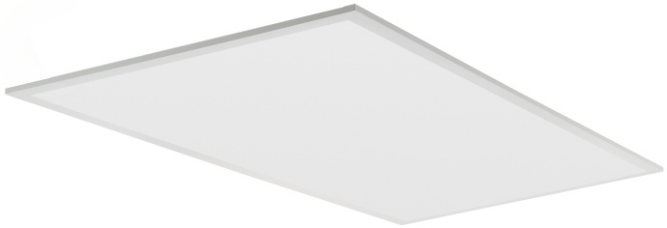
Back-Lit LED Flat Panel Light
Lumen and Kelvin Field Selectable

emLITE
Series PNL
REV #: PNL.10.25.02

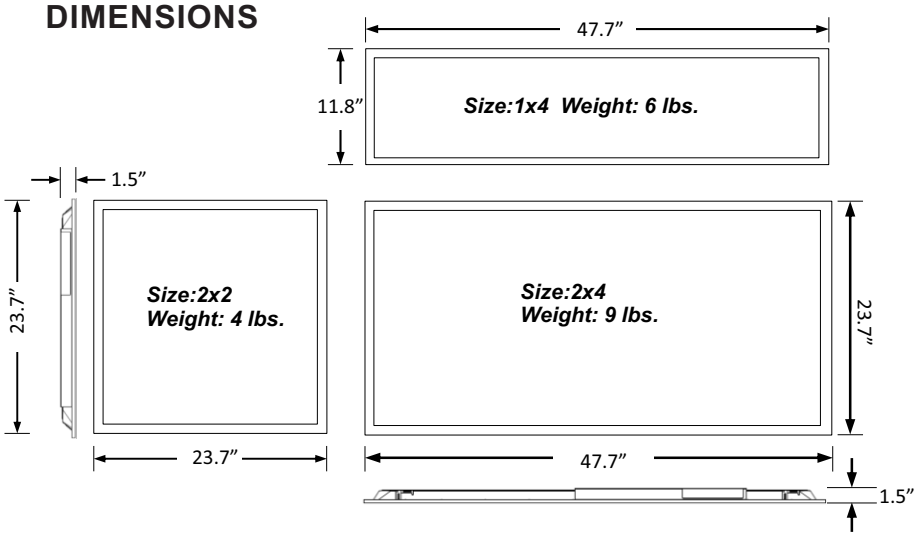
User's Manual

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 144,000 hours of operation with at least 70% of initial lumen output (L70), and 44,000 hours with at least 90% of initial lumen output (L90).**
- Selectable lumen outputs range from 2600 to 5000
- Universal 120-277 AC voltage (50-60Hz) is standard.
- 0-10vdc dimming drivers are standard.
- Power factor > 0.90 , total harmonic distortion < 20%.
- Color rendering index > 80.
- Aluminum frame and steel housing backplate.
- PMMA (polymethyl methacrylate) LED lenses for optimal light distribution, efficiency and longevity.
- Easy installation in new construction or retrofit.
- Standard earthquake clips provide secure installation in grid ceilings.
- Optional emergency drivers are available.
- Standard mounting options include recessed mounting in grid ceilings, or suspended mounting using attached hanging brackets. For mounting in plaster or other hard ceiling, see Mounting Kits.



DIMENSIONS



CODES

- cULus for damp locations and insulated ceilings (Type IC-rated). Suitable for ambient temperatures from -20°C to 40°C (-4°F to 104°F).
- DLC premium approved.
- Flicker-free per IEEE1789-2015 (no observable adverse effects of flicker at 100% light output level).
- Complies with FCC Part 15, class B.
- Surge immunity protection = 1kV

WARRANTY

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

Contact factory for other color temperatures and lumen packages.
****L70 hours are IES TM-21-11 calculated hours.***

STANDARD | **OPTIONS**

CERTIFIED · DLC LISTED PREMIUM · FC · DAMP · 1.0kV Surge Protection | ELC EMERGENCY LIGHTING CONTROL

FIXTURE ORDERING INFORMATION EXAMPLE: PNL2X2SLSKMV-ELC10P6

PNL 2x2 SL SK MV - ELC10P6

SERIES	SIZE	SELECTABLE[1] NOMINAL LUMENS	SELECTABLE[1] COLOR TEMP	VOLTAGE	OPTIONS
PNL	**1x4** 40L	**SL** 2,600lm 3,400lm 4,000lm	**SK** 3500K 4000K 5000K	**MV** 120-277VAC	ELCXXP6[2] Emergency Lighting Control *"XX"= Varies with fixture size and power. See Options table for complete part number EMXX Emergency driver, see option table on page2 DWS Dimmer Switch see option table on page 2
	2x2 40L	**SL** 2,700lm 3,600lm 4,000lm			
	2x4 50L	**SL** 3,300lm 4,500lm 5,000lm			

[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

ELC5P6		ELC15P6	
EPR [1] WATTS (MIN.)	EM LUMENS [2]	EPR WATTS (MAX.) [3]	EM LUMENS
5	650	15	1950

[1] EMERGENCY POWER RATING (FACTORY ADJUSTABLE)

[2] NOMINAL OUTPUT AT 5000K

[3] MAX. EPR DEPENDS ON FIXTURE DRIVER MAX. OPERATING VOLTAGE

NOTE:

Emergency lumens are calculated based on efficacy in the MID-LUMEN range (5000K) 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)

ACCESSORIES (ORDER SEPARATELY)

Emergency Drivers Option= EM:

Em5 = BLEM-CP-5C 5 Watts,650 Lumens Emergency Driver
EM10 = BLEM-CP-10C 10 Watts,1300 Lumens Emergency Driver
EM13 = BLEM-CP-13C 13 Watts,1690 Lumens Emergency Driver

Dimmer Wall Switch Option = DWS:

DWS-010-T 0-10v dimmer, toggle switch
DWS-010-D 0-10v dimmer, decora switch
IP710-DLZ 0-10v dimmer, button switch

MOUNTING KITS:

SMKT-14 for PNL1x4 **SMKT-22** for PNL2x2 **SMKT-24** for PNL2x4 *Surface mounting kits mounts below the ceiling.*	**FLANGEKIT14-ET** for PNL1x4 **FLANGEKIT22-ET** for PNL2x2 **FLANGEKIT24-ET** for PNL2x4 *Flange mounting kits provide for recessed installation on plaster or other hard ceilings.*	**PNL-CM** *Cable Mounting Kits provide additional security, as well as suspended mounting.*

COMPATIBLE DIMMERS AND CONTROLS

Manufacturer	Model Number	Dimmer Range	Load Switching Capacity
Best Lighting	DWS-010V-T	10%-100%	600W
Best Lighting	DWS-010V-D	10%-100%	600W
Leviton	IP710-LFZ	10%-100%	1200W
Lutron	DVSTV	10%-100%	450W

ELECTRICAL DATA

PNL 1X4

Series	Measurements	Low Lumens			Mid Lumens			High Lumens		
		3500K	4000K	5000K	3500K	4000K	5000K	3500K	4000K	5000K
PNL1X4	Lumens	2584	2729	2656	3425	3713	3531	4085	4342	4218
	Watts	20	19	20	28	27	28	35	33	34
	Efficacy	127	140	132	122	137	127	117	131	123
	Input Current (A)	120V = 0.17A	120V = 0.16A	120V = 0.17A	120V = 0.23A	120V = 0.23A	120V = 0.23A	120V = 0.29A	120V = 0.28A	120V = 0.28A
		240V = 0.08A	240V = 0.08A	240V = 0.08A	240V = 0.12A	240V = 0.11A	240V = 0.12A	240V = 0.15A	240V = 0.14A	240V = 0.14A
		277V = 0.07A	277V = 0.07A	277V = 0.07A	277V = 0.10A	277V = 0.10A	277V = 0.10A	277V = 0.13A	277V = 0.12A	277V = 0.12A

PNL 2X2

Series	Measurements	Low Lumens			Mid Lumens			High Lumens		
		3500K	4000K	5000K	3500K	4000K	5000K	3500K	4000K	5000K
PNL2X2	Lumens	2733	2802	2810	3632	3810	3743	4072	4290	4179
	Watts	20	19	20	28	27	28	32	32	32
	Efficacy	136	145	141	131	142	136	126	135	130
	Input Current (A)	120V = 0.17A	120V = 0.16A	120V = 0.17A	120V = 0.23A	120V = 0.23A	120V = 0.23A	120V = 0.27A	120V = 0.27A	120V = 0.27A
		240V = 0.08A	240V = 0.08A	240V = 0.08A	240V = 0.12A	240V = 0.11A	240V = 0.12A	240V = 0.13A	240V = 0.13A	240V = 0.13A
		277V = 0.07A	277V = 0.07A	277V = 0.07A	277V = 0.10A	277V = 0.10A	277V = 0.10A	277V = 0.12A	277V = 0.12A	277V = 0.12A

PNL 2X4

Series	Measurements	Low Lumens			Mid Lumens			High Lumens		
		3500K	4000K	5000K	3500K	4000K	5000K	3500K	4000K	5000K
PNL2X4	Lumens	3284	3323	3389	4448	4576	4538	5015	5247	5157
	Watts	24	23	24	33	32	33	38	37	38
	Efficacy	138	148	144	134	144	138	131	141	137
	Input Current (A)	120V = 0.20A	120V = 0.19A	120V = 0.20A	120V = 0.28A	120V = 0.27A	120V = 0.28A	120V = 0.32A	120V = 0.31A	120V = 0.32A
		240V = 0.10A	240V = 0.10A	240V = 0.10A	240V = 0.14A	240V = 0.13A	240V = 0.14A	240V = 0.16A	240V = 0.15A	240V = 0.16A
		277V = 0.09A	277V = 0.08A	277V = 0.09A	277V = 0.12A	277V = 0.12A	277V = 0.12A	277V = 0.14A	277V = 0.13A	277V = 0.14A

PHOTOMETRIC DATA

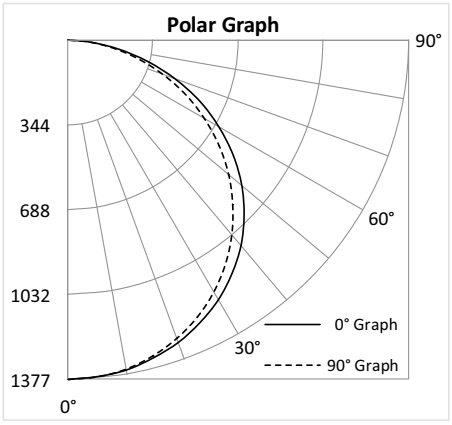
PNL1X4-40L

Luminaire Data

Description	Back Lit Panel 1X4 40L 5K
Total Lumens	4,218
Input Wattage	34
Efficacy (lm/W)	123
Spacing Criterion (0-180°)	1.32
Spacing Criterion (90-270°)	1.28

Zonal Lumen Summary

Zone	Lumens	%Fixt
0-20°	506	12.0%
0-30°	1,085	25.7%
0-40°	1,796	42.6%
20-50°	2,044	48.4%
40-70°	1,995	47.3%
0-60°	3,246	77.0%
0-80°	4,117	97.6%
0-90°	4,213	99.9%
90-180°	5	0.1%
0-180°	4,218	100.0%



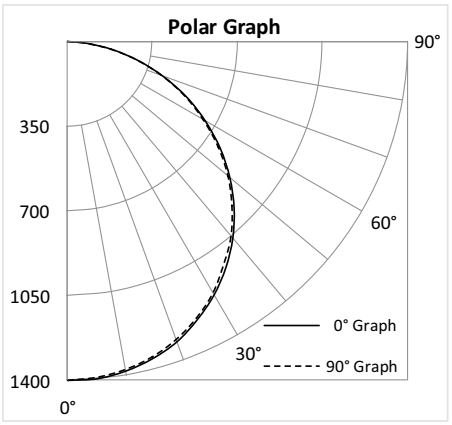
PNL2X2-40L

Luminaire Data

Description	Premium Back Lit Panel 2X2 40L 5K
Total Lumens	4,179
Input Wattage	32
Efficacy (lm/W)	130
Spacing Criterion (0-180°)	1.3
Spacing Criterion (90-270°)	1.28

Zonal Lumen Summary

Zone	Lumens	%Fixt
0-20°	514	12.3%
0-30°	1,098	26.3%
0-40°	1,810	43.3%
20-50°	2,043	48.9%
40-70°	1,962	46.9%
0-60°	3,240	77.5%
0-80°	4,087	97.8%
0-90°	4,175	99.9%
90-180°	4	0.1%
0-180°	4,179	100.0%



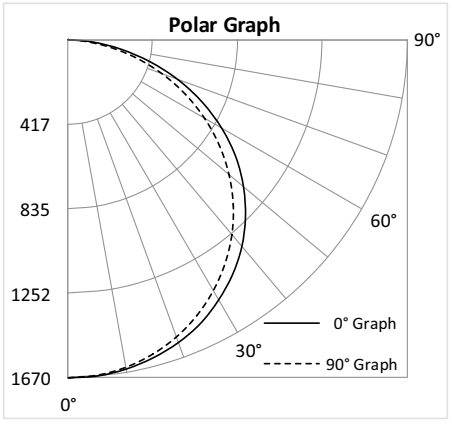
PNL2X4-50L

Luminaire Data

Description	Premium Back Lit Panel 2X4 50L 5K
Total Lumens	5,157
Input Wattage	38
Efficacy (lm/W)	137
Spacing Criterion (0-180°)	1.34
Spacing Criterion (90-270°)	1.28

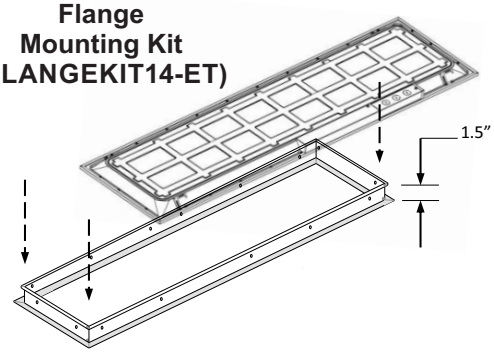
Zonal Lumen Summary

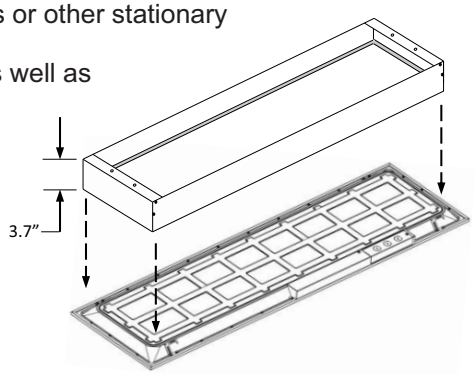
Zone	Lumens	%Fixt
0-20°	614	11.9%
0-30°	1,316	25.5%
0-40°	2,181	42.3%
20-50°	2,491	48.3%
40-70°	2,457	47.6%
0-60°	3,964	76.9%
0-80°	5,039	97.7%
0-90°	5,152	99.9%
90-180°	5	0.1%
0-180°	5,157	100.0%



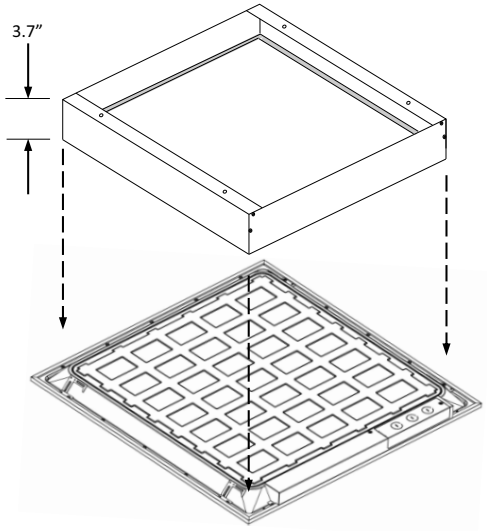
- Optional surface mounting kits (SMKT) mounts below the ceiling.
- Optional flange mounting kits provide for recessed installation on plaster or other hard ceilings. Attach Flange Mount Kit (FLANGEKIT-ET) to ceiling joists or other stationary structures, and the panel is mounted flush to the ceiling.
- Optional cable mounting kits provide additional security, as well as suspended 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 below right).

Flange Mounting Kit (FLANGEKIT14-ET)



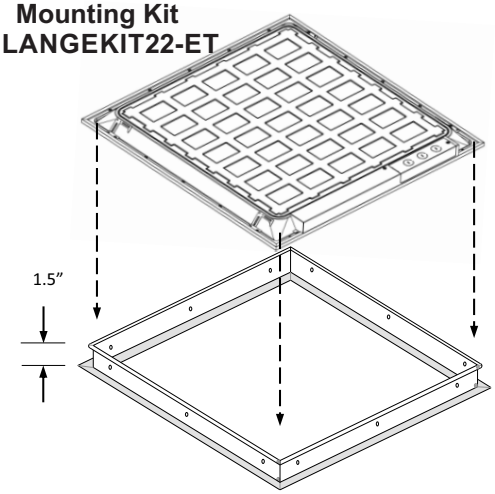


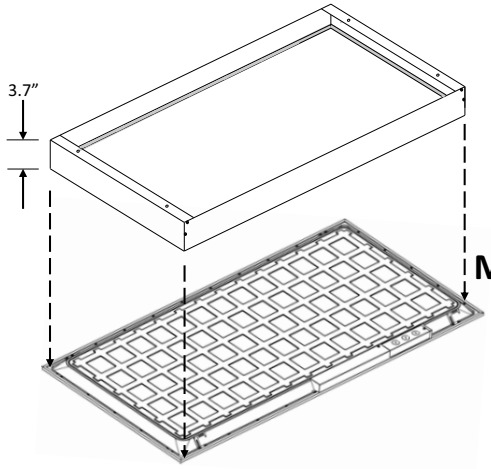
Surface Mounting Kit (SMKT-14)



Surface Mounting Kit (SMKT-22)

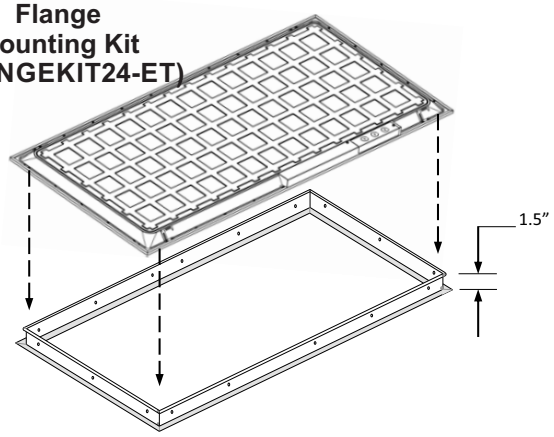
Flange Mounting Kit (FLANGEKIT22-ET



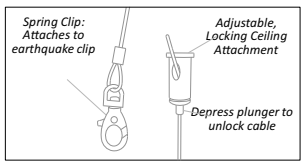


Surface Mounting Kit (SMKT-24)

Flange Mounting Kit (FLANGEKIT24-ET)



Cable Mounting Kit (PNL-CM)



Cable Mount Kit:
- *Spring Clip*
- *Adjustable, locking ceiling attachment*

NOTES

DISTRIBUTOR

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