LEDALITE

by signify

Lighting inspired by nature

iF DESIGN AWARD 2021

We have become the indoor generation

On average, we spend more than 90% of our time indoors[1], where we do not get sufficient access to daylight that can help us feel happy and healthy[1].

The exposure to the right amounts and quality of light during the day strongly impacts our mood, energy levels, comfort, quality of sleep and our health and wellbeing in general.

Ledalite NatureConnect brings the benefits of natural light indoors

The Ledalite NatureConnect natural lighting system is built on proven Biophilic Design principles to reconnect us with the constant cycles and variations of nature for comfortable, engaging and attractive indoor environments.

Benefits of Ledalite NatureConnect

Light is as fundamental to life as food, water and air. Research confirms that it enables us to see better, function better and feel better[2].

Enhance wellbeing

Supports the body's natural day-night rhythm to stay active during the day and rest well at night.

Boost performance

Can help people feel more energetic and stimulate interaction and collaboration[3].

Create an inspiring environment

Enhances your company identity by creating a vibrant, joyful and immersive atmosphere.

1. 2019 Cigna 360 Well-Being Survey, Well and Beyond
2. Baron KG, Reid K. J., Int Rev Psychiatry 2014, 26(2) p.139-154.
3. Fernadez et al Light Affects Mood and Learning through Distinct Retinal Brain Pathways, Cell, Vol.175, Issue 1, Sept. 20, 2018

LOEB ELECTRIC

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Solution

NatureConnect combines various LED luminaires for a fully immersive natural experience.

Daylight

Mimics the daily rhythm of the sun to help people stay active during the day and rest well at night.

Skylight

Provides a view to the sky to create a feeling of spaciousness and connection with nature.

Lightscape

Applies natural colors and dynamics on the wall for a fully immersive experience.

Daylight

Skylight

Lightscape

Energize

Relax

Present

Light behavior

The intuitive user interface allows the user to choose between the automatic Day Rhythm or one of the three specific natural Light Scenes.

Day Rhythm

The Day Rhythm mode automatically provides dynamic light throughout the day, following the rhythm of the sun to ensure you experience the right light at the right time of day.

Light Scenes

The natural Light Scenes can be used to tailor the environment to the user's specific activities and needs.

Energize

Get an instant energy boost

Relax

Relax and clear your mind

Present

Focus your attention

Learn more at **www.signify.com/NatureConnect**

NatureConnect precommissioned System

NatureConnect precommissioned is a completely functional NatureConnect system that doesn't require commissioning.

A pre-configured control cabinet automatically creates the right light settings and works with the presence sensor(s) and user interface(s) that come with the system.

The controller limits power usage of each luminaire to the "energy code rated power" for energy code compliance.

NatureConnect tailored System
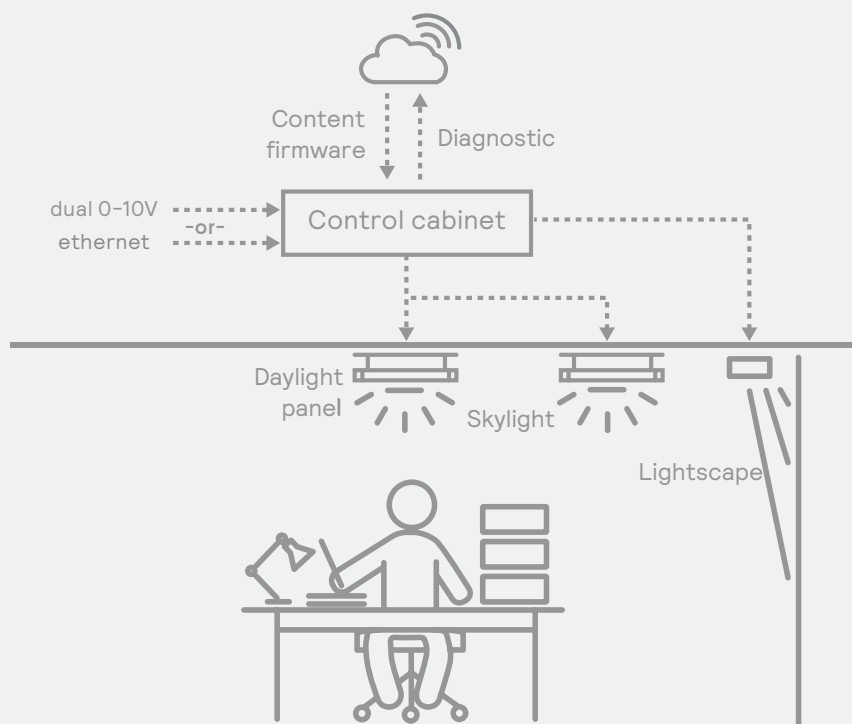
In larger installations the NatureConnect system can be integrated with an external lighting control system.

0-10V or Ethernet/IP

Control (e.g. with Dynalite) is possible through an Ethernet/IP protocol to fully support all possibilities. Alternatively the system can use a dual 0-10 V input to allow control of brightness for daylight regulation), set the scene, or turn the system off. It is designed to be compatible with any control system that supports 0-10 V.

The NatureConnect control cabinet addresses the luminaires and performs the dual role of content generator and power budget limit enforcer. There is an optional cloud connection venabling software updates and any customizations needed.

Ledalite NatureConnect
Natural lighting system

Large Island 6' x 10'

Ledalite NatureConnect Islands bring the benefits of natural light indoors. They reconnect us with the constant cycles and variations of nature to create healthy, engaging and attractive environments.

General Information

Daylight luminaires	4
Skylight luminaires	3
Maximum electrical power	312 W
Energy code rated power	182 W
Light output	25,500 lm
Warranty period	5 years

Operating and Electrical

Input voltage	120–277 V
Input frequency	50–60 Hz
Input current	2.53 A @ 120 V
Power factor (min.)	0.9
THD	< 20%
Products per MCB (type B 16A)	5
Maximum daisy chain output current	13.0 A

Mechanical

|	
Dimensions (LxWxH)	119.57" x 72.36" x 5.55" (suspended)
Dimensions (LxWxH)	121.14" x 73.93" x 5.55" (recessed)
Frame material	Steel
Frame color	Dark grey RAL7043
Luminaire color	White RAL9003
Net weight product	275 lb

Product 12nc

Large Island Recessed (NAM)	912401564422
Large Island Suspended (NAM)	912401564423

Controls and User Interface

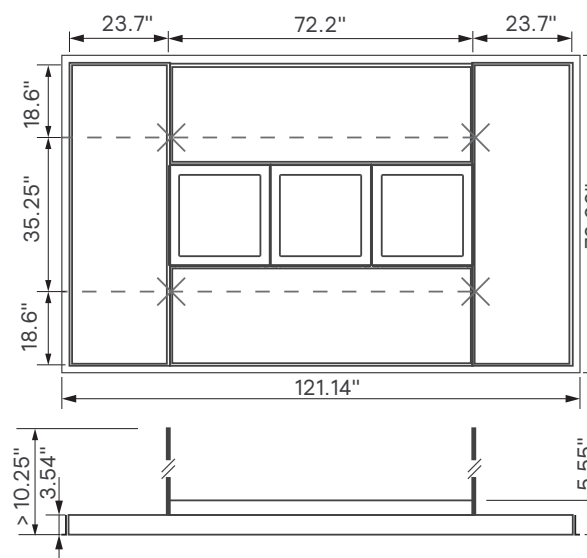|	
Lighting control	Compatible with NatureConnect control system
Maximum amount of large islands per NatureConnect control output	3

Large frame suspended
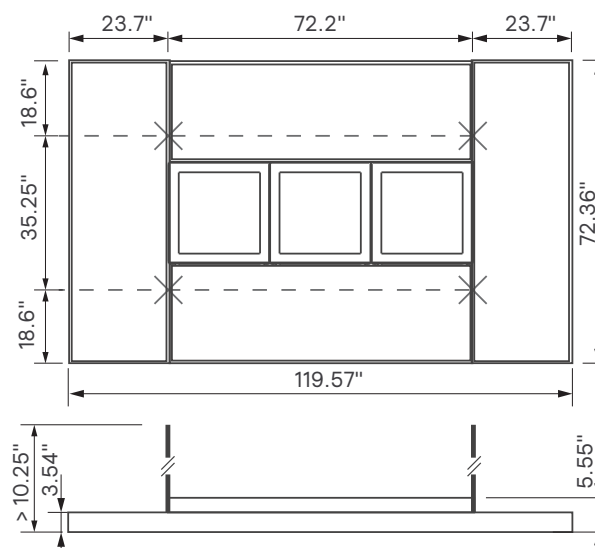
Large frame recessed

Specified data is valid for luminaire set at maximum power

Small Island 6' x 6'

Ledatlie NatureConnect Islands bring the benefits of natural light indoors. They reconnect us with the constant cycles and variations of nature to create healthy, engaging and attractive environments.

General Information

Daylight luminaires	2
Sklight luminaires	3
Maximum electrical power	228 W
Energy code rated power	133 W
Light output	16.500lm
Warranty period	5 years

Operating and Electrical

Input voltage	120–277 V
Input frequency	50–60 Hz
Input current	1.83 A @ 120 V
Power factor (min.)	0.9
THD	< 20%
Products per MCB (type B 16A)	7
Maximum daisy chain output current	14.0 A

Mechanical

|	
Dimensions (LxWxH)	72.36" x 72.36" x 5.55" (suspended)
Dimensions (LxWxH)	73.93" x 73.93" x 5.55" (recessed)
Frame material	Steel
Frame color	Dark grey RAL7043
Luminaire color	White RAL9003
Net weight product	225 lb

Product 12nc

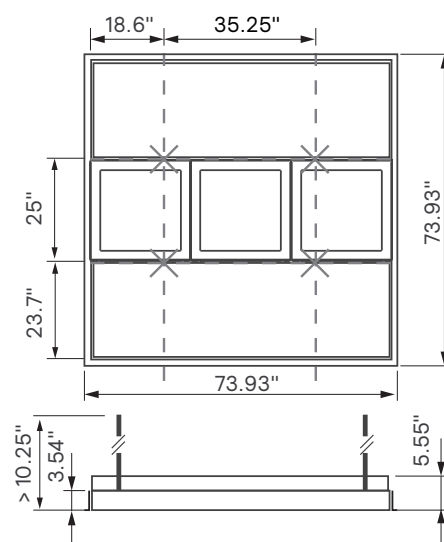|	
Small Island recessed (NAM)	912401564424
Small Island suspended (NAM)	912401564425

Controls and User Interface

Lighting control	Compatible with NatureConnect control system
Maximum amount of small islands per NatureConnect control output	4

Small frame suspended
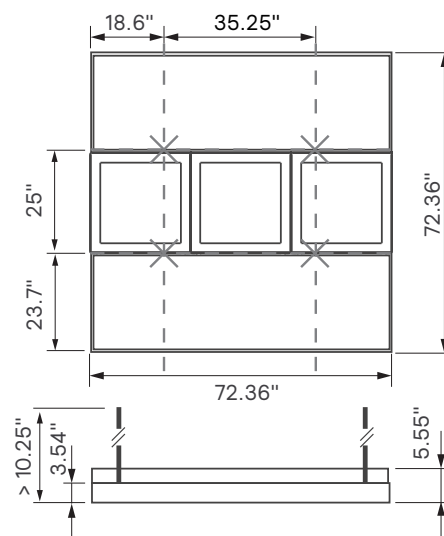
Small frame recessed

Specified data is valid for luminaire set at maximum power

Ledalite NatureConnect
Natural lighting system

Daylight 2' x 6'

Ledalite NatureConnect Daylight 2' x 6' recreates the intensity and color of sunlight throughout the day, providing high quality,low glare ambient lighting.

General Information

Light source	Non-replaceable LED module
Light source color	Tunable white
Driver included	Yes
Driver/power unit/transformer	PSD (Power supply unit with DALI interface)
Maximum electrical power	42W
Energy Code rated power	24.5 W (Daylight Island)
Energy Code rated power	36 W (Daylight Standalone)
Light output	4500 lm at 4000 K
Efficacy	105 lm/W at 4000 K
CCT	2700 K to 6500 K
Color point SDCM	3
CRI	90
R9	> 50
SVM	< 0.6
Pst LM	< 1.0
UGR	< 16
Luminaire beam angle	90°
Wiring (Daylight suspended)	Power cord 7.5', 5 leads AWG 18 (black, white, green, purple, pink)
Wiring (Daylight other versions)	Flex whip 8', 5 leads AWG 18 (black, white, green, purple, pink)
Lumen maintenance	L80 (10k) 60,000 hrs
Driver output classification	Class 2
Ambient temperature range	32 to 77 °F (0 to +25 °C)
Performance ambient temp. Tq	77°F (25°C)
Storage temperature	–4 to 140 °F (–20 to +60 °C)
Ingress protection code	IP20
Mech. impact protection code	IK02
Certification	cETLus
DLC	Standard
Warranty period	5 years

Operating and Electrical

|	
Input voltage	120-277V
Input frequency	50-60Hz
Input current	0.35 A @ 120 V
Power factor (min.)	0.9
THD	< 20%
Products per MCB (type B 16A)	36

Controls and User Interface

Lighting control	Compatible with NatureConnect control system
Maximum amount of fixtures per NatureConnect control output	32

Mechanical and Housing

Dimensions (LxWxH)	70.7" x 23.5" x 3.9"
Housing material	Aluminum
Housing color	White RAL9003
Optical cover/lens type	Polystyrene
Optical cover/lens finish	Opal
Net weight product	34 lbs

Product 12nc

Daylight Standalone T Bar 2 PK (NAM)	912401564429
Daylight Standalone Drywall 2 PK (NAM)	912401564430
Daylight Standalone Suspended 2 PK (NAM)	912401564431
Daylight Island (NAM)	included in: 912401564422 912401564423 912401564424 912401564425
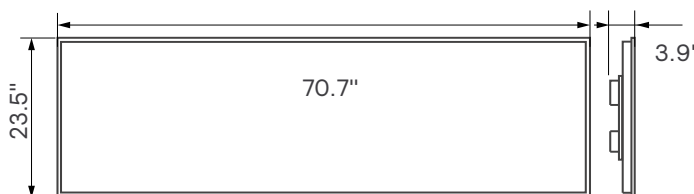
23.5"   70.7"   3.9"

Specified data is valid for luminaire set at maximum power

Ledalite NatureConnect
Natural lighting system

Skylight

Ledalite NatureConnect Skylight combines the feeling of infinity with a dynamic sky gradient and realistic sun shadows to provide a connection with the outside world.

General Information

Light source	Non-replaceable LED module
Driver included	Yes
Driver/power unit/transformer	PSD (Power supply unit with DALI interface)
Maximum electrical power	48 W
Energy Code rated power	28 W
Wiring	Flex whip 6', 5 leads AWG 18 (black, white, green, purple, pink)
Luminaire beam angle	120°
Lumen maintenance	L80 50,000 hrs
Driver output classification	Class 2
Ambient temperature	32 °F to 77 °F (0 °C to +25 °C)
Performance ambient temp. Tq	77 °F (25 °C)
Storage temperature	–4 to 140 °F (–20 to +60 °C)
Ingress protection code	IP20
Mech. impact protection code	IK02
Certification	cETLus
DLC	–
Warranty period	5 years

	Sky	Sun Rim
Light source color	Tunable white and blue	Tunable white
Light output	1600 lm	1000 lm
CCT	6500 K to blue	2700 K to 6500 K
Color point SDCM	3	4
CRI	80	80

Operating and Electrical

Input voltage	120 – 277 V
Input frequency	50–60 Hz
Input current	0.375 A @ 120 V
Power factor (min.)	0.9
THD	< 20%
Products per MCB (type B 16A)	34

## Controls and User Interface

Lighting control	Compatible with NatureConnect control system
Maximum amount of fixtures per NatureConnect control output	16

Mechanical and Housing

Dimensions (LxWxH)	23.54" x 23.54" x 5.53"
Housing material	Steel
Housing color	White RAL9003
Optical cover/lens type	Polycarbonate
Optical cover/lens finish	Transparent (Sky); Opal (Sun)
Net weight product	28 lbs

Product 12nc

Skylight (NAM)	included in: 912401564422 912401564423 912401564424 912401564425
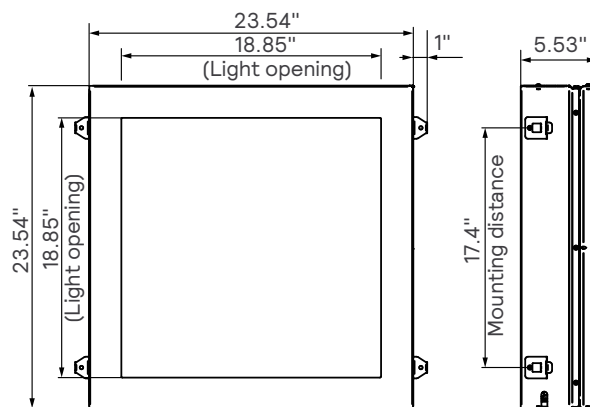
Specified data is valid for luminaire set at maximum power

Lightscape

Ledalite NatureConnect Lightscape delivers vertical illumination and dynamic color gradients to the walls throughout the day contributing to the biological impact of the light.

General Information

Light source	Non-replaceable LED module
Light source color	RGBW
Driver included	Yes
Driver/power unit/transformer	Non-replaceable integrated driver
Maximum electrical power	107 W
Energy Code rated power	35 W
Light output	3200 lm
CCT	Not applicable
Color point SDCM	3
Luminaire beam angle	36° x 75°
Lumen maintenance	L80 28,600 hrs
Control interface	Lightscape controller, DMX (912401564454)
Wiring	10', 4 leads AWG 16 (black, white, green, red)
Ambient temperature range	32 to 77 °F (0 to +25 °C)
Performace ambient temp. Tq	77 °F (25 °C)
Storage temperature	–40 to 158 °F (–40 to +70 °C)
Ingress protection code	IP20
Mech. impact protection code	IK02
Certification	cETLus
DLC	–
Warranty period	5 years

Operating and Electrical

|	
Input voltage	120–277 V
Input frequency	50 to 60 Hz
Input current	0.97 A @ 120 V
Power factor (120 V)	0.9
Power factor (277 V)	0.85
Products per MCB (type B 16A)	13

Controls and User Interface

Lighting control	Compatible with NatureConnect control system

## Mechanical and Housing

Dimensions (LxWxH)	53.15" x 4.72" x 5.91"
Housing material	Steel
Housing color	White RAL9003 or Dark grey RAL7043
Optical cover/lens type	Polycarbonate
Optical cover/lens finish	Lens
Net weight product	20 lbs

Product 12nc

Lightscape white (NAM)	912401564452
Lightscape dark grey (NAM)	912401564453

Specified data is valid for luminaire set at maximum power
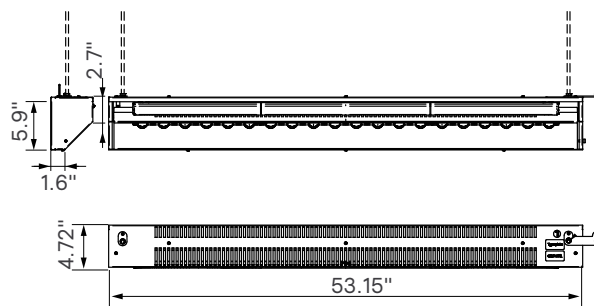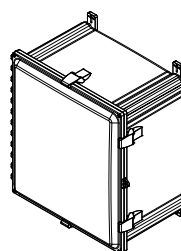
Control cabinet: Tailored Installation

Ledalite Tailored Control Cabinet is a customized control solution for larger installations. It creates the right control signals to realize a circadian rhythm or one of the available lighting scenes.

General Information

Amount of control groups	Between 1 and 8
Ambient temperature range	32 to 104 °F (0 to 40 °C)
Storage temperature	–40 to +158 °F (–40 to 70 °C)
Ingress protection code	IP66
Mech. impact protection code	IK09
UL mark	cETLus
Warranty period	5 years

Interfaces

Input power	L+N+GND internal cage clamp
Internet uplink	Ethernet, 10BASE-T, 100BASE-TX
Lightscape control output	8P8C modular connector (RJ45) external panel connector, SELV
Daylight/Skylight control output	2-wire, internal cage clamp connection SELV
Max. amount of fixtures per Daylight/Skylight control outpu	16 Skylights, or 32 Daylights, or 4 small islands, or 3 large islands

Control interface Ethernet

Internal network	Ethernet, 10BASE-T, 100BASE-TX 8P8C modular connector (RJ45)

Control interface 0–10V (optional)

Scene selection control input	0–10 V, internal cage clamp
Brightness control input	0–10 V, internal cage clamp

Operating and Electrical

Input voltage	90–120 V
Input frequency	50 to 60 Hz
Input current	0.56A @ 120 V
Maximum electrical power	60 W
Power factor (min)	0.9

Mechanical and Housing

Dimensions (LxWxH)	20.88" x 17.41" x 11.4"
Housing material	Polycarbonate with UV inhibitors
Housing color	Gray

Product Parts

Control Cabinet Integrated installation	

The control cabinet is customized for each installation, consult your local sales representative for the correct 12nc.
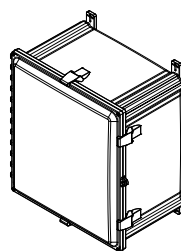
Control cabinet: common specifications

Specifications that apply to both the precommissioned and the tailored control cabinets.

Mechanical dimensions

AttaBox Heartland AH181610C Enclosure