At only 1.1" (28 mm) wide, the Generation 2, Linealux L1 mini grazer provides enormous creative lighting potential, in a very small package. Packed with features including **EasyGlow™** visual comfort, **CoolDrive™** thermal management and **PowerSync™** communication technologies. PowerSync allows for highly granular digital control via DMX/RDM, with no additional wiring.

Unique and flexible designer optics allow wide end-to-end spacing while maintaining excellent uniformity and superb color-over-angle and blending consistency even at close grazing distances.

Available in a range of standard lengths from 1 ft (300 mm) to 5 ft (1500 mm), the Linealux L1 Generation 2 provides excellent installation flexibility. Using the Linealux L1 Generation 2 in your lighting project, imagination really is the only limit!

Optional Integral Micro-Louvre

Performance

Static White & Color[1]	Lumen Output (lm)	Efficacy (lm/W)
⬤ 2,700 K (80 CRI)	1,620	61
⬤ 3,000 K (80 CRI)	1,740	66
◯ 3,500 K (80 CRI)	1,740	66
⬤ 4,000 K (80 CRI)	2,020	77
⬤ 5,000 K (80 CRI)	1,880	71

[1] Lumen output values are based on 7 W/ft, 4 ft luminaire, 20º x 80º lens.

Dynamic Color[2]	Lumen Output (lm)	Efficacy (lm/W)
🎨 RGBA	1,180	44
🎨 RGBW (4000 K) with Royal Blue	1,100	41

[2] Lumen output values are based on 7 W/ft, 4 ft luminaire, 20º x 80º lens.

Tunable White[3]	Lumen Output (lm)	Efficacy (lm/W)
⬤ 2,700 K - 6,500 K	1,750	66

[3] Lumen output values are based on 7 W/ft, 4 ft luminaire, 20º x 80º lens.

Beam Angles	20º x 80º, 30º x 80º, 40º x 80º, Asymmetric

* NOTE:

The default RGBW colors have recently changed to the RGBW with Royal Blue (4BW code). These colors will not match existing products with the earlier RGBW with Mid-Blue (4CW code). Contact Lumascape for custom LED Colors.

powersync® easyglow™ cooldrive™ microantileach™

Electrical

LED Power	6 W/ft, 4 W/ft
Power Consumption	7 W/ft, 5 W/ft
Lifetime	>60,000 hrs (B10, L70, TM21)
Input Voltage	Low Voltage 30-48 Vdc
Thermal Management	CoolDrive™ onboard thermal monitoring and control

Control

Interface	Lumascape **PowerSync®**
Protocols[1]	DMX / RDM, Artnet[1], 0 - 10 V (sink or source)[2]
PWM Frequency	10 kHz flicker-free dimming to 0.1%
Control Resolution	¾" (19 mm), 3.0" (75 mm), 6.0" (150 mm), 12.0" (300 mm) and full luminaire Configurable via RDM
RDM Functionality	PowerSync enabled Lumascape luminaires are shipped with a default RDM personality which provides smooth dimming control. For different dimming characteristics or to enable other special functionalities, the default personality can be changed through industry standard DMX/RDM.
Systems	Range of third-party controllers

[1] Some protocols require additional hardware. For more information and other available protocols contact Lumascape.
[2] Not available for color-changing or tunable white

Physical

Housing	Marine-grade extruded aluminum with tempered OptiClear™ glass lens
Finish	Superior 9-step powder-coating process, including marine-grade anodizing and polyester top coat
Installation	Surface-mounted
Adjustable	A range of mounting options available
Ambient Operating Temperature	-40 °F to 122 °F (-40 °C to 50 °C)
Surface Temperature	≤95 °F (35 °C)
Weight	3.8 lbs (1.7kg) for 4 ft section
Effective Projected Area	0.5 ft^2 (0.4 m^2) for 4 ft section

Certification & Compliance

IP Rating	IP66 / IP67 (Passes IP68 Tests)
IK Rating	IK6
Vibration Resistance	3G Rating (ANSI C136.31)
Environment	Dry, Damp, Wet locations
Certifications	ETL, CE, UKCA, RCM, CCC

Dimensions

Body Type S: Without Integral Micro-Louvre

1 ft – 12.4" (314 mm)
2 ft – 24.1" (613 mm)
3 ft – 35.9" (912 mm)
4 ft – 47.7" (1,211 mm)
5 ft – 59.4" (1,510 mm)

1.1" (28 mm)　　1.1" (29 mm)
2.2" (55 mm)
1.9" (47 mm)

1.2" (30 mm)
2.2" (55 mm)
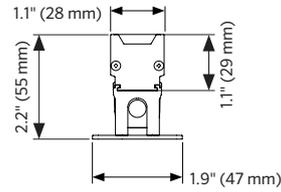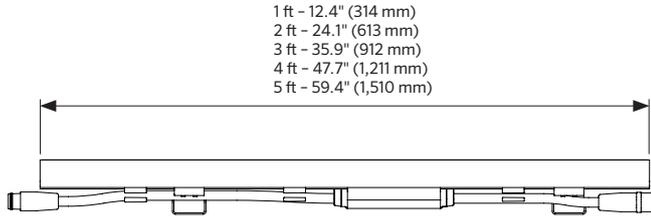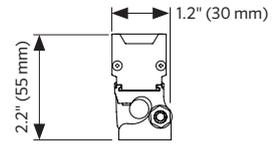
Fixed Bracket　　　　**Adjustable Bracket**

Body Type L: With Integral Micro-Louvre

1 ft – 12.4" (314 mm)
2 ft – 24.1" (613 mm)
3 ft – 35.9" (912 mm)
4 ft – 47.7" (1,211 mm)
5 ft – 59.4" (1,510 mm)

1.1" (28 mm)　　1.3" (34 mm)
2.4" (60 mm)
1.9" (47 mm)

1.2" (30 mm)
2.4" (60 mm)
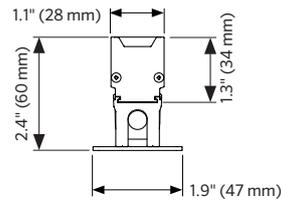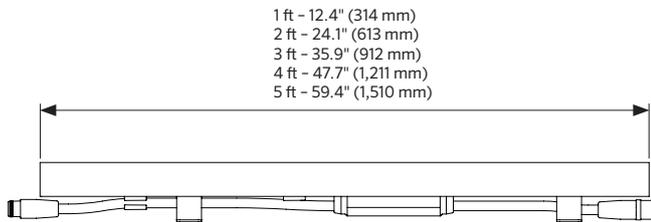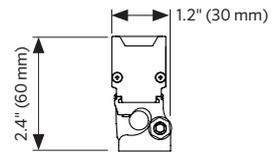
Fixed Bracket　　　　**Adjustable Bracket**

Luminaire Rotation

Adjustable Bracket
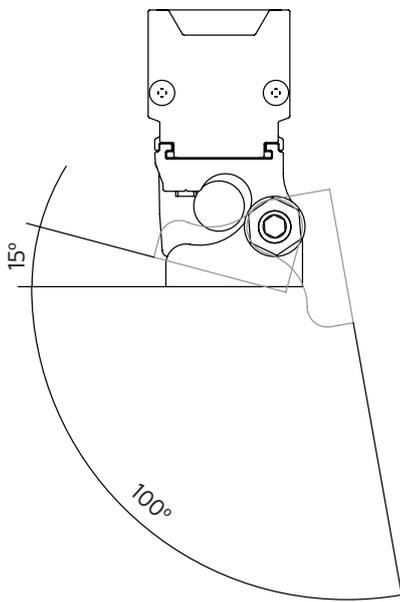
**Adjustable Bracket Installed
In Alternate Orientation**

15°
100°

90°
15°

Asymmetric Optics

Asymmetric Left (AL)
Power comes in from the left

Asymmetric Right (AR)
Power comes in from the right
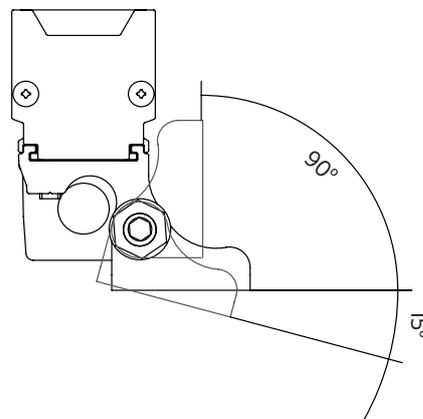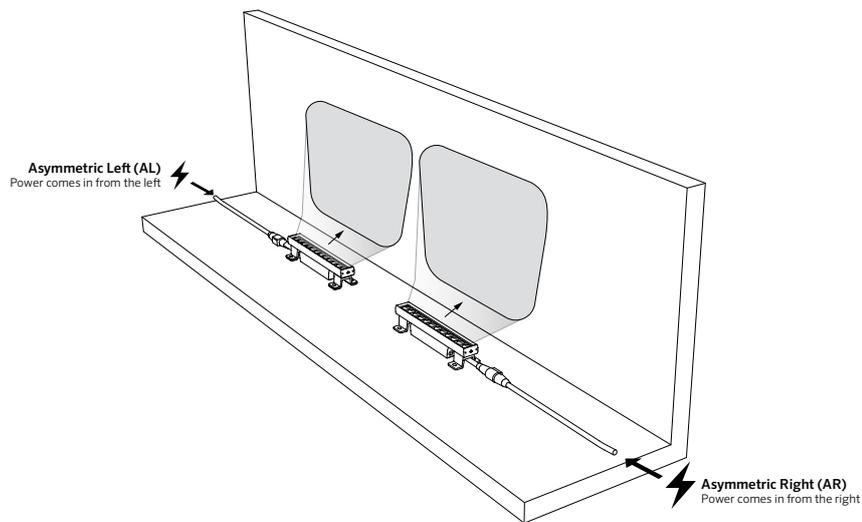
Luminaire Gap

We define the Gap being where the luminaire ends to where the start of the next luminaire. To be able to create the gap, cable length is added to the input connector side. A minimum gap of 0.4" (10 mm) must be applied to cope with thermal expansion.

Minimum gap between luminaires 0.4" (10 mm)
End-to-End option allows for an extra 0.2" (5 mm)

Luminaire Gap Code: 000
End to End: Gap 0.4" (10 mm)

Luminaire Gap Code: 001
1 ft (0.3 m) Gap

Luminaire Gap Code: 002
2 ft (0.6 m) Gap

Luminaire Gap Code: 003
3 ft (0.9 m) Gap

Luminaire Gap Code: 006
6 ft (1.8 m) Gap

Specification Matrix

| LS9010 | – | | | | | | | | | | | | | |

Power Consumption	Code
5 W/ft	05D
7 W/ft	07D

Static White & Color	Code
2,700 K (80 CRI)	827
3,000 K (80 CRI)	830
3,500 K (80 CRI)	835
4,000 K (80 CRI)	840
5,000 K (80 CRI)	850

Dynamic Color	Code
RGBA	4CA
RGBW with Royal Blue	4BW[1]

[1] The default RGBW colors have recently changed to the RGBW with Royal Blue (4BW code). These colors will not match existing products with the earlier RGBW with Mid-Blue (4CW code). Contact Lumascape for custom LED Colors.

Tunable White	Code
2,700 K - 6,500 K	2WT

Connection Type	Code
Flexible entry / exit cables for connectorized installations	63

For other cable entry options, contact Lumascape.

Beam Angles	Code
20° x 80	NH
30° x 80°	MH
40° x 80°	WH
Asymmetric Left	AL
Asymmetric Right	AR

Length	Code
1 ft – 12.4" (314 mm)	1
2 ft – 24.1" (613 mm)	2
3 ft – 35.9" (912 mm)	3
4 ft – 47.7" (1,211 mm)	4
5 ft – 59.4" (1,510 mm)	5

Mounting	Code
Adjustable Bracket	A
Fixed Bracket	B

Body Type & Glare Control	Code
Without Louvre: 1.1" (29 mm) Extrusion	S
With Louvre: 1.4" (34 mm) Extrusion	L

Input Voltage	Code
30-48 Vdc (International)	07
30-48 Vdc (North America)	09

Control	Code
Non-Dimmable	ND[1]
PowerSync®	PS[2]

[1] For single colour, non-dimming applications only.
[2] Required for all dimming and colour changing applications. LS6540 Data Injector is required (order separately).

Finish	Code
Black	BL
Anthracite Gray	AG
Basalt Gray	BT
Graphite Gray	GH
Anodic Silver	SL
White	WT
Dark Bronze	DB
Latte	LT
Dark Aluminum	DA
Custom RAL	CC[1]

[1] RAL color required

Luminaire Gap	Code
End-To-End (ETE)	000[1]
1 ft (0.3 m) Gap	001
2 ft (0.6 m) Gap	002
3 ft (0.9 m) Gap	003
6 ft (1.8 m) Gap	006

[1] Default - Minimum length for ETE connection.

Beam Orientation for "NH", "MH" and "WH" optical system.

Beam Orientation for "AL" optical system.

Beam Orientation for "AR" optical system.

Network Topology – Low Voltage 30-48 Vdc Dimmable and Color-Changing via PowerSync4™

PowerSync™ Topology 1 - Single Trunk Cable

Control Signal

120-277 Vac
50/60 Hz

Power Supply
(PSU)

LS6550 LV
PowerSync™
Data Injector

Leader Cable

(T) Terminator
Use PowerSync™ terminator, supplied with leader cable to terminate last luminaire in chain.

(I) Maximum Current
Through cables and connectors ≤12.8A

Up to 24 luminaires per 48V PowerSync circuit / LS6550 Low Voltage PowerSync Injector

Maximum Circuit Loading - Single Run						
Power	**Max Leader Cable Length from LS6550 to first fitting**	**Feet of Linear luminaire per 48 V Power Supply**				
		120 W	**240 W**	**320 W**	**480 W**	**600 W**
5 W/ft	50 ft / 15 m	20	44	56	80	96
	98 ft / 30 m	20	44	56	76	88
	164 ft / 50 m	20	40	52	64	72
7 W/ft	50 ft / 15 m	14	28	36	56	64
	98 ft / 30 m	14	28	36	48	56
	164 ft / 50 m	14	26	34	44	48

Values in the above table show the maximum circuit loading per 48 V circuit.
Values are based on end to end spacing (ETE). Extended fixture cables, inclusion of jumper cables, or longer leader cable will effect loading.
Circuits can be made up of up to 24 fixtures in any length, up to the maximum circuit loading in the table above.
Circuits are limited to maximum 12.8A.
For non-continuous runs, contact Lumascape for details.
To calculate the maximum number of interconnected luminaires per run / circuit, see example below.

Circuit Calculation Example

20 ft of linear fixture = 5 x 4 ft luminaires

5 W/ft	164 ft / 50 m	20

4 ft   4 ft   4 ft   4 ft   4 ft

Leader Cable

20ft

For assistance, contact Lumascape. Always observe electrical codes.
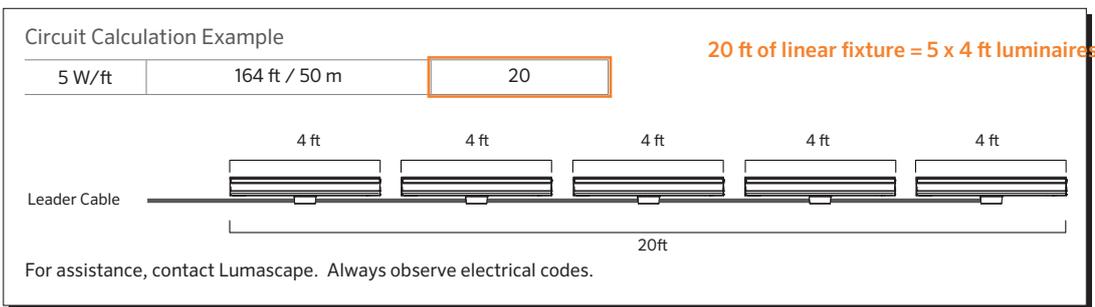
Control Resolution

DMX Channel Allocation															
	RGBA / RGBW					**Single Colour**					**Tunable White**				
Pixel Size	**1 ft**	**2 ft**	**3 ft**	**4 ft**	**5 ft**	**1 ft**	**2 ft**	**3 ft**	**4 ft**	**5 ft**	**1 ft**	**2 ft**	**3 ft**	**4 ft**	**5 ft**
Full Fixture	4	4	4	4	4	1	1	1	1	1	2	2	2	2	2
12.0" / 300 mm	4	8	12	16	20	1	2	3	4	5	2	4	6	8	10
6.0" / 150 mm	8	16	24	32	40	2	4	6	8	10	4	8	12	16	20
3.0" / 75 mm	16	32	48	64	80	4	8	12	16	20	8	16	24	32	40
¾" / 19 mm	64	128	192	256	320	16	32	48	64	80	32	64	96	128	160

Extra channels required when enabling optional Advanced Control Modes.
• Variable Dimming Smoothness Mode - requires 1 extra channel per luminaire
• Variable Dimming Smoothness + Strobe Mode - requires 3 extra channels per luminaire

Connectorized Accessories – Low Voltage 30-48 Vdc

Leader Cables – PowerSync Extra Low Voltage (For Connection Type 63)

3-core 16 AWG / 1.5mm² for use in CE/CCC and UL installations. Compatible with all luminaires with Type 63 connectorized supply cable option. Supplied fitted with an IP68 connector for pairing with the first connectorized luminaire in a Powersync™4, Low Voltage circuit. Comes complete with a matching End of Circuit, Powersync™4, extra low voltage terminator plug.

Not suitable for use in North America

| LS6426 | – | | | |

Cable Type	Code
1.5 mm²	LS6426

Cable Type	Code
Non-Dimmable	ND
PowerSync	PS

Length	Code
10' (3 m)	010
16' (5 m)	016
50' (15 m)	050
66' (20 m)	066
98' (30 m)	098

Jumper Cables – PowerSync Extra Low Voltage (For Connection Type 63)

3-core 16 AWG / 1.5 mm² for use in CE/CCC and UL installations. Compatible with all Luminaires with Type 63 connectorized supply cable option. Supplied fitted with IP68 connectors for joining between connectorized luminaires in a Powersync™4, extra low voltage circuit.

Not suitable for use in North America

| LS6427 | – | | | |

Cable Size	Code
1.5 mm²	LS6427

Cable Type	Code
Non-Dimmable	ND
PowerSync	PS

Length	Code
1' (0.3 m)	001
2' (0.6 m)	002
3' (1 m)	003
6' (2 m)	006
16' (5 m)	016
32' (10 m)	0.32
50' (15 m)	050
66' (20 m)	066
98' (30 m)	098

Connectorized Accessories

Terminators

Product	Code
DMX Terminator Hardwired (CCC, CE, UL)	LS6407
PowerSync Terminator Hardwired, Line Voltage 220-240 Vac, (CE, CCC)	LS6406-01
PowerSync Terminator Hardwired, Line Voltage 120/277 Vac (UL)	LS6406-09
PowerSync Terminator Connectorized, Line Voltage 220-240 Vac, 120/277 Vac (CCC, CE, UL)	LS6417

* NOTE:

- DMX Terminators ship with PowerSync Data Injectors.
- Terminators for hardwired PowerSync installations ship with PowerSync Data Injectors.
- Terminators for connectorized PowerSync installations ship with Leader Cables.
- Order separately for spares only.

PowerSync Low Voltage 30-48 Vdc Data Injector

Translates control signals into a digital format, delivering integral power and data to intelligent LED luminaires. This allows highly-granular addressing and high-speed digital control of every luminaire, using only three wires. The data injector is DIN rail mountable designed to be installed in a switchboard, next to the power supply and circuit breaker that is supplying power to the controlled lighting circuit. Accepts a growing list of standard protocols (0-10 V, DMX/RDM) for simple integration with a wide selection of control systems using these industry standard protocols.

LS6550	–	2D

Product	Code	Control	Code
Data Injector PS4	LS6550	DMX/RDM, 0-10 V Input	2D

NOTE:

PowerSync Data Injector ships with three (3) hardwired terminators and one (1) hardwired DMX terminator.

Luminaire Wire Colors & Designations

Low Voltage 30-48 Vdc

Designation	Color
+ DC	Red
– DC	Black
Data	Orange