



The Erden E4 is a medium-powered in-ground that combines technology and performance in a modern form factor. Packed with features including **EasyGlow™** visual comfort and **CoolDrive™** thermal management technologies. **PowerSync™** allows for highly granular digital control via common protocols using mains voltage. Available in white, color-changing and tunable white light engines.

Performance

Static White & Colour <sup>1</sup>	Lumen Output (lm)	Efficacy (lm/W)	Peak Intensity (cd)
● 2,700 K (80 CRI)	1,690	84	37,900
● 3,000 K (80 CRI)	1,740	86	39,600
○ 3,500 K (80 CRI)	1,920	96	42,000
● 4,000 K (80 CRI)	1,910	95	43,000
● 5,000 K (70 CRI)	1,700	84	38,500

<sup>1</sup> Lumen output is based on 10° lens.

Dynamic Colour <sup>2</sup>	Lumen Output (lm)	Efficacy (lm/W)	Peak Intensity (cd)
● RGBA	990	50	17,200
● RGBW (4,000 K) with Royal Blue*	1,000	51	20,400

<sup>2</sup> Lumen output is based on 10° lens.

Tunable White <sup>3</sup>	Lumen Output (lm)	Efficacy (lm/W)	Peak Intensity (cd)
● 2,700 K - 6,500 K	1,780	88	40,200

<sup>3</sup> Lumen output is based on 10° lens.

Beam Angles	10°, 13°, 20°, 26°, 47°, 10° x 40°, 40° x 10°, 20° x 60°, 60° x 20°
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! Other LED colours and CRIs available on request. Contact Lumascape for options.



Products and specifications are subject to change without notice. LS3040\_260525

### Electrical

<b>LED Power</b>	16 W
<b>Consumption</b>	≤20 W maximum
<b>Lifetime</b>	> 60,000hrs (B10, L70)
<b>Input Voltage</b>	International 220-240 Vac, 50/60 Hz North America 120/277 Vac, 60 Hz All Markets 30-48 Vdc
<b>Earth Leakage</b>	0.3 mA @ 120 V, 0.4 mA @ 240 V, 0.6 mA @ 277 V
<b>Thermal Management</b>	CoolDrive™ onboard thermal monitoring and control.

### Control

<b>Interface</b>	Lumascap <b>PowerSync™</b>
<b>Protocols<sup>1</sup></b>	DMX / RDM, Artnet, PWM <sup>2</sup> , 0 - 10V (sink or source) <sup>2</sup>
<b>PWM Frequency</b>	2 kHz flicker-free dimming to 0.1%
<b>Systems</b>	Range of third-party controllers

<sup>1</sup> Some protocols require additional hardware. For more information contact Lumascap.

<sup>2</sup> Not available for color-changing.

### Physical

<b>Housing</b>	Marine-grade 316 stainless-steel housing, high-strength glass, teflon coated cover screws, marine-grade 316 stainless-steel cover (polished or brushed finish).
<b>Installation</b>	Pre-Installation Blockout for concrete pour, drive-over and general use applications Mounting Collar for decks and grates Tall Tube for uplighting effect in vegetation areas Direct Burial for landscapes, planters and special applications
<b>Mounting Accessories</b>	<b>LS644-K</b> Pre-Installation Concrete Blockout <b>LS644-2</b> Mounting Collar for decks and grates (International only)
<b>Adjustable</b>	-5° to +20° tilt, 360° rotation
<b>Ambient Operating Temperature</b>	-4°F to +122°F (-20°C to +50°C )
<b>Surface Temperature</b>	≤ 149°F (65°C)
<b>Weight</b>	8.8 lbs (4.0 kg)
<b>Drive-Over</b>	With OptiClear lens and pre-installation kit (LS644-K)

### Certification & Compliance

<b>IP Rating</b>	IP68
<b>IK Rating</b>	IK10
<b>Static Load Rating</b>	3,968 lbs (1,800 kg)
<b>Environment</b>	Dry, Damp, Wet locations Inherently Protected Suitable for use in poured concrete
<b>Certifications</b>	UL, CE, UKCA, RCM

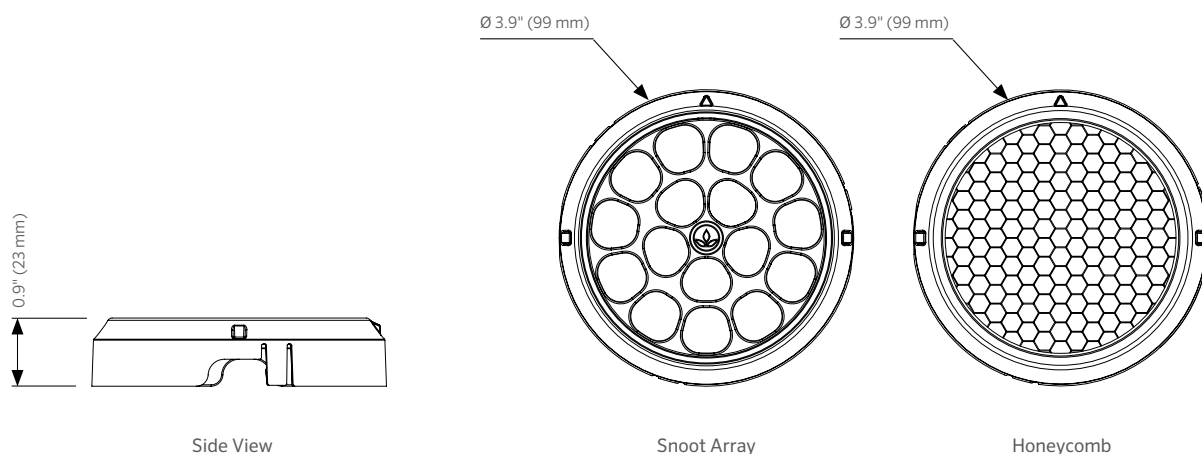
Accessories

**LS6248 Honeycomb Louver**  
 Provides additional glare control. Available in black only. Order separately.

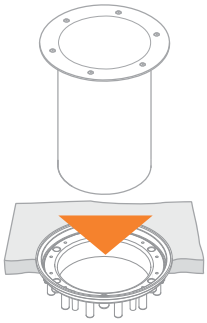
**LS6247 Snoot Array Louver**  
 Provides additional glare control. Available in black only. Order separately.



Technical Drawings







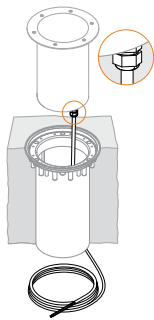
### Mounting Collar for Decks and Grates

This type of installation requires the **LS644-2** Mounting Collar (ordered separately), which supports the installation in decks, grates and hollow floors with sufficient ventilation.

*Not available in North America.*

<b>Used for</b>	Decks and grates Hollow floors with sufficient ventilation
<b>Benefits</b>	Easy installation in decks, grates and hollow floors
<b>Restrictions</b>	Available for International market only
<b>Accessories</b>	<b>LS644-2</b> Mounting Collar

### Connection type '84'



#### Flexible Cable

For connections to the branch circuit via junction box (by others) or other approved method. 6.5' (2 m) length. For other length options, contact Lumascape.

### Flush Cover Options

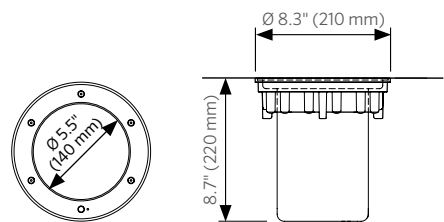
Flush covers for mounting collar use special seals and support brushes.

*Not suitable for use in North America.*



#### Pre-Installation Blockout Round Flush Cover

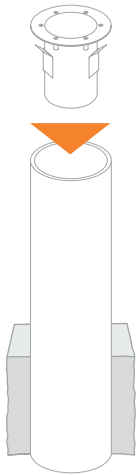
- SS316: Polished
- SS316: Brushed



### Specification

Use the table below to specify your Mounting Collar. For more information and other cable options contact Lumascape.

	<b>LS644-2</b>
<b>Connection Type</b>	<b>Code</b>
Mounting Collar for use with hard wire connections only	LS644-2



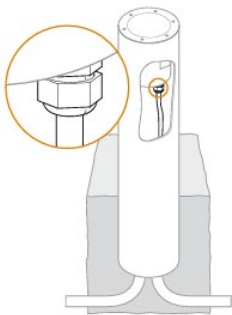
### Tall Tube

This type of installation requires the LS618 Tall Tube (ordered separately), in situations where foliage may overgrow, flush in-ground luminaires over time, where a high water table is of concern or other scenarios where this type of mounting method is appropriate.

*Suitable for use in North America Only*

<b>Benefits</b>	Easy installation into concrete
<b>Restrictions</b>	Only available with Connection Type 84 in North America Only Not easy to remove for service (requires removal tool) Not suitable for drive-over applications

### Connection type '84'



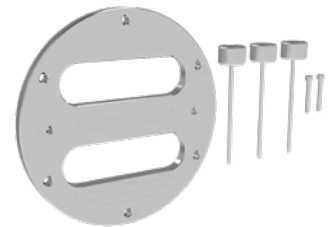
#### Flexible Cable

For connections to the branch circuit via junction box (by others) or other approved method. 6.5' (2 m) length. For other length options, contact Lumascape.

### Luminaire Removal Tool

This removal tool allows for easy removal of the lid on the luminaire installed into a tall tube. Comes complete with plate, three (3) pins and two (2) screws. Ordered separately.

*Suitable for use in North America Only*



	LS6251
Accessory	Code
Luminaire Removal Tool	LS6251

### Specification

For installation into North American 8" schedule 40 conduit (not included).

*Suitable for use in North America Only*

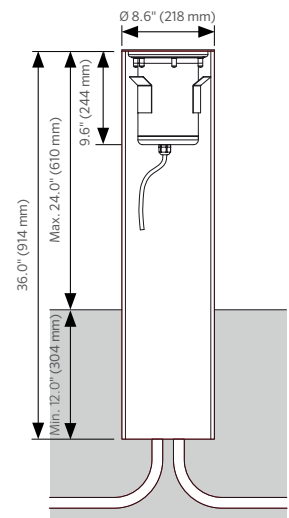
### Flush Cover Options

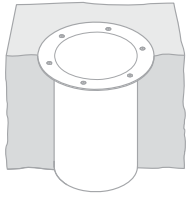
Flush covers for Tall Tube use special seals and support brushes.

*Suitable for use in North America Only*



- Tall Tube Round Flush Cover**
- SS316: Polished
  - SS316: Brushed
  - Powder-coat, Black



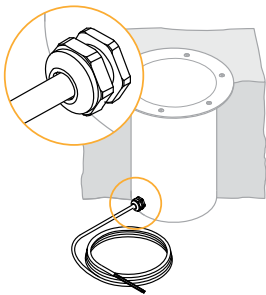


**Direct Burial**

Luminaire is put directly into soil or concrete.

<b>Used for</b>	Landscaping areas Applications where depth is restricted Rate for use in concrete pour applications Economical option
<b>Benefits</b>	Allows for maximum heat dissipation
<b>Restrictions</b>	Not as easy to remove for service as pre-install version Not suitable for drive-over (requires pre-installation) Not available with Connection Type 77 (requires pre-installation) Connection Type 82 only available for North American market.

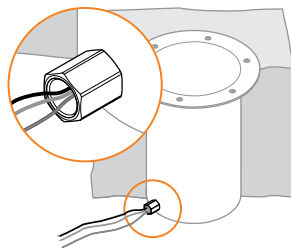
**Connection type '84'**



**Flexible Cable**

For connections to the branch circuit via junction box (by others) or other approved method. 6.5' (2 m) length. For other length options, contact Lumascape.

**Connection type '82'**  
North American market only

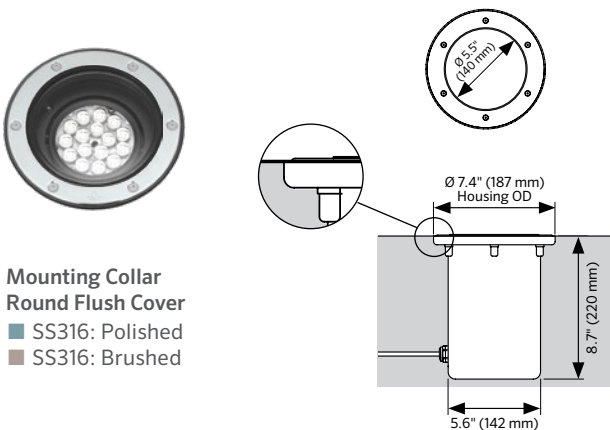


**1/2" NPT Adapter**

The luminaire is factory-fitted with 6.5' (2 m) hookup wire. Ensure terminations can be made within this length. For other length options, consult Lumascape.

**Recessed Cover Options**

Use recessed cover for installation in soil, grass, pavers and other uneven surfaces where no cover overhang is required.

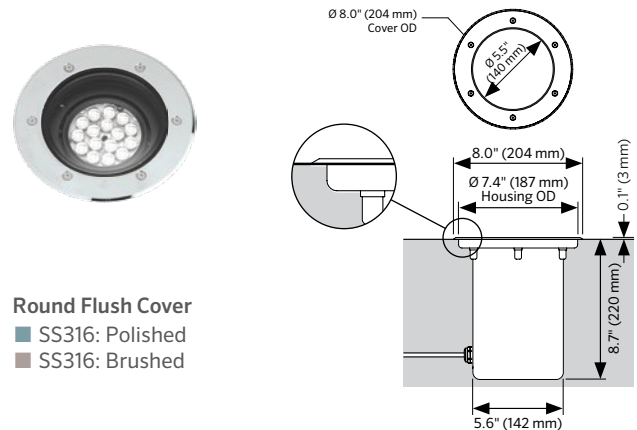


**Mounting Collar Round Flush Cover**

- SS316: Polished
- SS316: Brushed

**Flush Cover Options**

Use flush covers for installation in fine finished surfaces such as granite and marble. Can also be used in some suspended applications to conceal gaps between the luminaire and the surrounding surface.



**Round Flush Cover**

- SS316: Polished
- SS316: Brushed







Connectorized Accessories

Terminators

Product	Code
DMX Terminator Hardwired	LS6407
PowerSync Terminator Hardwired, Line Voltage 220 to 240 Vac	LS6406-01
PowerSync Terminator Hardwired, Line Voltage 120/277 Vac	LS6406-09
PowerSync Terminator Connectorized, Line Voltage 220 to 240 Vac, 120/277 Vac	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 Line Voltage 220/240 Vac, 120/277 Vac Data Injector

Combines the convenience of standard wiring methods to translate control signals into a digital format that can be transmitted over standard copper wire. This allows highly granular addressing and high-speed digital control of every luminaire, using only four wires and accepts a growing list of standard protocols (0-10V, DMX / RDM), for simple integration with a wide selection of control systems using these industry standard protocols.



Product	Code	Input Voltage	Code	Control	Code	Finish	Code
Data Injector PS4	LS6540	220-240 Vac, 50 Hz (International)	01	DMX/RDM, 0-10 V Input	2D	Black	BL
		120/277 Vac, 60 Hz (North America)	09			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 <sup>1</sup>

NOTE:

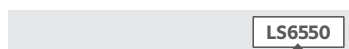
PowerSync Data Injector ships with three (3) hardwired terminators and one (1) hardwired DMX terminator.

<sup>1</sup>RAL color required

Accessories

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.



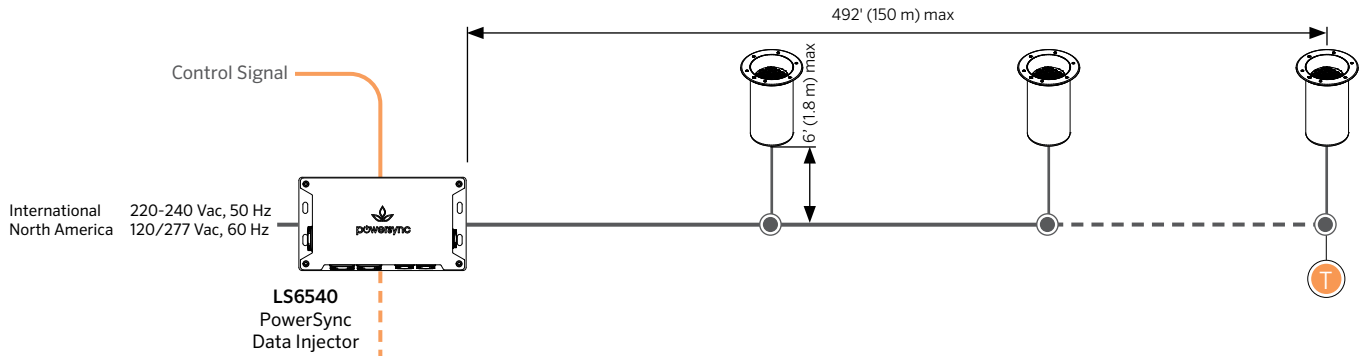
Product	Code
LV Data Injector PS4	LS6550

NOTE:

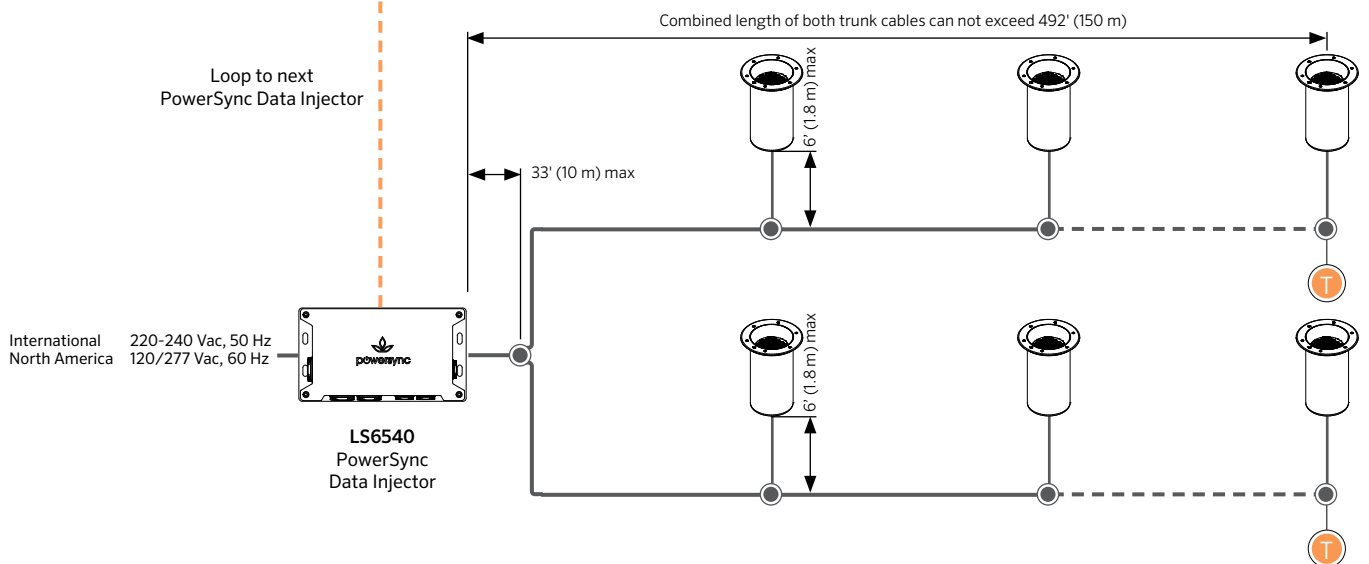
PowerSync Data Injector ships with three (3) hardwired terminators and one (1) hardwired DMX terminator.

**Network Topology** – Line Voltage 220-240 Vac, 120/277 Vac Dimmable via PowerSync® 4

**PowerSync Topology 1 - Single Trunk Cable**



**PowerSync Topology 2 - Split Trunk Cable**



**Up to 45 luminaires per run under the following conditions:**

- Max total cable run length 492' (150 m) in up to two trunk cables
- For run lengths in excess of 100' (30 m), the *data* wire gauge cannot exceed 14 AWG (2.5 mm<sup>2</sup>)
- For run lengths up to 100' (30 m), the *data* wire gauge is not governed
- Refer to 'Maximum Circuit Load' table for circuit limitations
- Always observe local electrical codes for branch circuit current limitations

**T Terminator**  
Use PowerSync terminator, supplied with LS6540, to terminate last luminaire in chain at junction box.

**● Connection Type**  
Circuits are configured as hardwired. For details consult installation instructions and comply with local electrical codes.

**Maximum Circuit Load**

Maximum Number of Interconnected Luminaires		
Voltage	12 A	16 A
120 V	41	45
240 V	45	45
277 V	45	45

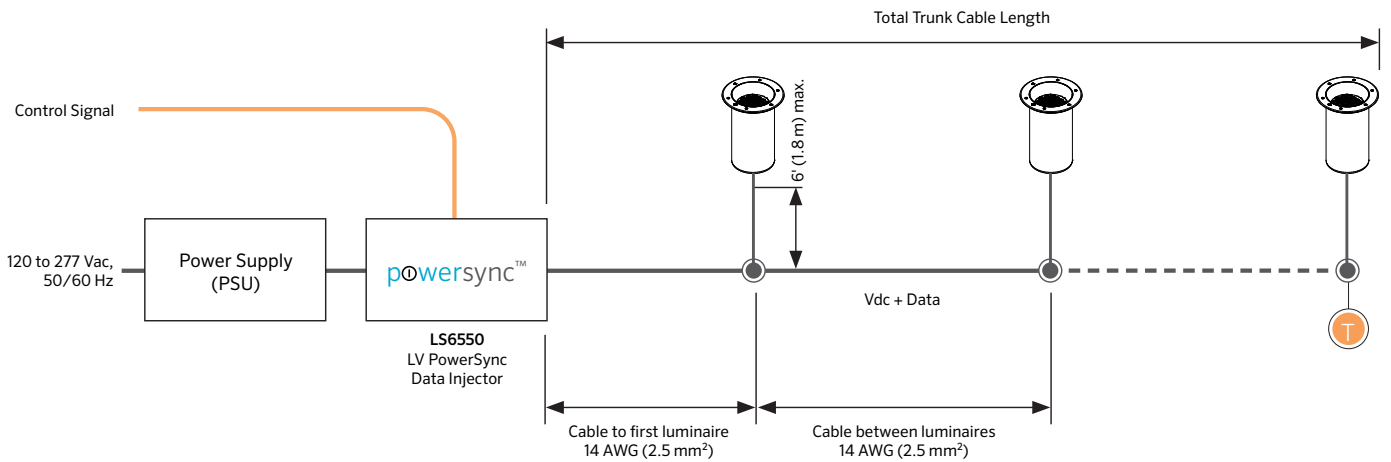
Refer to PowerSync™ installation instructions for maximum distance information and topology options.

Above circuit loading limits are based on maximum circuit current capacity. Cumulative earth leakage and voltage drop may need to be calculated.

For non-continuous runs contact Lumascape for more details.

**Network Topology** – Low Voltage 30-48 Vdc Dimmable via PowerSync® 4

**Circuit Limits – Dimmable and Color-Changing via PowerSync™**



- Refer to "Transformer Compatability Table", for maximum number of luminaires
- Calculations based on 14 AWG (2.5 mm<sup>2</sup>) trunk cable, and 16' (5 m) trunk cable between luminaires.
- Always observe local electrical codes for branch circuit current limitations
- For other configurations, contact Lumascape.

**T Terminator**  
Use PowerSync™ terminator, supplied with PowerSync Injector to terminate last luminaire in chain.

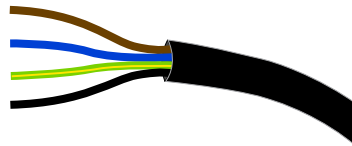
**Transformer Compatability Table**

Maximum Circuit Loading - Single Run						
LED Power	Max Leader Cable Length from LS6550 to first luminaire	Maximum number of luminaires per 48 V Power Supply				
		120 W	240 W	320 W	480 W	600 W
20 W	50' / 15 m	4	8	11	16	18
	98' / 30 m	4	8	11	15	15
	164' / 50 m	4	8	10	13	13

Luminaire Wire Colors & Designations

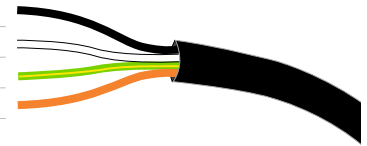
Line Voltage 220-240 Vac - International

Designation	Color
Line	Brown
Neutral	Blue
Ground/Earth	Green / Yellow
Data	Black



Line Voltage 120/277 Vac - North America

Designation	Color
Line	Black
Neutral	White
Ground/Earth	Green / Yellow
Data	Orange or Red



Low Voltage 30-48 Vdc + PowerSync™ - All Markets

Designation	Color
Positive	Red
Negative	Black
Data	Orange

