

The LS853LED is a full featured, shallow depth inground luminaire featuring lumen output and efficacy exceeding metal halide. As an inherently protected luminaire it can be used in interior spaces and immediately adjacent to combustible materials (such as wood decking or similar). In addition, internal rotation and tilt adjustability ensures the most efficient light delivery can be set according to site conditions.

Performance

| Static White & Colour | Lumen Output (Im) | Efficacy (Im/W) | Peak Intensity (cd) |
|------------------------|-------------------|-----------------|---------------------|
| 3,000 K (80 CRI) | 1,719 | 81 | 9,898 |
| 4,000 K (80 CRI) | 1,719 | 81 | 9,898 |
| Blue | 1,030 | - | - |

Static white lumen output values are based on a 20W luminaire with 20° lens.

| Dynamic Colour | Lumen Output (Im) | Efficacy (Im/W) | Peak Intensity (cd) |
|----------------|-------------------|-----------------|---------------------|
| ♦ RGB | 1,190 | - | - |

Static white lumen output values are based on a 20W luminaire with 20° lens.

| Beam Angles | 14°, 20°, 25°, 30°, 40° × 10°, 40° × 20° |
|-------------|---|
| | Not available with all light engines. Refer to Specification Matix. |

Electrical

| LED Power | 16W, 20W | |
|----------------|------------------------------|--|
| Consumption | 21.1W (nominal f | or 20W) |
| Lifetime (L70) | >60,000hrs (B10 | O, L70, TM21) |
| Input Voltage | Mains Voltage Low Voltage | 110-277V AC, 50/60Hz 24V DC 12-15V AC, 12-24V DC (North American Market) |

Control

| Protocols |
|-----------|
|-----------|















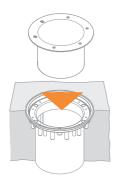


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| Housing | 316 Marine Grade Stainless Steel housing, high strength glass with 4,200kg (9,259lb) static load rating (when used in conjunction with LS6052-K), teflon coated screws, 316 Marine Grade Stainless Steel cover (polished or brushed finish). Other finish options by request. |
|----------------------------------|---|
| Installation | Pre-Installation Blockout for concrete pour, drive-over and general use applications Mounting Collar for decks and grates Direct Burial for landscapes, planters and special applications |
| Mounting Accessories | LS6052-K Pre-Installation Concrete Blockout LS640-2 Mounting Collar for decks and grates |
| Adjustable | +20°, -20°, 360° rotation |
| Ambient Operating Temperature | -20°C to 50°C (-4°F to 122°F) |
| Surface Temperature | ≤ 65°C (≤ 149°F) HumanTouch™ Compliant |

Certification & Compliance

| IP Rating | IP68 |
|----------------|---|
| IK Rating | IK10 |
| Environment | Dry, Damp, Wet locations Inherently Protected Suitable for use in poured concrete |
| Certifications | ETL, CE, RCM |

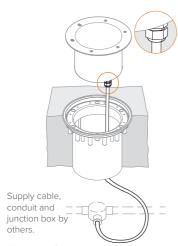


Pre-Installation Blockout

This type of installation requires the LS6052-K Pre-Installation Kit (order separately) which acts as a concrete blockout and is intended for installation before the luminaire. This method ensures the luminaire itself is not damaged during concreting or other site works.

| Use for | □ Drive over applications □ General use applications □ Concrete pour applications where luminaire is to be installed after site work has been completed |
|--------------|---|
| Benefits | ☐ Easy removal for servicing |
| Restrictions | □ Connection Type 82 (North American market only) |
| Accessories | □ LS6052-K Pre-Installation Blockout |

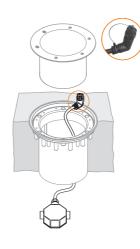
Connection type '84'



Flexible Cable

For connections to the branch circuit via junction box (by others) or other approved method. 3m (9.8') length. For other length options, consult factory.

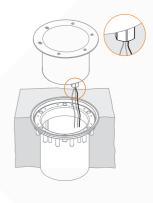
Connection type '87'



IP68 Connector & Junction Box

The luminaire is fitted with an IP68 connector, which attaches directly to the cable supplied with LS6052-K without the use of any tools. The cable is 1m (3') in length and is factory assembled with a j-box.

Connection type '82' North American market only

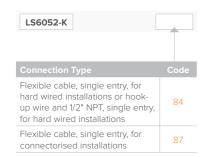


1/2" NPT Adapter

The luminaire is factory-fitted with 2.0m (6.5') hookup wire. Ensure terminations can be made within this length. For other length options, consult factory.

Specification

Use the table below to specify your Pre-Installation Blockout.



Flush Cover Options

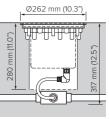
Flush covers for pre-installation use special seals and support bushes to ensure static loads up to 4,200kg (9,259lb) are properly supported. In order to achieve this drive-over rating, OptiClear or GripGlass must be used.

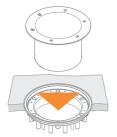


Pre-Installation Blockout Round Flush Cover

SS316: Polished
SS316: Brushed







Mounting Collar for Deck and Grates

This type of installation requires the LS640-2 Mounting Collar (order separately) which supports the installation in decks, grates and hollow floors with sufficient ventilation.

| Use for | □ Decks and grates □ Hollow floors with sufficient ventilation |
|--------------|--|
| Benefits | ☐ Easy installation in decks, grates and hollow floors |
| Restrictions | □ Not available with Connection Type 87 |
| Accessories | □ LS640-2 Mounting Collar |

Connection type '84'



Flexible Cable

For connections to the branch circuit via junction box (by others) or other approved method. 3m (9.8') length. For other length options, consult factory.

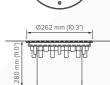
Flush Cover Options

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



Mounting Collar Round Flush Cover





Specification

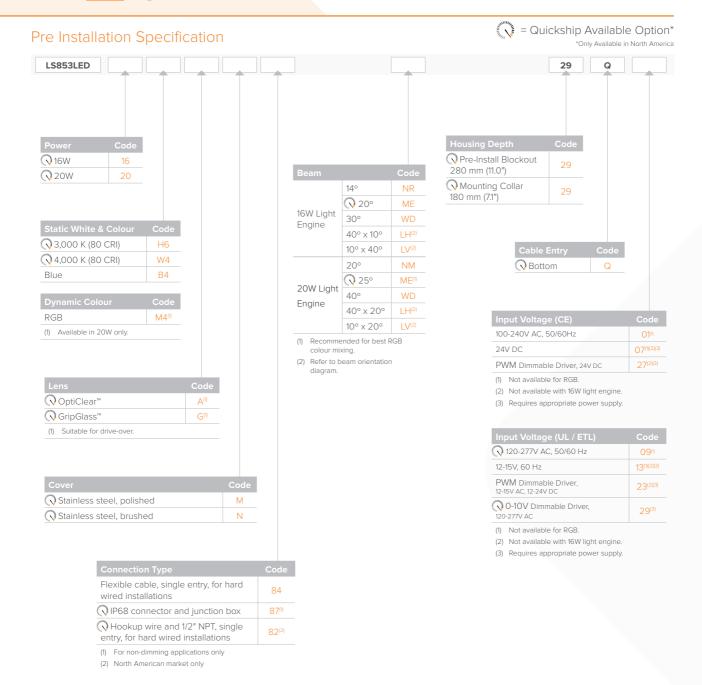
Use the table below to specify the Mounting Collar for Decks & Grates.

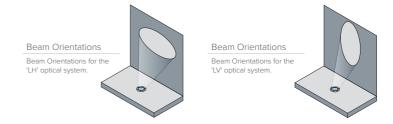
LS640-2

Connection Type

Flexible cable, single entry, for hard wired installations

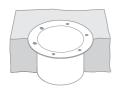
For other cable entry options contact factory.





Direct Burial

Luminaire is put directly into soil or concrete.



| Use for | ☐ Landscaping areas |
|---------|---|
| | ☐ Applications where depth is restricted |
| | ☐ Rated for use in concrete pour applications |
| | ☐ Economical option |

Benefits ☐ Shallowest install depth

 $\hbox{\bf Restrictions} \qquad \square \ \hbox{Not as easy to remove for service as pre-install version}$

□ Not suitable for drive-over (Requires Pre-Installation)

□ Not available with Connection Type 87 (Requires Pre-Installation)

☐ Connection Type 82 (North American market only)

Connection type '84'



Flexible Cable

For connections to the branch circuit via junction box (by others) or other approved method. 3m (9.8') length. For other length options, consult factory.

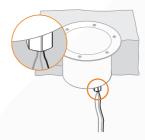
Connection type '81' Not available in North America



Armored Cable & Junction Box

The luminaire is factory-fitted with a 0.6m (2') armored cable. Ensure terminations can be made within this length. For other length options, consult factory.

Connection type '82' North American market only



1/2" NPT Adapter

The luminaire is factory-fitted with 2.0m (6.5') hookup wire. Ensure terminations can be made within this length. For other length options, consult factory.

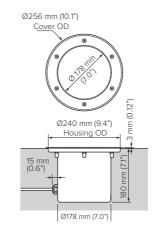
Recessed Cover Options

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

Recessed Cover SS316: Polished O178 mm (7.0*)

Flush Cover Options

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





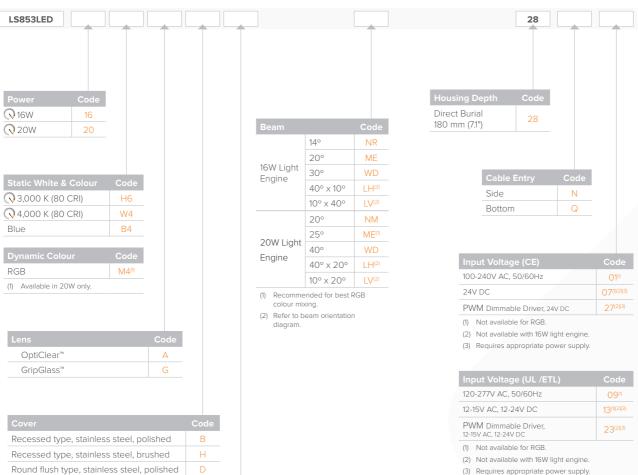
Round Flush Cover

- SS316: Polished
- SS316: Brushed





= Quickship Available Option* *Only Available in North America



| Connection Type | Code |
|--|-------------------|
| Flexible cable, single entry, for hard wired installations | 84 |
| Flexible cable, single entry, for connectorised installations | 81(1)(2) |
| Hookup wire and 1/2" NPT, single entry, for hard wired installations | 82 ⁽³⁾ |

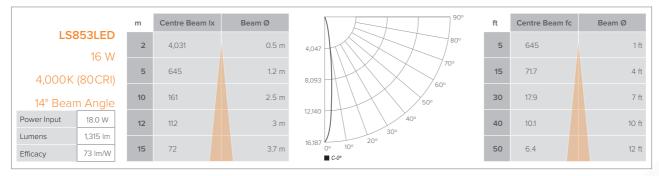
- (1) For non-dimming applications only
- (2) International market only

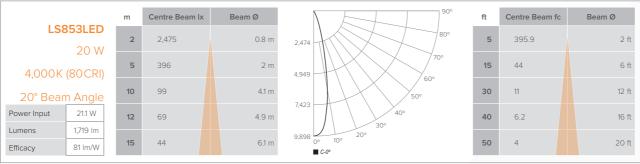
Round flush type, stainless steel, brushed

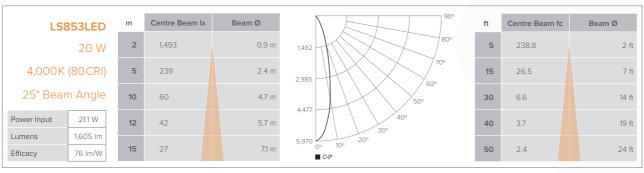
(3) North American market only

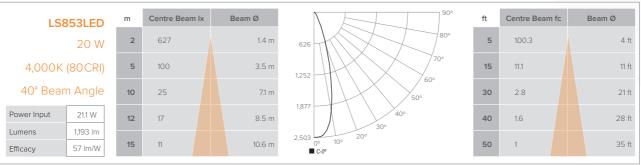
| Beam Orientations | Beam Orientations |
|--|--|
| Beam Orientations for the 'LH' optical system. | Beam Orientations for the 'LV' optical system. |

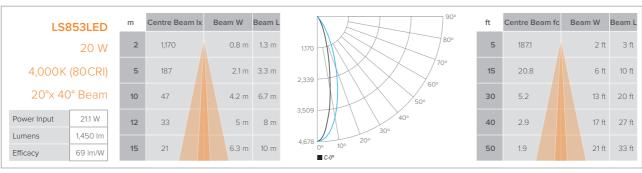
Photometric data is based on test results from a NIST traceable testing lab. IES data is available at www.lumascape.com Note: No depreciation factor is applied to the data shown.







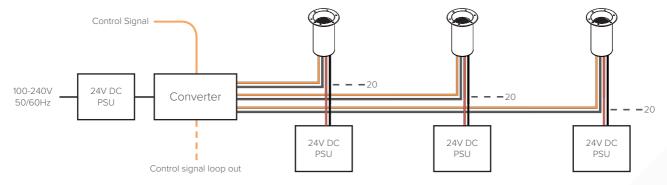






See pages 13-## for North American market

Wiring Diagram - Static Colour (DMX / DALI)



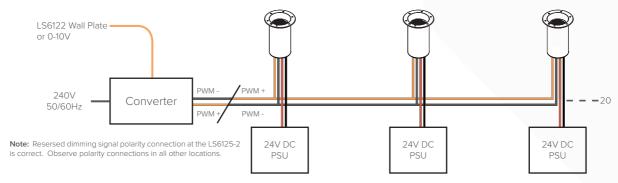
Control Protocols



Up to 20 luminaires per run under the following conditions:

- $\hfill\square$ Up to three (3) individually addressed dimmable channels
- ☐ Up to 20 luminaires per dimmable channel
- ☐ Luminaires driven by integral LED drivers
- $\hfill \square$ Luminaires powered through individual power supplies or
- ☐ Luminaires powered through LS67100 PWM controller only (up to 100W total)
- ☐ Refer to 'Maximum Circuit Load' table for circuit limitations
- ☐ Always observe local electrical codes for branch circuit current limitations

Wiring Diagram - Static Colour (0-10V)



Control Protocols



For 0-10V control signal, use LS6125-2 0-10V to PWM converter

Up to 20 luminaires per run under the following conditions:

- $\hfill \square$ Stand alone static colour dimming solution
- $\hfill\square$ Up to 20 luminaires dimmed together
- $\hfill\square$ Luminaires driven by integral LED drivers using LS6122 wall plate dimmer
- ☐ Luminaires powered through individual or shared power supplies
- $\hfill \square$ Refer to 'Maximum Circuit Load' table for circuit limitations
- ☐ Always observe local electrical codes for branch circuit current limitations

Maximum Circuit Load

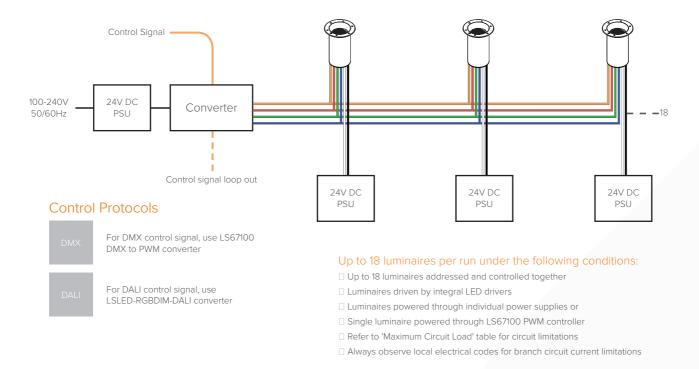
Compatibility with each driver is indicated by the value shown in the table, representing the maximum number of luminaires that may be powered from each driver based on a maximum cable run of 100m (328ft) and a trunk cable size of 3.3mm². Please note, this does not take into consideration voltage drop beyond a distance of 100m or ampacity limits of the branch circuit. For assistance, please consult factory.





Wiring Diagram - Dynamic Colour (DMX / DALI)

See pages 13-## for North American market



Maximum Circuit Load

Compatibility with each driver is indicated by the value shown in the table, representing the maximum number of luminaires that may be powered from each driver based on a maximum cable run of 100m (328ft) and a trunk cable size of 3.3mm². Please note, this does not take into consideration voltage drop beyond a distance of 100m or ampacity limits of the branch circuit. For assistance, please consult factory.

LSLED-24V Power Supplies

| Input Voltage | 100-240V, 50/60Hz | | | | |
|----------------|-------------------|------|------|--|--|
| Output Voltage | 24V DC | | | | |
| Wattage | 40W | 100W | 150W | | |
| LS853LED. 20W | - | 2 | 3 | | |





See pages 13-## for North American market

Power Supply Specifications

DC Power Supplies

LSLED-24V100W240

24V DC Ripple Free Power Supply

| Input | 170-250V AC, 50/60Hz |
|-------------------------------|----------------------|
| Output | 100W, 24V DC, 4.2A |
| Ambient Temperature Rating | -10°C to 50°C |
| Compliance | IEC61347-2-13, CE |
| IP Rating | IP66 |
| Short Circuit Protection | Yes |
| Open Circuit Protection | Yes |
| Protection Class | Class II CE |

LSLED-24V150W240

24V DC Ripple Free Power Supply

| Input | 90-305V AC, 50/60Hz |
|-------------------------------|---------------------|
| Output | 150W, 24V DC, 6.3A |
| Ambient Temperature Rating | -10°C to 50°C |
| Compliance | IEC61347-2-13, CE |
| IP Rating | IP66 |
| Short Circuit Protection | Yes |
| Open Circuit Protection | Yes |
| Protection Class | Class II CE |

LSLED-24V40W240

Electronic DC Power Supply - wall mounted

| Input | 100-240V AC, 50/60Hz |
|-------------------------------|---|
| Rating | 40W / 1.67A |
| Output | 24V |
| Ambient Temperature Rating | -25°C to 60°C (-13°F to 140°F) |
| Output Circuits | 1 |
| Approvals | CE, EN60950-1, EN61347-2-13 |
| IP Rating | IP65/67 |
| Dimensions | H 171mm W 62mm L 37mm (H 6.7" / W 2.4" / L 1.5") |
| Weight | 0.7kg (1.6lb) |
| | |

Control Related Equipment

LS6125-2

0-10V to PWM translator - wall mounted

| Input | 100-240V AC, 50/60Hz |
|-------------------------------|--|
| Rating | 20W / 0.83A |
| Output | 24V |
| Ambient Temperature Rating | -10°C to 50°C |
| Open Circuits | 1 |
| Control Protocol | 0-10V |
| Approvals | CE |
| IP Rating | IP65/67 |
| Dimensions | H 204mm W 166mm L 91mm (H 8.0" / W 6.5" / L 3.6") |
| Weight | 0.5kg (1.1lb) |

LS67100

DMX to PWM translator

| Input | 24V DC |
|---------------|--|
| Rating | 4 x 60W max |
| Output | 4 x 2.5A max |
| Open Circuits | 4 |
| Approvals | CE, UL |
| IP Rating | IP65 |
| Dimensions | H 286mm W 117mm L 82mm (H 11.25" / W 4.6" / L 3.2") |
| Weight | 0.2kg (0.5lb) |
| | |



See pages 13-## for North American market

Control Related Equipment cont...

LSLED-RGBDIMDALI

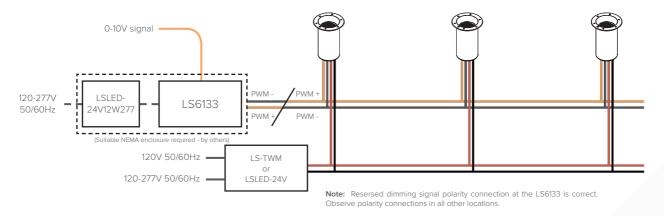
DALI converter

| Input | 24V DC |
|-------------------------------|---|
| Rating | 30W max |
| Output | 24V DC PWM (Inverted) |
| Ambient Temperature Rating | 50°C |
| Output Channels | 3 |
| Control Protocol | DMX512A, DALI, DSI, RDM |
| Approvals | CE Ctick EN6137-1 , EN61347-2-13, IEC 62384 |
| IP Rating | IP67 |
| Weight | 0.75kg |
| | |



See pages 9-12 for International market

Wiring Diagram - Static Colour (0-10V)



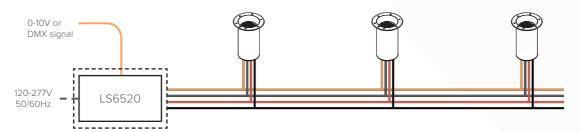
Control Protocols



For 0-10V control signal, use LS6133 0-10V to PWM converter

Wiring Diagram - Static Colour

Please note: The use of a GFCI may be required. Consult local wiring rules.



Maximum Circuit Load

Compatibility with each transformer or power supply is indicated by the value shown in the table, representing the maximum number of luminaires that may be powered from each transformer or power supply. Please note, this does not take into consideration voltage drop or ampacity limits of the branch circuit. In addition, dimming circuit total wire length must be kept under 328' (100m). For assistance, please consult factory.

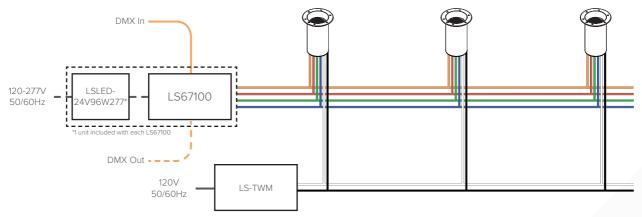
Transformer / Power Supplies

| | LS-TWM-1-300 | LSLED-24V75W277 | LSLED-24V96WD277 | LSLED-24 | V 120 / 240 / | 320 P09 | | LS6520 | |
|----------------|------------------|------------------|------------------|------------------|---------------|-------------------|------|--------|------|
| Input Voltage | 120V, 60Hz | 120-277V 50/60Hz | 120-277V 50/60Hz | 120-277V 50/60Hz | | 100-277V, 50/60Hz | | | |
| Output Voltage | 12/13/14V, 60Hz | 24V DC | 24V DC | 24V DC | | 24V DC | | | |
| Wattage | 1 x 300W circuit | 75W | 96W | 120W | 240W | 320W | 120W | 240W | 320W |
| LS853LED, 20W | 8 | 20 | 4 | 5 | 11 | 15 | 5 | 11 | 15 |



See pages 9-12 for International market

Wiring Diagram - Dynamic Colour (DMX) for 12-15V AC Circuit

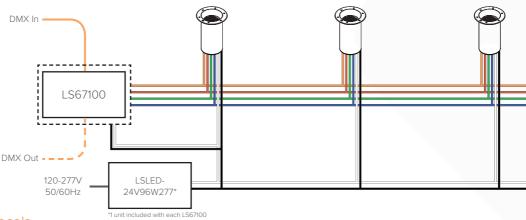


Control Protocols



For DMX control signal, use LS67100 DMX to PWM converter

Wiring Diagram - Dynamic Colour (DMX) for 24V DC Circuit



Control Protocols



For DMX control signal, use LS67100 DMX to PWM converter

Maximum Circuit Load

Compatibility with each transformer or power supply is indicated by the value shown in the table, representing the maximum number of luminaires that may be powered from each transformer or power supply. Please note, this does not take into consideration voltage drop or ampacity limits of the branch circuit. In addition, dimming circuit total wire length must be kept under 328' (100m). For assistance, please consult factory.

| Ti | ransformer | -/ | Power | Supplies |
|----|------------|----|-------|----------|
| | | | | |

| | LS-TWM-1-300 | LSLED-24V75W277 | LSLED-24V96WD277 | LSLED-24 | IV 120 / 240 | / 320 P09 | | LS6520 | |
|----------------|-------------------|------------------|------------------|----------|--------------|-----------|------|------------|------|
| Input Voltage | 120V, 60Hz | 120-277V 50/60Hz | 120-277V 50/60Hz | 120 |)-277V 50/60 |)Hz | 100- | 277V, 50/6 | 60Hz |
| Output Voltage | e 12/13/14V, 60Hz | 24V DC | 24V DC | 24V DC | | 24V DC | | | |
| Wattage | 1 x 300W circuit | 75W | 96W | 120W | 240W | 320W | 120W | 240W | 320W |
| LS853LED, 20V | V 8 | 20 | 4 | 5 | 11 | 15 | 5 | 11 | 15 |





See pages 9-12 for International market

Transformer / Power Supply Specifications

Class 2 LED Power Supplies

LSLED-24V96WD277

Electronic DC Power Supply - wall mounted

| Input | 120-277V, 50/60Hz |
|-------------------------------|---|
| Output | 24V DC, 4A max |
| Efficiency | 86% typ. |
| Ambient Temperature Rating | -22°F to 140°F (-30°C to 60°C) |
| Connections | 6 x 1/2" entries (3 in / 3 out) |
| UL Classification | UL 8750 |
| Location | Dry / Damp location only |
| IP Rating | IP20 |
| Dimensions | H 1.3" W 3.0" L 11.46" (H 33mm / W 76mm / L 291mm) |

Low Voltage DC Power Supplies

LS6520

Power Unit for Wet Locations

| Input | 100-277V, 50/60Hz |
|-----------------|--|
| Output | 24 or 30V DC |
| Output Circuits | 1 |
| Approvals | UL2108, CSA C22.2 No. 250.0 |
| IP Rating | IP65, suitable for wet locations |
| Dimensions | H 5.3" W 13.4" D 9.3" (H 134mm / W 341mm / D 236mm) |
| Weight | 13.2lb (6.0kg) |

LSLED-24V240WP09

Electronic DC Power Supply - wall mounted

| Input | 120-277V, 50/60Hz |
|-------------------------------|---|
| Rating | 240W |
| Output | 24V |
| Ambient Temperature Rating | -40°F to 122°F (-40°C to 50°C) |
| Connections | 2×34 " entries (power in / out) 2×34 " entries (low voltage out) |
| UL Classification | ANSI / UL2108 Wet Location Listed |
| Location | Dry / Damp / Wet locations |
| IP / NEMA Rating | 1, 3R, 4X, 6P, 12 |
| Dimensions | H 5.22" W 13.41" D 11.43" (H 133mm / W 341mm / D 290mm) |
| Weight | 10.9lb (5.0kg) |

LSLED-24V75W277

Electronic DC Power Supply - wall mounted

| Input | 120-277V, 50/60Hz |
|-------------------------------|---|
| Output | 24V DC, 3.13A, (0.05A min) |
| Efficiency | |
| Ambient Temperature Rating | -40°F to 140°F (-40°C to 60°C) |
| Connections | 2 x 1/2" entries (in / out) |
| UL Classification | Class 2, UL1012 / 1585, UL1310 |
| Location | Dry / Damp / Wet locations |
| IP Rating | IP66 (NEMA 3) |
| Dimensions | H 1.67" W 2.95" L 11.22" (H 42mm / W 75mm / L 285mm) |

LSLED-24V120WP09

Electronic DC Power Supply - wall mounted

| Input | 120-277V, 50/60Hz |
|-------------------------------|---|
| Rating | 120W |
| Output | 24V |
| Ambient Temperature Rating | -40°F to 122°F (-40°C to 50°C) |
| Connections | $2 \times \frac{3}{4}$ " entries (power in / out) $2 \times \frac{3}{4}$ " entries (low voltage out) |
| UL Classification | ANSI / UL2018, CSA C22.2 No. 250.0 - Listed Power Unit |
| Location | Dry / Damp / Wet locations |
| IP / NEMA Rating | 1, 3R, 4X, 6P, 12 |
| Dimensions | H 4.47" W 11.35" D 9.41" (H 120mm / W 288mm / D 293mm) |
| Weight | 7.5lb (3.4kg) |

LSLED-24V320WP09

Electronic DC Power Supply - wall mounted

| Input | 120-277V, 50/60Hz |
|-------------------------------|--|
| Rating | 320W |
| Output | 24V |
| Ambient Temperature Rating | -40°F to 104°F (-40°C to 40°C) |
| Connections | 2×34 " entries (power in / out) 2×34 " entries (low voltage out) |
| UL Classification | ANSI / UL2108 Wet Location Listed |
| Location | Dry / Damp / Wet locations |
| IP / NEMA Rating | 1, 3R, 4X, 6P, 12 |
| Dimensions | H 5.22" W 13.41" D 11.43" (H 133mm / W 341mm / D 290mm) |
| Weight | 12.1lb (5.5kg) |



See pages 9-12 for International market

Transformers for Landscape Lighting Applications

LS-TWM-1-300

| Magnetic Transformer - wall moun | ted | d |
|----------------------------------|-----|---|
|----------------------------------|-----|---|

| Input | 120V |
|-----------------|--|
| Rating | 300W |
| Output | 12 / 13 / 14 / 15V |
| Output Circuits | 1 |
| Protection | Electrostatic shield, magnetic breaker |
| Approvals | UL, CUL |
| NEMA Rating | 3R |
| Construction | Stainless steel |
| Dimensions | H 17.6" W 6.8" D 6.19" (H 447mm / W 173mm / D 157mm) |
| Weight | 27lb (12.3kg) |

Control Related Equipment

LS6133

0-10V to PWM translator - NEMA enclosure required (by others)

| Input | 24V DC |
|-----------------|---|
| Rating | 96W max |
| Output | 4A max |
| Output Circuits | 1 |
| Approvals | UL, CUL Recognised, Class 2 |
| IP Rating | IP66 |
| Dimensions | H 5.2" W 1.3" D 1" (H 132mm / W 33mm / D 25mm) |
| Weight | 0.2lb (0.1kg) |

LSLED-24V12W277

Electronic DC Power Supply - NEMA enclosure required (by others)

| Input | 120-277V, 50/60Hz |
|-----------------|---|
| Rating | 12W / 0.5A |
| Output | 24V DC |
| Output Circuits | 1 |
| Approvals | UL, CUL Recognized, Class 2 |
| IP Rating | IP66 |
| Location | Wet location |
| Dimensions | H 3.35" W 1.42" D 0.91" (H 85mm / W 36mm / D 23mm) |
| Weight | 0.282lb (0.1kg) |
| | |