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LUMASCAPE USA INC.

LS452LED Centria

At Grade

humantouch™ opticlear™ microantileach™

CADdetails 0-10V OPTIONAL PWM DIM OPTIONAL IP66 IP67 Intertek

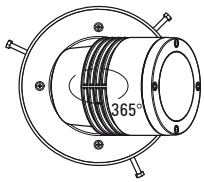
The LS452LED semi recessed Centria is ideal for signage illumination, wall washing and general landscape lighting applications where a low profile appearance is desired. LS452LED provides an alternative to traditional ingrade uplighting allowing efficient focusing of the light whilst minimizing spill. The IP68 stainless steel gear enclosure below grade ensures long life. Choices of beam angles, light and glare control accessories are available.

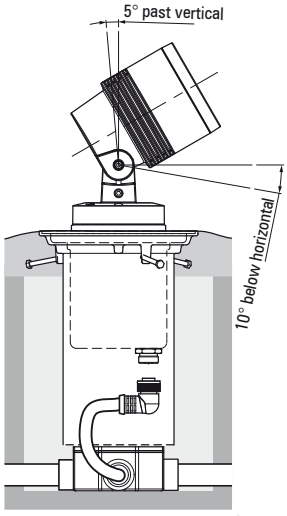
Specifications

Lamp Source	16 W or 27 W LED □ White (4 300 K typical) Warm white (3 000 K typical) Blue (470 nm) *Other colors by request* RGB
Approved Use	Suitable for wet locations Suitable for use in poured concrete Inherently protected
Control Options	0-10 V PWM
IP Rating	IP66 / IP67
Construction	LM20 die-cast marine grade powder coated aluminum 316 marine grade stainless steel
Installation Types	**Pre-Installation Blockout** Concrete pour & general use applications **Direct Burial** Landscapes, planters & special applications *(consult factory)*
Standard Inclusions	**MicroAntiLeach™** wire entry
Accessories *Order separately*	**LS6065** Linear spreader lens **LS6066** Prismatic lens **LS6067** Concentric louver **LS6104** External glare shield
Ambient Operating Temperature	-22 °F to 122 °F (-30 °C to +50 °C)
Remote Transformers / Power Supplies *Order separately*	Refer to Technical Data section for application specific options
Photometrics	Refer to www.lumascape.com

Any luminaire can become hot - take care with appropriate use and placement

LS452LED Centria





LS452LED Centria
and LS637-K pre-installation blockout[1]

[1]**Warning:** Under no circumstances should fixture be installed deeper than shown

Why Use LS637-K Pre-Installation Blockout?

The LS637-K acts as a blockout, and is intended for installation before the luminaire however it has other special functions. To simplify the installation, every LS637-K is supplied complete with a 4-way, ¾" PVC junction box, inside which the installer can make all necessary connections, and allows the completion of all wiring even before the luminaire arrives on site. This method also ensures the luminaire itself is not damaged during concreting or other site works. ***Note: The junction box remains serviceable after installation***. To complete the installation, Lumascape provides an IP68 connector, enabling a tool-free final connection from the luminaire to the branch circuit. In addition, this connector is readily detachable, allowing for off-site maintenance.

Why Use LS637-K-SP Pre-Installation Blockout?

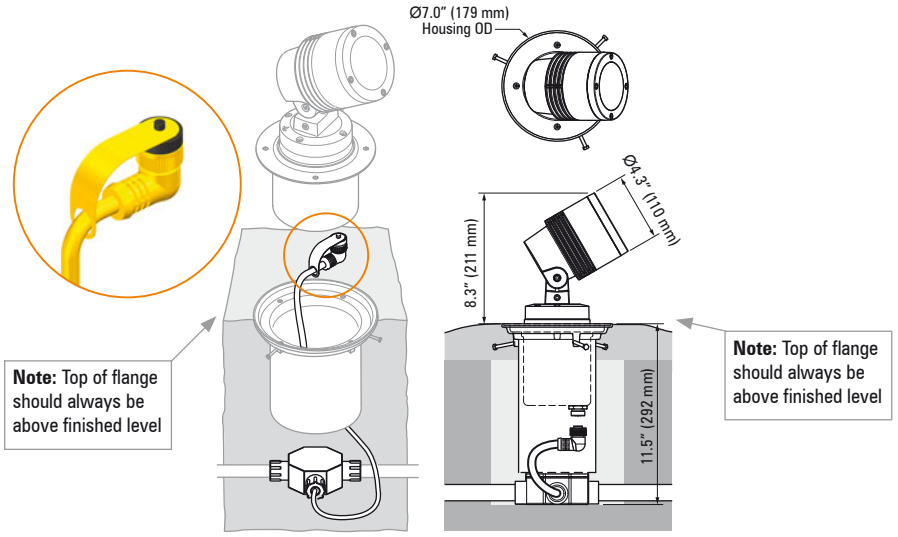
The LS637-K-SP pre-installation kit (order separately) is ideal for use in applications where maximum flexibility for the type and location of branch circuit connections are required or where exact site conditions may be unknown. The LS637-K-SP is also for use with all applications requiring a color changing or dimmable lighting scheme. For use with the LS637-K-SP, Lumascape provides the LS452LED complete with 6.5' of factory-installed hookup wire and a ½" NPT adapter (complete with a **MicroAntiLeach™** seal). This provides the installer with greater flexibility to determine the type and location of the branch circuit connection. This option is also 100% hard-wired, and does not feature the IP68 detachable couplings for off-site maintenance. All aspects of the luminaire itself are still field serviceable.

Connection Type '85' for LS637-K Pre-Installation Blockout

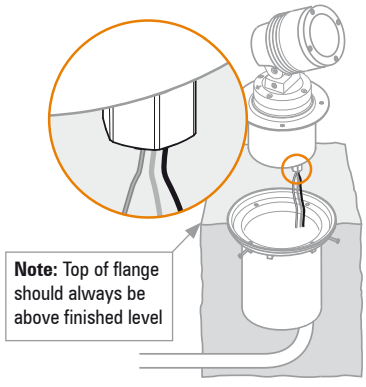
IP68 Connector & Junction Box

The luminaire is fitted with an IP68 connector, which attaches directly to the cable supplied with LS637-K, without the use of any tools. The cable is 1.8' (0.56 m) in length, and is factory assembled with a 4 way, ¾" junction box - ***Remains field serviceable after installation.***

Not suitable for color changing or dimmable applications.



Connection Type '82' for LS637-K-SP Pre-Installation Blockout



½" NPT Adapter

The luminaire is factory-fitted with 6.5' hookup wire. Ensure terminations can be made within this length.

For other length options, consult factory.

Cover Options for Pre-Installation Blockout

Pre-Installation Blockout Round Flush Cover

- SS316: Polished
- SS316: Brushed

Product	Lamp	Cover	Cable Entry	Optical System	Housing Depth	Wire Entry Location	Input Voltage	Finish
LS452LED					23	Q		

LAMP

Description	Wattage	Color	Code
LED	16 W	White (4300 K typ.)	16W4
		Warm white (3000 K typ.)	16H6
		Blue (470 nm)	16B4
LED	27 W	White (4300 K typ.)	27W4
		Warm white (3000 K typ.)	27H6
		Blue (470 nm)	27B4
	19 W	RGB	19M4

OPTICAL SYSTEM

Description	Beam		Code
Adjustable	Narrow	14°	NR
Adjustable	Narrow Medium	25°	NM
Adjustable	Medium	30°	ME[1]
Adjustable	Linear Horizontal	40° x 20°	LH[2]
Adjustable	Linear Vertical	20° x 40°	LV[2]

[1] Recommended for best RGB color mixing.
[2] Refer to beam orientation diagram.

HOUSING DEPTH

Description	Code
11.5" (292 mm)	23

COVER

Description	Material	Finish	Code
Round Flush Cover	Stainless steel	Polished	M
		Brushed	N

WIRE ENTRY LOCATION

Description	Code
Bottom	Q

CONNECTION TYPE

Description	Code
IP68 Connector & Junction Box	85[1]
½" NPT Adapter	82[2]

[1] LS637-K required - order separately. Not suitable for color changing or dimmable applications.
[2] LS637-K-SP required - order separately.

INPUT VOLTAGE

Description	Code
120-277 V, 50/60 Hz	09
0-10 V Dimmable Driver, 120-277 V, 50/60 Hz	09-DIM[1]
PWM Dimmable Driver, 12-15 V, 60 Hz or 12-24 V DC	13-DIM[2]

[1] Not available with 16 W module.
[2] For RGB applications only.

Dimmable Wiring Diagram Reference

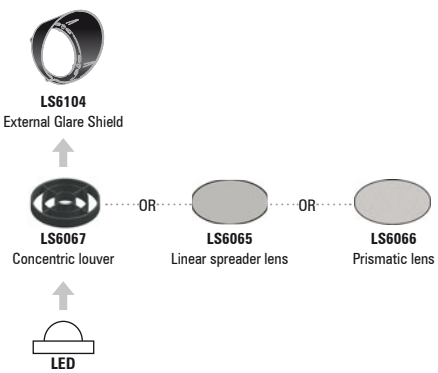
Input Voltage	LED Color	Control Type	Wiring Diagram
09-DIM	Single Color	0-10 V	1
13-DIM	RGB	PWM	8,9

FINISH

Description	Material	Code
Black, powder coated	Aluminum	CB
White, powder coated	Aluminum	CW
Anodic silver, powder coated	Aluminum	CS

LS452LED Accessories

Stacking and order of accessories



Other accessory stacking options may be available - consult factory

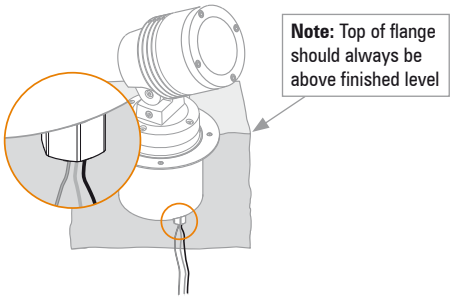
Why Use Direct Burial?

Direct burial installation is ideal for landscaping areas or for special applications where depth is restricted. This type of installation also allows for maximum heat dissipation. The 316 grade Stainless Steel construction of the luminaire performs flawlessly in alkaline and acidic soil types, and is also rated for use in concrete pour applications. **Note: This installation type has no option for a pre-installation blockout.**

Lumascape provides the LS452LED complete with 6.5' of factory installed hookup wire and ½" NPT adapter, supplied complete with **MicroAntiLeach™** seal. This provides the installer with greater flexibility to determine the nature of the branch circuit connection. This connection is also 100% hardwired. All aspects of the luminaire itself remains field serviceable.

Consult factory for application advice prior to using this configuration.

Connection type '82' for 'Direct Burial' housing



½" NPT Adapter

The luminaire is factory-fitted with 6.5' hookup wire. Ensure terminations can be made within this length.

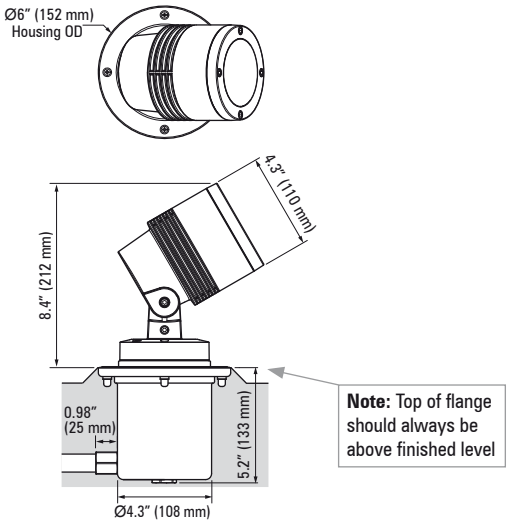
For other length options, consult factory.

Cover Options for Direct Burial

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

Recessed Cover

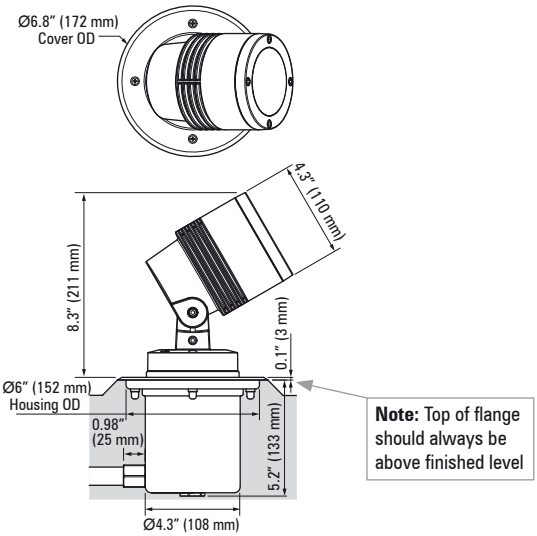
- SS316: Polished
- SS316: Brushed



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



Product	Lamp	Cover	Cable Entry	Optical System	Housing Depth	Wire Entry Location	Input Voltage	Finish
LS452LED			82		28			

LAMP

Description	Wattage	Color	Code
LED	16 W	White (4300 K typ.)	16W4
		Warm white (3000 K typ.)	16H6
		Blue (470 nm)	16B4
LED	27 W	White (4300 K typ.)	27W4
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		Blue (470 nm)	27B4
	19 W	RGB	19M4

OPTICAL SYSTEM

Description	Beam		Code
Adjustable	Narrow	14°	NR
Adjustable	Narrow Medium	25°	NM
Adjustable	Medium	30°	ME[1]
Adjustable	Linear Horizontal	40° x 20°	LH[2]
Adjustable	Linear Vertical	20° x 40°	LV[2]

[1] Recommended for best RGB color mixing.
[2] Refer to beam orientation diagram.

HOUSING DEPTH

Description	Code
5.2" (132 mm)	28

COVER

Description	Material	Finish	Code
Recessed Flush Cover	Stainless steel	Polished	B
		Brushed	H
Round Flush Cover	Stainless steel	Polished	D
		Brushed	I

WIRE ENTRY LOCATION

Description	Code
Side	N
Bottom	Q

CONNECTION TYPE

Description	Code
½" NPT Adapter	82

INPUT VOLTAGE

Description	Code
120-277 V, 50/60 Hz	09
0-10 V Dimmable Driver, 120-277 V, 50/60 Hz	09-DIM[1]
PWM Dimmable Driver, 12-15 V, 60 Hz or 12-24 V DC	13-DIM[2]

[1] Not available with 16 W module.
[2] For RGB applications only.

Dimmable Wiring Diagram Reference

Input Voltage	LED Color	Control Type	Wiring Diagram
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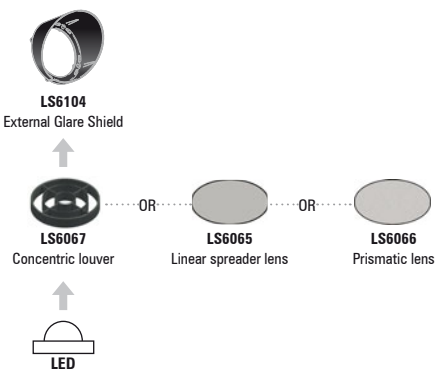
FINISH

Description	Material	Code
Black, powder coated	Aluminum	CB
White, powder coated	Aluminum	CW
Anodic silver, powder coated	Aluminum	CS

LS452LED Accessories

Stacking and order of accessories



Other accessory stacking options may be available - consult factory

Photometrics

Photometric data is based on test results from a NIST traceable testing lab. IES data is available at www.lumascape.com.

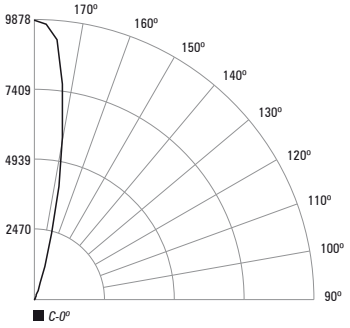
Note: No depreciation factor is applied to the data shown.

LS452LED LS432LED LS422LED 4 300 K[1] 25° Beam Angle

Power Input	30
Lumens	1781
Efficacy	59 Lm/W

[1] To approximate warm white data, multiply by 0.84. Refer web site for IES files for all color temperatures.

Polar Candela Distribution



	C 0°	C 15°	C 30°	C 45°	C 60°	C 75°	C 90°
90°	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0
130°	5	5	5	5	6	9	12
140°	44	55	56	54	48	51	53
150°	130	125	127	125	130	131	129
160°	658	701	752	822	911	935	924
170°	5846	5894	6178	6350	6519	6685	6777
180°	9878	9878	9878	9878	9878	9878	9878

Illuminance at a Distance

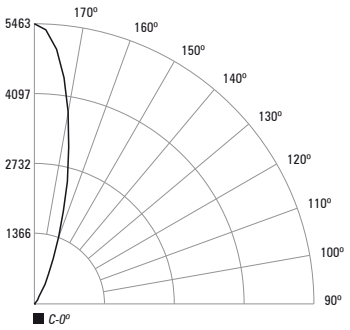
ft	Center Beam fc	Beam Ø
5	395.1	2 ft
10	98.8	4 ft
15	43.9	7 ft
25	15.8	11 ft
30	11	13 ft
40	6.2	18 ft
50	4	22 ft

LS452LED LS432LED LS422LED 4 300 K[1] 30° Beam Angle

Power Input	31
Lumens	1589
Efficacy	51 Lm/W

[1] To approximate warm white data, multiply by 0.84. Refer web site for IES files for all color temperatures.

Polar Candela Distribution



	C 0°	C 15°	C 30°	C 45°	C 60°	C 75°	C 90°
90°	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0
130°	12	11	9	8	8	8	8
140°	49	46	46	51	49	47	48
150°	306	288	278	278	279	275	264
160°	1397	1357	1342	1309	1282	1282	1305
170°	3809	3762	3713	3682	3660	3661	3673
180°	5463	5463	5463	5463	5463	5463	5463

Illuminance at a Distance

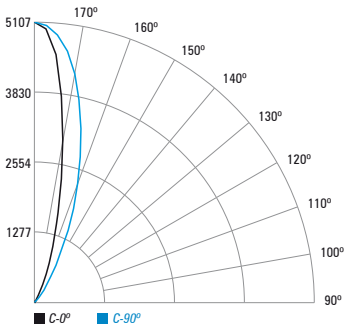
ft	Center Beam fc	Beam Ø
5	218.5	3 ft
10	54.6	5 ft
15	24.3	8 ft
25	8.7	13 ft
30	6.1	16 ft
40	3.4	21 ft
50	2.2	27 ft

LS452LED LS432LED LS422LED 4 300 K[1] 20° x 40° Beam Angle

Power Input	31
Lumens	1576
Efficacy	51 Lm/W

[1] To approximate warm white data, multiply by 0.84. Refer web site for IES files for all color temperatures.

Polar Candela Distribution



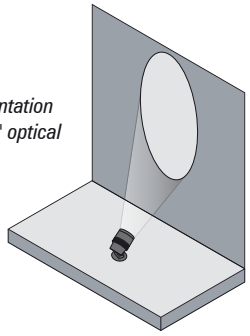
	C 0°	C 15°	C 30°	C 45°	C 60°	C 75°	C 90°
90°	0	0	0	0	0	0	0
100°	0	0	0	0	0	0	0
110°	0	0	0	0	0	0	0
120°	0	0	0	0	0	0	0
130°	9	8	7	7	13	18	23
140°	25	25	28	42	80	124	141
150°	119	127	166	272	439	612	695
160°	843	886	1045	1327	1702	2141	2318
170°	3095	3166	3352	3661	3986	4209	4278
180°	5107	5107	5107	5107	5107	5107	5107

Illuminance at Distance

ft	Center Beam fc	Beam W	Beam L
5	204.3	2 ft	4 ft
10	51.1	4 ft	7 ft
15	22.7	5 ft	11 ft
25	8.2	9 ft	18 ft
30	5.7	11 ft	22 ft
40	3.2	14 ft	29 ft
50	2	18 ft	36 ft

Beam Orientations

Beam Orientation for the "LV" optical system



Beam Orientation for the "LH" optical system

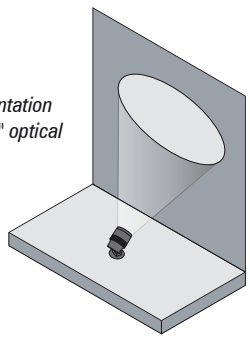


Diagram 1 - 0-10 V Dimming for Line Voltage LED Luminaires

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

0-10V

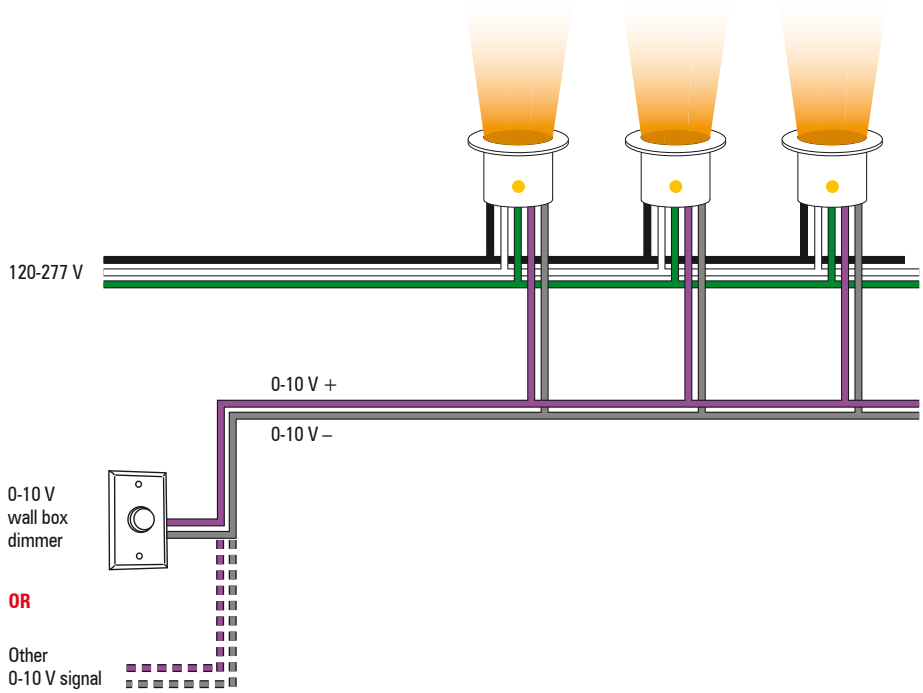
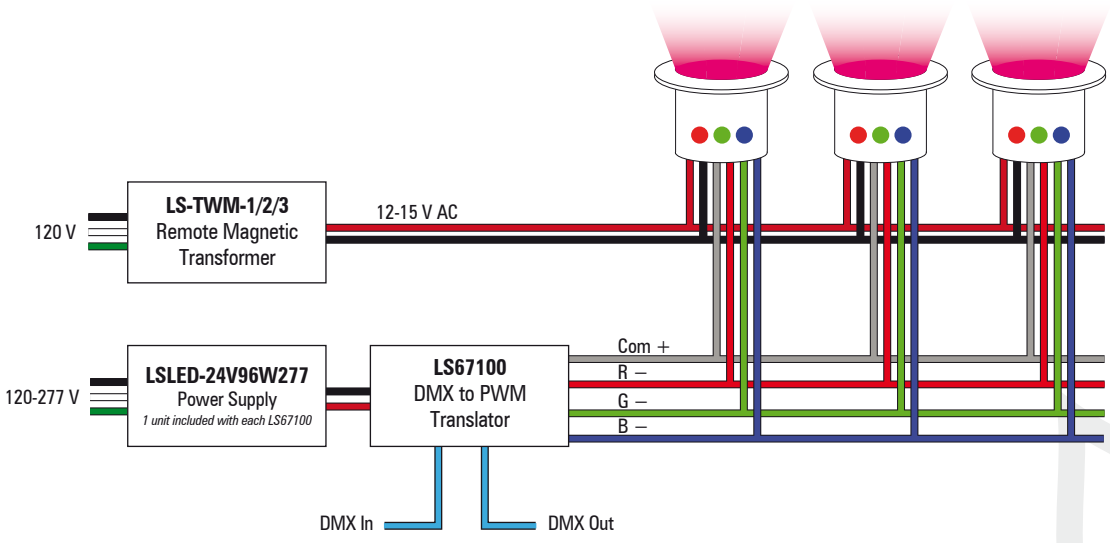


Diagram 8 - RGB via DMX for Low Voltage LED Luminaire on 12-15 V AC Circuit

PWM DIM

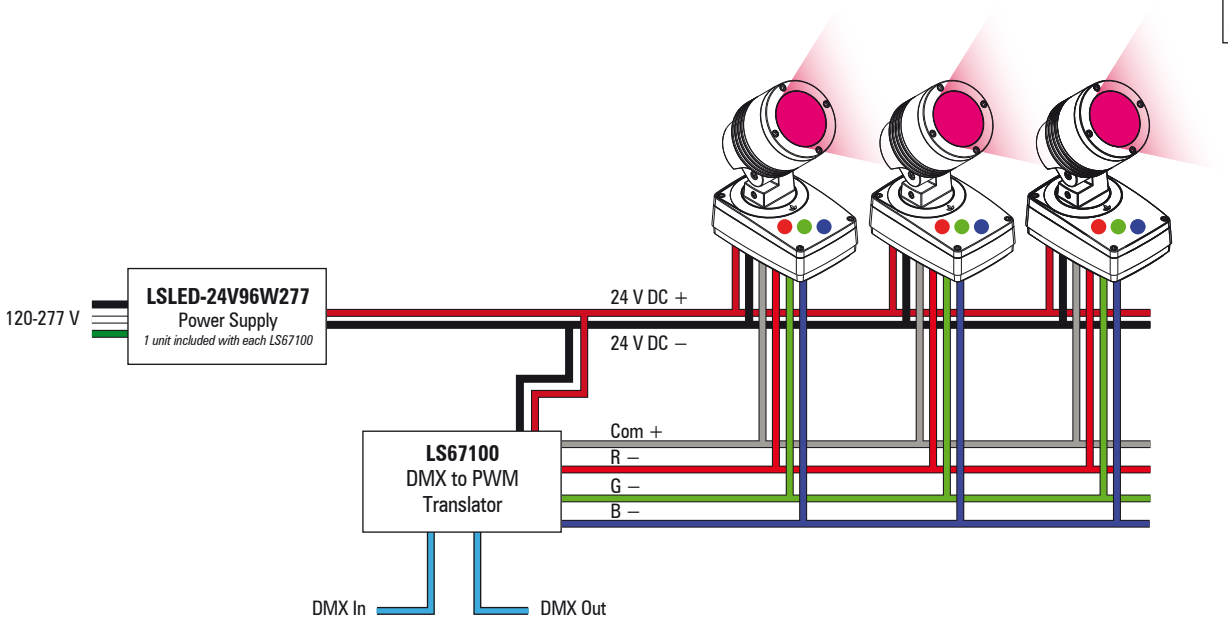


Use compatibility table to determine maximum number of luminaires the power supply can support.

NOTE: The above diagrams are intended to show electrical pathways between luminaires and ancillary devices. These diagrams are not intended to show type or color of cord/wire, wire gauge or approved use of the cord/wire supplied with luminaires.

Consult the luminaire-specific cutsheet or the factory for detailed specifications.

Diagram 9 - RGB via DMX for Low Voltage LED Luminaire on 24 V DC Circuit



Use compatibility table to determine maximum number of luminaires the power supply can support.

Transformers and Power Supplies for Low Voltage LED Luminaires

The following list of transformers and power supplies are for use with luminaires specifically described as being compatible with either 12 V AC (wirewound only) transformers or with 12-24 V DC power supplies. Compatibility will be noted in the ordering code of the luminaire concerned, and will typically be referenced by Voltage Code '13' or '13-DIM'. In the case of '13-DIM' additional components may be required. Refer to the applicable wiring diagram/s.

Compatibility with each transformer or power supply is indicated by the value mentioned, 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. For assistance, please contact factory.

	Wall Mounted Landscape Lighting Transformers			Wall Mounted Transformers				Class 2 Power Supply	Direct Burial Transformer
	LS-TWM-1-300	**LS-TWM-2-600**	**LS-TWM-3-900**	**LS-TWM-50**	**LS-TWM-100**	**LS-TWM-150**	**LS-TWM-250**	**LSLED-24V96W277**	**LS-TDB1-300**
Input Voltage	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz	120 V, 60 Hz	120-277 V, 50/60 Hz	120 V, 60 Hz
Output Voltage	12/13/14/15 V 60 Hz	12/13/14/15 V 60 Hz	12/13/14/15 V 60 Hz	12 V, 60 Hz	12 V, 60 Hz	12 V, 60 Hz	12 V, 60 Hz	24 V DC	12.5 V, 60 Hz
Wattage	1 x 300 W circuit	2 x 300 W circuits	3 x 300 W circuits	50 W	100 W	150 W	250 W	96 W	300 W
LS452LED-19M4	7	14	21					4	

Transformers for Landscape Lighting Applications

LS-TWM-1-300

Magnetic transformer - wall mounted

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

LS-TWM-2-600

Magnetic transformer - wall mounted

Input	120 V
Rating	600 W
Output	12/13/14/15 V
Output Circuits	2
Protection	Electrostatic shield, magnetic breaker
Approvals	UL, CUL
NEMA Rating	3R
Construction	Stainless steel
Dimensions	**H** 17.6" (447 mm) **W** 6.8" (173 mm) **D** 6.19" (157 mm)
Weight	29 lb (13.2 kg)

LS-TWM-3-900

Magnetic transformer - wall mounted

Input	120 V
Rating	900 W
Output	12/13/14/15 V
Output Circuits	3
Protection	Electrostatic shield, magnetic breaker
Approvals	UL, CUL
NEMA Rating	3R
Construction	Stainless steel
Dimensions	**H** 18.6" (472 mm) **W** 7.8" (198 mm) **D** 6.19" (157 mm)
Weight	34 lb (15.5 kg)

LS-TDB1-300

Magnetic transformer - direct burial

Input	120 V
Rating	300 W
Output	12.5 V
Output Circuits	1
Protection	Circuit breaker
Approvals	ETL (US and Canada)
NEMA Rating	12
Construction	Reinforced composite
Dimensions	**H** 9" (229 mm) **W** 9" (229 mm) **D** 7" (178 mm)
Weight	8 lb (3.6 kg)

Class 2 LED Power Supplies

LSLED-24V96W277

Electronic DC power supply - wall mounted

Input	120-277 V, 50/60 Hz
Rating	96 W / 4 A
Output	24 V DC
Output Circuits	1
Approvals	CSA, CSA-US
Location	Wet location
Dimensions	**H** 12.32" (313 mm) **W** 2.54" (65 mm) **D** 1.67" (42 mm)
Weight	2 lb (0.9 kg)

LSLED-24V12W277

Electronic DC power supply - NEMA enclosure required (by others)

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

Control Related Equipment

LS6133

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

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

LS67100

DMX to PWM translator - dry location only

Input	24 V DC
Rating	4 x 60 W max
Output	4 x 2.5 A max
Output Circuits	4
Approvals	UL, CUL
IP Rating	N/A
Dimensions	**H** 11.25" (286 mm) **W** 4.6" (117 mm) **D** 3.2 (82 mm)
Weight	0.5 lb (0.2 kg)