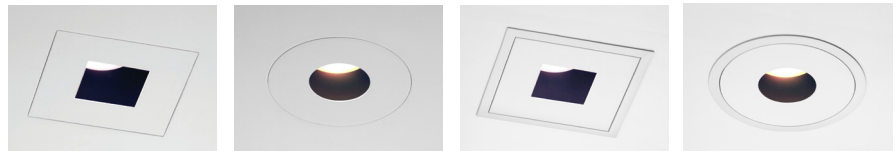
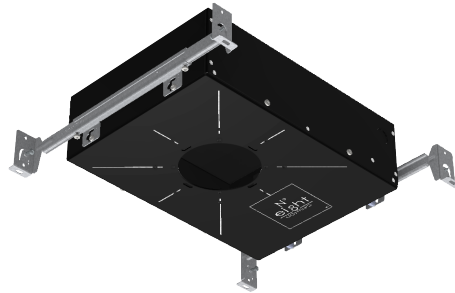


Tunable White LED

FEATURES

- Available with No.8 Lighting **800 Series** Model **804S/J2S-TW**
- Fully adjustable (0-45° vertical/360° horizontal) for general, accent, and wall wash* lighting applications (*with optional WW-8 wall wash accessory)
- 4500-2200K 92+ CRI Tunable White LED delivers up to 1133 lumens at 14.6 watts
- Four Dimming Driver Options: 0.1% EldoLED DALI, 0.1% EldoLED DMX, 0.1% EldoLED 0-10v, and 1% Lutron T-Series
- High lumen density for directional lighting with up to 7,570 CBCP
- Available optic options include: 15°, 25°, and 40°
- Consistent white light <3 SDCM
- 2019 CA JA8 Compliant
- Works with all **800 Series** trims

804S/J2S-TW - LOW-PROFILE RECESSED ADJUSTABLE

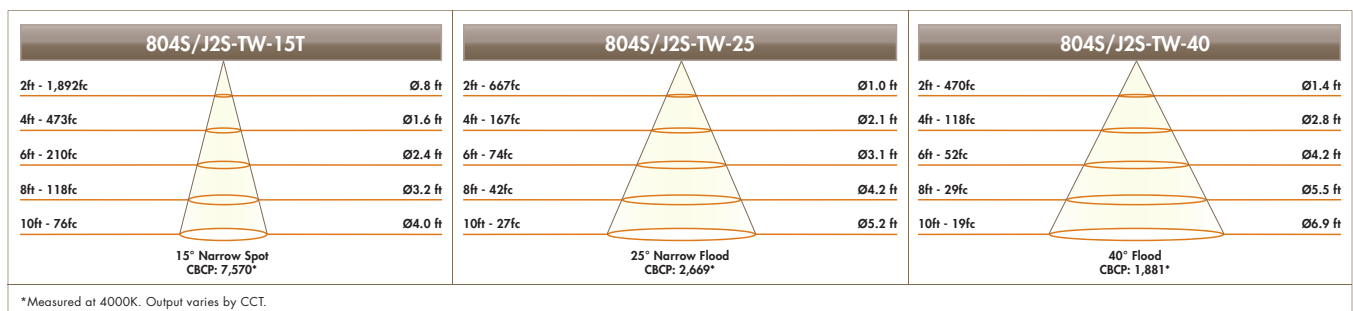


804S/J2S-TW PERFORMANCE SUMMARY

Correlated Color Temperature:	4500K	4000K	3500K	3000K	2700K	2200K
Color Rendering Index:	92	94	95	96	95	92
Wattage:	14.7	14.6	14.4	14.3	14.3	14.1
Delivered* Lumens:	1130	1133	1112	1034	975	817
Delivered* Lumens Per Watt:	77	78	77	72	68	58

*Based on 15° optic and 2.75" aperture trim. Performance varies for each specific beam spread and trim type.

804S/J2S-TW CONE OF LIGHT DIAGRAMS



526 Portal Street
Cotati, CA 94931
USA
P 707.794.0888
F 707.795-4379
www.8lighting.com

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Tunable White LED Color Range

4500K-2200K at 100%



4500K

4000K

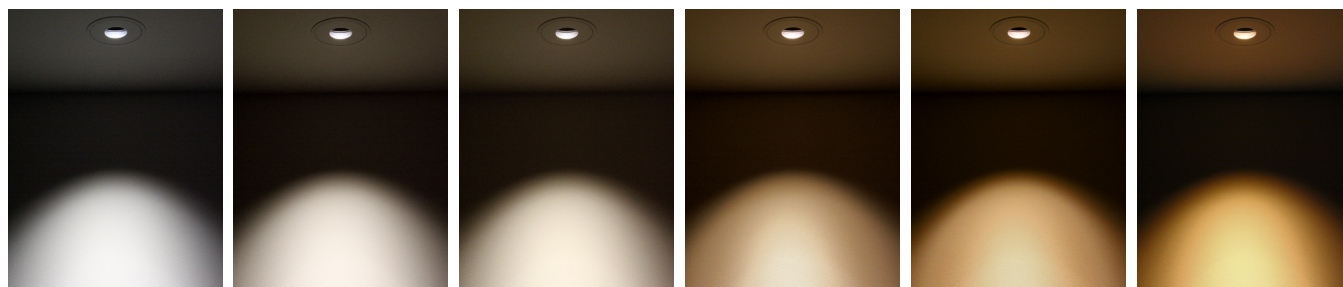
3500K

3000K

2700K

2200K

4500K-2200K at 1%



4500K

4000K

3500K

3000K

2700K

2200K



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Number Eight Lighting - Tunable White Control

Number Eight Lighting tunable white lighting technology features independent control of both color temperature (CCT) and intensity. Independently controlling CCT and intensity requires more sophisticated and more complex lighting controls.

There are four lighting control protocols that work well with our tunable white lighting, including: DALI, DMX, 0-10v, and Lutron T-Series. Each control protocol has advantages and disadvantages and which protocol you choose, depends on your requirements.

DALI

DALI is a bi-directional digital lighting control protocol, allowing flexibility of creating and reconfiguring individually addressable devices into groups through programming without re-wiring. DALI control wiring for 2-channel tunable white applications consists of one pair of low voltage wires that are not polarity sensitive and can be daisy-chained from one device to the next. DALI control systems require specialized knowledge to commission and program. Compatible DALI control options for small to large system installations are available from many lighting control manufacturers, including: Crestron, Lutron, and Vantage.

DMX

DMX is a digital communication control protocol and DMX devices are individually addressable and re-configurable through programming without re-wiring. With DMX/RDM, bi-directional communication is possible; however, not all lighting control system manufacturers support RDM. DMX control wiring for tunable white applications consists of three low voltage wires that are polarity sensitive and can be daisy-chained from one device to the next. DMX control systems require specialized knowledge to commission and program. Compatible DMX control options for small to large system installations are available from many lighting control manufacturers, including: Crestron, Lutron, and Vantage.

0-10V

0-10V is an analog communication control protocol that does not include addressable devices and does not allow for changes to control groups without re-wiring. 0-10V control wiring for 2-channel tunable white applications requires two pairs of low voltage wires. 0-10V control wiring is polarity sensitive and can be daisy-chained from one device to the next; however, special attention needs to be paid to wire lengths and voltage drop. 0-10V does not support bi-directional communication. 0-10V controls are relatively simple to install and are better suited for small installations. Compatible 0-10V control options are available from many lighting controls manufacturers, including: Crestron, Lutron, and Vantage.

Lutron T-Series

Lutron T-Series digital lighting control protocol allows for flexibility of creating and reconfiguring individually addressable devices into groups through programming without re-wiring. T-Series control wiring for 2-channel tunable white applications consists of one pair of low voltage wires that are not polarity sensitive and can be daisy-chained from one device to the next. T-Series controls require specialized knowledge to commission and program. Lutron T-Series compatible control options for small to large installations include: Lutron T-Series Energi Savr Node.



Number Eight Lighting - Tunable White Control

Driver Model:	EL3	EL4	EL5	LU5
Control Protocol:	DALI	DMX	0-10V	Lutron T-Series
Control Type:	Digital	Digital	Analog	Digital
Control Channels:	2	2	2	2
Load Wiring:	One Feed	One Feed	One Feed Per Control Group	One Feed
Max Input Current:	0.35A @ 120V/60Hz 0.15A @ 277V/60Hz	0.5A @ 120V/60Hz 0.22A @ 277V/60Hz	0.5A @ 120V/60Hz 0.3A @ 277V/60Hz	0.5A @ 120V/60Hz 0.25A @ 277V/60Hz
Control Wiring:	One Pair (2-Wires) Up to 32 Fixtures	One Set (3-Wires) Up to 30 Fixtures	Two 2-Wire Pairs Per Control Group	One Pair (2-Wires) Up to 32 Fixtures
Max Drivers Per Control Group:	32	32	See Footnote ¹	32
Individually Addressable:	Yes	Yes	No	Yes
Difficulty to Commission:	Moderate	Moderate	Easy	Moderate
Suitable Installation Size:	Small to Large	Small to Large	Small	Small to Large
Driver Specifications:	See Footnote ²	See Footnote ³	See Footnote ⁴	See Footnote ⁵

Footnotes:

¹ There are several factors to consider when determining the maximum number of drivers per 0-10V control circuit. Lutron has prepared an excellent App Note covering 0-10V control topology: www.lutron.com/TechnicalDocumentLibrary/048587_Web.pdf

² Model EL3 - EldoLED Dual Drive 30S-M2Z0D 2-Channel DALI Dimming Driver Specification: www.eldoled.com/led-drivers/dualdrive/30-watt/ac-dl30s-m2z0d/

³ Model EL4 - EldoLED PowerDrive 50S-M4Z0X DMX Dimming Driver Specification: www.eldoled.com/led-drivers/powerdrive/50-watt/ac-pw50s-m4z0x/

⁴ Model EL5 - EldoLED Dual Drive 561S 2-Channel 0-10v Dimming Driver Specification: www.eldoled.com/led-drivers/dualdrive/50-watt/ac-561s/

⁵ Model LU5 - Lutron T-Series 2-Channel Driver Specification: www.lutron.com/TechnicalDocumentLibrary/3691099.pdf



Tunable White Control – Additional Resources

Controls Overview

EldoLED Lighting Control Types – White Paper

<https://www.eldoled.com/support/learning-center/lighting-control-systems/>

EldoLED LightShape – Warm Dimming and Tunable White

<https://www.eldoled.com/quality-of-light/lightshape/>

Color Tuning with Lutron Controls

<https://www.lutron.com/TechnicalDocumentLibrary/048579.pdf>

Vantage Lighting Controls

<http://www.vantagecontrols.com/vantage-controls-media/vantage-brochures.aspx>

Crestron Lighting Controls

<https://crestron.com/Products/Featured-Solutions/Residential-Lighting-Solutions>

Lutron Homeworks Lighting Controls

<https://www.lutron.com/en-US/Products/Pages/WholeHomeSystems/Homeworks/Overview.aspx>

Lutron Quantum Controls

<https://www.lutron.com/en-US/Products/Pages/WholeBuildingSystems/Quantum/Overview.aspx>

DALI Control

EldoLED DALI Network Set-up – Application Note

<https://www.eldoled.com/support/learning-center/lightshape-dali-network-setup/>

DALI Overview

<https://www.digitalilluminationinterface.org/dali/>

Crestron DALI Control - Design Guide

https://www.crestron.com/Support/Search-Results?c=undefined&m=10&q=dali&o=0&type=Manuals_Guides

Lutron DALI Controllers – Application Note

<https://www.lutron.com/TechnicalDocumentLibrary/048482.pdf>

DMX Control

EldoLED DMX – Application Note

<https://www.eldoled.com/support/learning-center/how-to-wire-dmx-lighting-systems/>

EldoLED POWERdrive DMX Design Guide:

https://www.eldoled.com/cms_files/Downloads/Design-in%20guide_QSG/POWERdrive%2050W%20-%20Design%20Guide.pdf

Lutron DMX 512A Solutions – Application Note

<https://www.lutron.com/TechnicalDocumentLibrary/048592.pdf>

0-10V Control

EldoLED 0-10v Dimming Compatibility

<https://www.eldoled.com/support/learning-center/compatibility-sheet-0-10v/>

Lutron 0-10v Control Topology App Note

https://www.lutron.com/TechnicalDocumentLibrary/048587_Web.pdf

Lutron T-Series Control

Lutron T-Series Energi Savr Node with Quantum System version 3.4 or higher

<https://www.lutron.com/TechnicalDocumentLibrary/3691096.pdf>

Lutron T-Series 2-Channel – Tunable White Sequence of Operations Guide

https://www.lutron.com/TechnicalDocumentLibrary/3672835_Tunable_White_SoO_Brochure.pdf