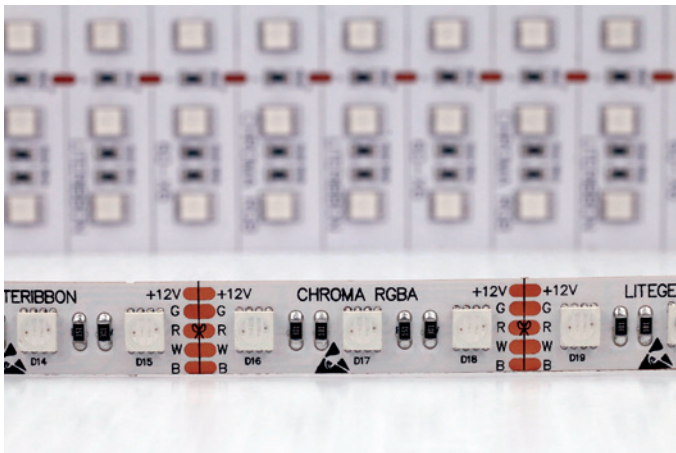


GADGETS

# LEDs Are Changing the Lighting Equation

BY DAVID HEURING



### DMG Lumiere SL1 Smart Light and MAXI Switch

- Boasts an enviable size/weight/power ratio along with extremely fine color temperature controls
- Capable of 1450 lux at 3 meters
- Designed by a working gaffer-cinematographer team
- Used on *The Meyerowitz Stories* and *Malavita*, as well as on the forthcoming *Come Sunday*

### LiteGear Chroma RGB+A LiteRibbon

- Uses a single row of wide-angle LED emitters mounted to a flexible, adhesive-backed circuit board
- Each chip has four emitters, one each for red, green, blue and amber
- Immediately adjacent are high CRI daylight and tungsten emitters that allow for desaturation with clean, white light
- Used on *Ghost in the Shell* and *Ghostbusters*, among many other projects



### Digital Sputnik - DS3+set

- Digital Sputnik's fixtures offer eight-channel, 16-bit control
- Uses a four-color system to deliver high output and precise color
- Advanced networking capability
- Used extensively on *Star Wars: Rogue One* and *Independence Day: Resurgence*



### ARRI SkyPanel

- Versatile fixture incorporates features of ARRI's L-Series LED Fresnels
- Quickly became a standard tool on film sets
- Easy to configure as a spacelight, and works with an array of diffusers for a range of textures
- Punch in X-Y coordinates to generate a specific color
- Used on *The Handmaid's Tale* and *The Lucky Ones*

### Creamsource Sky

- Billed as the original high-powered, full-spectrum softsource
- A larger lamp that incorporates six LED engines and an efficient cooling system
- Often used to create ambient lighting over large areas
- Used on *Captain America: Civil War* and *Avengers: Infinity War*



At this past June's Cine Gear Expo, in which makers of filmmaking equipment annually take over the Paramount backlot to display their wares, potentially the most profoundly disruptive advancement was the

LED light fixture. More than a dozen companies were showing their latest LED lamps, which change the equation in terms of output, color control and communications.

LEDs offer savings on labor, power consumption and air conditioning, and their consistent output even at low levels works well with sensitive digital cameras. Using light-emitting diodes in place of incandescent filaments, HMI or carbon-arc sources, many of these lamps have already been put to use on projects for a number of years. But the pace of innovation is furious—manufacturers are improving lights even during the course of a single production, and lighting pros say they've only just begun to change the business.

DGA member Ellen Kuras is uniquely qualified to evaluate the trend, having worked as a top cinematographer (*Eternal Sunshine of the Spotless Mind*, *Summer of Sam*, *Blow*) and director (*Falling Water*, *Ozark*, *Legion*).

"LEDs are changing the landscape of filmmaking," says Kuras. "I

find as a director that I can be more spontaneous. On *Falling Water*, I was amazed by how quickly DP Richard Rutkowski was able to turn the lighting around. Less setup time means I have more precious time with the actors. With less clutter, it's easier for the actors to work around. Wireless interface means you're untethered, and the electricians have more fluidity to remotely change color temperature, intensity and other qualities without switching out bulbs and affecting momentum."

On *Ozark*, Kuras directed two episodes that were shot by cinematographer Ben Kutchins. "As a director, I want to see the actors' eyes, to see the performance," Kuras says. "Ben could quickly place a small LED that looked like a natural light. Sometimes the color temperature of the day changes, or we need a bit of exposure in the frame. I'm looking for ways to make those changes expedient, and to create a world for the actors. Directors are under time pressure, so we rely on our DPs to find efficient solutions that look good. In that regard, LEDs are revolutionary."

Here are five LED fixtures that have quickly become standard tools on motion picture production sets. They share many attributes, and all benefit from near-constant innovation and upgrades. ♦