

Type(s) Project Date Notes

GENERAL INFORMATION

The ETC Desire D60 fixture puts the seven-color x7 system into a high-brightness, 60-emitter, round theatrical washlight. Highly efficient primary lenses and careful color choices make the D60 fixture ideal for stage, studio and anywhere strong color and high-intensity are requirements. The x7 Color System produces the widest range of spectrally-balanced saturated and tinted color choices available. The D60's rugged die-cast enclosure; quiet, fan-cooled operation; multiple lens options; and advanced user interface make it ideal for multiple applications.

D60 LED ARRAY OPTIONS

D60 fixtures are based on the x7 Color System that uses seven different LED colors to achieve true, usable broad-spectrum color. The D60 luminaire is available with any one of the following x7 color arrays (not interchangeable) to best suit the intended application:

- D60 Vivid the x7 Color System array balanced for best all-around use as a color-changing wash fixture
- D60 Lustr+ optimized array with six colors plus high-intensity white LEDs to create an ideal frontlight wash fixture for full-range color, with an emphasis on lighter colors and white and natural illumination of skin tones

ORDERING INFORMATION

Selador D60

| MODEL | DESCRIPTION | ETL PART NUMBER | CE PART NUMBER | |
|----------|-------------|-----------------|----------------|--|
| SELD60VI | D60 Vivid | 7410A1601 | 7410A1601-0X | |
| SELD60LI | D60 Lustr+ | 7410A1605 | 7410A1605-0X | |

Note: D60 luminaires ship with a hanging yoke, a Very Narrow secondary lens and an input lead with connector of choice. See page 7 for connector options. C-clamps are not included.

Color options: -1 / -1X = white, -5 / -5X = silver gray/custom colors



PRODUCT SPECIFICATIONS

Source

| LED details | 60 Lumileds LUXEON [®] Rebel LED |
|----------------------------------|---|
| Max lumens | Vivid: 3,760 Lustr+: 4,317 |
| Lumens per watt | Vivid: 28.8 Lustr+: 33.33 |
| L70 rating (hours to 70% output) | 50,000 hours |

Color

| Colors used | Lustr+: Red, Amber, Green, Cyan, Blue, Indigo, White Vivid: Red, Red-Orange, Amber, Green, Cyan, Blue, Indigo | |
|-------------------------|--|--|
| Color temperature range | 2700–6500 K | |
| Calibrated array | Yes | |
| Red shift | Yes | |

Optical

| Beam angle range | 8°–71° |
|------------------------------------|---|
| Aperture size | 9 in |
| Pattern projection | No |
| Pattern size | N/A |
| Camera flicker control/Hz range | Yes: 900–25,000 Hz |
| Notes | Secondary lenses available for multiple beam-spread options |

Control

| Input method | DMX512 via 5-pin XLR | | |
|----------------------------|-------------------------------|--|--|
| Protocols | DMX512/RDM | | |
| Modes (footprint) | See page 6 | | |
| RDM configuration | Yes | | |
| UI type | LCD | | |
| Local control | Yes | | |
| Onboard presets | Yes | | |
| Onboard sequences | Yes | | |
| Onboard effects | No | | |
| Fixture-to-fixture control | Yes | | |
| Notes | 15-bit virtual dimming engine | | |

Electrical

| Voltage range | 100–240 VAC 50/60 Hz | |
|-----------------------|---|--|
| Input method | Neutrik powerCON® in and thru Requires power from non-dimmable source | |
| Inrush | 15 A at 120 V (First half-cycle) 40 A at 240 V (First half-cycle) | |
| Fixtures per circuit* | 9 (15 A via power thru) 10 (R20 via module or similar) | |
| Wattage typical | 161 W | |
| Current draw | 1.21 A at 120 V 0.57 A at 240 V | |

*All measurements are for 120 V, 60 Hz. Results may vary in different regions.

Thermal

| Ambient operating temp | -20°-40°C (-4°-104°F) |
|------------------------|--|
| Fan (controllable) | Yes (yes) |
| Droop compensation | Yes |
| dB range | 25 dBa average at 1 m (more details on page 8) |
| BTUs/hour | 549 |

Physical

| Materials | Die-cast, all metal housing | |
|----------------------|---|--|
| Color options | Black, white, silver, or custom color | |
| Mounting options | Yoke | |
| IP rating | IP20 | |
| Weight | 8.7 kg (19.1 lb) | |
| Included accessories | Very Narrow Round diffuser, power cable (see page 7), optional yoke/floor stand | |

Warranty

| Fixture | 5 years |
|-----------|----------|
| LED array | 10 years |

Regulatory and Compliance

| Approved regulatory standards | UL 1573 CSA C22.2 No. 166 |
|-------------------------------|-------------------------------|
| | CE Compliant EAC Compliant |

ETC utilizes a nationally recognized third-party lab for luminaire testing according to IES LM-84. See <u>etcconnect.com/About/News/ETC-Fixture-Ratings-and-Warranties-Extended.aspx</u>.

All LED sources experience some lessening of light output and some color shift over time. LED output will vary with thermal conditions. In individual situations, LEDs will be used for different durations and levels. This can eventually lead to minor alterations in color performance, necessitating slight adjustments to presets, cues or programs.

PRODUCT FEATURES



INDUSTRY LEADING WARRANTY

Five-year warranty on the full fixture and a ten-year warranty on the LED array.



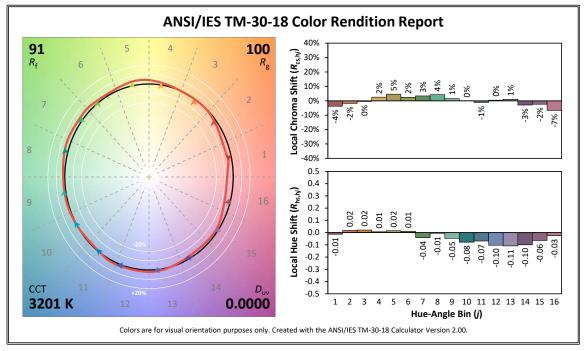
MULTIPLE LED ARRAY OPTIONS Also available in static white arrays



USER FRIENDLY INTERFACE With multiple modes and fixture settings.

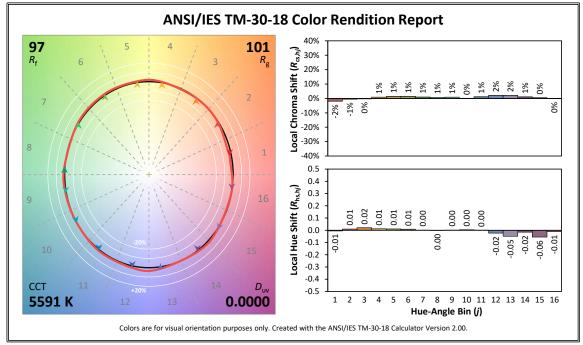
COLOR METRIC INFORMATION

DESIRE D60 LUSTR+ 3200 K TM-30-18

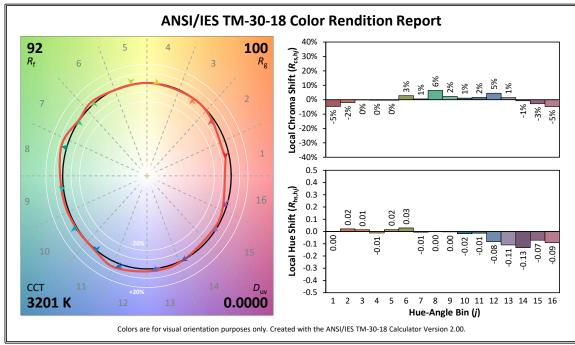


COLOR METRIC INFORMATION

DESIRE D60 LUSTR+ 5600 K TM-30-18

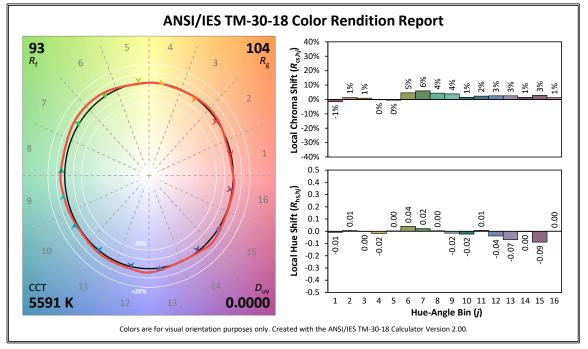


DESIRE D60 VIVID 3200 K TM-30-18



COLOR METRIC INFORMATION

DESIRE D60 VIVID 5600 K TM-30-18



CRI AND CQS RATINGS

Desire fixtures were evaluated for CRI and CQS performance using measured output spectrum and optimized mix solutions for a best spectral match to black body sources at 3200 K and 5600 K.

| FIXTURE | CRI | CQS | COLOR FIDELITY | DUV |
|-------------------------------|-----|-----|-------------------|-------|
| D60 Vivid at 3200 K | 87 | 89 | 89 | 0.000 |
| D60 Vivid at 5600 K | 90 | 92 | 92 | 0.000 |
| D60 Lustr+ at 3200 K | 86 | 88 | 88 | 0.000 |
| D60 Lustr+ at 5600 K | 93 | 92 | 92 | 0.000 |
| D60 Studio HD at 3200 K | 89 | 90 | 91 | 0.000 |
| D60 Studio HD at 5600 K | 92 | 94 | 94 | 0.000 |
| D60 Studio Daylight at 5600 K | 71 | 70 | 63 | 0.001 |
| D60 Studio Tungsten at 3000 K | 86 | 86 | 86 | 0.001 |

All D60 luminaire versions provide excellent color rendering to the eye, particularly at higher color temperature settings, such as 5600 K. In most cases the Duv is 0.000. A Duv rating of 0.000 indicates that the color mix used is exactly on the black body line, with no green or magenta tint.

ADDITIONAL ORDERING INFORMATION

SECONDARY LENS OPTIONS

The following lenses are cut for D60 fixtures and create round, linear or oblong field patterns as described below. These lenses are not sized for use in Selador Classic fixtures.

Note: This is the same material as Selador Classic lenses.

| MODEL | DESCRIPTION | PART NUMBER |
|---------------------|---|-------------|
| Narrow Linear Field | Linear lenses may be combined to create desired field size | |
| SELLN-9 | 9 in narrow lens | 7410K1033 |
| SELLM-9 | 9 in medium lens | 7410K1034 |
| SELLW-9 | 9 in wide lens | 7410K1035 |
| SELLEW-9 | 9 in extra wide lens | 7410K1036 |
| Round Field | Any one of the following round lenses may be installed permanently in the fixture at the factory as a special order | |
| SELRN-9 | 9 in narrow lens (round field) | 7410K1026 |
| SELRM-9 | 9 in medium lens (round field) | 7410K1027 |
| SELRW-9 | 9 in wide lens (round field) | 7410K1028 |
| SELRXW-9 | 9 in extra wide lens (round field) | 7410K1040 |
| Oblong Field | | |
| SELON-9 | 9 in narrow lens (oblong field) | 7410K1029 |
| SELOM-9 | 9 in medium lens (oblong field) | 7410K1030 |
| SELOW-9 | 9 in wide lens (oblong field) | 7410K1031 |

Desire lenses compared to Source Four PAR EA

LENS INFORMATION

Desire diffusion angle measurements

| NOMI | NOMINAL | | | | | | | | |
|-----------|---------|----------------|--------|--------|------|------------|----------------|----------------|-----------|
| | No Lens | Very Narrow | Narrow | Medium | Wide | Extra Wide | Narrow Oval | Medium Oval | Wide Oval |
| | | 25° | 35° | 45° | 75° | N/A | 20° x 40° | 30° x 70° | 35° x 80° |
| D60 | | | | | | | | | |
| LUSTR+ | 18 | 22 | 27 | 42 | 69 | 104 | 20 x 37 | 25 x 60 | 30 x 82 |
| VIVID | 18 | 22 | 27 | 42 | 69 | 104 | 20 x 37 | 25 x 60 | 30 x 82 |
| STUDIO HD | 18 | 23 | 28 | 42 | 69 | 104 | 21 x 29 | 25 x 61 | 30 x 82 |
| STUDIO D | 22 | 25 | 30 | 43 | 70 | 105 | 24 x 39 | 28 x 62 | 32 x 80 |
| STUDIO T | 23 | 25 | 30 | 43 | 70 | 105 | 24 x 39 | 28 x 62 | 32 x 80 |

Values in black refer to old lens descriptions.

ADDITIONAL ORDERING INFORMATION

Power Input Cables

Use information below to order 5 ft power input leads with factory-fitted connectors. CE Fixtures ship with powerCON to bare end cable in the box.

| MODEL | DESCRIPTION | |
|-------|--|--|
| DPA-A | 5 ft powerCON to parallel blade U-ground (Edison) connector | |
| DPA-B | 5 ft powerCON to 20 A two-pin and ground (stage pin) connector | |
| DPA-C | 5 ft powerCON to grounded 20 A twistlock connector | |
| DPA-X | 5 ft powerCON to bare-end power input lead | |

Power Thru Jumpers

Note: Power thru jumpers connect to fixture's output (thru) connector to provide link to successive fixtures.

| MODEL | DESCRIPTION | PART NUMBER | |
|--------|--|-------------|--|
| DPJ-5 | 5 ft powerCON to PowerCON fixture to fixture jumper | 7410B7020 | |
| DPJ-10 | 10 ft powerCON to powerCON fixture to fixture jumper | 7410B7010 | |

Fixtures Accessories

| MODEL | DESCRIPTION | PART NUMBER | |
|-----------|--|--------------------|--|
| SELD60FSY | Yoke with floor-stand attachment | 7410K1022 | |
| 490BD | Barn door (Use only as a flexible top hat to diminish aperture glare. Not for beam shaping.) | PSF1099 | |
| 490CF | Color frame (use for round and oblong lenses) | 7410A3040 | |
| 490L | Egg crate louver | PSF1100 | |
| 490PTH3 | Top hat 3 in tube | PSF1097 | |
| 490PTH6 | Top hat 6 in tube | PSF1096 | |
| 490PHH | Half hat 6 in tube | PSF1098 | |
| 400CC | C-Clamp (does not ship with fixture) | 7060A2009 (not CE) | |
| 400SC | Safety cable (30 in) | 7060A1022 | |
| DPSJ-25 | 25 ft PowerCON-to-Edison input power cable with inline switch | 7400B7030 | |

CONTROL OPTIONS

User settings on D60 fixtures allow multiple operational modes and settings for either console operation via DMX protocol or stand-alone operation. The expanded LCD display provides easy navigation to all possible settings and options. Some of the setting options are:

- Multiple DMX choices ranging from a simple RGB profile – which effectively controls all seven LED colors via three channels – to nine-channel 'direct' color and intensity control
- Multiple dimming curve options
- Preset colors and effects for stand-alone (no console required) operation
- White point selection white light and color behavior based on a specific color temperature white light, i.e., 3200 K, 5600 K, etc.
- Loss of data behavior options instant off, hold last look for two minutes, etc.
- Output modes three output options that offer the user a choice between maximum output and maximum consistency See the User Manual for a complete explanation of all of the control settings and options for the D60.

Quick Setups

Use one of five Quick Setups on the fixture display to get started. You can modify the setting as needed.

| Setting Title | Profile | Description | Typical Features* |
|------------------|--------------------------|---|--|
| General | Direct | Factory default: For general-purpose use, including interior architectural applications | Standard dimming curve Regulated output for color consistency |
| Stage | HSI Plus 7 Enabled | Theatrical lighting: Duplicates the color and dimming behavior of tungsten stage lighting fixtures | Incandescent dimming curve Regulated output for color consistency 3200 K white point setting |
| XT Arch | HSI | Exterior architectural lighting: Provides a high degree of color consistency in high ambient temperature envionments | Standard dimming curve Protected output 3200 K white point setting |
| High Impact | RGB | Event lighting: Enables quickest response, simple RGB control and strobe channel for maximum effect usage | Quick dimming curve Boost mode for maximum intensity 5600 K white point setting |
| Studio | Studio | Studio Factory Default: Enables three-parameter control of white light (intensity, white point, and tint) via DMX from a console or console-free fixture display | Linear dimming curve Regulated output mode for color consistency |

*See user manual for complete list of features for each Quick Setup

CONTROL OPTIONS

DMX Input Channel Profiles

| DMX Profile | DMX Channels | Channel Assignments | Notes |
|----------------|--------------------------|--|---|
| Direct | 10 | 1 – Red 2 – Orange (white if Lustr+) 3 – Amber 4 – Green 5 – Cyan 6 – Blue 7 – Indigo 8 – Intensity 9 – Strobe 10 – Fan Control | Direct control of each individual color with a separate master intensity channel. Color calibration of LEDs is not active in this mode. The ten-channel profile will produce the highest-quality color crossfades. |
| HSI | 6 | 1 – Hue (coarse) 2 – Hue (fine) 3 – Saturation 4 – Intensity 5 – Strobe 6 – Fan Control | High-resolution hue (two channels), saturation, and intensity control. HSI mode will produce color crossfades around the color space. |
| HSIC | 7 | Hue (coarse) Hue (fine) Saturation Intensity Strobe Fan Control Color Point (CCT) | High-resolution hue, saturation and intensity control as above, with the addition of a color-point channel to adjust the color temperature of the fixture in both white light and color. Color crossfade performance is the same as HSI. |
| RGB | 6 (Ch. 4 not used) | 1 – Red 2 – Green 3 – Blue 4 – n/a 5 – Strobe 6 – Fan Control | Effectively addresses all seven colors via three channels of control. RGB profile will produce medium-quality color crossfades |
| Studio | 6 (Ch. 4 not used) | 1 – Intensity 2 – Color Point (CCT) 3 – Tint 4 – n/a 5 – Strobe 6 – Fan Control | Controls fixture as a white light unit. If no DMX, (console input, for example) is present, fixture can be adjusted for these three parameters on the U/I at the back of the unit. |
| Addition | al profile opt | ions | |
| Plus 7 | | HSI, and HSIC input | lor-control channels are available in RGB, profile settings. For example, HSI with comes a 15-channel profile: |
| | | 1 - Hue (coarse) 2 - Hue (fine) 3 - Saturation 4 - Intensity 5 - Strobe 6 - Fan Control 7 - n/a 8 - Plus7 Control on/off 9 - Red 10 - Orange (white if Lustr+) 11 - Amber 12 - Green 13 - Cyan 14 - Blue 15 - Indigo | The desired color and intensity are achieved by using the HSI or RGB channels Placing channel seven at a value over 51% gives the fixture a 15-channel profile. Channels 9–15 represent the native colors of the fixture and allow the operator to adjust individual color channels to fine-tune the color output. |
| Strobe | | | trol: 0% is no strobe. The fixture nore rapidly as the strobe-channel value |

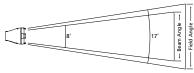
PHOTOMETRICS

D60 Vivid

| Mode | Degree | Candela | Field Lumens | Beam Lumens | Lumens Per Watt |
|--------------|--------|---------|-----------------|----------------|--------------------|
| Boost - cold | 17° | 170,540 | 3,760 | 1,667 | 28.8 |
| Regulated | 17° | 132,451 | 3,050 | 1,305 | 28.3 |

Metric conversions: For meters, multiply feet by 0.3048.

For lux, multiply foo-tcandles by 10.76.



| Throw Distance (d) | 10 ft 3 m | 15 ft 4.6 m | 20 ft 6.1 m | 25 ft 7.6 m | 402.1 ft 122.6 m |
|--------------------|-----------------|-----------------|-----------------|-----------------|---------------------|
| Field Diameter | 3.0 ft 0.9 m | 4.4 ft 1.4 m | 5.9 ft 1.8 m | 7.4 ft 2.3 m | - |
| Illuminance (fc) | 1,617 | 719 | 404 | 259 | 1 |
| Illuminance (lux) | 17,405 | 7,736 | 4,351 | 2,785 | 10.76 |

To determine center beam illumination in foot-candles at any throw distance, divide candela by the throw distance squared.

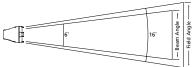
For field diameter at any distance, multiply distance by 0.295. For beam diameter at any distance, multiply by 0.145.

D60 Lustr+

| Mode | Degree | Candela | Field Lumens | Beam Lumens | Lumens Per Watt |
|--------------|--------|---------|-----------------|----------------|-----------------------|
| Boost - cold | 16° | 195,012 | 4,317 | 1,931 | 33.3 |
| Regulated | 16° | 180,097 | 3,850 | 1,748 | 32.7 |

Metric conversions: For meters, multiply feet by 0.3048.

For lux, multiply foot-candles by 10.76.

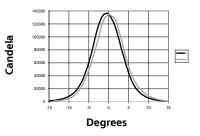


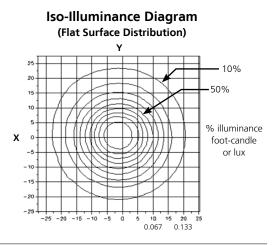
| Throw Distance (d) | 10 ft 3 m | 15 ft 4.6 m | 20 ft 6.1 m | 25 ft 7.6 m | 427.6 ft 130.3 m |
|--------------------|----------------|-----------------|-----------------|-----------------|---------------------|
| Field Diameter | 2.9 ft .9 m | 4.3 ft 1.3 m | 5.8 ft 1.8 m | 7.2 ft 2.2 m | - |
| Illuminance (fc) | 1,828 | 812 | 457 | 292 | 1 |
| Illuminance (lux) | 19,676 | 8,745 | 4,919 | 3,148 | 10.76 |

To determine center beam illumination in foot-candles at any throw distance, divide candela by the throw distance squared.

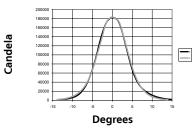
For field diameter at any distance, multiply distance by 0.288. For beam diameter at any distance, multiply by 0.112.

Cosine Candela Plot

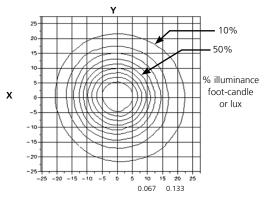




Cosine Candela Plot



Iso-Illuminance Diagram (Flat Surface Distribution)



D60 ACOUSTICAL INFORMATION

| FIXTURE | SPEED | SOUND PRESSURE LEVEL* |
|--|------------------|-----------------------|
| Background noise level in test chamber | N/A | 18.3 dBA |
| Selador Classic | Single fan speed | 28.1 dBA |
| Desire D60 | 30% | 25.0 dBA |
| | 51% | 37.4 dBA |
| | 60% | 38.6 dBA |
| | 100% | 43.1 dBA |

*Average of readings from four sides of fixture

The fan in all D60 fixtures is thermostatically controlled to run as needed.

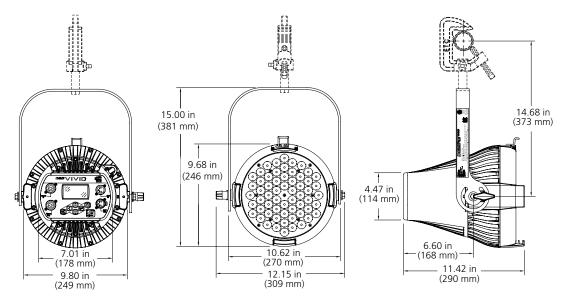
- In regulated mode, fan speed in color-mixing fixtures (Vivid, Lustr+, etc.) will typically not rise above 30% when at full intensity in normal room temperature
- 60% fan speed may be noted in Studio Daylight and Studio Tungsten fixtures at high intensities at room temperature

PHYSICAL

Selador D60 weights and dimensions

| WEIG | GHT* | SHIPPING | i WEIGHT |
|------|------|----------|----------|
| lb | kg | lb | kg |
| 19.1 | 8.7 | 21.5 | 9.7 |

* Does not include mounting hardware





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